



# SERVICE MANUAL

VHF/UHF ALL MODE TRANSCEIVER

## IC-820H

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Icom Inc.

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## INTRODUCTION

This service manual describes the latest information for the IC-820H at the time of publication.

MODEL	VERSION NO.	VERSION	SYMBOL
IC-820H	#12	Europe	EUR
	#14	Australia	AUS
	#15	Sweden	SWE
	#16	U.S.A.	USA

## DANGER

**NEVER** connect the transceiver to an AC outlet or to a DC power supply that uses more than 16 V. Such a connection could cause a fire hazard and/or electric shock.

**DO NOT** expose the transceiver to rain, snow or any liquids.

**DO NOT** apply an RF signal of more than 20 dBm (100 mW) to the antenna connector. This could damage the transceiver's front end.



## ORDERING PARTS

Be sure to include the following four points when ordering replacement parts:

1. 10-digit order numbers
2. Component part number and name
3. Equipment model name and unit name
4. Quantity required

### <SAMPLE ORDER>

1110000960 S.IC NJM4558M(T1) IC-820H MAIN UNIT 1 piece  
8810005510 Screw OH M3 x 6 IC-820H Top cover 6 pieces

Addresses are provided on the inside back cover for your convenience.

## REPAIR NOTES

1. Make sure a problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
3. **DO NOT** force any of the variable components. Turn them slowly and smoothly.
4. **DO NOT** short any circuits or electronic parts. An insulated tuning tool **MUST** be used for all adjustments.
5. **DO NOT** keep power ON for a long time when the transceiver is defective.
6. **DO NOT** transmit power into a signal generator or a sweep generator.
7. **ALWAYS** connect a 40 dB to 50 dB attenuator between the transceiver and a deviation meter or spectrum analyser when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting equipment to the transceiver.



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To upgrade quality, all electrical or mechanical parts and internal circuits are subject to change without notice or obligation.

# SECTION 1 SPECIFICATIONS

## GENERAL

- Frequency coverage :

Version	144 MHz band	440 MHz band
U.S.A.	Rx: 136.0–174.0 MHz* Tx: 144.0–148.0 MHz	430.0–450.0 MHz
Europe	144.0–146.0 MHz	430.0–440.0 MHz
Australia	144.0–148.0 MHz	430.0–450.0 MHz
Sweden	144.0–146.0 MHz	432.0–438.0 MHz

\* Guaranteed range is 144.0–146.0 MHz.

- Mode : SSB (A3J), CW (A1), FM(F3)
- Number of memory : 116 channels (50 regular, 1 call, 2 scan edges for each band and 10 satellite memories)
- Antenna impedance : 50  $\Omega$  unbalanced
- Usable temperature :  $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;  $+14^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$  range
- Frequency stability :  $\pm 3$  ppm ( $-10^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ )
- Power supply requirement : 13.8 V DC  $\pm 15\%$
- Current drain :
 

Transmit	High	16.0 A
	Low	7.0 A
Receive	Max audio	2.5 A
	Stand-by	2.0 A
- Dimensions : 241(W) x 94(H) x 239(D) mm  
9.5(W) x 3.7(H) x 9.4(D) in (projections not included)
- Weight : 5.0 kg; 11.0 lb

## TRANSMITTER

- Output power :

BAND	MODE	HIGH	LOW
144 MHz	FM, CW	45 W	6 W
	SSB	35 W	6 W
430 MHz	FM, CW	40 W	6 W
	SSB	30 W	6 W

- Spurious emissions : Less than  $-60$  dB
- Carrier suppression : More than 40 dB
- Unwanted sideband : More than 40 dB
- Microphone impedance : 600  $\Omega$

## RECEIVER

- Receive system
 

144 MHz band	SSB, CW	Single conversion superheterodyne
	FM	Double conversion superheterodyne
430 MHz band	SSB, CW	Double conversion superheterodyne
	FM	Triple conversion superheterodyne

- Intermediate frequencies: (Unit: MHz)

	MODE	MAIN BAND			SUB BAND		
		1st	2nd	3rd	1st	2nd	3rd
VHF	SSB	10.8500	—	—	10.9500	—	—
	CW	10.8491	—	—	10.9491	—	—
	FM	10.8500	0.455	—	10.9500	0.455	—
UHF	SSB	71.2500	10.8500	—	71.3500	10.9500	—
	CW	71.2491	10.8491	—	71.3491	10.9491	—
	FM	71.2500	10.8500	0.455	71.3500	10.9500	0.455

- Sensitivity (both VHF and UHF bands)
 

FM	0.18 $\mu\text{V}$ for 12 dB SINAD
SSB, CW	0.11 $\mu\text{V}$ for 10 dB S/N
- Squelch sensitivity (both VHF and UHF bands)
 

FM	Threshold	Less than 0.1 $\mu\text{V}$
	Tight	Less than 0.5 $\mu\text{V}$
SSB, CW	Threshold	Less than 1.0 $\mu\text{V}$
	Tight	Less than 3.2 mV
- Selectivity :
 

SSB, CW	More than	2.3 kHz/ $-6$ dB
	Less than	4.2 kHz/ $-60$ dB
CW narrow (optional)	More than	0.5 kHz/ $-6$ dB
	Less than	1.34 kHz/ $-60$ dB
FM	More than	15.0 kHz/ $-6$ dB
	Less than	30.0 kHz/ $-60$ dB
- Spurious and image rejection ratio : More than 60 dB
- Audio output power : More than 2.0 W at 10% distortion with an 8  $\Omega$  load
- RIT variable range : SSB, CW  $\pm 2$  kHz (max.)  
FM  $\pm 10$  kHz (max.)

All stated specifications are subject to change without notice or obligation.

## SECTION 2 DISASSEMBLY INSTRUCTIONS

### ● Opening the top and bottom covers

- ① Remove 8 screws (M3 x 6) from the transceiver's top and 4 screws (M3 x 6) from the sides, then lift up the top cover.
- ② Turn the transceiver upside down.
- ③ Remove 4 screws (M3 x 6) from the bottom cover, then lift up the bottom cover.

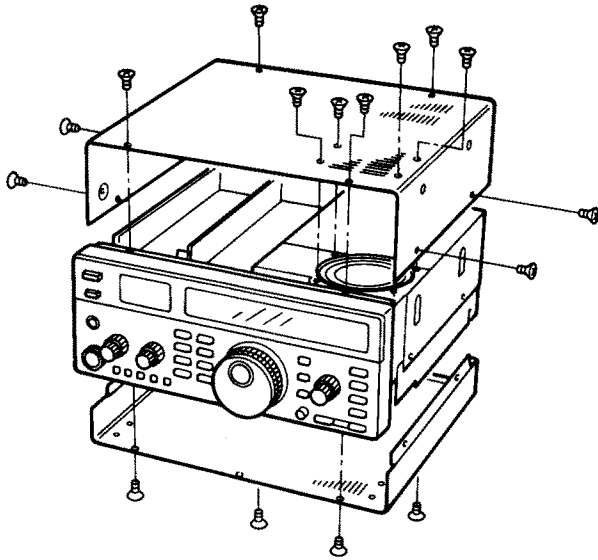


Fig. 1

### ● Opening the inside chassis

- ① Remove the top and bottom covers as shown Fig. 1.
- ② Loosen the gutter screw on each side of the front panel's rear side.
- ③ Remove 1 screw (M3 x 4) from each side of the front panel's rear side.
- ④ Pull the front panel forward as shown by the arrow at right.
- ⑤ Loosen 1 (M3 x 4) flat head screw from each side of the MAIN unit chassis.
- ⑥ Remove the 2 silver screws (Icom screw "A") from the rear panel.
- ⑦ Lift up the MAIN unit chassis to see the PLL unit.
- ⑧ Tighten the screws (labelled ⑤) to fix the MAIN unit chassis in a vertical position.

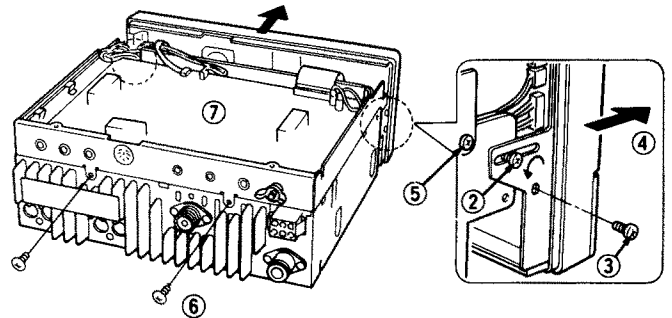


Fig. 2

### ● Removing the MAIN unit

- ① Remove the top and bottom covers as shown Fig. 1.
- ② Remove 14 screws (3 x 6) from the MAIN unit as shown below.
- ③ Slide the MAIN unit forward slightly to free the ACC socket from the rear panel.
- ④ Lift up the MAIN unit from the rear panel side.

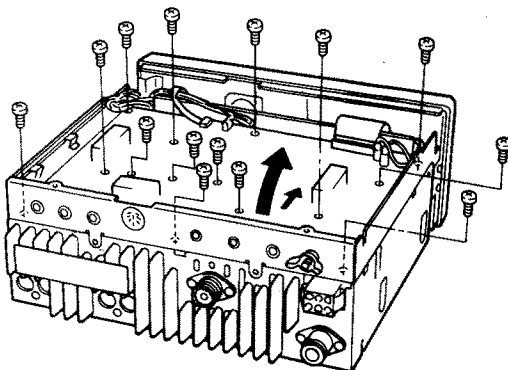


Fig. 3

### ● To see the PA-B unit

- ① Open the top and bottom covers as shown Fig. 1.
- ② Remove 8 screws (3 x 6) from the internal shield cover, then lift up the cover.

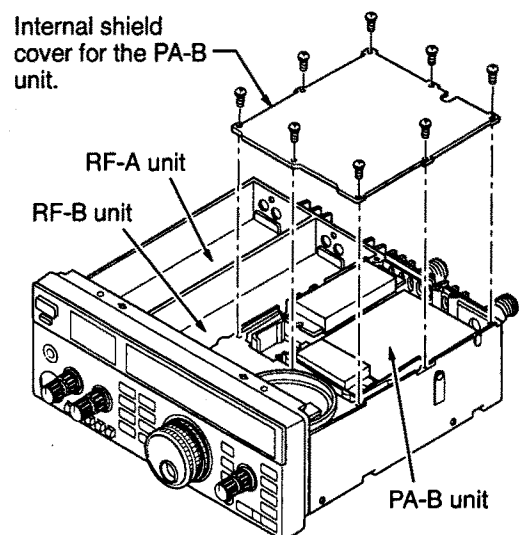
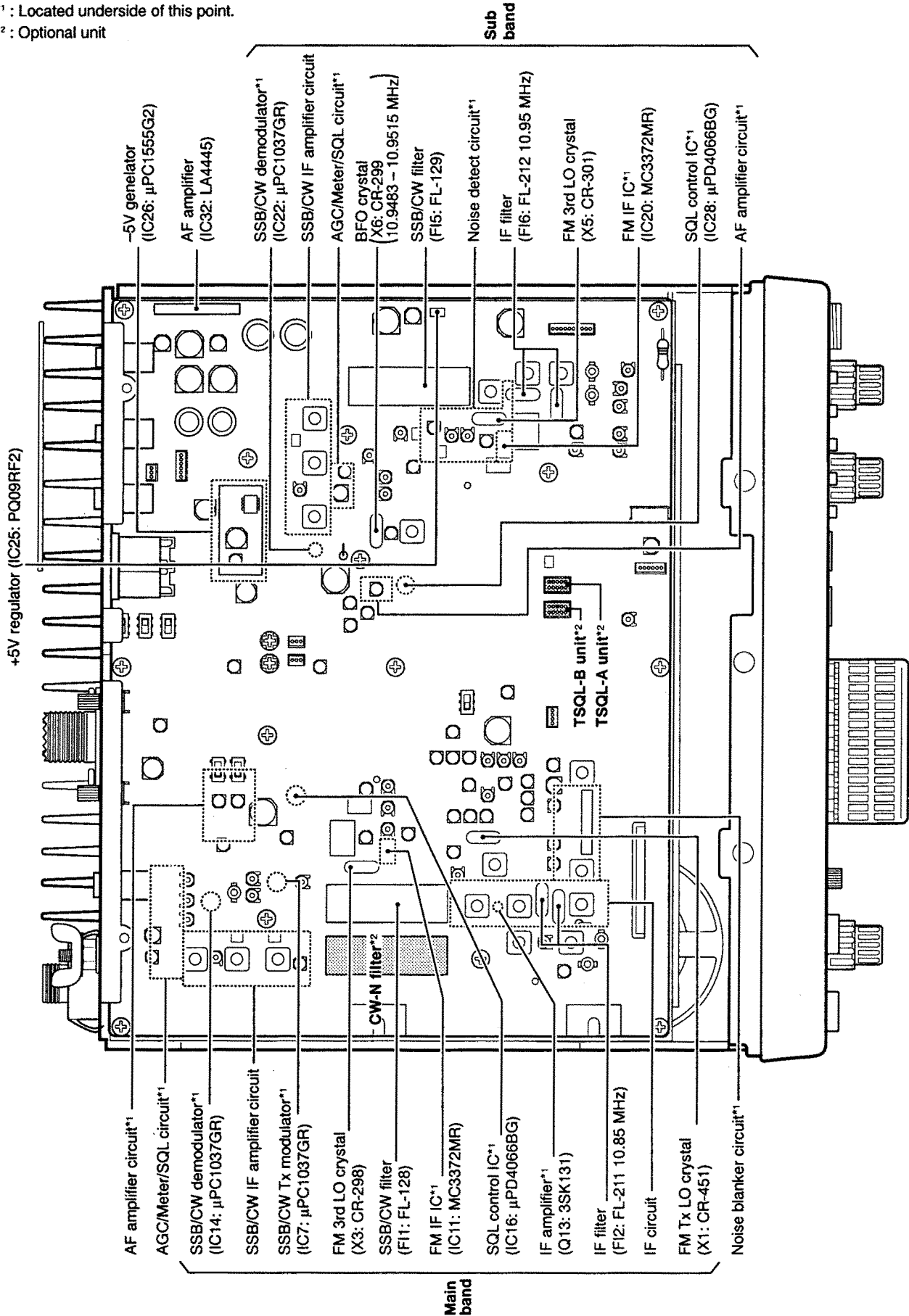


Fig. 4

# SECTION 3 INSIDE VIEWS

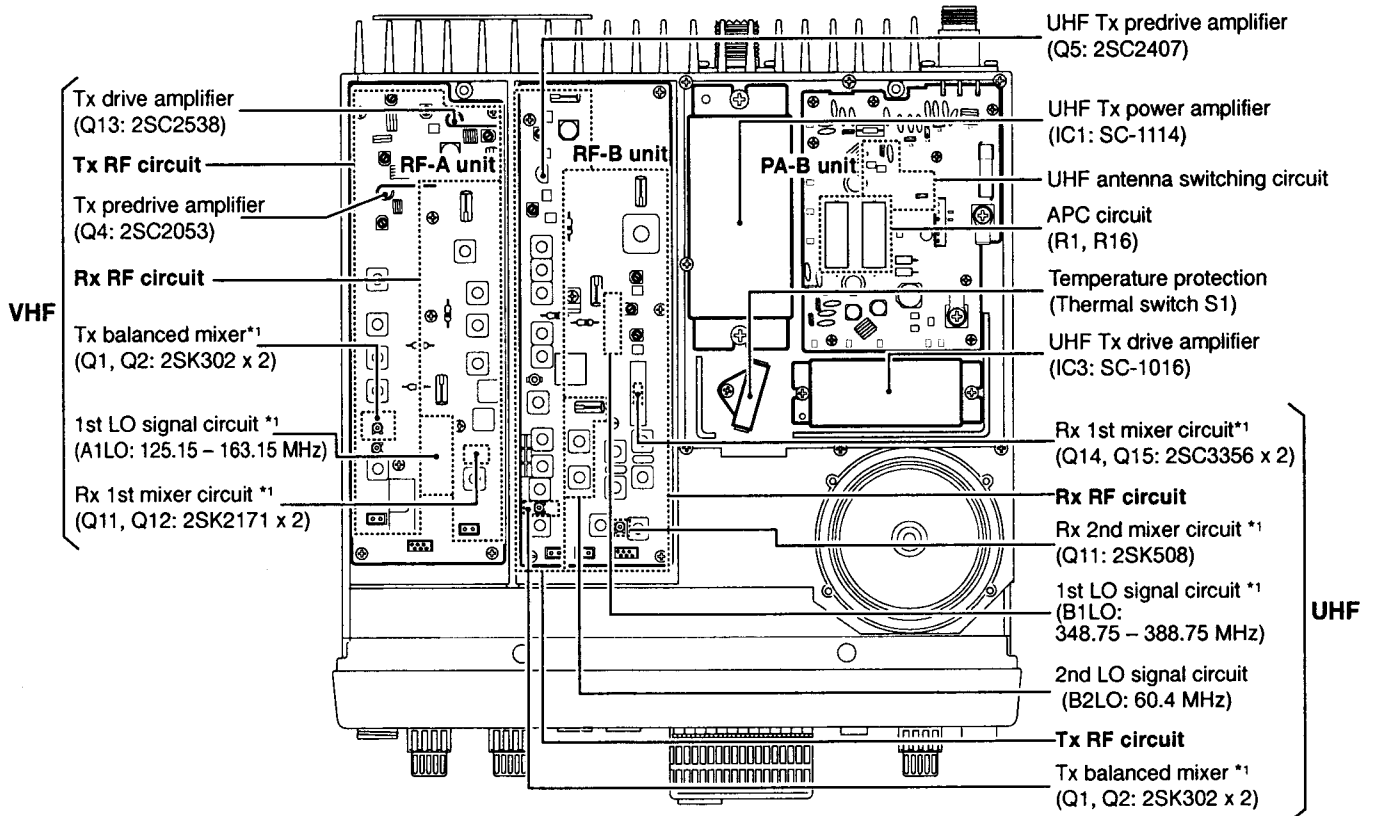
## • MAIN UNIT

- \*1 : Located underside of this point.
- \*2 : Optional unit



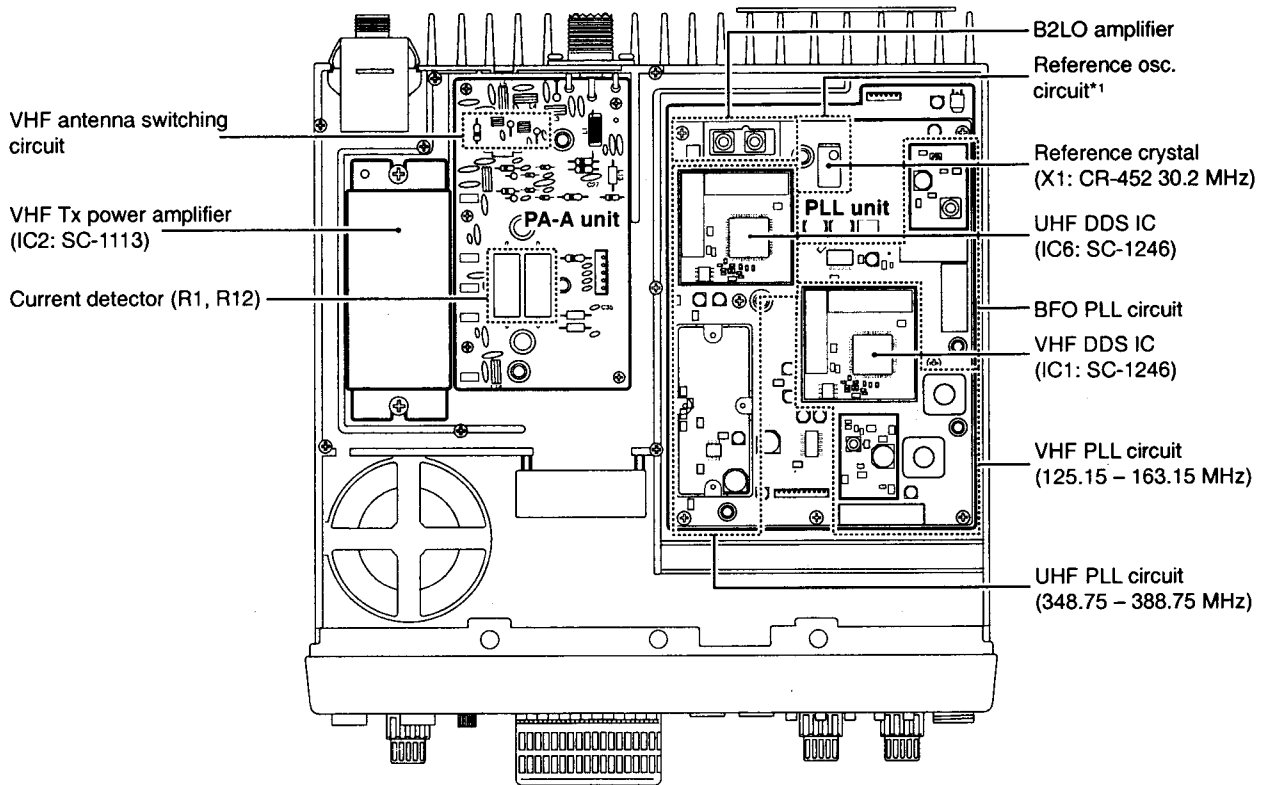
• **RF-A, RF-B AND PA-B UNITS**

\*1 : Located underside of this point.



• **PA-A AND PLL UNITS** (The both unit appear when the MAIN unit is removed.)

\*1 : Located underside of this point.



## SECTION 4 CIRCUIT DESCRIPTION

### 4-1 RECEIVER CIRCUITS

**Note:** [main] = Main band [sub] = Sub band

#### 4-1-1 VHF RF SWITCHING CIRCUIT (PA-A AND RF-A UNITS)

The RF switching circuit leads receive signals to bandpass filters from an antenna connector while receiving. While transmitting, this circuit leads the signals from the RF power amplifier to the antenna connector. This circuit includes a 20 dB RF attenuator circuit to prevent distortion from very strong signals.

RF signals from an antenna connector, pass through the low-pass filter (L3–L5, C5–C9), and are then applied to the antenna switching circuit (L6, C10, D2, L7, C11, D3, C12) on the PA-A unit.

The signals from the PA-A unit are applied at the 20 dB attenuator (D15) on the RF-A unit. The attenuator prevents distortion caused by strong signals. The signals are then applied to the RF amplifier circuit (Q7).

#### 4-1-2 VHF RF CIRCUIT (RF-A UNIT)

The amplified signals at Q7 are passed through the bandpass filter (L13–L15, D10–D12, C47, C49–C55, C109, C123) to suppress any undesired band signals.

D10–D13 employ varactor diodes that track the bandpass filters and are controlled by the PLL lock voltage. These diodes tune the center frequency of an RF passband for wide bandwidth receiving and good image response rejection.

#### 4-1-3 VHF 1st MIXER CIRCUIT (RF-A UNIT)

The 1st mixer circuit mixes the receive signals with the 1st LO signal to convert the receive signal frequencies to a 10.85 MHz 1st IF for the main band (a 10.95 MHz 1st IF for the sub band).

The signals from the RF circuit are mixed at Q11 and Q12 with a 1st LO signal (A1LO: 125.15 MHz–163.15 MHz). The 1st LO signal from the PLL unit is amplified at IC2 and is passed through the low-pass filter (L19, L20, C83–C85) to suppress harmonic components. The signal is applied both to the TX (Q1, Q2) and RX (Q11, Q12) mixer circuits.

After passing through the matching circuit (L21), the 1st IF signal is applied to the main band or the sub band IF circuit via the M/S switching circuit (D8, D9, Q5, Q6).

#### 4-1-4 UHF RF SWITCHING CIRCUIT (PA-B AND RF-B UNITS)

Received UHF signals enter the antenna connector and pass through a low-pass filter (L3–L5, C5–C10). When receiving, the antenna switching circuit (D1–D3) turns OFF. The signals pass through a low-pass filter (L6, C12, C60, L7, C14). The filtered signals are applied to the RF-B unit via J4.

The signals from the PA-B unit are either bypassed or passed through the 15 dB attenuator (D16). The attenuator prevents distortion caused by strong signals. The signals are applied to a bandpass filter.

#### 4-1-5 UHF RF CIRCUIT (RF-B UNIT)

A bandpass filter passes only the desired band signals and suppresses any undesired signals.

The filtered RF signals are applied to the RF amplifier (Q16) and are then amplified.

D11–D14 employ varactor diodes that track the bandpass filters and are controlled by the PLL lock voltage. These diodes tune the center frequency of an RF passband for wide bandwidth receiving and good image response rejection.

#### 4-1-6 UHF 1st MIXER CIRCUIT (RF-B UNIT)

The filtered RF signals from Q16 are mixed at L30, Q14, Q15 and L29 with a 1st LO signal (B1LO: 348.75 MHz–388.75 MHz) and are then converted to a 71.25 MHz 1st IF for the main band (71.35 MHz for the sub band).

After passing through the matching circuit (L29), the 1st IF signal is passed through each of a crystal filter (F11 [main]/F12 [sub]) in order to pass only the desired signals (main band: 71.25 MHz/sub band: 71.35 MHz).

The filtered 1st IF signal is applied to the 2nd mixer circuit Q11 passing through D9.

#### 4-1-7 UHF 2nd MIXER CIRCUIT (RF-B UNIT)

The 2nd mixer circuit (Q11) mixes the 1st IF signals and 2nd LO signal (B2LO: 60.4 MHz) to convert the 1st IF to a 2nd IF.

The 1st IF signals from F11 [main]/F12 [sub] are converted to 10.85 MHz [main]/10.95 MHz [sub] 2nd IF signals at the 2nd mixer (Q11).

The 2nd IF signals are applied to the MAIN unit passing through D5 and D1 when the main band is selected, or D5 and D4 when the sub band is selected.

#### 4-1-8 10 MHz IF CIRCUIT (MAIN UNIT)

The IF and AF circuits on the MAIN unit are commonly used for the UHF and VHF bands.

The 10 MHz IF circuit filters and amplifies the 10 MHz IF signals. The 10 MHz IF signals from the VHF 1st or UHF 2nd mixer circuit are applied to MCF (Monolithic Crystal Filter; F12 [main]/F16 [sub]) to suppress out-of-band signals.

The filtered signals are amplified at the IF amplifiers Q13 [main]/Q98 [sub]. These amplifiers have 20 dB gain.

When the SSB or CW mode is selected, the amplified signals are passed through 10 MHz IF filters (F11 [main]/F15 [sub]) or the optional CW narrow filter (main band only). The passed signals are amplified at IF amplifiers (Q60–Q62 [main]/Q77, Q100, Q101 [sub]) and then applied to the demodulator circuit (IC14 [main]/IC22 [sub]).

When the FM mode is selected the amplified signals from Q13 [main] or Q98 [sub] are applied to the FM IF ICs (IC11 [main]/IC13 [sub]). The entered signal is converted to a 455 kHz IF signal and detected to AF signals.



### 4-1-9 NOISE BLANKER CIRCUIT

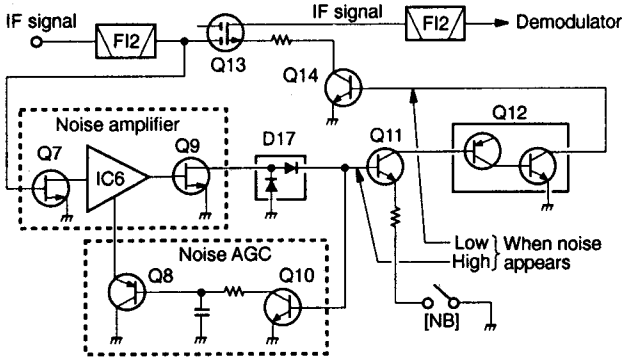
The noise blanker circuit detects pulse-type noise, then stops the IF amplifier operation. This circuit is designed for the main band only.

A portion of the signals from FI2 are amplified at the noise blanker amplifiers (Q7, IC6, Q9) and are detected at D17.

When pulse type noise appears and the [NB] switch is turned ON, the noise blanker switch (Q11, Q12) is turned ON, then the source of the IF amplifier (Q13) is open via Q14, to stop the Q13 function.

Q8 and Q10 function as an AGC circuit to reduce averaged noise. Therefore, the noise blanker function shuts off pulse-type noise only.

• **Noise blanker circuit**

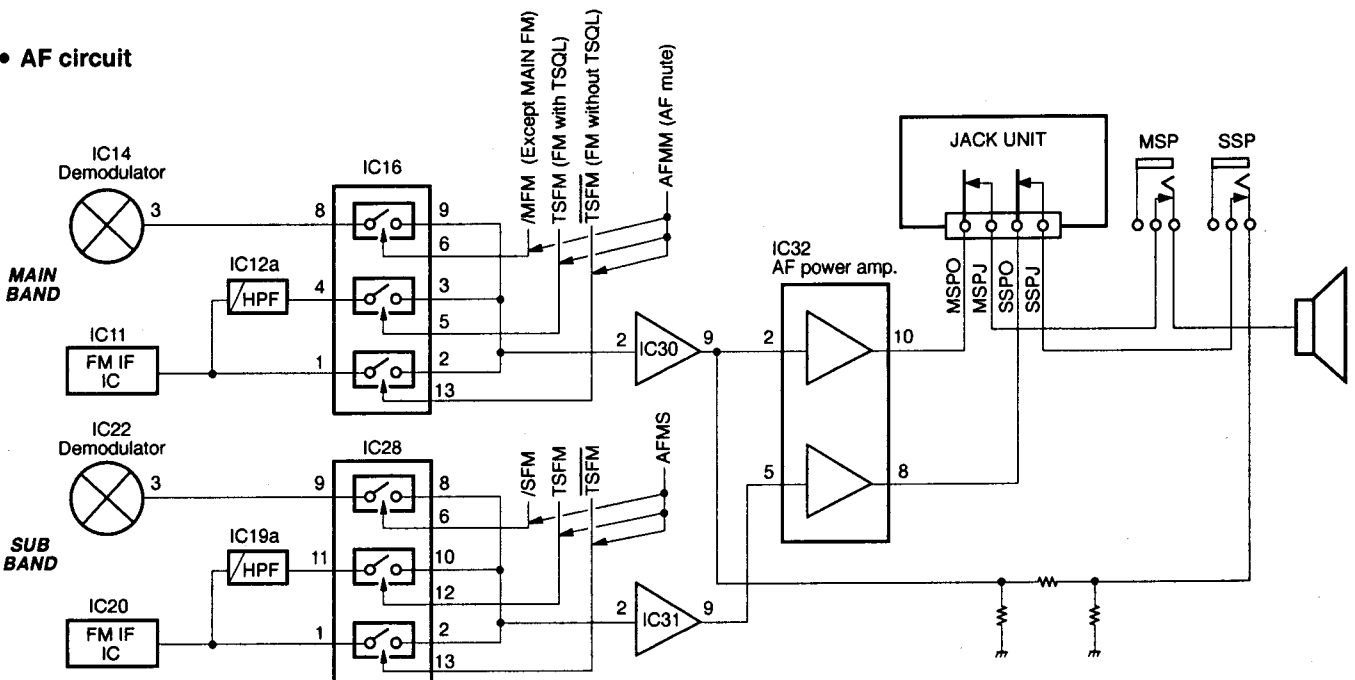


### 4-1-10 DEMODULATOR CIRCUIT (MAIN UNIT)

(1) **FM mode**

The 10 MHz IF signals are converted into 455 kHz IF signals in the FM IF IC (IC11 [main]/IC20 [sub]). The 455 kHz IF signals pass through the IF filter (FI13 [main]/FI14 [sub]) and are then converted into AF signals. The AF signals output from pin 9 are passed through or bypassed the high-pass filter (IC12a [main]/IC19a [sub]) and are then applied to the AF input mode selector switch (IC16c [main]/IC28b [sub]).

• **AF circuit**



### (2) **SSB/CW modes**

The 10 MHz IF signals from Q62 [main] or Q100 [sub] are demodulated into AF signals at the balanced mixer (IC14 [main]/IC22 [sub]). BFO signals are used for demodulation which are produced in the PLL unit for the main band and the crystal oscillator (Q79, X6) for the sub band.

**BFO frequencies**

MODE	for MAIN band	for SUB band
USB	10.8485 MHz	10.9485 MHz
LSB	10.8515 MHz	10.9515 MHz
CW	10.8483 MHz	10.9483 MHz

### 4-1-11 AF INPUT MODE SELECTOR SWITCH (MAIN UNIT)

The AF signals from the demodulator circuit are applied to the AF input mode selector switch (IC16 [main], IC28 [sub]). IC16 (IC28) consists of 4 analog switches which are selected with a mode signal and the squelch control signal. The AF signal is output from IC16 (pins 2, 3, 9) for the main band and IC28 (pins 2, 8, 10) for the sub band; then applied to the AF circuit.

### 4-1-12 AF CIRCUIT (MAIN UNIT)

AF signals from the AF input mode selector switch (IC16 [main], IC28 [sub]) are amplified at the pre-amplifier (IC30 [main], IC31 [sub]). These main and sub bands audio are power-amplified at the stereo amplifier IC (IC32).

The amplified audio signals pass through the JACK unit, [MSP] jack, and are then applied to the speaker.

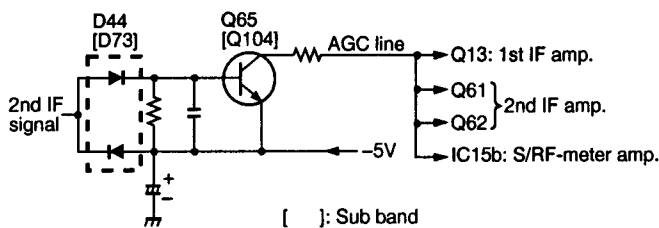
The sub band audio signals are fed back to the main band channel of the stereo amplifier IC (IC32) via an attenuator to mix both the main and sub bands audio.

### 4-1-13 AGC CIRCUIT (MAIN UNIT)

The AGC (Automatic Gain Control) circuit reduces IF amplifier gain to keep the audio output at a constant level.

The 2nd IF signal from the IF amplifier (Q62 [main]/Q101 [sub]) is detected at the AGC detector (D44 [main]/D73 [sub]) and is then applied to the DC amplifier (Q65 [main]/Q104 [sub]).

When receiving strong signals, the detected voltage increases and the AGC voltage decreases via the DC amplifier (Q65 [main]/Q104 [sub]). As the AGC voltage is used for the bias voltage of the IF amplifiers (Q13, Q61, Q62 [main]/Q98, Q100, Q101 [sub]), the IF amplifier gain is decreased.



### 4-1-14 S-METER CIRCUIT (MAIN UNIT)

The S-meter circuit indicates the relative received signal strength while receiving by utilizing the AGC voltage which is changed depending on the received signal strength.

The AGC bias voltage is applied to a differential amplifier (IC15 pin 6 [main]/IC23 pin 2 [sub]) where the difference between AGC and reference voltages is detected.

The resulting S-meter signal is applied to the DISPLAY unit via the "MSM" line [main] or "SSM" line [SUB]. The full scale position is set by R253 [main]/R207 [sub].

The S-meter signal is also applied to the squelch circuit (IC15a pin 2).

### 4-1-15 SQUELCH CIRCUIT (MAIN UNIT)

#### (1) FM mode

A squelch circuit cuts out AF signals when no RF signal is received. By detecting noise components in the AF signals, the squelch circuit switches the AF mute switches.

Some noise components in the AF signal from IC11 pin 9 [main]/IC20 pin 9 [sub] are applied to an active filter section (IC4 pin 10 [main]/IC20 pin 10 [sub]) via the noise control circuit (IC13 pins 7, 9 [main]/IC21 pins 7, 9 [sub]).

The squelch level setting volume control (R1) on the VR unit adjusts the noise control circuit (IC13 · IC21/pin 7) input level.

#### (2) SSB/CW modes

The squelch circuit mutes audio output when the S-meter signal is lower than the [SQL] control setting level.

The S-meter signal from (IC15b pin 7 [main]/IC23a pin 1 [sub]) is applied to the comparator (IC15a pin 2 [main]/IC23b pin 6 [sub]) through D42 [main]/D71 [sub] to be compared with the threshold level set by the [SQL] control.

## 4-2 TRANSMITTER CIRCUITS

### 4-2-1 MICROPHONE AMPLIFIER CIRCUIT (DISPLAY UNIT AND MAIN UNIT)

The microphone amplifier circuit amplifies the microphone input signals and outputs the amplified signal to the FM modulation circuit or SSB modulation circuit.

The microphone amplifier circuit is commonly used for both FM (VHF/UHF) mode and SSB (VHF/UHF) mode.

Audio signals from the [MICROPHONE] connector are amplified at IC3. The amplified signals are then adjusted at the [MIC] control (R31) and amplified again at IC2a (MAIN unit).

#### (1) While in FM mode

The amplified signals from IC2a are applied to IC1b (pin 6) and pass through the microphone gain adjustment (R41). IC1b includes a low level amplifier with pre-emphasis and a limiter amplifier.

The output signals from IC1b (pin 7) pass through a splatter filter circuit (IC1a) and are adjusted for deviation at R29.

A subaudible tone encoder signal is amplified at the high-impedance input circuit (Q4) and is directly applied to the modulation circuit (X1, Q17, D22) without audio modulation interference.

#### (2) While in SSB mode

The amplified signals at IC2a are applied to the balanced modulator (IC7).

The balanced modulator converts the AF signal from the microphone amplifier to an IF signal with a BFO (Beat Frequency Oscillator) signal. The IF signal is shown in the table below.

MODE	Transmit IF signal
USB	10.8485 MHz
LSB	10.8515 MHz
CW	10.8491 MHz

IC7 is a double balanced mixer IC and outputs a double side band (DSB) signal with -60 dB carrier suppression. R156 and R158 adjust the balanced level of IC7 for maximum carrier suppression.

### 4-2-2 CW KEYING CIRCUIT

When keying is closed, the CW keying circuit (Q84) outputs "HIGH." This "HIGH" signal is converted to "LOW" at Q20-Q22 and is then applied to the PLL unit for BFO circuit control.

DC voltages (CW 9 V) upset the balance of the modulator IC (IC7). Therefore, the carrier signal is created when the BFO signal is applied to the modulator.

When the CW break-in function is activated, the emitter of Q83 is grounded, the keying signal from Q84 turns Q83 ON to inform the SEND control signal to the CPU.

Q80 is a CW side tone oscillator for generating an 800 Hz tone frequency. When CW key is closed, C307 is disconnected from the collector of Q80, so that Q80 activates.

#### 4-2-3 TRANSMIT IF AMPLIFIER (MAIN UNIT)

In SSB or CW mode, the transmitter IF signals (USB: 10.8485 MHz, LSB: 10.8515 MHz, CW: 10.8491 MHz) pass through F11 to suppress the unwanted sideband signals, then the signals are applied to the transmit IF amplifier (Q1).

In FM mode, the transmit IF signals bypass F11 and are then applied to the transmit IF amplifier (Q1).

The optional CW narrow filter is not used in transmitting.

##### (1) When selecting the VHF band (RF-A UNIT)

The amplified signal from Q1 (MAIN unit) is applied to the RF-A unit via J1 and then mixed with the 1st LO signal (125.15 MHz–163.15 MHz) to be converted to the displayed frequency at the balanced mixer (Q1, Q2). The sub band is not transmitted.

##### (2) When selecting the UHF band (RF-B UNIT)

The amplified signal from Q1 (MAIN unit) is applied to the RF-B unit via J2 and then mixed with the 2nd LO signal (60.4 MHz) to be converted to a 2nd transmit IF signal at Q1/Q2.

MODE	2nd Transmit IF signals
USB	71.2485 MHz
LSB	71.2515 MHz
CW	71.2491 MHz

The 2nd transmit IF signal is amplified at Q3 and is then converted to the displayed frequency at the double balanced mixer (IC3) with the 1st LO signal (348.75 MHz–388.75 MHz).

#### 4-2-4 RF CIRCUIT (RF-A AND RF-B UNITS)

The RF circuit amplifies the displayed frequency signal for 45 W\* of RF output power.

\* 30 – 45W depends on band and mode.

##### (1) RF circuit for the VHF band (RF-A unit)

The displayed frequency signal converted at the balanced mixer (RF-A unit Q1, Q2) is applied to the bandpass filter (L3, C120, D3, C13–C15, L4, D4, C121, C16–C18, L5, D5, C19, C122) where unwanted frequencies are reduced in the VHF bands.

The filtered signal is then amplified at IC1 and Q4. The amplified signal is amplified to 800 mW at Q13 through the LO trap circuit (C36, L10, L11, C37) and is then applied to the PA-A unit.

##### (2) Power amplifier circuit for the VHF band (PA-A unit)

The signal from Q13 is amplified at the power amplifier (IC2) to obtain a stable 45 W of RF output power and then applied to the 144 MHz antenna connector via the low-pass filter.

##### (3) RF circuit for the UHF band (RF-B unit)

The displayed frequency signal converted at the double balanced mixer (RF-B unit IC3) is amplified at IC1 through the spurious filter (L36) where unwanted frequencies are reduced in the UHF bands.

The amplified signal is amplified to 200 mW at Q4/Q5 through the spurious filter (L37) and is then applied to the PA-B unit.

##### (4) Power amplifier circuit for the UHF band (PA-B unit)

The signal from Q5 is amplified to 4 or 5 W at the drive amplifier (IC3) through the low-pass filter circuit (RF-B unit L14, C38, C39) and attenuator (PA-B unit R13–R15).

The signal from IC3 is amplified at the power amplifier (IC1) to obtain a stable 40 W of RF output power.

#### 4-2-5 ALC CIRCUIT (PA-A, PA-B AND MAIN UNITS)

The ALC (Automatic Level Control) circuit controls the gain of IF amplifiers in order for the transceiver to output a constant RF power set by the [PWR/COMP] switch even when the supplied voltage shifts, etc.

The RF power signal level is detected at D4–D7 (PA-A unit for VHF) or D4, D5 (PA-B unit for UHF) and applied to the MAIN unit as the "FORA" or "FORB" signals.

The "FORA (FORB)" voltage from the PA-A (PA-B) unit is applied to IC3a (pin 2). The "POCO" voltage is applied to IC3a (pin 3) as the reference voltage.

When the "FORA (FORB)" voltage exceeds the "POCO" voltage, ALC bias voltage from IC3a (pin 1) controls the IF amplifier (Q1). This adjusts the output power to the determined level by the [PWR/COMP] switch until the "FORA (FORB)" and "POCO" voltages are equalized.

The "FORA (FORB)" voltage is also applied to IC5a to obtain an RF meter signal. It passes through the meter switching circuit (IC4b DISPLAY unit) and is then applied to the S/RF meter.

The ALC voltage for data communication is directly applied to Q1 from the ALC socket (pin 8) through R289.

#### 4-2-6 APC CIRCUIT (PA-A/B UNITS)

The APC (Automatic Power Control) circuit protects the power amplifiers on the PA-A/PA-B units from excessive current.

For the current APC, the power module current is obtained by differential voltages (AIC2: VHF/BIC2: UHF) which appear at both terminals of a 0.15 Ω resistor, R1/R12 (VHF) on the PA-A unit or R1/R16 on the PA-B unit.

The differential voltage is applied to the differential amplifier (IC4b pin 5: VHF/IC4b pin 3: UHF on the MAIN unit).

The amplified APC voltages are applied to the transmit IF amplifier Q1 and the ALC amplifier IC3b on the MAIN unit. They control the output power at the power module.

#### 4-2-7 TEMPERATURE PROTECTION CIRCUIT (DISPLAY AND PA-A/B UNITS)

Cooling fans (MF1) are activated during transmitting or if the temperature of the power modules exceeds the preset value.

While transmitting, Q26 and Q27 on the DISPLAY unit are turned ON, and provide a voltage "FANV" to MF1. The MF1 rotates at medium speed in this case.

A thermal switch (S1) is thermally-connected to the power module IC1 on the PA-B unit. When the power module temperature exceeds 90°C (194°F), S1 turns ON and provides a voltage for high speed rotation to MF1 via Q25 on the DISPLAY unit.

When the power module radiator on the PA-B unit temperature exceeds 40°C (104°F), S1 keeps turning Q24 and Q25 (DISPLAY unit) ON to rotate the cooling fans even when receiving.

### 4-3 PLL CIRCUITS (PLL UNIT)

The PLL unit contains 3 PLL circuits and 1 local oscillator. The VHF PLL and UHF PLL adopt Icom's new "I-loop PLL" to obtain very fast lock up times.

#### 4-3-1 VHF PLL CIRCUITS

The oscillated signal at the VHF VCO circuit (Q1, D1-D3, D8) is buffer-amplified at Q2 and IC5. The amplified signal is divided by 8 at the prescaler (IC4) and is then applied to the DDS IC (IC1 pin 88).

The DDS IC generates digital signals using the entered signal, then compares it's phase with the reference frequency and outputs off phase components as pulse signals via pins 52, 53.

The output pulses are converted to DC voltages at the loop filter (IC2a) and are then applied to varactor diodes in the VCO circuit (D1-D3, D8).

The D/A converter (R15-R38), low-pass filter (C4-C10, L2-L4) and buffer amplifier (IC14) are connected to the DDS IC to convert the digitally oscillated signals into smooth analog signals.

#### 4-3-2 UHF PLL CIRCUITS

The oscillated signal at the UHF VCO circuit (Q5, D4, D10) is buffer-amplified at Q6 and Q9. The amplified signal is divided by 8 at the prescaler (IC9) and is then applied to the DDS IC (IC6 pin 88).

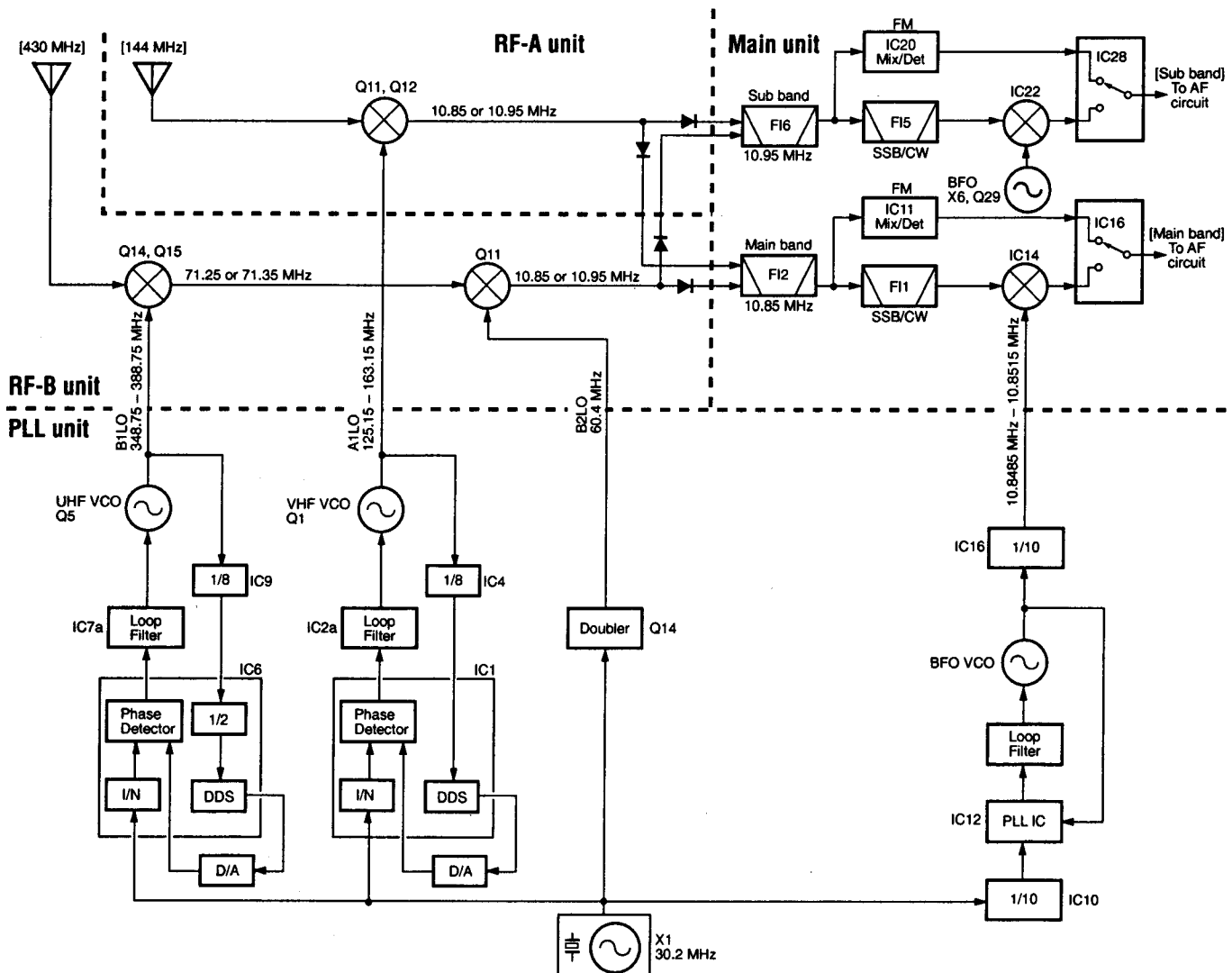
The DDS IC generates digital signals using the entered signal, then compares it's phase with the reference frequency and outputs off phase components as pulse signals via pins 52, 53.

The output pulses are converted to DC voltages at the loop filter (IC7a) and are then applied to varactor diodes in the VCO circuit (D4, D10).

#### 4-3-3 BFO PLL CIRCUITS

The oscillated signal at the BFO VCO circuit (Q12, D5) is buffer-amplified at Q13 and Q16. The amplified signal is applied to PLL IC (IC12 pin 19) to detect on phase signals using the reference frequency.

#### • Frequency construction



The oscillated signal at the reference oscillator (X1) is divided by 10 at IC10 and is then applied to IC12 (pin 16) as a reference frequency.

The VCO oscillated signal is divided by 10 at the divider (IC16), buffer-amplified at Q20 and is then applied to the MAIN unit as the BFO frequency.

#### 4-3-4 LOCAL OSCILLATOR CIRCUIT (REFERENCE OSCILLATOR)

The output of the reference oscillator (X1, 30.2 MHz) is used for: (1) the reference frequency of the VHF/UHF PLL circuits, (2) the reference frequency of BFO PLL circuits after being divided by 10, (3) the local frequency for the UHF receiver/transmitter circuits after being multiplied 2 times.

### 4-4 PORT ALLOCATIONS

#### 4-4-1 CPU (DISPLAY UNIT)

Port name	Pin number	Description
ADCDAT	1	Input port for the FM deviation indicator. When this port receives below 1.3 V or above 1.7 V, the CPU detects the received signal as off center. The "CCTL" port (pin 24) outputs 300 msec. pulses to flash the RX indicator while the squelch is open.
RESET	9	Input port for the CPU reset signal. When receiving "LOW", CPU is reset.
BACKUP	11	Input port for the CPU backup signal. The CPU stores the selected data in RAM while receiving "LOW" pulses.
Mck	12	Outputs clock data to data expander ICs (DISPLAY unit IC11, MAIN unit IC8, IC10, IC24) and optional tone squelch units.
FSTB	13	Outputs a strobe signal to the data expander IC (DISPLAY unit IC11).
Mdat	14	Outputs serial data to data expander ICs (DISPLAY unit IC11, MAIN unit IC8, IC10, IC24) and optional tone squelch units.
OE	15	Outputs an enable signal to data expander ICs (MAIN unit IC8, IC10, IC24) and optional tone squelch units.
CIVR	16	Input port for a "UART" signal for CI-V control.
CIVT	17	Output port for a "UART" signal for CI-V control.
CIVB	18	Input port for a "bus busy" signal for CI-V control.
MCST	19	Outputs a strobe signal to the data expander IC (MAIN unit IC10).
Dick	20	Input port for the dial clock signal.
DIUP	21	Input port for the dial up signal.
DIDN	22	Input port for the dial down signal.
DITS	23	Input port for the auto tuning step signal.
CCTL	24	Outputs the control signal of the main band RX indicator for squelch open and off-center receiving.

Port name	Pin number	Description
BEEP	25	Outputs beep tone signals.
STVO	26	Outputs a strobe signal to an optional voice synthesizer unit.
MSST	32	Outputs a strobe signal to the data expander IC (MAIN unit IC24).
MMST	33	Outputs a strobe signal to the data expander IC (MAIN unit IC8).
KS1-KS7	36-42	Output ports of strobe signals for key matrix.
STBR	43	Outputs a strobe signal to the data expander IC (PLL unit IC13).
KR1-KR4	44-47	Input ports for key return signals.
OPTA	48	Input port for the tone decoder matched signal from an optional tone squelch unit.
OPTB	49	Input port for the tone decoder matched signal from an optional tone squelch unit.
SQSI	51	Input port for the sub band squelch signal. "LOW" : squelch open.
STTA	52	Outputs a strobe signal to an optional tone squelch unit.
STTB	53	Outputs a strobe signal to an optional tone squelch unit.
MT9A	54	Outputs a T9V control signal for the RF-A unit. "HIGH" : while transmitting on the 144 MHz band.
MR9A	55	Outputs a R9V control signal for the RF-A unit. "HIGH" : when 144 MHz band receiving is selected on the main band.
SR9A	56	Outputs a R9V control signal for the RF-A unit. "HIGH" : when 144 MHz band receiving is selected on the sub band.
MT9B	57	Outputs a T9V control signal for the RF-B unit. "HIGH" : while transmitting on the 430 MHz band.
MR9B	58	Outputs a R9V control signal for the RF-B unit. "HIGH" : when 430 MHz band receiving is selected on the main band.
SR9B	59	Outputs a R9V control signal for the RF-B unit. "HIGH" : when 430 MHz band receiving is selected on the sub band.
LCTF	60	Input port for the BFO PLL unlock signal. "LOW" : when the PLL is unlocked.
LCTA	61	Input port for the VHF PLL unlock signal. "LOW" : when the PLL is unlocked.
LCTB	62	Input port for the UHF PLL unlock signal. "LOW" : when the PLL is unlocked.
STBF	63	Outputs a strobe signal to the PLL IC of the BFO PLL (PLL unit IC12).
STBA	64	Outputs a strobe signal to the DDS IC of the VHF PLL (PLL unit IC1).

Port name	Pin number	Description
STBB	65	Outputs a strobe signal to the DDS IC of the UHF PLL (PLL unit IC6).
ck	66	Outputs clock signals to DDS ICs and PLL IC (PLL unit IC1, IC6, IC12).
data	67	Outputs data to DDS ICs and PLL IC (PLL unit IC1, IC6, IC12).
SBTN	90	Outputs a tone signal for the subaudible tone encoder or 1750 Hz tone burst.
SEND	94	Input port for the transmit control signal. "LOW" : while transmitting.
BUSY	95	Input port for an optional voice synthesizer active signal to reduce audio level while talking.
ADTSQ	96	Input port for detecting signals for the optional tone squelch unit installation condition. 2.18 – 2.72 : when both A/B are installed. 2.72 – 3.31 : when only B is installed. 3.31 – 3.78 : when only A is installed. Other voltages : no unit is installed.
ADU/D	97	Input port for the microphone up/down signal. DN: 0 – 0.8 V; UP: 1.2 – 1.6 V
ADSFT	98	Input port for the position data of the [SHIFT] control.
ADRIT	99	Input port for the position data of the [RIT] control.
ADSSM	100	Input port for the S-meter signal for the sub band meter.

#### 4-4-2 DATA EXPANDER IC (MAIN UNIT)

##### • IC8

Port name	Pin number	Description
MCWN	4	Outputs CW narrow filter selection signal. "HIGH" : when CW narrow mode is selected.
MCW	5	Outputs CW 8V control signal. "HIGH" : when CW or CW-narrow mode is selected on the main band.
MUSB MLSB	6, 7	Output SSB selection signal for the output power control. "HIGH" : when USB or LSB mode is selected on the main band.
MFM	14	Outputs an FM 8V control signal. "HIGH" : when FM mode is selected on the main band.
/MFM	13	Outputs 8V control signal except FM mode. "HIGH" : when SSB or CW mode is selected on the main band.
TSMF	12	Outputs 8V control signal for FM with tone squelch. "HIGH" : when FM mode with optional tone squelch is selected on the main band.
BKIN	11	Outputs full break-in control signal. "HIGH" : when the full break-in function is turned ON.

##### • IC10

Port name	Pin number	Description
AFMM	4	Outputs an AF mute signal for the main band. "HIGH" : during mute.
AFMS	5	Outputs an AF mute signal for the sub band. "HIGH" : during mute.
MONM	6	Outputs a squelch open signal for the main band for the monitor function. "HIGH" : while monitor function activates.
MONS	7	Outputs a squelch open signal for the sub band for the monitor function. "HIGH" : while monitor function activates.
SCAM	14	Outputs a scan control signal to control the AGC time constant characteristics. "HIGH" : during scan.
AT8	13	Outputs a T9V control signal for the PA-A unit. "HIGH" : when transmitting on the 144 MHz band.
R8	12	Outputs a R8V control signal. "HIGH" : when receiving.
BT8	11	Outputs a T9V control signal for the PA-B unit. "HIGH" : when transmitting on the 430 MHz band.

##### • IC24

Port name	Pin number	Description
SUSB	4	Outputs USB control signal for BFO oscillator. "HIGH" : when USB mode is selected on the sub band.
SLSB	5	Outputs LSB control signal for BFO oscillator. "HIGH" : when LSB mode is selected on the sub band.
SFM	6	Outputs an FM 8V control signal. "HIGH" : when FM mode is selected on the sub band.
/SFM	7	Outputs 8V control signal except FM mode. "HIGH" : when SSB or CW mode is selected on the sub band.
MSC	13	Outputs main/sub switching signal for voice synthesizer and beep tone. "HIGH" : when emitting the signal from the main band.



