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TECHNICAL MANUAL

OPERATION, MAINTENANCE, ILLUSTRATED PARTS BREAK DOWN [INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST] CODE PLUG PROGRAMMER TEST SET

MODEL PT1561
PART NO. 336467-000

F41608-71-C-0948

BASIC AND ALL CHANGES HAVE BEEN MERGED TO MAKE THIS A COMPLETE PUBLICATION.

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* B-59 - B-66	3
* C-1 - C-6	3

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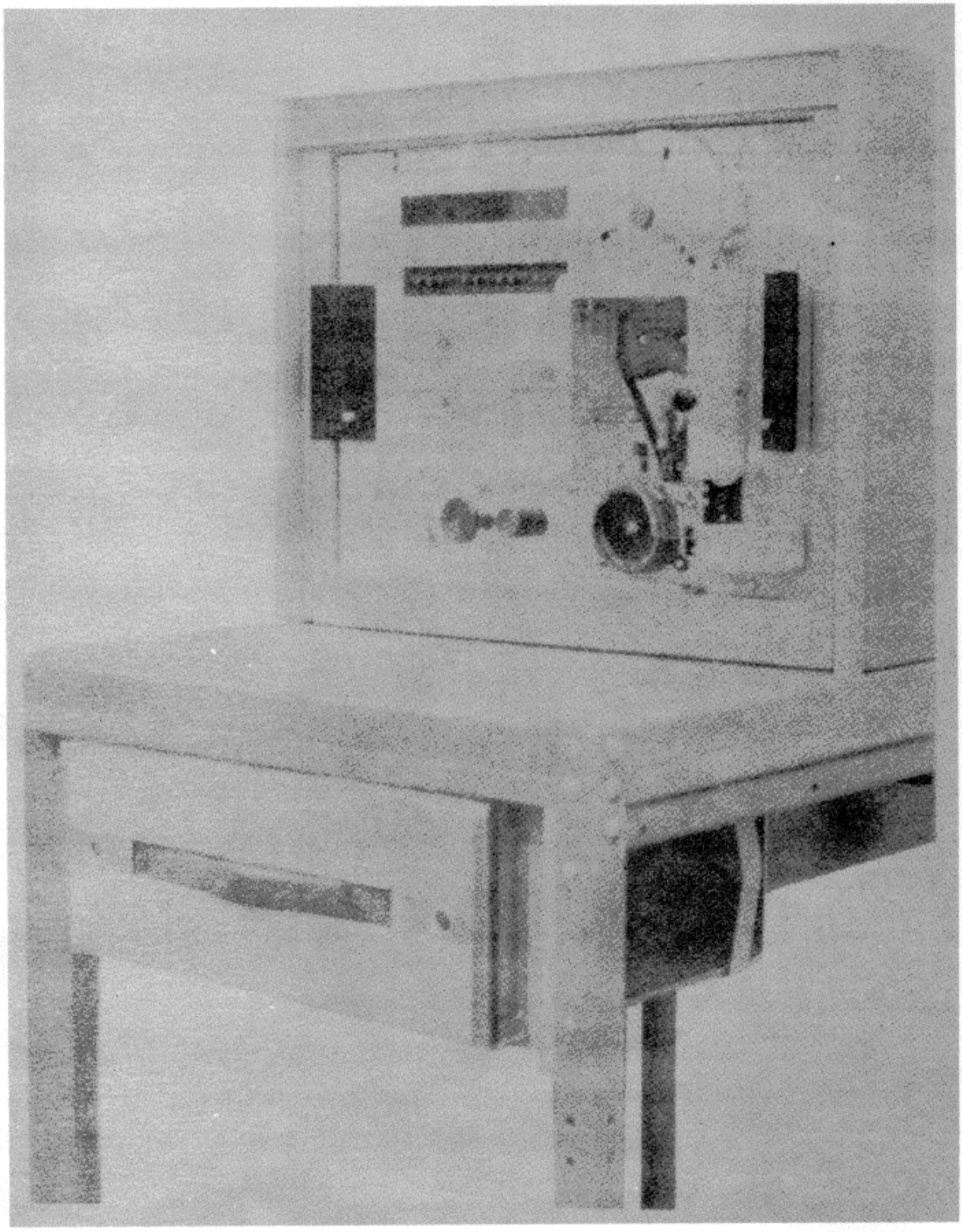

Figure 1-1. PT1561 Programmer Test Set

SECTION I

INTRODUCTION

1-1. PURPOSE.

1-2. This manual is for the use of persons responsible for operation, calibration, and maintenance of the PT1561 Programmer and the associated U7483 Printer, U7484 Simulator and the U7780 Service Cart (See Figure 1-1). The PT1561 Programmer reads and codes the TC432 Code Plug.

1-3. SCOPE.

1-4. This manual provides procedures for preparation, calibration and operation of the PT1561 Programmer, U7483 Printer and U7484 Simulator. As troubleshooting aids, logic diagrams are provided along with supporting text describing the logic operation. Maintenance instructions are supplied. An Illustrated Parts breakdown is provided. The manual is arranged as follows:

Section I	Introduction and General Information
Section II	Special Tools and Test Equipment
Section III	Preparation for Use and Reshipment
Section IV	Operation Instructions
Section V	Maintenance Instructions
Section VI	Diagrams
Section VII	Illustrated Parts Breakdown
Addendum A	

1-5. RELATED PUBLICATIONS AND DRAWINGS.

1-6. The commercial publications listed below should be referred to for maintenance and calibration of commercial equipment used in the PT1561 Programmer.

NOTE

Manuals for equipment used to calibrate the PT1561 Programmer should be available to the persons responsible for calibration; however, these manuals are not included in this listing since only recommended calibration equipment is specified. (See Table 2-1.)

a. "DC Power Supply, Series, Model 6218A, Operating and Service Manual," Hewlett-Packard Co, Palo Alto, California.

b. "DC Power Supply, slot Series, Model 60066A, Operating and Service Manual," Hewlett-Packard Co, Palo Alto, California.

c. "DC Power Supply, Slot Series, Model 60246B, Operation and Service Manual," Hewlett-Packard Co, Palo Alto, California.

d. "EEcoLogic 2 Integrated Circuit Logic Cards, Hardware and Accessories with Expanded Application Section, Catalog," Electronic Engineering Co of California, Santa Ana, California.

1-7. The PT1561 Programmer Test Set was designed and built for San Antonio Air Material Area, Kelly Air Force Base, Texas.

NOTE

Illustrations for the programmer, printer, simulator and a schematic of the TC432 Code Plug (Figure 6-7) are provided as an aid to understanding programmer operation.

A set of drawings are supplied with each PT1561 Programmer.

1-8. CAPABILITY.

1-9. The PT1561 Programmer has the following capabilities for reading and coding the TC432 Code Plug.

1-10. For an uncoded TC-432 Code Plug, the PT1561 Programmer performs the following test and operations:

a. Confirms that the TC432 Code Plug is uncoded and therefore ready to be coded.

b. Checks that code selected on digiswitches of PT1561 Programmer is a legal code.

c. Burns selected legal code into the TC432 Code Plug.

d. Verifies that code burned into the TC432 Code Plug matches code selected.

e. Prints code on label and applies label to the TC432 Code Plug.

1-11. For a code TC432 Code Plug, the PT1561 Programmer performs the following tests and operations:

a. Reads the code already burned into the TC432 Code Plug.

b. Checks that code is legal.

c. Prints legal code on label and applies label to the TC432 Code Plug.

1-12. The PT1561 Programmer detects an illegal code selected on digiswitches and halts operation before code is burned into the TC432 Code Plug.

1-13. The PT1561 Programmer detects an illegal code which has been burned into a TC432 Code Plug and halts operation.

1-14. PHYSICAL DESCRIPTION.

1-15. Figure 1-1 illustrates the PT1561 Programmer. The PT1561 Programmer is a panel-mounted chassis assembly contained in a cabinet. The U7483 Printer is installed on the PT1561 Programmer front panel.

1-16. The U7484 Simulator simulates the TC432 Code Plug and is used to check operation of the PT1561 Programmer. The U7484 Simulator is a panel-mounted chassis assembly contained in a cabinet.

1-17. FUNCTIONAL DESCRIPTION.

1-18. GENERAL. The PT1561 Programmer is utilized to read and code the TC432 Code Plug. The read and code operations are briefly described in the following paragraphs. For details of PT1561 Programmer logic operation, refer to the logic descriptions provided in Section IV and the logic diagrams in Section VI.

1-19. READING OPERATION.

1-20. Figure 1-2 is a flow chart for the reading operation of the PT1561 Programmer. Refer to Figure 1-2 while reading the text describing this operation.

1-21. After the TC432 Code Plug is installed in the PT1561 Programmer test connector, the READ switch is actuated to start the read operation. At this time, the digital display on the PT1561 Programmer panel is cleared, and the READ lamp lights. The PT1561 Programmer reads the code (if any) that is burned into the TC432 Code Plug. If the TC432 Code Plug is not coded, the UNCODED lamp lights, the display is blanked, and the CODE switch is enabled.

1-22. If the TC432 Code Plug is coded, the PT1561 Programmer logic determines whether or not the code is legal. If illegal, the CODED and ERROR lamps light and operations halt. At this time, the digital display reads out the code with the indicators containing errors blanked. If the code is legal, the CODED and PRINTING lamps light and the digital display reads out the complete code. When the PRINTING lamp lights, the U7483 Printer prints out the code on an adhesive label and applies the label to the side of the plug. The printing operation requires about 16 seconds. After the label is applied, the PRINTING lamp goes off and the COMPLETE lamp lights.

1-23. CODING OPERATION.

1-24. Figure 1-3 is a flow chart for the coding operation of the PT1561 Programmer. Refer to Figure 1-3 while reading the text describing this operation.

1-25. The coding operation is not performed until the uncoded TC432 Code Plug is read by the PT1561 Programmer and the READ and UNCODED lamps are lighted. The digiswitches on the PT1561 Programmer panel are then set for the desired code, and the CODE switch is actuated.

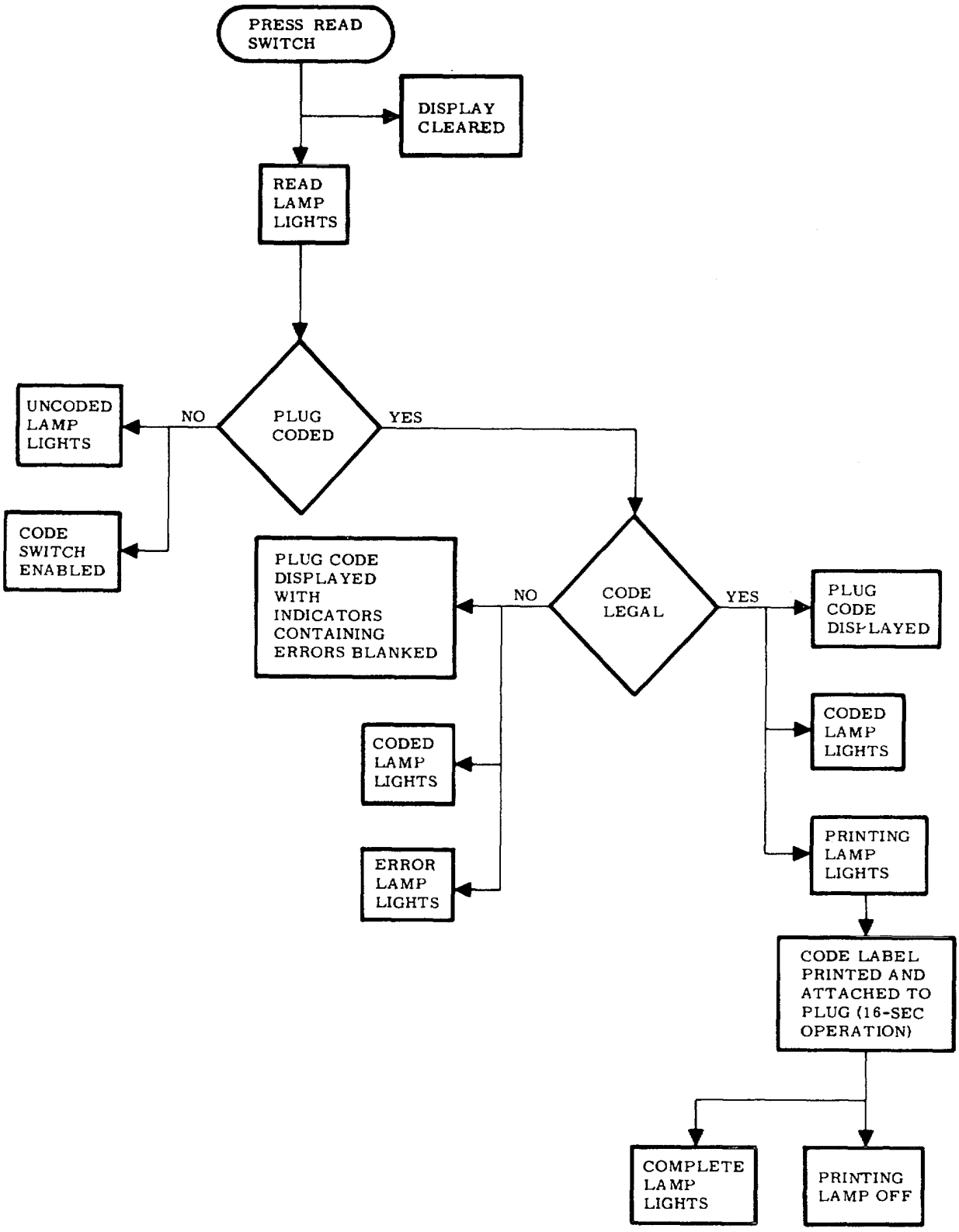

Figure 1-2. PT1561 Programmer Read Operation, Flow Chart

If the READ and UNCODED lamps are not lighted, no action results. If the READ and UNCODED lamps are lighted, the CODE and CHECK lamps light, and the PT1561 Programmer logic checks that the code set in the digiswitches is a legal code. If illegal, the ERROR lamp lights, the digital display reads out the digiswitch code (with errors blanked), and operations halt. If legal, the digital display reads out the complete code set in the digiswitches, and the code burning operation begins.

1-26. To code the TC432 Code Plug, the PT1561 Programmer burns out selected resistor circuits in the TC432 Code Plug. The resistor circuits burned out correspond to the desired code. The burning operation is accomplished in 63 seconds.

1-27. After the code is burned into the TC432 Code Plug, the UNCODED and CODE lamps go off, the VERIFY lamp lights, the digital display is momentarily cleared, and the code burned into the TC432 Code Plug is read. The PT1561 Programmer logic then verifies that the code burned in the TC432 Code Plug is legal and is the same as the code selected on the digiswitches.

1-28. If the TC432 Code Plug code does not match the selected code, the CODED and ERROR lamps light, the display reads out the plug code (with any errors blanked), and operations halt. If the TC432 Code Plug code is verified. the CODED and PRINTING lamps light, and the digital display reads out the complete code.

1-29. When the PRINTING lamp lights, the U7483 Printer prints out the code on an adhesive label and applies the label to the side of the TC432 Code Plug. The printing operation requires about 16 seconds. After the label is applied, the PRINTING lamp goes off and the COMPLETE lamp lights.

1-30. LEADING PARTICULARS.

1-31. The leading particulars of the PT1561 Programmer, U7483 Printer, U7484 Simulator and U7780 Service Cart are shown in Table 1-1.

Table 1-1. LEADING PARTICULARS

ITEM	HEIGHT	WIDTH	DEPTH	WEIGHT PACKED UNPACKED
PT1561 Programmer	18 in	24 in.	23 in.	
U7483 Printer	13-5/8 in.	6-1/4 in.	6-3/4 in.	
U7484 Simulator	7 in	19 in	14 in.	
U7780 Service Cart				

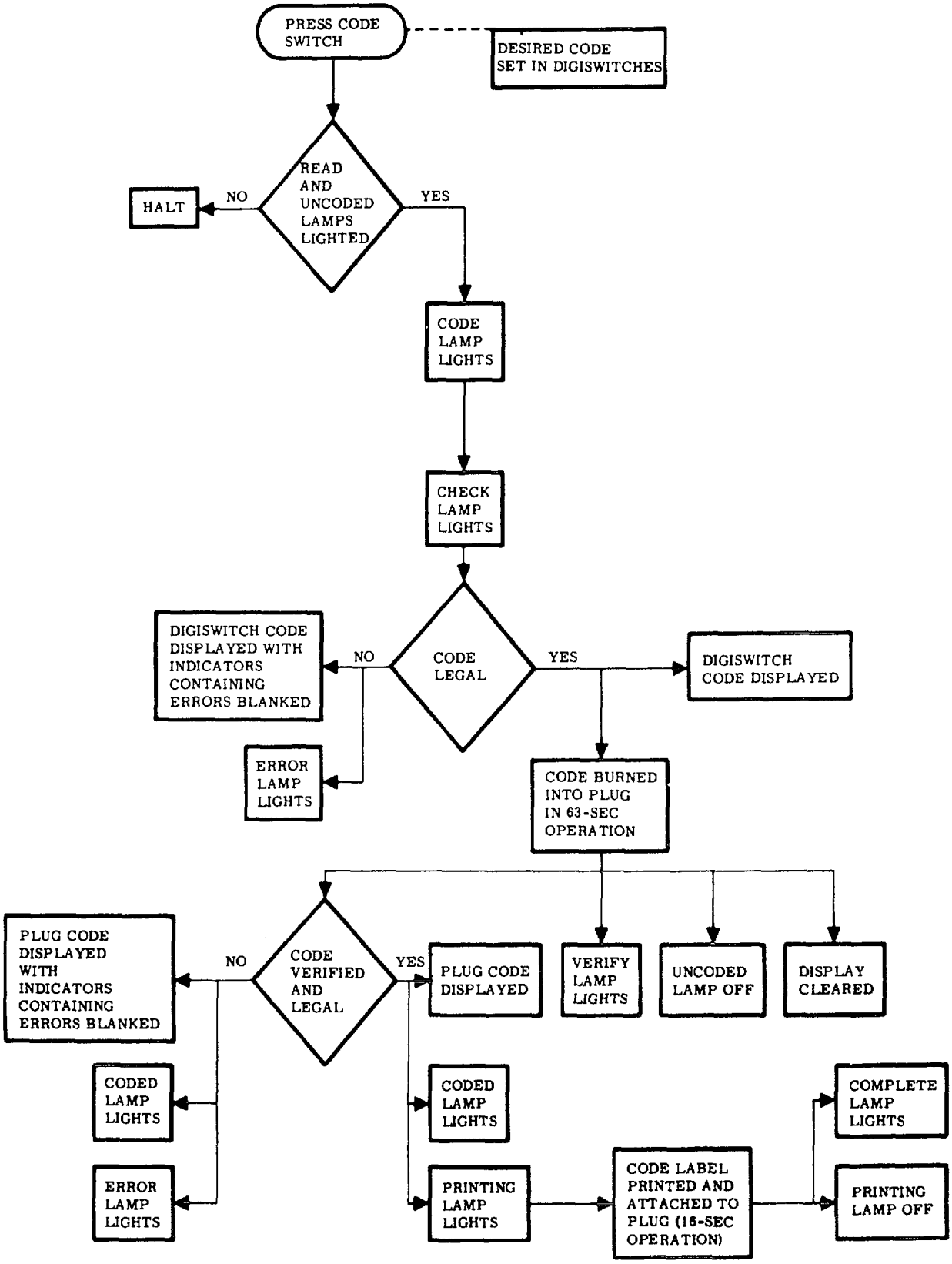

Figure 1-3. PT1561 Programmer Code Operation, Flow Chart

SECTION II

SPECIAL TOOLS AND TEST EQUIPMENT

2-1. SPECIAL TOOLS AND TEST EQUIPMENT.

2-2. Table 2-1 lists special tools and test equipment required for calibration and/or maintenance of the PT1561 Programmer and U7484 Simulator. Equivalent items may be used if the recommended tool/test equipment is not available.

Table 2-1. SPECIAL TOOLS AND TEST EQUIPMENT LIST

Tool/Equipment Number	Figure No.	Nomenclature	Use and Application
CSC, Model No. VA100A		Voltmeter, dc	Measure 50V, -28V and 5V to an accuracy of 2%.
Hewlett-Packard, Model No. 5233A		Frequency Counter	Measuring frequency of 64 Hz and 25 Hz to accuracy of 0.5%.
CSC, Model No. VA100A		Ammeter	Measuring amperes of 50 to 125 ma to accuracy of 1%.

SECTION III

PREPARATION FOR USE AND SHIPMENT

3-1. GENERAL. The PT1561 Programmer Test Set is packaged for shipment according to Federal Specification PPPB636 (Military Level C). This level of packing provides adequate protection of the test set for delivery to its first destination. The cables are placed in the test set case and the test set is cushioned and packed in a container in conformance to Federal Specification PPPB636.

3-2. Inspection of Container.

3-3. Examine outer container for evidence of damage.

3-4. UNPACKING.

3-5. To unpack the test set proceed as follows:

a. Open the container and remove the cushioning.

b. Remove the PT1561 Programmer Test Set from the container, then remove the cables.

c. Visually inspect the test set and cables for damage.

d. Check each item against the packing list.

3-6. PREPARATION FOR USE.

3-7. Assemble U7780 Service Cart.

3-8. Install U7484 Simulator into U7780 Service Cart.

3-9. Place PT1561 Programmer on U7780 Service Cart.

3-10. Install the U7483 Printer on the PT1561 Programmer.

3-11. The assembled PT1561 Programmer Test Set requires a power source of 115 ± 10V, A.C., 50 to 400 Hz at 5 amperes.

3-12. PREPARATION FOR STORAGE AND SHIPMENT.

3-13. Prepare the PT1561 Programmer Test Set for storage or shipment in accordance with paragraph 3-1.

SECTION IV

OPERATION INSTRUCTIONS

4-1. GENERAL. The following paragraphs describe the principles of operation of the PT1561 Programmer Test Set.

4-2. LOGIC DIAGRAMS, LOGIC SYMBOLOGY AND INTEGRATED-CIRCUIT INFORMATION.

4-3. This section discusses the basic symbols used in the logic diagrams and provides an explanation of the logic included in each type of integrated circuit used. In particular, the operation of the MC845 integrated circuit (a master-slave JK flip flop) is discussed in detail. To clarify operation of the PT1561 Programmer logic, partial diagrams have been extracted from the overall logic diagram (Figure 6-1 thru 6-6). These partial logic diagrams cover the following areas of logic operation.

a. Control and Sequencing Operation (Figure 6-1).

b. Read Operation (Figure 6-2).

c. Code Burn Operation (Figure 6-3).

d. Printing Control (Figure 6-4).

e. Uncoded Detection (Figure 6-5).

f. Error Detection (Figure 6-6).

4-4. For purposes of logic diagram presentation, exclusive use is made of the logic symbology defined in American Standard, ASA Y32.14, "Graphic Symbols for Logic Diagrams". It is assumed that maintenance personnel troubleshooting logic circuits in the PT1561 Programmer are familiar with this symbology and are generally knowledgeable in logic circuits.

4-5. In the text discussions of the logic circuits, logic symbols are identified by the reference designator in the symbol plus the pin number of the symbol's output (for FFs (flip-flops) the pin number of the 1 output is used). In the case of FFs, the prefix "FF" is also added to the reference designator. For example, the FF connected to the READ switch (in the upper left corner of Figure 6-1) is referred to in text as FF1A19-10. The AND gate connected closest to the 0 output of FF1A19-10 in Figure 6-1 is referred to as gate 1A19-32.

4-6. LOGIC SIGNAL LEVELS.

4-7. Within the logic modules, two basic signal levels are utilized. These are nominally 0 v and +5 v. Since mixed logic is utilized in the design, either signal level may represent a logical 1 or true condition.

4-8. In the logic diagrams, wherever possible, all inputs are brought in on the left-hand side of the diagram. At the point on the diagram where a signal enters the module, the signal level is indicated which represents the true condition for that signal. The signal level is indicated by the presence or absence of a flag symbol (1) on the input line (See Figure 4-1). If the flag is present at the input, the true condition is a low-level input. If no flag is present, the true condition is a high-level signal. Thus the input signal for an amplifier is true when high, and the input signal for another circuit is true when low.

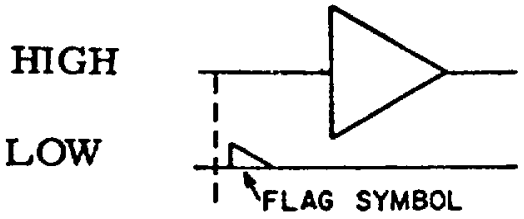

Figure 4-1. Signal Level Flag-Symbol

4-9. Since inverting type hardware is utilized, the true level for a signal is not the same at all points in a module circuit. To be sure of the true signal level at any point in a circuit, the signal must be traced from its input while noting all signal level inversions as the signal passes through the logic.

4-10. LOGIC SYMBOLOGY. The basic logic symbols used in the logic diagrams are illustrated and defined in the following paragraphs.

4-11. NAND Gates. (See Figure 4-2). The NAND gate produces a low level output when both inputs are high. NAND gates may have any number of inputs, but only one output. Logical 1 signal levels are indicated by the presence or absence of a flag on each input and output.

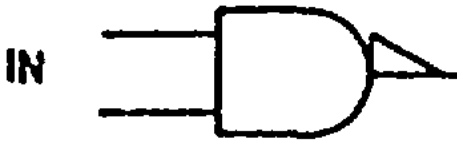

Figure 4-2. NAND Gate Symbol

4-12. Dot AND. (See Figure 4-3). When the outputs of two or more logic circuits are connected together to perform an AND function, the logic is conveyed by a dot AND symbol.

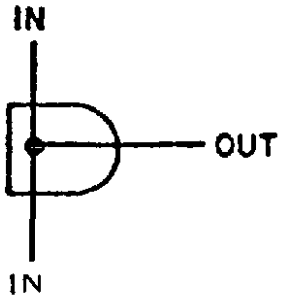

Figure 4-3. Dot AND Symbol

4-13. NOR Gates. (See Figure 4-4). The NOR gate produces a high level output if either of the inputs are low. NOR gates may have any number of inputs, but only one output. Logical 1 signal levels are indicated by the presence or absence of a flag on each input and output.

Figure 4-4. NOR Gate Symbol

4-14. EXCLUSIVE OR Gates. (See Figure 4-5). If both inputs of an OR gate are the same (both high or both low) the output is low; otherwise the output is high.

Figure 4-5. Exclusive OR Gate Symbol

4-15. Dot OR. (See Figure 4-6). When the outputs of two or more logic circuits are connected together to perform an OR function, the logic is conveyed by a dot OR symbol.

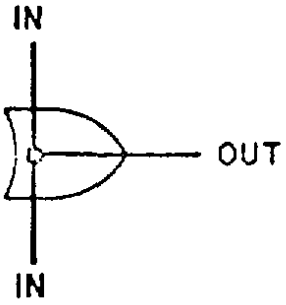

Figure 4-6. Dot OR Symbol

4-16. (See Figure 4-7). Amplifiers, lamp drivers, and level translators are represented by a triangular symbol. Logical 1 signal levels are indicated by the presence or absence of a flag at each input and output.

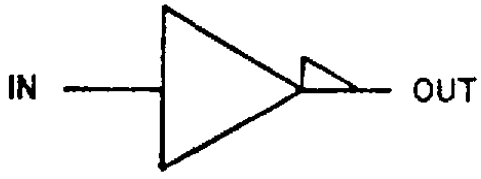

Figure 4-7. Inverting Amplifier Symbol

a. Multiple input amplifiers are symbolized by combining the amplifier and AND gate symbols. (See Figure 4-8.)

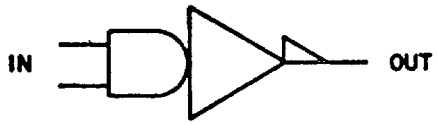

Figure 4-8. Multiple Input Amplifier

b. Limited use is also made of the optional symbol. (See Figure 4-9).

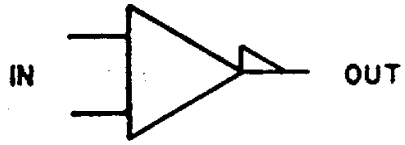

Figure 4-9. Multiple Input Amplifier (Optional Symbol)

4-17. (See Figure 4-10). Inverters are represented by the symbol shown in Figure 4-10. Input and output are flagged to indicate the logical 1 signal levels.

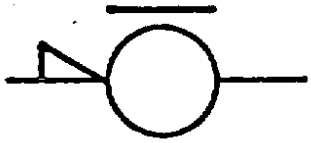

Figure 4-10. Inverter Symbol

4-18. RS Flip-flop. (See Figures 4-11 and 4-12.) Two gates may be cross-coupled to form an RS flip-flop as shown in Figure 4-11. This same flip-flop may also be represented logically by the symbol shown in Figure 4-12. Due to layout and component identification problems, both logic configurations are used in the diagrams. The set input is labeled S and the clear input is labeled C. All RS flip-flops are shown in the set state with the 1 (or set) output high and the 0 (or clear) output low. Flip-flop operation is discussed later in this section.

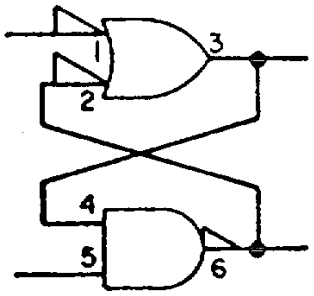

Figure 4-11. RS Flip-flop

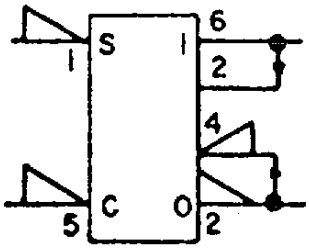

Figure 4-12. RS Flip-flop

4-19. Master-Slave JK Flip-flop (See Figure 4-13). The MC845 integrated circuit is a master-slave JK flip-flop. The direct set and clear inputs are labeled S_D and C_D. The JK inputs to the flip-flop are labeled S (set), T (toggle), and C (clear). The symbol shows the flip-flop in its set state with the 1 (or set) output high and the 0 (or clear) output low. The operation of this flip-flop is somewhat unusual and is discussed in detail in paragraph 4-27. A thorough understanding of the operation of this flip-flop is essential to understanding the operation of the logic. The flags on the inputs of the flip-flop shown in Figure 4-13 reflect one mode of operation; however, other input conditions are frequently used to symbolize other operational modes. These are covered in paragraph 4-27.

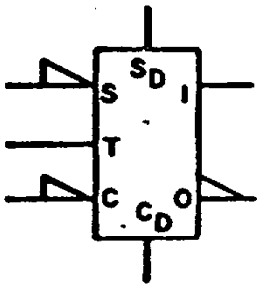

Figure 4-13. Master-Slave JK Flip-flop

4-20. (See Figure 4-14). Differentiators and waveform shapers are represented by a general rectangular symbol. Identifying characters are incorporated in or around the symbol.

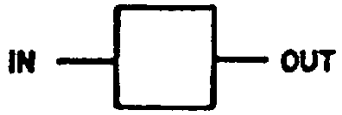

Figure 4-14. General Symbol

4-21. Gate inputs may be expanded through use of diode integrated circuit packs. Such gate buildups are represented by the symbols shown in Figure 4-15. Any number of expander gates may be tied to the E input of the primary gate to achieve the desired number of inputs.

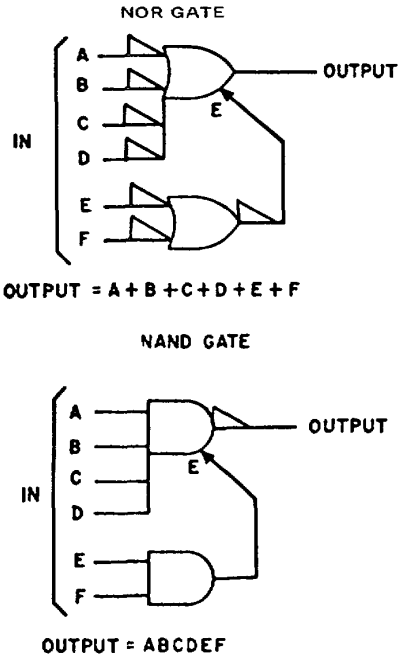

Figure 4-15. Expanded Input Gates

4-22. MIXED LOGIC.

4-23. The use of mixed logic and inverting hardware requires that the user watch the signal levels closely in order to understand the logic function of a gate. In the example of mixed logic shown in Figure 4-16, signals A and B enter the module from the left. Signal A is true when high (input not flagged) and signal B is true when low (input flagged). Looking at NAND gate 3A, it can be seen that it requires both high-level inputs to produce a low-level output. Since B is low when true, input B must be false to provide the high-level input required to complete gate 3A. Thus when A is true and B is false, gate 3A is complete and it generates a low-level output representing AB.

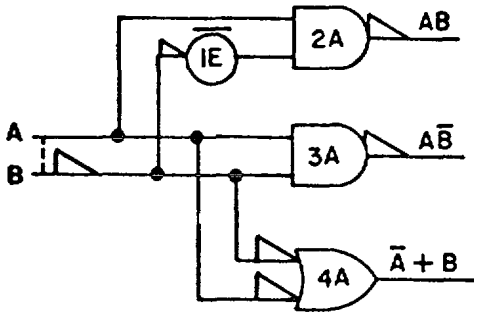

Figure 4-16. Example of Mixed Logic

4-24. Gate 2A in Figure 4-16 also requires two high-level inputs in order to generate a low-level output. The one input is high when A is true. The B input to gate 2A must also be high. This condition exists when B is true. To prove this, one can see that when B is true its input is low; however the low-level input for B is inverted at 1E so that the signal received by gate 2A is high. Thus when both A and B are true, gate 2A is complete and it generates a low-level output representing AB.

4-25. Gate 4A in Figure 4-16 produces a high-level output when either input is low. Since B is low when true, gate 4A produces its high-level output when B is true. Signal A, however, is high when true and thus gate 4A responds only to the false condition of signal A. In this case then, the high-level output of gate 4A represents $\overline{A}+B$.

4-26. OPERATION OF RS FLIP-FLOP. The RS flip-flop formed from cross-coupled gates is used extensively in the logic. This flip-flop operates in a manner similar to the standard RS flip-flop. If the C input is held high, a low-level signal (pulsed or steady-state) at the S input sets the flip-flop. The flip-flop is cleared whenever the C input goes low while the S input is high. Simultaneous low-level inputs at S and C produce highs at both outputs; however such a condition is normally avoided.

4-27. OPERATION OF MC845 MASTER-SLAVE JK FLIP-FLOP. (See Figure 4-17).

4-28. The Motorola MC845 integrated circuit is widely used in the PT1561 Programmer. The MC845 is a master-slave JK FF. Essentially this FF consists of a slave FF (cross-coupled gates having S_D and C_D inputs) and a master FF (cross-coupled output gates) connected by two AND gates.

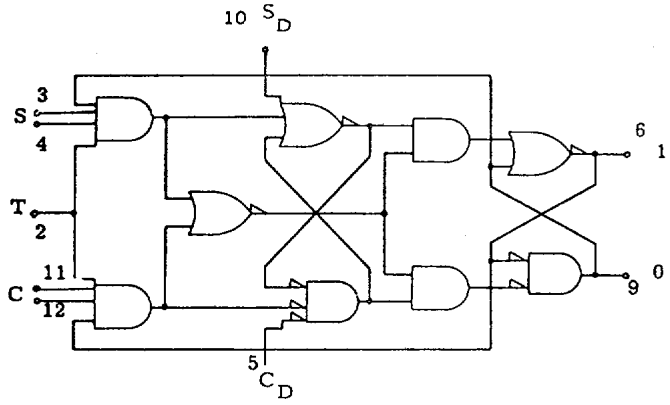

Figure 4-17. Logic Diagram of MC845 Master-Slave JK Flip-Flop

4-29. If the S_D (direct set) and C_D (direct clear) inputs are utilized rather than the. S, T, and C inputs, the master and slave FF's remain coupled together. In this case, the outputs of the MC845 FF are set or cleared immediately by a low level signal at the S_D or C_D input. When using S_D or C_D, the T input or the corresponding S or C input must be high.

4-30. When the MC845 FF is controlled by the S, T, and C inputs, FF operation is considerably different. As can be seen in Figure 4-17, no setting or clearing action through the S or C inputs is possible if T is held low. However with T high, either setting or clearing action can occur. For example, if both S and T are high, the master FF is set, but the AND gates which couple the master FF to the slave FF are disabled. Thus the slave FF and its outputs remain unchanged. If either the S or T input then goes low, the AND gates which couple the master FF to the slave FF are enabled, and the slave FF is set by the master FF. Clearing action using the C and T inputs is similar.

4-31. The S and T inputs must be high concurrently in order to set the master FF. Then the S and/or T input must go low to transfer the set state of the master FF to the slave (or output) FF. Thus a high-to-low level change is the dynamic action required to set (or clear) the FF.

4-32. If an S, T, or C input is not connected, the effect is the same as if that input had a high-level steady-state signal applied to the input. Thus if the T input is not connected, the FF reacts as if the T input were high.

4-33. CONTROL AND SEQUENCING OPERATION.

4-34. Figure 6-1 is a partial diagram showing the control and sequencing logic of the PT1561 Programmer. Refer to Figure 6-1, as necessary, while reading the following.

4-35. While the READ switch is pressed, FF1A19-10 is cleared, and through gate 1A19-32, the PT1561 Programmer logic is cleared for the read operation. With the read storage FFs cleared, the display indicates 701-XX-20-3-7. When the READ switch is released, FF1A19-10 and FF1A16-43 are set and the READ lamp lights. Sequentially, FF3A17-35 is set, and through gate 3A17-46, the read storage FFs are enabled and the 64-Hz oscillator is started. These signals cause the read logic to set into the read storage FFs any code already burned into the TC432 Code Plug; and since the digital display logic is connected to the read storage FFs, the display reads out any code stored there.

4-36. After the TC432 Code Plug is read, FF3A17-35 is cleared following the TN4 output from the read logic. At this time, FF3A7-23 is set and gates 2A4-26 and 3A17-26 are enabled. If the TC432 Code Plug is not coded, gate 3A17-26 is completed and the UNCODED lamp lights.

4-37. If the TC432 Code Plug is coded, gate 2A4-26 is completed and FF3A7-14 is set. With FF3A7-14 set, the code error detection circuits are enabled. If an error is detected, gate 2A12-25 is completed and the CODED and ERROR lamps light. If no error is detected, gate 2A12-27 is completed, the CODED and PRINTING lamps light, and the code label is printed. When printing is complete, an input from the printing logic clears FF3A17-54 (PRINTING lamp goes off) and sets FF3A7-26 lighting the COMPLETE lamp.

4-38. If an uncoded TC432 Code Plug has been read and a code is to be burned into the plug, the operator sets the desired code in the digiswitches on the PT1561 Programmer panel and then presses the CODE switch. While the CODE switch is pressed, FF1A19-45 is cleared, and through gate 1A19-30, the storage and read logic is cleared. When the CODE switch is released, FF1A19-45 and FF3A7-6 are set. The outputs of FF3A7-6 enable the mismatch error logic which detects any difference between the code set in the digiswitches and the code shown on the display. If the READ and UNCODED lamps are lighted and the CODED lamp is not lighted, gate 1A17-7 is complete and the CODE lamp lights. Sequentially, FF3A7-17 and FF3A17-5 are set, and correspondingly, the digiswitch error logic is enabled, the CHECK lamp lights, the storage FFs are enabled to read the digiswitch code, the 64-Hz oscillator is started, and the code error detection logic is enabled. An 8-Hz clock pulse (derived from the 64-Hz oscillator and a divider network) is fed back to the CODE lamp circuit causing the lamp to flash.

4-39. After the code in the digiswitches is read, FF3A17-5 is cleared by the TN4 output of the read logic. At this time, FF3A17-38 is set and gates 3A17-43 and 3A17-40 are enabled. If an error in the digiswitch code is detected, gate 3A17-40 is completed and the ERROR lamp lights. If no error is detected, the code burn logic is initiated and the coding operation is completed in 63 seconds.

4-40. After the coding operation is complete at T63, FF2A4-10 is set. When FF2A4-10 is set, the read storage FFs are cleared, FF3A17-38 is cleared (halting the code burn operation), and FF3A17-10 and FF3A7-8 are set. When the 64-Hz clock completes gate 3A3-50 (8 ms later), FF2A4-10 is cleared. With FF3A17-10 and FF3A7-8 set, the 64-Hz oscillator is started, the storage FFs are enabled to read the plug code, the VERIFY lamp lights, and the error-detecting logic is enabled. After the TC432 Code Plug is read, FF3A17-10 is cleared following the TN4 output from the read logic. If an error is detected, gate 2A12-25 is completed and the CODED and ERROR lamps light. If no error is detected, gate 2A12-27 is completed, the CODED and PRINTING lamps light, and the code label is printed. When printing is complete, an input from the printing logic clears FF3A17-54 (PRINTING lamp goes off) and sets FF3A7-26 lighting the COMPLETE lamp.

4-41. Inhibit circuits control the clearing action of the READ and CODE switches. For the READ switch, this inhibit logic consists of FF1A19-10, gates 1A19-32 and 1A19-14, and FF1A19-45. This circuit inhibits any clearing action from the READ switch during printing or coding operations. However, if a digiswitch setting error is detected during the coding operation (i.e., READ, UNCODED, CODE, CHECK, and ERROR lamps lighted), then FF1A19-23 in conjunction with gate 1A19-14 will permit the READ switch to clear the logic and reread the TC432 Code Plug.

4-42. For the CODE switch, the inhibit logic consists of FF1A19-45 and gate 1A19-30. This circuit inhibits any clearing action from the CODE switch after the code operation has been initiated.

4-43. Gate 2A12-27, which controls the printing FF, has its error-detection input inhibited by the outputs of FF3A17-35 and FF2A4-10. This inhibiting logic precludes any printing until the error logic has stabilized.

4-44. READ OPERATION.

4-45. Figure 6-2 is a partial diagram showing the read logic of the PT1561 Programmer. To simplify this diagram, the read logic for only 5 of the 63 resistors in the TC432 Code Plug are shown. These 5 resistors have read logic circuits which are typical of all the read circuits of the PT1561 Programmer. Refer to Figure 6-2, as necessary, while reading the following text.

4-46. When the READ switch is momentarily actuated, FF1A16-43 is set and the READ lamp lights. Sequentially, FF3A17-35 is set and through gate 3A17-46 the plug read gates (e.g., gate 1A8-27) are enabled. At the same time, gate 2A4-32 is completed and the 64-Hz oscillator (A6) starts. The output of the oscillator is fed to the binary counter (A1). The output of the binary counter is gated through 4 gates (3A4-35, 3A4-32, 3A4-41, and 3A4-38) to produce the read times TN1, TN2, TN3, and TN4. The read time outputs at 3A1-32, 3A3-32, 1A16-51, and 3A3-35 are inhibited while the 64-Hz clock output is low. This results in these five read time outputs being delayed 1/2 clock cycle and having a pulse width only half that of the other read time outputs.

4-47. The TN1 through TN4 times are utilized by the logic to read the 63 code plug resistors in 4 groups. The resistor groups corresponding to the read times are listed below:

a. TN1: R25 through R30.

b. TN2: R1 through R12.

c. TN3: R13 through R24, and R31 through R57 (odd only).

d. TN4: R32 through R58 (even only) and R59 through R63.

4-48. Code Plug resistors R1 through R30 are read in the same manner as resistors R1 and R2. Resistors R31 through R57 (odd only) are read in the same manner as resistor R35. Resistors R32 through R58 (even only) are read in the same manner as resistor R36. Resistors R59 through R63 are read in the same manner as resistor R59. The logic operations for reading resistors R1, R2, R35, R36, and R59 are shown in Figure 6-1 and discussed in the following paragraphs.

4-49. When read time TN2 is generated, the full TN2 pulse is input to contact 15 on relay card 2A21 and the delayed TN2 short pulse is input to gates 1A8-27 and 1A8-25. The corresponding relay on card 2A21 is actuated and a low-level ground signal is fed to resistors R1 and R2 in the code plug. If the R1 resistor is intact, gate 1A8-25 is completed when the delayed TN2 pulse is received, and read storage FF2A7-17 is set. If the R2 resistor is intact, gate 1A8-27 is completed when the delayed TN2 pulse is received, and read storage FF2A7-26 is set. If either resistor is burned out, the corresponding storage FF remains in the clear state. The delayed read time pulse is utilized to provide time for relay action and read-logic stabilization before the read storage FFs are set.

4-50. When read time TN3 is generated, the full TN3 pulse is input to contacts 11 and 22 on relay card 2A21 and the delayed TN3 short pulse is input to gate 2A12-14. The corresponding relays on card 2A21 are actuated and a -28-v signal is fed to resistor R35 in the code plug. If R35 is intact, gate 2A12-14 is completed and read storage FF2A13-8 is set. If R35 is burned out, FF2A13-8 remains clear.

4-51. When read time TN4 is generated, the full TN4 pulse is input to contact 25 on relay card 2A21 and the delayed TN4 short pulse in input to gates 2A12-18 and 3A15-18. The corresponding relay on card 2A21 is actuated and a +5-v signal is fed to resistors R36 and R59 in the code plug. If R36 is intact, gate 2A12-18 is completed and read storage FF2A13-26 is set. If R36 is burned out, FF2A13-26 remains clear. If R59 is intact, gate 3A15-18 is disabled and FF2A15-6 remains clear. If R59 is burned out, gate 3A15-8 is completed and FF2A15-6 is set.

4-52. Following TN4, the binary counter (A1) outputs the 8 bit which is utilized to clear FF3A17-35, halt the 64-Hz oscillator, and stop the read operation. At this time, the code from the code plug has been read and stored in the storage FFs. The outputs of the storage FFs are connected to the digital display which correspondingly reads out the code, if any. The storage FF outputs are also connected to the uncoded-detection logic, the error-detection logic, and the printing logic.

4-53. For error-detection, printing, and display purposes, outputs may be utilized from only one of a pair of storage FFs representing a binary bit (e.g., R1 and R2). This is feasible since for any legal code one and only one of a binary pair of resistors must be burned out; thus, if one such storage FF is set, the FF for the paired resistor must be clear.

4-54. The read operation for verification which follows a coding operation is performed in exactly the same manner as described above with the logic being initiated by an input to gate 3A17-46.

4-55. The operation for reading the digiswitches is performed when an enabling signal is received at the digiswitch read gates (e.g., gate 1A7-11). These gates are completed by the digiswitch inputs which correspondingly set the storage FFs. For the digiswitches S4 and S5, a code converter converts the BCD output of the 2 digiswitches to a pure binary output which is then read into the storage FFs.

4-56. CODE BURN OPERATION.

4-57. Figure 6-3 is a partial diagram showing the code burn logic of the PT1561 Programmer. To simplify this diagram, the burn logic for only 3 of the 63 resistors in the code plug are shown. These 3 resistors have burn logic circuits which are typical of all the burn circuits of the PT1561 Programmer. Refer to Figure 6-3, as necessary, while reading the following test.

4-58. Gate 3A17-43 is completed during the coding operation if the READ, UNCODED, CODE, AND CHECK lamps are lighted and no error is detected in the code selected on the digiswitches. With gate 3A17-43 completed, the burn gates (e.g., gate 1A27-39) are enabled, the burn power relays on card 2A21 arc actuated, and the 64-Hz oscillator is started. The 64-Hz oscillator output is fed through a binary counter and decoder circuit which provides 64 sequential outputs of 1 second each from decoders 2A2 and 1A2. These outputs are labeled T0 through T63. Outputs T1 through T63 are utilized to control the code burning operation.

4-59. For example, at time T1, FF1A21-2 is set and provides an input to contact 15 of card 2A21. This input actuates a relay which applies -40 v maximum (to insure a constant current of 100 ma) to resistor R2 in the code plug. At time T2, gate 1A27-39 is completed if the corresponding digiswitch (S3) is set for a code which does not include a 1 bit. With gate 1A27-39 complete, the circuit through R2 is also complete and R2 is burned out. If gate 1A27-39 is not complete (because digiswitch S3 has a 1-bit output), R2 remains intact since the burn circuit is not completed.

4-60. Through time T12, FF1A21 remains set and continues to apply -40 v to contact 34 of the code plug. Contact 34 is common to resistors R1 through R12. At each timed output (T1 through T12), the corresponding burn gate is pulsed for 1 second, and if the applicable digiswitch is enabling the burn gate, the corresponding resistor is burned out. At time T13, FF1A21-2 is cleared, and relay switching on card 2A21 removes power from contact 34 of the code plug and applies power to another common contact of the plug (not shown in Figure 6-2). Similarly, power is applied to other common contacts of the code plug at times T25, T31, and T45.

4-61. In a like manner, each of the code plug resistors may be burned depending on the settings of the digiswitches. A slight variation in the operation is encountered when resistors R32 through R58 (even only) are burned. These resistors have reversed diodes in their code plug circuit. To burn these resistors, +40 v maximum (to insure constant current of 100 ma) is supplied through the relay switching of card 2A21.

4-62. Due to resistor interconnections in the code plug, a special variation to the normal burn circuit is necessary to inhibit the burn gates for resistors R1, R13, and R25 until relay switching action on card 2A21 is completed. This is critical at times T13 and T25 to preclude the possibility of burning R1 and R13 in error. This inhibiting action is accomplished by FF1A21-23, FF1A21-27, and gate 3A12-24 (sheet 9 of Figure 6-8). This logic inhibits the burn gates for R1, R13, and R25 for 1/2 clock cycle (8 ms) at times T13 and T25.

4-63. PRINTING CONTROL.

4-64. Figure 6-4 is a partial diagram showing the printing control logic of the PT1561 Programmer. Refer to Figure 6-4, as necessary, while reading the following text.

4-65. During PT1561 Programmer operation while the PRINTING lamp is lighted, a simultaneous signal is input to contact 5 of card 1A1 to start the 25-Hz printing oscillator.

The 25-Hz oscillator output is fed to the binary counter (A7).

4-66. The counter output is gated by two gates 1A10-32 and 1A10-35 which control FF3A17-30 and FF3A17-32. The interaction of the gates and FFs cause FF3A17-30 to be set first and remain set for 360 ms. At the end of the 360 ms period, FF3A17-30 is cleared and FF3A17-32 is set and remains set for 280 ms. At the end of the 280 ms period, FF3A17-32 is cleared and FF3A17-30 is set again for a 360 ms period. This sequence of FF operation is repeated over and over again during the printing operation.

4-67. The outputs of FF3A17-30 and FF3A17-32 are utilized to control the printing operation. For example, when FF3A17-30 is first set, gate 3A24-44 is completed and the printer advances the label tape by 1 space. When FF3A17-32 is first set and then cleared again, FFA8 on card 1A1 is toggled by the low-going transition. FFA8 is utilized in conjunction with binary counter A9 to form a printing counter with a 5-bit binary output. With FFA8 set, gate 3A27-32 is completed, recognizing the 1 output of the printing counter. With gate 3A27-32 complete, the printout gates (e.g., gate 3A23-30) are enabled and the outputs of the read storage FFs are fed through a BCD-to-decimal decoder to the printer module.

4-68. When FF3A17-30 is set and gate 3A27-32 is complete, gates 3A24-44 and 3A24-41 are completed. The 2 gates cause the label tape to advance again and simultaneously selects the character to be printed (according to the input from the read storage FFs). When FF3A17-32 is set again, gate 3A23-24 is completed and the printer prints the selected character on the label tape.

4-69. When FF3A17-32 is cleared again, the printing counter advances 1 count and the logic causes character No. 2 to be printed out in a similar manner. The same operation is repeated for character Nos. 3 through 9 as indicated in table 4-1. Between character groups and at the end of the printout, spaces are produced on the label tape. Spaces are produced when no gate (similar to gate 3A27-32) recognizes the count, and thus gates 3A24-41 and 3A23-24 are not completed during the print cycle.

4-70. At printing count 23 (recognized by gate 3A26-32), gate 3A23-51 is completed and the tape backing material is cut off. At printing count 24, gate 3A23-54 is completed and the label is cut and applied to the side of the TC432 Code Plug. At printing count 25, the printing complete signal is generated to terminate the printing cycle by turning off the PRINTING lamp, stopping the 25-Hz oscillator, and lighting the COMPLETE lamp.

4-71. UNCODED DETECTION.

4-72. Figure 6-5 is a partial diagram showing the uncoded detection logic of the PT1561 Programmer. Refer to Figure 6-5, as necessary, while reading the following text.

4-73. The 63 diodes shown on cards 2A23 and 3A10 in Figure 6-5 are each connected to an output of the 63 read storage FFs. If each of the 63 resistors of the TC432 Code Plug are intact, the input to each of the diodes from its read storage FF is high, and the output of gate 1A10-47 is low. This disables gate 2A4-26 and its output remains high. With gate 2A4-26 disabled, gate 3A17-26 is completed and FF3A17-11 is set lighting the UNCODED lamp.

4-74. If any of the 63 code plug resistors are burned out, the corresponding read storage FFs output low-level signals through the diodes to gates 1A9-27 and/or 1A10-47. In this case, the output of gate 1A10-47 is high and gate 2A4-26 is completed, disabling gate 3A17-26.

4-75. CODE PLUG INFORMATION.

4-76. The schematic of the TC432 Code Plug is provided in Figure 6-7. As shown there, the code plug has 63 resistors and 58 diodes. The PT1561 Programmer codes the plug by applying 40 v 100 ma power to burn out specific resistors. The resistors which correspond to the subcodes are:

RF Channel

R25 through R30 (Digit 1)
R1 through R12 (Digits 2 and 3)

TABLE 4-1.

PRINTING OPERATIONS

Note: X's in operation columns indicate operation occurs.					
PRINTING COUNTER BINARY OUTPUTS **ABCDE**	**PRINTING COUNT, DECIMAL EQUIVALENT**	**ADVANCE**	**CHAR. SELECT**	**PRINT**	**CHARACTER PRINTED/OTHER OPERATIONS**
00000	0	X			Space
00001	1	X	X	X	RF Chan, Char 1
00010	2	X	X	X	RF Chan, Char 2
00011	3	X	X	X	RF Chan, Char 3
00100	4	X			Space
00101	5	X	X	X	ID Chan, Char 4
00110	6	X	X	X	ID Chan, Char 5
00111	7	X			Space
01000	8	X	X	X	Function, Char 6
01001	9	X	X	X	Function, Char 7
01010	10	X			Space
01011	11	X	X	X	Audio Time, Char 8
01100	12	X			Space
01101	13	X	X	X	Gain, Char 9
01110	14	X			Space
01111	15	X			Space
10000	16	X			Space
10001	17	X			Space
10010	18	X			Space
10011	19	X			Space
10100	20	X			Space
10101	21	X			Space
10110	22	X			Space
10111	23				Cut
11000	24				Apply Label
11001	25				Complete Signal

ID Channel (Digits 4 and 5)
R13 through R24
R35 through R48

Function (Digits 6 and 7)
R31 through R34
R49 through R52
R59 through R63

Audio Time (Digit 8)
R53 through R56

Gain (Digit 9)
R59 through R63

4-77. The subcodes for RF Channel, ID Channel, and Audio Time are binary-type codes and the corresponding resistors are burned out in patterns which represent the binary bits 0 and 1. As shown in Figure 6-7, the resistors representing these binary-type codes are paired (e.g., resistors R1 and R2, R3 and R4). For these codes in which the resistor pairs represent binary bits, the odd numbered resistor is burned out to represent a 1 bit and the even numbered resistor is burned out to represent a 0 bit. If both resistors of a binary pair are burned or if both resistors are intact, this condition represents a code error.

4-78. The codes burned into the TC432 Code Plug are identified in table 5-2.

4-79. POWER REQUIREMENTS.

4-80. The PT1561 Programmer Test Set requires a power source capable of supplying 115 ± 10 V, A.C., 50 to 400 Hz at 5 amperes.

4-81. PRINTER PREPARATION.

4-82. **LOADING LABEL, TAPE.** Load label tape on the U7483 Printer for initial assembly and as required thereafter.

4-83. Loosen reel cover screw (figure 4-18) just far enough to disengage cover from reel and rotate hinged cover away) from reel.

4-84. Remove old tape roll from reel.

NOTE

Use care when handling tape rolls; tape windings may slip off roll if roll is dropped.

4-85. Mount new tape roll over 3 mounting pins on reel so that end of tape unwinds from top of roll and passes down through slot in reel housing (figure 4-18). Pull end of tape down until approximately 1 foot of tape extends from slot in reel housing.

4-86. Thread tape between roller and pin of upper tape guide (figure 4-18) located just below slot in reel housing.

4-87. Rotate hinged cover back over reel and align reel cover screw with the threaded hole in reel mounting pin. Thread reel cover screw into threaded hold until finger tight.

4-88. On tape end extending from reel, strip label material away from tape backing for a length of approximately 4-in. Cut off and dispose of 4-in. length of label material so that tape coming from reel has a 4-in. end consisting of backing material only (figure 4-19).

4-89. Press cut end of label material firmly against tape backing so that label material adheres to backing. (This avoids possibility that label material will catch and bunch up as tape is threaded through tape drive mechanism.)
4-90. Remove chaff box from mounting screws on PT1561 Programmer Test Set panel in order to gain better access to tape drive mechanism (figure 4-18).

4-91. Rotate spring clip away from pressure rollers (A, figure 4-20).

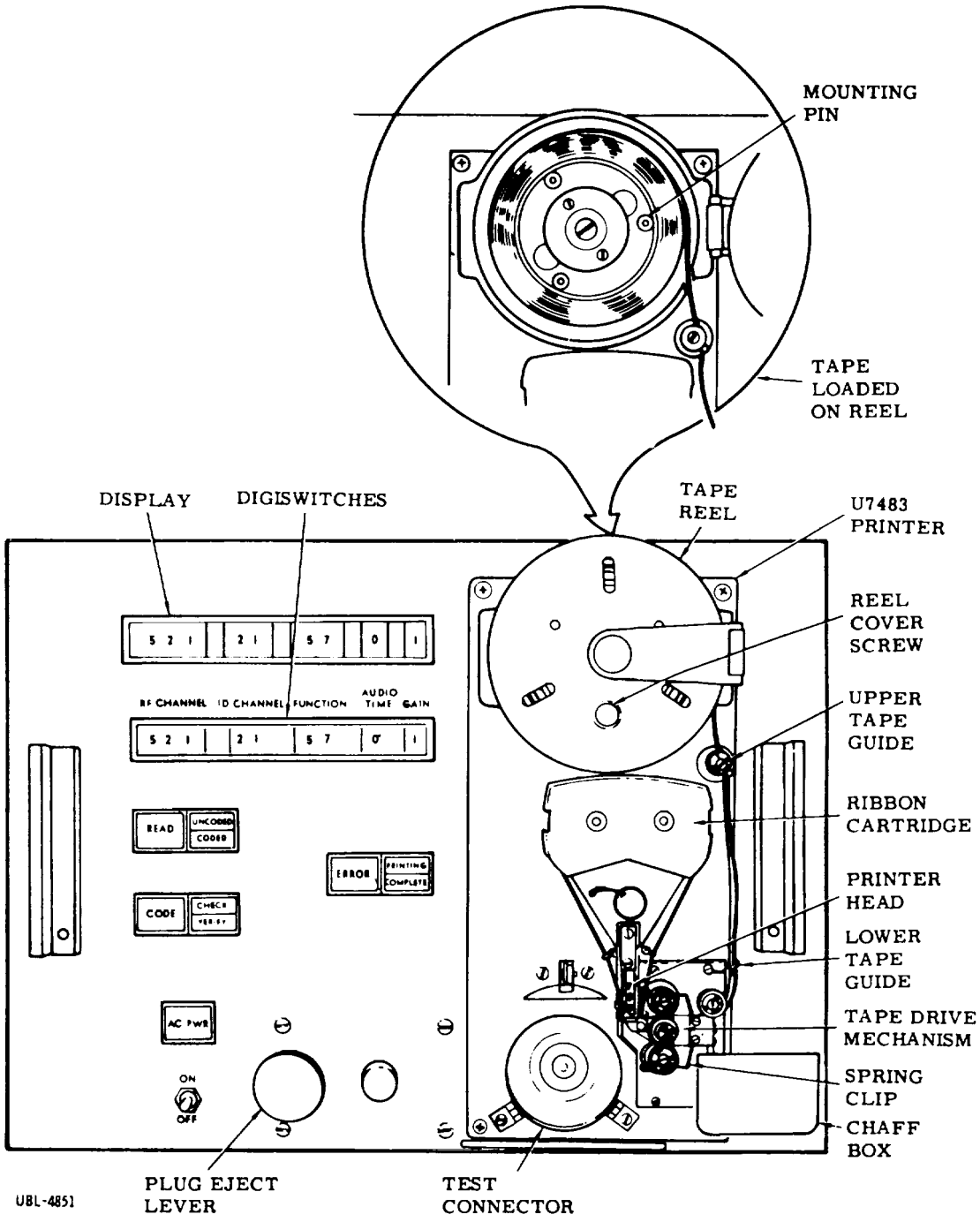

Figure 4-18. PT1561 Programmer Test Set with U7483 Printer Prepared for Operation

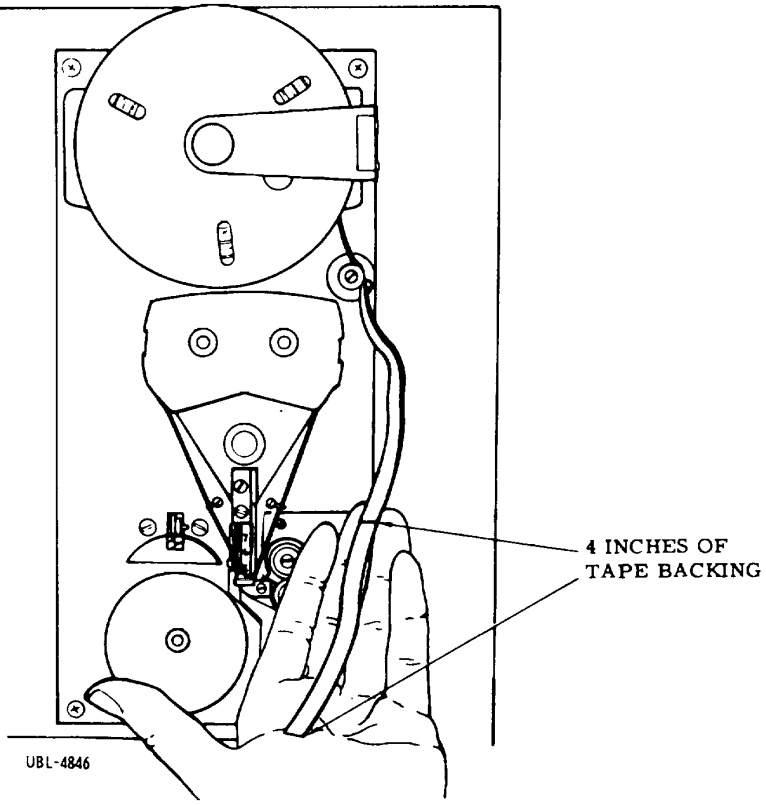

Figure 4-19. Preparing Label Tape

4-92. Using thumb and index finger of left hand, raise upper pressure roller and label cutter (A, figure 4-20).With right hand, feed tape end through tape drive mechanism until end of tape extends approximately 3-in. beyond printer head (A, figure 4-20). Release pressure roller and tape cutter.

4-93. If upper pressure roller does not seat down against drive roller, turn knurled knob on drive roller (A, figure 4-20) back and forth slightly until pressure roller seats.

4-94. Feed tape through lower tape guide (figure 4-18).

4-95. Using right hand, depress lower pressure roller downward, and with left hand, feed tape end back through tape drive mechanism (B, figure 4-20). Release lower pressure roller.

4-96. If lower pressure roller does not seat up against drive roller, turn knurled knob on drive roller back and forth slightly until pressure roller seats.

4-97. Pull end of tape extending from tape drive mechanism until slack is taken out of tape between lower pressure roller and upper pressure roller.

4-98. Rotate spring clip back to pressure rollers and snap spring clip over shoulder of screw head on each pressure roller (figure 4-18).

4-99. Rotate knurled knob on drive roller until end of label material passes below printer head and extends approximately 1/2-in. beyond label cutter (C, figure 4-20). (When tape comes to sharp turn where tape backing turns downward to lower pressure roller, the label material separates from the backing and passes straight out through the jaws of the label cutter.)

4-100. Turn center knob on tape reel counterclockwise until slack is removed from tape.

4-101. Manually press label cutter blade to trim off excess label material.

4-102. Manually press tape-backing cutter blade (C, figure 4-20) to cut off excess tape backing.

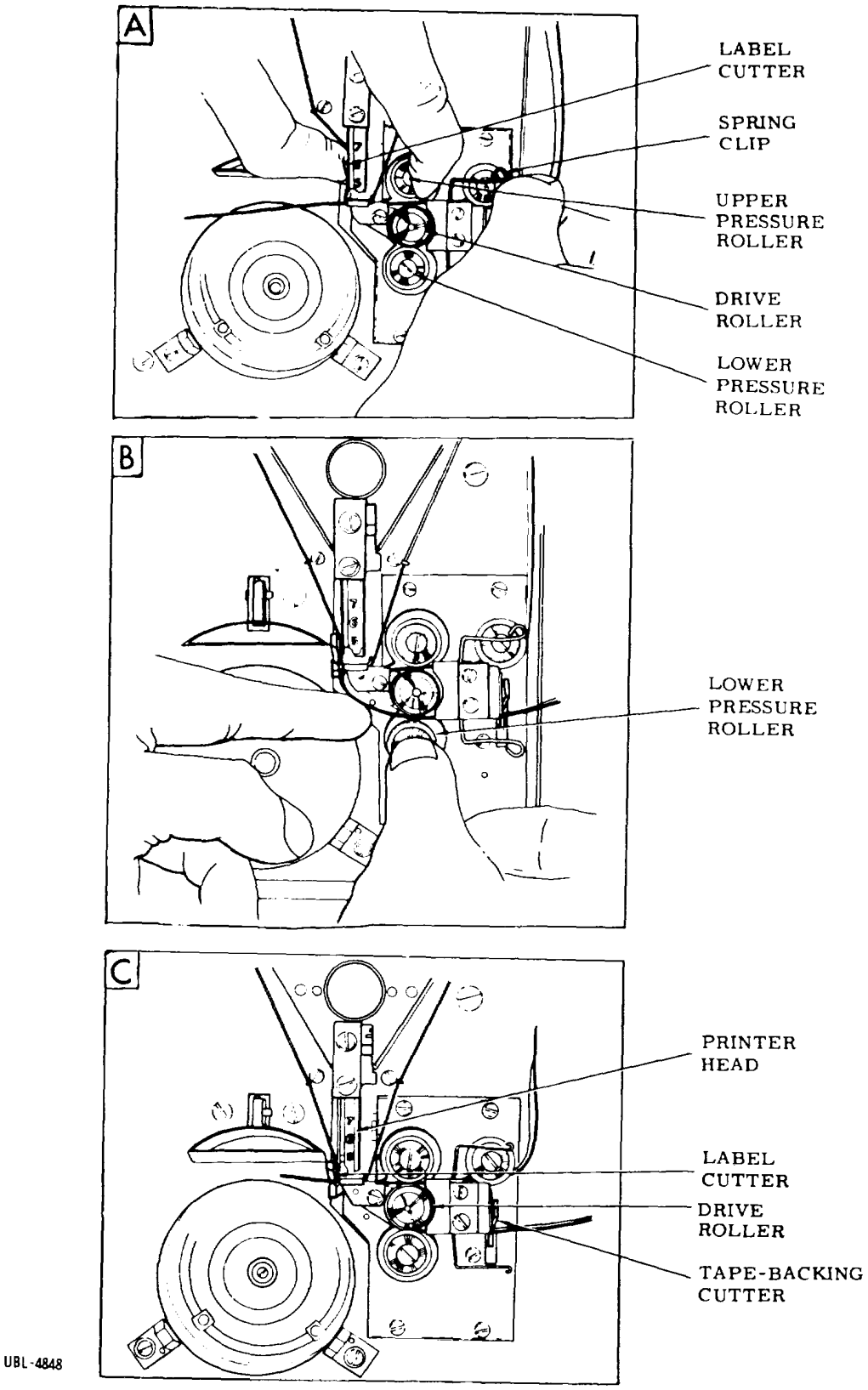

Figure 4-20. Threading Tape Through Tape Drive Mechanism

4-103. Reinstall chaff box on mounting screws provided on PT1561 Programmer Test Set panel.

4-104. **LOADING RIBBON CARTRIDGE** (Figure 4-21). Load ribbon cartridge on U7483 Printer for initial assembly and as required thereafter.

4-105. Remove old ribbon cartridge as follows:

a. Release ribbon from ribbon guide on each side of printer head.

b. Carefully disengage ribbon from ribbon guide beneath printer head.

c. Remove ribbon cartridge from printer by deflecting clips on each side of cartridge and pulling cartridge straight away from printer.

4-106. Pull ribbon from replacement cartridge until a section of ribbon approximately 12-in. long is exposed.

4-107. Align key ways of spools in cartridge with keys on drive spindles.

4-108. Install ribbon cartridge on drive spindles, pressing cartridge back to surface of printer until cartridge snaps in place between mounting clips.

4-109. Insuring that ribbon is not twisted, feed center of exposed ribbon under ribbon guide located beneath printer head.

4-110. Feed ribbon through ribbon guides on each side of printer head.

4-111. On left side of printer head, insure that ribbon passes between label cutter and printer head.

CAUTION

Ribbon will be cut unless ribbon passes between label cutter and printer head.

4-112. Using finger pressure against ends of drive spindles, turn spindles to remove slack from ribbon.

4-113. Check that ribbon is flat and not twisted as it feeds out of (cartridge, through ribbon guides, and back into cartridge.

4-114. MANUAL PRINTER CHECKOUT. Perform this procedure after loading label tape and/or ribbon cartridge.

4-115. Insure that PT1561 Programmer Test Set is connected to ac power source (115 ± 10V, 50 to 400 Hz, 5 amperes).

4-116. Operate PT1561 Programmer Test Set ON OFF switch to ON.

4-117. Press AC PWR switch. AC PWR lamp lights.

4-118. Pull PT1561 Programmer Test Set far enough out of cabinet to gain access to manual U7483 Printer controls located on back side of front panel.

4-119. Momentarily operate ADVANCE/PRINT switch to ADVANCE position several times and check that label tape advances each time.

4-120. Momentarily operate ADVANCE/PRINT switch to the PRINT position and check that printer head moves down, makes contact with ribbon, and returns to its original position.

4-121. Momentarily operate ADVANCE/PRINT switch first to the ADVANCE position and then to the PRINT position. Repeat this step once.

4-122. Momentarily operate ADVANCE/PRINT switch to the PRINT position several times and check that printer ribbon advances each time.

4-123. Momentarily operate ADVANCE/PRINT switch to the ADVANCE position 7 times.

4-124. Momentarily operate CUT/APPLY switch to APPLY position and check that label cutter cuts label and that label applier moves down and then returns to its original position.

4-125. Insure that 3 numerals are printed on label and that numerals are evenly spaced and not overlapping.

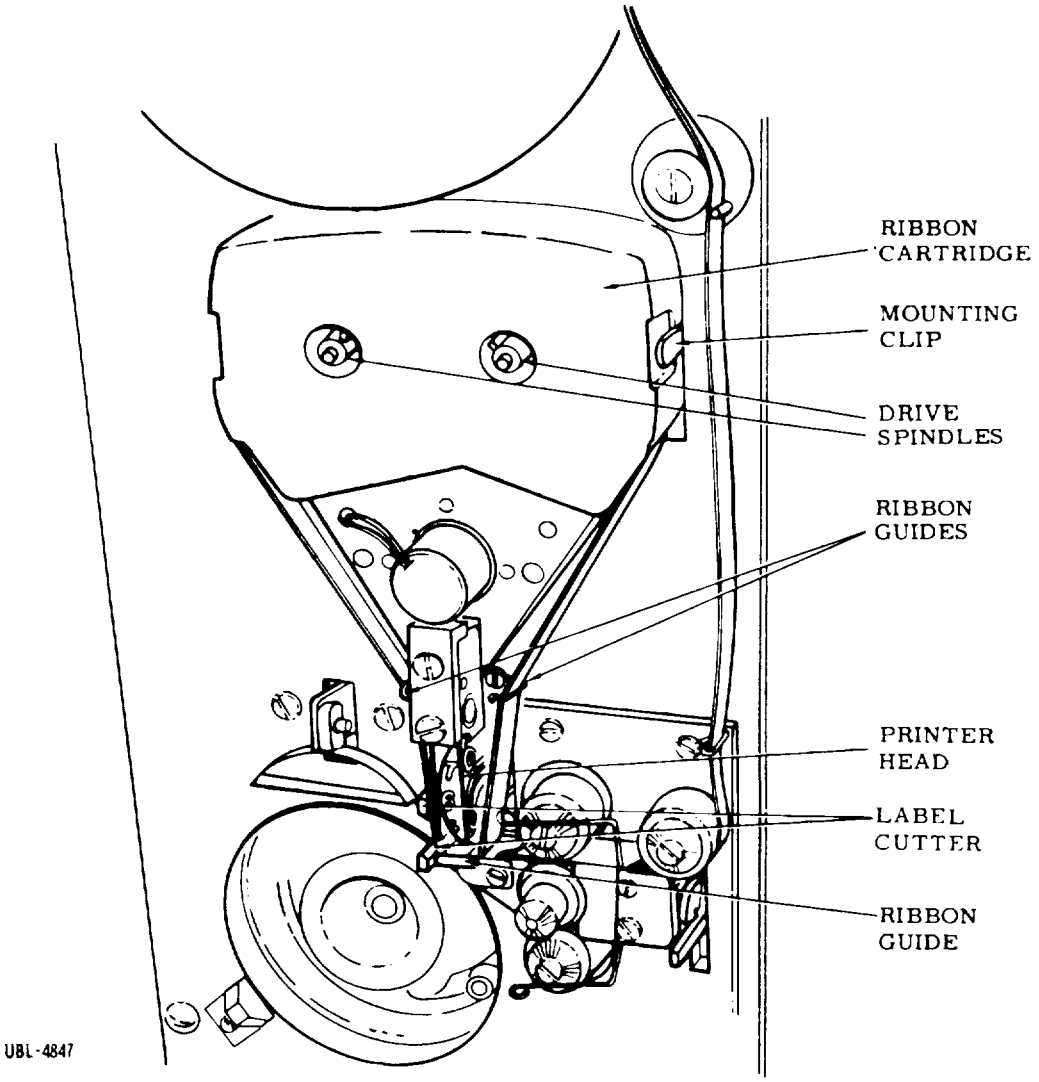

Figure 4-21. Loading Ribbon Cartridge

4-126. Momentarily operate CUT/APPLY switch to CUT position and check that tape-backing strip is cut off.

4-127. Operate PT1561 Programmer Test Set ON OFF switch to OFF.

4-128. Push PT1561 Programmer Test Set back into cabinet.

4-129. TC432 CODE PLUG READING AND CODING.

4-130. The following provides procedures for reading and coding a TC432 Code Plug. These procedures are based on the assumption that the PT1561 Programmer Test Set has been prepared for use and calibrated according to Section V.

4-131. Perform operating procedures in sequence in which they are listed.

4-132. Exercise caution when engaging and disengaging electrical connectors. Insure that connector keys and key ways are aligned and that connector faces are held parallel to avoid possible bending of contacts.

