

TECHNICAL MANUAL

GENERAL SUPPORT AND DEPOT MAINTENANCE MANUAL

(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

FOR

TEST SET, RADIO AN/USM - 306(V)1

FSN 6625- 459 - 8568

**This copy is a reprint which includes current pages from
Changes 1 and 2.**

WARNING

DANGEROUS VOLTAGES EXIST IN THIS EQUIPMENT

Be careful when working on the 115V/230V ac line connections and circuits in all three units of the test set, and the + 150V dc circuits in the Spectrum Analyzer. Serious injury or death may result from contact with these points.

DON'T TAKE CHANCES

EXTREMELY DANGEROUS VOLTAGES EXIST IN THE

FOLLOWING UNIT OF TEST SET AN/USM-306(V)1:

Analyzer, Spectrum IP-1018/U 2600 volts

CHANGE }
 No. 2 }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, DC, 28 February 1980

**General Support and Depot Maintenance Manual
 (Including Repair Parts and Special Tools Lists)
 For
 TEST SET, RADIO AN/USM-306(V)1
 (NSN 6625-00-459-8568)**

TM 11-6625-1748-45, 23 May 1974 is changed as follows:

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1-111 and 1-112	1-111 and 1-112
2-5 and 2-6	2-5 and 2-6
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B-31 through B-112	B-31 through B-112
B-117 and B-118.....	B-117 and B-118

3. File this change sheet in the front of the manual for reference purposes.

By Order of the Secretary of the Army:

E. C. MEYER
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*Major General, United States Army
 The Adjutant General*

Distribution:

To be distributed in accordance with DA Form 12-51, requirements for direct and general support TM literature for AN/GRC-106 radio set.

CHANGE

No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 14 May 1976

**General Support and Depot Maintenance Manual
(Including Repair Parts and Special Tools List)
for
TEST SET, RADIO AN/USM-306(V)1
(NSN 6625-00-4598568)**

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Distribution:

To be distributed in accordance with DA Form 12-51, (qty rqr block no. 2340) Direct and General Support maintenance requirements for AN/GRC-106.

TECHNICAL MANUAL }
 No. 11-6625-1748-45 }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, D.C., 23 May 1974

**GENERAL SUPPORT AND DEPOT MAINTENANCE MANUAL
 INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
 FOR
 TEST SET, RADIO AN/USM-306(V)1
 FSN 6625-459-8568**

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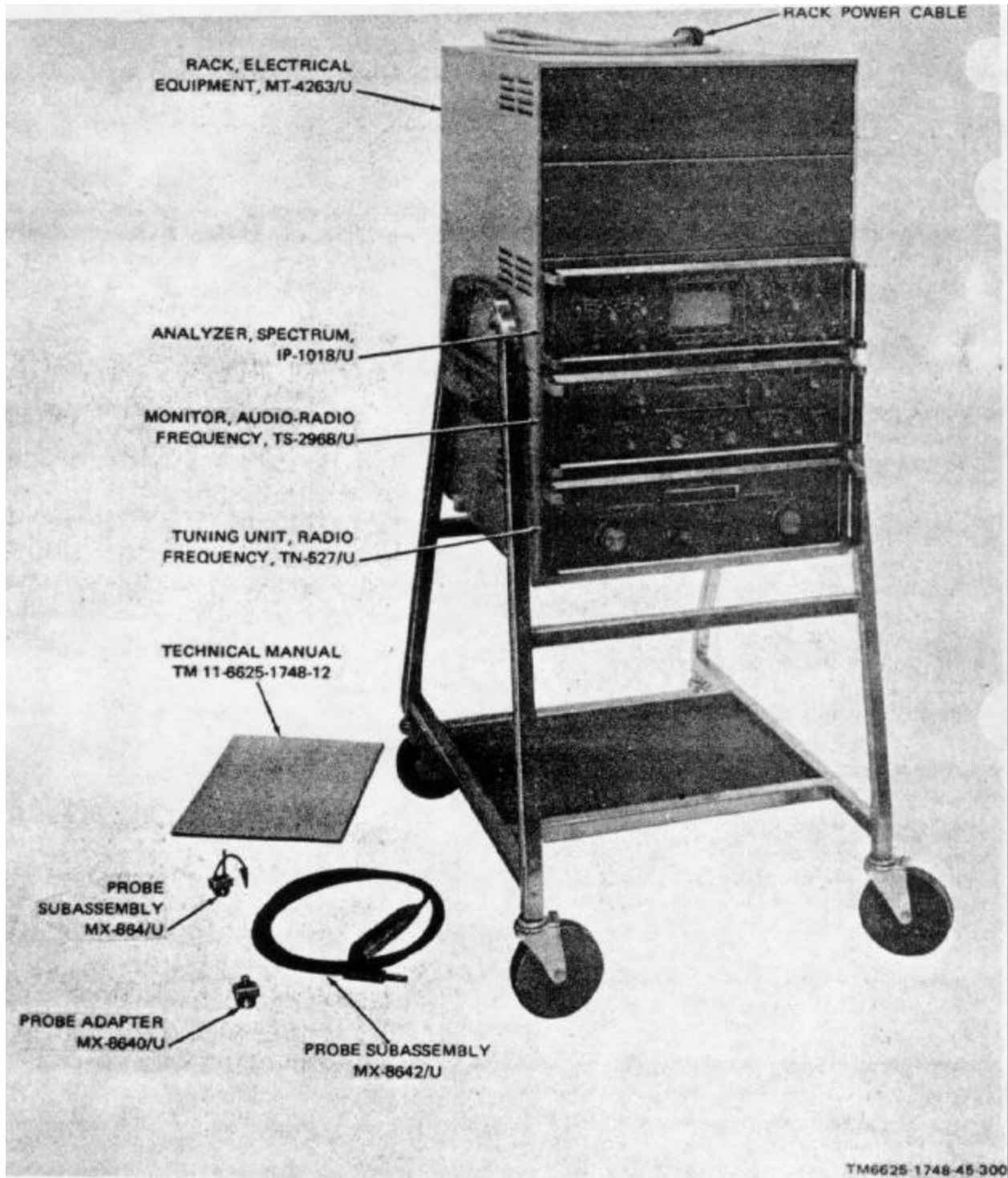


Figure 1-1. Test Set, Radio AN/USM-306(V)1.

CHAPTER 1
FUNCTIONING

Section I. GENERAL

1-1. Scope

a. This manual contains general support and depot maintenance instructions for Radio Set AN/USM-306(V)1. It includes instructions appropriate to general support and depot for troubleshooting, testing, aligning, and repairing the equipment. It also lists test equipment and ancillary items required for general support and depot maintenance. Functional analysis of the equipment is covered in this chapter.

b. The complete technical manual for this equipment includes TM 11-6625-1748-12.

c. The reporting of errors, omissions, and recommendations for improving this manual by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forwarded direct to Commander, US Army Electronics Command, ATTN: AMSEL-MA-CE, Fort Monmouth, NJ 07703.

amplitude on the meter, while at the same time a 120 kHz, 12 kHz of 3.6 kHz segment of the frequency band under test is displayed on the spectrum analyzer unit. Typical spectrum analyzer displays are shown in figures 1-2, 1-3 and 1-4.

NOTE

For applicable forms and records,
see paragraph 2, TM 11-6625-000-12.

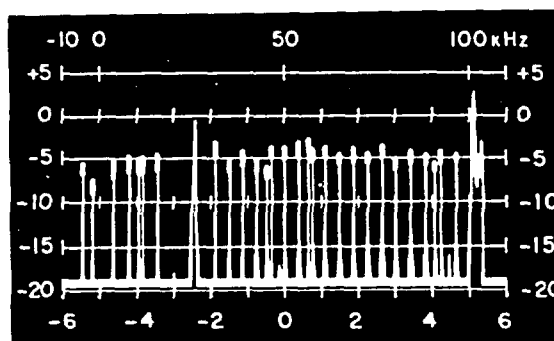
1-2. Indexes of Publications

a. DA Pam 310-4. Refer to DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to this equipment.

b. DA Pam 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

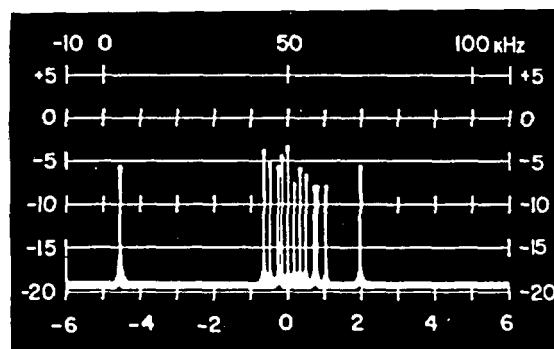
1-3. Purpose and Use

Radio Test Set AN/USM-306(V)1 is a combined frequency-selective audio-radio frequency decibels meter and spectrum analyzer. It is intended for use with frequency-division radio multiplex and cable carrier systems. Individual signals may be measured in



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Figure 1-2. Typical 120-kHz display, spectrum analyzer.



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Figure 1-3. Typical 12-kHz display, spectrum analyzer.

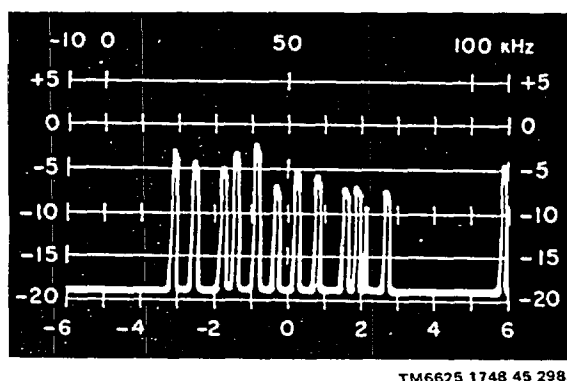


Figure 1-4. Typical 3.6-kHz display, spectrum analyzer.

1-4. Major Components

Radio Test Set AN/USM-306(V)1 consists of three individual units mounted in Electrical Equipment Rack MT-4263/U, plus a probe subassembly. The following subparagraphs contain brief descriptions of the units.

a. *Tuning Unit TN-527/U.* The tuning unit furnishes reference frequencies to the audio-radio frequency monitor unit and to the spectrum analyzer unit. Block diagram, figure 6-5, illustrates the interrelationship between the tuning unit and the other units of the test set. Section II of this chapter presents the detailed functioning of the tuning unit.

b. *Audio-Radio Frequency Monitor TS-2968/U and Probe.* The monitor unit measures the level of audio and radio frequencies within the range of 1 kHz to 33.5 MHz, at levels or -109 dBm to +22 dBm. Figure 6-5 shows the interrelationship between the monitor unit and the other units of the test set. Probe Subassembly MX-8642/U is connected to the monitor unit and provides for high impedance bridging, or 50 or 75 ohm terminating of the circuit under test. Section III of this chapter presents the detailed functioning of the monitor unit and probe.

c. *Spectrum Analyzer IP-1018/U.* The spectrum analyzer scans a 120 kHz segment of the frequency band under test, and presents a simultaneous display of both the frequency and amplitude of the signals present. The full 120-kHz portion of the spectrum may be observed, or 12 kHz or 3.6 kHz segments may be switch-selected for detailed analysis. Section IV of this

chapter presents the detailed functioning of the spectrum analyzer.

1-5. Signal Paths

Signal paths between the units comprising the test set are described below. Refer to figure 6-5.

a. Signals from the circuit under test are applied to the monitor unit via the probe to the input jack.

b. Signals in the range of 40.1 to 73.6 MHz from the coarse tuning oscillator in the tuning unit are applied to the first modulator in the monitor unit. These signals are heterodyned with the input signals to produce a band of intermediate frequencies centered about 40.05 MHz.

c. A 19.0 MHz signal from the frequency synthesizer in the tuning unit is delivered to the 2nd modulator in the monitor unit. This fixed local oscillator frequency is heterodyned with the 40.05 MHz IF band of signals from the first IF stages of the monitor unit to produce a second IF band centered about 21.05 MHz.

d. The 21.05 MHz band of IF produced in the second modulator/mixer stage of the monitor unit is connected to the input of the spectrum analyzer unit. This band of frequencies is utilized by the spectrum analyzer to provide the displays for analysis.

e. A signal in the range of 18.785 to 18.885 MHz, derived from the fine tuning oscillator in the tuning unit, is delivered to the 3rd modulator/mixer stages of the monitor unit. The exact frequency depends upon the setting of the fine tuning dial on the tuning unit. This signal is heterodyned with the 21.05 MHz band of IF in the 3rd modulator/mixer of the monitor unit to produce an intermediate frequency of 2.215 MHz. The resultant intermediate frequency signals are applied to either the 3.1 kHz or 250 Hz bandpass filters and then to the metering and audio monitoring sections of the monitor unit.

f. The 18.785 to 18.885 MHz signal from the fine tuning oscillator in the tuning unit is also interconnected to the spectrum analyzer. In the 120 kHz presentation mode, this signal serves as a reference marker to permit determination of the frequency of any signal appearing in the display. When the spectrum analyzer is being operated in either the 12 kHz or 3.6 kHz display modes, this signal determines the center frequency of the segment of the band of signals being analyzed.

Section II. FUNCTIONING OF TUNING UNIT TN-527/U

1-6. General

The tuning unit furnishes reference frequencies to the monitor unit and to the spectrum analyzer. It is divided into four main functional units: the frequency synthesizer

which includes the 1 MHz clock, the coarse tuning section, the fine tuning section and the frequency counter and display section (figure 1-5).

1-7. Dc Power Supplies

Four internal power supplies, operating from a common power transformer provide all of the voltages to operate the tuning unit. Refer to figure 1-6.

a. Ac input power is applied to the power transformer. Four secondary windings on the transformer apply ac voltage to the bridge rectifiers to provide dc voltages of -5.5 volts, +3.5 volts, -16 volts and -6 volts.

b. The bridge rectifier for the +5.5 volt dc supply is located on the chassis. The filter and regulator circuits are mounted on pc board A1.

c. The bridge rectifier for the +3.5 volt dc supply is located on the chassis. The filter and regulator circuits are mounted on pc board A2.

d. The bridge rectifier and the filter and regulator circuits for the -16 volt and -6 volt dc supplies are all mounted on pc board A3.

1-8. Frequency Synthesizer Section

The frequency synthesizer section, figure 1-7, provides a 100 kHz synchronizing signal to the

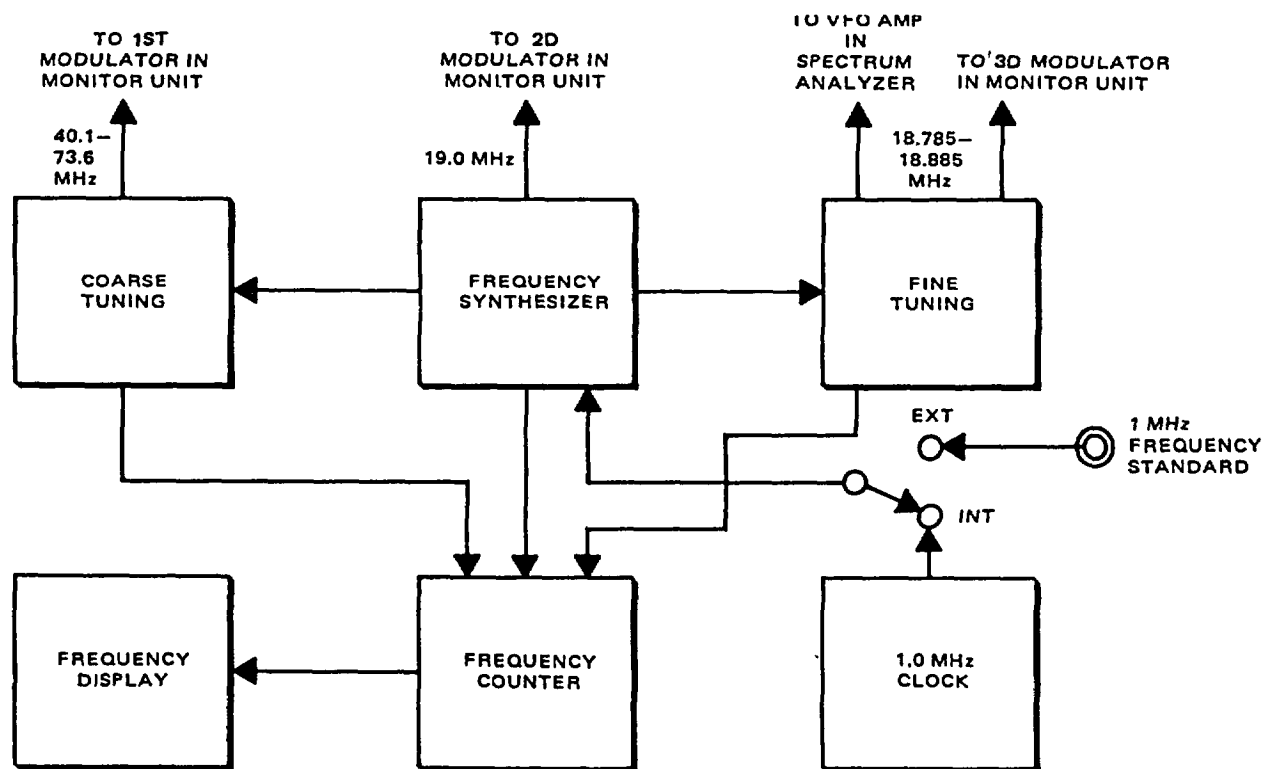
counter and display section and to the coarse tuning section. It also provides a 19.1 MHz signal to the fine tuning section, and a 19.0 MHz mixer signal to the 3rd modulator/ mixer of the monitor unit.

a. *Clock.* An internal 1.0 MHz oven-stabilized clock is provided for the basic timing reference for all signals in the tuning unit. A switch and coaxial jack on the rear panel permit the use of an external clock source if desired.

b. *Decade Divider.* The clock signal frequency is divided by ten in the 10:1 decade divider, producing 100 kHz reference pulses.

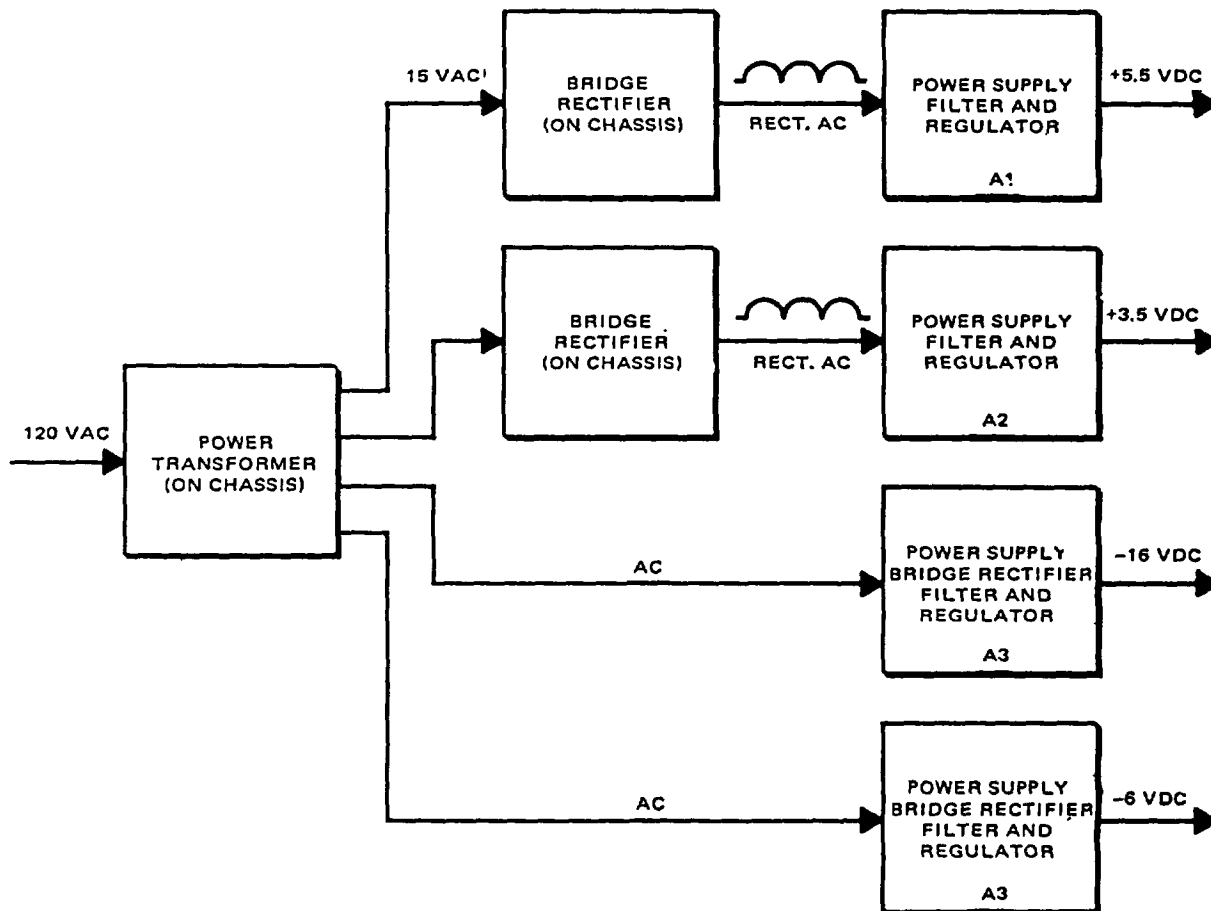
c. *Comb Generators.* The 100 kHz output of the decade divider is applied to the inputs of three comb generators. The comb generators reshape the 100 kHz signals from the decade divider into sharp 100 kHz spikes. The outputs of the comb generators are used to phase-lock the three oscillator circuits listed below.

- (1) The coarse tuning oscillator.
- (2) The 19.1 MHz oscillator.
- (3) The 19.0 MHz oscillator.



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Figure 1-5. Block diagram, Tuning Unit TN-527/U



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Figure 1-6. Block diagram, power supply section.

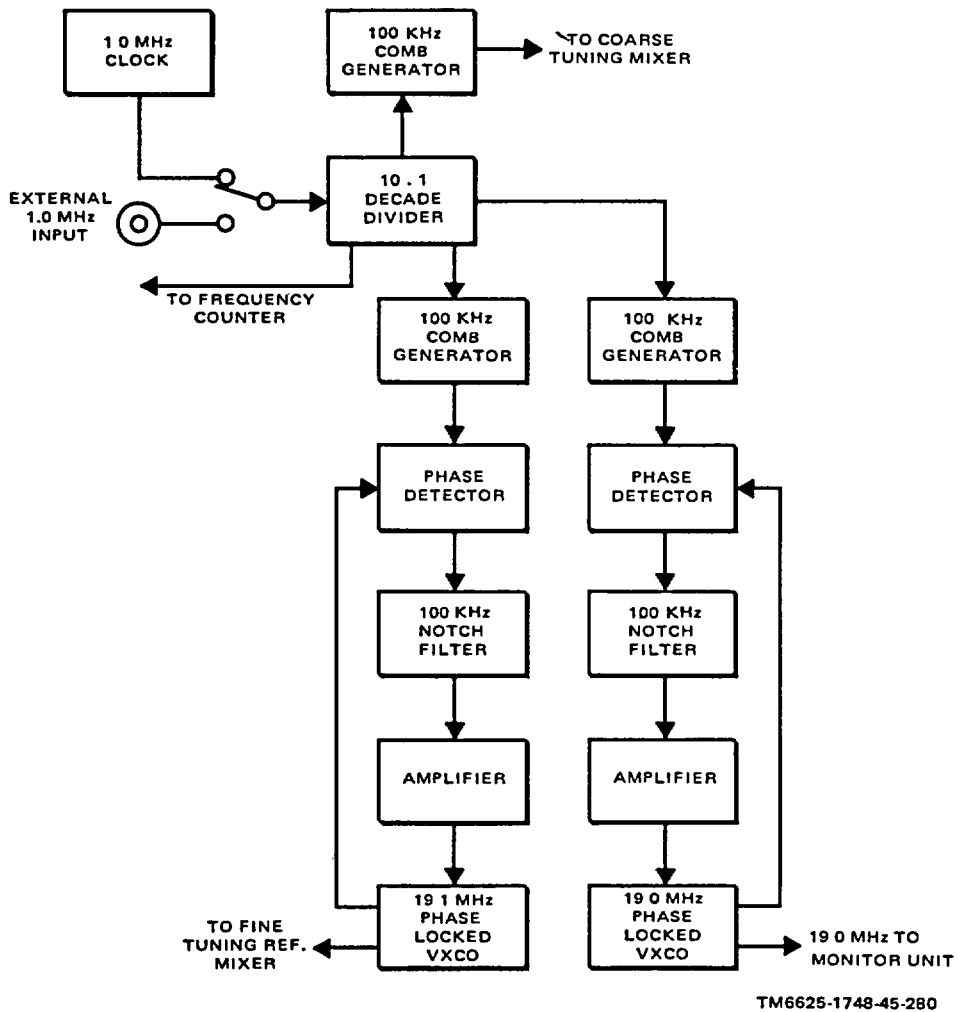


Figure 1-7. Block diagram, frequency synthesizer.

d. *19.0 and 19.1 MHz Oscillators.* The 19.0 and 19.1 MHz oscillators are identical except for the operating frequencies. These are phase-locked voltage-controlled crystal oscillators. The following description applies to both oscillators. A sample of the output frequency is fed to a phase detector. The sample frequency is compared in the phase detector with the 100 kHz signal from the comb generator. If the oscillator frequency is not an exact multiple of the 100 kHz reference signal, an error voltage is developed, amplified and used to shift the frequency of the voltage-controlled crystal oscillator. The error voltage is such as to shift the oscillator frequency in the proper direction to cause it to be an exact multiple of the 100 kHz reference frequency.

1-9. Coarse Tuning Section

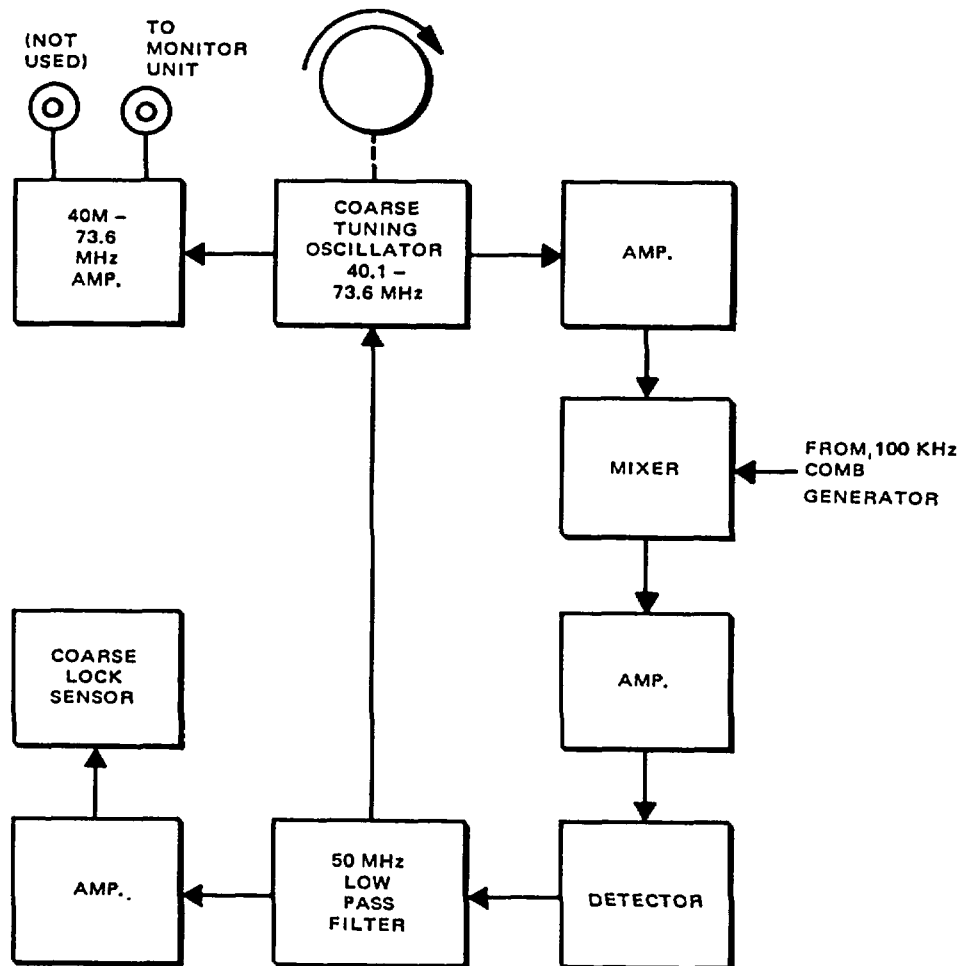
The coarse tuning section is manually tuned from

the front panel of the tuning unit, and is used to provide the 1st modulator/ mixer injection signal to the monitor unit. The output frequency range of the coarse tuning oscillator is from 40.1 through 73.6 MHz. There are two modes of operation, as described below.

a. *Locked Mode.* Figure 1-8 illustrates the stages involved in operating the coarse tuning section in the locked mode. In this mode, the coarse oscillator "locks" at every 100 kHz multiple throughout the entire range of tuning. Locking is indicated by a full seven-digit display on the FREQUENCY display on the front panel.

(1) A sample of the output frequency is amplified and combined in a mixer stage with the 100 kHz pulses from the comb generator.

(2) The output of the mixer is amplified and fed to a detector.



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Figure 1-8. Block diagram, coarse tuning section.

(3) If the oscillator frequency is not an exact multiple of the 100 kHz reference signal, an error voltage is developed in the detector. The error voltage, which is passed through the low-pass filter, is such as to change the oscillator frequency to where it is an exact multiple of the 100 kHz reference frequency.

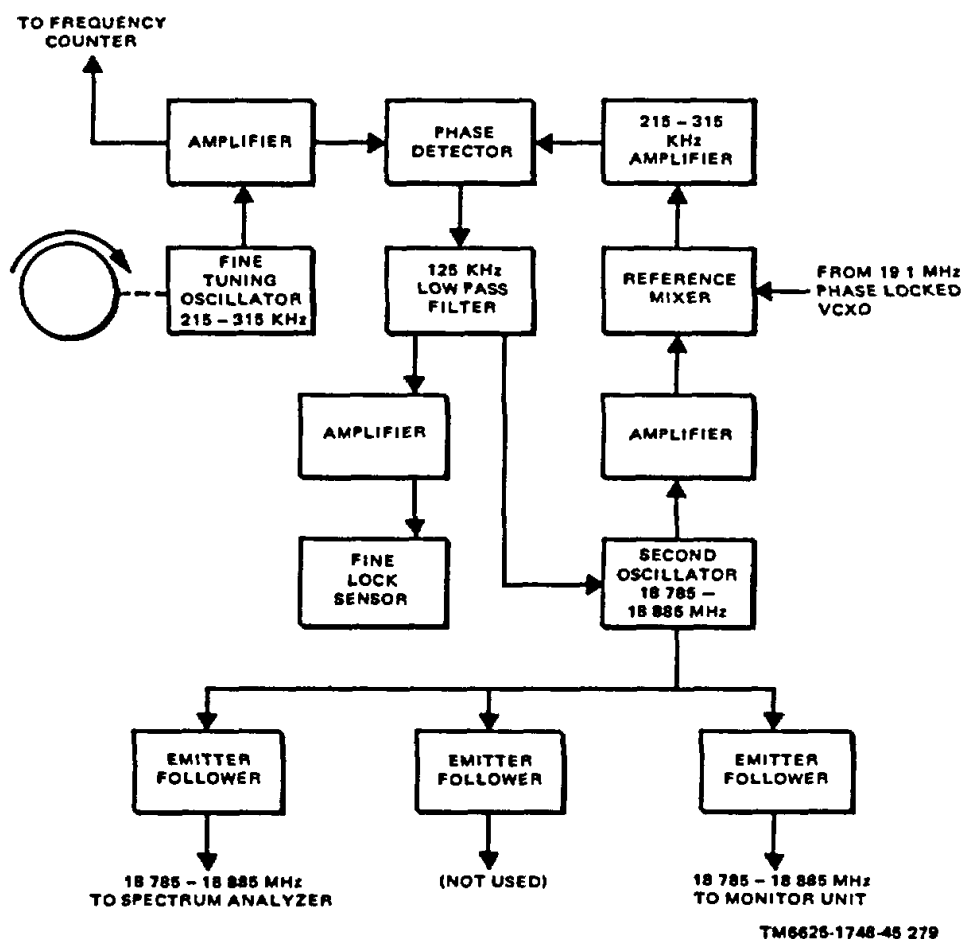
(4) When the oscillator frequency is locked at a multiple of the 100 kHz reference frequency, no error voltage is passed to the coarse lock sensor, and its preamplifier. The coarse lock sensor then enables the last four digits of the frequency display to light.

(5) As the coarse tuning control is rotated, the last four digits of the frequency display will be extinguished at tuning dial settings between the lock points.

b. *Continuous Mode.* In the continuous mode, the comb generator, mixer, detector, coarse-lock sensor, and the associated amplifiers are disabled. Only the first three digits of the frequency display are lighted.

1-10. Fine Tuning Section

The fine tuning oscillator covers the range of 215 to 315 kHz, and is used to directly control the frequency of a phase-locked 18.785 to 18.885 MHz oscillator. The operation of this section is described below. Refer to figure 1-9. (For the purpose of this description assume that the output frequency of the fine tuning oscillator is 215 kHz.)



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Figure 1-9. Block diagram, fine tuning section.

- a. The output of the fine tuning oscillator is fed to an amplifier.
- b. One output of the amplifier is fed to the counter circuits.
- c. The other output of the amplifier is applied to the phase detector.
- d. With the fine tuning oscillator tuned to 215 kHz, the second oscillator should be operating at 18.885 MHz.
- e. A sample of the signal from the second oscillator is amplified and fed to the reference mixer.
- f. A signal of 19.1 MHz (from the phase-locked 19.1 MHz oscillator) is also fed to the reference mixer.
- g. If the second oscillator is operating at exactly 18.885 MHz, a frequency difference of 19.1 MHz minus 18.885 appears at the output of the reference mixer.
- h. The output of the reference mixer is amplified and applied to the phase detector, where it is compared with the frequency of the fine tuning oscillator.
- i. If the phase and frequency of the signal from the reference mixer coincides with the signal from the fine tuning oscillator, no correction voltage is generated.
- j. If the second oscillator frequency is not 18.885 MHz, an error voltage will be developed in the phase detector.
- k. The error voltage is passed through a 125 kHz. low-pass filter and is used to correct the frequency of the second oscillator.
- l. The second oscillator therefore tracks, inversely, the fine tuning oscillator. (As the frequency of the fine tuning oscillator is increased, it can be seen that the frequency of the second oscillator must decrease so that the difference between the second oscillator frequency and the 19.1 MHz input increases to match the fine tuning oscillator frequency.)

- m. Output from the second oscillator is also fed to emitter followers which in turn furnish the 18.785 to 18.885 MHz signals to the spectrum analyzer and the monitor unit.
- n. Error voltage from the phase detector and low pass filter is also applied through an amplifier to the fine lock sensor. If the correction voltage is excessive, indicating a failure of the fine tuning section, the line lock sensor operates a relay and LOCK switch lamp extinguishes.

1-11. Frequency Counter and Display Section

The counter and display section, figure 1-10, provides a visual display of the frequency to which the monitor unit is actually tuned for signal measurement. 100 kHz pulses from the frequency synthesizer provide the time base for the counter. Samples are taken from both the coarse and fine tuning oscillators and, by means of preset arrangements within the counter, are converted into seven-digit frequency display information.

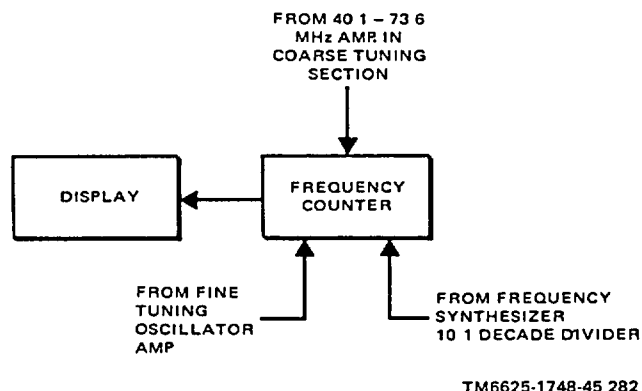


Figure 1-10. Block diagram, frequency counter and display.

1-12. Ac Power Supply

(fig. 1-11)

Primary ac power is applied via jack J1 and fuses F1 and F2 to the 115/230V switch S4 and to transformer T2. Transformer T2 is a one-to-one power transformer that applies 115 volts ac to the clock oven and the oven indicator lamp DS1 whenever power is connected to the tuning unit. Power takeoffs (J2 and J4), to operate the monitor and spectrum analyzer are connected between the junction of F1 and F2 and the ac common. F1 protects against failure of any of the three units. F2 protects only the tuning unit. Switch S4 connects the two windings of T2 and the two primaries of T1 in series for 230 volt operation, and in parallel for 115 volt operation. Power switch S1 applies power to T1.

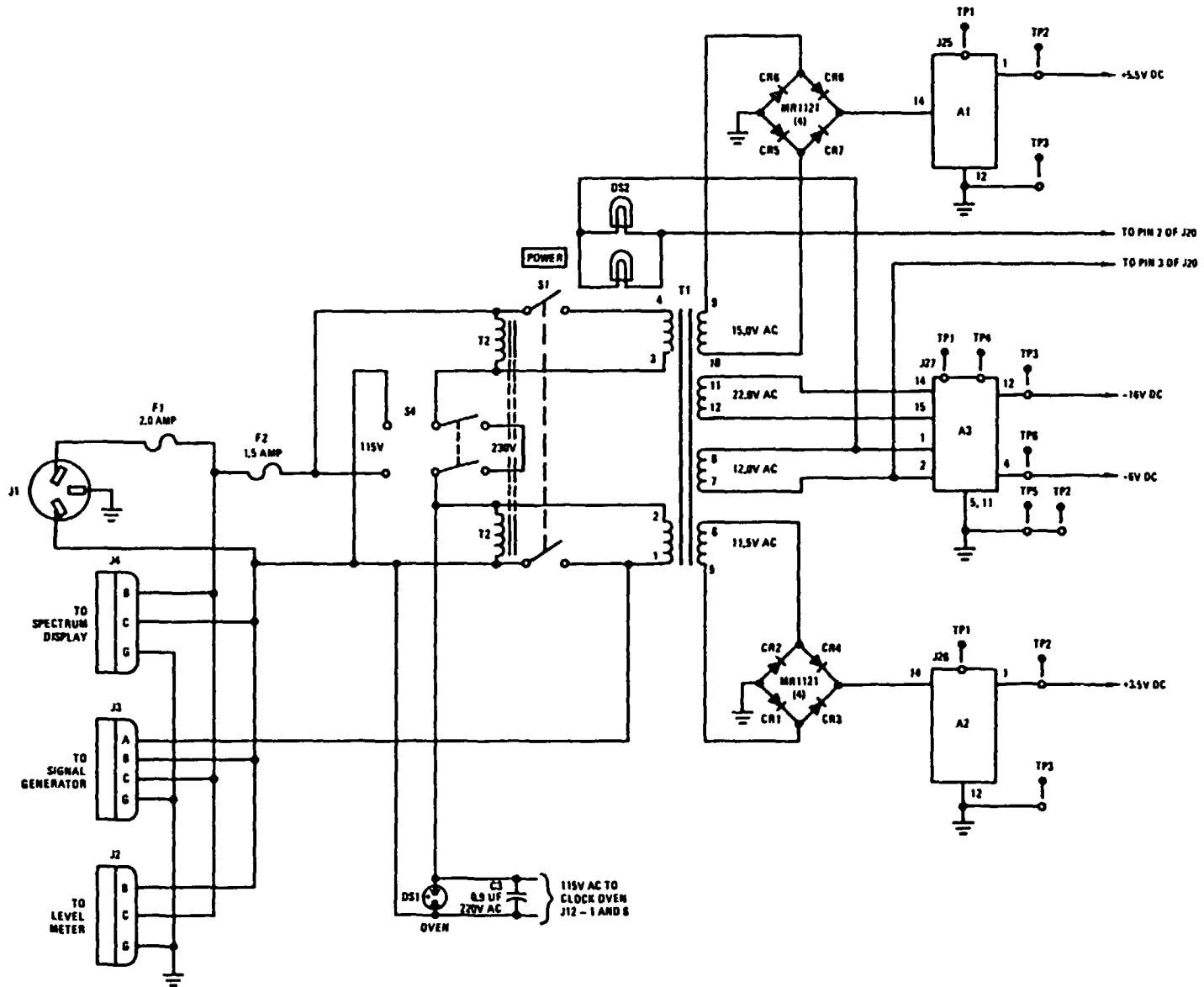
a. The 15 volt secondary of T1 provides ac voltage to the full-wave bridge rectifier consisting of CR5, CR6, CR7 and CR8. The rectified output of this bridge is applied to filter and regulator board A1. When the ac voltage at the junction of CR6 and CR8 is positive with respect to the junction of CR5 and CR7, CR8 and CR5

conduct. A positive voltage with respect to the chassis is applied to terminal 14 of board A1. When the voltage at the junction of CR6 and CR8 is negative with respect to the junction of CR5 and CR7, diodes CR6 and CR7 conduct, again applying a positive voltage with respect to the chassis to terminal 14 of board A1. The result is that both halves of the ac input cycle appear as positive voltages at the input of the filter and regulator board A1.

b. The 11.5 volt secondary of T1 applies ac voltage to the rectifier bridge consisting of CR1, CR2, CR3 and CR4. The output of this bridge is applied to the 3.5 volt dc filter and regulator board A2. The operation of this bridge is the same as the one described in a above.

c. The 22 volt secondary winding of T1 applies ac voltage to board A3 which contains the bridge rectifier, filters and regulator for the -16 volt dc supply.

d. The 12.0 volt secondary winding of T1 applies ac voltage to board A3 to operate the rectifier, filters and regulator for the -6 volt dc supply. This ac voltage also operates the front panel power on indicator lamps, DS2.



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Figure 1-11. Ac power supply.

e. Capacitor C3, connected in parallel with the ac line to the crystal oven removes transient spikes on the ac power line.

1-13. 1 MHz Clock Circuit
(fig. 1-12)

a. *General.* The 1 MHz crystal oscillator is a self-contained plug-in module. It includes a crystal oven, which becomes operative when the tuning unit is connected to a primary power source.

b. *Detailed Operation.* 115 volts ac is applied to the crystal oven through pins 1 and 6 of socket XC01. Switch S3 selects either the 1 MHz internal oscillator or an external source. An external source, when used, is connected to jack J5, mounted on the rear panel of the tuning unit. When switch S3 is in the internal position, -16 volts dc is applied between pins 4 and 5 of the internal crystal oscillator, placing it in operation. At the same time, the output from the crystal oscillator is connected via switch S3 to the decade divider on board A4. When the switch is placed in the EXT position, the -16 volts dc is removed from the internal crystal oscillator, and the input to the decade divider is disconnected from the crystal oscillator and connected to panel jack J5 instead.

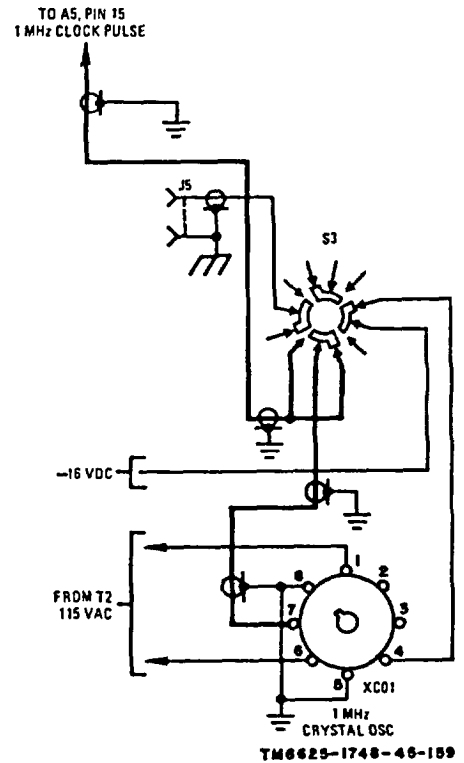


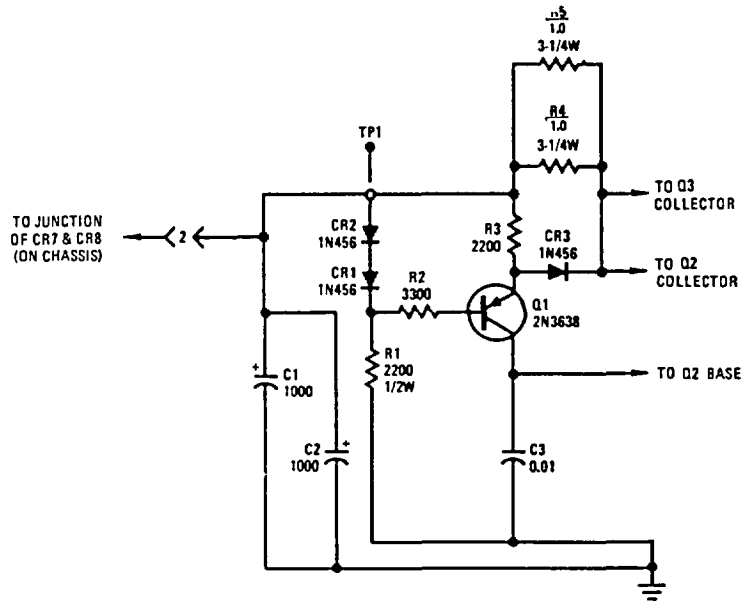
Figure 1-12. 1-MHz clock circuit.

1-14. 5.5 Volt-Power Supply A1

(fig. 1-13 and 1-14)

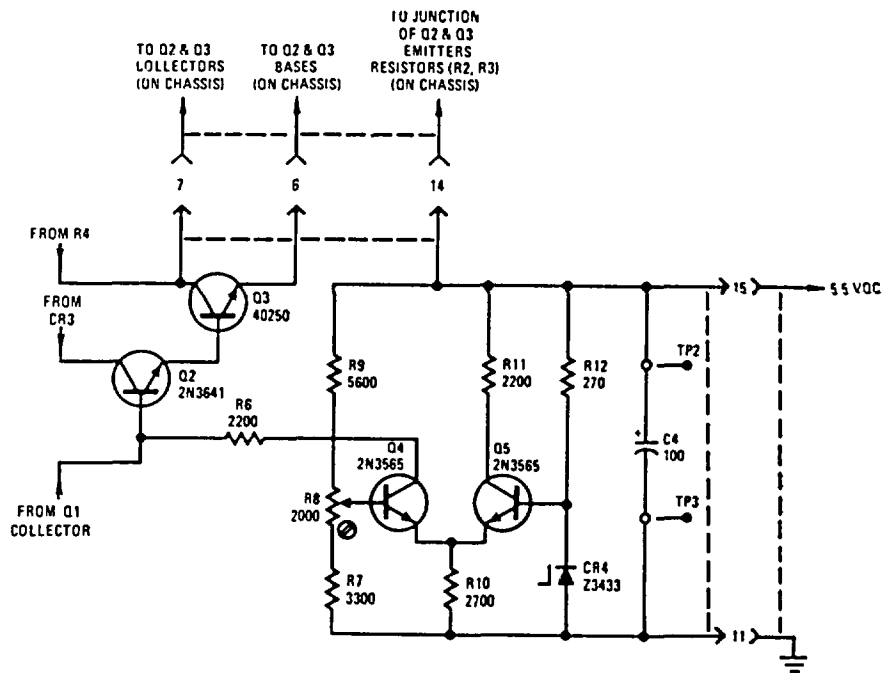
a. *General.* 21-volt peak-to-peak pulses from rectifier bridge CR5, CR6 CR7 and CR8 (fig. 1-11) are

filtered and regulated by module A1 to provide a +5.5 volt dc source for the operation of circuits in the tuning unit.



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Figure 1-13. A1 input.



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Figure 1-14. A1 regulator.

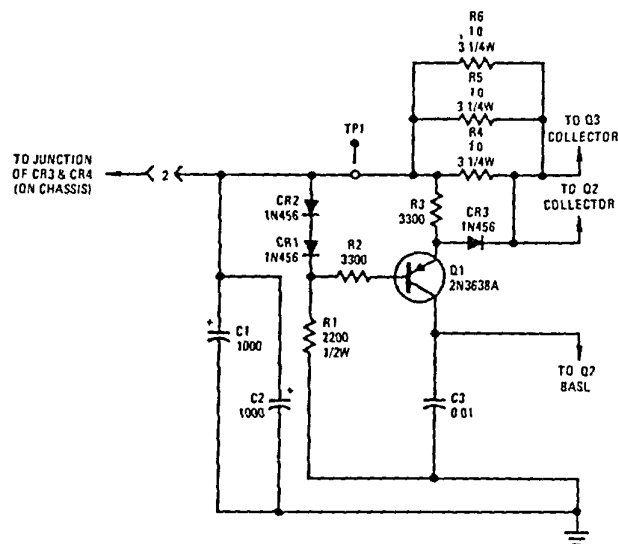
b. Detailed Operation. Positive half sinewave pulses of approximately 21 volts peak-to-peak are applied to the input of pc board A1, between terminal 2 and the chassis. Capacitors C1 and C2 act as filters to absorb the voltage peaks and in turn keep the voltage being applied to the following circuits from falling to zero between the pulses. Diodes CR1 and CR2 in series with R1 establish the base voltage of Q1 at a fixed value with respect to voltage applied to pin 2 of the board. R2 limits the base current of Q1. Transistors Q2 and Q3, on the chassis, are series current regulators for the +5.5 volt supply. Current through these transistors, and therefore output voltage and current are regulated by the two Darlington-connected transistors Q2 and Q3 on board A1. Transistors Q2 and Q3 on the pc board are in turn controlled by the input voltage regulator Q1 and the output voltage regulator circuits of Q4 and Q5. The combination of R3, R4, R5 and CR3 establish the voltage on the emitter of Q1. Capacitor C3 filters the output control voltage of regulator Q1. When the input voltage increases, the total amount of change is applied directly to the base of Q1, slightly reducing the forward bias on Q1. This causes the voltage on the collector of Q1 to decrease, which in turn decreases the forward bias on Q2 and Q3 on the board. This causes the voltage on the emitter of Q3 to decrease, which in turn reduces the forward bias on the current-controlling transistors Q2 and Q3 on the chassis. The output voltage of the emitter-follower, Q3, reduces the forward bias on the current regulator transistors Q2 and Q3 (on the chassis) thereby regulating the output voltage and current. Output voltage regulation is further controlled by the network that includes Q4 and Q5. Resistor R12 and Zener diode CR4 form a voltage divider network for biasing Q5. The Zener diode CR4 holds the base voltage of Q5 constant. The current through Q5 is therefore essentially constant and a stable reference voltage for Q4 is established by the Q5 current through R10. The network consisting of R7, R8 and R9 establishes the forward bias for Q4. Under normal input voltages and load currents, R8 is adjusted for an output sat terminal 15 of the board of exactly +5.5 volts. Any subsequent variation in the output voltage will vary the voltage on the base of Q4. This variation is amplified by Q4 and coupled to Q2 of the Darlington circuit through R6. The polarity of the corrective voltage is always such as to return the output voltage to normal. Current overload protection is also provided by the network consisting of R3, R4, R5 and CR3, as follows. Excessive current being drawn by the load circuits causes an increased voltage drop across R4 and R5.

This increased voltage drop is directly coupled to the Q1 emitter, and acts in a direction to decrease the forward bias on Q1. This causes the Q1 collector voltage to decrease, which in turn limits the current through the chassis-mounted current limiting transistors Q2 and Q3. This circuit is designed to keep the maximum short-circuit current through the current-limiting transistors within their normal ratings. Capacitor C4 provides output filtering.

1-15. +3.5 Volt Power Supply A2

(fig. 1-15 and 1-16)

a. General. 15.5-volt peak-to-peak pulses from rectifier bridge CR1, CR2, CR3, and CR4 (fig. 1-11) are filtered and regulated by module A2 to provide a +3.5 volt dc source for the operation of circuits in the tuning unit.



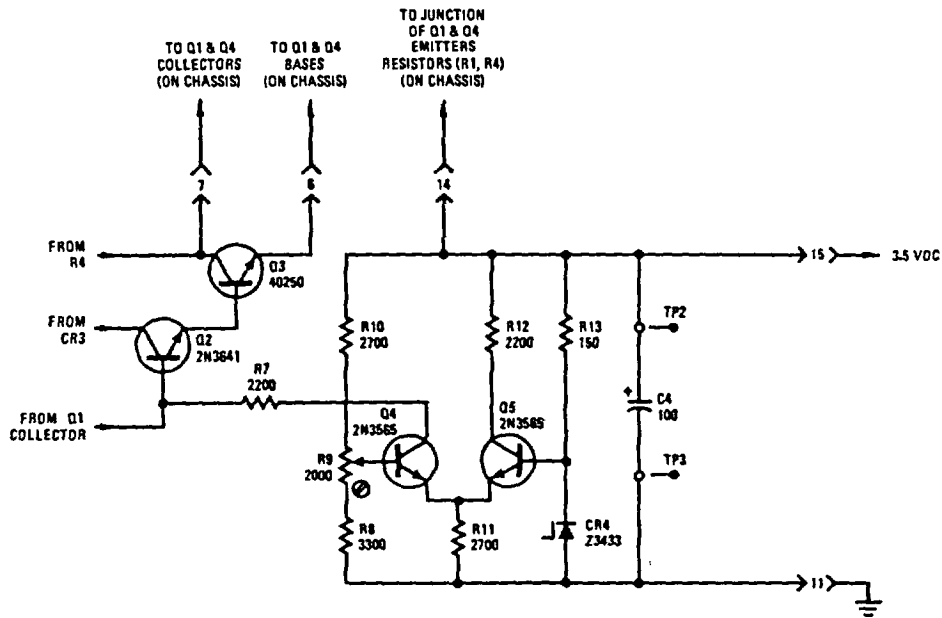
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Figure 1-15. A2 input.

b. Detailed Operation. Positive half sinewave pulses of approximately 15.5 volts peak-to-peak are applied to the input of pc board A2, between terminal 2 and the chassis. Capacitors C1 and C2 provide input filtering. Diodes CR1, CR2 and resistor R1 establish the base voltage for regulator transistor Q1. Resistor R2 limits the base current of Q1. Resistors R3, R4, R5 R6 and CR3 establish the emitter voltage for Q1. Capacitor C3 filters and smooths the output control voltage of Q1. Transistors Q2 and Q3 are Darlington-connected drivers

to control current transistors Q1 and Q4 on the chassis. Resistors R7, R8, R9, R10, R11, R12 and R13, Zener diode CR4, and transistors Q4 and Q5 comprise the

output voltage regulator circuit. Capacitor C4 provides further filtering of the output voltage.



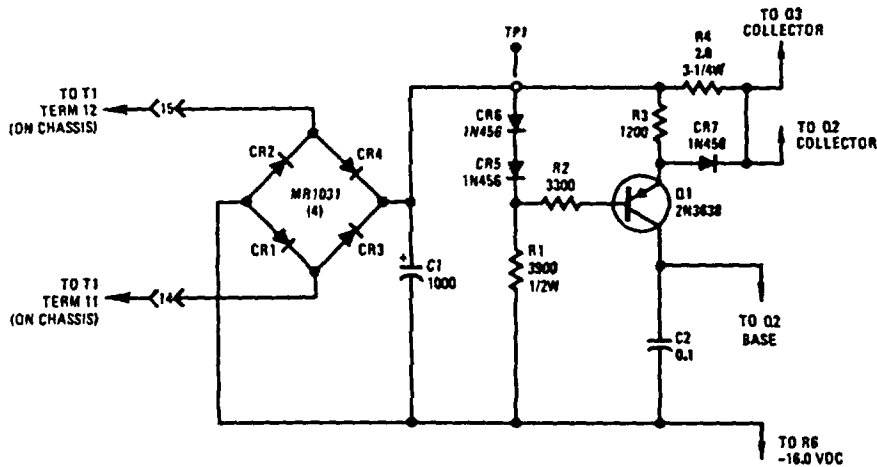
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Figure 1-16. A2 regulator.

1-16. -16 Volt Power Supply A3
(fig. 1-17 and 1-18)

a. General. 22 volts ac from transformer T1 (fig. 1-11) is applied to the full-wave bridge consisting of

CR1, CR2, CR3, and CR4. The Output of the bridge is voltage and current regulated and filtered to provide an output of -16 volts dc.

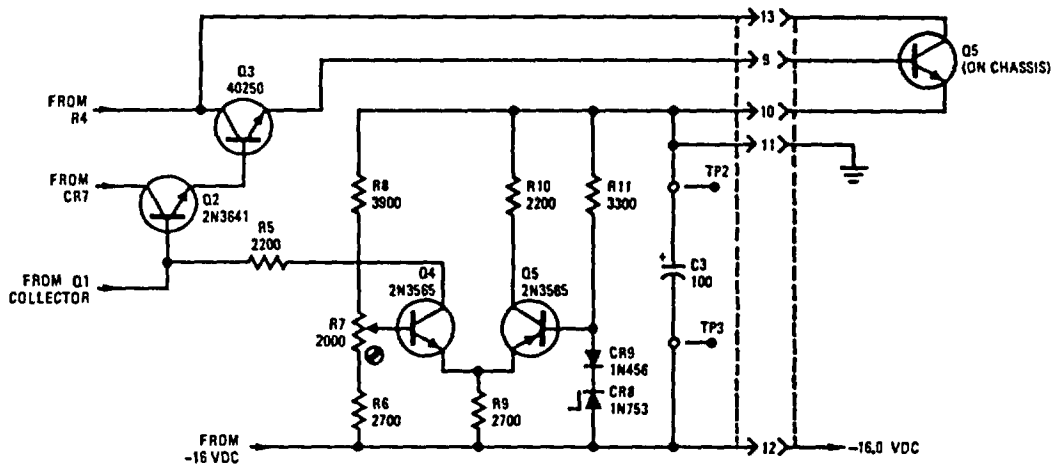


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Figure 1-17. A3 - 16V bridge and input.

b. *Detailed Operation.* Negative half sinewave pulses of approximately 31 volts peak-to-peak from the rectifier bridge are applied to the filter and regulator input of the -16 volt dc supply on board A3. For detailed functioning of the bridge, see paragraph 1-13. Capacitor C1 provides input filtering. Diodes CR5, CR6 and resistor R1 establish the base voltage for transistor Q1. Resistor R2 limits the base current of Q1. R3, R4 and

CR7 establish the emitter voltage for Q1. Capacitor C2 filters and smooths the output control voltage of Q1. Transistors Q2 and Q3 are Darlington-connected drivers to control current transistor QS on the chassis. Resistors R5, R6, R7, R8, R9 and R10, Zener diodes CR8 and CR9, and transistors Q4 and Q5 comprise the output voltage regulator circuit. Capacitor C3 provides further filtering of the output voltage.



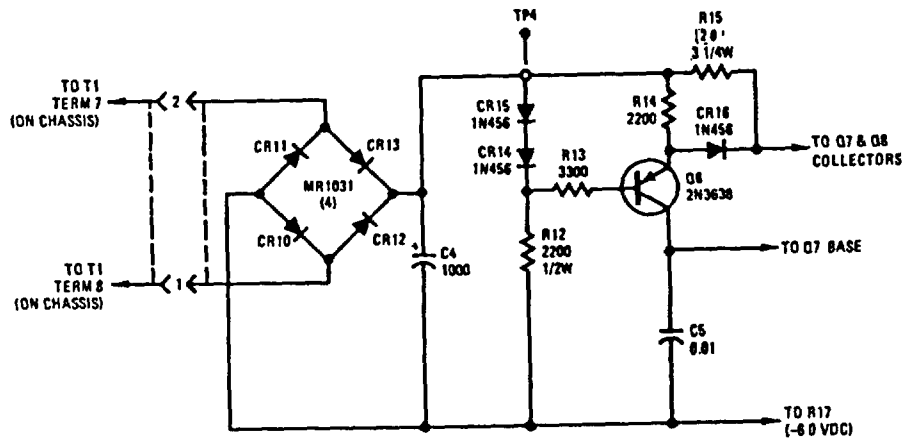
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Figure 1-18. A3-16V regulator.

1-17. -6 Volt Power Supply A3
(fig. 1-19 and 1-20)

a. *General.* 12 volts ac from transformer T1 (fig. 1-11) is applied to the full-wave bridge consisting of CR10, CR11, CR12 and CR13. The output of the bridge

is voltage and current regulated and filtered to provide an output of -6 volts dc.

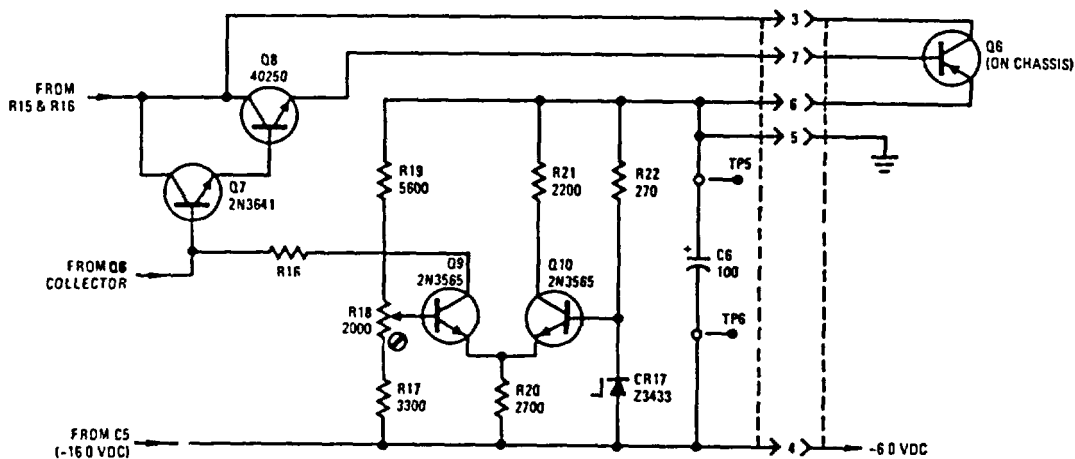


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Figure 1-19. A3 -6V bridge and input.

b. *Detailed Operation.* Negative half sinewave pulses of approximately 16 volts peak-to-peak from the rectifier bridge are applied to the filter and regulator input of the -6 volt dc supply on board A3. For detailed functioning of the bridge, see paragraph 1-13. Capacitor C4 provides input filtering. CR14, CR15 and R12 establish the base voltage for transistor Q6. Resistor R13 limits the base current of Q6. Capacitor C5 filters

and smooths the output control voltage of Q6. Transistors Q7 and Q8 are Darlington-connected drivers to control current transistor Q5 on the chassis. Resistors R16, R17, R18, R19, R20, R21 and R22, Zener diode CR17, and transistors Q9 and Q10 comprise the output voltage regulator circuit. Capacitor C6 provides further filtering of the output voltage.



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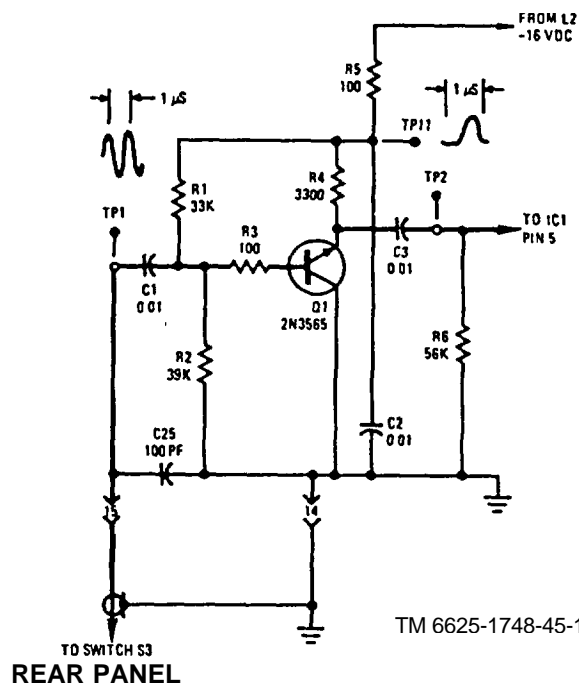
Figure 1-20. A3 -6V regulator.

1-18. 1 MHz Amplifier.

(fig. 1-21).

a. *General.* The 1 MHz clock signal from the 1 MHz amplifier through the rear panel INT/ EXT switch, S3. The output of the circuit is a 1 μsecond pulse at a 1 MHz rate which is applied to the following decade divider circuit.

b. *Detailed Operation.* Capacitor CQ ac couples the input to the amplifier. Transistor Q1 is an emitter follower with base bias provided by resistors R1 and R2, degeneration provided by resistor R3, and emitter load provided by resistor R4. Capacitor C3 couples the output to the following decade divider circuit and resistor R6 provides the input termination for the decade divider. Resistor R5 and capacitor C2 decouple the power supply from the amplifier. Capacitor C25 serves as a high frequency shunt for unwanted frequencies above 1 MHz. Negative 16 volts operating power for the circuit is obtained from the low pass filter described in following paragraph 1-19. Test point TP1 monitors the input signal. Test point TP2 monitors the output signals. Test point TP11 monitors the power supply.



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Figure 1-21. 1 MHz amplifier.

1-19. Decade Divider, 19.0 MHz Oscillator Input Buffer, and Power Supply Low Pass Filter
(fig. 1-22)

a. *General.* The decade divider divides the output of the 1 MHz oscillator to a well defined 10 μ second square wave which is applied to the following buffer stages.

b. *Detailed Operation.* Integrated circuit IC1 provides the divide by ten function. The signal input is at pin 5, the signal output is at pin 8, dc power at pin 4, ground at pin 7, and internal compensation provided by capacitors C5, C6, C7, and C8, and resistors R7, R8, and R9 at pins 1, 2, and 3. The output is applied to four circuits: the 19.0 MHz oscillator input buffer (transistor Q2), the 19.1 MHz oscillator input buffer, the control logic input buffer (all described in paragraph 1-21), and

the mixer input buffer (para 1-22). Negative 16 volts operating power is obtained from the low pass filter described in following paragraph 1-20. Capacitor C10 couples the signal to the 19.0 MHz oscillator input buffer. Transistor Q2 is an emitter-follower with base bias provided by resistors R11 and R12, emitter load provided by resistor R14, and output coupling provided by capacitor C13. Resistor R10 isolates the power supply from the buffer. Power for the 1 MHz amplifier, the decade divider, and the output buffers is obtained from the low pass filter consisting of inductors L1, L2, L3, and L4, capacitors C4, C9, C11, C14, and C26, and resistor R13. Test points TP10, TP12, and TP13 monitor the power supply voltage. Test point TP5 monitors the buffer output.

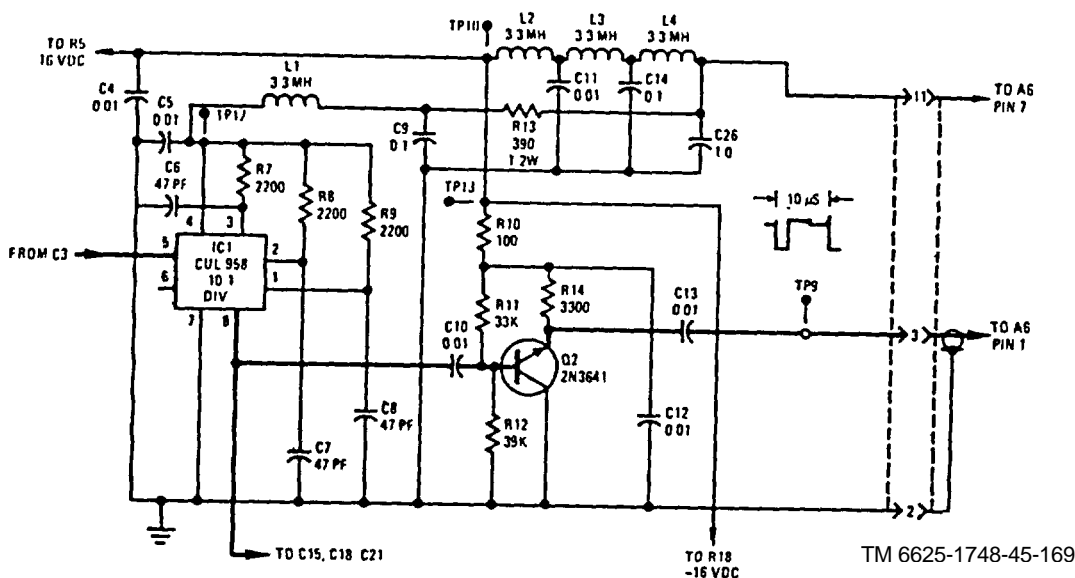


Figure 1-22. Decade divider, power supply low pass filter, and 19.0 MHz oscillator input buffer.

1-20. 19.1 MHz Oscillator Input Buffer and Control Logic Input Buffer
(fig. 1-23 and 1-24)

These stages buffer the 100 kHz decade divider output to the 19.1 MHz oscillator and the control logic,

respectively. These buffers operate identically to the 19.0 MHz oscillator input buffer described in paragraph 1-19.

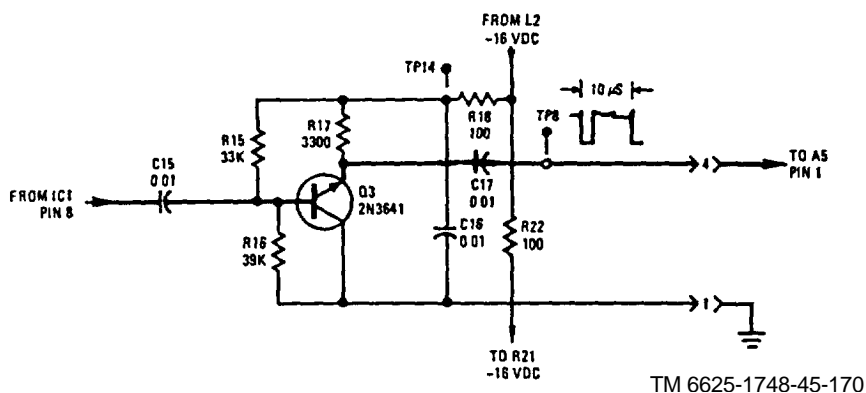


Figure 1-23. 19.1 MHz oscillator input buffer.

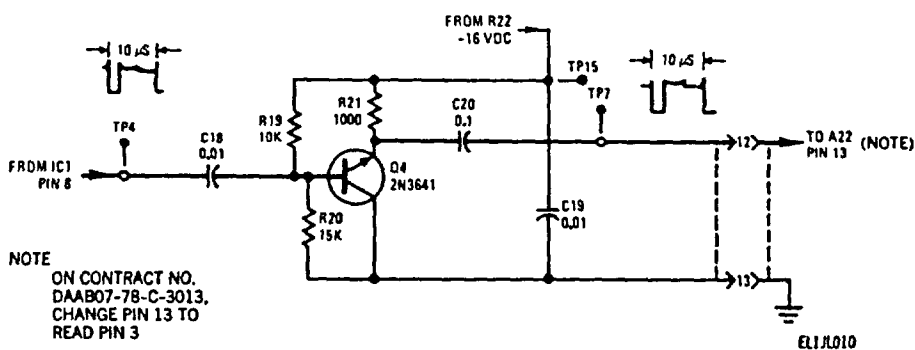


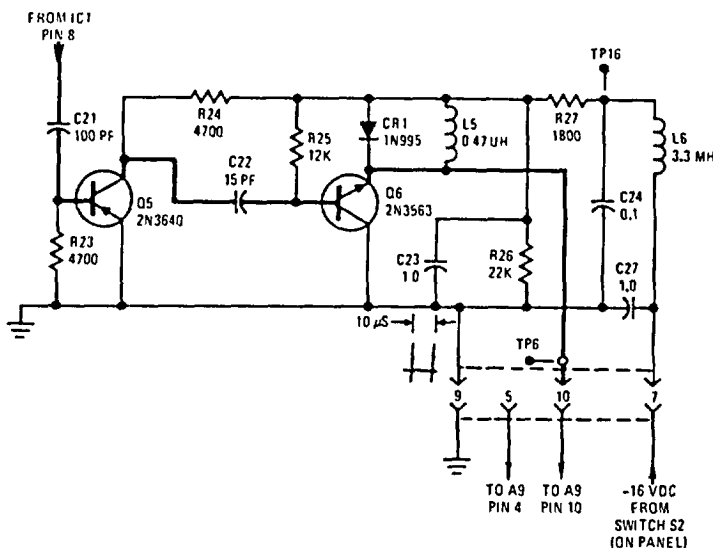
Figure 1-24. Control logic input buffer.

1-21. Coarse Tuning Mixer input Buffer
(fig. 1-25)

a. *General.* This circuit buffers the decade divider output to the coarse tuning mixer. The input signal is shaped to provide a negative-going pulse of 10 μsec duration at the output.

b. *Detailed Operation.* Capacitor C21 couples the input to the base of transistor Q5. Transistor Q5 is an amplifier with base bias provided by resistor R23, emitter

load provided by resistor R24, and output coupling to the base of transistor Q6 provided by capacitor C22. Transistor Q6 is an emitter-follower with base bias provided by resistor R25, and emitter load and output shaping provided by diode CR1 and inductor L5. Resistors R26 and R27, capacitors C23, C24, and C27, and inductor L6 decouple the power supply from the circuit. Test point TP6 monitors the output signal. Test point TP16 monitors the power supply voltage.



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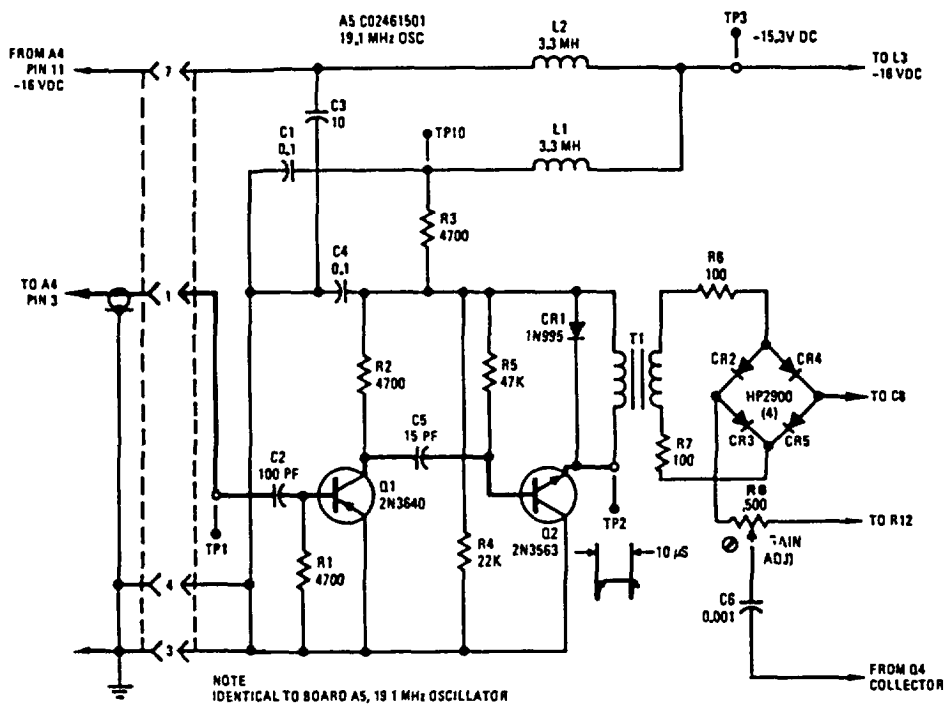
Figure 1-25. Coarse tuning mixer input buffer.

1-22. 19.0/19.1 MHz Oscillator Input Buffer and Rectifier Stage
(fig. 1-26)

a. *General.* The 19.0 and 19.1 MHz oscillators function identically except for the output frequency. The oscillators consist of three stages: the input buffer and rectifier, the dc amplifier (fig. 1-27), and the oscillator (fig. 1-28). This and the following paragraphs 1-23 and 1-24 describe both oscillators. The input buffer and rectifier stage provides shaping of the 100 kHz output from the 19.0/19.1 MHz oscillator input buffer and provides a full wave rectified de output, which is proportional to the input frequency. Because the 100 kHz input is derived from the very stable 1 MHz clock, this de voltage is also very stable.

b. *Detailed Operation.* Capacitor C2 couples the input signal to the base of transistor Q1. Transistor Q1

is an amplifier with base bias provided by resistor R1, emitter load provided by resistor R2, and output coupling to the base of transistor Q2 provided by capacitor C5. Transistor Q2 is an emitter-follower with base bias provided by resistor R5, and emitter load and output shaping provided by diode CR1 and transformer T1. The output of transformer T1 is applied through resistors R6 and R7 to the full wave rectifier composed of diodes CR2, CR3, CR4, and CR5. A feedback signal from the oscillator stage is applied to the junction of diodes CR2 and CR3 through oscillator gain adjustment potentiometer R8. Thus, the dc output from the rectifier is the sum of the 100 kHz and oscillator output signals. Capacitors C1, C3, and C4, resistors R3 and R4, and inductors L1 and L2 provide power supply decoupling. Test point TP1 monitors the input signal. Test Point TP2 monitors one side of the transformer output. Test point TP3 monitors the power supply voltage.



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Figure 1-26. 19.0/19.1 MHz oscillator input buffer and rectifier stage.

1-23. 19.0/19.1 MHz Oscillator dc Amplifier Stage
(fig. 1-27)

a. *General.* This stage provides amplification for the dc output of the previous stage. The output is applied to the oscillator stage for use as a frequency control voltage.

b. *Detailed Operation.* Integrated circuit IC1 functions as a differential amplifier. The inputs are at pins 2 and 3, the output is at pin 6, dc power through resistor R17 is at pin 4, ground is at pin 7, and compensation is provided by capacitors C12 and C13, and resistor R19 at pins 1, 5, and 8. The dc output of

the previous stage is applied to input pin 3 through the rf suppression and bias network composed of resistors R9, R10, and R11 and capacitors C7, C8, C9, and C10. The second, feedback input is applied to input pin 2 through resistor R20 and the bias network composed of variable resistor R8 (fig. 1-26), 8.5-volt Zener diode CR6, resistors R13, R15, and R18, and bias level adjustment potentiometer R14. The amplified dc output is applied to the oscillator stage. Capacitor C14 provides power supply decoupling. Test point TP4 monitors the amplifier output.

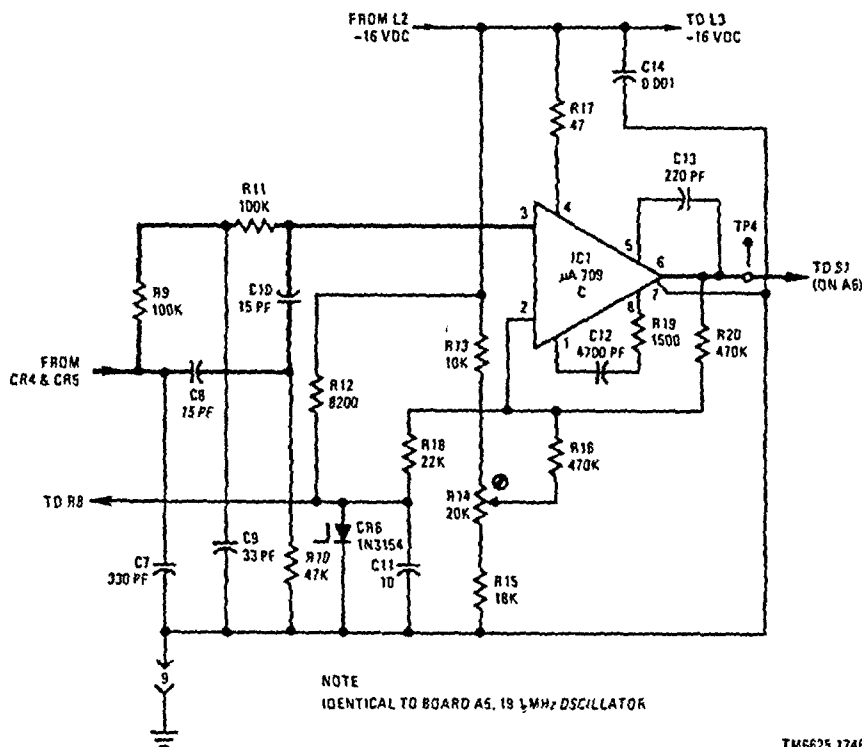


Figure 1-27. 19.0/19.1 MHz oscillator dc amplifier stage.

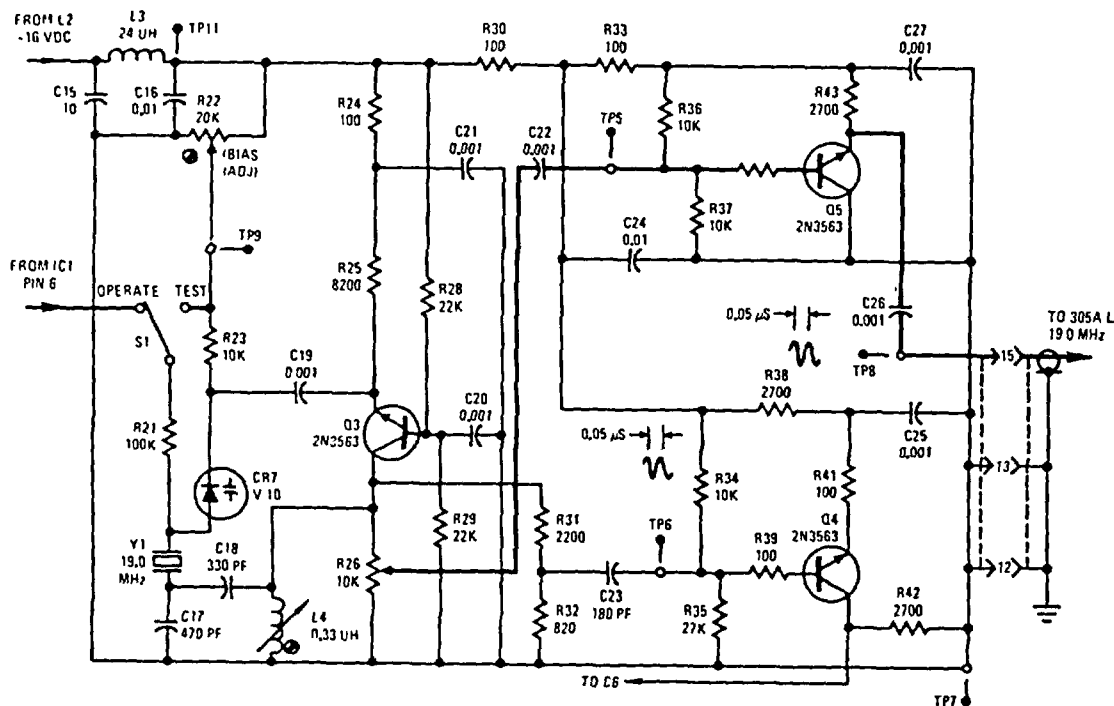
1-24. 19.0/19.1 MHz Oscillator

(fig. 1-28)

a. General. The oscillator has a basic frequency of 19.0/19.1 MHz. The frequency is variable to be a 100 kHz multiple of the 1 MHz clock by means of a dc voltage applied to a voltage-variable capacitor in the oscillator tank circuit. The oscillator has two output stages, one of which is used for feedback to the rectifier and dc amplifier stages. The oscillator output of the 19.0 MHz oscillator is applied to the second modulator in the level meter. The oscillator output of the 19.1 MHz oscillator is applied to the fine tuning reference mixer.

b. Detailed Operation. Transistor (3 is the oscillator transistor. The tank circuit consists of voltage variable capacitor CR7, crystal Y1, capacitors C17 and C19, with feedback through capacitor C19. With switch S1 in the OPERATE position, CR7 is biased by the output from the dc amplifier through resistor R21 on the cathode side, and potentiometer R22, and resistor R23 on the anode side. With S1 in the TEST position, potentiometer R22 is set so that the oscillator operates at 19.0/19.1 MHz. The oscillator Transistor Q3 has base bias provided by resistors R28 and R29, emitter bias provided by resistor R25, and collector load provided by

potentiometer R26. Capacitors C20 and C21 provide rf decoupling in the base circuit. The oscillator output is applied to the feedback transistor Q4 through resistor R31, and to the output transistor Q5 through potentiometer R26. Transistor Q4 is an amplifier with the input signal developed across the divider consisting of resistors R31 and R32, input coupling provided by capacitor C23, base bias provided by resistors R34 and R35, degeneration provided by resistor R39, emitter bias provided by resistor R141, and output load provided by resistor R42. The output is coupled to the input buffer and rectifier stage through capacitor C6 (fig. 1-26). Transistor Q5 is an emitter follower with input coupling provided by capacitor C22, base bias provided by resistors R36 and R37, degeneration provided by resistor R40, emitter load provided by resistor R43, and output coupling provided by capacitor C26. Inductor L3, capacitors C15, C16, C25, and C27, and resistors R30, R33, and R38 provide power supply isolation. Test point TP9 monitors the bias on voltage-variable capacitor CR7. Test points TP5 and TP6 monitor the oscillator output. Test point TP8 monitors the oscillator amplifier output. Test point TP11 monitors the power supply voltage. Test point TP7 is ground.



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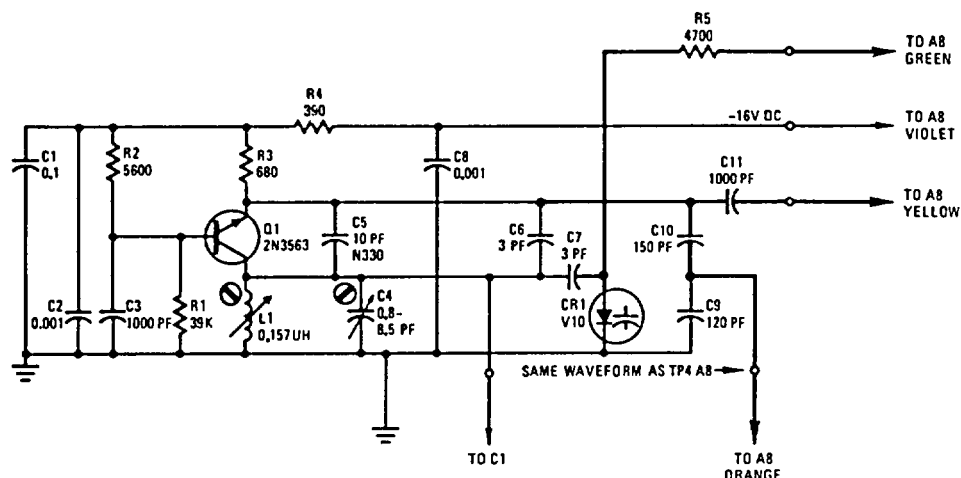
Figure 1-28. 19.0/19.1 MHz oscillator.

1-25. Coarse Tuning Oscillator
(fig. 1-29)

a. *General.* The coarse tuning oscillator provides an output frequency of 40.1 to 73.6 MHz. In the locked mode the frequency can be varied in 100 kHz increments by means of the front panel COARSE TUNING control. Locking the output frequency in 100 kHz increments is achieved by dc feedback to a voltage-variable capacitor. The dc control voltage is derived from the coarse lock detector stage.

b. *Detailed Operation.* The circuit is a Clapp type oscillator. Base bias for Q1 is provided by resistors R1

and R2. Resistor R3 provides emitter load. The tank circuit consists of inductor L1, capacitors C4 and C7, the front panel COARSE TUNING control C1, and the voltage-variable capacitor CR1. Capacitors C5 and C6 provide feedback. Resistor R5 couples the voltage-variable capacitor to the coarse tuning detector. Capacitors C10 and C9 function as a divider for the output to the coarse tuning output amplifier number 1. Capacitor C11 couples the oscillator output to the coarse tuning output amplifier number 2. Capacitors C1 and C2 provide power supply decoupling.



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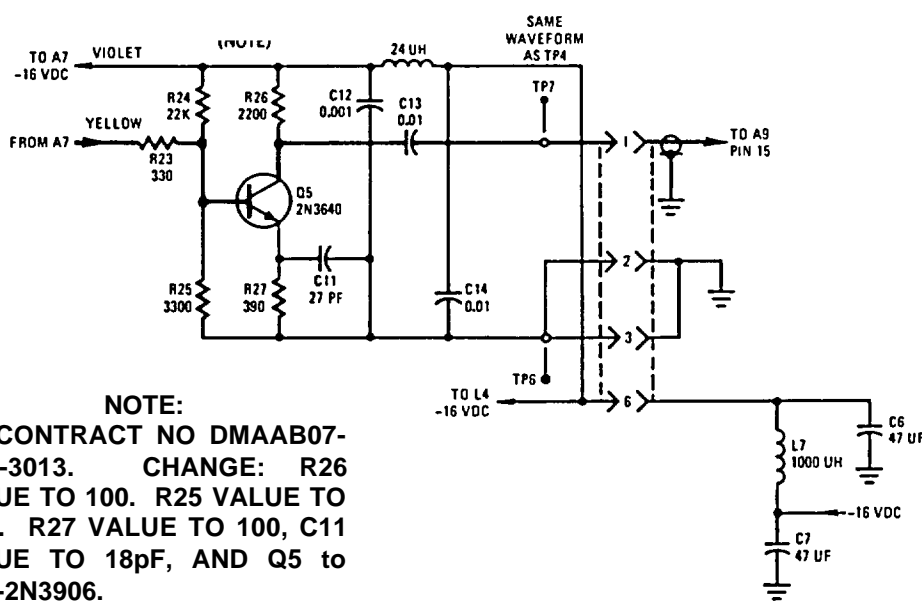
Figure 1-29. Coarse tuning oscillator.

1-26. Coarse Tuning Oscillator Output Amplifier Number 1
(fig. 1-30)

a. *General.* This circuit amplifies the coarse tuning oscillator output signal for application to the mixer amplifier.

b. *Detailed Operation.* The input signal is applied to the base of transistor Q5 through resistor R23.

Transistor Q5 is an amplifier with base bias provided by resistors R24 and R25, collector load provided by resistor R26, emitter bias provided by resistor R27, emitter decoupling provided by capacitor C11, and output coupling provided by capacitor C13. Capacitors C6, C7, C12, C14, and inductors L7 and L5 decouple the power supply from the amplifier. Test point TP7 monitors the output signal. Test point TP6 is ground.



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Figure 1-30. Coarse tuning oscillator output amplifier number 1.

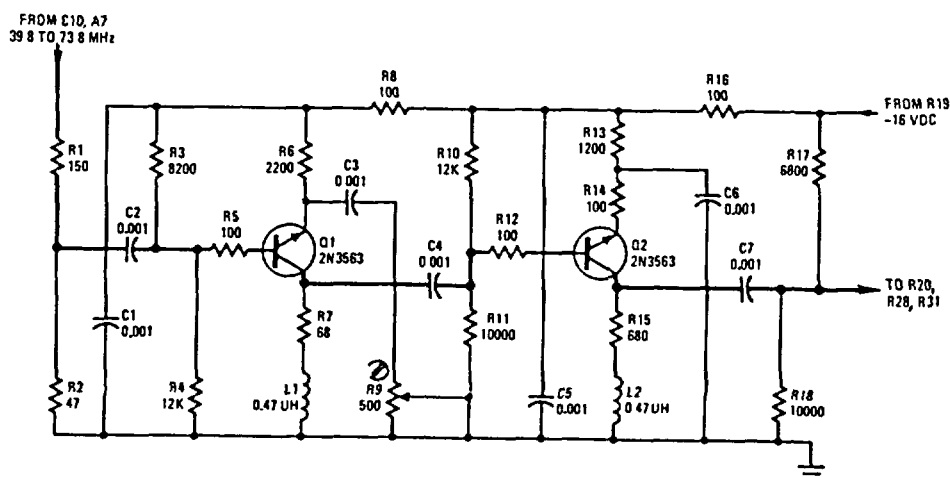
1-27. Coarse Tuning Oscillator Output Amplifier Number 2

(fig. 1-31)

a. General. This stage provides amplification for the coarse tuning oscillator output prior to application to the rear panel output jacks J7 and J9 and to the display logic. It consists of two amplifier stages.

b. Detailed Description. The input signal is applied through the divider composed of resistors R1 and R2 to transistor Q1. Transistor Q1 is an amplifier with input coupling provided by capacitor C2, degeneration provided by resistor R5, base bias provided by resistors

R3 and R4, emitter bias controlled by resistor R6, bypass capacitor C3, and potentiometer R9, and collector load provided by resistor R7. Inductor L1 provides high frequency decoupling. Capacitor C4 provides output coupling to the base of transistor Q2. Transistor Q2 is an amplifier with base bias provided by resistors R10 and R11, degeneration provided by resistor R12, emitter bias provided by resistor R14, emitter bypass provided by capacitor C6, and output coupling provided by capacitor C7. Resistors R17 and R18 provide base bias for the following buffer output stages. Capacitors C1 and C5, and resistors R8 and R16 decouple the power supply from the amplifier.



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Figure 1-31. Coarse tuning oscillator output amplifier number 2.

1-28. Coarse Tuning Oscillator Output Emitter-Followers

(fig. 1-32, 1-33, and 1-34)

a. General. These stages drive the output jacks J7 and J9 and the display logic. Each of the three stages consist of cascade type emitter-followers Q3 and Q4 which drive the rear panel output jack J9, Q6 and Q7, which drive the rear panel output jack J7, and Q8 and Q9 which drive the display logic on board A20. The following description is for the stage consisting of transistors Q3 and Q4 (fig. 1-31) the other stages function identically.

b. Detailed Operation. Transistors Q3 and Q4 form a cascade type emitter-follower. Resistor R20 provides degeneration. Capacitor C9 provides collector bypass for Q3 and Q4. Resistor R21 provides emitter load for transistor Q3 and base bias for transistor Q4. Resistor R22 provides emitter load for transistor Q4. The network composed of resistors R34, R35, and R36 determines the output impedance. Capacitor C20 provides output coupling. Capacitor C17 and inductors L3, L4A, L6, and L7 provide power supply decoupling. Test point TP4 monitors the output signal. Test point TP9 monitors the power supply voltage. Test point TP1 is ground.

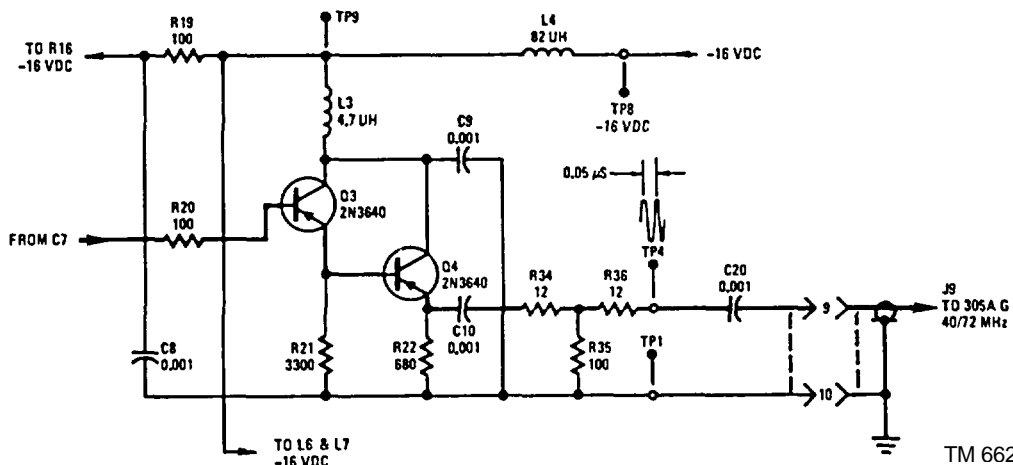


Figure 1-32. Coarse tuning output to J9.

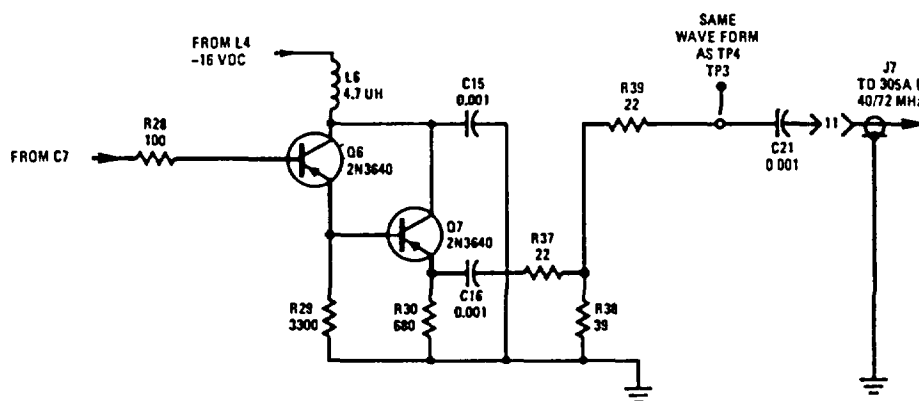
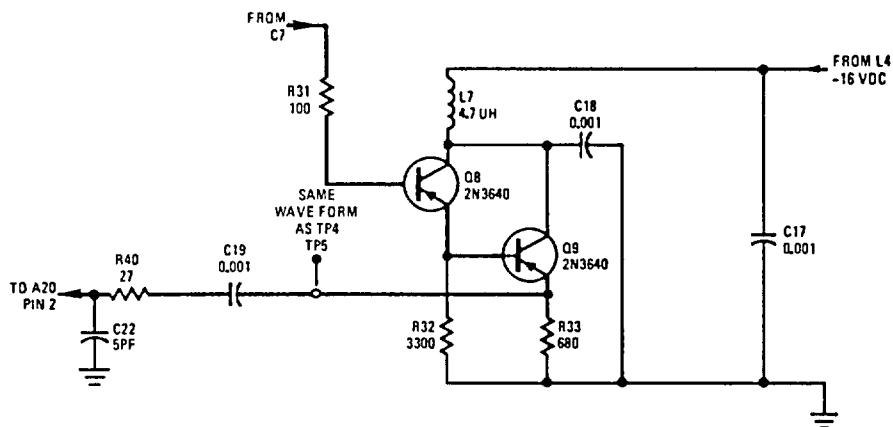


Figure 1-33. Coarse tuning output to J7.



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Figure 1-34. Coarse tuning output to display logic.

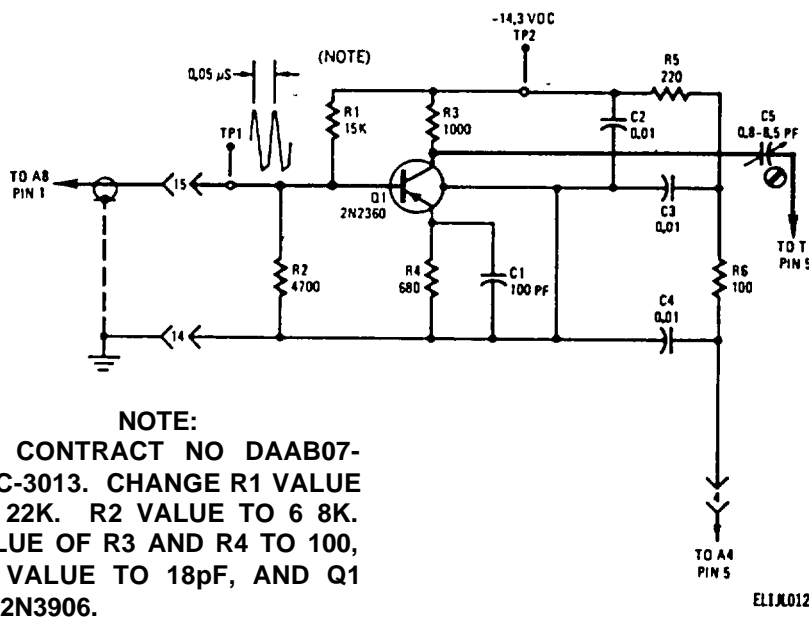
1-29. Coarse Tuning Mixer Input Amplifier

(fig. 1-35)

a. *General.* This circuit amplifies the coarse tuning oscillator frequency for application to the mixer.

b. *Detailed Description.* Transistor Q1 is a shielded transistor with the shield connected to ground. Base bias is provided by resistors R1 and R2, emitter

bias is provided by resistor R4, emitter bypass is provided by capacitor C1, collector load is provided by resistor R3, and output coupling to the following mixer stage is provided by variable capacitor C5. Capacitors C2, C3, and C4, and resistors R5 and R6 decouple the power supply from the amplifier. Test point TP1 monitors the input signal. Test point TP2 monitors the power supply voltage.



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Figure 1-35. Mixer Input amplifier.

1-30. Coarse Tuning Mixer
(fig. 1-36)

a. *General.* Two signals are applied to the mixer, the variable frequency output from the coarse tuning oscillator and the fixed 100 kHz pulses from the decade divider. The sum of the difference of the two signals is derived and is applied to the following coarse lock sensor circuits.

b. *Detailed Operation.* The 100 kHz signal is applied through variable coupling capacitor C9 to one winding of pulse transformer T1. The coarse tuning oscillator output is applied to the center tap of the other

winding. Diode CR1 shapes the 100 kHz signal. The output legs of the mixer are balanced for resistance and capacity. Resistors R10 and R11, capacitors C10 and C11, and diode CR3 form one leg, and resistors R7 and R8, capacitors C6 and C7, and diode CR2 form the other leg. The output is from potentiometer R9. Capacitor C8 couples the mixer output to the following mixer output amplifier stage. Resistance in the output legs is matched by selecting resistor R11. Capacity in both legs is matched by variable capacitor C11. Test point TP4 monitors coarse tuning oscillator input. Test point TP 3 monitors the 100 kHz input. Test point TP6 monitors the mixer output. Test point TP5 is ground.

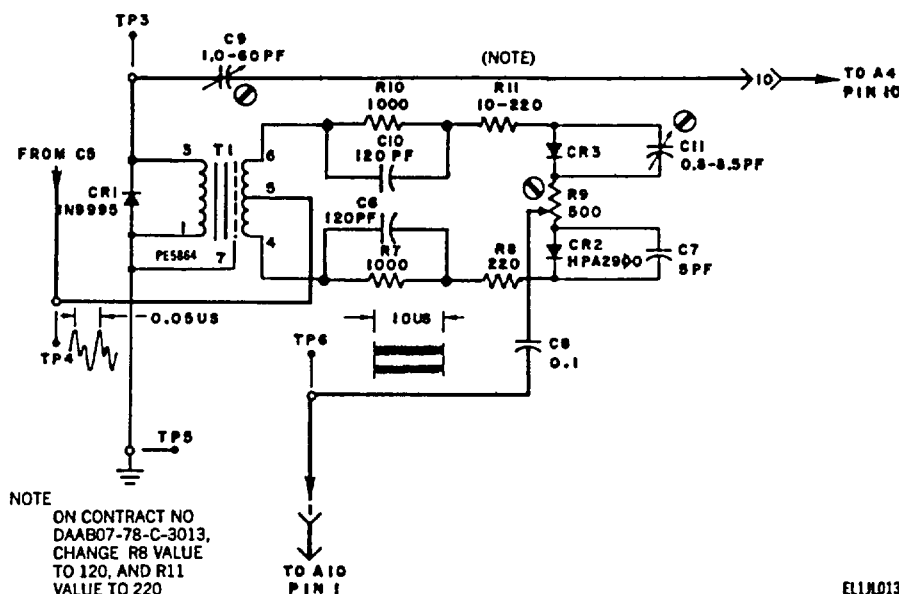


Figure 1-36. Coarse tuning mixer.

1-31. Mixer Output Amplifier
(fig. 1-37)

a. *General.* This circuit provides amplification for the mixer output prior to application to the detector.

b. *Detailed Operation.* The mixer output is applied to emitter-follower R1. Base bias is provided by resistors R1 and R2. Emitter load is provided by resistor R3. Capacitor C1 couples the signal to the base of

transistor Q2. Transistor Q2 is an amplifier with base bias provided by resistors R4 and R5, collector load provided by resistor R6, and emitter bias provided by resistors R7, R8, and R9. Variable resistor R7 allows stage gain adjustment. The output is coupled to the rectifier-amplifier stage by capacitor C5. Resistor R10 and capacitor C2 decouple the power supply. Capacitor C4 provides rf suppression.

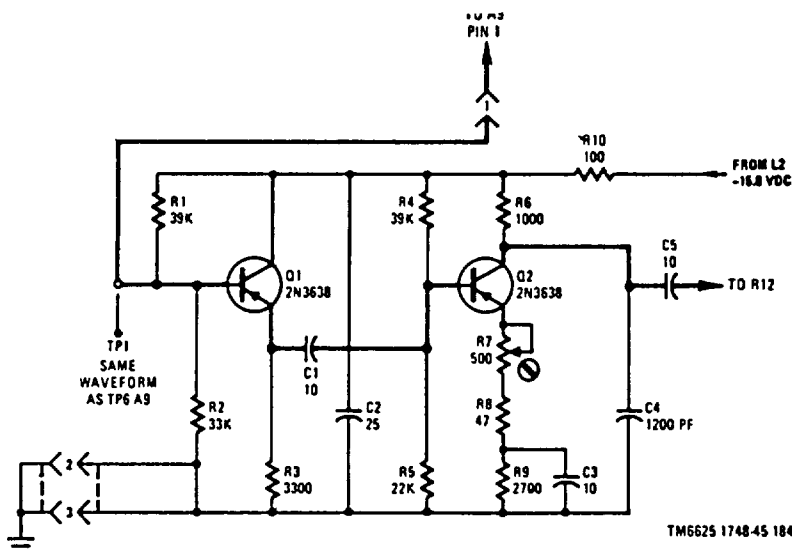


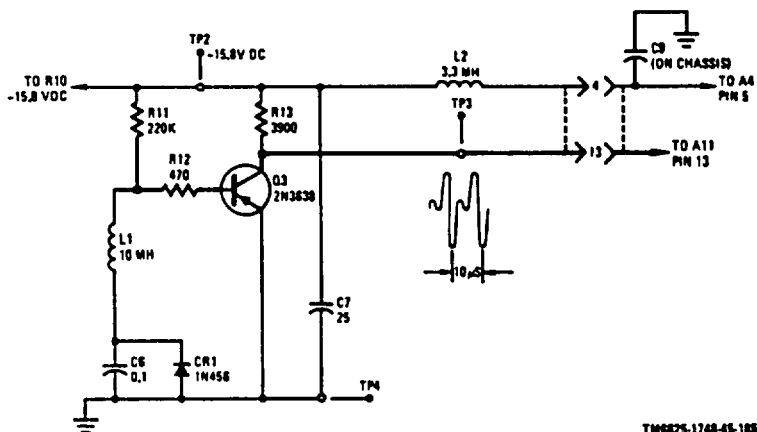
Figure 1-37. Mixer output amplifier.

1-32. Mixer Output Rectifier-Amplifier
(fig. 1-38)

a. *General.* This circuit half-wave rectifies and amplifies the mixer output prior to application to the detector.

b. *Detailed Operation.* The network composed of inductor L1, capacitor C6, and diode CR1 clip the negative-going portion of the waveform at the base of

transistor Q3. Transistor Q3 is an amplifier with base bias provided by the clipping network and resistor R11, degeneration provided by resistor R12, and collector load provided by resistor R13. Inductor L2 and capacitor C7 isolate the power supply from the amplifier. Test point TP3 monitors the output signal. Test point TP2 monitors the power supply voltage. Test point TP4 is ground.



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Figure 1-38. Mixer output rectifier-amplifier.

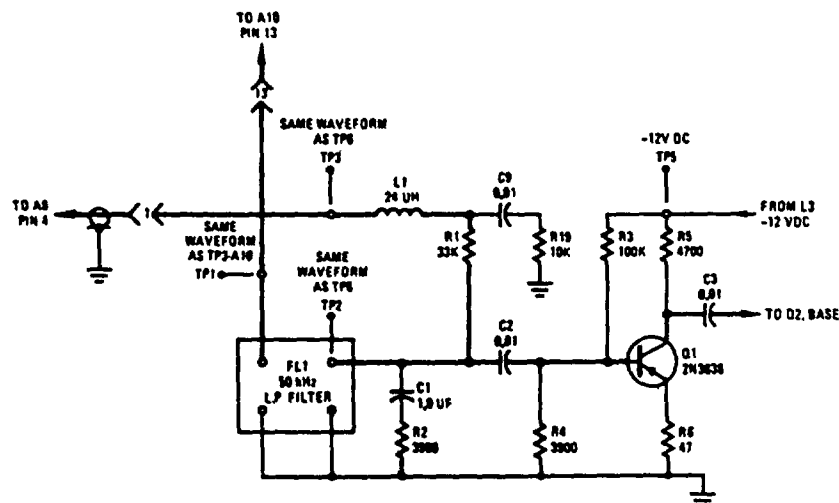
1-33. Coarse Lock Detector

(fig. 1-39)

a. *General.* This circuit filters the rectified mixer output to obtain and amplify its dc component. The dc component operates the following coarse lock sensor circuit.

b. *Detailed Operation.* The signal is applied to the input of low pass filter FL1. The output is the dc component of the up to 100 kHz input signal. When the

coarse tuning oscillator frequency is at a multiple of 100 kHz the filter output will be close to 0 volt. Capacitors C1 and C9 and resistors R2 and R19 provide rf suppression. This voltage is coupled back to the coarse tuning oscillator by resistor R1 and inductor L1, and to the base of amplifier Q1 through capacitor C2. Base bias is provided by resistors R3 and R4. emitter bias is provided by resistor R6. collector load is provided by resistor R5. The output is coupled to the sensor by capacitor C3.



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Figure 1-39. Coarse lock detector.

1-34. Coarse Lock Sensor

(fig. 1-40)

a. *General.* The coarse lock sensor detects a locked frequency output of the coarse tuning amplifier and activates the display controlling relay K1. The circuit consists of an amplifier, Q2, and a Schmidt trigger, Q3 and Q4.

b. *Detailed Operation.* The dc voltage is coupled to the base of transistor Q2. Transistor Q2 is an amplifier with base bias provided by resistors R7 and R8, emitter bias is provided by resistor R9, and collector load provided by resistor R10. Capacitor C4 provides rf

suppression for the dc signal. Resistor R11 couples the dc to the Schmidt trigger and provides isolation. The Schmidt trigger consists of transistors Q3 and Q4. Resistors R12 and R13 set the operating point of Q3. Resistor R14 provides emitter bias for Q3 and Q4. Resistor R15 provides collector load for Q3. Resistors R18 and R16 provide base bias for Q4. Diode CR1 and capacitor C8 provide transient suppression. Capacitors C7, C5, and C8, resistor R17, and inductors L2 and L3 provide power supply isolation. The circuit is powered by a switched voltage from the front panel LOCK switch. Test point TP6 monitors the output voltage.

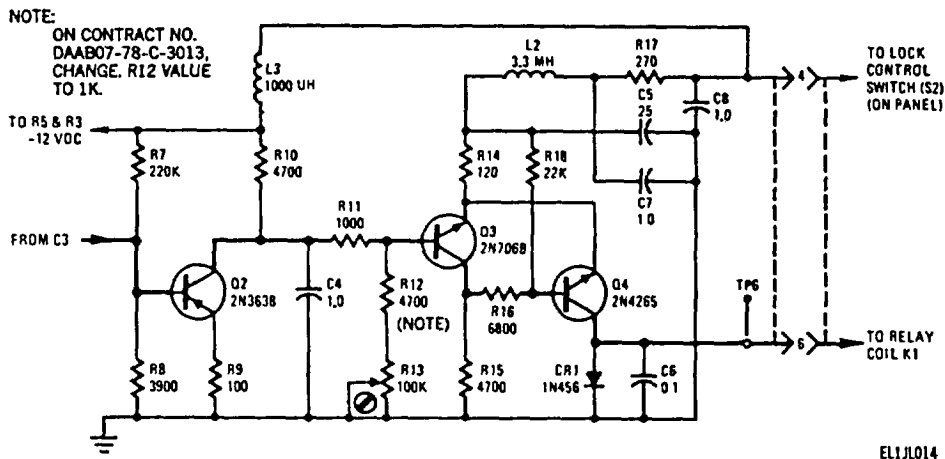


Figure 1-40. Coarse lock sensor

1-35. Fine Tuning Oscillator

(fig. 1-41)

a. *General.* The fine tuning oscillator provides an output frequency of 205 to 315 kHz as controlled by the front panel FINE TUNING control.

b. *Detailed Description.* The fine tuning oscillator is the Collpitts type with transistor Q1 the oscillator transistor, capacitors C2, C3, C4, C6, and C7, variable capacitor C8, and variable inductor L1 forming the temperature-compensated tank circuit, with feedback provided through capacitor C5. Variable capacitor C2,

the front panel FINE TUNING control, serves as the primary frequency tuning element. Resistors R1 and R2 provide base bias, resistor R3 provides emitter load. Resistor R4 provides collector bias. Capacitor C12 provides output coupling to the following amplifier stage. Capacitor C11 provides high frequency bypass to ground for unwanted oscillator harmonics. Capacitors C1, C9, C10, and C21, resistor R5, and inductor L2 provide power supply decoupling. Test point TP4 monitors the output signal. Test point TP8 monitors the power supply voltage.

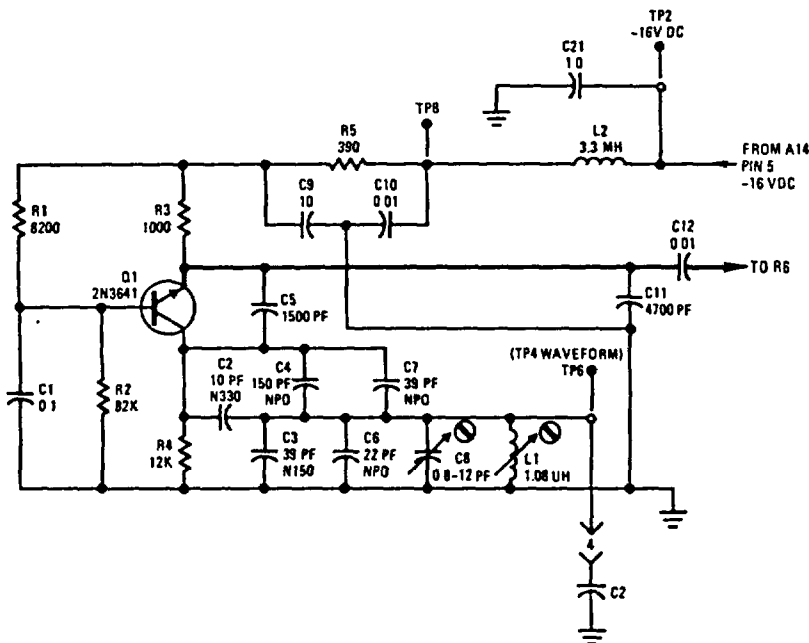


Figure 1-41. Fine tuning oscillator.

1-36. Fine Tuning Oscillator Intermediate Amplifier
(fig. 1-42)

a. General. This stage provides amplification for the fine tuning oscillator out-put. It is a frequency compensated amplifier with an emitter-follower output.

b. Detailed Operation. Input is through the variable level control resistor R6. Transistor Q2 is an amplifier with base bias provided by resistors R9 and R10, collector load provided by R11, frequency compensation provided by capacitors C13 and C14 and

inductor L4, emitter bias provided by resistor R13, and output coupling provided by capacitor C15. Transistor Q3 is an emitter-follower with input isolation provided by resistor R20, and base bias provided by resistors R14 and R15. The output is taken from the emitter of transistor Q3 and from the junction of divider resistors R16 and R17 through coupling capacitor C16, and applied to the following output amplifiers. Test point TP1 monitors the input signal. Test point TP9 monitors the power supply voltage. Test point TP5 is ground.

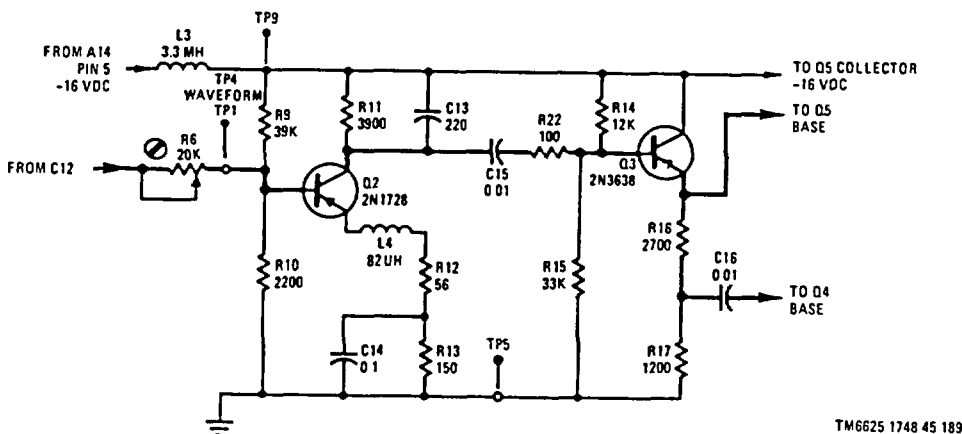
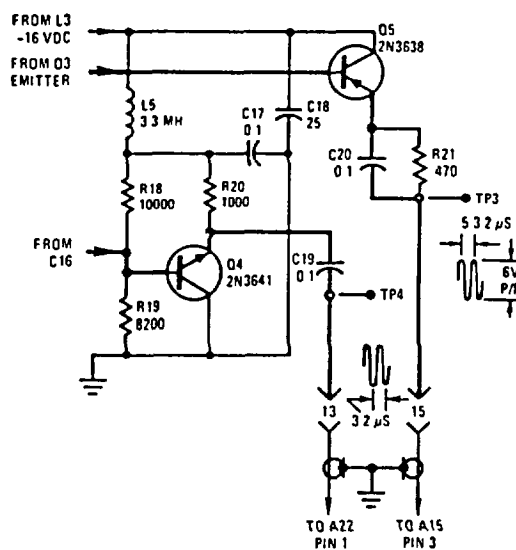


Figure 1-42. Fine tuning oscillator intermediate amplifier.

1-37. Fine Tuning Oscillator Output Amplifiers
(fig. 1-43)

a. General. Two amplifiers provide amplification for the fine tuning oscillator output. One amplifier output, Q4, drives the counter on control logic circuit board number 2; the other amplifier output, Q5, drives one input to the phase discriminator.

b. Detailed Operation. Transistor Q4 is an amplifier with base bias provided by resistors R18 and R19, emitter load provided by resistor R20, and output coupling to the control logic provided by capacitor C19. Inductor L5 and capacitors C17 and C18 provide power supply decoupling. Transistor Q5 is an amplifier with output coupling provided by capacitor C20 and resistor R21. Test point TP3 monitors the output of transistor Q5. Test point TP4 monitors the output of transistor TP4.



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Figure 1-43. Fine tuning oscillator output amplifiers.

1-38. Mixer Output Amplifier (Second Amplifier)

(fig. 1-44)

a. *General.* This stage amplifies the fine tuning reference mixer output for application to the phase discriminator. The stage consists of an amplifier, Q1, and an emitter-follower output, Q2.

b. *Detailed Operation.* The input is coupled through capacitor C1 to amplifier Q1. Base bias for Q1 is provided by resistors R1 and R2. collector load is provided by resistor R3. gain is controlled by the

network consisting of resistor R6, potentiometer R4, and capacitor C4, and output coupling is provided by capacitor C3. Capacitor C2 at the base of transistor Q1 and capacitor C5 at the base of transistor Q2 provide rf bypass. Emitter-follower Q2 has emitter load provided by resistor R7 and output coupling provided by capacitor C6. Capacitors C7 and C14 and inductor L1 decouple the power supply from the amplifier. Test point TP1 monitors the input signal. Test point TP2 monitors the power supply voltage.

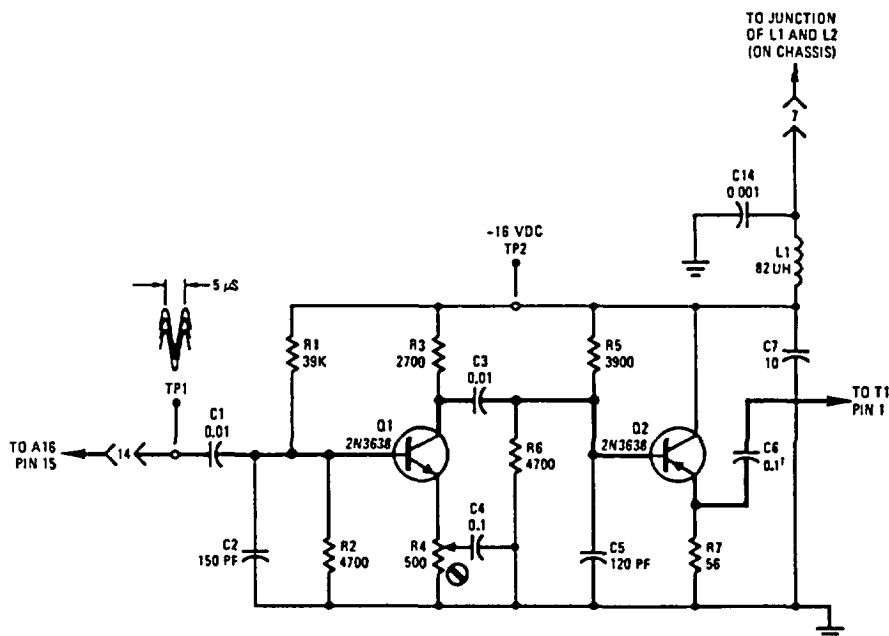


Figure 1-44. Mixer output amplifier (second amplifier).

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1-39. Phase Discriminator

(fig. 1-45)

a. *General.* The phase discriminator accepts two input signals: the output from the fine tuning reference mixer, and the output from the fine tuning oscillator, and derives a frequency the dc component of which represents the phase difference between the two input frequencies. The output is applied to the fine lock sensor to resolve the tuning frequency between the 100 kHz lock points of the coarse tuning oscillator.

b. *Detailed Description.* The fine tuning oscillator frequency is applied to the input winding of T2 and through coupling resistor R13 to the high pass filter and peak detecting network. The high pass filter and peak detecting network derive a ramp voltage proportional to the input frequency. This voltage is used as a steering

voltage for the phase discriminator output. The high pass filter consists of inductors L2 and L3 and capacitor C12. The output is coupled to the peak detector through capacitor C11 to the peak detector. This voltage is linear below 205 kHz and above 325 kHz. The peak detector consists of diodes CR1 and CR3. Capacitors C8, C9, and C15 provide rf suppression. The signal from potentiometer R8 is applied through the parallel combination of capacitor C10 and resistor R10 to the phase discriminator balance control potentiometer R11. The signal from the fine tuning reference mixer amplifier is applied to the input winding of T1. The transformers T1 and T2 are interconnected such that the output signal at the junction of potentiometer R11 and the parallel coupling network of resistor R13 and capacitor E13 represents the phase difference between the two input signals.

Diodes CR2 and CR4 serve as half-wave rectifiers for the transformer T2 output. Test point TP3 monitors the input signal from the fine tuning reference mixer amplifier. Test point TP6 monitors the input signal from

the fine tuning oscillator. Test point TP7 monitors the output. Test point TP4 monitors the output at pin 6 of transformer T1. Test point TP5 is ground.

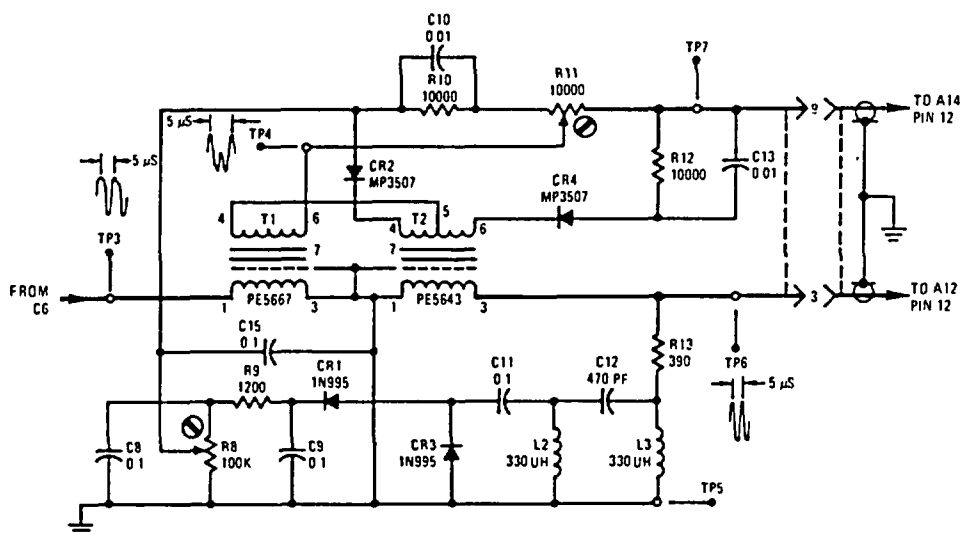


Figure 1-45. Phase discriminator.

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1-40. Fine Lock Detector
(fig. 1-46)

a. General. This circuit filters the phase discriminator output to obtain its dc component. The dc component is the frequency control voltage for the 18.785 to 18.885 fine tuning oscillator, and operates the fine lock sensor circuit. The stage consists of a low pass filter, FL1, and an emitter-follower Q1.

b. Detailed Operation. The signal is applied to the input of low pass filter FL1. The output, which is the dc

component of the input signal is applied to the 18.885 to 18.785 oscillator, and through coupling capacitor C2 to transistor Q1. Capacitor C1 and resistor R1 at the input to the filter provide rf suppression and set the input impedance to the filter. Transistor Q1 is an emitter-follower with base bias provided by resistor R2, emitter load provided by resistor R3, and output coupling provided by capacitor C3. Capacitor C7 and inductor L1 provide power supply decoupling. Test point TP1 monitors the input signal. Test point TP2 monitors the filter output. Test point TP4 is ground.

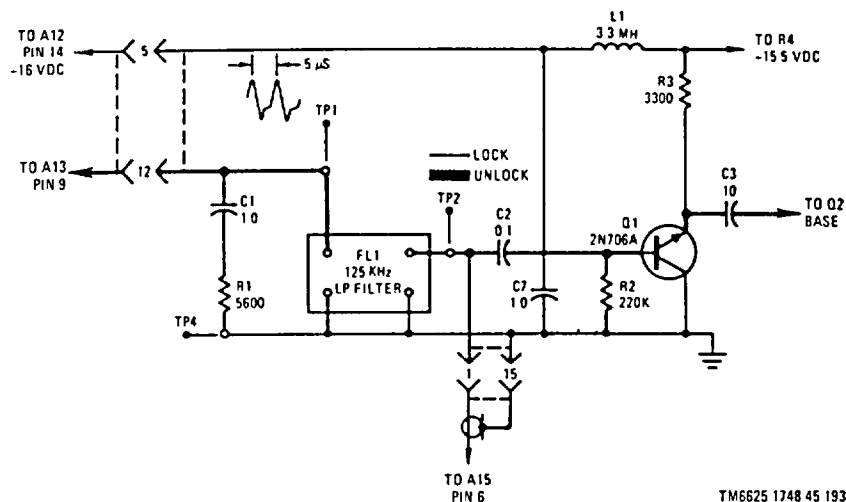


Figure 1-46. Fine lock detector.

1-41. Fine Lock Sensor
(fig. 1-47)

a. *General.* The fine lock sensor circuit controls the fine lock relay K1. It consists of a Schmidt trigger which causes K1 to be energized when the output frequency of the 18.785 to 18.885 fine tuning oscillator is unlocked.

b. *Description.* Transistors Q2 and Q3 form a Schmidt trigger. Resistors R4 and R5 provide base bias for transistor Q2. Resistor R6 provides emitter bias for

transistors Q2 and Q3. Resistors R8 and R9 provide base bias for transistor Q3. Resistor R7 provides collector load for transistor Q2. Capacitor C4 provides ac decoupling. Capacitor C5 and diode CR1 provide transient suppression. Capacitor C6 provides power supply decoupling. Relay K1 controls the front panel LOCK lamp through contacts of the LOCK switch. The relay is deenergized when the fine tuning frequency is locked. Test point TP3 monitors the power supply voltage.

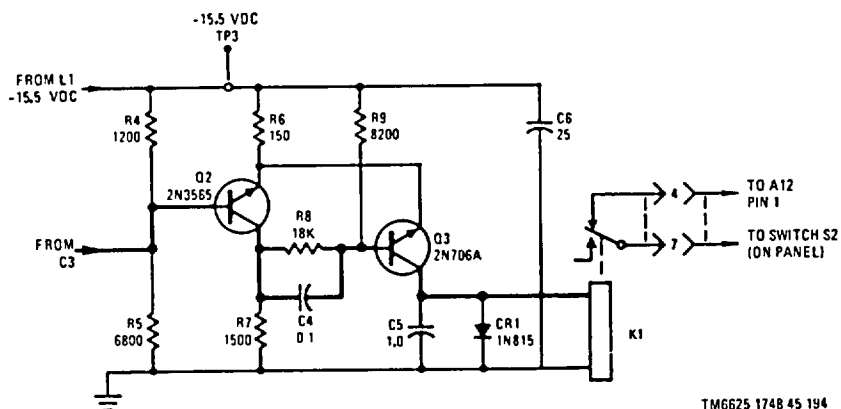
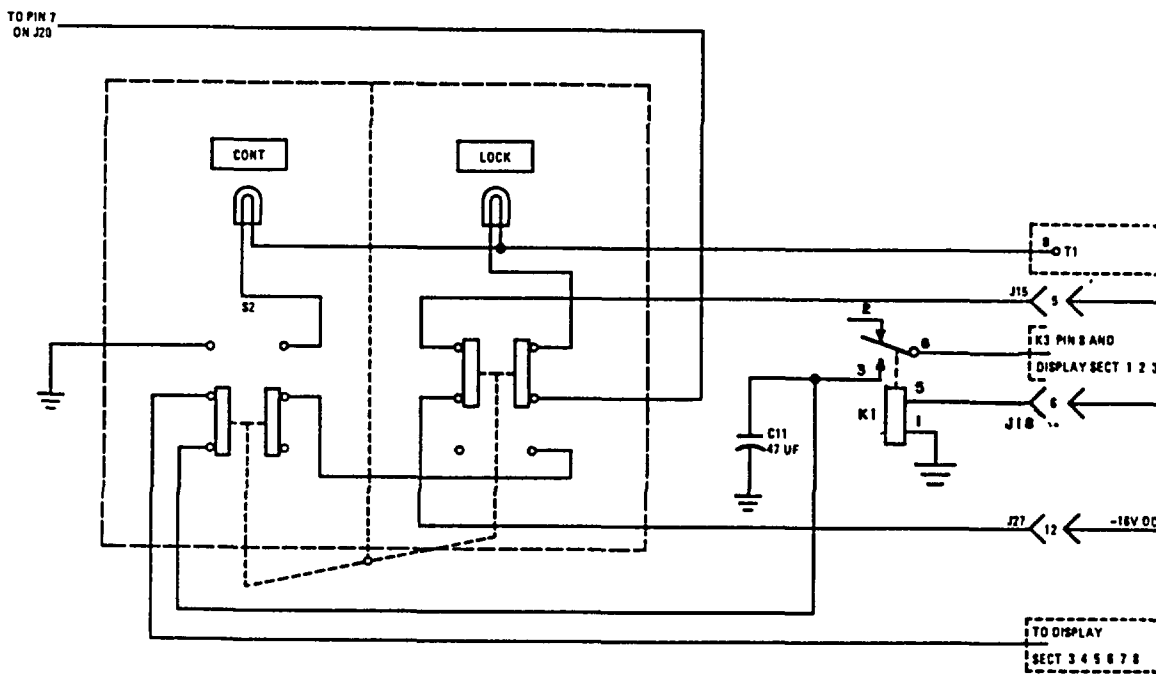


Figure 1-47. Fine lock sensor.

1-42. Mode Switch
(fig. 1-48)

The front panel LOCK and CONT pushbuttons select locked or continuously variable frequency tuning. The buttons are mechanically interlocked so that only one

can be depressed. 12 volts ac for the lamps is routed through the switch depending on its position. Relay K1 is controlled by the coarse tuning lock sensor and is deenergized when the coarse tuning oscillator is locked to a 100 kHz frequency increment.



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Figure 1-48. Mode switch.

1-43. 18.785 to 18.885 MHz Oscillator
(fig. 1-49)

a. *General.* This oscillator provides an output frequency of 18.785 to 18.885 MHz, varied by a dc feedback voltage derived in the fine lock detector. Frequency variation is achieved by applying the dc voltage to a voltage-variable capacitor in the oscillator tank circuit.

b. *Detailed Operation.* The circuit is a Collpitts type oscillator. Base bias for Q1 is provided by resistors R7 and R8. Capacitor C3 provides rf suppression in the

base circuit. Emitter bias is provided by resistor R9. The tank circuit consists of inductor L1, capacitor C4, and voltage-variable capacitor CR1. Bias for CR1 is provided by resistors R1, R3, R4, R5, and R6, and potentiometer R2. Capacitors C1, C2, and C25 provide rf suppression. Feedback for the oscillator is through capacitors C5 and C6 which also form a divider for the output. Resistor R29 provides harmonic suppression. Capacitors C7 and C8, and resistor R10 decouple the power supply from the oscillator. Test point TP6 monitors the bias on the voltage-variable capacitor CR1.

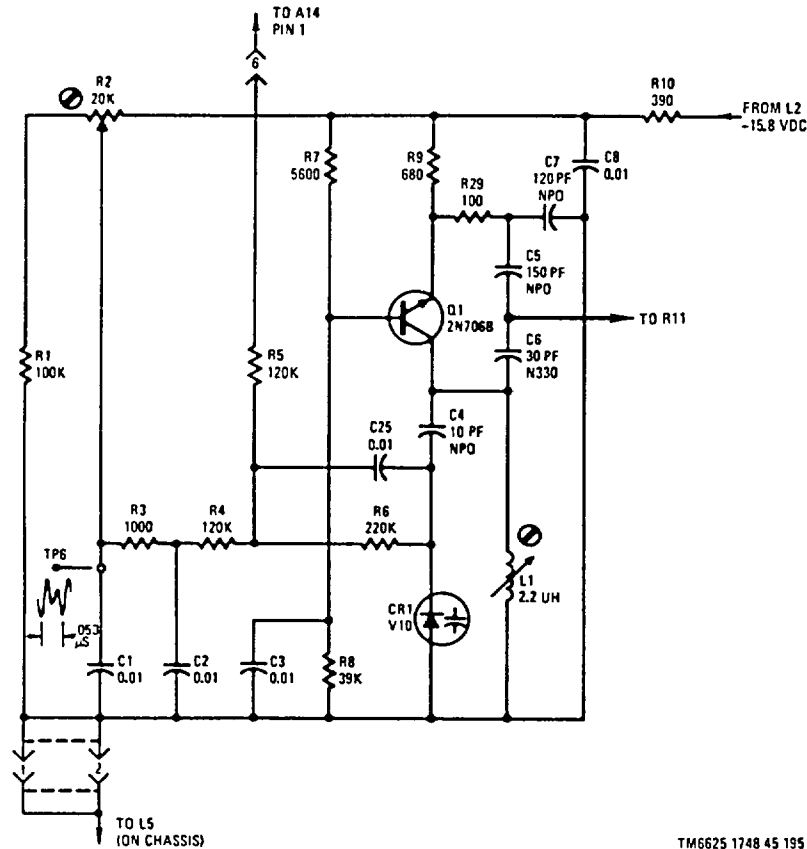


Figure 1-49. 18.785 to 18.885 MHz oscillator.

1-44. 18.785 to 18.885 MHz Oscillator Output Amplifier
(fig. 1-50)

a. *General.* This stage drives the fine tuning reference mixer input amplifier with the oscillator output frequency.

b. *Detailed Description.* The output from the oscillator is coupled by capacitor C9 and resistor R28 to the base of transistor Q2. Transistor Q2 is an amplifier

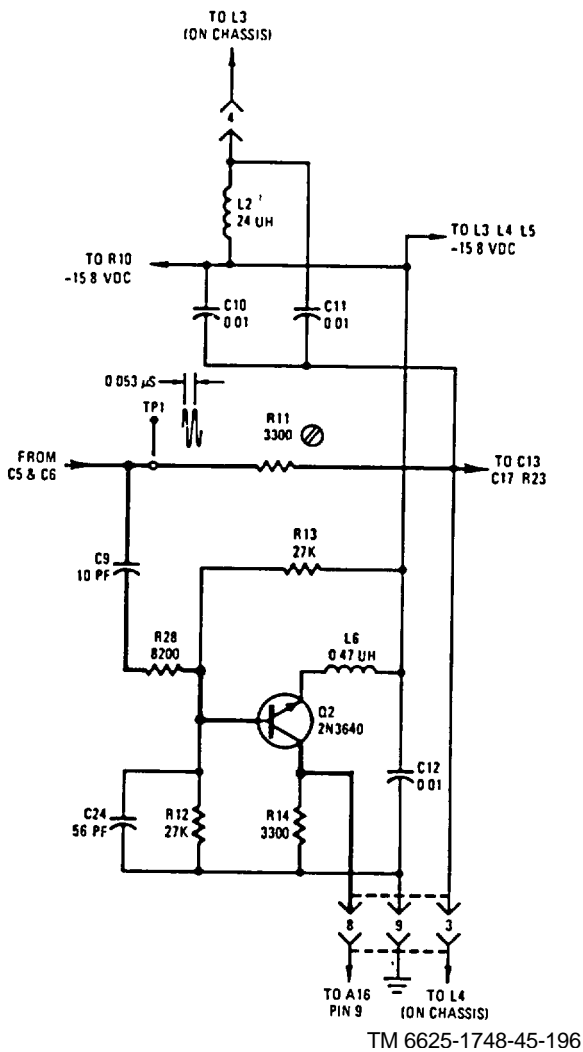
with base bias provided by resistors R12 and R13, harmonic suppression is provided by capacitor C24, high frequency isolation is provided by inductor L6, collector load is provided by resistor R14. Resistor R 14 provides collector load. Capacitors C10, C11, and C12, and inductor L2 isolate the power supply from the amplifier. Resistor R11 couples the oscillator output to the output buffer circuits. The amplifier output at the collector of Q2 is applied to the fine tuning reference mixer input amplifier. Test point TP1 monitors the input signal.

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1-45. 18.785 to 18.885 MHz Oscillator Output Buffers (fig. 1-51)

a. *General.* Three emitter-followers drive rear panel jacks J8, J10, and J11 with the oscillator output. The circuit described below is the emitter-follower Q3. The other two function similarly.

b. *Detailed Description.* Capacitor C13 couples the signal to the base of Q3. Resistors R15 and R16 provide base bias. Resistor R17 provides emitter load. Capacitor C15 couples the output. Resistor R18 determines the output impedance. Capacitor C14 and inductor L2 provide power supply decoupling. Resistors R23 and R24 at the input to transistor Q5 form a divider to obtain the proper input level. Test points TP3, TP4, and TP5 monitor the emitter-follower outputs. Test point TP8 monitors the power supply voltage. Test point TP7 is ground.



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Figure 1-50. 18.785 to 18.885 oscillator output amplifier.

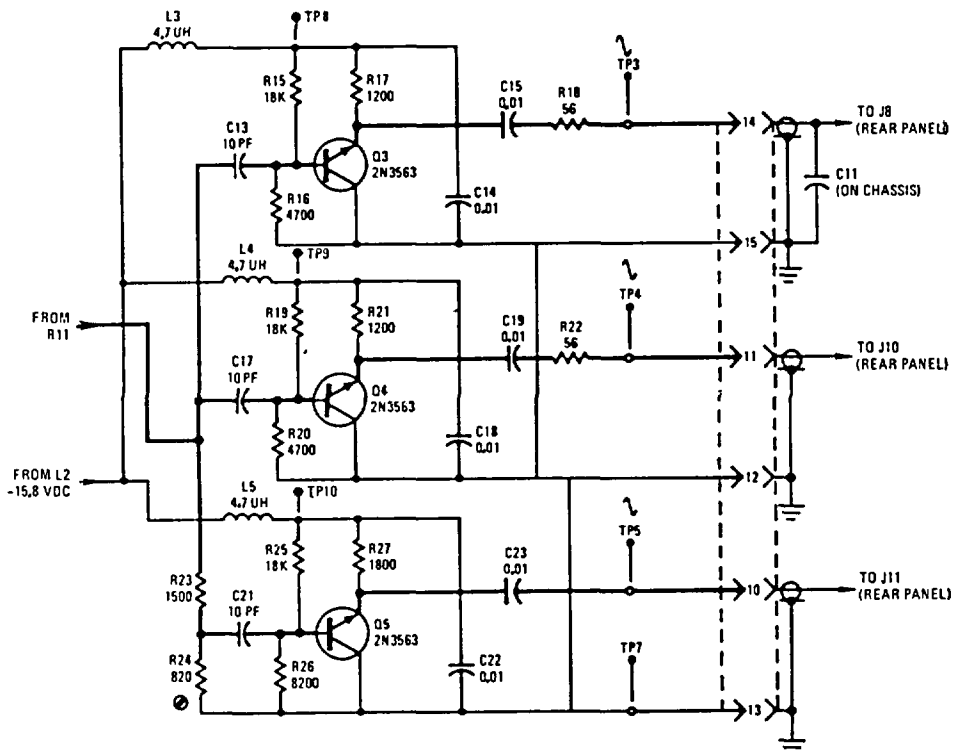


Figure 1-51. 18.785 to 18.885 MHz oscillator output buffers.

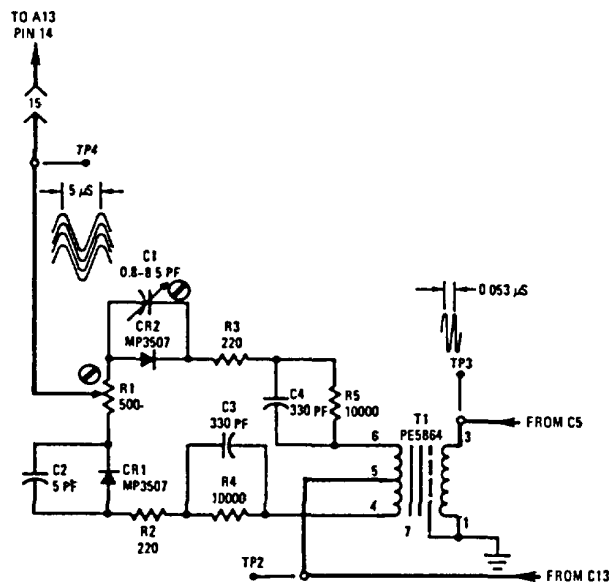
TM 6625-1748-45-197

1-46. Fine Tuning Reference Mixer

(fig. 1-52)

a. *General.* Two signals are applied to the mixer, the variable frequency output from the 18.785 to 18.885 MHz oscillator, and the fixed frequency input from the 19.1 MHz oscillator. The sum of the difference of the two signals is derived and applied to the fine lock sensor circuits.

b. *Detailed Operation.* The 19.1 MHz signal is applied to the input winding of pulse transformer T1. The 18.785 to 18.885 signal is applied to the center tap of the output winding. The output legs are balanced for resistance and capacity. Resistors R3 and R5, capacitors C1 and C4, and diode CR2 form one leg; resistors R2 and R4, capacitors C2 and C3, and diode CR1 form the other leg. The mixer output is from potentiometer R1. Test point TP4 monitors the 19.1 MHz input. Test point TP2 monitors the 18.785 to 18.885 MHz input. Test point TP3 monitors the output.



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Figure 1-52. Fine tuning reference mixer.

1-47. Fine Tuning Reference Mixer 19.1 MHz Input Amplifier
(fig. 1-53)

a. General. This stage provides amplification for the 19.1 MHz input to the fine tuning reference mixer. The stage consists of a tuned amplifier and an emitter-follower.

b. Detailed Operation. Capacitor C15 provides input coupling to the base of tuned amplifier Q2. Base bias is provided by resistors R11 and R12. Emitter bias

is provided by resistors R9 and R10. Capacitor C9 provides emitter bypass. Collector load is provided by resistor R19. The tank circuit consisting of capacitors C8 and C9, and inductor L1 provide very sharp 19.1 MHz tuning for the amplifier. Capacitor C6 provides coupling to the emitter-follower Q1. Resistors R7 and R8 provide base bias. Resistor R6 provides emitter load. Capacitor C5 couples the output to the transformer. Capacitors C7 and C16, resistor R13, and inductor L2 provide power supply decoupling. Test point TP6 monitors to power supply voltage.

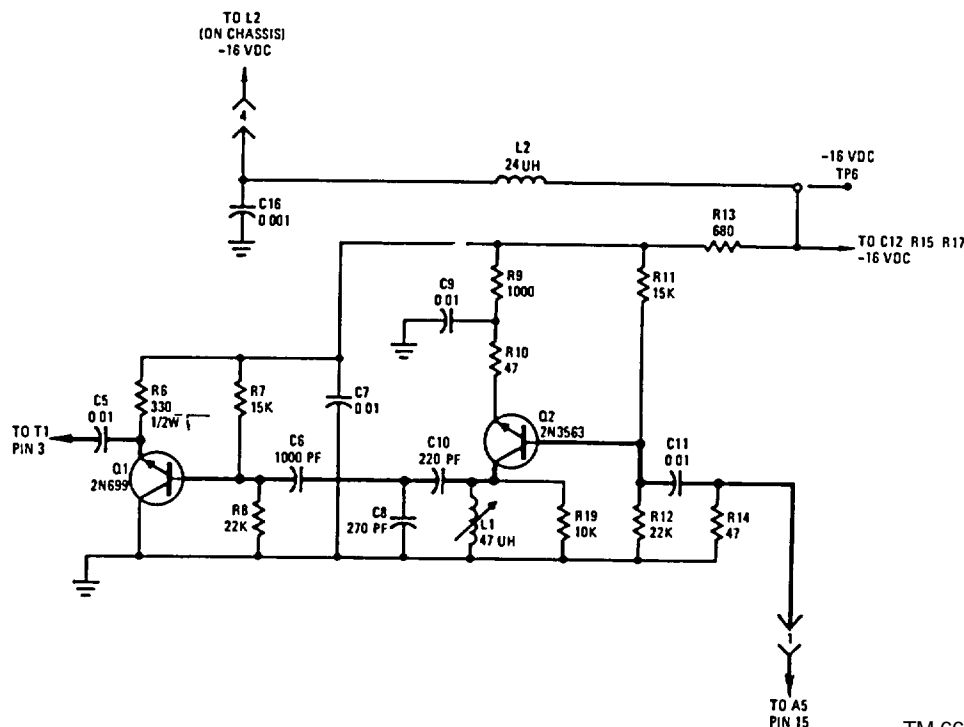


Figure 1-53. Fine tuning reference mixer 19.1 MHz input amplifier.

1-48. Fine Tuning Reference Mixer 18.785 to 18.885 MHz Input Amplifier
(fig. 1-54)

a. General. This stage provides amplification for the 18.785 to 18.885 MHz input to the fine tuning reference mixer.

b. Detailed Operation. Capacitor C15 provides input coupling to amplifier transistor Q3. Resistors R17

and R18 provide base bias. Resistor R16 provides emitter bias. Capacitor C14 provides emitter bypass. Resistor R15 provides collector load. Capacitor C13 provides output coupling to the mixer transformer. Capacitor C12 provides power supply isolation. Test point TP1 monitors the input signal. Test point TP5 is ground.

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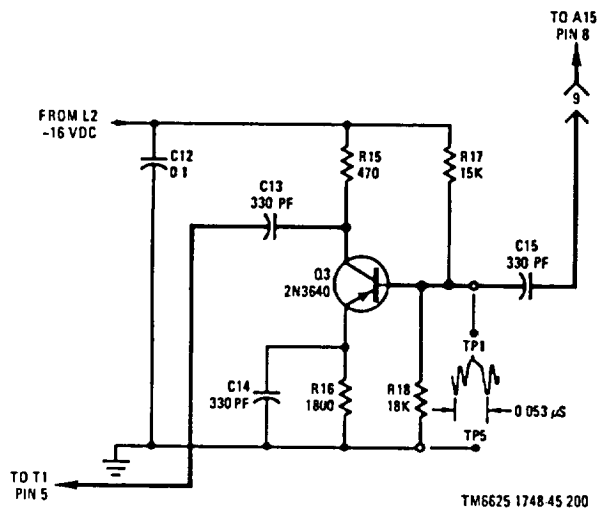


Figure 1-54. Fine tuning reference mixer 18.785 to 18.885 MHz input amplifier.

1-49. Centenary Divider A20 Input
(fig. 1-55)

a. *General.* This stage of the centenary divider board A20 divides the coarse tuning oscillator output frequency by ten to drive the counter logic.

b. *Detailed Operation.* The input frequency from the coarse tuning oscillator is applied to integrated circuit IC1 (not shown) of the centenary divider through capacitor C1. Resistor R3 isolates the divider circuits from the power supply. Resistors R1, connected to the +6 volt supply, and R2, connected to ground, set the logical 1 and 0 input levels to the dividers. Capacitors C2, C3, and C4 provide power supply filtering. Resistor R5 isolates the divider circuits from the power supply. Resistor R4 sets the logical 1 output level. Integrated circuit IC1 is a dual NOR gate. The centenary divider output is at pin 9.

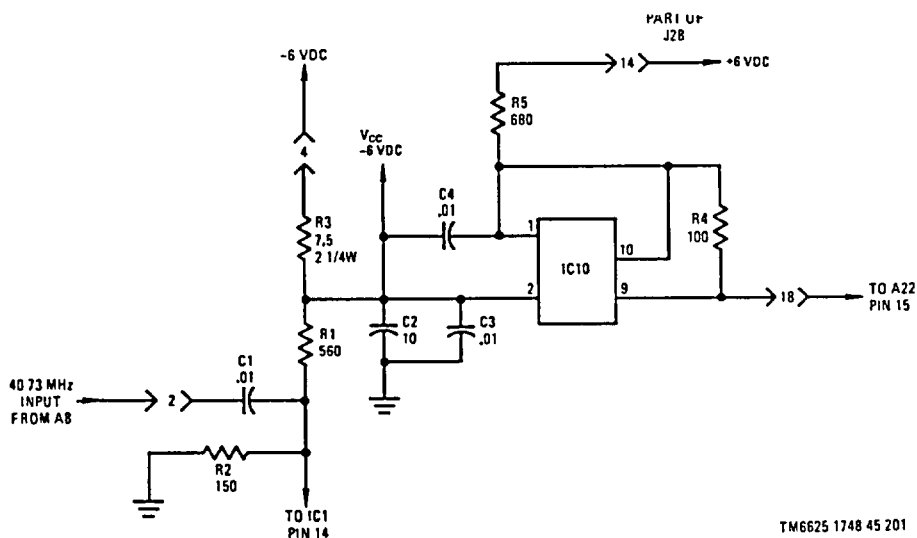


Figure 1-55. Centenary divider A20 input.

1-50. Control Logic dc Divider
(fig. 1-56)

a. *General.* This circuit sets the input logic levels for the low frequency input (derived from the fine tuning oscillator output) to board A22.

b. *Detailed Operation.* Capacitor C2 provides input coupling. Resistor R3, connected to the +35 volt supply, sets the logical 1 level. Resistor R4, connected to ground, sets the logical 0 input level.

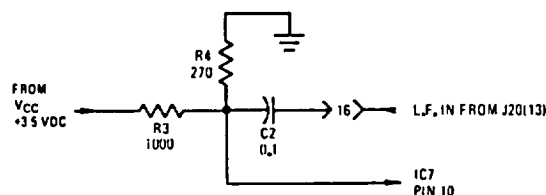


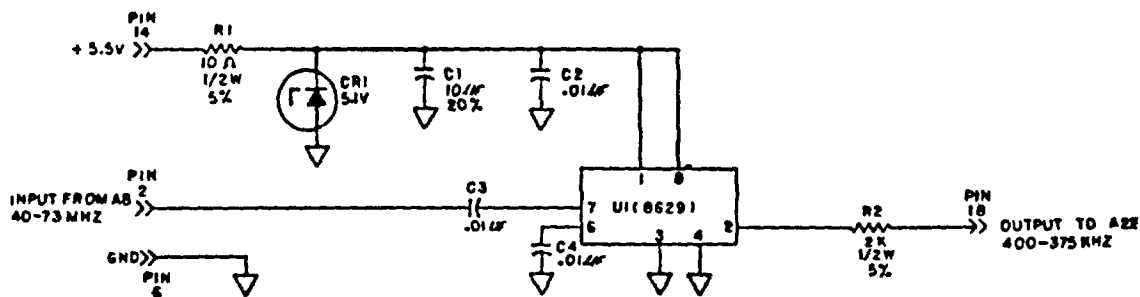
Figure 1-56. Control logic dc divider.

1-49.1. Divide By 100 Prescaler A20 Input
(fig. 1-55.1)

a. *General.* The prescaler inverts an input signal to digital and divides it by 100. The corresponding output is compatible with the resistor transistor logic (RTL) family.

b. *Detailed Operation.* The voltage of the +5.5V power supply is regulated by zener diode CR1 through dropping resistor R1 to +5.1 volts. (The -6V power

supply, connected to pin 4 on the previous version of the A20 board, is not used.) C1 and C2 are bypass capacitors, and capacitor C4 is biasing integrated circuit U1. When an input signal is received through capacitor C3, it is coupled to integrated circuit U1 where it is converted to digital form and subsequently divided by a factor of 100. The output is a transistor transistor (TL) signal which is fed into the R2 limiting resistor to ensure that the resistor transistor logic (RTL) is control logic # 2 on the A22 board is not overdriven.



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Figure 1-55.1. Divide by 100 prescaler A20 Input (Contract No. DAAB07-78-C-3013).

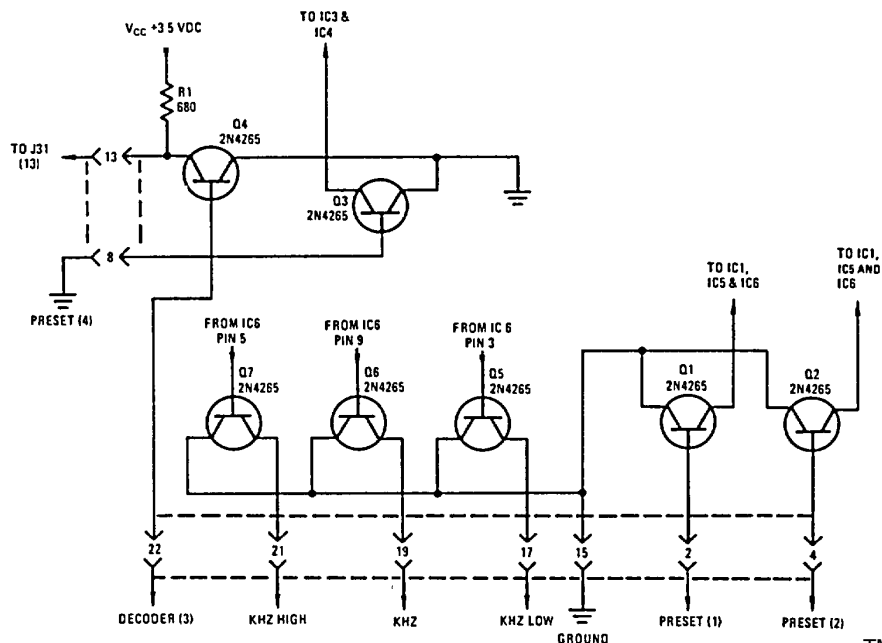
1-51. Mode Decade Amplifier

(fig. 1-57)

a. *General.* Transistor drivers in this stage provide various control functions in the control logic.

b. *Detailed Operation.* Transistors Q1, Q2, and Q3 drive the preset inputs of the indicated integrated

circuits. Transistor Q4 drives one input of a preset signal generating gate in integrated circuit IC9 on board A23. Transistors Q5, Q6, and Q7 drive the KHZ LOW, KHZ, and KHZ HIGH indicators on the front panel.



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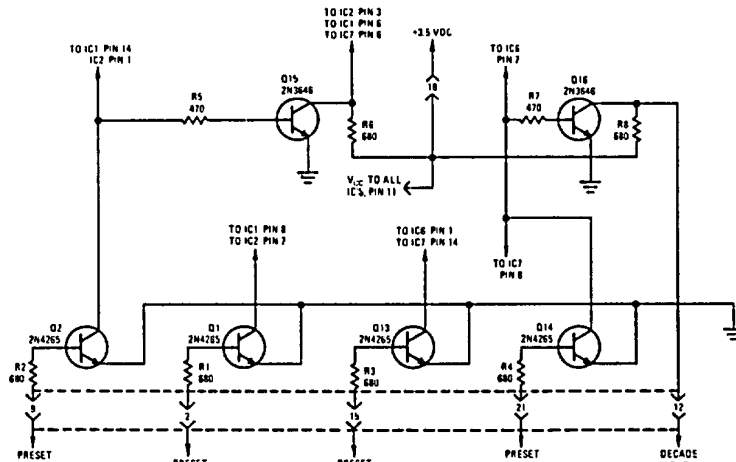
Figure 1-57. Mode decade amplifier.

1-52. Decade Divider Amplifiers

(fig. 1-58)

a. *General.* These transistors serve various control functions on decade divider board A25.

b. *Detailed Operation.* Transistors Q1, Q2, Q13, Q14, and Q15 provide preset inputs to the indicated integrated circuits. Transistor Q16 provides the decade out signal which is a shift up signal to the decade counters.



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Figure 1-58. Decade divider amplifiers.

1-53. Decade Divider Display Lamp Drivers
(fig. 1-59)

These transistors are located on board A25. They drive the incandescent bulbs in the display.

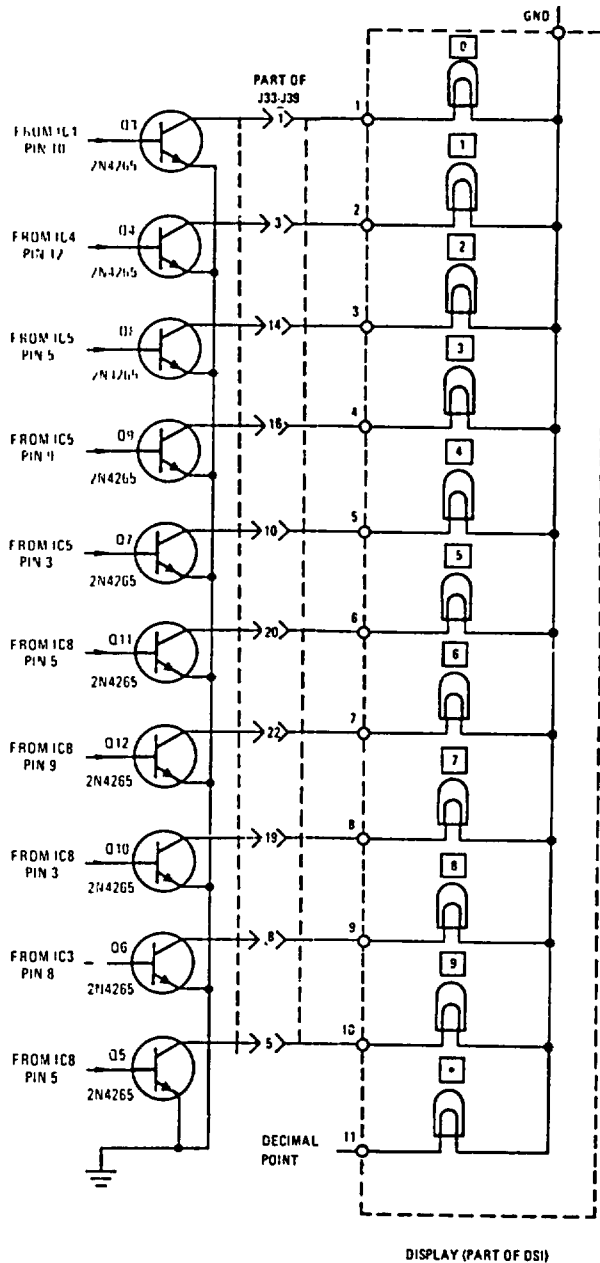


Figure 1-59. Decade divider display lamp drivers.

Section III. FUNCTIONING OF MONITOR

1-54. General

The monitor unit, together with the tuning unit, comprise a frequency-selective audio-radio frequency level meter. The monitor unit measures the level of signals in the range of 1 kHz through 33.5 MHz, at levels between -109 dBm and +22 dBm at an input impedance of 75 ohms. The monitor unit is composed of seven sections, as listed below (fig. 1-60 and 1-61).

a. The input section, to which Probe Subassembly MX-8642/ U connects, includes the input level display section, the input attenuators and the 1 MHz reference (calibrating) oscillator (fig. 1-60).

- b. 1st modulator and IF (fig. 1-60).
- c. 2nd modulator and IF (fig. 1-60).
- d. 3rd modulator and IF (fig. 1-60).
- e. Bandpass filters (fig. 1-61).
- f. Metering section (fig. 1-61).
- g. Audio detection and output (fig. 1-61).

1-55. DC Power Supply.

(fig. 1-62).

A single -16.0 volt dc power supply system provides all operating voltages for the monitor unit. It consists of a power transformer, located on the chassis, and rectifier, filter and regulator board A12.

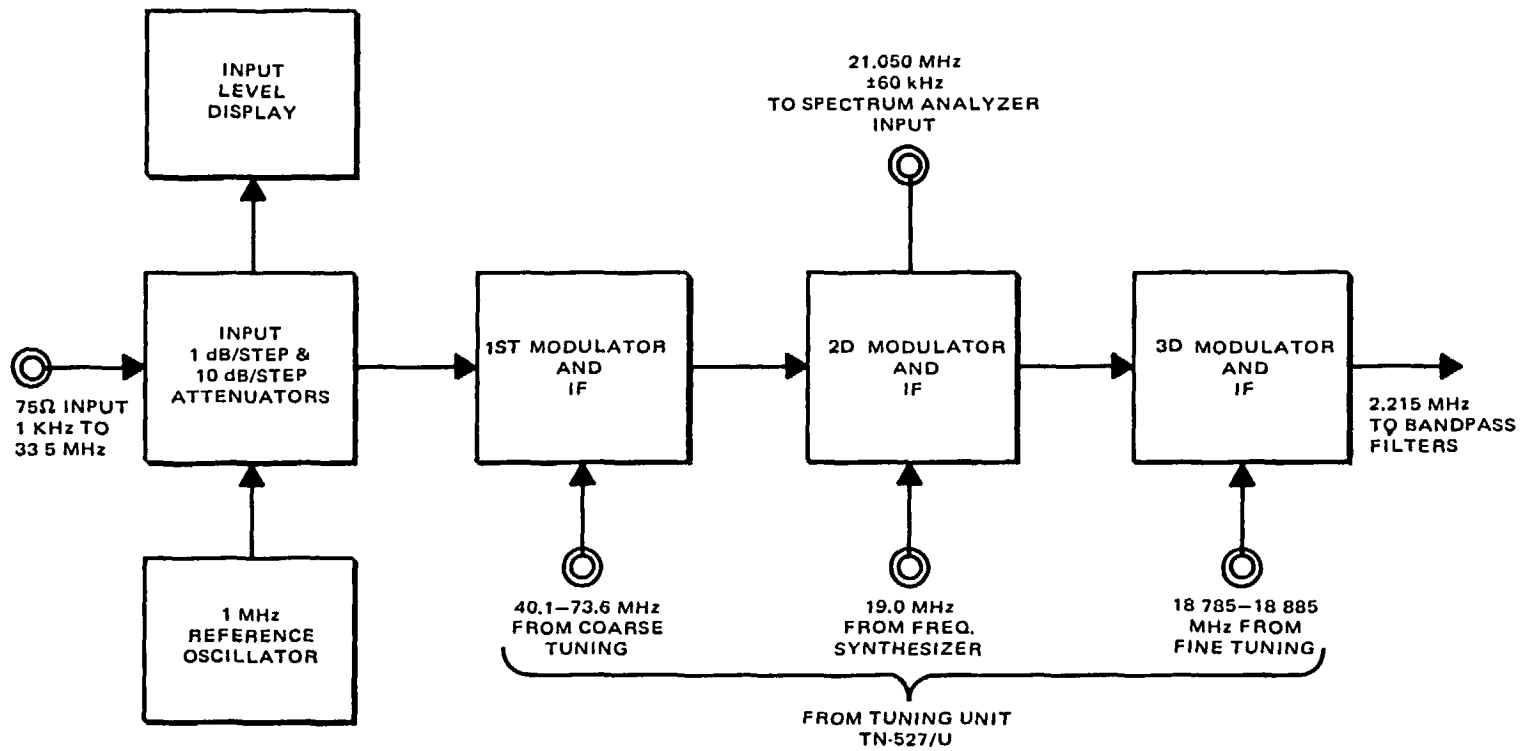
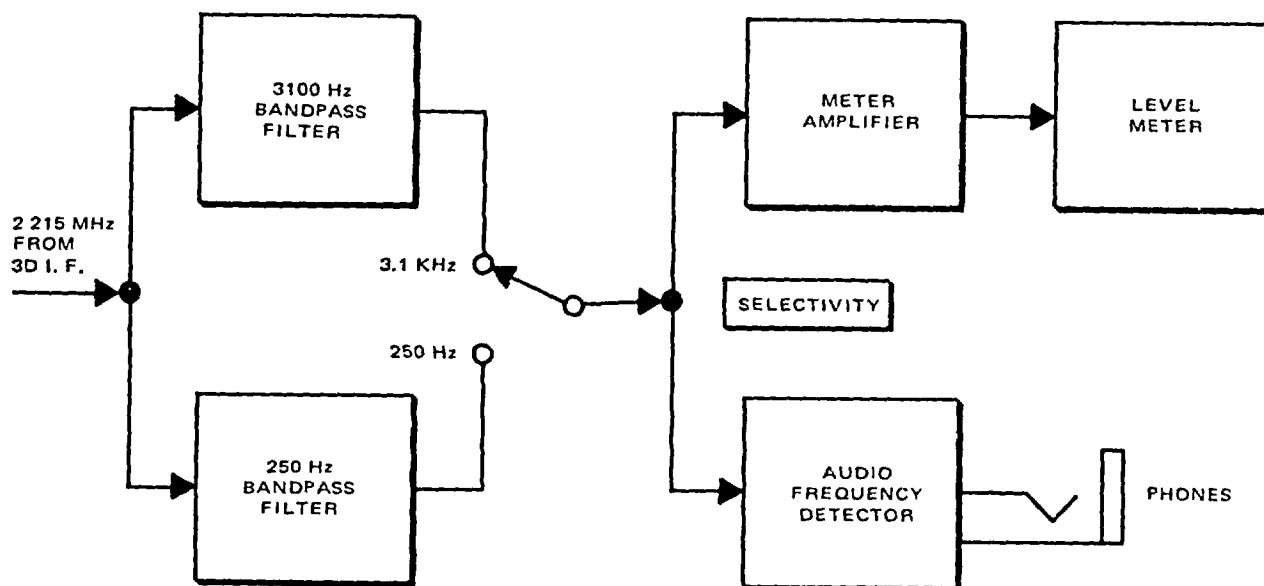
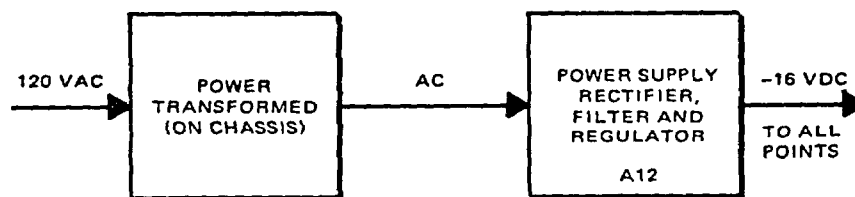


Figure 1-60. Block diagram, power supply.



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Figure 1-61. Block diagram. attenuators, modulators and IF stages, Monitor Unit TS-2968/U.



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Figure 1-62. Block diagram. bandpass filters, metering and audio stages, Monitor Unit TS-2968/U.

1-56. Input Section

(fig. 1-63)

The input section of the monitor unit consists of the 10 dB and 1 dB per step attenuators, the input level display, an impedance-matching pad, a low-pass filter and the 1 MHz gain reference oscillator.

a. *Attenuators.* The 10 dB and 11 dB per step attenuators are used to set the sensitivity of the monitor unit for the approximate level of the signal or signals to be measured.

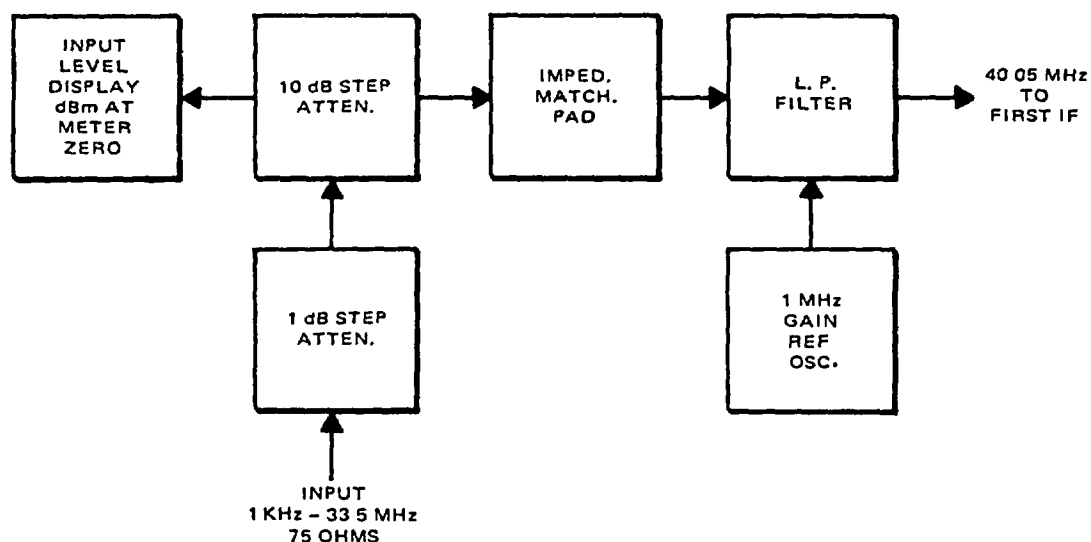
b. *Input Level Display.* The input level display, on the front panel of the monitor unit, is operated by switches directly coupled to the 10 dB and 1 dB per step attenuators. The numerical reading on the display indicates the actual level of an input signal that would give a zero reading on the front-panel DECIBELS meter. When measuring the level of a signal, the reading on the DECIBELS meter is

added to the reading on the display. when the meter reading is greater than zero. When the meter reading is less than zero. this value is subtracted from the display reading to obtain the absolute level of the signal being measured.

c. *Impedance Matching Pad.* The impedance matching pad matches the output impedance of the attenuators to the input impedance of the low-pass filter.

d. *Low-Pass Filter.* The low-pass filter prevents signals higher than 33.5 MHz from entering the monitor unit circuits.

e. *1 MHz Gain Reference Oscillator.* The 1 MHz oscillator is used to calibrate the monitor unit for level measurements.



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Figure 1-63. Block diagram, input section.

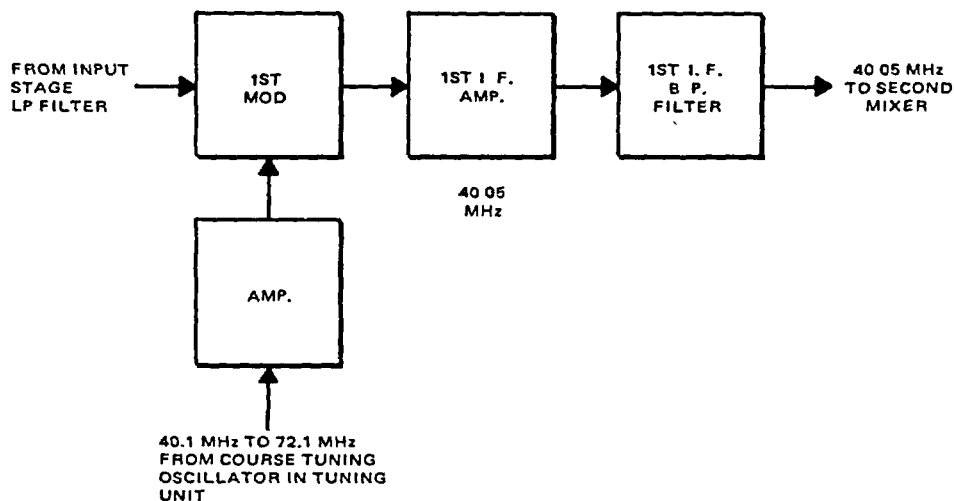
1-57. 1st Modulator and IF
(fig. 1-64)

The 1st modulator and IF section consists of an rf amplifier, the first modulator, 40.05 MHz IF amplifier and a bandpass filter.

a. *RF Amplifier.* The rf amplifier accepts and amplifies the signal from the coarse tuning oscillator in the tuning unit and feeds the amplified signal to the 1st modulator.

b. *1st Modulator.* The 1st modulator combines the input signals with the mixing signal from the coarse tuning oscillator. The resultant heterodyne frequencies that fall within a 120 kHz band centered at 40.05 MHz are amplified by the 1st IF amplifier.

c. *Band-Pass Filter.* The band-pass filter passes only those frequencies that fall in the range of 40.05 ± 60 kHz. This band of frequencies is then fed to the 2nd mixer.



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Figure 1-64. Block diagram, 1st modulator and 40.05 MHz IF.

1-58. 2nd Modulator, Mixer and IF (fig. 1-65)

This section consists of a 19.0 MHz amplifier, 2nd modulator, 2nd mixer, 2nd IF band-pass filter, an output follower stage and a 21.05 MHz amplifier.

a. 19.0 MHz Amplifier. The fixed-frequency 19.0 MHz injection signal from the tuning unit is amplified by this stage and delivered to the second modulator.

b. 2nd Modulator. The 2nd modulator further amplifies the 19.0 MHz injection signal and couples it into the 2nd mixer stage.

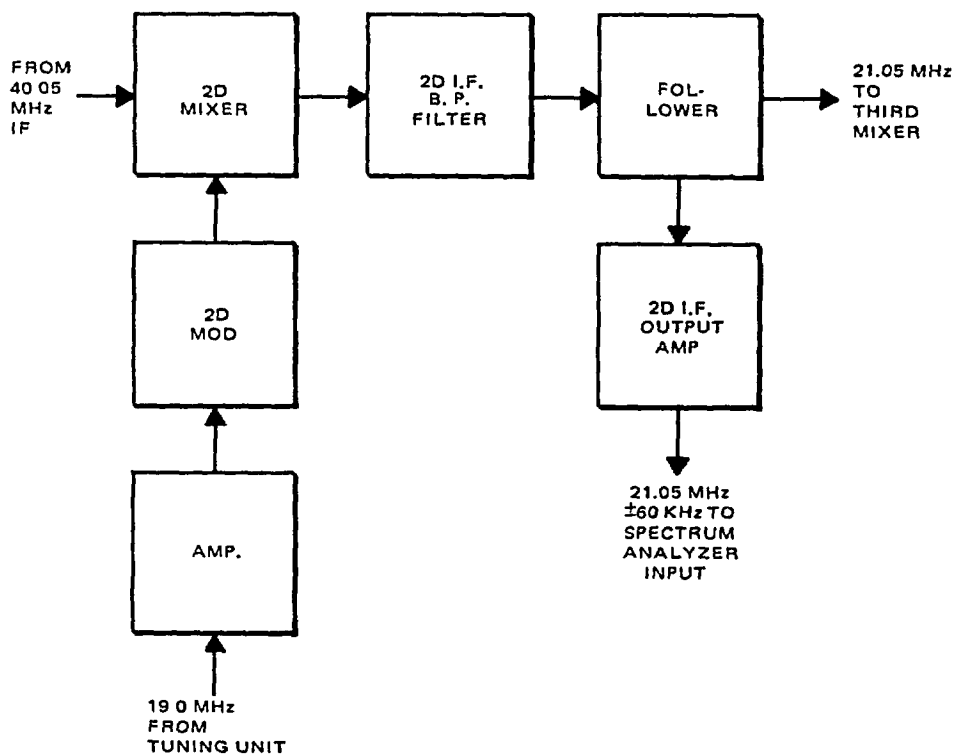
c. 2nd Mixer. The 40.05 ± 120 kHz band of frequencies from the first IF stage are mixed with the 19.0 MHz signal in this stage to produce a 12 kHz

band of frequencies centered about the 2nd IF frequency of 21.05 MHz.

d. 2nd IF Band-Pass Filter. This filter rejects all frequencies except the 120 kHz band of frequencies centered about 21.05 MHz.

e. Follower Stage. This stage provides power gain to the 21.05 MHz IF band, and provides impedance matching to the input of the 3rd mixer.

f. 2nd IF Output Amplifier. This amplifier amplifies the 21.05 ± 60 kHz band of frequencies and delivers them to a jack on the rear panel of the monitor unit. From there, these signals are coupled via a coaxial cable to the input of the spectrum analyzer.



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Figure 1-65. Block diagram, 2nd modulator, mixer and 21.05 MHz IF.

1-59. 3rd Modulator, Mixer and IF
(fig. 1-66)

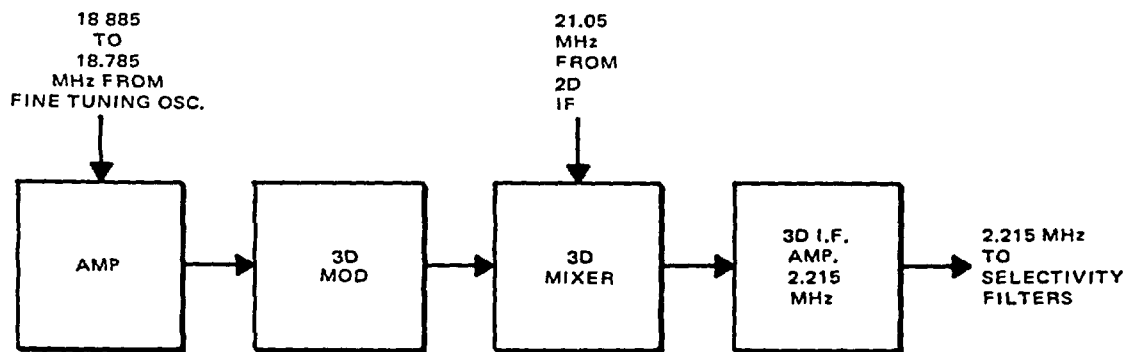
This section consists of an 18.785 to 18.885 MHz amplifier, 3rd modulator, 3rd mixer and 3rd IF amplifier.

a. 18.785-18.885 MHz Amplifier. This stage amplifies the 18.785 to 18.885 MHz injection signal from the fine tuning oscillator in the tuning unit, and delivers the amplified signal to the 3rd modulator.

b. 3rd Modulator. The 3rd modulator further amplifies the signal from the fine tuning oscillator and couples it into the 3rd mixer.

c. 3rd Mixer. The injection signal from the fine tuning oscillator in the tuning unit is combined in this stage with the 21.05 ± 60 kHz band of frequencies from the second modulator to produce an intermediate-frequency signal of 2.215 MHz.

d. 3rd IF Amplifier. This stage amplifies the 2.215 MHz output from the 3rd mixer and couples the signal to the selectivity filters.



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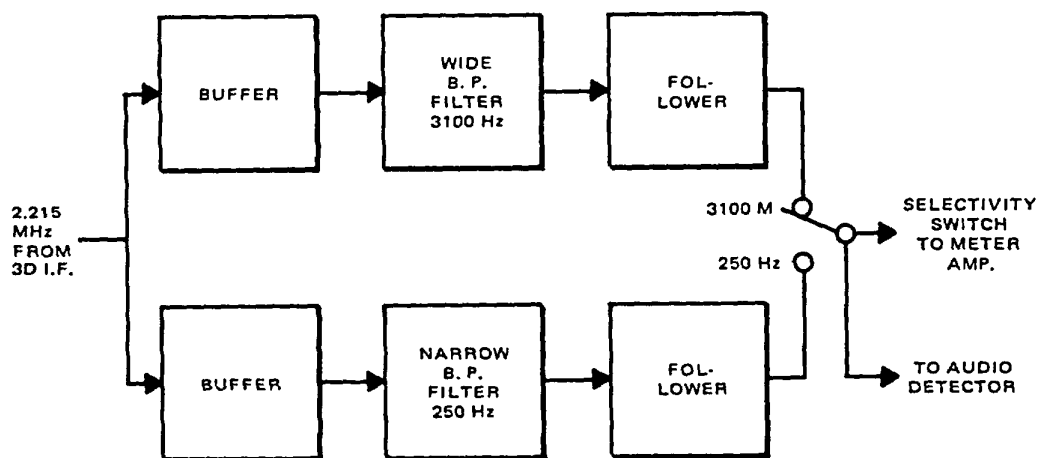
Figure 1-66. Block diagram, 3rd modulator, mixer and 2.215 MHz IF.

1-60. Selectivity Filters

(fig. 1-67)

The selectivity filter sections are identical except for their bandwidth characteristics. Each operates at a center frequency of 2.215 MHz. Each filter is driven by a 2.215 MHz buffer amplifier. The 2.215 MHz output of the 3rd IF stage is coupled to the input of both buffer amplifiers. The outputs of both filters drive output follower power amplifiers.

Either the side (3.1 kHz) or narrow (250 Hz) filter is selected by means of a front panel pushbutton switch. The wide filter is normally used when no other signals are very close to the signal to be measured. When one or more adjacent signal frequencies are very close to the frequency of the signal to be measured, the 250 Hz filter is used.



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Figure 1-67. Block Diagram, selectivity filters.

1-61. Metering and Audio Stages

(fig. 1-68)

a. *Metering Stages.* The metering section consists of a signal amplifier (meter amplifier), a metering circuit and the meter itself.

(1) *Meter Amplifier.* This stage receives the

2.215 MHz output of either of the switch-selected filters and amplifies this signal.

(2) *Meter Circuit.* This circuit further amplifies the 2.215 MHz signal, which is then detected (rectified) to provide a dc output to drive the meter.

(3) *Meter.* The meter is driven by the output of the meter circuit. This output is directly proportional to the strength amplitude) of the rf signal being measured.

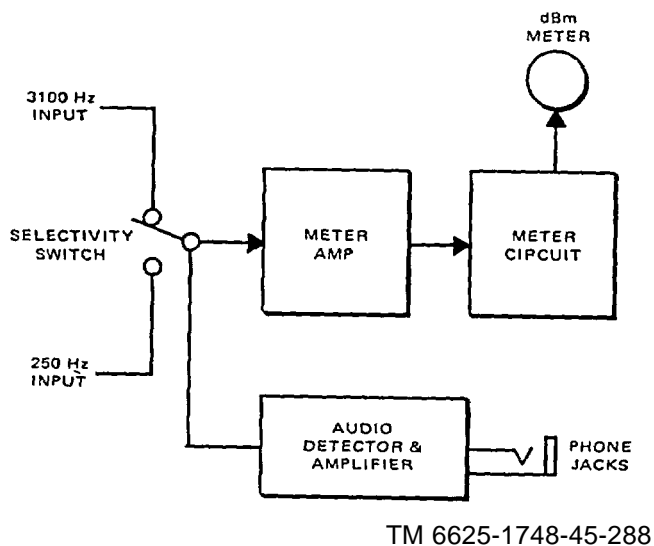


Figure 1-68. Block diagram, metering and audio detector.

b. Audio Detector and Amplifier. The input to this circuit is in parallel with the input to the meter amplifier. The signal being measured is detected in the audio detector and amplified to provide a suitable level for the operation of a headset. This permits further identification of the signal being measured. Either conventional am. or upper or lower single sideband signals may be detected. The detection mode is switch-selected from the front panel of the monitor unit.

1-62. Ac Power Supply Input Stage
(fig. 1-69)

a. General. The input stage contains the power input plug, the LINE VOLTAGE selector switch, and transformer T1.

b. Detailed Operation. Line power of 115 or 230 volts ac is applied to the primary winding of power transformer T1 through plug P1, fuse F1, and LINE SELECTOR switch S7. Switch S7 is set to 115 VAC or 230 VAC connects the primary windings of T1 in parallel or series, respectively, depending upon the line power input. The power transformer provides outputs of 5 volts ac and 32 volts ac. Fuse F2 protects the output circuit.

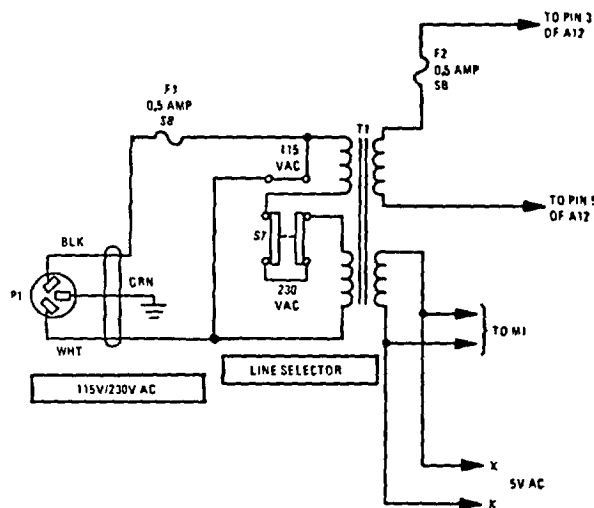
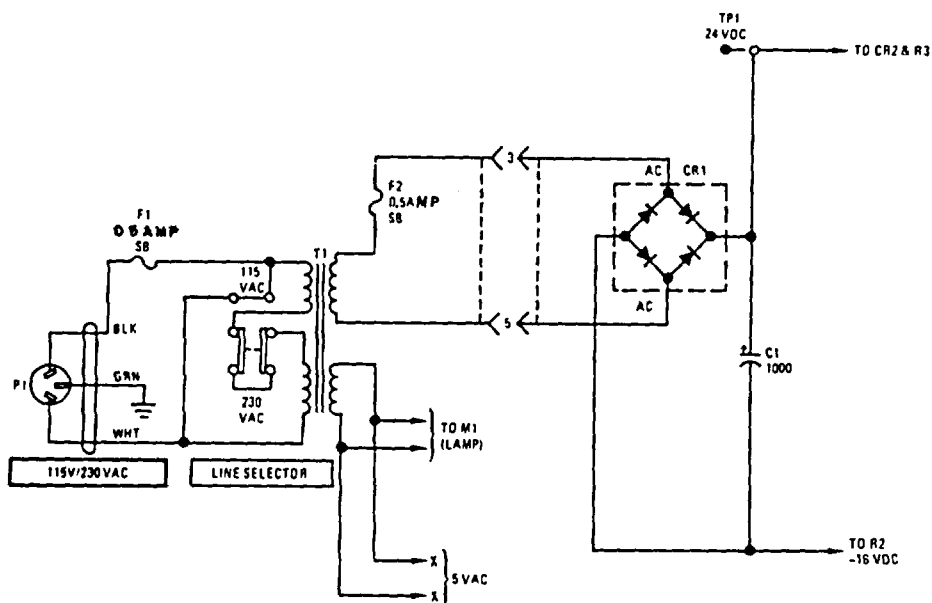


Figure 1-69. Ac power supply input stage.

1-63. Ac Power Supply Rectifier Stage
(fig. 1-70)

a. General. This stage provides full wave rectification of the 32 volts ac output of the power transformer.

b. Detailed Operation. The 32 volts ac is applied to the full wave rectifier CR1. The output legs are connected to the power supply regulator. Capacitor C1 provides output filtering. Test point TP1 monitors the positive output.



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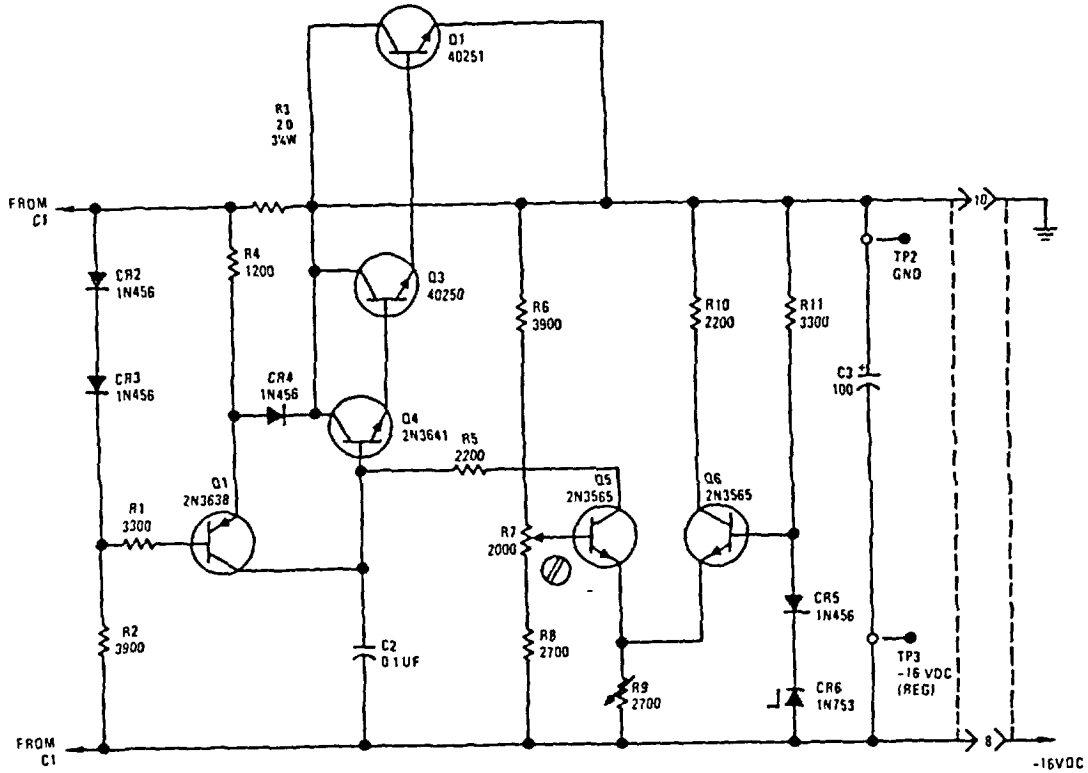
Figure 1-70. Ac power supply rectifier stage.

1-64. Power Supply Regulator
(fig. 1-71)

a. *General.* The power supply regulator provides regulated -16 volts dc output for the monitor unit.

b. *Detailed Operation.* Diodes CR2 and CR3 and resistor R2 set the base bias for transistor Q1. Resistor R1 provides base current limiting for transistor Q1. The combination of resistors R3 and R4, and diode CR4 set the emitter voltage of transistor Q1 and the collector voltages of transistors Q3 and Q4. Capacitor C2 filters the output control voltage of transistors Q1 and Q5. Transistors Q4 and Q3 form a Darlington-amplifier which

controls the series current regulating transistor Q1 on the chassis. Transistors Q5 and Q6 form the shunt voltage regulator, with resistors R6 and R8 and potentiometer R7 controlling the base bias of transistor Q5, and diode CR5, zener diode CR6, and resistor R11 controlling the base bias for transistor Q6. Resistor R9 is the emitter resistor for transistors Q5 and Q6. The control voltage from transistor Q5 is applied to the base of transistor Q4 through resistor R5. Resistor R10 provides collector voltage for transistor Q6. Capacitor C3 provides output filtering. For a description of regulator operation, see paragraph 1-14b.



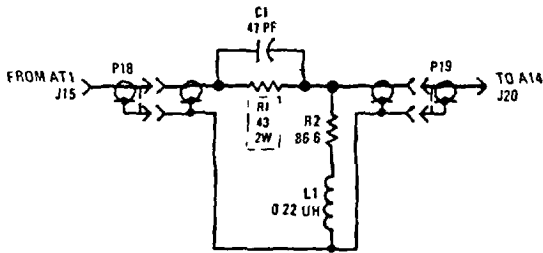
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Figure 1-71. Power supply regulator.

1-65. Impedance Matching Pad

(fig. 1-72)

The impedance matching pad matches the 75 ohms output impedance of the input attenuators to the 50 ohm input impedance of the low mass filter.



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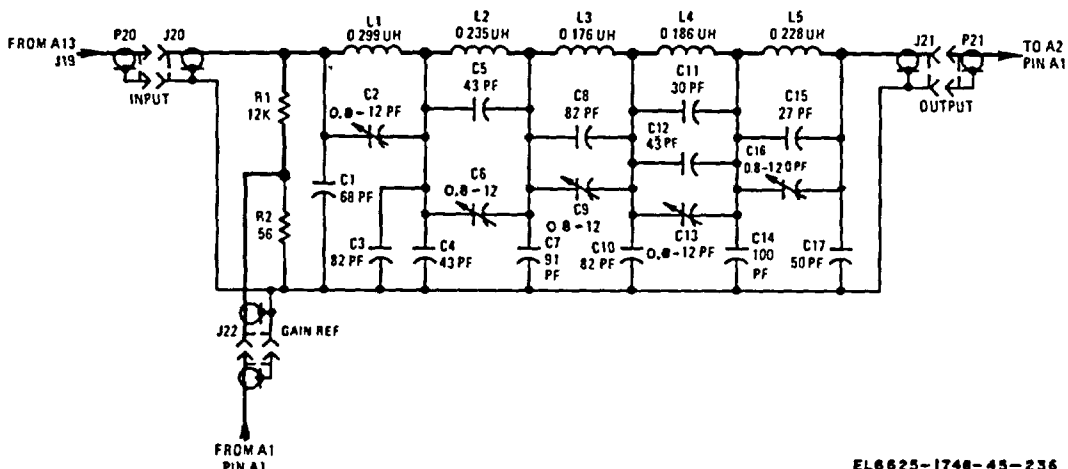
Figure 1-72. Impedance matching pad.

1-66. Low Pass Filter

(fig. 1-73)

a. General. The low pass filter provides attenuation for all frequencies above 34 MHz, and provides an injection point for the gain reference oscillator input.

b. Detailed Operation. This stage consists of a succession of low pass filters having twelve poles from 40.5 MHz to 105 MHz. The junction of resistors R1 and R2 provide an injection point for the 1 MHz gain reference oscillator. A typical filter element consists of inductor L1 and capacitors C1, C2, and C3.



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Figure 1-73. Low pass filter.

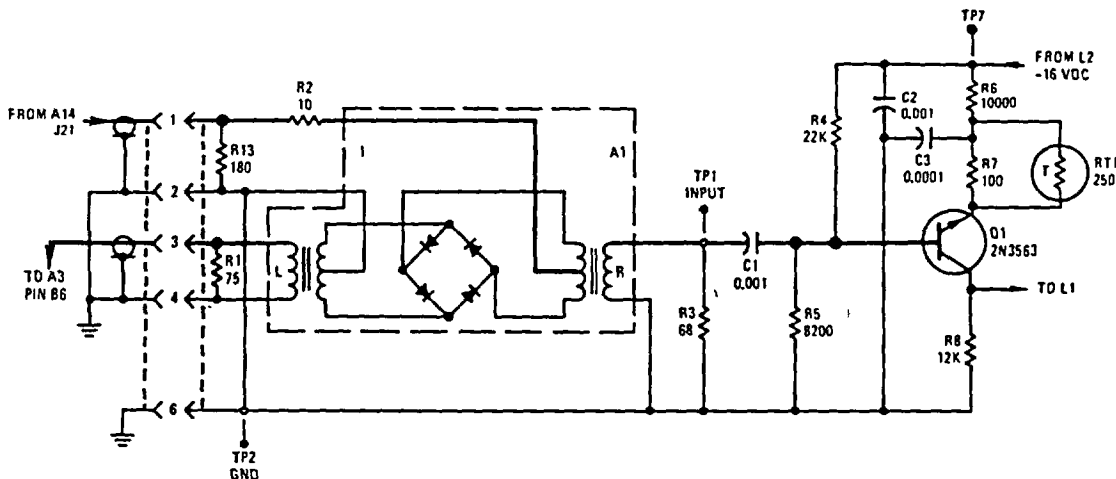
1-67. First Modulator

(fig. 1-74)

a. *General.* The first modulator modulates the input signal with the 40.1 to 73.6 MHz frequency from the coarse tuning section of the tuning unit. The resultant signal is the sum of the difference between the two frequencies. The first modulator consists of a double balanced modulator, a temperature-compensated amplifier, IF strip (fig. 1-74), and an output amplifier (fig. 1-75).

b. *Detailed Operation.* A1 is the double-balanced mixer. The input frequency is applied across resistor R13 and through resistor R2 to the I port. The 40.1 to

73.6 MHz modulating frequency is applied across resistor R1 to the L port. The output signal, which is the sum of the difference of the two frequencies, is taken across resistor R3 from the R port, this signal is applied through coupling capacitor C2 to the amplifier Q1. Base bias for transistor Q1 is provided by resistors R4 and R5; capacitor C3 provides emitter bypass; resistors R7 and temperature compensation resistor RT1 provide emitter bias; and resistor R8 provides collector load and impedance matching for the following IF strip. Capacitor C2 and resistor R6 provide power supply decoupling.



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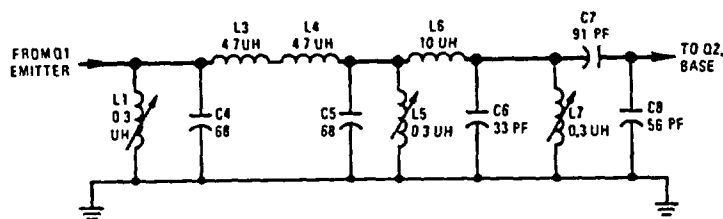
Figure 1-74. First modulator.

1-68. First Modulator IF Strip

(fig. 1-75)

The IF strip serves as a 40.0 to 40.1 MHz bandpass filter for the first modulator output frequency.

This stage produces the 110 kHz flat frequency response band. Variable inductors L1, L5, and L7 provide frequency response adjustments.



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Figure 1-75. First modulator IF strip.

1-69. First Modulator Output Amplifier

(fig. 1-76)

a. *General.* This stage amplifies the bandpassed portion of the first modulator output frequency.

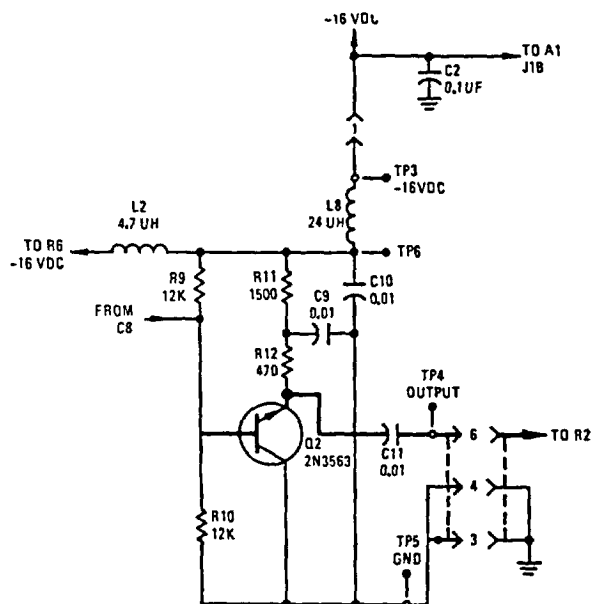
b. *Detailed Operation.* Transistor Q2 is an amplifier with base bias provided by resistors R9 and R10. emitter bias provided by resistors R11 and R12, emitter bypass provided by capacitor C9, and output coupling provided by capacitor C11. Inductors L2 and L8, and capacitors C2 and C10 decouple the power supply from the amplifier.

1-70. 40.1 to 73.6 MHz Amplifier Output Stage

(fig. 1-77)

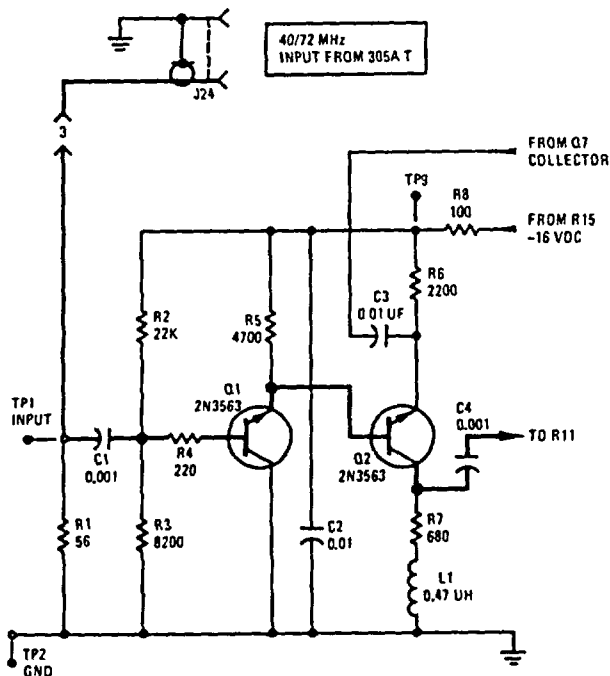
a. *General.* This amplifier provides amplification for the 40.1 to 73.6 MHz frequency from the coarse tuning section of the tuning unit. It consists of three stages, the input amplifier, the output amplifier (fig. 1-77), and the feedback amplifier (fig. 1-79). The output of this amplifier is applied to the first modulator stage.

b. *Detailed Operation.* Resistor R1 sets the input impedance of the stage. Transistor Q1 is an emitter-follower with input coupling provided by capacitor C1, base bias provided by resistors R2 and R3, degeneration provided by resistor R4, and emitter load provided by resistor R5. The output is applied directly to transistor Q2. Transistor Q2 is a gain-controlled amplifier with emitter bias provided by resistor R6, collector load provided by resistor R7, and ground decoupling provided by inductor L1. The gain control signal from the feedback amplifier is applied to the emitter circuit through capacitor C3. Capacitor C2 and resistor R8 decouple the power supply from the amplifier.



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Figure 1-76. First modulator output amplifier.



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Figure 1-77. 40.1 to 73.6 amplifier input stage.

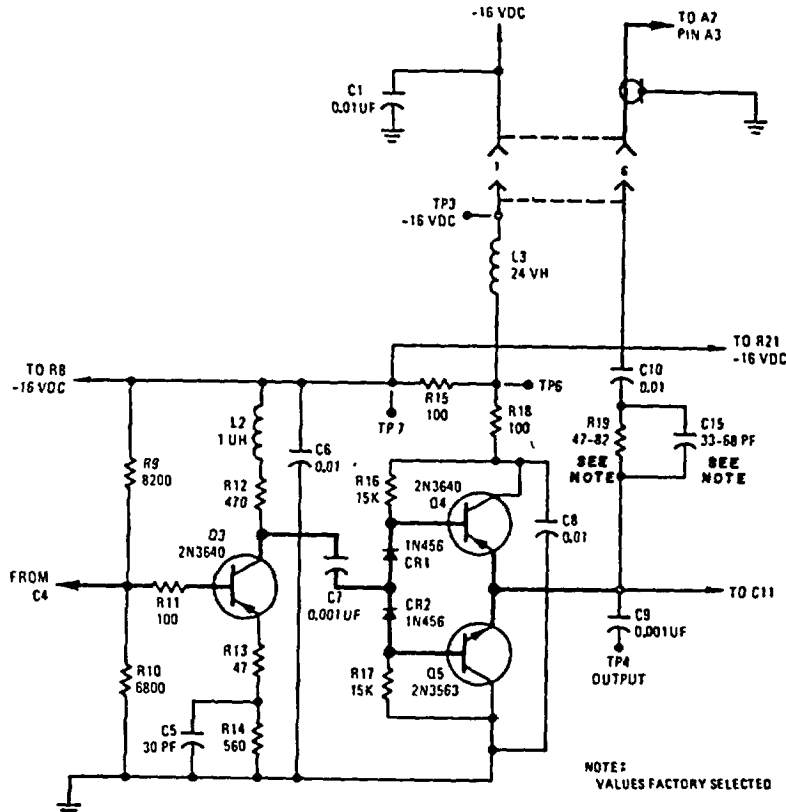
1-71. 40.1 to 73.6 MHz Amplifier Output Stage

(fig. 1-78)

a. *General.* This stage drives the first modulator and the following feedback amplifier.

b. *Detailed Operation.* Transistor Q3 is an amplifier with base bias provided by resistors R5 and R10, degeneration provided by resistor R11, emitter bias provided by resistors R13 and R14, emitter bypass provided by capacitor C5, collector load provided by resistor R12, and harmonic suppression provided by inductor L2, and output coupling provided by capacitor C7.

Transistors Q4 and Q5 form a push-pull amplifier with input signal clipping provided by diodes CR1 and CR2, base bias provided by resistors R16 and R17, and collector decoupling is provided by capacitor C8. At this point the output is split to drive the first modulator, the test point TP4, and the feedback amplifier. Capacitor C9 isolates the test point TP4 from the circuit. Resistor R19 and capacitor C15 provide frequency compensation. Capacitor C10 provides output coupling to the first modulator. Capacitor C6, resistors R15 and R18, inductor L3, and capacitor C1 (off the board) isolate the power supply from the amplifier.



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Figure 1-78. 40.1 to 73.6 MHz amplifier output stage.

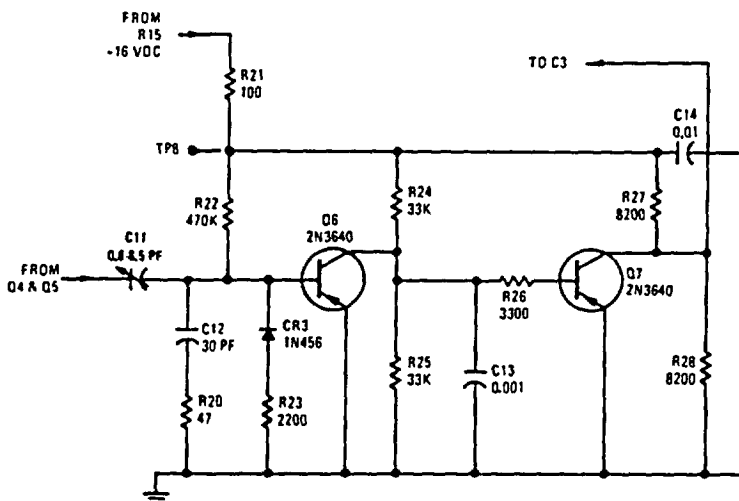
1-72. 40.1 to 73.6 MHz Amplifier Feedback Stage

(fig. 1-79)

a. *General.* This stage provides gain control feedback to the 40.1 to 73.6 MHz amplifier input stage. It consists of two amplifier sections.

b. *Detailed Operation.* Variable capacitor C11 provides adjustable input coupling to the amplifier, thus determining the amplifier output level. Transistor Q6 is an amplifier with base bias provided by resistors R22

and R23, and collector lead provided by resistor R24. Diode CR3 clips the negative going portion of the input signal. Capacitor C12 and resistor R20 provide high frequency bypass. Transistor Q7 is an amplifier with base bias provided by resistors R24 and R25, degeneration provided by resistor R26, input signal filtering provided by resistor R27, and collector load provided by resistors R27 and R28. The output signal coupled to the input stage for use as a gain control. Capacitor C14 and resistor R21 isolate the power supply from the amplifier.



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Figure 1-79. 40.1 to 73.6 MHz amplifier feedback stage.

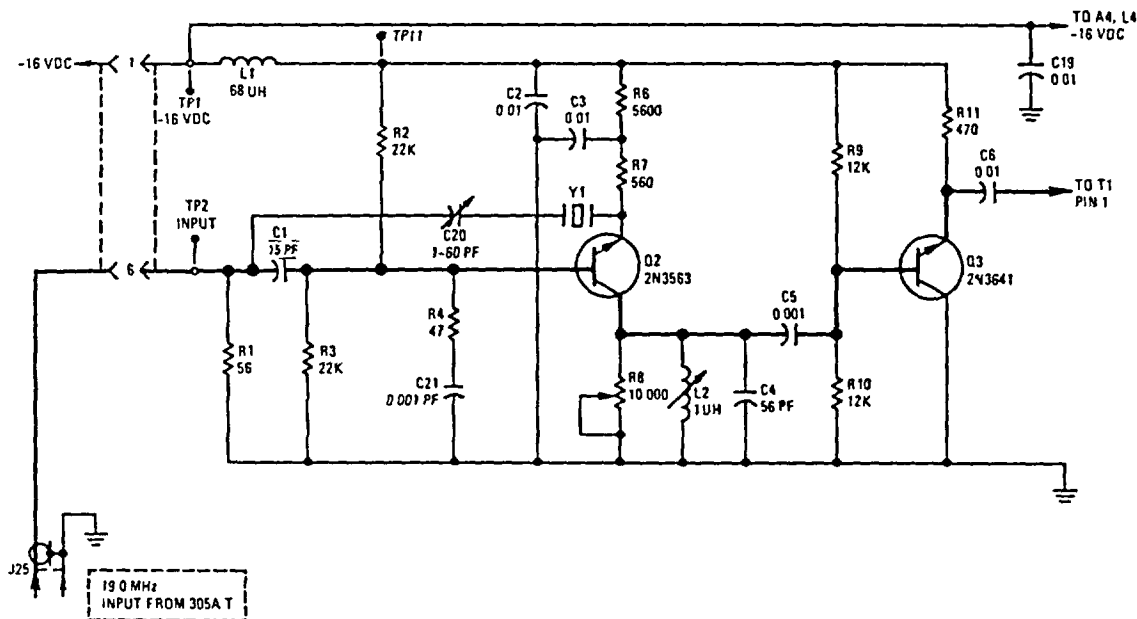
1-73. 19.0 MHz Amplifier Input Stage

(fig. 1-80)

a. General. The 19.0 MHz amplifier provides a modulating signal to the second modulator. The amplifier consists of a crystal tuned input amplifier and a mixer stage.

b. Detailed Operation. Resistor R1 sets the input impedance to the amplifier. Transistor Q2 is a crystal-tuned amplifier with input coupling provided by capacitor C1, base bias provided by resistors R2 and R3, frequency compensation provided by capacitor C21 and

resistor R4, emitter bias provided by resistors R6 and R7. emitter bypass provided by capacitor C3, collector load and output level adjustment provided by variable resistor R8, and 19.0 MHz feedback provided by crystal Y1 and variable capacitor C20. Inductor L2 and capacitor C4 provide a 19.0 MHz tuned trap. Capacitor C5 provides coupling to transistor Q3. Transistor Q3 is an emitter-follower with base bias provided by resistors R9 and R10, emitter load provided by resistor 11, and output coupling to the transformer provided by capacitor C6. Capacitors C2 and C19, and inductor L1 decouple the power supply from the amplifier.



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Figure 1-80. 19.0 MHz amplifier input stage.

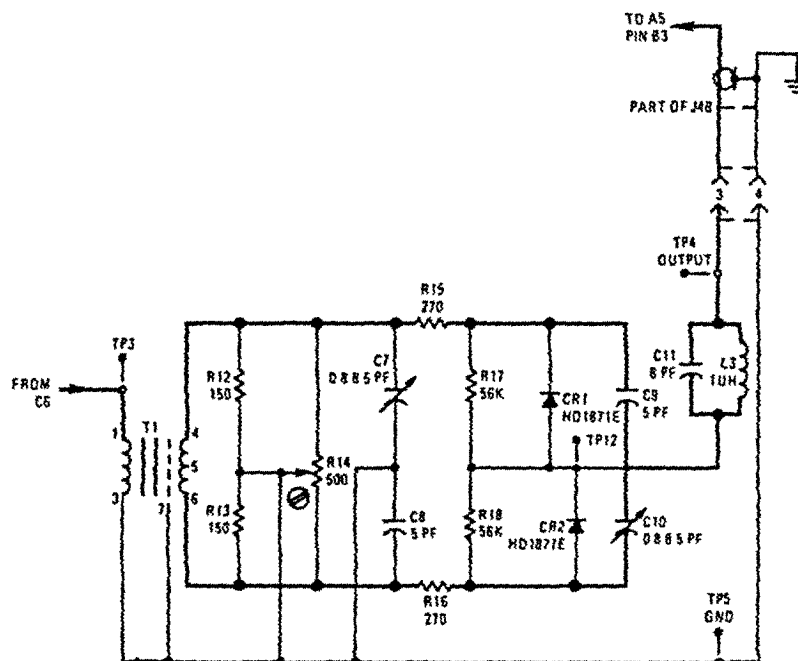
1-74. 19.0 MHz Amplifier Mixer Stage

(fig. 1-81)

a. *General.* The 19.0 MHz mixer provides a modulating output used in the second modulator.

b. *Detailed Operation.* The output signal from the amplifier is applied to the primary winding of transformer T1. The output of the transformer is applied to the mixer circuit which consists of resistors R12 and R13, potentiometer R14, capacitors C1 (variable) and C8, resistors R15 and R16, resistors R17 and R18,

capacitors C9 and C10 (variable), and diodes CR1 and CR2. The resistance and capacitance in both legs of the mixer are balanced. Thus the signal at the junction of CR1 and CR2 has equal positive and negative values, and varies at a 19.0 MHz rate. The network consisting of capacitors C11 and inductor L3 provide compensation for the capacity of the connecting cable between the mixer and the second modulator. Test point TP1 is used to monitor the input signal to the transformer. Test point TP5 is at ground.



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Figure 1-81. 19.0 MHz amplifier mixer stage.

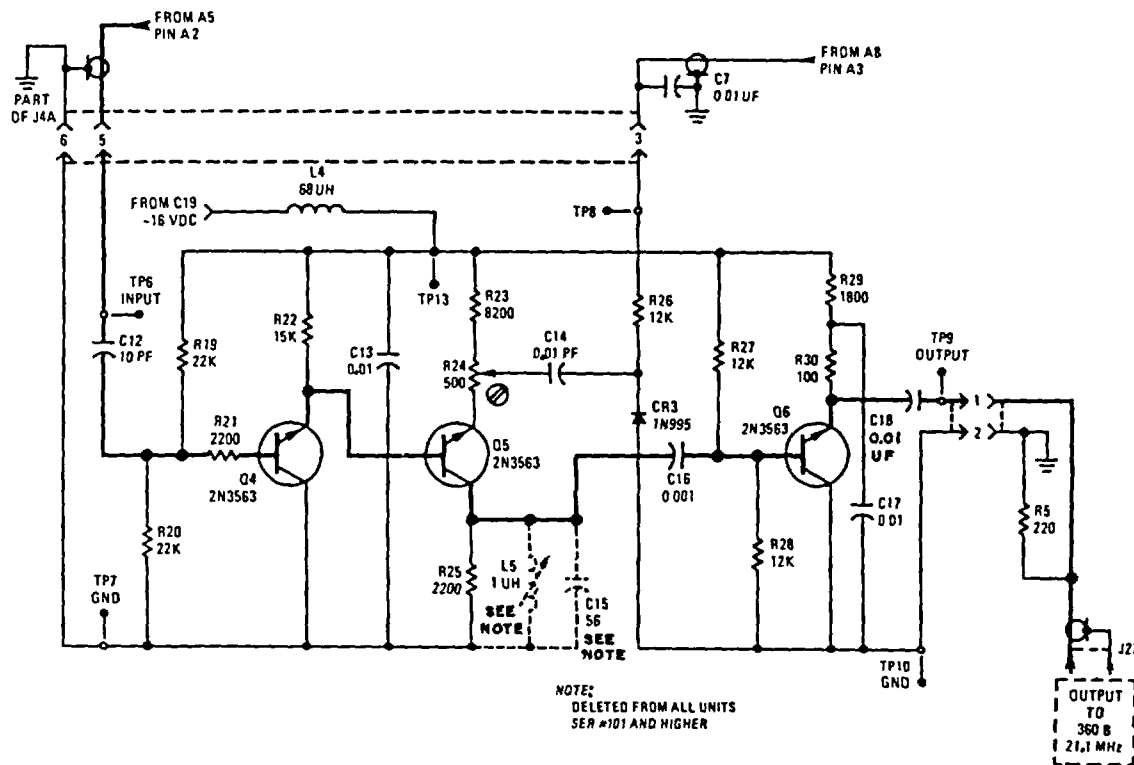
1-75. Second Modulator Output Amplifier

(fig. 1-82)

a. *General.* This stage provides amplification for the 20.0 to 20.1 MHz output to the spectrum display unit. It consists of an emitter-follower input section, a gain switchable amplifier section, and an emitter-follower output.

b. *Detailed Operation.* Transistor Q4 is an emitter-follower with input coupling provided by capacitor C12, base bias provided by resistors R19 and R20 and degeneration provided by resistor R22. The output is applied directly to the base of transistor QS. Transistor Q5 is a switchable gain amplifier with base bias provided by resistor R22, emitter bias provided by resistor R23 and potentiometer R24, emitter bypass through capacitor C14 and diode CR3, collector load provided by resistor R25, and output coupling to transistor Q6 provided by capacitor C16. Gain switching is accomplished by switching negative 16 volts to diode CR3 from switch S3B. Resistor R26 limits current through diode CR3. With S3B (SENSITIVITY) in the low

position, negative 16 volts is not switched to diode CR3, and capacitor C14 functions to bypass part of the voltage developed across resistor R24, resulting in normal amplifier gain. With S3B in the HIGH position, negative 16 volts is switched to diode CR3 and resistors R23 and R24 control emitter bias and the gain of transistor QS5 is increased 20 dB. Transistor Q6 is an emitter-follower with base bias provided by resistors 1127 and R28, emitter load provided by resistors R29 and R30, emitter bypass provided by capacitor C17, and output coupling provided by capacitor C18. Inductor L4 and capacitor C13 provide power supply decoupling. Test point TP6 monitors the input signal. Test point TP13 monitors the negative 16 volt supply voltage. Test point TP8 monitors the gain switching voltage. Test point TP9 monitors the output. Test points TP7 and TP10 are ground. Inductor L5 and capacitor C15 function as a 20.0 to 20.1 MHz tank circuit. These components are not present in equipments with serial numbers 101 and higher. Resistor R5 provides output termination.



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Figure 1-82. Second modulator output amplifier.

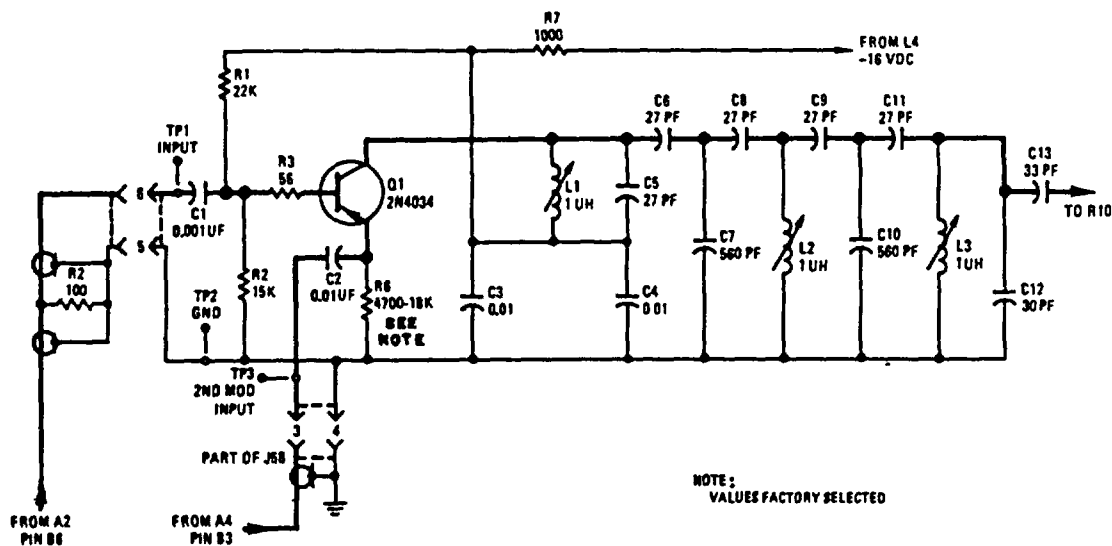
1-76. Second Modulator and IF Strip

(fig. 1-83)

a. *General.* The second modulator modulates the 40.0 to 40.1 MHz output of the first modulator with a frequency of 19.0 MHz from the tuning unit. The stage consists of the modulator and 20.0 to 20.1 MHz IF strip.

b. *Detailed Operation.* Resistor R2, of off the board, provides input impedance matching. The second modulator consists of amplifier Q2. The 40.0 to 40.1 MHz input from the first modulator is applied to the base of Q1 through coupling capacitor C1 and degeneration resistor R3. The 190 MHz signal is applied to the emitter

of Q1 through coupling capacitor C2. Resistors R1 and R2 provide base bias and resistor R6 provides emitter bias. Thus the impedance change at a 19.0 MHz rate, seen at the junction of diodes CR1 and CR2 in the 19.0 MHz amplifier mixer stage, causes modulation of the 40.0 to 40.1 MHz frequency. The resultant frequency output at the collector of transistor Q1 is a 20.0 to 21.0 MHz frequency. The following IF strip serves as a 20.0 to 20.1 MHz bandpass filter for the second modulator output frequency. This stage produces the flat 100 kHz frequency response band. Variable inductors L1, L2, and L3 provide frequency response adjustment. Capacitor C13 provides output coupling.



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Figure 1-83. Second modulator and IF strip.

1-77. Second Modulator Output Followers

(fig. 1-84).

a. *General.* The second modulator output followers consist of two sections. The first section provides an output to the spectrum analyzer. The second section provides an output to the third modulator.

b. *Detailed Operation.* Transistor Q2 is an emitter-follower which provides an output to the second modulator output amplifier. Base bias is provided by resistors R8 and R9, degeneration is provided by resistor R10, emitter load is provided by resistor R11,

and output coupling is provided by capacitor C15. The input to the second emitter follower Q3 is at the junction of resistor R12 and capacitor C15. Base bias is provided by resistors R and R12, emitter load is provided by resistor R14, and output coupling to the third modulator is provided by capacitor C16. Capacitor C14, resistor R13, and inductor L4 provide power supply isolation. Test point TP5 monitors the output to the second modulator output amplifier. Test point TP6 monitors the output to the third modulator. Test point TP7 monitors the -16 volt power supply. Test point TP7 is ground.

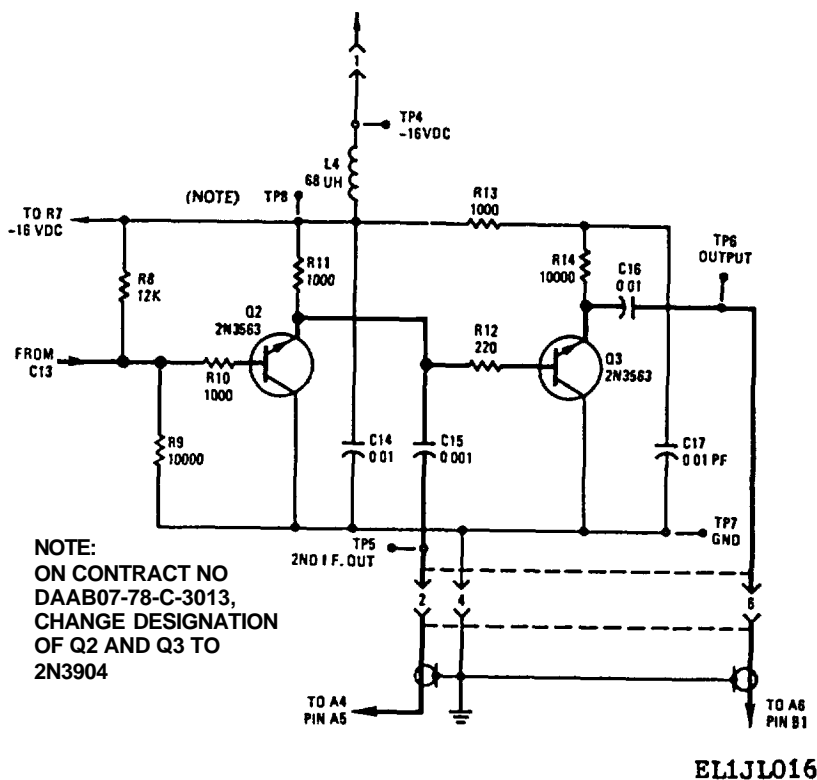


Figure 1-84. Second modulator output followers.

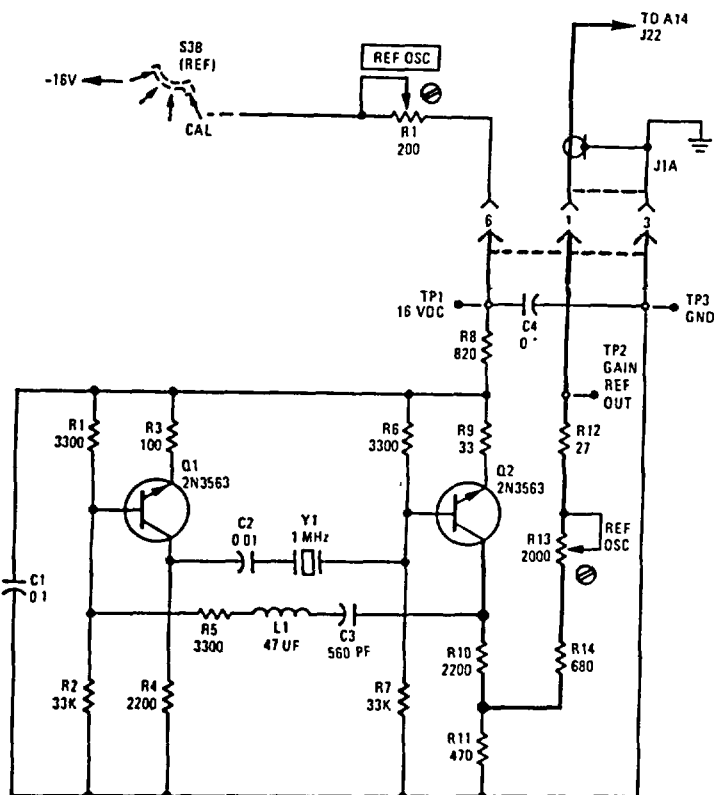
1-78. 1 MHz Gain Reference Oscillator

(fig. 1-85)

a. *General.* The gain reference oscillator provides a stable 1 MHz square wave output used for level meter calibration. The oscillator is energized when the SENSITIVITY switch is in the CAL position.

b. *Detailed Operation.* The oscillator is a crystal-controlled multivibrator consisting of transistors Q1 and Q2. Resistor R1, off the board, provides power supply input voltage adjustment. Base bias for transistor Q1 is provided by resistors R1 and R2, emitter bias is provided by resistor R3, and collector load is provided by resistor R4. Signal coupling to the base of transistor Q2 is

through capacitor C2 and 1 MHz crystal Y1. Base bias for transistor Q2 is provided by resistors R6 and R7, emitter bias is provided R9, and collector load is provided by resistors R10 and R11. Feedback from the collector of transistor Q2 to the base of transistor Q1 is through the waveshaping network composed of resistor R5, inductor L1, and capacitor C3. The output signal at the junction of resistors R10 and R11 is applied to the low pass filter (fig. 1-72) through resistors R14 and R12, and variable output level control resistor R13. Capacitors C1 and C4 and resistor R6 provide power supply decoupling. Test point TP1 monitors the supply input voltage. Test point TP2 monitors the oscillator output. Test point TP3 is ground.



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Figure 1-85. 2 MHz gain reference oscillator.

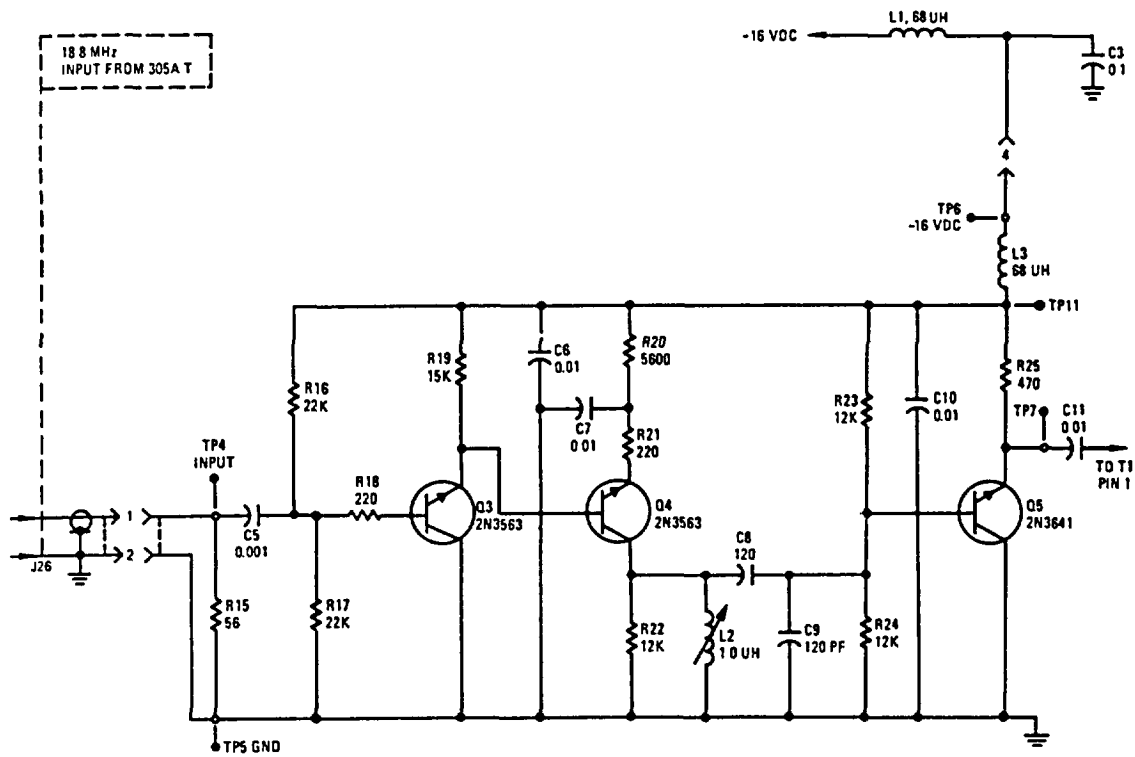
1-79. 18.785 to 18.885 MHz Amplifier Input Stage

(fig. 1-86)

a. *General.* This stage provides amplification for the 18.785 to 18.885 MHz frequency from the tuning unit. The output is applied to the third modulator.

b. *Detailed Operation.* The 18.785 to 18.885 MHz signal from the fine tuning section of the tuning unit is applied to the base of transistor Q3. Resistor R15 sets the input impedance of the amplifier. Transistor Q3 is an emitter-follower with base bias provided by resistors R16 and R17, degeneration provided by resistors R18, and emitter load provided by resistor R19. The signal is applied directly from the emitter of transistor Q3 to the base of transistor Q4. Transistor Q4 is an amplifier with base bias provided by resistor R19, emitter bias

provided by resistors R20 and R21, emitter bypass provided by capacitor C7, and collector load provided by resistor R22, and output coupling provided by capacitor C8. Capacitor C9 and variable inductor L2 form a tuned trap to bypass frequencies not of interest to ground. Transistor Q5 is an emitter-follower, with base bias provided by resistors R23 and R24, emitter load provided by resistor R25, and output coupling to the mixer stage provided by capacitor C11. Capacitors C3 (off of the board), C6, and C10, and inductors L1 (off of the board) and L3 decouple the amplifier from the power supply. Test point TP4 monitors the input signal. Test point TP5 is ground. Test points TP6 and TP11 monitor the power supply. Test point TP7 monitors the output signal.



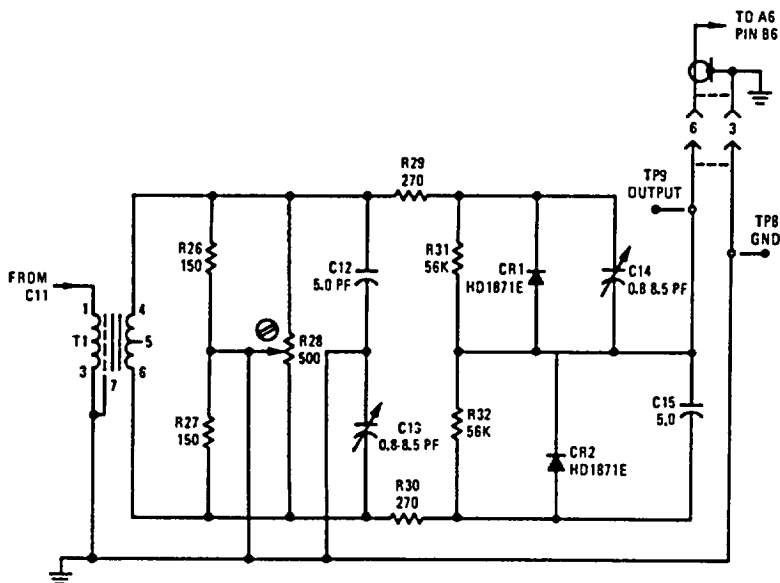
TM 6625-1748-45-207

Figure 1-86. 18.785 to 18.885 MHz amplifier input stage.

1-80. 18.785 to 18.885 MHz Amplifier Mixer Stage
(fig. 1-87).

The mixer provides a modulating input to the third modulator. It operates the same as the 19.0 MHz

amplifier mixer stage, except that the output frequency compensation circuit is not present. Test point TP9 monitors the output signal. Test point TP9 is ground.



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Figure 1-87. 18.785 to 18.885 MHz amplifier mixerstage.

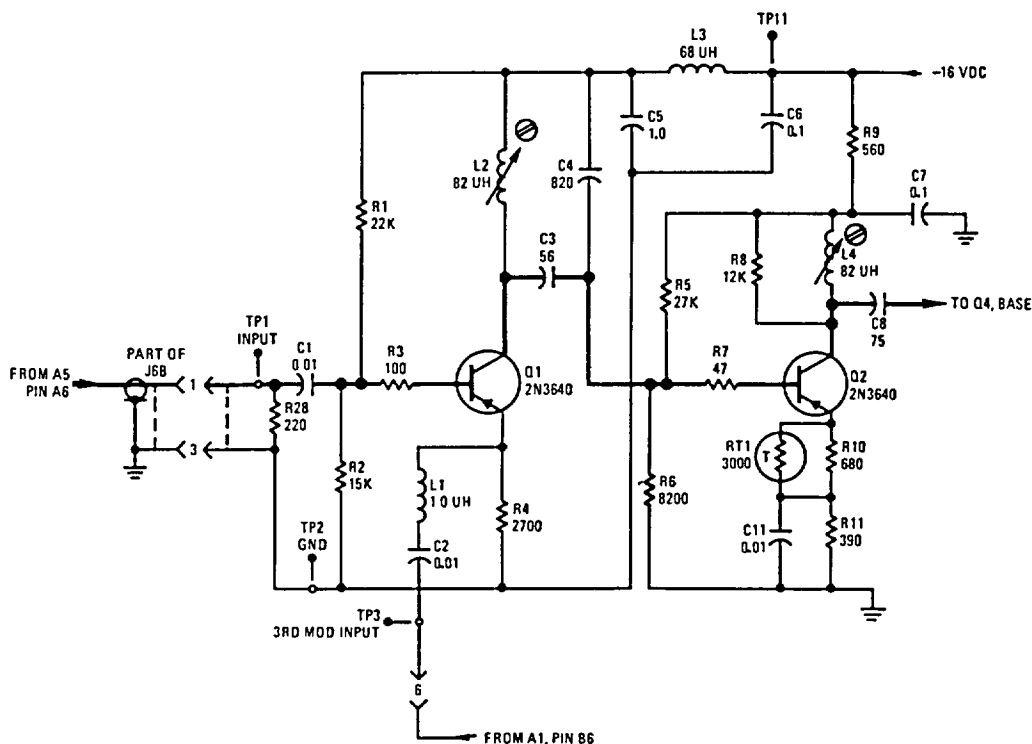
1-81. Third Modulator Input Stage

(fig. 1-88).

a. *General.* This stage mixes the 20.0 to 20.1 signal frequency with the 18.785 to 18.885 fine tuning frequency.

b. *Detailed Operation.* Transistor Q1 is a tuned mixer amplifier. The 20.0 to 20.1 MHz signal frequency is applied to the base through coupling capacitor C1 and degeneration resistor R3, and the 18.785 to 18.885 fine tuning frequency is applied to the emitter through coupling capacitor C2 and isolation inductor L1. Resistor R28 sets the mixer input impedance. Base bias is provided by resistors R1 and R2, emitter load is provided by resistor R4, collector load is provided by the 2.215 MHz tuned circuit composed of capacitor C4 and

variable inductor L2, and output coupling to the base of transistor Q2 is provided by capacitor C3. Transistor Q2 is a tuned amplifier with base bias provided by resistors R5 and R6, degeneration provided by resistor R7, emitter load provided by resistor R8 and the 2.215 MHz tuned circuit consisting of capacitors C7 and C9 (see Figure 189,) and variable inductor L4, collector load provided by resistors RT1 (temperature compensated), R10, and R11 and capacitor C11, and output coupling provided by capacitor C8. Capacitors C5 and C6 and inductor L3 provide power supply decoupling. Test point TP1 monitors the signal frequency input. Test point TP2 is ground. Test point TP3 monitors the fine tuning frequency input. Test point TP11 monitors the power supply.