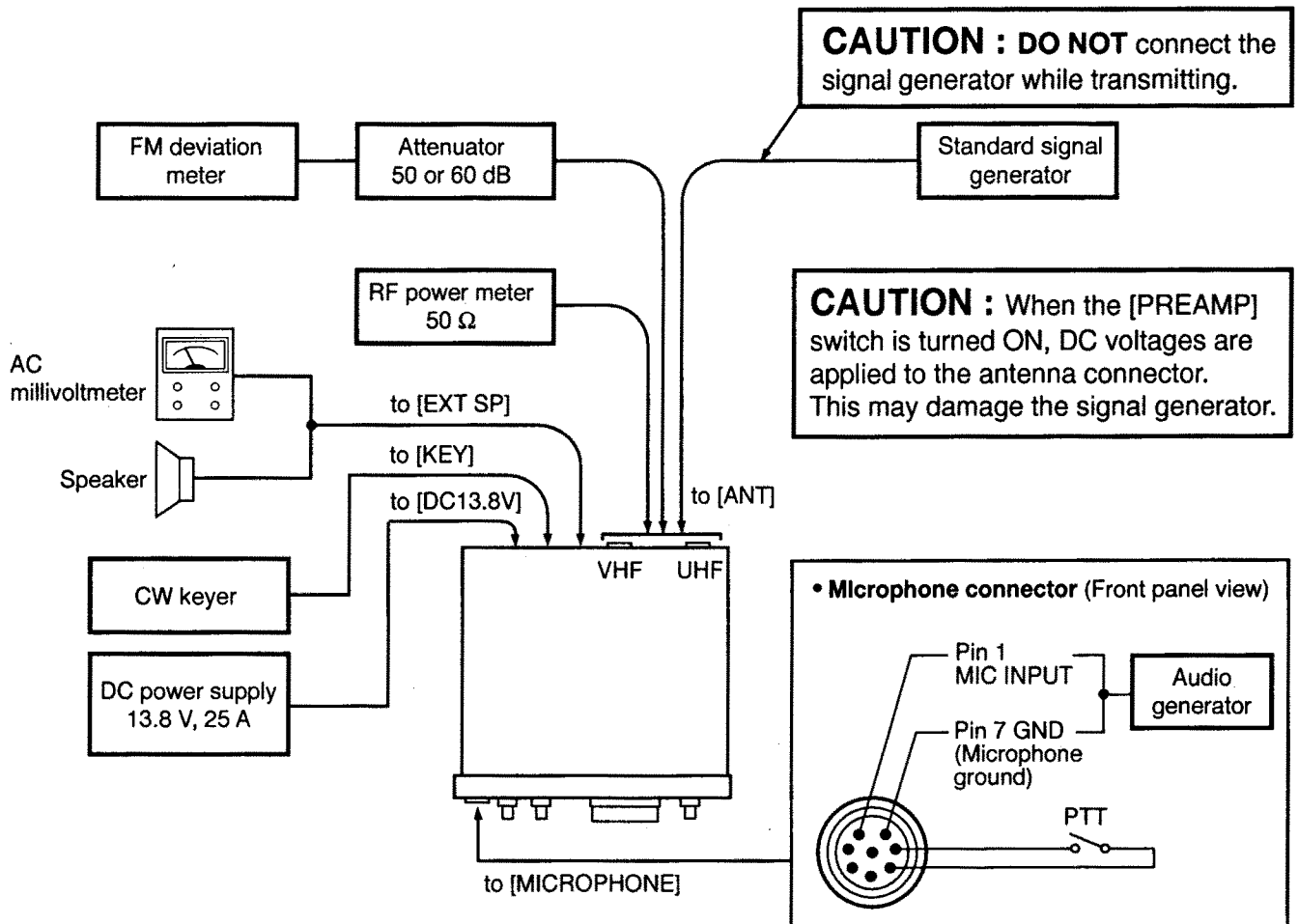
# SECTION 5 ADJUSTMENT PROCEDURES

## 5-1 PREPARATION BEFORE SERVICING


### ■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output voltage : 13.8 V DC Current capacity : 25 A or more	Oscilloscope	Frequency range : DC–20 MHz Measuring range : 0.01–10 V
RF power meter (terminated type)	Measuring range : 1–60 W Frequency range : 120–460 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	AC millivoltmeter	Measuring range : 10 mV–10 V
Frequency counter	Frequency range : 0.1–460 MHz Frequency accuracy : ±1 ppm or better Sensitivity : 100 mV or better	DC voltmeter	Input impedance : 50 kΩ/V DC or better
RF voltmeter	Frequency range : 0.1–460 MHz Measuring range : 0.01–10 V	Ammeter	Measurement capability : 25 A
Digital multimeter	Input impedance : 10 MΩ/DC or better	Audio generator	Frequency range : 300–3000 Hz Output level : 1–500 mV
Standard signal generator (SSG)	Frequency range : 120–460 MHz Output level : 0.1 μV–32 mV (–127 to –17 dBm)	Attenuator	Power attenuation : 40 or 50 dB Capacity : 60 W or more
Sweep generator	Frequency range : 120–460 MHz Sweep bandwidth : At least 50 MHz Output impedance : 50 Ω	FM deviation meter	Frequency range : 120–460 MHz Measuring range : 0 to ±5 kHz
		External speaker	Impedance : 8 Ω Max. input power : 5 W

### ■ CONNECTIONS



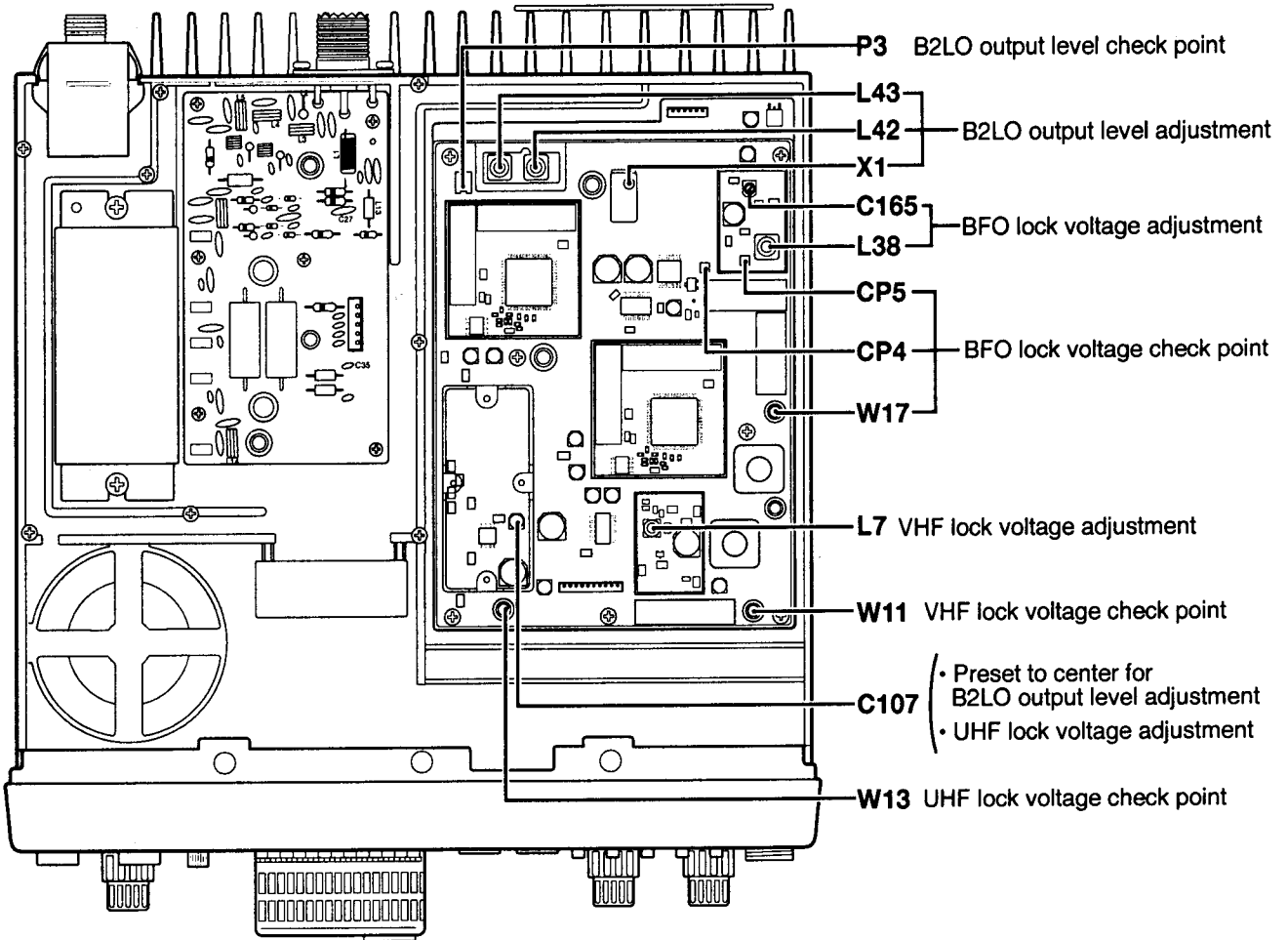
## 5-2 PLL ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
REFERENCE FREQUENCY (B2LO LEVEL)	<ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : FM</li> <li>● Terminate P3 with a 50 Ω resistor.</li> <li>● Receiving</li> <li>● Perform this adjustment 5 min or more after power ON.</li> </ul>	PLL	Connect the RF voltmeter to P3.	Preset to center as shown below. 	PLL	C107
						Maximum level (-19 dBm ±3 dBm)
			2	Connect the frequency counter to P3.		60.400 MHz
3	After adjustment, remove the resistor from P3, then replace it to its previous position.					
BFO LOCK VOLTAGE	<ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : USB</li> <li>● Terminate W17 with a 50 Ω resistor.</li> <li>● Receiving</li> </ul>	PLL	Connect the digital multimeter to CP4.	2.0 V DC	PLL	C165
			Connect the RF voltmeter to CP5.	Maximum level (more than 0.35 Vrms)		L38
			Connect the RF voltmeter to W17.	-11 dBm ±3 dBm		Verify
2	After confirmation, remove the resistor from W17, then replace it to its previous position.					
VHF LOCK VOLTAGE	<ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : FM</li> <li>● Terminate W11 with a 50 Ω resistor.</li> <li>● Receiving</li> </ul>	PLL	Connect the digital multimeter to W13.	3.0 V DC	PLL	L7
				2.2 V ±0.5 V DC		Verify
	6.2 V ±0.5 V DC					
	<ul style="list-style-type: none"> <li>● Displayed frequency : 136.000 MHz</li> </ul>		Connect the RF voltmeter to W11.	-10 dBm ±3 dBm		
	<ul style="list-style-type: none"> <li>● Displayed frequency : 174.000 MHz</li> </ul>			After confirmation, remove the resistor from W11, then replace it to its previous position.		
<ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Terminate W11 with a 50 Ω resistor.</li> </ul>						
UHF LOCK VOLTAGE	<ul style="list-style-type: none"> <li>● Displayed frequency : 440.000 MHz</li> <li>● Mode : FM</li> <li>● Terminate W13 with a 50 Ω resistor.</li> <li>● Receiving</li> </ul>	PLL	Connect the digital multimeter to W13.	4.0 V DC	PLL	C107
				1.6 V ±0.5 V DC		Verify
	6.5 V ±0.5 V DC					
	<ul style="list-style-type: none"> <li>● Displayed frequency : 420.000 MHz</li> </ul>			Connect the RF voltmeter to W13.		-9 dBm ±3 dBm ±150 Hz
	<ul style="list-style-type: none"> <li>● Displayed frequency : 460.000 MHz</li> </ul>		After confirmation, remove the resistor from W13, then replace it to its previous position.			
<ul style="list-style-type: none"> <li>● Displayed frequency : 440.000 MHz</li> <li>● Terminate W11 with a 50 Ω resistor.</li> </ul>						

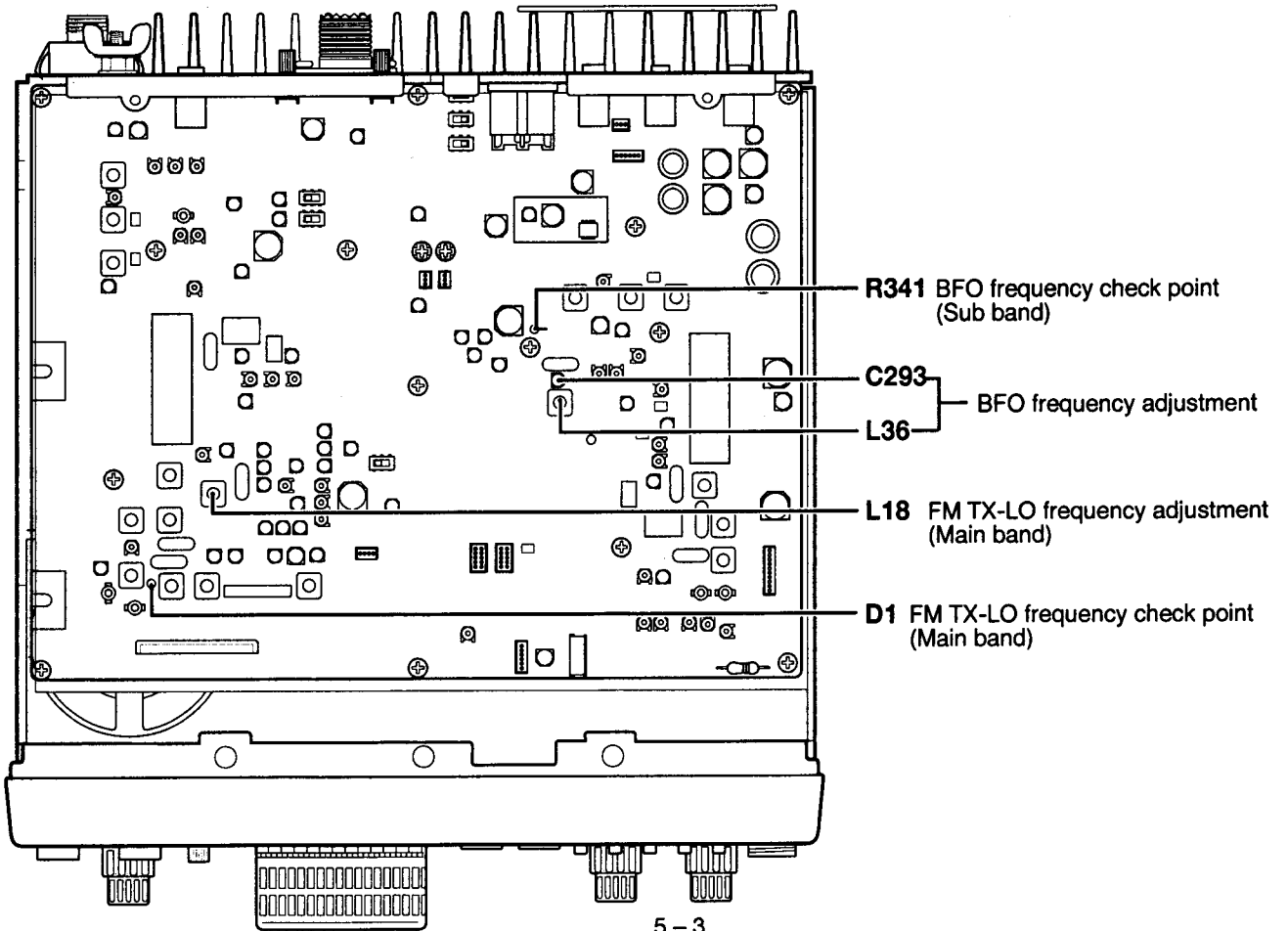
## 5-3 FREQUENCY ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
BFO FREQUENCY (SUB BAND)	<ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : LSB</li> <li>● Receiving</li> </ul>	MAIN	Connect the frequency counter to R341.	10.9515 MHz	MAIN	C293
	<ul style="list-style-type: none"> <li>● Mode : USB</li> <li>● Receiving</li> </ul>			10.9485 MHz		L36
	<ul style="list-style-type: none"> <li>● Mode : CW</li> <li>● Receiving</li> </ul>			10.9483 MHz ±150 Hz		Verify
FM TX-LO FREQUENCY (MAIN BAND)	<ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : FM</li> <li>● Transmitting</li> </ul>	MAIN	Connect the frequency counter to D1.	10.850 MHz	MAIN	L18

• PLL UNIT



• MAIN UNIT

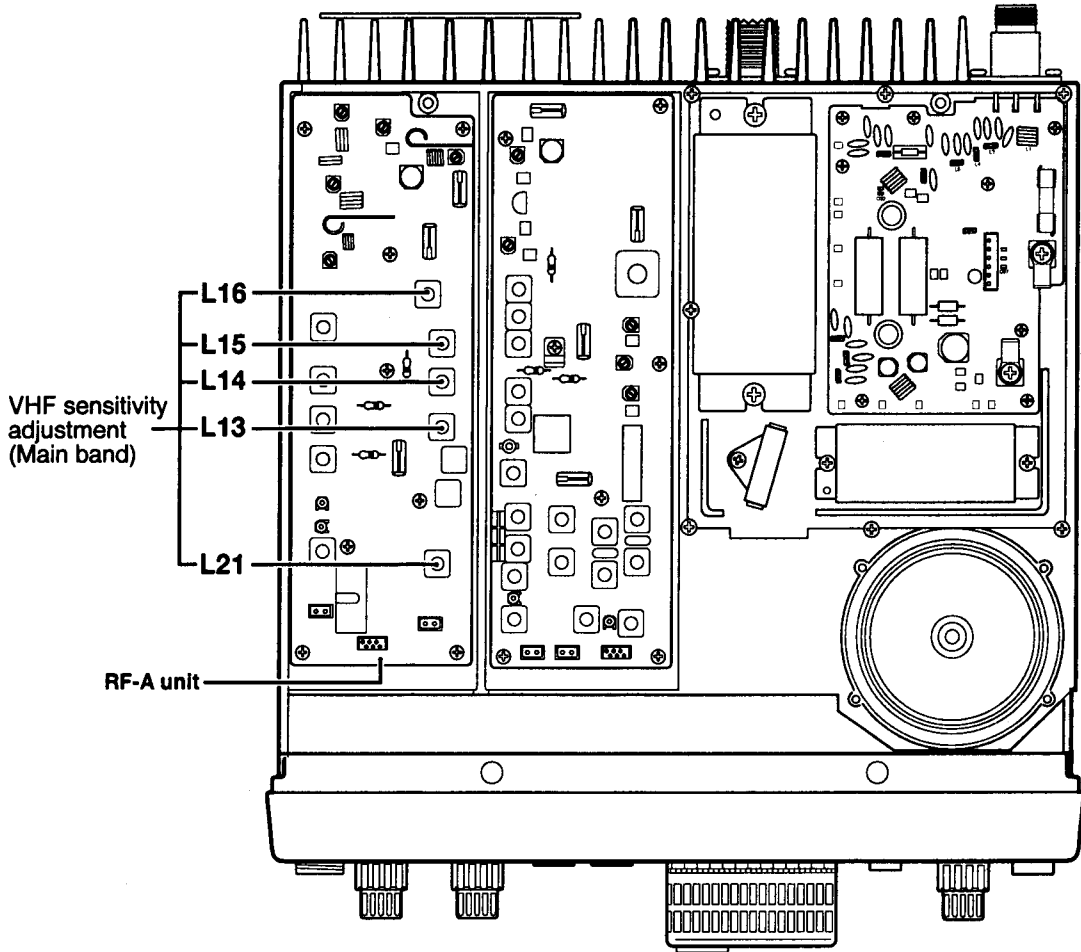


## 5-4 RECEIVER ADJUSTMENT

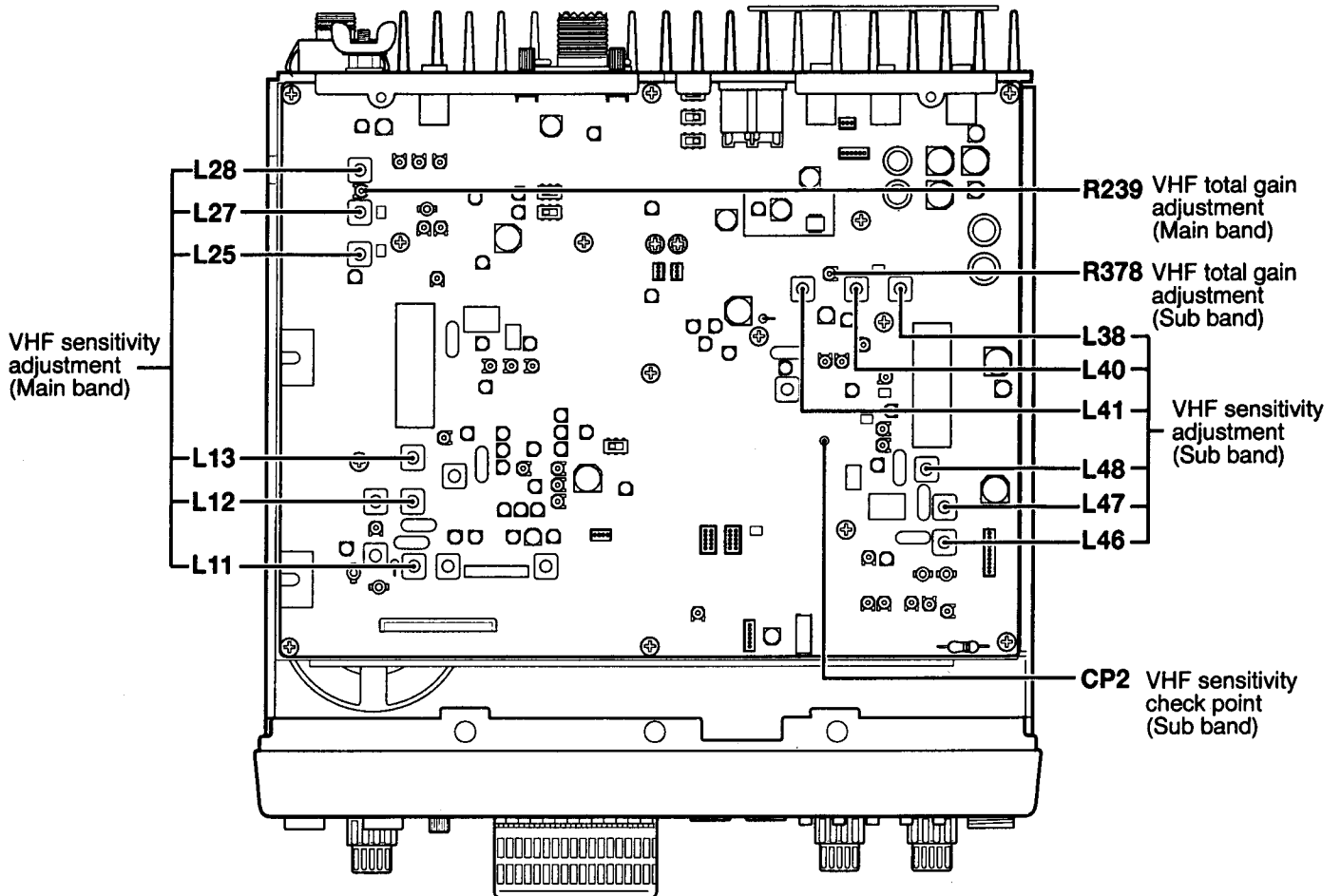
ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
VHF SENSITIVITY (MAIN BAND)	1 ●Displayed frequency : 144.000 MHz ●Mode : FM ●[ATT] : OFF [NB] : OFF [AGC] : ON (fast) [RIT] : OFF [SQL (MAIN)] : Max. CCW ●Connect the SSG to the [VHF ANT] connector and set as: Modulation : 1 kHz Deviation : ±5 kHz ●Receiving	FRONT panel	S meter	S3	Connected SSG	Output level
				Maximum level	RF-A	Adjust in sequence L16, L15, L14, L13, L21
	2 ●Mode : USB ●Connect the SSG to the [VHF ANT] connector and set as: Level : 0.1 μV* (-127 dBm) Modulation : OFF	Rear panel	Connect the AC millivoltmeter to the [EXT SP] juck with an 8 Ω load.	Maximum audio output	MAIN	Adjust in sequence L25, L27, L28
VHF SENSITIVITY (SUB BAND)	1 ●Displayed frequency : 144.000 MHz ●[SQL (SUB)] : Max. CCW ●Mode : FM ●Connect the SSG to the [VHF ANT] connector and set as: Modulation : 1 kHz Deviation : ±5 kHz ●Receiving	MAIN	Connect the digital voltmeter or oscilloscope to CP2.	approx. 2 V	Connected SSG	Output level
				Maximum voltage	MAIN	Adjust in sequence L46, L47, L48
	2 ●Mode : USB ●Connect the SSG to the [VHF ANT] connector and set as: Level : 0.1 μV* (-127 dBm) Modulation : OFF		Connect the AC millivoltmeter to the [EXT SP] juck with an 8 Ω load.			Adjust in sequence L38, L40, L41
VHF TOTAL GAIN (MAIN BAND)	1 ●Displayed frequency : 144.000 MHz ●Mode : USB ●Connect the SSG to the [VHF ANT] connector and set as: Level : 0.1 μV* (-127 dBm) Modulation : OFF	Rear panel	Connect the AC millivoltmeter to the [EXT SP] juck with an 8 Ω load.	approx. 1.5 kHz	Connected SSG	Output frequency
				1.0 V (0 dB)	Front panel	[AF] control
	2 ●Set the as: Level : OFF			100 mV (-20 dB)	MAIN	R239
TOTAL GAIN (SUB BAND)	1 ●Displayed frequency : 144.000 MHz ●Mode : USB ●Connect the SSG to the [VHF ANT] connector and set as: Level : 1 mV* (-47 dBm) Modulation : OFF	Rear panel	Connect the AC millivoltmeter to the [EXT SP] juck with an 8 Ω load.	approx. 1.5 kHz	Connected SSG	Output frequency
				1.0 V (0 dB)	Front panel	[AF] control
	2 ●Set the SSG as: Level : OFF			100 mV (-20 dB)	MAIN	R378

\* This output level of the standard signal generator (SSG) is indicated as SSG's open circuit.

• RF-A AND RF-B UNITS



• MAIN UNIT



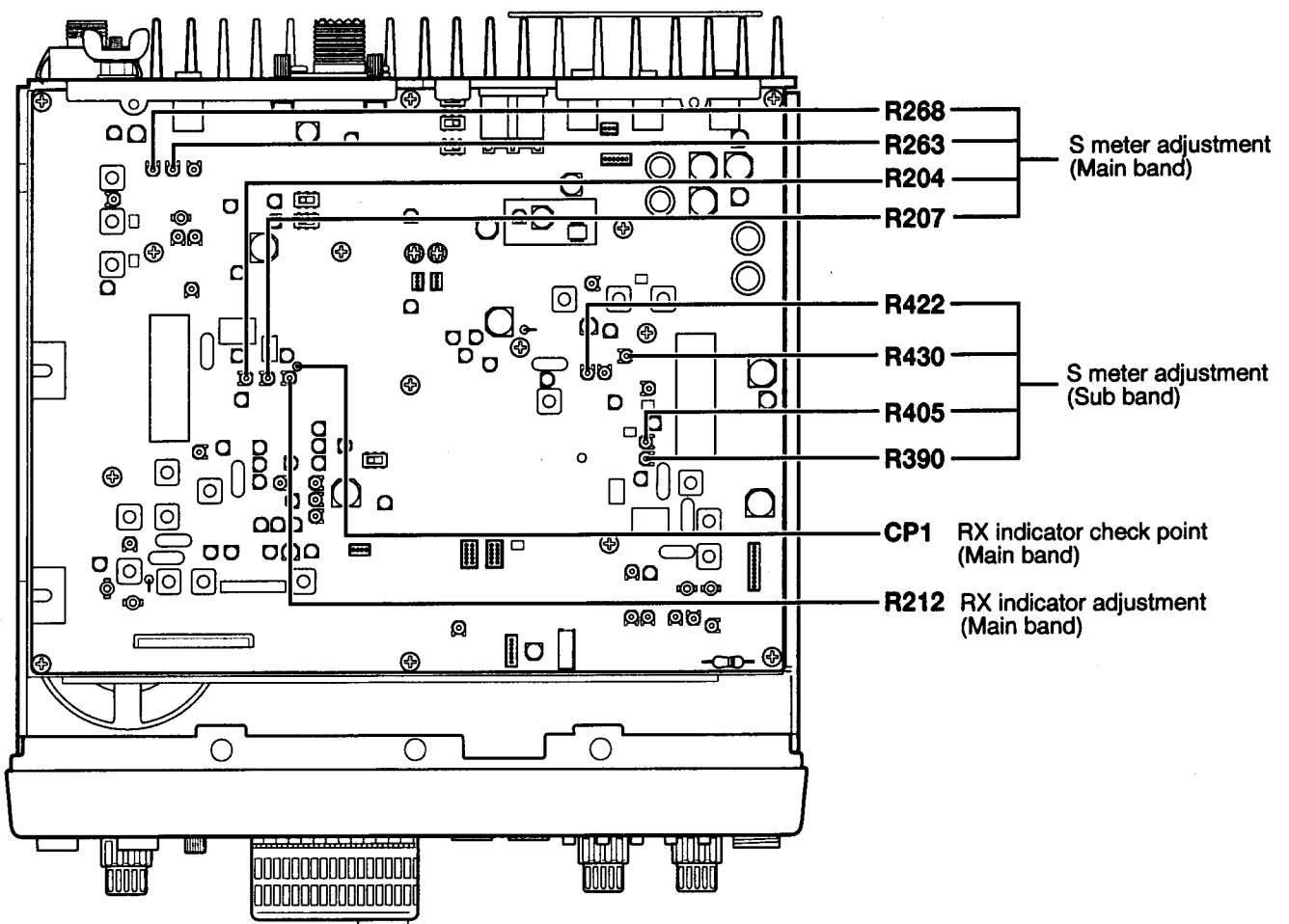
## RECEIVER ADJUSTMENT (CONTINUED)

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT		
		UNIT	LOCATION		UNIT	ADJUST	
S-METER (MAIN BAND)	1	<ul style="list-style-type: none"> <li>● Displayed frequency: 145.000 MHz (EUR, SWE) 146.000 MHz (USA, AUS)</li> <li>● Mode : FM</li> <li>● Connect the SSG to the [VHF ANT] connector and set as: Level : 3.2 <math>\mu</math>V* (-97 dBm) Modulation : 1 kHz Deviation : <math>\pm</math>3.5 kHz</li> </ul>	Front panel	S meter	S9	MAIN	R204
	2	<ul style="list-style-type: none"> <li>● Set the SSG as: Level : 100 <math>\mu</math>V* (-67 dBm)</li> </ul>			S9 + 60 dB		R207
	3	<ul style="list-style-type: none"> <li>● Mode : USB</li> <li>● Set the SSG as: Level : 3.2 <math>\mu</math>V* (-97 dBm) Modulation : OFF</li> </ul>			S9		R268
	4	<ul style="list-style-type: none"> <li>● Set the SSG as: Level : 1.0 mV* (-47 dBm) Modulation : OFF</li> </ul>			S9 + 60 dB		R263
S-METER (SUB BAND)	1	<ul style="list-style-type: none"> <li>● Displayed frequency: 145.000 MHz (EUR, SWE) 146.000 MHz (USA, AUS)</li> <li>● Mode : FM</li> <li>● Connect the SSG to the [VHF ANT] connector and set as: Level : 3.2 <math>\mu</math>V* (-97 dBm) Modulation : 1 kHz Deviation : <math>\pm</math>3.5 kHz</li> </ul>	Front panel	S meter	S9	MAIN	R390
	2	<ul style="list-style-type: none"> <li>● Set the SSG as: Level : 100 <math>\mu</math>V* (-67 dBm)</li> </ul>			S9 + 60 dB		R405
	3	<ul style="list-style-type: none"> <li>● Mode : USB</li> <li>● Set the SSG as: Level : 3.2 <math>\mu</math>V* (-97 dBm) Modulation : OFF</li> </ul>			S9		R430
	4	<ul style="list-style-type: none"> <li>● Set the SSG as: Level : 1.0 mV* (-47 dBm) Modulation : OFF</li> </ul>			S9 + 60 dB		R422
RX INDICATOR (MAIN BAND)	1	<ul style="list-style-type: none"> <li>● Displayed frequency : 146.000 MHz</li> <li>● Mode : FM</li> <li>● Connect the SSG to the [VHF ANT] connector and set as: Level : 100 <math>\mu</math>V* (-67 dBm) Modulation : 1 kHz Deviation : <math>\pm</math>3.5 kHz</li> <li>● Receiving</li> </ul>	MAIN	Connect the digital voltmeter to CP1.	1.5 V $\pm$ 0.01 V	MAIN	R212
	2	<ul style="list-style-type: none"> <li>● Set the SSG as: Level : OFF</li> </ul>			1.5 V $\pm$ 0.1 V		Verify

\* This output level of the standard signal generator (SSG) is indicated as SSG's open circuit.



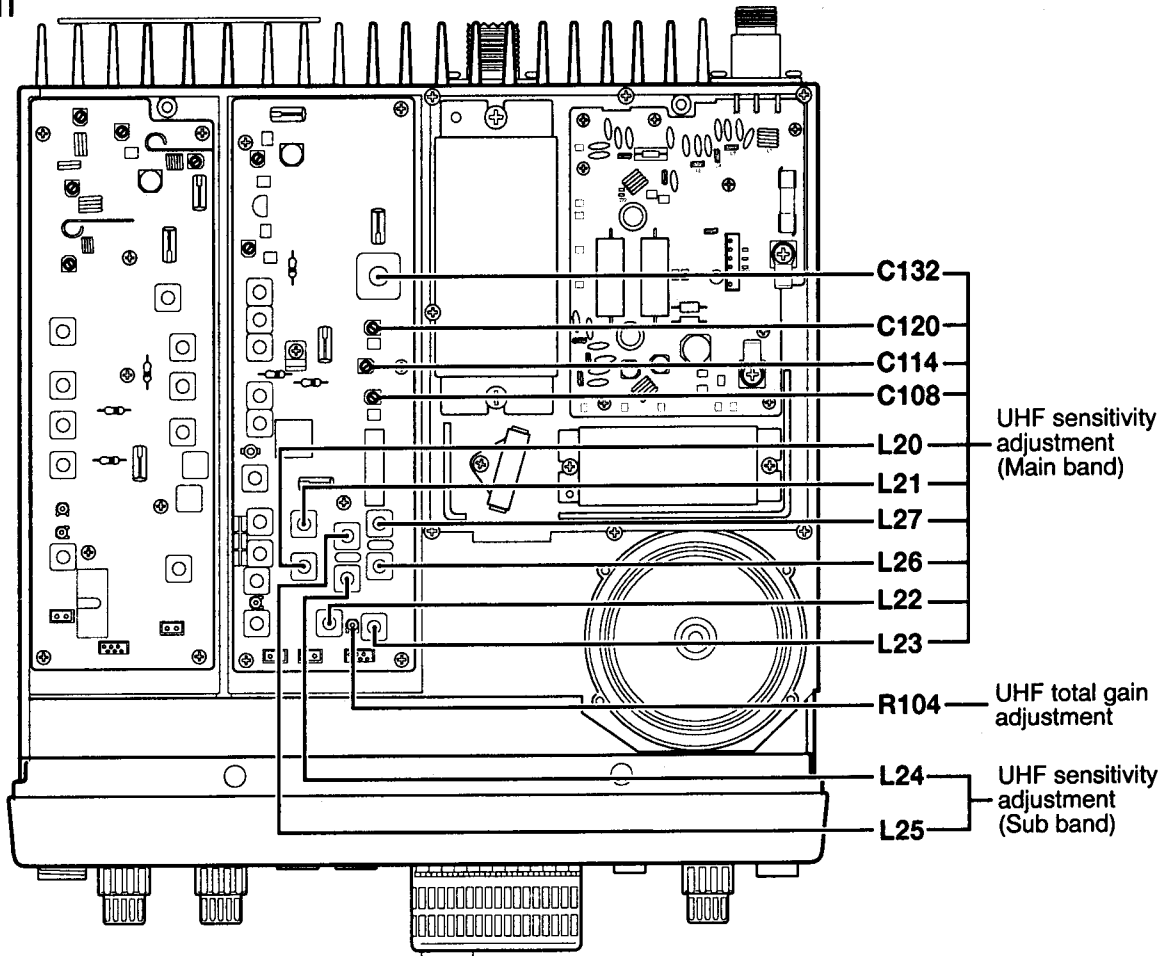
• MAIN UNIT



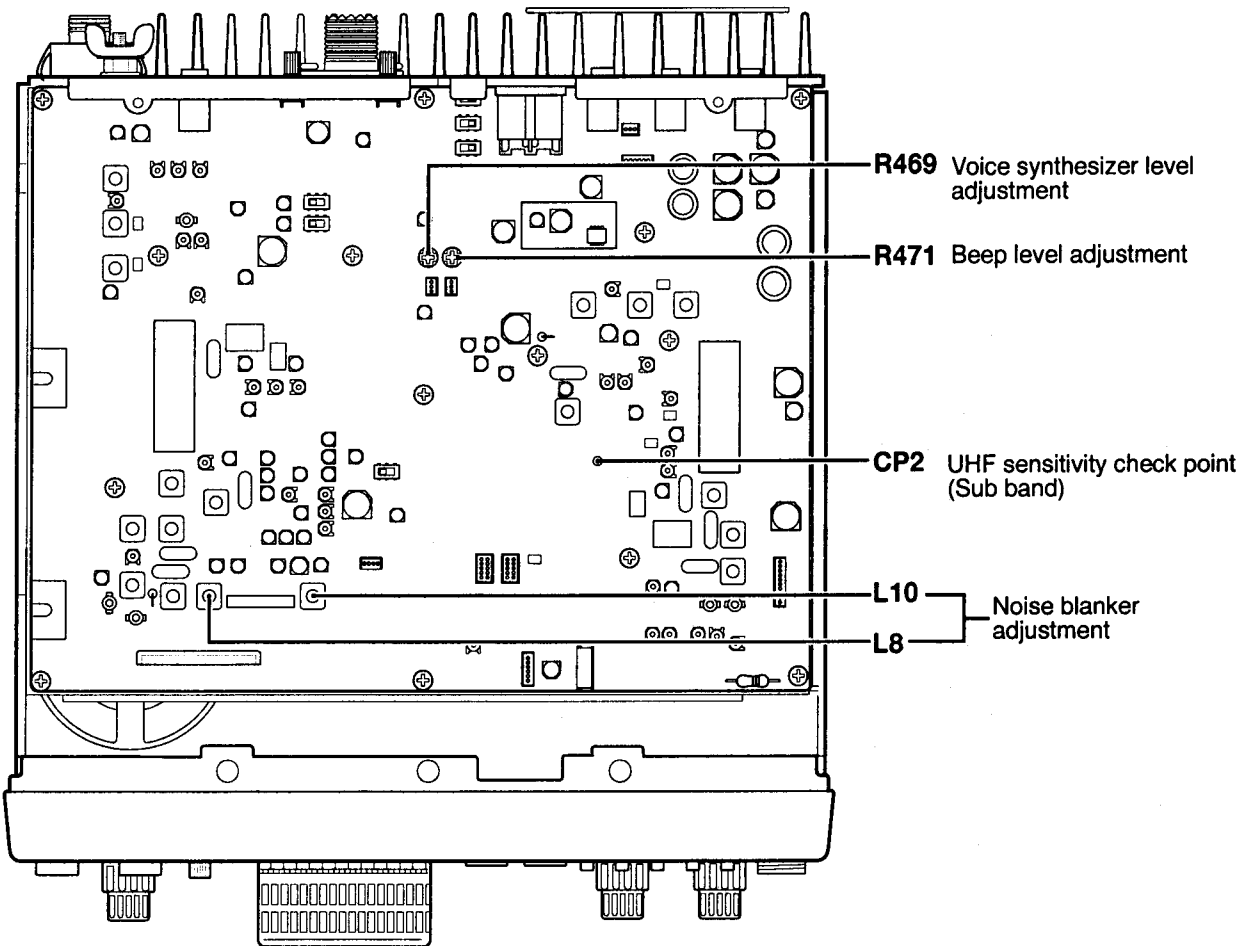
## RECEIVER ADJUSTMENT (CONTINUED)

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
UHF SENSITIVITY (MAIN BAND)	<ul style="list-style-type: none"> <li>● Displayed frequency: 430.000 MHz (AUS, EUR, USA) 432.000 MHz (SWE)</li> <li>● Mode : FM</li> <li>● [ATT] : OFF [NB] : OFF</li> <li>[AGC] : ON (fast) [RIT] : OFF</li> <li>[SQL (MAIN)] : Max. CCW</li> <li>● Connect the SSG to the [UHF ANT] connector and set as: Modulation : 1 kHz Deviation : ±5 kHz</li> <li>● Receiving</li> </ul>	Front panel	S meter	S3	Connected SSG	Output level
				Maximum level		RF-B
UHF SENSITIVITY (SUB BAND)	<ul style="list-style-type: none"> <li>● Displayed frequency: 430.000 MHz (AUS, EUR, USA) 432.000 MHz (SWE)</li> <li>● Mode : FM</li> <li>● [ATT] : OFF</li> <li>[AGC] : ON (fast)</li> <li>[SQL (SUB)] : Max. CCW</li> <li>● Connect the SSG to the [UHF ANT] connector and set as: Modulation : 1 kHz Deviation : ±5 kHz</li> <li>● Receiving</li> </ul>	MAIN	Connect the digital voltmeter to CP2.	approx. 2 V	Connected SSG	Output level
				Maximum voltage		RF-B
UHF TOTAL GAIN (MAIN BAND)	<ul style="list-style-type: none"> <li>● Displayed frequency: 435.000 MHz (EUR, SWE) 440.000 MHz (AUS, USA)</li> <li>● Mode : FM</li> <li>● Connect the SSG to the [UHF ANT] connector and set as: Level : 3.2 μV* (-97 dBm)</li> <li>Modulation : 1 kHz</li> <li>Deviation : ±3.5 kHz</li> </ul>	FRONT panel	S meter	S9	RF-B	R104
NOISE BLANKER	<ul style="list-style-type: none"> <li>● Displayed frequency : 144.000 MHz</li> <li>● Mode : USB</li> <li>● [NB] switch : ON</li> <li>● Receiving</li> <li>● Connect the SSG to the [VHF ANT] connector and apply the pulse-type noise signals to the SSG's output.</li> </ul>	Top cover	Speaker	Minimum pulse-type noise level.	MAIN	L8, L10
BEEP/VOICE SYNTHESIZER (option) LEVEL	<ul style="list-style-type: none"> <li>● Main band</li> <li>● Receiving</li> <li>● [AF] control : Center</li> </ul>	Top cover	Speaker	Desired beep level. (default setting is at center position)	MAIN	R471 (Beep) R469 (voice synthesizer)

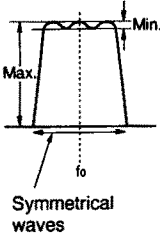
• RF-B UNIT



• MAIN UNIT



## 5-5 TRANSMITTER ADJUSTMENT

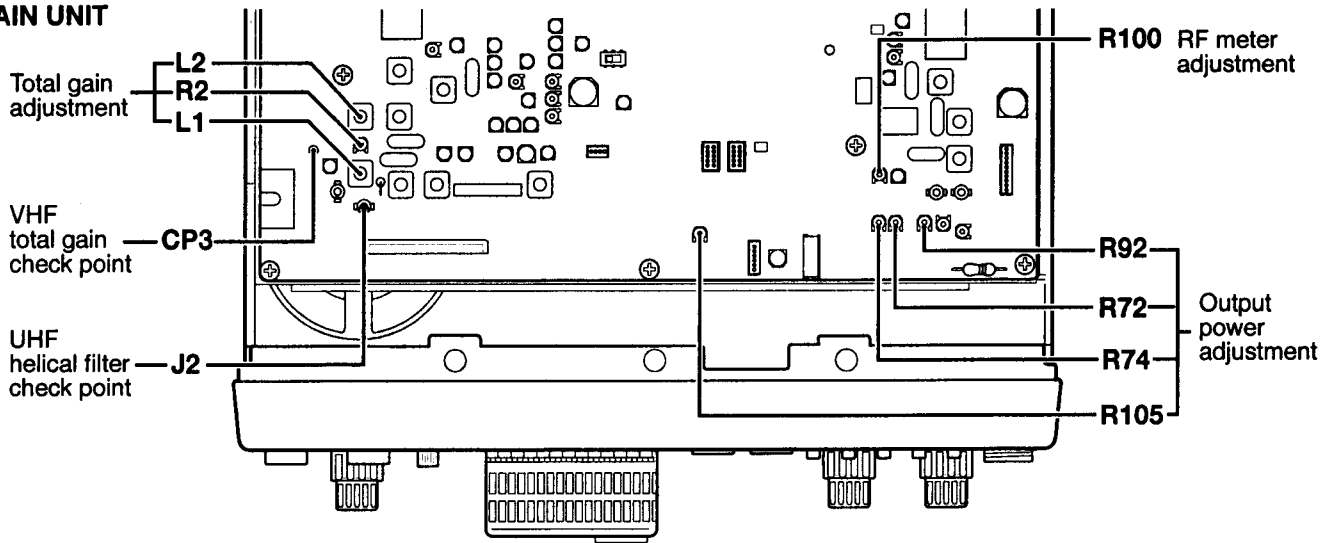
ADJUSTMENT		ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT		
			UNIT	LOCATION		UNIT	ADJUST	
UHF HELICAL FILTER	1	<ul style="list-style-type: none"> <li>Displayed frequency: 445.000 MHz (AUS, USA) 435.000 MHz (All other versions)</li> <li>Connect the sweep generator to RF-B unit J7</li> <li>Sweep level : 71 mV (-10 dBm)</li> <li>Center frequency : Same as the displayed frequency</li> <li>Sweep bandwidth : 50 MHz</li> <li>Unplug MAIN unit J2</li> <li>Transmitting</li> </ul>	RF-B	Connect the oscilloscope to J3 through the detector.	Adjust as follows: 	RF-B	L36, L37, C32, C37	
TOTAL GAIN	1	<ul style="list-style-type: none"> <li>Displayed frequency: 146.000 MHz (AUS, USA) 145.000 MHz (EUR, SWE)</li> <li>Mode : USB</li> <li>Connect the audio generator to the microphone connector and set as: 2 mV/1.5 kHz</li> <li>Transmitting</li> </ul>	RF-A	Connect the RF voltmeter to J1 pin 1.	Maximum	MAIN	L1, L2	
	2				18 mV (-22 dBm)		R2	
VHF TOTAL GAIN	1	<ul style="list-style-type: none"> <li>Displayed frequency: 146.000 MHz (AUS, USA) 145.000 MHz (EUR, SWE)</li> <li>Ground CP3 (MAIN unit)</li> <li>Mode : USB</li> <li>[MIC] control : Center</li> <li>Connect the audio generator to the microphone connector and set as: 2 mV/1.5 kHz</li> <li>Transmitting</li> </ul>	Rear panel	Connect the RF power meter to the [144 MHz ANT] connector.	Maximum	RF-A	L1—L5, C27, C35, C101, C103	
	2				18 W		R3	
UHF TOTAL GAIN	1	<ul style="list-style-type: none"> <li>Displayed frequency: 440.000 MHz (AUS, USA) 435.000 MHz (EUR, SWE)</li> <li>Ground CP3 (MAIN unit)</li> <li>Mode : USB</li> <li>Connect the audio generator to the microphone connector and set as: 2 mV/1.5 kHz</li> <li>Transmitting</li> </ul>	Rear panel	Connect the RF power meter to the [430 MHz ANT] connector.	Maximum	RF-B	L1—L5	
	2				16 W		R3	
OUTPUT POWER	1	<ul style="list-style-type: none"> <li>Displayed frequency: 148.000 MHz (AUS, USA) 146.000 MHz (EUR, SWE)</li> <li>Mode : FM</li> <li>[PWR/COMP] switch: High (no lighting)</li> <li>Transmitting</li> </ul>	Rear panel	Connect the RF power meter to the [144 MHz ANT] connector.	45 W	MAIN	R72	
	2	<ul style="list-style-type: none"> <li>[PWR/COMP] switch: Low (lights in red)</li> </ul>			5.5 W		R74	
	3	Repeat steps 1 and 2 several times.						
	4	<ul style="list-style-type: none"> <li>Mode : USB</li> <li>[PWR/COMP] switch: High (no lighting)</li> <li>[MIC] control : Center</li> <li>Connect the audio generator to the microphone connector and set as: 20 mV/1.5 kHz</li> </ul>	Rear panel	Connect the RF power meter to the [144 MHz ANT] connector.	35 W		R105	

Continue on the next page ↗

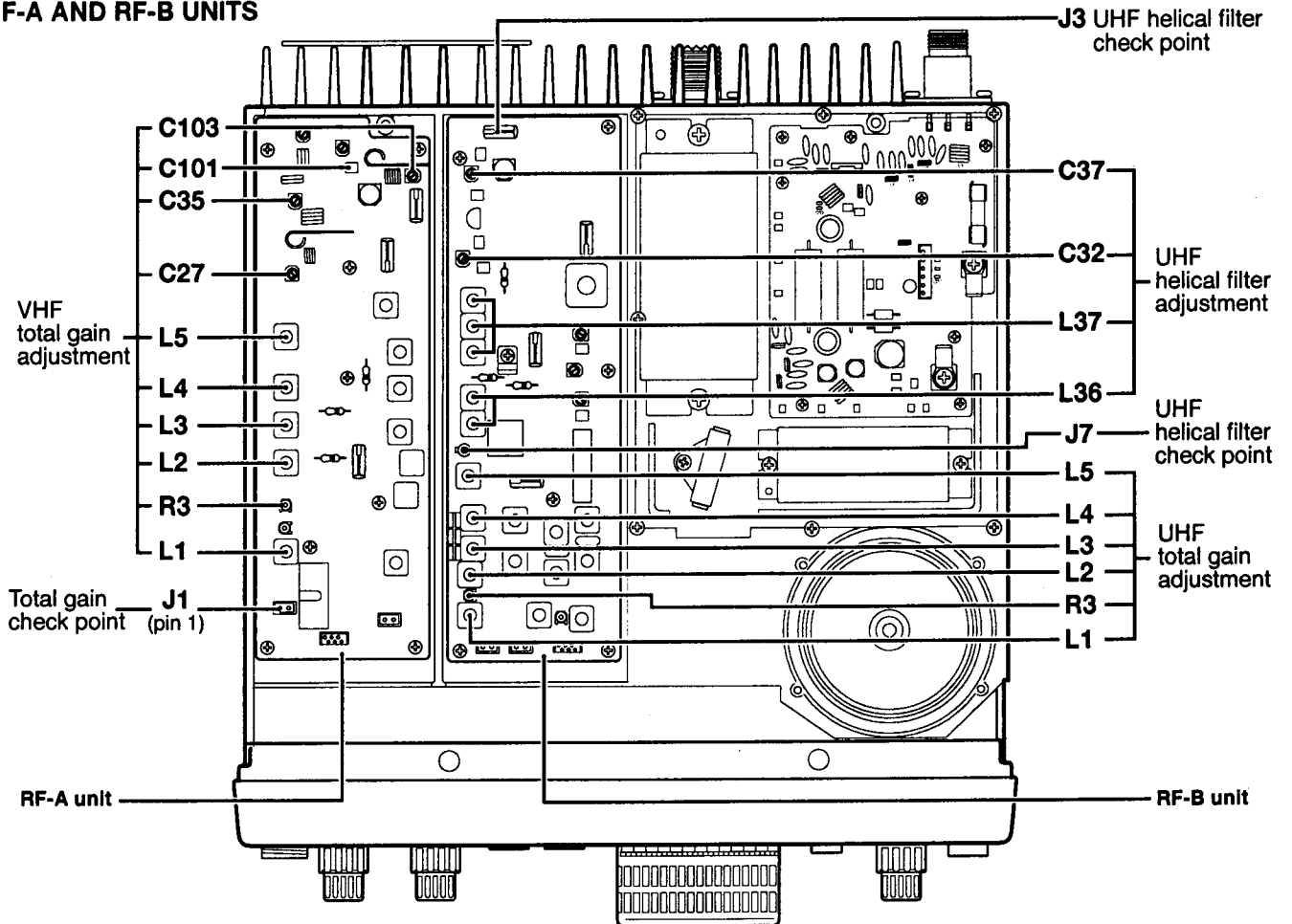
# TRANSMITTER ADJUSTMENT (CONTINUED)

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
OUTPUT POWER	5 ● Displayed frequency: 430.000 MHz (AUS, EUR, USA) 432.000 MHz (SWE) ● Mode : FM ● [PWR/COMP] switch : High (no lighting)		Connect the RF power meter to the [430 MHz ANT] connector.	40 W		R92
RF METER	1 ● Displayed frequency : Center of each band ● Mode : FM ● [PWR/COMP] switch : High (no lighting) ● Transmitting	Front panel	RF meter	S + 40 dB (90%)	MAIN	R100

## • MAIN UNIT



## • RF-A AND RF-B UNITS

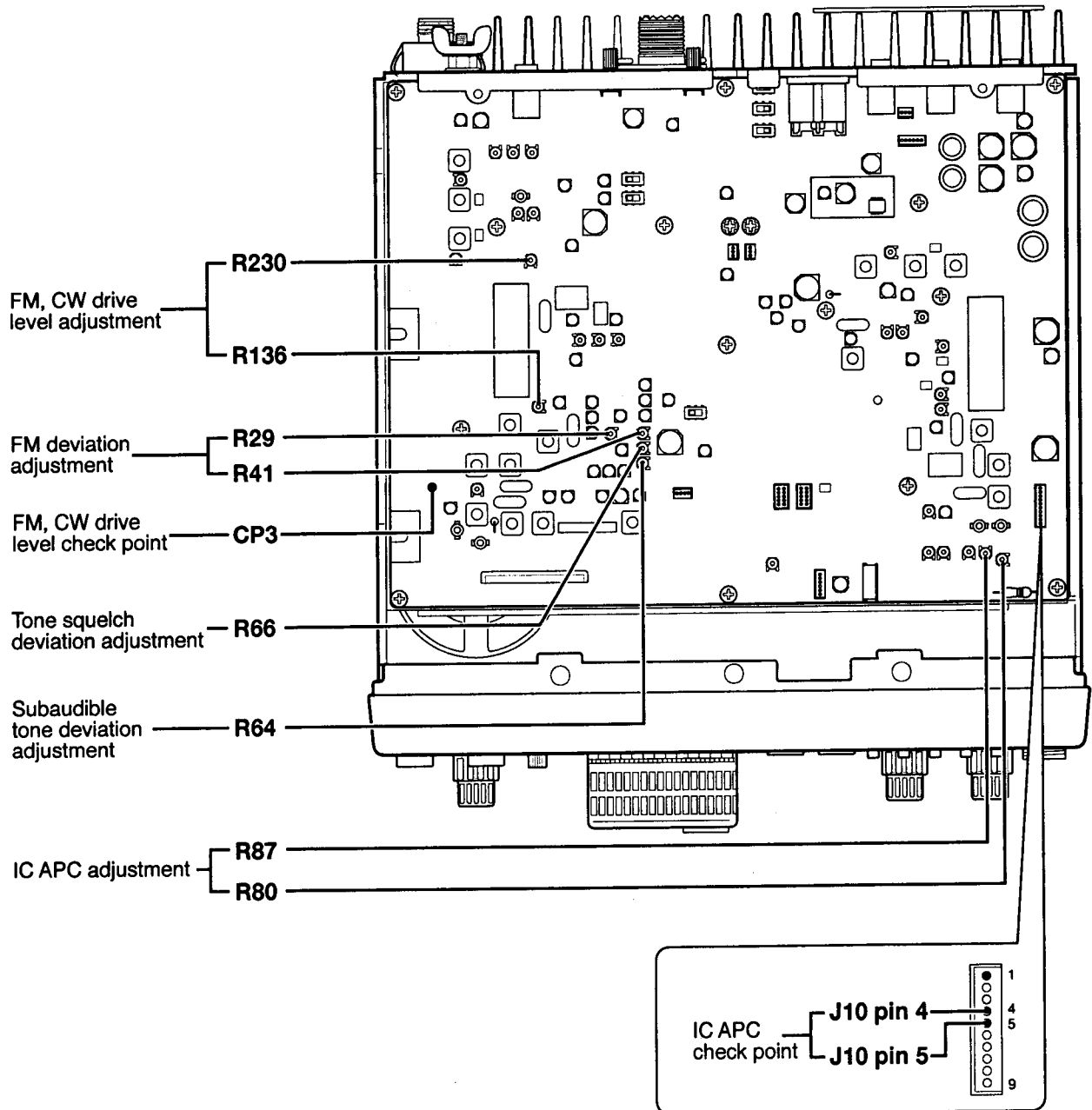


## TRANSMITTER ADJUSTMENT (CONTINUED)

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT POINT				
		UNIT	LOCATION		UNIT	ADJUST			
FM, CW DRIVE LEVEL	1 <ul style="list-style-type: none"> <li>● Displayed frequency : 146.000 MHz (AUS, USA) 145.000 MHz (EUR, SWE)</li> <li>● Mode : USB</li> <li>● Connect the audio generator to the microphone connector and set as: 20 mV/1.5 kHz</li> <li>● Transmitting</li> </ul>	MAIN	Connect the digital multi-meter to CP3.			Check the voltage			
	2 <ul style="list-style-type: none"> <li>● Mode: FM</li> <li>● Transmitting</li> </ul>						Same value as step 1.	MAIN	R136
	3 <ul style="list-style-type: none"> <li>● Mode: CW</li> <li>● Connect a keyer to the [KEY] jack and key down.</li> </ul>						Same value as step 1.		R230
IC APC	1 <ul style="list-style-type: none"> <li>● Displayed frequency : 144.000 MHz</li> <li>● Mode : USB</li> <li>● [MIC] control : Max. clockwise</li> <li>● Ground J10 pin 4 (MAIN unit)</li> <li>● Connect the audio generator to the microphone connector and set as: 20 mV/1.5 kHz</li> <li>● Transmitting</li> </ul>	Rear panel	Connect the RF power meter to the [144 MHz ANT] connector.	55 W	MAIN	R80			
	2 <ul style="list-style-type: none"> <li>● Displayed frequency : 430.000 MHz</li> <li>● Ground J10 pin 5 (MAIN unit)</li> </ul>						Connect the ammeter between the DC power supply and IC-820H.	16 A	MAIN
	3	After adjustment, replace J3 and EP-1.							
FM DEVIATION	1 <ul style="list-style-type: none"> <li>● Displayed frequency : 144.000 MHz</li> <li>● Mode : FM</li> <li>● [PWR/COMP] : High (no lighting)</li> <li>● [MIC] control : Center</li> <li>● Connect the audio generator to the microphone connector and set as: 1 kHz/20 mV</li> <li>● Connect the FM deviation meter as: HPF : 50 Hz LPF : 20 kHz De-emphasis : OFF Detector : (P-P)/2</li> <li>● Transmitting</li> </ul>	Rear panel	Connect the FM deviation meter to the [144 MHz ANT] connector via the attenuator.	±4.8 kHz	MAIN	R29			
	2 <ul style="list-style-type: none"> <li>● Set as the audio generator as: 1 kHz/2 mV</li> </ul>								±3.5 kHz
	3	Repeat steps 1 and 2 several times.							
TONE SQUELCH DEVIATION (option)	1 <ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : FM</li> <li>● Tone squelch : ON</li> <li>● Tone frequency : 67 Hz</li> </ul>	Rear panel	Connect the FM deviation meter to the [144 MHz ANT] connector via the attenuator.	±0.6 kHz	MAIN	R66			
SUBAUDIBLE TONE DEVIATION (AUS, USA versions only)	1 <ul style="list-style-type: none"> <li>● Displayed frequency : 146.000 MHz</li> <li>● Mode : FM</li> <li>● Subaudible tone encoder: ON</li> <li>● Tone frequency : 67 Hz</li> <li>● Transmitting</li> </ul>	Rear panel	Connect the FM deviation meter to the [144 MHz ANT] connector via the attenuator.	±0.6 kHz	MAIN	R64			
1750 Hz TONE BURST (EUR, SWE versions only)	1 <ul style="list-style-type: none"> <li>● Displayed frequency : 145.000 MHz</li> <li>● Mode : FM</li> <li>● Push and hold [TONE]</li> </ul>	Rear panel	Connect the FM deviation meter to the [144 MHz ANT] connector via the attenuator.	±3.5 kHz	MAIN	R64			



• MAIN UNIT



# SECTION 6 PARTS LIST

## [FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
ME1	5510000420	METER	ME-34 SX1425
W9	7120000010	JUMPER	JPW 02A
J1	6510000290	CONNECTOR	8S-S-E
S1	2280001580	SWITCH	JPZ2120-0101 (TV-3)
S2	2250000130	ENCODER	SW-152 (EC24B50B0013B)
EP1	0910041880	FPC	B 4178

## [DISP UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
Q40	1590001330	S.TRANSISTOR	DTA114EU T107
Q41	1590000430	S.TRANSISTOR	DTC144EU T107
Q42	1590000430	S.TRANSISTOR	DTC144EU T107
Q43	1590000680	S.TRANSISTOR	DTC114EU T107
D1	1750000390	S.DIODE	1SS353 TE-17
D3	1750000290	S.DIODE	1SS300 (TE85R)
D4	1750000290	S.DIODE	1SS300 (TE85R)
D5	1750000290	S.DIODE	1SS300 (TE85R)
D6	1750000270	S.DIODE	1SS301 (TE85R)
D7	1750000270	S.DIODE	1SS301 (TE85R)
D8	1750000270	S.DIODE	1SS301 (TE85R)
D9	1750000270	S.DIODE	1SS301 (TE85R)
D10	1750000270	S.DIODE	1SS301 (TE85R)
D11	1750000290	S.DIODE	1SS300 (TE85R)
D12	1750000390	S.DIODE	1SS353 TE-17
D13	1750000390	S.DIODE	1SS353 TE-17
D14	1750000390	S.DIODE	1SS353 TE-17
D15	1750000390	S.DIODE	1SS353 TE-17
D16	1750000390	S.DIODE	1SS353 TE-17
D17	1750000390	S.DIODE	1SS353 TE-17
D18	1750000270	S.DIODE	1SS301 (TE85R)
D19	1750000390	S.DIODE	1SS353 TE-17
D20	1750000390	S.DIODE	1SS353 TE-17
D21	1750000390	S.DIODE	1SS353 TE-17
D22	1750000390	S.DIODE	1SS353 TE-17
D23	1750000390	S.DIODE	[EUR], [AUS] only 1SS353 TE-17
D24	1750000390	S.DIODE	[USA], [AUS] only 1SS353 TE-17
D25	1750000390	S.DIODE	[SWE] only 1SS353 TE-17
D26	1750000390	S.DIODE	1SS353 TE-17
D27	1750000390	S.DIODE	1SS353 TE-17
D28	1750000390	S.DIODE	1SS353 TE-17
D29	1790000450	S.DIODE	MA862(TX)
D30	1750000270	S.DIODE	1SS301 (TE85R)
D31	1750000270	S.DIODE	1SS301 (TE85R)
D32	1750000270	S.DIODE	1SS301 (TE85R)
X1	6050008160	S.XTAL	CR-410 (9.8304MHz)
L1	6200003950	S.COIL	HF50ACC 322513-T
L2	6200003950	S.COIL	HF50ACC 322513-T
R1	7030000270	S.RESISTOR	MCR10EZHZ 120 Ω (121)
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R3	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R4	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R5	7030000360	S.RESISTOR	MCR10EZHZ 680 Ω (681)
R6	7030000360	S.RESISTOR	MCR10EZHZ 680 Ω (681)
R7	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R8	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R9	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R10	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R11	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R12	7030003420	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R13	7030003750	S.RESISTOR	ERJ3GEYJ 394 V (390 kΩ)
R14	7030003750	S.RESISTOR	ERJ3GEYJ 394 V (390 kΩ)
R15	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R16	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R17	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
	7030004050	S.RESISTOR	[USA], [EUR], [AUS] ERJ3GEYJ 1R0 V (1 Ω) [SWE]

## [DISP UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1180001110	S.IC	PQ20VZ51
IC2	1140002190	S.IC	HD66100FH
IC3	1110003300	S.IC	M5282FP 70CD
IC4	1140003830	S.IC	TC4W66F(TE12L)
IC5	1180001070	S.IC	TA7805F(TE16L)
IC6	1110001550	S.IC	S-8054ALB-LM-T1
IC7	1130005720	S.IC	TC7W04F (TE12L)
IC8	1140004430	S.IC	HD6433875A02H
IC9	1130006800	S.IC	TC7W08F (TE12L)
IC10	1180001110	S.IC	PQ20VZ51
IC11	1130007700	S.IC	BU4094BCF-T1
Q1	1590001330	S.TRANSISTOR	DTA114EU T107
Q2	1530002890	S.TRANSISTOR	2SC4116-GR (TE85R)
Q3	1590001330	S.TRANSISTOR	DTA114EU T107
Q4	1590000430	S.TRANSISTOR	DTC144EU T107
Q5	1520000560	S.TRANSISTOR	2SB1123T-TD
Q6	1590000430	S.TRANSISTOR	DTC144EU T107
Q7	1520000560	S.TRANSISTOR	2SB1123T-TD
Q8	1590000430	S.TRANSISTOR	DTC144EU T107
Q9	1590000430	S.TRANSISTOR	DTC144EU T107
Q10	1590000430	S.TRANSISTOR	DTC144EU T107
Q11	1590000430	S.TRANSISTOR	DTC144EU T107
Q12	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q13	1590000430	S.TRANSISTOR	DTC144EU T107
Q14	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q15	1590000430	S.TRANSISTOR	DTC144EU T107
Q16	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q17	1590000430	S.TRANSISTOR	DTC144EU T107
Q18	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q19	1590000430	S.TRANSISTOR	DTC144EU T107
Q20	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q21	1590000430	S.TRANSISTOR	DTC144EU T107
Q22	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q23	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q24	1530002980	S.TRANSISTOR	2SC3650-TD
Q25	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q26	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q27	1590000430	S.TRANSISTOR	DTC144EU T107
Q29	1590000430	S.TRANSISTOR	DTC144EU T107
Q30	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q31	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q32	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q33	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q34	1590000680	S.TRANSISTOR	DTC114EU T107
Q35	1590000680	S.TRANSISTOR	DTC114EU T107
Q36	1590000430	S.TRANSISTOR	DTC144EU T107
Q37	1590000680	S.TRANSISTOR	DTC114EU T107
Q38	1590000680	S.TRANSISTOR	DTC114EU T107
Q39	1590000680	S.TRANSISTOR	DTC114EU T107

S.=Surface mount

[DISP UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R18	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ ) [USA], [EUR], [AUS] only
R20	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R21	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 K $\Omega$ )
R22	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R23	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R24	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 K $\Omega$ )
R25	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R26	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R27	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R28	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R29	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R30	7030003650	S.RESISTOR	ERJ3GEYJ 583 V (58 K $\Omega$ )
R31	7210002510	TRIMMER	EVU-FLAEC2 C14 (10K $\Omega$ )
R32	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 K $\Omega$ )
R33	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R34	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R35	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 K $\Omega$ )
R36	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R37	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 K $\Omega$ )
R40	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 K $\Omega$ )
R41	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 K $\Omega$ )
R42	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 K $\Omega$ )
R43	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R44	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R45	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R46	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R48	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R54	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R55	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R56	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R57	7030003780	S.RESISTOR	ERJ3GEYJ 474 V (470 K $\Omega$ )
R58	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 K $\Omega$ )
R59	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 K $\Omega$ )
R60	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 M $\Omega$ )
R61	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 K $\Omega$ )
R62	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 K $\Omega$ )
R63	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R64	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 K $\Omega$ )
R65	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R66	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R67	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 M $\Omega$ )
R68	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R69	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R70	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 $\Omega$ )
R71	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R72	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R73	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R74	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R75	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R76	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R77	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R78	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R79	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R80	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
	7030003440	S.RESISTOR	[USA], [EUR], [AUS] ERJ3GEYJ 102 V (1 K $\Omega$ ) [SWE]
R81	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 K $\Omega$ )
R82	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R83	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R84	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R85	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R86	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 K $\Omega$ )
R87	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R88	7510000870	S.THERMISTOR	NTCCF2012 3FH 332KC-T
R90	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R91	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R92	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R93	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R94	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R95	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R96	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R97	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 K $\Omega$ )
R98	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R99	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )

[DISP UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R100	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 $\Omega$ )
R101	7310003700	TRIMMER	EVN-D2AA03 B23 (202)
R102	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R103	7030000220	S.RESISTOR	MCR10EZHZ 47 $\Omega$ (470)
R104	7030000220	S.RESISTOR	MCR10EZHZ 47 $\Omega$ (470)
R105	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 K $\Omega$ )
R106	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R107	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R108	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
R112	7030000380	S.RESISTOR	MCR10EZHZ 1 K $\Omega$ (102)
R113	7030000380	S.RESISTOR	MCR10EZHZ 1 K $\Omega$ (102)
R114	7030000380	S.RESISTOR	MCR10EZHZ 1 K $\Omega$ (102)
R115	7030000380	S.RESISTOR	MCR10EZHZ 1 K $\Omega$ (102)
R116	7030000210	S.RESISTOR	MCR10EZHZ 39 $\Omega$ (390)
R117	7030000210	S.RESISTOR	MCR10EZHZ 39 $\Omega$ (390)
R118	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 K $\Omega$ )
C1	4030009090	S.CERAMIC	C3216 JB 1C 334K-T-A
C2	4510004440	S.ELECTROLITIC	ECEV1HA010SR
C3	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C4	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C5	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C6	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C7	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C8	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C9	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C10	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C11	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C12	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C13	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C14	4510005370	S.ELECTROLITIC	ECEV1AA221P
C15	4510005310	S.ELECTROLITIC	ECEV1CA220SR
C16	4030009110	S.CERAMIC	C3216 JB 1C 474K-T-A
C17	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C18	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C19	4510005820	S.ELECTROLITIC	ECEV1CA101P
C20	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C21	4030009110	S.CERAMIC	C3216 JB 1C 474K-T-A
C22	4030009110	S.CERAMIC	C3216 JB 1C 474K-T-A
C23	4030008850	S.CERAMIC	C1608 JB 1H 471K-T-A
C24	4030010210	S.CERAMIC	C3216 JB 1C 105M-T-A
C25	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C26	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C27	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C28	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C29	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C30	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C31	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C32	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C33	4030008880	S.CERAMIC	C1608 JB 1H 102K-T-A
C34	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C35	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C36	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C37	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C38	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C39	4510004540	S.ELECTROLITIC	ECEV0JA470SR
C40	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C41	4510004540	S.ELECTROLITIC	ECEV0JA470SR
C42	4030009000	S.CERAMIC	C2012 JB 1C 224K-T-A
C43	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C44	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C45	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C46	4030009110	S.CERAMIC	C3216 JB 1C 474K-T-A
C47	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C48	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C49	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C50	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C51	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C52	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C53	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C54	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C55	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C56	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C57	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C58	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A

S.=Surface mount

[DISP UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C59	4030010210	S.CERAMIC	C3218 JB 1C 105M-T-A
C60	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C61	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C62	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C63	4030008980	S.CERAMIC	C2012 JB 1C 104K-T-A
C64	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C65	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C66	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
C67	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C68	4030008880	S.CERAMIC	C1608 JB 1H 472K-T-A
C69	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C70	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C71	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C72	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
BT1	3020000110	LITHIUM	CR2032
DS1	5080000330	LAMP	HRS-7219A-RE
DS2	5080000330	LAMP	HRS-7219A-RE
DS3	5080000330	LAMP	HRS-7219A-RE
DS4	5080000330	LAMP	HRS-7219A-RE
DS5	5040001830	LED	VRBG3348S
DS6	5040001820	LED	BG3889S
DS7	5030001000	LCD	FTD-12525AAH
W1	7120000380	JUMPER	JPW 01 R-01
W2	7120000380	JUMPER	JPW 01 R-01
W3	7030003860	S.JUMPER	ERJ3GE JPW V
W4	8900004830	CABLE	OPC-469
W5	8900004810	CABLE	OPC-467
W6	8900004840	CABLE	OPC-470
W7	8900004850	CABLE	OPC-471
W8	8900004850	CABLE	OPC-471
W9	8900004850	CABLE	OPC-471
W10	8900004820	CABLE	OPC-468
J1	6510007170	CONNECTOR	PI28A-03M
J2	6510007170	CONNECTOR	PI28A-03M
J3	6510016810	S.CONNECTOR	IMSA-9811S-05Y900
J4	6510016810	S.CONNECTOR	IMSA-9811S-05Y900
J5	6510016810	S.CONNECTOR	IMSA-9811S-05Y900
J7	6510018520	S.CONNECTOR	00 6208 515 210 000
J8	6510016870	S.CONNECTOR	08FPZ-SM-TF
J9	6510007170	CONNECTOR	PI28A-03M
J10	6510007110	CONNECTOR	PI28A-10M
J13	6510018500	S.CONNECTOR	00 6208 507 110 000
J14	6510003390	CONNECTOR	B03B-EH-S
J15	6510015580	S.CONNECTOR	4-175838-6
J16	6510018510	S.CONNECTOR	00 6208 512 210 000
J17	6510008370	CONNECTOR	BBH-1
S1	2230000930	SWITCH	ESB-64805
S2	2230000930	SWITCH	ESB-64805
S3	2230000930	SWITCH	ESB-64805
S4	2230000930	SWITCH	ESB-64805
S5	2230000930	SWITCH	ESB-64805
S6	2230000920	SWITCH	ESB-64544
S9	2280000680	SWITCH	SKHHBV011A
S10	2280000680	SWITCH	SKHHBV011A
S11	2280000680	SWITCH	SKHHBV011A
S12	2280000840	SWITCH	SKHHAN165A
S13	2280000840	SWITCH	SKHHAN165A
EP1	0910040275	PCB	B 3996E
EP2	8930031220	LCD CONTACT	SRCN-1424 SSW

[SW-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
D1	1750000290	S.DIODE	1SS300 (TE85R)
D2	1750000290	S.DIODE	1SS300 (TE85R)
D3	1750000290	S.DIODE	1SS300 (TE85R)
D4	1750000290	S.DIODE	1SS300 (TE85R)
R1	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R2	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R3	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R4	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R5	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R6	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
DS1	5040001780	S.LED	SEC 1601C
DS2	5040001780	S.LED	SEC 1601C
DS3	5040001780	S.LED	SEC 1601C
DS4	5040001780	S.LED	SEC 1601C
DS5	5040001870	S.LED	SEC 2482C
J1	6510016860	S.CONNECTOR	7-175643-6
S1	2280002100	S.SWITCH	HKW0629-01-031
S2	2280002100	S.SWITCH	HKW0629-01-031
S3	2280002100	S.SWITCH	HKW0629-01-031
S4	2280002100	S.SWITCH	HKW0629-01-031
S5	2280002100	S.SWITCH	HKW0629-01-031
S6	2280002100	S.SWITCH	HKW0629-01-031
S7	2280002100	S.SWITCH	HKW0629-01-031
S8	2280002100	S.SWITCH	HKW0629-01-031
EP1	0910040282	PCB	B 3997B

[SW-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1130007040	S.IC	TC7W32F(TE12L)
IC2	1130002660	S.IC	μPD4030BG-T1
IC3	1130003710	S.IC	TC4S71F (TE85R)
IC4	1130007390	S.IC	TC7W02F(TE12L)
IC5	1130007390	S.IC	TC7W02F(TE12L)
D1	1750000290	S.DIODE	1SS300 (TE85R)
D2	1750000290	S.DIODE	1SS300 (TE85R)
R1	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R2	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R3	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R4	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R5	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R6	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R7	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R8	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R9	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R10	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R11	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C4	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C5	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C6	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C7	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C8	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C9	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A

S.=Surface mount

[SW-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C10	4030008900	S.CERAMIC	C1608 JB 1E 103K-T-A
J1	6510016880	S.CONNECTOR	12FPZ-SM-TF
S1	2260002100	S.SWITCH	HKW0629-01-031
S2	2260002100	S.SWITCH	HKW0629-01-031
S3	2260002100	S.SWITCH	HKW0629-01-031
S4	2260002100	S.SWITCH	HKW0629-01-031
EP1	0910040292	PCB	B 3998B

[VR UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R1	7210002410	VARIABLE	RV-285 (RK0972210) 10KBX2
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
J1	6510016810	S.CONNECTOR	IMSA-9811S-05Y900
EP1	0910040303	PCB	B 3999C

[RIT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R1	7210002420	VARIABLE	RV-286 (RK0972210) 10KBX2
R2	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
J1	6510016810	S.CONNECTOR	IMSA-9811S-05Y900
EP1	0910042460	PCB	B 4244

[JACK UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R1	7030000300	S.RESISTOR	MCR10EZJH 220 Ω (221)
R2	7030000300	S.RESISTOR	MCR10EZJH 220 Ω (221)
R3	7030000300	S.RESISTOR	MCR10EZJH 220 Ω (221)
R4	7030000300	S.RESISTOR	MCR10EZJH 220 Ω (221)
J1	6450000951	CONNECTOR	HLJ4815-01-020
EP1	0910040321	PCB	B 4001A

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1140003641	S.IC	SC-1246
IC2	1110001900	S.IC	μPC4570G2-T1
IC4	1110003270	S.IC	MB511PF-G-BND
IC5	1110003310	S.IC	μPC1688G-T1
IC6	1140003641	S.IC	SC-1246
IC7	1110001900	S.IC	μPC4570G2-T1
IC9	1110003270	S.IC	MB511PF-G-BND
IC10	1120002450	S.IC	HD74LS90FP-TL

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC11	1180001070	S.IC	TA7805F(TE16L)
IC12	1130007610	S.IC	μPD3140GS-E1 (DS8)
IC13	1130007700	S.IC	BU4094BCF-T1
IC14	1130003830	S.IC	TC7S04F (TE85R)
IC15	1130003830	S.IC	TC7S04F (TE85R)
IC16	1110003400	IC	M54460L
Q1	1580000650	S.FET	2SK1577-2-T7
Q2	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q3	1590001330	S.TRANSISTOR	DTA114EU T107
Q4	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q5	1580000650	S.FET	2SK1577-2-T7
Q6	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q7	1590001330	S.TRANSISTOR	DTA114EU T107
Q8	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q9	1580000650	S.FET	2SK1577-2-T7
Q10	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q11	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q12	1580000330	S.FET	2SK210-GR (TE85R)
Q13	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q14	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q15	1590000430	S.TRANSISTOR	DTC144EU T107
Q16	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q17	1590001330	S.TRANSISTOR	DTA114EU T107
Q18	1590001330	S.TRANSISTOR	DTA114EU T107
Q19	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q20	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q21	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q22	1580000400	S.FET	2SK536-TA
Q23	1530002050	S.TRANSISTOR	2SC3661-TA
D1	1720000220	S.VARICAP	1SV166-T2B
D2	1720000220	S.VARICAP	1SV166-T2B
D3	1720000220	S.VARICAP	1SV166-T2B
D4	1790000540	S.VARICAP	MA338(TX)
D5	1790000540	S.VARICAP	MA338(TX)
D6	1750000270	S.DIODE	1SS301 (TE85R)
D8	1720000220	S.VARICAP	1SV166-T2B
D9	1790000620	S.DIODE	MA77(TW)
D10	1790000540	S.VARICAP	MA338(TX)
D11	1750000210	S.DIODE	1SV237 (TE85R)
D12	1750000020	S.DIODE	1SS184 (TE85R)
X1	6050008710	XTAL	CR-452 TCXO 30.200MHz
L1	6200003330	S.COIL	NL 322522T-1R0J-3
L2	6200003150	S.COIL	NL 322522T-180J
L3	6200001710	S.COIL	NL 322522T-220J
L4	6200003160	S.COIL	NL 322522T-270J
L5	6200001830	S.COIL	NL 322522T-100J
L6	6200003280	S.COIL	NL 322522T-101J
L7	6130002820	COIL	LB-319
L8	6200002980	S.COIL	NL 322522T-R56J-3
L9	6200003260	S.COIL	NL 322522T-101J
L10	6200003000	S.COIL	NL 322522T-R22J-3
L11	6200003330	S.COIL	NL 322522T-1R0J-3
L12	6200004030	S.COIL	NL 322522T-047J
L13	6180002980	S.COIL	NL 322522T-056J
L14	6180002980	S.COIL	NL 322522T-056J
L15	6200003330	S.COIL	NL 322522T-1R0J-3
L16	6200003330	S.COIL	NL 322522T-1R0J-3
L17	6200003330	S.COIL	NL 322522T-1R0J-3
L18	6200003150	S.COIL	NL 322522T-180J
L19	6200001710	S.COIL	NL 322522T-220J
L20	6200003160	S.COIL	NL 322522T-270J
L21	6200003330	S.COIL	NL 322522T-1R0J-3
L22	6200003330	S.COIL	NL 322522T-1R0J-3
L23	6200003330	S.COIL	NL 322522T-1R0J-3
L24	6200003330	S.COIL	NL 322522T-1R0J-3
L25	6200004010	S.COIL	NL 322522T-033J
L26	6200004000	S.COIL	NL 322522T-022K
L27	6200004000	S.COIL	NL 322522T-022K

S.=Surface mount

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
L28	6200003330	S.COIL	NL 322522T-1R0J-3
L29	6200001030	S.COIL	NL 322522T-012K
L30	6200001030	S.COIL	NL 322522T-012K
L31	6200001830	S.COIL	NL 322522T-100J
L32	6200003030	S.COIL	NL 322522T-R47J-3
L33	6200001830	S.COIL	NL 322522T-100J
L34	6200001830	S.COIL	NL 322522T-100J
L35	6200002830	S.COIL	LQN 1A 84NJ04
L36	6200003320	S.COIL	NL 322522T-3R3J-3
L37	6200003330	S.COIL	NL 322522T-1R0J-3
L38	6150000970	COIL	LS-112
L39	6200001830	S.COIL	NL 322522T-100J
L40	6200003040	S.COIL	NL 322522T-R68J-3
L41	6200003050	S.COIL	NL 322522T-R82J-3
L42	6150000990	COIL	LS-114
L43	6150000990	COIL	LS-114
L44	6200001830	S.COIL	NL 322522T-100J
L45	6200001830	S.COIL	NL 322522T-100J
L46	6200001830	S.COIL	NL 322522T-100J
L47	6200003330	S.COIL	NL 322522T-1R0J-3
L48	6200001830	S.COIL	NL 322522T-100J
L49	6200001830	S.COIL	NL 322522T-100J
L50	6200001830	S.COIL	NL 322522T-100J
L51	6200001830	S.COIL	NL 322522T-100J
L52	6200003260	S.COIL	NL 322522T-101J
L53	6200001230	S.COIL	MLF2012A 1R0M-T
L54	6200000900	S.COIL	LQN 2A R22K
L55	6200002190	S.COIL	MLF2012A 4R7K-T
L56	6200000780	S.COIL	LQH 3N 100K
L57	6200004020	S.COIL	NL 322522T-039J
L58	6200003260	S.COIL	NL 322522T-101J
L59	6200001830	S.COIL	NL 322522T-100J
L60	6200003330	S.COIL	NL 322522T-1R0J-3
R1	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R3	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R4	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R5	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R6	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R7	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R8	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R9	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R10	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R11	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R12	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R13	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R14	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R15	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R16	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R17	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R18	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R19	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R20	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R21	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R22	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R23	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R24	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R25	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R26	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R27	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R28	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R29	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R30	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R31	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R32	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R33	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R34	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R35	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R36	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R37	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R38	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R39	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R40	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R41	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R42	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R43	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R44	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R45	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R46	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R48	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R49	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R50	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R51	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R52	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R53	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R54	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R55	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R56	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R57	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R58	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R59	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R60	7030003270	S.RESISTOR	ERJ3GEYJ 390 V (39 Ω)
R61	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R63	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R64	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R65	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R68	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R69	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R70	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R71	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R72	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R73	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R74	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R75	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R76	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R77	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R78	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R79	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R80	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R81	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R90	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R91	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R92	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R93	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R94	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R95	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R96	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R97	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R98	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R99	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R100	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R101	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R102	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R103	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R104	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R105	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R106	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R107	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R108	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R109	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R110	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R111	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R112	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R113	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R114	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R115	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R116	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R117	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R120	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R121	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R122	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R123	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R125	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R126	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R127	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R128	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R129	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R130	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R131	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R132	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)

S.=Surface mount

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R133	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R134	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R135	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R136	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R137	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R138	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R139	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R140	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R141	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R142	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R143	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R144	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R146	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R147	7030003580	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R148	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R149	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R150	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R151	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R152	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R153	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R154	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R155	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R156	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R157	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R158	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R160	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R161	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R162	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R163	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R165	7030003660	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R166	7030003660	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R167	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R168	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R169	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R170	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R171	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R172	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R173	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R174	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R176	7030003270	S.RESISTOR	ERJ3GEYJ 390 V (39 Ω)
R177	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R178	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R179	7030001060	S.RESISTOR	MCR50JZHJ 27 Ω (270)
R180	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R181	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R182	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R183	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R184	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R185	7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 Ω)
R186	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R187	7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 Ω)
R188	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R189	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R190	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R191	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R192	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R193	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R194	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R195	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R196	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R197	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R198	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R199	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R200	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R201	7030001060	S.RESISTOR	MCR50JZHJ 27 Ω (270)
R202	7030001060	S.RESISTOR	MCR50JZHJ 27 Ω (270)
R203	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R204	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R205	7030003270	S.RESISTOR	ERJ3GEYJ 390 V (39 Ω)
R206	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R207	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R210	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R211	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R213	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R214	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R216	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R217	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R218	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R219	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R220	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R221	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R222	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R223	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R224	7030003520	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R225	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R226	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R227	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R228	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R229	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R230	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R231	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R232	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R233	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R234	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
C1	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C2	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C3	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C4	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C5	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C6	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C7	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C8	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C9	4030008950	S.CERAMIC	C1608 CH 1H 040C-T-A
C10	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C11	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C12	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C13	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C14	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C15	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C16	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C17	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C18	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C19	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C20	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C21	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C23	4550008150	S.TANTALUM	ECST1CY105R
C24	4550008170	S.TANTALUM	ECST1AY225R
C25	4550008170	S.TANTALUM	ECST1AY225R
C26	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C27	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C28	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C29	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C31	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C32	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C33	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C34	4510005820	S.ELECTROLYTIC	ECEV1CA101P
C35	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C36	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C37	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C38	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C39	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C40	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C42	4510004440	S.ELECTROLYTIC	ECEV1HA0105R
C43	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C44	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C45	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C46	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C47	4030006890	S.CERAMIC	C1608 CH 1H 070D-T-A
C48	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A
C49	4030006850	S.CERAMIC	C1608 CH 1H 040C-T-A
C50	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C51	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C52	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C53	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C54	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C55	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C57	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C58	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C59	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C60	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A

S.=Surface mount



## [PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C61	4030006960	S.CERAMIC C1608 CH 1H 050C-T-A
C62	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C63	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C64	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C65	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C66	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C67	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C68	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C69	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C70	4030007100	S.CERAMIC C1608 CH 1H 580J-T-A
C71	4030007020	S.CERAMIC C1608 JB 1H 120J-T-A
C72	4030007110	S.CERAMIC C1608 CH 1H 680J-T-A
C73	4030006950	S.CERAMIC C1608 CH 1H 040C-T-A
C74	4030007100	S.CERAMIC C1608 CH 1H 580J-T-A
C75	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C76	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C77	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C78	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C79	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C80	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C81	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C82	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C83	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C84	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C85	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C87	4510004630	S.ELECTROLITIC ECEV1CA100SR
C88	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C89	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C93	4550006130	S.TANTALUM ECST1VY224R
C94	4550006430	S.TANTALUM ECST1VY474R
C95	4550006430	S.TANTALUM ECST1VY474R
C96	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C97	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C98	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C99	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C100	4510005820	S.ELECTROLITIC ECEV1CA101P
C101	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C102	4030008310	S.CERAMIC C1608 UJ 1H 390J-T-A
C103	4030008180	S.CERAMIC C1608 UJ 1H 030C-T-A
C104	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C105	4510005820	S.ELECTROLITIC ECEV1CA101P
C106	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C107	4610001900	S.TRIMMER CTZ3E-05A-W1
C108	4030006950	S.CERAMIC C1608 CH 1H 040C-T-A
C109	4030006950	S.CERAMIC C1608 CH 1H 040C-T-A
C110	4030008920	S.CERAMIC C1608 CH 1H 010C-T-A
C111	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C112	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C113	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C114	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C115	4030006960	S.CERAMIC C1608 CH 1H 050C-T-A
C116	4030006980	S.CERAMIC C1608 CH 1H 070D-T-A
C117	4030006930	S.CERAMIC C1608 CH 1H 020C-T-A
C118	4030006980	S.CERAMIC C1608 CH 1H 070D-T-A
C119	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A
C120	4510004440	S.ELECTROLITIC ECEV1HA010SR
C121	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C122	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C124	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C125	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C126	4030009470	S.CERAMIC C1608 CH 1H R75C-T-A
C127	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A
C128	4030009470	S.CERAMIC C1608 CH 1H R75C-T-A
C129	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C130	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C131	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C132	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C133	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C134	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C135	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C136	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C137	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C138	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C139	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C140	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C141	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A

## [PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C142	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C143	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C144	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C145	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C146	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C147	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C148	4030006860	S.CERAMIC C1608 JB 1H 472K-T-A
C149	4510005820	S.ELECTROLITIC ECEV1CA101P
C150	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C151	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C152	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C153	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C154	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C155	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C156	4030006860	S.CERAMIC C1608 JB 1C 473K-T-A
C157	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C158	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C159	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C163	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C164	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C165	4610001900	S.TRIMMER CTZ3E-05A-W1
C166	4030008210	S.CERAMIC C1608 UJ 1H 060D-T-A
C167	4030007070	S.CERAMIC C1608 JB 1H 330J-T-A
C168	4030006970	S.CERAMIC C1608 CH 1H 060D-T-A
C169	4030006940	S.CERAMIC C1608 CH 1H 030C-T-A
C170	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C171	4510004640	S.ELECTROLITIC ECEV1CA4705P
C172	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C173	4030006920	S.CERAMIC C1608 CH 1H 010C-T-A
C174	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C175	4030006970	S.CERAMIC C1608 CH 1H 060D-T-A
C176	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C177	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C178	4030006950	S.CERAMIC C1608 CH 1H 040C-T-A
C179	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C180	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C181	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C182	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C183	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C184	4030006840	S.CERAMIC C1608 SL 1H 391J-T-A
C185	4030007120	S.CERAMIC C1608 CH 1H 820J-T-A
C186	4030010040	S.CERAMIC C1608 JB 1H 561K-T-A
C187	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C188	4030006840	S.CERAMIC C1608 SL 1H 391J-T-A
C189	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C190	4510004630	S.ELECTROLITIC ECEV1CA100SR
C191	4510004630	S.ELECTROLITIC ECEV1CA100SR
C192	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C193	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C194	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C195	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C196	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C197	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C198	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C199	4030006920	S.CERAMIC C1608 CH 1H 010C-T-A
C200	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C202	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C203	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C204	4510004440	S.ELECTROLITIC ECEV1HA010SR
C205	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C206	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C207	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C208	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C209	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C210	4030006960	S.CERAMIC C1608 CH 1H 050C-T-A
C211	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C212	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C213	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C214	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C215	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C216	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C217	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C218	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C219	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C220	4510004630	S.ELECTROLITIC ECEV1CA100SR
C221	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A

S.=Surface mount



[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C223	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C224	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C225	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C226	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C227	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C228	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C229	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C230	4030010210	S.CERAMIC	C3216 JB 1C 105M-T-A
C232	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C233	4510005820	S.ELECTROLITIC	ECEV1CA101P
C234	4030006830	S.CERAMIC	C1808 SL 1H 331J-T-A
C235	4030007170	S.CERAMIC	C1808 CH 1H 221J-T-A
C236	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C237	4030008920	S.CERAMIC	C1808 JB 1C 473K-T-A
C238	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C239	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C240	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C243	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C244	4030006850	S.CERAMIC	C1808 JB 1H 471K-T-A
C245	4030006860	S.CERAMIC	C1808 JB 1H 102K-T-A
C246	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C247	4030006850	S.CERAMIC	C1808 JB 1H 471K-T-A
C248	4030006860	S.CERAMIC	C1808 JB 1H 102K-T-A
C249	4030006940	S.CERAMIC	C1808 CH 1H 030C-T-A
C252	4550006320	S.TANTALUM	ECST0JY475R
C253	4030007050	S.CERAMIC	C1808 CH 1H 220J-T-A
C254	4030006860	S.CERAMIC	C1808 JB 1H 102K-T-A
C255	4030006860	S.CERAMIC	C1808 JB 1H 102K-T-A
C256	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C257	4030007040	S.CERAMIC	C1808 CH 1H 180J-T-A
C258	4030006980	S.CERAMIC	C1808 CH 1H 070D-T-A
C259	4030007040	S.CERAMIC	C1808 CH 1H 180J-T-A
C260	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C261	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C262	4030008960	S.CERAMIC	C2012 JB 1C 104K-T-A
C263	4030006860	S.CERAMIC	C1808 JB 1H 102K-T-A
C264	4510004650	S.ELECTROLITIC	ECEV1EA4R7SR
C265	4510004650	S.ELECTROLITIC	ECEV1EA4R7SR
C266	4510005820	S.ELECTROLITIC	ECEV1CA101P
C267	4030008920	S.CERAMIC	C1808 JB 1C 473K-T-A
C268	4550006430	S.TANTALUM	ECST1VY474R
C269	4550006430	S.TANTALUM	ECST1VY474R
C270	4030008920	S.CERAMIC	C1808 JB 1C 473K-T-A
C271	4030007070	S.CERAMIC	C1808 CH 1H 330J-T-A
C272	4030008920	S.CERAMIC	C1808 JB 1C 473K-T-A
C273	4030008920	S.CERAMIC	C1808 JB 1C 473K-T-A
C275	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C276	4030007130	S.CERAMIC	C1808 CH 1H 101J-T-A
C277	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C278	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C279	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C280	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C281	4030007130	S.CERAMIC	C1808 CH 1H 101J-T-A
C283	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C284	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C285	4030006980	S.CERAMIC	C1808 CH 1H 050C-T-A
C286	4550006130	S.TANTALUM	ECST1VY224R
C287	4550006200	S.TANTALUM	ECST0JY106R
C288	4030006850	S.CERAMIC	C1808 JB 1H 471K-T-A
W11	8900004441	CABLE	OPC-451-1
W13	8900004450	CABLE	OPC-451 A
W17	8900004470	CABLE	OPC-451 C
W19	8900004500	CABLE	OPC-452
W21	8900004510	CABLE	OPC-452 A
W29	7030003860	S.JUMPER	ERJ3GE JPW V
W30	7030003860	S.JUMPER	ERJ3GE JPW V
W31	7030003860	S.JUMPER	ERJ3GE JPW V
W32	7030003860	S.JUMPER	ERJ3GE JPW V
W40	7030003860	S.JUMPER	ERJ3GE JPW V
W41	7030003860	S.JUMPER	ERJ3GE JPW V
W42	7030003860	S.JUMPER	ERJ3GE JPW V
W46	7030003860	S.JUMPER	ERJ3GE JPW V
EP1	0910040335	PCB	B 4002E

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1110000980	S.IC	NJM4558M(T1)
IC2	1110000980	S.IC	NJM4558M(T1)
IC3	1110002490	S.IC	M5218FP-73A
IC4	1110002490	S.IC	M5218FP-73A
IC5	1110002490	S.IC	M5218FP-73A
IC6	1110003140	IC	LA1150N
IC7	1110003350	S.IC	μPC1037GR-E1 (MS)
IC8	1130007700	S.IC	BU4094BCF-T1
IC9	1130001880	S.IC	μPD4069UBG-T1
IC10	1130007700	S.IC	BU4094BCF-T1
IC11	1110002200	S.IC	MC3372MR
IC12	1110000980	S.IC	NJM4558M(T1)
IC13	1110003300	S.IC	M5282FP 70CD
IC14	1110003350	S.IC	μPC1037GR-E1 (MS)
IC15	1110002490	S.IC	M5218FP-73A
IC16	1130001250	S.IC	μPD4068BG-T1
IC17	1130004200	S.IC	TC4S66F (TE85R)
IC18	1130004200	S.IC	TC4S66F (TE85R)
IC19	1110000980	S.IC	NJM4558M(T1)
IC20	1110002200	S.IC	MC3372MR
IC21	1110003300	S.IC	M5282FP 70CD
IC22	1110003350	S.IC	μPC1037GR-E1 (MS)
IC23	1110002490	S.IC	M5218FP-73A
IC24	1130007700	S.IC	BU4094BCF-T1
IC25	1180001100	IC	PQ09RF2
IC26	1110001400	S.IC	μPC1555G2-T1
IC27	1180001070	S.IC	TA7805F(TE16L)
IC28	1130001250	S.IC	μPD4068BG-T1
IC29	1130001250	S.IC	μPD4068BG-T1
IC30	1110003300	S.IC	M5282FP 70CD
IC31	1110003300	S.IC	M5282FP 70CD
IC32	1110002540	IC	LA4445
IC33	1130001250	S.IC	μPD4068BG-T1
Q1	1580000540	S.FET	3SK131-T2-LA
Q2	1590001330	S.TRANSISTOR	DTA114EU T107
Q3	1590001330	S.TRANSISTOR	DTA114EU T107
Q4	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q5	1590001330	S.TRANSISTOR	DTA114EU T107
Q6	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q7	1580000560	S.FET	2SK882-GR (TE85L)
Q8	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q9	1580000560	S.FET	2SK882-GR (TE85L)
Q10	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q11	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q12	1590001800	S.TRANSISTOR	UMD3 TL
Q13	1580000540	S.FET	3SK131-T2-LA
Q14	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q15	1590000670	S.TRANSISTOR	FMW1 T148
Q16	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q17	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q18	1590000430	S.TRANSISTOR	DTC144EU T107
Q19	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q20	1590000430	S.TRANSISTOR	DTC144EU T107
Q21	1590000430	S.TRANSISTOR	DTC144EU T107
Q22	1590000430	S.TRANSISTOR	DTC144EU T107
Q23	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q24	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q25	1590000430	S.TRANSISTOR	DTC144EU T107
Q26	1590000430	S.TRANSISTOR	DTC144EU T107
Q27	1590000430	S.TRANSISTOR	DTC144EU T107
Q28	1590000430	S.TRANSISTOR	DTC144EU T107
Q29	1590000430	S.TRANSISTOR	DTC144EU T107
Q30	1590000430	S.TRANSISTOR	DTC144EU T107
Q34	1590001330	S.TRANSISTOR	DTA114EU T107
Q37	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q38	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q39	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q40	1530002980	S.TRANSISTOR	2SC3650-TD
Q41	1590000680	S.TRANSISTOR	DTC114EU T107
Q42	1590002030	S.TRANSISTOR	RN2425 (TE85R)
Q43	1590002030	S.TRANSISTOR	RN2425 (TE85R)
Q44	1590000430	S.TRANSISTOR	DTC144EU T107
Q45	1590000430	S.TRANSISTOR	DTC144EU T107
Q49	1590000430	S.TRANSISTOR	DTC144EU T107

S.=Surface mount

## [MIAN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
Q53	1590000720	S.TRANSISTOR	DTA144EU T107
Q54	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q55	1590000430	S.TRANSISTOR	DTC144EU T107
Q56	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q57	1590001330	S.TRANSISTOR	DTA114EU T107
Q59	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q60	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q61	1580000540	S.FET	3SK131-T2-LA
Q62	1580000540	S.FET	3SK131-T2-LA
Q63	1590000430	S.TRANSISTOR	DTC144EU T107
Q64	1590000430	S.TRANSISTOR	DTC144EU T107
Q65	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q66	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q67	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q68	1590000430	S.TRANSISTOR	DTC144EU T107
Q69	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q70	1590001330	S.TRANSISTOR	DTA114EU T107
Q71	1590000430	S.TRANSISTOR	DTC144EU T107
Q72	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q73	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q74	1590000430	S.TRANSISTOR	DTC144EU T107
Q75	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q76	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q77	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q78	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q79	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q80	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q81	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q82	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q83	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q84	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q85	1590001330	S.TRANSISTOR	DTA114EU T107
Q86	1590001330	S.TRANSISTOR	DTA114EU T107
Q87	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q88	1590001000	S.TRANSISTOR	RN2427 (TE85R)
Q89	1590001330	S.TRANSISTOR	DTA114EU T107
Q90	1590001330	S.TRANSISTOR	DTA114EU T107
Q91	1590000430	S.TRANSISTOR	DTC144EU T107
Q92	1590000430	S.TRANSISTOR	DTC144EU T107
Q93	1590000430	S.TRANSISTOR	DTC144EU T107
Q94	1590000430	S.TRANSISTOR	DTC144EU T107
Q95	1590000430	S.TRANSISTOR	DTC144EU T107
Q96	1590000430	S.TRANSISTOR	DTC144EU T107
Q97	1590000430	S.TRANSISTOR	DTC144EU T107
Q98	1580000540	S.FET	3SK131-T2-LA
Q99	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q100	1580000540	S.FET	3SK131-T2-LA
Q101	1580000540	S.FET	3SK131-T2-LA
Q102	1590000430	S.TRANSISTOR	DTC144EU T107
Q103	1590000430	S.TRANSISTOR	DTC144EU T107
Q104	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q105	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q107	1590000430	S.TRANSISTOR	DTC144EU T107
Q108	1590001330	S.TRANSISTOR	DTA114EU T107
Q109	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q110	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q111	1590000430	S.TRANSISTOR	DTC144EU T107
Q112	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q114	1590000430	S.TRANSISTOR	DTC144EU T107
Q115	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q116	1590001450	S.FET	2SJ144-GR (TE85R)
Q117	1590001450	S.FET	2SJ144-GR (TE85R)
Q118	1590000430	S.TRANSISTOR	DTC144EU T107
Q119	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q120	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q122	1530002690	S.TRANSISTOR	2SC4118-GR (TE85R)
Q123	1590000680	S.TRANSISTOR	DTC114EU T107
D1	1710000050	DIODE	1SS53
D2	1790000620	S.DIODE	MA77(TW)
D3	1790000620	S.DIODE	MA77(TW)
D4	1790000620	S.DIODE	MA77(TW)
D5	1790000620	S.DIODE	MA77(TW)
D6	1790000620	S.DIODE	MA77(TW)
D7	1790000620	S.DIODE	MA77(TW)

## [MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
D8	1790000620	S.DIODE	MA77(TW)
D9	1790000620	S.DIODE	MA77(TW)
D10	1790000620	S.DIODE	MA77(TW)
D11	1750000390	S.DIODE	1SS353 TE-17
D12	1790000450	S.DIODE	MA862(TX)
D13	1720000360	S.DIODE	HSU88TRF
D14	1750000110	S.DIODE	1SS272 (TE85R)
D15	1750000390	S.DIODE	1SS353 TE-17
D16	1750000110	S.DIODE	1SS272 (TE85R)
D17	1790000490	S.DIODE	HSM88AS-TR
D18	1790000450	S.DIODE	MA862(TX)
D19	1790000620	S.DIODE	MA77(TW)
D20	1790000620	S.DIODE	MA77(TW)
D21	1790000620	S.DIODE	MA77(TW)
D22	1720000270	S.VARICAP	1SV217 (TPH2)
D23	1790000620	S.DIODE	MA77(TW)
D24	1790000450	S.DIODE	MA862(TX)
D25	1750000390	S.DIODE	1SS353 TE-17
D26	1750000110	S.DIODE	1SS272 (TE85R)
D27	1750000390	S.DIODE	1SS353 TE-17
D28	1750000110	S.DIODE	1SS272 (TE85R)
D29	1750000110	S.DIODE	1SS272 (TE85R)
D30	1750000110	S.DIODE	1SS272 (TE85R)
D31	1750000110	S.DIODE	1SS272 (TE85R)
D32	1750000390	S.DIODE	1SS353 TE-17
D33	1750000110	S.DIODE	1SS272 (TE85R)
D34	1730000730	S.ZENER	RD6.2M-T2B2
D35	1790000490	S.DIODE	HSM88AS-TR
D36	1790000620	S.DIODE	MA77(TW)
D37	1790000620	S.DIODE	MA77(TW)
D38	1790000620	S.DIODE	MA77(TW)
D39	1750000390	S.DIODE	1SS353 TE-17
D40	1750000390	S.DIODE	1SS353 TE-17
D41	1750000390	S.DIODE	1SS353 TE-17
D42	1750000390	S.DIODE	1SS353 TE-17
D43	1750000390	S.DIODE	1SS353 TE-17
D44	1790000490	S.DIODE	HSM88AS-TR
D45	1750000390	S.DIODE	1SS353 TE-17
D46	1750000390	S.DIODE	1SS353 TE-17
D47	1750000390	S.DIODE	1SS353 TE-17
D48	1750000390	S.DIODE	1SS353 TE-17
D49	1750000390	S.DIODE	1SS353 TE-17
D50	1750000390	S.DIODE	1SS353 TE-17
D51	1750000390	S.DIODE	1SS353 TE-17
D53	1790000490	S.DIODE	HSM88AS-TR
D54	1730000730	S.ZENER	RD6.2M-T2B2
D55	1790000490	S.DIODE	HSM88AS-TR
D56	1790000450	S.DIODE	MA862(TX)
D57	1790000450	S.DIODE	MA862(TX)
D59	1790000620	S.DIODE	MA77(TW)
D60	1790000450	S.DIODE	MA862(TX)
D61	1750000390	S.DIODE	1SS353 TE-17
D62	1750000390	S.DIODE	1SS353 TE-17
D63	1750000110	S.DIODE	1SS272 (TE85R)
D64	1730000410	S.ZENER	RD5.1M-T2B2
D65	1750000110	S.DIODE	1SS272 (TE85R)
D67	1790000450	S.DIODE	MA862(TX)
D68	1750000390	S.DIODE	1SS353 TE-17
D69	1750000390	S.DIODE	1SS353 TE-17
D70	1750000390	S.DIODE	1SS353 TE-17
D71	1750000390	S.DIODE	1SS353 TE-17
D72	1750000390	S.DIODE	1SS353 TE-17
D73	1790000490	S.DIODE	HSM88AS-TR
D74	1750000110	S.DIODE	1SS272 (TE85R)
D75	1750000110	S.DIODE	1SS272 (TE85R)
D76	1750000390	S.DIODE	1SS353 TE-17
D77	1750000110	S.DIODE	1SS272 (TE85R)
D78	1750000390	S.DIODE	1SS353 TE-17
D79	1750000390	S.DIODE	1SS353 TE-17
D80	1750000390	S.DIODE	1SS353 TE-17
D82	1750000390	S.DIODE	1SS353 TE-17
D83	1750000390	S.DIODE	1SS353 TE-17
D84	1750000390	S.DIODE	1SS353 TE-17
D85	1750000390	S.DIODE	1SS353 TE-17
D86	1730000620	S.ZENER	RD3.6M-T2B2
D88	1730000620	S.ZENER	RD9.1M-T2B3

S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
D89	1750000390	S.DIODE	1SS353 TE-17
D90	1750000390	S.DIODE	1SS353 TE-17
D91	1750000390	S.DIODE	1SS353 TE-17
D92	1730001060	S.ZENER	RD20M-T2B2
FI1	2010001080	FILTER	FL-128
FI2	2010001730	FILTER	FL-211 (10.850MHz)
FI3	2020001020	CERAMIC	SFH455E
FI4	2020000120	CERAMIC	CFW455E
FI5	2010001090	FILTER	FL-129
FI6	2010001740	FILTER	FL-212 (10.950MHz)
X1	6050008700	XTAL	CR-451 (10.8550MHz)
X2	6070000090	DISCRIMINATOR	CDB455C16
X3	6050006450	XTAL	CR-298
X4	6070000090	DISCRIMINATOR	CDB455C16
X5	6050006470	XTAL	CR-301
X6	6050006460	XTAL	CR-299
L1	6150004200	COIL	LS-479
L2	6150004170	COIL	LS-476
L3	6200003260	S.COIL	NL 322522T-101J
L4	6200003950	S.COIL	HF50ACC 322513-T
L5	6200003260	S.COIL	NL 322522T-101J
L6	6200001830	S.COIL	NL 322522T-100J
L7	6200003590	S.COIL	EXCCL3225U
L8	6150000950	COIL	LS-110A
L9	6200003260	S.COIL	NL 322522T-101J
L10	6150004170	COIL	LS-476
L11	6150004210	COIL	LS-480
L12	6150004210	COIL	LS-480
L13	6150004170	COIL	LS-476
L14	6200001830	S.COIL	NL 322522T-100J
L15	6200003260	S.COIL	NL 322522T-101J
L16	6200001830	S.COIL	NL 322522T-100J
L17	6200003130	S.COIL	NL 322522T-120J
L18	6150002040	COIL	LS-256
L19	6200003260	S.COIL	NL 322522T-101J
L20	6200003260	S.COIL	NL 322522T-101J
L21	6200003260	S.COIL	NL 322522T-101J
L22	6200001830	S.COIL	NL 322522T-100J
L23	6200003260	S.COIL	NL 322522T-101J
L24	6200003260	S.COIL	NL 322522T-101J
L25	6150004200	COIL	LS-479
L26	6200003260	S.COIL	NL 322522T-101J
L27	6150004210	COIL	LS-480
L28	6150004170	COIL	LS-476
L29	6200003260	S.COIL	NL 322522T-101J
L30	6200003260	S.COIL	NL 322522T-101J
L31	6200003950	S.COIL	HF50ACC 322513-T
L32	6200003950	S.COIL	HF50ACC 322513-T
L33	6200003950	S.COIL	HF50ACC 322513-T
L34	6200003260	S.COIL	NL 322522T-101J
L35	6200003260	S.COIL	NL 322522T-101J
L36	6150004180	COIL	LS-478
L37	6200001470	S.COIL	NL 322522T-R12J-3
L38	6150004200	COIL	LS-479
L39	6200003260	S.COIL	NL 322522T-101J
L40	6150004210	COIL	LS-480
L41	6150004170	COIL	LS-476
L42	6200003260	S.COIL	NL 322522T-101J
L43	6200003260	S.COIL	NL 322522T-101J
L44	6200003260	S.COIL	NL 322522T-101J
L46	6150004210	COIL	LS-480
L47	6150004210	COIL	LS-480
L48	6150004170	COIL	LS-476
L49	6200003260	S.COIL	NL 322522T-101J
L50	6200003260	S.COIL	NL 322522T-101J
L51	6200003950	S.COIL	HF50ACC 322513-T
L52	6200003260	S.COIL	NL 322522T-101J
L53	6200003260	S.COIL	NL 322522T-101J
L54	6170000140	COIL	LW-15
L55	6200003260	S.COIL	NL 322522T-101J

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
L56	6200003590	S.COIL	EXCCL3225U
L57	6200003590	S.COIL	EXCCL3225U
L58	6200003950	S.COIL	HF50ACC 322513-T
L59	6200003590	S.COIL	EXCCL3225U
L60	6200003950	S.COIL	HF50ACC 322513-T
L61	6200003950	S.COIL	HF50ACC 322513-T
L62	6200003950	S.COIL	HF50ACC 322513-T
L63	6200003950	S.COIL	HF50ACC 322513-T
L64	6200003950	S.COIL	HF50ACC 322513-T
L65	6200003950	S.COIL	HF50ACC 322513-T
L66	6200003260	S.COIL	NL 322522T-101J
L67	6200001830	S.COIL	NL 322522T-100J
L68	6200000570	S.COIL	MLF3216C 180M-T
L69	6200003950	S.COIL	HF50ACC 322513-T
L70	6200003950	S.COIL	HF50ACC 322513-T
R1	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R2	7310002740	S.TRIMMER	RV-150 (RH03A3A14X0FC)103
R3	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R4	7030003270	S.RESISTOR	ERJ3GEYJ 390 V (39 Ω)
R6	7510000810	S.THERMISTOR	NTCCF2012 4AH 473KC-T
R7	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R8	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R9	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R10	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R11	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R12	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R13	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R14	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R15	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R16	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R17	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R18	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R19	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R20	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R21	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R22	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R23	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R24	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R25	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R26	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R27	7510000830	S.THERMISTOR	NTCCF2012 3EH 471KC-T
R28	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R29	7310002720	S.TRIMMER	RV-148 (RH03A3AS3X0DA)472
R30	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R31	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R32	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R33	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R34	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R35	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R36	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R37	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R38	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R39	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R40	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R41	7310002740	S.TRIMMER	RV-150 (RH03A3A14X0FC)103
R43	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R44	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R45	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R46	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R47	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R48	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R49	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R50	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R51	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R52	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R53	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R54	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R55	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R56	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R57	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R58	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)

S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R59	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R60	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R61	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R62	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R63	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R64	7310002600	S.TRIMMER RV-110 (RH03A3AS4X0AA)473
R65	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R66	7310002760	S.TRIMMER RV-152 (RH03A3AJ4X0HA)223
R67	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R68	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R69	7030003840	S.RESISTOR ERJ3GEYJ 225 V (2.2 MΩ)
R70	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R71	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R72	7310002760	S.TRIMMER RV-152 (RH03A3AJ4X0HA)223
R73	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R74	7310002690	S.TRIMMER RV-145 (RH03A3A13X0CA)102
R75	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R76	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R77	7510000870	S.THERMISTOR NTCCF2012 3FH 332KC-T
R78	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R79	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R80	7310002760	S.TRIMMER RV-152 (RH03A3AJ4X0HA)223
R81	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R82	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R83	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R84	7510000870	S.THERMISTOR NTCCF2012 3FH 332KC-T
R85	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R86	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R87	7310002760	S.TRIMMER RV-152 (RH03A3AJ4X0HA)223
R88	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R89	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R90	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R91	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R92	7310002720	S.TRIMMER RV-148 (RH03A3AS3X0DA)472
R93	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R94	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R95	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R96	7010005220	RESISTOR ELR20J 10 M Ω
R97	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R98	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R99	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R100	7310002770	S.TRIMMER RV-153 (RH03A3AN4X02A)333
R101	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R102	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R103	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R104	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R105	7310002770	S.TRIMMER RV-153 (RH03A3AN4X02A)333
R106	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R107	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R108	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R109	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R110	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R111	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R112	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R113	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R114	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R115	7010004530	RESISTOR R20J 470 kΩ
R116	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R117	7030003530	S.RESISTOR ERJ3GEYJ 582 V (5.8 kΩ)
R118	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R119	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R120	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R121	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R122	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R123	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R124	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R125	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R126	7030003240	S.RESISTOR ERJ3GEYJ 220 V (22 Ω)
R127	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R128	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R129	7030003780	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R130	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R131	7510000830	S.THERMISTOR NTCCF2012 3EH 471KC-T
R132	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R133	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R134	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R135	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R136	7310002690	S.TRIMMER RV-145 (RH03A3A13X0CA)102
R137	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R138	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R139	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R140	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R141	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R142	7510000890	S.THERMISTOR NTCCF2012 3NH 153KC-T
R143	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R144	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R145	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R146	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R147	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R148	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R149	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R150	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R151	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R152	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R153	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R154	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R155	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R156	7310002740	S.TRIMMER RV-150 (RH03A3A14X0FC)103
R157	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R158	7310002740	S.TRIMMER RV-150 (RH03A3A14X0FC)103
R159	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R165	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R166	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R167	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R168	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R169	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R170	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R171	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R172	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R173	7030003560	S.RESISTOR ERJ3GEYJ 103 V (100 kΩ)
R174	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R175	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R176	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R178	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R179	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R180	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R181	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R182	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R183	7410000950	S.ARRAY EXB-V8V 102JV
R184	7410000950	S.ARRAY EXB-V8V 102JV
R187	7030003530	S.RESISTOR ERJ3GEYJ 582 V (5.8 kΩ)
R188	7030003480	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R189	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R190	7030003470	S.RESISTOR ERJ3GEYJ 182 V (1.8 kΩ)
R191	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R192	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R193	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R194	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R195	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R196	7030003650	S.RESISTOR ERJ3GEYJ 563 V (5.6 kΩ)
R197	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R198	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R199	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R200	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R201	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R202	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R203	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R204	7310002770	S.TRIMMER RV-153 (RH03A3AN4X02A)333
R205	7510000880	S.THERMISTOR NTCCF2012 3FH 222KC-T

S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R206	7510000910	S.THERMISTOR NTCCF2012 4AH 473KC-T
R207	7310002590	S.TRIMMER RV-109 (RH03A3AJ3X0BA)222
R208	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R209	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R210	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R211	7030003790	S.RESISTOR ERJ3GEYJ 824 V (820 kΩ)
R212	7310002740	S.TRIMMER RV-150 (RH03A3A14X0FC)103
R213	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R214	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R215	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R216	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R217	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R218	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R219	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R220	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R221	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R222	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R223	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R224	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R225	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R226	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R227	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R228	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R229	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R230	7310002740	S.TRIMMER RV-150 (RH03A3A14X0FC)103
R231	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R232	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R233	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R234	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R235	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R236	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R237	7510000890	S.THERMISTOR NTCCF2012 3NH 153KC-T
R239	7310002600	S.TRIMMER RV-110 (RH03A3AS4X0AA)473
R240	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R241	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R242	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R243	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R244	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R245	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R246	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R247	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R254	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R255	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R256	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R257	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R258	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R259	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R260	7310002840	S.TRIMMER RV-160 (RH03A3A18)105
R261	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R262	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R263	7310002720	S.TRIMMER RV-148 (RH03A3AS3X0DA)472
R264	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R265	7030003840	S.RESISTOR ERJ3GEYJ 225 V (2.2 MΩ)
R266	7030003820	S.RESISTOR ERJ3GEYJ 155 V (1.5 MΩ)
R267	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R268	7310002740	S.TRIMMER RV-150 (RH03A3A14X0FC)103
R269	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R270	7030003840	S.RESISTOR ERJ3GEYJ 225 V (2.2 MΩ)
R271	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R272	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R273	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R274	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R275	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R276	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R277	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R279	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R280	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R281	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R282	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R283	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R284	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R285	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R286	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R287	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R288	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R289	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R290	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R291	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R292	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R293	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R294	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R295	7030003530	S.RESISTOR ERJ3GEYJ 562 V (5.6 kΩ)
R296	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R297	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R300	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R301	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R302	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R303	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R304	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R305	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R306	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R307	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R308	7310002770	S.TRIMMER RV-153 (RH03A3AN4X02A)333
R309	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R310	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R311	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R312	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R313	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R314	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R315	7030003480	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R316	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R317	7030003470	S.RESISTOR ERJ3GEYJ 182 V (1.8 kΩ)
R318	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R319	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R320	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R321	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R322	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R323	7030003650	S.RESISTOR ERJ3GEYJ 563 V (56 kΩ)
R324	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R325	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R326	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R327	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R328	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R329	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R330	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R331	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R332	7030003480	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R333	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R334	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R335	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R336	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R337	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R338	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R339	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R340	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R341	7010004230	RESISTOR R20J 2.2 kΩ
R342	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R343	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R344	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R345	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R346	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R347	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R348	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R349	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R350	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R351	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R352	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R353	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R354	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R355	7030003380	S.RESISTOR ERJ3GEYJ 331 V (330 Ω)
R356	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R357	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R358	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R359	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ)
R360	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ)

S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R361	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R362	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R363	7210002460	TRIMMER EVU-EL0EC7B13
R364	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R365	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R366	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R367	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R368	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R369	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R370	7210002470	TRIMMER EVU-EL0EC7B16 1MB
R371	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R372	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R373	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R374	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R375	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R376	7510000890	S.THERMISTOR NTCCF2012 3NH 153KC-T
R378	7310002600	S.TRIMMER RV-110 (RH03A3AS4X0AA)473
R379	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R380	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R381	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R382	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R383	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R384	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R386	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R387	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R388	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R389	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R390	7310002600	S.TRIMMER RV-110 (RH03A3AS4X0AA)473
R391	7030003650	S.RESISTOR ERJ3GEYJ 583 V (58 kΩ)
R392	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R393	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R394	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R395	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R396	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R397	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R398	7030003220	S.RESISTOR ERJ3GEYJ 150 V (15 Ω)
R399	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R400	7030001090	S.RESISTOR MCR50JZHJ 47 Ω (470)
R401	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R402	7510000920	S.THERMISTOR NTCCF2012 4CH 104KC-T
R403	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R405	7310002600	S.TRIMMER RV-110 (RH03A3AS4X0AA)473
R407	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R408	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R409	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R410	7030003240	S.RESISTOR ERJ3GEYJ 220 V (22 Ω)
R411	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R412	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R413	7510000830	S.THERMISTOR NTCCF2012 3EH 471KC-T
R414	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R415	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R416	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R417	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R418	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R419	7310002840	S.TRIMMER RV-180 (RH03A3A18 )105
R420	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R421	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R422	7310002580	S.TRIMMER RV-108 (RH03A3A15X05A)104
R423	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R424	7010005190	RESISTOR R20J 6.8M Ω
R425	7030003820	S.RESISTOR ERJ3GEYJ 155 V (1.5 MΩ)
R426	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R427	7030003840	S.RESISTOR ERJ3GEYJ 225 V (2.2 MΩ)
R428	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R429	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R430	7310002740	S.TRIMMER RV-150 (RH03A3A14X0FC)103
R431	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R432	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R433	7510000920	S.THERMISTOR NTCCF2012 4CH 104KC-T
R434	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R435	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)

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REF. NO.	ORDER NO.	DESCRIPTION
R436	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R437	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R438	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R439	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R440	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R441	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R442	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R443	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R444	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R445	7030003530	S.RESISTOR ERJ3GEYJ 562 V (5.6 kΩ)
R449	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R450	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R451	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R452	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R453	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R454	7030003530	S.RESISTOR ERJ3GEYJ 562 V (5.6 kΩ)
R455	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R456	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R457	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R458	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R459	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R460	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R461	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R462	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R463	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R464	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R465	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R466	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R467	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R468	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R469	7310000780	TRIMMER RH0651CS4J25A (473)
R470	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ)
R471	7310000780	TRIMMER RH0651CS4J25A (473)
R472	7030003640	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R473	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R474	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R475	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R476	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R477	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R478	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R479	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ)
R480	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R481	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R482	7030003700	S.RESISTOR ERJ3GEYJ 154 V (150 kΩ)
R483	7510000900	S.THERMISTOR NTCCF2012 3SH 223KC-T
R484	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R485	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R486	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R487	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R488	7030003570	S.RESISTOR ERJ3GEYJ 123 V (12 kΩ)
R489	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 kΩ)
R490	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R491	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R495	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R496	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R497	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R498	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R499	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R500	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R501	7030001090	S.RESISTOR MCR50JZHJ 47 Ω (470)
R502	7030001090	S.RESISTOR MCR50JZHJ 47 Ω (470)
R503	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R504	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R505	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R506	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R507	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R508	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R509	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R510	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R511	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R512	7030003580	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R513	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R514	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R515	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R516	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R517	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)

S.=Surface mount



[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
R518	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ)
R519	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R520	7030003410	S.RESISTOR ERJ3GEYJ 561 V (560 Ω)
R522	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R523	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R524	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R525	7030003880	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R526	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R527	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R528	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R529	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R530	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R531	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R532	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R533	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R534	7030003380	S.RESISTOR ERJ3GEYJ 331 V (330 Ω)
R535	7030003410	S.RESISTOR ERJ3GEYJ 561 V (560 Ω)
R536	7030003410	S.RESISTOR ERJ3GEYJ 561 V (560 Ω)
R537	7510000880	S.THERMISTOR NTCCF2012 3JH 472KC-T
R538	7030003570	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R539	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R540	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R541	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R542	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R543	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R544	7510000930	S.THERMISTOR NTCCF2012 3NH 103KC-T
R545	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R546	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R547	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R548	7030003630	S.RESISTOR ERJ3GEYJ 393 V (39 kΩ)
R549	7070000540	RESISTOR CRH200 R-02J 27 Ω (27Ω)
R550	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
C1	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C3	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C4	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C5	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C6	4510005870	S.ELECTROLITIC ECEV1HA3R3SR
C7	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C8	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C9	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C10	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C11	4030007050	S.CERAMIC C1808 CH 1H 220J-T-A
C12	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C13	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C14	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C15	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C16	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C17	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C18	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C19	4510005860	S.ELECTROLITIC ECEV1HA2R2SR
C20	4030007140	S.CERAMIC C1808 CH 1H 121J-T-A
C21	4030008650	S.CERAMIC C1808 JB 1C 232K-T-A
C22	4030009490	S.CERAMIC C1808 JB 1H 821K-T-A
C23	4510004630	S.ELECTROLITIC ECEV1CA100SR
C24	4510004630	S.ELECTROLITIC ECEV1CA100SR
C25	4510004630	S.ELECTROLITIC ECEV1CA100SR
C26	4030006870	S.CERAMIC C1808 JB 1H 222K-T-A
C27	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C28	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C29	4510004630	S.ELECTROLITIC ECEV1CA100SR
C30	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C31	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C32	4510005370	S.ELECTROLITIC ECEV1AA221P
C33	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C34	4510004630	S.ELECTROLITIC ECEV1CA100SR
C35	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C36	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C37	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C38	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C39	4510004630	S.ELECTROLITIC ECEV1CA100SR
C40	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C41	4510004630	S.ELECTROLITIC ECEV1CA100SR
C42	4510004630	S.ELECTROLITIC ECEV1CA100SR

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C43	4510004630	S.ELECTROLITIC ECEV1CA100SR
C44	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C45	4030006880	S.CERAMIC C1808 JB 1H 102K-T-A
C47	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C48	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C49	4030006880	S.CERAMIC C1808 JB 1H 102K-T-A
C50	4030006880	S.CERAMIC C1808 JB 1H 102K-T-A
C51	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C52	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C53	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C54	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C55	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C56	4030006880	S.CERAMIC C1808 JB 1H 102K-T-A
C57	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C58	4030006880	S.CERAMIC C1808 JB 1H 102K-T-A
C59	4030006930	S.CERAMIC C1808 CH 1H 020C-T-A
C60	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C61	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C62	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C63	4550002980	S.TANTALUM TEMSVA 1C 225M-8L
C64	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C65	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C66	4510004630	S.ELECTROLITIC ECEV1CA100SR
C67	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C68	4030006860	S.CERAMIC C1808 JB 1H 102K-T-A
C69	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C70	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C71	4030007140	S.CERAMIC C1808 CH 1H 121J-T-A
C72	4030006850	S.CERAMIC C1808 JB 1H 471K-T-A
C73	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C74	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C75	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C76	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C77	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C78	4510004630	S.ELECTROLITIC ECEV1CA100SR
C79	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C80	4030006950	S.CERAMIC C1808 CH 1H 040C-T-A
C81	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C82	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C83	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C84	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C85	4030007130	S.CERAMIC C1808 CH 1H 101J-T-A
C86	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C87	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C88	4510005860	S.ELECTROLITIC ECEV1HA2R2SR
C89	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C90	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C91	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C92	4030006830	S.CERAMIC C1808 SL 1H 331J-T-A
C93	4030007130	S.CERAMIC C1808 CH 1H 101J-T-A
C94	4030007160	S.CERAMIC C1808 CH 1H 181J-T-A
C95	4030008290	S.CERAMIC C1808 UJ 1H 270J-T-A
C96	4030010220	S.CERAMIC C2012 CH 1H 102J-T-A
C97	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C98	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C99	4030007130	S.CERAMIC C1808 CH 1H 101J-T-A
C100	4510004630	S.ELECTROLITIC ECEV1CA100SR
C101	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C102	4030008920	S.CERAMIC C1808 JB 1C 473K-T-A
C103	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C104	4030007080	S.CERAMIC C1808 CH 1H 270J-T-A
C105	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C106	4030007090	S.CERAMIC C1808 CH 1H 470J-T-A
C107	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C113	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C116	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C117	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C118	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C120	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C121	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C122	4030006880	S.CERAMIC C1808 JB 1H 472K-T-A
C123	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C126	4030006900	S.CERAMIC C1808 JB 1E 103K-T-A
C141	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C142	4510004630	S.ELECTROLITIC ECEV1CA100SR
C143	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A

S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C144	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C145	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C147	4030007170	S.CERAMIC C1608 CH 1H 221J-T-A
C148	4030007120	S.CERAMIC C1608 CH 1H 820J-T-A
C149	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C150	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C151	4030010240	S.CERAMIC C1608 JB 1H 391K-T-A
C152	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C153	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C154	4550008340	S.TANTALUM ECST1AY335R
C155	4030008320	S.CERAMIC C1608 UJ 1H 470J-T-A
C156	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C157	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C158	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C159	4510004630	S.ELECTROLITIC ECEV1CA100SR
C162	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C163	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C164	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C165	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C166	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C167	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C168	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C169	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C170	4510004630	S.ELECTROLITIC ECEV1CA100SR
C171	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C172	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C173	4030008850	S.CERAMIC C1608 JB 1H 471K-T-A
C174	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C175	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C176	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C177	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C179	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C180	4340000050	S.MYLAR ECH-U 1C472JB5
C181	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C182	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C184	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C185	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C188	4340000050	S.MYLAR ECH-U 1C472JB5
C189	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C191	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C192	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C193	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C194	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C196	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C197	4030007150	S.CERAMIC C1608 CH 1H 151J-T-A
C198	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C200	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C201	4030008870	S.CERAMIC C1608 JB 1H 222K-T-A
C202	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C203	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C204	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C205	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C206	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C207	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C208	4510004540	S.ELECTROLITIC ECEV0JA470SR
C209	4030007140	S.CERAMIC C1608 CH 1H 121J-T-A
C210	4510004630	S.ELECTROLITIC ECEV1CA100SR
C211	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C212	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C213	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C214	4510005310	S.ELECTROLITIC ECEV1CA220SR
C215	4510004630	S.ELECTROLITIC ECEV1CA100SR
C216	4510004630	S.ELECTROLITIC ECEV1CA100SR
C217	4030009110	S.CERAMIC C3216 JB 1C 105M-T-A
C218	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C219	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C220	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C221	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C222	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C223	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C224	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C230	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C231	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C232	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C233	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C234	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C235	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C236	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C237	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C238	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C239	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C240	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C241	4510004640	S.ELECTROLITIC ECEV1CA470SP
C242	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C243	4030008880	S.CERAMIC C1608 JB 1H 102K-T-A
C248	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C249	4510004630	S.ELECTROLITIC ECEV1CA100SR
C250	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C251	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C252	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C253	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C254	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C255	4550008440	S.TANTALUM ECST1AX106R
C256	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C257	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C258	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C259	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C260	4510004630	S.ELECTROLITIC ECEV1CA100SR
C261	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C262	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C263	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C265	4030007170	S.CERAMIC C1608 CH 1H 221J-T-A
C266	4030007120	S.CERAMIC C1608 CH 1H 820J-T-A
C267	4030010240	S.CERAMIC C1608 JB 1H 391K-T-A
C268	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C269	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C270	4550008340	S.TANTALUM ECST1AY335R
C271	4030008320	S.CERAMIC C1608 UJ 1H 470J-T-A
C272	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C273	4030008930	S.CERAMIC C1608 CH 1H 202C-T-A
C275	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C276	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C277	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C278	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C279	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C280	4030008850	S.CERAMIC C1608 JB 1H 471K-T-A
C281	4030007030	S.CERAMIC C1608 CH 1H 080D-T-A
C282	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C283	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C284	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C285	4030008970	S.CERAMIC C1608 CH 1H 151J-T-A
C286	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C287	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C288	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C289	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C290	4030008940	S.CERAMIC C1608 CH 1H 030C-T-A
C291	4030007150	S.CERAMIC C1608 CH 1H 151J-T-A
C292	4030007150	S.CERAMIC C1608 CH 1H 151J-T-A
C293	4610001980	S.TRIMMER CTZ3E-30C-W1
C294	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C295	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C296	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C297	4030008920	S.CERAMIC C1608 JB 1C 473K-T-A
C298	4340000010	S.MYLAR ECWU 1C 223JB5
C299	4340000010	S.MYLAR ECWU 1C 223JB5
C300	4340000010	S.MYLAR ECWU 1C 223JB5
C301	4510004640	S.ELECTROLITIC ECEV1CA470SP
C302	4550008440	S.TANTALUM ECST1AX106R
C303	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C304	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C305	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C306	4510004630	S.ELECTROLITIC ECEV1CA100SR
C307	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C308	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C309	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C320	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C321	4340000050	S.MYLAR ECH-U 1C472JB5
C322	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C323	4030008900	S.CERAMIC C1608 JB 1E 103K-T-A
C324	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C325	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A
C326	4030008880	S.CERAMIC C1608 JB 1H 472K-T-A