4-133. The procedures in this section are based on the assumption that the U7483 Printer is installed on the PT1561 Programmer Test Set. However, if the U7483 Printer is not installed or is not operational for any reason, the PT1561 Programmer Test Set can still be utilized to read and code TC432 Code Plugs. In this case, all operating procedures remain valid except that the mechanical printer will not perform as indicated.

4-134. Insure that printer has been prepared for use according to procedures in paragraph 4-81.

4-135. **DAILY CHECK.**

4-136. Using U7484 Simulator (TC432 Simulator), perform following check before each day's use and any time doubt exists as to proper operation of the PT1561 Programmer Test Set.

NOTE

Simulator cables CA1258 and CA1259 are normally stowed in compartment behind access door on U7484 Simulator panel.

WARNING

Disconnect ac power source.

4-137. Connect P1 of CA1258 cable to J1 of U7481 Simulator.

4-138. Connect P2 of CA1258 cable to J4 of PT1561 Programmer Test Set.

4-139. Connect P1 of CA1259 cable to J2 of U7484 Simulator (J2 is located in stowage compartment behind access door on U7484 Simulator panel).

4-140. Connect P2 of CA1259 cable to J1 (test connector) on PT1561 Programmer Test Set panel.

4-141. Connect PT1561 Programmer Test Set to ac power source (115 $\pm$ 10 V, 50 to 400 Hz, 5 amperes).

4-142. Operate PT1561 Programmer Test Set ON OFF switch to ON.

4-143. Press AC PWR switch. AC PWR lamp lights. Display reads 701-XX-20-3-7 (indicating PT1561 Programmer Test Set is in cleared condition). On U7483 Simulator, POWER lamp lights.

NOTE

If during PT1561 Programmer Test Set operation, the ac power source goes off, even momentarily, the ac power relay in the PT1561 Programmer Test Set is deactuated, removing power from all PT1561 Programmer Test Set logic circuits. To reapply power, the AC PWR switch is actuated and all PT1561 Programmer Test Set logic is cleared. In this case, any PT1561 Programmer Test Set operation in process must be restarted.

4-144. On U7484 Simulator, rotate CODE SELECT switch to position 1 and ERROR SELECT switch to position 0.

4-145. On U7484 Simulator, momentarily press RESET switch; RESET lamp lights while pressed.

4-146. On U7484 Simulator, momentarily press INSERT CODE switch; INSERT CODE lamp lights while pressed.

4-147. On PT1561 Programmer Test Set, momentarily press READ switch. READ, CODED, and PRINTING lamps light. Display reads out code corresponding to position of CODE SELECT switch (Table 4-2). While PRINTING lamp is lighted, printer on PT1561 Programmer Test Set panel print, code on label and applies label to simulator connector (CA1259-P2). After printed label is applied, PRINTING lamp goes out and COMPLETE lamp lights.

4-148. Verify that code shown on display is same as code listed in table 4-2 for corresponding setting of the CODE SELECT switch.

TABLE 4-2.

LEGAL CODES SELECTED BY SIMULATOR

CODE SELECT SWITCH	CODES DISPLAYED AND PRINTED				
	RF CHANNEL	ID CHANNEL	AUDIO FUNCTION	TIME	GAIN
1	521	21	57	0	1
2	521	01	77	1	1
3	210	15	00	2	1
4	210	15	01	3	2
5	210	15	02	3	3
6	210	15	04	3	4
7	210	15	10	3	5
8	210	15	17	3	6

4-149. Without disconnecting CA1259 cable from test connector (J1) of PT1561 Programmer Test Set, verify that code printed on label matches the displayed code.

NOTE

Labels may be allowed to stack up on CA1259 cable connector and removed after daily check is completed.

4-150. Rotate CODE SELECT switch to each position listed in table 4-2 and repeat procedures in paragraphs 4-145 through 4-149 for each switch position.

4-151. Rotate CODE SELECT switch to position 1.

4-152. Rotate ERROR SELECT switch to position 1.

4-153. On U7484 Simulator, momentarily press RESET switch; RESET lamp lights while pressed.

4-154. On U7484 Simulator, momentarily press INSERT CODE switch; INSERT CODE lamp lights while pressed.

4-155. On PT1561 Programmer Test Set, momentarily press READ switch. READ, CODED, and ERROR lamps light. Display reads out code corresponding to CODE SELECT ERROR SELECT switch positions (table 4-3). With ERROR lamp lighted, no label is printed.

4-156. Verify that code shown on display is same code as listed in table 4-3 for the corresponding CODE SELECT ERROR SELECT switch positions. Code errors are blanked on display indicators as indicated by x's in table 4-3.

4-157. Rotate CODE SELECT and ERROR SELECT switches to positions listed in table 4-3 and repeat procedures in paragraphs 4-153 through 4-156 for each set of switch positions.

4-158. On U7484 Simulator, rotate CODE SELECT and ERROR SELECT switches to their 0 positions.

TABLE 4-3.

ILLEGAL CODE DISPLAYS SELECTED BY SIMULATOR

CODE SELECT SWITCH	ERROR SELECT SWITCH	CODE DISPLAYED				
		RF Channel	ID Channel	Function	Audio Time	Gain
1	1	521	21	xx	0	1
3	2	210	15	xx	2	1
5	3	xxx	15	02	3	X
6	4	210	xx	04	X	4
6	5	210	xx	04	3	4

4-159. On U7484 Simulator, momentarily press RESET switch; RESET lamp lights while pressed.

4-160. On PT1561 Programmer Test Set, momentarily press READ switch. READ and UNCODED limps light and display is blanked.

4-161. On PT1561 Programmer Test Set, set code 829-21-57-0-1 into digiswitches.

4-162. On PT1561 Programmer Test Set, momentarily press CODE switch. The following sequence occurs:

a. CODE lamp flashes and CHECK lamp lights.

b. Display indicates same code as set in digiswitches.

c. For a 63-second period, code selected on digiswitches is set into simulator circuits.

d. After 63 seconds, UNCODED and CODE lamps go off and CODED, VERIFY and PRINTING lamps light.

e. Display is momentarily cleared and then indicates code which has been set into simulator. (Code displayed matches code set in digiswitches.)

f. U7483 Printer prints code on label and attaches label to CA1259 cable connector.

g. PRINTING lamp goes off and COMPLETE lamp lights.

4-163. Verify that code printed on label is same as code shown on display.

4-164. If desired, procedures in paragraphs 4-159 through 4-163 may be repeated using any legal code. For information about legal codes, refer to table 4-4.

TABLE 4-4.

LEGAL CODES ACCEPTED BY PT1561

CODE	LEGAL CODES
RF CHANNEL	100 thru 131
	200 thru 231
	300 thru 331
	400 thru 431
	500 thru 531
	600 thru 631
	700 thru 731
	800 thru 831

(Continued on next page)

TABLE 4-4.
LEGAL CODES ACCEPTED BY PT1561
(Continued)

CODE	LEGAL CODES
ID CHANNEL	01 thru 09 11 thru 19 21 thru 29 31 thru 39 41 thru 49 51 thru 59 61 thru 69 71
FUNCTION	00 thru 07 10 thru 17 57* 77*
AUDIO TIME	0 thru 3
GAIN	1 thru 6*
*A GAIN code 1 must be used with FUNCTION codes 57 and 77	

4-165. On U7484 Simulator, momentarily press RESET switch; RESET lamp lights while pressed.

4-166. On PT1561 Programmer Test Set, pull plug eject lever to release P2 of CA1259 cable from test connector (J1).

4-167. Remove code labels attached to connector P2 of CA1259 cable. Clean off any gum left on connector.

4-168. Disconnect ac power.

4-169. Disconnect cable CA1258 from U7484 and PT1561.

4-170. Stow cables CA1258 and CA1259 in compartment behind access door on U7484 panel.

4-171. READING TC432 CODE PLUG.

4-172. This procedure is based on the assumption that the preliminary procedures and the daily check have been performed according to paragraph 4-135.

4-173. Install TC432 Code Plug in test connector PT1561 Programmer Test Set.

4-174. On PT1561 Programmer Test Set, momentarily press READ switch. The following applicable sequence occurs (paragraph 4-175, 4-176, 4-177).

4-175. If plug is not coded:

a. READ and UNCODED lamps light.
b. Display is blanked.
c. Proceed to Paragraph 4-178.

4-176. If plug is coded with a legal code:

a. READ, CODED, and PRINTING lamps light.
b. Display reads out plug code.
c. Printer prints code on label and attaches label to code plug (16-second operation).
d. PRINTING lamp goes off and COMPLETE lamp lights.

NOTE

If code label is not properly attached to plug, use pointed tool such as a small screwdriver bit to straighten label or to remove it if label is badly bunched. If label is removed, press READ switch again to obtain a new code label.

e. Proceed to paragraph 4-179.

4-177. If plug is coded with an illegal code:

a. READ, CODED, and ERROR lamps light.
b. Display reads out plug code with indicators containing errors blanked.
c. Proceed to paragraph 4-180.

4-178. If plug is not coded (READ and UNCODED lamps lighted), proceed to paragraph 4-181 to code the plug. If coding is not desired, remove plug from test connector by pulling plug eject lever. This completes procedure for reading an uncoded plug.

4-179. If plug is coded with a legal code (READ, CODED, and COMPLETE lamps light), check that code printed on label matches code shown on display. Remove plug from test connector by pulling plug eject lever. Insure that label is firmly attached to plug. This completes procedure for reading a coded plug.

4-180. If plug is coded with an illegal code (READ, CODED, and ERROR lamps lighted), remove plug from test connector by pulling plug eject lever. Reject plug.

4-181. CODING TC432 CODE PLUG.

NOTE

Special procedures are required to code the TC432 Code Plug with two complementing ID channel codes. Refer to addendum A for these procedures. Refer to addendum B for procedures to code the code plug in CAEDET series seismic sensors.

4-182. This procedure applies to uncoded plugs only. It is assumed that the preliminary procedures and the daily check have been performed according to paragraph 4-135. If the uncoded plug has already been read according to procedures in paragraph 4-170, start this procedure at paragraph 4-185.

4-183. Install TC432 Code Plug in test connector of PT1561 Programmer Test Set.

4-184. On PT1561 Programmer Test Set, momentarily press READ switch. READ and UNCODED lamps light and display is blanked.

4-185. On PT1561 Programmer Test Set, set desired code into digiswitches. For information on legal codes, refer to table 4-4.

4-186. On PT1561 Programmer Test Set, momentarily press CODE switch. The following applicable sequence occurs (paragraph 4-187 or 4-188).

4-187. If code set in digiswitches is legal:

a. CODE lamp flashes and CHECK lamp lights.

b. Display reads out digiswitch code.

c. For a 63-second period, code selected on digiswitches is burned into code plug.

NOTE

If PT1561 Programmer Test Set power is lost (even momentarily) during the 63-second burn period, PT1561 Programmer Test Set power relays will open and the logic circuits will be cleared. With the code plug partially coded and the PT1561 Programmer Test Set logic circuits cleared, completion of the coding operation requires special procedures (paragraph 4-192) which circumvent the code inhibit logic.

d. After 63 seconds, UNCODED and CODE lamps go off, VERIFY lamp lights, and display is momentarily cleared

e. If code burned into plug matches code set in digiswitches, CODED and PRINTING lamps light, printer prints code on label and attaches label to plug, PRINTING lamp goes off, and COMPLETE lamp lights. Display reads out code which is burned into plug. Operation halts with READ, CODED, CHECK, VERIFY, and COMPLETE lamps lighted. (Refer to following note; then proceed to paragraph 4-189.)

NOTE

If code label is not properly attached to plug, use pointed tool such as a small screwdriver bit to straighten label or to remove it if label is badly bunched. If label is removed, press READ switch again to obtain a new code label.

f. If code burned into plug does not match code set in digiswitches, CODED and ERROR lamps light and display reads out plug code with indicators containing errors blanked. Operation halts with READ, CODED, CHECK, VERIFY, and ERROR lamps lighted. (Proceed to paragraph 4-189.)

4-188. If code set in digiswitches is illegal:

a. CODE, CHECK, and ERROR lamps light.

b. Display reads out digiswitch code with indicators containing errors blanked.

NOTE

None of the indicators will blank if the error is an illegal combination of FUNCTION and GAIN switch settings. For FUNCTION switch settings of 57 or 77, the only legal GAIN switch setting is 1.

c. Operation halts with READ, UNCODED, CODE, CHECK, and ERROR lamps lighted. (Proceed to paragraph 4-191.)

4-189. If operation halts with COMPLETE lamp lighted, check that code printed on label matches code shown on display. Remove plug from test connector by pulling plug eject lever. Insure that label is firmly attached to plug. This completes procedure for coding the TC132 Code Plug.

4-190. If operation halts, with READ, CODED, CHECK, VERIFY, and ERROR lamp, lighted, code burned into plug does not match code set in digiswitches. If digiswitches have not been changed and digiswitch settings match display readout, the fault is in the PT1561 Programmer Test Set; reject PT1561 Programmer Test Set for maintenance. A code other than the desired code may be coded into the plug. In this case, the code burned into the plug may be determined by reading the plug according to procedures in paragraph 4-171. There is no means of correcting a code once it is burned into the plug.

4-191. If operation halts, with READ, UNCODED, CODE, CHECK, and ERROR lamps lighted, code set in digiswitches is illegal. Perform following procedure to correct digiswitch settings and code the plug.

a. Press READ switch; READ and UNCODED lamps remain lighted and CODE, CHECK, and ERROR lamps go off. Display is blanked.

b. Reset digiswitches for desired legal code. For information on legal codes, refer to table 4-4.

c. Repeat coding procedure beginning with paragraph 4-186.

4-192. If power is lost during the 63-second burn period, perform the following procedure to complete the coding operation after power has been restored.

a. Remove the partially coded plug from the PT1561 Programmer Test Set test connector.

b. Install an uncoded code plug in the test connector.

c. Check that ON - OFF switch is in ON position.

d. Press AC PWR switch. AC PWR lamp lights.

e. Momentarily press READ switch. READ and UNCODED lamps light and display is blanked.

f. Remove uncoded code plug from test connector and reinstall partially coded plug in test connector.

g. Check that digiswitches are still set to the code that was partially coded in plug.

h. Repeat coding procedure beginning with paragraph 4-186.

SECTION V

MAINTENANCE

5-1. GENERAL.

5-2. This section provides preventive and corrective maintenance procedures for the PT1561 Programmer Test Set. Preventive maintenance procedures are to be repeated at the specified intervals. Corrective maintenance procedures are to be performed as required to correct malfunctions of the PT1561 Programmer Test Set.

5-3. PREVENTIVE MAINTENANCE.

5-4. INSPECTION INTERVALS. It is recommended that the PT1561 Programmer Test Set be inspected in conjunction with and prior to calibration and any time there is doubt as to the operability of the PT1561 Programmer Test Set.

5-5. GENERAL INSPECTION PROCEDURES.

5-6. Inspect PT1561 Programmer Test Set, U7483 Printer, and U7484 Simulator for signs of damage or indications of defective equipment such as:

NOTE

In this procedure, visually inspect printed circuit cards to the extent possible without removing cards from racks. However, if damage is suspected on a specific card, remove suspected card from rack for a thorough examination.

a. Dirt, grease, or other foreign material on interior or exterior.

b. Burned or damaged insulation or components.

c. Signs of faulty electrical contacts.

d. Plug-in components loose in their sockets.

e. Cable connections loose.

f. Sticky operating controls or mechanisms.

g. Broken or loose wires.

h. Connector adapter (in J1, test connector, on PT1561 Programmer Test Set panel, figure 5-1) damaged or worn; e.g., bent pins or cracked plastic.

i. In tropical or high-humidity locations: moisture, mildew, and fungus growth on interior or exterior.

5-7. When defects are found, repair or replace components and wiring as applicable. For replacement of parts, refer to paragraph 5-70. After repair, perform functional checkout procedures specified in paragraph 5-91.

5-8. CORRECTIVE MAINTENANCE.

5-9. GENERAL. Corrective maintenance is limited by the personnel and facilities available to the concerned organization. If the difficulty cannot be located and repaired, deliver the unit to the responsible Service agency or depot for more extensive troubleshooting or repair at the higher maintenance level.

5-10. TROUBLESHOOTING.

5-11. GENERAL PROCEDURE.

5-12. If the PT1561 Programmer Test Set malfunctions, attempt to eliminate the trouble without making extensive checks or dismantling equipment. For example:

a. Examine cable connections.

b. Verify connection to power source. Insure that power source is activated.

c. Clean switch contacts by operating switch controls rapidly several times with power off.

d. Check that lamps are properly installed.

5-13. If these procedures do not isolate trouble, connect U7484 Simulator to PT1561 Programmer Test Set and repeat operation producing malfunction. Refer to text and corresponding partial logic diagram for circuit in which malfunction is observed (circuits are discussed in paragraph 4-53). When possible trouble points are located on partial diagrams, refer to the PT1561 Programmer Test Set logic diagram (figure 6-8) for complete circuit wiring information. The sequence of troubleshooting, in general, is left to the discretion of the experienced troubleshooter; however, table 5-9 provides troubleshooting information with suggested procedures for various conditions likely to be encountered with PT1561 Programmer Test Set. The SUGGESTED PROCEDURE in table 5-9 is intended only as a guide of where to start troubleshooting.

5-14. TC432 CODE PLUG.

5-15. The TC432 Code Plug is schematically illustrated in figure 6-7. The TC432 Code Plug has 63 resistors and 58 diodes. The TC432 Code Plug is coded by the application of 40 V, 100 ma through the PT1561 Programmer Test Set. Coding is accomplished by the opening or burning of specific resistors. Subcodes for the resistors are shown in table 5-1.

5-16. The subcodes for RF Channel, ID Channel, and Audio Time are binary-type codes and the corresponding resistors are burned out in patterns which represent the binary bits 0 and 1. As shown in figure 6-7, the resistors representing these binary-type codes are paired (e.g., resistors R1 and R2, R3 and R4). For these codes in which the resistor pairs represent binary bits, the odd numbered resistor is burned out to represent a 1 bit and the even numbered resistor is burned out to represent a 0 bit. If both resistors of a binary pair are burned or if both resistors are intact, this condition represents a code error.

5-17. See Tables 5-2 thru 5-6 for identification codes.

5-18. CODE TABLES.

5-19. In order to troubleshoot certain PT1561 Programmer Test Set malfunctions, it may be necessary to trace PT1561 Programmer Test Set circuits back from the code plug resistors which are being misread or miscoded. Therefore, code tables are provided which relate the code plug resistors to the decimal codes which are selected and displayed on the PT1561 Programmer Test Set.

5-20. The code table for each subcode is as follows:

RF Channel (Table 5-2)
ID Channel (Table 5-3)
Function (Table 5-4)
Audio Time (Table 5-5)
Gain (Table 5-6)

TABLE 5-1.

TC432 Code Plug Resistor and Subcode Identification.

PANEL DISPLAY	RESISTOR	DISPLAY DIGET
RF Channel	R25 through R30	1
	R1 through R12	2 and 3
ID Channel	R13 through R24	4 and 5
	R35 through R48	
Function	R31 through R34	6 and 7
	R49 through R52	
	R59 through R63	
Audio Time	R53 through R56	8
Gain	R59 through R63	9

TABLE 5-2.

RF CHANNEL CODES

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 ⟶ Burn = 0 ⟶	R29 R30	R27 R28	R25 R26	R11 R12	R9 R10	R7 R8	R5 R6	R3 R4	R1 R2
100	0	0	1	1	0	0	0	0	0
101	0	0	1	1	0	0	0	0	1
102	0	0	1	1	0	0	0	1	0
103	0	0	1	1	0	0	0	1	1
104	0	0	1	1	0	0	1	0	0
105	0	0	1	1	0	0	1	0	1
106	0	0	1	1	0	0	1	1	0
107	0	0	1	1	0	0	1	1	1
108	0	0	1	1	0	1	0	0	0
109	0	0	1	1	0	1	0	0	1
110	0	0	1	1	0	1	0	1	0
111	0	0	1	1	0	1	0	1	1
112	0	0	1	1	0	1	1	0	0
113	0	0	1	1	0	1	1	0	1
114	0	0	1	1	0	1	1	1	0
115	0	0	1	1	0	1	1	1	1
116	0	0	1	1	1	0	0	0	0
117	0	0	1	1	1	0	0	0	1
118	0	0	1	1	1	0	0	1	0
119	0	0	1	1	1	0	0	1	1
120	0	0	1	1	1	0	1	0	0
121	0	0	1	1	1	0	1	0	1
122	0	0	1	1	1	0	1	1	0
123	0	0	1	1	1	0	1	1	1
124	0	0	1	1	1	1	0	0	0
125	0	0	1	1	1	1	0	0	1
126	0	0	1	1	1	1	0	1	0
127	0	0	1	1	1	1	0	1	1
128	0	0	1	1	1	1	1	0	0
129	0	0	1	1	1	1	1	0	1
130	0	0	1	1	1	1	1	1	0
131	0	0	1	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2.

(Continued

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 →	R29	R27	R25	R11	R9	R7	R5	R3	R1
Burn = 0 →	R30	R28	R26	R12	R10	R8	R6	R4	R2
200	0	1	0	1	0	0	0	0	0
201	0	1	0	1	0	0	0	0	1
202	0	1	0	1	0	0	0	1	0
203	0	1	0	1	0	0	0	1	1
204	0	1	0	1	0	0	1	0	0
205	0	1	0	1	0	0	1	0	1
206	0	1	0	1	0	0	1	1	0
207	0	1	0	1	0	0	1	1	1
208	0	1	0	1	0	1	0	0	0
209	0	1	0	1	0	1	0	0	1
210	0	1	0	1	0	1	0	1	0
211	0	1	0	1	0	1	0	1	1
212	0	1	0	1	0	1	1	0	0
213	0	1	0	1	0	1	1	0	1
214	0	1	0	1	0	1	1	1	0
215	0	1	0	1	0	1	1	1	1
216	0	1	0	1	1	0	0	0	0
217	0	1	0	1	1	0	0	0	1
218	0	1	0	1	1	0	0	1	0
219	0	1	0	1	1	0	0	1	1
220	0	1	0	1	1	0	1	0	0
221	0	1	0	1	1	0	1	0	1
222	0	1	0	1	1	0	1	1	0
223	0	1	0	1	1	0	1	1	1
224	0	1	0	1	1	1	0	0	0
225	0	1	0	1	1	1	0	0	1
226	0	1	0	1	1	1	0	1	0
227	0	1	0	1	1	1	0	1	1
228	0	1	0	1	1	1	1	0	0
229	0	1	0	1	1	1	1	0	1
230	0	1	0	1	1	1	1	1	0
231	0	1	0	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2.

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 ⟶ Burn = 0 ⟶	R29 R30	R27 R28	R25 R26	R11 R12	R9 R10	R7 R8	R5 R6	R3 R4	R1 R2
300	0	1	1	1	0	0	0	0	0
301	0	1	1	1	0	0	0	0	1
302	0	1	1	1	0	0	0	1	0
303	0	1	1	1	0	0	0	1	1
304	0	1	1	1	0	0	1	0	0
305	0	1	1	1	0	0	1	0	1
306	0	1	1	1	0	0	1	1	0
307	0	1	1	1	0	0	1	1	1
308	0	1	1	1	0	1	0	0	0
309	0	1	1	1	0	1	0	0	1
310	0	1	1	1	0	1	0	1	0
311	0	1	1	1	0	1	0	1	1
312	0	1	1	1	0	1	1	0	0
313	0	1	1	1	0	1	1	0	1
314	0	1	1	1	0	1	1	1	0
315	0	1	1	1	0	1	1	1	1
316	0	1	1	1	1	0	0	0	0
317	0	1	1	1	1	0	0	0	1
318	0	1	1	1	1	0	0	1	0
319	0	1	1	1	1	0	0	1	1
320	0	1	1	1	1	0	1	0	0
321	0	1	1	1	1	0	1	0	1
322	0	1	1	1	1	0	1	1	0
323	0	1	1	1	1	0	1	1	1
324	0	1	1	1	1	1	0	0	0
325	0	1	1	1	1	1	0	0	1
326	0	1	1	1	1	1	0	1	0
327	0	1	1	1	1	1	0	1	1
328	0	1	1	1	1	1	1	0	0
329	0	1	1	1	1	1	1	0	1
330	0	1	1	1	1	1	1	1	0
331	0	1	1	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 →	R29	R27	R25	R11	R9	R7	R5	R3	R1
Burn = 0 →	R30	R28	R26	R12	R10	R8	R6	R4	R2
400	1	0	0	1	0	0	0	0	0
401	1	0	0	1	0	0	0	0	1
402	1	0	0	1	0	0	0	1	0
403	1	0	0	1	0	0	0	1	1
404	1	0	0	1	0	0	1	0	0
405	1	0	0	1	0	0	1	0	1
406	1	0	0	1	0	0	1	1	0
407	1	0	0	1	0	0	1	1	1
408	1	0	0	1	0	1	0	0	0
409	1	0	0	1	0	1	0	0	1
410	1	0	0	1	0	1	0	1	0
411	1	0	0	1	0	1	0	1	1
412	1	0	0	1	0	1	1	0	0
413	1	0	0	1	0	1	1	0	1
414	1	0	0	1	0	1	1	1	0
415	1	0	0	1	0	1	1	1	1
416	1	0	0	1	1	0	0	0	0
417	1	0	0	1	1	0	0	0	1
418	1	0	0	1	1	0	0	1	0
419	1	0	0	1	1	0	0	1	1
420	1	0	0	1	1	0	1	0	0
421	1	0	0	1	1	0	1	0	1
422	1	0	0	1	1	0	1	1	0
423	1	0	0	1	1	0	1	1	1
424	1	0	0	1	1	1	0	0	0
425	1	0	0	1	1	1	0	0	1
426	1	0	0	1	1	0	0	1	0
427	1	0	0	1	1	1	0	1	1
428	1	0	0	1	1	1	1	0	0
429	1	0	0	1	1	1	1	0	1
430	1	0	0	1	1	1	1	1	0
431	1	0	0	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 ⟶	R29	R27	R25	R11	R9	R7	R5	R3	R1
Burn = 0 ⟶	R30	R28	R26	R12	R10	R8	R6	R4	R2
500	1	0	1	1	0	0	0	0	0
501	1	0	1	1	0	0	0	0	1
502	1	0	1	1	0	0	0	1	0
503	1	0	1	1	0	0	0	1	1
504	1	0	1	1	0	0	1	0	0
505	1	0	1	1	0	0	1	0	1
506	1	0	1	1	0	0	1	1	0
507	1	0	1	1	0	0	1	1	1
508	1	0	1	1	0	1	0	0	0
509	1	0	1	1	0	1	0	0	1
510	1	0	1	1	0	1	0	1	0
511	1	0	1	1	0	1	0	1	1
512	1	0	1	1	0	1	1	0	0
513	1	0	1	1	0	1	1	0	1
514	1	0	1	1	0	1	1	1	0
515	1	0	1	1	0	1	1	1	1
516	1	0	1	1	1	0	0	0	0
517	1	0	1	1	1	0	0	0	1
518	1	0	1	1	1	0	0	1	0
519	1	0	1	1	1	0	0	1	1
520	1	0	1	1	1	0	1	0	0
521	1	0	1	1	1	0	1	0	1
522	1	0	1	1	1	0	1	1	0
523	1	0	1	1	1	0	1	1	1
524	1	0	1	1	1	1	0	0	0
525	1	0	1	1	1	1	0	0	1
526	1	0	1	1	1	1	0	1	0
527	1	0	1	1	1	1	0	1	1
528	1	0	1	1	1	1	1	0	0
529	1	0	1	1	1	1	1	0	1
530	1	0	1	1	1	1	1	1	0
531	1	0	1	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2.

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 ⟶	R29	R27	R25	R11	R9	R7	R5	R3	R1
Burn = 0 ⟶	R30	R28	R26	R12	R10	R8	R6	R4	R2
600	1	1	0	1	0	0	0	0	0
601	1	1	0	1	0	0	0	0	1
602	1	1	0	1	0	0	0	1	0
603	1	1	0	1	0	0	0	1	1
604	1	1	0	1	0	0	1	0	0
605	1	1	0	1	0	0	1	0	1
606	1	1	0	1	0	0	1	1	0
607	1	1	0	1	0	0	1	1	1
608	1	1	0	1	0	1	0	0	0
609	1	1	0	1	0	1	0	0	1
610	1	1	0	1	0	1	0	1	0
611	1	1	0	1	0	1	0	1	1
612	1	1	0	1	0	1	1	0	0
613	1	1	0	1	0	1	1	0	1
614	1	1	0	1	0	1	1	1	0
615	1	1	0	1	0	1	1	1	1
616	1	1	0	1	1	0	0	0	0
617	1	1	0	1	1	0	0	0	1
618	1	1	0	1	1	0	0	1	0
619	1	1	0	1	1	0	0	1	1
620	1	1	0	1	1	0	1	0	0
621	1	1	0	1	1	0	1	0	1
622	1	1	0	1	1	0	1	1	0
623	1	1	0	1	1	0	1	1	1
624	1	1	0	1	1	1	0	0	0
625	1	1	0	1	1	1	0	0	1
626	1	1	0	1	1	1	0	1	0
627	1	1	0	1	1	1	0	1	1
628	1	1	0	1	1	1	1	0	0
629	1	1	0	1	1	1	1	0	1
630	1	1	0	1	1	1	1	1	0
631	1	1	0	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2.

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 ⟶	R29	R27	R25	R11	R9	R7	R5	R3	R1
Burn = 0 ⟶	R30	R28	R26	R12	R10	R8	R6	R4	R2
700	1	1	1	1	0	0	0	0	0
701	1	1	1	1	0	0	0	0	1
702	1	1	1	1	0	0	0	1	0
703	1	1	1	1	0	0	0	1	1
704	1	1	1	1	0	0	1	0	0
705	1	1	1	1	0	0	1	0	1
706	1	1	1	1	0	0	1	1	0
707	1	1	1	1	0	0	1	1	1
708	1	1	1	1	0	1	0	0	0
709	1	1	1	1	0	1	0	0	1
710	1	1	1	1	0	1	0	1	0
711	1	1	1	1	0	1	0	1	1
712	1	1	1	1	0	1	1	0	0
713	1	1	1	1	0	1	1	0	1
714	1	1	1	1	0	1	1	1	0
715	1	1	1	1	0	1	1	1	1
716	1	1	1	1	1	0	0	0	0
717	1	1	1	1	1	0	0	0	1
718	1	1	1	1	1	0	0	1	0
719	1	1	1	1	1	0	0	1	1
720	1	1	1	1	1	0	1	0	0
721	1	1	1	1	1	0	1	0	1
722	1	1	1	1	1	0	1	1	0
723	1	1	1	1	1	0	1	1	1
724	1	1	1	1	1	1	0	0	0
725	1	1	1	1	1	1	0	0	1
726	1	1	1	1	1	1	0	1	0
727	1	1	1	1	1	1	0	1	1
728	1	1	1	1	1	1	1	0	0
729	1	1	1	1	1	1	1	0	1
730	1	1	1	1	1	1	1	1	0
731	1	1	1	1	1	1	1	1	1

(Continued on next page)

TABLE 5-2.

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED								
	Digit 1				Digits 2 and 3				
Burn = 1 ⟶	R29	R27	R25	R11	R9	R7	R5	R3	R1
Burn = 0 ⟶	R30	R28	R26	R12	R10	R8	R6	R4	R2
800	0	0	0	1	0	0	0	0	0
801	0	0	0	1	0	0	0	0	1
802	0	0	0	1	0	0	0	1	0
803	0	0	0	1	0	0	0	1	1
804	0	0	0	1	0	0	1	0	0
805	0	0	0	1	0	0	1	0	1
806	0	0	0	1	0	0	1	1	0
807	0	0	0	1	0	0	1	1	1
808	0	0	0	1	0	1	0	0	0
809	0	0	0	1	0	1	0	0	1
810	0	0	0	1	0	1	0	1	0
811	0	0	0	1	0	1	0	1	1
812	0	0	0	1	0	1	1	0	0
813	0	0	0	1	0	1	1	0	1
814	0	0	0	1	0	1	1	1	0
815	0	0	0	1	0	1	1	1	1
816	0	0	0	1	1	0	0	0	0
817	0	0	0	1	1	0	0	0	1
818	0	0	0	1	1	0	0	1	0
819	0	0	0	1	1	0	0	1	1
820	0	0	0	1	1	0	1	0	0
821	0	0	0	1	1	0	1	0	1
822	0	0	0	1	1	0	1	1	0
823	0	0	0	1	1	0	1	1	1
824	0	0	0	1	1	1	0	0	0
825	0	0	0	1	1	1	0	0	1
826	0	0	0	1	1	1	0	1	0
827	0	0	0	1	1	1	0	1	1
828	0	0	0	1	1	1	1	0	0
829	0	0	0	1	1	1	1	0	1
830	0	0	0	1	1	1	1	1	0
831	0	0	0	1	1	1	1	1	1

TABLE 5-3.

ID CHANNEL CODES

DISPLAY CODE	CODE RESISTORS BURNED						
Burn = 1 →	R23	R21	R19	R17	R15	R13	PARITY BIT
Burn = 0 →	R24	R22	R20	R18	R16	R14	
Burn = 1 →	R35	R37	R39	R41	R43	R45	R47
Burn = 0 →	R36	R38	R40	R42	R44	R46	R48
01	0	1	0	1	0	1	0
02	0	1	0	1	1	1	0
03	0	1	0	1	1	1	1
04	0	1	1	0	0	1	0
05	0	1	1	0	1	0	0
06	0	1	1	0	1	1	1
07	0	1	1	1	0	1	1
08	0	1	1	1	1	0	1
09	0	1	1	1	1	1	0
11	1	0	0	1	0	1	0
12	1	0	0	1	1	0	0
13	1	0	0	1	1	1	1
14	1	0	1	0	0	1	0
15	1	0	1	0	1	0	0
16	1	0	1	0	1	1	1
17	1	0	1	1	0	1	1
18	1	0	1	1	1	0	1
19	1	0	1	1	1	1	0
21	1	1	0	1	0	1	1
22	1	1	0	1	1	0	1
23	1	1	0	1	1	1	0
24	1	1	1	0	0	1	1
25	1	1	1	0	1	0	1
26	1	1	1	0	1	1	0
27	1	1	1	1	0	1	0
28	1	1	1	1	1	0	0

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TABLE 5-3.

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED						
Burn = 1 →	R23	R21	R19	R17	R15	R13	PARITY BIT
Burn = 0 →	R24	R22	R20	R18	R16	R14	
Burn = 1 →	R35	R37	R39	R41	R43	R45	R47
Burn = 0 →	R36	R38	R40	R42	R44	R46	R48
29	1	1	1	1	1	1	1
31	0	0	0	1	0	1	1
32	0	0	0	1	1	0	1
33	0	0	0	1	1	1	0
34	0	0	1	0	0	1	1
35	0	0	1	0	1	0	1
36	0	0	1	0	1	1	0
37	0	0	1	1	0	1	0
38	0	0	1	1	1	0	0
39	0	0	1	1	1	1	1
41	0	1	0	0	0	1	1
42	0	1	0	0	1	0	1
43	0	1	0	0	1	1	0
44	1	0	0	0	0	1	1
45	1	0	0	0	1	0	1
46	1	0	0	0	1	1	0
47	1	1	0	0	0	1	0
48	1	1	0	0	1	0	0
49	1	1	0	0	1	1	1
51	0	1	0	1	0	0	1
52	0	1	1	0	0	0	1
53	0	1	1	1	0	0	0
54	1	0	0	1	0	0	1
55	1	0	1	0	0	0	1
56	1	0	1	1	0	0	0
57	1	1	0	1	0	0	0

(Continued on next page)

TABLE 5-3.

(Continued)

DISPLAY CODE	CODE RESISTORS BURNED						
Burn = 1 →	R23	R21	R19	R17	R15	R13	PARITY BIT
Burn = 0 →	R24	R22	R20	R18	R16	R14	
Burn = 1 →	R35	R37	R39	R41	R43	R45	R47
Burn = 0 →	R36	R38	R40	R42	R44	R46	R48
58	1	1	1	0	0	0	0
59	1	1	1	1	0	0	1
61	0	0	0	0	0	1	0
62	0	0	0	0	1	0	0
63	0	0	0	0	1	1	1
64	0	0	0	1	0	0	0
65	0	0	1	0	0	0	0
66	0	0	1	1	0	0	1
67	0	1	0	0	0	0	0
68	1	0	0	0	0	0	0
69	1	1	0	0	0	0	1
71	0	0	0	0	0	0	1

TABLE 5-4.

FUNCTION CODES

DISPLAY CODE	CODE RESISTORS BURNED (a and b in table refer to footnotes)					
Burn = 1 → / Burn = 0 →	R49 / R50	R51 / R52	R31 / R32	R33 / R34	R57 / R58	R59 THRU R63
00	0	0	0	0	a	b
01	0	0	0	1	a	b
02	0	0	1	9	a	b
03	0	0	1	1	a	b
04	0	1	0	0	a	b
05	0	1	0	1	a	b
06	0	1	1	0	a	b
07	0	1	1	1	a	b
10	1	0	0	0	a	b
11	1	0	0	1	a	b
12	1	0	1	0	a	b
13	1	0	1	1	a	b
14	1	1	0	0	a	b
15	1	1	0	1	a	b
16	1	1	1	0	a	b
17	1	1	1	1	a	b
57	a	a	a	a	0	a
77	a	a	a	a	1	a

NOTES:

a. Both (or all) of the resistors are burned

b. All or all but one of the resistors are burned

TABLE 5-5.

AUDIO TIME CODES

DISPLAY CODE	CODE RESISTORS BURNED	
BURN = 1 → **BURN = 0 →**	**R53** **R54**	**R55** **R56**
0 1 2 3	0 0 1 1	0 1 0 1

TABLE 5-6.

GAIN CODES

DISPLAY CODE	CODE RESISTORS BURNED				
Burn = 1 **Not Burn = 0** →	**R59**	**R60**	**R61**	**R62**	**R63**
1 2 3 4 5 6	1 0 1 1 1 1	1 1 0 1 1 1	1 1 1 0 1 1	1 1 1 1 0 1	1 1 1 1 1 0

5-21. CODE ERROR DETECTION GENERAL.

5-22. Figure 6-6 is a partial diagram showing the final gating of the PT1561 Programmer Test Set code error detection logic, the complete logic for detecting illegal codes is extensive , and is not included in the partial diagram. The partial diagram shows the gating to the point where each input represents a specific type of code error. Though not shown in the diagram, the logic for each specific type of code error is discussed in the following text (through paragraph 5-42).

5-23. As shown in figure 6-6, any illegal code detected produces an input at gate 1A10-50 or 1A29-44 and correspondingly lights the ERROR lamp whenever gate 2A12-25 or 3A17-40 is enabled. The Gain error input to gate 1A9-44 and all the direct error inputs to gate 1A10-50 originate from logic which monitors codes read into the storage FFs.

5-24. That error inputs to gate 1A17-13 represent those code errors which are unique to the digiswitches and are detected b) monitoring the digiswitch outputs directly. These error sources are inhibited by gate 2A8-26 during the read operation and enabled when the CHECK lamp lights during the code operation.,

5-25. The input logic for contact 20 on gate 1A9-44 is similarly enabled only during the code operation. This logic detects any mismatch between the settings of the digiswitches and the code in the storage FFs. (The code in the storage FFs is displayed on the PT1561 Programmer Test Set panel.)

5-26. If a code in the storage FFs contains an error, the input to the error gate is also utilized to blank out the corresponding digital display characters. For example, any error in the RF Channel code blanks out all three RF Channel characters on the digital display. Similarly, the digiswitch error inputs also blank the corresponding display characters during the coding operation only. The ID Channel error input from the digiswitches blanks the display due to the fact that the read-only-memories which decode the digiswitch outputs will not produce an output for an illegal code.

5-27. The complete logic for each specific type of code error may be traced back in the logic figure 6-8), from the corresponding input of gate 1A10-50, 1A9-44, or 1A17-13. To aid the trouble shooter in understanding the error logic, its function is discussed in the following paragraphs (through 5-42). The function of the error logic is discussed in relation to the errors which it detects, in the digiswitch settings and the combinations of code resistors burned. The error logic, of course, does not directly monitor the code resistors, but rather monitors the outputs of the read storage FFs. These storage FFs are set according to the condition of the code resistors (burned or not burned) during the read operation. In Figure 6-8), the read storage FFs are identified by the corresponding code resistor number.

5-28. RF CHANNEL ERROR.

5-29. An understanding of the material in paragraphs 5-14 through 5-27 is essential to this discussion. Table 5-7 lists the illegal digiswitch settings detected by the RF Channel error logic. If such an error is detected, a low-level error signal is input to contact 36 of gate 1A17-13.

5-30. The RF Channel code is burned into code plug resistors R1 through R12 and R25 through R30. Each binary resistor pair included in this group (e.g., R1 and R2) must have one and only one of its resistors burned. If this is not true, the RF Channel error logic will input a low-level error signal to contact 24 of gate 1A10-50.

5-31. ID CHANNEL ERROR. An understanding of the material in paragraphs 5-14 through 5-27 is essential to this discussion. Table 5-7 lists the illegal digiswitch settings detected by the ID Channel error logic. If such an error is detected, a low-level error signal is input to contact 9 of gate 1A17-13.

TABLE 5-7

DIGISWITCH SETTING ERRORS

CODE	ALLOWABLE SETTINGS	POSSIBLE SETTINGS	ILLEGAL SETTINGS
RF CHANNEL	100 thru 131	100 thru 139	132 thru 139
	200 thru 231	200 thru 239	232 thru 239
	300 thru 331	300 thru 339	332 thru 339
	400 thru 431	400 thru 439	432 thru 439
	500 thru 531	500 thru 539	532 thru 539
	600 thru 631	600 thru 639	632 thru 639
	700 thru 731	700 thru 739	732 thru 739
	800 thru 831	800 thru 839	832 thru 839
ID CHANNEL	01 thru 09	01 thru 09	None
	11 thru 19	11 thru 19	None
	21 thru 29	21 thru 29	None
	31 thru 39	31 thru 39	None
	41 thru 49	41 thru 49	None
	51 thru 59	51 thru 59	None
	61 thru 69	61 thru 69	None
	71	71 thru 79	72 thru 79
FUNCTION	00 thru 07	00 thru 07	None
	10 thru 17	10 thru 17	None
	(Continued on next page)		

TABLE 5-7.

(Continued)

CODE	ALLOWABLE SETTINGS	POSSIBLE SETTINGS	ILLEGAL SETTINGS
	57 77	20 thru 27 30 thru 37 40 thru 47 50 thru 57 60 thru 67 70 thru 77	20 thru 27 30 thru 37 40 thru 47 50 thru 56 60 thru 67 70 thru 76
AUDIO TIME	0 thru 3	0 thru 3	None
GAIN	1 thru 6	1 thru 6	None

5-32. The ID Channel code is burned into code plug resistors R13 through R24 and R35 through R48. Each binary resistor pair included in this group (e.g. R13 and R14, R35 and R36) must have one and only one of its resistors burned. In addition, the resistors in each of the following pairs must be burned or not burned identically (e.g., if R13 is burned, R45 must also be burned). If these conditions are not true, the ID Channel error logic will input a low-level error signal to contact 23 of gate 1A10-50.

R13, R45	R17, R41	R21, R37
R14, R46	R18, R42	R22, R38
R15, R43	R19, R39	R23, R35
R16, R44	R20, R40	R24, R36

5-33. FUNCTION ERROR.

5-34. An understanding of the material in paragraphs 5-14 through 5-27 is essential to this discussion. Table 5-7 lists the illegal digiswitch settings detected by the Function error logic. If such an error is detected, a low-level error signal is input to contact 40 of gate 1A17-13.

5-35. The Function code is burned into code plug resistors R31 through R34, R49 through R52, and R57 through R63.

5-36. If R57 and R58 are both burned, the following conditions must be met. Each of the resistor pairs R31 and R32, R33 and R34, R49 and R50, and R51 and R52 must have one and only one of its resistors burned. All or all but one of resistors R59 through R63 must be burned.

5.37. If one and only one of resistors R57 and R58 is burned, then resistors R31 through R34, R49 through R52, and R59 through R63 must all be burned.

5.38. If neither of these sets of conditions is true, the Function error logic will input a low-level error signal to contact 22 of gate 1A10-50.

5.39. AUDIO TIME ERROR.

5-40. An understanding of the material in paragraphs 5-14 through 5-27 is essential to this discussion. For Audio Time, there are no illegal digiswitch settings possible.

5-41. The Audio time code is bruned into code plug resistors R53 through R56. Each binary resistor pair (R53 and R54, R55 and R56) must have one and only one of its resistors burned. If this is not true, the Audio Time error logic will input a low-level error signal to contact 52 of gate 1A10-50.

5-42. GAIN ERROR.

5-43. An understanding of the material in paragraphs 5-14 through 5-27 is essential to this discussion. For Gain, there are no illegal digiswitch settings. However, a gain of 1 is the only legal Gain setting in combination with a Function setting of 57 or 77. When a Function setting of 57 or 77 is read, a gain of 1 is automatically selected by the PT1561 Programmer Test Set logic and read into the storage FFs. Under this condition, if the GAIN switch is set to positions 2 through 6, the mismatch logic will detect an error during the CHECK operation and provide a low-level error signal to contact 20 of gate 1A9-44. In this case, the GAIN display will not be blanked even though an error exists.

5-44. The Gain code is burned into code plug resistors R59 through R63. All or all but one of these resistors must be burned. If this is not true, the Gain error logic will input a low-level error signal to contact 21 of gate 1A9-44.

5-45. U7484 SIMULATOR.

5-46. As shown in figure 6-9, the U7484 Simulator simulates the code resistor circuits of the TC432 Code Plug by using latching relays in place of the resistors. The U7484 Simulator also provides the capability of inserting legal and illegal code patterns (listed in table 5-8) into the latching relays to check the read and error detection capabilities of the PT1561 Programmer Test Set. In the reset condition, the U7484 Simulator can be read and coded in the same matter as a TC432 Code Plug. The relays of figure 6-9 are identified by the resistor numbers to which the relays corresond.

5-47. The U7484 Code plug Simulator was supplied with the PT1561 Programmer Test Set to verify the correct operation of the PT1561 Programmer Test Set and also as an aid to troubleshooting the PT1561 Programmer Test Set.

5-48. Selected legal codes and codes containing errors can be inserted in the simulator to check the read capability of the PT1561 Programmer Test Set.

5-49. Any legal code can be burned into the simulator and that code will remain in the simulator until the RESET or INSERT CODE switches are pressed.

5-50. Code plug resistors are simulated by latching relays in the U7484 Simulator. Diode networks are connected to the INSERT CODE switch to energize selected relays for the desired code.

5-51. The only code plug characteristic that cannot be simulated by the simulator is the time in which a code plug resistor opens upon application of current. Normally, a code plug resistor will open in approximately 100 μs or less when 100 ma is applied, whereas the latching relays in the U7484 Simulator require approximately 1 ms to operate.

5-52. Transient voltage spikes may contain enough to burn a code plug resistor but will not operate a simulator relay. As stated in the previous paragraph, the simulator cannot simulate this code plug characteristic.

5-53. When ever the PT1561 Programmer Test Set does not operate properly, use the U7484 Simulator to troubleshoot the PT1561 Programmer Test Set to eliminate the possibility of destroying code plugs.

TABLE 5-8.

SELECTABLE SIMULATOR CODES

CODE SELECT SWITCH	ERROR SELECT SWITCH	CODE	RF CHANNEL									ID CHANNEL							AUDIO TIME		FUNCTION								
		Burn = 1 →	R29	R27	R25	R11	R9	R7	R5	R3	R1	R23 R35	R21 R37	R19 R39	R17 R41	R15 R43	R13 R45	R47	R53	R55	R49	R51	R31	R33	R57	GAIN				
		Burn = 0 →	R30	R28	R26	R12	R10	R8	R6	R4	R2	R24 R36	R22 R38	R20 R40	R18 R42	R16 R44	R14 R46	R48	R54	R56	R50	R52	R32	R34	R58	R59	R60	R61	R62	R63
																										(Burn = 1; Not Burn = 0)				
1	0	521-21-57-0-1	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	1	0	0	a	a	a	a	0	1	1	1	1	1
2	0	521-01-77-1-1	1	0	1	1	1	0	1	0	1	0	1	0	1	0	1	0	0	1	a	a	a	a	1	1	1	1	1	1
3	0	210-15-00-2-1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	0	0	0	0	a	1	1	1	1	1
4	0	210-15-01-3-2	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0	1	a	0	1	1	1	1
5	0	210-15-02-3-3	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1	0	0	1	0	a	1	0	1	1	1
6	0	210-15-04-3-4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1	0	1	0	0	a	1	1	0	1	1
7	0	210-15-10-3-5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1	1	0	0	0	a	1	1	1	0	1
8	0	210-15-17-3-6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	1	1	1	1	1	a	1	1	1	1	0
1	1 (Note d)	521-21-xx-0-1	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	1	0	0	(a	a	a	a	a)	1	1	1	1	1
3	2 (Note d)	210-15-xx-2-1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	(a	0	0	0	a)	1	1	1	1	1
5	3 (Note d)	xxx-15-02-3-x	0	1	0	1	0	1	0	1	(a)	1	0	1	0	1	0	0	1	1	0	0	1	0	a	(0	0)	1	1	1
6	4 (Note d)	210-xx-04-x-4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	(b)	0	1	(a)	0	1	0	0	a	1	1	0	1	1
6	5 (Note d)	210-xx-04-3-4	0	1	0	1	0	1	0	1	0	1	0	1	0	1	(c)	0	1	1	0	1	0	0	a	1	1	0	1	1

NOTES:

a. Both resistors are burned.

b. R13, R14, and R46 burned, R45 not burned.

c. R14, R45, and R46 burned, R13 not burned.

d. Resistor groups giving error are encircled.

5-54. MEASUREMENT OF CODE PLUG RESISTORS OR SIMULATOR CIRCUIT. This procedure is used to isolate trouble to either TC432 Code Plug (or U7484 Simulator) or PT1561 Programmer Test Set.

5-55. If the ERROR lamp lights when it should not light, refer to figure 6-9 and to tables 5-2 through 5-6. Measure with ohmmeter the resistance between the appropriate pins on TC432 Code Plug or U7484 Simulator connector to determine if proper resistors (or latching relays) are still intact.

5-56. A typical resistance measurement would be approximately 700 ohms when a diode is in series with resistor and approximately 400 ohms when no diode is in series with resistor.

NOTE

It is not necessary to disconnect code plug (or U7484 Simulator) from PT1561 Programmer Test Set nor to remove power from PT1561 Programmer Test Set to make the above resistance measurements provided the PT1561 Programmer Test Set is not in the coding cycle.

5-57. CHECKING PRINTED CIRCUIT BOARDS.

NOTE

The printed-circuit-card racks mounted at the rear of the panel-chassis assembly have reference designator 3A, 2A, and 1A from front to rear. There are 30 cards in each rack numbered 1 through 30 from left to right (when facing front panel). For example, card 2A18 is the 18th card from left in card rack 2A. Test points TP1 through TP13 and the ground test point TPG are located at the top of each printed circuit card.

5-58. If any printed circuit (PC) board is thought to be faulty, many checks can be made on the board to determine if it is faulty, such as:

a. Remove PC board from PT1561 Programmer Test Set and check all discrete components on the board with an ohmmeter.

b. Remove PC board from PT1561 Programmer Test Set, insert an extender card (H-4701) in the vacant connector, and then insert the PC board in the extender. With reference to the EECO catalog or the figure defining the PC board, troubleshoot the board using probe, voltmeter, and/or scope. The pin numbers for all the integrated circuits (IC's) on a board are given on the drawing for the board.

5-59. USING THE LOGIC PROBE.

5-60. Connect BNC-to-alligator-clips adapter to BNC connector on probe.

5-61. Connect red alligator clip (center conductor of BNC connector) to +5 v. Pins 1 and 29 on all PC board connectors are +5 v.

5-62. Connect black alligator clip (shell of BNC connector) to ground. Pins 28 and 56 on all PC board connectors are ground.

5-63. After the probe has been properly connected to +5 v and ground, the indicator lamps on the probe will be lighted.

5-64. When the probe point is connected to a voltage more positive than approximately 1.4 vdc, the indicator lamp will remain lighted.

5-65. When the probe point is connected to a voltage less positive than approximately 1.4% dc, the indicator lamp will not be lighted.

5-66. When the probe point is connected to a single pulse or a short series of pulses, the indicator lamp will flash. The lamp will flash off for a negative pulse and flash on for a positive pulse. A negative pulse is one that goes to ground from a positive voltage, and a positive pulse is one that goes from ground to a positive voltage.

5-67. When the probe point is connected to a series of pulses, the indicator lamp will dim; if each pulse is long enough, the indicator lamp will flash for each pulse.

5-68. An oscilloscope must be used to determine the actual characteristics of a single pulse or series of pulses. Such characteristics are: amplitude, width, rise time, fall time, and pulse sequence.

5-69. TROUBLESHOOTING AIDS. Table 5-9 lists general information and suggested procedures for troubleshooting. The procedures for the listed symptoms are intended to direct the maintenance personnel to the area to start troubleshooting.

TABLE 5-9.

TROUBLESHOOTING INFORMATION

INDICATION/CONDITION	SUGGESTED PROCEDURE
POWER TURN-ON	
When AC PWR switch is pressed and only display lights (while switch is pressed) and AC PWR lamp does not light.	Check 28-v power source.
AC PWR switch is pressed, AC PWR lamp lights, fan operates, but no indicators are lit.	Check 5-v power source. **NOTE** **The PS3 crowbar-adjustment is set to cut off the PS3 output if the output goes as high as 5.6v. If crowbar cutoff inadvertently occurs, reinstate PS3 output as follows: Set PS5 voltage adjustment for output below 5.6v, turn ON - OFF switch off and then on again, and press AC PWR switch.**
At end of coding sequence, the display is not lighted; the READ, UNCODED, CODE, CHECK. and VERIFY lamps are lit.	Check ± 40-v power source; check fuse, switch, or power supply.
When AC PWR switch is pressed, AC PWR lamp lights and display must be 701 XX 20 37. This indicates that internal circuitry in programmer has been properly cleared. If the display indicates other than 701 XX 20 37, circuitry is not cleared.	Sheets 6, 7, and 8 of figure 6-8 contain all storage FF's. Start troubleshooting by checking FF's for proper state. When a FF is in the cleared state, the 0 output will be high and the 1 output will be low. If any FF's are not in cleared state, determine reason. If all FF's are in cleared state, then check decoders that drive the indicators. **NOTE** **The indicators may be faulty.**

TABLE 5-9. CONT'D

INDICATION/CONDITION	SUGGESTED PROCEDURE
READ OPERATION	
Whenever READ switch is pressed and held, the display must be 701 XX 20 37. This indicates that internal circuitry in programmer has been properly cleared. If the display indicates other than 701 XX 20 37, circuitry is not cleared.	Refer to sheets 6, 7, and 8 of figure 6-8. Check storage FF's for proper state. If any FF's are not in cleared state, determine reason. If all FF's are in cleared state, then check decoders that drive the indicators. **NOTE** **The indicators may be faulty.**
After the READ switch is released, if ERROR lamp lights and any of the display digits are blanked.	Check if code plug or simulator has that error by performing procedure in paragraph 5-54. If the code plug (or simulator) is determined to be uncoded or correctly coded, the trouble is in the programmer. If code plug (or simulator) is correct, refer to figure 6-8 and start troubleshooting at ERROR GATE 1A10 whose output is 50 (located on sheet 14). Work backwards through logic as necessary to isolate faulty circuit.
After READ switch is released, the READ and CODED lamps light but ERROR lamp does not light and apparently a normal printing cycle has occurred but erroneous digits are printed.	Refer to sheet 13 of figure 6-8. Check scanner output by grounding the inverter that drives the inputs to the scanner gates; e.g., for character 1, ground 3A28 pin 6. Using voltmeter or logic probe, check inputs and outputs of decoder that drives printer module. The decoder and printer module are shown on sheet 2 of figure 6-8. Each character may be checked by grounding its corresponding inverter.
NOTE **There are 63 FF's in the programmer to store the condition (intact or open) for each resistor in the code plug. If the code plug is uncoded (all resistors intact), the following FF's (referred to by R number corresponding to R designation for code plug resistor) will be in the set state (1 output is high and 0 output is low): R1 through R30, R35 through R48, R53 through R56, and R59 through R63. All other FF's (R31 through R34, R49 through R52, R57, and R58) will be in the cleared state (1 output is low and 0 output is high).**	

TABLE 5-9. CONT"D

INDICATION/CONDITION	SUGGESTED PROCEDURE
CODE OPERATION	
Whenever the code switch is pressed and held, the display must be blank. This will only occur if the READ and UNCODED lamps are lighted. The CODE switch has no effect under any other circumstances.	Refer to sheets 6, 7, and 8 of figure 6-8. Check storage FF's for proper state. If any FF's are not in cleared state, then check ,decoders that drive the indicators. **NOTE** **The indicators may be faulty.**
After the CODE switch is released, if ERROR lamp lights and any of the display digits are blanked.	Check to determine if the digiswitches corresponding to the(blanked indicator are set to an illegal code. Refer to Table 5-7. If all digiswitches are set to legal codes, refer to figure 6-8 and start troubleshooting at ERROR GATE 1A10 whose output is 50 (located on sheet 14). Work backwards through logic as necessary to isolate faulty circuit. During the check cycle, information is read into the 63 storage FF's from the digiswitches through the appropriate code converters. This information is gated through the 2-input gate that is connected to the set (S) input of each FF.
After the CODE switch is released, the READ, UNCODED, and CHECK lamp will be lighted and the CODE lamp will flash 8 times per second for 63 seconds. If the CODE lamp does not flash, it may indicate that the 64-Hz oscillator is not running.	Refer to sheet 4 of figure 6-8 and check that the 64-Hz clock is turned on by a high at 1A1-44. The 64-Hz pulses can be viewed at 1A1-9.
After coding is complete (63 seconds after CODE switch is released), the ERROR lamp lights.	Check if code plug or simulator has that error by performing procedure in paragraph 5-54. If the code plug (or simulator) is determined to be uncoded or correctly coded, the trouble is in the programmer. If code plug (or simulator) is correct, refer to figure 6-8 and start troubleshooting at ERROR GATE 1A10 whose output is 50 (located on sheet 14). Work backwards through logic as necessary to isolate faulty circuit.

TABLE 5-9. CONT'D

INDICATION/CONDITION	SUGGESTED PROCEDURE
CODE OPERATION (Cont'd)	
After coding has been completed and apparently a normal printing cycle has occurred but erroneous digits are printed.	Refer to sheet 13 figure 6-8. Check scanner output 3A28 pin 6. Using voltmeter or logic probe, check by grounding the inverter that drives the inputs to inputs and outputs of decoder that drives printer the scanner gates; e.g., for character 1, ground module. The decoder and printer module are shown on sheet 2 of figure 6-8. Each character may be checked by grounding its corresponding inverter.

5-70. REPLACEMENT OF PARTS.

5-71. GENERAL.

5-72. These procedures assume technical competence in the area of normal replacement activities, such as replacement of lamps, panel indicators, resistors, relays, power supplies, wiring, and harness lacing. Details of these and similar activities are not provided. The connector adapter portion of the test connector must be replaced periodically because of anticipated wear through normal use. Replacement procedures are specified in paragraph 5-75.

5-73. Before removing an electrical part, sketch or note the location and routing of the connecting wires as necessary.

5-74. After any repair is completed, perform the functional checkout procedures given in paragraph 5-5.

5-75. REPLACEMENT OF CONNECTOR ADAPTER. Replace connector adapter portion of test connector as follows:

5-76. Pull PT1561 Programmer Test Set chassis approximately 6 in. out of cabinet.

5-77. Disconnect P2 of U7483 Printer from J3 of PT 1561 Programmer Test Set.

5-78. Disconnect ribbon cable from printed circuit board of printer.

5-79. Remove 4 mounting screws supporting printer on PT1561 Programmer Test Set panel and remove printer from panel.

5-80. Using appropriate size alien wrench, loosen 4 alien screws (top, bottom, and sides) which secure connector adapter in ejector housing (figure 5-1).

5-81. Rotate ejector stop (figure 5-1) so that stop (figure 5-1) as that stop points straight up.

5-82. Pull plug eject handle on PT1561 Programmer Test Set panel to eject connector adapter.

5-83. Rotate ejector to its down position.

5-84. Install replacement connector adapter in connector built into ejector housing and check through viewing port (figure 5-1) that connectors are fully mated.

5-85. Tighten 4 alien screws which secure connector adapter in ejector housing.

5-86. Position printer on PT1561 Programmer Test Set panel so that mounting holes in printer are aligned with mounting holes on panel. Install 4 mounting screws, but do not tighten screws.

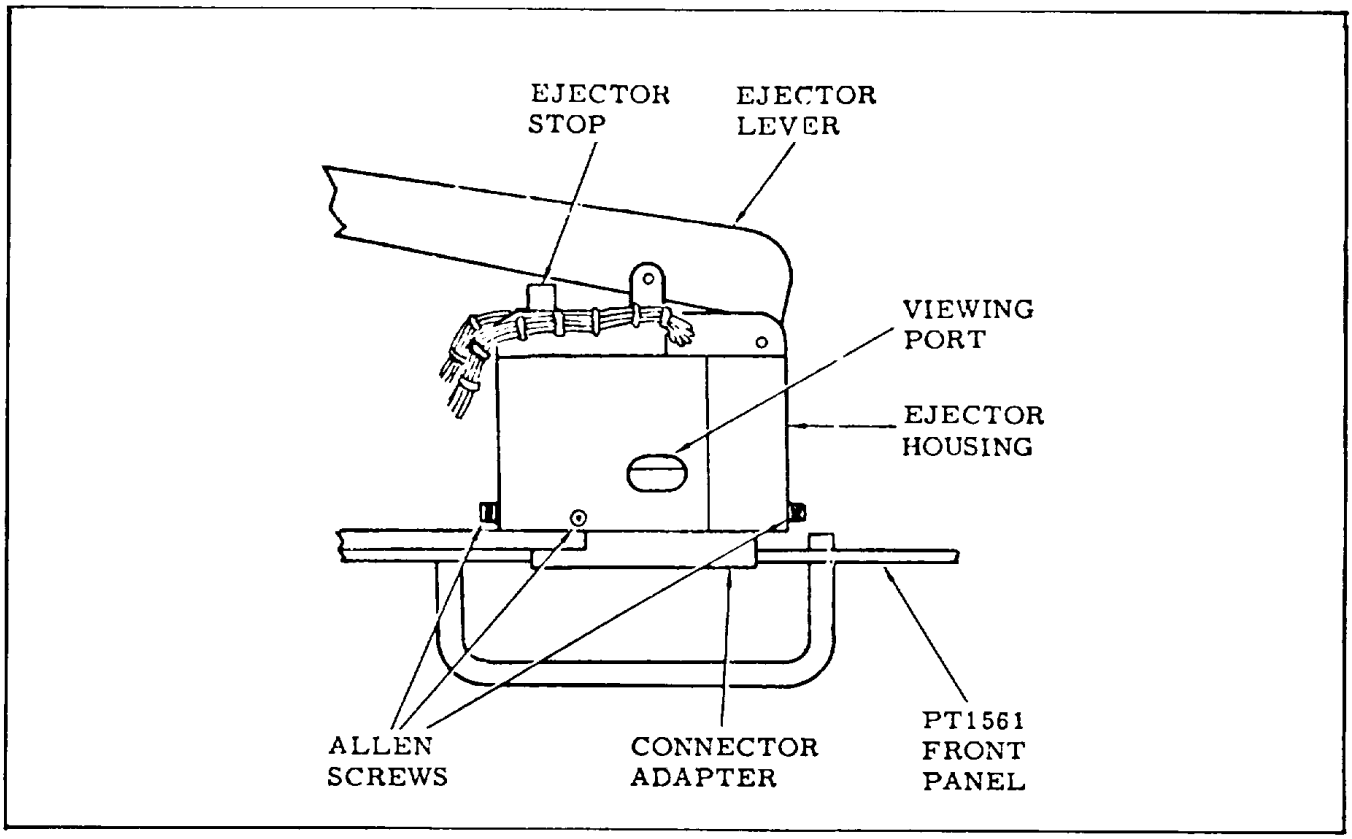

Figure 5-1. Replacing Connector Adapter

5-87. Moving printer slightly as required, install code plug in test connector. Tighten 4 mounting screws securing printer to panel.

5-88. Connect ribbon cable of PT1561 Programmer Test Set to printed circuit board connector of printer insuring that brown wire of ribbon cable is positioned up.

5-89. Connect P2 of printer to J3 of PT1561 Programmer Test Set.

5-90. Push PT1561 Programmer Test Set back into rack.

5-91. FUNCTIONAL CHECKOUT PROCEDURE.

5-92. After completion of maintenance procedures that may have affected PT1561 Programmer Test Set operation, perform the following functional checkout procedures:

5-93. If the repair involved calibrated circuits, calibrate the PT1561 Programmer Test Set in accordance with paragraph 5-96.

5-94. Perform daily check in accordance with paragraph 4-135.

5-95. Disconnect PT1561 Programmer Test Set from power and/or turn off power, as desired.

5-96. CALIBRATION.

5-97. The following provides procedures required to calibrate the PT1561 Programmer Test Set for use.

5-98. Calibration procedures in this document provide one suitable method of calibration for the PT1561 Programmer Test Set. Alternate procedures and/or alternate calibration equipment may be used at the discretion of the responsible Service agency, provided reliability and accuracy of the PT1561 Programmer Test Set are not compromised.

5-99. The calibration procedures given here provide the acceptable limits for each critical circuit or component and describe operations required to prepare the PT1561 Programmer Test Set for making the applicable measurement. PT1561 Programmer Test Set connection points for the calibration equipment are also specified. Detailed instructions for operation of the calibration equipment are not included since a variety of calibration equipment, functionally equivalent to that specified, may be used by the applicable Service agency.

5-100. POWER REQUIREMENTS.

5-101. PT1561 Programmer Test Set requires a power source capable of supplying 115 ±10 v, 50 to 400 Hz at 5 amperes.

5-102. Prepare the U7483 Printer in accordance with paragraph

5-103. CALIBRATION INTERVAL.

5-104. The tester must have been calibrated at some time within the 3-month period preceding use.

5-105. CALIBRATION INVALIDATION.

5-106. Calibration is invalidated by shipment, removal from use and subsequent storage, expiration of the prescribed calibration interval, and by replacement of an electrical component in a calibrated circuit. It is the responsibility of the using activity to recalibrate or to request recalibration, as applicable, any time abnormal handling or any other condition causes doubt as to the proper operation of calibrated circuits in the PT1561 Programmer Test Set.

5-107. CALIBRATION SEQUENCE.

5-108. All calibration procedures must be performed in paragraph sequence.

5-109. CALIBRATION EQUIPMENT AND ITS USE.

5-110. For calibration of the PT1561 Programmer Test Set, equipment listed in table 5-10 is required. In addition, the U7484 Simulator is required to accomplish certain measurements. Before connecting the equipment examine it for signs of physical damage. If defects are found, repair the equipment and calibrate it if applicable.

5-111. All calibration equipment used must be within calibration accuracy limits specified in the commercial manufacturer's manual or by the appropriate Service agency. Equipment listed in table 5-10 will be calibrated and maintained by the organization delegated that responsibility by the applicable Service.

TABLE 5-10.

CALIBRATION EQUIPMENT

IDENTIFICATION	SUGGESTED EQUIPMENT
Voltmeter, de, capable of measuring 40 v, -28 v, and 5 v to an accuracy of 2%	CSC, Model No. VA100A
Counter, capable of measuring 64 Hz and 25 Hz to an accuracy of 0.5%	Hewlett Packard, Model No. 5233A
Ammeter, capable of measuring 50 to 125 ma to an accuracy of 1%	CSC, Model No. VA100A

5-112. It is assumed that calibration personnel are trained and familiar with the calibration equipment being used. Calibration equipment will be operated in accordance with procedures published by the applicable commercial manufacturer or authorized Service agency. Details of operation of calibration equipment are not furnished in this manual.

5-113. The procedures are based on the assumption that calibration equipment will be used on the proper range or setting for making the measurement specified.

5-114. PRELIMINARY PROCEDURES.

5-115. Remove PT1561 Programmer Test Set panel-chassis from its own cabinet or from the special cabinet in which it is installed.

5-116. Connect PT1561 Programmer Test Set panel-chassis to ac power source (115 ± 10 v, 50 to 400 Hz, 5 amperes).

5-117. Operate ON - OFF switch to ON.

5-118. Press AC PWR switch. AC PWR lamp lights.

5-119. At rear of panel-chassis, check that power switch on power supply PS2 is in on (up) position.

5-120. Allow 10-minute warm-up time before proceeding.

NOTE

The printed-circuit-card racks mounted at the rear of the panel-chassis assembly have reference designators 3A, 2A, and 1A from front to rear. There are 30 cards in each rack numbered 1 through 30 from left to right (when facing front panel). For example, card 2A18 is the 18th card from left in card rack 2A. Test points TP1 through TP13 and the ground test point TPG are located at the top of each printed circuit card.

5-121. CALIBRATION OF POWER SUPPLIES PS1 AND PS3.

5-122. Connect input leads of calibration voltmeter to TP4 (-) and TPG (+) on card 2A18. Calibration voltmeter indicates -27.5 to -28.5 v.

5-123. If indication is not within tolerance, adjust PS1 voltage adjustment on back panel of chassis, for a voltage indication of 28.0 v.

5-124. Move input leads of calibration volunteer to TP10 (-) and TPG (+) on card 2A18. Check that calibration voltmeter indicates -12.0 to - 14.0 v. (This voltage comes from a Zener diode circuit which is not separately adjustable but is dependent on the -28 v input from PS1.)

5-125. Move input leads of calibration voltmeter to TP1 (+) and TPG (-) on card 2A18. Calibration voltmeter indicates 4.8 to 5.2 v.

NOTE

The PS3 crossbar adjustment is set to cut off the PS3 output if the output goes as high as 5.6 v. If crowbar cutoff inadvertently occurs, reinstate PS3 output as follows: Set PS5 voltage adjustment for output below 5.6 v, turn ON - OFF switch off and then on again, and press AC PWR switch.

5-126. If indication is not within tolerance, adjust PS3 voltage adjustment on back panel of chassis for a voltage indication of 5.0 v.

5-127. Disconnect calibration voltmeter from card 2A18.

5-128. CALIBRATION OF POWER SUPPLY PS2.

5-129. Connect input leads of calibration voltmeter to + and - terminal on panel of power supply PS2 (Hewlett Packard Model 6218A) mounted on back panel of PT1561 Programmer Test Set chassis. Calibration voltmeter indicates 39.5 to 40.5 v.

5-130. If indication is not within tolerance, adjust VOLTAGE control on PS2 panel to obtain a voltage indication of 40.0 v.

5-131. Disconnect voltmeter leads from PS2 terminals.

5-132. Connect input leads of calibration ammeter to + and - terminals on PS2 panel. Calibration ammeter indicates 98 to 102 ma.

5-133. If indication is not within tolerance, adjust CURRENT control on PS2 panel to obtain a current indication of 100 ma.

5-134. Disconnect calibration equipment from PS2.

5-135. CALIBRATION OF 64-HZ AND 25-HZ OSCILLATORS.

NOTE

The U7484 Simulator is connected to the PT1561 Programmer Test Set in order to activate the PT1561 Programmer Test Set oscillator circuits. Simulator cables CA1258 and CA1259 are normally stowed in the compartment behind access door on U7484 Simulator panel.

5-136. Connect P1 of CA1258 to J1 of U7484 Simulator.

5-137. Connect P2 of CA1258 to J4 of PT1561 Programmer Test Set. On U7484 Simulator, POWER lamp lights.

5-138. Insure that P1 of CA1259 is connected to J2 of U7484 Simulator (J2 is located in stowage compartment behind access door on U7484 Simulator panel).

5-139. Connect P2 of CA1259 to J1 (test connector) on PT1561 Programmer Test Set panel.

5-140. On U7484 Simulator, rotate CODE SELECT switch to position 1 and ERROR SELECT switch to position 0.

5-141. On U7484 Simulator, momentarily press RESET switch; RESET lamp lights while pressed.

5-142. On U7484 Simulator, momentarily press INSERT CODE switch; INSERT CODE lamp lights while pressed.

5-143. Set calibration frequency counter to count for a time interval of 1 second. The amplitude of pulses to be counted is approximately 5 v.

5-144. Connect input leads of counter to TP1 (signal) and TPG (return) on card 1A1.

5-145. On PT1561 Programmer Test Set, momentarily press READ switch. (The 25-Hz oscillator operates for approximately 16 seconds while label is printed.) Counter indicates 21 to 25.

5-146. If indication is not within tolerance, adjust the center potentiometer of the three potentiometers mounted on card 1A1 to obtain a count of 23. Press READ switch as required to keep oscillator operating while making adjustment.

5-147. Move input leads of counter to TP5 (signal) and TPG (return) on card 1A1.

5-148. On PT1561 Programmer Test Set, set code 210-15-00-2-1 into digiswitches.

5-149. On U7484 Simulator, momentarily press RESET switch; RESET lamp lights while pressed.

5-150. On PT1561 Programmer Test Set, momentarily press READ switch. READ and UNCODED lamps light.

5-151. On PT1561 Programmer Test Set, momentarily press CODE switch. (The 64-Hz oscillator operates for 63 seconds while code is set into simulator.) Counter indicates 58 to 70.

5-152. If indication is not within tolerance, adjust potentiometer nearest front panel on card 1A1 to obtain a count of 64. If adjustment cannot be made in 63-second period of operation, allow PT1561 Programmer Test Set to complete its cycle (COMPLETE lamp lighted) and then repeat the procedures in paragraphs 5-149 through 5-151 to initiate oscillator operation again.

5-153. Disconnect counter from card 1A1.

5-154. If simulator is not to be used with PT1561 Programmer Test Set (e.g., for daily check), disconnect simulator as follows:

5-155. On PT1561 Programmer Test Set, pull plug eject lever to release P2 of CA1259 from test connector.

5-156. Remove code labels attached to connector P2 of CA1259. Clean off any gum left on connector.

5-157. Disconnect cable CA1258 from U7484 Simulator and PT1561 Programmer Test Set.

5-158. Stow cables CA1258 and CA1259 in compartment behind access door on U7484 Simulator panel.

SECTION VI

DIAGRAMS

6-1. GENERAL

6-2. This section contains schematic and logic diagrams for the PT1561 Programmer. Schematic diagrams are included for the printed circuit boards used in the PT1561 Programmer.

6-3. DIAGRAM INDEX

6-4. The following index is provided to facilitate location of diagrams contained within this section.