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Figure 1-88. Third modulator input stage.

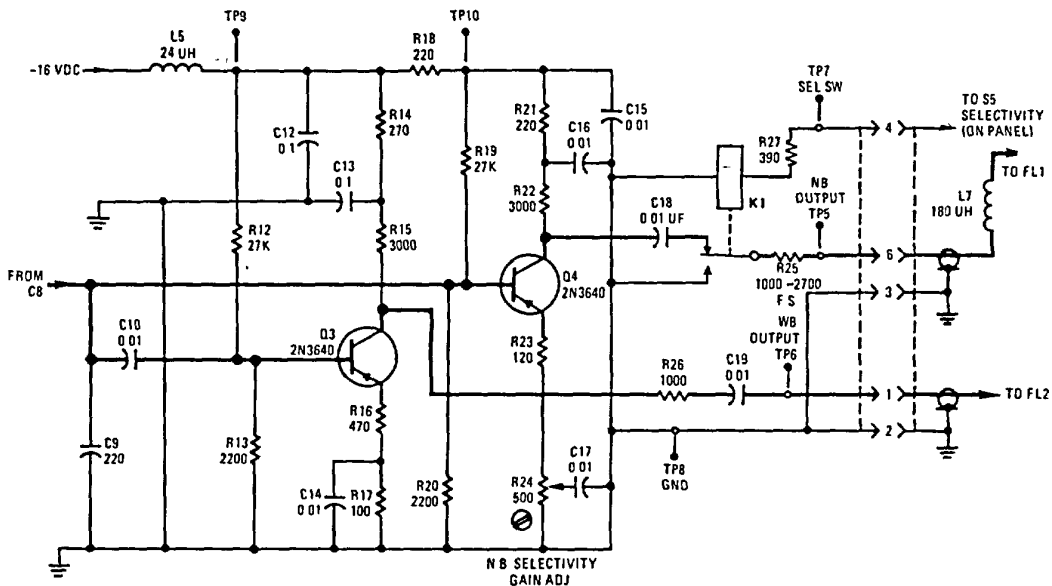
1-82. Third Modulator Output Amplifiers

(fig. 1-89)

a. *General.* This stage consists of two amplifiers. One drives the narrow-bandpass filter, and one drives the wide-bandpass filter.

b. *Detailed Operation.* Capacitor C9 is part of the tuned emitter circuit of the output amplifier of the previous stage. The input signal is applied directly to the base of transistor Q2, and through coupling capacitor C10 to the base of transistor Q3. Transistor Q2 drives the narrow-bandpass filter. Transistor Q3 drives the wide-bandpass filter. Transistor Q2 is an amplifier with base bias provided by resistors R12 and R13, emitter bias provided by resistors R16 and R17, emitter bypass provided by capacitor C14, collector load provided by resistors R16 and R17, collector bypass provided by capacitor C14, and output coupling provided by capacitor C19. Resistors R25 and R26 set the output impedance to the filters and isolate the amplifiers from the filters. Inductor L7 provides isolation between transistor Q2 and the narrow-bandpass filter. When the SELECTIVITY switch is set to the narrow-bandpass (250 Hz) position, relay K1 is energized. When wide-bandpass is selected (3.1 kHz) the relay is deenergized and the input to the narrow-bandpass filter is grounded. Resistor R27 provides current limiting for the relay. Capacitors C12 and C17, resistor R18, and inductor L5 provide power supply isolation. Test points TP9 and TP10 monitor the power supply to the amplifiers. Test points TP5 and TP6 monitor the signal outputs. Test point TP8 is ground. Test point TP7 monitors the relay voltage.

provided by resistors R12 and R13, emitter bias provided by resistors R16 and R17, emitter bypass provided by capacitor C14, collector load provided by resistors R16 and R17, collector bypass provided by capacitor C14, and output coupling provided by capacitor C19. Resistors R25 and R26 set the output impedance to the filters and isolate the amplifiers from the filters. Inductor L7 provides isolation between transistor Q2 and the narrow-bandpass filter. When the SELECTIVITY switch is set to the narrow-bandpass (250 Hz) position, relay K1 is energized. When wide-bandpass is selected (3.1 kHz) the relay is deenergized and the input to the narrow-bandpass filter is grounded. Resistor R27 provides current limiting for the relay. Capacitors C12 and C17, resistor R18, and inductor L5 provide power supply isolation. Test points TP9 and TP10 monitor the power supply to the amplifiers. Test points TP5 and TP6 monitor the signal outputs. Test point TP8 is ground. Test point TP7 monitors the relay voltage.



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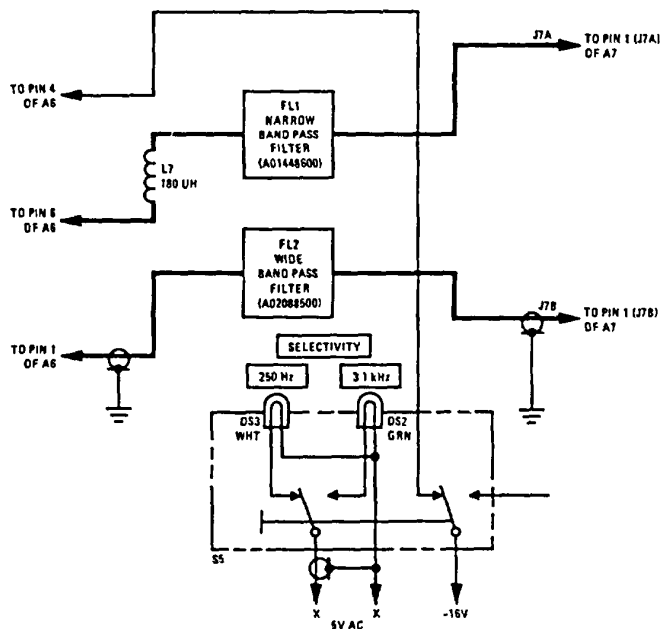
Figure 1-89. Third modulator output amplifiers.

1-83. Bandpass Filters

(fig. 1-90)

Filter FL1 has a bandwidth of 250 Hz. Filter FL2 has a bandpass of 3100 Hz. The SELECTIVITY switch

controls relay K1 shown in figure 1-89 and K1 and K2 shown in figure 1-92. Inductor L7 provides isolation from the previous amplifier stage. The filter outputs are applied to the wide and narrow band follower stage.



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Figure 1-90. Bandpass filters.

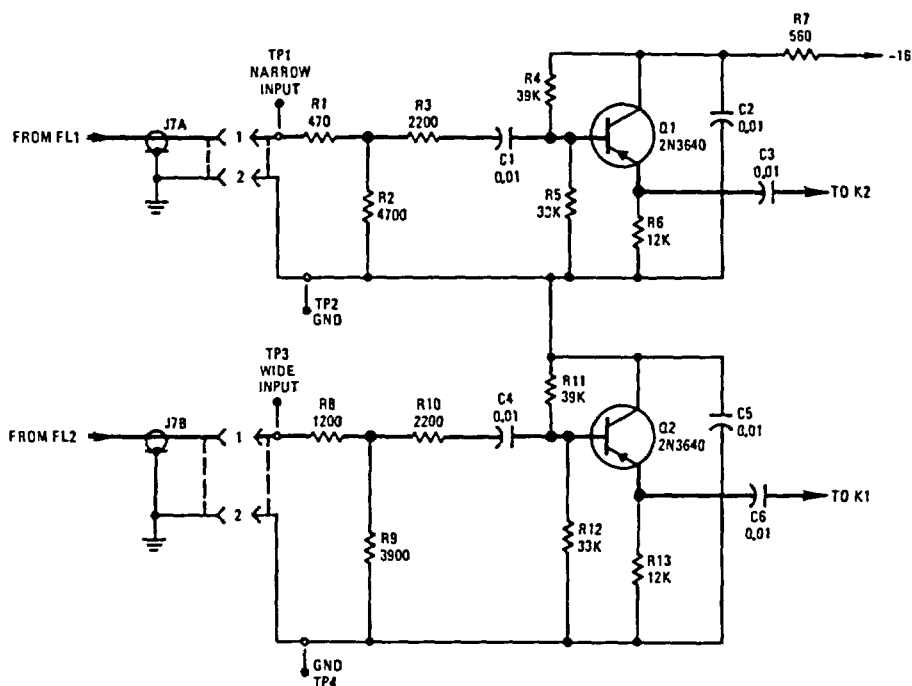
1-84. Narrow and Wide-bandpass Followers

(fig. 1-91)

a. *General.* These emitter-followers drive the following meter and audio amplifiers.

b. *Detailed Operation.* Resistors R1 and R2 provide output termination for the narrow-bandpass filter. Resistor R3 provides isolation between the filter and the transistor. Capacitor C1 provides input coupling to the

base of transistor Q1. Transistor Q1 is an emitter-follower with base bias provided by resistors R4 and R5, emitter load provided by resistor R6, and output coupling provided by capacitor C3. Capacitor C2 and resistor R7 provide power supply isolation. Test point TP1 monitors the narrow-band input. Test point TP2 is ground. The emitter-follower Q2 for the wide-bandpass signal is configured identically.



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Figure 1-91. Narrow and wide-bandpass followers.

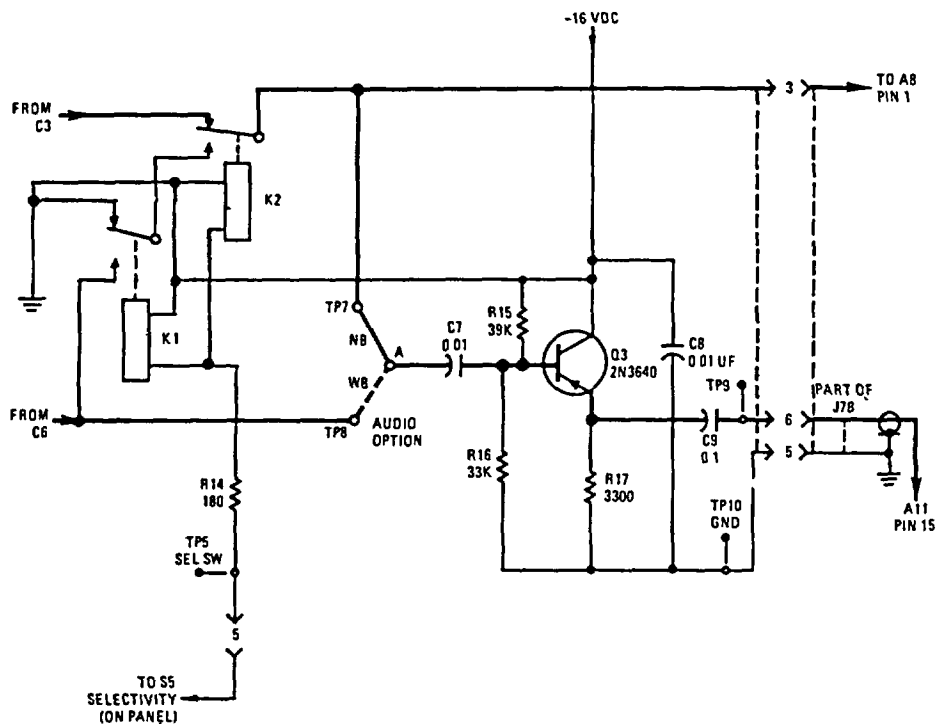
1-85. Bandpass Selection Relays and Audio Preamplifier

(fig. 1-92)

a. *General.* This stage provides switching of the narrow- or wide-bandpass outputs and preamplification for the signal into the audio amplifier.

b. *Detailed Operation.* Relays K1 and K2 switch either the narrow- or wide-bandpass outputs to the audio preamplifier. With the SELECTIVITY switch in the 3.1 kHz position, negative 16 volts is applied to relays K1 and K2, causing them to energize. The wide-bandpass signal is then applied through contacts of relay K1 and contacts of relay K2 to the meter preamplifier and test point TP7. Resistor R14 provides current limiting for the relays. With narrow-bandpass selected, the relays are

deenergized and the narrow-bandpass signal is applied to the meter preamplifier and test point TP7. Test points TP7, TP8, and tie-point A provide input selection to the audio preamplifier. With the jumper between test point TP7 and tie point A, both the narrow and wide-bandpass signals will be applied to the audio preamplifier. With the jumper between test point TP8 and tie point A, only the wide-bandpass signal (when selected) will be applied to the audio preamplifier. Transistor Q3 is an emitter-follower with input coupling provided by capacitor C7, base bias provided by resistors R15 and R16, emitter load provided by resistor R17, and output coupling provided by capacitor C9. Capacitor C8 provides power supply isolation. Test point TP5 monitors the relay voltage. Test point TP9 monitors the output of transistor Q3.



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Figure 1-92. Bandpass selection relays and audio preamplifier.

1-86. Meter Amplifier Input Stage

(fig. 1-93)

a. *General.* This stage provides the first stage of amplification in the meter amplifier. It consists of a tuned amplifier with +20 dB switchable gain and ±2 dB adjustable gain.

b. *Detailed Operation.* Relay K1 is controlled by the SENSITIVITY switch. In the HIGH gain position the input signal is applied directly to the amplifier. In the NORM (normal) gain position, the signal is applied to the amplifier through resistor R1 and potentiometer R2, resulting in an input level reduction of 20 dB. Resistor R28 provides current limiting for relay K1. Transistor Q1 is an amplifier with input coupling provided by capacitor

C1, base bias provided by resistors R3 and R4, degeneration provided by resistor 5, emitter bias provided by resistors R6 and R7, emitter bypass provided by capacitor C3, and collector load provided by the tuned 2.215 MHz tank circuit composed of capacitor C4 and variable inductor L1, output termination provided by resistor R10, and output coupling provided by capacitor C8. The ±2 dB gain control network in the collector circuit consists of diode CR1, capacitors C5 and C6, resistors R8, R9, R10, and R11, and the front panel CAL potentiometer R3. Current to the CAL control is provided through resistor R13. Resistor R14, and capacitor C2 provide power supply decoupling. Test point TP1 monitors the input signal. Test point TP2 is ground.

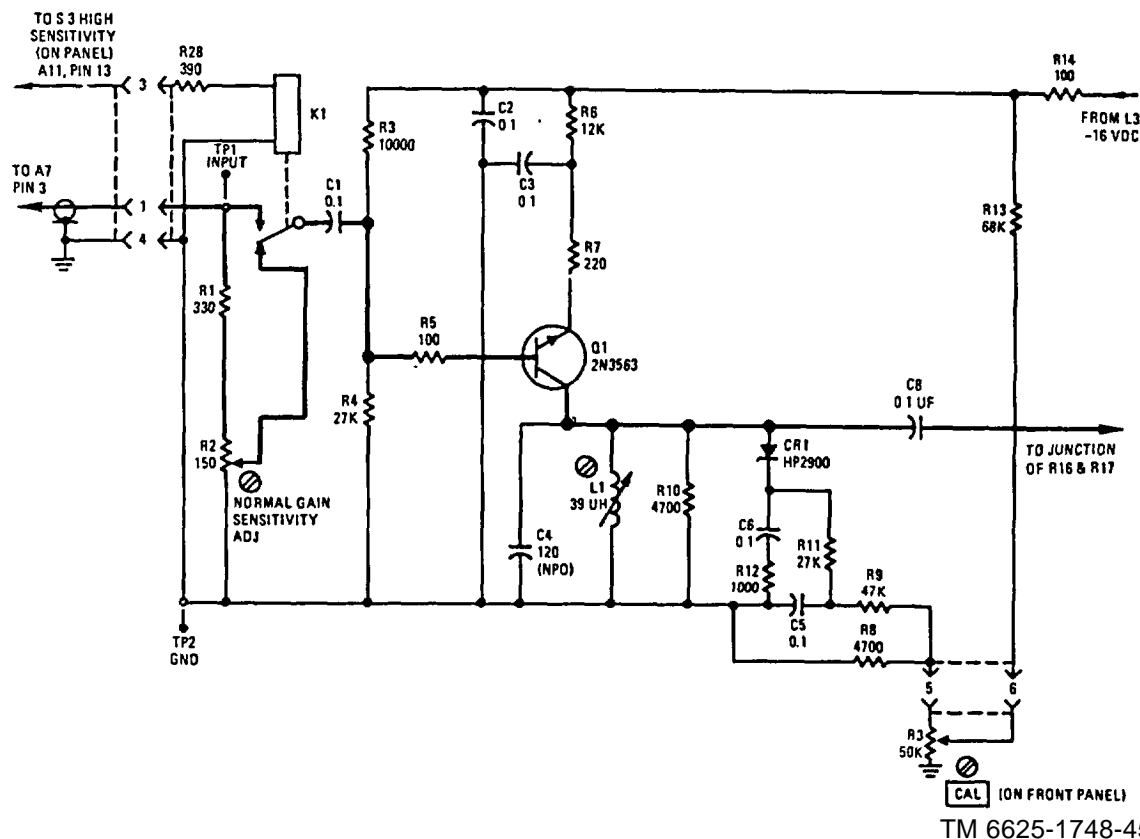


Figure 1-93. Meter amplifier input stage.

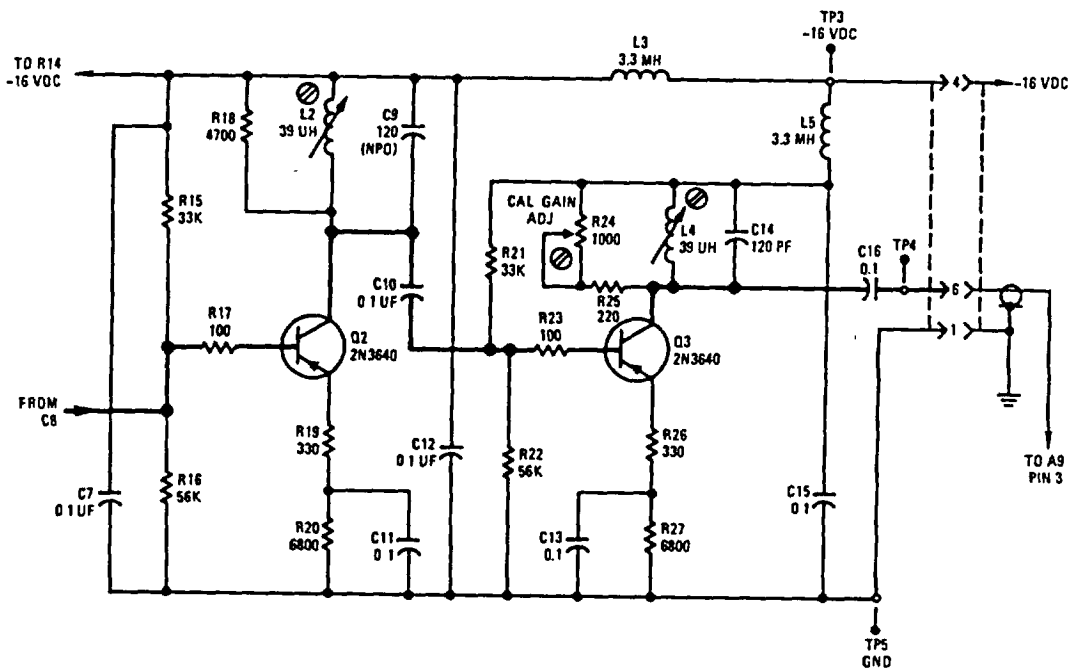
1-87. Meter Amplifier Intermediate Stage

(fig. 1-94)

a. *General.* This stage consists of two tuned amplifier sections.

b. *Detailed Operation.* The signal is applied to the base of transistor Q2. Transistor Q2 is an amplifier with base bias provided by resistors R15 and R16, degeneration provided by resistor R17, emitter bias provided by resistors R19 and R20, emitter bypass provided by capacitor C11, collector load provided by resistor R18 and the 2.215 MHz tuned circuit consisting of variable inductor L2 and capacitor C9, and output

coupling to the base of transistor Q3 provided by capacitor C10. Transistor Q3 is an amplifier with base bias provided by resistors R21 and R22, degeneration provided by resistor R23, emitter bias provided by resistors R26 and R27, emitter bypass provided by capacitor C13, collector load provided by variable resistor R24 and the 2.215 MHz tuned circuit consisting of variable inductor L4 and capacitor C14, and output coupling provided by capacitor C16. Capacitors C12 and C15 and inductors L3 and L5 isolate the amplifier from the power supply. Test point TP4 monitors the output signal. Test point TP5 is ground.



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Figure 1-94. Meter amplifier intermediate stage.

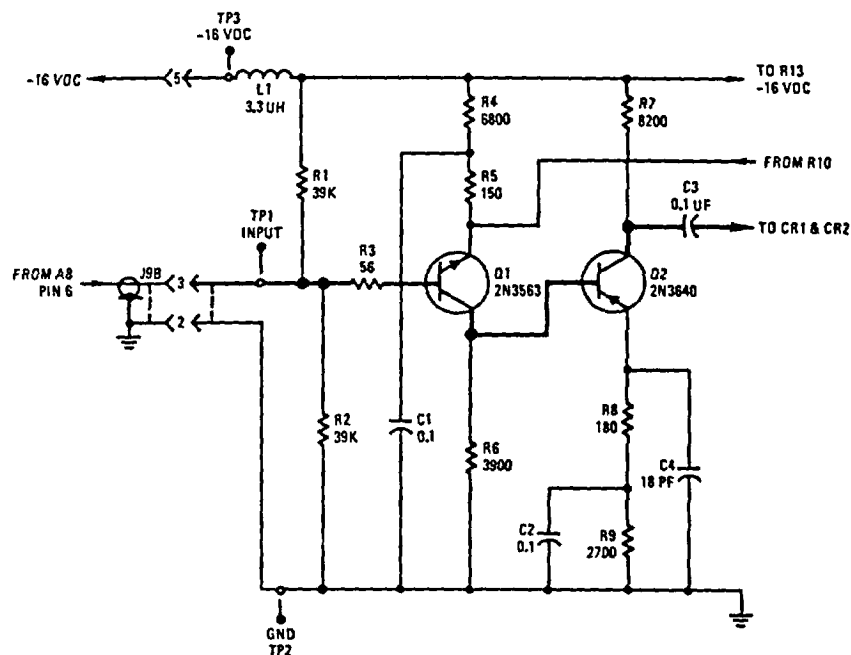
1-88. Meter Amplifier Output Stage

(fig. 1-95)

a. *General.* This stage provides final signal amplification before application to the meter circuits. It is a gain controlled amplifier with feedback provided from the meter detector circuit.

b. *Detailed Operation.* The input signal is applied to the base of transistor Q1. Transistor Q1 is an amplifier with base bias provided by resistors R1 and R3, degeneration provided by resistor R3, emitter bias

provided by resistors R4 and R5 and the gain control feedback from the meter detector circuit, emitter bypass provided by capacitor C1, and collector load provided by resistor R6. The output is applied directly to the base of transistor Q2. Transistor Q2 is an amplifier with base bias provided by resistor R6, emitter bias provided by resistors R8 and R9, emitter bypass provided by capacitors C2 and C4, collector load provided by resistor R7, and output coupling provided by capacitor C3. Inductor L1 provides power supply isolation. Test point TP1 monitors the input signal. Test point TP2 is ground.



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Figure 1-95. Meter amplifier output stage.

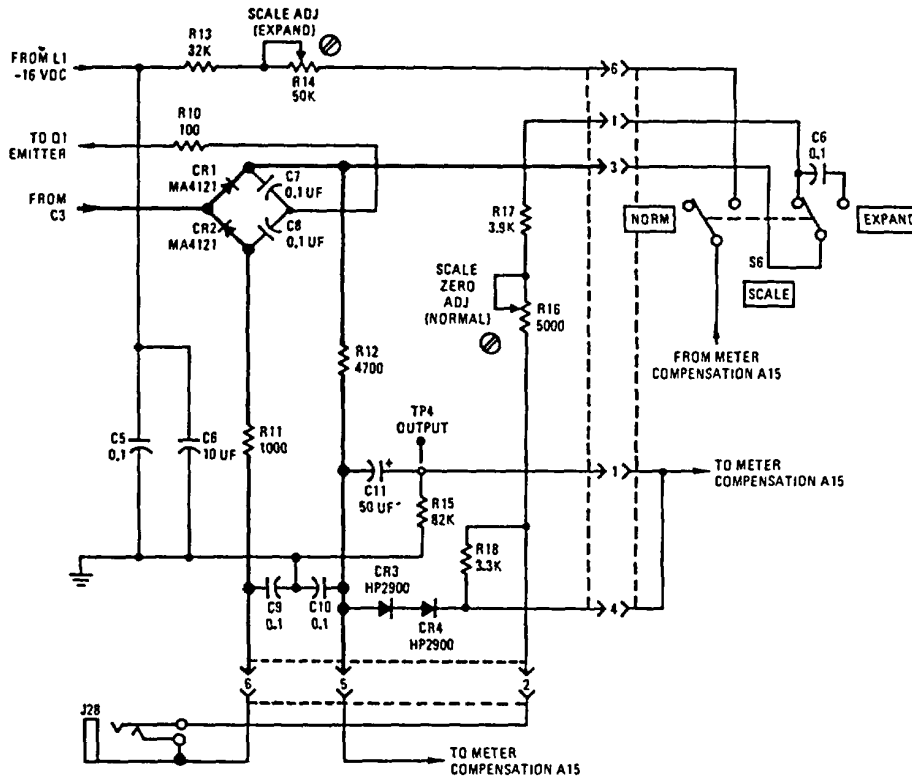
1-89. Meter Detector Circuit.

(fig. 1-96)

a. *General.* The meter detector circuit derives a de output to drive the meter, a feedback signal used to control the gain of the meter amplifier output stage, and drives the RECORDER OUTPUT jack J28.

b. *Detailed Operation.* The input signal is applied to the full-wave rectifier composed of diodes CR1 and CR2. The output of CR1 is applied through the parallel networks of resistor R1, 2, and diodes CR3 and CR4; and the NORM contacts of the scale switch, resistor R17,

potentiometer R14, and resistor R18. to the temperature compensation resistor RT1 (on the meter compensation board) and the meter movement. Capacitors C10, C11 and resistor R15 provide filtering of the signal. With the SCALE switch in the EXPAND position the meter is back biased through resistor R13 and potentiometer R14. Control R14 provides scale adjustment in the EXPAND position. Control R16 provides scale adjustment in the NORM position. Inductor L1 provides power supply isolation. Test point TP1 monitors the signal input. Test point TP2 is ground. Test point TP3 monitors the power supply. Test point TP4 monitors the input to the meter.



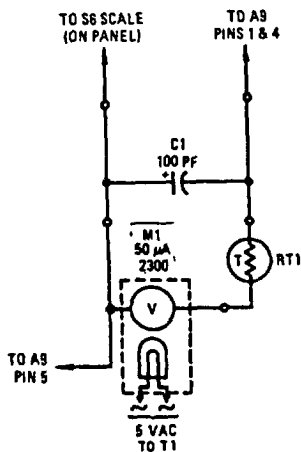
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Figure 1-96. Meter detector circuit.

1-90. Meter Compensation

(fig. 1-97)

The meter compensation consists of two components, capacitor C1 and temperature compensated resistor RT1. The meter lamp is powered by 5 volts ac.



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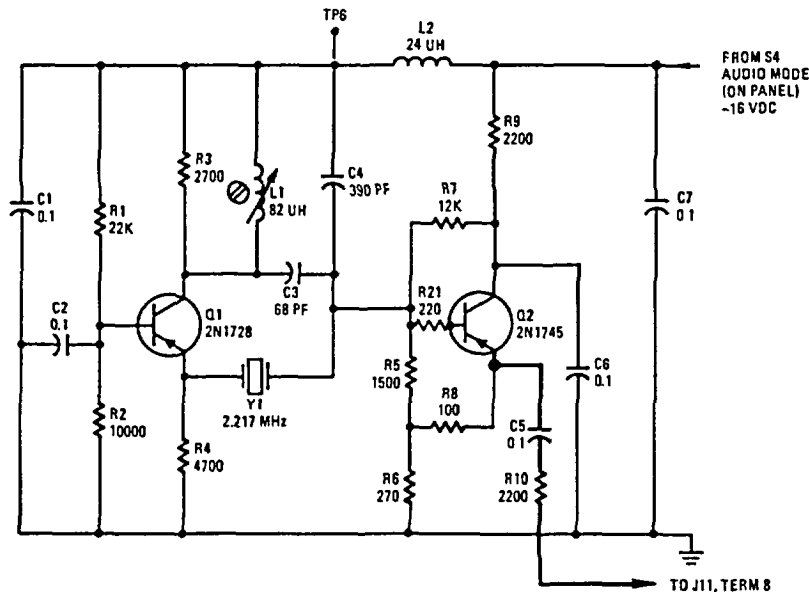
Figure 1-97. Meter compensation.

1-91. Upper Sideband Oscillator and Amplifier

(fig. 1-98)

a. General. The upper sideband oscillator generates a 2.217 MHz signal used to demodulate suppressed sideband signals in the audio amplifier. The amplifier provides amplification for the sideband oscillator output. The stage is powered through the front panel AUDIOMODE switch, S4.

b. Detailed Operation. Transistor Q1 is the oscillator transistor. Resistors R1 and R2 provide base bias. Resistor R4 provides emitter load. Resistor R3 provides collector load. The tank circuit consists of capacitors C3 and C4, and inductor L1. Crystal Y1 provides feedback. Capacitor C2 provides rf suppression in the base circuit. The output is applied to the base of transistor Q2. Transistor Q2 is an emitter follower with base bias provided by resistors R5, R6, and R7, degeneration provided by resistor R21, collector bias provided by resistor R9, collector bypass provided by capacitor C6, emitter load provided by resistors R6 and R8, output coupling provided by capacitor C5, and interstage isolation provided by resistor R10. Capacitors C1 and C7 provide power supply isolation. Test point TP6 monitors the power supply voltage.

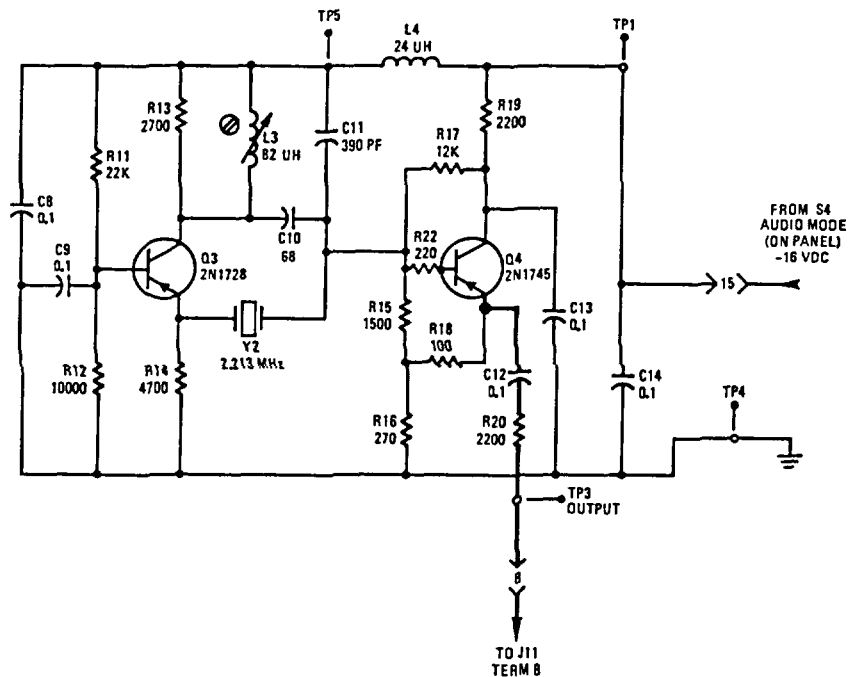


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 Figure 1-98. Upper sideband oscillator and amplifier.

1-92. Lower Sideband Oscillators and Amplifier
 (fig. 1-99)

The lower sideband oscillator generates a 2.213 MHz signal used to demodulate suppressed sideband signals

in the audio amplifier. It is configured identically to the upper sideband oscillator described above. The stage is powered through the front panel AUDIOMODE switch, S4.

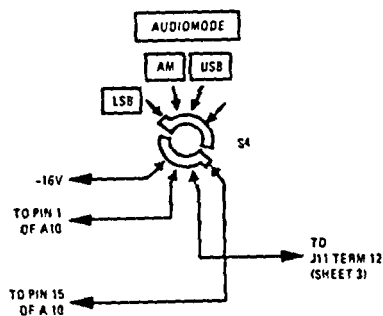


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 Figure 1-99. Lower sideband oscillator and amplifier.

1-93. AUDIOMODE Switch

(fig. 1-100)

The AUDIOMODE switch selects the audio mode. Depending upon the switch position negative 16 volts is applied to the upper sideband oscillator (USB position), the lower sideband oscillator (LSB position), or the audio amplifier input stage gain switching network (AM position).



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Figure 1-100. AUDIOMODE switch.

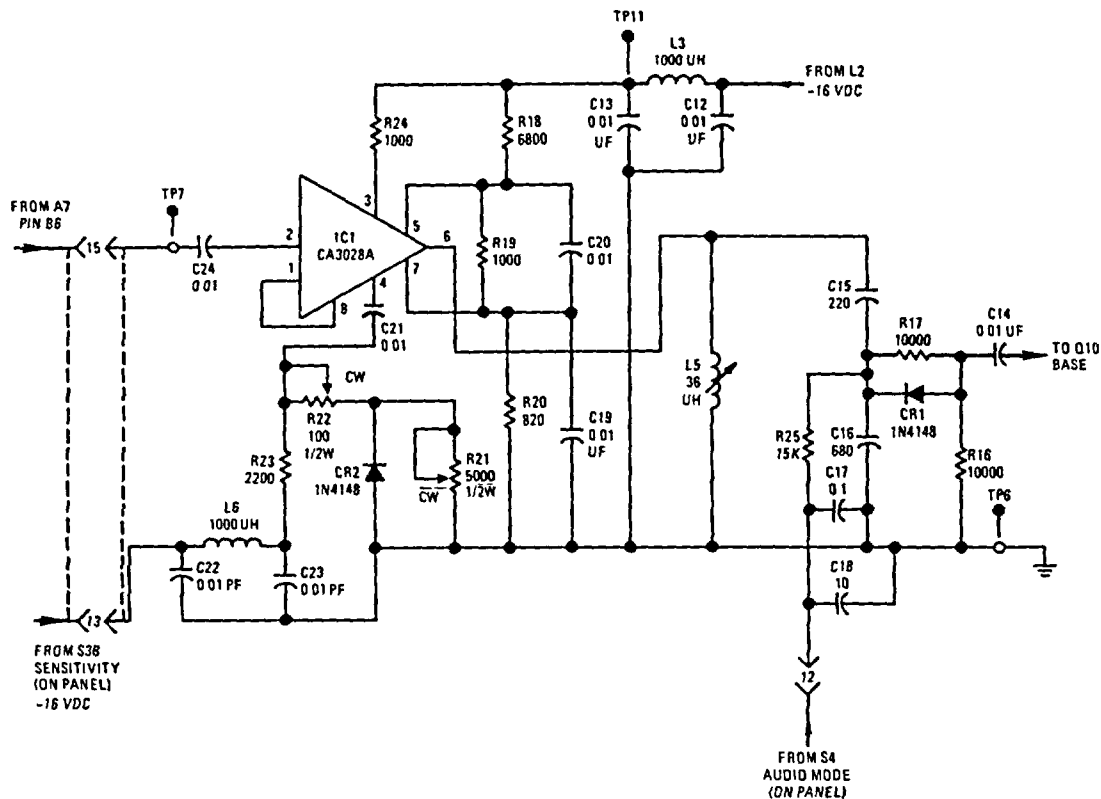
1-94. Audio Amplifier Input Stage

(fig. 1-101)

a. *General.* The audio amplifier drives the audio jack, J23A. It consists of the input stage, the intermediate stage (figure 1-102), and the output stage (figure 1-103). The input stage has two switched gain sections. The SENSITIVITY switch selects normal gain in the NORM position, or + 20 dB of gain over normal in

the HIGH position. The AUDIOMODE switch selects normal gain in the USB and LSB positions, or additional gain in the AM position.

b. *Detailed Operation.* Integrated circuit IC1 is an operational amplifier with the signal input applied at pin 1, the output is at pin 6, + 20 dB gain control at pin 4, and bias and compensation provided by resistors R18, R19, R20, and R24, and capacitors C19 and C20 at pins 3, 5, and 7. The +20 dB gain control network consists of variable resistors R21 and R22, resistor R23, capacitors C21, C22, and C23, inductor L6, and diode CR2. Variable resistor R21 controls the high gain (SENSITIVITY switch in HIGH position, negative 16 volts applied to network), and variable resistor R 22 controls the low gain (SENSITIVITY switch in LOW position, no voltage applied to network). The input signal is applied through input coupling capacitor C24 to the operational amplifier. The amplifier output is applied to the 2.215 MHz tuned trap composed of variable inductor L5 and capacitor C15. The network composed of resistors R16, R17, and R25, capacitors C16, C17, and C18, and diode CR1 provide output attenuation as selected by the AUDIOMODE switch. When the AUDIOMODE switch is in the AM position, negative 16 volts is applied to the network resulting in an increase in output level. Normal output level results when the AUDIOMODE switch is in the LSB or USB positions with 0 volts applied to the network. Capacitor C14 provides output coupling to the intermediate stage. Capacitors C12 and C13, and inductor L3 provide power supply decoupling. Test point TP7 monitors the input signal. Test point TP11 monitors the power supply voltage. Test point TP6 is ground.



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Figure 1-101. Audio amplifier input stage.

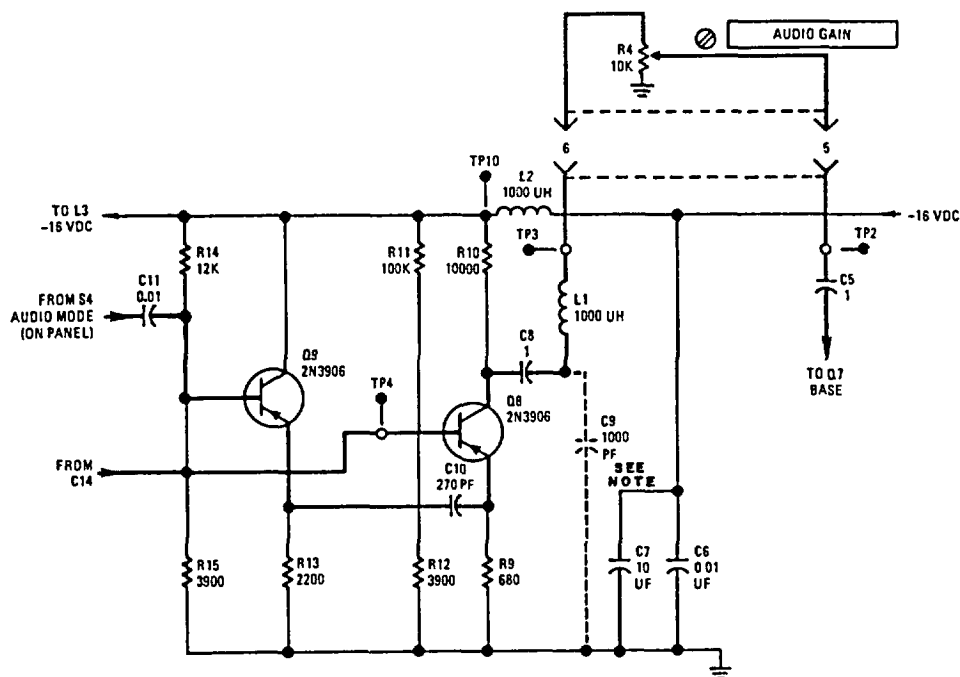
1-95. Audio Amplifier Intermediate Stage

(fig. 1-102)

a. *General.* This stage consists of an emitter-follower for the sideband input signal, a mixer amplifier, and an output level control.

b. *Detailed Operation.* The input to transistor Q9 is the output from the sideband oscillators (in sideband audio modes). Transistor Q9 is an emitter-follower with input coupling provided by capacitor C11, base bias provided by resistors R14 and R15, emitter load provided by resistor R13, and output coupling to the emitter of transistor Q8 provided by capacitor C10. The audio signal is applied to the base of transistor Q8. Transistor Q8 is a mixer amplifier with base bias

provided by resistors R11 and R12, emitter bias provided by resistor R9, collector load provided by resistor R10, and output coupling provided by capacitor C8 and inductor L1. The front panel AUDIO GAIN control R4 sets the output level of the stage. Capacitor C5 provides input coupling to the following stage. Capacitor C9, shown in dashed lines, provides rf suppression. It is not used in equipment with serial numbers 101 and higher. Inductor L2 and capacitors C6 and C7 provide power supply isolation. Test point TP4 monitors the audio input signal. Test point TP3 monitors the output signal. Test point TP2 monitors the input to the following stage. Test point TP10 monitors the power supply voltage.



NOTE:
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Figure 1-102. Audio amplifier intermediate stage.

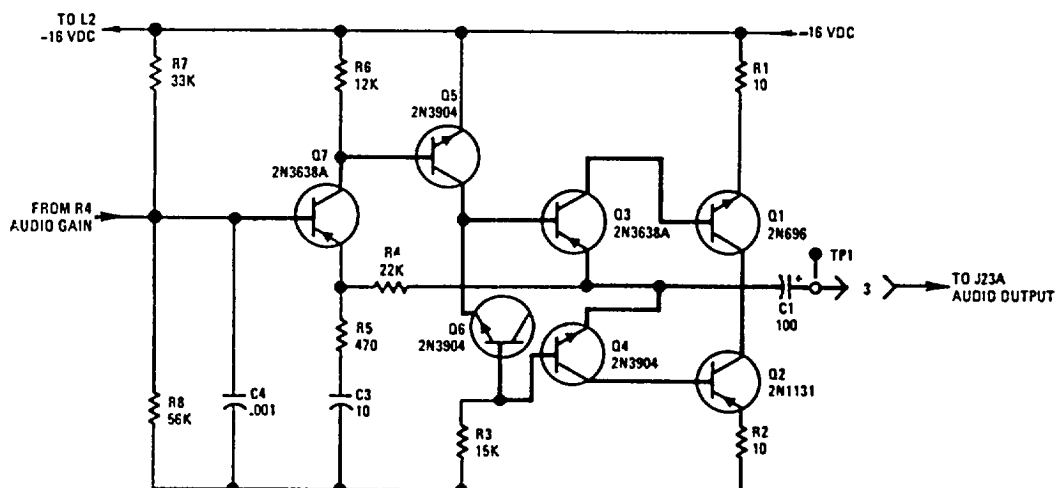
1-96. Audio Amplifier Output Stage

(fig. 1-103)

a. *General.* The output stage provides power amplification of the audio signal and drives the AUDIO OUTPUT jack, J23A.

b. *Detailed Operation.* The input signal is applied to the base of transistor Q7. Transistor Q7 is an amplifier with base bias provided by resistors R7 and R8, base bypass provided by capacitor C4, emitter load provided by resistor R5 and capacitor C3, and collector

load provided by resistor R6. The output is applied to the base of amplifier transistor Q5. The output of transistor Q5 is connected to the base of transistor Q3 and the emitter of transistor Q6. Transistor Q6 functions as a diode, coupling the signal to the base of transistor Q4. Transistors Q3 and Q4 and transistors Q1 and Q2 are complementary pairs connected to form a dual push-pull amplifier. Output load is provided by resistor R4. The output is coupled to the AUDIO OUTPUT jack by capacitor C11.



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Figure 1-103. Audio power amplifier.

1-97. Probe

(fig. 2-14)

a. General. The probe provides unbalanced termination or bridging, selectable 50 or 75 ohm input impedance, and 75-ohm output impedance to the 75 ohm unbalanced terminating input of the monitor unit. The active circuits consist of an FET amplifier input stage, a darlington type amplifier stage, and an emitter-follower output.

b. Detailed Operation. Switch S1 selects either bridged or terminating input. Switch S2 selects either 50 or 75 ohm input impedance by selecting either resistor R6 or R7, respectively, and select the gain of the input stage by switching capacitor C4 into or out of the emitter circuit of Q2. The input signal is coupled by resistor R18 and capacitor C2 to the gate input of field-effect-transistor Q1. Gate bias is provided by resistor R1.

Source load for Q1 and base bias for emitter-follower Q2 is provided by resistor R3. Current limiting is provided by resistor R2. Resistors R4, R5 and capacitor C4 (switch S2 in 75 ohm position) provide emitter load for transistor Q2. Capacitor C5 couples the output to the following stage. Resistor R8 provides a gain adjustment for the probe. Transistors Q3 and Q4 form a darlington type amplifier, with degeneration provided by resistor R9, collector loads provided by resistors R10 and R12, feedback provided by resistor R11, and emitter bias for Q4 provided by resistor R13. Variable capacitor C6 provides a frequency compensation adjustment. Transistors Q5 and Q6 are emitter-followers. Resistor R14 provides emitter load for transistor Q5 and base bias for transistor Q6. Resistor R16 provides emitter load for transistor Q6. Capacitor C7 couples the output. Resistor R17 sets the output impedance. Capacitors C1, C3, C8, and C9 provide power supply decoupling.

Section IV. FUNCTIONING OF SPECTRUM ANALYZER

1-98. General

The spectrum analyzer unit provides a visual display of signals present in a 120 kHz, 12 kHz or 3.6 kHz band of the frequency spectrum. In the 120 kHz display mode, the entire spectrum of signals appearing in the 2nd IF passband of the monitor unit is displayed on the screen, and the fine tuning oscillator in the tuning unit provides a marker signal which may be tuned across the display. This permits accurate determination of the frequency of any signal appearing on the screen. In the 12 and 3.6 kHz display modes, the fine oscillator determines the

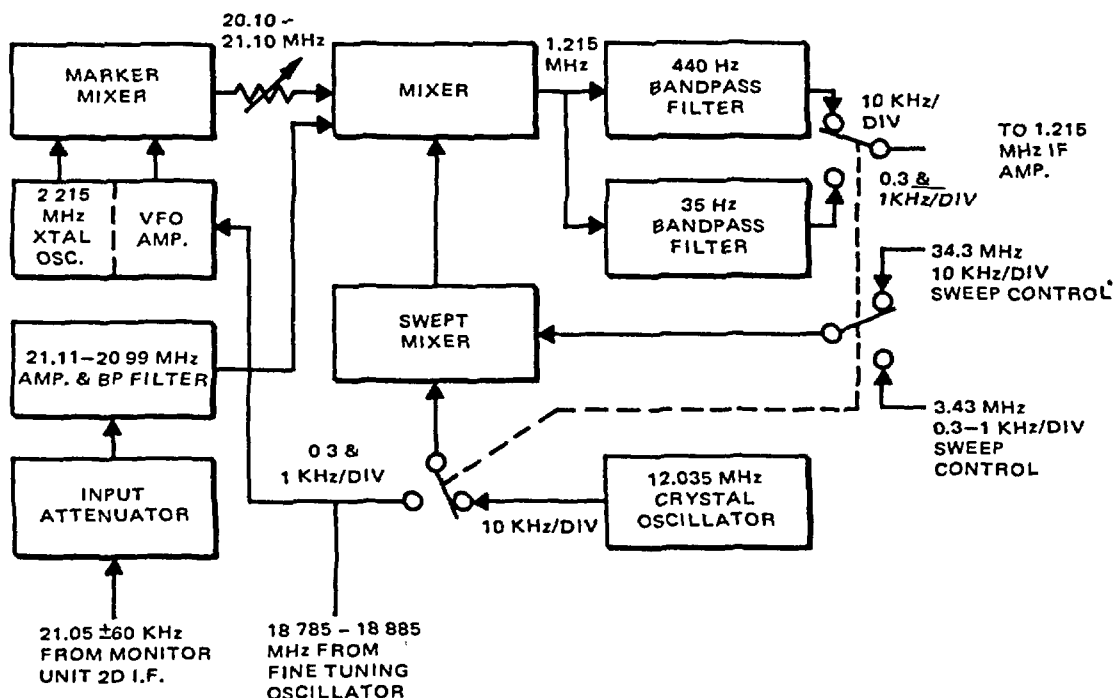
center frequency of the portion of the spectrum being viewed.

1-99. Overall Block Diagrams

(fig. 1-104 and 1-105)

The main functions of the blocks in the overall block diagrams are listed below.

a. *Input Attenuator.* The input attenuator stage receives the signal from the monitor unit 2nd IF stage and attenuates it for the desired display amplitude.



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Figure 1-104. Block diagram. sweep and marker section. Spectrum Analyzer IP-1018/U.

b. *21.11 - 20.99 MHz Amplifier and Filter.* This section amplifies the band of signals from the 2nd IF stage of the monitor unit. The filter removes unwanted frequencies outside of the 21.11 - 20.99 MHz range.

c. *VFO Amplifier and 2.215 MHz Oscillator.* The VFO amplifier amplifies the 18.785 to 18.885 MHz signal from the fine tuning oscillator of the tuning unit. The crystal oscillator provides an injection signal into the marker mixer.

d. *Marker Mixer.* The marker mixer combines the output of the 2.215 MHz oscillator and the signal from the fine tuning oscillator to produce a marker signal in the 20.10 to 21.10 MHz range, for insertion into the mixer stage.

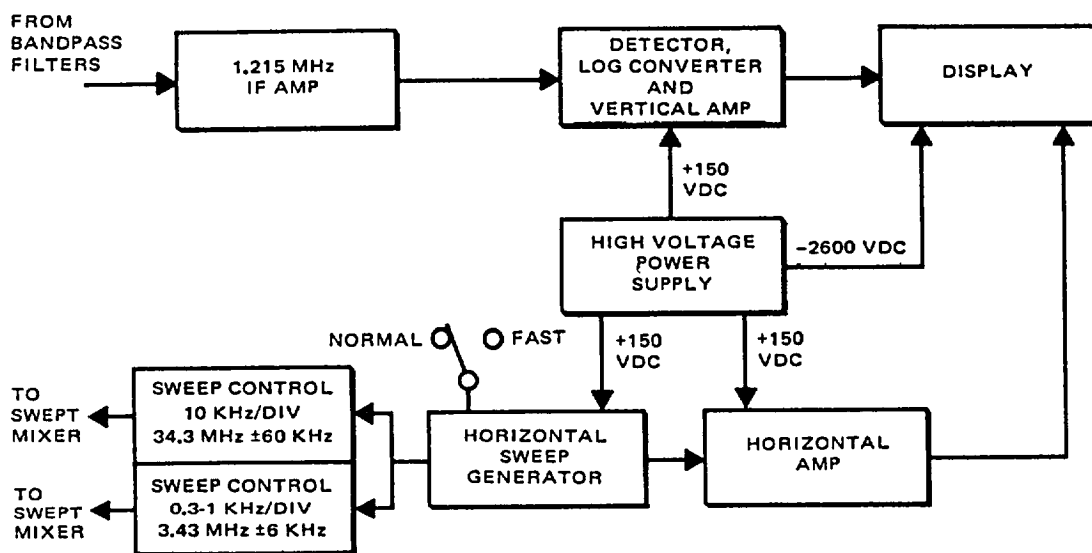
e. *Swept Mixer.* The swept mixer combines either the 34.3 MHz sweep with the output of the 12.035 MHz crystal oscillator, or it combines the 3.43 MHz sweep with the output of the fine tuning oscillator in the tuning unit, depending upon the setting of the SWEEP kHz/ DIV control. The output of the swept mixer is coupled to the signal and marker mixer stage.

f. *Mixer.* Signals from the monitor unit, and the marker signal are combined in the mixer with sweeping signal from the swept mixer which sequentially converts the input and marker signals to an IF frequency of 1.215 MHz.

g. *Bandpass Filters.* The output of the mixer is coupled to the inputs of both 1.215 MHz bandpass

filters. When the full 120 kHz segment of the spectrum is being scanned, the output of the 440 bandwidth filter is coupled to the 1.215 MHz IF amplifier. When either

the 12 kHz or 3.6 kHz mode to scanning is selected, the output of the 35 Hz bandwidth filter is connected to the 1.215 MHz IF amplifier.



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Figure 1-105. Block diagram, sweep, vertical, high voltage and display sections, Spectrum Analyzer IP-1018/ U.

h. Horizontal Sweep Generator. The linear sawtooth wave which is used for horizontal deflection of the cathode-ray tube and as the basis of the scanning sweep is generated in this circuit.

i. Horizontal Amplifier. This circuit amplifies the sawtooth output wave from the sweep generator and drives the horizontal deflection plates of the cathode-ray tube.

j. Sweep Control. The output of the horizontal sweep generator varies the output frequency of a voltage-controlled crystal oscillator about a center frequency of 34.3 MHz. A divider circuit drives this swept output frequency by ten, providing a sweep signal that varies about a center frequency of 3.43 MHz. When the mode switch is in the 120 kHz (10 kHz/DIV) position, the 34.3 MHz sweep signal is coupled to the swept mixer. With the switch in either the 1 kHz/ DIV (12 kHz scant. or the 0.3 kHz/DIV (3.6 kHz scant positions, the 3.43 MHz sweep signal is coupled to the swept divider.

k. 1.215 MHz IF Amplifier. This circuit amplifies the output from either the 440 Hz or 35 Hz bandpass filter and couples the amplified signal to the detector and log converter circuit.

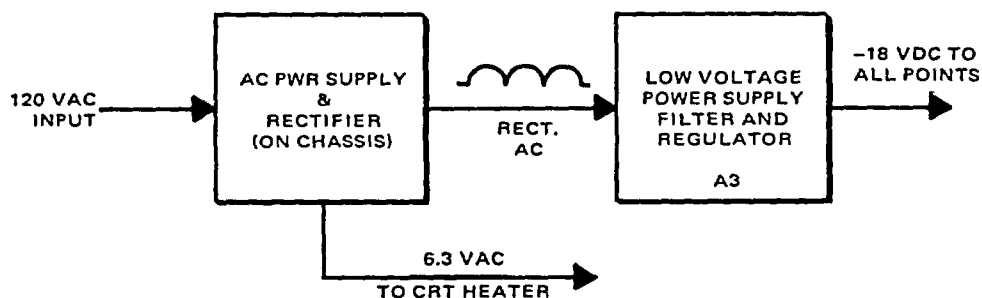
l. High Voltage Power Supply. This circuit provides +150 volts de for the operation of the sweep generator, horizontal amplifier and the vertical amplifier. In addition, it provides -2600 volts dc to operate the cathode-ray tube.

m. Detector, Log Converter and Vertical Amplifier. This circuit detects the signals from the 1.215 MHz amplifier and converts the resulting dc signals to logarithmic deflection for the cathode-ray tube. The vertical amplifier further amplifies the logarithmic deflection signals and drives the vertical plates of the cathode ray tube.

1-100. Power Supply

(fig. 1-106)

The basic low-voltage power supply which provides operating voltage for all circuits in the spectrum analyzer, including the high voltage power supply consists of an ac power transformer and bridge rectifier mounted on the chassis, and filter and regulator module A3.



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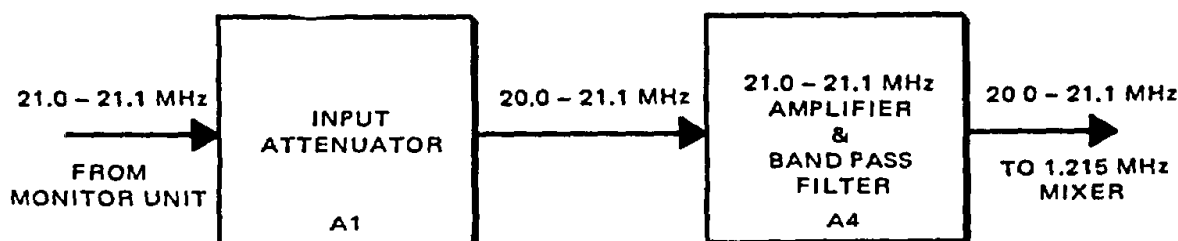
Figure 1-106. Block diagram, power supply.

1-101. Signal Input Section

(fig. 1-107)

a. *Input Attenuator.* This section contains a 3 position 20 dB per step attenuator and a variable calibrating control. Fine adjustment of the signal display amplitude is obtained by varying the 0-dB CAL attenuator control on the front panel of the unit.

b. *21 MHz Amplifier and Bandpass Filter.* This section amplifies the 20.99 - 21.11 MHz band of frequencies from the monitor unit. The bandpass filter removes all frequencies outside of the range of 20.99 -21.11 MHz. The output of this circuit goes to the 1.215 MHz mixer stage.



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Figure 1-107. Block diagram, 21.0-21.1 MHz input attenuator and amplifier.

1-102. VFO Amplifiers, Marker Mixer and 21 MHz IF

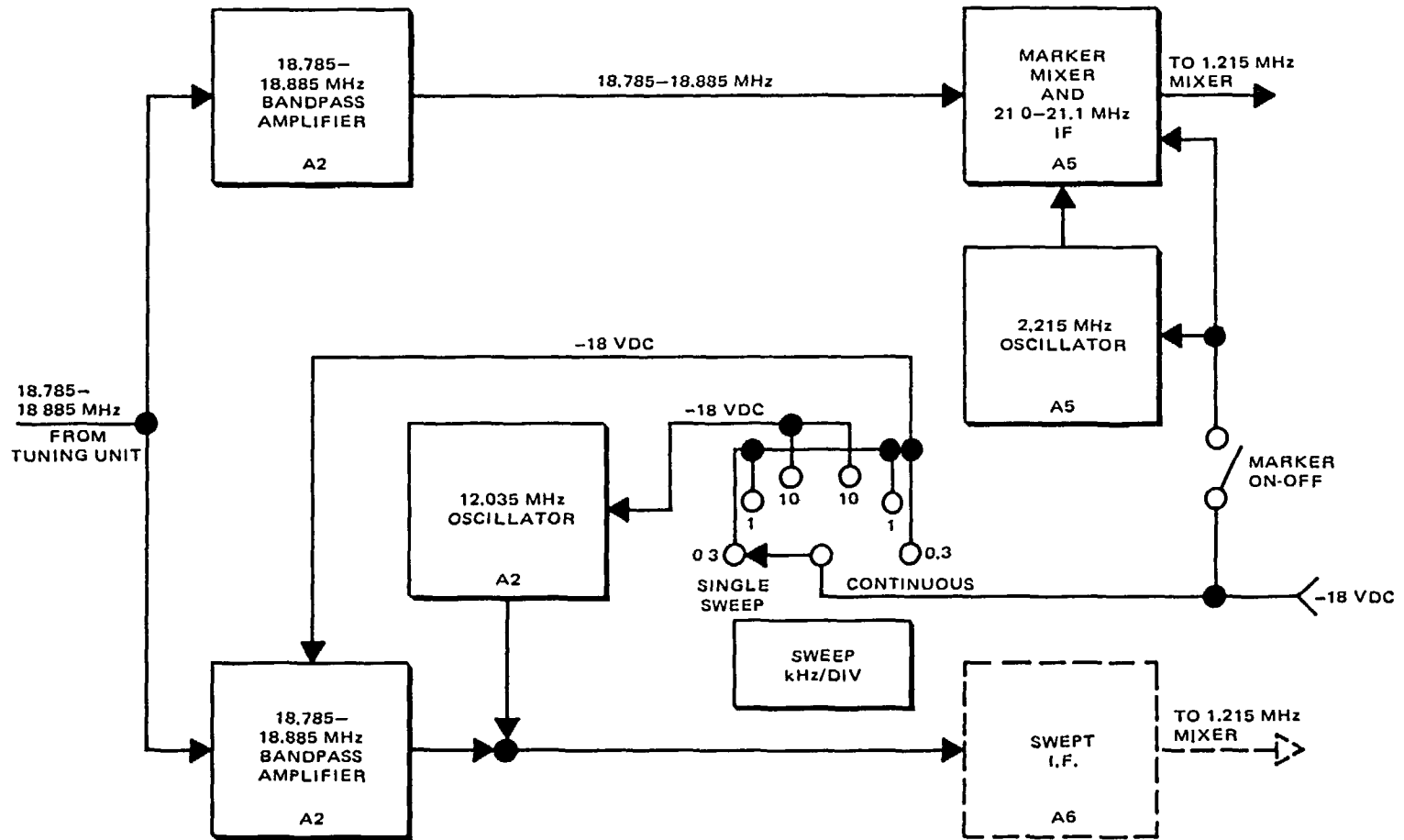
(fig. 1-108)

a. *VFO Amplifiers.* This section contains two amplifiers which amplify the 18.785 - 18.885 MHz output from the fine tuning oscillator in the tuning unit. The output of one of these amplifiers is coupled to the marker mixer. The output of the other amplifier is coupled to the swept IF circuit.

b. *12.035 MHz Oscillator.* The 12.035 MHz crystal oscillator is turned on when the 120 kHz (10-kHz/DIV) display mode is selected. Its output is coupled to the swept IF stage.

c. *2.215 MHz Oscillator.* The output of this crystal oscillator is coupled to the marker mixer.

d. *Marker Mixer and 21 MHz IF.* When the marker switch is in the ON position, power is applied to these circuits and they become operative. The reference signal from the 2.215 MHz crystal oscillator is heterodyned with the 18.785 - 18.885 MHz signal from the fine tuning oscillator in the tuning unit to produce a marker signal in the 21.0 to 21.1 MHz range. This signal is filtered and amplified in the IF stages and coupled to the 1.215 MHz mixer.



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Figure 1-108. Block diagram, VFO amps., marker mixer and IF.

1-103. Swept IF and 1.215 MHz Mixer

(fig. 1-109)

a. *Voltage-Controlled Crystal Oscillator.* The sawtooth signal from the horizontal sweep generator varies the oscillator frequency by ± 60 kHz about the center frequency of 34.3 MHz. The output of the voltage-controlled crystal oscillator is coupled to the inputs of the 34.3 MHz amplifier and the 3.43 MHz divider.

b. *SWEEP kHz/DIV Switch.* When this switch is in either the 10 kHz/DIV single sweep or continuous positions, power is applied to the 34.3 MHz amplifier, and a 34.3 MHz ± 60 kHz is coupled to the swept IF circuits. When the switch is in any of the 0.3 or 1.0 kHz/DIV positions, power is removed from the 34.3 MHz amplifier and power is applied to the 3.43 MHz divider. A 3.43 MHz sweep signal is then applied to the swept IF circuits.

c. *Swept IF.* When the mode switch is in the 10 kHz/ DIV position (120 kHz scan) the outputs of the 34.3 MHz amplifier and the 12.035 MHz oscillator are combined in the swept IF circuits. amplified and applied

to the 1.215 MHz mixer. When the mode switch is in either of the 0.3 or 1.0 kHz/ DIV positions, the outputs of the 3.43 MHz divider and the 18.785 18.885 MHz amplifier are combined in the swept IF, amplified and applied to the 1.215 MHz mixer.

d. *1.215 MHz Mixer.* The swept IF signals and the 21.0 - 21.1 MHz signals from the 2nd IF of the monitor unit are combined in the 1.215 MHz mixer, to produce a sequence of 1.215 MHz signals corresponding to the signals present in the 2nd IF passband of the monitor unit. When the marker circuit is turned on, the marker signal is also applied to the 1.215 MHz mixer.

e. *Bandpass Filters.* When the SWEEP kHz/ DIV mode switch is in either of the 10 kHz/ DIV positions, relay K1 is actuated and the 1.215 MHz output of the mixer is taken from the output of the 440 Hz bandwidth filter. When the switch is in any of the 0.3 or 1.0 kHz/ DIV positions, relay K1 is deenergized, and the 1.215 MHz output from the mixer is taken from the 35 Hz bandwidth filter. The signal from either filter is coupled to the 1.215 MHz IF stages.

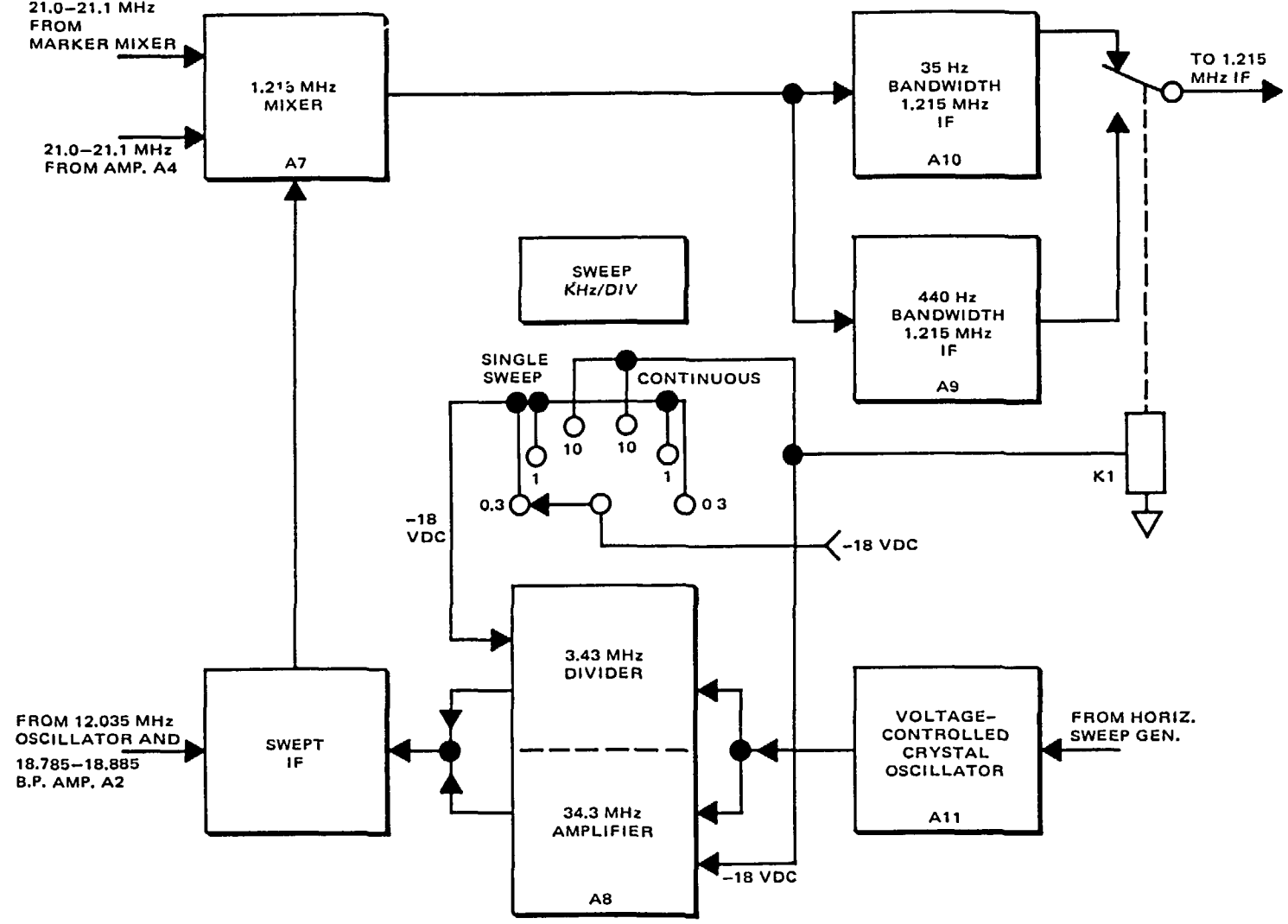


Figure 1-109. Block diagram, swept IF and 1.215 MHz mixer.

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1-104. 1.215 MHz IF, Detector and Deflection Circuits
(fig. 1-110)

a. *Horizontal Sweep Generator.* The horizontal sweep generator generates a linear sawtooth signal of either 1 Hz or 0.1 Hz. The output of the generator drives both the voltage-controlled crystal oscillator and the horizontal sweep amplifier. The horizontal sweep amplifier increases the amplitude of the sawtooth wave sufficiently to deflect the cathode ray tube across the entire face of the tube.

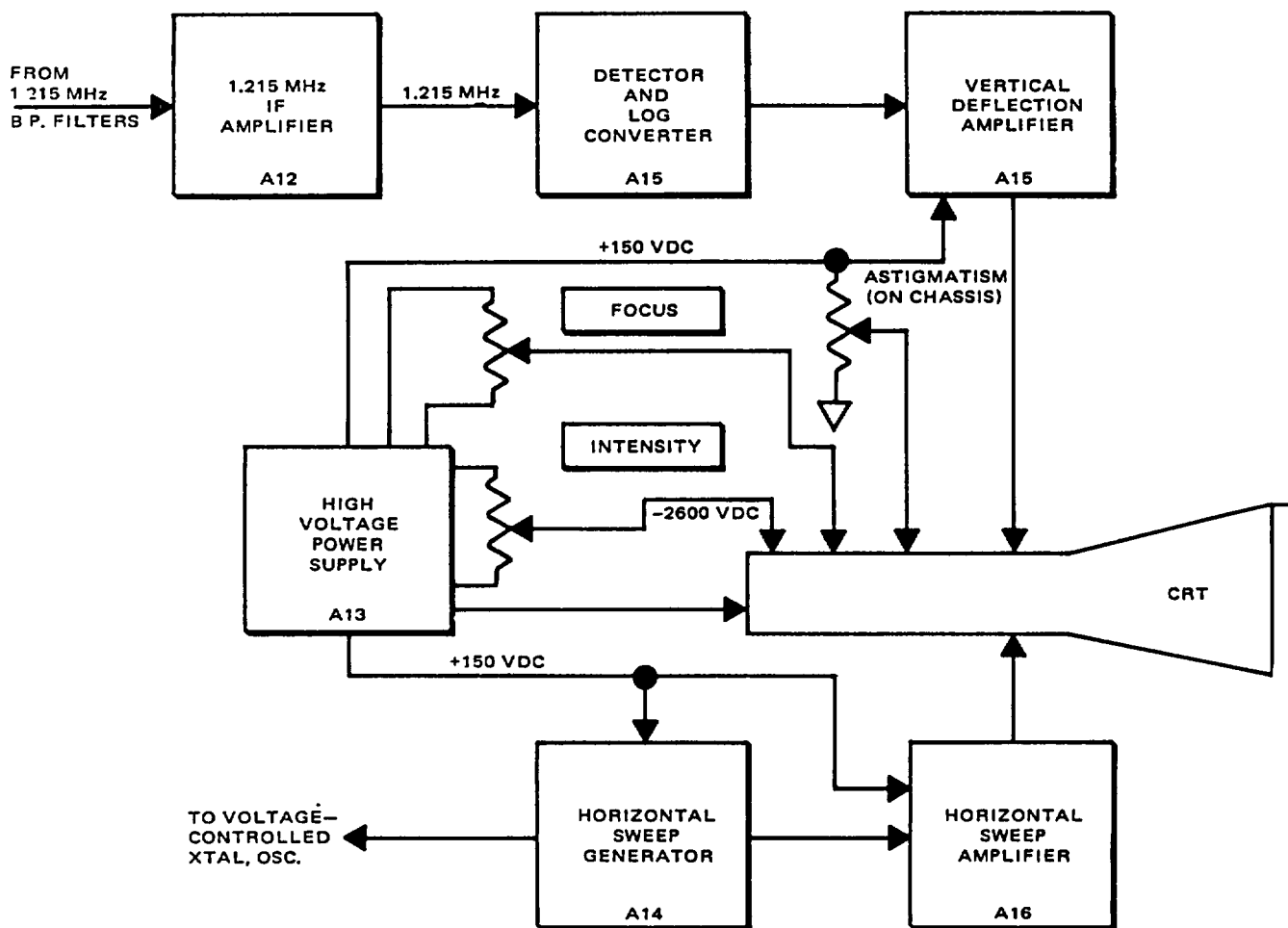
b. *Focus, Intensity and Astigmatism Controls.* The intensity control varies the -2600-volt dc potential to the cathode-ray tube to control the brightness of the display. The focus control varies the high voltage to the focussing anode in the cathode ray tube to provide a sharp, clear trace on the screen. The astigmatism

control, located on the chassis is adjusted to provide a clear, round spot on the CRT.

c. *1.215 MHz IF Amplifier.* Signals from either of the bandpass filters are amplified by the 1.215 MHz IF amplifier up to a level suitable for detection.

d. *Detector and Log Converter.* The detector converts the 1.215 MHz signals from the IF amplifier to dc voltages that are proportional to the amplitude of the incoming signals. These linear dc voltages are then compressed by the log converter so that the display on the cathode-ray tube screen can be read directly in decibels.

e. *Vertical Deflection Amplifier.* This circuit amplifies the logarithmic (dB) dc signals up to an amplitude suitable for maximum vertical deflection of the cathode-ray tube trace.



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Figure 1-110. Block diagram, 1.215 MHz IF, detector and deflection circuits.

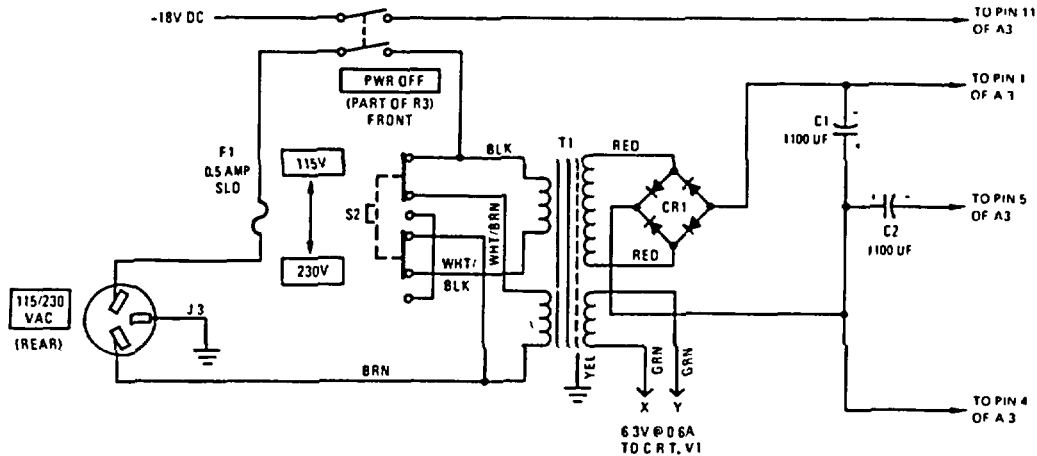
1-105. Ac Power Supply and Rectifier

(fig. 1-111)

a. General. The input stage contains the power input plug, fuse F1, the front panel PWR OFF switch, the line voltage selector switch, the power transformer, and the full-wave rectifier.

b. Detailed Operation. Line power of 115 or 230 volts ac is applied to the primary winding of the power transformer T1 through the power input plug P1, fuse F1,

and the PWR OFF switch R3. Switch R3 also controls negative 18 volts dc power. The line voltage selector switch S2 allows use of either 115 or 230 volts ac power by switching the primary windings of the transformer in series or parallel, respectively. The secondary windings of the transformer provide outputs of 26 volts ac and 6.3 volts ac. The full-wave rectifier CR1 provides dc output of negative 26 volts dc to the power supply. Capacitors C1 and C2 provide filtering.



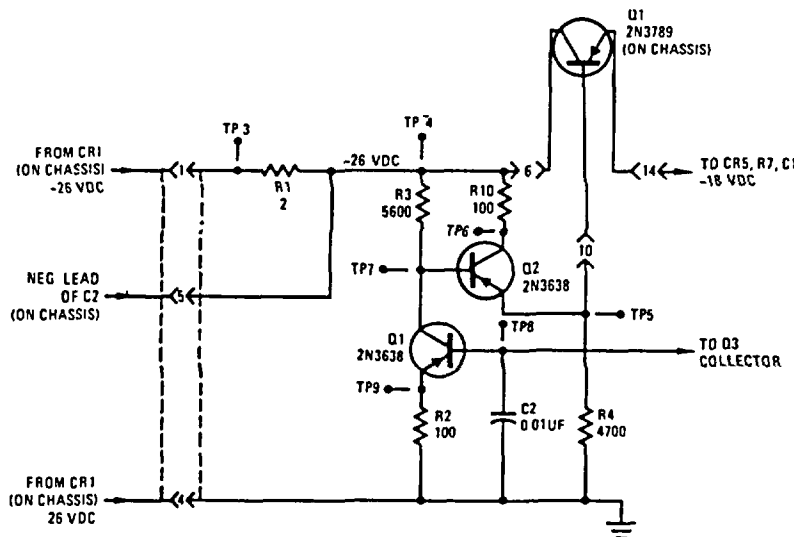
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Figure 1-111. Ac power supply and rectifier.

1-106. Power Supply Input Stage
(fig. 1-112)

This stage contains the series regulator. Transistor Q1, on the chassis, is the series regulator controlled by transistors Q1, Q2, and Q3 (figure 1-113). Series regulator transistor Q1 is controlled by transistor Q2 which in turn is controlled by transistor Q1. Transistor Q1 is controlled by the output sensing transistor Q3 (figure 1-112). Base bias for transistor Q2 is set by resistor R3 and transistor Q1. Resistor R10 provides

collector bias for transistor Q2. Resistor R2 provides emitter bias for transistor Q1. Capacitor C2 provides filtering for the control voltage from transistor Q3. Base bias for series regulator transistor Q1 is set by resistor R4 and transistor Q2. Test points TP3 and TP4 monitor the supply input voltage. Test point TP7 monitors the voltage at the base of transistor Q2. Test points TP9 monitors the voltage at the emitter of transistor Q1. Test point TP5 monitors the voltage at the base of series regulator transistor Q1.



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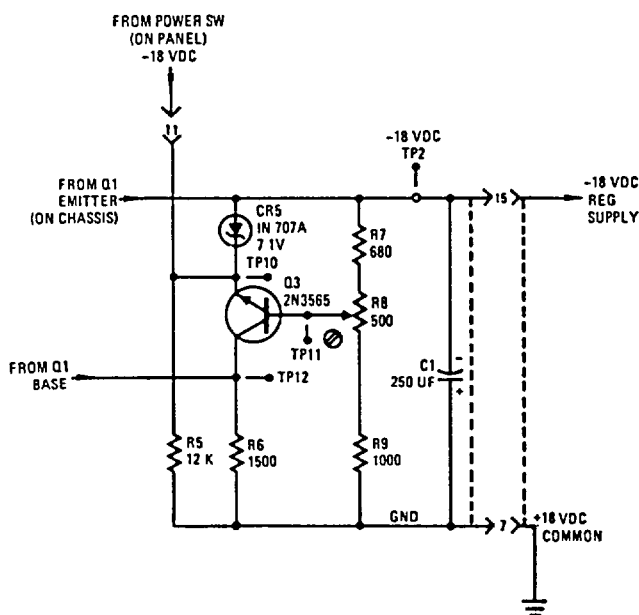
Figure 1-112. Power supply input stage.

1-107. Power Supply Regulator

(fig. 1-113)

This stage provides the output voltage sensing for the input stage. Transistor Q3 senses changes in the output voltage. The correction voltage is developed at the collector of transistor Q3 and applied to transistor Q1 in the input stage. Base bias is set by resistors R7 and R9 and output voltage control potentiometer R8. Emitter

bias is provided by 7.1 volt Zener diode CR5 and resistor R5 (on the negative 18-volt line controlled by the PWR OFF switch). Collector load is provided by resistor R6. Capacitor C1 provides output filtering. Test points TP10, TP11, and TP12 monitor the voltages at the emitter, base, and collector, respectively, of transistor Q3. Test point TP2 monitors the supply output voltage.



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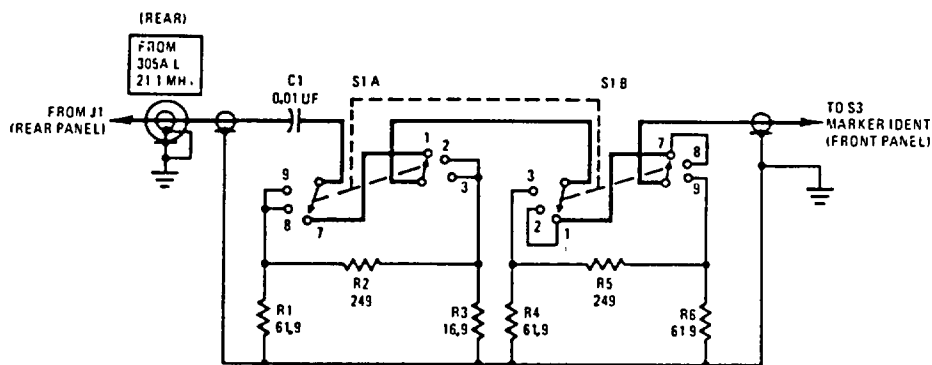
Figure 1-113. Power supply regulator.

1-108. Input Attenuator

(fig. 1-114)

This stage provides selection of 0 dB, 20 dB, or 40 dB attenuation of the input signal as controlled by the front

panel ATTENUATOR dB switch, S1. The stage consists of two 20 dB attenuation networks successively switched in series to provide a total attenuation of 40 dB. The input impedance remains at 50 ohms in all positions.



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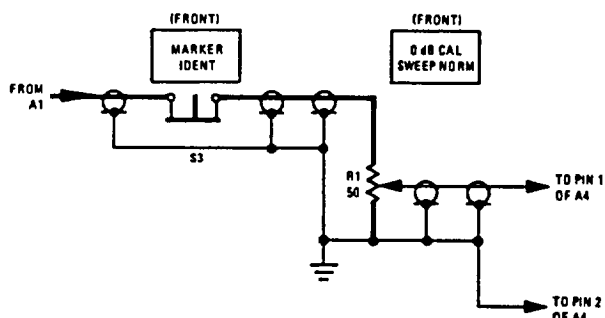
NOTE:
 DENOTES DOUBLE SHIELDED COAX CABLE

Figure 1-114. Input attenuation.

1-109. MARKER IDENT and 0 dB CAL SWEEP NORM Controls

(fig. 1-115)

The MARKER IDENT switch disconnects the input signal to allow identification of the marker signal. The 0 dB CAL SWEEP NORM control has a total attenuation range of 25 dB and provides continuous, fine control between the 20 dB steps of the input attenuator.



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Figure 1-115. MARKER IDENT and 0 dB CAL SWEEP NORM controls.

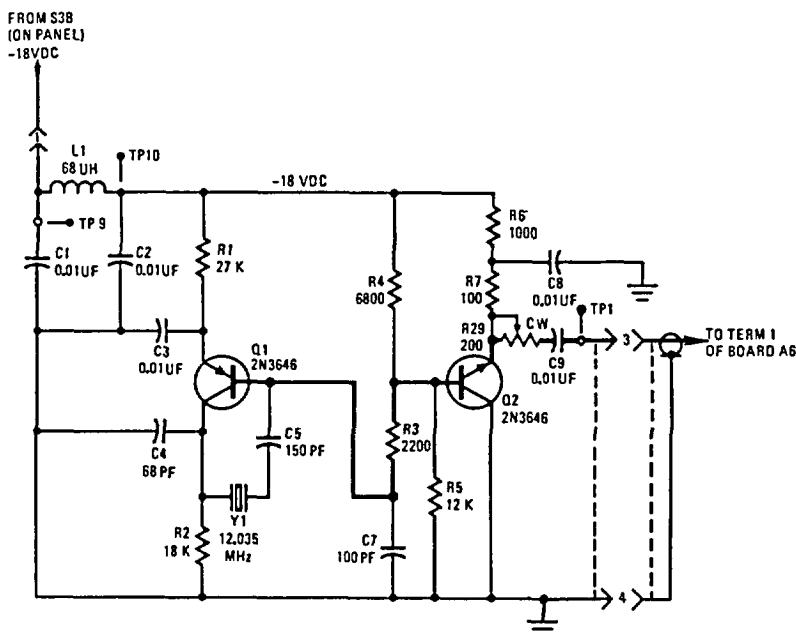
1-110. 12.035 MHz Oscillator

(fig. 1-116)

a. *General.* In the 10 kHz/division continuous or single sweep modes, the 12.035 MHz oscillator is

energized. The output is used in the swept IF circuits.

b. *Detailed Operation.* Power is applied to this stage through the SWEEP-kHz/ DIV switch in the 10 kHz/division single sweep and continuous modes. Transistor Q1 is the oscillator transistor with feedback provided through 12.035 MHz crystal Y1 and series resonant capacitor C5, emitter bias provided by resistor R1, emitter bypass provided by capacitor C3, collector load provided by resistor R2, and collector bypass provided by capacitor C4. The signal in the base circuit of transistor Q1 is applied to the divider composed of resistor R3 and capacitor C7. Resistor R15 provides termination for the signal at the base of transistor Q2. Transistor Q2 is an emitter-follower with base bias provided by resistors R3 and R4, emitter load provided by resistors R6 and R7, emitter decoupling provided by capacitor C8. output level controlled by potentiometer R29, and output coupling provided by capacitor C9. Capacitors C1 and C2 and inductor L1 provide power supply decoupling. Test point TP1 monitors the output signal. Test point TP10 monitors the power supply voltage.



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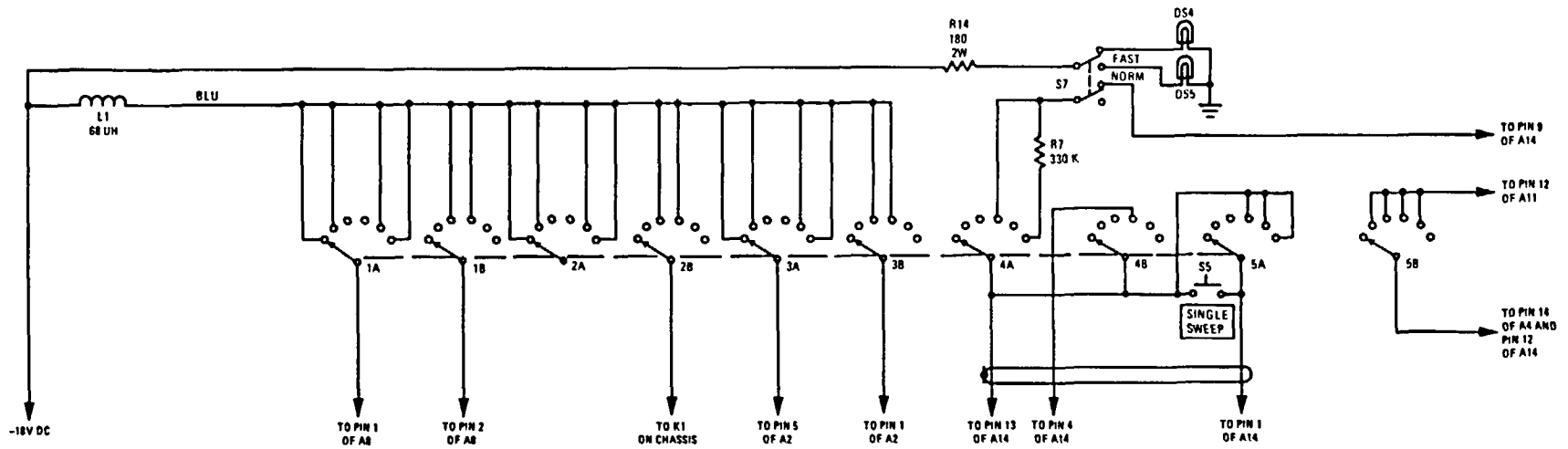
Figure 1-116. 12.035 MHz oscillator.

1-111. SWEEP-kHz/DIV, SINGLE SWEEP, and FAST/NORM Switches

(fig. 1-117)

The SWEEP-kHz/DIV switch controls negative 18 volts dc to various circuits. The switch consists of five two-

sided sections. The FAST/NORM switch selects either a fast sweep rate to aid in locating a signal or normal sweep speed. The SINGLE SWEEP switch controls the sweep in the single sweep modes.



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Figure 1-117. SWEEP-kHz/DIV. SINGLE SWEEP, and FAST NORM switches.

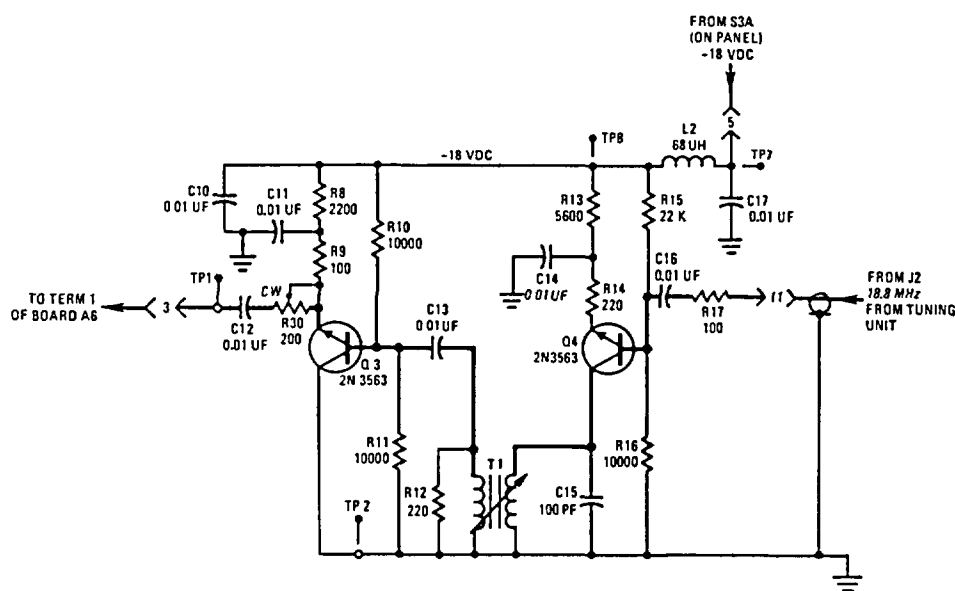
1-112. VFO Amplifier, 18.785 to 18.885 MHz to SWEPT IF Stage

(fig. 1-118)

a. *General.* This stage provides amplification for the 18.785 to 18.885 MHz fine tuning frequency from the tuning unit. The output is applied to the swept IF mixer. The stage is active only in the 1 kHz/div and 0.3 kHz/div, single sweep or continuous modes.

b. *Detailed Operation.* Operating power for the stage is switched by the SWEEP-kHz/DIV switch in the 1 and .3, SINGLE SWEEP and CONTINUOUS positions. The signal is applied to the base of transistor Q4. Transistor Q4 is an amplifier with input coupling provided by resistor R17 and capacitor C16, base bias provided

by resistors R 15 and R16, emitter bias provided by resistors R13 and R14, emitter bypass provided by capacitor C14, and collector load provided by capacitor C15 and adjustable transformer T1. Transistor Q3 is an emitter follower with input coupling provided by capacitor C13, base bias provided by resistors R10 and R11, emitter load provided by resistors R8 and R9, emitter bypass provided by capacitor C11, and output level control provided by potentiometer R30, and output coupling provided by capacitor C12. Inductor L1 and capacitors C10 and C17 provide power supply decoupling. Test points TP7 and TP8 monitor the power supply voltage. Test point TP2 is ground. Test point TP1 monitors the signal output.



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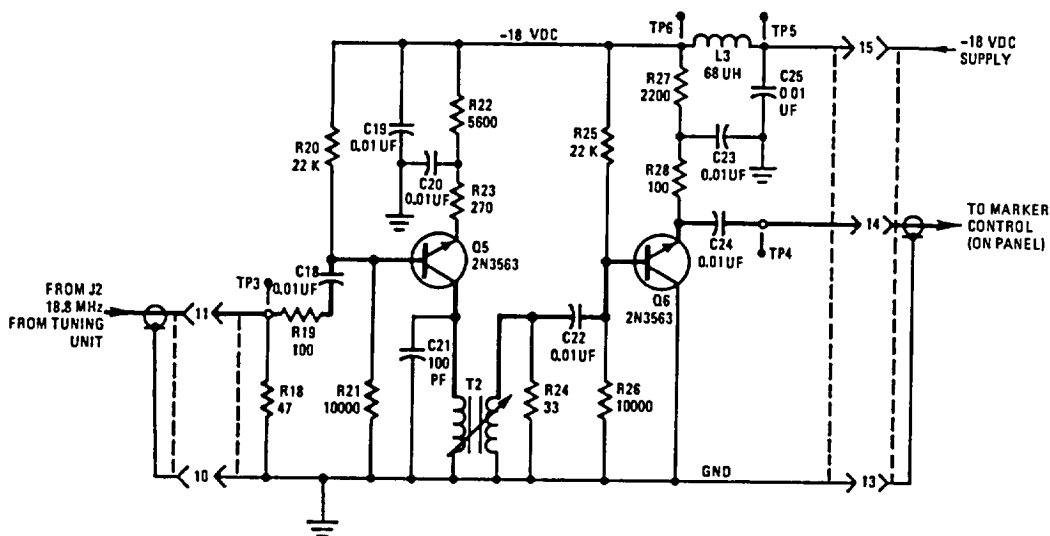
Figure 1-118. VFO amplifier, 18.785 to 18.885 MHz to swept IF stage.

1-113. VFO Amplifier, 18.785 to 18.885 MHz to Marker IF Stage

(fig. 1-118)

This stage provides amplification for the 18.785 to 18.885 MHz fine tuning frequency from the tuning

unit. The output is applied to the marker IF mixer. The stage is configured identically to the amplifier described in paragraph 1-112b.

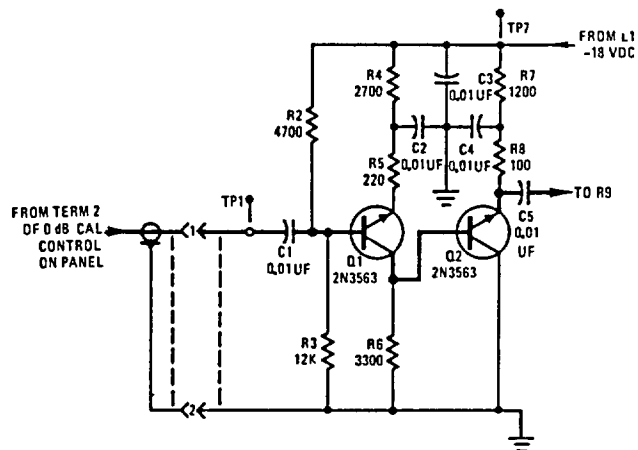


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Figure 1-119. VFO amplifier, 18.785 to 18.885 MHz to marker IF stage.

1-114. Input Signal Amplifier, Input Stage
(fig. 1-120)

This circuit provides the first stage of signal amplification. The input signal is applied to the base of transistor Q1. Transistor Q1 is an amplifier with input coupling provided by capacitor C1, base bias provided by resistors R2 and R3, emitter bias provided by resistors R4 and R5, emitter bypass provided by capacitor C2, and collector load provided by resistor R6. The signal is applied directly to the base of transistor Q2. Transistor Q2 is an emitter-follower with base bias provided by resistor R6, emitter load provided by resistors R7 and R8, emitter bypass provided by capacitor C4, and output coupling provided by capacitor C5. Capacitor C3 provides power supply isolation. Test point TP1 monitors the input signal. Test point TP7 monitors the power supply voltage.



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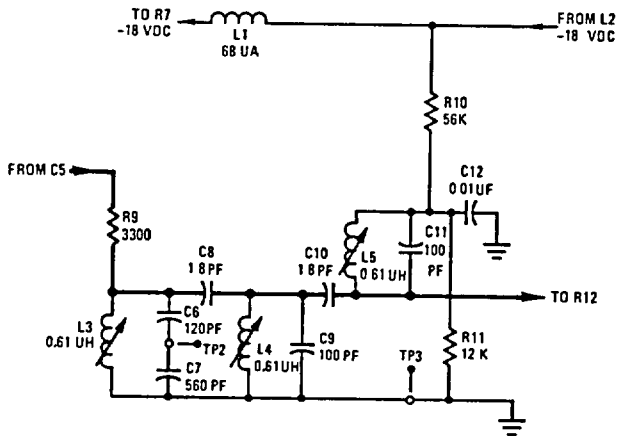
Figure 1-120. Input signal amplifier, input stage.

1-115. Input Signal Amplifier, Bandpass Filter

(fig. 1-121)

a. *General.* The bandpass filter eliminates all frequencies outside the 20.0 to 20.1 MHz input signal frequency range.

b. *Detailed Operation.* The bandpass filter consists of three sections. Variable inductor L3, capacitors C6 and C7, and coupling capacitor C8 form a typical section. Resistor R9 provides impedance matching. Inductor L1 and resistor R10 provide power supply isolation. Test point TP2 monitors the signal at the junction of capacitors C6 and C7 in the first filter section. Test point TP3 is ground.



TM 6625-1748-45-246

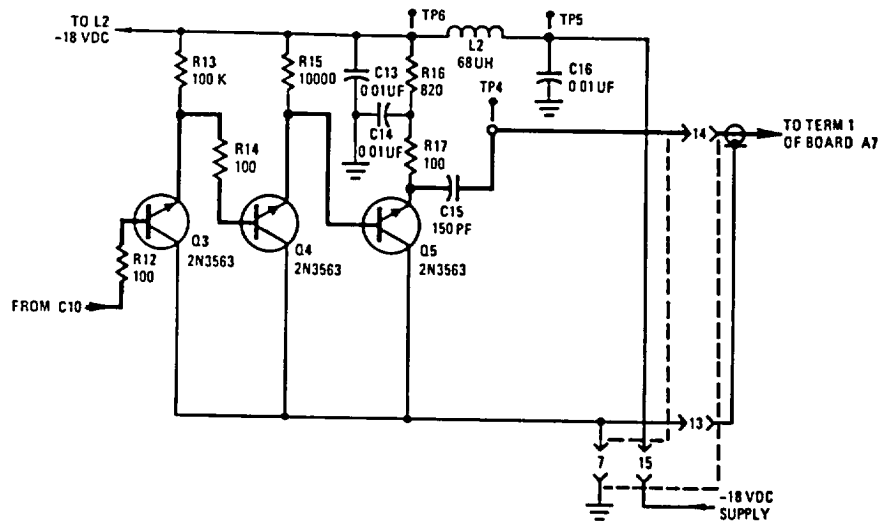
Figure 1-121. Input signal amplifier, bandpass filter stage.

1-116. Input Signal Amplifier, Output Stage

(fig. 1-122)

a. *General.* This stage consists of three emitter-followers. This arrangement provides the high terminating resistance required by the 1.215 MHz mixer.

b. *Detailed Operation.* The three emitter-follower stages function identically. Resistors R12 and R14 provide degeneration. Resistors R13, R15, R16, and R17 provide emitter load. Capacitor C14 provides emitter bypass. Capacitor C15 provides output coupling. Capacitors C13 and C16 and inductor L2 provide power supply isolation. Test point TP4 monitors the output signal. Test point TP5 monitors the power supply voltage.



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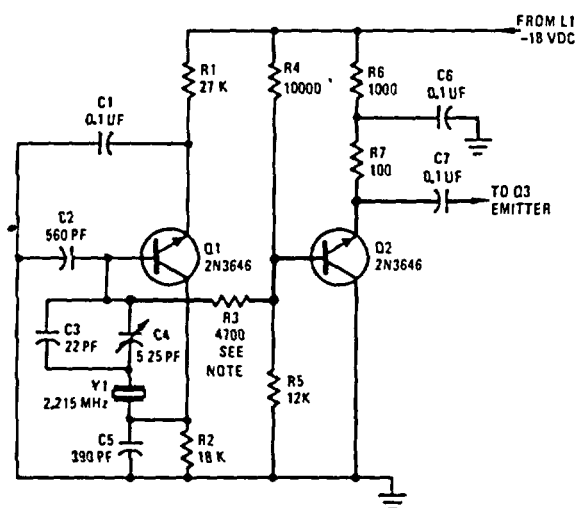
Figure 1-122. Input signal amplifier, output stage.

1-117. Marker IF, 2.215 MHz Oscillator Stage

(fig. 1-123)

a. *General.* This stage provides the 2.215 MHz signal used in the marker IF mixer.

b. *Detailed Operation.* Transistor Q1 is the oscillator transistor with feedback provided by 2.215 MHz crystal Y1 and capacitors C3 and C4 base bypass provided by capacitor C2, emitter bias provided by resistor R1, emitter bypass provided by capacitor C1, collector load provided by resistor R2, and collector bypass provided by capacitor C5. The output signal in the base circuit of transistor Q1 is applied to the base of transistor Q2 through resistor R3. Transistor Q2 is an emitter-follower with base bias provided by resistors R4 and R5 emitter load provided by resistors R6 and R7 emitter bypass provided by capacitor C6, and output coupling provided by capacitor C7.



NOTE: TM 6625-1748-45-248
4700 TO 10K FACTORY SELECT

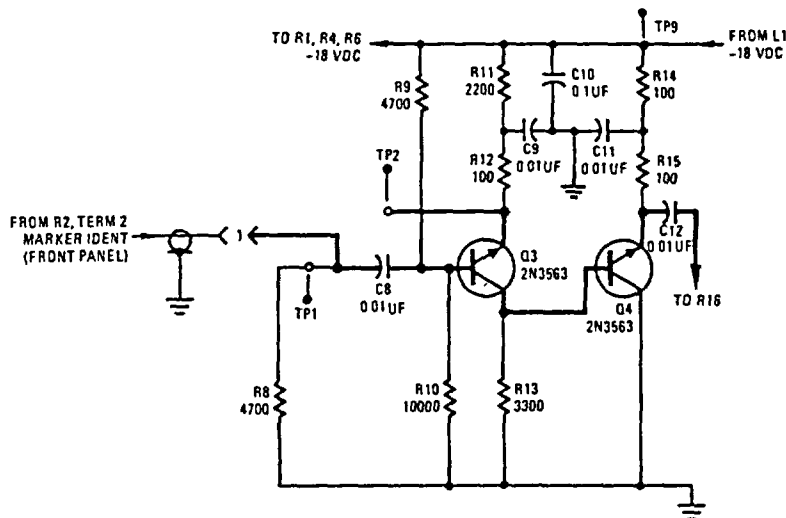
Figure 1-123. Marker IF, 2.215 MHz oscillator stage.

1-118. Marker IF, Mixer Stage

(fig. 1-124)

a. *General.* The mixer stage combines the 18.785 to 18.885 MHz fine tuning frequency from the VFO amplifier with the output of the 2.215 MHz oscillator. The output frequency is 20.0 to 20.1 MHz and is used as the marker.

b. *Detailed Operation.* Transistor Q3 is the mixer amplifier. The 18.785 to 18.885 MHz signal is applied to the base: the 2.215 MHz signal is applied to the emitter. Resistor R8 provides input termination. Capacitor C8 provides input coupling. Base bias is provided by resistors R9 and R10. Emitter load is provided by resistors R11 and R12. Emitter bypass is provided by capacitor C9. Collector load is provided by resistor R13. The output is applied directly to the base of transistor Q4. Transistor Q4 is an emitter-follower with base bias provided by resistor R13, emitter bias provided by resistors R14 and R15, emitter bypass provided by capacitor C11, and output coupling provided by capacitor C12. Capacitor C10 provides power supply decoupling. Test point TP1 monitors the 18.785 to 18.885 MHz input signal. Test point TP2 monitors the 2.215 MHz input signal. Test point TP9 monitors the power supply voltage.



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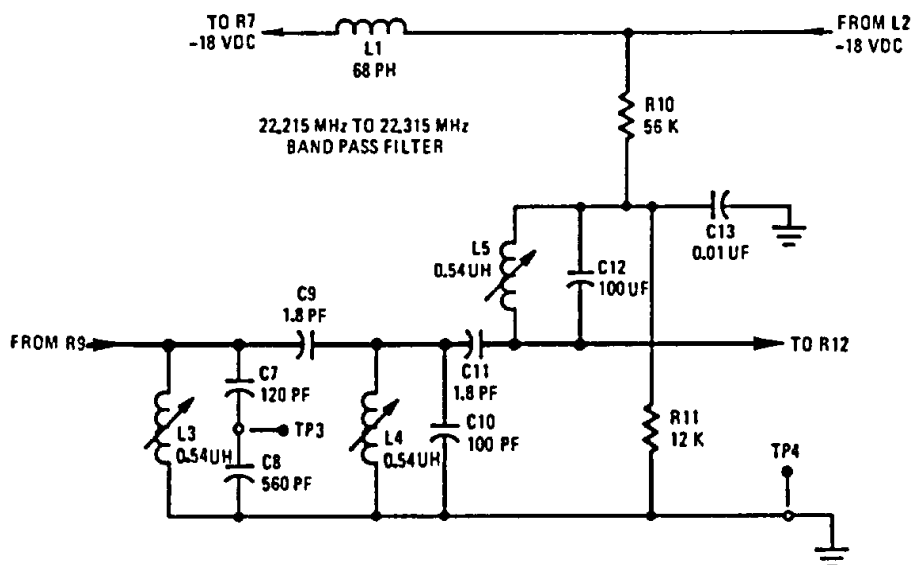
Figure 1-124. Marker IF, Mixer stage.

1-119. Marker IF, Bandpass Filter and Output Stage
(fig. 1-125)

a. *General.* This stage consists of a 20.0 to 20.1 MHz bandpass filter and an emitter-follower output.

b. *Detailed Operation.* The bandpass filter is configured identically to the input-signal-amplifier bandpass filter (para 1-115b) and consists of three sections. Transistor Q5 is an emitter-follower with

degeneration provided by resistor R19, emitter load provided by resistors R20 and R21, and output coupling provided by capacitor C21. Inductors L1 and L2, capacitors C20 and C21, and resistor R17 provide power supply decoupling. Test point TP5 monitors the emitter of transistor Q5. Test point TP6 monitors the output signal. Test points TP7 and TP8 monitor the power supply voltage. Test point TP4 is ground.



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Figure 1-125. Marker IF, bandpass filter and output stage.

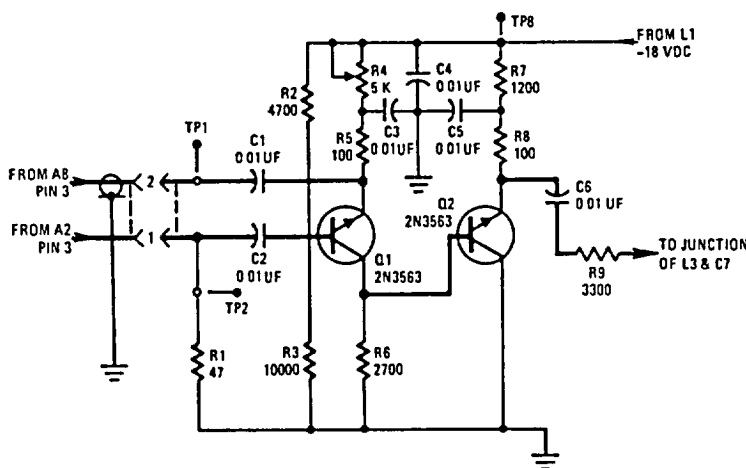
1-120. Swept IF, Input Amplifier Stage

(fig. 1-126)

a. *General.* This stage mixes the swept divider output signal with either 12.035 MHz (10 kHz/ division modes), or 18.785 to 18.885 MHz (1 and .3 kHz/ division).

b. *Detailed Operation.* Transistor Q1 is the mixer transistor. The swept divider is applied to the emitter; the marker input is applied at the base. Resistor R1 provides input termination. Transistor Q1 is an amplifier with base bias provided by resistors R2 and R3, emitter bias provided by variable gain control resistor R4 and

resistor R5, emitter bypass provided by capacitor C3, and collector load provided by resistor R6. The signal is applied directly to the base of transistor Q2. Transistor Q2 is an emitter-follower with base bias provided by resistor R6, emitter load provided by resistors R7 and R8, emitter bypass provided by capacitor C5, and output coupling provided by capacitor C6. Resistor R9 provides interstage isolation. Capacitor C4 provides power supply isolation. Test point TP1 monitors the swept divider signal. Test point TP2 monitors the marker input signal. Test point TP8 monitors the power supply voltage.



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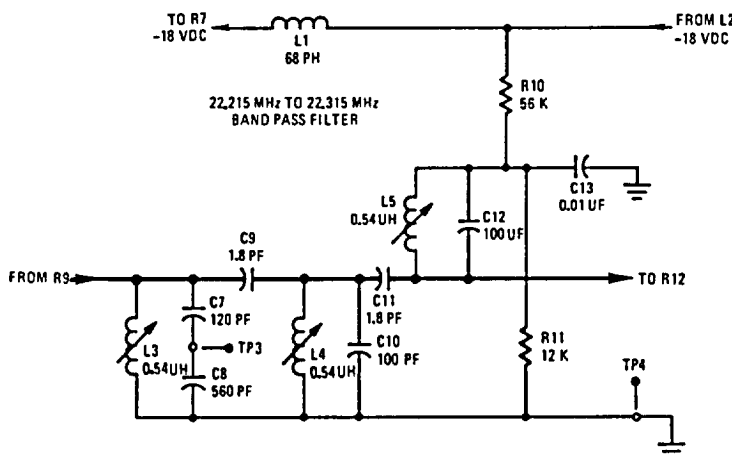
Figure 1-126. Swept IF. input amplifier stage.

1-121. Swept IF, Bandpass Filter Stage

(fig. 1-127)

The bandpass filter eliminates frequencies outside of the

20.0 to 20.1 MHz frequency range. The filter is configured identically to the input signal amplifier bandpass filter (para 1-115 b).



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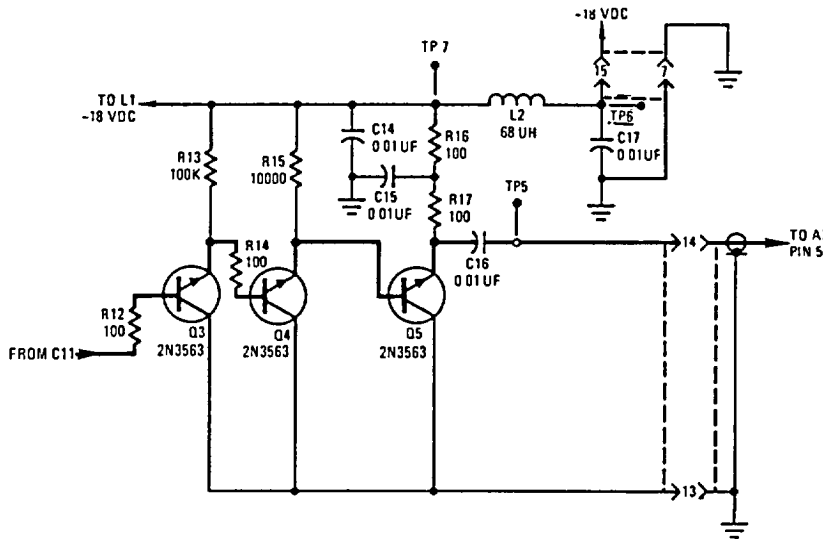
Figure 1-127. Swept IF, bandpass filter stage.

1-122. Swept IF, Putout Stage

(fig. 1-128)

This stage provides the swept IF output to the 1.215

MHz mixer. It is configured identically to the input signal amplifier input stage, (paragraph 1-115b). Test point TP5 monitors the output sign al.



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Figure 1-128. Swept IF. output stage.

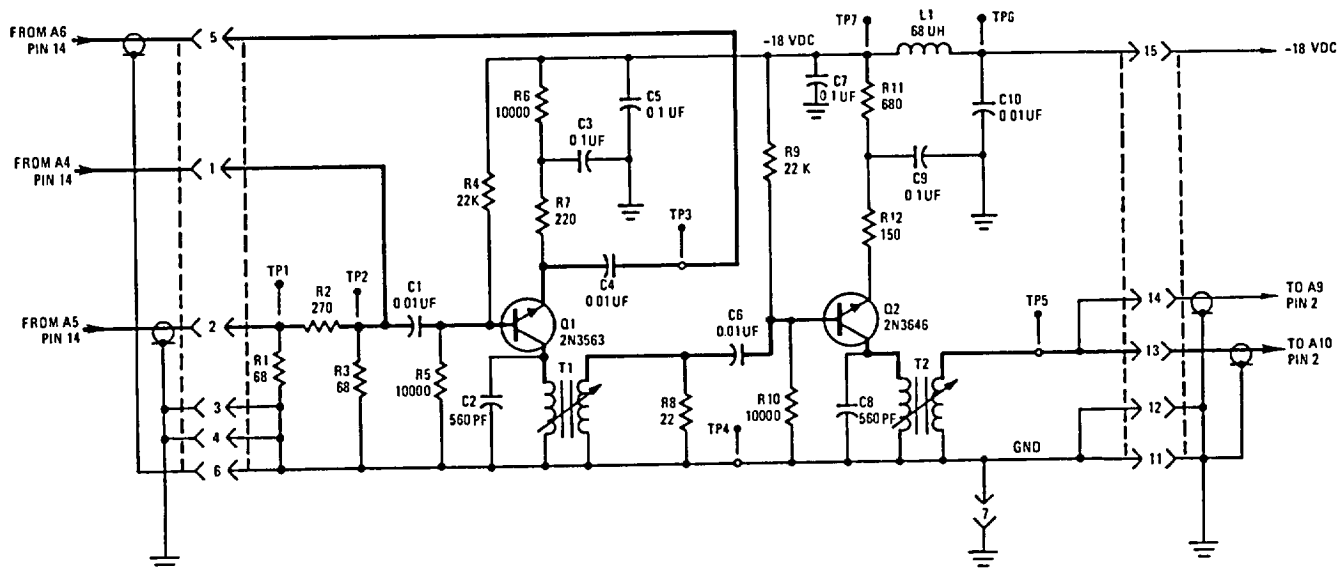
1-123. 1.215 MHz Mixer

(fig. 1-129)

a. *General.* The mixer combines three signals: the swept IF signal, the input signal, and the marker IF signal. The resultant output is 1.215 MHz. The stage consists of a mixer with a tuned output circuit, and a tuned output amplifier.

b. *Detailed Operation.* Transistor Q1 is the mixer transistor. The marker IF and input signals are combined in the base circuit; the swept IF signal is applied at the emitter. Resistors R1 and R3 provide input termination. Resistor R2 provides isolation between the marker and signal inputs. Transistor Q1 is an amplifier with input coupling provided by capacitor C1 to the base and capacitor C4 at the emitter, base bias provided by resistors R4 and R5, emitter bias provided by resistors R6 and R7, emitter bypass provided by

capacitor C3, collector load provided by the tuned circuit consisting of adjustable transformer T1 and capacitor C5, output termination provided by resistor R5, and output coupling provided by capacitor C6. The output is applied to the base of transistor Q2. Transistor Q2 is an amplifier with base bias provided by resistors R9 and R10, emitter bias provided by resistors R11 and R12, emitter bypass provided by capacitor C9, and collector load provided by the tuned circuit consisting of the adjustable transformer T2 and capacitor C8. Capacitors C7 and C10 and inductor L1 provide power supply isolation. Test point TP1 monitors the marker IF input signal. Test point TP2 monitors the signal input. Test point TP3 monitors the swept IF input signal. Test point TP4 is ground. Test point TP5 monitors the output signal. Test points TP6 and TP7 monitor the power supply voltage.



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Figure 1-129. 1.215 MHz mixer.

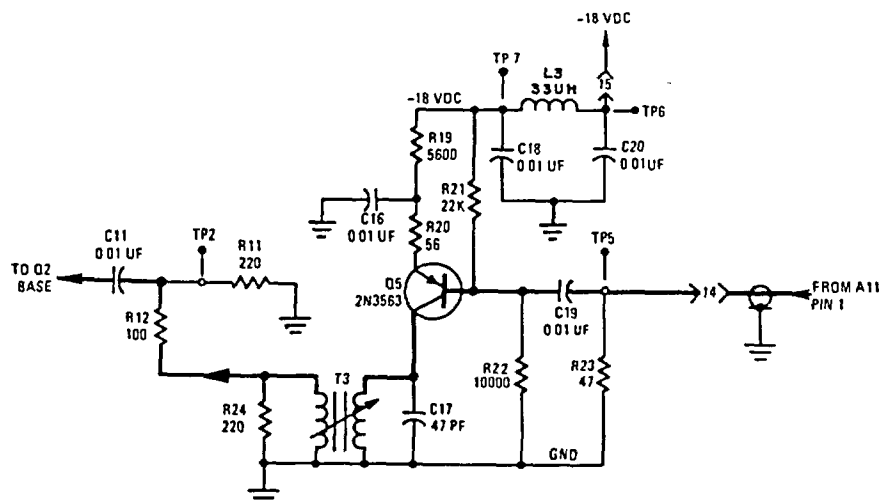
1-124. Swept Divider Input Stage

(fig. 1-130)

a. *General.* This stage provides initial amplification of the VCXO input signal to the swept divider.

b. *Detailed Operation.* Resistor R23 provides input termination. Transistor Q5 is an amplifier with base bias provided by resistors R21 and R22, emitter bias provided by resistors R19 and R20, emitter bypass provided by capacitor C16, and collector load provided by the tuned circuit composed of adjustable transformer

T3 and capacitor C17. The output is applied directly to the swept IF 10 kHz/division output amplifier, and through resistor R11 and coupling capacitor C11 to the swept IF 1 and 0.3 kHz/division output amplifier. Resistors R11 and R12 form a voltage divider to set the output level. Capacitors C18 and C20, and inductor L3 provide power supply decoupling. Test point TP5 monitors the input signal. Test point TP2 monitors the output signal. Test points TP6 and TP7 monitor the power supply voltage.



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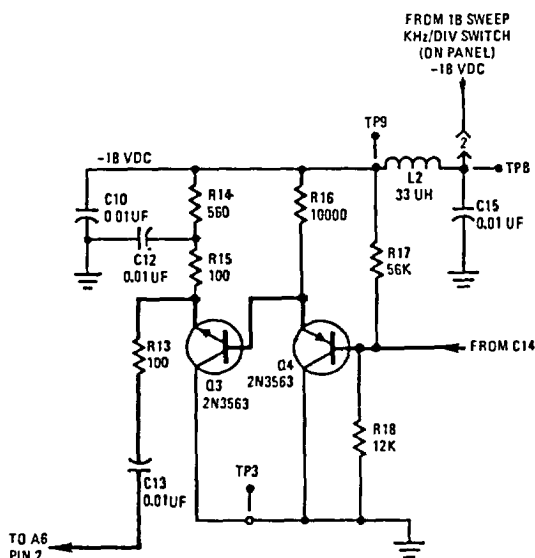
Figure 1-130. Swept divider input stage.

1-125. Swept Divider 10 kHz/ Division Output Amplifier

(fig. 1-130)

a. *General.* Power for this amplifier is controlled by the SWEEP-kHz/DIV switch. The amplifier is energized in the 10 kHz/division modes.

b. *Detailed Operation.* The input is applied to the base of transistor Q4. Transistor Q4 is an emitter-follower with base bias provided by resistors R17 and R18, and emitter load provided by resistor R16. The signal is applied directly to the base of transistor Q3. Transistor Q3 is an emitter-follower with base bias provided by resistor R16, emitter load is provided by resistors R14 and R15, emitter decoupling is provided by capacitor C12, output coupling is provided by resistor R13 and capacitor C13. Capacitors C10 and C15, and inductor L2 provide power supply isolation. Test points TP8 and TP9 monitor the power supply voltage. Test point TP3 is ground.



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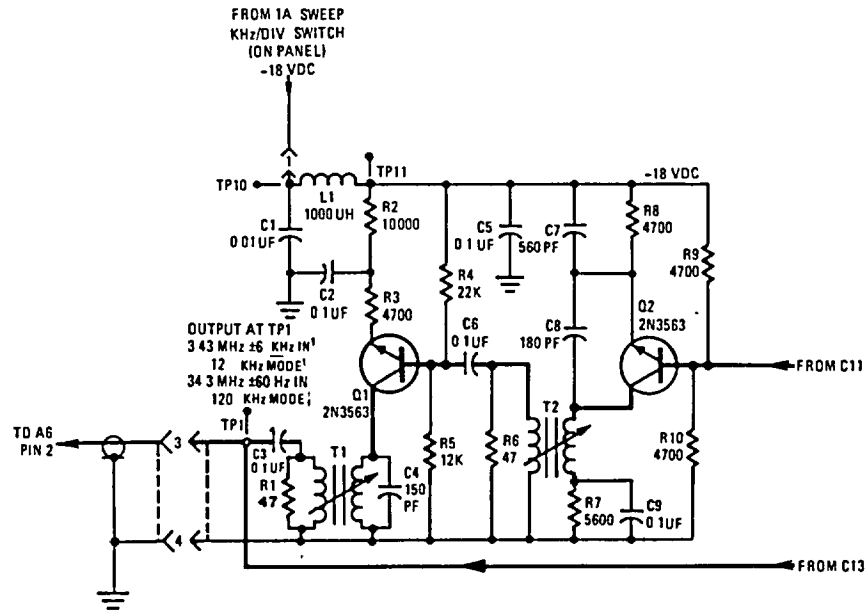
Figure 1-131. Swept divider 10 kHz/division output amplifier.

1-126. Swept Divider 1 and .3 kHz/Division Divider and Output Amplifier

(fig. 1-132)

a. *General.* Power for this amplifier is controlled by the SWEEP-kHz/DIV switch. The amplifier is energized in the 1 and .3 kHz/division modes to divide the input frequency by ten.

b. *Detailed Operation.* The input signal is applied to the base of transistor Q2. Transistor Q2 is locked divide-by-10 oscillator with base bias provided by resistors R9 and R10, emitter bias provided by resistor R8, emitter bypass provided by capacitors C7 and C8, and collector load provided by the tuned circuit composed of adjustable transformer T2, capacitor C9, and resistor R7. Resistor R6 provides output termination. Output coupling is provided by capacitor C6. The signal is applied to the base of tuned amplifier transistor Q1. The operation and configuration of amplifier transistor Q1 is functionally identical to that of transistor Q2. Output impedance is set by resistor R1. Output coupling is provided by capacitor C3. Capacitors C1 and C5, and inductor L1 provide power supply decoupling. Test point TP1 monitors the output signal. Test points TP10 and TP11 monitor the power supply voltage.



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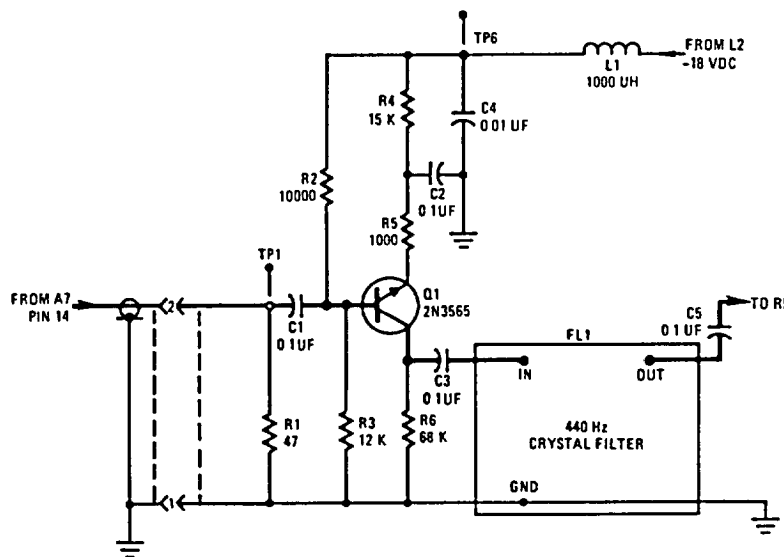
Figure 1-132. Swept divider 1 and .3 kHz/division divider and output amplifier.

1-127. 440 Hz Input Amplifier and Filter
(fig. 1-133)

a. *General.* This stage provides 440 Hz bandpass filtering of the 1.215 MHz mixer output.

b. *Detailed Operation.* Resistor R1 provides input termination. The signal is applied to the base of transistor Q1. Transistor Q1 is an amplifier with input coupling provided by capacitor C1, base bias provided by resistors R2 and R3, emitter bias provided by

resistors R4 and 115, emitter bypass provided by capacitor C2. collector load provided by resistor R6, and output coupling provided by capacitor C3. Filter FL1 is a crystal filter with a 440 Hz bandpass. The output of filter FL1 is applied to the following stage through coupling capacitor C5. Capacitor C4 and inductor L1 provide power supply isolation. Test point TP1 monitors the input signal. Test point TP6 monitors the power supply voltage.



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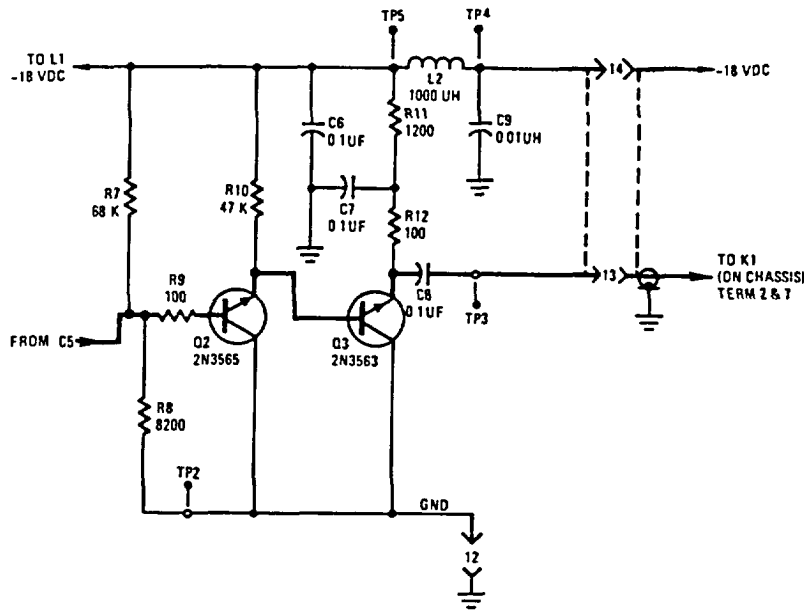
Figure 1-133. 440 Hz input amplifier and filter

1-128. 440 Hz Bandpass Filter Output Stage

(fig. 1-134)

This stage consists of two emitter-followers. The input is applied to the base of emitter-follower transistor Q2. The output of transistor Q2 is applied directly to the base of emitter-follower Q3. The output is coupled to the

bandwidth selection relay by capacitor C8. Resistors R7, R8, R9, R10, R11, and R12, and capacitor C8 provide biasing functions for transistors Q2 and Q3. Test point TP3 monitors the output signal. Test points TP4 and TP5, monitor the power supply voltage. Test point TP2 is ground.



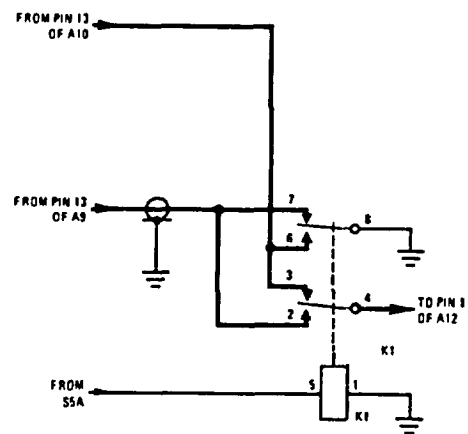
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Figure 1-134. 440 Hz bandpass filter output stage.

1-129. Bandwidth Selection Relay

(fig. 1-135)

This relay selects either the 35 Hz or 440 Hz bandpass filter output for application to the 1.215 MHz IF amplifier. The relay is controlled by the SWEEP-kHz/ DIV switch. The relay is energized in the 10 kHz/div modes to switch the 440 Hz bandpass filter output to the 1.215 MHz amplifier and the 35 Hz bandpass filter output to ground. In the 1 and .3 kHz/ division modes the relay is deenergized, switching the 35 Hz bandpass filter output to the 1.215 MHz amplifier and the 440 Hz bandpass filter output to ground.



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Figure 1-135. Bandwidth selection relay.

1-130. 35 Hz Input Amplifier and Bandpass Filter
(fig. 1-136)

identically to the 440 Hz input amplifier and bandpass filter (para 1-127 b).

This stage provides 35 Hz bandpass filtering of the 1.215 MHz mixer output. The stage is configured

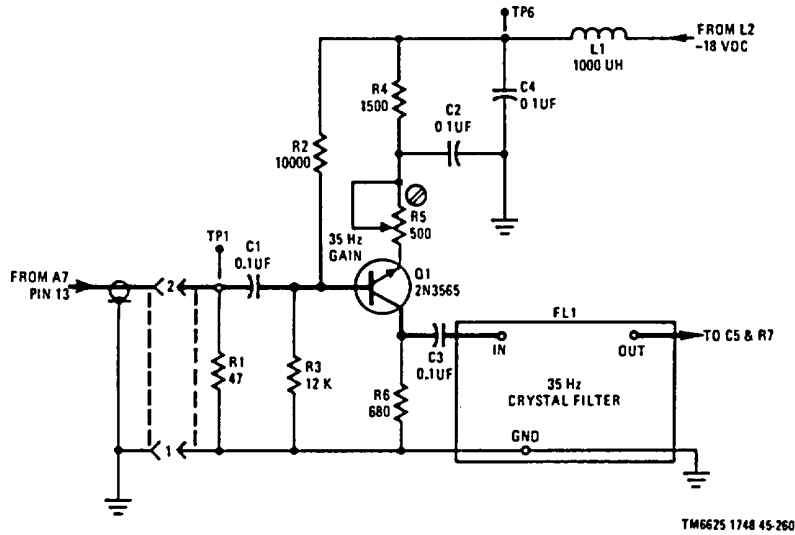


Figure 1-136. 35 Hz input amplifier and bandpass filter.

1-131. 35 Hz Bandpass Filter Output Stage
(fig. 1-137)

This stage functions identically to the 440 Hz bandpass filter output stage. (para 1-128 b).

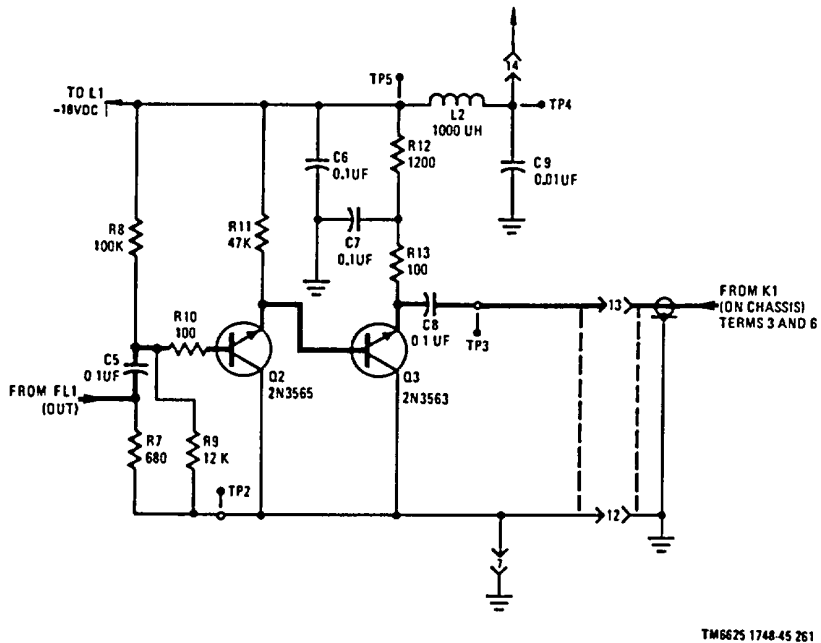


Figure 1-137. 35 Hz bandpass filter output stage.

1-132. VCXO Output Amplifier

(fig. 1-138)

a. *General.* This stage provides amplification for the VCXO output prior to application to the swept divider.

b. *Detailed Operation.* The input signal is introduced across the voltage divider composed of resistors R5 and R7 and input level control potentiometer R6. Transistor Q1 is an emitter follower with input coupling provided by capacitor C4. base bias provided by resistors R3 and R4, emitter load provided by resistor R2, and output coupling provided by capacitor C3. Test point TP1 monitors the output signal. Capacitor C2 and resistor R1 provide power supply isolation.

1-133. VCXO

(fig. 1-139)

The VCXO provides the swept output frequency. Capacitors C1 and C5, and inductor L1 provide power supply decoupling. The dc voltage input to the VCXO is at pin IN. The frequency output is at pin OUT. Test point TP6 monitors the output voltage. In the 1 and 10 kHz/ division modes, the dc input is applied through section S5B of the SWEEP-kHz/ DIV switch, bypassing the CAL 0.3 kHz/ DIV control. In the 0.3 kHz/division mode the CAL 0.3 kHz/DIV control R9 provides adjustment of the output frequency range. Test point TP3 monitors the dc input.

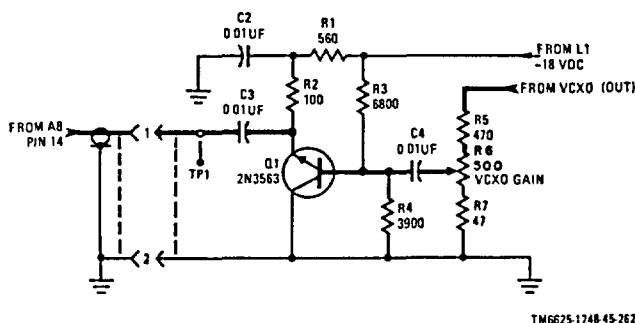


Figure 1-138. VCXO output amplifier.

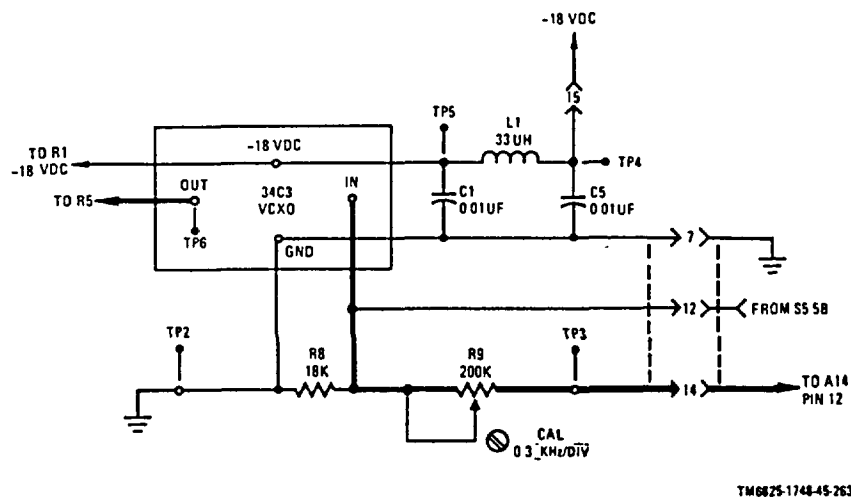


Figure 1-139. VCXO.

1-134. 1.215 MHz Amplifier, Input Stage

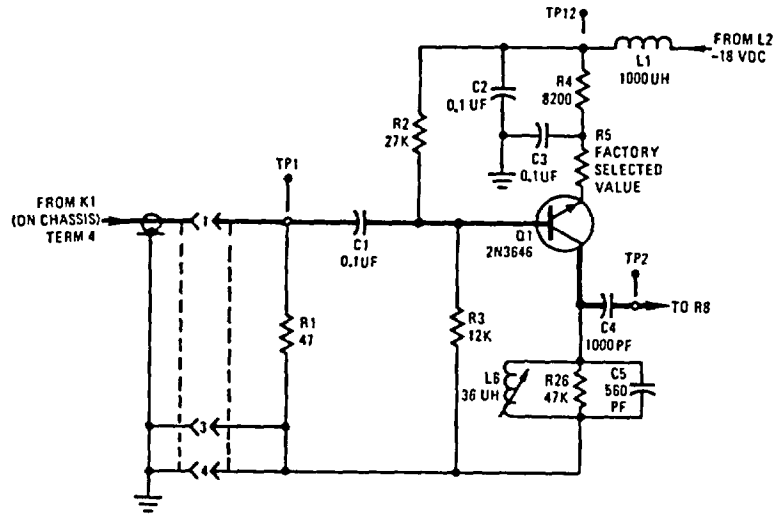
(fig. 1-140)

a. *General.* The 1.215 MHz amplifier provides about 80 dB of signal gain. It is made up of the input stage, the intermediate stages (fig. 1-141 and 1-142), and the output stage (fig. 1-143).

b. *Detailed Operation.* Resistor R1 sets the input impedance. Transistor Q1 is a tuned amplifier with input coupling provided by capacitor C1. base bias provided by resistors R2 and R3. emitter bias provided by resistors R4 and R5. emitter bypass provided by capacitor C3. collector

load provided by the tuned circuit composed of capacitor C5, variable inductor L6, and resistor R26, and output coupling provided by capacitor C4. Capacitor C2 and inductor L1 provide power supply decoupling. Test point

TP1 monitors the signal input. Test point TP2 monitors the signal output. Test point TP12 monitors the power supply voltage.



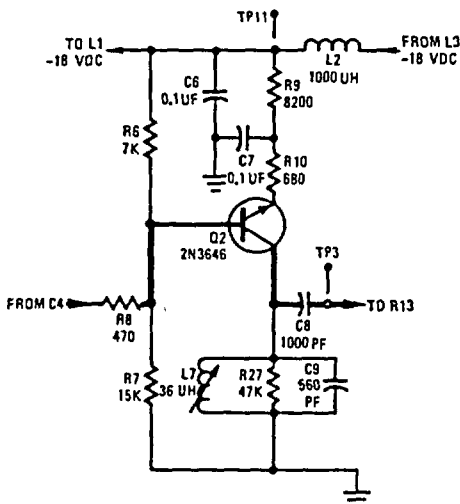
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Figure 1-140. 1.215 MHz amplifier, input stage.

1-135. 1.215 MHz Amplifier, Intermediate Stages

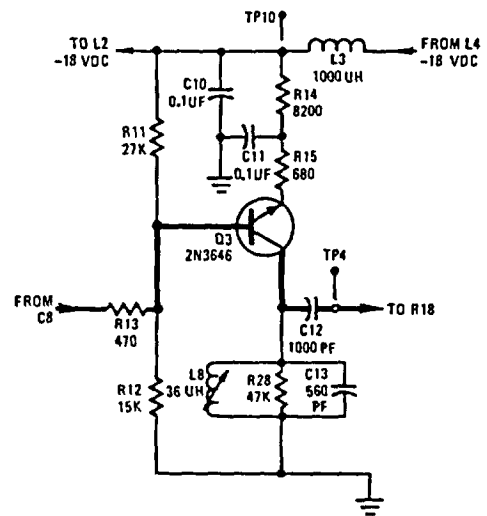
(fig. 1-141, 1-142, and 1-143)

The intermediate stages are configured identically to the input stage, (para 1-134b).



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Figure 1-141. Second 1.215 MHz amplifier.



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Figure 1-142. Third 1.215 MHz amplifier.

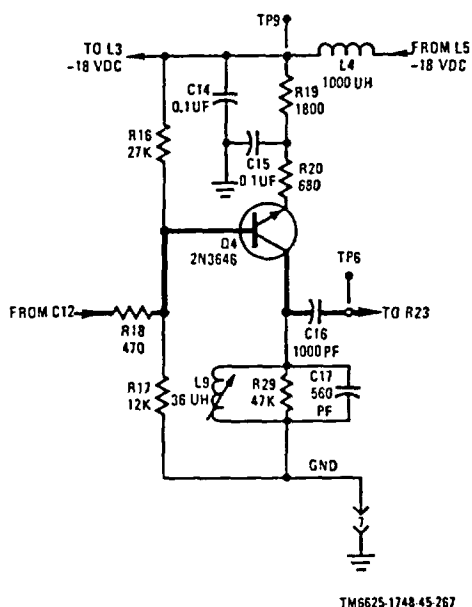


Figure 1-143. Fourth 1.215 MHz amplifier.

1-136. 1.215 MHz Amplifier, Output Stage
(fig. 1-144)

a. *General.* This stage drives the log converter and vertical amplifier with the 1.215 MHz signal.

b. *Detailed Operation.* Transistor Q5 is an emitter follower with input coupling provided by resistor R23, base bias provided by resistors R21 and R22, emitter load provided by resistors R24 and R25, emitter bypass provided by capacitor C19, and output coupling provided by capacitor C20. Capacitor C21 and inductor L5 provide power supply decoupling. Test point TP7 monitors the output signal, test point TP8 monitors the power supply voltage.

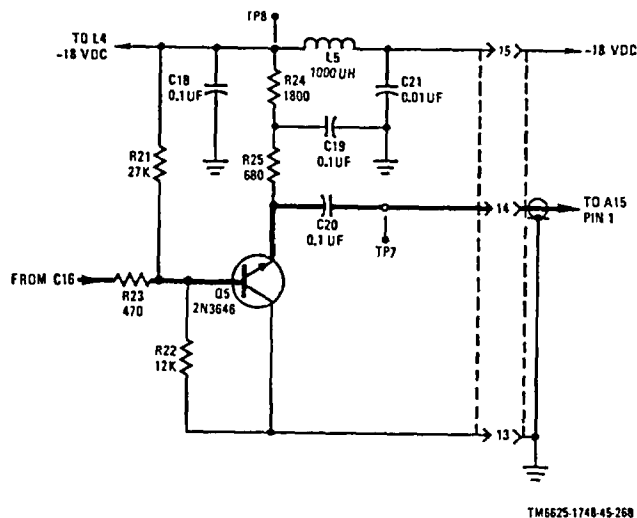


Figure 1-144. 1.215 MHz amplifier, output stage.

1-137. High Voltage Power Supply Input Stage
(fig. 1-145)

This stage consists of a dc converter and transformer. The dc input is applied through fuse F2, inductor L1, and diode CR1 to the dc converter. The dc converter consists of transformer T1, transistors Q1 and Q2 and associated components. It generates a 5.5 kHz, 18-volt squarewave output which is transformed in the two secondaries to provide ac voltages of about 800 and 150 volts. Test points TP3 and TP5 monitor the dc input. Test points TP7, TP9, and TP10 monitor converter operation. Test point TP1 is ground.

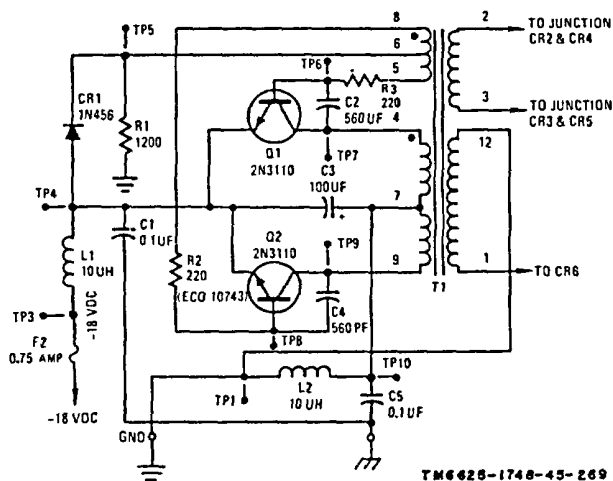


Figure 1-145. High voltage power supply, input stage.

1-138. High Voltage Power Supply Rectifiers and Filters
(fig. 1-146)

a. *General.* This stage produces outputs of negative 2600 volts and positive 150 volts dc.

b. *Detailed Operation.* The 800 volts ac transformer output is rectified by the half-wave tripler rectifier composed of diodes CR6, CR7, and CR8 and capacitors C6, C7, and C9 to produce negative 2600 volts dc. The output is applied to the INTENSITY control and to the CRT cathode. The 800V ac is full-wave rectified by diodes CR2, CR3, CR4, and CR5 and applied to the re filter composed of capacitors C8 and C10. Test points TP15, TP16, TP17, and TP18 monitor the negative 2600 volt supply. Test points TP11, TP12, TP13, and TP20 monitor the positive 150 volts supply.

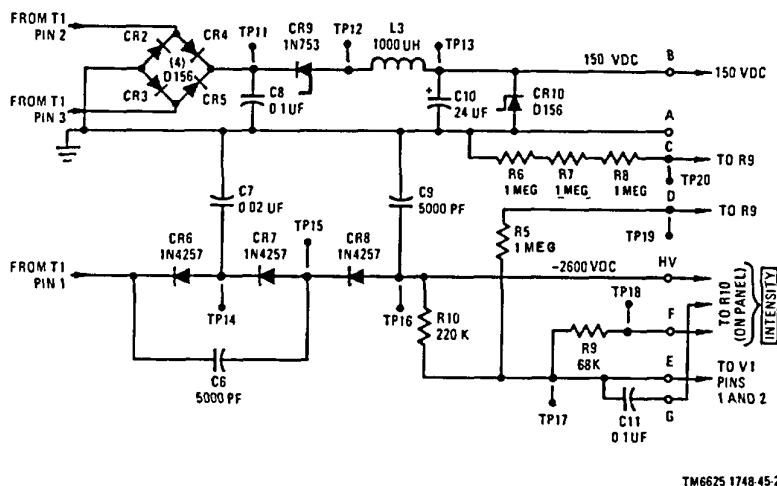


Figure 1-146. High voltage power supply rectifiers and filters.

1-139. Horizontal Sweep Generator, Output Stage
(fig. 1-147)

This stage produces the horizontal sweep signal used to drive the CRT. Transistors Q1 and Q2 form a monostable, cathode coupled multivibrator which is triggered by the output of the timing circuit discussed in paragraph 1-140b. Capacitor C3 provides feedback. Biasing components for transistor Q1 are: base bias, resistor R3; collector bias, resistors R4 and R5; and

emitter bias, resistor R6. Biasing components for transistor Q2 are base bias, resistors R9 and R10; collector bias, resistor R7; and emitter bias resistor R8. The sweep output signal is taken from the base of transistor Q1 through VXCO CENT (centering) control potentiometer R2, and resistor R1. The signal at the collector of transistor Q2 is applied to the trigger circuit through resistor R8.

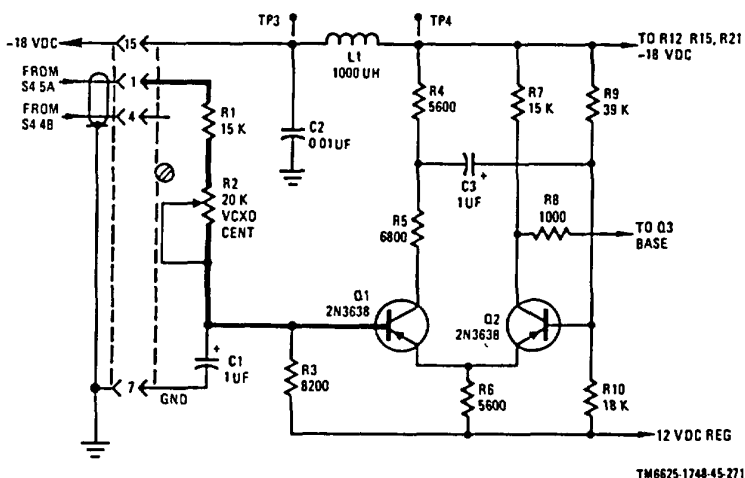


Figure 1-147. Horizontal sweep generator, output stage.

1-140. Horizontal Sweep Trigger Circuit and VCXO Sweep Amplifier
(fig. 1-148)

a. *General.* This circuit controls the horizontal sweep output stage and develops the VCXO control voltage.

b. *Detailed Operation.* The sweep tuning circuit is composed of resistors R11 and R23, and capacitor C6. Transistor Q3 controls the charge on capacitor C6, discharging it when transistor Q1 (figure 1-147) conducts. The amplifier composed of transistors Q4 and Q5 controls the current flow

through transistor Q6 so that the charging current to capacitor C6 remains constant, thus producing a very linear sawtooth wave. Zener diode CR1 sets the collector voltage of transistor Q6 to 6 volts above the emitter voltage of transistor Q5. Zener diode CR2 adds 6 volts to the output. Resistor R12, provides base bias for transistor Q6 and emitter bias for transistor Q5. Resistor R14, provides bias for zener diode CR2. Capacitors C4 and C5 provide power supply filtering. Voltage to the junction of resistors R11 and R23 is switched by the FAST/ NORM switch S7. Test point TP7 monitors this voltage.

Resistor R13 provides emitter load for transistor Q5. Resistor R14 provides bias for zener diode CR2. Capacitors C4 and C5 provide power supply filtering. Voltage to the junction of resistors R11 and R23 is switched by the FAST/ NORM switch S7. Test point TP7 monitors this voltage.

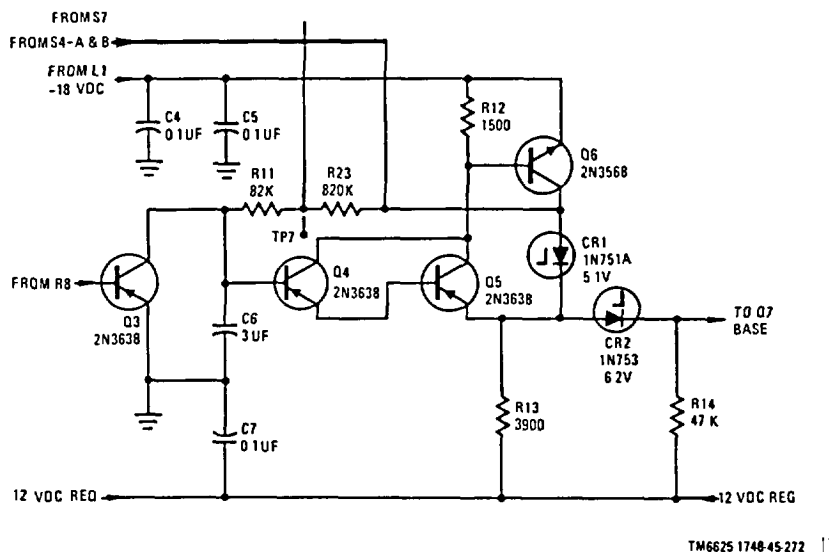


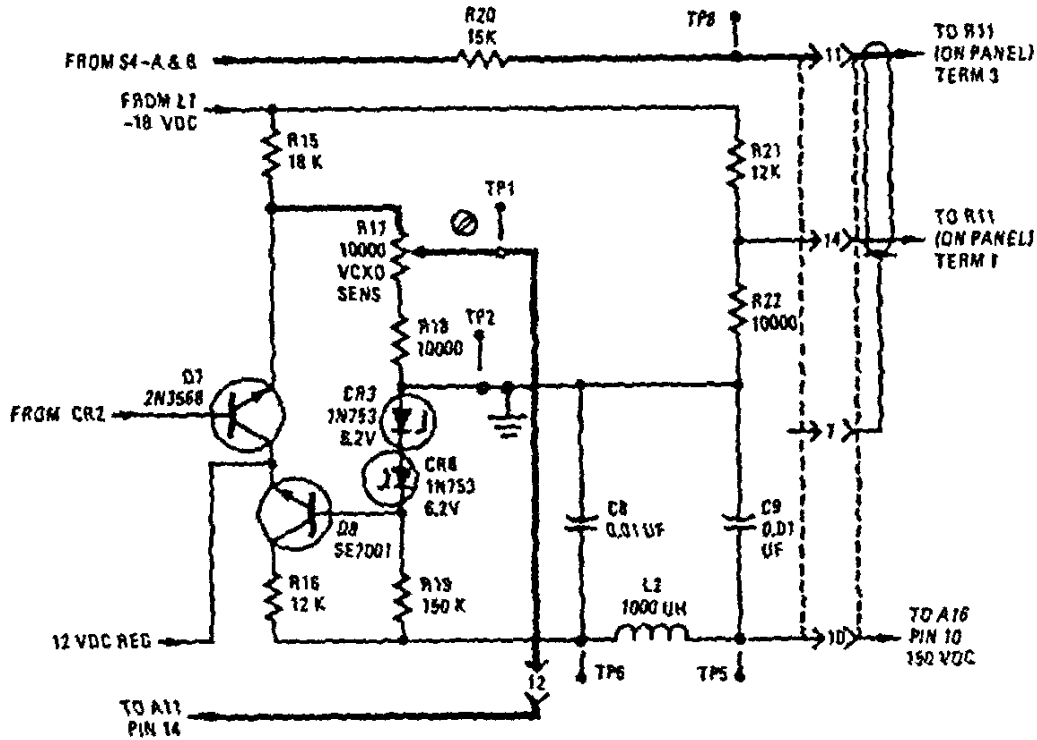
Figure 1-148. Horizontal sweep trigger circuit and VCXO sweep amplifier.

1-141. VCXO Sweep Output Amplifier

(fig. 1-149)

This stage provides output amplification for the VCXO sweep voltage. The signal is applied to the base of emitter follower transistor Q7. The emitter voltage of transistor Q7 is a very linear sawtooth wave between positive 6 volts and negative 6 volts. This output is adjusted to about positive 5 volts to negative 5 volts by potentiometer R17. Transistor Q8 and Zener diodes CR3 and CR8 provide a constant voltage at the collector of transistor Q7. Resistors R16 and R19 are biasing

components for transistor Q8. Capacitors C8 and C9 and inductor L2 provide power supply filtering. Resistors R21 and R22 form a divider for the voltage to the 10 kHz/DIV CAL control on the front panel. Resistor R24 is a series dropping resistor for the horizontal sweep signal to the horizontal sweep amplifier. Test point TP1 monitors the VCXO control voltage. Test point TP2 is ground. Test point TP8 monitors the sweep signal. Test points TP5 and TP6 monitor the 150-volt power supply input.



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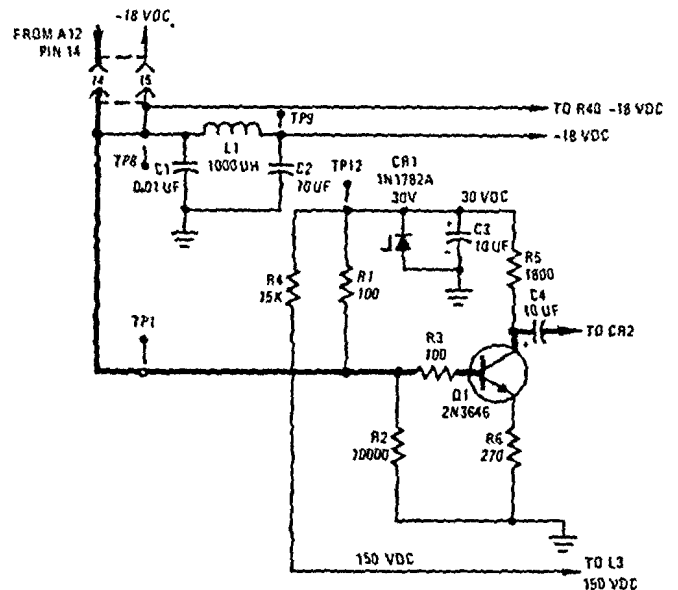
Figure 1-149. Horizontal sweep generator output.

1-142. Vertical Amplifier and Log Converter, Input Stage

(fig. 1-150)

a. *General.* This stage provides initial amplification for the 1.215 MHz signal prior to application to the log converter.

b. *Detailed Operation.* The input signal is applied to the base of transistor Q1. Transistor Q1 is an amplifier with base bias provided by resistors R1 and R2, degeneration provided by resistor R3, emitter bias provided by resistor R6, collector load provided by resistor R5, and output coupling provided by capacitor C4. 30 volt Zener diode CR1 drops the 150-volt supply input to provide 30 volt power for the amplifier. Capacitor C3 provides filtering. Resistor R4 provides power supply isolation. Inductor L1 and capacitors C1 and C2 provide power supply decoupling. Test point TP1 monitors the input signal. Test points TP8 and TP9 monitor the negative 18 volt supply. Test point TP12 monitors the positive 30 volt supply.



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Figure 1-150. Vertical amplifier and log converter, input stage.

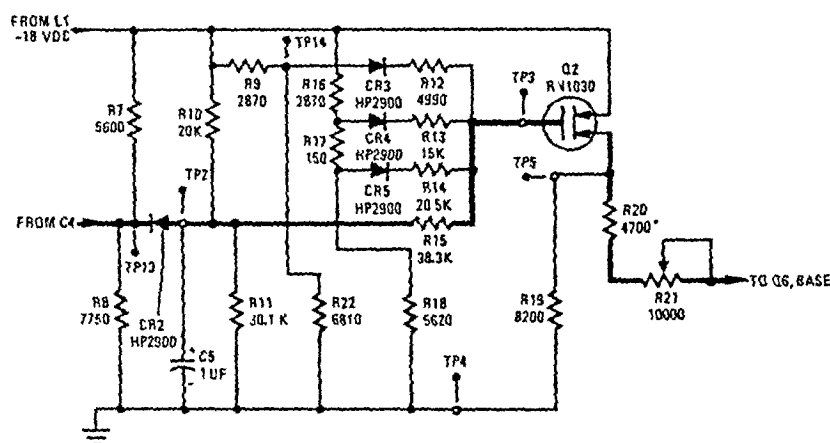
1-143. Log Convert

(fig. 1-151)

a. *General.* This stage derives the logarithmic signal output curve required to drive the CRT vertical deflection circuits.

b. *Detailed Operation.* The input signal is applied to diode CR1. Diode CR1 provides the half-wave rectification required to drive the log converter with a negative going output. The reference voltage for the log converter is maintained by a voltage divider network composed of resistors R9, R22, R16, R17, and R18. The diodes CR3, CR4, and CR5 and resistors R12, R13, and R14 form the log converter. The logarithmic output

curve is formed as diodes CR3, CR4, and CR5 successively conduct as the signal-amplitude becomes more negative. The signal is applied to the gate input of FET transistor Q2. Resistors R7, R8, R10, and R11 provide bias for diode CR2. Capacitor C5 provides rf suppression. Resistor R20 provides interstage isolation. Potentiometer R21 provides output level adjustment. Test point TP2 monitors the output of diode CR2. Test point TP3 monitors the log converter output. Test point TP5 monitors the signal output across output termination resistor R19. Test point TP13 monitors the input signal. Test point TP14 monitors the reference voltage for diode CR3. Test point TP4 is ground.



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Figure 1-151. Log Converter.

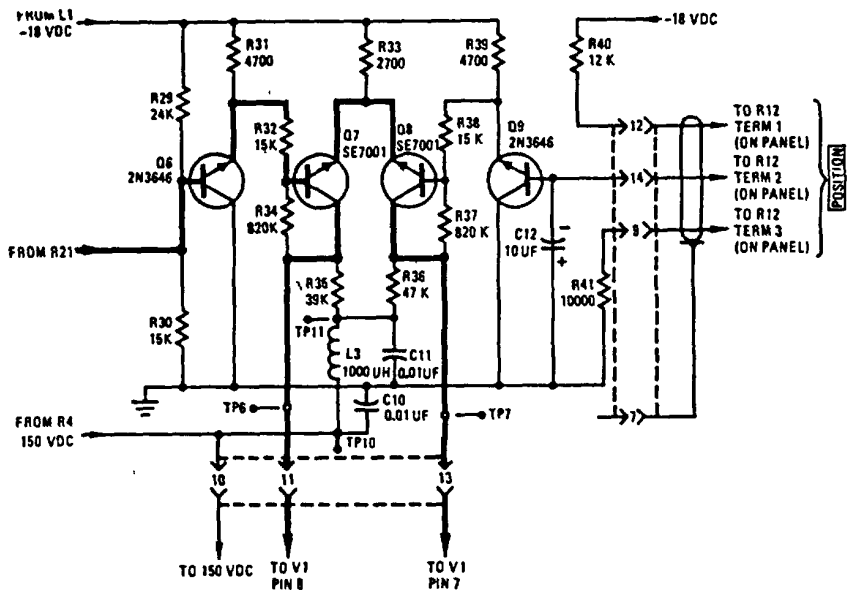
1-144. Vertical Output Amplifier

(fig. 1-152)

a. *General.* This stage provides final amplification for the vertical deflection voltage.

b. *Detailed Operation.* Transistors Q7 and Q8 drive the vertical deflection plates of the CRT. Transistor Q6 provides input amplification. Transistor Q9 provides control of vertical position as selected by the front panel POSITION control, R12. The input signal is applied to the base of transistor Q6. Transistor Q6 is an emitter-follower with base bias provided by resistors R29 and R30 and emitter load provided by resistor R31. Transistor Q7 and Q8 form a differential amplifier.

Biasing components for Q7 are: base bias, resistors R32 and R34; emitter load, resistor R33; and collector load resistor R33. Biasing components for transistor Q8 are: base bias, resistors R38 and R37; emitter load, resistor R33; collector load, resistor R36. The supply voltage at the base of transistor Q8 is regulated by transistor Q9, which is controlled by the front panel POSITION control, R12. Emitter load for transistor Q9 is resistor R39. Capacitor C12 provides base bypass. Resistor R40 is a series dropping resistor for the voltage to control R12. Inductor L3 and capacitors C10 and C11 provide power supply isolation. Test points TP6 and TP7 monitor the output signals. Test point TP9 and TP11 monitor the positive 150 volt supply.



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Figure 1-152. Vertical output amplifier.

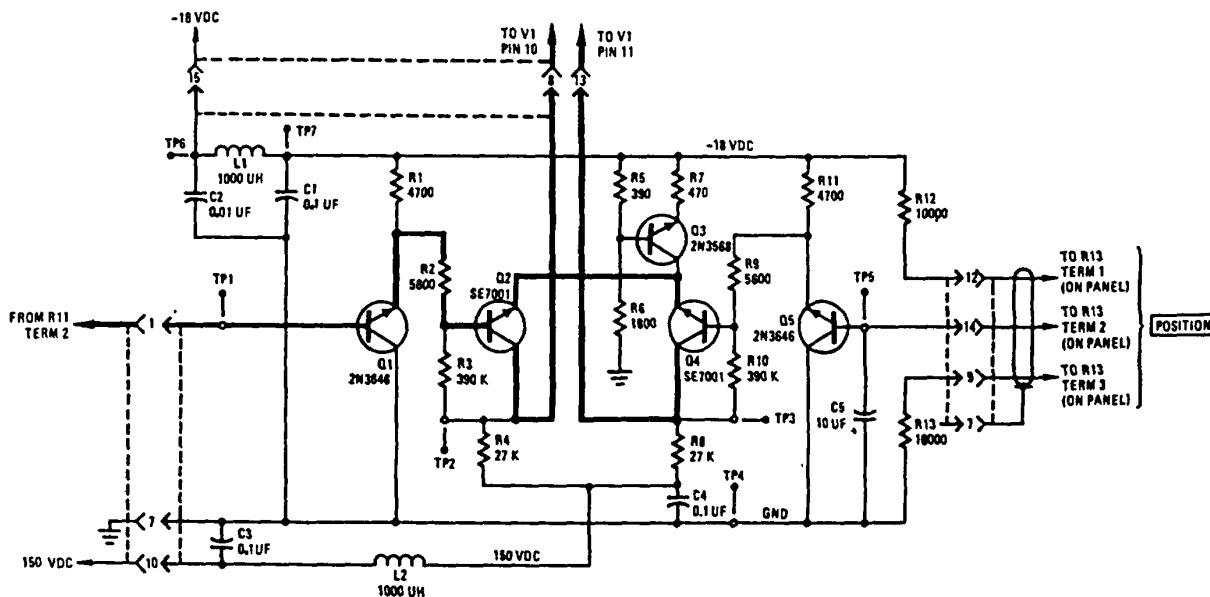
1-145. Horizontal Sweep Amplifier

(fig. 1-153)

a. *General.* This stage provides final amplification for the horizontal sweep signal to the horizontal deflection plates of the CRT.

b. *Detailed Operation.* Transistors Q2 and Q4

drive the horizontal deflection plates of the CRT. Transistor Q1 provides input amplification. Transistors Q3 and Q4 provide regulation of the emitter and base voltages, respectively, of transistor Q5. Horizontal position is controlled by front panel POSITION control, R13, which controls transistor Q5. The circuit operates the same as the vertical deflection amplifier, (para 1-144 b).



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Figure 1-153. Horizontal sweep amplifier.

1-146. CRT Circuitry

(fig. 1-154)

The CRT is V1. Horizontal deflection signals are applied at pins 10 and 11. Vertical deflection signals are applied at pins 7 and 8. Six and three tenths volts ac is applied to the anode at pins 1 and 14. The control voltage from

the INTENSITY control, R10, is applied to pin 4. The control voltage from the FOCUS control, R9, is applied to pin 5. The control voltage from the ASTIGMATISM control R8 is applied at pin 9. The negative 2600-volt cathode voltage is applied at pin 2.

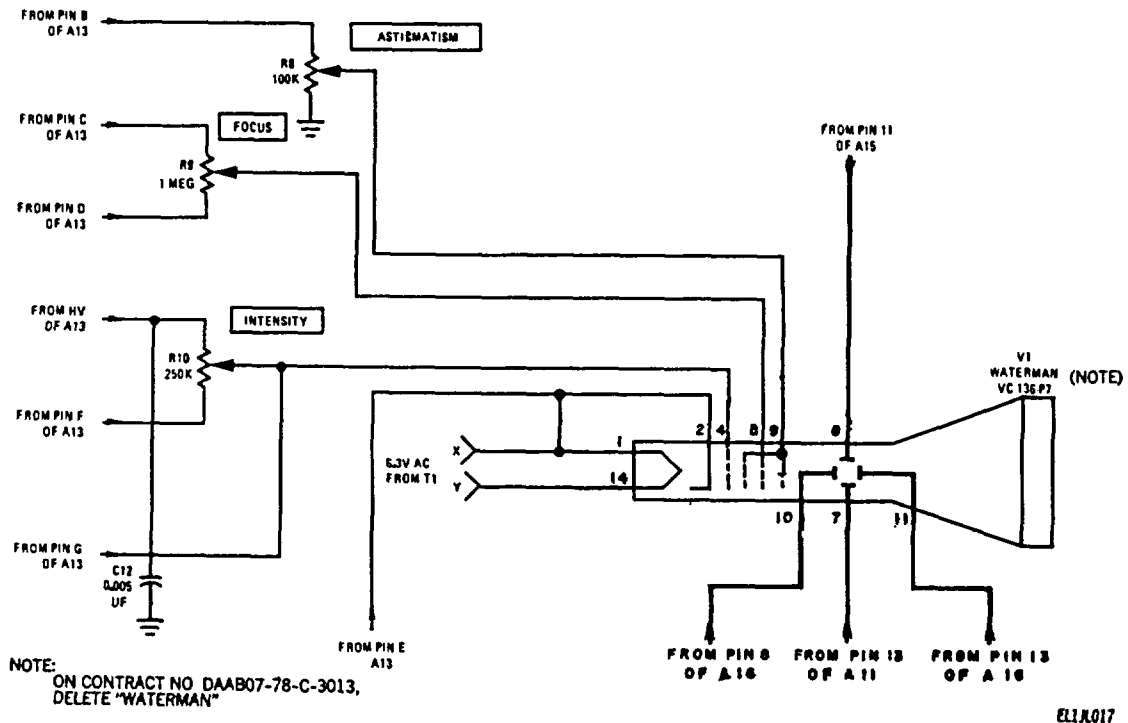


Figure 1-154. CRT circuitry.

CHAPTER 2

TROUBLESHOOTING

Section I. GENERAL TROUBLESHOOTING TECHNIQUES

CAUTION

Dangerous voltages exist within this equipment. Serious injury or death may result from contact with the ac line circuits. When the spectrum analyzer is turned on. 150 volts dc and 2,600 volts dc, with respect to the chassis, exist within the unit.

DON'T TAKE CHANCES!

2-1. General Instructions

Troubleshooting at general support and depot maintenance includes all of the techniques outlined for organizational maintenance and any special or additional techniques required to isolate a defective part. Section II provides *interunit* troubleshooting procedures to be used at the general support level. Sections III through IX describe *intraunit* (within the unit) localizing and isolating techniques to be used at the general support maintenance.

2-2. Organization of Troubleshooting Procedures

a. General. The first step in servicing a defective Radio Test Set AN/USM-306(V)1 is to sectionalize the fault. Sectionalization means tracing the fault to a unit such as to a major unit. The second step is to localize the fault. Localization means tracing the fault to a defective stage or circuit responsible for the abnormal condition. The third step is isolation. Isolation means the locating of the defective part or parts. Some defective parts, such as burned resistors and arcing shorted transformers can often be located by sight, smell and hearing. Most defective parts, however, must be isolated by checking voltages and resistances.

b. Sectionalization. Radio Test Set AN/USM-306(V)1 consists of three units: Tuning Unit TN-527/U, Audio-Radio Frequency Monitor TS-2968/U and Spectrum Analyzer IP-1018/U. In addition, Probe Subassembly MX-8642/U contains transistorized circuitry and can be a source of faulty operation. The first step in tracing trouble is to locate the unit or units at fault by the following methods:

(1) *Visual inspection.* The purpose of visual inspection is to locate faults without testing or measuring circuits. All meter readings, CRT displays and/or other

visual signs should be observed and an attempt made to sectionalize the fault to a particular unit.

(2) *Operational tests.* Operational tests frequently indicate the general location of trouble. In many instances, the tests will help in determining the exact nature of the fault. The daily maintenance service and inspection chart (TM 11-6625-1748-12) contains a good operational test. Additional operational tests are given in Section II.

(3) *Signal substitution.* Signal substitution procedures applicable to this equipment are given in paragraph 2-5.

c. Localization. Localization procedures should be performed after the trouble has been sectionalized (*b* above). The localization procedures applicable to this equipment are listed in (1), (2), and (3), below, and should be used in localizing the trouble to a stage or module in the suspected unit.

(1) *Module substitution.* This equipment is designed for rapid field maintenance and repair through the use of replaceable plug-in pc boards (modules). (See paragraph 2-3*d* (1), (2), (3) and (4).) When the substitution of plug-in modules is being used as a means of isolating one or more defects, follow the procedure outlined below.

(a) Set up the equipment in accordance with either figure 2-5, 2-10, or 2-15, as required.

Interconnect the units in accordance with figure 4-2.

(b) Substitute a good module for a suspected module.

(c) Check the test set performance after each substitution.

(d) Note any changes in performance that occur after each substitution, but *do not remove* any of the new substitute modules until *all* defects have been eliminated.

(e) When all defects in operation have been eliminated, remove the substitute modules *one at a time*, commencing with those modules that did not seem to alter the defects in the overall operation of the test set. Recheck operation of the test set as each original module is reinstalled.

NOTE

The foregoing procedure is mandatory for isolating multiple defects in the test set. Multiple defects are quite common in transistorized equipment. For example, failure of a power supply regulator transistor could subject many circuits to over-voltages, destroying or damaging any number of semiconductor devices.

(2) *Troubleshooting charts.* The troubleshooting charts in the following sections of this chapter list symptoms of common troubles and give (or reference) corrective measures. Such charts obviously cannot include *all* trouble symptoms that may occur. The repairman should use these charts as guides in analyzing symptoms that may not be listed.

(3) *Stage gain information.* The stage gain information given in later sections of this chapter will help to isolate circuit defects that produce weak signals.

d. *Isolation.* Procedures for isolating troubles are given in Sections III through IX, inclusive.

e. *Techniques.* In performing the sectionalization, localization, and isolation procedures, one or more of the techniques below may be applied. Apply these techniques *only* as indicated, and observe all cautions.

(1) *Voltage measurements.* This equipment is transistorized. When measuring voltages, use tape or sleeving (spaghetti) to insulate the entire test prod, except for the extreme tip. A momentary short can ruin a transistor. Use the same or equivalent electronic multimeter as specified in paragraph 2-3.

NOTE

PC modules A20, A22, A23, A24 and seven (7) each modules A25 in Tuning Unit TN-527/U contain digital circuits. Do not attempt to analyze trouble in these units with voltage readings. For these circuits, take waveforms and analyze them in accordance with the procedures given in section VI.

(2) *Resistance measurements.* Make *only* those resistance measurements specified in the text and tables. *Do not* attempt to locate defective transistors with an ohmmeter. Improper use of an ohmmeter can

destroy semiconductors. Transistors may appear to be good when checked with an ohmmeter, but fail under actual circuit operating conditions. Faulty transistors are located by making in-circuit, in-operation voltage (and sometimes stage-gain) measurements.

(3) *Waveforms.* Compare wave shapes, amplitudes and pulse spacings at the indicated test points in accordance with the waveform illustrations. Make sure to use the correct oscilloscope sweep rate when checking pulse intervals and/or the number of pulses per horizontal sweep.

(4) *Test points.* The modules of this equipment are equipped with test points to facilitate connection of test equipment (para 2-3) to the various units. The test points become readily accessible when card-risers are used to raise the pc modules up out of the chassis. These test points are shown on the main schematic diagrams, and on the pc board photos and accompanying schematic diagrams in sections VI, VII, VIII and IX.

(5) *Intermittent troubles.* In all the tests, the possibility of intermittent troubles should not be overlooked. If present, this type of trouble often may be made to appear by tapping or jarring the equipment. Make a visual inspection of the wiring and connections to the units of the set. Make certain that all plug-in modules are firmly seated in the jacks. Minute cracks in printed circuit boards can cause intermittent operation. A magnifying glass is often helpful in locating defects in printed boards. Continuity measurements of printed conductors may be made using the same technique ordinarily used on hidden conventional wiring.

(6) *Resistor, capacitor, and diode color code diagrams.* Color code diagrams for resistors, capacitors, and diodes (fig. 6-3 and 6-4) provide pertinent resistance, voltage rating, and tolerance information.

2-3. Test Equipment Required

The following chart lists test equipment required for troubleshooting Test Set, Radio AN/USM-306(V)1. The associated technical manuals are also listed.

a. Observe the following cautions:

(1) This equipment contains transistor circuits in all three chassis. If any test equipment item does not have an isolation transformer in its power supply circuit, connect one in the power input circuit. A suitable transformer is identified by FSN 5950-356-1779.

(2) Never connect test equipment outputs directly to a transistor circuit; use a coupling capacitor.

(3) Make test equipment connections with care so that shorts will not be caused by exposed test equipment connectors. Tape or sleeve

(spaghetti) test prods or clips as necessary to leave as little exposed as needed to make contact to the circuit tinder test.

(4) The individual unit power supplies (or their equivalent) are recommended as the power source(s) when servicing transistorized equipment. *Observe power supply polarity.* Polarity reversal may damage the transistors or electrolytic capacitors in the circuit. If an external power source is used. It must have good regulations and low ac ripple. Good regulation is important because the output voltage of a poorly-regulated power supply may exceed the maximum ratings of the transistors in the equipment being tested. An external power supply that has poor ac filtering may cause erroneous and misleading voltages and waveforms to be observed.

(5) The transistorized equipment must either be turned off or disconnected from the external power supply *before* switching the external power supply on or off. Transient voltages created by switching the external power supply on and off may exceed the "punch-through" rating of the transistors.

b. List of Test Equipment.

<i>Test equipment</i>	<i>Technical manual</i>
Test Set. Radio AN/USM-306(V)1	TM 11-6625-1748-12
Digital Readout, Electronic Counter AN/USM-207A	TM 11-6625-700-14
Voltmeter, Electronic AN/URM-145	TM 11-6625-524-15-1
Multimeter TS-352B/U	TM 11-6625-366-15
Voltmeter, Electronic ME-30(T)/U	TM 11-6625-320-12
Audio Oscillator AN/URM-127	TM 11-6625-683-15
Oscilloscope AN/USM-281	TM 11-6625-703-15
Headset H216/U	
Signal Generator AN/GRM-50	TM 11-6625-573-15

c. Additional Equipment. The following additional equipment is required to troubleshoot the test set:

- (1) Cable, Coaxial, 50-ohm, minimum 48 inches long, w/male BNC connectors 5 ea required
- (2) Cable, Coaxial, 75-ohm, 36 inches long, w/male BNC connectors 1 ea required

- (3) Coaxial "T" connector, 50-ohm, type BNC, one female, two male connectors 1 ea required
- (4) Pad, matching, 50 to 75 ohms, locally fabricated in accordance with figure 4-1 1 ea required

d. Spare Modules. In order to facilitate general support maintenance of Test Set, Radio AN/USM-306(V)1. a complete set of replacement plug-in modules should be available for direct substitution. One each of the modules listed below should be on hand for this purpose.

(1) *Tuning unit modules.*

<i>Reference designator</i>	<i>Main function(s)</i>
A-1	+6V dc at .18A power supply assembly
A-2	+3.5V dc at 2.5A power supply assembly
A-3	-16V dc at 0.3A. -6.0V dc @ 0.5A power supply assembly
A-4	Decade divider & spectrum generator assembly
A-5	19.1 MHz oscillator assembly
A-6	19.0 MHz oscillator assembly
A-8	Coarse tuning amplifier and output assembly
A-9	Mixer assembly
A-10	Amplifier-detector assembly
A-11	Coarse lock sensor assembly
A-12	Fine tuning oscillator and amplifier assembly
A-13	Second amplifier and phase discriminator assembly
A-14	Fine lock sensor assembly
A-15	Second oscillator assembly
A-16	Reference mixer assembly
A-20	40-73 MHz centenary divider board
S-22	Control logic # 2 assembly
A-23	Control logic # 1 assembly
A-24	Mode decade assembly
A-25	Decade divider assembly

(2) *Monitor unit modules.*

<i>Reference designator</i>	<i>Main function(s)</i>
A1	Gain reference oscillator and 3rd modulator
A2	1st modulator and IF
A3	Local oscillator amplifier
A4	Second modulator & IF output amplifier
A5	Second mixer and IF
A6	Third mixer and IF
A7	N.B. and W.B. followers
A8	Meter amplifier
A9	Meter circuit
A10	Sideband oscillator
A11	Audio amplifier
A12	-16V dc power supply
A13	Impedance matching pad

(3) *Spectrum analyzer modules.*

Reference designator	Main function(s)
A2	VFO amplifier
A3	Low voltage power supply
A4	Signal IF
A5	Marker IF
A6	Swept IF
A7	1.215 MHz mixer
A8	Swept divider
A9	440 Hz BW IF
A10	35 Hz BW IF
A11	VCXO

Reference designator	Main function(s)
A12	1.215 MHz IF
A14	Sweep generator
A15	Vertical amplifier
A16	Horizontal amplifier
(4) <i>Other modules.</i> In addition to the foregoing plug-in modules, the following replaceable modules should be on hand:	
(a) Board A7, coarse tuning oscillator, tuning unit.	
(b) A13, high voltage power supply, spectrum analyzer.	

Section II. INTERUNIT TROUBLESHOOTING

2-4. General

The tuning unit is the only unit in Radio Test Set AN/USM-306(V)1 that is completely self-contained and does not require inputs from any sources, other than primary ac power, for proper operation. Both the audio-radio frequency monitor unit and the spectrum analyzer unit require signals derived from the tuning unit for proper operation. For this reason, troubles appearing in either the monitor unit, the spectrum analyzer, or both may be due to faulty output(s) from the tuning unit. The only direct indications of tuning unit failures are:

- a. Indicator lamp failures, due to lamp burnouts or primary power circuit failures, and:
- b. FREQUENCY display not changing with tuning.

NOTE

All other defects or failures within the tuning unit are evidenced through improper operation of the monitor and/or spectrum analyzer units.

2-5. Signal Substitution

a. For depot maintenance, the fastest and most direct method of sectionalizing a fault to a particular unit is by direct substitution, using the major units of an operational Radio Test Set AN/USM-306(V)1. This can readily be accomplished by means of the 48-inch coaxial cables listed in paragraph 2-3. Refer to the interconnection diagram (fig. 4-2) and substitute the units in the operational test set for the units in the test set under repair: It is not necessary to remove any of the units from either cabinet. The Probe Subassembly MX-8642/U from the good test set may also be directly substituted for the one on the unit being tested.

b. When an operational test set is not available for substitution, follow the procedures in paragraphs 2-6 and 2-7

2-6. Defective Monitor Operation

Faulty level-measuring operation may be caused by defects in the tuning unit, defects in the monitor unit, or defects in the interconnecting cabling between the units. If the operational checks fail to sectionalize the trouble to a defective unit, follow the steps outlined in a through g below. When the defective unit has been determined, follow the step outlined in the appropriate sections of this chapter (Sections III, IV, VI, VII and IX).

NOTE

Each of the following checks is independent of the others. The equipment shall be completely interconnected, except as specified for the particular procedure involved. (Refer to the interconnection diagram, figure 4-2.)

a. *Input Level Measurement.*

(1) Apply an rf signal of a known frequency in the range of 1 kHz to 33.5 MHz to the INPUT jack of the monitor unit, (figure 2-58). The level of this test signal shall be between -80 and +2 dBm at 75 ohms.

(2) Set the monitor controls (fig. 2-58) as follows:

- SCALE switch to NORM
- SELECTIVITY pushbutton switch to 3.1 kHz, (green light)
- SENSITIVITY switch to NORM
- SELECTIVITY 10 db/STEP switch to the approximate level of the signal being measured. (The sensitivity level selected is displayed on the INPUT LEVEL indicator.)

(3) Set the tuning unit controls (fig. 2-1) as follows:

- FINE TUNING control to zero or until a "kHz LOW" indicates on the frequency display.

Depress the TUNING MODE pushbutton switch to obtain the continuous (CONT) tuning mode.

Tune to the frequency of the test signal with the COARSE TUNING control.

Depress the TUNING MODE pushbutton switch and ensure that the white (CONT) light has gone out.

Rotate the COARSE TUNING control counterclockwise until a "lock" condition is indicated.

Rotate the FINE TUNING control clockwise until the FREQUENCY display indicates the frequency of the test signal.

(4) Readjust both the FINE TUNING and the SELECTIVITY 10 dB/STEP controls to obtain a reading on the DECIBELS meter.

(5) If no reading is obtained on the DECIBELS meter, proceed with step b below.

b. Analyzer Display. Leave the test signal connected and the controls set as in a above.

(1) Place the spectrum analyzer unit SWEEP kHz/DIV control in the CONTINUOUS 10 position (fig 2-94).

(2) Turn the MARKER control fully counterclockwise.

(3) Set the spectrum analyzer VERTICAL ATTENUATOR DB to 0.

(4) Set SWEEP RATE to FAST.

(5) A "pip," representing the input signal, should appear on the CRT screen.

(6) If the test signal pip appears on the screen, but there is no reading on the DECIBELS meter, proceed with c below.

(7) If no test-signal pip appears, proceed with *d*, *e*, *f* and *g* below.

c. Marker Pip.

(1) Rotate the MARKER control on the spectrum analyzer unit in a clockwise direction, while holding the MARKER IDENT button depressed. A marker pip should appear on the display screen where the test-signal pip appeared.

(2) While still holding the MARKER IDENT button depressed, vary the FINE TUNING control. A marker pip should be visible and should move back and forth across the display screen as the FINE TUNING control is varied.

(3) If the marker pip is present, release the MARKER IDENT button. Readjust the FINE TUNING control to cause the marker to coincide with the test-signal pip.

(4) If there is still no reading on the DECIBELS meter, proceed with the steps outlined in *d*, *e*, *f* and *g* below.

(5) If the marker pip cannot be obtained, proceed with *e* below.

d. Coarse Tuning Oscillator Output.

(1) Disconnect the cable from the TS-2968/U 40/72 MHz jack at the rear of the tuning unit (fig. 2-2).

(2) Connect the frequency counter to the TS-2968/U 40/72 MHz jack, (J7), at the rear of the tuning unit.

(3) Verify that signals between 40.1 and 73.6 MHz are present as the COARSE TUNING dial is rotated throughout its range.

(4) Disconnect the frequency counter and connect the electronic voltmeter via a 50-ohm probe to the TS-2968/U 40/72 MHz jack, (J7). A reading of the 85-165 millivolts shall be obtained.

(5) If the requirements of (3) and (4) above are met, proceed with the additional steps outlined in section III.

e. Fine Tuning Oscillator Output.

(1) Reconnect the 40/72 MHz cable to the TS-2968/U 40/72 jack (J7) at the rear of the tuning unit.

(2) Disconnect the cable from the TS-2968/U 18.8 MHz jack (J8) at the rear of the tuning unit.

(3) Connect the frequency counter to the TS-2968/U 18.8 MHz jack.

(4) Verify that frequencies between 18.785 and 18.885 MHz are present as the FINE TUNING dial is rotated throughout its range.

(5) Disconnect the frequency counter and connect the Electronic Voltmeter AN/URM-145 50-ohm probe to the TS-2968/U 18.8 MHz jack (J8).

(6) A reading of 200 to 250 millivolts shall be obtained.

(7) If the requirements of (4) and (6) above are not met, proceed with the additional steps outlined in section III.

f. Frequency Synthesizer, 19.0 MHz Output.

(1) Reconnect the 18.8 MHz cable to the TO TS-2968/U 18.8 MHz jack at the rear of the tuning unit.

(2) Disconnect the cable from the TS-2968/U 19.0 MHz jack (J6) at the rear of the tuning unit.

(3) Connect the frequency counter to the TS-2968/U 19.0 MHz jack. Verify that a frequency between 18,889.99 kHz and 19,000.01 kHz is present.

(4) Disconnect the frequency counter and connect the 50-ohm probe of the electronic voltmeter to the TS-2968/U 19.9 MHz jack. A reading of 31 to 37 millivolts shall be obtained.

(5) If the requirements of (3) and (4) above are not met, proceed with the additional steps outlined in section III.

(6) Reconnect the 19.0 MHz cable to the TO 305A-L 19.0 MHz jack. If normal output signals were obtained in *d*, *e* and *f* above, the trouble is within the monitor unit. Proceed with the additional steps outlined in section IV.

2-7. Defective Operation of the Spectrum Analyzer

Faulty operation of the spectrum analyzer unit may be

caused by the defects in the tuning unit, the monitor unit, the interconnecting cabling, or within the spectrum analyzer unit itself. The following steps will isolate the trouble to a particular unit, after which the procedures in the appropriate section (III through IX, inclusive) will permit isolation of the defect(s) to particular circuit boards or components. The following tests and procedures are to be performed only after the tests and procedures in paragraph 2-6a through *f* have been performed, and certain possible malfunctions of the tuning unit and monitor have been eliminated.

a. 10 kHz DIV Display.

(1) Apply the rf test input signal as per paragraph 2-6a above.

(2) Place the spectrum analyzer unit SWEEP-kHz/DIV control in the CONTINUOUS 10 position.

(3) Turn the MARKER control on the spectrum analyzer unit fully counterclockwise.

(4) Tune the COARSE TUNING control on the tuning unit to the proper frequency range to cause the test signal pip to appear on the spectrum analyzer unit screen.

(5) If the test-signal pip does not appear on the spectrum analyzer unit screen, proceed with *b* below.

b. Tuning Unit 21.1 MHz Output.

(1) Disconnect the cable from the OUTPUT to 360B 21.1 MHz jack at the rear of the monitor unit.

(2) Connect the frequency counter to the 21.1 MHz jack on the monitor unit and verify that a signal between 20,990.00 kHz and 21,110.00 kHz is present.

(3) Disconnect the frequency counter and connect the 50-ohm probe of the electronic voltmeter to the 21.1 MHz jack. With a reading of 0 dBm on the DECIBELS meter, a reading of 65 to 150 microvolts shall be obtained.

(4) If the requirements of (2) and (3) above are not met, the trouble is in the monitor unit. Proceed with the tests outlined in section IV of this chapter.

c. 1 kHz/DIV Display.

(1) Reconnect the cable to the OUTPUT TO 360B 21.1 MHz jack at the rear of the monitor unit.

(2) Turn the spectrum analyzer SWEEP-kHz/DIV control to the CONTINUOUS 1 position.

(3) Adjust the COARSE and FINE TUNING controls on the tuning unit until the FREQUENCY indicator on the tuning unit reads within ± 6 kHz of the test signal frequency.

(4) Make sure that the MARKER control on the spectrum analyzer unit is turned fully counterclockwise.

(5) The test-signal marker pip should appear on the screen. If the marker pip does not appear, proceed with *d* below.

d. TO 360 18.8 MHz Output.

(1) Disconnect the cable from the TO 360 18.8 MHz jack (J11) at the rear of the tuning unit.

(2) Connect the frequency counter to jack J11 and verify that signals of 18.785 through 18.885 MHz are present as the FINE TUNING control is rotated throughout its range.

(3) Disconnect the frequency counter, and connect the Electronic Voltmeter AN/URM-145 50-ohm probe to the TO 360 18.8 MHz jack (J11) at the back of the tuning unit. A reading of 70 to 110 millivolts shall be obtained.

(4) If the requirements of (2) and (3) above are not met, the trouble is in the TO 360 18.8 MHz output stage of the tuning unit. Proceed with the tests outlined in section III of this chapter.

(5) If the requirements of (2) and (3) above are met, the trouble is within the spectrum analyzer unit. Proceed with the tests outlined in section V of this chapter.

e. 0.3 kHz/DIV Display. If the spectrum analyzer functions normally in the 1 kHz/DIV mode, the trouble is within the spectrum analyzer. Proceed with the steps outlined in section V of this chapter.

Section III. TUNING, UNIT TROUBLESHOOTING, LOCALIZATION PROCEDURES

2-8. General

This section describes trouble localization procedures to be followed whenever the sectionalization procedures indicate that one or more faults may exist within the

tuning unit. For voltage checks and other operational tests, set up the equipment in a manner similar to that shown in figure 2-5, and interconnect the units in accordance with figure 4-2.

2-9. Preliminary Instructions

- a. Turn the power switch on the tuning unit to OFF.
- b. Disconnect all cables from the rear of the tuning unit.
- c. Remove the front panel screws that hold the tuning unit in the cabinet.
- d. Remove the tuning unit and place it on a bench, adjacent to the test set cabinet. (See figure 2-5).
- e. Remove the top cover from the tuning unit.
- f. Remove the cover from the A6 module compartment.

2-10. Dc Short Circuit Tests.

- a. *When to Check.* When any of the following conditions exist, check for possible defects in the dc power supply circuits before applying power.
 - (1) When abnormal symptoms reported from operational tests indicate possible power supply troubles in the tuning unit.
 - (2) When interunit sectionalizing procedures indicate probable troubles in the tuning unit, and the nature of the abnormal symptoms is not known.

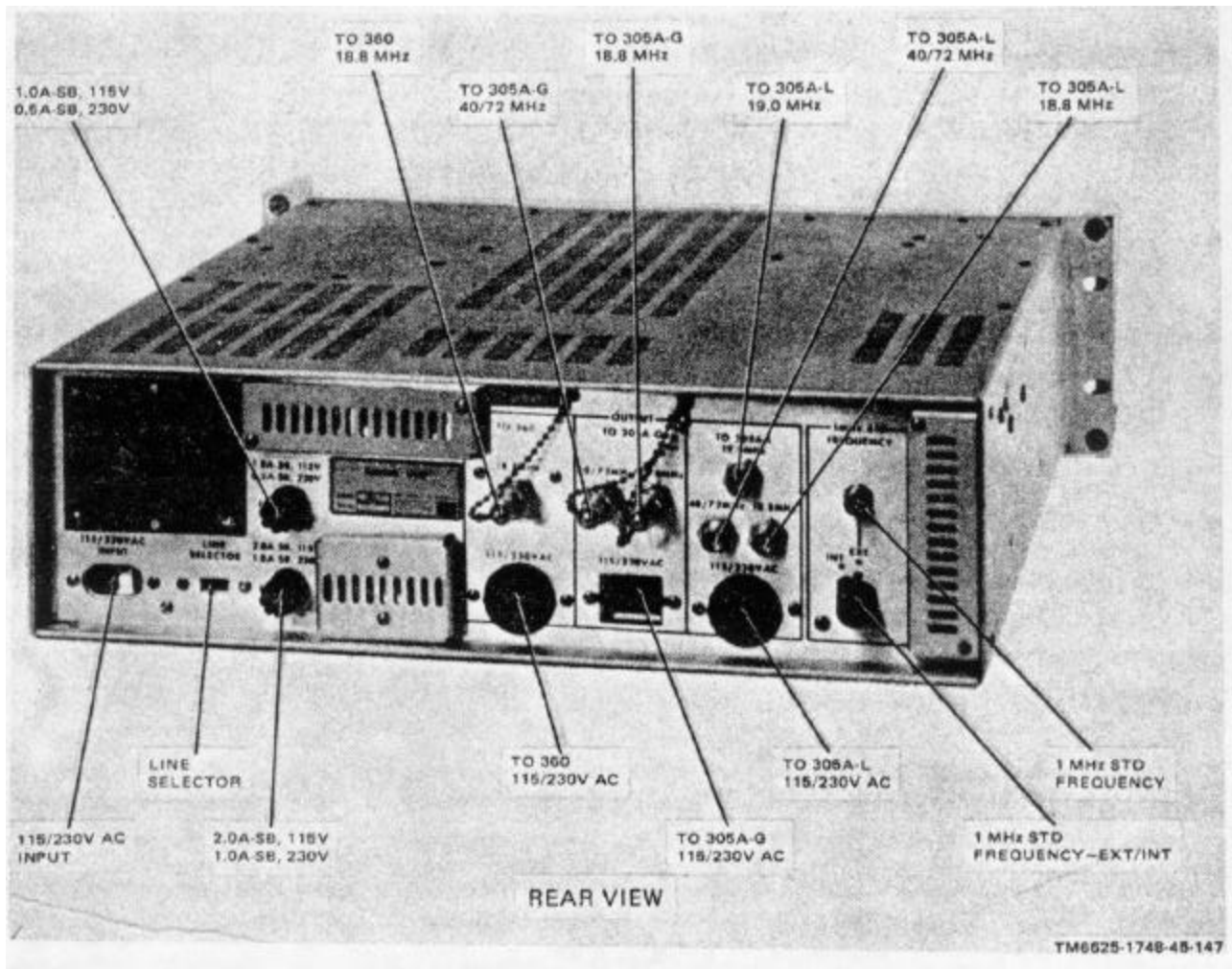


Figure 2-1. Tuning Unit TN-527/U, front panel view.

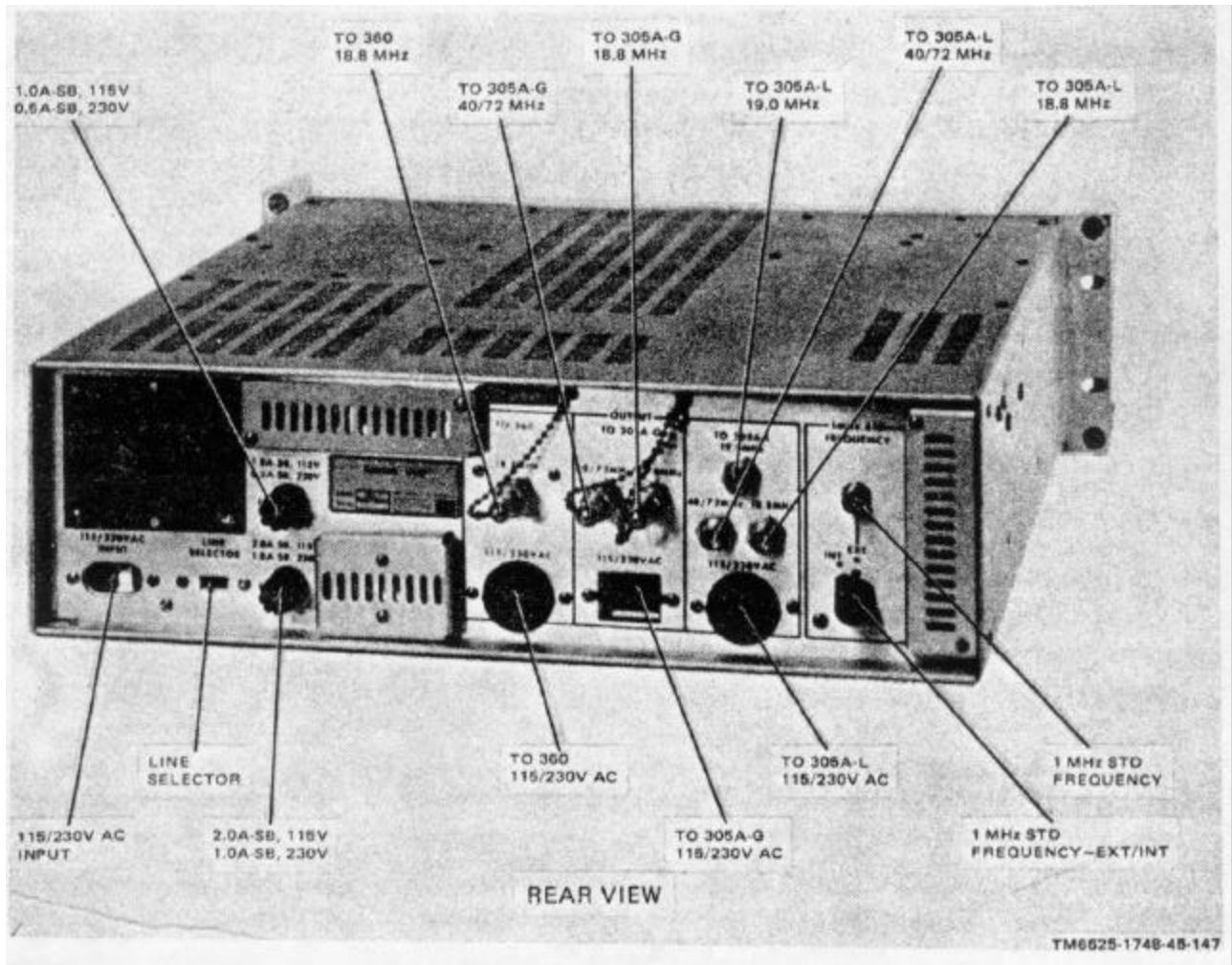


Figure 2-2. Tuning Unit TN-527/U, rear panel view.

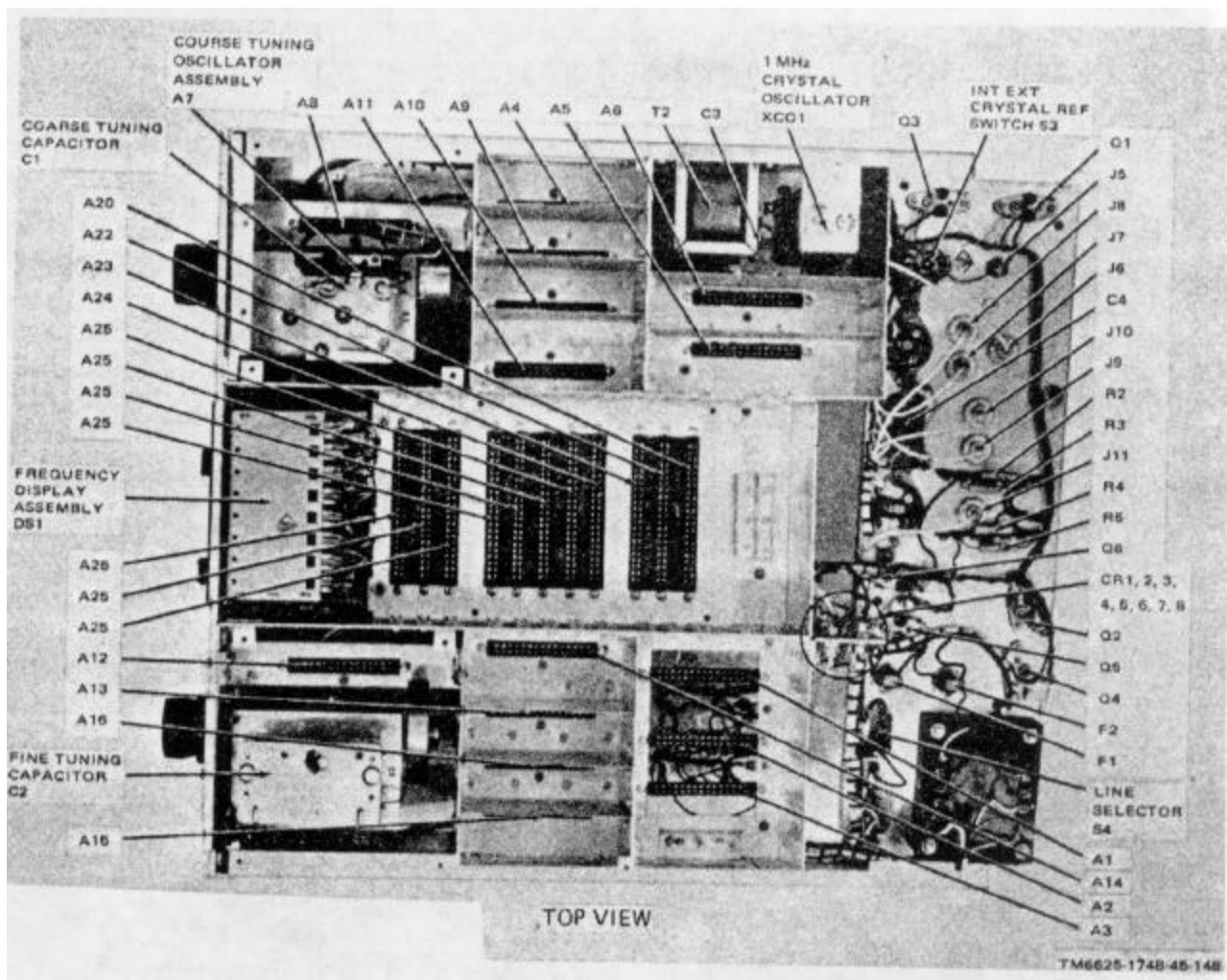


Figure 2-3. Tuning Unit TN-527/U, top view.

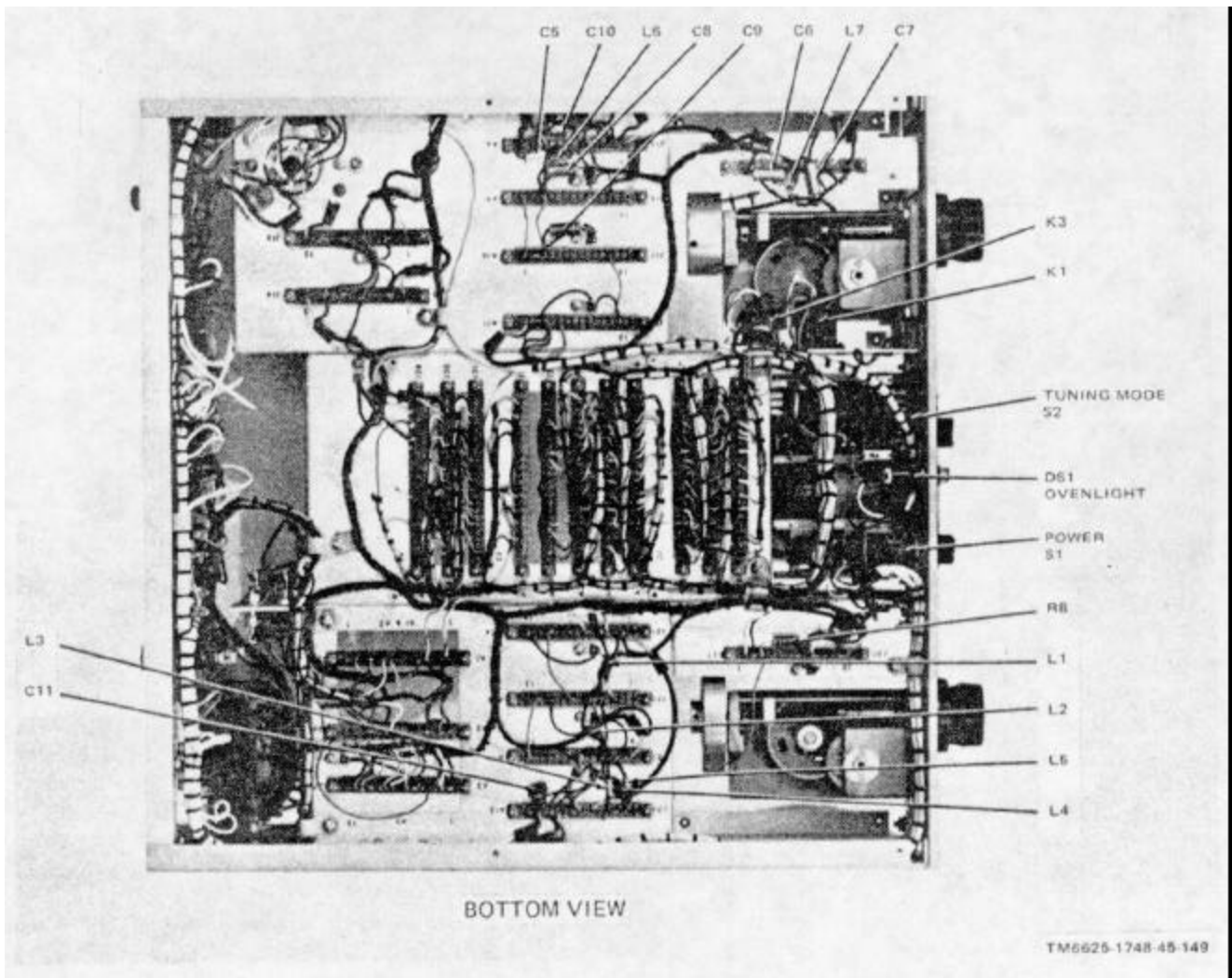


Figure 2-4. Tuning Unit TN-527/ U, bottom view.

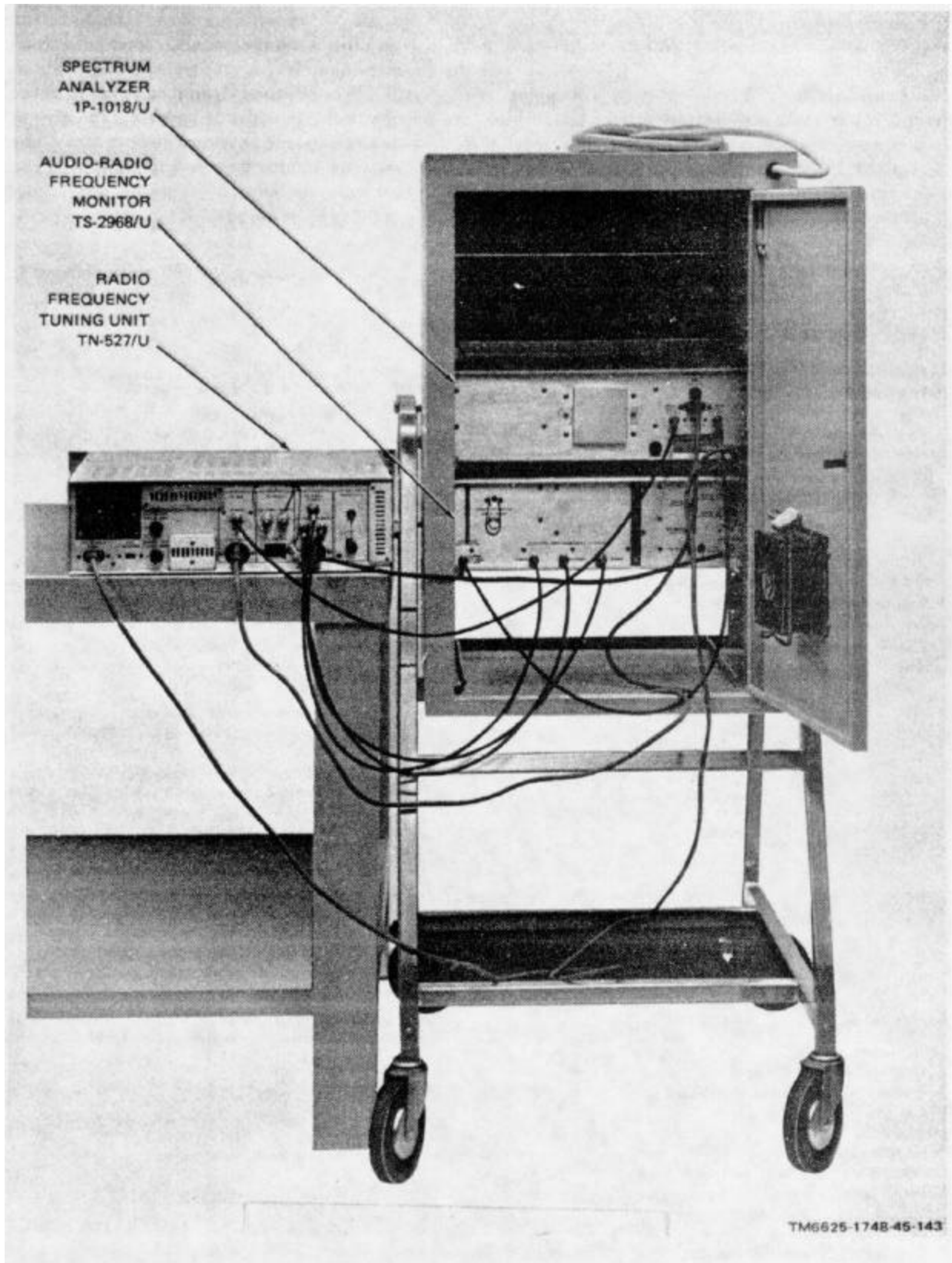


Figure 2-5. Tuning Unit TN-527/ U, operational troubleshooting test setup.

b. *Conditions for Tests (short-circuit).* To prepare for short-circuit tests:

(1) Make sure the POWER switch on the tuning unit is OFF.

(2) Make sure that all plug-in assemblies are in place and firmly seated in the jacks.

(3) Insert cards riser(s) as needed between module(s) and jack(s) to make test points readily accessible.

c. *Measurements.* The short-circuit tests require the use of an ohmmeter on the low-range scale. Make the resistance measurements indicated in the following chart. If abnormal results are obtained, make the additional isolating checks outlined. If a faulty module is found, repair and/or replace the module before applying power to the unit. Ohmmeter lead polarity must be observed to prevent erroneous readings.

<i>Point of measurement:</i>	<i>Short circuit tests, tuning unit Normal indication</i>	<i>Isolating procedure</i>
<i>Power supply board A3</i>		
Positive ohmmeter lead to TP-1		
Negative ohmmeter lead to TP-3	9.5k to 11.5k ohms	Remove, repair and/or replace Board A3.
Pos. ohmmeter lead to TP-4		
Neg. ohmmeter lead to TP-6	11k to 12.5k ohms	Remove, repair and/or replace Board A3.
Pos. ohmmeter lead to TP-2		
Neg. ohmmeter lead to TP-3	215 to 230 ohms	Remove Board A3 and perform following test:
Pos. ohmmeter lead to TP-2, Board A3		
Neg. ohmmeter lead to TP-3, Board A3	4.2k to 4.9k ohms	Repair and/or replace Board A3.
With Board A3 still out of the chassis, connect ohmmeter as follows:		If the reading obtained in this test is between 190 ohms and 240 ohms; or is greater than 240 ohms, reinstall Board A3 in chassis and proceed with the dc Voltage tests, para. 2-11.
Pos. lead to term 11 of jack J27 (on the chassis)		If the reading obtained in this test is less than ohms, proceed as follows:
Neg. lead to term 12 of jack J27	190 to 240 ohms	(1) Connect the + lead of the ohmmeter to term 11 of J27 (on the chassis).
		(2) Connect the - lead of the ohmmeter to term 12 of J27.
		(3) While observing the ohmmeter reading, start removing, but do not replace, the following Boards: A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15 and A16.
		(4) As each board is removed, watch for a sudden increase in the ohmmeter reading to a value of 190 ohms or higher. If this sudden increase in the reading occurs, the board just unplugged is defective. Repair and/or replace the defective board.
		(5) With all of the boards listed in (3), above, unplugged, if the ohmmeter reading is not 190 ohms or higher, there is a defect in the -16 V dc chassis wiring. Refer to section VI and figures 6-16 and 6-17.
With Board A3 still out of the chassis, connect ohmmeter to the board as follows:		
Pos. lead to TP-5		
Neg. lead to TP-6	1.5k to 4.9k ohms	Repair and/or replace Board A3. as per paragraph.
With Board A3 still removed from the chassis, connect the ohmmeter as follows:		
Pos. lead to term 5 of jack J27 (on the chassis).		
Neg. lead to term 4 of jack J27	95 to 105 ohms	Leave ohmmeter connected to terminals 5 and 4 of jack J27. Unplug Board A20. Ohmmeter reading should be infinity. If ohmmeter reading is less than infinity, there is a defect in the -6 Vdc wiring, (Refer to section VI and figures 6-16 and 6-17.)

<i>Point of measurement:</i>	<i>Short circuit tests, tuning unit</i>	<i>Isolating procedure</i>
<i>Power supply board A3</i>	<i>Normal indication</i>	
<i>continued</i>		
With Board A20 still out of the chassis, connect the ohmmeter to it as follows:		
Pos. lead to term 6 of the connector strip		
Neg. lead to term 4 of the connector strip	97 to 105 ohms	Repair and/or replace board A20.
With Board A20 out of the chassis, connect the ohmmeter to it as follows:		
Pos. lead to term 14 of the connector strip		
Neg. lead to term 6 of the connector strip	3.1k to 4.5k ohms	Repair and/or replace Board A20.
With Board A20 still out of the chassis, connect the ohmmeter to + 6V dc power supply board, A1, as follows:		
Pos. lead to TP2		
Neg. lead to TP-3	11 to 15 ohms	Repair and/or replace Board A1.
<i>Power supply board A-1</i>		
Connect the ohmmeter to Board A1. as follows:		
Pos. lead to TP-1		
Neg. lead to TP-3	10.5k to 13k ohms	Repair and/or replace Board A1.
Remove Board A1 from the chassis. Connect ohmmeter as follows:		
Pos. lead to term 15 of jack J25		
Neg. lead to term 11 of jack J25	100 to 130 ohms	If reading is less than 100 ohms, there is a defect in the +6 V dc wiring. Refer to section VI and figures 6-16 and 6-17.
Reinstall all boards in chassis.		
<i>Power supply board A1</i>		
Connect ohmmeter to +3.5 Vdc power supply Board A2 as follows:		
Pos. lead to TP-1		
Neg. lead to TP-3	11k to 14k ohms	Remove, repair and/or replace Board A2.
<i>Power supply board A2</i>		
Connect ohmmeter to Board A2 as follows:		
Pos. lead to TP-2		
Neg. lead to TP-3	265 to 295 ohms	Remove Board A2. Connect Pos. lead of ohmmeter to term 15 on the connector strip on the board, and the Neg. lead to term 11. Reading should be between 3.9k and 4.5k ohms. If reading falls outside these limits, repair and/or replace Board A2.
With board A2 still out of the chassis, connect the ohmmeter as follows:		
Pos. lead to term 15 of jack J26 (on the chassis)		
Neg. lead to term 11 of jack J26	260 to 290 ohms	If the reading obtained in this test is greater than 260 ohms, reinstall Board A2 in chassis and proceed with the dc Voltage tests, para 2-11. If the reading obtained in this test is less than 260 ohms, proceed as follows: (1) Connect the + lead of the ohmmeter to term 15 of jack J26 (on the chassis).

<i>Point of measurement:</i>	<i>Short circuit tests, tuning unit</i>	<i>Isolating procedure</i>
<p>Power supply board A2. continued</p>	<p>Normal indication</p>	<ol style="list-style-type: none"> (2) Connect the - lead of the ohmmeter to term 11 of jack J26. (3) While observing the ohmmeter reading, start removing, but do not replace, the following Boards: A20, A22, A23, A24 and A25. (4) As each board is removed, watch for a sudden increase in the ohmmeter reading to a value of 260, ohms or higher. If this sudden increase in the reading occurs, the board just unplugged is defective. Repair and/or replace the defective board. (5) With all of the boards listed in (3), above, unplugged, if the ohmmeter reading is not greater than 260 ohms, there is a defect in the +3.5V dc chassis wiring. Refer to section VI and figures 6-16 and 6-17.

(Replace all boards in the chassis before proceeding with the next tests.)

(Replace all boards in the chassis before proceeding with the next tests.)

2-11. Checking Dc Power Supply Voltages

a. *When to Check.* When either of the conditions listed in paragraph 2-10a exist, but the short-circuit tests did not show any short-circuit conditions existing within the unit.

CAUTION

In cases of suspected power supply troubles, do not perform the following tests until the possibility of short-circuits has been eliminated by the tests outlined in paragraph 2-10.

b. *Conditions for Tests.* To prepare for dc voltage measurements:

- (1) Make sure all plug-in boards have been replaced in the tuning unit chassis, and are firmly seated in the jacks.
- (2) Use card risers as required to make test points readily accessible.
- (3) When removing or replacing circuit boards for additional tests or for the installation of reisers, make sure the POWER switch is turned to OFF.
- (4) Connect power cable to a source of ac input power.

c. *Measurements.* In making the dc voltage tests, always verify that the voltmeter is set and the leads properly connected for the polarity of the voltage to be measured. Voltages of the wrong polarity for the meter configuration can damage the meter movement. Make the voltage measurements indicated in the following chart. If abnormal results are obtained, make the additional isolating checks outlined. When a normal indication is obtained, omit the procedures in the "Isolating procedure" column of the chart, and proceed with the next test. If a faulty module is found, repair and/or replace the module before proceeding further.

NOTE

The common returns for all of the power supply voltages to be measured in the following tests are connected to the chassis of the Tuning Unit. Except where otherwise specified, the voltmeter common lead may be clipped to a convenient point of chassis ground and left connected throughout the tests.

<i>Point of measurement:</i>	<i>Dc voltage tests, tuning unit</i>	<i>Isolating procedure</i>
<p>16 V dc power supply, board A3 Connect voltmeter common to A3 TP-3. + lead to A3 TP-1</p>	<p>Normal indication</p> <p>+ 28.3 to + 28.9 volts dc</p>	<p>Turn power off. Remove Board A3. Turn power on. Proceed with next test.</p>

<i>Point of measurement:</i>	<i>Dc voltage tests, tuning unit</i>	<i>Isolating procedure</i>
<i>-16 V dc power supply. board A3</i>	<i>Normal indication</i>	
<i>-continued</i>		
Connect AC Voltmeter to: Term 4 of jack J27 and term 5 of jack J27 (on the chassis) (Board A3. bench test)	24.0 to 26.2 volts ac	Defective ac Power Supply in chassis. Turn unit off. Disconnect and remove Tuning Unit chassis from cabinet. Refer to section VI and figures 6-16 and 6-17. If the ac voltage reading in the preceding test is within the specified limits, troubleshoot Board A3 in accordance with section VI.)
Reinstall Board A3. DC Voltmeter common to A3 TP-2 or chassis ground. Neg. lead to A3 TP-3	-15.5 to -16.5 volts dc	Leave voltmeter connected. In the following steps, turn POWER switch to OFF before removing each board, then turn to ON and observe meter reading. (1) Remove the following boards in sequence, and do not replace them until the instructions say to do so. Remove: A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15 & A16. (2) As each successive board is removed from the chassis, turn the power switch back to ON, and note the dc voltage reading. If after the removal of a particular board, it is noted that the dc voltage reading has suddenly increased to a value of -13.5V dc. or higher. The board that was unplugged immediately preceding this step is probably defective. Troubleshoot the board in accordance with the appropriate instructions in Section VI.
With Boards A4 through A16, inclusive. removed from the chassis, recheck the dc voltage between TP-2 and TP-3 on Board A3	-13.5 to -1.5 volts dc	Substitute another Power Supply Board A3, and recheck voltage.
<i>-6 V dc power supply. board A3</i>		
Voltmeter common to A3 TP-6 + lead to A3 TP-4	-15.2 to -15.7 volts dc	Turn power off. Remove Board A3. Turn power on. Proceed with next test.
Connect AC Voltmeter to: Term 1 of jack J27 and term 2 of jack J27 (on the chassis). (Board A3, bench test)	13.0 to 14.5 volts ac	Defective ac Power Supply. Turn unit off. Refer to section VI and figures 6-16 and 6-17. If the ac voltage reading in the preceding test is within the specified limits, troubleshoot Board A3 in accordance with section VI.)
Reinstall Board A3, DC Voltmeter common to A3 TP-5 or chassis ground. Neg. lead to A3 TP-6	-5.8 to -6.2 volts dc	Turn power off. Remove Board A20. Turn power on. Recheck reading between A3 TP-5 and TP-6. If reading is -5.8 volts, or greater, troubleshoot Board A20 in accordance with section VI.
<i>(Replace all boards before proceeding with the following tests.)</i>		
<i>+6 V dc power supply, board A1</i>		
Connect voltmeter common to A1 TP-3 + lead to A1 TP-1	+18.8 to +19.7 volts dc	Turn power off. Remove Board A1. Turn power on. Proceed with next test.
Connect dc voltmeter common to Tuning Unit chassis, or term 4 of jack J25. + lead to term 2 of J25	+16.0 to +17.3 volts dc	Defective ac supply or rectifier bridge on chassis. Turn unit off, disconnect and remove Tuning Unit chassis from cabinet. Troubleshoot in accordance with section VI.
Replace Board A1 in chassis.	+5.85 to +6.15 volts dc	Turn power off. Remove Board A20. Turn power on. Proceed with next test.
Connect voltmeter common to A1 TP-3 or chassis ground. + lead to A1 TP-2		
Connect meter as above.	+5.85 to +6.15 volts dc	If this reading is satisfactory. Board A20 is defective. Troubleshoot Board A20 in accordance with section VI. If this reading is not within the tolerances given, Board A1 is defective. Troubleshoot Board A1 in accordance with section VI.

(Replace all boards before proceeding with the following tests.)

(Replace all boards before proceeding with the following tests.)

<i>Point of measurement:</i>	<i>Dc voltage tests, tuning unit</i>	<i>Isolating procedure</i>
	<i>Normal indication</i>	
+3.5V dc power supply board A2		
Connect dc voltmeter common to A2 TP-3 or chassis ground.	+ 12.2 to	Turn power off. Remove Board A2.
Pos. lead to A2 TP-1	+ 12.7 volts dc	Turn power on. Proceed with next test.
DC voltmeter common to Tuning Unit chassis ground	+ 10.8 to	Defective ac supply or rectifier bridge on chassis. Turn unit off, disconnect and remove Tuning Unit from cabinet. Refer to section VI and figures 6-16 and 6-17. Leave voltmeter connected. In the following steps turn POWER switch to OFF before removing each board, then turn to ON and observe meter reading.
+ lead to term 2 of jack J26	+ 11.8 volts dc	
Replace Board A2 in chassis.	+3.4 to	(1) Remove the following boards in sequence, and do not replace them until the instructions say to do so. Remove: A20, A22, A23, A24 and A25.
Connect dc voltmeter common to A2 TP-3 or chassis ground. Pos. lead to A2 TP-2.	+3.6 volts dc	
		(2) As each successive board is removed from the chassis, turn the power switch back to ON and note the dc voltage reading. If, after the removal of a particular board, it is noted that the dc voltage reading suddenly increases to a value of +3.4V dc, or higher, the board that was unplugged immediately preceding this step is probably defective.
		Troubleshoot the board in accordance with the appropriate instructions in Section VI.
With Board A20 through A25, inclusive, removed from the chassis, recheck the dc voltage between TP-2 and TP-3 on Board A2.	+3.4 to	Substitute another Power Supply Board A2, and recheck the voltage.
(Replace all boards before proceeding with the following tests.)	+3.6 volts dc	

(Replace all boards before proceeding with the following test.)

2-12. Locating Defective Circuit Modules

This procedure involves reconnecting the tuning unit to the monitor unit and the spectrum analyzer unit in the normal AN/USM-306(V)1. Test Set interconnection configuration. Paragraph 2-3d (1) lists the replacement modules that must be on hand in order to perform the substitution tests that follow.

a. When to Check. The circuit board substitution procedures outlined below are to be followed when the following conditions exist:

(1) Whenever operational tests and/or the interunit sectionalizing procedures indicate probable troubles in the tuning unit; and,

(2) The short-circuit and dc voltage tests and corrective measures outlined in paragraphs 2-10 and 2-11 failed to isolate and/or correct the troubles.

b. Conditions for Tests.

(1) Leave the top cover plate and shield off of the tuning unit.

(2) Place the tuning unit on a table or stand (about 30 inches high), immediately to the right of the cabinet containing the monitor and spectrum analyzer units. (This placement is necessary to permit interconnection of the units with the cables provided.) See figure 2-5.

(3) Make sure all plug-in circuit modules are firmly seated in the proper chassis jacks.

(4) Interconnect the units as in the normal test set configuration (fig. 4-2).

c. Initial Settings. Make whatever settings are required to cause the malfunction to occur.

d. Substitution Procedures.

(1) Turn the POWER switch to OFF when removing and replacing the plug-in circuit modules.

(2) Make sure the replaced circuit modules are firmly seated in the chassis jacks.

(3) Even if the installation of a replacement module does not completely clear the trouble, leave the replacement module in the chassis until all symptoms have been eliminated.

(4) If normal operation can be obtained by these procedures, those substituted modules which seemed to have no appreciable effect may be replaced by the original modules, one by one. After each such replacement, verify that the tuning unit continues to function normally.

NOTE

It is quite possible for defective operation to be caused by simultaneous defects in two or more modules. Defects in one module can often cause damage to other modules.

substituting circuit modules, bench test setup and troubleshooting procedures will be required. Refer to section VI.

(6) Module locations are shown in figure 2-3.

(7) Some common malfunctions are listed in the following chart along with the circuit modules most likely to be at fault.

(5) If the troubles(s) cannot be eliminated by

<i>Symptom</i>	<i>Probable cause</i>
One or more of the FREQUENCY display lights do not function properly. The COARSE and FINE TUNING controls have no effect.	Module A-20, A-22, A-23, A-24, A-25 (there are seven identical A-25 modules).
COARSE TUNING control will not lock when Tuning Unit is in LOCK mode.	Modules A4, A-10, and A-11.
No Coarse Tuning Oscillator output to Level Meter. Unable to properly tune Level Meter (defect not in Level Meter). Erroneous reading of FREQUENCY display.	Modules A-7, A-8 and A-9. Module A-4.
No. 19.0 MHz Oscillator output to Level Meter.	Modules A-4, A-20, A-23, A-24, A-25, and 1 MHz Crystal Oscillator SC01. Module A-6.
No. 18.8 MHz Fine Tuning Oscillator output to Level Meter or Display Unit.	Modules A-15, A-14, A-13, A-16 and A-12.

Section IV. TUNING UNIT TN-527/U, BENCH TROUBLESHOOTING

WARNING

Hazardous voltages of 115 or 230 volts ac exist within the tuning unit when it is connected to a source of ac power. Take extreme care not to come in contact with the primary ac power wiring between the ac input cable, the primary fuse, the ON-OFF switch and the power transformer primary when making tests with the tuning unit connected to a primary ac power source.

2-13. General

Bench testing and troubleshooting procedures are to be followed:

- a. When the procedures outlined in section III of this chapter have failed to localize the trouble, and/or:
- b. To isolate defective components either on the pc boards or mounted on the chassis.

2-14. References

- a. Refer to chapter 3 of the Operator and Organizational Maintenance Manual, TM 11-6625-1748-12, for operational checkout procedures for Radio Test Set AN/USM-306(V)1.
- b. A basic troubleshooting chart is contained in chapter 4 of the Operator and Organizational Maintenance manual.

- c. Read sections I and II of this chapter (para 2-1 through 2-7, inclusive), before proceeding with the tests contained in this section.
- d. Overall schematic diagrams of the tuning unit are provided by figures 6-6 through 6-17, inclusive, at the back of this manual.
- e. Pc board (module) photos with callouts for all components and test points, and accompanying schematic diagrams are provided in paragraph 2-17. These illustrations are arranged in numerical sequence, beginning with pc board A1.
- f. Dc voltage charts are contained in paragraph 2-18.
- g. Counter waveforms are contained in paragraph 2-19 (fig. 2-48).

h. Rf signal level, frequency and waveform information is provided in paragraph 2-20 Waveform illustrations appear on figures 2-49 through 2-57, inclusive.

i. A chart listing transformer and coil d4 resistances is contained in paragraph 2-21.

j. Refer to figures 2-1 through 2-4 for component control and module locations.

k. When replacing transistors, refer to figure 5-1, "Transistor basing diagrams."

l. Additional references are listed in the appendix A.

2-15. Procedures

CAUTION

Observe the cautions given in paragraph 2-3a (1 through (5). Use an ohmmeter to make only those tests which are listed throughout this chapter. Do not use an ohmmeter to make any other tests, nor to test individual transistors. Defective transistors are isolated by operational tests and dc voltage measurements.

a. Bench Testing Setup. The tuning unit should be placed on its right side on the bench. This will make all test points both above and below the chassis readily accessible. Remove all cover plates. Use card risers to make pc module test points accessible.

b. Preliminary Resistance Tests. Before connecting the tuning unit to an ac primary power source, use an ohmmeter to check the dc power circuits as listed below. If any of the readings fall below the minimum values given, refer back to section III of this chapter and perform the detailed dc power supply circuit tests.

CAUTION

Do not connect the tuning unit to an ac power source unless the readings obtained in the following tests meet or exceed the minimum values given.

(1) Remove pc board A1 from the chassis. Connect the ohmmeter from terminal 15 of the A1 chassis jack (J25) to chassis. The minimum resistance reading shall be 100 ohms. Replace A1.

(2) Connect the ohmmeter to TP2 and TP3 of board A2. The minimum resistance reading shall be 250 ohms.

(3) Connect the ohmmeter to TP2 and TP3 of board A3. The minimum resistance reading shall be 215 ohms.

(4) Connect the ohmmeter between TP5 and TP6 of board A3. The minimum resistance reading shall be 90 ohms.

c. Preliminary Voltage Tests. Upon satisfactory completion of the resistance tests in *b* above apply ac power to the tuning unit and turn it on. Make the power supply output voltage measurement listed below. If any of the voltages do not come up to the values given, refer back to paragraph 2-11 in section III of this chapter for low voltage localization procedures.

(1) Connect the positive lead of Multimeter TS-352B/U to TP2 and the negative lead to TP 3 (or chassis ground) of pc board A1. The output voltage shall be + 5.5V dc. Adjust R8 on board A1 if necessary. If unable to obtain + 5.5V dc, refer to paragraph 2-11.

(2) Connect the positive lead of the multimeter to TP2 of pc board A2. Leave the negative lead connected to common or the chassis. The output voltage shall be +3.5V dc. Adjust R9 on board A2 if necessary. If unable to obtain +3.5V dc, refer to paragraph 2-11.

(3) Connect the negative lead of the multimeter to TP6 of pc board A3. Connect the positive lead to TP2 or TP5 of board A3, or to chassis ground. The output voltage shall be -6.0V dc. Adjust R18 on board A3 if necessary. If unable to obtain -6.0V dc, refer to paragraph 2-11.

(4) Leave the positive lead of the multimeter connected as in (3). Move the negative lead to TP3. The output voltage shall be -16.0V dc. Adjust R7 on board A3 if necessary. If unable to obtain -16.0V dc, refer to paragraph 2-11.

d. Counter Lock-up. Counter lock-up is a condition wherein the FREQUENCY display reading on the front panel of the tuning unit remains unchanged throughout the ranges of both the COARSE and FINE tuning controls. There are no meaningful voltage measurements to be made that will determine whether or not the counter circuits are working properly. Refer to paragraph 2-19 and figures 2-48 (1), 2-48 (2) and 2-48 (3) for information on troubleshooting the counter circuits.

e. Isolation Procedures. Isolation of defective components is accomplished by first localizing the trouble to a specific module or circuit. Perform isolation tests by following the procedures in the order given in the following paragraphs. When the trouble has been localized, proceed first with the voltage measurements of the circuit or module concerned, in accordance with paragraph 2-18. If the defective components cannot be located by means of the voltage measurements, proceed with the signal frequency and waveform tests, and then if necessary the transformer and/or coil resistance tests.

f. Tests After Repairs. Upon completion of repairs, perform the necessary operational tests to insure that the unit is working properly. If any

tuneable coils, or modules containing tuneable coils have been replaced, check the alignment of the unit in accordance with the appropriate procedures contained in section II of chapter 3.

that almost all defects can be sectionalized and localized by means of the unit and module substitution procedures outlined earlier in this chapter. The following chart will assist in the rapid localization of certain defects not previously covered.

2-16. Troubleshooting Chart

The design of Radio Test Set AN/USM-306(V)1 is such

NOTE

Perform the operations in the equipment checklist (TM-11-6625-1748-12) and the procedures in section III of this chapter before using this chart, unless the trouble has already been localized.

<i>Symptom</i>	<i>Probable trouble</i>	<i>Correction</i>
1. Low voltage at TP1 of power supply pc board A1. Replacing board A1 does not correct the problem.	Defective rectifier diode. CR5. CR6. CR7 or CR8 (fig. 6-16).	Remove board A1. Connect oscilloscope between pin 2 of J25 and chassis. The observed waveform should be a continuous series of positive half sine waves of approximately equal height above the baseline. The amplitude must be approximately 21 volts peak-to-peak.
2. Low voltage at TP1 of power supply board A2. Replacing board A2 does not correct the problem.	Defective rectifier diode. CR1, CR2, CR3, or CR4 (fig. 6-16).	Remove board A2. Connect oscilloscope between pin 2 of J20 and chassis. The observed waveform should be a continuous series of positive half sine waves of approximately equal height above the baseline. The amplitude must be approximately 15.5 volts peak-to-peak.
3. FREQUENCY display reading does not change with changes in tuning control settings.	Clock switch on rear panel set to EXT. No external clock connected. 1 MHz internal clock not functioning. Counter lockup.	Turn switch to INT. Replace 1 MHz clock. Refer to para 2-30.
4. Low output or no output at TO 305A-L 19.0 MHz jack.	Board A6.	Replace A6.
5. Low output or no output at TO 305A-L 18.8 MHz jack.	Board A15.	Replace A15.
6. Low output or no output at TO 360B 18.8 MHz jack.	Board A15.	Replace A15.
7. Low output or no output at TO 305A-L 40/72 MHz jack.	Board A8. Board A7.	Replace A8. Replace A7.
8. Unit will not function in the LOCK mode.	Board A11. Board A10. MODE switch S2. Relay K1 (on chassis)	Replace A11. Replace A10. Check S2. check K1

2-17. PC Module Illustrations and Schematic Diagrams

Figures 2-6 through 2-47 are illustrations and schematic diagrams of all pc boards (modules) contained in the tuning unit. All components are called out on the pc board photographs, as well as the test points. The test

points are also shown on the accompanying schematic diagrams. The pc board illustrations are intended for use in conjunction with the voltage charts (para 2-18), counter waveforms (para 2-19), rf measurements charts and waveform illustrations (para 2-20), and the transformer and coil resistance charts (para 2-21).