S.=Surface mount



[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C328	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C329	4340000050	S.MYLAR ECH-U 1C472JB5
C330	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C332	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C333	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C334	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C335	4030007050	S.CERAMIC C1808 CH 1H 220J-T-A
C336	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C338	4030007070	S.CERAMIC C1808 CH 1H 330J-T-A
C340	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C341	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C342	4030008870	S.CERAMIC C1808 JB 1H 222K-T-A
C343	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C344	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C345	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C346	4510004630	S.ELECTROLITIC ECEV1CA100SR
C347	4510005820	S.ELECTROLITIC ECEV1CA101P
C349	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C350	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C351	4510005820	S.ELECTROLITIC ECEV1CA101P
C352	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C353	4510004640	S.ELECTROLITIC ECEV1CA470SP
C354	4030010210	S.CERAMIC C3216 JB 1C 105M-T-A
C355	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C356	4550008480	S.TANTALUM ECST1VX225R
C357	4550008440	S.TANTALUM ECST1AX108R
C358	4510004630	S.ELECTROLITIC ECEV1CA100SR
C359	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C360	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C361	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C362	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C365	4510004630	S.ELECTROLITIC ECEV1CA100SR
C368	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C369	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C370	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C371	4030008940	S.CERAMIC C1808 CH 1H 030C-T-A
C373	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C374	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C375	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C376	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C378	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C379	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C380	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C381	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C382	4510004540	S.ELECTROLITIC ECEV0JA470SR
C383	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C384	4030007140	S.CERAMIC C1808 CH 1H 121J-T-A
C385	4510004630	S.ELECTROLITIC ECEV1CA100SR
C386	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C387	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C388	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C389	4510004630	S.ELECTROLITIC ECEV1CA100SR
C394	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C397	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C398	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C399	4510004630	S.ELECTROLITIC ECEV1CA100SR
C400	4510005370	S.ELECTROLITIC ECEV1AA221P
C401	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C402	4510004630	S.ELECTROLITIC ECEV1CA100SR
C403	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C404	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C405	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C406	4510004630	S.ELECTROLITIC ECEV1CA100SR
C407	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C409	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C410	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C411	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C412	4510004630	S.ELECTROLITIC ECEV1CA100SR
C413	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C414	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C415	4510004650	S.ELECTROLITIC ECEV1EA4R7SR
C416	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C417	4510005370	S.ELECTROLITIC ECEV1AA221P
C418	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C420	4510004630	S.ELECTROLITIC ECEV1CA100SR
C421	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION
C422	4510004800	ELECTROLITIC 16 MV 1000 HC
C423	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C424	4510004540	S.ELECTROLITIC ECEV0JA470SR
C425	4510005820	S.ELECTROLITIC ECEV1CA101P
C428	4510004540	S.ELECTROLITIC ECEV0JA470SR
C427	4510005820	S.ELECTROLITIC ECEV1CA101P
C428	4510004590	ELECTROLITIC 16 MV 470 HC
C429	4510005820	S.ELECTROLITIC ECEV1CA101P
C430	4510004590	ELECTROLITIC 16 MV 470 HC
C431	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C432	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C433	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C434	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C435	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C438	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C437	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C438	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C439	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C440	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C441	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C442	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C443	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C444	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C445	4510005320	S.ELECTROLITIC ECEV0JA101SP
C446	4510004640	S.ELECTROLITIC ECEV1CA470SP
C447	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C448	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C449	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C450	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C451	4510005890	S.ELECTROLITIC ECEV1AAN100R
C452	4030009090	S.CERAMIC C3216 JB 1C 334K-T-A
C453	4030008880	S.CERAMIC C1808 JB 1H 472K-T-A
C454	4030007080	S.CERAMIC C1808 CH 1H 390J-T-A
C455	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C456	4030008980	S.CERAMIC C2012 JB 1C 104K-T-A
C457	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C458	4030008880	S.CERAMIC C1808 JB 1H 102K-T-A
C459	4030008870	S.CERAMIC C1808 JB 1H 222K-T-A
C460	4030008870	S.CERAMIC C1808 JB 1H 222K-T-A
C461	4030008900	S.CERAMIC C1808 JB 1E 103K-T-A
C463	4030007110	S.CERAMIC C1808 CH 1H 680J-T-A
C464	4030007030	S.CERAMIC C1808 CH 1H 150J-T-A
C465	4030008850	S.CERAMIC C1808 JB 1H 471K-T-A
C466	4030008850	S.CERAMIC C1808 JB 1H 471K-T-A
W1	7030003860	S.JUMPER ERJ3GE JPW V
W2	7030003860	S.JUMPER ERJ3GE JPW V
W3	7030003860	S.JUMPER ERJ3GE JPW V
W4	7030003860	S.JUMPER ERJ3GE JPW V
W5	7030003860	S.JUMPER ERJ3GE JPW V
W8	7030003860	S.JUMPER ERJ3GE JPW V
W10	7030003860	S.JUMPER ERJ3GE JPW V
W11	7030003860	S.JUMPER ERJ3GE JPW V
J1	8510007020	CONNECTOR TMP-J01X-V6
J2	8510007020	CONNECTOR TMP-J01X-V6
J3	8510018340	S.CONNECTOR 52207-0790
J4	8510007020	CONNECTOR TMP-J01X-V6
J5	8510007020	CONNECTOR TMP-J01X-V6
J6	8510007020	CONNECTOR TMP-J01X-V6
J7	8510007090	CONNECTOR PI28A-04M
J9	8510007100	CONNECTOR PI28A-06M
J10	8510010910	CONNECTOR PI28A-09M
J11	8510018310	CONNECTOR 52030-3010
J12	8450000140	CONNECTOR HSJ0807-01-010
J13	8450000170	CONNECTOR TCS4480-01-1111
J15	8510007170	CONNECTOR PI28A-03M
J16	8450000140	CONNECTOR HSJ0807-01-010
J17	8450000140	CONNECTOR HSJ0807-01-010
J18	8510007170	CONNECTOR PI28A-03M
J19	8450000140	CONNECTOR HSJ0807-01-010
J20	8510008940	CONNECTOR 53073-1010
J21	8510008940	CONNECTOR 53073-1010
J22	8510007100	CONNECTOR PI28A-06M

S.=Surface mount

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
J23	6910001040	CONNECTOR	IPS-1136
S1	2220000330	S.SWITCH	HSW0880-01-210
S2	2220000330	S.SWITCH	HSW0880-01-210
S3	2220000330	S.SWITCH	HSW0880-01-210
S4	2220000330	S.SWITCH	HSW0880-01-210
S5	2220000330	S.SWITCH	HSW0880-01-210
S6	2220000330	S.SWITCH	HSW0880-01-210
EP1	0910040347	PCB	B 4004G

[RF-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
L18	6200001980	S.COIL	NL 252018T-1R0J
L19	6200002590	S.COIL	NL 252018T-039J
L20	6200002590	S.COIL	NL 252018T-039J
L21	6150002200	COIL	LS-228
L22	6200003380	S.COIL	B4F-617PT-1026=P3
L23	6200003330	S.COIL	NL 322522T-1R0J-3
L24	6110001560	COIL	LA-236
L25	6200003370	S.COIL	33CS-655LY-02M=P3
L26	6200001830	S.COIL	NL 322522T-100J
L28	6110001650	COIL	LA-248

[RF-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1110003320	S.IC	μPC2710T-E3
IC2	1110003320	S.IC	μPC2710T-E3
Q1	1580000270	S.FET	2SK302-Y (TE85R)
Q2	1580000270	S.FET	2SK302-Y (TE85R)
Q3	1590001600	S.TRANSISTOR	UMD3 TL
Q4	1530000810	TRANSISTOR	2SC2053
Q5	1590000430	S.TRANSISTOR	DTC144EU T107
Q6	1590000430	S.TRANSISTOR	DTC144EU T107
Q7	1580000630	S.FET	3SK228XR-TL
Q8	1590000430	S.TRANSISTOR	DTC144EU T107
Q9	1590001330	S.TRANSISTOR	DTA114EU T107
Q10	1590000430	S.TRANSISTOR	DTC144EU T107
Q11	1580000720	S.FET	2SK2171-4-TD
Q12	1580000720	S.FET	2SK2171-4-TD
Q13	1530000850	TRANSISTOR	2SC2538
D1	1790000450	S.DIODE	MA862(TX)
D2	1720000470	S.VARICAP	1SV239(TPH3)
D3	1790000640	S.VARICAP	MA363B(TX)
D4	1790000640	S.VARICAP	MA363B(TX)
D5	1790000640	S.VARICAP	MA363B(TX)
D6	1750000120	S.DIODE	DWA010-TE
D7	1790000620	S.DIODE	MA77(TW)
D8	1790000450	S.DIODE	MA862(TX)
D9	1750000270	S.DIODE	1SS301 (TE85R)
D10	1790000640	S.VARICAP	MA363B(TX)
D11	1720000270	S.VARICAP	1SV217 (TPH2)
D12	1720000270	S.VARICAP	1SV217 (TPH2)
D13	1790000640	S.VARICAP	MA363B(TX)
D14	1790000490	S.DIODE	HSM88AS-TR
D15	1750000210	S.DIODE	1SV237 (TE85R)
D16	1790000450	S.DIODE	MA862(TX)
D17	1750000120	S.DIODE	DWA010-TE
L1	6150001480	COIL	LS-164
L2	6150001310	COIL	LS-145
L3	6150001310	COIL	LS-145
L4	6150001310	COIL	LS-145
L5	6150001310	COIL	LS-145
L6	6200003450	S.COIL	NL 322522T-082J
L7	6200002990	S.COIL	NL 322522T-2R2J-3
L8	6110001550	COIL	LA-235
L9	6110001680	COIL	LA-254
L10	6110001680	COIL	LA-252
L11	6110001670	COIL	LA-253
L12	6180000810	COIL	LAL 03NA 2R2M
L13	6150001310	COIL	LS-145
L14	6150002880	COIL	LS-302
L15	6150002880	COIL	LS-302
L16	6150001310	COIL	LS-145
L17	6180000810	COIL	LAL 03NA 2R2M

R1	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R2	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R3	7310002720	S.TRIMMER	RV-148 (RH03A3AS3X0DA)472
R4	7310002670	S.TRIMMER	RV-143 (RH03A3AS2 )471
R5	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R6	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R7	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R8	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R9	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R10	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R11	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R12	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R13	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R14	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R15	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R16	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R17	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R18	7030000110	S.RESISTOR	MCR10EZHZ 5.6 Ω (5R6)
R19	7030001070	S.RESISTOR	MCR50JZHZ 33 Ω (330)
R20	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R21	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R22	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R23	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R24	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R25	7030003250	S.RESISTOR	ERJ3GEYJ 270 V (27 Ω)
R26	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R27	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R28	7030003680	S.RESISTOR	ERJ3GEYJ 102 V (100 kΩ)
R29	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R30	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R31	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R32	7010000790	RESISTOR	R25XJ 1 Ω
R33	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R34	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R35	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R36	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R37	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R38	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R39	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R40	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R41	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R43	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R44	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R45	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R47	7030000160	S.RESISTOR	MCR10EZHZ 15 Ω (150)
R48	7030000250	S.RESISTOR	MCR10EZHZ 82 Ω (820)
R49	7030000160	S.RESISTOR	MCR10EZHZ 15 Ω (150)
R50	7030001010	S.RESISTOR	MCR50JZHZ 10 Ω (100)
R51	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R52	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R54	7030000070	S.RESISTOR	MCR10EZHZ 2.7 Ω (2R7)
R55	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R56	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R57	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R58	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R59	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R60	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R61	7510000830	S.THERMISTOR	NTCCF2012 3EH 471KCT
R62	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R63	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)

S.=Surface mount

[RF-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C1	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C3	4030007130	S.CERAMIC	C1808 CH 1H 101J-T-A
C4	4030007070	S.CERAMIC	C1808 CH 1H 330J-T-A
C5	4030007070	S.CERAMIC	C1808 CH 1H 330J-T-A
C6	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C7	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C8	4030006940	S.CERAMIC	C1808 CH 1H 030C-T-A
C9	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C10	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C11	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C12	4030006970	S.CERAMIC	C1808 CH 1H 060D-T-A
C13	4030008250	S.CERAMIC	C1808 UJ 1H 120J-T-A
C14	4030009570	S.CERAMIC	C1808 CH 1H 0R3B-T-A
C15	4030009570	S.CERAMIC	C1808 CH 1H 0R3B-T-A
C16	4030008250	S.CERAMIC	C1808 UJ 1H 120J-T-A
C17	4030009570	S.CERAMIC	C1808 CH 1H 0R3B-T-A
C18	4030009570	S.CERAMIC	C1808 CH 1H 0R3B-T-A
C19	4030008250	S.CERAMIC	C1808 UJ 1H 120J-T-A
C20	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C21	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C22	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C23	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C24	4030006960	S.CERAMIC	C1808 CH 1H 050C-T-A
C25	4030006850	S.CERAMIC	C1808 JB 1H 471K-T-A
C26	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C27	4610001890	S.TRIMMER	CTZ3E-20C-W1
C28	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C29	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C30	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C31	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C32	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C33	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C34	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C35	4610001890	S.TRIMMER	CTZ3E-20C-W1
C36	4030007030	S.CERAMIC	C1808 CH 1H 150J-T-A
C37	4610001910	S.TRIMMER	CTZ3E-10A-W1
C38	4030007020	S.CERAMIC	C1808 CH 1H 120J-T-A
C39	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C40	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C41	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C43	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C44	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C47	4030008250	S.CERAMIC	C1808 UJ 1H 120J-T-A
C49	4030009500	S.CERAMIC	C1808 CH 1H 0R5B-T-A
C50	4030007040	S.CERAMIC	C1808 CH 1H 180J-T-A
C51	4030006950	S.CERAMIC	C1808 CH 1H 040C-T-A
C52	4030009560	S.CERAMIC	C1808 CH 1H R75B-T-A
C53	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C54	4030008270	S.CERAMIC	C1808 UJ 1H 180J-T-A
C55	4030008940	S.CERAMIC	C1808 CH 1H 030C-T-A
C56	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C57	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C58	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C59	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C60	4030008230	S.CERAMIC	C1808 UJ 1H 080D-T-A
C61	4030007120	S.CERAMIC	C1808 CH 1H 820J-T-A
C62	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C63	4030007060	S.CERAMIC	C1808 CH 1H 270J-T-A
C64	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C65	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C66	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C67	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C68	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C69	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C70	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C71	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C72	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C73	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C74	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C75	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C76	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C77	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C78	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C79	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C80	4030007050	S.CERAMIC	C1808 CH 1H 220J-T-A

[RF-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C81	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C82	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C83	4030009990	S.CERAMIC	C1808 CH 1H 200J-T-A
C84	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C85	4030007020	S.CERAMIC	C1808 CH 1H 120J-T-A
C86	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C87	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C88	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C89	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C90	4030008370	S.CERAMIC	C1808 UJ 1H 121J-T-A
C91	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C92	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C93	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C94	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C95	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C96	4030008960	S.CERAMIC	C2012 JB 1C 104K-T-A
C97	4510004640	S.ELECTROLITIC	ECEV1CA470SP
C98	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C100	4030007080	S.CERAMIC	C1808 CH 1H 390J-T-A
C101	4610001980	S.TRIMMER	CTZ3E-30C-W1
C102	4030009990	S.CERAMIC	C1808 CH 1H 200J-T-A
C103	4610001980	S.TRIMMER	CTZ3E-30C-W1
C104	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C105	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C106	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C107	4030006880	S.CERAMIC	C1808 JB 1H 472K-T-A
C108	4030007020	S.CERAMIC	C1808 CH 1H 120J-T-A
C109	4030007010	S.CERAMIC	C1808 CH 1H 100D-T-A
C110	4030007040	S.CERAMIC	C1808 CH 1H 180J-T-A
C111	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
C112	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C113	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C114	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C115	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C116	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C117	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C118	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C119	4030007090	S.CERAMIC	C1808 CH 1H 470J-T-A
C120	4030009500	S.CERAMIC	C1808 CH 1H 0R5B-T-A
C121	4030009500	S.CERAMIC	C1808 CH 1H 0R5B-T-A
C122	4030008920	S.CERAMIC	C1808 CH 1H 010C-T-A
C123	4030009500	S.CERAMIC	C1808 CH 1H 0R5B-T-A
C124	4030006880	S.CERAMIC	C1808 JB 1H 102K-T-A
J3	6510006360	CONNECTOR	TMP-J02X-A1
J4	6510016320	CONNECTOR	52030-0710
J6	6510003250	CONNECTOR	TMP-J01X-A2
J7	6510003250	CONNECTOR	TMP-J01X-A2
EP1	0910040352	PCB	B 4015B

[RF-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1110003320	S.IC	μPC2710T-E3
IC2	1110003320	S.IC	μPC2710T-E3
IC3	6910007940	S.IC	CB501M1
IC4	1110003320	S.IC	μPC2710T-E3
Q1	1560000270	S.FET	2SK302-Y (TE85R)
Q2	1560000270	S.FET	2SK302-Y (TE85R)
Q3	1530002360	S.TRANSISTOR	2SC2714-Y (TE85R)
Q4	1530002680	S.TRANSISTOR	2SC3357-T2
Q5	1530000640	TRANSISTOR	2SC2407(A)
Q6	1590001600	S.TRANSISTOR	UMD3 TL
Q8	1590000430	S.TRANSISTOR	DTC144EU T107
Q9	1590000430	S.TRANSISTOR	DTC144EU T107
Q11	1560000490	S.FET	2SK508 K52 T2B

S.=Surface mount

[RF-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
Q14	1530000372	S.TRANSISTOR	2SC3358 R24-T2B
Q15	1530000372	S.TRANSISTOR	2SC3358 R24-T2B
Q16	1580000630	S.FET	3SK228XR-TL
D1	1790000450	S.DIODE	MA862(TX)
D2	1750000120	S.DIODE	DWA010-TE
D4	1790000620	S.DIODE	MA77(TW)
D5	1790000450	S.DIODE	MA862(TX)
D6	1790000450	S.DIODE	MA862(TX)
D7	1750000270	S.DIODE	1SS301 (TE85R)
D8	1790000620	S.DIODE	MA77(TW)
D9	1790000450	S.DIODE	MA862(TX)
D10	1790000450	S.DIODE	MA862(TX)
D11	1790000640	S.VARICAP	MA363B(TX)
D12	1790000640	S.VARICAP	MA363B(TX)
D13	1790000640	S.VARICAP	MA363B(TX)
D14	1790000640	S.VARICAP	MA363B(TX)
D16	1750000210	S.DIODE	1SV237 (TE85R)
D17	1790000620	S.DIODE	MA77(TW)
D18	1750000270	S.DIODE	1SS301 (TE85R)
Fl1	2010001110	FILTER	FL-131
Fl2	2010001100	FILTER	FL-130
L1	6150001480	COIL	LS-164
L2	6150001310	COIL	LS-145
L3	6150001710	COIL	LS-192
L4	6150001710	COIL	LS-192
L5	6150001310	COIL	LS-145
L6	6200002990	S.COIL	NL 322522T-2R2J-3
L7	6200003330	S.COIL	NL 322522T-1R0J-3
L8	6180000770	COIL	LAL 03NA 1R0M
L9	6180000770	COIL	LAL 03NA 1R0M
L10	6200003450	S.COIL	NL 322522T-082J
L11	6200003370	S.COIL	33CS-655LY-02M=P3
L12	6200003370	S.COIL	33CS-655LY-02M=P3
L13	6200003380	S.COIL	33CS-655LY-04K=P3
L14	6200003370	S.COIL	33CS-655LY-02M=P3
L15	6180000770	COIL	LAL 03NA 1R0M
L16	6180000770	COIL	LAL 03NA 1R0M
L17	6200004000	S.COIL	NL 322522T-022K
L18	6200002100	S.COIL	LQN 1A 17NJ04
L19	6200001030	S.COIL	NL 322522T-012K
L20	6150002550	COIL	LS-284
L21	6150002550	COIL	LS-284
L22	6150004210	COIL	LS-480
L23	6150004180	COIL	LS-477
L24	6150002430	COIL	LS-254
L25	6150002430	COIL	LS-254
L26	6150002430	COIL	LS-254
L27	6150002430	COIL	LS-254
L28	6200003330	S.COIL	NL 322522T-1R0J-3
L29	6200003380	S.COIL	B4F-617PT-1026=P3
L30	6140002550	S.COIL	B4F-617DB-1010=P3
L31	6200003370	S.COIL	33CS-655LY-02M=P3
L32	6200002330	S.COIL	LQN 1A 15NJ04
L33	6200003370	S.COIL	33CS-655LY-02M=P3
L34	6200003330	S.COIL	NL 322522T-1R0J-3
L35	6110001810	COIL	LA-152
L36	6190000970	COIL	7HW-252MXPR-2983A
L37	6190000980	COIL	7HT-302MXPR-1838D
L38	6200002990	S.COIL	NL 322522T-2R2J-3
L39	6200003330	S.COIL	NL 322522T-1R0J-3
L40	6200004020	S.COIL	NL 322522T-039J
L41	6200004020	S.COIL	NL 322522T-039J
R1	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k $\Omega$ )
R2	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R3	7310002740	S.TRIMMER	RV-150 (RH03A9A14X0FC)103
R4	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 $\Omega$ )
R5	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 $\Omega$ )

[RF-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
R6	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R7	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 k $\Omega$ )
R8	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 k $\Omega$ )
R9	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R10	7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 $\Omega$ )
R11	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R12	7030003270	S.RESISTOR	ERJ3GEYJ 390 V (39 $\Omega$ )
R13	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R14	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R15	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 $\Omega$ )
R16	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R17	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 $\Omega$ )
R18	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 $\Omega$ )
R19	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 $\Omega$ )
R20	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 $\Omega$ )
R21	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R22	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 $\Omega$ )
R23	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R24	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k $\Omega$ )
R25	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 k $\Omega$ )
R26	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 $\Omega$ )
R27	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 $\Omega$ )
R29	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 $\Omega$ )
R30	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R31	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 k $\Omega$ )
R32	7030000060	S.RESISTOR	MCR10EZHZ 2.2 $\Omega$ (2R2)
R33	7030001050	S.RESISTOR	MCR50JZHJ 22 $\Omega$ (220)
R34	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 k $\Omega$ )
R36	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 $\Omega$ )
R37	7030004030	S.RESISTOR	ERJ3GEYJ 5R6 V (5.6 $\Omega$ )
R38	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 $\Omega$ )
R41	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 $\Omega$ )
R42	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k $\Omega$ )
R43	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k $\Omega$ )
R44	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 k $\Omega$ )
R45	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R46	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 $\Omega$ )
R50	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 k $\Omega$ )
R51	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R52	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 k $\Omega$ )
R53	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R54	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 k $\Omega$ )
R55	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 k $\Omega$ )
R58	7030003800	S.RESISTOR	ERJ3GEYJ 223 V (22 k $\Omega$ )
R61	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 k $\Omega$ )
R62	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R63	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R64	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R65	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 k $\Omega$ )
R66	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 k $\Omega$ )
R68	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 k $\Omega$ )
R69	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R71	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 $\Omega$ )
R72	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 $\Omega$ )
R73	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 k $\Omega$ )
R74	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 $\Omega$ )
R75	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 $\Omega$ )
R76	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 k $\Omega$ )
R77	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 $\Omega$ )
R78	7030003880	S.RESISTOR	ERJ3GEYJ 104 V (100 k $\Omega$ )
R79	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 k $\Omega$ )
R80	7030003880	S.RESISTOR	ERJ3GEYJ 104 V (100 k $\Omega$ )
R81	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 $\Omega$ )
R82	7030003880	S.RESISTOR	ERJ3GEYJ 104 V (100 k $\Omega$ )
R83	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 k $\Omega$ )
R85	7030003880	S.RESISTOR	ERJ3GEYJ 104 V (100 k $\Omega$ )
R87	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 k $\Omega$ )
R88	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 $\Omega$ )
R89	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R91	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R92	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R93	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 $\Omega$ )
R96	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 $\Omega$ )
R97	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 $\Omega$ )
R98	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 $\Omega$ )
R99	7030003270	S.RESISTOR	ERJ3GEYJ 390 V (39 $\Omega$ )

S.=Surface mount

**[RF-B UNIT]**

REF. NO.	ORDER NO.	DESCRIPTION	
R100	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R101	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R102	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 Ω)
R103	7030003310	S.RESISTOR	ERJ3GEYJ 820 V (82 Ω)
R104	7310002630	S.TRIMMER	RV-139 (RH03A3A12 )101
R105	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R107	7030003250	S.RESISTOR	ERJ3GEYJ 270 V (27 Ω)
R109	7510000840	S.THERMISTOR	NTCCF2012 3EH 681KC-T
R110	7510000850	S.THERMISTOR	NTCCF2012 3BH 102KC-T
R111	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R112	7030004010	S.RESISTOR	ERJ3GEYJ 2R2 V (2.2 Ω)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030008360	S.CERAMIC	C1608 UJ 1H 101J-T-A
C3	4030007800	S.CERAMIC	C1608 SH 1H 330J-T-A
C4	4030007800	S.CERAMIC	C1608 SH 1H 330J-T-A
C6	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C7	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C8	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C9	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C10	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C11	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C12	4030007750	S.CERAMIC	C1608 SH 1H 120J-T-A
C13	4030007750	S.CERAMIC	C1608 SH 1H 120J-T-A
C14	4030009570	S.CERAMIC	C1608 CH 1H 0R3B-T-A
C15	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C16	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C17	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C18	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C19	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C20	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C21	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C23	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C24	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C25	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C26	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C27	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C28	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C29	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C30	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C31	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C32	4610001910	S.TRIMMER	CTZ3E-10A-W1
C33	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C34	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C35	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C36	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C37	4610001910	S.TRIMMER	CTZ3E-10A-W1
C38	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C39	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C40	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C41	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C42	4510004640	S.ELECTROLITIC	ECEV1CA470SP
C43	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C44	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C45	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C46	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C47	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C48	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C50	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C51	4030006940	S.CERAMIC	C1608 CH 1H 030C-T-A
C52	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C53	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C54	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C55	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A
C56	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C57	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C58	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C59	4030006920	S.CERAMIC	C1608 CH 1H 010C-T-A
C60	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C61	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C62	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C63	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C64	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C66	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C67	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A

**[RF-B UNIT]**

REF. NO.	ORDER NO.	DESCRIPTION	
C68	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C69	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C70	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C71	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C72	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C73	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C74	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C75	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C76	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C77	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C78	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C79	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C81	4030006940	S.CERAMIC	C1608 CH 1H 030C-T-A
C84	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C85	4030006860	S.CERAMIC	C1608 JB 1H 472K-T-A
C86	4030006980	S.CERAMIC	C1608 JB 1H 070D-T-A
C87	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C88	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C89	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C90	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C91	4030006980	S.CERAMIC	C1608 CH 1H 050C-T-A
C92	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C93	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C97	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C98	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C99	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C100	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C101	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C102	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C103	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C104	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C105	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C106	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A
C107	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C108	4610001880	S.TRIMMER	CTZ3E-03A-W1
C109	4030006920	S.CERAMIC	C1608 CH 1H 010C-T-A
C111	4030009560	S.CERAMIC	C1608 CH 1H R75B-T-A
C112	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A
C113	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C114	4610001880	S.TRIMMER	CTZ3E-03A-W1
C115	4030009560	S.CERAMIC	C1608 CH 1H R75B-T-A
C117	4030009560	S.CERAMIC	C1608 CH 1H R75B-T-A
C118	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C119	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C120	4610001880	S.TRIMMER	CTZ3E-03A-W1
C121	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C122	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C123	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C124	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C125	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C126	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C127	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C128	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C130	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C131	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C132	4610001880	S.TRIMMER	CTZ3E-03A-W1
C133	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C134	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C135	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C137	4030006970	S.CERAMIC	C1608 CH 1H 080D-T-A
C138	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C139	4030006560	S.CERAMIC	C1608 CH 1H 300J-T-A
C140	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C141	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C142	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C144	4030006960	S.CERAMIC	C2012 JB 1C 104K-T-A
C145	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C146	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C147	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C149	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C150	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C151	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C152	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C153	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C154	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C155	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A

S.=Surface mount

[RF-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C156	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C157	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C158	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C159	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C160	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C161	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C162	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C163	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C164	4030009570	S.CERAMIC	C1608 CH 1H 0R3B-T-A
C165	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C166	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C167	4030006860	S.CERAMIC	C1608 CH 1H 050C-T-A
C168	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C169	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C170	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
W5	7030003860	S.JUMPER	ERJ3GE JPW V
W6	7030003860	S.JUMPER	ERJ3GE JPW V
W7	7030003860	S.JUMPER	ERJ3GE JPW V
W8	7030003860	S.JUMPER	ERJ3GE JPW V
J3	6510003250	CONNECTOR	TMP-J01X-A2
J4	6510003250	CONNECTOR	TMP-J01X-A2
J5	6510003250	CONNECTOR	TMP-J01X-A2
J6	6510006360	CONNECTOR	TMP-J02X-A1
J7	6510007020	CONNECTOR	TMP-J01X-V6
J8	6510016320	CONNECTOR	52030-0710
EP1	0910040363	PCB	B 4016C

[PA-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
L8	6110001550	COIL	LA-235
L7	6110001550	COIL	LA-235
L8	6110001740	COIL	LA-263
L9	6170000180	COIL	LW-19
L10	6910000670	COIL	BL01RN1-A62-001
L11	6910000670	COIL	BL01RN1-A62-001
L12	6180000880	COIL	LAL 03NA 100K
L13	6910000670	COIL	BL01RN1-A62-001
L14	6110001670	COIL	LA-253
R1	7080000150	RESISTOR	RGB3L R15
R2	7010004310	RESISTOR	R20J 8.2 KΩ
R3	7010004310	RESISTOR	R20J 8.2 KΩ
R4	7010003480	RESISTOR	ELR20J 4.7 KΩ
R5	7010003480	RESISTOR	ELR20J 4.7 KΩ
R8	7010004740	RESISTOR	R50XJ 150 Ω
R9	7010004740	RESISTOR	R50XJ 150 Ω
R10	7010001150	RESISTOR	R25XJ 1 KΩ
R12	7080000150	RESISTOR	RGB3L R15
R13	7010004220	RESISTOR	R20J 1.8 KΩ
C1	4010000520	CERAMIC	DD108 B 472K 50V
C2	4010000500	CERAMIC	DD104 B 102K 50V
C3	4040000690	BARRIERLAYR	UAT 08X 473K
C4	4010004120	CERAMIC	DD07 B 102K 500V
C5	4010003880	CERAMIC	DD06 SL 150K 500V
C6	4010003940	CERAMIC	DD06 SL 300K 500V
C7	4010003940	CERAMIC	DD06 SL 300K 500V
C8	4010003880	CERAMIC	DD06 SL 150K 500V
C9	4010004120	CERAMIC	DD07 B 102K 500V
C10	4010000200	CERAMIC	DD104 SL 270J 50V
C11	4010000090	CERAMIC	DD104 SL 070D 50V
C12	4010000330	CERAMIC	DD105 SL 101J 50V
C13	4010003880	CERAMIC	DD06 SL 150K 500V
C14	4010003900	CERAMIC	DD06 SL 200K 500V
C15	4010004120	CERAMIC	DD07 B 102K 500V
C17	4010003860	CERAMIC	DD06 SL 100D 500V
C18	4010000500	CERAMIC	DD104 B 102K 50V
C19	4010000500	CERAMIC	DD104 B 102K 50V
C20	4010000500	CERAMIC	DD104 B 102K 50V
C21	4010000500	CERAMIC	DD104 B 102K 50V
C22	4010000520	CERAMIC	DD108 B 472K 50V
C23	4010000500	CERAMIC	DD104 B 102K 50V
C24	4010000520	CERAMIC	DD108 B 472K 50V
C25	4510003890	ELECTROLITIC	16 MV 10 HW
C26	4010000500	CERAMIC	DD104 B 102K 50V
C27	4010000520	CERAMIC	DD108 B 472K 50V
C28	4510004590	ELECTROLITIC	16 MV 470 HC
C29	4010000520	CERAMIC	DD108 B 472K 50V
C30	4010000500	CERAMIC	DD104 B 102K 50V
C31	4010000520	CERAMIC	DD108 B 472K 50V
C32	4010000500	CERAMIC	DD104 B 102K 50V
C33	4510004590	ELECTROLITIC	16 MV 470 HC
C34	4010000500	CERAMIC	DD104 B 102K 50V
C35	4010000500	CERAMIC	DD104 B 102K 50V
C37	4010000500	CERAMIC	DD104 B 102K 50V
C38	4010000500	CERAMIC	DD104 B 102K 50V
C39	4010000500	CERAMIC	DD104 B 102K 50V
C40	4010000500	CERAMIC	DD104 B 102K 50V
C41	4010003880	CERAMIC	DD06 SL 150K 500V
C42	4010003880	CERAMIC	DD06 SL 150K 500V
C43	4010003880	CERAMIC	DD06 SL 150K 500V
W18	8900004480	CABLE	OPC-451 D
W19	8900004490	CABLE	OPC-451 E
J1	6510003410	CONNECTOR	B05B-EH-S
J4	6510003100	CONNECTOR	RT01T-1.3B
J5	6510003100	CONNECTOR	RT01T-1.3B
J6	6510003100	CONNECTOR	RT01T-1.3B
EP2	0910040373	PCB	B 4017C

[PA UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
IC1	1150000840	IC	SC1114
IC2	1150000830	IC	SC1113
IC3	1150000140	IC	SC1016
D1	1710000010	DIODE	15CD11
SP1	2510000040	SPEAKER	C065K1210810
MF1	2710000480	FAN	MF40C-12H004
J1	6510004910	CONNECTOR	NR-DS-E 01
J2	6510004880	CONNECTOR	MR-DS-E 01
S1	6910000050	THERMAL	OHD-3 50M

[PA-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
D1	1710000310	DIODE	M1407
D2	1710000290	DIODE	M1308
D3	1710000290	DIODE	M1308
D4	1790000070	DIODE	1SS237
D5	1790000070	DIODE	1SS237
D6	1790000070	DIODE	1SS237
D7	1790000070	DIODE	1SS237
L1	6170000070	COIL	LW-9
L2	6170000230	COIL	LW-25
L3	6110001670	COIL	LA-253
L4	6110001740	COIL	LA-263
L5	6110001740	COIL	LA-263

S.=Surface mount



[PA-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
D1	1710000310	DIODE	MI407
D2	1710000730	S.DIODE	MI809-T11
D3	1710000730	S.DIODE	MI809-T11
D4	1790000490	S.DIODE	HSM88AS-TR
D5	1790000490	S.DIODE	HSM88AS-TR
L1	6110001850	COIL	LA-248
L3	6110002110	COIL	LA-382
L4	6110002110	COIL	LA-382
L5	6110001520	COIL	LA-232
L6	6110001520	COIL	LA-232
L7	6110001520	COIL	LA-232
L8	6110001800	COIL	LA-243
L9	6110002110	COIL	LA-382
L10	6110001850	COIL	LA-248
L11	6200001830	S.COIL	NL 322522T-100J
L12	6200001830	S.COIL	NL 322522T-100J
L13	6910000670	COIL	BL01RN1-A62-001
L14	6910000670	COIL	BL01RN1-A62-001
L15	6110001520	COIL	LA-232
L16	6110001850	COIL	LA-248
L17	6110001520	COIL	LA-232
L18	6110001520	COIL	LA-232
R1	7080000150	RESISTOR	RGB3L R15
R2	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R3	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R4	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R5	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R8	7030001150	S.RESISTOR	MCR50JZHJ 150 Ω (151)
R9	7030001150	S.RESISTOR	MCR50JZHJ 150 Ω (151)
R10	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R11	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R13	7030001140	S.RESISTOR	MCR50JZHJ 120 Ω (121)
R14	7030001090	S.RESISTOR	MCR50JZHJ 47 Ω (470)
R15	7030001140	S.RESISTOR	MCR50JZHJ 120 Ω (121)
R16	7080000150	RESISTOR	RGB3L R15
R17	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R18	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R19	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C5	4010003850	CERAMIC	DD08 SL 080D 500V
C6	4010003850	CERAMIC	DD08 SL 080D 500V
C7	4010003850	CERAMIC	DD08 SL 080D 500V
C8	4010003850	CERAMIC	DD08 SL 080D 500V
C9	4010003830	CERAMIC	DD08 SL 080D 500V
C10	4010003830	CERAMIC	DD08 SL 080D 500V
C12	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C14	4030007000	S.CERAMIC	C1608 CH 1H 080D-T-A
C15	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C16	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C17	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C18	4010003810	CERAMIC	DD08 SL 040C 500V
C21	4010003820	CERAMIC	DD08 SL 050C 500V
C22	4010003790	CERAMIC	DD08 SL 020C 500V
C23	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C24	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C25	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C26	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C27	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C28	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C29	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C30	4510004630	S.ELECTROLITIC	ECEV1CA100SR
C31	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C32	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C33	4510004590	ELECTROLITIC	16 MV 470 HC
C34	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C35	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C36	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C37	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A

[PA-B UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	
C38	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C39	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C40	4510004590	ELECTROLITIC	16 MV 470 HC
C41	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C42	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C44	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C45	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C46	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C47	4010003860	CERAMIC	DD08 SL 100D 500V
C48	4010005340	CERAMIC	DD05 SL 090D 500V
C51	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C52	4510005310	S.ELECTROLITIC	ECEV1CA220SR
C53	4510005310	S.ELECTROLITIC	ECEV1CA220SR
C54	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C55	4510005820	S.ELECTROLITIC	ECEV1CA101P
C56	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C57	4010004120	CERAMIC	DD07 B 102K 500V
C59	4010003820	CERAMIC	DD08 SL 050C 500V
C60	4030006860	S.CERAMIC	C1608 CH 1H 050C-T-A
C61	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C62	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C63	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C64	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C65	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C66	4030006880	S.CERAMIC	C1608 JB 1H 102K-T-A
C67	4010003820	CERAMIC	DD08 SL 050C 500V
C68	4010003810	CERAMIC	DD08 SL 040C 500V
C69	4010003810	CERAMIC	DD08 SL 040C 500V
C70	4010003810	CERAMIC	DD08 SL 040C 500V
C71	4010003810	CERAMIC	DD08 SL 040C 500V
C72	4010003880	CERAMIC	DD08 SL 150K 500V
C73	4010003890	CERAMIC	DD08 SL 180K 500V
J1	6510003420	CONNECTOR	B06B-EH-S
F1	5210000180	FUSE	FGMB 125V 5A
F2	6510018320	HOLDER	F09P
EP1	6510018330	TERMINAL	F4053A
EP2	6510018330	TERMINAL	F4053A
EP3	0910040383	PCB	B 4018

S.=Surface mount

# SECTION 7 MECHANICAL PARTS AND DISASSEMBLY

## 7-1 CABINET PARTS

### [FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J 1	6510000290	Connector 8S-S-E [MIC] (incl. spring washer and nut)	1
EP 1	0910041880	[MIC] jack Flexible P.C.B. B 4178	1
EP 2	6450001230	Snap plate HLJ0999-01-480	1
S 1	2260001580	Power switch JPZ2120-0101 (TV-3)	1
S 2	2250000130	Encoder SW-152 (EC24B50B0013B)	1
ME 1	5510000420	S/RF meter ME-34	1
MP 1	8210010680	1424 Front panel (C)	1
MP 2	8210011860	1424 Window plate (A)	1
MP 3	8010015280	1424 Sub chassis	1
MP 4	8610008510	Knob N45(D) [AF MAIN/SUB], [RIT]	3
MP 5	8610008500	Knob N69(A) [SQL MAIN/SUB], [SHIFT]	3
MP 6	8610009160	Knob N213 base [Main dial]	1
MP 7	8610009170	Knob N213 cover [Main dial]	1
MP 8	8610009010	Button K210 [NB, ATT, PRE, AGC, PO/CO]	5
MP 9	8610009060	Button K199 (I) [CHECK, TONE, MAIN/SUB, FUNC]	1
MP 10	8610009070	Button K199 (J) [FM, SSB/CW, SUB, LOCK]	1
MP 11	8610009080	Button K199 (K) [CALL, VFO, MEMO, MW]	1
MP 12	8610009221	Button K-200 [RIT, kHz/MHz, SCAN]	3
MP 13	8610009090	Button K201(A) [POWER]	1
MP 14	8610008430	Button K202 [TRANSMIT]	1
MP 15	8610009100	Button K202 (A) [UP]	1
MP 16	8610009110	Button K202 (B) [DOWN]	1
MP 17	8930013940	610 Knob sheet	1
MP 18	8930014030	610 Brake pad	1
MP 19	8930013990	610 Brake plate	1
MP 20	8820000770	1296 Screw	1
MP 21	8930003200	Spacer (P)	1
MP 23	8930030480	1424 Knob plate	1
MP 24	8810000980	Screw PH B0 M2 x 4	5
MP 25	8810000980	Screw PH B0 M2 x 4	2
MP 26	8810000210	Screw PH M3 x 4	7
MP 27	8810002160	Screw FH M3 x 5	2
MP 28	8810002160	Screw FH M3 x 5	4
MP 29	8810000980	Screw PH B0 2 x 4	1
MP 30	8810000980	Screw PH B0 2 x 4	6
MP 31	8810000980	Screw PH B0 2 x 4	3
MP 32	8930027960	1296 Pushing spring	6
MP 33	8850001330	Insulate flat washer (M)	1
MP 34	8810000210	Screw PH M3 x 4	1
MP 35	8810003360	Set screw C M3 x 6	1
MP 36	8930031160	1424 Sponge (B)	1
MP 39	8930032370	Shaft tape (A)	3
WS 1	8600032360	Connector P01FR [POWER]	1

### [DISPLAY UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W 7	8900004850	OPC-471 [VR unit for the main band]	1
W 8	8900004850	OPC-471 [VR unit for the sub band]	1
W 9	8900004850	OPC-471 [RIT unit]	1
DS 7	5030001000	LCD FTD-12525AAH	1
EP 2	8930031220	LCD contact SRCN-1424 SSW	1
MP 1	8210009490	1424 Reflector	1
MP 2	8930029570	1424 LCD holder	1
MP 3	8930029560	1424 LCD rubber	1
MP 4	8930030460	1424 LCD filter	1
MP 5	8930031150	1424 Sponge(A)	1
MP 6	8930032500	1424 Mask sheet	1

### [COVER UNIT]

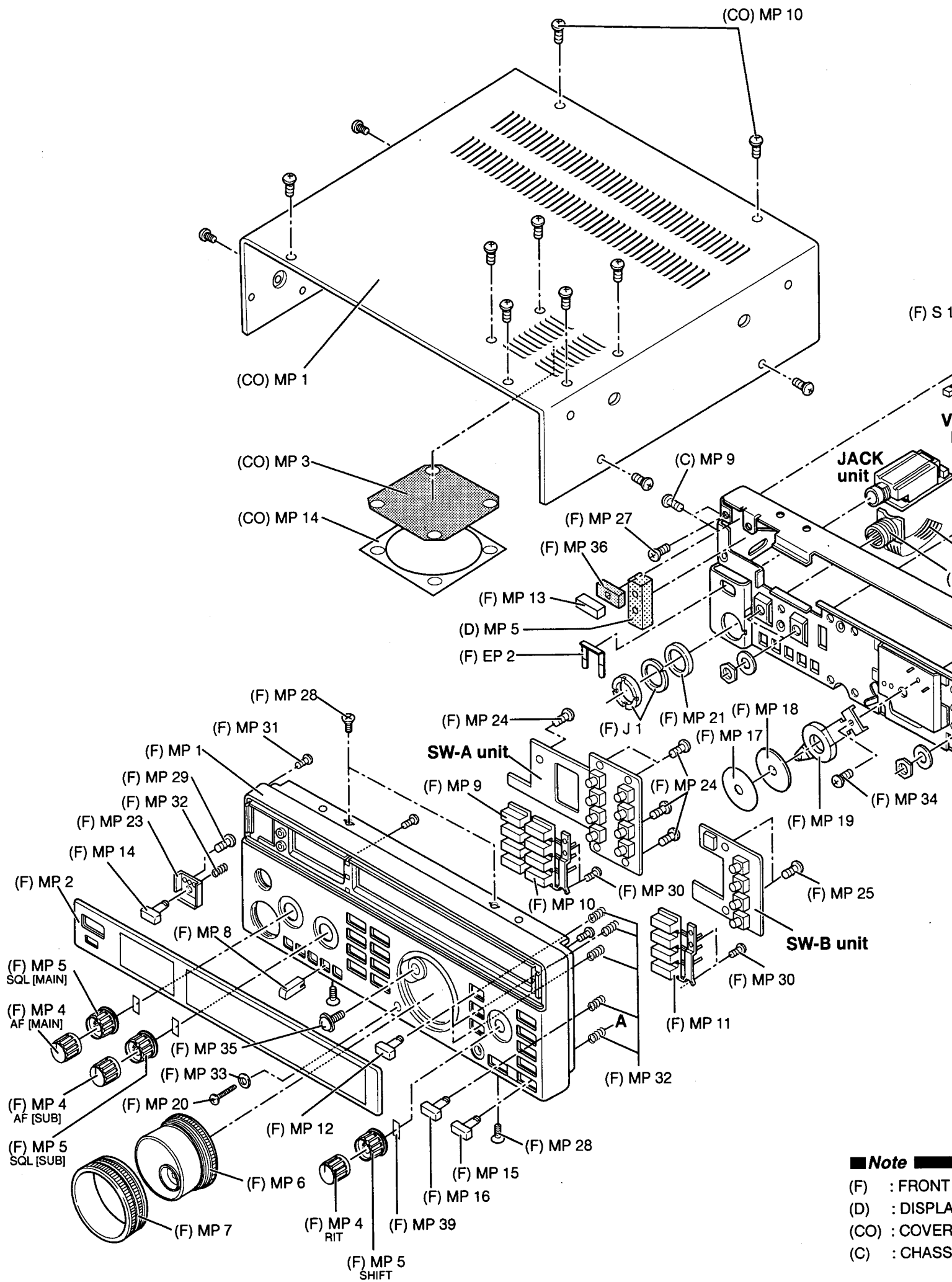
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MP 1	8110005150	1424 Top cover	1
MP 2	8110005220	1424 Bottom cover	1
MP 3	8930006370	Sheet 401 Salan net	1
MP 4	8010001520	Stand (C)	1
MP 5	8930005790	Stand foot (A)	1
MP 6	8930005800	Stand foot (B)	1
MP 7	8930002900	Rubber foot (A)	2
MP 8	8810005520	Screw PH B1 3 x 8	4
MP 9	8810005540	Screw PH B1 ZK 4 x 10	2
MP 10	8810005510	Screw OH BS ZK M3 x 6	16
MP 14	0803003230	Sheet 1413 A-Sheet 1	

### [CHASSIS UNIT]

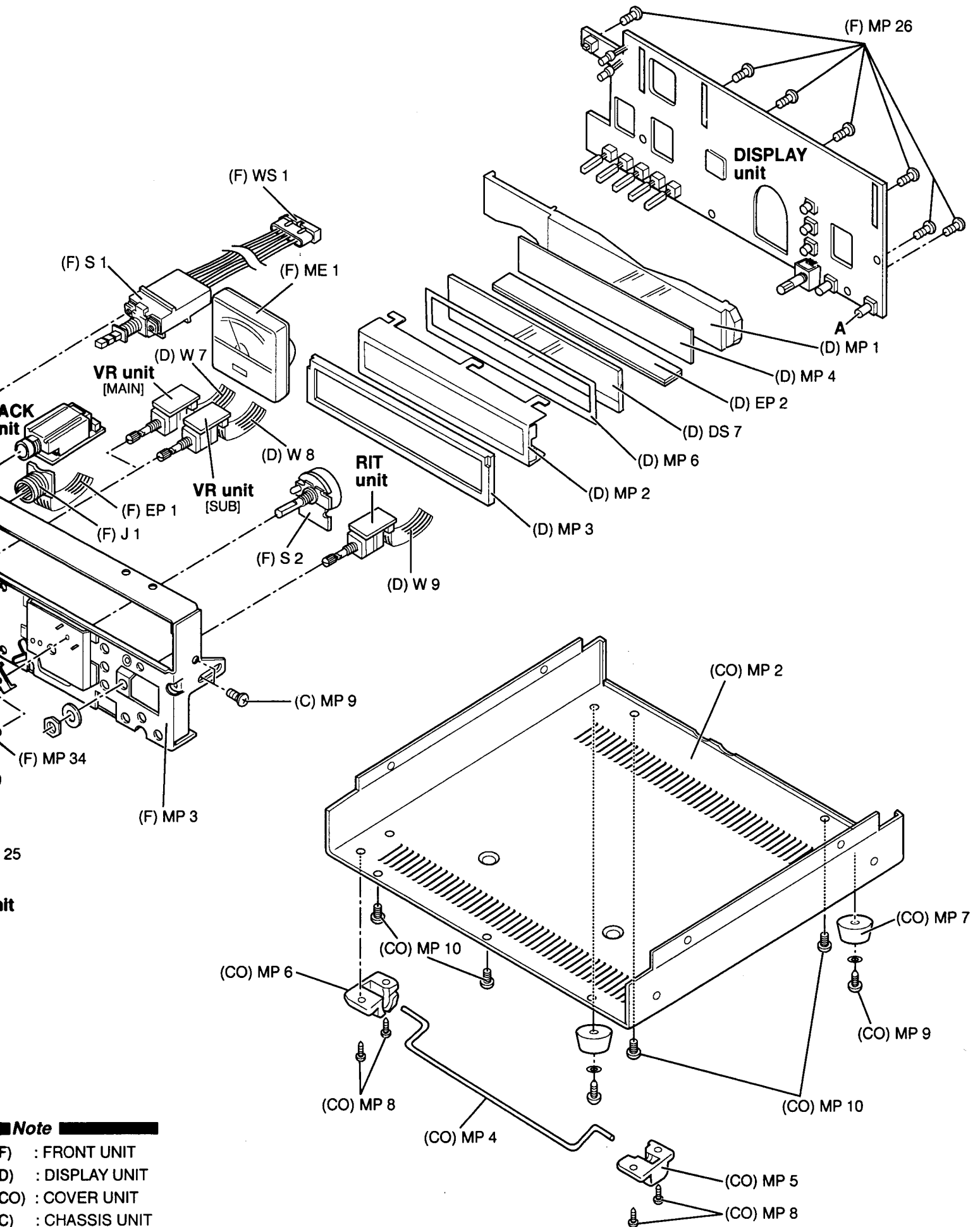
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP 9	8810000210	Screw PH M3 x 4	4

Screw abbreviations: PH: Pan head OH: Oval countersunk head FH: Flat head B0, B1: Self-tapping BS: Brass NI: Nickel ZK: Black





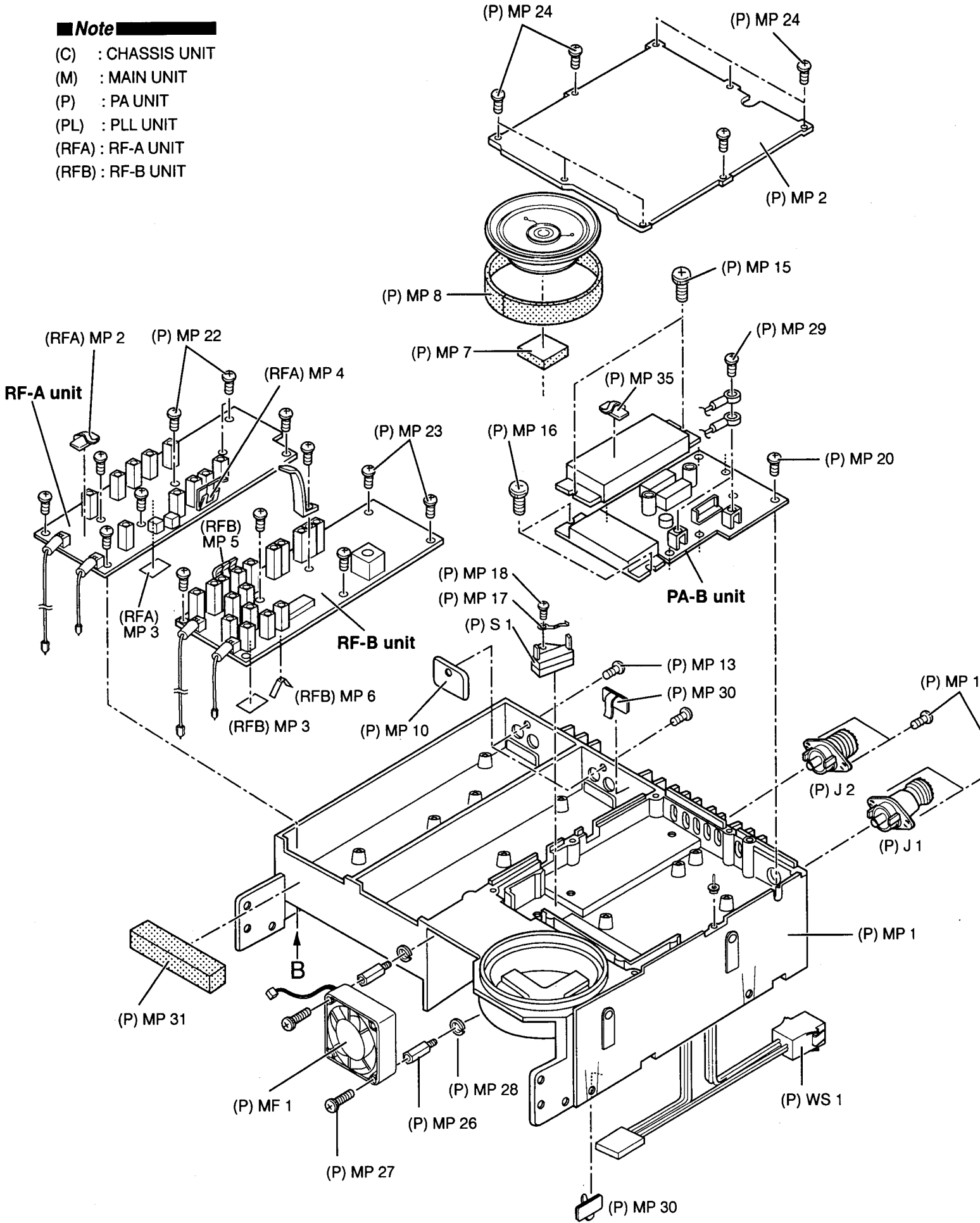
**Note**  
 (F) : FRONT  
 (D) : DISPLA  
 (CO) : COVER  
 (C) : CHASS

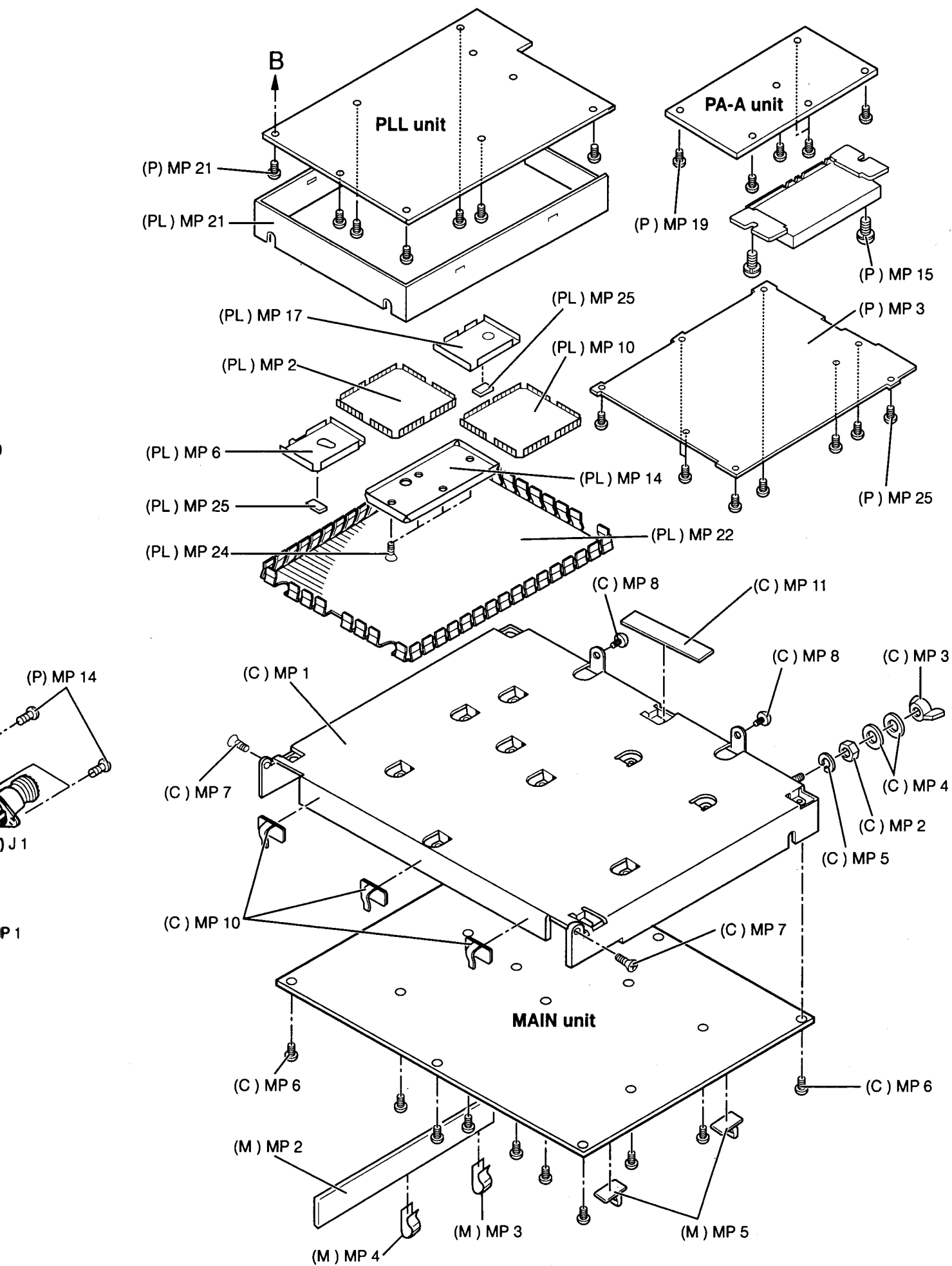


**Note**  
 (F) : FRONT UNIT  
 (D) : DISPLAY UNIT  
 (CO) : COVER UNIT  
 (C) : CHASSIS UNIT

**Note**

- (C) : CHASSIS UNIT
- (M) : MAIN UNIT
- (P) : PA UNIT
- (PL) : PLL UNIT
- (RFA) : RF-A UNIT
- (RFB) : RF-B UNIT





## 7-2 CHASSIS PARTS

### [CHASSIS UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP 1	8010015290	1424 Chassis	1
MP 2	8830000210	Nut M 5 NI BS	1
MP 3	8830000360	Wing nut M 5 NI	1
MP 4	8850000150	Flat washer M 5 NI BS	2
MP 5	8850000440	Spring washer M 5 NI	1
MP 6	8810008630	Screw PH BT M3 x 6 NI-ZU	14
MP 7	8810002170	Screw FH M3 x 6	2
MP 8	8810003660	ICOM screw A 5	2
MP10	8950002460	Wire hook S-10 silver	3
MP 11	8930029070	Insulate plate CU	1

### [MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP 2	8410001500	MAIN heat sink	1
MP 3	8930020860	IC-holder	1
MP 4	8930027940	1126 TR-B clip	1
MP 5	8950002460	Wire hook S-10 silver	2

### [PA UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
S 1	6910000050	Thermal switch CHD-3 50M 1	
J 1	6510004910	Connector NR-DS-E 01 [UHF]	1
J 2	6510004880	Connector MR-DS-E 01 [VHF]	1
MF 1	2710000480	MF40C-12H004 [FAN]	1
MP 1	8010015271	1424 Heatsink-1	1
MP 2	8510008641	PA-B Cover-1	1
MP 3	8510008651	PA-A Cover-1	1
MP 7	8930032290	Sponge (DQ)	1
MP 8	8930007831	401 Sponge (C)-1	1
MP10	8930017300	TVJ hole cover	2
MP13	8810001910	Screw PH M3 x 6 NI BS	2
MP14	8810006070	Set screw A M3 x 6 NI	4
MP15	8810003860	Set screw A M4 x 8	2
MP16	8810007230	Set screw H M3 x 8	2
MP17	6910008240	Clip 59TN4772	1
MP18	8810003170	Set screw A M3 x 8	1
MP19	8810001280	Screw PH B1 M2.6 x 6	6
MP20	8810001280	Screw PH B1 M2.6 x 6	8
MP21	8810008630	Screw PH BT M3 x 6 NI-ZU	7
MP22	8810008630	Screw PH BT M3 x 6 NI-ZU	8
MP23	8810008630	Screw PH BT M3 x 6 NI-ZU	7
MP24	8810008630	Screw PH BT M3 x 6 NI-ZU	8
MP25	8810008630	Screw PH BT M3 x 6 NI-ZU	8
MP26	8930000130	Stand-off (I)	2
MP27	8810003200	Set screw A M3 x 14	2
MP28	8850000420	Spring washer M3 NI	2

Screw abbreviations: PH: Pan head FH: Flat head B1: Self-tapping BS: Brass NI: Nickel

### [PA UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP29	8810003160	Set screw A M3 x 6	2
MP30	8950002460	Wire hook S-10 silver	2
MP31	8930020990	Sponge (CN)	1
MP35	8950002460	Wire hook S-10 silver	1
WS 1	8600032451	SX1425 P01*03PA-1 (B) (EUR, SWE)	1
WS 1	8600032970	SX1425 P01*03PA (A) (USA, AUS)	1

### [PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP 2	8510008310	963 DDS Shield cover	1
MP 6	8510000200	194 VCO Shield cover (B)	1
MP10	8510008310	963 DDS Shield cover	1
MP14	8510003120	323 VCO Shield cover	1
MP17	8510006510	194 VCO Shield cover (E)	1
MP21	8510002922	PLL case-4	1
MP22	8510008930	1424 PLL U-cover	1
MP24	8810002160	Screw FH M3 x 5	4
MP25	8930001510	Sponge (V)	3

### [RF-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP 2	8950002460	Wire hook S-10 silver	1
MP 3	8510002280	VCO shield plate (A)	1
MP 4	8930001180	Grounding holder	1