DIAGRAM INDEX

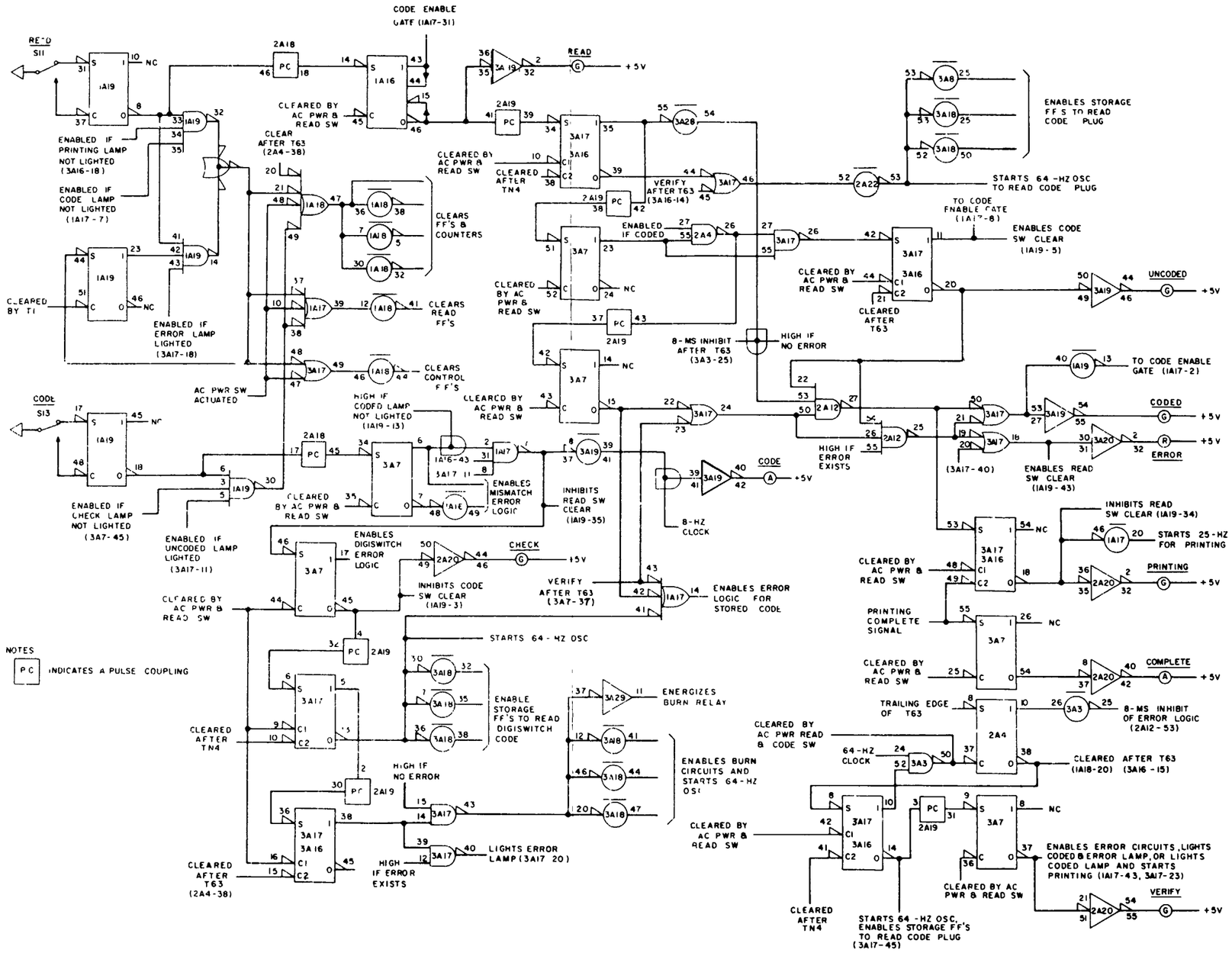

Figure 6-1. Control and Sequencing Operation, Partial Logic Diagram

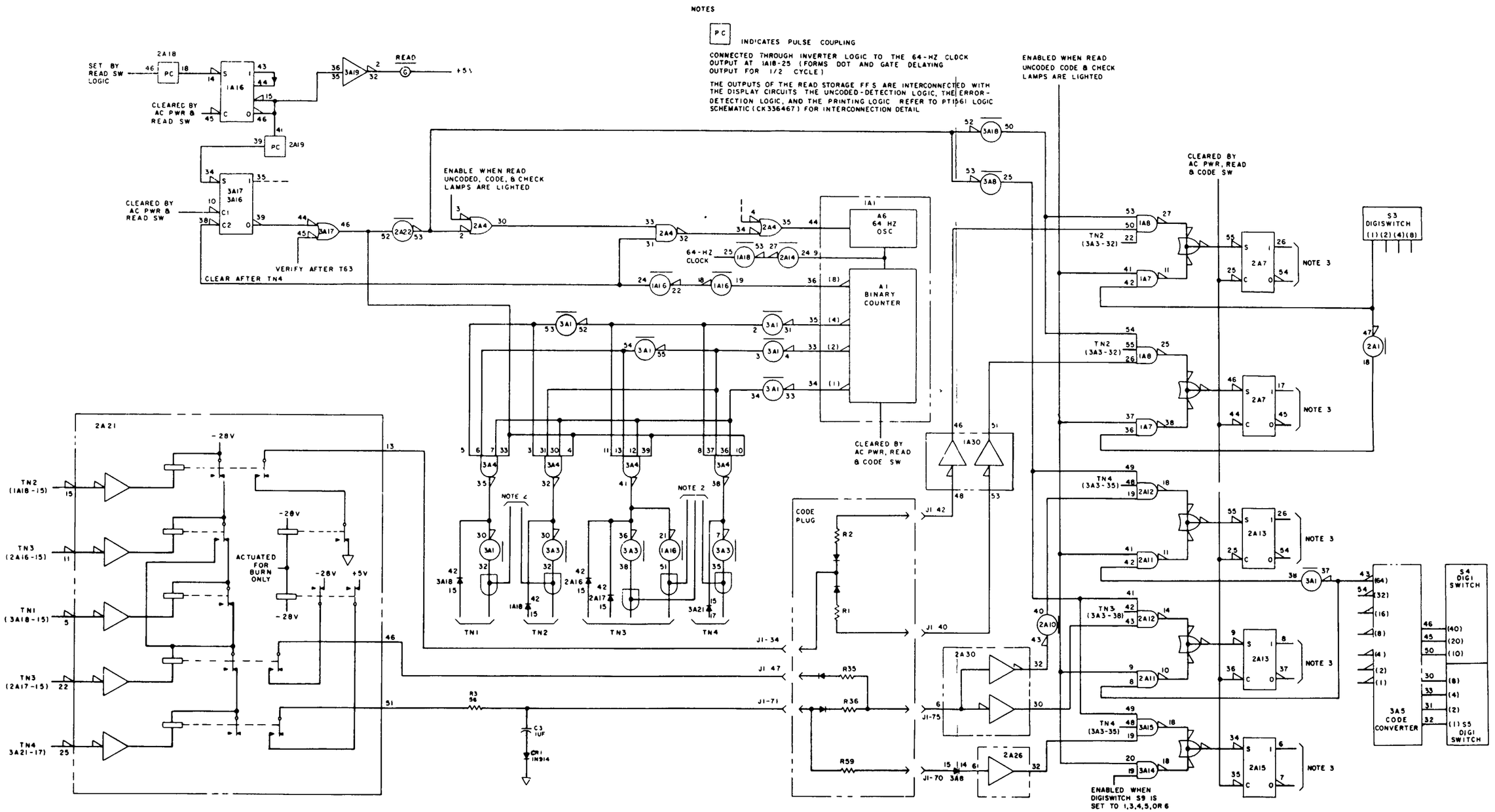

Figure 6-2. Read Operation, Partial Logic Diagram.

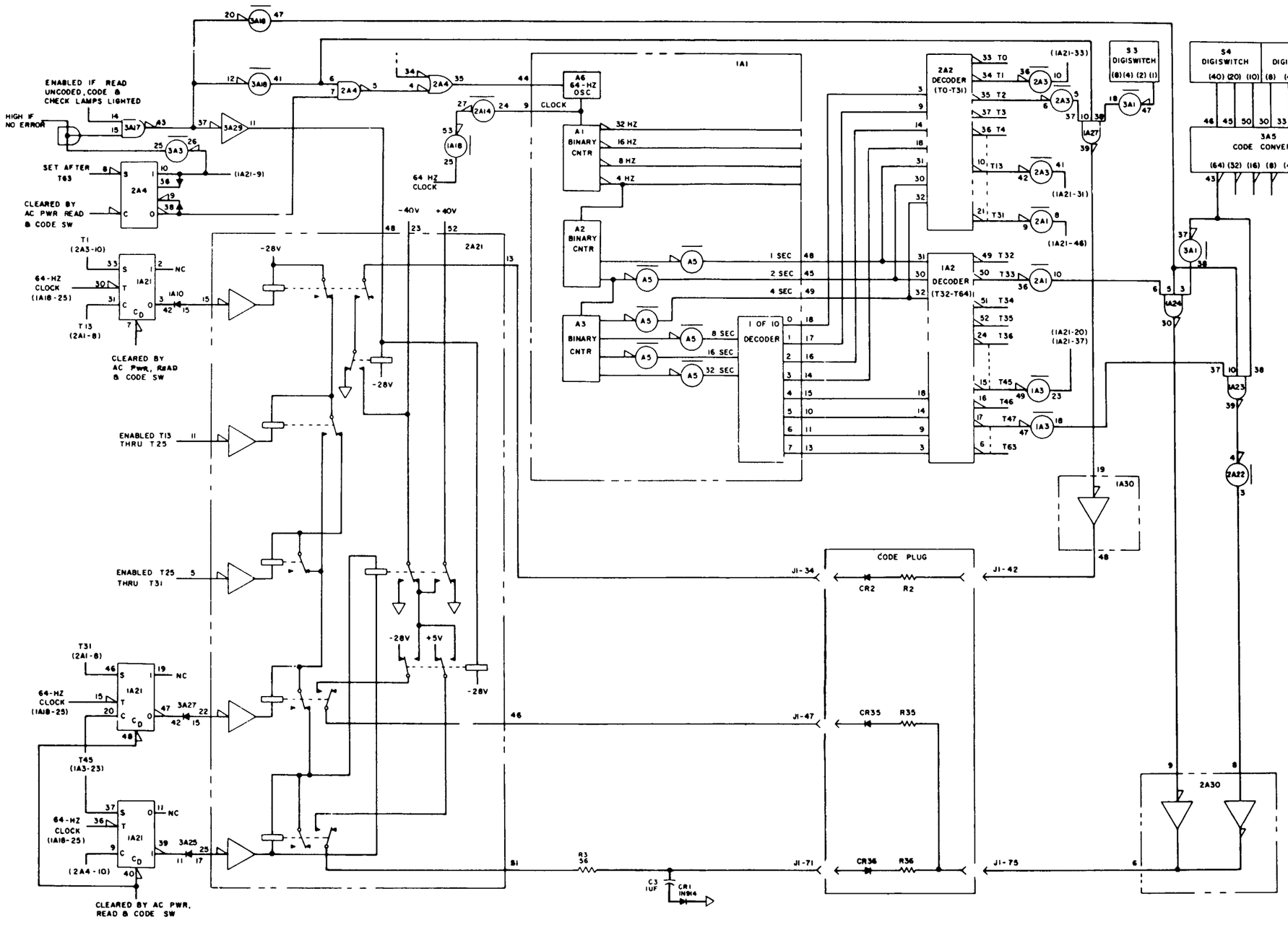

Figure 6-3. Code Burn Operation, Partial Logic Diagram

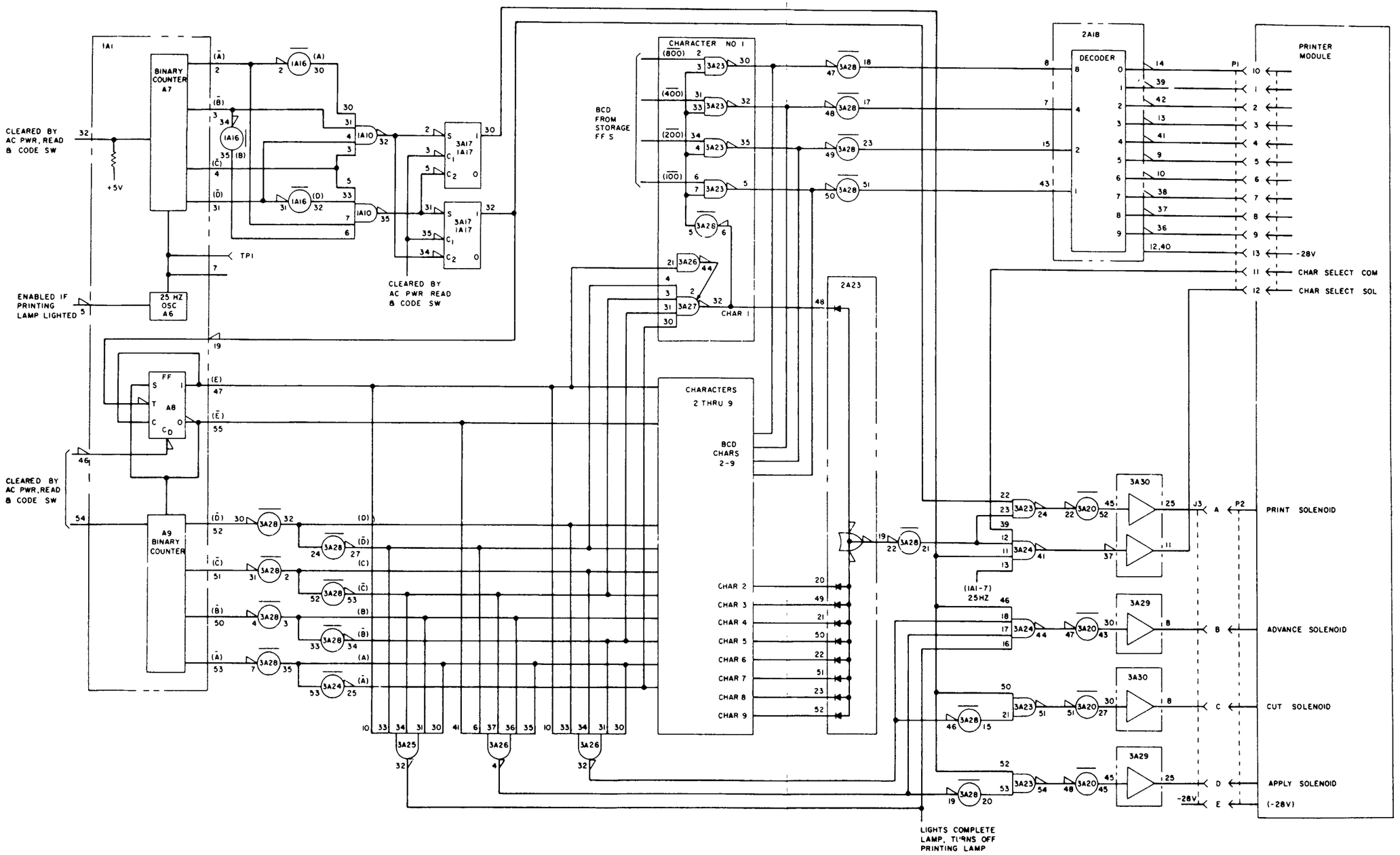

Figure 6-4. Printing Control, Partial Logic Diagram

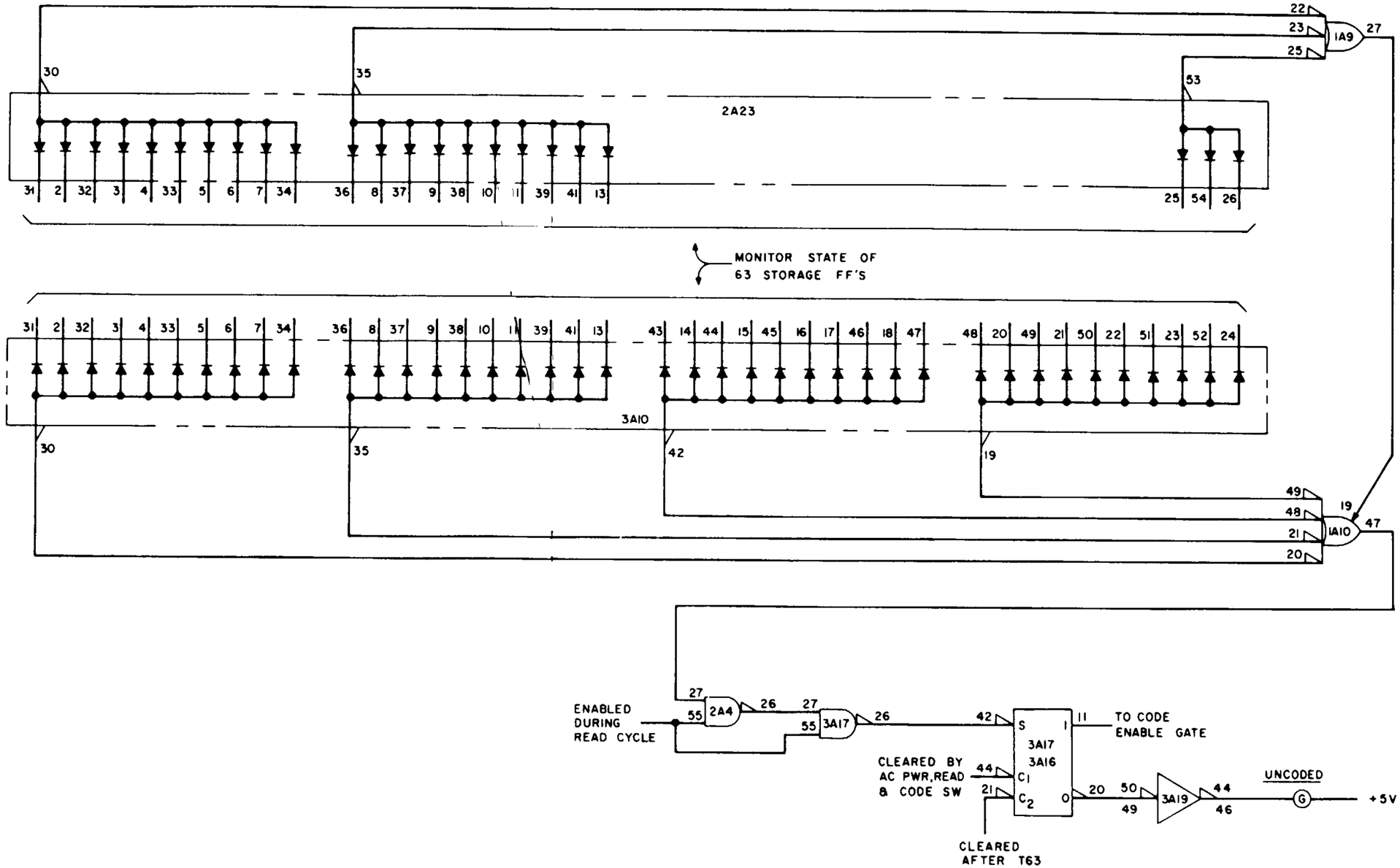

Figure 6-5. Uncoded Detection, Partial Logic Diagram

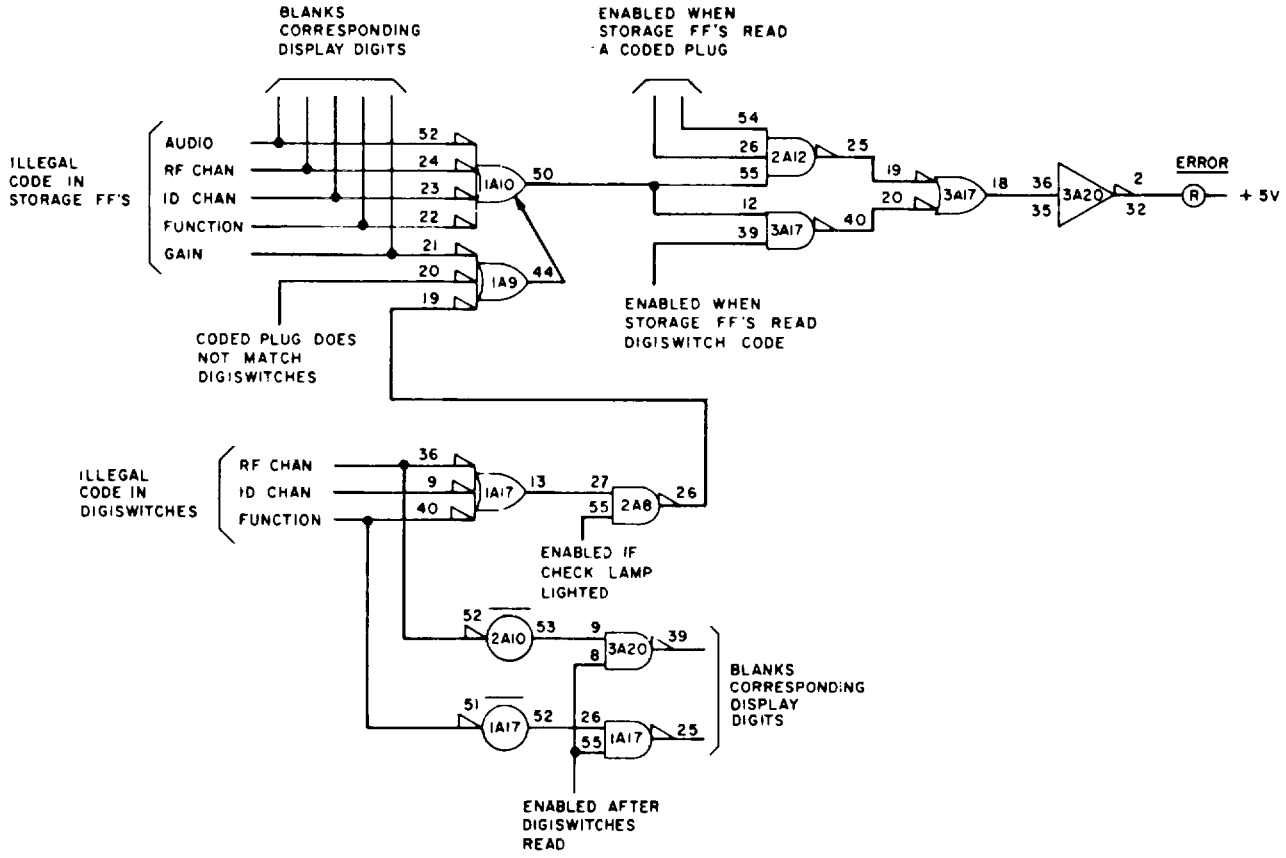

Figure 6-6. Error Detection, Partial Logic Diagram

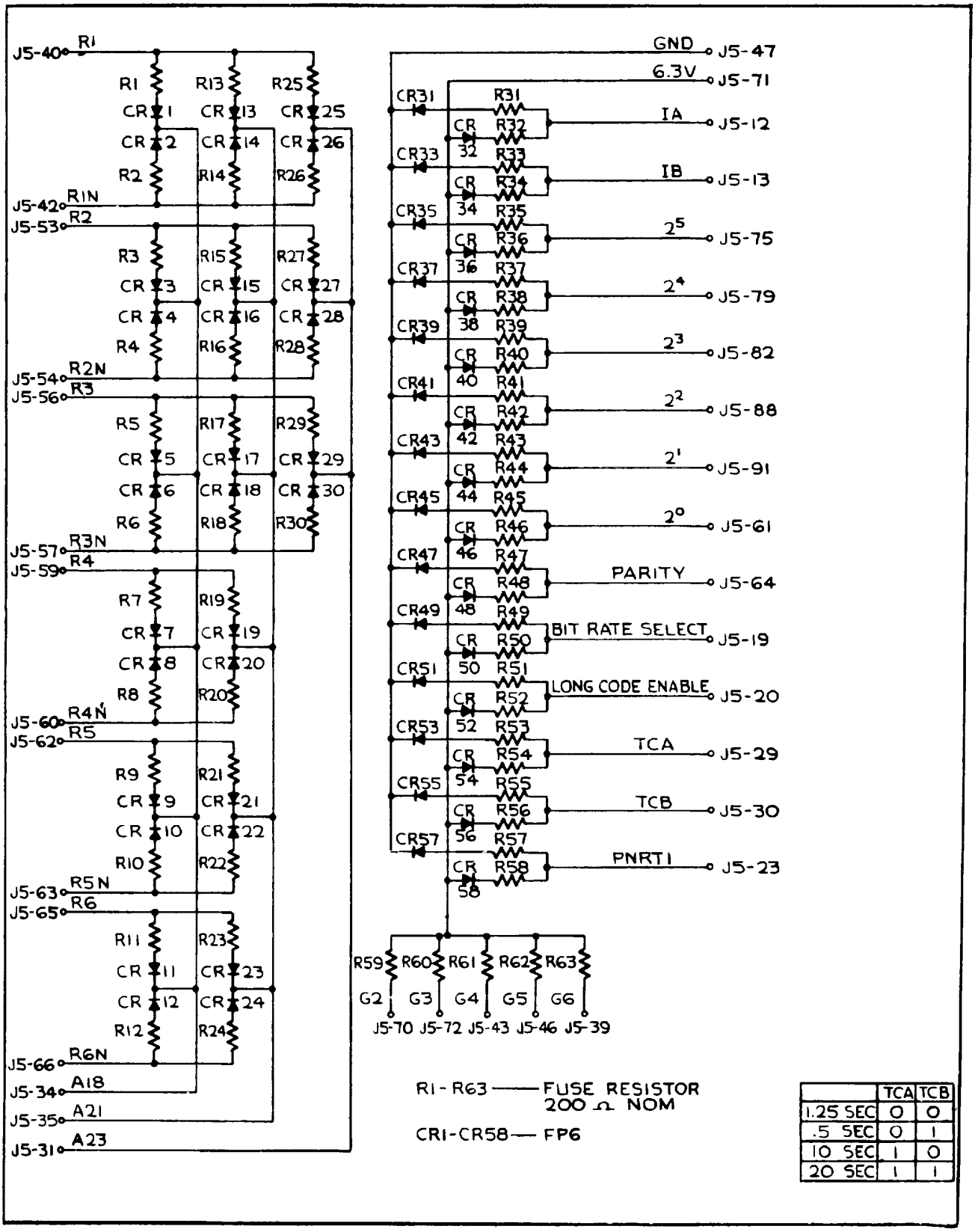

Figure 6-7. TC432 Code Plug Schematic

SLOT	CARD TYPE OR DWG NO.	SHEET LOCATION	NO. OF CKTS USED	TOTAL NO. OF CKTS	SPARE CKTS	POWER CONNECTIONS TERMINAL DESIGNATIONS +5V	-13V	-28V	GRD
1A1	283822	4	—	—	—	1,29			28,56
1A2	283816	4	—	—	—				
1A3	D4010	4	24	24	0				
1A4	D4007	3	8	8 AND DIODE CLUSTER	0				
		10	DIODE CLUSTER						
1A5	D4007	6	8	8 AND DIODE CLUSTER	0				
		10	DIODE CLUSTER						
1A6	D4004	3	11	16	0				
		6	5						
1A7	D4004	6	16	16	0				
1A8	D4008	6	12	12	0				
1A9	D4031	6	1	6 AND DIODE CLUSTER	1				
		11	2 AND DIODE CLUSTER						
		12	1						
		14	1						
1A10	D4007	2	2	8 AND DIODE CLUSTER	0				
		6	2						
		11	1						
		12	1						
		14	1						
		9	DIODE CLUSTER						
1A11	D4004	7	16	16	0				
1A12	D4005	7	12	12	0				
1A13	D4018	7	12	12	0				
1A14	283824	12						37	12,40
1A15	D4004	8	6	16	0				
		11	10						
1A16	D4004	2	3	16	0				
		4	3						
		8	4						
		11	3						
		14	3						
1A17	D4008	2	2	12	1				
		14	5						
		6	2						
		8	2						
1A18	D4005	3	1	8 AND DIODE CLUSTER	0				
		9	DIODE CLUSTER						
		14	6						
1A19	D4008	4	1	12	3				
		5	6						
		14	5						
1A20	SPARE	—	—	—	—				
1A21	D4002	9	7	8	1				
1A22	D4008	10	11	12	0				
		11	1						
1A23	D4008	10	12	12	0				
1A24	D4008	10	12	12	0				
1A25	D4008	9	6	12	0				
		10	6						
1A26	D4008	9	12	12	0				
1A27	D4005	9	12	12	0				
1A28	283812	9	2	5	3				12,40
1A29	283812	9	5	5	0				12,40
1A30	283812	9	5	5	0	1,29			12,40 28,56

SLOT	CARD TYPE OR DWG NO.	SHEET LOCATION	NO. OF CKTS USED	TOTAL NO. OF CKTS	SPARE CKTS	POWER CONNECTIONS TERMINAL DESIGNATIONS +5V	+50V	-50V	-13V	-28V	GRD
2A1	D4010	4	8	24	0	1,29					28,56
		5	16								
2A2	283816	5	—	—	—						
2A3	D4010	5	24	24	0						
2A4	D4004	4	6	16	0						
		11	5								
		12	2								
2A5	D4025	3	16	16	0						
2A6	D4025	3	4	16	2						
		6	10								
2A7	D4018	6	12	12	0						
2A8	D4004	6	15	16	0						
		14	1								
2A9	D4008	6	8	12	0						
		7	4								
2A10	D4010	6	6	24	0						
		7	7								
		11	9								
		14	2								
2A11	D4004	7	10	16	0						
		8	1								
		12	5								
2A12	D4008	7	10	12	0						
		14	2								
2A13	D4018	7	12	12	0						
2A14	D4010	4	3	24	0						
		8	12								
		11	2								
		12	7								
2A15	D4018	8	12	12	0						
2A16	D4007	8	8	8 AND DIODE CLUSTER	0						
		9	DIODE CLUSTER								
2A17	D4007	8	8	8 AND DIODE CLUSTER	0						
		9	DIODE CLUSTER								
2A18	283862	2 AND 5	—	—	—						44 12,40
2A19	283861	14	—	—	—						
2A20	D4021	14	8	8	0						
2A21	283815	9						52	23		12,40
2A22	D4010	10	18	24	0						
		11	5								
		14	1								
2A23	283825	12	3	5	1						
		13	1								
2A24	283810	11									12,40
2A25	283810	10	—	—	—						
2A26	283810	10	—	—	—						
2A27	283810	10	—	—	—						
2A28	283810	10	—	—	—						
2A29	283810	10	—	—	—						
2A30	283810	10	—	—	—	1,29					12,40 28,56

SLOT	CARD TYPE OR DWG NO.	SHEET LOCATION	NO. OF CKTS USED	TOTAL NO. OF CKTS	SPARE CKTS	POWER CONNECTIONS TERMINAL DESIGNATIONS +5V	-13V	-28V	GRD
3A1	D4010	4	6	24	0	1,29			28,56
		5	12						
		11	6						
3A2	D4008	5	9	12	0				
		11	3						
3A3	D4005	4	6	8 AND DIODE CLUSTER	0				
		10	DIODE CLUSTER						
		14	6						
3A4	D4007	4	4	8 AND DIODE CLUSTER	0				
		5	3 AND DIODE CLUSTER						
		11	1						
3A5	283823	5	—	—				37	12,40
3A6	D4025	3	16	16	0				
3A7	D4016	6	3	12	0				
		7	2						
		8	1						
		14	6						
3A8	D4005	6	7	8 AND DIODE CLUSTER	0				
		10	DIODE CLUSTER						
		14	1						
3A9	D4008	6	12	12	0				
3A10	283825	11	1	5	0				
		12	4						
3A11	D4025	7	16	16	0				
3A12	D4025	7	3	16	11				
		8	1						
		9	1						
3A13	D4031	9	DIODE CLUSTER	6 AND DIODE CLUSTER	1				
		12	5						
3A14	D4004	8	16	16	0				
3A15	D4008	8	12	12	0				
3A16	D4008	8	3	12	0				
		11	3						
		14	6						
3A17	D4004	2	2	16	0				
		14	14						
3A18	D4005	9	DIODE CLUSTER	8 AND DIODE CLUSTER	0				
		14	8						
3A19	D4021	14	8	8	0				
3A20	D4021	11	2	8	1				
		18	1						
3A21	D4031	9	DIODE CLUSTER	6 AND DIODE CLUSTER	2				
		10	3						
		11	3						
3A22	D4004	13	16	16	0				
3A23	D4004	10	1	16	0				
		13	15						
3A24	D4005	8	2	8 AND DIODE CLUSTER	0				
		10	1						
		11	1						
		13	4 AND DIODE CLUSTER						
3A25	D4091	9	DIODE CLUSTER	6 AND DIODE CLUSTER	0				
		10	1						
		13	5						
3A26	D4031	9	DIODE CLUSTER	6 AND DIODE CLUSTER	0				
		13	6						
3A27	D4005	9	DIODE CLUSTER	8 AND DIODE CLUSTER	0				
		13	8						
3A28	D4010	13	23	24	0				
		14	1						
3A29	283847	13	—	—	—				12,40
3A30	283847	13	—	—	—	1,29			12,40 28,56

NOTES: SCHEMATIC INFORMATION

1. APPLICABLE STANDARDS.
   MIL-STD-12B — ABBREVIATIONS FOR USE ON DRAWINGS
   MIL-STD-15-1A — ELECTRICAL AND ELECTRONIC GRAPHIC SYMBOLS
   ASA Y32.16-65 — REFERENCE DESIGNATIONS
   USASI Y14.15-66 — ELECTRICAL AND ELECTRONICS DIAGRAM
   ASA Y32.14-62 — GRAPHIC SYMBOLS FOR LOGIC DIAGRAMS
2. THIS LOGIC DIAGRAM IS SHOWN IN MIXED LOGIC.
3. OPEN RIGHT TRIANGLE (▷) AT SYMBOL INPUT OR OUTPUT INDICATES LESS POSITIVE WHEN ACTIVE. 0V = L.
4. IC PRECEEDING TERMINAL DESIGNATIONS INDICATES AN INTERNAL CONNECTION.
5. NC INDICATES NO CONNECTION.
6. DESIGNATIONS IN PARENTHESES ARE FUNCTION, VOLTAGE, ETC, AND ARE FOR REFERENCE INFORMATION ONLY.
7. UNDERLINED DESIGNATIONS INDICATE PANEL OR INDICATOR LIGHT MARKINGS.
8. RESISTANCE VALUES ARE IN OHMS, UNLESS OTHERWISE SPECIFIED.
9. OVERLINED DESIGNATIONS INDICATE CHASSIS MARKINGS.
10. ABSENCE OF RIGHT TRIANGLE AT SYMBOL INPUT OR OUTPUT INDICATES MORE POSITIVE WHEN ACTIVE. 4.5 V = H.

WIRING INFORMATION.

14. ALL WIRING WITHIN THE CARD RACKS SHALL BE ITEM 80.
15. ALL WIRING FROM THE CARD RACKS TO ANY EXTERNAL POINT SHALL BE ITEM 81. USE ITEM 83 AS REQUIRED.
16. DOTTED LINE (·····) INDICATES SIZE 20 WIRE, ITEM 79.
17. FOR MORE WIRING INFORMATION SEE 336467.
18. CONNECT PLUS (+) TERMINAL OF PS1 TO GROUND PLANE OF ITEM 67.
19. →— LEADS SO INDICATED SHALL BE INDIVIDUAL WIRES CONNECTED DIRECTLY TO THE COMPONENT SHOWN.

TEST POINT INFORMATION

20. 1A17 TP1 30 — INDICATES EXISTING INTERNAL TEST POINT CONNECTION. TEST POINT POINTS TOWARD PRINTED CIRCUIT CARD ON WHICH IT IS LOCATED; I.E., TP1 IS ON CARD 1A17.
21. TPG ON ALL D40XX CARDS IS LOGIC GROUND.

FUNCTIONAL INDEX

SHEET	CONTENTS
1	GENERAL INFORMATION
2	AC & DC POWER SOURCES; PRINTER TIMING CONTROL
3	DIGISWITCHES; READOUTS; CHECK & VERIFY/ COMPARISON
4	BURN, READ, AND PRINTING TIME GENERATORS.
5	RF & ID CHAN DECODERS; BURNTIME GENERATOR
6	RF CHAN STORAGE FLIP FLOPS; RF CHAN DECODER; AUDIO FLIP FLOPS
7	ID CHAN STORAGE FLIP FLOPS & COMPARATORS
8	FUNCTION & GAIN STORAGE FLIP FLOPS
9	R1 R30 BURN/READ DRIVERS; BURN/READ VOLTAGE CONTROL
10	R31 R62 BURN/READ DRIVERS
11	ERROR DETECTION CIRCUITS
12	ID CHAN DECODER & ERROR CIRCUITS; UNCODED DETECTION GATE
13	PRINTER SCANNING & CONTROL
14	PRIMARY SEQUENCE & CONTROL; FRONT PANEL SWITCHES & LAMPS.

Figure 6-8. PT1561 Programmer Schematic (Sheet 1 of 14)

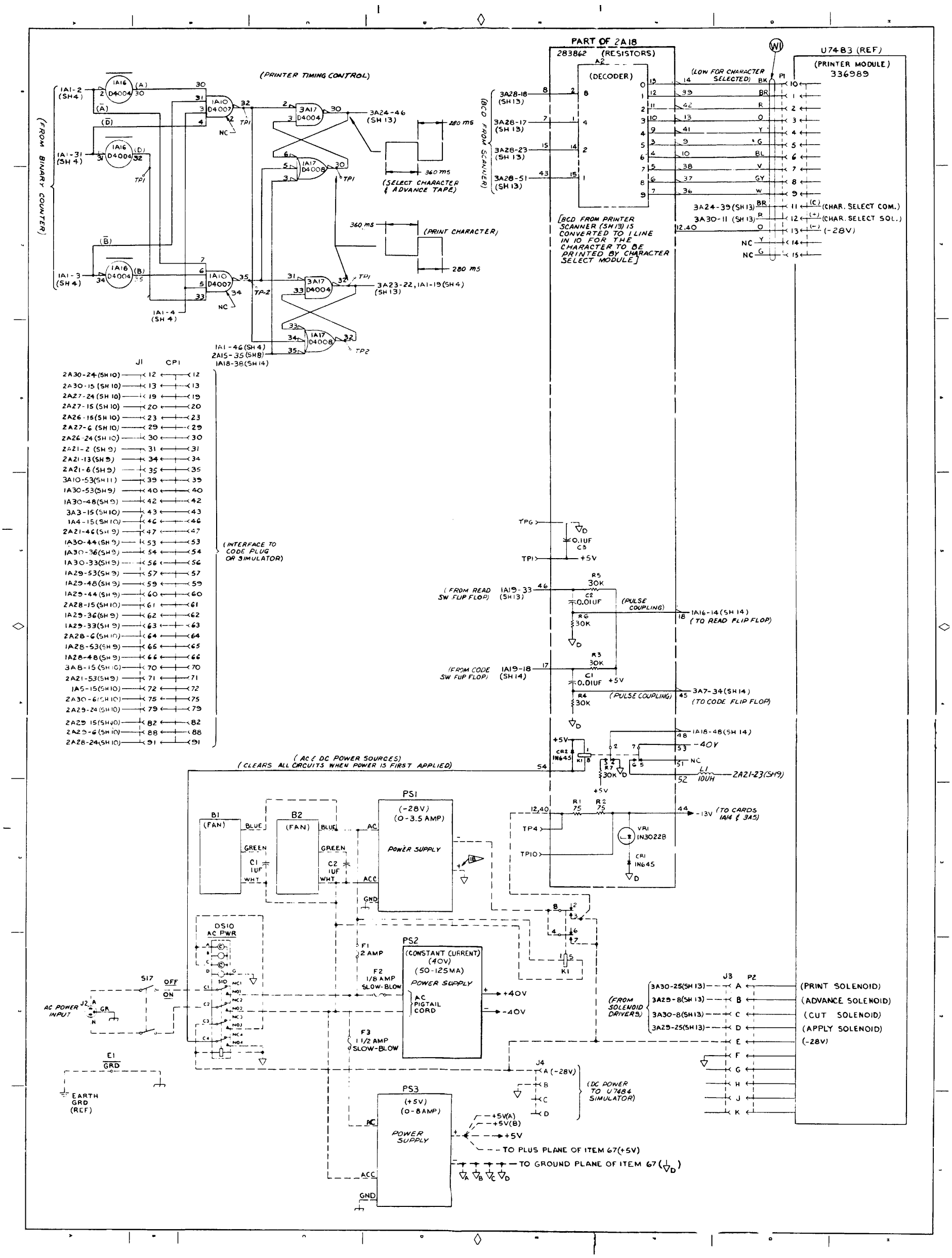

Figure 6-8. PT1561 Programmer Schematic (Sheet 2 of 14)

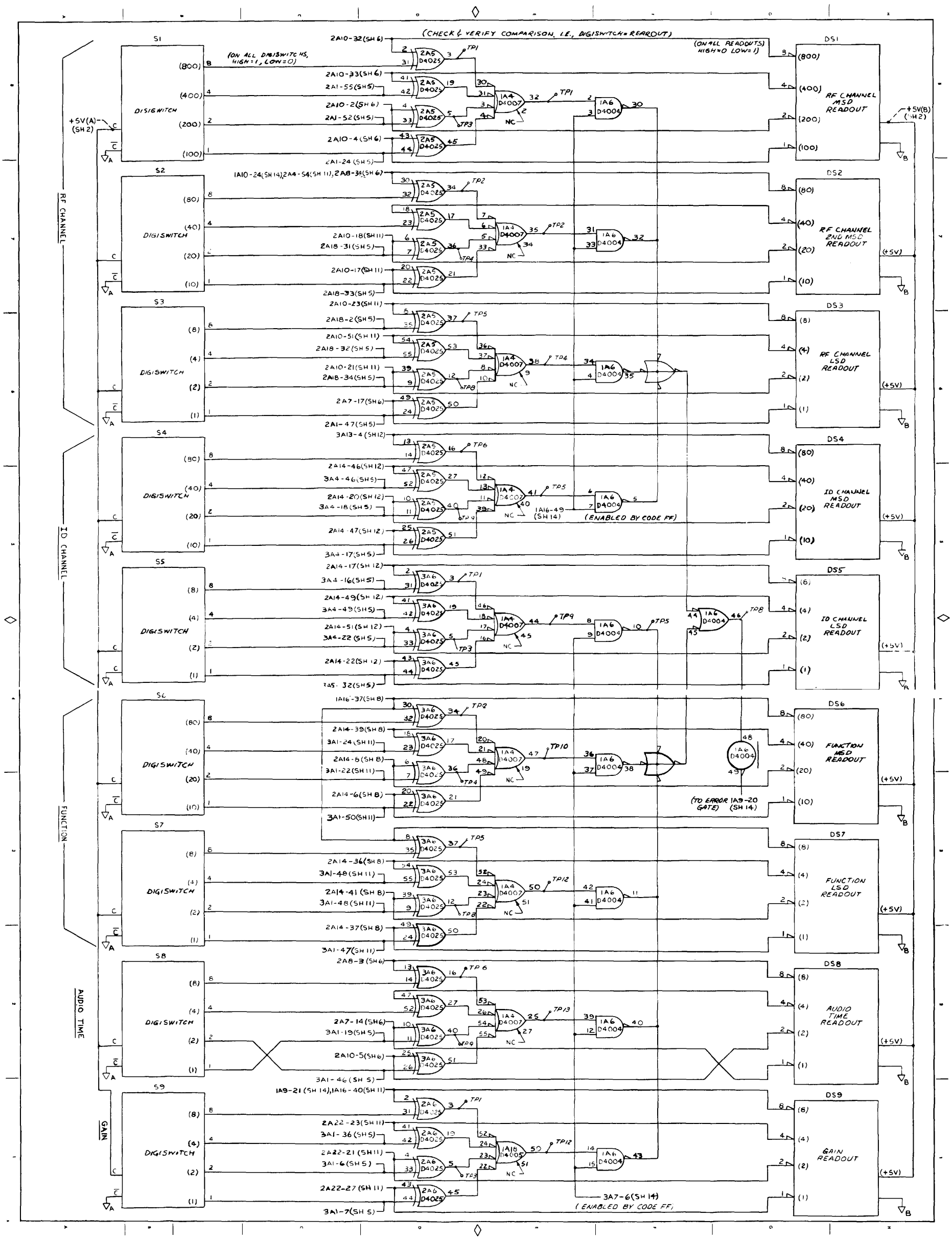

Figure 6-8. PT1561 Programmer schematic (Sheet 3 of 14)

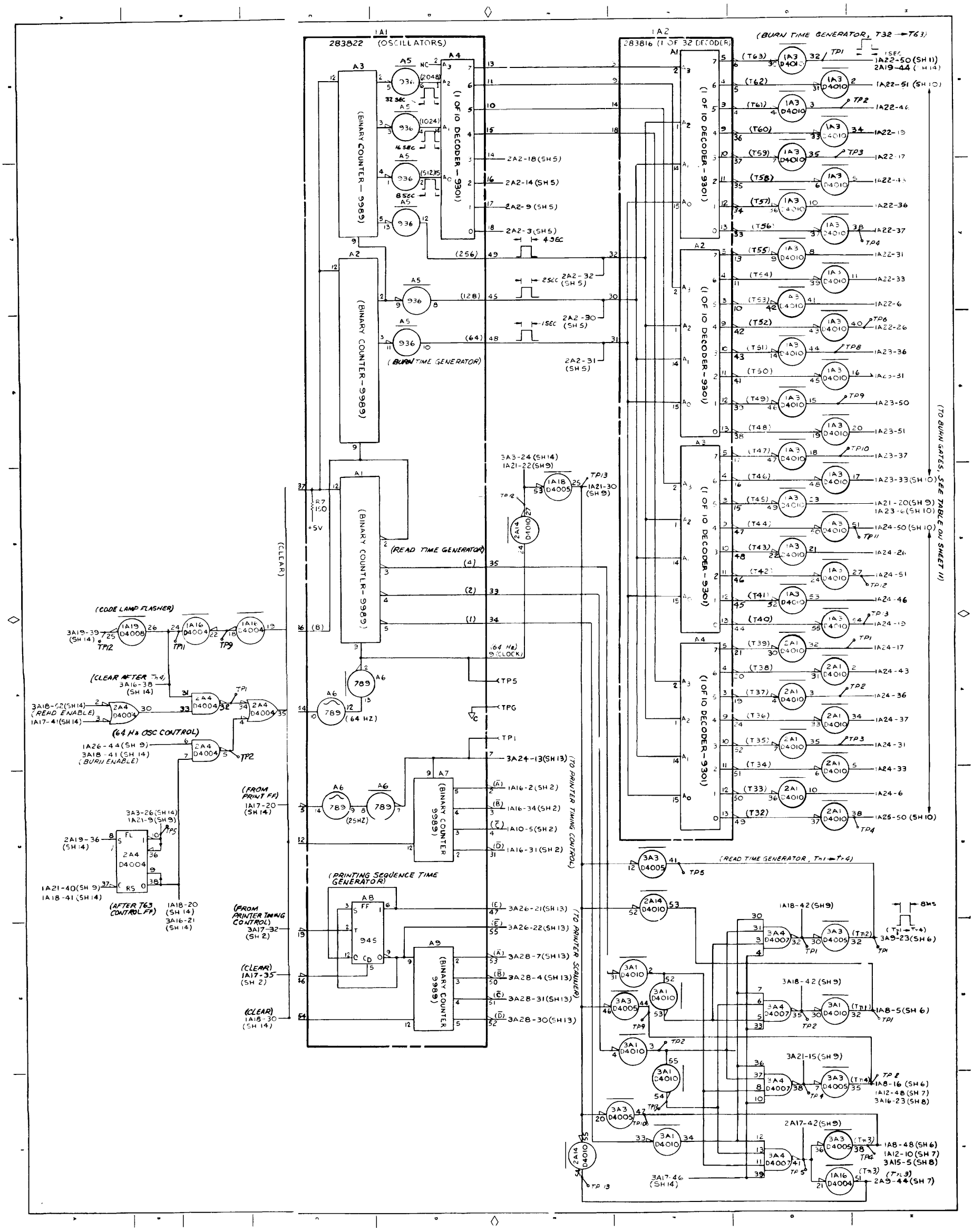

Figure 6-8. PT1561 Programmer Schematic (Sheet 4 of 14)

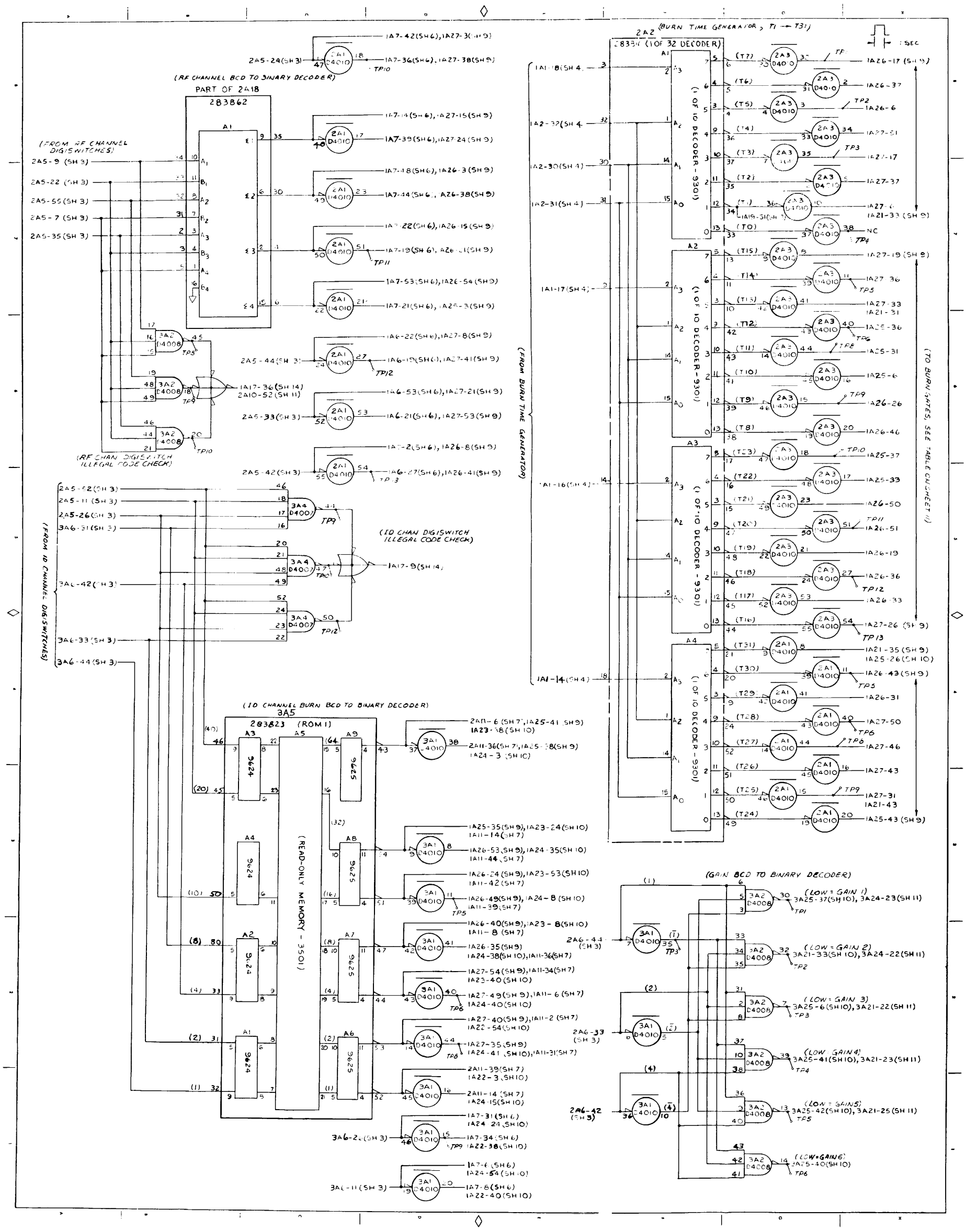

Figure 6-8. PT1561 Programmer Schematic (Sheet 5 of 14)

6-25/(6-26 blank)

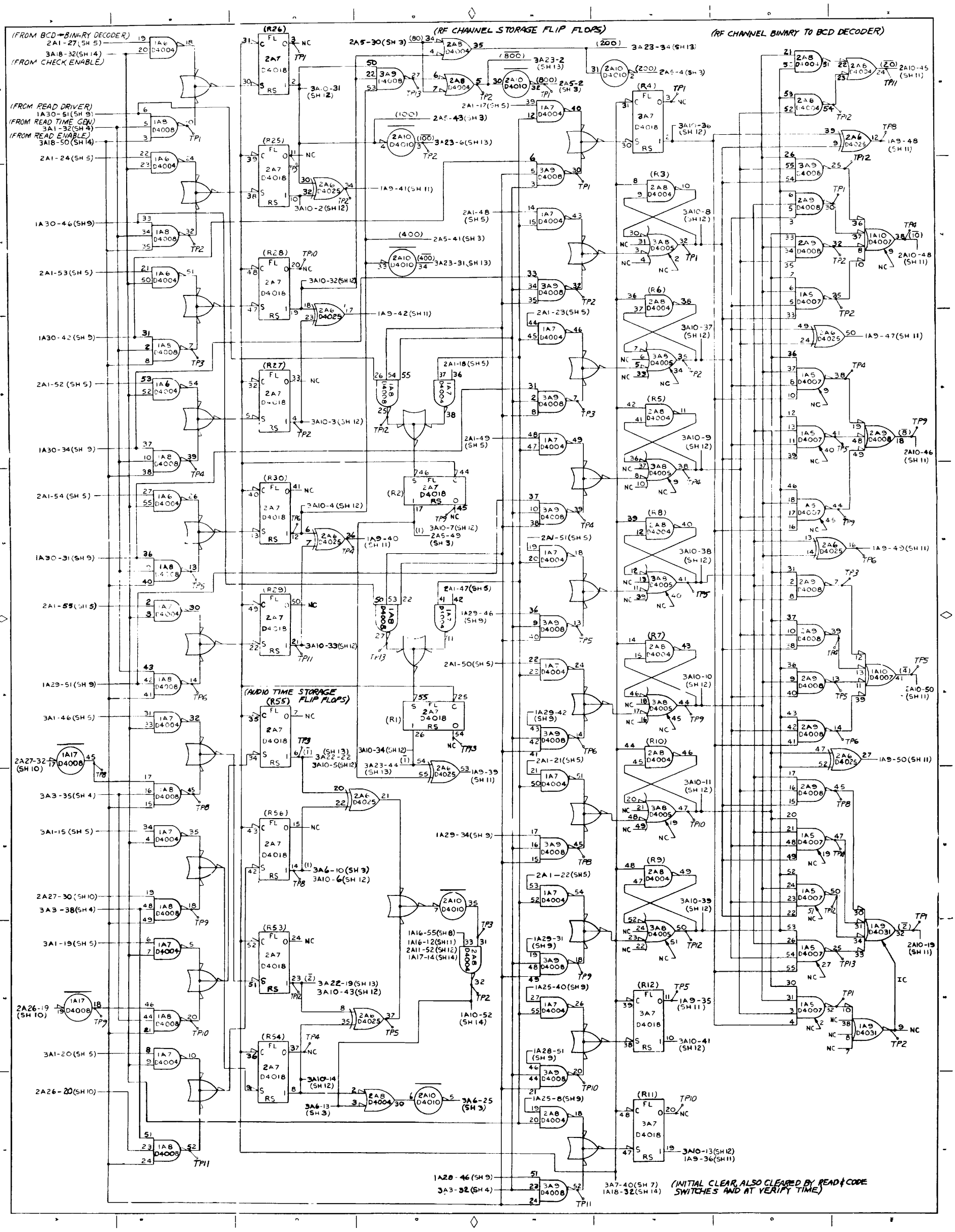

Figure 6-8. PT1561 Programmer Schematic (Sheet 6 of 14)

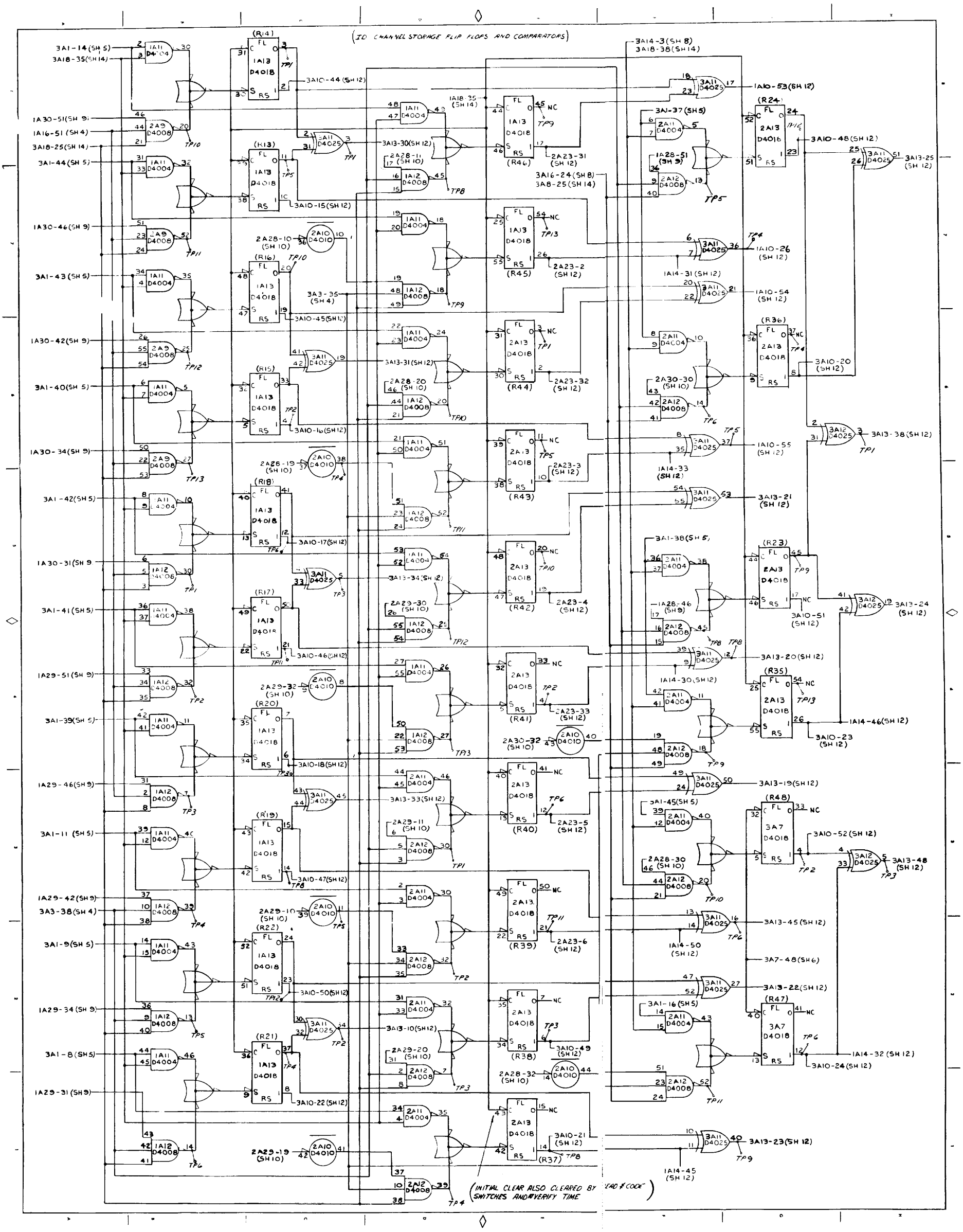

Figure 6-8. PT1561 Programmer Schematic (Sheet 7 of 14)

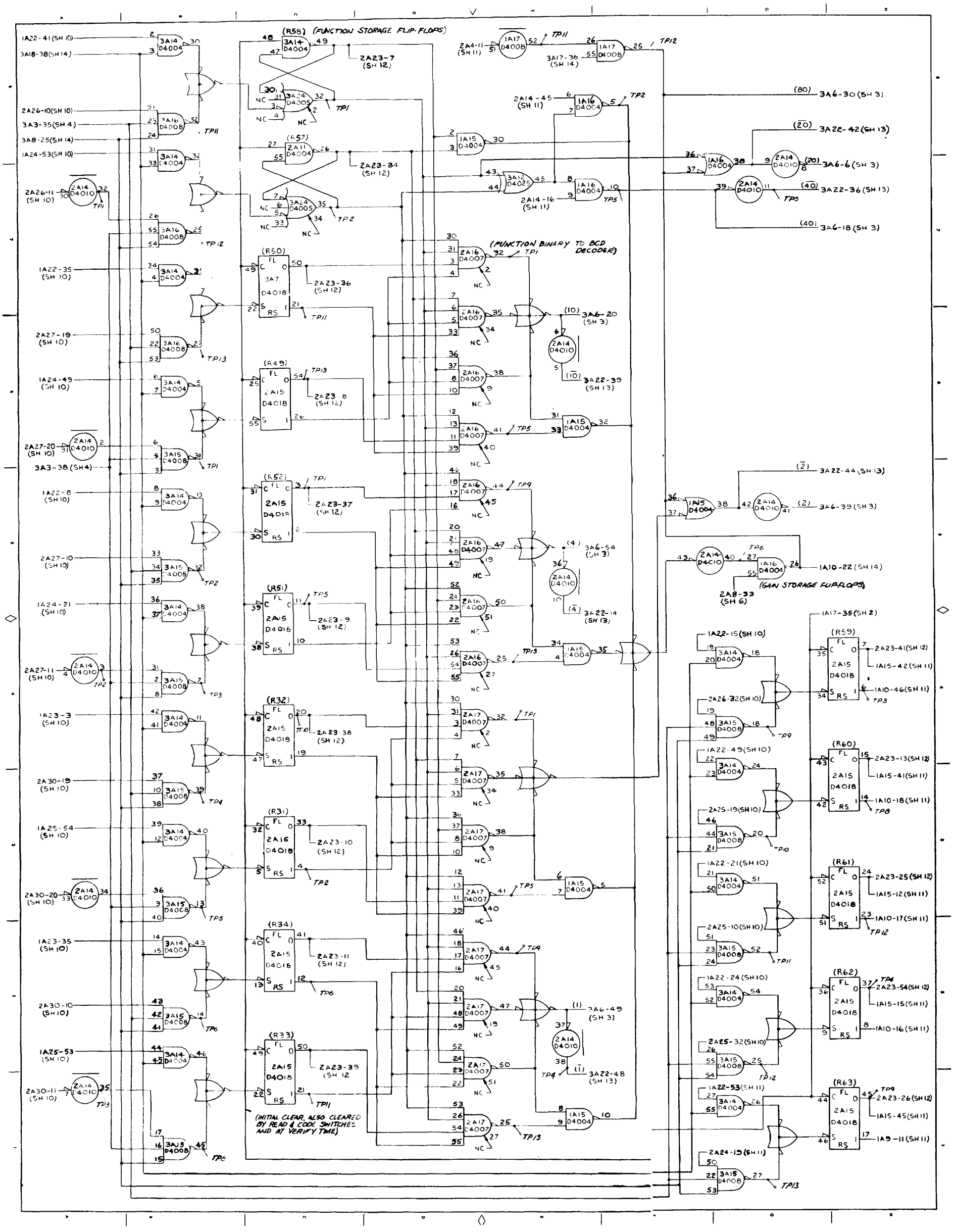

Figure 6-8. PT1561 Programmer Schematic (Sheet 8 of 14)

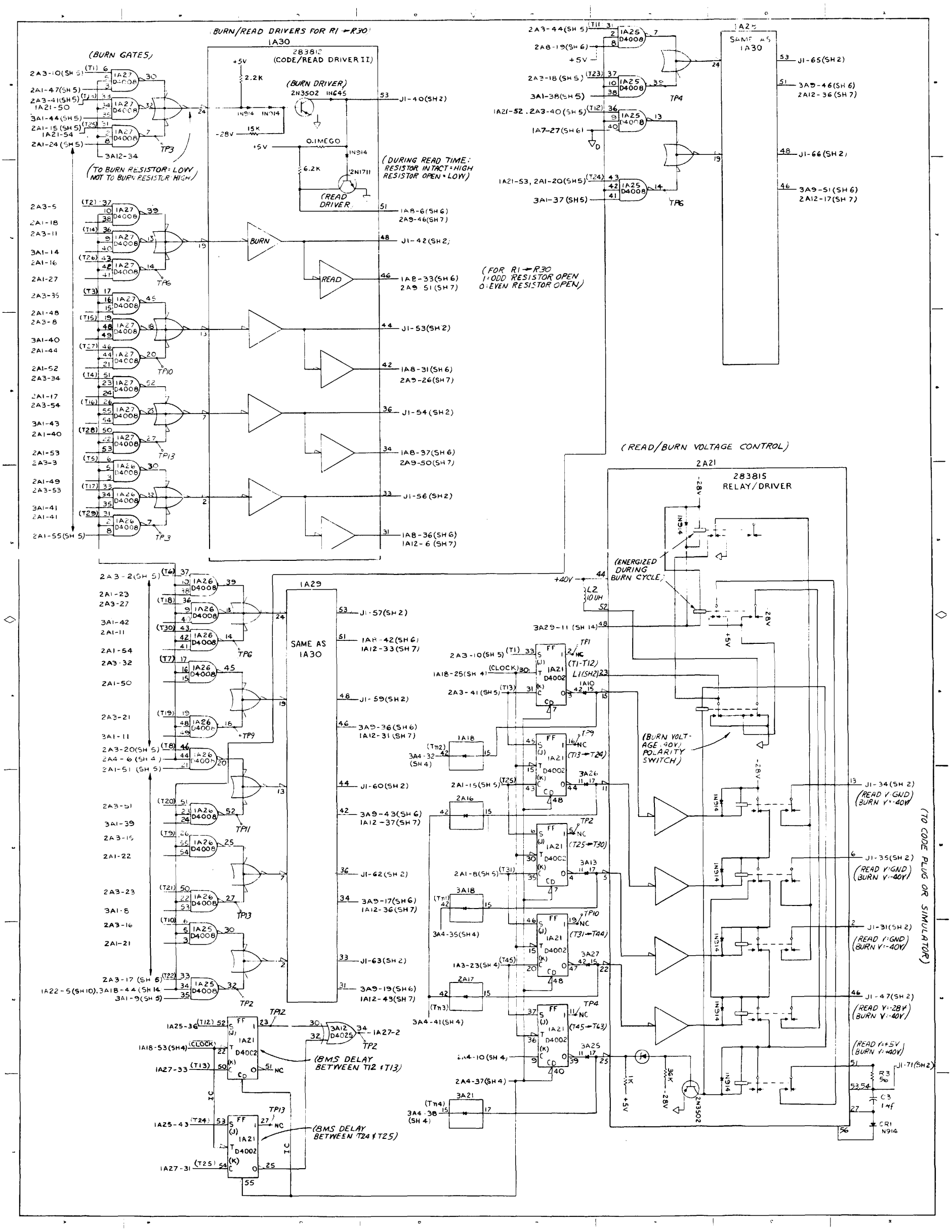

Figure 6-8. PT1561 Programmer Schematic (Sheet 9 of 14)

6-33/(6-34 blank)

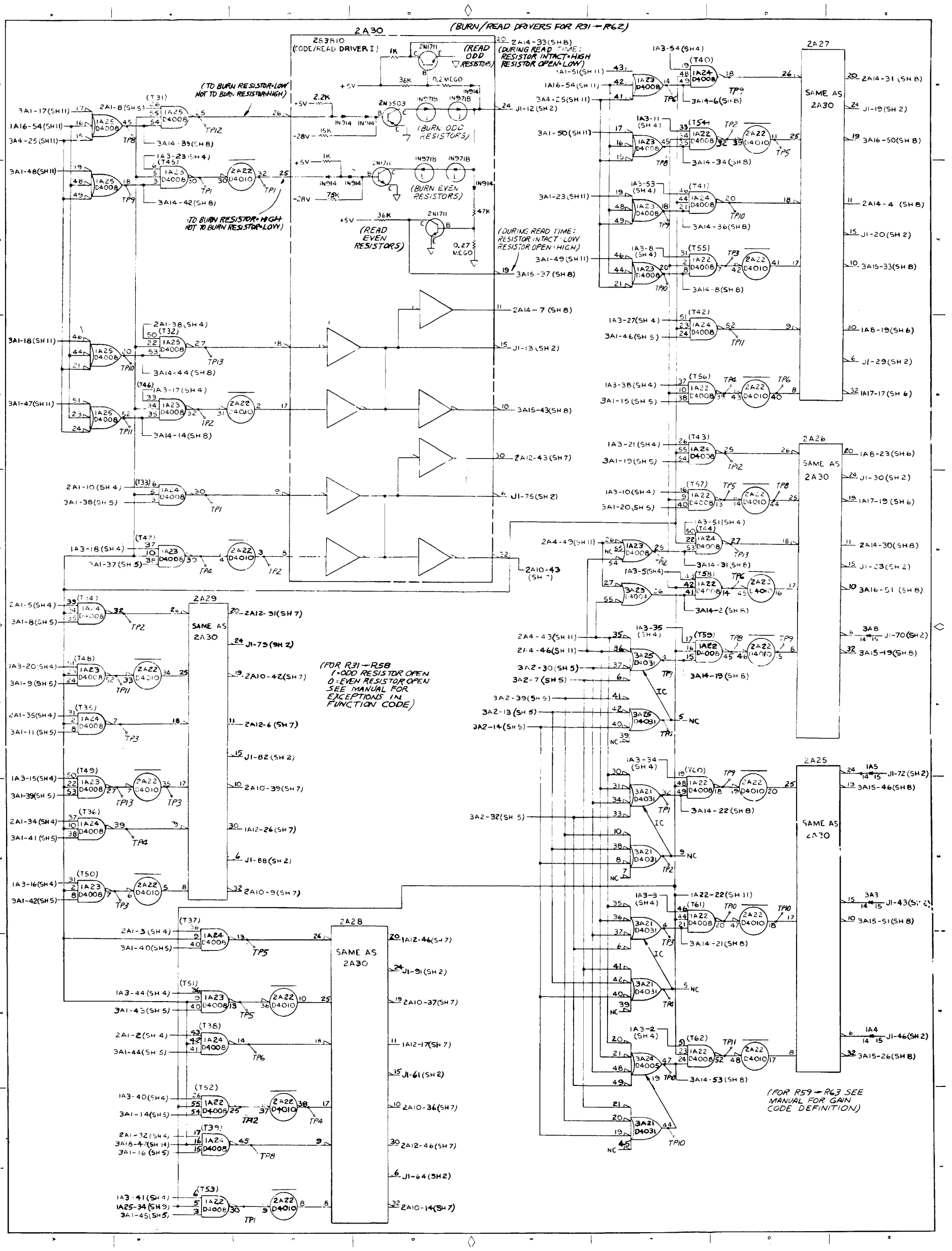

Figure 6-8. PT1561 Programmer Schematic (Sheet 10 of 14)

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T.O. 31S9-4-18-1

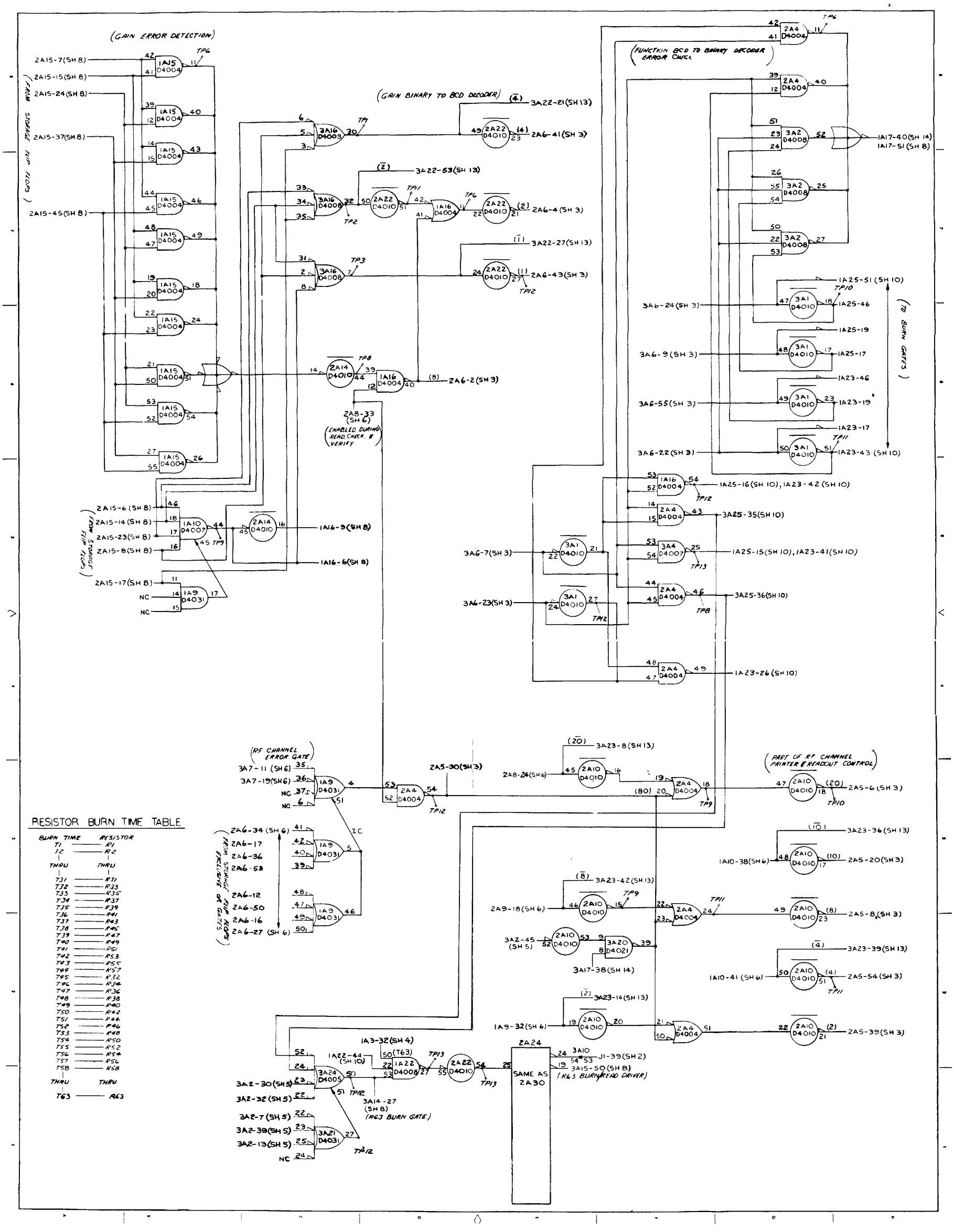


Figure 6-8. PT1561 Programmer Schematic (Sheet 11 of 14)