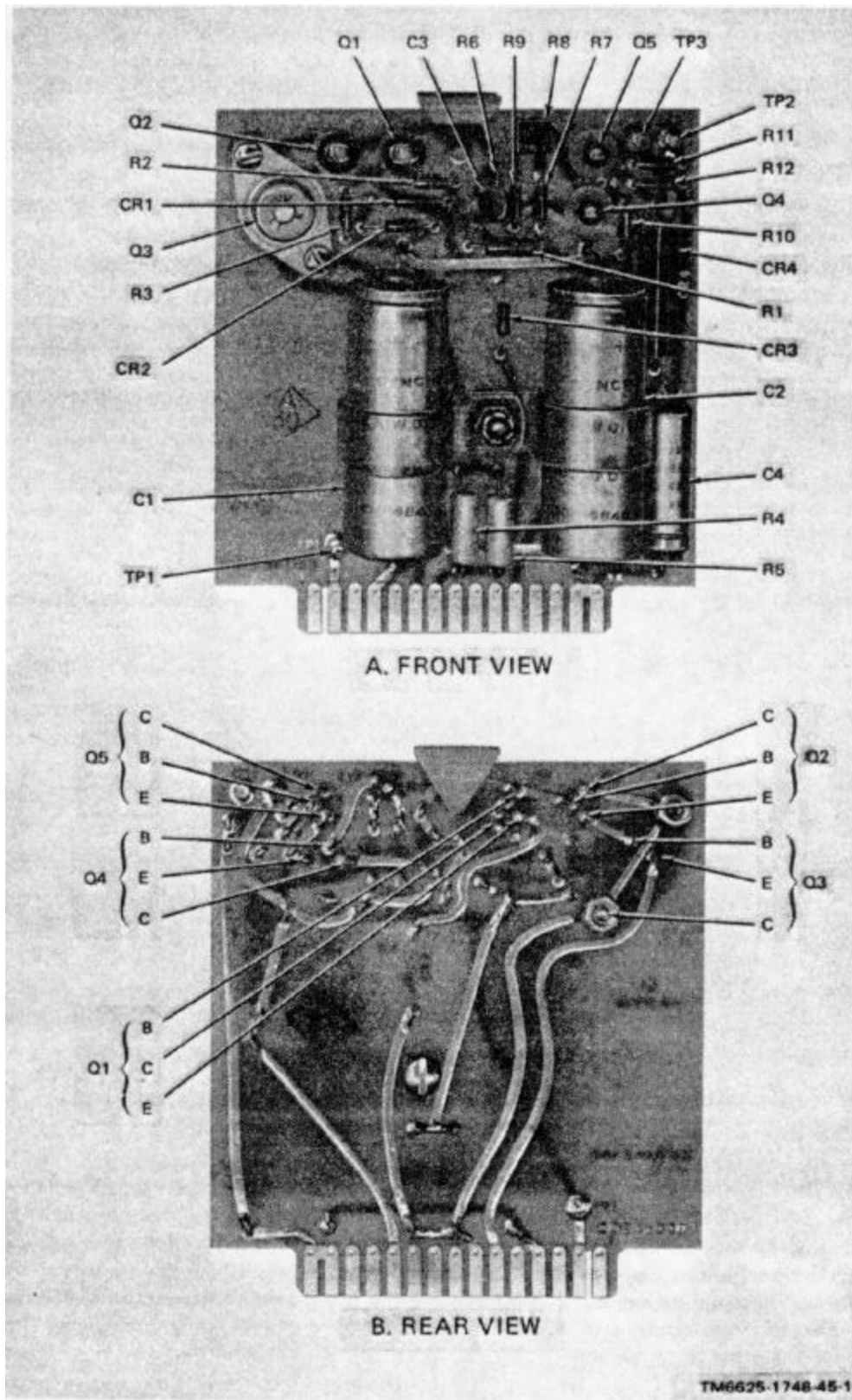
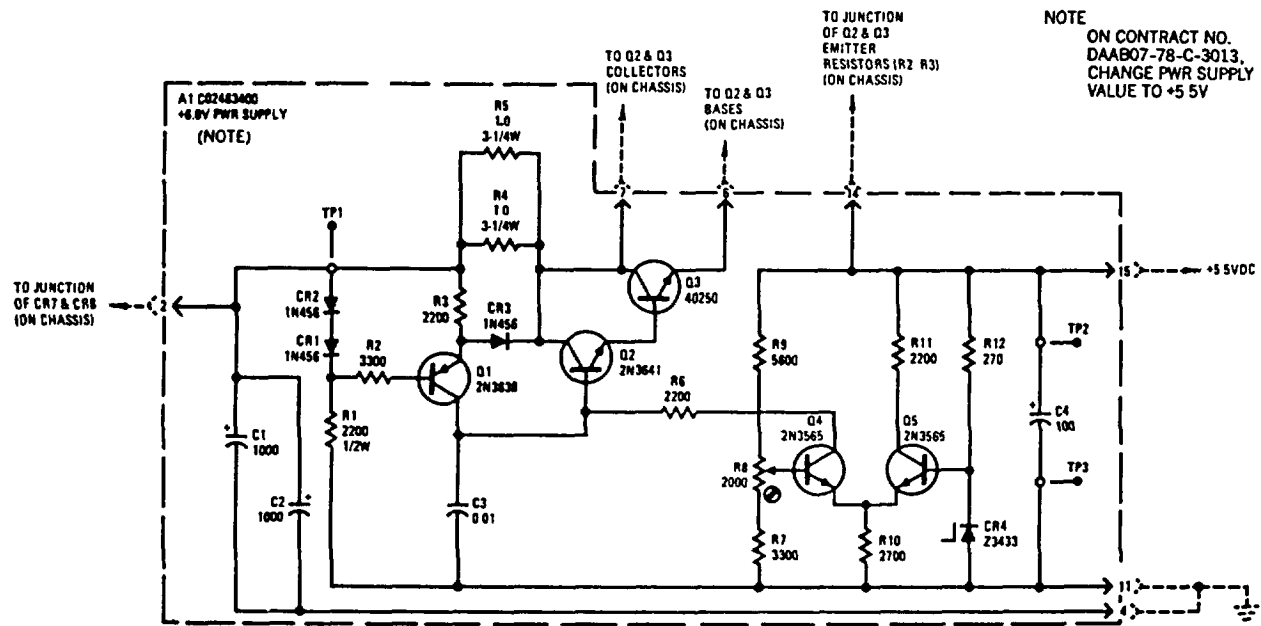


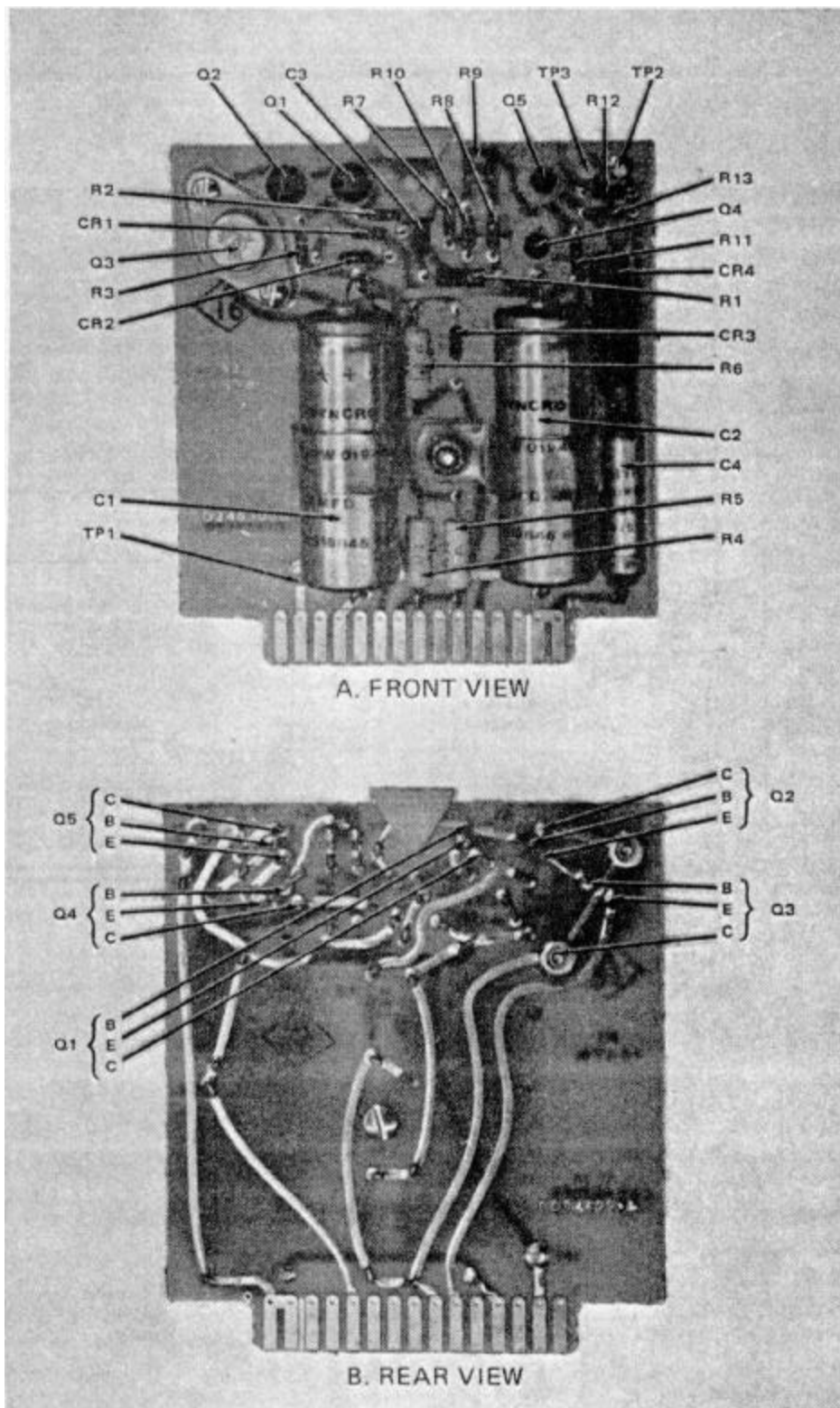
Figure 2-6. Power supply A1. Tuning Unit TN-527/U.



NOTE
ON CONTRACT NO.
DAAB07-78-C-3013,
CHANGE PWR SUPPLY
VALUE TO +5.5V

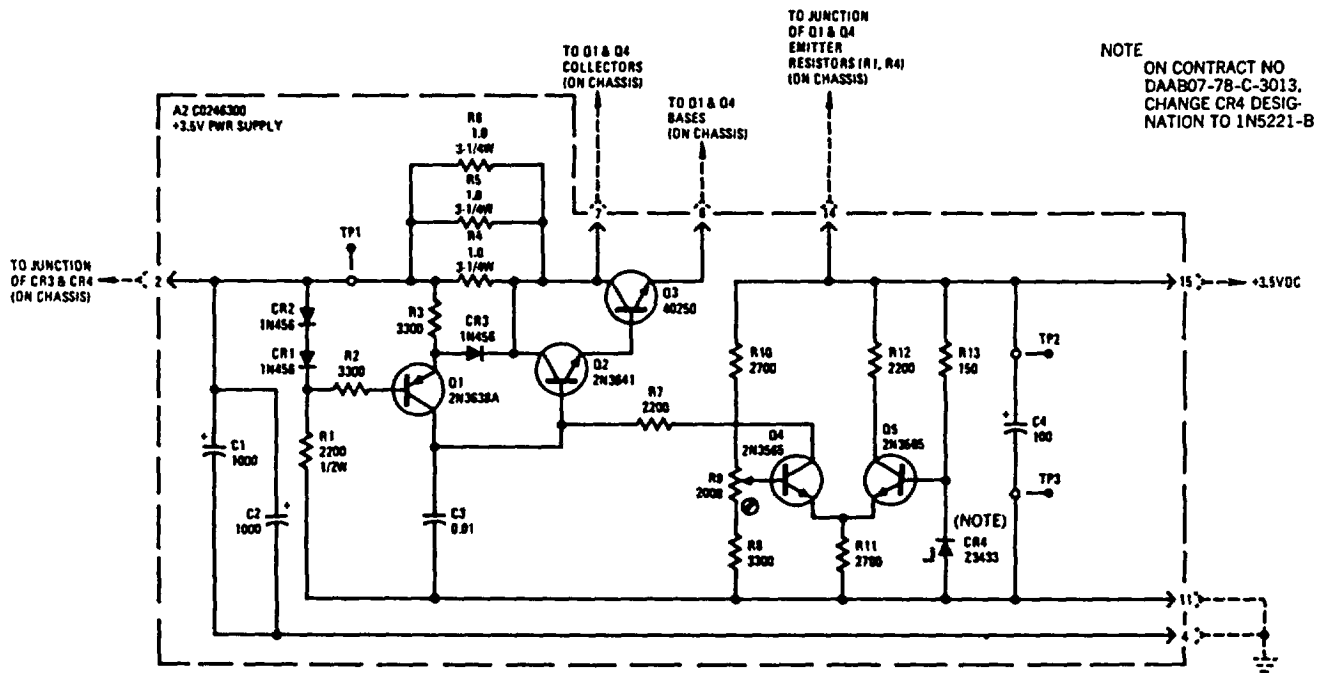
EL19.018

Figure 2-7. Power supply, A1. schematic diagram Tuning Unit TN-527/U.



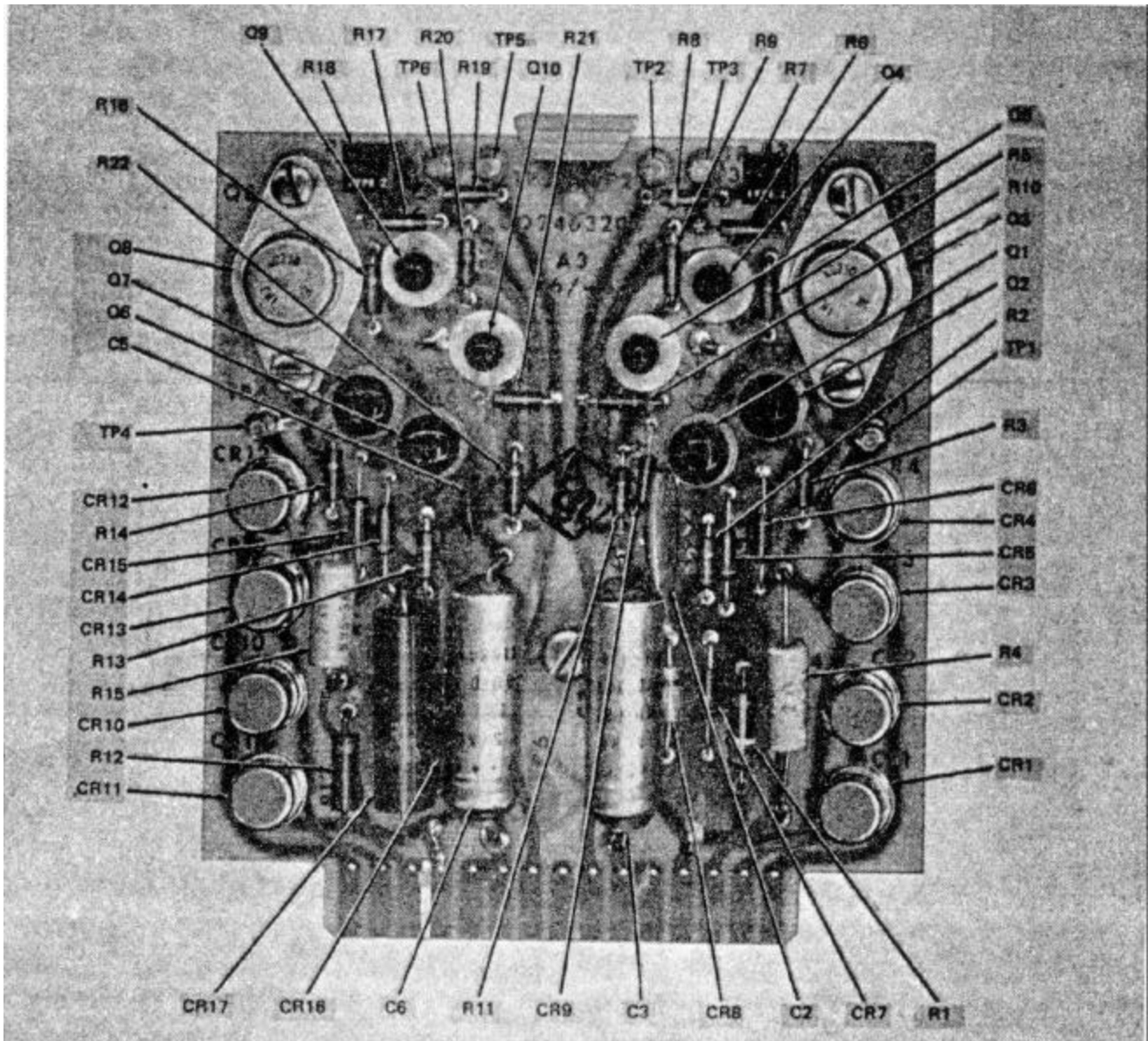
TM 6625-1748-45-3

Figure 2-8. Power supply A2, Tuning Unit TN-527/U.



EL1JL019

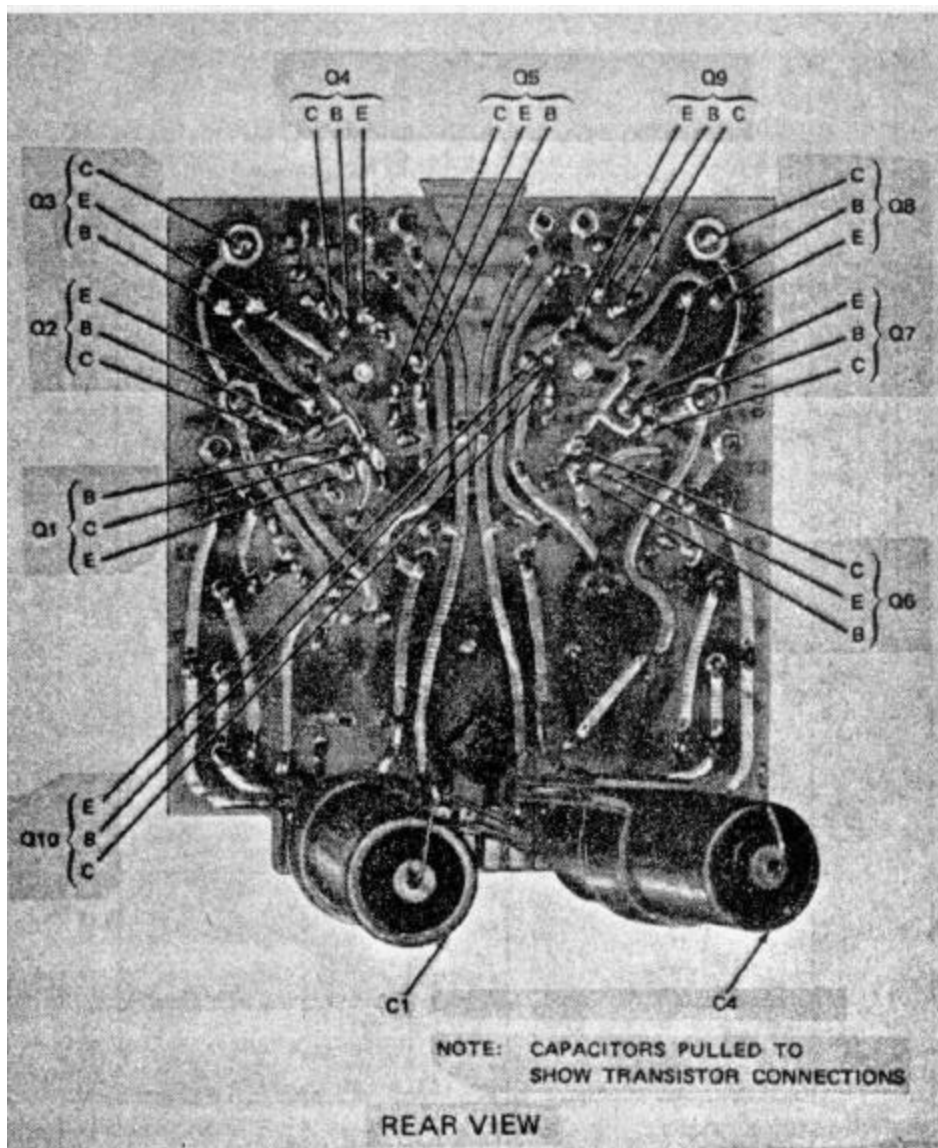
Figure 2-9. Power supply A2, schematic diagram Tuning Unit TN-527/U



FRONT VIEW

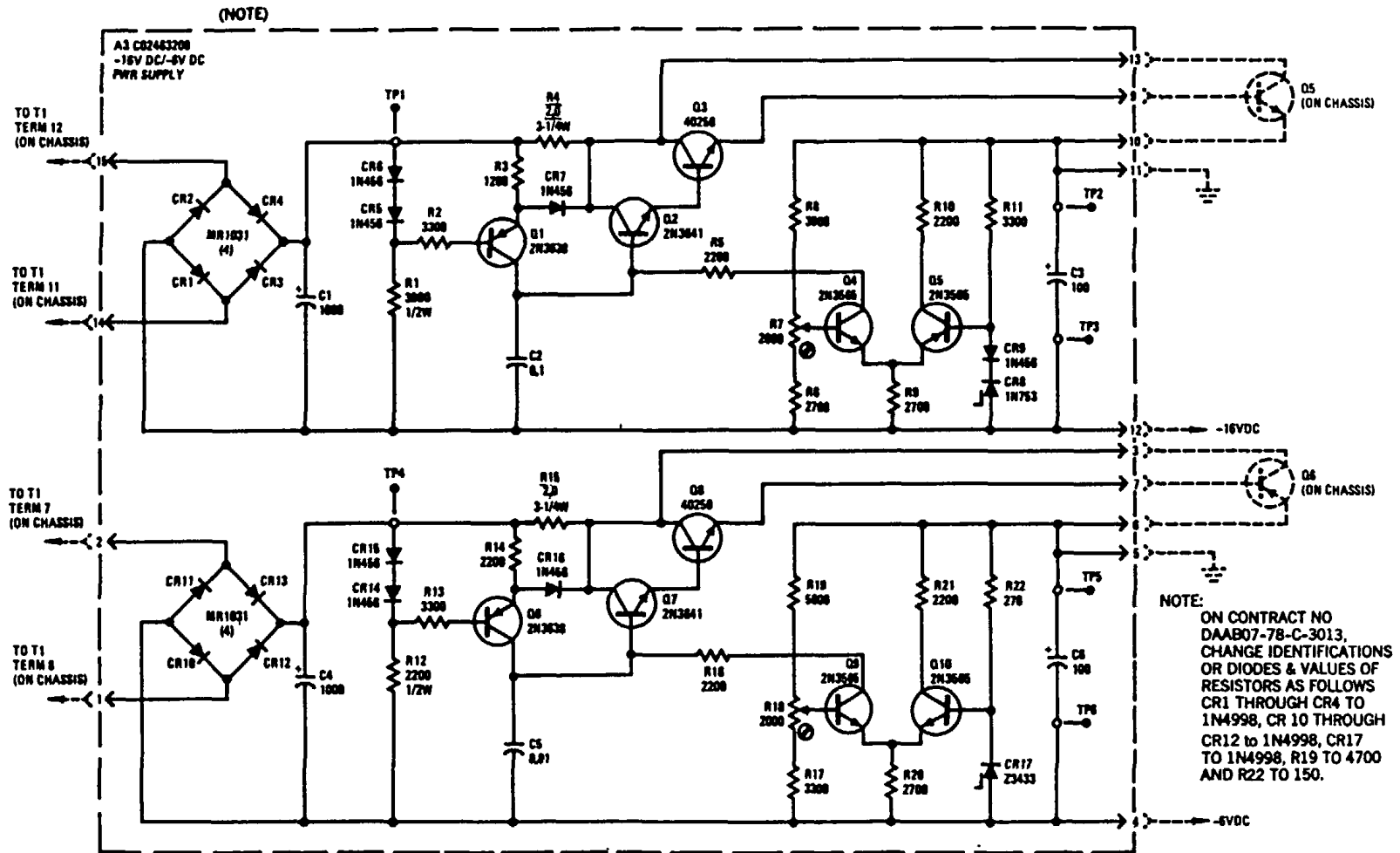
TM 6625-1748-45-5 (1)

Figure 2-10 (1). Power supply A3. Tuning Unit TN-527/U (Sheet 1 of 2).



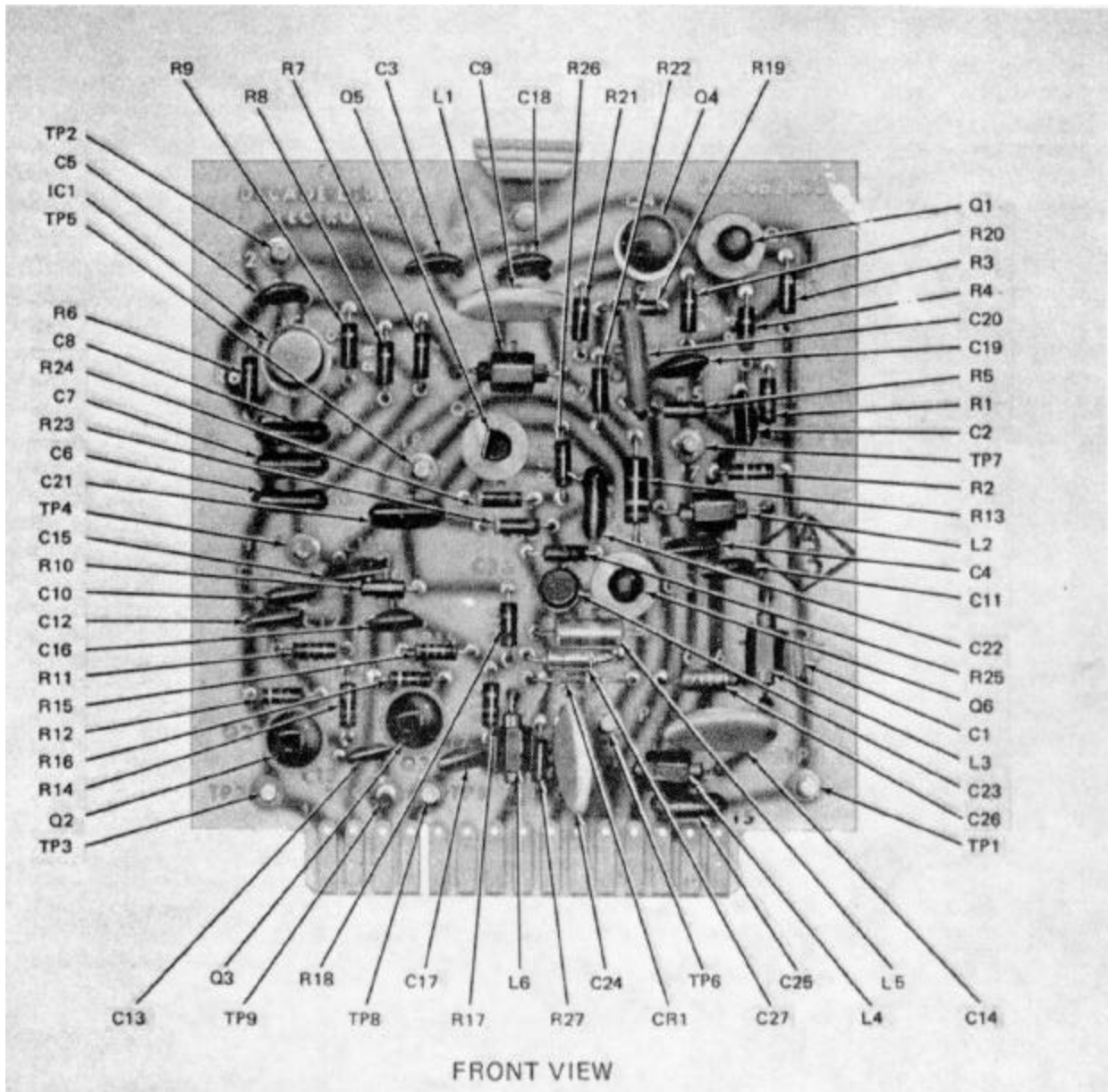
TM 6625-1748-45-5 (2)

Figure 2-10 (2). Power supply A3. Tuning Unit TN-527/U (sheet 2 of 2).



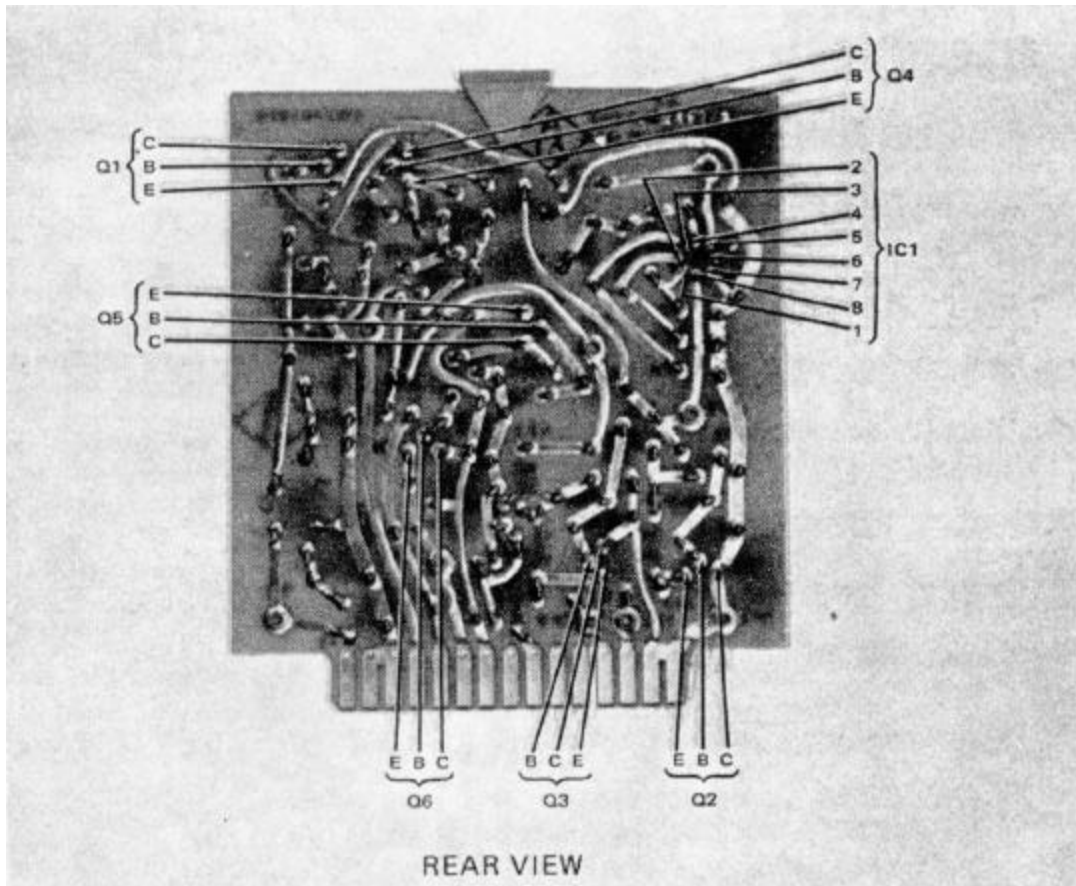
EL1A020

Figure 2-11. Power supply A, schematic diagram Tuning Unit TN-527/U.



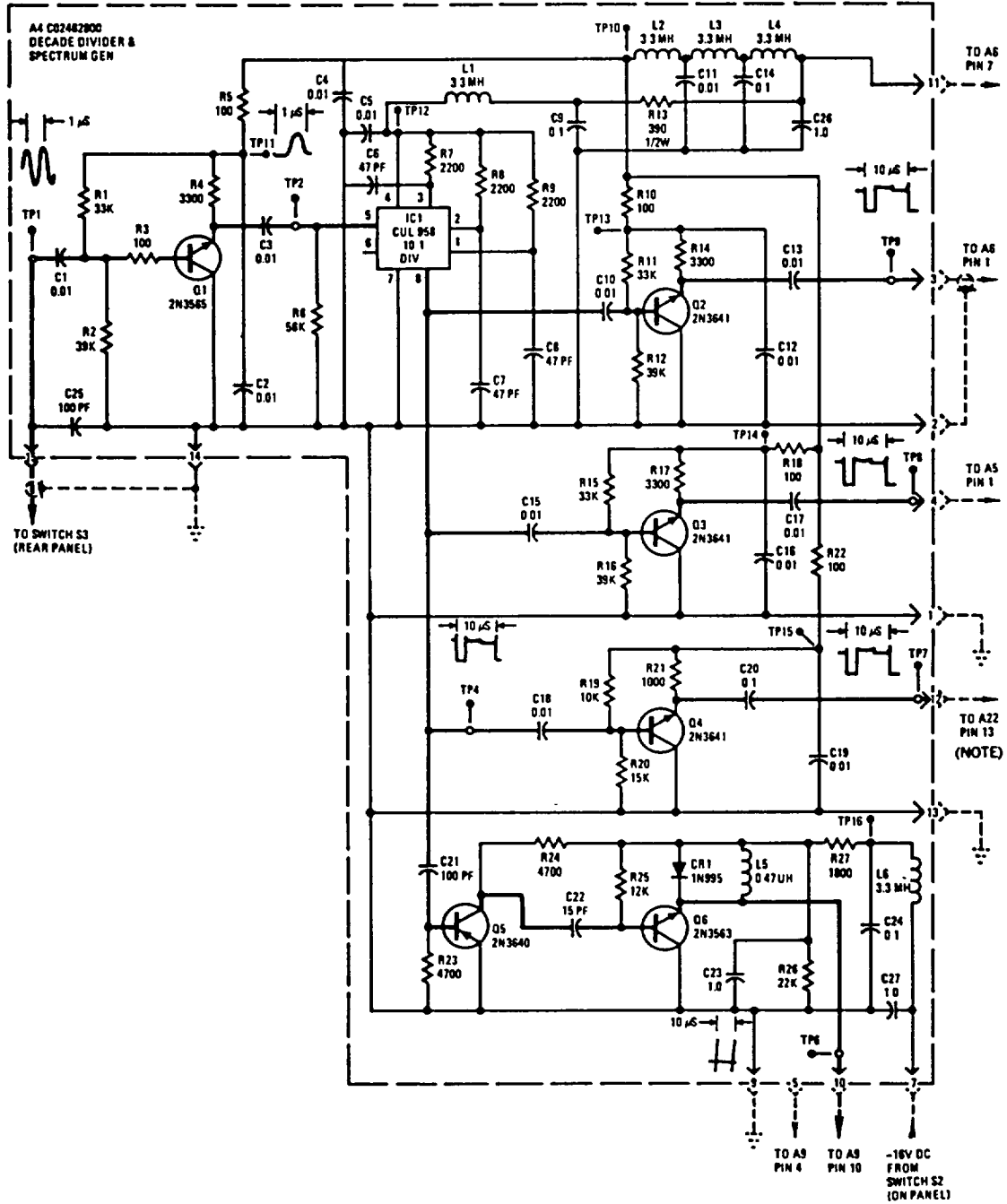
TM 6625-1748-45-7-(1)

Figure 2-12 (1). Decade divider and spectrum generator A4, Tuning Unit TN-527/U (sheet 1 of 2).



TM 6625-1748-45-7 (2)

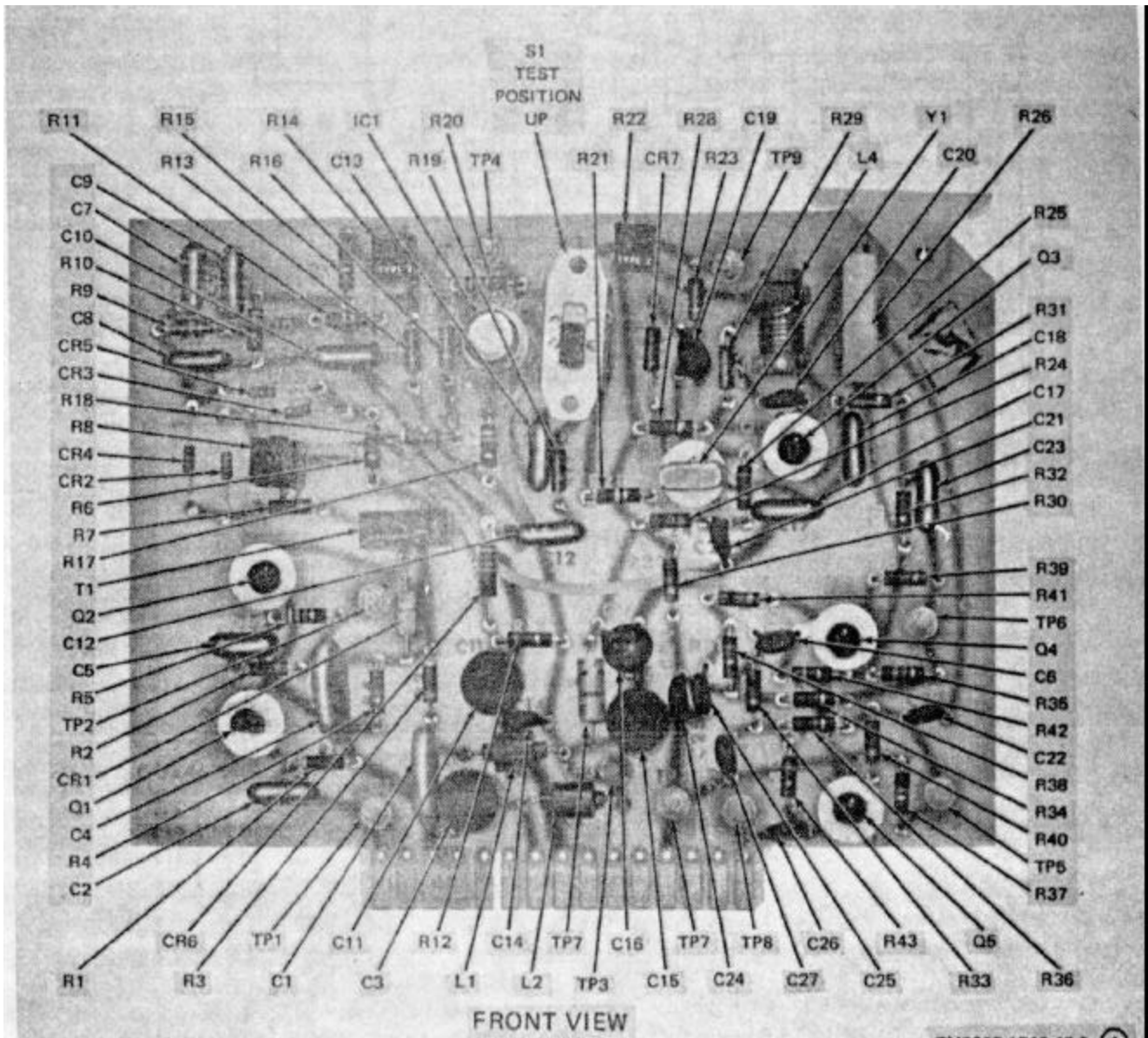
Figure 2-12 (2). Decade divider and spectrum generator A4, Tuning Unit TN-527/U (sheet 2 of 2).



EL1A021

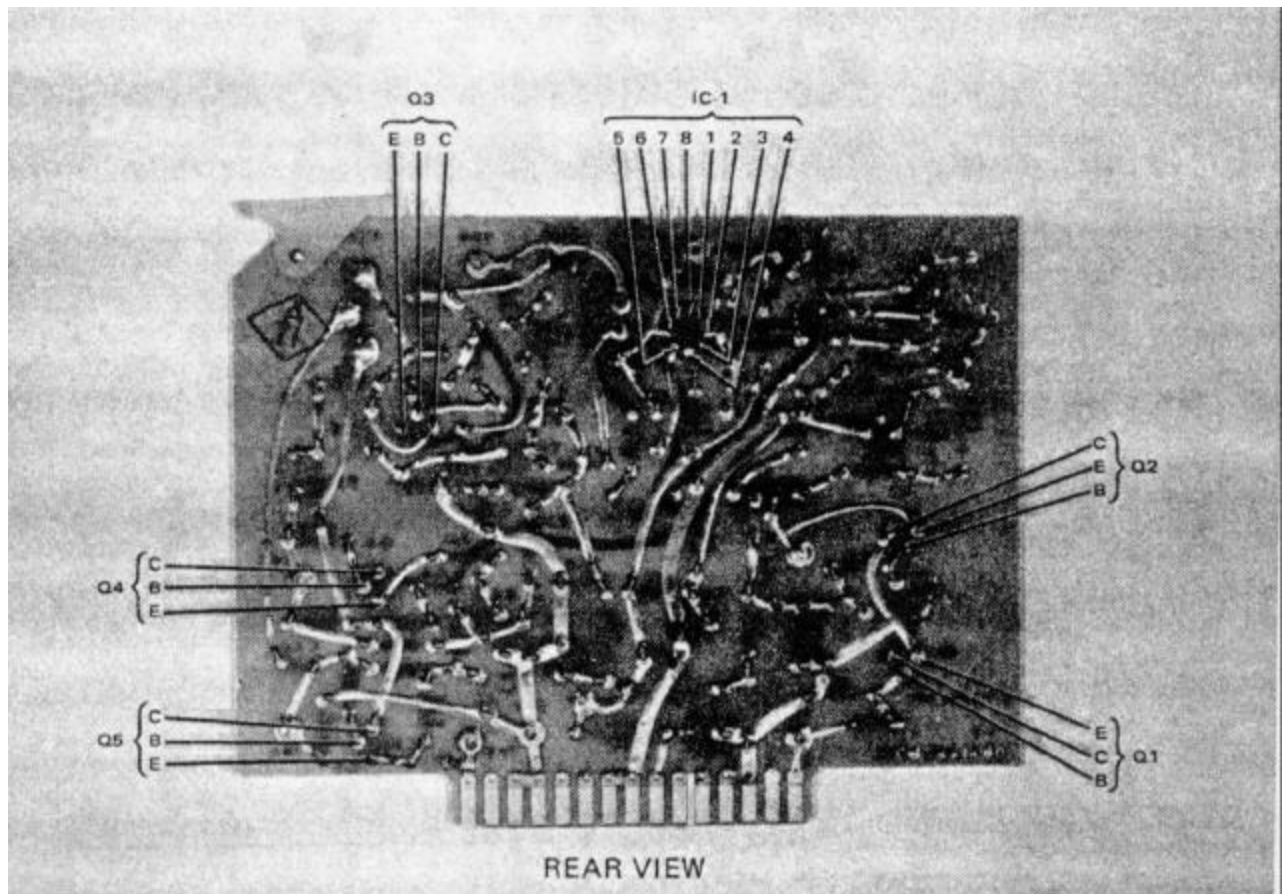
NOTE:
 ON CONTRACT NO.
 DAAB07-78-C-3013,
 CHANGE PIN 13 TO
 PIN 3

Figure 2-13. Decade divider and spectrum generator A4, schematic diagram. Tuning Unit TN-527/U.



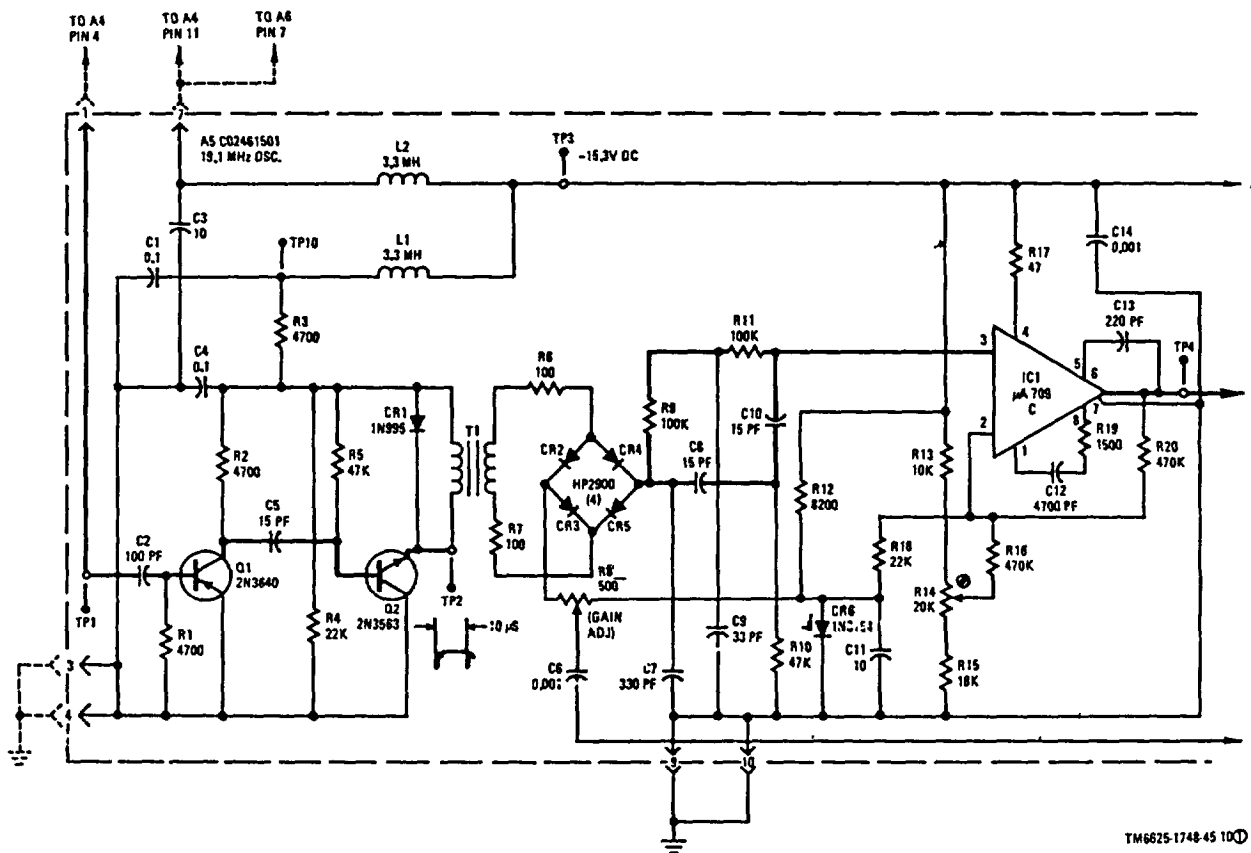
TM 6625-1748-45-9 (1)

Figure 2-14 (1). 19.1 MHz oscillator A5. Tuning Unit TN-527/U (sheet 1 of 2).



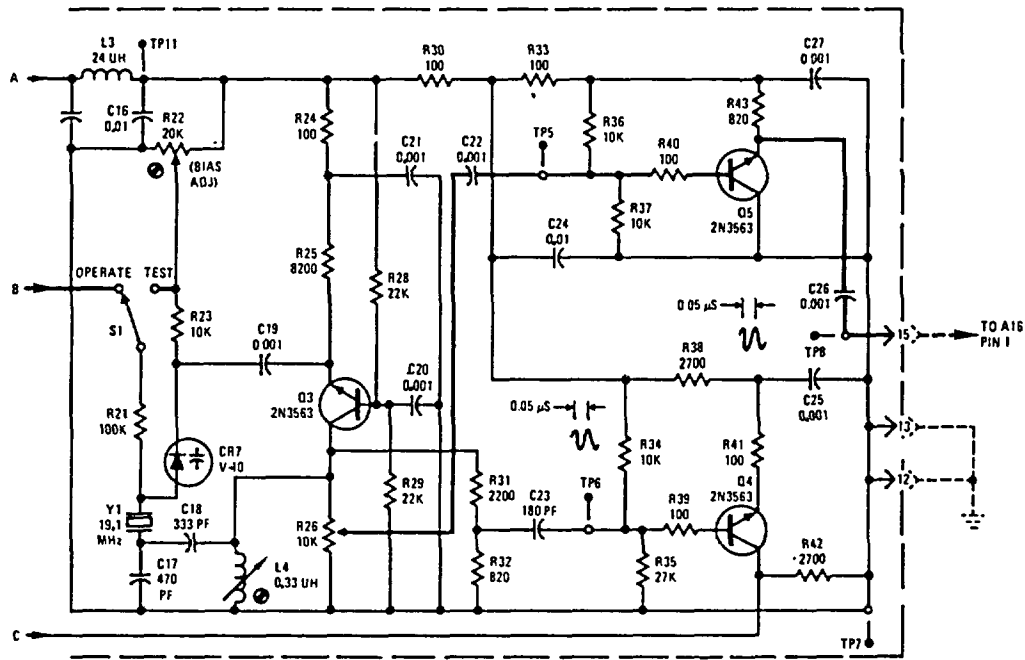
TM 6625-1748-45-9 (2)

Figure 2-14 (2). 19.1 MHz oscillator A5, Tuning Unit TN-527/U (sheet 2 of 2).



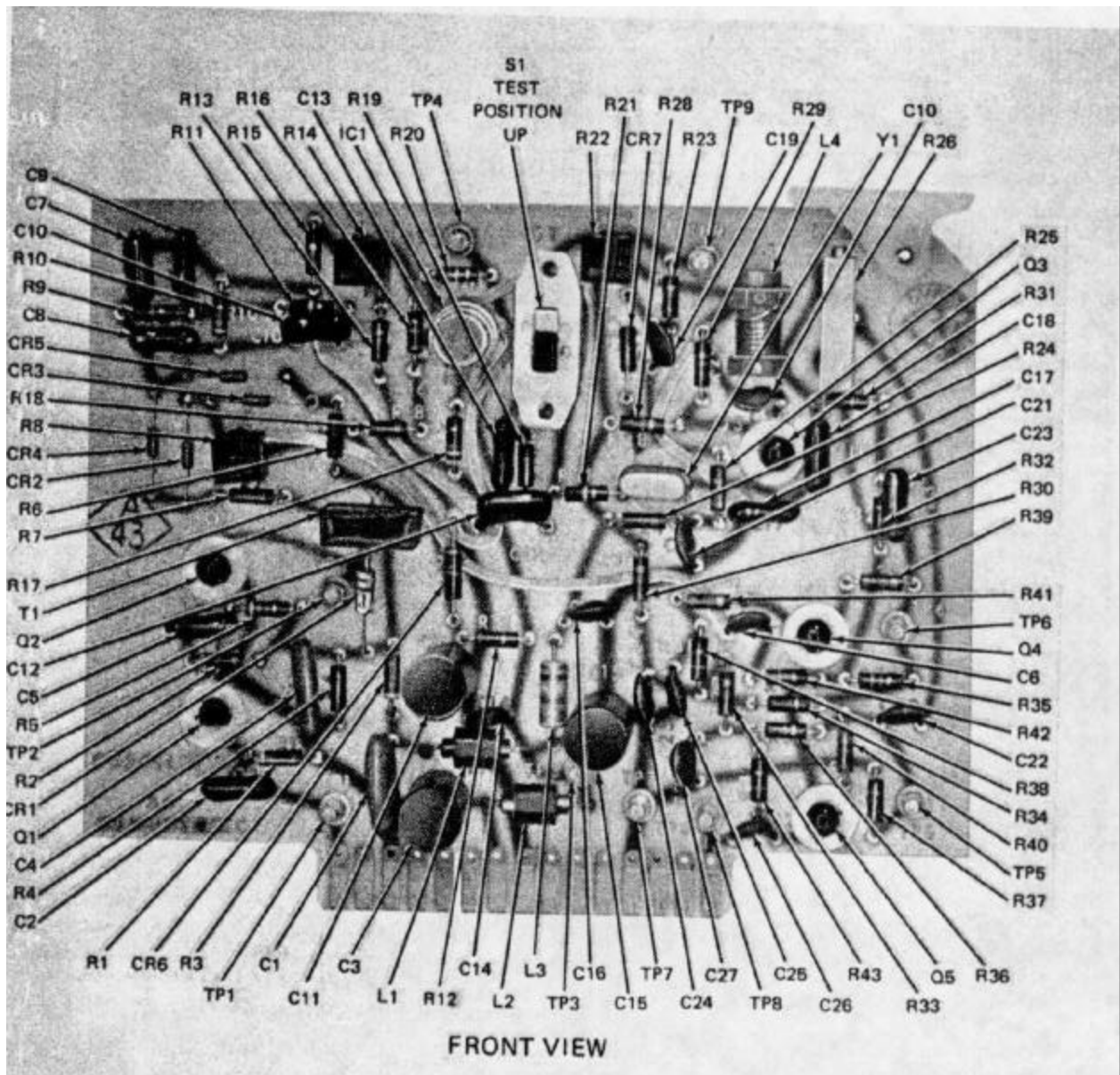
TM6625-1748-45 100

Figure 2-15 (1). 19.1 MHz oscillator A5, schematic diagram. Tuning Unit TN-527/U (sheet 1 of 2).



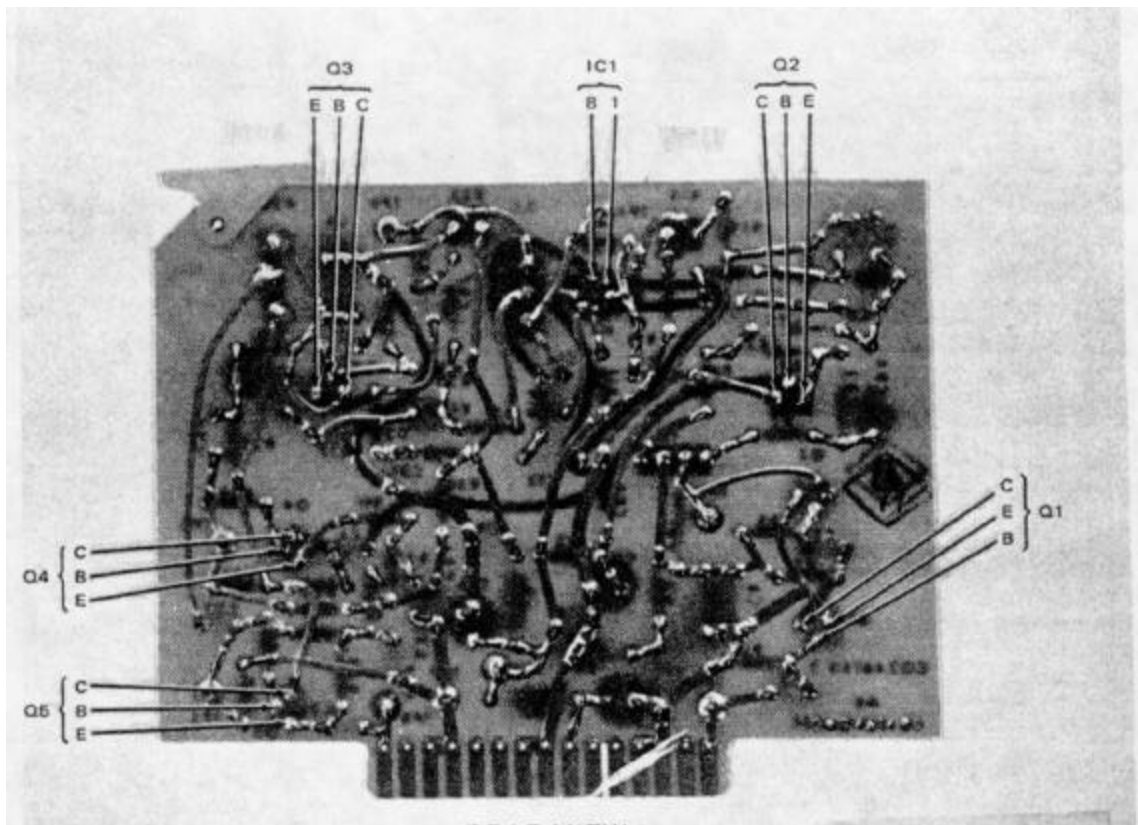
TM6625 1748 45 102

Figure 2-15 (2). 19.1 MHz oscillator A5, schematic diagram. Tuning Unit TN-527/U (sheet 2 of 2).



TM 6625-1748-45-11 (1)

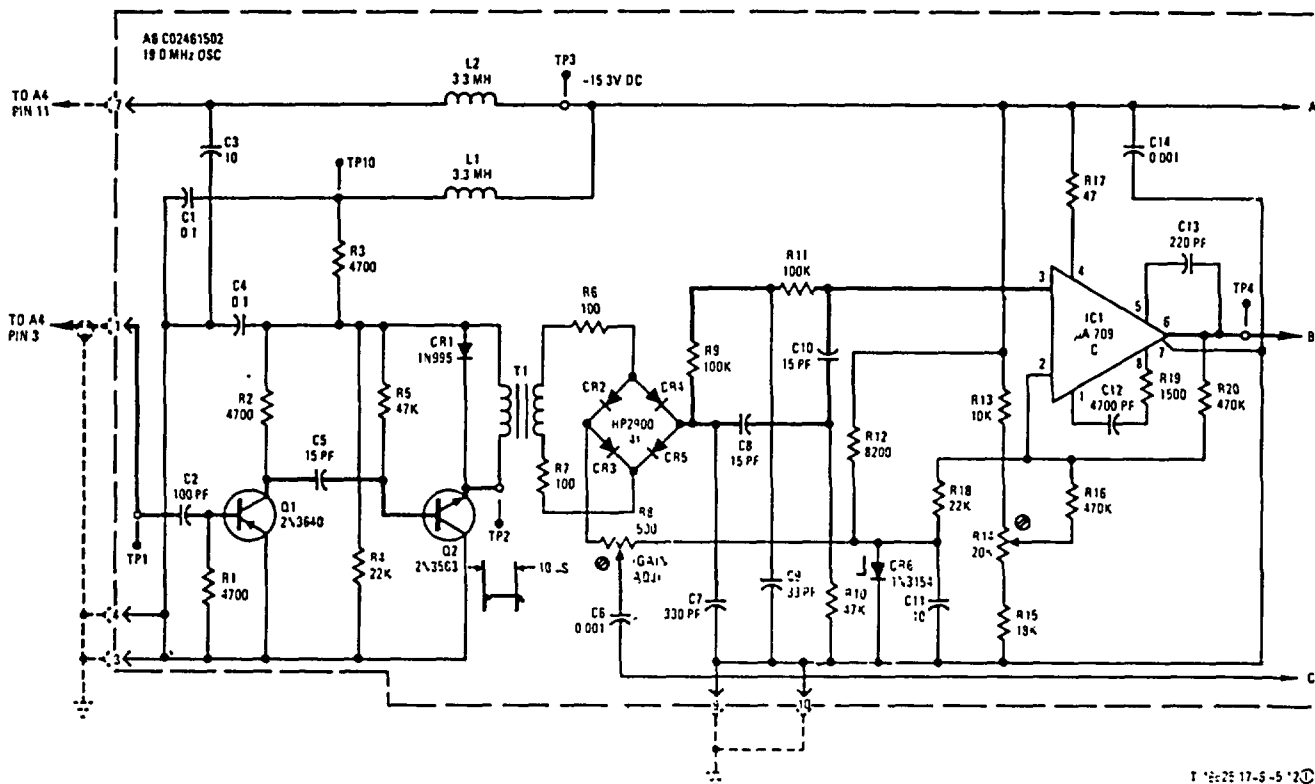
Figure 2-16 (1). 19.0 MHz oscillator A6, Tuning Unit TN-527/U (sheet 1 of 2).



REAR VIEW

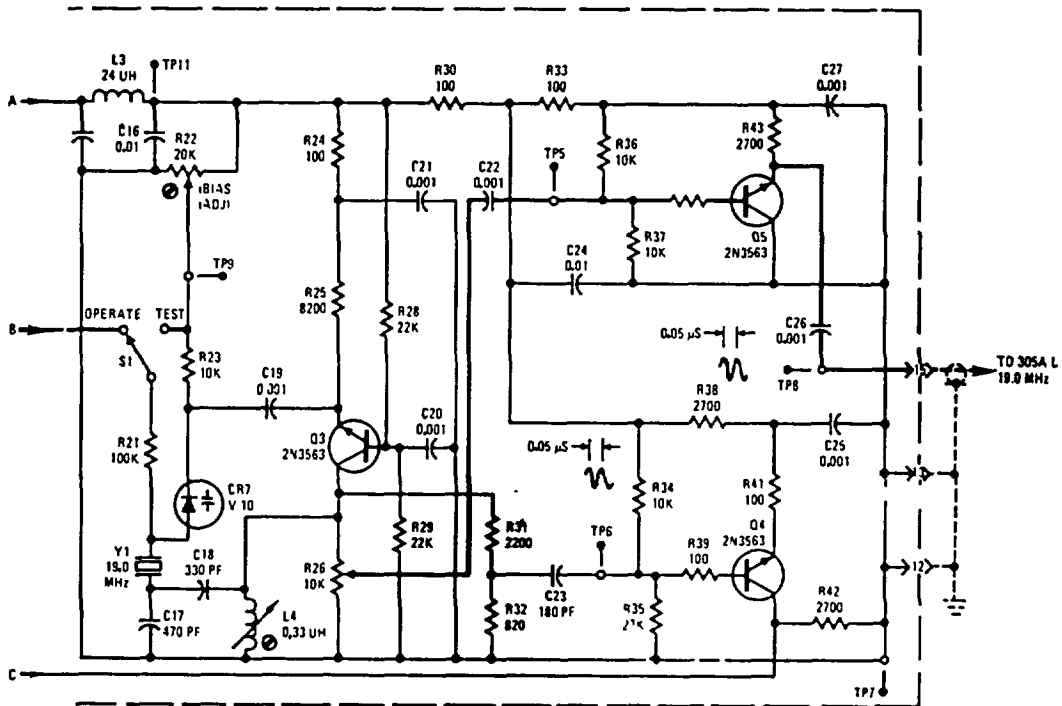
TM 6625-1748-45-11 (2)

Figure 2-16 (2). 19.0 MHz oscillator A6, Tuning Unit TN-527/U (sheet 2 of 2).



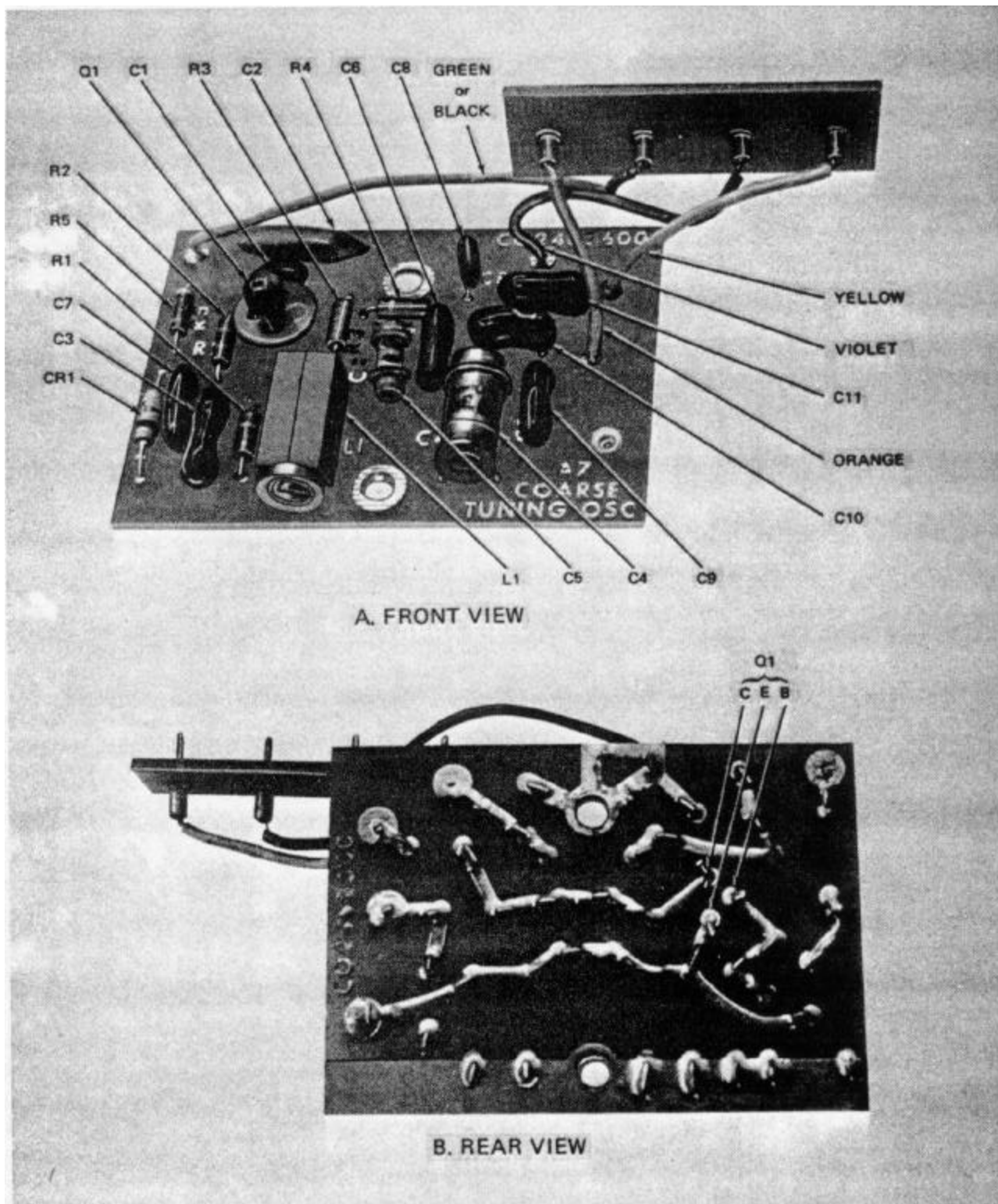
T 11-6625-17-5-5 *20

Figure 2-17 (1). 19.0 MHz oscillator A6, schematic diagram, Tuning Unit TN-527/U (sheet 1 of 2).



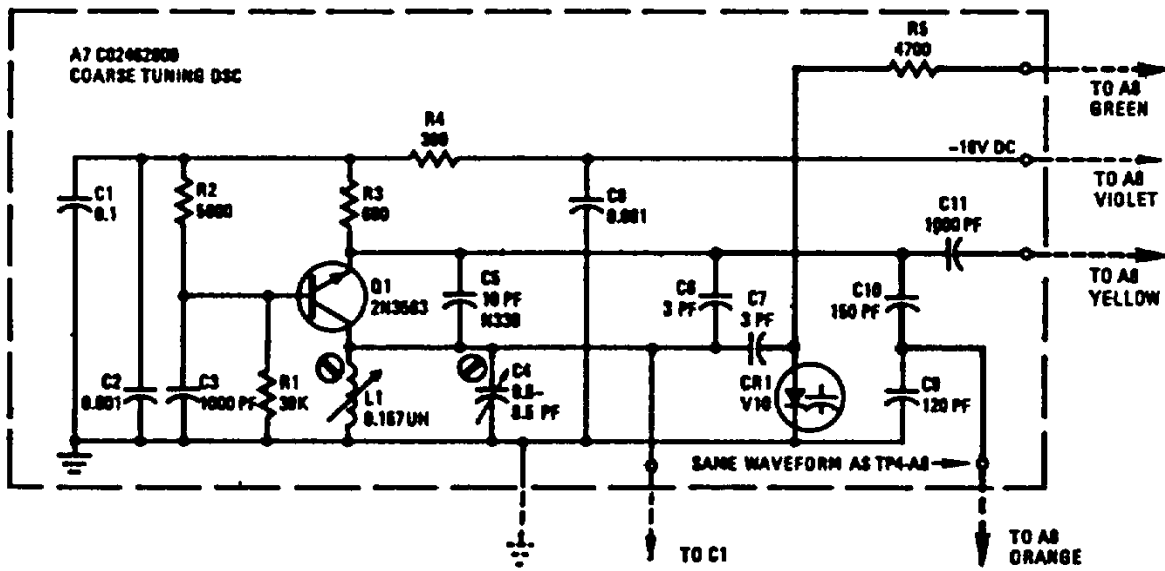
T 16625 17-5 -5 30

Figure 2-17 (2). 19.0 MHz oscillator A6, schematic diagram. Tuning Unit TN-527/U (sheet 2 of 2)



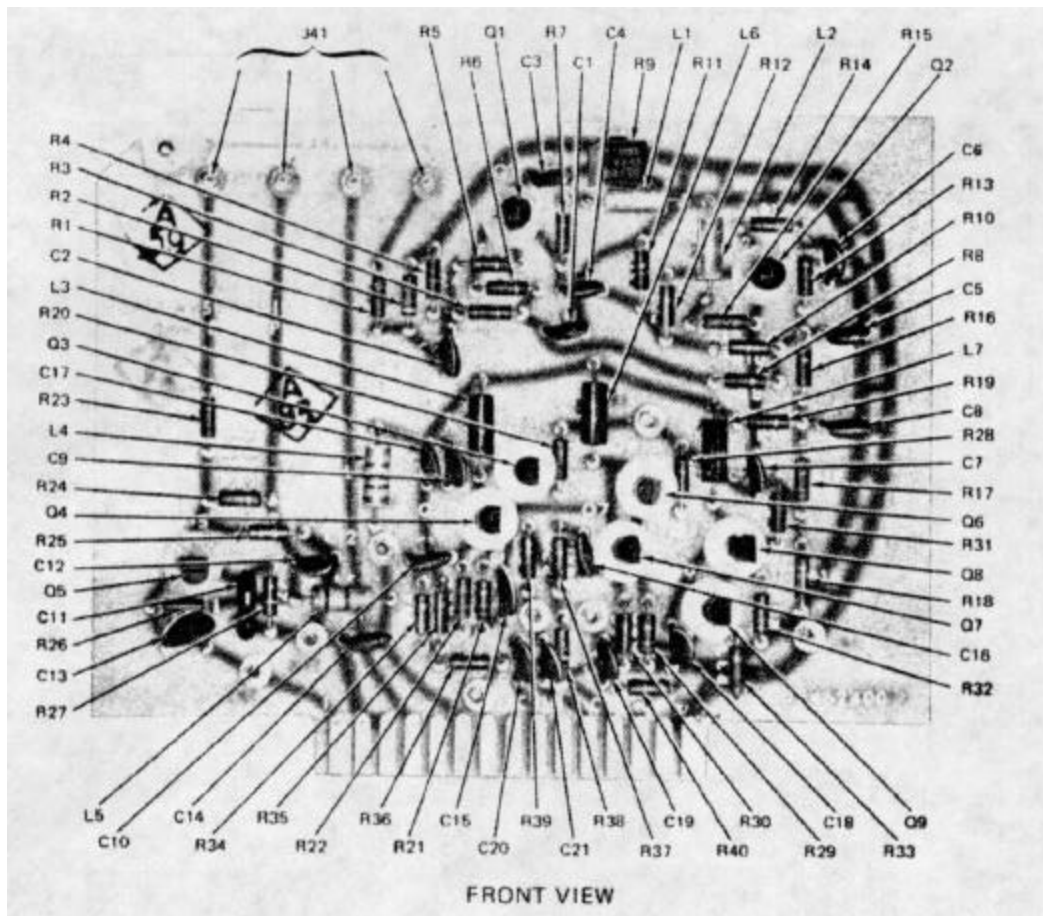
TM 6625-1748-45-13

Figure 2-18. Coarse tuning oscillator. Tuning Unit TN-527/U.



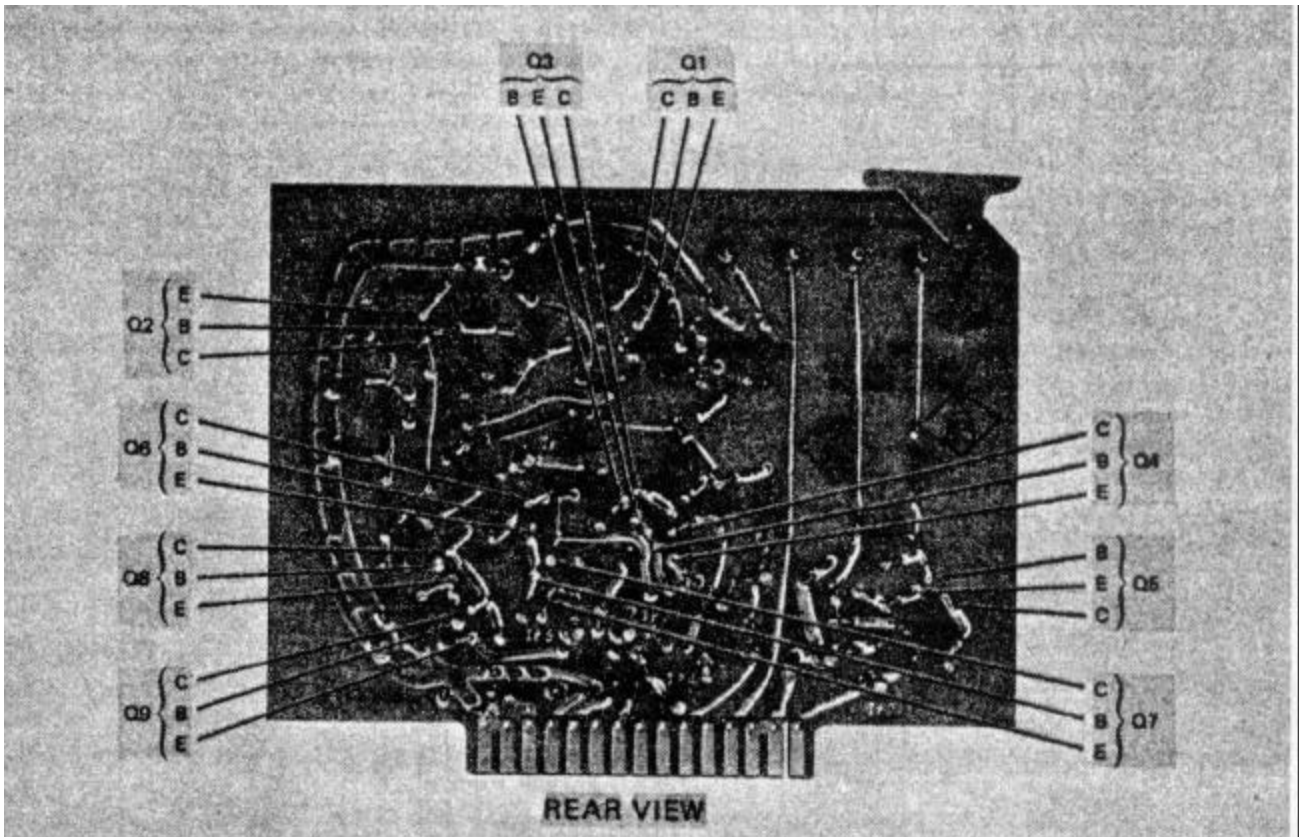
TM0625-1748-46-14

Figure 2-19. Coarse tuning oscillator A7, schematic diagram. Tuning Unit TN-527/U.



TM 6625-1748-45-15-(1)

Figure 2-20 (1). Coarse tuning amp, and output A8. Tuning Unit TN-527/U (sheet 1 of 2).



TM 6625-1748-45-15 (2)

Figure 2-20 (2). Coarse tuning amp. and output A8. Tuning Unit TN-527/U (sheet 2 of 2).

NOTE:

ON CONTRACT NO DAAB07-78-C-3013,
CHANGE CAPACITOR AND RESISTOR
VALUE(S) AS FOLLOWS C11 TO 18pF. R28
TO 102 R25 TO 6.8K AND R27 TO 100
CHANGE TRANSISTOR Q5 TO PNP
AND IDENTIFY 2N3906

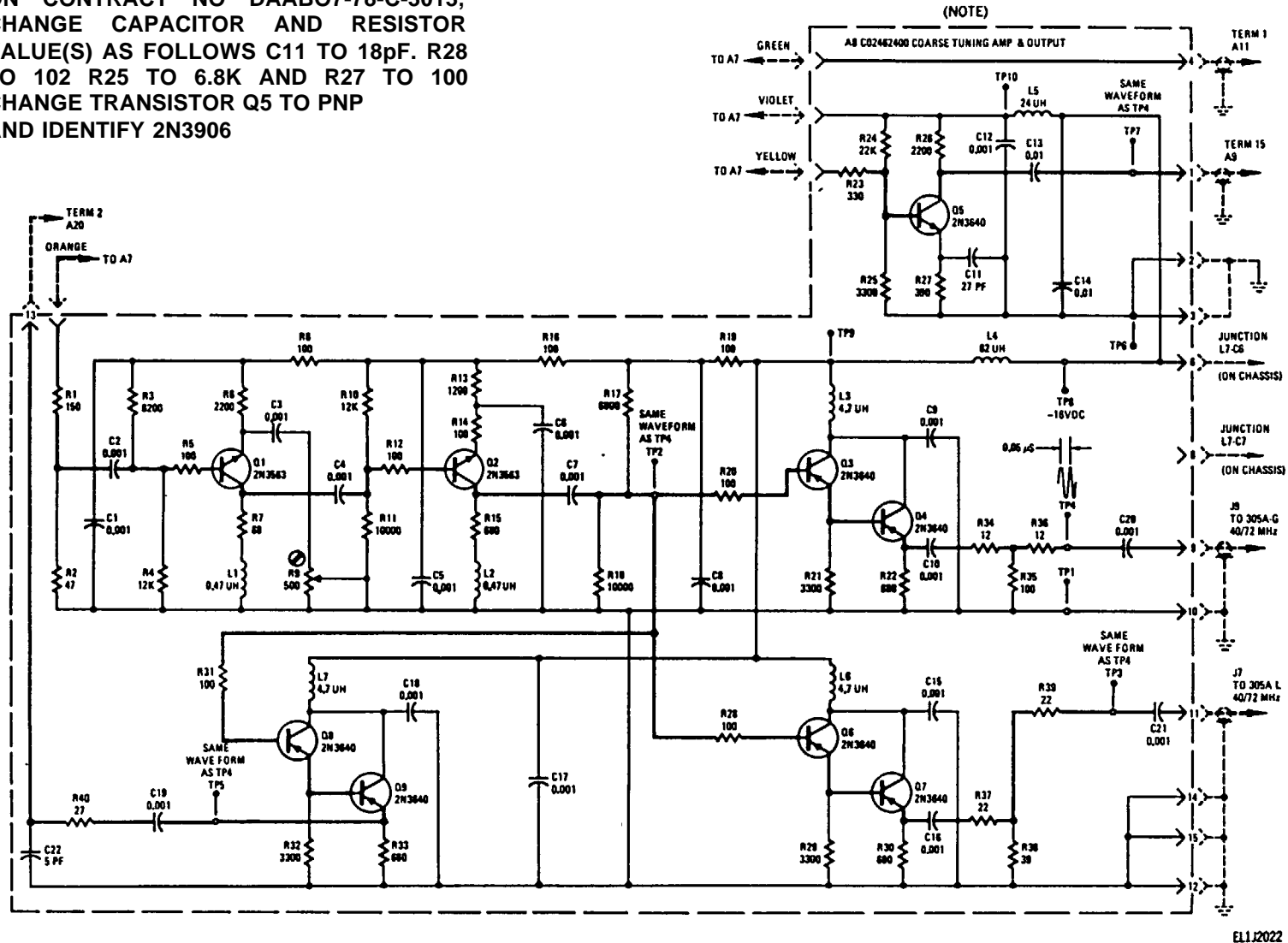
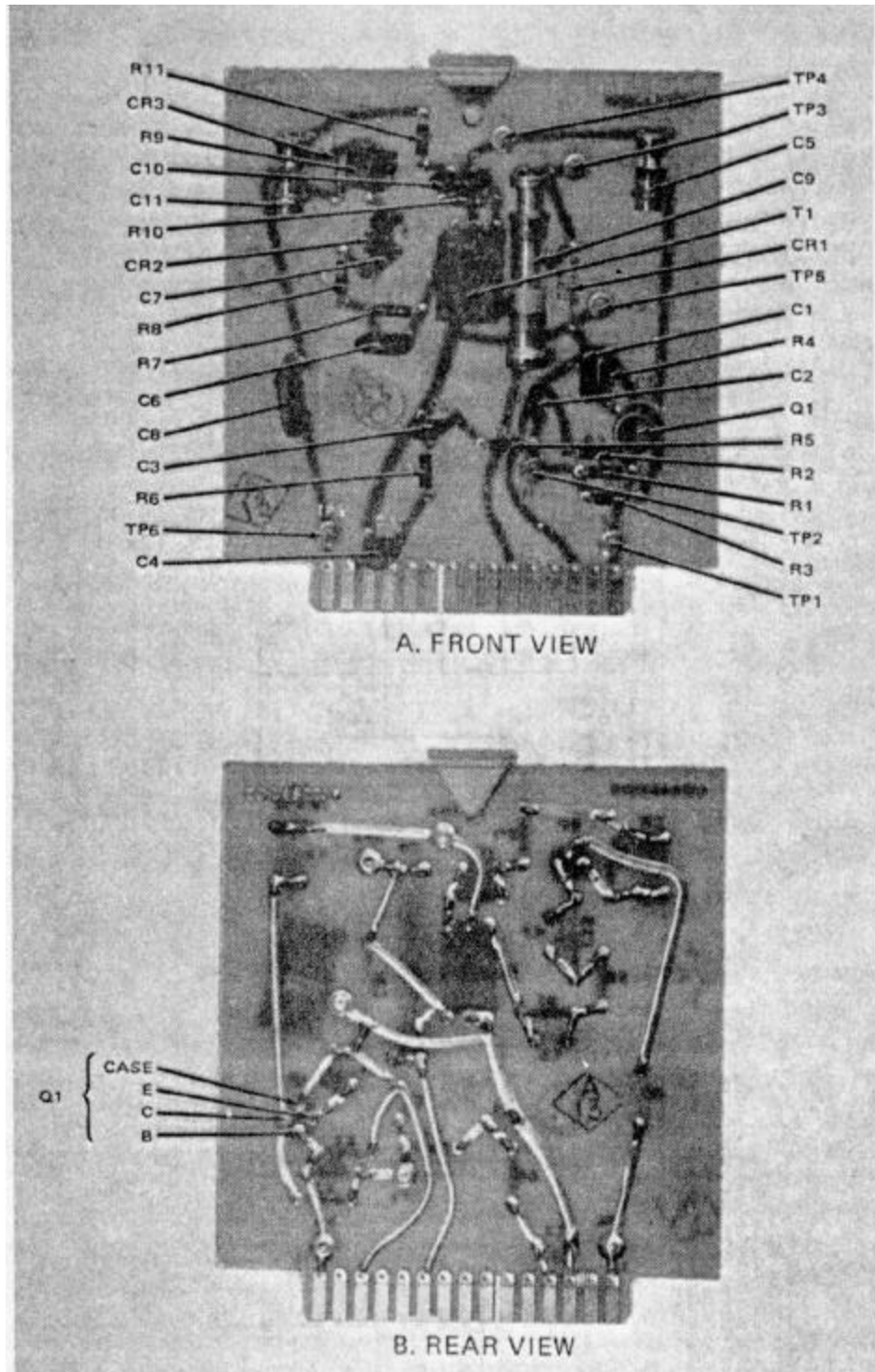


Figure 2-21. Coarse tuning amp. and output A8, schematic diagram, Tuning Unit TN-527/U.



TM 6625-1748-45-17

Figure 2-22. Mixer A9. Tuning Unit TN-527/U.

NOTE:

ON CONTRACT NO. DAAB07-78-C-3013, CHANGE CAPACITOR AND RESISTOR VALUE(S) AS FOLLOWS: C1 TO 18pf, R3 AND R4 TO 100, R8 TO 120, R11 TO 220, AND CHANGE TRANSISTOR Q1 IDENTIFICATION TO 2N3906.

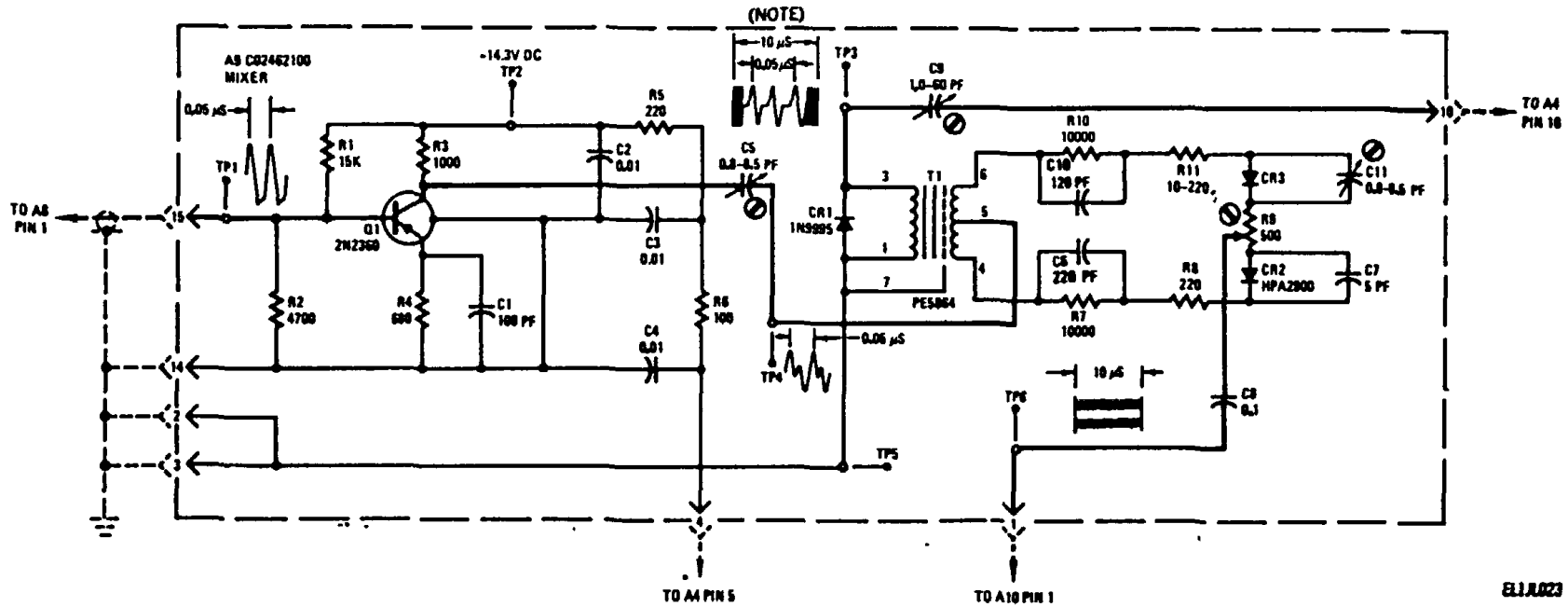
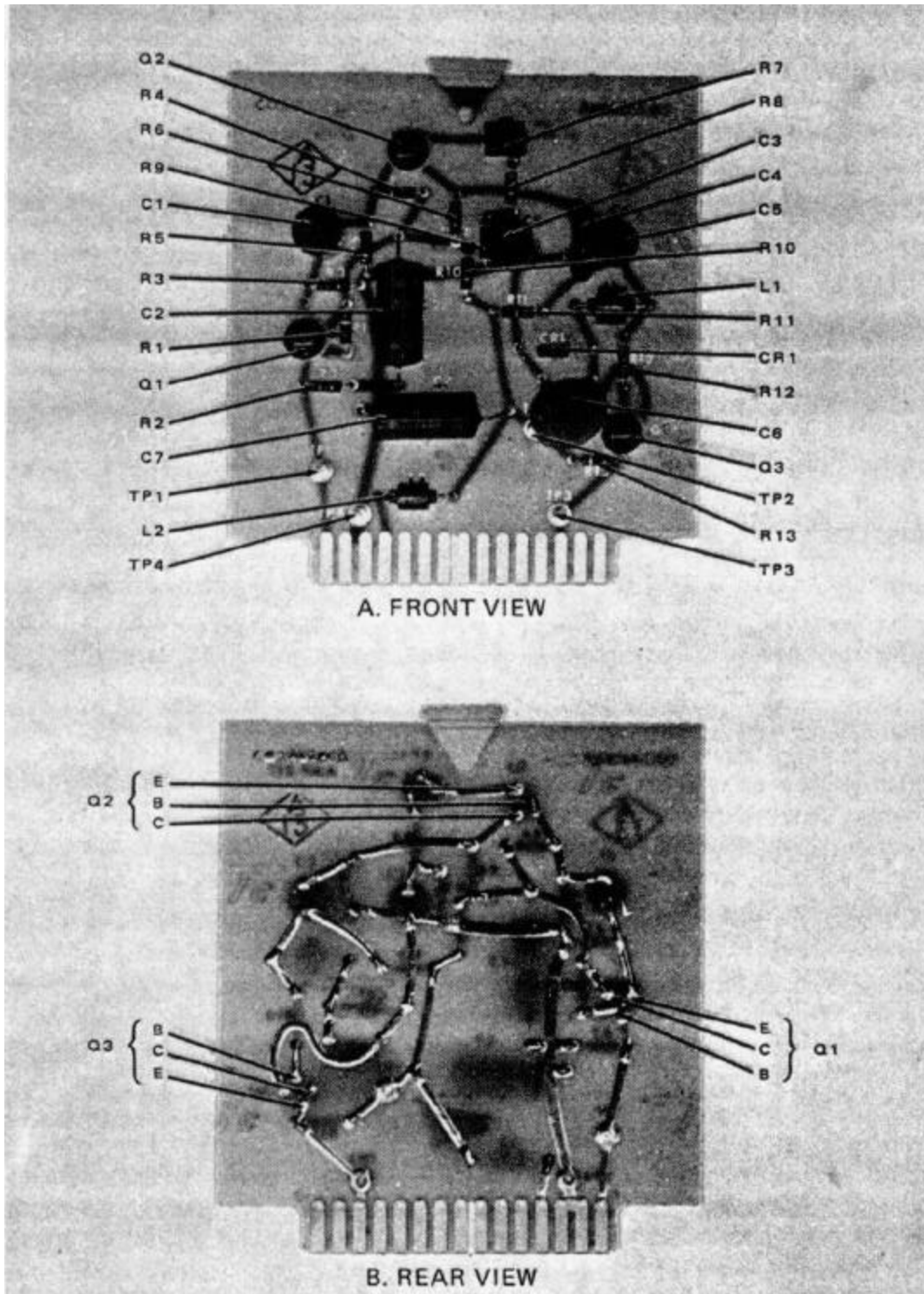


Figure 2-23. Mixer A9, schematic, Tuning Unit TN-527/U.



TM 6625-1748-45-19

Figure 2-24. Amplifier-detector A10, Tuning Unit TN-527/U.

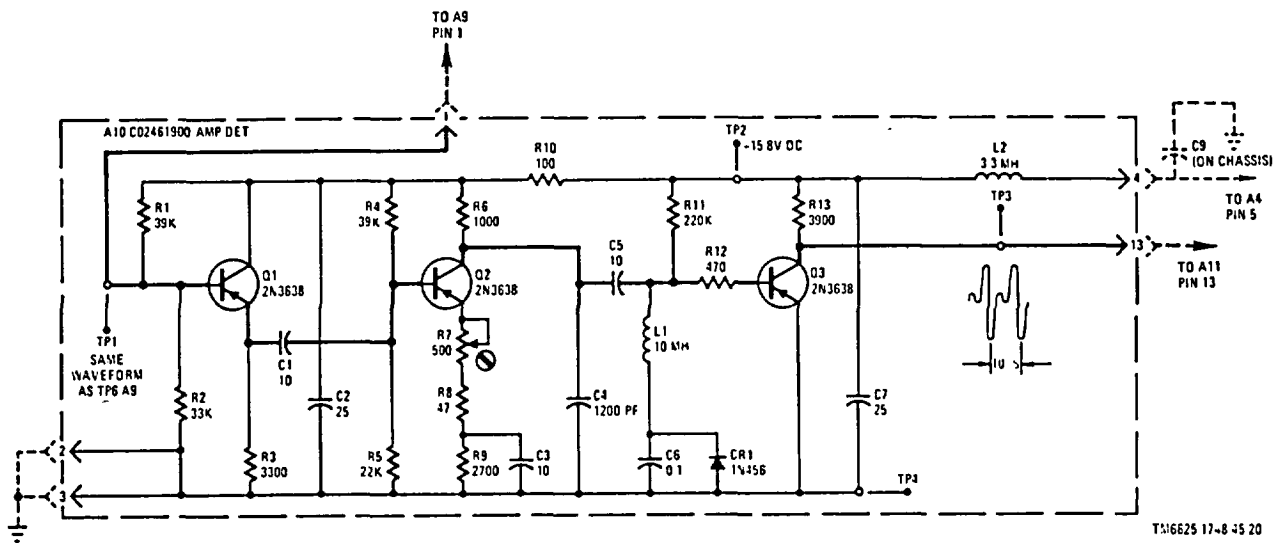
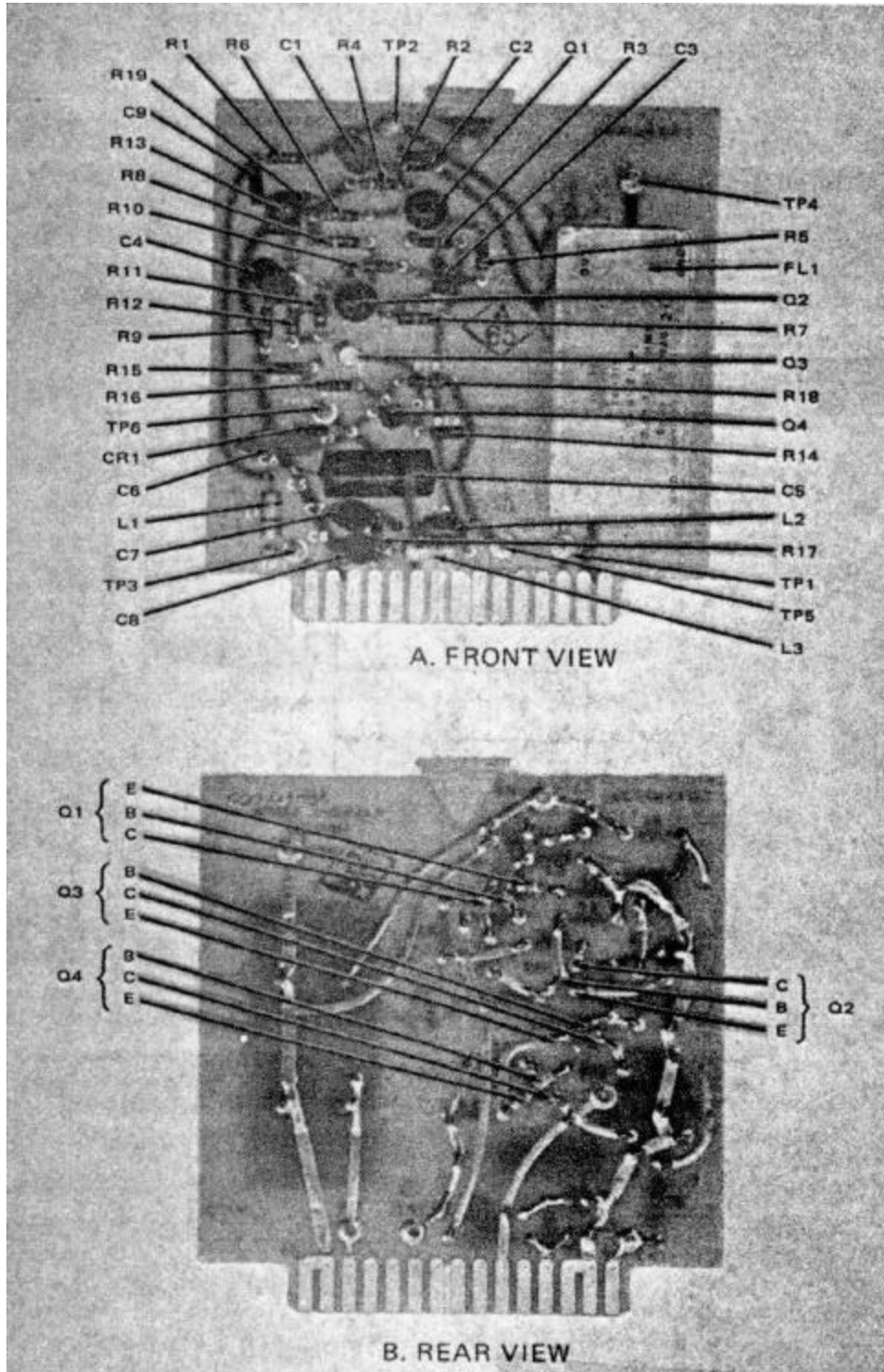


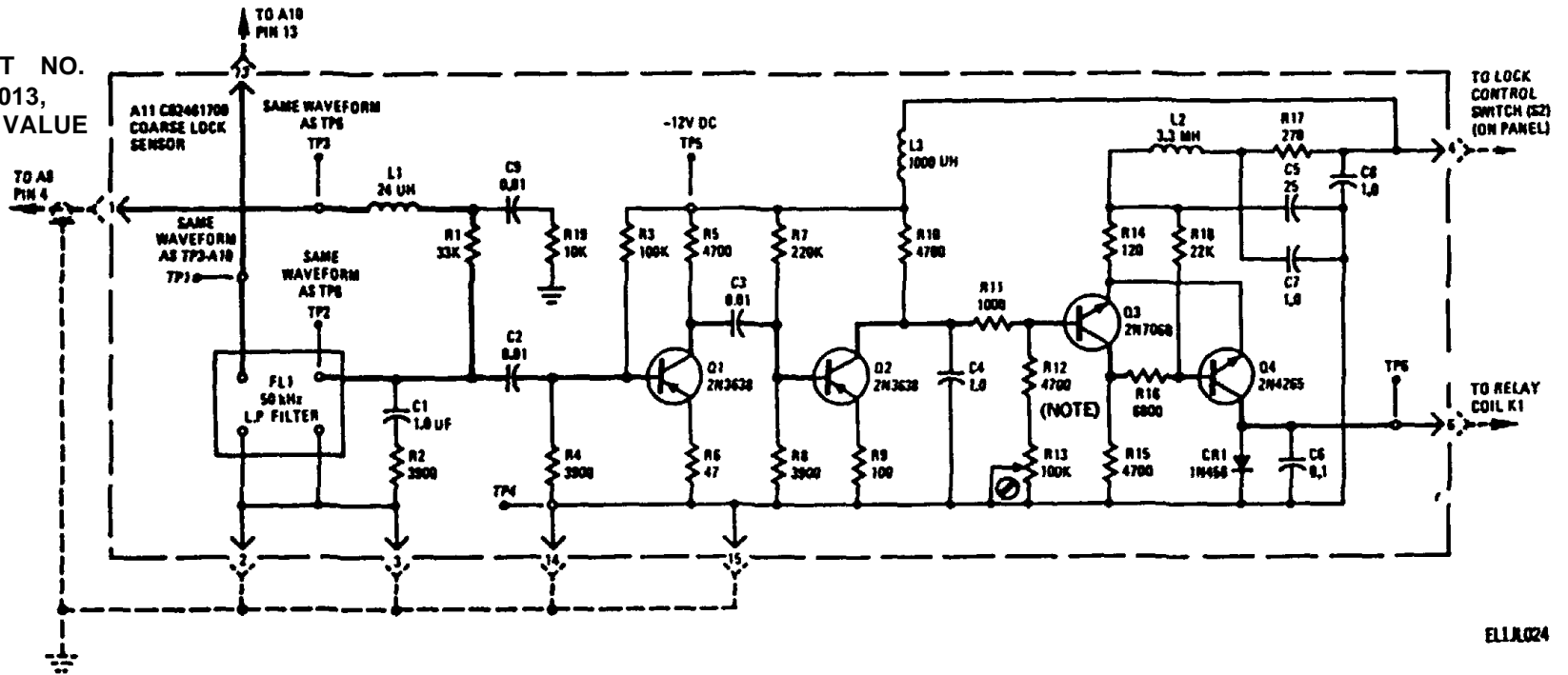
Figure 2-25. Amplifier-detector A10, schematic diagram, Tuning Unit TN-527/U.



TM 6625-1748-45-21

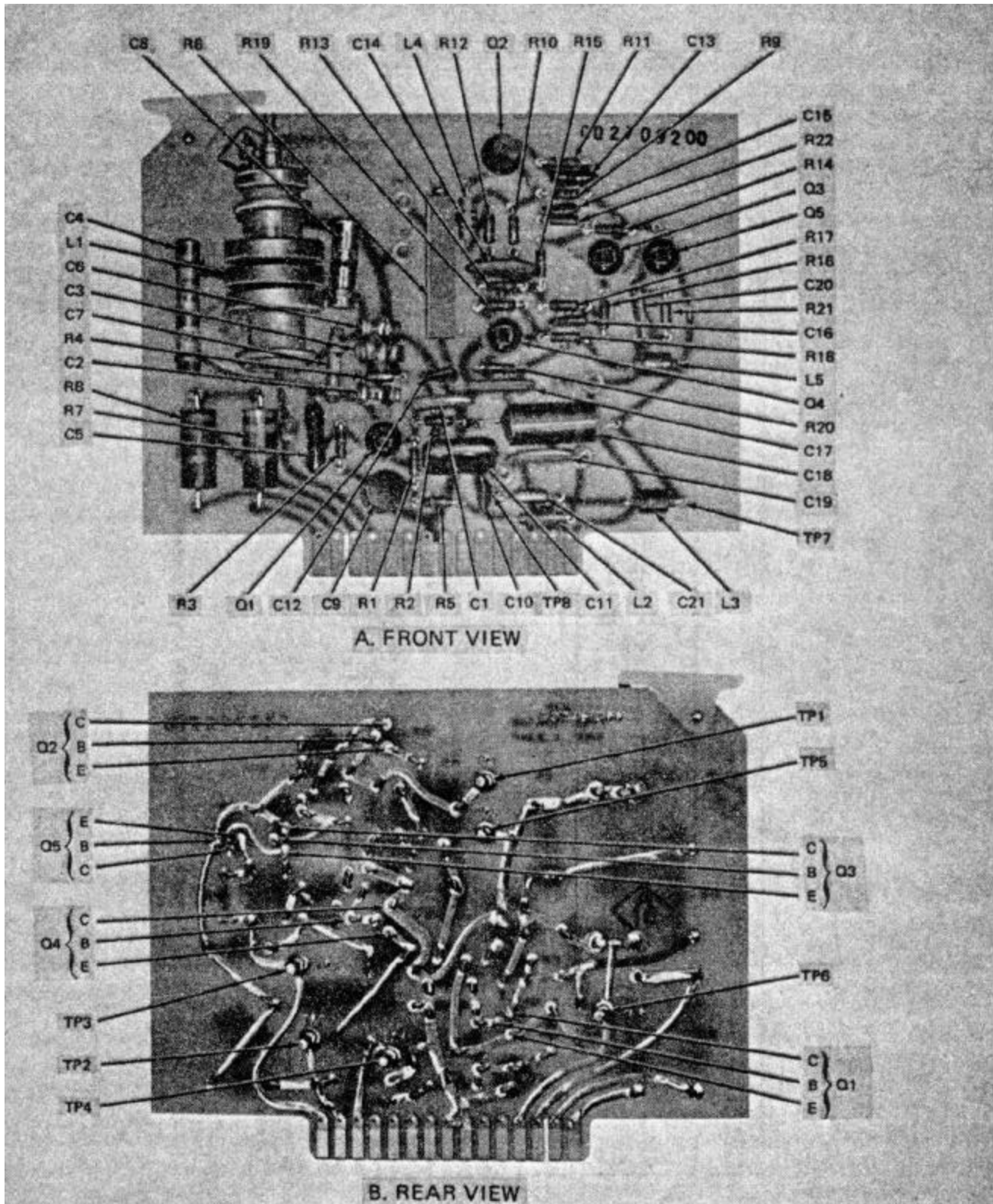
Figure 2-26. Coarse lock sensor A11, TN-527/U.

NOTE:
ON CONTRACT NO.
DAAB07-78-C-3013,
CHANGE R12 VALUE
TO 1000



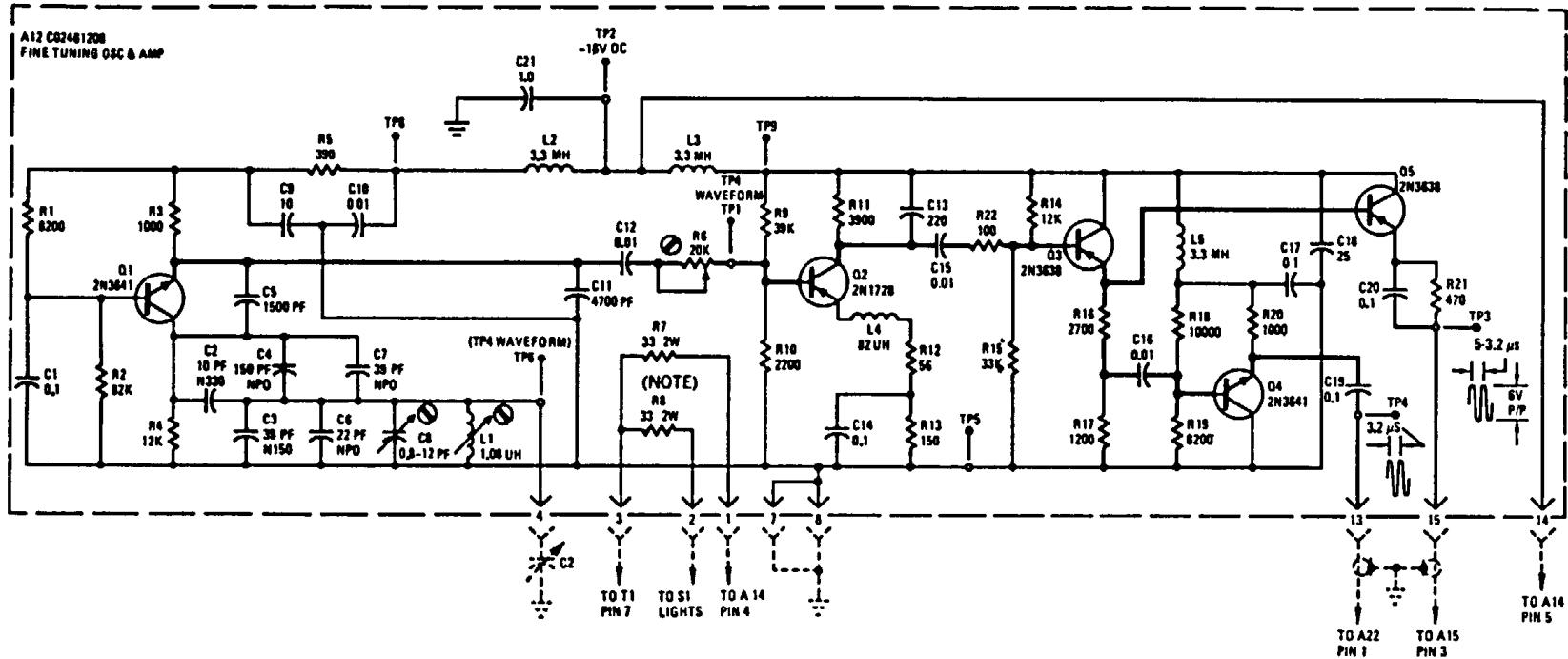
EL1A024

Figure 2-27. Coarse lock sensor A11, schematic diagram, Tuning Unit TN-527/U



TM 6625-1748-45-23

Figure 2-28. Fine tuning oscillator A12, Tuning Unit TS-527/U.

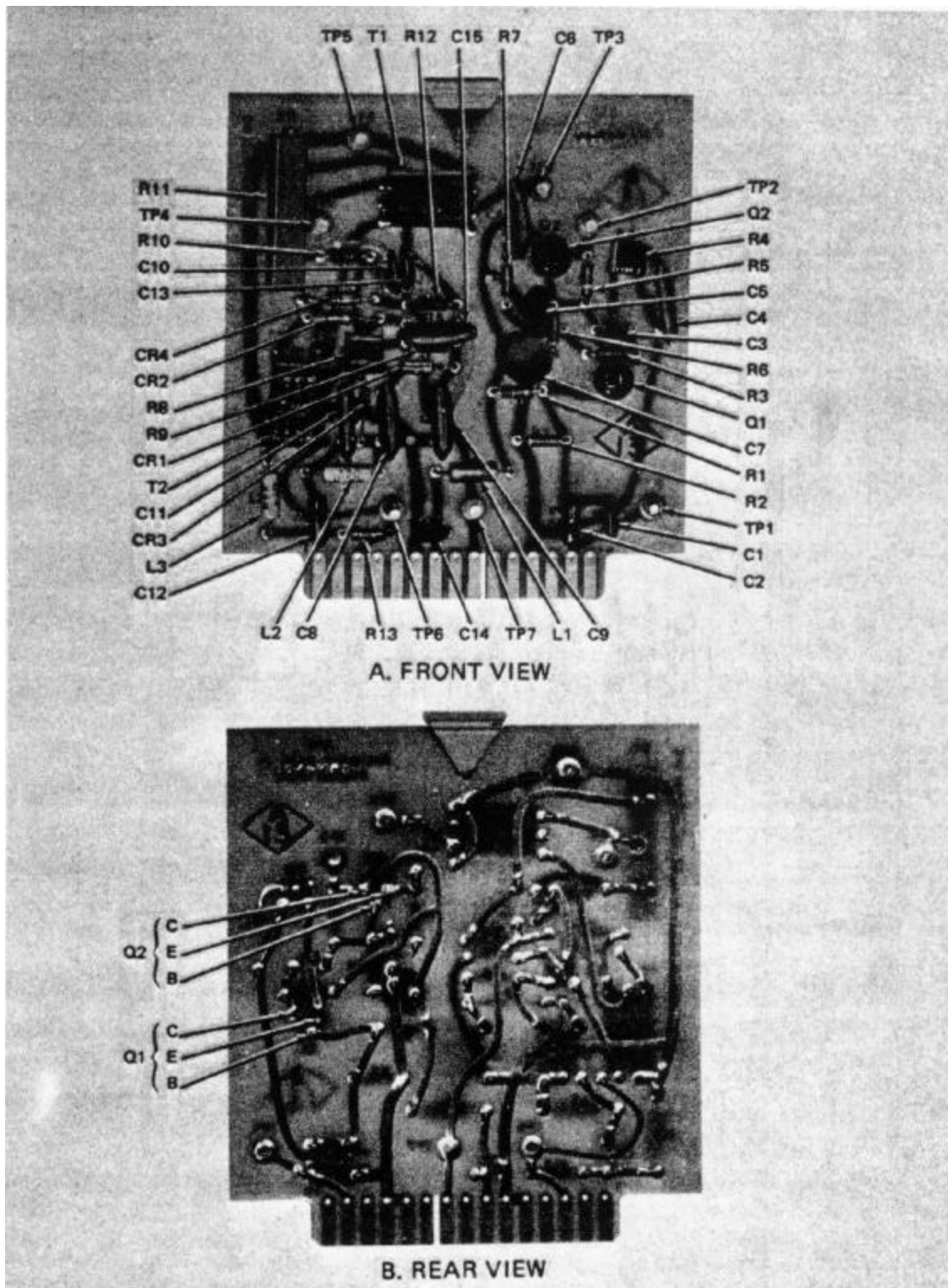


EL1JL042

NOTE:

ON CONTRACT NO. DAAB07-78-C-3013, CHANGE DRAWING NO. TO C02709200, & CHANGE R7 & R8 VALUE(S) TO 150 OHM, 1/2 W.

Figure 2-29. Fine and oscillator A12, schematic diagram, Tuning Unit TN-527/U.



TM 6625-1748-45-25

Figure 2-30. 2nd amp. and phase discriminator A 13, Tuning Unit TN-527/U.

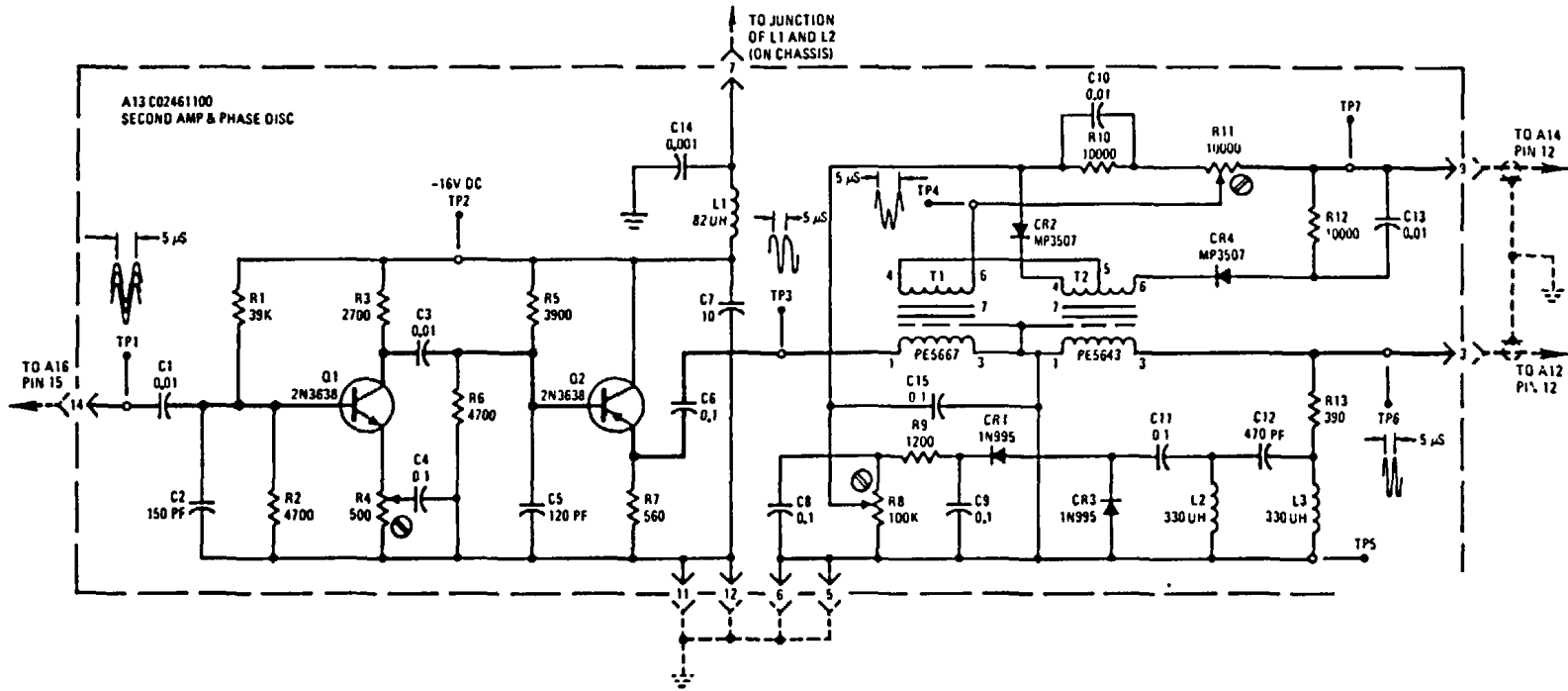


Figure 2-31. 2nd amp. and phase discriminator A13, schematic diagram, Tuning Unit TN-527/ U.

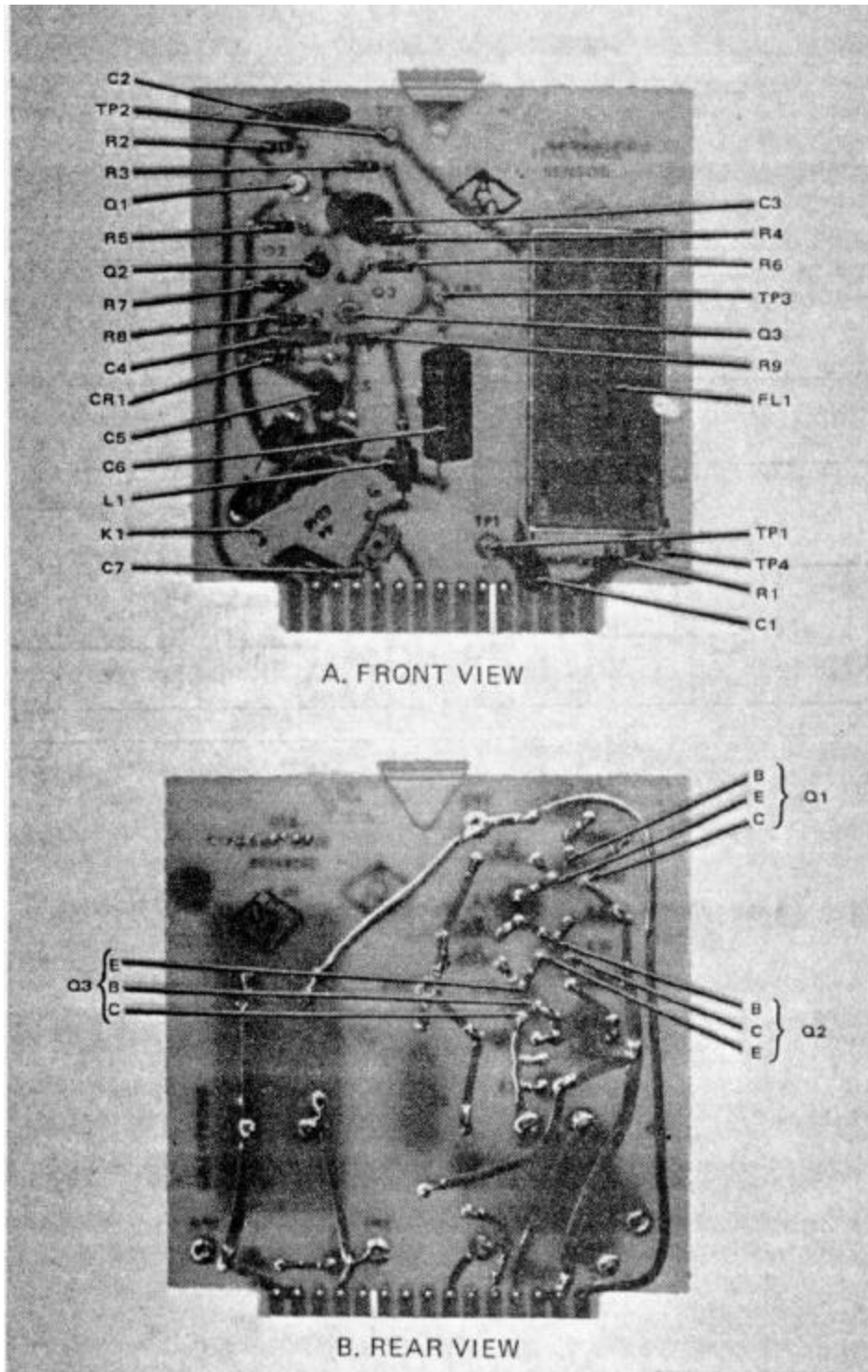
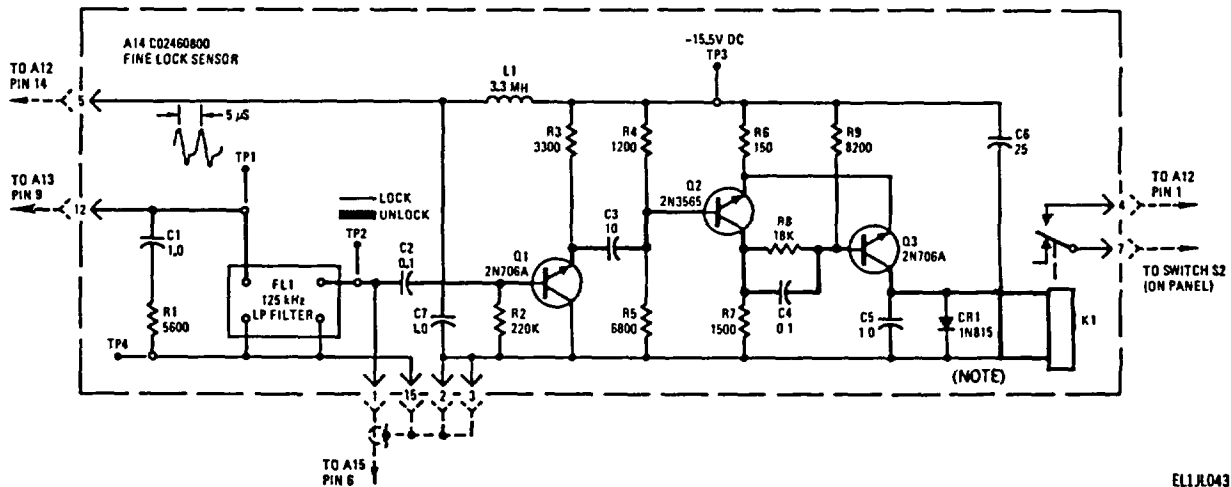


Figure 2-32. Fine lock sensor A14, Tuning Unit TS-527/U.

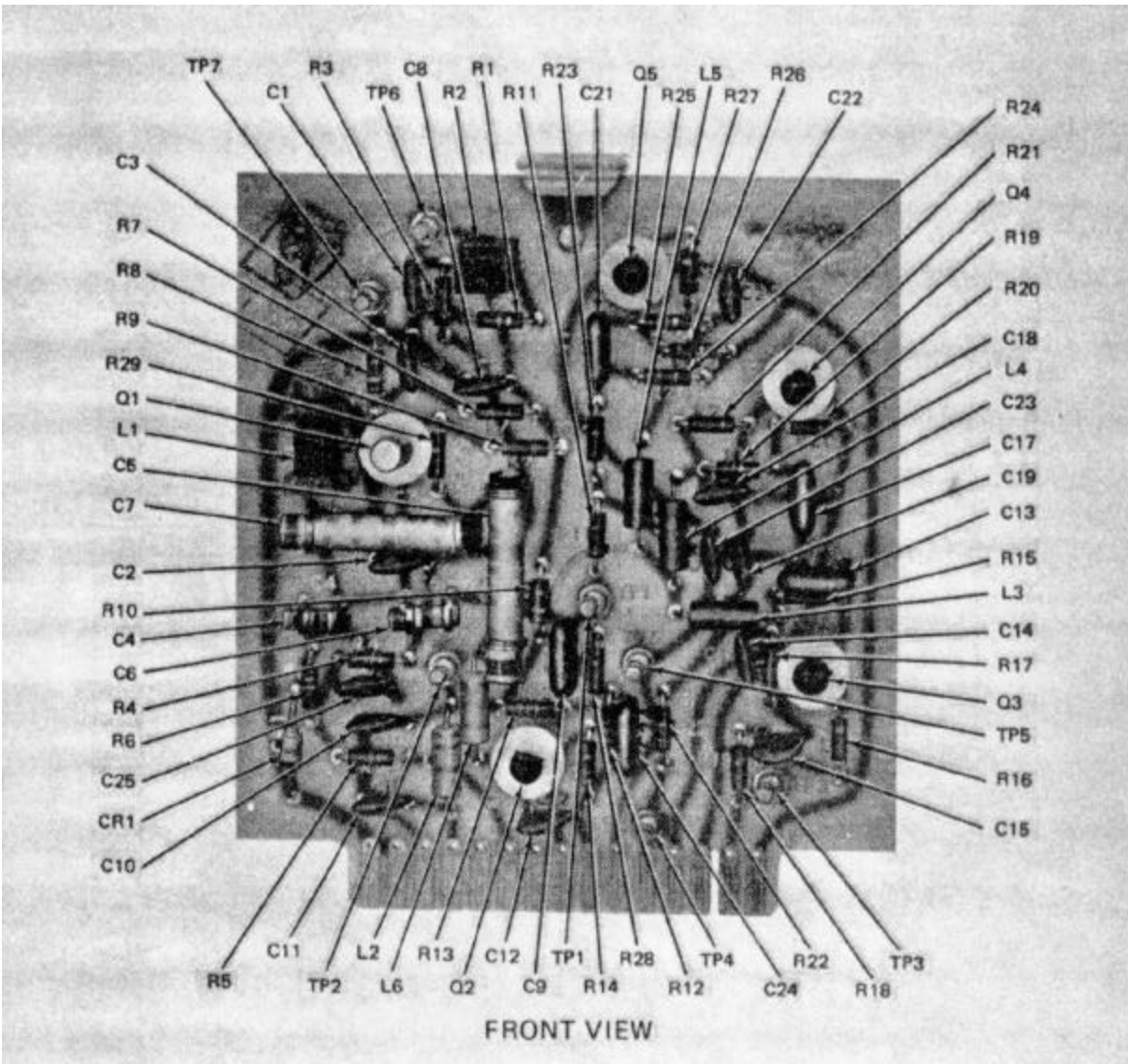


EL1X043

NOTE:

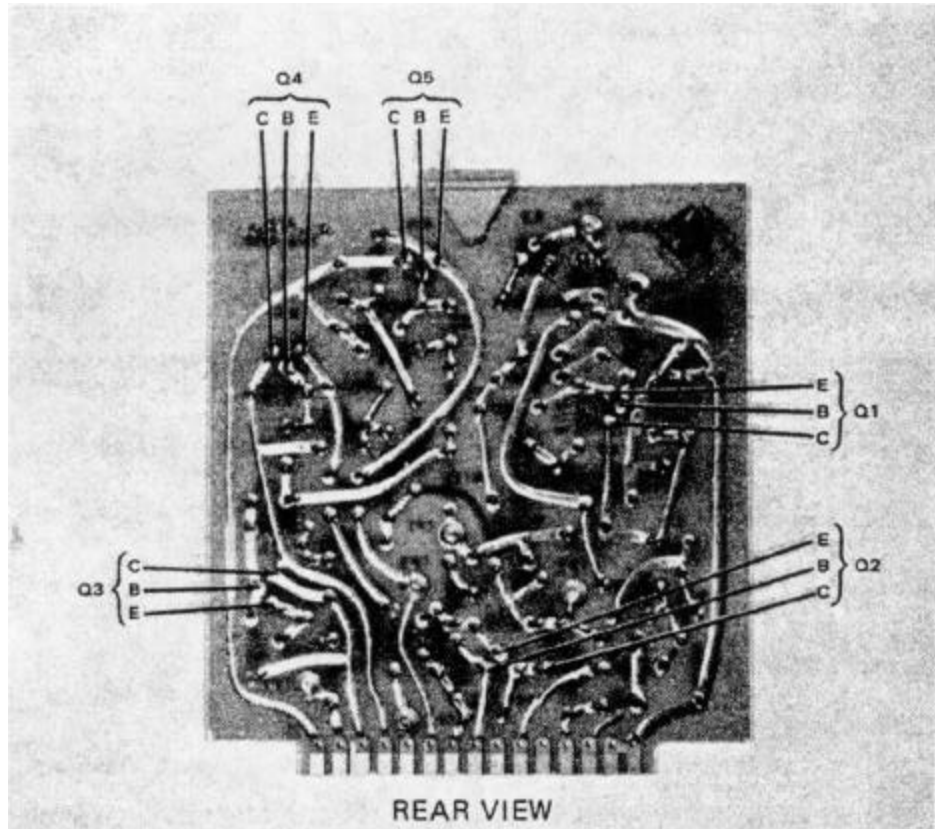
ON CONTRACT NO. DAAMB07-78-C-3013, CHANGE CR1 IDENTIFICATION TO 1N3604.

Figure 2-33. Fine lock sensor A14, schematic diagram, Tuning Unit TN-527/U.



TM 6625-1748-45-29 (1)

Figure 2-34 (1). 2nd oscillator A15, Tuning Unit TN-527/ U (sheet 1 of 2).



TM 6625-1748 45-29 (2)

Figure 2-34 (2). 2nd oscillator A 15, Tuning Unit TN-527/U (sheet 2 of 2).

NOTE:

ON CONTRACT NO. DAAB07-78-C-3013, CHANGE A15 COMPONENT VALUE(S) OR IDENTIFICATIONS APPROPRIATELY AS FOLLOWS: R24 TO 560. R11 TO 390pF, C4 TO 33 pF, L1 TO 0.56 H, Q1 TO 2N5126, & CR1 TO MV 1642. CHANGE CIRCUITRY AS SHOWN BELOW:

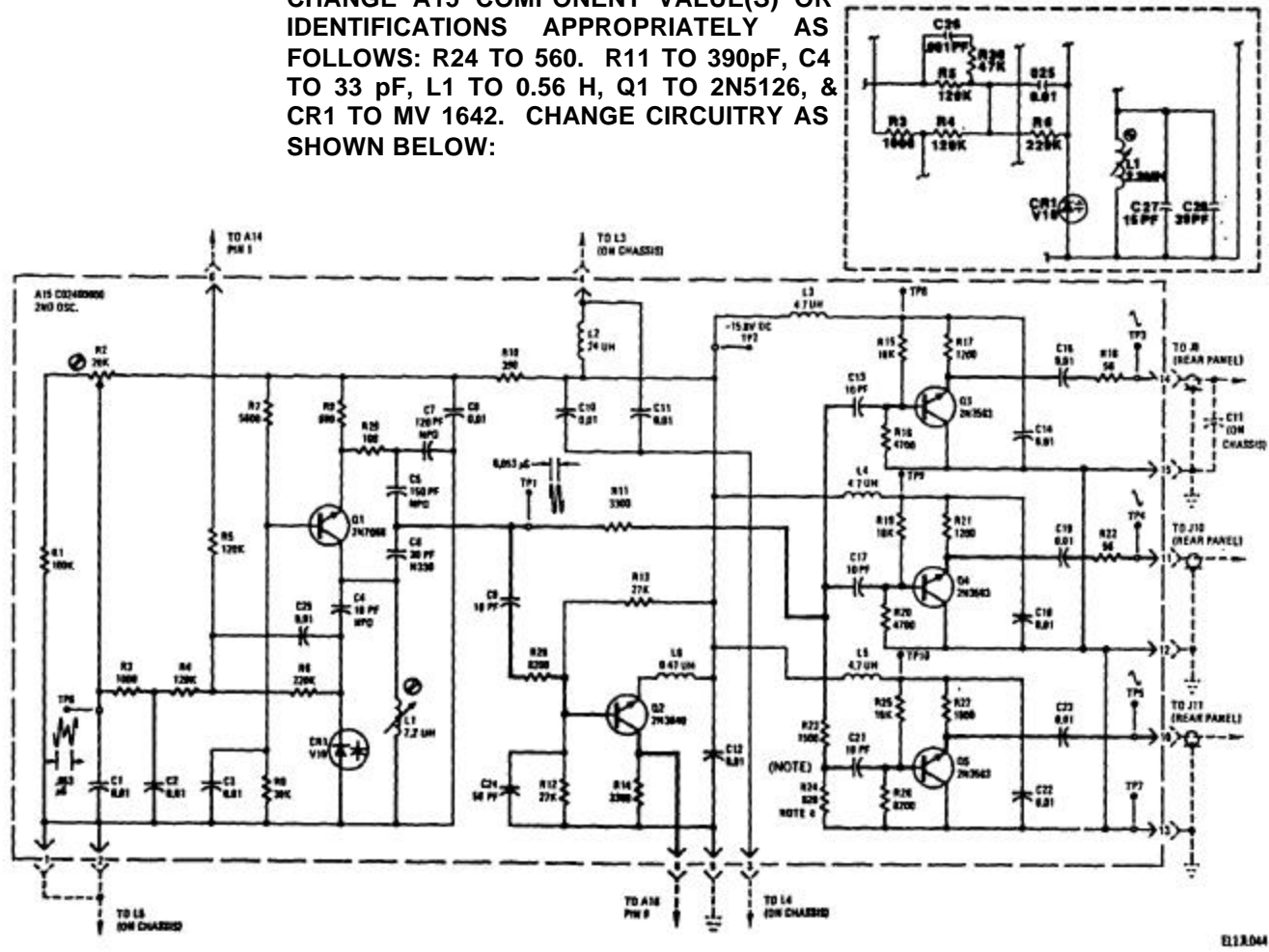


Figure 2-35. 2nd oscillator A15, schematic diagram, Tuning Unit TN-527/U.

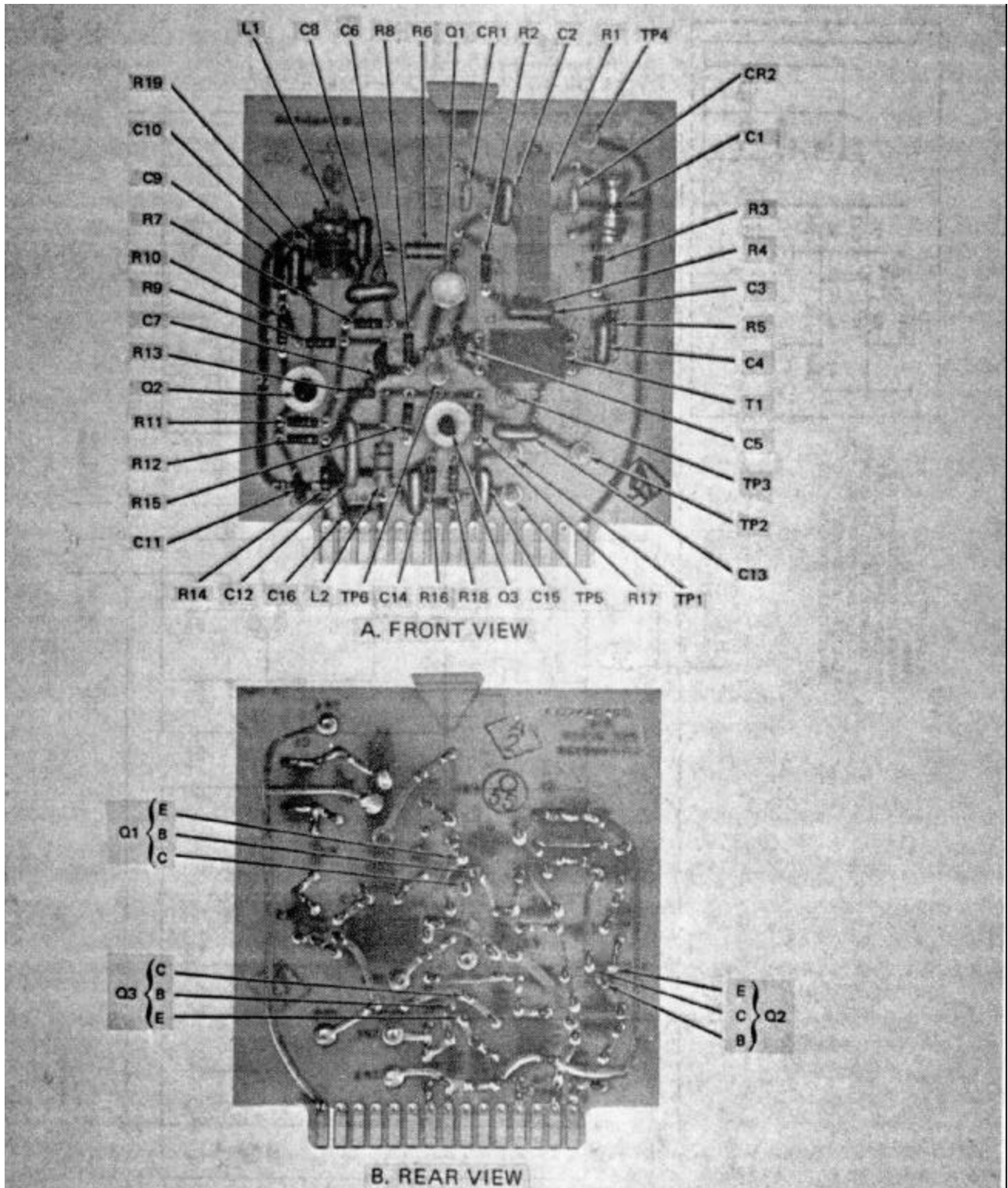


Figure 2-36. Reference mixer A16, Tuning Unit TN-527/U.

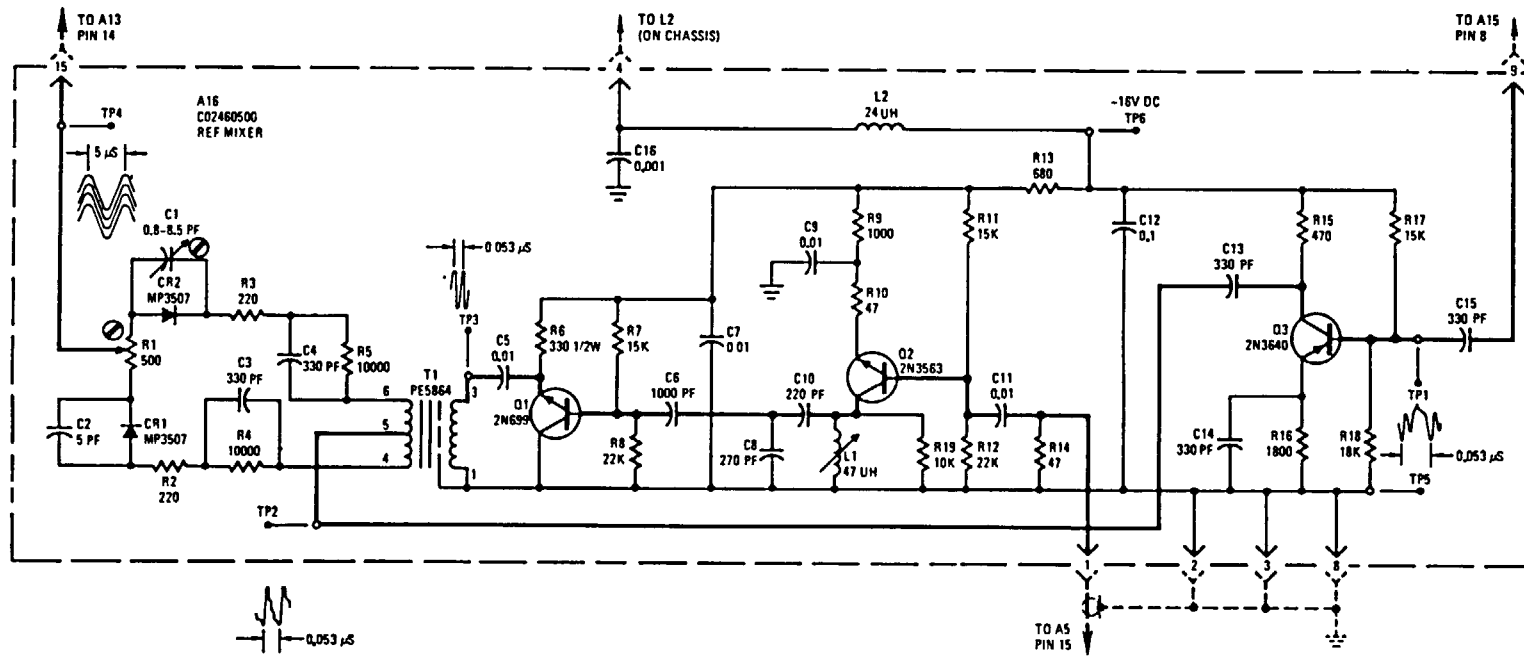


Figure 2-37. Reference mixer A16, schematic diagram, Tuning Unit TN-527/U.

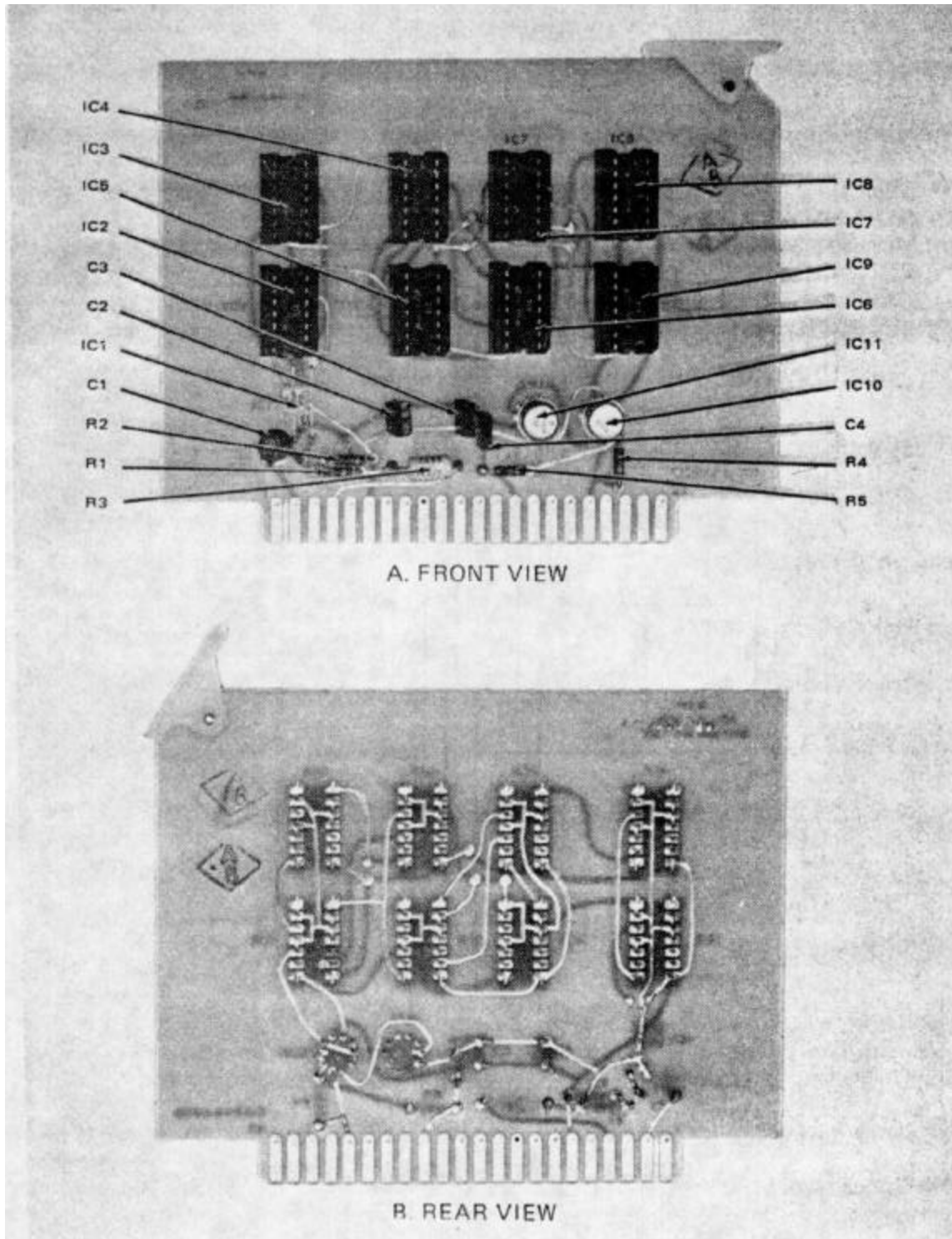
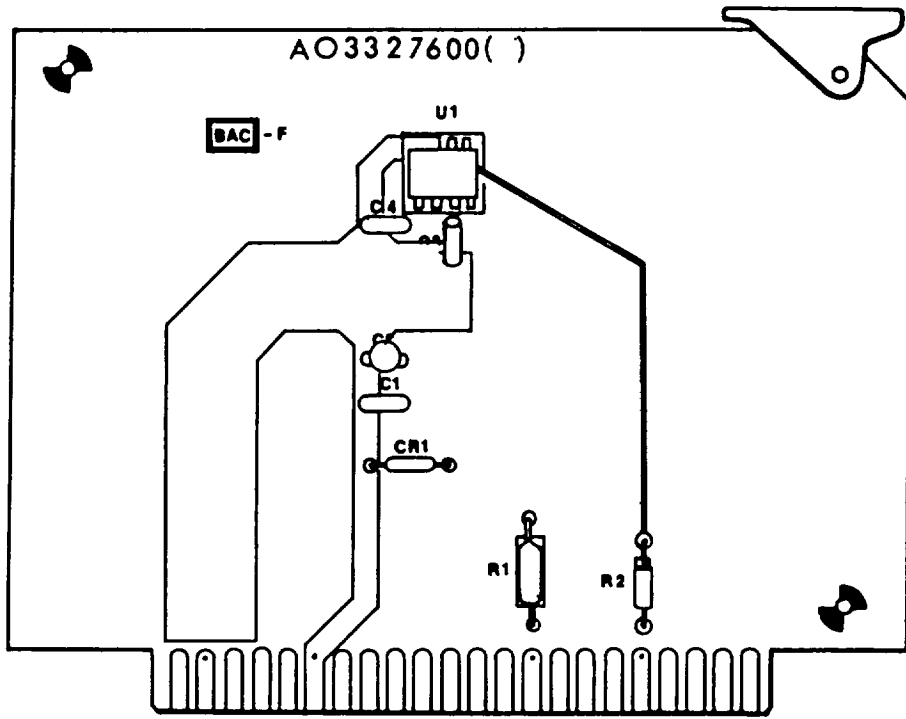
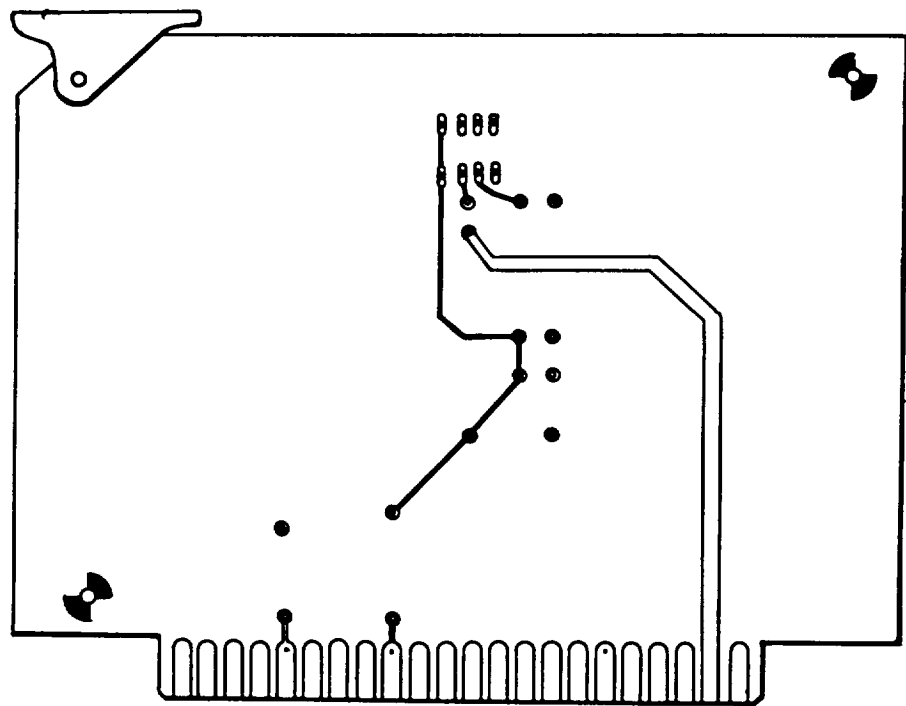


Figure 2-38. 40-73 MHz centenary divider A20, Tuning Unit TN-527/ U.



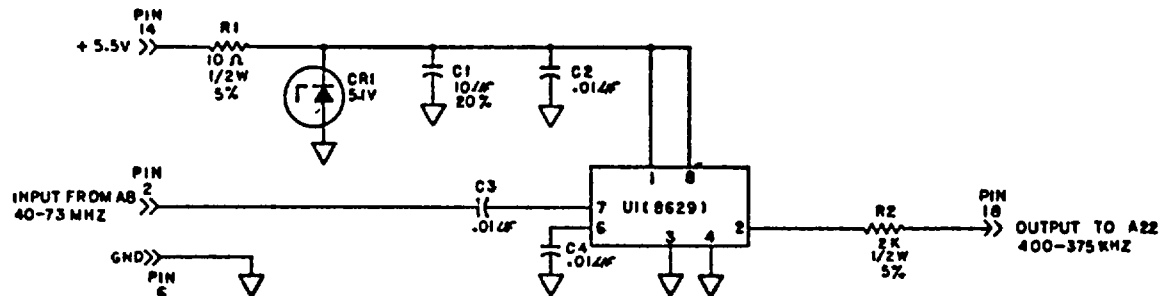
A. FRONT VIEW



B. REAR VIEW

ELLR025

Figure 2-38.1. Divide by 100 prescaler A20, Tuning Unit TN-527/U (Contract DAAB07-78-C-3013).



EL1JL026

Figure 2-38.2. Divide by 100 prescaler A20, schematic diagram Tuning Unit TN-527/U (Contract DAAB07-78-C-3013).

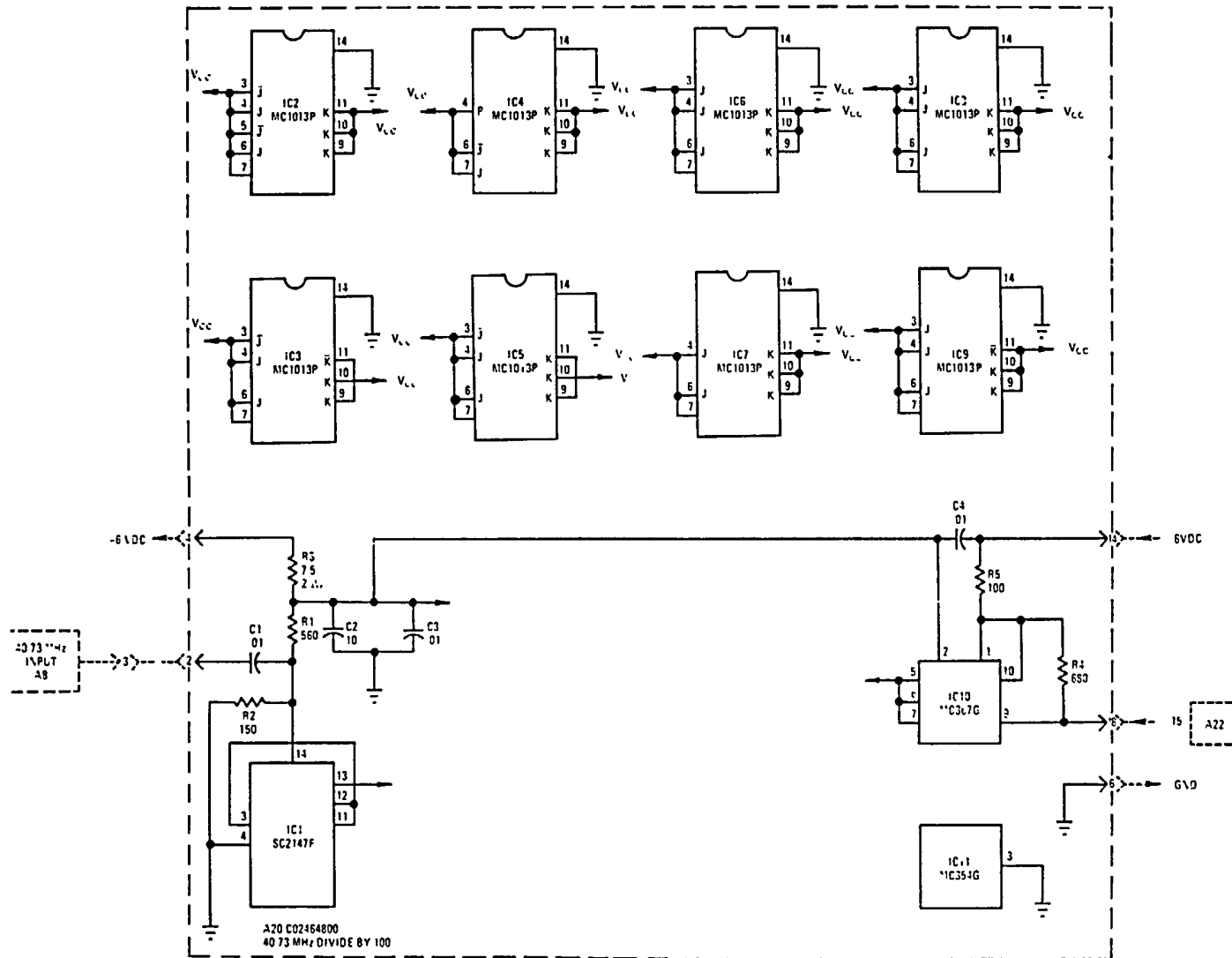


Figure 2-39. 40-73 MHz centenary divider A20, schematic diagram, Tuning Unit TN-527/ U.

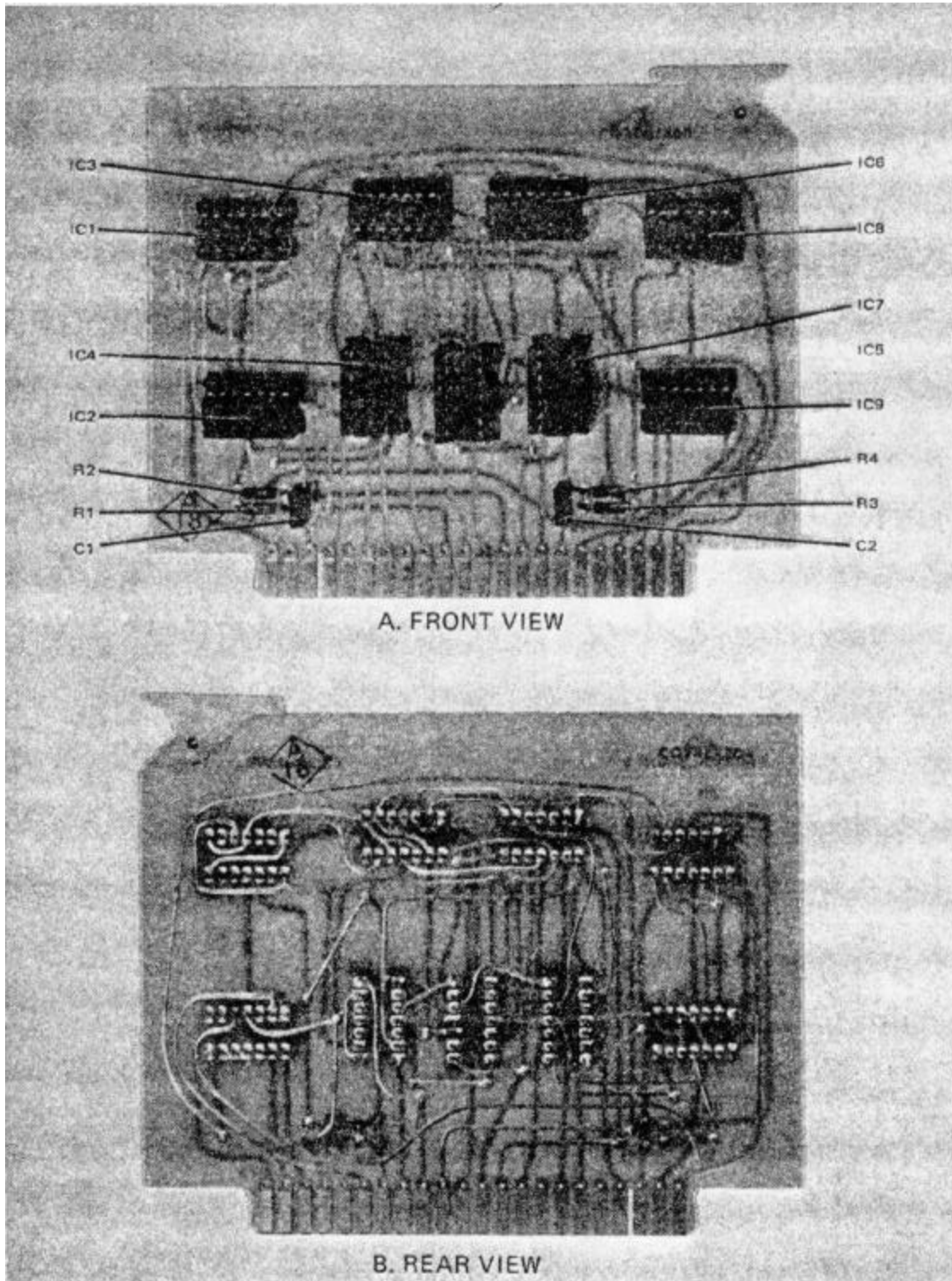


Figure 2-40. Control logic #2 A22, Tuning Unit TN-527/ U.

NOTE:

ON CONTRACT NO DAB07-78-C-3013, CHANGE ICID'S AS FOLLOWS IC1, IC2, IC6 & IC8 TO MC890P, IC5 & IC7 TO MC824P.

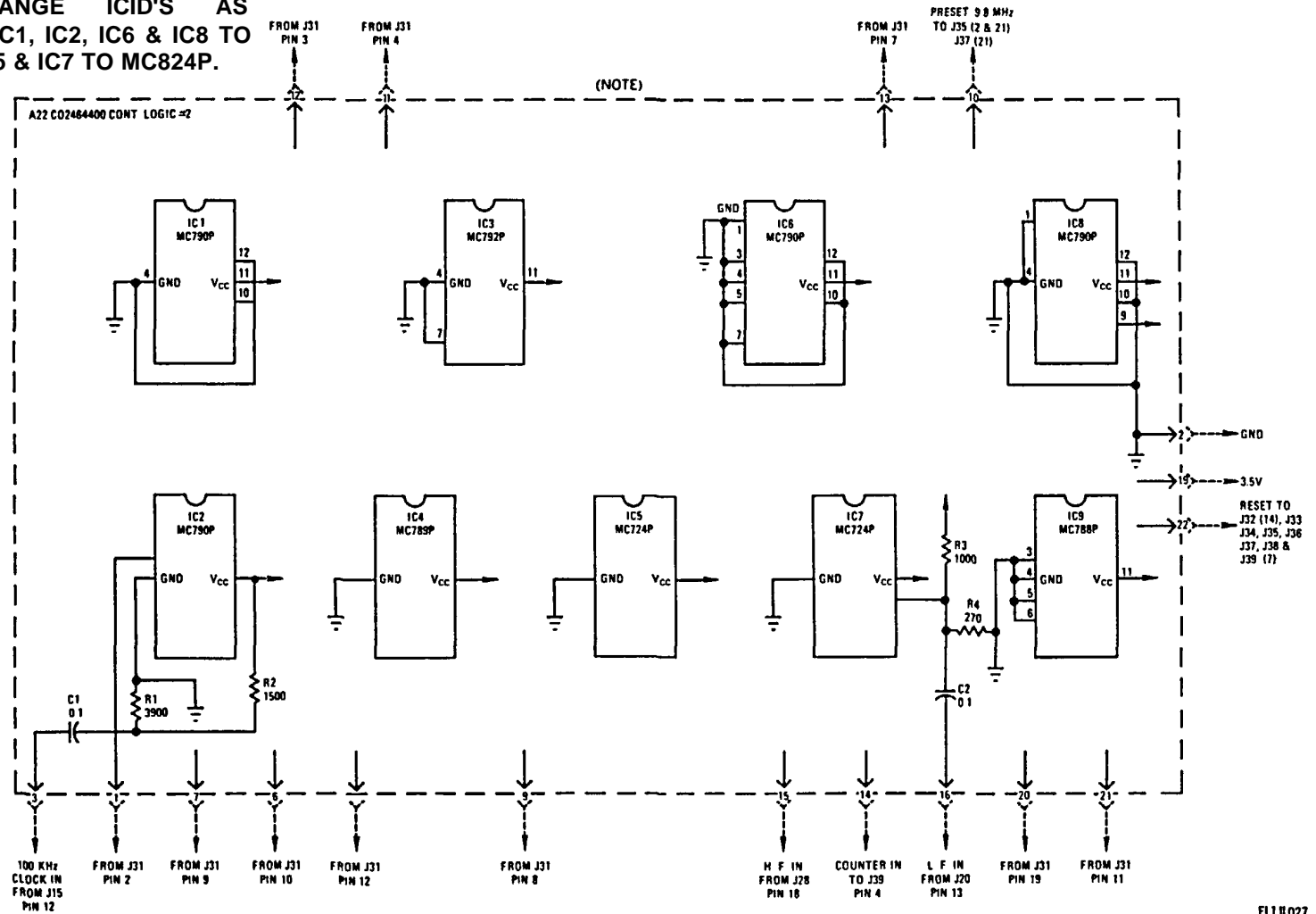


Figure 2-41. Control logic no. 2 A22, schematic diagram, Tuning Unit TN-527/U.

ELJL027

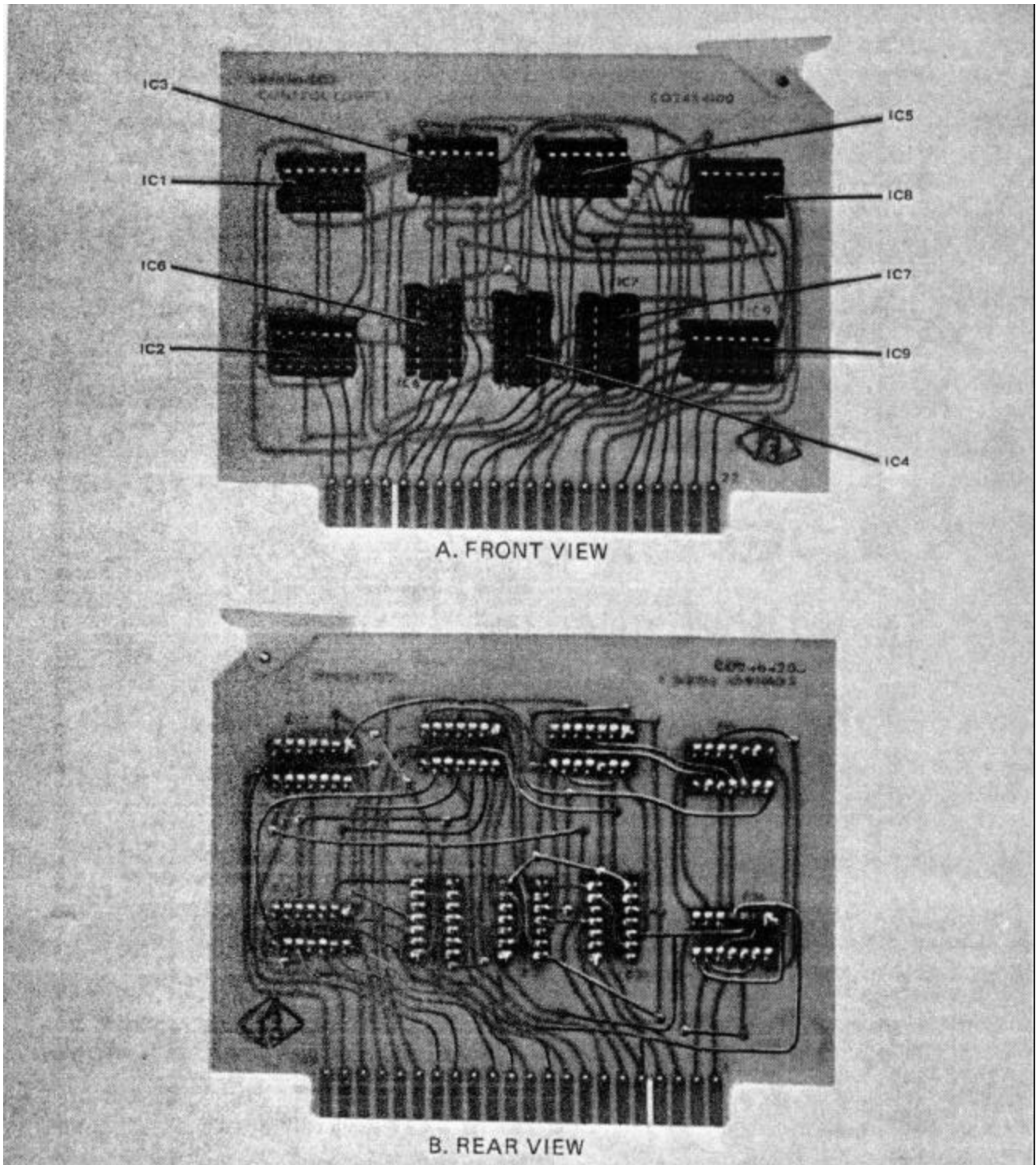
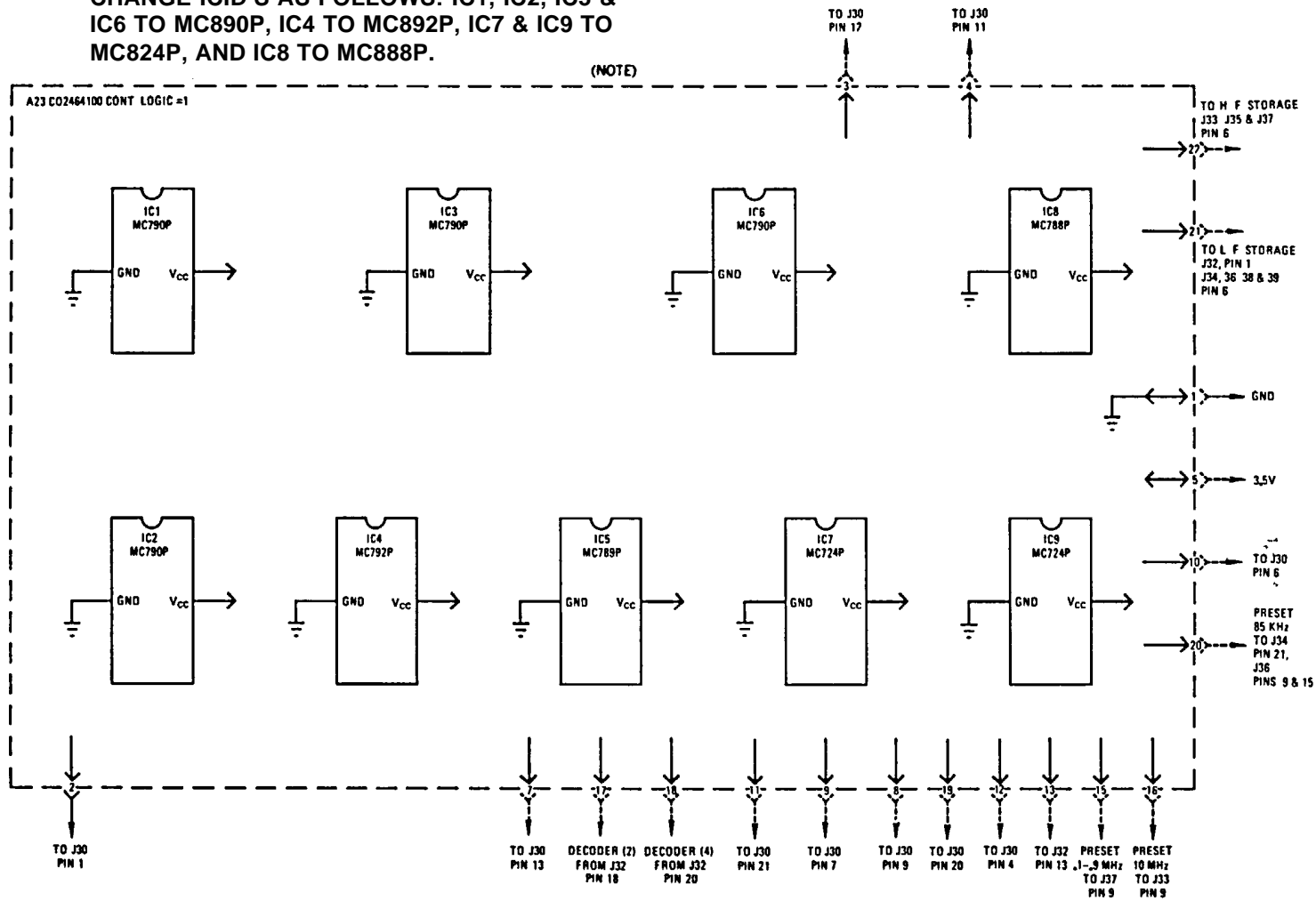


Figure 2-42. Control logic #1 A23, Tuning Unit TN-527/U.

NOTE:

ON CONTRACT NO. DAAB07-78-C-3013,
CHANGE ICID'S AS FOLLOWS: IC1, IC2, IC3 &
IC6 TO MC890P, IC4 TO MC892P, IC7 & IC9 TO
MC824P, AND IC8 TO MC888P.



EL11028

Figure 2-43. Control logic no. 1 A23, schematic diagram, Tuning Unit TN-527/U.

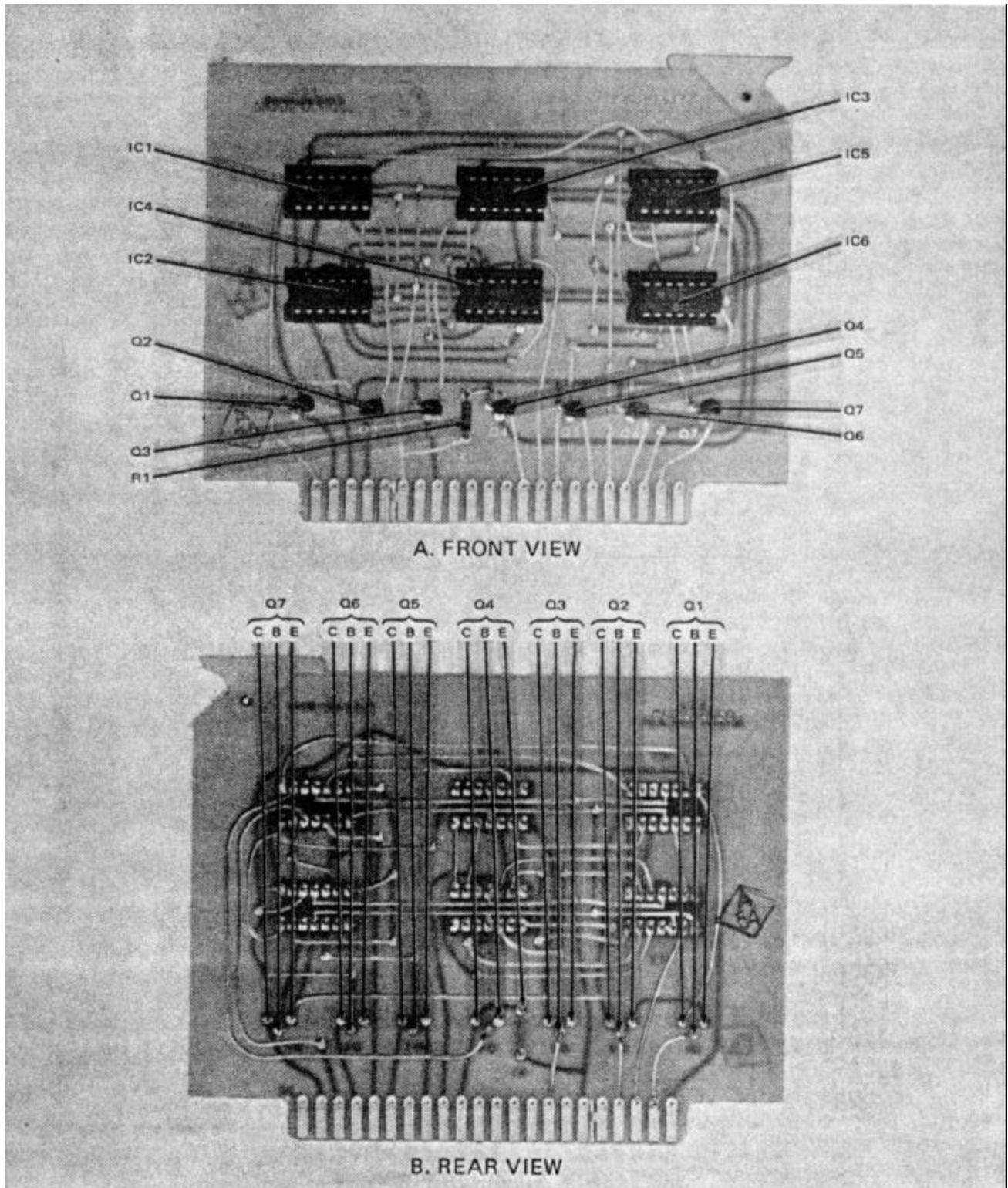


Figure 2-44. Mode decade A24, Tuning Unit TN-527/U.

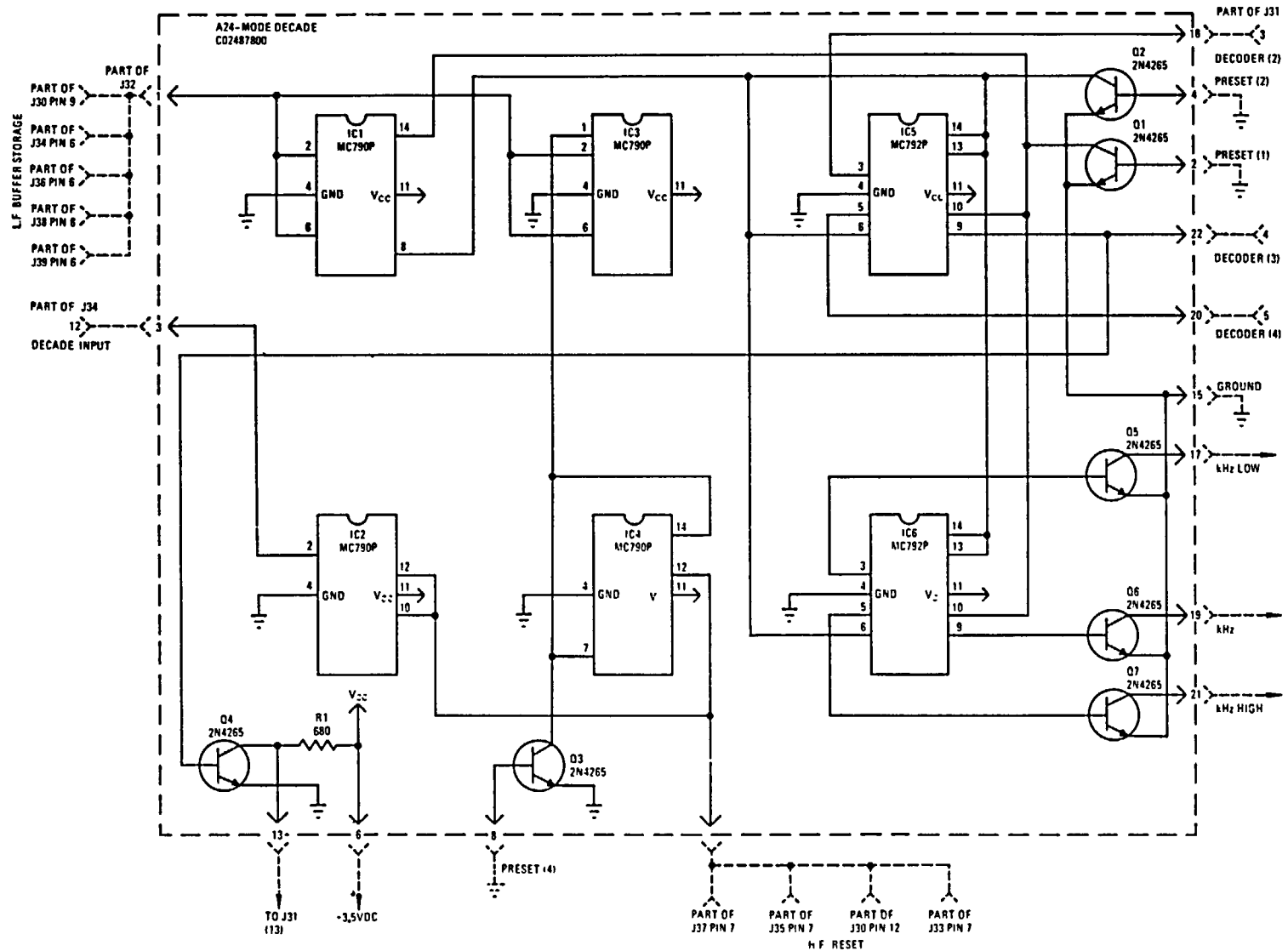


Figure 2-45. Mode decade A24, schematic diagram, Tuning Unit TN-527/U.

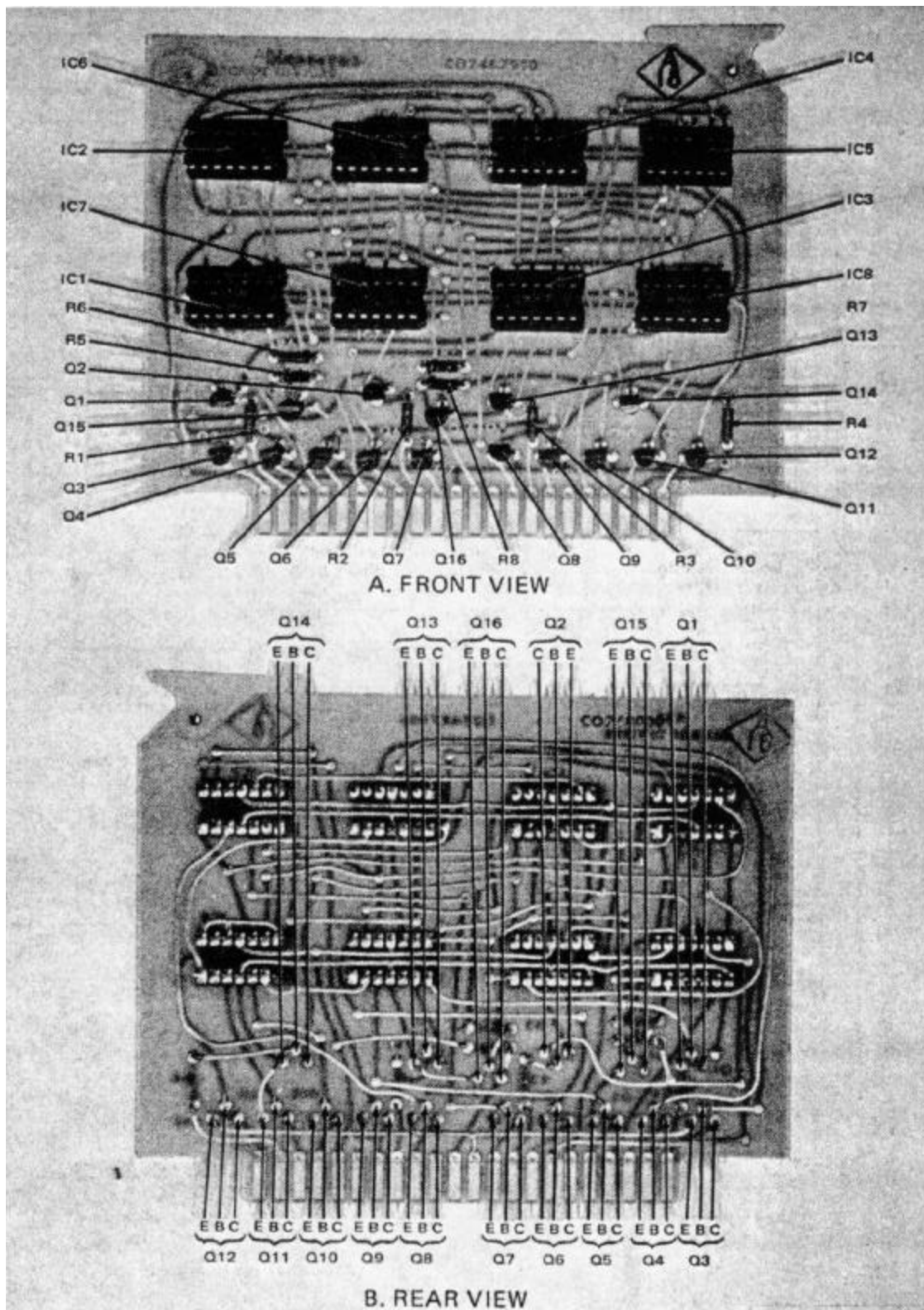


Figure 2-46. Decade divider A25, Tuning Unit TN-527/U (7 identical units).

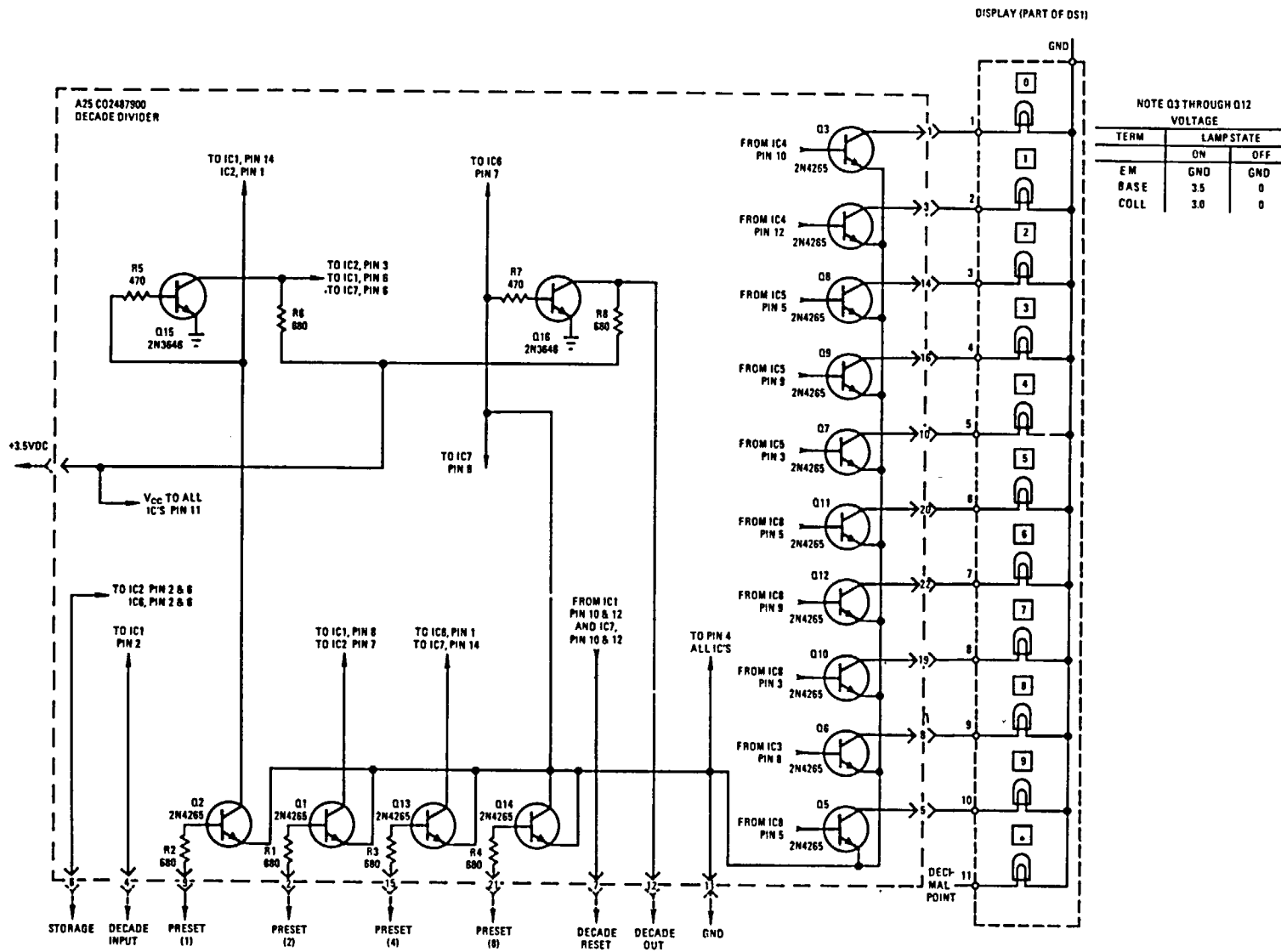


Figure 2-47. Decader divider A25, schematic diagram, Tuning Unit TN-527/ U (7 identical units).

2-18. Dc Voltage Measurements

Dc voltage measurements are the first step in isolating defects to particular components. When properly interpreted, dc voltage measurements will usually isolate defective transistors, as well as other components. Subparagraphs *a* through *c* below cover the interpretation of abnormal voltages as measured at transistor terminals. Subparagraph *d* below lists the dc voltage measurements to be made when attempting to isolate defective components.

a. Transistor Bias Voltage. Transistor bias, also known as "forward bias", is the normal operating voltage difference between the dc voltage on the base and the dc voltage on the emitter. The absolute voltage on either the base or the emitter is not too important, it is the difference that counts. The design bias for a transistor is determined from the voltage chart, and is the difference between the dc base voltage and the dc emitter voltage. For normal amplifier service, the bias voltages will be approximately as listed in (1) and (2) below. Refer to *b* below, for information on other values of transistor bias.

(1) Silicon transistors: normal bias = 0.6 to 0.7V dc.

(2) Germanium transistors: normal bias = 0.15-0.3V dc.

b. Other Transistor Biasing. Certain circuits require that the transistor base-to-emitter (forward) bias to some value other than those shown in a (1) or (2) above. In all cases, determine what the bias voltage should be from the voltage charts. Examples of circuits operating at other bias values are listed below.

(1) Oscillator, rf power amplifier and in some cases direct-coupled amplifier circuits often operate near the transistor cut-off point (higher than normal bias).

(2) Circuits designed to amplify signals of one polarity or the other, or designed to clip off certain portions of the input waveform, may operate at either higher than normal bias, near cutoff, or at less than normal bias, near saturation (maximum emitter to collector current).

c. Analysis of Abnormal Transistor Voltages. Abnormal voltages as measured at the terminals of a transistor often indicate both that the transistor is defective and the nature of the defect as well. (Ohmmeter test, on the other hand, are not reliable. Often a transistor will only "break down" under circuit operating voltages). Abnormal indications and the probable causes are listed below.

NOTE

Remember that the difference between the base and emitter voltages, which is the transistor forward bias, is more important than the absolute value of these two voltages.

- | | |
|---|--|
| (1) Low forward bias: | Excessive base-to-emitter leakage. Defective base biasing circuit. Emitter resistor increased in value, or open. |
| (2) High forward bias: | Excessive base-to-collector leakage. Open emitter. |
| (3) Low forward bias, no voltage drop across collector load resistor: | Open collector. |
| (4) Bias voltage same as supply voltage (no voltage drop across bias resistor), difference between emitter and base voltages excessive. | Open base (transistor near cutoff). |
| (5) Bias at any value, insufficient difference between emitter and collector voltages: | Excessive emitter to collector leakage. |

d. Dc Voltages, Tuning Unit. Dc voltage measurements will permit the isolation of most defective components, but will not indicate misalignment of tuned circuits. Occasionally, the gain (dc Beta) of a transistor may have changed, but the dc voltages will not necessarily indicate that the transistor is defective. When the voltage measurements fail to isolate the defective component(s), proceed with the tests covered in paragraphs 2-20 and 2-21. Normal voltages are given in the following charts.

d. Voltages, Tuning Unit. All voltages are measured with respect to common, or chassis, unless otherwise noted. All voltages $\pm 10\%$ unless upper and lower limits are given.

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>Power supply board A1.</i>		
TP1	+ 19.0V dc	
TP2	+ 5.47 to + 5.53V dc	
Q 1 base	+ 17.3V dc	
Q 1 emitter	+ 17.9V dc	
Q 1 collector/ Q2 base	+ 8.2V dc	
Q2 emitter/ Q3 base	+ 7.7V dc	
Q2 collector		
Q3 emitter	+ 7.0V dc	
Q3 collector	+ 18.75V dc	
Q4 base	+ 2.2V dc	
Q4 emitter/ Q5 emitter	+ 1.65V dc	
Q4 collector	+ 7.3V dc	
Q5 base	+ 2.2V dc	
Q5 collector	+ 5.2V dc	
<i>Chassis-mounted power transistors, Q2 & Q3. part of power supply A1.</i>		
Q2 base/ Q3 base	+ 6.5V dc	
Q2 emitter	+ 5.95V dc	Measure Q2 and Q3 emitter voltages separately.
Q3 emitter	+ 5.95V dc	
Q2 collector/ Q3 collector	+ 18.8V dc	
<i>Power Supply board A2.</i>		
TP1	+ 12.3V dc	
TP2	+ 3.48 to +3.52V dc	
Q1 base	+ 10.8V dc	
Q1 emitter	+ 11.35V dc	
Q1 collector/ Q2 base	+ 6.5V dc	
Q2 emitter/ Q3 base	+ 5.92V dc	
Q2 collector	+ 11.35V dc	
Q3 emitter	+ 5.4V dc	
Q3 collector	+ 11.37V dc	
A4 base	+ 1.95V dc	
Q4 emitter/ Q5 emitter	+ 1.4V dc	
Q4 collector	+ 5.97V dc	
Q5 base	+ 1.95V dc	
Q5 collector	+ 2.92V dc	
<i>Chassis-mounted power transistors, Q1 & Q4. part of power supply A2.</i>		
Q1 base/ Q4 base	+ 5.35V dc	
Q1 emitter	+ 4.75V dc	Measure Q1 and Q4 emitter voltages separately.
Q4 emitter	+ 4.75V dc	
Q1 collector/Q4 collector	+ 11.4V dc	
<i>Power supply board A3. -16V dc section.</i>		
TP1(+) I to TP3(-)	+ 28.5V dc	
TP3	- 15.92 to -16.08V dc	
Q1 base	+ 10.4V dc	
Q1 emitter	+ 1.1 V dc	
Q1 collector/Q2 base	+ 1.5V dc	
Q2 emitter/ Q3 base	+ 1.0V dc	
Q2 collector	+ 11.5V dc	
Q3 emitter	+ 0.55V dc	
Q3 collector	+ 11.5V dc	
Q4 base	- 9.3V dc	
Q4 emitter/Q5 emitter	- 9.9V dc	
Q4 collector	- 0.2 to + 0.1V dc	
Q5 base	-9.3V dc	
Q5 collector	-3.45V dc	
<i>Chassis-mounted power transistor Q5. part of -161V dc power supply section, A3.</i>		
Q5 base	+ 0.54V dc	
Q5 emitter	+ 0.01V dc	
Q5 collector	+ 11. 5V dc	

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>Power supply board A3.</i>		
-6V dc section.		
TP4(+) & TP(-)	+ 15.5V dc	
TP6	- 5.97 to-(6.03V dc	
Q6 base	+ 7.65V dc	
Q9 emitter	+ 8.2V dc	
Q6 collector/Q7 base	+ 1.35V dc	
Q7 emitter/Q8 base	+ 1.0V dc	
Q7 collector	+ 8.65V dc	
Q8 emitter	+ 0.55V dc	
Q8 collector	+ 8.65V dc	
Q9 base	- 3.87V dc	
Q10 emitter/Q10 emitter	- 4.45V dc	
Q10 collector	+ 0.65V dc	
Q10 base	- 3.87V dc	
Q10 collector	- 0.4V dc	
<i>Chassis-mounted power transistor</i>		
<i>Q6. part of -6V dc</i>		
<i>power supply section. A3.</i>		
Q6 base	+ 0.55V dc	
Q0 emitter	+ 0.01V dc	
Q6 collector	+ 8.65V dc	
<i>Decade divider and spectrum</i>		
<i>generator board A4.</i>		
Q1 base	- 7.95V dc	
Q1 emitter	- 8.0 to-8.7V dc	
Q1 collector	0	
Q2 base	- 8.3V dc	
Q2 emitter	- 8.9V dc	
Q2 collector	0	
Q3 base	- 8.6 to -9.1 V dc	
Q3 emitter	- 8.8 to -9.4V dc	
Q3 collector	0	
Q4 base	- 8.6 to -9.1V dc	
Q4 emitter	- 9.2 to -9.7V dc	
Q4 collector	0	
Q5 base	0	TUNING MODE switch in LOCK.
Q5 emitter	0	
Q5 collector	- 13.9V dc	
Q6 base	- 14.15V dc	
Q6 emitter	- 14.5V dc	
Q6 collector	0	
1C1 pin 1	- 2.4V dc	
pin 2	- 2.25 to -2.70V dc	
pin 3	- 2.45 to -2.90V dc	
pin 4	- 3.25 to -3.80V dc	
pin 5	- 4.2 to -6. V dc	
pin 6	- 2.6 to -3.2V dc	
pin 7	0	
pin 8	- 1.70 to -2.20V dc	
<i>19.1 and 19.0 MHz oscillator</i>		
<i>boards A5 and A6.</i>		
Q base	0	
Q1 emitter	0	
Q1 collector	- 10.65V dc	
Q2 base	- 11.7V dc	
Q2 emitter	- 11.2V dc	
Q2 collector	0	
Q3 base	- 8.1V dc	
Q3 emitter	- 8.8V dc	
Q3 collector	0	
Q4 base	- 11.35V dc	
Q4 emitter	- 12.1V dc	
Q4 collector	- 3.0V dc	

TUNING MODE switch in LOCK.

The 19.1 and 19.0 MHz oscillator boards A5 & A6 are identical except for the frequency-determining crystals.

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>19.1 and 19.0 MHz oscillator boards AS and A6-continued.</i>		
Q5 base	- 7.7V dc	
Q5 emitter	- 8.4V dc	
Q5 collector	0	
CR(anode	- 8.15V dc	
1C1 pin 1	- 2.85V dc	
pin 2	- 8.15 V dc	
pin 3	- 7.95V dc	
pin 4	- 15.6V dc	
pin 5	- 15.5V dc	
pin 6	- 4.5V dc	
pin 7	0	
pin 8	- 2.3V dc	
<i>Coarse tuning oscillator board A7.</i>		
Q1 base	- 13.15Vdc	
Q1 emitter	- 14.6Vdc	
Q1 collector	0	
<i>Coarse tuning amplifier and output board A8.</i>		
Q1 base	- 8.2V dc	
Q1 emitter	- 8.95V dc	
Q1 collector	- 0.12V dc	
Q2 base	- 6.6V dc	
Q2 emitter	- 7.4V dc	
Q2 collector	- 3.2V dc	
Q3 base	- 8.15V dc	
Q3 emitter	- 7.4V dc	
Q3 collector	- 15.2V dc	
Q4 base	- 7.4V dc	
Q4 emitter	- 6.7V dc	
Q4 collector	- 15.2V dc	
Q5 base	- 1.95V dc	
Q5 emitter	- 1.2V dc	
Q5 collector	- 8.6V dc	
Q6 base	- 8.15V dc	
Q6 emitter	- 7.5V dc	
Q7 collector	- 1 5.2V dc	
Q7 base	- 7.45V dc	
Q7 emitter	- 6.7V dc	
Q7 collector	- 15.2V dc	
Q8 base	- 8.15V dc	
Q8 emitter	- 7.4V dc	
Q8 collector	- 15.2V dc	
Q9 base	- 7.4V dc	
Q9 emitter	- 6.7V dc	
Q9 collector	- 15.2V dc	
<i>Mixer board A9.</i>		
TP 2	- 14.45V dc	
Q1 base	- 3.05V dc	
Q1 emitter	- 2.75V dc	
Q1 collector	- 1 0.6V dc	
<i>Amplifier/detector board AO.</i>		
TP2	- 15.8V dc	
Q1 base	- 6.8V dc	
Q1 emitter	- 6.15V dc	
Q1 collector	- 15.4V dc	
Q2 base	- 5.47V d	
Q2 emitter	- 4.9V dc	
Q2 collector	- 13.75V dc	
Q3 base	- 0.5V dc	
Q3 emitter	0	
Q3 collector	- 11.0 to- 13.5V dc	
<i>Coarse lock sensor board A11.</i>		
TP5	- 8.6V dc	LOCK mode.
TP5	- 12.7V dc	CONTINUOUS mode.

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>Coarse lock sensor board A11-continued.</i>		
TP6	- 5.5V dc	LOCK mode. CONTINUOUS MODE. All of the following measurements made in the LOCI mode.
TP6	0	
Q1 base	- 0.V dc	
Q1 emitter	0	
Q1 collector	- 14.0 to - 15.5V dc	
Q2 base	- 0.25V dc	
Q2 emitter	0	
Q2 collector	- 13.0V dc	
Q3 base	- 12.4V dc	
Q3 emitter	- 5.75V dc	
Q3 collector	- 2.0V dc	
Q4 base	- 5.0V dc	
Q4 emitter	- 5.6 to-7.0V dc	
Q collector	- 5.45V dc	
<i>Fine tuning oscillator and amplifier board A 12.</i>		
Q1 base	- 14.3V dc	
Q1 emitter	- 14.55V dc	
Q1 collector	- 12.1V dc	
Q2 base	- 0.7V dc	
Q2 emitter	- 0.45V dc	
Q2 collector	- 6.0V dc	
Q3 base	- 10.3V dc	
Q3 emitter	- 9.7V dc	
Q3 collector	- 14.6V dc	
Q4 base	- 6.9V dc	
Q4 emitter	- 7.5V dc	
Q4 collector	0	
Q5 base	- 9.7V dc	
Q5 emitter	- 9.1V dc	
Q5 collector	- 14.6V dc	
<i>Second amplifier and phase discriminator board A13.</i>		
Q1 base	- 1.65V dc	
Q1 emitter	- 1.0V dc	
Q1 collector	- 10.5V dc	
Q2 base		
Q2 emitter	- 8.0V dc	
Q2 collector	- 15.95V dc	
<i>Fine lock sensor board A14.</i>		
Q1 base	- 8.4 to-10.5V dc	
Q1 emitter	- 9.0 to-12.0V dc	
Q1 collector	0	
Q2 base	- 13.5V dc	
Q2 emitter	- 14.25V dc	
Q2 collector	- 12.95V dc	
Q3 base	- 14.75V dc	
Q3 emitter	- 14.25V dc	
Q3 collector	0	
<i>Second oscillator board A15.</i>		
Q1 base	- 14.7V dc	
Q1 emitter	- 13.6V dc	
Q1 collector	0	
Q2 base	- 7.7V dc	
Q2 emitter	- 7.0V dc	
Q2 collector	- 15.95V dc	
Q3 base	- 3.85V dc	
Q3 emitter	- 4.7V dc	
Q3 collector	0	
Q4 base	- 3.7V dc	
Q4 emitter	- 4.5V dc	
Q4 collector	0	

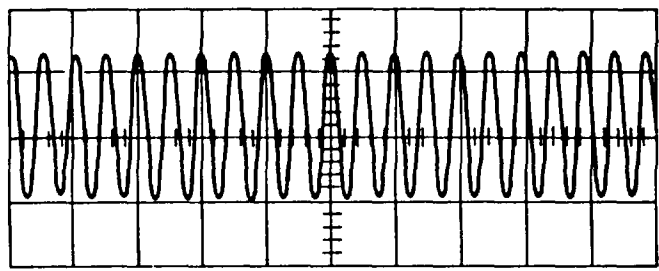
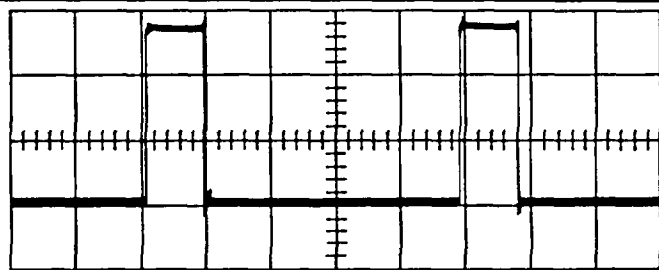
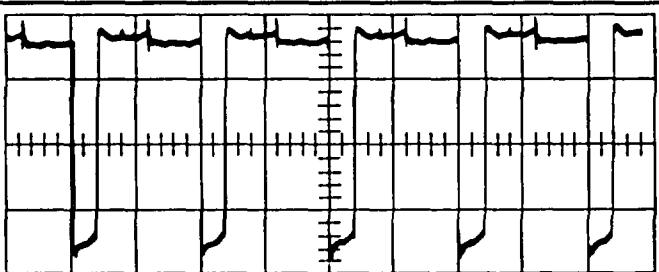
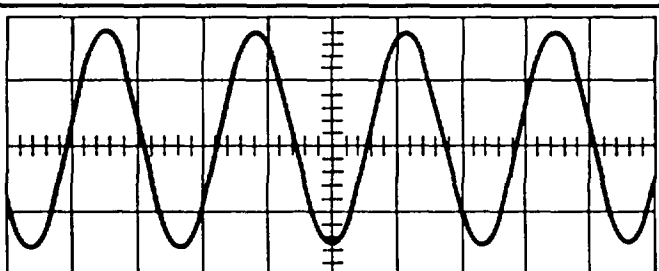
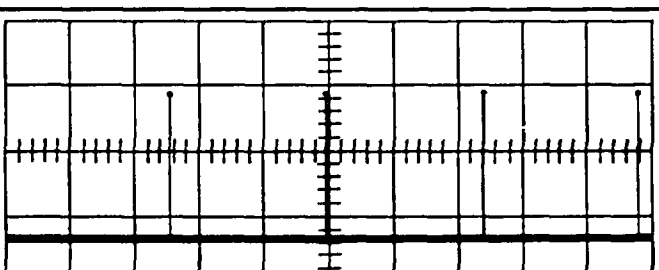
<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>Second oscillator board A15-continued.</i>		
Q5 base	- 5.85V dc	
Q5 emitter	- 6.6V dc	
Q5 collector	0	
<i>Reference mixer board A16.</i>		
Q1 base	- 6.5V dc	
Q1 emitter	- 7.15V dc	
Q1 collector	0	
Q2 base	- 6.35V dc	
Q2 emitter	- 7.1V dc	
Q2 collector	0	
Q3 base	- 8.45V dc	
Q3 emitter	- 7.7V dc	
Q3 collector	- 14.0V dc	

2-19. Counter Lock-up

If the malfunction of the tuning unit is diagnosed as counter lock-up, proceed as follows:

a. Substitute boards A20, A22, A23 and seven boards A25, one at a time, until the difficulty is cleared.

b. Reinstall the defective pc board, using a card riser.

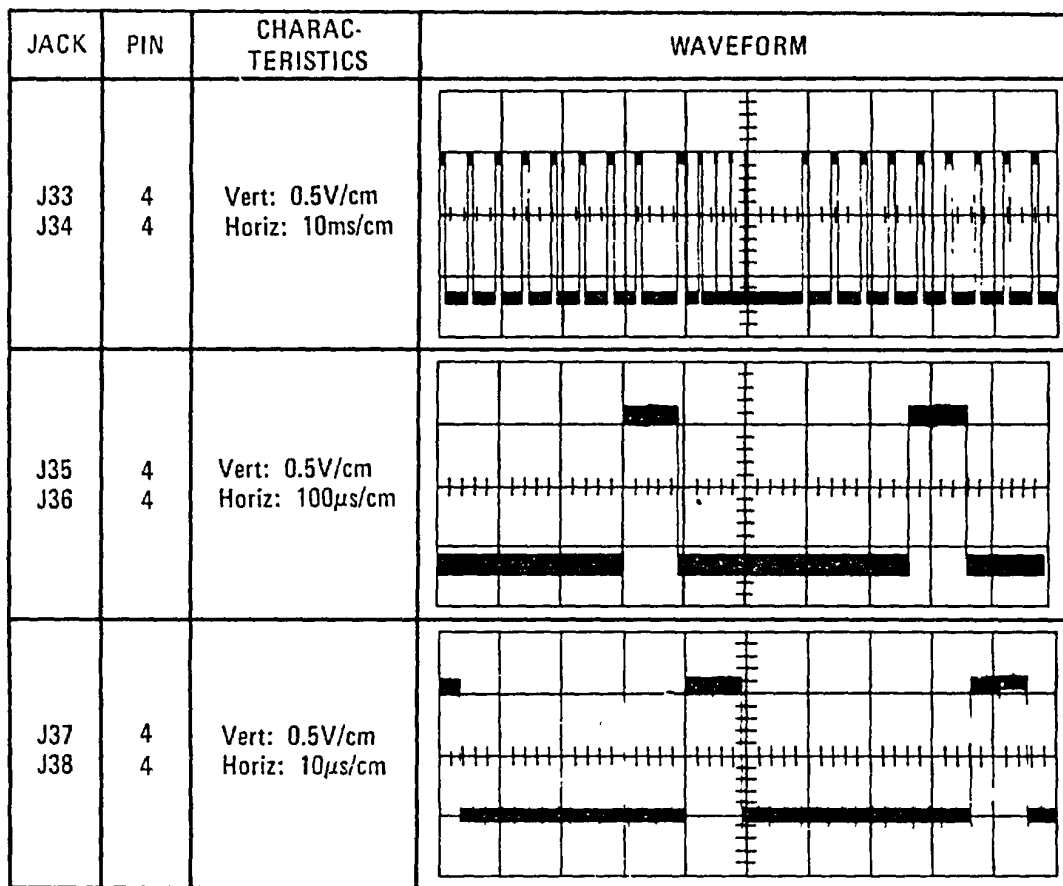
JACK	PIN	CHARACTERISTICS	WAVEFORM
J28	2	Vert: 0.5/cm Horiz: 0.05μs/cm	
J30	15 & 18	Vert: 1V/cm Horiz: 0.5μs/cm	
J30	3	Vert: 0.5V/cm Horiz: 5μs/cm	
J30	16	Vert: 0.5V/cm Horiz: 2μs/cm	
J31	21 & 22	Vert: 0.5V/cm Horiz: 50/cm	

TM 6625-1748-45-105 (1)

Figure 2-48 (1). Counter waveforms, Tuning Unit TN-527/U (sheet 1 of 3).

JACK	PIN	CHARACTERISTICS	WAVEFORM
J31	15 & 16	Vert: 1V/cm Horiz: 50ms/cm	
J31	20	Vert: 1V/cm Horiz: 50ms/cm	
J30	10	Vert: 0.5V/cm Horiz: 50ms/cm	
J30	22	Vert: 0.5V/cm Horiz: 50ms/cm	
J30 J39	14 4	Vert: 0.5V/cm Horiz: 1μs/cm	

TM 6625-1748-45-105 (1)
Figure 2-48 (2). Counter waveforms. Tuning Unit TN-527/U (sheet 2 of 3).



TM 6625-1748-45-105 (3)

Figure 2-48 (3). Counter waveforms, Tuning Unit TN-527/U (sheet 3 of 3).

c. Use the oscilloscope to check the waveforms in accordance with figure 2-48 (1), (2) and (3) to isolate the defective plug-in IC module. Replace the IC module on the board.

2-20. RF Signal Levels, Frequencies and Waveforms

In making the tests listed in the chart f below, where there is no entry in a particular column to the right of a designated test point, that voltage, frequency or waveform is unimportant. Only the important requirements are listed.

a. Use Oscilloscope AN/USM-281 for measuring peak-to-peak (p-p) voltages and for observation of waveshapes. When the Waveform column refers to a particular figure, be sure to use the vertical and horizontal deflection settings as shown on the figure.

b. For measuring voltages that are not listed as peak-to-peak (p-p), use Electronic Voltmeter AN/URM-145.

NOTE

Those voltages which are not shown as p-p (peak-to-peak) are rms values. These voltages may also be measured with Oscilloscope AN/USM-281 if desired. Measure the peak-to-peak values with the oscilloscope. Then multiply the peak-to-peak values by a factor of 0.35 to obtain the rms values.

c. To measure frequencies, use the AN/USM-207.

d. All test equipment return connections (common) go to the common or chassis ground of the unit under test, unless otherwise specified.

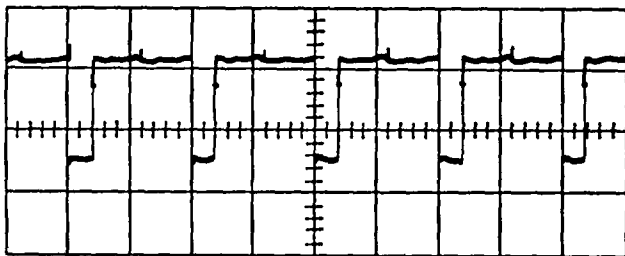
e. Amplitude (voltage) tolerances are $\pm 20\%$ unless otherwise specified:

f. Rf Measurements.

Unit	Test Point	Amplitude (voltage)	Frequency		Waveform	Notes
			freq.	tolerance		
A1	TP2	2.0 mV max.	120 Hz		Half sine wave	Power supply ripple
A2	TP2	10.0 mV max.	120 Hz		Half sine wave	Power supply ripple
A3	TP3	3.0 mV max.	120 Hz		Half sine wave	Power supply ripple
A4	TP1	5-12 V p-p	1 MHz	± 1 Hz		1 MHz clock output
	TP2	5-6 mV p-p			Sine wave	
	TP4	2 V p-p			Figure 2-59	
	TP9	2 V p-p			Figure 2-59	
	TP8	2.0 V p-p				
	TP7	2.0 V p-p				
	Q5c	16V p-p				Q5c = Q5 collector
	TP6	8 V p-p			Figure 2-60	
A5	TP2	1.8 V p-p				Ac-switch in test pos. Dc-switch to operate.
	TP4					
A6	TP5	140 mV p-p See note	19.1 MHz	± 1 Hz		<p align="center">NOTE</p> <p>All TP's & voltages same as A5. TO 305A-L 19.0 MHz jack J6 terminated with 50-ohm terminating cap.</p>
	TP8	140 mV p-p	19.0 MHz	± 1 Hz		
A7	see note	0.7 V p-p			Sine wave	Test point is pin 1. (orange lead) on plug P41
	see note	1.15 V p-p			Sine wave	Test point is pin 4. (yellow lead) on plug P41
A8	TP2	0.8 V p-p			Sine wave	
	TP3	105-150 mV throughout COARSE tuning range	39.800000 MHz (1) 73.800000 MHz (2)	± 10 Hz ± 10 Hz		Terminate TO 305A-L 40/72 MHz jack J7 with 50-ohm terminating cap. (1) COARSE tuning: Last CCW lock point. (2) COARSE tuning: Last CW lock point. Q7e = Q7 emitter May also be measured at A20 pin 2.
A9	Q7e	105-150 mV				
	TP5	1 V p-p			Sine wave	
	TP	1 V p-p				
	TP3	4 V p-p				
	TP4	1 V p-p			Figure 2-61	
A10	TP6	420 mV p-p			Figure 2-62	
	Q1e	420 mV p-p				Q1e - Q1 emitter
	Q2c	800 mV p-p				Q2c - Q2 collector
A11	TP3	2-8V p-p			Figure 2-63	
	TP2					8 to 10V dc variation as COARSE tuning is varied in LOCK mode. (same as TP2)
A12	TP3					
	TP6	28V p-p				
	T1	0.5V p-p				
	Q2c	7.5V p-p				Q2c = Q2 collector
	Q3e	7.5V p-p				Q3e = Q3 emitter
	TP4	2V p-p				
A13	TP3	7.5V p-p			Figure 2-65	Same as A16, TP4
	TP1	0.5V p-p				
	TP3	2.5V p-p				
	TP4	10V p-p				
	TP6	7.5V p-p				Same as A12, TP3
A14	TP7	9V p-p			Figure 2-67	
	TP1	9V p-p			Figure 2-67	Same as A13, TP7
	TP2		Ac Dc			CONTINUOUS mode Dc trace variation of approx. 4 volts over the range of the FINE TUNING control.

Unit	Test Point	Amplitude (voltage)	Frequency		Waveform	Notes
			freq.	tolerance		
A15	TP6 TP1 TP3	160 mV p-p 10 V p-p 200-250	18.888 MHz ± 10 Hz		Sine wave	Terminate TO 305A-L 18.8 MHz jack J8 with 50-ohm terminating cap. TUNING MODE: LOCK COARSE tuning to 011 xx. xx MHz LOW. FINE tuning to 01100.00 kHz J11 with 50-ohm terminating cap.
	TP5	70-119 mV	18.885 MHz			
A16	TP2 TP3 TP4	1.6 V p-p 5.4 V p-p 0.5 V p-p				

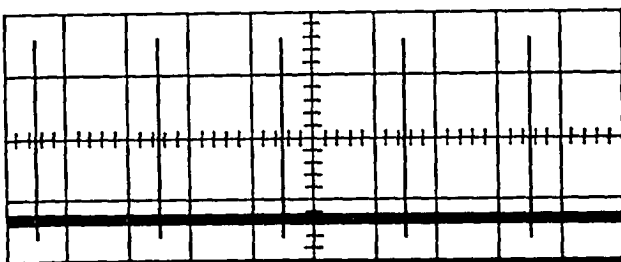
BOARD A4, TP9
OSCILLOSCOPE SETTINGS:
V= 1V/cm
H= 5 usec/cm



TM 6625-1748-45-106

Figure 2-49. Decade divider A4 output waveform, Tuning Unit

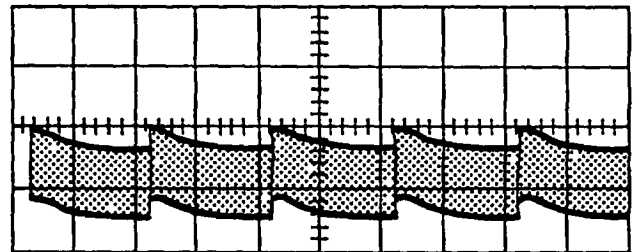
BOARD A4, TP6
OSCILLOSCOPE SETTINGS:
V= 2 V/cm
H= 5 usec/cm



TM 6625-1748-45-107

Figure 2-50. Spectrum generator A4 output waveform, Tuning Unit TN-527/U

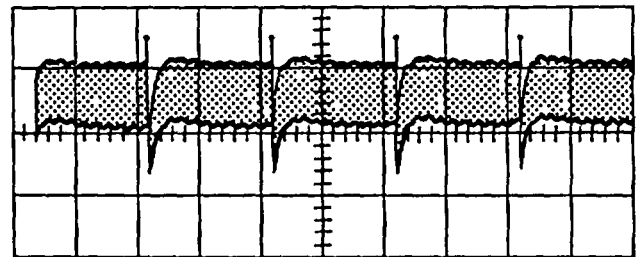
BOARD A9, TP4
OSCILLOSCOPE SETTINGS:
V= 0.5V/cm
H= 5 usec/cm



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Figure 2-51. Mixer A9 first stage waveform, Tuning Unit TN-527/U

BOARD A4, TP6
OSCILLOSCOPE SETTINGS:
V= 0.2 V/cm
H= 5 usec/cm

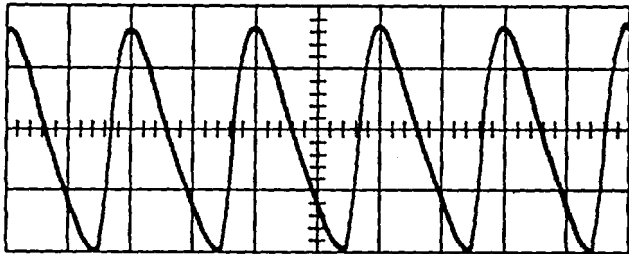


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Figure 2-52. Mixer A9 output waveform, Tuning Unit TN-527/U

BOARD A10, TP3
OSCILLOSCOPE SETTINGS:

V=2 V/cm
H= 5 usec/cm

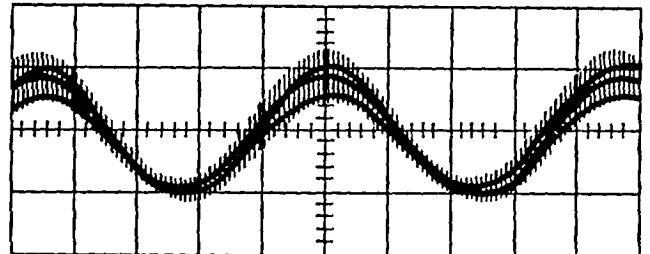


TM 6625-1748-45-110

Figure 2-53. Amplifier-detector A10 output waveform, Tuning Unit TN-257/U.

BOARD A16, TP4
OSCILLOSCOPE SETTINGS-

V= 5V/cm
H = 1 usec/cm

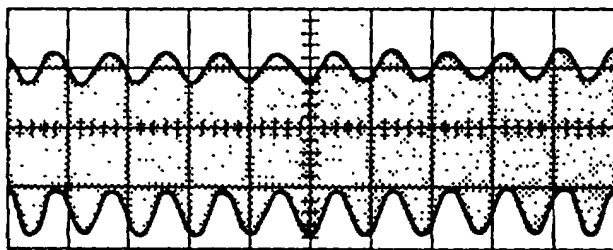


TM 6625-1748-45-112

Figure 2-55. Reference mixer A16 output waveform, Tuning Unit TN-527/U

BOARD A16, TP2
OSCILLOSCOPE SETTINGS:

V= 0.5 V/cm
H= 5 usec/cm

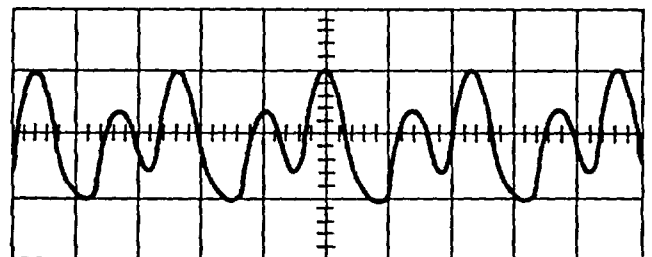


TM 6625-1748-45-111

Figure 2-54. Reference mixer A 16 first stage waveform, Tuning Unit TN-527/U.

BOARD A13, TP4
OSCILLOSCOPE SETTINGS:

V= 5V/cm
H= 2 usec/cm

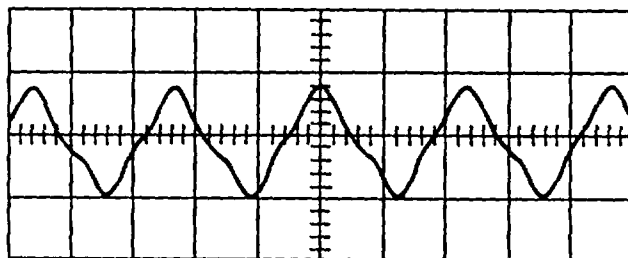


TM 6625-1748-45-113

Figure 2-56. 2nd amplifier and phase discriminator A13 waveform. Tuning Unit TN-527/U.

BOARD A13, TP7
OSCILLOSCOPE SETTINGS:

V = 5V/cm
H = 2 usec/cm



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Figure 2-57. 2nd amplifier and phase discriminator A13 output waveform, Tuning Unit-TN-527/U.

2-21. Transformer and Coil Resistances

The following chart lists the do resistances of the factory-installed transformers tuning unit. This information location of open transformer and coil windings, as well

as poor and/or corroded solder connections. Replacement transformers and coils may have different resistance values but still perform and coils in the will assist in the satisfactorily. Overall circuit performance is the main consideration.

Unit	Transformer or coil	Terminals	Ohms
Chassis	T1 Primary	1 and 2	9.5
		3 and 4	10
	Secondary	5 and 6	<1
		7 and 8	<1
		9 and 10	<1
		11 and 12	2.7
Power cord	T2	Plug	16.5
Pc A4	Switch to 115V Switch to 230V	Plug	65
		L1	41
		L2	41
		L3	42
		L4	42
		L5	<1
Pc A5	L6	L1	42
		L2	42
		L3	2
		L4	<1
		T1	<1
		CR1 cathode to TP2	<1
Pc A6	Outside terminals	Outside terminals	<1
		L1	42
		L2	42
		L3	2
		L4	<1
		T1	<1
Pc A7 Pc A8	CR1 cathode to TP2 Outside terminals	CR1 cathode to TP2	<1
		Outside terminals	<1
L1		<1	
L2		<1	
L3	<1		
L4	3.5		

Unit	Transformer or coil	Terminals	Ohms	
Pc A9	L5		2.1	
	L6		<1	
	L7		<1	
	T1	Primary Secondary	1 and 3 4 and 6	<1 1
Pc A10	L1		81	
Pc A11	L2		41	
	L1		2	
	L2		41	
Pc A12	L3		11.5	
	L1		4.5	
	L2		41	
	L3		42	
	L4		3.5	
Pc A13	L5		43	
	T1	Primary Secondary	1 and 3 4 and 6	<1 6.2
	T2	Primary Secondary	1 and 3 4 and 6	<1 41
	L1			42
PC 15	K1	Coil		1450
	L1			<1
	L2			2
	L3			<1
	L4			<1
	L5			<1
Pc 16	L6			<1
	L1			<1
	L2			2
	T1	Primary Secondary	1 and 3 4 and 6	<1 <1

2-23. Mechanical Problems

Mechanical difficulties in the COARSE and FINE tuning drive mechanisms can occur. Such problems may result in erratic tuning, binding, incomplete tuning range over

the range of the controls, or "play" in the controls when changing the direction of rotation. Refer to paragraph 3-6 for information on repair and adjustment of the tuning drive assemblies.

Section V. MONITOR UNIT TROUBLESHOOTING, LOCALIZATION PROCEDURES

2-24. General

This section describes trouble localization procedures to be followed whenever the sectionalization procedures indicate that one or more faults may exist within the monitor unit. For voltage checks and other operational tests, set up the equipment in a manner similar to that shown in figure 2-62, and interconnect the units in accordance with figure 4-2.

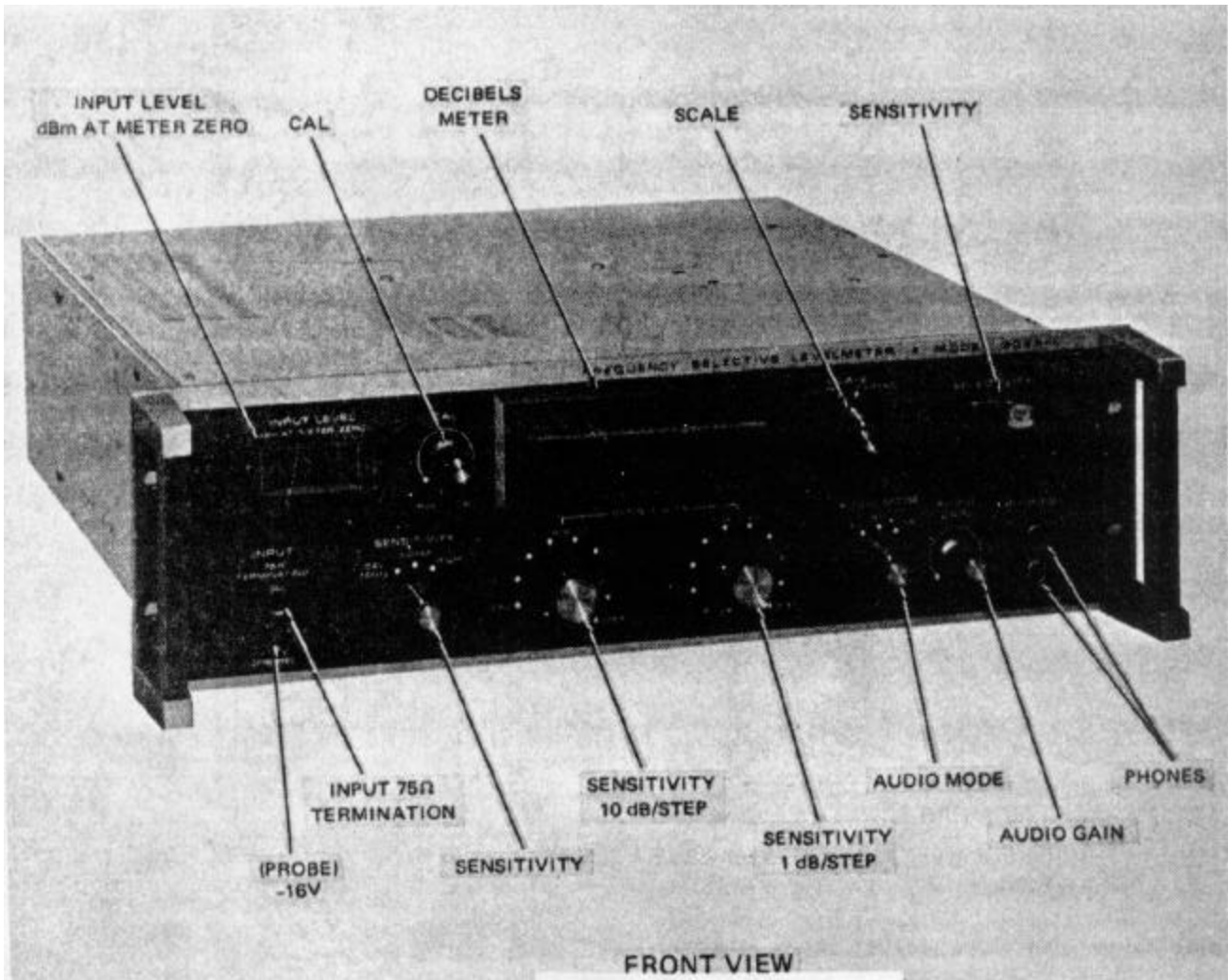
2-25. Preliminary Instructions

- a. Turn the power switch on the tuning unit to OFF.
- b. Disconnect all cables from the rear of the monitor unit.
- c. Remove the front panel screws that hold the monitor unit in the cabinet.

- d. Remove the monitor unit and place it on a bench, adjacent to the test set cabinet. (See figure 2-62.)
- e. Remove the top cover of the monitor unit.

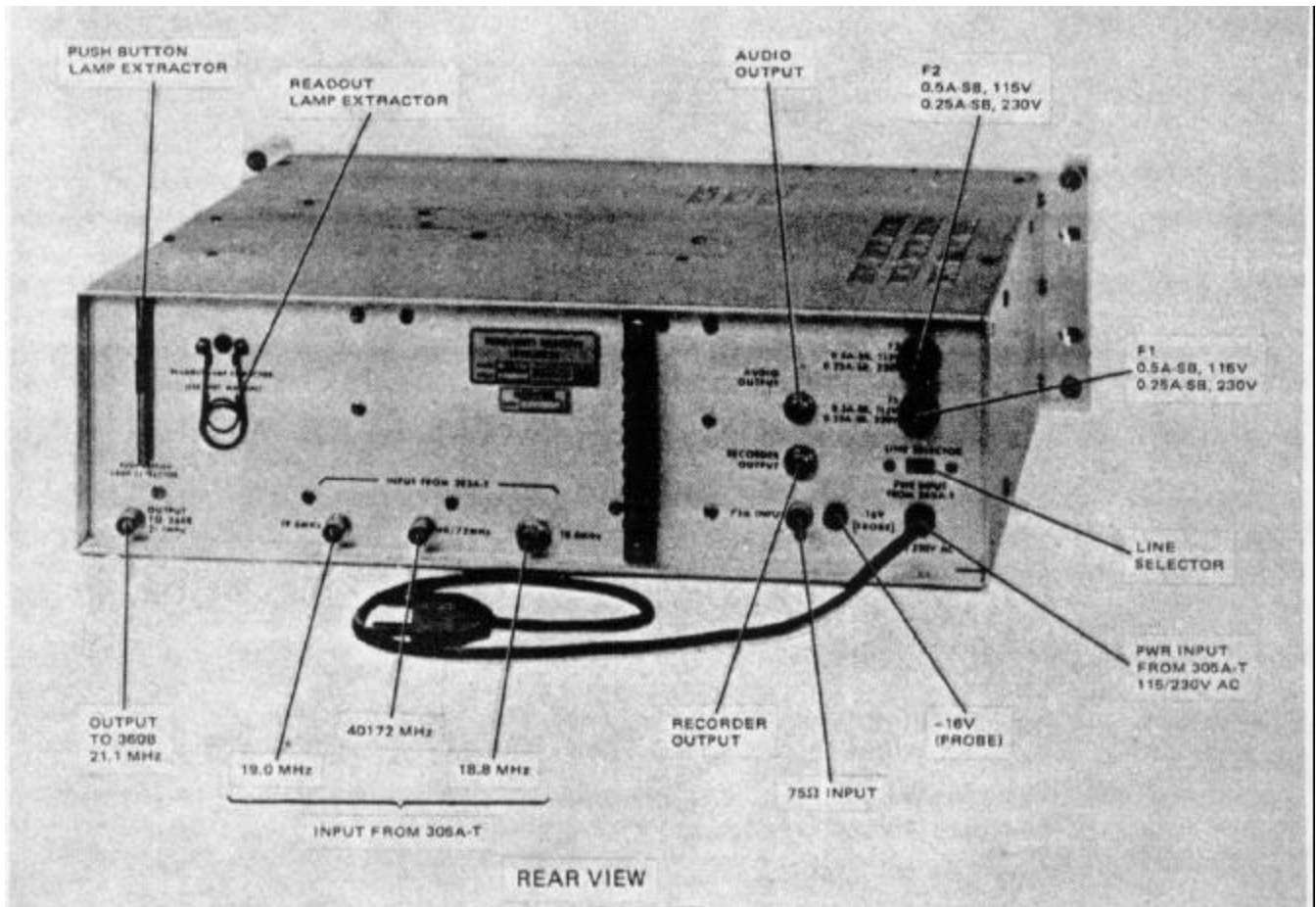
2-26. Dc Short Circuit Tests

- a. When to Check. When either of the following conditions exists, check for possible defects in the dc power supply circuits before applying power.
 - (1) When abnormal symptoms reported from operational tests indicate possible power supply troubles in the monitor unit.
 - (2) When interunit sectionalizing procedures indicate probable troubles in the monitor unit, and the nature of the abnormal symptoms is not known



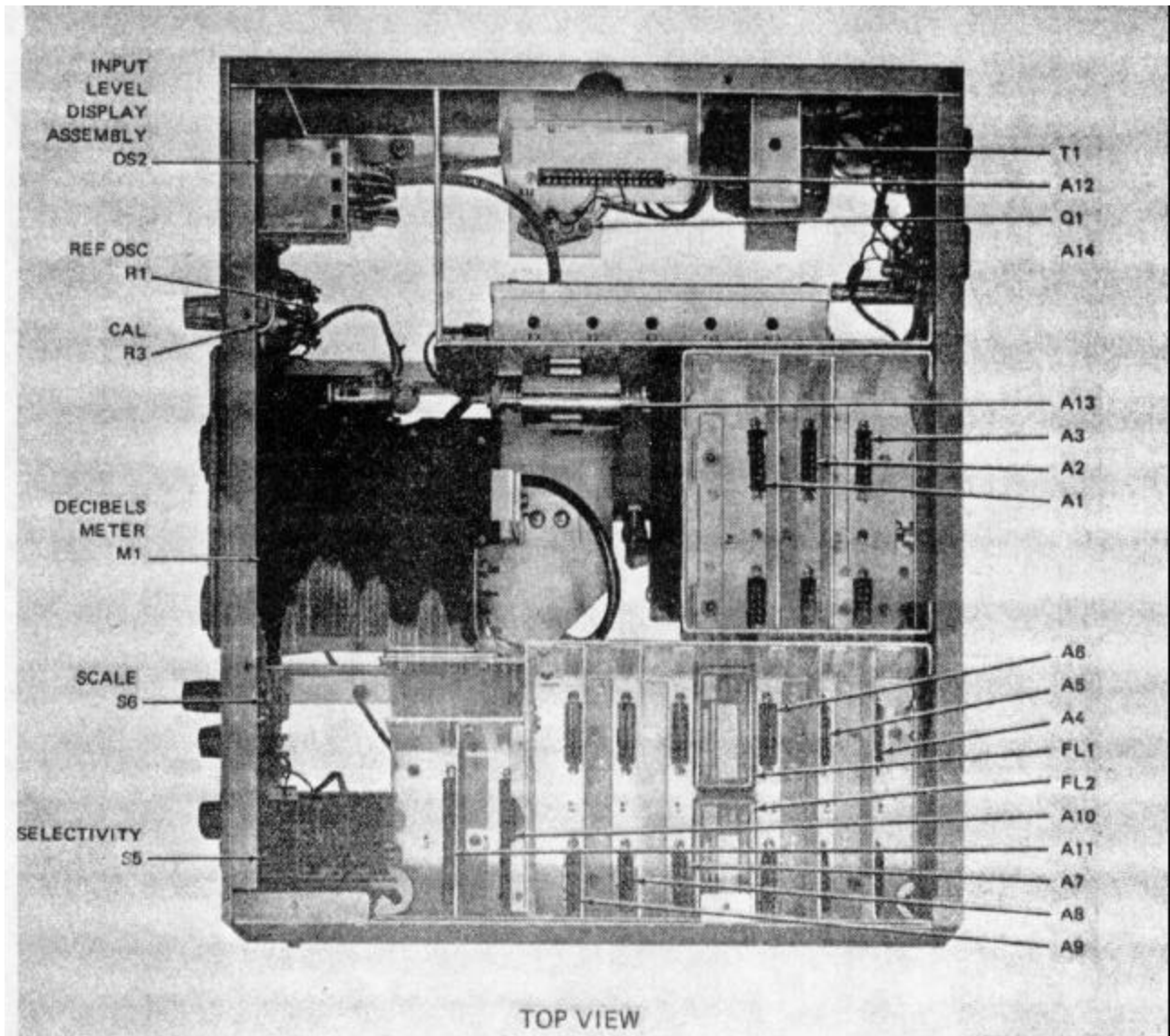
TM 6625-1748-45-150

Figure 2-58. Audio-Radio Frequency Monitor TS-2968/U, front panel view.



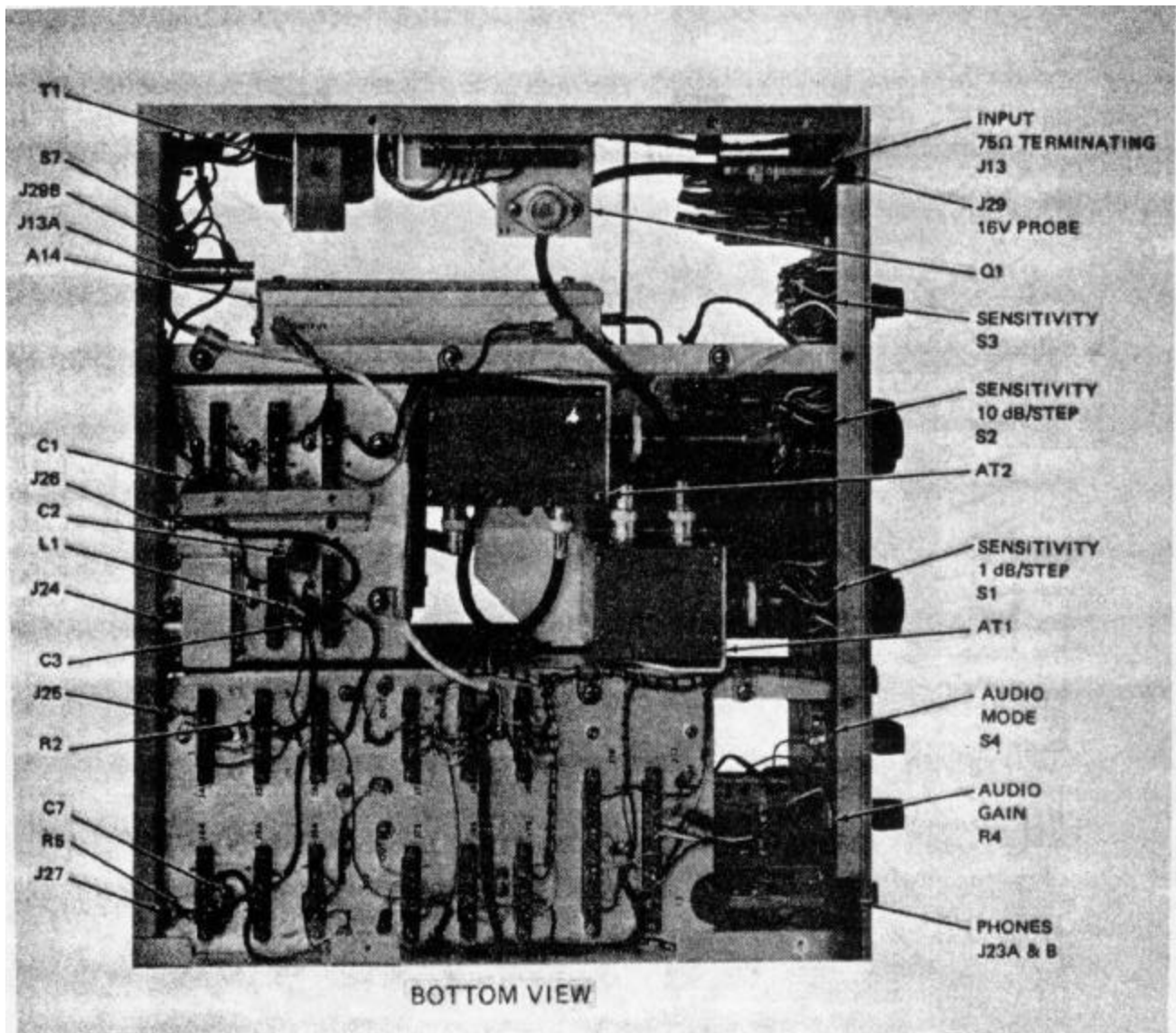
TM 6625-1748-45-294

Figure 2-59. Audio-Radio Frequency Monitor TS-2968/U, rear panel view.