### [RF-B UNIT]

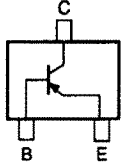
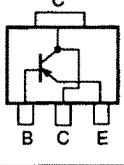
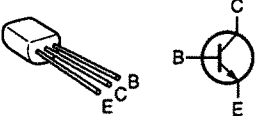
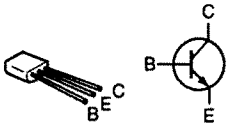
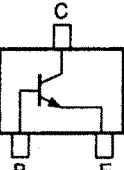
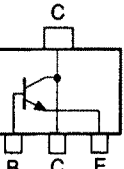
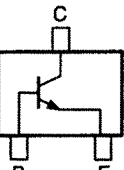
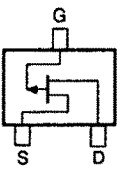
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP 3	8510002280	VCO shield plate (A)	1
MP 5	8930001180	Grounding holder	1
MP 6	8930014140	Grounding spring (D)	1

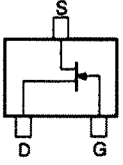
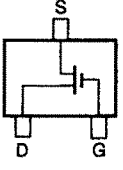
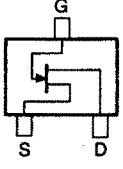
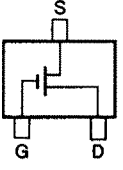
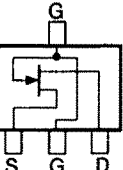
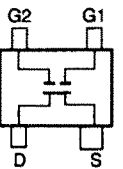
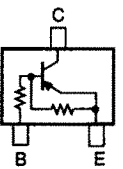
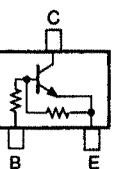
### [ACCESSORIES]

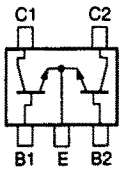
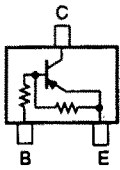
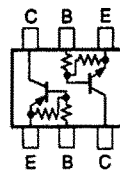
LABEL NO.	ORDER NO.	DESCRIPTION	QTY.
W 1	8900000220	DC power cable (OPC-025A)	1
F 1	5210000080	Fuse FGB 20 A	2
F 2	5210000180	Fuse FGMB 125 V 5 A	1
J 1	6450001280	DIN plug TCP0587-71-5401	1
MP 1	8810001650	Screws (PH FT M3 x 6, for optional MB-23)	4
MP 2	8810008430	Screws (OH ST M4 x 10 CR, for optional MB-23)	2

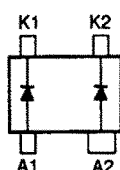


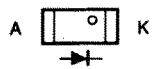
# SECTION 8 SEMI-CONDUCTOR INFORMATIONS

## 8-1 TRANSISTORS

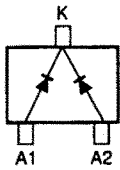
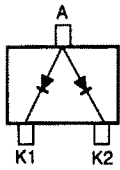
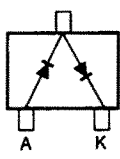
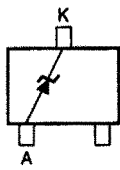
NAME	SYMBOL	INSIDE VIEW
2SA1586-GR	SG	
2SB1123T-TD	BF	
2SC2053	-	
2SC2538	-	
2SC2407(A)	-	
2SC2714-Y	QY	
2SC3356 R24-T2B	R24	
2SC3357-T2	RK	
2SC3650-TD	CF	
2SC3661-TA	FY	
2SC4116-GR	LG	
2SC4213-B	AB	
2SC4215-O	QO	
2SC4226-T2 R25	R25	
2SJ144-GR	VG	

NAME	SYMBOL	INSIDE VIEW
2SK210-GR	YG	
2SK882-GR	TG	
2SK302-Y	TY	
2SK508 K52 T2B	R52	
2SK1577-2-T7	P2	
2SK536-TA	BJ	
2SK2171-4-TD	KM	
3SK131-T2-LA	V12	
3SK228XR-TL	XR	
DTA114EU T107	14	
DTC114EU T107	24	
DTC144EU T107	26	

NAME	SYMBOL	INSIDE VIEW
FMW1 T148	W1	
RN2425	RE	
RN2427	RG	
UMD3 TL	D3	

NAME	SYMBOL	INSIDE VIEW
1SS272	A1	
1SV237	BB	
DWA010-TE	W8	
MA862	D11	
1SV166-T2B	-	
1SV217	T6	
1SV239	TC	
MA338	H9	
MA363B	6D	
1SS353	C	
HSU88TRF	9	
MA77	4B	
MI308	-	
MI407	-	
MI809-T11	-	

## 8-2 DIODES

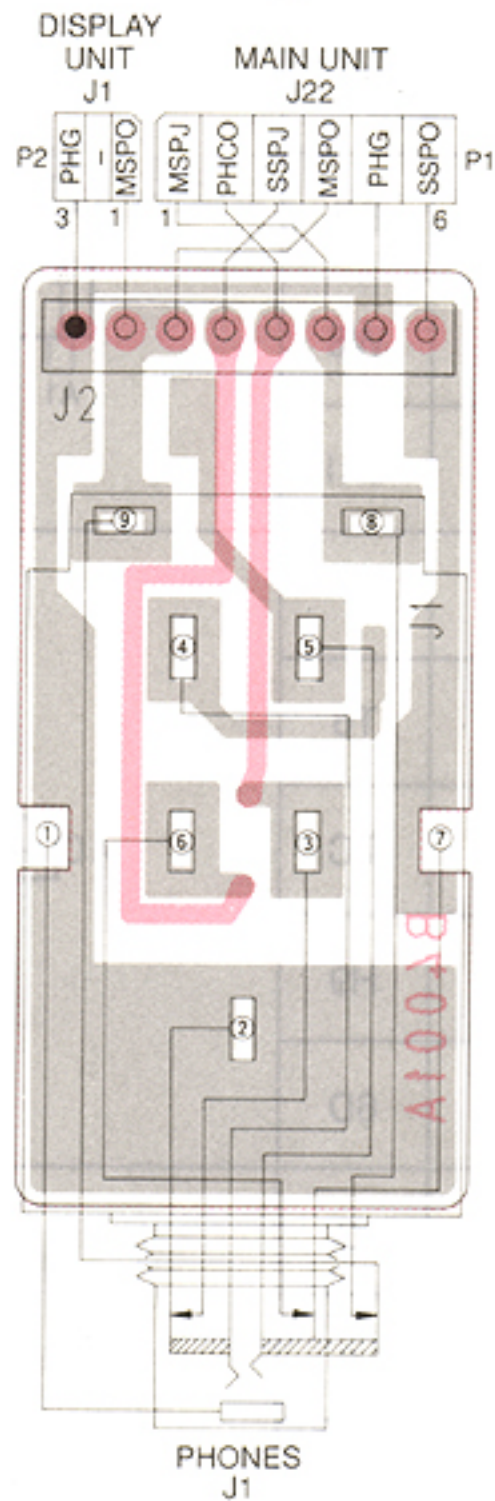
NAME	SYMBOL	INSIDE VIEW
1SS184	B3	
1SS301	B3	
1SS300	A3	
HSM88AS-TR	C1	
RD3.6M-T2B2	362	
RD5.1M-T2B2	512	
RD6.2M-T2B2	622	
RD9.1M-T2B3	913	
RD20M-T2B2	202	



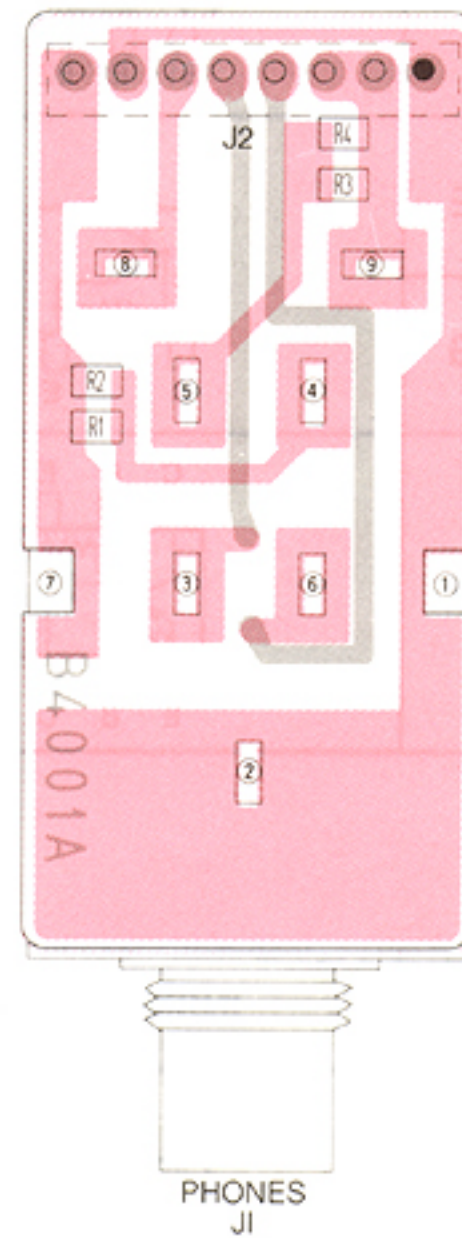
# SECTION 9 BOARD LAYOUTS

## 9-1 FRONT UNIT

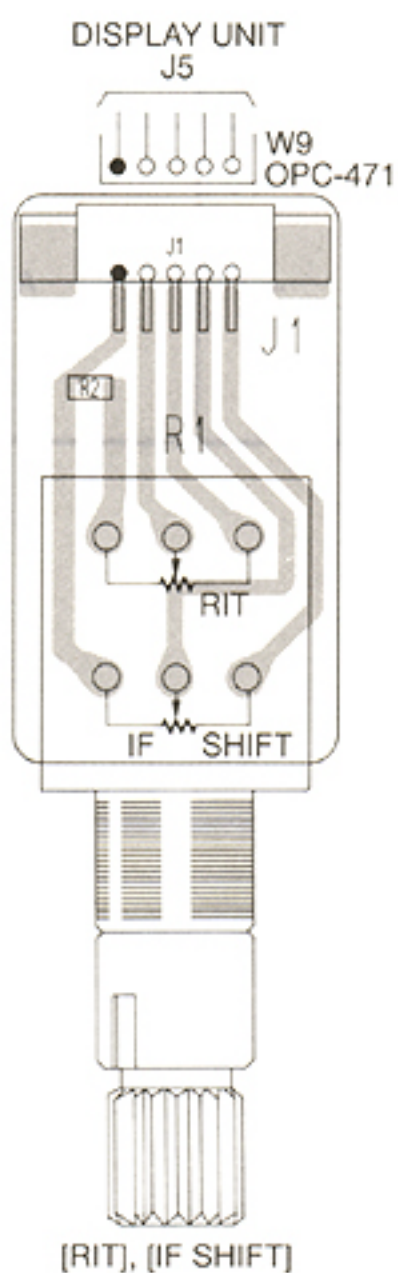
• JACK UNIT (TOP VIEW)



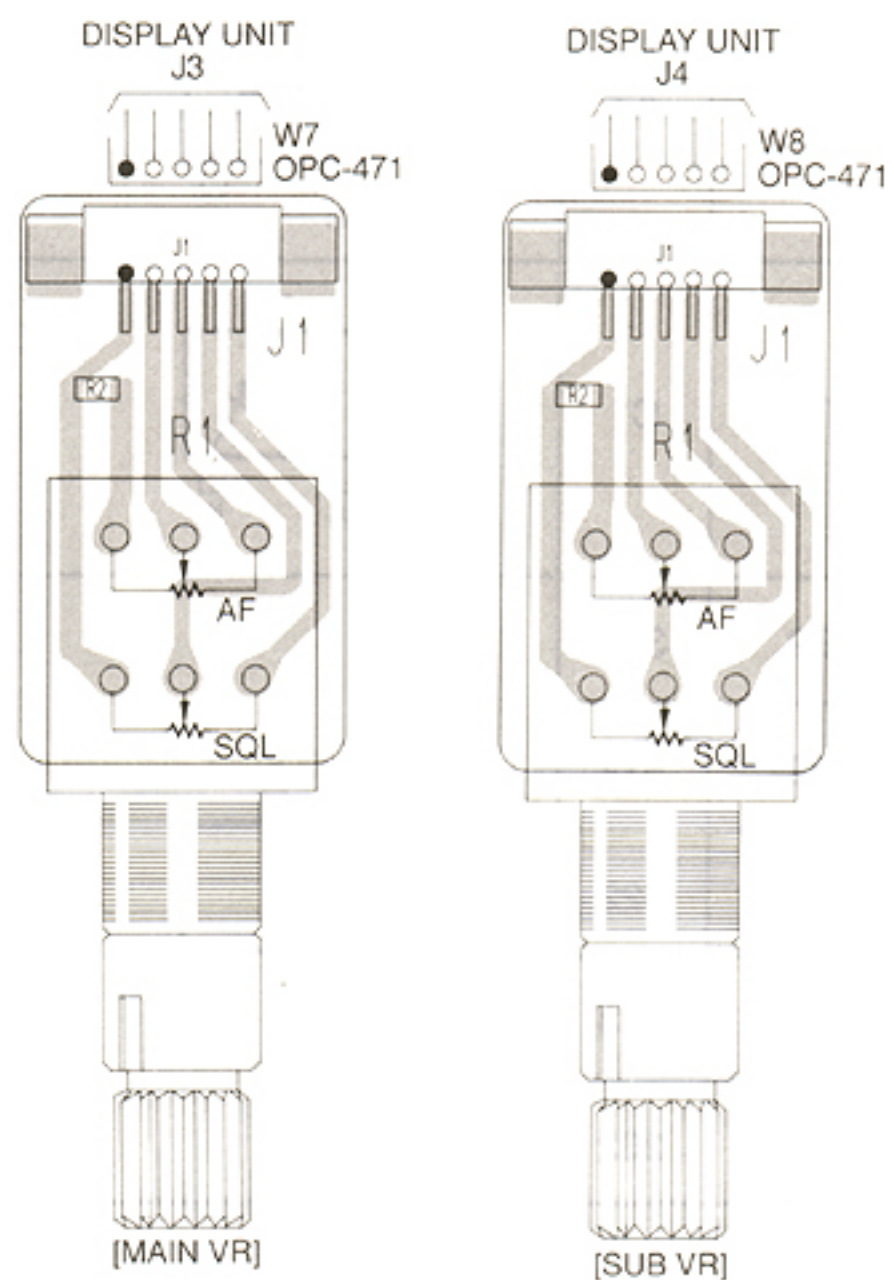
• JACK UNIT (BOTTOM VIEW)



• RIT UNIT (TOP VIEW)



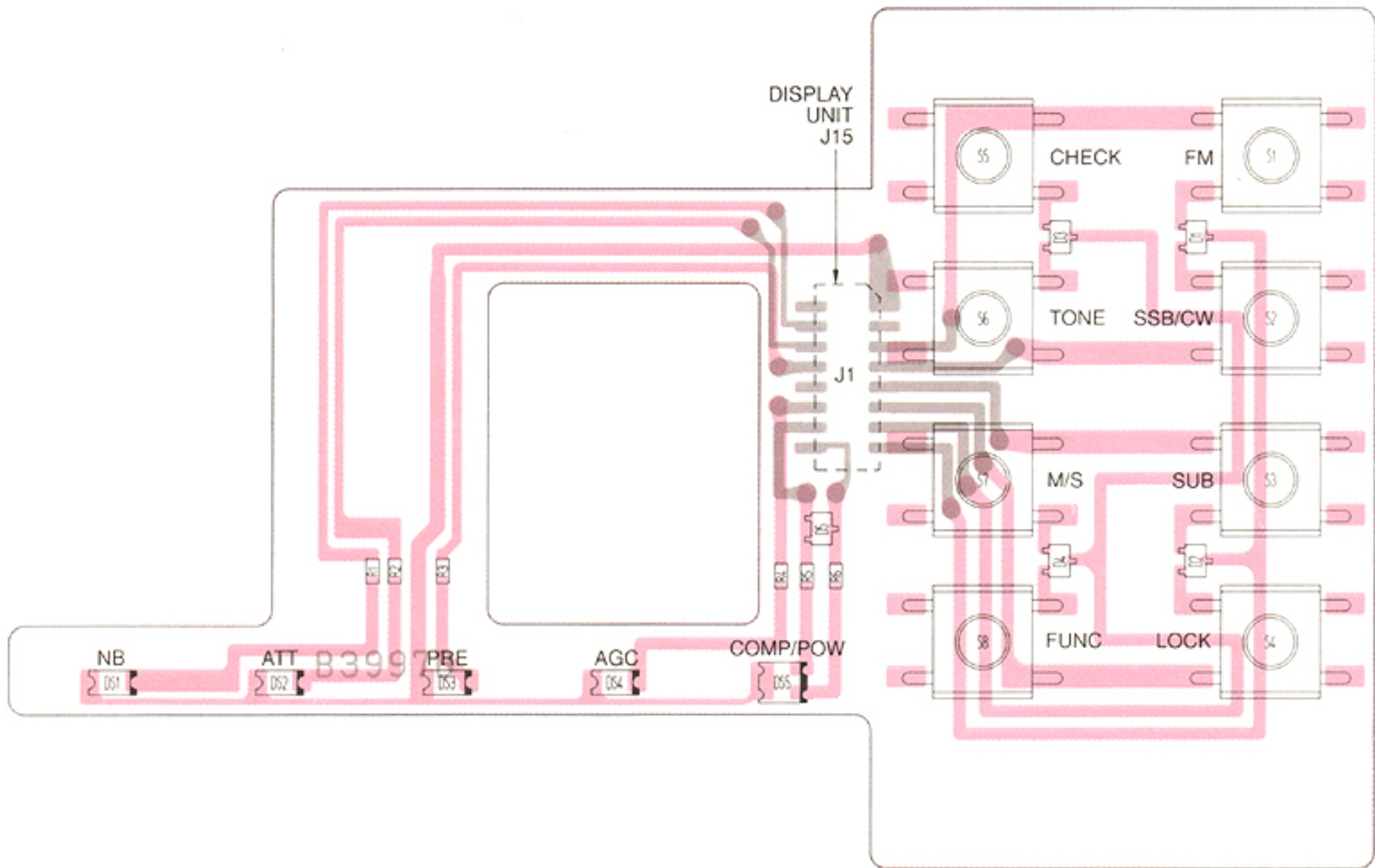
• VR UNIT (TOP VIEW)



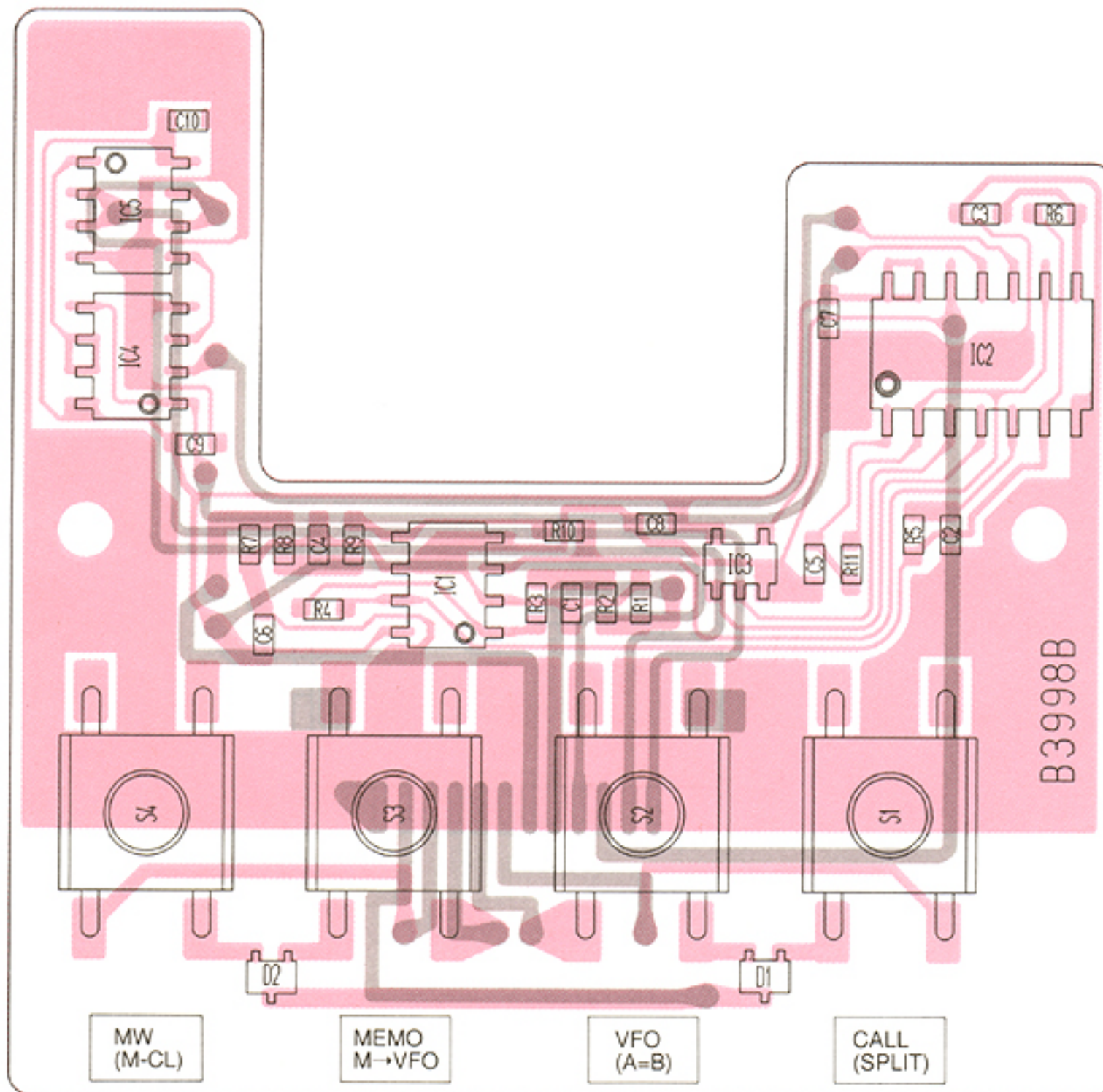


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

• SW-A UNIT (TOP VIEW)

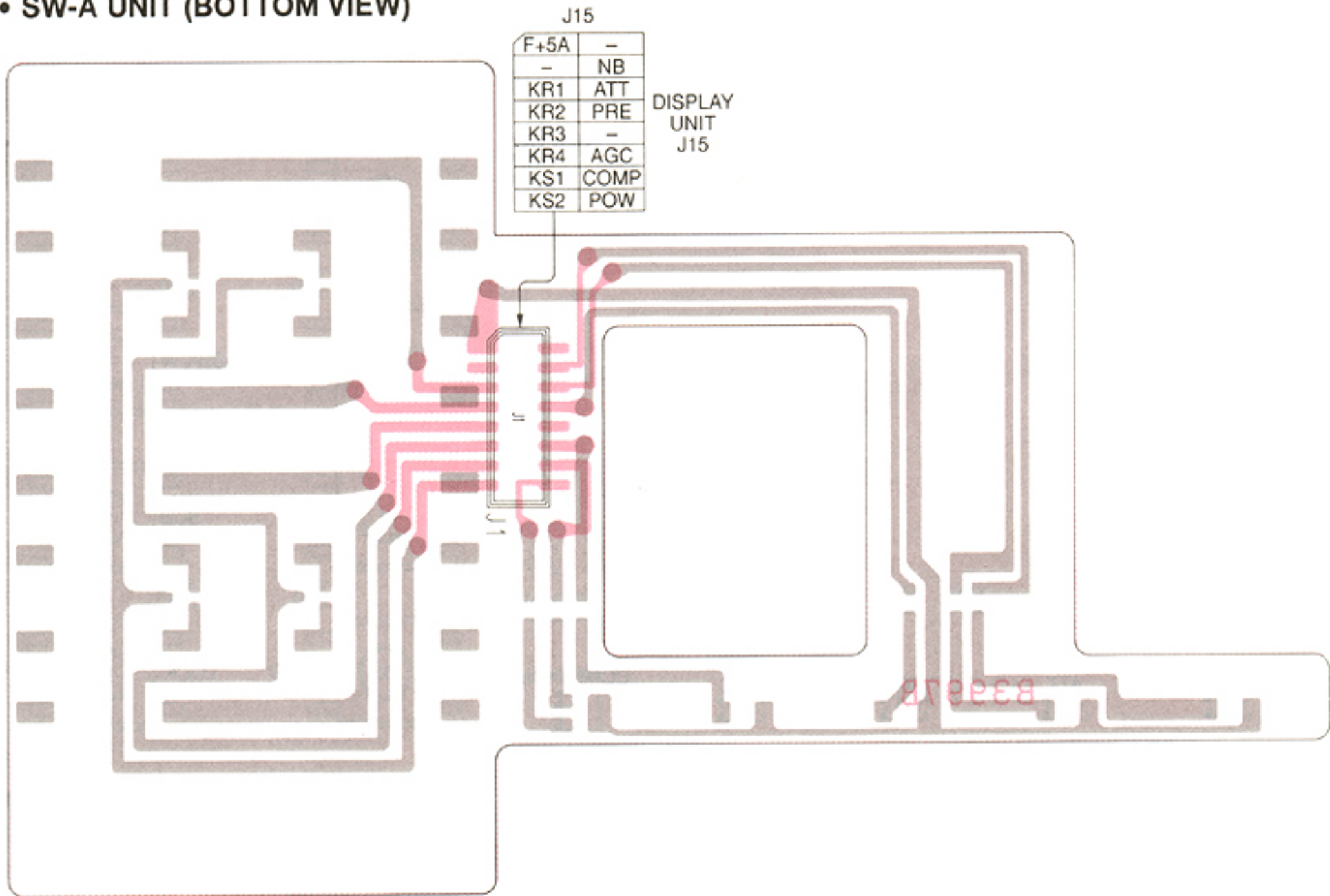


• SW-B UNIT (TOP VIEW)

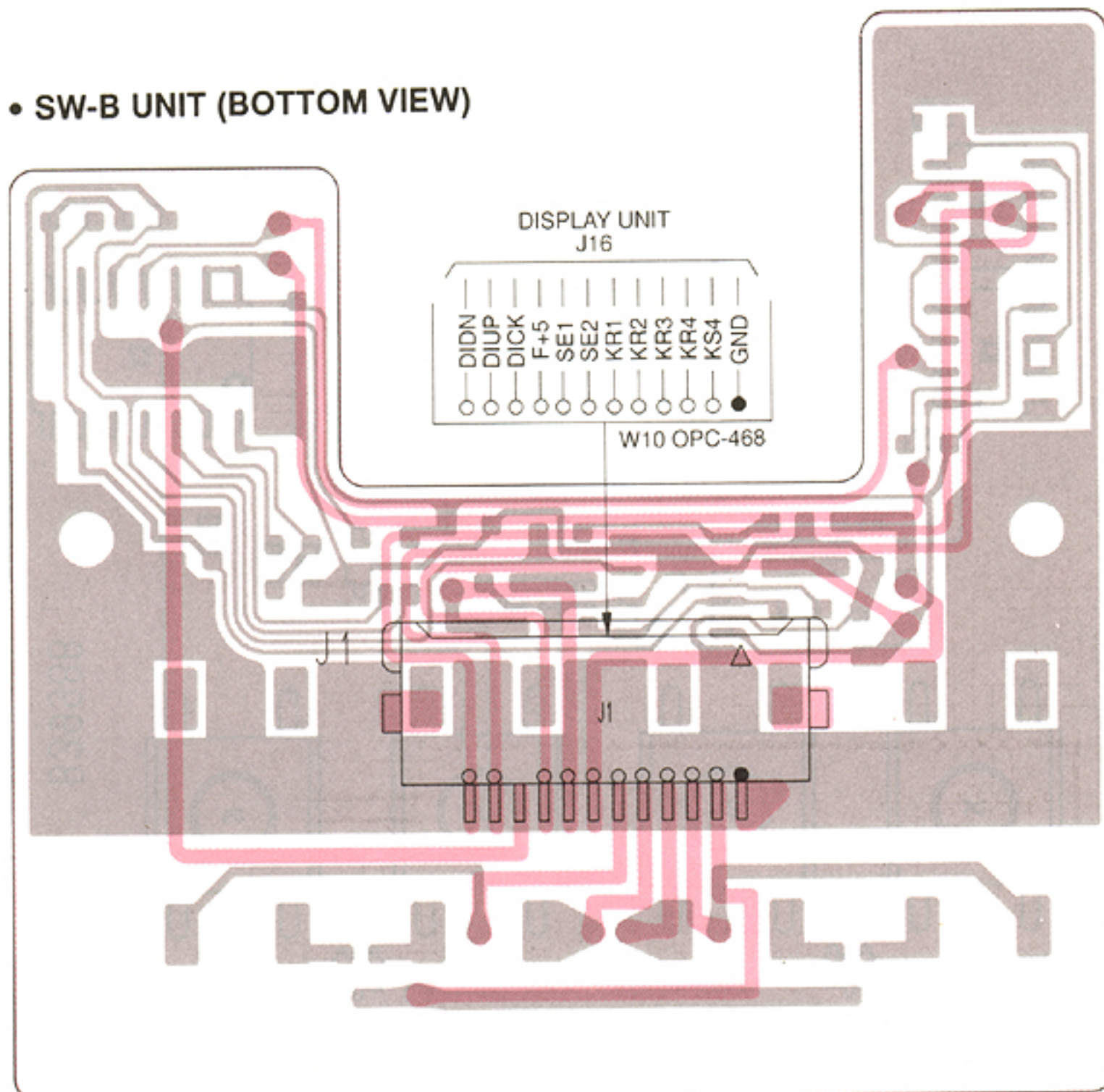




• SW-A UNIT (BOTTOM VIEW)

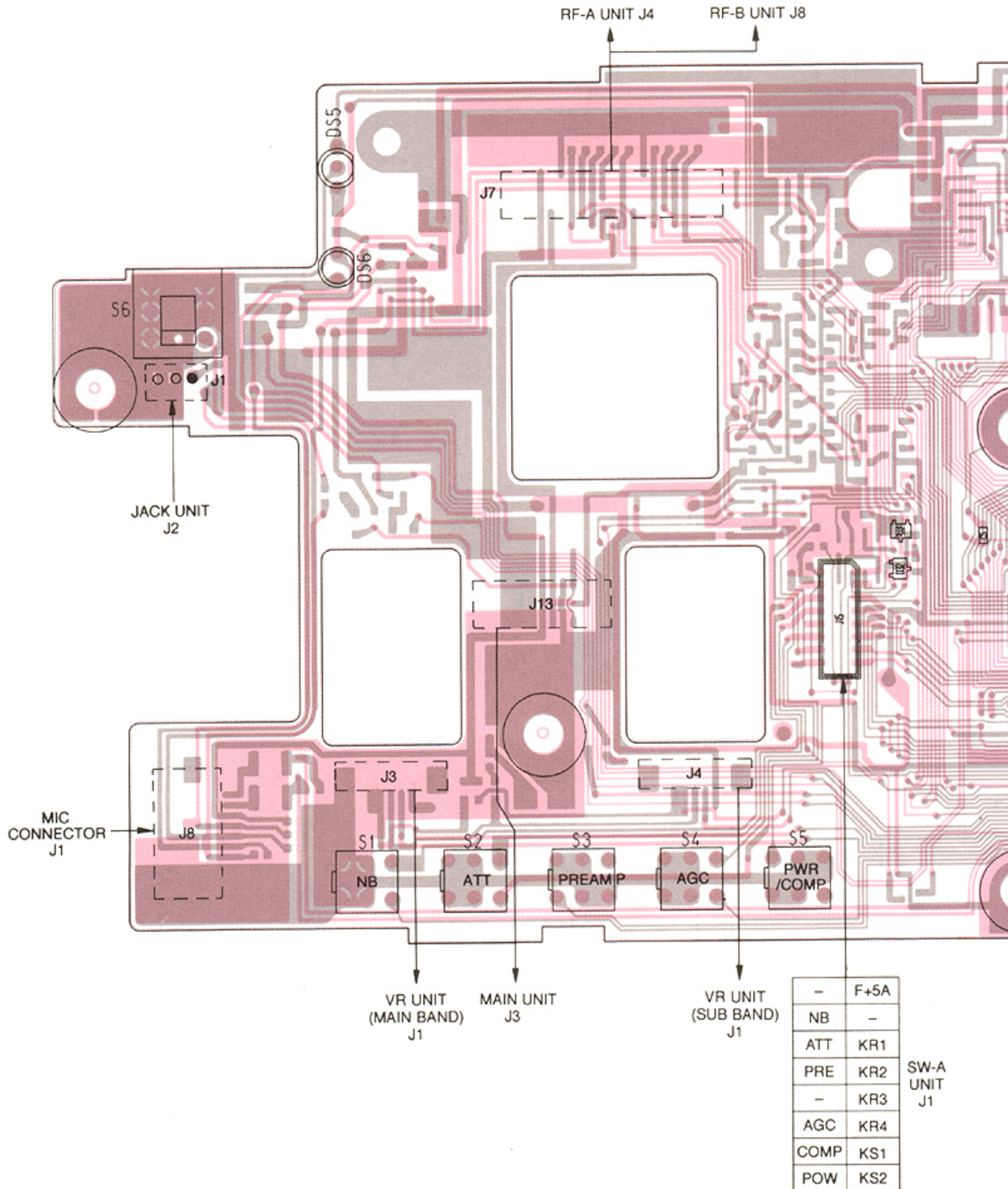


• SW-B UNIT (BOTTOM VIEW)





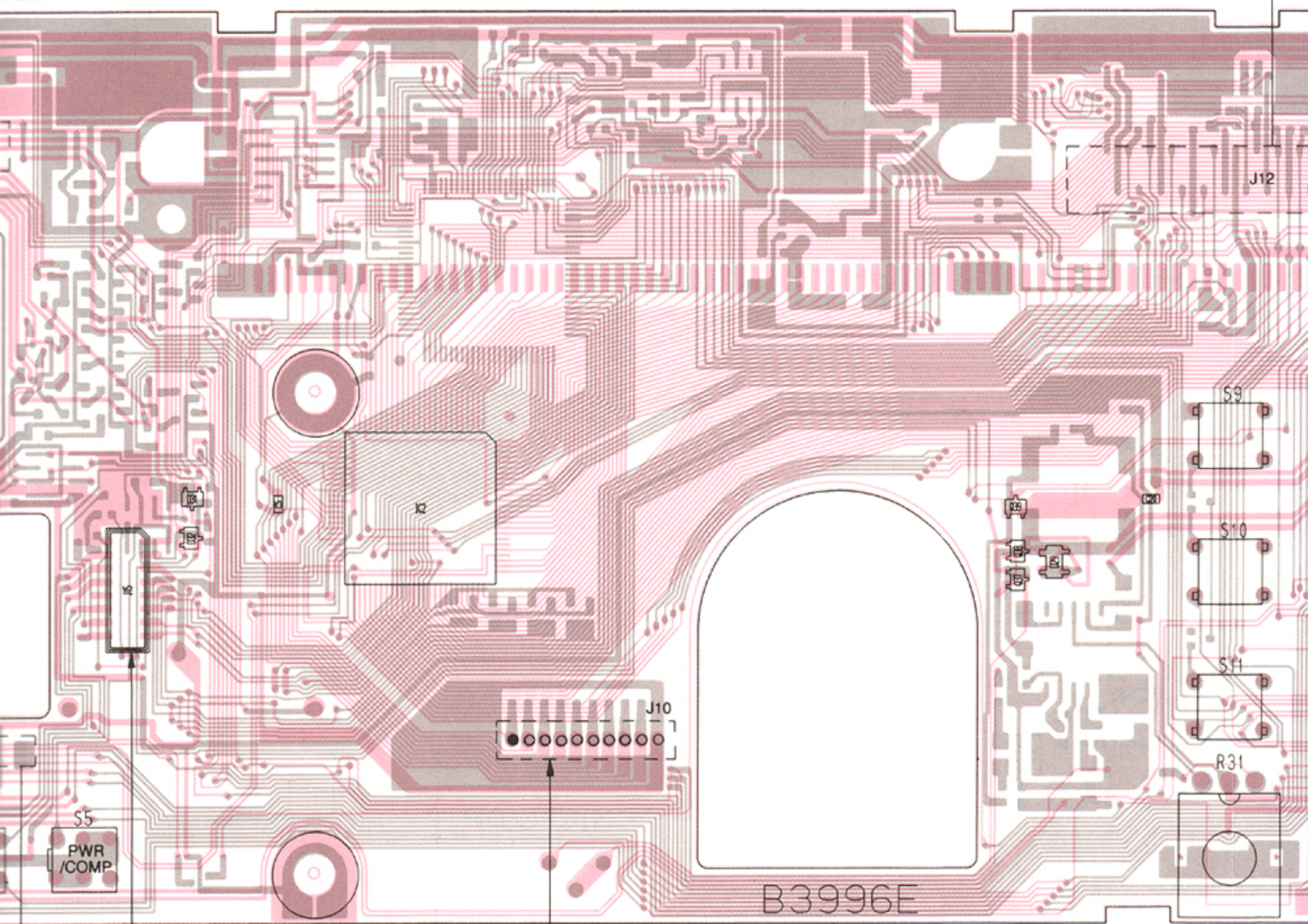
• DISPLAY UNIT (TOP VIEW)





RF-B UNIT J8

MAIN UNIT



R UNIT  
(B BAND)  
J1

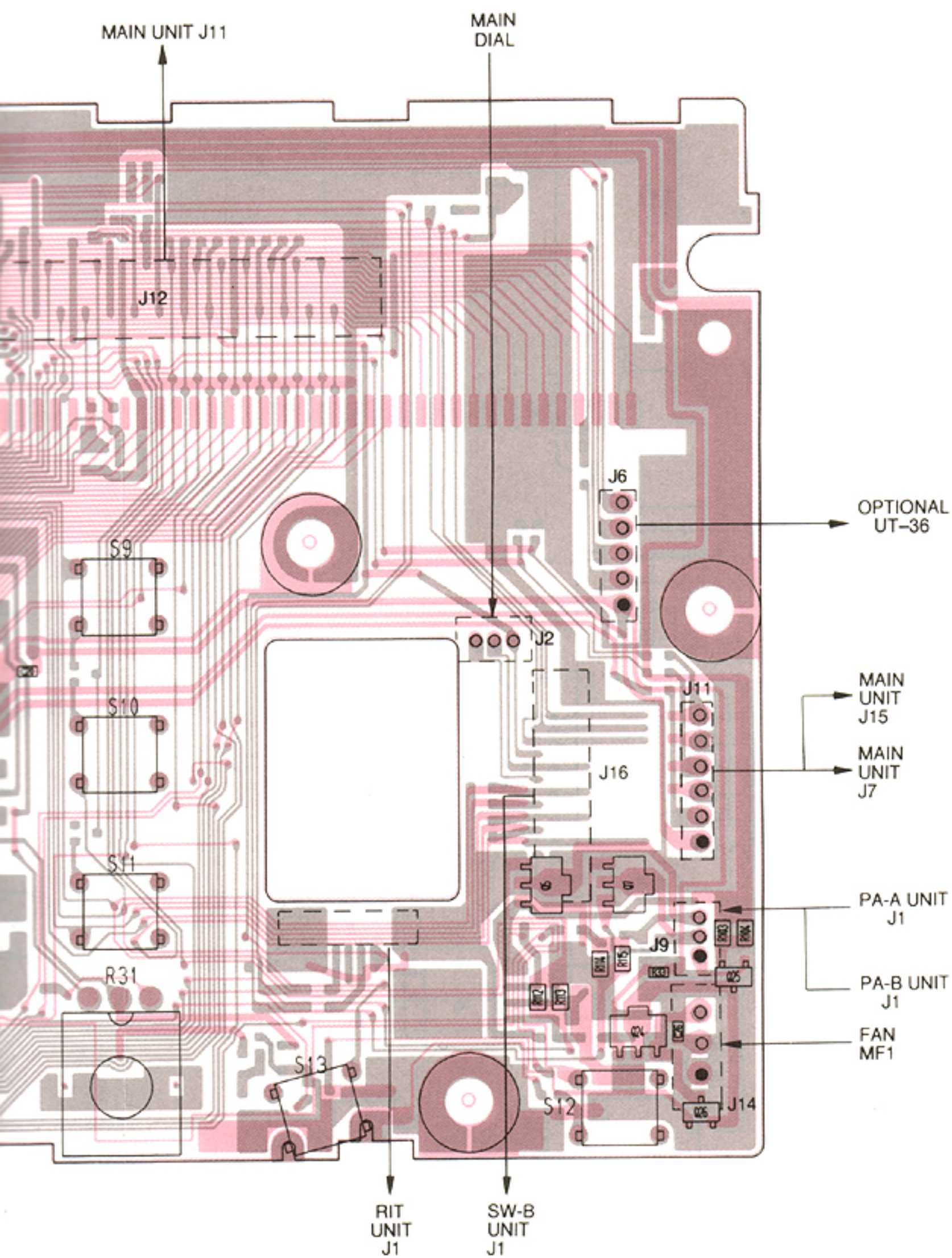
PLL UNIT  
J1

-	F+5A
NB	-
ATT	KR1
PRE	KR2
-	KR3
AGC	KR4
COMP	KS1
POW	KS2

SW-A  
UNIT  
J1

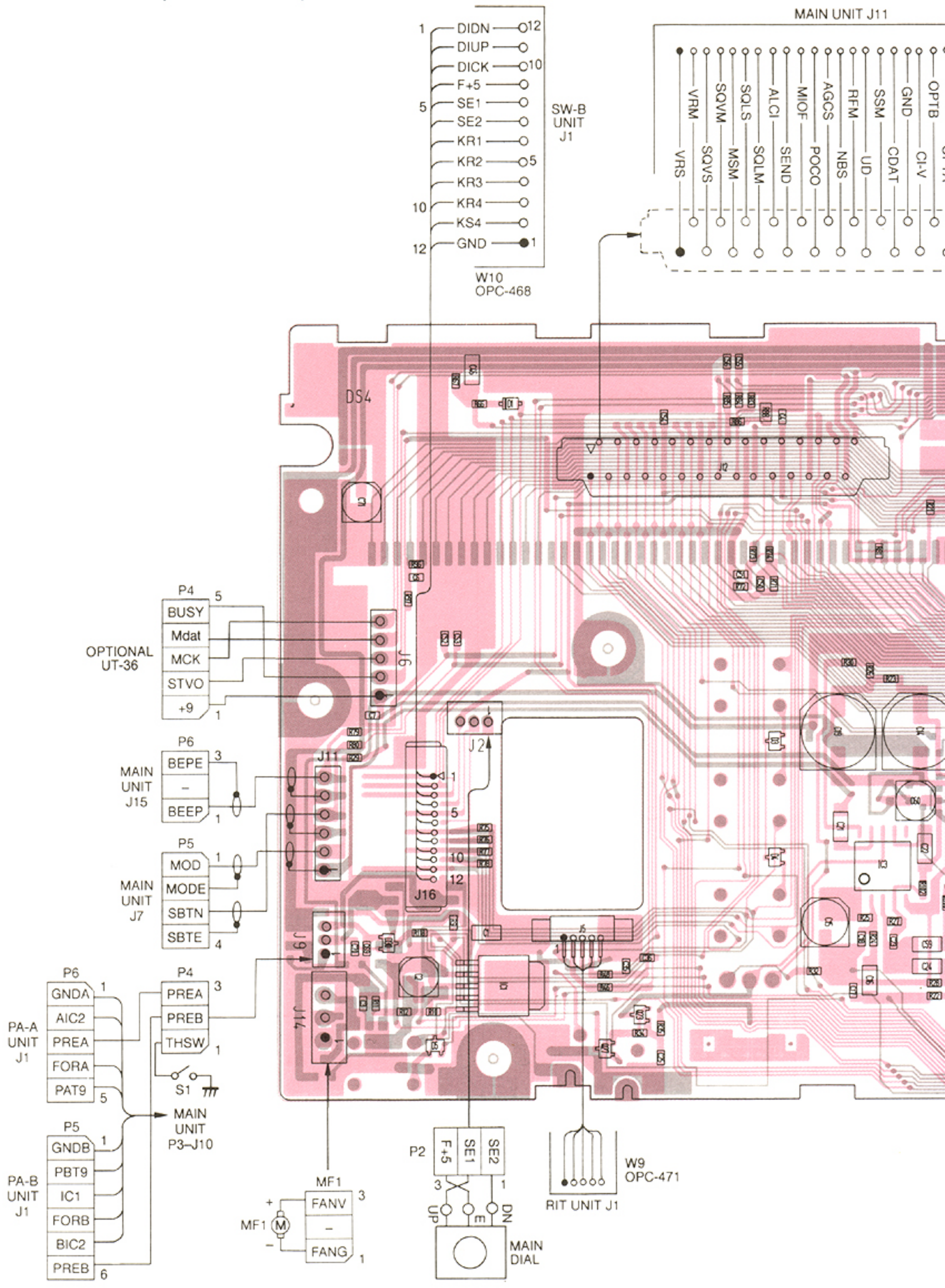


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.





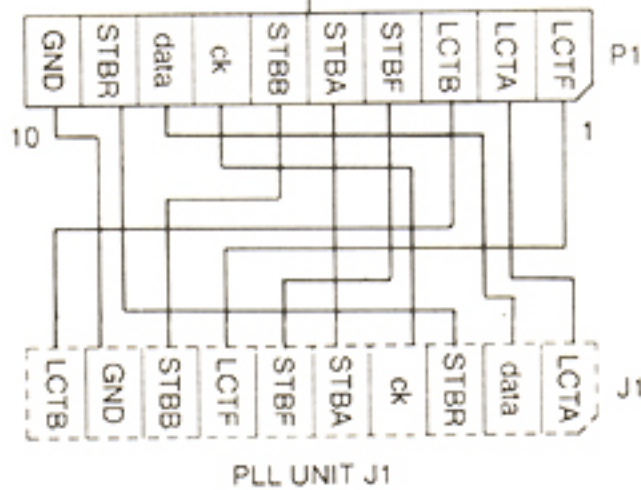
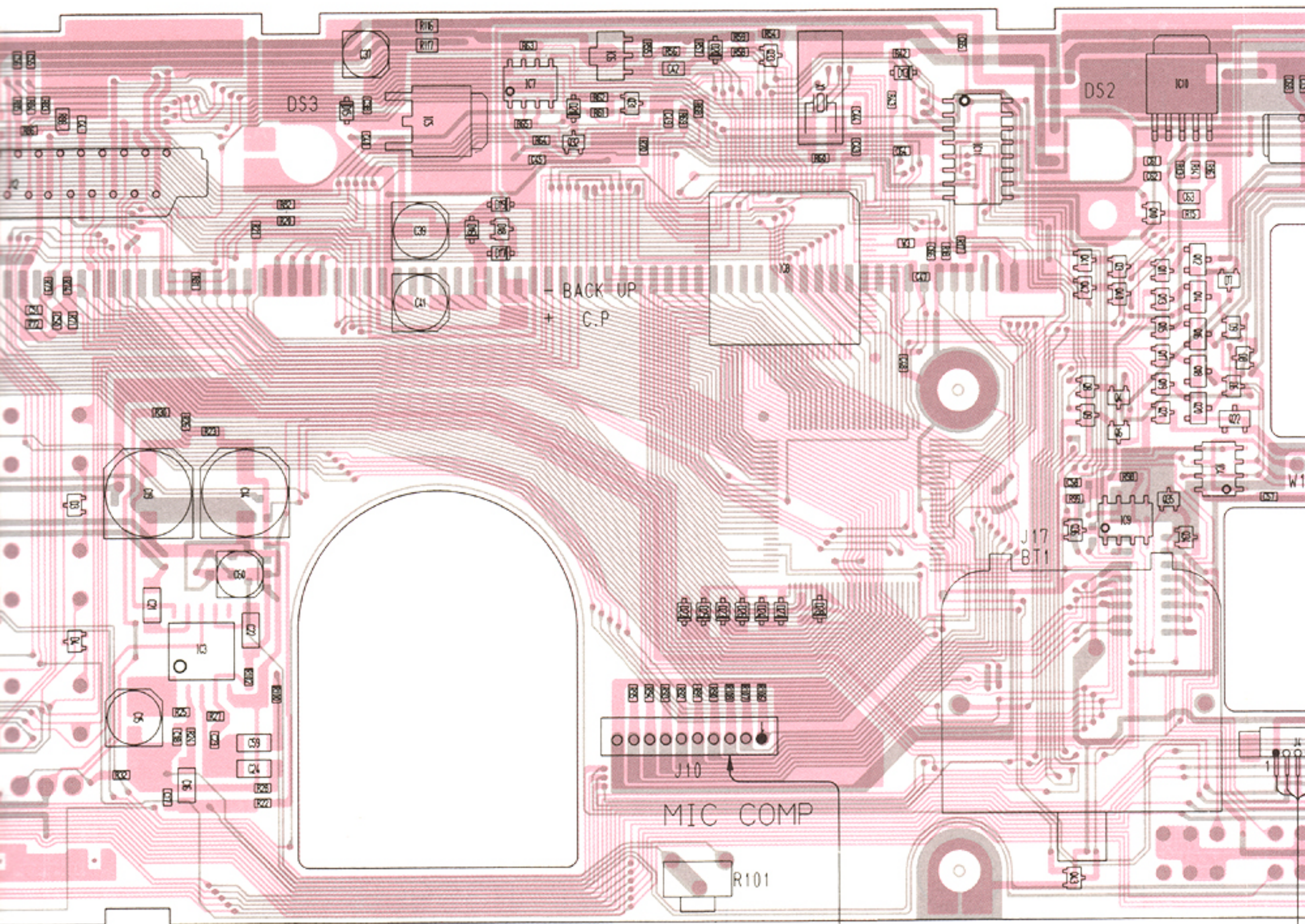
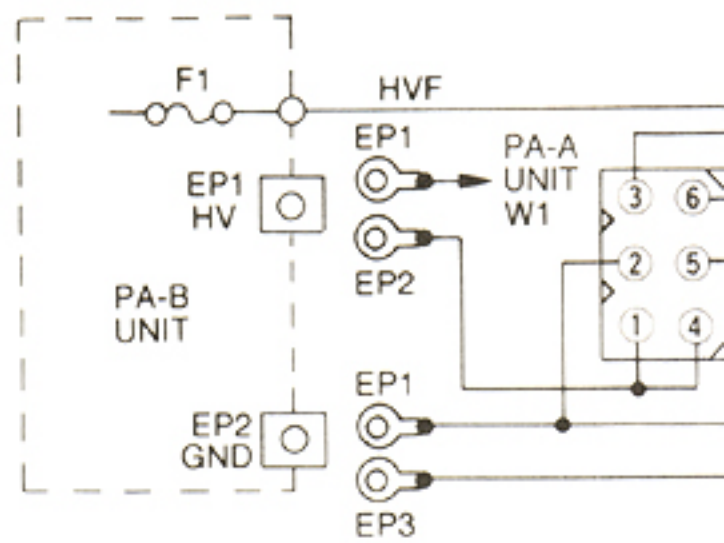
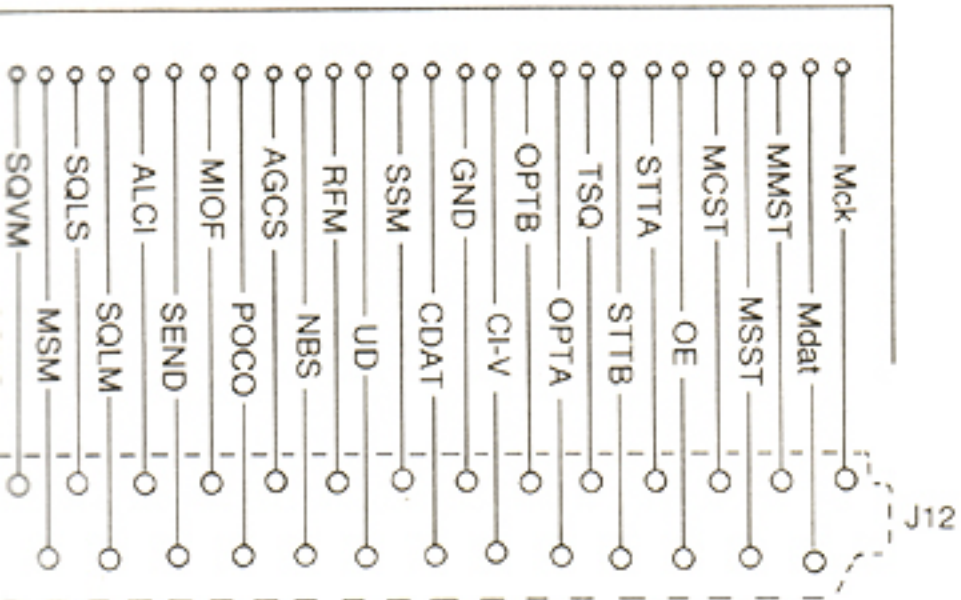
• DISPLAY UNIT (BOTTOM VIEW)





MAIN UNIT J11

W5 OPC-467

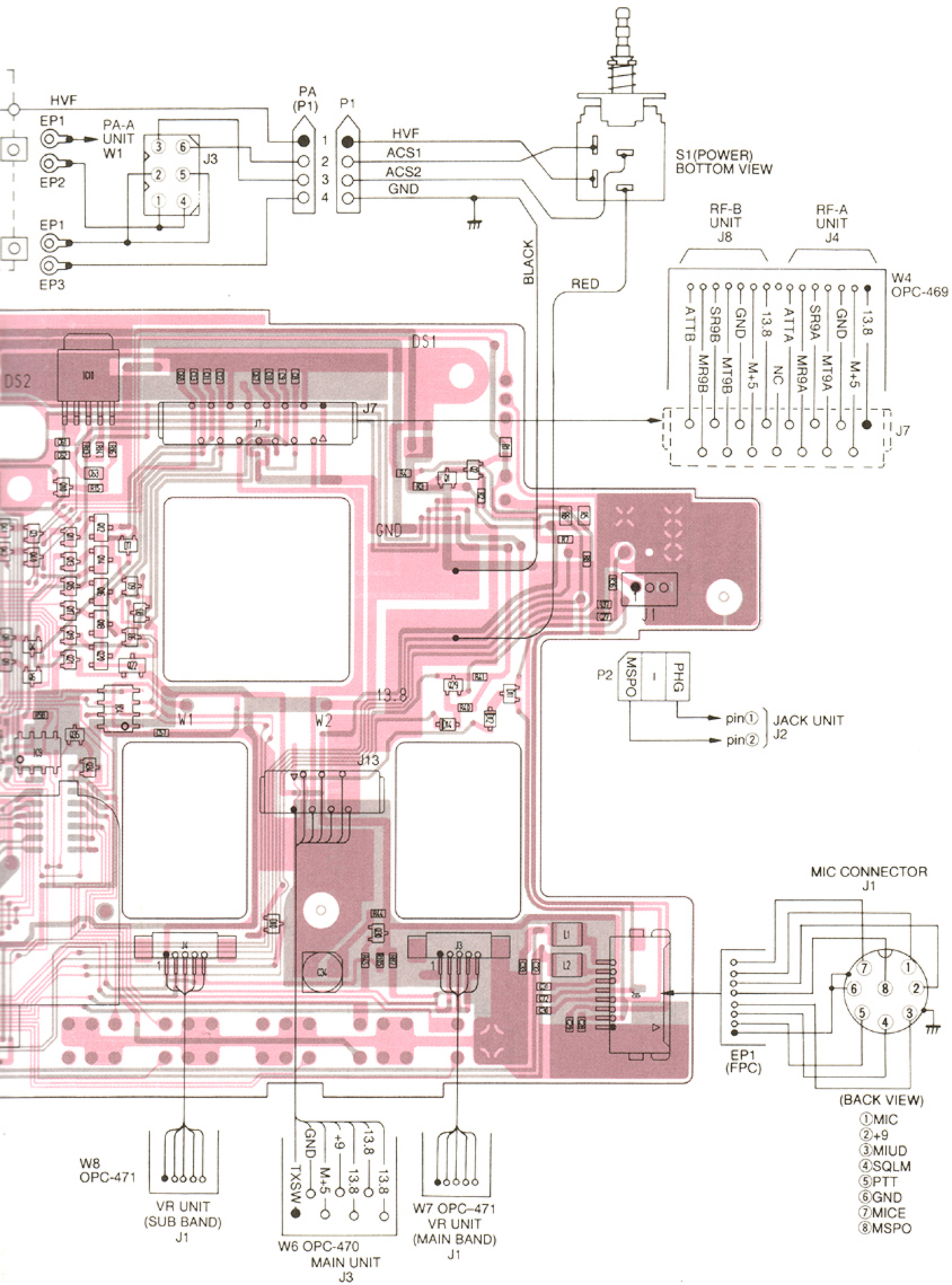


W8 OPC-471

VR U (SUB B J1

PLL UNIT J1

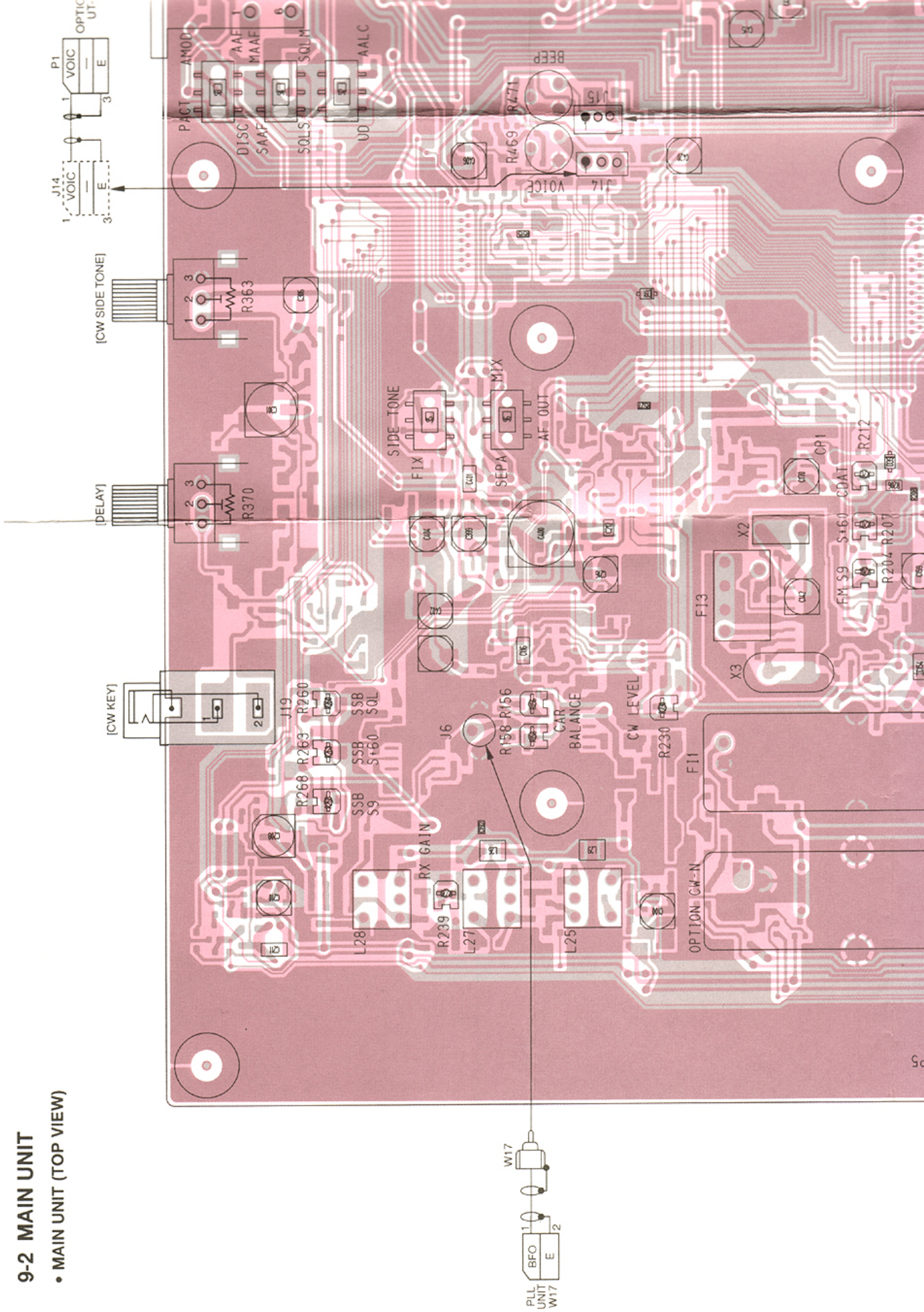




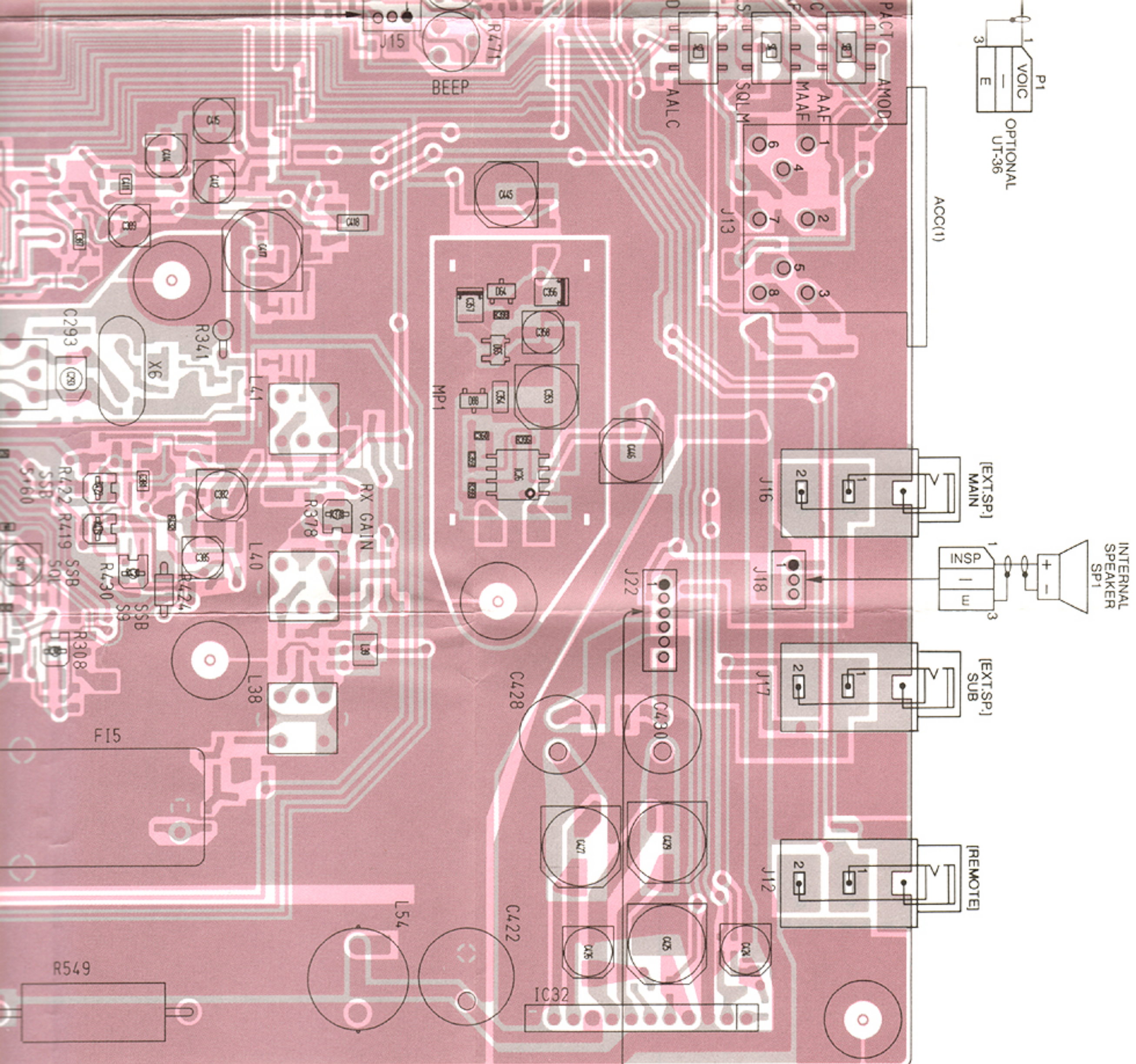


# 9-2 MAIN UNIT

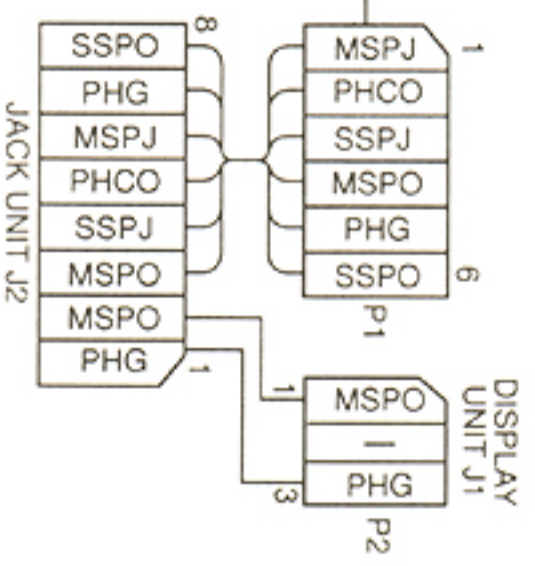
## • MAIN UNIT (TOP VIEW)



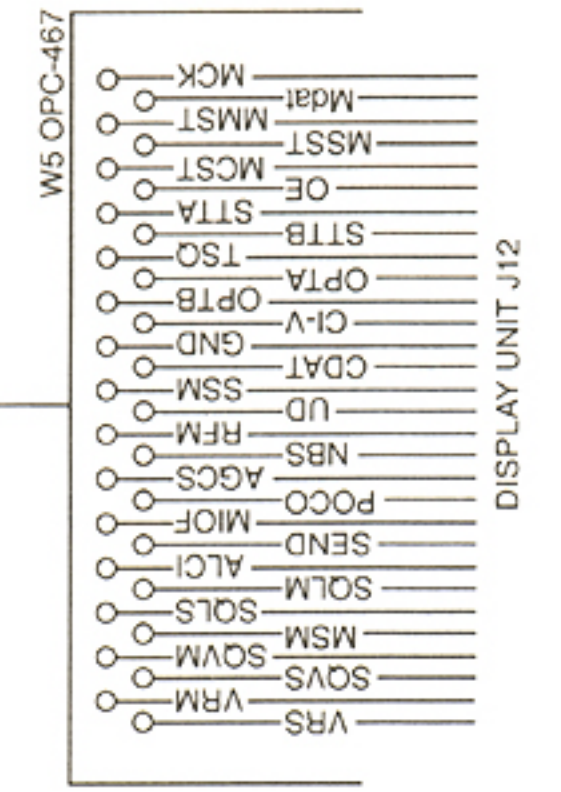
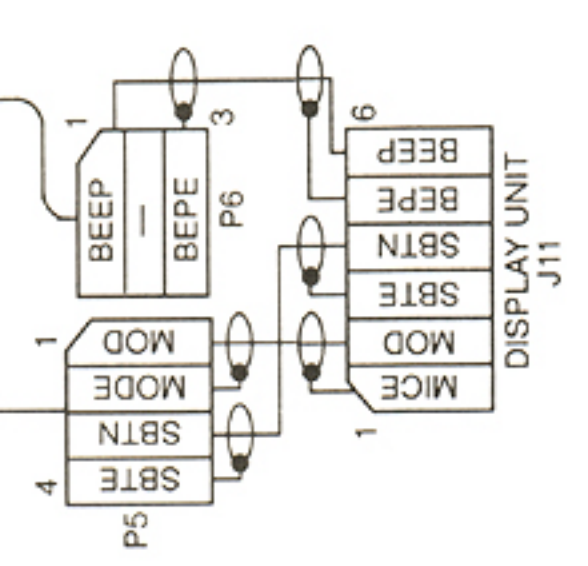
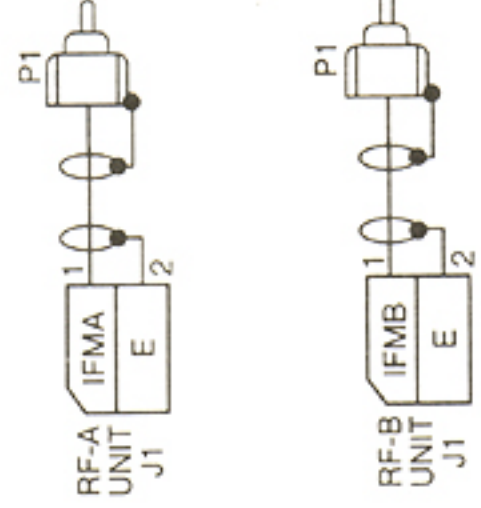
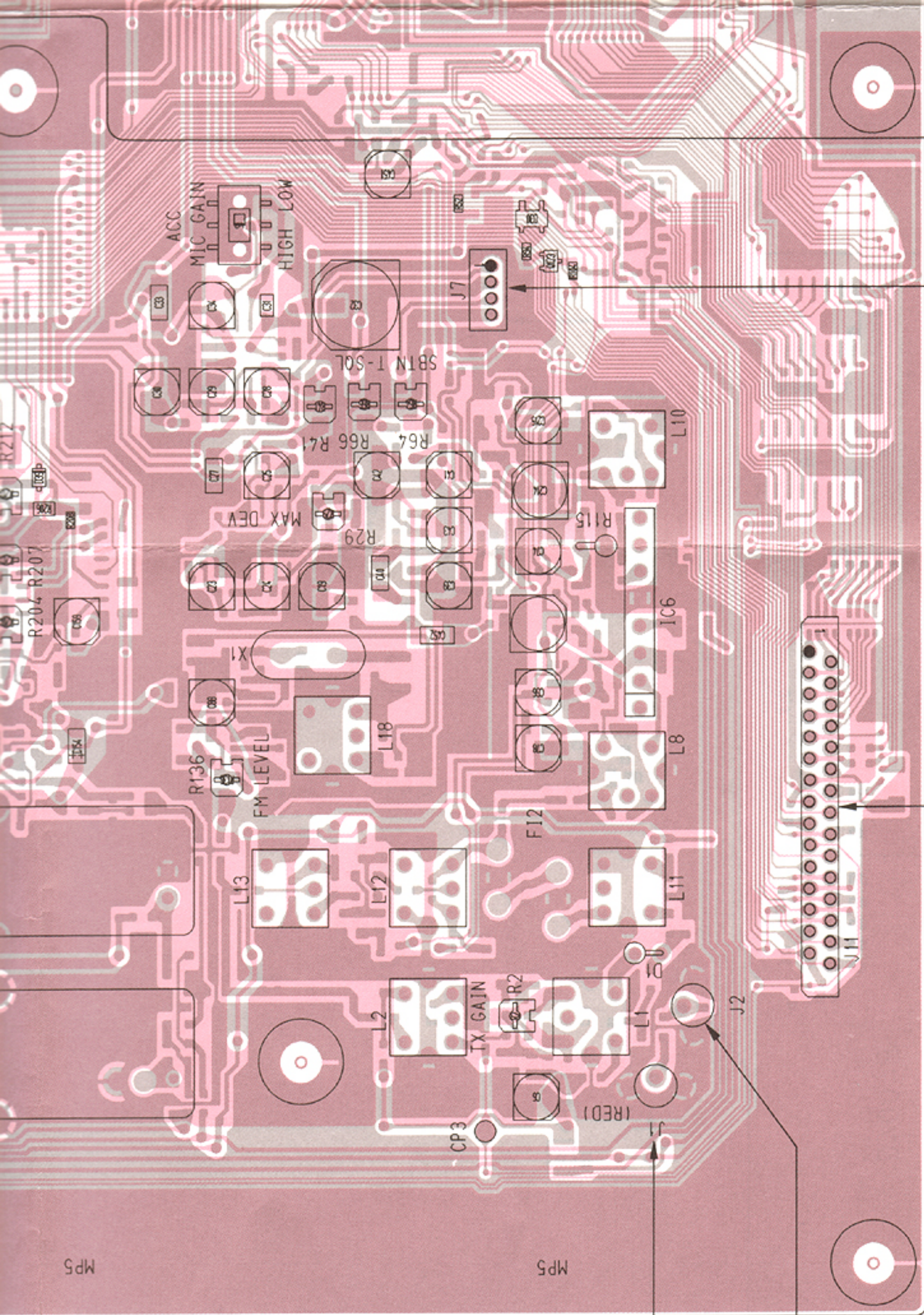




The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.