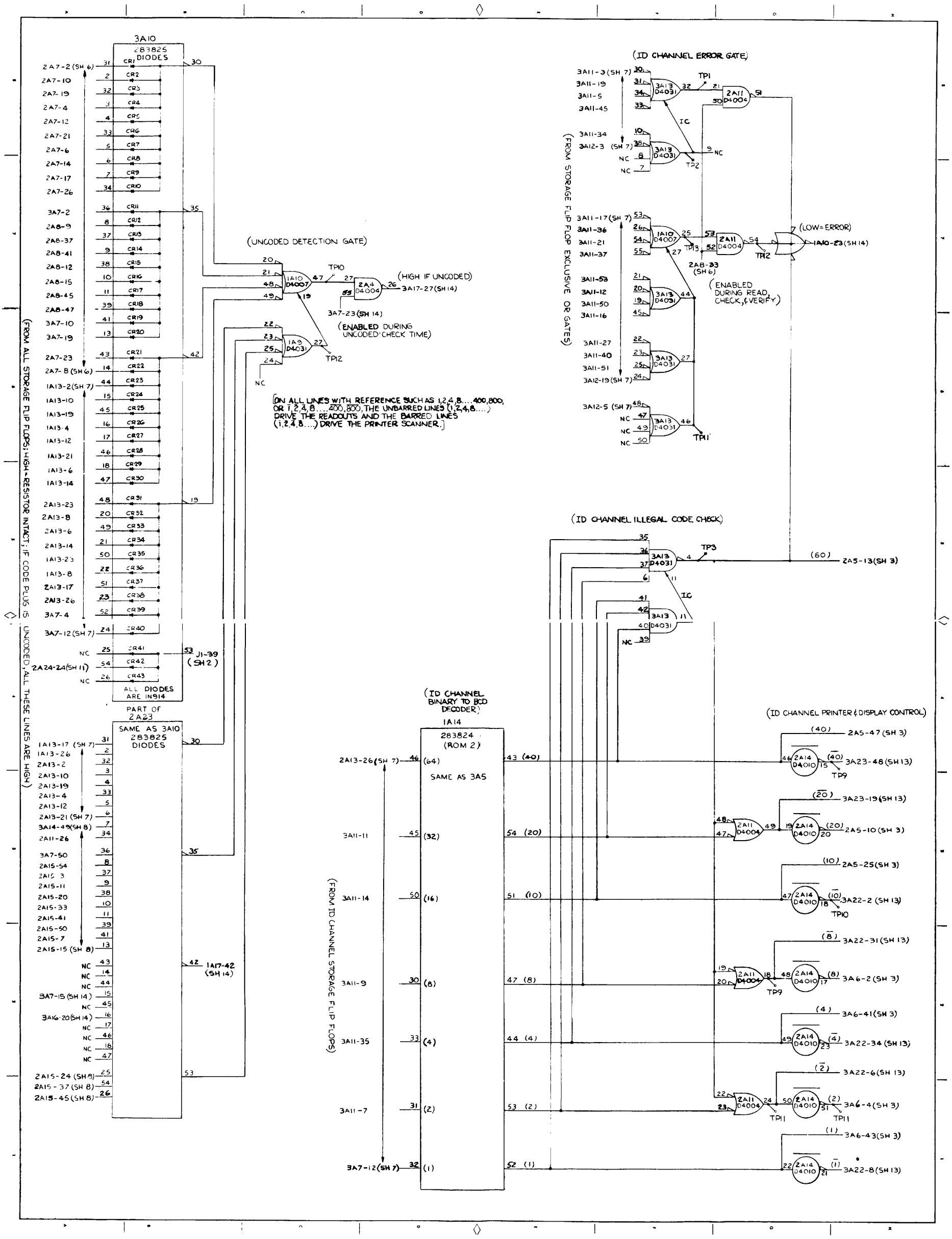


Figure 6-8. PT1561 Programmer Schematic (Sheet 12 of 14)

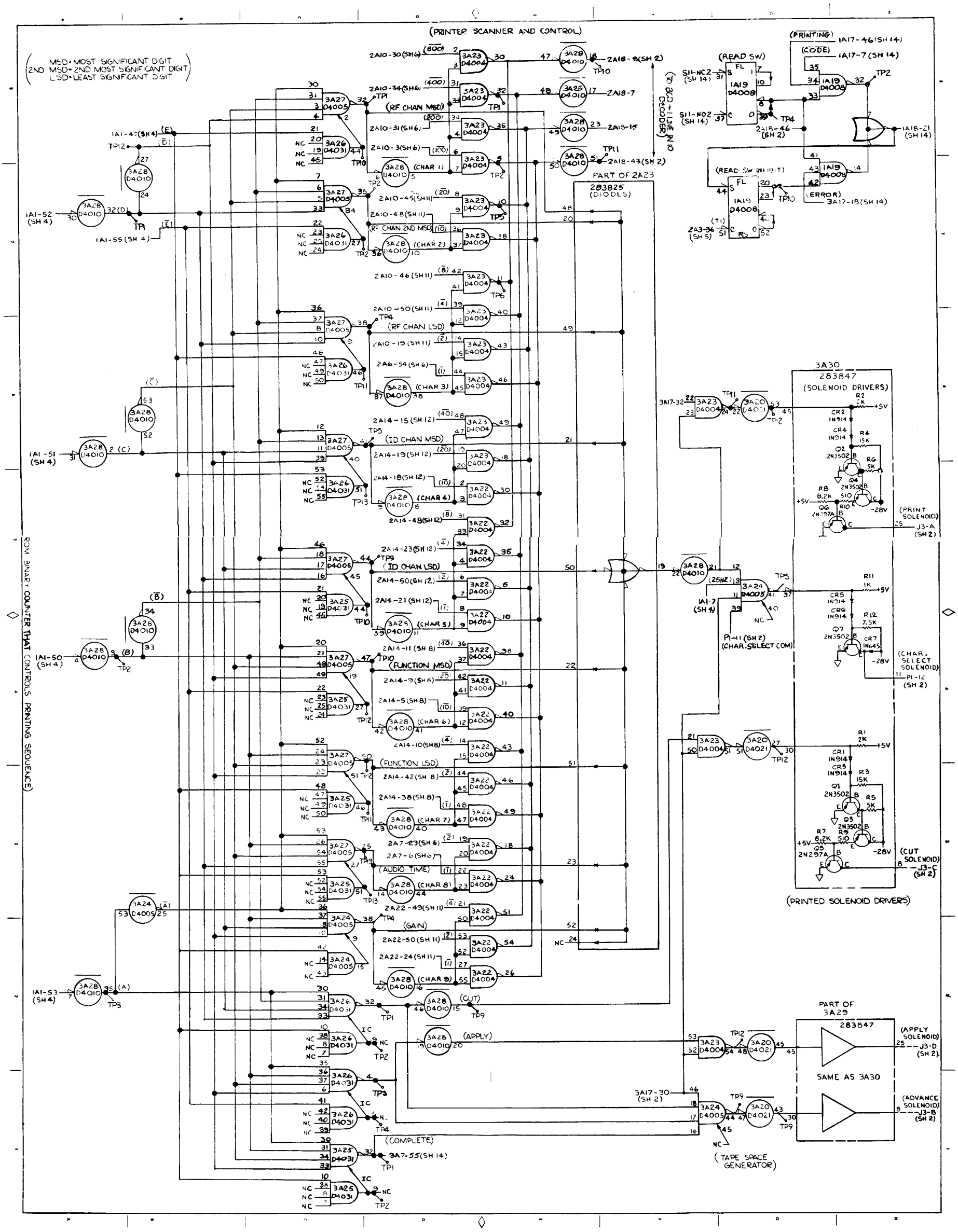


Figure 6-8. PT1561 Programmer Schematic (Sheet 13 of 14)

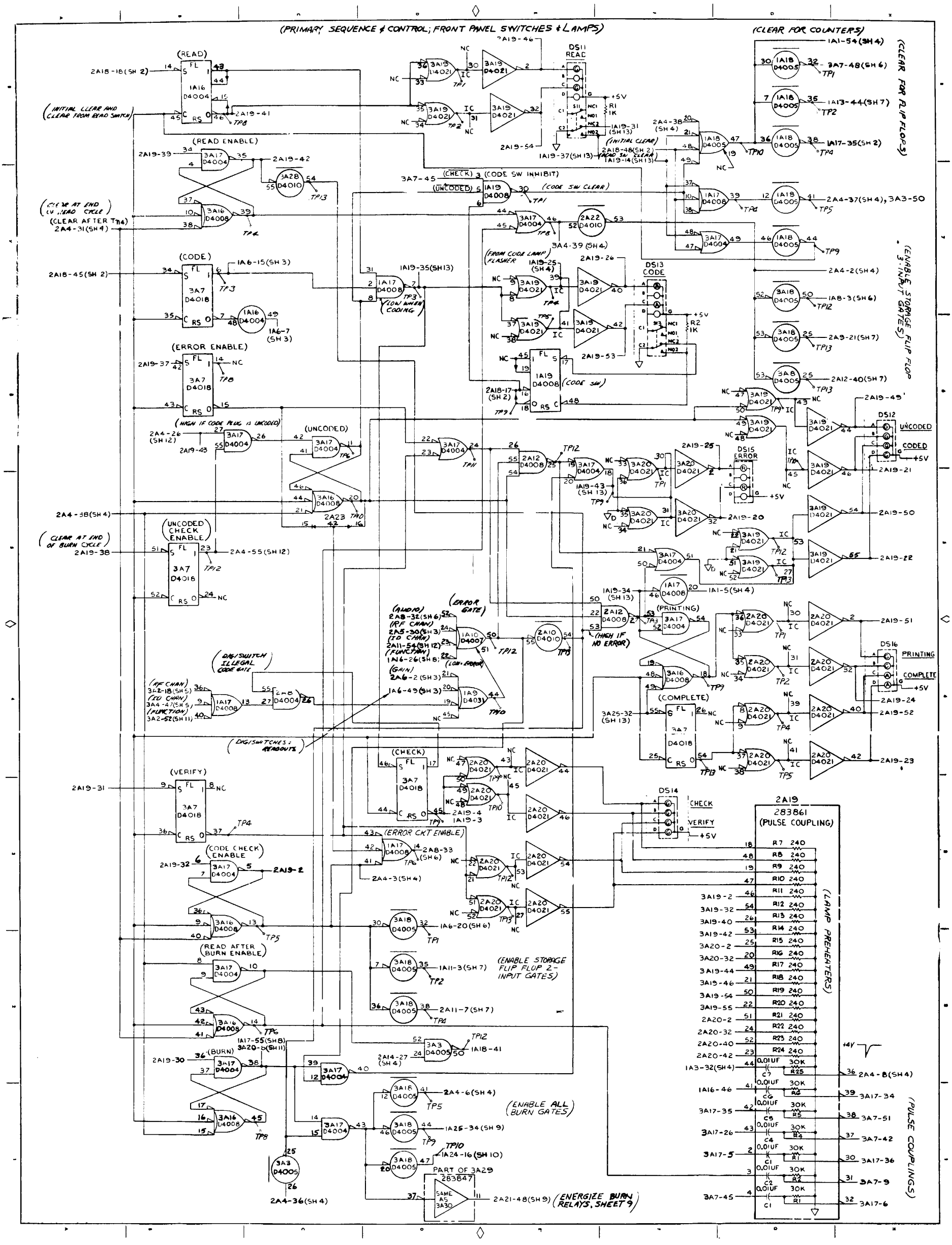


Figure 6-8. PT1561 Programmer Schematic (Sheet 14 of 14)

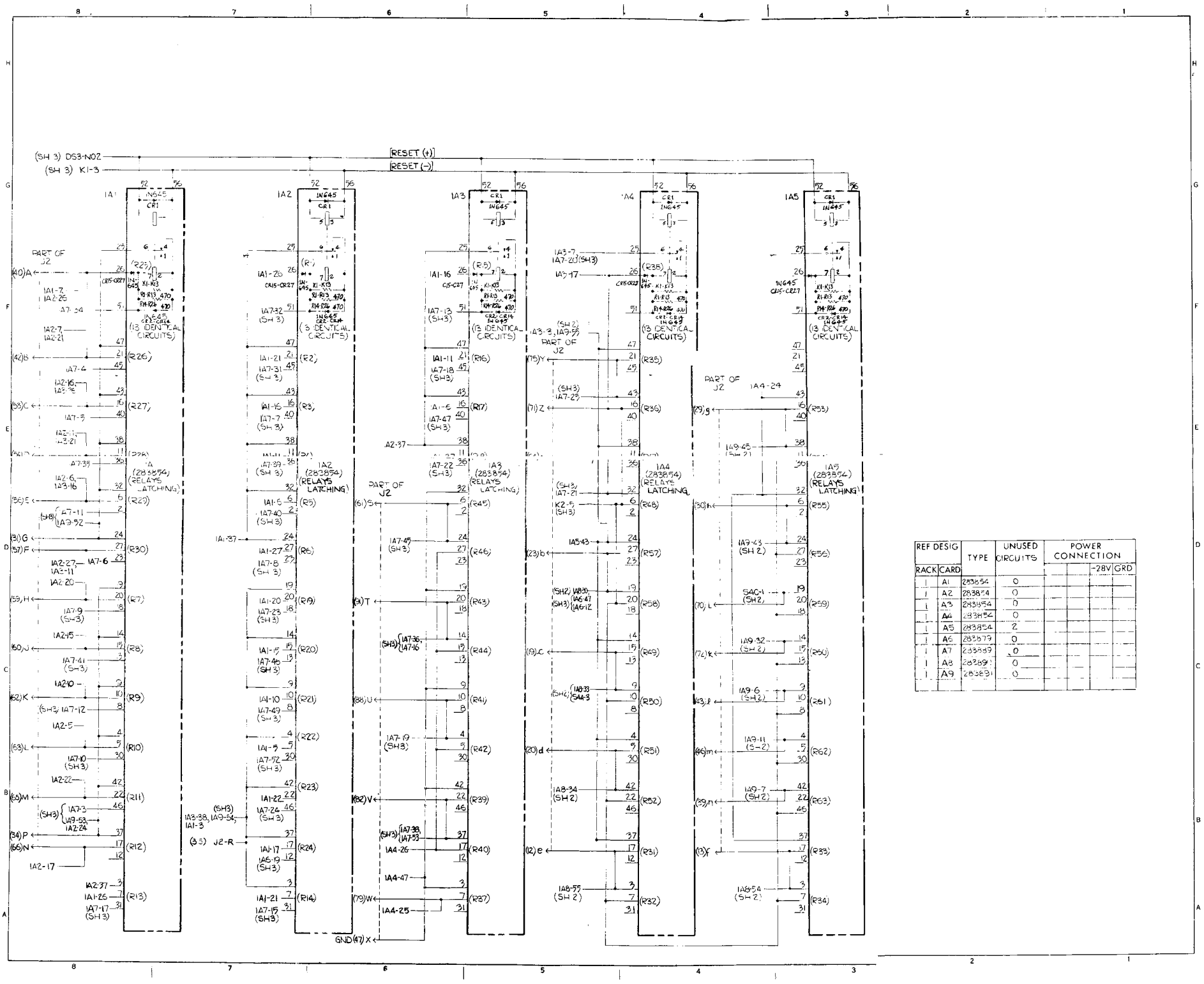


Figure 6-9. U7484 Simulator Schematic (Sheet 1 of 3)

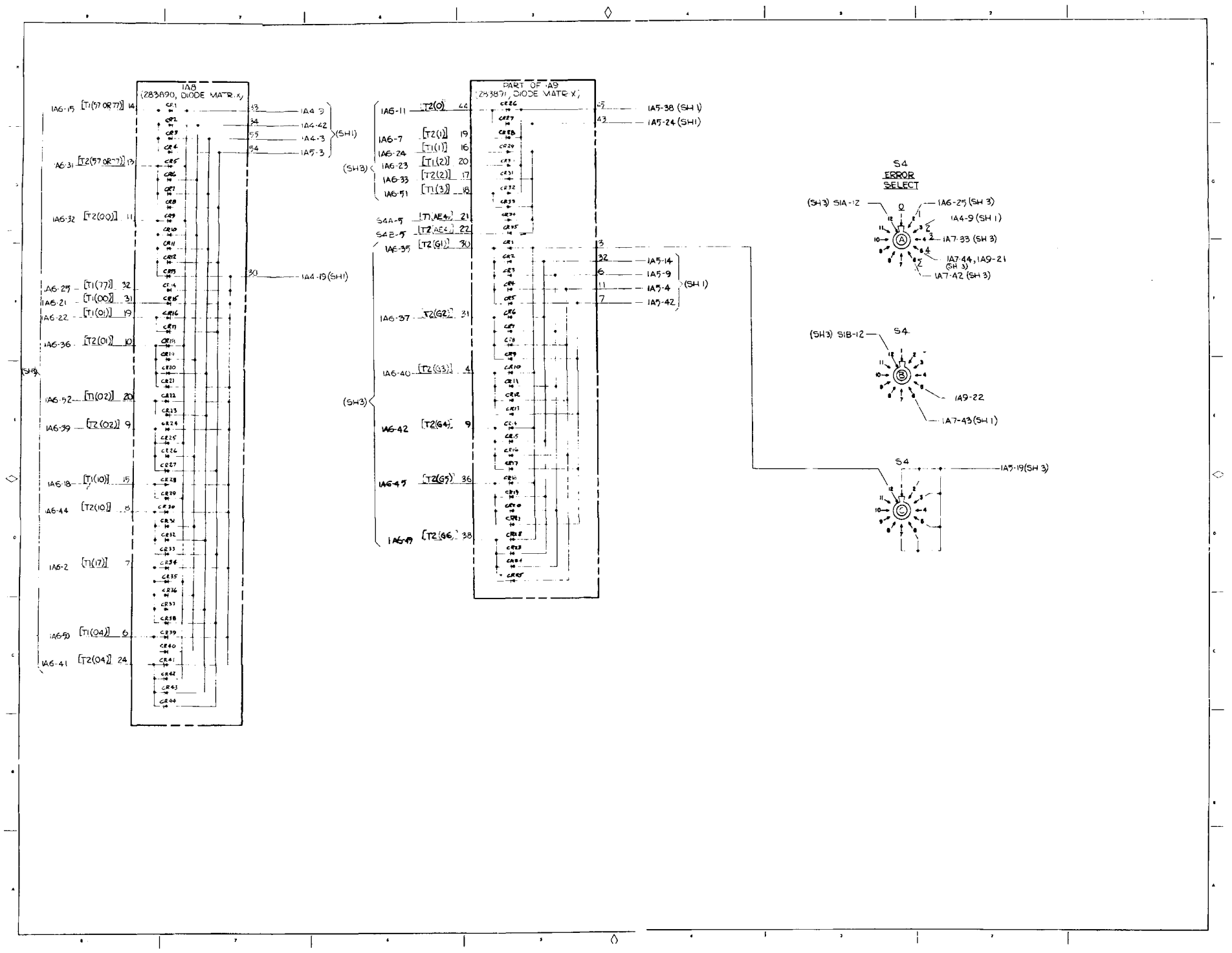


Figure 6-9. U7484 Simulator Schematic (Sheet 2 of 3)

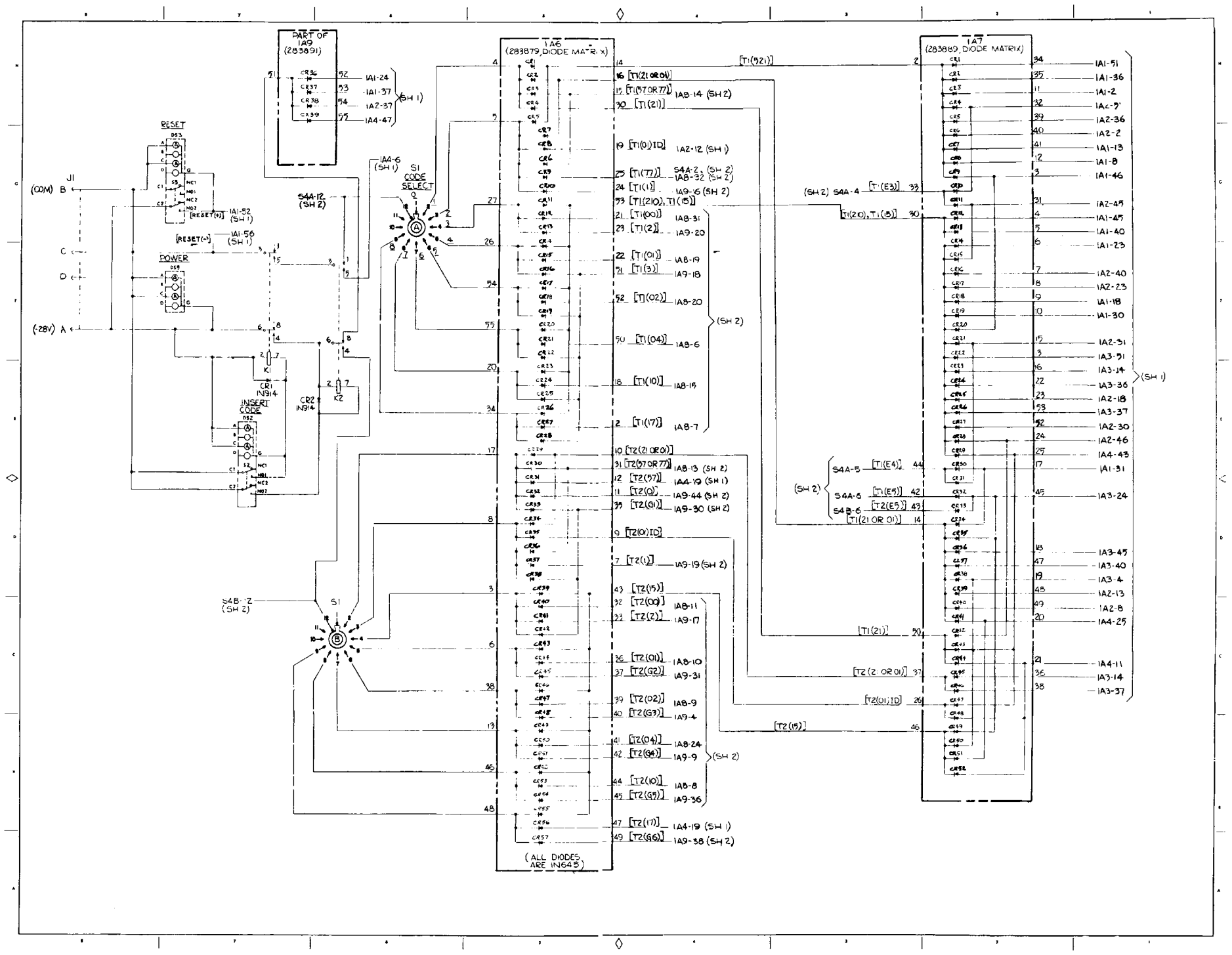


Figure 6-9. U7484 Simulator Schematic (Sheet 3 of 3)

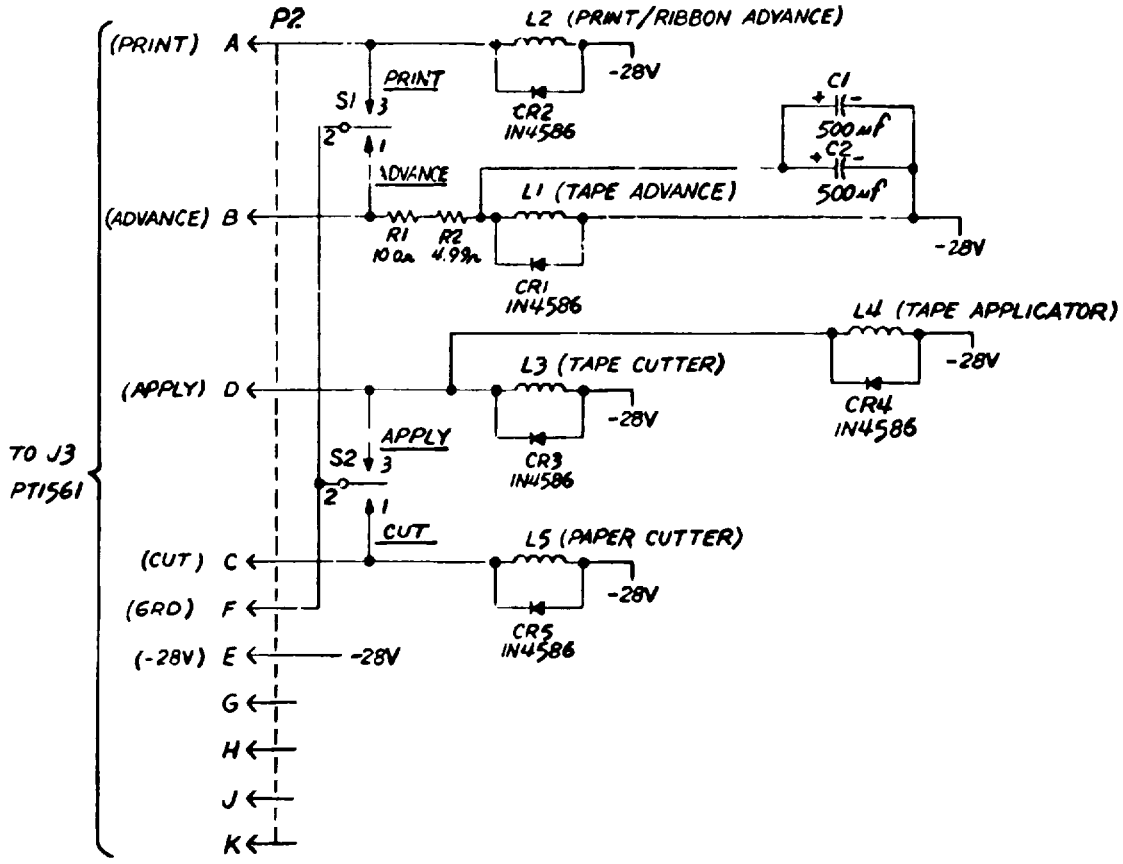


Figure 6-10. U7483 Printer Cable Schematic

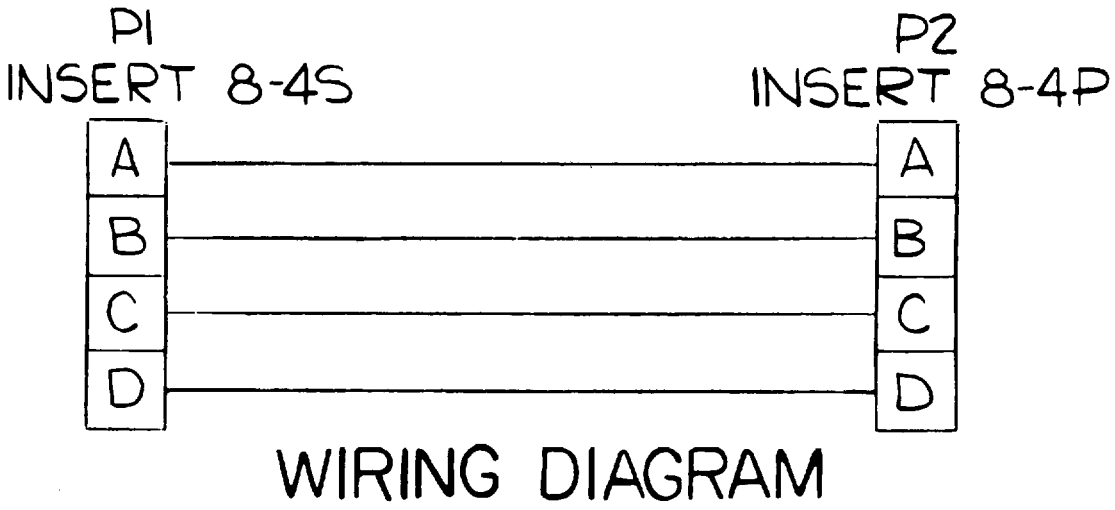


Figure 6-11. CA 1258 Cable Assembly (PT1561)

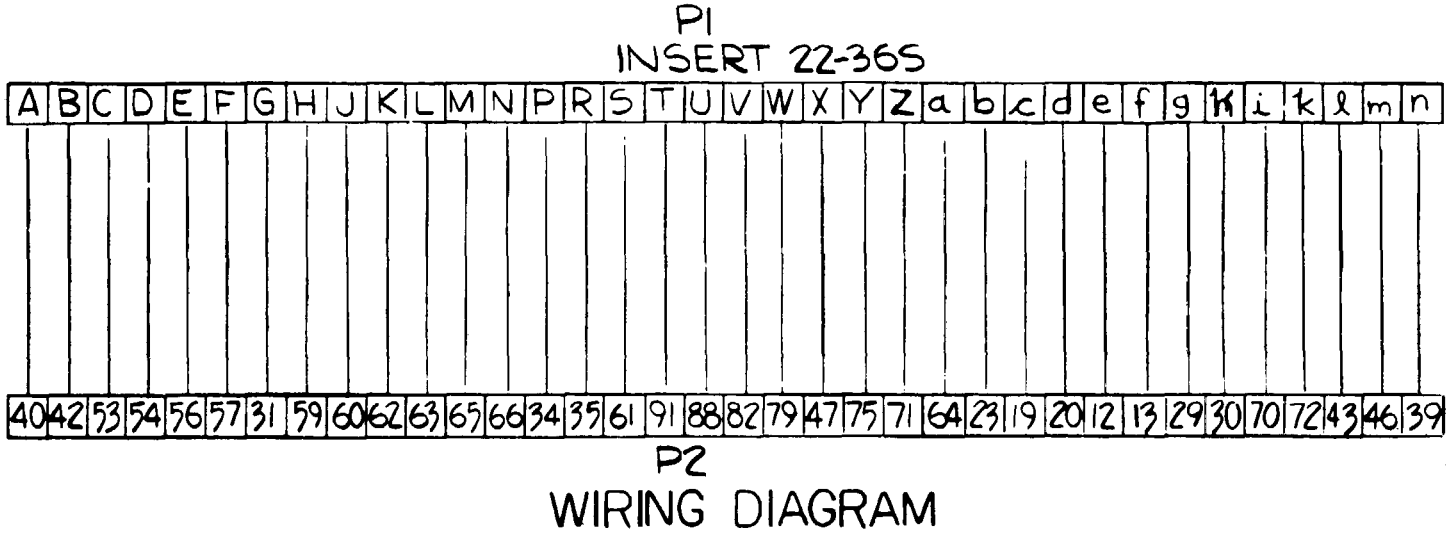


Figure 6-12. CA1259 Cable Assembly (PT1561)

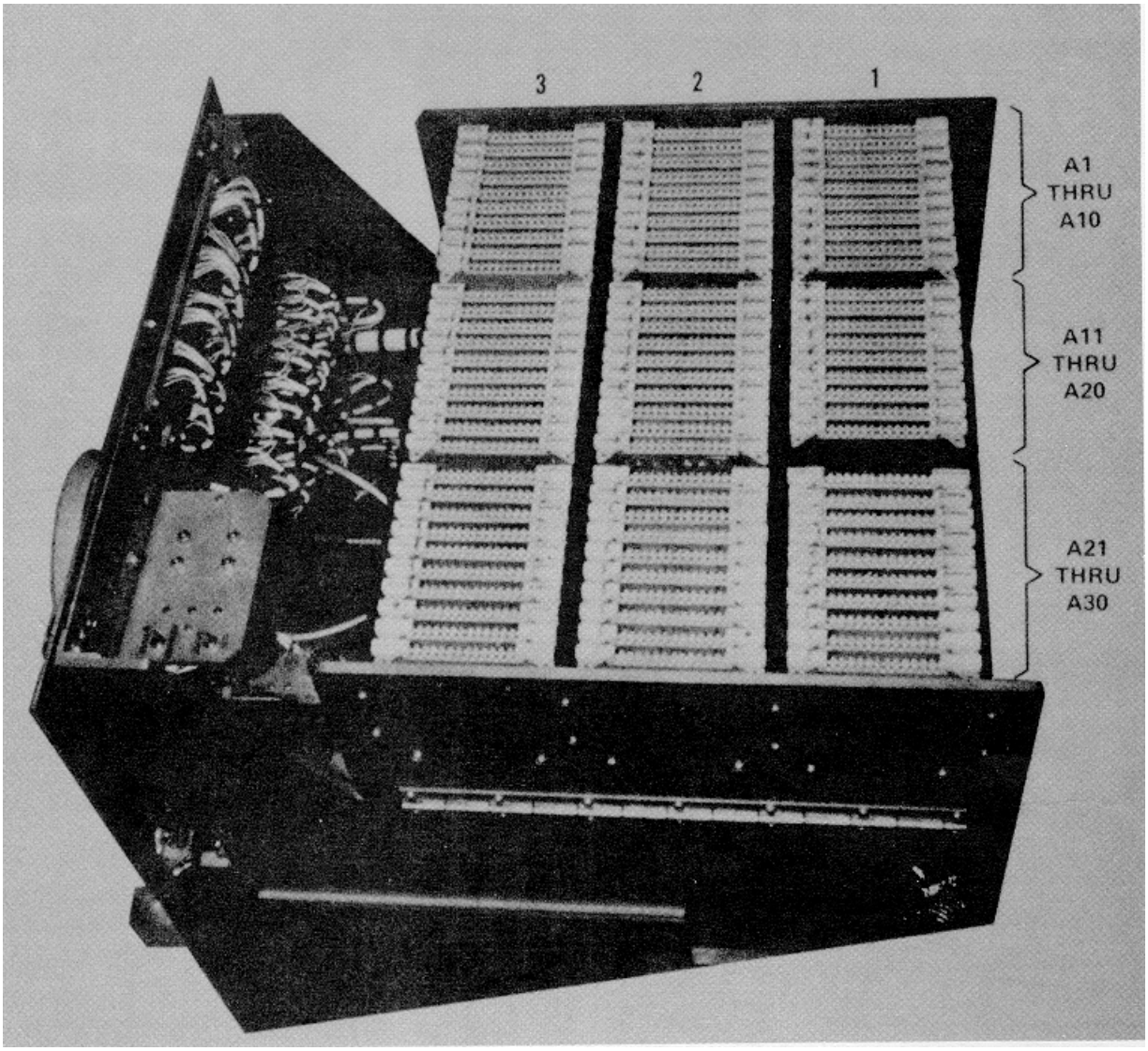


Figure 6-13. PT1561 Circuit Board File Locations

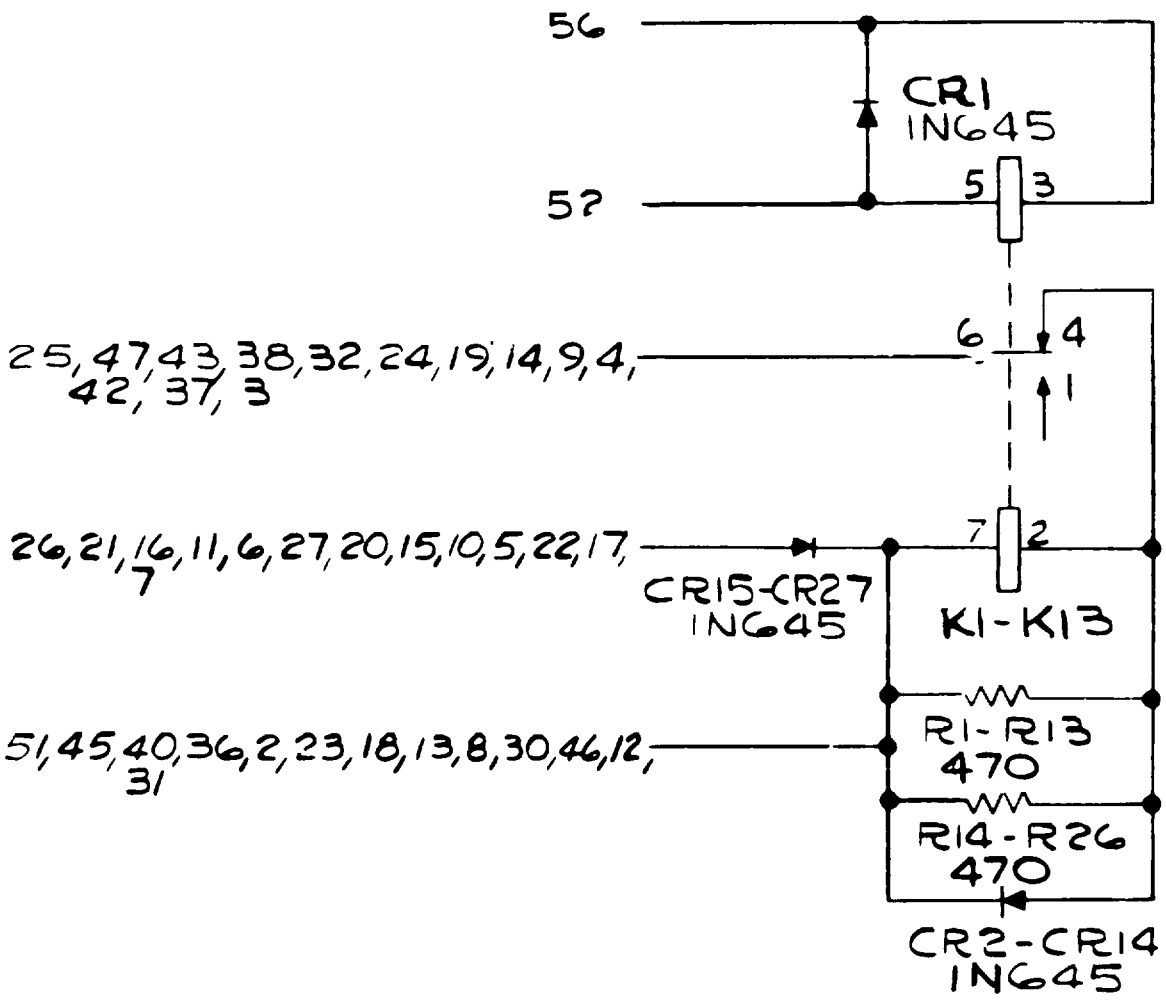


Figure 6-14. Latching Relays (U7484)

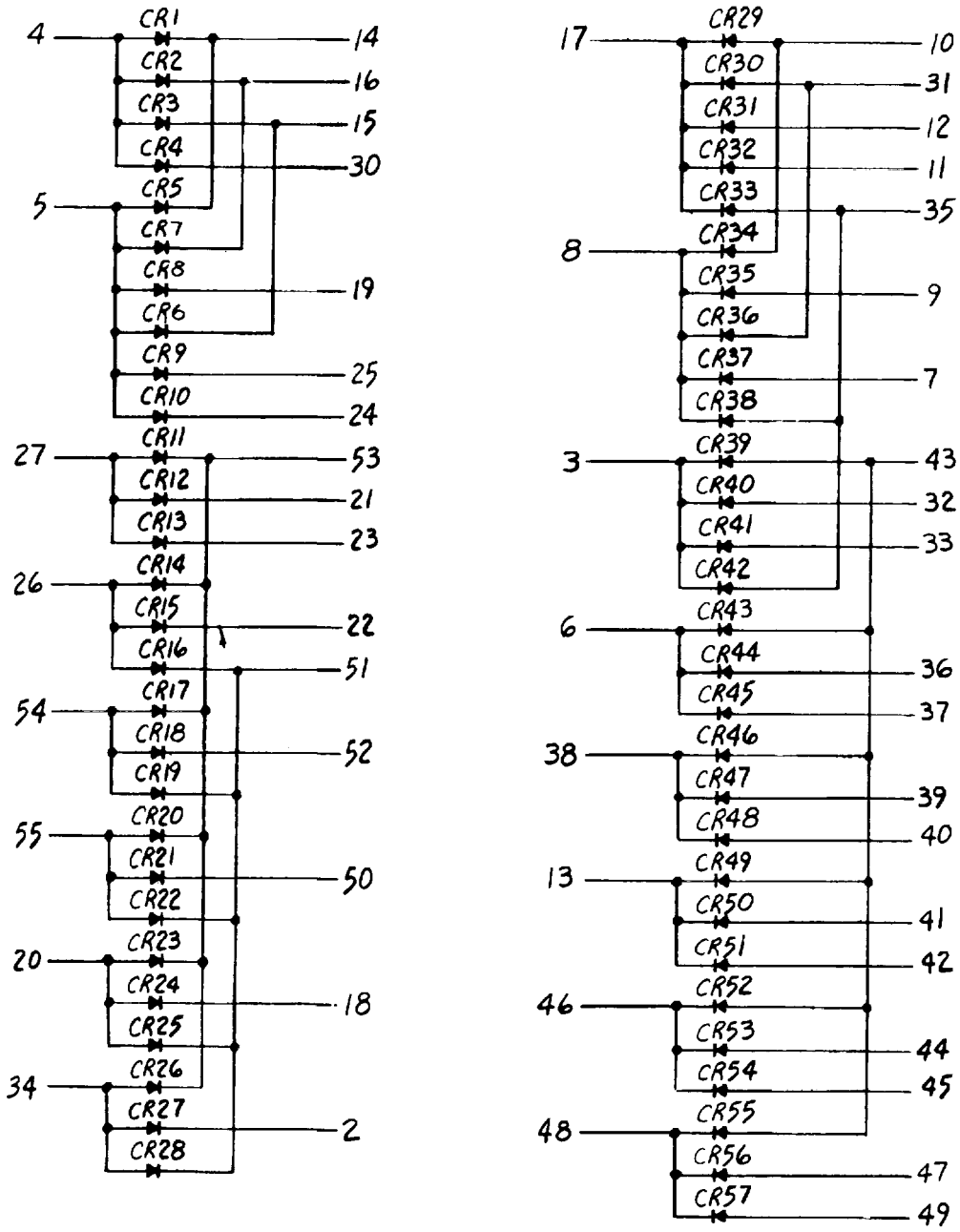


Figure 6-15. Diode Matrix (U7484)

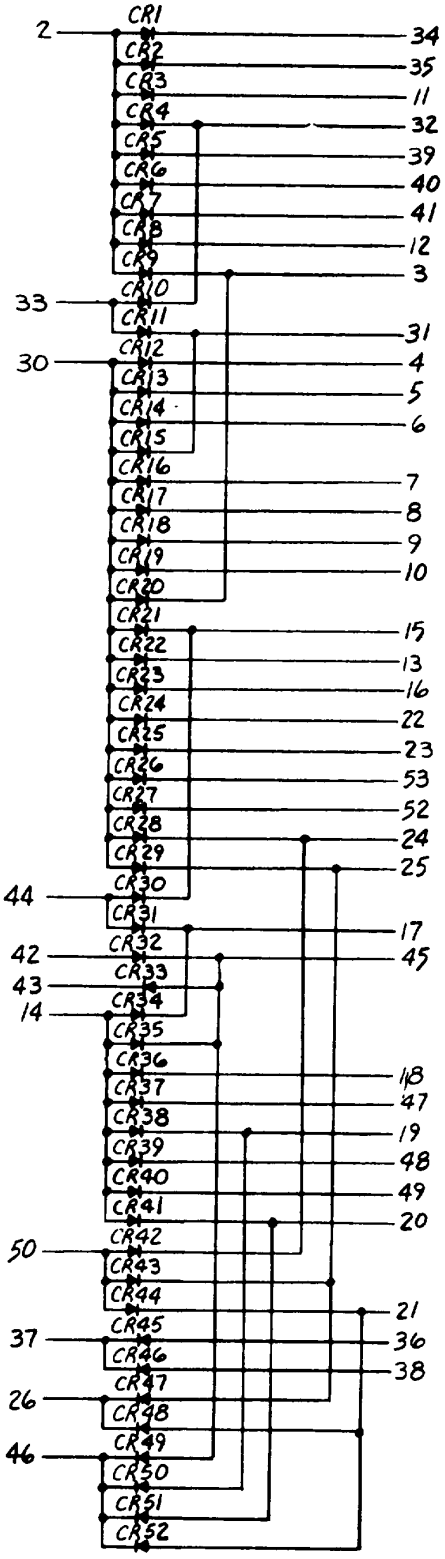


Figure 6-16. Diode Matrix (U7484)

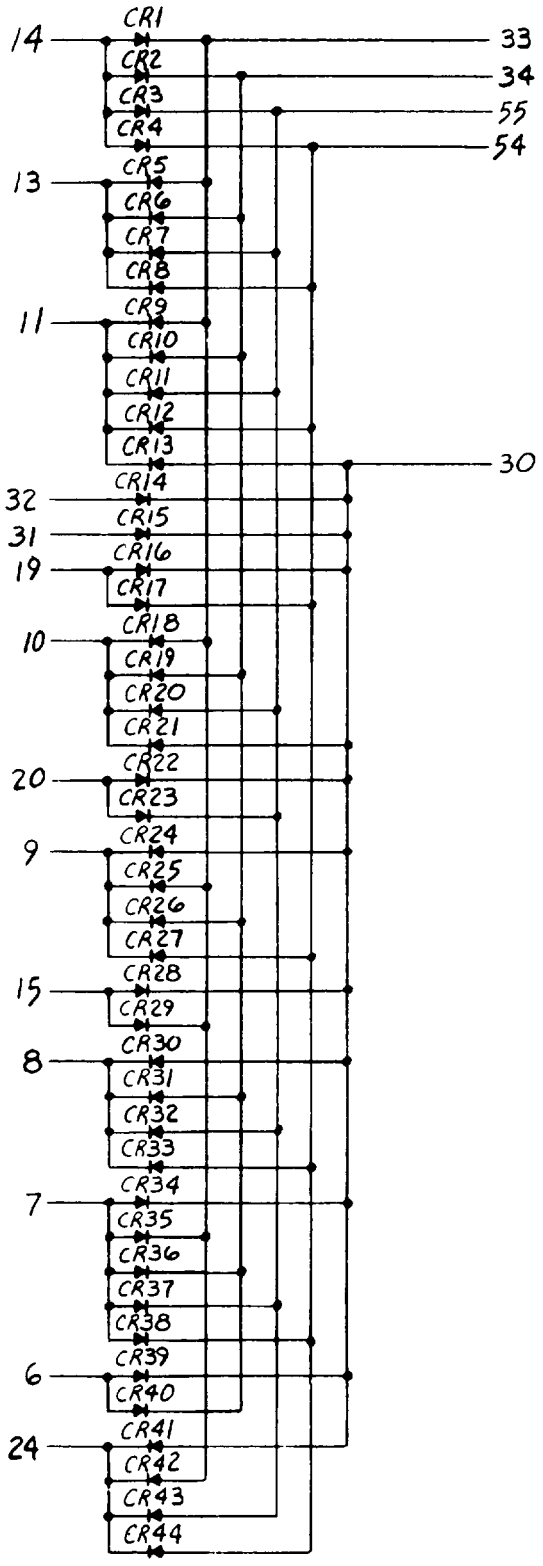


Figure 6-17. Diode Matrix (U7484)

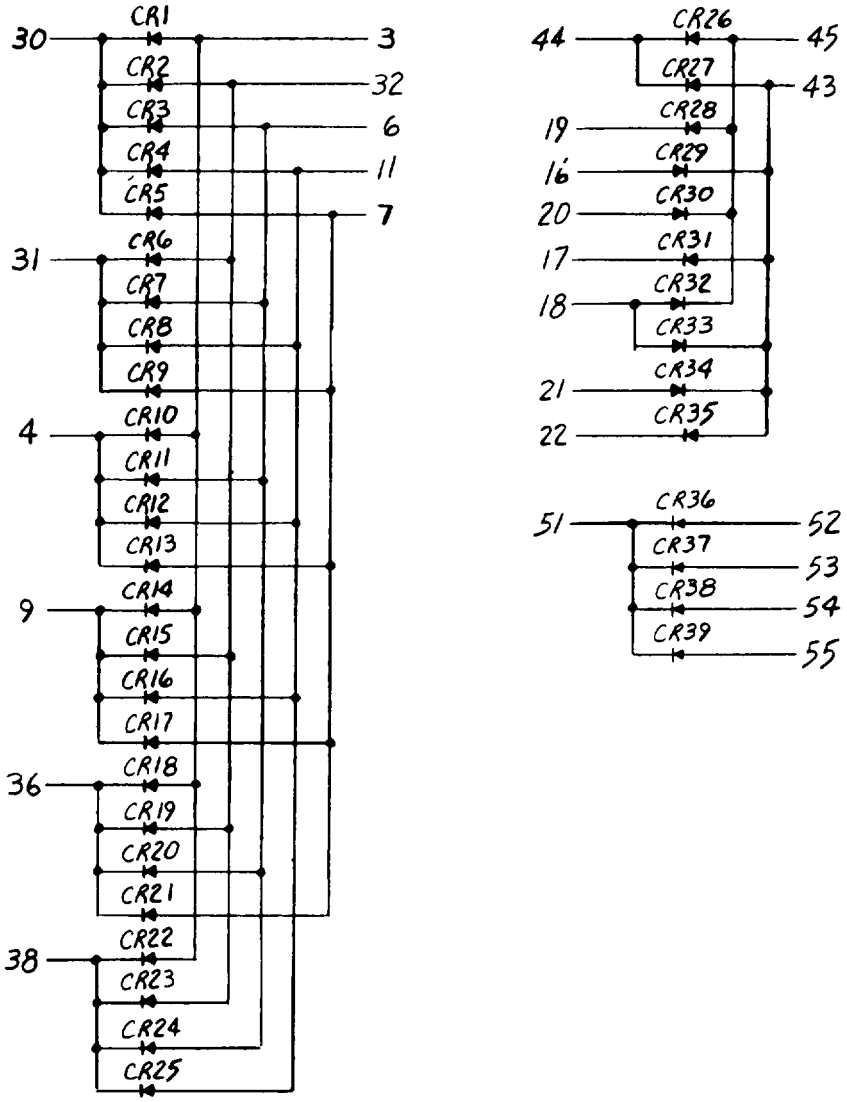


Figure 6-18. Diode Matrix (U7484)

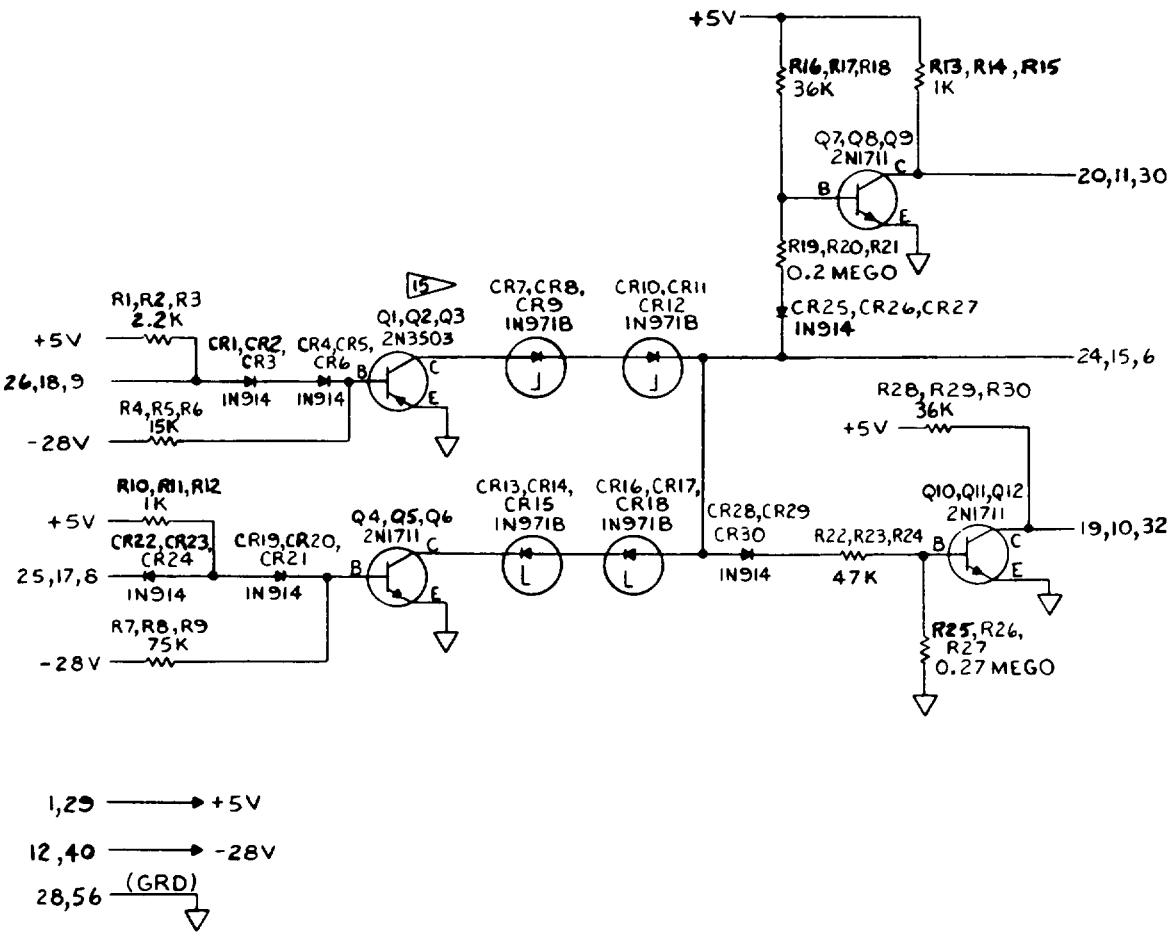


Figure 6-19. Code/Read Driver I (PT1561)

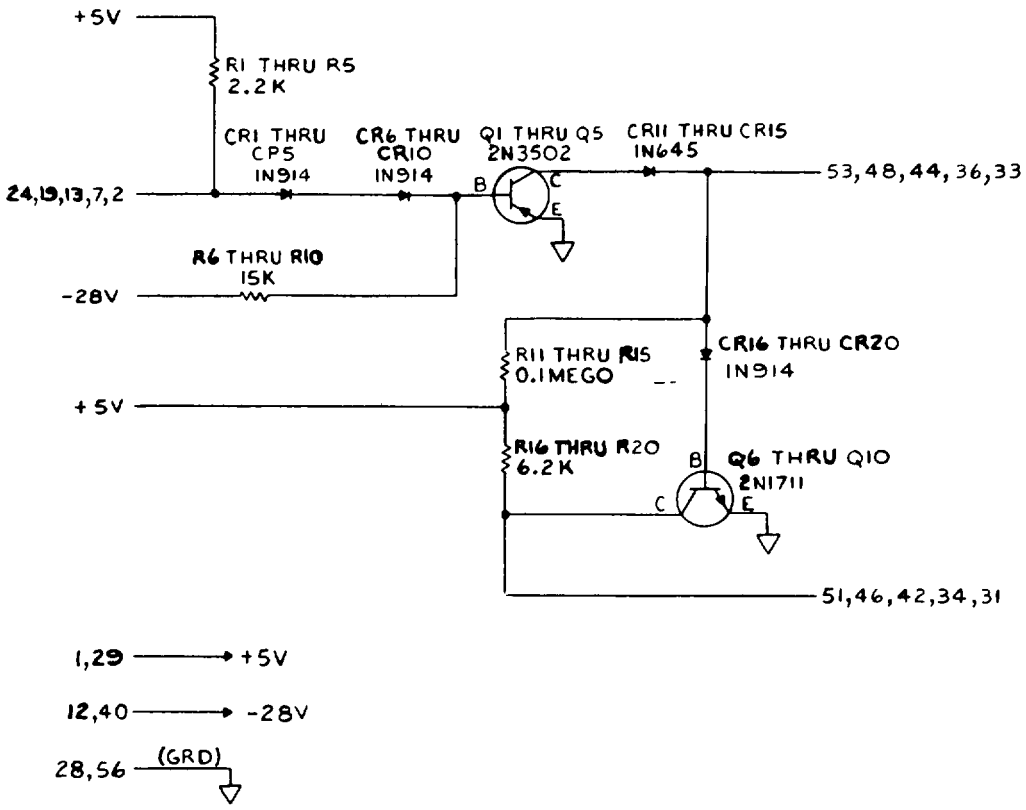


Figure 6-20. Code/Read Driver ll (PT1561)

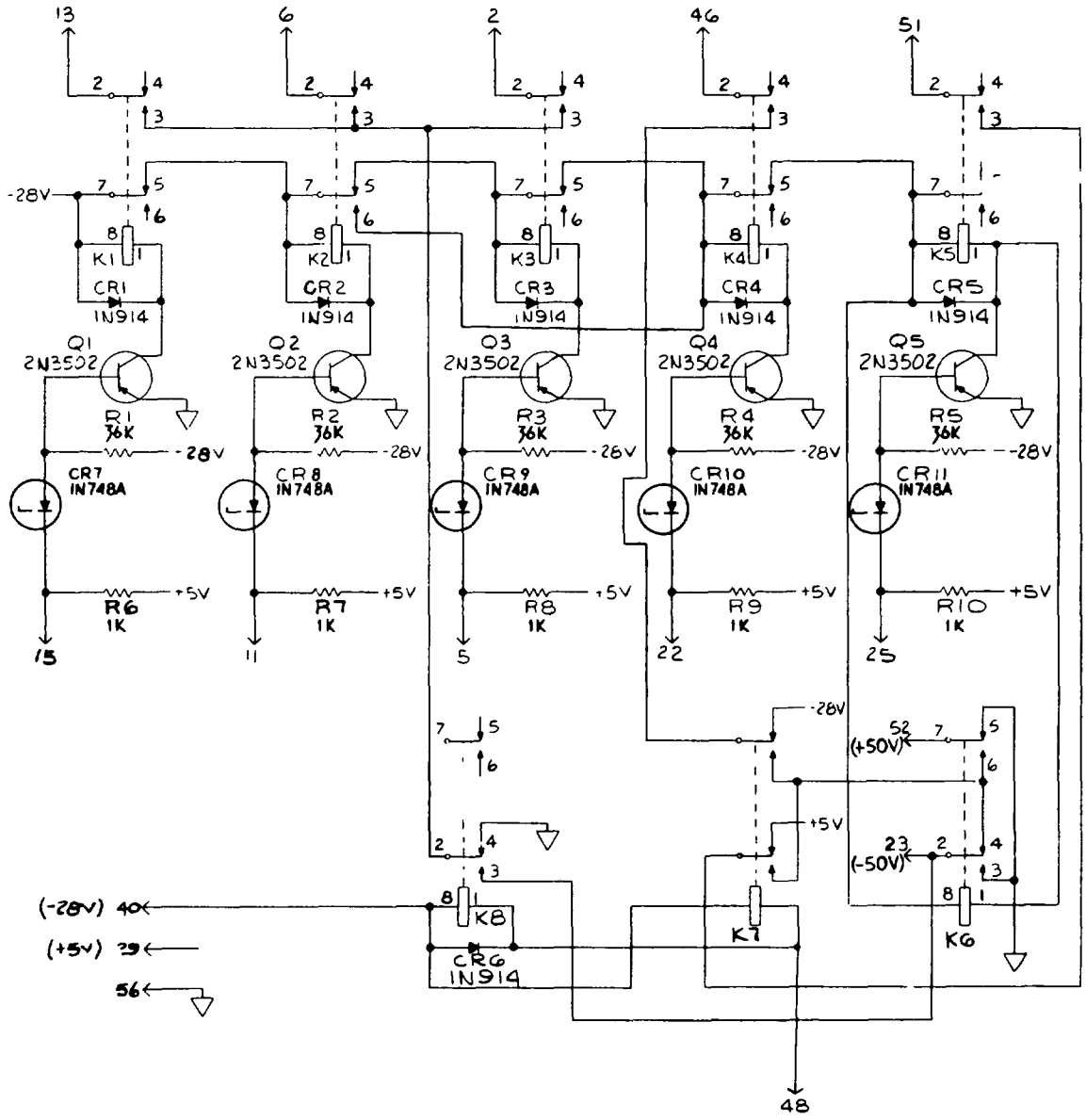


Figure 6-21. Relay/Driver (PT1561)

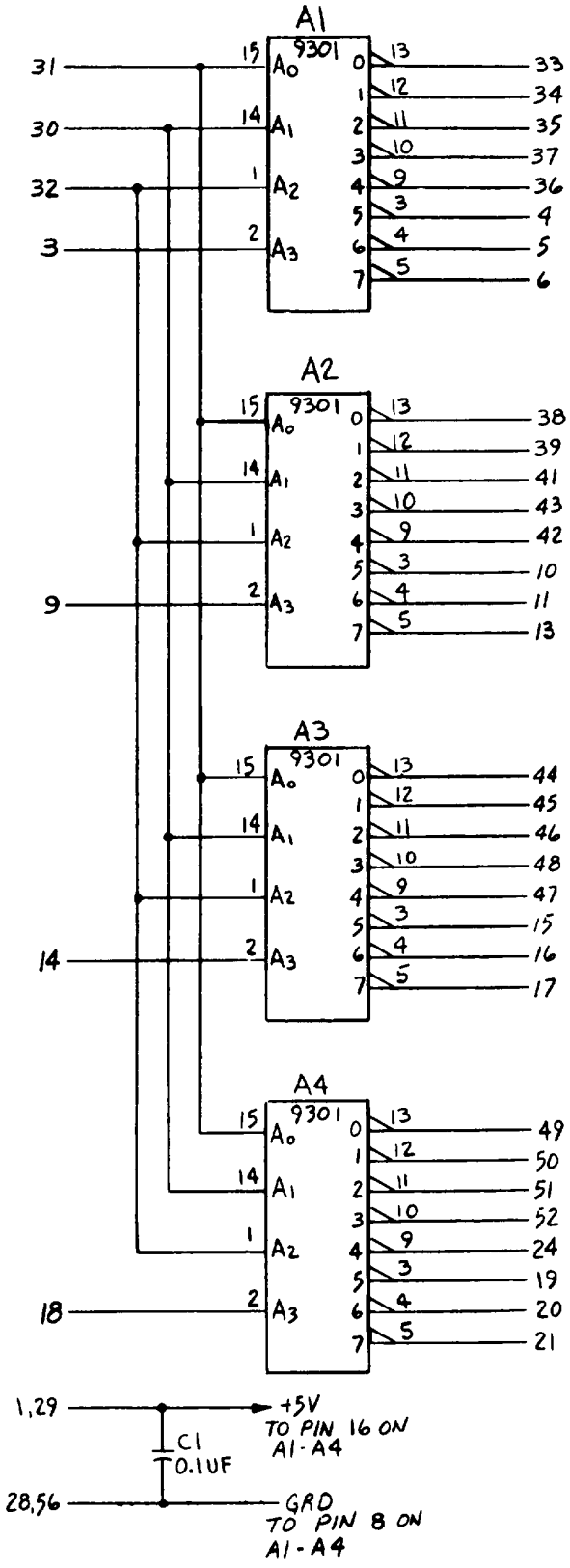


Figure 6-22. Decoder 1 of 32 (PT1561)

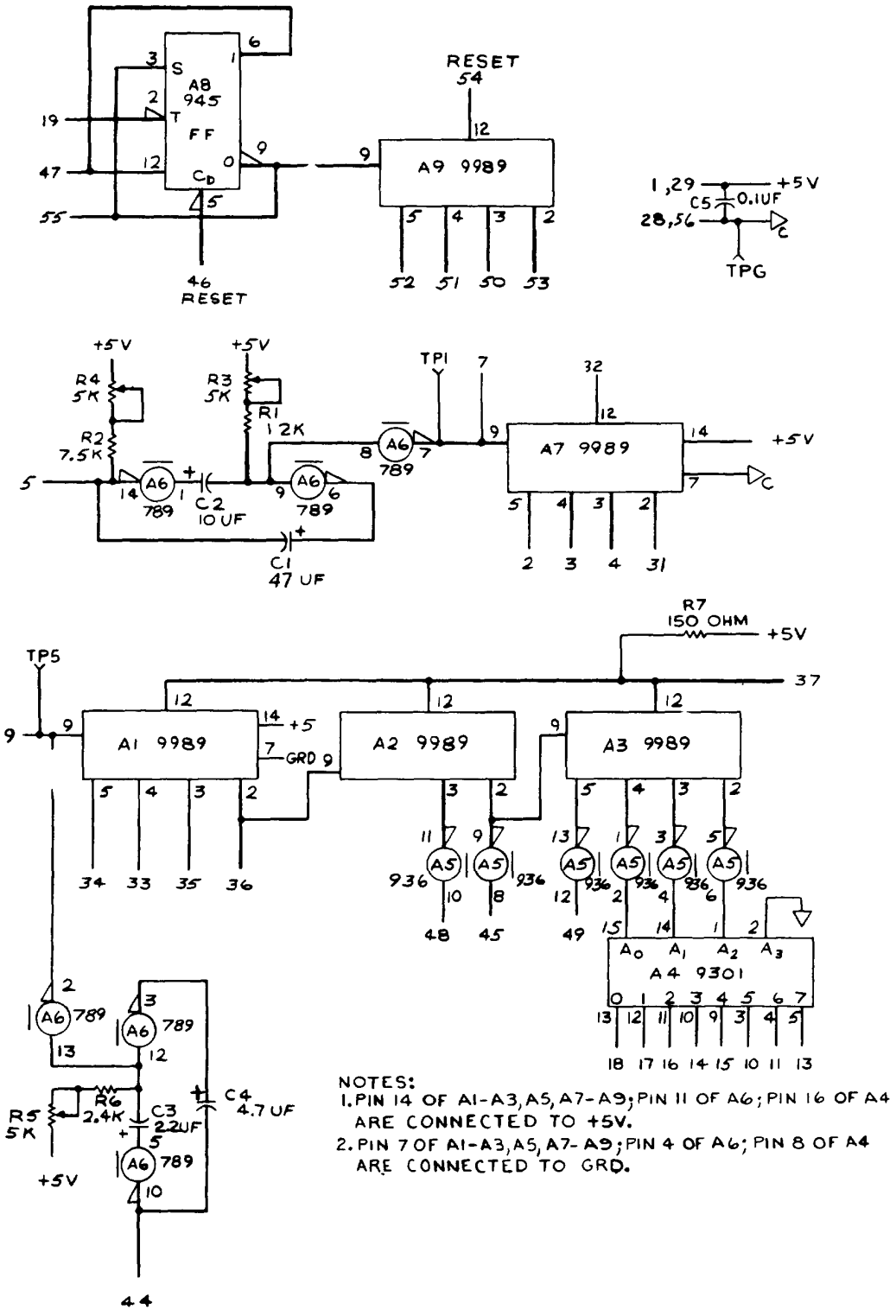
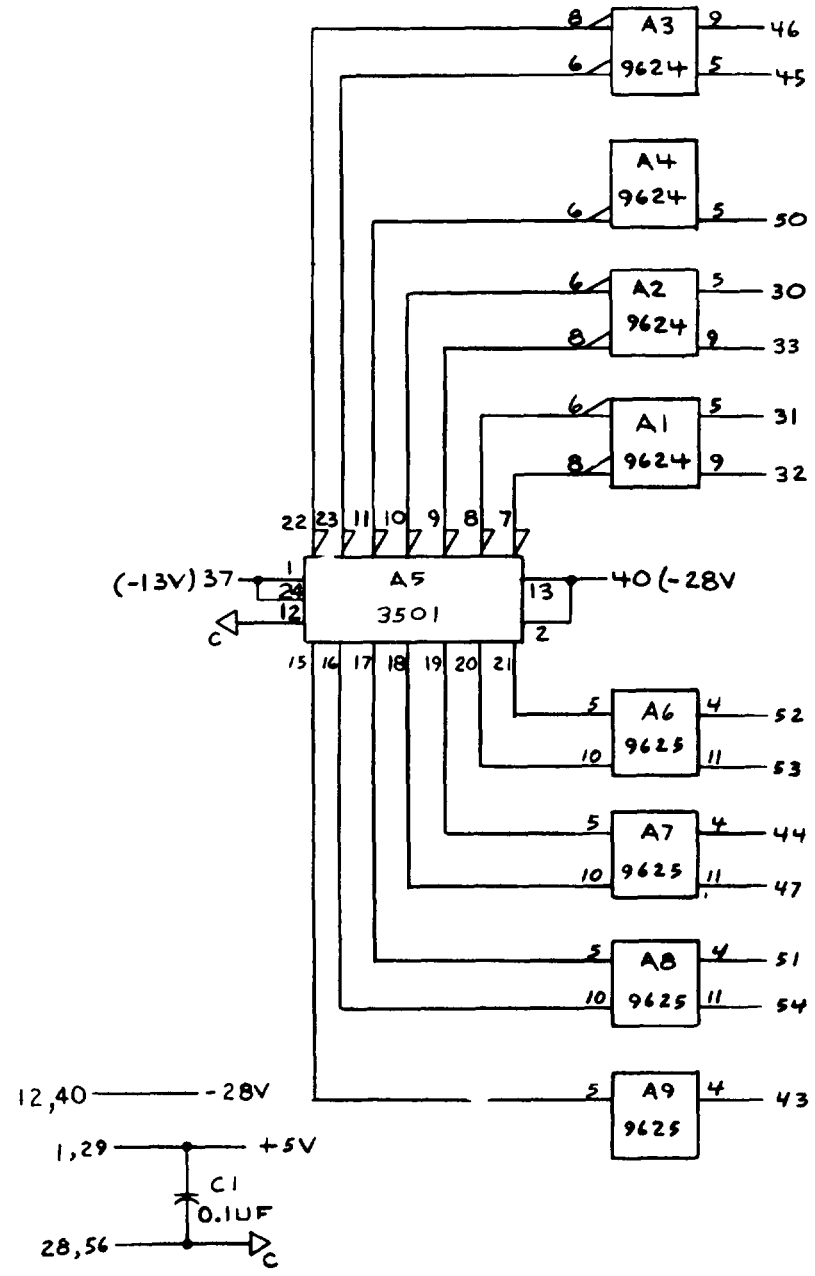


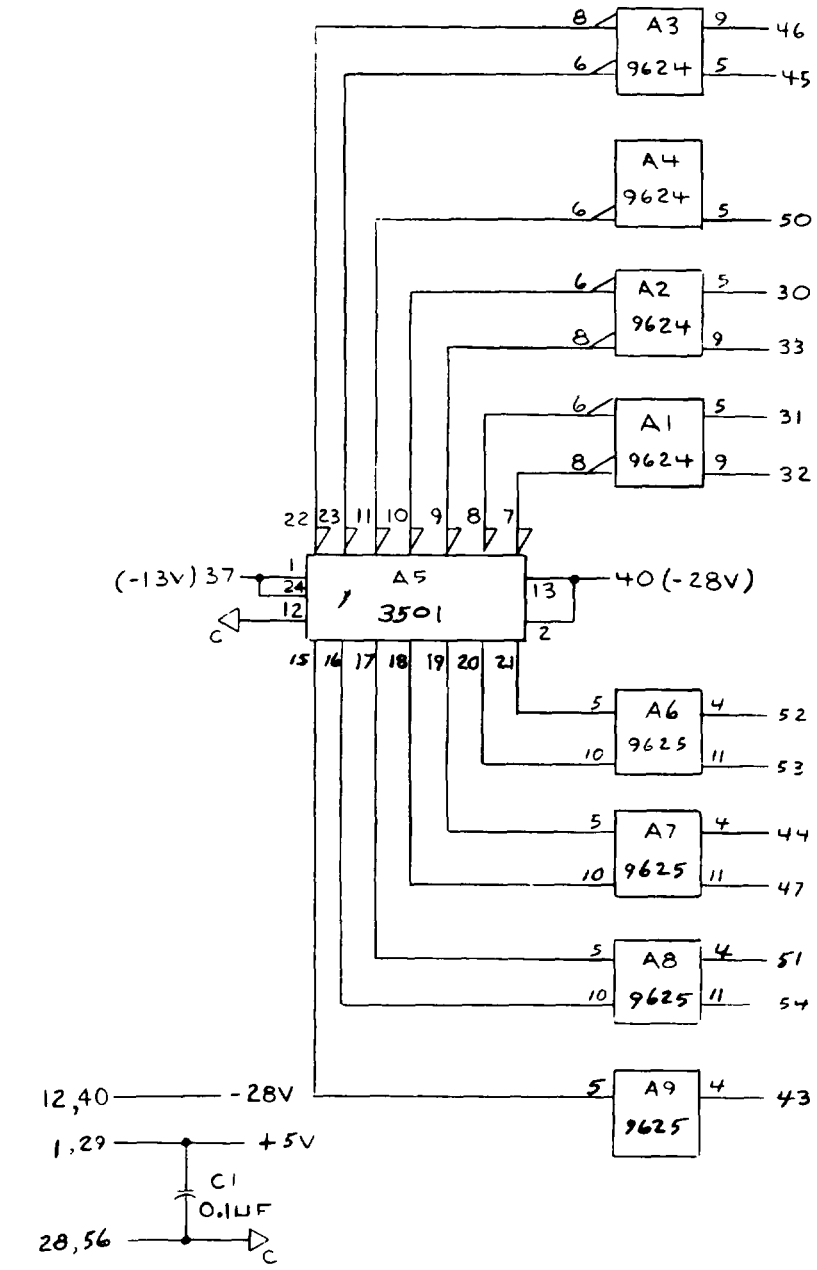
Figure 6-23. Printed Wiring Assembly (Oscillator) (PT1561)



NOTES:

1. PINS 1 & 13 ON A1-A4 AND A6-A9 ARE CONNECTED TO GRD
   PINS 14 ON A1-A4 AND A6-A9 ARE CONNECTED TO +5V
   PINS 7 ON A1-A4 ARE CONNECTED TO -28V
   PINS 7 ON A6-A9 ARE CONNECTED TO -13V
2. OPEN RIGHT TRIANGLE (▷) AT SYMBOL INPUT OR OUTPUT INDICATES LESS POSITIVE WHEN ACTIVE.