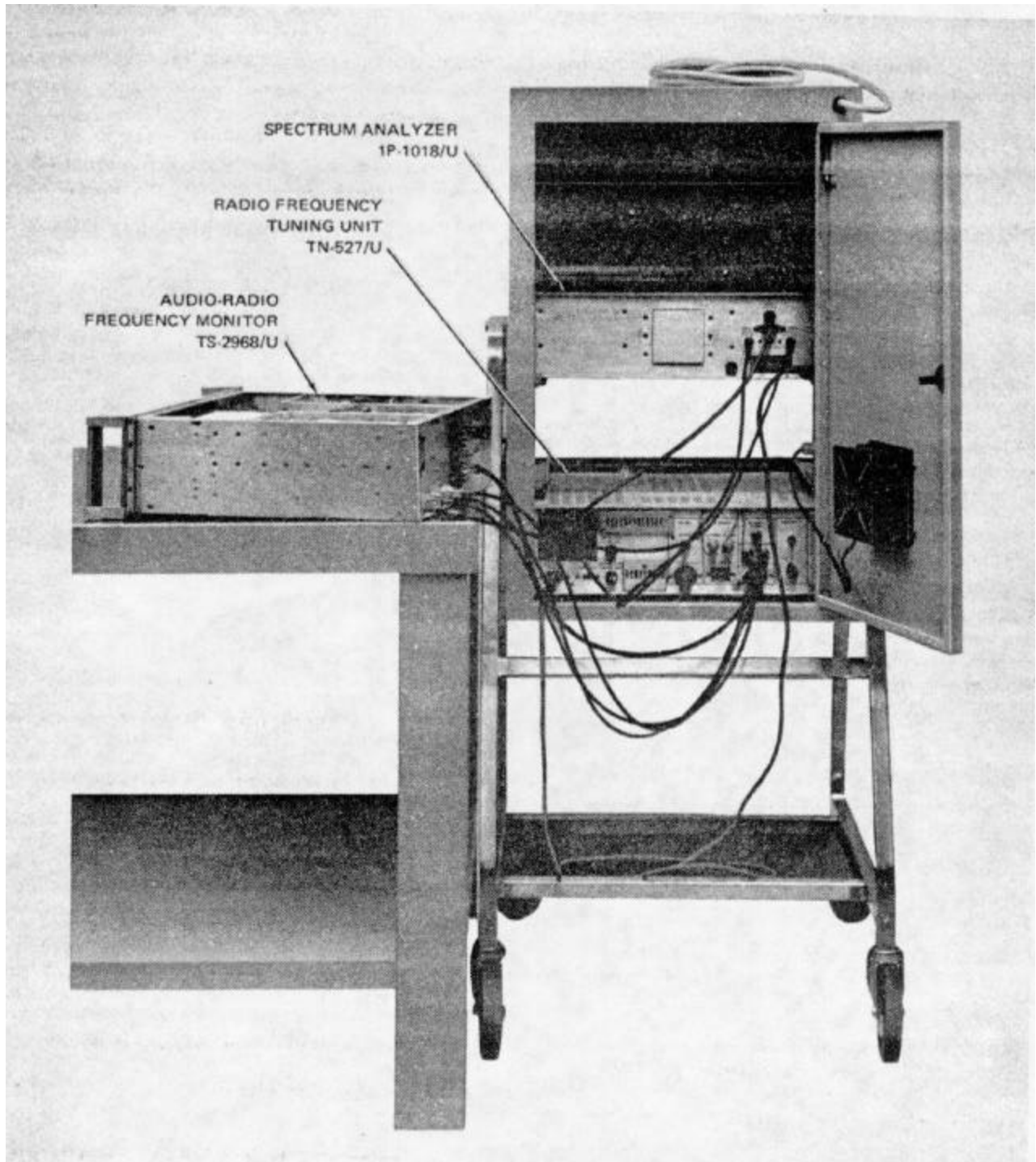
TM 6625-1748-45-295

Figure 2-60. Audio-Radio Frequency Monitor TS-2968/U, top view.



TM 6625-1748-45-153

Figure 2-61. Audio-Radio Frequency Monitor TS-2968/U, bottom view.



TM 6625-1748-45-144

Figure 2-62. Audio-Radio Frequency Monitor TS-2968/U, operational troubleshooting test setup.

b. *Conditions for Tests*, (short-circuit). To prepare for short-circuit tests:

- (1) Make sure that ac power is not connected to the monitor unit.
- (2) Make sure that all plug-in assemblies are in place and firmly seated in the jacks.
- (3) Insert card riser(s) as needed between module(s) and jack(s) to make test points readily accessible.
- (4) Set the monitor unit front panel controls as follows:

(a) SENSITIVITY control to NORM.

(b) AUDIO MODE control to AM.

(c) SELECTIVITY control to 250 Hz.

c. *Measurements*. The short-circuit tests require the use of an ohmmeter on the low-range scale. Ohmmeter lead polarity must be observed to prevent erroneous readings. Make the resistance measurements indicated in the following chart. If abnormal results are obtained, make the additional isolating checks outlined. If a faulty module is found, repair and/or replace the module before applying power to the unit. Short-circuit tests, monitor unit

Short-circuit test, monitor unit

Point of measurement	Normal indication	Isolating procedure
-16JV dc power supply, board A12. Connect ohmmeter to board A12 as follows: Pos. lead to TP-1 Neg. lead to TP-3	9k to 13k ohms	Remove, repair and/or replace Board A12
Pos. ohmmeter lead to A12, TP-2 Neg. lead to A12, TP-3	630 to 690 ohms	Remove Board A12. Proceed with the following test.
Pos. ohmmeter lead to term 10 of term strip on A12 Neg. lead to term 8 of term strip on A12	630 to 690 ohms	Repair and/or replace Board A12
Do not reinstall board A12. Connect ohmmeter as follows and leave it connected for the following tests: Pos. lead to term 10 of jack J12 on the chassis, or chassis ground. Neg. lead to term 8 of J12	630 to 690 ohms	Do not attempt to isolate a low resistance or short-circuit to a particular board until the following tests made at different control settings have been performed.
SENSITIVITY control to CAL	630 to 690 ohms	(If this test changes the reading from normal to a low value, remove board A11 and recheck.)
SENSITIVITY control to	HIGH 630 to 690 ohms	(If this test changes the reading from normal to a low value, first remove board A11 and recheck. Then remove board A4 and recheck.)
SELECTIVITY control to 3.1 kHz	470 to 510 ohms	(If this test changes a below-normal reading to a normal reading, or changes a normal reading to a value less than normal, remove boards A6 and A7 and recheck at both SENSITIVITY control settings.)
AUDIO MODE control to USG and then to LSB	470 to 510 ohms	(If this test changes a below-normal reading to a normal reading, remove Board A11 and recheck. If this test changes a normal reading to a below-normal reading, remove board A10 and recheck.)
If the readings obtained in the foregoing tests are all within the normal Indication range, omit the following tests, and proceed with d below immediately following this chart.		
If below-normal readings were obtained in all of the foregoing tests, proceed as follows:		
Leave the ohmmeter connected as above. Remove boards A1, A2, A3, A4, and A5	470 ohms, or higher 530 ohms, or higher	If reading increased from below normal in the preceding test, to normal or above in this test, a short or partial-short exists in one or more of boards A1, A2, A3, A4, and A5. The defective board(s) may be found as follows: Reinsert each board into its jack, one at a time, and note if the ohmmeter reading falls below normal. When a board is found that causes the reading to drop below normal, remove it and set it aside for further troubleshooting and repair. Test the remaining boards in the group also.

Point of measurement	Short-circuit tests. monitor unit	Isolating procedure
16V dc power supply. board A12 -continued.	Normal indication	
Replace boards A1, A2, A3, A4. and A5 (if not defective) and remove boards A6, A7, A8, A9) and A10	970 ohms. or higher	If the reading increases from below normal to normal or higher. repeat the procedure outlined above to isolate tile board(s) having short-circuits or partial shorts
Replace hoards A6, A7, A8, A9) and A10 (if not defective) and remove Board A11.	470 ohms. or higher	Repeat tests outlined above to isolate defective board

Replace all boards before proceeding with further tests.

2-27. Checking DC Power Supply Voltages

a. *When to Check.* When either of the conditions listed in paragraph 2-26 a exist, but the short-circuit tests did not show any short-circuit conditions existing within the unit.

CAUTION

In cases of suspected power supply troubles, do not perform the following tests until the possibility of short-circuits has been eliminated by the tests outlined in paragraph 2-26.

b. *Conditions for Tests.* To prepare for dc voltage measurements:

(1) Make sure all plug-in boards have been replaced in the monitor unit chassis, and are firmly seated in the jacks.

(2) Use card risers as required to make test points readily accessible.

(3) When removing or replacing circuit boards for additional tests or for the installation of risers, make sure the ac input power is disconnected.

(4) Connect power cable to a source of ac input power.

c. *Measurements.* In making the dc voltage tests, always verify that the voltmeter is set and the leads properly connected for the polarity of the voltage to be measured. Voltages of the wrong polarity for the meter configuration can damage the meter movement. Make the voltage measurements indicated in the following chart. If abnormal results are obtained, make the additional isolating checks outlined. When a normal indication is obtained, omit the procedures in the "Isolating procedure" column of the chart, and proceed with the next test. If a faulty module is found, repair and/or replace the module before proceeding further.

NOTE

The common returns for all of the power supply voltages to be measured in the following tests are connected to the chassis of the monitor unit. Except where otherwise specified, the voltmeter common lead may be clipped to a convenient point of chassis ground and left connected throughout the tests.

Point of measurement	Dc voltage tests. monitor unit	Isolating procedure
16V de power supply. board A12	Normal indication	
Connect dc voltmeter common to TP-3 of Board A12.	+27 to +30 volts dc	Turn power off. Remove board A12. Turn power on. Proceed with next test.
Pos. lead to A12 TP-1		
Connect ac voltmeter to: Term 3 of jack J 12. and term 5 of jack J12, (on the chassis	23 to 25 volts ac	Defective ac power supply in chassis. Turn unit off. Disconnect and remove level meter unit from cabinet. Refer to section VII and figure 6-17.
Board A12 bench test	If the ac voltage reading in the preceding test is within the specified limits, troubleshoot board A12 in accordance with section VII.
Reinstall board A12. dc voltmeter common to A12 TP-2, or chassis ground.	-15.7 to -16.3 volts dc	Leave the voltmeter connected. In the following steps, turn POWER switch to OFF before removing each board, then turn to ON to observe meter reading.
Neg. lead to A 12, TP-3.		Turn SENSITIVITY switch to CAL. If this causes the dc voltage to drop below -15.7 volts, remove, repair and/or replace board A1.
		Turn SENSITIVITY switch to HIGH. If this causes the dc voltage to drop below -15.7 volts, remove board A11 and recheck. If the voltage is still low with board A11 removed, remove, repair and/ or replace Board A4.

Point of measurement	Dc voltage tests. monitor unit Normal indication	Isolating procedure
-16V dc power supply. board A12-continued		<p>Operate SELECTIVITY switch back and forth between 250. H7 and 3.1 kHz. If either switch position causes the voltage to drop below -15.7 volts dc, remove board A6 and recheck. If this corrects the problem, repair and/or replace Board A6.</p> <p>If removal of board A6 did not correct the problem, remove Board A7. and recheck. If this corrects the problem. repair and/or replace board A7. Turn the AUDIO MODE control through its positions. If the dc voltage is below - 15.7 volts, in the AM position only, remove. repair and/or replace board A11.</p> <p>If the dc voltage is below --15.7 volts, in either the USB or LSB positions. but not in the AM position, remove and/or replace board A10.</p> <p>In the following steps. turn POWER switch to OFF before removing each board. then turn to ON to observe meter reading.</p> <p>(1) Remove the following boards in sequence, and do not replace them until the instructions say to do so. Remove: A2, A3, A4, A5, A6, A7, A8, A9, A10. A11, A13, A14, and A15.</p> <p>(2) As each successive board is removed from the chassis. turn the power switch back on and note the dc voltage reading. If. after the removal of a board. it is noted that the dc voltage has suddenly increased to a value of --15.7 volts dc, or higher. the board that was unplugged immediately preceding this step is probably defective. Troubleshoot the board in accordance with the appropriate instructions in section VII.</p> <p>After all boards, including board number A1, but excepting board A12 have been removed, if the dc voltage is less than -15.7 volts dc. remove, repair and/or replace board A12.</p>
Dc voltmeter common to A12, TP-2. or chassis ground. Neg. lead to A12, TP-3.	-15.7 to -16.3 volts dc	

Replace all boards before proceeding with further tests

2-28. Locating Defective Circuit Modules

This procedure involves reconnecting the monitor unit to the tuning unit and the spectrum analyzer in the normal AN/USM-306(V)1 Test Set interconnection configuration (fig. 4-2). Paragraph 2-3d(2) lists the replacement modules that must be on hand to perform the substitution tests that follow.

a. *When to Check.* The circuit board substitution procedures outlined below are to be followed when the following conditions exist:

(1) Whenever operational tests and/or the interunit sectionalizing procedures indicate probable troubles in the monitor unit, and,

(2) The short-circuit and dc voltage tests and corrective measures outlined in paragraphs 2-26 and 2-27 failed to isolate and/or correct the troubles.

b. *Conditions for Tests.*

(1) Leave the top cover plate off of the monitor unit.

(2) Place the monitor unit on a table or stand about 30 inches high, immediately to the right of the cabinet, containing the tuning unit and spectrum analyzer. (This placement is necessary to permit interconnection of the units with the cables provided.) See figure 2-62.

(3) Make sure all plug-in circuit modules are firmly seated in the proper chassis jacks.

(4) Interconnect the units as in the normal test set configuration (fig. 4-2).

(5) Connect Signal Generator AN/GRM-50 to the input probe of the monitor unit. Tune the signal generator to a test frequency in the range where trouble is known to occur. If unknown, use 1.00 MHz as a test frequency.

c. *Initial Settings.* Set the test set controls as follows:

(1) Set Probe Subassembly MX-8642/U switches to 50 Ω and TERM.

(2) Tune the tuning unit to the test frequency.

(3) Make whatever settings are required to cause the malfunction to occur.

d. Substitution Procedures.

NOTE

Make sure that the monitor unit power cable is plugged into the proper receptacle on the rear panel of the tuning unit, so that primary ac power to the monitor unit will be controlled by the on-off switch on the tuning unit.

(1) Turn the tuning unit POWER switch to OFF when removing and replacing the plug-in circuit modules.

(2) Make sure the replaced circuit modules are firmly seated in the chassis jacks.

(3) Even if the installation of a replacement module does not completely clear the trouble, leave the replacement module in the chassis until all symptoms have been eliminated.

(4) If normal operation can be obtained by these procedures, those substituted modules which seemed to have no appreciable effect may be placed by the original modules, one by one. After each such replacement, verify that the monitor unit continues to function normally.

NOTE

It is quite possible for defective operation to be caused by simultaneous defects in two or more

modules. Defects in one module can often cause damage to other modules.

(5) If the trouble(s) cannot be eliminated by substituting circuit modules, bench test setup and troubleshooting procedures will be required. Refer to section VII.

(6) Module locations are shown in figure 2-60.

(7) Some common malfunctions are listed in the following table, along with the circuit modules most likely to be at fault.

<i>Symptom</i>	<i>Probable cause</i>
Meter does not respond either to external or calibrate signals.	Modules A1, A2, A3, A4, A5, A7, A8, A9, A14, A15.
Meter responds to external signals but not to calibrate reference oscillator	Module A1.
No output to spectrum analyzer.	Module A4.
No audio output with AUDIO MODE switch in any position.	Module A11.
Audio output with AUDIO MODE switch in AM position. no output in USB or LSB positions.	Module A10.
DECIBELS meter responds properly for either 250 Hz or 3.1 kHz SELECTIVITY. but not both.	Modules A6. or A7. Narrow or Wide band filters FL1 or FL2 (on chassis).

Section VI. AUDIO-RADIO FREQUENCY MONITOR TS-2968/U, BENCH TROUBLESHOOTING

WARNING

Hazardous voltages of 115 or 230 volts ac exist within the monitor unit when it is connected to a source of ac power. Take extreme care not to come in contact with the primary ac power wiring between the ac input connector, the primary fuse and the power transformer primary when making tests with the monitor unit connected to a primary ac power source.

NOTE

When the monitor unit is connected to a tuning unit, ac power to the monitor unit is controlled by the POWER ON-OFF switch on the tuning unit.

2-29. General

Bench testing and troubleshooting procedures are to be followed:

a. When the procedures outlined in section IV of this chapter have failed to localize the trouble.

b. To isolate defective components either on the no boards or mounted on the chassis.

2-30. References

a. Refer to TM 11-6625-1748-12 for operational checkout procedures for Radio Test Set AN/USM-306(V)1.

b. A basic troubleshooting chart is contained in TM 11-6625-1748-12.

c. Refer to paragraphs 2-1 through 2-7 before proceeding with the tests contained in this section.

d. Overall schematic diagrams of the monitor unit are provided by figure 6-16 (1), (2) and (3) at the back of this manual.

e. Signal substitution /stage gain tests are contained in paragraph 2-32.

f. Pc board (module) photos with callouts for all components and test points, and accompanying schematic diagrams are provided in paragraph 2-33. These illustrations are arranged in numerical sequence, beginning with pc board A1.

g. Dc voltage charts are contained in paragraph 2-34.

h. Analysis of abnormal transistor voltage readings is discussed in paragraph 2-18 a, b, and c.

i. Rf signal level, frequency and waveform information is provided in paragraph 2-35.

j. A chart listing transformer and coil dc resistances is contained in paragraph 2-36.

k. Refer to figures 2-58 through 2-61 for component, control and module locations.

l. When replacing transistors, refer to figure 5-1.

m. Additional references are listed in the appendix A.

2-31. Test Equipment Requirements.

The test equipment ancillary items required to bench test and troubleshoot this equipment are listed in paragraph 2-3. The following additional items are required to perform the signal substitution/stage gain tests (para 2-32):

a. One each cable, coaxial. 50-ohm, approximately 36 inches long, with a male BNC connector on one end, and the inner and outer conductors at the other end connected via 3-inch flexible leads to alligator clips.

b. One each resistor, 56 ohm, 1/2 to 1 watt, composition, with 2-inch flexible leads terminated in alligator clips.

c. One each resistor, 600 ohms, 1/2 to 1 watt, composition, with 2-inch flexible leads terminated in alligator clips.

d. One fully operational Tuning Unit TN-527/U. This can not be the tuning unit from Radio Test Set AN/USM-306(V)1 (test equipment) listed in paragraph 2-3. It can be the tuning unit from the test set being repaired, which will have been tested, (and repaired as needed), in accordance with sections III and VI of this chapter.

2-31.1 Procedures.

CAUTION

Observe the cautions given in paragraph 2-3a (11 through (5), inclusive. Use an ohm-meter to make only those tests which are listed throughout this chapter. Do not use an ohmmeter to make any other tests not to test individual transistors. Defective transistors are isolated by

operational tests and dc voltage measurements.

a. *Bench Testing Setup.* It is recommended that the monitor unit be placed on its right side on the bench. This will make all test points both above and below the chassis readily accessible. Remove all cover plates. Use card risers to make pc module test points accessible. Place the operational Tuning Unit TN-527/U (para 2-31.1 d) on the bench so that it may be connected to the monitor unit under test for operational checks. The tuning unit may also be placed on its side to conserve bench space.

b. *Preliminary Resistance Test.* Before connecting the monitor unit to an ac primary power source, use an ohmmeter to check the -16 Vdc power circuit, as outlined below. If the reading obtained is less than 630 ohms, refer to section IV of this chapter and perform the detailed dc power supply circuit tests.

CAUTION

Do not connect the monitor unit to an ac power source unless the reading obtained in the following test is 630 ohms or greater.

(1) Set the front panel controls on the monitor unit under test as follows:

- (a) SENSITIVITY control to NORM.
- (b) AUDIO MODE control to AM.
- (c) SELECTIVITY control to 250 Hz.

(2) Install pc board A12 on a card riser.

(3) Connect the positive lead of the ohmmeter to TP2.

(4) Connect the negative lead of the ohmmeter to TP3.

(5) The minimum resistance reading shall be 630 ohms.

c. *Preliminary Voltage Test.* Upon satisfactory completion of the resistance test outlined in *b* above, connect the monitor unit to a primary ac power source. Measure the dc voltage between TP3 and TP2 (or chassis ground). The voltage shall be -16.0 volts dc. Adjust R7 on board A12 if necessary. If unable to obtain -16.0 volt dc, refer to paragraph 2-27.

d. *Isolation Procedures.* Isolation of defective components is accomplished by first localizing the trouble to a specific module or circuit. Perform isolation tests by following the procedures in the order given in the following paragraphs.

e. *Tests After Repairs.* Upon completion of repairs, perform the necessary operational tests to insure that the unit is working properly. If any tunable coils, or modules containing tunable coils have been replaced, check the alignment of the unit in accordance with the appropriate procedures contained in section II of chapter 3.

2-32. Signal Substitution/Stage Gain Tests**CAUTION**

In making tests that require the injection of signals from external generators, always reduce the external generator output to minimum before connecting the generator to the unit under test. Transistors can easily be destroyed by signal levels that exceed the voltage-breakdown ratings of the transistors, even if the unit under test is not turned on.

For the following tests, connect the monitor unit under test to an operational Tuning Unit TN-527/U. Connect the 18.8 MHz and 19.0 MHz connections in accordance with figure 4-2. Omit the 40/72 MHz cable.

a. Sideband Oscillator A10 and Audio Amplifier A11.

(1) Install board A10 on a card riser. Place AUDIO MODE switch in LSB position.

(2) Connect oscilloscope between TP3 and ground. Check for a signal level of 400 to 600 millivolts peak to peak.

(3) Connect the AN/USM-207 between TP3 and ground. Verify that the frequency reading is between 2.212889 and 2.213111 MHz.

(4) Turn AUDIO MODE switch to USB.

(5) Check for a signal level of 400 to 600 millivolts peak to peak.

(6) Verify that the frequency counter reading is between 2.216889 and 2.217111 MHz. Disconnect the test equipment.

(7) Remove the card riser and replace board A10 in the chassis jack.

(8) Place board A11 on a card riser.

(9) Connect Signal Generator AN/GRM-50 with a 56-ohm termination to TP7 on board A11 and to chassis ground.

(10) Connect the ME-30 (*)/U, with a 600 ohm termination, to the lower PHONES jack.

(11) Set SENSITIVITY control to NORM. Set AUDIO MODE switch to LSG.

(12) Tune signal generator to 2.215 MHz and set output level to -40 dBm.

(13) Turn AUDIO GAIN control fully clockwise and check for a reading of +9.5 to +10.5 dBm on the ME-30/U.

(14) Reduce signal generator output to -60 dBm.

(15) Turn SENSITIVITY switch to HIGH and check for a reading of +9.5 to + 10.5 dBm on the ME-30/U.

(16) Remove card riser and replace board A11 in the chassis jack.

b. Meter Circuit Board A9.

(1) Remove board A9 and check meter for mechanical zero. (Dot at left end of meter scale.)

(2) Install A9 on a card riser.

(3) Connect signal generator with 56-ohm termination between TP1 and chassis ground.

(4) Tune signal generator to 2.215 MHz and set the output level to +8 dBm.

(5) Set SCALE switch to EXPAND.

(6) Readjust signal generator tuning for a maximum reading on the DECIBELS meter.

(7) Check for a reading of -0.5 to +0.5 dB on the DECIBELS meter.

(8) Turn SCALE switch to NORM and check for a reading of -0.5 to +0.5 dB on the DECIBELS meter.

(9) Remove card riser and replace board A9 in the chassis jack.

c. Meter Amplifier A8.

(1) Remove board A8 and reinstall it on a card riser.

(2) Connect signal generator with 56-ohm termination between TP1 and chassis ground.

(3) Tune signal generator to 2.215 MHz. Set signal generator output level to -57.5 dBm.

(4) Set SENSITIVITY switch to HIGH.

(5) Vary the CAL control to obtain a 0 dB reading on the DECIBELS meter.

(6) Verify that the CAL control is near its mid position at the 0 dB reading on the DECIBELS meter.

(7) Turn the SENSITIVITY switch to NORM, and increase the signal generator output by 20 dB to -37 dBm.

(8) Verify that the DECIBELS meter reading is between -0.5 and +0.5 dB.

(9) Disconnect signal generator. Remove card riser and replace board A8 in chassis jack.

d. 3rd Modulator A1, 3rd Mixer A6, NB and WEB Followers A7.

(1) Install board A5 on a card riser.

(2) Connect the output of the signal generator to TP6 and the chassis.

(3) Set monitor SENSITIVITY to NORM, and SELECTIVITY to 3.1 kHz.

(4) Tune signal generator to 21.05 MHz.

(5) Adjust FINE tuning for a maximum reading on the DECIBELS meter.

(6) Adjust the signal generator output level for a 0 dB reading on the DECIBELS meter.

(7) Switch SELECTIVITY to 250 Hz and readjust FINE tuning for a maximum reading on the DECIBELS meter.

(8) Verify that the reading on the DECIBELS meter is between -0.5 and +0.5 dB.

(9) Rotate FINE tuning control counter clockwise until the reading on the DECIBELS meter falls to -10 dB.

(10) Slowly rotate the FINE tuning control clockwise while observing the DECIBELS meter.

(11) Verify that the meter reading peaks only once before the reading again drops to -10 dB.

(12) Remove card riser and replace A5 in chassis jack.

e. 2nd Modulator A4 and 2nd Mixer A5.

(1) Install board A2 on a card riser.

(2) Connect the signal generator to TP4 of board A2, and to chassis.

(3) Set signal generator output level to -70 dBm.

(4) Tune signal generator 40.05 MHz.

(5) Vary FINE tuning control on tuning unit for a peak reading on the DECIBELS meter.

(6) Readjust signal generator output to obtain a reading of 0 dB on the DECIBELS meter.

(7) Verify that the signal generator output is between -71 and -67 dBm for a 0 dB reading on the DECIBELS meter.

(8) Leave A2 mounted on card riser and proceed with the following test.

f. 1st Modulator A2 and L. O. Amplifier A3.

(1) Reduce signal generator output level to -83 dBm.

(2) Connect signal generator to TP1 on A2 and to chassis ground.

(3) With the signal generator tuned to 40.05 MHz, vary FINE tuning on tuning unit for a maximum reading on the DECIBELS meter.

(4) Readjust signal generator output level for a 0 dB reading on the DECIBELS meter.

(5) Verify that the signal generator output level is between -85 and -81 dBm for a 0 dB reading on the DECIBELS meter. Note and record signal generator output level reading.

(6) Connect the probe of the Radio Test Set AN/USM-306(V)1, (test equipment) to the TO 360B 21.1 MHz jack, J27, on the rear panel of the monitor unit under test. Set the probe switches for 50 Ω and TERM.

(7) Tune the AN/USM-306(V)1 (test equipment) to 40.05 MHz. Set the SENSITIVITY attenuators for an on-scale reading on the DECIBELS meter. Vary the FINE tuning for a peak reading on the DECIBELS METER. Note and record this reading.

(8) Retune the signal generator to 40.110 MHz. Readjust the signal generator output level if necessary to obtain the same reading on the signal generator output meter as noted in (5), above.

(9) Retune the AN/USM-306(V)1 (test equipment) to 40.110 MHz. Vary the FINE tuning control to obtain a maximum reading on the DECIBELS meter.

(10) Verify that the reading on the DECIBELS meter of the AN/USM-306(V)1 (test equipment) is within plus or minus 1.0 dB of the reading noted and recorded in step (7), above.

(11) Retune the signal generator to 39.990 MHz. Readjust the signal generator output level, if necessary, to obtain the same level as noted and recorded in step (5) above.

(12) Retune the AN/USM-306(V)1 (test equipment) to 39.990 MHz. Vary the FINE tuning control to obtain a maximum reading on the DECIBELS meter.

(13) Verify that the reading on the DECIBELS meter of the AN/USM-306(V)1 (test equipment) is within plus or minus 1.0 dB of the reading noted and recorded in step (7) above.

(14) Disconnect signal generator, remove card riser and replace board A2 in the chassis jack.

g. Low-Pass Filter A14.

(1) Connect Probe Subassembly MX-8642/U to the INPUT 75 n TERMINATING and -16 V jacks on the monitor unit.

(2) Install Probe Adapter MX-8640/U on probe subassembly. Set probe switches to 50 Ω and TERM.

(3) Connect probe to the output of the AN/GRM-50 signal generator.

(4) Tune the signal generator to 40.05 MHz and set the output level to 0 dB.

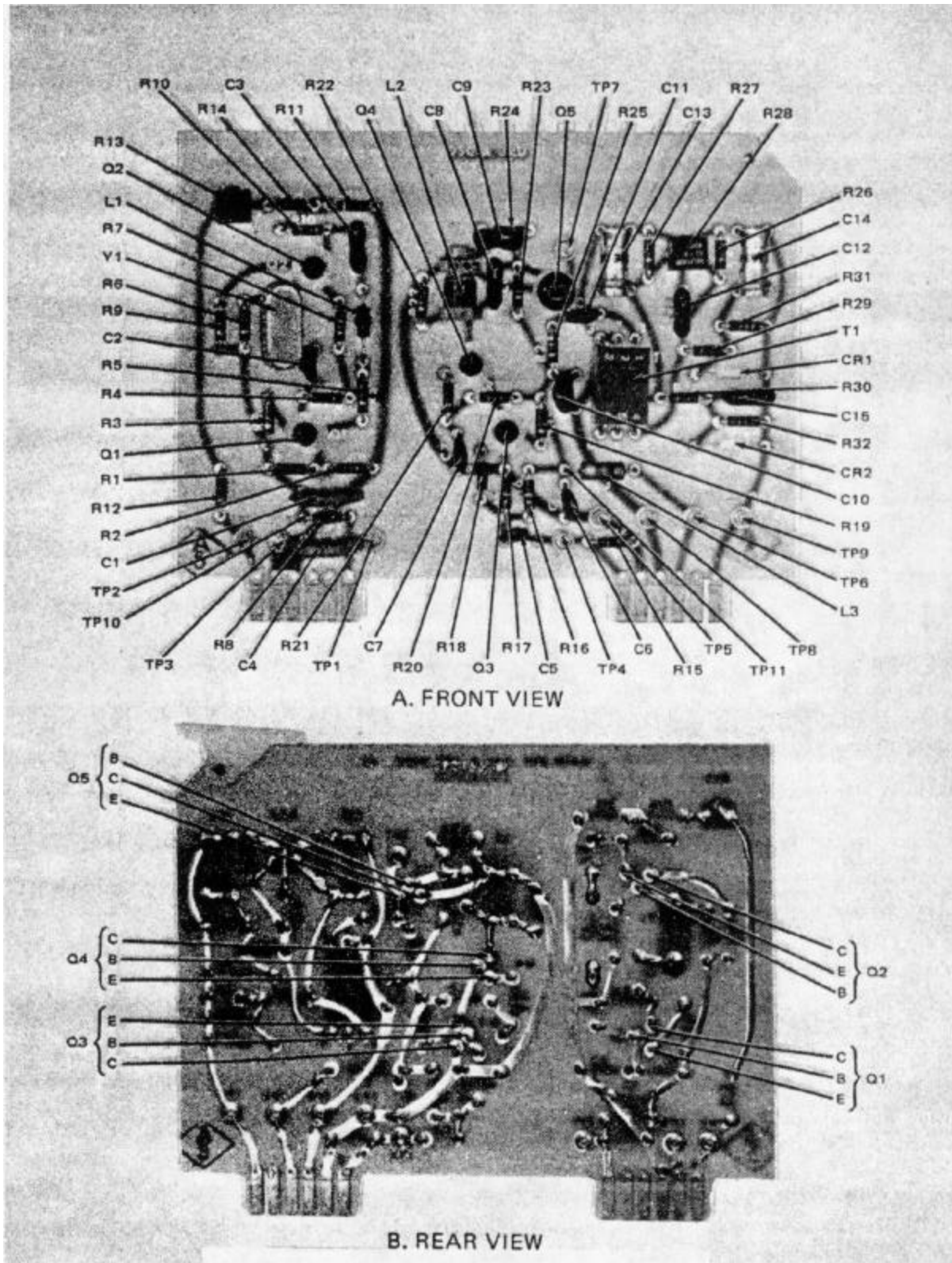
(5) Switch monitor SENSITIVITY to HIGH and set SELECTIVITY to 3.1 kHz.

(6) Turn SENSITIVITY 10 dB/STEP attenuator to obtain an INPUT LEVEL display reading of -80 dBm.

(7) Verify that the reading on the monitor DECIBELS meter does not exceed 0 dB.

2-33. PC Module Illustrations and Schematics

Figures 2-63 through 2-92 are illustrations and schematic diagrams of all pc boards (modules) contained in the monitor unit. All components are called out on the pc board photographs, as well as the test points. The best points are also shown on the accompanying schematic diagrams. The pc board illustrations are intended for use in conjunction with the signal substitution/stage gain tests (para 2-32), the dc voltage measurements (para 2-34), rf measurements charts and waveforms (para 2-35), and the transformer and coil resistance charts (para 2-36).



TM 6625-1748-45-43

Figure 2-63. Gain reference oscillator and third modulator A1, Audio-Radio Frequency Monitor TS-2968/U.

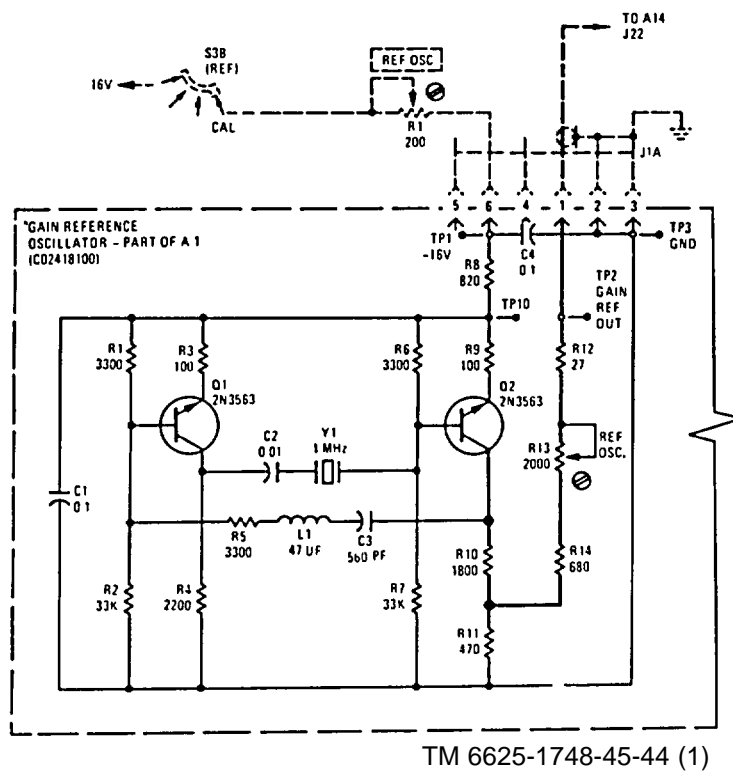
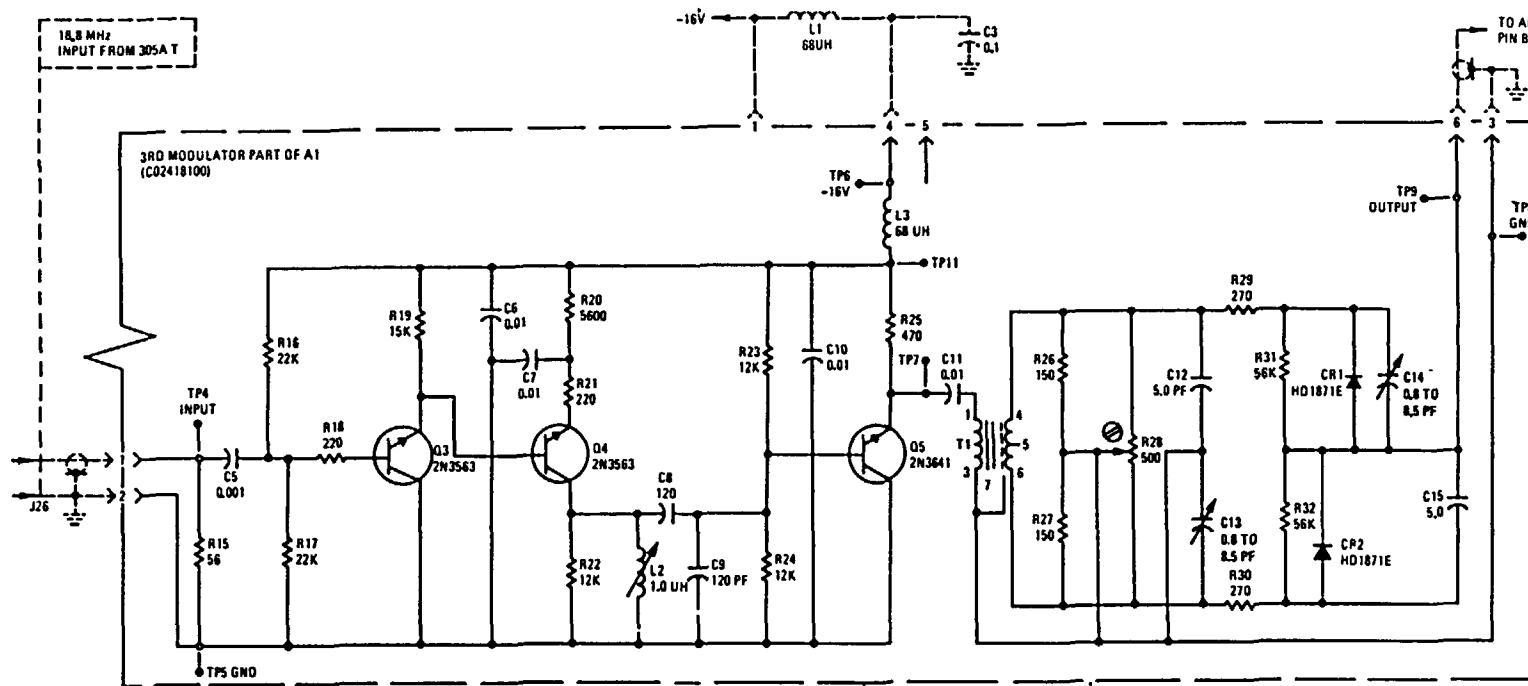
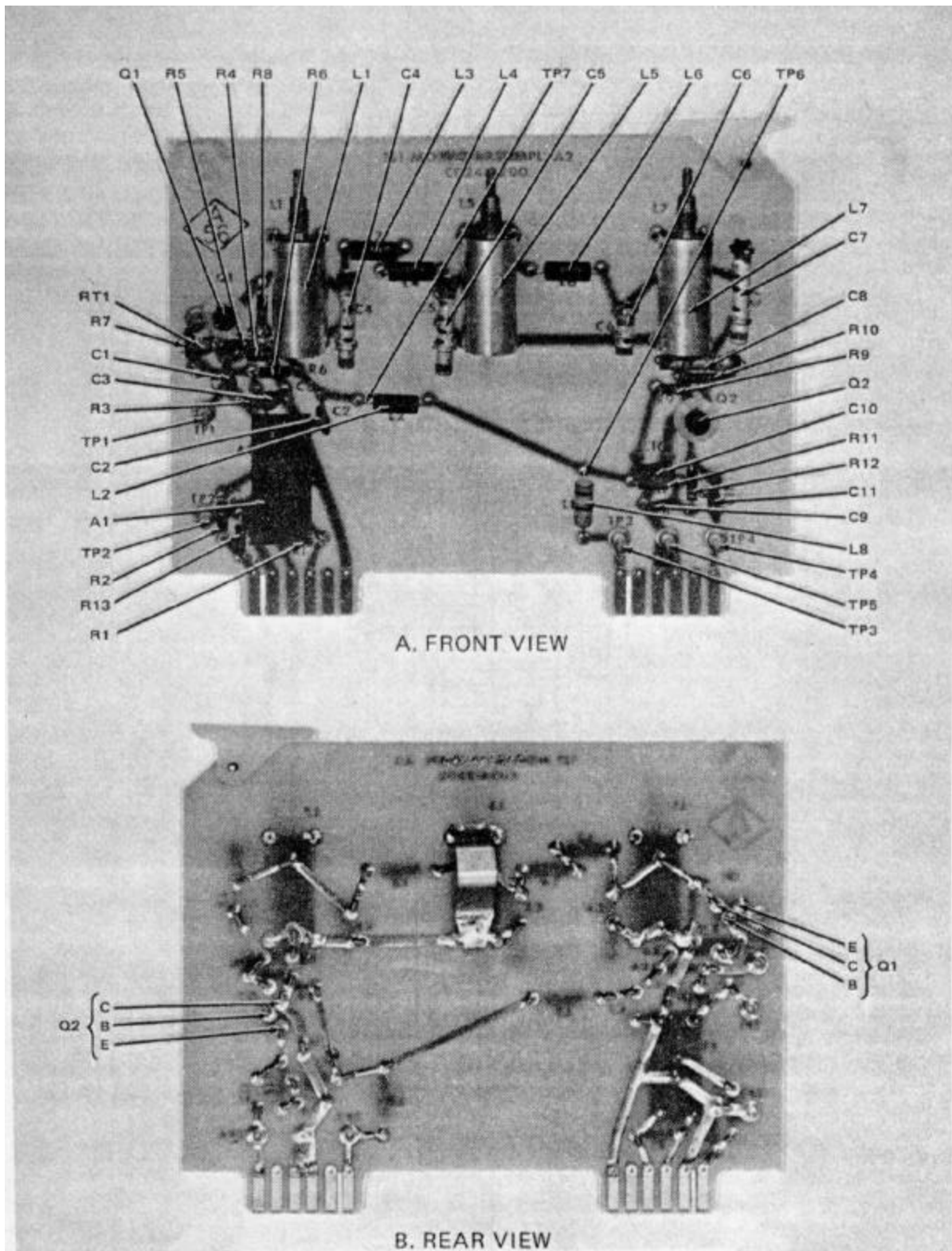


Figure 2-64 (1) . Gain reference oscillator and third modulator A1, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U (sheet 1 of 2).



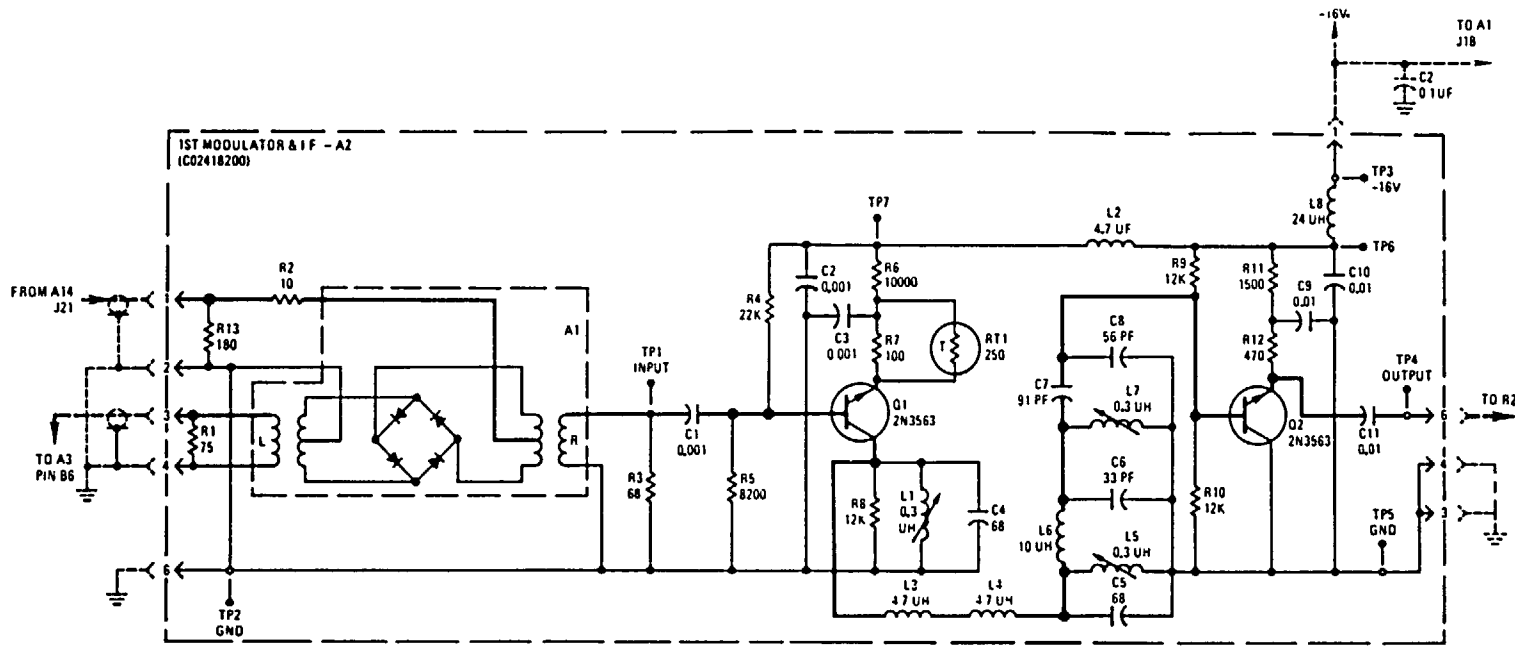
TM 6625-1748-45-44 (2)

Figure 2-64 (2) . Gain reference oscillator and third modulator A1, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U (sheet 2 of 2).



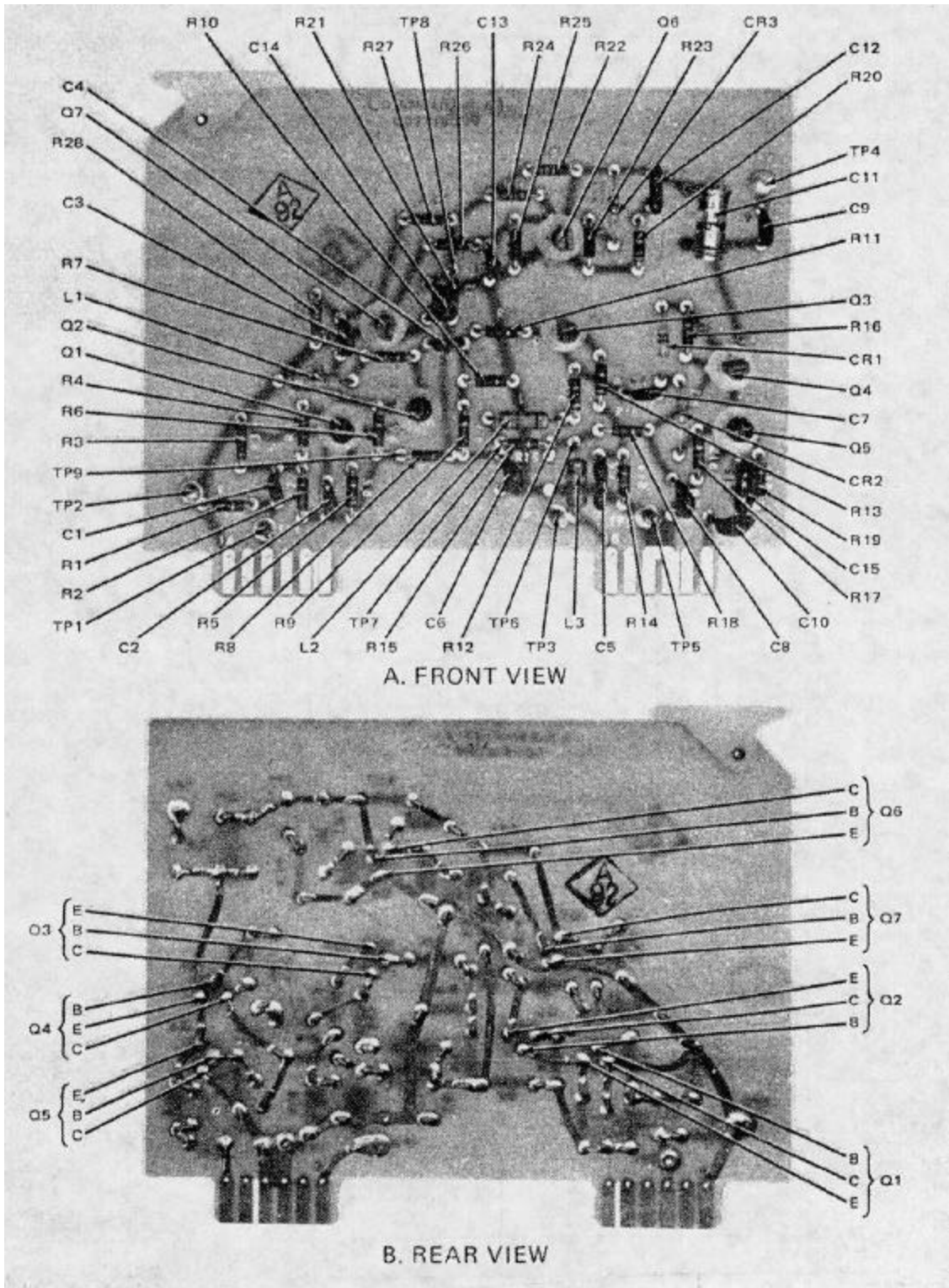
TM 6625-1748-45-45

Figure 2-65. First modulator and IF A2. Audio-Radio Frequency Monitor TS-2968/U



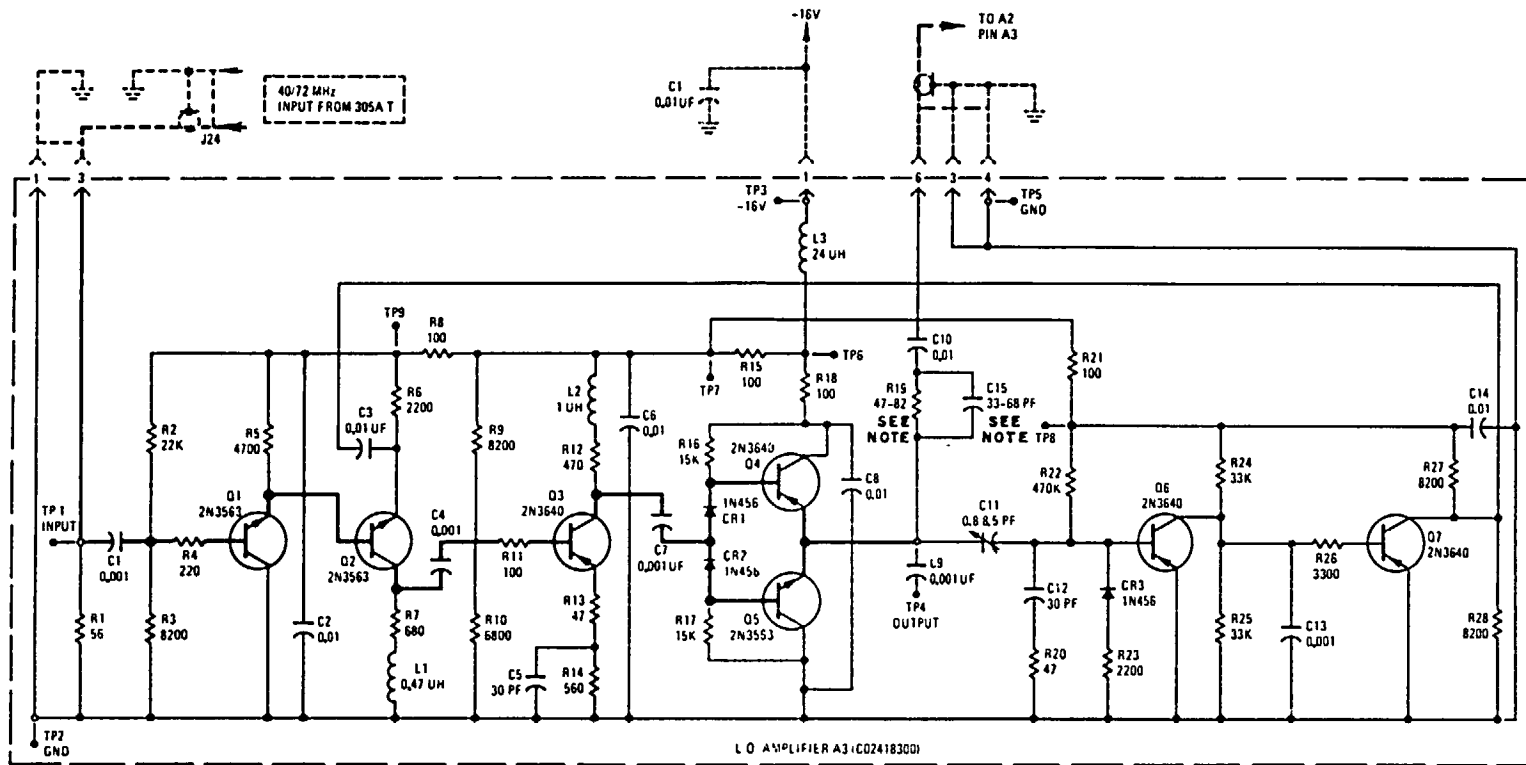
TM 6625-1748-45-46

Figure 2-66. First modulator and IF A2, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U.



TM 6625-1748-45-47

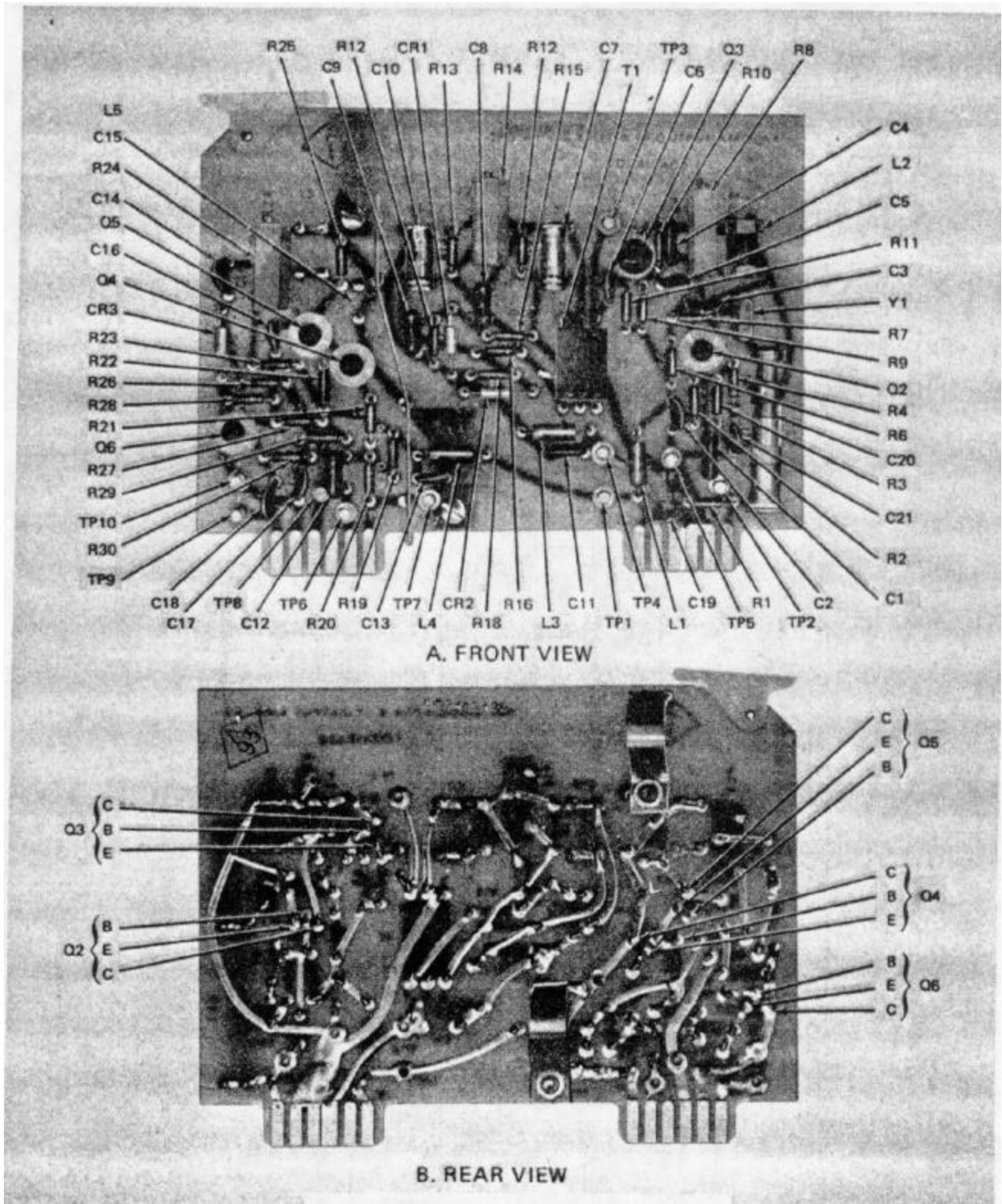
Figure 2-67. Local oscillator amp, A3. Audio-Radio Frequency Monitor TS-2968/U.



TM 6625-1748-45-48

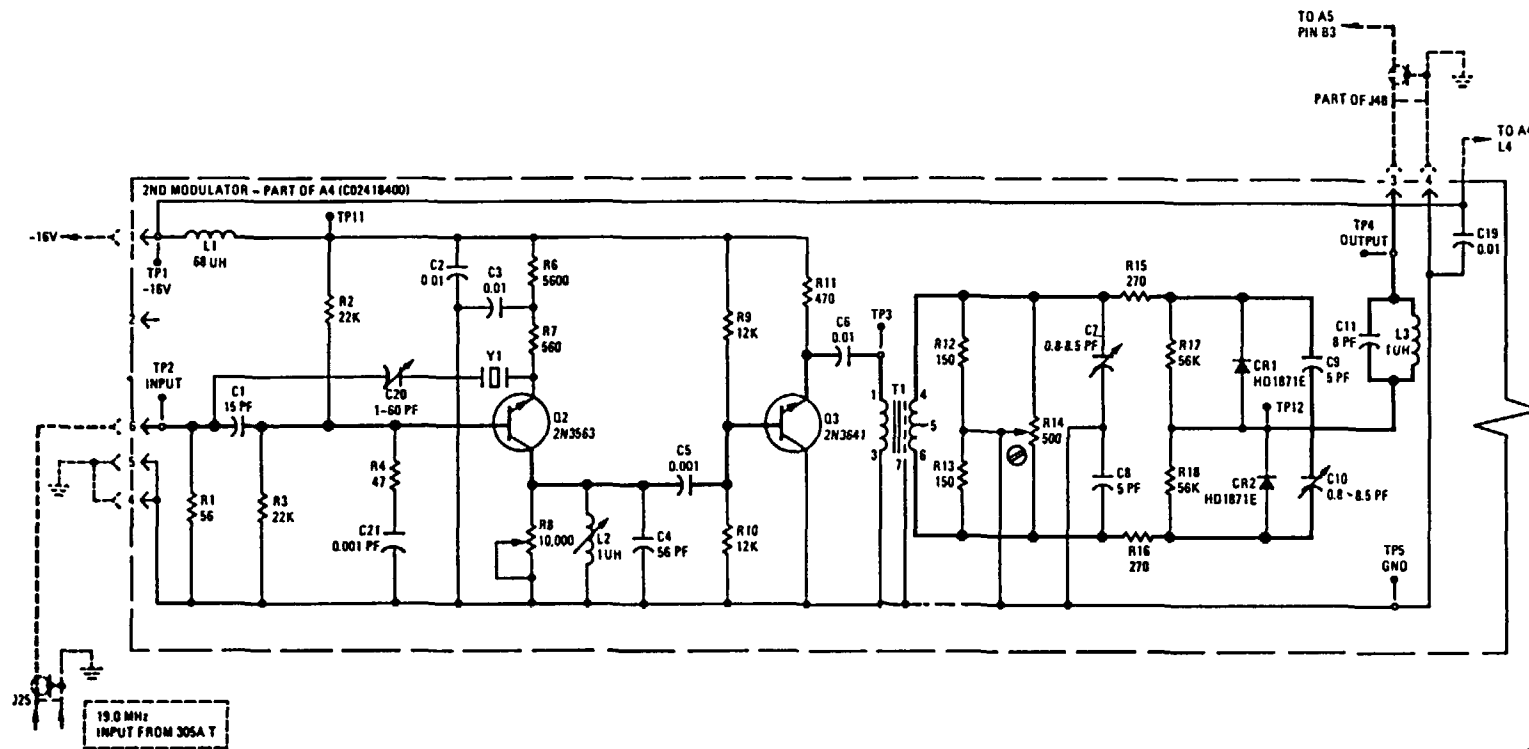
NOTE
VALUES FACTORY SELECTED

Figure 2-68. Local oscillator amp, A3, schematic diagram. Audio-Radio. Frequency Monitor TS-2968/U.



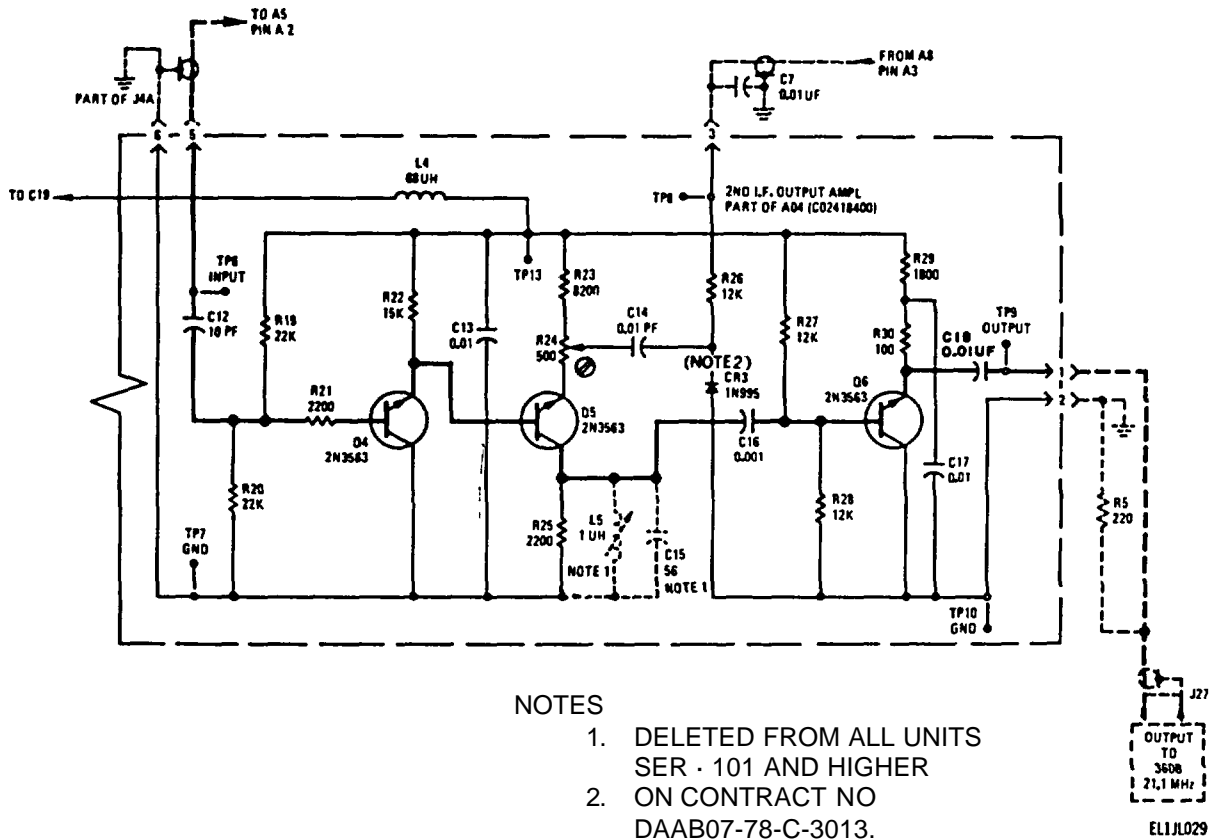
TM 6625-1748-45-49

Figure 2-69. Second modulator and IF amp, A4. Audio-Radio Frequency Monitor TS-2968/U.



TM 6625-1748-45-50 (1)

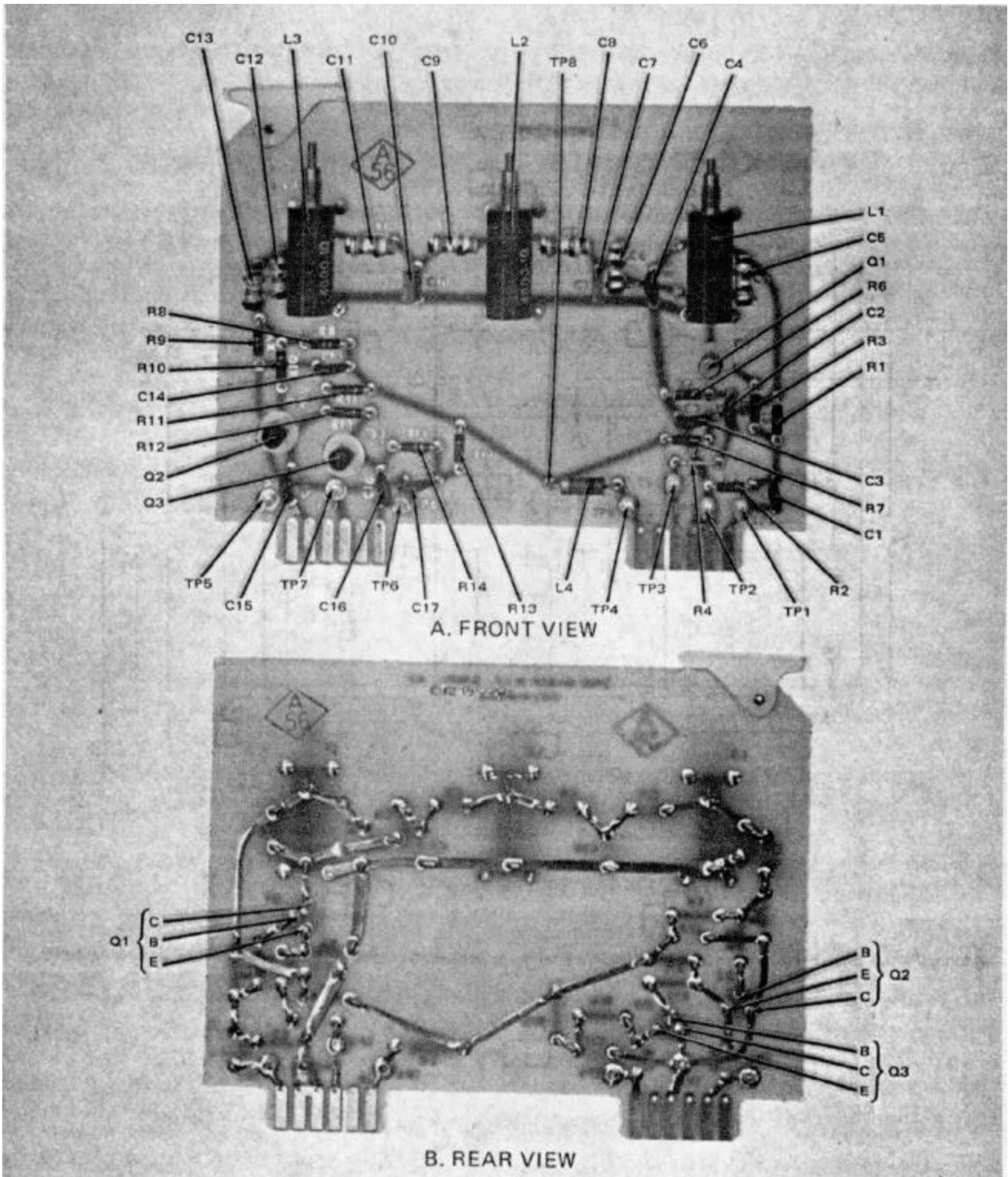
Figure 2-70 (1). Second modulator and IF output amp. A4. schematic diagram. Audio-Radio Frequency Monitor TS-2968/U (sheet 1 of 2).



NOTES

1. DELETED FROM ALL UNITS SER - 101 AND HIGHER
2. ON CONTRACT NO DAAB07-78-C-3013. CHANGE IDENTIFICATION OF CR3 TO N DIS17E

Figure 2-70 (2). Second modulator and IF output amplifier A4, schematic diagram Audio-Radio Frequency Monitor TS-29681U (sheet 2 of 2).



TM 6625-1748-45-51

Figure 2-71. Second mixer and IF AS., Audio-Radio Frequency Monitor TS-2968/U.

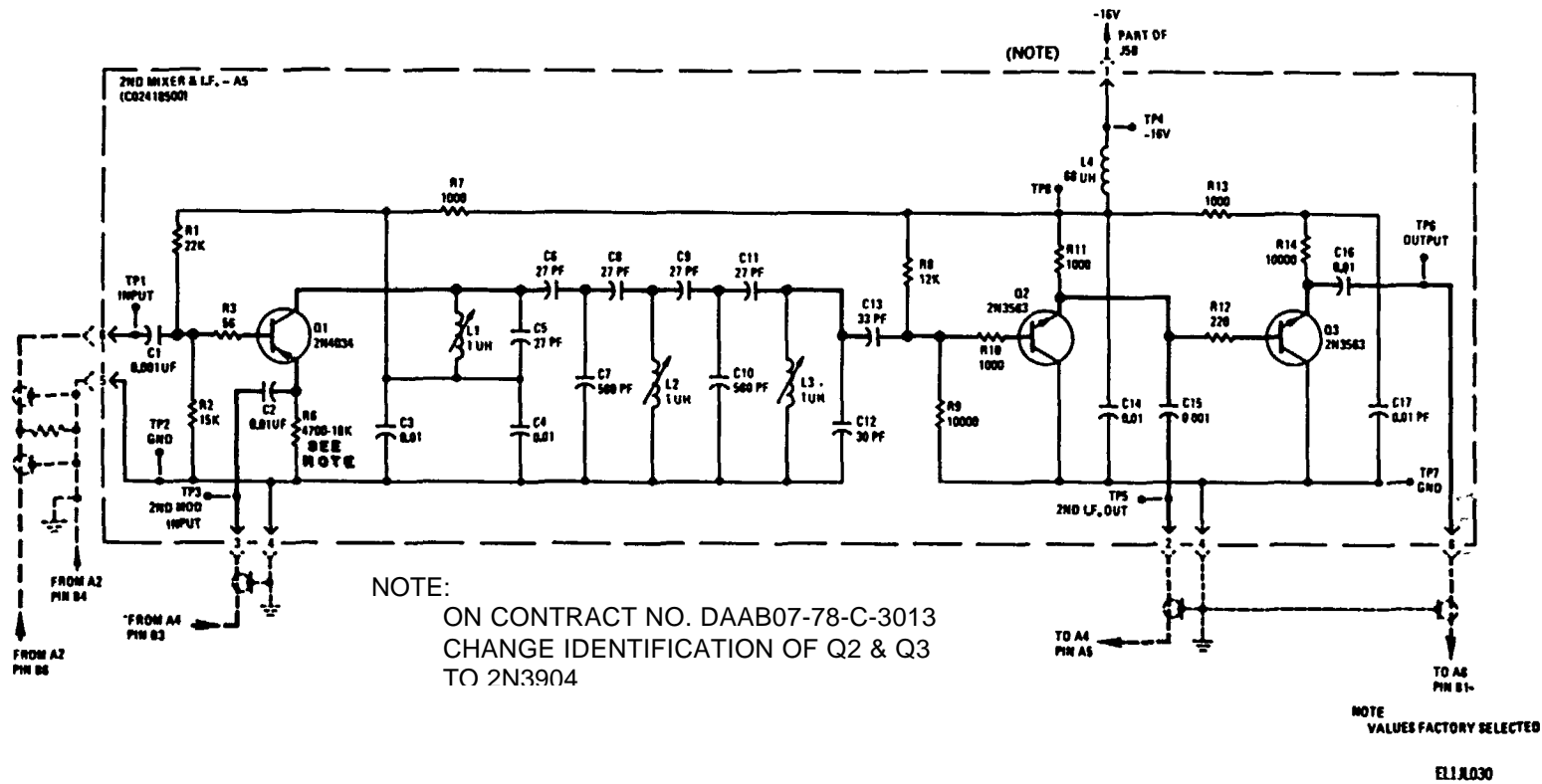
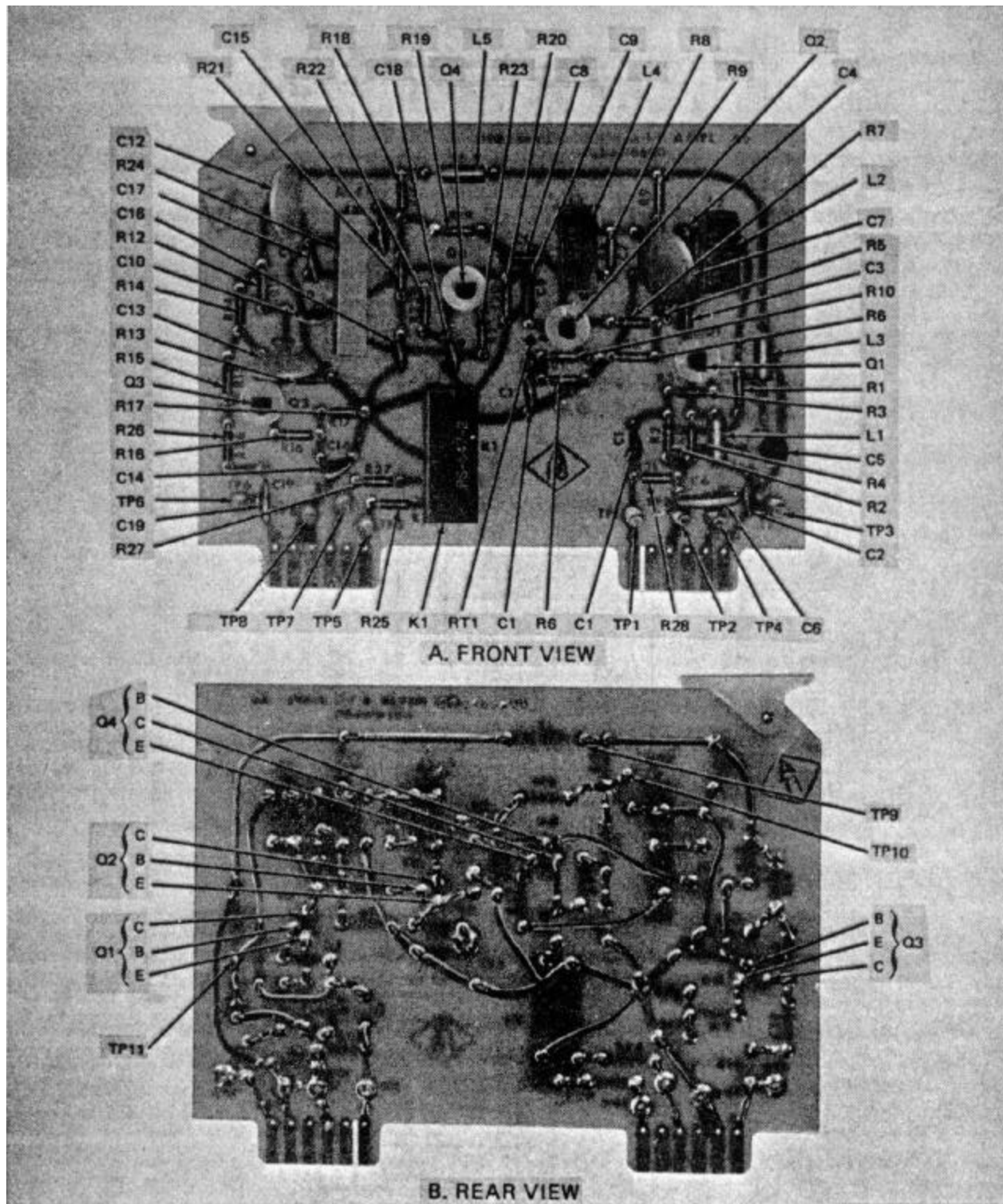
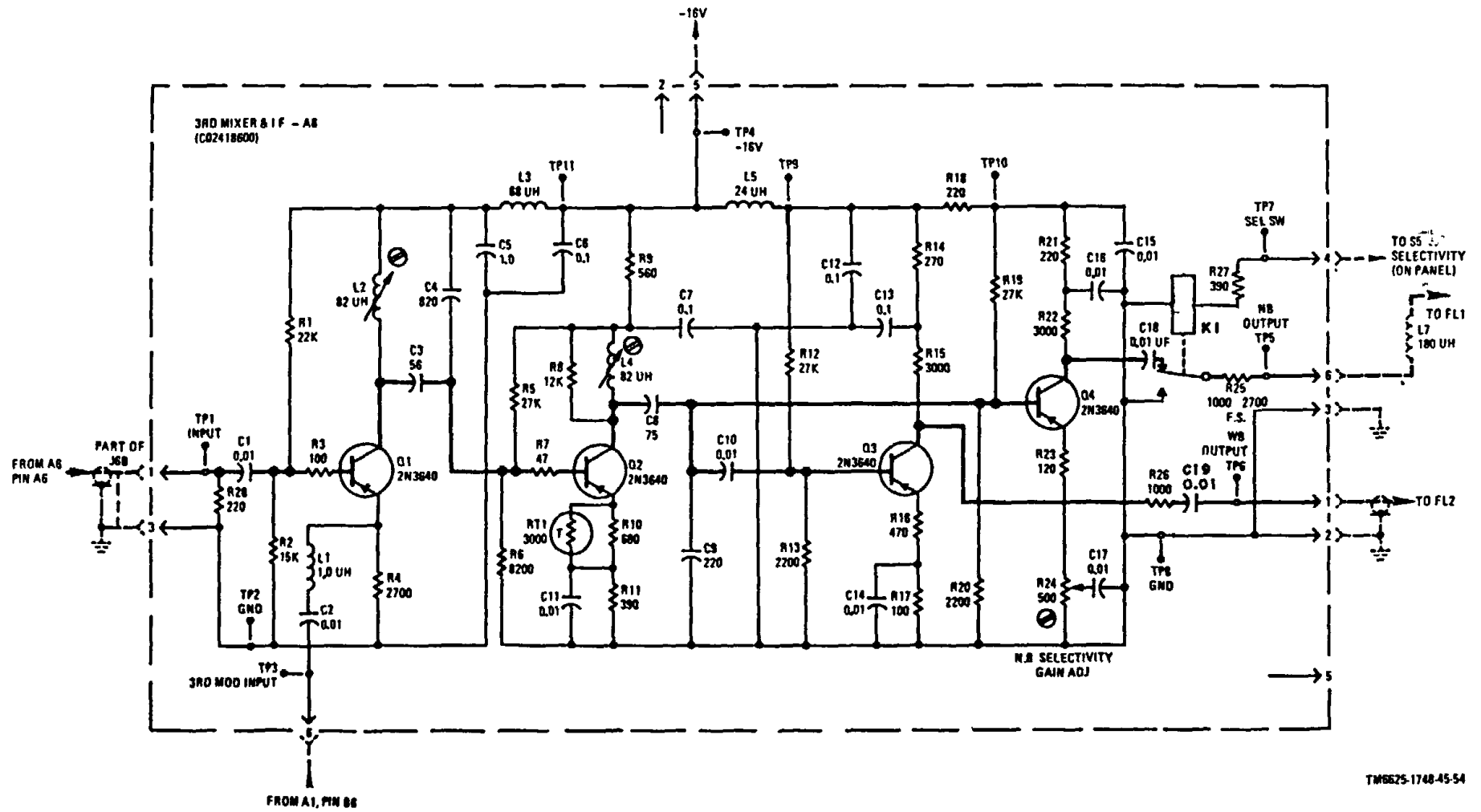


Figure 2-72. Second mixer and IF A5, Schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.



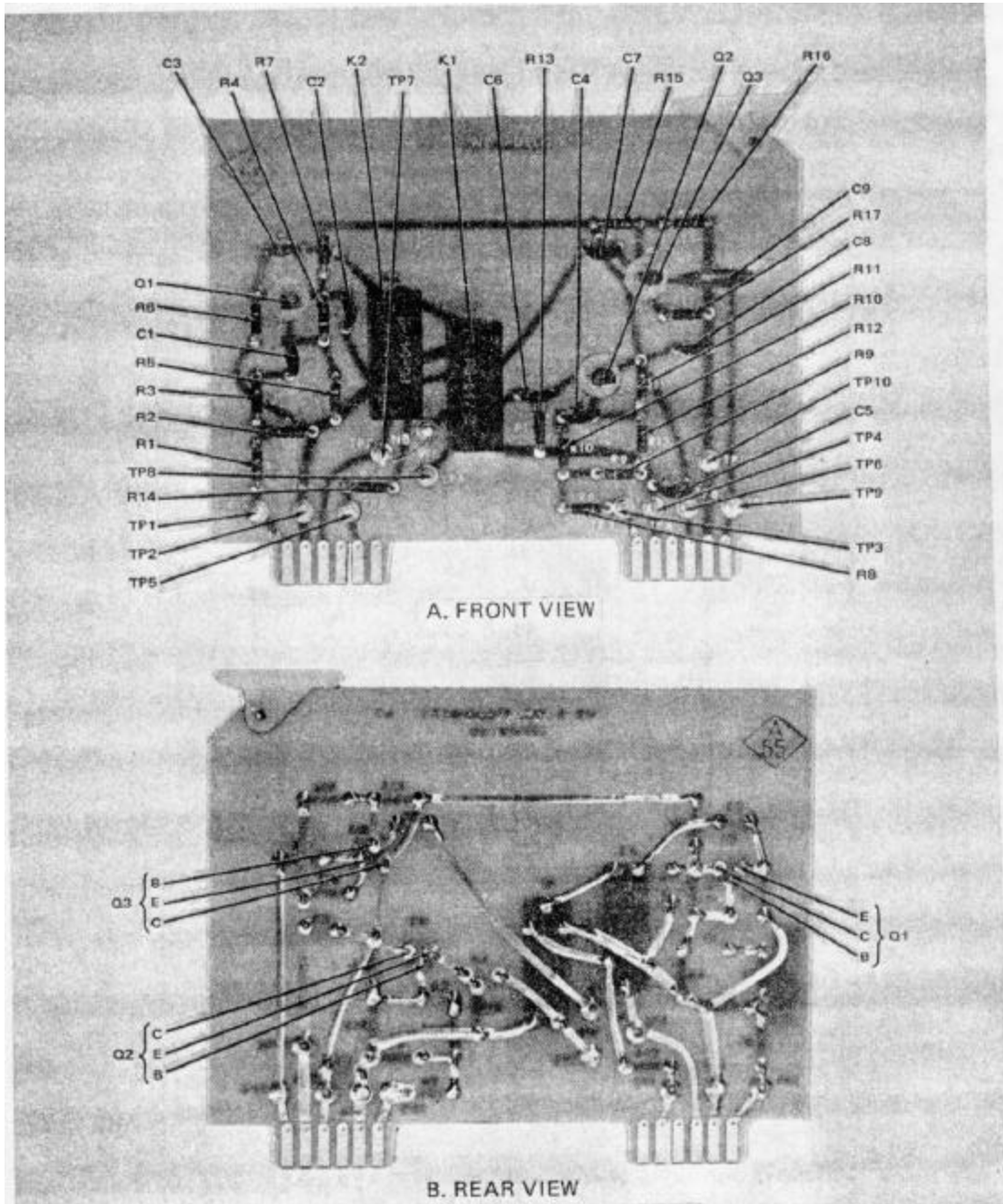
TM 6625-1748-45-53

Figure 2-73. Third mixer and IF A6. Audio-Radio Frequency Monitor TS-2968/1U.



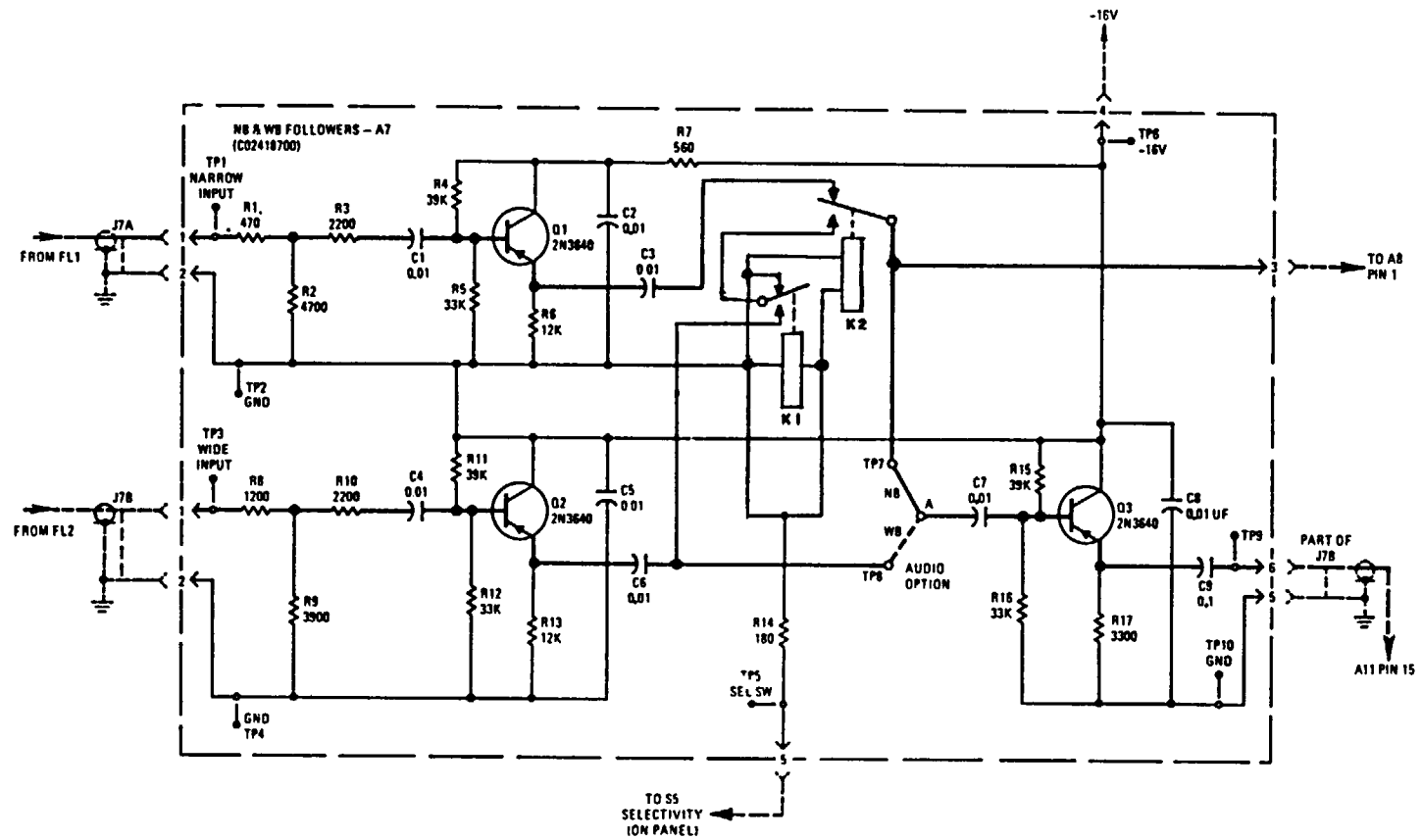
TM6625-1748-45-54

Figure 2-74. Third mixer and IF A6. schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.



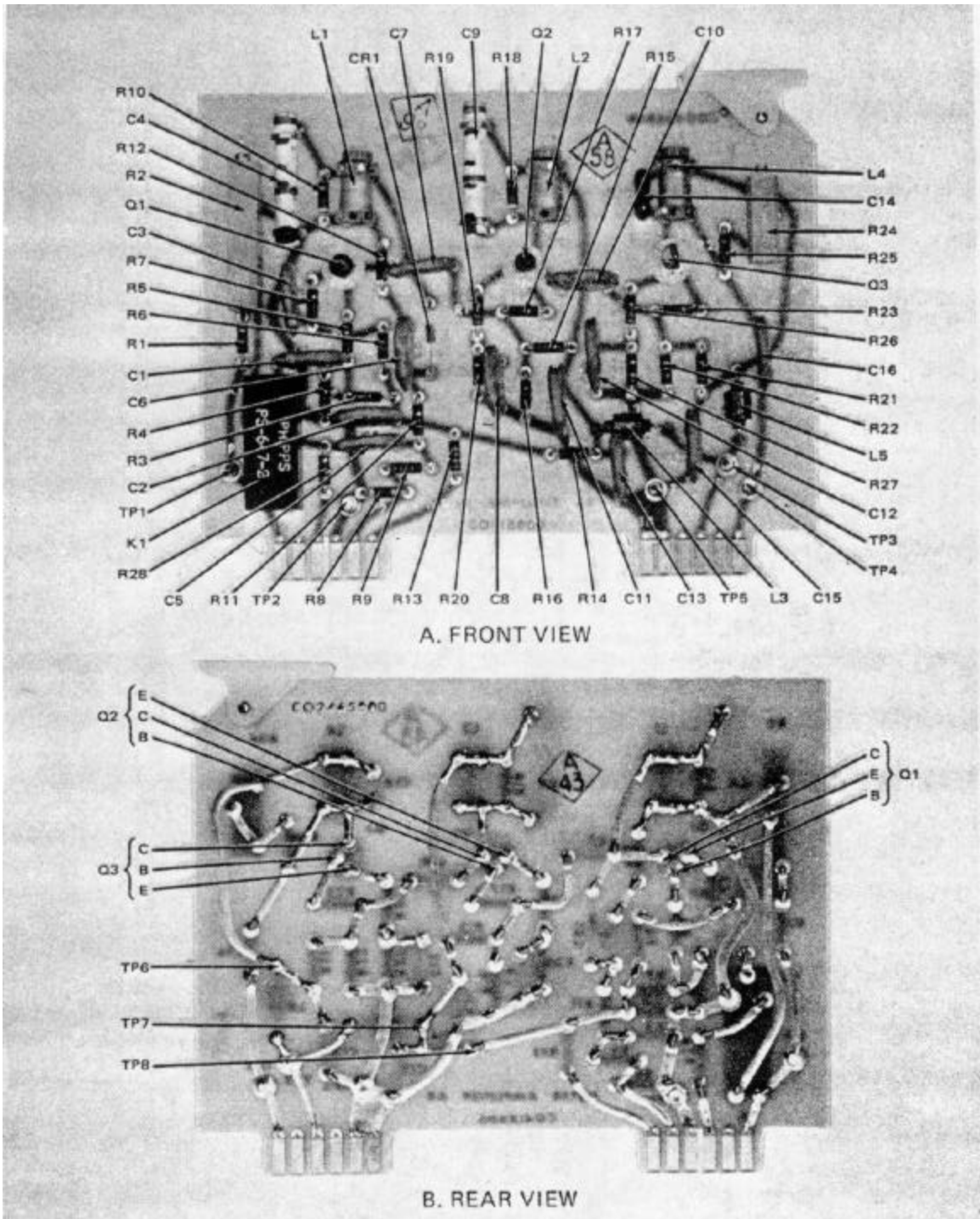
TM 6625-1748-45-55

Figure 2-75. NB and WB followers A7, Audio-Radio Frequency Monitor TS-2968/U.



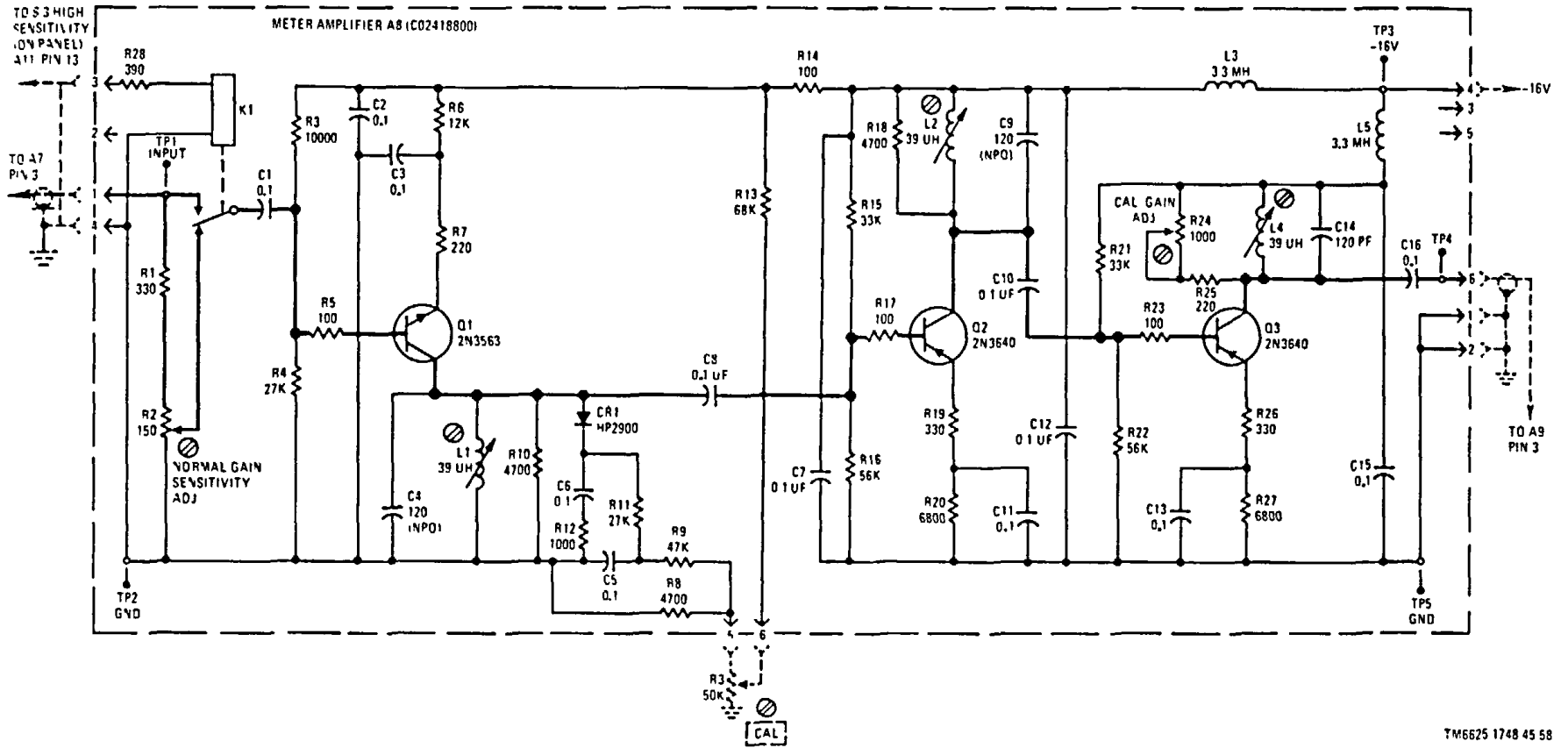
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Figure 2-76. NB and WB followers A 7, schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.



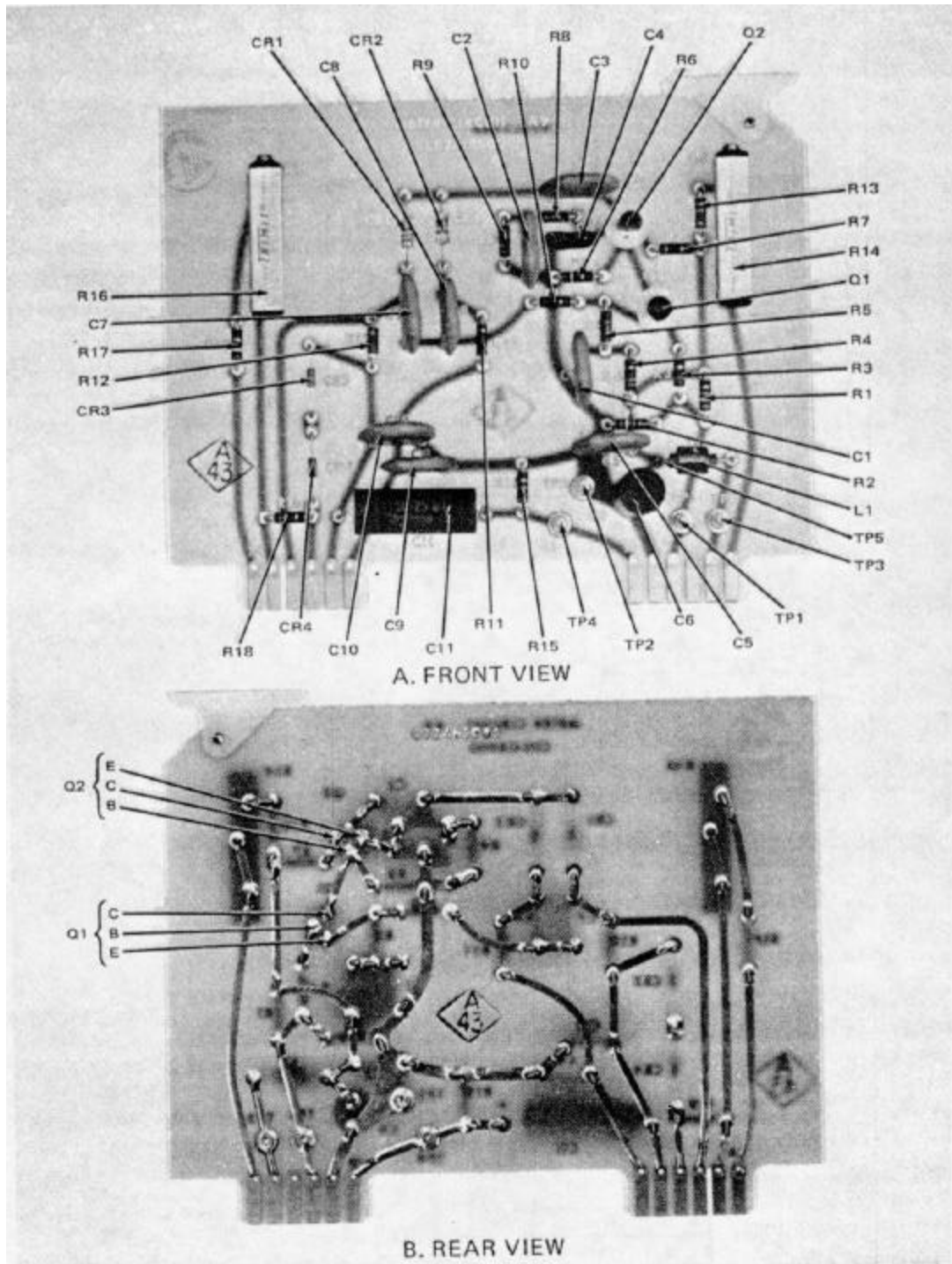
TM 6625-1748-45-57

Figure 2-77. Meter amplifier A8. Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-78. Meter amplifier A8, schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-79. Meter circuit A9, Audio-Radio Frequency Monitor TS-2968/U.

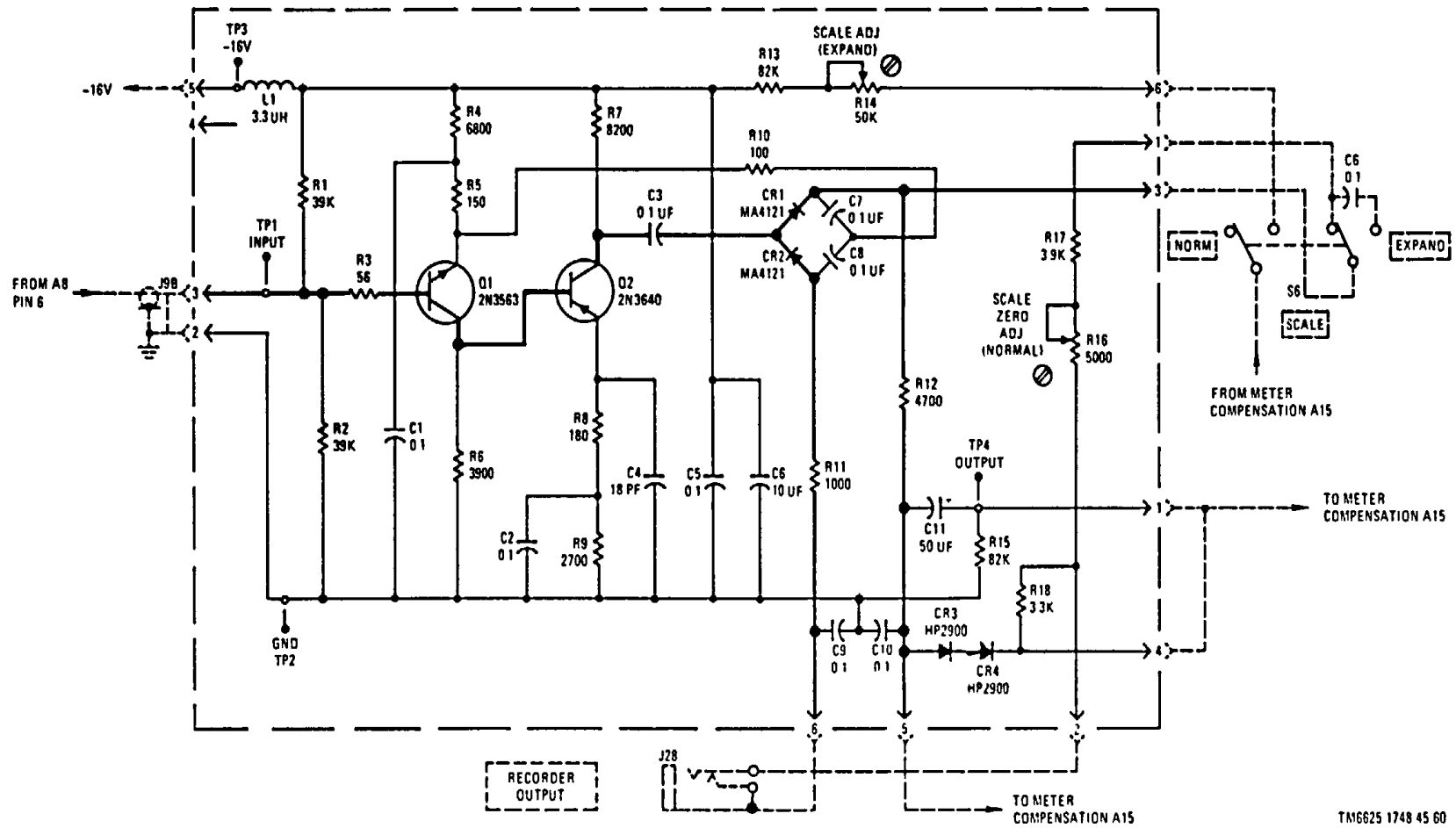
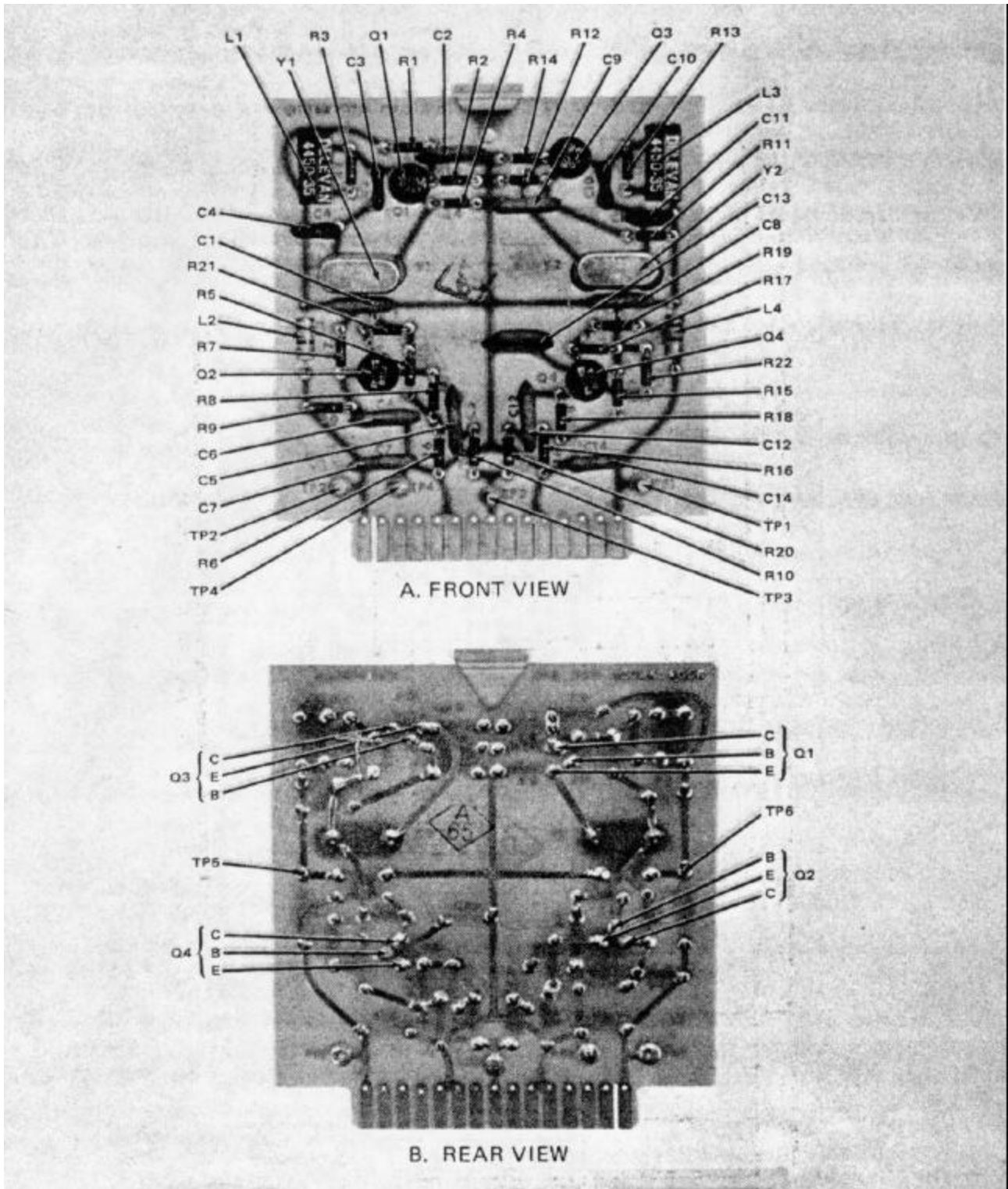
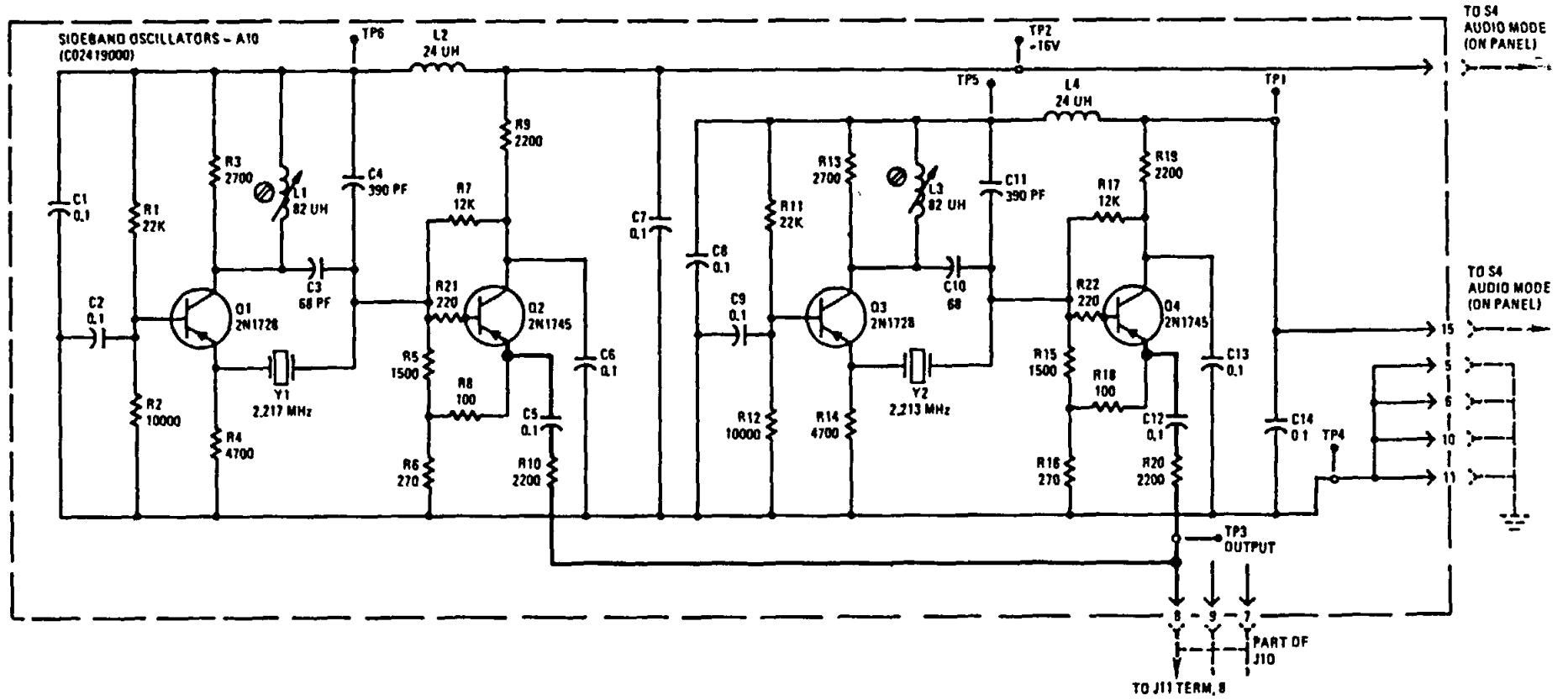


Figure 2-80. Meter circuit A9, schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.



TM 6625-1748-45-61

Figure 2-81. Sideband oscillator A10, Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-82. Sideband oscillator A10 schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.

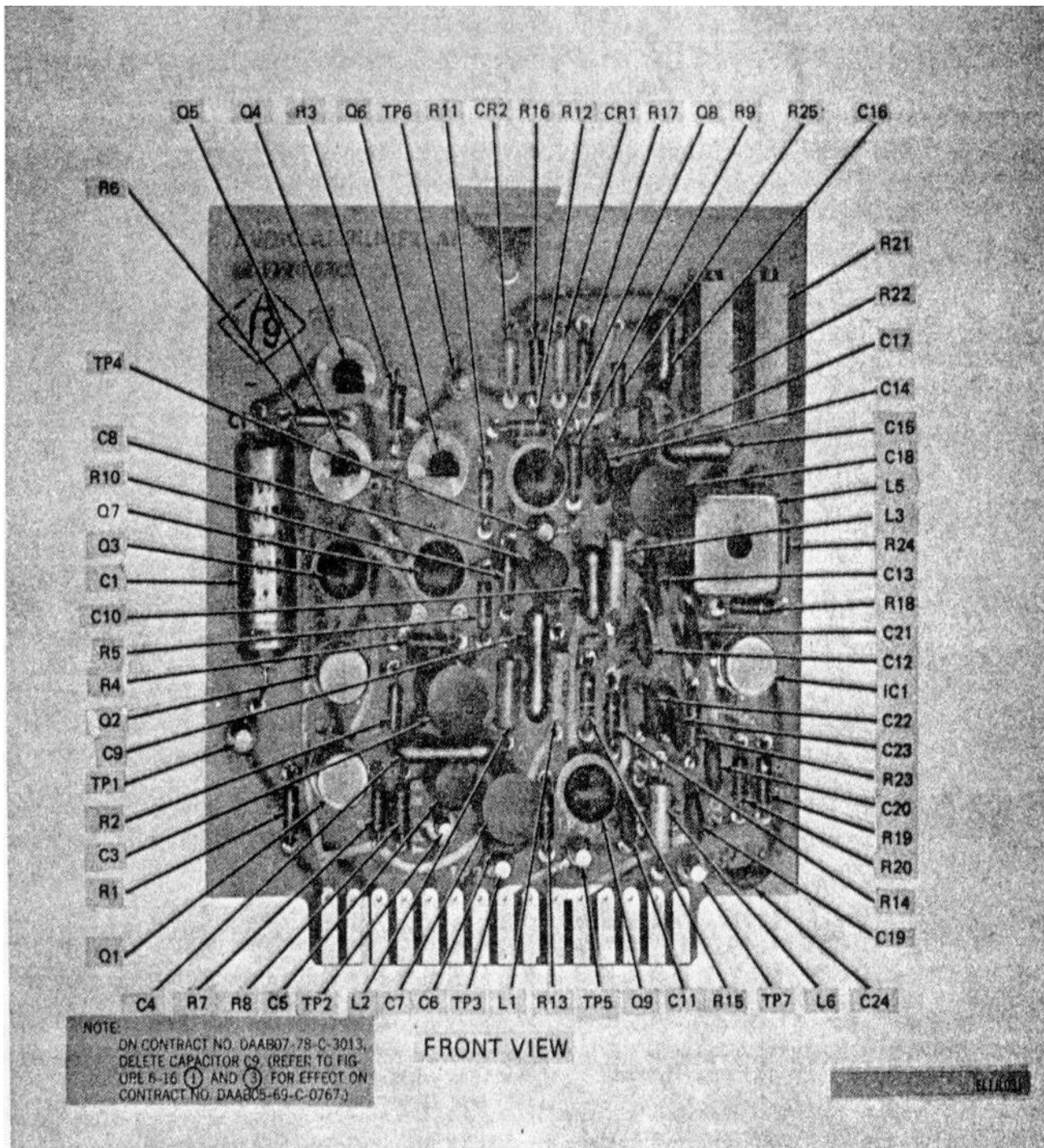
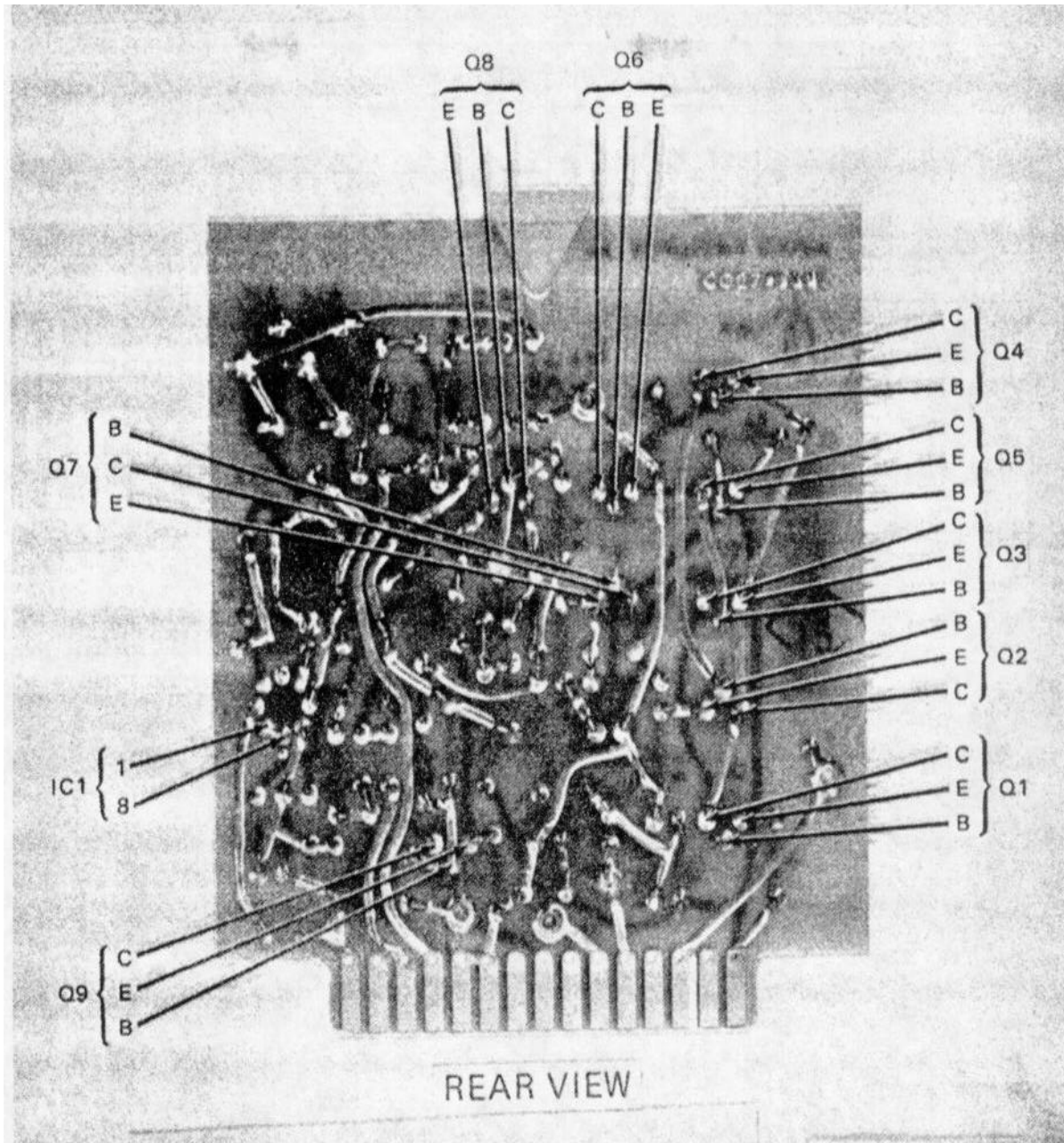


Figure 2-83 (1). Audio amplifier A11, Audio-Radio Frequency Monitor TS-29681U (sheet 1 of 2).



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Figure 2-83 (2) . Audio amplifier A11. Audio-Radio Frequency Monitor TS-2968/U (sheet 2 of 2).

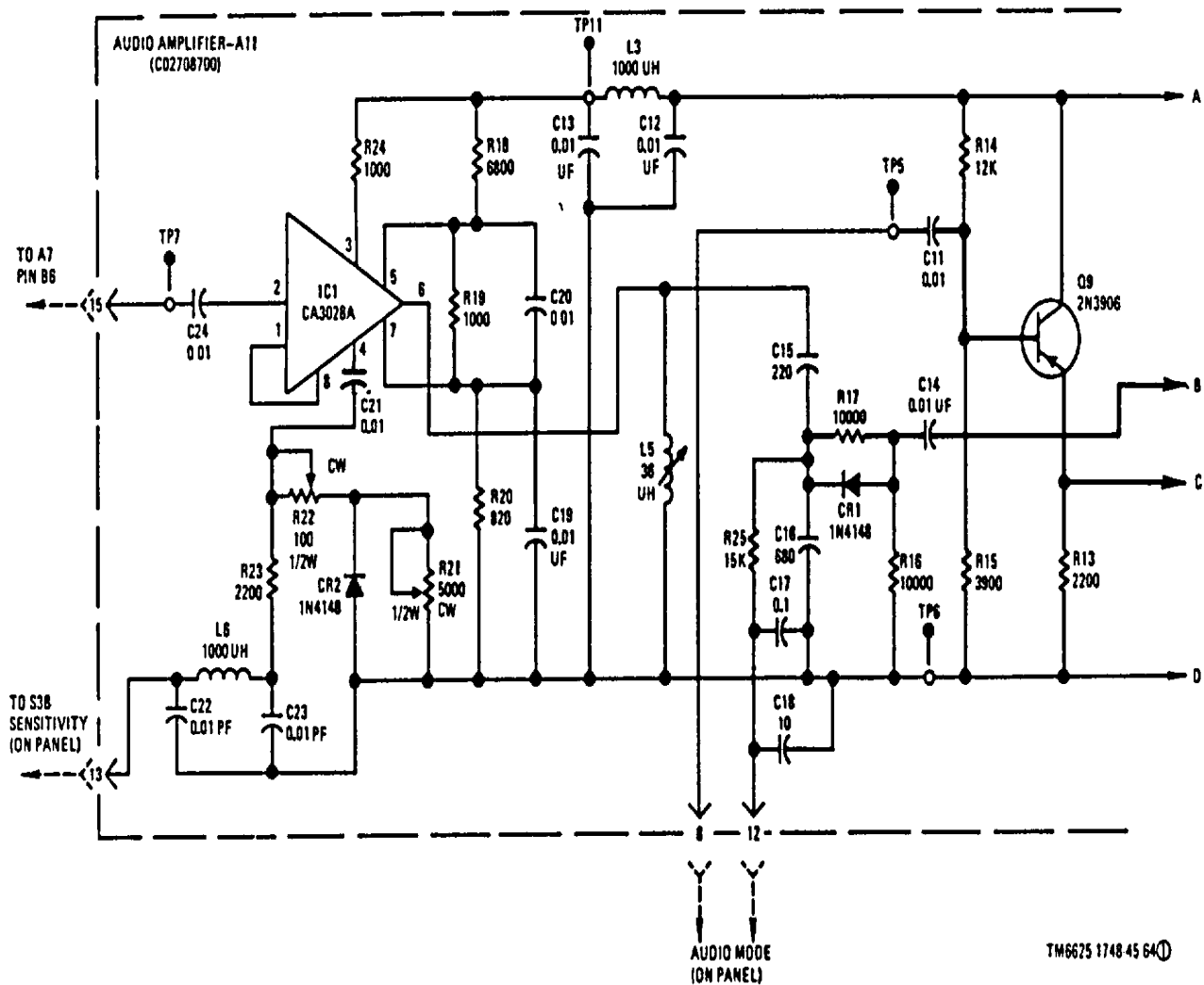
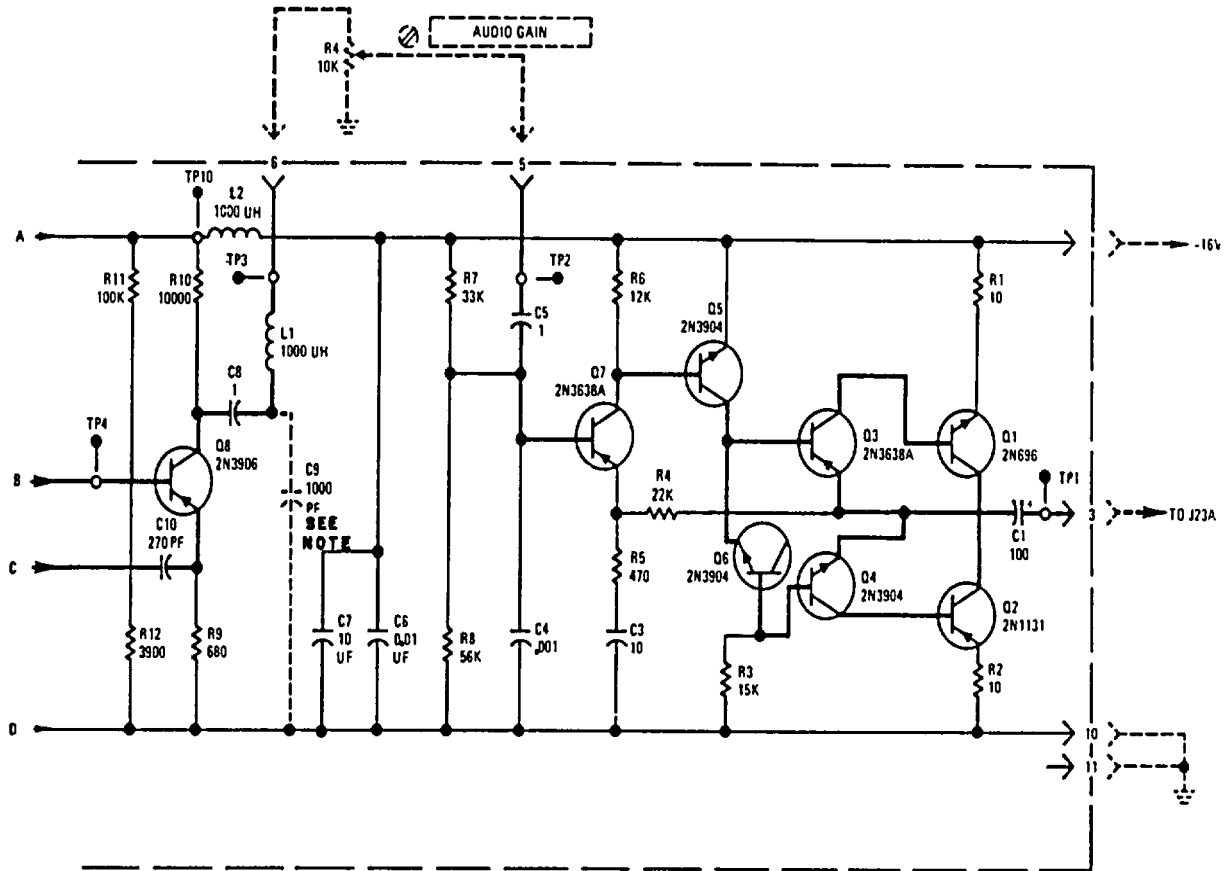


Figure 2-84 (1). Audio amplifier A11, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U (sheet 1 of 2).

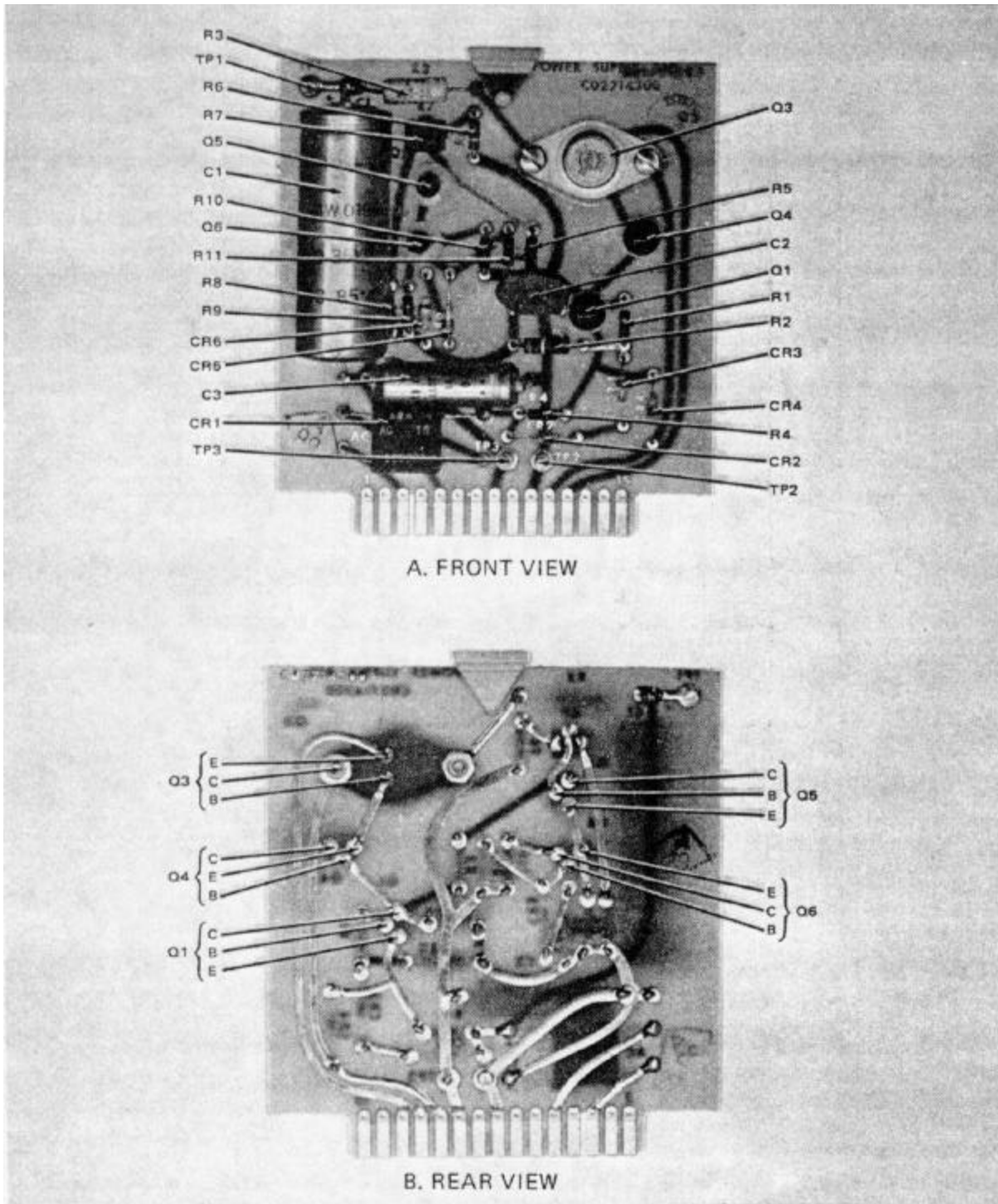


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NOTE

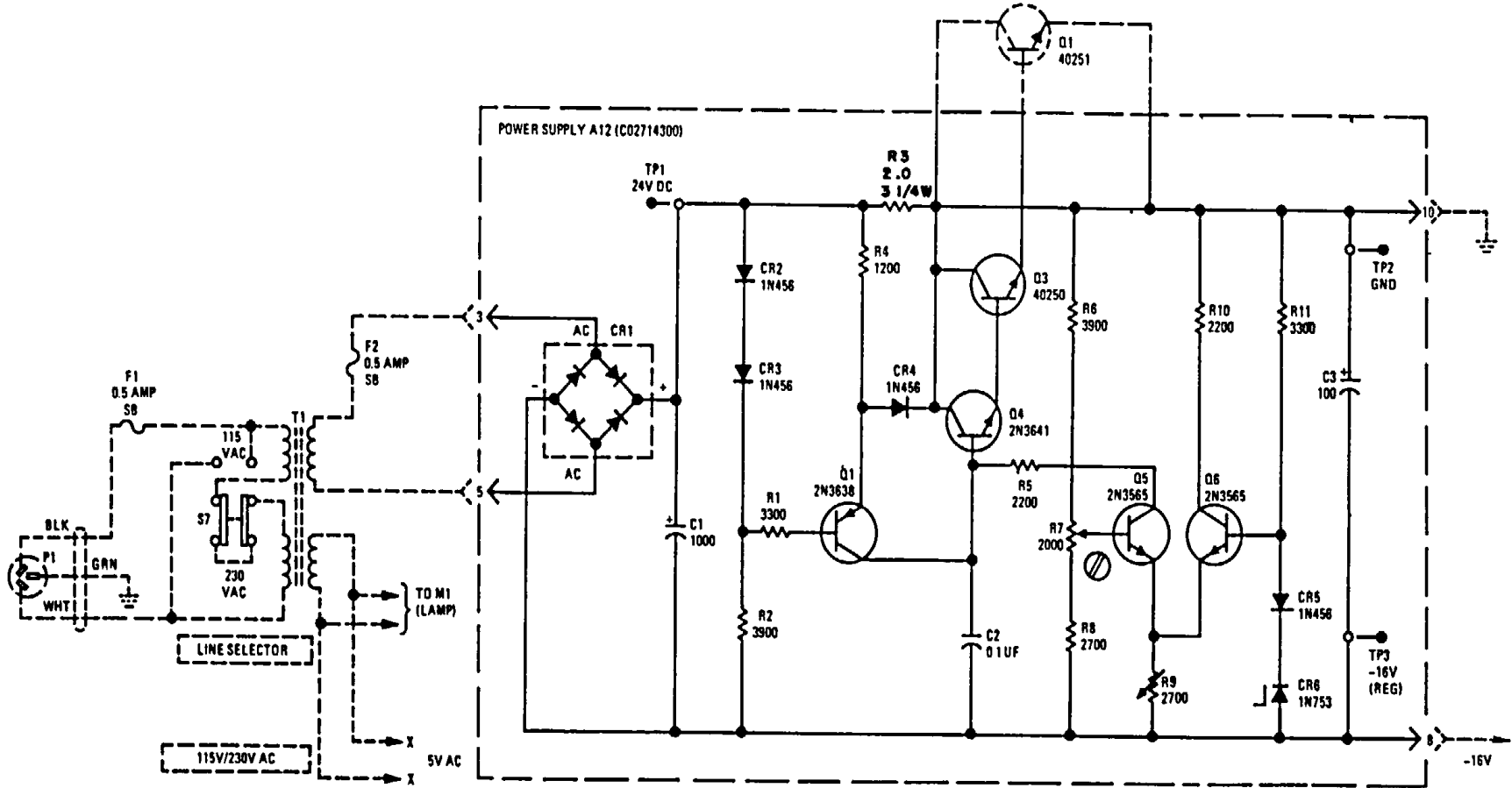
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Figure 2-84 (2). Audio amplifier A11, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U (sheet 2 of 2).



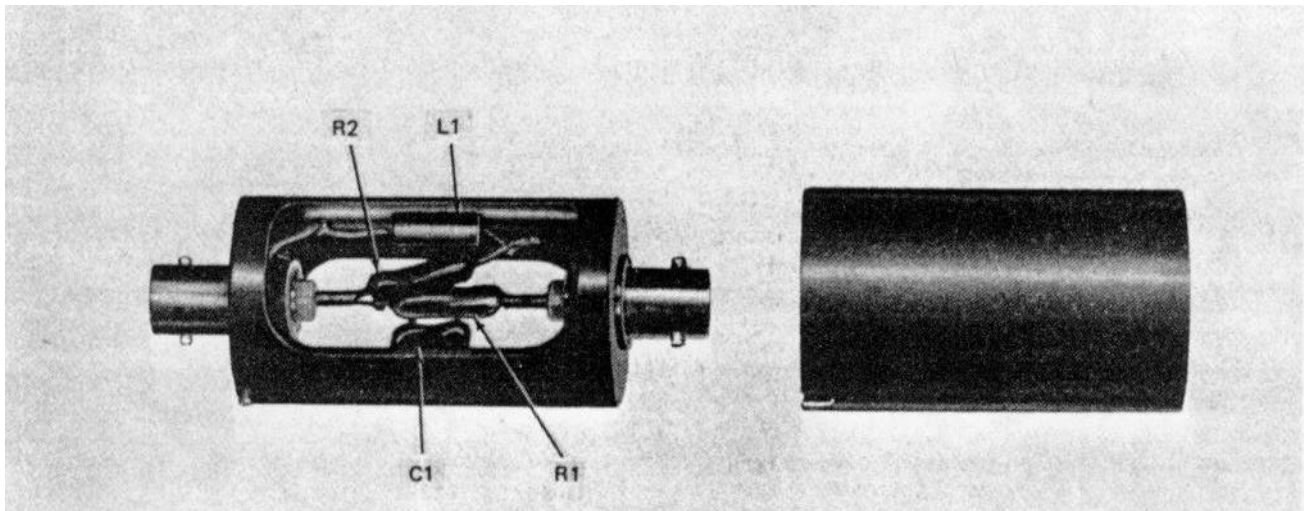
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Figure 2-85. -16 V dc power supply A12. Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-86. -16 V dc power supply A12, schematic diagram, Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-87. Impedance-matching pad A13. Audio-Radio Frequency Monitor TS-2968/U.

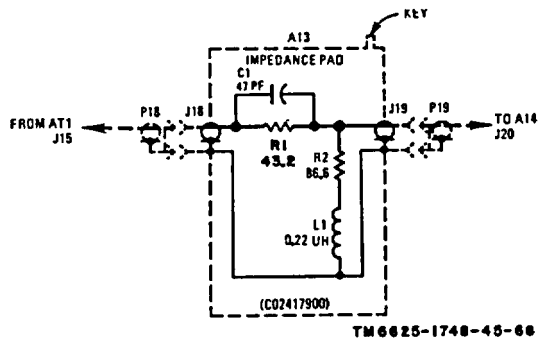
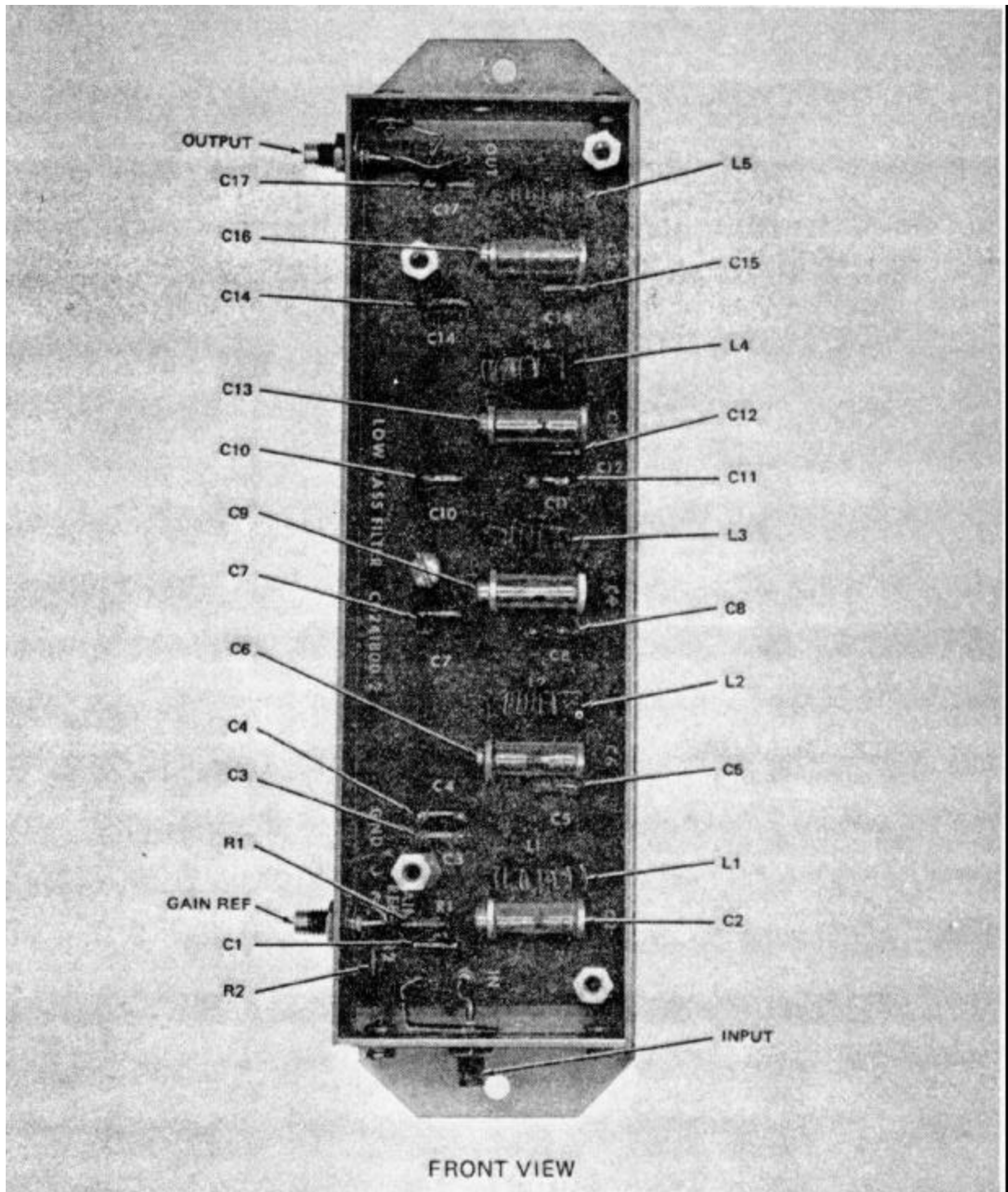
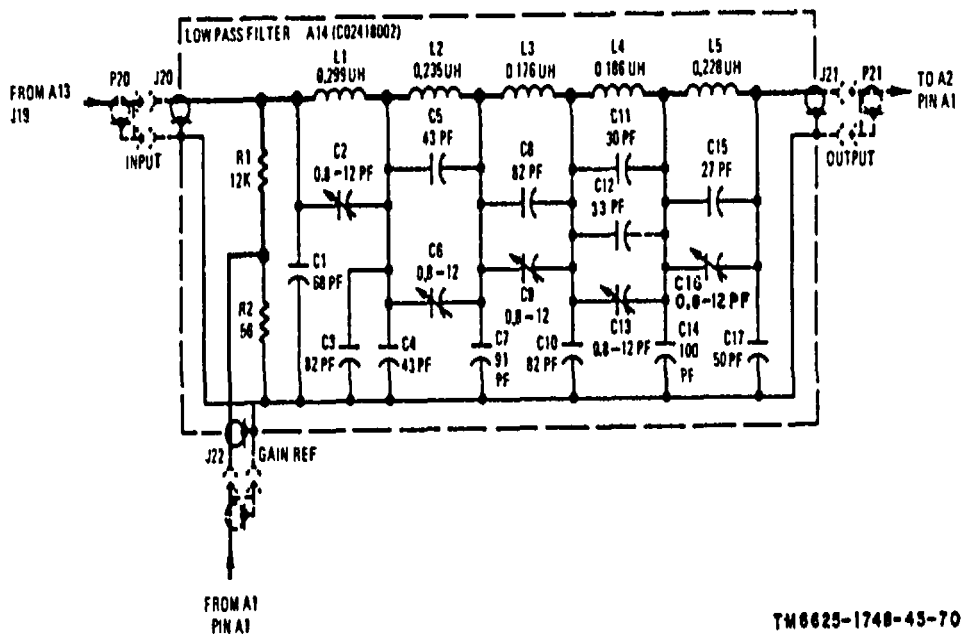


Figure 2-88. Impedance-matching pad A13, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U.



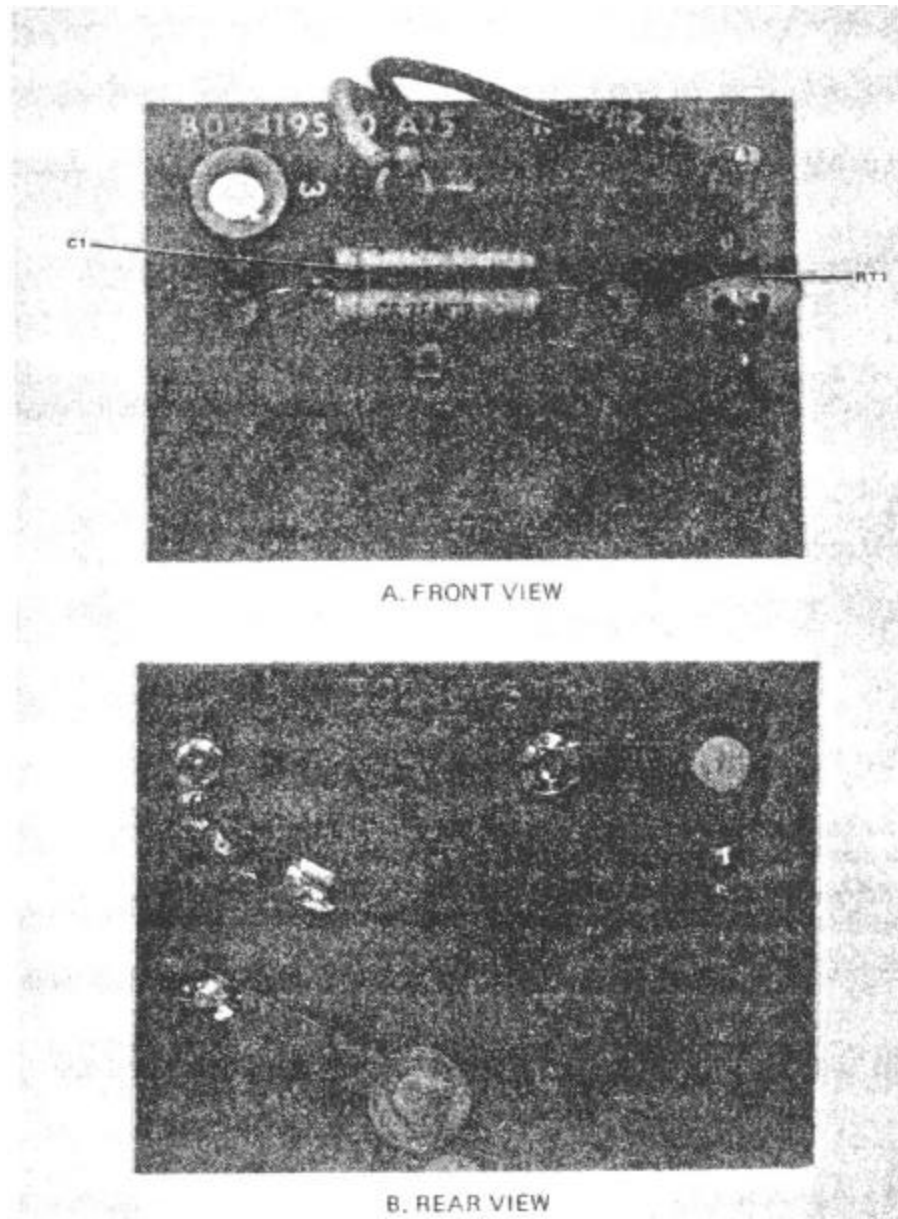
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Figure 2-89. Low-pass filter A14. Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-90. Low-pass filter A14, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U.



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Figure 2-91. Meter compensation A15. Audio-Radio Frequency Monitor TS-2968/U.

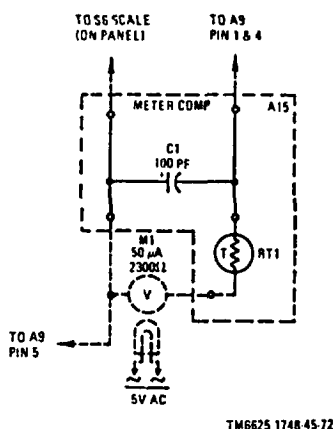


Figure 2-92. Meter compensation A15, schematic diagram. Audio-Radio Frequency Monitor TS-2968/U.

2-34. Dc Voltage Measurements

Dc voltage measurements are the first step in isolating defects to particular components. When properly interpreted, dc voltage measurements will usually isolate defective transistors, as well as other components. Paragraph 2-18 a, b and c covers the interpretation of abnormal voltages as measured at transistor terminals. Dc voltages will not indicate misalignment of tuned circuits, nor changes in transistor gain. When dc voltage measurements.

and all previous tests, have failed to isolate the defective component(s), proceed with the tests in paragraphs 2-41 and 2-42. Check the alignment in accordance with section II of chapter 3.

NOTE

All voltages measured with respect to common, or chassis, unless otherwise noted. All voltages $\pm 10\%$ unless upper and lower limits are given.

Notes

Q2 is located on A12 chassis mounting flange.

<i>Point of measurement</i>	<i>Normal reading</i>
Power supply board A12.	
TPI(+) and TP3(-)	+28.5V dc
TP3	--15.9 to -16.1V dc
Q1 base	+ 11.4V dc
Q1 emitter	+ 11.95V dc
Q1 collector/Q4 base	+ 1.4V dc
Q2 base/ Q3 emitter	+0.4 to 1.0V dc
Q2 emitter	0 to +0.01V dc
Q2 collector/ Q3 collector/ Q4 collector	+ 12.5V dc
Q3 base/Q4 emitter	+ 0.4 to + 1.0V dc
Q5 base	-9.35V dc
Q5 emitter/ Q6 emitter	--10.0V dc
Q6 collector	-3.35V dc
Gain reference oscillator and 3rd modulator board A1.	
Q1 base	-9.3V dc
Q1 emitter	-10.1V dc
Q1 collector	-6.65V dc
Q2 base	-9.4V dc
Q2 emitter	-10.1V dc

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>Gain reference oscillator and 3rd modulator board A1.</i>		
Q2 collector	-7.2V dc	
Q3 base	-7.95V dc	
Q3 emitter	--8.65V dc	
Q3 collector/ Q4 base	0	
Q4 emitter	-9.4V dc	
Q4 collector	0	
Q5 base	--.81V dc	
Q5 emitter	-9.45V dc	
Q5 collector	0	
<i>1st modulator and IF board A2.</i>		
Q1 base	-4.6V dc	
Q1 emitter	-5.3V dc	
Q1 collector	0	
Q2 base	-8.4V dc	
Q2 emitter	-9.1V dc	
Q2 collector	0	
<i>Local oscillator amplifier board A3.</i>		
Q1 base	-3.9V dc	
Q1 emitter/Q2 base	-4.7V dc	
Q1 collector	0	
Q2 emitter	-5.5V dc	
Q2 collector	-2.55V dc	
Q3 base	-5.95V dc	
Q3 emitter	-5.3V dc	
Q3 collector	-10.4V dc	
Q4 base	-8.6V dc	
Q4 emitter/Q5 emitter	-8.0 dc	
Q4 collector	-16.0V dc	
Q5 base	-7.4V dc	
Q5 collector	0	
Q6 base	-0.45V dc	
Q6 emitter	0	
Q6 collector	-1.7V dc	
Q7 base	-0.7V dc	
Q7 emitter	0	
Q7 collector	-0.3V dc	
<i>2nd modulator board A4.</i>		
Q2 base	-8.2V dc	
Q2 emitter	-9.0V dc	
Q2 collector	0	
Q3 base	-8.75V dc	
Q3 emitter	-11.1V dc	
Q3 collector	0	
<i>2nd IF output amplifier board A4.</i>		
Q4 base	-8.2V dc	
Q4 emitter/Q5 base	-8.85V dc	
Q4 collector	0	
Q5 emitter	-9.75V dc	
Q5 collector	- 1.3 to -3.4V dc	
Q6 base	-8.4V dc	
Q6 emitter	-9.2V dc	
Q6 collector	0	
<i>2nd mixer and IF board A5.</i>		
Q1 base	-5.75V dc	
Q1 emitter	-5.2V dc	
Q1 collector	-14.85V dc	
Q2 base	-8.55V dc	
Q2 emitter	-9.15V dc	
Q2 collector	0	
Q3 base	-9.15V dc	
Q3 emitter	-9.85V dc	
Q3 collector	0	

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>3rd mixer and IF board 16.</i>		
Q1 base	-6.4V dc	
Q1 emitter	-5.7V dc	
Q1 collector	-16.0V dc	
Q2 base	-3.1V dc	
Q2 emitter	-2.45V dc	
Q2 collector	-14.2V dc	
Q3 base	- 1.05V dc	
Q3 emitter	-0.35V dc	
Q3 collector	- 13.3V dc	
Q4 base	-1.05V dc	
Q4 emitter	-0.4 V dc	
Q4 collector	-13.3V dc	
<i>NB and WB followers board AT.</i>		
Q1 base	-6.95V dc	
Q1 emitter	-6.3V dc	
Q1 collector	- 15.6V dc	
Q2 base	-7.3V dc	
Q2 emitter	-6.65V dc	
Q2 collector	-16.0V dc	
Q3 base	-7.0V dc	
Q3 emitter	-6.3V dc	
Q3 collector	- 16.0V dc	
<i>Meter amplifier board A8.</i>		
Q1 base	-11.35V dc	
Q1 emitter	-12.15V dc	
Q1 collector	0	
Q2 base	-9.65V dc	
Q2 emitter	-9.0V dc	
Q2 collector	-15.95V dc	
Q3 base	-9.5V do	
Q3 emitter	-8.8V dc	
Q3 collector	-15.75V dc	
<i>Meter circuit board A9.</i>		
Q1 base	-8.5V dc	
Q1 emitter	-9.3V dc	
Q1 collector/ Q2 base	-3.2V dc	
Q2 emitter	-2.5V dc	
Q2 collector	-8.3V dc	
<i>Sideband oscillators board A10.</i>		
Q1 base	-4.8V dc	
Q1 emitter	-4.8V dc	
Q1 collector	-16.0V dc	
Q2 base	-1.6V dc	
Q2 emitter	-1.35V dc	
Q2 collector	-7.05V dc	
Q3 base	-4.85V dc	
Q3 emitter	-4.95V dc	
Q3 collector	-16.0V dc	
Q4 base	-1.55V dc	
Q4 emitter	-1.35V dc	
Q4 collector	-7.15V dc	
<i>Audio amplifier board A11.</i>		
ICI pin 1	-4.35V dc	SENSITIVITY switch to HIGH. AUDIO MODE switch to AM.
pin 2	-7.85V dc	
pin 3	-10.7V dc	
pin 4	-8.6V dc	
pin 5	-4.05V dc	
pin 6	0	
pin 7	-2.3V dc	
pin 8	-4.35V dc	
Q1 base/Q3 collector	-15.45V dc	
Q1 emitter	-16.0V dc	

Point of measurement	Normal reading	Notes
collector/ Q2 collector/ Q3		
emitter/ Q4 emitter	-8.2V dc	
Q2 base/Q4 collector	-0.5V dc	
Q3 emitter	-16.0V dc	
Q3 base/Q5 collector /		
Q4 emitter	-8.4V dc	
Q4 base/Q6 base	-7.7V dc	
Q5 base/ Q7 collector	-15.35V dc	
Q5 collector	-16.0V dc	
Q7 base	-10.0V dc	
Q7 emitter	-9.4V dc	
Q8 base	-0.5V dc	
Q8 emitter	0	
Q8 collector	-15.2V dc	
Q9 base	-0.5V dc	
Q9 emitter	-3.15V dc	
Q9 collector	-15.9V dc	

2-35. Rf Signal Levels, Frequencies and Waveforms

In making the tests listed in the chart in f below, where there is no entry in a particular column to the right of a designated test point, that voltage, frequency or waveform is unimportant. Only the important requirements are listed.

a. Use Oscilloscope AN/USM-281 for measuring peak-to-peak (p-p) voltages and for observation of waveshapes. When the Waveform column refers to a particular figure, be sure to use the vertical and horizontal deflection settings as shown on the figure.

b. For measuring voltages that are not listed as peak-to-peak (p-p), use Electronic Voltmeter AN/URM-145.

NOTE

Those voltages which are not shown as p-p (peak-to-peak) are rms values. These voltages may also be measured with Oscilloscope AN/USM-281 if desired. Measure the peak-to-peak values with the oscilloscope. Then multiply the peak-to-peak values by a factor of 0.35 to obtain the rms values.

c. To measure frequencies, use the AN/USM-207.

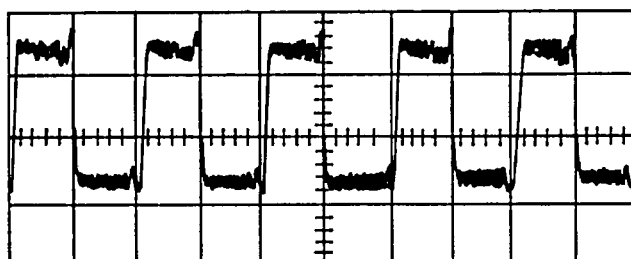
d. All test equipment return connections (common) go to the common or chassis ground of the unit under test, unless otherwise specified.

e. Amplitude (voltage) tolerances are ±20%, unless otherwise specified.

f. Rf Measurements..

Unit	Test point	Amplitude Voltage	Frequency Freq.	tolerance	Waveform	Notes
A1	TP2	50 mV p-p	1.0 MHz	± 50 Hz	figure 2-98	Measure at junction of CB1 and CB2 Q2c = Q2 collector Terminate TO 360 21.1 MHz jack J27 with 50-ohm terminating cap. Set Monitor for CAL and 0 dB reading on DECIBELS meter. AUDIO MODE to USB AUDIO MODE to USB AUDIO MODE to USB
A3	TP1	350 mV p-p			sine wave	
A4	TP4 (see note)	100 m V p-p 2.2 V p-p				
	TP2	80 m V p-p				
	Q2c	800 m V p-p				
	TP3	1.5V p-p	21.1 MHz			
	TP9	60-160µV				
A7	TP7	4.6 m V				
	TP9	4.3 m V				
A10	Q2 base	1 V p-p				
	TP3	400-600 m V p-p	2.2130 MHz	±111Hz		
	Q4 base	1 V p-p				
	TP3	400-600m V p-p	2.2170 MHz	±111Hz		
A12	TP3	2.0 V max	120Hz		Half sine wave	

BOARD A1, TP2
 OSCILLOSCOPE SETTINGS:
 V = 0.02V/cm
 H = 0.5μsec/cm



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Figure 2-93. Gain reference oscillator A1 output waveform. Audio-Radio Frequency Monitor TS-2968/U

2-36. Transformer and Coil Resistances

The following chart lists the dc resistances of the factory-installed transformers and coils in the monitor unit. This information will assist in the location of open transformer and coil windings, as well as poor and/ or corroded

solder connections. Replacement transformers and coils may have different resistance values but still perform satisfactorily. Overall circuit performance is the main consideration.

Unit	Transformer or coil	Terminals	Ohms (≤ less than)
Power transformer	T1	Switch to 115V	12.5
		Switch to 230 V	50
		Secondary	4.4
		Secondary	<1
Pc A1	L1		3.1
	L2		<1
	L3		3.3
	T1	1 and 3 4 and 6	0.9 0.9
Pc A2	L1		<1
	L2		<1
	L3		<1
	L4		<1
	L5		<1
	L6		<1
	L7		<1
	L8		2
Pc A3	L1		1
	L2		1
	L3		2
Pc A4	L1		2.8
	L2		<1
	L3		<1
	L4		2.9
	T1	1 and 3 4 and 6	0.5 0.5

Unit	Transformer or coil	Terminals	Ohms (≤ less than)
Pc A5	L1		<1
	L2		<1
	L3		<1
	L4		1.6
Pc A6	L1		<1
	L2		5
	L3		1.7
	L4		5
	L5		2
	K1	Relay	Coil
Pc A7	K1 and K2 relay coils in parallel		650
Pc A8	L1		5
	L2		5
	L3		41
	L4		5
	L5		41
	K1	Relay	Coil
Pc A9	L1		42
Pc A10	L1		5
	L2		2
	L3		5
	L4		2
Pc A11	L1		12
	L2		12
	L3		12
	L5		1.5
	L6		12
Pc A14	L1		<1
	L2		<1
	L3		<1
	L4		<1
	L5		<1

Section VII. SPECTRUM ANALYZER TROUBLESHOOTING, LOCALIZATION PROCEDURES

WARNING

Extremely dangerous voltages exist within the spectrum analyzer unit. The connections on the socket of the cathode-ray tube, the high voltage power supply board A13, the panel-mounted FOCUS and INTENSITY controls and the interconnecting wiring between these units operate at a potential of -2600 volts dc with respect to the chassis. High voltage power supply board A13, sweep board A14, vertical amplifier board A15, horizontal sweep board A16, the astigmatism control on the chassis, and the associated wiring operate at a potential of + 150 volts dc * with respect to the chassis. Potentials of 115 volts or 230 volts ac exist in the power transformer compartment.

Serious injury or death may result from contact with these voltages. Always make sure that the power is turned off before coming in contact with these boards and circuits.

DON'T TAKE CHANCES!

2-37. General

This section describes trouble localization procedures to be followed whenever the sectionalization procedures indicate that one or more faults may exist within the spectrum analyzer unit. For voltage checks and other operational tests, set up the equipment in a manner similar to that shown in figure 2-15. and interconnect the units in accordance with figure 4-2.

2-38. Preliminary Instructions

- a. Turn the power switches on both the tuning unit and the spectrum analyzer units to OFF.
- b. Disconnect all cables from the rear of the spectrum analyzer.
- c. Remove the front panel screws that hold the spectrum analyzer unit in the cabinet.
- d. Remove the spectrum analyzer unit and place it on a bench, adjacent to the test set cabinet. See figure 2-15.)
- e. Remove the top cover of the monitor unit.
- f. Remove the inner top cover plate on the right-hand side of the chassis.

conditions exists, check for possible defects in the dc power supply circuits before applying power

(1) When abnormal symptoms reported from operational tests indicate possible power supply troubles in the spectrum analyzer.

(2) When interunit sectionalizing procedures indicate probably, troubles in the spectrum analyzer unit, and the nature of the abnormal symptoms is not known.

b. Conditions for Tests (Short-Circuit). To prepare for short-circuit tests:

(1) Make sure that at power is not connected to the spectrum analyzer unit.

(2) Make sure that all plug-in assemblies are in place and firmly seated in the jacks.

(3) Insert card riser as needed between module(s) and jack(s) to make test points readily accessible.

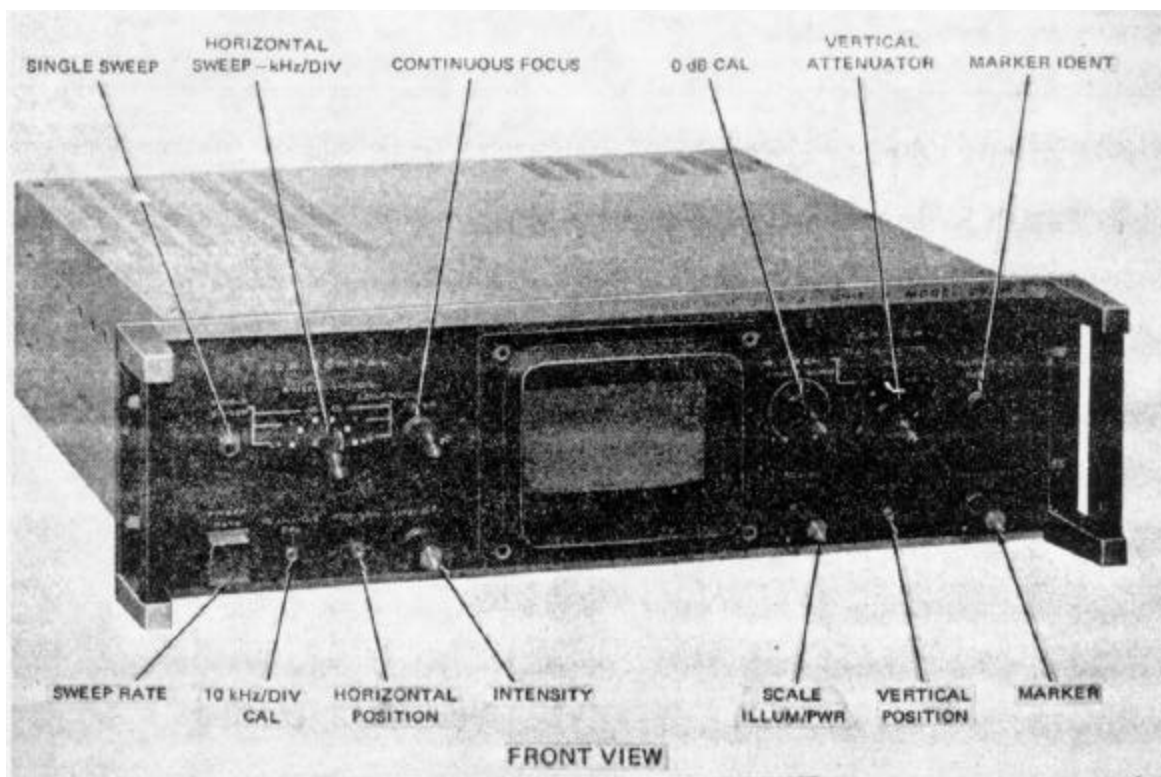
(a) SCALE ILLUM control to PWR OFF position.

(b) MARKER control fully clockwise.

(c) SWEEP-kHz/DIV control to CONTINUOUS 1.

2-39. Dc Short Circuit Tests

- a. When to Check. When either of the following



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Figure 2-94. Spectrum Analyzer IP-1018/U, front panel view.

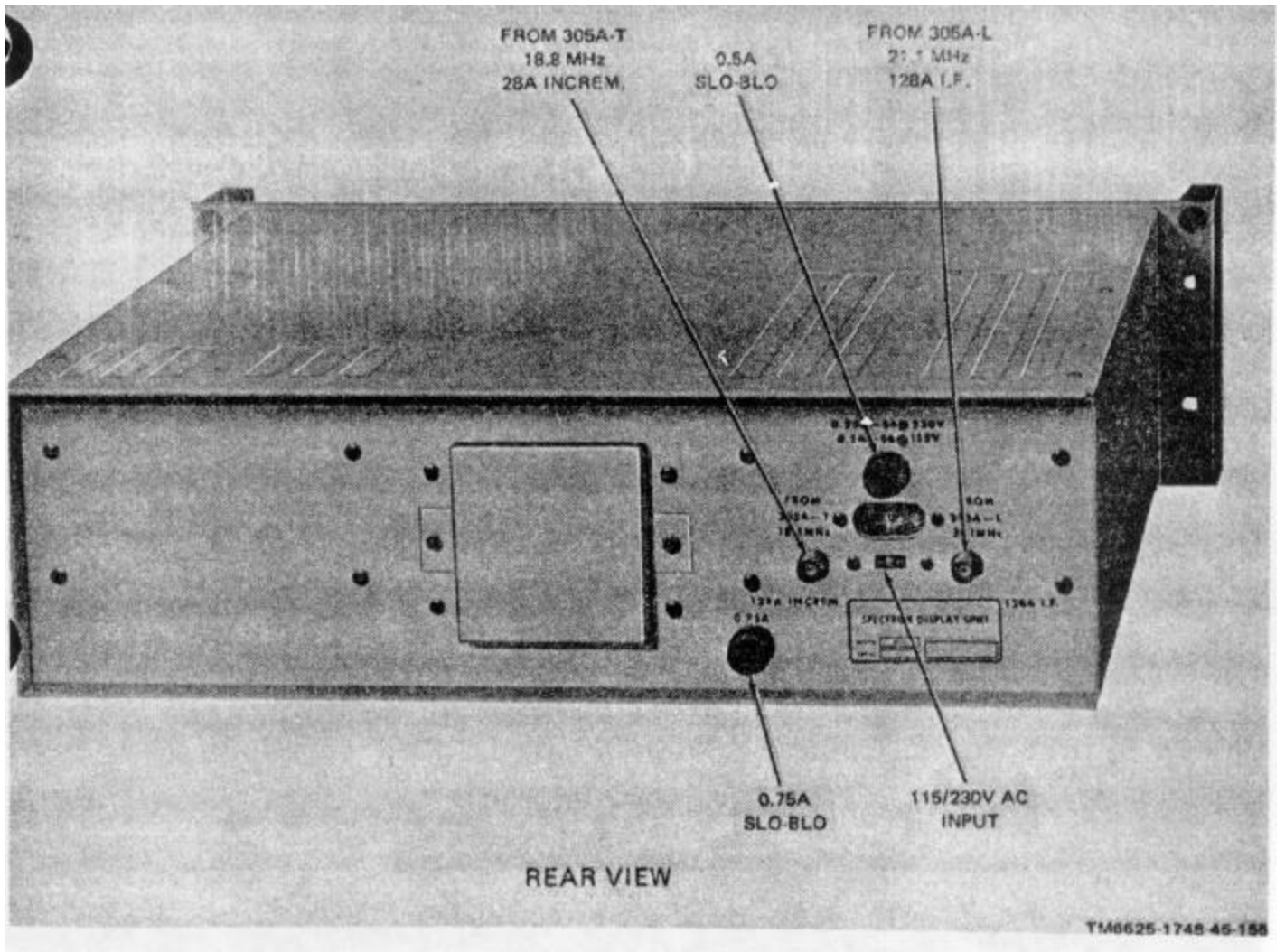
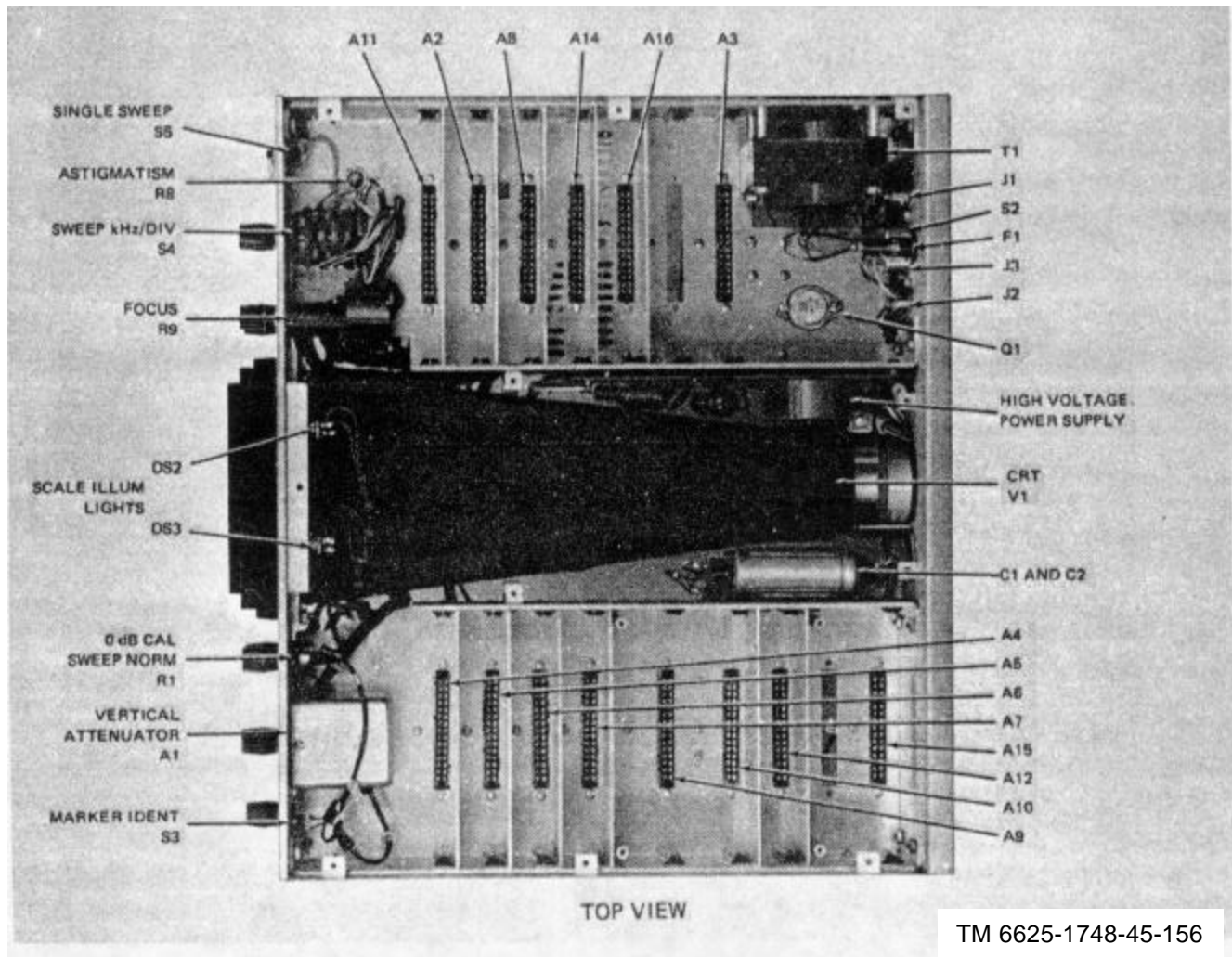


Figure 2-95. Spectrum Analyzer IP-1018/U, rear panel view.



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Figure 2-96. Spectrum Analyzer IP-1018/U, top view.

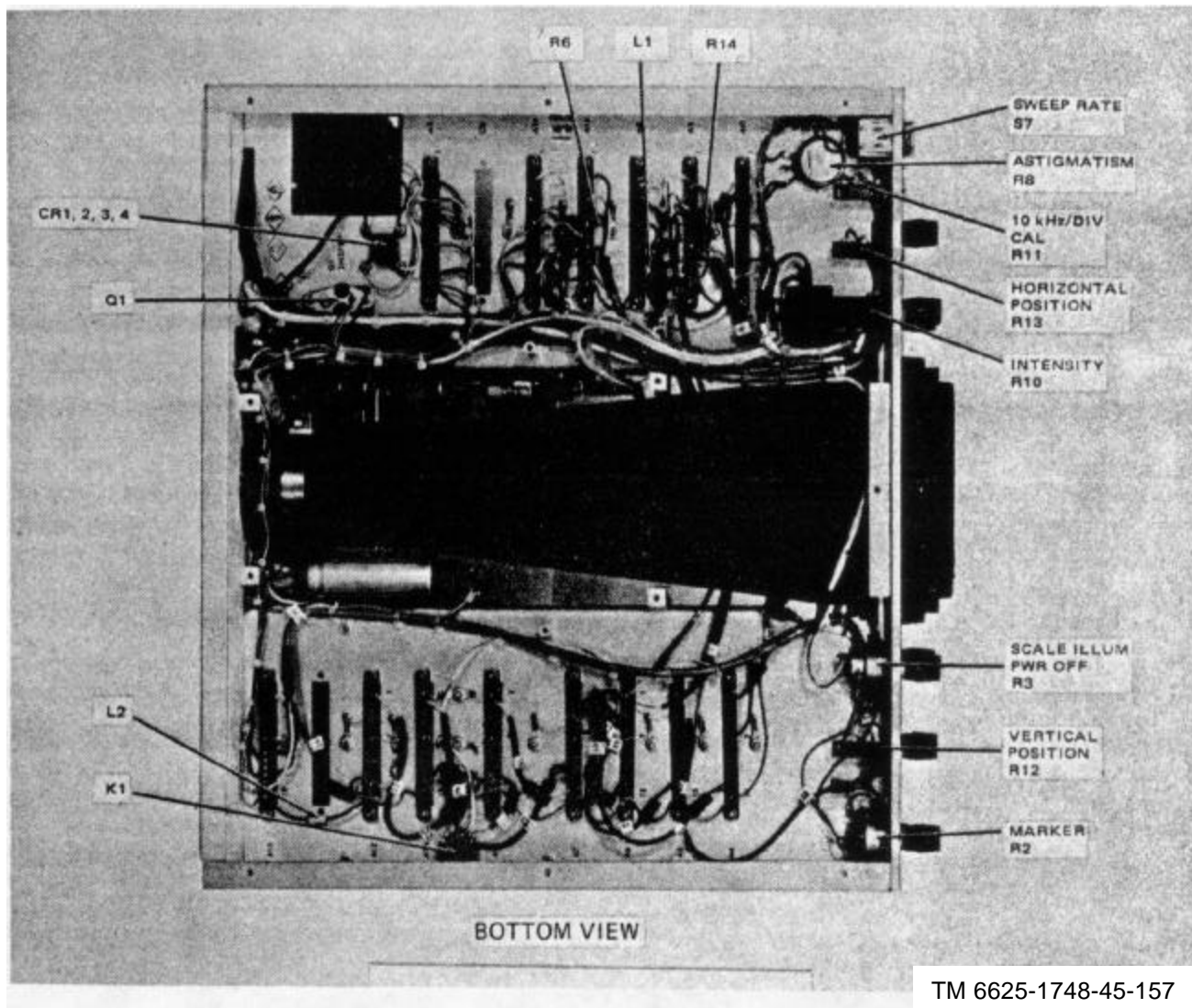
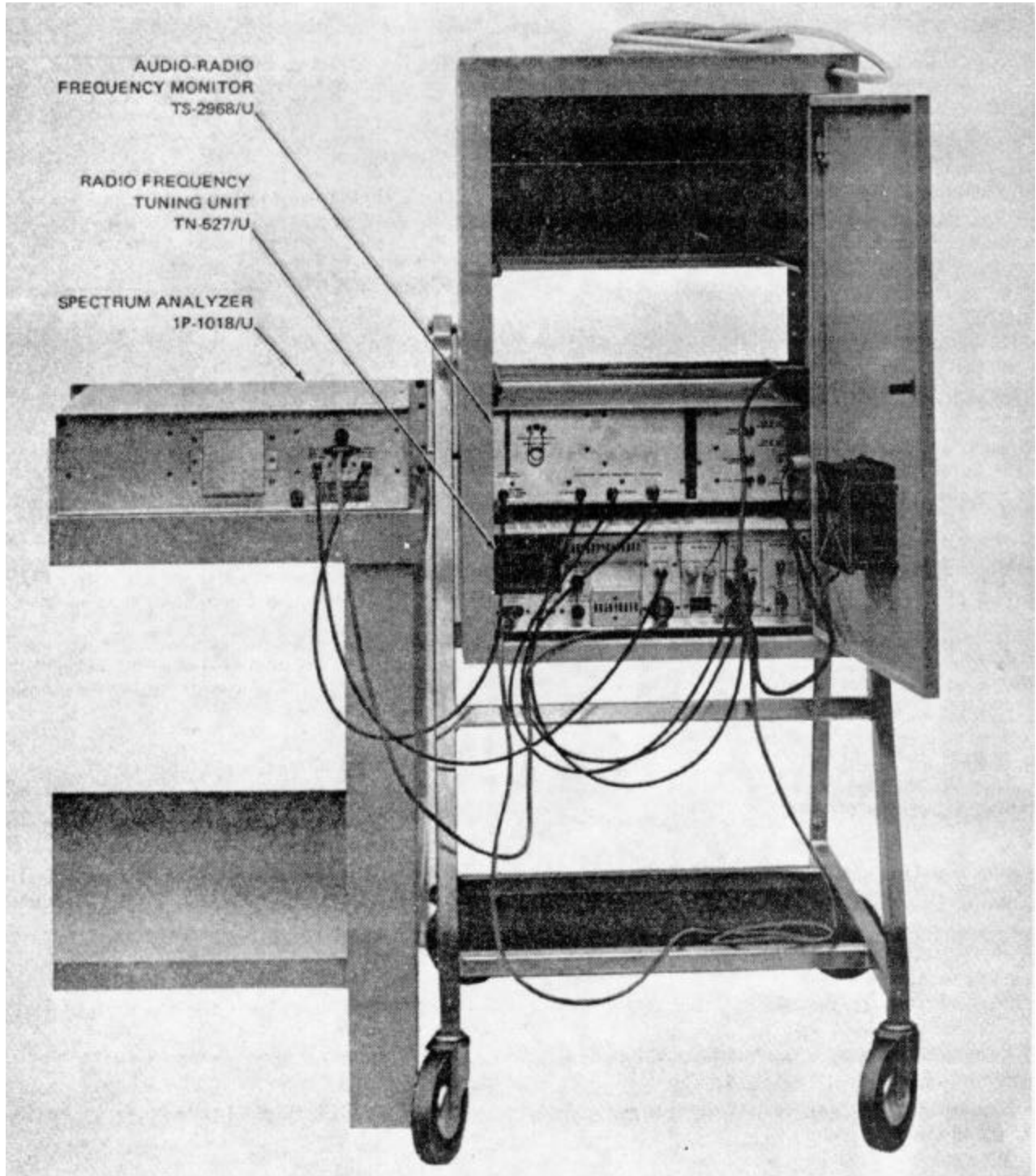


Figure 2-97. Spectrum Analyzer IP-1018/U. bottom view.



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Figure 2-98. Spectrum Analyzer IP-1018/U, operational troubleshooting test setup.

c. *Measurements.* The short-circuit tests require the use of an ohmmeter on the low-range scale. Ohmmeter lead polarity must be observed to prevent erroneous readings. Make the resistance

measurements indicated on the following chart. If a faulty module is found, repair and/or replace the module before applying power to the unit.

<i>Point of measurement</i>	<i>Short-circuit tests, spectrum analyzer Normal indication</i>	<i>Isolating procedure</i>
-18V dc power supply, board A-3. Connect ohmmeter to Board A-3 as follows: Neg. lead to A-3 TP2. Pos. lead to A-3 TP-1 or to chassis ground.	32 ohms, minimum	Remove board A-3 from chassis. Connect ohmmeter positive lead to chassis ground. Connect ohmmeter negative lead to terminal 15 of the A-3 jack on the chassis. If the reading now obtained is 32 ohms, or higher, repair and/or replace board A-3. If the reading is still less than 32 ohms with board A-3 removed, leave board A-3 out of the chassis and proceed with the next test.
Ohmmeter positive lead to chassis ground. Negative lead to term 15 of the A-3 jack on the chassis. (Board A-3 not in chassis)	90 ohms, minimum	Rotate MARKER control fully counterclockwise to OFF. If the reading increases to 90 ohms, or higher, remove, repair and/ or replace board A-5. If the reading is still less than 90 ohms, turn the SWEEP -kHz/DIV control to the CONTINUOUS 10 position. If the reading now increases to 65 ohms, or higher, proceed as follows: Return the SWEEP-kHz/DIV control to the CONTINUOUS 1 position. Leave the ohmmeter connected as above.
Ohmmeter connected as above. Turn SWEEP-kHz/ DIV control, to CONTINUOUS 10 position.	65 ohms, minimum	Successively remove boards A-2, A-8, and A-10. Observe meter reading as each board is removed. If the reading suddenly increases to 100 ohms or higher, the board that was just unplugged is defective. Repair and/or replace the board.
Ohmmeter connected as above. All plug-in modules removed SCALE ILLUM control to PWR OFF position	80 ohms, minimum	Remove the remaining plug-in boards, one by one, commencing with board A-9. Continue to observe the ohmmeter readings. If the reading suddenly increases to 65 ohms, or higher, the board that was just unplugged is defective. Repair and/or replace the board. If the reading is less than 80 ohms, bench troubleshooting of the chassis will be required. Refer to section VIII.

2-40. Checking DC Power Supply Voltages

a. *When to Check.* When either of the conditions listed in paragraph 2-20, a. above, exist, but the short-circuit tests did not show any short-circuit conditions existing within the unit.

CAUTION

In cases of suspected power supply troubles, do not perform the following tests until the possibility of short-circuits has been eliminated by the tests outlined in paragraph 2-20, above.

b. *Conditions for Tests.* To prepare for dc voltage measurements;

(1) Make sure all plug-in boards have been replaced in the spectrum analyzer chassis, and are firmly seated in the jacks.

(2) Use card risers as required to make test points readily accessible.

(3) When removing or replacing circuit boards for additional tests or for the installation of risers, make sure the SCALE ILLUM control is in the PWR OFF position.

WARNING

Observe the detailed warning notice at the beginning of this section.

(4) Connect power cable to a source of ac input power.

(5) Set the spectrum analyzer front panel controls as follows:

(a) SCALE ILLUM control to PWR OFF position.

(b) MARKER control fully counterclockwise.

(c) SWEEP-kHz/DIV control to CONTINUOUS 1.

c. *Measurements.* In making the dc voltage tests, always verify that the voltmeter is set and the leads properly connected for the polarity of the voltage to be measured. Voltages of the wrong polarity for the meter configuration can damage the meter movement. Make the voltage measurements indicated in the following chart. If abnormal results are obtained, make the additional isolating checks outlined. When a normal indication is obtained, omit the procedures in the "Isolating procedure" column of the chart, and proceed with the next test.

If a faulty module is found, repair and/or replace the module before proceeding further.

NOTE

The common returns for all of the power supply voltages to be measured in the following tests are connected to the chassis of the spectrum analyzer unit. Except where otherwise specified, the voltmeter common lead may be clipped to a convenient point of chassis ground and left connected throughout the tests

Dc voltage tests., spectrum analyzer

Normal indication

Point of measurement

Isolating procedure

NOTE

The first three tests outlined below must all be performed. and normal voltage readings obtained in all three tests. before it can be assumed that no power supply troubles exist within the Spectrum Display Unit.

<p>-18V dc power supply. board A-3. Connect dc voltmeter as follows: Pos. lead to A-3 TP-1. or chassis ground. Neg. lead to A3 TP-2. Turn power on.</p>	<p>-17.7 volts dc. minimum</p>	<p>Turn power off. Proceed with next test</p>
<p>Leave connections as above. Turn MARKER control fully clockwise Turn power on.</p>	<p>-17.7 volts dc. minimum</p>	<p>If the voltage reading in the preceding test. (above), was normal, and the reading obtained in this test is <i>below</i> normal. remove, repair, and /or replace circuit board A-5. Turn power off and proceed with the next test.</p>
<p>Leave connections as above. Turn SWEEP-kHz/DIV control to CONTINUOUS 10. Turn power on.</p>	<p>- 17.7 volts dc. minimum</p>	<p>If a reading of less than - 17.7 volts dc is obtained with the SWEEP-kHz/ DIV control in the CONTINUOUS 1 position only. or with the control in the CONTINUOUS 1 position only. trouble exists in one or more of the following circuit boards:</p>
<p>Unplug all circuit boards except for A-3 connected as above</p>	<p>-17.7 volts dc, minimum</p>	<p>A-2. A-8. A-9. and A-10. Place the SWEEP-kHz./ DIV switch in the position that causes the below normal voltage reading. Turn power off and unplug boards A-8, A-9, and A-10. Turn power on. If reading is less than -17.7 volts dc, board A-2 is defective. Remove board A-2 and set it aside for repair and/ or replacement. Install boards A-8, A-9 and A-10 one at a time. Any board that causes the voltage to drop below -17.7 volts dc is defective. Repair and /or replace. If the reading is below -17.7 volts dc at all settings of the SWEEP-kHz/DIV control, proceed with the following test.</p>
<p>Install a replacement board A-3. Connect dc voltmeter. as follows: Pos. lead to A-3 TP- 1 or chassis ground. Neg. lead to A-3 TP-2</p>	<p>-17.7 volts dc, minimum</p>	<p>If the voltage is still below - 17.7 volts A-3. Leave voltmeter dc, remove board A-3. Connect voltmeter positive lead to terminal 4 and the negative lead to terminal 1 of the A-3 jack. If the reading is less than - 17.7 volts dc, trouble exists in the power supply section of the chassis Troubleshoot chassis in accordance with section VIII If the dc voltage is -17.7 volts or higher, proceed with the following test. Trouble exists in the chassis. Troubleshoot in accordance with section VIII.</p>
<p>If a reading of -17.7 volts dc minimum is obtained proceed as follows: Turn the power off. Plug one of the circuit boards into its jack. Turn power on and observe reading. If the voltage drops below normal when a board is plugged in, that board defective .Repeat with each board until those boards which cause the dc voltage to drop below the minimum have been isolated. Repair and/or replace the defective boards.</p> <p>Make sure all boards are installed before proceeding with further tests.</p>		

<i>Normal indication</i>	<i>Dc voltage tests. spectrum analyzer</i> <i>Point of measurement</i>	<i>Isolating procedure</i>
Turn power on. Turn INTENSITY control clockwise	Trace appears on screen after 15 seconds	Check high voltage fuse E0.75A SLO-BLO) located in holder on the rear panel of the spectrum analyzer. (See figure 2-12). If fuse is not defective, proceed with the troubleshooting steps outlined in section VIII.

2-41. Locating Defective Circuit Modules

This procedure involves reconnecting the spectrum analyzer unit to the tuning unit and monitor unit in the normal AN/USM-306(V)1 interconnection configuration (fig. 4-2). Paragraph 2-3 d (3) lists the replacement modules that must be on hand to perform the substitution tests that follow.

a. *When to Check.* The circuit board substitution procedures outlined below are to be followed when the following conditions exist:

- (1) Whenever operation tests and/or the interunit sectionalizing procedures indicate probable troubles in the monitor unit, and,
- (2) The short-circuit and dc voltage tests and corrective measures outlined in paragraphs 2-39 and 2-40 failed to isolate and/or correct the troubles.

b. *Conditions for Tests.*

- (1) Leave the top cover plates off of the spectrum analyzer.
- (2) Place the spectrum analyzer unit on a table or stand (about 30 inches high), immediately to the right of the cabinet containing the tuning and monitor units. (This placement is necessary to permit interconnection of the units with the cables provided.) See figure 2-15.

(3) Make sure all plug-in circuit modules are firmly seated in the proper chassis jacks.

(4) Interconnect the units as in the normal test set configuration (fig. 4-2).

(5) Connect an Signal Generator AN/GRM50 to the input probe of the monitor unit. Tune the signal generator to a test frequency in the range where trouble is known to occur. If unknown, use 1.00 MHz as a test frequency.

c. *Initial Settings.* Set the test set controls as follow s:

- (1) Set the Probe Subassembly MX-8642/U switches to 50 and TERM.
- (2) Tune the tuning unit to the test frequency.
- (3) Make whatever settings are required to cause the malfunction to occur.

d. *Substitution Procedures.*

(1) Turn the spectrum analyzer SCALE ILLUM control to PWR OFF when removing and replacing the plug-in modules.

(2) Make sure the replaced circuit modules are firmly seated in the chassis jacks.

(3) Even if the installation of a replacement module does not completely clear the trouble, leave the replacement module in the chassis until all symptoms have been eliminated.

(4) If normal operation can be obtained. by these procedures, those substituted modules which seemed to have no appreciable effect may be replaced by the original modules, one by one. After each such replacement, verify that the spectrum analyzer continues to function normally.

NOTE

It is quite possible for defective operation to be caused by simultaneous defects in two or more modules. Defects in one module can often cause damage to other modules.

(5) If the trouble(s) cannot be eliminated by substituting circuit modules, bench test setup and troubleshooting procedures will be required. Refer to appropriate section.

(6) Module locations are shown in figure 2-96.

(7) Some common malfunctions are listed in the following chart along with the circuit modules most likely to be at fault.

<i>Trouble indication</i>	<i>Probable cause</i>
Vertical indication. or spot. no horizontal trace	Modules A14, A16.
Insufficient sweep width	Modules A14, A16.
Normal 'CRT display in 10 kHz/DIV sweep mode. faulty operation in the 1 kHz- z/)IV sweep mode	Modules A8, A10.
Normal CRT display in I kHz/ DIV sweep mode, faulty operation in the 10 kHz- z/ DIV sweep mode	Modules A2, A9.
Normal CRT display. no marker pulse	Modules A2, A5.
Horizontal trace and marker pulse but no other vertical display	Module A4.
Horizontal trace. no marker or other vertical indication	Module A7, A12, A15.

Section VIII. SPECTRUM ANALYZER IP-1018/U, BENCH TROUBLESHOOTING

WARNING

Hazardous voltages of 115 or 230 volts ac exist within the spectrum analyzer when it is connected to a source of ac power. Take extreme care not to come in contact with the primary ac power wiring between the ac input socket, the primary fuse, the power switch on the back of the scale illumination control and the power transformer primary when making tests with the spectrum analyzer connected to a primary ac power source. Additional hazardous voltages of +150 Vdc exist on pc boards A13, A14, A15, A16, the astigmatism control on the chassis, and the interconnecting wiring when ac power is applied and the SCALE ILLUM PWR OFF switch is in the on position. +2600 volts dc exists on pc board A13, front panel controls FOCUS and INTENSITY, the socket of the CRT and the interconnecting wiring when ac power is applied and the SCALE ILLUM PWR OFF switch is in the on position. Make sure the SCALE ILLUM control is in the PWR OFF position before coming in contact with any of these boards and circuits.

DON'T TAKE CHANCES!**2-42. General**

Bench testing and troubleshooting procedures are to be followed:

- a. When the procedures outlined in section V of this chapter have failed to localize the trouble, and/or:
- b. To isolate defective components either on the pc boards or mounted on the chassis.

2-43. References

- a. Refer to TM 11-6625-1748-12 for operational checkout procedures for Radio Test Set AN/USM-306(V)1.
- b. A basic troubleshooting chart is contained in Chapter 4 of the Operator and Organizational Maintenance manual.
- c. Read paragraphs 2-1 through 2-7 before proceeding with the tests contained in this section.
- d. Overall schematic diagrams of the spectrum analyzer are provided by figures 6-17 (1) and 6-17 (2), at the back of this manual.
- e. Signal substitution/stage gain tests are contained in paragraph 2-47.
- f. Pc board (module) photos with callouts for all components and test points, and accompanying schematic diagrams are provided in paragraph 2-48. These illustrations are arranged in numerical sequence, beginning with attenuator A1.
- g. Dc voltage charts are contained in paragraph 2-49.
- h. Analysis of abnormal transistor voltage readings is discussed in paragraph 2-29 a, b, and c.
- i. Rf signal level, frequency and waveform information is provided in paragraph 2-50. Waveform illustrations are contained in figures 2-131 through 2-139, inclusive.
- j. A chart listing transformer and coil dc resistances is contained in paragraph 2-51.

k. Paragraph 2-52 lists resistances for the various positions of the SWEEP-kHz/DIV switch.

l. Refer to figures 2-11 through 2-14 for component, control and module locations.

m. When replacing transistors, refer to figure 5-1. Transistor basing diagrams."

n. Additional references are listed in the appendix, at the back of this manual.

2-44. Test Equipment Requirements

The test equipment and ancillary items required to bench test and troubleshoot this equipment are listed in paragraph 2-3.

2-45. Procedures**CAUTION**

Observe the cautions given in paragraph 2-3a(1) through (5), inclusive. Use an ohmmeter to make only those tests which are listed throughout this chapter. Do not use an ohmmeter to make any other tests, nor to test individual transistors. Defective transistors are isolated by operational tests and dc voltage measurements.

- a. *Bench Testing Setup.* It is recommended that the spectrum analyzer be placed on its right side on the bench. This will make all test points both above and below the chassis readily accessible. Remove all cover plates. Use card risers to make pc module test points accessible. Place the operational Tuning Unit TN-527/U and the operational Audio-Radio Frequency Monitor TS-2968/U (para 2-47) on the bench so that they may be connected to the spectrum analyzer unit under test. These units may

also be placed on their sides to converse bench space and to have adequate ventilation. If it is desired to stack these two units, use one-inch thick, or thicker, blocks under the four corners of each unit, to provide for adequate ventilation.

b. Preliminary Resistance Test. Before connecting the spectrum analyzer to an ac primary power source, use an ohmmeter to check the -18V dc power circuit, as outlined below. If the reading obtained is less than 32 ohms, refer back to Section V of this chapter and perform the detailed dc power supply circuit tests.

CAUTION

Do not connect the spectrum analyzer; to an ac power source unless the reading in the following test is 32 ohms or greater.

- OFF.
- (1) Turn the SCALE ILLUM control to PWR
 - (2) Install pc board A3 on a card-riser.
 - (3) Connect the negative lead of the ohmmeter to TP2.
 - (4) Connect the positive lead of the ohmmeter to TP1 or to chassis ground.
 - (5) The minimum resistance reading shall be 32 ohms.

c. Preliminary Voltage Test. Upon satisfactory completion of the resistance test outlined in *b.*, above, connect the spectrum analyzer to a primary ac power source. Turn the spectrum analyzer on and measure the dc voltage between TP2 and TP1 (or chassis ground). The voltage shall be -18.0 volts dc. Adjust R8 on board A3 if necessary. If unable to obtain -18.0 volts dc, refer to paragraph 2-21.

d. Isolation Procedures. Isolation of defective components is accomplished by first localizing the trouble to a specific module or circuit. Perform isolation tests by following the procedures in the order given in the following paragraphs.

e. Tests After Repairs. Upon completion of repairs, perform the necessary operational tests to insure that the unit is working properly. If any tuneable coils, or modules containing tuneable coils have been replaced, check the alignment of the unit in accordance with the appropriate procedures contained in section II of chapter 3.

2-46. Signal Substitution/Stage Gain Tests

CAUTION

In making tests that require the injection of signals from external generators, always reduce the external generator output to minimum before connecting the generator to the unit under test. Transistors can easily be destroyed

by signal levels that exceed the voltage-breakdown ratings of the transistors, even if the unit under test is not turned on.

For the following tests, an operational Tuning Unit TN-527/U is required. Use one of the 50-ohm interconnecting cables to interconnect the TO 360 18.8 MHz jack on the rear panel of the tuning unit to the 18.8 MHz jack on the rear panel of the spectrum analyzer. Tune the tuning unit to 50 kHz.

a. Before applying power to the spectrum analyzer:

- (1) Place pc module A15 on a card riser.
- (2) Connect oscilloscope to A15 TP2 and chassis.

b. Set the spectrum analyzer controls as follows:

- (1) ATTENUATOR DB control to 0.
- (2) 0 db Cal control fully clockwise.
- (3) MARKER control to OFF.
- (4) Set FOCUS, INTENSITY AND SCALE ILLUM for a suitable display on the CRT screen.
- (5) SWEEP kHz/DIV control to CONTINUOUS 10.
- (6) SWEEP RATE control to NORM.

c. Connect Electronic Counter AN/USM-207 to the output of Signal Generator AN/GRM-50. Tune the signal generator to 21.050 MHz \pm 10kHz. Disconnect counter.

d. Reduce signal generator output level to minimum. (Do not alter tuning). Connect the signal generator output to the 21.1 MHz jack on the rear panel of the spectrum analyzer.

e. Adjust vertical position control on spectrum analyzer, if necessary, to place the trace baseline on the -20 dB line of the CRT graticule.

f. signal generator output level to -80 dBm.

g. Set oscilloscope horizontal sweep rate to 20 ms/div. Look for a pulse once per spectrum analyzer sweep.

h. Adjust 0 dB CAL control for a pulse amplitude of 3.4 volts peak-to-peak.

i. Verify that the top of the pulse on the CRT display is within : ± 0.2 dB of the 0 dB line on the CRT graticule.

j. Increase signal generator output level to -75 dBm.

k. Verify that the top of the pulse on the CRT display is within ± 2 dB of the +5 dB line on the graticule, and that the pulse is not visibly clipped at the top.

l. Reduce the signal generator output level to -85 dBm.

m. Verify that the top of the pulse on the CRT display is within 0.5 dB of the -5 dB line on the graticule.

n. Reduce the signal generator output level to -90 dBm.

o. Verify that the top of the pulse on the CRT display is with ± 1.0 dB of the -10 dB line on the graticule.

p. Reduce the signal generator output level to -95 dBm.

q. Verify that the top of the pulse on the CRT display is within ± 1.5 dB of the -15 dB line on the graticule.

r. Reduce the signal generator output level to -100 dBm.

s. Verify that the top of the pulse on the CRT display is within less than 2 dB of the -20 dB line on the graticule.

t. Turn the SCALE ILLUM-PWR OFF control on the spectrum analyzer to PWR OFF. Disconnect test equipment. Remove card riser and replace A15 in the chassis jack.

u. Connect an operational Tuning Unit TN527/U and an operational Audio-Radio Frequency Monitor TS-2968/U to the spectrum analyzer under test, in accordance with figure 4-2.

v. Install Probe Adapter MX-8640/U on Probe Subassembly MX-8642/U. Connect probe subassembly to the tuning unit. Set probe switches to 50Ω and TERM.

w. Connect probe subassembly to Signal Generator AN/ GRM-50. Tune signal generator to 1.05 MHz and set output to 0 dBm.

x. Calibrate monitor unit and then tune tuning unit to 1.05 MHz. Vary the FINE tuning control for a maximum reading on the DECIBELS meter. Adjust signal generator output for a 0 dB reading on the DECIBELS meter.

y. Set spectrum analyzer controls as follows:

(1) SWEEP kHz/DIV control to CONTINUOUS 1.

(2) SWEEP RATE to FAST.

z. Adjust signal generator vernier tuning control to place the pulse at the left side of the CRT display.

aa. Reduce the INPUT LEVEL display on the monitor unit to -50 dBm.

ab. Verify that the spurious responses at the right-hand side of the CRT display are below the -15 dB line on the graticule.

ac. Reset monitor INPUT LEVEL display to 0 dBm.

ad. Set spectrum analyzer controls as follows:

(1) SWEEP kHz/DIV control to CONTINUOUS 10.

(2) SWEEP RATE to NORM.

ae. Verify that the signal generator pulse is near the center of the CRT display.

af. tuning unit TUNING MODE switch in the CONT position.

ag. Vary the COARSE tuning control on the tuning unit, stopping at each 10 kHz interval, between 1.00 and 200 MHz.

ah. At each 10 kHz interval, verify that:

(1) The pulse on the CRT display is with +kHz of the appropriate vertical line on the graticule, and:

(2) The top of the pulse is within + 0 dB of the 0 dB line on the graticule.

ai. Retune the tuning unit to 1.05 MHz.

aj. Set spectrum analyzer ATTENUATOR DB control to 20.

ak. Set monitor unit INPUT LEVEL display to -20 dBm.

al. Verify that the signal generator pulse on the CRT display is within 4 0.5 dB of the 0 dB line on the graticule.

am. Set the spectrum analyzer ATTENUATOR DB control to 40.

an. the monitor unit INPUT LEVEL display to -40 dBm.

ao. Verify that the signal generator pulse on the CRT display is within 11.0 dB of the 0 dB line on the graticule.

ap. Tune the tuning unit to 1.02 MHz.

aq. Rotate MARKER control on spectrum analyzer clockwise. Observe marker pulse on CRT screen.

ar. Depress MARKER INDENT button.

as. Verify that the 1.05 MHz pulse from the signal generator disappears and that the marker pulse remains.

at. SWEEP - kHz/DIV control to SINGLE SWEEP 10.

au. Press SINGLE SWEEP pushbutton switch and verify that a single sweep occurs.

av. Repeat steps at. and au for the SINGLE SWEEP 1 and .3 positions of the switch.

aw. Turn SWEEP kHz/ DIV control to the CONTINUOUS 1 and CONTINUOUS .3 positions.

ax. that the marker pulse is within 0.2 of a division of the center vertical mark on the CRT display graticule.

2-47. PC Module Illustrations and Schematic Diagrams

Figures 2-99 through 2-130 are illustrations and schematic diagrams of all pc boards (modules) contained in the spectrum analyzer. All components are called out on the pc board photographs, as well as the test points. The test points are also shown on the accompanying schematic diagrams. The pc board illustrations are intended for use with the signal substitution/ stage gain tests (para 2-46), the dc voltage measurements (para 2-48), rf measurements charts and waveforms (para 2-49) and transformer and coil resistance charts, paragraph 2-50.

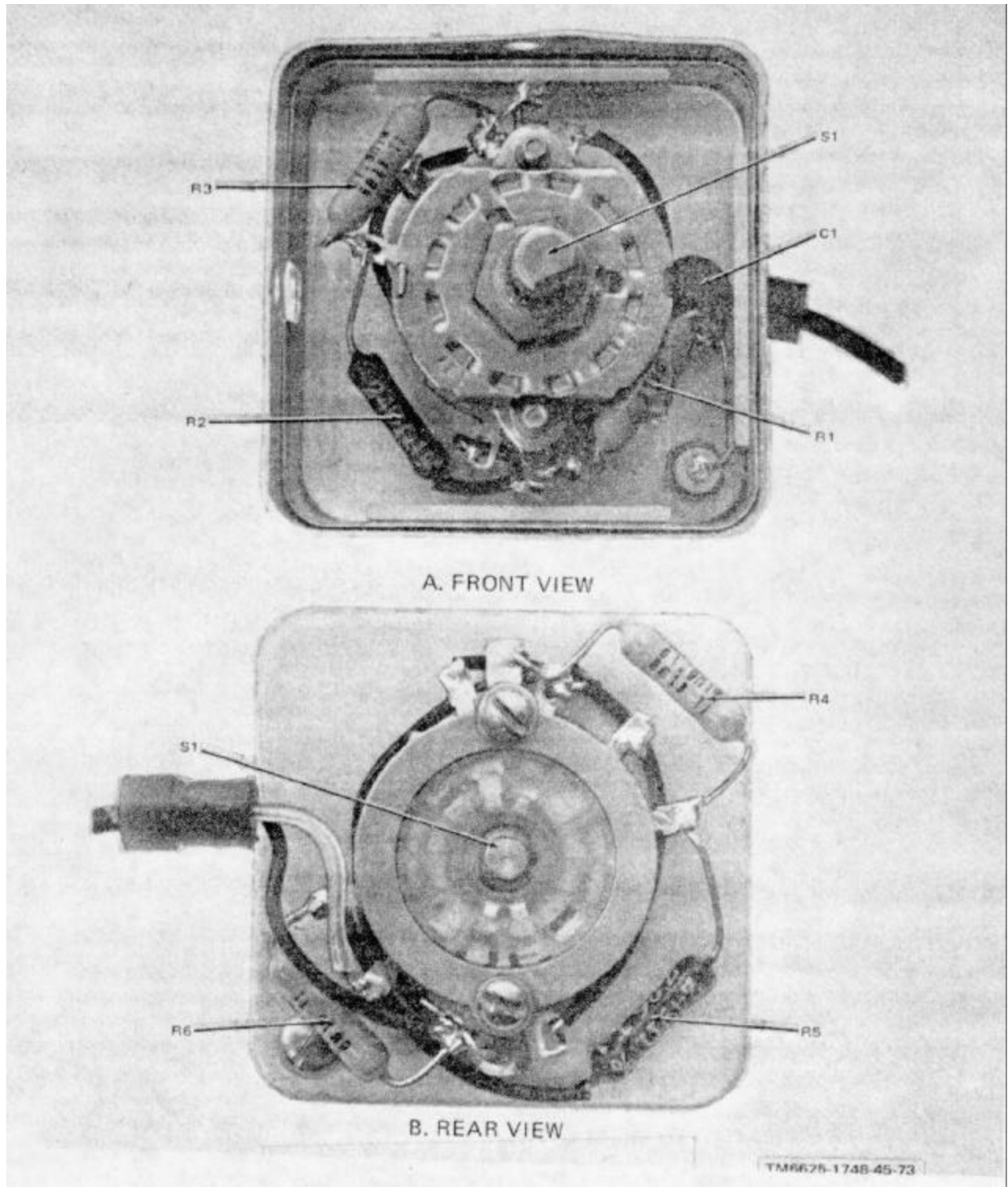


Figure 2-99. Input attenuator A1. Spectrum Analyzer IP-1018/U.

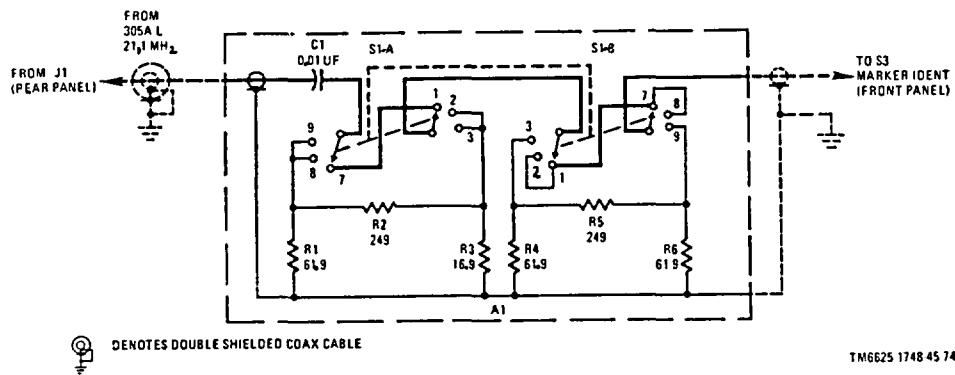


Figure 2-100. Input attenuator A1, schematic diagram. Spectrum Analyzer IP-1018/U.

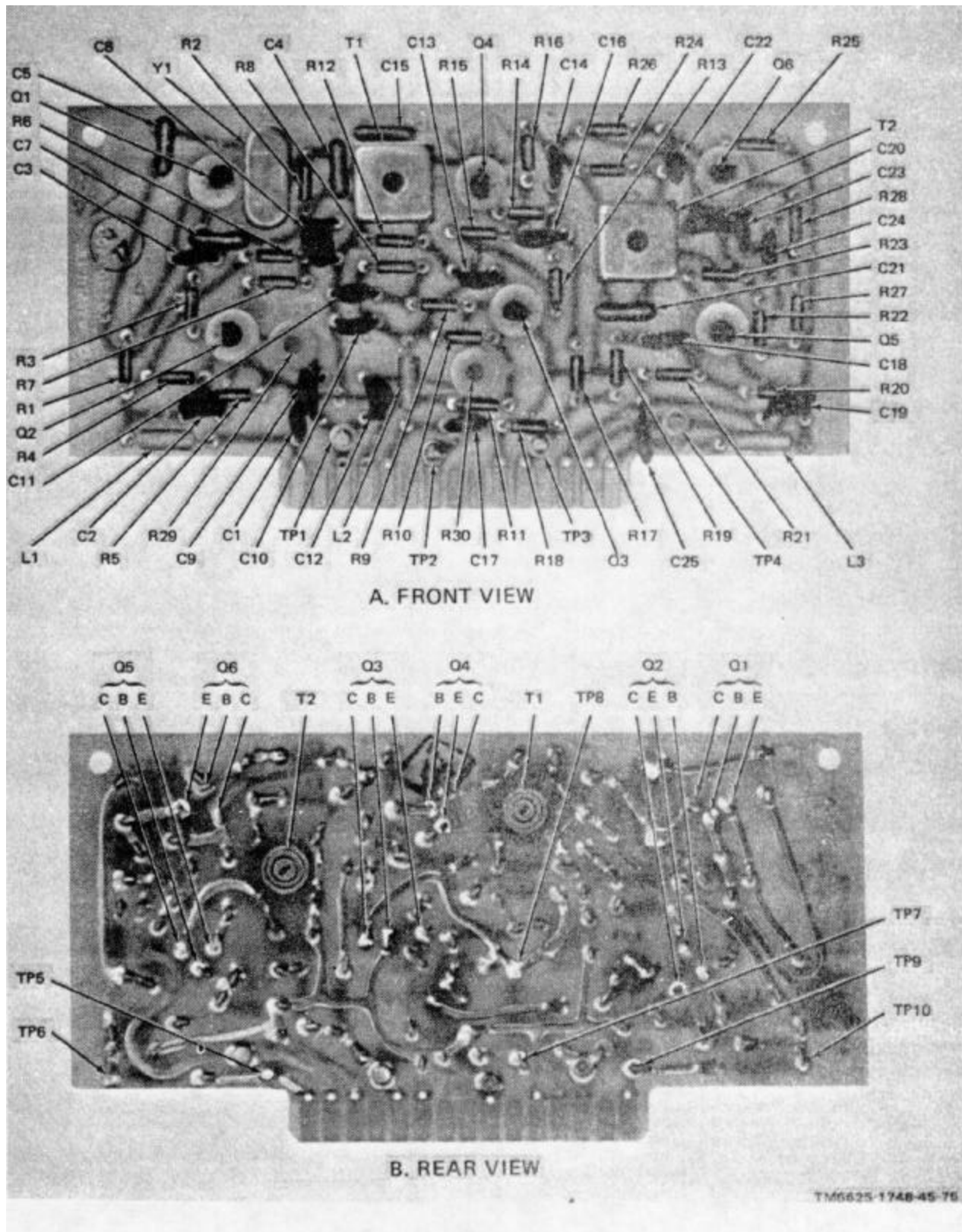
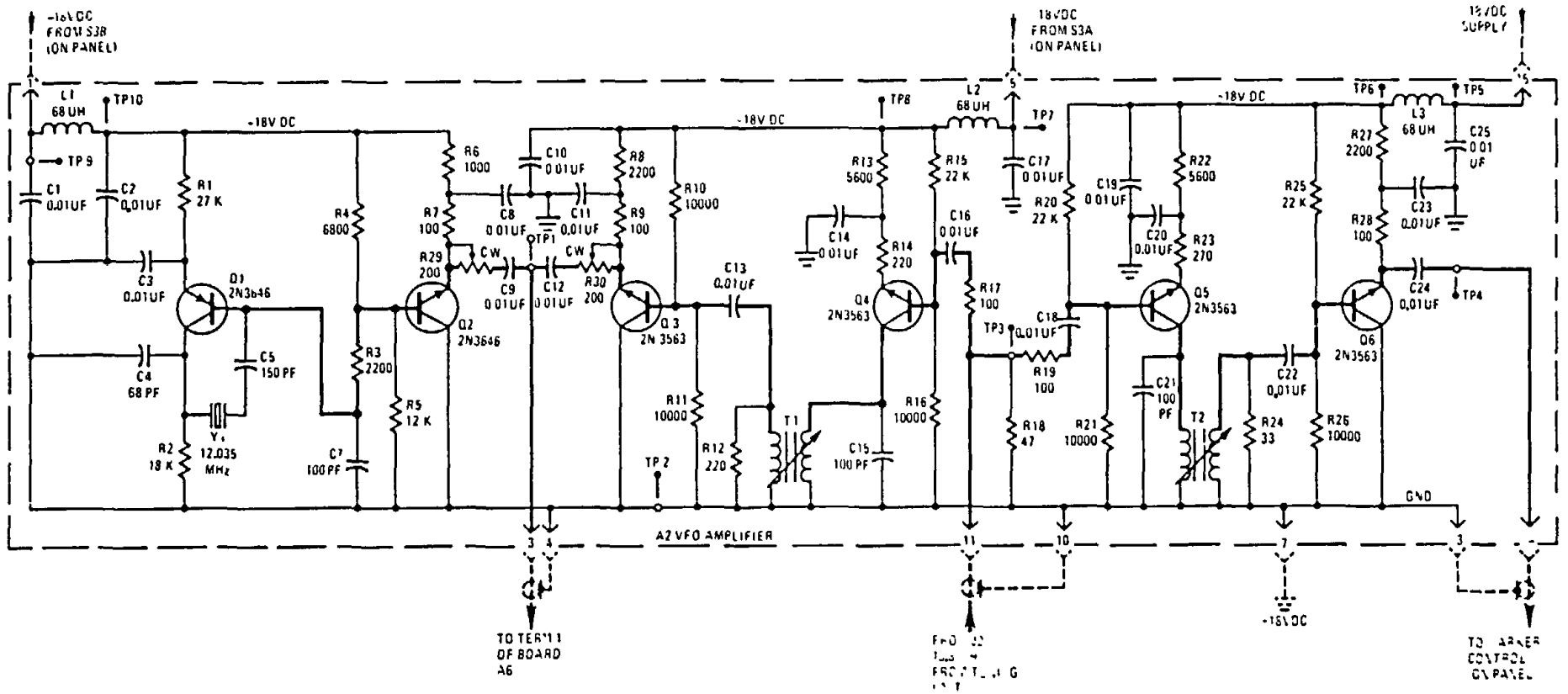
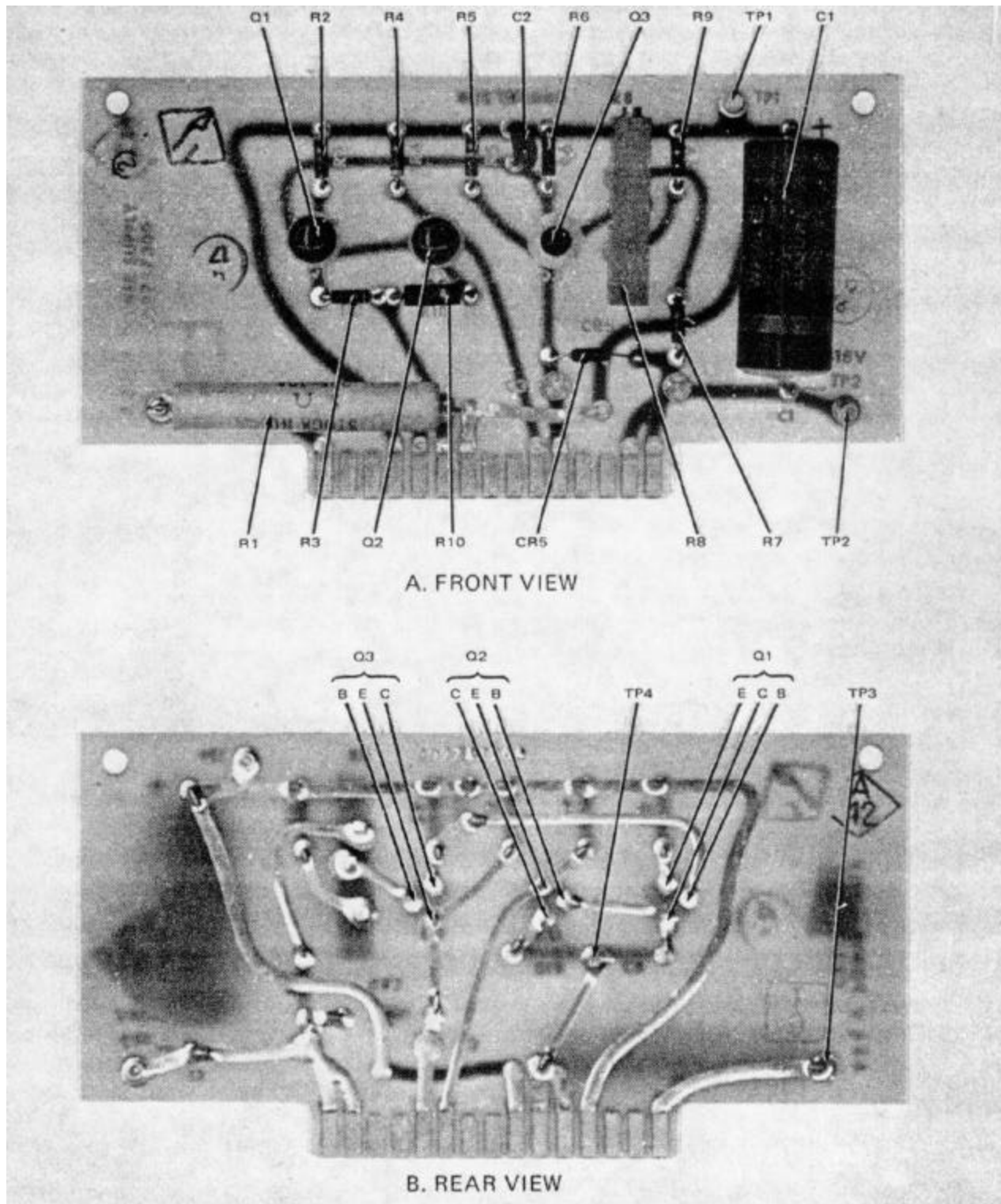


Figure 2-101. VFO amplifier A2. Spectrum Analyzer IP-1018/U.



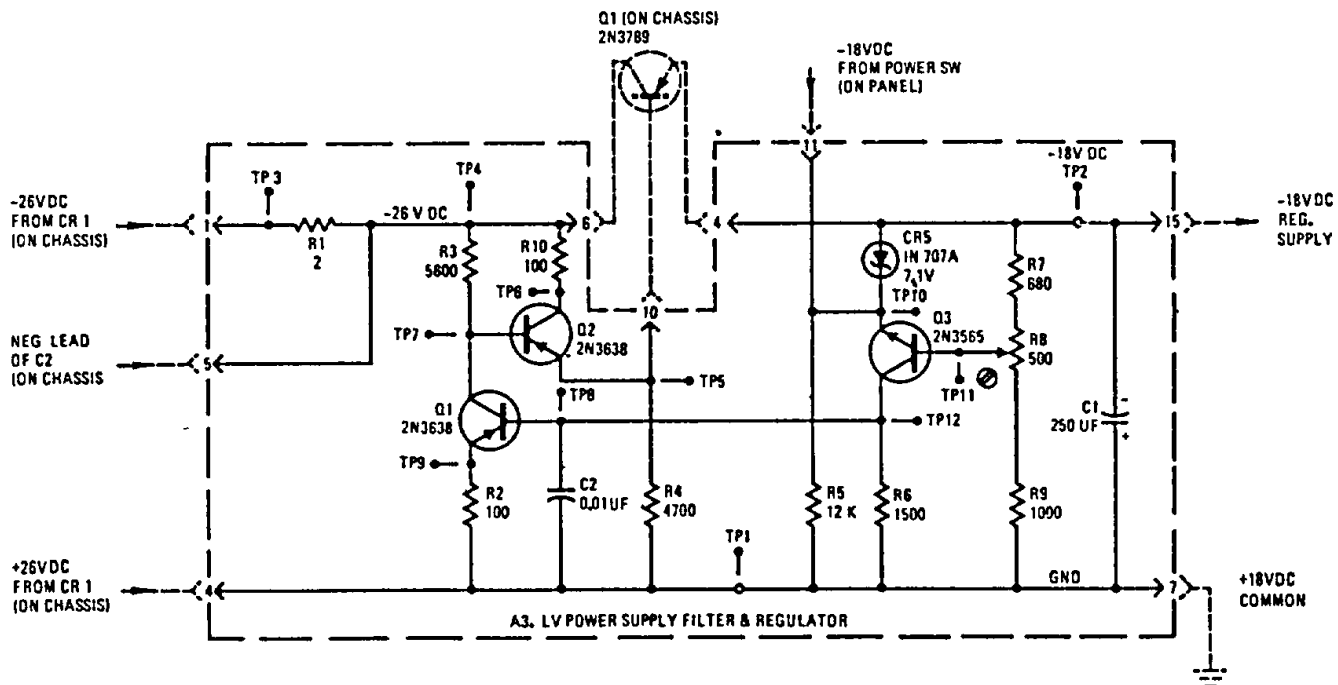
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Figure 2-102. VFO amplifier A2, schematic diagram. Spectrum Analyzer IP-10181/U.



TM 6625-1748-45-77

Figure 2-103. Low voltage power supply A3, Spectrum Analyzer IP-1018/U.



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Figure 2-104. Low voltage power supply A3, schematic diagram. Spectrum Analyzer IP-1018/U.

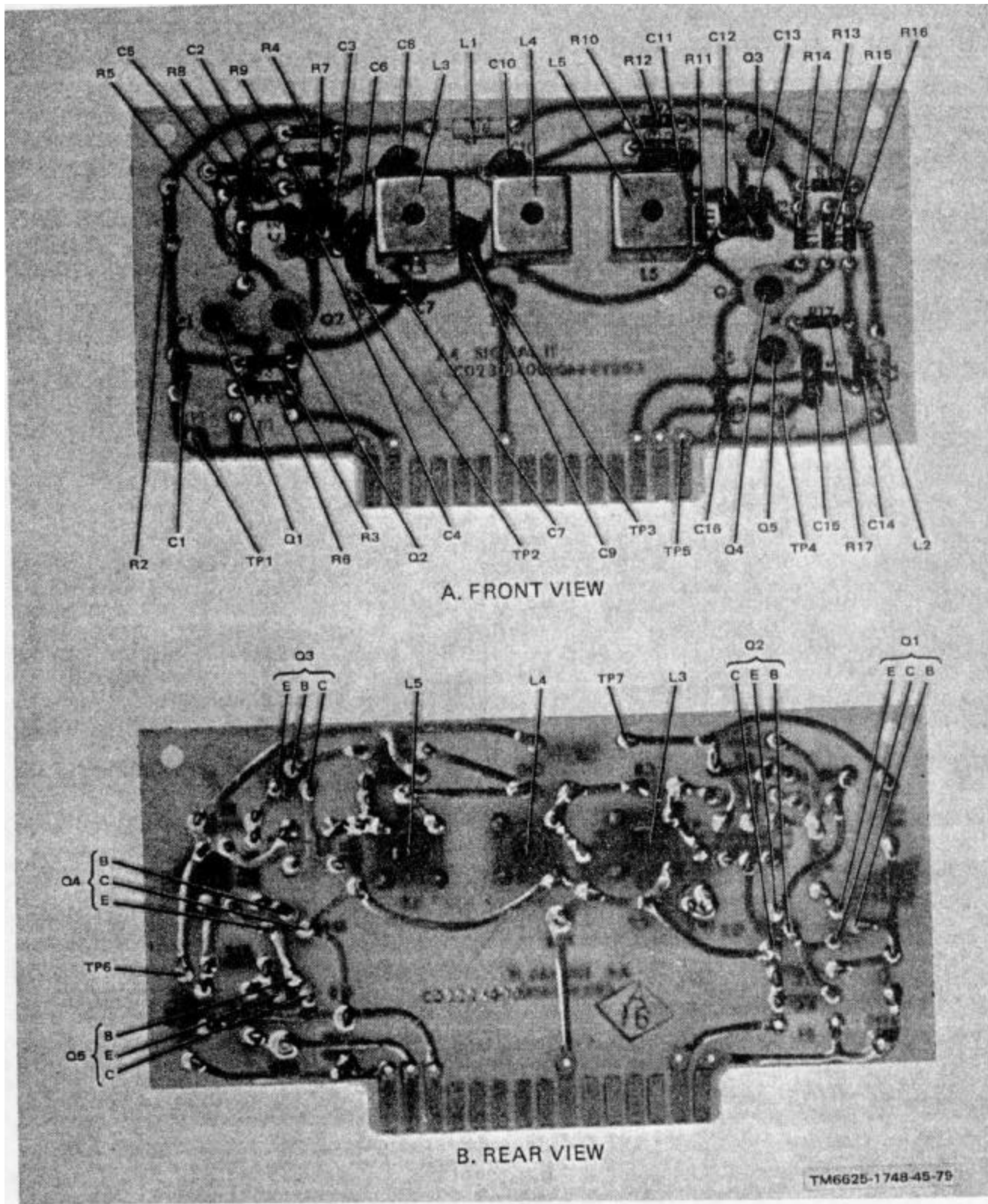
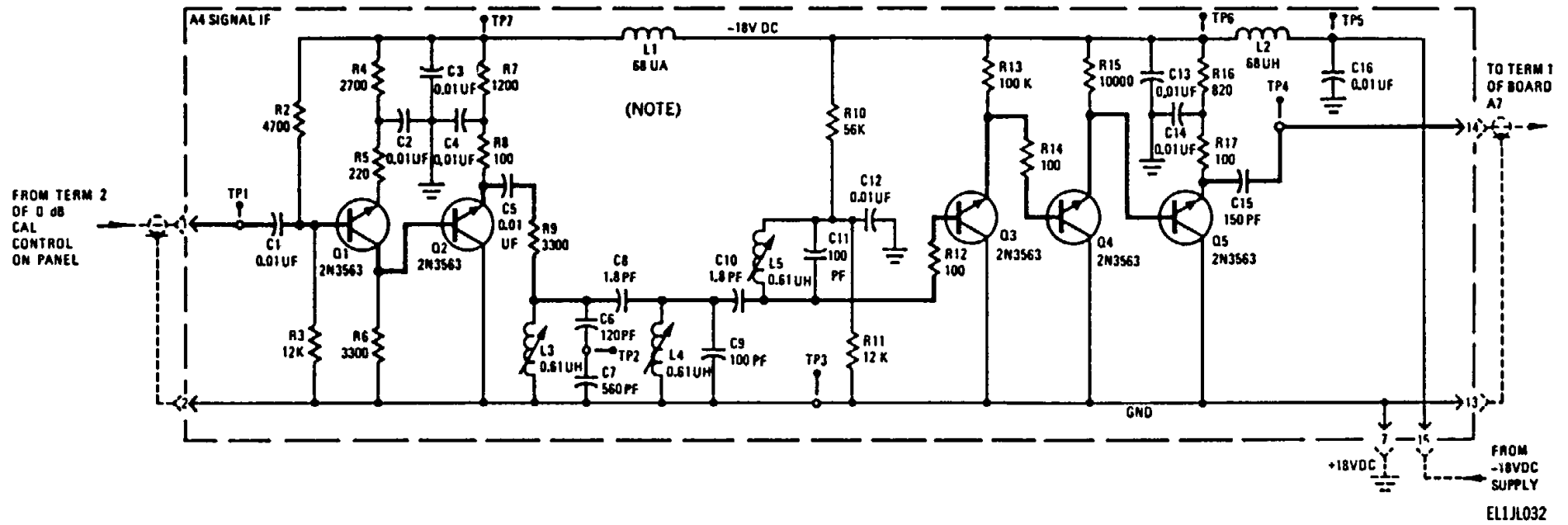


Figure 2-105. Signal IF A4, Spectrum Analyzer IP-1018 /U.



NOTE:
ON CONTRACT NO DMAAB07-78-C-3013 ADD 21.1 MHz TO 210 MHz BANDPASS FILTER.

Figure 2-106. Signal IF A4, schematic diagram, Spectrum Analyzer IP-1018 /U.

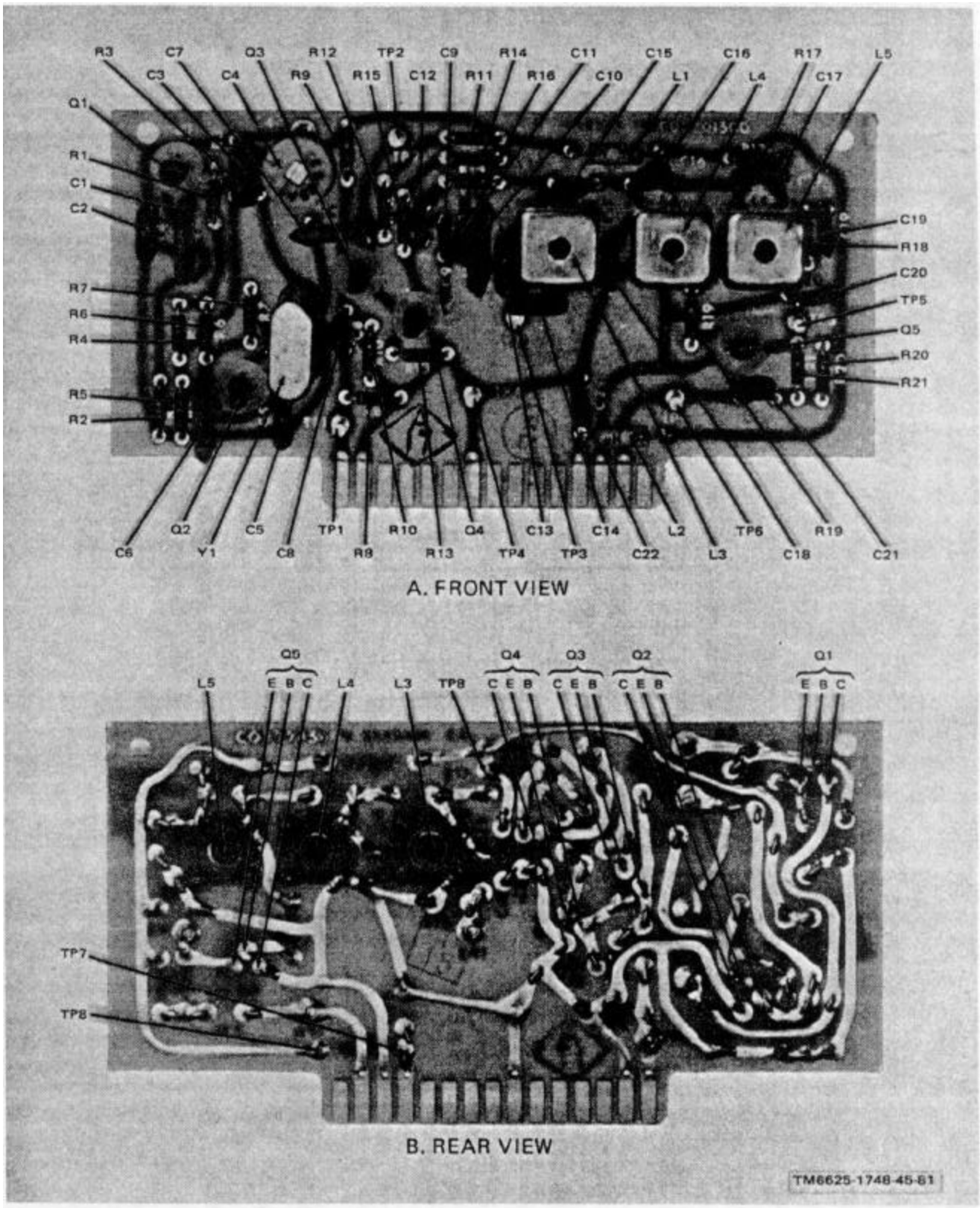


Figure 2-107. Marker IF AS, Spectrum Analyzer IP-1018/U.