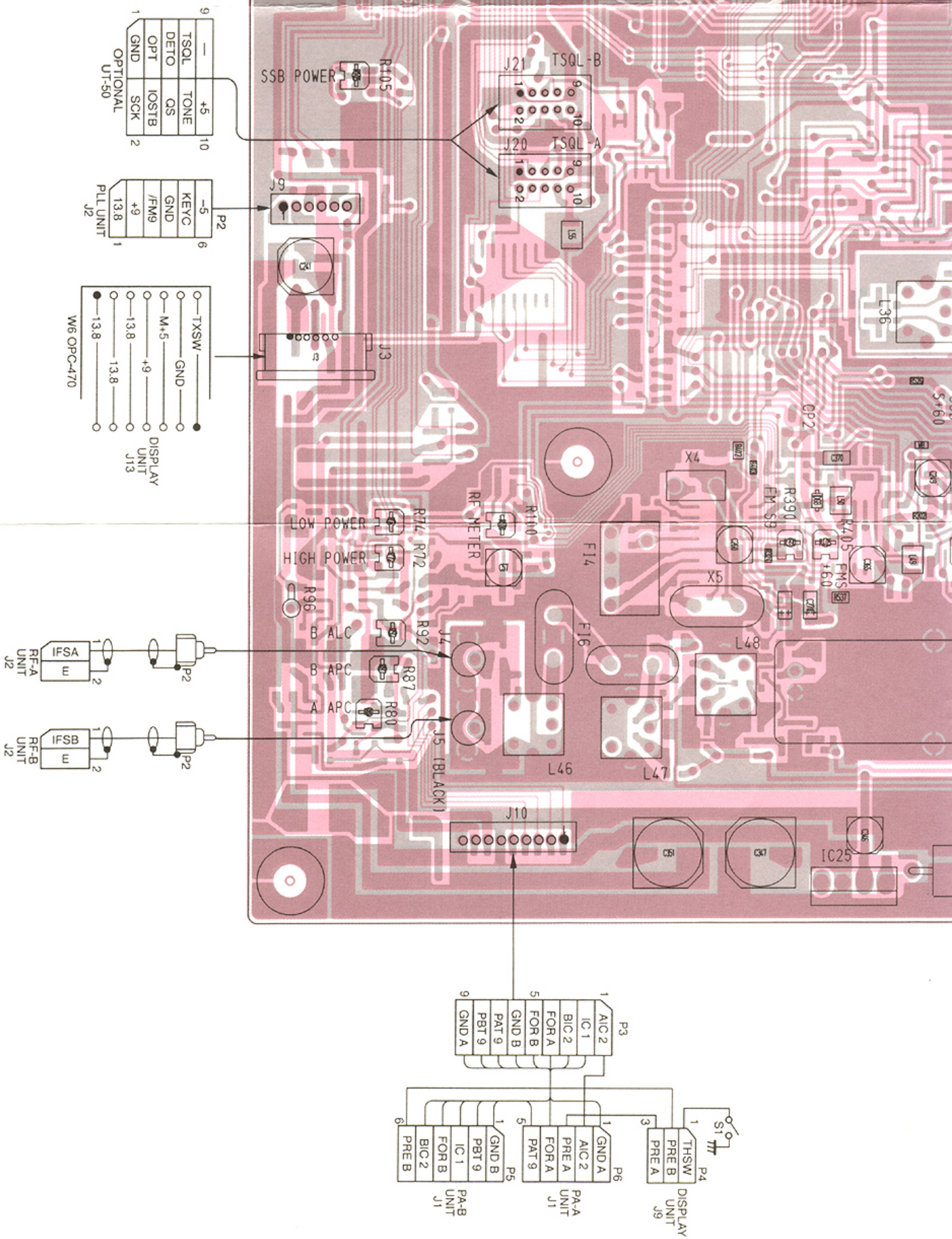
MP5

MP5

DISPLAY UNIT J11

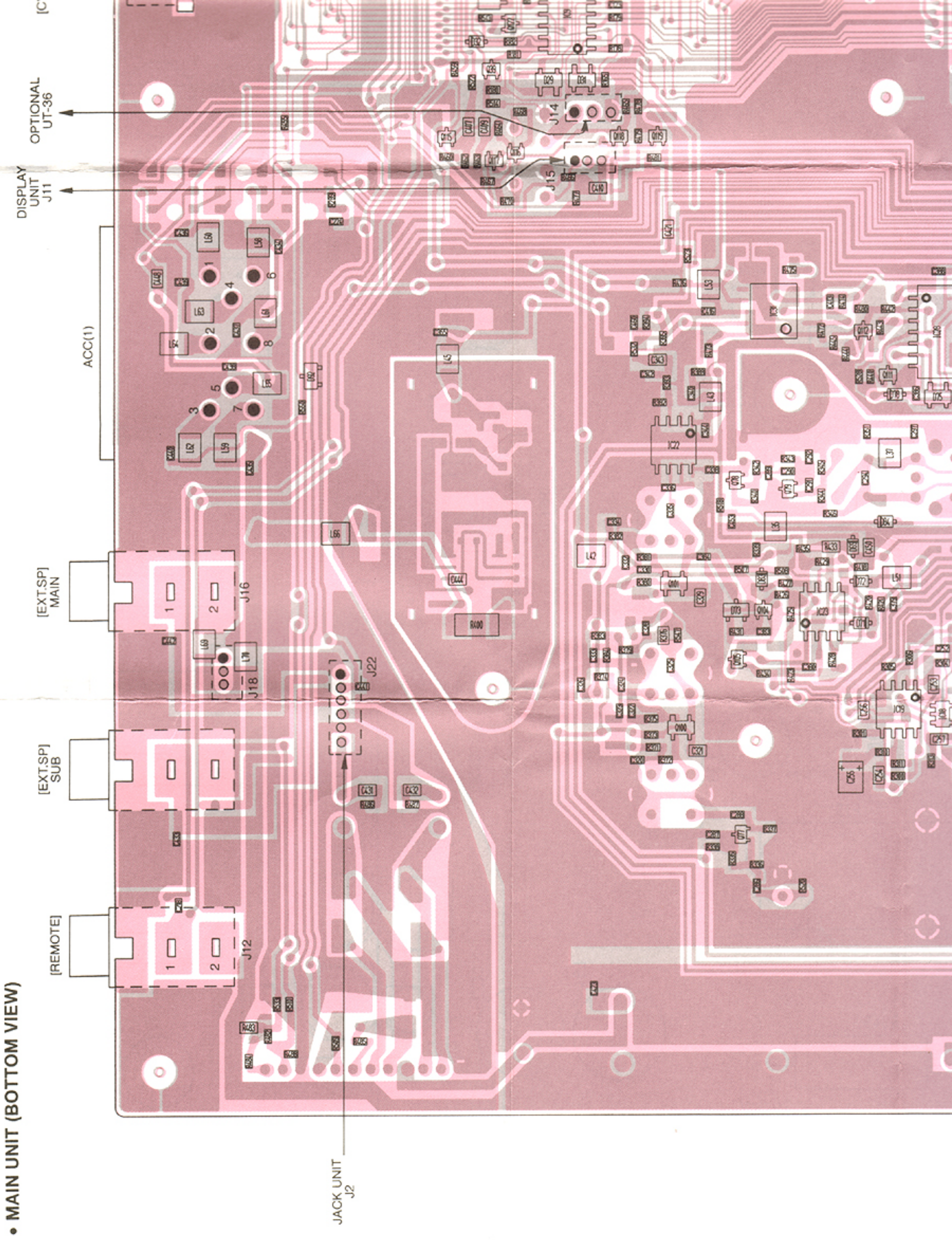
DISPLAY UNIT J12







• MAIN UNIT (BOTTOM VIEW)



DISPLAY UNIT J11

OPTIONAL UT-36

ACC(1)

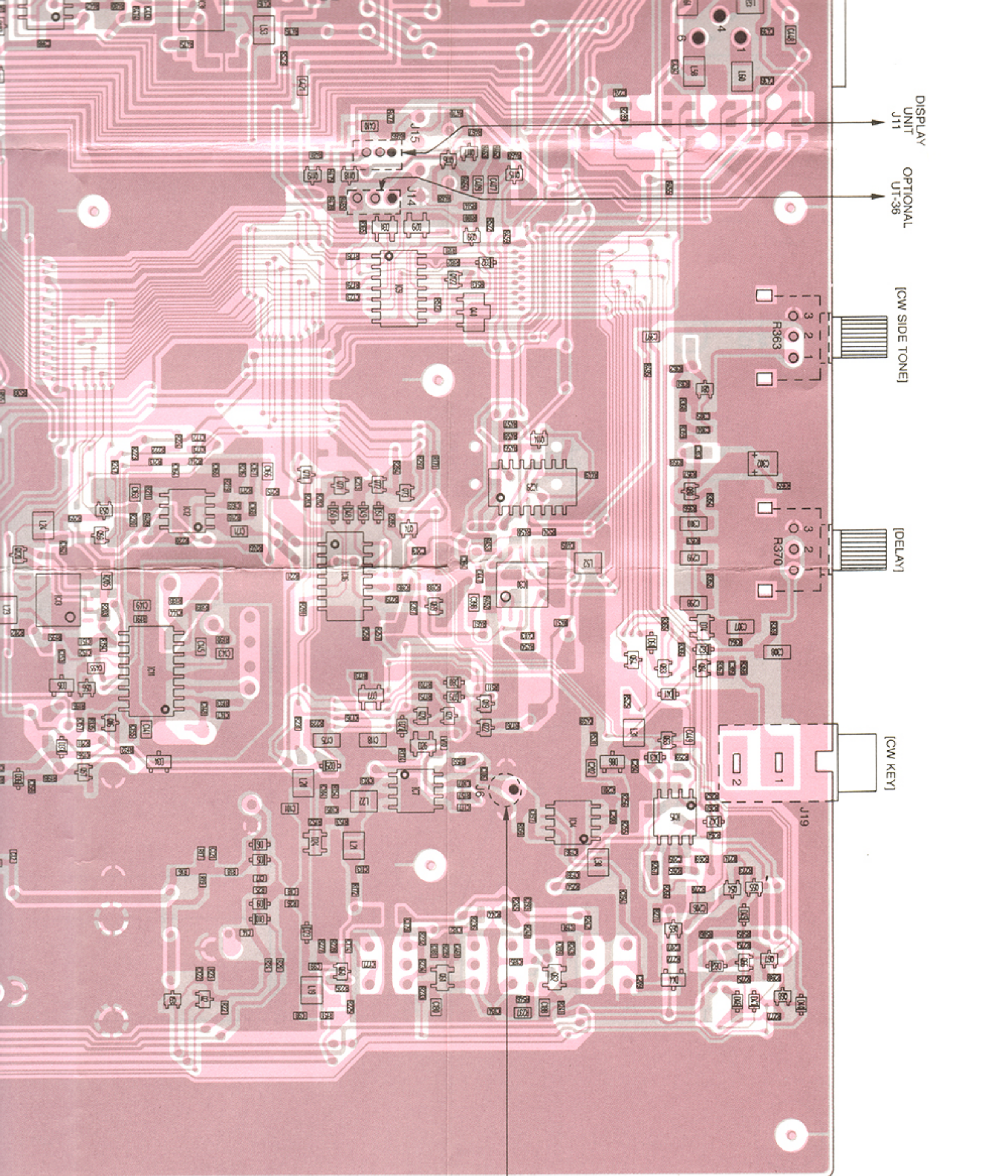
[EXT.SP] MAIN

[EXT.SP] SUB

[REMOTE]

JACK UNIT J2





DISPLAY UNIT J11

OPTIONAL UT-36

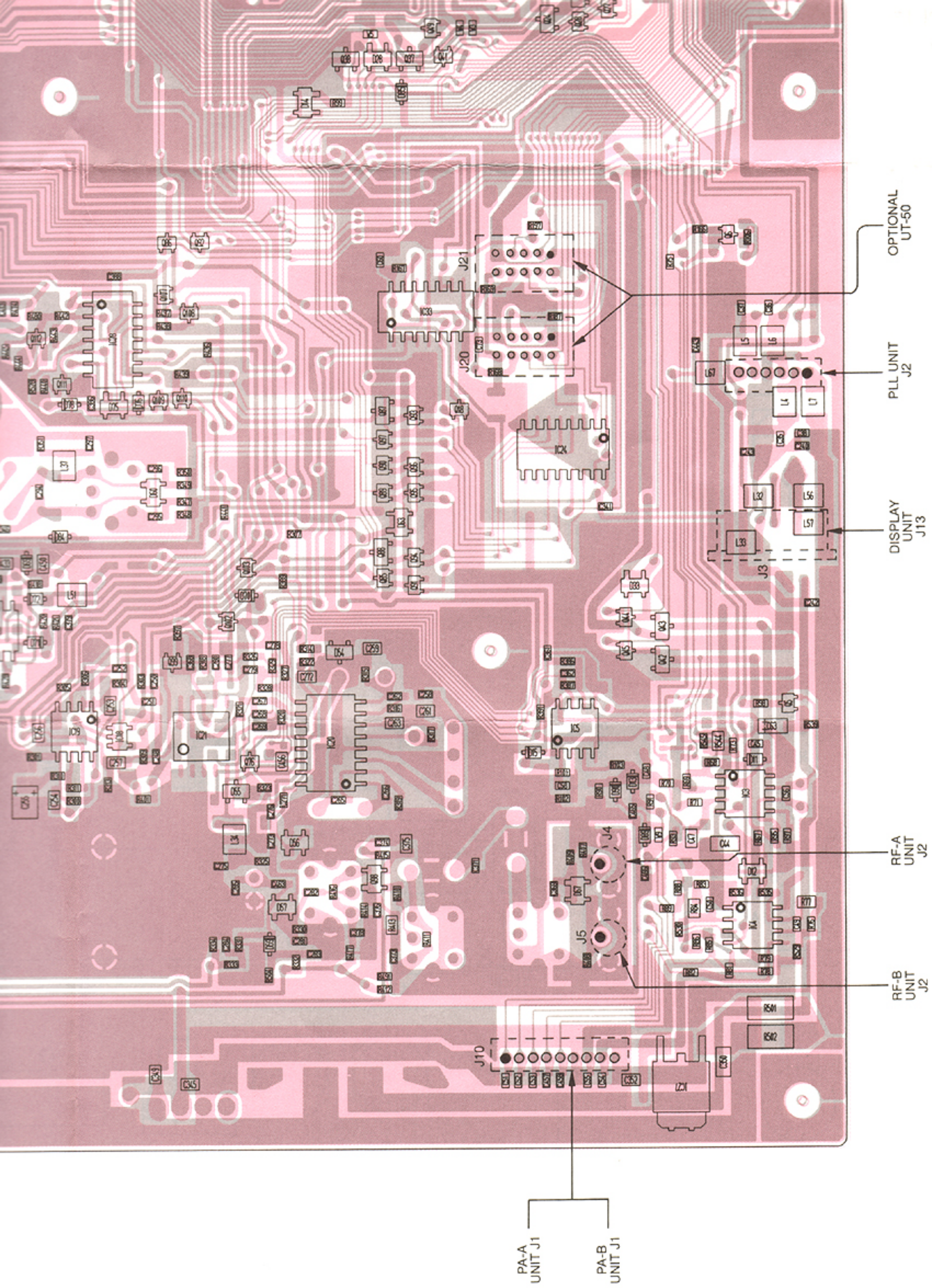
[CW SIDE TONE]

[DELAY]

[CW KEY]

PLL UNIT W17







OPTIONAL  
UT-50

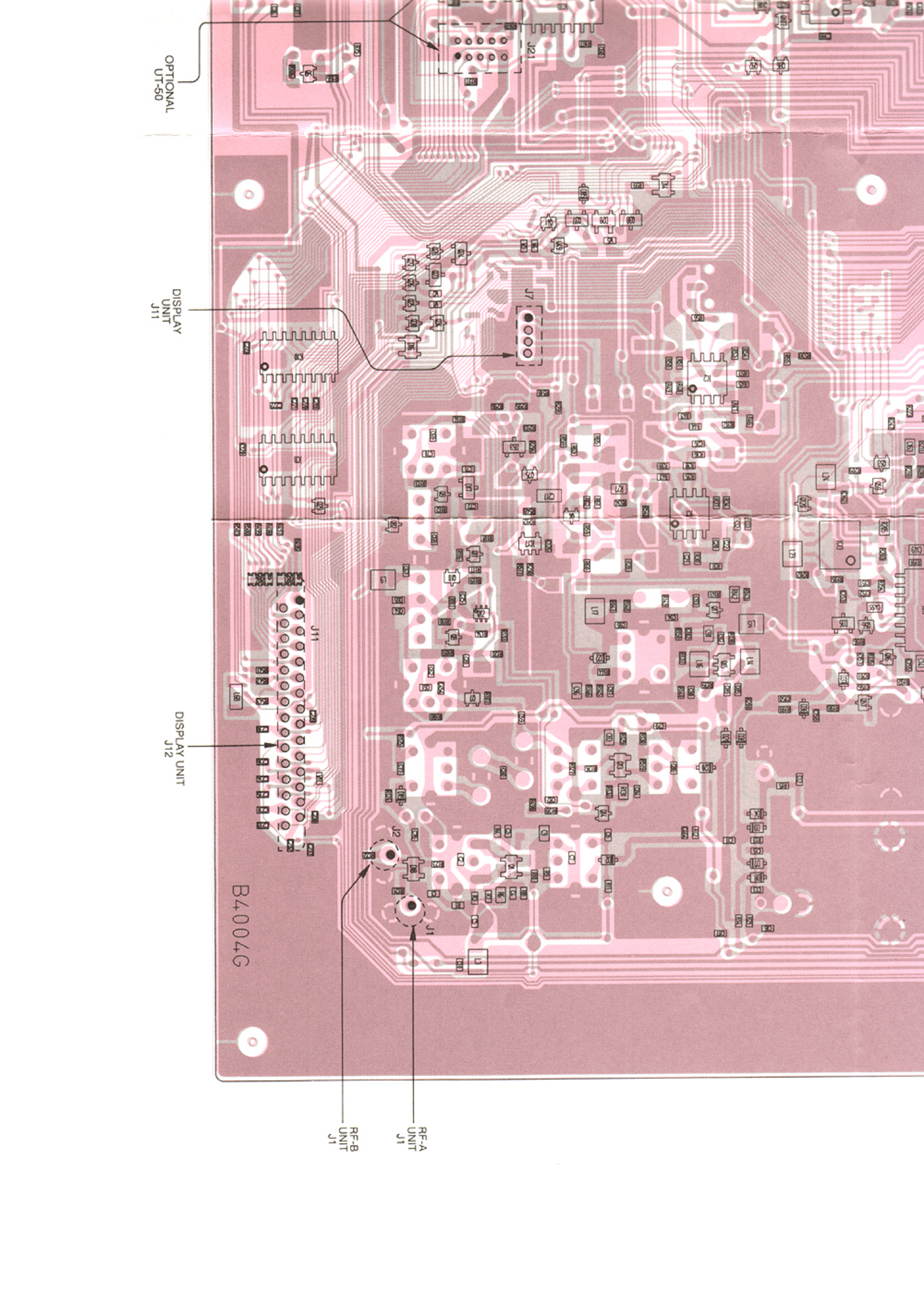
DISPLAY  
UNIT  
J11

DISPLAY  
UNIT  
J12

B4004G

RF-B  
UNIT  
J1

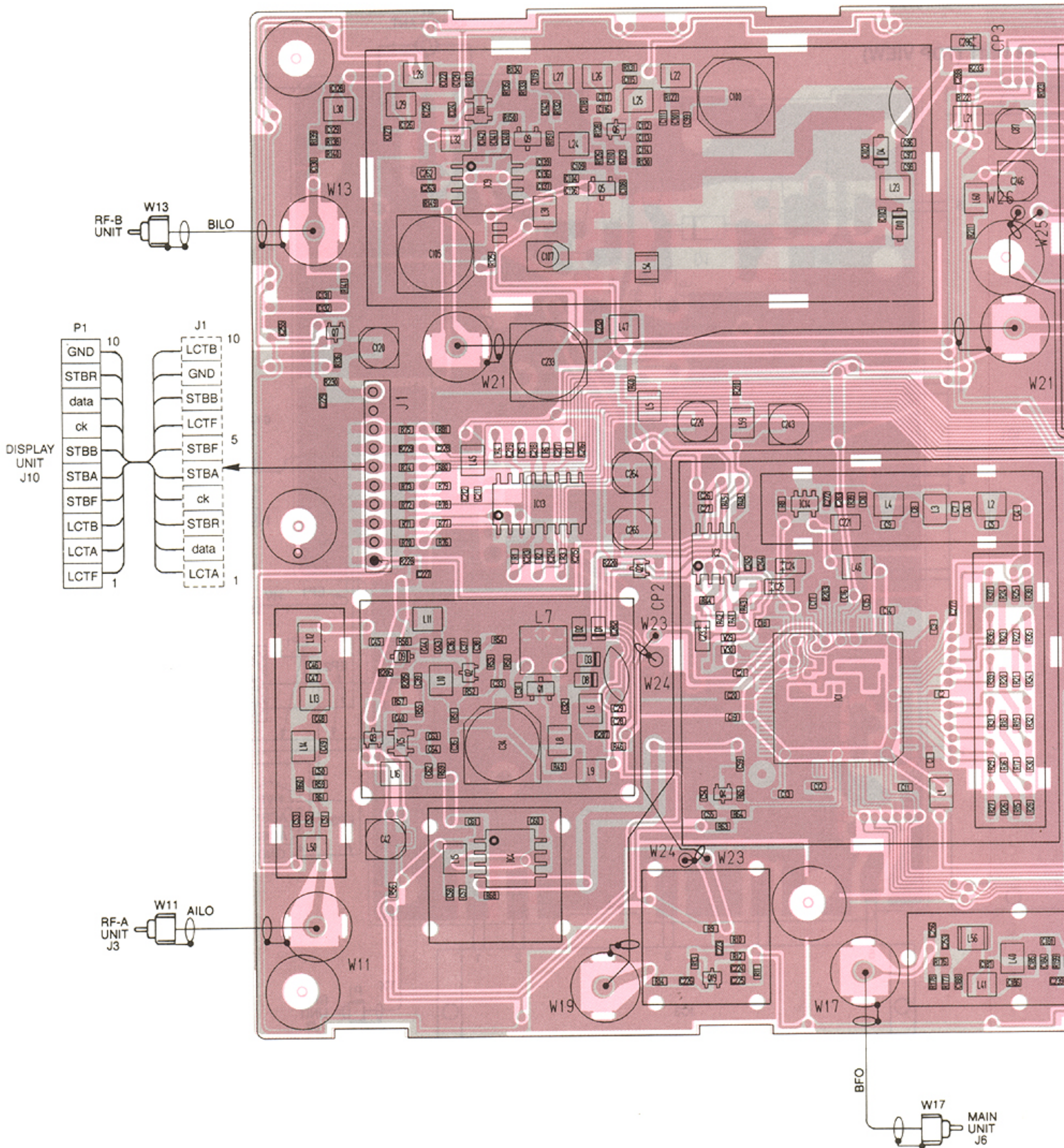
RF-A  
UNIT  
J1



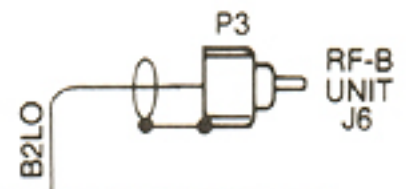
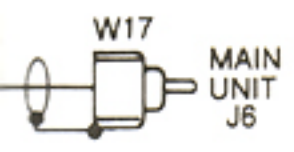
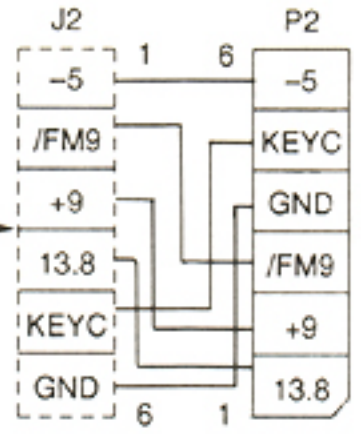
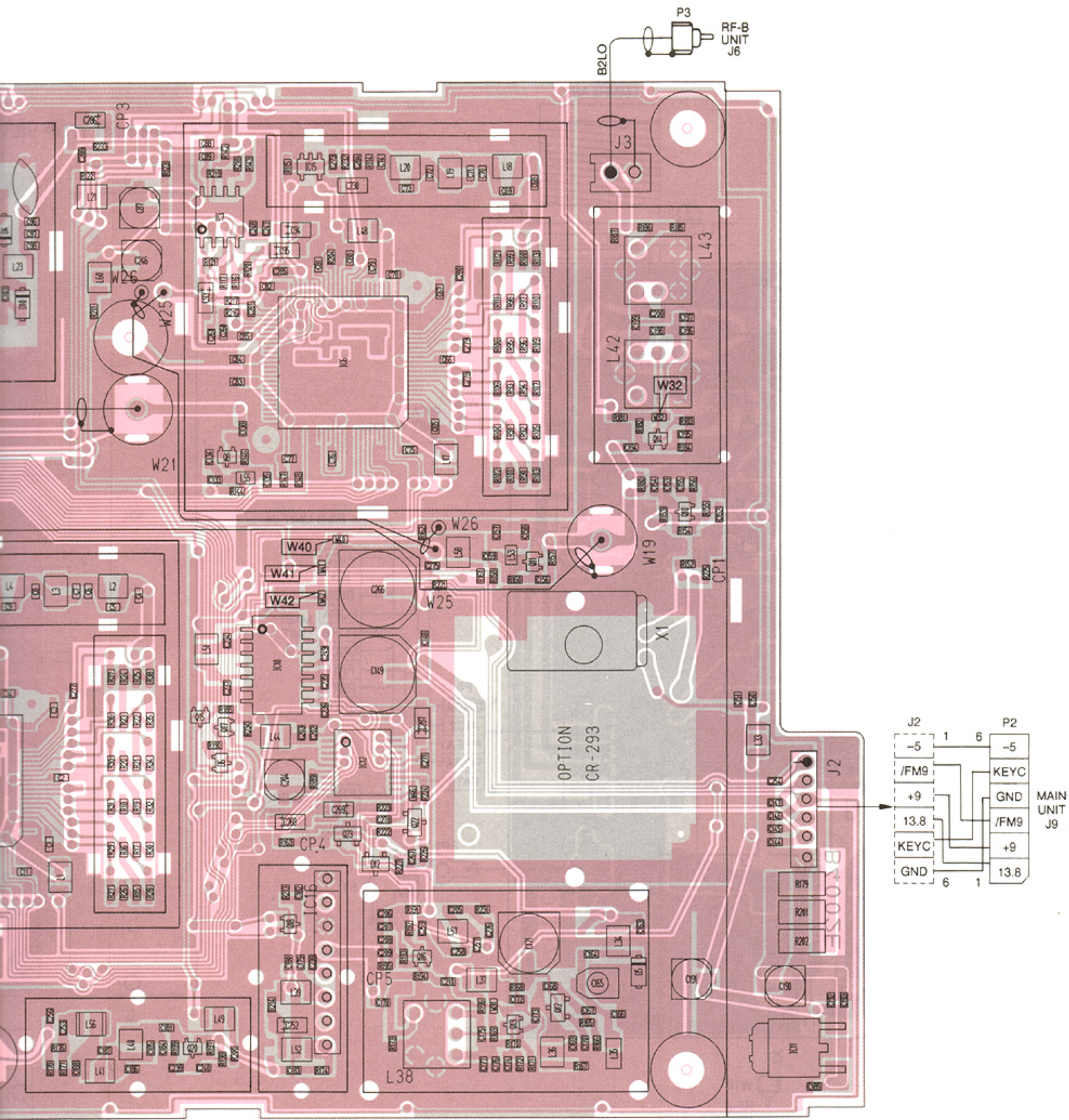


# 9-3 PLL UNIT

## • PLL UNIT (TOP VIEW)



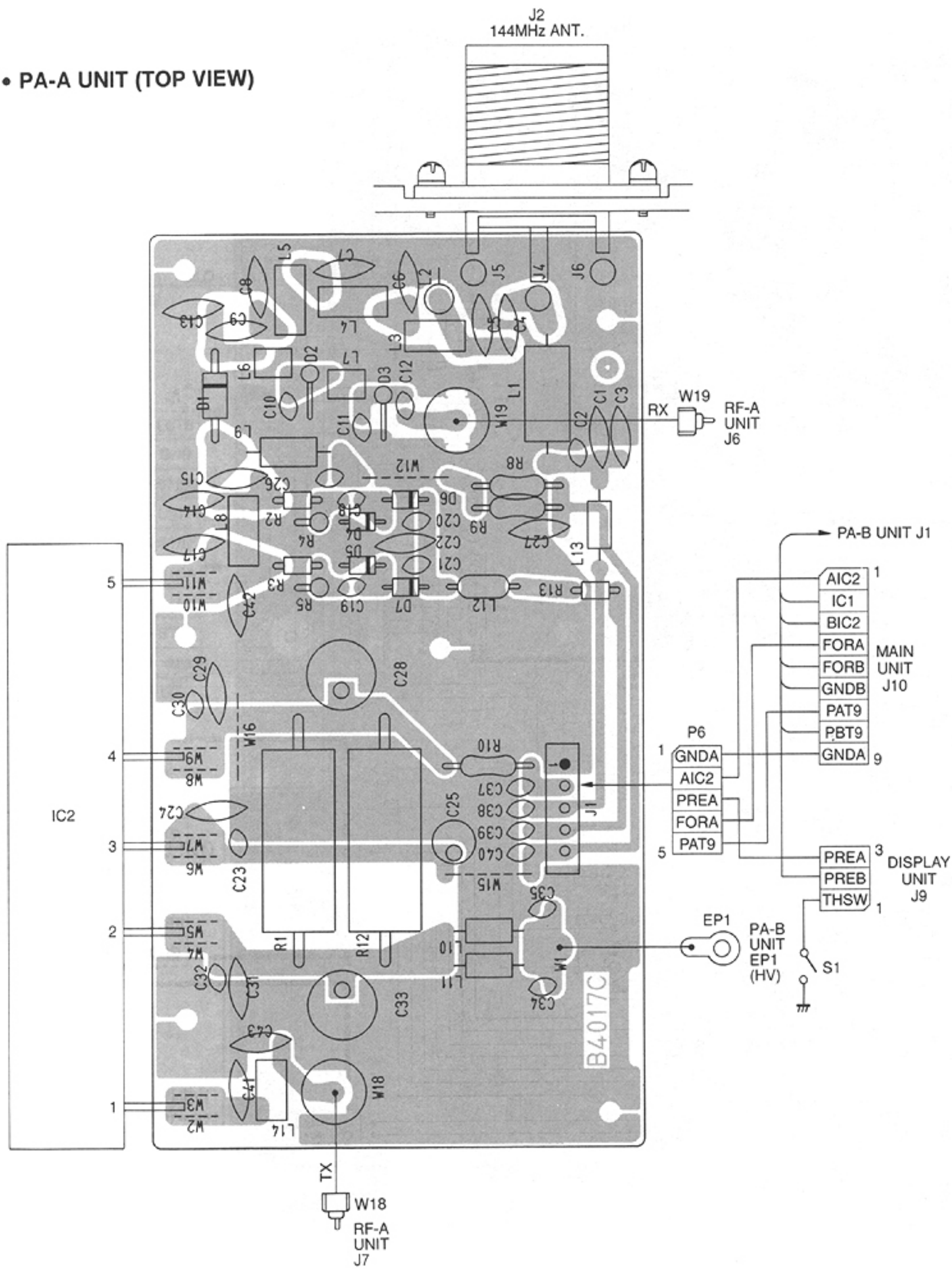






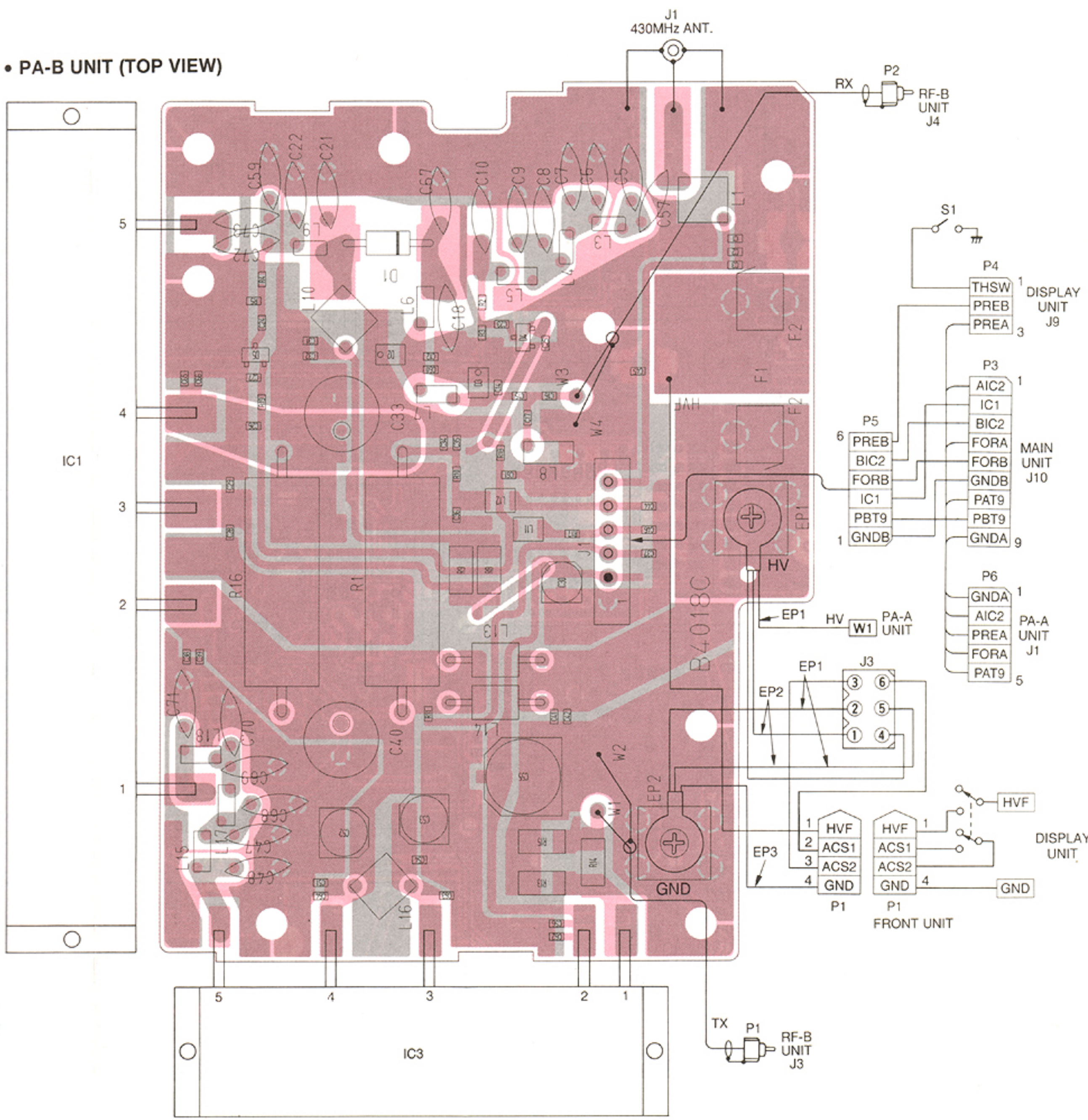
# 9-4 PA-A AND PA-B UNITS

## • PA-A UNIT (TOP VIEW)





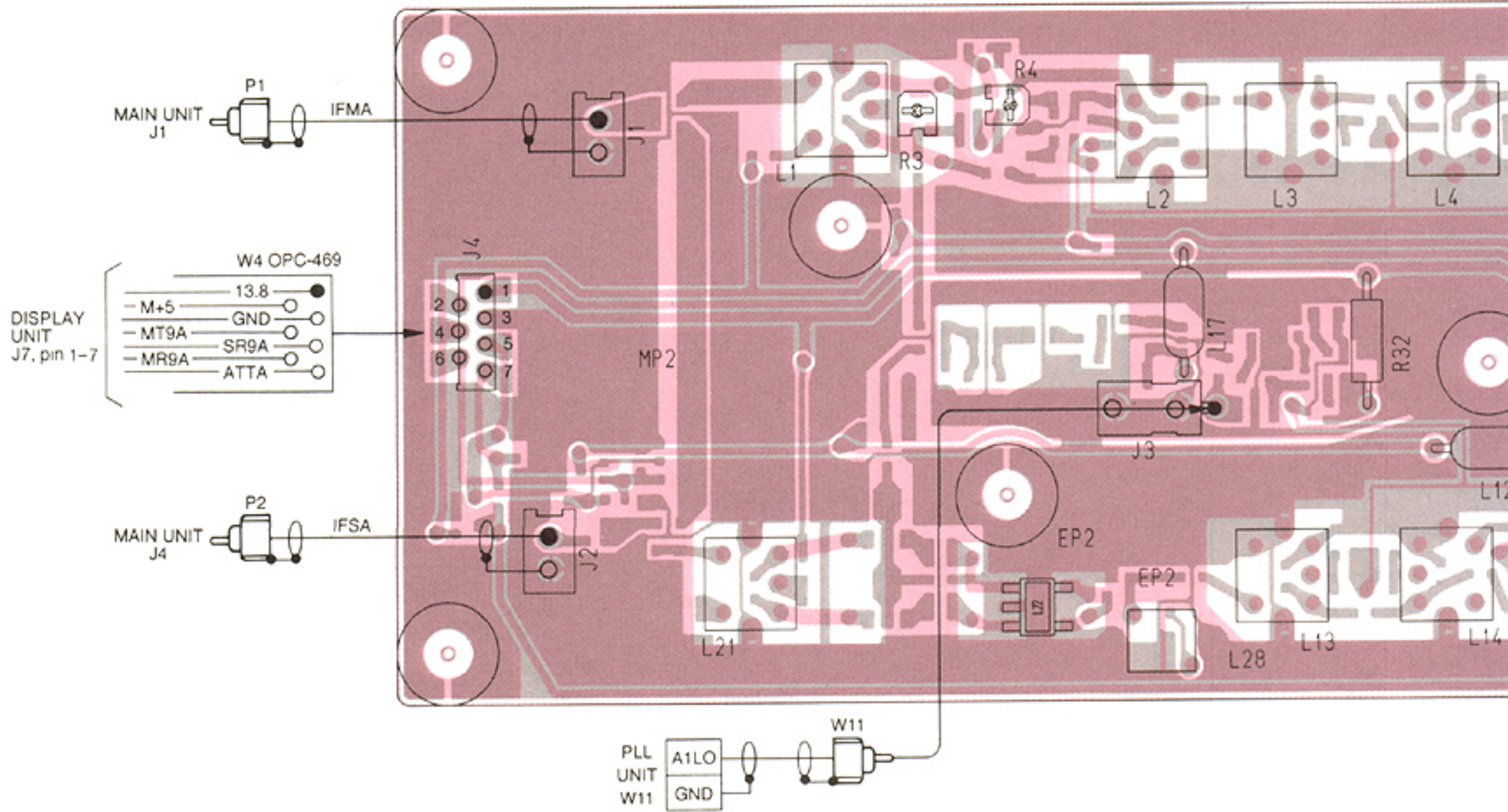
• PA-B UNIT (TOP VIEW)



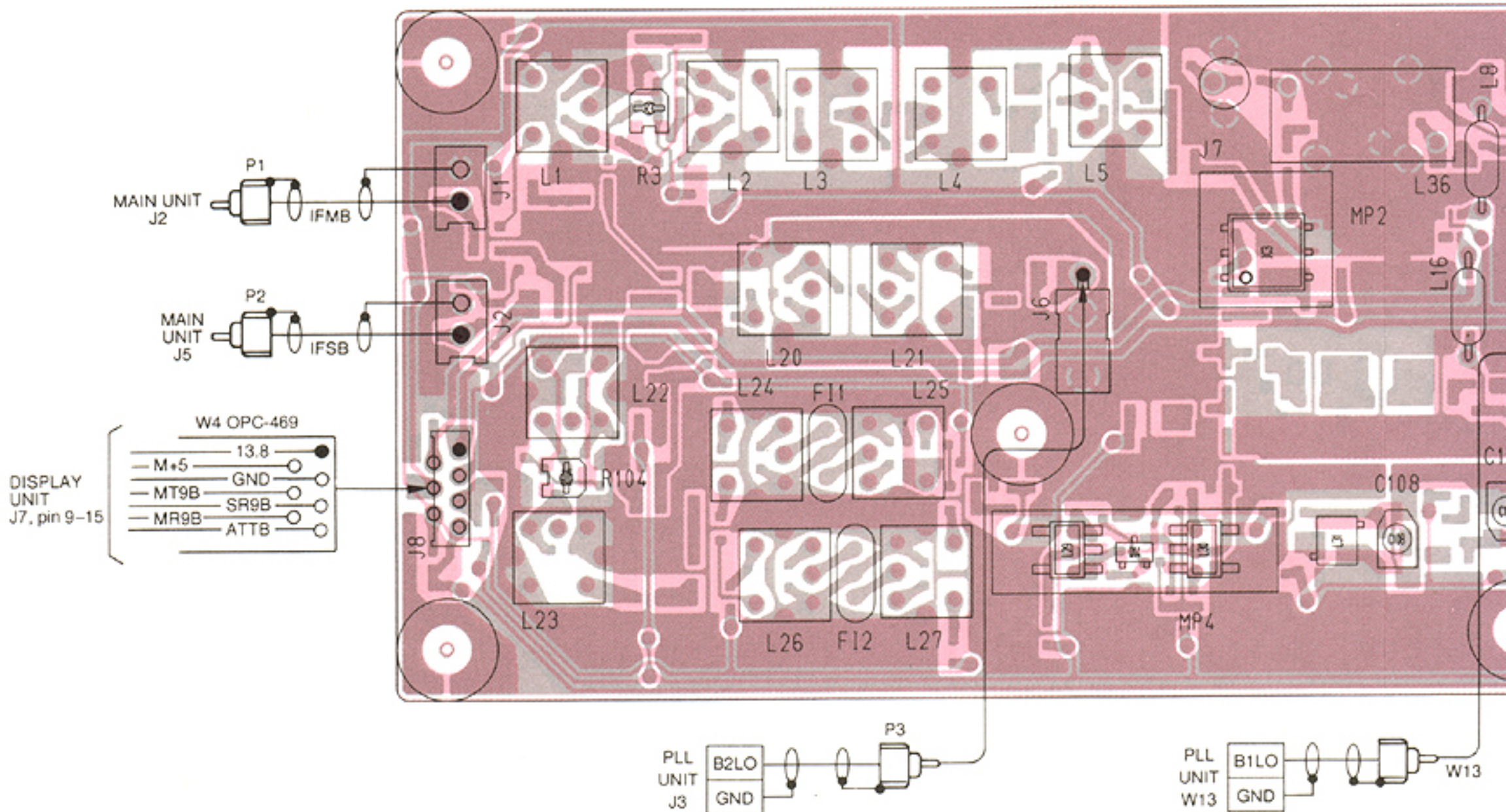


# 9-5 RF-A AND RF-B UNITS

## • RF-A UNIT (TOP VIEW)

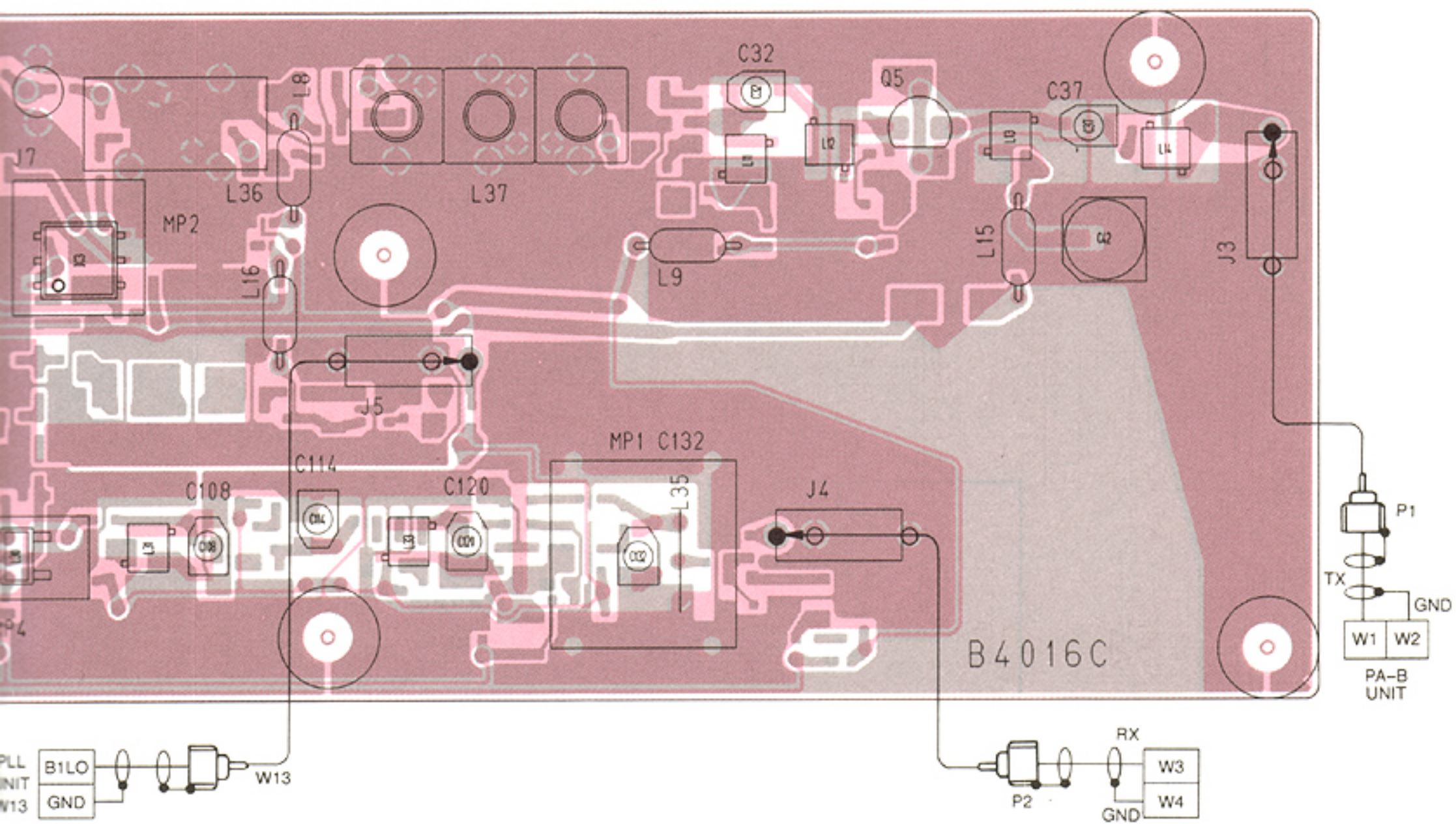
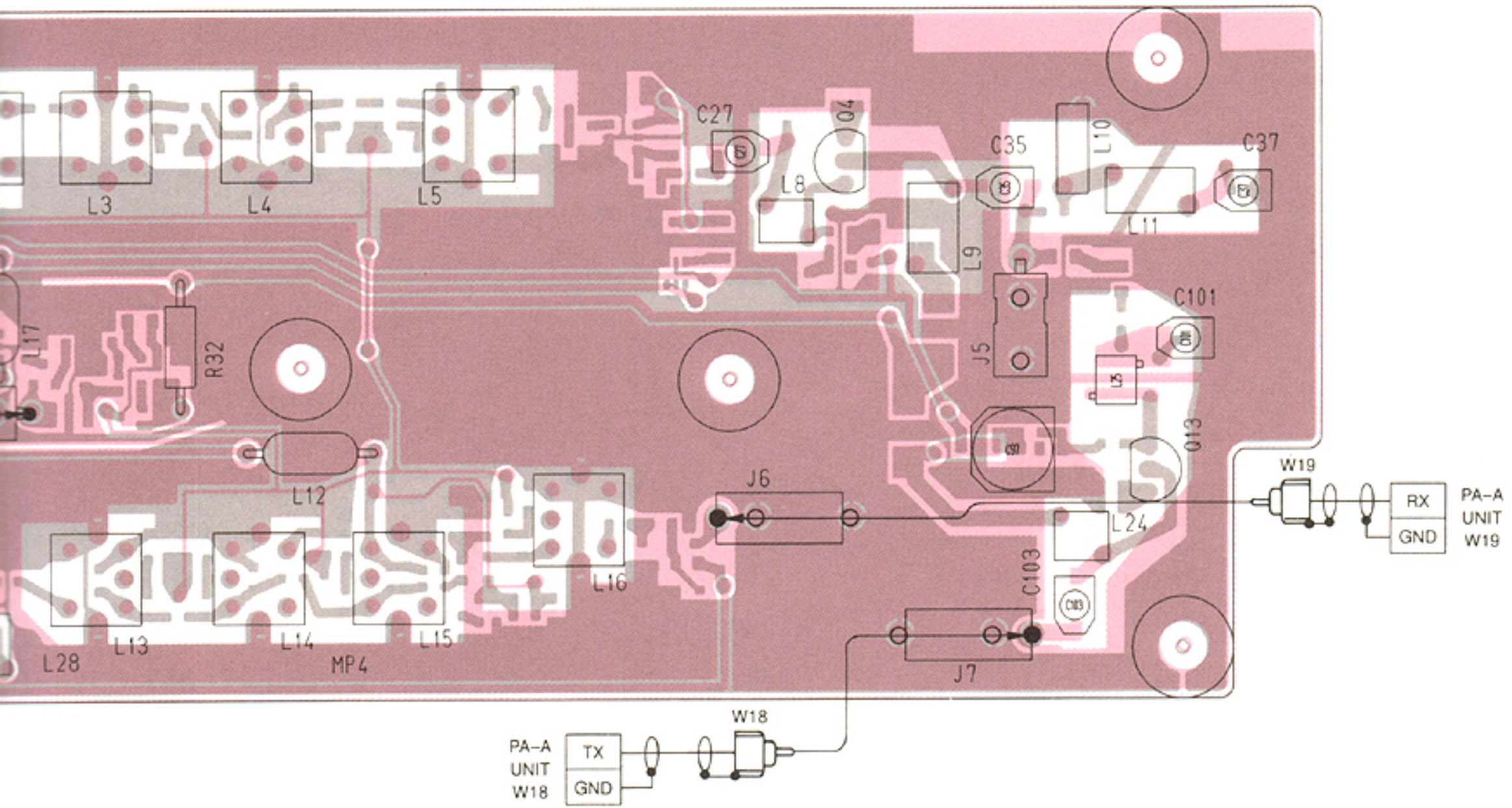