Figure 6-24. ROM I (PT1561)



NOTES

1. PINS 1813 ON A1-A4 AND A6-A9 ARE CONNECTED TO GRD
   PINS 14 ON A1-A4 AND A6-A9 ARE CONNECTED TO +5V
   PINS 7 ON A1-A4 ARE CONNECTED TO -28V
   PINS 7 ON A6-A9 ARE CONNECTED TO -13V
2. OPEN RIGHT TRIANGLE (▷) AT SYMBOL INPUT OR OUTPUT INDICATES LESS POSITIVE WHEN ACTIVE

Figure 6-25. ROM 2 (PT1561)

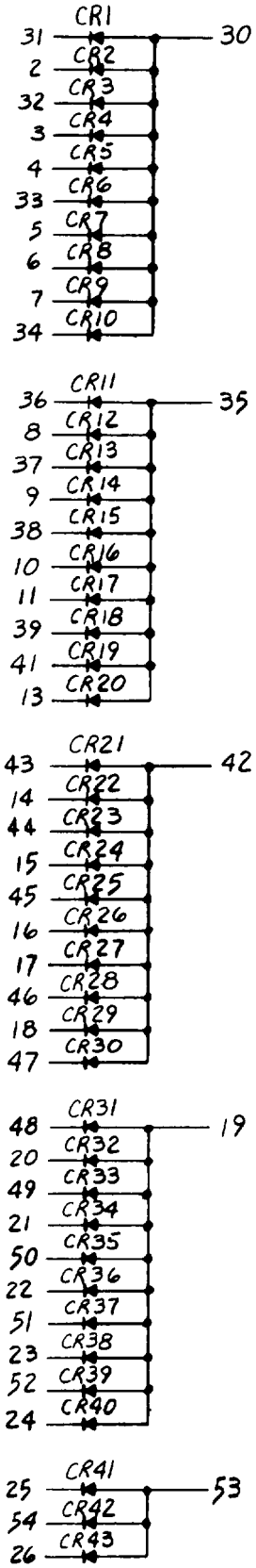


Figure 6-26. Diode (PT1561)

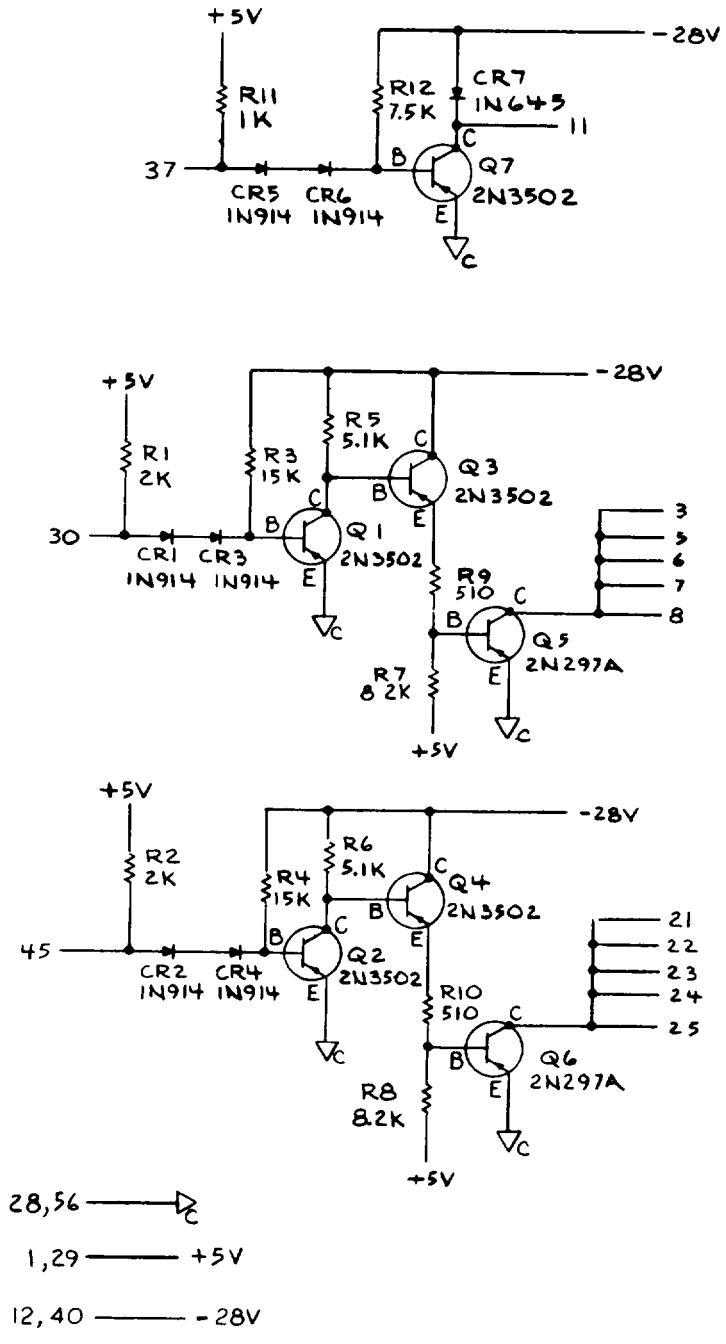


Figure 6-27. Solenoid Drivers (PT 1561)

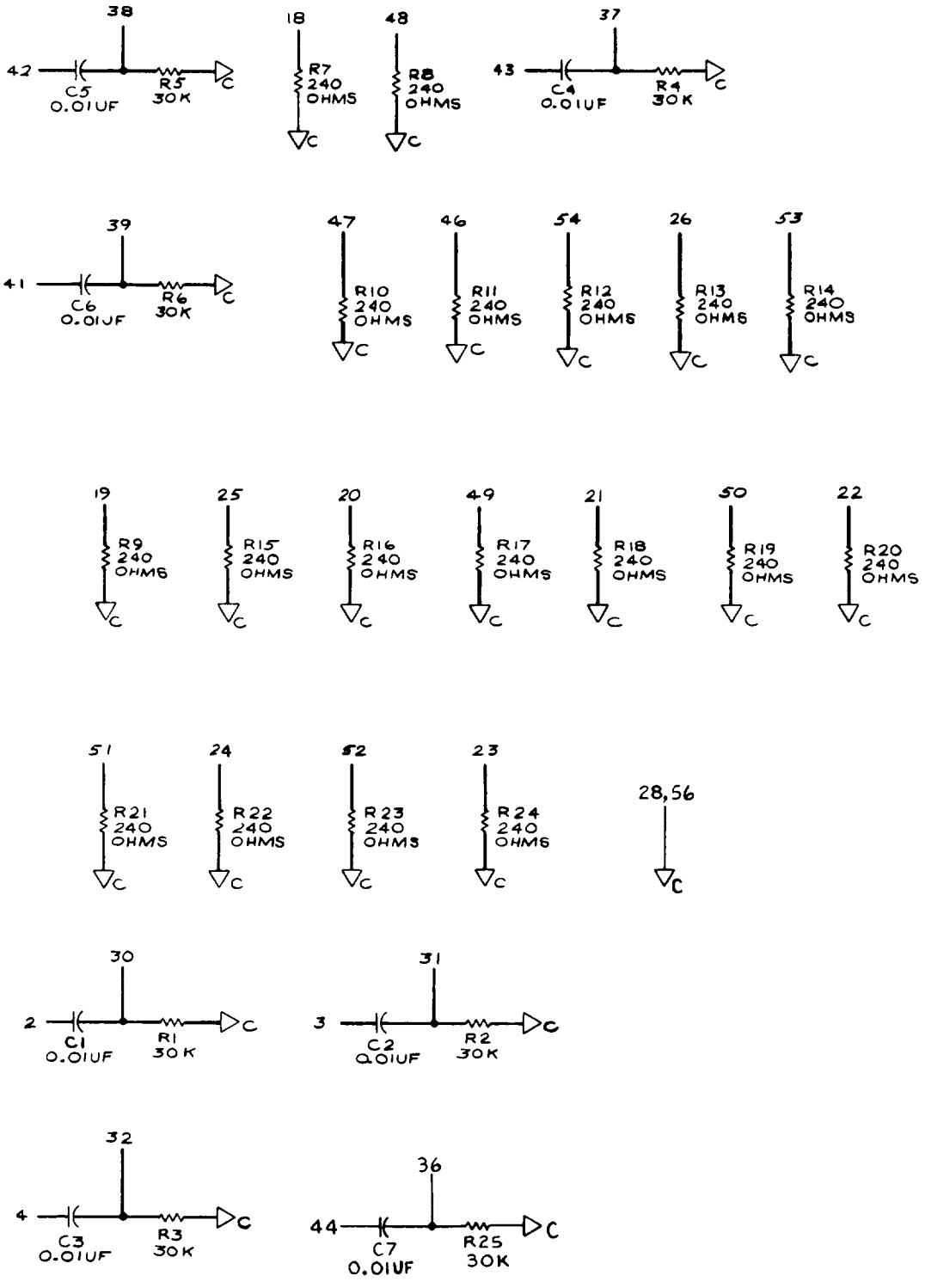


Figure 6-28. Printed Wiring Assembly (Pulse Coupling) (PT1561)

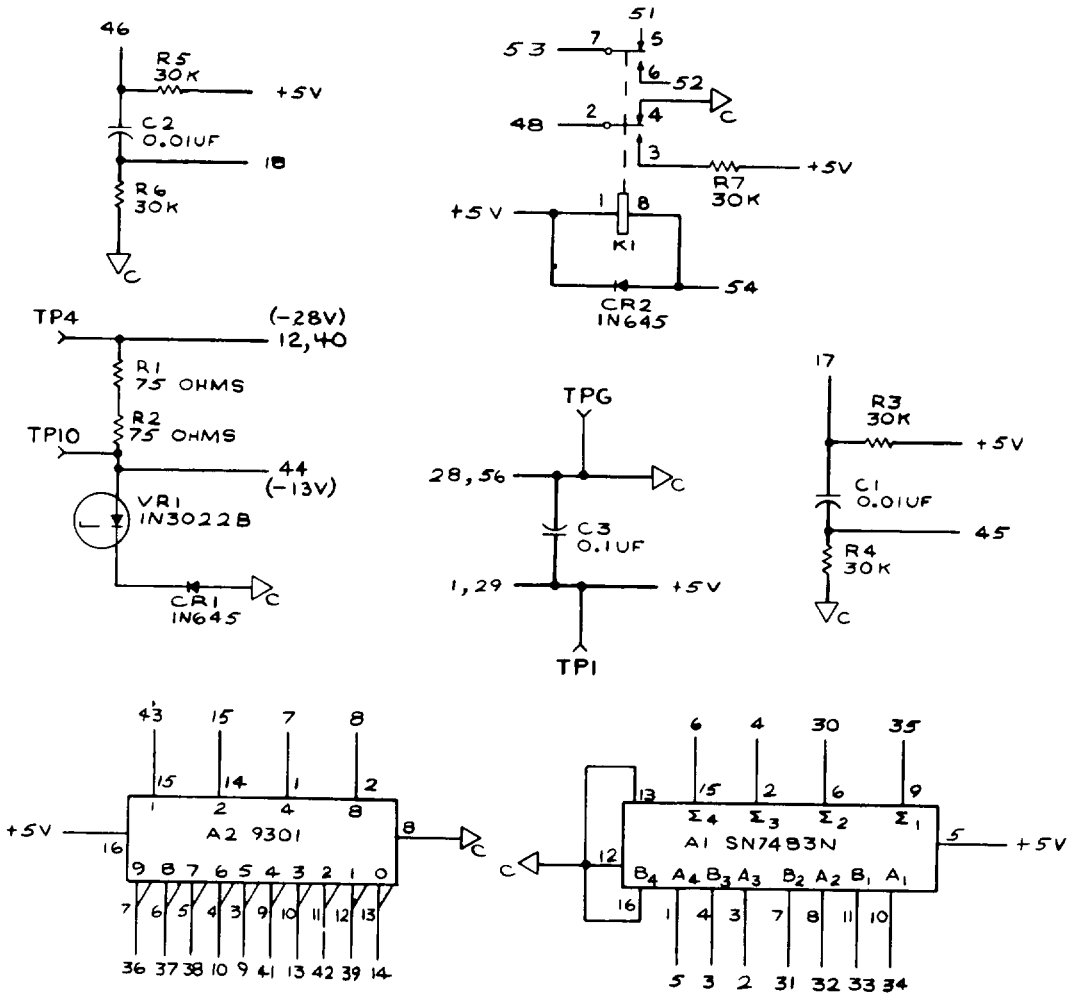


Figure 6-29. Printed Wiring Assembly (Resistors) (PT1561)

SECTION VII

ILLUSTRATED PARTS BREAKDOWN

PART I

INTRODUCTION

1-1. GENERAL.

1-2. This illustrated parts breakdown lists and illustrates the replaceable components, assemblies and detail parts in the PT1561 Programmer Test Set, manufactured for San Antonio Air Material Area, Kelly Air Force Base, Texas. This illustrated parts breakdown is intended for use in requisitioning and identifying parts. Maintenance procedures for these items are covered in Section V.

1-3. This illustrated parts breakdown is divided into four parts:

Part I - Introduction
Part II - Group Assembly Parts List
Part III - Numerical Index
Part IV - Reference Designation Index

1-4. NUMERICAL INDEX.

1-5. The Numerical Index, Part III, is an index of all part numbers in the Group Assembly Parts List, Part II.

1-6. MFR PART NUMBER COLUMN.

1-7. This column contains each part number listed in the group assembly parts list, arranged in alphabetical and numerical order. Part number arrangement in this column is from left to right, one letter or number at a time, until the order of numerical listing is determined. The part numbers are arranged by the extreme left hand character in the following order of precedence:

a. Letters A through Z

b. Numerals 0 through 9

The second and succeeding characters from left to right determine the subsequent order of precedence of a part number, as follows:

a. Space (blank column)

b. Diagonal (Slant)

c. Point (period)

d. Dash (-)

e. Letters A through Z

f. Numerals 0 through 9

NOTE

Alphabetical O's are considered numeric zeros.

1-8. FIG. AND INDEX NO. COLUMN.

1-9. The data in this column identifies and locates the parts in the Group Assembly Parts List, Part II. The number preceding the dash is the figure number and the number following the dash is the index number. Where no index number is listed, the part number appears in the figure shown but is not indexed. Each occurrence of a part number in Part II is indicated in this column.

1-10. QUANTITY PER ARTICLE.

1-11. This column lists the quantity of the listed part or assembly used in that location.

1-12. REFERENCE DESIGNATION INDEX.

1-13. The Reference Designation Index, Part IV, provides all the reference designation assigned to parts and assemblies in the equipment.

1-14 REFERENCE DESIGNATION COLUMN.

1-15. This column lists the electrical designations in alphanumeric order.

1-16. FIG. AND INDEX NO. COLUMN.

1-17. The data in this column identifies and locates the parts in the Group Assembly Parts List, Part II The number preceding the dash is the figure number and the number following the dash is the index number.

1-18. MFR PART NUMBER COLUMN.

1-19. This column lists the appropriate part number that appears in the group assembly parts list.

1-20. GROUP ASSEMBLY PARTS LIST.

1-21. The Group Assembly Parts List, Part II, provides illustrations of the equipment with accompanying parts lists. Index numbers on the parts lists correspond to those on the illustrations. A part can be identified if its part number, description, or physical configuration is known.

1-22. FIG. AND INDEX NO. COLUMN.

1-23. This column lists the assigned figure and index number of each part or assembly in the list and its associated illustration.

1-24. MFR PART NUMBER COLUMN.

1-25. This column lists the contractor's part numbers or vendor's part number is listed when applicable. If the item has not been assigned a part number, the words NO NUMBER appear in this column.

1-26. DESCRIPTION COLUMN.

1-27. This column provides the name and identifying description for the listed assemblies or parts followed by the five digit manufacturer's code in parenthesis. The indention arrangement of this column under the number 1 through 7 is used to show the relationship of a part or assembly to another part or assembly. Attaching parts are listed immediately following the assembly or part they attached. Attaching parts are preceded by the words (ATTACHING PARTS). The symbol (---*---) is used to denote the end of the attaching parts and the continuation of the listing.

1-28. MANUFACTURER'S CODES.

1-29. The manufacturer's codes used in this manual are:

00656	Aerovox Corp. New Bedford, Mass.
00712	Teledyne Inc. Radar Relay Division 1631 10th St. Santa Monica, Calf. 90404
01295	Texas Instruments Inc. Semiconductor-Components Div. 13500 North Central Expressway Dallas, Tx. 75231
01537	Motorola Communications and Electronics Inc. 4500 West Augusta Blvd. Chicago, Ill. 60651
02289	Hi - G Inc. Spring St. at Route 75 Windsor Locks, Conn. 06096
05397	Union Carbide Corp. Linde Division Kemet Dept. 11901 Madison Cleveland, Ohio 45246
005574	Viking Industries Inc. 21343 Roscoe Blvd. Canoga Park, Calif.
05791	Lyn - Tron Inc. 5350 Rivrtn. North Hollywood, Cal. 91601

06229	Electrovert Inc. 240 Madison Ave. New York, N.Y. 10016
06514	Wyco Metal Products P.O. Box 9676 VC North Hollywood, Calif. 91609
07047	Ross Milton Co. The 511 Second Street Pike Southampton, Pa. 18966
07263	Electromath Division of Vogue Instrument Corp. 129-11 18th Avenue College Point, N.Y.
08806	General Electric Co. Miniature Lamp Dept Nela Park Cleveland, Ohio 44112
09026	Babcock Electronics Corp. Relays Division 3501 Harbor Blvd. P.O. Box 1499 Costa Mesa, Calif. 92626
10199	Bay Products Division of American Metal Works Somerset - Gurney Streets Philadelphia, Pa. 19134
12139	PIC Design Corp. 7335 Van Nuys Van Nuys, Cal.
12324	Stake Fastener Co. South El Monte, Calif.
12405	Hysol Corp. 9640 Telstar Ave. El Monte, Calif.
12618	Electro - Rack Inc. 1341 S. Claudma Anaheim, Calif. 92805
17465	Cutler - Hammer Inc. 1661 Industrial Wy. Belmont, Cal. 94002
18482	TEC Magnetics Co. 9856 Everest St. Downey, Calif. 90242
24176	Teledyne Inc 12525 S. Daphne Ave Hawthorne, Calif. 0250
28480	Hewlett - Packard Co. 1501 Page Mill Road Palo Alto, Cal. 94304
30874	International Business Machines Corp. Armonk, N.Y.
71279	Cambridge Thermionic Corp. 430 Concord Ave. Cambridge, Mass.
71400	Bussman Mfg Division of McGraw - Edison Co. 2538 W. University St. St. Louis, Mo.
72144 (formerly 80061)	Electronic Corp. of America Cambridge, Mass.
72962	Elastic Stop Nut Corp. of America 2330 Vauxhall Road Union, N.J. 07083
73545	Cable Electric Products Inc. 234 Daboll Street Providence, R.I.
73760	ITT General Controls Inc. 801 Allen Ave. Glendale, Calif.
74545	Hubbell Harvey Inc. 100 State St. Bridgeport, Conn. 06603
75915	Littlefuse Inc. 800 E. Northwest Hwy. DesPlaines, 111. 60016

76493	Miller, J.W. Co. 5915 S. Main St. Los Angeles, Calif. 90003
77820	Bendix Corp. The Scintilla Division Sidney, N.Y. 13838
77902	Rohm and Haas Co. Washington Square Philadelphia, Pa. 19105
79136	Waldes Kohinoor Inc. Long Island City, N.Y.
80048 (formerly 80062)	Vickers Inc Electric Products Div. St. Louis, Mo.
80063	Army Electronics Command Forth Monmouth, N.J.
80294	Bourns Inc. 6135 Magnolia Ave. Riverside, Cal. 92506
80813	Dimco Gray Co. 207 E Sixth Street Dayton, Ohio
81312	Winchester Electronics Division Litton Industries Inc. Main Street and Hillside Avenue Oakville, Conn.
81349	Military Specifications Promulgated by Standardization Div. Directorate of Logistic Services, DSA
81840	Ledex Inc. 123 Webster St. Dayton, Ohio 45402
84411	TRW Capacitor Division 112 W. First St. Ogallala, Neb.
84830	Lee Spring Co. Inc. 30 Main Brooklyn, N.Y.
88245	Litton Industries USECO Division 13536 Saticoy St. Van Nuys, Calif.
88557	Central Lab Mfg. Co. Brooklyn, N.Y.
91929	Honeywell Inc. Micro Switch Div. Freeport, Ill.
92702	lMC Magnetics Corp. Eastern Division 570 Main St. Westbury Long Island, N.Y.
95987	Weckesser Co. 5707 N. NW Hwy Chicago, Ill.
96182	Master Specialties Co. 1640 Monrovia Costa Mesa, Calif. 92627
96192	
97525	Electronic Engineering Co. of Calif. Santa Anna, Cal.
98376	Zero Mfg. Co. Burbank, Cal.

1-30. SOURCE CODE COLUMN.

1-31. This column contains the source code assigned for the assembly or part listed. Definitions of the codes are as follows:

a. Code P - identifies parts which may be requisitioned and installed by any level of maintenance consistent with the Command's authorized scope of maintenance. Code P is applied to parts on which usage is anticipated or known. Restricted (emergency) service manufacture of code P items is considered practical but may be accomplished only after confirmation of nonavailability from supply sources.

b. Code PD - identifies parts which may be requisitioned and installed by AF activities authorized depot-level maintenance only. Code PD is applied to parts which usage is anticipated or known. Restricted (emergency) service manufacture of code PD parts is considered practical but may be accomplished only after confirmation of nonavailability from supply sources.

c. Code P1 - identifies parts which may be requisitioned and installed by any maintenance level consistent with the Command's authorized scope of maintenance. Code P1 is applied to parts on which usage is anticipated or known, and which service manufacture is considered impractical.

d. Code P1D - identifies parts which may be requisitioned and installed by AF activities authorized depot-level maintenance only. Code P1D is applied to parts on which usage is anticipated or known, and which service manufacture is considered impractical.

e. Code P2 - identifies insurance-type spare parts which can be installed by any AF activity consistent with the Command's authorized scope of maintenance. This code is applied to parts which are basically structural and for which no usage is anticipated or known, and which require special tools, templates and/or jigs and are very difficult, impractical, or uneconomical to manufacture by AF activities. These items are not subject to periodic replacement or wear out but may require infrequent replacement as a result of accidents or other unexpected occurrences. Delayed procure-ment items, as defined in AFLCM 400-1, are included under this code.

f. Code P2D - identifies insurance-type parts which may be installed by AF activities which are authorized depot-level maintenance only. This code is applied to parts as described under code P2 and to delayed procurement items referenced in AFLCM 400-1.

g. Code M - identifies parts, the manufacture and installation of which is within the capabilities of field maintenance activities; and to which all of the following conditions apply:

(1) Procurement is not justified because of low usage or peculiar storage and installation factors. Needs are to be met by local manufacture only as required.

(2) Their manufacture does not require tools, equipment, or skills not normally authorized at field maintenance level.

(3) Does not require test equipment not normally authorized at field maintenance level.

(4) Does not require material not normally available in Air Force inventory.

h. Code M1 - identifies parts which can be manufactured at activities authorized depot-level maintenance facilities and to which all of the following conditions apply:

(1) Procurement is not Justified because of low usage or peculiar storage and installation factors. The needs or base activities are to be met by requisitioning from the geographical AMA, LSM AMA, or IM AMA/AFD.

(2) Their manufacture is beyond capabilities of field maintenance activities.

(3) Their manufacture does not require tools or equipment not normally authorized at all AMAs.

i. Code A - Identifies items capable of being assembled at any level of maintenance and is applied to assemblies of two or more parts, the majority of which are purchased and/or service manufactured.

j. Code A1 identifies assemblies which can be assembled at AF activities authorized depot-level maintenance only and is applied to assemblies described under code A.

k. Code X - is applied to main structural members or similar parts, which, if required, would suggest extensive repair. The need for a part or parts coded X (wing spars, center section structure, etc.) should normally result in a recommendation to retire the article from service.

l. Code X1 identifies parts applicable at any level of maintenance consistent with the Command's authorized scope of maintenance and for which it is more feasible to obtain the next higher assembly; for example, an integral detail part such as a welded segment inseparable from its assembly; a part machined in a matched set, or a part of any assembly which, if required, would suggest extensive reconditioning of such assembly. In some cases, code X1 may be used to indicate an integral detail part of an assembly which has no anticipated usage and as an assembly was source-coded M or M1.

m. Code X1D - Identifies parts described under the X1 code but which are applicable to AF activities authorized depot-level maintenance only.

n. Code X2 - Identifies parts applicable to any level of maintenance consistent with the Command's authorized scope of maintenance for which there is no anticipated usage, and which are impractical for service manufacture. This type of item will not be stocked. Such parts shall be obtained from reclamation or, if not available from this source, requisitioned through normal supply channels together with supporting justification for one-time procurement and immediate use. Repeated requests shall justify a change to a code P1 or P2, as applicable, if considered economical and feasible to procure and stock such parts.

o. Code X2D - identifies parts described under the X2 code by which are applicable to AF activities authorized depot-level maintenance only. Repeated requests for such parts shall justify a change to a P1D or P2D code, as applicable, if considered economical and feasible to procure and stock such parts.

p Code U - is applied to installation drawings, diagrams, instruction sheets, field-service drawing numbers, and parts not otherwise of supply significance, including obsolete parts, which cannot be procured or service manufactured.

q. Code C - is applied to kits containing parts that have a specific period of time (cure-date) to remain in storage without affecting their serviceability and are subject to deterioration due to ageing or exposure. The cure-date for the kit is established on the shortest life item within the kit C-Kit contains parts required for maintenance and overhaul and will be used in conjunction with Overhaul (Code D) Repair Kits and/or Minor or Field (Code F) Repair Kits, as applicable.

r. Code D - is applied to kits which are available only to maintenance activities authorized to perform depot or major overhaul. These kits do not contain cure-dated parts.

s. Code F - is applied to kits which are available to maintenance activities authorized to perform minor or field repair, including overhaul activities in support of field activities. These kits do not contain cure-dated parts.

t. Code KC - is applied to items which are components of a C-Kit.

u. Code KD - is applied to items which are components of a D-Kit.

v. Code KF - is applied to items which are components of an F-Kit.

w. Code KB - is applied to items which are components of both an F-Kit and a D-Kit.

1-32. REPAIR CODE COLUMN.

1-33. This column contains the repair code assigned for the assembly or part listed. Definitions of the codes are as follows:

a. Code S - No repair Code S identifies items which are nonrepairable and have no reclamation value. When these items fall they will be disposed of at user level as condemned material.

b. Code B - No repair - recondition. Code B identifies assemblies or parts that will be reconditioned at the user level by adjusting, cleaning, soldering broken connections, etc. If these items cannot be returned to serviceable condition by such means they will be disposed of at user level as condemned material. No repair parts or tools are specially procured for maintenance of these items.

c. Code F - Field level maintenance. Code F identifies items which will be repaired by the field level maintenance activities. Normal servicing will be done by organization level maintenance. Selected parts, tools and technical order data are procured and provided to applicable field level maintenance activities for repair of these items. No specialty repair activity (SRA) is established for these items. If they cannot be returned to serviceable condition by the field level maintenance activity with parts and tools provided, they will be disposed of as condemned material. High value and critical items, however, will be turned in to supply and disposition instructions obtained from the applicable IM.

d. Code D - Limited field repair; depot overhaul. Code D identifies items on which a limited degree of repair can be accomplished by field level maintenance activities. Normal servicing will be done at organization level. SRA is established for overhaul of these items. A range of repair parts, tools, and technical order data consistent with the capabilities of repair are procured and provided to applicable field maintenance activities. Because of the design characteristic and complexity of repair; the degree of repair which is authorized on these items at field maintenance level is necessarily determined by the degree of technical skills required and the cost of special tools, special test equipment, spare parts and the predicted frequency of failure generation. If these items cannot be returned to serviceable condition with authorized parts and tools, they will be returned to supply for shipment to the designated SRA.

e. Code DM - Limited field repair; mobile depot overhaul. Code DM identifies items to which all the conditions of code D apply except that repair beyond field capability will be done by the Mobile Depot Activity (MDA). If the MDA cannot repair these items, they will determine whether these items should be condemned or sent to the SRA.

f. Code L - Depot level maintenance only. Code L identifies items that will be repaired only at designated SRA. Repair parts and tools for repair are procured and provided only to these authorized activities. Required functional checkout and bench check equipment may be provided to applicable organization and field maintenance activities for accomplishing external adjustment or calibration and verifying serviceability of these items. If they are found unserviceable they will be turned in to supply for shipment to SRA.

g. Code LM - Depot level maintenance only; mobile depot activity. Code LM identifies items to which all conditions of code L apply except that repair will be accomplished by MDA. If MDA cannot repair these items, they will determine whether these items should be returned and sent to the SRA.

1-34. UNITS PER ASSY COLUMN.

1-35. This column lists the quantity of the listed part or assembly used at the given location. The abbreviation "REF" in this column indicates that the assembly or subassembly has been listed previously in the Group Assembly Parts List.

1-36. USABLE ON-CODE COLUMN.

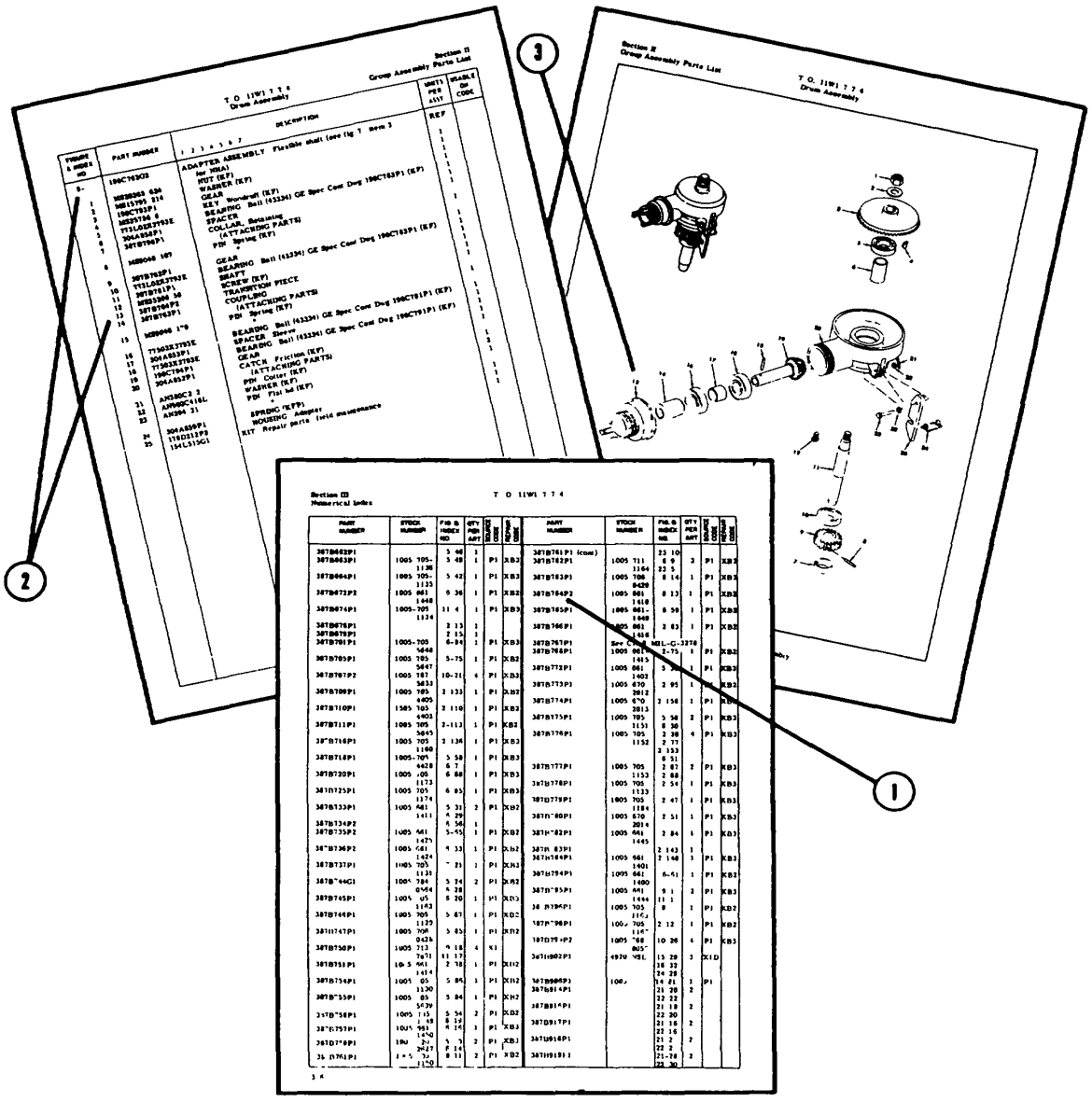
1-37. This column indicates the usability of parts within specific assemblies or subassemblies; such assemblies are always first-line listings. Where the USABLE ON-CODE column is blank, the part is applicable to all articles covered by this breakdown.

1-38. EXPLANATION OF SYMBOLS AND ABBREVIATIONS.

1-39. The symbols and abbreviations used in the illustrated parts breakdown are as follows:

---*---	End of attaching parts
AR	As required
ARS	As required per system
NHA	Next Higher Assembly

HOW TO USE THE ILLUSTRATED PARTS BREAKDOWN



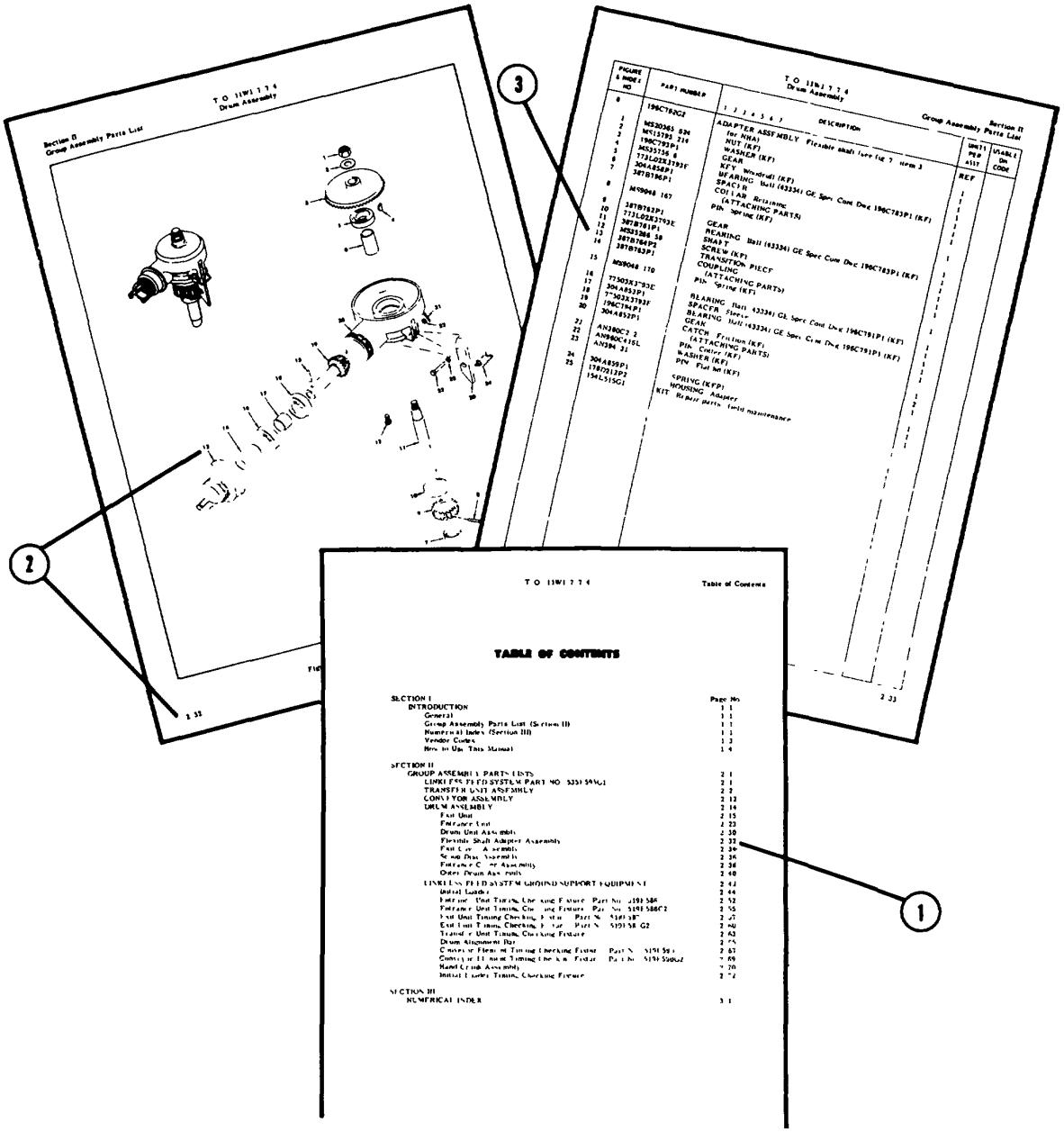
WHEN THE PART NUMBER IS KNOWN

1. When the part number is known, refer to Section III Numerical Index. Locate the part number and note the figure and index number assigned to the part number.

2. Turn to the figure number indicated and locate the index number referenced in the Numerical Index.

3. If a pictorial representation of the part, or its location is desired, refer to the same index number on the accompanying illustration.

HOW TO USE THE ILLUSTRATED PARTS BREAKDOWN



WHEN THE PART NUMBER IS NOT KNOWN

1. Determine the function and application of the part required. Turn to the Table of Contents and select the most appropriate title. Note the illustration page number.

2. Turn to the page indicated and locate the desired part on the illustration.

3. From the illustration, obtain the index number assigned to the part desired. Refer to the accompanying description for specific information regarding the part.

SECTION VII
ILLUSTRATED PARTS BREAKDOWN

PART II

GROUP ASSEMBLY PARTS LIST

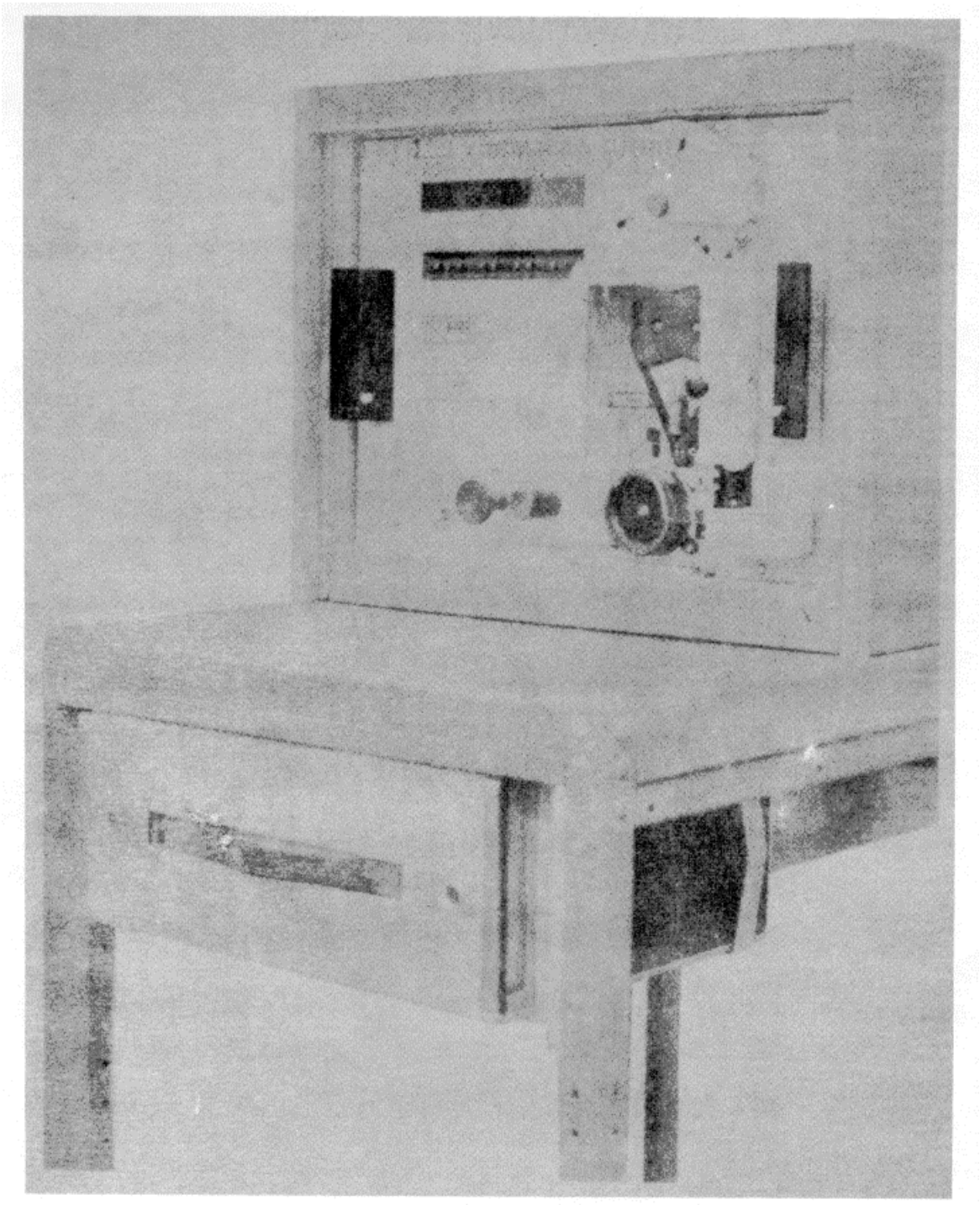
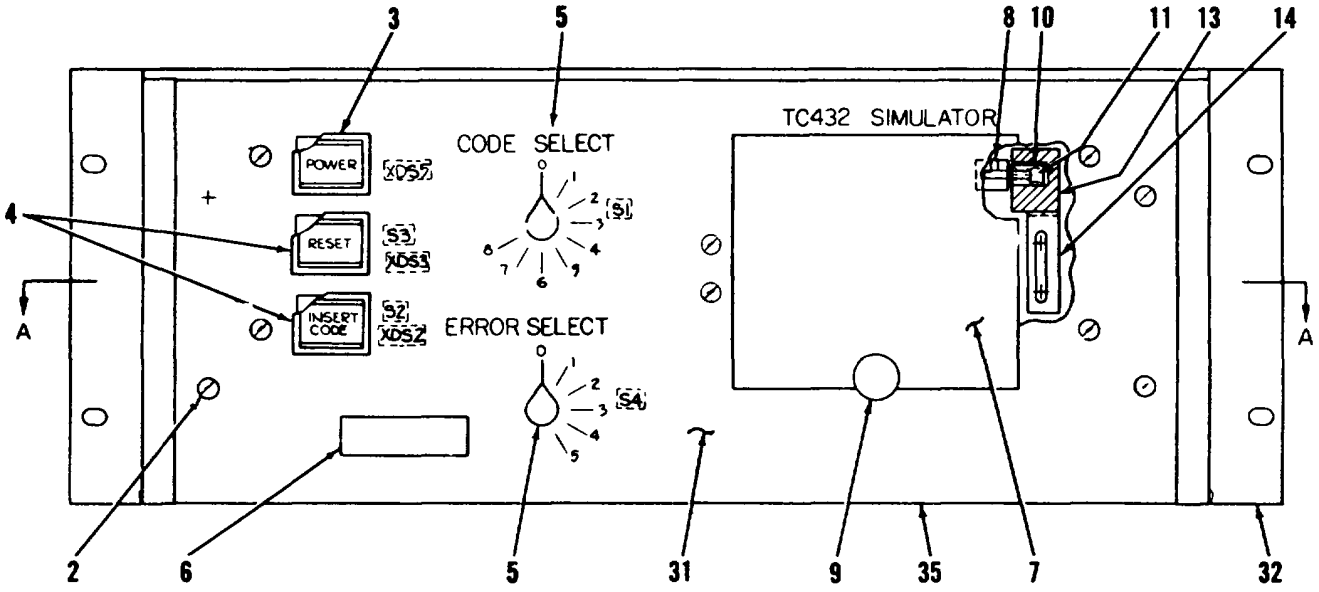
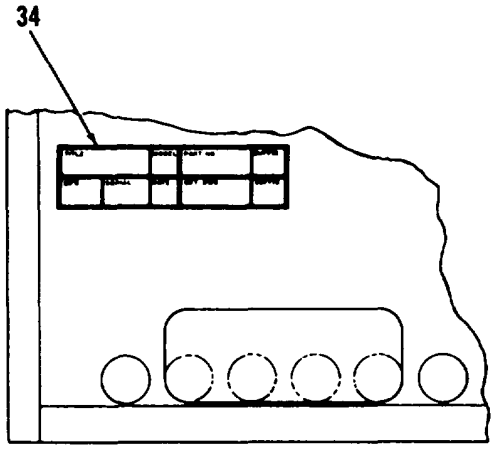


Figure 1. PT1561 Programmer Test Set with U7483 Printer, U7484 Simulator and U7780 Service Cart

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
1 -	285224	PROGRAMMER TEST SET (80063).....			1	
- 1	336990	SIMULATOR (U7484) (See..... fig. 2 for breakdown) (80063)			1	
		(ATTACHING PARTS)				
		...*...				
- 2	336989	. PRINTER (U7483) (See..... fig. 8 for breakdown) (80063)			1	
		(ATTACHING PARTS)				
		...*...				
- 3	336467	. PROGRAMMER (PT1561)..... (See fig. 14 for breakdown) (80063)			1	
- 4	285715	. CHAFF BOX (80063)			1	
		(ATTACHING PARTS)				
		...*...				
- 5	337827	. SERVICE CART (U7780)..... (See fig. 29 for breakdown) (80063)			1	
	337015	. CABLE ASSEMBLY (CA1258)..... (80063)			1	
	PT06P-8-4P (PT06P8-4P)	. CONNECTOR, Plug, electrical..... (77820)			1	
	PT06P-8-4S (PT06P8-4S)	. CONNECTOR, Plug, electrical..... (77820)			1	
	337016	. CABLE ASSEMBLY (CA1259).....			1	
	P62998	. CONNECTOR, Plug, electrical..... (TA383) (77820)			1	
	PT06P-22-36S (PT06P22-36S)	. CONNECTOR, Plug, electrical..... (77820)			1	
	6706	. CABLE ASSEMBLY, Power..... electrical (73545)			1	





VIEW C-C
ROTATED 180° CW

Figure 2. U7484 Simulator (Sheet 1 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
2 -	336990	SIMULATOR (U7484) (See Fig. 1 for NHA)			REF	
- 1	15060-0828	. CONTROL PANEL COVER (28480) (NOT SHOWN)			1	
- 2	SFSW10F8 CPG02A	. SCREW, Assembled washer 10-32 x 1/2 (12324)			4	
- 3 (XDS5)	No Number	. INDICATOR LIGHT ASSEMBLY "POWER"			1	
	10-C3 (10C3)	. LIGHT, Indicator (96182)			1	
	10EA2C1	. LIGHT, Indicator (96182) (Alternate for 10-C3)			1	
	MSC10-16-00	. LENS, Indicator light (96182)			1	
	10EN1	. DIFFUSER, Light, single indication (96182)			1	
	10-513	. DIFFUSER, Light, single indication (96182) (Alternate for 10EN1)			1	
	387	. LAMP, Incandescent, 28 V (08806)			2	
	10-A (10A)	. FILTER, Lamp, amber (91682)			2	
	10EL(A) (10ELA)	. FILTER, Lamp, amber (91682) (Alternate for 10-A)			2	
- 4 (XDS3)	No Number	. INDICATOR LIGHT ASSEMBLY "Reset"			1	
(XDS2)	No Number	. INDICATOR LIGHT ASSEMBLY "Insert Code"			1	
	10-A1 (10A1)	. LIGHT, Indicator (96182)			1	
	10EA1C	. LIGHT, Indicator (96182) (Alternate for 10-A1)			1	
	MSC10-16-00	. LENS, Indicator light (96182)			1	
	10EN1	. DIFFUSER, Light, single indication (96182)			1	
	10-513	. DIFFUSER, Light, single indication (96182) (Alternate for 10EN1)			1	
(S2, S3)	2D2	. SWITCH ASSEMBLY (91929)			1	
	10-7	. SWITCH ASSEMBLY (96182) (Alternate for 2D2)			1	
	10EF1	. SWITCH ASSEMBLY (96182) (Alternate for 2D2)			1	
	387	. LAMP, Incandescent, 28V (08806)			2	

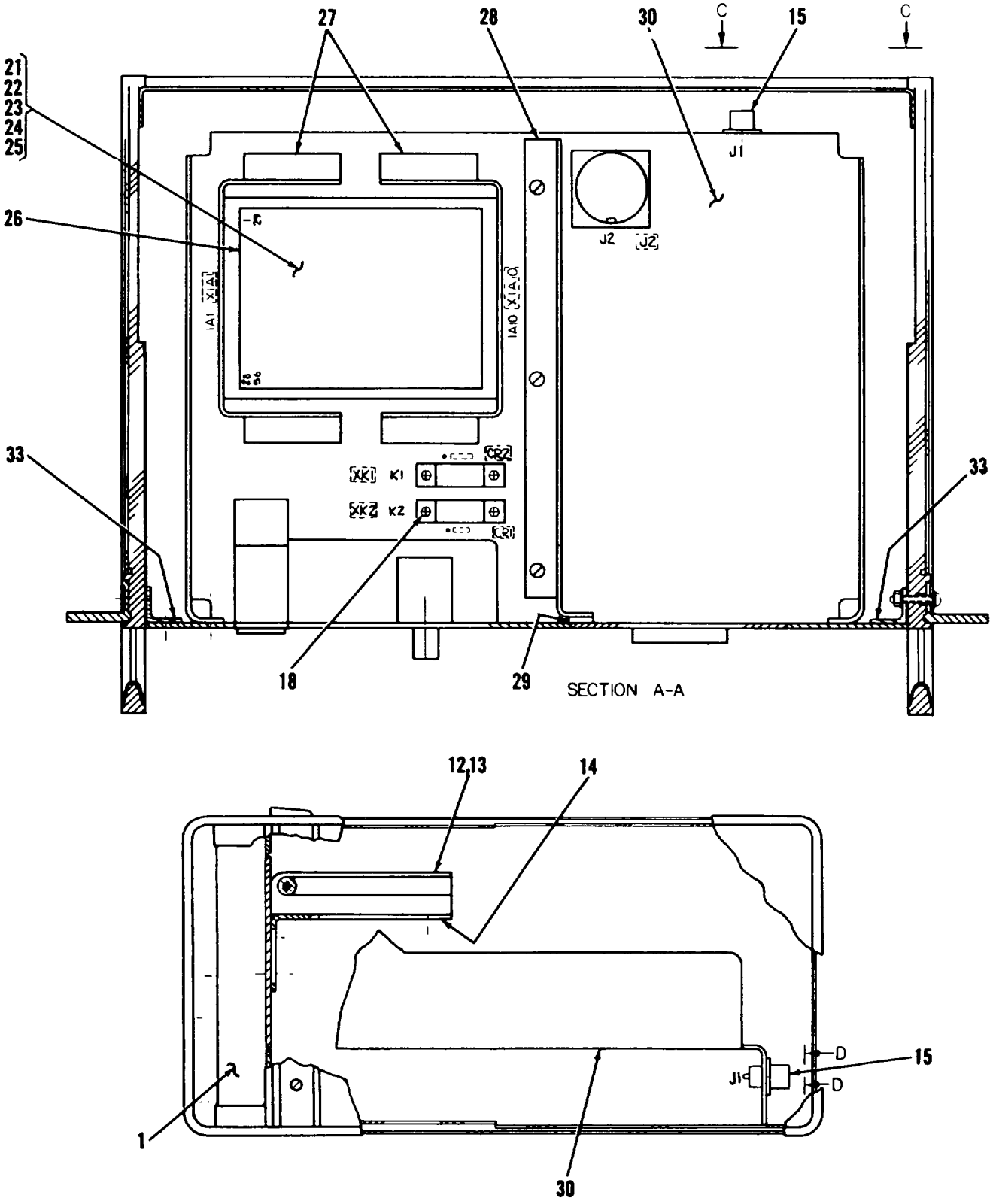
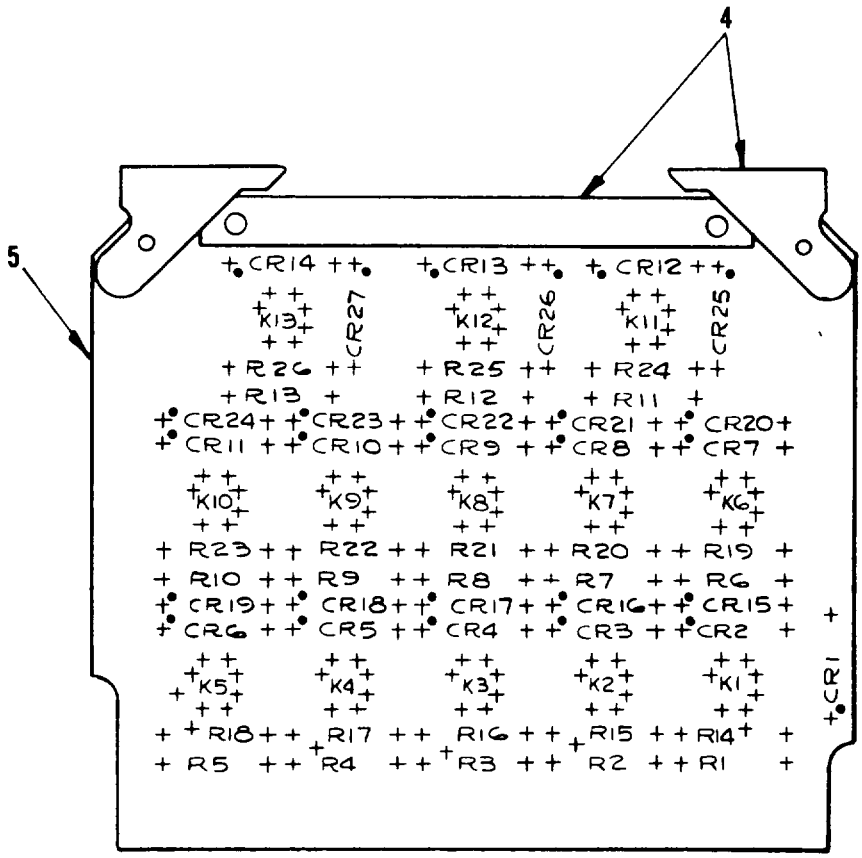


Figure 2. U7484 Simulator (Sheet 2 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
2 -						
	10-A	. FILTER, Lamp, amber (91682)			2	
	(10A)					
	10EL(A)	. FILTER, Lamp, amber (91682)			2	
	(10ELA)	(Alternate for 10-A)				
- 5	PS-106	. SWITCH, Rotary sub miniature			2	
(S1, S4)	(PS106)	(88557)				
- 6	198550-1	. PLATE, Identification (80063).....			1	
		(ATTACHING PART)				
		. SCREW, Machine, 4-40			2	
- 7	336990-10	. DOOR-HINGE ASSEMBLY (80063) ..			1	
- 8	CS-9	. SETSCREW, "No-mar" 4-40			2	
	(CS9)	x 5/32 (12139)				
- 9	97	. KNOB (80813).....			1	
- 10	336990-25	. ROLLER (80063).....			2	
- 11	MS16997-22	. SCREW, Cap, socket head 6-32.....			2	
- 12	336990-15	. PLATE (80063).....			1	
		(ATTACHING PARTS)				
		...*...				
- 13	336990-17	. PLATE (80063).....			1	
		(ATTACHING PARTS)				
		...*...				
- 14	336990-03	. CLIP, (80063)			1	
		(ATTACHING PARTS)				
		...*...				
- 15	PT00A-8-4P	. CONNECTOR, Receptacle			1	
(J1)	(PT00A84P)	electrical (77280)				
		(ATTACHING PARTS)				
		...*...				
- 16	PT00A-22-36P	. CONNECTOR, Receptacle, ...			1	
(J2)	(PT00A22-36P)	electrical (77280)				
		(ATTACHING PARTS)				
		...*...				

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
2 -						
- 17 (K1, K2)	BR19-S355 (BR19S355)	. RELAY, Armature, miniature, dc (09026) (ATTACHING PARTS)			2	
		...*...				
- 18	770	. TERMINAL, Standoff (81312)			4	
- 19 (XK1, XK2)	VB10/1UWC11-42 (VB10-1UWC1142)	. SOCKET, Relay (05574) (Assembly hardware supplied with part)			2	
- 20 (CR1, CR2)	1N914	. SEMICONDUCTOR DEVICE Diode (81349) (per MIL-S-19500/19)			2	
- 21 Thru 1A5)	283854	. RELAY CARD, Latching (80063) (See fig. 3 for breakdown)			5	
- 22 (1A6)	283879	. DIODE, Matrix (80063) (See fig 4 for breakdown)			1	
- 23 (1A7)	283889	. DIODE, Matrix (80063) (See fig 5 for breakdown)			1	
- 24 (1A8)	283890	. DIODE, Matrix (80063) (See fig 6 for breakdown)			1	
- 25 (1A9)	283891	. DIODE, Matrix (80063) (See fig 7 for breakdown)			1	
- 26	S11684-1	. CARD FILE, Fixed, 10 card components (97525)			1	
(X1A1 Thru X1A10)	No Number	. CONNECTOR, Receptacle, electrical			10	
- 27	336990-05	. BRACKET (NOT SHOWN) (80063) (ATTACHING PARTS)			2	
		...*...				
- 28	336990-07	. BRACKET (80063) (ATTACHING PARTS)			1	
		...*...				
- 29	336990-27	. FILLER, "Natsyn", plastic (NOT SHOWN) (80063)			1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
2 -						
- 30	336990-01	. BRACKET (80063)..... (ATTACHING PARTS)			1	
		...*...				
- 31	336990-13	. PANEL (80063).....			1	
- 32	5060-0775	. BRACKET, Rack mounting ..... (28480) (supplied with combining case) (ATTACHING PARTS)			2	
		...*...				
- 33	336990-11	. ANGLE (not shown) (80063)..... .			2	
- 34	198571-004	. LABEL, Identification (80063) ..... (NOT SHOWN)			1	
- 35	1051A	. COMBINING CASE (28480)			1	

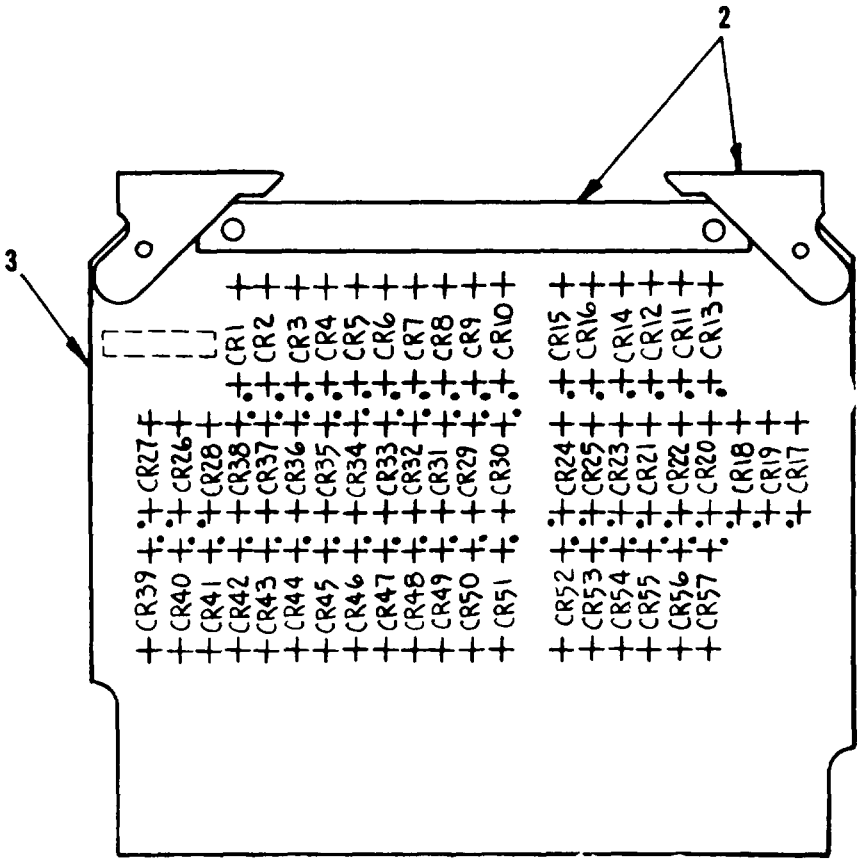


1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 3. Latching Relays (See figure 6-14 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
3 -	283854	RELAYS, Latching (80063)			5	
- 1 (CR1 Thru CR7)	1N645	. SEMICONDUCTOR DEVICE ..... DIODE (MIL-S-19500/240) (81349)			27	
- 2 (K1 Thru K13)	421-26	. RELAY, Latching (00712)			13	
- 3 (R1 Thru R26)	RC20GF471J	. RESISTOR, Fixed composition ..... (MIL-R-11/3) (81349)			26	
- 4	H-4711	. CARD KIT (97525)			1	
- 5	283854-01	. CIRCUIT BOARD ..... (per MIL-P-13949) (80063)			1	

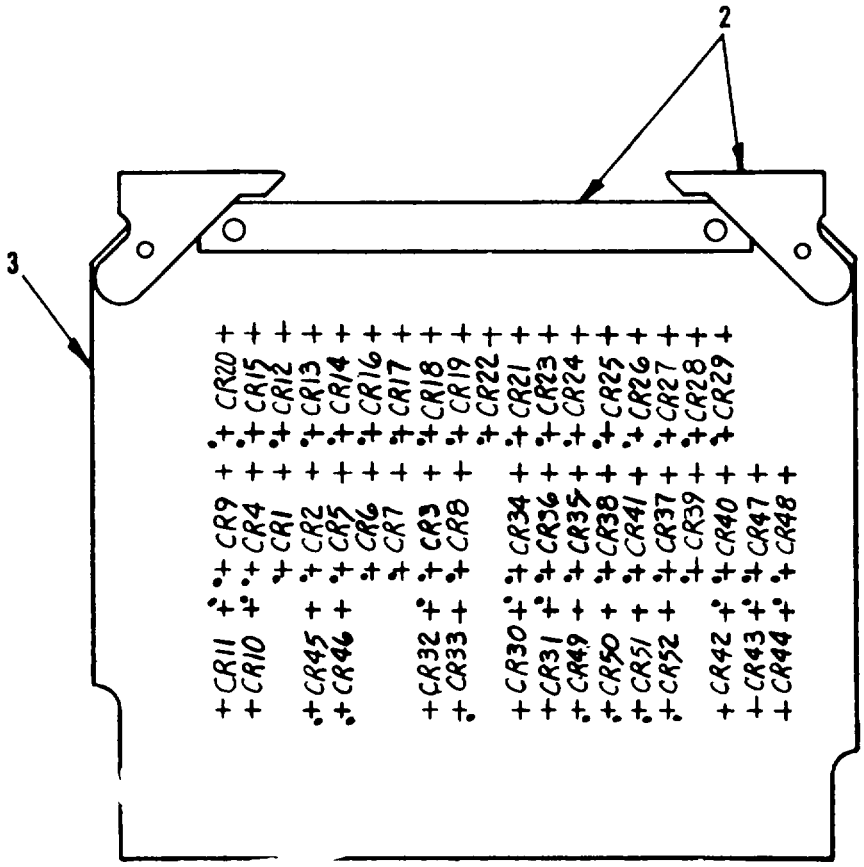


1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 4. Diode Matrix (See figure 6-15 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
4 -	283879	DIODE MATRIX (80063)			1	
- 1 (CR1 - CR57)	1N645	. SEMICONDUCTOR DEVICE, ... Diode (MIL-S-19500/240) (81349)			57	
- 2	H-4711	. CARD KIT (97525)			1	
- 3	283879-01	. CIRCUIT BOARD ..... (per MIL-P-13949) (80063)			1	

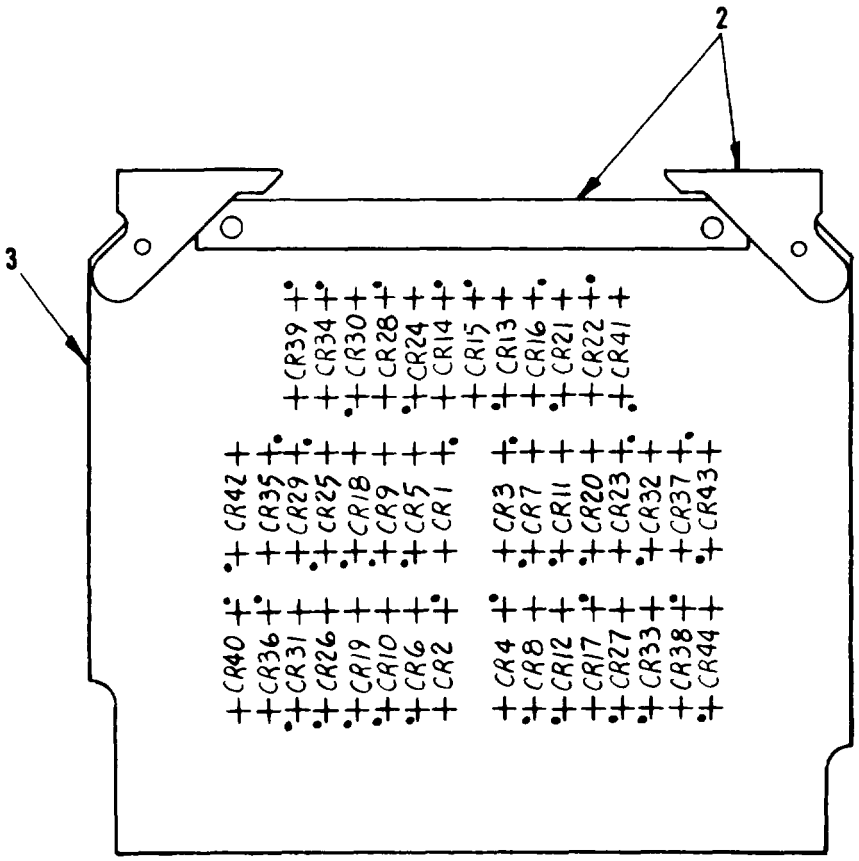


1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 5. Diode Matrix (See figure 6-16 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
5 -	283889	DIODE MATRIX (80063)			1	
- 1 (CR1 - CR52)	1N645	. SEMICONDUCTOR DEVICE, ... Diode (MIL-S-19500/240) (81349)			52	
- 2	H-4711	. CARD KIT (97525)			1	
- 3	283889-01	. CIRCUIT BOARD, ... (per MIL-P-13949) (80063)			1	

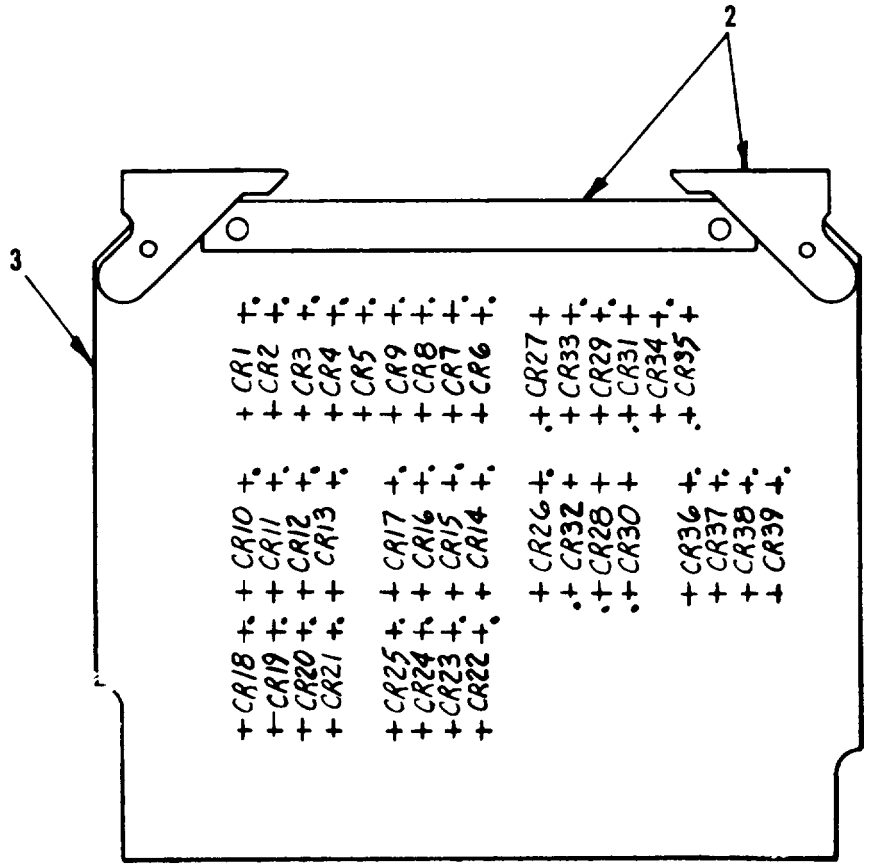


1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 6. Diode Matrix (See figure 6-17 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
6 -	283890	DIODE, Matrix (80063).....			1	
- 1 (CR1 Thru CR44)	1N645	. SEMICONDUCTOR DEVICE,..... Diode (MIL-S-19500/240) (81349)			44	
- 2	H-4711	. CARD KIT (97525)			1	
- 3	283890-01	. CIRCUIT BOARD ..... (per MIL-P-13949) (80063)			1	



1 ORIENT COMPONENTS IN POSITION SHOWN.

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS.