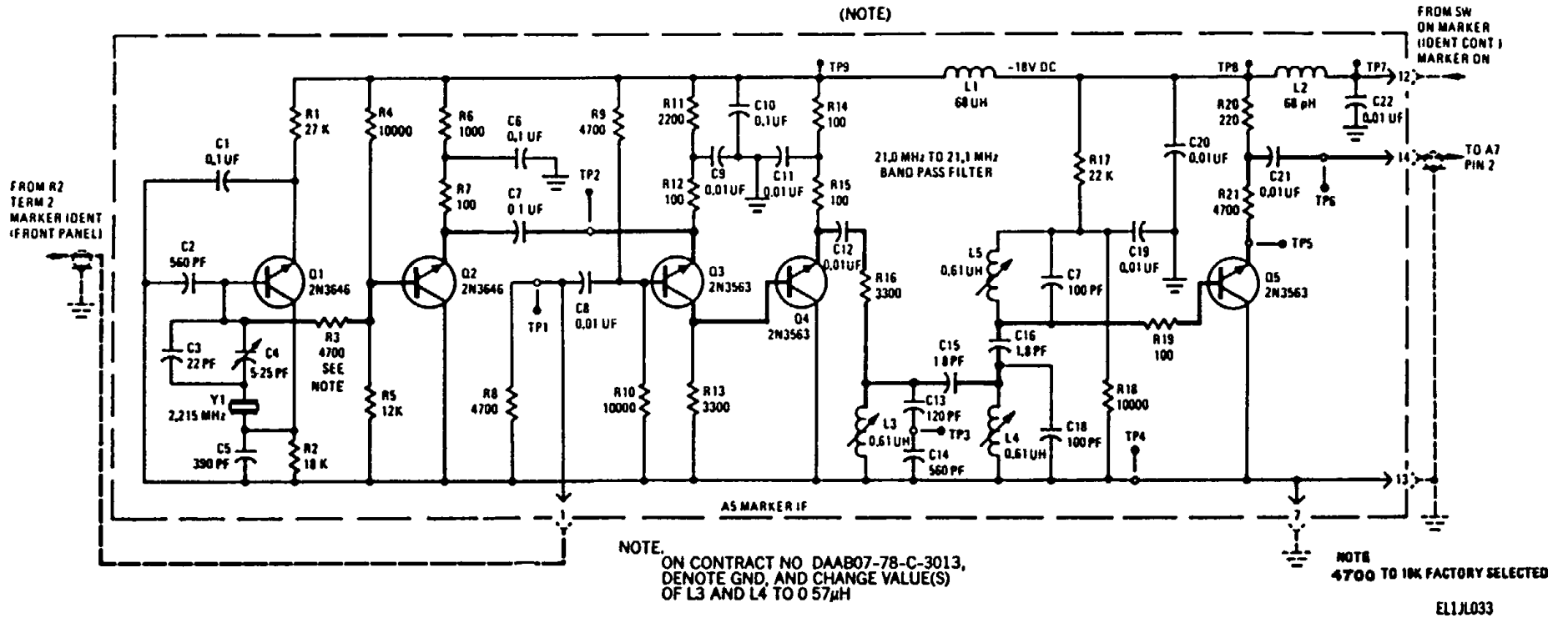


Figure 2-108. Maker IF AS, schematic diagram Spectrum Analyzer IP-1018/U

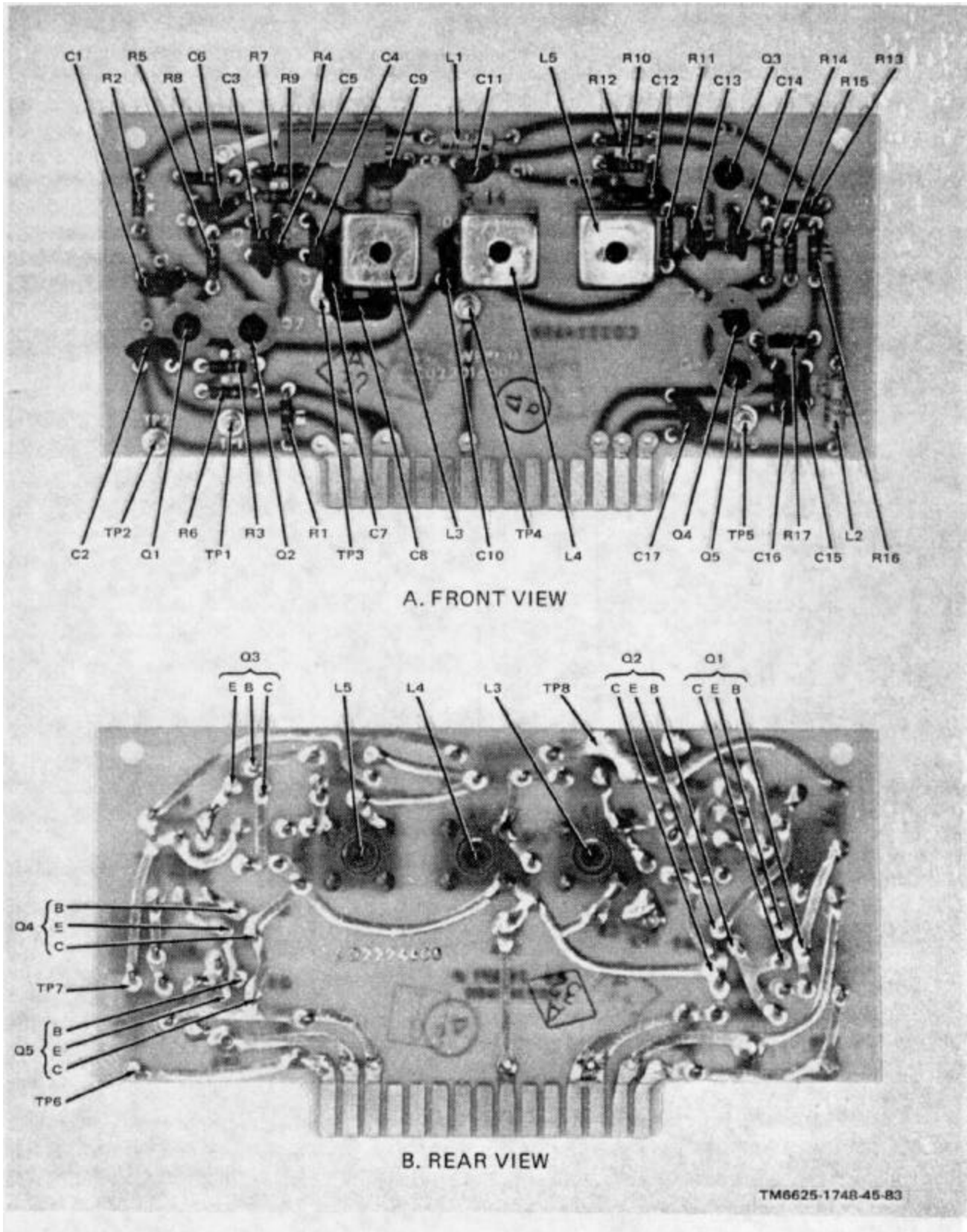
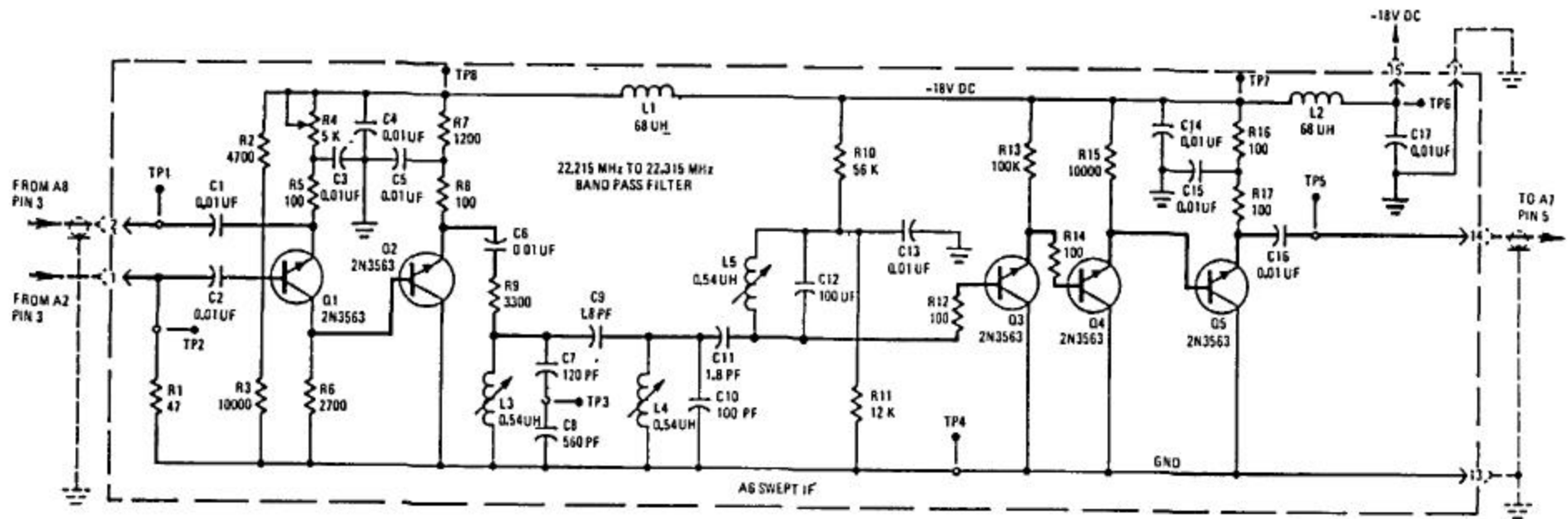
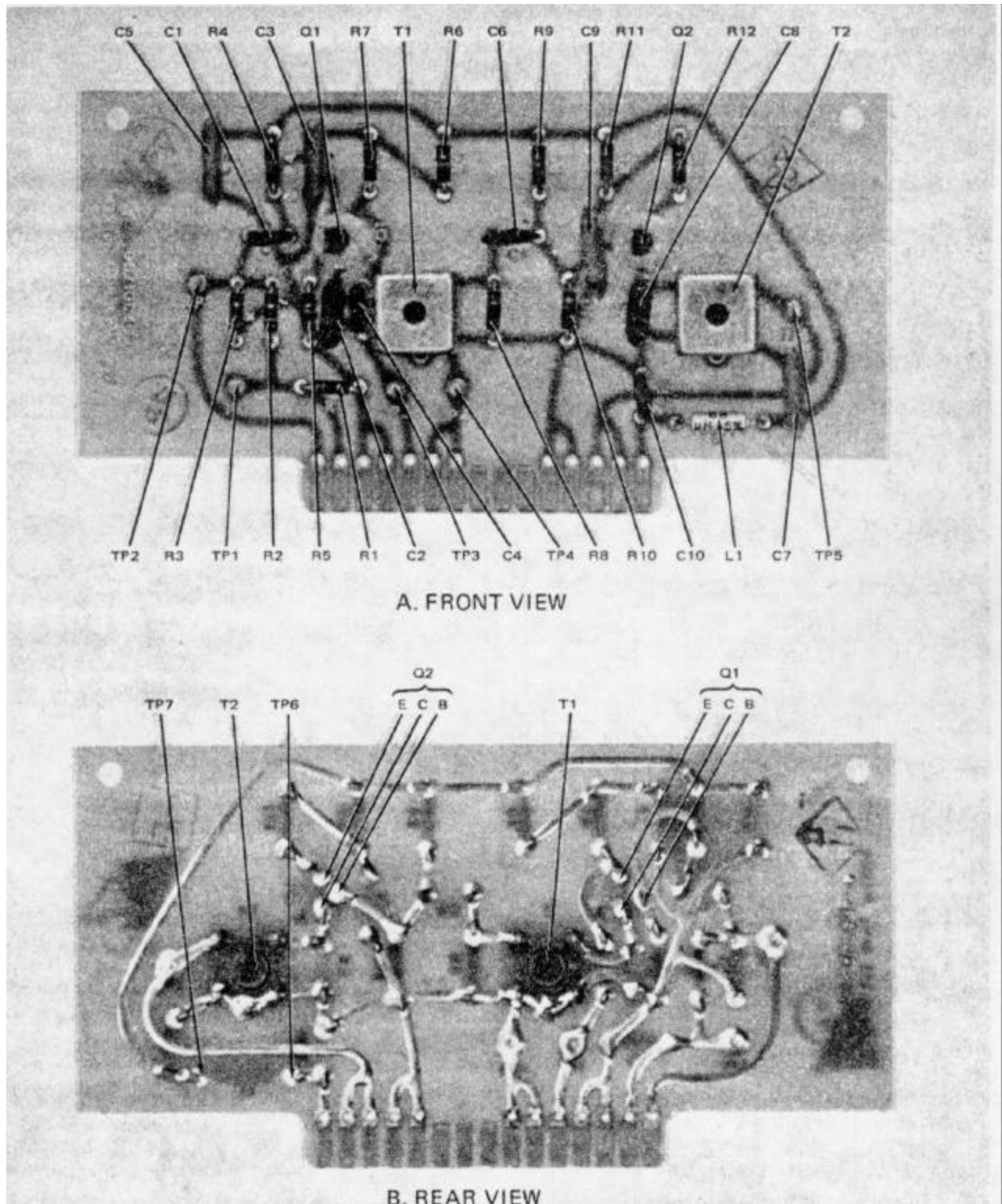


Figure 2-109. Swept IF A6, Spectrum Analyzer IP-1018/U.



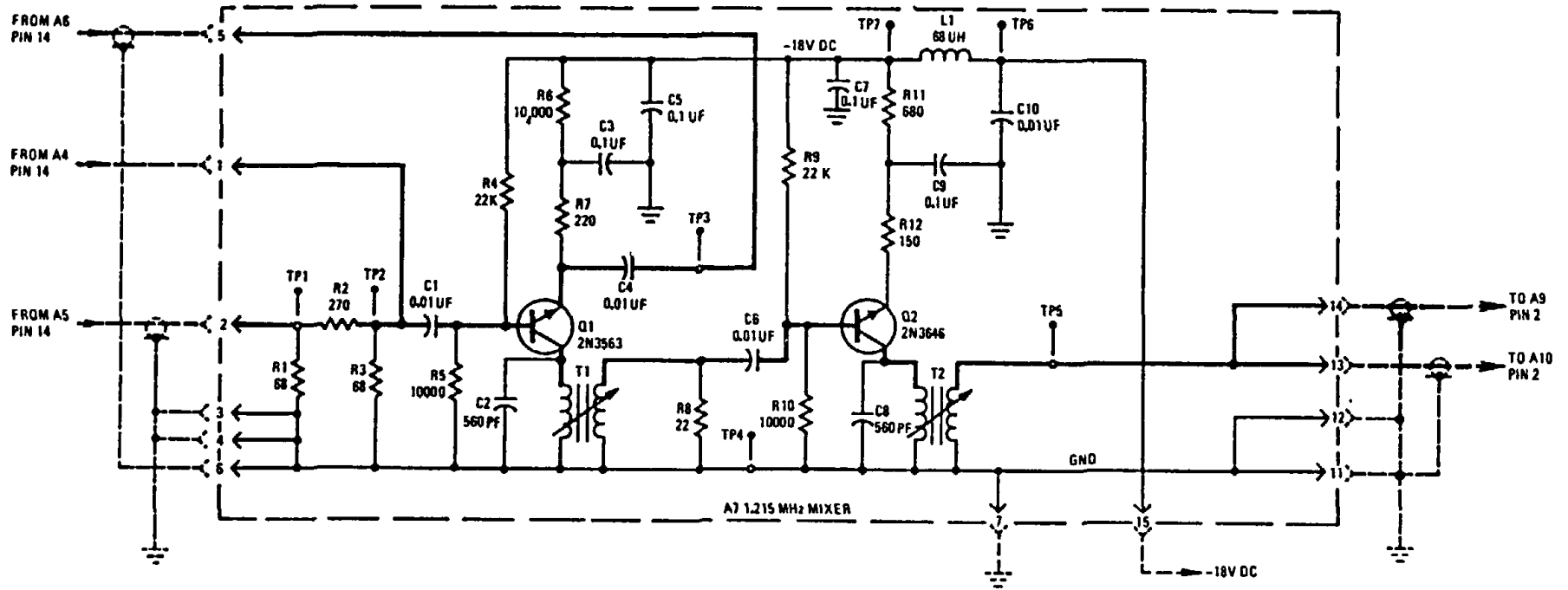
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Figure 2-110. Swept IF A6, schematic diagram. Spectrum Analyzers IP-1018/U.



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Figure 2-111. 1.215 MHz mixer A7, Spectrum Analyzer IP-1018/U.



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Figure 2-112. 1.215 MHz mixer A7, schematic diagram, Spectrum Analyzer IP-1018/U.

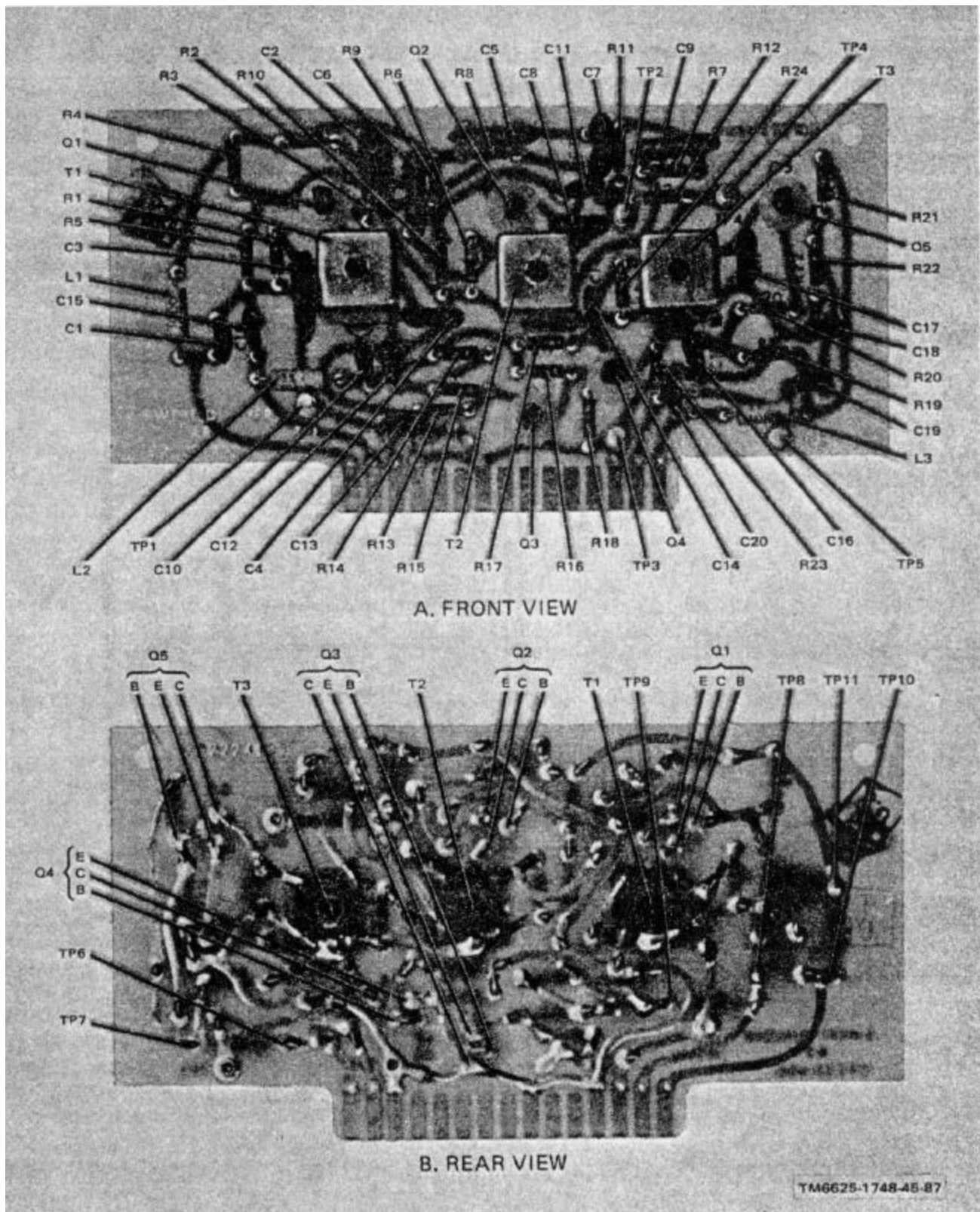
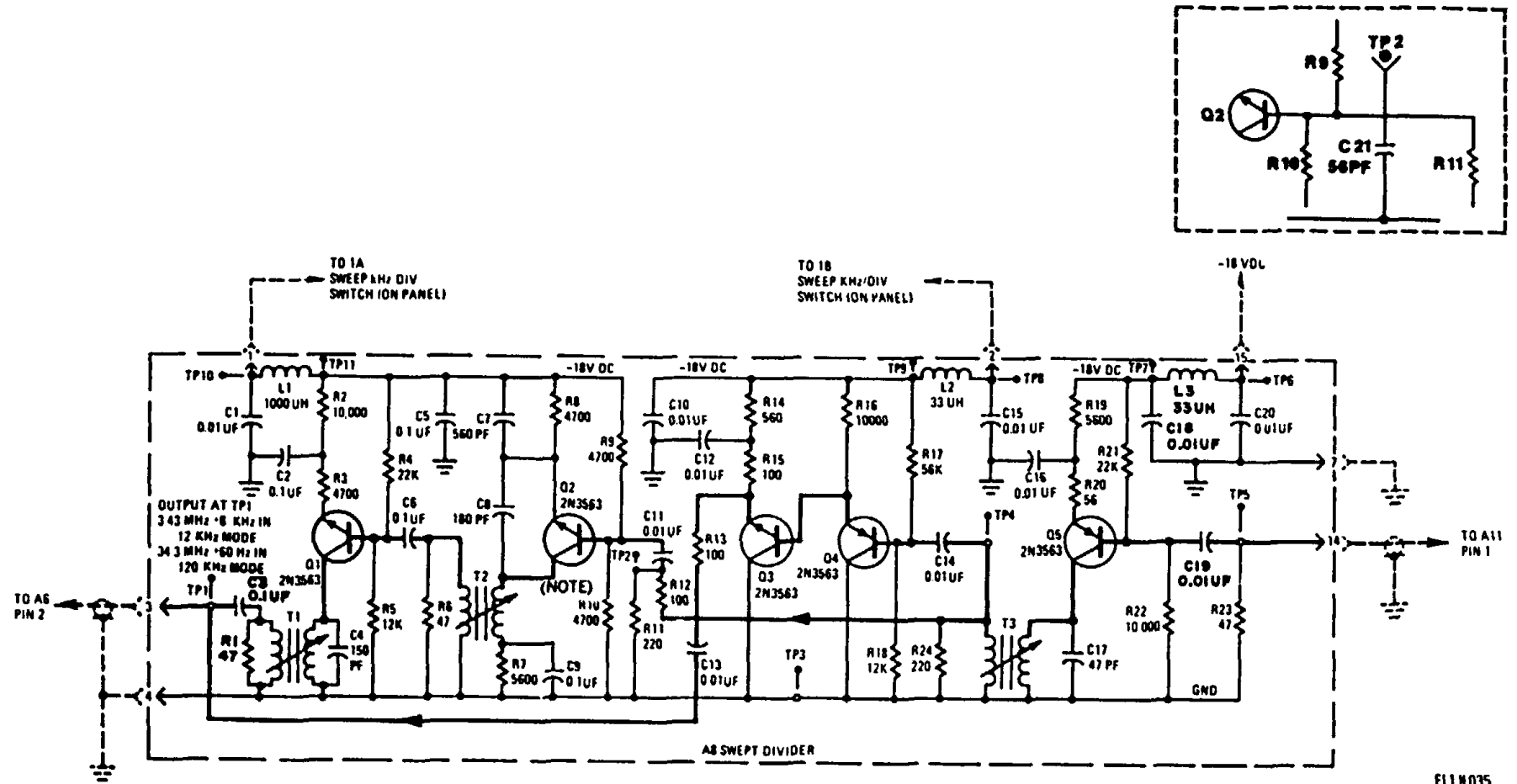


Figure 2-113. Swept divider A8, Spectrum Analyzer IP-1018/U.

NOTE:
 ON CONTRACT NO
 DAAMB07-78-C-3013,
 CHANGE CIRCUITRY AS
 SHOWN BELOW



E11A035

Figure 2-114. Swept divider A8, schematic dam. Spectrum Analyzer IP-1801/U.

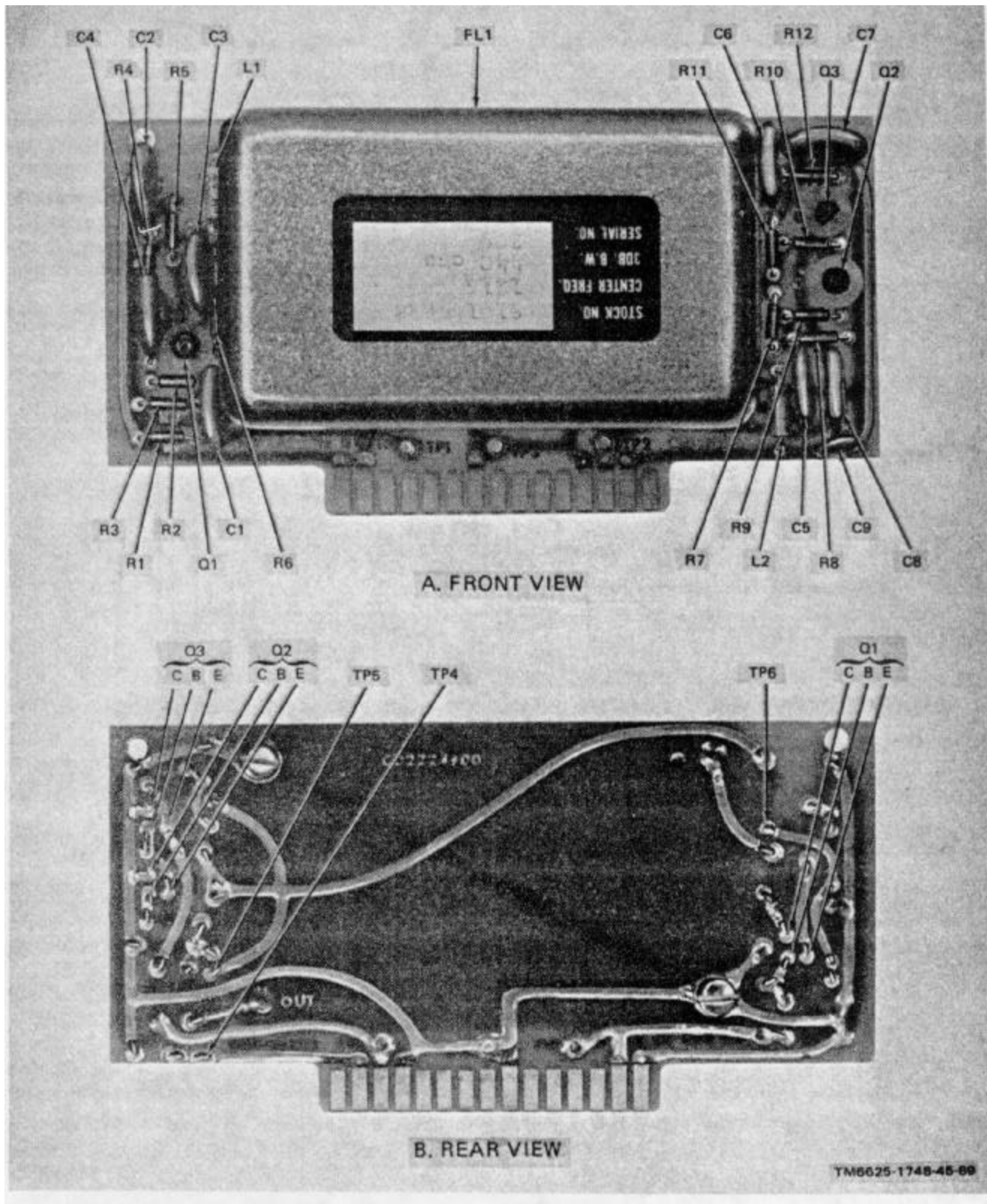
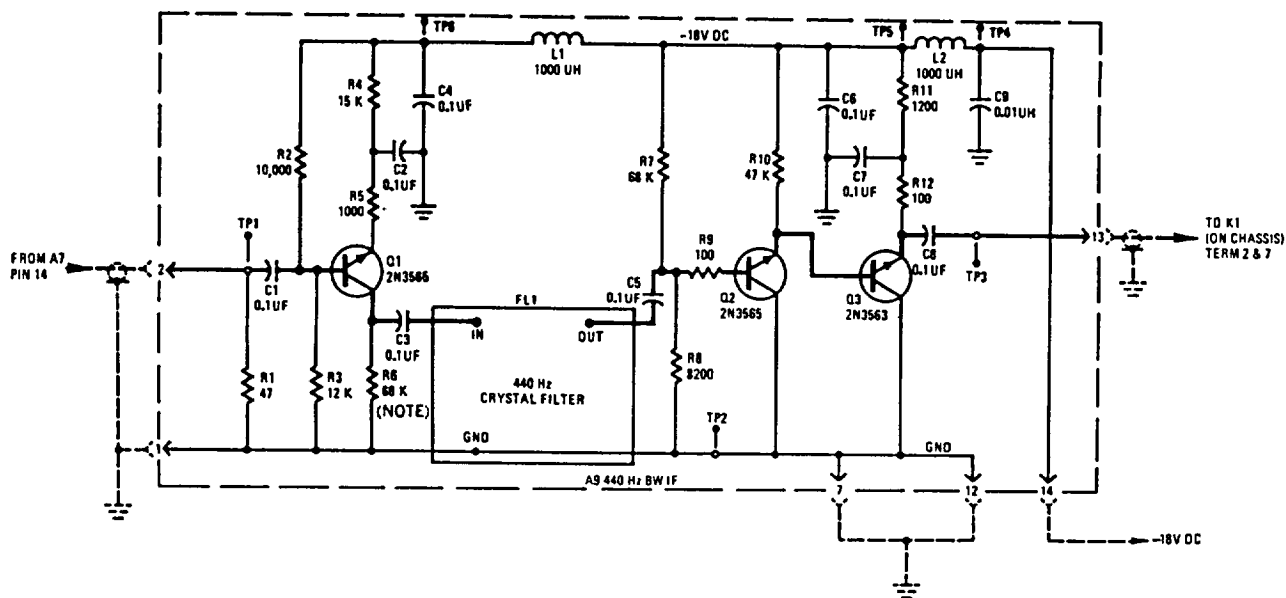


Figure 2-115. 440 Hz BW IF A9, Spectrum Analyzer IP-1018/U.



EL1JL036

NOTE.
ON CONTRACT NO DAAB07-78-C-3013, CHANGE VALUE OF R6 TO 6 8K

Figure 2-116. 440 Hz BW IF A9, schematic diagram Spectrum Analyzer IP-1018IU.

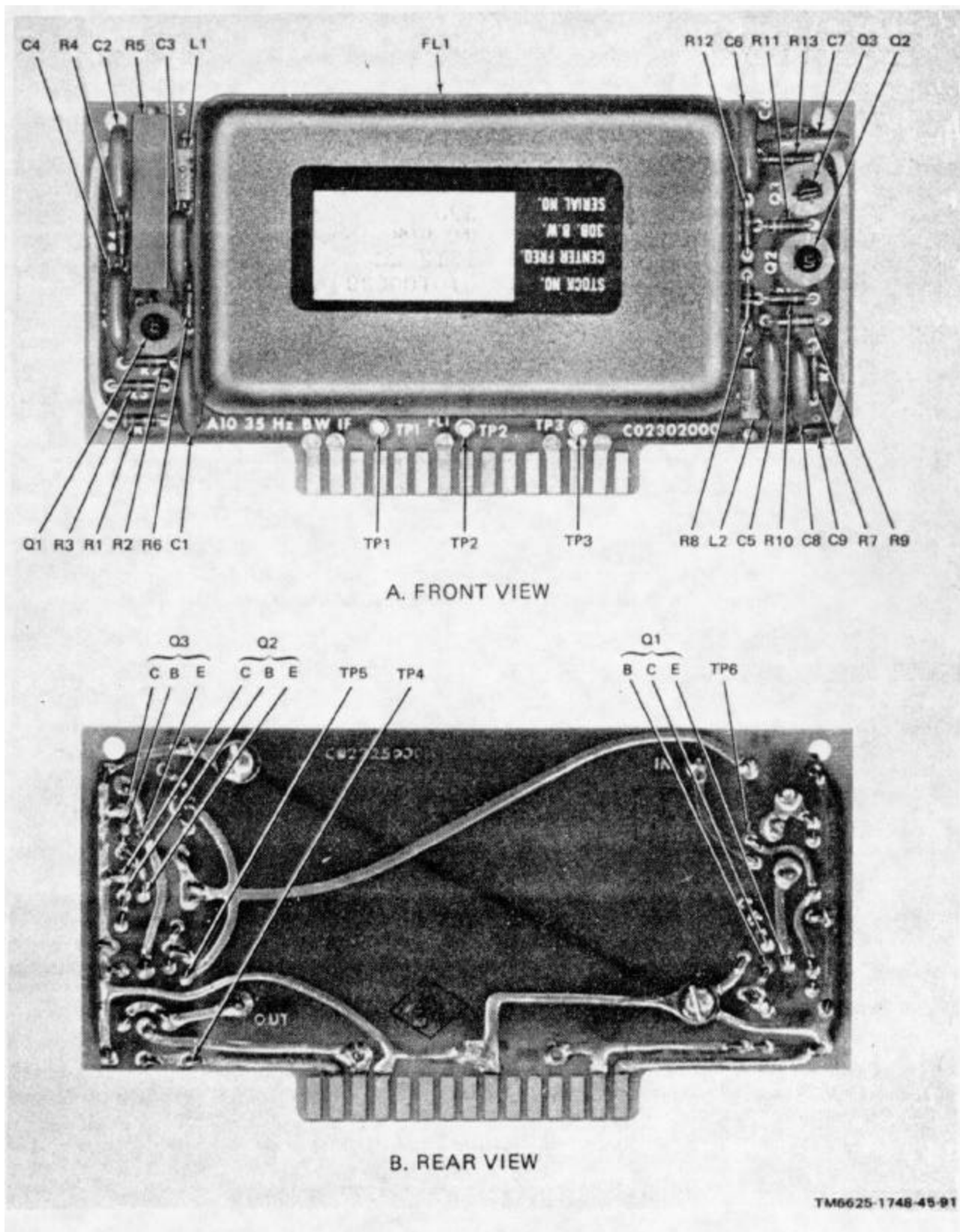
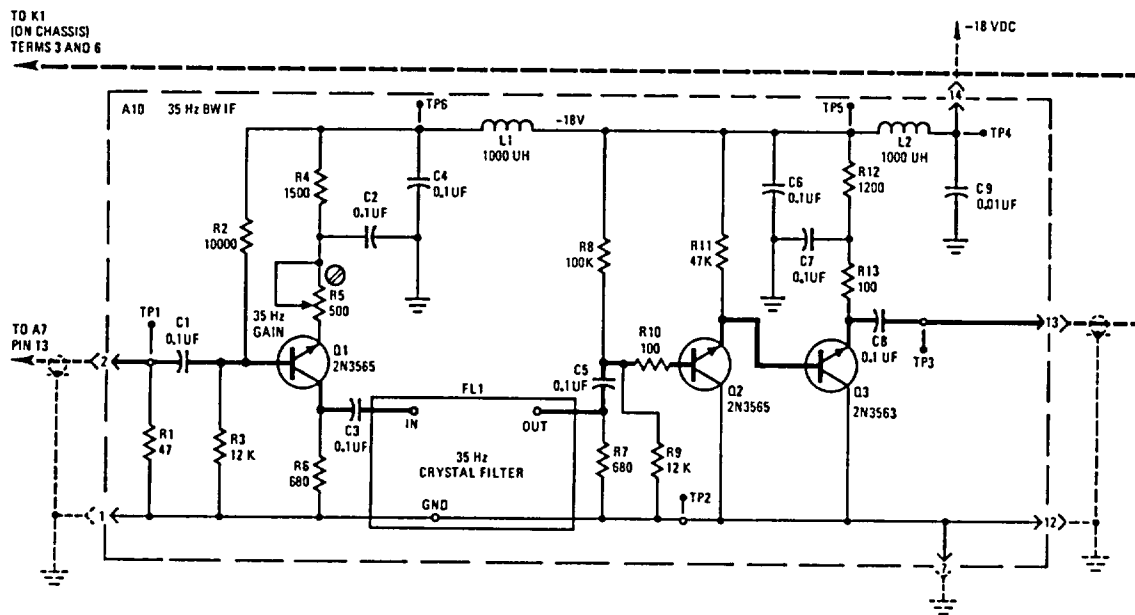


Figure 2-117. 35 Hz BW IF A10. Spectrum Analyzer IP-1018/U.



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Figure 2-118. 35 Hz BW IF A10, schematic diagram. Spectrum Analyzer IP-1018/U.

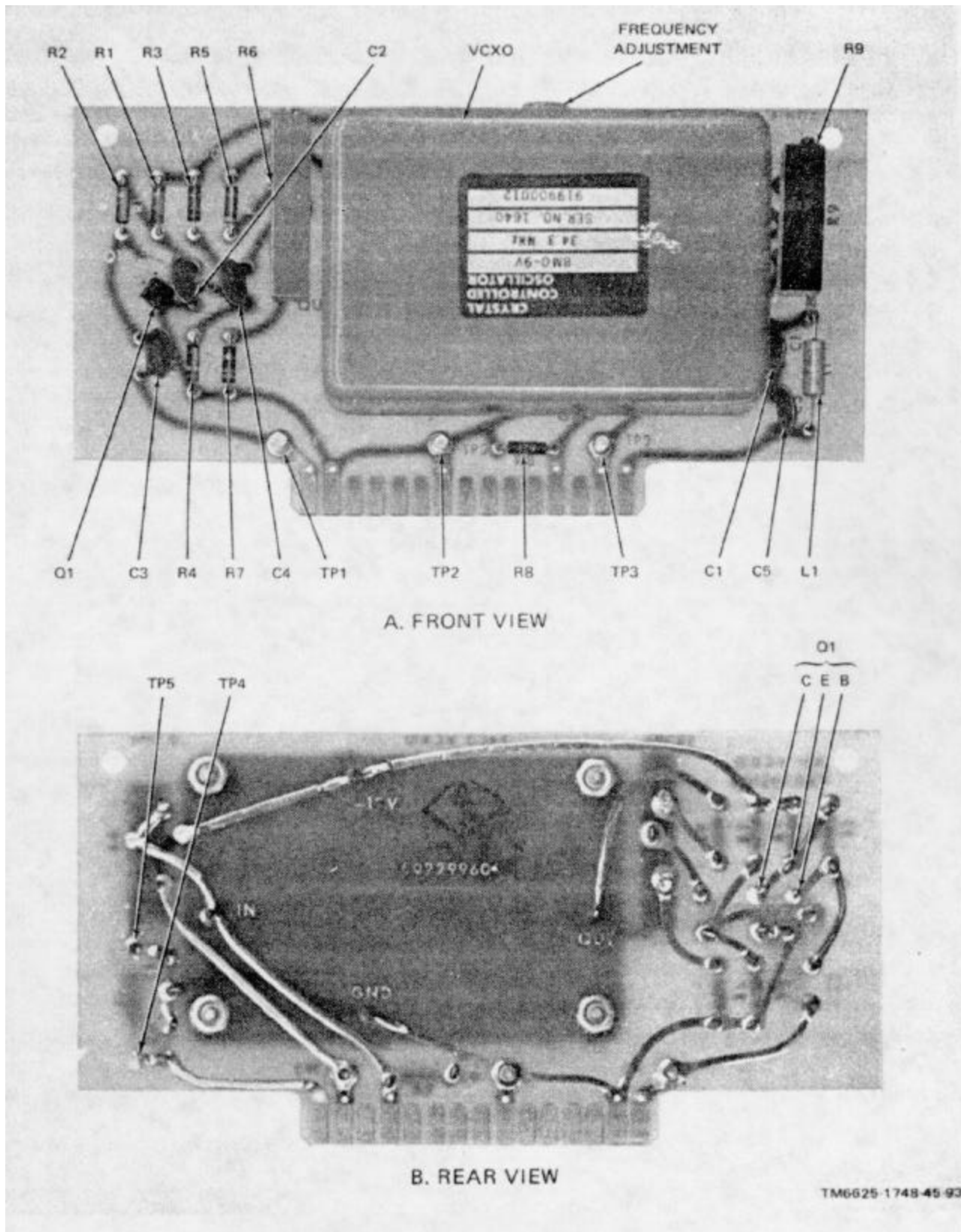
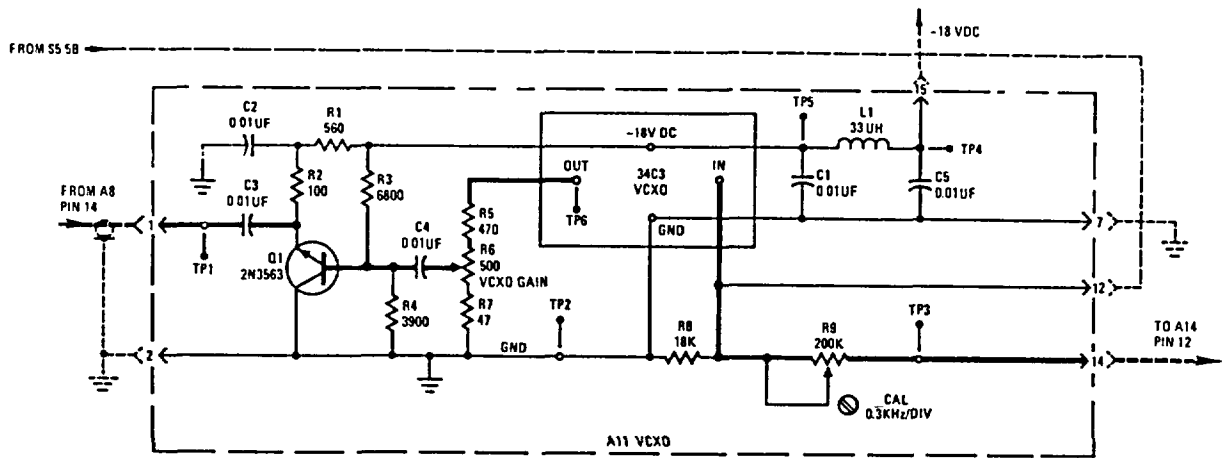


Figure 2-119. Voltage-controlled crystal oscillator (VCXO) A11. Spectrum Analyzer IP-1018/U.



TM6625-1748 45 94

Figure 2-120. Voltage-controlled crystal oscillator (VCXO) A11, schematic diagram. Spectrum Analyzer IP-1018/U.

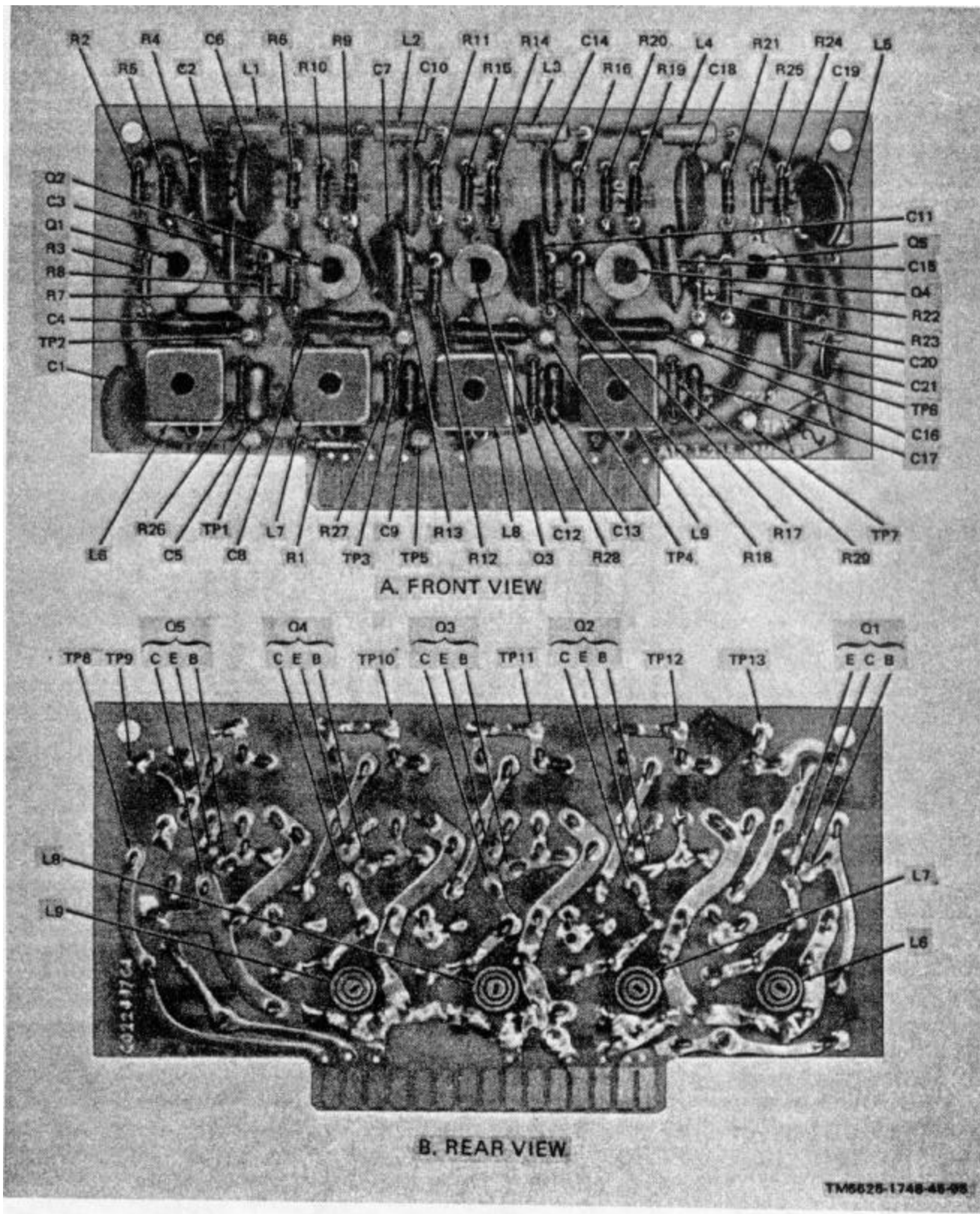
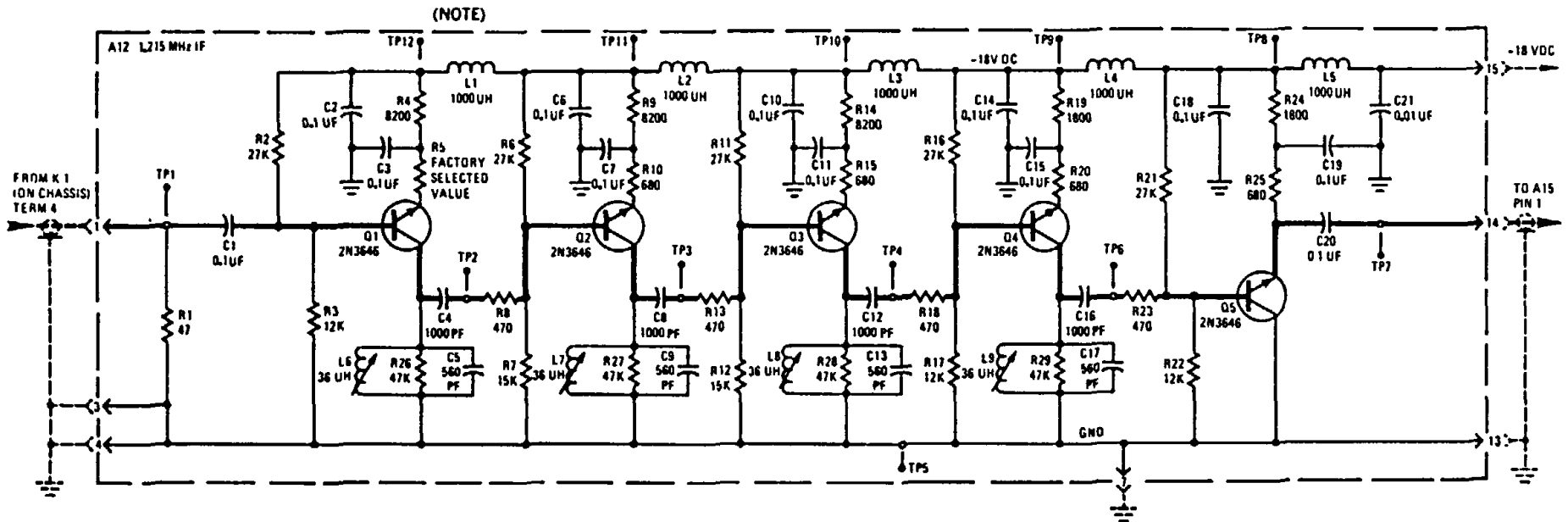


Figure 2-121. 1.215 MHz IF A12, Spectrum Analyzer IP-1018/U.



EL1JL037

NOTE
 ON CONTRACT NO DAAB07-
 78-C-3013, CHANGE
 RESISTOR R5 VALUE TO 500,
 COILS L6, L7, AND L8 to 25mH

Figure 2-122. 1.215 MHz IF A12, schematic diagram Spectrum Analyzer IP-1018/U.

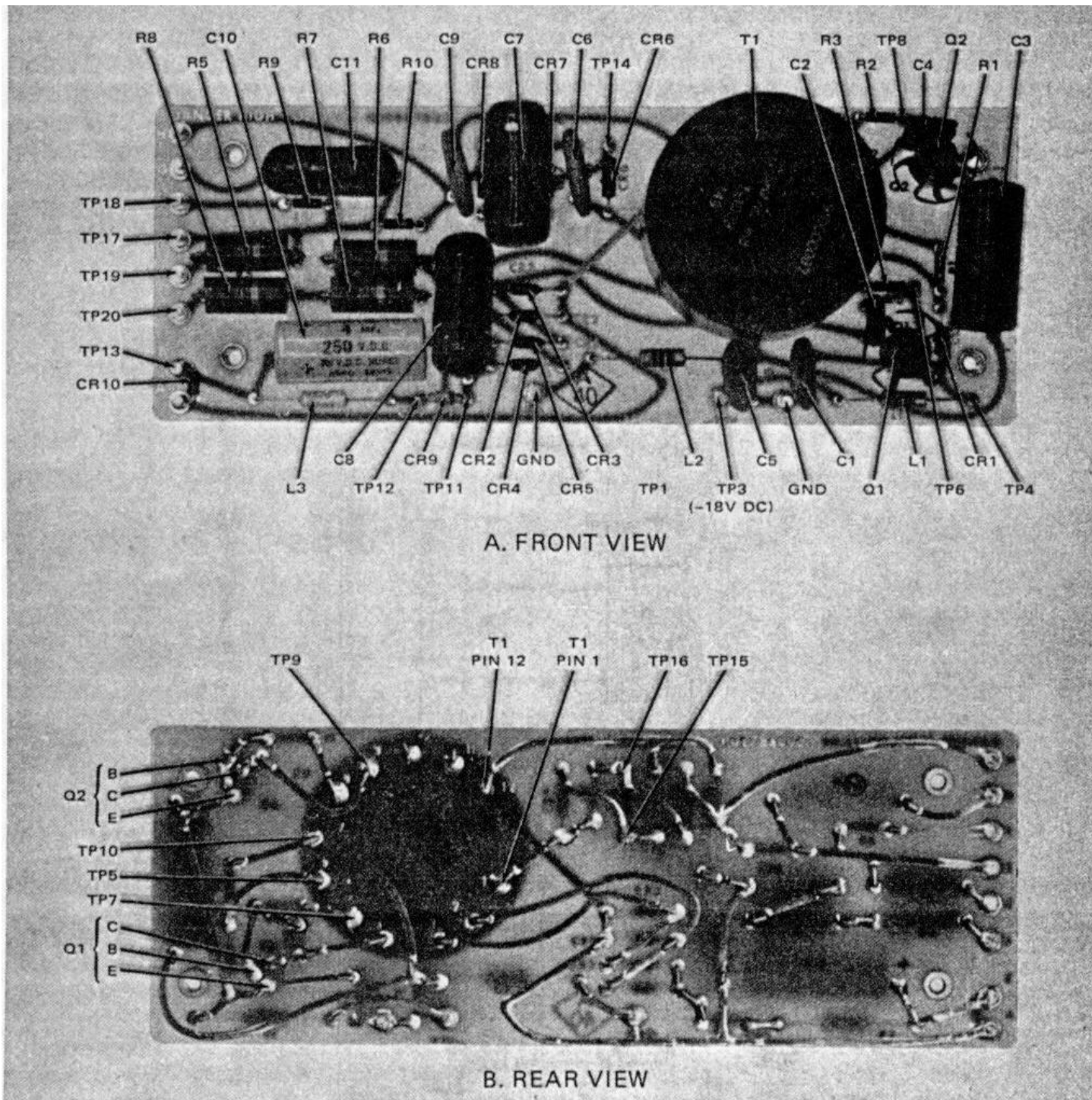


Figure 2-123. High-voltage power supply A13, Spectrum Analyzer IP-1018/U.

TM 6625-1748-45-97

NOTE:
ON CONTRACT NO. DAAB07-78-C-3013,
CHANGE DIODES CR2 THROUGH CR5
IDENTIFICATION TO IN4385. ADD COIL
L4 AS SHOWN

R3 L4
220 1000μH

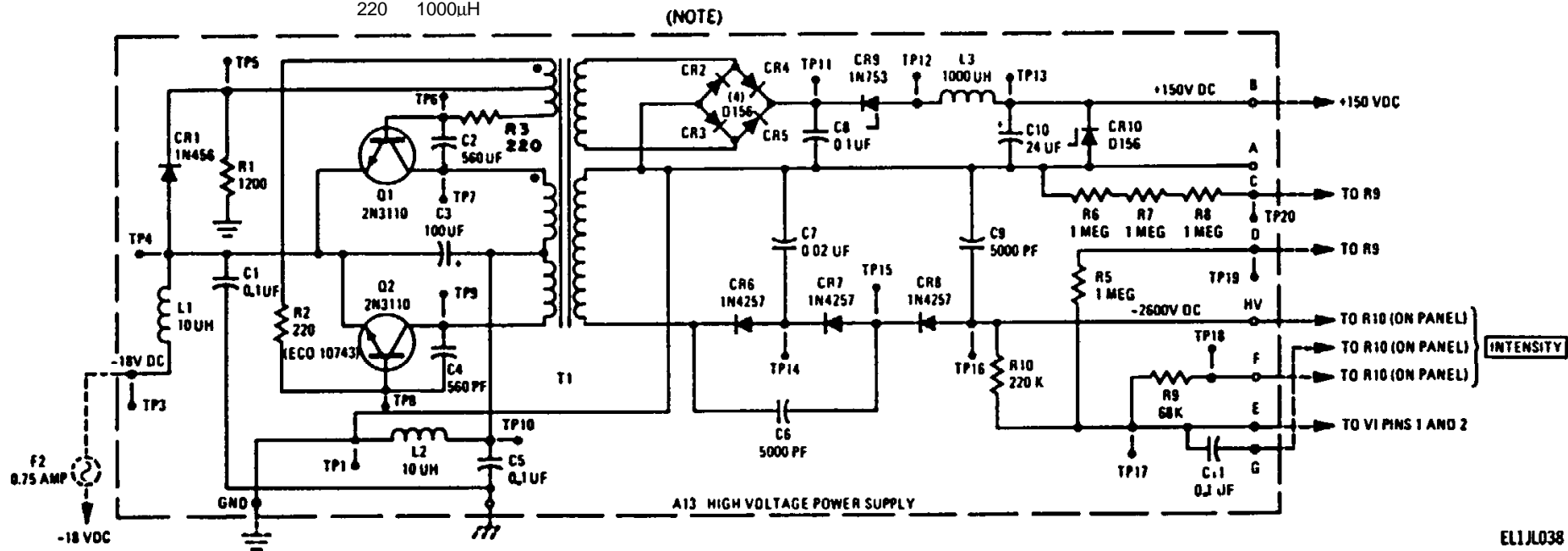


Figure 2-124. High voltage power supply A13, schematic diagram, Spectrum Analyzer IP-1018/U.

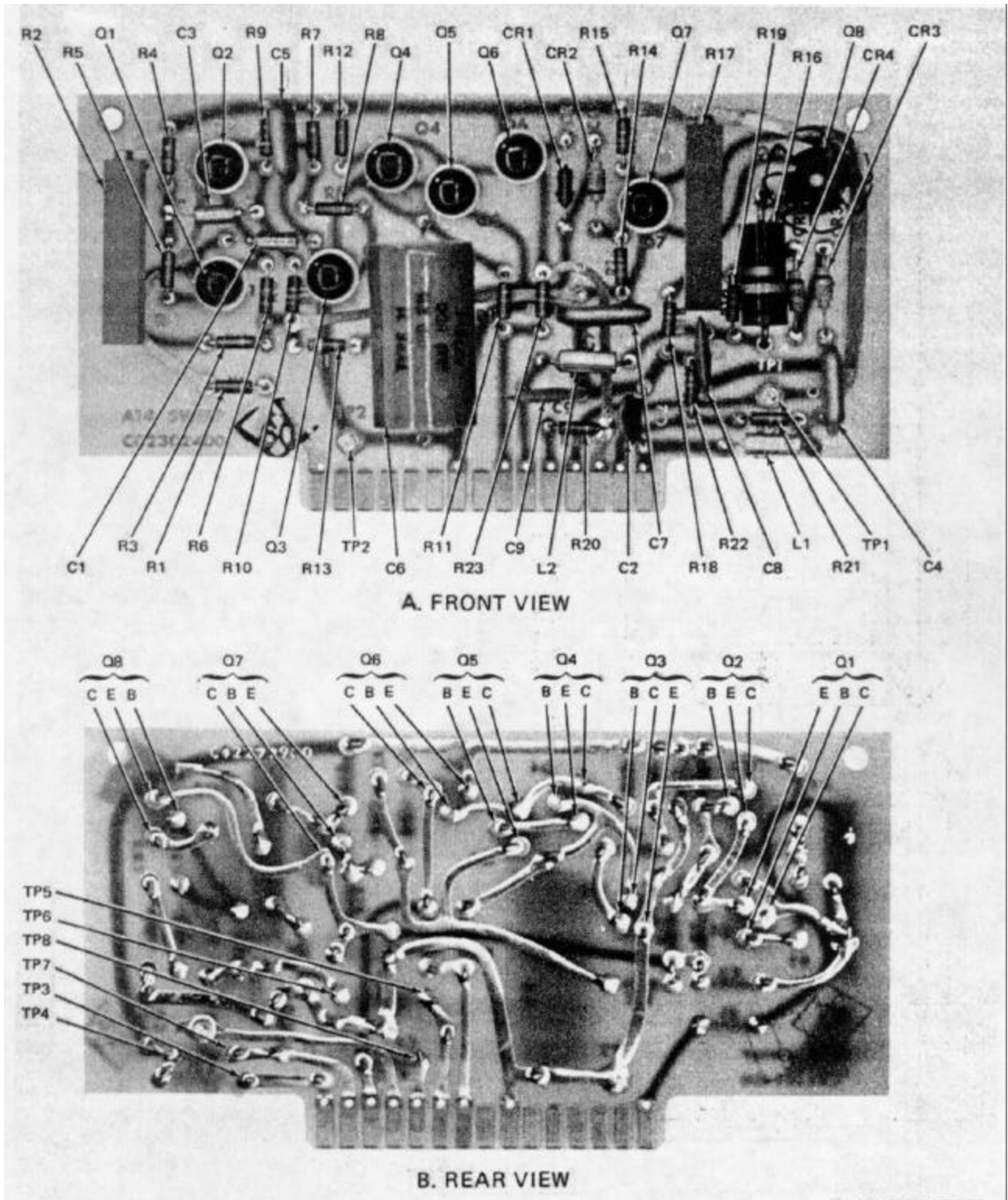


Figure 2-125. Horizontal sweep generator A14. Spectrum Analyzer IP-1018/U.

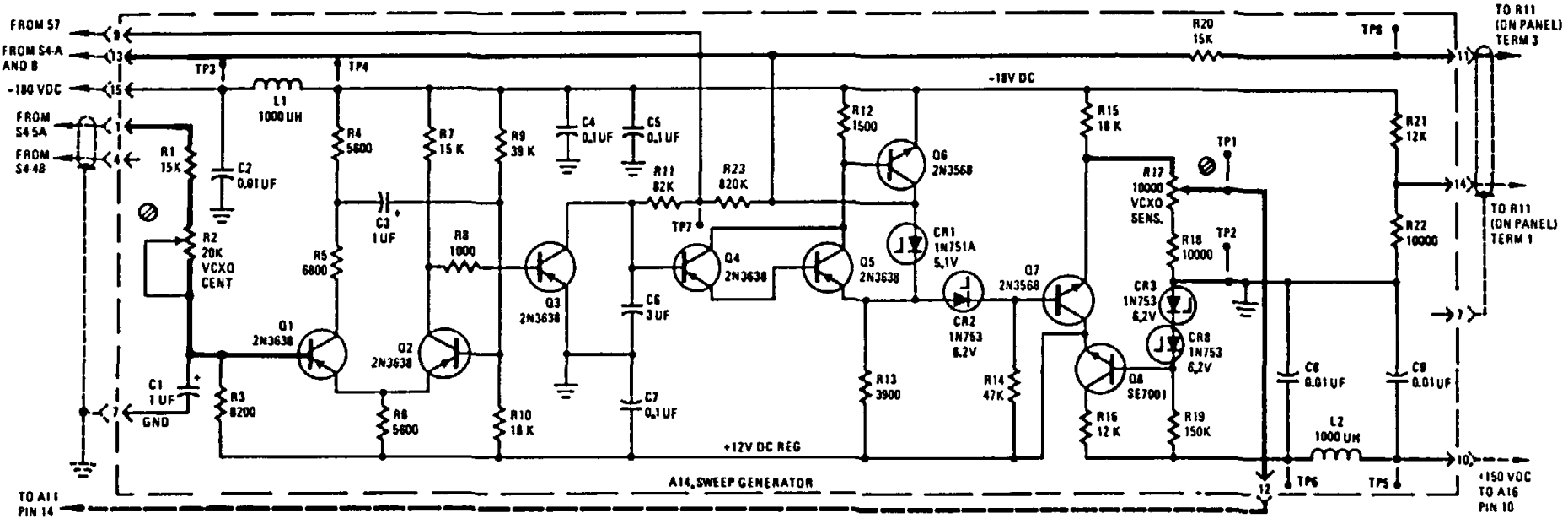
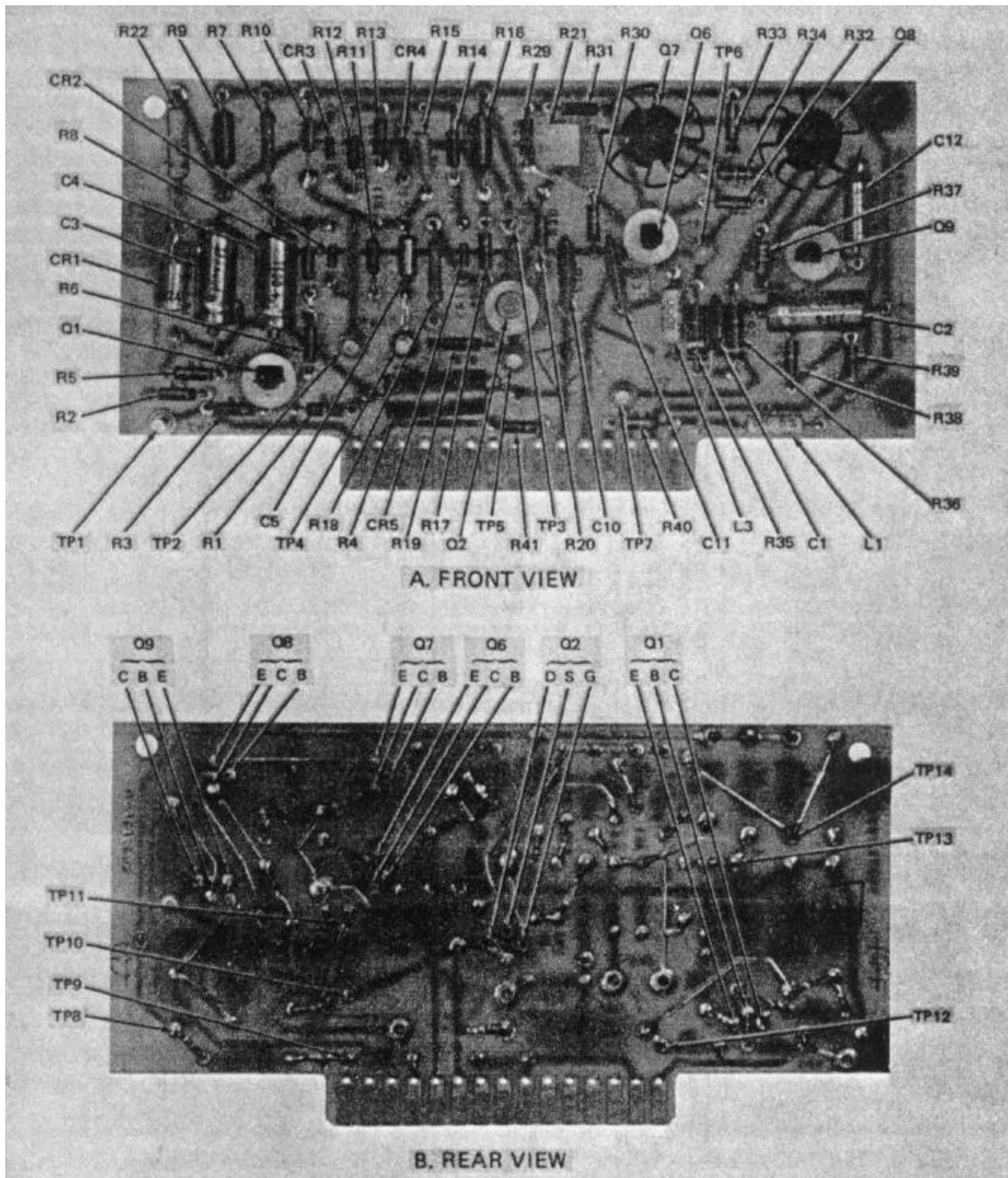
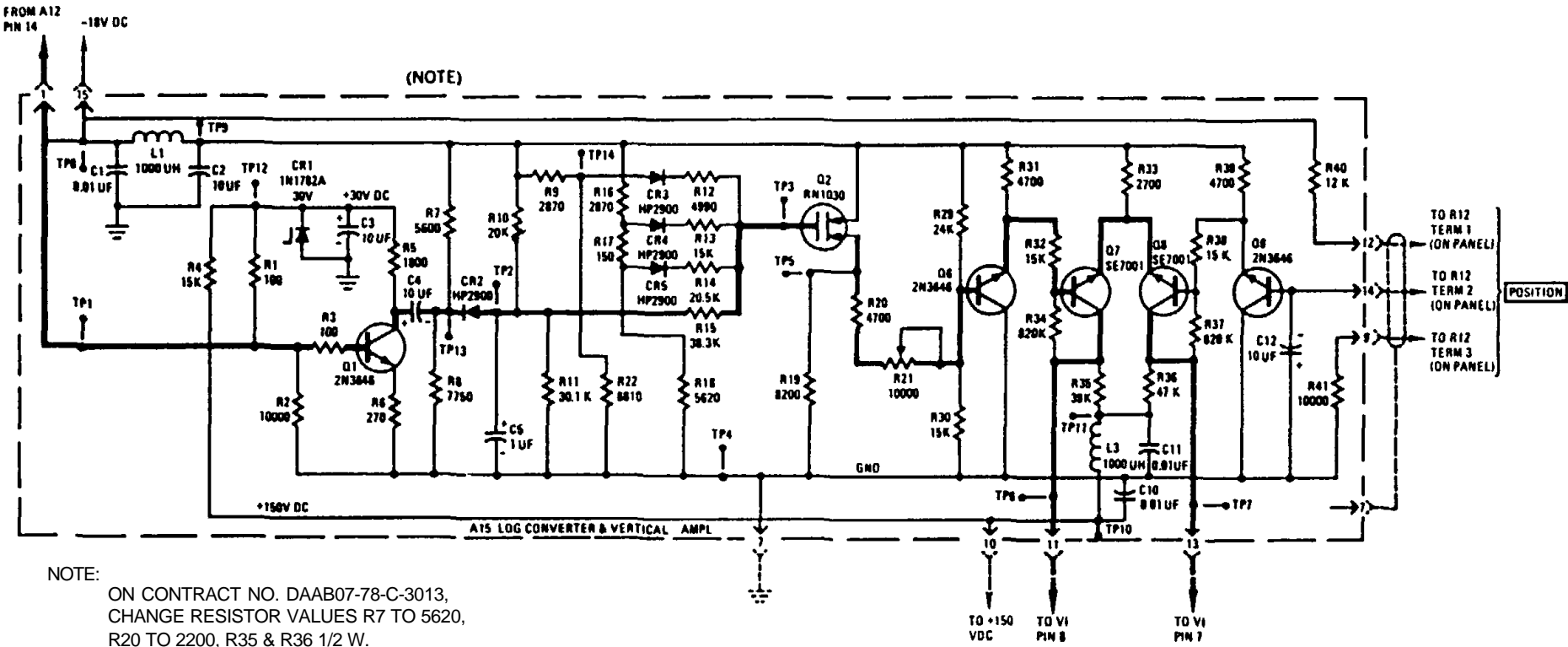


Figure 2-126. Horizontal sweep generator A14, schematic diagram. Spectrum Analyzer IP-1018/U.



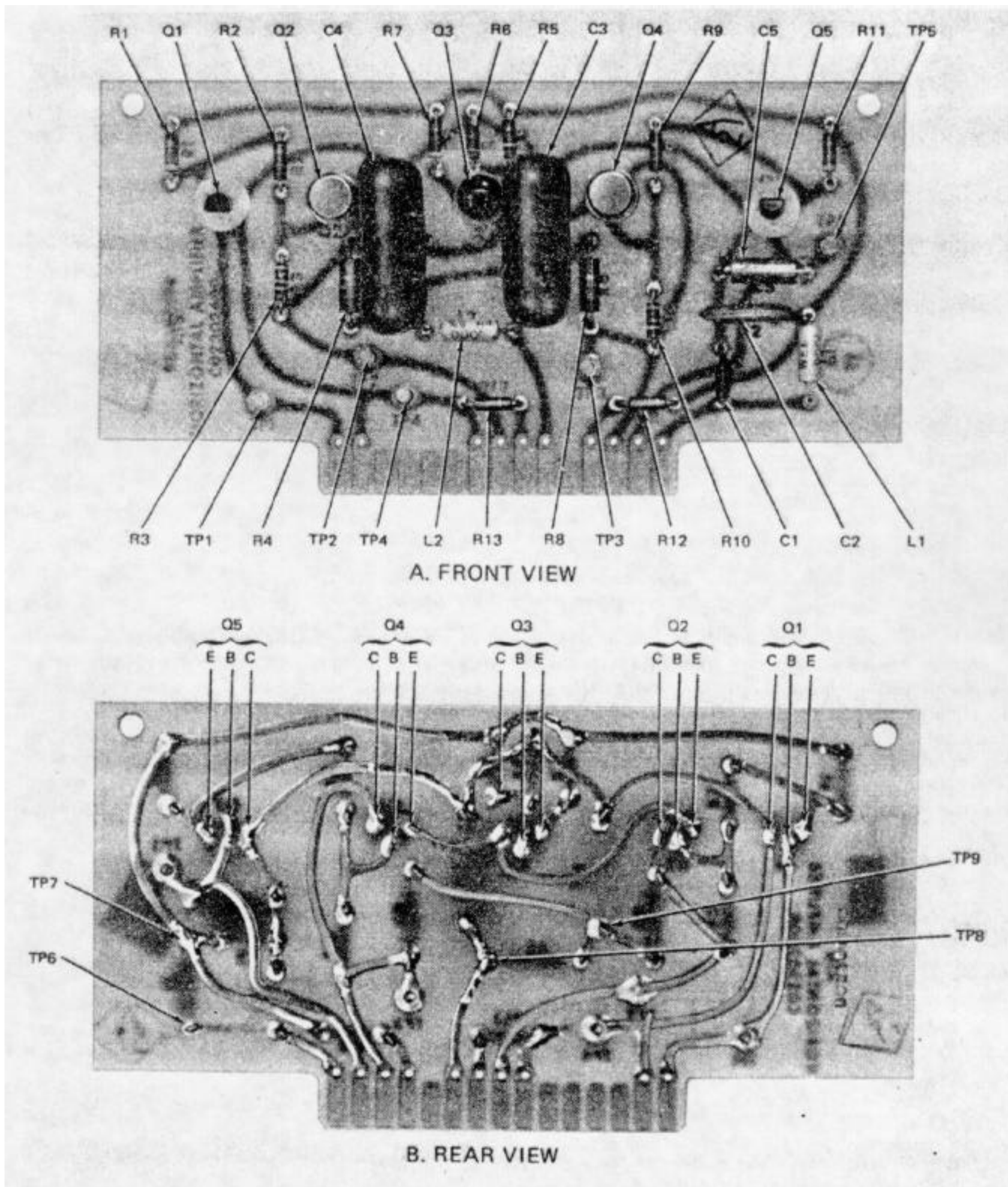
TM 6625-1748-45-101

Figure 2-127. Vertical amplifier A15, Spectrum Analyzer IP-1018/U.



EL1JL039

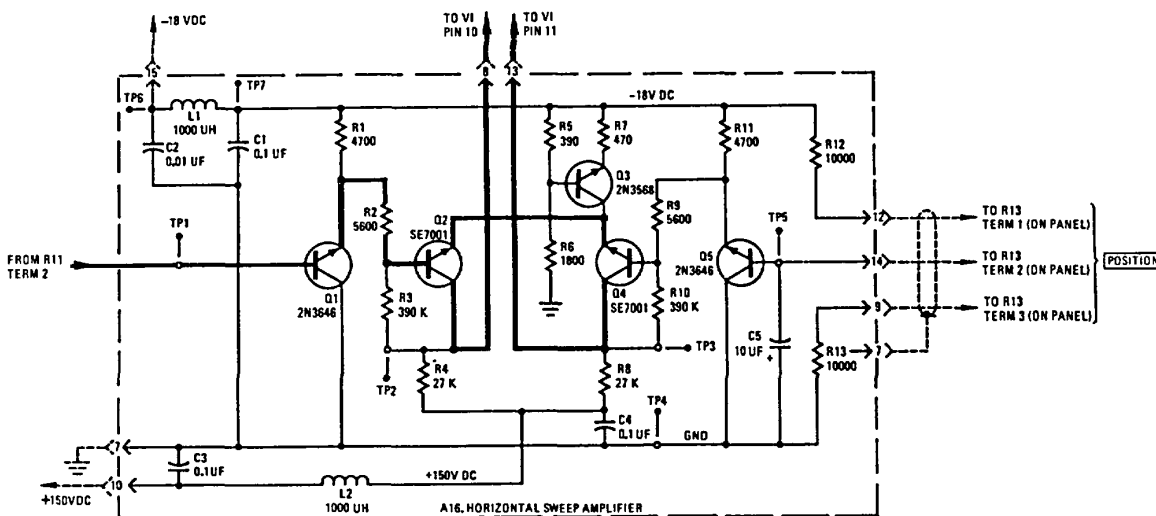
Figure 2-128. Vertical amplifier A15, schematic diagram, Spectrum Analyzer IP-1018/U.



A. FRONT VIEW

B. REAR VIEW

Figure 2-129. Horizontal amplifier A16, Spectrum Analyzer IP-1018/U.



TM 6625-1748-45-104

Figure 2-130. Horizontal amplifier A16, schematic diagram. Spectrum Analyzer IP-1018/U.

2-48. Dc Voltage Measurements

Dc voltage measurements are the first step in isolating defects to particular components. When properly interpreted, dc voltage measurements will usually isolate defective transistors, as well as other components. Paragraph 2-29 a, b, and c covers the interpretation of abnormal voltages as measured at transistor terminals. Dc voltages will not indicate misalignment of tuned circuits, nor changes in transistor gain. When dc voltage measurements, and all previous tests, have failed to isolate the defective components (s), proceed with the

tests in paragraphs 2-50 and 2-51. Check the alignment in accordance with section II of chapter 3.

NOTE

All voltages measured with respect to common, or chassis, unless otherwise noted. All voltages ± 10% unless upper and lower limited are given.

Point of measurement	Normal reading	Notes
<i>Low voltage power supply board A3.</i>		
TP2	-17.95 to -18.05 v dc	
Q1 base/Q3 collector	-0.45 to -0.67 v dc	
Q1 emitter	0	
Q1 collector/Q2 base	-19.4 v dc	
Q2 emitter	-18.8 v dc	
Q2 collector	-25.0 v dc	
Q3 base	-10.0 v dc	
Q3 emitter	-10.6 v dc	
<i>Current-regulating power transistor Q1, located on chassis, part of LV supply A3.</i>		
Q1 base	-18.8 v dc	
Q1 emitter	-17.95 to -18.05 v dc	
Q1 collector	-26.1 v dc	

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>VFO amplifier and 12.035</i>		
<i>1MHz oscillator board A2.</i>		
Q1-base	-11.85 v dc	SWEEP-kHz / DIV control in CONTINUOUS 10 position.
Q1 emitter	-12.25 v dc	
Q1 collector	-3.56 v dc	
Q2 base	-11.84 v dc	
Q2 emitter	-12.52 v dc	
Q2 collector	0	
Q3 base	-9.19v dc	SWEEP-kHz/DIV control in CONTINUOUS 1 position.
Q3 emitter	-9.92 v dc	
Q3 collector	0	
Q4 base	-5.85 v dc	
Q4 emitter	-6.58 v dc	
Q4 collector	0	
Q5 base	-5.84 v dc	
Q5 emitter	-6.58 v dc	
Q5 collector	0	
Q6 base	-6.40 v dc	
Q6 emitter	-7.16 v dc	
Q6 collector	0	
<i>Signal IF board A4.</i>		
Q1 base	-12.90 v dc	
Q1 emitter	-13.65 v dc	
Q1 collector/Q2 base	-4.85 v dc	
Q2 emitter	-5.62 v dc	
Q2 collector	0	
Q3 base	-3.29 v dc	
Q3 emitter	-3.97 v dc	
Q3 collector	0	
Q4 base	-3.97 v dc	
Q4 emitter/Q5 base	-4.79 v dc	
Q4 collector	0	
Q5 emitter	-5.54 v dc	
Q5 collector	0	
<i>Marker IF board A5.</i>		
Q1 base	-10.35 v dc	
Q1 emitter	-10.91 v dc	
Q1 collector	-4.42 v dc	
Q2 base	- 10.33 v dc	
Q2 emitter	-1 1.10 v dc	
Q2 collector	0	
Q3 base	-12.33 v dc	
Q3 emitter	-13.07 v dc	
Q3 collector/Q4 base	-6.72 v dc	
Q4 emitter	-6.53 v dc	
Q4 collector	0	
Q5 base	-5.74 v dc	
Q5 emitter	-6.47 v dc	
Q5 collector	0	
<i>Swept IF board A6.</i>		
Q1 base	-12.36 v dc	
Q1 emitter	-13.14v dc	
Q2 collector/Q2 base	-8.85 v dc	
Q2 emitter	-9.09 v dc	
Q2 collector	0	
Q3 base	-3.19 v dc	
Q3 emitter	-3.82 v dc	
Q3 collector	0	
Q4 base	-3.83 v dc	
Q4 emitter/Q5 base	-4.53 v dc	
Q4 collector	0	
Q5 emitter	-5.38 v dc	
Q5 collector	0	

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>1.215 MHz mixer board A7.</i>		
Q1 base	-5.73 v dc	
Q1 emitter	-6.38 v dc	
Q1 collector	0	
Q2 base	-6.64 v dc	
Q2 emitter	-7.33 v dc	
Q2 collector	0	
<i>Swept divider board A8.</i>		
Q1 base	-6.30 v dc	SWEEP-kHz/DIV control in CONTINUOUS 1 position.
Q1 emitter	-7.03 v dc	
Q1 collector	0	
Q2 base	-9.80 v dc	
Q2 emitter	-10.12 v dc	
Q2 collector	-7.20 v dc	
Q3 base/Q4 emitter	-3.84 v dc	SWEEP-kHz/DIV control in CONTINUOUS 10 position.
Q3 emitter	-5.50 v dc	
Q3 collector	0	
Q4 base	-3.75 v dc	
Q4 collector	0	
Q5 base	-6.0 v dc	
Q5 emitter	-6.75 v dc	
Q5 collector	0	
Q3 base	0.05 v dc	SWEEP-kHz/DIV control in CONTINUOUS 1 position.
Q3 emitter	-0.24 v dc	
Q3 collector	0	
<i>440 Hz BW IF board A9.</i>		
Q1 base	-9.72 v dc	SWEEP-kHz/DIV control in CONTINUOUS 10 position.
Q1 emitter	-10.33 v dc	
Q1 collector	-3.20 v dc	
Q2 base	-1.90 v dc	
Q2 emitter/Q3 base	-2.50 v dc	
Q2 collector	0	
Q3 emitter	-3.17 v dc	
Q3 collector	0	
<i>35 Hz BW IF board A10.</i>		
Q1 base	-9.72 v dc	SWEEP-kHz/DIV control in CONTINUOUS 1 position.
Q1 emitter	-10.33 v dc	
Q1 collector	-3.20 v dc	
Q2 base	-1.90 v dc	
Q2 emitter/Q3 base	-2.50 v dc	
Q2 collector	0	
Q3 emitter	-3.17 v dc	
Q3 collector	0	
<i>VCX0 board A11.</i>		
Q1 base	-6.9 v dc	
Q1 emitter	-8.0 v dc	
Q1 collector	0	
<i>1.215 MHz IF board A12.</i>		
Q1 base	-5.54 v dc	
Q1 emitter	-6.20 v dc	
Q1 collector	0	
Q2 base	-6.32 v dc	
Q2 emitter	-6.99 v dc	
Q2 collector	0	
Q3 base	-6.32 v dc	
Q3 emitter	-6.97 v dc	
Q3 collector	0	
Q4 base	-5.76 v dc	
Q4 emitter	-6.44 v dc	
Q4 collector	0	
Q5 base	-5.95 v dc	

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
<i>1.215 MHz IF board A12-continued.</i>		
Q5 emitter	-6.64 v dc	
Q5 collector	0	

WARNING

HAZARDOUS VOLTAGES UP TO 2600 VOLTS DC EXIST ON BOARD A13 & in THE CRT COMPARTMENT. MAKE SURE THE SCALE ILLUM-PWR OFF SWITCH IS IN THE OFF POSITION BEFORE COMING IN CONTACT WITH THESE CIRCUITS.

High voltage power supply board A13.

Terminal A	0
Terminal B	+ 150 v dc
Terminal C	-1260 v dc
Terminal D	-1740 v dc
Terminal E	-2470 v dc
Terminal F	-2500 v dc
Terminal G	-2500 v dc
Terminal H	-2550 v dc

Horizontal sweep generator board A14.

WARNING

HAZARDOUS VOLTAGES UP TO 150 VOLTS DC EXIST ON BOARD A14. MAKE SURE THE POWER IS OFF BEFORE COMING IN CONTACT WITH THESE CIRCUITS.

Q1 base	+10.2 v dc	SWEEP-kHz/DIV control in SINGLE SWEEP 10 position.
Q1 emitter/Q2 emitter	+4.2 v dc	
Q1 collector	- 17.8 v dc	SWEEP RATE-FAST.
Q2 base	+3.5 v dc	
Q2 collector	+4.2 v dc	
Q3 base	+4.1 v dc	
Q3 emitter	0	
Q3 collector/Q4 base	-16.1 v dc	
Q4 emitter / Q5 base	-16.8 v dc	
Q4 collector/Q5 collector/		
Q6 base	-17.2 v dc	
Q5 emitter	-16.2 v dc	
Q6 emitter	-1 7.8 v dc	
Q6 collector	-11 .8 v dc	
Q7 base	-10.0 v dc	
Q7 emitter	-5.8 v dc	
Q7 collector/Q8 emitter	+ 11.8 v dc	
Q8 base	+ 12.3 v dc	
Q8 collector	+ 42.5 v dc	

Vertical amplifier board A15.

WARNING

HAZARDOUS VOLTAGES UP TO 150 VOLTS DC EXIST ON BOARD A15. MAKE SURE THE POWER IS OFF BEFORE COMING IN CONTACT WITH THESE CIRCUITS.

Q1 base	+2.17v dc
Q1 emitter	+ 1.53 v dc
Q1 collector	+ 18.12v dc
Q2 source	-17.79 v dc
Q2 gate	-10.68 v dc

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
Q2 drain	-0.87 v dc	Voltage on Q6, Q7, Q8 and Q9 will vary with the setting of the VERTICAL POSITION control.
Q6 base	- 7.51 v dc	
Q6 emitter	-8.17 v dc	
Q6 collector	0	
Q7 base	-7.20 v dc	
Q7 emitter/Q8 emitter	-7.77 v dc	
Q7 collector	+57.4 v dc	
Q8 base	-7.22 v dc	
Q8 collector	+ 86.0 v dc	
Q9 base	-8.13 v dc	
Q9 emitter	-8.80 v dc	
Q9 collector	0	

Horizontal amplifier board A16.

WARNING

HAZARDOUS VOLTAGES UP TO 150 VOLTS DC EXIST ON BOARD A16. MAKE SURE THE POWER IS OFF BEFORE COMING IN CONTACT WITH THESE CIRCUITS.

Q1 base	-11.3 v dc	SWEEP-kHz/DIV control in SINGLE SWEEP 10 position.
Q1 emitter	-12.0 v dc	
Q1 collector	0	SWEEP RATE-FAST
Q2 base	-10.0 v dc	
Q2 emitter/Q3 collector/		
Q4 emitter	-10.5 v dc	
Q2 collector	+ 130.3 v dc	
Q3 base	-14.7 v dc	
Q3 emitter	-5.3 v dc	
Q4 base	-10.0 v dc	
Q4 collector	-2.0 v dc	
Q5 base	-9.1 v dc	
Q5 emitter	-9.8 v dc	
Q5 collector	0	

2-49. Rf Signal Levels, Frequencies and Waveforms

In making the tests listed in the charting below, where there is no entry in a particular column to the right of a designated test point, that voltage, frequency or waveform is unimportant. Only the important requirements are listed.

a. Use Oscilloscope AN/USM-281 for measuring peak-to-peak (p-p) voltages and for observation of waveshapes. When the Waveform column refers to a particular figure, be sure to use the vertical and horizontal deflection settings and spectrum analyzer settings as shown on the figure.

b. For measuring voltages that are not listed as peak-to-peak (p-p), use Electronic Voltmeter AN/URM-145.

c. To measure frequencies, use the AN/USM207.

d. All test equipment return connections (common) go to the common or chassis ground of the unit under test, unless otherwise specified.

e. Amplitude (voltage) tolerances are $\pm 20\%$, unless otherwise specified.

f. Connect spectrum analyzer to an operation Tuning Unit TN-527/U and an operational TS-2968/U, in accordance with figure 4-2, before making the following measurements. Turn tuning unit on, tune to 1 MHz. Set monitor to CAL and adjust for 0 dB on DECIBELS meter.

NOTE

Those voltages which are not shown as p-p (peak-to-peak) are rms values. These voltages may also be measured with Oscilloscope AN/USM-281 if desired. Measure the peak-to-peak values with the oscilloscope. Then multiply the peak-to-peak values by a factor of 0.35 to obtain the rms values.

g. Rf Measurements.

Unit	Test point	Amplitude (voltage)	Frequency		Waveform	Notes
			Freq	Tolerance		
A2	TP3 TP1	170 - 250 m V 180 m V p-p	12.035 MHz	± 20 Hz	Sine wave	SWEEP-kHz/DIV switch to 1 (broad A8 removed) SWEEP-kHz/DIV switch to 10 (board A8 removed) SWEEP-kHz/DIV switch to 10
		100 m V p-p			Sinewave	
A3	Q1 base Q2 emit. TP2	600 m V p-p 220 m V p-p	120 Hz	± 20 Hz	Half sinewave	SWEEP kHz/DIV switch to 10 power supply ripple MARKER control fully clockwise Disconnect 18.8 MHz cable from rear panel of spectrum analyzer (18.8 MHz cable disconnected)
		12 m V p-p				
A5	TP1 Q1 base TP2 Q3 coll. Q4 emit. TP3 TP5 TP1	70 m V p-p 480 m V p-p	2.215 MHz	± 20 Hz	Figure 2-136	MARKER control fully clockwise
		80 m V p-p 7 V p-p				
A6	TP2 Q2 emit. TP3	40 m V p-p 120 m V p-p 30 m V p-p	34.3 MHz 34.3 MHz	± 20 Hz ± 200 Hz	Sine wave	A2 removed. (1 kHz/DIV CONT) A2 removed. (10 kHz/DIV CONT) A8 removed. (1 kHz/DIV CONT) A8 removed. (10 kHz/DIV CONT)
		130 m V p-p 140 m V p-p 80 m V p-p	Figure 2-134 Figure 2-135			
A6	TP5	240 m V p-p 340 m V p-p 40 m V p-p		34.3 MHz 34.3 MHz	± 0.5 kHz	Figure 2-137
A7	Q1 coll. TP4 TP5 TP1 & TP3 Q4 emit. TP2	1.9 V p-p 1.25 V p-p 1.2 V p-p	34.3 MHz 3.43 MHz 3.43 MHz			
A8	Q1 coll. TP1 VCX0 OUT	400 m V p-p 400 m V p-p		34.3 MHz 34.3 MHz	Figure 2-132 Figure 2-133	10 kHz/DIV CONTINUOUS 1 kHz/DIV CONTINUOUS
A11	TP6 TP7 TP1	1.6 V p-p 4 V p-p	± 0.5 kHz			
A12	TP2	3.6 V p-p 1.5 V p-p		Figure 2-138 Figure 2-131	Sine wave	Sweep NORM Sweep NORM
A14	TP2 TP3 See note	20 V p-p 0 to - 130 V 0 to + 130 V - 131 V to + 130 V	Figure 2-139			
A15	A16					

BOARD A14, TP1

OSCILLOSCOPE SETTINGS:

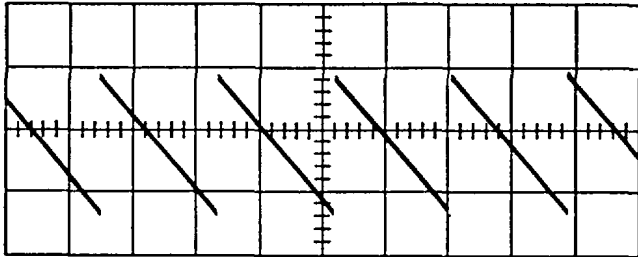
V = 5V/cm,

H = 0.5μsec/cm

SPECTRUM ANALYZER SETTINGS:

Sweep-fast

10kHz/Div Continuous



TM 6625-1748-45-117

Figure 2-131. Swept output A 14 waveform. Spectrum Analyzer IP-1018/U.

BOARD A, TP2 (Collector)

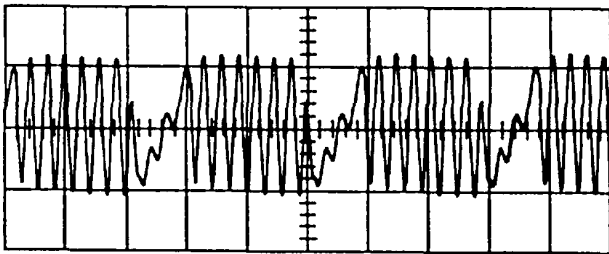
OSCILLOSCOPE SETTINGS:

V = 0.5V/cm

H = 0.1μsec/cm

SPECTRUM ANALYZER SETTINGS:

1kHz/Div Continuous



TM 6625-1748-45-118

Figure 2-132. Swept divider A8 Q2 input waveform, Spectrum Analyzer IP-1018/U.

BOARD A8, Q1 (Collector)

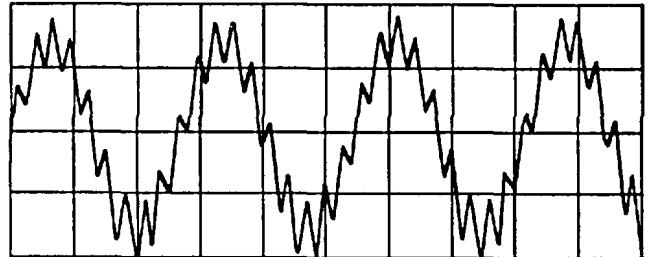
OSCILLOSCOPE SETTINGS:

V = 0.1V/cm

H = 0.1μsec/cm

SPECTRUM ANALYZER SETTING:

1kHz/Div Continuous



TM 6625-1748-45-119

Figure 2-133. Swept divider A8 output waveform Spectrum Analyzer IP-1018/U.

BOARD A6, Q2 (Emitter)

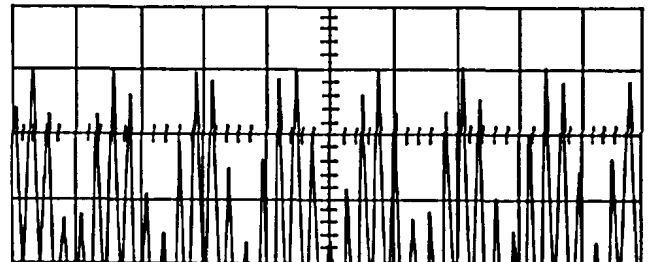
OSCILLOSCOPE SETTINGS:

V = 1V/cm

H = 0.2μsec/cm

SPECTRUM ANALYZER SETTING:

1kHz/Div Continuous



TM 6625-1748-45-120

Figure 2-134. Swept IF A6 1 kHz/ DIV sweep waveform, Spectrum Analyzer IP-1018/U.

BOARD A6, Q2 (Emitter)

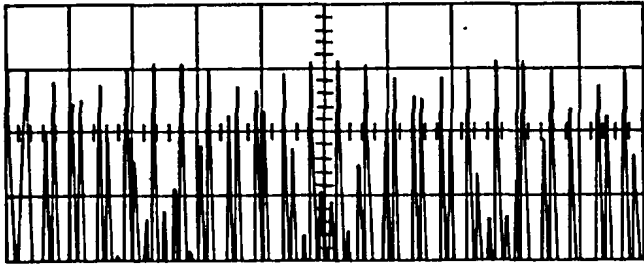
OSCILLOSCOPE SETTINGS:

V = 1V/cm

H = 0.2μsec/cm

SPECTRUM ANALYZER SETTING:

10kHz/Div Continuous



TM 6625-1748-45-121

Figure 2-135. Swept IF A6 10 kHz/DIV sweep waveform. Spectrum Analyzer IP-1018/U.

BOARD A5, Q4 (Emitter)

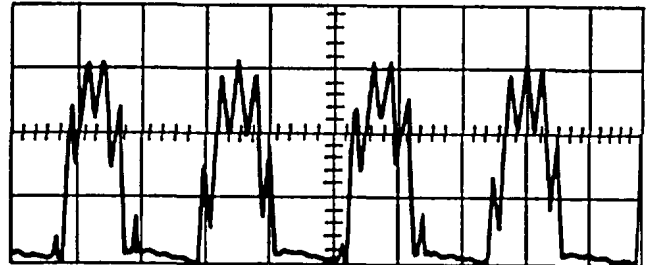
OSCILLOSCOPE SETTINGS:

V = 1V/cm

H = 0.2μsec/cm

SPECTRUM ANALYZER SETTINGS:

Marker full on



TM 6625-1748-45-123

Figure 2-137. Marker IF A5 Q4 output waveform, Spectrum Analyzer IP-1018/U.

BOARD A5, TP2

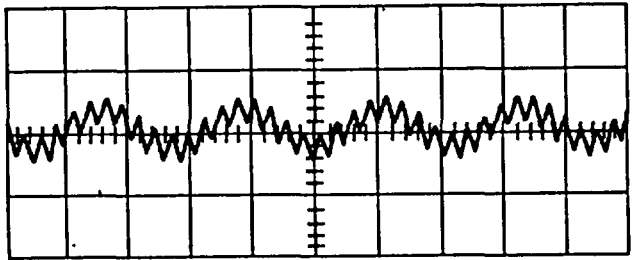
OSCILLOSCOPE SETTINGS:

V = 0.1V/cm

H = 0.2μsec/cm

SPECTRUM ANALYZER SETTING:

Marker full-on



TM 6625-1748-45-122

Figure 2-136. Marker IF 45 input waveform. Spectrum Analyzer IP-1018/U.

BOARD A12, TP7

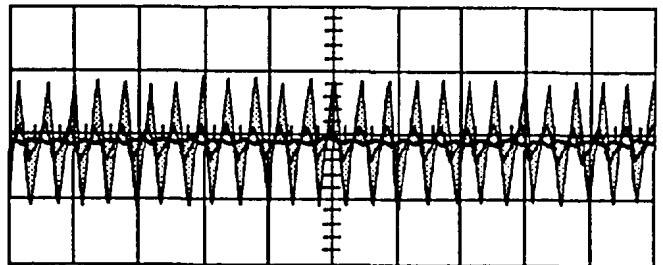
OSCILLOSCOPE SETTINGS:

V = 2V/cm

H = 2μsec/cm

SPECTRUM ANALYZER SETTING:

Marker = 0 dB



TM 6625-1748-45-124

Figure 2-138. 1.215 MHz IF A12 output waveform. Spectrum Analyzer IP-1018/U.

BOARD A15, TP5

OSCILLOSCOPE SETTINGS:

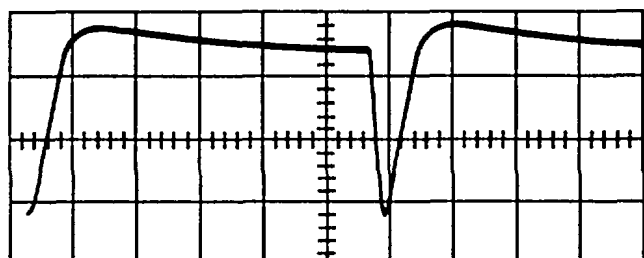
V = 0.5V/cm

H = 50msec/cm

SPECTRUM ANALYZER SETTINGS:

Marker and Cal Ref signals

set 10kHz apart.



TM 6625-1748-45-125

Figure 2-139. Vertical amplifier A15 waveform, Spectrum Analyzer IP-1018/U

2-50. Transformer and Coil Resistances

The following chart lists the dc resistances of the factory-installed transformers and coils in the spectrum analyzer. This information will assist in the location of open transformer and coil windings, as well as poor and/or corroded solder connections. Replacement transformers and coils may have different resistance values but still perform satisfactorily. Overall circuit performance is the main consideration.

Unit	Transformer or coil	Terminals	Ohms (< =less than)
Power transformer	T1 Switch to 115 V Switch to 230 V Secondary Secondary	Power plug	12
		Power plug	48
		red and red	<1
		grn and grn	<1
Pc A2	L1 L2 L3		1.6
			1.6
			1.6
	T1	Primary	<1
		Secondary	<1
	T2	Primary	<1
	Secondary	<1	
Pc A4	L1 L2 L3 L4 L5		1.8
			1.8
			<1
			<1
			<1
Pc A5	L1 L2 L3 L4 L5		1.9
			1.9
			<1
			<1
			<1
Pc A6	L1 L2 L3 L4 L5		1.9
			1.8
			<1
			<1
			<1
Pc A7	L1 T1		1.8
		Primary	1.4
	Secondary	<1	

<i>Unit</i>	<i>Transformer or coil</i>	<i>Terminals</i>	<i>Ohms (< =less than)</i>
Pc A7-continued.	T2 Primary Secondary		1.5 <1
Pc A8	L1 L2 L3 T1 T2 T3 Primary Secondary Primary Secondary Primary Secondary		11 <1 <1 1.0 <1 1.0 <1 <1 <1
Pc A9	L1 L2		11 11
Pc A10	L1 L2		11 11
Pc A11	L1		<1
Pc A12	L1 L2 L3 L4 L5 L6 L7 L8 L9		11 11 11 11 11 1.5 1.5 2 1.5
Pc A13	L1 L2 L3 T1 Primary Primary Secondary Secondary	5 and 8 4 and 9 2 and 3 1 and 12	<1 <1 12 <1 <1 13 30
Pc A14	L1 L2		11 11
Pc A15	L1 L2		12 12
Pc A16	L1 L2		11 11

2-51. SWEEP - kHz/ DIV Switch Resistance Table

<i>Ohmmeter connections</i>				<i>Switch position and resistances in ohms (inf. = infinity)</i>					
<i>From</i>		<i>To</i>		<i>SINGLE SWEEP</i>			<i>CONTINUOUS</i>		
Board	Pin	Board	Pin	0.3	1	10	10	1	0.3
A2	1	A3	15	inf.	inf.	0	0	inf.	inf.
A2	5	A3	15	0	0	inf	inf.	0	0
A8	1	A3	15	0	0	inf.	inf.	0	0
A9	14	A3	15	inf.	inf.	0	0	inf.	inf.
A10	14	A3	15	inf.	inf.	0	0	inf.	inf.
A14	9	A14	13	inf.	inf.	inf.	0	330k.	330k.
A14	4	A14	13	inf.	inf.	inf.	0	inf.	inf.
A14	1	A14	13	inf.	inf.	inf.	0	0	0
A14	12	A11	12	inf.	0	0	0	0	inf.

Section IX. PROBE SUBASSEMBLY MX-8642/U

2-52. General

Testing of Probe Subassembly MX-8642/U requires the use of an operational Tuning Unit TN-527/U and an operational Audio-Radio Frequency Monitor TS-2968/U. The two units are to be interconnected in accordance with figure 4-2. Figure 2-140 illustrates component locations. Figure 2-141 is a schematic diagram of the probe. Apply ac power to the units and turn the tuning unit on before starting the resistance tests.

2-53. Resistance Tests

Make only those resistance tests outlined below. Do not connect the probe subassembly to the monitor unit until after the resistance tests have been made.

a. Probe Subassembly MX-8641/U (pin up connector) on Probe Subassembly MX-8642/U. Connect the ohmmeter to the pin tip and the ground clip of the Probe Subassembly MX-8641/U.

b. Set the BRDG-TERM switch on the probe body to BRDG.

c. The ohmmeter shall read infinity on the highest scale.

d. Switch the ohmmeter to the low scale and short the ohmmeter leads together. Read the resistance of the ohmmeter leads. (On the order of 0.1 to 0.4 ohms). Note this reading.

e. Set the BRDG TERM switch on the probe body to TERM. Set the 50 Ω - 75 Ω switch to 50 Ω .

f. Measure the resistance between the probe tip and the common lead. Subtract the value noted in *d.* above, from the reading just taken. The result shall be between 48.4 and 51.4 ohms.

g. Move the 50 Ω - 75 Ω switch to 75 Ω .

h. Measure the resistance between the probe tip and the common lead. Subtract the value noted in *d.* above from the reading just taken. The result shall be between 72.7 and 77.3 ohms.

i. Disconnect the ohmmeter and connect the probe cable to the 75 Ω . INPUT and -16 V jacks on the monitor unit.

2-54. Probe Gain Tests

Before making the gain tests, and the frequency response tests outlined in paragraph 2-56, the tuning and monitor units shall have been connected to an ac power source and turned on for at least 30 minutes. The probe subassembly shall have been connected to the monitor unit at least 15 minute before making the tests.

a. Set the monitor unit controls as follows:

(1) SENSITIVITY control to CAL.

(2) SENSITIVITY 10 dB/STEP control to CAL.

(3) SCALE switch to NORM.

(4) SELECTIVITY switch to 3.1 kHz.

b. Set the tuning unit TUNING MODE switch to LOCK.

c. Vary the FINE tuning control on the tuning unit for a maximum reading on the monitor unit DECIBELS meter.

d. Adjust the monitor CAL control for a 0 dB reading on the DECIBELS meter.

e. Switch the INPUT LEVEL display on the monitor unit to 0 dBm.

f. Remove Probe Subassembly MX-8641/U (pin tip connector) from Probe Subassembly MX-8642/U. Install Probe Adapter MX-8640/U on Probe Subassembly MX-8642/U.

g. Connect the probe, Signal Generator AN/GRM-50. and Voltmeter AN/URM-145 together using a BNC coaxial "T" connector.

h. Set the probe switches to 75 Ω and TERM.

i. the signal generator to 1.0 MHz. Set the signal generator output level for a reading of 0.274 volts on the voltmeter.

j. Vary the FINE tuning control on the tuning unit for a maximum reading on the monitor DECIBELS meter.

k. Verify that the reading is between -0.5 and +0.5 dB.

l. Move the 50 Ω - 75 Ω switch on the probe to 50 Ω . Leave the BIRDG TERM switch set to TERM.

m. the signal generator output level for a reading of 0.224 volts on the voltmeter.

n. Touch up the FINE tuning control on the tuning unit, if necessary, for a maximum reading on the monitor unit DECIBELS meter.

o. Verify that the reading is between -0.5 and +0.5 dB.

NOTE

If the probe gain is not too far out of tolerance, adjustment of the probe gain control "6" may be all that is required.

2-55. Probe Frequency Response Tests

Leave the equipment connected and set as 2-55 *l*, *m*, and *n*. Readjust the signal generator output level, if necessary, for a reading on the DECIBELS meter of exactly 0.0 dB. Note and record the reading on the voltmeter.

a. the signal generator to 10.0 MHz. Set the output level controls on the signal generator to

obtain exactly the same reading on the voltmeter as noted above.

b. Tune the tuning unit to 10.0 MHz. Vary the FINE tuning control for a maximum reading on the DECIBELS meter.

c. Verify that the reading is between -1.0 and + 1.0 dB.

d. Tune the signal generator to 20.0 MHz. Adjust the signal generator output level to obtain exactly the same reading on the voltmeter as noted above.

e. Tune the tuning unit to 20.0 MHz. Vary the FINE tuning control for a maximum reading on the DECIBELS meter.

f. Verify that the reading is between -1.0 and + 1.0 dB.

g. Tune the signal generator to 30.0 MHz. Adjust the signal generator output level to obtain exactly the same reading on the voltmeter as noted above.

h. Tune the tuning unit to 30.0 MHz. Vary the FINE tuning control for a maximum reading on the DECIBELS meter.

i. Verify that the reading is between -2.0 and +2.0 dB.

j. Replaces Signal Generator AN/GRM-50 with Audio Oscillator AN/URM-127.

k. Tune the audio oscillator to 100 kHz. Adjust the output level to obtain exactly the same reading on the same reading on the voltmeter as noted above.

l. Tune the tuning unit to 100 kHz. Vary the FINE tuning control for a maximum reading on the DECIBELS meter.

m. Verify that the reading is between -1.0 and +1.0 dB.

n. Tune the audio oscillator to 10 kHz. Adjust the output level to obtain exactly the same reading on the voltmeter as noted above.

o. Tune the tuning unit to 10 kHz. Vary the FINE tuning control for a maximum reading on the DECIBELS meter.

p. Verify that the reading is between -2.0 and +2.0 dB.

NOTE

If the probe frequency response is not too far out of tolerance, it may only require a readjustment of the compensating variable capacitor, "F" in the probe.

2-56. Voltage Measurements

If the requirements of paragraphs 2-54, 2-55, and 2-56 cannot be met, remove the probe body cover shells and make the voltage measurements outlined in the following chart.

NOTE

All voltages measured with respect to common, or chassis, unless otherwise noted. All voltages ±10% unless upper and lower limits are given.

<i>Point of measurement</i>	<i>Normal reading</i>	<i>Notes</i>
Q1 drain	0	Install connector head 233A-4. Fasten clip lead to pin tip.
Q1 source	-9.9 V dc	
Q1 gate	-10.7 V dc	
Q2 emitter	-10.6 V dc	
Q2 base	-9.9 V dc	
Q2 collector	0	
Q3 emitter	-15.9 V dc	
Q3 base	-15.1 V dc	
Q3 collector	-14.3 V dc	
Q4 emitter	-15.4 V dc	
Q4 base	-14.3 V dc	
Q4 collector	-5.1 V dc	
Q5 emitter	-5.8 V dc	
Q5 base	-5.0 V dc	
Q5 collector	0	
Q6 emitter	-6.5 V dc	
Q6 base	-5.8 V dc	
Q6 collector	0	

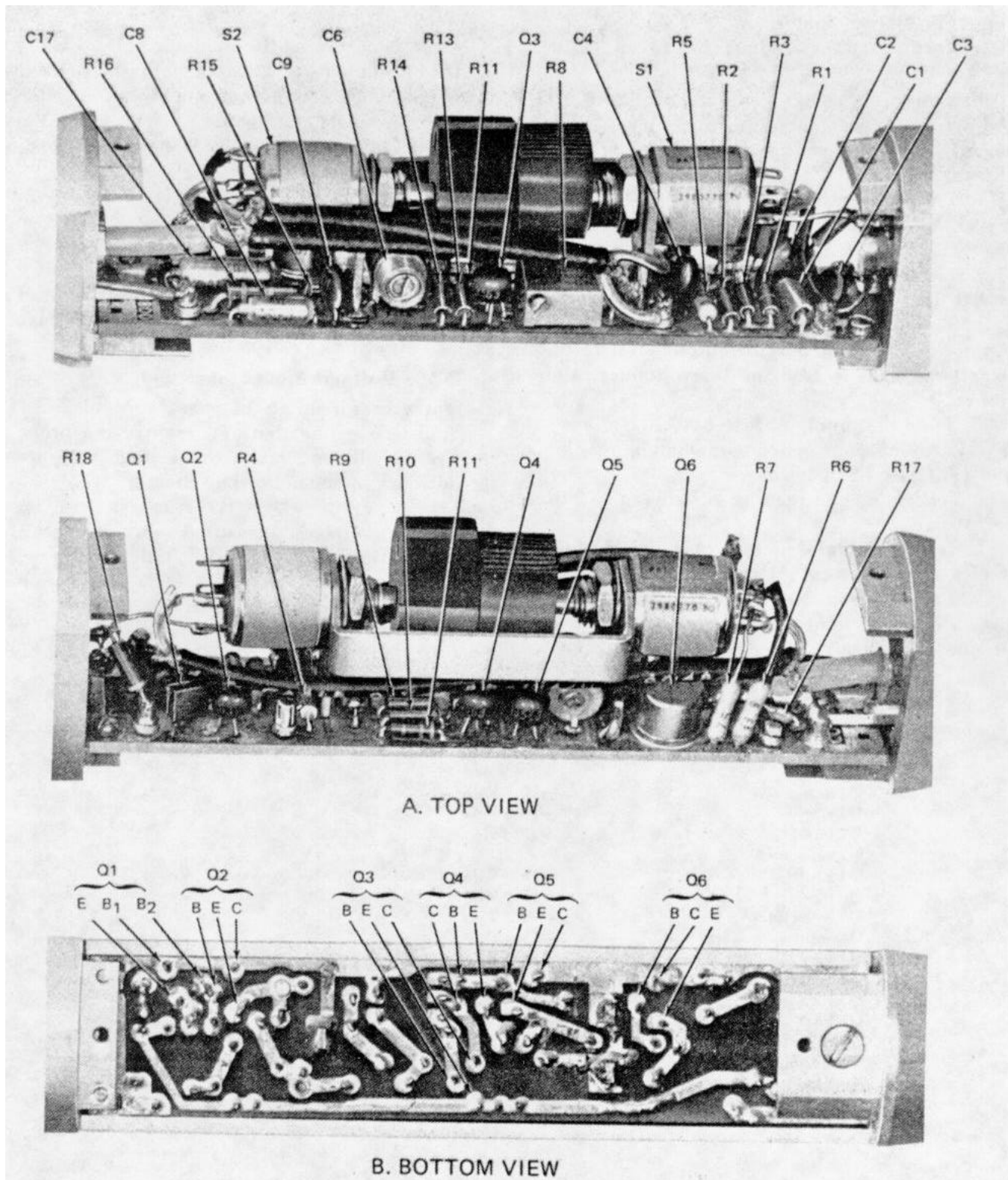
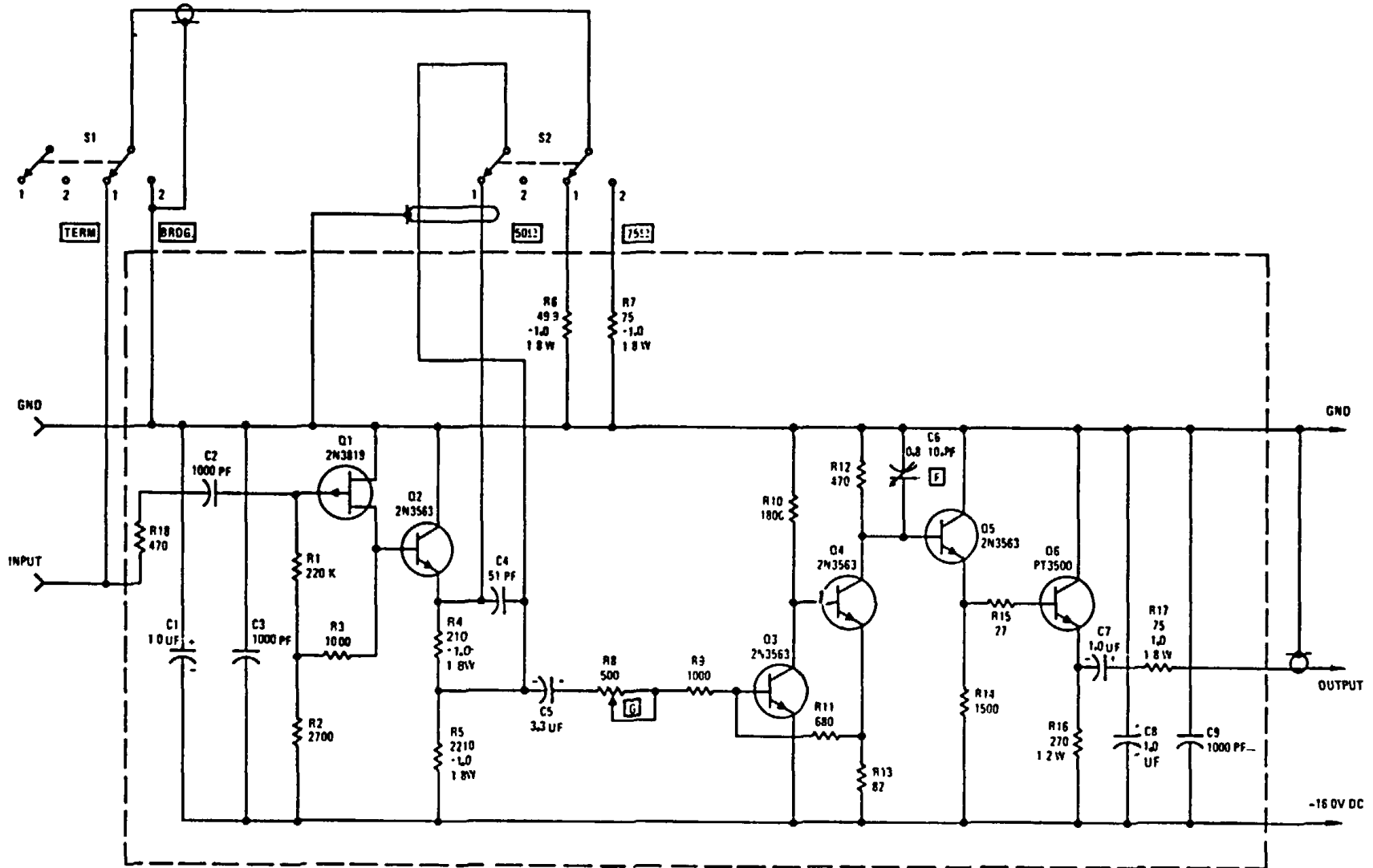


Figure 2-140. Probe Subassembly MX-8642/U, component locations.



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Figure 2-141. Probe Subassembly MX-8642/U, schematic diagram.

CHAPTER 3

REPAIRS AND ALIGNMENT

Section I. REPAIRS

3-1. General Parts Replacement Techniques

Most of the parts of the Radio Test Set AN/USM306(V) can be reached easily without special procedures. The following precautions apply specifically to this test set.

a. Do not disturb the settings of variable resistors, coils or chokes when removing boards or replacing parts.

b. Use a pencil-type iron with a 25-watt maximum capacity. This unit is transistorized. If the iron must be used with ac, use an isolating transformer between the iron and the line. Do not use a soldering gun: damaging voltages can be induced in components.

c. When soldering transistors, diodes, and other solid state components, solder quickly. Wherever wiring permits, use a heat sink (such as long-nosed pliers) between the soldered joint and the component. Use approximately the same length and dress of leads as used originally. (Also see figure 5-1).

d. Repairs to the logic boards in the Tuning Unit consist mainly of substituting new ic's (integrated circuits) and rechecking for proper operation.

3-2. Replacement of Power Transistors

Power transistors on each of the three units comprising the radio Test set are bolted to the chassis. When replacing the power transistors, check the mica insulator that goes between the power transistor and the chassis. It must be free of cracks and pin holes. Coat both sides of the mica insulator with silicone grease before

replacing a new power transistor. Locations of the power transistors are:

a. *Tuning Unit.* Power transistors are located on the rear panel. and on pc boards A1, A2, and A3.

b. *Monitor Unit.* The single power transistor in this unit is located on the chassis adjacent to pc board A12. Access is through the bottom of the unit.

c. *Spectrum Analyzer.* The single power transistor in this unit is located at the rear of the chassis, adjacent to the power transformer. Access is through the top of the unit.

3-3. High Voltage Power Supply, Spectrum Analyzer, Removal and Replacement

a. *Removal of High Voltage Power Supply* (fig. 3-1).

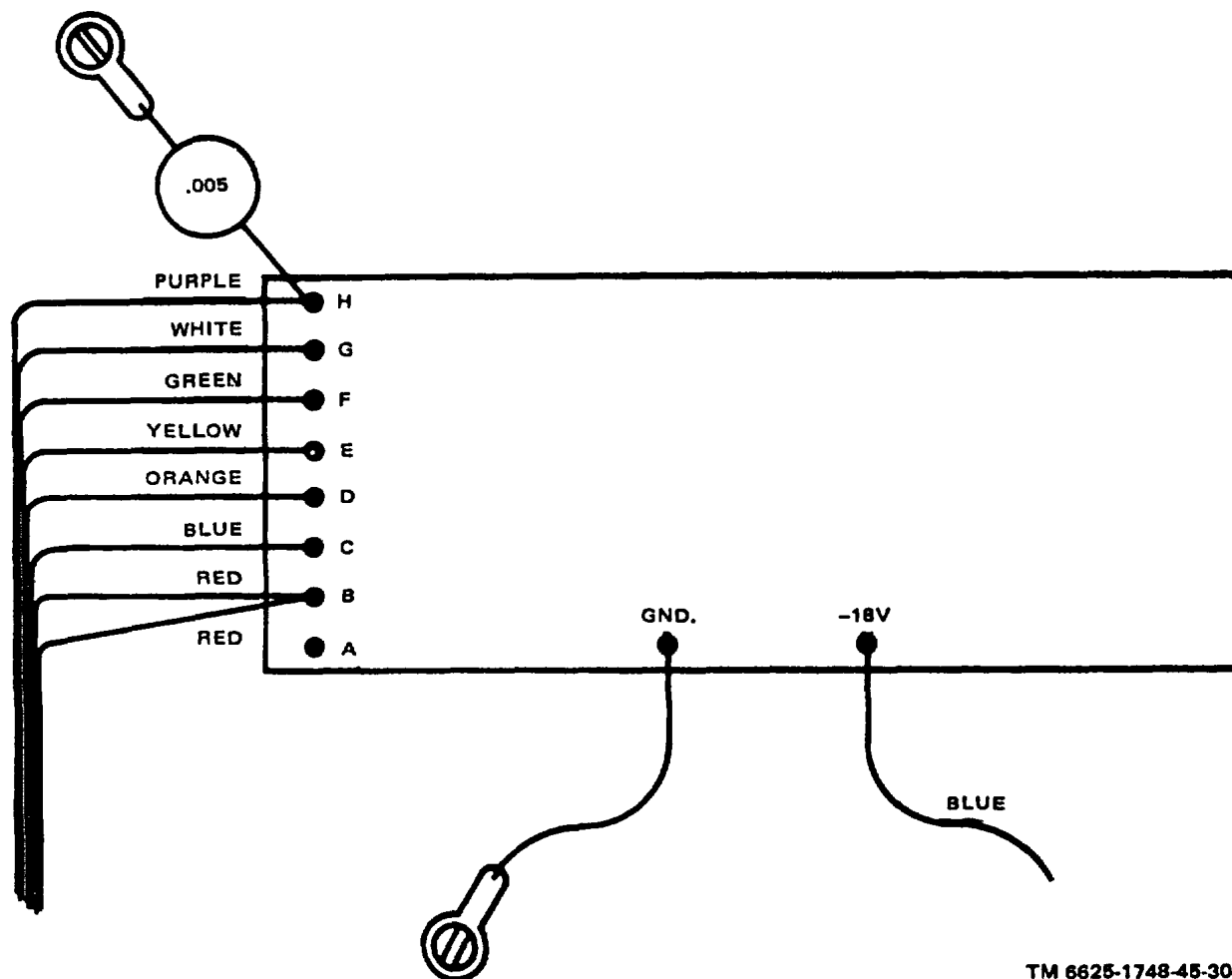
(1) Make sure the spectrum analyzer is disconnected from the primary ac power source.

(2) Remove the top and bottom cover plates that enclose the CRT and the high voltage power supply.

(3) Unsolder the disk capacitor which is connected from the HVPS pc board A13, terminal H. to a ground lug.

(4) Remove the four screws holding board A13 to the chassis and slide the board out through the bottom of the unit.

(5) For complete removal, unsolder all wires going to board A13.



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Figure 3-1. High voltage power supply A 13, wiring diagram. Spectrum Analyzer IP-1018/U.

b. Replacement of High Voltage Power Supply.

- (1) Connect the color-coded wires to the terminals of board A13 in accordance with figure 3-1.
- (2) Bolt board in place.
- (3) Reconnect the disc capacitor between terminal H and the chassis ground lug.
- (4) Bend components, as necessary, away from the CRT, shield and chassis.

3-4. Cathode Ray Tube, Spectrum Analyzer, Removal and Replacement

WARNING

The CRT contains a high vacuum. Be careful not to strike any part of the CRT with any hard object, such as a screw-driver or other tool. An

implosion of the CRT could damage or even destroy your eardrums. Don't take chances!

a. Removal of Cathode-Ray Tube (CRT).

- (1) Make sure the spectrum analyzer is connected from the primary ac power source.
- (2) Remove the top and bottom cover plates that enclose the CRT and the high voltage power supply.
- (3) Remove the CRT bezel, plastic plate, graduated plate and amber filter.
- (4) Remove CRT back cover plate from the rear panel. (Located immediately behind the CRT socket.)
- (5) Loosen the CRT socket clamp and carefully remove the CRT socket. The socket may

he initially loosened by alternately inserting the blade of a small screw-driver between the socket and the base of the tube from the top and then the bottom. (Note orientation of the CRT base.)

(6) Using an even pressure, carefully push the CRT forward and out of the front of the unit. Take care not to drop the CRT as it would probably implode upon striking the floor. (See *Warning*, above.)

b. Replacement of the Cathode-Ray Tube (CRT)
(See *Warning*, above).

(1) Carefully slide the CRT through the front of the unit. Orient (rotate) the CRT so that the base, pins are approximately the same as noted in a (5), above.

(2) Use the palm of one hand, pressed against the face of the CRT, to hold it in place. With the other hand, carefully push the socket all the way onto the CRT base.

(3) Position the front surface of the CRT slightly behind the front panel surface, and tighten the socket clamp.

(4) Replaces back cover plate on the rear panel.

(5) Use a soft clean rag to clean the front of the CRT, the graticules and the amber filter.

(6) Place the bezel face down on the bench. Put the clear plate in position first, then the graduated graticule, and finally the amber filter. Install the bezel and turn the mounting screws finger-tight.

(7) Align (orient) the CRT as outlined below.

WARNING

Extremely hazardous voltages exist in the CRT compartment, up to 2600 volts dc, when the Spectrum Analyzer is plugged into a primary ac power source. Serious shock or death may result from contact with these voltages. DO NOT attempt to make any adjustments within this compartment when the unit is connected to an ac power source.

(a) Connect the spectrum analyzer to a source of primary ac power.

(b) When the horizontal trace becomes visible, check to see that it is parallel to, or coincides with, the horizontal baseline on the graticule.

(c) If the trace does not meet the requirement in (b), disconnect the primary power source, loosen the socket clamp, and rotate the tube.

(d) Reconnect the unit to the ac power source, and check for proper alignment of the trace with respect to the graticule.

(e) Repeat steps in (b) and (c) above until the trace is parallel with the horizontal lines on the graticule. Tighten socket clamp.

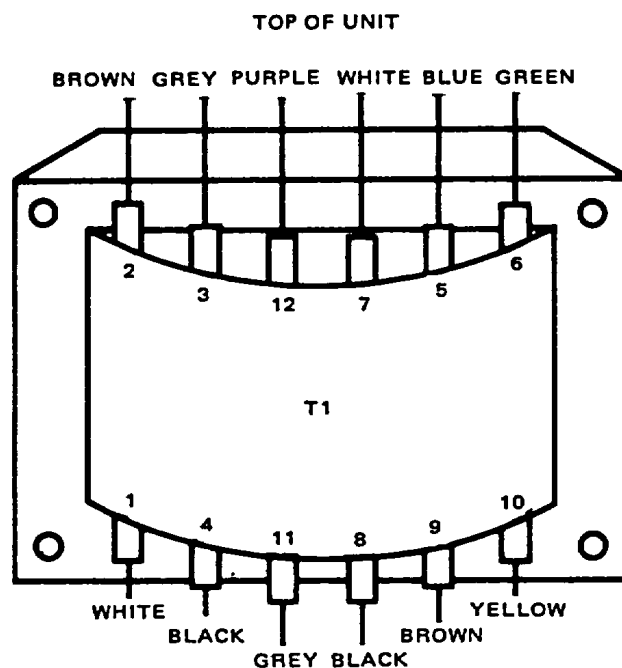
(f) If the horizontal trace is parallel to, but does not coincide with, the baseline, use a screwdriver to adjust the vertical control to cause the trace to coincide with the baseline.

(8) If a new CRT has been installed, carry out the width and horizontal centering procedures contained in paragraph 3-16.

3-5. Power Transformer Replacement

a. Tuning Unit.

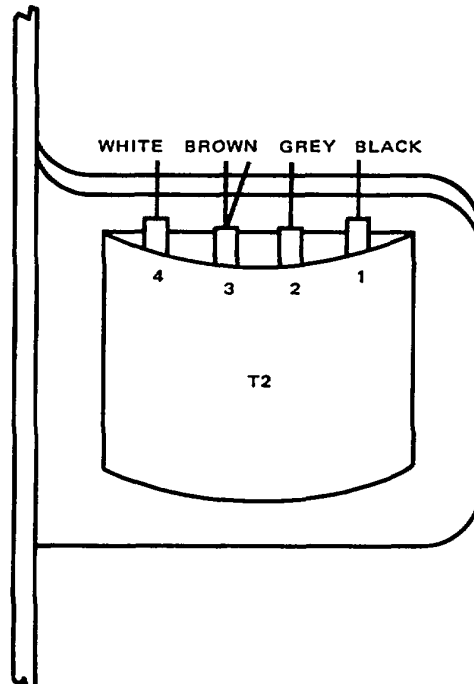
(1) Refer to figure 3-2 for wiring information when replacing transformer T1.



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Figure 3-2. Power transformer T1, wiring diagram. Tuning Unit TN-527/U.

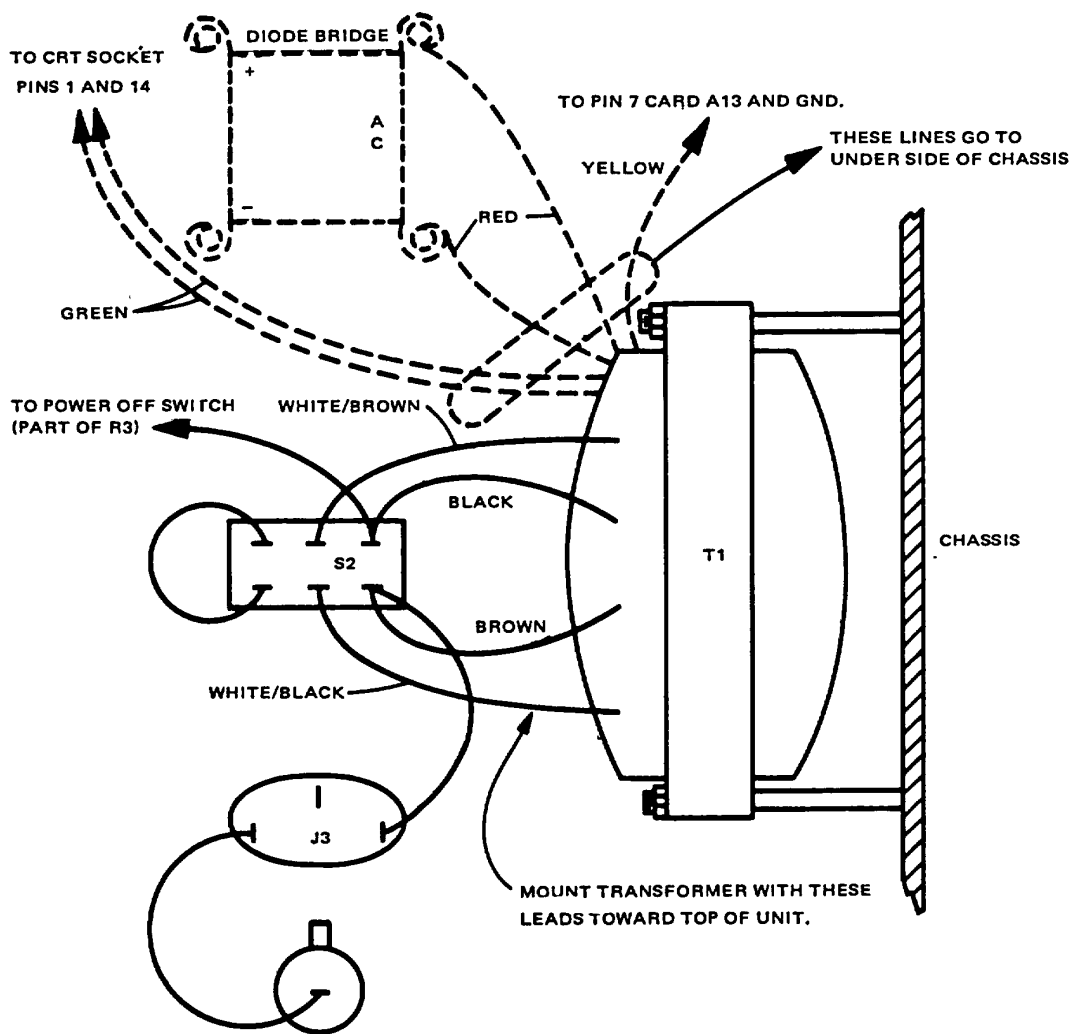
(2) Refer to figure 3-3 for wiring information when replacing transformer T2.



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Figure 3-3. Power transformer T2, wiring diagram, Tuning Unit TN-527/U.

b. *Monitor Unit.* Refer to figure 3-4 for wiring information when replacing transformer T1.



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Figure 3-4. Power Transformer T1, wiring diagram, Audio-Radio Frequency Monitor TS-2968/U.

c. *Spectrum Analyzer*. Refer to figure 3-5 for wiring information when replacing transformer T1.

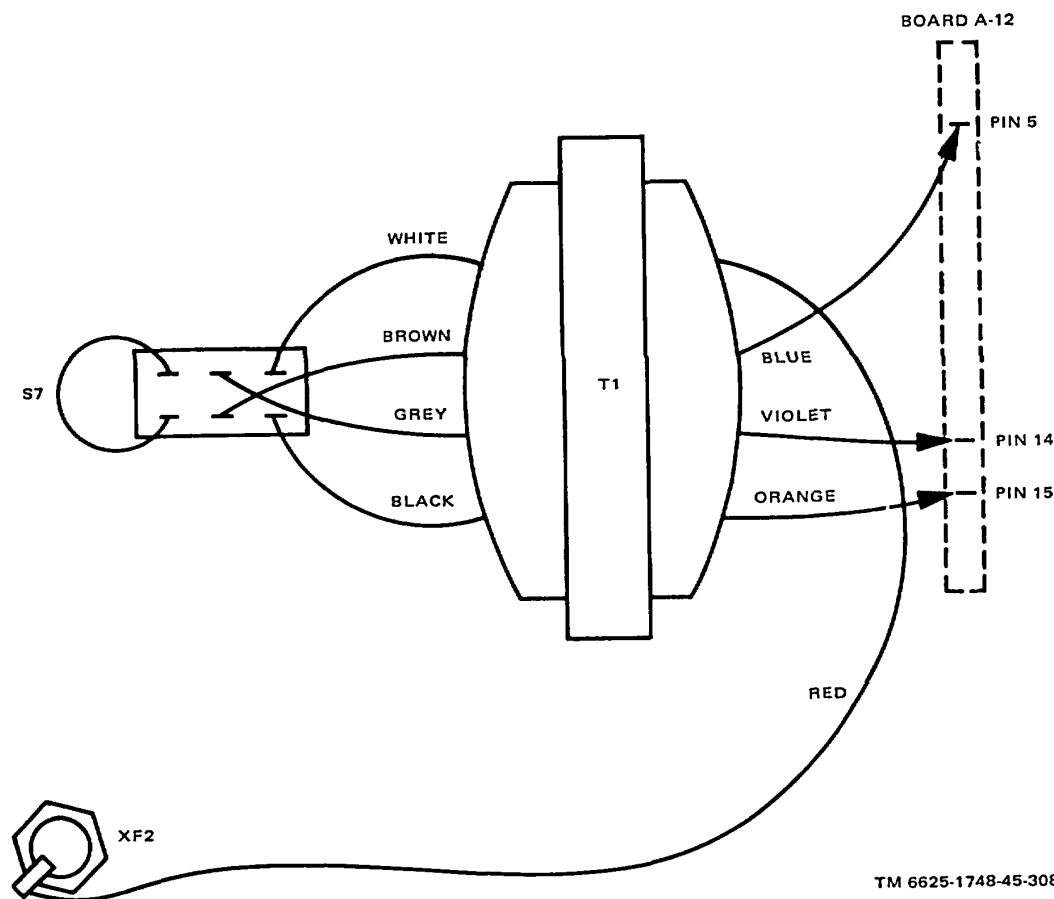


Figure 3-5. Power transformer T1, wiring diagram, Spectrum Analyzer IP-1018/U.

3-6. Removal of Tuning Drive Assemblies

To remove the coarse and fine tuning capacitor drive assemblies, proceed as outlined below.

- a. Remove plug P41 from the coarse tuning amplifier board, A8.
- b. Unsolder the wire from the fine tuning capacitor at pin 4 of pc board A12 (fine tuning oscillator and amplifier).
- c. Remove COARSE TUNING and FINE TUNING dials from the front panel.
- d. Remove the front panel from the chassis, taking care not to disturb any wiring.

e. The coarse tuning and/ or the fine tuning drive mechanisms may now be removed from the front panel.

3-7. Disassembly, Reassembly and Adjustment, Coarse Tuning Drive Mechanism

- a. *Disassembly of Coarse Tuning Drive Mechanism*. Refer to figure 3-6 (1) and (2) and Table 3-1.

CAUTION

The coarse tuning oscillator, board A7, is mounted directly on the frame of the coarse

tuning capacitor. Take care not to disturb the variable settings on this board.

(1) Remove flywheel (26) from end of worm shaft (6) by loosening flywheel setscrew (27).

(2) Loosen setscrew (7) in capacitor gear assembly (24).

(3) Dismount capacitor (3) by removing screws (5) and washers (28) and (29) from mounting plate (4).

(4) Remove shaft end plate (19) by removing hex nut (22), setscrew (21) and screws (20).

(5) Remove "E" rings (15) from gear shaft (16).

(6) Loosen setscrews (7) in gear (17) and worm wheel assembly (8). Use 1/16" punch to loosen bearing flanges (2). Remove shaft (16, spacer (10), flanges (2), gear (17) and worm wheel assembly (18).

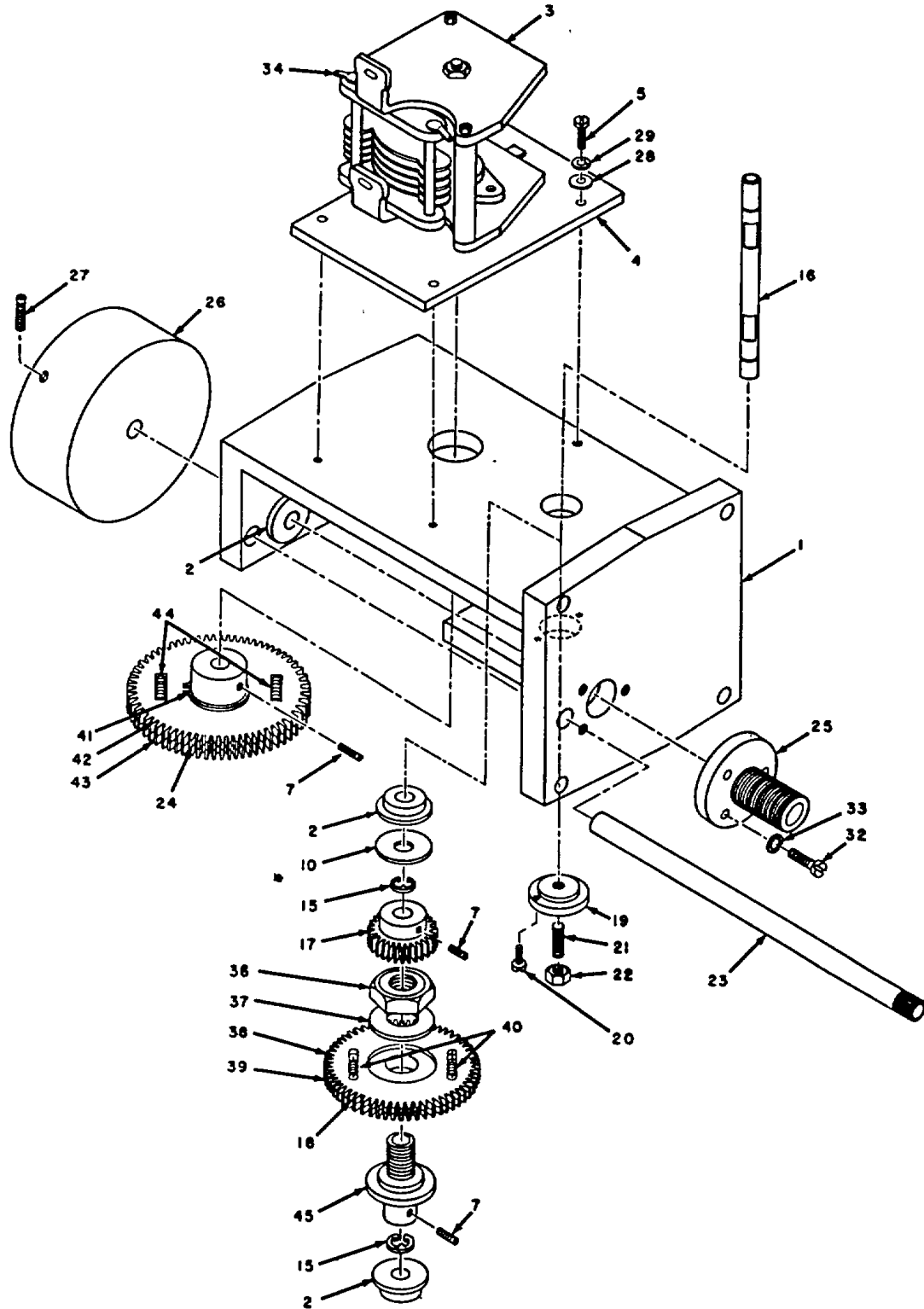
(7) Remove screws (32) and washers (33) from drive shaft bushing (25). Remove end plate.

(8) Remove drive shaft bushing (25).

(9) Using a 1/8" diameter punch and small hammer, gently drive stop guide (23) out through the front of the main casting (1).

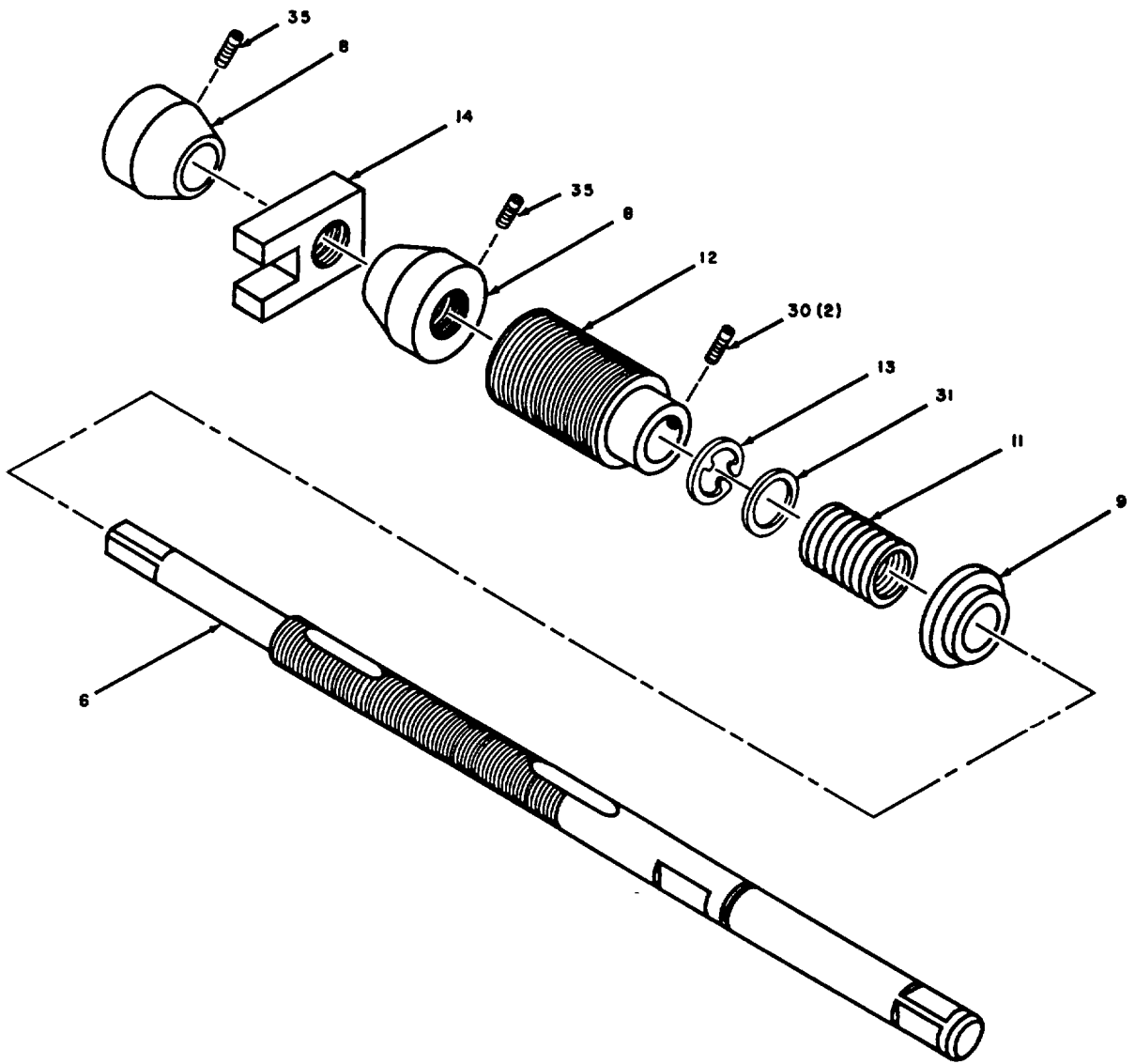
(10) Loosen setscrews (35) in stop rings (8) on worm shaft (6).

(11) Loosen setscrew (30) in worm gear (12).



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Figure 3-6 (1). Coarse tuning drive assembly, exploded view (sheet 1 of 2).



TM 6625-1748-45-292(2)

Figure 3-6 (2). Coarse tuning drive assembly, exploded view (sheet 2 of 2).

Table 3-1. Reference Designators vs Parts Identification. Coarse Tuning Drive Assembly (figure 3-6 (1) and (2))

Item No	Part Identification	Item No.	Part Identification
1	Main casting (frame)	24	Gear assembly
2	Ball bearing flange, 0.187" dia. I.D.	25	Bushing, drive shaft
3	Capacitor, tuning, 8.3 - 73.0 pF	26	Flywheel
4	Plate, capacitor mounting	27	Setscrew, 6-32 x 0.187"
5	Screw, 6-32 x 0.312"	28	Washer, flat, #6
6	Shaft, worm	29	Washer, splitlock, #6
7	Setscrew, 4-40 x 0.125"	30	Setscrew, 6-32 x 0.125"
8	Stop ring	31	Flat washer, 0.250" I.D.
9	Ball bearing flange, 0.250" I.D.	32	Screw, 4-40 x 0.250"
10	Spacer, 0.187" I.D., 0.004" thick	33	Washer, lock, int., #4
11	Spring	34	Solder lug, #6
12	Worm gear, 64 P.D., 0.250" bore, modified	35	Setscrew, 4-40 x 0.187"
13	"E" ring	36	Nut, 3/8 I.D., 3/32" thick
14	Stop nut assembly	37	Washer, flat, 7/64" I.D., 1/16" thick
15	"E" ring, 0.187" shaft	38	Gear, 1.500" P.D.
16	Shaft, gear	39	Gear, 1.500" P.D., with threaded bushing
17	Gear, 0.625" P.D.	40	Spring, tension
18	Worm Wheel assembly	41	"C" Ring
19	End Plate, shaft	42	Gear, 1.875" P.D.
20	Screw, 2-56 x 0.312"	43	Gear, 1.875" P.D., with bushing
21	Setscrew, 6-32 x 0.375"	44	Spring, compression
22	Nut, hex, 6-32	45	Threaded bushing
23	Stop guide		

- (12) Remove "E" ring (13) from worm shaft (61).
- (13) Move all parts on the worm shaft (6) towards the rear (flywheel end) of the shaft.
- (14) Grasp the front (1/4" diameter) end-of the worm shaft (16) and pull forward until the 3/16" diameter end of the shaft is free from the main casting.
- (15) Loosen bearing flange (9) from the main casting.
- (16) Remove worm shaft (6) from main casting.
- (17) All worm shaft parts may now be removed from the shaft (Fig. 3-6 (2)).
- (18) Disassemble gear assembly (24) as follows:

- (a) Use needle-nosed pliers to remove two compression springs (44).
- (b) Remove "C" ring (41).
- (c) Remove gear (42) from gear with bushing (43).
- (19) Disassemble worm wheel assembly (18) as follows:
 - (a) Remove nut (36).
 - (b) Remove flat washer (37).
 - (c) Remove tension springs (40).
 - (d) Remove gears (38 and 39) from threaded bushing (45).

b. Reassembly of Coarse Tuning Drive Mechanism. Refer to figure 3-6 (1) and (2) and table 3-1. See Caution under a above.

- (1) Assemble the following items, in the order given, on the worm shaft (6):

- (a) 0.250" I.D. bearing (9) with flange oriented toward threaded section of worm shaft.
- (b) Spring (11).
- (c) Flat washer (31).
- (d) Worm gear (12) oriented as shown in figure 3-6 (2)
- (e) One stop ring (8) oriented so that the tapered rubber snubber faces the small end of the shaft.
- (f) Stop nut assembly (14).
- (g) One stop ring (8) oriented so that the tapered rubber snubber faces the stop nut assembly (14).

- (2) Feed the 1/4" diameter end of the worm gear shaft assembly (6) through the hole in the front of the main casting (1).
- (3) Slide the 3/16" end of the worm shaft into the rear bearing (2).
- (4) Press front bearing (9) firmly into place in the main casting (1).
- (5) Press worm shaft (6) against rear bearing.
- (6) Grasp washer (31) and compress spring (11) against the front bearing (9) until the "E" ring slot on the worm shaft is visible beyond the washer.
- (7) Install "E" ring (13),
- (8) Position the worm gear (12) against the "E" ring on the worm shaft and tighten the setscrews (30).

(9) Install stop guide (23) from the front of the main casting (1), making sure that the shaft passes through the notch in the stop nut assembly (14).

(10) Install tuning drive bushing (25) using screws (32) and #4 lock washers (33).

(11) Assemble worm wheel assembly (18) as follows:

(a) Place gears (38) and (39) on threaded bushing (45).

(b) Place flat washer (37) over threaded bushing of gear (39) and into recess of gear (38).

(c) Install 3/8" nut (36) on threaded bushing of gear (39) and tighten against flat washer (37).

(d) Install two tension springs (40) between gears (38) and (39).

(12) Assemble the following parts on gear shaft (16), oriented as shown in figure 3-1 (1):

(a) Bearing flange (2).

(b) Worm wheel assembly (18).

(c) Gear (17).

(d) Spacer (10).

(e) Bearing flange (2).

NOTE

Do not tighten setscrews in either gear (17) or worm wheel assembly (18) at this time.

(13) Position gear shaft (16) in place in main casting (1). Use a small screwdriver or other flat-bladed tool to press bearing flanges (2) into place in the main casting.

(14) Install "E" rings (15) on each end of shaft (16) as shown in figure 3-6 (1).

(15) Position worm wheel assembly (18) for centering with respect to the worm gear (12) and load two teeth. Secure gear (18) to gear shaft (16) with setscrew (7).

(16) Install end plate (19) using screws (20).

(17) Install setscrew (21) and nut (22). Do not tighten nut.

(18) Adjust setscrew (21) to eliminate end play in gear shaft (16). Tighten nut (22).

(19) Assemble capacitor drive gear assembly (24) as follows:

(a) Place gear (42) on gear with bushing (43).

(b) Install "C" ring (41) on bushing (part of item 43).

(c) Install two compression springs (44) between gears (42) and (43).

(20) Insert capacitor shaft through casting and simultaneously place gear (24) on capacitor shaft.

(21) Install capacitor assembly (3) using items 5, 28, and 29. Do not tighten screws (5) at this time.

(22) Position gear (24) on capacitor shaft so that approximately 1/16" of the shaft protrudes through gear (24). Do not tighten setscrew (7) at this time.

(23) Position gear (17) on gear shaft (16) to align with gear (24). Secure gear (17) with setscrew (7).

(24) Reposition capacitor assembly (3) as necessary to load gear (24) two teeth with gear (7). Tighten screws (5) to secure capacitor assembly (3) in place.

(25) Mount flywheel (26) on rear end of worm shaft (6) and position it so that the end of the shaft is flush with the surface of the flywheel. Tighten flywheel setscrew (27).

c. Final Adjustment, Lubrication and Test.

(1) Set rear stop ring (8) 0.125" from the machined surface of the main casting (1). Secure with setscrew (36).

(2) Turn worm gear shaft (6) counterclockwise to the stop.

(3) Set capacitor (3) to 0.010" from the fully-meshed position. Tighten setscrews (7) on gear (24). Recheck alignment and load of gears (24) and (17). Reposition capacitor (3) and/or gear (17) if necessary.

(4) Turn worm gear shaft (6) clockwise until capacitor (3) is 0.010" from the fully-open position.

(5) Set front stop ring (8) with rubber snubber compressed against stop nut (14) and tighten stop ring setscrew (36).

CAUTION

Use only the lubricant specified in (6), below. Other lubricants may attack and eventually destroy the rubber snubbers on the stop rings (8).

(6) Lubricate the worm shaft (6) between the stop rings (8) with: Lube Oil, Machine Slidways, MIL-L-46017 Type 1, Medium, Mobile Vactra No. 2. Wipe off excess oil.

(7) Install 1 1/2 inch diameter knob on shaft. Spin vigorously. Knob shall turn a minimum of 8 turns before stopping. Check in both clockwise and counterclockwise directions. If this requirement is not met, recheck all adjustments.

d. Replacesment of Coarse Tuning Drive Mechanism in Tuning Unit.

(1) Remove tuning knob.

(2) Mount tuning drive assembly on front panel of tuning unit.

(3) Replaces panel on tuning unit.

(4) Replaces plug P41 in jack J41 of board

A8.

3-8. Disassembly, Reassembly and Adjustment, Fine Tuning Drive Mechanism

Refer to paragraph 3-6 for instructions on removal of the tuning drive mechanisms from the Tuning Unit.

a. Disassembly of Fine Tuning Drive Mechanism.
Refer to figure 3-7 (1) and (2) and table 3-2.

(1) Remove flex, heel (26) from end of worm shaft (6) by loosening flywheel setscrew (27).

(2) Loosen setscrews (7) in capacitor gear (24).

(3) Loosen setscrew (27) in shaft extension (28).

(4) Remove screws (5) and (25) and washers (30) and (31) from capacitor front plate. Remove capacitor, shaft extension and gear.

(5) Remove shaft end plate (19) by removing setscrew (21), hex nut (22) and screws (20).

(6) Remove "E" rings (15) from gear shaft (16).

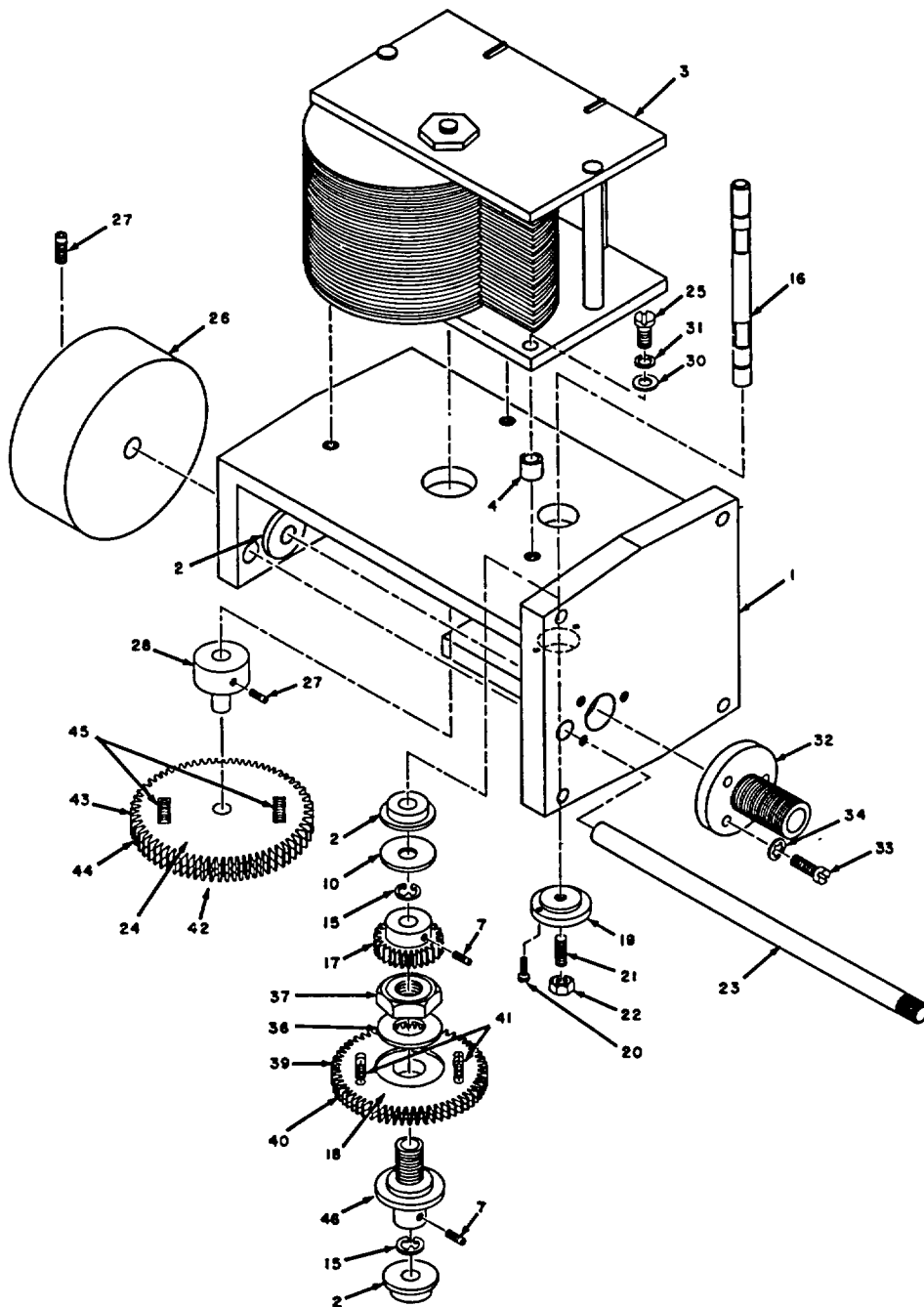
(7) Loosen setscrews (7) in gear and worm it heel assembly (18). Use 1/16" punch to loosen bearing flanges (2). Remove shaft (16), spacer (10), flanges (2), gear (17) and worm wheel assembly (18).

(8) Remove screws (33) and washers (34) from drive shaft bushing (32).

(9) Remove drive shaft bushing (32).

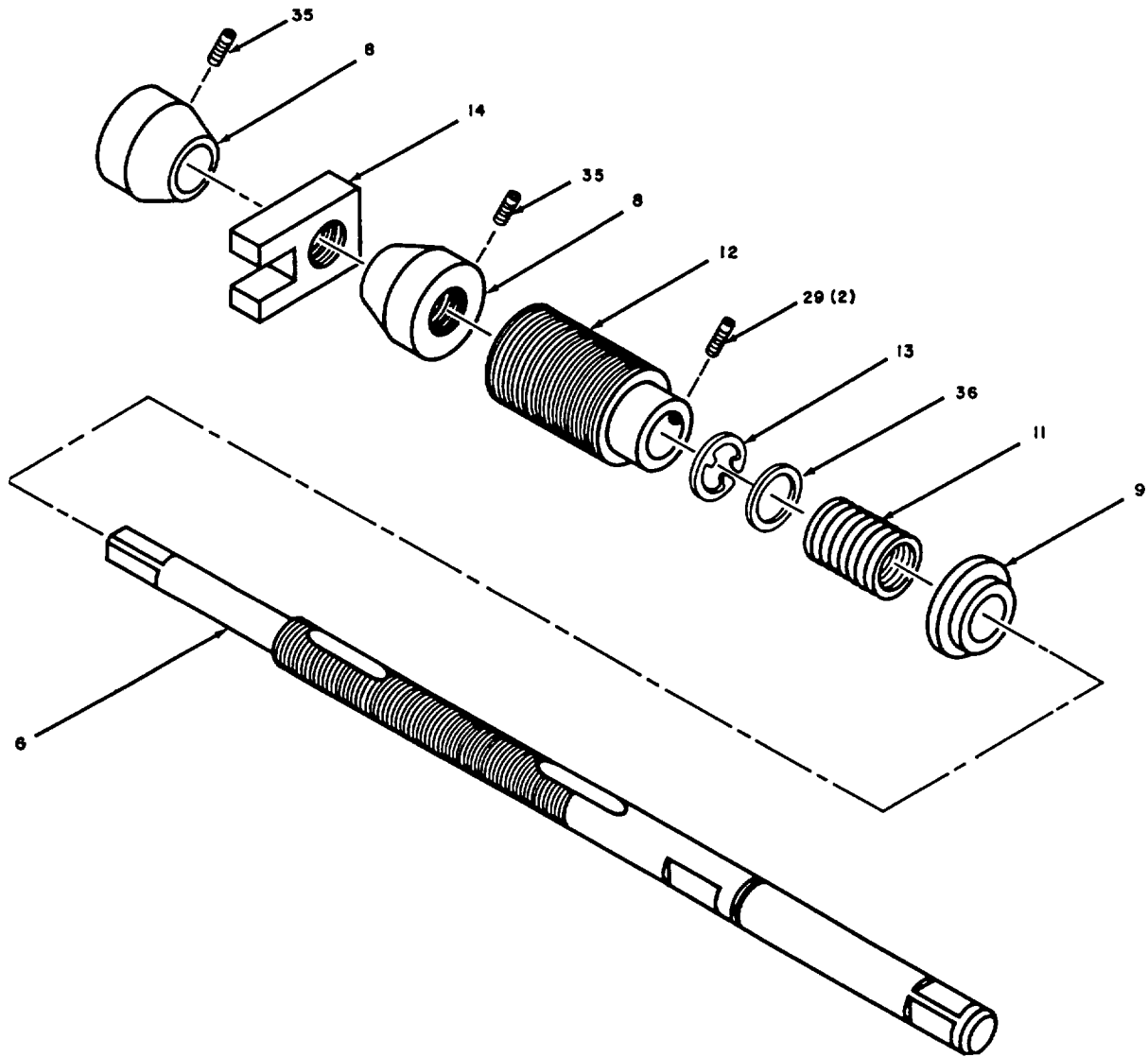
(10) Using a 1/8" diameter punch and small hammer, gently drive stop guide (23) out through the front of the main casting (1).

(11) Loosen setscrews (35) in stop rings (8) on worm shaft (6).



TM 6625-1748-45-293(1)

Figure 3-7 (1) . Fine tuning drive assembly, exploded view (sheet 1 of 2).



TM 6625-1748-45-293(2)

Figure 3-7 (2). Fine tuning drive assembly, exploded view (sheet 2 of 2).

Table 3-2. Reference Designator; vs Parts Identification, Fine Tuning Drive Assembly figure 3-7 (1) and (2)

Item No	Part Identification	Item No.	Part Identification
1	Main casting (frame)	24	Gear assembly
2	Ball bearing flange, 0.187" dia. I. D.	25	Screw, 6-32 x 0.500"
3	Capacitor, tuning, 50-450 pF	26	Flywheel
4	Spacer, capacitor	27	Setscrew, 6-32 x 0.187"
5	Mod, screw, 6-32 x 0.437"	28	Shaft extension
6	Shaft, worm	29	Setscrews, 6-32 x 0.125"
7	Setscrew, 4-40 x 0.125"	30	Washer, flat, #6
8	Stop ring	31	Washer, splitlock. # 6
9	Ball bearing flange, 0.250" I.D.	32	Bushing, drive shaft
10	Spacer, 0.187" I.D., 0.004" thick	33	Screw, fil, hd, 4-40 x 0.250"
11	Spring	34	Washer, lock, int, #4
12	Worm gear, 64 P.D., 0.250" bore, modified	35	Setscrew, 4-40 x 0.187"
13	"E" ring	36	Flat washer. 0.250" I.D.
14	Stop nut assembly	37	Nut, 3/8" I.D., 3/32" thick
15	"E" ring, 0.187 shaft	38	Washer, flat, 7/ 16" I.D., 1/16" thick
16	Shaft, gear	39	Gear, 1.500" P.D..
17	Gear, 0.468" P.D.	40	Gear, 1.500" P.D. with threaded bushing
18	Worm wheel assembly	41	Spring, tension
19	End plate, shaft	42	"C" ring
20	Screw, 2-56 x 0.312"	43	Gear, 1.875" P.D.
21	Setscrew, 6-32 x 0.375"	44	Gear, 1.875" P.D.
22	Net, hex, 6-32	45	Spring, compression
23	Stop guide		

- (12) Loosen setscrew (29) in worm gear (12).
- (13) Remove "E" ring (13) from worm shaft (6).
- (14) Move all parts on the worm shaft (6) towards the rear (flywheel end) of the shaft.
- (15) Grasp the front (1/4" diameter) end of the worm shaft (6) and pull forward until the 3/16" diameter end of the shaft is free from the main casting.
- (16) Loosen bearing flange (9) from main casting.
- (17) Remove worm shaft (6) from main casting.
- (18) All worm parts may now be removed from the shaft (Fig. 3-7 (2)).
- (19) Disassemble gear assembly (24) as follows:
 - (a) Use needle-nosed pliers to remove two compression springs (45).
 - (b) Remove "C" ring (42).
 - (c) Remove gears (43) and (44) from the shaft extension(28).
- (20) Disassemble worm wheel assembly (18) as follows:
 - (a) Remove nut (37).
 - (b) Remove flat washer (38).
 - (c) Remove tension springs (41).
 - (d) Remove gears (39) and (40) from threaded bushing (46).

- b. *Reassembly of Fine Tuning Drive Mechanism.*
Refer to figure 3-7 (1) and (2) and table 3-2.
 - (1) Assemble the following items, in the order given, on the worm shaft (6):
 - (a) 0.250" I.D. bearing (91 with flange oriented toward threaded section of worm shaft.
 - (b) Spring (11).
 - (c) Flat washer (36).
 - (d) Worm gear (12) oriented as shown in figure 3-7 (1) .
 - (e) One stop ring (8) oriented so that the tapered rubber snubber faces the small end of the shaft.
 - (f) Stop nut assembly (14).
 - (g) One stop ring (8) oriented so that the tapered rubber snubber faces the stop nut assembly (14).
 - (2) Feed the 1/4" diameter end of the worm gear shaft assembly (6) through the hole in the front of the main casting (1).
 - (3) Slide the 3/16" end of the worm shaft into the rear bearing (2).
 - (4) Press front bearing (9) firmly into place in the main casting (1).
 - (5) Press worm shaft (6) against rear bearing.
 - (6) Grasp washer (36) and compress spring (11) against the front bearing (9) until the "E" ring slot on the worm shaft is visible beyond the washer.

(7) Install "E" ring (13).

(8) Position the worm gear (12) against the "E" ring on the worm shaft and tighten the setscrews (29).

(9) Install stop guide (231 from the front of the main casting (1), making sure that the shaft passes through the notch in the stop nut assembly (14).

(10) Install drive shaft bushing (32) using screws (33) and #4 lockwashers (34).

(11) Assemble worm wheel assembly (18) as follows:

(a) Place gears (39) and (40) on threaded bushing (46).

(b) Place flat washer (38) over threaded bushing of gear (40) and into recess of gear (39).

(c) Install 3/8" nut (37) on threaded bushing of gear (40) and tighten against flat washer (38).

(d) Install two tension springs (41) between gears (39) and (40).

(12) Assemble the following parts on gear shaft (16), oriented as shown in figure 3-2 (1):

(a) Bearing flange (2).

(b) Worm wheel assembly (18).

(c) Gear (17).

(d) Spacer (10).

(e) Bearing flange (2).

NOTE

Do not tighten setscrews in either gear (17) or worm wheel assembly (18) at this time.

(13) Position gear shaft (16) in place in main casting (1). Use a small screw-driver or other flat-bladed tool to press bearing flanges (2) into place in the main casting.

(14) Install "E" rings (15) on each end of shaft (16) as shown in figure 3-7 (1).

(15) Position worm wheel assembly (18) for centering with respect to the worm gear (12) and load two teeth. Secure gear (18) to gear shaft (16) with setscrew (7).

(16) Install end plate (19) using screws (20).

(17) Install setscrew (21) and nut (22). Do not tighten nut.

(18) Adjust setscrew (21) to eliminate end play in gear shaft (16). Tighten nut (22).

(19) Assemble capacitor drive gear assembly (24) as follows:

(a) Place gears (43) and (44) on shaft extension (28).

(b) Install "C" ring (42) on shaft extension (28).

(c) Install compression springs (45) between gears (43 and 44).

(20) Place shaft extension (28) on capacitor shaft and tighten setscrew (27).

(21) Insert capacitor shaft with extension through casting and simultaneously place gear (24) on shaft extension.

(22) Install capacitor assembly (3) using screws (5 and 25), and washers (30) and (31). Do not tighten screws at this time.

(23) Position gear (24) on capacitor shaft extension (28) so that approximately 1/16" of the shaft protrudes through the gear (24). Do not tighten setscrew (7) at this time.

(24) Position gear (17) on gear shaft (16) to align with gear (24). Secure gear (17) with setscrew (7).

(25) Reposition capacitor assembly (3) as necessary to load gear (24) two teeth with gear (7). Tighten screws (5 and 25) to secure capacitor assembly in place.

(26) Mount flywheel (26) on rear end of worm shaft (6) and position it so that the end of the shaft is flush with the surface of the flywheel. (Flywheel is to be oriented with the large diameter adjacent to the main casting (1).)

c. Final Adjustment. Lubrication and Test.

(1) Set rear stop ring (8) 0.125" from the machined surface of the main casting (1). Secure with setscrew (35).

(2) Turn worm gear shaft (6) counterclockwise to the stop.

(3) Set capacitor (3) to 0.010" from the fully meshed position. Tighten setscrews (7) on gear (24). Recheck alignment and load of gears (24 and 17). Reposition capacitor (3) and/or gear (17) if necessary.

(4) Turn worm gear shaft (6) clockwise until capacitor (3) is 0.010" from the fully open position.

(5) Set front stop ring (8) with rubber snubber compressed against stop nut (14) and tighten stop ring setscrew (35).

CAUTION

Use only the lubricant specified in (6), below. Other lubricants may attack and eventually destroy the rubber snubbers on the stop rings (8).

(6) Lubricate the worm shaft (6) between the stop rings (8) with: Lube Oil, Machine Slidways, MIL-L-46017 Type 1, Medium, Mobile Vactra No. 2. Wipe off excess oil.

(7) Install 1-1/2 inch diameter knob on shaft. Spin vigorously. Knob shall turn a minimum of 8 turns before stopping. Check in both clockwise and counterclockwise directions. If this requirement is not met, recheck all adjustments.

d. Replacesment of Fine Tuning Drive Mechanism in Tuning Unit.

(1) Remove tuning knob.

- (2) Mount tuning drive assembly on the front panel of the tuning unit.
- (3) Replaces panel on tuning unit.

- (4) Connect wire from the fine tuning capacitor to pin 4 of pc board A12.

Section II. ALIGNMENT

3-9. General

The alignment procedures for Radio Test Set AN/USM-306 (V)1 are given in the following paragraphs. The units are interrelated in such a manner that the Tuning Unit must be aligned first, the Monitor Unit second, and the Spectrum Analyzer last.

a. No changes in the internal adjustments are to be made unless the necessary test equipment is on hand. Since many of the adjustments interact, the following procedures must be performed in the sequence given.

NOTE

The Radio Test Set AN/USM-306(V)1 has been factory-aligned and adjusted prior to shipment. No initial internal adjustments should be required before placing the equipment in service.

b. Where the procedures call for reinstallation of a pc (printed circuit) board, it shall be mounted on a card riser until all adjustments and measurements pertaining to that particular pc board have been completed. When all of the adjustments and measurements pertaining to that particular pc board having been accomplished the

card riser shall be removed and the pc board plugged directly into its socket.

c. All test equipment return (common) leads shall be connected to the common or to chassis ground close to the circuit under test, unless otherwise specified.

d. The coaxial cover caps, located at the rear panels and mechanically secured to the panels with small chains, are 50-ohm coaxial terminations. Where the following instructions require that one or more of the rear panel jacks be terminated with 50 ohms, simply screw one of these caps onto the jack, and turn it finger-tight.

e. If one or more components (other than passive components such as hardware) have been replaced just prior to alignment, the Radio Test Set shall be "burned in" for 24 hours prior to performing the alignment procedures. Burn-in consists of applying ac power to the unit or units in which components have been replaced.

3-10. Test Equipment Required

a. The test equipment listed in table 3-3, as well as the additional equipment in b below, and the components listed in c below, must be on hand in order to perform the complete alignment of the test set.

Table 3-3. Test Equipment Requirements

<i>Test equipment</i>	<i>Technical manual</i>	<i>Common name</i>
Signal Generator AN/GRM-50.	TM 11-6625-573-15	Signal generator
Voltmeter, Meter ME-30(*)/U.	TM 11-6625-320-12	AC voltmeter
Digital Readout Electronic Counter AN/USM-207.	TM 11-6625-700-10	Frequency counter
Voltmeter, Electronic AN/URM-145	TM 11-6625-524-15-1	Electronic voltmeter
Oscilloscope AN/USM-281	TM 11-6625-703-15	Oscilloscope
Multimeter TS-352B/U	TM 11-6625-366-15	Multimeter
Frequency-Converter Group CV-394/USA-5.	TM 11-6625-604-15	Frequency converter
Signal Generator AN/USM-44	TM 11-6625-508-10	Signal generator

b. The following additional test equipment, or equivalents, are required to align the Test Set.

(1) DC power supply, capable of being adjusted to 12.0 v dc, current capability of 20 milliamperes or greater. PP-3514()/U or similar.

(2) Generator, RF, sweep, frequency range to cover 9.8 through 40.3 MHz. Sweep range 500 kHz minimum. AN/USM-203 or AN/USM-219 or equivalent.

(3) Another Radio Test Set AN/USM-306(V)1, known to be in good operating condition.

(4) Tracking Signal Generator. Model AN/GRM-50 with two each 48 inch coaxial output cable.

NOTE

When using the AN/GRM-50 Tracking Signal Generator, variations in output level (as read on the signal generator DECIBELS meter) must be taken into account. At a given setting of the output attenuators of the signal generator, if the DECIBELS meter on the generator reads above or below zero, the true output level is the

display indication plus or minus the DECIBELS meter reading. (See the AN/GRM-50 Tracking Signal Generator instruction manual.)

c. In addition to the test equipment requirements listed in table 3-2, and subparagraph b above, the following components and assemblies are required for alignment.

- Resistor, composition, 50 ohms, 1/2 or 1 watt1 each
- Resistor, composition, 100 ohms, 1/2 or 1 watt1 each.
- Resistor, composition, 150 ohms, 1/2 or 1 watt1 each.
- Resistor, composition, 600 ohms, 1/2 or 1 watt1 each.
- Resistor, composition, 1000 ohms, 1/2 or 1 watt1 each.
- Choke, if, 1 millihenry1 each.
- 50- to 75-ohm resistive matching pad with BNC 50- and 75-ohm connectors. (May be locally fabricated in accordance with figure 3.8.)1 each.
- Standard phone plug with 36-inch flexible test leads, terminated with alligator clips1 each.
- Clip leads, alligator clips at each end, made up with flexible test lead wire, approximately two inches long between clips4 each.

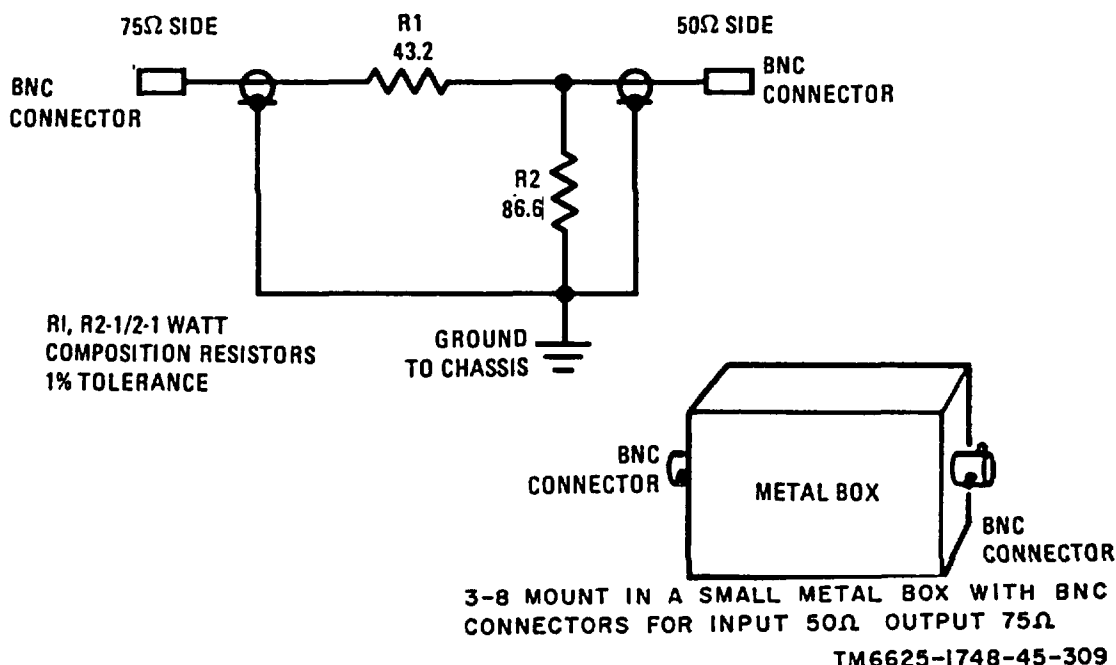


Figure 3-8. 50- to 75-ohm matching pad, local fabrication details.

3-11. Preparation for Alignment

- Disconnect all interconnecting cables between the tuning unit, monitor unit, and spectrum analyzer.
- Remove all three units from the cabinet and place them on the test bench. Remove the top and bottom covers of all three units.
- Make sure that the voltage-controlled crystal oscillator (VCXO) is firmly in place in its socket. Plug the ac power cable of the Tuning Unit into a source of primary ac power. Make sure that the oven lamp is lighted.
- Wait 1 hour for the crystal oscillator to stabilize before aligning the tuning unit.

- All ac-operated test equipment shall be connected to primary ac power and turned on at least 30 minutes prior to commencing the alignment procedures.

3-12. Tuning Unit Alignment Procedure

- The Tuning Unit must have been connected to a primary ac power source, with the crystal oscillator (VCXO) in place, for a minimum of one hour prior to starting the alignment procedures. Make sure the oven lamp is lighted during this 1-hour warmup period.
- Remove all plug-in pc boards from the chassis.

c. Do not install any of the interconnecting coaxial cables between the Tuning Unit, Monitor Unit and Spectrum Analyzer until instructed to do so.

d. *Purpose Supplies.* To adjust the power supplies, proceed as follows:

(1) Insert power supply board A1 into a card riser. Insert the card riser into jack J25; Connect a dc voltmeter between test points TP2(+) and TP3 (-) on board A1. Adjust potentiometer R8 for a + 5.5 volt indication.

(2) Insert power supply board A2 into a card riser. Insert the card riser into jack J26. Connect a dc voltmeter between test points TP2 (+) and TP3 (-). Adjust potentiometer R18 for a -6.0 volt indication.

(3) Insert power supply board A3 into a card rise. Insert the card riser into jack J27. Connect a dc voltmeter between test points TP2(+) and TP3(-). Adjust R7 for a -16.0 volt indication. Connect the voltmeter between test points TP5(+) and TP6(-). Adjust potentiometer R18 for a -6.0.

e. *Frequency Synthesizer.* To align the frequency synthesizer, proceed as follows:

(1) Insert board A4 on a card riser into jack J15 and board A6 on a card riser into J13.

(2) On board A6 set switch S1 to the "test" position (up), and center potentiometers R8, R14 and R22.

(3) Connect oscilloscope to jack J6 (TO 305A-L19.0 MHz) on the rear panel of the Tuning Unit, and adjust inductor L4 on board A6 for maximum sine wave amplitude.

(4) Connect the rf microvoltmeter to jack J6 (TO 305A-L 19.0 MHz) and adjust potentiometer R26 on board A6 for a 34 millivolt indication.

(5) Connect the dc voltmeter to test point TP4(-) on A6 and adjust potentiometer R14 for a -8.5 volt indication.

(6) With the voltmeter connected to test point TP9(-) on board A6, adjust potentiometer R22 for a -8.0 volt indication.

(7) Connect oscilloscope at test point TP4, adjust potentiometer R8 for a 2.0 to 2.5 volt, peak-to-peak, sine wave.

(8) Set switch S1 to the "operate" position (down).

(9) Adjust potentiometer R22 toward both extreme positions. At some range a dc trace will be observed moving up and down on the oscilloscope. Mark the most positive and most negative position of this trace before it breaks into oscillations, and center the trace with R22 midway between those two extremes.

(10) Connect a 50-ohm 1/2W composition resistor between TP18 and common. Connect the

frequency counter between TP8 on board A6 and chassis. Verify that the output is 19.0 MHz \pm 2 Hz. Adjust 1 MHz clock (XC01) for 19.0 MHz \pm 2Hz, if necessary. Disconnect 50-ohm resistor.

(11) Insert board A5 on a riser board into jack J14. Set switch S1 to the "test" position (up), and center potentiometers R8, R14, and R22. With an oscilloscope at test point TP8, adjust inductor L4 for maximum sine wave amplitude.

(12) Repeat Steps 5 through 9 on board A5. Connect a 50-ohm 1/2 W composition resistor between TP8 and common. Connect frequency counter between TP8 and chassis and verify that the output frequency is 19.1 MHz \pm 10 Hz. Disconnect resistor.

f. *Coarse Tuning Section.* To align the coarse tuning section, proceed as follows:

(1) Insert the coarse tuning amplifier and output board A8 into jack J19, and insert plug P41 in board A8.

(2) Adjust the external dc power supply for -12V dc. Connect the negative lead to pin 2 of plug P41. Connect the positive lead to common or chassis.

(3) On the rear panel of the Tuning Unit, terminate jack J7 (TO 305A-L 40/72 MHz) and jack J9 (TO 305A-G 40/72 MHz) with 50-ohm terminating caps.

(4) Connect a 100 ohm resistor between pins 2 and 6 on jack J28.

(5) Adjust potentiometer R9 for a mid-range position. Rotate the COARSE TUNING control from stop to stop (counting rotations, and then rotate back to about the center position.

(6) With the oscilloscope verify that the waveforms at pins 1 and 4 of plug P41 are as indicated in figure 3-9 (1).

(7) Rotate the COARSE TUNING control fully counterclockwise.

(8) Connect the microvoltmeter to J7 (TO 305A-L 40/72 MHz) and adjust potentiometer R9 for 125 mV. Disconnect the microvoltmeter.

(9) With the frequency counter connected to jack J7 (TO 305A-L 40/72 MHz) adjust inductor L1 on board A7 for a 39.8 MHz indication.

NOTE

Board A7 is mounted directly on the frame of the COARSE TUNING capacitor (C1).

(10) Rotate the COARSE TUNING control fully clockwise. Adjust capacitor C4 on board A7 for a 73.8 MHz indication on the counter.

(11) Repeat steps (7) through (10) until both frequency extremes are within 100 kHz of the required frequency.

(12) Insert board A9 into jack J16. Center potentiometer R9, capacitor C11, and the COARSE TUNING control. Set TUNING MODE switch to LOCKED mode.

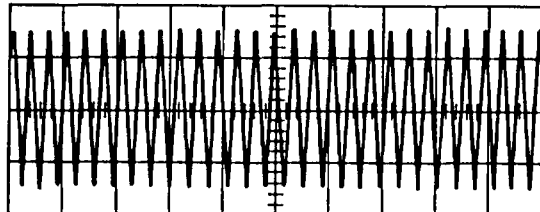
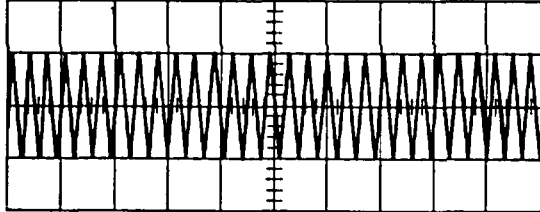
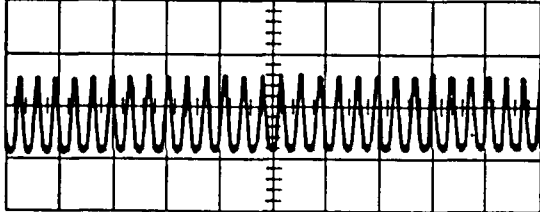
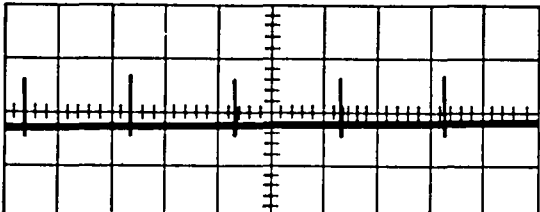
(13) With the oscilloscope connected to TP4 of A9, adjust capacitor C5 for the waveform illustrated in figure 3-9 (1).

(14) With the oscilloscope connected to TP3 of A9, adjust capacitor C9 for the waveform illustrated in figure 3-9 (1).

NOTE

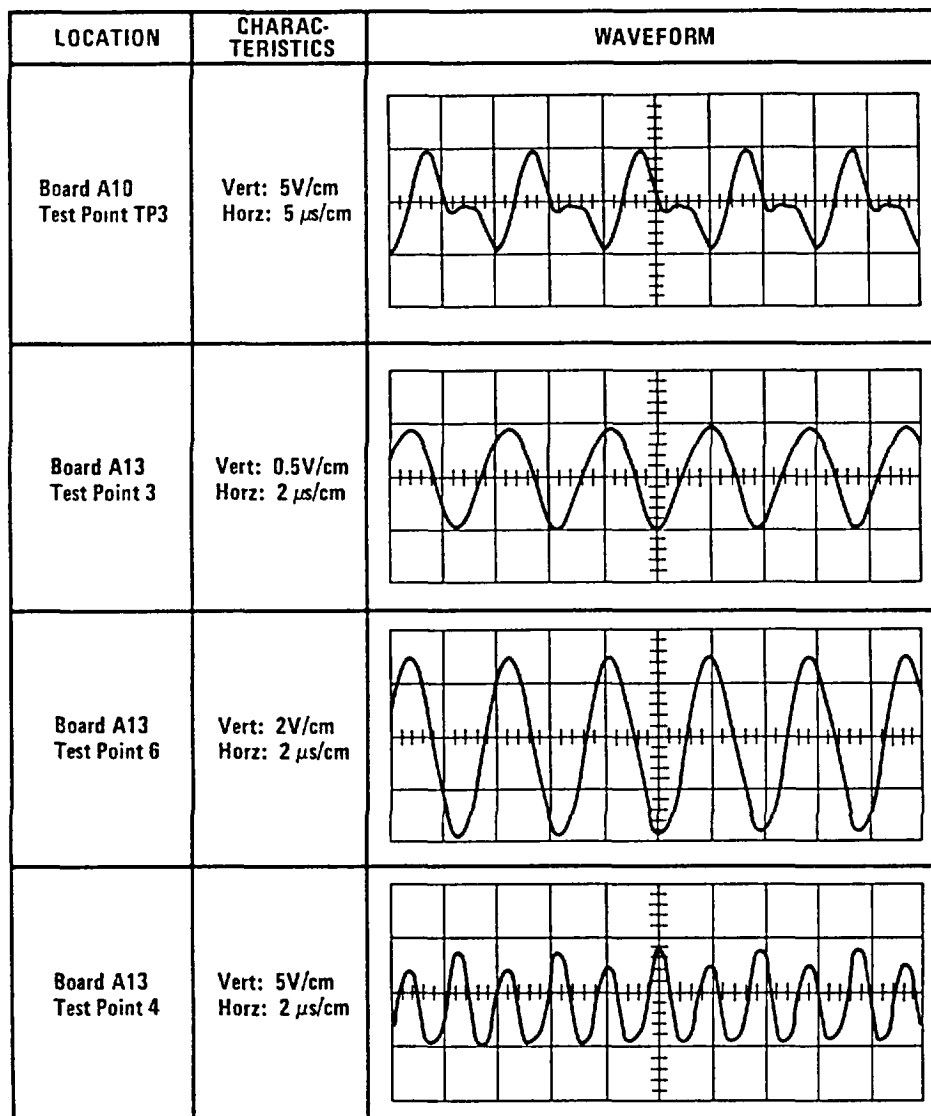
If no waveform appears at test point TP3, depress the TUNING MODE switch (15) Insert board A10 into jack J17.

(16) With the oscilloscope connected to TP3 of A10, adjust potentiometer R7 for the waveform illustrated in figure 3-9 (2).

LOCATION	CHARACTERISTICS	WAVEFORM
<p>Plug P41 Pin 1</p>	<p>Vert: 0.5V/cm Horz: 0.05 μs/cm</p>	
<p>Plug P41 Pin 4</p>	<p>Vert: 1V/cm Horz: 0.05 μs/cm</p>	
<p>Board A9 Test Point TP4</p>	<p>Vert: 0.5V/cm Horz: 0.05 μs/cm</p>	
<p>Board A9 Test Point TP3</p>	<p>Vert: 5V/cm Horz: 5 μs/cm</p>	

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Figure 3-9 (1). Alignment waveforms, tuning unit (sheet 1 of 2).



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Figure 3-9 (2) Alignment waveforms, tuning unit (sheet 2 of 2).

(17) Disconnect the power supply, and short pin 2 of plug 41 to ground.

(18) Insert board A11 into jack J18, and set potentiometer R13 fully counter-clockwise.

(19) With the oscilloscope connected to TP2 of A11, slowly adjust the COARSE TUNING control until a 4 to 6 kHz waveform appears. Set capacitor C9 to maximum capacitance.

(20) Adjust the balance potentiometer, R9, on board A9 to the clockwise side of center for maximum amplitude. Alternately adjust, in the following order, C11, C5 and R9 on board A9, for maximum amplitude.

(21) Adjust potentiometer R7 on board A10 for a 2 volt, peak-to-peak, signal.

(22) Remove the jumper installed in step (17). Set the oscilloscope to dc input, and adjust the COARSE TUNING control for the last dc indication before hitting the counterclockwise stop.

(23) Vary the COARSE TUNING control and mark the most positive and the most negative vertical excursion of the dc line. Adjust potentiometer R7 on board A10 for a 3 volt total vertical excursion.

(24) Rotate the COARSE TUNING control to close the mechanical stop in clock-wise direction, and tune for a dc trace. The possible total vertical deflection should be 2.0 volt minimum low frequency, and 1.5 volt minimum at high frequency end.

(25) Rotate the COARSE TUNING control until an unlock occurs (dc trace breaks in ac). Adjust potentiometer R13 on board A11 so that the LOCK indication goes out with any ac signal. Check that a positive "click" is heard every time relay K1 energizes.

(26) Check that a positive locking (dc trace) / unlocking occurs over the full tuning range. Repeat steps (20) through (25) as necessary for locking over the range (no double locking, no 50 kHz locking positive relay operation with any ac voltage present at TP2 on board A11).

g. Fine Tuning .Section. To align the fine tuning section, proceed as follows:

(1) Insert board A12 into jack J20, and set the FINE TUNING control to mid-range. Check that the green ON light in the POWER switch illuminates.

(2) Connect a 1.0 millihenry choke between test points TP3 and TP5 (ground). Connect the oscilloscope across the choke.

(3) Rotate the FINE TUNING control fully counterclockwise. Adjust potentiometer R6 for a 6 volt peak-to-peak, signal.

(4) Connect a 150-ohm 1/2 watt composition resistor between terminals 16 and 18 of pc board jack J30. With a frequency, counter at test point TP4, adjust inductor L1 for a 206 kHz indication.

(5) Rotate the FINE TUNING control fully clockwise. Adjust capacitor C8 for an indication of 324 kHz.

(6) Repeat steps (4) and (5) until both frequency extremes are within ± 1 kHz of the desired frequency. Connect the scope to TP3 and check the waveform over the full tuning range of the FINE TUNING capacitor.

(7) Insert a card riser in jack J24. Insert board A15 in the card riser. Terminate jacks J8, J10, and J11 (18.8 MHz) on the back panel with 50 ohms.

(8) Connect the voltmeter to test point TP6 (-) on board A15 and adjust potentiometer R2 for a -13 volt indication.

(9) Connect the frequency counter to TP3 of board A15 and adjust inductor L1 for a 18.99 to 19.01 MHz indication.

(10) Insert board A16 into jack J23. Center potentiometer R1 and capacitor C1.

(11) Connect the oscilloscope to TP3 of A15 and adjust inductor L1 for maximum signal amplitude (approximately 4 volts, peak-to-peak, with no distortion).

(12) Insert board A13 into jack J22. Rotate potentiometer R11 fully counterclockwise. Disconnect the choke that was installed in step 2.

(13) Connect the oscilloscope to TP3 of board A13 and adjust potentiometer R4 for the waveform illustrated in figure 3-9 (2).

(14) Rotate the FINE TUNING control fully clockwise. With the oscilloscope at test point TP6 on board A13, adjust potentiometer R6 on board A12 for the waveform illustrated in figure 3-9 (2).

(15) Connect the voltmeter to the junction of capacitor C15 and diode CR2 on board A13. With the FINE TUNING control in the fully counterclockwise position, adjust potentiometer R8 for a 1 volt reading. Rotate the control to the fully clockwise position and check that the voltage increases to approximately 4.0 to 6.0 volts dc.

(16) Connect the oscilloscope to TP4 of board A13 and adjust potentiometer R11 for the waveform illustrated in figure 3-9 (2).

(17) Insert board A14 into jack J21. Set the input of the oscilloscope to dc. Set the sensitivity to the 1V / cm position, and connect to test point TP2 of A14.

(18) Connect the frequency counter connect to TP3 of board A15. Rotate the FINE TUNING control fully counterclockwise.

(19) Adjust inductor L1 on board A15 for a dc indication on the oscilloscope and for approximately 18894 kHz indication on the counter.

(20) Connect a jumper wire between TP1 and TP5 of board A16. Mark the position of the dc trace.

(21) Remove the short and adjust inductor L1 in board A16 for a dc trace coincident to the mark in step (20).

(22) Tune the FINE TUNING control through its range. Verify that the dc trace does not break into ac. If it does, tune the control to the point just before the trace breaks up. Mark the trace position. Connect a jumper between test points TP1 and TP5 of board A16 and adjust potentiometer R8 on board A13 to make the resulting dc trace coincide with the mark.

(23) Repeat steps (20) through (22) until the following conditions are met:

(a) The FINE TUNING control may be tuned over its entire range while the dc trace remains locked. Adjust potentiometer R4 on board A16 for maximum capture range.

(b) The vertical position of the bias trace coincides exactly with the position of the dc trace at the counterclockwise end of the tuning capacitor, and is within 0.1 volt dc at fully counterclockwise to ± 0.2 volt dc at midposition to +0.2 volt to -0 volt dc at the clockwise tuning position. Potentiometer R2 on board A15 may be adjusted clockwise

wise or counterclockwise from its initial setting to obtain the required LOCK / dc trace (steering) voltage within these limits.

(c) The total dc range from a meshed to unmeshed condition of the FINE TUNING capacitor should not exceed 5.5 volts dc. To reduce the dc range, if it is exceeded, try adjusting potentiometer R2. If this adjustment does not correct the problem, replace varicap V10 (CR1), and repeat steps 19 through 23. If the adjustment of R2 corrects the problem, only verify step in (b) above.

(d) The frequency at TP3 of board A15 is 18894 kHz \pm 2 kHz when the FINE TUNING control is fully clockwise, the frequency is 18777 kHz \pm 2 kHz.

(e) Relay K1 energizes when a finger is placed near inductor L1 on board A15. The relay deenergizes when the finger is removed.

(f) When the TUNING MODE switch is in the continuous (CONT) tuning mode, the front panel CONT light will go out when relay K1 energizes (see step (e)).

h. *Final Adjustments.* Upon completion of all the Tuning Unit alignment and adjustment procedures, replace all remaining boards, and install the unit's covers.

(1) Verify that the frequency display varies as the COURSE TUNING and FINE TUNING controls are varied.

(2) This completes the alignment of Tuning Unit TN-527/U.

3-13. Monitor Unit, Preliminary Adjustment

To adjust the monitor unit, another AN/USM-306(V) 1 is used as a piece of test equipment. That meter will be referred to as the "test meter." The meter being aligned will be referred to as the Monitor Unit. Before starting this procedure remove the Monitor Unit cover, and remove plug-in pc boards, all boards except board A12. Unless otherwise specified, all boards should be first installed on a riser board for adjustment. After adjustment the boards can be installed in their regular sockets. This section provides a preliminary adjustment procedure. Once the preliminary adjustments are completed, a final adjustment procedure is provided (para 3-14).

a. *Power Supply Adjustment.* To adjust the power supply, proceed as follows:

(1) Connect a calibrated VTVM between the -16V (probe) socket on the front panel and the chassis.

(2) Adjust potentiometer R7 on board A12 for -16.0 volts.

b. *Sideband Oscillator Adjustment.* To adjust the sideband oscillator, proceed as follows:

(1) Install board A10.

(2) Connect the frequency counter and the vertical input of the oscilloscope to test point TP3, on board A10.

(3) Set the AUDIO MODE switch to the lower sideband (LSB) position, and adjust inductor L3 for a maximum oscilloscope indication (approximately 500 \pm 100 mV, peak-to-peak). Verify that the counter indicates 2.2130 MHz \pm 111 Hz.

(4) Set the AUDIO MODE switch to the upper sideband (USB) position. Adjust inductor L1 for a maximum oscilloscope indication (approximately 500 \pm 100 mV). Verify that the counter indicates 2.2170 \pm 111 Hz.

(5) Install board A11, and connect Signal Generator, AN/GRM-50 equipped with 56 Ω termination, to TP-1 and TP-5 (ground). Connect the ac voltmeter, with 600 Ω termination, to the PHONE jack on the front panel.

(6) Adjust the AN/GRM-50 frequency to 2.215 MHz and level to -40 dBm. Set the SENSITIVITY switch to NORM, and the AUDIO MODE switch to the lower sideband (LSB) position. Adjust R22 on board A11 for midrange.

(7) Adjust AUDIO GAIN fully clockwise and adjust R21, on board A11, for +5 dBm on the ac voltmeter. Observing the ac voltmeter, adjust L5 for maximum indication and readjust R21 for +10 dBm.

(8) Set the AN/GRM-50 output level to -60 dBm; switch SENSITIVITY to HIGH and adjust R22 for a +10 dBm reading on the ac voltmeter.

c. *Meter Circuit Adjustment.* To adjust the meter circuit, proceed as follows:

(1) Verify mechanical zero on the meter.

(2) Install board A9 and connect the AN/GRM-50 to test points TP1 and TP2 (ground). Set the signal generator frequency to 2.215 MHz.

(3) Set the SCALE switch (S6) to the EXPAND position, and adjust the input signal amplitude for an on-scale reading of the DECIBELS meter.

(4) Adjust R14 and the signal generator output alternately to obtain a 0 dB reading on the expanded scale with a +8 dBm input.

(5) Set the SCALE switch to the NORM position. Adjust resistor R16 for a 0 dB indication on the panel meter.

(6) Install board A8 and connect the AN/GRM-50 to test points TP1 and TP2 (ground).

(7) Set the SENSITIVITY switch to the

HIGH position and adjust the CAL control to midpoint. Tune the signal generator to 2.215 MHz. Adjust the signal generator output to -57.5 dBm.

(8) Adjust inductors L1, L2, and L4 for maximum panel meter indication. Adjust potentiometer R24 for a 0 dB indication on the panel meter.

(9) Set the SENSITIVITY switch to the NORM position, and increase the signal generator output 20 dB to -37.5 dBm. Adjust potentiometer R2 for a 0 dB indication on the panel meter.

d. *Third Modulator. Narrow Band and Wide Band Followers, and Third Mixer and IF.* To align the third IF stage, proceed as follows:

(1) Install board A1 and connect the oscilloscope to test point TP7 on board A1. Adjust inductor L2 for maximum indication on the oscilloscope (approximately 2.5 volts peak-to-peak). Remove the oscilloscope.

(2) Install board A-5. With the "test set" monitor the signal at test points TP6 and TP7 (Gnd). Set the probe of the "test set" for bridging.

(3) Install board A6. Tune the tuning unit to 1.050 MHz. Tune the "Test Equipment" test set to 18.835 MHz. Alternately adjust resistor R28 and capacitors C13 and C14 on board A1 for a minimum 18.835 MHz signal as read on the "Test Equipment" test set.

(4) Remove the "test meter" and replace it with the AN/GRM-50 signal generator. Set the SENSITIVITY switch to the NORM position. Set the SELECTIVITY switch to the 3.1 kHz (green) wide band position. Install board A7.

(5) Tune the signal generator for maximum panel meter indication (approximately -60 dBm at 2.215 MHz). Adjust inductors L2 and L4 on board A6 for maximum panel meter indication.

(6) Tune the signal generator to approximately 21.05 MHz. Tune the FINE TUNING control on the Tuning Unit for maximum indication on the panel meter.

(7) Adjust the signal generator output for a 0 dB indication on the panel meter.

(8) Switch the SELECTIVITY switch to the 250 Hz (white) narrow band position. and tune the FINE TUNING control on the Tuning Unit for maximum indication on the panel meter. Adjust potentiometer R24 on board A6 for a 0 dB indication on the panel meter.

(9) Switch the SELECTIVITY switch to the 3.1 kHz (green) wide band position. Do not retune the tuning unit. but readjust the signal generator for a 0 dB indication.

(10) Repeat steps (8) and (9) as necessary.

(11) Reduce the tuning unit frequency by 1250 Hz. From that point slowly increase the tuning unit frequency by 2500 Hz. Verify that the panel meter

indication does not vary more than plus or minus 0.1 dB from the 0 dB indication.

e. *Second Modulation. Second Mixer and Second IF.* To align the second IF stage, proceed as follows:

(1) Install boards A4 and A5.

(2) Connect the oscilloscope to test point TP3 on board A4.

(a) Adjust potentiometer R8 if necessary to set the voltage below 1 volt peak-to-peak.

(b) Adjust inductor L2 on board A4 for maximum output. Readjust potentiometer R8 if necessary to stay below 1 volt, peak-to-peak during the adjustment.

(c) Adjust capacitor C20 on board A4 for maximum output. Readjust potentiometer R8 if necessary to stay below 1 volt, peak-to-peak during adjustment.

(d) Adjust potentiometer R8 for 1.5 volts, peak-to-peak output. Disconnect the oscilloscope.

(3) Install board A2. Connect the "test meter" to pin 6 of connector J2B. Tune the "Test Meter" to 19.0 MHz. Alternately adjust potentiometer R14 and capacitors C7 and C10 for minimum indication on the "test meter."

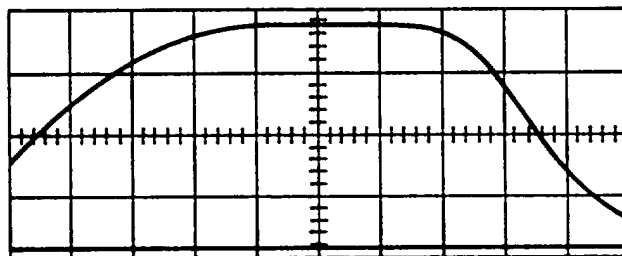
(4) Install board A6. Replaces the "test meter" with the Telonix (or equivalent) sweep generator, and connect the oscilloscope through the sweep generator's detector to test point TP1 of board A6 (test point TP2 is ground). Sync the oscilloscope to the sweep generator.

(5) Adjust the sweep generator to 40.04 MHz. Then, alternately adjust inductors L1, L2, and L3 on board A5 for a flat-topped indication on the oscilloscope (Fig. 3-10).

BOARD A5,TP6

OSCILLOSCOPE SETTINGS:

Using a sweep generator to give 50kHz/cm



TM 6625-1748-45-116

Figure 3-10. 2nd Mixer and IF Bandpass Characteristics, Monitor, Audio-Radio Frequency TS-2968/ U.

(6) Replaces the sweep generator with the AN/GRM-50. Adjust the signal generator to 40.05 MHz. and tune the Tuning Unit for a maximum indication on the panel meter.

(7) Adjust the signal generator's output for a 0 dB indication on the panel meter. Verify that the signal generator output is approximately -69 dBm.

(8) With the "test meter" at jack J27 (OUTPUT TO 3601 on the rear panel tune the "test meter" for maximum indication. Adjust inductor L5 on board A4 for maximum output. Verify that the frequency is between 21.0 and 21.1 MHz. and that the signal level should be between 65 to 160 μ volts.

(9) Set the SENSITIVITY switch to the HIGH position. Reduce the signal generator's output by 20 dB. and adjust potentiometer R24 on board A4 for the level specified in step (8).

f. First IF Stage. To align the first IF stage, proceed as follows:

(1) Install boards A2 and A3.

(2) Set the SENSITIVITY switch to the NORM position. Connect tile AN/GRM-50 signal generator to test point TP1 on board A2 (test point TP2 is ground). Set the signal generator to 1-0.05 MHz and adjust inductors L1, L5, and L7 on hoard A2 for a maximum meter reading.

(3) With the AN/URM-145 microvoltmeter connected to test point TP4 of board A3, adjust capacitor C11 for a 1.0 volt indication on the millivoltmeter. (Use the high impedance probe with the microvoltmeter.)

g. Low-Pass Filter. To align the low-pass filter, proceed as follows:

(1) Connect the AN/GRM-50 to the INPUT jack on the front panel of the monitor unit.

(2) Set the SENSITIVITY switch to the HIGH position, and set the SELECTIVITY switch to the 3.1 kHz (green) wide band position.

(3) Tune the signal generator for 40.04 MHz at a 0 dBm level, and adjust the Monitor Unit attenuators (SENSITIVITY 10 dB/STEP and 1dB/STEP switches) to obtain an on-scale indication.

(4) Adjust capacitor C9 on board A14 for a minimum indication on the panel meter (more than -80 dB).

(5) Connect the AN/USM-44 to jack J24 (40/72 MHz) on the rear panel. Tune the AN/USM-44 to 81.65 MHz at 0 dBm.

(6) Next tune the AN/GRM-50 to 41-6 MHz and adjust the level to 0 dBm. Then carefully retune the AN/USM-44 for a peak indication on the panel meter.

(7) Adjust capacitor C13 on board A14 for a minimum panel meter indication (more than -80 dB).

(8) Tune the AN/GRM-50 to 46.07 MHz at 0 dBm. Carefully tune the AN/USM-44 for a peak indication on the panel meter (approximately 86.1 MHz).

(9) Adjust capacitor C6 on board A14 for a minimum panel meter indication (more than -80 dB).

(10) Tune the AN/GRM-50 to 58.22 MHz at 0 dBm. Carefully tune the AN/USM-44 to obtain a peak indication on the panel meter (approximately 98.27 MHz).

(11) Adjust capacitor C16 on board A14 for a minimum meter indication (more than -80 dB).

(12) Interchange the two signal generators.

(13) Tune the AN/USM-44 for 102.5 MHz at 0 dBm. Adjust the output level of the AN/GRM-50 to 0 dBm. Carefully tune the AN/GRM-50 for a peak indication on the panel meter (approximately 62.5 MHz).

(14) Adjust capacitor C2 for a minimum indication on the panel meter (more than -80 dB).

(15) Repeat steps (1) through (14) above.

3-14. Monitor Unit Final Alignment Procedure

After the preliminary adjustment (para 3-13) is finished, complete the following:

a. Meter Circuit.

(1) Set the front panel controls as follows:

SENSITIVITY	NORM
INPUT LEVEL	-2 dBm (adjust SENSITIVITY 10 dB/STEP and 1 dB / STEP switches)
SCALE	NORM
SELECTIVITY	3.1 kHz (green)
AUDIO MODE	AM

(2) At the Tuning Unit set the POWER switch to the ON position. the TUNING MODE switch to the LOCK position, and tune the COARSE TUNING control to 1.00 MHz.

(3) Connect the AN/GRM-50 to the INPUT jack on the front panel. Tune the signal generator to 1 MHz and adjust the output level for a 0 dB indication on the panel meter.

(4) Set the SCALE switch to the EXPAND position. Set the INPUT LEVEL display to -4 dBm. Adjust the CAL control for a +2 dB indication on the expanded scale of the dB meter.

(5) Set the INPUT LEVEL display to 0 dBm, and adjust potentiometer R14 on board A9 for a -2 dB indication on the expanded scale of the panel meter.

(6) Repeat steps (4) and (5) until the two indications balance. This process can be hastened by initial overcorrection.

(7) Reset INPUT LEVEL display to -2 dBm and adjust the CAL control for a 0 dB indication on the expanded scale of the panel meter.

(8) Set the SCALE switch to the NORM position, and adjust potentiometer R16 on board A9 for a 0 dB indication on the normal scale of the panel meter.

(9) Set INPUT LEVEL to 0 dBm and adjust the AN / GRM-50 to read 0 dB on the meter. Set the SELECTIVITY switch to the 250 Hz (white) position. Depress the Tuning Unit's TUNING MODE switch to the LOCK position, and peak the indication on the panel meter by adjusting the FINE TUNING control.

(10) Adjust inductors L1, L2 and L4 on board A8 for a maximum indication on the panel meter.

(11) Set the SENSITIVITY switch to the HIGH position. Adjust the 10 dB/STEP attenuator for a 0 dBm indication on the INPUT LEVEL display. Adjust the CAL control for exactly 0 dB on the panel meter.

(12) Set the SENSITIVITY switch to the NORM position. Adjust the 10 dB/STEP attenuator for a 0 dBm indication on the INPUT LEVEL display. Adjust potentiometer R2 on board A8 for a 0 dB indication on the panel meter.

b. Third IF Stage.

(1) Set the SCALE switch to the EXPAND position. Set the SELECTIVITY switch to the 3.1 kHz (green) wide band position, and adjust the CAL control, if necessary, for a 0 dB panel meter indication.

(2) Set the SELECTIVITY switch to the 250 Hz (white) narrow band position, and adjust potentiometer R24 on board A6 for a 0 dB indication on the panel meter. Recheck for 0 dB with the SELECTIVITY switch in the 3.1 kHz (green) wide band position.

(3) Set the SCALE switch to the NORM position, and set the SELECTIVITY switch to the 250 Hz (white) narrow band position. Adjust inductors L2 and L4 on board A6 for maximum panel meter indication.

c. Second IF Stage.

(1) Turn potentiometer R8 on board A4 clockwise while observing the monitor unit DECIBELS meter. If the meter reading does not increase, proceed with step (2) below. If the meter reading does increase, continue the clockwise adjustment of R8 until the meter reading stops increasing.

(2) Turn potentiometer R8 counterclockwise until the meter reading drops 0.1 dB.

d. First IF Stage.

(1) At the Tuning Unit depress the TUNING MODE switch to obtain a locked (LOCK) condition.

(2) Tune the AN / GRM-50 to 1050 kHz, and retune the Tuning Unit for maximum indication on the panel meter.

(3) Adjust inductors L1, L5 and L7 on board A2 for maximum indication on the panel meter.

(4) Replaces the AN/GRM-50 with the (or equivalent) sweep generator. Connect the detector to the 21 MHz output jack J27 (TO 360) on the rear panel.

(5) Tune the sweep generator to 10 MHz. Tune the Tuning Unit to 10 MHz so that the 21 MHz (2nd IF) bandpass characteristics may be observed on the oscilloscope. Readjust L1, L2 and L3 on board A5 as necessary to obtain a flat top response over the range of 21.0 to 21.1 MHz.

(6) Connect the Sierra Model 305A-G Tracking Signal Generator to the 40/ 72 MHz (OUTPUT TO 305A-G) jack and the 18.8 MHz (OUTPUT TO 305-G) jack on the rear panel of the Tuning Unit under test. Plug the power cord to the 305A-G signal generator into the socket at the back of the tuning unit labeled 115/ 230V ac, located immediately below the 40/72 MHz and 18.8 MHz output jacks.

(7) Disconnect the detector and replace the input from the sweep generator with the output from the 305A-G tracking signal generator.

(8) Tune to 1050 kHz and switch SELECTIVITY to 3.1 kHz (green).

(9) Set the CAL control on the front panel of the Monitor Unit to midpoint and adjust R24 on board A8 to obtain a reading of 0 dB on the front panel meter.

e. Fine Tuning Frequency Response.

(1) Leave the 305A-G tracking signal generator connected as in d (6) and (7), above.

(2) Set SELECTIVITY to 250 Hz (white). Set SENSITIVITY to NORM and SCALE to EXPAND.

(3) Set COARSE TUNING to 1.0 MHz in the LOCK mode.

(4) Set FINE TUNING to give a reading of 1.100 MHz and adjust CAL control for 0 dB on the panel meter.

(5) Turn the FINE TUNING knob counterclockwise to 1.000 MHz while observing the panel meter. If the meter reading varies more than \pm 0.1 dB from 0 dB, adjust L1 on board A5 to reduce the variation to less and \pm 0.1 dB.

(6) Tune the FINE TUNING to kHz LOW and note or record the DECIBELS meter reading.

Retune to 1.050 kHz 1.100 MHz and kHz HIGH. All readings shall be 0 ± 0.1 dB.

(7) If the requirements of (6), above, cannot be met, repeat steps a through d above, and recheck in accordance with (1) through (6) above.

f. Coarse Tuning Frequency Response.

(1) Adjust the Tuning Unit to 1010 kHz. Depress the TUNING MODE switch to obtain a locked tuning mode. Adjust CAL control to obtain a reading of exactly 0 dB on the panel meter.

(2) Adjust the Tuning Unit to 10 kHz. The panel meter should indicate between -0.2 and -0.4 dB.

(a) If the panel meter reads lower than -0.4 dB, adjust capacitor C11 on board A3 counterclockwise one-half turn and repeat step (1) and (2).

(b) If the panel meter reads higher than -0.2 dB, adjust capacitor C11 on board A3 one turn clockwise and repeat steps (1) and (2).

(3) Check TUNING from 1 kHz to 33.5 MHz noting the meter deflection along the way to assure that the frequency response will stay within the tolerances listed in (a.) below.

(a) 1 kHz to 10 kHz	± 0.7 dB
10 kHz to 22 MHz	± 0.3 dB
22 MHz to 32 MHz	± 0.7 dB
32 MHz to 33.5 MHz	± 1.5 dB

(b) Note and record the readings at the frequencies given below. This information will be used in conjunction with the probe alignment (para 3-15).

1.0 kHz	13.0 MHz
10.0 kHz	14.0 MHz
60.0 kHz	19.0 MHz
100.0 kHz	22.0 MHz
1000.0 kHz	28.0 MHz
5.0 MHz	33.5 MHz
10.0 MHz	

(4) Set the tuning unit to 1000 kHz (1.000 MHz in the locked mode. Switch SENSITIVITY to HIGH and adjust INPUT LEVEL display to 0 dBm. Adjust CAL control for a reading of exactly 0 dB on the meter.

(5) Check TUNING from 60 kHz to 33.5 MHz. noting the meter deflection along the way to assure that the frequency response will stay within the following tolerances:

60 kHz to 22 MHz	± 0.3 dB
22 MHz to 33.5 MHz	± 1.7 dB

g. Audio Output.

(1) Connect the AN/GRM-50 to the monitor input. Tune the signal generator to 1000 kHz and

adjust the output level to 0 dBm. Connect a 600-ohm 1/2 or 1 watt composition resistor across the input terminals of the ac voltmeter. Plug the phone plug with the test leads on it into one of the PHONES jacks. Connect the test leads to the input terminals of the ac voltmeter.

(2) Set SENSITIVITY to NORM, INPUT LEVEL display to 0 dBm. SENSITIVITY to 250 Hz. AUDIO MODE to LSB and AUDIO GAIN fully clockwise.

(3) Tune the tuning unit to 1000 kHz and adjust the output level of the AN / GRM-50 for a 0 dBm reading on the panel meter.

(4) Switch SELECTIVITY to 3.1 kHz. Adjust R21 on board A11 for + 10 dBm output as read on the ac voltmeter. Adjust L5 on board A11 for maximum output and readjust R21 for a +dBm output reading.

(5) Switch SENSITIVITY to HIGH and return INPUT LEVEL display to 0 dBm with the 10 dB / step attenuator. Adjust R22 on board A11 for + 10 dBm output.

(6) Switch AUDIO MODE to USB. The reading on the ac voltmeter reading should be $+10 \pm 1$ dB.

(7) Switch SENSITIVITY to NORM and return INPUT LEVEL display to 0 dBm with the 10 dB / step attenuator. The ac voltmeter should read $+10 \pm 1$ dB.

(8) Switch AUDIO MODE to LSB. The ac voltmeter should read $+10 \pm 0.2$ dB. If it does not, repeat steps (4) through (7), above.

h. Final Adjustments

(1) Disconnect the coaxial cables and the power cord of the 305A-G tracking signal generator from the tuning unit of the instrument under test. Reconnect the 305A-G tracking signal generator to the AN/USM-306(V)1 that is being used as an item of test equipment. Set the output to 0 dB at 1000 kHz in the locked mode.

(2) On the unit being aligned, set the SENSITIVITY switch to NORM, SELECTIVITY to 250 Hz (white) and tune the FINE TUNING for maximum meter deflection. Adjust the CAL control for 0 dB on the panel meter.

(3) Turn the OUTPUT switch on the 305A-G tracking signal generator to OFF. On the unit being aligned switch the SENSITIVITY to CAL and retune the FINE TUNING for maximum meter deflection.

(4) Adjust REF OSC (R1) on the front panel with a screwdriver to midrange. Adjust R13 on board AI for a 0 dB reading on the panel meter.

(5) Switch SENSITIVITY to NORM and turn the 305A-G tracking signal generator OUTPUT switch to ON. Retune the unit being calibrated for a maximum meter reading. If the panel meter does not read 0 dB, repeat steps (3) and (4), above.

(6) Set the CAL control to midrange and adjust R24 on board A8 for a 0 dB reading on the panel meter.

(7) Remove all card risers, make sure all pc boards are firmly in place and install the covers on the monitor unit.

(8) This completes the alignment of Audio-Radio Frequency Monitor TS-2968 / U.

3-15. Probe Subassembly MX-8642/U Alignment

a. Probe Gain Adjustment.

(1) Turn the SENSITIVITY control on the Monitor Unit of the test set being aligned to CAL. Set the INPUT LEVEL display to 0 dBm.

(2) Tune the Tuning Unit to 1000.00 kHz. Vary the FINE TUNING control for a maximum reading on the DECIBELS meter.

(3) Adjust the CAL control for a 0 dB reading on the DECIBELS meter. Turn the SENSITIVITY control to NORM.

(4) Connect the 305A-G Tracking Signal Generator to the tuning unit of the test set being aligned with two coaxial cables. One cable goes to the TO 305A-G 40 / 72 MHz jack and the other goes to the TO 305A-G 18.8 MHz jack located on the rear panel of the tuning unit.

(5) Use a 75-ohm coaxial cable to connect the output of the 305A-G Tracking Signal Generator to the input of the monitor unit. Adjust the output of the generator to obtain a reading of exactly 0.0 dB on the DECIBELS meter.

(6) Without disturbing any control settings, disconnect the 75-ohm coaxial cable from the input to the monitor unit.

(7) Connect the probe cable to the input jack of the monitor unit. Install either Probe Adapter MX-8640/U or Probe Subassembly MX-8641 / U on the probe head, depending upon the type of cable connector that terminates the output coaxial cable from the 305A-G Tracking Signal Generator.

(8) Set the switches on the probe to 75 ohms and TERM. Connect the probe to the output cable from the 305A-G Tracking Signal Generator.

(9) The reading on the DECIBELS meter shall be exactly 0.0 dB. If it is not, adjust screwdriver adjustment "G" on the probe to obtain this reading.

i. Probe Frequency Response.

(1) Refer to the readings previously recorded in accordance with paragraph 3-14 f(3) (b) when performing the following steps.

(2) Leave all connections and settings as in a (5) through (8), above.

(3) Follow the instructions that are furnished with the 305A-G Tracking Signal Generator as regards corrections to be applied to readings.

(4) Successively tune to each of the frequencies listed below. Note the reading on the DECIBELS meter at each of these frequencies and compare the readings with those recorded in accordance with paragraph 3-4 f(3) (b). The readings shall be within ± 0.2 dB of the readings previously recorded.

10.0 kHz	13.0 MHz
60.0 kHz	14.0 MHz
100.0 kHz	19.0 MHz
5.0 MHz	22.0 MHz
10.0 MHz	

(5) Tune to the frequencies listed below. The readings on the DECIBELS meter shall be within ± 0.5 dB of the readings recorded in accordance with paragraph 3-4 f(3) (b).

1.0 kHz
28.0 MHz
33.5 MHz

(6) If the requirements of (4) and (5), above, are not met, adjust screwdriver adjustment "F" on the probe to bring the probe frequency response within the tolerances specified in (4) and (5), above.

(7) This completes the alignment and adjustment of the probe assembly.

3-16. Spectrum Analyzer Unit Alignment Procedures

Remove all input connections except power from the unit. Card risers are supplied with the unit and should be used to elevate modules.

NOTE

Switch POWER ON-OFF switch to OFF when elevating modules and return to ON position at the beginning of each module alignment procedure. Switch POWER ON-OFF switch to OFF at the end of each module alignment procedure and replace module.

WARNING

Extremely high voltage exists within this unit. The CRT and high voltage supply are at 2500 VDC. 150 volts dc is also present on pc boards A13, A14, A15 and A16. Serious injury or death can result from contact with these voltages. Always make sure that the unit is turned off before coming in contact with the inside of the Spectrum Analyzer. Don't take chances!

a. *Initial Control Settings.* Remove modules A11 and A14, and set the front panel controls as follows:

ATTENUATOR DB	0 dB
0 dB CAL	Max Clockwise
SWEEP	10 kHz/DIV CONTINUOUS
SWEEP RATE	NORM
MARKER	OFF
POWER	ON

b. *Low Voltage Power Supply.* Connect the dc VTVM to TP1 (-) and TP2 (gnd) of board A3. Adjust R8 for a -18.0 volts dc reading. Operate the SCALE ILLUMINATION control to verify that the graticule lamps are both working.

c. *High Voltage Power Supply.*

WARNING

2500 volts dc and 150 volts dc exist on this card. Turn SCALE ILLUM switch to PWR OFF before touching board.

(1) Check 1/2 amp fast blow fuse in the holder on the rear panel. If blown, replace fuse and transistors Q1 and Q2 on board A13.

(2) Inspect that components on front and top sides of the board are bent away from CRT shield. Verify that INTENSITY and FOCUS Control lugs are clear of ground, that no other leads are touching them, and that the protective phenolic covers are installed and centered.

(3) Verify that the FOCUS and INTENSITY Control turn freely and have less than 1 / 32 inch end play.

(4) Apply power. A high pitched sound indicates A13 is operating.

d. *CRT Alignment.*

(1) Turn power on. Adjust the INTENSITY, HORIZONTAL POSITION, and VERTICAL POSITION controls to get a horizontal baseline.

(2) Adjust FOCUS and ASTIGMATISM (located on chassis in the front left-hand corner) to get a sharply defined spot using moderate brightness and the slowest sweep. INTENSITY Control must have enough range to extinguish the spot.

(3) If the baseline is not in line with the graticule scale proceed as follows:

(a) Loosen the CRT base clamping ring and push on the CRT socket to assure that the faceplate is pressing against the amber filter.

(b) Loosen the three ke-p-nuts holding the shield adapter. Tap on the adapter as required to get the baseline exactly straight with the lower graticule line while also displaying an equal amount of CRT edge glass in the corners. If necessary, allow more unphosphored edge glass to show in the upper corners.

(c) Tighten all three shield adapter nuts and recheck the trace alignment. Tighten the CRT base clamp and recheck the trace alignment. For safety both these operations should be done with the power off. Install both top and bottom HVPS covers.

e. *VFO Amplifier.*

(1) Connect the 18.8 MHz (TO 360 18.8 MHz) fine tuning oscillator signal from the Tuning Unit to jack J2 (FROM 305A-T 18.8 MHz) of the spectrum analyzer.

(2) Connect the monitor unit to the tuning unit and set the controls as follows:

SENSITIVITY	CAL 1 MHz
SENSITIVITY 10 dB/STEP	CAL
SELECTIVITY	250 Hz
TUNING MODE	LOCK
COARSE TUNING	1 MHz
FINE TUNING	0 kHz

(3) Adjust FINE TUNING for maximum deflection of DECIBELS meter. Adjust the CAL control for a 0 dB reading on the DECIBELS meter.

(4) Set the FINE TUNING to 50 kHz. Connect the oscilloscope probe to test-points TP3 and TP2(gnd) on board A2. The voltage level should be between 170 and 250 mV, peak-to-peak.

(5) Connect the AN / USM-281 oscilloscope probe to TP4 and TP2(gnd) on board A2, and adjust T2 for maximum reading.

(6) Switch the SWEEP to 1 kHz/DIV CONTINUOUS position. Connect the oscilloscope probe to TP1 and TP2(gnd), and adjust T1 for a maximum reading.

(7) Set the SWEEP to 10 kHz/DIV CONTINUOUS position and connect the AN / URM-145 rf microvoltmeter to TP1 and TP2 (gnd) on board A2. Adjust R29 for a reading of 30 ± 2 millivolts.

(8) Set the SWEEP to the 1 kHz/DIV CONTINUOUS position. Adjust R30 for a reading of 65 ± 3 millivolts.

(9) Repeat steps (7) and (8) once as they interact.

(10) Reinstall board A2.

f. *Marker IF.*

(1) Disconnect the fine tuning oscillator signal from spectrum analyzer jack J2 (FROM 305A-T 18.8 MHz).

(2) Turn the MARKER control to the maximum clockwise position.

(3) Connect the electronic counter to the output of the ac voltmeter. (The ac VTVM is used as an amplifier.

(4) Connect the ac voltmeter to TP2 and TP4 (gnd). It should read approximately 17

millivolts. Adjust C4 for a counter reading of 2.215 MHz \pm 10 Hz.

(5) Disconnect the ac voltmeter. Connect the fine tuning oscillator signal to J2 (FROM 305A-T 18.8 MHz).

(6) Connect the rf microvoltmeter to TP3 and TP4 (gnd). Detune L4 and L5 by turning the slugs clockwise until they protrude approximately 1/4 inch from the printed circuit side of the board.

(7) Tune L3 for a maximum reading.

(8) Tune L4 for a minimum reading.

(9) Tune L5 for a maximum reading.

g. VCXO (Board A11) and Swept Divider (Board A8).

(1) Plug in VCXO board A11. Remove VFO amplifier board A2, swept divider board A8 and sweep board A14.

(2) Install board A11 on a riser and connect the rf microvoltmeter to TP1 and TP2 (gnd).

(3) Adjust R6 on the VCXO, board A11, for 240 millivolt reading. Disconnect the microvoltmeter.

(4) Connect the oscilloscope probe to TP1 and TP3 (gnd) on A11.

NOTE

Oscilloscope probe must not be connected to chassis. Connect the electronic counter to the oscilloscope vertical output.

(5) Adjust T3 for maximum signal amplitude as seen on the oscilloscope.

(6) Note the frequency of the signal as read on the electronic counter. Frequency must be 34.300 \pm 0.5 kHz. If frequency is in error, remove screw from top of VCXO module A11 and adjust oscillator trimmer as required.

(7) Place the SWEEP switch in the 1 kHz / DIV CONTINUOUS position.

(8) Adjust T2 on board A8 to the center of the 10 to 1 lock-in range. Lock-in is evidenced by frequency stability, that is, the counter continues to read the same frequency as T2 is adjusted over a limited range. The counter must read 0.1 of the frequency noted in (6) above. (If counter read 34.3 MHz then it must be stable at a reading of 3.43 MHz now. The 10:1 division must be obtained since the divider can lock at other multiples.) Adjust T2 to the center of the 10:1 lock-in range.

(9) Adjust T1 on board A8 for maximum output.

(10) Connect the oscilloscope probe to TP2 and TP3 (gnd) on board A8. Set the oscilloscope vertical amplifier to 200 mv/cm and the horizontal to 0.1 μ sec/cm. The waveform peaks at the beginning and end of each wavetrain should be in the same position as

shown in figure 3-11. They will move in opposite directions as T2 on board A8 is adjusted.

BOARD A8, TP2 (Collector)

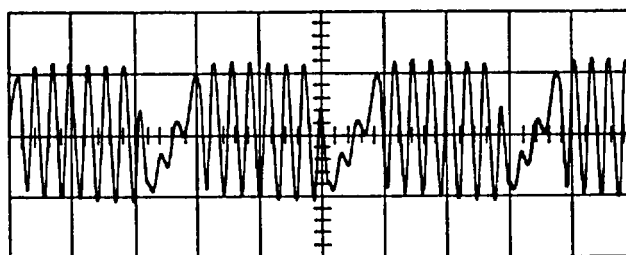
OSCILLOSCOPE SETTINGS:

V = 0.5V/cm

H = 0.1 μ sec/cm

SPECTRUM ANALYZER SETTINGS:

1kHz/Div Continuous



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Figure 3-11. Swept divider A8, Q2 input waveform. Spectrum Analyzer IP-1018/U.

h. Swept IF.

(1) Set the SWEEP to 10 kHz/DIV CONTINUOUS. Replaces the VFO amplifier, board A2. The fine tuning oscillator input shall still be attached to the Spectrum Analyzer jack J2 (FROM 305A-T 18.8 MHz).

(2) Connect the rf microvoltmeter to TP3 and TP4 (gnd) on board A6.

(3) Detune L4 and L5 on board A6 by turning the slugs clockwise so that they protrude approximately 1 inch from the printed circuit side of the board.

(4) Tune L3 for a maximum reading.

(5) Tune L4 for a minimum reading.

(6) Tune L5 for a maximum reading.

i. Signal IF.

(1) Turn the MARKER to OFF. Disconnect the fine tuning oscillator input from J2 (From 305A-T 18.8 MHz).

(2) Connect the output of the signal generator to the spectrum analyzer 21.1 MHz input (FROM 305A-L 21.1 MHz), and to the electronic counter.

(3) Set the output frequency to 21.050 MHz \pm 1 kHz, and the level to 30 millivolts rms.

(4) Connect the rf microvoltmeter to TP2 and TP3(gnd) of board A4.

(5) Detune L4 and L5 on board A4 by turning the slugs clockwise so that they protrude approximately 1 inch from the printed circuit side of the board.

- (6) Tune L3 for a maximum reading.
- (7) Tune L4 for a maximum reading.
- (8) Tune L5 for a maximum reading.

j. 1.215 MHz mixer.

(1) Connect fine tuning oscillator (18.8 MHz) input cable to J2. Leave the signal generator connected as in *i* (2), above.

(2) Connect the oscilloscope to testpoints TP5 and TP4 (gnd) on board A7. Adjust T1 and T2 on board A7 for maximum indication.

k. 1.215 MHz IF.

(1) Connect the oscilloscope probe to TP1 and TP5 (gnd) of board A12. Leave the signal generator connected as in *i* (2), above.

(2) Adjust the frequency of the signal generator for a maximum indication on the oscilloscope. This assures centering in the 440 Hz band-pass crystal filter.

(3) Connect the oscilloscope to TP2 and TP5 (gnd) on board A12. Adjust L6 for a maximum indication.

(4) Reduce the signal generator output by 20 dB.

(5) Connect the oscilloscope probe to TP6 and TP5 (gnd) on board A12. Adjust L9 for maximum indication.

(6) Disconnect the signal generator.

l. Sweep Module.

CAUTION

+150 volts dc exist on components of this board. Be sure to turn power off when moving board.

(1) Install Sweep module A14 on card riser.

(2) Switch oscilloscope pre-amp to dc and center for de measurement. Set sweep time to about 0.2 seconds.

(3) Connect oscilloscope probe to TP1 and TP2 (gnd) on board A14.

(4) Adjust R2 for a symmetrical waveform above and below 0 volts dc. Adjust R17 for start of sweep at + 5V and end of sweep at -5V.

NOTE

112 and R17 interact.

m. Vertical Amplifier (Board A15).

CAUTION

+150 volts dc exist on components of this board. Be sure power is OFF when moving board.

(1) Connect signal generator to spectrum analyzer, 21.1 MHz Input, J1 (FROM 305A-L 21.1 MHz). and to electronic counter (TO 360B) in parallel. Connect Tuning Unit 18.8 MHz to J2 (FROM 305A-T 18.8 MHz) on spectrum analyzer.

(2) Adjust signal generator frequency to 21.050 MHz \pm 10 kHz.

(3) Set signal generator output level to -80 dBm.

(4) Set the spectrum analyzer controls as follows:

ATTENUATOR DB	0 dB
0dB cal	Max Clockwise
Marker	OFF
SWEEP	10 kHz/DIV CONTINUOUS
SWEEP RATE	NORM
FOCUS	Set for suitable display on CRT screen.
INTENSITY	Set for suitable display on CRT screen.
SCALE ILLUM	Set for suitable display on CRT screen.

(5) Adjust VERTICAL POSITION control so that the trace baseline is at -20 dB on the CRT graticule scale. Connect oscilloscope to TP2 on board A11. Set 0 to dB CAL control for oscilloscope pulse amplitude of -0.34 volts, peak-to-peak.

NOTE

Use 20 milliseconds per division sweep, and look for one pulse for each spectrum analyzer sweep.

(6) Adjust R21 on A15 to place the peak of the signal trace at 0 dB on the CRT graticule.

(7) Maintain the baseline at -20 dB with the VERTICAL POSITION control.

(8) Decrease signal generator output to -90 dBm.

(9) If necessary, adjust R21 on A15 and the 0 dB CAL control so the 0 and -10 dB scale points track to specification. (See (11), below.)

(10) Decrease the input signal to -100 dB. The signal pulse must be within less than 2 dB of the -20 dB scale point or baseline.

(11) Repeat steps (6) through (10) until the signal trace amplitude is properly aligned at both 0 dB and baseline points.

(12) Check the compressor circuit linearity in accordance with the following table:

<i>Signal generator output level</i>	<i>CRT pulse level</i>	<i>Must be within:</i>
-75 dBm	+5.0 dB	2.0dB (see note)
-80 dBm	0.0 dB	Exactly 0.0 dB
-85 dBm	-5.0 dB	\pm 0.5 dB
-90 dBm	-10.0 dB	\pm 1.0 dB
-95 dBm	-15.0 dB	\pm 1.5 dB

NOTE

At the +5.0 dB CRT pulse level, there shall be no visible clipping of the top of the pulse.

(13) If the requirements of (12), above, cannot be met, repair and/or replace pc board A15. Then repeat steps (1) through (12), above.

(14) Disconnect signal generator from IF input jack J1. Connect cable from the monitor unit 21.1 MHz IF output to Spectrum Analyzer 21.1 MHz IF input jack J1.

n. 35 Hz BW IF.

(1) Switch SWEEP switch to 10 kHz/DIV CONTINUOUS position. Set SWEEP RATE switch to NORMAL.

(2) Turn marker ON and adjust level for a 0 dB reading on the CRT scale.

(3) Switch SWEEP selector to 1 kHz/DIV CONTINUOUS.

(4) Adjust R5 on pc board A10 for a 0 dB marker signal level reading on the CRT scale. (Adjustment is available through a hole in the shield over module so it is not necessary to install module on card riser.) Check signal level at 0.3 kHz / DIV. Readjust R5 for minimum level error between 1 kHz/DIV and 0.3 kHz/DIV with reference to 10 kHz/ DIV signal level. Both signal levels must be ± 1 dB from 10 kHz/DIV level.

(5) Switch Sweep selector to 10 kHz/DIV CONTINUOUS position.

o. Frequency Calibration.

(1) Connect the monitor and tuning units to the display unit. Set the monitor unit controls as in c (2) and calibrate as in e (3) above.

(2) Set the FINE TUNING control to 100 kHz.

(3) Set the spectrum analyzer controls as

follows:

SWEEP	10 kHz/DIV CONTINUOUS
SWEEP RATE	NORM
VERTICAL ATTENUA- TOR DB	0 dB
0 dB CAL	Adjust for reference (CAL) oscillator pulse (left hand pulse) of 0 dB on vertical scale of display.
MARKER	Adjust for marker pulse (right hand pulse) on screen of 0 dB.

(4) Adjust the front panel controls 10 kHz/DIV CAL and HORIZONTAL POSITION until the sweep baseline is centered on the screen with about 5% oversweep beyond the end marks on both ends of the horizontal scale.

(5) Adjust R17 (VCXO SENS) on board A14 until the distance between the reference oscillator and marker signals is equal to the distance from the 0 kHz to the 100 kHz marks on the upper horizontal scale.

(6) Adjust HORIZONTAL POSITION panel control until the reference oscillator signal (left-hand pulse) is on the 0 kHz mark.

(7) Adjust R17 on board A14 until the marker signal (right-hand pulse) is on the 100 kHz mark.

(8) The HORIZONTAL position control and R17 interact. Repeat (6) and (7) above until signals are properly centered at 0 kHz and 100 kHz.

(9) Vary the FINE TUNING from 100 kHz to -10 Hz in 10 kHz steps, and check that the marker signal falls on each 10 kHz division of the horizontal scale within ± 2.0 kHz. Note also that the marker amplitude does not change more than 2 dB as it is moved from left to right sides of display.

(10) Set the SWEEP switch to 0.3 kHz / DIV CONTINUOUS, and the SWEEP RATE to NORM.

(11) Set the FINE TUNING control to 0 kHz. Tune for maximum output on the meter.

(12) Set the FINE TUNING dial to 1.5 kHz. The reference oscillator signal will appear to move to the left on the display. The marker signal always appears in the center in the 0.3 kHz/DIV and 1 kHz/DIV SWEEP modes. Adjust frequency control on A11 to center.

(13) Adjust R9 on the VCXO module A11 until the reference oscillator signal is on the fifth division to the left of the center of the scale. At 0.3 kHz/DIV this is the 1.5 kHz point.

(14) Tune the FINE TUNING dial to -1.5 kHz. The reference oscillator signal should now be on the fifth division to the right of the center of the scale. Adjust A9 slightly, if necessary, for the best adjustment at both the +1.5 kHz and -1.5 kHz points.

p. Spurious Response Suppression.

(1) Connect the rf signal generator to the test set input probe. Set probe switches for 50-ohms terminating.

(2) Adjust signal generator to 1.05 MHz and 0 dBm output.

(3) Adjust the monitor unit and signal generator for 0 dB reading on the monitor unit DECIBELS meter, at approximately 50 kHz on the FINE TUNING.

(4) Set the spectrum analyzer SWEEP to 1 kHz/ DIV CONTINUOUS and SWEEP RATE switch to FAST.

(5) Adjust signal generator slightly to obtain a 0 dB pulse at the left side of display.

(6) Reduce monitor unit attenuator from 0 dBm to -50 dBm.

(7) Adjust R4 potentiometer on SWEEP IF board AO for minimum spurious responses at right side of display.

NOTE

Card riser should not be used for this adjustment. If the potentiometer is turned fully counterclockwise, the display main signal will disappear. This is not the null desired. The null is rather broad. The two right hand spurious responses should null below -15 dB on the display (-65 dB from overdrive signal present at left side of display).

q. Response Flatness.

- (1) Reset monitor unit attenuator to 0 dB.
- (2) Set spectrum analyzer sweep to 10 kHz/DIV CONTINUOUS. Set SWEEP RATE to NORM.
- (3) Set tuning unit TUNING MODE switch to CONT.
- (4) Observe that the pulse that was at 0 dB at the center of the CRT screen does not change in amplitude more than 0.5 dB as it is moved from the left to the right edges of the display. (0.5 dB is approximately 1/2 the height of the kHz markers above or below the reference line.)

r. Attenuator.

- (1) Set the monitor unit controls and calibrate as in e (2) and (3). above. Return attenuator switch to 0 dB.
- (2) Inject into the monitor unit a 1.05 MHz signal at 0.273V rms from the AN/GRM-50.
- (3) Set spectrum analyzer controls as follows:

SWEEP	10 kHz/DIV CONTINUOUS
SWEEP RATE	NORM
ATTENUATOR	0 dB
0 dB CAL	For 0 dB presentation
MARKER	OFF

- (4) Set the attenuators of both units to -20 dB. Check for 0.0 ± 0.5 dB signal level on the spectrum analyzer CRT display.
- (5) Set attenuator of both units to -40 dB. Check for 0.0 ± 0.5 dB signal level on spectrum analyzer CRT display.
- (6) Return attenuator of both units to 0 dB position.

s. MARKER IDENT and SINGLE SWEEP.

- (1) Tune to 1.02 MHz and adjust spectrum analyzer marker for 0 dB. Hold MARKER IDENT switch in. Signal at 1.05 MHz (from the signal generator connected in *q.* above) should not be present. Marker signal should still be present.

- (2) Check for single sweep operation in 10 kHz/DIV, 1 kHz/DIV, and 0.3 kHz/DIV SINGLE SWEEP modes.

t. Operation in Case.

- (1) Install display unit covers. Secure all screws.
- (2) Turn on power to spectrum analyzer for 1/2 hour warmup.
- (3) Set SWEEP controls for 10 kHz/DIV CONTINUOUS and SWEEP RATE to NORM. Adjust monitor unit to produce CAL pulse at about 0 on baseline. Set FINE TUNING dial to 100 kHz. Adjust CAL pulse and marker pulse amplitude to 0 dB line.
- (4) Readjust HORIZONTAL and VERTICAL POSITION controls as needed to recalibrate display.