## • RF-B UNIT (TOP VIEW)



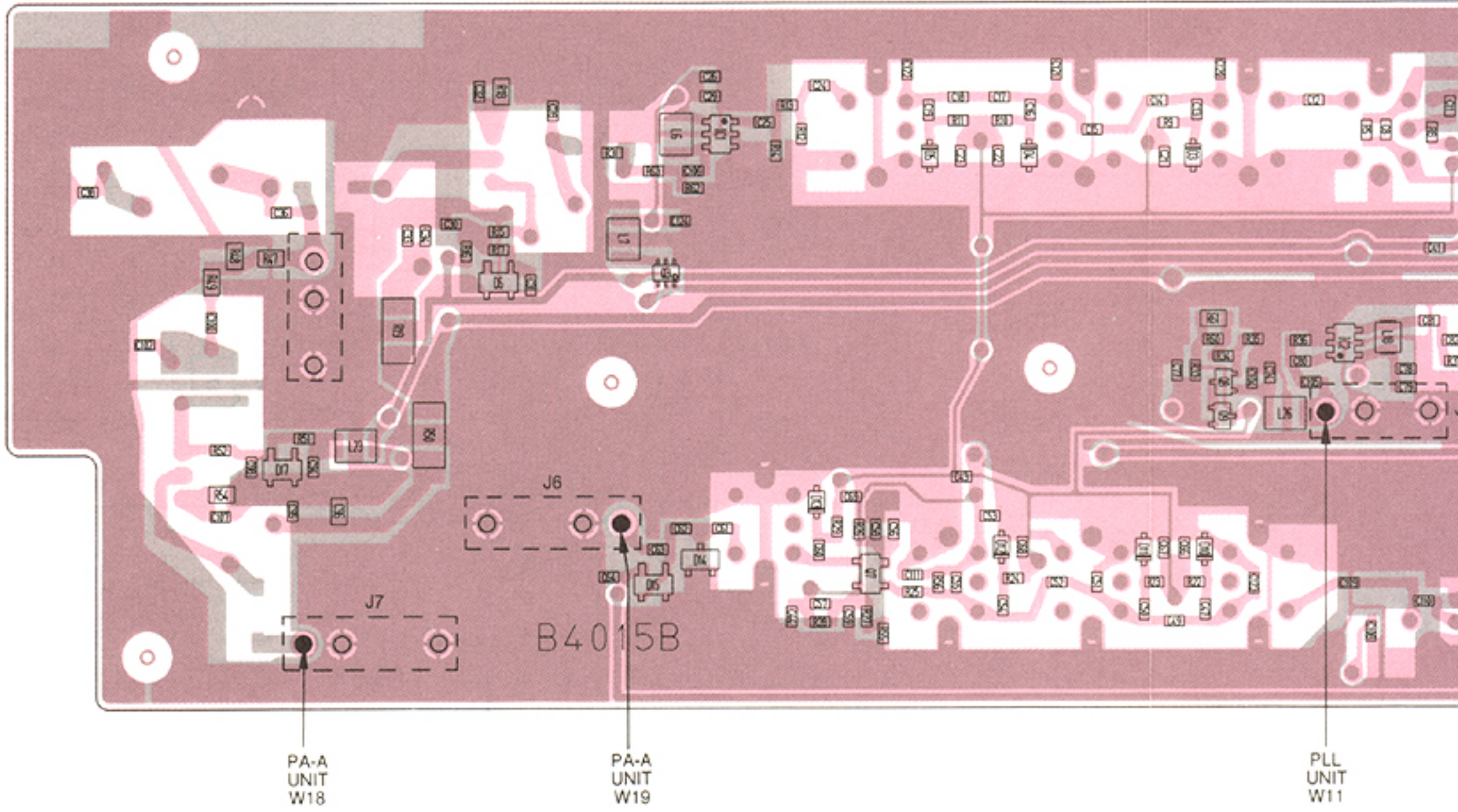


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

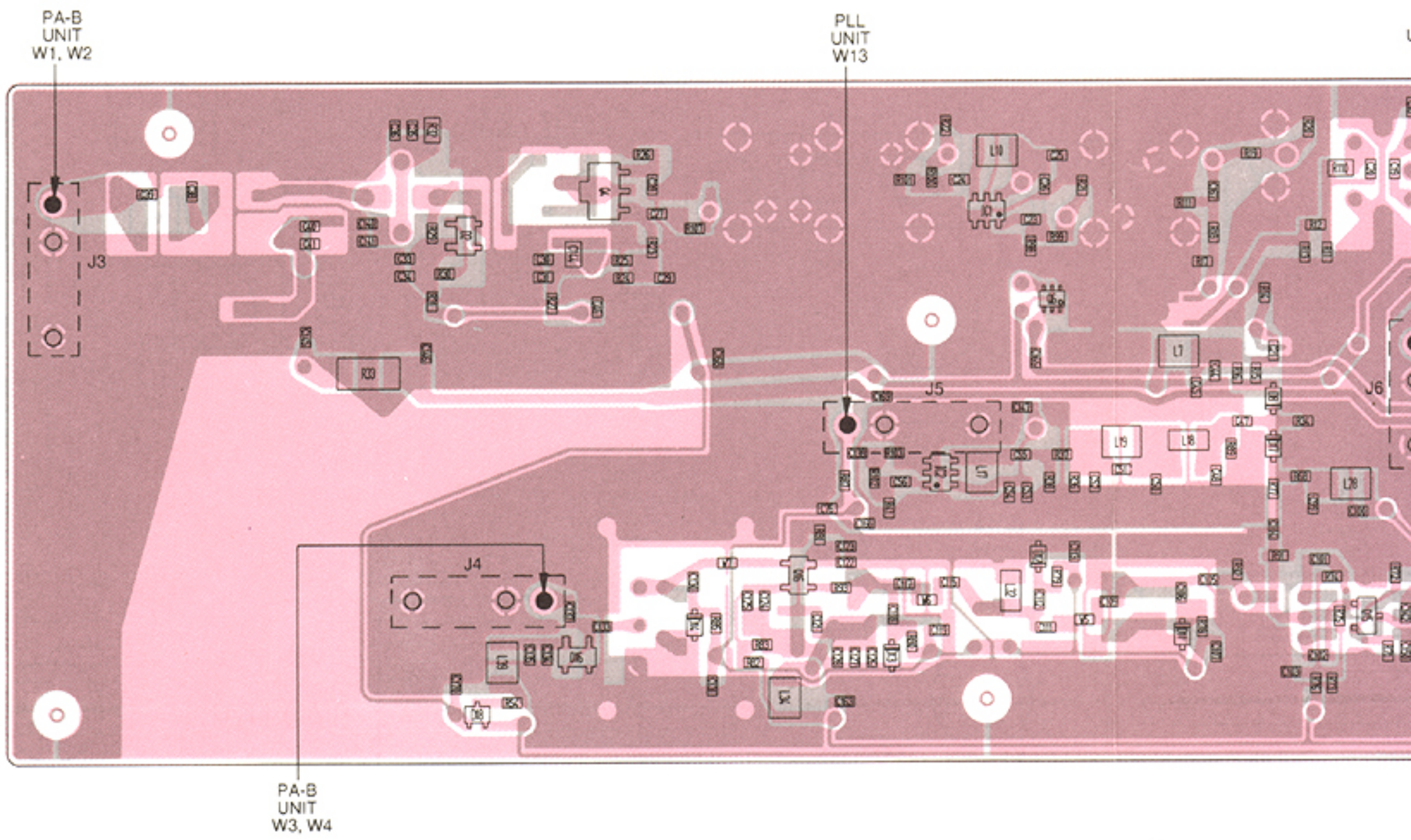




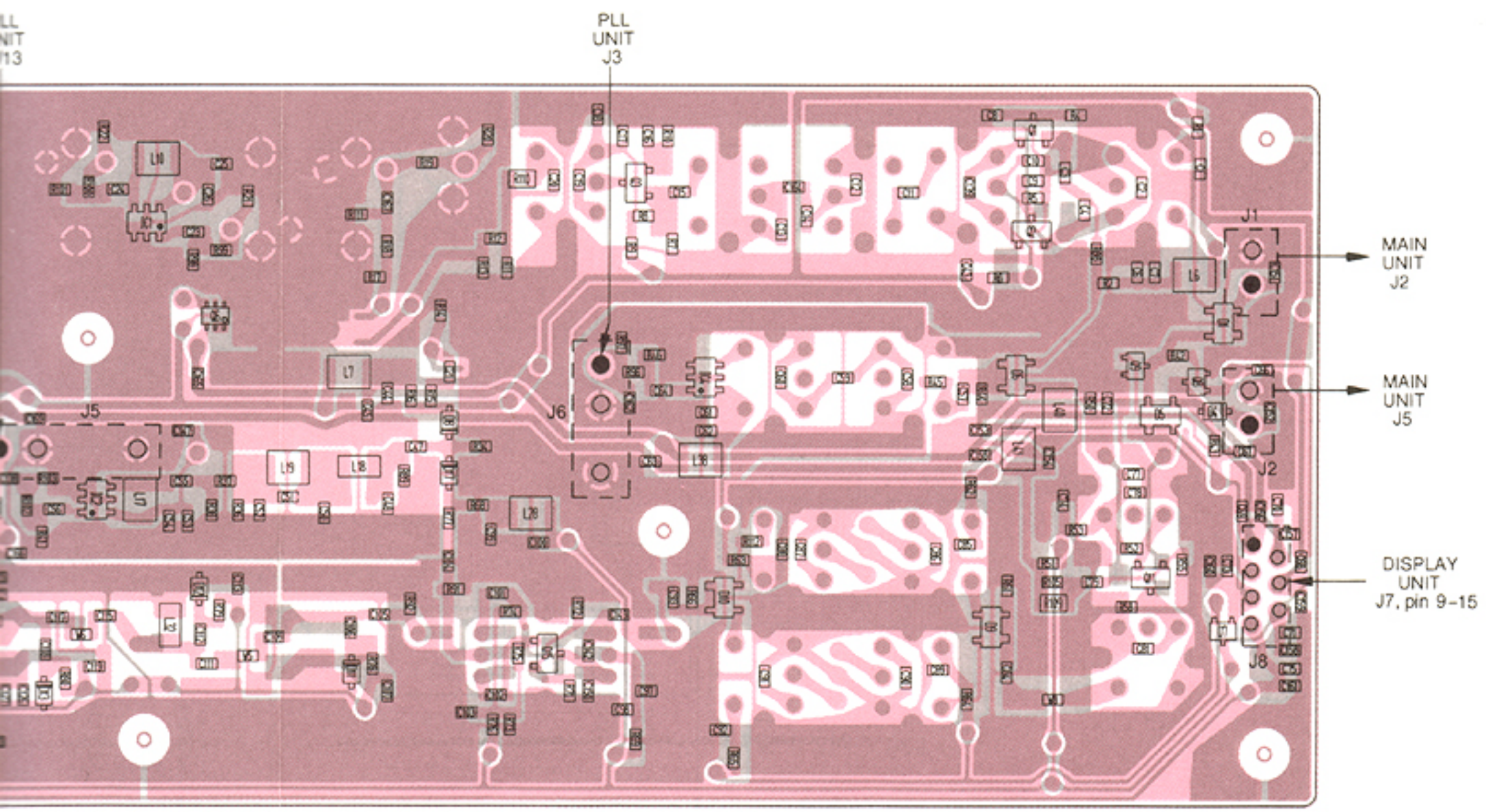
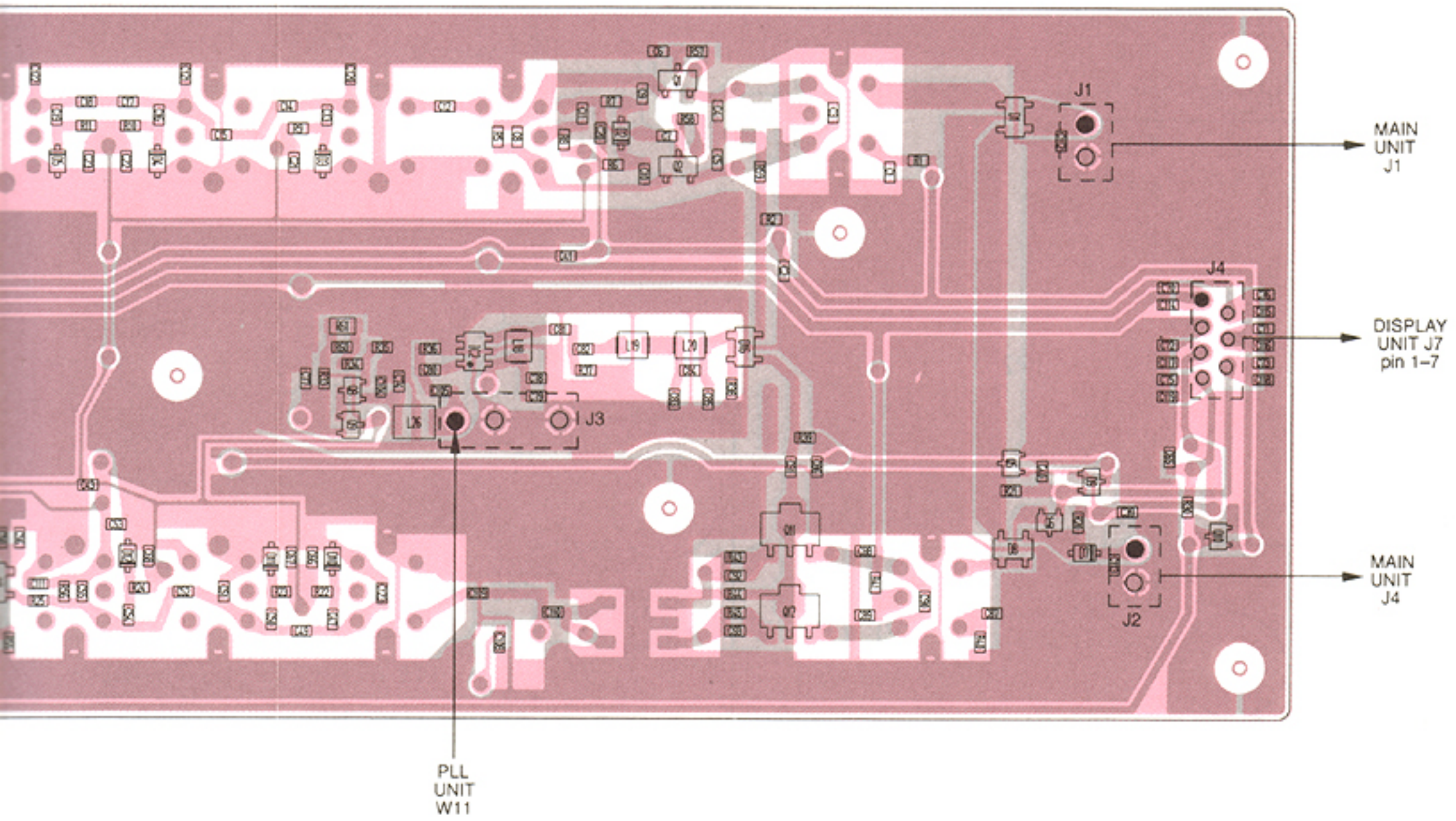
• RF-A UNIT (BOTTOM VIEW)



• RF-B UNIT (BOTTOM VIEW)

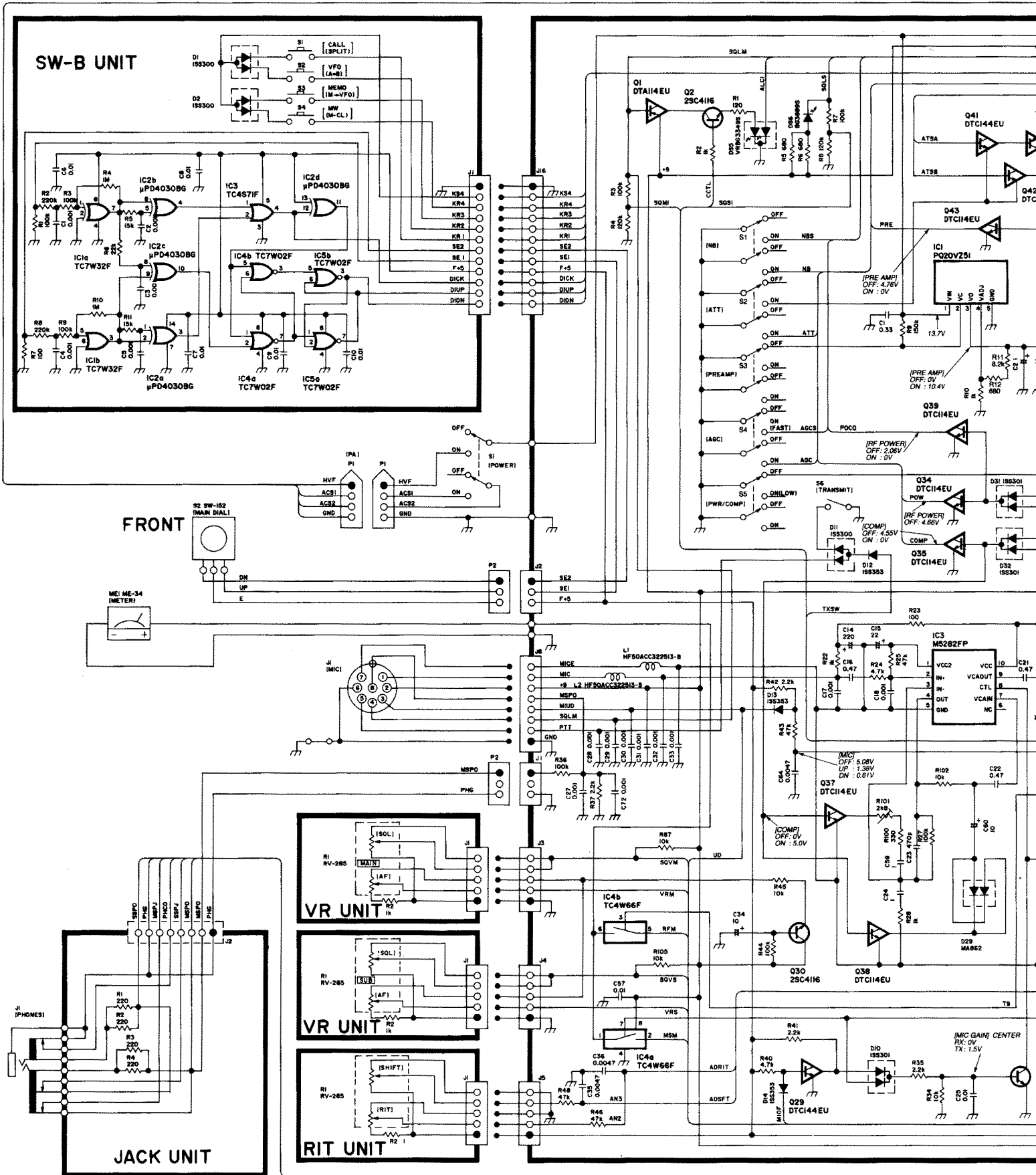


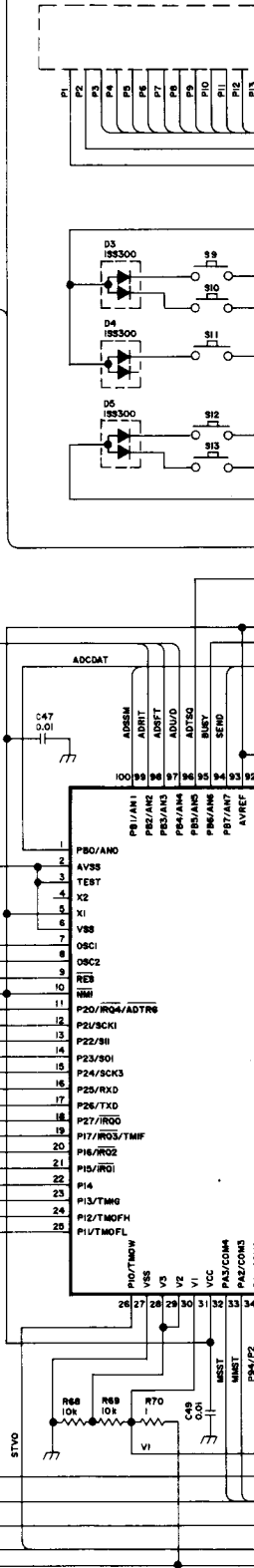
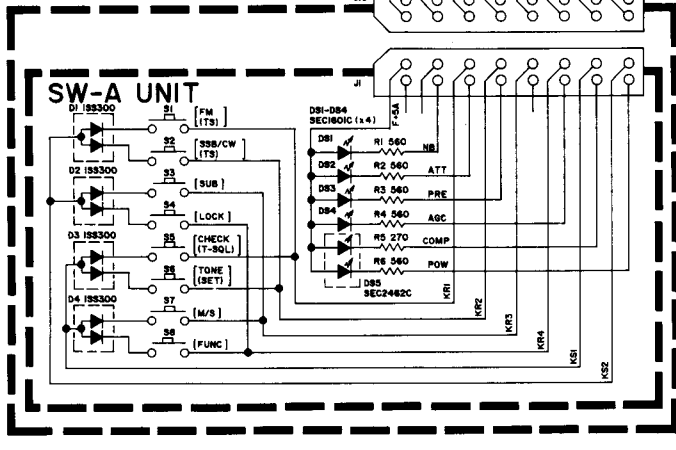
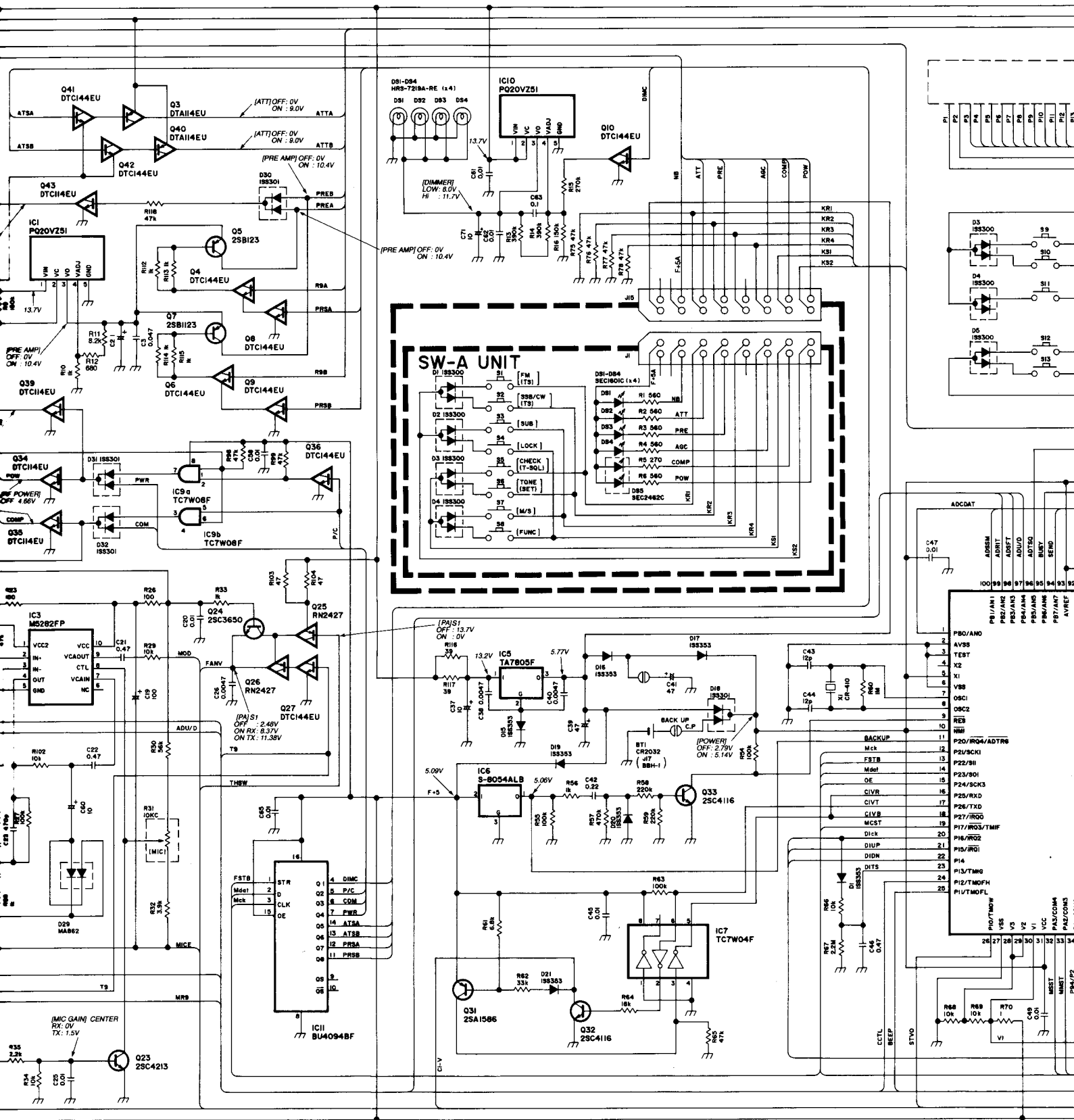




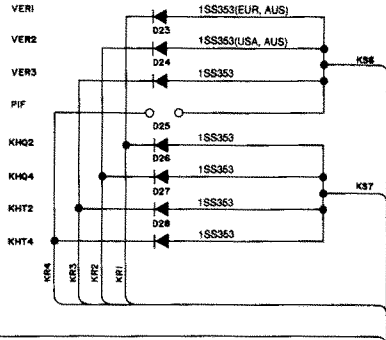
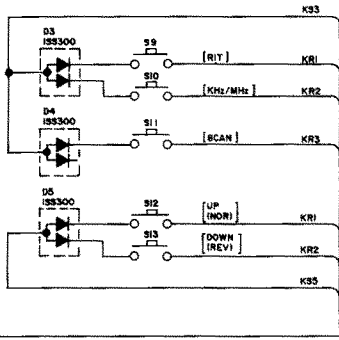
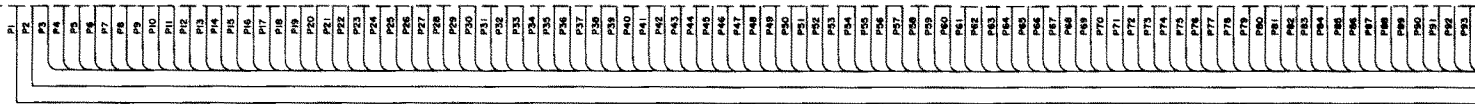


# SECTION 10 VOLTAGE DIAGRAMS

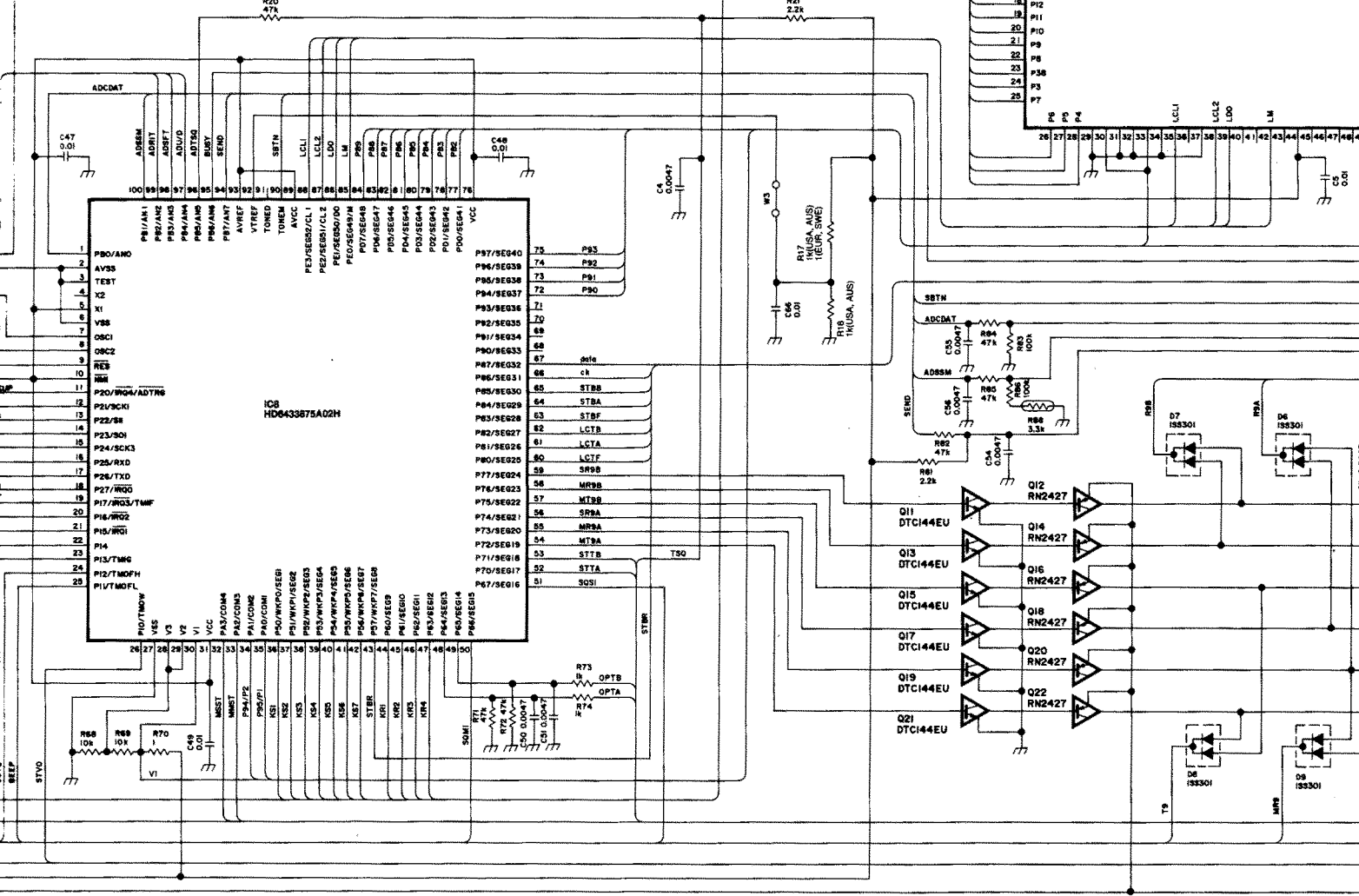
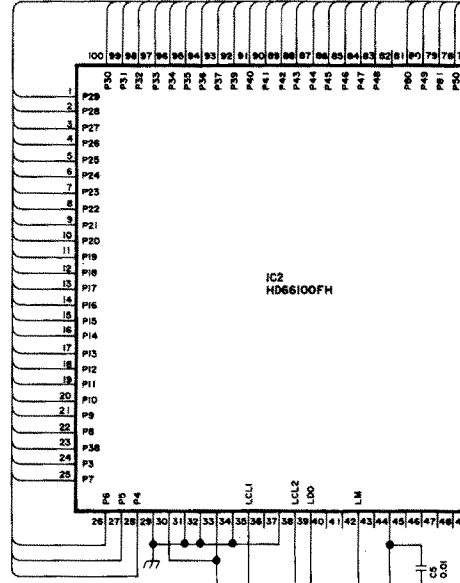


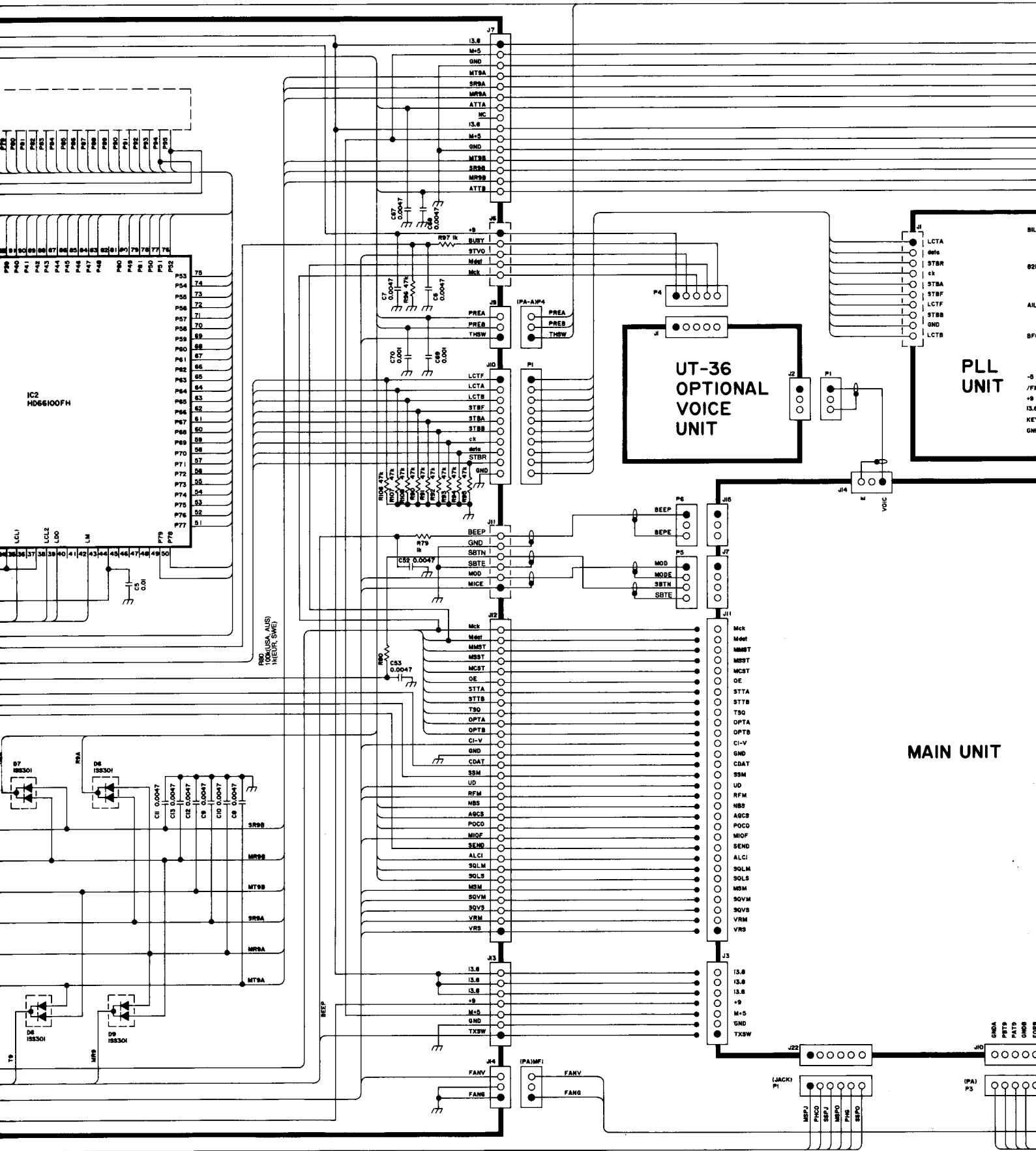


LCD DS7 FTD-12525AAH



### DISPLAY UNIT

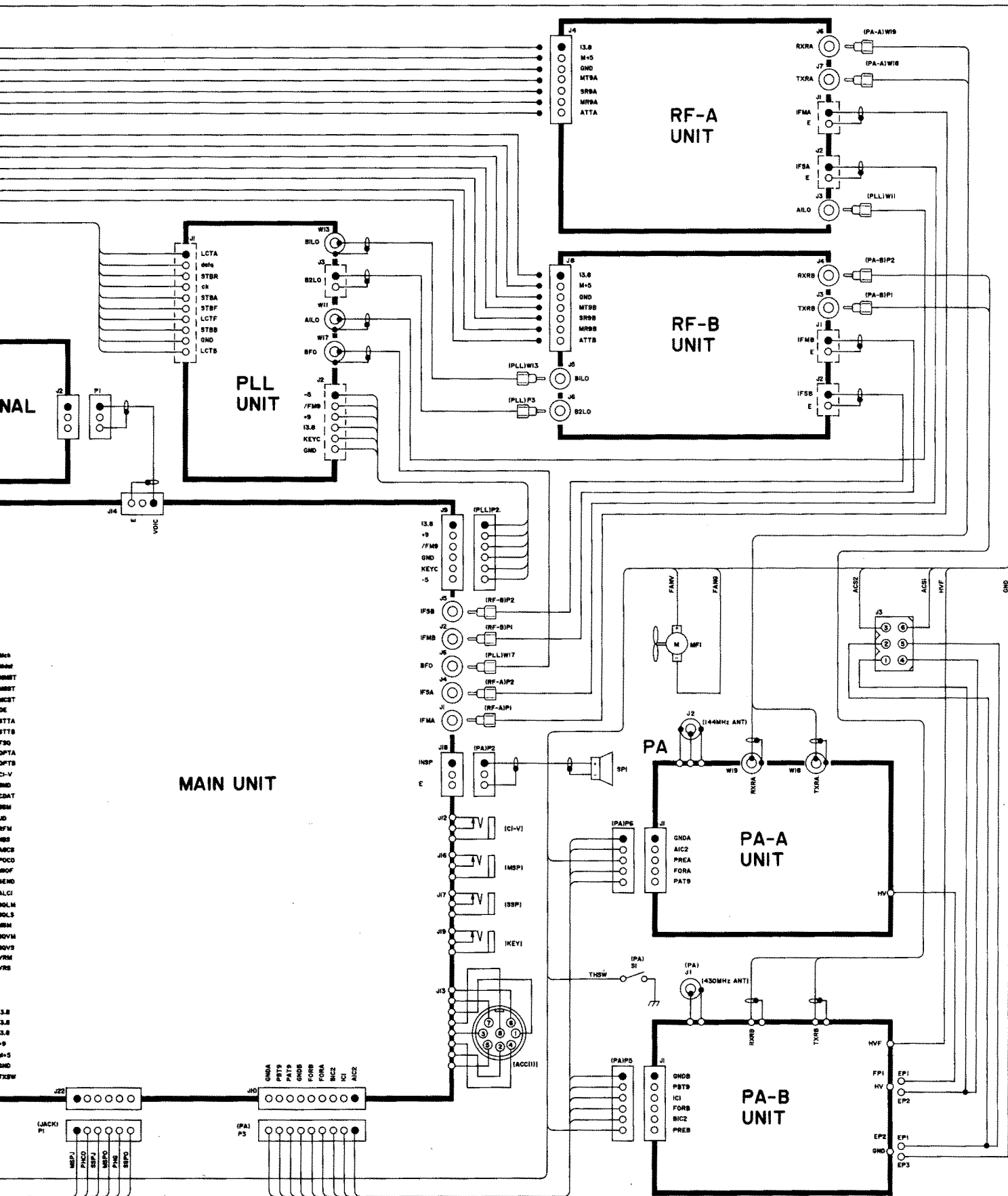


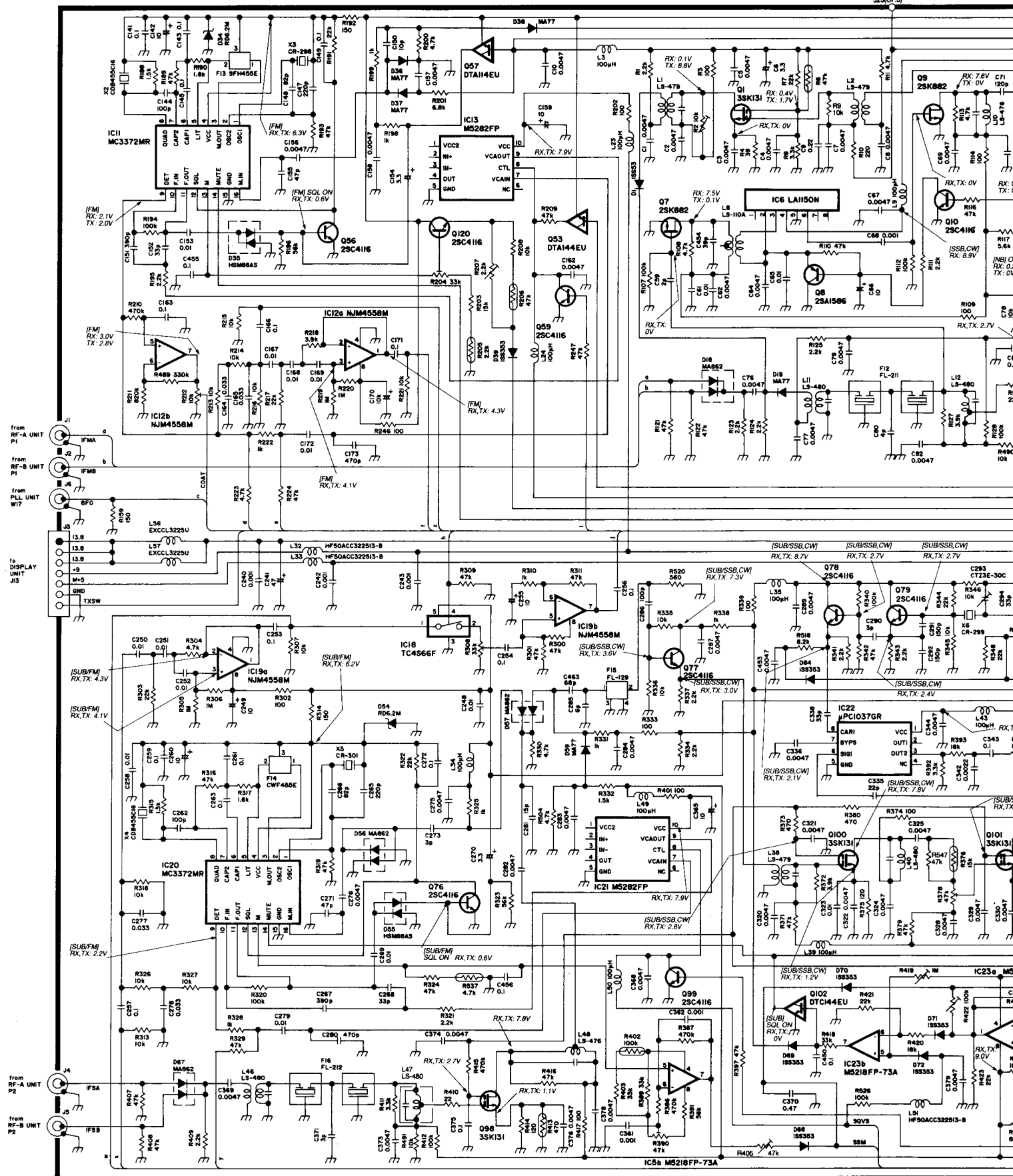


UT-36  
OPTIONAL  
VOICE  
UNIT

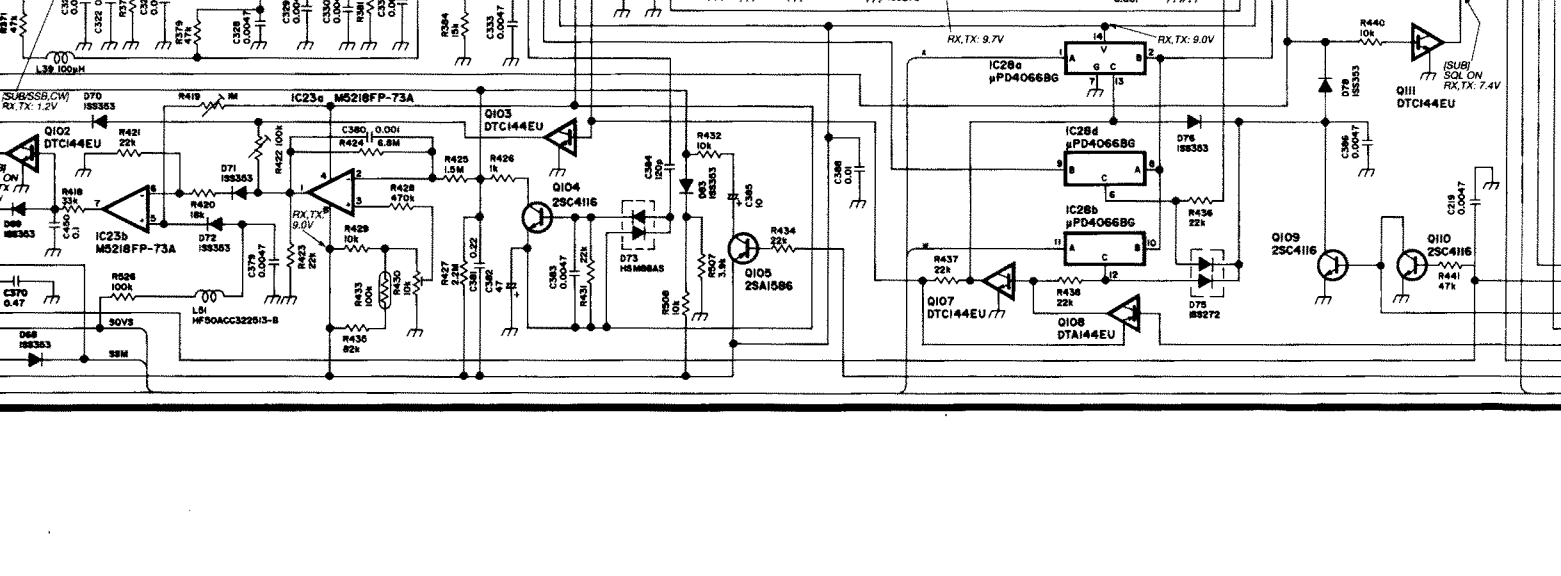
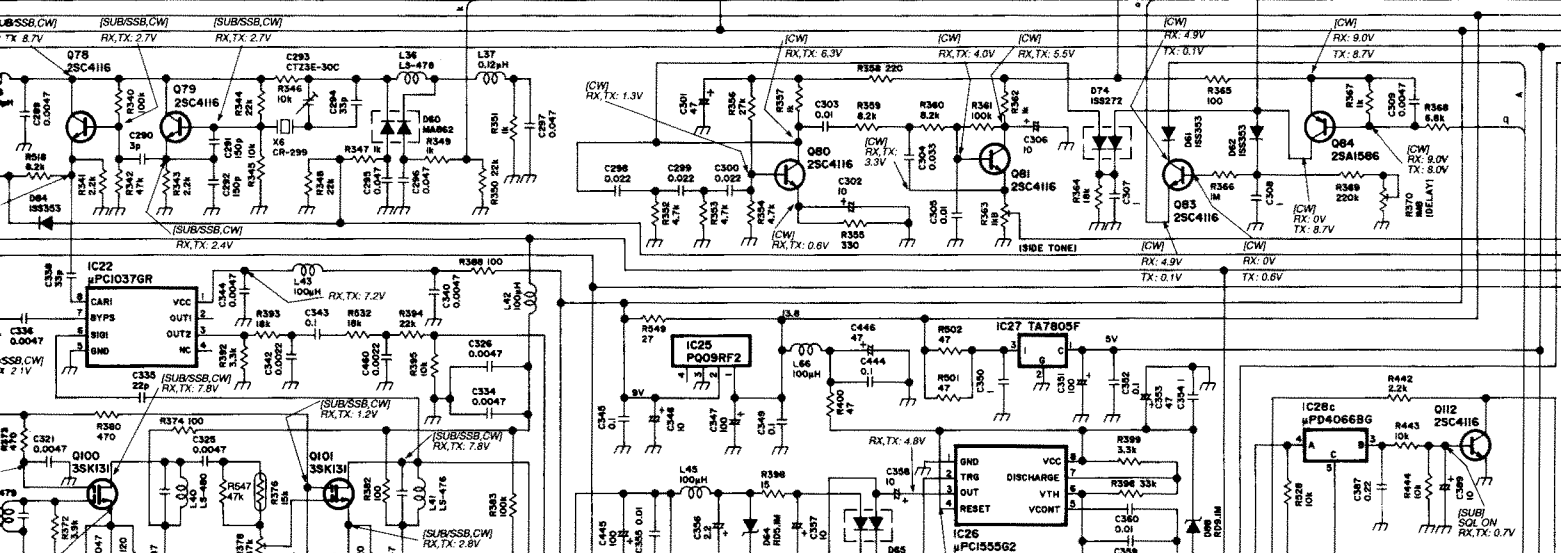
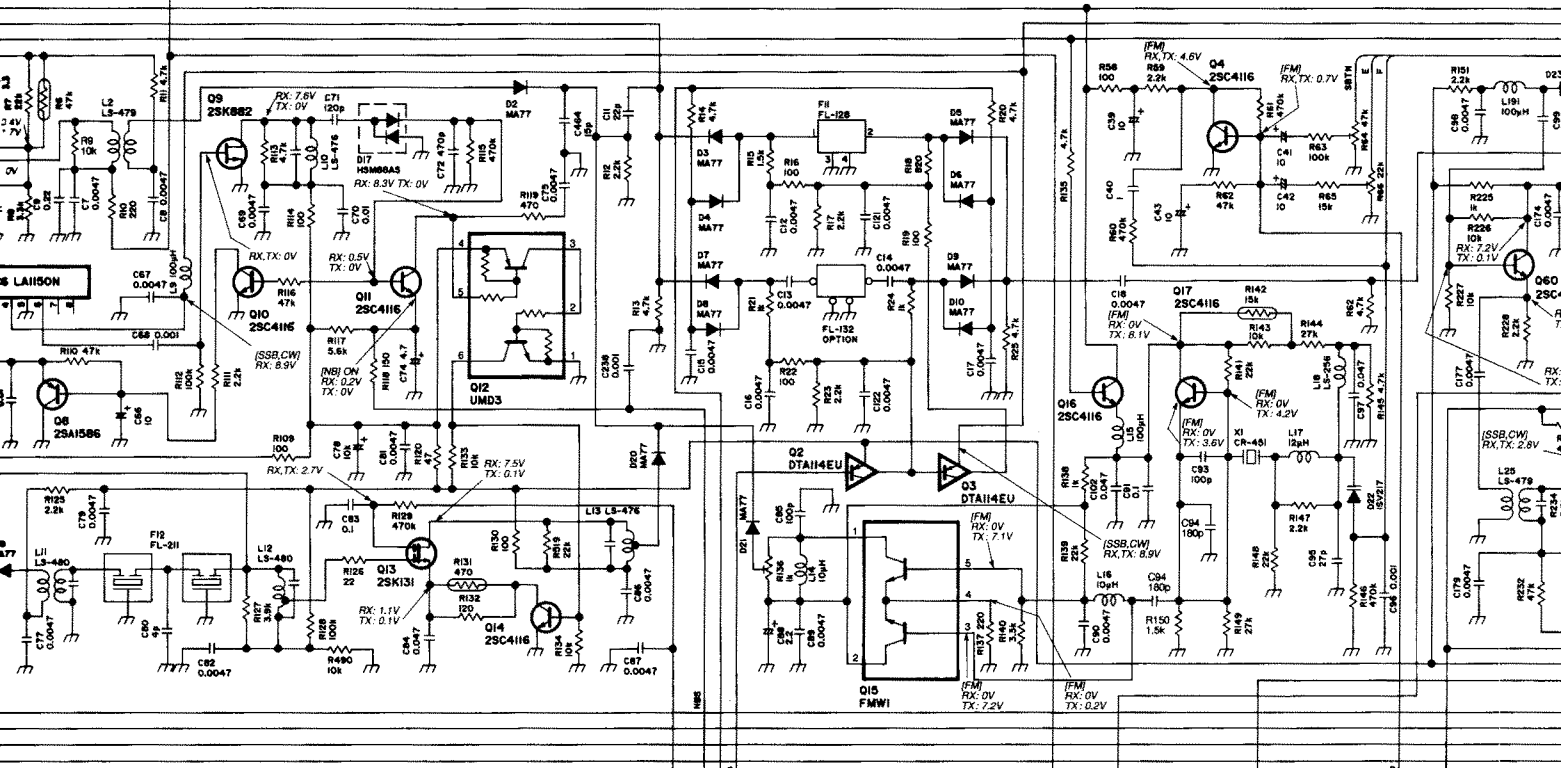
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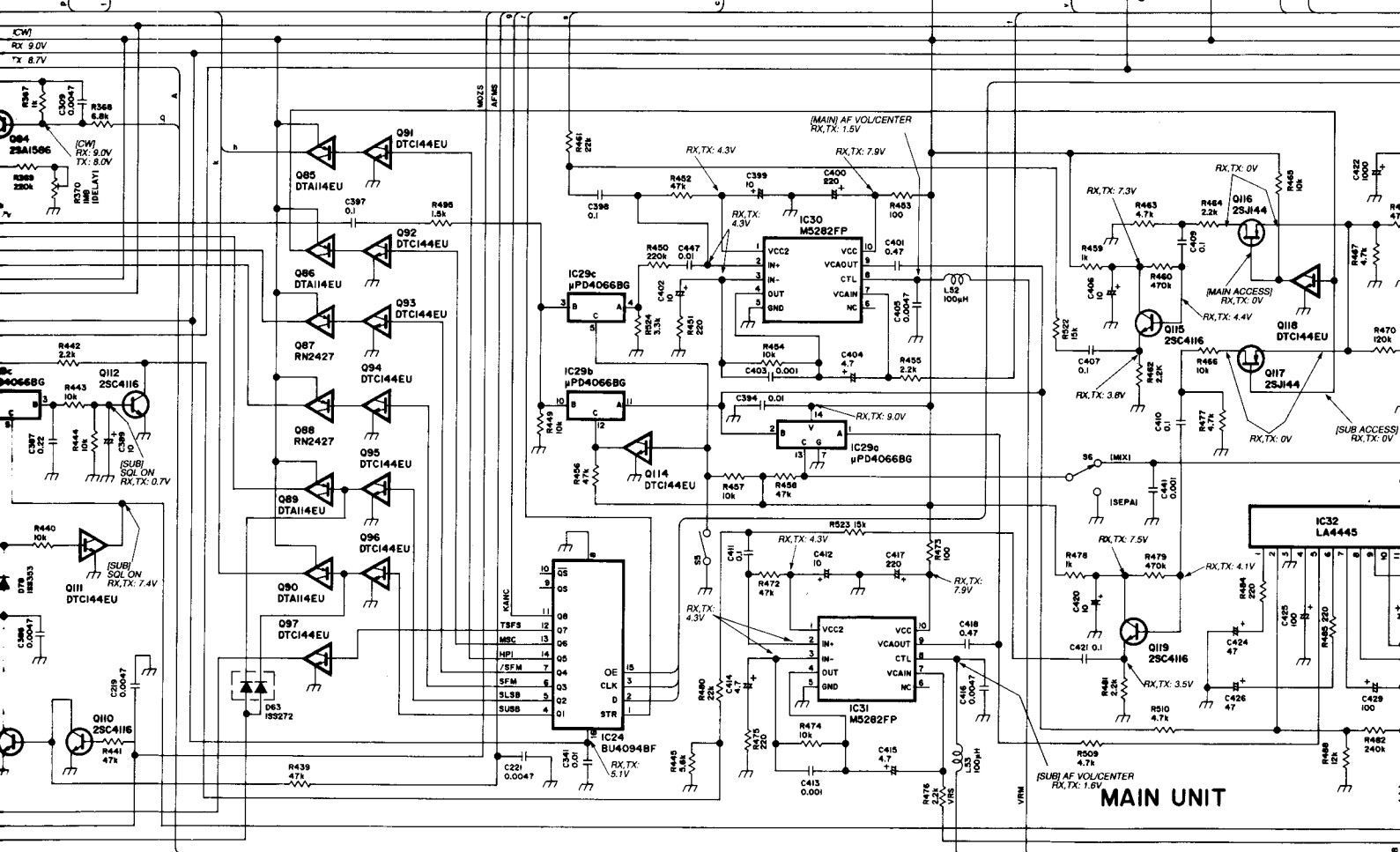
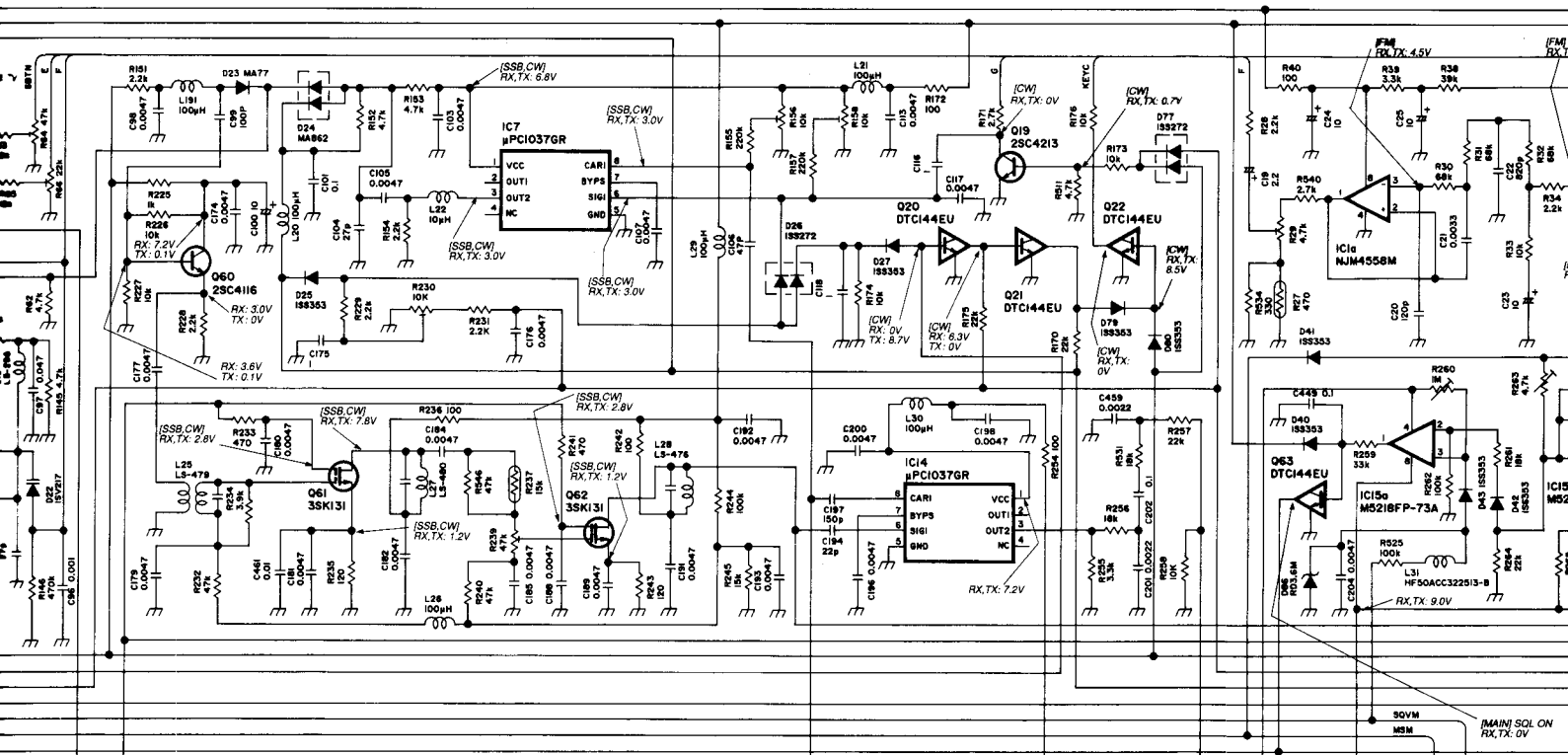
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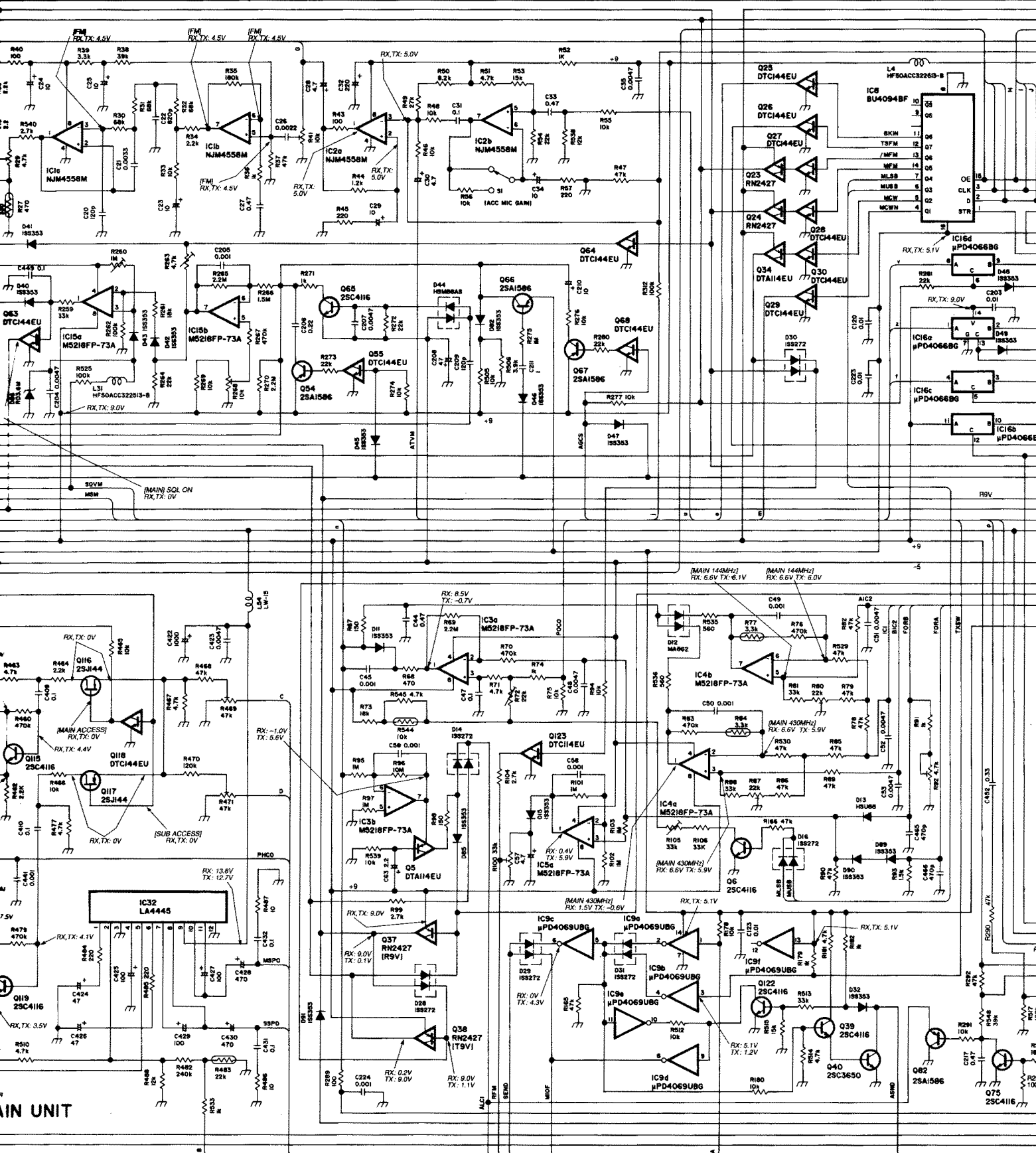
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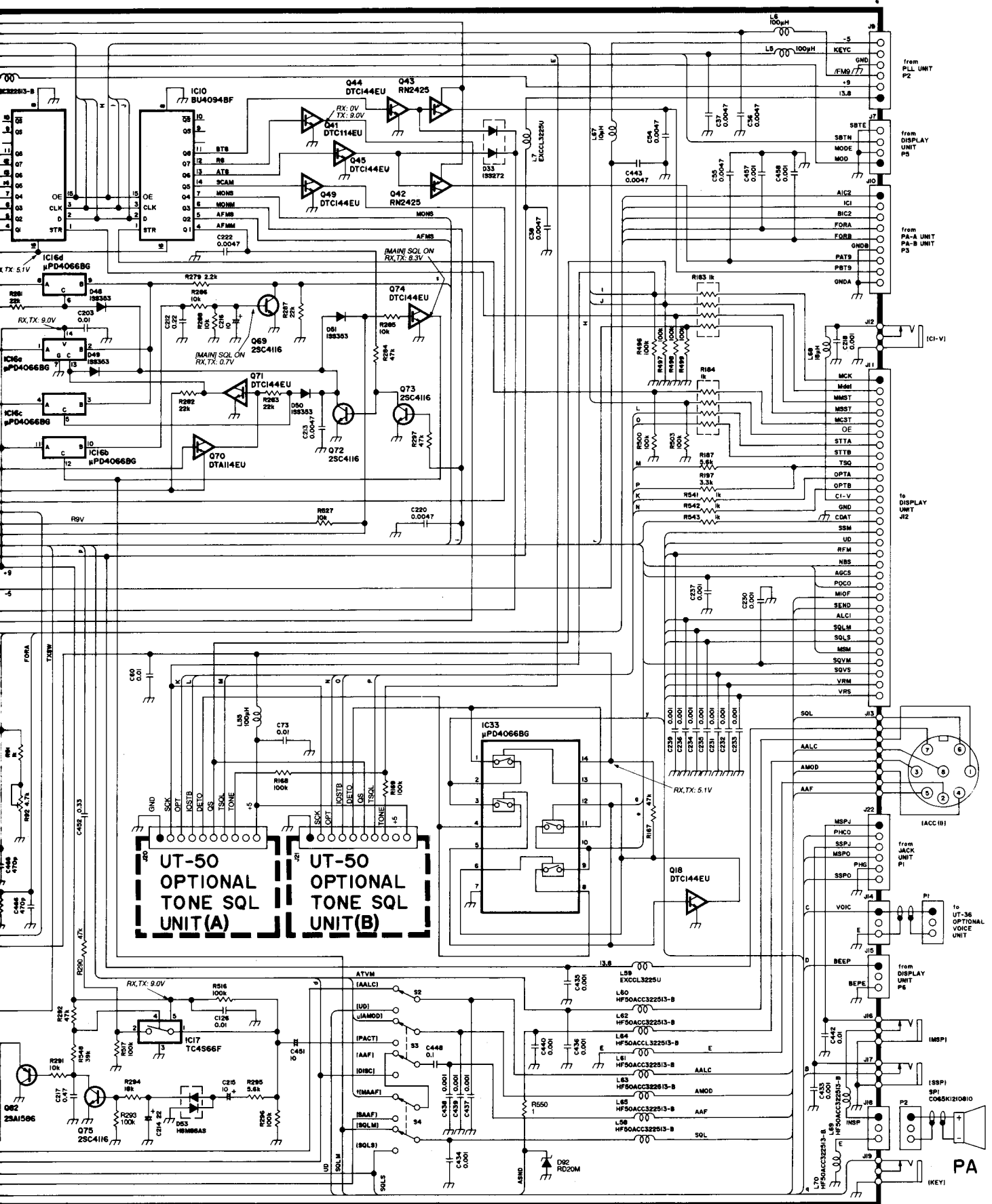