Figure 7. Diode Matrix (See figure 6-18 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
7 -	283891	DIODE MATRIX (80063)			1	
- 1 (CR1 Thru CR39)	1N645	. SEMICONDUCTOR DEVICE, ... Diode (MIL-S-19500/240)			39	
- 2	H-4711	. CARD KIT (97525)			1	
- 3	283891-01	. CIRCUIT BOARD, ... (per MIL-P-13949) (80063)			1	

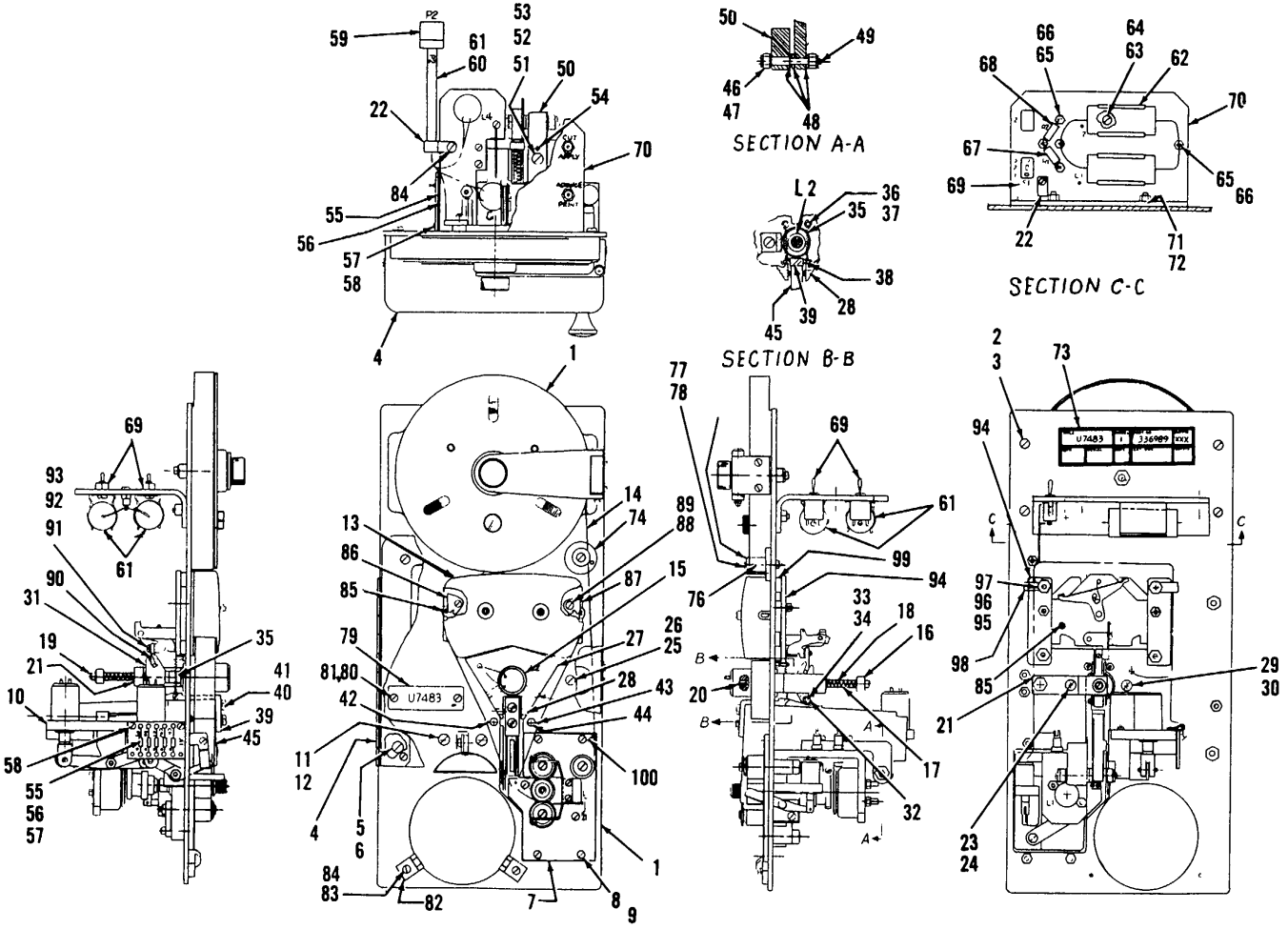


Figure 8. U7483 Printer

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
8 -	336989	PRINTER, U7483 (80063).....			REF	
- 1	285225-e	. HOLDER, Tape Supply..... (see figure 9) (80063) (ATTACHING PARTS)			1	
- 2	MS35206-228	. SCREW, Mach, pan hd..... 6-32 x 3/8			4	
- 3	MS35340-41	. WASHER, Lock, No. 6 ....*...			4	
- 4	285714	. COVER ASSEMBLY (see figure 11)..... (80063) (ATTACHING PARTS)			1	
- 5	MS35206-244	. SCREW, Mach, pan hd,..... 8-32 x 7/16			2	
- 6	MS21044N08	. NUT, Self-lock, hex 8-32..... ...*...			2	
- 7	283864	. TAPE FEEDING MECHANISM..... (see figure 11) (80063) (ATTACHING PARTS)			1	
- 8	MS35206-217	. SCREW, Mach, pan hd,..... 4-40 x 1/2			4	
- 9	MS21044N04	. NUT, Self-lock, hex, 4-40..... ...*...			4	
- 10	285226	. TAPE CUTTER AND APPLICATOR..... (see figure 13) (80063) (ATTACHING PARTS)			1	
- 11	MS35206-246	. SCREW, Mach, pan hd,..... 8-32 x 5/8			2	
- 12	MS35340-42	. WASHER, Lock, No. 8 ....*...			2	
- 13	1136138	. RIBBON CARTRIDGE, Black ..... (30874)			REF	
- 14	No Number	. TAPE, Labeling, adhesive.....			REF	
- 15 (L2)	12TM124-SOT	. SOLENOID, Pull Type..... (18482)			1	
- 16	C1-2	. COLLAR, Shaft (12139)..... (ATTACHING PARTS)			1	
- 17	CS-11	. SETSCREW, "No-mar", 8-32 ..... (12139) ...*...			1	
- 18	LC-022C-9-SS	. SPRING, Compression ..... (84830)			1	
- 19	336989-10	. PIN, (80063)			1	
- 20	112-4	. SPRING, Plunger, return ..... (18482)			1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
8 -						
- 21	366989-10	. BRACKET (80063)			1	
- 22	No Number	. CLAMP, Loop, nylon (06229)			1	
		(ATTACHING PARTS)				
- 23	MS35206-247	. SCREW, Mach pan hd, 8-32 x 3/4			2	
- 24	MS35340-42	. WASHER, Lock, No. 8			1	
- 25	MS35190-43	. SCREW, Mach pan hd, 8-32 x 5/8			1	
- 26	MS21044N08	. NUT, Self-lock, hex 8-32			1	
		...*...				
- 27	336989-07	. HOUSING (80063)			1	
- 28	CS-11	. SETSCREW, "No-mar", 8-32			4	
		(12139)				
		(ATTACHING PARTS)				
- 29	MS35206-244	. SCREW, Mach, pan hd, 8-32 x 7/16			1	
- 30	MS35340-42	. WASHER, Lock, No. 8			2	
		...*...				
- 31	336989-11	. GUIDE (80063)			1	
- 32	336989-57	. SPACER, Teflon, (80063)			1	
- 33	MS16633-1012	. RING, Retaining			1	
- 34	336989-31	. PIN (80063)			1	
- 35	E1-012B-6-SS	. SPRING, Extension (84830)			2	
- 36	MS21044N04	. NUT, Self-lock, hex 2-56			2	
		(72962)				
- 37	MS35190-8	. SCREW, Mach, pan hd, 2-56 x 5/8			2	
- 38	MS35206-205	. SCREW, Mach, pan hd, 2-56 x 3/8			2	
- 39	336989-15	. BRACKET (80063)			1	
		(ATTACHING PARTS)				
- 40	MS35206-228	. SCREW, Mach, pan hd, 6-32 x 3/8			2	
- 41	MS35340-41	. WASHER, Lock, No. 6			2	
		...*...				
- 42	336989-41	. GUIDE (L/H) (80063)			1	
- 43	336989-43	. GUIDE (R/H) (80063)			1	
		(ATTACHING PARTS)				
- 44	MS35206-211	. SCREW, Mach, pan hd, 4-40 x 1/8			2	
		...*...				
- 45	CD10E	. COUNTER DECADE, Printer			1	
		(73760)				
		(ATTACHING PARTS)				
- 46	MS21044N08	. NUT, Self-lock, hex, 8-32			2	
- 47	AN960-8	. WASHER, Flat, No. 8			2	
- 48	336989-61	. SPACER, Teflon (80063)			3	
- 49	336989-27	. PIN (80063)			1	
- 50	336989-65	. PLATE (80063)			1	
		(ATTACHING PARTS)				
- 51	MS35206-246	. SCREW, Mach, pan hd, 8-32 x 5/82				

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
8 -						
- 52	MS35340-42	. WASHER, Lock, No. 8			2	
- 53	AN960-8	. WASHER, Flat, No. 8			2	
- 54	NAS1081C04 A4N	. SETSCREW, Flat point, 4-40 x 1/4 ...*...			5	
- 55	2202-C A-1	. TERMINAL BOARD (88245)			1	
- 56	33698-63	. CIRCUIT BOARD (88245) (ATTACHING PARTS)			1	
- 57 (CR1-CR5)	1N4586	. SEMICONDUCTOR DEVICE, Diode (per MIL-S-19500/365) (ATTACHING PARTS)			5	
- 58	MS35206-203	. SCREW, Mach, pan hd, 2-56 x 1/4 ...*...			2	
- 59	PT06P-12-98P	. CONN, Plug, elec. (77820)			1	
(P2)	MIL-I-7444	. INSULATION SLEEVING, Vinyl				
- 60	MIL-W-16878	. WIRE, Insulated, size 24, white type E			ARS	
- 61 (C1, C2)	TYPE 052	. CAPACITOR, Fixed, electrolytic 500uf, 25V			2	
- 62	MS17160-132	. CLIP (ATTACHING PARTS)			2	
- 63	MS35206-228	. SCREW, Mach, pan hd, 6-32 x 3/8			4	
- 64	MS21044N06	. NUT, Self-lock, hex, 6-32 ...*...			4	
- 65	756	. TERMINAL, Standoff (81312) (ATTACHING PARTS)			5	
- 66	MS35190-12	. SCREW, Mach, pan hd, 440 x 1/4 ...*...			5	
- 67 (R1)	RW79U10R0F	. RESISTOR, Fixed, WW, 10 OHM, ± 1%, 3W (per MIL-R-26/5)			1	
- 68 (R2)	RW79U4R99F	. RESISTOR, Fixed, WW, 4.99 OHM ± 1%, 3W, (per MIL-R-26/5)			1	
- 69 (S1, S2)	8866K2	. SWITCH, Toggle (17465)			2	
- 70	336989-23	. BRACKET (80063) (ATTACHING PARTS)			1	
- 71	MS35190-27	. SCREW, Mach, pan hd, 6-32 x 1/2			2	
- 72	MS21044N06	. NUT, Self-lock hex, 6-32			2	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
8 -						
- 73	198571-004	. LABEL, Identification (80063)			1	
- 74	336989-30	. ROLLER BASE PLATE (80063)			1	
- 75	336989-25	. DISK (80063)			1	
- 76	336989-55	. SPACER, Teflon (80063) (ATTACHING PARTS)			1	
- 77	336989-47	. PIN (80063)			1	
- 78	MS21044N04	. NUT, Self-lock, hex, 4-40 ...*...			1	
- 79	198550-001	. PLATE, Identification (80063) (ATTACHING PARTS)			1	
- 80	MS35206-214	. SCREW, Mach, pan hd, 4-40 x 5/16			2	
- 81	MS21044N04	. NUT, Self-lock, hex, 4-40 ...*...			2	
- 82	336989-17	. BLOCK (80063) (ATTACHING PARTS)			2	
- 83	MS35206-214	. SCREW, Mach, pan hd, 4-40 x 5/16			2	
- 84	MS35340-40	. WASHER, Lock, No. 4 ...*...			2	
- 85	285215-000	. FEED PLATE ASSEMBLY (80063)			1	
- 86	1128404	. SPRING, Retain/Brake, RH (30874)			1	
- 87	1128403	. SPRING, Retain/brake, LH (30874) (ATTACHING PARTS)			1	
- 88	MS35206-214	. SCREW, Mach, pan hd, 4-40 x 5/16			2	
- 89	MS21044N04	. NUT, Self-lock, hex, 4-40 ...*...			2	
- 90	336989-50	. FEED PLATE ADAPTER (80063) (ATTACHING PARTS)			1	
- 91	MS35206-203	. SCREW, Mach, pan hd 2-56 x 1/4			1	
- 92	MS35340-39	. WASHER, Lock, No. 2			1	
- 93	AN960-2	. WASHER, Flat, No. 2 ...*...			1	
- 94	336989-03	. PLATE (80063) (ATTACHING PARTS)			2	
- 95	MS35190-28	. SCREW, Mach, pan hd, 6-32 x 5/8			4	
- 96	AN960-6	. WASHER, Flat No. 6			4	
- 97	MS21044N06	. NUT, Self-lock, hex, 6-32 ...*...			4	
- 98	No Number	. CLAMP, Loop Nylon (06229)			1	
- 99	336989-21	. DISK, (80063)			4	
-100	336989-51	. GUIDE (80063)			1	
-101	336989-01	. PLATE (80063)			1	

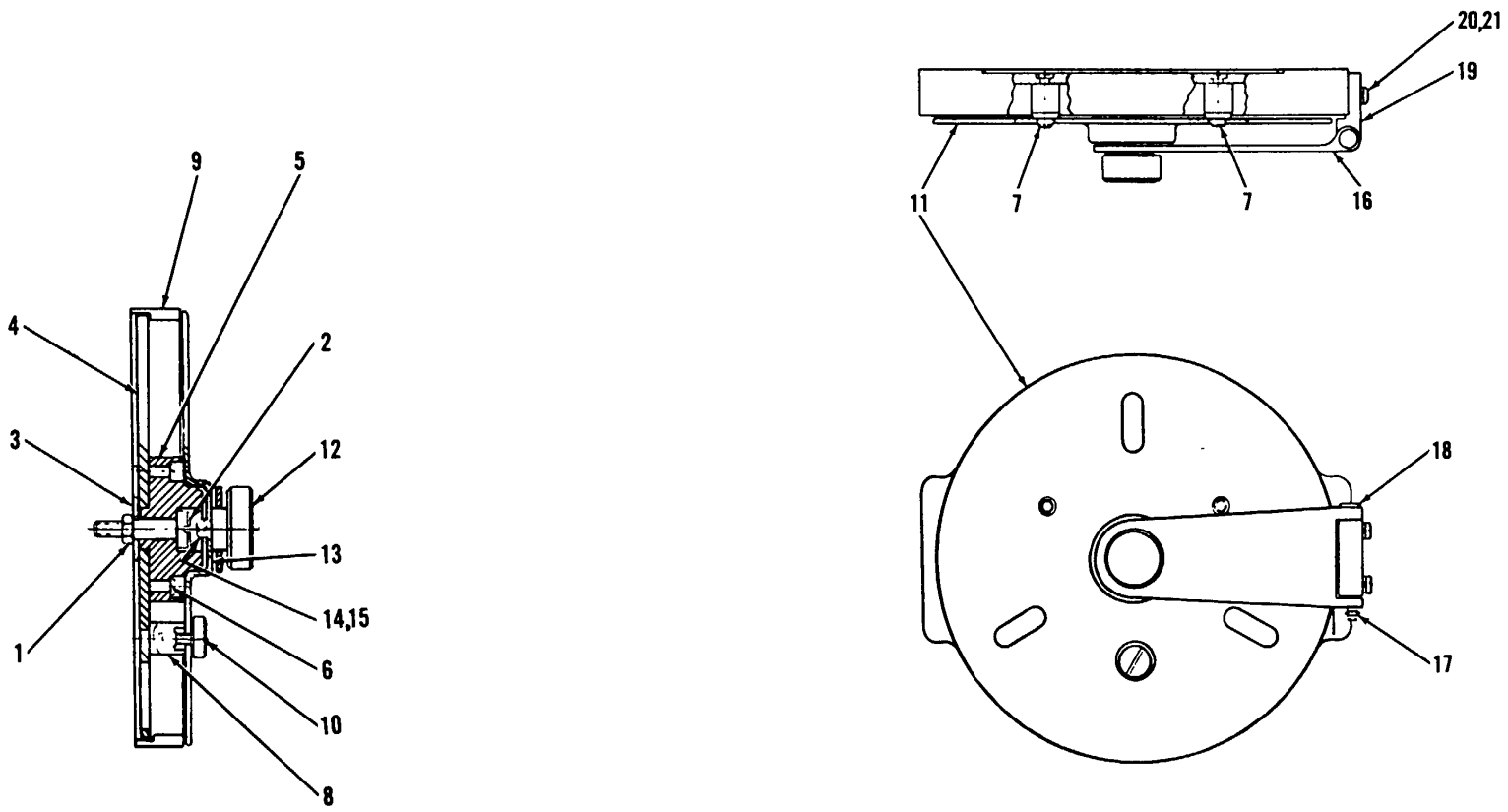


Figure 9. U7483 Tape Supply Holder

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
9 -	285225-000	. HOLDER, Tape supply (80063)			1	
- 1	MS2104NN3	. NUT, Self-lock, hex, 10-32			1	
- 2	285225-15	. SCREW, Shoulder, stl, cres (80063)			1	
- 3	285225-03	. BUSHING, Outer, teflon (80063)			1	
- 4	285225-01	. PLATE (80063)			1	
- 5	285225-07	. HINGE, Teflon (80063) (ATTACHING PARTS)			1	
- 6	MS35206-215	. SCREW, Mach. pan hd, 4-40 UNC-2A x 3/8 lg **...*...**			2	
- 7	285225-13	. CAPSTAN, Stl. cres (80063)			2	
- 8	285225-21	. CAPSTAN, Stl. cres (80063)			1	
- 9	285225-27	. CASE (80063)			1	
- 10	285225-17	. KNOB (80063)			1	
- 11	285225-31	. COVER (80063)			1	
- 12	285225-11	. KNOB, Nylatron (80063)			1	
- 13	285225-23	. WASHER, Teflon (80063) (ATTACHING PARTS)			1	
- 14	MS35206-214	. SCREW, Mach, pan hd, 4-40 UNC-2A x 5/16 lg.			1	
- 15	MS35340-40	. LOCKWASHER, No. 4 **...*...**			1	
- 16	285225-25	. HASP (80063) (ATTACHING PARTS)			1	
- 17	MS24665-132	. PIN, Cotter 1/6 dia x 1/2 lg			1	
- 18	MS20392-1C43	. PIN, Straight, headed 1/8 dia **...*...**			1	
- 19	285225-05	. HINGE (80063) (ATTACHING PARTS)			1	
- 20	MS35206-215	. SCREW, Mach pan hd			2	
- 21	MS35340-40	. LOCKWASHER, No. 4			2	

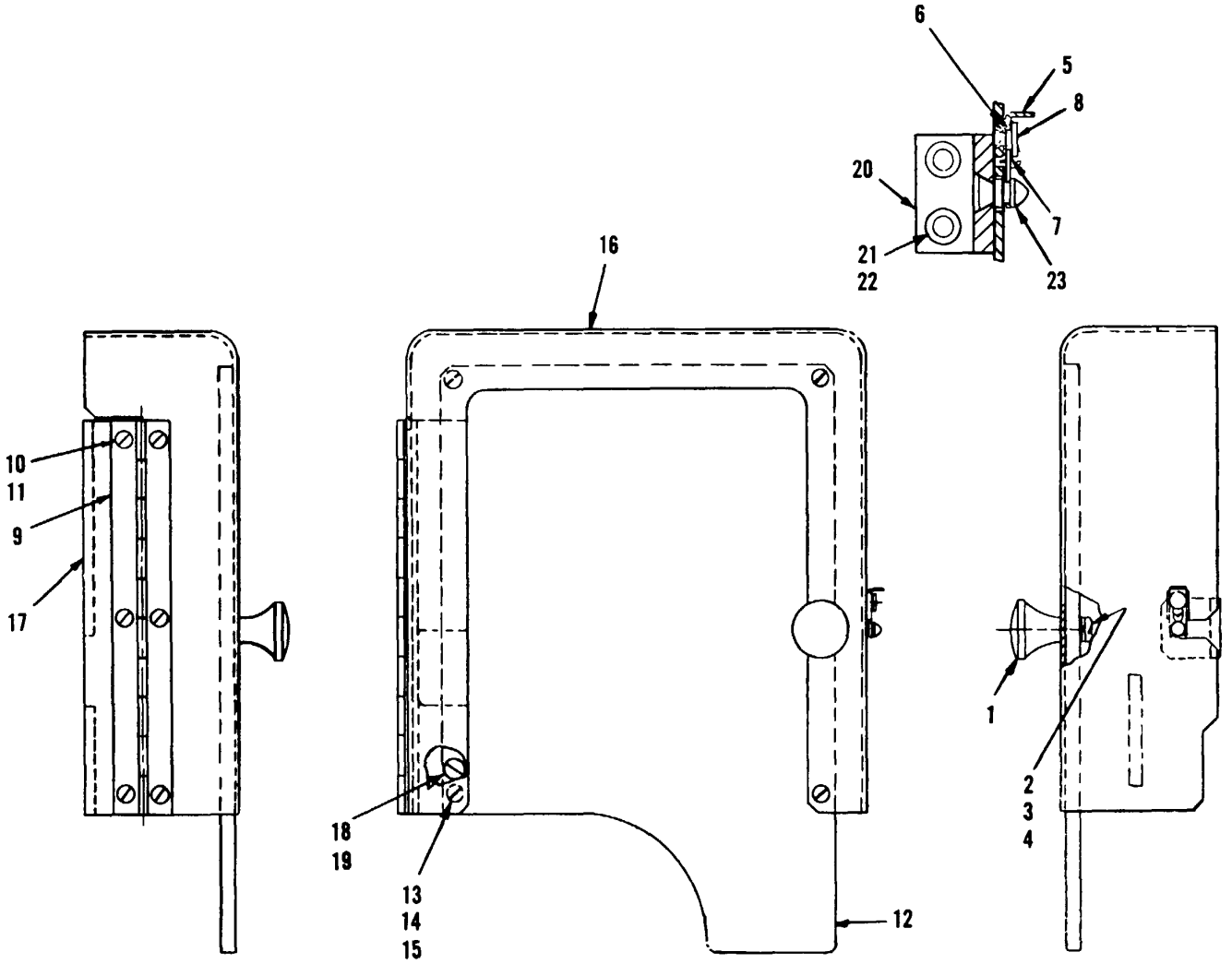


Figure 10. U7483 Cover Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
10 -	285714	COVER ASSEMBLY (80063)			1	
- 1	97	. KNOB (80813)			1	
		(ATTACHING PARTS)				
- 2	MS35206-245	. SCREW, Mach, pan hd, 8/32 x 1/2			1	
- 3	MS35340-42	. WASHER, Lock No. 8			1	
- 4	AN960-8	. WASHER, Flat No. 8			1	
		...*...				
- 5	1-L	. LATCH (80813)			1	
- 6	1-G-1	. GUIDE (80813)			1	
		(ATTACHING PARTS)				
- 7	1-W	. WASHER (80813)			1	
- 8	1-R-078	. RIVET (80813)			1	
		...*...				
- 9	MS20257C1-500	. HINGE, Butt			1	
		(ATTACHING PARTS)				
- 10	MS35206-214	. SCREW, Mach, pan hd, 4/40 x 5/16			6	
- 11	MS21044N04	. NUT, Self-lock, hex, 4-40			6	
		...*...				
- 12	336989-05	. DOOR, Plastic sheet (90227)			1	
		(ATTACHING PARTS)				
- 13	MS35190-223	. SCREW, Mach, flat hd 4-40 x 3/8			4	
- 14	AN960-4	. WASHER, Flat, No. 4			4	
- 15	MS21044N04	. NUT, Self-lock, hex, 4-40			4	
		...*...				
- 16	285714-10	. BOX (80063).			1	
- 17	285714-01	. ANGLE (80063)			1	
		(ATTACHING PARTS)				
- 18	MS35225-3	. SCREW, Mach, pan hd, 8-32 x 7/16			2	
- 19	22NM-82	. NUT, Self-lock, hex 8-32			2	
		...*...				
- 20	285714-03	. ANGLE (80063)			1	
		(ATTACHING PARTS)				
- 21	MS35241-23	. SCREW, Mach, fl. hd 4-40 x 7/16			2	
- 22	22NM-40	. NUT, Self-lock, hex, 4-40			2	
		...*...				
- 23	1-S-063-093	. STUD, Clench (80813)			1	

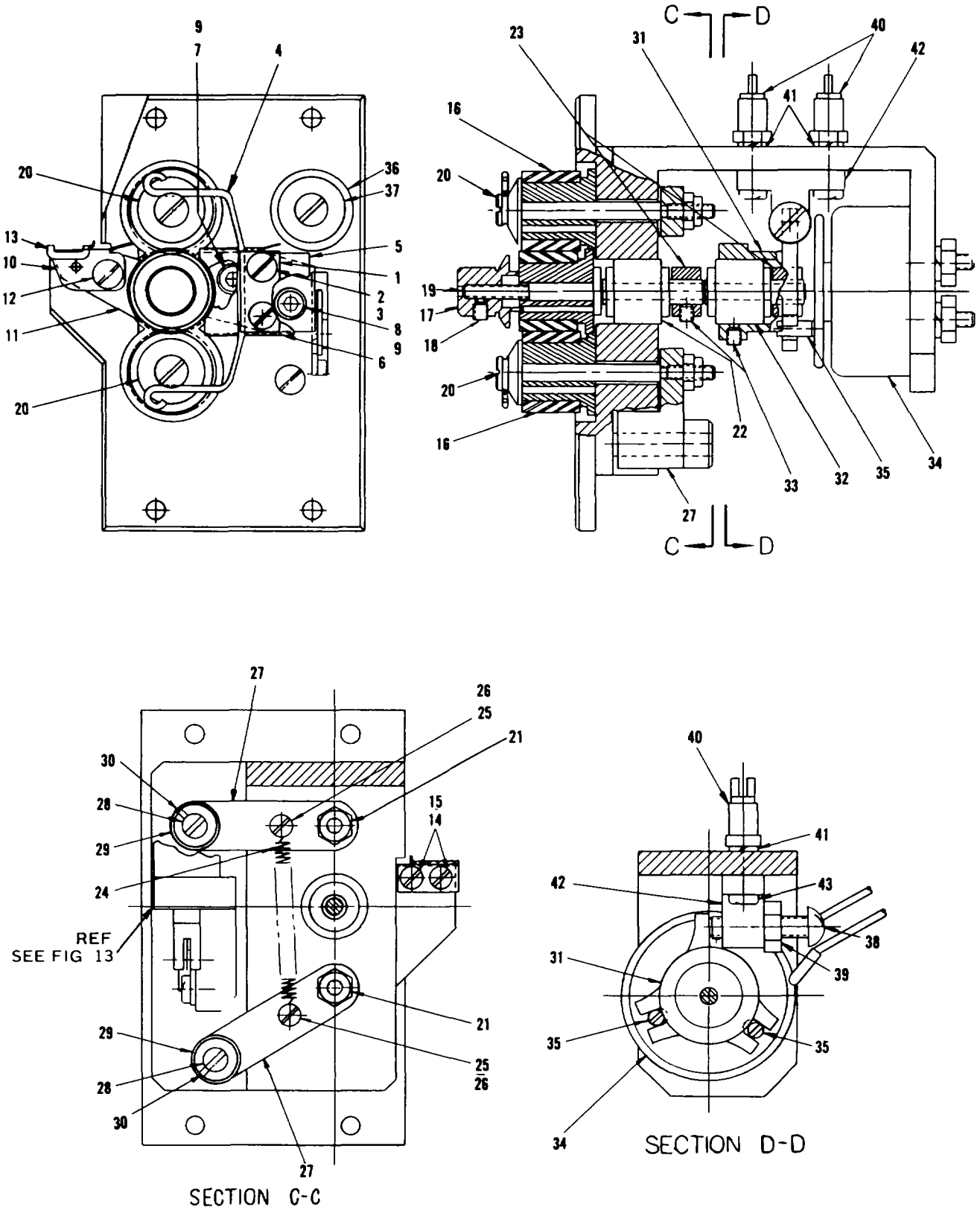


Figure 11. U7483 Tape Feeding Mechanism

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
11 -	283864	TAPE FEEDING MECHANISM (80063).....			1	
- 1	283864-11	. PLATE (80064) ..... (ATTACHING PARTS)			1	
- 2	MS35206-215	. SCREW, Mach, pan hd,..... 4-40 x 3/8			2	
- 3	MS35340-40	. WASHER, Lock, No. 4 ....*...			2	
- 4	283864-37	. SPRING			1	
- 5	283864-07	. COVER (80063).....			1	
- 6	283864-03	. BLOCK (80063) ..... (ATTACHING PARTS)			1	
- 7	MS16997-11	. SCREW, Cap, socket hd, ... 4-40 x 1/2			1	
- 8	MS16997-13	. SCREW, Cap, socket hd, ... 4-40 x 3/4			1	
- 9	MS35340-40	. WASHER, Lock, No. 4 ....*...			2	
- 10	283864-27	. COVER (80063).....			1	
- 11	283864-30	. PLATEN (80063)..... (ATTACHING PARTS)			1	
- 12	MS35206-218	. SCREW, Mach, pan hd,..... 4-40 x 5/8 ...*...			1	
- 13	283864-31	. BRACKET (80063)..... (ATTACHING PARTS)			1	
- 14	MS35206-201	. SCREW, Mach, pan hd,..... 2-56 x 1/8			2	
- 15	MS35340-39	. WASHER, Lock, No. 2 ....*...			2	
- 16	1117840	. ROLLER, Rubber, gear..... hub (30874) (ATTACHING PARTS)			3	
- 17	283864-13	. KNOB (80063)			1	
- 18	CS-2	. SETSCREW, "No-mar, " 4-40 (12139)			4	
- 19	283864-21	. PIN (80063).....			1	
- 20	283864-23	. PIN (80063).....			2	
- 21	MS21044N04	. NUT, Self-lock, 4-40..... ...*...			2	
- 22	2500-2	. CLUTCH, Uni-directional, CCW, ... BIER-CHANOUX CORP.			1	
- 23	C1-2	. COLLAR, SHAFT (12139).....			1	
- 24	LE-018A-3	. SPRING, Extension (84830) ..... (ATTACHING PARTS)			1	
- 25	MS35206-205	. SCREW, Mach, pan hd, 2-56 x 3/8			2	
- 26	MS35649-22	. NUT, plain, hex, 2-56 UNC-2B..... ...*...			2	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
11 -						
- 27	283864-01	. LEVER (80063) (ATTACHING PARTS)			2	
- 28	283864-15	. PIN (80063)			2	
- 29	C1-2	. COLLAR, Shaft, 3/16 ID (12139)			2	
- 30	CS-2	. SETSCREW, "No-mar" 4-40, (12139) ---*---			2	
- 31	283864-05	. FLANGE (80063)			1	
- 32	2500-2	. CLUTCH, Uni-directional, CCW, BEIER-CHANOUX CORP. (ATTACHING PARTS)			1	
- 33	CS-2	. SETSCREW, "No-mar" 4-40 (12139) --*--			2	
- 34 (L1)	H-2159-031	. SOLENOID, Rotary, 25° left (81840)			1	
- 35	283864-33	. PIN (80063).			2	
- 36	283864-43	. SPACER, Teflon (80063) (ATTACHING PARTS)			1	
- 37	283864-25	. PIN (80063. --*--			1	
- 38	N-832 x 3/4	. SCREW, Nylon, 8-32 x 3/4 (95987)			1	
- 39	MS35649-82	. NUT, Plain, hex, 8-32UNC-2B			1	
- 40	756	. TERMINAL, Standoff (81312)			2	
- 41	MS35340-40	. WASHER, Lock, No. 4			2	
- 42	283864-17	. LUG (80063) (ATTACHING PARTS)			1	
- 43	MS35206-217	. SCREW, Mach, pan hd, 4-40 x ½ --*--			2	

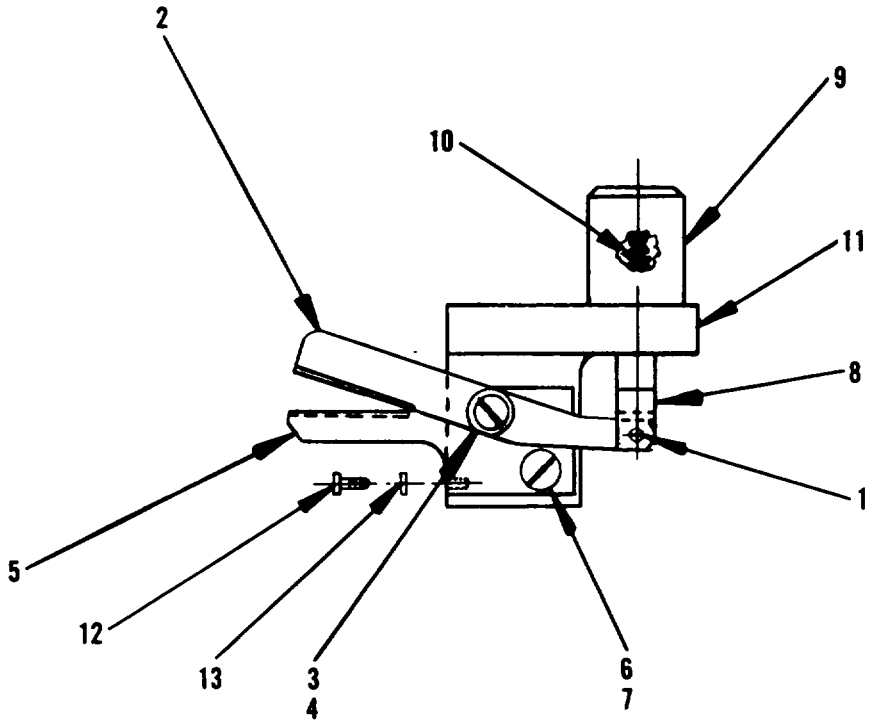


Figure 12. Paper Cutter

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
12 -	284542	PAPER CUTTER (80063)			1	
- 1	AN 122676	. PIN, Straight, headless, ... 0.062 dia x 0.200 lg.			1	
- 2	284542-05	. PLATE, Upper (80063) ..... (ATTACHING PARTS)			1	
- 3	284542-10	. SCREW (80063) ..... --*--			1	
- 4	NAS1081 04A3N	. SETSCREW, 4-40 UNC-24 X 3/16 lg.			1	
- 5	284542-03	. PLATE, Lower (80063) ..... (ATTACHING PARTS)			1	
- 6	MS35206-214	. SCREW, Mach, pan hd, ... 4-40 UNC-2A x 5/16			1	
- 7	MS35340-40	. WASHER, Lock No. 4 ..... --*--			1	
- 8	284542-07	. PIN (80063)			1	
- 9	8TM84-50T	. SOLENOID, Actuator ..... (18482)			1	
- 10	111-4	. SPRING, Plunger (18482)			1	
- 11	284542-01	. BRACKET (80063)..... ATTACHING PARTS)			1	
- 12	MS35206-217	. SCREW, Mach, pan hd..... 4-40 x 1/2			1	
- 13	MS35340-40	. WASHER, Lock No. 4..... --*--			1	

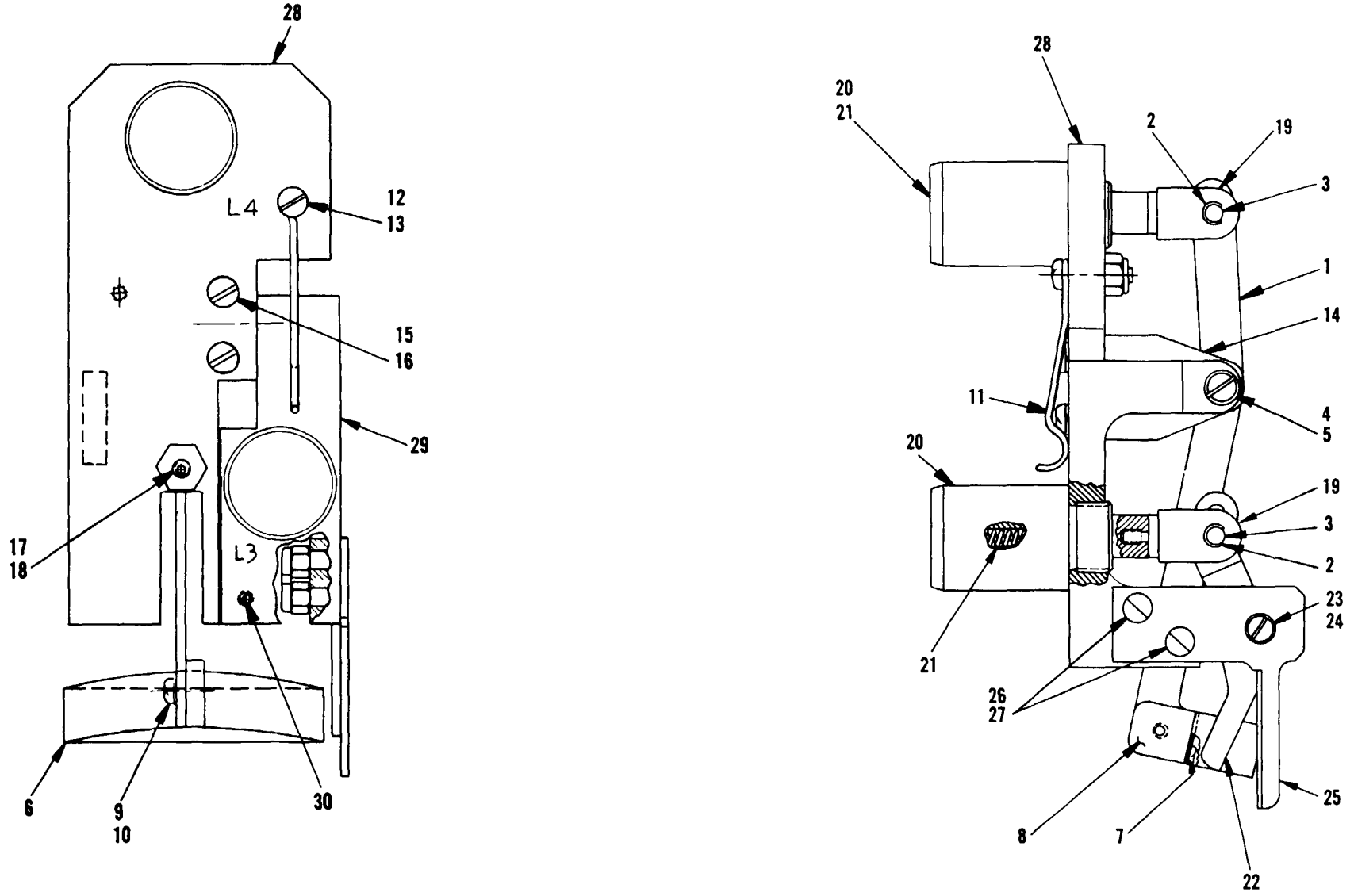


Figure 13. U7483 Tape Cutter and Applicator

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
13 -	285226-000	TAPE CUTTER AND APPLICATOR ..... (80063)			1	
- 1	285226-23	. LINKAGE (80063) ..... (ATTACHING PARTS)			1	
- 2	5133-12	. RETAINING RING (79136)			4	
- 3	285226-13	. PIN (80063)			1	
- 4	285226-15	. SCREW (80063)			1	
- 5	MS2104404	. NUT, Self-lock, hex, 4-40 UNC2B			1	
- 6	285226-31	. SPRING, Beryllium			1	
		copper strip (80063) ..... (ATTACHING PARTS)			1	
- 7	MS35206-201	. SCREW, Mach, pan hd 2-56 x 1/8 lg. ..... --*--			2	
- 8	285226-25	. EAR (80063) ..... (ATTACHING PARTS)			1	
- 9	MS35206-213	. SCREW, Mach, pan hd,..... 4-40 UNC-2A x 1/4 lg.			2	
- 10	MS35340-40	. WASHER, Lock-spring ..... helicoil, No. 4 --*--			2	
- 11	285226-27	. GUIDE (80063) ..... (ATTACHING PARTS)			1	
- 12	MS35206-217	. SCREW, Mach, pan hd.,..... 4-40 UNC-2A x 1/2 lg			1	
- 13	MS2104404	. NUT, Self-lock, hex, 4-40 UNC-2B..... --*--			1	
- 14	285226-05	. EYE (80063) ..... (ATTACHING PARTS)			1	
- 15	MS35206-217	. SCREW, Mach, pan hd,..... 4-40 UNC-2A x 1/2 lg			2	
- 16	MS35340-40	. WASHER, Lock-spring ..... helicoil, No. 4 --*--			2	
- 17	NAS108/C06 D12N	. SETSCREW, Soc dr ..... cup pt, 6-32 x 3/4			1	
- 18	MS35649-62	. NUT, plain hex, 6-32			1	
- 19	285226-07	. LUG (80063)			2	
- 20	12TM124-50T	. SOLENOID, Pull type (18482)			2	
- 21	112-4	. SOLENOID RETURN SPRING (18482)...			2	
- 22	285226-01	. LINK (80063) ..... (ATTACHING PARTS)			1	
- 23	285226-11	. SCREW (80063)			1	
- 24	MS2104404	. NUT, Self-lock, hex ..... 4-40 UNC-2B --*--			1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
13 -						
- 25	285226-03	. LEVER (80063) ..... (ATTACHING PARTS)			1	
- 26	MS35190-224	. SCREW, Mach, fl. hd, ... 4-40 UNC-2A x 7/16 lg			2	
- 27	MS2104404	. NUT, Self-lock, hex, ... 4-40 UNC -2B --*--			2	
- 28	285226-17	. BASE (80063) ..... (ATTACHING PARTS)			1	
- 29	285226-21	. BRACKET (80063).....			1	
- 30	NAS1081C 02D4N	. SETSCREW, Soc, dr., cup ..... pt, 4-40 x 1/4			1	

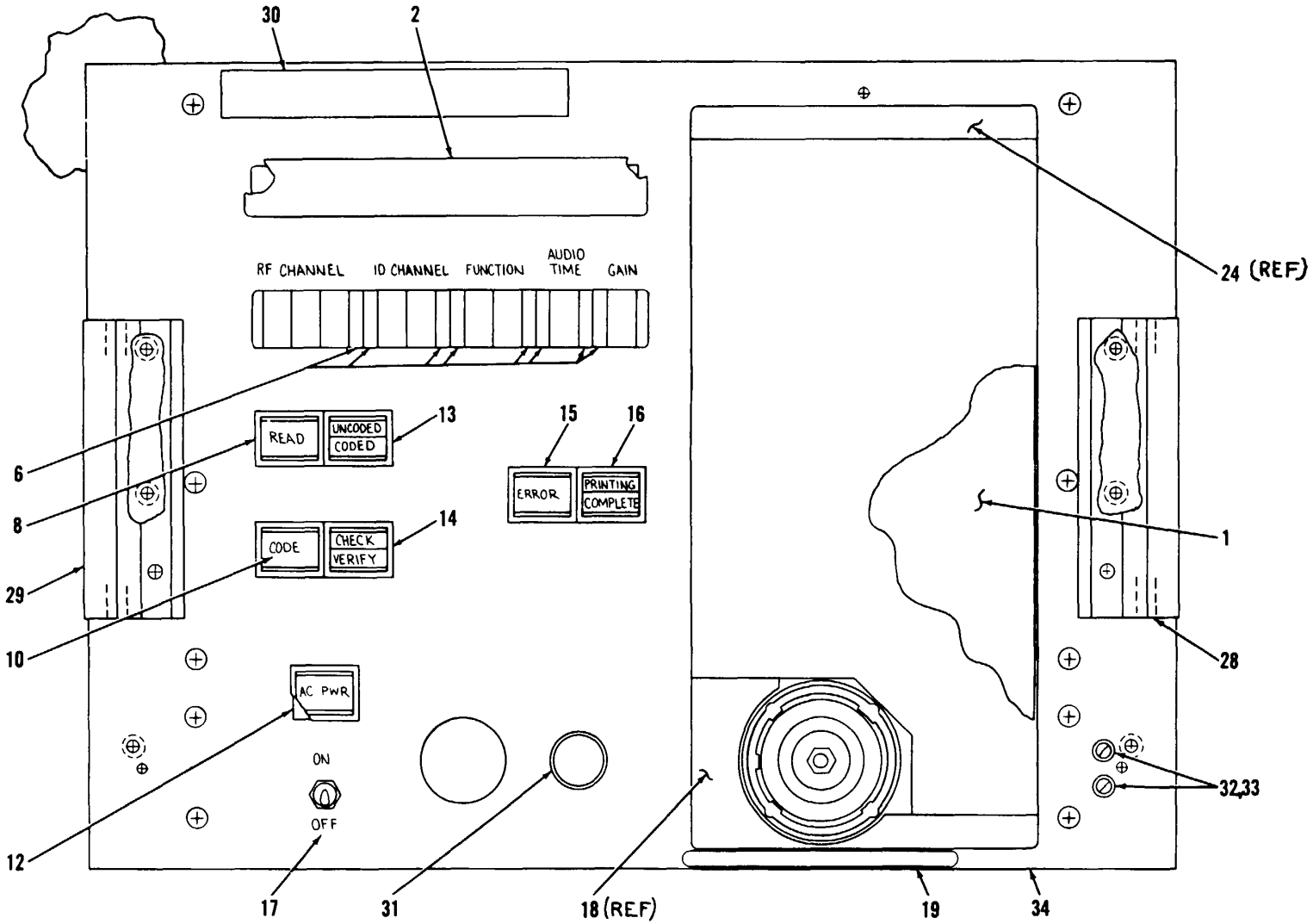


Figure 14. PT1561, TC432 Programmer (Sheet 1 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
14 -	336467	PT1561, TC432 PROGRAMMER.....			REF	
- 1	336467-37	. COVER (per QQ-A-250/11) ..... (ATTACHING PARTS)			1	
		--*--				
- 2	TYPE 2423	. PLASTIC, Methacrylate,..... 0.188 thk. (77902)			1	
- 3 (DS1-DS9)	283809-000	. NUMERIC INDICATOR ASSEMBLY..... (80063) (ATTACHING PARTS)			9	
		--*--				
- 4	336467-11	. SPACER, A1. plate, 0.250 ..... ±0.013 thk. (per QQ-A-250/11) (ATTACHING PARTS)			2	
		--*--				
- 5 (S1-S9)	199929	. SWITCH, Binary coded, double ..... pole (97525)			9	
- 6	C193263	. SPACER, Series 6000 switch ..... (97525) (ATTACHING PARTS).....			8	
- 7	189055-13	. MOUNTING HARDWARE KIT (97525)....			1	
		--*--				
- 8	NO NUMBER	. INDICATOR LIGHT ASSEMBLY..... "READ"			1	
(S11)	2D2 or 10EF1	. SWITCH ASSY, 2 pole, momentary ..... (91929 or 96192)			1	
(XDS11)	10-A1 or 10EA1C1	. LIGHT, Indicator (96182)			1	

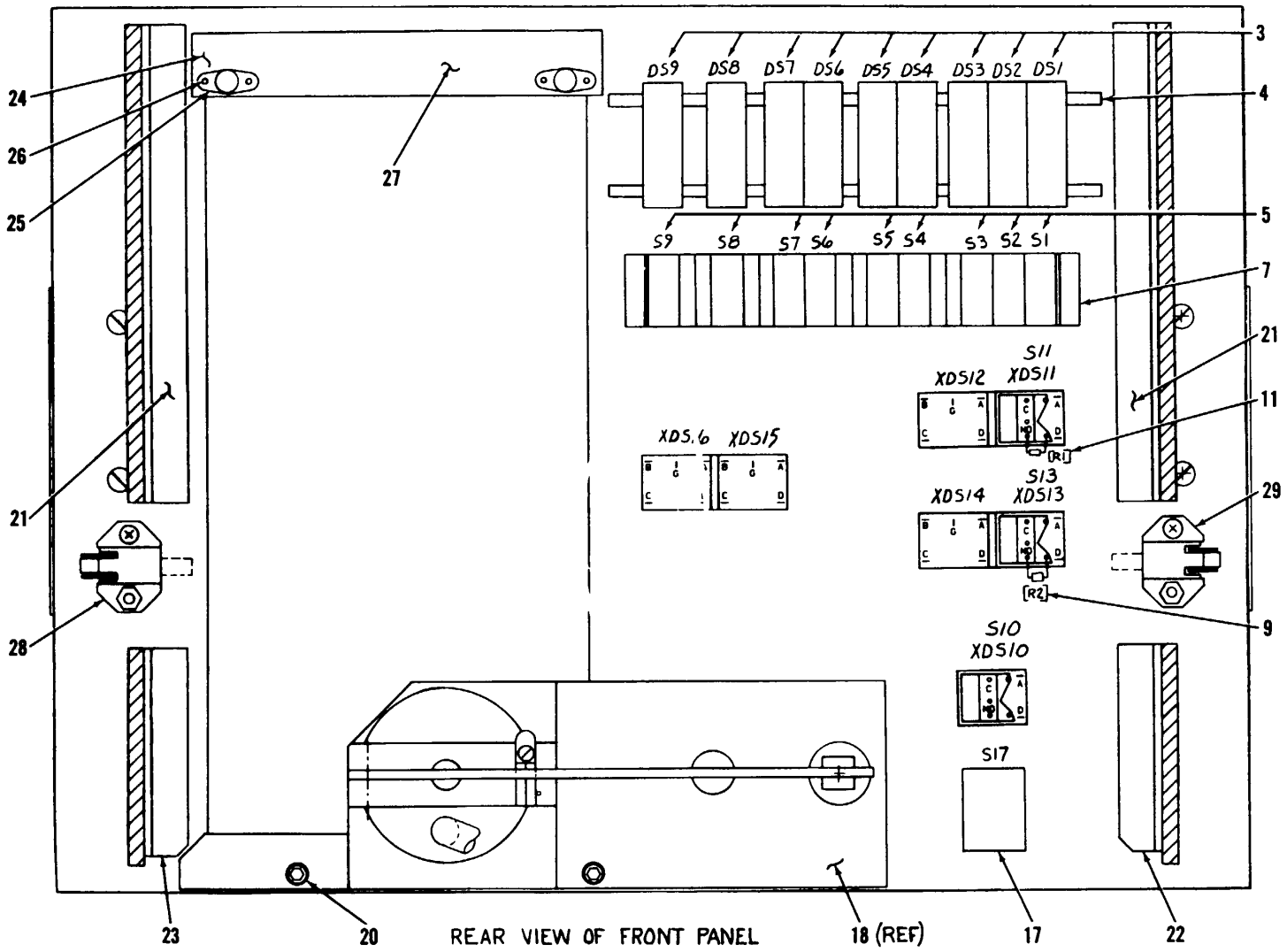


Figure 14. PT1561, TC432 Programmer (Sheet 2 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
14 -						
	10-16-00 or 10ER256	. LENS, Indicator light (96182)			1	
	10-513 or 10EN1	. DIFFUSER, Light, single indication (96182)			1	
	MS25237-328	. LAMP, Incandescent			2	
	10-G or 10EL(G)	. FILTER, Lamp, green (96182)			2	
- 9 (R2)	RCR07GF102J	. RESISTOR, Fixed comp, 1K, ±5%, 1/4W (per MIL-R-39008/1) (81349)			1	
- 10	NO NUMBER	. INDICATOR LIGHT ASSEMBLY "CODE"			1	
(S13)	2D2 or 10EF1	. SWITCH ASSY, 2 pole, momentary (91929 or 96192)			1	
(XDS13)	10-A1 or 10EA1C1	. LIGHT, Indicator (96182)			1	
	10-16-00 or 10ER256	. LENS, Indicator light (96182)			1	
	10-513 or 10EN1	. DIFFUSER, Light, single indication (96182)			1	
	MS25237-328	. LAMP, Incandescent			2	
	10-A or 10EL(A)	. FILTER, Lamp, amber (96182)			2	
- 11 (R1)	RCR07GF102J	. RESISTOR, Fixed comp, 1K, ±5%, 1/4W (per MIL-R-39008/1) (81349)			1	
- 12	NO NUMBER	INDICATOR LIGHT ASSEMBLY "AC PWR"			REF	
(S10)	2D9 or 10EF2 or 10-8	. SWITCH ASSY., 4 pole, momentary (91929 or 96192)			1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
14-						
(XDS10)	10B2	. LIGHT Indicator (96182)			1	
	or					
	10EA3C1					
	10-16-00	. LENS, Indicator light (96182)			1	
	or					
	10ER256					
	10-513	. DIFFUSER, Light, single indication			1	
	or	(96182)				
	10EN1					
	MS25237-327	. LAMP, Incandescent			2	
- 13	NO NUMBER	INDICATOR LIGHT ASSEMBLY "UNCODED/CODED"			REF	
(XDS12)	10-C3	. LIGHT, Indicator (96182)			1	
	or					
	10EA2C1					
	10-16-00	. LENS, Indicator light (96182)			1	
	or					
	10ER256					
	10-511	. DIFFUSER, Light, split			1	
	or	Indication (96182)				
	10EN2					
	10-G	. FILTER, Lamp, green (96182)			4	
	or					
	10EL(G)					
	MS25237-328	. LAMP, Incandescent			4	
- 14	NO NUMBER	INDICATOR LIGHT ASSEMBLY "CHECK/VERIFY"			REF	
(XDS14)	10-C3	. LIGHT, Indicator (96182)			1	
	or					
	10EA2C1					
	10-16-00	. LENS, Indicator light (96182)			1	
	or					
	10ER256					
	10-511	. DIFFUSER, Light, split			1	
	or	indicator (96182)				
	10EN2					
I	10-G	. FILTER, Lamp, green (96182)			4	
	or					
I	10EL(G)					
I	MS25237-328	. LAMP, Incandescent			4	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
14 -						
- 15	NO NUMBER	INDICATOR LIGHT ASSEMBLY..... "ERROR"			REF	
(XDS1)						
	10-C3 or 10EA2C1	. LIGHT, Indicator (96182)			1	
	10-16-00 or 10ER256	. LENS, Indicator light ..... (96182)			1	
	10-513 or 10EN1	. DIFFUSER, Light, single ..... indication (96182)			1	
	10-R or 10EL(R)	. FILTER, Lamp, red (96182)			2	
	MS25237-328	. LAMP, Incandescent			2	
- 16 (XDS16)	NO NUMBER	INDICATOR LIGHT ASSEMBLY..... "PRINTING/COMPLETE"			REF	
	10-C3 or 10EA2C1	. LIGHT, Indicator (96182)			1	
	10-16-00 or 10ER256	. LENS, Indicator light ..... (96182)			1	
	10-511 or 10EN2	. DIFFUSER, Light, ... indication (96182)			1	
	10-G or 10EL(G)	. FILTER, Lamp, green (96182)			2	
	10-A or 10EL(A)	. FILTER, Lamp, amber ..... (96182)			2	
	MS25237-328	. LAMP, Incandescent			4	
- 17 (S17)	MS25307-222	. SWITCH, Toggle, DPST			1	
- 18	283841-000	. FIXTURE, Holding and ejecting ..... (see figure 16) (80063) (ATTACHING PARTS) --*--			REF	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
14 -						
- 19	1075-1	. HANDLE, Panel (71279)			1	
		(ATTACHING PARTS)				
- 20	NO NUMBER	SCREW, Cap, soc. hd. 10-32 ..... x 7/8			2	
		--*--				
- 21	336467-03	. ANGLE (per QQ-A-200/8)			2	
		(ATTACHING PARTS)				
		--*--				
- 22	336467-01	. ANGLE (per QQ-A-200 8)			1	
		(ATTACHING PARTS)				
		--*--				
- 23	336467-02	. ANGLE (per QQ-A-200/8)			1	
		(ATTACHING PARTS)				
		--*--				
- 24	336467-10	. PRINTER/COVER MOUNTING PLATE...			1	
		SUB-ASSY				
- 25	MS21077-3	. . NUT, Self locking, plate			2	
		10-32				
- 26	MS20426AD3	. . RIVET, 100 ° CSK Rd, ...			4	
		3/32 dia.				
- 27	336467-27	. . STRIP (per QQ-A-250/11)			1	
- 28	114613-01-A	. HANDLE SET, Drawer			1	
		(assembly hardware supplied				
		with part) (97525)				
- 29	114613-02-A	. HANDLE SET, Drawer			1	
		(assembly hardware supplied				
		with part) (97525)				

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
14 -						
- 30	170927-003	PLATE, Identification (80063)			1	
		(ATTACHING PARTS)				
		--*--				
- 31	L-P-410	. NYLATRON, G.S. 1.000 dia. Stock.....			1	
		(ATTACHING PARTS)				
		--*--				
- 32	4310	. SHOULDER SCREW (00141)			2	
- 33	336467-53	. WASHER, A1. bar. (per QQ-A-200/8)....			2	
- 34	188788-014	. PANEL, Front (80062)			1	

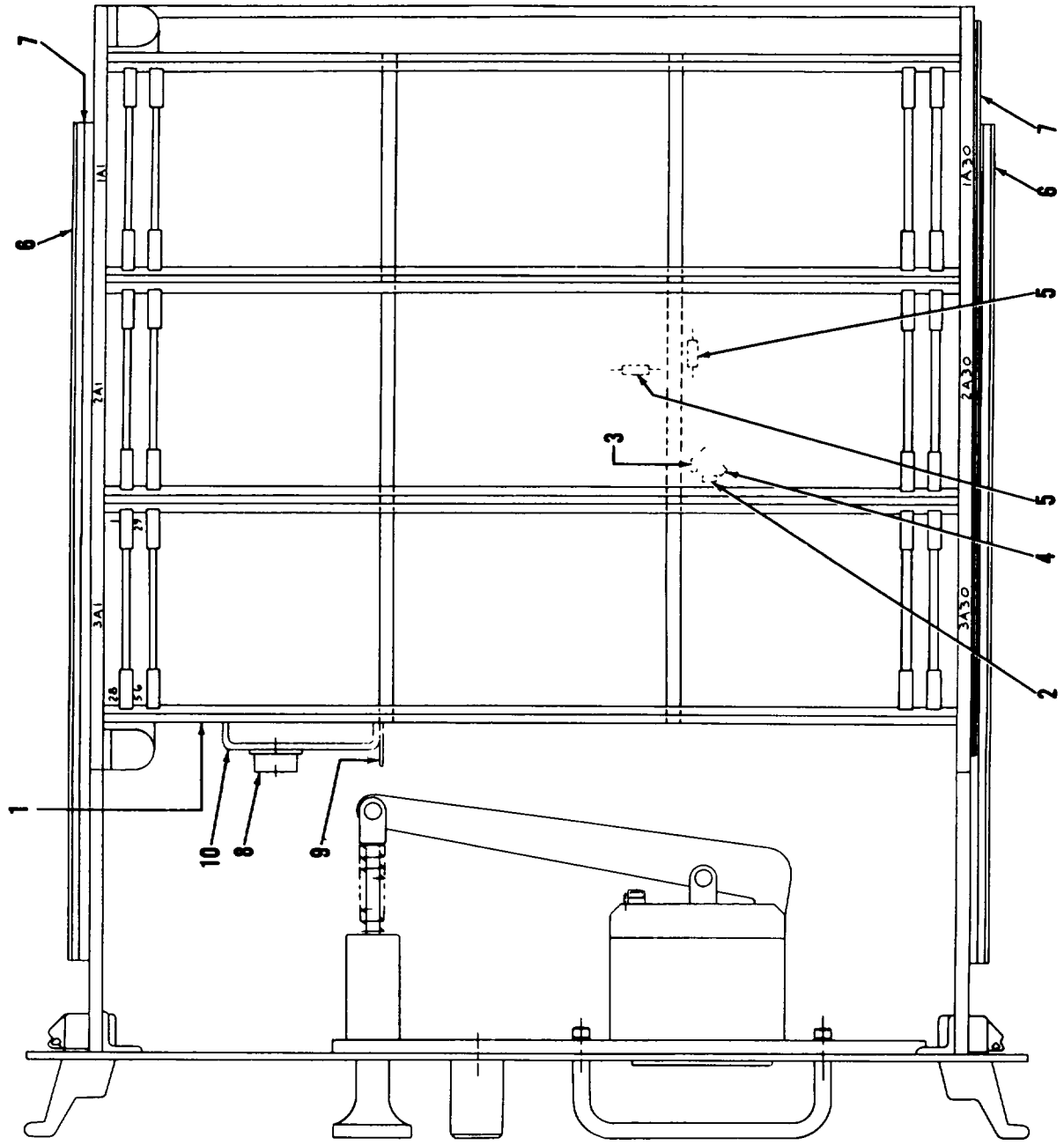


Figure 15. PT1561, TC432 Programmer (Sheet 1 of 3)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
15 -	NO NUMBER	PT1561, TC432 PROGRAMMER..... (Top View)			REF	
- 1	S116839	. CARD FILE, Fixed, 90 ..... card (see figure 17 for card placement) (97525)			1	
- 2 (CR1)	1N914	. SEMICONDUCTOR DEVICE,..... Diode (per MIL-S-1900/116) (81349)			1	
- 3 (R3)	RCR07GF510J	. RESISTOR, Fixed, comp., ... 51 OHM, ±5%, 1/4W (per MIL-R-39008/1) (81349)			1	
- 4 (C3)	K1J75K5	. CAPACITOR, Fixed,..... 1uƒ, 75W VDC (05397)			1	
- 5 (L1, L2)	9330-24	COIL, Radio frequency ..... 10uh ±10%, 1/2W (76493)			2	
- 6	C-114-18 (C114-18)	. SLIDE, Chassis sect, ... stationary type (98376)			1	
- 7	336467-35	. STRIP (per QQ-A-250/4) ..... (ATTACHING PARTS)			1	
		--*--				
- 8	PT00A-12-985 (PT00A12-985)	. CONNECTION, Recep,..... electrical (77820) (ATTACHING PARTS)			1	
		--*--				
- 9	MIL-P-18177	. PLASTIC, Laminated ..... sheet, epoxy resin, glass cloth base, Type GEE, 0.031 ±0.007 thk. (ATTACHING PARTS)			1	
		--*--				

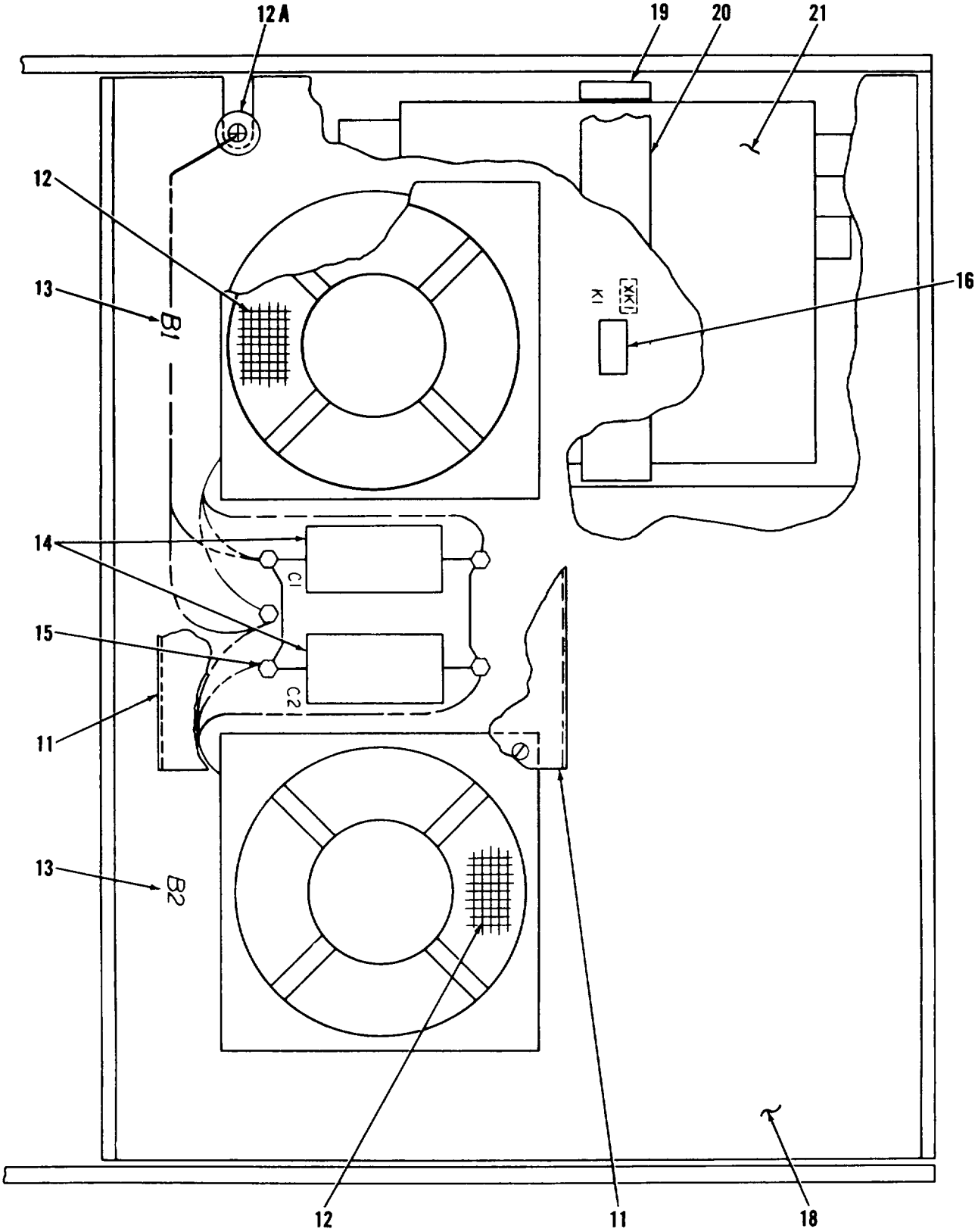


Figure 15. PT 1561, TC432 Programmer (Sheet 2 of 3)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
15 -						
- 10	336467-45	. BRACKET (per QQ-A-250/8) ..... (ATTACHING PARTS)			1	
		--*--				
- 11	336467-51	. BRACKET (per QQ-A-250/4) ..... (ATTACHING PARTS)			1	
		--*--				
- 12	69-93-1	. SLIM LINE SCREEN (92702) ..... (ATTACHING PARTS)			2	
		--*--				
- 12A	MS35489-6	. GROMMET, Rubber			1	
- 13 (B1, B2)	BC2206F-Z	. FAN, (92702)			2	
- 14 (C1, C2)	NO NUMBER	. CAPACITOR, Fixed, 1Uf, ± 10% 400V (84411)			2	
- 15	750	. TERMINAL, Stand-off			5	
- 16 (K1)	2BR-1735	. RELAY, Armature (02289)			1	
- 17 (XK1),	HRT-202M	. SOCKET, Relay			1	
- 18	336467-33	. COVER, A1 sheet (per..... QQ-A-250/11) (ATTACHING PARTS)			1	
		--*--				

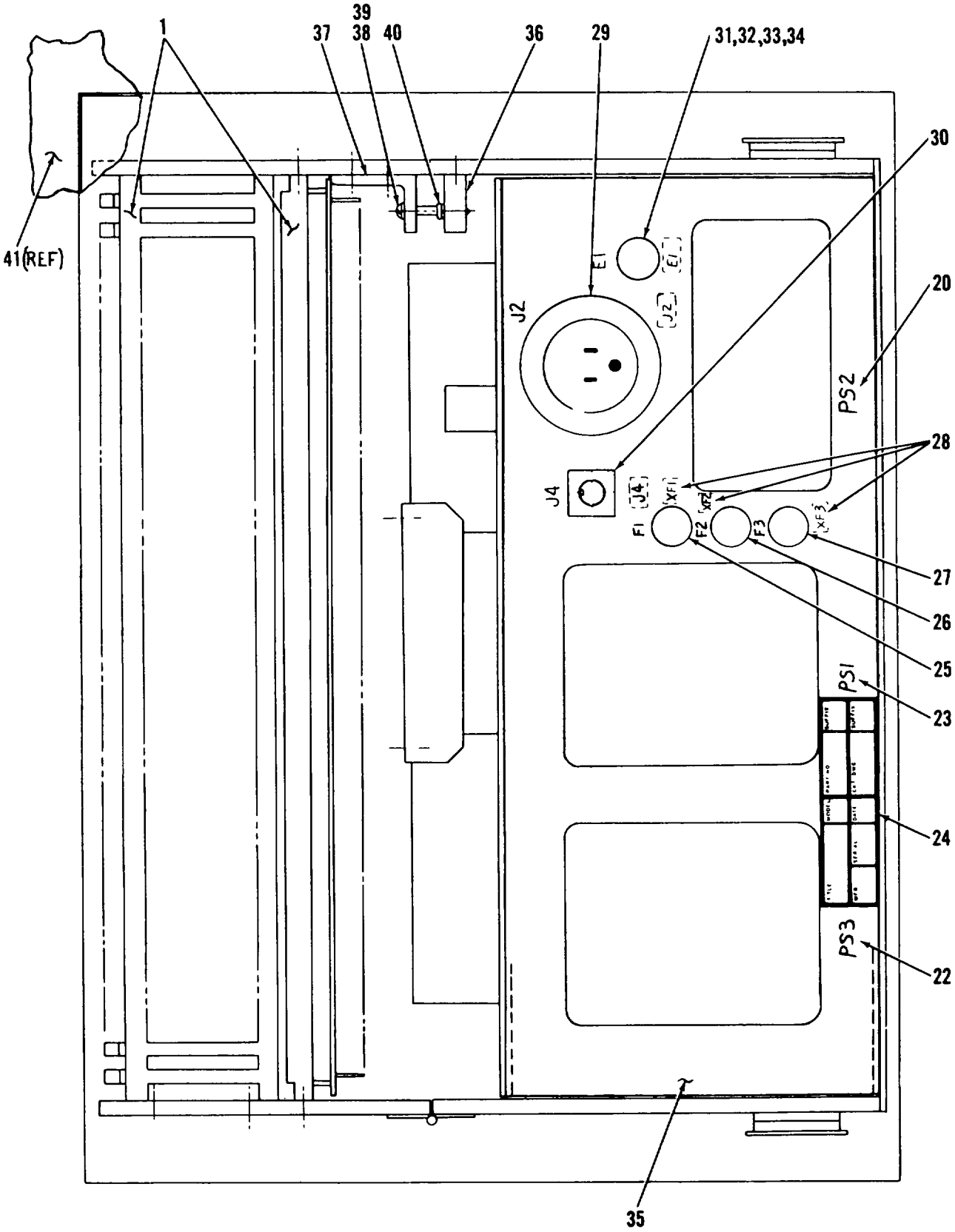


Figure 15. PT1516, TC432 Programmer (Sheet 3 of 3)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
15 -						
- 19	336467-13	STRIP, A1. plate ..... (ATTACHING PARTS)			2	
		--*--				
- 20	33646747	. STRIP, A1. sheet (per ..... QQ-A-250/11) (ATTACHING PARTS)			1	
		--*--				
- 21 (PS2)	6218-A	. POWER SUPPLY, 0-50V (28480) ..... (ATTACHING PARTS)			1	
		--*--				
- 22 (PS3)	60066-A	. POWER SUPPLY, 6V, 8 AMP, ... with option 06 (28480)			1	
- 23 (PS1)	60246B	. POWER SUPPLY, 24V (28480)			1	
- 24	198571-004	. LABEL, Identification (80063)			1	
- 25 (F1)	AGC-2	. FUSE, Cartridge, 2 AMP..... fast-blow (71400)			1	
- 26 (F2)	MDL-1/8	. FUSE, Cartridge, 1/8 AMP,..... slow-blow (71400)			1	
- 27 (F3)	MDL-1-1/2	. FUSE, Cartridge, 1 1/2 AMP,..... slow-blow (71400)			1	
- 28 (XF1 XF3)	342001	. FUSE HOLDER (75915)			3	
- 29 (J2)	5278	. CONNECTOR, Recep,..... electrical (74545)			1	
- 30 (J4)	PT00A-8-4S	. CONNECTOR, Recep,..... electrical (77820)			1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
15 -						
- 31 (E1)	7201	. TERMINAL, Stud (05791) ..... (ATTACHING PARTS)			1	
- 32	MS51967-2	. NUT, Plain, hex, 1/4-20UNC-2B			2	
- 33	MS35340-44	. WASHER, Lock, 1/4			1	
- 34	AN960-516L	. WASHER, Flat, 5/16 ..... --*--			1	
- 35	33646741	. PANEL, A1. sheet (per ..... QQ-A-250/8) (80063)			1	
- 36	336467-25	. BRACE, A1. plate (per ..... QQ-A-250/11)			2	
- 37	336467-05	. BRACKET, A1. angle ..... (per QQ-A-200/8)			2	
- 38	336467-70	. SCREW, Mach, pan hd, ... 1/4-20 x 1.250 lg. (80063)			2	
- 39	MS35340-44	. WASHER, Lock			2	
- 40	MS29513-008	. PACKING, Preformed			2	
- 41	888442-SA or X1421	. CABINET, Electrical equipment ..... (12618 or 06514)			1	
- 42	6706	. CABLE ASSEMBLY, Power ..... electric (not shown) (73545)			1	

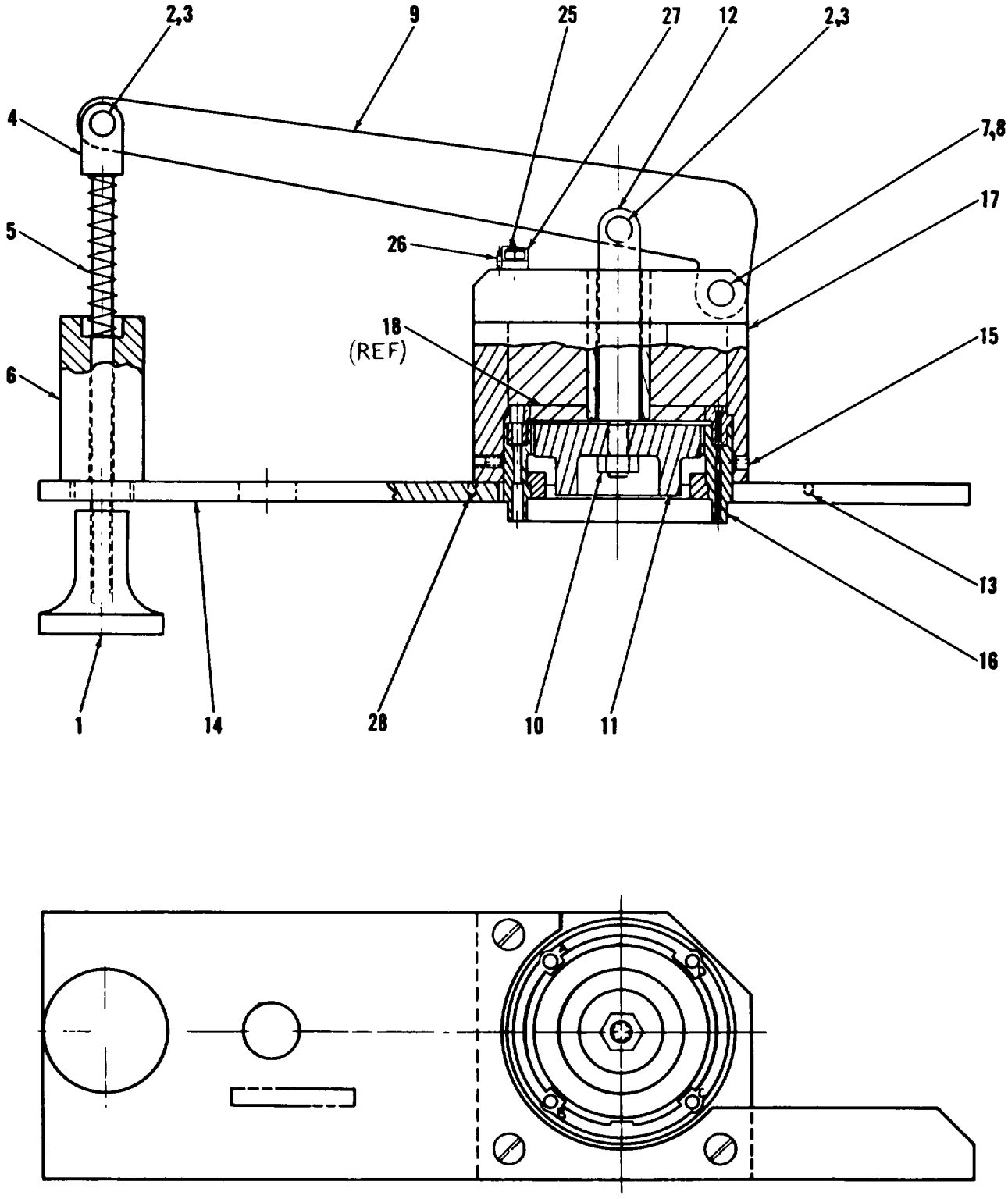


Figure 16. Holding and Ejecting Fixture (Sheet 1 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
16 -	283841	FIXTURE, Holding and ejecting (80063)			REF	
- 1	283841-21	. KNOB (80063)			1	
- 2	MS24665-132	. PIN, Cotter, 1/16 dia. x 1/2 lg.			2	
- 3	MS20392-2-C17	. Pin, Straight, headed 3/16 dia. X 0.531 GRIP			2	
- 4	283841-07	. ROD, A1. bar (per QQ-.A-250/4) (80063)			1	
- 5	LC-032E-15	. SPRING, Compression (84830)			1	
- 6	283841-17	. GUIDE, Plastic, rod L-P-410a, 1.000 ± 0.001 dia.			1	
- 7	MS24665-132	. PIN, Cotter, 1/16 dia x 1/2 lg.			1	
- 8	MS20392-2-C33	. PIN Straight, headed. 3/16 dia. 1.031 GRIP			1	
- 9	283841-01	. ARM, A1. sheet (per QQ-A-250/11) (80061)			1	
- 10	MS51967-2	. NUT, Plain, hex, 1/4 x 20unc-2B			1	
- 11	283841-23	. PLUNGER, Plastic rod, L-P-410, 2.000. +0.005, -0.000 dia. (80063)			1	
- 12	283841-11	. LINK, A1. rod (per QQ-A-250/11) (80063)			1	
- 13	283841-10	. CONNECTOR, Pigtail assembly			1	
- 14	283841-30	. PLATE ASSEMBLY (80063)			1	
- 15	MAS1081-08D3N	. SETSCREW, Self-locking cup point, socket drive, 8-32UNC-3Ax3/16			4	
- 16 (CP1)	P62998-001	. TA383, Connector , adapter electric (80063)			1	
- 17	283841-10	. CONNECTOR, Pigtail assembly			1	
- 18 (J1)	NO NUMBER	. . TA386, connector, rec, electrical (80063)			1	
- 19	283841-05	. . PLATE, A1. (per QQ-A-250/11) (80063)			1	

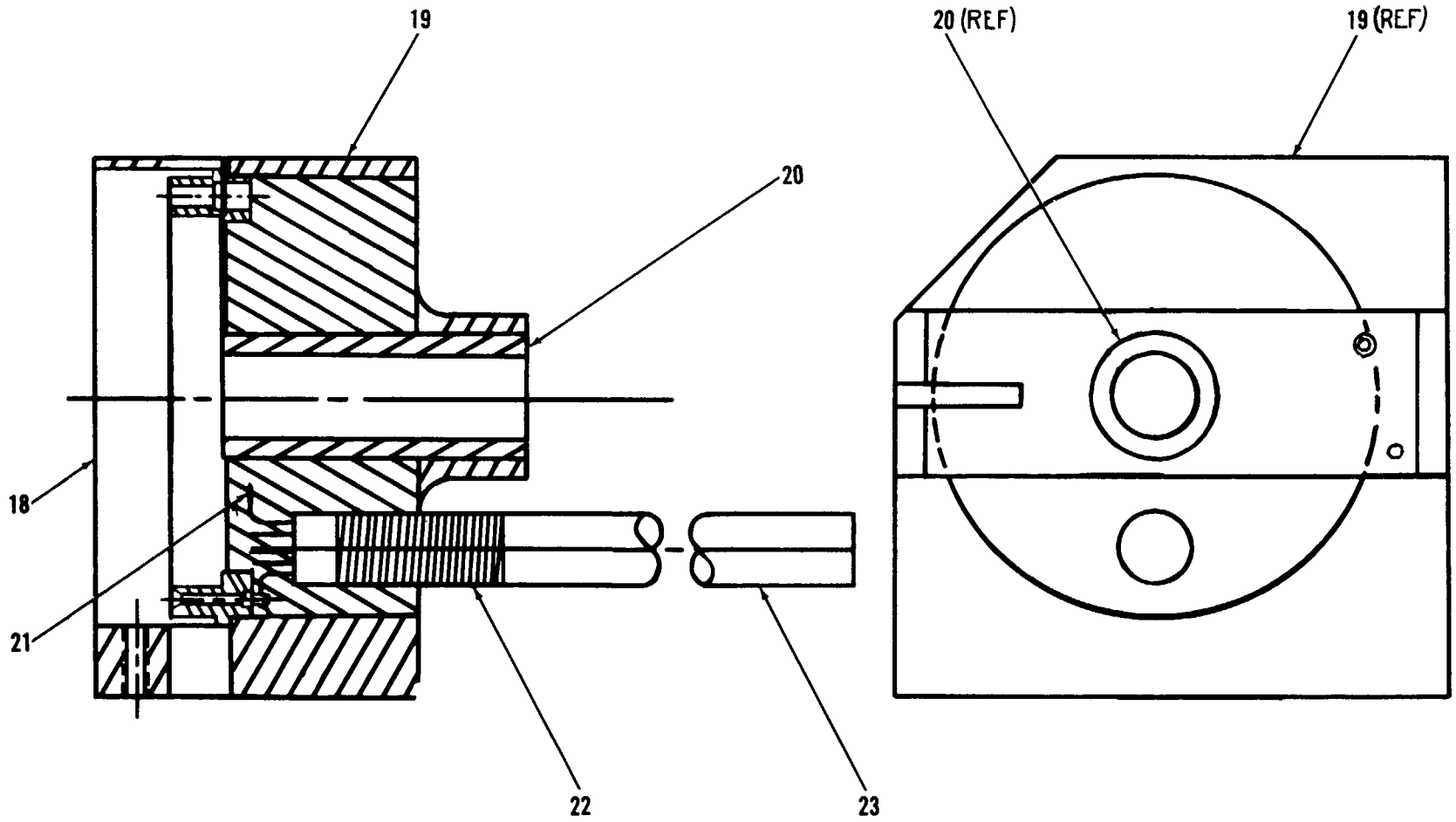


Figure 16. Holding and Ejecting Fixture (Sheet 2 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
16 -						
- 20	283841-15	. . SLEEVE, Plastic rod ..... L-P-410a, 0.750 ± 0.001 dia (80063)			1	
- 21	MIL-W-16878	. . WIRE, Insulated, ... size 24 (0.024), white, type E			ARS	
- 22	MIL-T-713	. . LACING, Tape, nylon, ... unwaxed, type P, class 2			ARS	
- 23	MIL-I-7444	. . SLEEVING			ARS	
- 24	4169	. . ENCAPSULATION COMPOUND,. ..... green Hysol Corp (12405)			ARS	
-	3471	. . CURING-AGENT, Hysol Corp			ARS	
-	1	. . RESIN DEFORMER, Par Industries			ARS	
- 25	4310	. SHOULDER SCREW, (12139)			1	
- 26	MS16562-192	. PIN, Spring, 1/16 dia ..... x 3/8 lg.			1	
- 27	283841-13	STOP, A1. bar (per ..... QQ-A-250/11) (80063)			1	
- 28	MS212080F1-10	. INSERT, 10-32UNF x 0.190 lg.			2	