NOTE

If these position controls require more than 0.5 division shift from cold to hot in case, the trouble must be corrected and the Spectrum Analyzer realigned accordingly.

- (5) Carefully inspect baseline for noise or spurious responses. The grass noise shall be lower than 2.5 dB (1/4 division) above baseline. No spurious responses shall be present. Slowly turn intensity control from maximum cw to maximum ccw. Check for hump in baseline. This hump must not exceed +2.5 dB above the baseline.
- (6) Switch the SWEEP to 1 kHz/DIV CONTINUOUS and SWEEP RATE to NORM. Observe that the marker pulse is within 0.2 divisions of the center frequency graduation and that baseline grass is less than +2.5 dB (1/4 division) above the baseline.
- (7) Switch the SWEEP to 0.3 kHz/DIV CONTINUOUS and observe that the marker pulse is within (0.2 division) of the center frequency graduation.
- (8) Set CAL control for maximum. Input signal J1 should be equal to or less than 35 μ V.
- (9) Set MARKER level control to maximum. Input signal J2 should be equal to or less than 40 mV.

u. Images (at Input Frequencies Between 42 and 57 MHz). The frequency of a signal causing an image is the local oscillator frequency plus the Level Meter IF. Since the signal causing the image is higher than the local oscillator frequency while the true signal is lower, they will move in opposite directions when the main tuning (local oscillator) dial is adjusted. If the main tuning dial is adjusted to a higher frequency, the true signals will appear to move to the left on the CRT display while the response due to an image will move to the right, and vice versa.

v. *Local Oscillator Harmonics.* While local oscillator harmonics are very low in amplitude, a very strong signal may beat with one of them to produce a response in the IF band of the Monitor Unit. These responses are identified by the fact that, when the main tuning is adjusted, they move in the same direction as the true signals but they move two or three times as fast. This is so because the rate of change of the frequency of a local oscillator harmonic is in direct relation to the order of the harmonic.

w. *Stopping Procedure.*

(1) To place the AN/USM-306(V)1 in standby condition depress the Tuning Unit POWER switch. The green ON light will go off. This deenergizes all three units except for power to the crystal oscillator oven.

(2) To shut down the equipment completely remove the Tuning Unit power cord from its source of line voltage.

CHAPTER 4

GENERAL SUPPORT TESTING PROCEDURES

4-1. General

a. Testing procedures are prepared for use by organizations responsible for General Support maintenance of equipment to determine the acceptability of repaired equipment. These procedures set forth specific requirements that repaired equipment must meet before it is returned to the using organization. These procedures may also be used as a guide for testing equipment that has been repaired at direct support if the proper tools and test equipments are available. A summary of the performance standards is given in paragraph 4-12.

b. Comply with the instructions preceding each chart before proceeding to the chart. Perform each step in sequence. Do not vary the sequence. For each step, perform all the actions required in the Test equipment

control settings and Equipment under test control settings columns: then perform each specified test procedure and verify it against its performance standard.

4-2. Test Equipment, Tools, and Materials

All test equipment and other equipment required to perform the testing procedures given in this chapter are listed in the charts below:

4-3. Fabrication of Matching Pad

In some of the tests that follow, an impedance-matching pad will be required to match the 50-ohm output of the Signal Generator AN/GRM-50 to the 75-ohm input of the Audio-Radio Frequency Monitor TS-2968/U. Fabricate the matching pad in accordance with the information shown in figure 4-1.

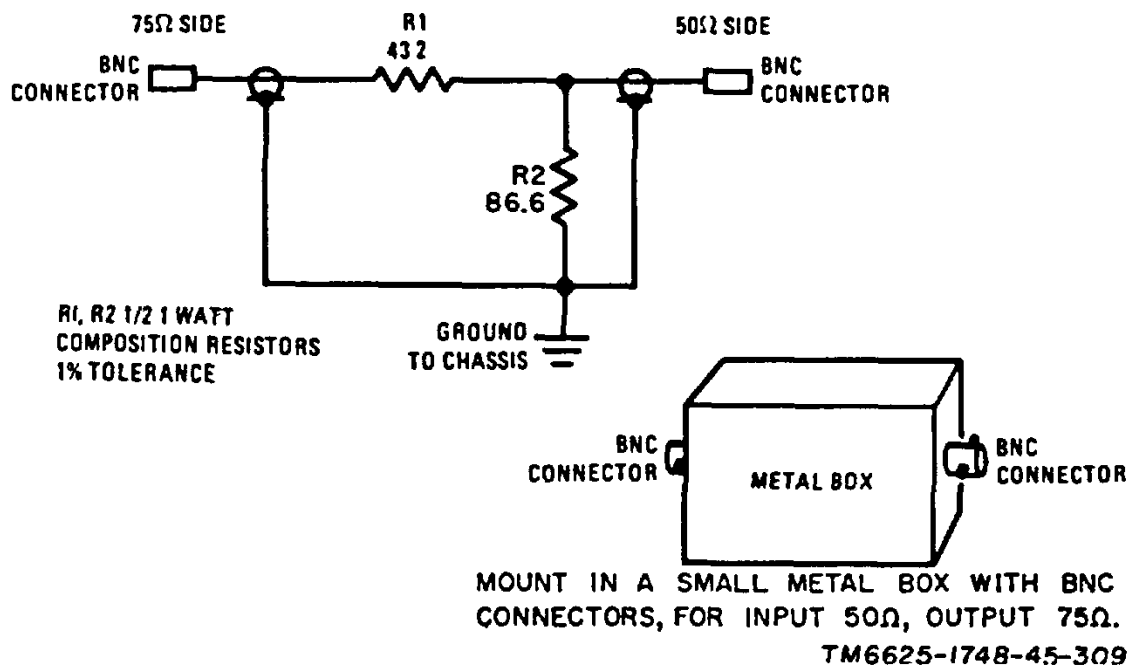
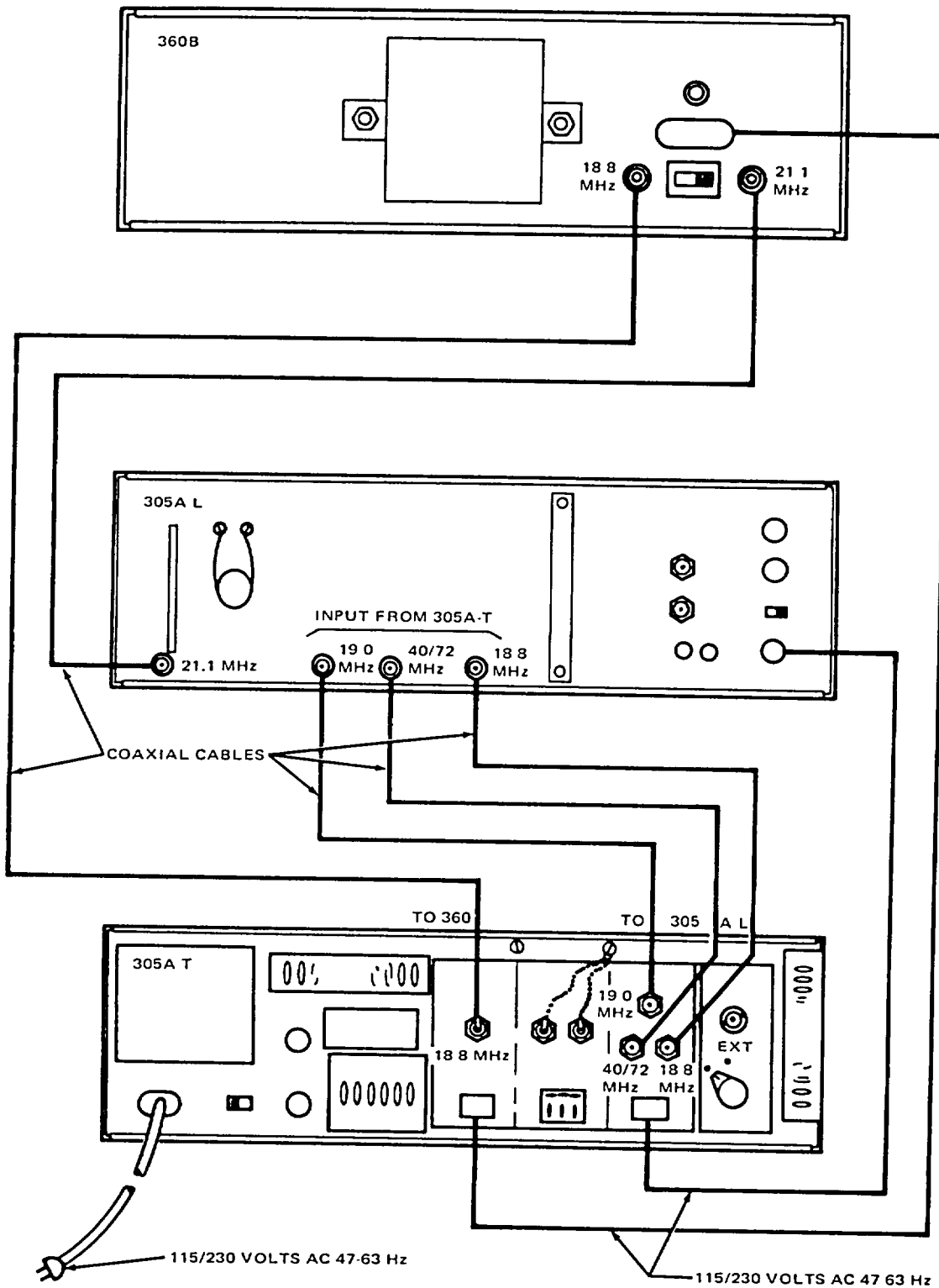
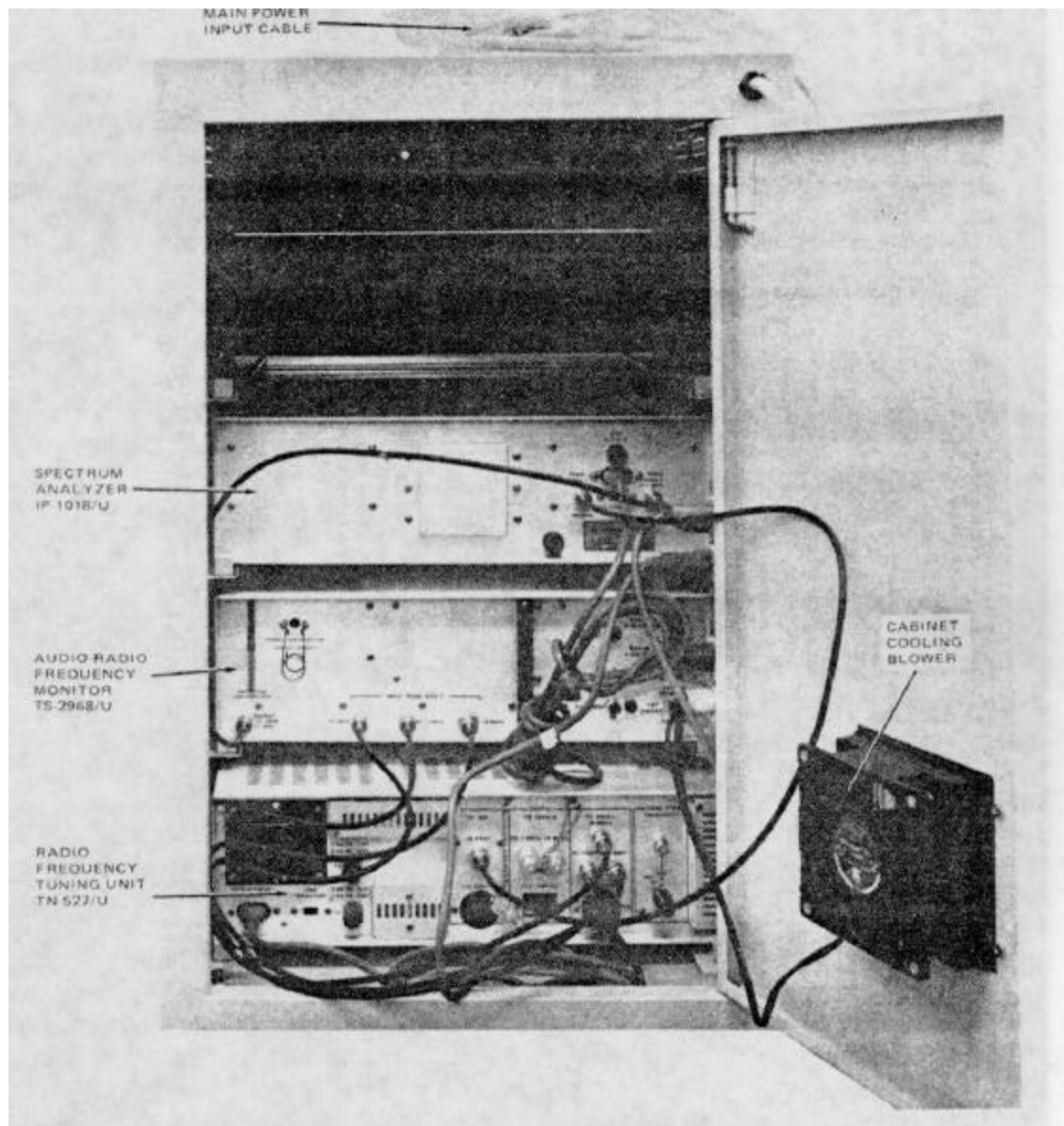


Figure 4-1. 50- to 75-ohm matching pad, local fabrication details.



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Figure 4-2. Interconnection diagram. Test Set, Radio AN/USM-306(V)1.



TM 6625-1748-45-142

Figure 4-3. Test Set, Radio AN/ USM-306(V)1, rear interior view.

4-4. Physical Tests and Inspections

a. Test Equipment and Materials.

None required.

b. Test Connections and Conditions.

(1) No connections necessary.

(2) Disconnect and remove all interconnecting

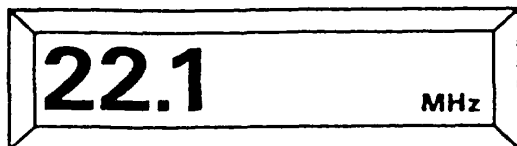
power and coaxial cables from the backs of the three chassis in the cabinet (fig. 4-3).

(3) Remove all three chassis (spectrum analyzer, monitor unit, and tuning unit) from the cabinet.

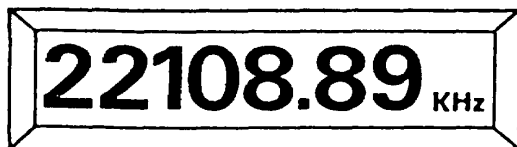
(4) Remove the top and bottom cover plates from the Tuning Unit TN-527 / U.

c. Procedure.

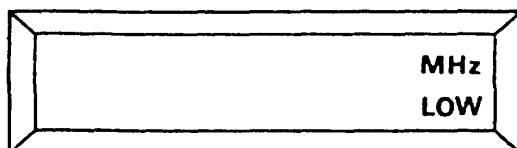
Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1	None	Controls may be in any position	<p>a. Inspect case and chassis of each unit, and console for damage, missing parts, and condition of paint.</p>	<p>a. No damage evident or parts missing. External surfaces intended to be painted will not show bare metal. Panel lettering will be legible.</p>
			<p>NOTE Touch-up painting is recommended in lieu of refinishing whenever practical: screw heads, binding posts, receptacles, and other plated parts will not be painted or polished with abrasives.</p>	<p>b. Screws, bolts, and nuts will be tight. None missing.</p> <p>c. No loose parts or damage. No missing parts.</p>
2	None	Controls may be in any position.	<p>a. Rotate all panel controls throughout their limits of travel.</p> <p>b. Inspect dial stops for damage or bending. and for proper operation.</p> <p>c. Operate all switches on each unit.</p> <p>d. Rotate FINE TUNING control to approximately midrange. Spin vigorously) both clockwise and counter-clockwise.</p> <p>e. Repeat step d. for the COARSE TUNING control.</p>	<p>a. Controls (will rotate freely) without binding or excessive looseness.</p> <p>b. Stops will operate properly without evidence of damage.</p> <p>c. Switches will operate properly.</p> <p>d. Tuning control shall rotate at least six turns in each direction when released.</p> <p>e. Same as d.</p>



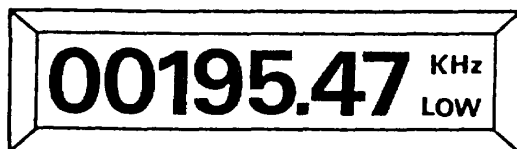
A. CONTINUOUS MODE DISPLAY



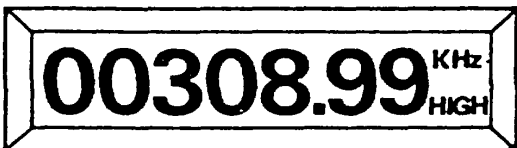
B. LOCKED MODE DISPLAY



C. MHz LOW INDICATION



D. KHz LOW INDICATION



E. KHz HIGH INDICATION

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Figure 4-4. Typical frequency display indications, tuning unit.

4-5. Tuning Unit Frequency Display Test

a. *Test Equipment and Material.*

None required.

b. *Test Connections and Conditions.*

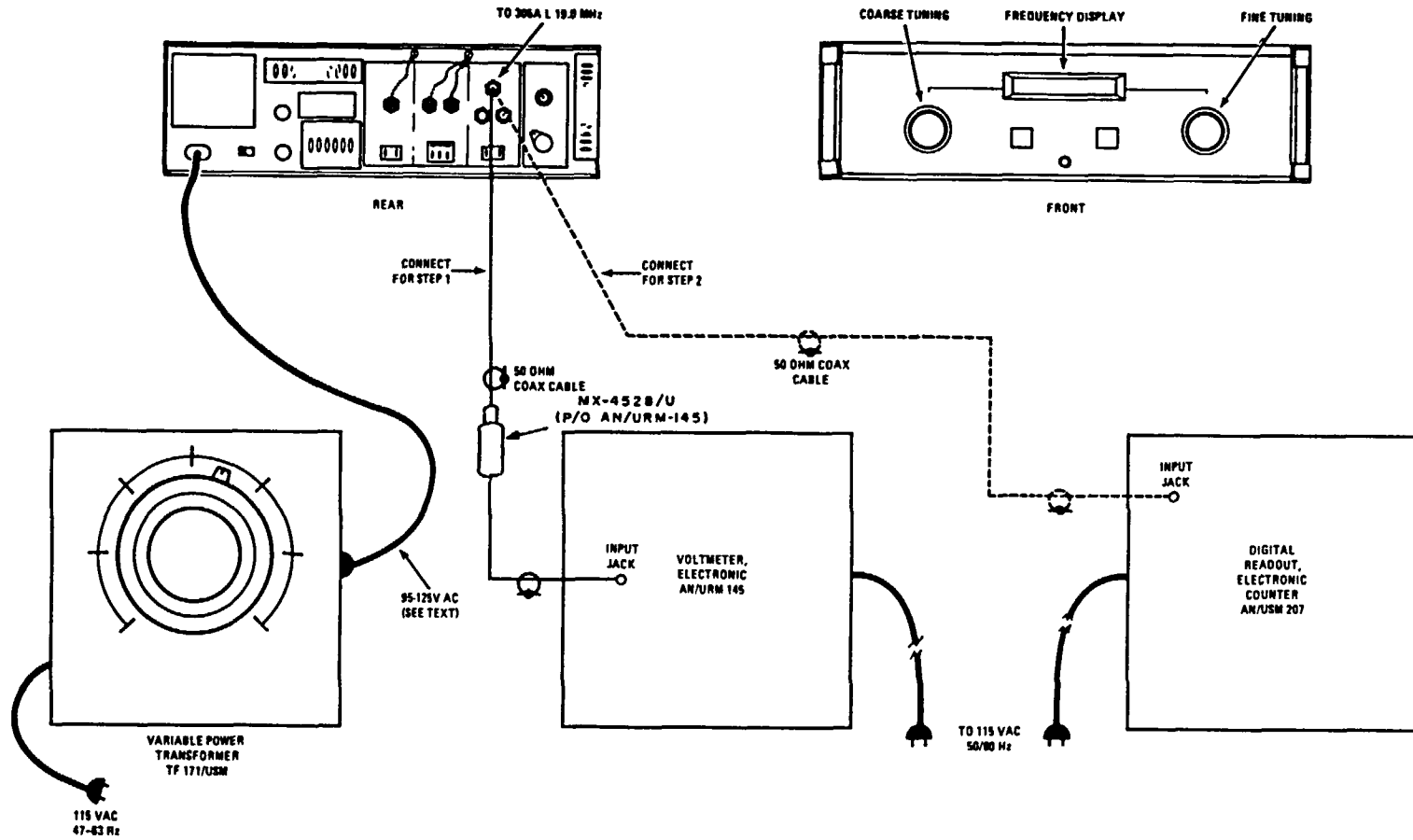
(1) Connect ac power cord to tuning unit to a 115V ac 47/63 Hz source.

(2) Turn power on and allow 15 minutes for the equipment to stabilize.

(3) Refer to figure 4-4 for typical display indications.

c. *Procedure.*

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1	None	TUNING MODE: LOCK COARSE and FINE TUNING controls: Midrange	Rotate the COARSE TUNING control until it is in a locked position.	When unlocked only the first three digits are illuminated. In the locked position the green LOCK light on the TUNING MODE switch must illuminate, and the FREQUENCY display must show seven digits and "kHz".
2	None	Same as step 1	Rotate the FINE TUNING control ccw to the ccw stop.	The FREQUENCY display must decrease. At the CCW stop the display "kHz" must be replaced by a red "kHz LOW".
3	None	Same as step 1	Rotate the FINE TUNING control cw to the cw stop.	The FREQUENCY display must increase. At the cw stop the "kHz" must be replaced by a red "kHz HIGH".
4	None	TUNING MODE: CONT	Rotate the COARSE TUNING control ccw to the ccw stop.	Only the first three digits and "MHz" indication shall be displayed. The FREQUENCY display shall decrease. At the ccw stop the "MHz" indication shall be replaced by a "MHz LOW" indication.



EL1JL001

Figure 4-5. Frequency synthesizer test setup, Tuning Unit TN-527/U.

4-6. Frequency Synthesizer Test, Tuning Unit TN-527/U

a. Test Equipment and Material.

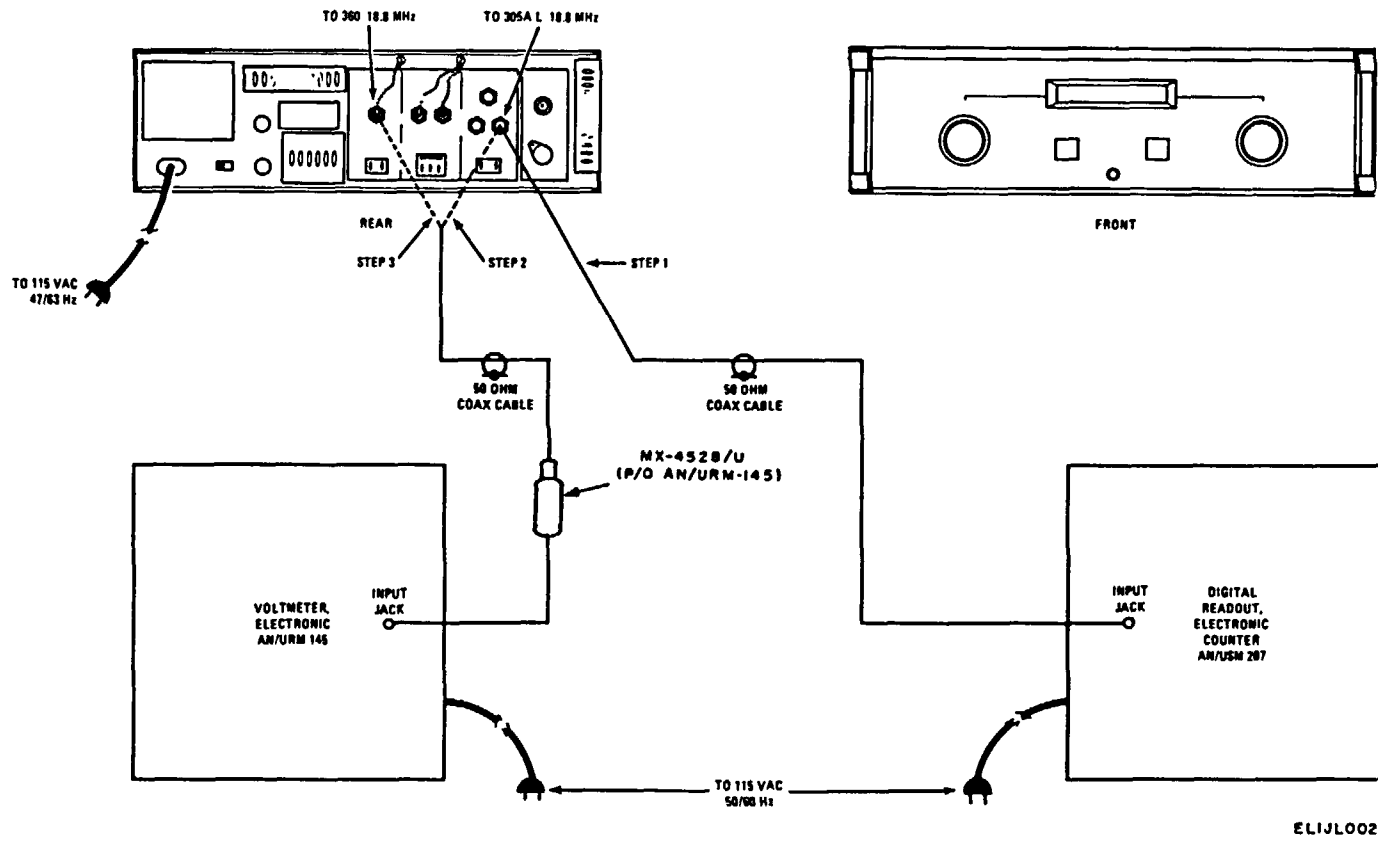
- (1) Transformer, Variable Power TF-171A/ USM.
- (2) Voltmeter, Electronic AN/ URM-145.
- (3) Digital Readout, Electronic Counter AN/USM-207.

(4) Coaxial Cable, 50-ohm, type BNC male connector.

b. Test (Connections and Conditions. Connect the equipment as shown in figure 4-5.

c. Procedure.

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1	a. Variable power transformer set to 115 volts. b. Electronic voltmeter set to 100 mV range. Power on.	POWER: ON	Check 19. MHz output level at jack J6, (To 305A-L 19.0 MHz).	30 to 40 millivolts.
	a. Variable power transformer set to 105 volts. b. Voltmeter set to 100 mV range.	Same as 1	Same as 1	Same reading as obtained in step 1.
3	a. Variable power transformer set to 125 volts. b. Voltmeter set to 100 mV range.	Same as 1	Same as 1	Same reading as obtained in step 1.
4	Variable power transformer set to 115 volts.	Same as 1	a. Disconnect, voltmeter from J6 (TO 305A-L 19.0 MHz). b. Connect the AN / USM-207 to jack J6 (TO 305A-L 19.0 MHz).	18.999998 to 19.000002 MHz.
5	Variable power transformer set to 105 volts:	Same as 1	Same as 4	Same as 4
6	Variable power transformer set to 125 volts.	Same as 1	Same as 4	Same as 4



ELIJL002

Figure 4-6. Fine tuning test setup, Tuning Unit TN-527/U.

4-7. Fine Tuning Tests, Tuning Unit TN-527/ U

- a. *Test Equipment and Material.*
 - (1) Digital Readout, Electronic Counter AN / USM-207.
 - (2) Voltmeter, Electronic AN/URM-145.
 - (3) Coaxial Cable, 50-ohm, type BNC male connector.

- b. *Test Connections and Conditions.*

- (1) Connect the equipment as shown in figure 4-6.
- (2) The tuning unit shall have been plugged into a source of primary ac power and the POWER switch shall have been turned on for a minimum of 30 minutes prior to performing the following tests.

- c. *Procedure.*

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1	a. Electronic counter power on. b. Same as a.	a. POWER: ON TUNING MODE: LOCK b. Same as a.	a. Rotate the COARSE TUNING control until the FREQUENCY display reads "011: x.xx kHz". Rotate the FINE TUNING control until the display reads "01100.00 kHz." b. Check the output at jack J8 (TO 305A-L 18.8 MHz) with the electronic counter.	a. None. b. The frequency shall be between 18.884985 and 18.885015 MHz.
2	Electronic voltmeter set to 300 mV range. Power on.	POWER: ON TUNING MODE: LOCK Display : 0110.011 kHz. LOW	a. Connect electronic voltmeter to jack J8 (TO 305A-L 18.8 MHz). b. Check 18.8 MHz output level.	a. None. b. 190 to 270 millivolts.
3	Electronic voltmeter set to 100 mV range. Power on.	Same as 2	a. Connect electronic voltmeter to jack J11 (TO 360 18.8 MHz). b. Check 18.8 MHz output level.	a. None. b. 60 to 120 millivolts.

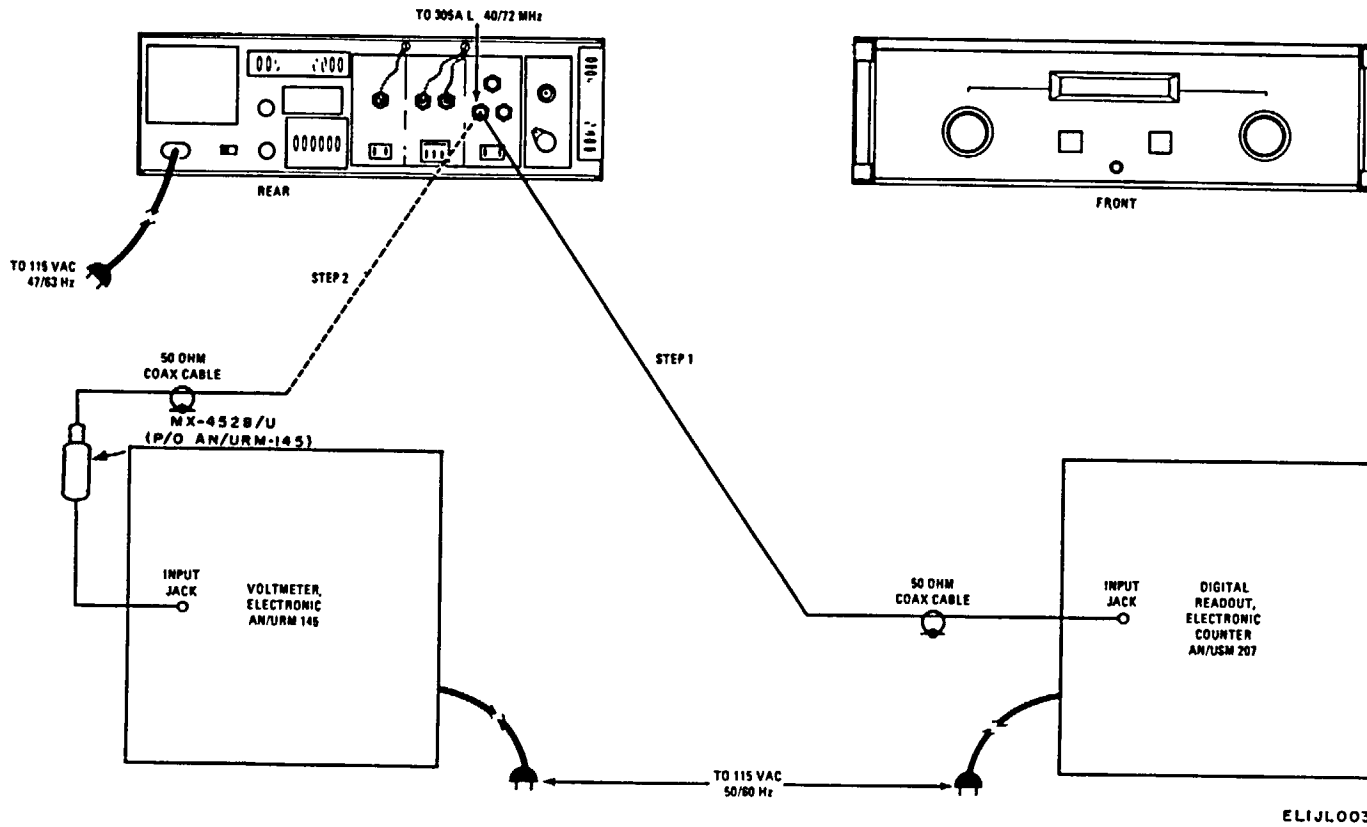


Figure 4-7. Coarse tuning test setup, Tuning Unit TN-527/U.

4-8. Coarse Tuning Tests, Tuning Unit TN-527 / U

a. Test Equipment and Material.

- (1) Digital Readout, Electronic Counter AN / USM-207.
- (2) Voltmeter, Electronic AN/URM-145.
- (3) Coaxial Cable, 50-ohm, type BNC male connectors.

b. Test Connections and Conditions.

- (1) Connect the equipment as shown in figure 4-7.
- (2) The tuning unit shall have been plugged into a source of primary ac power and the POWER switch shall have been turned on for a minimum of 30 minutes prior to performing the following tests.

c. Procedure.

<i>Step No.</i>	<i>Test equipment Control settings</i>	<i>Equipment under test Control settings</i>	<i>Test procedure</i>	<i>Performance standard</i>
1	a. Electronic counter power on.	POWER: ON TUNING MODE: LOCK	a. Connect electronic counter to jack J7 (TO 305A-L 40/72 MHz). Rotate the COARSE TUNING control to the last counterclockwise lock-point.	a. The frequency at the counterclockwise lock-point shall be between :39.799985 and 39.800015 MHz.
	b. Same as a.	b. Same as a.	b. Rotate the COARSE TUNING control to the last clockwise lock-point.	b. The frequency at the clockwise lock-point shall be between 73.799985 and 73.811100115 MHz.
2	Electronic voltmeter set to 300 mV range. Power on.	Same as 1a.	a. Connect electronic voltmeter to jack J7 (TO 305A-.L 40/ 72 MHz).	a. None.
			b. Rotate COARSE TUNING control throughout its range between the last counterclockwise lock-point and the last clockwise lock-point, while observing voltmeter reading.	b. Between 100 and 150 millivolts.

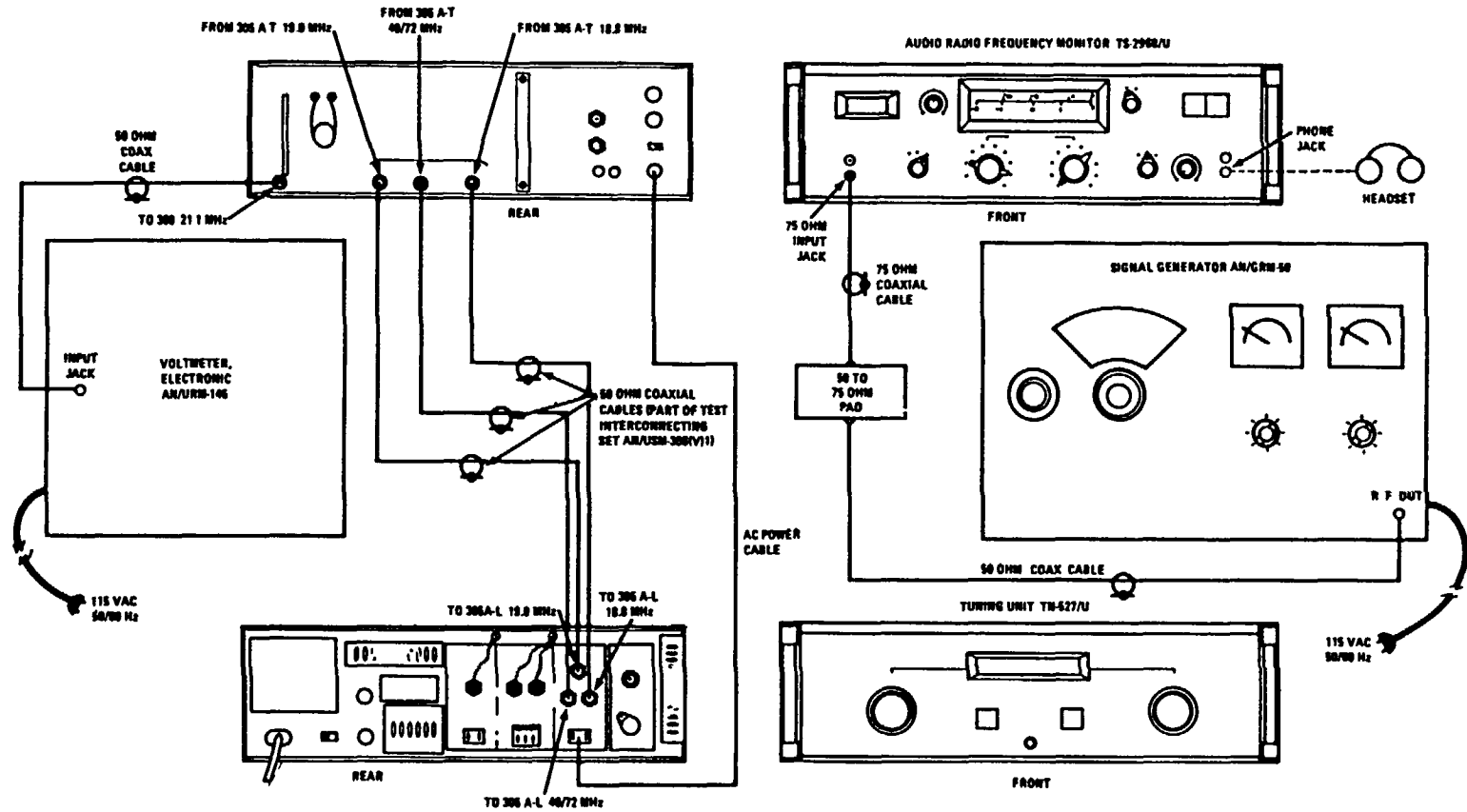


Figure 4-8. Monitor Unit TS-2968/U, test setup.

4-9. Monitor Unit Tests

a. Test Equipment and Material.

- (1) Signal Generator AN / GRM-50.
- (2) Voltmeter, Electronic AN/URM-145.
- (3) Headset H-216/ U.
- (4) 50 to 75 ohm matching pad.
- (5) Coaxial Cable, 50-ohm, type BNC male connectors.
- (6) Coaxial Cable, 75-ohm, type BNC male connectors.

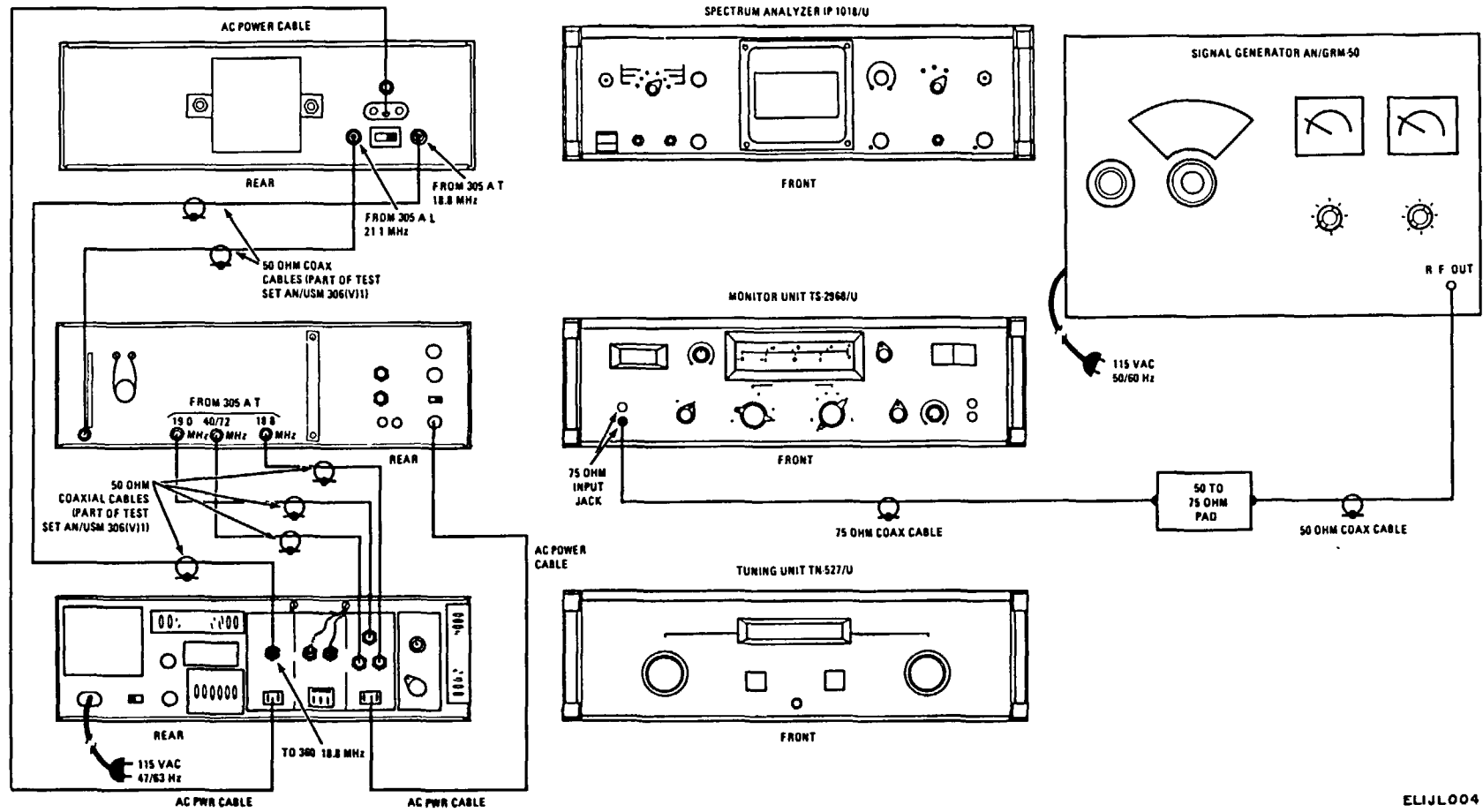
b. Test Connections and Conditions.

- (1) Connect the equipment as shown in figure 4-8.
- (2) Ac power shall have been applied to the tuning unit for a minimum of 30 minutes, and to the monitor unit for a minimum of 15 minutes, prior to performing the following tests.

c. Procedure.

<i>Step No.</i>	<i>Test equipment Control settings</i>	<i>Equipment under test Control settings</i>	<i>Test procedure</i>	<i>Performance standard</i>
	a. None.	a. TUNING MODE: LOCK SENSITIVITY: CAL 1 MHz SCALE: NORM SELECTIVITY: 250 Hz SENSITIVITY 10 dB/STEP: CAL	a. Tune the COARSE a FINE TUNING controls to obtain a display reading of 1.00 MHz. Vary the fine tuning control to obtain a peak reading on the monitor unit decibels meter.	a. Meter reading peaks at or near 1.0 MHz.
	b. None.	b. Same as a.	b. Adjust CAL control on monitor unit for a 0 dB reading on the DECIBELS meter.	b. None.
2	Signal generator tuning- 1.0 MHz. Signal generator output level set to 5.78 dBm. (0.431 volts).	SCALE: EXPAND SENSITIVITY: NORM INPUT LEVEL: 0dBm	Vary fine tuning control for maximum reading on the DECIBELS meter.	-0.2 to +0.2 dB on the DECIBELS meter.
3	a. Same as 2	a. SCALE: NORM SENSITIVITY: NORM INPUT LEVEL: + 10 dBm	a. Check reading on DECIBELS meter.	a. -10.5 to -9.5 dB.
	b. Same as 2	b. Same as a.	b. Rotate 1 dB/ STEP attenuator to obtain a display reading of +7.0 dBm. Check reading on DECIBELS meter.	b. -7.4 to -6.6 dB.
	c. Same as 2	c. Same as a.	c. Rotate 1 dB/ STEP attenuator to obtain a display reading of +4 dBm. Check reading on DECIBELS meter.	c. -4.3 to -3.7 dB.
4	a. Same as 2	a. SCALE: EXPAND SENSITIVITY:	a. Touch up signal generator output level as required to obtain a 0 dB reading on the DECIBELS meter.	a. None.

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
	<p>b. Turn signal generator attenuator one step counterclockwise.</p> <p>c. Reduce signal generator output in 10 dB steps by rotating attenuator counterclockwise.</p>	<p>NORM INPUT LEVEL: 0d dBm</p> <p>b. INPUT LEVEL: -10 dBm</p> <p>c. Reduce INPUT LEVEL in 10 dBm steps.</p>	<p>b. Check DECIBELS meter reading.</p> <p>c. Reduce signal generator output and INPUT LEVEL together in 10 dB steps down to -80 dBm. At each 10 dB step, read DECIBELS meter.</p>	<p>b. -0.3 to +0.3 dB.</p> <p>c. -0.3 to +0.3 dB at each 10 dB step.</p>
5	<p>a. Signal generator: 1.00 MHz at 5.78 dB 10.431V1.</p>	<p>a. SCALE: EXPAND SENSITIVITY: NORM INPUT LEVEL: TUNING: 1.00 MHz</p>	<p>a. Vary signal generator vernier tuning to obtain a maximum reading on the monitor DECIBELS meter. Readjust signal generator vernier attenuator control, if necessary, to obtain a reading of 0 dB on the monitor DECIBELS meter. Note and record the exact reading of the signal generator DBM meter.</p>	<p>a. None</p>
	<p>b. Modulation selector switch to INT. either 1, 000 ~ or 400 ~</p> <p>c. Same as b.</p> <p>d. Same as b.</p>	<p>b. Same as 5, a. AUDIO MODE: AM AUDIO GAIN: Fully counterclockwise. SELECTIVITY: 3.1 kHz.</p> <p>c. Same as b.</p> <p>d. Same as b.</p>	<p>b. Put on headset. Rotate audio gain control clockwise until audible tone at a comfortable listening level is obtained.</p> <p>c. Turn AUDIO MODE switch to USB. Check for tone in headset.</p> <p>d. Turn AUDIO MODE switch to USB. Check for tone in headset.</p>	<p>b. Audible tone.</p> <p>c. Audible tone.</p> <p>d. Audible tone.</p>
6	<p>a. Signal generator tuned to 10.0 MHz.</p>	<p>a. SCALE: EXPAND SENSITIVITY: NORM INPUT LEVEL: dBm TUNING: 10.00 MHz SELECTIVITY: 250 Hz.</p>	<p>a. Vary signal generator tuning vernier for maximum reading on monitor unit DECIBELS meter. Adjust signal generator vernier attenuator to obtain the same reading on the signal generator DBM meter as obtained and recorded in step 5, a., above. Check reading on monitor unit DECIBELS meter.</p>	<p>a. -1.0 to + 1.0 dB.</p>
	<p>b. Same as a. Electronic voltmeter: 300 μV range.</p> <p>c. Signal generator tuned to 22.0 MHz.</p> <p>d. Signal generator tuned to 32.0 MHz.</p> <p>e. Signal generator tuned to 100 kHz.</p> <p>f. Signal generator tuned to 50 kHz</p>	<p>b. Same as a.</p> <p>c. Same as a. TUNING: 22.10 MHz.</p> <p>d. Same as a. TUNING: 32 MHz.</p> <p>e. Same as a. TUNING: 100 kHz.</p> <p>f. Same as a. TUNING: 50 kHz.</p>	<p>b. Same as a. Observe reading on voltmeter AN/ URM-145.</p> <p>c. Same as a.</p> <p>d. Same as a.</p> <p>e. Same as a.</p> <p>f. Same as a.</p>	<p>b. 60 to 100t microvolts.</p> <p>c. -1.5 to + 1.5 dB.</p> <p>d. -2.0 to + 2.0 dB.</p> <p>e. -1.0 to + 1.0 dB.</p> <p>f. -1.5 to + 1.5 dB.</p>



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Figure 4-9. Spectrum Analyzer IP-1018/ U, test setup.

4-10. Spectrum Analyzer Tests

- a. *Test Equipment and Material.*
 - (1) Signal Generator AN / GRM-50.
 - (2) 50-to 75-ohm matching pad.
 - (3) Coaxial Cable, 75-ohm, type BNC male connector.
- b. *Test Connections and Conditions.*

- (1) Connect the equipment as shown in figure 4-9.
- (2) Ac power shall have been applied to the tuning unit for a minimum of 30 minutes, and to the monitor and spectrum analyzer units for a minimum of 15 minutes, prior to performing the following tests.
- c. *Procedure.*

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1	a. None.	a. <i>Tuning unit:</i> TUNING MODE: LOCK COARSE TUNING: 1 MHz monitor unit: SENSITIVITY: CAL SCALE: EXPAND SENSITIVITY 10 dB/ STEP: CAL SELECTIVITY: 250 Hz <i>Spectrum analyzer:</i> ATTENUATOR: 0 dB SWEEP: 10 kHz/ DIV continuous SWEEP RATE: NORM MARKER: midrange	c. Calibrate the monitor unit by adjusting the coarse and fine tuning controls for a maximum reading on the DECIBELS meter. (FINE TUNING control to be near the extreme counterclockwise position. Adjust monitor CAL control for a 0 dB reading on the DECIBELS meter.	a. None.
	b. None.	b. Same as a.	b. Adjust FOCUS, INTENSITY and SCALE ILLUM for a suitable display on the CRT.	b. None.
	c. None.	c. Same as a.	c. Check range of INTENSITY control. (1) Rotate INTENSITY control clockwise as far as it will go. The trace on the cathode ray tube (CRT) shall disappear. (2) Rotate INTENSITY control to the fully-clockwise position. check brilliance of trace on CRT.	c. INTENSITY range. (1) No visible trace on CRT display. (2) Trace brighter than required for adequate viewing under conditions of normal room lighting.

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1. cont'd	d. None.	d. Same as a.	d. Adjust INTENSITY control for convenient viewing of CRT trace Vary FOCUS control throughout its entire range. Check for thin, sharply-focussed trace.	d. Sharply focussed trace on CRT. (FOCUS control not at either extreme position.)
	e. None.	e. Same as a.	e. Vary SCALE ILLUM control throughout its range, but <i>not</i> to PWR OFF position. Check graticule illumination: (1) Control in counter-clockwise position but not in PWR OFF position. (2) Control fully clockwise.	e. Graticule illumination. (1) Graticule not illuminated. (2) Graticule brightly and evenly illuminated all the way across.
	f. None.	f. Same as a. Set INTENSITY to obtain clearly-visible CRT trace. Set FOCUS to obtain a sharply-defined trace. Set SCALE ILLUM for easy reading of graticule markings.	f. Observe CRT trace: (1) Check baseline position. (2) Check baseline hump.	f. CRT trace: (1) Baseline between -19 and -21 dB on graticule. (2) Hump in baseline shall not extend above-16 dB on graticule.
	g. None.	g. Same as f. MARKER: OFF	g. Vary 0 dB CAL control to place top of calibration pulse at 0 dB on the CRT graticule. Check position of calibration pulse.	g. Calibration pulse shall be centered between -3 and +3 kHz with respect to the 0 kHz graduation (located on the top line of the graticule).
	h. None.	h. Same as f.	h. Rotate FINE TUNING control clockwise until FREQUENCY display shows 1100.00 kHz. Rotate MARKER control clockwise until top of marker pulse (right side of CRT screen) reaches the 0 dB line on the graticule. (1) Observe height of marker pulse at the right-hand side of the display. (2) Observe position of the right-hand (marker) pulse with respect to the 100 kHz mark on the graticule.	h. Marker pulse amplitude and position: (1) Top of marker pulse shall reach 0 dB line on CRT graticule. (2) Top of marker pulse shall be within one-third of a division (on the horizontal 0 line) of the 100 kHz mark.

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
<p>1 cont'd</p>	<p>i. None.</p>	<p>i. Same as f.</p>	<p>i. Rotate FINE TUNING control counterclockwise. Stop at each of the frequencies listed below (as read on the FREQUENCY display). (1) : 090.00 kHz. (2) : 080.00 kHz. (3) : 070.00 kHz. (4) : 060.00 kHz. (5) : 050.00 kHz. (6) : 040.00 kHz. (7) : 030.00 kHz. (8) : 020.00 kHz. (9) : 010.00 kHz. (a) Check the amplitude (height) of the marker "pip" at each of the above frequencies. (b) Check the position of the marker pip with respect to the graduations on the 0 line of the graticule at each of the above frequencies.</p>	<p>i. At each of the frequencies shown: (a) The top of the marker pulse shall be between +2 dB and -2 dB with respect to the 0 line on the graticule, and: (b) The marker shall be within one-third of a division of the appropriate 10 kHz mark along the 0 line, between 0 and 100 kHz.</p>
<p>2</p>	<p>a. Signal Generator tuned to 1.050</p>	<p>a. <i>Tuning unit</i> TUNING MODE: LOCK FREQUENCY: 1.050 MHz Monitor unit: INPUT LEVEL: OdBm SENSITIVITY: NORM SELECTIVITY: 250 Hz SCALE: NORM Spectrum analyzer: SWEEP RATE: NORM SWEEP kHz/ DIV: 10 continuous ATTENUATOR: 0 INTENSITY & FOCUS: Set for sharp, clearly-visible trace. SCALE ILLUM: Set for easy identification of graticule markings MARKER: OFF</p>	<p>a. Set signal generator output level to approximately +5.8 dB. Vary signal generator vernier tuning control for a maximum reading on the monitor DECIBELS meter. Readjust signal generator vernier attenuator, if necessary, to obtain a 0 dB reading on the monitor DECIBELS meter. Vary 0 dB CAL control on spectrum analyzer to cause the top of the pulse at the center of the screen to just reach the 0 dB line on the graticule.</p>	<p>a. Pulse shall be within plus or minus one-third of a division of the 50 kHz mark on the CRT graticule.</p>

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
2 cont'd	b. Same as a.	b. Same as a.	<p>b. Rotate FINE TUNING control counterclockwise to obtain a FREQUENCY display reading of 1000.00 kHz.</p> <p>(1) Observe monitor DECIBELS meter reading.</p> <p>(2) Rotate MARKER control clockwise until pulse at 0 kHz reaches the 0 dB line on the graticule. Depress MARKER IDENT pushbutton. Observe display on CRT.</p>	<p>b. Marker identification.</p> <p>(1) DECIBELS meter pointer shall be at the left-hand end of the scale.</p> <p>(2) Pulse at center of CRT display shall disappear. Marker pulse at 0 kHz position on CRT display shall remain.</p>
	c. Signal Generator frequency: (1) 1, 020 MHz	c. Same as a.	<p>c. Turn MARKER control to OFF.</p> <p>(1) Turn FINE TUNING control counterclockwise to obtain a FREQUENCY display reading of 1020.00 kHz. Vary signal generator frequency vernier for a maximum indication on the monitor DECIBELS meter. Readjust signal generator output vernier attenuator. if necessary. for a 0 dB reading on the DECIBELS meter. Observe pulse amplitude and position on CRT screen.</p> <p>(2) Repeat step (1), above, for 1080.00 kHz.</p>	<p>c. 10 kHz/.DIV tracking:</p> <p>(1) Top pulse shall be between -2.0) and + 2.0 dB with respect to the horizontal 0 line on the CRT graticule. Pulse shall be within one-third of A division of the second mark (on the 0 line) to the <i>right</i> of the 0 kHz mark on the graticule.</p> <p>(2) Top of pulse shall be between -2.0. and +2.0) dB with respect to the horizontal 0 line on the CRT graticule. Pulse shall be within one-third of a division of thee second mark In the 0 line to the <i>left</i> if the 100 kHz mark on the graticule</p>
3	Signal generator tuned to 1.050 MHz. Output level: +5.8 dB.	Same as 2a.	<p>Tune tuning unit to 1.00 MHz. Vary signal generator output vernier attenuator to cause top of pulse at the center of the CRT display to coincide with the horizontal 0 dB line on the graticule.</p>	

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
3 Cont'd			<p>(1) Without touching any other settings turn spectrum analyzer ATTENUATOR to 20. Turn monitor 10 dB/ STEP SENSITIVITY control to obtain an INPUT LEVEL display reading of -20) dBm. Observe top of pulse at center of CRT display.</p> <p>(2) Turn spectrum analyzer ATTENUATOR CONTROL to 40. Turn monitor 10 dB / STEP SENSITIVITY control to obtain an INPUT LEVEL display of -40 dBm. Observe top of pulse at center of CRT display.</p>	<p>(1) Top of pulse shall be within + 1 dB or-1 dB of the horizontal 0 dB line on the CRT display.</p> <p>(2) Top of pulse shall not exceed +2 dB and-2 dB of the horizontal 0 dB line on the CRT displays.</p>
4	Signal generator tuned to 1.00 MHz. Same as 2a.		<p>Adjust signal generator frequency and level to obtain a } dB reading on the monitor DECIBELS meter. Turn FINE TUNING control clockwise to obtain a FREQUENCY display reading of 10310 kHz.</p> <p>(1) Depress MARKER IDENT pushbutton and observe noise pulses (grass) on baseline.</p> <p>(2) Release MARKER IDENT pushbutton and observe baseline.</p>	<p>(1) Noise pulses shall not exceed -15 dB on CRT display.</p> <p>(2) Noise plus spurious responses shall not exceed - 15- dB on CRT display.</p>
5	Signal generator tuned to 1.050 MHz.	Same as 2a.	<p>Tune tuning unit to obtain a frequency display reading of 10S0.00 kHz. Adjust signal generator frequency to obtain a maximum reading on the monitor DECIBELS meter. Readjust signal generator vernier attenuator to obtain a 0 dB reading on the monitor DECIBELS meter. Turn spectrum analyzer SWEEP-kHz/ DIV control to CONTINUOUS I.</p> <p>(1) Make sure MARKER control is turned to OFF. Observe pulse on CRT.</p>	<p>(1) Pulse shall be within one-third of a division (horizontally) of the 501 kHz mark on the CRT display.</p>

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
5 cont'd			<p>(2) Turn FINE TUNING control clockwise to obtain a FREQUENCY display reading of 1055.00 kHz.</p> <p>(3) Rotate MARKER control clockwise until marker pulse at center of CRT display reaches the -5 line. Observe location of marker pulse.</p> <p>(4) Rotate FINE TUNING control counterclockwise to obtain a FREQUENCY display reading of 1045.00 kHz.</p> <p>(5) Turn SWEEP-kHz/ DIV control to CONTINUOUS Retune FINE TUNING to 1048.50 kHz.</p> <p>(6) Retune FINE TUNING to 1051.50 kHz.</p> <p>(7) Turn SWEEP-kHz/ DIV control to SINGLE SWEEP 10. (a). Observe CRT display. (b). Observe CRT display and depress SINGLE SWEEP push-button. (c). Change SWEEP RATE to FAST. Observe CRT display and depress SINGLE SWEEP button.</p> <p>(8) Turn SWEEP-kHz/ DIV control to SINGLE SWEEP 1. Repeat steps 7 (a), (b), and (c).</p> <p>(9) Turn SWEEP-kHz/ DIV control to SINGLE SWEEP 3. Repeat steps (7) (a), (b), and (c).</p>	<p>(2) Pulse shall have moved to the left on the CRT display to within one-third of one horizontal division of the 0 kHz mark.</p> <p>(3) Marker pulse shall be within one-third of a division of the 50 kHz mark on the CRT display.</p> <p>(4) Signal pulse moves across CRT display from left to right during tuning. Marker pulse remains in center of screen. At FREQUENCY display reading of 1045.00 kHz, signal pulse shall be within one-third of a division of the 100 kHz mark on the graticule. 151 Signal pulse shall be within 3. one-third of a division of the 100 kHz mark.</p> <p>(6) Signal pulse shall be within one-third. of a division of the 0 kHz mark.</p> <p>(7) (a). Trace disappears. (b). CRT spot makes a single sweep across display.</p> <p>(c). CRT spot makes a single sweep across CRT display, faster than as in (b) above.</p> <p>(8) Same as (7) (a), (b), and (c).</p> <p>(9) Same as (7) (a), (b), and (c).</p>

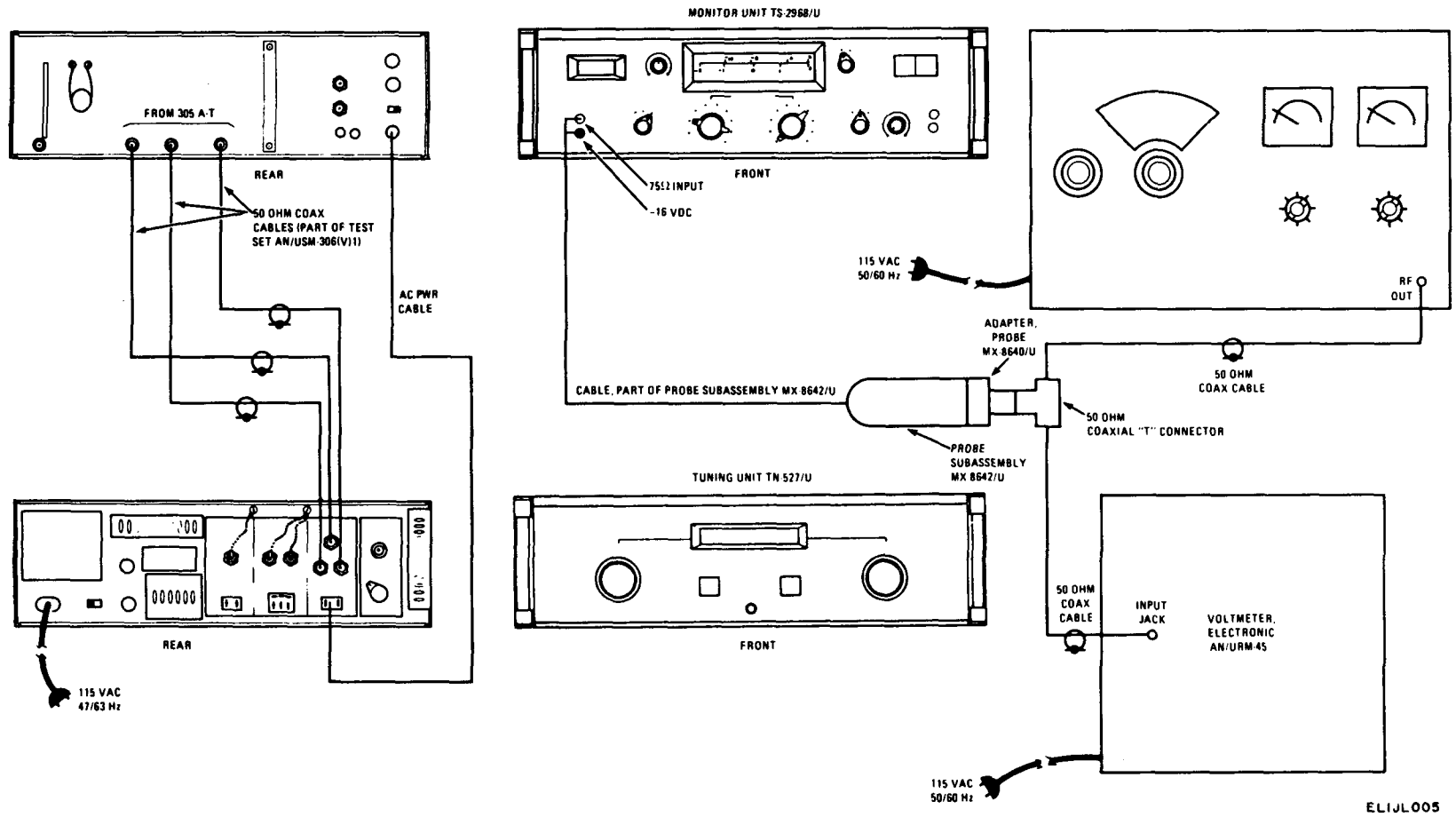


Figure 4-10. Probe Subassembly MX-86421U, test setup.

4-11. Probe Gain and Frequency Response Tests

a. Test Equipment and Material.

- (1) Test Set, Radio AN / USM-306(V) 1.
- (2) Signal Generator AN/GRM-50.
- (3) Voltmeter, Electronic AN / URM-145.
- (4) Coaxial "T" connector, one male and two female type BNC connectors.
- (5) Coaxial cable, 50-ohm, with male type BNC connectors.

b. Test Connections and Conditions.

- (1) Connect the equipment as shown in figure 4-10.
- (2) Ac power shall have been applied and turned on to the Radio Test Set AN/USM-306(V)1 (with the Probe connected for a minimum of 30 minutes prior to performing the following tests.

c. Procedure.

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1	<p><i>a. Test Set AN /USM-306(V)1:</i></p> <p>Tuning unit: TUNING MODE: LOCK FREQUENCY: 1000.00 kHz Monitor unit: SENSITIVITY: CAL SENSITIVITY 10 dB/ STEP: CAL SCALE: NORM SELECTIVITY: 3.1 kHz Spectrum Analyzer: SCALE ILLUM: PWR OFF</p> <p><i>b. Test Set AN/ USM-306(V) 1:</i></p> <p>Tuning unit: TUNING MODE: 1000 kHz Monitor unit: SENSITIVITY: NORM INPUT LEVEL: 0 dBm SCALE: NORM SELECTIVITY: 3.1 kHz Spectrum Analyzer: SCALE ILLUM: PWR OFF</p>	<p><i>a. None.</i></p> <p><i>b. Probe switches set to: 75 Ω TERM LOCK FREQUENCY:</i></p>	<p><i>a. Vary FINE TUNING for maximum reading on the monitor DECIBELS meter. Adjust monitor CAL control for a 0 dB reading on the DECIBELS meter.</i></p> <p><i>b. Vary FINE TUNING for maximum reading on the monitor DECIBELS meter.</i></p>	<p><i>a. None.</i></p> <p><i>b. -0.5 to + 0.5 dB on DECIBELS meter.</i></p>

Step No.	Test equipment Control settings	Equipment under test Control settings	Test procedure	Performance standard
1 Cont'd	<p><i>Signal Generator</i> <i>A. N GRM-50:</i> Frequency: 1.0 MHz Output Level: Adjust for 0.274V on Electronic Voltmeter AN / URM-145. c. Same as <i>b.</i></p>	<p>c. Probe switches set to: 50 Ω TERM</p>	<p>c. Readjust signal generator vernier attenuator for a reading of 0.224 volts as read on Electronic Voltmeter AN/URM-145. Vary FINE TUNING for maximum reading on the monitor DECIBELS meter.</p>	<p>c. -0.5 to + dB on DECIBELS meter.</p>
2		<p>Same as 1, c.</p>	<p>Tune both the signal generator and the tuning unit to each of the frequencies listed below. At each frequency, reset the signal generator vernier attenuator to obtain a reading of 0.224 volts on the Electronic Voltmeter AN / URM-145. At each frequency. vary the FINE TUNING control for a maximum reading on the monitor DECIBELS meter.</p> <p>a. 5 kHz b. 100 kHz c. 10 MHz d. 20 MHz c. 30 MHz</p>	<p>DECIBELS meter reading (monitor unit) :</p> <p>a. -2.0 to + 2.0 dB b. -1.0 to + 1.0 dB c. -1.0 to + 1.0 dB d. -1.0 to + 1.0 dB c. -2.0 to + 2.0 dB</p>

4-12. Test Data Summary

Personnel may find it convenient to arrange their checklist in a manner similar to that shown below:

a. TUNING UNIT FREQUENCY DISPLAY**TEST**

- | | |
|--|---|
| (1) TUNING MODE: CONTINUOUS | Only the first three digits lighted "MHz" lighted |
| (2) TUNING MODE: LOCK | Seven digits and "kHz" lighted |
| (3) FINE TUNING:
Fully counterclockwise | Red "kHz LOW" lighted |
| (4) FINE TUNING:
Fully clockwise | Red "kHz HIGH" lighted |
| (5) COARSE TUNING:
Fully counterclockwise | "MHz LOW" lighted |

b. FREQUENCY SYNTHESIZER TEST, TUNING UNIT

- | | |
|--------------------------------|---------------|
| (1) 30 to 40 millivolts | 35 millivolts |
| (2) 30 to 40 millivolts | 35 millivolts |
| (3) 30 to 40 millivolts | 35 millivolts |
| (4) 18.999998 to 19.000002 MHz | 19.000000 MHz |
| (5) 18.999998 to 19.000002 MHz | 19.000000 MHz |
| (6) 18.999998 to 19.000002 MHz | 19.000000 MHz |

c. FINE TUNING TESTS, TUNING UNIT

- | | |
|--------------------------------|----------------|
| (1) 18.884985 to 18.885015 MHz | 18.885 MHz |
| (2) 190 to 270 millivolts | 230 millivolts |
| (3) 60 to 120 millivolts | 100 millivolts |

d. COARSE TUNING TESTS, TUNING UNIT

- | | |
|-----------------------------------|----------------|
| (1) (a) 39.799985 - 39.800015 MHz | 39.800000 MHz |
| (b) 73.799985 - 73.80015 MHz | 73.800000 MHz |
| (2) 100 to 150 millivolts | 125 millivolts |

e. MONITOR UNIT TESTS

- | | |
|----------------------------------|-----------------|
| (1) Meter peaks near 1000.00 kHz | 1000.03 kHz |
| (2) -0.2 to +0.2 dB | +0.2 dB |
| (3) (a) -10.5 to -9.5 dB | -9.9 dB |
| (b) -7.4 to -6.6 dB | -6.9 dB |
| (c) -4.3 to +3.7 dB | -4.0 dB |
| (4) -0.3 to +0.3 dB | +0.1 dB |
| (5) Audible tone | Audible tone |
| (6) (a) -1.0 to +1.0 dB | 0.0 dB |
| (b) 60 to 160 microvolts | 11.5 microvolts |
| (c) -1.5 to +1.5 dB | +0.5 dB |
| (d) -2.0 to +2.0 dB | +0.6 dB |
| (e) -1.0 to + 1.0 dB | -0.3 dB |
| (f) -1.5 to +1.5 dB | -0.4 dB |

f. SPECTRUM ANALYZER TESTS

- | | |
|----------------------------------|---|
| (1) INTENSITY: fully ccw | No visible CRT trace |
| (2) INTENSITY: fully cw | Bright trace on CRT |
| (3) FOCUS: between extremes | Sharp trace |
| (4) SCALE ILLUM: ccw | Graticule not lighted |
| (5) SCALE ILLUM: fully cw | Graticule brightly and evenly illuminated |
| (6) Baseline -19 to -21 dB | -20 dB |
| (7) Baseline hump: <16 dB | -18 dB |
| (8) Cal. pulse: -3 to +3 kHz | 0 kHz |
| (9) Marker pulse: 0 dB | 0 dB |
| (10) Marker pulse: 97 to 103 kHz | 100 kHz |

- (11) 1100.00 kHz to 1000.00 kHz:
 - (a) ± 2.0 dB ± 1.0 dB
 - (b) ± 3 kHz ± 1.5 kHz
 - (12) 1.050 MHz marker:
 - 47 to 53 kHz on CRT 50 kHz
 - (13) Depress MARKER button Signal disappears, marker pulse remains
 - (14) Analyzer freq. response:
 - (a) 1020.00 kHz: ± 2.0 dB 0.0 dB
 - (b) 1080.00 kHz: ± 2.0 dB 0.0 dB
 - (15) Analyzer attenuator:
 - (a) 20 dB: -1.0 to +1.0 dB + 0.3 dB
 - (b) 40 dB: -2.0 to +2.0 dB - 0.4 dB
 - (16) Noise: below -15 dB < -18 dB
 - (17) Spurious responses: < -17 dB
 - (17) below -15 dB
 - (18) Frequency tracking, 1 kHz/DIV: 0.2 div. max.
 - (18) 1/3 div.
 - (19) Frequency tracking, 0.3 kHz/DIV: 0.2 div. max.
 - (19) 1/3 div.
 - (20) SINGLE SWEEP:
 - (a) 10 kHz/DIV Single sweep
 - (b) 1 kHz/ DIV Single sweep
 - (c) 0.3 kHz/DIV Single sweep
- g. PROBE GAIN & FREQUENCY RESPONSE TESTS
- (1) Gain:
 - (a) 75 ohms: -0.5 to +0.5 dB 0.0 dB
 - (b) 50 ohms: -0.5 to +0.5 dB 0.0 dB
 - (2) Frequency response:
 - Reference level - 0.0 dB
 - (a) 50 kHz: -2.0 to +2.0 dB -0.4 dB
 - (b) 100 kHz: -1.0 to +1.0 dB -0.2 dB
 - (c) 10 MHz: -1.0 to +1.0 dB 0.0 dB
 - (d) MHz: -1.0 to +1.0 dB +0.2 dB
 - (e) MHz: -2.0 to +2.0 dB -0.5 dB

CHAPTER 5

DEPOT MAINTENANCE

5-1. Depot Rebuild Operations

Complete rebuild of Radio Test Set AN/USM-306(V)1 and/or its individual components may be accomplished by Depot maintenance facilities when authorized. Rebuild action will include all repairs, rebuild and replacement operations necessary to make the equipment suitable for return to DA supply system stocks for reissue to rising organizations as equipment equivalent to new material. Detailed procedures for accomplishing the repairs and adjustments established in the proceeding portions of this manual and such additional repair and rebuild operations as deemed necessary, will be established by the facility performing the work. Chapter 6 establishes the requirements that must be met by rebuilt or repaired equipment before it is returned to DA supply system stocks.

5-2. General Parts Replacement Techniques

a. Before removing a part from any of the units of Radio Test Set AN/USM-306(V)1 note the position of the part and its leads. Install replacement parts in the same position and orientation as the originals to avoid undesirable coupling, spurious oscillations and/or decrease in gain.

b. Refer to paragraphs 3-1 and 3-2 for information and procedures to be followed when replacing transistors and other solid-state components. (Also see figure 5-1, Transistor Basing Diagrams.)

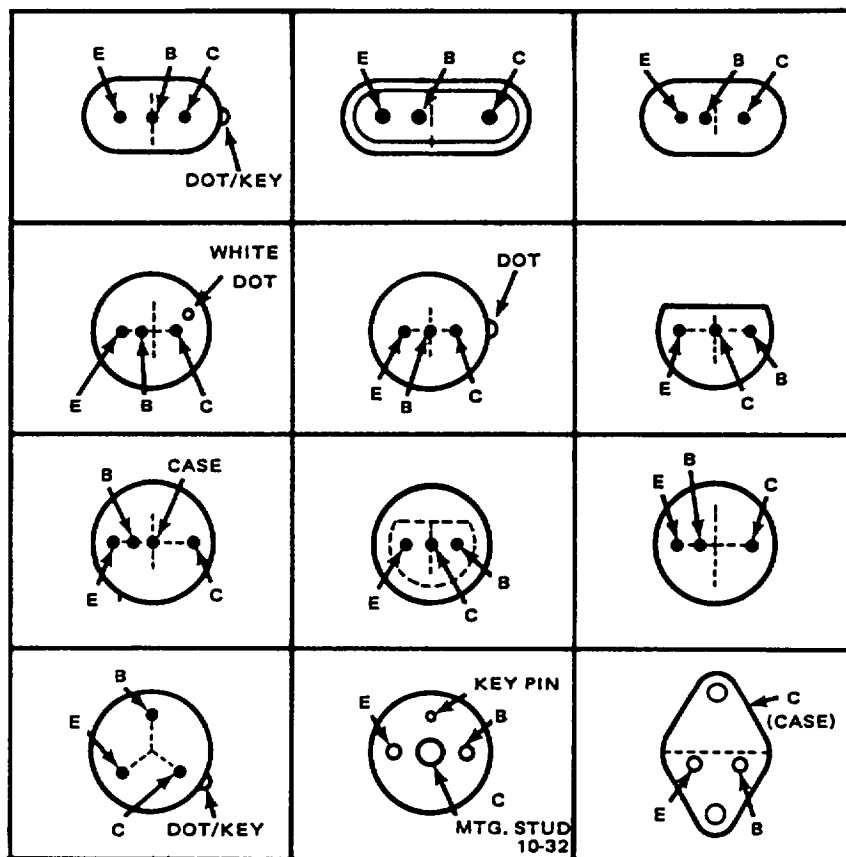


Figure 5-1. Transistor basing diagrams.

TM 6625-1748-45-329

CAUTION

Transistors are sensitive to heat. Excessive heat may destroy transistors and other solid-state devices. Never use a soldering gun when replacing solid-state devices; the induction field from a soldering gun tip may also destroy the device. Transistor lead length may be critical to the proper performance of a circuit; keep lead lengths to a minimum without placing undue mechanical strain (pull) on the leads.

c. Refer to paragraph 3-2 for power transistor replacement techniques. Power transistors used in this equipment are located as follows:

(1) Power transistors in the tuning unit are located on the rear panel, and on pc boards A1, A2 and A3.

(2) Power transistor in the monitor unit is located on the chassis adjacent to pc board A12.

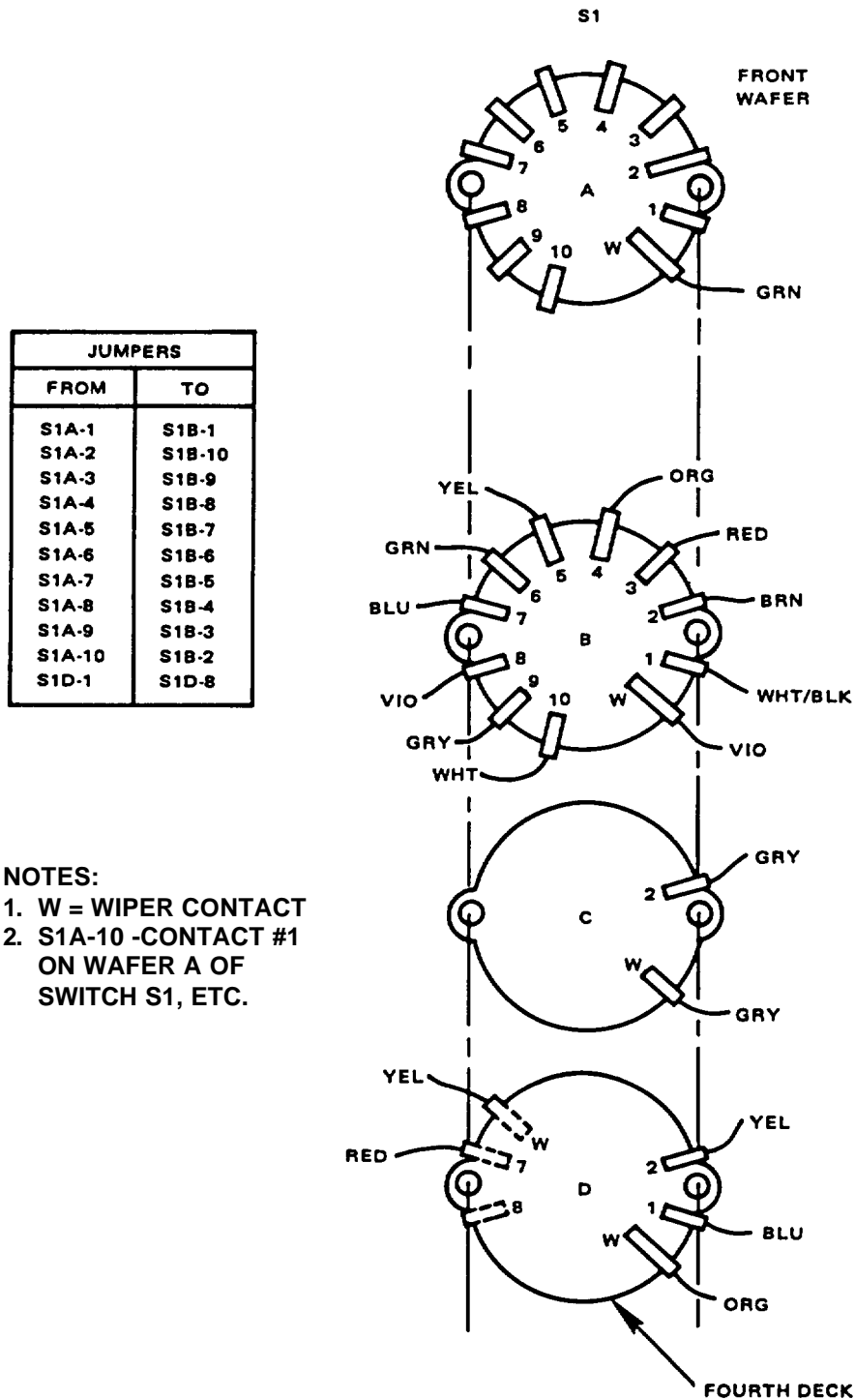
(3) Power transistor in the spectrum analyzer is located on the rear panel adjacent to the power transformer.

5-3. Monitor Unit Switch Repairs and Replacement

a. *SENSITIVITY 1 dB/STEP Switch, S-1.*

(1) Refer to switch wiring diagram (Fig. 5-2) and schematic diagram (Fig. 6-16 (3)) when repairing or replacing switch assembly S-1 and/or its associated components.

(2) After the switch assembly has been repaired and/or replaced, apply power to the monitor unit. Rotate the switch throughout its range and verify that the input level display changes in one dB steps as the switch is rotated.



NOTES:
 1. W = WIPER CONTACT
 2. S1A-10 -CONTACT #1 ON WAFER A OF SWITCH S1, ETC.

Figure 5-2. SENSITIVITY 1 dB / STEP switch S1, wiring Diagram. Audio-Radio Frequency Monitor TS-2968 / U.

b. *SENSITIVITY 10 dB/STEP Switch, S-2*

(1) Refer to the switch wiring diagram (Fig. 5-3) and schematic diagram (Fig. 6-16 (3)) when repairing or replacing switch assembly S2 and/or its associated components.

(2) After the switch assembly has been repaired and/or replaced, apply power to the monitor unit. Rotate the switch throughout its range and verify that the input level display changes in 10 dB steps as the switch is rotated.

c. *SENSITIVITY Switch, S3.*

(1) Refer to the switch wiring diagram (Fig. 5-4) and schematic diagram (Fig. 6-16 (3)) when repairing or replacing switch assembly S3 and/or its associated components.

(2) After repairs and/or replacement of switch S3, check for proper operation as follows:

(a) Connect a coaxial cable from the 19.0 MHz jack (TO 305A-L) on the rear panel of the tuning unit to the INPUT FROM 305A-T 19. MHz jack on the rear of the monitor unit.

(b) Connect a coaxial cable from the 40/72 MHz jack (TO 305A-L) on the rear panel of the tuning unit to the INPUT FROM 305A-T 40/72 MHz jack on the rear panel of the monitor unit.

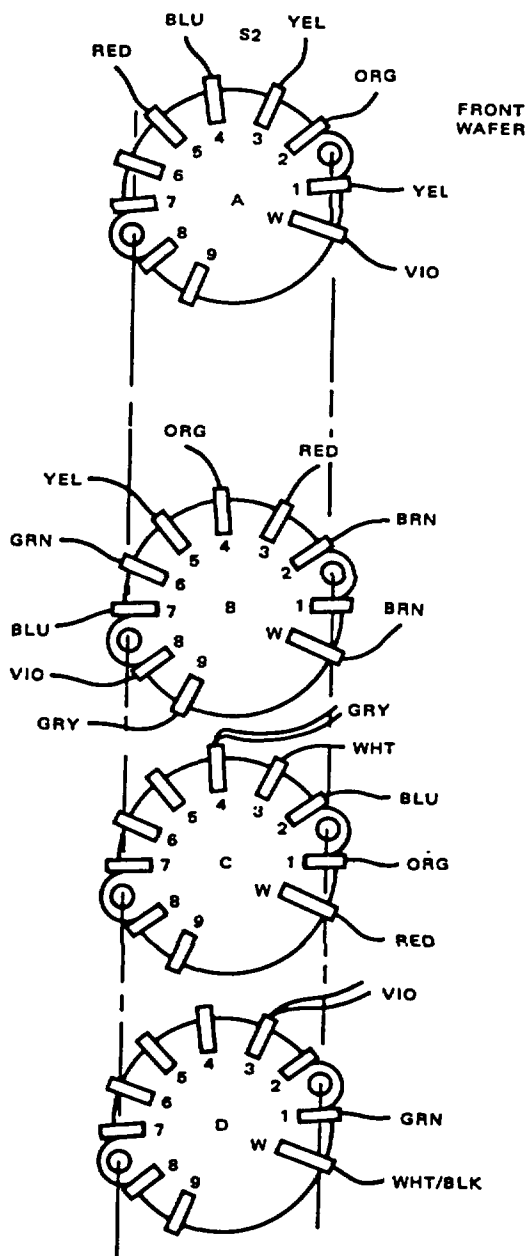
(c) Connect a coaxial cable from the 18.8 MHz jack (TO 305A-L) on the rear panel of the tuning unit to the INPUT FROM 305A-T 18.8 MHz jack on the rear panel of the monitor unit.

(d) Apply ac power to both the tuning unit and the monitor unit.

(e) Connect Signal Generator AN/GRM-50 to the INPUT 75 Ω jack of the monitor unit. Tune the signal generator and the tuning unit to 1.0 MHz.

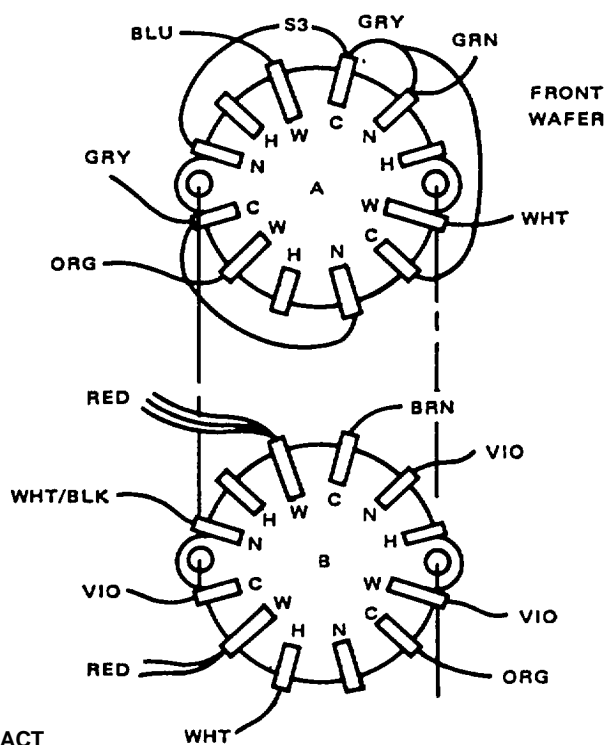
JUMPERS	
FROM	TO
S2A-3	S2B-1
S2A-4	S2B-2
S2A-5	S2B-3
S2A-6	S2B-4
S2A-7	S2B-5
S2A-8	S2B-6
S2A-9	S2B-7
S2C-4	S2C-5
S2C-5	S2C-6
S2C-6	S2C-7
S2C-7	S2C-8
S2C-8	S2C-9
S2D-1	S2D-2
S2D-3	S2D-4
S2D-4	S2D-5
S2D-5	S2D-6
S2D-6	S2D-7
S2D-7	S2D-8
S2D-8	S2D-9

NOTES: W
 1. W = WIPER CONTACT
 2. S2A-3 = CONTACT # 3 ON WAFER A OF SWITCH S2, ETC.



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Figure 5-3. SENSITIVITY 10 dB / STEP Switch S4, wiring diagram, Audio-Radio Frequency Monitor TS-2968/ U.



- NOTES:
1. W = WIPER CONTACT
 2. H = HIGH
 3. N = NORMAL
 4. C = CALIBRATE

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Figure 5-4. SENSITIVITY Switch S3, wiring diagram, Audio-Radio Frequency Monitor TS-2968 / U.

(f) Set the SENSITIVITY switch on the monitor unit to NORM.

(g) Set the SENSITIVITY 1 dBR/STEP and 1 0 dB / STEP attenuators on the monitor unit for an input level display of 0 dBm.

(h) Adjust the output level of the signal generator for 0 dBm.

(i) Readjust the FINE TUNING on the lining for a maximum reading on the monitor DECIBELS meter.

(j) Vary the CAL control on the monitor unit to obtain a reading of exactly 0 dB on the DECIBELS meter.

(k) Reduce the output of the signal generator to -20 dBm.

(l) Turn the SENSITIVITY switch on the monitor unit to HIGH.

(m) Verify that the input level display reading is now -20 dBm.

(n) Verify that the reading on the DECIBELS meter on the monitor unit is between -0.5 and +0.5 dB.

d. Attenuators AT1 and AT2. Rf attenuators AT1 and AT2 are not repairable at either general support or depot maintenance. In case of failure, replace AT1 or AT2 attenuator assembly.

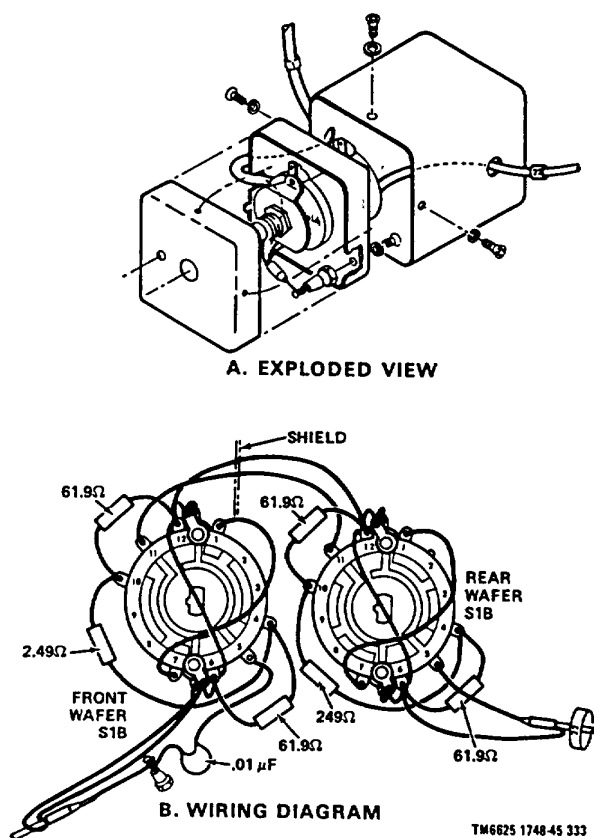


Figure 5-5. Attenuator S1, wiring diagram.

Spectrum Analyzer IP-1018/U.

5-4. Spectrum Analyzer Switch Repairs and Replacements

a. Attenuator Switch S1

(1) *Removal.* To remove the attenuator switch S1, proceed as follows:

(a) Remove the cathode-ray tube in accordance with paragraph 3-4.

(b) Remove the cathode-ray tube shield.

(c) Remove the MARKER IDENT push-button switch from the front panel.

(d) Remove the attenuator assembly from the front panel.

(2) *Disassembly.* Disassemble the attenuator as follows:

(a) Unsolder cable (22) from the MARKER IDENT pushbutton switch.

(b) Disconnect cable (1) from jack J1 (FROM 305A-L 21.1 MHz) on the inside of the rear panel. Free the cable from the wiring harness.

(c) Refer to figure 5-5, A. Remove the screws from the attenuator case. Carefully pull out the front plate and the switch assembly, taking care not to cut or abrade cables (1) and (22) where they pass through the entry holes in the shield.

(3) *Repairs.* Refer to the wiring diagram (B, fig. 5-5) and schematic diagram (fig. 6-17 (1)) when making repairs. Note lead-lengths and dress before making repairs. Duplicate the original lead-lengths and dress when making repairs.

(4) *Tests.* After repairs have been accomplished and *before* replacing the attenuator in the spectrum analyzer, perform the following tests.

(a) Equipment required:

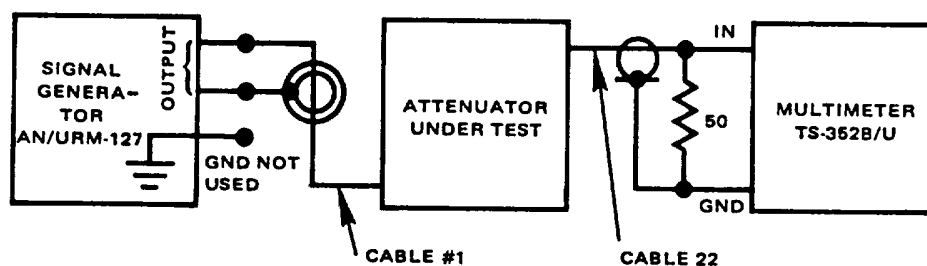
1. Audio Signal Generator

AN/URM-127.

2. Multimeter TS-352B/U.

3. Resistor, composition, 50 ohms, ±5%, 1/2 - 1 watt.

(b) Connect test equipment and resistor to attenuator as shown in figure 5-6.



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Figure 5-6. Attenuator test setup (S1), Spectrum Analyzer IP-1018/ U.

(c) Install control knob on the attenuator shaft. Rotate knob to the fully counterclockwise position.

(d) Tune Signal Generator AN/URM-127 to 100 kHz. Adjust the output level of the signal generator to obtain a reading of 0 dB on the multimeter.

(e) Turn the attenuator control knob one step clockwise.

(f) The reading on the multimeter shall be between -19 and -21 dB.

(g) Turn the attenuator control knob one more step to the fully clockwise position.

(h) The reading on the multimeter shall be between -39 and -41 dB.

(5) *Replacement.* Reassemble and replace the attenuator as follows:

(a) Replaces switch S1 and cover plate in attenuator shield, and secure with screws and lock washers.

(b) Reconnect cable 22 to the MARKER IDENT pushbutton switch.

(c) Mount attenuator in the front panel on the spectrum analyzer.

(d) Mount the MARKER IDENT push-button switch in the panel.

(e) cable (1) in the wiring harness, and reconnect it to jack J1.

(f) Replaces cathode-ray tube shield.

(g) Install and orient the cathode-ray tube in accordance with the instructions given in paragraph 3-4.

b. SWEEP kHz/DIV Switch S4.

(1) Remove pc board A11 and then remove switch S4 from the front panel.

(2) Refer to the switch wiring diagram (fig. 5-7) and schematic diagram (fig. 6-17 (1)) when repairing or replacing switch assembly S4.

5-5. Operational Tests

After performing any of the repairs outlined in this chapter, perform the tests given in chapter 4.

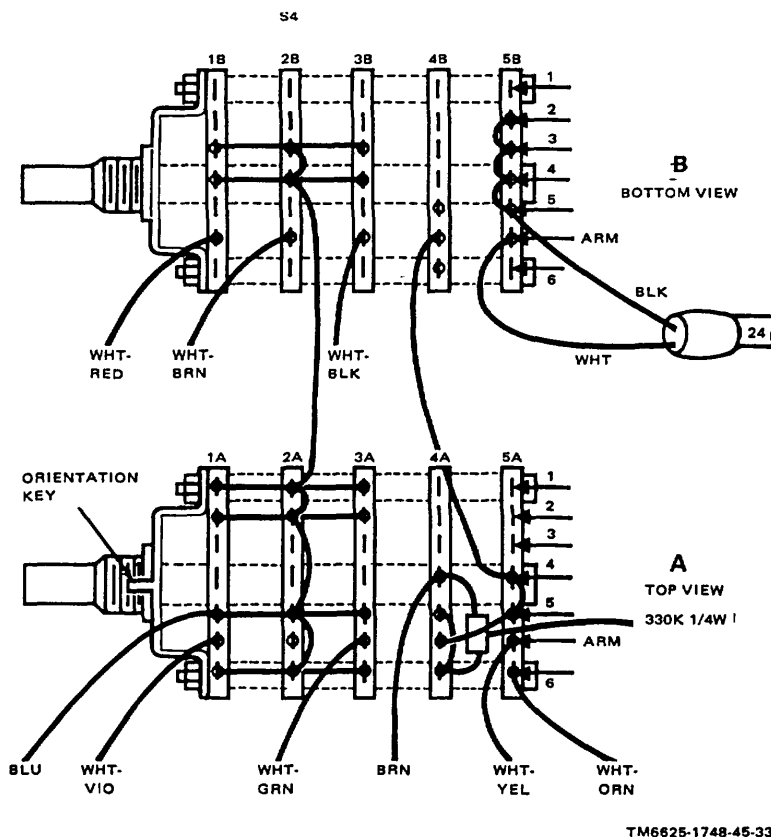


Figure 5-7. SWEEP kHz/ DIV switch S4, wiring diagram, Spectrum Analyzer IP-1018/ U.

CHAPTER 6

DEPOT OVERHAUL STANDARDS

6-1. Applicability of Depot Overhaul Standards

The tests outlined in this chapter are designed to measure tile performance capability of a repaired equipment. Equipment that is to be returned to depot stock should meet the standards given in these tests.

6-2. Applicable References

a. Repair Standards. Applicable procedures of the depots performing these tests and the general

standards for repaired electronic equipment given in TB Sig 355-1. TB Sig 355-2, and TB Sig 355-3 from a part of the requirements for testing this equipment.

b. Modification work Orders. Perform all modification work orders applicable to this equipment before making the tests specified. DA Pam 310-7 list all available MWO's.

6-3. Test Equipment Required

<i>Nomenclature</i>	<i>Technical manual</i>	<i>Common name</i>
Voltmeter, Electronic AN/URM-145	TM 11-6625-524-15-1	Voltmeter, Electronic AN/URM 145
Digital Readout, Electronic Counter AN/USM-207A	TM 11-6625-700-14	Digital Readout, Electronic Counter
Signal Generator AN/GRM-50 Transformer, Power Variable TF 171/USM	TM 11-6625-573-15	Signal generator Transformer, Power, Variable TF
Cable. Coaxial. 50-ohm. with male BNC connectors on each end. minimum 36 inches in length		
Cable. Coaxial. 75-ohm, with male BNC connectors on each end. minimum 36 inches in length		
50 to 75 ohm Matching Pad. locally fabricated. (see para. 4-3 and fig. 4-1)		
Coaxial "T" Connector, type BNC, 50-ohm, one female and to male connectors		
Headset. H-216/ U		

6-4. Depot Overhaul Tests

To perform the depot overhaul standard tests, perform tests given in paragraphs 4-4 through 4-12.

(Figures 6-1 through 6-17 (2) are located in back of manual.)

APPENDIX A

REFERENCES

Following is a list of references available to the general support and depot maintenance personnel of Test Set, Radio AN/USM-306(V)1.

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8 and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-4	US Army Equipment Index of Modification Work Orders.
TB Sig 355-1	Depot Inspection Standard for Repaired Signal Equipment.
TB Sig 355-2	Depot Inspection Standard for Refinishing Repaired Signal.
TB Sig 355-4	Depot Inspection Standards for Balancing Rotating Parts and Assemblies.
TM 11-6625-320-12	Operator and Organizational Maintenance Manual: Voltmeter, Meter ME-30A/U and Voltmeters, Electronic ME-30B/U, ME-30C/U, and ME-30E/U.
TM 11-6625-366-15	Operator's, Organizational. DS, GS, and Depot Maintenance Manual: Multimeter TS-352B/U.
TM 11-6625-524-15-1	Operator, Organizational, DS, GS, and Depot Maintenance Manual: Electronics Voltmeter AN/URM-145.
TM 11-6625-573-15	Operator, Organizational, DS, GS, and Depot Maintenance Manual: Signal Generator AN/GRM-50.
TM 11-662.5-683-15	Operator, Organizational, Direct Support, General Support, and Depot Maintenance Manual: Signal Generator AN/URM-127.
TM 11-6625-700-14	Operator, Organizational, Direct Support, General Support Maintenance Manual Including Repair Parts and Special Tools List: Digital Readout, Electronic Counter AN/USM-207A.
TM 11-6625-1703-15	Operator, Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tool lists: Oscilloscope AN/USM-281A.
TM 11-6625-1748-12	Operator and Organizational Maintenance Manual Including Repair Parts and Special Tools Lists: Test Set, Radio AN / USM-306(V)1.
TM 38-750	The Army Maintenance Management Systems (TAMMS).

APPENDIX B

GENERAL SUPPORT AND
DEPOT REPAIR PARTS AND SPECIAL TOOLS LISTS

Section I. INTRODUCTION

B-1 Scope

This appendix lists repair parts required for the performance of general support and depot maintenance for the AN/USM-306(V)1.

NOTE

No special tools, or test equipment is required.

B-2. General

This repair parts list is divided into the following sections:

a. Repair Parts for Direct Support, General Support, and Depot Maintenance - Section II. A list of repair parts authorized for the performance of maintenance at the general support and depot level.

b. Index-Federal Stock Number and Reference Number Cross Reference to Figure and Item Number or Reference Designation - Section III. A list of Federal stock numbers in ascending numerical sequence, followed by a list of reference numbers in ascending alphanumeric sequence, cross-referenced to the illustration figure number and reference designation.

c. Index-Reference Designation Cross-Reference to Page Number - Section IV. A list of reference designation cross-referenced to page numbers.

B-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists:

a. Source, Maintenance, and Recoverability Codes SMR).

(1) Source code indicates the selection status and source for the listed item. Source codes are:

<i>Code</i>	<i>Explanation</i>
PA	Item procured and stocked for anticipation or known usage.
MD.....	Item to be manufactured or fabricated at the depot maintenance level.
XA.	Item is not procured or stocked because the requirement for the item will result in the replacement of the next higher assembly or component.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA, and aircraft support items as restricted by AR 700-42.

(2) *Maintenance Code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows.

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

<i>Code</i>	<i>Application / Explanation</i>
O	Support item is removed, replaced, used at the organizational level.
H	Support item is removed, replaced, used at the general support level.
D	Support items that are removed, replaced, used at depot, mobile depot, specialized repair activity only.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes:

<i>Code</i>	<i>Application / Explanation</i>
H	The lowest maintenance level capable of complete repair of the support item is the general support level.
D	The lowest maintenance level capable of complete repair of the support item is the depot level, performed by depot.
Z.....	Nonreparable. No repair is authorized.

(3) *Recoverability Code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

<i>Codes</i>	<i>Definition</i>
Z.....	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
H.....	Reparable item. When uneconomically reparable, condemn and dispose at the general support level.
D.....	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.

b. Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description. Indicates the Federal item name an any additional description of the item required. A part number or other reference number is followed by the applicable five-digit Federal Supply Code for Manufactures (FSCM) in parentheses.

d. Unit of Measure (U/M). A two-character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g, ft, ea, pr, etc.

e. Quantity Incorporated in Unit. Indicates the quantity of the item used in the AN/USM-306(V1). Subsequent appearances of the same item in the same assembly are indicated by the letters "REF".

f. Allowances (15-Day Organizational Maintenance, 30-Day DS/GS Maintenance, 1 Year per Equipment (Contingency), and Depot Maintenance). Items authorized for requisition as required are identified by an asterisk in the allowance column.

h. Illustrations. This column is divided as follows:

(1) *Figure number.* Indicates the figure number of the illustration on which the item is shown.

(2) *Item number or reference designation.* Indicates the reference designation used to identify the item in the illustration.

B-4. Special Information.

Not applicable.

B-5. Location of Repair Parts

a. This appendix contains two cross-reference indexes (sec. III and sec. IV) to be used to locate a repair part when either the Federal stock number, reference number (manufacturer's part number), or reference designation is known. The first column in each index is prepared in numerical or alphanumeric sequence in ascending order. Where a Federal stock number is not listed, refer to the reference number (manufacturer's part number) immediately following the last listed Federal stock number.

b. When the Federal stock number or reference number is known, follow the procedures given in (1) and (2) below.

(1) Refer to the index of Federal stock numbers (sec. III) and locate the Federal stock number or reference number. The Federal stock number or reference number is cross-referenced to the applicable figure and reference designation.

(2) When the reference designation is determined, refer to the reference designation index (sec. IV). The reference designations are listed in alphanumeric ascending order and are cross-referenced to the page number on which they appear in the repair parts lists (sec. II). Refer to the page number noted in the index and locate the reference designation in the repair parts list (col. 10b).

c. When the reference designation is known, follow the procedures given in *b(2)* above.

d. When neither the Federal stock number, reference number, nor reference designation is known, identify the part in the illustration and follow directions given in *c* above; or scrutinize column 3 of the repair parts list (sec. II).

B-6. Federal Supply Codes for Manufacturers

The Federal supply code for manufacturers is an element in item identification, or distributor, or Government agency, etc. and is identified in SB 708-42.

(Next printed page is B-5).

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION								
	6625-459-8568	TEST SET, RADIO AN/USM-306(V)1 (THIS ITEM IS NONEXPENDABLE)	EA	1										
PAHHH	6625-439-6156	ADAPTER, PROBE MX-8640/U 233A1 (54778)	EA	1				*	*	*	*		1-1	A3
PAHZZ	5820-185-7220	BODY, TIP, BNC-TYPE C02710500 (54778)	EA	1				*	*	*	*		1-1	A3MP3
PAHZZ	935-853-7596	CONNECTOR RECEPTACLE, ELECTRICAL UG1094U (91737)	EA	1				*	*	*	*		1-1	A3J1
PAHZZ		PIN, DETENT B02639800 (94668)	EA	1				*	*	*	*		1-1	A3MP1
PAHZZ	6625-173-7078	PLATE, FIXED CONTACT, SUBASSEMBLY B02640100 (54778)	EA	1				*	*	*	*		1-1	A3MP2
PAHZZ		TERMINAL, LUG 341 (79963)	EA	2				*	*	*	*			H2
PAHHH	6625-465-1733	ANALYZER, SPECTRUM IP-1018/U 360B (54778)	EA	1				*	*	*	*		1-1	A7
PAHHH	6625-240-9547	AMPLIFIER, VARIABLE FREQUENCY OS- CILLATOR C02300400 (54778)	EA	1				*	*	*	*		2-101	A7A2
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	19				*	*	*	*		2-101	A7A2C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C9
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C16
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C18
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C19
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C8
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C17
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C20
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C22
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*		2-101	A7A2C24

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE		FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION						
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-101	A7A2C23
PAHZZ	5910-925-6581	CAPACITOR, FIXED CERAMIC DDM103 (71590)	EA	REP				*	*	*	*	*	2-101	A7A2C25

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)	EA	3				*	*	*	*	*	2-101	A7A2C7
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)	EA	REF				*	*	*	*	*	2-101	A7A2C21
PAHZZ		CAPACITOR, FIXED MICA DM15-101J (04062)	EA	REF				*	*	*	*	*	2-101	A7AC15
PAHZZ	5910-058-1660	CAPACITOR, FIXED, MICA DM15-151J(04062)	EA	1				*	*	*	*	*	2-101	A7A2C15
PAHZZ	5910-713-4309	CAPACITOR, FIXED, MICA DM15-680G (04062)	EA	1				*	*	*	*	*	2-101	A7A2C4
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	3				*	*	*	*	*	2-101	A7A2L1
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	REF				*	*	*	*	*	2-101	A7A2L2
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	REF				*	*	*	*	*	2-101	A7A2L3
PAHZZ	5955-762-8501	CRYSTAL, QUARTZ 912200037 (54778)	EA	1				*	*	*	*	*	2-101	A7A2Y1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	6				*	*	*	*	*	2-101	A7A2E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-101	A7A2E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-101	A7A2E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-101	A7A2E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-101	A7A2E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-101	A7A2E7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	5				*	*	*	*	*	2-101	A7A2R7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R9
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R17
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R19
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	RE				*	*	*	*	*	2-101	A7A2R28
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R6
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	5				*	*	*	*	*	2-101	A7A2R26
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R10
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R11
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R16
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R21

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE		FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION						
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R5
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RPC07GF183J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R2
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*	2-101	A7A2R12
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R14
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-101	A7A2R3
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R8
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	3				*	*	*	*	*	2-101	A7A2R15
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R20
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	RE				*	*	*	*	*	2-101	A7A2R25
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R23
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R1
PAHZZ	5905-135-6045	RESISTOR, FIXED, COMPOSITION RC07GF330J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R4
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-101	A7A2R18
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	2				*	*	*	*	*	2-101	A7A2R13
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	REF				*	*	*	*	*	2-101	A7A2R32
PAHZZ		RESISTOR, VARIABLE 385PC201A (11237)	EA	2				*	*	*	*	*	2-101	A7A2R29
PAHZZ		RESISTOR, VARIABLE 385PC201A (11237)	EA	REF				*	*	*	*	*	2-101	A7A2R30
PAHZZ	5950-492-5391	TRANSFORMER, INTERMEDIATE FRE- A02223200 (54778)	EA	2				*	*	*	*	*	2-101	A7A2T1
PAHZZ	5950-492-5391	TRANSFORMER, INTERMEDIATE FRE- A02223200 (54778)	EA	REF				*	*	*	*	*	2-101	A7A2T2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	4				*	*	*	*	*	2-1-1	A7A2Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REP				*	*	*	*	*	2-101	A7A2Q4
PAHZZ	5961-943-7572	TRANSISTOR 2W3563 (07263)	EA	REF				*	*	*	*	*	2-101	A7A2Q5
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-101	A7A2Q6
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	2				*	*	*	*	*	2-101	A7A2Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	REF				*	*	*	*	*	2-101	A7A2Q2
PAHZZ	5310-846-8951	WASHER, NONMETALLIC 2518 (8330)	EA	2				*	*	*	*	*	2-101	H2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE		FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION						
PAHHH	5999-235-5044	ATTENUATOR ASSEMBLY C02223000 (54778)	EA	1				*	*	*	*	*	2-99	A7A1
PAHZZ	5995-137-6094	CABLE ASSEMBLY, RADIO FREQUENCY B02303103 (94668)	EA	1				*	*	*	*	*		A7A1E1
PAHZZ	5990-137-6110	CABLE ASSEMBLY, RADIO FREQUENCY C02303201 (54778)	EA	1				*	*	*	*	*		A7A1E2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*		A7A1C1
PAHZZ	5305-054-5644	SCREW MS35338, (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5310-550-3715	WASHER MS35338-135 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5940-707-4262	INSULATOR, STANDOFF 2045-1 (71279)	EA	1				*	*	*	*	*		A7A1E3
PAHZZ		RESISTOR, FIXED, FILM CBCT2-249-1PCT (11502)	EA	2				*	*	*	*	*	2-99	A7A1R2
PAHZZ		RESISTOR, FIXED, FILM CBCT2-249-1PCT (11502)	EA	REF				*	*	*	*	*	2-99	A7A1R5
PAHZZ	5905-138-3352	RESISTOR, FIXED, FILM CBCT2-61R9-1PCT (11502)	EA	4				*	*	*	*	*	2-99	A7A1R1
PAHZZ	5905-138-3352	RESISTOR, FIXED, FILM CBCT2-61R9-1PCT (11502)	EA	REF				*	*	*	*	*	2-99	A7A1R3
PAHZZ	5905-138-3352	RESISTOR, FIXED, FILM CBCT2-61R9-1PCT (11502)	EA	REF				*	*	*	*	*	2-99	A7A1R4
PAHZZ	5905-138-3352	RESISTOR, FIXED., FILM CBCT2-61R9-1PCT (11502)	EA	REF				*	*	*	*	*	2-99	A7A1R6
PAHZZ	5930-137-8841	SWITCH, ROTARY 911200122 (54778)	EA	1				*	*	*	*	*	2-99	A7A1S1
PAHZZ		TERMINAL, LUG 333 (79963)	EA	8				*	*	*	*	*		H2
PAHZZ	6695-174-3474	BEZEL INSTRUMENT MOUNTING C02703000 (54778)	EA	1				*	*	*	*	*		A7MP7
PAHZZ	6625-240-9543	BANDWIDTH INSTRUMENT FREQUENCY 35 HERTZ C02302000 (54778)	EA	1				*	*	*	*	*	2-117	A7A10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-117	A7A10C9
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	8				*	*	*	*	*	2-117	A7A10C1
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C2
PAHZZ	5910-847-0030	CAPACITOR FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C3
PAHZZ	5910-847-0030	CAPACITOR FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C4
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C5
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C6
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C7
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-117	A7A10C8
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	2				*	*	*	*	*	2-117	A7A10L1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT			(7) 30-DAY GS MAINT			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					ALLOWANCE			ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WE100 (43543)	EA	REF				*	*	*	*	*	2-117	A7A10L2
PAHZZ	5915-238-0475	FILTER, BANDPASS 910100038 (54778)	EA	1				*	*	*	*	*	2-117	A7A10FL1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*	2-117	A7A10E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-117	A7A10E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-117	A7A10E4
MDHHH		PRINTED WIRING BOARD 904500164 (54778)	EA	1									2-117	A7A10E1
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	2				*	*	*	*	*	2-117	A7A10R10
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-117	A7A10R13
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	1				*	*	*	*	*	2-117	A7A10R2
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349) -	EA	1				*	*	*	*	*	2-117	A7A10R8
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-117	A7A10R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-117	A7A10R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-117	A7A10R9
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-117	A7A10R4
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-117	A7A10R1
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF473J (81349)	EA	1				*	*	*	*	*	2-117	A7A10R11
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF68LJ (81349)	EA	2				*	*	*	*	*	2-117	A7A10R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF68LJ (81349)	EA	REF				*	*	*	*	*	2-117	A7A10R7
PAHZZ	5910-517-9330	RESISTOR VARIABLE RP5010 (01121)	EA	1				*	*	*	*	*	2-117	A7A10R5
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (07263)	EA	2				*	*	*	*	*	2-117	A7A10Q1
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (07263)	EA	REF				*	*	*	*	*	2-117	A7A10Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3565 (07263)	EA	1				*	*	*	*	*	2-117	A7A10Q3
PAHHH	6625-240-9544	BANDWIDTH INTERMEDIATE FREQUENCY, C02301900 (54778)	EA	1				*	*	*	*	*	2-117	A7A9
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-115	A7A9C9
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41E6 (56289)	EA	8				*	*	*	*	*	2-115	A7A9C1
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C2
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION								
PAHZZ	5910-847-0030	CAPACITOR FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C4
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C5
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C6
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C7
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-115	A7A9C8
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	2				*	*	*	*	*	2-115	A7A9L1
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-115	A7A9L2
PAHZZ	5915-232-2827	FILTER, BANDPASS 910100023 (54778)	EA	1				*	*	*	*	*	2-115	A7A9FL1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*	2-115	A7A9E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-115	A7A9E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-115	A7A9E4
PAHZZ	5905-141-1182	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	2				*	*	*	*	*	2-115	A7A9R9
PARZZ	5905-141-1182	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-115	A7A9R12
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R5
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R2
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R11
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R3
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R4
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R1
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF473J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R10
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF683J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-115	A7A9R8
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (07263)	EA	2				*	*	*	*	*	2-115	A7A9Q1
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (07263)	EA	REF				*	*	*	*	*	2-115	A7A9Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	1				*	*	*	*	*	2-115	A7A9Q3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE	FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION							
PAHZZ	5995-137-6093	CABLE ASSEMBLY, RADIO FREQUENCY B02303101 (54778)	EA	1				*	*	*	*	*		A7E1
PAHZZ	5995-137-6109	CABLE ASSEMBLY, RADIO FREQUENCY B02303102 (94668)	EA	1				*	*	*	*	*		A7E2
PAHZZ	5995-137-6087	CABLE ASSEMBLY, RADIO FREQUENCY B02303104 (54778)	EA	1				*	*	*	*	*		A7E3
PAHZZ	5995-137-6089	CABLE ASSEMBLY, RADIO FREQUENCY B02303105 (94668)	EA	1				*	*	*	*	*		A7E4
PAHZZ	5995-137-6102	CABLE ASSEMBLY, RADIO FREQUENCY B02303106 (54778)	EA	1				*	*	*	*	*		A7E5
PAHZZ	5995-137-6095	CABLE ASSEMBLY, RADIO FREQUENCY B02324201 (54778)	EA	1				*	*	*	*	*		A7E6
PAHZZ	5995-137-6116	CABLE ASSEMBLY, RADIO FREQUENCY B02324202 (94668)	EA	1				*	*	*	*	*		A7E7
PAHZZ	5995-137-6107	CABLE ASSEMBLY, RADIO FREQUENCY B02324203 (54778)	EA	1				*	*	*	*	*		A7E8
PAHZZ	5995-137-6117	CABLE ASSEMBLY, RADIO FREQUENCY B02324204 (54778)	EA	1				*	*	*	*	*		A7E9
PAHZZ	5995-137-6118	CABLE ASSEMBLY, RADIO FREQUENCY B02324205 (54778)	EA	1				*	*	*	*	*		A7E10
PAHZZ	5995-137-6088	CABLE ASSEMBLY, RADIO FREQUENCY B02324206 (54778)	EA	1				*	*	*	*	*		A7E11
PAHZZ	5995-137-6103	CABLE ASSEMBLY, RADIO FREQUENCY B02324207 (54778)	EA	1				*	*	*	*	*		A7E12
PAHZZ	5995-137-6104	CABLE ASSEMBLY, RADIO FREQUENCY B02324208 (54778)	EA	1				*	*	*	*	*		A7E13
PAHZZ		CABLE ASSEMBLY, RADIO FREQUENCY B02324209 (54778)	EA	1				*	*	*	*	*		A7E14
PAHZZ	5995-137-6119	CABLE ASSEMBLY, RADIO FREQUENCY B02324210 (54778)	EA	1				*	*	*	*	*		A7E15
PAHZZ	5995-137-6110	CABLE ASSEMBLY, RADIO FREQUENCY C02303201	EA	1				*	*	*	*	*		A7E16
PAHZZ	5995-134-5590	CABLE ASSEMBLY, RADIO FREQUENCY C02322600 (54778)	EA	1				*	*	*	*	*		A7W1
PAHZZ	5935-933-4387	CONNECTOR, PLUG ELECTRICAL KC59-78 (11636)	EA					*	*	*	*	*		A7W1P1
PAHZZ	5995-134-5590	CABLE ASSEMBLY, RADIO FREQUENCY C02322600 (54778)	EA	1				*	*	*	*	*		A7W2
PAHZZ	5935-933-4387	CONNECTOR, PLUG ELECTRICAL KC59-78 (11636)	EA	1				*	*	*	*	*		A7W1P2
PAHZZ	5995-137-6097	CABLE ASSEMBLY, RADIO FREQUENCY C02323900 (54778)	EA	1				*	*	*	*	*		A7E17
PAHZZ	6150-949-9348	CABLE ASSEMBLY, POWER 17258 (70903)	EA	1				*	*	*	*	*		A7E18
PAHZZ	5910-686-6428	CAPACITOR, FIXED CERAMIC DD30-502 (71590)	EA	1				*	*	*	*	*		A7C3
PAHZZ	5910-902-1186	CAPACITOR, FIXED, ELECTROLYTIC 39D118G050HP4 (56289)	EA	2				*	*	*	*	*	2-13	A7C1
PAHZZ	5910-902-1186	CAPACITOR, FIXED, ELECTROLYTIC 39D118G050HP4 (56289)	EA	REF				*	*	*	*	*	2-13	A7C2
PAHZZ		BOLT, EYE 52120 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					FIG. NO.		ITEM NO. OR REFERENCE DESIGNATION							
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	5935-018-8845	CONNECTOR, RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	1				*	*	*	*	*		A7A17J1
PAHZZ		CLIP, LAMP CARTRIDGE 7538XP51 (72619)	EA	2				*	*	*	*	*		A7MP10
PAHZZ		CLIP, LAMP CARTRIDGE 7538XP51 (72619)	EA	REF				*	*	*	*	*		A7MP11
PAHZZ		NUT, ASSEMBLED, WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-5647	SCREW, MACHINE MS51957-13 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		CONNECTOR, .RECEPTACLE, ELECTRICAL AC3G (87930)	EA	1				*	*	*	*	*		A7J3
PAHZZ	5935-853-7596	CONNECTOR, .RECEPTACLE, ELECTRICAL UG1094U (91737)	EA	2				*	*	*	*	*		A7J1
PAHZZ	5935-853-7596	CONNECTOR, .RECEPTACLE, ELECTRICAL UG1094U (91737)	EA	REF				*	*	*	*	*		A7J2
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	6				*	*	*	*	*		A7J8
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J11
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J13
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J14
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J16
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J17
PAHZZ		NUT, SELFLOCKING 79NM40 (72962)	EA	12				*	*	*	*	*		H12
PAHZZ		SCREW, MACHINE MS51957-17 (96906)	EA	12				*	*	*	*	*		H12
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	8				*	*	*	*	*		A7J4
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J5
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J6
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J7
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J9
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J10
PAHZZ	5935-018-8845	CONNECTOR, .RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*	*		A7J12
PAHZZ		NUT, SELFLOCKING 79NM40 (72962)	EA	16				*	*	*	*	*		H16
PAHZZ		SCREW, MACHINE MS51957-17 (96906)	EA	16				*	*	*	*	*		H16

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5935-018-8845	CONNECTOR, RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*		A7J15	
PAHZZ	5935-018-8845	CONNECTOR, RECEPTACLE, ELECTRICAL 2VK15S1-2 (05574)	EA	REF				*	*	*	*		A7J18	
MDHHH		COUPLING, SHAFT, RIGID 39023 (96487)	EA	2									A7MP8	
MDHHH		COUPLING, SHAFT, RIGID 39023 (96487)	EA	REF									A7MP9	
PAHHH		CRYSTAL, OSCILLATOR C02302100	EA	1				*	*	*	*	2-119	A7A11	
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	5				*	*	*	*	2-119	A7A11C1	
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	2-119	A7A11C2	
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	2-119	A7A11C3	
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	2-119	A7A11C4	
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	2-119	A7A11C5	
PAHZZ	5950-063-9238	COIL, RADIO FREQUENCY WEE33 (43543)	EA	1				*	*	*	*	2-119	A7A11L1	
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	1				*	*	*	*	2-119	A7A11E2	
PAHZZ	6625-470-8340	OSCILLATOR 919900012 (54778)	EA	1				*	*	*	*	2-119	A7A11VCX0	
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	2-119	A7A11R2	
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	1				*	*	*	*	2-119	A7A11R8	
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	1				*	*	*	*	2-119	A7A11R4	
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	2-119	A7A11R7	
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	2-119	A7A11R5	
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)	EA	1				*	*	*	*	2-119	A7A11R1	
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	2-119	A7A11R3	
PAHZZ	5905-517-9330	RESISTOR, VARIABLE RP5010 (01121)	EA	1				*	*	*	*	2-119	A7A11R6	
PAHZZ	5905-900-0175	RESISTOR, VARIABLE 3068P1-204 (80297)	EA	1				*	*	*	*	2-119	A7A11R9	
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	1				*	*	*	*	2-119	A7A11Q1	
PAHZZ	5960-138-7210	ELECTRON TUBE 910700112 (54778)	EA	1				*	*	*	*	2-3	A7V1	
PAOZZ	5920-280-8344	FUSE, CARTRIDGE 313.500 (81349)	EA	1				*	*	*	*	2-3	A7F1	
PAOZZ	5920-280-8344	FUSE, CARTRIDGE 312.500 (81349)	EA	1				*	*	*	*	2-3	A7F2	
PAHZZ	5920-973-1276	FUSEHOLDER HKP (75915)	EA	2				*	*	*	*	2-3	A7XF1	

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE		FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION						
PAHZZ	5920-973-1276	FUSEHOLDER HKP (75915)	EA	REF										A7XF2
PAHZZ	6625-240-9551	HORIZONTAL AMPLIFIER C0230260 (54778)	EA	1									2-129	A7A16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1									2-129	A7A16C1
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	1									2-129	A7A16C2
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC SCM106BP015D4 (01295)	EA	1									2-129	A7A16C5
PAHZZ		CAPACITOR, FIXED, PAPER DPMS2P1 (88419)	EA	2									2-129	A7A16C3
PAHZZ		CAPACITOR, FIXED, PAPER DPMS2P1 (88419)	EA	REF									2-129	A7A16C4
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	2									2-129	A7A16L1
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF									2-129	A7A16L2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA					*	*	*	*	*	2-129	A7A16E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-129	A7A16E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-129	A7A16E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-129	A7A16E5
PAHZZ		INSULATOR, STANDOFF 1932X4 (88822)	EA	REF				*	*	*	*	*	2-129	A7A16E6
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-129	A7A16R12
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-129	A7A16R13
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)	EA	1				*	*	*	*	*	2-129	A7A16R6
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	2				*	*	*	*	*	2-129	A7A16R5
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	REF				*	*	*	*	*	2-129	A7A16R7
PAHZZ	5905-681-8855	RESISTOR, FIXED, COMPOSITION RC07GF394J (81349)	EA	2				*	*	*	*	*	2-129	A7A16R3
PAHZZ	5905-681-8855	RESISTOR, FIXED, COMPOSITION RC07GF394J (81349)	EA	REF				*	*	*	*	*	2-129	A7A16R10
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	2				*	*	*	*	*	2-129	A7A16R1
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-129	A7A16R11
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	2				*	*	*	*	*	2-129	A7A16R2
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	REF				*	*	*	*	*	2-129	A7A16R9
PAHZZ	5905-119-3505	RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	2				*	*	*	*	*	2-129	A7A16R4
PAHZZ	5905-119-3505	RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-129	A7A16R8

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ		TRANSISTOR SE7001 (07263)	EA	2				*	*	*	*	*	2-129	A7A16Q2
PAHZZ		TRANSISTOR SE7001 (07263)	EA	REF				*	*	*	*	*	2-129	A7A16Q4
PAHZZ	5961-947-8263	TRANSISTOR 2N3568 (07263)	EA	1				*	*	*	*	*	2-129	A7A16Q3
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	2				*	*	*	*	*	2-129	A7A16Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	REF				*	*	*	*	*	2-129	A7A16QS
PAHHH	6625-240-9541	MEGAHERTZ INTERMEDIATE FREQUENCY C02302200 (94668)	EA	1				*	*	*	*	*	2-121	A7A12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-121	A7A12C21
PAHZZ	5910-965-9441	CAPACITOR, FIXED, MICA DM19-102J (04062)	EA	4				*	*	*	*	*	2-121	A7A12C4
PAHZZ	5910-965-9441	CAPACITOR, FIXED, MICA DM19-102J (04062)	EA	REF				*	*	*	*	*	2-121	A7A12C8
PAHZZ	5910-965-9441	CAPACITOR, FIXED, MICA DM19-102J (04062)	EA	REF				*	*	*	*	*	2-121	A7A12C12
PAHZZ	5910-965-9441	CAPACITOR, FIXED, MICA DM19-102J (04062)	EA	RE				*	*	*	*	*	2-121	A7A12C16
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	4				*	*	*	*	*	2-121	A7A12C5
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	REF				*	*	*	*	*	2-121	A7A12C9
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	REF				*	*	*	*	*	2-121	A7A12C13
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	REF				*	*	*	*	*	2-121	A7A12C17
PAHZZ	5950-689-1358	COIL, VARIABLE A02223600 (54778)	EA	4				*	*	*	*	*	2-121	A7A12L6
PAHZZ	5950-689-1358	COIL, VARIABLE A02223600 (54778)	EA	REF				*	*	*	*	*	2-121	A7A12L7
PAHZZ	5950-689-1358	COIL, VARIABLE A02223600 (54778)	EA	REF				*	*	*	*	*	2-121	A7A12L8
PAHZZ	5950-689-1358	COIL, VARIABLE A02223600 (54778)	EA	REF				*	*	*	*	*	2-121	A7A12L9
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	12				*	*	*	*	*	2-121	A7A12C1
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C2
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C3
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C6
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C7
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C10
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C11
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C14

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION								
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C15
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C18
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C19
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-121	A7A12C20
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	5				*	*	*	*	*	2-121	A7A12L1
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-121	A7A12L2
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-121	A7A12L3
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-121	A7A12L4
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-121	A7A12L5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	5				*	*	*	*	*	2-121	A7A12E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-121	A7A12E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-121	A7A12E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-121	A7A12E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-121	A7A12E6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	3				*	*	*	*	*	2-121	A7A12R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R17
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R22
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	2				*	*	*	*	*	2-121	A7A12R7
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)	EA	1				*	*	*	*	*	2-121	A7A12R24
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	5				*	*	*	*	*	2-121	A7A12R2
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R11
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R16
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R21
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-121	A7A12R1
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	4				*	*	*	*	*	2-121	A7A12R8

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT			(7) 30-DAY GS MAINT			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
					ALLOWANCE			ALLOWANCE					(a)	(b)	(c)	(a)	(b)
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100							
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R13			
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R18			
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R23			
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	4				*	*	*	*	*	2-121	A7A12R26			
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R27			
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R28			
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R29			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-121	A7A12R5			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	4				*	*	*	*	*	2-121	A7A12R10			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R15			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R20			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R25			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	4				*	*	*	*	*	2-121	A7A12R4			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R9			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R14			
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-121	A7A12R19			
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	5				*	*	*	*	*	2-121	A7A12Q1			
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	REF				*	*	*	*	*	2-121	A7A12Q2			
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	REF				*	*	*	*	*	2-121	A7A12Q3			
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	REF				*	*	*	*	*	2-121	A7A12Q4			
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	REF				*	*	*	*	*	2-121	A7A12Q5			
PAHZZ	5310-846-8951	WASHER, NONMETALLIC 6707 (71002)	EA	4				*	*	*	*	*	2-121	H2			
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	2				*	*	*	*	*	2-14	A7L1			
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	REF				*	*	*	*	*	2-14	A7L2			
PAOZZ		KNOB 916000090 (54778)	EA	2				*	*	*	*	*		A7MP12			
PAOZZ		KNOB 916000090 (54778)	EA	REF				*	*	*	*	*		A7MP13			
PAOZZ		KNOB 916000103 (54778)	EA	5				*	*	*	*	*		A7MP14			

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
PAOZZ		KNOB 916000103 (54778)	EA	REF				*	*	*	*	*		A7MP15
PAOZZ		KNOB 916000103 (54778)	EA	REF				*	*	*	*	*		A7MP16
PAOZZ		KNOB 916000103 (54778)	EA	REF				*	*	*	*	*		A7MP17
PAOZZ		KNOB 916000103 (54778)	EA	REF				*	*	*	*	*		A7MP18
PAHZZ	6250-717-5871	LAMPHOLDER 7538XP50 (72619)	EA	2				*	*	*	*	*	2-3	A7XDS2
PAHZZ	6250-717-5871	LAMPHOLDER 7538XP50 (72619)	EA	REF				*	*	*	*	*	2-3	A7XDS3
PAOZZ	6240-865-0111	LIGHT, INDICATOR CM8-682 (71744)	EA	2				*	*	*	*	*		A7DS4
PAOZZ	6240-865-0111	LIGHT, INDICATOR CM8-682 (71744)	EA	REF				*	*	*	*	*		A7DS5
PAHZZ	6240-952-9561	LIGHT, PANEL 39-18-1437 (72619)	EA	2				*	*	*	*	*		A7DS2
PAHZZ	6240-952-9561	LIGHT, PANEL 39-18-1437 (72619)	EA	REF				*	*	*	*	*		A7DS2
PAHHH	6625-240-9549	MARKER INTERMEDIATE FREQUENCY ASSEMBLY C02301500 (54778)	EA	1				*	*	*	*	*	2-107	A7A5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	8				*	*	*	*	*	2-107	A7A5C8
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C9
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C19
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C20
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C21
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-107	A7A5C22
PAHZZ	5910-250-7941	CAPACITOR, FIXED, CERAMIC 10TCCV18 (56289)	EA	2				*	*	*	*	*	2-107	A7A5C15
PAHZZ	5910-250-7941	CAPACITOR, FIXED, CERAMIC 10TCCV18 (56289)	EA	REF				*	*	*	*	*	2-107	A7A5C16
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	4				*	*	*	*	*	2-107	A7A5C1
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-107	A7A5C6
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-107	A7A5C7
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-107	A7A5C10
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)	EA	2				*	*	*	*	*	2-107	A7A5C17
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)	EA	REF				*	*	*	*	*	2-107	A7A5C18

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE	FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION							
PAHZZ		CAPACITOR, FIXED, MICA DM15-121J (04062)	EA	1				*	*	*	*	*	2-107	A7A5C13
PAHZZ	5910-577-3168	CAPACITOR, FIXED, MICA DM15-220J (04062)	EA	1				*	*	*	*	*	2-107	A7A5C3
PAHZZ	5910-699-2916	CAPACITOR, FIXED, MICA DM15-391J (04062)	EA	1				*	*	*	*	*	2-107	A7A5C5
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	2				*	*	*	*	*	2-107	A7A5C2
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	REF				*	*	*	*	*	2-107	A7A5C14
PAHZZ		CAPACITOR, VARIABLE, CERAMIC 557-09INP (15450)	EA	1				*	*	*	*	*	2-107	A7A5C4
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	2				*	*	*	*	*	2-107	A7A5L1
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	REF				*	*	*	*	*	2-107	A7A5L2
PAHZZ	5950-689-1356	COIL, VARIABLE A02223300 (54778)	EA	3				*	*	*	*	*	2-107	A7A5L3
PAHZZ	5950-689-1356	COIL, VARIABLE A02223300 (54778)	EA	REF				*	*	*	*	*	2-107	A7A5L4
PAHZZ	5950-689-1356	COIL, VARIABLE A02223300 (54778)	EA	REF				*	*	*	*	*	2-107	A7A5L5
PAHZZ	5955-762-8499	CRYSTAL, QUARTZ 912200036 (54778)	EA	1				*	*	*	*	*	2-107	A7A5Y1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	5				*	*	*	*	*	2-107	A7A5E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-107	A7A5E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-107	A7A5E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-107	A7A5E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-107	A7A5E6
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	4				*	*	*	*	*	2-107	A7A5R7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R12
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R15
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R19
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	2				*	*	*	*	*	2-107	A7A5R6
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R14
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	3				*	*	*	*	*	2-107	A7A5R4
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R10
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R18
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R5

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					USABLE ON CODE		FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION						
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R2
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R20
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R11
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R17
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R1
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	2				*	*	*	*	*	2-107	A7A5R13
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R16
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-107	A7A5R8
PAHZZ	5905-114-0711	RESISTOR, 4.7K TO 10K, 1/4W SELECT	EA	1				*	*	*	*	*	2-107	A7ASR3
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	2				*	*	*	*	*	2-107	A7A5R9
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	REF				*	*	*	*	*	2-107	A7A5R21
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (07263)	EA	1				*	*	*	*	*	2-107	A7ASQ1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	4				*	*	*	*	*	2-107	A7ASR2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-107	A7ASQ3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-107	A7ASQ4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-107	A7ASQ5
PAHZZ	5310-846-8951	WASHER, NONMETALLIC 6707 (71002)	EA	3				*	*	*	*	*	2-107	H3
PAHZZ	6625-401-4484	MEGAHERTZ MIXER C02301700 (54778)	EA	1				*	*	*	*	*	2-111	A7A7
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	4				*	*	*	*	*	2-111	A7A7C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-111	A7A7C4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-111	A7A7C6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-111	A7A7C10
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	4				*	*	*	*	*	2-111	A7A7C3
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-111	A7A7C5
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-111	A7A7C7
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-111	A7A7C9
PAHZZ		CAPACITOR, FIXED, MICA DM15-56L1 (71590)	EA	2				*	*	*	*	*	2-111	A7A7C2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (71590)	EA	REF				*	*	*	*	*	2-111	A7A7C8
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	1				*	*	*	*	*	2-111	A7A7L1
PAHZZ		INSULATOR, STANDOFF 1932XN (88822)	EA	2				*	*	*	*	*	2-111	A7A7E2
PAHZZ		INSULATOR, STANDOFF 1932XN (88822)	EA	REF				*	*	*	*	*	2-111	A7A7E3
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	3				*	*	*	*	*	2-111	A7A7R5
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-111	A7A7R6
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-111	A7A7R10
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	1				*	*	*	*	*	2-111	A7A7R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF220J (81349)	EA	1				*	*	*	*	*	2-111	A7A7R8
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	1				*	*	*	*	*	2-111	A7A7R7
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	2				*	*	*	*	*	2-111	A7A7R4
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-111	A7A7R9
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC7GF271J (81349)	EA	1				*	*	*	*	*	2-111	A7A7R2
PAHZZ	5905-135-3975	RESISTOR, FIXED, COMPOSITION RC7GF680J (81349)	EA	2				*	*	*	*	*	2-111	A7A7R1
PAHZZ	5905-135-3975	RESISTOR, FIXED, COMPOSITION RC7GF680J (81349)	EA	REF				*	*	*	*	*	2-111	A7A7R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC7GF681J (81349)	EA	1				*	*	*	*	*	2-111	A7A7R11
PAHZZ		TRANSFORMER RADIO FREQUENCY A02223400 (94668)	EA	2				*	*	*	*	*	2-111	A7A7T1
PAHZZ		TRANSFORMER RADIO FREQUENCY A02223400 (94668)	EA	REF				*	*	*	*	*	2-111	A7A7T2
PAHZZ	5961-947-8263	TRANSISTOR 2N3568 (07263)	EA	1				*	*	*	*	*	2-111	A7A7Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3568 (07263)	EA	1				*	*	*	*	*	2-111	A7A7Q2
PAHZZ	5310-846-8951	WASHER, NONMETALLIC 6707 (71002)	EA	2				*	*	*	*	*	2-111	H2
PAHZZ		NUT, RETAINING 919300017 (54778)	EA	4				*	*	*	*	*	2-111	A7MP19
PAHZZ		NUT, RETAINING 919300017 (54778)	EA	REF				*	*	*	*	*	2-111	A7MP20
PAHZZ		NUT, RETAINING 919300017 (54778)	EA	REF				*	*	*	*	*	2-111	A7MP21
PAHZZ		NUT, RETAINING 919300017 (54778)	EA	REF				*	*	*	*	*	2-111	A7MP22
PAHZZ	9905-157-9946	PLATE, DESIGNATION A02620000 (54778)	EA	1				*	*	*	*	*		A7MP1
PAHZZ	9905-157-9955	PLATE, IDENTIFICATION 919500323 (54778)	EA	1				*	*	*	*	*		A7P23

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					REFERENCE NUMBER & MFR CODE									
PAHZZ		SCREW, MACHINE, FLAT HEAD 16328 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	6625-439-6206	POWER SUPPLY, HIGH VOLTAGE C0278100 (94668)	EA	1				*	*	*	*	*	2-123	A7A13
PAHZZ	5910-847-0030	CAPACITOR, FIX, CERAMIC 334C1B6 (56289)	EA	2	4			*	*	*	*	*	2-123	A7A13C1
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-123	A7A13C5
PAHZZ	5910-377-5315	CAPACITOR, FIXED, ELECTROLYTIC TVA1501 (56289)	EA	1				*	*	*	*	*	2-123	A7A13C10
PAHZZ	5910-057-7603	CAPACITOR, FIXED, ELECTROLYTIC BR100-25 (10013)	EA	1				*	*	*	*	*	2-123	A7A13C3
PAHZZ		CAPACITOR, FIXED, MICA DM15F561J (72136)	EA	2				*	*	*	*	*	2-123	A7A13C2
PAHZZ		CAPACITOR, FIXED, MICA DM15F561J (72136)	EA	REF				*	*	*	*	*	2-123	A7A13C4
PAHZZ		CAPACITOR, FIXED, PAPER DPMS2P1 (10013)	EA	2				*	*	*	*	*	2-123	A7A13C8
PAHZZ		CAPACITOR, FIXED, PAPER DPMS2P1 (10013)	EA	REF				*	*	*	*	*	2-123	A7A13C11
PAHZZ	5910-686-6428	CAPACITOR, FIXED, CERAMIC DD30-502 (71590)	EA	2				*	*	*	*	*	2-123	A7A13C6
PAHZZ	5910-686-6428	CAPACITOR, FIXED, CERAMIC DD30-502 (71590)	EA	REF				*	*	*	*	*	2-123	A7A13C9
PAHZZ		CAPACITOR, FIXED, PLASTIC 16DP4-203 (72136)	EA	1				*	*	*	*	*	2-123	A7A13C7
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	1				*	*	*	*	*	2-123	A7A13L3
PAHZZ	5950-401-2842	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	2				*	*	*	*	*	2-123	A7A13L1
PAHZZ	5950-401-2842	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-123	A7A13L2
PAHZZ	5920-280-2344	FUZE, CARTRIDGE F02A250V1-2A (81349)	EA	1				*	*	*	*	*	2-123	A7A13F1
PAHZZ	5905-105-7765	RESISTOR, FIXED, COMPOSITION RC07GF224J (81349)	EA	1				*	*	*	*	*	2-123	A7A13R10
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	2				*	*	*	*	*	2-123	A7A13R2
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-123	A7A13R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF683J (81349)	EA	1				*	*	*	*	*	2-123	A7A13R9
PAHZZ	5905-119-8768	RESISTOR, FIXED, COMPOSITION RC07GF321J (81349)	EA	1				*	*	*	*	*	2-123	A7A13R1
PAHZZ	5905-279-1977	RESISTOR, FIXED, COMPOSITION RC07GF105J (81349)	EA	4				*	*	*	*	*	2-123	A7A13R5
PAHZZ	5905-279-1977	RESISTOR, FIXED, COMPOSITION RC07GF105J (81349)	EA	REF				*	*	*	*	*	2-123	A7A13R6
PAHZZ	5905-279-1977	RESISTOR, FIXED, COMPOSITION RC07GF105J (81349)	EA	REF				*	*	*	*	*	2-123	A7A13R7
PAHZZ	5905-279-1977	RESISTOR, FIXED, COMPOSITION RC07GF105J (81349)	EA	REF				*	*	*	*	*	2-123	A7A13R8
PAHZZ	5961-005-8986	RETAINER, TRANSISTOR	EA	2				*	*	*	*	*	2-123	A7A13MP1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT. GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5961-005-8986	RETAINER, TRANSISTOR 7383-1P2 (91506)	EA	REF				*	*	*	*	*	2-123	A7A13MP2
PAHZZ	5961-059-9973	SEMICONDUCTOR DEVICE, DIODE D1-56 (12060)	EA	4				*	*	*	*	*	2-123	A7A13CR2
PAHZZ	5961-059-9973	SEMICONDUCTOR DEVICE, DIODE D1-56 (12060)	EA	REF				*	*	*	*	*	2-123	A7A13CR3
PAHZZ	5961-059-9973	SEMICONDUCTOR DEVICE, DIODE D1-56 (12060)	EA	REF				*	*	*	*	*	2-123	A7A13CR4
PAHZZ	5961-059-9973	SEMICONDUCTOR DEVICE, DIODE D1-56 (12060)	EA	REF				*	*	*	*	*	2-123	A7A13CR5
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	1				*	*	*	*	*	2-123	A7A13CR1
PAHZZ	5961-752-6121	SEMICONDUCTOR DEVICE, DIODE 1N753 (80131)	EA	1				*	*	*	*	*	2-123	A7A13CR9
PAHZZ	5961-400-9912	SEMICONDUCTOR DEVICE, DIODE 1N4257 (80131)	EA	3				*	*	*	*	*	2-123	A7A13CR6
PAHZZ	5961-400-9912	SEMICONDUCTOR DEVICE, DIODE 1N4257 (80131)	EA	REF				*	*	*	*	*	2-123	A7A13CR7
PAHZZ	5961-400-9912	SEMICONDUCTOR DEVICE, DIODE 1N4257 (80131)	EA	REF				*	*	*	*	*	2-123	A7A13CR8
PAHZZ	5961-940-3165	SOCKET, TRANSISTOR 22-16-3 (81073)	EA	2				*	*	*	*	*	2-123	A7A13XQ1
PAHZZ	5961-940-3165	SOCKET, TRANSISTOR 22-16-3 (81073)	EA	REF				*	*	*	*	*	2-123	A7A13XQ2
PAHZZ	5950-232-2826	TRANSFORMER, INVERTER 910000087 (54778)	EA	1				*	*	*	*	*	2-123	A7A13T1
PAHZZ	5961-947-8262	TRANSISTOR 2N3110 (80131)	EA	2				*	*	*	*	*	2-123	A7A13Q1
PAHZZ	5961-947-8262	TRANSISTOR 2N3110 (80131)	EA	REF				*	*	*	*	*	2-123	A7A13Q2
PAHZZ	6625-174-7813	POWER SUPPLY, LOW VOLTAGE C02787300 (94668)	EA	1				*	*	*	*	*	2-103	A7A3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-103	A7A3C2
PAHZZ	5910-211-1261	CAPACITOR, FIXED, ELECTROLYTIC 150D335X9020B2 (56289)	EA	1				*	*	*	*	*	2-103	A7A3C3
PAHZZ	5910-402-1511	CAPACITOR, FIXED, ELECTROLYTIC 26-625BP250-4006 (22650)	EA	1				*	*	*	*	*	2-103	A7A3C1
PAHZZ		INSULATOR, STANDOFF 1932). (88822)	EA	3				*	*	*	*	*	2-103	A7A3E2
PAHZZ		INSULATOR, STANDOFF 1932) M (88822)	EA	REF				*	*	*	*	*	2-103	A7A3E3
PAHZZ		INSULATOR, STANDOFF 1932X) (88822)	EA	REF				*	*	*	*	*	2-103	A7A3E4
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-103	A7A3R2
PAHZZ	5905-681-6462	RESISTOR, FIXED, POSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-103	A7A3R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-103	A7A3R5
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-103	A7ASR6
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	1				*	*	*	*	*	2-103	A7ASR4

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESCRIPTION
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	2-105	A7A3R7	
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	2-103	A7A3R10	
PAHZZ	5905-846-1089	RESISTOR, FIXED, COMPOSITION RC20GF101J (81349)	EA	1				*	*	*	*	2-103	A7A3R1	
PAHZZ	5905-923-3567	RESISTOR, FIXED, WIREWOUND 4749 (44655)	EA	1				*	*	*	*	2-103	A7A3R8	
PAHZZ		RESISTOR VARIABLE RS501M (01121)	EA	1				*	*	*	*	2-103	A7A3CR5	
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N707A (80131)	EA	1				*	*	*	*	2-103	A7A3Q3	
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	1				*	*	*	*	2-103	A7A3Q1	
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	2				*	*	*	*	2-103	A7A3Q2	
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	REF				*	*	*	*	2-103	A7A3Q2	
PAHZZ	5961-410-5128	RECTIFIER 18DB2A (81483)	EA	1				*	*	*	*	2-14	A7CR1	
PAHZZ	5945-137-4911	RELAY 3SBF1040A2 (08931)	EA	1				*	*	*	*	2-14	A7K1	
PAHZZ	5310-938-2013	NUT, PLAIN, HEXAGON MS35649-224 (96906)	EA	2				*	*	*	*		H2	
PAHZZ	5305-054-5637	NUT, MACHINE MS51957-3 (96906)	EA	2				*	*	*	*		H2	
PAHZZ	5310-938-2013	WASHER, LOCK MS35338-153 (96906)	EA	2				*	*	*	*		H2	
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF334J (81349)	EA	1				*	*	*	*	2-14	A7R6	
PAHZZ	5905-256-0412	RESISTOR, FIXED, COMPOSITION RC42GF181J (81349)	EA	1				*	*	*	*	2-14	A7R14	
PAHZZ		RESISTOR, VARIABLE JA3NO48P5011UA (01121)	EA	1				*	*	*	*	2-14	A7R3	
PAHZZ	5310-056-3395	NUT, PLAIN, HEXAGON MS35649-2382 (96906)	EA	1				*	*	*	*		H1	
PAHZZ	5310-180-0277	WASHER, LOCK MS35333-76 (96906)	EA	1				*	*	*	*		H1	
PAHZZ	5310-903-2612	WASHER, FLAT MS9321-12 (96906)	EA	1				*	*	*	*		H1	
PAHZZ		RESISTOR, VARIABLE 273 (80294)	EA	3				*	*	*	*	2-14	A7R11	
PAHZZ		RESISTOR, VARIABLE 273 (80294)	EA	REF				*	*	*	*	2-14	A7R12	
PAHZZ		RESISTOR, VARIABLE 273 (80294)	EA	REF				*	*	*	*	2-14	A7R13	
PAHZZ	5905-400-9903	RESISTOR, VARIABLE 550R500A (11237)	EA	1				*	*	*	*	2-13	A7R1	
PAHZZ	5310-056-3395	NUT, PLAIN, HEXAGON MS35649-2382 (96906)	EA	1				*	*	*	*		H1	
PAHZZ	5310-903-2612	WASHER, FIAT MS9321-12 (96906)	EA	1				*	*	*	*		H1	
PAHZZ	5905-138-7207	RESISTOR, VARIABLE 907900036 (54778)	EA					*	*	*	*	2-13	A7R8	

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8)	(9)	(10)	
						30-DAY DS MAINT			30-DAY GS MAINT			1-YR	DEPOT	ILLUSTRATION	
						ALLOWANCE			ALLOWANCE			EQUIP	MAINT	(a)	(b)
(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100	CNTGCY	ALW PER 100 EQUIP								
PAHZZ	5985-406-9899	RESISTOR, VARIABLE 907900069 (94668)		EA	1				*	*	*	*	*	2-14	A7R10
PAHZZ	5310-056-3395	NUT, PLAIN, HEXAGON MS35649-2382 (96906)		EA	2				*	*	*	*	*		H2
PAHZZ	S310-180-0277	WASHER, LOCK MS35333-76 (96906)		EA	1				*	*	*	*	*		H1
PAHZZ	5310-903-2612	WASHER, FLAT MS9321-12 (96906)		EA	1				*	*	*	*	*		H1
PAHZZ	5905-138-7208	RESISTOR, VARIABLE 907900135 (54778)		EA	1				*	*	*	*	*	2-13	A7R9
PAHZZ	5310-056-3395	NUT, PLAIN, HEXAGON M535649-2382 (96906)		EA	1				*	*	*	*	*		H2
PAHZZ	5905-138-7209	RESISTOR, VARIABLE 907900137 (94668)		EA	1				*	*	*	*	*	2-14	A7R2
PAHZZ	5310-056-3395	NUT, PLAIN, HEXAGON MS25649-2382 (96906)		EA	2				*	*	*	*	*		H1
PAHZZ	5310-180-0277	WASHER, LOCK MS35333-76 (96906)		EA	1				*	*	*	*	*		H1
PAHZZ	5310-903-2612	WASHER, FLAT MS9321-12 (96906)		EA	1				*	*	*	*	*		H1
PAHHH	6625-240-9548	SIGNAL INTERMEDIATE FREQUENCY ASSEMBLY C02301400 (54778)		EA	1				*	*	*	*	*	2-105	A7A4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	9				*	*	*	*	*	2-105	A7A4C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-105	A7A4C16
PAHZZ	5910-250-7941	CAPACITOR, FIXED, CERAMIC 10TCCV18 (56289)		EA	2				*	*	*	*	*	2-105	A7A4C8
PAHZZ	5910-250-7941	CAPACITOR, FIXED, CERAMIC 10TCCV18 (562895)		EA	2				*	*	*	*	*	2-105	A7A4C10
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)		EA	2				*	*	*	*	*	2-105	A7A4C9
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)		EA	REF				*	*	*	*	*	2-105	A7A4C10
PAHZZ		CAPACITOR, FIXED, MICA DM15-121J (04062)		EA	1				*	*	*	*	*	2-105	A7A4C6
PAHZZ	5910-058-1660	CAPACITOR, FIXED, MICA DM15-151J (04062)		EA	1				*	*	*	*	*	2-105	A7A4C15
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)		EA	1				*	*	*	*	*	2-105	A7A4C7

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)		EA	2				*	*	*	*	*	2-105	A7A4L1
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)		EA	REF				*	*	*	*	*	2-105	A7A4L2
PAHZZ	5950-689-1356	COIL, VARIABLE A02223300 (94668)		EA	3				*	*	*	*	*	2-105	A7A4L3
PAHZZ	5950-689-1356	COIL, VARIABLE A02223300 (54778)		EA	REF				*	*	*	*	*	2-105	A7A4L4
PAHZZ	5950-689-1356	COIL, VARIABLE A02223300 (54778)		EA	REF				*	*	*	*	*	2-105	A7A4L5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	5				*	*	*	*	*	2-105	A7A4E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-105	A7A4E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-105	A7A4E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-105	A7A4E6
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	4				*	*	*	*	*	2-105	A7A4R8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-105	A7A4R14
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-105	A7A4R12
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-105	A7A4R17
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R15
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R13
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)		EA	2				*	*	*	*	*	2-105	A7A4R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)		EA	REF				*	*	*	*	*	2-105	A7A4R11
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R5
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R4
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	2				*	*	*	*	*	2-105	A7A4R6
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	REF				*	*	*	*	*	2-105	A7A4R9
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R2
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R10
PAHZZ	5905-119-8768	RESISTOR, FIXED, COMPOSITION RC07GF821J (81349)		EA	1				*	*	*	*	*	2-105	A7A4R16
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)		EA	5				*	*	*	*	*	2-105	A7A4Q1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5961-943-7S72	TRANSISTOR 2N3563 (07263)		EA	REF				*	*	*	*	*	2-105	A7A4Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)		EA	REF				*	*	*	*	*	2-105	A7A4Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)		EA	REF				*	*	*	*	*	2-105	A7A4Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)		EA	REF				*	*	*	*	*	2-105	A7A4Q5
PAHZZ	5310-846-8951	WASHER, NONMETALLIC 6707 (71002)		EA	3				*	*	*	*	*	2-105	H2
PAHZZ		SOCKET, ELECTRON TUBE 3M14 (71785)		EA	1				*	*	*	*	*	2-13	A7XV1
PAHZZ	5961-942-4092	SOCKET, TRANSISTOR 8080-162 (91506)		EA	1				*	*	*	*	*	2-13	A7XQ1
PAHZZ	6625-250-4586	SWEEP C02302400 (54778)		EA	1				*	*	*	*	*	2-125	A7A14
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)		EA	3				*	*	*	*	*	2-125	A7A14C4
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 ;56289)		EA	REF				*	*	*	*	*	2-125	A7A14C5
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)		EA	REF				*	*	*	*	*	2-125	A7A14C7
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DD6103 (71590)		EA	1				*	*	*	*	*	2-125	A7A14C2
PAHZZ	5910-822-5683	CAPACITOR, FIXED, CERAMIC DD6103 (71590)		EA	2				*	*	*	*	*	2-125	A7A14C8
PAHZZ	5910-822-5683	CAPACITOR, FIXED, CERAMIC DD6103 (71590)		EA	REF				*	*	*	*	*	2-125	A7A14C9
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC SCM106BP015D4 (01295)		EA	2				*	*	*	*	*	2-125	A7A14C1
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC SCM106BP015D4 (01295)		EA	REF				*	*	*	*	*	2-125	A7A14C3
PAHZZ		CAPACITOR, FIXED, PLASTIC ME1-305 (26049)		EA	1				*	*	*	*	*	2-125	A7A14C6
PAHZZ	5950-775-8586	COIL, RADIO FREQUENCY WEE1000 (43543)		EA	2				*	*	*	*	*	2-125	A7A14L1
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)		EA	2				*	*	*	*	*	2-125	A7A14L2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	8				*	*	*	*	*	2-125	A7A14E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E7
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E8
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-125	A7A14E9

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	3905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R8
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-125	A7A14R18
PAHZZ	5903-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-125	A7A14R22
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R21
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R12
PAHZZ	5905-116-8555	RESISTOR, FIXE, COMPOSITION RC07GF153J (81349)	EA	3				*	*	*	*	*	2-125	A7A14R1
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	REF				*	*	*	*	*	2-125	A7A14R7
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	REF				*	*	*	*	*	2-125	A7A14R20
PAHZZ	5905-686-9995	RESISTOR, FIXED, COMPOSITION RC07GF154J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R19
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	2				*	*	*	*	*	2-125	A7A14R10
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	REF				*	*	*	*	*	2-125	A7A14R15
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R14
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R13
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	1				*	*	*	*	*	2-125	A782419
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	2				*	*	*	*	*	2-125	A7A14R4
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	REF				*	*	*	*	*	2-125	A7A14R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R5
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R3
PAHZZ	5905-435-6374	RESISTOR, FIXE, COMPOSITION RC07GF823J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R11
PAHZZ	5905-244-6934	RESISTOR, FIXED, COMPOSITION RC07GF824J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R23
PAHZZ	5905-249-4210	RESISTOR, FIXED, COMPOSITION RC42GF123J (81349)	EA	1				*	*	*	*	*	2-125	A7A14R16
PAHZZ		RESISTOR, VARIABLE RP103U (01121)	EA	2				*	*	*	*	*	2-125	A7A14R2
PAHZZ		RESISTOR, VARIABLE RP103U (01121)	EA	REF				*	*	*	*	*	2-125	A7A14R17
PAHZZ	5961-821-2309	SEMICONDUCTOR DEVICE, DIODE 1N751A (18479)	EA	1				*	*	*	*	*	2-125	A7A14CR1
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N753 (01295)	EA	3				*	*	*	*	*	2-125	A7A14CR2
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N753 (01295)	EA	REP				*	*	*	*	*	2-125	A7A14CR3
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N753 (01295)	EA	REF				*	*	*	*	*	2-125	A7A14CR4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		TRANSISTOR SE7001 (07263)	EA	1				*	*	*	*	*	2-125	A7A14Q8
PAHZZ	5961-947-8263	TRANSISTOR 2N3568 (07263)	EA	2				*	*	*	*	*	2-12	A7A14Q6
PAHZZ	5961-947-8263	TRANSISTOR 2N3568 (07263)	EA	REF				*	*	*	*	*	2-125	A7A14Q7
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (07263)	EA	5				*	*	*	*	*	2-125	A7A14Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (07263)	EA	REF				*	*	*	*	*	2-125	A7A14Q2
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (07263)	EA	REF				*	*	*	*	*	2-125	A7A14Q3
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (07263)	EA	REF				*	*	*	*	*	2-125	A7A14Q4
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (07263)	EA	REF				*	*	*	*	*	2-125	A7A14Q5
PAHZZ	6625-439-6205	SWEPT DIVIDER C02301800 (94668)	EA	1				*	*	*	*	*	2-113	A7A8
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	11				*	*	*	*	*	2-113	A7A8C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C15
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C18
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C19
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-113	A7A8C20
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B96 (56289)	EA	5				*	*	*	*	*	2-113	A7A8C2
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-113	A7A8C3
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-113	A7A8C5
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-113	A7A8C6
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	REF				*	*	*	*	*	2-113	A7A8C9
PAHZZ	5910-058-1660	CAPACITOR, FIXED, MICA DM15-151J (04062)	EA	1				*	*	*	*	*	2-113	A7A8C4
PAHZZ	5910-086-0282	CAPACITOR, FIXED, MICA DM15-181J (04062)	EA	1				*	*	*	*	*	2-113	A7A8C8

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-044-4355	CAPACITOR, FIXED, MICA DM15-470J (04062)	EA	1				*	*	*	*	*	2-113	A7A8C17
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	1				*	*	*	*	*	2-113	A7A8C7
PAHZZ	5950-063-9238	COIL, RADIO FREQUENCY WEE33 (43543)	EA	2				*	*	*	*	*	2-113	A7A8L2
PAHZZ	5950-063-9238	COIL, RADIO FREQUENCY WEE33 (43543)	EA	REF				*	*	*	*	*	2-113	A7A8L3
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	1				*	*	*	*	*	2-113	A7A8L1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	6				*	*	*	*	*	2-113	A7A8E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-113	A7A8E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-113	A7A8E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-113	A7A8E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-113	A7A8E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-113	A7A8E7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	3				*	*	*	*	*	2-113	A7A8R12
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R13
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R15
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	3				*	*	*	*	*	2-113	A7A8R2
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R16
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R22
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-113	A7A8R5
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R18
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*	2-113	A7A8R11
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R24
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	2				*	*	*	*	*	2-113	A7A8R4
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R21
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	3				*	*	*	*	*	2-113	A7A8R1
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R6
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R23
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	4				*	*	*	*	*	2-113	A7A8R3

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R8
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R9
PAHZZ	590S-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R10
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-113	A7A8R20
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)	EA	1				*	*	*	*	*	2-113	A7A8R14
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	2				*	*	*	*	*	2-113	A7A8R7
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	REF				*	*	*	*	*	2-113	A7A8R19
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	1				*	*	*	*	*	2-113	A7A8R17
PAHZZ	5950-689-1357	TRANSFORMER, RADIO FREQUENCY A02223500 (54778)	EA	1				*	*	*	*	*	2-113	A7A8T3
PAHZZ	5950-689-1360	TRANSFORMER, RADIO FREQUENCY A02324500 (54778)	EA	2				*	*	*	*	*	2-113	A7A8T1
PAHZZ	5950-689-1360	TRANSFORMER, RADIO FREQUENCY A02324500 (54778)	EA	REF				*	*	*	*	*	2-113	A7A8T2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	5				*	*	*	*	*	2-113	A7A8Q1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-113	A7A8Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-113	A7A8Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-113	A7A8Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-113	A7ASQ5
PAHZZ		WASHER NONMETALLIC 6707 (71002)	EA	3				*	*	*	*	*	2-113	H2
PAHZZ	6625-400-7680	SWEPT INTERMEDIATE FREQUENCY ASSEMBLY C02301600 (54778)	EA	1				*	*	*	*	*	2-109	A7A6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	11				*	*	*	*	*	2-109	A7A6C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C15

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5991-923-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C16
PAHZZ	5910-923-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-109	A7A6C17
PAHZZ	5910-250-7941	CAPACITOR, FIXED, CERAMIC 10TCCV18 (56289)	EA	2				*	*	*	*	*	2-109	A7A6C9
PAHZZ	5910-250-7941	CAPACITOR, FIXED, CERAMIC 10TCCV18 (56289)	EA	REF				*	*	*	*	*	2-109	A7A6C11
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)	EA	2				*	*	*	*	*	2-109	A7A6C10
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (04062)	EA	REF				*	*	*	*	*	2-109	A7A6C12
PAHZZ		CAPACITOR, FIXED, MICA DM15-121J (04062)	EA	1				*	*	*	*	*	2-109	A7A6C7
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (04062)	EA	1				*	*	*	*	*	2-109	A7A6C8
PAHZZ	5950-689-1359	COIL, RADIO FREQUENCY A02223800 (94668)	EA	3				*	*	*	*	*	2-109	A7A6L3
PAHZZ	5950-689-1359	COIL, RADIO FREQUENCY A02223800 (94668)	EA	REF				*	*	*	*	*	2-109	A7A6L4
PAHZZ	5950-689-1359	COIL, RADIO FREQUENCY A02223800 (94668)	EA	REF				*	*	*	*	*	2-109	A7A6L5
PAHZZ	5950-823-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	2				*	*	*	*	*	2-109	A7A6L1
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43U3)	EA	REF				*	*	*	*	*	2-109	A7A6L2
PAHZZ		INSULATOR, STAFF 1932XM (8822)	EA	5				*	*	*	*	*	2-109	A7A6E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-109	A7A6E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-109	A7A6E4
PAHZZ		INSULATOR, STANDOFF 1932XM (8822)	EA	REF				*	*	*	*	*	2-109	A7A6E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-109	A7A6E6
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	5				*	*	*	*	*	2-109	A7A6R5
PAHZZ	5905-141-1183	RESISTOR, FLED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-109	A7A6R8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-109	A7A6R12
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-109	A7A6R14
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-109	A7A6R17
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R16
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-109	A7A6R3
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-109	A7A6R15
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R13

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R11
PAHZZ	5905-111-4727	RESISTOR, FIXED COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R6
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R9
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R1
PAHZZ	5905-686-9998	RESISTOR, FIXED COMPOSITION RC07GF472J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R2
PAHZZ	5905-106-1357	RESISTOR, FIXED COMPOSITION RC07GF563J (81349)	EA	1				*	*	*	*	*	2-109	A7A6R10
PAHZZ		RESISTOR, VARIABLE 3067P1-502 (80294)	EA	1				*	*	*	*	*	2-109	A7A6R4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	5				*	*	*	*	*	2-109	A7A6Q1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-109	A7A6Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-109	A7A6Q3
PAHZZ	5961-943-7572	TRANSISTOR	EA	REF				*	*	*	*	*	2-109	A7A6Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (07263)	EA	REF				*	*	*	*	*	2-109	A7A6Q5
PAHZZ	5310-846-8951	WASTE METALLIC 6707 (71002)	EA	3				*	*	*	*	*	2-109	H2
PAHZZ	5930-615-1383	SWITCH, PUSHBUTTON 30-1 (81073)	EA	1				*	*	*	*	*	2-13	A7S5
PAHZZ	5930-820-9546	SWITCH, PUSHBUTTON 30-2 (81073)	EA	1				*	*	*	*	*	2-13	A7S3
PAHZZ	5930-492-2342	SWITCH, PUSHBUTTON 911300026 (54778)	EA	1				*	*	*	*	*	2-14	A7S7
PAHZZ	5930-230-7949	SWITCH, ROTARY 911200123 (54778)	EA	1				*	*	*	*	*	2-13	A7S4
PAHZZ	5930-059-1390	SWITCH, SLIDE 46256LF (82380)	EA	1				*	*	*	*	*	2-13	A7S2
PAHZZ		TERMINAL, LUG 3-8X1-64X1 1-2 (21938)	EA	2				*	*	*	*	*		A7E19
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-5647	SCREW, MACHINE MS51957-13 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		TERMINAL, LUG 7156 (04941)	EA	17				*	*	*	*	*		A7A15E6
PAHZZ	5940-617-2673	TERMINAL, LUG 2340-20-00 (78189)	EA	2				*	*	*	*	*		A7A15E7
PAHZZ	5950-400-7699	TRANSFORM 910000086 (54778)	EA	1				*	*	*	*	*	2-13	A7T1
PAHZZ		SCREW, MACHINE MS51957-17 (96906)	EA	2				*	*	*	*	*		H2
PAHHH	6625-400-7679	VERTICAL AMPLIFIER C02787900 (54778)	EA	1				*	*	*	*	*	2-127	A7A15

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-236-8766	CAPACITOR, FIXED, ELECTROLYTIC 150D106X9035R2		EA	1				*	*	*	*	*	2-127	A7A15C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (54778)		EA	1				*	*	*	*	*	2-127	A7A15C1
PAHZZ	5910-822-5683	CAPACITOR, FIXED, CERAMIC DD6103 (71590)		EA	2				*	*	*	*	*	2-127	A7A15C10
PAHZZ	5910-822-5683	CAPACITOR, FIXED, CERAMIC DD6103 (71590)		EA	REF				*	*	*	*	*	2-127	A7A15C11
PAHZZ	5910-814-0761	CAPACITOR, FIXED, ELECTROLYTIC 150D105X9015A2 (80183)		EA	1				*	*	*	*	*	2-127	A7A15C5
PAHZZ	5910-236-8766	CAPACITOR, FIXED, ELECTROLYTIC 150D106X9035R2 (56289)		EA	3				*	*	*	*	*	2-127	A7A15C2
PAHZZ	5910-236-8766	CAPACITOR, FIXED, ELECTROLYTIC 150D106X9035R2 (56289)		EA	REF				*	*	*	*	*	2-127	A7A15C3
PAHZZ	5910-236-8766	CAPACITOR, FIXED, ELECTROLYTIC 150D106X9035R2 (56289)		EA	REF				*	*	*	*	*	2-127	A7A15C4
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)		EA	2				*	*	*	*	*	2-127	A7A15L1
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)		EA	REF				*	*	*	*	*	2-127	A7A15L3
PAHZZ	5961-760-2002	HEATSINK 9017-1P1U (91506)		EA	2				*	*	*	*	*	2-127	A7A15E2
PAHZZ	5961-760-2002	HEATSINK 9017-1P1U (91506)		EA	REF				*	*	*	*	*	2-127	A7A15E8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R3
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R41
PAHZZ	5905-755-8586	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R40
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R17
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)		EA	4				*	*	*	*	*	2-127	A7A15R13
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)		EA	REF				*	*	*	*	*	2-127	A7A15R30
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)		EA	REF				*	*	*	*	*	2-127	A7A15R32
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)		EA	REF				*	*	*	*	*	2-127	A7A15R38
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R5
PAHZZ	5905-141-1295	RESISTOR, FIXED, COMPOSITION RC07GF243J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R29
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R6
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)		EA	1				*	*	*	*	*	2-127	A7A15R33
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	3				*	*	*	*	*	2-127	A7A15R20
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	REF				*	*	*	*	*	2-127	A7A15R31

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTG	(9) 100 PER EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-127	A7A15R39
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-127	A7A15R19
PAHZZ	5905-244-6934	RESISTOR, FIXED, COMPOSITION RC07GF824J (81349)	EA	2				*	*	*	*	*	2-127	A7A15R34
PAHZZ	590S-244-6934	RESISTOR, FIXED, COMPOSITION RC07GF824J (81349)	EA	REF				*	*	*	*	*	2-127	A7A15R37
PAHZZ	5905-141-0599	RESISTOR, FIXED, COMPOSITION RC20GF393J (81349)	EA	1				*	*	*	*	*	2-127	A7A15R35
PAHZZ		RESISTOR, FIXED, COMPOSITION RC20GF473J (81349)	EA	1				*	*	*	*	*	2-127	A7A15R36
PAHZZ	5905-171-1976	RESISTOR, FIXED, COMPOSITION RC42GF153J (81349)	EA	1				*	*	*	*	*	2-127	A7A15R4
PAHZZ	5905-432-0464	RESISTOR, FIXED, FILM MF5C3832F (19701)	EA	1				*	*	*	*	*	2-127	A7A15R15
PAHZZ	5905-180-8286	RESISTOR, FIXED, FILM MF6C5621F (19701)	EA	2				*	*	*	*	*	2-127	A7A15R7
PAHZZ	5905-180-8286	RESISTOR, FIXED, FILM MF6C5621F (19701)	EA	REF				*	*	*	*	*	2-127	A7A15R18
PAHZZ	5905-482-5253	RESISTOR, FIXED, FILM MF6C6811F (19701)	EA	1				*	*	*	*	*	2-127	A7A15R22
PAHZZ		RESISTOR, FIXED, FILM MFF1/8 7500 (91637)	EA	1				*	*	*	*	*	2-127	A7A15R8
PAHZZ		RESISTOR, FIXED, FILM NA4991F (16299)	EA	1				*	*	*	*	*	2-127	A7A15R12
PAHZZ	5905-432-6375	RESISTOR, FIXED, FILM NA55-1962F (16299)	EA	1				*	*	*	*	*	2-127	A7A15R10
PAHZZ		RESISTOR, FIXED, FILM NA55-1962F (16299)	EA	1				*	*	*	*	*	2-127	A7A15R10
PAHZZ		RESISTOR, FIXED, FILM NA55-2052F (16299)	EA	1				*	*	*	*	*	2-127	A7A15R14
PAHZZ	5905-142-0957	RESISTOR, FIXED, FILM NA55-3012F (16299)	EA	1				*	*	*	*	*	2-127	A7A15R11
PAHZZ	5905-451-7527	RESISTOR, FIXED, FILM NA60-2871F (16299)	EA	2				*	*	*	*	*	2-127	A7A15R9
PAHZZ	5905-451-7527	RESISTOR, FIXED, FILM NA60-2871F (16299)	EA	REF				*	*	*	*	*	2-127	A7A15R16
PAHZZ	5905-563-6791	RESISTOR, VARIABLE 62PAR10K (73138)	EA	1				*	*	*	*	*	2-127	A7A15R21
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N1728A (80131)	EA	1				*	*	*	*	*	2-127	A7A15CR1
PAHZZ	5961-110-7491	SEMICONDUCTOR DEVICE, DIODE 5082-2900 (28480)	EA	4				*	*	*	*	*	2-127	A7A15CR2
PAHZZ	5961-110-7491	SEMICONDUCTOR DEVICE, DIODE 5082-2900 (28480)	EA	REF				*	*	*	*	*	2-127	A7A15CR3
PAHZZ	5961-110-7491	SEMICONDUCTOR DEVICE, DIODE 5082-2900 (28480)	EA	REF				*	*	*	*	*	2-127	A7A15CR4
PAHZZ	5961-110-7491	SEMICONDUCTOR DEVICE DIODE 5082-2900 (28480)	EA	REF				*	*	*	*	*	2-127	A7A15CR5
PAHZZ	5940-813-0563	TERMINAL, LUG 1558A (71279)	EA	4				*	*	*	*	*	2-127	A7A15E2
PAHZZ	5940-813-0563	TERMINAL, LUG 1558A (71279)	EA	REF				*	*	*	*	*	2-127	A7A15E3
PAHZZ	5940-813-0563	TERMINAL, LUG 1558A (71279)	EA	REF				*	*	*	*	*	2-127	A7A15E4

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGNCY	(9) ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5940-813-0563	TERMINAL, LUG 1558A (71279)	EA	REF				*	*	*	*	*	2-127	A7A15E5
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (80131)	EA	3				*	*	*	*	*	2-127	A7A1Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (80131)	EA	REF				*	*	*	*	*	2-127	A7A15Q6
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (80131)	EA	REF				*	*	*	*	*	2-127	A7A15Q9
PAHZZ	5961-229-4728	TRANSISTOR HDIG1030 (07933)	EA	1				*	*	*	*	*	2-127	A7A15Q2
PAHZZ		TRANSISTOR SE7001 (17803)	EA	2				*	*	*	*	*	2-127	A7A15Q7
PAHZZ		TRANSISTOR SE7001 (17803)	EA	REF				*	*	*	*	*	2-127	A7A15Q8
PAHZZ	5310-846-8951	WASHER, NONMETALLIC 6707 (71002)	EA	2				*	*	*	*	*		H2
PAHZZ	6625-180-7235	WINDOW, OBSERVATION C02321602 (94668)	EA	1				*	*	*	*	*		A7MP5
PAHZZ	6625-181-9118	WINDOW, OBSERVATION C02321603 (94668)	EA	1				*	*	*	*	*		A7MP4
PAHZZ	6625-180-7254	WINDOW, OBSERVATION C02323300 (94668)	EA	1				*	*	*	*	*		A7MP6
PAHHH	6625-459-8570	MONITOR, AUDIO-RADIO FREQUENCY TS-2968/U 305AL (54778)	EA	1				*	*	*	*	*	2-58	A5
PAHHH	5985-006-5688	ATTENUATOR, VARIABLE 912100011 (54778)	EA	1				*	*	*	*	*	2-9	A5AT1
PAHZZ	5305-054-6666	SCREW, MACHINE MS51957-41 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-869-4199	WASHER, LOCK MS35338-156 (96906)	EA	2				*	*	*	*	*		H2
PAHHH	5985-006-5689	ATTENUATOR, VARIABLE 912100012 (54778)	EA	1				*	*	*	*	*	2-9	A5AT2
PAHZZ	5305-054-6666	SCREW, MACHINE MS51957-41 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-869-4199	WASHER, LOCK MS35338-156 (96906)	EA	2				*	*	*	*	*		H2
PAHHH		AUDIO AMPLIFIER C02708700 (54778)	EA	1				*	*	*	*	*	2-83(1)	A5A11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	12				*	*	*	*	*	2-83(1)	A5A11C6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C17
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C19
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C20

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMICA DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C21
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C22
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C23
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C24
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (12674)	EA	1				*	*	*	*	*	2-83(1)	A5A11C1
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (22650)	EA	3				*	*	*	*	*	2-83(1)	A5A11C3
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (22650)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C7
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (22650)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C18
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC 8-250BP1-25S85NP (22650)	EA	2				*	*	*	*	*	2-83(1)	A5A11C5
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC 8-250BP1-25S85NP (22650)	EA	REF				*	*	*	*	*	2-83(1)	A5A11C8
PAHZZ	5910-660-4979	CAPACITOR, FIXED, MICA DM15-221J (72136)	EA	1				*	*	*	*	*	2-83(1)	A5A11C15
PAHZZ	5910-851-0693	CAPACITOR, FIXED, MICA DM15-271J (72136)	EA	1				*	*	*	*	*	2-83(1)	A5A11C10
PAHZZ	5910-889-4772	CAPACITOR, FIXED, MICA DM15-681J (72136)	EA	1				*	*	*	*	*	2-83(1)	A5A11C16
PAHZZ	5910-965-9441	CAPACITOR, FIXED, MICA DM19-102J (72136)	EA	1				*	*	*	*	*	2-83(1)	A5A11C4
PAHZZ	5950-689-1358	COIL, RADIO FREQUENCY A02223600 (54778)	EA	1				*	*	*	*	*	2-83(1)	A5A11L5
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	5				*	*	*	*	*	2-83(1)	A5A11L1
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-83(1)	A5A11L3
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-83(1)	A5A11L2
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-83(1)	A5A11L4
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	REF				*	*	*	*	*	2-83(1)	A5A11L6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	9				*	*	*	*	*	2-83(1)	A5A11E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E7
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E8

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF					
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-83(1)	A5A11E10
PAHZZ		INTEGRATED CIRCUIT CA3028A (07235)	EA	1				*	*	*	*	*	2-83(1)	A5A11C1
PAHZZ	5905-107-0656	RESISTOR, FIXED, COMPOSITION RC07GF100J (81349)	EA	2				*	*	*	*	*	2-83(1)	A5A11R1
PAHZZ	5905-107-0656	RESISTOR, FIXED, COMPOSITION RC07GF100J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R2
PAHZZ	5905-106-3656	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	4				*	*	*	*	*	2-83(1)	A5A11R3
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R10
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R16
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R17
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R11
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-83(1)	A5A11R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R14
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R25
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-83(1)	A5A11R13
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R23
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R4
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R7
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	2				*	*	*	*	*	2-83(1)	A5A11R12
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	REF				*	*	*	*	*	2-83(1)	A5A11R15
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R5
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R8
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R18
PAHZZ	5905-119-8768	RESISTOR, FIXED, COMPOSITION RC07GF821J (81349)	EA	1				*	*	*	*	*	2-83(1)	A5A11R20
PAHZZ	5905-240-7798	RESISTOR, VARIABLE 77PR100 (73138)	EA	1				*	*	*	*	*	2-83(1)	A5A11R22
PAHZZ	5905-121-9877	RESISTOR, VARIABLE 77PR5K (73138)	EA	1				*	*	*	*	*	2-83(1)	A5A11R21
PAHZZ	5961-938-1135	SEMICONDUCTOR DEVICE, DIODE 1N4148 (80131)	EA	2				*	*	*	*	*	2-83(1)	A5A11CR1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
PAHZZ	5961-938-1135	SEMICONDUCTOR DEVICE, DIODE 1N4148 (80131)	EA	REF				*	*	*	*	*	2-83(1)	ASA11CR2
PAHZZ	5961-081-8365	TRANSISTOR 2N1131 (80131)	EA	1				*	*	*	*	*	2-83(1)	A5A11Q2
PAHZZ		TRANSISTOR 2N3904 (80131)	EA	REF				*	*	*	*	*	2-83(1)	A5A11Q4
PAHZZ		TRANSISTOR 213904 (80131)	EA	REF				*	*	*	*	*	2-83(1)	A5A11Q5
PAHZZ		TRANSISTOR 2N3904 (80131)	EA	REF				*	*	*	*	*	2-83(1)	A5A11Q6
PAHZZ	5961-912-9008	TRANSISTOR 2N3638A (80131)	EA	2				*	*	*	*	*	2-83(1)	A5A11Q3
PAHZZ	5961-912-9008	TRANSISTOR 2N3638A (80131)	EA	REF				*	*	*	*	*	2-83(1)	A5A11Q7
PAHZZ	5961-931-0372	TRANSISTOR 2N3906 (80131)	EA	2				*	*	*	*	*	2-83(1)	A5A11Q8
PAHZZ	5961-931-0372	TRANSISTOR 2N3906 (80131)	EA	REF				*	*	*	*	*	2-83(1)	A5A11Q9
PAHZZ		TRANSISTOR 2N696 (80131)	EA	1				*	*	*	*	*	2-83(1)	A5A11Q1
PAHZZ		WASHER, NONMETALLIC 5600-16-32 (86928)	EA	4				*	*	*	*	*	2-83(1)	H2
PAHZZ	5995-138-2463	CABLE ASSEMBLY, RADIO FREQUENCY 02467400 (54778)	EA	1				*	*	*	*	*		A5W1
PAHZZ	5935-463-2495	CONNECTOR, PLUG, ELECTRICAL KC59-95 (96918)	EA	1				*	*	*	*	*		A5W1P1
PAHZZ	5935-909-7974	PLUG, TIP 2-329036-1 (02660)	EA	1				*	*	*	*	*		A5W1P2
PAHZZ	5995-137-6120	CABLE ASSEMBLY, RADIO FREQUENCY B02471802 (94668)	EA	1				*	*	*	*	*		A5E2
PAHZZ	5995-137-6090	CABLE ASSEMBLY, RADIO FREQUENCY B02471803 (54778)	EA	1				*	*	*	*	*		A5E3
PAHZZ	5995-137-6121	CABLE ASSEMBLY, RADIO FREQUENCY B02471805 (54778)	EA	1				*	*	*	*	*		A5E4
PAHZZ	5995-139-5054	CABLE ASSEMBLY, RADIO FREQUENCY B02471901 (54778)	EA	1				*	*	*	*	*		A5W2
PAHZZ	5935-909-7974	PLUG, TIP 2-329036-1 (02660)	EA	1				*	*	*	*	*		A5W2P1
PAHZZ		CABLE ASSEMBLY, RADIO FREQUENCY B02471903 (54778)	EA	1				*	*	*	*	*		A5W3
PAHZZ	5935-909-7974	PLUG, TIP 2-329036-1 (02660)	EA	1				*	*	*	*	*		A5W2P2
PAHZZ	5995-137-6101	CABLE ASSEMBLY, RADIO FREQUENCY B02493000 (54778)	EA	1				*	*	*	*	*		A5W4
PAHZZ		CONNECTOR RECEPTACLE, ELECTRICAL KC19-68 (96918)	EA	1				*	*	*	*	*		A5W4J1
PAHZZ	5995-134-5590	CABLE ASSEMBLY, RADIO FREQUENCY C02322600 (54778)	EA	1				*	*	*	*	*		A5W5
PAHZZ	5935-134-5590	CONNECTOR RECEPTACLE, ELECTRICAL KC59-78 (96918)	EA	1				*	*	*	*	*		A5W5J1
PAHZZ	5995-137-6098	CABLE ASSEMBLY, RADIO FREQUENCY C02467501 (54778)	EA	1				*	*	*	*	*		A5W7
PAHZZ	5935-937-2664	CONNECTOR, PLUG, ELECTRICAL KC59-79 (96918)	EA	2				*	*	*	*	*		A5W7P1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR EQUIP CNTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5935-937-2664	CONNECTOR, PLUG, ELECTRICAL KC59-79 (96918)	EA	REF				*	*	*	*	*		A5W7P2
PAHZZ	5995-137-6099	CABLE ASSEMBLY, RADIO FREQUENCY C02467502 (94668)	EA	1				*	*	*	*	*		A5W8
PAHZZ	5935-137-8847	CONNECTOR, PLUG, ELECTRICAL KC59-102 (96918)	EA	2				*	*	*	*	*		A5W8P1
PAHZZ	5935-137-8847	CONNECTOR, PLUG, ELECTRICAL KC59-102 (96918)	EA	REF				*	*	*	*	*		A5W8P2
PAHZZ	5995-137-6100	CABLE ASSEMBLY, RADIO FREQUENCY C02467503 (54778)	EA	1				*	*	*	*	*		A5W9
PAHZZ	5935-137-8847	CONNECTOR, PLUG, ELECTRICAL KC59-102 (96918)	EA	1				*	*	*	*	*		A5W9P1
PAHZZ	5935-937-2664	CONNECTOR, PLUG, ELECTRICAL KC59-79 (96918)	EA	1				*	*	*	*	*		A5W9P2
PAHZZ	5995-137-6108	CABLE ASSEMBLY, POWER 916400025 (54778)	EA	1				*	*	*	*	*		A5P1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*		A5C1
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	4				*	*	*	*	*		A5C2
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*		A5C3
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*		A5C4
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*		A5C5
PAHZZ	5910-867-6881	CAPACITOR, FIXED, CERAMIC 5HK2S20 (56289)	EA	1				*	*	*	*	*		A5C7
PAHZZ	6625-177-3696	CIRCUIT CARD ASSEMBLY C02414800 (54778)	EA	1				*	*	*	*	*		A5CP1
PAHZZ	5950-027-1802	COIL, RADIO FREQUENCY 1537-88 (99800)	EA	1				*	*	*	*	*		A5L7
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRIC 914800094 (54778)	EA	1				*	*	*	*	*		A5CP1J1
PAHZZ		BOLT, EYE 52120 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	1				*	*	*	*	*		A5L1
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRIC KC19-68 (11636)	EA	1				*	*	*	*	*		A5J26
PAHZZ	5935-137-8782	CONNECTOR, RECEPTACLE, ELECTRIC KC39-35 (11636)	EA	3				*	*	*	*	*		A5J24
PAHZZ	5935-137-8782	CONNECTOR, RECEPTACLE, ELECTRIC KC39-35 (11636)	EA	REF				*	*	*	*	*		A5J25
PAHZZ	5935-137-8782	CONNECTOR, RECEPTACLE, ELECTRIC KC39-35 (11636)	EA	REF				*	*	*	*	*		A5J27
PAHZZ		NUT, ASSEMBLED, WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		NUT, SLOTTED 9173 (73734)	EA	1				*	*	*	*	*		H1
PAHZZ	5305-054-5647	SCREW, MACHINE MS51957-13 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		WASHER, LOCK MS35338-154 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5935-929-3144	CONNECTOR, RECEPTACLE, ELECTRICAL 89-32 (81812)	EA	1				*	*	*	*	*		A5J13
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	3				*	*	*	*	*		A5J10
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (94668)	EA	REF				*	*	*	*	*		A5J11
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A5J12
PAHZZ		NUT, SELF LOCKING 79NM40 (72962)	EA	6				*	*	*	*	*		H6
PAHZZ		SCREW, MACHINE MS51957-17 (96906)	EA	6				*	*	*	*	*		H6
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	18				*	*	*	*	*		A5J1A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (94668)	EA	REF				*	*	*	*	*		A5J2A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J3A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J4A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (94668)	EA	REF				*	*	*	*	*		A5J5A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J6A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (94668)	EA	REF				*	*	*	*	*		A5J7A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J8A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J9A
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J1B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J2B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J3B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J4B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J5B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J6B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J7B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J8B
PAHZZ	5935-137-7368	CONNECTOR, RECEPTACLE, ELECTRICAL 914800094 (54778)	EA	REF				*	*	*	*	*		A5J9B

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					PAHZZ	5935-018-8845	NUT, SELF LOCKING 79NM40 72962)	EA	36					
PAHZZ		SCREW, MACHINE MS1957-17 (96906)	EA	36				*	*	*	*	*		H36
PAHZZ	3010-240-6682	COUPLING, FLEXIBLE, SHAFT 39006 (76487)	EA	2				*	*	*	*	*		A5MP5
PAHZZ	3010-240-6682	COUPLING, FLEXIBLE, SHAFT 39006 (76487)	EA	REF				*	*	*	*	*		A5MP6
PAHZZ	5305-531-0137	SETSCREW 151021-21 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5935-431-5127	ADAPTER CONNECTOR 329097 (81812)	EA	2				*	*	*	*	*		A5E44
PAHZZ	5935-431-5127	ADAPTER CONNECTOR 329097 (81812)	EA	REF				*	*	*	*	*		A5E45
PAHZZ	5915-933-1229	FILTER, BANDPASS 910100004 (54778)	EA	1				*	*	*	*	*		A5FL1
PAHZZ	5305-054-6651	SCREW, MACHINE MS51957-27 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5915-461-9447	FILTER, BANDPASS 910100017 (54778)	EA	1				*	*	*	*	*		A5FL2
PAHZZ	5305-054-6651	SCREW, MACHINE MS51957-27 (96906)	EA	2				*	*	*	*	*		H2
PAHHH	6625-240-9535	FIRST MODULATOR AND INTERMEDIATE INTERFERENCE AMPLIFIER C02418200 (54778)	EA	1				*	*	*	*	*	2-69	A5A2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	3				*	*	*	*	*	2-69	A5A2C9
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A2C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A2C11
PAHZZ	5910-686-9180	CAPACITOR, FIXED, CERAMIC 831-000Z5V0-102P (72982)	EA	3				*	*	*	*	*	2-69	A5A2C1
PAHZZ	5910-686-9180	CAPACITOR, FIXED, CERAMIC 831-000Z5V0-102P (72982)	EA	REF				*	*	*	*	*	2-69	A5A2C2
PAHZZ	5910-686-9180	CAPACITOR, FIXED, CERAMIC 831-000Z5V0-102P (72982)	EA	REF				*	*	*	*	*	2-69	A5A2C3
PAHZZ		CAPACITOR, FIXED, MICA DM15-330J (72136)	EA	1				*	*	*	*	*	2-69	A5A2C6
PAHZZ		CAPACITOR, FIXED, MICA DM15-560J (72136)	EA	1				*	*	*	*	*	2-69	A5A2C8
PAHZZ	5910-713-1978	CAPACITOR, FIXED, MICA DM15-680J (72136)	EA	2				*	*	*	*	*	2-69	A5A2C4
PAHZZ	5910-713-1978	CAPACITOR, FIXED, MICA DM15-680J (72136)	EA	REF				*	*	*	*	*	2-69	A5A2C5
PAHZZ		CAPACITOR, FIXED, MICA DM15-910J (72136)	EA	1				*	*	*	*	*	2-69	A5A2C7
PAHZZ	5950-893-0431	COIL, RADIO FREQUENCY 1537-46 (99800)	EA	1				*	*	*	*	*	2-69	A5A2L8
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	3				*	*	*	*	*	2-69	A5A2L2
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	REF				*	*	*	*	*	2-69	A5A2L3
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	REF				*	*	*	*	*	2-69	A5A2L4

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5950-422-0440	COIL, RADIO FREQUENCY 4000-02 (99800)	EA	3				*	*	*	*	*	2-69	A5A2L1
PAHZZ	5950-422-0440	COIL, RADIO FREQUENCY 4000-02 (99800)	EA	REF				*	*	*	*	*	2-69	A5A2L5
PAHZZ	5950-422-0440	COIL, RADIO FREQUENCY 4000-02 (99800)	EA	REF				*	*	*	*	*	2-69	A5A2L7
PAHZZ	5950-401-2842	COIL, RADIO FREQUENCY 9240-720 (76493)	EA	1				*	*	*	*	*	2-69	A5A2L6
PAHZZ	5935-430-3670	CONNECTOR, RECEPTACLE, ELECTRICAL 3703-1-03 (71279)	EA	1				*	*	*	*	*	2-69	A5A2J1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	2				*	*	*	*	*	2-69	A5A2E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-69	A5A2E3
PAHZZ	5962-137-5047	INTEGRATED CIRCUIT M68 (27956)	EA	1				*	*	*	*	*	2-69	A5A2A1
MDHHH		PRINTED WIRING BOARD 904500263 (54778)	EA	1									2-69	A5A2E1
PAHZZ	5905-107-0656	RESISTOR, FIXED, COMPOSITION RC07GF100J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R2
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R7
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	3				*	*	*	*	*	2-69	A5A2R8
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-69	A5A2R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-69	A5A2R10
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R11
PAHZZ	5095-141-0742	RESISTOR, FIXED, COMPOSITION RC07GF181J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R13
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R4
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R12
PAHZZ	5905-135-3975	RESISTOR, FIXED, COMPOSITION RC07GF680J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF750J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-69	A5A2R5
PAHZZ	5905-916-0356	THERMISTOR 23E14 (83186)	EA	1				*	*	*	*	*	2-69	A5A2RT1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	2				*	*	*	*	*	2-69	A5A2Q1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-69	A5A2Q2
PAOZZ	5920-280-8344	FUSE, CARTRIDGE 313.500 (75915)	EA	2				*	*	*	*	*	2-7	A5F1
PAOZZ	5920-280-8344	FUSE, CARTAGE 313.500 (75915)	EA	REF				*	*	*	*	*	2-7	A5F2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)
					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION								
PAHZZ	5920-556-0144	FUSE HOLDER 342004 (75915)	EA	2				*	*	*	*	*	2-7	A5XF1
PAHZZ	5920-556-0144	FUSE HOLDER 342004 (75915)	EA	REF				*	*	*	*	*	2-7	A5XF2
PAHZZ	5915-441-9415	IMPEDANCE MATCHING PAD C02417900 (54778)	EA	1				*	*	*	*	*	2-87	A5A13
PAHZZ		CAPACITOR, FIXED, MICA DM15-270G (72136)	EA	1				*	*	*	*	*	2-87	A5A13C1
PAHZZ	5950-059-3903	COIL, RADIO FREQUENCY 4411-2M (82142)	EA	1				*	*	*	*	*	2-87	A5A13L1
PAHZZ	5905-138-3359	RESISTOR, FIXED, FILM CEC43R3F (75042)	EA	1				*	*	*	*	*	2-87	A5A13R1
PAHZZ		RESISTOR, FIXED, FILM CEC86R6F (75042)	EA	1				*	*	*	*	*	2-87	A5A13R2
PAHZZ	5940-086-4457	TERMINAL, LUG 118100 (73734)	EA	1				*	*	*	*	*	2-87	E1
PAHHH		INDICATOR DIGITAL DISPLAY 919900024 (54778)	EA	1				*	*	*	*	*		A5DS1
PAHZZ	5995-138-2465	INSULATOR B02419700 (54778)	EA	1				*	*	*	*	*		A5E1
PAHZZ		NUT, SLOTTED 9173 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ		WASHER, LOCK MS35338-154 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	1				*	*	*	*	*		H1
PAHZZ		WASHER, SHOULDERED B02777200 (94668)	EA	1				*	*	*	*	*		H1
PAHZZ	5935-729-5559	JACK, BANANA 108-903 (74970)	EA	2				*	*	*	*	*		A5J29
PAHZZ	5935-729-5559	JACK, BANANA 108-903 (74970)	EA	REF				*	*	*	*	*		A5J29A
PAHZZ	5935-192-4826	JACK, TELEPHONE MT331 (82389)	EA	2				*	*	*	*	*		A5J23A
PAHZZ	5935-192-4826	JACK, TELEPHONE MT331 (82389)	EA	REF				*	*	*	*	*		A5J23B
PAHZZ		JACK, TELEPHONE 12A (82389)	EA	2				*	*	*	*	*		A5J28
PAHZZ		JACK, TELEPHONE 12A (82389)	EA	REF				*	*	*	*	*		A5J28A
PAOZZ		KNOB 916000089 (54778)	EA	2				*	*	*	*	*		A5MP7
PAOZZ		KNOB 916000089 (54778)	EA	REF				*	*	*	*	*		A5MP8
PAOZZ		KNOB 916000090 (54778)	EA	3				*	*	*	*	*		A5MP9
PAOZZ		KNOB 916000090 (54778)	EA	REF				*	*	*	*	*		A5MP10
PAOZZ		KNOB 916000090 (54778)	EA	REF				*	*	*	*	*		A5MP11
PAOZZ		KNOB 916000103 (54778)	EA	3				*	*	*	*	*		A5MP12
PAOZZ		KNOB 916000103 (54778)	EA	REF				*	*	*	*	*		A5MP13

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR PER EQUIP CNTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAOZZ		9160000103 (54778)	KNOB	EA	REF				*	*	*	*	*		A5MP14
PAOZZ	6240-738-8334	LAMP	LAMP	EA	2				*	*	*	*	*		A5DS21
PAOZZ	6240-738-8334	LILIPUT T5.5-6V200	LAMP	EA	REF				*	*	*	*	*		A5DS22
PAHZZ	6625-401-4475	LOCAL, OSCILLATOR AMPLIFIER	LOCAL, OSCILLATOR AMPLIFIER	EA	1				*	*	*	*	*	2-67	A5A3
PAHZZ	5910-925-6581	C02418300 (54778)	CAPACITOR, FIXED, CERAMIC	EA	6				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-925-6581	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-925-6581	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-925-6581	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-925-6581	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-925-6581	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-916-3648	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	5				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-916-3648	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-916-3648	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-916-3648	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	5910-916-3648	DDM103 (71590)	CAPACITOR, FIXED, CERAMIC	EA	REF				*	*	*	*	*	2-67	A5A3C2
PAHZZ	6350-179-5736	DM15-300G (A5A3C5)	CAPACITOR, FIXED, MICA	EA	2				*	*	*	*	*	2-67	A5A3C5
PAHZZ	6350-179-5736	DM15-300G (72136)	CAPACITOR, FIXED, MICA	EA	REF				*	*	*	*	*	2-67	A5A3C12
PAHZZ		DM15-560J (72136)	CAPACITOR, FIXED, MICA	EA	1				*	*	*	*	*	2-67	A5A3C15
PAHZZ	5910-911-5897	563-013 (72982)	CAPACITOR VARIABLE, GLASS	EA	1				*	*	*	*	*	2-67	A5A3C11
PAHZZ	5950-734-3940	1537-12 (99800)	COIL, RADIO FREQUENCY	EA	1				*	*	*	*	*	2-67	A5A3L2
PAHZZ	5950-893-0431	1537-46 (99800)	COIL, RADIO FREQUENCY	EA	1				*	*	*	*	*	2-67	A5A3L3
PAHZZ		1537-06 (99800)	COIL, RADIO FREQUENCY	EA	1				*	*	*	*	*	2-67	A5A3L1
PAHZZ		1932XM (88822)	INSULATOR, STANDOFF	EA	7				*	*	*	*	*	2-67	A5A3E2
PAHZZ		1932XM (88822)	INSULATOR, STANDOFF	EA	REF				*	*	*	*	*	2-67	A5A3E3
PAHZZ		1932XM (88822)	INSULATOR, STANDOFF	EA	REF				*	*	*	*	*	2-67	A5A3E4
PAHZZ		1932XM (88822)	INSULATOR, STANDOFF	EA	REF				*	*	*	*	*	2-67	A5A3E5
PAHZZ		1932XM (88822)	INSULATOR, STANDOFF	EA	REF				*	*	*	*	*	2-67	A5A3E6

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-67	A5A3E7
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-67	A5A3E8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	5				*	*	*	*	*	2-67	A5A3R8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R11
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R15
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R18
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R21
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	2				*	*	*	*	*	2-67	A5A3R16
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R17
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R4
PAHZZ	5905-723-5257	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-67	A5A3R6
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R23
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R2
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R26
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	2				*	*	*	*	*	2-67	A5A3R24
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R25
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	2				*	*	*	*	*	2-67	A5A3R13
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R20
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R12
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R5
PAHZZ	5905-105-7767	RESISTOR, FIXED, COMPOSITION RC07GF474J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R22
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R14
PAHZZ	5905-135-3975	RESISTOR, FIXED, COMPOSITION RC07GF680J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R19
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-67	A5A3R10
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	4				*	*	*	*	*	2-67	A5A3R3

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R27
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	REF				*	*	*	*	*	2-67	A5A3R28
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	3				*	*	*	*	*	2-67	A5A3CR1
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3CR2
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3CR3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	3				*	*	*	*	*	2-67	A5A3Q1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3Q5
PAHZZ	5961-927-0845	TRANSISTOR 2N3563 (80131)	EA	4				*	*	*	*	*	2-67	A5A3Q3
PAHZZ	5961-927-0845	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3Q4
PAHZZ	5961-927-0845	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3Q6
PAHZZ	5961-927-0845	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-67	A5A3Q7
PAHZZ	5915-441-9414	LOW PASS FILTER C02418002 (94668)	EA	1				*	*	*	*	*	2-89	A5A14
PAHZZ		CAPACITOR, FIXED, MICA DM15-101G (72136)	EA	1				*	*	*	*	*	2-89	A5A1C14
PAHZZ		CAPACITOR, FIXED, MICA DM15-270G (72136)	EA	1				*	*	*	*	*	2-89	A5A14C15
PAHZZ	6350-179-5736	CAPACITOR, FIXED, MICA DM15-300G (72136)	EA	1				*	*	*	*	*	2-89	A5A14C11
PAHZZ	6350-179-5738	CAPACITOR, FIXED, MICA DM15-430G (72136)	EA	3				*	*	*	*	*	2-89	A5A14C4
PAHZZ	6350-179-5738	CAPACITOR, FIXED, MICA DM15-430G (72136)	EA	REF				*	*	*	*	*	2-89	A5A14C5
PAHZZ	6350-179-5738	CAPACITOR, FIXED, MICA DM15-430G (72136)	EA	REF				*	*	*	*	*	2-89	A5A14C12
PAHZZ		CAPACITOR, FIXED, MICA DM15-500G (72136)	EA	1				*	*	*	*	*	2-89	A5A14C17
PAHZZ	6350-179-5744	CAPACITOR, FIXED, MICA DM15-680G (72136)	EA	1				*	*	*	*	*	2-89	A5A14C1
PAHZZ	5910-882-4521	CAPACITOR, FIXED, MICA DM15-820G (72136)	EA	3				*	*	*	*	*	2-89	A5A14C3
PAHZZ	5910-882-4521	CAPACITOR, FIXED, MICA DM15-820G (72136)	EA	REF				*	*	*	*	*	2-89	A5A14C8
PAHZZ	5910-882-4521	CAPACITOR, FIXED, MICA DM15-820G (72136)	EA	REF				*	*	*	*	*	2-89	A5A14C10
PAHZZ	6350-179-5746	CAPACITOR, FIXED, MICA DM15-910G (72136)	EA	1				*	*	*	*	*	2-89	A5A14C7
PAHZZ	5910-914-0802	CAPACITOR, VARIABLE, GLASS 565-013 (72892)	EA	5				*	*	*	*	*	2-89	A5A14C2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-914-0802	CAPACITOR, VARIABLE, GLASS 565-013 (72982)	EA	REF				*	*	*	*	*	2-89	A5A14C6
PAHZZ	5910-914-0802	CAPACITOR, VARIABLE, GLASS 565-013 (72982)	EA	REF				*	*	*	*	*	2-89	A5A14C9
PAHZZ	5910-914-0802	CAPACITOR, VARIABLE, GLASS 565-013 (72982)	EA	REF				*	*	*	*	*	2-89	A5A14C13
PAHZZ	5910-914-0802	CAPACITOR, VARIABLE, GLASS 565-013 (72982)	EA	REF				*	*	*	*	*	2-89	A5A14C16
PAHZZ	5950-137-8837	COIL, RADIO FREQUENCY 909300003 (94668)	EA	1				*	*	*	*	*	2-89	A5A14L5
PAHZZ	5950-137-7359	COIL, RADIO FREQUENCY 909300004 (54778)	EA	1				*	*	*	*	*	2-89	A5A14L4
PAHZZ	5950-138-1182	COIL, RADIO FREQUENCY 909300005 (54778)	EA	1				*	*	*	*	*	2-89	A5A14L3
PAHZZ		COIL, RADIO FREQUENCY 909300006 (54778)	EA	1				*	*	*	*	*	2-89	A5A14L2
PAHZZ		COIL, RADIO FREQUENCY 909300007 (54778)	EA	1				*	*	*	*	*	2-89	A5A14L1
PAHZZ		PRINTED WIRING, BOARD 904500251 (54778)	EA	1				*	*	*	*	*	2-89	A5A14E1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-89	A5A14R1
PAHZZ	5905-133-0440	RESISTOR, FIXED COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-89	A5A14R2
PAHHH	6625-240-9504	METER AMPLIFIER C02418800 (54778)	EA	1				*	*	*	*	*	2-77	A5A8
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	12				*	*	*	*	*	2-77	A5A8C1
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C2
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C3
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C5
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C6
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C7
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C8
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C10
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C11
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C12
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C13
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-77	A5A8C15
PAHZZ		CAPACITOR, FIXED, CERAMIC TCZ120 (71590)	EA	2				*	*	*	*	*	2-77	A5A8C4
PAHZZ		CAPACITOR, FIXED, CERAMIC TCZ120 (71590)	EA	REF				*	*	*	*	*	2-77	A5A8C9

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT. GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT EQUIP ALW PER 100 EQUIP	(10) ILLUSTRATION		
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100		(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA DM15-121J (72136)		EA	1				*	*	*	*	*	2-77	A5A8C14
PAHZZ		COIL, RADIO, FREQUENCY 4450-31 (99800)		EA	3				*	*	*	*	*	2-77	A5A8L1
PAHZZ		COIL, RADIO, FREQUENCY 4450-31 (99800)		EA	REF				*	*	*	*	*	2-77	A5A8L2
PAHZZ		COIL, RADIO, FREQUENCY 4450-31 (99800)		EA	REF				*	*	*	*	*	2-77	A5A8L4
PAHZZ	5950-955-9968	COIL, RADIO, FREQUENCY 70F333A1 (76493)		EA	2				*	*	*	*	*	2-77	A5A8L3
PAHZZ	5950-955-9968	COIL, RADIO, FREQUENCY 70F333A1 (76493)		EA	REF				*	*	*	*	*	2-77	A5A8L5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	3				*	*	*	*	*	2-77	A5A8E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-77	A5A8E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-77	A5A8E4
PAHZZ	5945-139-1821	RELAY, REED PS647-2 (26623)		EA	1				*	*	*	*	*	2-77	A5A8K1
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	4				*	*	*	*	*	2-77	A5A8R5
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R14
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R17
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R23
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)		EA	1				*	*	*	*	*	2-77	A5A8R12
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)		EA	1				*	*	*	*	*	2-77	A5A8R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)		EA	1				*	*	*	*	*	2-77	A5A8R6
PAHZZ	5905-683-2440	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)		EA	2				*	*	*	*	*	2-77	A5A8R7
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R25
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)		EA	2				*	*	*	*	*	2-77	A5A8R4
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R11
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF331J (81349)		EA	3				*	*	*	*	*	2-77	A5A8R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF331J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R19
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF331J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R26
PAHZZ	5905-118-4459	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	2				*	*	*	*	*	2-77	A5A8R15
PAHZZ	5905-118-4459	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	REF				*	*	*	*	*	2-77	A5A8R21
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	3				*	*	*	*	*	2-77	A5A8R8

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT. GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-686-9998	RESISTOR, FIXED, POSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-77	A5A8R10
PAHZZ	5905-686-9998	RESISTOR, FIXED, POSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-77	A5A8R18
PAHZZ	5905-141-0717	RESISTOR, FIXED, POSITION RC07GF473J (81349)	EA	1				*	*	*	*	*	2-77	A5A8R9
PAHZZ	5905-106-1357	RESISTOR, FIXED, POSITION RC07GF563J (81349)	EA	2				*	*	*	*	*	2-77	A5A8R16
PAHZZ	5905-106-1357	RESISTOR, FIXED, POSITION RC07GF563J (81349)	EA	REF				*	*	*	*	*	2-77	A5A8R22
PAHZZ		RESISTOR, FIXED, POSITION RC07CGF682J (81349)	EA	2				*	*	*	*	*	2-77	A5A8R20
PAHZZ		RESISTOR, FIXED, POSITION RC07GF682J (81349)	EA	REF				*	*	*	*	*	2-77	A5A8R27
PAHZZ		RESISTOR, FIXED, POSITION RC07GF683J (81349)	EA	1				*	*	*	*	*	2-77	A5A8R13
PAHZZ		RESISTOR VARIABLE RP11/M (01121)	EA	1				*	*	*	*	*	2-77	A5A8R2
PAHZZ	5905-068-6962	RESISTOR, VARIABLE 3065P1-102 (80294)	EA	1				*	*	*	*	*	2-77	A5A8R24
PAHZZ		SEMICONDUCTOR DEVICE DIODE HP2900 (28480)	EA	1				*	*	*	*	*	2-77	A5A8CR1
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	2				*	*	*	*	*	2-77	A5A8Q2
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-77	A5A8Q3
PAHZZ	5961-135-3969	TRANSISTOR 2N3663 (80131)	EA	1				*	*	*	*	*	2-77	A5A8QL
PAHZZ	6625-240-9505	METER CIRCUIT C02418900 (54778)	EA	1				*	*	*	*	*	2-79	A5A9
PAHZZ		NUT, ASSEMBLED, WASHER 71500 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	4				*	*	*	*	*		H4
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	8				*	*	*	*	*	2-79	A5A9C1
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9C2
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9C3
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9CS
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9C7
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9C8
PFHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9C9
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-79	A5A9C10
PAHZZ	5910-052-8766	CAPACITOR FIXED, ELECTROLYTIC TL1209-31D92 (56289)	EA	1				*	*	*	*	*	2-79	A5A9C11

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT. GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	1				*	*	*	*	*	2-79	A5A9C6
PAHZZ	5910-832-8080	CAPACITOR, FIXED, MICA DM15-180J (72136)	EA	1				*	*	*	*	*	2-79	A5A9C4
PAHZZ	5950-955-9968	COIL, RADIO, FREQUENCY 70F333A1 (76493)	EA	1				*	*	*	*	*	2-79	A5A9L1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	2				*	*	*	*	*	2-79	A5A9E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-79	A5A9E3
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R10
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R11
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R5
PAHZZ	5905-141-0742	RESISTOR, FIXED, COMPOSITION RC07GF181J (81149)	EA	1				*	*	*	*	*	2-79	A5A91R8
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R9
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R18
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	2				*	*	*	*	*	2-79	A5A9R6
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	REF				*	*	*	*	*	2-79	A59R17
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07CF393J (81349)	EA	2				*	*	*	*	*	2-79	A5A9R1
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	REF				*	*	*	*	*	2-79	A5A9R2
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R12
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R3
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R4
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-79	A5A9R7
PAHZZ	5905-435-6374	RESISTOR, FIXED, COMPOSITION RC07GF823J (81349)	EA	2				*	*	*	*	*	2-79	A5A9R13
PAHZZ	5905-435-6374	RESISTOR, FIXED, COMPOSITION RC07GF823T (81349)	EA	REF				*	*	*	*	*	2-79	A5A9R15
PAHZZ	5905-150-5632	RESISTOR, VARIABLE RP502M (01121)	EA	1				*	*	*	*	*	2-79	A5A9R16
PAHZZ		RESISTOR, VARIABLE RP503M (01121)	EA	1				*	*	*	*	*	2-79	A5A9R14
PAHZZ		SEMICONDUCTOR DEVICE, DIODE HP2900 (28480)	EA	2				*	*	*	*	*	2-79	A5A9CR3
PAHZZ		SEMICONDUCTOR DEVICE, DIODE HP2900 (28480)	EA	REF				*	*	*	*	*	2-79	A5A9CR4
PAHZZ	5961-097-7633	SEMICONDUCTOR DEVICE, DIODE MA4121 (96341)	EA	2				*	*	*	*	*	2-79	A5A9CR1
PAHZZ	5961-097-7633	SEMICONDUCTOR DEVICE, DIODE MA4121 (96341)	EA	REF				*	*	*	*	*	2-79	A5A9CR2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT. GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT EQUIP ALW PER 100 EQUIP	(9) DEPOT MAINT EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	1				*	*	*	*	*	2-79	A5A9Q1
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	1				*	*	*	*	*	2-79	A5A9Q2
PAHZZ	6625-250-4590	METER COMPENSATION B02419500 (54778)	EA	1				*	*	*	*	*	2-96	A5A15
PAHZZ	5910-714-5406	CAPACITOR, FIXED ELECTROLYTIC 150D107X0010R2 (56289)	EA	1				*	*	*	*	*	2-96	A5A15C1
PAHZZ		THERMISTOR 23D20 (83816)	EA	1				*	*	*	*	*	2-96	A5A15RT1
PAHZZ	6625-190-5889	METER, PROJECTION 911800104 (54778)	EA	1				*	*	*	*	*		A5M1
PAHHH	6625-240-9503	NARROW BAND WIDE BAND FILTER C02418700 (94668)	EA	1				*	*	*	*	*	2-75	A5A7
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	8				*	*	*	*	*	2-75	A5A7C1
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-75	A5A7C2
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-75	A5A7C3
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-75	A5A7C4
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-75	A5A7CS
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-75	A5A7C6
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-75	A5A7C7
PAHZZ	5910-925-6581	CAPACITOR FIXED, CERAMIC DDM103 (11590)	EA	REF				*	*	*	*	*	2-75	A5AC8
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	1				*	*	*	*	*	2-75	A5A7C9
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*	2-75	A5A7E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-75	A5A7E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-75	A5A7E4
PAHZZ	5945-139-1821	RELAY, REED PS647-2 (26623)	EA	2				*	*	*	*	*	2-75	A5A7K1
PAHZZ	5945-139-1821	RELAY, REED PS647-2 (26623)	EA	REF				*	*	*	*	*	2-75	A5A7K2
PAHZZ	5905-131-1255	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-75	A5A7R8
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-75	A5A7R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-75	A5A7R13
PAHZZ	5905-141-0742	RESISTOR, FIXED, COMPOSITION RC07GF181J (81349)	EA	1				*	*	*	*	*	2-75	A5A7R14
PAHZZ	5905-105-7764	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-75	A5A7R3
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-75	A5A7R10

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(A) 1-20	(b) 21-50	(c) 51-100	(A) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5909-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	1				*	*	*	*	*	2-75	A57R17
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	3				*	*	*	*	*	2-75	A5A7R5
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	REF				*	*	*	*	*	2-75	A5A7R12
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	REF				*	*	*	*	*	2-75	A5A7R16
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)		EA	1				*	*	*	*	*	2-75	A5A7R9
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)		EA	3				*	*	*	*	*	2-75	A5A7R4
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)		EA	REF				*	*	*	*	*	2-75	A5A7R11
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)		EA	REF				*	*	*	*	*	2-75	A5A7R15
PAHZZ	5905-120-9154	RESIST, FIXED, COMPOSITION RC07GF471J (81349)		EA	1				*	*	*	*	*	2-75	A5A7R1
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	1				*	*	*	*	*	2-75	A5A7R2
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)		EA	1				*	*	*	*	*	2-75	A5A7R7
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)		EA	3				*	*	*	*	*	2-75	A5A7Q1
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)		EA	REF				*	*	*	*	*	2-75	A5A7Q2
PAHZZ	5961-927-0845	TRANSISTOR 2143640 (80131)		EA	REF				*	*	*	*	*	2-75	A5A7Q3
PAHZZ		PLATE, DESIGNATION 919500314 (94668)		EA	1				*	*	*	*	*		A5MP36
PAHZZ	9905-157-9955	PLATE, IDENTIFICATION 919500323 (94668)		EA	1				*	*	*	*	*		A5MP35
PAHZZ		SCREW, FLAT HEAD 16328 (73734)		EA	4				*	*	*	*	*		H2
PAHHH	6625-240-9540	POWER SUPPLY C02714300 (94668)		EA	1				*	*	*	*	*	2-85	A5A12
PAHZZ		CAPACITOR, FIXED CERAMIC 33C41A3 (56289)		EA	1				*	*	*	*	*	2-85	A5A12C2
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC EMW21 (12674)		EA	1				*	*	*	*	*	2-85	A5A12C3
PAHZZ	5910-137-8784	CAPACITOR, FIXED, ELECTROLYTIC EMW01930 (12674)		EA	1				*	*	*	*	*	2-85	A5A12C1
PAHZZ		SCREW, MACHINE FLAT, HEAD 16328 (73734)		EA	4				*	*	*	*	*	2-85	A5A12E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-85	A5A12E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-85	A5A12E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-85	A5A12E5
PAHZZ	5905-131-1255	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)		EA	1				*	*	*	*	*	2-85	A5A12R4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT EQUIP ALW PER 100 EQUIP	(9) DEPOT MAINT EQUIP ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-105-7764	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-85	A5A12R5
PAHZZ	5905-105-7764	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-85	A5A12R10
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	2				*	*	*	*	*	2-85	A5A12R8
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-85	A5A12R9
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	2				*	*	*	*	*	2-85	A5A12R1
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-85	A5A1R11
PAHZZ	5905-110-0310	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	1				*	*	*	*	*	2-85	A5A12R2
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07CF392J (81349)	EA	1				*	*	*	*	*	2-85	A5A12R6
PAHZZ		RESISTOR, FIXED, WIREWOUND 99-4337 (44655)	EA	1				*	*	*	*	*	2-85	A5A12R3
PAHZZ	5905-763-4738	RESISTOR, VARIABLE 62PAR2K (73138)	EA	1				*	*	*	*	*	2-85	A5A12A7
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	4				*	*	*	*	*	2-85	A5A12CR2
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-85	A5A12CR3
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-85	A5A12CR4
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-85	A5A12CR5
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N753 (80131)	EA	1				*	*	*	*	*	2-85	A5A12CR6
PAHZZ	5961-410-5128	SEMICONDUCTOR DEVICE, DIODE 18DB2A (81483)	EA	1				*	*	*	*	*	2-85	A5A12CR1
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	2				*	*	*	*	*	2-85	A5A12Q5
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	REF				*	*	*	*	*	2-85	A5A12Q6
PAHZZ	5916-062-3133	TRANSISTOR 2N3638 (80131)	EA	1				*	*	*	*	*	2-85	A5A12Q1
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	1				*	*	*	*	*	2-85	A5A12Q4
PAHZZ	5961-905-2926	TRANSISTOR 40250 (07235)	EA	1				*	*	*	*	*	2-85	A5A12Q3
PAHZZ		PRODUCTION, TEST 1959-60 (05276)	EA	3				*	*	*	*	*		A5E20
PAHZZ		PRODUCTION, TEST 1959-60 (05276)	EA	REF				*	*	*	*	*		A5E21
PAHZZ		PRODUCTION, TEST 1959-55 (05276)	EA	REF				*	*	*	*	*		A5E22
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*		A5R2
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*		A5R5
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*		A5R6

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					PAHZZ	5905-484-3040	RESISTOR, VARIABLE 907900037 (54778)	EA	1					
PAHZZ	5310-802-4701	WASHER, FLAT MS15795 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5905-138-4972	RESISTOR, VARIABLE 3253-50K (11534)	EA	1				*	*	*	*	*		A5R3
PAHZZ	5310-802-4701	WASHER, FLAT MS15795-813 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ		RESISTOR, VARIABLE 48M9-200 (12697)	EA	1				*	*	*	*	*		A5R1
PAHHH	6625-240-9506	2ND MIXER AND INTERMEDIATE FREQUENCY AMPLIFIER C02418500 (54778)	EA	1				*	*	*	*	*	2-71	A5A5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	6				*	*	*	*	*	2-71	A5A5C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-71	A5A5C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-71	A5A5C4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-71	A5A5C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-71	A5A5C16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-71	A5A5C17
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	2				*	*	*	*	*	2-71	A5A5C1
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-71	A5A5C15
PAHZZ		CAPACITOR FIXED, MICA DM15-270J (72136)	EA	5				*	*	*	*	*	2-71	A5A5C5
PAHZZ		CAPACITOR, FIXED, MICA DM15-2703 (72136)	EA	REF				*	*	*	*	*	2-71	A5A5C6
PAHZZ		CAPACITOR, FIXED, MICA DM15-270J (72136)	EA	REF				*	*	*	*	*	2-71	A5A5C8
PAHZZ		CAPACITOR, FIXED, MICA DM15-270J (72136)	EA	REF				*	*	*	*	*	2-71	A5A5C9
PAHZZ		CAPACITOR, FIXED, MICA DM15-270J (72136)	EA	REF				*	*	*	*	*	2-71	A5A5C11
PAHZZ	6350-179-5736	CAPACITOR, FIXED, MICA DM15-300G (72136)	EA	1				*	*	*	*	*	2-71	A5A5C12
PAHZZ	5910-581-4621	CAPACITOR, FIXED, MICA DM15-330J (72136)	EA	1				*	*	*	*	*	2-71	A5A513
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (72136)	EA	2				*	*	*	*	*	2-71	A5A5C7
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (72136)	EA	REF				*	*	*	*	*	2-71	A5A5C10
PAHZZ	5950-825-5306	COIL, RADIO, FREQUENCY WEE68 (43543)	EA	1				*	*	*	*	*	2-71	A5A5L4
PAHZZ	5950-422-0441	COIL, RADIO, FREQUENCY 4000-10 (99800)	EA	3				*	*	*	*	*	2-71	A5A5L1
PAHZZ	5950-422-0441	COIL, RADIO, FREQUENCY 4000-10 (99800)	EA	REF				*	*	*	*	*	2-71	A5A5L2
PAHZZ	5950-422-0441	COIL, RADIO, FREQUENCY 4000-10 (99800)	EA	REF				*	*	*	*	*	2-71	A5A5L3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(A)	(b)	(c)	(A)	(b)	(c)			(A)	(b)
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*	2-71	A5A5E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-71	A5A5E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-71	A5A5E4
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	4				*	*	*	*	*	2-71	A5A5R7
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	REF				*	*	*	*	*	2-71	A5A5R10
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	REF				*	*	*	*	*	2-71	A5A5R11
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	REF				*	*	*	*	*	2-71	A5A5R13
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-71	A5A5R9
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-71	A5A5R14
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-71	A5A5R8
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-71	A5A5R2
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	1				*	*	*	*	*	2-71	A5A5R12
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-71	A5A5R1
PAHZZ	5905-114-0711	RESISTOR 4.7K TO 10K 1/4W SELECT (94668)	EA	1				*	*	*	*	*	2-71	A5A5R6
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-71	A5A5R3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	2				*	*	*	*	*	2-71	A5A5Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-71	A5A5Q3
PAHZZ	5961-982-0408	TRANSISTOR 2N4034 (80131)	EA	1				*	*	*	*	*	2-71	A5A5Q1
PAHHH	6625-240-9507	2ND MODULATOR AND INTERMEDIATE FREQUENCY OUTPUT AMPLIFIER C02418400 (54778)	EA	1				*	*	*	*	*	2-69	A5A4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	8				*	*	*	*	*	2-69	A5A4C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C17
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C18
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-69	A5A4C19

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(A) 1-20	(b) 21-50	(c) 51-100	(A) 1-20	(b) 21-50	(c) 51-100			(A) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	3				*	*	*	*	*	2-69	A5A4C5
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-69	A5A4C16
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-69	A5A4C21
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	2				*	*	*	*	*	2-69	A5A4C8
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	REF				*	*	*	*	*	2-69	A5A4C9
PAHZZ	5910-926-9804	CAPACITOR, FIXED, MICA DM15-080K (72136)	EA	1				*	*	*	*	*	2-69	A5A4C11
PAHZZ	5910-712-8656	CAPACITOR, FIXED, MICA DM15-100J (72136)	EA	1				*	*	*	*	*	2-69	A5A4C12
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	1				*	*	*	*	*	2-69	A5A4C1
PAHZZ		CAPACITOR, FIXED, MICA DM15-560J (72136)	EA	1				*	*	*	*	*	2-69	A5A4C4
PAHZZ	5910-892-9996	CAPACITOR, VARIABLE, GLASS MC626Y (73899)	EA	1				*	*	*	*	*	2-69	A5A4C20
PAHZZ	5910-911-5897	CAPACITOR, VARIABLE, GLASS 563-013 (72982)	EA	2				*	*	*	*	*	2-69	A5A4C7
PAHZZ	5910-911-5897	CAPACITOR, VARIABLE, GLASS 563-013 (72982)	EA	REF				*	*	*	*	*	2-69	A5A4C10
PAHZZ	5950-825-5306	COIL, RADIO, FREQUENCY WEE68 (43543)	EA	2				*	*	*	*	*	2-69	A5A4L1
PAHZZ	5950-825-5306	COIL, RADIO, FREQUENCY WEE68 (43543)	EA	REF				*	*	*	*	*	2-69	A5A4L4
PAHZZ	5950-734-3940	COIL, RADIO, FREQUENCY 1537-12 (99800)	EA	1				*	*	*	*	*	2-69	A5A4L3
PAHZZ	5950-137-8851	COIL, RADIO, FREQUENCY 4450-12 (99800)	EA	1				*	*	*	*	*	2-69	A5A4L2
PAHZZ		CRYSTAL QUARTZ 912200040 (54778)	EA	1				*	*	*	*	*	2-69	A5A4Y1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	5				*	*	*	*	*	2-69	A5A4E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-69	A5A4E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-69	A5A4E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-69	A5A4E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-69	A5A4E6
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R30
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	5				*	*	*	*	*	2-69	A5A4R9
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R10
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R26
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R27

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(A) 1-20	(b) 21-50	(c) 51-100	(A) 1-20	(b) 21-50	(c) 51-100			(A) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R28
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	2				*	*	*	*	*	2-69	A5A4R12
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R13
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R22
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R29
PAHZZ	5905-105-7764	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-69	A5A4R21
PAHZZ	5905-105-7764	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R25
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	4				*	*	*	*	*	2-69	A5A4R2
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R3
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-69	A4A4R19
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R20
PAHZZ	5905-119-3503	RESISTOR; FIXED, COMPOSITION RC07GF271J (81349)	EA	2				*	*	*	*	*	2-69	A5A4R15
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R16
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R4
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R11
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R7
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R6
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	2				*	*	*	*	*	2-69	A5A4R17
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	REF				*	*	*	*	*	2-69	A5A4R18
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-69	A5A4R23
PAHZZ	5905-763-4739	RESISTOR, VARIABLE 62PAR200 (80740)	EA	1				*	*	*	*	*	2-69	A5A4R24
PAHZZ		RESISTOR, VARIABLE 62PAR50C (80740)	EA	1				*	*	*	*	*	2-69	A5A4R14
PAHZZ	5905-102-5886	RESISTOR, VARIABLE 79PR10K (73138)	EA	1				*	*	*	*	*	2-69	A5A4R8
PAHZZ	5961-018-8964	SEMICONDUCTOR DEVICE, DIODE HD1871E (73293)	EA	2				*	*	*	*	*	2-69	A5A4CR1
PAHZZ	5961-018-8964	SEMICONDUCTOR DEVICE, DIODE HD1871E (73293)	EA	REF				*	*	*	*	*	2-69	A5A4CR2
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N995 (80131)	EA	1				*	*	*	*	*	2-69	A5A4R3

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5950-402-3663	TRANSFORMER, PULSE PE5864 (01961)	EA	1				*	*	*	*	*	2-69	A5A4T1
PAHZZ	5961-943-7S72	TRANSISTOR 2N3563 (80131)	EA	4				*	*	*	*	*	2-69	A5A4Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-69	A5A4Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-69	A5A4Q5
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-69	A5A4Q6
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	1				*	*	*	*	*	2-69	A5A4Q3
PAHZZ	3040-146-0564	SHAFT, EXTENSION B02419400 (54778)	EA	1				*	*	*	*	*		A5MP1
PAHZZ	5935-137-7357	SHIELD, CONNECTOR B02419600 (54778)	EA	1				*	*	*	*	*		A5MP2
PAHHH	6625-240-9539	SIDEBAND, OSCILLATOR C02419000 (94668)	EA	1				*	*	*	*	*	2-81	A5A10
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	10				*	*	*	*	*	2-81	A5A10C1
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C2
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C5
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C6
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C7
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C8
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C9
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C12
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A510C13
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-81	A5A10C14
PAHZZ	5910-699-2916	CAPACITOR, FIXED, MICA DM15-391J (72136)	EA	2				*	*	*	*	*	2-81	A5A10C4
PAHZZ	5910-699-2916	CAPACITOR, FIXED, MICA DM15-391J (72136)	EA	REF				*	*	*	*	*	2-81	A5A10C11
PAHZZ	5910-713-1978	CAPACITOR, FIXED, MICA DM15-680J (72136)	EA	2				*	*	*	*	*	2-81	A5A10C3
PAHZZ	5910-713-1978	CAPACITOR, FIXED, MICA DM15-680J (72136)	EA	REF				*	*	*	*	*	2-81	A5A10C10
PAHZZ	5950-893-0433	COIL, RADIO, FREQUENCY 1537-46 (99800)	EA	2				*	*	*	*	*	2-81	A5A10L2
PAHZZ	5950-893-0431	COIL, RADIO, FREQUENCY 1537-46 (99800)	EA	REF				*	*	*	*	*	2-81	A5A10L4
PAHZZ	5950-023-9641	COIL, RADIO, FREQUENCY 4450-35 (99800)	EA	2				*	*	*	*	*	2-81	A5A10L1
PAHZZ	5950-023-9641	COIL, RADIO, FREQUENCY 4450-35 (99800)	EA	REF				*	*	*	*	*	2-81	A5A10L3

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5955-139-9537	CRYSTAL, QUARTZ 912200055 (54778)	EA	1				*	*	*	*	*	2-81	A5A10Y1
PAHZZ	5955-139-1841	CRYSTAL, QUARTZ 912200056 (54778)	EA	1				*	*	*	*	*	2-81	A5A10Y2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	4				*	*	*	*	*	2-81	A5A10E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-81	A5A10E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-81	A5A10E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-81	A5A10E5
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R18
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R2
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-81	A5A10I7
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R5
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R15
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R21
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R22
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	6				*	*	*	*	*	2-81	A5A10R1
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R9
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-81	A5A510R
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R10
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R11
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R19
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R20
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R6
PAHZZ	5905-119-3503	RESISTER, FIXED, COMPOSITION RC07GF271J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R16
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R3
PAHZZ	5905-111-4727	RESISTER, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R13
PAHZZ	5905-686-9990	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	2				*	*	*	*	*	2-81	A5A10R4

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-114-0711	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-81	A5A10R14
PAHZZ	5961-952-8226	TRANSISTOR 2N1728 (80131)	EA	2				*	*	*	*	*	2-81	A5A10Q1
PAHZZ	5961-952-8226	TRANSISTOR 2N1728 (80131)	EA	REF				*	*	*	*	*	2-81	A5A10Q3
PAHZZ	5961-082-3697	TRANSISTOR 2N1745 (80131)	EA	2				*	*	*	*	*	2-81	A5A10Q2
PAHZZ	5961-082-3697	TRANSISTOR 2N1745 (80131)	EA	REF				*	*	*	*	*	2-81	A5A10Q4
PAHZZ	5961-942-4092	SOCKET, TRANSISTOR 914200049 (91506)	EA	2				*	*	*	*	*	2-81	A5ZQ1
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	1				*	*	*	*	*		H2
PAHZZ	5305-054-5645	SCREW, MACHINE MS51957-15 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5930-137-7360	SWITCH, PUSH 911300030 (54778)	EA	1				*	*	*	*	*		A5S5
PAHZZ		NUT, ASSEMBLED WASHER 9225 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5930-137-4957	SWITCH, ROTARY 911200011 (54778)	EA	1				*	*	*	*	*		A5S6
PAHZZ	5930-010-5378	SWITCH, ROTARY 911200058 (54778)	EA	1				*	*	*	*	*		A5S4
PAHZZ	5955-139-4958	SWITCH, ROTARY 911200142 (54778)	EA	1				*	*	*	*	*		A5S1
PAHZZ	5930-137-4959	SWITCH, ROTARY 911200143 (54778)	EA	1				*	*	*	*	*		A5S2
PAHZZ	5930-137-7337	SWITCH, ROTARY 0402003093231202 (76854)	EA	1				*	*	*	*	*		AS53
PAHZZ	5310-802-4701	WASHER, FLAT MS15795-813 (96906)	EA	5				*	*	*	*	*		H5
PAHZZ	5930-059-1390	SWITCH, SLIDE 46256LF (82389)	EA	1				*	*	*	*	*		A5S7
PAHZZ	5940-539-1778	TERMINAL, LUG AA520-04 (73734)	EA	2				*	*	*	*	*		E2
PAHZZ	5940-086-4455	TERMINAL, LUG 118100 (73734)	EA	7				*	*	*	*	*		E7
PAHZZ	5940-086-4457	TERMINAL, LUG 118100 (75754)	EA	7				*	*	*	*	*		E45
PAHZZ	5940-714-0365	TERMINAL, LUG 118060 (21938)	EA	1				*	*	*	*	*		A5E19
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	17				*	*	*	*	*		A5E23
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E24
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E2
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E26
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E27
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E28

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E29
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E30
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E31
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E32
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E33
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E34
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E35
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E36
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E37
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E38
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	REF				*	*	*	*	*		A5E39
PAHZZ	5940-156-7344	TERMINAL, LUG 1961 (21938)	EA	4				*	*	*	*	*		A5E40
PAHZZ	5940-156-7344	TERMINAL, LUG 1961 (21938)	EA	REF				*	*	*	*	*		A5E41
PAHZZ	5940-156-7344	TERMINAL, LUG 1961 (21938)	EA	REF				*	*	*	*	*		A5E42
PAHZZ	5940-156-7344	TERMINAL, LUG 1961 (21938)	EA	REF				*	*	*	*	*		A5E43
PAHZZ	5940-259-9000	TERMINAL, LUG 7A (79963)	EA	3				*	*	*	*	*		A5E46
PAHHH	6625-240-9502	THIRD MIXER AND INTERMEDIATE AMPLIFIER C02418600 (54778)	EA	1				*	*	*	*	*	2-73	A5A6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	10				*	*	*	*	*	2-73	A5A6C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, COMPOSITION DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C15
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C17
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-73	A5A6C18
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71290)	EA	REF				*	*	*	*	*	2-73	A5A6C19

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	4				*	*	*	*	*	2-73	A5A6C6
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-73	A5A6C7
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-73	A5A6C12
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-73	A5A6C13
PAHZZ	5910-615-5472	CAPACITOR, FIXED, ELECTROLYTIC 8-250BP1-2585NP (22650)	EA	1				*	*	*	*	*	2-73	A5A6C5
PAHZZ	5910-660-4979	CAPACITOR, FIXED, MICA 1815-2213 (72136)	EA	1				*	*	*	*	*	2-73	A5A6C9
PAHZZ		CAPACITOR, FIXED, MICA DM15-560J (72136)	EA	1				*	*	*	*	*	2-73	A5A6C3
PAHZZ	5910-781-7930	CAPACITOR, FIXED, MICA DM15-750J (72136)	EA	1				*	*	*	*	*	2-73	A5A6C8
PAHZZ		CAPACITOR, FIXED, MICA DM15-821J (72136)	EA	1				*	*	*	*	*	2-73	A5A6C4
PAHZZ	5950-825-5306	COIL, RADIO, FREQUENCY WEE68 (43543)	EA	1				*	*	*	*	*	2-73	A5A6L3
PAHZZ	5950-734-3940	COIL, RADIO, FREQUENCY 1537-12 (99800)	EA	1				*	*	*	*	*	2-73	A5A6L1
PAHZZ	5950-893-0431	COIL, RADIO, FREQUENCY 1537-46 (99800)	EA	1				*	*	*	*	*	2-73	A5A6L5
PAHZZ	5940-023-9641	COIL, RADIO, FREQUENCY 4450-35 (99800)	EA	2				*	*	*	*	*	2-73	A5A6L2
PAHZZ	5940-023-9641	COIL, RADIO, FREQUENCY 4450-35 (99800)	EA	REF				*	*	*	*	*	2-73	A5A6L4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	4				*	*	*	*	*	2-73	A5A6E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-73	A5A6E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-73	A5A6E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-73	A5A6E5
PAHZZ	5945-139-1821	RELAY, REED PS647-2 (26623)	EA	1				*	*	*	*	*	2-73	A5A6K1
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	2				*	*	*	*	*	2-73	A5A6R3
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R17
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	2				*	*	*	*	*	2-73	A5A6R25
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R26
PAHZZ	5905-683-2247	RESISTOR, FIXED, COMPOSITION RC07GF121J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R23
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R8
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R2
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	3				*	*	*	*	*	2-73	A5A6R18