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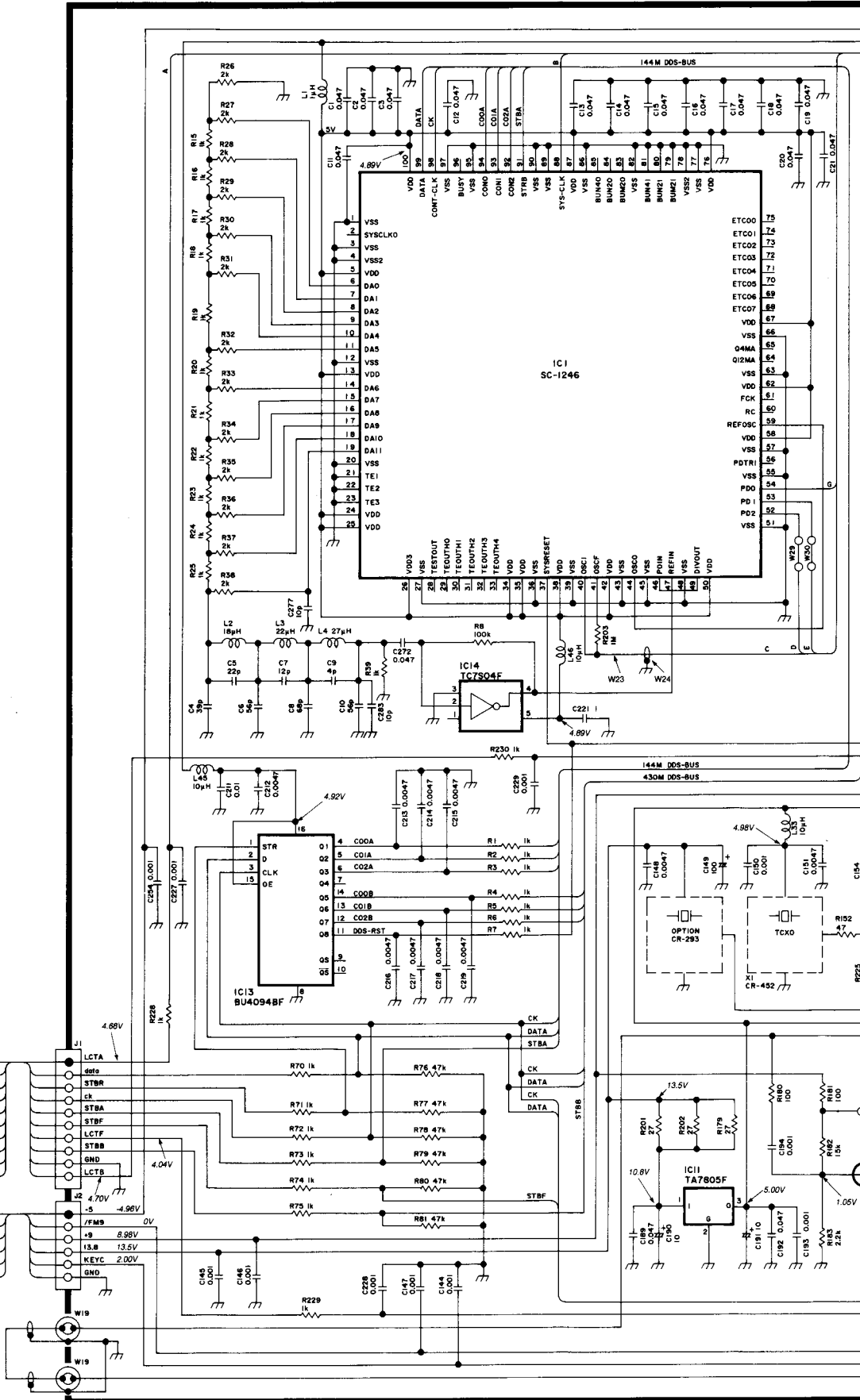
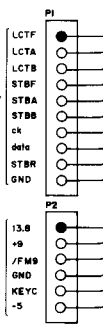


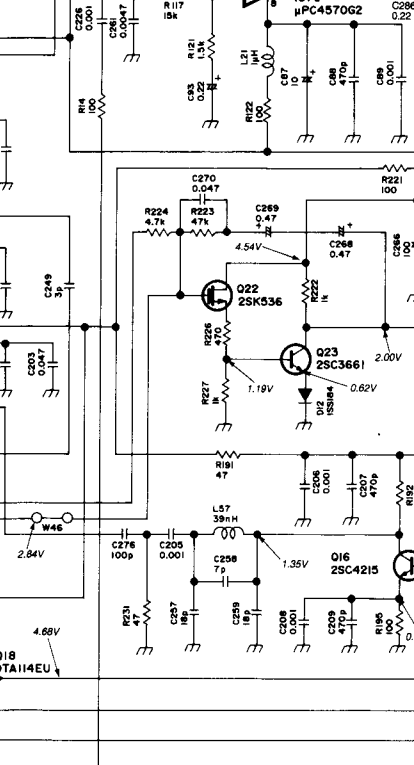
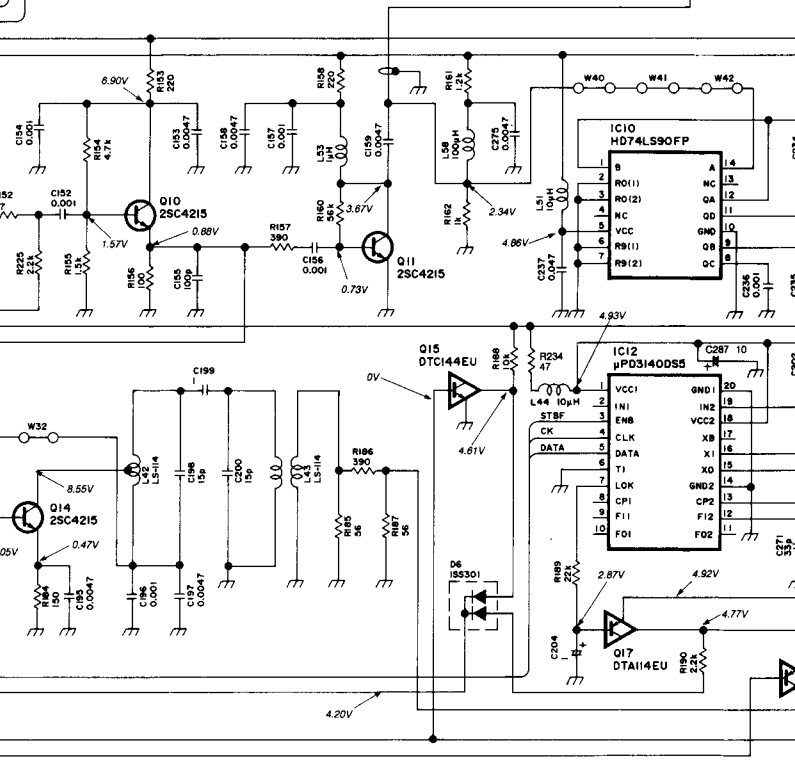
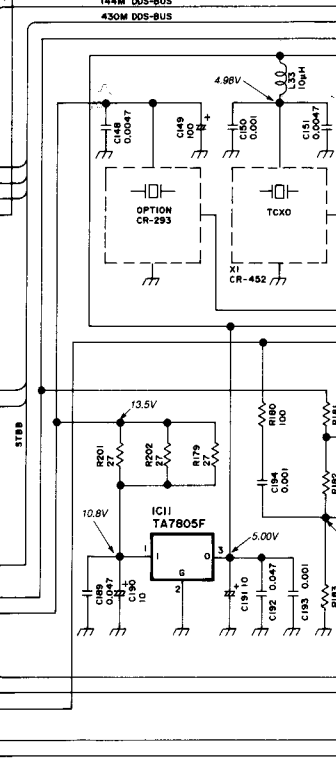
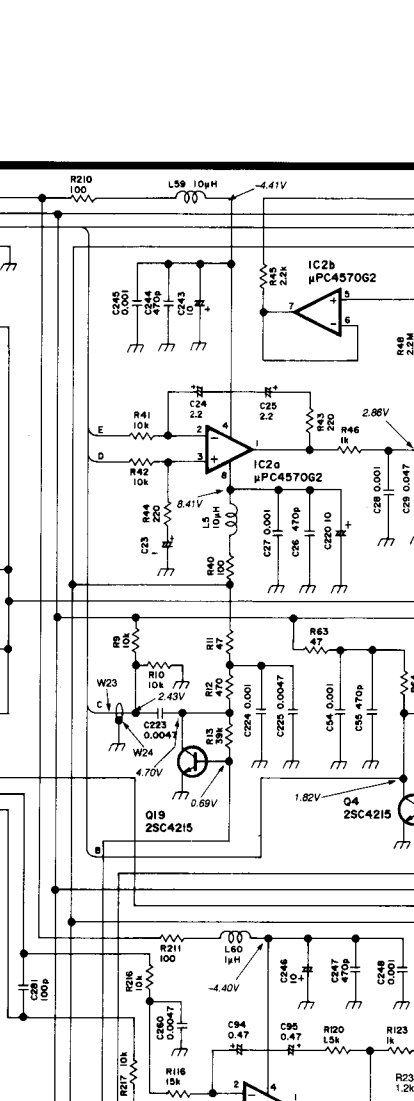
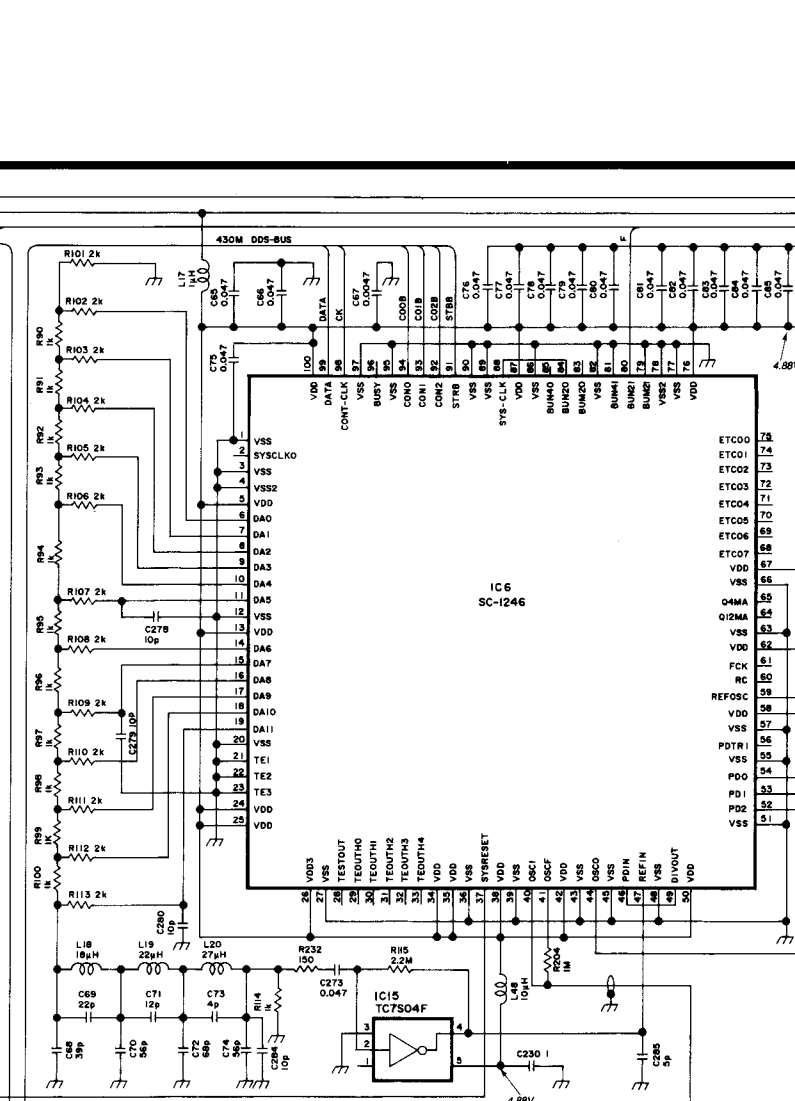
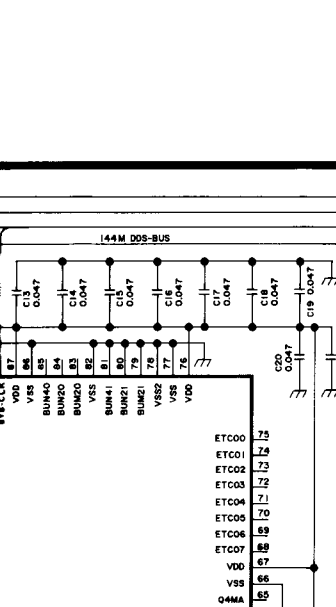
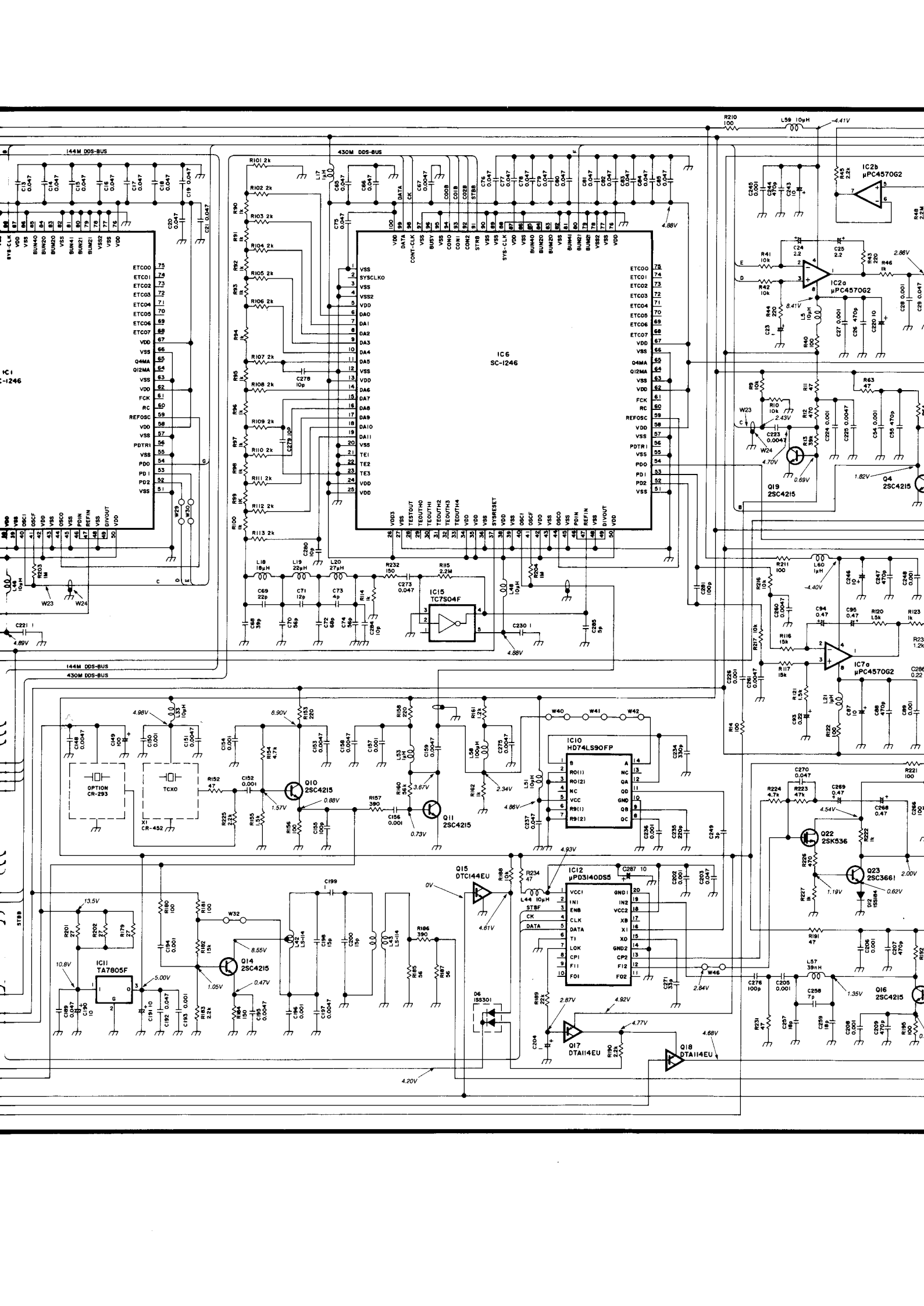
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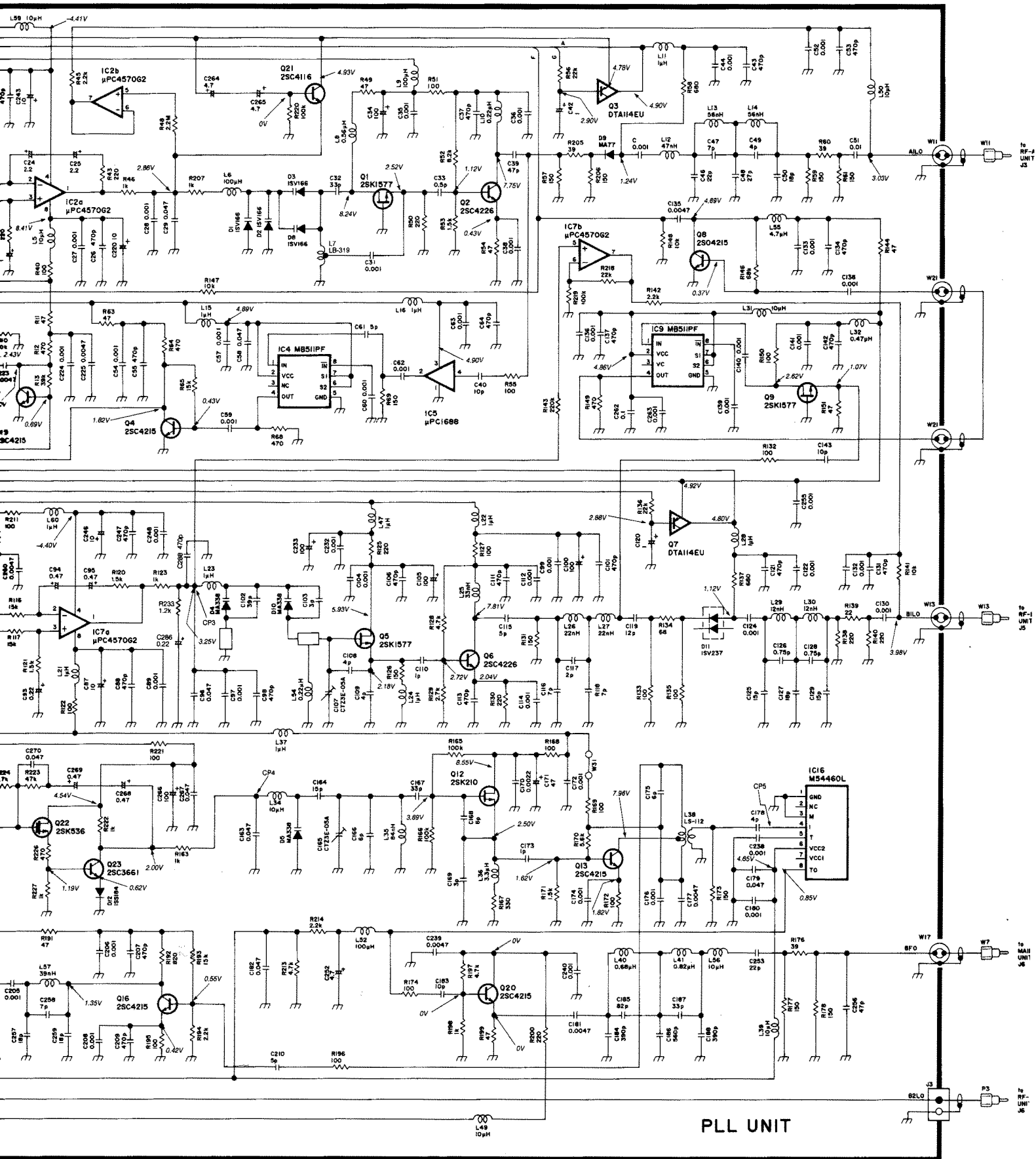


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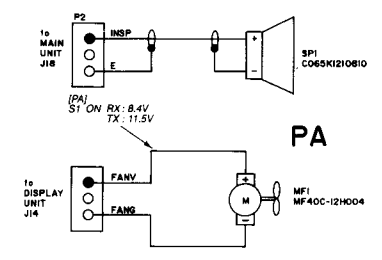
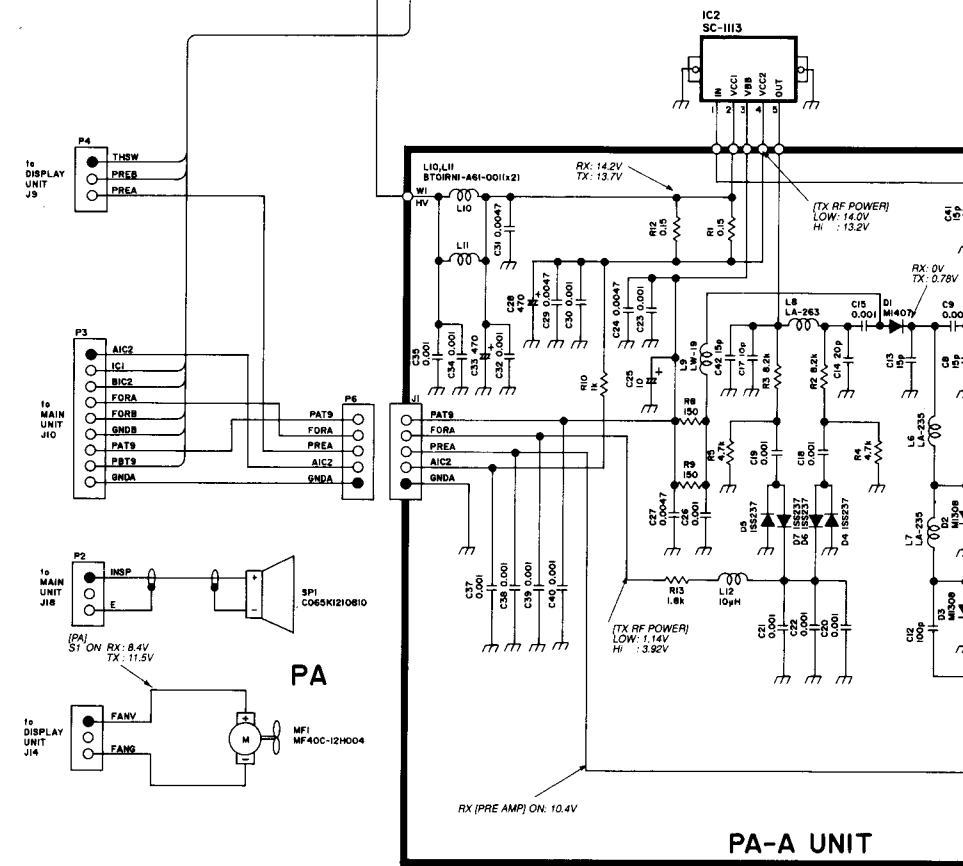
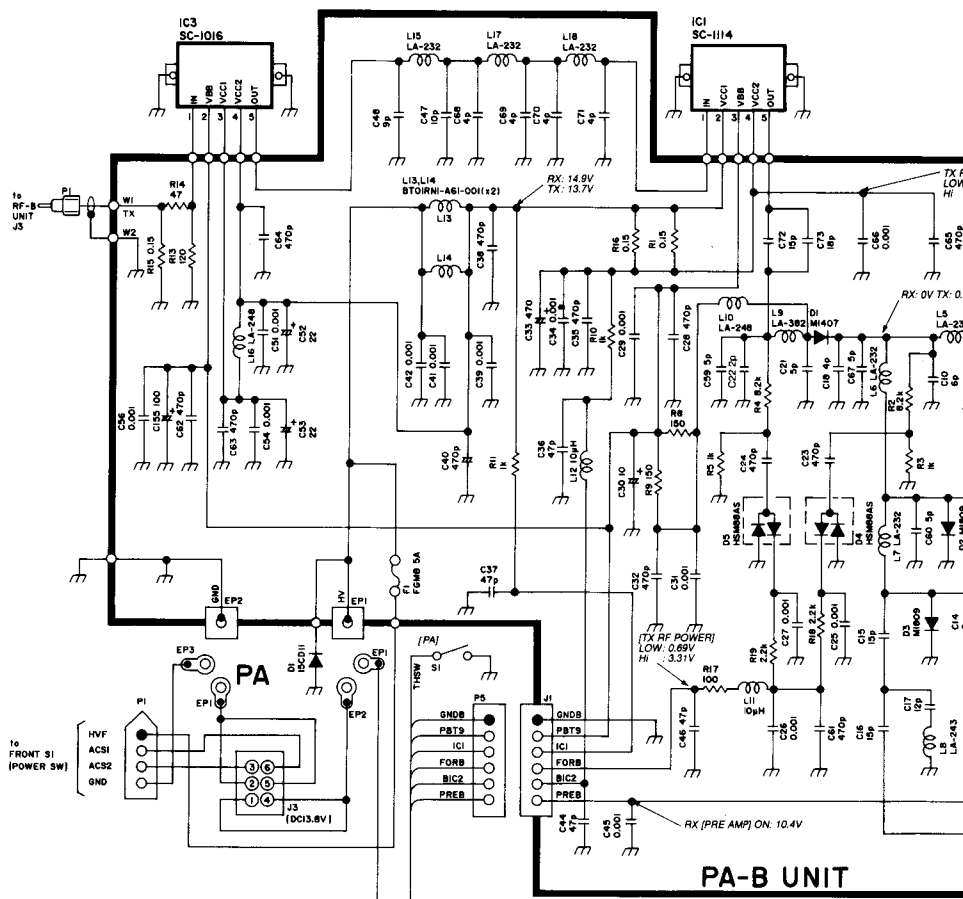
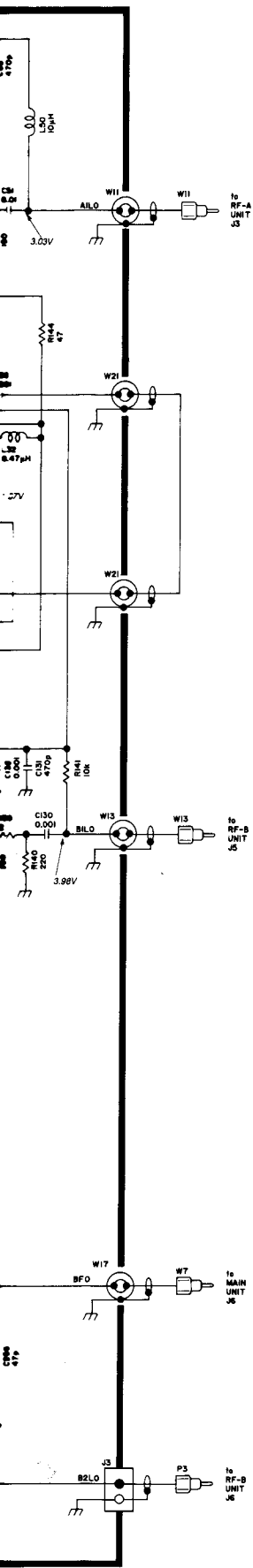
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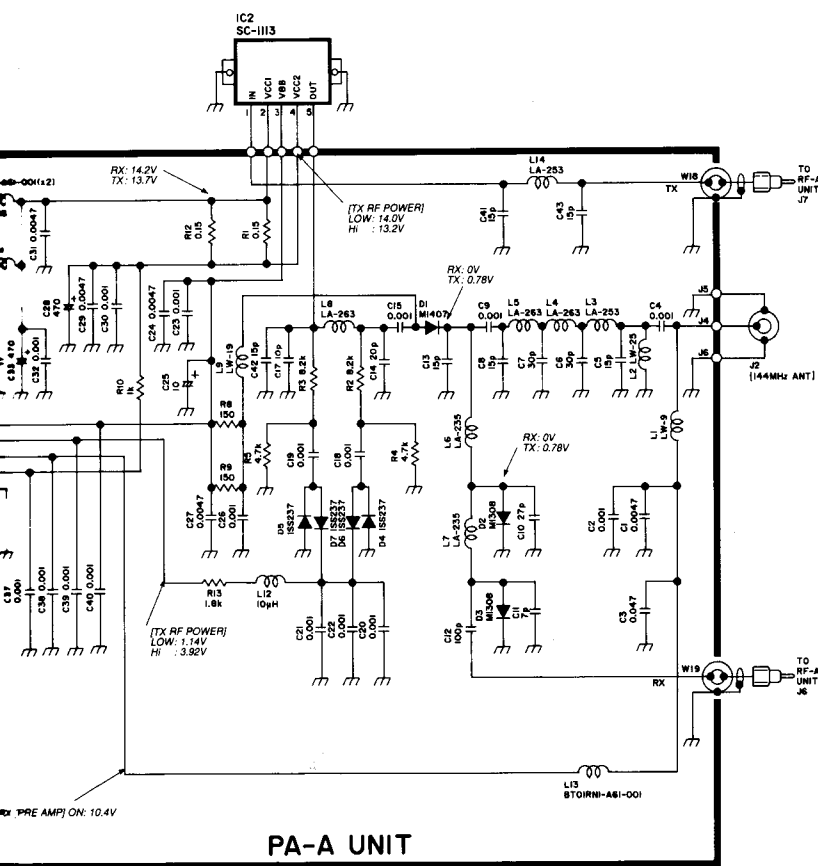
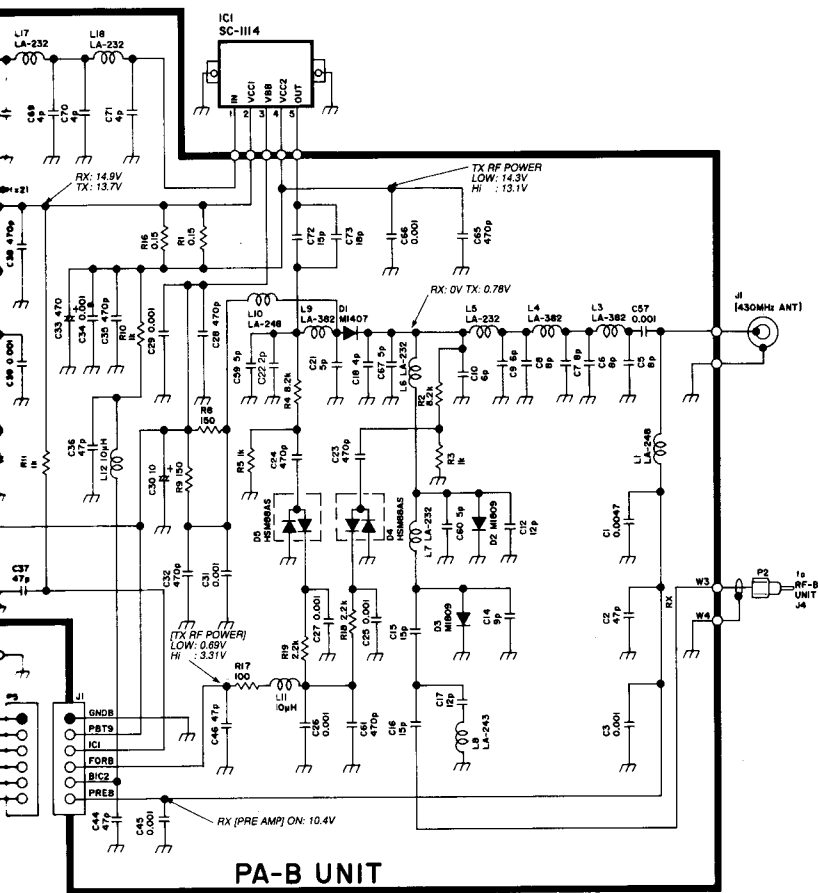




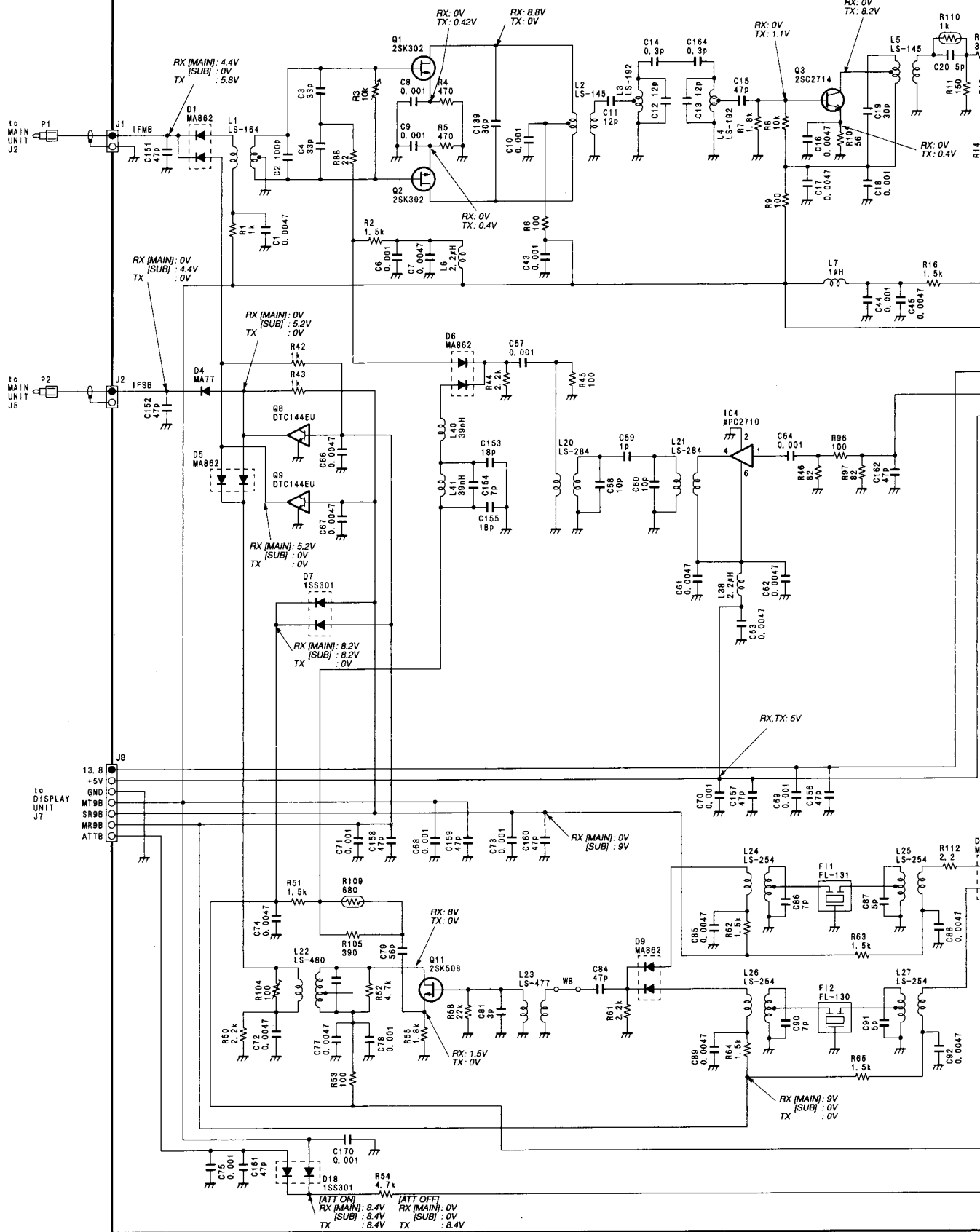


PLL UNIT

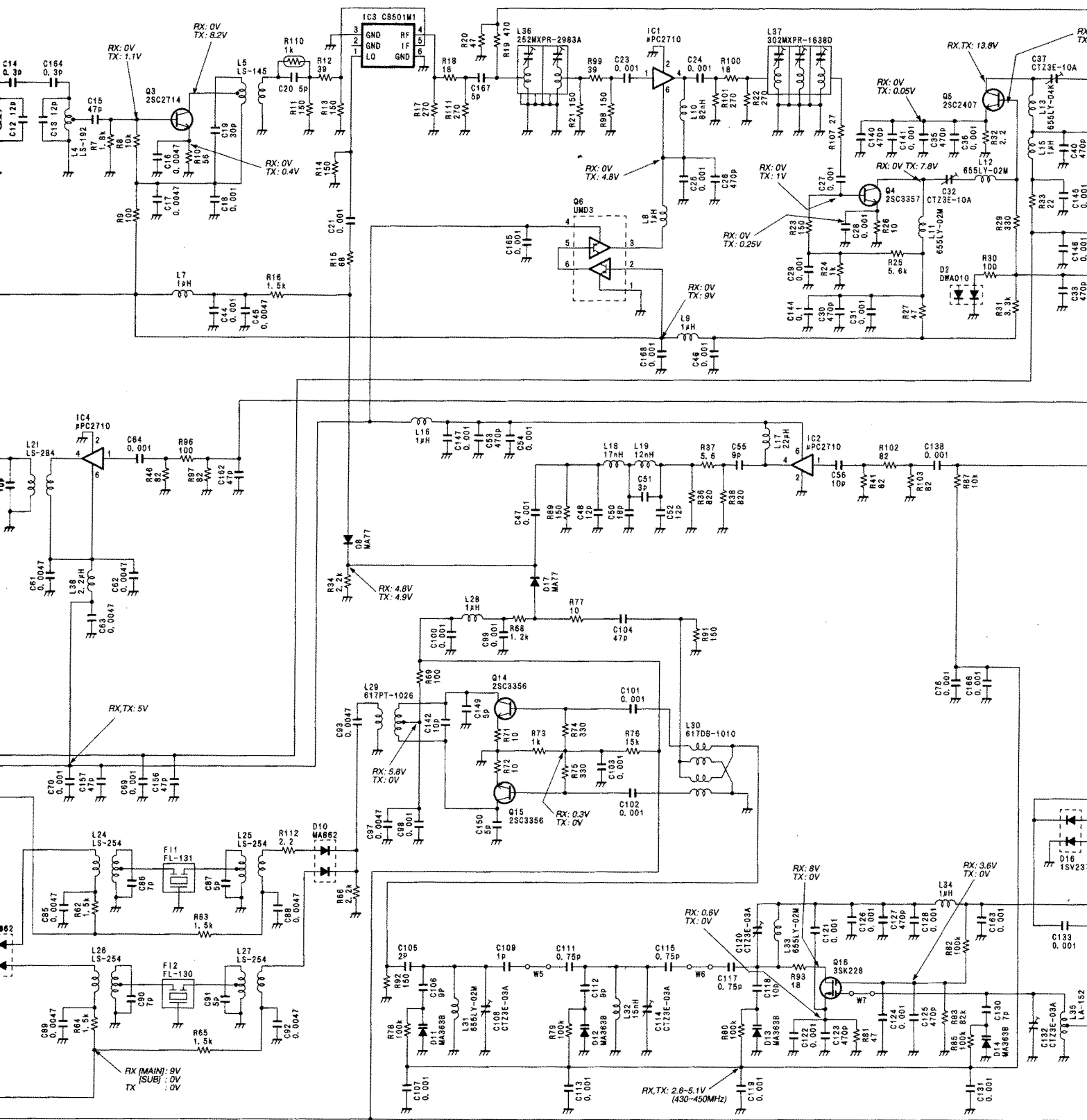




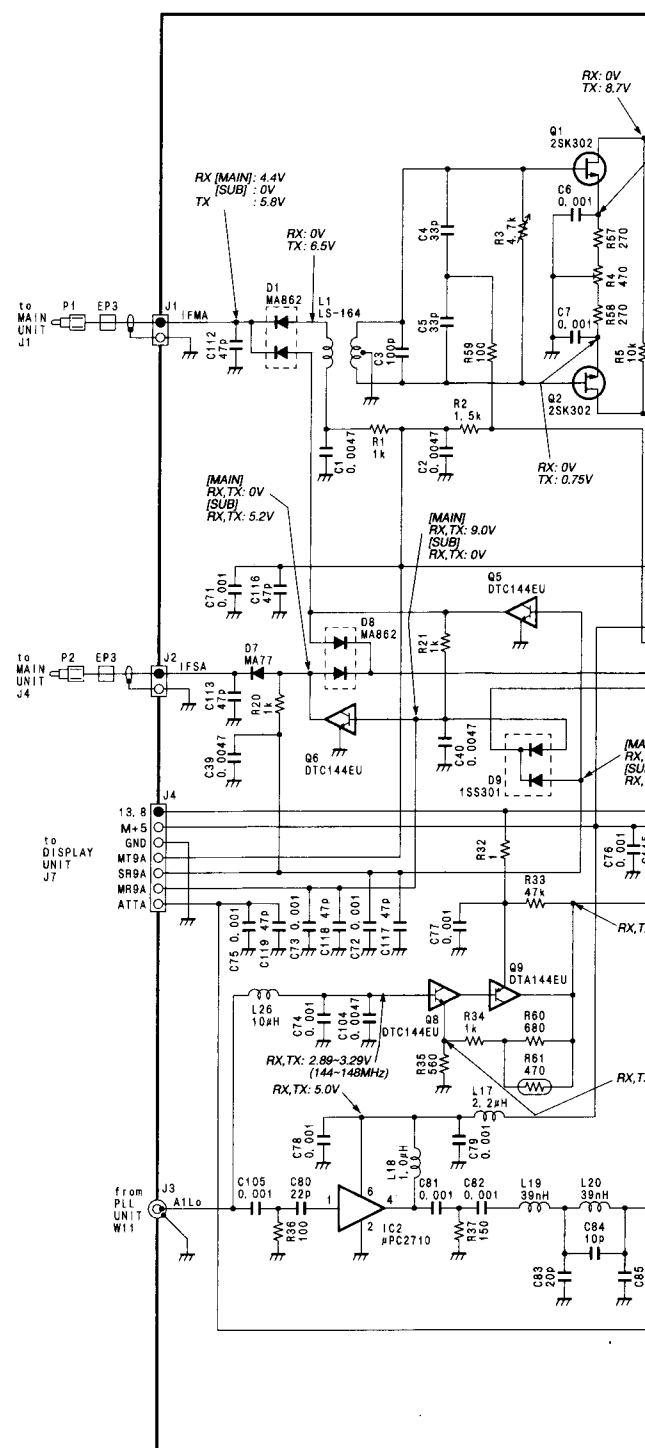
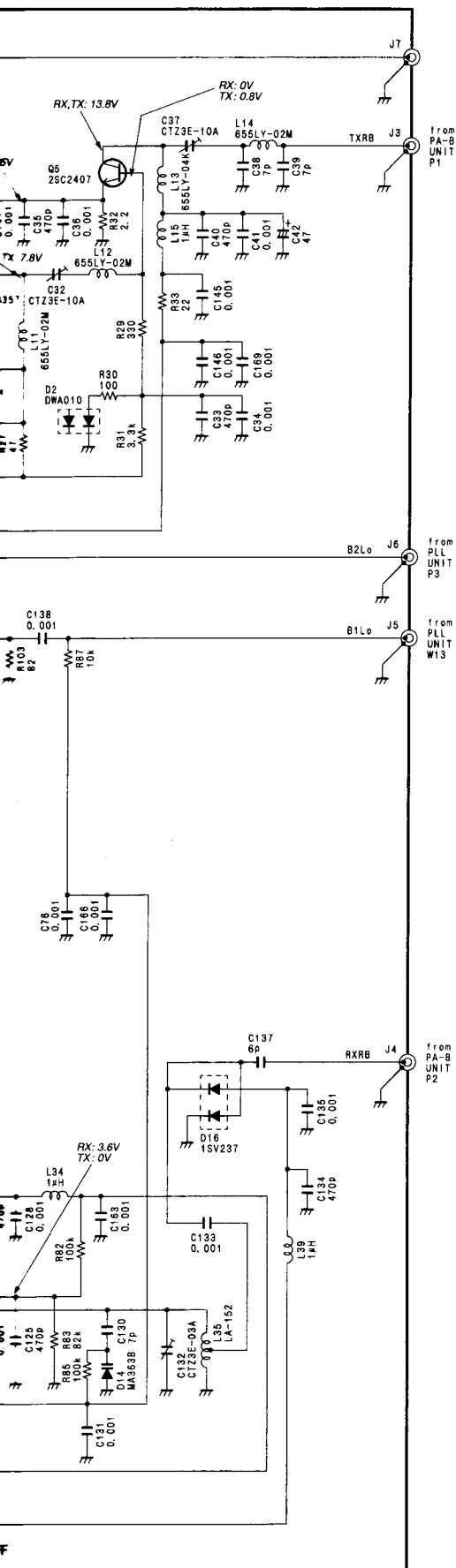
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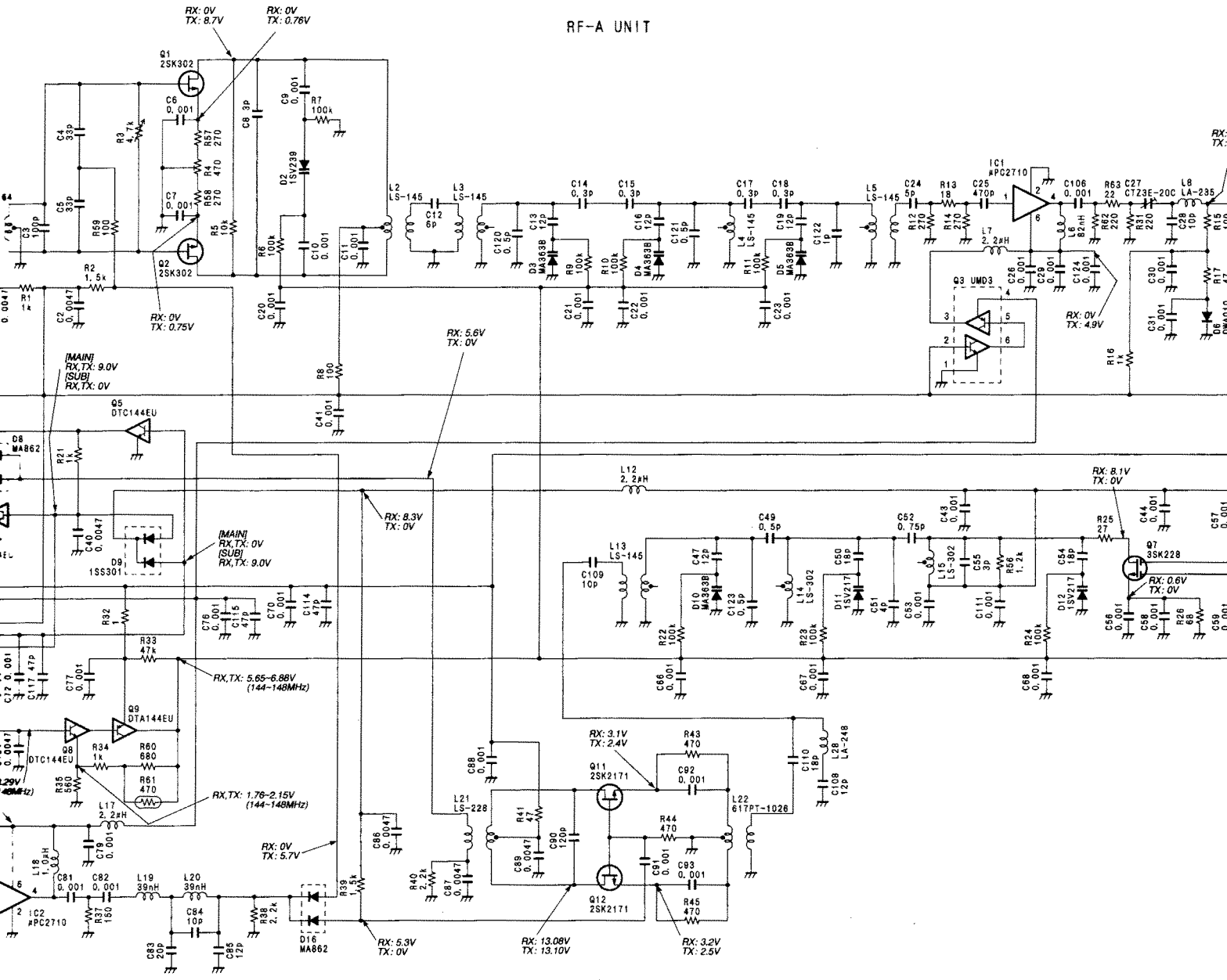


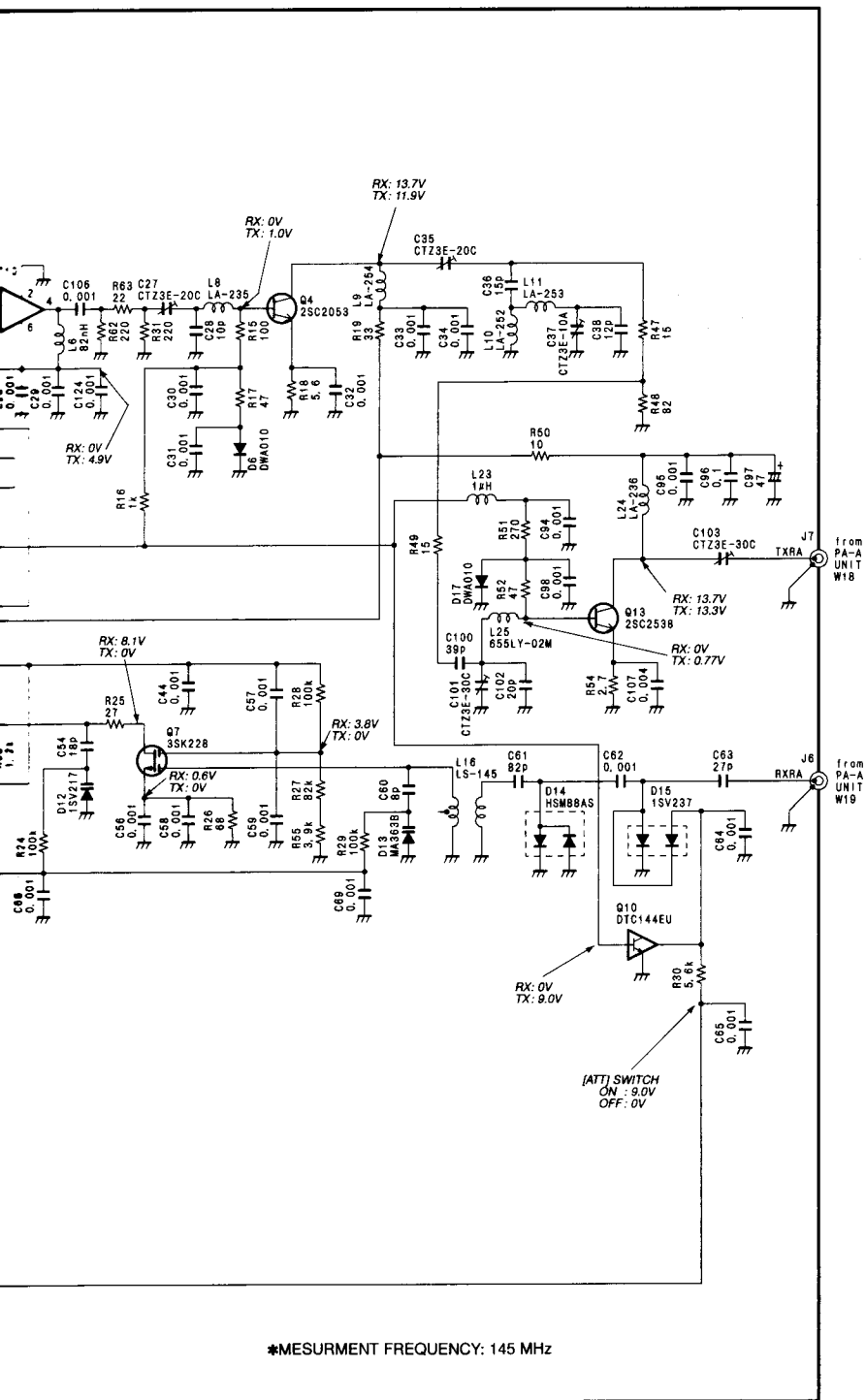


\*TX SSB MODULATION OFF

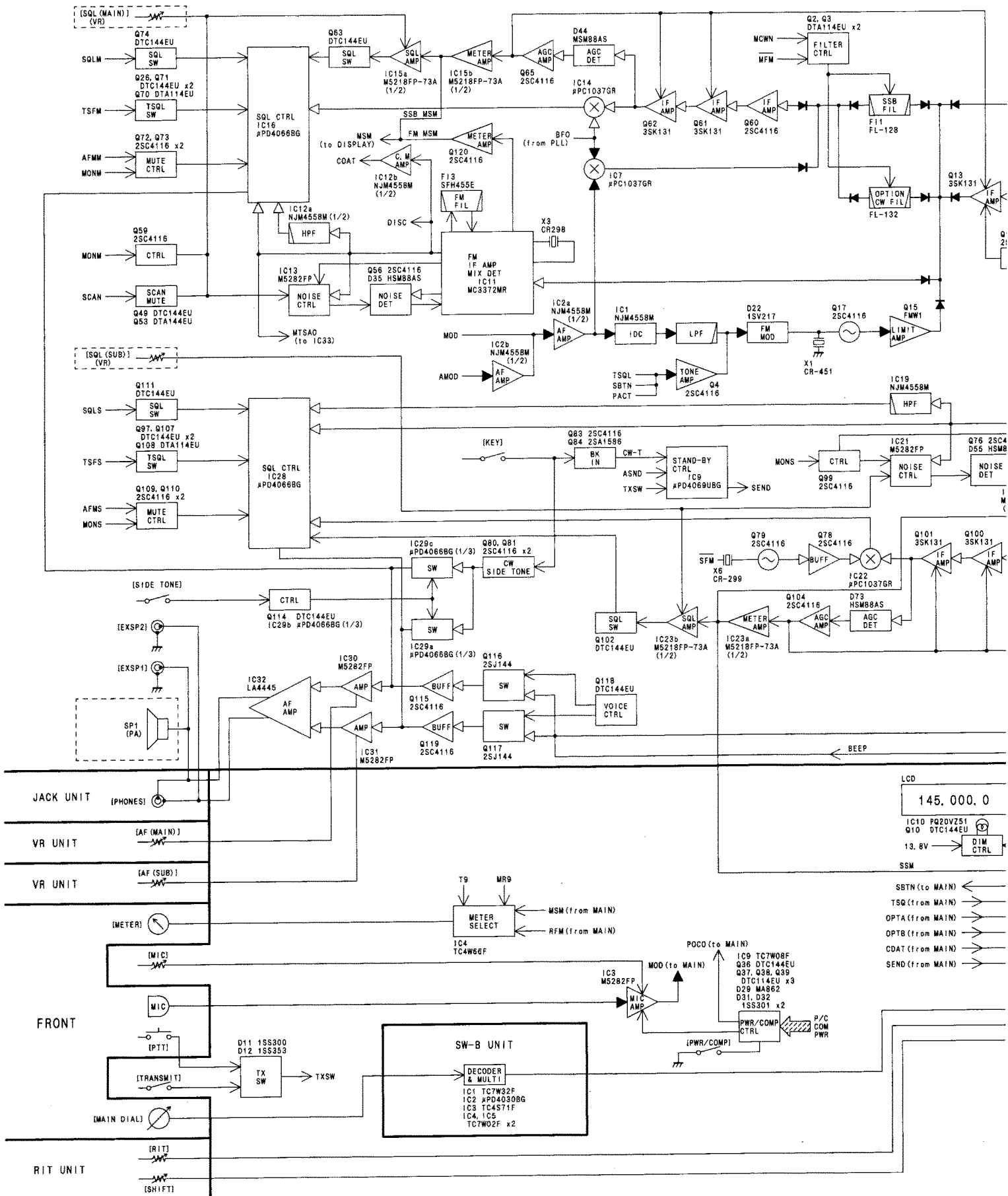


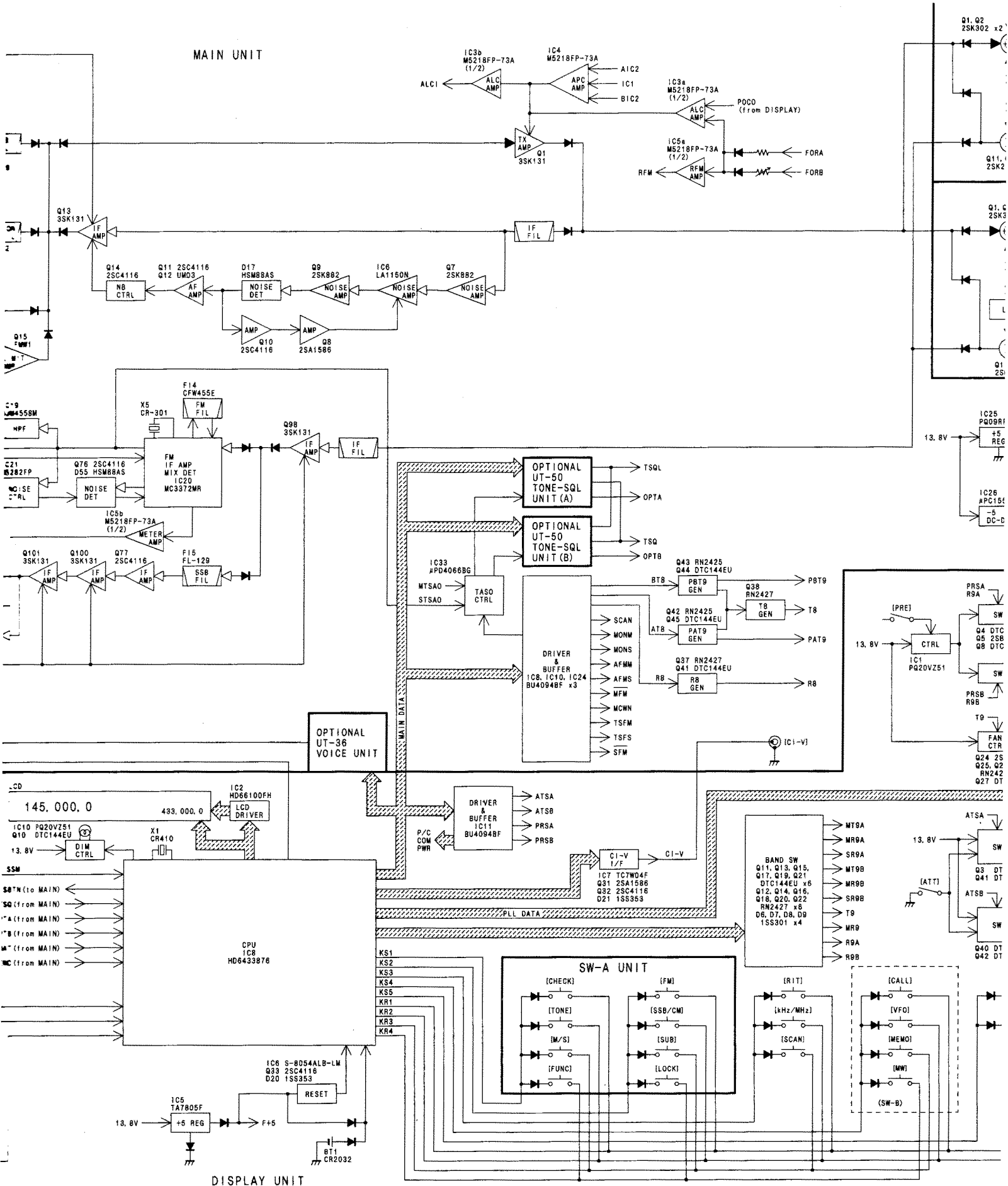
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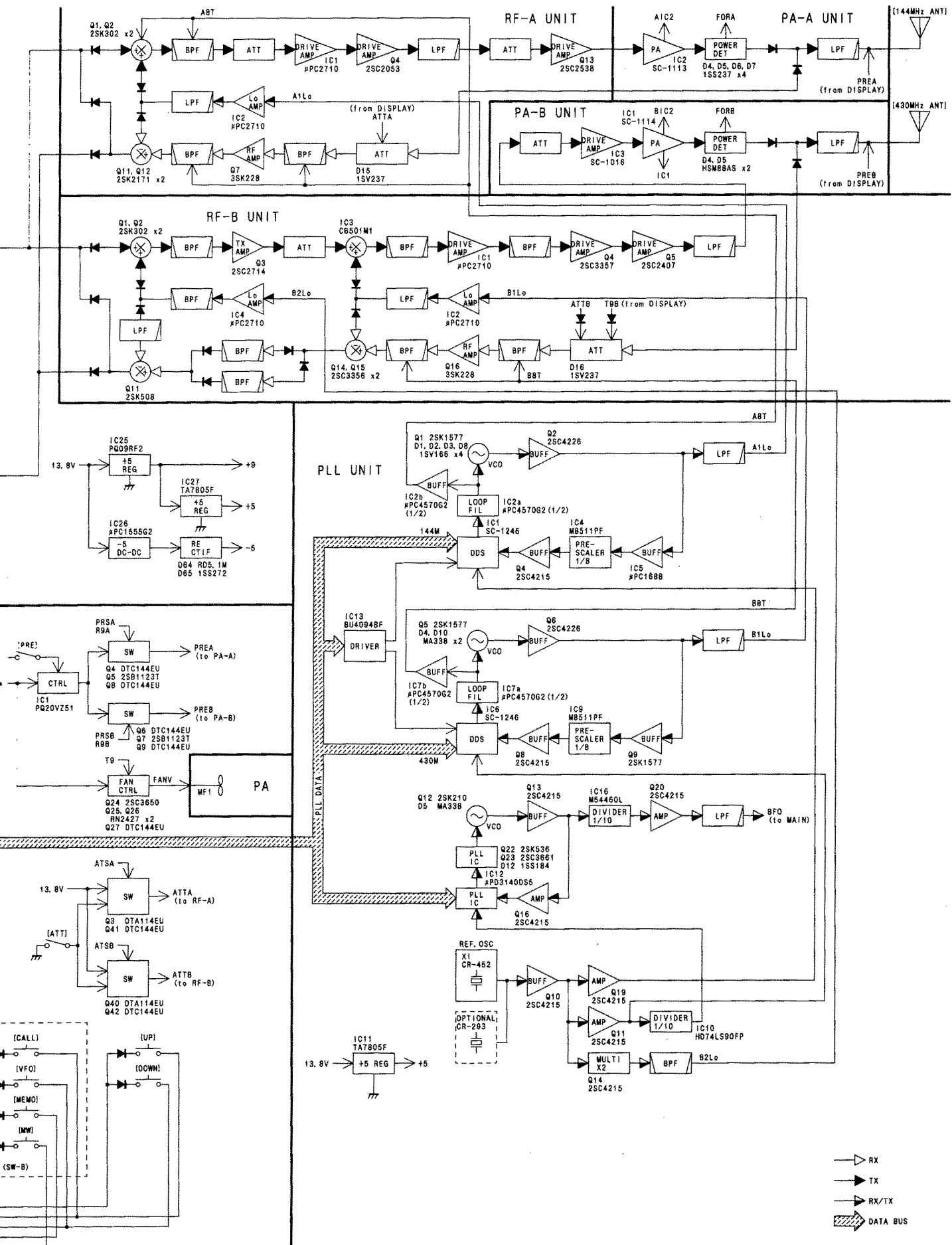


# SECTION 11 BLOCK DIAGRAMS





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