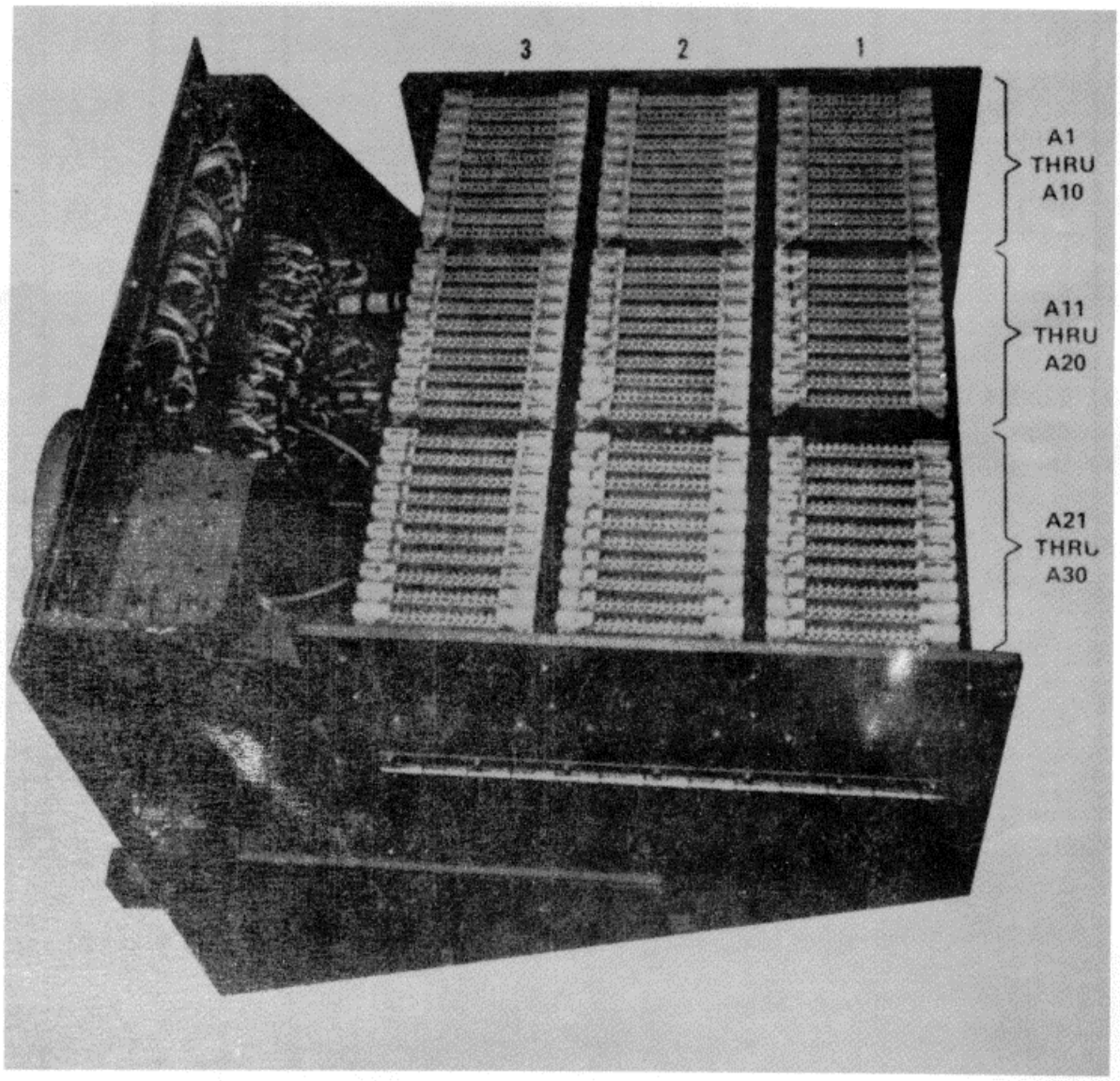
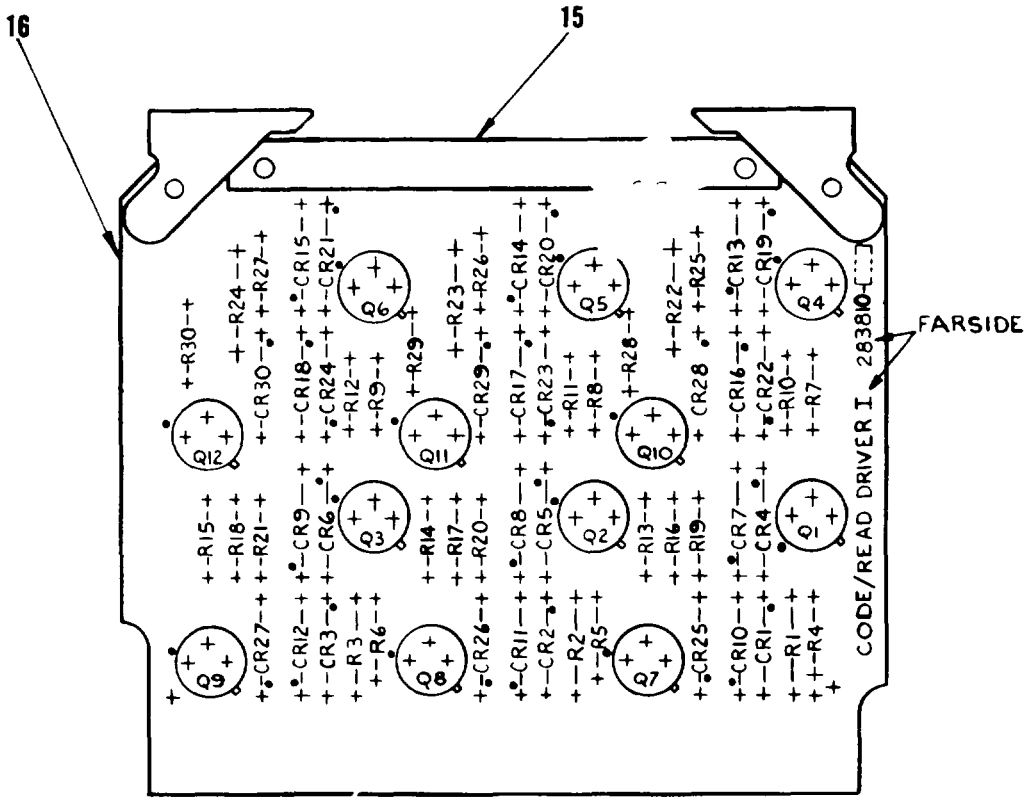


Figure 17. Fixed Cardfile, 90 Card

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
17 -	S116839	CARDFILE, Fixed, 90 card (97525)			REF	
(1A1)	283822-000	. . OSCILLATOR (See figure 22) (80063)			REF	
(1A2, 2A2)	283816-000	. . 1 OF 32 DECODER (See figure 21) (80063)			REF	
(1A3, 2A1, 2A3, 2A10, 2A14, 2A22, 3A1, 3A28)	D4010	. . TWENTY-FOUR INVERTERS, DTL (97525)			8	
(1A4, 1A5, 1A10, 2A16, 2A17, 3A4)	D4007	. . EIGHT 4 INPUT NAND GATES AND ONE 3 INPUT DIODE CLUSTER- DTL (97525)			6	
(1A6, 1A7, 1A11, 1A15, 1A16, 2A4, 2A8, 2A11, 3A14, 3A17, 3A22, 3A23)	D4004	. . SIXTEEN 2-INPUT NAND GATES - DTL (97525)			12	
(1A8, 1A12, 1A17, 1A19, 1A22, 1A23, 1A24, 1A25, 1A26, 1A27, 2A9, 2A12,	D4008	TWELVE 3-INPUT NAND GATES (97525)			16	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
17 - 3A2, 3A9, 3A15, 3A16)						
(1A9, 3A13, 3A21, 3A25, 3A26)	D4031	. . TWO 8-INPUT NAND GATES WITH FOUR 4 INPUT-ONE 3-INPUT EXPANDER (97525)			5	
(1A13, 2A7, 2A13. 2A15 3A7)	D4018	. . TWELVE RS LATCH FLIP-FLOPS - DTL (97525)			5	
(1A14)	283824-000	. . ROM II (See figure 24) (80063)			REF	
(1A18 3A3, 3A8, 3A18, 3A24, 3A27)	D4005	. . EIGHT 4-INPUT CAPACITY DRIVER NAND GATES - DTL (97525)			6	
(1A21)	D4002	. . EIGHT JK FLIP- FLOPS - DTL (97525)			1	
(1A28, 1A29, 1A30)	283812-000	. . CODE/READ DRIVER II (See figure 19) (80063)			REF	
(2A5, 2A6, 3A6, 3A11, 3A12)	D4025	. . SIXTEEN EXCLUSIVE OR CIRCUITS - DTL (97525)			5	
(2A18)	283862-000	. . RESISTORS (See figure 28) (80063)			REF	
(2A1)	283861-000	. . PULSE COUPLING (See figure 27) (80063)			REF	
(2A20, 3A19, 3A20)	D4021	. . EIGHT 2-INPUT 250 MA RELAY DRIVERS - DTL (97525)			3	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
17 -						
(2A21)	283815-000	. . RELAY/DRIVER (See figure 20) (80063)			REF	
(2A23, 3A10)	283825-000	. . DIODE (See figure 25) (80063)			REF	
(2A24 thru 2A30)	283810-000	. . CODE/READ DRIVER I (See figure 18) (80063)			REF	
(3A5)	283823-000	. . ROM I (See figure 23) (80063)			REF	
(3A29, 3A30)	283847-000	. . SOLENOID DRIVERS (See figure 26) (80063)			REF	



NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

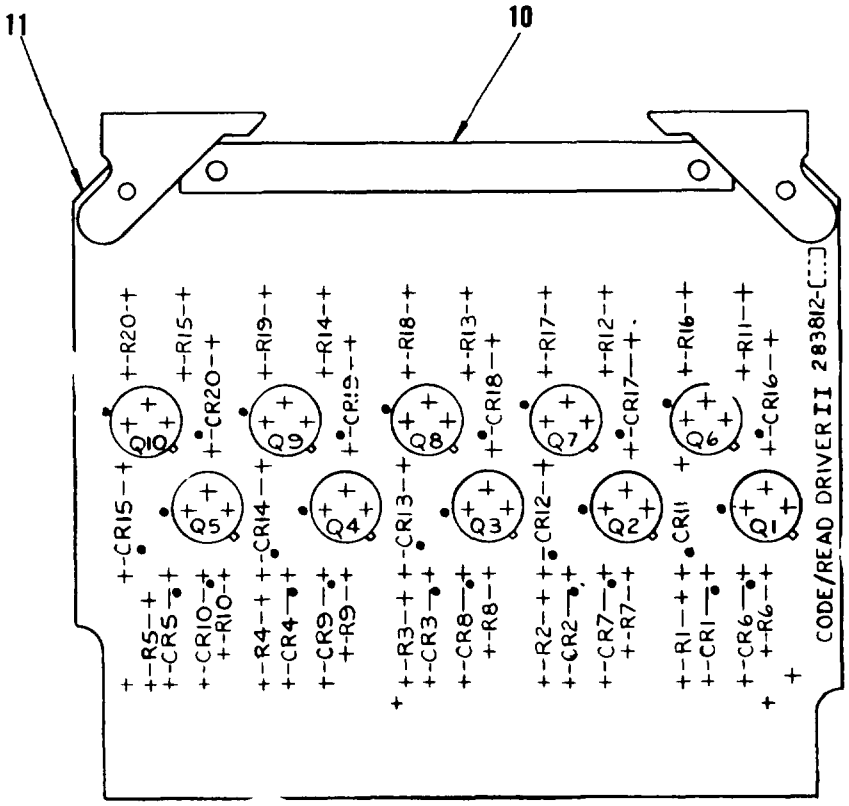
2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

3 EQUIP Q1 THRU Q12 WITH INDEX 14 PRIOR TO ASSEMBLY.

Figure 18. Code/Read Drive I (See figure 6-19 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
18 -	283810	CODE/READ DRIVE I (80063).....			7	
- 1 (R28-R30)	RC05GF363J	. RESISTOR, Fixed, comp, ... 36K, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 2 (R25 R27)	RC05GF274J	. RESISTOR, Fixed, comp, ... 0.27 MEGO, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 3 (R22-R24)	RC07GF473J	. RESISTOR, Fixed, comp, ... 47K, ± 5%, 1/4W (per MIL-R-11/11)			3	
- 4 (R19-R21)	RC05GF204J	. RESISTOR, Fixed, comp, ... 0.2 MEGO, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 5 (R16-R18)	RC05GF363J	. RESISTOR, Fixed, comp, ... 36K, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 6 (R10-R15)	RC05GF102J	. RESISTOR, Fixed, comp, ... 1K, ± 5%, 1/8W (per MIL-R-11/11)			6	
- 7 (R7-R9)	RC05GF753J	. RESISTOR, Fixed, comp, ... 75K, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 8 (R4-R6)	RC05GF153J	. RESISTOR, Fixed, comp, ... 15K, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 9 (R1-R3)	RC05GF222J	. RESISTOR, Fixed, comp, ... 2.2K, ± 5%, 1/8W (per MIL-R-11/11)			3	
- 10 (Q4-Q12)	2N1711	. TRANSISTOR (per MIL-S-19500/225).....			9	
- 11 (Q1-Q3)	2N3503	. TRANSISTOR (01295).....			3	
- 12 (CR7-CR18)	1N971B	. SEMICONDUCTOR DEVICE..... Diode (per MIL-S-19500/117)			12	
- 13 (CR1 CR6, CR19-CR30)	1N914	. SEMICONDUCTOR DEVICE,..... Diode (per MIL-S-19500/116)			18	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
18 -						
- 14	10079	. INSULATOR, Disc (07047)			12	
- 15	H-4711	. KIT, Card (97525)			1	
- 16	283810-01	. CIRCUIT BOARD (per MIL-P-13949)..... (80063)			1	



NOTE

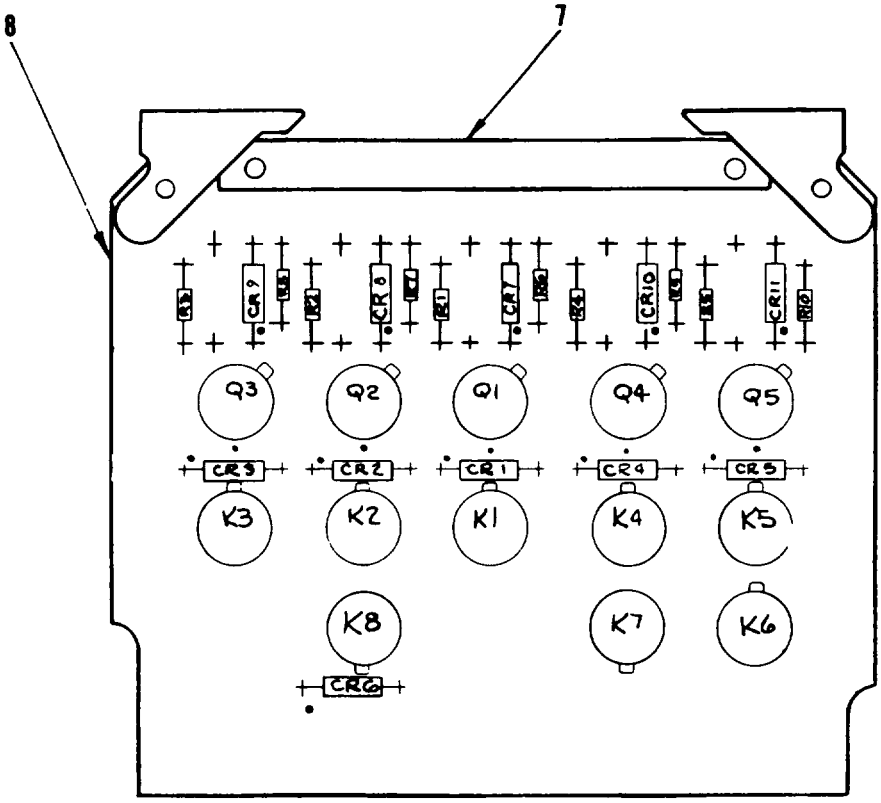
1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

3 EQUIP INDEX NOS 3 AND 4 (Q1 THRU Q10) WITH INDEX NO 5 PRIOR TO ASSEMBLY

Figure 19. Code/Read Driver II (See figure 6-20 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
19 -	283812	CODE/READ DRIVER II (80063)			3	
- 1 (CR1-CR10, CR16, CR20)	1N914	. SEMICONDUCTOR DEVICE,..... Diode (per MIL-S-19500/116) (81349)			15	
- 2 (CR11-CR15)	1N645	. SEMICONDUCTOR DEVICE,..... Diode (per MIL-S-19500/240) (81349)			5	
- 3 (Q1-Q5)	2N3502	. TRANSISTOR (01295).....			5	
- 4 (Q6-Q10)	2N1711	. TRANSISTOR (per MIL-S-19500/225)..... (81349)			5	
- 5	10079	. INSULATOR, Disc (07047)			10	
- 6 (R1-R5)	RC05GF222J	. RESISTOR, Fixed, composition..... 2.2K, ± 5%, 1/8W (per MIL-R-11/11) (81349)			5	
- 7 (R6-R10)	RC05GF153J	. RESISTOR, Fixed, composition,..... 15K, ± 5%, 1/8W (per MIL-R-11/11) (81349)			5	
- 8 (R11-R15)	RC05GF104J	. RESISTOR, Fixed composition,..... 0.1 MEGO, ± 5%, 1/8W (per MIL-R-11/11) (81349)			5	
- 9 (R16-R20)	RC05GF622J	. RESISTOR, Fixed, composition,..... 6.2K, ± 5%, 1/8W (per MIL-R 11/11) (81349)			5	
- 10	H-4711	. CARD KIT (07525).....			1	
- 11	283812-01	. CIRCUIT BOARD (per ..... MIL-P-13949) (80063)			1	



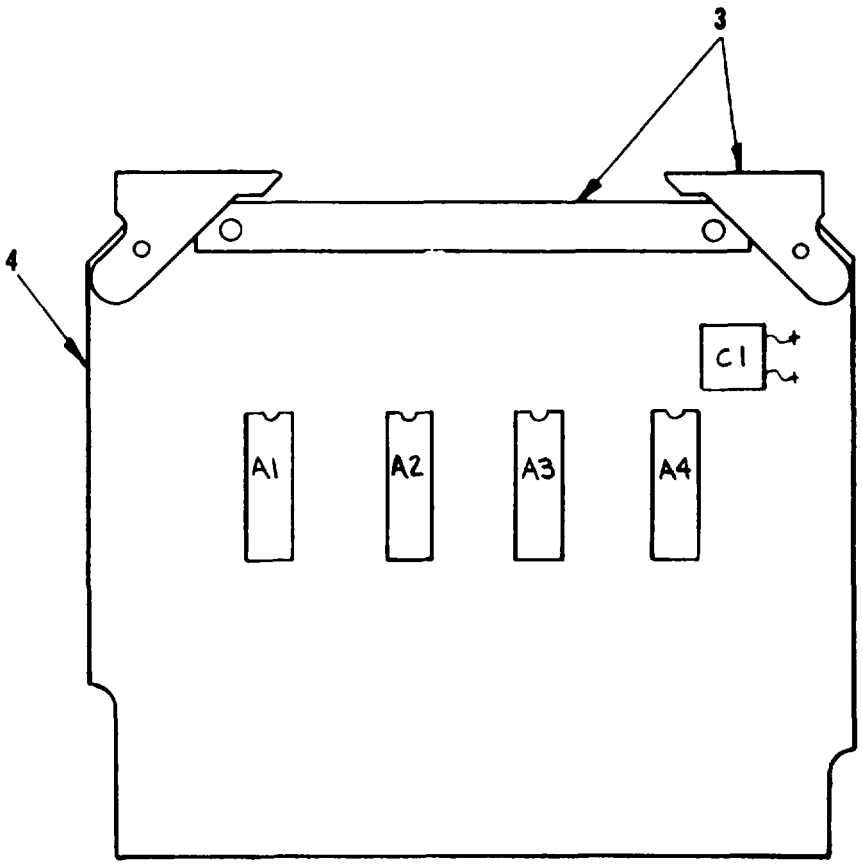
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPO NENT IS TO DENOTE COLLECTOR ON TRAN- SISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACI- TORS

Figure 20. Relay/Driver (See figure 6-21 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
20 -	283815	RELAY/DRIVER (80063).....			1	
- 1 (CR7-CR11)	1N748A	. SEMICONDUCTOR DEVICE,..... Diode (per MIL-S-19500/127) (81349)			5	
- 2 (CR1-CR6)	1N914	. SEMICONDUCTOR DEVICE,..... Diode (per MIL-S-19500/114) (81349)			6	
- 3 (K1-K8)	712-26	. RELAY, DPDT, 26V (24176).....			8	
- 4 (Q1-Q5)	2N3502	. TRANSISTOR (01295).....			5	
- 5 (R1-R5)	RC05GF153J	. RESISTOR, Fixed, 36K,..... ± 5%, 1/8W (per MIL-R-11/11) (81349)			5	
- 6 (R6-R10)	RC05GF222J	. RESISTOR, Fixed, 1K, ± 5% ..... 1/8W (per MIL-R-11/11) (81349)			5	
- 7	H-4711	. CARD KIT (97525).....			1	
- 8	283815-01	. CIRCUIT BOARD (per MIL-P-13949)..... (80063)			1	



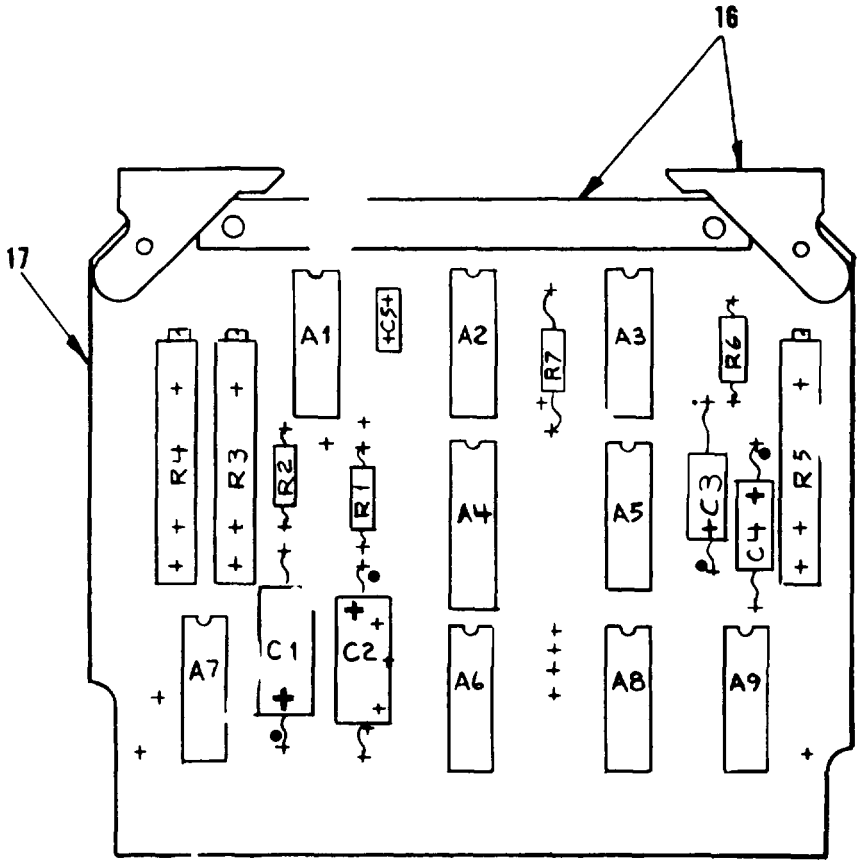
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 21. Decoder, 1 of 32 (See figure 6-22 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
21 -						
-	283816	DECODER, 1 of 32 (80063)			2	
- 1 (A1-A4)	U6B930159X	. INTEGRATED CIRCUIT,..... 1 of 10 decoder (07263)			4	
- 2 (C1)	MC605D104RM	. CAPACITOR, Fixed, ceramic,..... 0.1uf, ± 20%, 50W, VDC (00656)			1	
- 3	H-4711	. CARD KIT (97525).....			1	
4	283816-01	. CIRCUIT BOARD (per MIL-P-..... 13949) (80063)			1	



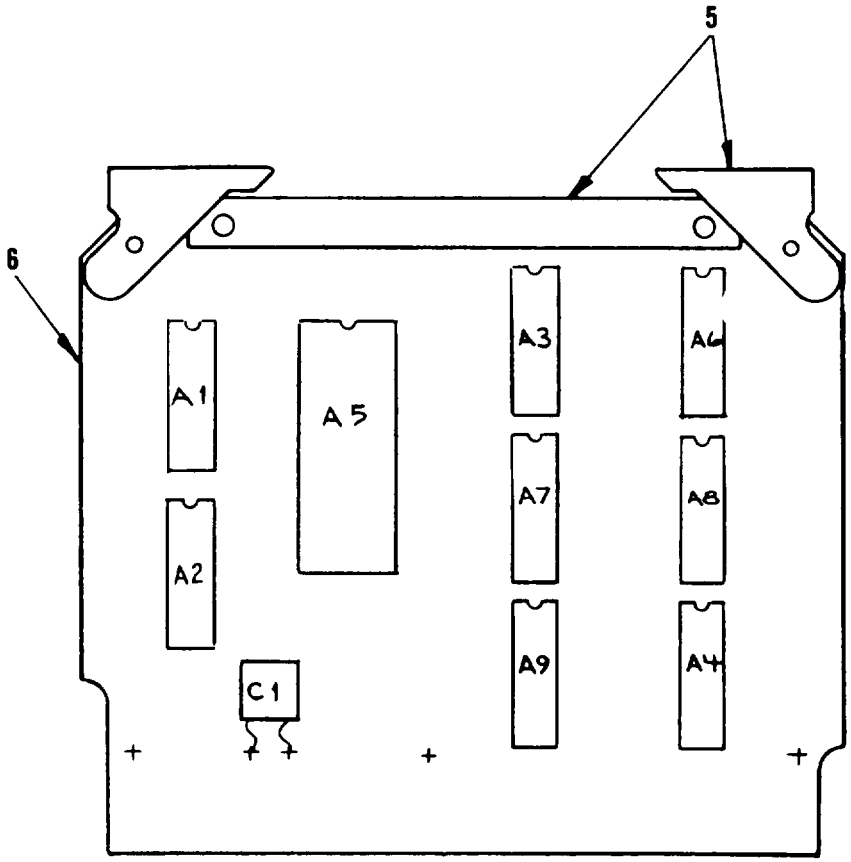
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 22. Printed Wiring Assembly (Oscillator)
(See figure 6-23 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
22 -	283822	PRINTED WIRING ASSEMBLY ..... (OSCILLATOR) (80063)			1	
- 1 (A1-A3, A7, A9)	U6A998979X	INTEGRATED CIRCUIT (07263)			5	
- 2 (A4)	U6B930159X	INTEGRATED CIRCUIT (07263)			1	
- 3 (A5)	U6A993659X	INTEGRATED CIRCUIT (07263)			1	
- 4 (A6)	MC789P	INTEGRATED CIRCUIT (01537)			1	
- 5	U6A99459X	INTEGRATED CIRCUIT (07263)			1	
- 6 (C1)	CSR13BF476M	. CAPACITOR, Tantalum, ... 47uf, 35V. (per MIL-C-39003/1) (81349)			1	
- 7 (C2)	CSR13BF106M	. CAPACITOR, Tantalum, ... 10uf, 35V (per MIL-C-39003/1) (81349)			1	
- 8 (C3)	CSR13BF225M	. CAPACITOR, Tantalum, ... 2.2uf, 35V (per MIL-C-39003/1) (81349)			1	
- 9 (C4)	CSR13BF475M	. CAPACITOR, Tantalum, ... 4.7uf, 35V (per MIL-C-39003/1) (81349)			1	
- 10 (C5)	MC605D104RM	. CAPACITOR, Ceramic,..... 0.1uf, 50V (00656)			1	
- 11 (R1)	RCR07GF122J	. RESISTOR, Composition,..... 1.2K $\pm$ 5%, 1/4W (MIL-R-39008/1) (81349)			1	
- 12 (R2)	RCRO7GF752J	. RESISTOR, Composition,..... 7.5K $\pm$ 5%, 1/4W (MIL-R-39008/1) (81349)			2	
- 13 (R3, R4, R5)	22P-1-502	. RESISTOR, Variable, ... 5K (80294			3	
- 14 (R6)	RCR07GF242J	. RESISTOR, Composition,..... 2.4K, $\pm$ 5%, 1/4W (per MIL-R-39008/1) (81349)			1	
- 15 (R7)	RCR07GF151J	. RESISTOR, Composition,..... 150 OHMS, $\pm$ 5%, 1/4W (per MIL-R-39008/1) (81349)			1	
- 16	H-4711	. CARD KIT (97525).....			1	
17	283822-01	. CIRCUIT BOARD..... (per MIL-P-13949) (80063)			1	



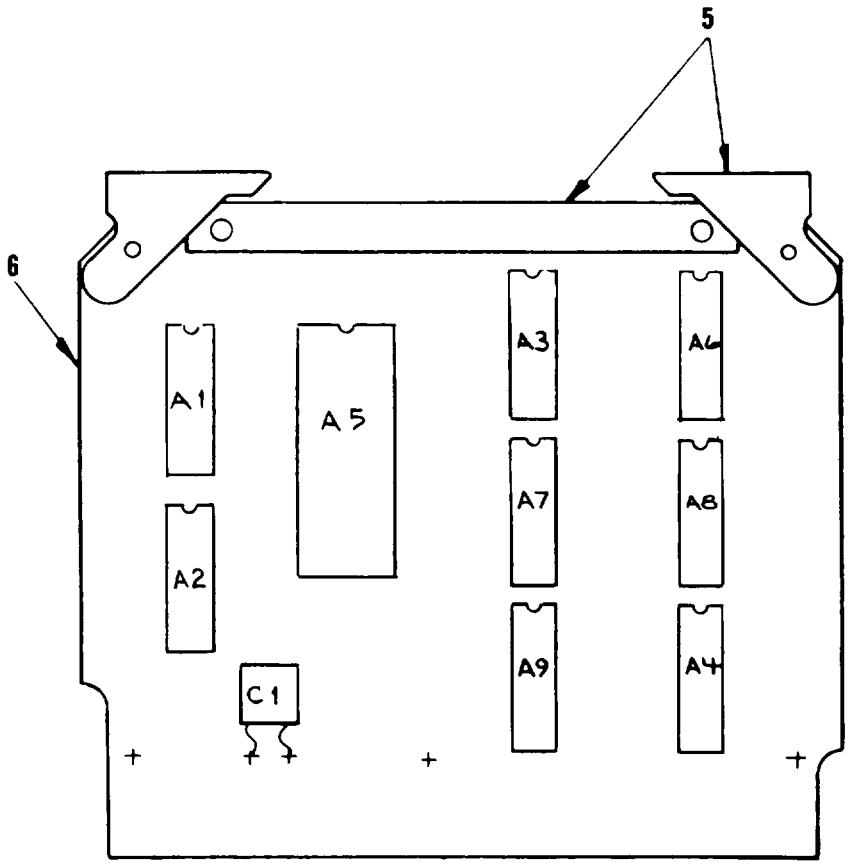
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 23. ROM I (See figure 6-24 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
23 -	283823	. ROM 1 (80063)				1
- 1 (A1-A4)	U6A962459X	INTEGRATED CIRCUIT (07263)				4
- 2 (A5)	SL9351	INTEGRATED CIRCUIT (07263)				1
- 3 (A6-A9)	U6A962559X	INTEGRATED CIRCUIT (07263)				4
- 4 (C1)	MC6050104RM	. CAPACITOR, Ceramic,..... 0.1uf, (00656)				1
- 5	H-4711	. CARD KIT (97525).....				1
- 6	283823-01	. CIRCUIT BOARD, (per MIL-P-..... 13949) (80063)				1



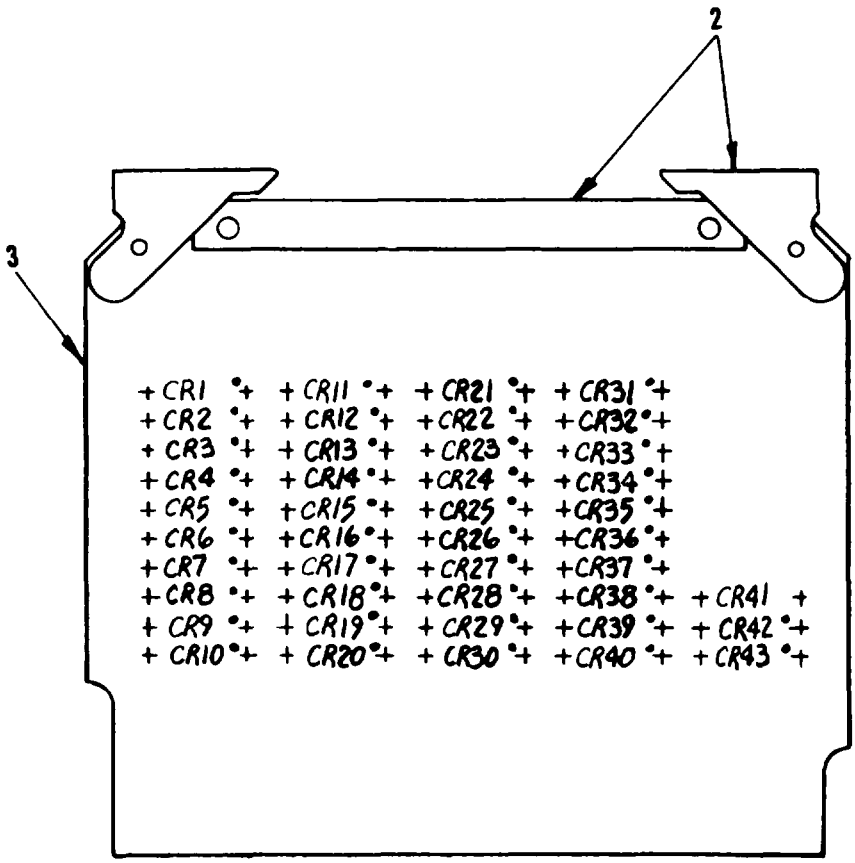
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 24. ROM 2 (See figure 6-25 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
24 -	283824	ROM 2 (80063)			1	
- 1 (A1-A4)	U6A962459X	. INTEGRATED CIRCUIT,..... Fairchild (07263)			4	
- 2 (A5)	SL9352	. INTEGRATED CIRCUIT,..... Fairchild (07263)			1	
- 3 (A6-A9)	U6A962559X	. INTEGRATED CIRCUIT,..... Fairchild (07263)			4	
- 4 (C1)	MC605D104RM	. CAPACITOR, Ceramic,..... 0.1uf, Aerovax (00656)			1	
- 5	H-4711	. CARD KIT (97525).....			1	
- 6	283824-01	. CIRCUIT BOARD (per MIL-P-13949)..... (80063)			1	



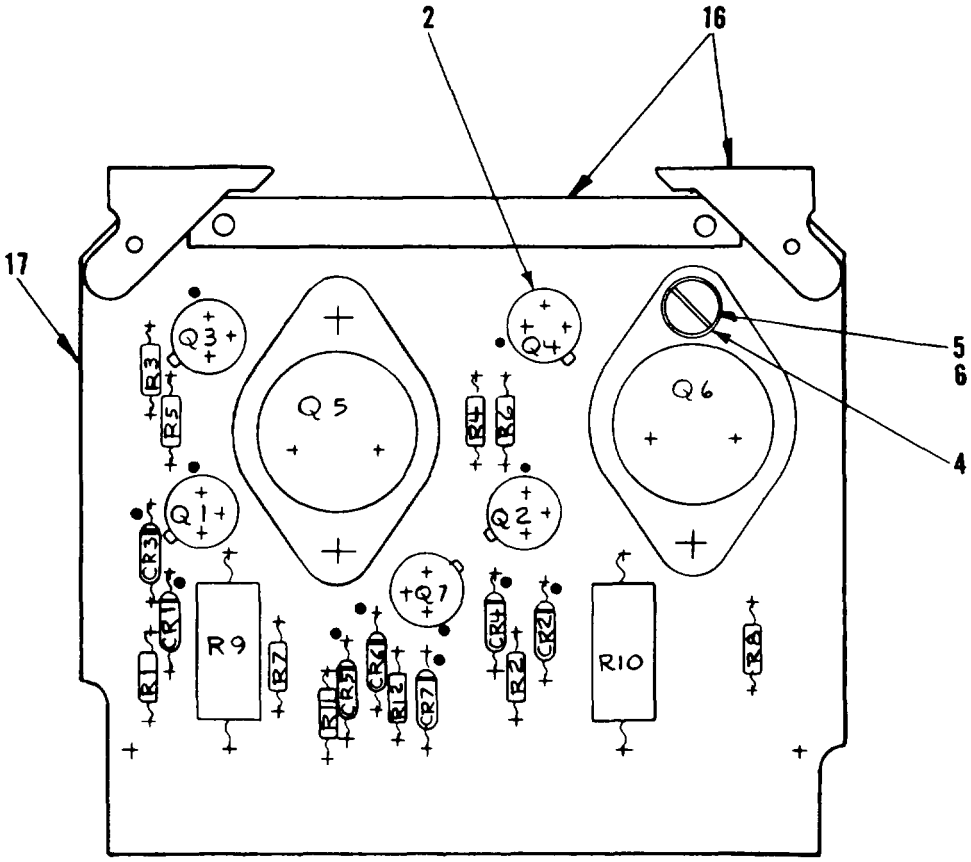
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 25. Diode (See figure 6-26 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
25 -	283825	DIODE (80063)			2	
- 1 (CR1-CR43)	1N914	. SEMICONDUCTOR DEVICE, Diode ..... (per MIL-S-19500/116)			43	
- 2	H-4711	. CARD KIT (97525).....			1	
- 3	283825-01	. CIRCUIT BOARD (per MIL-P-13949)..... (80063)			1	



NOTE

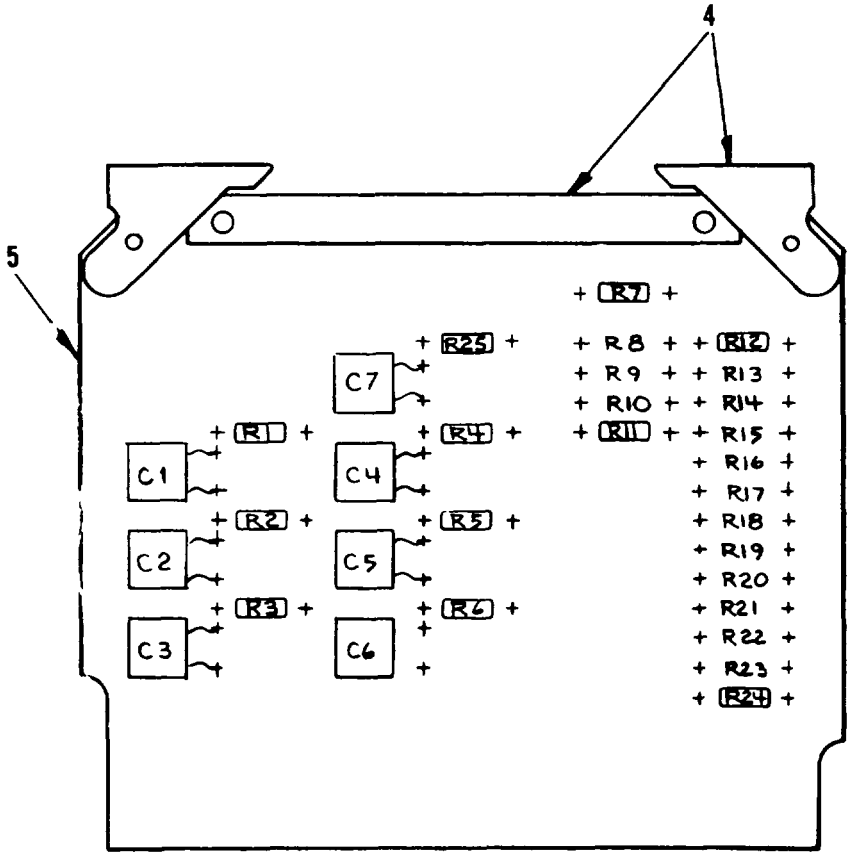
1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

3 EQUIP Q1 THRU Q4 AND Q7 WITH INDEX No 2 PRIOR TO ASSEMBLY

Figure 26. Solenoid Drivers (See figure 6-27 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
26 -	283847	SOLENOID DRIVERS (80063).....			2	
- 1 (Q1-Q4, Q7)	2N3502	. TRANSISTOR (01295).....			5	
- 2	10079	. INSULATOR DISK (07047).....			5	
- 3 (Q5, Q6)	2N297A	. TRANSISTOR (per MIL-S-19500/36).....			2	
		(ATTACHING PARTS)				
- 4	MS35206-228	. SCREW, Mach, pan hd. 6-32 x 3/8 lg.....			4	
- 5	MS3534041	WASHER, Lock, no. 6			4	
- 6	MS35340-41	. NUT, Plain, hex, 6-32.....			4	
- 7 (CR1-CR6)	1N914	. SEMICONDUCTOR DEVICE DIODE (per MIL-S-19500/116).....			6	
- 8 (CR7)	1N645	. SEMICONDUCTOR DEVICE DIODE (per MIL-S-19500/240).....			1	
- 9 (R1, R2)	RCR07GF202J	. RESISTOR, Fixed, composition, 2K, ± 5%, 1/4W (per MIL-R-39008/1).....			2	
- 10 (R3, R4)	RCR07GF153J	. RESISTOR, Fixed, composition, 5.1K, ± 5%, 1/4W (per MIL-R-39008/1).....			2	
- 11 (R5, R6)	RCR07GF512J	. RESISTOR, Fixed, composition, 5.1K, ± 5%, 1/4W (per MIL-R-39008/1).....			2	
- 12 (R7, R8)	RCR07GF822J	. RESISTOR, Fixed, composition, 8.2K, ± 5%, 1/4W (per MIL-R-39008/1).....			2	
- 13 (R9, R10)	RC42GF511J	. RESISTOR, Fixed, composition, 510 OHMS, ± 5%, 2W (per MIL-R-11/7).....			2	
- 14 (R11)	RCR07GF102J	. RESISTOR, Fixed, composition, 1K, ± 5%, 1/4W (per MIL-R-39008/1).....			1	
- 15 (R12)	RCR07GF752J	. RESISTOR, Fixed, composition, 7.5K, ± 5%, 1/4W (per MIL-R-39008/1).....			1	
- 16	H-4711	. CARD KIT (97525).....			1	
- 17	283847-01	. CIRCUIT BOARD (per MIL-P-13949)(80063).....			1	



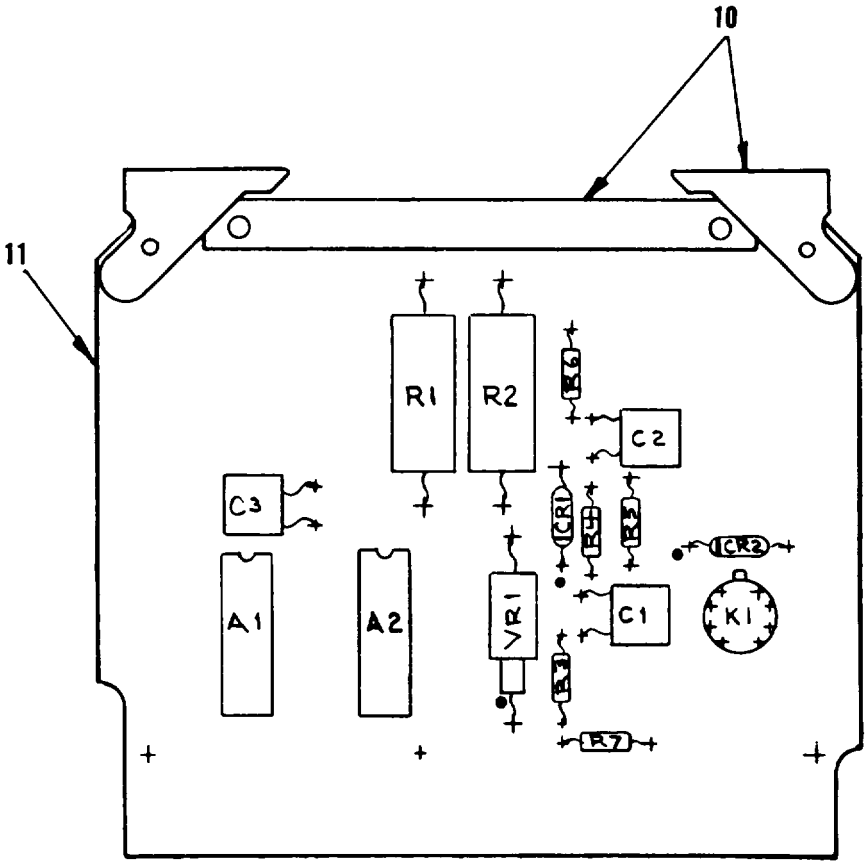
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 27. Printed Wiring Assembly (Pulse Coupling)
(See figure 6-28 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
27 -	283861	PRINTED WIRING ASSEMBLY..... (Pulse Coupling) (80063)			1	
- 1 (C1-C7)	CK06CW103M	. CAPACITOR, 0.01 uf, 200V,..... ± 20% (per MIL-C-11015/19)			7	
- 2 (R1-R6, R25)	RCR07GF303J	. RESISTOR, 30K, 1/4W..... ± 5% (per MIL-R-39008/1)			7	
- 3 (R7-R24)	RCR07GF241J	. RESISTOR, 240 OHM, 1/4W,..... ± 5% (per MIL-R-39008/1)			18	
- 4	H-4711	. CARD KIT (97525).....			1	
- 5	283861-01	. CIRCUIT BOARD (per MIL-P-13949..... (80063)			1	



NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

Figure 28. Printed Wiring Assembly (Resistors)
(See figure 6-29 for Schematic)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
28 -	283862	PRINTED WIRING ASSEMBLY ..... (RESISTORS) (80063)			1	
- 1 (A1)	SN7483N	. INTEGRATED CIRCUIT (01295)			1	
- 2 (A2)	U6B930159X	. INTEGRATED CIRCUIT (07263)			1	
- 3 (C1, C2)	CK06CW103M	. CAPACITOR, 0.01 uƒ, 200V, ... ± 20% (per MIL-C-11015/19) (81349)			2	
- 4 (C3)	VK30BX104M	. CAPACITOR, 0.1 uƒ, 200V, ... ± 20% (95275)			1	
- 5 (CR1, CR2)	1N645	. DIODE (per MIL-S-19500/240) ..... (81349)			2	
- 6 (K1)	712-6	. RELAY (24176)			1	
- 7 (R1, R2)	RC42GF750J	. RESISTOR, 75 OHM, 2W, ± 5%, ... (per MIL-R-11/7) (81349)			2	
- 8 (R3-R7)	RCR07GF303J	. RESISTOR, 30K, 1/4W, ± 5%, ... (per MIL-R-39008/1) (81349)			5	
- 9 (VR1)	1N3022B	. DIODE, Zener, (per MIL-S- ..... 19500/115) (81349)			1	
- 10	H-4711	. CARD KIT (97525)			1	
- 11	283862-01	. CIRCUIT BOARD (per MIL-P- ..... 13949) (80063)			1	

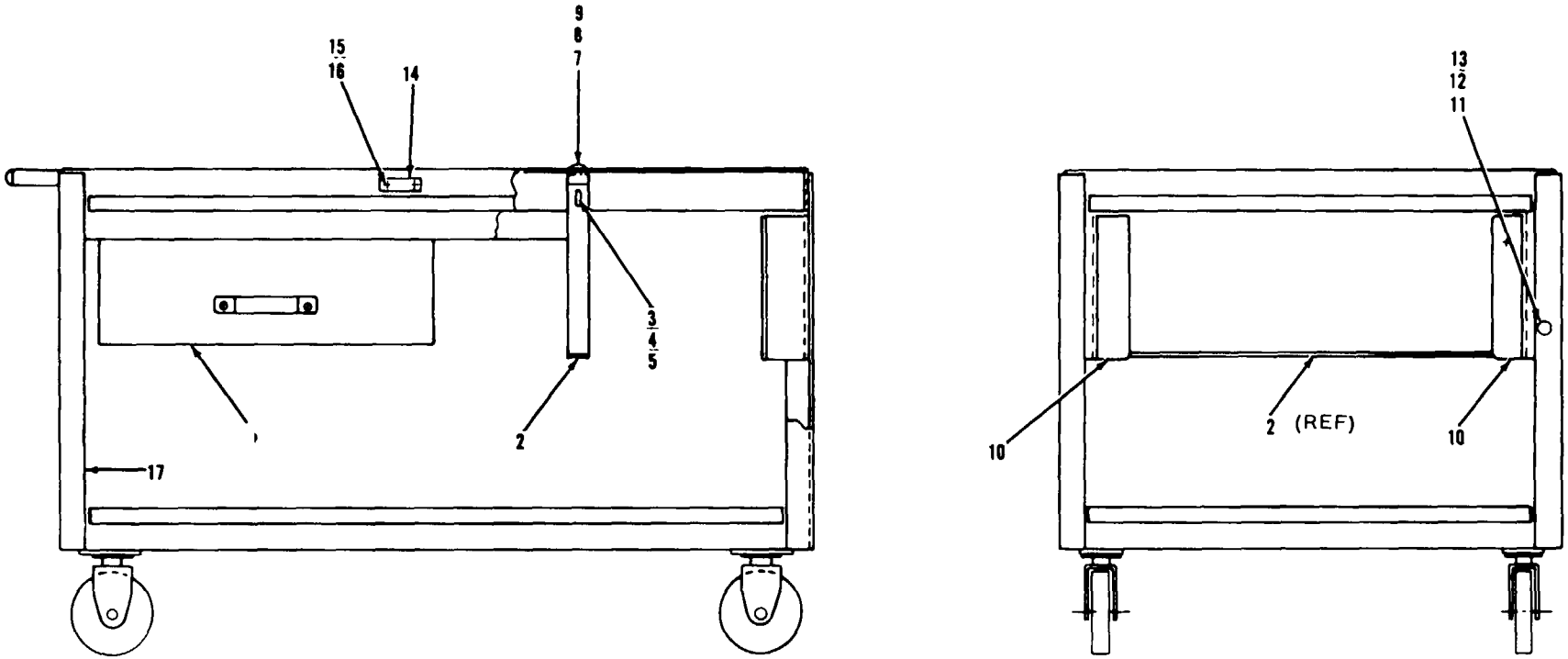


Figure 29. Cart, Service U7780

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	SOURCE CODE	REPAIR CODE	UNITS PER ASSY	USABLE ON CODE
29 -	337827	U7780 SERVICE CART ..... (80063)			REF	
- 1	100-1616	. DRAWER (10199)			1	
- 2	337827-03	. BRACKET (per QQ-S-698) ..... (ATTACHING PARTS)			1	
- 3	MS35226-64	. SCREW, Mach, pan hd, ... 10-32 x 5/8			2	
- 4	AN960-10L	. WASHER, Flat			2	
- 5	MS21044N3	. NUT, Self-lock, hex, 10-32 ..... …*…			2	
- 6		. CLIP, Angle, 2 x 2 x 1/8 ..... (per QQ-S-741) (ATTACHING PARTS)			2	
- 7	MS35226-64	. SCREW, Mach, pan hd, ... 10-32 x 5/8			2	
- 8	AN960-10L	. WASHER, Flat			2	
- 9	MS21044N3	. NUT, Self-lock, hex, 10-32 ..... …*…			2	
- 10	337827-01	. ZEE, 0.188 ± 0.010. ..... (per QQ-S-698) (ATTACHING PARTS)			2	
- 11	MS35226-64	. SCREW, Mach, pan hd, ... 10-32 x 5/8			4	
- 12	AN960-10L	. WASHER, Flat			4	
- 13	MS21044N3	. NUT, Self-lock, hex, 10-32 ..... …*…			4	
- 14	198550-001	. PLATE, Identification (80063) ..... (ATTACHING PARTS)			1	
- 15	MS35225-14	. SCREW, Mach, pan hd, ... 440 x 5/16			2	
- 16	MS21044N04	. NUT, Self-lock, hex 4-40 ..... …*…			2	
- 17	29-2620	. SERVICE TRUCK (10199).....			1	

SECTION VII

ILLUSTRATED PARTS BREAKDOWN

PART III

NUMERICAL INDEX

PART NO.	FIG. & INDEX NO.	QTY PER ART
AGC-2	15-25	1
AN122676	12-1	1
AN960-2	8-93	1
AN960-4	10-14	4
AN960-6	8-96	4
AN960-8	8-47	2
AN960-8	8-53	2
AN960-8	10-4	1
AN960-10L	29-4	2
AN960-10L	29-8	2
AN960-10L	29-12	4
AN960-516L	15-34	1
BC2206F-Z	15-13	2
BR19S355	2-17	2
CD10E	8-45	1
CK06CW103M	27-1	7
CK06CW103M	28-3	2
CSR13BF106M	22-7	1
CSR13BF225M	22-8	1
CSR13BF475M	22-9	1
CSR13BF476M	22-6	1
CS-11	8-17	1
CS-11	8-28	4
CS-2	11-18	4
CS-2	11-30	2
CS-2	11-33	2
CS9	2-8	2
C1-2	8-16	1
C1-2	11-23	1
C1-2	11-29	2
C114-18	15-6	1
C193263	14-6	8
D4002	17-	1
D4004	17-	12
D4005	17-	6
D4007	17-	6
D4008	17-	16
D4010	17-	8
D4018	17-	5
D4021	17-	3
D4025	17-	5
D4031	17-	5
E1-012B-6-SS	8-35	2
H-2159-031	11-34	1
H-4711	3-4	1
H-4711	4-2	1
H-4711	5-2	1
H-4711	6-2	1
H-4711	7-2	1
H-4711	18-15	1
H-4711	19-10	1
H-4711	20-7	1
H-4711	21-3	1
H-4711	22-16	1
H-4711	23-5	1
H-4711	24-5	1
H-4711	25-2	1
H-4711	26-17	]
H-4711	27-4	1
H-4711	28-10	1
HRT-202M	15-17	1
K1J75K5	15-4	1
LC-022C-9-SS	8-18	1
LC-032E-15	16-5	1
LE-018A-3	11-24	1
L-P-410	14-31	1
MAS1081-08D3N	16-15	4
MC605D104RM	21-2	1

PART NO.	FIG. & INDEX NO.	QTY PER ART

PART NO.	FIG. & INDEX NO.	QTY PER ART
MC605D104RM	22-10	1
MC605D104RM	24-4	1
MC6050104RM	23-4	1
MC789P	22-4	1
MDL-1/8	15-26	1
MDL-1-1/2	15-27	1
MIL-I-7444	8-	
MIL-I-7444	16-23	ARS
MIL-P-18177	15-9	1
MIL-T-713	16-22	ARS
MIL-W-16878	8-60	ARS
MIL-W-16878	16-21	ARS
MSC10-16-00	2-	1
MSC10-16-00	2-	1
MS16562-192	16-26	1
MS16633-1012	8-33	1
MS16997-11	11-7	1
MS16997-13	11-8	1
MS16997-22	2-11	2
MS17160-132	8-62	2
MS20257C1-500	10-9	1
MS20392-1C43	9-18	1
MS20392-2-C17	16-3	2
MS20392-2-C33	16-8	1
MS20426AD3	14-26	4
MS2104NN3	9-1	1
MS21044N3	29-5	2
MS21044N3	29-9	2
MS21044N3	29-13	4
MS21044N04	8-9	4
MS21044N04	8-36	2
MS21044N04	8-78	1
MS21044N04	8-81	2
MS21044N04	29-16	2
MS21044N04	8-89	2
MS21044N04	10-11	6
MS21044N04	10-15	4
MS21044N04	11-21	2
MS2104404	13-5	1
MS2104404	13-13	1
MS2104404	13-24	1
MS2104404	13-27	2
MS21044N06	8-64	4
MS21044N06	8-72	2
MS21044N06	8-97	4
MS21044N08	8-5	2
MS21044N08	8-26	1
MS21044N08	8-46	2
MS21077-3	14-25	2

PART NO.	FIG. & INDEX NO.	QTY PER ART
MS212080F1-10	16-28	2
MS24665-132	9-17	1
MS24665-132	16-2	2
MS24665-132	16-7	1
MS25237-327	14-	2
MS25237-328	14-	4
MS25237-328	14-	4
MS25237-328	14-	2
MS25237-328	14-	2
MS25237-328	14-	2
MS25237-328	14-	4
MS25307-222	14-17	1
MS29513-008	15-40	2
MS35190-8	8-37	2
MS35190-12	8-66	5
MS35190-27	8-71	2
MS35190-28	8-95	4
MS35190-43	8-25	1
MS35190-223	10-13	4
MS35190-224	13-26	2
MS35206	8-80	2
MS35206-201	11-14	2
MS35206-201	13-7	2
MS35206-203	8-58	2
MS35206-203	8-91	1
MS35206-205	8-38	2
MS35206-205	11-25	2
MS35206-211	8-44	2
MS35206-213	13-9	2
MS35206-214	8-83	2
MS35206-214	8-88	2
MS35206-214	9-14	1
MS35206-214	10-10	6
MS35206-214	12-6	1
MS35206-215	9-6	2
MS35206-215	9-20	2
MS35206-215	11-2	2
MS35206-217	8-8	4
MS35206-217	11-43	2
MS35206-217	12-12	1
MS35206-217	13-12	1
MS35206-217	13-15	2
MS35206-218	11-12	1
MS35206-228	8-2	4
MS35206-228	8-40	2
MS35206-228	8-63	4
MS35206-228	26-4	4
MS35206-244	8-5	2
MS35206-244	8-29	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
MS35206-245	10-2	1
MS35206-246	8-11	2
MS35206-246	8-51	2
MS35206-247	8-23	2
MS35225-3	10-18	2
MS35225-14	29-15	2
MS35226-64	29-3	2
MS35226-64	29-7	2
MS35226-64	29-11	4
MS35241-23	10-21	2
MS35340-39	8-92	1
MS35340-39	11-15	2
MS35340-40	8-84	2
MS35340-40	9-15	1
MS35340-40	9-21	2
MS35340-40	11-3	2
MS35340-40	11-9	2
MS35340-40	11-41	2
MS35340-40	12-7	1
MS35340-40	12-13	1
MS35340-40	13-16	2
MS35340-40	13-10	2
MS35340-41	8-3	4
MS35340-41	8-41	2
MS35340-41	26-5	4
MS35340-41	26-6	4
MS35340-42	8-12	2
MS35340-42	8-24	1
MS35340-42	8-30	2
MS35340-42	8-52	2
MS35340-42	10-3	1
MS35340-44	15-33	1
MS35340-44	15-39	2
MS35489-6	15-12	1
MS35649-22	11-26	2
MS35649-62	13-18	1
MS35649-82	11-39	1
MS51967-2	15-32	2
MS51967-2	16-10	1
N-832 x 3/4	11-38	1
NAS108/C06D12N	13-17	1
NAS1081C02D4N	13-30	1
NAS1081C04A4N	8-54	5
NAS108104A3N	12-4	1
No Number	2-	10
No Number	2-	1
No Number	2-3	1
No Number	2-4	1
No Number	8-14	REF

PART NO.	FIG. & INDEX NO.	QTY PER ART
No Number	8-22	1
No Number	8-98	1
No Number	14-8	1
No Number	14-10	1
No Number	14-12	REF
No Number	14-13	REF
No Number	14-14	REF
No Number	14-15	REF
No Number	14-16	REF
No Number	14-20	2
No Number	15-	REF
No Number	15-14	2
No Number	16-18	1
No Number	29-6	2
PS106	2-5	2
PT00A-8-4S	15-30	1
PT00A8-4P	2-15	1
PT00A12-985	15-8	1
PT00A22-36P	2-16	1
PT06P-12-98P	8-59	1
PT06P8-4P	1-	1
PT06P8-4S	1-	1
PT06P22-36S	1-	1
P62998	1-	1
P62998-001	16-16	1
RCR07GF102J	14-9	1
RCR07GF102J	14-11	1
RCR07GF102J	26-14	1
RCR07GF122J	22-11	1
RCR07GF151J	22-15	1
RCR07GF153J	26-10	2
RCR07GF202J	26-9	2
RCR07GF241J	27-3	18
RCR07GF242J	22-14	1
RCR07GF303J	27-2	7
RCR07GF303J	28-8	5
RCR07GF510J	15-3	1
RCR07GF512J	26-11	2
RCR07GF752J	22-12	2
RCR07GF752J	26-15	1
RCR07GF822J	26-12	2
RC05GF102J	18-6	6
RC05GF104J	19-8	5
RC05GF153J	19-7	5
RC05GF153J	18-8	3
RC05GF153J	20-5	5
RC05GF204J	18-4	3
RC05GF222J	18-9	3
RC05GF222J	19-6	5

PART NO.	FIG. & INDEX NO.	QTY PER ART
RC05GF222J	20-6	5
RC05GF274J	18-2	3
RC05GF363J	18-1	3
RC05GF363J	18-5	3
RC42GF511J	26-13	2
RC05GF622J	19-9	5
RC05GF753J	18-7	3
RC07GF473J	18-3	3
RC20GF471J	3-3	26
RC42GF750J	28-7	2
RW79U10R0F	8-67	1
RW79U4R99F	8-68	1
SD2	14-	1
SFSW10F8CPG02A	2-2	4
SL9351	23-2	1
SL9352	24-2	1
SN7483N	28-1	1
S11684-1	2-26	1
S116839	15-1	1
S116839	17-	REF
TYPE 052	8-61	2
TYPE 2423	14-2	1
U6A99459X	22-5	1
U6A962459X	23-1	4
U6A962459X	24-1	4
U6A962559X	23-3	4
U6A962559X	24-3	4
U6A993659X	22-3	1
U6A998979X	22-1	5
U6B930159X	21-1	4
U6B930159X	22-2	1
U6B930159X	28-2	1
VB10-1UWC1142	2-19	2
VK30BX104M	28-4	1
X1421	15-	1
1	16-	ARS
1-G-1	10-6	1
1-L	10-5	1
1-R-078	10-8	1
1-S-063-093	10-23	1
1-W	10-7	1
1N3022B	28-9	1
1N4586	8-57	5
1N645	3-1	27
1N645	4-1	57
1N645	5-1	52
1N645	6-1	44
1N645	7-1	39

PART NO.	FIG. & INDEX NO.	QTY PER ART
1N645	19-2	5
1N645	26-8	1
1N645	28-5	2
1N914	2-20	2
1N914	15-2	1
1N914	18-13	18
1N914	19-1	15
1N748A	20-1	5
1N914	20-2	6
1N914	25-1	43
1N914	26-7	6
1N971B	18-12	12
10-A	14-	2
10-A	14-	2
10-C3	14-	1
10-C3	14-	1
10-C3	14-	1
10-C3	14-	1
10-G	14-	2
10-G	14-	4
10-G	14-	2
10-G	14-	4
10-7	2-	1
10-8	14-	1
10-16-00	14-	1
10-16-00	14-	1
10-16-00	14-	1
10-16-00	14-	1
10-16-00	14-	1
10-16-00	14-	1
10-16-00	14-	1
10-511	14-	1
10-511	14-	1
10-511	14-	1
10-513	2-	1
10-513	2-	1
10-513	14-	1
10-513	14-	1
10-513	14-	1
10-513	14-	1
10A	2-	2
10A	2-	2
10A1	2-	1
10A1	14-	1
10A1	14-	1
10B2	14-	1
10C3	2-	1
10EA1C	2-	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
10EA1C1	14-	1
10EA1C1	14-	1
10EA2C1	2-	1
10EA2C1	14-	1
10EA2C1	14-	1
10EA2C1	14-	1
10EA2C1	14-	1
10EA3C1	14-	1
10EF1	2-	1
10EF1	14-	1
10EF1	14-	1
10EF2	14-	1
10EL(A)	14-	2
10EL(A)	14-	2
10EL(G)	14-	2
10EL(G)	14-	4
10EL(G)	14-	4
10ELA	2-	2
10ELA	2-	2
10EL(R)	14-	2
10EL(G)	14-	2
10EN1	2-	1
10EN1	2-	1
10EN1	14-	1
10EN1	14-	1
10EN1	14-	1
10EN2	14-	1
10EN2	14-	1
10ER256	14-	1
10ER256	14-	1
10ER256	14-	1
10ER256	14-	1
10ER256	14-	1
10ER256	14-	1
10ER256	14-	1
10R	14-	2
100-1616	29-1	1
10079	18-14	12
10079	19-5	10
10079	26-2	5
1051A	2-35	1
1075-1	14-19	1
111-4	12-10	1
1117840	11-16	3
112-4	8-20	1
112-4	13-21	2
1128403	8-87	1
1128404	8-86	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
1136138	8-13	REF
114613-01-A	14-28	1
114613-02-A	14-29	1
12TM124-S0T	8-15	1
12TM124-50T	13-20	2
170927-003	14-30	1
188788-014	14-34	1
189055-13	14-7	1
198550-001	8-79	1
198550-001	29-14	1
198550-1	2-6	1
198571-004	2-34	1
198571-004	8-73	1
198571-004	15-24	1
199929	14-5	9
2BR-1735	15-16	1
2D2	2-	1
2D2	14-	1
2D9	14-	1
2N1711	18-10	9
2N1711	19-4	5
2N297A	26-3	2
2N3502	19-3	5
2N3502	20-4	5
2N3502	26-1	5
2N3503	18-11	3
22NM-40	10-22	2
22NM-82	10-19	2
22P-1-502	22-13	3
2202-C	8-55	1
2500-2	11-22	1
2500-2	11-32	1
29-2620	29-17	1
283809-000	14-3	9
283810	18-	7
283810-000	17-	REF
283810-01	18-16	1
283812	19-	3
283812-000	17-	REF
283812-01	19-11	1
283815	20-	-1
283815-000	17-	REF
283815-01	20-8	1
283816	21-	2
283816-000	17-	REF
283816-01	21-4	1
283822	22-	1
283822-000	17-	REF

PART NO.	FIG. & INDEX NO.	QTY PER ART
283822-01	22-17	1
283823	23-	1
283823-000	17-	REF
283823-01	23-6	1
283824	24-	1
283824-000	17-	REF
283824-01	24-6	1
283825	25-	2
283825-000	17-	REF
283825-01	25-3	1
283841	16-	REF
283841-000	14-18	REF
283841-01	16-9	1
283841-05	16-19	1
283841-07	16-4	1
283841-10	16-13	1
283841-10	16-17	1
283841-11	16-12	1
283841-13	16-27	1
283841-15	16-20	1
283841-17	16-6	1
283841-21	16-1	1
283841-23	16-11	1
283841-30	16-14	1
283847	26-	2
283847-000	17-	REF
283847-01	26-17	1
283854	2-21	5
283854	3-	5
283854-01	3-5	1
283861	27-	1
283861-000	17-	REF
283861-01	27-5	1
283862	28-	1
283862-000	17-	REF
283862-01	28-11	1
283864	8-7	1
283864	11-	1
283864-01	11-27	2
283864-03	11-6	1
283864-05	11-31	1
283864-07	11-5	1
283864-11	11-1	1
283864-13	11-17	1
283864-15	11-28	2
283864-17	11-42	1
283864-21	11-19	1
283864-23	11-20	2

PART NO.	FIG. & INDEX NO.	QTY PER ART
283864-25	11-37	1
283864-27	11-10	1
283864-30	11-11	1
283864-31	11-13	1
283864-33	11-35	2
283864-37	11-4	1
283864-43	11-36	1
283879	2-22	1
283879	4-	1
283879-01	2-3	1
283889	2-23	1
283889	5-	1
283889-01	5-3	1
283890	2-24	1
283890	6-	1
283890-01	6-3	1
283891	2-25	1
283891	7-	1
283891-01	7-3	1
284542	12-	1
284542-01	12-11	1
284542-03	12-5	1
284542-05	12-2	1
284542-07	12-8	1
284542-10	12-3	1
285224	1-	1
285225-e	8-1	1
285225-000	9-	1
285225-01	9-4	1
285225-03	9-3	1
285225-05	9-19	1
285225-07	9-5	1
285225-11	9-12	1
285225-13	9-7	2
285225-15	9-2	1
285225-17	9-10	1
285225-21	9-8	1
285225-23	9-13	1
285225-25	9-16	1
285225-27	9-9	1
285225-31	9-11	1
285226	8-10	1
285226-000	13-	1
285226-01	13-22	1
285226-03	13-25	1
285226-05	13-14	1
285226-07	13-19	2
285226-11	13-23	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
285226-13	13-3	1
285226-15	13-4	1
285226-17	13-28	1
285226-21	13-29	1
285226-23	13-1	1
285226-25	13-8	1
285226-27	13-11	1
285226-31	13-6	1
285714	8-4	1
285714	10-	1
285714-01	10-17	1
285714-03	10-20	1
285714-10	10-16	1
285715	1-4	1
285215-000	8-85	1
336467	1-3	1
336467	14-	REF
336467-01	14-22	1
336467-02	14-23	1
336467-03	14-21	2
336467-05	15-37	2
336467-10	14-24	1
336467-11	14-4	2
336467-13	15-19	2
336467-25	15-36	2
336467-27	14-27	1
336467-33	15-18	1
336467-35	15-7	1
336467-37	14-1	1
336467-41	15-35	1
336467-45	15-10	1
336467-47	15-20	1
336467-51	15-11	1
336467-53	14-33	2
336467-70	15-38	2
336989	1-2	1
336989	8-	REF
336989-01	8-101	1
336989-03	8-94	2
336989-05	10-12	1
336989-07	8-27	1
336989-10	8-19	1
336989-10	8-21	1
336989-11	8-31	1
336989-15	8-39	1
336989-17	8-82	2
336989-21	8-99	4
336989-23	8-70	1
336989-25	8-75	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
336989-27	8-49	1
336989-30	8-74	1
336989-31	8-34	1
336989-41	8-42	1
336989-43	8-43	1
336989-47	8-77	1
336989-50	8-90	1
336989-51	8-100	1
336989-55	8-76	1
336989-57	8-32	1
336989-61	8-48	3
33698-63	8-56	1
336989-65	8-50	1
336990	1-1	1
336990	2-	REF
336990	2-29	1
336990-01	2-30	1
336990-03	2-14	1
336990-05	2-27	2
336990-07	2-28	1
336990-10	2-7	1
336990-11	2-33	2
336990-13	2-31	1
336990-15	2-12	1
336990-17	2-13	1
336990-25	2-10	2
337015	1-	1
337016	1-	1
337827	1-5	1
337827	29-	REF
337827-01	29-10	2
337827-03	29-2	1
342001	15-28	3
3471	16-	ARS
387	2-	2
387	2-	2
4169	16-24	ARS
421-26	3-2	13
4310	14-32	2
4310	16-25	1
5060-0775	2-32	2
5060-0828	2-1	1
5133-12	13-2	4
5278	15-29	1
60066-A	15-22	1
60246B	15-23	1
6218-A	15-21	1
69-93-1	15-12	2
6706	1-	1

PART NO.	FIG. & INDEX NO.	QTY PER ART
6706	15-42	1
712-6	28-6	1
712-26	20-3	8
7201	15-31	1
750	15-15	5
756	8-65	5
756	11-40	2

PART NO.	FIG. & INDEX NO.	QTY PER ART
770	2-18	4
8TM84-50T	12-9	1
8866K2	8-69	2
888442-SA	15-41	1
9330-24	15-5	2
97	2-9	1
97	10-1	1

SECTION VII
ILLUSTRATED PARTS BREAKDOWN

PART IV

REFERENCE DESIGNATION INDEX

REF DES	FIG & INDEX NO.	PART NUMBER
	U7484 SIMULATOR	
CR-1	2-20	1N914
CR-2	2-20	1N914
J1	2-15	PT00A8-4P
J2	2-16	PT00A22-36P
K1	2-17	BR19S355
K2	2-17	BR19S355
S1	2-5	PS106
S2	2-	2D2
S3	2-	2D2
S4	2-5	PS106
XDS2	2-4	No Number
XDS3	2-4	No Number
XDS5	2-3	No Number
XK1	2-19	VB10-1UWC1142
XK2	2-19	VB10-1UWC1142
X1A1	2-	No Number
X1A2	2-	No Number
X1A3	2-	No Number
X1A4	2-	No Number
X1A5	2-	No Number
X1A6	2-	No Number
X1A7	2-	No Number
X1A8	2-	No Number
X1A9	2-	No Number
X1A10	2-	No Number
1A1	2-21	283854
1A1 thru 1A5 CR1-CR7	3-1	1N645
1A1 thru 1A5 K1-K13	3-2	421-26
1A1 thru 1A5 R1-R26	3-3	RC20GF471J
1A2	2-21	283854
1A3	2-21	283854
1A4	2-21	283854
1A5	2-21	283854
1A6	2-22	283879
1A6CR1 thru 1A6CR57	4-1	1N645
1A7	2-23	283889
1A7CR1 thru 1A7CR52	5-1	1N645
1A8	2-24	283890
1A8CR1 thru 1A8CR44	6-1	1N645
1A9	2-25	283891
1A9CR1 thru 1A9CR39	7-1	1N645
	U7483 PRINTER	
C1-C2	8-61	TYPE 052
CR1 thru CR5	8-57	1N4586
L1	11-34	H-2159-031
L2	8-15	12TM124-S0T
P2	8-59	PT06P-12-98P
R1	8-67	RW79U10R0F
R2	8-68	RW79U4R99F
S1-S2	8-69	8866K2
	PT1561 PROGRAMMER	
B1-B2	15-13	BC2206F-Z
C1-C2	15-14	No Number

REF DES	FIG & INDEX NO.	PART NUMBER
C3	15-4	K1J75K5
CP1	16-16	P62998-01
CR1	15-2	1N914
DS1 thru DS9	14-3	283809-000
E1	15-31	7201
F1	15-25	AGC-2
F2	15-26	MDL-1/8
F-3		15-27 MDL-1-1/2
J1	16-18	No Number
J2	15-29	5278
J4	15-30	PT00A-8-4S
K1	15-16	2BR-1735
L1-L2	15-5	9330-24
PS1	15-23	60246B
PS2	15-21	6218-A
PS3	15-22	60066-A
R1	14-11	RCR07GF102J
R2	14-9	RCR07GF102J
R3	15-3	RCR07GF510J
S1 thru S9	14-5	199929
S10	14-	2D9
S11	14-	2D2
S13	14-	2D2
S17	14-17	MS25307-222
XDS10	14-	10B2
XDS11	14-	10-A1
XDS12	14-	10-C3
XDS13	14-	10-A1
XDS14	14-	10-C3
XDS15	14-	10-C3
XDS16	14-	10-C3
XF1-XF3	15-28	342001
XK1	15-17	HRT-202M
1A1		17- 283822-000
1A1		22- 283822
A1-A3	22-1	U6A998979X
A4	22-2	U6B930159X
A5	22-3	U6A993659X
A6	22-4	MC789P
A7	22-1	U6A998979X
A9	22-1	U6A998979X
C1	22-6	CSR13BF476M
C2	22-7	CSR13BF106M
C3	22-8	CSR13BF225M
C4	22-9	CSR13BF475M
C5	22-10	MC605D104RM
R1	22-11	RCR07GF122J
R2	22-12	RCR07GF752J
R3-R5	22-13	22P-1-502
R6	22-14	RCR07GF242J
R7	22-15	RCR07GF151J
1A2	17-	283816-000
1A2, 2A2	21-	283816
A1-A4	21-1	U6B930159X
C1	21-2	MC605D104RM
1A3	17-	D4010
1A4	17-	54007
1A5	17-	D4007
1A6	17-	D4004
1A7	17-	D4004
1A8	17-	D4008
1A9	17-	D4031
1A10	17-	D4007
1A11	17-	D4004
1A12	17-	D4008
1A13	17-	D4008
1A14	17-	283824-000
1A14	24-	283824
A1-A4	24-1	U6A962459X
A5	24-2	SL9352
A6-A9	24-3	U6A962559X
C1	24-4	MC605D104RM
1A15	17-	D4004
1A16	17-	D4004
1A17	17-	D4008
1A18	17-	D4005
1A19	17-	D4008
1A21	17-	D4002
1A22	17-	D4008
1A23	17-	D4008
1A24	17-	D4008
1A25	17-	D4008
1A26	17-	D4008
1A27	17-	D4008
1A28	17-	283812-000
1A28 thru 1A30	19-	283812
CR1-CR10	19-1	1N914
CR11-CR15	19-2	1N645
CR16-CR20	19-1	1N914
Q1-Q5	19-3	2N3502
Q6-Q10	19-4	2N1711
R1-R5	19-6	RC05GF222J
R6-R10	19-7	RC05GF153J

REF DES	FIG & INDEX NO.	PART NUMBER
R11-R15	19-8	RC05GF104J
R16-R20	19-9	RC05GF622J
1A29	17-	283812-000
1A30	17-	283812-000
2A1	17-	D4010
2A2	17-	283816-000
2A3	17-	D4010
2A4	17-	D4004
2A5	17-	D4025
2A6	17-	D4025
2A7	17-	D4018
2A8	17-	D4004
2A9	17-	D4008
2A10	17-	D4010
2A11		D4004
2A12	17-	D4008
2A13	17-	D4018
2A14	17-	D4010
2A15	17-	D4018
2A16	17-	D4007
2A17	17-	D4007
2A18	17-	283862-000
2A18	28-	283862
A1	28-1	SN7483N
A2	28-2	U6B930159X
C1, C2	28-3	CK06CW103M
C3	28-4	VK30BX104M
CR1, CR2	28-5	1N645
K1	28-6	712-6
R1, R2	28-7	RC42GF750J
R3-R7	28-8	RCR07GF303J
VR1	28-9	1N3022B-
2A19	17-	283861-000
2A19	27-	283861
C1-C7	27-1	CK06CW103M
R1-R6	27-2	RCR07GF303J
R7-R24	27-3	RCR07GF241J
R25	27-2	RCR07GF303J
2A20	17-	D4021
2A21	17-	283815-000
2A21	20-	283815
CR1-CR6	20-2	1N914
CR7-CR11	20-1	1N748A
K1-K8	20-3	712-26
Q1-Q5	20-4	2N3502
R1-R5	20-5	RC05GF153J
R6-R10	20-6	RC05GF222J

REF DES	FIG & INDEX NO.	PART NUMBER
2A22	17-	D4010
2A23	17-	283825-000
2A23, 3A10	25-	283825
CR1-CR43	25-1	1N914
2A24 thru 2A30	17-	283810-000
2A24 thru 2A30	18-	283810
CR1-CR6	18-13	1N914
CR7-CR18	18-12	1N971B
CR19-CR30	18-13	1N914
Q1-Q3	18-11	2N3503
Q4-Q12	18-10	2N1711
R1-R3	18-9	RC05GF222J
R4-R6	18-8	RC05GF153J
R7-R9	18-7	RC05GF753J
R10-R15	18-6	RC05GF102J
R16-R18	18-5	RC05GF363J
R19-R21	18-4	RC05GF204J
R22-R24	18-3	RC07GF473J
R25-R27	18-2	RC05GF274J
R28-R30	18-1	RC05GF363J
3A1	17-	D4010
3A2	17-	D4008
3A3	17-	D4005
3A4	17-	D4007
3A5	17-	283823-000
3A5	23-1	283823
A1-A4	23-1	U6A962459X
A5	23-2	SL9351
A6-A9	23-3	U6A962559X
C1	23-4	MC6050104RM
3A6	17-	D4025
3A7	17-	D4018
3A8	17-	D4005
3A9	17-	D4008
3A10	17-	283825-000

REF DES	FIG & INDEX NO.	PART NUMBER
3A11	17-	D4025
3A12	17-	D4025
3A13	17-	D4031
3A14	17-	D4004
3A15	17-	D4008
3A16	17-	D4008
3A17	17-	D4004
3A18	17-	D4005
3A19	17-	D4021
3A20	17-	D4021
3A21	17-	D4031
3A22	17-	D4004
3A23	17-	D4004
3A24	17-	D4005
3A25	17-	D4031
3A26	17-	D4031
3A27	17-	D4005
3A28	17-	D4010
3A29	17-	283847-000
3A29, 3A30	26-	283847
CR1-CR6	26-7	1N914
CR7	26-8	1N645
Q1-Q4	26-1	2N3502
Q5, Q6	26-3	2N297A
Q7	26-1	2N3502
R1, R2	26-9	RCR07GF202J
R3, R4	26-10	RCR07GF153J
R5, R6	26-11	RCR07GF512J
R7, R8	26-12	RCR07GF822J
R9, R10	26-13	RC42GF511J
R11	26-14	RCR07GF102J
R12	26-15	RCR07GF752J
3A30	17-	283847-000

ADDENDUM A - CODING TC432 CODE PLUG

WITH TWO COMPLEMENTING ID - CHANNEL CODES

A-1 PURPOSE.