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R21
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R28
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-73	A5A6R13
PAHZZ	5905-723-5257	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R20
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R1
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R14
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-73	A5A7R4
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	3				*	*	*	*	*	2-73	A5A6R5
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R19
PAHZZ	5905-131-9729	RESISTOR, FIXED, COMPOSITION RC07GF302J (81349)	EA	2				*	*	*	*	*	2-73	A5A6R15
PAHZZ	5905-131-9729	RESISTOR, FIXED, COMPOSITION RC07GF302J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R22
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	2				*	*	*	*	*	2-73	A5A6R11
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	REF				*	*	*	*	*	2-73	A5A6R27
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R7
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R16
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R10
PAHZZ		RESISTOR, FIXED COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-73	A5A6R6
PAHZZ	5905-517-9330	RESISTOR, VARIABLE RP501U (01121)	EA	1				*	*	*	*	*	2-73	A5A6R24
PAHZZ	5905-138-1177	THERMISTOR 33D12 (83186)	EA	1				*	*	*	*	*	2-73	A5A6RT1
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	4				*	*	*	*	*	2-73	A5A6Q1
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-73	A5A6Q2
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-73	A5A6Q3
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-73	A5A6Q4
PAHHH	6625-240-9550	THIRD MODULATOR AND GAIN REFER C02418100 (54778)	EA	1				*	*	*	*	*	2-63	A5A1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	5				*	*	*	*	*	2-63	A5A1C2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-63	A5A1C6
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-63	A5A1C7
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-63	A5A1C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-63	A5A1C11
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	2				*	*	*	*	*	2-63	A5A1C1
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-63	A5A1C4
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-00Z5U0-102P (72982)	EA	1				*	*	*	*	*	2-63	A5A1C5
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	2				*	*	*	*	*	2-63	A5A1C12
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	REF				*	*	*	*	*	2-63	A5A1C15
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA DM15-121J (72136)	EA	2				*	*	*	*	*	2-63	A5A1C8
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA DM15-121J (72136)	EA	REF				*	*	*	*	*	2-63	A5A1C9
PAHZZ		CAPACITOR, FIXED, MICA DM15-561J (72136)	EA	1				*	*	*	*	*	2-63	A5A1C3
PAHZZ	5910-911-5897	CAPACITOR, VARIABLE, GLASS 563-013 (72982)	EA	2				*	*	*	*	*	2-63	A5A1C13
PAHZZ	5910-911-5897	CAPACITOR, VARIABLE, GLASS 563-013 (72982)	EA	REF				*	*	*	*	*	2-63	A5A1C14
PAHZZ	5950-825-5306	COIL, RADIO FREQUENCY WEE68 (43543)	EA	1				*	*	*	*	*	2-63	A5A1L3
PAHZZ	5950-137-8851	COIL, RADIO FREQUENCY 4450-12 (99800)	EA	1				*	*	*	*	*	2-63	A5A1L2
PAHZZ	5950-481-5448	COIL, RADIO FREQUENCY 70F475A1 (76493)	EA	1				*	*	*	*	*	2-63	A5A1L1
PAHZZ	5950-045-4502	CRYSTAL, QUARTZ 912200026 (94668)	EA	1				*	*	*	*	*	2-63	A5A1Y1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	5				*	*	*	*	*	2-63	A5A1E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-63	A5A1E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-63	A5A1E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-63	A5A1E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-63	A5A1E6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	3				*	*	*	*	*	2-63	A5A1R22
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R23
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R24
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R26

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R27
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-63	A5A1R19
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R18
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R21
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R4
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R10
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R16
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R17
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-63	A5A1R12
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R29
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R30
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R3
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R9
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	3				*	*	*	*	*	2-63	A5A1R1
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R5
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R6
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R2
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R7
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R11
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R25
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)	EA	1				*	*	*	*	*	2-63	A5A1R15
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	*	2-63	A5A1R20
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	2				*	*	*	*	*	2-63	A5A1R31
PAHZZ	5905-106-1357	RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	REF				*	*	*	*	*	2-63	A5A1R32
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-63	A5A1R14

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5905-119-8768	RESISTOR, FIXED, COMPOSITION RC07GF821J (81349)	EA	1				*	*	*	*	*	2-63	A5A1R8
PAHZZ	5905-763-4738	RESISTOR, VARIABLE 62PAR2K (73138)	EA	1				*	*	*	*	*	2-63	A5A1R13
PAHZZ	5905-763-4747	RESISTOR, VARIABLE 62PAR500 (73138)	EA	1				*	*	*	*	*	2-63	A5A1R28
PAHZZ	5961-018-8964	SEMICONDUCTOR DEVICE, DIODE HD1871E (73293)	EA	2				*	*	*	*	*	2-63	A5A1CR1
PAHZZ	5961-018-8964	SEMICONDUCTOR DEVICE, DIODE HD1871E (73293)	EA	REF				*	*	*	*	*	2-63	A5A1CR2
PAHZZ	5950-402-3663	TRANSMITTER, PULSE PE5864 (01961)	EA	1				*	*	*	*	*	2-63	A5A1T1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	4				*	*	*	*	*	2-63	A5A1Q1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-63	A5A1Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-63	A5A1Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-63	A5A1Q4
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	1				*	*	*	*	*	2-63	A5A1Q5
PAHZZ		WASHER, NONMETALLIC 5600-16-32 (86928)	EA	2				*	*	*	*	*	2-63	H2
PAHZZ	5950-137-8835	XFMR, POWER 910000100 (54778)	EA	1				*	*	*	*	*		A5T1
PAHZZ	5310-052-3632	NUT, ASSEMBLED WASHER 9226 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-6667	SCREW, MACHINE MS51957-42 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5961-431-7862	TRANSISTOR 40251 (02735)	EA	1				*	*	*	*	*		A5Q1
PAHZZ	6625-177-3616	VIEWING SCREEN 919800017 (54778)	EA	1				*	*	*	*	*		A5MP15
PAHHH	6625-439-6157	PROBE SEBASSEMBLY 230A (54778)	EA	1				*	*	*	*	*	2-140	A2
PAHZZ	6625-177-3607	ADAPTER BODY C02710600 (54778)	EA	1				*	*	*	*	*		A2MP3
PAHZZ		CABLE ASSEMBLY, RADIO FREQUENCY C02461600 (54778)	EA	1				*	*	*	*	*		A2W1
PAHZZ	5935-137-7358	CONNECTOR, PLUG, ELECTRICAL B02489600 (54778)	EA	1				*	*	*	*	*		A2W1P1
PAHZZ	5935-137-4954	CONNECTOR, ELECTRICAL B02672800 (54778)	EA	1				*	*	*	*	*		A2W1P2
PAHHH	6625-174-3545	CIRCUIT, CARD. ASSEMBLY C02483800 (54778)	EA	1				*	*	*	*	*		A2A1
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U-102P (72982)	EA	3				*	*	*	*	*	2-140	A2A1C2
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-140	A2A1C3
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-140	A2A1C1
PAHZZ	5910-465-0042	CAPACITOR, FIXED, ELECTROLYTIC SCM105FP035D2 (01295)	EA	2				*	*	*	*	*	2-140	A2A1C1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-465-0042	CAPACITOR, FIXED, ELECTRICAL SCM105FP03502 (01295)	EA	REF				*	*	*	*	*	2-140	A2A1C8
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC SCM106BP015D4 (01295)	EA	1				*	*	*	*	*	2-140	A2A1C7
PAHZZ	5910-725-7858	CAPACITOR, FIXED, ELECTROLYTIC 150D335X9015A2 (56289)	EA	1				*	*	*	*	*	2-140	A2A1C5
PAHZZ	6350-179-5741	CAPACITOR, FIXED, MICA DM15-510G (16079)	EA	1				*	*	*	*	*	2-140	A2A1C4
PAHZZ	5910-240-2327	CAPACITOR, VARIABLE, GLASS VAM010W (73899)	EA	1				*	*	*	*	*	2-140	A2A1C6
PAHZZ	5930-200-4426	ADAPTER SWITCH ACTUATOR B02488800 (54778)	EA	2				*	*	*	*	*		A2A1MP1
PAHZZ	5930-200-4426	ADAPTER, SWITCH ACTUATOR B02488800 (54778)	EA	REF				*	*	*	*	*		A2A1MP2
MDHHH		PRINTED WIRING BOARD 904500301 (94668)	EA	1										A2A1E1
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R3
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R9
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R14
PAHZZ	5905-892-6942	RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R10
PAHZZ	5905-105-7765	RESISTOR, FIXED, COMPOSITION RC07GF224J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF270J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R15
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R16
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R2
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R11
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF820J (81349)	EA	1				*	*	*	*	*	2-140	A2A1R13
PAHZZ	5905-811-1026	RESISTOR, FIXED, COMPOSITION MF5C211F (19701)	EA	1				*	*	*	*	*	2-140	A2A1R4
PAHZZ	5905-809-8688	RESISTOR, FIXED, FILM MF5C211F (19701)	EA	1				*	*	*	*	*	2-140	A2A1R5
PAHZZ	5905-009-8031	RESISTOR, FIXED, FILM MF5C750F (19701)	EA	2				*	*	*	*	*	2-140	A2A1R7
PAHZZ	5905-009-8031	RESISTOR, FIXED, FILM MF5C750F (19701)	EA	REF				*	*	*	*	*	2-140	A2A1R17
PAHZZ	5905-405-8355	RESISTOR, FIXED, FILM MF5C4992F (19701)	EA	1				*	*	*	*	*	2-140	A2A1R6
PAHZZ	5905-255-3471	RESISTOR, VARIABLE 63PR500 (73138)	EA	1				*	*	*	*	*	2-140	A2A1R8
PAHZZ		SPACER, TRANSISTOR 7717-109N (13103)	EA	1				*	*	*	*	*	2-140	A2A1MP3
PAHZZ	5930-006-1366	SWITCH, ROTARY 911200160 (54778)	EA	2				*	*	*	*	*	2-140	A2A1S1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CMTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5930-006-1366	SWITCH, ROTARY 911200160 (54778)	EA	REF				*	*	*	*	*	2-140	A2A1S2
PAHZZ	5961-944-3520	TRANSISTOR 2N3137 (80131)	EA	1				*	*	*	*	*	2-140	A2A1Q6
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80151)	EA	4				*	*	*	*	*	2-140	A2A1Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-140	A2A1Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-140	A2A1Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-140	A2A1Q5
PAHZZ	5961-269-2349	TRANSISTOR 2N3819 (80131)	EA	1				*	*	*	*	*	2-140	A2A1Q1
PAHZZ	6625-173-7062	CONTACT PLATE, SUBASSEMBLY B02640800 (54778)	EA	1				*	*	*	*	*		A2MP2
PAHZZ	6625-173-7063	PLUNGER, PROBE TIP B02639700 (54778)	EA	1				*	*	*	*	*		A2MP1
PAHZZ		SCREW, MACHINE MS16995-1 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5505-068-5409	SCREW MS16995-1 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	6625-173-7066	SHELL, BOTTOM C02710700 (54778)	EA	1				*	*	*	*	*		A2MP4
PAHZZ	6625-173-7067	SHELL, TOP C02710800 (54778)	EA	1				*	*	*	*	*		A2MP5
PAHZZ	6625-441-9320	PROBE SUBASSEMBLY 233A4 (54778)	EA	1				*	*	*	*	*		A4
PAHZZ	6625-174-7787	PROBE, TEST B02672600 (54778)	EA	1				*	*	*	*	*		A4MP4
PAHZZ		TERMINAL, LUG 341 (79963)	EA	2				*	*	*	*	*		A4E1
PAHZZ		TERMINAL, LUG 341 (79963)	EA	REF				*	*	*	*	*		A4E2
PAHZZ	6625-173-7076	TIP, BODY, CLIP LEAD C02489300 (54778)	EA	1				*	*	*	*	*		A4MP5
PAHZZ	6625-174-3546	PROBE, TEST B02637700 (54778)	EA	1				*	*	*	*	*		A4MP1
PAHZZ		TERMINAL, LUG 341 (79963)	EA	2				*	*	*	*	*		A4E3
PAHZZ		TERMINAL, LUG 341 (79963)	EA	REF				*	*	*	*	*		A4E4
PAHZZ		PIN, DETENT B02639800 (54778)	EA	1				*	*	*	*	*		A4MP2
PAHZZ	6625-173-7078	PLATE, FIXED, CONTACT, SUB- ASSEMBLY B02640100 (54778)	EA	1				*	*	*	*	*		A4MP3
PAHZZ		TERMINAL, LUG 341 (79963)	EA	2				*	*	*	*	*		A4E5
PAHZZ		SPRING, DETENT 918300023 (54778)	EA	1				*	*	*	*	*		A4MP6
PAHZZ		TERMINAL, LUG 1468 (83330)	EA	1				*	*	*	*	*		A4E6
XADDD		RACK, ELECTRIC, EQUIPMENT 220A5 (54778)	EA	1										A1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CMTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		ADAPTER, CONNECTOR EK12269 (74545)	EA	1				*	*	*	*	*		A1CP1
PAHZZ		BUSHING, STRAIN, RELIEF SR7P2 (28520)	EA	1				*	*	*	*	*		A1MP6
PAHZZ	5995-737-2966	CABLE ASSEMBLY, POWER B02691400 (54778)	EA	1				*	*	*	*	*		A1W1
PAHZZ		CAPACITOR, ELECTRICAL 1421 (74545)	EA	1				*	*	*	*	*		A1W1E1
PAHZZ		CORD ASSEMBLY, ELECTRICAL 16415 (82877)	EA	1				*	*	*	*	*		A1W1E2
PAHZZ	5995-137-6108	CABLE ASSEMBLY, POWER 916400025 (54778)	EA	1				*	*	*	*	*		A1W2
PAHZZ		CASTER SB15696-18X311 (06004)	EA	3				*	*	*	*	*		A1MP3
PAHZZ		CASTER SB15696-18X311 (06004)	EA	REF				*	*	*	*	*		A1MP4
PAHZZ		CASTER SB15696-18X311 (06004)	EA	REF				*	*	*	*	*		A1MP7
PAHZZ		CLEVIS B02765100 (54778)	EA	2				*	*	*	*	*		A1MP14
PAHZZ		CLEVIS B02765100 (54778)	EA	REF				*	*	*	*	*		A1MP15
PAHZZ		CLEVIS PIN B02765200 (54778)	EA	2				*	*	*	*	*		A1MP16
PAHZZ		CLEVIS PIN B02765200 (54778)	EA	REF				*	*	*	*	*		A1MP17
PAHZZ		CASTER SB15696-18X311 (06004)	EA	REF				*	*	*	*	*		A1MP8
PAHZZ	5935-177-2250	CONNECTOR, PLUG, ELECTRICAL 9782 (74545)	EA	1				*	*	*	*	*		A1P1
PAHZZ	5935-137-7336	CONNECTOR, RECEPTACLE, ELECTRICAL 5230-1 (74545)	EA	2				*	*	*	*	*		A1J1
PAHZZ	5935-137-7336	CONNECTOR, RECEPTACLE, ELECTRICAL 5230-1 (74545)	EA	REF				*	*	*	*	*		A1J2
PAHZZ	7690-503-6785	DECAL B02706900 (54778)	EA	1				*	*	*	*	*		A1MP18
PAHZZ	4130-909-8130	FAN 15449 (82877)	EA	1				*	*	*	*	*		A1B1
PAHZZ		HINGE, LATCH 2BK2R (71243)	EA	1				*	*	*	*	*		A1MP9
PAHZZ	5975-281-0090	JUNCTION BOX 58361-1-2 (78229)	EA	2				*	*	*	*	*		A1MP10
PAHZZ	5975-281-0090	JUNCTION BOX 58361-1-2 (78229)	EA	REF				*	*	*	*	*		A1MP11
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	4				*	*	*	*	*		A1MP19
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	REF				*	*	*	*	*		A1MP25
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	REF				*	*	*	*	*		A1MP26
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	REF				*	*	*	*	*		A1MP27
PAHZZ	5340-434-7058	LATCH ASSEMBLY H165-1-064-875 (83014)	EA	1				*	*	*	*	*		A1MP2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT			(7) 30-DAY GS MAINT			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
					ALLOWANCE	ALLOWANCE	ALLOWANCE	(a) 1-20	(b) 21-50	(c) 51-100			(a) 1-20	(b) 21-50	(c) 51-100	(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	4				*	*	*	*	*		A1MP26			
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	REF				*	*	*	*	*		A1MP20			
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	REF				*	*	*	*	*		A1MP21			
PAHZZ		RING, RETAINING 5144-9 (79136)	EA	REF				*	*	*	*	*		A1MP22			
PAHZZ	5975-738-9917	PANEL, BLANK B02706700 (54778)	EA	1				*	*	*	*	*		A1MP1			
PAHZZ	9905-157-9970	PLATE, DESIGNATION SP17969-1 (94668)	EA	1				*	*	*	*	*		A1MP5			
PAHZZ	9905-157-9969	PLATE, IDENTIFICATION 919500335 (54778)	EA	2				*	*	*	*	*		A1MP12			
PAHZZ	9905-157-9969	PLATE, IDENTIFICATION 919500335 (54778)	EA	REF				*	*	*	*	*		A1MP13			
PAHZZ		SPRING LC022D10SS (28480)	EA	2				*	*	*	*	*		A1MP23			
PAHZZ		SPRING LC022D10SS (28480)	EA	REF				*	*	*	*	*		A1MP24			
PAHZZ	6625-459-8562	TUNIG UNIT, RADIO FREQUENCY 305AT (94668)	EA	1				*	*	*	*	*	2-1	A6			
PAHHH	6625-250-4591	AMPLIFIER-DETECTOR C02461900 (54778)	EA	1				*	*	*	*	*	2-24	A6A10			
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	1				*	*	*	*	*	2-24	A6A10C6			
PAHZZ	5910-138-1173	CAPACITOR, FIXED, ELECTROLYTIC TL1207 (81349)	EA	2				*	*	*	*	*	2-24	A6A10C2			
PAHZZ	5910-138-1173	CAPACITOR, FIXED, ELECTROLYTIC TL1207 (81349)	EA	REF				*	*	*	*	*	2-24	A6A10C7			
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	3				*	*	*	*	*	2-24	A6A10C1			
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	REF				*	*	*	*	*	2-24	A6A10C3			
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	REF				*	*	*	*	*	2-24	A6A10C5			
PAHZZ	5910-880-6080	CAPACITOR, FIXED, MICA DM19-122J (72136)	EA	1				*	*	*	*	*	2-24	A6A10C4			
PAHZZ		COIL, RADIO FREQUENCY 70F102A1 (76493)	EA	1				*	*	*	*	*	2-24	A6A10L1			
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	1				*	*	*	*	*	2-24	A6A10L2			
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*	2-24	A6A10E2			
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-24	A6A10E3			
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-24	A6A10E4			
MDHHH		PRINTED WIRING BOARD 04500230 (54778)	EA	1				*	*	*	*	*	2-24	A6A10E1			
PAHZZ	5905-141-1181	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-24	A6A10R10			
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-24	A6A10R6			

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R5
PAHZZ	5905-105-7765	RESISTOR, FIXED, COMPOSITION RC07GF224J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R11
PAHZZ	5905-114-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R3
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R2
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R13
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	2				*	*	*	*	*	2-4	A6A10R1
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	REF				*	*	*	*	*	2-4	A6A10R4
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R8
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF501J (81349)	EA	1				*	*	*	*	*	2-4	A6A10R7
PAHZZ		SEMICONDUCTOR DEVICE, DIODE IN456 (80131)	EA	1				*	*	*	*	*	2-4	A6A10CR1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	3				*	*	*	*	*	2-4	A6A10Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	REF				*	*	*	*	*	2-4	A6A10Q3
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	REF				*	*	*	*	*	2-4	A6A10Q2
PAHZZ	6695-171-2781	BEZEL, INSTRUMENT MOUNTING PLASTIC THERMO -SETTING C02483904 (54778)	EA	1				*	*	*	*	*		A6MP6
PAHZZ	6625-201-3773	BUSHING, SHAFT B02451600 (54778)	EA	2				*	*	*	*	*		A6MP2
PAHZZ	6625-201-3773	BUSHING, SHAFT B02451600 (54778)	EA	REF				*	*	*	*	*		A6MP3
PAHZZ	5995-737-6297	CABLE ASSEMBLY, RADIO FREQUENCY B02469200 (54778)	EA	1				*	*	*	*	*		A6W1
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRICAL KC19-68 (96918)	EA	1				*	*	*	*	*		A6W1J1
PAHZZ	5995-737-2969	CABLE ASSEMBLY, RADIO FREQUENCY B02471804 (54778)	EA	1				*	*	*	*	*		A6E1
PAHZZ	5995-137-6121	CABLE ASSEMBLY, RADIO FREQUENCY B02471805 (54778)	EA	1				*	*	*	*	*		A6E2
PAHZZ	6150-949-9348	CABLE ASSEMBLY, POWER 17258 (70903)	EA	1				*	*	*	*	*		A6P1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DM103 (71590)	EA	1				*	*	*	*	*	2-3	A6C4
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC SCM106BP015D4 (01295)	EA	1				*	*	*	*	*	2-4	A6C5
PAHZZ	5910-176-2641	CAPACITOR, ELECTRICAL, FIXED 150D337X9006S2 (56289)	EA	5				*	*	*	*	*	2-4	A6C6
PAHZZ	5910-176-2641	CAPACITOR, FIXED, ELECTROLYTIC 150D337X9006S2 (56289)	EA	REF				*	*	*	*	*	2-4	A6C7

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-176-2641	CAPACITOR, FIXED, ELECTROLYTIC 150D337X9006S2 (56289)	EA	REF				*	*	*	*	*	2-4	A6C8
PAHZZ	5910-176-2641	CAPACITOR, FIXED, ELECTROLYTIC 150D377X9006S2 (56289)	EA	REF				*	*	*	*	*	2-4	A6C9
PAHZZ	5910-176-2641	CAPACITOR, FIXED, ELECTROLYTIC 150D377X9006S2 (56289)	EA	REF				*	*	*	*	*	2-4	A6C10
PAHZZ	5910-154-0547	CAPACITOR, FIXED, ELECTROLYTIC 150D476X9035S2 (80131)	EA	1				*	*	*	*	*		A6C12
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	1				*	*	*	*	*	2-4	A6C11
PAHZZ	5910-682-4344	CAPACITOR, FIXED, PAPER P138F44 (00656)	EA	1				*	*	*	*	*	2-3	A6C3
PAHZZ	6625-174-3550	CIRCUIT CARD ASSEMBLY C02447800 (54778)	EA	1				*	*	*	*	*		A6CP1
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	1				*	*	*	*	*		A6CP1J1
PAHZZ		BOLT, EYE 52120 (73734)	EA	2				*	*	*	*	*		H1
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	6625-174-3552	CARD RISER ASSEMBLY C02447801 (54778)	EA	1				*	*	*	*	*		A6CP2
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	1				*	*	*	*	*		A6CP2J1
PAHZZ		BOLT, EYE 52120 (73734)	EA	2				*	*	*	*	*		H1
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	5305-054-564	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	6625-174-3553	CARD CIRCUIT, ASSEMBLY C02463900 (54778)	EA	1				*	*	*	*	*		A6CP3
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (94668)	EA	1				*	*	*	*	*		A6CP3J1
PAHZZ		BOLT, EYE 52120 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	4				*	*	*	*	*		H4
PAHHH	6625-250-4592	COARSE LOCK, SENSOR C02461700 (54778)	EA	1				*	*	*	*	*	2-26	A6A11
PAHZZ	5910-897-7895	CAPACITOR, FIXED, CERAMIC CK06CW103K (95275)	EA	1				*	*	*	*	*	2-26	A6A11C9
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	2				*	*	*	*	*	2-26	A6A11C2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-26	A6A11C3
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	1				*	*	*	*	*	2-26	A6A11C6
PAHZZ	5910-138-1173	CAPACITOR, FIXED, ELECTROLYTIC TL1207 (56289)	EA	1				*	*	*	*	*	2-26	A6A11C5
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85N (22650)	EA	1				*	*	*	*	*	2-26	A6A11C1
PAHZZ	5910-877-8194	CAPACITOR, FIXED, ELECTROLYTIC 8-250BP10-25S85N (22650)	EA	3				*	*	*	*	*	2-26	A6A11C4
PAHZZ	5910-877-8194	CAPACITOR, FIXED, ELECTROLYTIC 8-250BP10-25S85N (22650)	EA	3				*	*	*	*	*	2-26	A6A11C4
PAHZZ	5910-877-8194	CAPACITOR, FIXED, ELECTROLYTIC 8-250BP10-25S85N (22650)	EA	REF				*	*	*	*	*	2-26	A6A11C7
PAHZZ	5910-877-8194	CAPACITOR, FIXED, ELECTROLYTIC 8-250BP10-25S85N (22650)	EA	REF				*	*	*	*	*	2-26	A6A11C8
PAHZZ		COIL, RADIO FREQUENCY WEE1000 (43543)	EA	1				*	*	*	*	*	2-26	A6A11L3
PAHZZ	5950-138-4998	COIL, RADIO FREQUENCY 1537-47 (99800)	EA	1				*	*	*	*	*	2-26	A6A11L1
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	1				*	*	*	*	*	2-26	A6A11L2
PAHZZ	5915-138-1184	FILTER, LOW PASS 910100047 (94668)	EA	1				*	*	*	*	*	2-26	A6A11FL1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*		A6A11E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A11E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A11E4
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R9
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R11
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R19
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R3
PAHZZ	5905-119-8812	RESISTOR, FIXED, COMPOSITION RC07GF121J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R14
PAHZZ	5905-687-0002	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R18
PAHZZ	5905-105-7765	RESISTOR, FIXED, COMPOSITION RC07GF224J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R7
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R17
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R1
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	3				*	*	*	*	*	2-26	A6A11R2
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R4
PAHZZ	5305-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R8

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CMTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R6
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	4				*	*	*	*	*	2-26	A6A11R5
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R10
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81 349)	EA	REF				*	*	*	*	*	2-26	A6A11R12
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R15
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R16
PAHZZ		RESISTOR, VARIABLE 62PAR100K (73138)	EA	1				*	*	*	*	*	2-26	A6A11R13
PAHZZ		SEMICONDUCTOR, DIODE 1N456 (80131)	EA	1				*	*	*	*	*	2-26	A6A11CR1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	2				*	*	*	*	*	2-26	A6A11Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	REF				*	*	*	*	*	2-26	A6A11Q2
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	1				*	*	*	*	*	2-26	A6A11Q4
PAHZZ	5961-883-9495	TRANSISTOR 2N706B (80131)	EA	1				*	*	*	*	*	2-26	A6A11Q3
PAHZZ		WASHER, NONMETALLIC 5600-16-32 (86928)	EA	4				*	*	*	*	*		H2
PAHHH	6625-174-3554	TUNING, MECHANISM, SUBASSEMBLY OSCILLATOR D02709600 (54778)	EA	1				*	*	*	*	*		A6A26
PAHZZ		NUT, ASSEMBLY 9225 (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	5305-054-6654	SCREW, MACHINE MS51957-30 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5910-137-4955	CAPACITOR, VARIABLE, AIR 902800730 (54778)	EA	1				*	*	*	*	*		A6A26C1
PAHZZ	5305-764-2964	SCREW, MACHINE MS51959-4 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	3				*	*	*	*	*		A6A26MP9
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	REF				*	*	*	*	*		A6A26MP10
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	REF				*	*	*	*	*		A6A26MP11
PAHZZ	3110-787-8903	BEARING, BALL ULKZ8012XA7	EA	1				*	*	*	*	*		A6A26MP12
PAHZZ	6625-173-7079	END PLATE SHAFT B02483400 (54778)	EA	1				*	*	*	*	*		A6A26MP22
PAHZZ	5310-934-9761	NUT, PLAIN, HEXAGON MS35649-264 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5305-054-S63	SCREW, MACHINE MS51957-4 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	6625-173-7082	SETSCREW MS51021-25 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	6625-173-7082	FLYWEEL, TUNING DRIVE B02448200 (54778)	EA	1				*	*	*	*	*		A6A26MP2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5305-639-6860	SETSCREW MS51021-24 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		GEAR, ANTIBACKLASH AB250-120CD (01351)	EA	1				*	*	*	*	*		A6A26MP1
PAHZZ	5305-800-7261	SETSCREW MS51021-9 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	3040-138-8239	GEARSHAFT B02448900 (54778)	EA	1				*	*	*	*	*		A6A26MP3
PAHZZ		GEAR, SPUR G15-40 (00141)	EA	1				*	*	*	*	*		A6A26MP6
PAHZZ	3020-137-9222	GEAR, WORM, WHEEL Q13-39 (00141)	EA	1				*	*	*	*	*		A6A26MP7
PAHZZ	5305-800-7261	SETSCREW MS51021-9 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	3020-070-6310	GEAR, WORM Q6-3SECSWF15 (00141)	EA	1				*	*	*	*	*		A6A26MP8
PAHZZ	5305-531-0137	SETSCREW M51021-21 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		GEAR, WORM, WHEEL B02764900 (54778)	EA	1				*	*	*	*	*		A6A26MP28
PAHZZ	5355-193-0160	SHAFT, LOCK, ELECTRONIC COMPONENT B02709300 (54778)	EA	1				*	*	*	*	*		A6A26MP4
PAHZZ		SCREW, MACHINE MS35275-13 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ		WASHER, LOCK MS35333-70 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ	6625-173-7083	CASTING, TUNING SUPPORT D02468801 (54778)	EA	1				*	*	*	*	*		A6A26MP24
PAHZZ	5340-200-6707	PACKING, PREFORMED 5133-18 (79136)	EA	2				*	*	*	*	*		A6A26MP20
PAHZZ	5340-200-6707	PACKING, PREFORMED 5133-18 (79136)	EA	REF				*	*	*	*	*		A6A26MP21
PAHZZ	5304-263-3831	PACKING, PREFORMED 5133-25 (79136)	EA	2				*	*	*	*	*		A6A26MP17
PAHZZ	5340-263-3831	PACKING, PREFORMED 5133-25 (79136)	EA	REF				*	*	*	*	*		A6A26MP18
PAHZZ	5910-167-1220	RETAINER, CAPACITOR, MOUNTING B02482700 (54778)	EA	1				*	*	*	*	*		A6A26MP15
PAHZZ	5303-054-6651	SCREW, MACHINE MS51957-27 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ	5310-722-5998	WASHER, FLAT MS15795-805 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ	5310-883-9385	WASHER, LOCK MS35338-155 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ	3040-138-8240	SHAFT, WORM B02709400 (54778)	EA	1				*	*	*	*	*		A6A26MP5
PAHZZ	5365-155-4824	SPACER, SHAFT B6-1EH1-24 (00141)	EA	2				*	*	*	*	*		A6A26MP25
PAHZZ	5365-155-4824	SPACER, SHAFT B6-1EH1-24 (00141)	EA	REF				*	*	*	*	*		A6A26MP26
PAHZZ		SPRING LC026D12SS (96906)	EA	1				*	*	*	*	*		A6A26MP16
PAHZZ	6625-173-7086	STOP GUIDE TUNING DRIVE B02448500 (54778)	EA	1										A6A26MP23

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	6625-173-7087	STOP NUT, TUNING DRIVE B02448100 (54778)	EA	1				*	*	*	*	*		A6A26MP19
PAHZZ	5905-119-8812	STOP RING 917300234 (54778)	EA	2				*	*	*	*	*		A6A26MP13
PAHZZ	5905-119-8812	STOP RING 917300234 (54778)	EA	REF				*	*	*	*	*		A6A26MP14
PAHZZ	5305-655-9246	SETSCREW MS51021-10 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	1				*	*	*	*	*		H2
PAHZZ	5950-755-8586	COIL, RADIO FREQUENCY WEE1000 (43543)	EA	1				*	*	*	*	*		A6L7
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	4				*	*	*	*	*		A6L1
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	REF				*	*	*	*	*		A6L3
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	REF				*	*	*	*	*		A6L5
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	REF				*	*	*	*	*		A6L6
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	2				*	*	*	*	*		A6L2
PAHZZ	5950-087-3783	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	REF				*	*	*	*	*		A6L4
PAHZZ	5935-058-9422	CONNECTOR, RECEPTACLE, ELECTRICAL AC3G (82389)	EA	1				*	*	*	*	*		A6J1
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRICAL KC19-68 (96918)	EA	5				*	*	*	*	*		A6J7
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRICAL KC19-68 (96918)	EA	REF				*	*	*	*	*		A6J8
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRICAL KC19-68 (96918)	EA	REF				*	*	*	*	*		A6J9
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRICAL KC19-68 (96918)	EA	REF				*	*	*	*	*		A6J10
PAHZZ		CONNECTOR, RECEPTACLE, ELECTRICAL KC19-68 (96906)	EA	REF				*	*	*	*	*		A6J11
PAHZZ	5935-137-7352	CONNECTOR, RECEPTACLE, ELECTRICAL 01-3106-106 (91662)	EA	1				*	*	*	*	*		A6J3
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-146-2514	WASHER, FLAT 97245NP (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5935-137-7304	CONNECTOR, RECEPTACLE, ELECTRICAL 402ACEHG (01009)	EA	2				*	*	*	*	*		A6J4
PAHZZ	5935-137-7304	CONNECTOR, RECEPTACLE, ELECTRICAL 402ACEHG (01009)	EA	REF				*	*	*	*	*		A6J6
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	4				*	*	*	*	*		H2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION <small>REFERENCE NUMBER & MFR CODE</small>	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5935-257-9341	CONNECTOR, RECEPTACLE, ELECTRICAL 91-PC3F (02660)	EA	1				*	*	*	*	*		A6J5
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	15				*	*	*	*	*		A6J13
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J14
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J15
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J16
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J17
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J18
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J19
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J20
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J21
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J22
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J23
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J24
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J25
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (54778)	EA	REF				*	*	*	*	*		A6J26
PAHZZ	5935-137-7366	CONNECTOR, RECEPTACLE, ELECTRICAL 914800074 (94668)	EA	REF				*	*	*	*	*		A6J27
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	11				*	*	*	*	*		A6J28
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J29
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J30
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J31
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J32
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J33
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J34
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J35
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J36
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J37

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION					
					30-DAY DS MAINT			30-DAY GS MAINT					(a)	(b)	(c)	(a)	(b)	(c)
					ALLOWANCE	ALLOWANCE	ALLOWANCE	ALLOWANCE	ALLOWANCE	ALLOWANCE								
PAHZZ	5935-137-7367	CONNECTOR, RECEPTACLE, ELECTRICAL 914800075 (54778)	EA	REF				*	*	*	*	*		A6J38				
PAHZZ		NUT, SELFLOCKING 79NM40 (72962)	EA	52				*	*	*	*	*		H52				
PAHZZ		SCREW, MACHINE MS51957-17 (96906)	EA	52				*	*	*	*	*		H52				
PAHHH	6625-240-9545	CIRCUIT CARD ASSEMBLY C02464100 (54778)	EA	1				*	*	*	*	*	2-42	A6A23				
PAHZZ	5962-789-3415	INTEGRATED CIRCUIT MC824P (04713)	EA	2				*	*	*	*	*	2-42	A6A23IC7				
PAHZZ	5962-789-3415	INTEGRATED CIRCUIT MC824P (04713)	EA	REF				*	*	*	*	*	2-42	A6A23IC9				
PAHZZ		INTEGRATED CIRCUIT MC888P (04713)	EA	1				*	*	*	*	*	2-42	A6A23IC8				
PAHZZ		INTEGRATED CIRCUIT MC889P (04713)	EA	1				*	*	*	*	*	2-42	A6A23IC5				
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	4				*	*	*	*	*	2-42	A6A23IC1				
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-42	A6A23IC2				
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-42	A6A23IC3				
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-42	A6A23IC6				
PAHZZ	5962-420-6546	INTEGRATED CIRCUIT MC892P (04713)	EA	1				*	*	*	*	*	2-42	A6A23IC4				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	9				*	*	*	*	*	2-42	A6A23XIC1				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC2				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC3				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC4				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC5				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC6				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 3145AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC7				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC8				
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-42	A6A23XIC9				
PAHZZ	6625-400-7681	CONTROL LOGIC C02464400 (54778)	EA	1				*	*	*	*	*	2-40	A6A22				
PAHZZ	5910-180-7824	CAPACITOR, FIXED, CERAMIC CK16M104M (90634)	EA	2				*	*	*	*	*	2-40	A622C1				
PAHZZ	5910-180-7824	CAPACITOR, FIXED, CERAMIC CK16M104M (90634)	EA	REF				*	*	*	*	*	2-40	A6A22C2				
PAHZZ	5962-890-7637	INTEGRATED CIRCUIT MC724P (04713)	EA	2				*	*	*	*	*	2-40	A6A22IC5				
PAHZZ	5962-890-7637	INTEGRATED CIRCUIT MC724P (04713)	EA	REF				*	*	*	*	*	2-40	A6A22IC7				

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5962-464-8753	INTEGRATED CIRCUIT MC788P (04713)		EA	1				*	*	*	*	*	2-50	A6A22IC9
PAHZZ	5962-890-7640	INTEGRATED CIRCUIT MC789P (04713)		EA	1				*	*	*	*	*	2-50	A6A22IC4
PAHZZ	5962-890-7643	INTEGRATED CIRCUIT MC790P (04713)		EA	4				*	*	*	*	*	2-50	A6A22IC1
PAHZZ	5962-890-7643	INTEGRATED CIRCUIT MC790P (04713)		EA	REF				*	*	*	*	*	2-50	A6A22IC2
PAHZZ	5962-890-7643	INTEGRATED CIRCUIT MC790P (04713)		EA	REF				*	*	*	*	*	2-50	A6A22IC6
PAHZZ	5962-890-7643	INTEGRATED CIRCUIT MC790P (04713)		EA	REF				*	*	*	*	*	2-50	A6A22IC8
PAHZZ	5962-890-7643	INTEGRATED CIRCUIT MC792P (04713)		EA	1				*	*	*	*	*	2-50	A6A22IC3
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)		EA	1				*	*	*	*	*	2-50	A6A22R3
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)		EA	1				*	*	*	*	*	2-50	A6A22R2
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)		EA	1				*	*	*	*	*	2-50	A6A22R4
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)		EA	1				*	*	*	*	*	2-50	A6A22R1
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314A15D21 (91506)		EA	9				*	*	*	*	*	2-50	A6A22XIC1
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314A15D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC2
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC3
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314A15D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC4
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC5
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC6
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC7
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC8
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)		EA	REF				*	*	*	*	*	2-50	A6A22XIC9
PAHHH	6625-240-9479	DECADE DIVIDER C02462800 (94668)		EA	1				*	*	*	*	*	2-12(1)	A6A4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	14				*	*	*	*	*	2-12(1)	A6A4C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-12(1)	A6A4C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-12(1)	A6A4C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-12(1)	A6A4C4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-12(1)	A6A4C5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)		EA	REF				*	*	*	*	*	2-12(1)	A6A4C10

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C15
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C17
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C18
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C19
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	4				*	*	*	*	*	2-12(1)	A6A4C9
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C14
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C20
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C24
PAHZZ	5910-495-0042	CAPACITOR, FIXED, ELECTROLYTIC SCM105FP035D2 (01295)	EA	2				*	*	*	*	*	2-12(1)	A6A4C26
PAHZZ	5910-495-0042	CAPACITOR, FIXED, ELECTROLYTIC SCM105FP035D2 (22650)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C27
PAHZZ	5910-877-8194	CAPACITOR, FIXED, ELECTROLYTIC 8-250BP10-25S85N (22650)	EA	1				*	*	*	*	*	2-12(1)	A6A4C23
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (72133)	EA	2				*	*	*	*	*	2-12(1)	A6A4C21
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (72133)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C25
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	1				*	*	*	*	*	2-12(1)	A6A4C22
PAHZZ	5910-044-4355	CAPACITOR, FIXED, MICA DM15-470J (72136)	EA	3				*	*	*	*	*	2-12(1)	A6A4C6
PAHZZ	5910-044-4355	CAPACITOR, FIXED, MICA DM15-470J (72136)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C7
PAHZZ	5910-044-4355	CAPACITOR, FIXED, MICA DM15-470J (72136)	EA	REF				*	*	*	*	*	2-12(1)	A6A4C8
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	1				*	*	*	*	*	2-12(1)	A6A4L5
PAHZZ	5950-995-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	5				*	*	*	*	*	2-12(1)	A6A4L1
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	REF				*	*	*	*	*	2-12(1)	A6A4L2
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	REF				*	*	*	*	*	2-12(1)	A6A4L3
PAHZZ	5950-995-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	REF				*	*	*	*	*	2-12(1)	A6A4L4
PAHZZ	5950-995-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	REF				*	*	*	*	*	2-12(1)	A6A4L6

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	6				*	*	*	*	*		A6A4E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*		A6A4E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*		A6A4E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*		A6A4E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*		A6A4E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*		A6A4E7
PAHZZ		INTEGRATED CIRCUIT CL9958 (17803)		EA	1				*	*	*	*	*	2-12(1)	A6A41C1
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	5				*	*	*	*	*	2-12(1)	A6A4R3
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R5
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R10
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R18
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF100J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R22
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)		EA	1				*	*	*	*	*	2-12(1)	A6A4R21
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)		EA	1				*	*	*	*	*	2-12(1)	A6A4R19
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)		EA	1				*	*	*	*	*	2-12(1)	A6A4R25
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)		EA	1				*	*	*	*	*	2-12(1)	A6A4R20
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)		EA	1				*	*	*	*	*	2-12(1)	A6A4R2
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)		EA	3				*	*	*	*	*	2-12(1)	A6A4R7
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R8
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R9
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)		EA	1				*	*	*	*	*	2-12(1)	A6A4R26
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	3				*	*	*	*	*	2-12(1)	A6A4R4
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R14
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R17
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	3				*	*	*	*	*	2-12(1)	A6A4R1
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R11
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF333J (81349)		EA	REF				*	*	*	*	*	2-12(1)	A6A4R15

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-683-2236	RESISTOR FIXED, COMPOSITION RC07GF391J (81349)	EA	1				*	*	*	*	*	2-12(1)	A6A4R13
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	2				*	*	*	*	*	2-12(1)	A6A4R2
PAHZZ	5905-115-8055	RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	REF				*	*	*	*	*	2-12(1)	A6A4R16
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	2				*	*	*	*	*	2-12(1)	A6A4R23
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-12(1)	A6A4R24
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF563J (81349)	EA	1				*	*	*	*	*	2-12(1)	A6A4R6
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N995 (80131)	EA	1				*	*	*	*	*	2-12(1)	A6A4CR1
PAHZZ	5935-840-7175	SOCKET, INTEGRATED CIRCUIT 8058-1G-49 (91506)	EA	1				*	*	*	*	*	2-12(1)	A6A4XIC1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	1				*	*	*	*	*	2-12(1)	A6A4Q6
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	1				*	*	*	*	*	2-12(1)	A6A4Q1
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	1				*	*	*	*	*	2-12(1)	A6A4Q5
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	3				*	*	*	*	*	2-12(1)	A6A4Q2
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	REF				*	*	*	*	*	2-12(1)	A6A4Q3
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	REF				*	*	*	*	*	2-12(1)	A6A4Q4
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (94668)	EA	7				*	*	*	*	*	2-46	A6A25-1
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (04668)	EA	REF				*	*	*	*	*	2-46	A6A25-2
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (94668)	EA	REF				*	*	*	*	*	2-46	A6A25-3
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (94668)	EA	REF				*	*	*	*	*	2-46	A6A25-4
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (94668)	EA	REF				*	*	*	*	*	2-46	A6A25-5
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (94668)	EA	REF				*	*	*	*	*	2-46	A6A25-6
PAHHH	6625-198-3532	DECADE DIVIDER C02487900 (94668)	EA	REF				*	*	*	*	*	2-46	A6A25-7
PAHZZ	5962-789-3415	INTEGRATED CIRCUIT MC824P (04713)	EA	1				*	*	*	*	*	2-46	A6A25IC3
PAHZZ	5962-789-3414	INTEGRATED CIRCUIT MC825P (04713)	EA	1				*	*	*	*	*	2-46	A6A25IC4
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	4				*	*	*	*	*	2-46	A6A25IC1
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-46	A6A25IC2
PAFZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-46	A6A25IC6
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-46	A6A25IC7

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5962-420-6546	INTEGRATED CIRCUIT MC892P (04713)	EA	2				*	*	*	*	*	2-46	A6A25IC5
PAHZZ	5962-420-6546	INTEGRATED CIRCUIT MC892P (04713)	EA	REF				*	*	*	*	*	2-46	A6A25IC8
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	2				*	*	*	*	*	2-46	A6A25R5
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	REF				*	*	*	*	*	2-46	A6A25R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	6				*	*	*	*	*	2-46	A6A25R1
PAHZZ		RESISTOR FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-46	A6A25R2
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-46	A6A25R3
PAHZZ		RESISTOR FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-46	A6A25R4
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-46	A6A25R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-46	A6A25R8
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	8				*	*	*	*	*	2-46	A6A25XIC1
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC2
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC3
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC4
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC5
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC6
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC7
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-46	A6A25XIC8
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (80131)	EA	2				*	*	*	*	*	2-46	A6A25Q15
PAHZZ	5961-062-3133	TRANSISTOR 2N3646 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q16
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	14				*	*	*	*	*	2-46	A6A25Q1
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q2
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q3
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q4
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q5
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q6
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-46	A6A25Q7

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RC07GF471J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R6
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	4				*	*	*	*	*	2-26	A6A11R5
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R10
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R12
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-26	A6A11R15
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-26	A6A11R16
PAHZZ		RESISTOR, VARIABLE 62PAR100K (73138)	EA	1				*	*	*	*	*	2-26	A6A11R13
PAHZZ		SEMICONDUCTOR DIODE 11N456 (80131)	EA	1				*	*	*	*	*	2-26	A6A11CR1
PAHZZ	5961-062-3132	TRANSISTOR 2N3638 (80131)	EA	2				*	*	*	*	*	2-26	A6A11Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N13638 (80131)	EA	REF				*	*	*	*	*	2-26	A6A11Q2
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	1				*	*	*	*	*	2-26	A6A11Q4
PAHZZ	5961-883-9495	TRANSISTOR 2N706B (80131)	EA	1				*	*	*	*	*	2-26	A6A11Q3
PAHZZ		WASHER, NONMETALLIC 5600-16-32 (86928)	EA	4				*	*	*	*	*		H2
PAHHH	6625-174-3554	TUNING, MECHANISM, SUBASSEMBLY OSCILLATOR D02709600 (54778)	EA	1				*	*	*	*	*		A6A26
PAHZZ		NUT, ASSEMBLED WASHER 9225 (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	5305-054-6654	SCREW, MACHINE MS51957-30 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5910-137-4955	CAPACITOR, VARIABLE, AIR 902800730 (54778)	EA	1				*	*	*	*	*		A6A26C1
PAHZZ	5305-764-2964	SCREW, MACHINE S651959-4 (96906)	EA	3				*	*	*	*	*		H3
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	3				*	*	*	*	*		A6A26MP9
PAHZZ	3110-773-9554	BEARING, BALL ULXZ6012XA7 (75523)	EA,	REF				*	*	*	*	*		A6A26MP10
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XAY (75523)	EA	1				*	*	*	*	*		A6A26MP11
PAHZZ	3110-787-8903	BEARING, BALL ULKZ8012XA7 (75523)	EA	1				*	*	*	*	*		A6A26MP12
PAHZZ	6625-173-7079	END PLATE SHAFT B02483400 (54778)	EA	1				*	*	*	*	*		A6A26MP22
PAHZZ	5310-934-9761	NUT, PLAIN, HEXAGON MS35649-264 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5305-054-5638	SCREW, MACHINE MS51957-4 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	6625-173-7082	SETSCREW MS51021-25 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	6625-173-7082	FLYWHEEL, TUNING DRIVE 302448200 (54778)	EA	1				*	*	*	*	*		A26MP2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-32	A6A14R7
PAHZZ	5905-115-3S60	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	1				*	*	*	*	*	2-32	A6A14R8
PAHZZ	5905-105-7765	RESISTOR, FIXED, COMPOSITION RC07GF224J (81349)	EA	1				*	*	*	*	*	2-32	A6A14R2
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	1				*	*	*	*	*	2-32	A6A14R3
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	*	2-32	A6A14R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF682J (81349)	EA	1				*	*	*	*	*	2-32	A6A14RS
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-32	A6A14R9
PAHZZ	5961-054-6605	SEMICONDUCTOR, DEVICE, DIODE 1N815 (80131)	EA	1				*	*	*	*	*	2-32	A6A14CR1
PAHZZ	5961-930-5355	TRANSISTOR 2N3565 (80131)	EA	1				*	*	*	*	*	2-32	A6A14Q2
PAHZZ		TRANSISTOR 2N706A (80131)	EA	2				*	*	*	*	*	2-32	A6A14Q1
PAHZZ		TRANSISTOR 2N706A (80131)	EA	REF				*	*	*	*	*	2-32	A6A14Q3
PAHZZ		WASHER, NONMETALLIC 5600-16-32 (86928)	EA	4				*	*	*	*	*		H2
PAHHH	6625-177-3702	FINE TUNING OSCILLATOR D02709700 (94668)	EA	1				*	*	*	*	*		A6A27
PAHZZ		NUT, ASSEMBLED WASHER 9225 (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	5305-054-6654	SCREW, MACHINE MS51957-30 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5910-137-4956	CAPACITOR, VARIABLE, AIR 902810451 (54778)	EA	1				*	*	*	*	*		A6A27C2
PAHZZ	5305-054-6654	SCREW, MACHINE M51957-30 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		SCREW, MODIFIED B01906601 (54778)	EA	1				*	*	*	*	*		A6A27MP17
PAHZZ	5310-722-5998	WASHER, FLAT MS15795-805 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-883-9385	WASHER, LOCK M3655338-155 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	3				*	*	*	*	*		A6A27MP10
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	REF				*	*	*	*	*		A6A27MP11
PAHZZ	3110-773-9554	BEARING, BALL ULKZ6012XA7 (75523)	EA	REF				*	*	*	*	*		A6A27MP12
PAHZZ	3110-934-9761	BEARING, BALL ULK28012XA7 (75523)	EA	1				*	*	*	*	*		A6A27MP13
PAHZZ		END PLATE B02483400 (54778)	EA	1				*	*	*	*	*		A6A27MP26
PAHZZ	5310-934-9761	NUT, PLAIN, HEXAGON MS35649-264 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5305-054-5638	SCREW, MACHINE MS51957-4 (96906)	EA	2				*	*	*	*	*		H2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5305-282-8902	SETSCREW MS551021-25 (96906)	EA	1				*	*	*	*	*	H1	
PAHZZ	6625-173-7082	FLYWHEEL B02448200 (54778)	EA	1				*	*	*	*	*	A6A27MP2	
PAHZZ	5309-639-6860	SETSCREW MS51021-25 (96906)	EA	2				*	*	*	*	*	H2	
PAHZZ		GEAR, ANTIBACKLASH AB250-120CD (01351)	EA	1				*	*	*	*	*	A6A271MP1	
PAHZZ	5305-800-7261	SETSCREW MS51021-9 (96906)	EA	1				*	*	*	*	*	H1	
PAHZZ	3040-138-8239	GEAR, SPUR B02448900 (54778)	EA	1				*	*	*	*	*	A6A27MP4	
PAHZZ		GEAR, SPUR G15-30 (00141)	EA	1				*	*	*	*	*	A6A27MP7	
PAHZZ	5305-800-7261	SETSCREW M51021-9 (96906)	EA	1				*	*	*	*	*	H1	
PAHZZ	3020-070-6310	GEAR, WORM Q6-36ECS15 (00141)	EA	1				*	*	*	*	*	A6A27MP9	
PAHZZ		SETSCREW M551021-21 (96906)	EA	2				*	*	*	*	*	H2	
PAHZZ		GEAR, WORMWHEEL B02764900 (96906)	EA	1				*	*	*	*	*	A6A27MP30	
PAHZZ	302-137-9222	BEAR, WORMWHEEL Q13-39 (00141)	EA	1				*	*	*	*	*	A6A27MP8	
PAHZZ	5305-800-7261	SETSCREW MS1021-9 (96906)	EA	1				*	*	*	*	*	H	
PAHZZ	5355-193-0160	LOCK, SHAFT B02709300 (54778)	EA	1				*	*	*	*	*	A6A27MPS	
PAHZZ		SCREW, MACHINE MS35275-13 (96906)	EA	3				*	*	*	*	*	H3	
PAHZZ	5310-550-3715	WASHER, LOCK M33533-70 (96906)	EA	3				*	*	*	*	*	H3	
PAHZZ	6625-180-7217	CASTING, TUNING SUPPORT B02468802 (54778)	EA	1				*	*	*	*	*	A6A271P28	
PAHZZ	5340-200-6707	PACKAGE, PERORMED 5133-18 (79136)	EA	2				*	*	*	*	*	A6A27P25	
PAHZZ	5340-200-6707	PACKAGE, PERFORMED 5133-18 (79136)	EA	REF				*	*	*	*	*	A6A27MP32	
PAHZZ	5340-263-3831	PACKAGE, PERFORMED 5133-25 (79136)	EA	2				*	*	*	*	*	A6A27M4P22	
PAHZZ	S5340-263-3831	PACKAGE, PERFORMED 5133-25 (79136)	EA	REF				*	*	*	*	*	A6A27MP23	
PAHZZ		SCREW, MODIFIED B01906601 (54778)	EA	1				*	*	*	*	*	A6A27MP29	
PAHZZ	304-138-8241	SHAFT EXTENSION B02448300 (54778)	EA	1				*	*	*	*	*	A6A27MP3	
PAHZZ	3040-138-8240	SHAFT, WORM B02709400 (54778)	EA	1				*	*	*	*	*	A6A27MP6	
PAHZZ	5365-148-1320	SPACER, CAPACITOR B02448800 (54778)	EA	3				*	*	*	*	*	A6A27MP114	
PAHZZ	5365-148-1320	SPACER CAPACITOR B02448800 (54778)	EA	REF				*	*	*	*	*	A6A27MP15	
PAHZZ	5365-148-1320	SPACER, CAPACITOR B02448800 (54778)	EA	REF				*	*	*	*	*	A6A27MP16	

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5365-155-4825	SPACER SHAFT B6-1EH1-24 (00141)	EA	1				*	*	*	*	*		A6A27MP20
PAHZZ	5365-149-8953	SPACER, SHAFT B6-1EH-24 (00141)	EA	1				*	*	*	*	*		A6A27MP21
PAHZZ		SPRING LC026D12SS (96906)	EA	1				*	*	*	*	*		A6A27MP31
PAHZZ	6625-173-7086	STOP GUIDE B02448500 (54778)	EA	1				*	*	*	*	*		A6A27MP27
PAHZZ	6625-173-7087	STOP NUT ASSEMBLY B02448100 (54778)	EA	1				*	*	*	*	*		A6A27MP24
PAHZZ	5905-119-8812	STOP RING 917300234 (54778)	EA	2				*	*	*	*	*		A6A27MP18
PAHZZ	5905-119-8812	STOP RING 917300234 (54778)	EA	REF				*	*	*	*	*		A6A27MP19
PAHZZ		WASHER, FLAT MS15795-10 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5305-655-9246	SETSCREW MS51021-10 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	6625-400-7682	MHZ DIVIDER C02464800 (94668)	EA	1				*	*	*	*	*	2-38	A6A20
PAHZZ	5910-897-7895	CAPACITOR, FIXED, CERAMIC CK06CW103K (95275)	EA	2				*	*	*	*	*	2-38	A6A20C3
PAHZZ	5910-897-7895	CAPACITOR, FIXED, CERAMIC CK06CW103K (95275)	EA	REF				*	*	*	*	*	2-38	A6A20C4
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-38	A6A20C1
PAHZZ	5910-928-1126	CAPACITOR, FIXED, ELECTROLYTIC K10P10K (05397)	EA	1				*	*	*	*	*	2-38	A6A20C2
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	8				*	*	*	*	*	2-38	AA20IC2
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20IC3
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20IC4
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20ICS
PAHZZ	5962-450-8830	INTERATED) CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20IC6
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20IC7
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20IC8
PAHZZ	5962-450-8830	INTEGRATED CIRCUIT MC1013P (04713)	EA	REF				*	*	*	*	*	2-38	A6A20IC9
PAHZZ	5962-830-1913	INTEGRATED CIRCUIT MC354G (04713)	EA	1				*	*	*	*	*	2-38	A6A20IC11
PAHZZ		INTEGRATED CIRCUIT MC367G (04713)	EA	1				*	*	*	*	*	2-38	A6A20IC10
PAHZZ	5962-138-1501	INTEGRATED CIRCUIT SC2147F (04713)	EA	1				*	*	*	*	*	2-38	A6A20IC1
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-38	A6A20R4
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	1				*	*	*	*	*	2-38	A6A20R2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6) 30-DAY DS MAINT ALLOWANCE			7) 30-DAY GS MAINT ALLOWANCE			8) 1-YR ALW PER EQUIP CNTGCV	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GFS61J (81349)	EA	1				*	*	*	*	*	2-38	A6A20R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-38	A6A20RS
PAHZZ	5905-471-6152	RESISTOR, FIXED, WIREWOUND 3886 (44655)	EA	1				*	*	*	*	*	2-38	A6A20R3
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	8				*	*	*	*	*	2-38	A6A20XIC2
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	REF				*	*	*	*	*	2-38	A6A20XIC3
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	REF				*	*	*	*	*	2-38	A6A20XIC4
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	REF				*	*	*	*	*	2-38	A6A20XICS
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	REF				*	*	*	*	*	2-38	A6A20XIC6
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	RP				*	*	*	*	*	2-38	A6A20XIC7
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	REF				*	*	*	*	*	2-38	A6A20XIC8
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AGSD21 (91506)	EA	REF				*	*	*	*	*	2-38	A6A20XIC9
PAOZZ		FUSE, CARTRIDGE MDL1 (71400)	EA	1				*	*	*	*	*		A6F2
PAOZZ	5920-228-7882	FUSE, CARTRIDGE MDL2 (71400)	EA	1				*	*	*	*	*		AMF1
PAHZZ	5920-556-0144	FUSE, HOLDER 342004 (75915)	EA	2				*	*	*	*	*		A6XF1
PAHZZ	5920-556-0144	FUSE, HOLDER 342004 (75915)	EA	REF				*	*	*	*	*		A6XF2
PAOZZ	6210-924-7869	INDICATOR, LIGHT R118-603 (72765)	EA	1				*	*	*	*	*		A6DS1
PAOZZ	5355-139-7578	KNOB 916000056 (54778)	EA	1				*	*	*	*	*		A6MP7
PAOZZ	5355-139-7577	KNOB 916000087 (54778)	EA	2				*	*	*	*	*		A6MP8
PAOZZ	5355-139-7577	KNOB 916000087 (54778)	EA	REF				*	*	*	*	*		A6MP9
PAOZZ	5355-139-7576	KNOB 916000091 (54778)	EA	2				*	*	*	*	*		A6MP10
PAOZZ	5355-139-7576	KNOB 916000091 (54778)	EA	REF				*	*	*	*	*		A6MP11
PAOZZ	6240-738-8334	LAMP LILIPUT T.5-6V200 (31918)	EA	3				*	*	*	*	*		A6DS2
PAOZZ	6240-738-8334	LAMP LILIPUT T.5-6V200 (31918)	EA	REF				*	*	*	*	*		A6DS3
PAOZZ	6240-738-8334	LAMP LILIPUT T.5-6V200 (31918)	EA	REF				*	*	*	*	*		A6DS4
PAHHH	6625-439-4188	MIXER C02462100 (54778)	EA	1				*	*	*	*	*	2-22	A6A9
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	3				*	*	*	*	*	2-22	A6A9C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-22	A6A9C3

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6) 30-DAY DS MAINT ALLOWANCE			7) 30-DAY GS MAINT ALLOWANCE			8) 1-YR ALW PER EQUIP CNTGCTY	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-22	A6A9C4
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	1				*	*	*	*	*	2-22	A6A9C8
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DD15-050K (72136)	EA	1				*	*	*	*	*	2-22	A6A9C7
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (72136)	EA	1				*	*	*	*	*	2-22	A6A9C1
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA DM15-121J (72136)	EA	2				*	*	*	*	*	2-22	A6A9C6
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA DM15-121J (72136)	EA	REF				*	*	*	*	*	2-22	A6A9C10
PAHZZ	5910-892-9996	CAPACITOR, VARIABLE MC626Y (73899)	EA	1				*	*	*	*	*	2-22	A6A9C9
PAHZZ	5910-911-5897	CAPACITOR VARIABLE, GLASS 563-013 (72982)	EA	2				*	*	*	*	*	2-22	A6A9C5
PAHZZ	5910-911-5897	CAPACITOR VARIABLE, GLASS 563-013 (72982)	EA	REF				*	*	*	*	*	2-22	A6A9C11
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	1				*	*	*	*	*	2-22	A6A9E2
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	1				*	*	*	*	*	2-22	A6A9R6
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-22	A6A9R3
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-22	A6A9R7
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-22	A6A9R10
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	1				*	*	*	*	*	2-22	A6A9R1
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	3				*	*	*	*	*	2-22	A6A9R5
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-22	A6A9R8
PAHZZ	5905-683-2240	RESISTOR FIXED, COMPOSITION RC07GF221J (81349)	EA	REF				*	*	*	*	*	2-22	A6A9R11
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	1				*	*	*	*	*	2-22	A6A9R2
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-22	A6A9R4
PAHZZ	5905-763-4747	RESISTOR, VARIABLE 62PAR500 (73138)	EA	1				*	*	*	*	*	2-22	A6A9R9
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)	EA	2				*	*	*	*	*	2-22	A6A9CR2
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)	EA	REF				*	*	*	*	*	2-22	A6A9CR3
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N995 (80131)	EA	1				*	*	*	*	*	2-22	A6A9CR1
PAHZZ	5905-119-8811	TRANSFORMER, PULSE PE5864 (01961)	EA	1				*	*	*	*	*	2-22	A6A9T1
PAHZZ	5961-761-3861	TRANSISTOR 2N2360 (80131)	EA	1				*	*	*	*	*	2-22	A6A9Q1
PAHZZ	6625-240-9546	MODE DECADE C02487800 (54778)	EA	1				*	*	*	*	*	2-44	A6A24

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6) 30-DAY DS MAINT ALLOWANCE			7) 30-DAY GS MAINT ALLOWANCE			8) 1-YR ALW PER EQUIP CNTGCT	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS			
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a)	(b)	(a)	(b)
															FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC892P (04713)	EA	4				*	*	*	*	*	2-44	A6A24IC1		
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC892P (04713)	EA	REF				*	*	*	*	*	2-44	A6A24IC2		
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-44	A6A24IC3		
PAHZZ	5962-789-3413	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-44	A6A24IC4		
PAHZZ	5962-420-6546	INTEGRATED CIRCUIT MC890P (04713)	EA	2				*	*	*	*	*	2-44	A6A25IC5		
PAHZZ	5962-420-6546	INTEGRATED CIRCUIT MC890P (04713)	EA	REF				*	*	*	*	*	2-44	A6A24IC6		
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	1				*	*	*	*	*	2-44	A6A24R1		
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	6				*	*	*	*	*	2-44	A6A24XIC1		
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-44	A6A24XIC2		
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	RE				*	*	*	*	*	2-44	A6A24XIC3		
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	RE				*	*	*	*	*	2-44	A6A24XIC4		
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-44	A6A24XIC5		
PAHZZ		SOCKET, INTEGRATED CIRCUIT 314AG5D21 (91506)	EA	REF				*	*	*	*	*	2-44	A6A24XIC6		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	7				*	*	*	*	*	2-44	A6A24Q1		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	RE				*	*	*	*	*	2-44	A6A24Q2		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-44	A6A24Q3		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-44	A6A24Q4		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-44	A6A24Q5		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-44	A6A24Q6		
PAHZZ	5961-488-7362	TRANSISTOR 2N4265 (80131)	EA	REF				*	*	*	*	*	2-44	A6A24Q7		
PAHZZ	6625-198-3533	OSCILLATOR, AUDIO-RADIO FREQUENCY 912400002 (54778)	EA	1				*	*	*	*	*	2-3	A6XC01		
PAHHH	6625-240-9488	OSCILLATOR, 19.0 MEGAHERTZ C02461502 (54778)	EA	1				*	*	*	*	*	2-16(1)	A6A6		
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DM103 (71590)	EA	2				*	*	*	*	*	2-16(1)	A6A6C16		
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DM103 (71590)	EA	RE				*	*	*	*	*	2-16(1)	A6A6C24		
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	2				*	*	*	*	*	2-16(1)	A6A6C1		
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C4		
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (22650)	EA	3				*	*	*	*	*	2-16(1)	A6A6C3		

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6) 30-DAY DS MAINT ALLOWANCE			7) 30-DAY GS MAINT ALLOWANCE			8) 1-YR ALW PER EQUIP CNTGCY	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C11
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85 (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C15
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	8				*	*	*	*	*	2-16(1)	A6A6C6
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C14
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C19
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C20
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C21
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C22
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C25
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C26
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C27
PAHZZ	5910-712-8655	CAPACITOR, FIXED, MICA DM15-101J (72136)	EA	1				*	*	*	*	*	2-16(1)	A6A6C2
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	3				*	*	*	*	*	2-16(1)	A6A6C5
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C8
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C10
PAHZZ	5910-086-0282	CAPACITOR, FIXED, MICA DM15-181J (72136)	EA	1				*	*	*	*	*	2-16(1)	A6A6C23
PAHZZ	5910-660-4979	CAPACITOR, FIXED, MICA DM15-221J (72136)	EA	1				*	*	*	*	*	2-16(1)	A6A6C13
PAHZZ	5910-615-0427	CAPACITOR, FIXED, MICA DM15-330J (72136)	EA	1				*	*	*	*	*	2-16(1)	A6A6C9
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	2				*	*	*	*	*	2-16(1)	A6A6C7
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	REF				*	*	*	*	*	2-16(1)	A6A6C18
PAHZZ		CAPACITOR, FIXED, MICA DM15-471J (72136)	EA	1				*	*	*	*	*	2-16(1)	A6A6C17
PAHZZ	5910-900-4641	CAPACITOR, FIXED, MICA DM15-472J (72136)	EA	1				*	*	*	*	*	2-16(1)	A6A6C12
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	2				*	*	*	*	*	2-16(1)	A6A6L1
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	REF				*	*	*	*	*	2-16(1)	A6A6L2
PAHZZ	5950-893-0431	COIL, RADIO FREQUENCY 1537-46 (99800)	EA	1				*	*	*	*	*	2-16(1)	A6A6L3
PAHZZ	5950-137-8849	COIL, RADIO FREQUENCY 4450-07 (99800)	EA	1				*	*	*	*	*	2-16(1)	A6A6L4
PAHZZ		CRYSTAL, QUARTZ 4450-07 (99800)	EA	1				*	*	*	*	*	2-16(1)	A6A6Y1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR DEPOT MAINT ALW PER 100 EQUIP	(10)	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE				FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	6				*	*	*	*	*		A6A6E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A6E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A6E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A6E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A6E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A6E7
PAHZZ	5962-043-1956	INTEGRATED CIRCUIT A709 (17803)	EA	1				*	*	*	*	*	2-16(1)	A6A6IC1
PAHZZ	5905-141-1183	RESISTOR, FIXED, POSITION RC07GF101J (81349)	EA	8				*	*	*	*	*	2-16(1)	A6A6R6
PAHZZ	5905-141-1183	RESISTOR, FIXED, POSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R24
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R30
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R33
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R39
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R40
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R41
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	5				*	*	*	*	*	2-16(1)	A6A6R13
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R23
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R34
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R36
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R37
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	3				*	*	*	*	*	2-16(1)	A6A6R9
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R11
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	REF				*	*	*	*	*	2-16(1)	A6A6R21
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-16(1)	A6A6R19
PAHZZ	5905-118-4559	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	1				*	*	*	*	*	2-16(1)	A6A6R15
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	1				*	*	*	*	*	2-16(1)	A6A6R31
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	4				*	*	*	*	*	2-16(1)	A6A6R4

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR PER EQUIP CNTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5905-116-8556	RESISTOR FIXED, COMPOSITION RC07GF221J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R18
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R28
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R29
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)		EA	3				*	*	*	*	*	2-16(1)	A6A6R38
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R42
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R43
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)		EA	1				*	*	*	*	*	2-16(1)	A6A6R35
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)		EA	1				*	*	*	*	*	2-16(1)	A6A6R17
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	3				*	*	*	*	*	2-16(1)	A6A6R1
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R2
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R3
PAHZZ	5905-683-2246	RESISTOR, FIXED, COMPOSITION RC07GF473J (81349)		EA	2				*	*	*	*	*	2-16(1)	A6A6R5
PAHZZ	5905-683-2246	RESISTOR, FIXED, COMPOSITION RC07GF473J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R10
PAHZZ	5905-435-6374	RESISTOR, FIXED, COMPOSITION RC07GF873J (81349)		EA	1				*	*	*	*	*	2-16(1)	A6A6R16
PAHZZ	5905-105-7767	RESISTOR, FIXED, COMPOSITION RC07GF4743 (81349)		EA	1				*	*	*	*	*	2-16(1)	A6A6R20
PAHZZ	5905-119-8768	RESISTOR, FIXED, COMPOSITION RC07GF821J (81349)		EA	1				*	*	*	*	*	2-16(1)	A6A6R32
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)		EA	2				*	*	*	*	*	2-16(1)	A6A6R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R25
PAHZZ	5905-442-4956	RESISTOR, VARIABLE 62PAR20K (73138)		EA	2				*	*	*	*	*	2-16(1)	A6A6R14
PAHZZ	5905-422-4956	RESISTOR, VARIABLE 62PAR20K (73138)		EA	REF				*	*	*	*	*	2-16(1)	A6A6R22
PAHZZ	5905-763-4747	RESISTOR, VARIABLE 62PAR500 (73138)		EA	1				*	*	*	*	*	2-16(1)	A6A6R8
PAHZZ	5905-102-5886	RESISTOR, VARIABLE 79PAR10K (73138)		EA	1				*	*	*	*	*	2-16(1)	A6A6R26
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)		EA	4				*	*	*	*	*	2-16(1)	A6A6CR2
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)		EA	REF				*	*	*	*	*	2-16(1)	A6A6CR3
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)		EA	REF				*	*	*	*	*	2-16(1)	A6A6CR4
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)		EA	REF				*	*	*	*	*	2-16(1)	A6A6CR5
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE V10 (28480)		EA	1				*	*	*	*	*	2-16(1)	A6A6CR7

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6)			7)			8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCT	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS	
					30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N3154 (80131)	EA	1				*	*	*	*	*	2-16(1)	A6A6R6
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N995 (80131)	EA	1				*	*	*	*	*	2-16(1)	A6A6CR1
PAHZZ	5935-840-7175	SOCKET, INTEGRATED CIRCUIT 8058-1G-49 (91506)	EA	1				*	*	*	*	*	2-16(1)	A6A6XIC1
PAHZZ	5930-424-9182	SWITCH, SLIDE G124 (79727)	EA	1				*	*	*	*	*	2-16(1)	A6A6S1
PAHZZ	5950-138-1183	TRANSFORMER, PHASE DISCRIMINATOR 909900023 (54778)	EA	1				*	*	*	*	*	2-16(1)	A6A6T1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	4				*	*	*	*	*	2-16(1)	A6A6Q2
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-16(1)	A6A6Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-16(1)	A6A6Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-16(1)	A6A6Q5
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	1				*	*	*	*	*	2-16(1)	A6A6Q1
PAHZZ	5310-145-8376	WASHER, NONMETALLIC 2673 (83330)	EA	8				*	*	*	*	*		H8
PAHZZ	6625-240-9487	OSCILLATOR, 19.1 MEGAHERTZ C02461501 (94668)	EA	1				*	*	*	*	*	2-14(1)	A6A5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	2				*	*	*	*	*	2-14(1)	A6A5C16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C24
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	2				*	*	*	*	*	2-14(1)	A6A5C1
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C4
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	3				*	*	*	*	*	2-14(1)	A6A5C3
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C11
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C15
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (22650)	EA	1				*	*	*	*	*	2-14(1)	A6A5C6
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (72982)	EA	8				*	*	*	*	*	2-14(1)	A6A5C14
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C19
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C20
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C21
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C22
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECLTROYLTIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C25
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C26

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6) 30-DAY DS MAINT ALLOWANCE			7) 30-DAY GS MAINT ALLOWANCE			8) 1-YR ALW PER EQUIP CNTGCTY	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-916-3648	CAPACITOR, FIXED, ELECTROLYTIC 831-000Z5UO-102P (72982)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C27
PAHZZ		CAPACITOR, FIXED, MICA DM15-101J (72136)	EA	1				*	*	*	*	*	2-14(1)	A6A5C2
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	3				*	*	*	*	*	2-14(1)	A6A5C5
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C8
PAHZZ		CAPACITOR, FIXED, MICA DM15-150J (72136)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C10
PAHZZ	5910-086-0282	CAPACITOR, FIXED, MICA DM15-181J (72136)	EA	1				*	*	*	*	*	2-14(1)	A6A5C23
PAHZZ	5910-660-4979	CAPACITOR, FIXED, MICA DM15-221J (72136)	EA	1				*	*	*	*	*	2-14(1)	A6A5C13
PAHZZ	5910-615-0427	CAPACITOR, FIXED, MICA DM15-330G (72136)	EA	1				*	*	*	*	*	2-14(1)	A6A5C9
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	2				*	*	*	*	*	2-14(1)	A6A5C7
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	REF				*	*	*	*	*	2-14(1)	A6A5C18
PAHZZ		CAPACITOR, FIXED, MICA DM15-471J (72136)	EA	1				*	*	*	*	*	2-14(1)	A6A5C17
PAHZZ	5910-900-4641	CAPACITOR, FIXED, MICA DM19-472J (72136)	EA	1				*	*	*	*	*	2-14(1)	A6A5C12
PAHZZ	5905-893-0431	COIL, RADIO FREQUENCY 1537-46 (99800)	EA	1				*	*	*	*	*	2-14(1)	A6A5L3
PAHZZ	5950-137-8849	COIL, RADIO FREQUENCY 4450-07 (99800)	EA	1				*	*	*	*	*	2-14(1)	A6A5L4
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	2				*	*	*	*	*	2-14(1)	A6A5L1
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)	EA	REF				*	*	*	*	*	2-14(1)	A6A5L2
PAHZZ	5955-137-7365	CRYSTAL, QUARTZ 912200039 (54778)	EA	1				*	*	*	*	*	2-14(1)	A6A5Y1
PAHZZ	5962-938-9335	INTEGRATED CIRCUIT A709 (17803)	EA	1				*	*	*	*	*	2-14(1)	A6A5IC1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	6				*	*	*	*	*		A6A5E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A5E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A5E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A5E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A5E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*		A6A5E7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	8				*	*	*	*	*	2-14(1)	A6A5R6
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R7
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R24

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R30
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R33
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R39
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R40
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R41
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	5				*	*	*	*	*	2-14(1)	A6A5R13
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R23
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R34
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R36
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R37
PAHZZ	5905-131-1255	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	3				*	*	*	*	*	2-14(1)	A6A5R9
PAHZZ	5905-131-1255	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R11
PAHZZ	5905-131-1255	RESISTOR, FIXED, COMPOSITION RC07GF104J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R21
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R19
PAHZZ	5905-115-3650	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R15
PAHZZ	5905-105-7764	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R31
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	4				*	*	*	*	*	2-14(1)	A6A5R4
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R18
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R28
PAHZZ	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R29
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	3				*	*	*	*	*	2-14(1)	A6A5R38
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R42
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R43
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R35
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R17
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	3				*	*	*	*	*	2-14(1)	A6A5R1
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R3
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF473J (81349)	EA	2				*	*	*	*	*	2-14(1)	A6A5R5
PAHZZ	5905-141-0717	RESISTOR, FIXED, COMPOSITION RC07GF473J (81349)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R10
PAHZZ	5905-435-6374	RESISTOR, FIXED, COMPOSITION RC07GF823J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R16
PAHZZ	5905-105-7767	RESISTOR, FIXED, COMPOSITION RC07GF474J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R20
PAHZZ	5950-119-8768	RESISTOR, FIXED, COMPOSITION RC07GF821J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R32
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-14(1)	A6A5R25
PAHZZ	5905-102-5886	RESISTOR, VARIABLE 79PR10K (73138)	EA	1				*	*	*	*	*	2-14(1)	A6A5R26
PAHZZ	5095-442-4956	RESISTOR, VARIABLE 62PAR20K (73138)	EA	2				*	*	*	*	*	2-14(1)	A6A5R14
PAHZZ	5095-442-4956	RESISTOR, VARIABLE 62PAR20K (73138)	EA	REF				*	*	*	*	*	2-14(1)	A6A5R22
PAHZZ	5905-763-4747	RESISTOR, VARIABLE 62PAR500 (73138)	EA	1				*	*	*	*	*	2-14(1)	A6A5R8
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)	EA	4				*	*	*	*	*	2-14(1)	A6A5CR2
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)	EA	REF				*	*	*	*	*	2-14(1)	A6A5CR3
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)	EA	REF				*	*	*	*	*	2-14(1)	A6A5CR4
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE HP2900 (28480)	EA	REF				*	*	*	*	*	2-14(1)	A6A5CR5
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE V10 (28480)	EA	1				*	*	*	*	*	2-14(1)	A6A5CR7
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N3154 (80131)	EA	1				*	*	*	*	*	2-14(1)	A6A5CR6
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N995 (80131)	EA	1				*	*	*	*	*	2-14(1)	A6A5CR1
PAHZZ	5935-840-7175	SOCKET INTEGRATED CIRCUIT 8058-1G-49 (91506)	EA	1				*	*	*	*	*	2-14(1)	A6A5XIC1
PAHZZ	5930-424-9182	SWITCH, SLIDE G124 (79727)	EA	1				*	*	*	*	*	2-14(1)	A6A5S1
PAHZZ	5950-138-1183	TRANSFORMER, PHASE DISCRIMINATOR 909900023 (94668)	EA	1				*	*	*	*	*	2-14(1)	A6A5T1
PAHZZ		TRANSISTOR 2N3563 (80131)	EA	4				*	*	*	*	*	2-14(1)	A6A5Q2
PAHZZ		TRANSISTOR 2N3563 (80131)	EA					*	*	*	*	*	2-14(1)	A6A5Q3
PAHZZ		TRANSISTOR 2N3563 (80131)	EA	RE				*	*	*	*	*	2-14(1)	A6A5Q5
PAHZZ		TRANSISTOR 2N3563 (80131)	EA	RE				*	*	*	*	*	2-14(1)	A6A5Q4
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	1				*	*	*	*	*	2-14(1)	A6A5Q1
PAHZZ	5310-135-3361	WASHER, NONMETALLIC 2671 (83330)	EA	2				*	*	*	*	*	2-14(1)	A6A5H1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	9905-157-9968	PLATE, DESIGNATION A02488200 (54778)	EA	1				*	*	*	*	*		A6MP1
PAHZZ		PIN, ROLL 59-012-062-0187 (72962)	EA	2				*	*	*	*	*		A6MP21
PAHZZ	9905-157-9955	PLATE, IDENTIFICATION 919500323 (54778)	EA	1				*	*	*	*	*		A6MP12
PAHZZ		SCREW, MACHINE FLAT HEAD 16328 (73734)	EA	4				*	*	*	*	*		H2
PAHZZ	6625-240-9476	POWER SUPPLY, 16 VOLT C02463200 (54778)	EA	1				*	*	*	*	*	2-10(1)	A6A3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-10(1)	A6A3C5
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	1				*	*	*	*	*	2-10(1)	A6A3C2
PAHZZ	5910-137-8784	CAPACITOR, FIXED, ELECTROLYTIC EMW01930 (12674)	EA	2				*	*	*	*	*	2-10(1)	A6A3C1
PAHZZ	5910-137-8784	CAPACITOR, FIXED, ELECTROLYTIC EMW01930 (126745)	EA	REF				*	*	*	*	*	2-10(1)	A6A3C4
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC EMW21 (12674)	EA	2				*	*	*	*	*	2-10(1)	A6A3C3
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC EMW21 (12674)	EA	REF				*	*	*	*	*	2-10(1)	A6A3C6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	8				*	*	*	*	*	2-10(1)	A6A3E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E7
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E8
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-10(1)	A6A3E9
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-10(1)	A6A3R3
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	5				*	*	*	*	*	2-10(1)	A6A3R5
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R10
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R14
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R16
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R21
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	1				*	*	*	*	*	2-10(1)	A6A3R22
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	3				*	*	*	*	*	2-10(1)	A6A3R6

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER 100 EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R9
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R20
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	4				*	*	*	*	*	2-10(1)	A6A3R2
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R11
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R13
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R17
PAHZZ	5905-141-0743	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	1				*	*	*	*	*	2-10(1)	A6A3R8
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	*	2-10(1)	A6A3R19
PAHZZ	5905-141-1168	RESISTOR, FIXED, COMPOSITION RC20GF222J (81349)	EA	1				*	*	*	*	*	2-10(1)	A6A3R12
PAHZZ	5905-110-0310	RESISTOR, FIXED, COMPOSITION RC20GF392J (81349)	EA	1				*	*	*	*	*	2-10(1)	A6A3R1
PAHZZ		RESISTOR, FIXED, WIREBOUND 99-4337 (44655)	EA	2				*	*	*	*	*	2-10(1)	A6A3R4
PAHZZ		RESISTOR, FIXED, WIREBOUND 99-4337 (44655)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R15
PAHZZ	5905-763-4738	RESISTOR, VARIABLE 62PAR2K (73138)	EA	2				*	*	*	*	*	2-10(1)	A6A3R7
PAHZZ	5905-763-4738	RESISTOR, VARIABLE 62PAR2K (73138)	EA	REF				*	*	*	*	*	2-10(1)	A6A3R18
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	8				*	*	*	*	*	2-10(1)	A6A3CR1
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR2
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR3
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR4
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR10
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR11
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR12
PAHZZ	5961-994-0520	SEMICONDUCTOR, DEVICE, DIODE 1N4998 (04713)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR13
PAHZZ	5961-933-9182	SEMICONDUCTOR, DEVICE, DIODE Z3433 (99942)	EA	1				*	*	*	*	*	2-10(1)	A6A3CR17
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	7				*	*	*	*	*	2-10(1)	A6A3CR5
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR6
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR7
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-10(1)	A6A3CR9

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3CR14
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3CR15
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3CR16
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N753A (80131)		EA	1				*	*	*	*	*	2-10(1)	A6A3CR8
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)		EA	4				*	*	*	*	*	2-10(1)	A6A3Q4
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3Q5
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3Q9
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3Q10
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)		EA	2				*	*	*	*	*	2-10(1)	A6A3Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3Q6
PAHZZ	5961-967-7828	TRANSISTOR 2N35641 (80131)		EA	2				*	*	*	*	*	2-10(1)	A6A3Q2
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)		EA	REF				*	*	*	*	*	2-10(1)	A6A3Q7
PAHZZ	5961-905-2926	TRANSISTOR 40250 (07235)		EA	2				*	*	*	*	*	2-10(1)	A6A3Q3
PAHZZ	5961-905-2926	TRANSISTOR 40250 (07235)		EA	REF				*	*	*	*	*	2-10(1)	A6A3Q8
PAHHH	6625-240-9474	POWER SUPPLY, +3.5 VOLT C02463000 (54778)		EA	1				*	*	*	*	*	2-8	A6A2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DD4103 (71590)		EA	1				*	*	*	*	*	2-8	A6A2C3
PAHZZ	5910-137-8794	CAPACITOR, FIXED ELECTROLYTIC E401930 (12674)		EA	2				*	*	*	*	*	2-8	A6A2C1
PAHZZ	5910-137-8784	CAPACITOR, FIXED ELECTROLYTIC M021930 (12674)		EA	REF				*	*	*	*	*	2-8	A6A2C2
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC BMMW21 (12674)		EA	1				*	*	*	*	*	2-8	A6A2C4
PAHZZ		INSULATOR, STANDOFF 193214 (88822)		EA	4				*	*	*	*	*	2-8	A6A2E2
PAHZZ		INSULATOR, STANDOFF 193214 (88822)		EA	REF				*	*	*	*	*	2-8	A6A2E3
PAHZZ		INSULATOR, STANDOFF 193211 (88822)		EA	REF				*	*	*	*	*	2-8	A6A2E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-8	A6A2E5
PAHZZ		PRINTED WIRING BOARD 904500235 (54778)		EA	1				*	*	*	*	*	2-8	A6A2E1
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF11SJ (81349)		EA	1				*	*	*	*	*	2-8	A6A2R13
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF2223 (81349)		EA	2				*	*	*	*	*	2-8	A6A2R7
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)		EA	REF				*	*	*	*	*	2-8	A6AR12

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	2) FEDERAL STOCK NUMBER	3) DESCRIPTION REFERENCE NUMBER & MFR CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	6) 30-DAY DS MAINT ALLOWANCE			7) 30-DAY GS MAINT ALLOWANCE			8) 1-YR ALW PER EQUIP CNTGCTY	9) DEPOT MAINT ALW PER 100 EQUIP	10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-111-4727	RESISTOR, FIXED COMPOSITION RC07GF272J (81349)	EA	2				*	*	*	*	*	2-8	A6A2R10
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	REF				*	*	*	*	*	2-8	A6A2R11
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	3				*	*	*	*	*	2-8	A6A2R2
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-8	A6AR3
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-8	A6A2R8
PAHZZ		RESISTOR, FIXED, COMPOSITION RC20GF222J (81349)	EA	1				*	*	*	*	*	2-8	A6A2R1
PAHZZ		RESISTOR, FIXED WIREWOUND 99-4330 (44655)	EA	3				*	*	*	*	*	2-8	A6A2R4
PAHZZ		RESISTOR, FIXED WIREWOUND 99-4330 (44655)	EA	REF				*	*	*	*	*	2-8	A6A2R5
PAHZZ		RESISTOR, FIXED WIREWOUND 99-4330 (44655)	EA	REF				*	*	*	*	*	2-8	A6A2R6
PAHZZ	5905-763-4738	RESISTOR VARIABLE 62PA2K (73138)	EA	1				*	*	*	*	*	2-8	A6A2R9
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE Z3433 (99942)	EA	1				*	*	*	*	*	2-8	A6A2CR4
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	3				*	*	*	*	*	2-8	A6A2CR1
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-8	A6A2CR2
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-8	A6A2CR3
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	2				*	*	*	*	*	2-8	A6A2Q4
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	REF				*	*	*	*	*	2-8	A6A2Q5
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	1				*	*	*	*	*	2-8	A6A2Q1
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	1				*	*	*	*	*	2-8	A6A2Q2
PAHZZ	5961-905-2926	TRANSISTOR 40250 (07255)		1				*	*	*	*	*	2-8	A6A2Q3
PAHHH	6625-250-4588	POWER SUPPLY, +6 VOLT C02463400 (54778)	EA	1				*	*	*	*	*	2-6	A6A1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	1				*	*	*	*	*	2-6	A6A1C3
PAHZZ	5910-137-8784	CAPACITOR, FIXED, ELECTROLYTIC EMW01930 (12674)	EA	2				*	*	*	*	*	2-6	A6A1C1
PAHZZ	5910-137-8784	CAPACITOR, FIXED, ELECTROLYTIC EMW01930 (12674)	EA	REF				*	*	*	*	*	2-6	A6A1C2
PAHZZ		CAPACITOR, FIXED, ELECTROLYTIC MMW21 (12674)	EA	1				*	*	*	*	*	2-6	A6A1C4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	4				*	*	*	*	*	2-6	A6A1E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-6	A6A1E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-6	A6A1E4

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT EQUIP ALW PER 100 EQUIP CNTG	(9) DEPOT MAINT EQUIP ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		INSULATOR, STANDOFF 1932X4 (88822)	EA	REF				*	*	*	*	*		A6A1ES
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	3				*	*	*	*	*	2-6	A6A1R3
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-6	A6A1R6
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-6	A6A1R11
PAHZZ	5905-119-3503	RESISTOR, FIXED, COMPOSITION RC07GF271J (81349)	EA	1				*	*	*	*	*	2-6	A6AR12
PAHZZ	5905-111-4727	RESISTOR, FIXED, COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-6	A6A1R10
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	2				*	*	*	*	*	2-6	A6A1R2
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-6	A6A1R7
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	*	2-6	A6A1R9
PAHZZ	5905-141-1168	RESISTOR, FIXED, COMPOSITION RC20F222J (81349)	EA	1				*	*	*	*	*	2-6	A6A1R1
PAHZZ		RESISTOR, FIXED WIREWOUND 99-4330 (44655)	EA	2				*	*	*	*	*	2-6	A6A1R4
PAHZZ		RESISTOR, FIXED WIREWOUND 99-4330 (44655)	EA	REF				*	*	*	*	*	2-6	A6A1R5
PAHZZ	5905-763-4738	RESISTOR, VARIABLE 62PA2K (73138)	EA	1				*	*	*	*	*	2-6	A6A1R8
PAHZZ	5961-933-9182	SEMICONDUCTOR DEVICE, DIODE Z3433 (99942)	EA	1				*	*	*	*	*	2-6	A6A1CR4
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	3				*	*	*	*	*	2-6	A6A1CR1
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-6	A6A1CR2
PAHZZ		SEMICONDUCTOR DEVICE, DIODE 1N456 (80131)	EA	REF				*	*	*	*	*	2-6	A6A1CR3
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	2				*	*	*	*	*	2-6	A6A1Q4
PAHZZ	5961-930-5325	TRANSISTOR 2N3565 (80131)	EA	R				*	*	*	*	*	2-6	A6A1QS
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	1				*	*	*	*	*	2-6	A6A1Q1
PAHZZ	5961-967-7828	TRANSISTOR 2N3641 (80131)	EA	1				*	*	*	*	*	2-6	A6A1Q2
PAHZZ	5961-905-2926	TRANSISTOR 40250 (07235)	EA	1				*	*	*	*	*	2-6	A6A1Q3
PAHHH	6625-439-4190	REFERENCE MIXER C02460500 (94668)	EA	1				*	*	*	*	*	2-36	A6A16
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	4				*	*	*	*	*	2-36	A6A16C5
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-36	A6A16C7
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-36	A6A16C9
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-36	A6A16C11

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-847-0030	CAPACITOR, FIXED, CERAMIC 33C41B6 (56289)	EA	1				*	*	*	*	*	2-36	A6A16C12
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	1				*	*	*	*	*	2-36	A6A16C16
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	1				*	*	*	*	*	2-36	A6A16C2
PAHZZ		CAPACITOR, FIXED, MICA DM15-102J (72136)	EA	1				*	*	*	*	*	2-36	A6A16C6
PAHZZ	5910-660-4979	CAPACITOR, FIXED, MICA DM15-221J (72136)	EA	1				*	*	*	*	*	2-36	A6A16C10
PAHZZ	5910-251-0693	CAPACITOR, FIXED, MICA DM15-271J (72136)	EA	1				*	*	*	*	*	2-36	A6A16C8
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	5				*	*	*	*	*	2-36	A6A16C3
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	REF				*	*	*	*	*	2-36	A6A16C4
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	REF				*	*	*	*	*	2-36	A6A16C13
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	REF				*	*	*	*	*	2-36	A6A16C14
PAHZZ	5910-702-8057	CAPACITOR, FIXED, MICA DM15-331J (72136)	EA	REF				*	*	*	*	*	2-36	A6A16C15
PAHZZ	5910-911-5897	CAPACITOR VARIABLE, GLASS 563-013 (72982)	EA	1				*	*	*	*	*	2-36	A6A16C1
PAHZZ	5950-893-0431	COIL, RADIO FREQUENCY 1537-46 (99800)	EA	1				*	*	*	*	*	2-36	A6A16L2
PAHZZ	5950-137-8850	COIL, RADIO FREQUENCY 4450-08 (99800)	EA	1				*	*	*	*	*	2-36	A6A16L1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	3				*	*	*	*	*	2-36	A6A16E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-36	A6A16E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-36	A6A16E4
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)	EA	1				*	*	*	*	*	2-36	A6A16R9
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (8149)	EA	3				*	*	*	*	*	2-36	A6A16R4
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R5
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R19
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	3				*	*	*	*	*	2-36	A6A16R7
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R11
PAHZZ	5905-116-8555	RESISTOR, FIXED, COMPOSITION RC07GF153J (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R17
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)	EA	1				*	*	*	*	*	2-36	A6A16R16
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)	EA	1				*	*	*	*	*	2-36	A6A16R18
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07GF221J (81349)	EA	2				*	*	*	*	*	2-36	A6A16R2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT ALW PER EQUIP CMTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-683-2240	RESISTOR, FIXED, COMPOSITION RC07G221JT (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R3
PAHZZ	5905-135-3973	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	2				*	*	*	*	*	2-36	A6A16R8
PAHZZ	5905-135-3973	RESISTOR, FIXED, COMPOSITION RC07GF2233 (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R12
PAHZZ		RESISTOR FIXED, COMPOSITION RCO7GF33J (81349)	EA	1				*	*	*	*	*	2-36	A6A16R6
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RCO7GF470J (81349)	EA	2				*	*	*	*	*	2-36	A6A16R10
PAHZZ	5905-104-8361	RESISTOR, FIXED, COMPOSITION RCO7GF470J (81349)	EA	REF				*	*	*	*	*	2-36	A6A16R14
PAHZZ	5905-120-9154	RESISTOR, FIXED, COMPOSITION RCO7GF471J (81349)	EA	1				*	*	*	*	*	2-36	A6A16R13
PAHZZ-		RESISTOR, FIXED, COMPOSITION RCO7GF681J (81349)	EA	1				*	*	*	*	*	2-36	A6R13
PAHZZ	5905-923-3567	RESISTOR, VARIABLE RS501 (01121)	EA	1				*	*	*	*	*	2-36	A6A16R1
PAHZZ	5961-780-8091	SEMICONDUCTOR, DEVICE, SET MP3507 (07933)	EA	2				*	*	*	*	*	2-36	A6A16CR1
PAHZZ	5961-780-8091	SEMICONDUCTOR, DEVICE, SET MP3507 (07933)	EA	REF				*	*	*	*	*	2-36	A6A16CR2
PAHZZ	5950-402-3663	TRANSFORMER PE5864 (01961)	EA	1				*	*	*	*	*	2-36	A6A16T1
PAHZZ		TRANSISTOR 2N3563 (80131)	EA	1				*	*	*	*	*	2-36	A6A16Q2
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	1				*	*	*	*	*	2-36	A6A16Q3
PAHZZ	5961-836-4183	TRANSISTOR 2N699 (80131)	EA	1				*	*	*	*	*	2-36	A6A16Q1
PAHZZ	5945-137-4911	RELAY 3SBF1040A2 (08931)	EA	2				*	*	*	*	*	2-4	A6K1
PAHZZ	5945-137-4911	RELAY 3SBF1040A2 (08931)	EA	REF				*	*	*	*	*	2-4	A6K3
PAHZZ	5310-938-2013	NUT, PLAIN, HEXAGON MS35649-224 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5305-054-5637	SCREW, MACHINE MS51957-3 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5310-938-2013	WASHER, LOCK MS35338-153 (96906)	EA	4				*	*	*	*	*		H4
PAHZZ	5905-106-1244	RESISTOR, FIXED, COMPOSITION RC32GF3R3J (81349)	EA	1				*	*	*	*	*	2-4	A6R8
PAHZZ		RESISTOR FIXED, WIREBOUND 99-4530 (44655)	EA	4				*	*	*	*	*	2-3	A6R2
PAHZZ		RESISTOR, FIXED, WIREBOUND 99-4530 (44655)	EA	REF				*	*	*	*	*	2-3	A6R3
PAHZZ		RESISTOR, FIXED, WIREBOUND 99-4530 (44655)	EA	REF				*	*	*	*	*	2-3	A6R4
PAHZZ		RESISTOR, FIXED, WIREBOUND 99-4530 (44655)	EA	REF				*	*	*	*	*	2-3	A6R5
PAHHH	6625-439-4189	SECOND AMPLIFIER C02461100 (94668)	EA	1				*	*	*	*	*	2-30	A6A13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	4				*	*	*	*	*	2-30	A6A13C1

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC 0M103 (71590)	EA	REF				*	*	*	*	*	2-30	A6A13C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-30	A6A13C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-30	A6A13C13
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	6				*	*	*	*	*	2-30	A6A13C4
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-30	A6A13C6
PAHZZ		CAPACITOR FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-30	A6A13C8
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-30	A6A13C9
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-30	A6A13C11
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-30	A6A13C15
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	1				*	*	*	*	*	2-30	A6A13C14
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA 11415-121J (72136)	EA	1				*	*	*	*	*	2-30	A6A13C5
PAHZZ	5910-058-1660	CAPACITOR, FIXED, MICA S-4115-1J (72136)	EA	1				*	*	*	*	*	2-30	A6A13C2
PAHZZ		CAPACITOR, FIXED, MICA 1M15-471J (72136)	EA	1				*	*	*	*	*	2-30	A6A13C12
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	1				*	*	*	*	*	2-30	A6A13C7
PAHZZ	5950-621-6158	COIL, RADIO FREQUENCY WEE330 (43543)	EA	2				*	*	*	*	*	2-30	A6A13L2
PAHZZ	5950-621-6158	COIL, RADIO FREQUENCY WEE330 (43543)	EA	REF				*	*	*	*	*	2-30	A6A13L3
PAHZZ		COIL, RADIO FREQUENCY 1537-72 (99800)	EA	1				*	*	*	*	*	2-30	A6A13L1
PAHZZ		INSULATOR, STANDOFF 193251W (88822)	EA	1				*	*	*	*	*	2-30	A6A13E3
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-30	A6A13R10
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-30	A6A13R12
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF231J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R4
PAHZZ	5905-111-4727	RESISTOR FIXED, COMPOSITION RC07GF272J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R3
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R13
PAHZZ	5905-141-074	RESISTOR, FIXED, COMPOSITION RC07GF392J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R5
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07TF393J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R1
PAHZZ	5905-686-999E	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	2				*	*	*	*	*	2-30	A6A13R2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT EQUIP ALW PER 100 EQUIP CNTG	(9) DEPOT MAINT EQUIP ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472T (81349)	EA	REF				*	*	*	*	*	2-30	A6A13R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)	EA	1				*	*	*	*	*	2-30	A6A13R7
PAHZZ	5905-105-7553	RESISTOR, VARIABLE RP10K (01121)	EA	1				*	*	*	*	*	2-30	A6A13R11
PAHZZ		RESISTOR, VARIABLE 62PAR100K (73138)	EA	1				*	*	*	*	*	2-30	A6A13R8
PAHZZ	5961-780-8091	SEMICONDUCTOR, DEVICE, SET MP3507 (079355)	EA	2				*	*	*	*	*	2-30	A6A13CR2
PAHZZ	5961-780-8091	SEMICONDUCTOR, DEVICE, SET MP3507 (07933)	EA	REF				*	*	*	*	*	2-30	A6A13CR4
PAHZZ		SEMICONDUCTOR, DEVICE, SET 1N995 (80131)	EA	2				*	*	*	*	*	2-30	A6A13R1
PAHZZ		SEMICONDUCTOR, DEVICE, SET 1N995 (80131)	EA	REF				*	*	*	*	*	2-30	A6A13CR3
PAHZZ	5950-897-9726	TRANSFORMER PULSE PE5643 (01961)	EA	1				*	*	*	*	*	2-30	A6A13T2
PAHZZ	5950-897-9728	TRANSFORMER, PULSE PE5667 (01961)	EA	1				*	*	*	*	*	2-30	A6A13T1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	2				*	*	*	*	*	2-30	A6A13Q1
PAHZZ	5961-062-3133	TRANSISTOR 2N3638 (80131)	EA	REF				*	*	*	*	*	2-30	A6A13Q2
PAHZZ	6625-439-4191	SECOND OSCILLATOR C02460600 (94668)	EA	1				*	*	*	*	*	2-34(1)	A6A15
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	14				*	*	*	*	*	2-34(1)	A6A15C1
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C2
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C8
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C11
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C14
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C15
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C18
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C19
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C22
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C23
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-34(1)	A6A15C25

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR DEPOT MAINT EQUIP ALW PER 100 EQUIP CNTG	(10) ILLUSTRATIONS		
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100		(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
PAHZZ	5910-853-6495	CAPACITOR, FIXED, CERAMIC 301-000-52H0-3000 (71590)		EA	1				*	*	*	*	*	2-34(1)	A6A15C6
PAHZZ	5910-2252-4102	CAPACITOR, FIXED, CERAMIC TCZ10 (71590)		EA	1				*	*	*	*	*	2-34(1)	A6A15C4
PAHZZ		CAPACITOR, FIXED, CERAMIC TCZ120 (71590)		EA	1				*	*	*	*	*	2-34(1)	A615C7
PAHZZ	5910-903-6299	CAPACITOR, FIXED, CERAMIC TCZ150 (71590)		EA	1				*	*	*	*	*	2-34(1)	A6A15C5
PAHZZ	5910-712-8656	CAPACITOR, FIXED, MICA DM15-100J (72136)		EA	4				*	*	*	*	*	2-34(1)	A6A15C9
PAHZZ	5910-712-8656	CAPACITOR, FIXED, MICA DM15-100J (72136)		EA	REF				*	*	*	*	*	2-34(1)	A6A15C13
PAHZZ	5910-712-8656	CAPACITOR, FIXED, MICA DM15-100J (72136)		EA	REF				*	*	*	*	*	2-34(1)	A6A15C17
PAHZZ	5910-712-8656	CAPACITOR, FIXED, MICA DM15-100J (72136)		EA	REF				*	*	*	*	*	2-34(1)	A6A15C21
PAHZZ		CAPACITOR, FIXED, MICA DM15-560J (72136)		EA	1				*	*	*	*	*	2-34(1)	A6A15C24
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)		EA	1				*	*	*	*	*	2-34(1)	A6A15L6
PAHZZ	5950-893-0431	COIL, RADIO FREQUENCY 1537-46 (99800)		EA	1				*	*	*	*	*	2-34(1)	A6A15L2
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)		EA	3				*	*	*	*	*	2-34(1)	A6A15L3
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)		EA	REF				*	*	*	*	*	2-34(1)	A6A15L4
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)		EA	REF				*	*	*	*	*	2-34(1)	A6A15L5
PAHZZ	5950-137-8848	COIL, RADIO FREQUENCY 4000-14 (99800)		EA	1				*	*	*	*	*	2-34(1)	A6A15L1
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	5				*	*	*	*	*	2-34(1)	A6A15E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-34(1)	A6A15E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-34(1)	A6A15E4
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)		EA	REF				*	*	*	*	*	2-34(1)	A6A15E5
PAHZZ		INSULATOR, STANDOFF 19321m (88822)		EA	REF				*	*	*	*	*	2-34(1)	A6A15E6
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R29
PAHZZ	5905-681-6462	RESISTOR, FIXED, COMPOSITION RC07GF102J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R3
PAHZZ	5905-110-0388	RESISTOR, FIXED, COMPOSITION RC07GF104J, (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R1
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A1R17
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R21
PAHZZ	5905-400-4258	RESISTOR, FIXED, COMPOSITION RC07GF124J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A15R4
PAHZZ	5905-400-4528	RESISTOR, FIXED, COMPOSITION RC07GF124J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R5

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5905-106-1356	RESISTOR, FIXED, COMPOSITION RC07GF152J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R23
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF182J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R27
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)		EA	3				*	*	*	*	*	2-34(1)	A6A15R15
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R19
PAHZZ	5905-115-3560	RESISTOR, FIXED, COMPOSITION RC07GF183J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R25
PAHZZ	5905-105-7765	RESISTOR, FIXED, COMPOSITION RC07GF224J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A15R6
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A15R12
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF273J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R13
PAHZZ	5905-131-9729	RESISTOR, FIXED, COMPOSITION RC07GF302 (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R11
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R14
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R10
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R8
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A15R16
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R20
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A15R18
PAHZZ	5905-133-0440	RESISTOR, FIXED, COMPOSITION RC07GF560J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R22
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF561J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R24
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)		EA	1				*	*	*	*	*	2-34(1)	A6A15R9
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)		EA	2				*	*	*	*	*	2-34(1)	A6A15R26
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)		EA	REF				*	*	*	*	*	2-34(1)	A6A15R28
PAHZZ	5905-442-4956	RESISTOR, VARIABLE 62PAR20K (73138)		EA	1				*	*	*	*	*	2-34(1)	A6A15R2
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE V10 (28480)		EA	1				*	*	*	*	*	2-34(1)	A6A15CR1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)		EA	3				*	*	*	*	*	2-34(1)	A6A15Q3
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)		EA	REF				*	*	*	*	*	2-34(1)	A6A15Q4
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)		EA	REF				*	*	*	*	*	2-34(1)	A6A15Q5
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)		EA	1				*	*	*	*	*	2-34(1)	A6A15Q2

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6)			(7)			(8) 1-YR DEPOT MAINT ALW PER EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					30-DAY DS MAINT ALLOWANCE			30-DAY GS MAINT ALLOWANCE					FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100				
PAHZZ	5961-883-9495	TRANSISTOR 2N706B (80131)	EA	1				*	*	*	*	*	2-34(1)	A6A15Q1
PAHZZ	5961-401-0502	SEMICONDUCTOR, DEVICE, DIODE MR1121 (04713)	EA	8				*	*	*	*	*	2-3	A6CR1
PAHZZ	5961-401-0502	SEMICONDUCTOR, DEVICE, DIODE MR1121 (04713)	EA	REF				*	*	*	*	*	2-3	A6CR2
PAHZZ	5961-401-0502	SEMICONDUCTOR DEVICE, DIODE MR1121 (04713)	EA	REF				*	*	*	*	*	2-3	A6CR3
PAHZZ	5961-401-0502	SEMICONDUCTOR DEVICE, DIODE MR1121 (04713)	EA	REF				*	*	*	*	*	2-3	A6CR4
PAHZZ	5961-401-0502	SEMICONDUCTOR DEVICE, DIODE MR1121 (04713)	EA	REF				*	*	*	*	*	2-3	A6CR5
PAHZZ	5961-401-0502	SEMICONDUCTOR DEVICE, DIODE MR1121 (04713)	EA	REF				*	*	*	*	*	2-3	A6CR6
PAHZZ	5961-401-0502	SEMICONDUCTOR DEVICE, DIODE MR1121 (04713)	EA	REP				*	*	*	*	*	2-3	A6CR7
PAHZZ	5961-401-0502	SEMICONDUCTOR DEVICE, DIODE MR1121 (04713)	EA	REF				*	*	*	*	*	2-3	A6CR8
PAHZZ	5935-162-3077	SOCKET, OSCILLATOR 148-111 (02660)	EA	1				*	*	*	*	*	2-3	A6XXC01
PAHZZ		NUT, ASSEMBLED WASHER 9225 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-6652	SCREW, MACHINE MS51957-28 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5961-931-0382	SOCKET, TRANSISTOR 8080-1G1 (91506)	EA	6				*	*	*	*	*		A6XQ1
PAHZZ	5961-931-0382	SOCKET, TRANSISTOR 8080-1G1 (91506)	EA	REF				*	*	*	*	*		A6XQ2
PAHZZ	5961-931-0382	SOCKET, TRANSISTOR 8000-1G1 (91506)	EA	REF				*	*	*	*	*		A6XQ3
PAHZZ	5961-931-0382	SOCKET, TRANSISTOR 8080-1G1 (91506)	EA	REF				*	*	*	*	*		A6XQ4
PAHZZ	5961-931-0382	SOCKET, TRANSISTOR 8080-1G1 (91506)	EA	REF				*	*	*	*	*		A6XQ5
PAHZZ	5961-931-0382	SOCKET, TRANSISTOR 8080-1G1 (91506)	EA	REF				*	*	*	*	*		A6XQ6
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	6				*	*	*	*	*		H2
PAHZZ	5305-770-2575	SCREW, MACHINE MS51957-15 (96906)	EA	6				*	*	*	*	*		H6
PAHZZ	5930-137-8842	SWITCH, PUSH 911300027 (94668)	EA	1				*	*	*	*	*	2-4	A6S1
PAHZZ		NUT, ASSEMBLED WASHER 9225 (73734)	EA	4				*	*	*	*	*		H4
PAHZZ	5930-139-1835	SWITCH, PUSH 911300028 (54778)	EA	1				*	*	*	*	*	2-4	A6S2
PAHZZ		NUT, ASSEMBLED WASHER 9225 (73734)	EA	4				*	*	*	*	*		H4
PAHZZ		SWITCH, ROTARY 911200108 (94668)	EA	1				*	*	*	*	*	2-3	A6S3
PAHZZ		NUT, PLAIN, HEXAGON MS35609-2382 (96906)	EA	1				*	*	*	*	*		H1
PAHZZ	5310-903-2612	WASHER, FLAT MS9321-12 (96906)	EA	1				*	*	*	*	*		H1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5930-059-1390	SWITCH, SLIDE 46256LF (82389)	EA	1				*	*	*	*	*	2-3	A6S4
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ		NUT, ASSEMBLED WASHER 71500 (73734)	EA	2				*	*	*	*	*		H2
PAHZZ	5305-054-5648	SCREW, MACHINE MS51957-14 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5940-682-2477	TERMINAL, LUG 1960 (21938)	EA	1				*	*	*	*	*		A6E11
PAHZZ	5940-156-7344	TERMINAL, LUG 1961 (21938)	EA	15				*	*	*	*	*		A6E12
PAHZZ		TERMINAL, LUG 2340-20-00 (78189)	EA	1				*	*	*	*	*		A6E13
PAHZZ		TERMINAL, LUG 341 (79963)	EA	1				*	*	*	*	*		A6E14
PAHZZ		TERMINATION RESISTOR 35650 (96791)	EA	2				*	*	*	*	*		A6AT2
PAHZZ		TERMINATION RESISTOR 35650 (96791)	EA	REF				*	*	*	*	*		A6AT3
PAHZZ	5950-137-8840	TRANSFORMER 910000101 (54778)	EA	1				*	*	*	*	*	2-3	A6T2
PAHZZ	5950-137-8838	TRANSFORMER POWER 910000097 (54778)	EA	1				*	*	*	*	*	2-3	A6T1
PAHZZ	5961-431-7863	TRANSISTOR 40251 (07235)	EA	6				*	*	*	*	*	2-3	A6Q1
PAHZZ	5961-431-7863	TRANSISTOR 40251 (07235)	EA	REF				*	*	*	*	*	2-3	A6Q2
PAHZZ	5961-431-7863	TRANSISTOR 40251 (07235)	EA	REF				*	*	*	*	*	2-3	A6Q3
PAHZZ	5961-431-7863	TRANSISTOR 40251 (07235)	EA	REF				*	*	*	*	*	2-3	A6Q4
PAHZZ	5961-431-7863	TRANSISTOR 40251 (07235)	EA	REF				*	*	*	*	*	2-3	A6Q5
PAHZZ	5961-431-7863	TRANSISTOR 40251 (07235)	EA	REF				*	*	*	*	*	2-3	A6Q6
PAHZZ	5305-054-6654	SCREW, MACHINE MS51957-30 (96906)	EA	12				*	*	*	*	*		H12
PAHZZ	5310-883-9384	WASHER, LOCK MS35338-155 (96906)	EA	12				*	*	*	*	*		H2
PAHHH	6625-240-9536	TUNING AMPLIFIER-OUTPUT C02462400 (94668)	EA	1				*	*	*	*	*	2-30(1)	A6A8
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	2				*	*	*	*	*	2-30(1)	A6A8C13
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C14
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	18				*	*	*	*	*	2-30(1)	A6A8C1
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C2
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C3

**SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C4
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C5
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C6
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C7
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C8
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C9
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C10
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C12
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C15
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C16
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C17
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C18
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C19
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C20
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-30(1)	A6A8C21
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	1				*	*	*	*	*	2-30(1)	A6A8C22
PAHZZ		CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	1				*	*	*	*	*	2-30(1)	A6A8C11
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	2				*	*	*	*	*	2-30(1)	A6A8L1
PAHZZ		COIL, RADIO FREQUENCY 1537-06 (99800)	EA	REF				*	*	*	*	*	2-30(1)	A6A8L2
PAHZZ	5950-893-0431	COIL, RADIO FREQUENCY 1537-46 (99800)	EA	1				*	*	*	*	*	2-30(1)	A6A8L5
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	3				*	*	*	*	*	2-30(1)	A6A8L3
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	REF				*	*	*	*	*	2-30(1)	A6A8L6
PAHZZ	5950-087-3781	COIL, RADIO FREQUENCY 1537-716 (99800)	EA	REF				*	*	*	*	*	2-30(1)	A6A8L7
PAHZZ		COIL, RADIO FREQUENCY 1537-72 (99800)	EA	1				*	*	*	*	*	2-30(1)	A6A8L14
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	9				*	*	*	*	*	2-30(1)	A6A8E2
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30(1)	A6A8E3
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30(1)	A6A8E4

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8E5
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8E6
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8E7
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8E8
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8E9
PAHZZ		INSULATOR, STANDOFF 1932XM (88822)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8E10
PAHZZ	5935-914-5347	JACK, TELEPHONE 3310-2-03 (11237)	EA	4				*	*	*	*	*	2-30 (1)	A6A8J1
PAHZZ	5935-914-5347	JACK, TELEPHONE 3310-2-03 (11237)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8J2
PAHZZ	5935-914-5347	JACK, TELEPHONE 3310-2-03 (11237)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8J3
PAHZZ	5935-914-5347	JACK, TELEPHONE 3310-2-03 (11237)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8J4
PAHZZ		PRINTED WIRING BOARD 904500232 (11237)	EA	1				*	*	*	*	*		A6A8E1
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R5
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R8
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R12
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R14
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R16
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R19
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R20
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R28
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R31
PAHZZ	5905-141-1183	RESISTOR, FIXED, COMPOSITION RC07GF101J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R35
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	2				*	*	*	*	*	2-30 (1)	A6A8R11
PAHZZ	5905-106-3666	RESISTOR, FIXED, COMPOSITION RC07GF103J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R18
PAHZZ	5905-106-3667	RESISTOR, FIXED, COMPOSITION RC07GF120J (81349)	EA	2				*	*	*	*	*	2-30 (1)	A6A8R34
PAHZZ	5905-106-3667	RESISTOR, FIXED, COMPOSITION RC07GF120J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R36
PAHZZ	5905-686-9994	RESISTOR, FIXED, COMPOSITION RC07GF122J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R13
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	2				*	*	*	*	*	2-30 (1)	A6A8R4

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF123J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R10
PAHZZ	5905-119-8811	RESISTOR, FIXED, COMPOSITION RC07GF151J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R1
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF220J (81349)	EA	2				*	*	*	*	*	2-30 (1)	A6A8R37
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF220J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R39
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	2				*	*	*	*	*	2-30 (1)	A6A8R6
PAHZZ	5905-723-5251	RESISTOR, FIXED, COMPOSITION RC07GF222J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R26
PARES	5905-116-8556	RESISTOR, FIXED, COMPOSITION RC07GF223J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R24
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF270J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R40
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF331J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R23
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	4				*	*	*	*	*	2-30 (1)	A6A8R21
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R25
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R29
PAHZZ	5905-126-6683	RESISTOR, FIXED, COMPOSITION RC07GF332J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R32
PAHZZ	5905-113-9861	RESISTOR, FIXED, COMPOSITION RC07GF390J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R38
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R27
PAHZZ	5905-104-8368	RESISTOR, FIXED, COMPOSITION RC07GF470J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R2
PAHZZ	5905-135-3975	RESISTOR, FIXED, COMPOSITION RC07GF680J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R7
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	4				*	*	*	*	*	2-30 (1)	A6A8R15
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R22
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R30
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF681J (81349)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8R33
PAHZZ		RESISTOR, FIXED, COMPOSITION RC70GF682J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R17
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF822J (81349)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R3
PAHZZ	5905-763-4747	RESISTOR, VARIABLE 62PAR500 (73138)	EA	1				*	*	*	*	*	2-30 (1)	A6A8R9
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	2				*	*	*	*	*	2-30 (1)	A6A8Q1
PAHZZ	5961-943-7572	TRANSISTOR 2N3563 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q2
PAHZZ	5961-927-0845	TRANSISTOR 2H3640 (80131)	EA	7				*	*	*	*	*	2-30 (1)	A6A8Q3

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					USABLE ON CODE									
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q4
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q5
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q6
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q7
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q8
PAHZZ	5961-927-0845	TRANSISTOR 2N3640 (80131)	EA	REF				*	*	*	*	*	2-30 (1)	A6A8Q9
PAHZZ	6625-260-9501	TUNING OSCILLATOR C02462600 (94668)	EA	1				*	*	*	*	*	2-28	A7
PAHZZ		WASHER FLAT 1444 (73734)	EA	2				*	*	*	*	*		H1
PAHZZ		SCREW, MACHINE MS51957-13 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5310-883-9385	WASHER, LOCK MS35338-155 (96906)	EA	2				*	*	*	*	*		H2
PAHZZ	5910-083-9829	CAPACITOR, FIXED, CERAMIC TCA10 (71390)	EA	1				*	*	*	*	*	2-28	A6A705
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56239)	EA	1				*	*	*	*	*	2-28	A6A701
PAHZZ		CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	2				*	*	*	*	*	2-28	A6A702
PAHZZ	5910-916-3648	CAPACITOR, FIXED, CERAMIC 831-000Z5U0-102P (72982)	EA	REF				*	*	*	*	*	2-28	A6A708
PAHZZ		CAPACITOR, FIXED, MICA DM15-030K (72136)	EA	1				*	*	*	*	*	2-28	A6A707
PAHZZ	5910-844-8808	CAPACITOR, FIXED, MICA DM15-050K (72136)	EA	1				*	*	*	*	*	2-28	A6A706
PAHZZ		CAPACITOR, FIXED, MICA DM15-102J (72136)	EA	2				*	*	*	*	*	2-28	A6A703
PAHZZ		CAPACITOR, FIXED, MICA DM15-102J (72136)	EA	REF				*	*	*	*	*	2-28	A6A7011
PAHZZ	5910-660-4982	CAPACITOR, FIXED, MICA DM15-121J (72136)	EA	1				*	*	*	*	*	2-28	A6A709
PAHZZ	5910-058-1660	CAPACITOR, FIXED, MICA DM15-151J (72136)	EA	1				*	*	*	*	*	2-28	A6A7010
PAHZZ	5910-911-5897	CAPACITOR, VARIABLE, GLASS 563-013 (72982)	EA	1				*	*	*	*	*	2-28	A6A704
PAHZZ	5950-407-6176	COIL, RADIO FREQUENCY 4450-02 (99800)	EA	1				*	*	*	*	*	2-28	A6A7L1
PAHZZ	5940-173-7008	TERMINAL BOARD B02464900 (94668)	EA	1				*	*	*	*	*		A6A7P41
PAHZZ	5905-683-2236	RESISTOR, FIXED, COMPOSITION RC07GF391J (81349)	EA	1				*	*	*	*	*		A6A76R4
PAHZZ		RESISTOR, FIXED, COMPOSITION RC07GF393J (81349)	EA	1				*	*	*	*	*	2-28	A6A7R1
PAHZZ	5905-686-9998	RESISTOR, FIXED, COMPOSITION RC07GF472J (81349)	EA	1				*	*	*	*	*	2-28	A6A7R5
PAHZZ	5905-141-0744	RESISTOR, FIXED, COMPOSITION RC07GF562J (81349)	EA	1				*	*	*	*	*	2-28	A6A7R2

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		RESISTOR, FIXED, CONDITION RC07GF681J (.81349)	EA	1				*	*	*	*	*	2-28	A6A7R3
PAHZZ		SEMICONDUCTOR, DEVICE, DIODE V10 (28480)	EA	1				*	*	*	*	*	2-28	A6A7CR1
PAHZZ	5961-943-7572	TRANSISTOR 213563 (80131)	EA	1				*	*	*	*	*	2-28	A6A7Q1
PAHZZ	6623-180-7223	CIRCUIT CARD ASSEMBLY C02461200 (94668)	EA	1				*	*	*	*	*	2-28	A6A12
PAHZZ		CAPACITOR, FIXED, CERAMIC 302-000-P2G0-390 (71590)	EA	1				*	*	*	*	*	2-28	A6A12C3
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	4				*	*	*	*	*	2-28	A6A12C10
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-28	A6A12C12
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-28	A6A12C15
PAHZZ	5910-925-6581	CAPACITOR, FIXED, CERAMIC DDM103 (71590)	EA	REF				*	*	*	*	*	2-28	A6A12C16
PAHZZ	5910-068-9829	CAPACITOR, FIXED, CERAMIC TCA10 (71590)	EA	1				*	*	*	*	*	2-28	A6A12C2
PAHZZ	5910-903-6299	CAPACITOR, FIXED, CERAMIC TCZ150 (71590)	EA	1				*	*	*	*	*	2-28	A6A12C4
PAHZZ		CAPACITOR, FIXED, CERAMIC TCZ22 (71590)	EA	1				*	*	*	*	*	2-28	A6A12C6
PAHZZ	5910-063-0542	CAPACITOR, FIXED, CERAMIC TCZ39 (71590)	EA	1				*	*	*	*	*	2-28	A6A12C7
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	5				*	*	*	*	*	2-28	A6A12C1
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-28	A6A12C17
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-28	A6A12C14
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C4113 (56289)	EA	REF				*	*	*	*	*	2-28	A6A12C19
PAHZZ		CAPACITOR, FIXED, CERAMIC 33C41A3 (56289)	EA	REF				*	*	*	*	*	2-28	A6A12C20
PAHZZ	5910-465-0042	CAPACITOR, FIXED, ELECTROLYTIC SCM105FP035D2 (01295)	EA	1				*	*	*	*	*	2-28	A6A12C21
PAHZZ	5910-138-1173	CAPACITOR, FIXED, ELECTROLYTIC TL1207 (56289)	EA	1				*	*	*	*	*	2-28	A6A12C18
PAHZZ	5910-087-7742	CAPACITOR, FIXED, ELECTROLYTIC 12-375BP10-25S85NP (22650)	EA	1				*	*	*	*	*	2-28	A6A12C9
PAHZZ		CAPACITOR, FIXED, MICA DM19-152J (72136)	EA	1				*	*	*	*	*	2-28	A6A12C5
PAHZZ	5910-660-4979	CAPACITOR, FIXED, MICA DM15-221J (72136)	EA	1				*	*	*	*	*	2-28	A6A12C13
PAHZZ	5910-900-4641	CAPACITOR, FIXED, MICA DM19-472J (72136)	EA	1				*	*	*	*	*	2-28	A6A12C11
PAHZZ	5910-914-0802	CAPACITOR, VARIABLE, GLASS 565-013 (72982)	EA	1				*	*	*	*	*	2-28	AA12C8
PAHZZ	5950-016-0351	COIL, RADIO FREQUENCY A01897300 (94668)	EA	1				*	*	*	*	*	2-28	A6A12L1

**SECTION II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE
(CONTINUED)**

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE USABLE ON CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1-YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG. NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
PAHZZ		COIL, RADIO FREQUENCY 1537-72 (99880)		EA	1				*	*	*	*	*	2-28	A6A12L4
PAHZZ	5950-955-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)		EA	3				*	*	*	*	*	2-28	A6A12L2
PAHZZ	5950-995-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)		EA	REF				*	*	*	*	*	2-28	A1612L3
PAHZZ	5950-995-9968	COIL, RADIO FREQUENCY 70F333A1 (76493)		EA	REF				*	*	*	*	*	2-28	A6A12L5
PAHZZ		INSULATOR, STANDOFF 1932XM (86822)		EA	5				*	*	*	*	*	2-28	A6A12E2
PAHZZ		INSULATOR, STANDOFF 1932XM (86822)		EA	REF				*	*	*	*	*	2-28	A6A12E3
PAHZZ		INSULATOR, STANDOFF 1932XM (86822)		EA	REF				*	*	*	*	*	2-28	A6A12E4
PAHDL		DIVIDE BY 100 PRESCALER A03327600 (94668)		EA	1				*	*	*	*	*	2-28.1	A6A20
PADZZ		PRINTED WIRING BOARD		EA	1				*	*	*	*	*	2-28.1	
PAOZZ		INTEGRATED CIRCUIT 8629 920398629 (94668)		EA	1				*	*	*	*	*	2-28.1	A6A20U1
PADZZ		RESISTOR, 10 OHM 1/2W, 5% 905000100 (94668)		EA	1				*	*	*	*	*	2-28.1	A6A20R1
PADZZ		RESISTOR, 2K, 1/4W, 5% 90690202 (94668)		EA	1				*	*	*	*	*	2-28.1	A6A20R2
PADZZ		CAPACITOR, 10uF, TANT., 20% 902710106 (94668)		EA	1				*	*	*	*	*	2-28.1	A6A20C1
PADZZ		CAPACITOR, .01MF, CK05 901320103 (94668)		EA	3				*	*	*	*	*	2-28.1	A6A20C2
PADZZ		CAPACITOR, .01MF, CK05 901320103 (94668)		EA	REF				*	*	*	*	*	2-28.1	A6A20C3
PADZZ		CAPACITOR, .01MF, CK05 901320103 (94668)		EA	REF				*	*	*	*	*	2-28.1	A6A20C4
PADZZ		DIODE, ZENER 5.1V 910630751 (94668)		EA	1				*	*	*	*	*	2-28.1	A6A20CR1
PADZZ		EJECTOR, P.C. BOARD		EA	1				*	*	*	*	*		

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FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
3010-240-6682		A5MP5	5305-054-6651		H3
3010-240-6682		A5MP6	5305-054-6652		H2
3020-070-6310		A6A20MP8	5305-054-6654		H2
3020-070-6310		A6A27MP9	5305-054-6654		H4
3020-137-9222		A6A26MP7	5305-054-6654		H12
3020-137-9222		A6A27MP8	5305-054-6666		H2
3040-138-8239		A6A26MP3	5305-054-6667		H2
3040-138-8239		A6A27MP4	5305-068-5409		H1
3040-138-8240		A6A26MP5	5305-282-8902		H1
3040-138-8240		A6A27MP6	5305-531-0137		H2
3040-138-8241		A6A27MP3	5305-531-0137		H4
3040-146-0564		A5MP1	5305-639-6860		H2
3110-773-9554		A6A26MP9	5305-655-9246		H2
3110-773-9554		A6A26MP10	5305-764-2964		H3
3110-773-9554		A6A26MP11	5305-770-2579		H6
3110-773-9554		A6A27MP10	5305-800-7261		H1
3110-773-9554		A6A27MP11	5305-800-7261		H2
3110-773-9554		A6A27MP12	5309-639-6860		H2
3110-787-8903		A6A26MP12	5310-052-3632		H2
3110-934-9761		A6A27MP13	5310-056-3395		H1
4130-909-8130		A1B1	5310-056-3395		H2
5305-054-5637		H2	5310-135-3361		A6A5H1
5305-054-5637		H4	5310-145-8376		H8
5305-054-5638		H2	5310-146-2514		H1
5305-054-5644	2-99	H4	5310-146-2514		H2
5305-054-5647		H2	5310-146-2514		H4
5305-054-5648		H2	5310-180-0277		H1
5305-054-5648		H4	5310-550-3715		H3
5305-054-5649		H1	5310-550-3715	2-99	H4
5305-054-5649		H2	5310-722-5998		H2
5305-054-6651		H2	5310-722-5998		H3

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FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5310-802-4701		H1	5355-193-0160		A6A26MP4
5310-802-4701		H5	5355-193-0160		A6A27MP5
5310-846-8951		H2			
5310-846-8951	2-101	H2	5360-140-4849		A1MP13
5310-846-8951	2-105	H2	5365-148-1320		A6A27MP14
5310-846-8951	2-107	H3	5365-148-1320		A6A27MP15
5310-846-8951	2-109	H2	5365-148-1320		A6A27MP16
5310-846-8951	2-111	H2	5365-149-8953		A6A27MP21
5310-846-8951	2-121	H2	5365-155-4824		A6A26MP25
5310-869-4199		H2	5365-155-4824		A6A26MP26
5310-883-9384		H12	5365-155-4824		A6A27MP20
5310-883-9385		H2	5820-185-7220	1-1	A3MP3
5310-883-9385		H3	5905-009-8031	2-140	A2A1R7
5310-903-2612		H1	5905-009-8031	2-140	A2A1R17
5310-934-9761		H1	5905-068-6962	2-82	A5A8R24
5310-938-2013		H2	5905-102-5886	2-24(1)	A6A5R26
5310-938-2013		H4	5905-102-5886	2-26(1)	A6A6R26
5340-200-6707		A6A26MP21	5905-102-5886	2-74	A5A4R8
5340-200-6707		A6A26MP20	5905-104-8368	2-26(1)	A6A6R17
5340-200-6707		A6A27MP25	5905-104-8368	2-30(1)	A6A8R2
5340-200-6707		A6A27MP32	5905-104-8368	2-34	A6A10R8
5340-263-3831		A6A26MP17	5905-104-8368	2-46	A6A16R10
5340-263-3831		A6A26MP18	5905-104-8368	2-46	A6A16R14
5340-263-3831		A6A27MP22	5905-104-8368	2-72	A5A3R13
5340-263-3831		A6A27MP23	5905-104-8368	2-72	A5A3R20
5340-434-7058		A1MP2	5905-104-8368	2-74	AMA4R4
5355-139-7576		A6DS2	5905-104-8368	2-78	A5A6R7
5355-139-7576		A6MP10	5905-104-8368	2-101	A7A2R18
5355-139-7576		A6MP11	5905-104-8368	2-107	A7A5R8
5355-139-7577		A6MP8	5905-104-8368	2-109	A7A6R1
5355-139-7577		A6MP9	5905-104-8368	2-113	A7A8R1
5355-139-7578		A6MP7	5905-104-8368	2-113	A7A8R6

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FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5905-104-8368	2-113	A7A8R23	5905-106-1356	2-140	A2A1R14
5905-104-8368	2-115	A7A9R1	5905-106-1357	2-68	A5A1R31
5905-104-8368	2-117	A7A10R1	5905-106-1357	2-68	A5A1R32
5905-104-8368	2-119	A7A11R7	5905-106-1357	2-74	A5A4R17
5905-104-8368	2-121	A7A12R1	5905-106-1357	2-74	A5A4R18
5905-105-7553	2-40	A6A13R11	5905-106-1357	2-82	A5A8R16
5905-105-7764	2-24(1)	A6A5R31	5905-106-1357	2-82	A5A8R22
5905-105-7764	2-74	A5A4R21	5905-106-1357	2-88(1)	A5A11R8
5905-105-7764	2-74	A5A4R25	5905-106-1357	2-105	A7A4R10
5905-105-7764	2-80	A5A7R3	5905-106-1357	2-109	A7A6R10
5905-105-7764	2-90	A5A12R5	5905-106-1357	2-113	A7A8R17
5905-105-7764	2-90	A5A12R10	5905-106-3666	2-1	A7A2R26
5905-105-7765	2-34	A6A10R11	5905-106-3666	2-22(1)	A6A4R19
5905-105-7765	2-36	A6A11R7	5905-106-3666	2-24(1)	A6A5R13
5905-105-7765	2-42	A6A14R2	5905-106-3666	2-24(1)	A6A5R23
5905-105-7765	2-44(1)	A6A15R6	5905-106-3666	2-24(1)	A6A5R34
5905-105-7765	2-123	A7A13R10	5905-106-3666	2-24(1)	A6A5R36
5905-105-7765	2-140	A2A1R1	5905-106-3666	2-24(1)	A6A5R37
5905-105-7767	2-24(1)	A6A5R20	5905-106-3666	2-26(1)	A6A6R13
5905-105-7767	2-26(1)	A6A6R20	5905-106-3666	2-26(1)	A6A6R23
5905-105-7767	2-72	A5A3R22	5905-106-3666	2-26(1)	A6A6R34
5905-105-8368	2-30 1	A6A8R2	5905-106-3666	2-26(1)	A6A6R36
5905-106-1244	2-4	A6R8	5905-106-3666	2-26(1)	A6A6R37
5905-106-1356	2-24(1)	A6A5R19	5905-106-3666	2-30(1)	A6A8R11
5905-106-1356	2-26(1)	A6A6R19	5905-106-3666	2-30(1)	A6A8R18
5905-106-1356	2-42	A6A14R7	5905-106-3666	2-32	A6A9R7
5905-106-1356	2-44(1)	A6A15R23	5905-106-3666	2-32	A6A9R10
5905-106-1356	2-50	A6A22R2	5905-106-3666	2-36	A6A11R9
5905-106-1356	2-70	A5A2R11	5905-106-3666	2-40	A6A13R10
5905-106-1356	2-86	A5A10R5	5905-106-3666	2-40	A6A13R12
5905-106-1356	2-86	A5A10R15	5905-106-3666	2-46	A6A16R4
5905-106-1356	2-103	A7A3R6			
5905-106-1356	2-117	A7A10R4			
5905-106-1356	2-125	A7A14R12			

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5905-106-3666	2-46	A6A16R5	5905-106-3666	2-113	A7A8R22
5905-106-3666	2-46	A6A16R19	5905-106-3666	2-115	A7A9R2
5905-106-3666	2-70	A5A2R6	5905-106-3666	2-117	A7A10R2
5905-106-3666	2-74	A5A4R9	5905-106-3666	2-125	A7A14R18
5905-106-3666	2-74	A5A4R10	5905-106-3666	2-125	A7A14R22
5905-106-3666	2-74	A5A4R26	5905-106-3666	2-127	A7A15R41
5905-106-3666	2-74	A5A427	5905-106-3666	2-129	A7A16R12
5905-106-3666	2-74	A5A428	5905-106-3666	2-129	A7A16R13
5905-106-3666	2-76	A5A5R9	5905-106-3667	2-30(1)	A6A8R34
5905-106-3666	2-76	A5A5R14	5905-106-3667	2-30(1)	A6A8R36
5905-106-3666	2-82	A5A8R3	5905-107-0656	2-70	A5A2R2
5905-106-3666	2-86	A5A10R2	5905-107-0656	2-88(1)	A5A11R1
5905-106-3666	2-86	A5A10R12	5905-107-0656	2-88(1)	A5A11R2
5905-106-3666	2-88(1)	A5A11R3	5905-110-0310	2-20(1)	A6A3R1
5905-106-3666	2-88(1)	A5A11R10	5905-110-0310	2-90	A5A12R2
5905-106-3666	2-88(1)	A5A11R16	5905-110-0388	2-26(1)	A6A6R11
5905-106-3666	2-88(1)	A5A11R17	5905-110-0388	2-26(1)	A6A6R21
5905-106-3666	2-101	A7A2R7	5905-110-0388	2-36	A6A11R3
5905-106-3666	2-101	A7A72R10	5905-110-0388	2-44(1)	A6A15R1
5905-106-3666	2-101	A7A2R11	5905-110-0388	2-88(1)	A5A11R11
5905-106-3666	2-101	A7A2R16	5905-110-0388	2-105	A7A4R13
5905-106-3666	2-101	A7A2R21	5905-110-0388	2-109	A7A6R13
5905-106-3666	2-101	A7A2R26	5905-110-0388	2-117	A7A10R8
5905-106-3666	2-105	A7A4R15	5905-111-4727	2-16	A6A1R10
5905-106-3666	2-107	A7A5R4	5905-111-4727	2-18	A6A2R10
5905-106-3666	2-107	A7A5R10	5905-111-4727	2-18	A6A2R11
5905-106-3666	2-107	A7A5R18	5905-111-4727	2-20(1)	A6A3R6
5905-106-3666	2-109	A7A6R3	5905-111-4727	2-20(1)	A6A3R9
5905-106-3666	2-109	A7A6R15	5905-111-4727	2-20(1)	A6A3R20
5905-106-3666	2-111	A7A7R5	5905-111-4727	2-24(1)	A6A5R38
5905-106-3666	2-111	A7A7R6	5905-111-4727	2-24(1)	A6A5R42
5905-106-3666	2-111	A7A7R10	5905-111-4727	2-24(1)	A6A5R43
5905-106-3666	2-113	A7A8R2			
5905-106-3666	2-113	A7A8R16			

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9905-111-4727	2-26(1)	A6A6R38	5905-115-8055	2-22(1)	A6A4R16
5905-111-4727	2-26(1)	A6A6R42	5905-115-8055	2-34	A6A10R1
5905-111-4727	2-26(1)	A6A6R43	5905-115-8055	2-34	A6A10R4
5905-111-4727	2-34	A6A10R9	5905-115-8055	2-80	A5A7R4
5905-111-4727	2-40	A6A13R3	5905-115-8055	2-80	A5A7R11
5905-111-4727	2-78	A5A6R4	5905-115-8055	2-80	A5A7R15
5905-111-4727	2-84	A5A9R9	5905-115-8055	2-84	A5A9R1
5905-111-4727	2-86	A5A10R3	5905-115-8055	2-84	A5A9R2
5905-111-4727	2-86	A5A10R13	5905-115-8055	2-125	A7A14R9
5905-111-4727	2-90	A5A12R8	5905-116-8555	2-22(1)	A6A4R20
5905-111-4727	2-90	A5A12R9	5905-116-8555	2-32	A6A9R1
5905-111-4727	2-105	A7A4R4	5905-116-8555	2-46	A6A16R7
5905-111-4727	2-109	A7A6R6	5905-116-8555	2-46	A6A16R11
5905-111-4727	2-127	A7A15R33	5905-116-8555	2-46	A6A16R17
5905-111-4727	2-140	A2A1R2	5905-116-8555	2-68	A5A1R19
5905-113-9861	2-30(1)	A6A8R38	5905-116-8555	2-72	A5A3R16
5905-114-0711	2-76	A5A5R6	5905-116-8555	2-72	A5A3R17
5905-114-0711	2-86	A5A10R4			
5905-114-0711	2-86	A5A10R14	5905-116-8555	2-74	A5A4R22
5905-114-0711	20107A	A7A5R3			
5905-115-3560	2-24(1)	A6A5R15	5905-116-8555	2-76	A5A5R2
5905-115-3560	2-26(1)	A6A6R15	5905-116-8555	2-78	A5A6R2
5905-115-3560	2-42	A6A14R8	5905-116-8555	2-88(1)	A5A11R25
5905-115-3560	2-44(1)	A6A15R15	5905-116-8555	2-115	A7A9R4
5905-115-3560	2-44(1)	A6A15R19	5905-116-8555	2-121	A7A12R7
5905-115-3560	2-44(1)	A6A15R25	5905-116-8555	2-121	A7A12R12
5905-115-3560	2-46	A6A16R18	5905-116-8555	2-125	A7A14R1
5905-115-3560	2-101	A7A2R2	5905-116-8555	2-125	A7A14R7
5905-115-3560	2-107	A7A5R2	5905-116-8555	2-125	A7A14R20
5905-115-3560	2-119	A7A11R8	5905-116-8555	2-127	A7A15R13
5905-115-3560	2-125	A7A14R10	5905-116-8555	2-127	A7A15R30
5905-115-3560	2-125	A7A14R15	5905-116-8555	2-127	A7A15R32
5905-115-8055	2-22(1)	A6A4R2	5905-116-8555	2-127	A7A15R38

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5905-116-8556	2-22(1)	A6A4R26	5905-116-8556	2-107	A7A5R17
5905-116-8556	2-24(1)	A6A5R4	5905-116-8556	2-111	A7A7R4
5905-116-8556	2-24(1)	A6A5R18	5905-116-8556	2-111	A7A7R9
5905-116-8556	2-24(1)	A6A5R28	5905-116-8556	2-113	A7A8R4
5905-116-8556	2-24(1)	A6A5R29	5905-116-8556	2-113	A7A8R21
5905-116-8556	2-26(1)	A6A6R4	5905-118-4559	2-22(1)	A6A4R1
5905-116-8556	2-26(1)	A6A6R18	5905-118-4559	2-22(1)	A6A4R11
5905-116-8556	2-26(1)	A6A6R28	5905-118-4559	2-22(1)	A6A4R15
5905-116-8556	2-26(1)	A6A6R29	5905-118-4559	2-34	A6A10R2
5905-116-8556	2-30(1)	A6A8R24	5905-118-4559	2-36	A6A11R1
5905-116-8556	2-34	A6A10R5	5905-118-4559	2-68	A5A1R2
5905-116-8556	2-36	A6A11R18	5905-118-4559	2-68	A5A1R7
5905-116-8556	2-68	A5A1R16	5905-118-4559	2-72	A5A3R24
5905-116-8556	2-68	A5A1R17	5905-118-4559	2-72	A5A3R25
5905-116-8556	2-70	A5A2R4	5905-118-4559	2-80	A5A7R5
5905-116-8556	2-72	A5A3R2	5905-118-4559	2-80	A5A7R12
5905-116-8556	2-74	A5A4R2	5905-118-4559	2-80	A5A7R16
5905-116-8556	2-74	A5A4R3	5905-118-4559	2-82	A5A8R15
5905-116-8556	2-74	A5A4R19	5905-118-4559	2-82	A5A8R21
5905-116-8556	2-74	A5A4R20	5905-118-4559	2-88(1)	A5A11R7
5905-116-8556	2-76	A5A5R1	5905-119-3503	2-16	A6A1R12
5905-116-8556	2-78	A5A6R1	5905-119-3503	2-20(1)	A6A3R22
5905-116-8556	2-86	A5A10R1	5905-119-3503	2-36	A6A11R17
5905-116-8556	2-86	A5A10R9	5905-119-3503	2-50	A6A22R4
5905-116-8556	2-86	A5A10R10	5905-119-3503	2-68	A5A1R29
5905-116-8556	2-86	A5A10R11	5905-119-3503	2-68	A5A1R30
5905-116-8556	2-86	A5A10R19	5905-119-3503	2-74	A5A4R15
5905-116-8556	2-86	A5A10R20	5905-119-3503	2-74	A5A4R16
5905-116-8556	2-88(1)	A5A11R4	5905-119-3503	2-78	A5A6R14
5905-116-8556	2-101	A7A2R15	5905-119-3503	2-86	A5A10R6
5905-116-8556	2-101	A7A2R20	5905-119-3503	2-86	A5A10R16
5905-116-8556	2-101	A7A2R25			

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FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5905-119-3503	2-101	A7A2R23	5905-120-9154	2-36	A6A11R6
5905-119-3503	2-111	A7A7R2	5905-120-9154	2-46	A6A16R15
5905-119-3503	2-127	A7A15R6	5905-120-9154	2-56	A6A25R5
5905-119-3503	2-140	A2A1R16	5905-120-9154	2-56	A6A25R7
5905-119-3505	2-129	A7A16R4	5905-120-9154	2-68	A5A1R11
5905-119-3505	2-129	A7A16R8	5905-120-9154	2-68	A5A1R25
5905-119-8768	2-24(1)	A6A5R32	5905-120-9154	2-70	A5A2R12
5905-119-8768	2-26(1)	A6A6R32	5905-120-9154	2-72	A5A3R12
5905-119-8768	2-68	A5A1R8	5905-120-9154	2-74	A5A4R11
5905-119-8768	2-88(1)	A5A11R20	5905-120-9154	2-78	A5A6R16
5905-119-8768	2-105	A7A4R16	5905-120-9154	2-80	A5A7R1
5905-119-8768	2-123	A7A13R1	5905-120-9154	2-88(1)	A5A11R5
5905-119-8811	2-18	A6A2R13	5905-120-9154	2-119	A7A11R5
5905-119-8811	2-30(1)	A6A8R1	5905-120-9154	2-121	A7A12R8
5905-119-8811	2-32	A6A9T1	5905-120-9154	2-121	A7A12R13
5905-119-8811	2-42	A6A14R4	5905-120-9154	2-121	A7A12R18
5905-119-8811	2-48	A6A20R2	5905-120-9154	2-121	A7A12R23
5905-119-8811	2-68	A5A1R26	5905-120-9154	2-123	A7A13R2
5905-119-8811	2-68	A5A1R27	5905-120-9154	2-123	A7A13R3
5905-119-8811	2-74	A5A4R12	5905-120-9154	2-140	A2A1R12
5905-119-8811	2-74	A5A4R13	5905-121-9877	2-88(1)	A5A11R21
5905-119-8811	2-84	A5A9R5	5905-126-6683	2-16	A6A1R2
5905-119-8811	2-111	A7A7R12	5905-126-6683	2-16	A6A1R7
5905-119-8811	2-127	A7A15R17	5905-126-6683	2-18	A6A2R2
5905-119-8812		A6A26MP13	5905-126-6683	2-18	A6A2R3
5905-119-8812		A6A26MP14	5905-126-6683	2-18	A6A2R8
5905-119-8812		A6A27MP18	5905-126-6683	2-20(1)	A6A3R2
5905-119-8812		A6A27MP19	5905-126-6683	2-20(1)	A6A3R11
5905-119-8812	2-36	A6A11R14	5905-126-6683	2-20(1)	A6A3R13
5905-119-8812	2-78	A5A6R23	5905-126-6683	2-20(1)	A6A3R17
5905-120-9154	2-34	A6A10R12	5905-126-6683	2-22(1)	A6A4R4
			5905-126-6683	2-22(1)	A6A4R14

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5905-126-6683	2-22(1)	A6A4R17	5905-133-0440	2-72	A5A3R1
5905-126-6683	2-30(1)	A6A8R21	5905-133-0440	2-74	A5A4R1
5905-126-6683	2-30(1)	A6A8R25	5905-133-0440	2-76	A5A5R3
5905-126-6683	2-30(1)	A6A8R29	5905-133-0440	2-84	A5A9R3
5905-126-6683	2-30(1)	A6A8R32	5905-133-0440	2-94	A5A14R2
5905-126-6683	2-42	A6A14R3	5905-133-0440	2-113	A7A8R20
5905-126-6683	2-44(1)	A6A15R14	5905-135-3973	2-46	A6A16R8
5905-126-6683	2-68	A5A1R1	5905-135-3973	2-46	A6A16R12
5905-126-6683	2-68	A5A1R5	5905-135-3975	2-30(1)	A6A8R7
5905-126-6683	2-68	A5A1R6	5905-135-3975	2-70	A5A2R3
5905-126-6683	2-72	A5A3R26	5905-135-3975	2-72	A5A3R19
5905-126-6683	2-80	A5A7R17	5905-135-3975	2-111	A7A7R1
5905-126-6683	2-84	A5A9R18	5905-135-3975	2-111	A7A7R3
5905-126-6683	2-90	A5A12R1	5905-135-6045	2-101	A7A2R4
5905-126-6683	2-90	A5A12R11	5905-138-1177	2-78	A5A6RT1
5905-126-6683	2-105	A7A4R6	5905-138-3352	2-99	A7A1R1
5905-126-6683	2-105	A7A4R9	5905-138-3352	2-99	A7A1R3
5905-126-6683	2-107	A7A5R13	5905-138-3352	2-99	A7A1R4
5905-126-6683	2-107	A7A5R16	5905-138-3352	2-99	A7A1R6
5905-126-6683	2-109	A7A6R9	5905-138-3359	2-92	A5A13R1
5905-131-1255	2-24(1)	A6A5R9	5905-138-4972		A5R3
5905-131-1255	2-24(1)	A6A5R11	5905-138-7207	2-13	A7R8
5905-131-1255	2-24(1)	A6A5R21	5905-138-7208	2-13	A7R9
5905-131-1255	2-80	A5A7R8	5905-138-7209	2-14	A7R2
5905-131-1255	2-90	A5A12R4	5905-141-0599	2-127	A7A15R35
5905-131-9729	2-44(1)	A6A15R11	5905-141-0717	2-24(1)	A6A5R5
5905-131-9729	2-78	A5A6R15	5905-141-0717	2-24(1)	A6A5R10
5905-131-9729	2-78	A5A6R22	5905-141-0717	2-26(1)	A6A6R5
5905-131-0440	2-44(1)	A6A15R18	5905-141-0717	2-26(1)	A6A6R10
5905-133-0440	2-44(1)	A6A15R22			
5905-133-0440	2-68	A5A1R15			

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5905-141-0717	2-82	A5A8R9	5905-141-0744	2-74	A5A4R6
5905-141-0717	2-115	A7A9R10	5905-141-0744	2-101	A7A2R13
5905-141-0717	2-117	A7A10R11	5905-141-0744	2-101	A7A2R32
5905-141-0717	2-121	A7A12R26	5905-141-0744	2-103	A7A3R3
5905-141-0717	2-121	A7A12R27	5905-141-0744	2-113	A7A8R7
5905-141-0717	2-121	A7A12R28	5905-141-0744	2-113	A7A8R19
5905-141-0717	2-121	A7A12R29	5905-141-0744	2-125	A7A14R4
5905-141-0742	2-70	A5A2R13	5905-141-0744	2-125	A7A14R6
5905-141-0742	2-80	A5A6R14	5905-141-0744	2-129	A7A16R2
5905-141-0742	2-84	A5A9R8	5905-141-0744	2-129	A7A16R9
5905-141-0743	2-20(1)	A6A3R8	5905-141-1168	2-16	A6A1R1
5905-141-0743	2-34	A6A10R13	5905-141-1168	2-20(1)	A6A3R12
5905-141-0743	2-36	A6A11R2	5905-141-1183		A5R2
5905-141-0743	2-36	A6A11R4	5905-141-1183		A7A2R9
5905-141-0743	2-36	A6A11R8	5905-141-1183	2-22(1)	A6A4R3
5905-141-0743	2-40	A6A13R5	5905-141-1183	2-22(1)	A6A4R5
5905-141-0743	2-50	A6A22R1	5905-141-1183	2-22(1)	A6A4R10
5905-141-0743	2-80	A5A7R9	5905-141-1183	2-22(1)	A6A4R18
5905-141-0743	2-84	A5A9R6	5905-141-1183	2-22(1)	A6A4R22
5905-141-0743	2-84	A5A9R17	5905-141-1183	2-24(1)	A6A5R6
5905-141-0743	2-88(1)	A5A11R12	5905-141-1183	2-24(1)	A6A5R7
5905-141-0743	2-88(1)	A5A11E15	5905-141-118t	2-24(1)	A6A5R24
5905-141-0743	2-90	A5A12R6	5905-141-1183	2-24(1)	A6A5R30
5905-141-0743	2-119	A7A11R4	5905-141-1183	2-24(1)	A6A5R33
5905-141-0743	2-125	A7A14R13	5905-141-1183	2-24(1)	A6A5R39
5905-141-0744	2-16	A6A1R9	5905-141-1183	2-24(1)	A6A5R40
5905-141-0744	2-20(1)	A6A3R19	5905-141-1183	2-24(1)	A6A5R41
5905-141-0744	2-28	A6A7R2	5905-141-1183	2-26(1)	A6A6R6
5905-141-0744	2-42	A6A14R1	5905-141-1183	2-26(1)	A6A6R7
5905-141-0744	2-44(1)	A6A15R7	5905-141-1183	2-26(1)	A6A6R24
5905-141-0744	2-68	A5A1R20	5905-141-1183	2-26(1)	A6A6R30
			5905-141-1183	2-26(1)	A6A6R33

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5905-141-1183	2-26(1)	A6A6R39	5905-141-1183	2-82	A5A8R17
5905-141-1183	2-26(1)	A6A6R40	5905-141-1183	2-82	A5A8R23
5905-141-1183	2-26(1)	A6A6R41	5905-141-1183	2-84	A5A9R10
5905-141-1183	2-30(1)	A6A8R5	5905-141-1183	2-86	A5A10R8
5905-141-1183	2-30(1)	A6A8R8	5905-141-1183	2-86	A5A10R18
5905-141-1183	2-30(1)	A6A8R12	5905-141-1183	2-101	A7A2R7
5905-141-1183	2-30(1)	A6A8R14	5905-141-1183	2-101	A7A2R9
5905-141-1183	2-30(1)	A6A8R16	5905-141-1183	2-101	A7A2R17
5905-141-1183	2-30(1)	A6A8R19	5905-141-1183	2-101	A7A2R19
5905-141-1183	2-30(1)	A6A8R20	5905-141-1183	2-101	A7A2R28
5905-141-1183	2-30(1)	A6A8R28	5905-141-1183	2-103	A7A3R2
5905-141-1183	2-30(1)	A6A8R31	5905-141-1183	2-105	A7A4R8
5905-141-1183	2-30(1)	A6A8R35	5905-141-1183	2-105	A7A4R12
5905-141-1183	2-32	A6A9R6	5905-141-1183	2-105	A7A4R14
5905-141-1183	2-34	A6A10R10	5905-141-1183	2-105	A7A4R17
5905-141-1183	2-36	A6A11R9	5905-141-1183	2-107	A7A5R7
5905-141-1183	2-44(1)	A6A15R29	5905-141-1183	2-107	A7A5R12
5905-141-1183	2-48	A6A20R4	5905-141-1183	2-107	A7A5R15
5905-141-1183	2-68	A5A1R3	5905-141-1183	2-107	A7A5R19
5905-141-1183	2-68	A5A1R9	5905-141-1183	2-109	A7A6R5
5905-141-1183	2-70	A5A2R7	5905-141-1183	2-109	A7A6R8
5905-141-1183	2-72	A5A3R8	5905-141-1183	2-109	A7A6R12
5905-141-1183	2-72	A5A3R11	5905-141-1183	2-109	A7A6R14
5905-141-1183	2-72	A5A3R15	5905-141-1183	2-109	A7A6R17
5905-141-1183	2-72	A5A3R18	5905-141-1183	2-113	A7A8R12
5905-141-1183	2-72	A5A3R21	5905-141-1183	2-113	A7A8R13
5905-141-1183	2-74	A5A4R30	5905-141-1183	2-113	A7A8R15
5905-141-1183	2-78	A5A6R3	5905-141-1183	2-115	A7A9R9
5905-141-1183	2-78	A5A6R17	5905-141-1183	2-115	A7A9R12
5905-141-1183	2-82	A5A8R5	5905-141-1183	2-117	A7A10R10
5905-141-1183	2-82	A5AR14	5905-141-1183	2-117	A7A10R13
			5905-141-1183	2-119	A7A11R2

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5905-141-1183	2-127	A7A15R3	5905-442-4956	2-26(1)	A6A6R22
5905-141-1295	2-127	A7A15R29	5905-442-4956	2-44(1)	A6A15R2
5905-142-0957	2-127	A7A15R11	5905-451-7527	2-127	A7A15R9
5905-150-5632	2-84	A5A9R16	5905-451-7527	2-127	A7A15R16
5905-171-1976	2-127	A7A15R4	5905-471-6152	2-48	A6A20R3
5905-180-8286	2-127	A7A15R7	5905-482-5253	2-127	A7A15R22
5905-180-8286	2-127	A7A15R18	5905-484-3040		A5R4
5905-240-7798	2-88 1	A5A11R22	5905-517-9330	2-78	A5A6R24
5905-244-6934	2-125	A7A14R23	5905-517-9330	2-117	A7A10R5
5905-244-6934	2-127	A7A15R34	5905-517-9330	2-119	A7A11R6
5905-244-6934	2-127	A7A15R37	5905-563-6791	2-127	A7A15R21
5905-249-4210	2-125	A7A14R16	5905-681-6462	2-22(1)	A6A4R21
5905-255-3471	2-140	A2A1R8	5905-681-6462	2-32	A6A9R3
5905-256-0412	2-14	A7R14	5905-681-6462	2-34	A6A10R6
5905-279-1977	2-123	A7A13R5	5905-681-6462	2-36	A6A11R11
5905-279-1977	2-123	A7A13R6	5905-681-6462	2-44(1)	A6A15R3
5905-279-1977	2-123	A7A13R7	5905-681-6462	2-46	A6A16R9
5905-279-1977	2-123	A7A13R8	5905-681-6462	2-50	A6A22R3
5905-400-4528	2-44(1)	A6A15R4	5905-681-6462	2-76	A5A5R7
5905-400-4528	2-44(1)	A6A15R5	5905-681-6462	2-76	A5A5R10
5905-400-9903	2-13	A7R1	5905-681-6462	2-76	A5A5R11
5905-405-8355	2-140	A2A1R6	5905-681-6462	2-76	A5A5R13
5905-432-0464	2-127	A7A15R15	5905-681-6462	2-78	A5A6R25
5905-432-6375	2-127	A7A15R10	5905-681-6462	2-78	A5A6R26
5905-435-6374	2-24(1)	A6A5R16	5905-681-6462	2-84	A5A9R11
5905-435-6374	2-26(1)	A6A6R16	5905-681-6462	2-101	A7A2R6
5905-435-6374	2-84	A5A9R13	5905-681-6462	2-103	A7A3R9
5905-435-6374	2-84	A5A9R15	5905-681-6462	2-107	A7A5R6
5905-435-6374	2-125	A7A14R11	5905-681-6462	2-107	A7A5R14
5905-442-4956	2-24(1)	A6A5R14	5905-681-6462	2-109	A7A6R16
5905-442-4956	2-24(1)	A6A5R22	5905-681-6462	2-115	A7A9R5
5905-442-4956	2-26(1)	A6A6R14	5905-681-6462	2-125	A7A14R8

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5905-681-6462	2-140	A2A1R3	5905-683-2240	2-101	A7A2R14
5905-681-8855	2-129	A7A16R3	5905-683-2240	2-105	A7A4R5
5905-681-8855	2-129	A7A16R10	5905-683-2240	2-107	A7A5R20
5905-683-2236	2-28	A6A7R4	5905-683-2240	2-111	A7A7R7
5905-683-2236	2-22(1)	A6A4R13	5905-683-2240	2-113	A7A8R11
5905-683-2236	2-30(1)	A6A8R27	5905-683-2240	2-113	A7A8R24
5905-683-2236	2-40	A6A13R13	5905-683-2243	2-42	A6A14R6
5905-683-2236	2-44(1)	A6A15R10	5905-683-2246	2-26(1)	A6A6R5
5905-683-2236	2-78	A5A6R11	5905-683-2246	2-26(1)	A6A6R10
5905-683-2236	2-78	A5A6R27	5905-683-2247	2-78	A5A6R23
5905-683-2236	2-129	A7A16R5	5905-686-9994	2-20(1)	A6A3R3
5905-683-2236	2-129	A7A16R7	5905-686-9994	2-30(1)	A6A8R13
5905-683-2240		A5R5	5905-686-9994	2-40	A6A13R9
5905-683-2240		A5R6	5905-686-9994	2-42	A6A14R4
5905-683-2240	2-32	A6A9R5	5905-686-9994	2-44(1)	A6A15R17
5905-683-2240	2-32	A6A9R8	5905-686-9994	2-44(1)	A6A15R21
5905-683-2240	2-32	A6A9R11	5905-686-9994	2-105	A7A4R7
5905-683-2240	2-46	A6A16R2	5905-686-9994	2-109	A7A6R7
5905-683-2240	2-46	A6A16R3	5905-686-9994	2-115	A7A9R11
5905-683-2240	2-68	A5A1R18	5905-686-9994	2-117	A7A10R12
5905-683-2240	2-68	A5A1R21	5905-686-9994	2-140	A2A1R9
5905-683-2240	2-72	A5A3R4	5905-686-9995	2-125	A7A14R19
5905-683-2240	2-76	A5A5R12	5905-686-9998	2-22(1)	A6A4R23
5905-683-2240	2-78	A5A6R2	5905-686-9998	2-22(1)	A6A4R24
5905-683-2240	2-78	A5A6R18	5905-686-9998	2-24(1)	A6A5R1
5905-683-2240	2-78	A5A6R21	5905-686-9998	2-24(1)	A6A5R2
5905-683-2240	2-78	A5A6R28	5905-686-9998	2-24(1)	A6A5R3
5905-683-2240	2-82	A5A8R7	5905-686-9998	2-26(1)	A6A6R1
5905-683-2240	2-82	A5A8R25	5905-686-9998	2-26(1)	A6A6R2
5905-683-2240	2-86	A5A10R21	5905-686-9998	2-26(1)	A6A6R3
5905-683-2240	2-86	A5A10R22	5905-686-9998	2-28	A6A7R5
5905-683-2240	2-101	A7A2R12	5905-686-9998	2-32	A6A9R2
			5905-686-9998	2-36	A6A11R5
			5905-686-9998	2-36	A6A11R10
			5905-686-9998	2-36	A6A11R12

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FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5905-6869998	2-36	A6A1R15	5905-723-5251	2-20(1)	A6A3R5
5905-686-9998	2-40	A6A13R2	5905-723-5251	2-20(1)	A6A3R10
5905-686-9998	2-40	A6A13R6	5905-723-5251	2-20(1)	A6A3R14
5905-686-9998	2-44(1)	A6A15R16	5905-723-5251	2-20(1)	A6A3R16
5905-686-9998	2-44(1)	A6A15R20	5905-723-5251	2-20(1)	A6A3R21
5905-686-9998	2-72	A5A3R5	5905-723-5251	2-22(1)	A6A4R7
5905-686-9998	2-80	A5A7R2	5905-723-5251	2-22(1)	A6A4R8
5905-686-9998	2-82	A5A8R8	5905-723-5251	2-22(1)	A6A4R9
5905-686-9998	2-82	A5A8R10	5905-723-5251	2-26(1)	A6A6R31
5905-686-9998	2-82	A5A8R18	5905-723-5251	2-30(1)	A6A8R6
5905-686-9998	2-84	A5A9R12	5905-723-5251	2-30(1)	A6A8R26
5905-686-9998	2-86	A5A10R4	5905-723-5251	2-68	A5A1R4
5905-686-9998	2-103	A7A3R4	5905-723-5251	2-68	A5A1R10
5905-686-9998	2-105	A7A4R2	5905-723-5251	2-72	A5A3R6
5905-686-9998	2-107	A7A5R9	5905-723-5251	2-72	A5A3R23
5905-686-9998	2-107	A7A5R21	5905-723-5251	2-74	A5A4R25
5905-686-9998	2-109	A7A6R2	5905-723-5251	2-78	A5A6R13
5905-686-9998	2-113	A7A8R3	5905-723-5251	2-78	A5A6R20
5905-686-9998	2-113	A7A5R8	5905-723-5251	2-80	A5A7R3
5905-686-9998	2-113	A7A8R9	5905-723-5251	2-80	A5A7R10
5905-686-9998	2-113	A7A8R10	5905-723-5251	2-88(1)	A5A11R13
5905-686-9998	2-113	A7A8R10	5905-723-5251	2-88(1)	A5A11R23
5905-686-9998	2-127	A7A15R20			
5905-686-9998	2-127	A7A15R31	5905-723-5251	2-101	A7A2R3
5905-686-9998	2-127	A7A15R39	5905-723-5251	2-101	A7A2R8
5905-686-9998	2-129	A7A16R1	5905-723-5251	2-107	A7A5R11
5905-686-9998	2-129	A7A16R11	5905-755-8586	2-127	A7A15R1
5905-687-0002	2-36	A6A11R18			
5905-723-5251	2-16	A6A1R3	5905-763-4738	2-18	A6A2R9
5905-723-5251	2-16	A6A1R6	5905-763-4738	2-16	A6A1R8
5905-723-5251	2-16	A6A1R11	5905-763-4738	2-20(1)	A6A3R7
5905-723-5251	2-18	A6A2R7	5905-763-4738	2-20(1)	A6A3R18
5905-723-5251	2-18	A6A2R12	5905-763-4738	2-68	A5A1R13

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5905-763-4738	2-90	A5A12R7	5910-087-7742		A6A10C3
5905-763-4739	2-74	A5A4R24	5910-087-7742	2-24(1)	A6A5C3
5905-763-4747	2-24(1)	A6A5R8	5910-087-7742	2-24(1)	A6A5C11
5905-763-4747	2-26(1)	A6A6R8	5910-087-7742	2-24(1)	A6A5C15
5905-763-4747	2-30(1)	A6A8R9	5910-087-7742	2-26(1)	A6A6C3
5905-763-4747	2-32	A6A9R9	5910-087-7742	2-26(1)	A6A6C11
5905-763-4747	2-68	A5A1R28	5910-087-7742	2-26(1)	A6A6C15
5905-809-8688	2-140	A2A1R5	5910-087-7742	2-28	A6A12C9
5905-811-1026	2-140	A2A1R4	5910-087-7742	2-34	A6A10C1
5905-846-1089	2-103	A7A3R1	5910-087-7742	2-34	A6A10C3
5905-892-6942	2-140	A2A1R10	5910-087-7742	2-34	A6A10C5
5905-900-0175	2-119	A7A11R9	5910-087-7742	2-36	A6A11C1
5905-916-0356	2-70	A5A2RT1	5910-087-7742	2-40	A6A13C7
5905-923-3567	2-46	A6A16R1	5910-087-7742	2-42	A6A14C3
5905-923-3567	2-103	A7A3R8	5910-087-7742	2-84	A5A9C6
5910-044-4355	2-22(1)	A6A4C6	5910-087-7742	2-88(1)	A5A11C3
5910-044-4355	2-22(1)	A6A4C7	5910-087-7742	2-88(1)	A5A11C7
5910-044-4355	2-22(1)	A6A4C8	5910-087-7742	2-88(1)	A5A11C18
5910-044-4355	2-113	A7A8C17	5910-137-4955		A6A26C1
5910-052-8766	2-84	A5A9C11	5910-137-4956		A6A27C2
5910-057-7603	2-123	A7A13C3	5910-137-8784	2-16	A6A1C1
5910-058-1660	2-28	A6A7C10	5910-137-8784	2-16	A6A1C2
5910-058-1660	2-40	A6A13C2	5910-137-8784	2-18	A6A2C1
5910-058-1660	2-101	A7A2C5	5910-137-8784	2-18	A6A2C2
5910-058-1660	2-105	A7A4C15	5910-137-8784	2-20(1)	A6A3C1
5910-058-1660	2-113	A7A8C4	5910-137-8784	2-20(1)	A6A3C4
5910-063-0542	2-28	A6A12C7	5910-137-8784	2-90	A5A12C1
5910-068-9829	2-28	A6A7C5	5910-138-1173		A6A11C5
5910-068-9829	2-28	A6A12C2	5910-138-1173	2-28	A6A12C18
5910-086-0282	2-24(1)	A6A5C23	5910-138-1173	2-34	A6A10C2
5910-086-0282	2-26(1)	A6A6C23	5910-138-1173	2-34	A6A10C7
5910-086-0282	2-113	A7A8C8	5910-138-1173	2-36	A6A11C5

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5910-138-1173	2-42	A6A14C6	5910-581-4621	2-76	A5A5C13
5910-154-0547		A6C12	5910-615-0427	2-24(1)	A6A5C9
5910-167-1220		A6A26MP15	5910-615-0427	2-26	A6A6C9
5910-176-2641	2-4	A6C6	5910-615-5472	2-78	A5A6C5
5910-176-2641	2-4	A6C7	5910-660-4979	2-24(1)	A6A5C13
5910-176-2641	2-4	A6C8	5910-660-4979	2-26(1)	A6A6C13
5910-176-2641	2-4	A6C9	5910-660-4979	2-28	A6A12C13
5910-176-2641	2-4	A6C10	5910-660-4979	2-46	A6A16C10
5910-180-7824	2-50	A6A22C1	5910-660-4979	2-78	A5A609
5910-180-7824	2-50	A6A22C2	5910-660-4979	2-88(1)	A5A11C15
5910-211-1261	2-103	A7A3C3	5910-660-4982	2-28	A6A7C9
5910-236-8766	2-127	A7A15C2	5910-660-4982	2-32	A6A9C6
5910-236-8766	2-127	A7A15C3	5910-660-4982	2-32	A6A9C10
5910-236-8766	2-12T	A7A15C4	5910-660-4982	2-40	A6A13C5
5910-236-8766	2-127	A7A15C12	5910-660-4982	2-68	A5A1C8
5910-240-2327	2-140	A2A1C6	5910-660-4982	2-68	A5A1C9
5910-250-7941	2-105	A7A4C8	5910-660-4982	2-82	A5A8C14
5910-250-7941	2-105	A7A4C10	5910-682-4344	2-3	A6C3
5910-250-7941	2-107	A7A5C15	5910-686-6428		A7C3
5910-250-7941	2-107	A7A5C16	5910-686-6428	2-123	A7A13C6
5910-250-7941	2-109	A7A6C9	5910-686-6428	2-123	A7A13C9
5910-250-7941	2-109	A7A6C11	5910-686-9180	2-70	A5A2C1
5910-251-0693	2-46	A6A16C8	5910-686-9180	2-70	A5A2C2
5910-252-4102	2-44 1	A6A15C4	5910-686-9180	2-70	A5A2C3
5910-402-1511	2-103	A7A3C1	5910-699-2916	2-86	A5A10C4
5910-465-0042	2-42	A6A14C7	5910-699-2916	2-86	A5A10C11
5910-465-0042	2-140	A2A1C1	5910-699-2916	2-107	A7A5C5
5910-465-0042	2-140	A2A1C8	5910-702-8057	2-24(1)	A6A5C7
5910-495-0042	2-22(1)	A6A4C26	5910-702-8057	2-24(1)	A6A5C18
5910-495-0042	2-22(1)	A6A4C27	5910-702-8057	2-26(1)	A6A6C7
5910-465-0042	2-28	A6A12C21	5910-702-8057	2-26(1)	A6A6C18
5910-577-3168	2-107	A7A5C3			

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5910-702-8057	2-46	A6A16C3	5910-844-8808	2-74	A5A4C8
5910-702-8057	2-46	A6A16C4	5910-844-8808	2-74	ASA4C9
5910-702-8057	2-46	A6A16C13	5910-847-0030	2-46	A6A16C12
5910-702-8057	2-46	A6A16C14	5910-847-0030	2-107	A7A5C1
5910-702-8057	2-46	A6A16C15	5910-847-0030	2-107	A7A5C6
5910-712-8655	2-26(1)	A6A6C2	5910-847-0030	2-107	A7A5C7
5910-712-8656	2-44(1)	A6A15C9	5910-847-0030	2-107	A7A5C10
5910-712-8656	2-44(1)	A6A15C13	5910-847-0030	2-111	A7A7C3
5910-712-8656	2-44(1)	A6A15C17	5910-847-0030	2-111	A7A7C5
5910-712-8656	2-44(1)	A6A15C21	5910-847-0030	2-111	A7A7C7
5910-712-8656	2-74	A5A4C12	5910-847-0030	2-111	A7A7C9
5910-713-1978	2-70	A5A2C04	5910-847-0030	2-113	A7A8C2
5910-713-1978	2-70	ASA2C5	5910-847-0030	2-113	A7A8C3
5910-713-1978	2-86	A5A10C3	5910-847-0030	2-113	A7A8C5
5910-713-1978	2-86	A5A10C10	5910-847-0030	2-113	A7A8C6
5910-713-4309	2-101	A7A2C4	5910-847-0030	2-113	A7A8C9
5910-714-5406	2-96	A5A15C1	5910-847-0030	2-115	A7A9C1
5910-725-7858	2-140	A2A1C5	5910-847-0030	2-115	A7A9C2
5910-781-7930	2-78	A5A6C8	5910-847-0030	2-115	A7A9C3
5910-814-0761	2-127	A7A15C5	5910-847-0030	2-115	A7A9C4
5910-822-5683	2-125	A7A14C8	5910-847-0030	2-115	A7A9C5
5910-822-5683	2-125	A7A14C9	5910-847-0030	2-115	A7A9C6
5910-822-5683	2-127	A7A15C10	5910-847-0030	2-115	A7A9C7
5910-822-5683	2-127	A7A15C11	5910-847-0030	2-115	A7A9C8
5910-832-8080	2-84	ASA9C4	5910-847-0030	2-117	A7A10C1
5910-844-8808	2-4	A6C11	5910-847-0030	2-117	A7A10C2
5910-844-8808	2-28	A6A7C6	5910-847-0030	2-117	A7A10C3
5910-844-8808	2-30(1)	A6A8C22	5910-847-0030	2-117	A7A10C4
5910-844-8808	2-32	A6A9C7	5910-847-0030	2-117	A7A10C5
5910-844-8808	2-46	A6A16C2	5910-847-0030	2-117	A7A10C6
5910-844-8808	2-68	A5A1C12	5910-847-0030	2-117	A7A10C7
5910-844-8808	2-68	A5A1C15			

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5910-847-0030	2-117	A7A10C8	5910-882-4521	2-94	A5A14C10
5910-847-0030	2-121	A7A12C1	5910-889-4772	2-88(1)	A5A11C16
5910-847-0030	2-121	A7A12C2	5910-892-9996	2-32	A6A9C9
5910-847-0030	2-121	A7A12C3	5910-892-9996	2-74	A5A4C20
5910-847-0030	2-121	A7A12C6	5910-897-7895	2-36	A6A11C9
5910-847-0030	2-121	A7A12C7	5910-897-7895	2-48	A6A20C3
5910-847-0030	2-121	A7A12C10	5910-897-7895	2-48	A6A20C4
5910-847-0030	2-121	A7A12C11	5910-900-4641	2-24(1)	A6A5C12
5910-847-0030	2-121	A7A12C14	5910-900-4641	2-26(1)	A6A6C12
5910-847-0030	2-121	A7A12C15	5910-900-4641	2-28	A6A12C11
5910-847-0030	2-121	A7A12C18	5910-902-1186	2-13	A7C1
5910-847-0030	2-121	A7A12C19	5910-902-1186	2-13	A7C2
5910-847-0030	2-121	A7A12C20	5910-903-6299	2-28	A6A12C4
5910-847-0030	2-123	A7A13C1	5910-903-6299	2-44(1)	A6A15C5
5910-847-0030	2-123	A7A13C5	5910-911-5897	2-28	A6A7C4
5910-847-0030	2-125	A7A14C4	5910-911-5897	2-32	A6A9C5
5910-847-0030	2-125	A7A14C5	5910-911-5897	2-32	A6A9C11
5910-847-0030	2-125	A7A14C7	5910-911-5897	2-46	A6A16C1
5910-847-0030	2-129	A7A16C2	5910-911-5897	2-68	A5A1C13
5910-851-0693	2-46	A6A16C8	5910-911-5897	2-68	AA11C14
5910-851-0693	2-88(1)	A5A11C10	5910-911-5897	2-72	A5A3C11
5910-853-6495	2-44(1)	A6A15C6	5910-911-5897	2-74	A5A4C7
5910-867-6881		A5C7	5910-911-5897	2-74	A5A4C10
5910-877-5815	2-123	A7A13C10	5910-914-0802	2-28	A6A12C8
5910-877-8194	2-22(1)	A6A4C23	5910-914-0802	2-94	A5A14C2
5910-877-8194	2-36	A6A11C4	5910-914-0802	2-94	A5A14C6
5910-877-8194	2-36	A6A11C7	5910-914-0802	2-94	A5A14C9
5910-877-8194	2-36	A6A11C8	5910-914-0802	2-94	A5A14C13
5910-880-6080	2-34	A6A10C4	5910-914-0802	2-94	A5A14C16
5910-882-4521	2-94	A5A14C3	5910-916-3648	2-24(1)	A6A5C6
5910-882-4521	2-94	A5A14C8	5910-916-3648	2-24(1)	A6A5C14

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5910-916-3648	2-24(1)	A6A5C19	5910-916-3648	2-30(1)	A6A8C17
5910-916-3648	2-24(1)	A6A5C20	5910-916-3648	2-30(1)	A6A8C18
5910-916-3648	2-24(1)	A6A5C21	5910-916-3648	2-30(1)	A6A8C19
5910-916-3648	2-24(1)	A6A5C22	5910-916-3648	2-30(1)	A6A8C20
5910-916-3648	2-24(1)	A6A5C25	5910-916-3648	2-30(1)	A6ABC21
5910-916-3648	2-24(1)	A6A5C26	5910-916-3648	2-40	A6A13C14
5910-916-3648	2-24(1)	A6A5C27	5910-916-3648	2-46	A6A16C16
5910-916-3648	2-26(1)	A6A6C6	5910-916-3648	2-68	A5A1C5
5910-916-3648	2-26(1)	A6A6C14	5910-916-3648	2-72	A5A3C1
5910-916-3648	2-26(1)	A6A6C19	5910-916-3648	2-72	A5A3C4
5910-916-3648	2-26(1)	A6A6C20	5910-916-3648	2-72	A5A3C7
5910-916-3648	2-26(1)	A6A6C21	5910-916-3648	2-72	A5A3C9
5910-916-3648	2-26(1)	A6A6C22	5910-916-3648	2-72	A5A3C13
5910-916-3648	2-26(1)	A6A6C25	5910-916-3648	2-74	A5A4C5
5910-916-3648	2-26(1)	A6A6C26	5910-916-3648	2-74	A5A4C16
5910-916-3648	2-26(1)	A6A6C27	5910-916-3648	2-74	A5A4C21
5910-916-3648	2-28	A6A7C2	5910-916-3648	2-76	A5A5C1
5910-916-3648	2-28	A6A7C8	5910-916-3648	2-76	A5A5C15
5910-916-3648	2-30(1)	A6A8C1	5910-916-3648	2-140	A2A1C2
5910-916-3648	2-30(1)	A6A8C2	5910-916-3648	2-140	A2A1C3
5910-916-3648	2-30(1)	A6A8C3	5910-916-3648	2-140	A2A1C9
5910-916-3648	2-30(1)	A6A8C4	5910-925-6581		A5C11
5910-916-3648	2-30(1)	A6A8C5	5910-925-6581		A5A7C4
5910-916-3648	2-30(1)	A6A8C6	5910-925-6581		A5A7C5
5910-916-3648	2-30(1)	A6A8C7	5910-925-6581		A5A7C6
5910-916-3648	2-30(1)	A6A8C8	5910-925-6581		A5A7C7
5910-916-3648	2-30(1)	A6A8C9	5910-925-6581		A7A11C2
5910-916-3648	2-30(1)	A6A8C10	5910-925-6581	2-3	A6C4
5910-916-3648	2-30(1)	A6A8C12	5910-925-6581	2-16	A6A1C3
5910-916-3648	2-30(1)	A6A8C15	5910-925-6581	2-18	A6A2C3
5910-916-3648	2-30(1)	A6A8C16	5910-925-6581	2-20(1)	A6A3C5

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5910-925-6581	2-21	A7A2C20	5910-925-6581	2-40	A6A13C3
5910-925-6581	2-22(1)	A6A4C1	5910-925-6581	2-40	A6A13C10
5910-925-6581	2-22(1)	A6A4C2	5910-925-6581	2-40	A6A13C13
5910-925-6581	2-22(1)	A6A4C3	5910-925-6581	2-44(1)	A6A15C1
5910-925-6581	2-22(1)	A6A4C4	5910-925-6581	2-44(1)	A6A15C2
5910-925-6581	2-22(1)	A6A4C5	5910-925-6581	2-44(1)	A6A15C3
5910-925-6581	2-22(1)	A6A4C10	5910-925-6581	2-44(1)	A6A15C5
5910-925-6581	2-22(1)	A6A4C11	5910-925-6581	2-44(1)	A6A15C10
5910-925-6581	2-22(1)	A6A4C12	5910-925-6581	2-44(1)	A6A15C11
5910-925-6581	2-22(1)	A6A4C13	5910-925-6581	2-44(1)	A6A15C12
5910-925-6581	2-22(1)	A6A4C15	5910-925-6581	2-44(1)	A6A15C14
5910-925-6581	2-22(1)	A6A4C16	5910-925-6581	2-44(1)	A6A15C15
5910-925-6581	2-22(1)	A6A4C17	5910-925-6581	2-44(1)	A6A15C18
5910-925-6581	2-22(1)	A6A4C18	5910-925-6581	2-44(1)	A6A15C19
5910-925-6581	2-22(1)	A6A4C19	5910-925-6581	2-44(1)	A6A15C22
5910-925-6581	2-24(1)	A6A5C16	5910-925-6581	2-44(1)	A6A15C23
5910-925-6581	2-24(1)	A6A5C24	5910-925-6581	2-44(1)	A6A15C25
5910-925-6581	2-26(1)	A6A6C16	5910-925-6581	2-46	A6A16C5
5910-925-6581	2-26(1)	A6A6C24	5910-925-6581	2-46	A6A16C7
5910-925-6581	2-28	A6A12C10	5910-925-6581	2-46	A6A16C9
5910-925-6581	2-28	A6A12C12	5910-925-6581	2-46	A6A16C11
5910-925-6581	2-28	A6A12C15	5910-925-6581	2-48	A6A20C1
5910-925-6581	2-28	A6A12C16	5910-925-6581	2-68	A5A1C2
5910-925-6581	2-30(1)	A6A8C13	5910-925-6581	2-68	A5A1C6
5910-925-6581	2-30(1)	A6A5C14	5910-925-6581	2-68	A5A1C7
5910-925-6581	2-32	A6A9C2	5910-925-6581	2-68	A5A1C10
5910-925-6581	2-32	A6A9C3	5910-925-6581	2-68	A5A1C11
5910-925-6581	2-32	A6A9C4	5910-925-6581	2-70	A5A2C9
5910-925-6581	2-36	A6A11C2	5910-925-6581	2-70	A5A2C10
5910-925-6581	2-36	A6A11C3	5910-925-6581	2-70	A5A2C11
5910-925-6581	2-40	A6A13C1	5910-925-6581	2-72	A5A3C2

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5910-925-6581	2-72	A5A3C3	5910-925-6581	2-80	A5A7C3
5910-925-6581	2-72	A5A3C6	5910-925-6581	2-80	A5A7C4
5910-925-6581	2-72	A5A3C8	5910-925-6581	2-80	A5A7C5
5910-925-6581	2-72	A5A3C10	5910-925-6581	2-80	A5A7C6
5910-925-6581	2-72	A5A3C14	5910-925-6581	2-80	A5A7C7
5910-925-6581	2-74	A5A4C2	5910-925-6581	2-88(1)	A5A11C6
5910-925-6581	2-74	A5A4C3	5910-925-6581	2-88(1)	A5A11C11
5910-925-6581	2-74	A5A4C6	5910-925-6581	2-88(1)	A5A11C12
5910-925-6581	2-74	A5A4C13	5910-925-6581	2-88(1)	A5A11C13
5910-925-6581	2-74	A5A4C14	5910-925-6581	2-88(1)	A5A11C14
5910-925-6581	2-74	A5A4C17	5910-925-6581	2-88(1)	A5A11C17
5910-925-6581	2-74	A5A4C18	5910-925-6581	2-88(1)	A5A11C19
5910-925-6581	2-74	A5A4C19	5910-925-6581	2-88(1)	A5A11C20
5910-925-6581	2-76	A5A5C2	5910-925-6581	2-88(1)	A5A11C21
5910-925-6581	2-76	A5A5C3	5910-925-6581	2-88(1)	A5A11C22
5910-925-6581	2-76	A5A5C4	5910-925-6581	2-88(1)	A5A11C23
5910-925-6581	2-76	A5A5C14	5910-925-6581	2-88(1)	A5A11C24
5910-925-6581	2-76	A5A5C16	5910-925-6581	2-99	A7A1C1
5910-925-6581	2-76	A5A5C17	5910-925-6581	2-101	A7A2C1
5910-925-6581	2-78	A5A6C1	5910-925-6581	2-101	A7A2C2
5910-925-6581	2-78	A5A6C2	5910-925-6581	2-101	A7A2C3
5910-925-6581	2-78	A5A6C10	5910-925-6581	2-101	A7A2C8
5910-925-6581	2-78	A5A6C11	5910-925-6581	2-101	A7A2C9
5910-925-6581	2-78	A5A6C14	5910-925-6581	2-101	A7A2C10
5910-925-6581	2-78	A5A6C15	5910-925-6581	2-101	A7A2C11
5910-925-6581	2-78	A5A6C16	5910-925-6581	2-101	A7A2C12
5910-925-6581	2-78	A5A6C17	5910-925-6581	2-101	A7A2C13
5910-925-6581	2-78	A5A6C18	5910-925-6581	2-101	A7A2C14
5910-925-6581	2-78	A5A6C19	5910-925-6581	2-101	A7A2C16
5910-925-6581	2-80	A5A7C1	5910-925-6581	2-101	A7A2C17
5910-925-6581	2-80	A5A7C2	5910-925-6581	2-101	A7A2C18
			5910-925-6581	2-101	A7A2C19
			5910-925-6581	2-101	A7A2C20
			5910-925-6581	2-101	A7A2C22
			5910-925-6581	2-101	A7A2C23

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5910-925-6581	2-101	A7A2C24	5910-925-6581	2-111	A7A7C1
5910-925-6581	2-101	A7A2C25	5910-925-6581	2-111	A7A7C4
5910-925-6581	2-103	A7A3C2	5910-925-6581	2-111	A7A7C6
5910-925-6581	2-105	A7A4C1	5910-925-6581	2-111	A7A7C10
5910-925-6581	2-105	A7A4C2	5910-925-6581	2-113	A7A8C1
5910-925-6581	2-105	A7A4C3	5910-925-6581	2-113	A7A8C10
5910-925-6581	2-105	A7A4C4	5910-925-6581	2-113	A7A8C11
5910-925-6581	2-105	A7A4C5	5910-925-6581	2-113	A7A8C12
5910-925-6581	2-105	A7A4C12	5910-925-6581	2-113	A7A8C13
5910-925-6581	2-105	A7A4C13	5910-925-6581	2-113	A7A8C14
5910-925-6581	2-105	A7A4C14	5910-925-6581	2-113	A7A8C15
5910-925-6581	2-105	A7A4C16	5910-925-6581	2-113	A7A8C16
5910-925-6581	2-107	A7A5C8	5910-925-6581	2-113	A7A8C18
5910-925-6581	2-107	A7A5C9	5910-925-6581	2-113	A7A8C19
5910-925-6581	2-107	A7A5C11	5910-925-6581	2-113	A7A8C20
5910-925-6581	2-107	A7A5C12	5910-925-6581	2-115	A7A9C9
5910-925-6581	2-107	A7A5C19	5910-925-6581	2-117	A7A10C9
5910-925-6581	2-107	A7A5C20	5910-925-6581	2-119	A7A11C1
5910-925-6581	2-107	A7A5C21	5910-925-6581	2-119	A7A11C2
5910-925-6581	2-107	A7A5C22	5910-925-6581	2-119	A7A11C3
5910-925-6581	2-109	A7A6C1	5910-925-6581	2-119	A7A11C4
5910-925-6581	2-109	A7A6C2	5910-925-6581	2-121	A7A11C5
5910-925-6581	2-109	A7A6C3	5910-925-6581	2-121	A7A12C21
5910-925-6581	2-109	A7A6C4	5910-925-6581	2-125	A7A14C2
5910-925-6581	2-109	A7A6C5	5910-925-6581	2-127	A7A15C1
5910-925-6581	2-109	A7A6C6	5910-925-6581	2-129	A7A16C1
5910-925-6581	2-109	A7A6C13	5910-926-9804	2-74	A5A4C11
5910-925-6581	2-109	A7A6C14	5910-928-1126	2-48	A6A20C2
5910-925-6581	2-109	A7A6C15	5910-965-9441	2-88(1)	A5A11C4
5910-925-6581	2-109	A7A6C16	5910-965-9441	2-121	A7A12C4
5910-925-6581	2-109	A7A6C17	5910-965-9441	2-121	A7A12C8
5910-925-6581	2-109	A7A6C17	5910-965-9441	2-121	A7A12C12

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5910-965-9441	2-121	A7A12C16	5930-137-8841	2-99	A7A1S1
5915-138-1184	2-36	A6A11FL1	5930-137-8842	2-4	A6S1
5915-139-1838	2-42	A6A14FL1	5930-139-1839	2-4	A6S2
5915-232-2827	2-115	A7A9FL1	5930-200-4426		A2AJMP1
5915-238-0475	2-117	A7A10FL1	5930-200-4426		A2A1MP2
5915-441-9414	2-94	A5A14	5930-230-7949	2-13	A7S4
5915-441-9415	2-92	A5A13	5930-424-9182	2-24(1)	A6A5S1
5915-461-9447		A5FL2	5930-424-9182	2-26(1)	A6A6S1
5915-933-1229		A5FL1	5930-492-2342	2-14	A7S7
5920-228-7882	2-3	A6F1	5930-615-1383	2-13	A7S5
5920-280-8344	2-7	A5F1	5930-820-9546	2-13	A7S3
5920-280-8344	2-7	A5F2	5935-018-8845		H36
5920-280-8344	2-13	A7F1	5935-018-8845		A7J4
5920-280-8344	2-13	A7F2	5935-018-8845		A7J5
5920-280-8344	2-123	A7A13F1	5935-018-8845		A7J6
5920-556-0144		A6XF1	5935-018-8845		A7J7
5920-556-0144		A6XF2	5935-018-8845		A7J8
5920-556-0144	2-7	A5XF1	5935-018-8845		A7J9
5920-556-0144	2-7	A5XF2	5935-018-8845		A7J10
5920-973-1276	2-13	A7XF1	5935-018-8845		A7J11
5920-973-1276	2-13	A7XF2	5935-018-8845		A7J12
5930-006-1366	2-140	A2A1S1	5935-018-8845		A7J13
5930-006-1366	2-140	A2A1S2	5935-018-8845		A7J14
5930-010-5378		A5S4	5935-018-8845		A7J15
5930-059-1390		A5S7	5935-018-8845		A7J16
5930-059-1390	2-3	A6S4	5935-018-8845		A7J17
5930-059-1390	2-13	A7S2	5935-018-8845		A7J18
5930-137-4957		A5S6	5935-018-8845		A7A17J1
5930-137-4959		A5S2	5935-058-9423		A6J1
5930-137-7337		A5S3	5935-134-5590		A5W5J1
5930-137-7360		A5S5	5935-137-4954		A2W1P2

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5935-137-7304		A6J4	5935-137-7367		A6J32
5935-137-7304		A6J6			
5935-137-7336		A1J1	5935-137-7367		A6J33
5935-137-7336		A1J2	5935-137-7367		A6J34
5935-137-7352		A6J3	5935-137-7367		A6J35
5935-137-7357		A5MP2	5935-137-7367		A6J36
5935-137-7358		A2W1P1	5935-137-7367		A6J37
5935-137-7366		A5J10	5935-137-7367		A6J38
5935-137-7366		A5J11	5935-137-7368		A5CP1J1
5935-137-7366		A5J12	5935-137-7368		A5J1A
5935-137-7366		A6CP1J1	5935-137-7368		A5J1B
5935-137-7366		A6CP2J1	5935-137-7368		A5J2A
5935-137-7366		A6CP3J1	5935-137-7368		A5J2B
5935-137-7366		A6J13	5935-137-7368		A5J3A
5935-137-7366		A6J14	5935-137-7368		A5J3B
5935-137-7366		A6J15	5935-137-7368		A5J4A
5935-137-7366		A6J16	5935-137-7368		A5J4B
5935-137-7366		A6J17	5935-137-7368		A5J5A
5935-137-7366		A6J18	5935-137-7368		A5J5B
5935-137-7366		A6J19	5935-137-7368		A5J6A
5935-137-7366		A6J20	5935-137-7368		A5J6B
5935-137-7366		A6J21	5935-137-7368		A5J7A
5935-137-7366		A6J22	5935-137-7368		A5J7B
5935-137-7366		A6J23	5935-137-7368		A5J8A
5935-137-7366		A6J24	5935-137-7368		A5J8B
5935-137-7366		A6J25	5935-137-7368		A5J9A
5935-137-7366		A6J26	5935-137-7368		A5J9B
5935-137-7366		A6J27	5935-137-8782		A5J24
5935-137-7367		A6J28	5935-137-8782		A5J25
5935-137-7367		A6J29	5935-137-9782		A5J27
5935-137-7367		A6J30	5935-137-8847		A5W8P1
5935-137-7367		A6J31	5935-137-8847		A5W8P2

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5935-137-8847		A5W9P1	5940-023-9641	2-78	A5A6L4
5935-162-3077	2-3	A6XXC01	5940-086-4457		E7
5935-177-2250		A1P1	5940-086-4457		E45
5935-192-4826		A5J23A	5940-086-4457	2-92	E1
5935-192-4826		A5J23B	5940-156-7344		A5E40
5935-257-9341		A6J5	5940-156-7344		A5E41
5935-430-3670	2-70	A5A2 J	5940-156-7344		A5E42
5935-431-5127		A5E44	5940-156-7344		A5E43
5935-431-5127		A5E45	5940-156-7344		A6E12
5935-463-2495		A5W1P1	5940-173-7008	2-28	A6A7P41
5935-729-5559		A5J29	5940-259-9000		A5E46
5935-729-5559		A5J29A	5940-539-1778		E2
5935-840-7175	2-22(1)	A6A4XIC1	5940-617-2673		A7A15E7
5935-840-7175	2-24(1)	A6A5XIC1	5940-682-2477		H2
5935-840-7175	2-26(1)	A6A6XIC1	5940-682-2477		A5E23
5935-853-7596		A7J1	5940-662-2477		A5E24
5935-853-7596		A7J2	5940-682-2477		A5E25
5935-853-7596	1-1	A3J1	5940-682-2477		A5E26
5935-909-7974		A5W1P2	5940-682-2477		A5E27
5935-909-7974		A5W2P1	5940-682-2477		A5E28
5935-909-7974		A5W2P2	5940-682-2477		A5E29
5935-914-5347	2-30(1)	A6A8J1	5940-682-2477		A5E30
5935-914-5347	2-30(1)	A6A8J2	5940-682-2477		A5E31
5935-914-5347	2-30(1)	A6A8J3	5940-682-2477		A5E32
5935-914-5347	2-30(1)	A6A8J4	5940-682-2477		A5E33
5935-929-3144		A5J13	5940-682-2477		A5E34
5935-933-4387		A7W1P1	5940-682-2477		A5E35
5935-933-4387		A7W1P2	5940-682-2477		A5E36
5935-937-2664		A5W7P1	5940-682-2477		A5E37
5935-937-2664		A5W7P2	5940-682-2477		A5E38
5935-937-2664		A5W9P2	5940-682-2477		A5E39
5940-023-9641	2-78	A5A6L2	5940-682-2477		A6E11

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5940-707-4262	2-99	A7A1E3	5950-087-3781	2-70	A5A2L3
5940-714-0365		A5E19	5950-087-3781	2-70	A5A2L4
5940-813-0563	2-127	A7A15E2	5950-137-7359	2-94	A5A14L4
5940-813-0563	2-127	A7A15E3	5950-137-8837	2-94	A5A14L5
5940-813-0563	2-127	A7A15E4	5950-137-8838	2-3	A6T1
5940-813-0563	2-127	A7A15E5	5950-137-8839		A5T1
5945-137-4911	2-4	A6K1	5950-137-8840	2-3	A6T2
5945-137-4911	2-4	A6K3	5950-137-8848	2-44(1)	A6A15L1
5945-137-4911	2-14	A7K1	5950-137-8849	2-24(1)	A6A5L4
5945-139-1821	2-78	A5A6K1	5950-137-8849	2-26(1)	A6A6L4
5945-139-1821	2-80	A5A7K1	5950-137-8850	2-46	A6A16L1
5945-139-1821	2-80	A5A7K2	5950-137-8851	2-68	A5A1L2
5945-139-1821	2-82	A5A8K1	5950-137-8851	2-74	A5A4L2
5945-938-5244	2-42	A6A14K1	5950-138-1182	2-94	A5A14L3
5950-016-0351	2-28	A6A12L1	5950-138-1183	2-24(1)	A6A5T1
5950-023-9641	2-86	A5A10L1	5950-138-1183	2-26(1)	A6A6T1
5950-023-9641	2-86	A5A10L3	5950-138-4998	2-36	A6A11L1
5950-027-1802		A5L7	5950-232-2826	2-123	A7A13T1
5950-059-3903	2-92	A5A13L1	5950-400-7699	2-13	A7T1
5950-063-9238	2-113	A7A8L2	5950-401-2842	2-70	A5A2L6
5950-063-9238	2-113	A7A8L3	5950-401-2842	2-123	A7A13L1
5950-063-9238	2-119	A7A11L1	5950-401-2842	2-123	A7A13L2
5950-087-3781		A6L2	5950-402-3663	2-46	A6A16T1
5950-087-3781		A6L4	5950-402-3663	2-68	A5A1T1
5950-087-3781	2-30(1)	A6A8L3	5950-402-3663	2-74	A5A4T1
5950-087-3781	2-30(1)	A6A8L6	5950-407-6176	2-28	A6A7L1
5950-087-3781	2-30(1)	A6A8L7	5950-422-0440	2-70	A5A2L1
5950-087-3781	2-44(1)	A6A15L3	5950-422-0440	2-70	A5A2L5
5950-087-3781	2-44(1)	A6A15L4	5950-422-0440	2-70	A5A2L7
5950-087-3781	2-44(1)	A6A15L5	5950-422-0441	2-76	A5A5L1
5950-087-3781	2-70	A5A2L2	5950-422-0441	2-76	A5A5L2

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5950-422-0441	2-76	A5A5L3	5950-755-8586	2-88(1)	A5A11L6
5950-481-5448	2-68	A5A1L1	5950-755-8586	2-113	A7A8L1
5950-492-5391	2-101	A7A2T1	5950-755-8586	2-115	A7A9L1
5950-492-5391	2-101	A7A2T2	5950-755-8586	2-115	A7A9L2
5950-621-6158	2-40	A6A13L2	5950-755-8586	2-117	A7A10L1
5950-621-6158	2-40	A6A13L3	5950-755-8586	2-117	A7A10L2
5950-689-1356	2-105	A7A4L3	5950-755-8586	2-121	A7A12L1
5950-689-1356	2-105	A7A4L4	5950-755-8586	2-121	A7A12L2
5950-689-1356	2-105	A7A4L5	5950-755-8586	2-121	A7A12L3
5950-689-1356	2-107	A7A5L3	5950-755-8586	2-121	A7A12L4
5950-689-1356	2-107	A7A5L4	5950-755-8586	2-121	A7A12L5
5950-689-1356	2-107	A7A5L5	5950-755-8586	2-123	A7A13L3
5950-689-1357	2-113	A7A8T3	5950-755-8586	2-125	A7A14L1
5950-689-1358	2-88(1)	A5A11L5	5950-755-8586	2-125	A7A14L2
5950-689-1358	2-121	A7A12L6	5950-755-8586	2-127	A7A15L1
5950-689-1358	2-121	A7A12L7	5950-755-8586	2-127	A7A15L3
5950-689-1358	2-121	A7A12L8	5950-755-8586	2-129	A7A16L1
5950-689-1358	2-121	A7A12L9	5950-755-8586	2-129	A7A16L2
5950-689-1358	2-109	A7A6L3	5950-825-5306		A5L1
5950-689-1359	2-109	A7A6L4	5950-825-5306	2-14	A7L1
5950-689-1359	2-109	A7A6L5	5950-825-5306	2-14	A7L2
5950-689-1360	2-113	A7A8T1	5950-825-5306	2-68	A5A1L3
5950-689-1360	2-113	A7A8T2	5950-825-5306	2-74	A5A4L1
5950-734-3940	2-72	A5A3L2	5950-825-5306	2-74	A5A4L4
5950-734-3940	2-74	A5A4L3	5950-825-5306	2-76	A5A5L4
5950-734-3940	2-78	A5A6L1	5950-825-5306	2-78	A5A6L3
5950-755-8586		A6L7	5950-825-5306	2-101	A7A2L1
5950-755-8586	2-88(1)	A5A11L1	5950-825-5306	2-101	A7A2L2
5950-755-8586	2-88(1)	A5A11L2	5950-825-5306	2-101	A7A2L3
5950-755-8586	2-88(1)	A5A11L3	5950-825-5306	2-105	A7A4L1
5950-755-8586	2-88(1)	A5A11L4	5950-825-5306	2-105	A7A4L2

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5950-825-5306	2-107	A7A5L1	5950-955-9968	2-42	A6A14L1
5950-825-5306	2-107	A7A5L2	5950-955-9968	2-82	A5A8L3
5950-825-5306	2-109	A7A6L1	5950-955-9968	2-82	A5A8L5
5950-825-5306	2-109	A7A6L2	5950-955-9968	2-84	A5A9L1
5950-825-5306	2-111	A7A7L1	5955-045-4502	2-68	A5A1Y1
5950-893-0431	2-24(1)	A6A5L3	5955-137-7365	2-24(1)	A6A5Y1
5950-893-0431	2-26(1)	A6A6L3	5955-139-1841	2-86	A5A10Y2
5950-893-0431	2-30(1)	A6A8L5	5955-139-4958		A5S1
5950-893-0431	2-44(1)	A6A15L2	5955-139-9537	2-86	A5A10Y1
5950-893-0431	2-46	A6A16L2	5955-762-8499	2-107	A7A5Y1
5950-893-0431	2-70	ASA2L8	5955-762-8501	2-101	A7A2Y1
5950-893-0431	2-72	A5A3L3	5960-138-7210	2-13	A7V1
5950-893-0431	2-78	ASA6L5	5961-005-8986	2-123	A7A13MP1
5950-893-0431	2-86	A5A10L2	5961-005-8986	2-123	A7A13MP2
5950-893-0431	2-86	A5A10L4	5961-018-8964	2-68	A5A1CR1
5950-897-9726	2-40	A6A13T2	5961-018-8964	2-68	A5A1CR2
5950-897-9728	2-40	A6A13T1	5961-018-8964	2-74	A5A4CR1
5950-955-9968	2-22(1)	A6A4L1	5961-018-8964	2-74	A5A4CR2
5950-955-9968	2-22(1)	A6A4L2	5961-054-6605	2-42	A6A14CR1
5950-955-9968	2-22(1)	A6A4L3	5961-059-9973	2-123	A7A13CR2
5950-955-9968	2-22(1)	A6A4L4	5961-059-9973	2-123	A7A13CR3
5950-955-9968	2-22(1)	A6A4L6	5961-059-9973	2-123	A7A13CR4
5950-955-9968	2-24(1)	A6A5L1	5961-059-9973	2-123	A7A13CR5
5950-955-9968	2-24(1)	A6A5L2	5961-062-3133	2-118	A6A2Q1
5950-955-9968	2-26(1)	A6A6L1	5961-062-3133	2-16	A6A1Q1
5950-955-9968	2-26(1)	A6A6L2	5961-062-3133	2-20(1)	A6A3Q1
5950-955-9968	2-28	A6A12L2	5961-062-3133	2-20(1)	A6A3Q6
5950-955-9968	2-28	A6A12L3	5961-062-3133	2-34	A6A10Q1
5950-955-9968	2-28	A6A12L5	5961-062-3133	2-34	A6A10Q2
5950-955-9968	2-34	A6A10L2	5961-062-3133	2-34	A6A10Q3
5950-955-9968	2-36	A6A11L2	5961-062-3133	2-36	A6A11Q1

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5961-062-3133	2-36	A6A11Q2	5961-097-7633	2-84	A5A9CR2
5961-062-3133	2-40	A6A13Q1	5961-110-7491	2-127	A7A15CR2
5961-062-3133	2-40	A6A13Q2	5961-110-7491	2-127	A7A15CR3
5961-062-3133	2-56	A6A25Q15	5961-110-7491	2-127	A7A15CR4
5961-062-3133	2-56	A6A25Q16	5961-110-7491	2-127	A7A15CR5
5961-062-3133	2-90	A5A12Q1	5961-135-3969	2-82	A5A8Q1
5961-062-3133	2-101	A7A2Q1	5961-229-4728	2-127	A7A15Q2
5961-062-3133	2-101	A7A2Q2	5961-269-2349	2-140	A2A1Q1
5961-062-3133	2-103	A7A3Q1	5961-400-9912	2-123	A7A13CR6
5961-062-3133	2-103	A7A3Q2	5961-400-9912	2-123	A7A13CR7
5961-062-3133	2-107	A7A5Q1	5961-400-9912	2-123	A7A13CR8
5961-062-3133	2-111	A7A7Q2	5961-401-0502	2-3	A6CR1
5961-062-3133	2-121	A7A12Q1	5961-401-0502	2-3	A6CR2
5961-062-3133	2-121	A7A12Q2	5961-401-0502	2-3	A6CR3
5961-062-3133	2-121	A7A12Q3	5961-401-0502	2-3	A6CR4
5961-062-3133	2-121	A7A12Q4	5961-401-0502	2-3	A6CR5
5961-062-3133	2-121	A7A12Q5	5961-401-0502	2-3	A6CR6
5961-062-3133	2-125	A7A14Q1	5961-401-0502	2-3	A6CR7
5961-062-3133	2-125	A7A14Q2	5961-401-0502	2-3	A6CR8
5961-062-3133	2-125	A7A14Q3	5961-410-5128	2-14	A7CR1
5961-062-3133	2-125	A7A14Q4	5961-410-5128	2-90	A5A12CR1
5961-062-3133	2-125	A7A14Q5	5961-431-7863		A5Q1
5961-062-3133	2-127	A7A15Q1	5961-431-7863	2-3	A6Q1
5961-062-3133	2-127	A7A15Q6	5961-431-7863	2-3	A6Q2
5961-062-3133	2-127	A7A15Q9	5961-431-7863	2-3	A6Q3
5961-062-3133	2-129	A7A16Q1	5961-431-7863	2-3	A6Q4
5961-062-3133	2-129	A7A16Q5	5961-431-7863	2-3	A6Q5
5961-081-8365	2-88(1)	A5A11Q2	5961-431-7863	2-3	A6Q6
5961-082-3697	2-86	A5A10Q2	5961-488-7362	2-36	A6A11Q4
5961-082-3697	2-86	A5A10Q4	5961-488-7362	2-54	A6A24Q1
5961-097-7633	2-84	A5A9CR1	5961-488-7362	2-54	A6A24Q2

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5961-488-7362	2-54	A6A24Q3	5961-905-2926	2-18	A6A2Q3
5961-488-7362	2-54	A6A24Q4	5961-905-2926	2-20(1)	A6A3Q3
5961-488-7362	2-54	A6A24Q5	5961-905-2926	2-20(1)	A6A3Q8
5961-488-7362	2-54	A6A24Q6	5961-905-2926	2-90	A5A12Q3
5961-488-7362	2-54	A6A24Q7	5961-912-9008	2-88(1)	A5A11Q3
5961-488-7362	2-56	A6A25Q1	5961-912-9008	2-88(1)	A5A11Q7
5961-488-7362	2-56	A6A25Q2	5961-927-0845	2-22(1)	A6A4Q5
5961-488-7362	2-56	A6A25Q3	5961-927-0845	2-24(1)	A6A5Q1
5961-488-7362	2-56	A6A25Q4	5961-927-0845	2-26(1)	A6A6Q1
5961-488-7362	2-56	A6A25Q5	5961-927-0845	2-30(1)	A6A8Q3
5961-488-7362	2-56	A6A25Q6	5961-927-0845	2-30(1)	A6A8Q4
5961-488-7362	2-56	A6A25Q7	5961-927-0845	2-30(1)	A6A8Q5
5961-488-7362	2-56	A6A25Q8	5961-927-0845	2-30(1)	A6A8Q6
5961-488-7362	2-56	A6A25Q9	5961-927-0845	2-30(1)	A6A8Q7
5961-488-7362	2-56	A6A25Q10	5961-927-0845	2-30(1)	A6A8Q8
5961-488-7362	2-56	A6A25Q11	5961-927-0845	2-30(1)	A6A8Q9
5961-488-7362	2-56	A6A25Q12	5961-927-0845	2-44(1)	A6A15Q2
5961-488-7362	2-56	A6A25Q13	5961-927-0845	2-46	A6A16Q3
5961-488-7362	2-56	A6A25Q14	5961-927-0845	2-72	A5A3Q3
5961-752-6121	2-123	A7A13CR9	5961-927-0845	2-72	A5A3Q4
5961-760-2002	2-127	A7A15E2	5961-927-0845	2-72	A5A3Q6
5961-760-2002	2-127	A7A15E8	5961-927-0845	2-72	A5A3Q7
5961-761-3861	2-32	A6A9Q1	5961-927-0845	2-78	A5A6Q1
5961-780-8091	2-40	A6A13CR2	5961-927-0845	2-78	A5A6Q2
5961-780-8091	2-40	A6A13CR4	5961-927-0845	2-78	A5A6Q3
5961-780-8091	2-46	A6A16CR1	5961-927-0845	2-78	A5A6Q4
5961-780-8091	2-46	A6A16CR2	5961-927-0845	2-80	A5A7Q1
5961-821-2309	2-125	A7A14CR1	5961-927-0845	2-80	A5A7Q2
5961-836-4183	2-46	A6A16Q1			
5961-883-9495	2-36	A6A11Q3	5961-927-0845	2-80	A5A7Q3
5961-883-9495	2-44(1)	A6A15Q1	5961-927-0845	2-82	A5A8Q2
5961-905-2926	2-16	A6A1Q3	5961-927-0845	2-82	A5A8Q3

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5961-927-0845	2-84	A5A9Q2	5961-940-3165	2-123	A7A13XQ1
5961-930-5325	2-18	A6A2Q4	5961-940-3165	2-123	A7A13XQ2
5961-930-5325	2-18	A6A2Q5	5961-942-4092	2-86	A5XQ1
5961-930-5325	2-16	A6A1Q4	5961-942-4092	2-13	A7XQ1
5961-930-5325	2-16	A6A1Q5	5961-943-7572	2-22(1)	A6A4Q6
5961-930-5325	2-20(1)	A6A3Q4	5961-943-7572	2-24(1)	A6A5Q2
5961-930-5325	2-20(1)	A6A3Q5	5961-943-7572	2-24(1)	A6A5Q3
5961-930-5325	2-20(1)	A6A3Q9	5961-943-7572	2-24(1)	A6A5Q4
5961-930-5325	2-20(1)	A6A3Q10	5961-943-7572	2-24(1)	A6A5Q5
5961-930-5325	2-22(1)	A6A4Q1	5961-943-7572	2-26(1)	A6A6Q2
5961-930-5325	2-42	A6A14Q2	5961-943-7572	2-26(1)	A6A6Q3
5961-930-5325	2-90	A5A12Q5	5961-943-7572	2-26(1)	A6A6Q4
5961-930-5325	2-90	A5A12Q6	5961-943-7572	2-26(1)	A6A6Q5
5961-930-5325	2-103	A7A3Q3	5961-943-7572	2-28	A6A7Q1
5961-930-5325	2-115	A7A9Q1	5961-943-7572	2-30(1)	A6A8Q1
5961-930-5325	2-115	A7A9Q2	5961-943-7572	2-30(1)	A6A8Q2
5961-930-5325	2-117	A7A10Q1	5961-943-7572	2-44(1)	A6A15Q3
5961-930-5325	2-117	A7A10Q2	5961-943-7572	2-44(1)	A6A15Q4
5961-931-0372	2-88(1)	A5A11Q8	5961-943-7572	2-44(1)	A6A15Q5
5961-931-0372	2-88(1)	A5A11Q9	5961-943-7572	2-68	A5A1Q1
5961-931-0382		A6XQ1	5961-943-7572	2-68	A5A1Q2
5961-931-0382		A6XQ2	5961-943-7572	2-68	A5A1Q3
5961-931-0382		A6XQ3	5961-943-7572	2-68	A5A1Q4
5961-931-0382		A6XQ4	5961-943-7572	2-70	A5A2Q1
5961-931-0382		A6XQ5	5961-943-7572	2-70	A5A2Q2
5961-931-0382		A6XQ6	5961-943-7572	2-72	A5A3Q1
5961-933-9182	2-16	A6A1CR4	5961-943-7572	2-72	A5A3Q2
5961-933-9182	2-20(1)	A6A3CR17	5961-943-7572	2-72	A5A3Q5
5961-938-1135	2-88(1)	A5A11CR1	5961-943-7572	2-74	A5A4Q2
5961-938-1135	2-88(1)	A5A11CR2	5961-943-7572	2-74	A5A4Q4
			5961-943-7572	2-74	A5A4Q5
			5961-943-7572	2-74	A5A4Q6

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FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5961-943-7572	2-76	A5A5Q2	5961-943-7572	2-140	A2A1Q4
5961-943-7572	2-76	A5A5Q3	5961-943-7572	2-140	A2A1Q5
5961-943-7572	2-84	A5A9Q1	5961-944-3520	2-140	A2A1Q6
5961-943-7572	2-101	A7A2Q3	5961-947-8262	2-123	A7A13Q1
5961-943-7572	2-101	A7A2Q4	5961-947-8262	2-123	A7A13Q2
5961-943-7572	2-101	A7A2Q5	5961-947-6263	2-111	A7A7Q1
5961-943-7572	2-101	A7A2Q6	5961-947-8263	2-125	A7A14Q6
5961-943-7572	2-105	A7A4Q1	5961-947-8263	2-125	A7A14Q7
5961-943-7572	2-105	A7A4Q2	5961-947-8263	2-129	A7A16Q3
5961-943-7572	2-105	A7A4Q3	5961-952-8226	2-86	A5A10Q1
5961-943-7572	2-105	A7A4Q4	5961-952-8226	2-86	A5A10Q3
5961-943-7572	2-105	A7A4Q5	5961-967-7828	2-18	A6A2Q2
5961-943-7572	2-107	A7A5Q2	5961-967-7828	2-16	A6A1Q2
5961-943-7572	2-107	A7A5Q3	5961-967-7828	2-20(1)	A6A3Q2
5961-943-7572	2-107	A7A5Q4	5961-967-7828	2-20(1)	A6A3Q7
5961-943-7572	2-107	A7A5Q5	5961-967-7828	2-22(1)	A6A4Q2
5961-943-7572	2-109	A7A6Q1	5961-967-7828	2-22(1)	A6A4Q3
5961-943-7572	2-109	A7A6Q2	5961-967-7828	2-22(1)	A6A4Q4
5961-943-7572	2-109	A7A6Q3	5961-967-7828	2-68	A5A1Q5
5961-943-7572	2-109	A7A6Q4	5961-967-7828	2-74	A5A4Q3
5961-943-7572	2-109	A7A6Q5	5961-967-7828	2-90	A5A12Q4
5961-943-7572	2-113	A7A8Q1	5961-982-0408	2-76	A5A5Q1
5961-943-7572	2-113	A7A8Q2	5961-994-0520	2-20(1)	A6A3CR1
5961-943-7572	2-113	A7A8Q3	5961-994-0520	2-20(1)	A6A3CR2
5961-943-7572	2-113	A7A8Q4	5961-994-0520	2-20(1)	A6A3CR3
5961-943-7572	2-113	A7A8Q5	5961-994-0520	2-20(1)	A6A3CR4
5961-943-7572	2-115	A7A9Q3	5961-994-0520	2-20(1)	A6A3CR10
5961-943-7572	2-117	A7A10Q3	5961-994-0520	2-20(1)	A6A3CR11
5961-943-7572	2-119	A7A11Q1	5961-994-0520	2-20(1)	A6A3CR12
5961-943-7572	2-140	A2A1Q2	5961-994-0520	2-20(1)	A6A3CR13
5961-943-7572	2-140	A2A1Q3	5962-043-1956	2-26(1)	A6A6IC1
			5962-137-5047	2-70	A5A2A1

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5962-138-1501	2-48	A6A20IC1	5962-830-1913	2-48	A6A20IC11
5962-420-6546	2-52	A6A23IC4	5961-836-4183	2-46	A6A16Q1
5962-420-6546	2-54	A6A24IC5	5962-890-7637	2-50	A6A22IC5
5962-420-6546	2-54	A6A24IC6	5962-890-7637	2-50	A6A22IC7
5962-420-6546	2-56	A6A25IC5	5962-890-7640	2-50	A6A22IC4
5962-420-6546	2-56	A6A25IC8	5962-890-7643	2-50	A6A22IC1
5962-450-8830	2-48	A6A20IC2	5962-890-7643	2-50	A6A22IC2
5962-450-8830	2-48	A6A20IC3	5962-890-7643	2-50	A6A22IC6
5962-450-8830	2-48	A6A20IC4	5962-890-7643	2-50	A6A22IC8
5962-450-8830	2-48	A6A20IC5	5962-938-9339	2-24(1)	A6A5IC1
5962-450-8830	2-48	A6A20IC6	5975-281-0090		A1AP10
5962-450-8830	2-48	A6A20IC7	5975-281-0090		A1MP11
5962-450-8830	2-48	A6A20IC8	5975-738-9917		A1MP1
5962-450-8830	2-48	A6A20IC9	5985-006-5688	2-9	A5AT1
5962-464-8753	2-50	A6A22IC9	5985-006-5689	2-9	A5AT2
5962-789-3413	2-52	A6A23IC1	5985-406-9899	2-14	A7R10
5962-789-3413	2-52	A6A23IC2	5990-137-6110		A7A1E2
5962-789-3413	2-52	A6A23IC3	5995-134-5590		A5W5
5962-789-3413	2-52	A6A23IC6	5995-134-5590		A7W1
5962-789-3413	2-54	A6A24IC1	5995-134-5590		A7W2
5962-789-3413	2-54	A6A24IC2			
5962-789-3413	2-54	A6A24IC3	5995-137-6087		A7E3
5962-789-3413	2-54	A6A24IC4	5995-137-6088		A7E11
5962-789-3413	2-56	A6A25IC1	5995-137-6089		A7E4
5962-789-3413	2-56	A6A25IC2	5995-137-6090		A5E3
5962-789-3413	2-56	A6A25IC6	5995-137-6093		A7E1
			5995-137-6094		A7A1E1
5962-789-3413	2-56	A6A25IC7	5995-137-6095		A7E6
5962-789-3414	2-56	A6A25IC4	5995-137-6097		A7E17
5962-789-3415	2-52	A6A23IC7	5995-137-6098		A5W7
5962-789-3415	2-52	A6A23IC9	5995-137-6099		A5W8
5962-789-3415	2-56	A6A25IC3	5995-137-6100		A5W9
			5995-137-6101		A5W4

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5995-137-6102		A7E5	6240-115-5043		A6A28DS6
5995-137-6103		A7E12	6240-115-5043		A6A28DS7
5995-137-6104		A7E13	6240-115-5043		A6A28DS8
5995-137-6107		A7E8	6240-115-5043		A6A28DS9
5995-137-6108		A1W2	6240-115-5043		A6A28D610
5995-137-6108		A5P1	6240-115-5043		A6A28DS11
5995-137-6109		A7E2	6240-115-5043		A6A28DS12
5995-137-6110		A7E16	6240-115-5043		A6A28DS13
5995-137-6110		A7A2E2	6240-115-5043		A6A28DS14
5995-137-6116		A7E7	6240-115-5043		A6A28DS15
5995-137-6117		A7E9	6240-115-5043		A6A28DS16
5995-137-6118		A7E10	6240-115-5043		A6A28DS17
5995-137-6119		A7E15	6240-115-5043		A6A28DS18
5995-137-6120		A5E2	6240-115-5043		A6A28DS19
5995-137-6121		A5E4	6240-115-5043		A6A28DS20
5995-137-6121		A6E2	6240-115-5043		A6A28DS21
5995-138-2463		A5W1	6240-115-5043		A6A28DS22
5995-138-2465		A5E1	6240-115-5043		A6A28DS23
5995-139-5054		A5W2	6240-115-5043		A6A28DS24
5995-737-2966		A1W1	6240-115-5043		A6A28DS25
5995-737-2969		A6E1	6240-115-5043		A6A28DS26
5995-737-6297		A6W1	6240-115-5043		A6A28DS27
5999-235-5044	2-99	A7A1	6240-115-5043		A6A28DS28
6150-949-9348		A6P1	6240-115-5043		A6A28DS29
6150-949-9348		A7E18	6240-115-5043		A6A28DS30
6210-924-7869		A6DS1	6240-115-5043		A6A28DS31
6240-115-5043		A6A28DS1	6240-115-5043		A6A28DS32
6240-115-5043		A6A28DS2	6240-115-5043		A6A28DS33
6240-115-5043		A6A28DS3	6240-115-5043		A6A28DS34
6240-115-5043		A6A28DS4	6240-115-5043		A6A28DS35
6240-115-5043		A6A28DS5	6240-115-5043		A6A28DS36

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
6240-115-5043		A6A28DS37	6240-738-8334		A5DS21
6240-115-5043		A6A28DS38	6240-738-8334		A5DS22
6240-115-5043		A6A28DS39	6240-738-8334		A6DS3
6240-115-5043		A6A28DS40	6240-738-8334		A6DS4
6240-115-5043		A6A28DS41	6240-865-0111		A7DS4
6240-115-5043		A6A28DS42	6240-865-0111		A7DS5
6240-115-5043		A6A28DS43	6240-952-9561		A7DS2
6240-115-5043		A6A28DS44	6240-952-9561		A7DS3
6240-115-5043		A6A28DS45	6250-717-5871	2-13	A7XDS2
6240-115-5043		A6A28DS46	6250-717-5871	2-13	A7XDS3
6240-115-5043		A6A28DS47	6350-179-5736	2-72	A5A3C5
6240-115-5043		A6A28DS48	6350-179-5736	2-72	A5A3C12
6240-115-5043		A6A28DS49	6350-179-5736	2-76	A5A5C12
6240-115-5043		A6A28DS50	6350-179-5736	2-94	A5A14C11
6240-115-5043		A6A28DS51	6350-179-5738	2-94	A5A14C4
6240-115-5043		A6A28DS52	6350-179-5738	2-94	A5A14C5
6240-115-5043		A6A28DS53	6350-179-5738	2-94	A5A14C12
6240-115-5043		A6A28DS54	6350-179-5741	2-140	A2A1C4
6240-115-5043		A6A28DS55	6350-179-5744	2-94	A5A14C1
6240-115-5043		A6A28DS56	6350-179-5746	2-94	A5A14C7
6240-115-5043		A6A28DS57	6625-173-7062		A2MP2
6240-115-5043		A6A28DS58	6625-173-7063		A2MP1
6240-115-5043		A6A28DS59	6625-173-7066		A2MP4
6240-115-5043		A6A28DS60	6625-173-7067		A2MP5
6240-115-5043		A6A28DS61	6625-173-7076		A4MP5
6240-115-5043		A6A28DS62	6625-173-7078		A4MP3
6240-115-5043		A6A28DS63	6625-173-7078	1-1	A3MP2
6240-115-5043		A6A28DS64	6625-173-7079		A6A26MP22
6240-115-5043		A6A28DS65	6625-173-7082		A6A26MP2
6240-115-5043		A6A28DS66			
6240-115-5043		A6A28DS67			

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
6625-173-7082		A6A27MP2	6625-198-3532	2-56	A6A25-7
6625-173-7083		A6A26MP24	6625-198-3533	2-3	A6XC01
6625-173-7086		A6A26MP23	6625-201-3773		A6MP2
6625-173-7086		A6A27MP27	6625-201-3773		A6MP3
6625-173-7087		A6A26MP19	6625-240-9474	2-18	A6A2
6625-173-7087		A6A27MP24	6625-240-9476	2-20(1)	A6A3
6625-174-3545		A2A1	6625-240-9479	2-22(1)	A6A4
6625-174-3546		A4MP1	6625-240-9487	2-24(1)	A6A5
6625-174-3550		A6CP1	6625-240-9488	2-26(1)	A6A6
6625-174-3552		A6CP2	6625-240-9501	2-28	A6A7
6625-174-3553		A6CP3	6625-240-9502	2-78	A5A6
6625-174-3554		A6A26	6625-240-9503	2-80	A5A7
6625-174-7787		A4MP4	6625-240-9504	2-82	A5A8
6625-174-7813	2-103	A7A3	6625-240-9505	2-84	A5A9
6625-177-3607		A2MP3	6625-240-9506	2-76	A5A5
6625-177-3616		A5MP15	6625-240-9507	2-74	A5A4
6625-177-3696		A5CP1	6625-240-9535	2-70	A5A2
6625-177-3702		A6A27	6625-240-9536	2-30(1)	A6A8
6625-180-7187		A6A28	6625-240-9539	2-86	A5A10
6625-180-7217		A6A27MP28	6625-240-9540	2-90	A5A12
6625-180-7223	2-28	A6A12	6625-240-9541	2-121	A7A12
6625-180-7235		A7MP5	6625-240-9543	2-117	A7A10
6625-180-7254		A7MP6	6625-240-9544	2-115	A7A9
6625-181-9118		A7MP4	6625-240-9545	2-52	A6A23
6625-190-5889		A5M1	6625-240-9546	2-54	A6A24
6625-198-3532	2-56	A6A25-1	6625-240-9547	2-101	A7A2
6625-198-3532	2-56	A6A25-2	6625-240-9548	2-105	A7A4
6625-198-3532	2-56	A6A25-3	6625-240-9549	2-107	A7A5
6625-198-3532	2-56	A6A25-4	6625-240-9550	2-68	A5A1
6625-198-3532	2-56	A6A25-5	6625-240-9551	2-129	A7A16
6625-198-3532	2-56	A6A25-6	6625-250-4586	2-125	A7A14
			6625-250-4588	2-16	A6A1
			6625-250-4590	2-96	A5A15

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
6625-250-4591	2-34	A6A10			
6625-250-4592	2-36	A6A11			
6625-400-7679	2-127	A7A15			
6625-400-7680	2-109	A7A6			
6625-400-7681	2-50	A6A22			
6625-400-7682	2-48	A6A20			
6625-401-4475	2-72	A5A3			
6625-401-4484	2-111	A7A7			
6625-439-4188	2-32	A6A9			
6625-439-4189	2-40	A6A13			
6625-439-4190	2-46	A6A16			
6625-439-4191	2-44(1)	A6A15			
6625-439-4194	2-42	A6A14			
6625-439-6156	1-1	A3			
6625-439-6157	2-140	A2			
6625-439-6205	2-113	A7A8			
6625-439-6206	2-123	A7A13			
6625-441-9320		A4			
6625-459-8562	2-1	A6			
6625-459-8570	2-6	A5			
6625-465-1733	2-11	A7			
6625-470-8340	2-119	A7A11VCX0			
6695-171-2781		A6MP6			
6695-174-3474		A7MP7			
7690-503-6785		A1MP18			
9905-157-9946		A7MP1			
9905-157-9955		A5MP35			
9905-157-9955		A6MP12			
9905-157-9955		A7MP23			
9905-157-9968		A6MP1			
9905-157-9969		A1MP12			
9905-157-9970		A1MP5			

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
AA520-04	73734		E2	B01906601	94668		A6A27MP17				
AB250-120CD	01351		A6A26MP1	B02303101	94668		A7E1				
AB250-120CD	01351		A6A27MP1	B02303102	94668		A7E2				
AC3G	82389		A6J1	B02303103	94668		A7A1E1				
AC3G	87930		A7J3	B02303104	94668		A7E3				
A01897300	94668	2-28	A6A12L1	B02303105	94668		A7E4				
A02223200	94668	2-101	A7A2T1	B02303106	94668		A7E5				
A02223200	94668	2-101	A7A2T2	B02324201	94668		A7E6				
A02223300	94668	2-105	A7A4L3	B02324202	94668		A7E7				
A02223300	94668	2-105	A7A4L4	B02324203	94668		A7E8				
A02223300	94668	2-105	A7A4L5	B02324204	94668		A7E9				
A02223300	94668	2-107	A7A5L3	B02324205	94668		A7E10				
A02223300	94668	2-107	A7A5L4	B02324206	94668		A7E11				
A02223300	94668	2-107	A7A5L5	B02324207	94668		A7E12				
A02223400	94668	2-111	A7A7T1	B02324208	94668		A7E13				
A02223400	94668	2-111	A7A7T2	B02324209	94668		A7E14				
A02223500	94668	2-113	A7A8T3	B02324210	94668		A7E15				
A02223600	94668	2-88(1)	A5A11L5	B02419400	94668		A5MP1				
A02223600	94668	2-121	A7A12L6	B02419500	94668	2-96	A5A15				
A02223600	94668	2-121	A7A12L7	B02419600	94668		A5MP2				
A02223600	94668	2-121	A7A12L8	B02419700	94668		A5E1				
A02223600	94668	2-121	A7A12L9	B02448100	94668		A6A26MP19				
A02223800	94668	2-109	A7A6L3	B02448100	94668		A6A27MP24				
A02223800	94668	2-109	A7A6L4	B02448200	94668		A6A26MP2				
A02223800	94668	2-109	A7A6L5	B02448200	94668		A6A27MP2				
A02324500	94668	2-113	A7A8T1	B02448300	94668		A6A27MP3				
A02324500	94668	2-113	A7A8T2	B02448500	94668		A6A26MP23				
A02488200	94668		A6MP1	B02448500	94668		A6A27MP27				
A02620000	94668		A7MP1	B02448800	94668		A6A27MP14				
A709	17803	2-24(1)	A6A5IC1	B02448800	94668		A6A27MP15				
A709	17803	2-26(1)	A6A6IC1	B02448800	94668		A6A27MP16				
BR100-25	10013	2-123	A7A13C3								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
B02448900	94668		A6A26MP3	B02709300	94668		A6A26MP4				
B02448900	94668		A6A27MP4	B02709300	94668		A6A27MP5				
B02451600	94668		A6MP2	B02709400	94668		A6A26MP5				
B02451600	94668		A6MP3	B02709400	94668		A6A27MP6				
B02464900	94668	2-28	A6A7P41	B02764900	94668		A6A26MP28				
B02467400	94668		A5W1	B02764900	94668		A6A27MP30				
B02469200	94668		A6W1	B02765100	94668		A1MP14				
B02471802	94668		A5E2	B02765100	94668		A1MP15				
B02471803	94668		A5E3	B02765200	94668		A1MP16				
B02471804	94668		A6E1	B02765200	94668		A1MP17				
B02471805	94668		A5E4	B02777200	94668		H1				
B02471805	94668		A6E2	B6-1EH1-24	00141		A6A26MP25				
B02471901	94668		A5W2	B6-1EH1-24	00141		A6A26MP26				
B02471903	94668		A5W3	B6-1EH1-24	00141		A6A27MP20				
B02482700	94668		A6A26MP15	B6-1EH1-24	00141		A6A27MP21				
B02483400	94668		A6A26MP22	CA3028A	07235	2-88(1)	A5A111C1				
B02483400	94668		A6A27MP26	CECT2-249-1PCT	11502	2-99	A7A1R2				
B02488800	94668		A2A1MP1	CECT2-249-1PCT	11502	2-99	A7A1R5				
B02488800	94668		A2A1MP2	CECT2-61R9-1PCT	11502	2-99	A7A1R1				
B02489600	94668		A2W1P1	CECT2-61R9-1PCT	11502	2-99	A7A1R3				
B02493000	94668		A5W4	CECT2-61R9-1PCT	11502	2-99	A7A1R4				
B02637700	94668		A4MP1	CECT2-61R9-1PCT	11502	2-99	A7A1R6				
B02639700	94668		A2MP1	CEC43R3F	75042	2-92	A5A13R1				
B02639800	94668		A4MP2	CEC86R6F	75042	2-92	A5A13R2				
B02639800	94668	1-1	A3MP1	CK06CW103K	95275	2-36	A6A11C9				
B02640100	94668		A4MP3	CK06CW103K	95275	2-48	A6A20C3				
B02640100	94668	1-1	A3MP2	CK06CW103K	95275	2-48	A6A20C4				
B02640800	94668		A2MP2	CK16M104M	90634	2-50	A6A22C1				
B02672600	94668		A4MP4	CK16M104M	90634	2-50	A6A22C2				
B02672800	94668		A2W1P2	CL9958	17803	2-22(1)	A6A41C1				
B02691400	94668		A1W1	CM8-682	71744		A7DS4				
B02706700	94668		A1MP1	CM8-682	71744		A7DS5				
B02706900	94668		A1MP18								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
C02223000	94668	2-99	A7A1	C02418700	94668	2-80	A5A7				
C02300400	94668	2-101	A7A2	C02418800	94668	2-82	A5A8				
C02301400	94668	2-105	A7A4	C02418900	94668	2-84	A5A9				
C02301500	94668	2-107	A7A5	C02419000	94668	2-86	A5A10				
C02301600	94668	2-109	A7A6	C02447800	94668		A6CP1				
C02301700	94668	2-111	A7A7	C02447801	94668		A6CP2				
C02301800	94668	2-113	A7A8	C02460500	94668	2-46	A6A16				
C02301900	94668	2-115	A7A9	C02460600	94688	2-44(1)	A6A15				
C02302000	94668	2-117	A7A10	C02460800	94668	2-42	A6A14				
C02302100	94668	2-119	A7A11	C02461100	94668	2-40	A6A13				
C02302200	94668	2-121	A7A12	C02461200	94668	2-28	A6A12				
C02302400	94668	2-125	A7A14	C02461501	94668	2-24(1)	A6A5				
C02302600	94668	2-129	A7A16	C02461502	94668	2-26(1)	A6A6				
C02303201	94668		A7E16	C02461600	94668		A2W1				
C02303201	94668		A7A1E2	C02461700	94668	2-36	A6A11				
C02321602	94668		A7MP4	C02461900	94668	2-34	A6A10				
C02321603	94668		A7MP5	C02462100	94668	2-32	A6A9				
C02322600	94668		A5W5	C02462400	94668	2-30(1)	A6A8				
C02322600	94668		A7W1	C02462600	94668	2-28	A6A7				
C02322600	94668		A7W2	C02462800	94668	2-22(1)	A6A4				
C02323300	94668		A7MP6	C02463000	94668	2-18	A6A2				
C02323900	94668		A7E17	C02463200	94668	2-20(1)	A6A3				
C02414800	94668		A5CP1	C02463400	94668	2-16	A6A1				
C02417900	94668	2-92	A5A13	C02463900	94668		A6CP3				
C02418002	94668	2-94	A5A14	C02464100	94668	2-52	A6A23				
C02418100	94668	2-68	A5A1	C02464400	94668	2-50	A6A22				
C02418200	94688	2-70	A5A2	C02464800	94668	2-48	A6A20				
C02418300	94668	2-72	A5A3	C02467501	94668		A5W7				
C02418400	94668	2-74	A5A4	C02467502	94668		A5W8				
C02418500	94668	2-76	A5A5	C02467503	94668		A5W9				
C02418600	94668	2-78	A5A6	C02483800	94668		A2A1				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER				
FIGURE NUMBER			FIGURE NUMBER				
ITEM NUMBER OR REF. DESIGNATION			ITEM NUMBER OR REF. DESIGNATION				
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
C02483904	94668		A6MP6	C1	05464		A6A28DS9
C02487800	94668	2-54	A6A24	C1	05464		A6A28DS10
C02487900	94668	2-56	A6A25-1	C1	05464		A6A28DS11
C02487900	94668	2-56	A6A25-2	C1	05464		A6A28DS12
C02487900	94668	2-56	A6A25-3	C1	05464		A6A28DS13
C02487900	94668	2-56	A6A25-4	C1	05464		A6A28DS14
C02487900	94668	2-56	A6A25-5	C1	05464		A6A28DS15
C02487900	94668	2-56	A6A25-6	C1	05464		A6A28DS16
C02487900	94668	2-56	A6A25-7	C1	05464		A6A28DS17
C02489300	94668		A4MP5	C1	05464		A6A28DS18
C02703000	94668		A7MP7	C1	05464		A6A28DS19
C02708700	94668	2-88(1)	A5A11	C1	05464		A6A28DS20
C02710500	94668	1-1	A3MP3	C1	05464		A6A28DS21
C02710600	94668		A2MP3	C1	05464		A6A28DS22
C02710700	94668		A2MP4	C1	05464		A6A28DS23
C02710800	94668		A2MP5	C1	05464		A6A28DS24
C02714300	94668	2-90	A5A12	C1	05464		A6A28DS25
C02787300	94668	2-103	A7A3	C1	05464		A6A28DS26
C02787900	94668	2-127	A7A15	C1	05464		A6A28DS27
C02788100	94668	2-123	A7A13	C1	05464		A6A28DS28
C1	05464		A6A28DS1	C1	05464		A6A28DS29
C1	05464		A6A28DS2	C1	05464		A6A28DS30
C1	05464		A6A28DS3	C1	05464		A6A28DS31
C1	05464		A6A28DS4	C1	05464		A6A28DS32
C1	05464		A6A28DS5	C1	05464		A6A28DS33
C1	05464		A6A28DS6	C1	05464		A6A28DS34
C1	05464		A6A28DS7	C1	05464		A6A28DS35
C1	05464		A6A28DS8				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
C1	05464		A6A28DS36	DDM103	71590		A5A7C4								
C1	05464		A6A28DS37	DDM103	71590		A5A7C5								
C1	05464		A6A28DS38	DDM103	71590		A5A7C6								
C1	05464		A6A28DS39	DDM103	71590		A5A7C7								
C1	05464		A6A28DS40	DDM103	71590	2-3	A6C4								
C1	05464		A6A28DS41	DDM103	71590	2-16	A6A1C3								
C1	05464		A6A28DS42	DDM103	71590	2-18	A6A2C3								
C1	05464		A6A28DS43	DDM103	71590	2-20(1)	A6A3C5								
C1	05464		A6A28DS44	DDM103	71590	2-22(1)	A6A4C1								
C1	05464		A6A28DS45	DDM103	71590	2-22(1)	A6A4C2								
C1	05464		A6A28DS46	DDM103	71590	2-22(1)	A6A4C3								
C1	05464		A6A28DS47	DDM103	71590	2-22(1)	A6A4C4								
C1	05464		A6A28DS48	DDM103	71590	2-22(1)	A6A4C5								
C1	05464		A6A28DS49	DDM103	71590	2-22(1)	A6A4C10								
C1	05464		A6A28DS50	DDM103	71590	2-22(1)	A6A4C11								
C1	05464		A6A28DS51	DDM103	71590	2-22(1)	A6A4C12								
C1	05464		A6A28DS52	DDM103	71590	2-22(1)	A6A4C13								
C1	05464		A6A28DS53	DDM103	71590	2-22(1)	A6A4C15								
C1	05464		A6A28DS54	DDM103	71590	2-22(1)	A6A4C16								
C1	05464		A6A28DS55	DDM103	71590	2-22(1)	A6A4C17								
C1	05464		A6A28DS56	DDM103	71590	2-22(1)	A6A4C18								
C1	05464		A6A28DS57	DDM103	71590	2-22(1)	A6A4C19								
C1	05464		A6A28DS58	DDM103	71590	2-24(1)	A6A5C16								
C1	05464		A6A28DS59	DDM103	71590	2-24(1)	A6A5C24								
C1	05464		A6A28DS60	DDM103	71590	2-26(1)	A6A6C16								
C1	05464		A6A28DS61	DDM103	71590	2-26(1)	A6A6C24								
C1	05464		A6A28DS62	DDM103	71590	2-28	A6A12C10								
C1	05464		A6A28DS63	DDM103	71590	2-28	A6A12C12								
C1	05464		A6A28DS64	DDM103	71590	2-28	A6A12C15								
C1	05464		A6A28DS65	DDM103	71590	2-28	A6A12C16								
C1	05464		A6A28DS66	DDM103	71590	2-30(1)	A6A8C13								
C1	05464		A6A28DS67	DDM103	71590	2-30(1)	A6A8C14								
DDM103	71590		A5C1	DDM103	71590	2-32	A6A9C2								
				DDM103	71590	2-32	A6A9C3								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
DDM103	71590	2-32	A6A9C4	DDM103	71590	2-70	A5A2C11				
DDM103	71590	2-36	A6A11C2	DDM103	71590	2-72	A5A3C2				
DDM103	71590	2-36	A6A11C3	DDM103	71590	2-72	A5A3C3				
DDM103	71590	2-40	A6A13C1	DDM103	71590	2-72	A5A3C6				
DDM103	71590	2-40	A6A13C3	DDM103	71590	2-72	A5A3C8				
DDM103	71590	2-40	A6A13C10	DDM103	71590	2-72	A5A3C10				
DDM103	71590	2-40	A6A13C13	DDM103	71590	2-72	A5A3C14				
DDM103	71590	2-44(1)	A6A15C1	DDM103	71590	2-74	A5A4C2				
DDM103	71590	2-44(1)	A6A15C2	DDM103	71590	2-74	A5A4C3				
DDM103	71590	2-44(1)	A6A15C3	DDM103	71590	2-74	A5A4C6				
DDM103	71590	2-44(1)	A6A15C8	DDM103	71590	2-74	A5A4C13				
DDM103	71590	2-44(1)	A6A15C10	DDM103	71590	2-74	A5A4C14				
DDM103	71590	2-44(1)	A6A15C11	DDM103	71590	2-74	A5A4C17				
DDM103	71590	2-44(1)	A6A15C12	DDM103	71590	2-74	A5A4C18				
DDM103	71590	2-44(1)	A6A15C14	DDM103	71590	2-74	A5A4C19				
DDM103	71590	2-44(1)	A6A15C15	DDM103	71590	2-76	A5A5C2				
DDM103	71590	2-44(1)	A6A15C18	DDM103	71590	2-76	A5A5C3				
DDM103	71590	2-44(1)	A6A15C19	DDM103	71590	2-76	A5A5C4				
DDM103	71590	2-44(1)	A6A15C22	DDM103	71590	2-76	A5A5C14				
DDM103	71590	2-44(1)	A6A15C23	DDM103	71590	2-76	A5A5C16				
DDM103	71590	2-44(1)	A6A15C25	DDM103	71590	2-76	A5A5C17				
DDM103	71590	2-46	A6A16C5	DDM103	71590	2-78	A5A6C1				
DDM103	71590	2-46	A6A16C7	DDM103	71590	2-78	A5A6C2				
DDM103	71590	2-46	A6A16C9	DDM103	71590	2-78	A5A6C10				
DDM103	71590	2-46	A6A16C11	DDM103	71590	2-78	A5A6C11				
DDM103	71590	2-48	A6A20C1								
DDM103	71590	2-68	A5A1C2	DDM103	71590	2-78	A5A6C14				
DDM103	71590	2-68	A5A1C6	DDM103	71590	2-78	A5A6C15				
DDM103	71590	2-68	A5A1C7	DDM103	71590	2-78	A5A6C16				
DDM103	71590	2-68	A5A1C10	DDM103	71590	2-78	A5A6C17				
DDM103	71590	2-68	A5A1C11	DDM103	71590	2-78	A5A6C18				
DDM103	71590	2-70	A5A2C9	DDM103	71590	2-78	A5A6C19				
DDM103	71590	2-70	A5A2C10								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
DDM103	71590	2-80	A5A7C1	DDM103	71590	2-101	A7A2C17				
DDM103	71590	2-80	A5A7C2	DDM103	71590	2-101	A7A2C18				
DDM103	71590	2-80	A5A7C3	DDM103	71590	2-101	A7A2C19				
DDM103	71590	2-80	A5A7C4	DDM103	71590	2-101	A7A2C20				
DDM103	71590	2-80	A5A7C5	DDM103	71590	2-101	A7A2C22				
DDM103	71590	2-80	A5A7C6	DDM103	71590	2-101	A7A2C23				
DDM103	71590	2-80	A5A7C7	DDM103	71590	2-101	A7A2C24				
DDM103	71590	2-80	A5A7C8	DDM103	71590	2-101	A7A2C25				
DDM103	71590	2-88(1)	A5A11C6	DDM103	71590	2-103	A7A3C2				
DDM103	71590	2-88(1)	A5A11C11	DDM103	71590	2-105	A7A4C1				
DDM103	71590	2-88(1)	A5A11C12	DDM103	71590	2-105	A7A4C2				
DDM103	71590	2-88(1)	A5A11C13	DDM103	71590	2-105	A7A4C3				
DDM103	71590	2-88(1)	A5A11C14	DDM103	71590	2-105	A7A4C4				
DDM103	71590	2-88(1)	A5A11C17	DDM103	71590	2-105	A7A4C5				
DDM103	71590	2-88(1)	A5A11C19	DDM103	71590	2-105	A7A4C12				
DDM103	71590	2-88(1)	A5A11C20	DDM103	71590	2-105	A7A4C13				
DDM103	71590	2-88(1)	A5A11C21	DDM103	71590	2-105	A7A4C14				
DDM103	71590	2-88(1)	A5A11C22	DDM103	71590	2-105	A7A4C16				
DDM103	71590	2-88(1)	A5A11C23	DDM103	71590	2-107	A7A5C8				
DDM103	71590	2-88(1)	A5A11C24	DDM103	71590	2-107	A7A5C9				
DDM103	71590	2-99	A7A1C1	DDM103	71590	2-107	A7A5C11				
DDM103	71590	2-101	A7A2C1	DDM103	71590	2-107	A7A5C12				
DDM103	71590	2-101	A7A2C2	DDM103	71590	2-107	A7A5C19				
DDM103	71590	2-101	A7A2C3	DDM103	71590	2-107	A7A5C20				
DDM103	71590	2-101	A7A2C8	DDM103	71590	2-107	A7A5C21				
DDM103	71590	2-101	A7A2C9								
DDM103	71590	2-101	A7A2C10								
DDM103	71590	2-101	A7A2C11								
DDM103	71590	2-101	A7A2C12								
DDM103	71590	2-101	A7A2C13								
DDM103	71590	2-101	A7A2C14								
DDM103	71590	2-101	A7A2C16								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
DDM103	71590	2-107	A7A5C22	DDM103	71590	2-119	A7A11C4				
DDM103	71590	2-109	A7A6C1	DDM103	71590	2-119	A7A11C5				
DDM103	71590	2-109	A7A6C2	DDM103	71590	2-121	A7A12C21				
DDM103	71590	2-109	A7A6C3	DDM103	71590	2-125	A7A14C2				
DDM103	71590	2-109	A7A6C4	DDM103	71590	2-127	A7A15C1				
DDM103	71590	2-109	A7A6C5	DDM103	71590	2-129	A7A16C1				
DDM103	71590	2-109	A7A6C6	DD30-502	71590		A7C3				
DDM103	71590	2-109	A7A6C13	DD30-502	71590	2-123	A7A13C6				
DDM103	71590	2-109	A7A6C14	DD30-502	71590	2-123	A7A13C9				
DDM103	71590	2-109	A7A6C15	DD6103	71590	2-125	A7A14C8				
DDM103	71590	2-109	A7A6C16	DD6103	71590	2-125	A7A14C9				
DDM103	71590	2-109	A7A6C17	DD6103	71590	2-127	A7A15C10				
DDM103	71590	2-111	A7A7C1	DD6103	71590	2-127	A7A15C11				
DDM103	71590	2-111	A7A7C4	DM15-030K	72136	2-28	A6A7C7				
DDM103	71590	2-111	A7A7C6	DM15-050K	72136	2-4	A6C11				
DDM103	71590	2-111	A7A7C10	DM15-050K	72136	2-28	A6A7C6				
DDM103	71590	2-113	A7A8C1	DM15-050K	72136	2-30(1)	A6A8C22				
DDM103	71590	2-113	A7A8C10	DM15-050K	72136	2-32	A6A9C7				
DDM103	71590	2-113	A7A8C11	DM15-050K	72136	2-46	A6A16C2				
DDM103	71590	2-113	A7A8C12	DM15-050K	72136	2-68	A5A1C12				
DDM103	71590	2-113	A7A8C13	DM15-050K	72136	2-68	A5A1C15				
DDM103	71590	2-113	A7A8C14	DM15-050K	72136	2-74	A5A4C8				
DDM103	71590	2-113	A7A8C15	DM15-050K	72136	2-74	A5A4C9				
DDM103	71590	2-113	A7A8C16	DM15-080K	72136	2-74	A5A4C11				
DDM103	71590	2-113	A7A8C18	DM15-100K	72136	2-44(1)	A6A15C9				
DDM103	71590	2-113	A7A8C19	DM15-100J	72136	2-44(1)	A6A15C13				
DDM103	71590	2-113	A7A8C20	DM15-100J	72136	2-44(1)	A6A15C17				
DDM103	71590	2-115	A7A9C9	DM15-100J	72136	2-44(1)	A6A15C21				
DDM103	71590	2-117	A7A10C9	DM15-100J	72136	2-74	A5A4C12				
DDM103	71590	2-119	A7A11C1	DM15-101G	72136	2-94	A5A14C14				
DDM103	71590	2-119	A7A11C2	DM15-101J	72136	2-22(1)	A6A4C21				
DDM103	71590	2-119	A7A11C3	DM15-101J	72136	2-22(1)	A6A4C25				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
DM15-101J	72136	2-24(1)	A6A5C2	DM15-150J	72136	2-74	A5A4C1
DM15-101J	72136	2-26(1)	A6A6C2	DM15-151J	72136	2-28	A6A7C10
DM15-101J	72136	2-32	A6A9C1	DM15-151J	72136	2-40	A6A13C2
DM15-101J	04062	2-101	A7A2C7	DM15-151J	04062	2-101	A7A2C5
DM15-101J	04062	2-101	A7A2C15	DM15-151J	04062	2-105	A7A4C15
DM15-101J	04062	2-101	A7A2C21	DM15-151J	04062	2-113	A7A8C4
DM15-101J	04062	2-105	A7A4C9	DM15-180J	72136	2-84	A5A9C4
DM15-101J	04062	2-105	A7A4C11	DM15-181J	72136	2-24(1)	A6A5C23
DM15-101J	04062	2-107	A7A5C17	DM15-181J	72136	2-26(1)	A6A6C23
DM15-101J	04062	2-107	A7A5C18	DM15-181J	04062	2-113	A7A8C8
DM15-101J	04062	2-109	A7A6C10	DM15-220J	04062	2-107	A7A5C3
DM15-101J	04062	2-109	A7A6C12	DM15-221J	72136	2-24(1)	A6A5C13
DM15-102J	72136	2-28	A6A7C3	DM15-221J	72136	2-26(1)	A6A6C13
DM15-102J	72136	2-28	A6A7C11	DM15-221J	72136	2-28	A6A12C13
DM15-102J	72136	2-46	A6A16C6	DM15-221J	72136	2-46	A6A16C10
DM15-121J	72136	2-28	A6A7C9	DM15-221J	72136	2-78	A5A6C9
DM15-121J	72136	2-32	A6A9C6	DM15-221J	72136	2-88(1)	A6A11C15
DM15-121J	72136	2-32	A6A9C10	DM15-270G	72136	2-92	A5A13C1
DM15-121J	72136	2-40	A6A13C5	DM15-270G	72136	2-94	A5A14C15
DM15-121J	72136	2-68	A5A1C8	DM15-270J	72136	2-30(1)	A6A8C11
DM15-121J	72136	2-68	A5A1C9	DM15-270J	72136	2-76	A5A5C5
DM15-121J	72136	2-82	A5A8C14	DM15-270J	72136	2-76	A5A5C6
DM15-121J	04062	2-105	A7A4C6	DM15-270J	72136	2-76	A5A5C8
DM15-121J	04062	2-107	A7A5C13	DM15-270J	72136	2-76	A5A5C9
DM15-121J	04062	2-109	A7A6C7	DM15-270J	72136	2-76	A5A5C11
DM15-150J	72136	2-22(1)	A6A4C22	DM15-271J	72136	2-46	A6A16C8
DM15-150J	72136	2-24(1)	A6A5C5	DM15-271J	72136	2-88(1)	A5A11C10
DM15-150J	72136	2-24(1)	A6A5C8	DM15-300G	72136	2-72	A5A3C5
DM15-150J	72136	2-24(1)	A6A5C10	DM15-300G	72136	2-72	A5A3C12
DM15-150J	72136	2-26(1)	A6A6C5	DM15-300G	72136	2-76	A5A5C12
DM15-150J	72136	2-26(1)	A6A6C8	DM15-300G	72136	2-94	A6A14C11
DM15-150J	72136	2-26(1)	A6A6C10	DM15-330G	72136	2-24(1)	A6A5C9
				DM15-330G	72136	2-26(1)	A6A6C9

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
DM15-330J	72136	2-70	A5A2C6	DM15-561J	72136	2-76	A5A5C7				
DM15-330J	72136	2-76	A5A5C13	DM15-561J	72136	2-76	A5A5C10				
DM15-331J	72136	2-24(1)	A6A5C7	DM15-561J	04062	2-105	A7A4C7				
DM15-331J	72136	2-24(1)	A6A5C18	DM15-561J	04062	2-107	A7A5C2				
DM15-331J	72136	2-26(1)	A6A6C7	DM15-561J	04062	2-107	A7A5C14				
DM15-331J	72136	2-26(1)	A6A6C18	DM15-561J	04062	2-109	A7A6C8				
DM15-331J	72136	2-46	A6A16C3	DM15-561J	71590	2-111	A7A7C2				
DM15-331J	72136	2-46	A6A16C4	DM15-561J	71590	2-111	A7A7C8				
DM15-331J	72136	2-46	A6A16C13	DM15-561J	04062	2-113	A7A8C7				
DM15-331J	72136	2-46	A6A16C14	DM15-561J	04062	2-121	A7A12C5				
DM15-331J	72136	2-46	A6A16C15	DM15-561J	04062	2-121	A7A12C9				
DM15-391J	72136	2-86	A5A10C4	DM15-561J	04062	2-121	A7A12C13				
DM15-391J	72136	2-86	A5A10C11	DM15-561J	04062	2-121	A7A12C17				
DM15-391J	04062	2-107	A7A5C5	DM15-680G	72136	2-94	A5A14C1				
DM15-430G	72136	2-94	A5A14C4	DM15-680G	04062	2-101	A7A2C4				
DM15-430G	72136	2-94	A5A14C5	DM15-680J	72136	2-70	A5A2C4				
DM15-430G	72136	2-94	A5A14C12	DM15-680J	72136	2-70	A5A2C5				
DM15-470J	72136	2-22(1)	A6A4C6	DM15-680J	72136	2-86	A5A10C3				
DM15-470J	72136	2-22(1)	A6A4C7	DM15-680J	72136	2-86	A5A10C10				
DM15-470J	72136	2-22(1)	A6A4C8	DM15-681J	72136	2-88(1)	A5A11C16				
DM15-470J	04062	2-113	A7A8C17	DM15-750J	72136	2-78	A5A6C8				
DM15-471J	72136	2-24(1)	A6A5C17	DM15-820G	72136	2-94	A5A14C3				
DM15-471J	72136	2-26(1)	A6A6C17	DM15-820G	72136	2-94	A5A14C8				
DM15-471J	72136	2-40	A6A13C12	DM15-820G	72136	2-94	A5A14C10				
DM15-500G	72136	2-94	A5A14C17	DM15-821J	72136	2-78	A5A6C4				
DM15-510G	16079	2-140	A2A1C4	DM15-910G	72136	2-94	A5A14C7				
DM15-560J	72136	2-44(1)	A6A15C24	DM15-910J	72136	2-70	A5A2C7				
DM15-560J	72136	2-70	A5A2C8	DM15F561J	72136	2-123	A7A13C2				
DM15-560J	72136	2-72	A5A3C15	DM15F561J	72136	2-123	A7A13C4				
DM15-560J	72136	2-74	A5A4C4	DM19-102J	72136	2-88(1)	A5A11C4				
DM15-560J	72136	2-78	A5A6C3	DM19-102J	04062	2-121	A7A12C4				
DM15-561J	04062		A7A5C2	DM19-102J	04062	2-121	A7A12C8				
DM15-561J	72136	2-68	A5A1C3								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
DM19-102J	04062	2-121	A7A12C12	G124	79727	2-24(1)	A6A5S1				
DM19-102J	04062	2-121	A7A12C16	G124	79727	2-26(1)	A6A6S1				
DM19-122J	72316	2-34	A6A10C4	G15-30	00141		A6A27MP7				
DM19-152J	72136	2-28	A6A12C5	G15-40	00141		A6A26MP6				
DM19-472J	72136	2-24(1)	A6A5C12	HDIG 1030	07933	2-127	A7A15Q2				
DM19-472J	72136	2-26(1)	A6A6C12	HD1871E	73293	2-68	A5A1CR1				
DM19-472J	72316	2-28	A6A12C11	HD1871E	73293	2-68	A5A1CR2				
DPMS2P1	10013	2-123	A7A13C8	HD1871E	73293	2-74	A5A4CR1				
DPMS2P1	10013	2-123	A7A13C11	HD1871E	73293	2-74	A5A4CR2				
DPMS2P1	88419	2-129	A7A16C3	HKP	75915	2-13	A7XF1				
DPMS2P1	88419	2-129	A7A16C4	HKP	75915	2-13	A7XF2				
D0M103	71590	2-48	A6A20C1	HP2900	28480	2-24(1)	A6A5CR2				
D02468801	94668		A6A26MP24	HP2900	28480	2-24(1)	A6A5CR3				
D02468802	94668		A6A27MP28	HP2900	28480	2-24(1)	A6A5CR4				
D02709600	94668		A6A26	HP2900	28480	2-24(1)	A6A5CR5				
D02709700	94668		A6A27	HP2900	28480	2-26(1)	A6A6CR2				
D1-56	12060	2-123	A7A13CR2	HP2900	28480	2-26(1)	A6A6CR3				
D1-56	12060	2-123	A7A13CR3	HP2900	28480	2-26(1)	A6A6CR4				
D1-56	12060	2-123	A7A13CR4	HP2900	28480	2-26(1)	A6A6CR5				
D1-56	12060	2-123	A7A13CR5	HP2900	28480	2-32	A6A9CR2				
EK12269	94545		A1CP1	HP2900	28480	2-32	A6A9CR3				
EMW01930	12674	2-16	A6A1C1	HP2900	28480	2-82	A5A8CR1				
EMW01930	12674	2-16	A6A1C2	HP2900	28480	2-84	A5A9CR3				
EMW01930	12674	2-18	A6A2C1	HP2900	28480	2-84	A5A9CR4				
EMW01930	12674	2-18	A6A2C2	H165-1-064-875	83014		A1MP2				
EMW01930	12674	2-20(1)	A6A3C1	JA3N048P5011UA	01121	2-14	A7R3				
EMW01930	12674	2-20(1)	A6A3C4	KC19-68	11636		A5J26				
EMW01930	12674	2-90	A5A12C1	KC19-68	96918		A5W4J1				
EMMW21	12674	2-16	A6A1C4	KC19-68	96918		A6J7				
EMMW21	12674	2-18	A6A2C4	KC19-68	96918		A6J8				
EMMW21	12674	2-20(1)	A6A3C3	KC19-68	96918		A6J9				
EMMW21	12674	2-20(1)	A6A3C6	KC19-68	96918		A6J10				
EMMW21	12674	2-88(1)	A5A11C1	KC19-68	96918		A6J11				
EMMW21	12674	2-90	A5A12C3								
F02A250V1-2A	81349	2-123	A7A13F1								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
KC19-68	96918		A6W1J1	MC626Y	73899	2-32	A6A9C9
KC39-35	11636		A5J24	MC626Y	73899	2-74	A5A4C20
KC39-35	11636		A5J25	MC724P	04713	2-50	A6A22IC5
KC39-35	11636		A5J27	MC724P	04713	2-50	A6A22IC7
KC59-102	96918		A5W8P1	MC788P	04713	2-50	A6A22IC9
KC59-102	96918		A5W8P2	MC789P	04713	2-50	A6A22IC4
KC59-102	96918		A5W9P1	MC790P	04713	2-50	A6A22IC1
KC59-78	96918		A5W5J15	MC790P	04713	2-50	A6A22IC2
KC59-78	11636		A7W1P1	MC790P	04713	2-50	A6A22IC6
KC59-78	11636		A7W1P2	MC790P	04713	2-50	A6A22IC8
KC59-79	96918		A5W7P1	MC792P	04713	2-50	A6A22IC3
KC59-79	96918		A5W7P2	MC824P	04713	2-52	A6A23IC7
KC59-79	96918		A5W9P2	MC824P	04713	2-52	A6A23IC9
KC59-95	96918		A5W1P1	MC824P	04713	2-56	A6A25IC3
K10P10K	05937	2-48	A6A20C2				
LC022D10SS	28480		A1MP23	MC825P	04713	2-56	A6A25IC4
LC022D10SS	28480		A1MP24	MC888P	04713	2-52	A6A23IC8
LC026D12SS	96906		A6A26MP16	MC889P	04713	2-52	A6A23IC5
LC026D12SS	96906		A6A27MP31	MC890P	04713	2-52	A6A23IC1
LILIPUT T5.5-6V200	31918		A5DS21	MC890P	04713	2-52	A6A23IC2
LILIPUT T5.5-6V200	31918		A5DS22	MC890P	04713	2-52	A6A23IC3
LILIPUT T5.5-6V200	31918		A6DS2	MC890P	04713	2-52	A6A23IC6
LILIPUT T5.5-6V200	31918		A6DS3	MC890P	04173	2-54	A6A24IC1
LILIPUT T5.5-6V200	31918		A6DS4	MC890P	04713	2-54	A6A24IC2
MA4121	96341	2-84	A5A9CR1	MC890P	04713	2-54	A6A24IC3
MA4121	96341	2-84	A5A9CR2	MC890P	04713	2-54	A6A24IC4
MC1013P	04713	2-48	A6A20IC2				
MC1013P	04713	2-48	A6A20IC3	MC890P	04713	2-56	A6A25IC1
MC1013P	04713	2-48	A6A20IC4	MC890P	04713	2-56	A6A25IC2
MC1013P	04713	2-48	A6A20IC5	MC890P	04713	2-56	A6A25IC6
MC1013P	04713	2-48	A6A20IC6	MC890P	04713	2-56	A6A25IC7
MC1013P	04713	2-48	A6A20IC7	MC892P	04713	2-52	A6A23IC4
MC1013P	04713	2-48	A6A20IC8	MC892P	04713	2-54	A6A24IC5
MC1013P	04713	2-48	A6A20IC9	MC892P	04713	2-54	A6A24IC6
MC354G	04713	2-48	A6A20IC11				
MC3676	04713	2-48	A6A20IC10				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
MC892P	04713	2-56	A6A25IC5	MS16995-1	96906		H1				
MC892P	04713	2-56	A6A25IC8	MS35275-13	96906		H3				
MDL1	71400	2-3	A6F2	MS35333-70	96906		H3				
MDL2	71400	2-3	A6F1	MS35333-76	96906		H1				
ME1-305	26049	2-125	A7A14C6	MS35338-135	96906	2-99	H4				
MFF1/8 7500	91637	2-127	A7A15RB	MS35338-153	96906		H2				
MF5C211F	19701	2-140	A2A1R4	MS35338-153	96906		H4				
MF5C2211F	19701	2-140	A2A1R5	MS35338-154	96906		H1				
MF5C3832F	19701	2-127	A7A15R15	MS35338-154	96906		H2				
MF5C4992F	19701	2-140	A2A1R6	MS35338-155	96906		H2				
MF5C750F	19701	2-140	A2A1R7	MS35338-155	96906		H3				
MF5C750F	19701	2-140	A2A1R17	MS35338-155	96906		H12				
MF6C5621F	19701	2-127	A7A15R7	MS35338-156	96906		H2				
MF6C5621F	19701	2-127	A7A15R18	MS35649-224	96906		H2				
MF6C6811F	19701	2-127	A7A15R22	MS35649-224	96906		H4				
MP3507	07933	2-40	A6A13CR2	MS35649-2382	96906		H1				
MP3507	07933	2-40	A6A13CR4	MS35649-2382	96906		H2				
MR3507	07933	2-46	A6A16CR1	MS35649-264	96906		H1				
MR3507	07933	2-46	A6A16CR2	MS51021-10	96906		H2				
MR1121	04713	2-3	A6CR1	MS51021-21	96906		H2				
MR1121	04713	2-3	A6CR2	MS51021-21	96906		H4				
MR1121	04713	2-3	A6CR3	MS51021-24	96906		H2				
MR1121	04713	2-3	A6CR4	MS51021-25	96906		H1				
MR1121	04713	2-3	A6CR5	MS51021-9	96906		H1				
MR1121	04713	2-3	A6CR6	MS51021-9	96906		H2				
MR1121	04713	2-3	A6CR7	MS51957-13	96906		H2				
MR1121	04713	2-3	A6CR8	MS51957-14	96906		H2				
MS15795-10	96906		H1	MS51957-14	96906		H4				
MS15795-805	96906		H2	MS51957-15	96906		H1				
MS15795-805	96906		H3	MS51957-15	96906		H2				
MS15795-813	96906		H1	MS51957-15	96906		H6				
MS15795-813	96906		H5	MS51957-17	96906		H2				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
MS51957-17	96906		H6	PE5864	01961	2-46	A6A16T1				
MS51957-17	96906		H12	PE5864	01961	2-68	A5A1T1				
MS51997-17	96906		H16	PE5864	01961	2-74	A5A4T1				
MS51957-17	96906		H36	PS647-2	26623	2-78	A5A6K1				
MS51957-17	96906		H52	PS647-2	26623	2-80	A5A7K1				
MS51957-27	96906		H2	PS647-2	26623	2-80	A5A7K2				
MS51957-27	96906		H3	PS647-2	26623	2-82	A5A8K1				
MS51957-28	96906		H2	P138F44	00654	2-3	A6C3				
MS51957-3	96906		H2	Q13-39	00141		A6A26MP7				
MS51957-3	96906		H4	Q13-39	00141		A6A27MP8				
MS51957-30	96906		H2	Q6-3SECSWF1500141			A6A26MP8				
MS51957-30	96906		H4	Q6-3SECSWF1500141			A6A27MP9				
MS51957-30	96906		H12	RC07GF100J	81349	2-70	A5A2R2				
MS51957-4	96906		H2	RC07GF100J	81349	2-88(1)	A5A11R1				
MS51957-4	96906		H3	RC07GF100J	81349	2-88(1)	A5A11R2				
MS51957-41	96906		H2	RC07GF101J	81349		A5R2				
MS51957-42	96906		H2	RC07GF101J	81349	2-22(1)	A6A4R3				
MS51958-11	96906	2-99	H4	RC07GF101J	81349	2-22(1)	A6A4R5				
MS51959-15	96906		H6	RC07GF101J	81349	2-22(1)	A6A4R10				
MS51959-4	96906		H3	RC07GF101J	81349	2-22(1)	A6A4R18				
MS9321-12	96906		H1	RC07GF101J	81349	2-22(1)	A6A4R22				
MT331	82389		A5J23A	RC07GF101J	81349	2-24(1)	A6A5R6				
MT331	82389		A5J23B	RC07GF101J	81349	2-24(1)	A6A5R7				
M68	27956	2-70	A5A2A1	RC07GF101J	81349	2-24(1)	A6A5R24				
NA4991F	16299	2-127	A7A15R12	RC07GF101J	81349	2-24(1)	A6A5R30				
NA55-1962F	16299	2-127	A7A15R10	RC07GF101J	81349	2-24(1)	A6A5R33				
NA55-2052F	16299	2-127	A7A15R14	RC07GF101J	81349	2-24(1)	A6A5R39				
NA55-3012F	16299	2-127	A7A15R11	RC07GF101J	81349	2-24(1)	A6A5R40				
NA60-2871F	16299	2-127	A7A15R9	RC07GF101J	81349	2-24(1)	A6A5R41				
NA60-2871F	16299	2-127	A7A15R16	RC07GF101J	81349	2-26(1)	A6A6R6				
PE5643	01961	2-40	A6A13T2	RC07GF101J	81349	2-26(1)	A6A6R7				
PE5667	01961	2-40	A6A13T1	RC07GP101J	81349	2-26(1)	A6A6R24				
PE5864	01961	2-32	A6A9T1								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF101J	81349	2-26(1)	A6A6R30	RC07GF101J	81349	2-82	A5A8R5				
RC07GF101J	81349	2-26(1)	A6A6R33	RC07GF101J	81349	2-82	A5A8R14				
RC07GF101J	81349	2-26(1)	A6A6R39	RC07GF101J	81349	2-82	A5A8R17				
RC07GF101J	81349	2-26(1)	A6A6R40	RC07GF101J	81349	2-82	A5A8R23				
RC07GF101J	81349	2-26(1)	A6A6R41	RC07GF101J	81349	2-84	A5A9R10				
RC07GF101J	81349	2-30(1)	A6A8R5	RC07GF101J	81349	2-86	A5A10R8				
RC07GF101J	81349	2-30(1)	A6A8R8	RC07GF101J	81349	2-86	A5A10R18				
RC07GF101J	81349	2-30(1)	A6A8R12	RC07GF101J	81349	2-101	A7A2R7				
RC07GF101J	81349	2-30(1)	A6A8R14	RC07GF101J	81349	2-101	A7A2R9				
RC07GF101J	81349	2-30(1)	A6A8R16	RC07GF101J	81349	2-101	A7A2R17				
RC07GF101J	81349	2-30(1)	A6A8R19	RC07GF101J	81349	2-101	A7A2R19				
RC07GF101J	81349	2-30(1)	A6A8R20	RC07GF101J	81349	2-101	A7A2R28				
RC07GF101J	81349	2-30(1)	A6A8R28	RC07GF101J	81349	2-103	A7A3R2				
RC07GF101J	81349	2-30(1)	A6A8R31	RC07GF101J	81349	2-105	A7A4R8				
RC07GF101J	81349	2-30(1)	A6A8R35	RC07GF101J	81349	2-105	A7A4R12				
RC07GF101J	81349	2-32	A6A9R6	RC07GF101J	81349	2-105	A7A4R14				
RC07GF101J	81349	2-34	A6A10R10	RC07GF101J	81349	2-105	A7A4R17				
RC07GF101J	81349	2-36	A6A11R9	RC07GF101J	81349	2-107	A7A5R7				
RC07GF101J	81349	2-44(1)	A6A15R29	RC07GF101J	81349	2-107	A7A5R12				
RC07GF101J	81349	2-48	A6A20R4	RC07GF101J	81349	2-107	A7A5R15				
RC07GF101J	81349	2-68	A5A1R3	RC07GF101J	81349	2-107	A7A5R19				
RC07GF101J	81349	2-68	A5A1R9	RC07GF101J	81349	2-109	A7A6R5				
RC07GF101J	81349	2-70	A5A2R7	RC07GF101J	81349	2-109	A7A6R8				
RC07GF101J	81349	2-72	A5A3R8	RC07GF101J	81349	2-109	A7A6R12				
RC07GF101J	81349	2-72	A5A3R11	RC07GF101J	81349	2-109	A7A6R14				
RC07GF101J	81349	2-72	A5A3R15	RC07GF101J	81349	2-109	A7A6R17				
RC07GF101J	81349	2-72	A5A3R18	RC07GF101J	81349	2-113	A7A8R12				
RC07GF101J	81349	2-72	A5A3R21	RC07GF101J	81349	2-113	A7A8R13				
RC07GF101J	81349	2-74	A5A4R30	RC07GF101J	81349	2-113	A7A8R15				
RC07GF101J	81349	2-78	A5A6R3	RC07GF101J	81349	2-115	A7A9R9				
RC07GF101J	81349	2-78	A5A6R17	RC07GF101J	81349	2-115	A7A9R12				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF101J	81349	2-117	A7A10R10	RC07GF103J	81349	2-24(1)	A6A5R36				
RC07GF101J	81349	2-117	A7A10R13	RC07GF103J	81349	2-24(1)	A6A5R37				
RC07GF101J	81349	2-119	A7A11R2	RC07GF103J	81349	2-26(1)	A6A6R13				
RC07GF101J	81349	2-127	A7A15R3	RC07GF103J	81349	2-26(1)	A6A6R23				
RC07GF102J	81349	2-22(1)	A6A4R21	RC07GF103J	81349	2-26(1)	A6A6R34				
RC07GF102J	81349	2-32	A6A9R3	RC07GF103J	81349	2-26(1)	A6A6R36				
RC07GF102J	81349	2-34	A6A10R6	RC07GF103J	81349	2-26(1)	A6A6R37				
RC07GF102J	81349	2-36	A6A11R11	RC07GF103J	81349	2-30(1)	A6A8R11				
RC07GF102J	81349	2-44(1)	A6A15R3	RC07GF103J	81349	2-30(1)	A6A8R18				
RC07GF102J	81349	2-46	A6A16R9	RC07GF103J	81349	2-32	A6A9R7				
RC07GF102J	81349	2-50	A6A22R3	RC07GF103J	81349	2-32	A6A9R10				
RC07GF102J	81349	2-76	A5A5R7	RC07GF103J	81349	2-36	A6A11R19				
RC07GF102J	81349	2-76	A5A5R10	RC07GF103J	81349	2-40	A6A13R10				
RC07GF102J	81349	2-76	A5A5R11	RC07GF103J	81349	2-40	A6A13R12				
RC07GF102J	81349	2-76	A5A5R13	RC07GF103J	81349	2-46	A6A16R4				
RC07GF102J	81349	2-78	A5A6R25	RC07GF103J	81349	2-46	A6A16R5				
RC07GF102J	81349	2-78	A5A6R26	RC07GF103J	81349	2-46	A6A16R19				
RC07GF102J	81349	2-82	A5A8R12	RC07GF103J	81349	2-70	A5A2R6				
RC07GF102J	81349	2-84	A5A9R11	RC07GF103J	81349	2-76	A5A5R9				
RC07GF102J	81349	2-101	A7A2R6	RC07GF103J	81349	2-76	A5A5R14				
RC07GF102J	81349	2-103	A7A3R9	RC07GF103J	81349	2-82	A5A8R3				
RC07GF102J	81349	2-107	A7A5R6	RC07GF103J	81349	2-86	A5A10R2				
RC07GF102J	81349	2-107	A7A5R14	RC07GF103J	81349	2-86	A5A10R12				
RC07GF102J	81349	2-109	A7A6R16	RC07GF103J	81349	2-88(1)	A5A11R3				
RC07GF102J	81349	2-115	A7A9R5	RC07GF103J	81349	2-88(1)	A5A11R10				
RC07GF102J	81349	2-125	A7A14R8	RC07GF103J	81349	2-88(1)	A5A11R16				
RC07GF102J	81349	2-140	A2A1R3	RC07GF103J	81349	2-88(1)	A5A11R17				
RC07GF103J	81349	2-22(1)	A6A4R19								
RC07GF103J	81349	2-24(1)	A6A5R13	RC07GF103J	81349	2-101	A7A2R10				
RC07GF103J	81349	2-24(1)	A6A5R23	RC07GF103J	81349	2-101	A7A2R11				
RC07GF103J	81349	2-24(1)	A6A5R34	RC07GF103J	81349	2-101	A7A2R16				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF103J	81349	2-101	A7A2R21	RC07GF104J	81349	2-109	A7A6R13				
RC07GF103J	81349	2-101	A7A2R26	RC07GF104J	81349	2-117	A7A10R8				
RC07GF103J	81349	2-105	A7A4R15	RC07GF104J	81349	2-127	A7A15R1				
RC07GF103J	81349	2-107	A7A5R4	RC07GF120J	81349	2-30(1)	A6A8R34				
RC07GF103J	81349	2-107	A7A5R10	RC07GF120J	81349	2-30(1)	A6A8R36				
RC07GF103J	81349	2-107	A7A5R18	RC07GF121J	81349	2-36	A6A11R14				
RC07GF103J	81349	2-109	A7A6R3	RC07GF121J	81349	2-78	A5A6R23				
RC07GF103J	81349	2-109	A7A6R15	RC07GF122J	81349	2-20(1)	A6A3R3				
RC07GF103J	81349	2-111	A7A7R5	RC07GF122J	81349	2-30(1)	A6A8R13				
RC07GF103J	81349	2-111	A7A7R6	RC07GF122J	81349	2-40	A6A13R9				
RC07GF103J	81349	2-111	A7A7R10	RC07GF122J	81349	2-42	A6A14R4				
RC07GF103J	81349	2-113	A7A8R2	RC07GF122J	81349	2-44(1)	A6A15R17				
RC07GF103J	81349	2-113	A7A8R16	RC07GF122J	81349	2-44(1)	A6A15R21				
RC07GF103J	81349	2-113	A7A8R22	RC07GF122J	81349	2-80	A5A7R8				
RC07GF103J	81349	2-115	A7A9R2	RC07GF122J	81349	2-90	A5A12R4				
RC07GF103J	81349	2-117	A7A10R2	RC07GF122J	81349	2-105	A7A4R7				
RC07GF103J	81349	2-125	A7A14R18	RC07GF122J	81349	2-109	A7A6R7				
RC07GF103J	81349	2-125	A7A14R22	RC07GF122J	81349	2-115	A7A9R11				
RC07GF103J	81349	2-127	A7A15R41	RC07GF122J	81349	2-117	A7A10R12				
RC07GF103J	81349	2-129	A7A16R12	RC07GF122J	81349	2-140	A2A1R9				
RC07GF103J	81349	2-129	A7A16R13	RC07GF123J	81349	2-22(1)	A6A4R25				
RC07GF104J	81349	2-24(1)	A6A5R9	RC07GF123J	81349	2-30(1)	A6A8R4				
RC07GF104J	81349	2-24(1)	A6A5R11	RC07GF123J	81349	2-30(1)	A6A8R10				
RC07GF104J	81349	2-24(1)	A6A5R21	RC07GF123J	81349	2-68	A5A1R22				
RC07GF104J	81349	2-26(1)	A6A6R9	RC07GF123J	81349	2-68	A5A1R23				
RC07GF104J	81349	2-26(1)	A6A6R11	RC07GF123J	81349	2-68	A5A1R24				
RC07GF104J	81349	2-26(1)	A6A6R21	RC07GF123J	81349	2-70	A5A2R8				
RC07GF104J	81349	2-36	A6A11R3	RC07GF123J	81349	2-70	A5A2R9				
RC07GF104J	81349	2-44(1)	A6A15R1	RC07GF123J	81349	2-70	A5A2R10				
RC07GF104J	81349	2-88(1)	A5A11R11	RC07GF123J	81349	2-74	A5A4R9				
RC07GF104J	81349	2-105	A7A4R13	RC07GF123J	81349	2-74	A5A4R10				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF123J	81349	2-74	A5A4R26	RC07GF124J	81349	2-44(1)	A6A15R5				
RC07GF123J	81349	2-74	A5A4R27	RC07GF151J	81349	2-18	A6A2R13				
RC07GF123J	81349	2-74	A5A4R28	RC07GF151J	81349	2-30(1)	A6A8R1				
RC07GF123J	81349	2-76	A5A5R8	RC07GF151J	81349	2-42	A6A14R6				
RC07GF123J	81349	2-78	A5A6R8	RC07GF151J	81349	2-48	A6A20R2				
RC07GF123J	81349	2-80	A5A7R6	RC07GF151J	81349	2-68	A5A1R26				
RC07GF123J	81349	2-80	A5A7R13	RC07GF151J	81349	2-68	A5A1R27				
RC07GF123J	81349	2-82	A5A8R6	RC07GF151J	81349	2-74	A5A4R12				
RC07GF123J	81349	2-86	A5A10R7	RC07GF151J	81349	2-74	A5A4R13				
RC07GF123J	81349	2-86	A5A10R17	RC07GF151J	81349	2-84	A5A9R5				
RC07GF123J	81349	2-88(1)	A5A11R6	RC07GF151J	81349	2-111	A7A7R12				
RC07GF123J	81349	2-88(1)	A5A11R14	RC07GF151J	81349	2-127	A7A15R17				
RC07GF123J	81349	2-94	A5A14R1	RC07GF152J	81349	2-24(1)	A6A5R19				
RC07GF123J	81349	2-101	A7A2R5	RC07GF152J	81349	2-26(1)	A6A6R19				
RC07GF123J	81349	2-103	A7A3R5	RC07GF152J	81349	2-42	A6A14R7				
RC07GF123J	81349	2-105	A7A4R3	RC07GF152J	81349	2-44(1)	A6A15R23				
RC07GF123J	81349	2-105	A7A4R11	RC07GF152J	81349	2-50	A6A22R2				
RC07GF123J	81349	2-107	A7A5R5	RC07GF152J	81349	2-70	A5A2R11				
RC07GF123J	81349	2-109	A7A6R11	RC07GF152J	81349	2-86	A5A10R5				
RC07GF123J	81349	2-113	A7A8R5	RC07GF152J	81349	2-86	A5A10R15				
RC07GF123J	81349	2-113	A7A8R18	RC07GF152J	81349	2-103	A7A3R6				
RC07GF123J	81349	2-115	A7A9R3	RC07GF152J	81349	2-117	A7A10R4				
RC07GF123J	81349	2-117	A7A10R3	RC07GF152J	81349	2-125	A7A14R12				
RC07GF123J	81349	2-117	A7A10R9	RC07GF152J	81349	2-140	A2A1R14				
RC07GF123J	81349	2-121	A7A12R3	RC07GF153J	81349	2-22(1)	A6A4R20				
RC07GF123J	81349	2-121	A7A12R17	RC07GF153J	81349	2-32	A6A9R1				
RC07GF123J	81349	2-121	A7A12R22	RC07GF153J	81349	2-46	A6A16R7				
RC07GF123J	81349	2-125	A7A14R21	RC07GF153J	81349	2-46	A6A16R11				
RC07GF123J	81349	2-127	A7A15R40	RC07GF153J	81349	2-46	A6A16R17				
RC07GF124J	81349	2-44(1)	A6A15R4	RC07GF153J	81349	2-68	A5A1R19				
				RC07GF153J	81349	2-72	A5A3R16				
				RC07GF153J	81349	2-72	A5A3R17				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF153J	81349	2-74	A5A4R22	RC07GF183J	81349	2-44(1)	A6A15R25				
RC07GF153J	81349	2-76	A7A5R2	RC07GF183J	81349	2-46	A6A16R18				
RC07GF153J	81349	2-78	A5A6R2	RC07GF183J	81349	2-101	A7A2R2				
RC07GF153J	81349	2-88(1)	A5A11R25	RC07GF183J	81349	2-107	A7A5R2				
RC07GF153J	81349	2-115	A7A9R4	RC07GF183J	81349	2-119	A7A11R8				
RC07GF153J	81349	2-121	A7A12R7	RC07GF183J	81349	2-125	A7A14R10				
RC07GF153J	81349	2-121	A7A12R12	RC07GF183J	81349	2-125	A7A14R15				
RC07GF153J	81349	2-125	A7A14R1	RC07GF220J	81349	2-30(1)	A6A8R37				
RC07GF153J	81349	2-125	A7A14R7	RC07GF220J	81349	2-30(1)	A6A8R39				
RC07GF153J	81349	2-125	A7A14R20	RC07GF220J	81349	2-111	A7A7R8				
RC07GF153J	81349	2-127	A7A15R13	RC07GF221J	81349		A5R5				
RC07GF153J	81349	2-127	A7A15R30	RC07GF221J	81349		A5R6				
RC07GF153J	81349	2-127	A7A15R32	RC07GF221J	81349	2-32	A6A9R5				
RC07GF153J	81349	2-127	A7A15R38	RC07GF221J	81349	2-32	A6A9R8				
RC07GF154J	81349	2-125	A7A14R19	RC07GF221J	81349	2-32	A6A9R11				
RC07GF181J	81349	2-70	A5A2R13	RC07GF221J	81349	2-46	A6A16R2				
RC07GF181J	81349	2-80	A5A6R14	RC07GF221J	81349	2-46	A6A16R3				
RC07GF181J	81349	2-84	A5A9R8	RC07GF221J	81349	2-68	A5A1R18				
RC07GF182J	81349	2-22(1)	A6A4R27	RC07GF221J	81349	2-68	A5A1R21				
RC07GF182J	81349	2-44(1)	A6A15R27	RC07GF221J	81349	2-72	A5A3R4				
RC07GF182J	81349	2-46	A6A16R16	RC07GF221J	81349	2-76	A5A5R12				
RC07GF182J	81349	2-74	A5A4R29	RC07GF221J	81349	2-78	A5A6R18				
RC07GF182J	81349	2-121	A7A12R24	RC07GF221J	81349	2-78	A5A6R21				
RC07GF182J	81349	2-127	A7A15R5	RC07GF221J	81349	2-78	A5A6R28				
RC07GF182J	81349	2-129	A7A16R6	RC07GF221J	81349	2-82	A5A8R7				
RC07GF182J	81349	2-140	A2A1R10	RC07GF221J	81349	2-82	A5A8R25				
RC07GF183J	81349	2-24(1)	A6A5R15	RC07GF221J	81349	2-86	A5A10R21				
RC07GF183J	81349	2-26(1)	A6A6R15	RC07GF221J	81349	2-86	A5A10R22				
RC07GF183J	81349	2-42	A6A14R8	RC07GF221J	81349	2-101	A7A2R12				
RC07GF183J	81349	2-44(1)	A6A15R15	RC07GF221J	81349	2-101	A7A2R14				
RC07GF183J	81349	2-44(1)	A6A15R19								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF221J	81349	2-105	A7A4R5	RC07GF222J	81349	2-78	A5A6R13				
RC07GF221J	81349	2-107	A7A5R20	RC07GF222J	81349	2-78	A5A6R20				
RC07GF221J	81349	2-111	A7A7R7	RC07GF222J	81349	2-80	A5A7R3				
RC07GF221J	81349	2-113	A7A8R11	RC07GF222J	81349	2-80	A5A7R10				
RC07GF221J	81349	2-113	A7A8R24	RC07GF222J	81349	2-88(1)	A5A11R13				
RC07GF222J	81349	2-16	A6A1R3	RC07GF222J	81349	2-88(1)	A5A11R23				
RC07GF222J	81349	2-16	A6A1R6	RC07GF222J	81349	2-90	A5A12R5				
RC07GF222J	81349	2-16	A6A1R11	RC07GF222J	81349	2-90	A5A12R10				
RC07GF222J	81349	2-18	A6A2R1	RC07GF222J	81349	2-101	A7A2R3				
RC07GF222J	81349	2-18	A6A2R7	RC07GF222J	81349	2-101	A7A2R8				
RC07GF222J	81349	2-18	A6A2R12	RC07GF222J	81349	2-107	A7A5R11				
RC07GF222J	81349	2-20(1)	A6A3R5	RC07GF223J	81349	2-22(1)	A6A4R26				
RC07GF222J	81349	2-20(1)	A6A3R10	RC07GF223J	81349	2-21(1)	A6A5R4				
RC07GF222J	81349	2-20(1)	A6A3R14	RC07GF223J	81349	2-24(1)	A6A5R18				
RC07GF222J	81349	2-20(1)	A6A3R16	RC07GF223J	81349	2-24(1)	A6A5R28				
RC07GF222J	81349	2-20(1)	A6A3R21	RC07GF223J	81349	2-24(1)	A6A5R29				
RC07GF222J	81349	2-22(1)	A6A4B7	RC07GF223J	81349	2-26(1)	A6A6R4				
RC07GF222J	81349	2-22(1)	A6A4R8	RC07GF223J	81349	2-26(1)	A6A6R18				
RC07GF222J	81349	2-22(1)	A6A4R9	RC07GF223J	81349	2-26(1)	A6A6R28				
RC07GF222J	81349	2-24(1)	A6A5R31	RC07GF223J	81349	2-26(1)	A6A6R29				
RC07GF222J	81349	2-26(1)	A6A6R31	RC07GF223J	81349	2-30(1)	A6A8R24				
RC07GF222J	81349	2-30(1)	A6A8R6	RC07GF223J	81349	2-34	A6A10R5				
RC07GF222J	81349	2-30(1)	A6A8R26	RC07GF223J	81349	2-36	A6A11R18				
RC07GF222J	81349	2-68	A5A1R4	RC07GF223J	81349	2-46	A6A16R8				
RC07GF222J	81349	2-68	A5A1R10	RC07GF223J	81319	2-46	A6A16R12				
RC07GF222J	81349	2-72	A5A3R6	RC07GF223J	81349	2-68	A5A1R16				
RC07GF222J	81349	2-72	A5A3R23	RC07GF223J	81349	2-68	A5A1R17				
RC07GF222J	81349	2-74	A5A4R21	RC07GF223J	81349	2-70	A5A2R4				
RC07GF222J	81349	2-74	A5A4R25	RC07GF223J	81349	2-72	A5A3R2				
				RC07GF223J	81349	2-74	A5A4R2				
				RC07GF223J	81349	2-74	A5A4R3				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF223J	81349	2-74	A5A4R19	RC07GF271J	81349	2-36	A6A11R17				
RC07GF223J	81349	2-74	A5A4R20	RC07GF271J	81349	2-50	A6A22R4				
RC07GF223J	81349	2-76	ASASR1	RC07GF271J	81349	2-68	A5A1R29				
RC07GF223J	81349	2-78	A5A6R1	RC07GF271J	81349	2-68	A5A1R30				
RC07GF223J	81349	2-86	ASA10R1	RC07GF271J	81349	2-74	A5A4R15				
RC07GF223J	81349	2-86	A5A10R9	RC07GF271J	81349	2-74	A5A4R16				
RC07GF223J	81349	2-86	ASA10R10	RC07GF271J	81349	2-78	A5A6R14				
RC07GF223J	81349	2-86	A5A10R11	RC07GF271J	81349	2-86	A5A10R6				
RC07GF223J	81349	2-86	A5A10R19	RC07GF271J	81349	2-86	A5A10R16				
RC07GF223J	81349	2-86	A5A10R20	RC07GF271J	81349	2-101	A7A2R23				
RC07GF223J	81349	2-88(1)	A5A11R4	RC07GF271J	81349	2-111	A7A7R2				
RC07GF223J	81349	2-101	A7A2R15	RC07GF271J	81349	2-127	A7A15R6				
RC07GF223J	81349	2-101	A7A2R20	RC07GF271J	81349	2-140	A2A1R16				
RC07GF223J	81349	2-101	A7A2R25	RC07GF272J	81349	2-16	A6A1R10				
RC07GF223J	81349	2-107	A7A5R17	RC07GF272J	81349	2-18	A6A2R10				
RC07GF223J	81349	2-111	A7A7R4	RC07GF272J	81349	2-18	A6A2R11				
RC07GF223J	81349	2-111	A7A7R9	RC07GF272J	81349	2-20(1)	A6A3R6				
RC07GF223J	81349	2-113	A7A8R4	RC07GF272J	81349	2-20(1)	A6A3R9				
RC07GF223J	81349	2-113	A7A8R21	RC07GF272J	81349	2-20(1)	A6A3R20				
RC07GF224J	81349	2-34	A6A10R11	RC07GF272J	81349	2-24(1)	A6A5R38				
RC07GF224J	81349	2-36	A6A11R7	RC07GF272J	81349	2-24(1)	A6A5R42				
RC07GF224J	81349	2-42	A6A14R2	RC07GF272J	81349	2-24(1)	A6A5R43				
RC07GF224J	81349	2-44(1)	A6A15R6	RC07GF272J	81349	2-26(1)	A6A6R38				
RC07GF224J	81349	2-123	A7A13R10	RC07GF272J	81349	2-26(1)	A6A6R42				
RC07GF224J	81349	2-140	A2A1R1	RC07GF272J	81349	2-26(1)	A6A6R43				
RC07GF231J	81349	2-40	A6A13R4	RC07GF272J	81349	2-34	A6A10R9				
RC07GF243J	81349	2-127	A7A15R29	RC07GF272J	81349	2-40	A6A13R3				
RC07GF270J	81349	2-30(1)	A6A8R40	RC07GF272J	81349	2-78	A5A6R4				
RC07GF270J	81349	2-68	A5A1R12	RC07GF272J	81349	2-84	A5A9R9				
RC07GF270J	81349	2-140	A2A1R15	RC07GF272J	81349	2-86	A5A10R3				
RC07GF271J	81349	2-16	A6A1R12	RC07GF272J	81349	2-86	A5A10R13				
RC07GF271J	81349	2-20(1)	A6A3R22								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF272J	81349	2-90	A5A12R8	RC07GF331J	81349	2-30(1)	A6A8R23				
RC07GF272J	81349	2-90	A5A12R9	RC07GF331J	81349	2-46	A6A16R6				
RC07GF272J	81349	2-105	A7A4R4	RC07GF331J	81349	2-82	A5A8E1				
RC07GF272J	81349	2-109	A7A6R6	RC07GF331J	81349	2-82	A5A8R19				
RC07GF272J	81349	2-127	A7A15R33	RC07GF331J	81349	2-82	A5A8R26				
RC07GF272J	81349	2-140	A2A1R2	RC07GF332J	81349	2-16	A6A1R2				
RC07GF273J	81349	2-24(1)	A6A5R35	RC07GF332J	81349	2-16	A6A1R7				
RC07GF273J	81349	2-26(1)	A6A6R35	RC07GF332J	81349	2-18	A6A2R2				
RC07GF273J	81349	2-44(1)	A6A15R12	RC07GF332J	81349	2-18	A6A2R3				
RC07GF273J	81349	2-44(1)	A6A15R13	RC07GF332J	81349	2-18	A6A2R8				
RC07GF273J	81349	2-78	A5A6R5	RC07GF332J	81349	2-20(1)	A6A3R2				
RC07GF273J	81349	2-78	A5A6R12	RC07GF332J	81349	2-20(1)	A6A3R11				
RC07GF273J	81349	2-78	A5A6R19	RC07GF332J	81349	2-20(1)	A6A3R13				
RC07GF273J	81349	2-82	A5A8R4	RC07GF332J	81349	2-20(1)	A6A3R17				
RC07GF273J	81349	2-82	A5A8R11	RC07GF332J	81349	2-22(1)	A6A4R4				
RC07GF273J	81349	2-101	A7A2R1	RC07GF332J	81349	2-22(1)	A6A4R14				
RC07GF273J	81349	2-107	A7A5R1	RC07GF332J	81349	2-22(1)	A6A4R17				
RC07GF273J	81349	2-121	A7A12R2	RC07GF332J	81349	2-30(1)	A6A8R21				
RC07GF273J	81349	2-121	A7A12R6	RC07GF332J	81349	2-30(1)	A6A8R25				
RC07GF273J	81349	2-121	A7A12R11	RC07GF332J	81349	2-30(1)	A6A8R29				
RC07GF273J	81349	2-121	A7A12R16	RC07GF332J	81349	2-30(1)	A6A8R32				
RC07GF273J	81349	2-121	A7A12R21	RC07GF332J	81349	2-34	A6A10R3				
RC07GF273J	81349	2-125	A7A14R14	RC07GF332J	81349	2-42	A6A14R3				
RC07GF273J	81349	2-129	A7A16R4	RC07GF332J	81349	2-44(1)	A6A15R14				
RC07GF273J	81349	2-129	A7A16R8	RC07GF332J	81349	2-68	A5A1R1				
RC07GF302J	81349	2-44(1)	A6A15R11	RC07GF332J	81349	2-68	A5A1R5				
RC07GF302J	81349	2-78	A5A6R15	RC07GF332J	81349	2-68	A5A1R6				
RC07GF302J	81349	2-78	A5A6R22	RC07GF332J	81349	2-72	A5A3R26				
RC07GF330J	81349	2-101	A7A2R4	RC07GF332J	81349	2-80	A5A7R17				
				RC07GF332J	81349	2-84	A5A9R18				
				RC07GF332J	81349	2-90	A5A12R1				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF332J	81349	2-90	A5A12R11	RC07GF391J	81349	2-129	A7A16R7				
RC07GF332J	81349	2-105	A7A4R6	RC07GF392J	81349	2-20(1)	A6A3R8				
RC07GF332J	81349	2-105	A7A4R9	RC07GF392J	81349	2-34	A6A10R13				
RC07GF332J	81349	2-107	A7A5R13	RC07GF392J	81349	2-36	A6A11R2				
RC07GF332J	81349	2-107	A7A5R16	RC07GF392J	81349	2-36	A6A11R4				
RC07GF332J	81349	2-109	A7A6R9	RC07GF392J	81349	2-36	A6A11R8				
RC07GF333J	81349	2-22(1)	A6A4R1	RC07GF392J	81349	2-40	A6A13R5				
RC07GF333J	81349	2-22(1)	A6A4R11	RC07GF392J	81349	2-50	A6A22R1				
RC07GF333J	81349	2-22(1)	A6A4R15	RC07GF392J	81349	2-80	A5A7R9				
RC07GF333J	81349	2-34	A6A10R2	RC07GF392J	81349	2-84	A5A9R6				
RC07GF333J	81349	2-36	A6A11R1	RC07GF392J	81349	2-84	A5A9R17				
RC07GF333J	81349	2-68	A5A1R2	RC07GF392J	81349	2-88(1)	A5A11R12				
RC07GF333J	81349	2-68	A5A1R7	RC07GF392J	81349	2-88(1)	A5A11R15				
RC07GF333J	81349	2-72	A5A3R24	RC07GF392J	81349	2-90	A5A12R2				
RC07GF333J	81349	2-72	A5A3R25	RC07GF392J	81349	2-90	A5A12R6				
RC07GF333J	81349	2-80	A5A7R5	RC07GF392J	81349	2-119	A7A11R4				
RC07GF333J	81349	2-80	A5A7R12	RC07GF392J	81349	2-125	A7A14R13				
RC07GF333J	81349	2-80	A5A7R16	RC07GF393J	81349	2-80	A5A6R4				
RC07GF333J	81349	2-82	A5A8R15	RC07GF393J	81349	2-22(1)	A6A4R2				
RC07GF333J	81349	2-82	A5A8R21	RC07GF393J	81349	2-22(1)	A6A4R16				
RC07GF333J	81349	2-88(1)	A5A11R7	RC07GF393J	81349	2-28	A6A7R1				
RC07GF334J	81349	2-14	A7R6	RC07GF393J	81349	2-34	A6A10R1				
RC07GF390J	81349	2-30(1)	A6A8R38	RC07GF393J	81349	2-34	A6A10R4				
RC07GF391J	81349	2-28	A6A7R4	RC07GF393J	81349	2-40	A6A13R1				
RC07GF391J	81349	2-22(1)	A6A4R13	RC07GF393J	81349	2-44(1)	A6A15R8				
RC07GF391J	81349	2-30(1)	A6A8R27	RC07GF393J	81349	2-80	A5A7R4				
RC07GF391J	81349	2-40	A6A13R13	RC07GF393J	81349	2-80	A5A7R11				
RC07GF391J	81349	2-44(1)	A6A15R10	RC07GF393J	81349	2-80	A5A7R15				
RC07GF391J	81349	2-78	A5A6R11	RC07GF393J	81349	2-84	A5A9R1				
RC07GF391J	81349	2-78	A5A6R27	RC07GF393J	81349	2-84	A5A9R2				
RC07GF391J	81349	2-82	A5A8R25	RC07GF393J	81349	2-125	A7A14R9				
RC07GF391J	81349	2-129	A7A16R5	RC07GF394J	81349	2-129	A7A16R3				
				RC07GF394J	81349	2-129	A7A16R10				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF470J	81349	2-24(1)	A6A5R17	RC07GF471J	81349	2-80	A5A7R1				
RC07GF470J	81349	2-26(1)	A6A6R17	RC07GF471J	81349	2-88(1)	A5A11R5				
RC07GF470J	81349	2-30(1)	A6A8R2	RC07GF471J	81349	2-119	A7A11R5				
RC07GF470J	81349	2-34	A6A10R8	RC07GF471J	81349	2-121	A7A12R8				
RC07GF470J	81349	2-46	A6A16R10	RC07GF471J	81349	2-121	A7A12R13				
RC07GF470J	81349	2-46	A6A16R14	RC07GF471J	81349	2-121	A7A12R18				
RC07GF470J	81349	2-72	A5A3R13	RC07GF471J	81349	2-121	A7A12R23				
RC07GF470J	81349	2-72	A5A3R20	RC07GF471J	81349	2-123	A7A13R2				
RC07GF470J	81349	2-74	A5A4P4	RC07GF471J	81349	2-123	A7A13R3				
RC07GF470J	81349	2-78	A5A6R7	RC07GF471J	81349	2-140	A2A1R12				
RC07GF470J	81349	2-101	A7A2R18	RC07GF472J	81349	2-22(1)	A6A4R23				
RC07GF470J	81349	2-107	A7A5R8	RC07GF472J	81349	2-22(1)	A6A4R24				
RC07GF470J	81349	2-109	A7A6R1	RC07GF472J	81349	2-24(1)	A6A5R1				
RC07GF470J	81349	2-113	A7A8R1	RC07GF472J	81349	2-24(1)	A6A5R2				
RC07GF470J	81349	2-113	A7A8R6	RC07GF472J	81349	2-24(1)	A6A5R3				
RC07GF470J	81349	2-113	A7A8R23	RC07GF472J	81349	2-26(1)	A6A6R1				
RC07GF470J	81349	2-115	A7A9R1	RC07GF472J	81349	2-26(1)	A6A6R2				
RC07GF470J	81349	2-117	A7A10R1	RC07GF472J	81349	2-26(1)	A6A6R3				
RC07GF470J	81349	2-119	A7A11R7	RC07GF472J	81349	2-28	A6A7R5				
RC07GF470J	81349	2-321	A7A12R1	RC07GF472J	81349	2-32	A6A9R2				
RC07GF471J	81349	2-34	A6A10R12	RC07GF472J	81349	2-36	A6A11R5				
RC07GF471J	81349	2-36	A6A11R6	RC07GF472J	81349	2-36	A6A11R10				
RC07GF471J	81349	2-46	A6A16R15	RC07GF472J	81349	2-36	A6A11R12				
RC07GF471J	81349	2-56	A6A25R5	RC07GF472J	81349	2-36	A6A11R15				
RC07GF471J	81349	2-56	A6A25R7	RC07GF472J	81349	2-40	A6A13R2				
RC07GF471J	81349	2-68	A5A1R11	RC07GF472J	81349	2-40	A6A13R6				
RC07GF471J	81349	2-68	A5A1R25	RC07GF472J	81349	2-44(1)	A6A15R16				
RC07GF471J	81349	2-70	A5A2R12	RC07GF472J	81349	2-44(1)	A6A15R20				
RC07GF471J	81349	2-72	A5A3R12	RC07GF472J	81349	2-72	A5A3R5				
RC07GF471J	81349	2-74	A5A4R11	RC07GF472J	81349	2-80	A5A7R2				
RC07GF471J	81349	2-78	A5A6R16	RC07GF472J	81349	2-82	A5A8R8				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF472J	81349	2-82	A5A8R10	RC07GF474J	81349	2-26(1)	A6A6R20				
RC07GF472J	81349	2-82	A5A8R18	RC07GF474J	81349	2-72	A5A3R22				
RC07GF472J	81349	2-84	A5A9R12	RC07GF501J	81349	2-34	A6A10R7				
RC07GF472J	81349	2-86	A5A10R4	RC07GF560J	81349	2-44(1)	A6A15R18				
RC07GF472J	81349	2-86	A5A10R14	RC07GF560J	81349	2-44(1)	A6A15R22				
RC07GF472J	81349	2-103	A7A3R4	RC07GF560J	81349	2-68	A1AR15				
RC07GF472J	81349	2-105	A7A4R2	RC07GF560J	81349	2-72	A5A3R1				
RC07GF472J	81349	2-107	A7A5R9	RC07GF560J	81349	2-74	A5A4R1				
RC07GF472J	81349	2-107	A7A5R21	RC07GF560J	81349	2-76	A5A5R3				
RC07GF4723	81349	2-109	A7A6R2	RC07GF560J	61349	2-84	A5A9R3				
RC07GF472J	81349	2-113	A7A8R3	RC07GF560J	81349	2-94	A5A14R2				
RC07GF472J	81349	2-113	A7A8R8	RC07GF560J	81349	2-113	A7A8R20				
RC07GF472J	81349	2-113	A7A8R9	RC07GF561J	81349	2-40	A6A13R7				
RC07GF472J	81349	2-113	A7A8R10	RC07GF561J	81349	2-44(1)	A6A15R24				
RC07GF472J	81349	2-127	A7A15R20	RC07GF561J	81349	2-48	A6A20R1				
RC07GF472J	81349	2-127	A7A15R31	RC07GF561J	81349	2-72	A5A3R14				
RC07GF472J	81349	2-127	A7A15R39	RC07GF561J	81349	2-74	A5A4R7				
RC07GF472J	81349	2-129	A7A16R1	RC07GF561J	81349	2-78	A5A6R9				
RC07GF472J	81349	2-129	A7A16R11	RC07GF561J	81349	2-80	A5A7R7				
RC07GF473J	81349	2-24(1)	A6A5R5	RC07GF561J	81349	2-113	A7A8R14				
PC07GF473J	81349	2-24(1)	A6A5R10	RC07GF561J	81349	2-119	A7A11R1				
RC07GF473J	81349	2-26(1)	A6A6R5	RC07GF561J	81349	2-121	A7A12R5				
RC07GF473J	81349	2-26(1)	A6A6R10	RC07GF562J	81349	2-16	A6A1R9				
RC07GF473J	81349	2-82	A5A8R9	RC07GF562J	81349	2-20(1)	A6A3R19				
RC07GF473J	81349	2-115	A7A9R10	RC07GF562J	81349	2-28	A6A7R2				
RC07GF473J	81349	2-117	A7A10R11	RC07GF562J	81349	2-42	A6A14R1				
RC07GF473J	81349	2-121	A7A12R26	RC07GF562J	81349	2-44(1)	A6A15R7				
RC07GF473J	81349	2-121	A7A12R27	RC07GF562J	81349	2-68	A5A1R20				
RC07GF473J	81349	2-121	A7A12R28	RC07GF562J	81349	2-74	A5A4R6				
RC07GF473J	81349	2-121	A7A12R29	RC07GF562J	81349	2-101	A7A2R13				
RC07GF474J	81349	2-24(1)	A6A5R20	RC07GF562J	81349	2-101	A7A2R32				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF562J	81349	2-103	A7A3R3	RC07GF681J	81349	2-48	A6A20R5				
RC07GF562J	81349	2-113	A7A8R7	RC07GF681J	81349	2-54	A6A24R1				
RC07GF562J	81349	2-113	A7A8R19	RC07GF681J	81349	2-56	A6A25R1				
RC07GF562J	81349	2-125	A7A14R4	RC07GF681J	81349	2-56	A6A25R2				
RC07GF562J	81349	2-125	A7A14R6	RC07GF681J	81349	2-56	A6A25R3				
RC07GF562J	81349	2-129	A7A16R2	RC07GF681J	81349	2-56	A6A25R4				
RC07GF562J	81349	2-129	A7A16R9	RC07GF681J	81349	2-56	A6A25R6				
RC07GF563J	81349	2-22(1)	A6A4R6	RC07GF681J	81349	2-56	A6A25R8				
RC07GF563J	81349	2-68	A5A1R31	RC07GF681J	81349	2-68	A5A1R14				
RC07GF563J	81349	2-68	A5A1R32	RC07GF681J	81349	2-72	A5A3R7				
RC07GF563J	81349	2-74	A5A4R17	RC07GF681J	81349	2-78	A5A6R10				
RC07GF563J	81349	2-74	A5A4R18	RC07GF681J	81349	2-88(1)	A5A11R9				
RC07GF563J	81349	2-82	A5A8R16	RC07GF681J	81349	2-103	A7A3R7				
RC07GF563J	81349	2-82	A5A8R22	RC07GF681J	81349	2-111	A7A7R11				
RC07GF563J	81349	2-88(1)	A5A11R8	RC07GF681J	81349	2-117	A7A10R6				
RC07GF563J	81349	2-105	A7A4R10	RC07GF681J	81349	2-117	A7A10R7				
RC07GF563J	81349	2-109	A7A6R10	RC07GF681J	81349	2-121	A7A12R10				
RC07GF563J	81349	2-113	A7A8R17	RC07GF681J	81349	2-121	A7A12R15				
RC07GF680J	81349	2-30(1)	A6A8R7	RC07GF681J	81349	2-121	A7A12R20				
RC07GF680J	81349	2-70	A5A2R3	RC07GF681J	81349	2-121	A7A12R25				
RC07GF680J	81349	2-72	A5A3R19	RC07GF681J	81349	2-140	A2A1R11				
RC07GF680J	81349	2-111	A7A7R1	RC07GF682J	81349	2-30(1)	A6A8R17				
RC07GF680J	81349	2-111	A7A7R3	RC07GF682J	81349	2-36	A6A11R16				
RC07GF681J	81349	2-28	A6A7R3	RC07GF682J	81349	2-42	A6A14R5				
RC07GF681J	81349	2-30(1)	A6A8R15	RC07GF682J	81349	2-72	A5A3R10				
RC07GF681J	81349	2-30(1)	A6A8R22	RC07GF682J	81349	2-82	A5A8R20				
RC07GF681J	81349	2-30(1)	A6A8R30	RC07GF682J	81349	2-82	A5A8R27				
RC07GF681J	81349	2-30(1)	A6A8R33	RC07GF682J	81349	2-84	A5A9R4				
RC07GF681J	81349	2-32	A6A9R4	RC07GF682J	81349	2-88(1)	A5AR18				
RC07GF681J	81349	2-44(1)	A6A15R9	RC07GF682J	81349	2-115	A7A9R6				
RC07GF681J	81349	2-46	A6A16R13	RC07GF682J	81349	2-119	A7A11R3				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
RC07GF682J	81349	2-125	A7A14R5	RC07GF822J	81349	2-127	A7A15R19				
RC07GF683J	81349	2-82	A5A8R13	RC07GF823J	81349	2-24(1)	A6A5R16				
RC07GF683J	81349	2-115	A7A9R7	RC07GF823J	81349	2-26(1)	A6A6R16				
RC07GF683J	81349	2-123	A7A13R9	RC07GF823J	81349	2-84	A5A9R13				
RC07GF750J	81349	2-70	A5A2R1	RC07GF823J	81349	2-84	A5A9R15				
RC07GF820J	81349	2-140	A2A1R13	RC07GF823J	81349	2-125	A7A14R11				
RC07GF821J	81349	2-24(1)	A6A5R32	RC07GF824J	81349	2-125	A7A14R23				
RC07GF821J	81349	2-26(1)	A6A6R32	RC07GF824J	81349	2-127	A7A15R34				
RC07GF821J	81349	2-68	A5A1R8	RC07GF824J	81349	2-127	A7A15R37				
RC07GF821J	81349	2-88(1)	A5A11	RC20GF101J	81349	2-103	A7A3R10				
RC07GF821J	81349	2-105	A7A4R16	RC20GF222J	81349	2-16	A6A1R1				
RC07GF821J	81349	2-123	A7A13R1	RC20GF222J	81349	2-20(1)	A6A3R12				
RC07GF822J	81349	2-24(1)	A6A5R25	RC20GF392J	81349	2-20(1)	A6A3R1				
RC07GF822J	81349	2-26(1)	A6A6R12	RC20GF393J	81349	2-127	A7A15R35				
RC07GF822J	81349	2-26(1)	A6A6R25	RC20GF473J	81349	2-127	A7A15R36				
RC07GF822J	81349	2-30(1)	A6A8R3	RC32GF3R3J	81349	2-4	A6R8				
RC07GF822J	81349	2-42	A6A14R9	RC42GF105J	81349	2-123	A7A13R5				
RC07GF822J	81349	2-44(1)	A6A15R26	RC42GF105J	81349	2-123	A7A13R6				
RC07GF822J	81349	2-44(1)	A6A15R28	RC42GF105J	81349	2-123	A7A13R7				
RC07GF822J	81349	2-70	A5A2R5	RC42GF105J	81349	2-123	A7A13R8				
RC07GF822J	81349	2-72	A5A3R3	RC42GF123J	81349	2-125	A7A14R16				
RC07GF822J	81349	2-72	A5A3R9	RC42GF153J	81349	2-127	A7A15R4				
RC07GF822J	81349	2-72	A5A3R27	RC42GF181J	81349	2-14	A7R14				
RC07GF822J	81349	2-72	A5A3R28	RP10K	01121	2-40	A6A13R11				
RC07GF822J	81349	2-74	A5A4R23	RP103U	01121	2-125	A7A14R2				
RC07GF822J	81349	2-78	A5A6R6	RP103U	01121	2-125	A7A14R17				
RC07GF822J	81349	2-84	A5A9R7	RP11/M	01121	2-82	A5A8R2				
RC07GF822J	81349	2-115	A7A9R8	RS501	01121	2-46	A6A16R1				
RC07GF822J	81349	2-121	A7A12R4	RS501M	01121	2-103	A7A3R8				
PC07GF822J	81349	2-121	A7A12R9	RP501U	01121	2-78	A5A6R24				
RC07GF822J	81349	2-121	A7A12R14	RP5010	01121	2-117	A7A10R5				
RC07GF822J	81349	2-121	A7A12R19	RP5010	01121	2-119	A7A11R6				
RC07GF822J	81349	2-125	A7A14P3	RP502M	01121	2-84	A5A9R16				
				RP503M	01121	2-84	A5A9R14				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
R118-603	72765		A6DS1	TL1207	81349	2-34	A6A10C2
SB15696-18X311	06004		A1MP3	TL1207	81349	2-34	A6A10C7
SB15696-18X311	06004		A1MP4	TL1207	56289	2-36	A6A11C5
SC2147F	04713	2-48	A6A20IC1				
SCM105FP035D2	01295	2-22(1)	A6A4C26	TL1207	56289	2-42	A6A14C6
SCM105FP035D2	01295	2-22(1)	A6A4C27	TL1209-31D92	56289	2-84	A5A9C11
				TS-2968/V305A0	94668	2-6	A5
SCM105FP035D2	01295	2-28	A6A12C21	TVA1501	56289	2-123	A7A13C10
SCM105FP035D2	01295	2-42	A6A14C7	UG1094U	91737		A7J1
SCM105FP035D2	01295	2-140	A2A1C1	UG1094U	91737		A72
SCM105FP03502	01295	2-140	A2A1C8	UG10094U	91737	1-1	A3J1
SCM106BP015D4	01295	2-4	A6C5	ULKZ6012XA7	75523		A6A26MP9
SCM106BP015D4	01295	2-125	A7A14C1	ULKZ6012XA7	75523		A6A26MP10
SCM106BP015D4	01295	2-125	A7A14C3	ULKZ6012XA7	75523		A6A26MP11
SCM106BP015D4	01295	2-129	A7A16C5	ULKZ6012XA7	75523		A6A27MP10
SCM106BP015D4	01295	2-140	A2A1C7	ULKZ6012XA7	75523		A6A27MP11
SE7001	07263	2-125	A7A14Q8	ULKZ6012XA7	75523		A6A27MP12
SE7001	17803	2-127	A7A15Q7	ULKZ8012XA7	75523		A6A26MP12
SE7001	17803	2-127	A7A15Q8	ULKZ8012XA7	75523		A6A27MP13
SE7001	07263	2-129	A7A16Q2	VAM010W	73899	2-140	A2A1C6
SE7001	07263	2-129	A7A16Q4	V10	28480	2-24(1)	A6A5CR7
SP17969-1	94668		A1MP5	V10	28480	2-26(1)	A6A6CR7
SR7P2	28520		A1MP6	V10	28480	2-28	A6A7CR1
TCA10	71590	2-28	A6A12C7	V10	28480	2-44(1)	A6A15CR1
TCZ10	71590	2-44(1)	A6A15C4	WEE1000	43543		A6L7
TCZ120	71590	2-44(1)	A6A15C7	WEE1000	43543	2-36	A6A11L3
TCZ120	71590	2-82	A5A8C4	WEE1000	43543	2-88(1)	A5A11L1
TCZ120	71590	2-82	A5A5C9	WEE1000	43543	2-88(1)	A5A11L2
TCZ150	71590	2-28	A6A12C4	WEE1000	43543	2-88(1)	A5A11L3
TCZ150	71590	2-44(1)	A6A15C5	WEE1000	43543	2-88(1)	A5A11L4
TCZ22	71590	2-28	A6A12C6	WEE1000	43543	2-88 (1)	A5A11L6
TCZ39	71590	2-28	A6A12C7	WEE1000	43543	2-113	A7A8L1
TL1207	56289		A6A11C5	WEE1000	43543	2-115	A7A9L1
TL1207	56289	2-28	A6A12C18	WEE1000	43543	2-115	A7A9L2

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
WEE1000	43543	2-117	A7A10L1	WEE68	43543	2-105	A7A4L2				
WEE1000	43543	2-117	A7A10L2	WEE68	43543	2-107	A7ASL1				
WEE1000	43543	2-121	A7A12L1	WEE68	43543	2-107	A7A5L2				
WEE1000	43543	2-121	A7A12L2	WEE68	43543	2-109	A7A6L1				
WEE1000	43543	2-121	A7A12L3	WEE68	43543	2-109	A7A6L2				
WEE1000	43543	2-121	A7A12L4	WEE68	43543	2-111	A7A7L1				
WEE1000	43543	2-121	A7A12L5	Z3433	99942	2-16	A6A1CR4				
WEE1000	43543	2-123	A7A13L3	Z3433	99942	2-18	A6A2CR4				
WEE1000	43543	2-125	A7A14L1	Z3433	99942	2-20(1)	A6A3CR17				
WEE1000	43543	2-125	A7A14L2	01-3106-106	91662		A6J3				
WEE1000	43543	2-127	A7A15L1	013-39	00141		A6A27MP8				
WEE1000	43543	2-127	A7A15L3	040200309323-1202	76854		A5S3				
WEE1000	43543	2-129	A7A16L1	04500230	94668		A6A10E1				
WEE1000	43543	2-129	A7A16L2	06-3SECSWF15	00141		A6A27RP9				
WEE33	43543	2-113	A7A8L2	1N1728A	80131	2-127	A7A15CvI				
WEE33	43543	2-113	A7A8L3	1N3154	80131	2-24(1)	A6A5CR6				
WEE33	43543	2-119	A7A11L1	1N3154	80131	2-26(1)	A6A6CR6				
WEE330	43543	2-40	A6A13L2	1N4148	80131	2-88(1)	A5A11CR7				
WEE330	43543	2-40	A6A13L3	1N4148	80131	2-88 (1)	A5A11CR2				
WEE68	43543		A5L1	1N4257	80131	2-123	A7A13CR6				
WEE68	43543	2-14	A7L1	1N4257	80131	2-123	A7A13CR7				
WEE68	43543	2-14	A7L2	1N4257	80131	2-123	A7A13CR8				
WEE68	43543	2-68	A5A1L3	1N456	80131	2-16	A6A1CR1				
WEE68	43543	2-74	A5A4L1	1N456	80131	2-16	A6A1CR2				
WEE68	43543	2-74	A5A4L4	1N456	80131	2-16	A6A1CR3				
WEE68	43543	2-76	A5A5L4	1N456	80131	2-18	A6A2CR1				
WEE68	43543	2-78	A5A6L3	1N456	80131	2-18	A6A2CR2				
WEE68	43543	2-101	A7A2L1	1N456	80131	2-18	A6A2CR3				
WEE68	43543	2-101	A7A2L2	1N456	80131	2-20(1)	A6A3CR5				
WEE68	43543	2-101	A7A2L3	1N456	80131	2-20(1)	A6A3CR6				
WEE68	43543	2-101	A7A4L1	1N456	80131	2-20(1)	A6A3CR7				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER				FIGURE NUMBER			
ITEM NUMBER OR REF. DESIGNATION				ITEM NUMBER OR REF. DESIGNATION			
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
1N456	80131	2-20(1)	A6A3CR9	1N995	80131	2-26(1)	A6A6CR1
1N456	80131	2-20(1)	A6A3CR14	1N995	80131	2-32	A6A9CR1
1N456	80131	2-20(1)	A6A3CR15	1N995	80131	2-40	A6A13CR1
1N456	80131	2-20(1)	A6A3CR16	1N995	80131	2-40	A6A13CR3
1N456	80131	2-34	A6A10CR1	1N995	80131	2-74	ASA4CR3
1N456	80131	2-36	A6A11CR1	10TCCV18	56289	2-105	A7A4C8
1N456	80131	2-72	A5A3CR1	10TCCV18	56289	2-105	A7A4C10
1N456	80131	2-72	A5A3CR2	10TCCV18	56289	2-107	A7A5C15
1N456	80131	2-72	A5A3CR3	10TCCV18	56289	2-107	A7A5016
1N456	80131	2-90	A5A120R2	10TCCV18	56289	2-109	A7A6C9
1N456	80131	2-90	A5A12CR3	10TCCV18	56289	2-109	A7A60C11
1N456	80131	2-90	A5A12CR4	108-903	74970		A5J29
1N456	80131	2-90	A5A12CR5	108-903	74970		A5J29A
1N456	80131	2-123	A7A13CR1	11FP1500GS1L	72421	2-42	A6A14K1
1N4998	04713	2-20(1)	A6A3CR1	18100	73734		E7
1N4998	04713	2-20(1)	A6A3CR2	118100	73734		E45
1N4998	04713	2-20(1)	A6A3CR3	118100	73734	2-92	E1
1N4998	04713	2-20(1)	A6A3CR4	118060	21938		A5E19
1N4998	04713	2-20(1)	A6A3CR10	12-375BP10-25S85NP	22650	2-24(1)	A6A5C3
1N4998	04713	2-20(1)	A6A3CR11	12-375BP10-25S85NP	22650	2-24(1)	A6A5C11
1N4998	04713	2-20(1)	A6A3CR12	12-375BP10-25S85NP	22650	2-24(1)	A6A5C15
1N4998	04713	2-20(1)	A6A3CR13	12-375BP10-25S85NP	22650	2-26(1)	A6A6C3
1N707A	80131	2-103	A7A3CR5	12-375BP10-25S85NP	22650	2-26(1)	A6A6C11
1N751A	18479	2-125	A7A14CR1	12-375BP10-25S85NP	22650	2-26(1)	A6A6C15
1N753	80131	2-90	A5A12CR6	12-375BP10-25S85NP	22650	2-28	A6A1209
1N753	80131	2-123	A7A13CR9	12-375BP10-25S85NP	22650	2-34	A6A10C1
1N753	01295	2-125	A7A14CR2	12-375BP10-25S85NP	22650	2-34	A6A10C3
1N4753	01295	2-125	A7A14CR3	12-375BP10-25S85NP	22650	2-34	A6A10C5
1N753	01295	2-125	A7A142CR4	12-375BP10-25S85NP	22650	2-36	A6A1101
1N753A	80131	2-20(1)	A6A3CR8	12-375BP10-25S85NP	22650	2-40	A6A1307
1N815	80131	2-42	A6A14CR1	12-375BP10-25S85NP	22650	2-42	A6A1403
1N4995	80131	2-22(1)	A6A4CR1	12-375BP10-25S85NP	22650	2-84	A5A9C6
1N1995	80131	2-24(1)	A6A5CR1	12-375BP10-25S85NP	22650	2-88(1)	A5A11C3

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
12-375BP10-25S85NP	22650	2-88(1)	A5A11C7	1537-12	99800	2-74	A5A4L3
12-375BP10-25S85NP	22650	2-88(1)	A5A11C18	1537-12	99800	2-78	A5A6L1
12A	82389		A5J28	1537-46	99800	2-24(1)	A6A5L3
12A	82389		A5J28A	1537-46	99800	2-26(1)	A6A6L3
1421	74545		A1W1EI	1537-46	99800	2-30(1)	A6A8L5
1444	73734		H1	1537-46	99800	2-44(1)	A6A15L2
1468	83330		A4E6	1537-46	99800	2-46	A6A16L2
148-111	02660	2-3	A6XXC01	1537-46	99800	2-70	A5A2L8
150D105X9015A2	80183	2-127	A7A15C5	1537-46	99800	2-72	A5A3L3
150D106X9035R2	56289	2-127	A7A15C2	1537-46	99800	2-78	A5A6L5
150D106X9035R2	56289	2-127	A7A15C3	1537-46	99800	2-86	A5A10L2
150D106X9035R2	56289	2-127	A7A15C4	1537-46	99800	2-86	A5A10L4
150D106X9035R2	56289	2-127	A7A15C12	1537-47	99800	2-36	A6A11L1
150D107X0010R2	56289	2-96	A5A15C1	1537-716	99800		A6L2
150D335X9015A2	56289	2-140	A2A1C5	1537-716	99800		A6L4
150D335X9020B2	56289	2-103	A7A3C3	1537-716	99800	2-30(1)	A6A8L3
150D337X9006S2	56289	2-4	A6C6	1537-716	99800	2-30(1)	A6A8L6
150D337X9006S2	56289	2-4	A6C7	1537-716	99800	2-30(1)	A6A8L7
150D337X9006S2	56289	2-4	A6C8	1537-716	99800	2-44(1)	A6A15L3
150D337X9006S2	56289	2-4	A6C9	1537-716	99800	2-44(1)	A6A15L4
150D337X9006S2	56289	2-4	A16C10	1537-716	99800	2-44(1)	A6A15L5
150D476Y9035S2	80183		A6C12	1537-716	99800	2-70	A5A2L2
1537-06	99800		A6L1	1537-716	99800	2-70	A5A2L3
1537-06	99800		A6L3	1537-716	99800	2-70	A5A2L4
1537-06	99800		A6L5	1537-72	99800	2-28	A6A12L4
1537-06	99800		A6L6	1537-72	99800	2-30(1)	A6A8L4
1537-06	99800	2-22(1)	A6A4L5	1537-72	99800	2-40	A6A13L1
1537-06	99800	2-30(1)	A6A8L1	1537-88	99800		A5L7
1537-06	99800	2-30(1)	A6A8L2	15449	82877		A1B1
1537-06	99800	2-44(1)	A6A15L6	1558A	71279	2-127	A7A15E2
1537-06	99800	2-72	A5A3L1	1558A	71279	2-127	A7A15E312
	99800	2-72	A5A3L2	1558A	71279	2-127	A7A15E4

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
1558A	71279	2-127	A7A15E5	1932XM	88822		A6A14E3				
15696-18X311	06004		A1MP7	1932XM	88822		A6A14E4				
15696-18X311	06004		A1MP8	1932XM	88822	2-16	A6A1E2				
16DP4-203	72136	2-123	A7A13C7	1932XM	88822	2-16	A6A1E3				
16328	73734		H2	1932XM	88822	2-16	A6A1E4				
16328	73734	2-90	A5A12E2	1932XM	88822	2-16	A6A1E5				
161415	82877		A1W1E2								
17258	70903		A6P1	1932WM	88822	2-18	A6A2E2				
17258	70903		A7E18	1932XM	88822	2-18	A6A2E3				
18DB2A	81483	2-14	A7CR1	1932XM	88822	2-18	A6A2E4				
18DB2A	81483	2-90	A5A12CR1	1932XM	88822	2-18	A6A2E5				
1932XM	88822		A6A4E2								
1932XM	88822		A6A4E3	1932XM	88822	2-20(1)	A6A3E2				
1932XM	88822		A6A4E4	1932XM	88822	2-20(1)	A6A3E3				
1932XM	88822		A6A4E5	1932XM	88822	2-20(1)	A6A3E4				
1932XM	88822		A6A4E6	1932XM	88822	2-20(1)	A6A3E5				
1932XM	88822		A6A4E7	1932XM	88822	2-20(1)	A6A3E6				
1932XM	88822		A6A5E2	1932XM	88822	2-20(1)	A6A3E7				
1932XM	88822		A6A5E3	1932XM	88822	2-20(1)	A6A3E8				
1932XM	88822		A6A5E4	1932XM	88822	2-20(1)	A6A3E9				
1932XM	88822		A6A5E5	1932XM	88822	2-28	A6A12E2				
1932XW	88822		A6A5E6	1932XM	88822	2-28	A6A12E3				
1932XM	88822		A6A5E7	1932XM	88822	2-28	A6A12E4				
1932XM	88822		A6A6E2	1932XM	88822	2-30(1)	A6A8E2				
1932XM	88822		A6A6E3	1932XM	88822	2-30(1)	A6A8E3				
1932XM	88822		A6A6E4	1932XM	88822	2-30(1)	A6A8E4				
1932XM	88822		A6A6E5	1932XM	88822	2-30(1)	A6A8E5				
1932XM	88822		A6A6E6	1932XM	88822	2-30(1)	A6A8E6				
1932XM	88822		A6A6E7	1932XM	88822	2-30(1)	A6A8E7				
1932XM	88822		A6A11E2	1932XM	88822	2-30(1)	A6A8E8				
1932XM	88822		A6A1E3	1932XM	88822	2-30(1)	A6A8E9				
1932XM	88822		A6A11E4	1932XM	88822	2-30(1)	A6A8E10				
1932XM	88822		A6A14E2	1932XM	88822	2-32	A6A9E2				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
1932XM	88822	2-34	A6A10E2	1932XM	88822	2-76	A5A5E2				
1932XM	88822	2-34	A6A10E3	1932XM	88822	2-76	A5A5E3				
1932XM	88822	2-34	A6A10E4	1932XM	88822	2-76	A5AFE4				
1932XM	88822	2-40	A6A13E3	1932XM	88822	2-78	A5A6E2				
1932XM	88822	2-44(1)	A6A15E2	1932XM	88822	2-78	A5A6E3				
1932XM	88822	2-44(1)	A6A15E3	1932XM	88822	2-78	A5A6E4				
1932XM	88822	2-44(1)	A6A15E4	1932XM	88822	2-78	A5A6E5				
1932XM	88822	2-44(1)	A6A15E5	1932XM	88822	2-80	A5A7E2				
1932XM	88822	2-44(1)	A6A15E6	1932XM	88822	2-80	A5A7E3				
1932XM	88822	2-46	A6A16E2	1932XM	88822	2-80	A5A7E4				
1932XM	88822	2-46	A6A16E3	1932XM	88822	2-82	A5A8E2				
1932XM	88822	2-46	A6A16E4	1932XM	88822	2-82	A5A8E3				
1932XM	88822	2-68	A5A1E2	1932XM	88822	2-82	A5A8E4				
1932XM	88822	2-68	A5A1E3	1932XM	88822	2-84	A5A9E2				
1932XM	88822	2-68	A5A1E4	1932XM	88822	2-84	A5A9E3				
1932XM	88822	2-68	A5A1E5	1932XM	88822	2-86	A5A10E2				
1932XM	88822	2-68	A5A1E6	1932XM	88822	2-86	A5A10E3				
1932XM	88822	2-70	A5A2E2	1932XM	88822	2-86	A5A10E4				
1932XM	88822	2-70	A5A2E3	1932XM	88822	2-86	A5A10E5				
1932XM	88822	2-72	A5A3E2	1932XM	88822	2-88(1)	A5A11E2				
1932XM	88822	2-72	A5A3E3	1932XM	88822	2-88(1)	A5A11E3				
1932XM	88822	2-72	A5A3E4	1932XM	88822	2-88(1)	A5A11E4				
1932XM	88822	2-72	A5A3E5	1932XM	88822	2-88(1)	A5A11E5				
1932XM	88822	2-72	A5A3E6	1932XM	88822	2-88(1)	A5A11E6				
1932XM	88822	2-72	A5A3E7	1932XM	88822	2-88(1)	A5A11E7				
1932XM	88822	2-72	A5A3E8	1932XM	88822	2-88(1)	A5A11E8				
1932XM	88822	2-74	A5A4E2	1932XM	88822	2-88(1)	A5A11E9				
1932XM	88822	2-74	A5A4E3	1932XM	88822	2-88(1)	A5A11E10				
1932XM	88822	2-74	A5A4E4								
1932XM	88822	2-74	A5A4E5	1932XM	88822	2-90	A5A12E3				
1932XM	88822	2-74	A5A4E6	1932XM	88822	2-90	A5A12E4				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
1932XM	88822	2-90	A5A12E5	1932XM	88822	2-113	A7A8E7				
1932XM	88822	2-101	A7A2E2	1932XM	88822	2-115	A7A9E2				
1932XM	88822	2-101	A7A2E3	1932XM	88822	2-115	A7A9E3				
1932XM	88822	2-101	A7A2E4	1932XM	88822	2-115	A7A9E4				
1932XM	88822	2-101	A7A2E5	1932XM	88822	2-117	A7A10E2				
1932XM	88822	2-101	A7A2E6	1932XM	88822	2-117	A7A10E3				
1932XM	88822	2-101	A7A2E7	1932XM	88822	2-117	A7A10E4				
1932XM	88822	2-103	A7A3E2	1932XM	88822	2-119	A7A11E2				
1932XM	88822	2-103	A7A3E3	1932XM	88822	2-121	A7A12E2				
1932XM	88822	2-103	A7A3E4	1932XM	88822	2-121	A7A12E3				
1932XM	88822	2-105	A7A4E2	1932XM	88822	2-121	A7A12E4				
1932XM	88822	2-105	A7A4E3	1932XM	88822	2-121	A7A12E5				
1932XM	88822	2-105	A7A4E4	1932XM	88822	2-121	A7A12E6				
1932XM	88822	2-105	A7A4E5	1932XM	88822	2-125	A7A14E2				
1932XM	88822	2-105	A7A4E6	1932XM	88822	2-125	A7A14E3				
1932XM	88822	2-107	A7A5E2	1932XM	88822	2-125	A7A14E4				
1932XM	88822	2-107	A7A5E3	1932XM	88822	2-125	A7A14E5				
1932XM	88822	2-107	A7ASE4	1932XM	88822	2-125	A7A14E6				
1932XM	88822	2-107	A7A5E5	1932XM	88822	2-125	A7A14E7				
1932XM	88822	2-107	A7A5E6	1932XM	88822	2-125	A7A14E8				
1932XM	88822	2-109	A7A6E2	1932XM	88822	2-125	A7A14E9				
1932XM	88822	2-109	A7A6E3	1932XM	88822	2-129	A7A16E2				
1932XM	88822	2-109	A7A6E4	1932XM	88822	2-129	A7A16E3				
1932XM	88822	2-109	A7A6E5	1932XM	88822	2-129	A7A16E4				
1932XM	88822	2-109	A7A6E6	1932XM	88822	2-129	A7A16E5				
1932XM	88822	2-111	A7A7E2	1932XM	88822	2-129	A7A16E6				
1932XM	88822	2-111	A7A7E3	1959-55	05276		A5E22				
1932XM	88822	2-113	A7A8E2	1959-60	05276		A5E2D				
1932XM	88822	2-113	A7A8E3	1959-60	05276		A5E21				
1932XM	88822	2-113	A7A8E4	1960	21438		H2				
1932XM	88822	2-113	A7A8E5	1960	21938		A6E11				
1932XM	88822	2-113	A7A8E6	1960	21938		A5E23				
				1960	21938		A5L24				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
1960	21938		A5E25	2N3110	80131	2-123	A7A13Q2								
1960	21938		A5E26	2N3137	80131	2-140	A2A1Q6								
1960	21938		A5E27	2N3563	80131	2-22(1)	A6A4Q6								
1960	21938		A5E28	2N3563	80131	2-24(1)	A6A5Q2								
1960	21938		A5E29	2N3563	80131	2-24(1)	A6A5Q3								
1960	21938		A5E30	2N3563	80131	2-24(1)	A6A5Q4								
1960	21938		A5E31	2N3563	80131	2-24(1)	A6A5Q5								
1960	21938		A5E32	2N3563	80131	2-26(1)	A6A6Q2								
1960	21938		A5E33	2N3563	80131	2-26(1)	A6A6Q3								
1960	21938		A5E34	2N3563	80131	2-26(1)	A6A6Q4								
1960	21938		A5E35	2N3563	80131	2-26(1)	A6A6Q5								
1960	21938		A5E36	2N3563	80131	2-28	A6A7Q1								
1960	21938		A5E37	2N3563	80131	2-30(1)	A6A8Q1								
1960	21938		A5E38	2N3563	80131	2-30(1)	A6A8Q2								
1960	21938		A5E39	2N3563	80131	2-44(1)	A6A15Q3								
1960	21938		A6E1	2N3563	80131	2-44(1)	A6A15Q4								
1961	21938		A5E40	2N3563	80131	2-44(1)	A6A15Q5								
1961	21938		A5E41	2N3563	80131	2-46	A6A16Q2								
1961	21938		A5E42	2N3563	80131	2-68	A5A1Q1								
1961	21938		A5E43	2N3563	80131	2-68	A5A1Q2								
1961	21938		A6E12	2N3563	80131	2-68	A5A1Q3								
2-329036-1	02660		A5W1P2	2N3563	80131	2-68	A5A1Q4								
2-329036-1	02660		A5W2P1	2N3563	80131	2-70	A5A2Q1								
2-329036-1	02660		A5W2P2	2N3563	80131	2-70	A5A2Q2								
2BK2R	71243		A1MP9	2N3563	80131	2-72	A5A3Q1								
2N1131	80131	2-88(1)	A5A11Q2	2N3563	80131	2-72	A5A3Q2								
2N1728	80131	2-86	A5A10Q1	2N3563	80131	2-72	A5A3Q5								
2N1728	80131	2-86	A5A10Q3	2N3563	80131	2-74	A5A4Q2								
				2N3563	80131	2-74	A5A4Q4								
2N1745	80131	2-86	A5A10Q2	2N3563	80131	2-74	A5A4Q5								
2N1745	80131	2-86	A5A10Q4	2N3563	80131	2-74	A5A4Q6								
2N2360	80131	2-32	A6A9Q1	2N3563	80131	2-76	A5A5Q2								
2N3110	80131	2-123	A7A13Q1	2N3563	80131	2-76	A5A5Q3								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER				FIGURE NUMBER			
ITEM NUMBER OR REF. DESIGNATION				ITEM NUMBER OR REF. DESIGNATION			
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
2N3563	80131	2-84	A5A9Q1	2N3563	80131	2-140	A2A1Q5
2N3563	07263	2-101	A7A2Q3	2N3565	80131	2-16	A6A1Q4
2N3563	07263	2-101	A7A2Q4	2N3565	80131	2-16	A6A1Q5
2N3563	07263	2-101	A7A2Q5	2N3565	80131	2-18	A6A2Q4
2N3563	07263	2-101	A7A2Q6	2N3565	80131	2-18	A6A2Q5
2N3563	07263	2-105	A7A4Q1	2N3565	80131	2-20(1)	A6A3Q4
2N3563	07263	2-105	A7A4Q2	2N3565	80131	2-20(1)	A6A3Q5
2N3563	07263	2-105	A7A4Q3	2N3565	80131	2-20(1)	A6A3Q9
2N3563	07263	2-105	A7A4Q4	2N3565	80131	2-20(1)	A6A3Q10
2N3563	07263	2-105	A7A4Q5	2N3565	80131	2-22(1)	A6A4Q1
2N3563	07263	2-107	A7A5Q2	2N3565	80131	2-42	A6A14Q2
2N3563	07263	2-107	A7ASQ3	2N3565	80131	2-90	ASA12Q5
2N3563	07253	2-107	A7A5Q4	2N3565	80131	2-90	A5A12Q6
2N3563	07263	2-107	A7A5Q5	2N3565	80131	2-103	A7A3Q3
2N3563	07263	2-109	A7A6Q1	2N3565	07263	2-115	A7A9Q1
2N3563	07263	2-109	A7A6Q2	2N3565	07263	2-115	A7A9Q2
2N3563	07263	2-109	A7A6Q3	2N3565	07263	2-117	A7A10Q1
2N3563	07263	2-109	A7A6Q4	2N3565	07263	2-117	A7A10Q2
2N3563	07263	2-109	A7A6Q5	2N3568	07263	2-111	A7A7Q1
2N3563	07263	2-113	A7A8Q1	2N3568	07263	2-125	A7A14Q6
2N3563	07263	2-113	A7A8Q2	2N3568	07263	2-125	A7A14Q7
2N3563	07263	2-113	A7A8Q3	2N3568	07263	2-129	A7A16Q3
2N3563	07263	2-113	A7A8Q4	2N3638	80131	2-16	A6A1Q1
2N3563	07263	2-113	A7A8Q5	2N3638	80131	2-18	A6A2Q1
2N3563	07263	2-115	A7A9Q3	2N3638	80131	2-20(1)	A6A3Q1
2N3563	07263	2-117	A7A10Q3	2N3638	80131	2-20(1)	A6A3Q6
2N3563	07263	2-119	A7A11Q1	2N3638	80131	2-34	A6A10Q1
2N3563	07263	2-140	A2A1Q2	2N3638	80131	2-34	A6A10Q2
2N3563	80131	2-140	A2A1Q3	2N3638	80131	2-34	A6A10Q3
2N3563	80131	2-140	A2A1Q4	2N3638	80131	2-36	A6A11Q1

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
2N3638	80131	2-36	A6A11Q2	2N3640	80131	2-78	A5A6Q4				
2N3638	80131	2-40	A6A13Q1	2N3640	80131	2-80	A5A7Q1				
2N3638	80131	2-40	A6A13Q2	2N3640	80131	2-80	A5A7Q2				
2N3638	80131	2-90	A5A12Q1	2N3640	80131	2-80	A5A7Q3				
2N3638	80131	2-103	A7A3Q1	2N3640	80131	2-82	A5A8Q2				
2N3638	80131	2-103	A7A3Q2	2N3640	80131	2-82	A5A8Q3				
2N3638	07263	2-125	A7A14Q1	2N3640	80131	2-84	A5A9Q2				
2N3638	07263	2-125	A7A14Q2	2N3641	80131	2-16	A6A1Q2				
2N3638	07263	2-125	A7A14Q3	2N3641	80131	2-18	A6A2Q2				
2N3638	07263	2-125	A7A14Q4	2N3641	80131	2-20(1)	A6A3Q2				
2N3638	07263	2-125	A7A14Q5	2N3641	80131	2-20(1)	A6A3Q7				
2N3638A	80131	2-88(1)	A5A11Q3	2N3641	80131	2-22(1)	A6A4Q2				
2N3638A	80131	2-88(1)	A5A11Q7	2N3641	80131	2-22(1)	A6A4Q3				
2N3640	80131	2-22(1)	A6A4Q5	2N3641	80131	2-22(1)	A6A4Q4				
2N3640	80131	2-24(1)	A6A5Q1	2N3641	80131	2-68	A5A1Q5				
2N3640	80131	2-26(1)	A6A6Q1	2N3641	80131	2-74	A5A4Q3				
2N3640	80131	2-30(1)	A6A8Q3	2N3641	80131	2-90	A5A12Q4				
2N3640	80131	2-30(1)	A6A8Q4	2N3646	80131	2-56	A6A25Q15				
2N3640	80131	2-30(1)	A6A8Q5	2N3646	80131	2-56	A6A25Q16				
2N3640	80131	2-30(1)	A6A8Q6	2N3646	07263	2-101	A7A2Q1				
2N3640	80131	2-30(1)	A6A8Q7	2N3646	07263	2-101	A7A2Q2				
2N3640	80131	2-30(1)	A6A8Q8	2N3646	07263	2-107	A7A5Q1				
2N3640	80131	2-30(1)	A6A8Q9	2N3646	07263	2-111	A7A7Q2				
2N3640	80131	2-44(1)	A6A15Q2	2N3646	07263	2-121	A7A12Q1				
2N3640	80131	2-46	A6A16Q3	2N3646	07263	2-121	A7A12Q2				
2N3640	80131	2-72	A5A3Q3	2N3646	07263	2-121	A7A12Q3				
2N3640	80131	2-72	A5A3Q4	2N3646	07263	2-121	A7A12Q4				
2N3640	80131	2-72	A5A3Q6	2N3646	07263	2-121	A7A12Q5				
2N3640	80131	2-72	A5A3Q7	2N3646	80131	2-127	A7A15Q1				
2N3640	80131	2-78	A5A6Q1	2N3646	80131	2-127	A7A15Q6				
2N3640	80131	2-78	A5A6Q2	2N3646	80131	2-127	A7A15Q9				
2N3640	80131	2-78	A5A63	2N3646	07263	2-129	A7A16Q1				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
2N3646	07263	2-129	A7A16Q5	2N706A	80131	2-42	A6A14Q1				
2N3663	80131	2-82	A5A8Q1	2N706A	80131	2-42	A6A14Q3				
2N3819	80131	2-140	A2A1Q1	2N706B	80131	2-36	A6A11Q3				
2N3904	80131	2-88(1)	A5A11Q4	2N706B	80131	2-44(1)	A6A15Q1				
2N3904	80131	2-88(1)	A5A11Q5	2VK15S1-2	05574		A7J4				
2N3904	80131	2-88(1)	A5A11Q6	2VK15S1-2	05574		A7J5				
2N3906	80131	2-88(1)	A5A11Q8	2VK15S1-2	05574		A736				
2N3906	80131	2-88(1)	A5A11Q9	2VK15S1-2	05574		A7J7				
2N4034	80131	2-76	A5A5Q1	2VK15S1-2	05574		A7J8				
2N4265	80131	2-36	A6A11Q4	2VK15S1-2	05574		A7J9				
2N4265	80131	2-54	A6A24Q1	2VK15S1-2	05574		A7J10				
2N4265	80131	2-54	A6A24Q2	2VK15S1-2	05574		A7J11				
2N4265	80131	2-54	A6A24Q3	2VK15S1-2	05574		A7J12				
2N4265	80131	2-54	A6A24Q4	2VK15S1-2	05574		A7J13				
2N4265	80131	2-54	A6A24Q5	2VK15S1-2	05574		A7J14				
2N4265	80131	2-54	A6A24Q6	2VK15S1-2	05574		A7J15				
2N4265	80131	2-54	A6A24Q7	2VK15S1-2	05574		A7J16				
2N4265	80131	2-56	A6A25Q1	2VK15S1-2	05574		A7J17				
2N4265	80131	2-56	A6A25Q2	2VK15S1-2	05574		A7J18				
2N4265	80131	2-56	A6A25Q3	2VK15S1-2	05574		A7A17J1				
2N4265	80131	2-56	A6A25Q4	2045-1	71279	2-99	A7A1E3				
2N4265	80131	2-56	A6A25Q5								
2N4265	80131	2-56	A6A25Q6	22-16-3	81073	2-123	A7A13XQ1				
2N4265	80131	2-56	A6A25Q7	22-16-3	81073	2-123	A7A13XQ2				
2N4265	80131	2-56	A6A25Q8	220A5	94668		A1				
2N4265	80131	2-56	A6A25Q9	23D20	83816	2-96	A5A15RT1				
2N4265	80131	2-56	A6A25Q10	23E14	83186	2-70	A5A2RT1				
2N4265	80131	2-56	A6A25Q11	230A	94668	2-140	A2				
2N4265	80131	2-56	A6A25Q12	233A1	94668	1-1	A3				
2N4265	80131	2-56	A6A25Q13	233A4	94668		A4				
2N4265	80131	2-56	A6A25Q14	2340-20-00	78189		A6E13				
2N696	80131	2-88(1)	A5A11Q1								
2N699	80131	2-46	A6A16Q1								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
2340-20-00		78189	A7A15E7	314AG5D21	91506	2-48	A6A20XIC6
2518		83330	2-101 H2	314AG5D21	91506	2-48	A6A20XIC7
26-625BP250-40D6		22650	2-103 A7A3C1	314AG5D21	91506	2-48	A6A20XIC8
2671		83330	A6A5H1	314AG5D21	91506	2-48	A6A20XIC9
2673		83330	H8	314AG5D21	91506	2-50	A6A22XIC1
273		80294	2-14 A7R11	314AG5D21	91506	2-50	A6A22XIC2
273		80294	2-14 A7R12	314AG5D21	91506	2-50	A6A22XIC3
273		80294	2-14 A7R13	314AG5D21	91506	2-50	A6A22XIC4
3-8X1-64X1 1-2		21938	A7E19	314AG5D21	91506	2-50	A6A22XIC5
3M14		71785	2-13 A7XV1	314AG5D21	91506	2-50	A6A22XIC6
3SBF1040A2		08931	2-4 A6K1	314AG5D21	91506	2-50	A6A22XIC7
3SBF1040A2		08931	2-4 A6K3	314AG5D21	91506	2-50	A6A22XIC8
3SBF1040A2		08931	2-14 A7K1	314AG5D21	91506	2-50	A6A22XIC9
30-1		81073	2-13 A7S5	314AG5D21	91506	2-52	A6A23XIC1
30-2		81073	2-13 A7S3	314AG5D21	91506	2-52	A6A23XIC2
301-000-S2H0-300		71590	2-44(1) A6A1506	314AG5D21	91506	2-52	A6A23XIC3
302-000-P2G0-390		71590	2-28 A6A12C3	314AG5D21	91506	2-52	A6A23XIC4
305AL		94668	2-6 A5	314AG5D21	91506	2-52	A6A23XIC5
305AT		94668	2-1 A6	314AG5D21	91506	2-52	A6A23XIC6
3065P1-102		80294	2-82 A5A8R24	314AG5D21	91506	2-52	A6A23XIC7
3067P1-502		80294	2-109 A7A6R4	314AG5D21	91506	2-52	A6A23XIC8
3068P1-204		80297	2-119 A7A11R9	314AG5D21	91506	2-52	A6A23XIC9
312.500		81349	2-13 A7F2	314AG5D21	91506	2-54	A6A24XIC1
313.500		75915	2-7 A5F1	314AG5D21	91506	2-54	A6A24XIC2
313.500		75915	2-7 A5F2	314AG5D21	91506	2-54	A6A24XIC3
313.500		81349	2-13 A7F1	314AG5D21	91506	2-54	A6A24XIC4
314AG5D21		91506	2-48 A6A20XIC2	314AG5D21	91506	2-54	A6A24XIC5
314AG5D21		91506	2-48 A6A20XIC3	314AG5D21	91506	2-54	A6A24XIC6
314AG5D21		91506	2-48 A6A20XIC4	314AG5D21	91506	2-56	A6A25XIC1
314AG5D21		91506	2-48 A6A20XIC5				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
314AG5D21	91506	2-56	A6A26XIC2	33C41A3	56289	2-36	A6A11C6				
314AG5D21	91506	2-56	A6A25XIC3	33C41A3	56289	2-40	A6A13C4				
314AG5D21	91506	2-56	A6A25XIC4	33C41A3	56289	2-40	A6A13C6				
314AG5D21	91506	2-56	A6A25XIC5	33C41A3	56289	2-40	A6A13C8				
314AG5D21	91506	2-56	A6A25XIC6	33C41A3	56289	2-40	A6A13C9				
314AG5D21	91506	2-56	A6A25XIC7	33C41A3	56289	2-40	A6A13C11				
314AG5D21	91506	2-56	A6A25XIC8	33C41A3	56289	2-40	A6A13C15				
3253-50K	11534		A5R3	33C41A3	56289	2-42	A6A14C2				
329097	81812		A5E44	33C41A3	56289	2-42	A6A14C4				
329097	81812		A5E45	33C41A3	56289	2-68	A5A1C1				
33C41A3	56289		A5C2	33C41A3	56289	2-68	A5A1C4				
33C41A3	56289		A5C3	33C41A3	56289	2-78	A5A6C6				
33C41A3	56289		A5C4	33C41A3	56289	2-78	A5A6C7				
33C41A3	56289		A5C5	33C41A3	56289	2-78	A5A6C12				
33C41A3	56289	2-20(1)	A6A3C2	33C41A3	56289	2-78	A5A6C13				
33C41A3	56289	2-22(1)	A6A4C09	33C41A3	56289	2-80	A5A7C9				
33C41A3	56289	2-22(1)	A6A4C14	33C41A3	56289	2-82	A5A8C1				
33C41A3	56289	2-22(1)	A6A4C20	33C41A3	56289	2-82	A5A8C2				
33C41A3	56289	2-22(1)	A6A4C24	33C41A3	56289	2-82	A5A8C3				
33C41A3	56289	2-24(1)	A6A5C1	33C41A3	56289	2-82	A5A8C5				
33C41A3	56289	2-24(1)	A6A5C4	33C41A3	56289	2-82	A5A8C6				
33C41A3	56289	2-26(1)	A6A6C1	33C41A3	56289	2-82	A5A8C7				
33C41A3	56289	2-26(1)	A6A6C4	33C41A3	56289	2-82	A5A8C8				
33C41A3	56289	2-28	A6A7C1	33041A3	56289	2-82	A5A8C10				
33C41A3	56289	2-28	A6A12C1	33C41A3	56289	2-82	A5A8C11				
33C41A3	56289	2-28	A6A12C14	33C41A3	56289	2-82	A5A8C12				
33C41A3	56289	2-28	A6A12C17	33C41A3	56289	2-82	A5A8C13				
33C41A3	56289	2-28	A6A12C19	33C41A3	56289	2-82	A5A8C15				
33C41A3	56289	2-28	A6A12C20	33C41A3	56289	2-84	A5A9C1				
33C41A3	56289	2-32	A6A9C8	33C41A3	56289	2-84	A5A9C2				
33C41A3	56289	2-34	A6A10C6	33C41A3	56289	2-84	A5A9C3				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
33C41A3	56289	2-84	A5A9C5	33C41B6	56289	2-115	A7A9C2				
33C41A3	56289	2-84	A5A9C7	33C41B6	56289	2-115	A7A9C3				
33C41A3	56289	2-84	A5A9C8	33C41B6	56289	2-115	A7A9C4				
33C41A3	56289	2-84	A5A9C9	33C41B6	56289	2-115	A7A9C5				
33C41A3	56289	2-84	A5A9C10	33C41B6	56289	2-115	A7A9C6				
33C41A3	56289	2-86	A5A10C1	33C41B6	56289	2-115	A7A9C7				
33C41A3	56289	2-86	A5A10C2	33C41B6	56289	2-115	A7A9C8				
33C41A3	56289	2-86	A5A10C5	33C41B6	56289	2-117	A7A10C1				
33C41A3	56289	2-86	A5A10C6	33C41B6	56289	2-117	A7A10C2				
33C41A3	56289	2-86	A5A10C7	33C41B6	56289	2-117	A7A10C3				
33C41A3	56289	2-86	A5A11C8	33C41B6	56289	2-117	A7A10C4				
33C41A3	56289	2-86	A5A10C9	33C41B6	56289	2-117	A7A10CS				
33C41A3	56289	2-86	A5A10C12	33C41B6	56289	2-117	A7A10C6				
33C41A3	56289	2-86	A5A10C13	33C41B6	56289	2-117	A7A10C7				
33C41A3	56289	2-86	A5A10C14	33C41B6	56289	2-117	A7A10C8				
33C41A3	56289	2-90	A5A12C2	33C41B6	56289	2-121	A7A12C1				
33C41B6	56289	2-46	A6A16C12	33C41B6	56289	2-121	A7A12C2				
33C41B6	56289	2-107	A7A5C1	33C41B6	56289	2-121	A7A12C3				
33C41B6	56289	2-107	A7A5C6	33C41B6	56289	2-121	A7A12C6				
33C41B6	56289	2-107	A7A5C7	33C41B6	56289	2-121	A7A12C7				
33C41B6	56289	2-107	A7A5C10	33041B6	56289	2-121	A7A12C10				
33C41B6	56289	2-111	A7A7C3	33C41B6	56289	2-121	A7A12C11				
33C41B6	56289	2-111	A7A7C5	33C41B6	56289	2-121	A7A12C14				
33C41B6	56289	2-111	A7A7C7	33C41B6	56289	2-121	A7A12C15				
33C41B6	56289	2-111	A7A7C9	33C41B6	56289	2-121	A7A12C18				
33C41B6	56289	2-113	A7A8C2	33C41B6	56289	2-121	A7A12C19				
33C41B6	56289	2-113	A7A8C3	33C41B6	56289	2-121	A7A12C20				
33C41B6	56289	2-113	A7A8C5	33C41B6	56289	2-123	A7A13C1				
33C41B6	56289	2-113	A7A8C6	33C41B6	56289	2-123	A7A13C5				
33C41B6	56289	2-113	A7A8C9	33C41B6	56289	2-125	A7A14C4				
33C41B6	56289	2-115	A7A9C1	33C41B6	56289	2-125	A7A14C5				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
33C41B6	56289	2-125	A7A14C7	4000-02	99800	2-70	A5A2L7
33C41B6	56289	2-129	A7A16C2	4000-10	99800	2-76	A5A5L1
33D12	83186	2-78	ASA6RT1	4000-10	99800	2-76	A5ASL2
3310-2-03	11237	2-30(1)	A6A8J1	4000-10	99800	2-76	ASA5L3
3310-2-03	11237	2-30(1)	A6A8J2	4000-14	99800	2-44(1)	A6A15L1
3310-2-03	11237	2-30(1)	A6A8J3	402ACEHG	01009		A6J4
3310-2-03	11237	2-30(1)	A6A8J4	402ACEHG	01009		A6J6
333	79963	2-99	H2	40250	07235	2-16	A6A1Q3
341	79963		H2	40250	07255	2-18	A6A2Q3
341	79963		A4E1	40250	07235	2-20(1)	A6A3Q3
341	79963		A4E2	40250	07235	2-20(1)	A6A3Q8
341	79963		A4E3	40250	07235	2-90	ASA12Q3
341	79963		A4E4	40251	02735		A5Q1
341	79963		A4E5	40251	07235	2-3	A6Q1
341	79963		A6E14	40251	07235	2-3	A6Q2
342004	75915	2-7	A5XF1	40251	07235	2-3	A6Q3
342004	75915	2-7	A5XF2	40251	07235	2-3	A6Q4
342004	75915		A6XF1	40251	07235	2-3	A6Q5
342004	75915		A6XF2	40251	07235	2-3	A6Q6
35650	96791		A6AT2	4411-2M	82142	2-92	A5A13L1
35650	96791		A6AT3	4450-02	99800	2-28	A6A1L1
360B	94668	2-11	A7	4450-07	99800	2-24(1)	A6A5L4
3703-1-03	71279	2-70	A5A2J1	4450-07	99800	2-26(1)	A6A6L4
385PC201A	11237	2-101	A7A2R29	4450-08	99800	2-46	A6A16L1
385PC201A	11237	2-101	A7A2R30	4450-12	99800	2-68	A5A1L2
3886	44655	2-48	A6A20R3	4450-12	99800	2-74	A5A4L2
39-18-1437	72619		A7DS2	4450-31	99800	2-82	A5A8L1
39-18-1437	72619		A7DS3	4450-31	99800	2-82	A5A8L2
39D118G050HP4	56289	2-13	A7C1	4450-31	99800	2-82	A5A8L4
39D118G050HP4	56289	2-13	A7C2	4450-35	99800	2-78	A5A6L2
39006	76487		A5SP5	4450-35	99800	2-78	A5A6L4
39006	76487		A5WP6	4450-35	99800	2-86	A5A10L1
39023	96487		A7MP8	4450-35	99800	2-86	A5A10L3
39023	96487		A7MP9				
4000-02	99800	2-70	A5A2L1				
4000-02	99800	2-70	A5A2L5				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
46256LF	82389		A5S7	563-013	72982	2-28	A6A7C4								
46256LF	82389	2-3	A6S4	563-013	72982	2-32	A6A9C5								
46256LF	82389	2-13	A7S2	563-013	72982	2-32	A6A9011								
4749	44655	2-103	A7A3R1	563-013	72982	2-46	A6A1601								
48M9-200	12697		A5R1	563-013	72982	2-68	A1A1013								
5HR2S20	56289		A507	563-013	72982	2-68	A1A1014								
5082-2900	28480	2-127	A7A15CR2	563-013	72982	2-72	A5A3C11								
5082-2900	28480	2-127	A7A15CR3	563-013	72982	2-74	A5A4C7								
5082-2900	28480	2-127	A7A150R4	563-013	72982	2-74	A5A4C10								
5082-2900	28480	2-127	A7A150CR5	565-013	72982	2-28	A6A1208								
5133-18	79136		A6A26UP20	565-013	72982	2-94	A3A1402								
5133-18	79136		A6A26MP21	565-013	72982	2-94	A5A1406								
5133-18	79136		A6A27YP25	565-013	72982	2-94	A3A1409								
5133-18	79136		A6A271P32	565-013	72982	2-94	A5A14C13								
5133-25	79136		A6A26UP17	565-013	72982	2-94	A5A14016								
5133-25	79136		A6A26MP18	58361-1-2	78229		A1P10								
5133-25	79136		A6A27MP22	58361-1-2	78229		A1UP11								
5133-25	79136		A6A27MP23	59-012-062-0187		72962	A6UP21								
5144-9	79136		A1MP19	62PAR10K	73138	2-127	ATA15R21								
5144-9	79136		A1MP20	62PAR100K	73138	2-36	A611R13								
5144-9	79136		A1MP21	62PAR100K	73138	2-40	A6A13R8								
5144-9	79136		A1MP22	62PAR2K	73138	2-20(1)	A6A3R7								
5144-9	79136		A1MP25	62PAR2K	73138	2-20(1)	A6A3E18								
5144-9	79136		A1MP26	62PAR2K	73138	2-68	A1AR13								
5144-9	79136		A1MP27	62PAR2K	73138	2-90	A5A12R7								
5144-9	79136		A1MP28	62PAR20K	73138	2-24(1)	A615R14								
52120	73734		H1	62PAR20K	73138	2-24(1)	A615R22								
52120	73734		H2	62PA320K	73138	2-26(1)	A6A6R14								
5230	74545		A131	62PAR20K	73138	2-26(1)	AA6R22								
5230-1	74545		A1J2	62PAR20R	73138	2-44(1)	61A15R2								
550R500A	11237	2-13	A7R1	62PAR200	80740	2-74	A5AR24								
557-091NP	15450	2-107	A7A5C4	62PAR500	73138	2-24(1)	AWAR8								
5600-16-32	86928		H2	62PAR500	73138	2-26(1)	A6A6R8								

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION
	MFG. CODE	FIG. NO.			MFG. CODE	FIG. NO.	
REFERENCE NO.			REFERENCE DESIGNATION	REFERENCE NO.			REFERENCE DESIGNATION
62PAR500	73138	2-30(1)	A6A8R9	71500	73734		H2
62PAR500	73138	2-32	A6A9R9	7156	04941		A7A15E6
62 PAR500	73138	2-68	A5A1R28	7383-1P2	91506	2-123	A7A13MP1
62 PAR500	80740	2-74	A6A4R14	7383-1P2	91506	2-123	A7A13MP2
62PA2K	73138	2-16	A6A1R8	7538XP50	72619	2-13	A7XDS2
62PA2K	73138	2-18	A6A2R9	7538XP50	72619	2-13	A7XDS3
63PR500	73138	2-140	A2A1R8	7538XP51	72619		A7MP10
6707	71002		H2	753851	72619		A7MP11
6707	71002	2-105	H2	77PR100	73138	2-88(1)	A5A11R22
6707	71002	2-107	H3	77PR5K	73138	2-88(1)	A5A11R21
6707	71002	2-109	H2	7717-109N	13103		A2A1MP3
6707	71002	2-111	H2	79NM40	72962		H6
6707	71002	2-113	H2	79NM40	72962		H12
6707	71002	2-121	H2	79NM40	72962		H16
7A	79963		A5E46	79NM40	72962		H36
70F102A1	76493	2-34	A6A10L1	79NM40	72962		H52
70F333A1	76493	2-22(1)	A6A4L1	79PR10K	73138	2-24(1)	A6A5R26
70F333A1	76493	2-22(1)	A6A4L2	79PR10K	73138	2-26(1)	A6A6R26
70F333A1	76493	2-22(1)	A6A4L3	79PR10K	73138	2-74	AA4R8
70F333A1	76493	2-22(1)	A6A4L4	8-250BP1-25S85NP	22650	2-42	A6A14C1
70F333A1	76493	2-22(1)	A6A4L6	8-250BP1-25S85NP	22650	2-42	A6A14C5
70F33A1	76493	2-24(1)	A6A5L1	8-250BP1-25S85NP	22650	2-78	A5A6C5
70F33A1	76493	2-24(1)	A6A5L2	8-250BP1-25S85NP	22650	2-88(1)	A5A11C5
70F33A1	76493	2-26(1)	A6A6L	8-250BP10-25S85NP	22650	2-88(1)	A5A11C8
70F33A1	76493	2-26(1)	A6A6L2	8-250BP10-25S85N	22650	2-22(1)	A6A4C23
70F333A1	76493	2-26(1)	A6A6L2	8-250BP10-25S85N	22650	2-36	A6A11C4
70F333A1	76493	2-28	A6A12L2	8-250BP10-25S85N	22650	2-36	A6A11C7
70F333A1	76493	2-28	A6A12L3	8-250BP10-25S85N	22650	2-36	A6A11C8
70F333A1	76493	2-28	A6A12L5	800004202	96906		H2
70F333A1	76493	2-34	A6A10L2	8058-1G-49	91506	2-22(1)	A6A4XIC1
70F333A1	76493	2-36	A6A11L2	8058-10-49	91506	2-24(1)	A6AXIC1
70F333A1	76493	2-42	A6A14L1	8058-1G-49	91506	2-26(1)	A6A6XIC1
70F333A1	76493	2-82	AA8L3	8080-1G1	91506		A6XC1
70F333A1	76493	2-82	AA8L5	8080-1G1	91506		A6XQ2
70F333A1	7649	2-84	A5A9L1	8080-1G1	91506		A6XQ3
70F475A1	76493	2-68	A5A1L1				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER				FEDERAL STOCK NUMBER			
FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
8080-1G1	91506		A6XQ4	831-000Z5U0-102P	72982	2-30(1)	A6A8C8
8080-1G1	91506		A6XQ5	831-000Z5U0-102P	72982	2-30(1)	A6A8C9
8080-1G1	91506		A6XQ6	831-000Z5U0-102P	72982	2-30(1)	A6A8C10
8080-1G2	91506		ASXQ1	831-000Z5U0-102P	72982	2-30(1)	A6A8C12
8080-1G2	91506	2-13	A7XQ1	831-000Z5U0-102P	72982	2-30(1)	A6A8C15
8DB2A	81483	2-90	AMA12CR1	831-000Z5U0-102P	72982	2-30(1)	A6A8C16
831-0005ZU0-102P	22650	2-24(1)	A6A5C6	831-000Z5U0-102P	72982	2-30(1)	A6A8C17
831-000Z5U0-102P	72982	2-24(1)	A6A5C14	831-000Z5U0-102P	72982	2-30(1)	A6A8C18
831-000Z5U0-102P	72982	2-24(1)	A6ASC19	831-000Z5U0-102P	72982	2-30(1)	A6A8C19
831-000Z5U0-102P	72982	2-24(1)	A6A5C20	831-000Z5U0-102P	72982	2-30(1)	A6A8C20
831-000Z5U0-102P	72982	2-24(1)	A6A5C21	831-000Z5U0-102P	72982	2-30(1)	A6A8C21
831-000Z5U0-102P	72982	2-24(1)	A6A5C22	831-000Z5U0-102P	72982	2-40	A6A13C14
831-000Z5U0-102P	72982	2-24(1)	A6A5C25	831-000Z5U0-102P	72982	2-46	A6A16016
831-000Z5U0-102P	72982	2-24(1)	A6A5C26	831-000Z5U0-102P	72982	2-68	A5A1C5
831-000Z5U0-102P	72982	2-24(1)	A6A5C27	831-000Z5U0-102P	72982	2-72	A5A3C1
831-000Z5U0-102P	22650	2-26(1)	A6A6C6	831-000Z5U0-102P	72982	2-72	A5A3C4
831-000Z5U0-102P	22650	2-26(1)	A6A6C14	831-000Z5U0-102P	72982	2-72	A5A3C7
831-000Z5U0-102P	22650	2-26(1)	A6A6019	831-000Z5U0-102P	72982	2-72	A5A3C9
831-000Z5U0-102P	22650	2-26(1)	A6A6C20	831-000Z5U0-102P	72982	2-72	A5A3C13
831-000Z5U0-102P	22650	2-26(1)	A6A6021	831-000Z5U0-102P	72982	2-74	A5A4C5
831-000Z5U0-102P	22650	2-26(1)	A6A6C22	831-000Z5U0-102P	72982	2-74	A5A4C16
831-000Z5U0-102P	22650	2-26(1)	A6A6C25	831-000Z5U0-102P	72982	2-74	A5A4C21
831-000Z5U0-102P	22650	2-26(1)	A6A6C26	831-000Z5U0-102P	72982	2-76	A5A4C1
831-000Z5U0-102P	22650	2-26(1)	A6A6027	831-000Z5U0-102P	72982	2-76	A5A5C15
831-000Z5U0-102P	72982	2-28	A6A7C2	831-000Z5U0-102P	72982	2-140	A2A1C2
831-000Z5U0-102P	72982	2-28	A6A7C8	831-000Z5U0-102P	72982	2-140	A2A1C3
831-000Z5U0-102P	72982	2-30(1)	A6A8C1	831-000Z5U0-102P	72982	2-140	A2A1C9
831-000Z5U0-102P	72982	2-30(1)	A6A8C2	831-000Z5U0-102P	72982	2-70	A5A2C1
831-000Z5U0-102P	72982	2-30(1)	A6A8C3	831-000Z5U0-102P	72892	2-70	A5A2C2
831-000Z5U0-102P	72982	2-30(1)	A6A8C4	831-000Z5U0-102P	72892	2-70	A5A2C3
831-000Z5U0-102P	72982	2-30(1)	A6A8C5	89-32	81812		A5J13
831-000Z5U0-102P	72982	2-30(1)	A6Ak8C6	901430100	71590	2-28	6A7C05
831-000Z5U0-102P	72982	2-30(1)	A6A8C7	9017-1P1U	91506	2-127	A7A15E2

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION		FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION
9017-1P1U	91506	2-127	A7A1518	910000101	94668	2-3	A6T2				
901910152	72136	2-28	A6A12C5	910100004	94668		A5FL1				
902750106	05397	2-48	A6A20C2	910100017	94668		A5FL2				
902800730	94668		A6A2601	910100023	94668	2-115	A7A9FL1				
902810451	94668		A6A27C2	910100038	94668	2-117	A7A10FL1				
903300105	22650	2-88(1)	A5A11C5	910100047	94668	2-36	A6A11FL1				
904500156	94668	2-101	A7A2E1	910100048	94668	2-42	A6A14FL1				
904500164	94668	2-117	A7A10E1	910700112	94668	2-13	A7V1				
904500232	11237		A6A8E1	911200011	94668		A5S6				
904500235	94668		A6A2E1	911200058	94668		A5S4				
904500251	94668	2-94	A5A14E1	911200108	94668	2-3	A6S3				
904500263	94668	2-70	A5A2E1	911200122	94668	2-99	A7A1S1				
904500301	94668		A2A1E1	911200123	94668	2-13	A7S4				
906200075	44655	2-48	A6A20R3	911200142	94668		A5S1				
907900036	94668	2-13	A7R8	911200143	94668		A5S2				
907900037	94668		A5R4	911200160	94668	2-140	A2A1S1				
907900039	94668	2-14	A7R10	911200160	94668	2-140	A2A1S2				
907900135	94668	2-13	A7R9	911300026	94668	2-14	A7S7				
907900137	94668	2-14	A7R2	911300027	94608	2-4	A6S1				
909300003	94668	2-94	A5A14L5	911300028	94668	2-4	A6S2				
909300004	94668	2-94	A5A14L4	911300030	94668		A5S5				
909300005	94668	2-94	A5A14L3	911800104	94668		A5M1				
909300006	94668	2-94	A5A14L2	912100011	94668	2-9	A5AT1				
909300007	94668	2-94	A5A14L1	912100012	94668	2-9	A5AT2				
909400059	99800	2-28	A6A7L1	912200026	94668	2-68	A5A1Y1				
909900023	94668	2-24(1)	A6A5T1	912200036	94668	2-107	A7A5Y1				
909900023	94668	2-26(1)	A6A6T1	912200037	94668	2-101	A7A2Y1				
91-PC3F	02660		A6J5	912200039	94668	2-24(1)	A6A6Y1				
910000086	94668		A7T1	912200040	94668	2-26(1)	A6A6Y1				
910000087	94668	2-123	A7A13T1	912200040	94668	2-74	A5A4Y1				
910000097	94668	2-3	A6T1	912200055	94668	2-86	A5A10Y1				
910000100	94668		A5T1	912200056	94668	2-86	A5A10Y2				

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER		FIGURE NUMBER		ITEM NUMBER OR REF. DESIGNATION
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION		
912400002	94668	2-3	A6XC01	914800075	94668		A6J34		
912600026	72421	2-42	A6A14K1	914800075	94668		A6J35		
913200007	71400	2-3	A6F2	914800075	94668		A6J36		
913200040	71400	2-3	A6F1	914800075	94668		A6J37		
914200049	91506	2-86	A5XQ1	914800075	94668		A6J38		
914800074	94668		A5J10	914800094	94668		A5CP1J1		
914800074	94668		A5J11	914800094	94668		A5J1A		
914800074	94668		A5J12	914800094	94668		A51B		
914800074	94668		A6CP1J1	914800094	94668		A5J2A		
914800074	94668		A6CP2J1	914800094	94668		A5J2B		
914800074	94668		A6J13	914800094	94668		A5J3A		
914800074	94668		A6J14	914800094	94668		A5J3B		
914800074	94668		A6J15	914800094	94668		A5J4A		
914800074	94668		A6J16	914800094	94668		A5J4B		
914800074	94668		A6T17	914800094	94668		A5J5A		
914800074	94668		A6J18	914800094	94668		A5J5B		
914800074	94668		A6J19	914800094	94668		A5J6A		
914800074	94668		A6J20	914800094	94668		A5J6B		
914800074	94668		A6J21	914800094	94668		A5J7A		
914800074	94668		A6J22	914800094	94668		A5J7B		
914800074	94668		A6J23	914800094	94668		A5J8A		
914800074	94668		A6J24	914800094	94668		A5J8B		
914800074	94668		A6J25	914800094	94668		A5J9A		
914800074	94668		A6J26	914800094	94668		A5J9B		
914800074	94668		A6J27	916000056	94668		A6MP7		
914800075	94668		A6CP3J1	916000087	94668		A6MP8		
914800075	94668		A6J28	916000087	94668		A6WP9		
914800075	94668		A6J29	916000089	94668		A5MP7		
914800075	94668		A6J30	916000089	94668		A5MP8		
914800075	94668		A6J31	916000090	94668		A5MP9		
914800075	94668		A6332	916000090	94668		A5MP10		
914800075	94668		A6J33	916000090	94668		A5MP11		

SECTION III INDEX-FEDERAL STOCK NUMBER AND REFERENCE NUMBER CROSS REFERENCE TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER			FIGURE NUMBER			ITEM NUMBER OR REF. DESIGNATION		
REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	REFERENCE NO.	MFG. CODE	FIG. NO.	REFERENCE DESIGNATION	
916000090	94668		A7MP12	919500335	94668		A1MP12	
916000090	94668		A7MP13	919500335	94668		A1P13	
916000091	94668		A6MP10	919800017	94668		A5MP15	
916000091	94668		A6MP11	919900012	94668	2-119	A7A11VCX0	
916000103	94668		A5MP12	919900024	94668		A5DS1	
916000103	94668		A5MP13	919900030	94668		A6A28	
916000103	94668		A5MP14	920300008	17803	2-26(1)	A6A61C1	
916000103	94668		A7MP14	920300012	04713	2-48	A6A20IC1	
916000103	94668		A7MP15	920300013	04713	2-48	A6A20IC2	
916000103	94668		A7MP16	920300014	04713	2-48	A6A20IC10	
916000103	94668		A7MP17	9225	73734		H2	
916000103	94668		A71AP18	9225	73734		H41	
916400025	94668		A1W2	9226	73734		H2	
916400025	94668		A5W1	9240-720	76493	2-70	A5A2L6	
9173	73734		H1	9240-720	76493	2-123	A7A13L1	
9173	73734		H2	9240-720	76493	2-123	A7A13L2	
917300234	94668		A6A26MP13	97245NP	73734		H1	
917300234	94668		A6A26MP14	97245NP	73734		H2	
917300234	94668		A6A27MP18	97245NP	73734		H4	
917300234	94668		A6A27MP19	9782	74545		A1P1	
917600093	00141		A6A27MP7	99-4330	44655	2-16	A6A1R4	
917900016	72962		A6MP21	99-4330	44655	2-16	A6A1R5	
918300023	94668		A4MP6	99-4330	44655	2-18	A6A2R4	
918400013	21938		A5E23	99-4330	44655	2-18	A6A2R5	
918600039	73734		E2	99-4330	44655	2-18	A6A2R6	
919300017	946P8		A71P19	99-4337	44655	2-20(1)	A6A3R4	
919300017	94668		A7MP20	99-4337	44655	2-20(1)	A6A3R15	
919300017	94668		A7MP21	99-4337	44655	2-90	A5A12R3	
919300017	94668		A7MP22	99-4530	44655	2-3	A6R2	
919500314	94668		A5MP36	99-4530	44655	2-3	A6R3	
919500323	94668		A5MP35	99-4530	44655	2-3	A6R4	
919500323	94668		A6MP12	99-4530	44655	2-3	A6RS	
919500323	94668		A7MP23					

**SECTION IV INDEX REFERENCE DESIGNATION
CROSS REFERENCE TO PAGE NUMBER**

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	FIGURE DESIGNATION	PAGE NUMBER
E1	B-44	A1MP12	B-71	A2W1P2	B-67
E2	B-61	A1MP13	B-71	A2A1	B-67
E7	B-61	A1MP14	B-70	A2A1C1	B-67
E45	B-61	A1MP15	B-70	A2A1C2	B-67
H1	B-24	A1MP16	B-70	A2A1C3	B-67
H2	B-5	A1MP17	B-70	A2A1C4	B-68
H3	B-20	A1MP18	B-70	A2A1C5	B-68
H4	B-8	A1MP19	B-70	A2A1C6	B-68
H3	B-61	A1MP20	B-71	A2A1C7	B-68
H6	B-41	A1MP21	B-71	A2A1C8	B-68
H8	B-95	A1MP22	B-71	A2A1C9	B-67
H12	B-12	A1MP23	B-71	A2A1E1	B-68
H16	B-12	A1MP24	B-71	A2A1MP1	B-68
H36	B-42	A1MP25	B-70	A2A1MP2	B-68
H52	B-79	A1MP26	B-70	A2A1MP3	B-68
A1	B-69	A1MP27	B-70	A2A1Q1	B-69
A1B1	B-70	A1MP28	B-71	A2A1Q2	B-69
A1CP1	B-70	A1P1	B-70	A2A1Q3	B-69
A1J1	B-70	A1W1	B-70	A2A1Q4	B-69
A1J2	B-70	A1W1E1	B-70	A2A1Q5	B-69
A1MP1	B-71	A1W1E2	B-70	A2A1Q6	B-69
A1MP2	B-70	A1W2	B-70	A2A1R1	B-68
A1MP3	B-70	A2	B-67	A2A1R2	B-68
A1MP4	B-70	A2MP1	B-69	A2A1R3	B-68
A1MP5	B-71	A2MP2	B-69	A2A1R4	B-68
A1MP6	B-70	A2MP3	B-67	A2A1R5	B-68
A1MP7	B-70	A2MP4	B-69	A2A1R6	B-68
A1MP8	B-70	A2MP5	B-69	A2A1R7	B-68
A1MP9	B-70	A2W1	B-67	A2A1R8	B-68
A1MP10	B-70	A2W1P1	B-67	A2A1R9	B-68
A1MP11	B-70			A2A1R10	B-68
				A2A1R11	B-68

SECTION IV INDEX-REFERENCE DESIGNATION CROSS REFERENCE TO PAGE NUMBER (CONTINUED)

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	FIGURE DESIGNATION	PAGE NUMBER
A2A1R12	B-68	A5C3	B-40	A5E37	B-62
A2A1R13	B-68	A5C4	B-40	A5E38	B-62
A2A1R14	B-68	A5C5	B-40	A5E39	B-62
A2A1R15	B-68	A5C7	B-40	A5E40	B-62
A2A1R16	B-68	ASCP1	B-40	A5E41	B-62
A2A1R17	B-68	A5CP1J1	B-40	A5E42	B-62
A2A1S1	B-68	A5DS1	B-44	A5E43	B-62
A2A1S2	B-69	A5DS21	B-45	A5E44	B-42
A3	B-5	A5DS22	B-45	A5E45	B-42
A3J1	B-5	A5E1	B-44	A5E46	B-62
A3MP1	B-5	A5E2	B-39	A5F1	B-43
A3MP2	B-5	A5E3	B-39	A5F2	B-43
A3MP3	B-5	A5E4	B-39	A5FL1	B-42
A4	B-69	A5E19	B-61	A5FL2	B-42
A4E1	B-69	A5E20	B-54	A5J1A	B-41
A4E2	B-69	A5E21	B-54	A5J1B	B-41
AZE3	B-69	A5E22	B-54	A5J2A	B-41
A4E4	B-69	A5E23	B-61	A5J2B	B-41
A4E5	B-69	A5E24	B-61	A5J3A	B-41
A4E6	B-69	A5E25	B-61	A5J3B	B-41
A4MP1	B-69	A5E26	B-61	A5J4A	B-41
A4MP2	B-69	A5E27	B-61	A5J4B	B-41
A4MP3	B-69	A5E28	B-61	A5J5A	B-41
A4MP4	B-69	A5E29	B-62	A5J5B	B-41
A4MP5	B-69	A5E30	B-62	A5J6A	B-41
A4MP6	B-69	A5E31	B-62	A5J6B	B-41
A5	B-36	A5E32	B-62	A5J7A	B-41
A5AT1	B-36	A5E33	B-62	A5J7B	B-41
A5AT2	B-36	A5E34	B-62	A5J8A	B-41
A5C1	B-40	A5E35	B-62	A5J8B	B-41
A5C2	B-40	A5E36	B-62	A5J9A	B-41

SECTION IV INDEX-REFERENCE DESIGNATION CROSS REFERENCE TO PAGE NUMBER (CONTINUED)

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	FIGURE DESIGNATION	PAGE NUMBER
A5J9B	B-41	A5MP35	B-53	A5W7P2	B-40
A5J10	B-41	A5MP36	B-53	A5W8	B-40
A5J11	B-41	A5P1	B-40	A5W8P1	B-40
A5J12	B-41	A5Q1	B-67	A5W8P2	B-40
A5J13	B-41	A5R1	B-55	A5W9	B-40
A5J23A	B-44	A5R2	B-54	A5W9P1	B-40
A5J23B	B-44	A5R3	B-55	A5W9P2	B-40
A5J24	B-40	ASR4	B-55	A5XF1	B-44
A5J25	B-40	A5R5	B-54	A5XF2	B-44
A5J26	B-40	A5R6	B-54	A5XQ1	B-61
A5J27	B-40	A5S1	B-61	A5A1	B-64
A5J28	B-41	A5S2	B-61	A5A1C1	B-65
A5J28A	B-41	A5S3	B-61	A5A1C2	B-64
A5J29	B-41	A5S4	B-61	A5A1C3	B-65
A5J29A	B-41	A5S5	B-61	A5A1C4	B-65
A5L1	B-40	A5S6	B-61	A5A1C5	B-65
A5L7	B-40	A5S7	B-61	A5A1C6	B-65
A5M1	B-52	A5T1	B-67	A5A1C7	B-65
A5MP1	B-59	A5W1	B-39	A5A1C8	B-65
A51P2	B-59	ASW1P1	B-39	A5A1C9	B-65
A5MP5	B-42	A5W1P2	B-39	A5A1C10	B-65
A5MP6	B-42	A5W2	B-39	A5A1C11	B-65
A51P7	B-44	A5W2P1	B-39	A5A1C12	B-65
A5MP8	B-44	A5W2P2	B-39	A5A1C13	B-65
A5MP9	B-44	A5W3	B-39	A5A1C14	B-65
A5MP10	B-44	A5W4	B-39	A5A1C15	B-65
A5MP11	B-44	A5W4J1	B-39	A5A1CRI	B-67
A5MP12	B-44	A5W5	B-39	A5A1CR2	B-67
A5MP13	B-44	A5W5J1	B-39	A5A1E2	B-65
A5MP14	B-45	A5W7	B-39	A5A1E3	B-65
A5MP15	B-67	A5W7P1	B-39	A5A1E4	B-65

SECTION IV INDEX-REFERENCE DESIGNATION CROSS REFERENCE TO PAGE NUMBER (CONTINUED)

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	FIGURE DESIGNATION	PAGE NUMBER
A5A1E5	B-65	A5A1R22	B-65	A5A2L3	B-42
A5A1E6	B3-65	A5A123	B-65	A5A2L4	B-42
A5A1L1	B-65	A5A1R24	B-65	A5A2L5	B-43
A5A1L2	B-65	A5A1R25	B-66	A5A2L6	B-43
A5A1L3	B-65	A5A1R26	B-65	A5A2L7	B-43
A5A1Q1	B-67	A5A1R27	B-66	A5A2L8	B-42
A5A1Q2	B-67	A5A1R28	B-67	A5A2Q1	B-43
A5A1Q3	B-67	A5A1R29	B-66	A5A2Q2	B-43
A5A1Q4	B-67	A5A1R30	B-66	A5A2R1	B-43
A5A1Q5	B-67	A5A1R31	B-66	A5A2R2	B-43
A5A1R1	B-66	A5A1R32	B-66	A5A2R3	B-43
A5A1R2	B-66	A5A1T1	B-67	A5A2R4	B-43
A5A1R3	B-66	A5A1Y1	B-65	A5A2R5	B-43
A5A1R4	B-66	A5A2	B-42	A5A2R6	B-43
A5A1R5	B-66	A5A2C1	B-42	A5A2R7	B-43
A5A1R6	B-66	A5A2C2	B-42	A5A2R8	B-43
A5A1R7	B-66	A5A2C3	B-42	A5A2R9	B-43
A5A1R8	B-67	A5A2C4	B-42	A5A2R10	B-43
A5A1R9	B-66	A5A2C5	B-42	A5A2R11	B-43
A5A1R10	B-66	A5A2C6	B-42	A5A2R12	B-43
A5A1R11	B-66	A5A2C7	B-42	A5A2R13	B-43
A5A1R12	B-66	A5A2C8	B-42	A5A2RT1	B-43
A5A1R13	B-67	A5A2C9	B-42	A5A2A1	B-43
A5A1R14	B-66	A5A2C10	B-42	A5A3	B-45
A5A1R15	B-66	A5A2C11	B-42	A5A3C1	B-45
A5A1R16	B-66	A5A2E1	B-43	A5A3C2	B-45
A5A1R17	B-66	A5A2E2	B-43	A5A3C3	B-45
A5A1R18	B-66	A5A2E3	B-43	A5A3C4	B-45
A5A1R19	B-66	A5A2J1	B-43	A5A3C5	B-45
A5A1R20	B-66	A5A2L1	B-43	A5A3C6	B-45
A5A1R21	B-66	A5A2L2	B-42	A5A3C7	B-45

SECTION IV INDEX-REFERENCE DESIGNATION CROSS REFERENCE TO PAGE NUMBER (CONTINUED)

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	FIGURE DESIGNATION	PAGE NUMBER
A5A3C8	B-45	A5A3R4	B-46	A5A4C6	B-56
A5A3C9	B-45	A5A3R5	B-46	A5A4C7	B-57
A5A3C10	B-4	A5A3R6	B-46	A5A4C8	B-57
A5A3C11	B-45	A5A3R7	B-46	A5A4C9	B-57
A5A3C12	B-45	A5A3R8	B-46	A5A4010	B-57
A5A3C13	B-45	A5A3R9	B-47	A5A4C11	B-57
A5A3C14	B-45	A5A3R10	B-46	A5A4C12	B-57
A5A3C15	B-45	A5A3R11	B-46	A5A4C13	B-56
A5A3CR1	B-47	A5A3R12	B-46	AA4C14	B-56
A5A3CR2	B-47	A5A3R13	B-46	A5A4C16	B-57
A5A3CR3	B-47	A5A3R14	B-46	A5A4C17	B-56
A5A3E2	B-45	A5A3R15	B-46	A5A4C18	B-56
A5A3E3	B-45	A5A3R16	B-46	A5A4C19	B-56
A5A3E4	B-45	A5A3R17	B-46	A5A4C20	B-57
A5A3E5	B-45	A5A3R18	B-46	A5A4C21	B-57
A5A3E6	B-45	A5A3R19	B-46	A5A4CR1	B-58
A5A3E7	B-46	A5A3R20	B-46	A5A4CR2	B-58
A5A3E8	B-46	A5A3R21	B-46	A5A4CR3	B-58
A5A3L1	B-45	A5A3R22	B-46	A5A4E2	B-37
A5A3L2	B-45	A5A3R23	B-46	A5A4E3	B-57
A5A3L3	B-45	A5A3R24	B-46	A5A4E4	B-57
A5A3Q1	B-47	A5A3R25	B-46	A5A4E5	B-57
A5A3Q2	B-47	A5A3R26	B-46	A5A4E6	B-57
A5A3Q3	B-47	A5A3RZ7	B-47	A5A4L1	B-57
A5A3Q4	B-47	A5A3R28	B-47	A5A4L2	B-57
A5A3Q5	B-47	A5A4	B-56	A5A4L3	B-57
A5A3Q6	B-47	A5A4C1	B-57	A5A4L4	B-57
A5A3Q7	B-47	A5A4C2	B-56	A5A4Q2	B-59
A5A3R1	B-46	A5A4C3	B-56	A5A4Q3	B-59
A5A3R2	B-46	A5A4C4	B-57	A5A4Q4	B-59
A5A3R3	B-46	A5A4C5	B-57	A5A4Q5	B-59

SECTION IV INDEX-REFERENCE DESIGNATION CROSS REFERENCE TO PAGE NUMBER (CONTINUED)

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	FIGURE DESIGNATION	PAGE NUMBER
A5A4Q6	B-59	A5A4Y1	B-57	A5A5R3	B-56
A5A4R1	B-58	A5A5	B-55	A5A5R6	B-56
A5A4R2	B-58	A5A5C1	B-55	A5A5R7	B-56
A5A4R3	B-58	A5AC2	B-55	A5A5R8	B-56
A5A4R4	B-58	A5A5C3	B-55	A5A5R9	B-56
A5A4R6	B-58	A5A5C4	B-55	A5A5R10	B-56
A5A4R7	B-58	A5A5C5	B-55	A5A5R11	B-56
A5A4R8	B-58	A5A5C6	B-55	A5A5R12	B-56
A5A4R9	B-57	A5A5C7	B-55	A5A5R13	B-56
A5A4R10	B-57	A5A5C8	B-55	A5A5R14	B-56
A5A4R11	B-58	A5A5C9	B-55	A5A6	B-62
A5A4R12	B-58	A5A5C10	B-55	A5A6C1	B-62
A5A4R13	B-58	A5A5C11	B-55	A5A6C2	B-62
A5A4R14	B-58	A5A5C12	B-55	A5A6C3	B-63
A5A4R15	B-58	A5A5C13	B-55	A5A6C4	B-63
A5A4R16	B-58	A5A5C14	B-55	A5A6C5	B-63
A5A4R17	B-58	A5A5C15	B-55	A5A6C6	B-63
A5A4R18	B-58	A5A5C16	B-55	A5A6C7	B-63
A5A4R19	B-58	A5A5C17	B-55	A5A6C8	B-63
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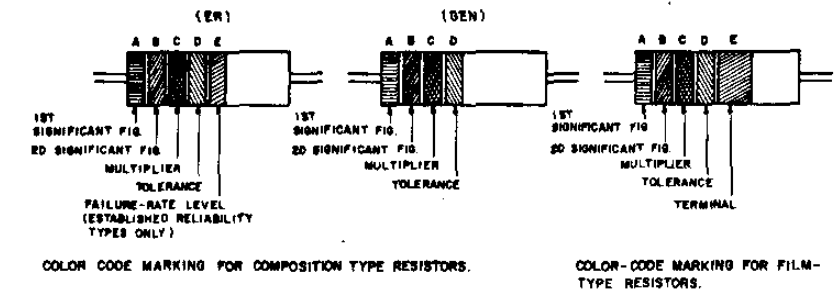
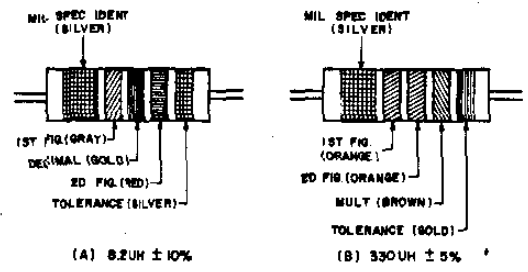
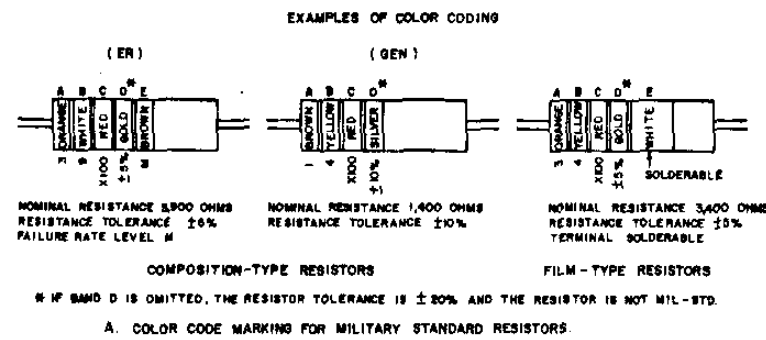


TABLE 1
COLOR CODE FOR COMPOSITION TYPE AND FILM TYPE RESISTORS.

BAND A		BAND B		BAND C		BAND D		BAND E	
COLOR	FIRST SIGNIFICANT FIGURE	COLOR	SECOND SIGNIFICANT FIGURE	COLOR	MULTIPLIER	COLOR	RESISTANCE TOLERANCE (PERCENT)	COLOR	FAILURE RATE LEVEL
BLACK	0	BLACK	0	BLACK	1	BROWN	±10 (COMP. TYPE ONLY)	BROWN	M=1.0
BROWN	1	BROWN	1	BROWN	10	RED	±5	RED	P=0.1
RED	2	RED	2	RED	100	ORANGE	±2 (NOT APPLICABLE TO ESTABLISHED RELIABILITY)	ORANGE	R=0.01
ORANGE	3	ORANGE	3	ORANGE	1,000	YELLOW		YELLOW	S=0.001
YELLOW	4	YELLOW	4	YELLOW	10,000	SILVER		WHITE	
GREEN	5	GREEN	5	GREEN	100,000	GOLD			
BLUE	6	BLUE	6	BLUE	1,000,000	RED			
PURPLE (VIOLET)	7	PURPLE (VIOLET)	7						
GRAY	8	GRAY	8	SILVER	0.01				
WHITE	9	WHITE	9	GOLD	0.1				

BAND A — THE FIRST SIGNIFICANT FIGURE OF THE RESISTANCE VALUE (BANDS A THRU D SHALL BE OF EQUAL WIDTH.)
 BAND B — THE SECOND SIGNIFICANT FIGURE OF THE RESISTANCE VALUE.
 BAND C — THE MULTIPLIER (THE MULTIPLIER IS THE FACTOR BY WHICH THE TWO SIGNIFICANT FIGURES ARE MULTIPLIED TO YIELD THE NOMINAL RESISTANCE VALUE.)
 BAND D — THE RESISTANCE TOLERANCE.
 BAND E — WHEN USED ON COMPOSITION RESISTORS, BAND E INDICATES ESTABLISHED RELIABILITY FAILURE-RATE LEVEL (PERCENT FAILURE PER 1,000 HOURS) ON FILM RESISTORS, THIS BAND SHALL BE APPROXIMATELY 1/2 TIMES THE WIDTH OF OTHER BANDS, AND INDICATES TYPE OF TERMINAL.
 RESISTANCES IDENTIFIED BY NUMBERS AND LETTERS (THERE ARE NOT COLOR CODED).
 SOME RESISTORS ARE IDENTIFIED BY THREE OR FOUR DIBIT ALPHA NUMERIC DESIGNATORS. THE LETTER R IS USED IN PLACE OF A DECIMAL POINT WHEN FRACTIONAL VALUES OF AN OHM ARE EXPRESSED. FOR EXAMPLE:
 RRT = 2.7 OHMS 10R0 = 10.0 OHMS
 FOR WIRE-WOUND-TYPE RESISTORS COLOR CODING IS NOT USED, IDENTIFICATION MARKING IS SPECIFIED IN EACH OF THE APPLICABLE SPECIFICATIONS.



COLOR CODING FOR TUBULAR ENCAPSULATED R.F. CHOKES. AT A, AN EXAMPLE OF THE CODING FOR AN 8.2UH CHOKER IS GIVEN. AT B, THE COLOR BANDS FOR A 330UH INDUCTOR ARE ILLUSTRATED.

TABLE 2
COLOR CODING FOR TUBULAR ENCAPSULATED R.F. CHOKES.

COLOR	SIGNIFICANT FIGURE	MULTIPLIER	INDUCTANCE TOLERANCE (PERCENT)
BLACK	0	1	
BROWN	1	10	1
RED	2	100	2
ORANGE	3	1,000	3
YELLOW	4		
GREEN	5		
BLUE	6		
VIOLET	7		
GRAY	8		
WHITE	9		
NONE		20	
SILVER		10	
GOLD		DECIMAL POINT	5

MULTIPLIER IS THE FACTOR BY WHICH THE TWO COLOR FIGURES ARE MULTIPLIED TO OBTAIN THE INDUCTANCE VALUE OF THE CHOKER COIL.

CAPACITORS, FIXED, VARIOUS-DIELECTRICS, STYLES CM, CN, CY, AND CB.

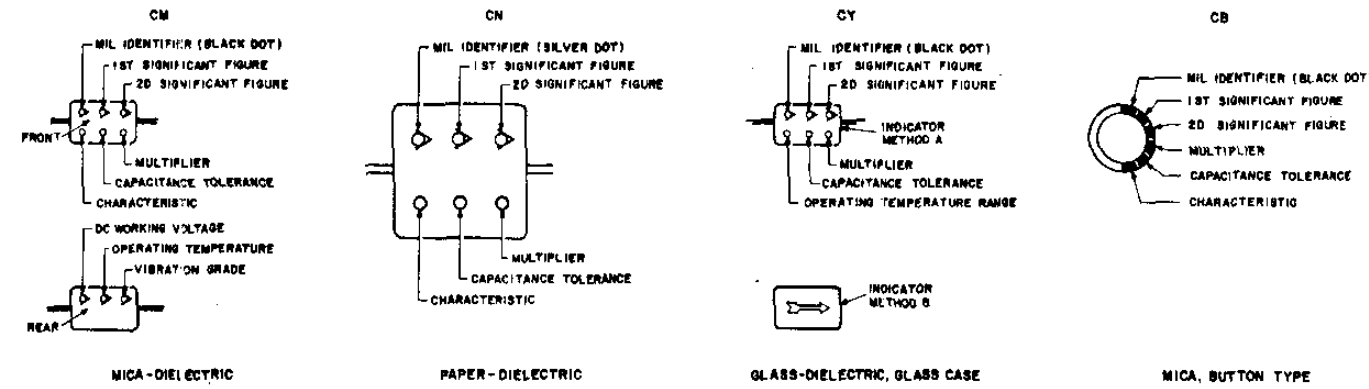


TABLE 3 — FOR USE WITH STYLES CM, CN, CY AND CB.

COLOR	MIL ID	1ST SIG FIG	2D SIG FIG	MULTIPLIER	CAPACITANCE TOLERANCE				CHARACTERISTIC	DC WORKING VOLTAGE	OPERATING TEMP RANGE	VIBRATION GRADE
					CM	CN	CY	CB				
BLACK	CM, CN, CY, CB	0	0	1			±20%	±20%	A		-55° TO +70°C	10-56HZ
BROWN		1	1	10					B	E		
RED		2	2	100	±2%		±2%	±2%	C			
ORANGE		3	3	1,000	±30%				D	D	300	
YELLOW		4	4	10,000					E			
GREEN		5	5		±5%				F		500	
BLUE		6	6									
PURPLE (VIOLET)		7	7									
GREY		8	8									
WHITE		9	9									
GOLD				0.1			±5%	±5%				
SILVER	CN				±10%	±10%	±10%	±10%				

TABLE 4 — TEMPERATURE COMPENSATING, STYLE CC.

COLOR	TEMPERATURE COEFFICIENT ¹	1ST SIG FIG	2D SIG FIG	MULTIPLIER ¹	CAPACITANCE TOLERANCE		MIL ID
					CAPACITANCES OVER 10 UUF	CAPACITANCES 10 UUF OR LESS	
BLACK	0	0	0	1		±2.0 UUF	CC
BROWN	-30	1	1	10	±1%		
RED	-80	2	2	100	±2%	±0.25 UUF	
ORANGE	-100	3	3	1,000			
YELLOW	-220	4	4				
GREEN	-330	5	5		±5%	±0.5 UUF	
BLUE	-470	6	6				
PURPLE (VIOLET)	-780	7	7				
GREY		8	8	0.01			
WHITE		9	9	0.1	±10%		
GOLD	+100					±1.0 UUF	
SILVER							

- THE MULTIPLIER IS THE NUMBER BY WHICH THE TWO SIGNIFICANT (SIG) FIGURES ARE MULTIPLIED TO OBTAIN THE CAPACITANCE IN UUF.
- LETTERS INDICATE THE CHARACTERISTICS DESIGNATED IN APPLICABLE SPECIFICATIONS: MIL-C-5, MIL-C-250, MIL-C-1127B, AND MIL-C-10950C RESPECTIVELY.
- LETTERS INDICATE THE TEMPERATURE RANGE AND VOLTAGE-TEMPERATURE LIMITS DESIGNATED IN MIL-C-11015D.
- TEMPERATURE COEFFICIENT IN PARTS PER MILLION PER DEGREE CENTIGRADE.

β. COLOR CODE MARKING FOR MILITARY STANDARD INDUCTORS.

C. COLOR CODE MARKING FOR MILITARY STANDARD CAPACITORS.

Figure 6-1. Color code marking for MIL STD resistors, inductors, and capacitors. (combined with fig. 6-2).

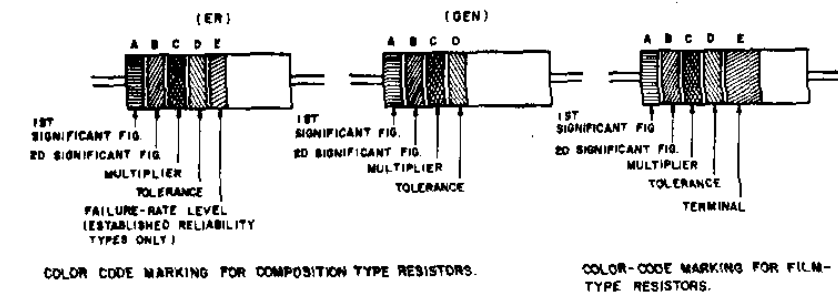
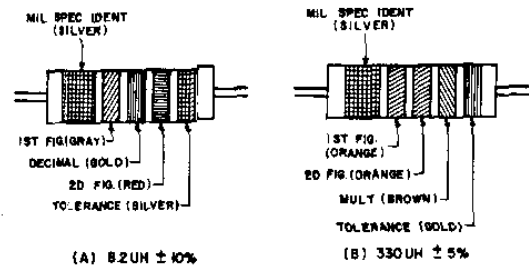
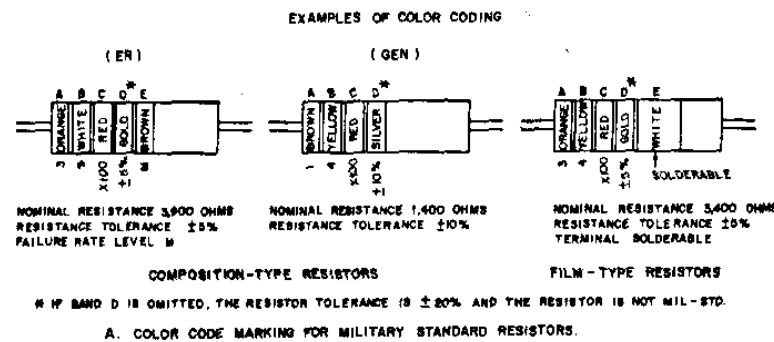


TABLE 1
COLOR CODE FOR COMPOSITION TYPE AND FILM TYPE RESISTORS.

BAND A		BAND B		BAND C		BAND D		BAND E	
COLOR	FIRST SIGNIFICANT FIGURE	COLOR	SECOND SIGNIFICANT FIGURE	COLOR	MULTIPLIER	COLOR	RESISTANCE TOLERANCE (PERCENT)	COLOR	FAILURE RATE LEVEL
BLACK	0	BLACK	0	BLACK	1	BROWN	±10 (COMP. TYPE ONLY)	BROWN	M=1.0
BROWN	1	BROWN	1	BROWN	10	RED	±2	RED	P=0.01
RED	2	RED	2	RED	100	ORANGE	±3	ORANGE	R=0.01
ORANGE	3	ORANGE	3	ORANGE	1,000	YELLOW	±4	YELLOW	S=0.001
YELLOW	4	YELLOW	4	YELLOW	10,000	SILVER	±10 (COMP. TYPE ONLY)	WHITE	
GREEN	5	GREEN	5	GREEN	100,000	GOLD	±5		SOLD-ENABLE
BLUE	6	BLUE	6	BLUE	1,000,000	RED	±2 (NOT APPLICABLE TO ESTABLISHED RELIABILITY)		
PURPLE (VIOLET)	7	PURPLE (VIOLET)	7						
GRAY	8	GRAY	8	SILVER	0.1				
WHITE	9	WHITE	9	GOLD	0.1				

BAND A — THE FIRST SIGNIFICANT FIGURE OF THE RESISTANCE VALUE (BANDS A THRU D SHALL BE OF EQUAL WIDTH.)
 BAND B — THE SECOND SIGNIFICANT FIGURE OF THE RESISTANCE VALUE.
 BAND C — THE MULTIPLIER (THE MULTIPLIER IS THE FACTOR BY WHICH THE TWO SIGNIFICANT FIGURES ARE MULTIPLIED TO YIELD THE NOMINAL RESISTANCE VALUE.)
 BAND D — THE RESISTANCE TOLERANCE.
 BAND E — WHEN USED ON COMPOSITION RESISTORS, BAND E INDICATES ESTABLISHED RELIABILITY FAILURE-RATE LEVEL (PERCENT FAILURE PER 1,000 HOURS) ON FILM RESISTORS, THIS BAND SHALL BE APPROXIMATELY 1-1/2 TIMES THE WIDTH OF OTHER BANDS, AND INDICATES TYPE OF TERMINAL RESISTANCES IDENTIFIED BY NUMBERS AND LETTERS (THERE ARE NOT COLOR CODED).
 SOME RESISTORS ARE IDENTIFIED BY THREE OR FOUR DIGIT ALPHA NUMERIC DESIGNATORS. THE LETTER R IS USED IN PLACE OF A DECIMAL POINT WHEN FRACTIONAL VALUES OF AN OHM ARE EXPRESSED. FOR EXAMPLE:
 R27 = 2.7 OHMS 10R0 = 10.0 OHMS

FOR WIRE-WOUND-TYPE RESISTORS COLOR CODING IS NOT USED. IDENTIFICATION MARKING IS SPECIFIED IN EACH OF THE APPLICABLE SPECIFICATIONS.



COLOR CODING FOR TUBULAR ENCAPSULATED R.F. CHOKES. AT A, AN EXAMPLE OF OF THE CODING FOR AN 8.2UH CHDKE IS GIVEN. AT B, THE COLOR BANDS FOR A 330UH INDUCTOR ARE ILLUSTRATED.

TABLE 2
COLOR CODING FOR TUBULAR ENCAPSULATED R.F. CHOKES.

COLOR	SIGNIFICANT FIGURE	MULTIPLIER	INDUCTANCE TOLERANCE (PERCENT)
BLACK	0	1	
BROWN	1	10	1
RED	2	100	2
ORANGE	3	1,000	3
YELLOW	4		
GREEN	5		
BLUE	6		
VIOLET	7		
GRAY	8		
WHITE	9		
NONE			±20
SILVER			±10
GOLD			±5

MULTIPLIER IS THE FACTOR BY WHICH THE TWO COLOR FIGURES ARE MULTIPLIED TO OBTAIN THE INDUCTANCE VALUE OF THE CHDKE COIL.

CAPACITORS, FIXED, VARIOUS-DIELECTRICS, STYLES CM, CN, CY, AND CB.

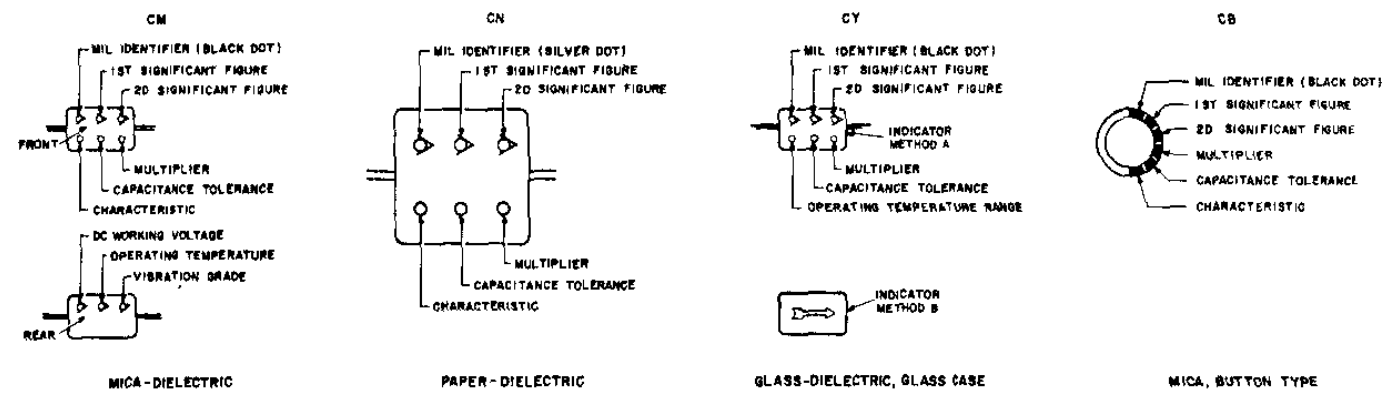


TABLE 3 - FOR USE WITH STYLES CM, CN, CY AND CB.

COLOR	MIL ID	1ST SIG FIG	2D SIG FIG	MULTIPLIER	CAPACITANCE TOLERANCE				CHARACTERISTIC			DC WORKING VOLTAGE	OPERATING TEMP RANGE	VIBRATION GRADE
					CM	CN	CY	CB	CM	CN	CB			
BLACK	CM, CN, CY, CB	0	0	1			±20%	±20%	A				-60° to +70°C	10-55 Hz
BROWN		1	1	10					B	E	B			
RED		2	2	100	±2%		±2%	±2%	C				-55° to +80°C	
ORANGE		3	3	1,000			±30%		D	D	D	300		
YELLOW		4	4	10,000					E				-55° to +125°C	10-2,000 Hz
GREEN		5	5		±5%				F			500		
BLUE		6	6										-55° to +150°C	
PURPLE (VIOLET)		7	7											
GREY		8	8											
WHITE		9	9											
GOLD				0.1				±5%	±5%					
SILVER	CN				±10%	±10%	±10%	±10%						

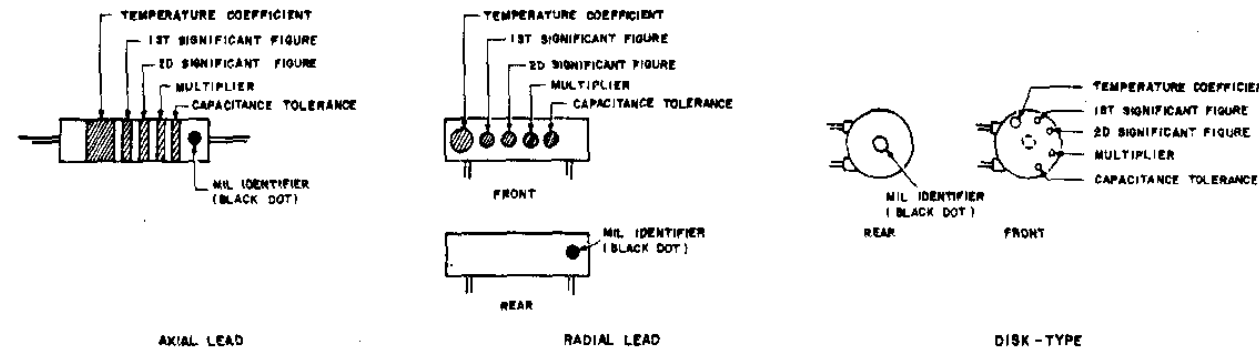
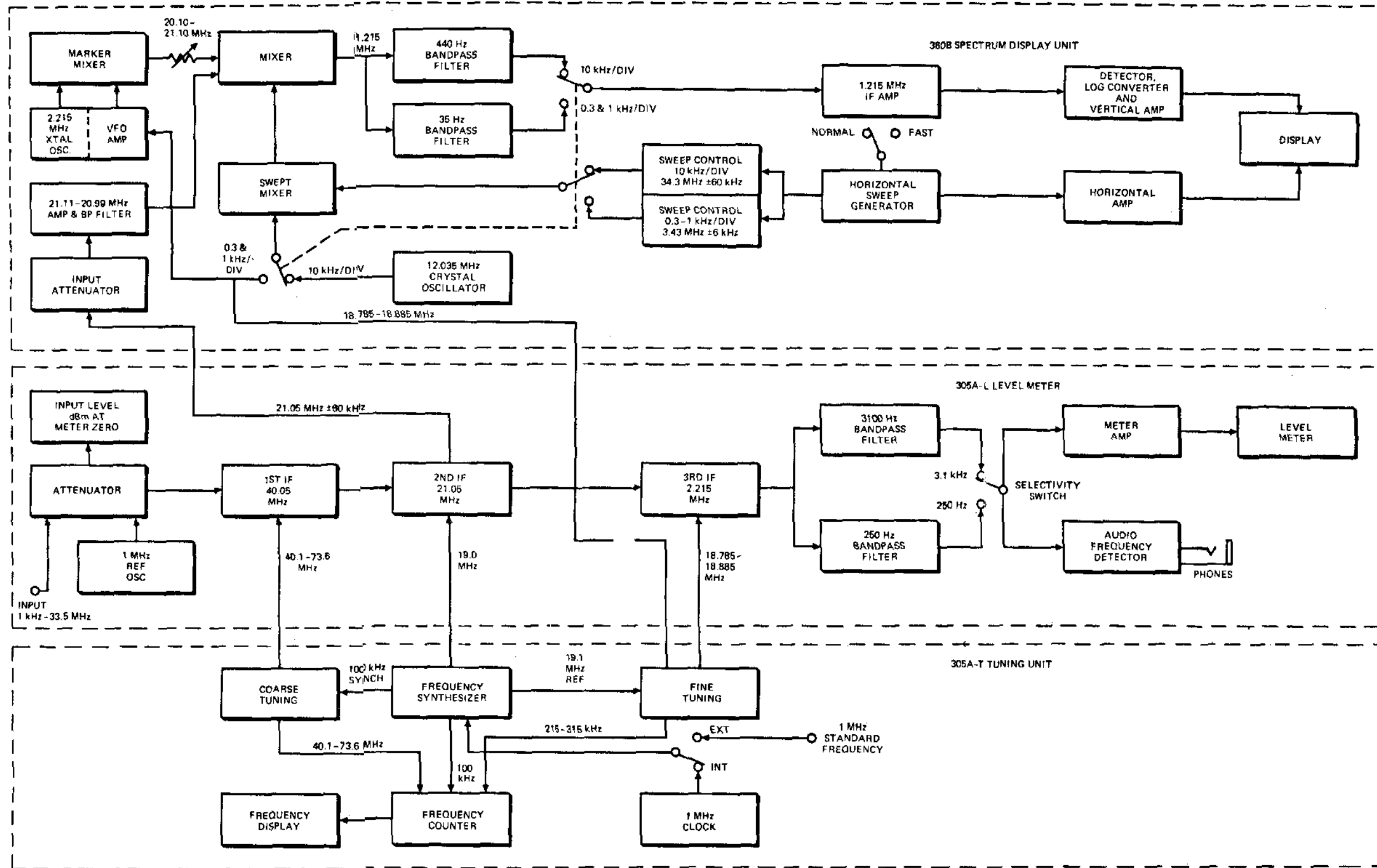


TABLE 4 - TEMPERATURE COMPENSATING, STYLE CC.

COLOR	TEMPERATURE COEFFICIENT	1ST SIG FIG	2D SIG FIG	MULTIPLIER	CAPACITANCE TOLERANCE		MIL ID
					CAPACITANCES OVER 10 UUF	CAPACITANCES 10 UUF OR LESS	
BLACK	0	0	0	1		±2.0 UUF	CC
BROWN	-50	1	1	10	±1%		
RED	-60	2	2	100	±2%	±0.25 UUF	
ORANGE	-100	3	3	1,000			
YELLOW	-220	4	4				
GREEN	-350	5	5		±5%	±0.5 UUF	
BLUE	-470	6	6				
PURPLE (VIOLET)	-750	7	7				
GREY		8	8	0.01			
WHITE		9	9	0.1	±10%		
GOLD	+100					±1.0 UUF	
SILVER							

1. THE MULTIPLIER IS THE NUMBER BY WHICH THE TWO SIGNIFICANT (SIG) FIGURES ARE MULTIPLIED TO OBTAIN THE CAPACITANCE IN UUF.
 2. LETTERS INDICATE THE CHARACTERISTICS DESIGNATED IN APPLICABLE SPECIFICATIONS: MIL-C-5, MIL-C-250, MIL-C-1127B, AND MIL-C-1080C RESPECTIVELY.
 3. LETTERS INDICATE THE TEMPERATURE RANGE AND VOLTAGE-TEMPERATURE LIMITS DESIGNATED IN MIL-C-11010.
 4. TEMPERATURE COEFFICIENT IN PARTS PER MILLION PER DEGREE CENTIGRADE.

Figure 6-2. Color code marking for MIL STD resistors, inductors, and capacitors. (combined with fig. 6-1).



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Figure 6-3. Functional block diagram, Test Set, Radio AN / USM-306(V)1.

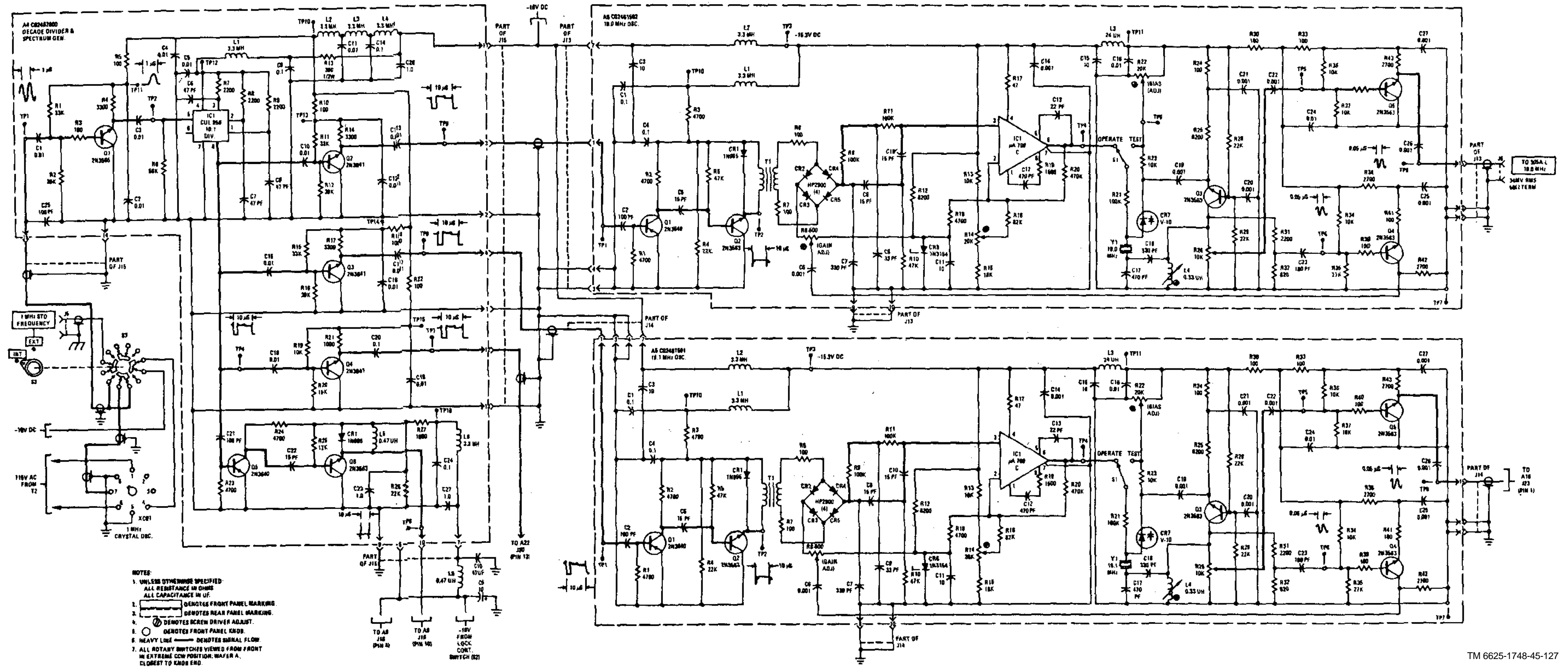


Figure 6-4. Frequency synthesizer, schematic diagram, Tuning Unit TN-527 / U.

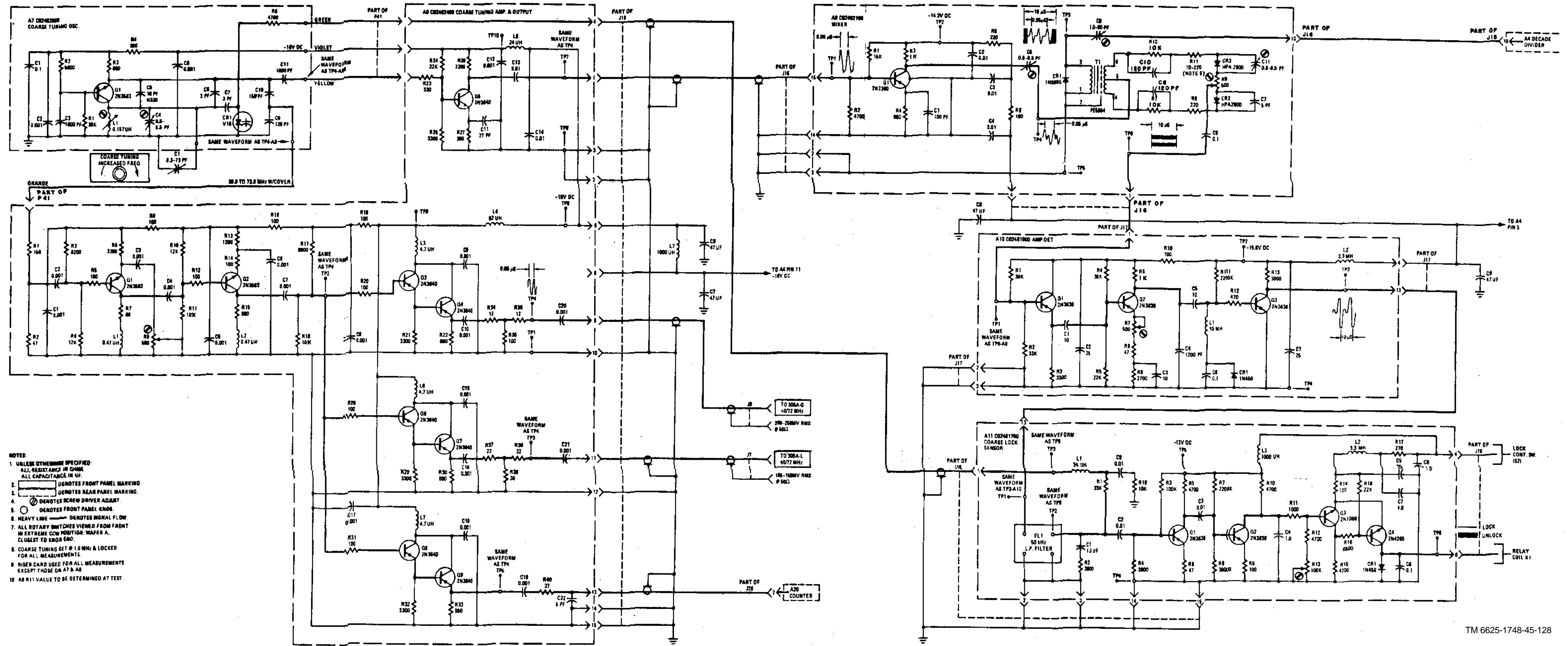
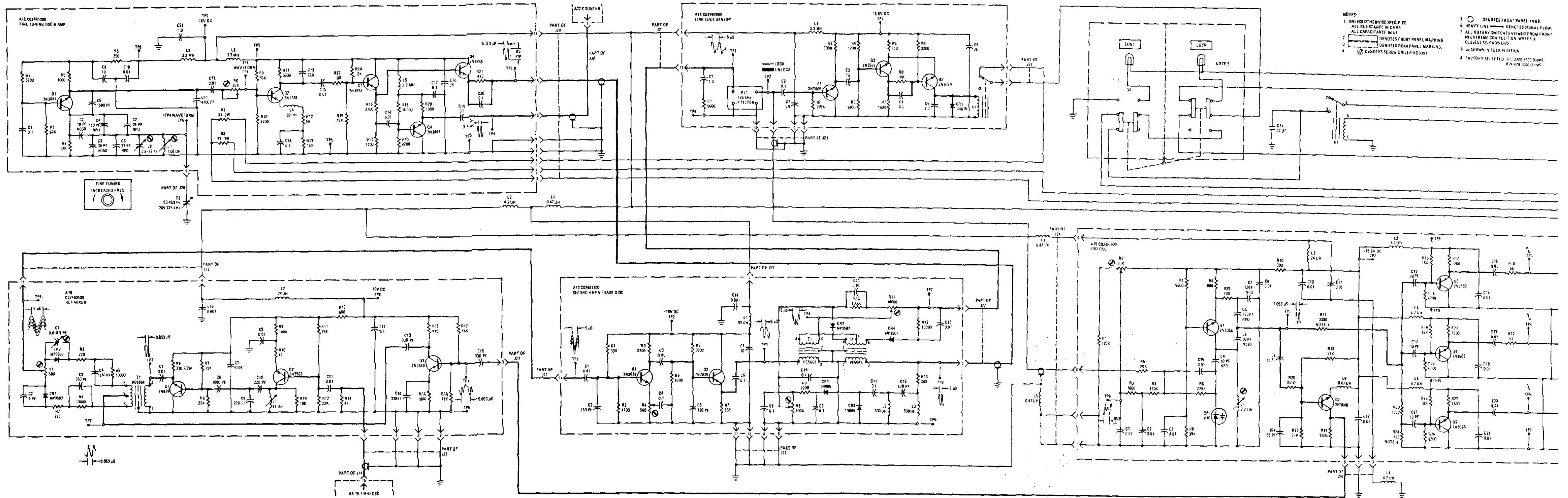


Figure 6-5. Coarse tuning oscillator, schematic diagram, Tuning Unit TN-527/U.



- NOTES
1. UNLESS OTHERWISE SPECIFIED ALL RESISTANCE IN OHMS ALL CAPACITANCE IN UF
 2. DENOTES FRONT PANEL MARKING
 3. DENOTES REAR PANEL MARKING
 4. DENOTES SCREW DRIVER ADJUST.
 5. ○ DENOTES FRONT PANEL KNOB
 6. HEAVY LINE — DENOTES SIGNAL FLOW
 7. ALL ROTARY SWITCHES VIEWED FROM FRONT IN EXTREME COUNTER POSITION WAFER A CLOSEST TO KNOB END
 8. S2 SHOWN IN LOCK POSITION
 9. FACTORY SELECTED R11 2700 500 OHMS R24 470 1000 OHMS

Figure 6-6. Fine tuning oscillator, schematic diagram, Tuning Unit TN-527/U

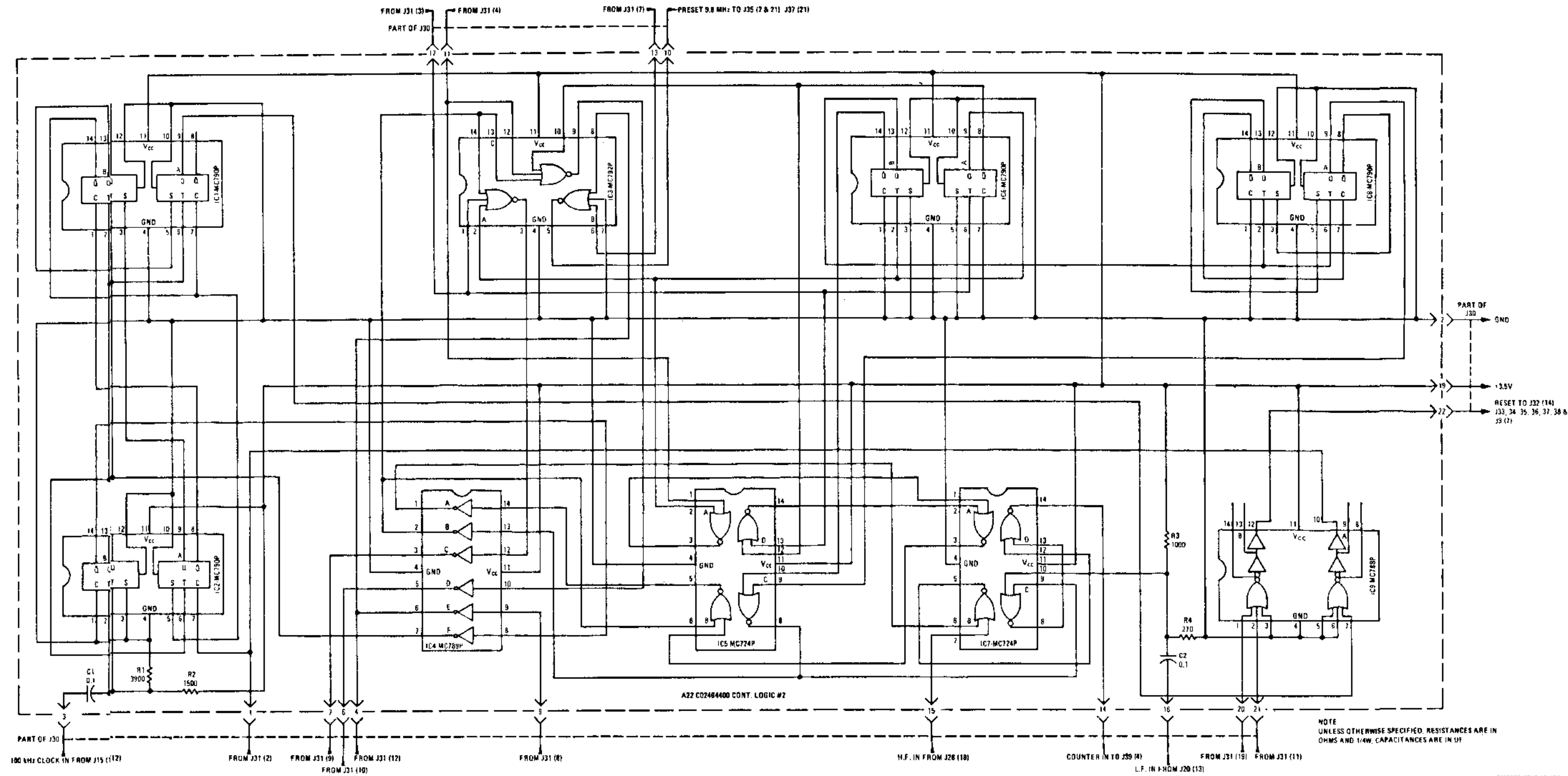


Figure 6-7. Control logic A22, schematic diagram, Tuning Unit TN-527/U.

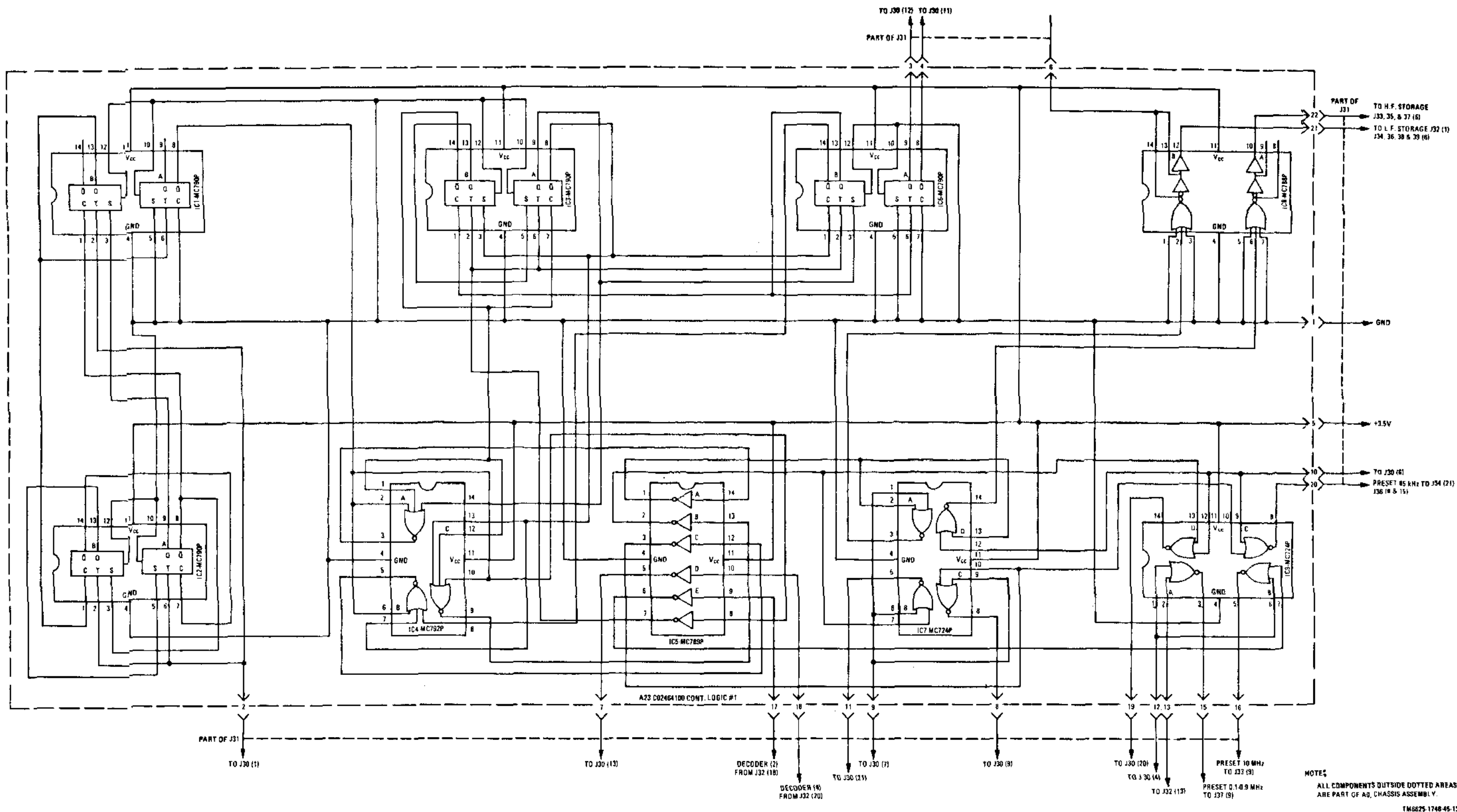


Figure 6-8. Control logic A23, schematic diagram, Tuning TN-527/U.

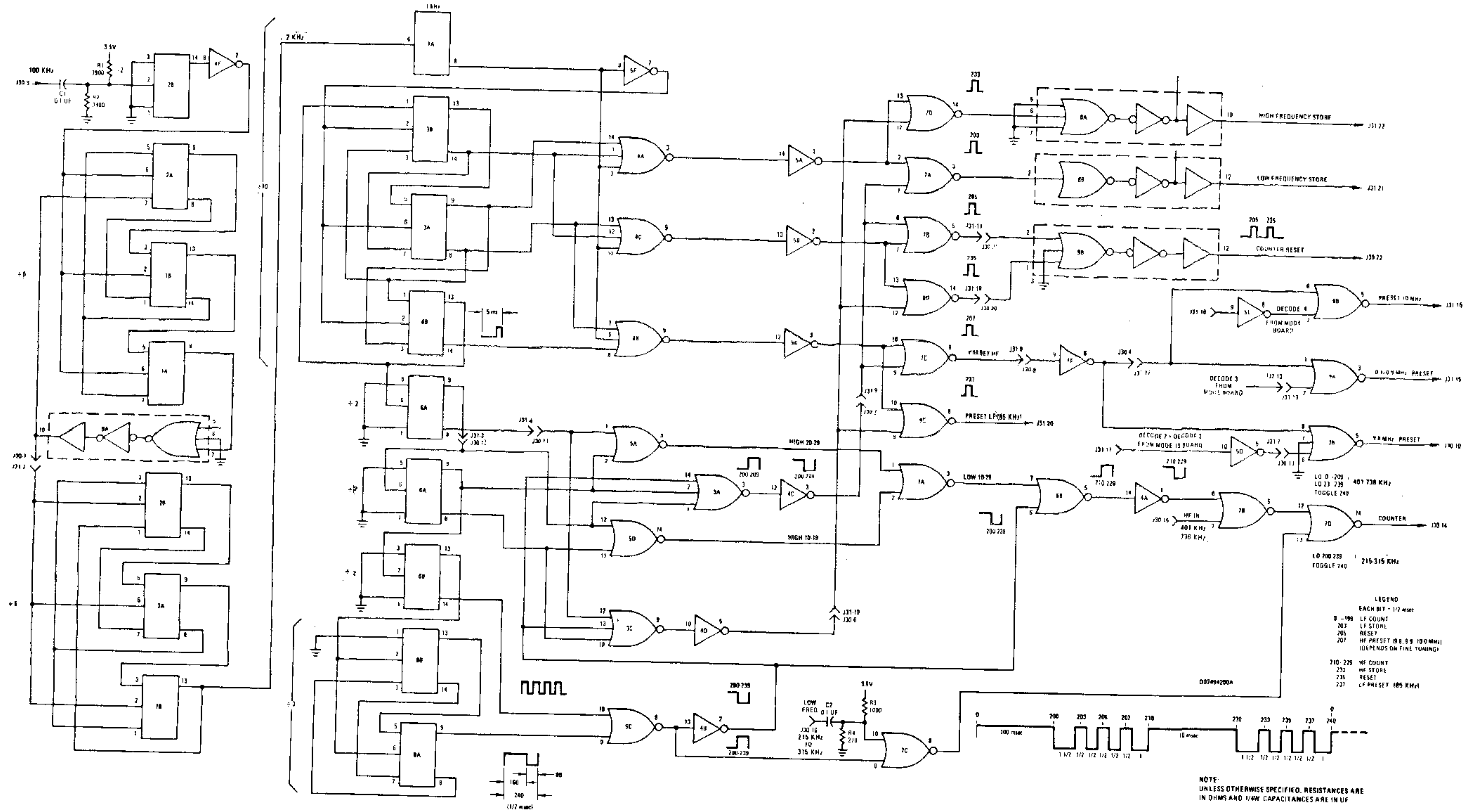
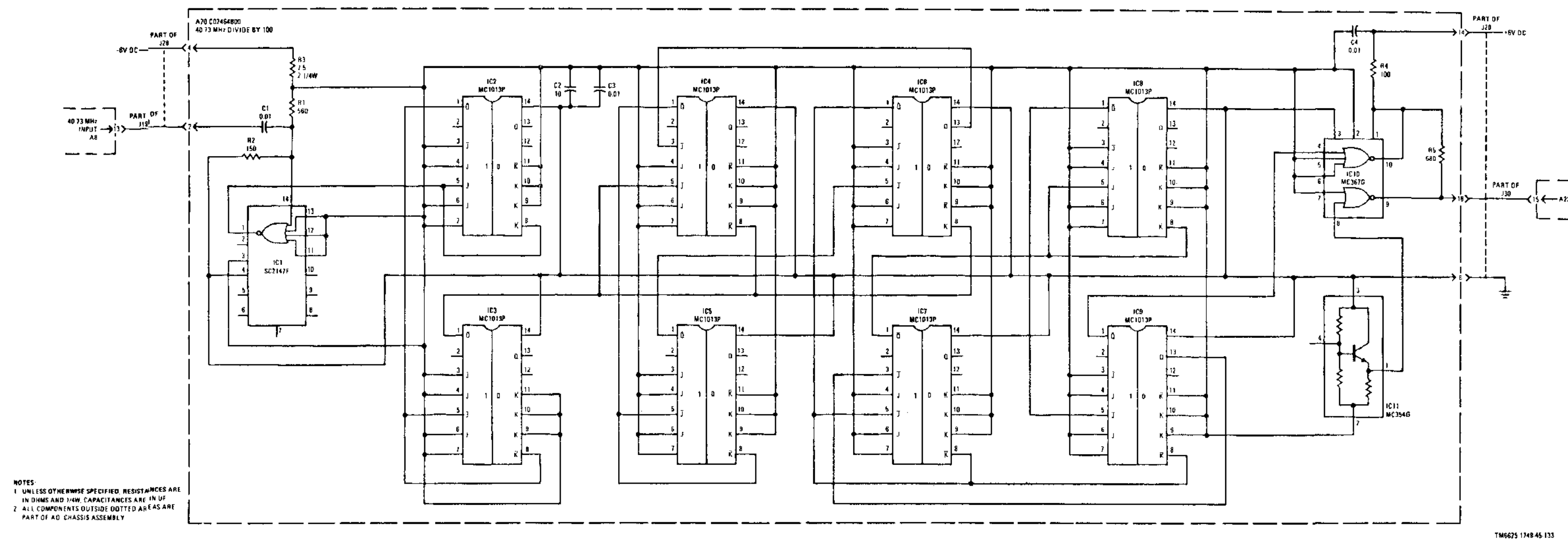


Figure 6-9. Gate counter logic diagram, Tuning Unit TN-527/U.



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Figure 6-10. Centenary divider, schematic diagram, Tuning Unit TN-527/U.

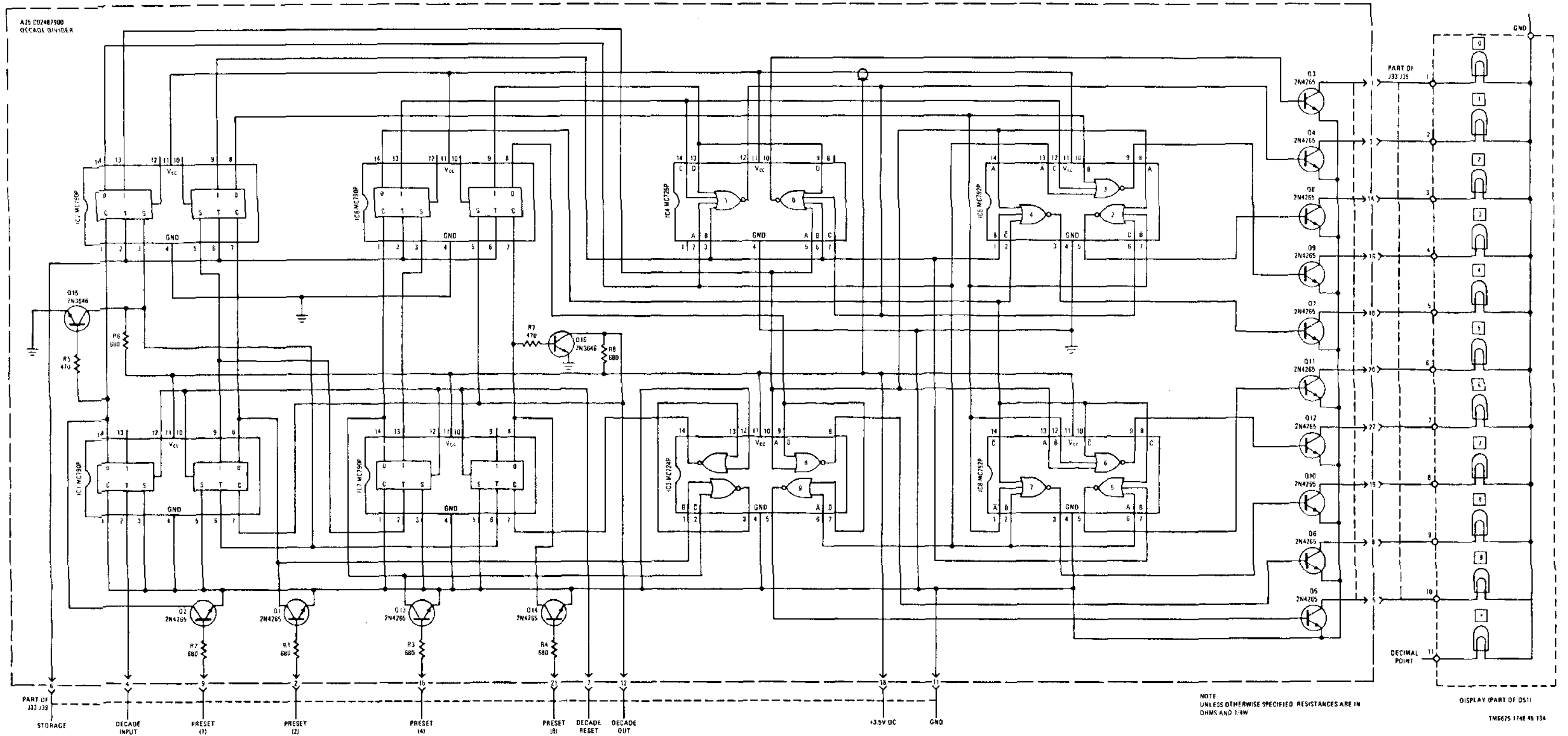


Figure 6-11. Decade divider, schematic diagram, Tuning Unit TN-527/U.

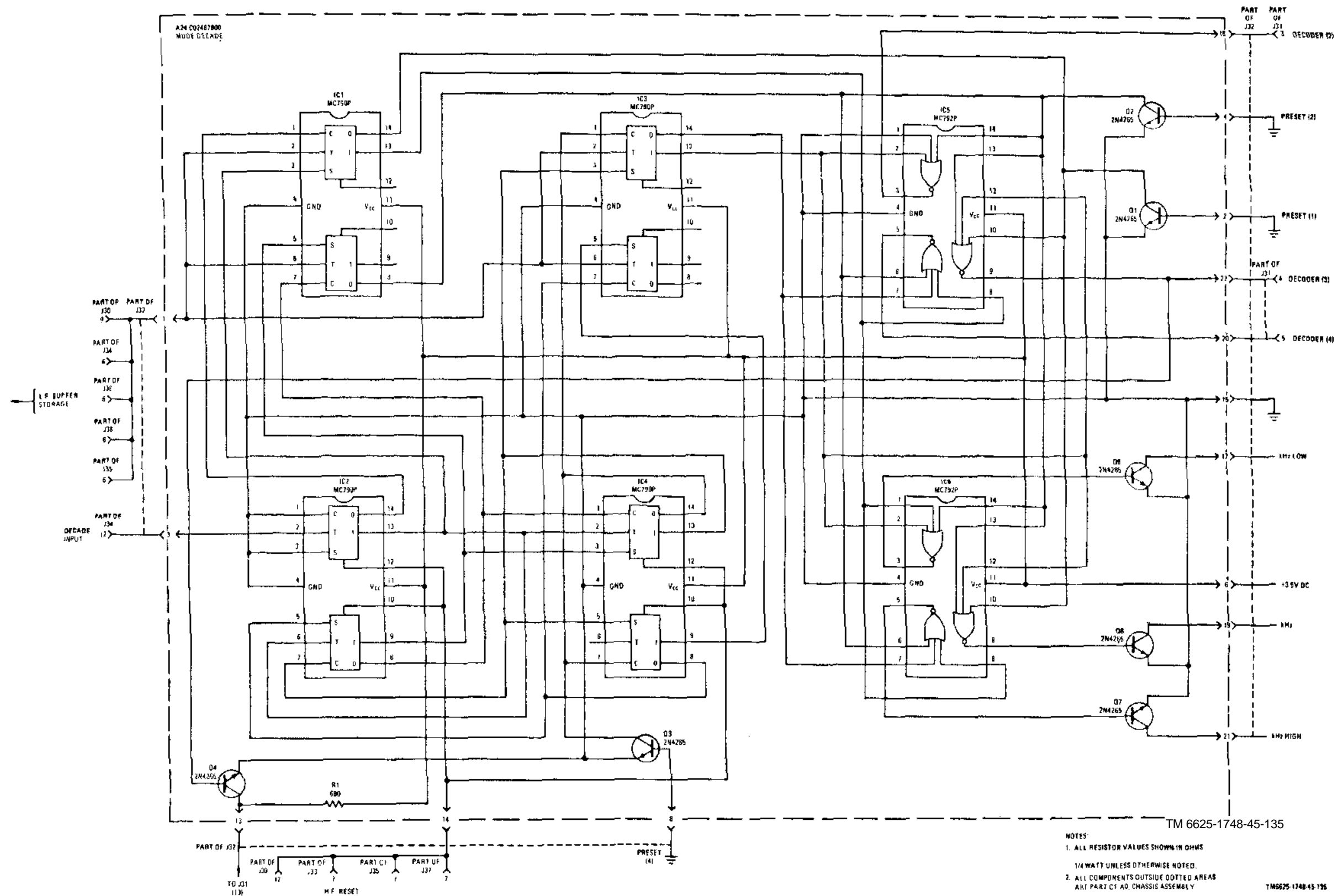


Figure 6-12. Mode decade, schematic diagram, Tuning Unit TN-527/U.

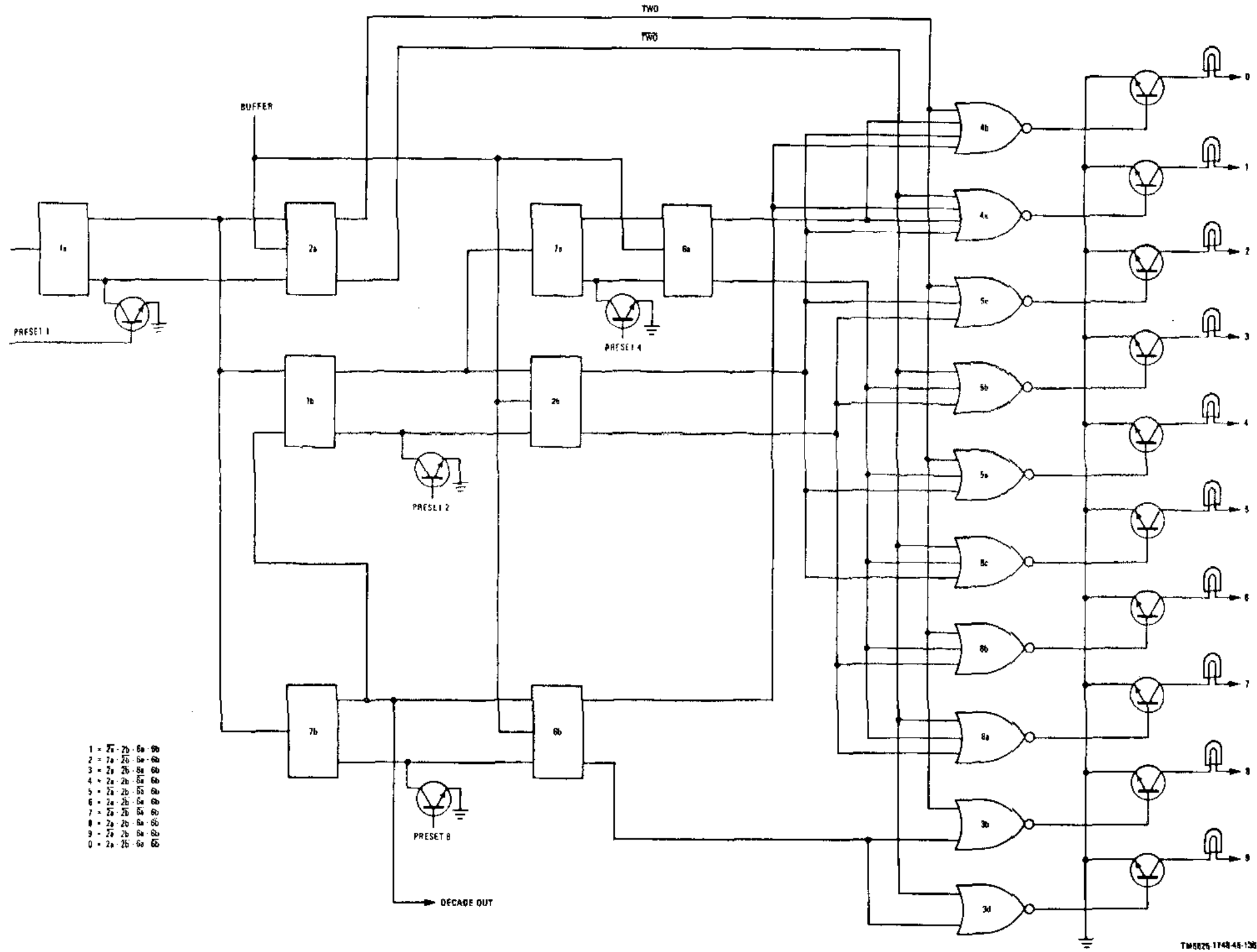
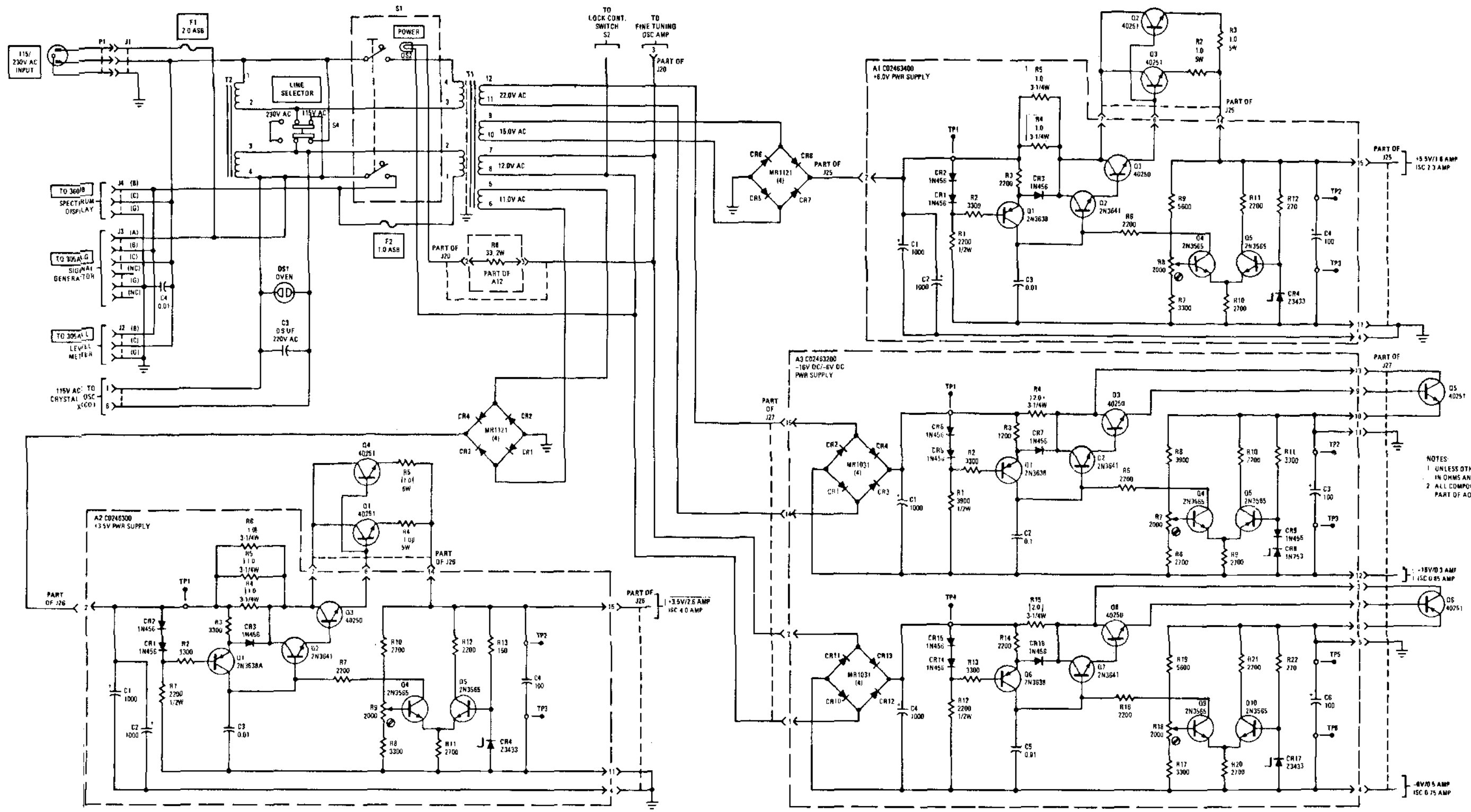


Figure 6-13. Decade logic diagram, Tuning Unit TN-527/U.



NOTES:
 1. UNLESS OTHERWISE SPECIFIED, RESISTANCES ARE IN OHMS AND 1/4W CAPACITANCES ARE IN μF.
 2. ALL COMPONENTS OUTSIDE DOTTED AREAS ARE PART OF AD CHASSIS ASSEMBLY.

Figure 6-14. Power supply, schematic diagram, Tuning Unit TN-527/U.

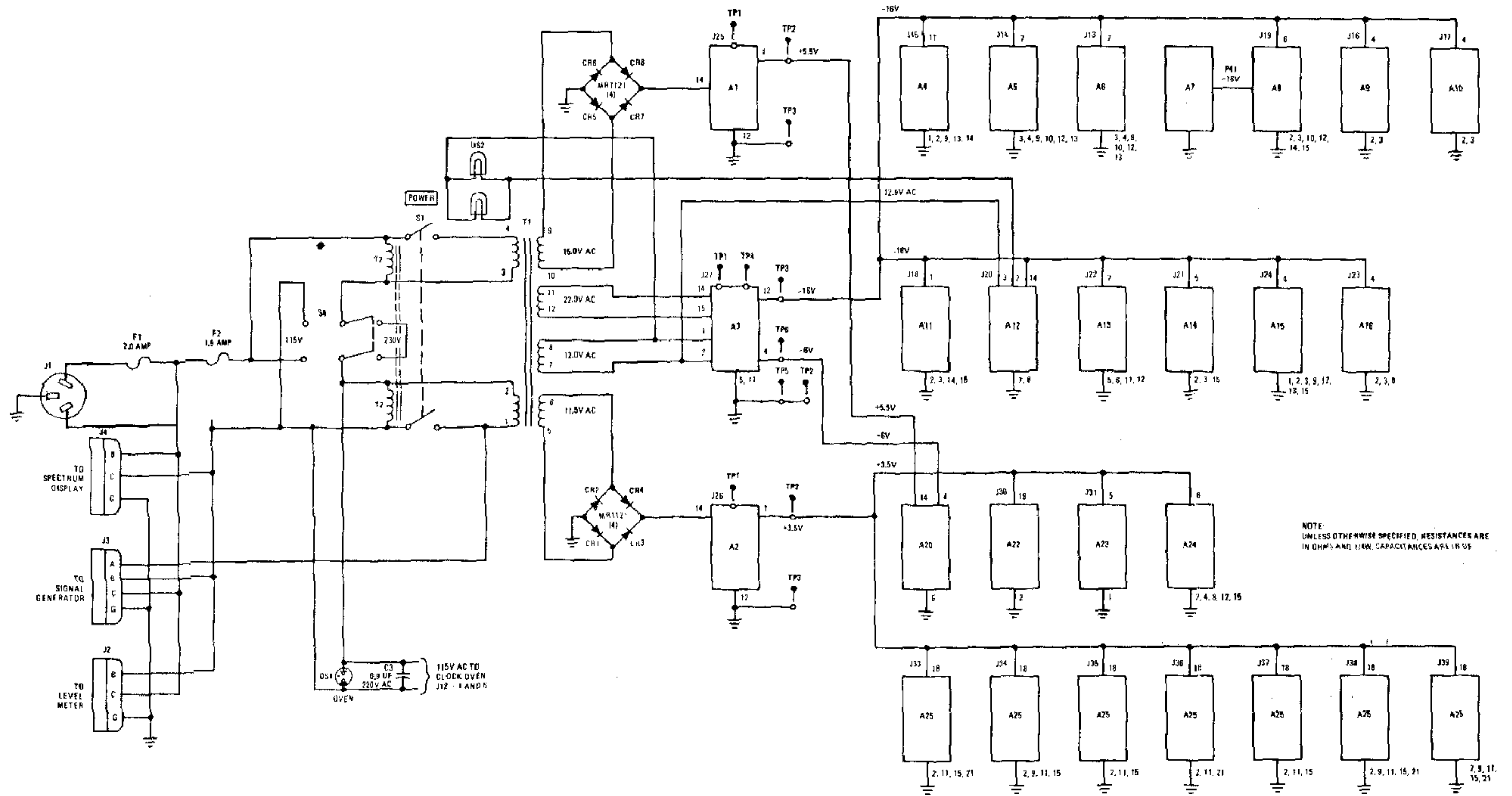


Figure 6-15. Power distribution diagram, Tuning Unit TN-527/U.

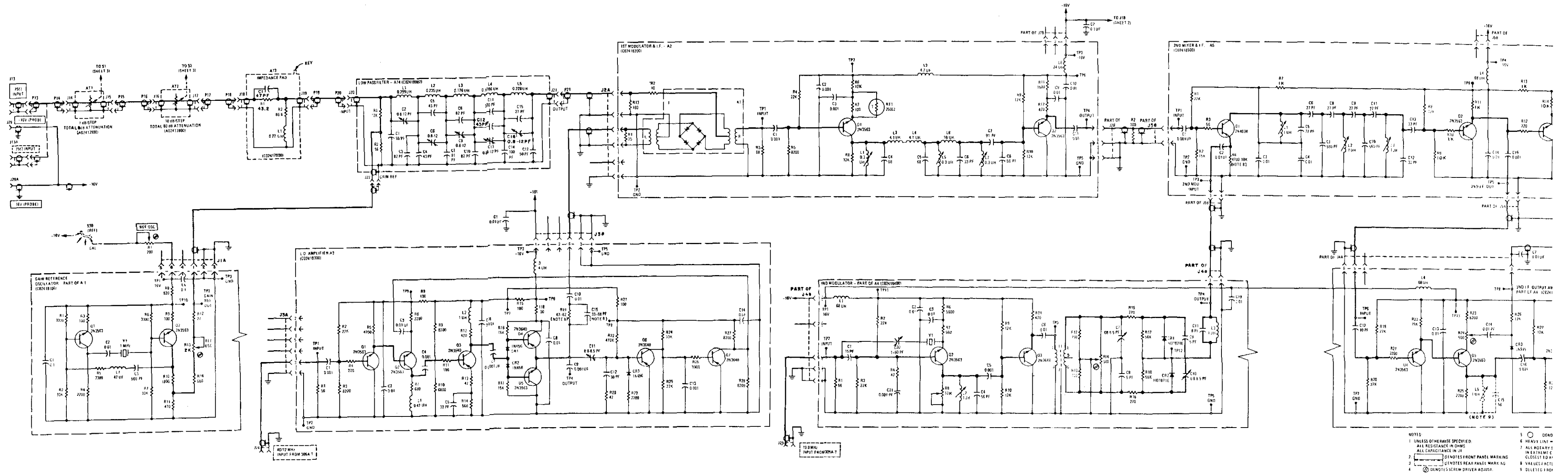


Figure 6-16 (1). Schematic diagram, Monitor, Audio-Radio Frequency TS-2968/U (sheet 1 of 3).

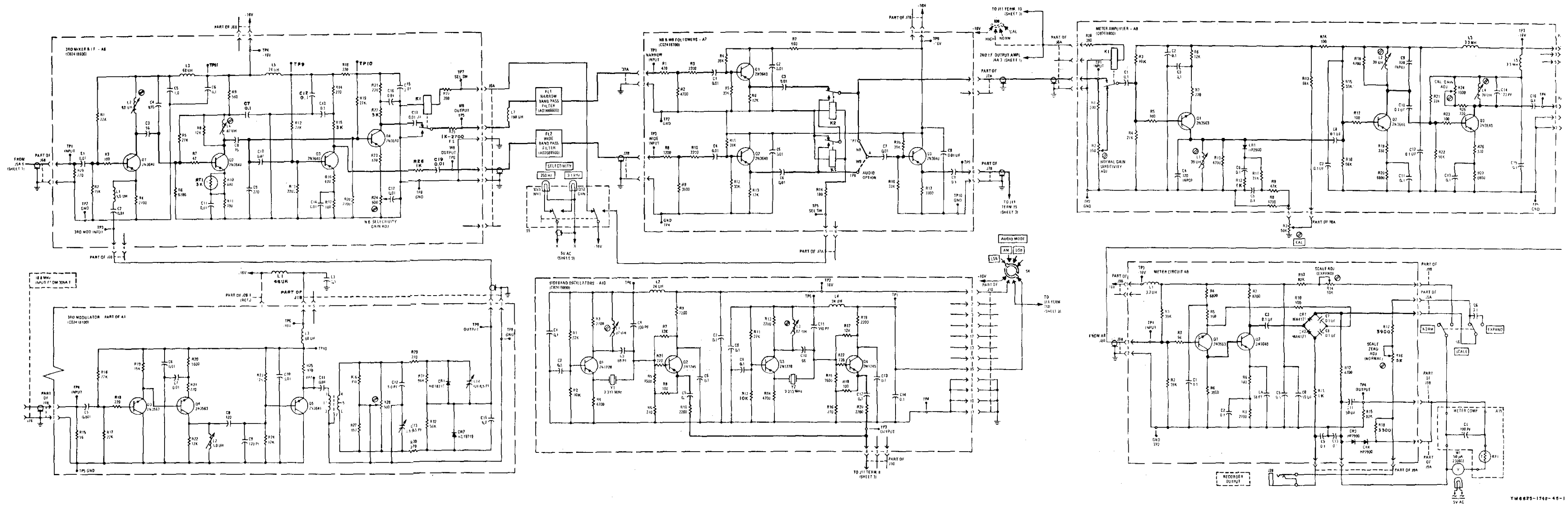


Figure 6-16 (2). Schematic diagram, Monitor, Audio-Radio Frequency TS-2968/U (sheet 2 of 3).

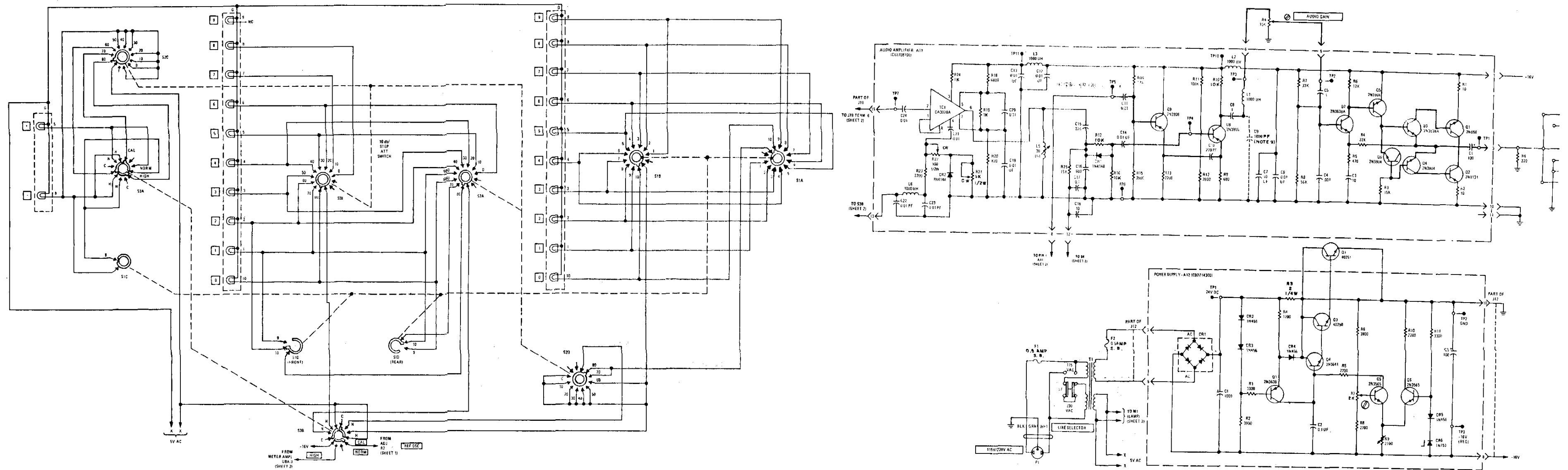


Figure 6-16 (3). Schematic diagram, Monitor, Audio-Radio Frequency TS-2968/U (sheet 3 of 3).

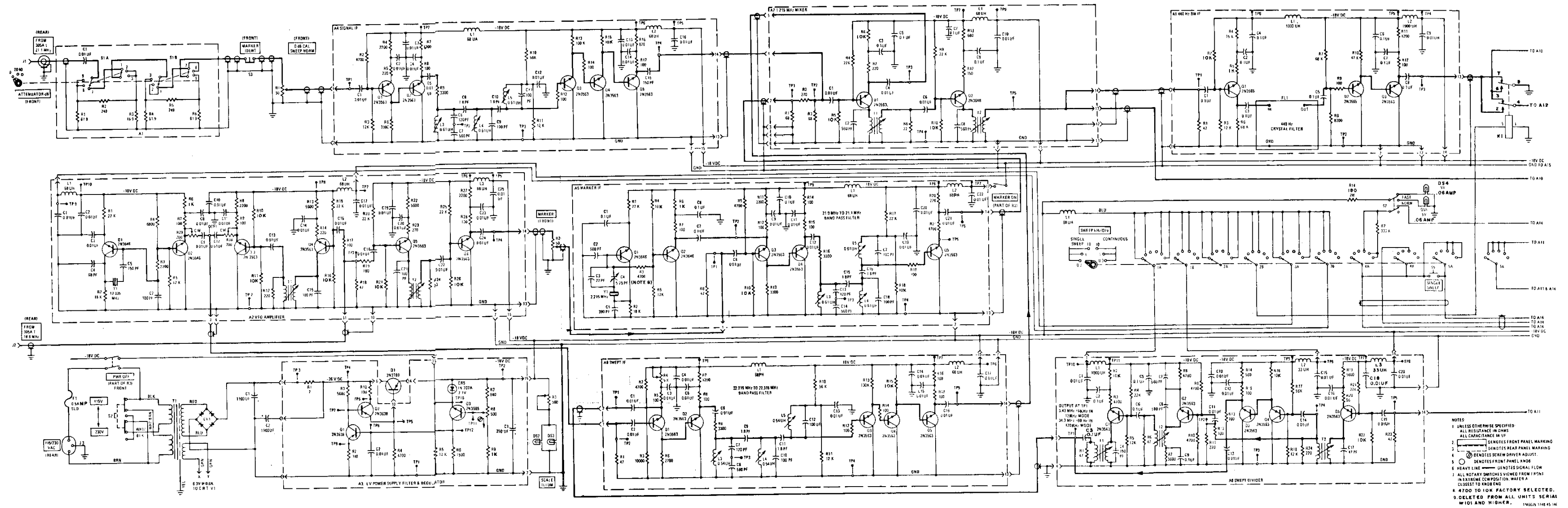
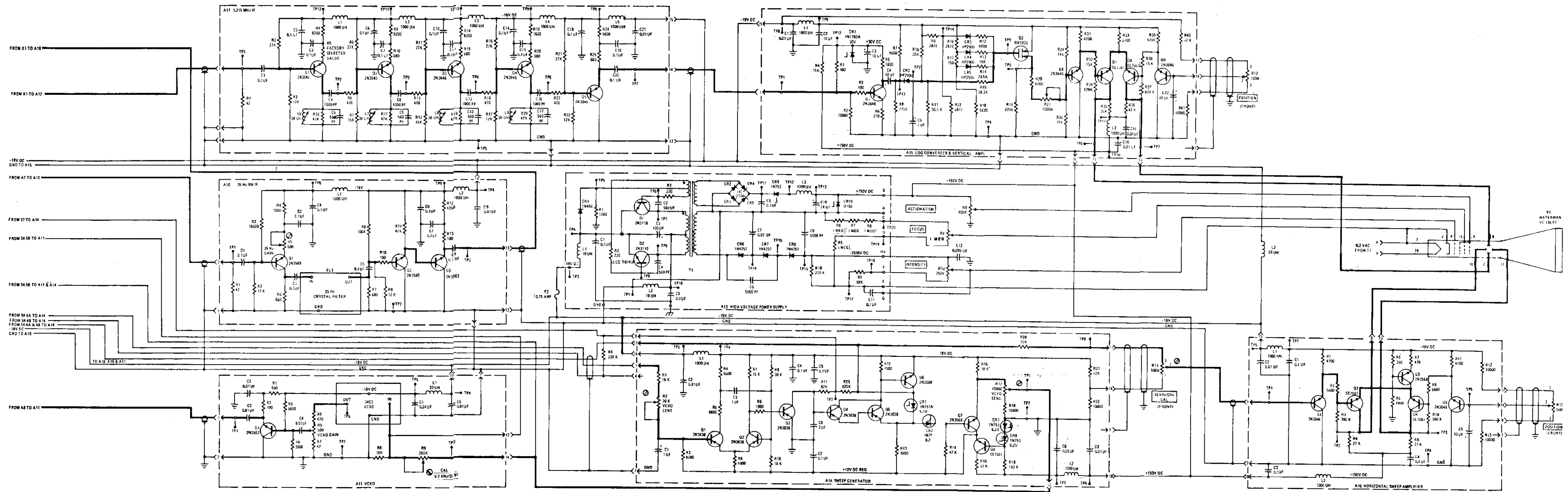


Figure 6-17 (1). Schematic diagram, Analyzer, Spectrum IP-1018/U (sheet 1 of 2).



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Figure 6-17 (2). Schematic diagram, Analyzer, Spectrum IP-1018/U (sheet 2 of 2).

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