This addendum provides special procedures for coding the TC432 Code Plug with two complementing ID Channel codes.

A-2. GENERAL CODING INFORMATION.

These procedures differ from the standard coding procedures in paragraph 4-181, in that two complementing ID Channel codes are burned into the same code plug. Complementing codes are defined as those codes in table 5-3 for which the first two binary bits are complements of each other and the remaining bits are identical (e.g., codes 25 and 35). Thus, code plugs coded with the complementary codes will have resistors R21 through R24 and R35 through R38 all burned.

A-3. CODING PROCEDURES.

A-4. Using the procedures in paragraph 4-181 of this manual, code the plug initially for a 9-digit code which includes one of the desired complementing ID Channel codes (for example, code 25).

A-5. After the initial coding is complete, remove the plug from the test connector by pulling the plug eject lever. Remove code label from plug.

A-6. Install an uncoded plug in the test connector.

A-7. Momentarily press READ switch. READ and UNCODED lamps light and display is blanked.

A-8. Remove uncoded plug from test connector by pulling plug eject lever.

A-9. Reinstall in test connector the code plug initially coded with one of the desired complementing ID Channel codes.

A-10. Check that same 9-digit code initially burned into code plug is set in digiswltches. Change the ID Channel code to the complementing code (for example, if code 25 was initially burned in code plug, the complementing code is 35).

A-11. On PT1561, momentarily press CODE switch. The following sequence occurs:

a. CODE lamp flashes and CHECK lamp lights.

b. Display reads out code set in digiswltches.

c. For 63-sec period, code selected on digiswltches is burned into code plug.

A-12. After 63 sec, UNCODED and CODE lamps go off, VERIFY lamp lights, and display is momentarily cleared. CODED and ERROR lamps then light and display reads out plug code with the ID CHANNEL indicators blanked.

A-13. Operation halts with READ, CODED, CHECK, VERIFY, and ERROR lamps lighted.

A-14. Remove plug from test connector by pulling plug eject lever. This completes the coding procedure.

NOTE

The PT1561 logic does not verify code plugs coded with complementing ID Channel codes. Therefore, other means must be used to verify that the code plug resistors for the ID Channel are properly burned.

ADDENDUM B

CODING TC432 CODE PLUG WITH DOUBLE ID CODES FOR USE WITH CAEDET SERIES SEISMIC SENSORS

B-1. Purpose

This addendum provides special procedures for coding the TC432 Code Plug for use in MA137 Seismic CAEDET (G), MA138 Seismic AUDET (G), and MA139 Seismic EDET (G), which employ two ID codes and multiple function codes.

B-2. Procedural Differences

B-3.

The procedures in this addendum differ from those in paragraphs 4-181 through 4-192 and Addendum A as follows: The last ID bit and parity bit are not controlled by the code plug, and a commandable function with fixed gain is provided. Examples of ID code pairs are 51/01 and 18/19.

B-4.

The TP1561 logic does not verify code plugs coded with ID code pairs; therefore, other means must be used to verity that code plug resistors are properly burned.

B-5. Coding Procedures.

B-6. Seismic CAEDET (G) and Seismic AUDET (G).

This procedure codes ID pairs and two function codes.

B-7.

Use procedures given in paragraphs 4-181 through 192 of this manual, with the following exceptions.

a. Code the code plug initially for a 9-digit code which includes the first part of the ID pair provided, with function 00, and with audio time and seismic gain as required, in accordance with paragraphs 4-181 through 4-192.

b. After initial coding is complete, remove code plug from test connector by pulling plug eject lever.

c. Install an uncoded plug in test connector.

d. Momentarily press READ switch; READ and UNCODED lamps light and the display is blanked.

e. Remove uncoded plug from test connector by pulling plug eject lever.

f. Reinstall in test connector that code plug initially encoded with first part of ID pair provided by operation order or other authority.

NOTE

Refer to table 4-8C, T.O. 31S9-20-4-1, for legal code pair.

B-8.

Continue programming as follows:

a. Insure that same 9-digit code initially burned into code plug is set in programmer digiswitches.

b. Change ID CHANNEL code to second part of ID pair (e.g., if ID code was 51, second part is 01).

c. Change FUNCTION digiswitches to 17.

d. Momentarily press CODE switch; CODE lamp flashes and CHECK lamp lights. The display reads out the 9-digit code set in digiswitches. For 63 seconds, the code selected is burned into the code plug.

e. After 63 seconds, UNCODED and CODE lamps extinguish, VERIFY lamp lights, and display is momentarily cleared. CODED and ERROR lamps light, and display reads out code plug code with I CHANNEL and FUNCTION indicators blanked.

f. Operation stops with READ, CODED, CHECK, VERIFY, and ERROR lamps lighted.

g. Remove code plug from test connector by pulling plug eject lever.

B-9.

Using pen, write second part of ID under ID in 9-digit code taped on code plug. Write second or corresponding function code 17 directly under function code printed in code; the form should now be:

426-51-00-1-3
01 17

B-10. Seismic EDET (G).

This procedure codes ID pairs but only one function.

B-11.

Use procedures given in paragraphs 4-181 through 4-192 with the following exceptions:

a. Code the code plug initially for a 9-digit code which includes the first part of the ID pair provided, with function 00, and with audio time and gain as required, in accordance with paragraphs 4-181 through 4-192.

b. After initial coding is complete, remove code plug from test connector by pulling plug eject lever.

c. Install an uncoded plug in test connector.

d. Momentarily press READ switch; READ and UNCODED lamps light and the display is blanked.

e. Remove uncoded plug from test connector by pulling plug eject lever.

f. Reinstall in test connector that code plug initially coded with first part of ID pair provided by operation order or other authority.

NOTE

Refer to table 4-8C, T.O. 31S9-20-4-1, for legal code pair.

B-12.

Continue programming as follows:

a. Insure that same 9-digit code initially burned into code plug is set In programmer digiswitches.

b. Change ID CHANNEL code to second part of ID pair (e.g., if ID code was 51, second part is 01).

c. Momentarily press CODE switch. CODE lamp flashes and CHECK lamp lights. The display reads out the 9-digit code set in digiswitches. For 63 seconds, the code selector is burned into the code plug.

d. After 63 seconds, UNCODED and CODE lamps extinguish, VERIFY lamp lights, and display is momentarily cleared. CODED and ERROR lamps light, and display reads out code plug code with ID CHANNEL Indicators blanked.

e. Operation stops with READ, CODED, CHECK, VERIFY, and ERROR lamps lighted.

f. Remove code plug from test connector by pulling plug eject lever.

B-13.

Using, pen, write second part of ID under ID in 9-digit code taped on code plug. The form should now be:

100-51-00-1-3
01

(Next printed page is B-5)

SECTION II REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1)	(2)	(3)	(4)	(5)	(6)				(7)	
SMR CODE	FEDERAL STOCK NUMBER	DESCRIPTION Reference Number and Mfr Code USABLE ON CODE	UNIT OF MEAS	QTY INC IN UNIT	(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) FIG NO	(b) ITEM NO
PAODD		SIMULATOR (U7484) 285224 (80063)	EA	1	*	*	*	*	1	1
AOODD		PRINTER (U7483) 33689 (80063)	EA	1					1	2
XAOZZ		CHAFF BOX	EA	1	*	*	*	*	1	4
PAOZZ	5995-025-8959	CABLE ASSEMBLY (CA1258)	EA	1	*	*	*	*		
PAOZZ	5935-686-9617	CONNECTOR, PLUG, ELECTRICAL PT06P-8-4S (77820)	EA	1	*	*	*	*		
PAOZZ	5935-617-7835	CONNECTOR, PLUG, ELECTRICAL PTO6P-8-4S (77820)	EA	1	*	*	*	*		
PAOZZ	5995-029-3765	CABLE ASSEMBLY (CA1259) 337016	EA	1	*	*	*	*		
PAOZZ		CONNECTOR, PLUG, ELECTRICAL (TA383) P62998 (77820)	EA	1	*	*	*	*		
PAOZZ	5933-089-0606	CONNECTOR, PLUG, ELECTRICAL PT06P-22-36S (77820)	EA	1	*	*	*	*		
PAOZZ		CABLE ASSEMBLY, POWER ELECTRICAL 6706 (73545)	EA	1	*	*	*	*		
XBCDD		SIMULATOR (U7484)	EA	1						
XBDZZ	6240-763-7744	LAMP, INCANDESCENT, 28V 387 (08806)	EA	2	*	*	*	*		
XBDZZ	6240-763-7744	LAMP, INCANDESCENT, 28V 387 (08806)	EA	2	*	*	*	*		
PAOZZ	5945-422-5169	RELAY, ARMATURE, MINIATURE, DC	EA	2	*	*	*	*	2	17
PAOZZ	5940-666-0866	TERMINAL, STANDOFF 770 (81312)		EA	4	*	*	*	*	2 18
PAOZZ	6625-401-2207	EXTENDER CARD H4701 (97525)	EA	10	*	*	*	*		
XAOZZ		FILLER, PLASTIC 336990-27 (80063)	EA	1					2	29
AOODD		PRINTER (U7483) 336989 (80063)	EA	1	*	*	*	*	8	
PAODD	5865-093-5853	HOLDER, TAPE SUPPLY 285225-C (80063)	EA	1	*	*	*	*	8	1
PAOZZ	5305-984-4988	SCREW, MACHINE PAN HEAD MS35206-228 (96906)	EA	4	*	*	*	*	8	2
PAOZZ	5310-839-3770	WASHER, LOCK MS35340-41 (96906)	EA	4	*	*	*	*	8	3
PAODD	5865-093-5851	TAPE FEEDING MECHANISM 283864 (80063)	EA	1	*	*	*	*	8	7
PAOZZ	5305-889-2999	SCREW, MACHINE, PAN HEAD MS35206-217 (96906)	EA	4	*	*	*	*	8	8
PAOZZ		NUT, SELF-LOCKING, HEXAGON MS21044N04 (96906)	EA	4	*	*	*	*	8	9
PAODD		TAPE CUTTER AND APPLICATOR 285226 (80063)	EA	1	*	*	*	*	8	10
PAOZZ	5305-984-6194	SCREW, MACHINE, PAN HEAD MS35206-246 (96906)	EA	2	*	*	*	*	8	11
PAOZZ	5310-809-3365	WASHER, LOCK MS35340-42 (96906)	EA	2	*	*	*	*		12
XBDZZ	7510-134-8208	RIBBON CARTRIDGE, BLACK 1136138 (30874)	EA	1	*	*	*	*	8	13

SECTION II REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number and Mfr Code USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) (a) FIG NO	(b) ITEM NO
XBDZZ		TAPE, LABELING, ADHESIVE (14800)	EA	1	*	*	*	*	8	14
PAODD		HOLDER, TAPE SUPPLY 285225-000 (80063)	EA	1	*	*	*	*	9	
PAODD	5865-093-5851	TAPE FEEDING MECHANISM 283864 (80063)	EA	REF	*	*	*	*	11	
PAOZZ	6350-482-2941	ROLLER, RUBBER, GEAR 1117840 (30874)	EA	3	*	*	*	*	11	16
PAOZZ		KNOB 283864-13 (80063)	EA	1	*	*	*	*	11	17
PAOZZ		SETSCREW CS-2 (12139)	EA	4	*	*	*	*	11	18
PAOZZ		PIN 283864-23 (80063)	EA	1	*	*	*	*	11	19
PAOZZ		PIN 283864-23 (80063)	EA	2	*	*	*	*	11	20
PAOZZ		NUT, SELF-LOCKING MS21044N04 (96906)	EA	2	*	*	*	*	11	21
PAOZZ		CLUTCH, UNI-DIRECTIONAL, CCW 2500-2 BIER CHANOUX	EA	1	*	*	*	*	11	22
PAOZZ		COLLAR, SHAFT C1-2 (12139)	EA	1	*	*	*	*	11	23
PAOZZ	5360-349-8396	SPRING, EXTENSION LE-018A-3 (84830)	EA	1	*	*	*	*	11	24
PAOZZ		SCREW, MACHINE, PLAIN HEAD MS35206-205 (96906)	EA	2	*	*	*	*	11	25
PAOZZ	5310-687-6293	NUT, PLAIN, HEXAGON MS35649-22 (96906)	EA	2	*	*	*	*	11	26
PAOZZ		CLUTCH, UNI-DIRECTIONAL, CCW 2500-2 BIER CHANOUX	EA	1	*	*	*	*	11	32
PAOZZ		SETSCREW CS-2 (12139)	EA	2	*	*	*	*	11	33
PAOZZ		SOLENOID, ROTARY H-2159-031 (81840)	EA	1	*	*	*	*	11	34
XAOZZ		PIN 283864-25 (80063)	EA	2					11	35
XAOZZ		SPACER, TEFLON 283864-43 (80063)	EA	1					11	36
XAOZZ		PIN 283864-25 (80063)	EA	1					11	37
PAODD		TAPE CUTTER AND APPLICATOR 285226-000 (80063)	EA	1	*	*	*	*	13	
PAOZZ	5895-094-2468	GUIDE 285226-27 (80063)	EA	1	*	*	*	*	13	11
PAOZZ		SCREW, MACHINE, PAN HEAD MS35206-217 (96906)	EA	1	*	*	*	*	13	12
PAOZZ		NUT, SELF-LOCKING, HEXAGON MS2104404 (96906)	EA	1	*	*	*	*	13	13
PAOZZ		SOLENOID, PULL TYPE 12TM124-50T (18482)		EA	2	*	*	*	*	13 20
PAOZZ	5360-355-7489	SOLENOID RETURN SPRING 112-4 (18482)	EA	2	*	*	*	*	13	21
PAOZZ		SCREW 285226-11 (80063)	EA	1	*	*	*	*	13	23
PAOZZ		NUT, SELF-LOCKING, HEXAGON MS2104404 (96906)	EA	1	*	*	*	*	13	24

SECTION II REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION Reference Number and Mfr Code USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) (a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(7) (a) FIG NO	(b) ITEM NO
PAODD		PT1561, TC432 PROGRAMMER 336467	EA	1	*	*	*	*	14	
PAOZZ	6240-155-7857	LAMP, INCANDESCENT MS25237-328 (96906)	EA	2	*	*	*	*		
PAOZZ		LAMP, INCANDESCENT MS25237-328 (96906)	EA	2	*	*	*	*		
PAOZZ		FILTER, LAMP, AMBER 10-A or 10EL(A) (96182)	EA	2	*	*	*	*		
PAOZZ	6240-155-7836	LAMP, INCANDESCENT MS25237-327 (96906)	EA	2	*	*	*	*		
PAOZZ	6240-155-7836	LAMP, INCANDESCENT MS25237-328 (96906)	EA	4	*	*	*	*		
PAOZZ	6240-155-7836	LAMP, INCANDESCENT MS25237-328 (96906)	EA	4	*	*	*	*		
PAOZZ	6240-155-7836	LAMP, INCANDESCENT MS25237-328 (96906)	EA	2	*	*	*	*		
PAOZZ	6240-15-7836	LAMP, INCANDESCENT MS25237-328 (96906)	EA	4	*	*	*	*		
PAODD		FIXTURE, HOLDING AND ELECTRIC 283841-000 (80063)	EA	1	*	*	*	*	14	18
PAOOD		PT1561, TC432 PROGRAMMER 336467	EA	1	*	*	*	*	15	
XAOZZ		CARD FILE S116839 (97525)	EA	1					15	1
PAOZZ	5020-848-8882	FUSE, CARTRIDGE, SLOW-BLOW AGC-2 (71400)	EA	1	*	*	*	*	15	25
PAOZZ	5920-280-9545	FUSE, CARTRIDGE, SLOW-BLOW MDL-1/8 (71400)	EA	1	*	*	*	*	15	26
PAOOZ	5920-280-9328	FUSE, CARTRIDGE, SLOW BLOW MDL-1/8 (71400)	EA	1	*	*	*	*	15	27
PAODD		FIXTURE, HOLDING AND EJECTION 23841 (80063)	EA	1	*	*	*	*	16	
PAOZZ	5355-038-7360	KNOB 283841-21 (80063)	EA	1	*	*	*	*	16	1
PAOZZ		PIN, COTTER MS24665-132 (96906)	EA	2	*	*	*	*	16	2
XAOZZ		CONNECTOR, PIGTAIL ASSEMBLY 283841-10 (80063)	EA	1					16	17
XAOZZ		TA386, CONNECTOR, RECEPTACLE ELECTRICAL P69901-002 (80063)	EA	1					16	18

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
	6625-169-1683	PROGRAMMER TEST SET 285224 (80063)	EA	1	*	*	*	*	*	*	*	*		
PAODD		SIMULATOR (U7484) 336990 (80063)	EA	1	*	*	*	*	*	*	*	*	1	1
PAODD		PRINTER (U7483) 336919 (80063)	EA	1									1	2
PAFDD		PROGRAMMER (PT1561) 336467 (80063)	EA	1	*	*	*	*	*	*	*	*	1	3
XAOZZ		CHAFF BOX (80063)	EA	1									1	4
PAFDD	3920-001-6394	TRUCK HAND BOX 33782 (80063)	EA	1	*	*	*	*	*	*	*	*	1	5
PAOZZ	5995-025-8959	CABLE ASSEMBLY (CA1258) 337015 (80063)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ	5935-686-9617	CONNECTOR, PLUG, ELECTRICAL PT06P-8-4P (77820)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ	5935-617-7835	CONNECTOR, PLUG, ELECTRICAL PT062-8-4S (77820)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ	5995-029-3765	CABLE ASSEMBLY 337016	EA	1	*	*	*	*	*	*	*	*		
PAOZZ		CONNECTOR, PLUG, ELECTRICAL P62988 (77810)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ	5933-089-6006	CONNECTOR, PLUG, ELECTRICAL PT06P-22 -36S (77820)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ		CABLE ASSEMBLY, POWER ELEC. 6706 (73545)	EA	1	*	*	*	*	*	*	*	*		
XBCDD		SIMULATOR (U7484) 336990	EA	1										
XBDZZ		CONTROL PANEL COVER 5060-0823 (23480)	EA	1									2	1
XBDZZ		SCREW, ASSEMBLED WASHER SFSW10R8CPG02A (12324)	EA	4									2	2
AFFZZ		INDICATOR LIGHT ASSEMBLY, POWER	EA	1									2	3
PAFZZ	6210-956-8094	LIGHT, INDICATOR 10-03 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6210-115-7505	LENS, INDICATOR LIGHT MSC10-16-00 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6210-058-1439	DIFFUSER, LIGHT, SINGLE INDICATION 10EN1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ	6264-763-7744	LAMP, INCANDESCENT, 28 V 387 (08806)	EA	2	*	*	*	*	*	*	*	*		
PAFZZ	6210-954-9779	FILTER, LAMP, AMBER 10-A (91682)		EA	2	*	*	*	*	*	*	*	*	
AFFZZ		INDICATOR LIGHT ASSEMBLY, RESET	EA	1									2	4
AFFZZ		INDICATOR LIGHT ASSEMBLY, INSERT CODE	EA	1										
PAFZZ	6210-885-5090	LIGHT, INDICATOR 10-A1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		LENS, INDICATOR LIGHT MSC10-16-00 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6210-058-1439	DIFFUSER, LIGHT, SINGLE INDICATION 10EN1 (96182)	EA	1	*	*	*	*	*	*	*	*		

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
PAFZZ	5930-854-7864	SWITCH ASSEMBLY 2D2 (91929)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ	6240-763-7744	LAMP, INCANDESCENT 23 V 387 (08806)	EA	2	*	*	*	*	*	*	*	*		
PAFZZ	6210-954-9779	FILTER, LAMP, AMBER 10-A (96182)		EA	2	*	*	*	*	*	*	*	*	
PAFZZ	5930-433-4672	SWITCH, ROTARY SUB-MINIATURE PS-106 (83557)	EA	2	*	*	*	*	*	*	*	*	2	5
MDDZZ		PLATE, IDENTIFICATION 198550-1 (80063)	EA	1									2	6
XADDZ		SCREW, MACHINE (96906)	EA	2										
XADDZ		DOOR HINGE ASSEMBLY 336990-10 (80063)	EA	1										7
XADDZ		SETSCREW CS-9 (12139)	EA	2									2	8
PAOZZ	5355-667-9514	KNOB 97 (80813)	EA	1	*	*	*	*	*	*	*	*	2	9
PADZZ	5845-036-5158	ROLLER 336990-25 (80053)	EA	1							*	*	2	10
PADZZ	5365-970-9355	SCREW, CAP, SOCKET HEAD MS16997-22 (96306)	EA	2							*	*	2	11
XADDZ		PLATE 336990-15 (80063)	EA	1									2	12
XADDZ		PLATE 336990-17 (80063)	EA	1									2	13
XADDZ		CLIP 336990-03 (80063)	EA	1									2	14
PAFZZ	5935-176 -2219	CONNECTOR, RECEPTACLE, ELECTRICAL PT00A-8-4P (77280)	EA	1	I	*	*	*		*	*	*	2	15
PAFZZ		CONNECTOR, RECEPTACLE, ELECTRICAL PT00A-22-36P (77280)	EA	1	*	*	*	*	*	*	*	*'	2	16
PAOZZ	5945-422-5169	RELAY, ARMATURE, MINIATURE, DC BR19-S355 (09026)	EA	1	*	*	*	*	*	*'	*	*	2	17
PAOZZ	5940-666-0866	TERMINAL, STANDOFF 770 (81312)		EA	4	*	*	*	*	*	*	*	*	2 18
PAFZZ		SOCKET, RELAY VB10/1UW11-42 (05574)	EA	1	*	*	*	*	*	*	*	*	2	19
PAFZZ	5961-842-9864	SEMICONDUCTOR, DEVICE, DIODE 1N914 (81349)	EA	2	*	*	*	*	*	*	*	*	2	20
PAFDD	5893-033-6311	RELAY CARD, LATCHING 233354 (82063)	EA	5	*	*	*	*	*	*	*	*	2	21
PAFDD	5865-095-2654	CIRCUIT CARD ASSY 283879 (80063)	EA	1	*	*	*	*	*	*	*	*	2	22
PAFDD	5365-093-5857	CIRCUIT CARD ASSY 233889 (80063)	EA	1	*	*	*	*	*	*	*	*	2	23
PAFDD	5895-094-2237	CIRCUIT CARD ASSY 283890 (80063)	EA	1	*	*	*	*	*	*	*	*	2	24
PAFDD	5895-094-2327	CIRCUIT CARD ASSY 283891 (80063)	EA	1	*	*	*	*	*	*	*	*	2	25
XAFZZ		CARD FILE S11684-1 (97525)	EA	1									2	26
PAOZZ	6625-401-2207	EXTENDER CARD H4701 (97525)	EA	10	*	*	*	*	*	*	*	*		

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XADZZ		BRACKET 336990-05 (80063)	EA	2									2	27
XADZZ		BRACKET 336990-07 (80063)	EA	1									2	28
XAOZZ		FILLER, PLASTIC 336990-27 (80063)	EA	1									2	29
XADZZ		BRACKET 336990-01 (80063)	EA	1									2	30
XADZZ		PANEL 336990-13 (80063)	EA	1									2	31
XADZZ		BRACKET, RACK MOUNTING 5060-0*775* (80063)	EA	2									2	32
XADZZ		ANGLE 336990-11 (80063)	EA	2									2	33
XADZZ		LABEL, IDENTIFICATION 198571-004 (80063)	EA	1									2	34
XADZZ		COMBINING 1051A (28480)	EA	1									2	35
PAFDD		RELAYS, LATCHING 283854 (80063)	EA	1	*	*	*	*	*	*	*	*	3	
PAFDD	5961-577-6084	SEMICONDUCTOR DEVICE, DIODE IN645 (81349)	EA	27							*	*	3	1
PADZZ	5945-235-8806	RELAY, LATCHING 421-26 (00712)	EA	13							*	*	3	2
PADZZ	5905-192-3973	RESISTOR, FIXED COMPOSITION RC20GF471J (81349)	EA	26							*	*	3	3
PADZZ	4932-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	3	4
XADZZ		CIRCUIT BOARD 283854-01 (80063)	EA	1									3	5
PAFDD	5865-095-2654	CIRCUIT CARD ASSY 283879 (80063)	EA	1	*	*	*	*	*	*	*	*	4	
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE, DIODE IN645 (81349)	EA	57							*	*	4	1
PADZZ	4920-001-4107	CARD KIT H4711 (97525)	EA	1							*	*	4	2
XADZZ		CIRCUIT BOARD 283879-01 (80063)	EA	1									4	3
PAFDD	5865-093-5857	CIRCUIT CARD ASSY 283889 (80063)	EA	1	*	*	*	*	*	*	*	*	5	
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE, DIODE IN645 (81349)	EA	52							*	*	5	1
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	5	2
XADZZ		CIRCUIT BOARD 283889-01 (80063)	EA	1									5	3
PAFDD	5895-094-2287	CIRCUIT CARD ASSY 283890 (80063)	EA	1	*	*	*	*	*	*	*	*	6	
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE DIODE IN645 (81349)	EA	44							*	*	6	1
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	6	2
XADZZ		CIRCUIT BOARD 283890-01 (80063)	EA	1									6	3

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
PAFDD	5895-094-2327	CIRCUIT CARD ASSY 283891 (80063)	EA	1	*	*	*	*	*	*	*	*	7	
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE, DIODE 1N645 (81349)	EA	39							*	*	7	1
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	7	2
XADZZ		CIRCUIT BOARD 283891-01 (80063)	EA	1									7	3
AOODD		PRINTER (U7483) 336989 (80063)	EA	1									8	
PAODD		HOLDER, TAPE SUPPLY 285225-C (80063)	EA	1	*	*	*	*	*	*	*	*	8	1
PAOZZ	5305-984-4989	SCREW, MACHINE, PAN HEAD MS35206-228 (96906)	EA	4	*	*	*	*	*	*	*	*	8	2
PAOZZ	5310-839-3770	WASHER, LOCK MS535340-41 (96906)	EA	4	*	*	*	*	*	*	*	*	8	3
PAFDD	5895-036-3957	COVER ASSEMBLY 285714 (80063)	EA	1	*	*	*	*	*	*	*	*	8	4
PAFZZ	5305-984-6192	SCREW, MACHINE MS35206-204 (96906)	EA	2	*	*	*	*	*	*	*	*	8	5
PAFZZ		NUT, SELF-LOCKING, HEXAGON MS21044N06 (96906)	EA	2	*	*	*	*	*	*	*	*	8	6
PAODD	5865-093-5351	TAPE FEEDING MECHANISM 283864 (80063)	EA	1	*	*	*	*	*	*	*	*	8	7
PAOZZ	5305-489-2999	SCREW MACHINE PAN HEAD NS35206-217 (96906)	EA	4	*	*	*	*	*	*	*	*	8	8
PAOZZ		NUT, SELF-LOCKING HEXAGON MS21044N04 (969065	EA	4	*	*	*	*	*	*	*	*	8	9
PAODD		TAPE CUTTER AND APPLICATOR 285226 (80063)	EA	1	*	*	*	*	*	*	*	*	8	10
PAOZZ	5305-984-6194	SCREW, MACHINE, PAN HEAD MS35206246 (96906)	EA	2	*	*	*	*	*	*	*	*	8	11
PAOZZ	5310-809-3365	WASHER, LOCK MS535340-42(96906)	EA	2	*	*	*	*	*	*	*	*	8	12
PAOZZ	7510-134-8208	RIBBON CARTRIDGE, BLACK 1136138 (30874)	EA	1	*	*	*	*	*	*	*	*	8	13
PAOZZ		TAPE, LABELING, ADHESIVE (14800)	EA	1	*	*	*	*	*	*	*	*	8	14
PAFZZ		SOLENOID, PULL TAPE 12TM1240S0T (18482)	EA	1	*	*	*	*	*	*	*	*	8	15
PAFZZ		COLLAR, SHAFT C1-2 (12139)	EA	1	*	*	*	*	*	*	*	*	8	16
PAFZZ		SETSCREW CS-11 (12139)	EA	1	*	*	*	*	*	*	*	*	8	17
PAFZZ	5360-405-5506	SPRING, COMPRESSION LC-022-9-SS(84830)	EA	1	*	*	*	*	*	*	*	*	8	18
PAFZZ		PIN 336989-33 (80063)	EA	1	*	*	*	*	*	*	*	*	8	19
PAFZZ	5360-355-7489	SPRING, PLUNGER, RETURN 112-4 (18182)	EA	1	*	*	*	*	*	*	*	*	8	20
XADZZ		BRACKET 366989-10 (80063)	EA	1									8	21
XADZZ		CLAMP, LOOP, NYLON (06229)		EA	1								8	22

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XADZZ		SCREW, MACHINE PAN HEAD MS35206-247 (96906)	EA	2									8	23
XADZZ		WASHER, LOCK MS35340-42 (96906)	EA	1									8	24
XADZZ		SCREW, MACHINE PAN HEAD MS35290-43 (96906)	EA	1									8	25
XADZZ		NUT, SELF-LOCKING, HEXAGON MS21044N08 (96906)	EA	1									8	26
XAFZZ		HOUSING 336989-07 (80063)	EA	1									8	27
XAFZZ		SETSCREW CS-11 (12139)	EA	4									8	28
XAFZZ		SCREW, MACHINE PAN HEAD 35206-244 (96906)	EA	1									8	29
XAFZZ		WASHER LOCK MS35340-42 (96906)	EA	2									8	30
XAFZZ		GUIDE 366989-11 (80063)	EA	1									8	31
XAFZZ		SPACER, TEFLON 336989-57 (80063)	EA	1									8	32
XAFZZ		RING, RETAINING MS16633-1012 (96906)	EA	1									8	33
XAFZZ		PIN 336989-31 (80063)	EA	1									8	34
XAFZZ		SPRING, EXTENSION E1-012B-6-SS (84830)	EA	2									8	35
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS21044N04 (72962)	EA	2									8	36
XAFZZ		SCREW, MACHINE, PAN HEAD MS35190-8 (96906)	EA	2									8	37
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-205 (96906)	EA	2									8	38
XAFZZ		BRACKET 336989-15 (8063)	EA	1									8	39
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-228 (96906)	EA	2									8	40
XAFZZ		WASHER, LOCKING MS35340-41 (96906)	EA	2									8	41
PAFZZ		GUIDE (L/H) 336989-41 (80063)	EA	1	*	*	*	*	*	*	*	*	8	42
PAFZZ		GUIDE (R/H) 336989-43 (80063	EA	1	*	*	*	*	*	*	*	*	8	43
PAFZZ	5305-988-1169	SCREW, MACHINE, MS135206-211 (96906)	EA	2	*	*	*	*	*	*	*	*	8	44
PAFDD		COUNTER DECADE, PRINTER CD10E (73760)	EA	1	*	*	*	*	*	*	*	*	8	45
PAFZZ		NUT, SELF-LOCKING, HEXAGON MS21044N08 (96906)	EA	2	*	*	*	*	*	*	*	*	8	46
PAFZZ	5310-515-8058	WASHER, FLAT AN960-8 (88404)	EA	2	*	*	*	*	*	*	*	*	8	47
PAFZZ		SPACER, TEFLON 336989-61 (80063)	EA	3	*	*	*	*	*	*	*	*	8	48
PAFZZ		PIN 336989-27 (80063)	EA	1	*	*	*	*	*	*	*	*	8	49

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		PLATE 336989-65 (80063)	EA	1									8	50
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-246 (96906)	EA	2									8	51
XAFZZ		WASHER, LOCKING MS135340-42 (96906)	EA	2									8	52
XAFZZ		WASHER, FLAT AN960-8 (88044)	EA	2									8	53
XAFZZ		SETSCREW, FLAT POINT NAS1081C04A4N (80205)	EA	5									8	54
XAFZZ		TERMINAL BOARD 2202-C (88245)	EA	1									8	55
XAFZZ		CIRCUIT BOARD 33698-63 (88245)	EA	1									8	56
PAFZZ		SEMICONDUCTOR DEVICE, DIODE 1N4586 (81349)	EA	5	*	*	*	*	*	*	*	*	8	57
PAFZZ		SCREW, MACHINE, PAN HEAD MS35206-203 (96906)	EA	2	*	*	*	*	*	*	*	*	8	58
PAFZZ		CONNECTOR, PLUG, ELECTRICAL PT06P-12-98P (77820)	EA	1	*	*	*	*	*	*	*	*	8	59
XAFZZ		INSULATION SLEEVING, VINYL MIL-1-7444 (81349)	EA	1	*	*	*	*	*	*	*	*	8	59 P2
XAFZZ		WIRE, INSULATED, SIZE 24 MIL-W-16878 (81349)	EA	V	*	*	*	*	*	*	*	*	8	60
XAFZZ		CAPACITOR, FIXED ELECTROLYTIC TYPE052 (81349)	EA	2	*	*	*	*	*	*	*	*	8	61
XAFZZ		CLIP MS17160-132 (96906)	EA	2									8	62
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-228 (96906)	EA	4									8	63
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS2104406 (96906)	EA	4									8	64
XAFZZ		TERMINAL, STANDOFF 756 (81312)		EA	5								8	65
XAFZZ		SCREW, MACHINE, PAN HEAD MS35190-12 (96906)	EA	5									8	66
PAFZZ	5905-985-6317	RESISTOR, FIXED WW RW79U10R0F (81349)	EA	1	*	*	*	*	*	*	*	*	8	67
PAFZZ	5905-903-7985	RESISTOR, FIXED, WW RW794R99F (81349)	EA	1	*	*	*	*	*	*	*	*	8	68
PAFZZ	5930-156-3635	SWITCH, TOGGLE 8866K2 (17465)	EA	2	*	*	*	*	*	*	*	*	8	69
XAFZZ		BRACKET 336989-23 (80063)	EA	1									8	70
XAFZZ		SCREW, MACHINE PAN HEAD MS35190-27 (96906)	EA	2									8	71
XAFZZ		NUT, SELF-LOCKING HEXAGON MS21044N06 (96906)	EA	2									8	72
XAFZZ		LABEL, IDENTIFICATION 198571-004 (80063)	EA	1									8	73
XAFZZ		ROLLER BASE PLATE 336989-30 (80063)	EA	1									8	74
XAFZZ		DISK 336989-25 (80063)	EA	1									8	75

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		SPACER, TEFLON 336984-55 (80063)	EA	1									8	76
XAFZZ		PIN 336989-47 (80063)	EA	1									8	77
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS21044N04 (96906)	EA	1									8	78
XAFZZ		PLATE, IDENTIFICATION 19855-001 (80063)	EA	1									8	79
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-214 (96906)	EA	2									8	80
XAFZZ		NUT, SELF, LOCKING HEXAGON MS121044N04 (96906)	EA	2									8	81
XAFZZ		BLOCK 336989-17 (80063)	EA	2									8	82
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-214 (96906)	EA	2									8	83
XAFZZ		WASHER, LOCKING MS35340-40 (96906)	EA	2									8	84
XAFZZ		FEED PLATE ASSEMBLY 285215-000 (80063)	EA	1									8	85
XAFZZ		SPRING, RETAIN/BRAKE, RH 1128404 (30874)	EA	1									8	86
XAFZZ		SPRING, RETAIN/BRAKE, LH 1128403 (30874)	EA	1									8	87
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-214 (96906)	EA	2									8	88
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS21044N04 (96906)	EA	2									8	89
XAFZZ		FEED PLATE ADAPTER 336989-50 (80063)	EA	1									8	90
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-203 (96906)	EA	1									8	91
XAFZZ		WASHER, LOCKING MS35340- 39 (96906)	EA	1									8	92
XAFZZ		WASHER, FLAT AN960-2 (88044)	EA	1									8	93
XAFZZ		PLATE 336989-03 (80063)	EA	2									8	94
XAFZZ		SCREW, MACHINE, PAN HEAD MS35190-28 (96906)	EA	4									8	95
XAFZZ		WASHER, FLAT AN960 (88044)	EA	4									8	96
XAFZZ		NUT SELF-LOCKING, HEXAGON MS21044N06 (96906)	EA	4									8	97
XAFZZ		CLAMP, LOOP, NYLON (06229)		EA	1								8	98
XAFDD		DISK 336989-21 (80063)	EA	4									8	99
XAFZZ		GUIDE 336989-51 (80063)	EA	1									8	100
XAFZZ		PLATE 33698-01 (80063)	EA	1									8	101
PAODD	5865-093-5853	HOLDER, TAPE SUPPLY 285225-000 (80063)	EA	1									9	

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS2104NN3 (96906)	EA	1									9	1
XAFZZ		SCREW, SHOULDER 285225-15 (80063)	EA	1									9	2
XAFZZ		BUSHING, OUTER, TEFLON 285225-03 (80063)	EA	1									9	3
XAFZZ		PLATE 285225-01 (80063)	EA	1									9	4
XAFZZ		HINGE, TEFLON 285225-97 (80063)	EA	1									9	5
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-215 (96906)	EA	2									9	6
XAFZZ		CAPSTAN, STL. CRES 285225-13 (80063)	EA	2									9	7
XAFZZ		CAPSTAN, STL. CRES 285225-21 (80063)		EA	1									9 8
XAFZZ		CASE 285225-27 (80063)	EA	1									9	9
XAFZZ		KNOB 285225-17 (80063)	EA	1									9	10
XAFZZ		COVER 285225-31 (00063)	EA	1									9	11
XAFZZ		KNOB, NYLATRON 285225-11 (80063)	EA	1									9	12
XAFZZ		WASHER, TEFLON 285225-23 (80063)	EA	1									9	13
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-214 (96906)	EA	1									9	14
XAFZZ		LOCKWASHER MS35340-40 (96906)	EA	1									9	15
XAFZZ		HASP 285225-25 (0063)	EA	1									9	16
XAFZZ		PIN, COTTER MS24665-132 (96906)	EA	1									9	17
XAFZZ		PIN, STRAIGHT, HEADED MS20392-1C43 (96906)	EA	1									9	18
XAFZZ		HINGE 285225-05 (80063)	EA	1									9	19
XAFZZ		SCREW, MACHINE PAN HEAD MS35206-215 (96906)	EA	2									9	20
XAFZZ		LOCKWASHER MS35340-40 (96906)	EA	2									9	21
PAFDD		COVER, ASSEMBLY 285714 (00063)	EA	1	*	*	*	*	*	*	*	*	10	
PAFZZ		KNOB 97 (80813)	EA	1	*	*	*	*	*	*	*	*	10	1
PAFZZ		SCREW, MACHINE, MS35206-245 (96906)	EA	1	*	*	*	*	*	*	*	*	10	2
PAFZZ		WASHER, LOCKING MS35340-42 (96906)	EA	1	*	*	*	*	*	*	*	*	10	3
PAFZZ		WASHER, FLAT AN960-8 (88044)	EA	1	*	*	*	*	*	*	*	*	10	4
PAFZZ	5325-202-1311	LATCH 1-L (80813)	EA	1	*	*	*	*	*	*	*	*	10	5

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
PAFZZ		GUIDE 1-G-1 (80813)	EA	1	*	*	*	*	*	*	*	*	10	6
PAFZZ	5310-209-5606	WASHER 1-W (80813)	EA	1	*	*	*	*	*	*	*	*	10	7
PAFZZ		RIVET 1-R-078 (80813)	EA	1	*	*	*	*	*	*	*	*	10	8
XAFZZ		HINGE, BUTT MS20257C1-500 (96906)	EA	1									10	9
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-214 (96906)	EA	6									10	10
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS21044N04 (96906)	EA	6									10	11
XAFZZ		DOOR, PLASTIC SHEET 336989-05 (90227)	EA	1									10	12
XAFZZ		SCREW, MACHINE, FLAT HEAD MS35190-223 (96906)	EA	4									10	13
XAFZZ		WASHER, FLAT AN960-4 (88044)	EA	4									10	14
XAFZZ		NUT, SELF-LOCKING MS21044N04 (96906)	EA	4									10	15
XAFZZ		BOX 285714-10 (80063)	EA	1									10	16
XAFZZ		ANGLE 285714-01 (80063)	EA	1									10	17
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-203 (96906)	EA	2									10	18
XAFZZ		NUT, SELF-LOCKING, HEXAGON 22NM-82 (72962)	EA	2									10	19
XAFZZ		ANGLE 285714-03 (80063)	EA	1									10	20
XAFZZ		SCREW, MACHINE, FLAT HEAD MS35241-23 (96906)	EA	2									10	21
XAFZZ		NUT, SELF-LOCKING, HEXAGON 22NM-40 (72962)	EA	2									10	22
XAFZZ		STUD, CLENCH 1-S-063-093 (80813)	EA	1									10	23
PAODD	5865-093-5851	TAPE FEEDING MECHANISM 283864 (80063)	EA	1	*	*	*	*	*	*	*	*	11	
XADZZ		PLATE 283864-11 (80064)	EA	1									11	1
XADZZ		SCREW, MACHINE, PAN HEAD MS35206-215 (96906)	EA	2									11	2
XADZZ		WASHER, LOCKING MS3540-40 (96906)	EA	2									11	3
PADZZ		SPRING 283864-37 (80063)	EA	1							*	*	11	4
XADZZ		COVER 283864-07 (80063)	EA	1									11	5
XADZZ		BLOCK 283864-03 (80063)	EA	1									11	6
XADZZ		SCREW, CAP, SOCKET HEAD MS16997-11 (96906)	EA	1									11	7
XADZZ		SCREW, CAP, SOCKET HEAD MS16997-13 (96906)	EA	1									11	8

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XADZZ		WASHER, LOCKING MS35340-40 (96906)	EA	2									11	9
XADZZ		COVER 283864-27 (80063)	EA	1									11	10
XADZZ		PLATEN 283864-30 (80063)	EA	1									11	11
XADZZ		SCREW, MACHINE, PAN HEAD MS35206-218	EA	1									11	12
XADZZ		BRACKET 283864-31 (80063)	EA	1									11	13
XADZZ		SCREW, MACHINE, PAN HEAD MS35206-201 (96906)	EA	2									11	14
XADZZ		WASHER, LOCKING MS35340-39 (96906)	EA	2									11	15
PAOZZ	5865-093-5851	ROLLER, RUBBER, GEAR HUB 1117840 (30874)	EA	3	*	*	*	*	*	*	*	*	11	16
PAOZZ		KNOB 283864-13 (80063)	EA	1	*	*	*	*	*	*	*	*	11	17
PAOZZ		SETSCREW CS-2 (12139)	EA	1	*	*	*	*	*	*	*	*	11	18
PAOZZ		PIN 283864-21 (80063)	EA	1	*	*	*	*	*	*	*	*	11	19
PAOZZ		PIN 283864-23 (80463)	EA	2	*	*	*	*	*	*	*	*	11	20
PAOZZ		NUT, SELF-LOCKING MS21044N4 (96906)	EA	2	*	*	*	*	*	*	*	*	11	21
PAOZZ		CLUTCH, UNI-DIRECTIONAL CCW 2500-2 BIER-CHANOUX CORP.	EA	1	*	*	*	*	*	*	*	*	11	22
PAOZZ		COLLAR, SHAFT C1-2 (12139)	EA	1	*	*	*	*	*	*	*	*	11	23
PAOZZ	5360-349-8396	SPRING, EXTENSION LE-018A-3 (84830)	EA	1	*	*	*	*	*	*	*	*	11	24
PAOZZ		SCREW, MACHINE, PAN HEAD MS35206-205 (96906)	EA	2	*	*	*	*	*	*	*	*	11	25
PAOZZ	5310-687-6293	NUT, PLAIN, HEXAGON MS35649-22 (96906)	EA	2	*	*	*	*	*	*	*	*	11	26
XADZZ		LEVER 283864-01 (80063)	EA	2									11	27
XADZZ		PIN 283864-15 (80063)	EA	2									11	28
XADZZ		COLLAR C1-2 (12139)	EA	2									11	29
XADZZ		SETSCREW CS-2 (12139)	EA	2									11	30
XADZZ		FLANGE 283864-05 (80063)	EA	1	*	*	*	*	*	*	*	*	11	31
PAOZZ		CLUTCH, UNI-DIRECTIONAL, CCW 2500-2 BIER-CHANOUX CORP.	EA	1	*	*	*	*	*	*	*	*	11	32
PAOZZ		SETSCREW CS-2 (12139)	EA	2	*	*	*	*	*	*	*	*	11	33
PAOZZ		SOLENOID, ROTARY H-2159-031 (81840)	EA	1	*	*	*	*	*	*	*	*	11	34
XAOZZ		PIN 283864-33 (80063)	EA	2									11	35

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAOZZ		SPACER, TEFLON 283864-43 (80063)	EA	1									11	36
XAOZZ		PIN 283864-25 (80063)	EA	1									11	37
XADZZ		SCREW, NYLON N-832x3/4 (95987)	EA	1									11	38
XADZZ		NUT, PLAIN, HEXAGON MS35649-82 (96906)	EA	1									11	39
XAFZZ		TERMINAL, STANDOFF 756 (81312)		EA	2								11	40
XAFZZ		WASHER, LOCKING MS35340-40 (96906)	EA	2									11	41
XAFZZ		LUG 283864-17 (80063)	EA	1									11	42
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-217 (96906)	EA	2									11	43
PAFDD	5315-282-1187	PAPER CUTTER 284512 (80063)	EA	1	*	*	*	*	*	*	*	*	12	
XAFZZ		PIN, STRAIGHT, HEADLESS AN122676 (88044)	EA	1									12	1
XAFZZ		PLATE, UPPER 284542-05 (80063)	EA	1									12	2
XAFZZ		SCREW 284542-10 (80063)	EA	1									12	3
XAFZZ		SETSCREW NAS1081-04A3N (80205)	EA	1									12	4
XAFZZ		PLATE, LOWER 284542-03 (80063)	EA	1									12	5
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-214 (96906)	EA	1									12	6
XAFZZ		WASHER, LOCKING MS35340-40 (96906)	EA	1									12	7
XAFZZ		PIN 28542-07 (80063)	EA	1									12	8
PAFZZ		SOLENOID, ACTUATOR 8TM84050T (18482)	EA	1	*	*	*	*	*	*	*	*	12	9
PAFZZ	5360-256-3719	SPRING 111-4 (18482)	EA	1	*	*	*	*	*	*	*	*	12	10
PAFZZ		BRACKET 28452-01 (80063)	EA	1	*	*	*	*	*	*	*	*	12	11
PAFZZ		SCREW, MACHINE, PAN HEAD MS35206-217 (96906)	EA	1	*	*	*	*	*	*	*	*	12	12
PAFZZ		WASHER, LOCKING MS35340-40 (96906)	EA	1	*	*	*	*	*	*	*	*	12	13
PAODD	5865-093-5852	TAPE CUTTER AND APPLICATOR 285226-000 (80063)	EA	1	*	*	*	*	*	*	*	*	13	
XAFZZ		LINKAGE 285226-23 (80063)	EA	1									13	1
XAFZZ		RETAINING RING 5133-12 (79136)	EA	4									13	2
XAFZZ		PIN 285226-13 (80063)	EA	1									13	3
XAFZZ		SCREW 285226-15 (80063)	EA	1									13	4

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		NUT, SELF-LOCKING MS2104404 (96906)	EA	1									13	5
XAFZZ		SPRING, BERYLLIUM COPPER STRIP 285226-31 (80063)	EA	1									13	6
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-201 (96906)	EA	2									13	7
XAFZZ		EAR 285226-25 (80063)	EA	1									13	8
XAFZZ		SCREW, MACHINE, MS35206-213 (96906)	EA	2									13	9
XAFZZ		WASHER, LOCK-SPRING HELICOIL MS35340-40 (96906)	EA	2									13	10
PAODD	5895-094-2468	GUIDE 285226-27 (80063)	EA	1	*	*	*	*	*	*	*	*	13	11
PAODD		SCREW, MACHINE, PAN HEAD MS5206-217 (96906)	EA	1	*	*	*	*	*	*	*	*	13	12
PAODD		NUT, SELF-LOCKING, HEXAGON MS2104404 (96906)	EA	1	*	*	*	*	*	*	*	*	13	13
XAFZZ		EYE 285226-05 (80063)	EA	1									13	14
XAFZZ		SCREW, MACHINE, PAN HEAD MS35206-217 (96906)	EA	2									13	15
XAFZZ		WASHER, LOCK-SPRING HELICOIL MS35340-40 (96906)	EA	2									13	16
XAFZZ		SETSCREW, SOCKET DRIVE NAS108/C06D12N (80205)	EA	1									13	17
XAFZZ		NUT, PLAIN HEXAGON MS35649-62 (96906)		EA	1								13	18
XAFZZ		LUG 285226-07 (80063)	EA	2									13	19
PAOZZ		SOLENOID, PULL TYPE 12TM124-50T (18462)	EA	2	*	*	*	*	*	*	*	*	13	20
PAOZZ	5360-355-7489	SOLENOID RETURN SPRING 112-4 (16482)	EA	2	*	*	*	*	*	*	*	*	13	21
XAFZZ		LINK 285226-01 (80063)	EA	1									13	22
PAOZZ		SCREW 285226-11 (80063)	EA	1	*	*	*	*	*	*	*	*	13	23
PAOZZ		NUT, SELF-LOCKING, HEXAGON MS2104404 (96906)	EA	1	*	*	*	*	*	*	*	*	13	24
XAFZZ		LEVER 285226-03 (80063)	EA	1									13	25
XAFZZ		SCREW, MACHINE, FLAT HEAD MS35190-224 (96906)	EA	2									13	26
XAFZZ		NUT, SELF-LOCKING, HEXAGON MS2104404 (96906)	EA	2									13	27
XAFZZ		BASE 285226-17 (80063)	EA	1									13	28
XAFZZ		BRACKET 285226-21 (80063)	EA	1									13	29
XAFZZ		SETSCREW, SOCKET, DRIVE, CUP PT NAS1081C02D4N (80205)	EA	1									13	30
PAODD		PT1561, TC432 PROGRAMMER 336467 (80063)	EA	1	*	*	*	*	*	*	*	*	14	

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100	(10) ILLUSTRATION (A) FIG.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		COVER 336467-37 (80063)	EA	1									14	1
XAFZZ		PLASTIC, METHACRYLIATE 0.188 THK. TYPE2423 (77902)	EA	1									14	2
XAFZZ		NUMERIC INDICATOR ASSEMBLY 283809-000 (80063)	EA	9									14	3
XAFZZ		SPACER 336467-11 (80063)	EA	2									14	4
PAOZZ		SWITCH, BINARY CODED, DOUBLE POLE 199929 (97525)	EA	9	*	*	*	*	*	*	*	*	14	5
XAFZZ		SPACER, SERIES 6000 SWITCH C193263 (97525)	EA	8									14	6
XAFZZ		MOUNTING HARDWARE KIT 189055-13 (97525)	EA	1									14	7
AFFZZ	5895--04-2485	INDICATOR LIGHT ASSEMBLY, READ	EA	1									14	8
PAFZZ	5930-854-7864	SWITCH, ASSEMBLY, 2 POLE, MOMENTARY 2D2 or 10EF1 (91929 or 96192)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		LIGHT, INDICATOR 10-A1 or 10EA1C1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6210-460-7305	LENS, INDICATOR LIGHT 10-16-00 or 10ER256 (96182)	EA	1	*	*	*	*	*	*		*		
PAFZZ	6210-058-1439	DIFFUSER, LIGHT, SINGLE INDICATION 10-513 or 10EN1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6240-155-7857	LAMP, INCANDESCENT MS25237-328 (96906)	EA	2	*	*	*	*	*	*	*	*		
PAFZZ	6605-942-9071	FILTER, LAMP, GREEN MS25237-32810-H or 10EL(G) (98182)	EA	2	*	*	*	*	*	*	*	*	*	
PAFZZ	5905-110-0620	RESISTOR, FIXED COMPOSITION RCR07G102JS (81349)	EA	1	*	*	*	*	*	*	*	*	14	9
PAFZZ		INDICATOR LIGHT ASSEMBLY, CODE	EA	1									14	10
PAFZZ	5930-959-3427	SWITCH ASSEMBLY, 2 POLE, MOMENTARY 2D2 or 10EF1 (91929 or 96192)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6605-941-0561	LIGHT, INDICATOR 10-A1 or 10EA1C1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		LENS, INDICATOR LIGHT 10-16-00 or 10ER256 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		DIFFUSER, LIGHT, SINGLE INDICATION 10-513 or 10EN1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAOZZ		LAMP, INCANDESCENT MS25237-320 (96906)	EA	2	*	*	*	*	*	*	*	*		
PAOZZ		FILTER, LAMP, AMBER 10-A or 10EL(A) (96182)	EA	2	*	*	*	*	*	*	*	*	*	
PAFZZ		RESISTOR, FIXED, COMPOSITION RCR07CF102J (81349)	EA	1	*	*	*	*	*	*	*	*	14	11
AFFZZ		INDICATOR LIGHT ASSEMBLY, AC POWER	EA	1									14	12
PAFZZ	5930-846-7717	SWITCH ASSEMBLY, 4 POLE, MOMENTARY 2D9 of 10EF2 or 10-8 (91929 or 96192)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	5930-949-2311	LIGHT, INDICATOR 10B2 or 10EA3C1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	5930-949-2311	LENS, INDICATOR LIGHT 10-16-00 or 10ER256 (961822)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		DIFFUSER, LIGHT, SINGLE INDICATION 10-513 or 10EN1 (96182)	EA	1	*	*	*	*	*	*	*	*		

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
PAOZZ	6240-155-7836	LAMP,INCANDESCENT MS25237-327 (96906)	EA	2	*	*	*	*	*	*	*	*		
AFFZZ		INDICATOR LIGHT ASSEMBLY, UNCODED/CODED	EA	1									14	13
PAFZZ	6210-956-8094	LIGHT,INDICATOR 10-C3 OR 10EA2C1 (96182)	EA	1	*	*	*	*	*	*	*	*	*	
PAFZZ	6605-941-0562	LENS,INDICATOR LIGHT 10-16-00 OR 10ER256 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	5930-891-2585	DIFFUSER,LIGHT,SPLIT INDICATION 10-511 OR 10EN2 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6210-954-8839	FILTER,LAMP,GREEN 10-G OR 10EL(G) (96182)	EA	4	*	*	*	*	*	*	*	*		
PAOZZ	6240-155-7836	LAMP,INCANDESCENT MS25237-328 (96906)	EA	4	*	*	*	*	*	*	*	*		
AFFZZ		INDICATOR LIGHT ASSEMBLY, CHECK/VERIFY	EA	1									14	14
PAFZZ	6210-956-8094	LIGHT,INDICATOR 10-C3 OR 10EA2C1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		LENS,INDICATOR LIGHT 10-16-00 OR 10ER256 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		DIFFUSER,LIGHT,SPLIT INDICATION 10-511- OR 10EN2 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		FILTER,LAMP,GREEN 10-G OR 10EL(G) (96182)	EA	4	*	*	*	*	*	*	*	*		
PAOZZ		LAMP,INCANDESCENT MS25237-328	EA	4	*	*	*	*	*	*	*	*		
AFFZZ		INDICATOR LIGHT,ASSMEBLY,ERROR	EA	1									14	15
PAFZZ		LIGHT,INDICATOR 10-C3 OR 10EA2C1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		LENS,INDICATOR LIGHT 10-16-00 OR 10ER256 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		DIFFUSER,LIGHT SINGLE INDICATION 10-513 OR 10EN1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ	6605-942-9072	FILTER,LAMP,RED 10-R OR 10EL(R) (96182)	EA	2	*	*	*	*	*	*	*	*		
PAOZZ	6240-155-7836	LAMP,INCANDESCENT MS25237-328 (96906)	EA	2	*	*	*	*	*	*	*	*		
AFFZZ		INDICATOR LIGHT ASSEMBLY, PRINTING/COMPLETE	EA	1									14	16
PAFZZ	6210-956-8094	LIGHT,INDICATOR 10-C3 OR 10EA2C1 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		LENS,INDICATOR LIGHT 10-16-00 OR 10ER256 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		DIFFUSER,LIGHT,SPLIT INDICATION 10-511 OR 19EN2 (96182)	EA	1	*	*	*	*	*	*	*	*		
PAFZZ		FILTER,LAMP,GREEN 10-G OR 10EL(G) (96182)	EA	2	*	*	*	*	*	*	*	*		
PAFZZ		FILTER,LAMP,AMBER 10-A OR 10EL(A) (96182)	EA	2	*	*	*	*	*	*	*	*		
PAOZZ	6240-155-7836	LAMP,INCANDESCENT MS2357-328 (96906)	EA	4	*	*	*	*	*	*	*	*		
PAFZZ	5930-984-9883	SWITCH,TOGGLE,DPST MS25307-222 (96906)	EA	1	*	*	*	*	*	*	*	*		
PAODD		FIXTURE,HOLDING AND EJECTING	EA	1	*	*	*	*	*	*	*	*	14	18

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		HANDLE, PANEL 1075-1 (71279)	EA	1									14	19
XAFZZ		SCREW, CAP, SOCKET HEAD	EA	2									14	20
XAFZZ		ANGLE 336467-03 (80063)	EA	2									14	21
XAFZZ		ANGLE 334647-01 (80063)	EA	1									14	22
XAFZZ		ANGLE 334647-02 (80063)	EA	1									14	23
XAFZZ		PRINTER/COVER MOUNTING PLATE SUB-ASSEMBLY 336467-10 (80063)	EA	1									14	24
XAFZZ		HANDLE SET, DRAWER 114613-01-A (97525)	EA	1									14	28
XAFZZ		HANDLE SET, DRAWER 114613-02-A (97525)	EA	1									14	29
XAFZZ		PLATE, IDENTIFICATION 170927-003 (80063)	EA	1									14	30
XAFZZ		NYLATRON, G.S. L-P-410	EA	1									14	31
XAFZZ		SHOULDER SCREW 4310 (00141)	EA	2									14	32
XAFZZ		WASHER 36467-53 (80063)	EA	2									14	33
XAFZZ		PANEL, FRONT 188788-014 (80063)	EA	1									14	34
PAODD		PT1561, TC432 PROGRAMMER 336467 (80063)	EA	1	*	*	*	*		*	*	*	15	
XAOZZ		CARD FILE S116839 (97525)	EA	1									15	1
PAFZZ	5961-842-9864	SEMICONDUCTOR DEVICE,DIODE 1N914 (81349)	EA	1	*	*	*	*	*	*	*	*	15	2
PAFZZ	5905-106-1249	RESISTOR, FIXED,COMPOSITION RCR07G510JS (81349)	EA	1	*	*	*	*	*	*	*	*	15	3
PAFZZ		CAPACITORS, FIXED K1J75K5 (05397)	EA	1	*	*	*	*	*	*	*	*	15	4
PAFZZ	590-022-8402	COIL, RADIO FREQUENCY 9330-24 (74693)	EA	2	*	*	*	*	*	*	*	*	15	5
XAFZZ		SLIDE, CHASSIS SECTION,STATIONARY TYPE C-114-18 (98376)	EA	1									15	6
XAFZZ		STRIP 336467-35 (80063)	EA	1									15	7
PAFZZ	5935-854-3197	CONNECTOR, RECEP, ELECTRICAL PT00A-12-985 (77820)	EA	1	*	*	*	*	*	*	*	*	15	8
XAFZZ		PLASTIC, LAMINATED SHEET MIL-P-18177 (81349)	EA	1									15	9
XAFZZ		BRACKET 336467-45 (80063)	EA	1									15	10

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(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		BRACKET 33467-51 (80063)	EA	1									15	11
XAFZZ		SLIM LINE SCREEN 69-93-1 (92702)	EA	2									15	12
XAFZZ		GROMMET,RUBBER MS35489-6 (96906)	EA	1									15	12A
XAFZZ		FAN BC2206F-Z (92702)	EA	2									15	13
PAFZZ		CAPACITOR,FIXED 663F10594W (81349)	EA	2	*	*	*	*	*	*	*	*	15	14
XAFZZ		TERMINAL,STAND-OFF 750 (81312)	EA	5									15	15
PAFZZ	5940-296-5946	RELAY,ARMITURE 2BR-1735 (02289)	EA	1	*	*	*	*	*	*	*	*	15	16
XIFZZ		SOCKET,RELAY HRT-202M (02289)	EA	1									15	17
XIFZZ		COVER 336467-33 (80063)	EA	1									15	18
XAFZZ		STRIP,AL. PLATE 336467-47 (80063)	EA	2									15	19
XAFZZ		STRIP 336467-47 (80063)	EA	1									15	20
PAFZZ	6625-195-1635	POWER SUPPLY 6218-A (28480)	EA	1	*	*	*	*	*	*	*	*	15	21
PAFZZ	6130-499-2527	POWER SUPPLY 60066-A (28480)	EA	1	*	*	*	*	*	*	*	*	15	22
PAFZZ	6350-401-9087	POWER SUPPLY 602468B (28480)	EA	1	*	*	*	*	*	*	*	*	15	23
MDDZZ		LABEL,IDENTIFICATION 198571-004 (80063)	EA	1									15	24
PAOZZ	5920-848-8882	FUSE,CARTRIDGE AGC-2 (71400)	EA	1	*	*	*	*	*	*	*	*	15	25
PAOZZ	5920-280-9545	FUSE,CARTRIDGE,SLOW-BLOW MDL-1/8 (71400)	EA	1	*	*	*	*	*	*	*	*	15	26
PAOZZ	5920-280-9328	FUSE,CARTIDGE,SLOW-BLOW MDL-1-1/2 (71400)	EA	1	*	*	*	*	*	*	*	*	15	27
PAFZZ	5920-462-3342	FUSE HOLDER 342001 (75915)	EA	3	*	*	*	*	*	*	*	*	15	28
PAFZZ	5935-660-5207	CONNECTOR,RECEPTACLE,ELECTRICAL 5278 (74545)	EA	1	*	*	*	*	*	*	*	*	15	29
PAFZZ	5935-061-7829	CONNECTOR,RECEPTACLE,ELECTRICAL PT00A-8-4S (77820)	EA	1	*	*	*	*	*	*	*	*	15	30
XAFZZ		TERMINAL,STUD 7201 (05791)	EA	1									15	31
XAFZZ		NUT,PLAIN,HEXAGON MS51967-2 (96906)	EA	2									15	32
XAFZZ		WASHER,LOCKING MS3430-44 (96906)	EA	1									15	33
XAFZZ		WASHER,FLAT AN960-516L (88044)	EA	1									15	34
XAFZZ		PANEL 336467-14 (80063)	EA	1									15	35
XAFZZ		BRACE 336467-25 (80063)	EA	2									15	36

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		BRACKET 336467-05 (80063)		EA	2									15	37
XAFZZ		SCREW,MACHINE,PAN HEAD 336467-70 (80063)		EA	2									15	38
XAFZZ		WASHER,LOCKING MS35340-44 (96906)		EA	2									15	39
XAFZZ		PACKING,PREFORMED MS29513-008 (96906)		EA	2									15	40
XAFZZ		CABINET,ELECTRICAL EQUIPMENT 888442-SA OR X1412 (12168 OR 06514)		EA	1									15	41
PAFZZ		CABLE ASSEMBLY,POWER ELECTRIC 6706 (73545)		EA	1	*	*	*	*	*	*	*	*	15	42
PAODD	5895-094-2485	FIXTURE,HOLDING AND EJECTING 283841 (80063)		EA	1	*	*	*	*	*	*	*	*	16	
XAFZZ		KNOB 283841-21 (80063)		EA	1	*	*	*	*	*	*	*	*	16	1
XAFZZ		PIN,COTTER MS24665-132 (96906)		EA	2	*	*	*	*	*	*	*	*	16	2
XAFZZ		PIN,STRAIGHT,HEADED MS20392-2-C17 (96906)		EA	2									16	3
XAFZZ		ROD 283841-07 (80063)		EA	1									16	4
XAFZZ		SPRING,COMPRESSION LO-032E-15 (84830)		EA	1									16	5
XAFZZ		GUIDE,PLASTIC ROD 283841-17 (80063)		EA	1									16	6
XAFZZ		PIN,COTTER MS24665-132 (96906)		EA	1									16	7
XAFZZ		PIN,STRAIGHT,HEADED MS2039020C33 (96906)		EA	1									16	8
XAFZZ		ARM 283841-01 (80063)		EA	1									16	9
XAFZZ		NUT,PLAIN,HEXAGON MS51967-2 (96906)		EA	1									16	10
XAFZZ		PLUNGER,PLASTIC ROD 283841-23 (80063)		EA	1									16	11
XAFZZ		LINK 283841-11 (80063)		EA	1									16	12
XAFZZ		CONNECTOR,PIGTAIL ASSEMBLY 283841-10 (80063)		EA	1									16	13
XAFZZ		PLATE ASSEMBLY 283841-30 (80063)		EA	1									16	14
XAFZZ		SETSCREW,SELF-LOCKING NAS108108D3N (80205)		EA	4									16	15
XAFZZ		TA383,CONNECTOR,ADAPTER,ELECTRIC P62998-01 (80063)		EA	1									16	16
XAFZZ		CONNECTOR,PIGTAIL ASSEMBLY 283841-10 (80063)		EA	1									16	17
XAFZZ		CONNECTOR,PIGTAIL ASSEMBLY 283841-10 (80063)		EA	1									16	17
XAFZZ		TA386,CONNECTOR,RECEPTACLE ELECTRICAL P69901-002 (80063)		EA	1									16	18
XAFZZ		PLATE 283841-05 (80063)		EA	1									16	19
XAFZZ		SLEEVE,PLASTIC ROD 283841-15 (80063)		EA	1									16	20

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		WIRE,INSULATED,SIZE 24 (0.024), WHITE,TYPE E MIL-W-16878 (81349)		EA	V									16	21
XAFZZ		LACING,TAPE,NYLON MIL-T-713 (81349)		EA	V									16	22
XAFZZ		SLEEVING MIL-1-7444 (81349)		EA	V									16	23
XADZZ		ENCAPSULATION COMPOUND,GREEN 4169 (12405)		EA	V									16	24
XADZZ		CURING-AGENT 3471 (12405)		EA	V										
XADZZ		RESIN DEFORMER,PAR INDUSTRIES 1 (PAR INDUSTRIES)		EA	V										
XAFZZ		SHOULDER SCREW 4310 (12139)		EA	1									16	25
XAFZZ		PIN,SPRING MS16562-192 (96906)		EA	1									16	26
XAFZZ		STOP 283841-13 (80063)		EA	1									16	27
XAFZZ		INSERT MS212080F1-10 (96906)		EA	2									16	28
PAFDD		CARD FILE S116839 (97525)		EA	1									17	
PAFDD	6350-485-2951	CIRCUIT CARD ASSY 283822-000 (80063)		EA	1	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2692	CIRCUIT CARD ASSY 283816-000 (80063)		EA	2	*	*	*	*	*	*	*	*		
PAFDD		TWENTY-FOUR INVERTERS D0101 (97525)		EA	8	*	*	*	*	*	*	*	*		
PAFDD	4920-435-5241	EIGHT 4 INPUT NAND GATES AND ONE 3 INPUT DIODE D4007 (97525)		EA	6	*	*	*	*	*	*	*	*		
PAFDD	4920-435-5184	SIXTEEN 2-INPUT NAND GATES-DTL D4004 (97525)		EA	12	*	*	*	*	*	*	*	*		
PAFDD	4920-435-5244	TWENVE 3-INPUT NAND GATES D4068 (97525)		EA	16	*	*	*	*	*	*	*	*		
PAFDD	4920-435-5287	TWO 8-INPUT NAND GATES WITH FOUR 4 INPUT-ONE EXPANDER D4031 (97525)													
PAFDD	4920-031-9035	TWELVE RF LATCH FLIP FLOPS-DTL D4018 (97525)		EA	5	*	*	*	*	*	*	*	*		
PAFDD	6350-483-5966	ROM II 283824-000 (80063)		EA	1	*	*	*	*	*	*	*	*		
PAFDD	4920-435-5190	EIGHT 4-INPUT CAPACITY DRIVER NAND GATES-DTL D4005 (97525)		EA	6	*	*	*	*	*	*	*	*		
PAFDD	4920-422-4148	EIGHT JK FLIP-FLOPS-DTL D4002 (97525)		EA	1	*	*	*	*	*	*	*	*		
PAFDD	6350-225-3460	CODE/READ DRIVER II 283812-000 (80063)		EA	3	*	*	*	*	*	*	*	*		
PAFDD	5999-451-4272	SIXTEEN EXCLUSIVE OR CIRCUITS-DTL D4025 (97525)		EA	5	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2979	CIRCUIT CARD ASSY 283862-000 (80063)		EA	1	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2978	PULSE COUPLING 283861-000 (80063)		EA	1	*	*	*	*	*	*	*	*		
PAFDD	4920-001-6397	EIGHT 2-INPUT 250 MA RELAY DRIVERS-DTL D4021 (97525)		EA	3	*	*	*	*	*	*	*	*		

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
PAFDD	6350-483-2962	RELAY/DRIVER 283815-000 (80063)	EA	1	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2974	DIODE 283825-000 (80063)	EA	2	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2999	CODE/READ DRIVER I 283823-000 (80063)	EA	7	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2965	ROM I 283823-000 (80063)	EA	1	*	*	*	*	*	*	*	*		
PAFDD	6350-483-2977	SOLENOID DRIVERS 283847-000 (80063)	EA	2	*	*	*	*	*	*	*	*		
PAFDD		CODE/READ DRIVER I 283810 (80063)	EA	1	*	*	*	*	*	*	*	*	18	
PADZZ	5905-922-7271	RESISTOR,FIXED COMPOSITION RC05GF363J (81349)	EA	3							*	*	18	1
PADZZ	5905-853-8942	RESISTOR,FIXED,COMPOSITION RC05GF274J (81349)	EA	3							*	*	18	2
PADZZ	5905-683-2246	RESISTOR,FIXED,COMPOSITOIN RC05GF204J (81349)	EA	3							*	*	18	3
PADZZ	5905-914-2152	RESISTOR,FIXED,COMPOSITION RC05GF204J (81349)	EA	3							*	*	18	4
PADZZ	5905-922-7217	RESISTOR,FIXED,COMPOSITION RC05GF363J (81349)	EA	3							*	*	18	5
PADZZ	5905-458-9500	RESISTOR,FIXED,COMPOSITION RC05GF102J (81349)	EA	6							*	*	18	6
PADZZ	5905-952-4085	RESISTOR,FIXED,COMPOSTION RC05GF753J (81349)	EA	3							*	*	18	7
PADZZ	5905-912-2815	RESISTOR,FIXED,COMPOSITION RC05GF153J (81349)	EA	3							*	*	18	8
PADZZ	5905-945-6957	RESISTOR,FIXED,COMPOSITION RC05GF222J (81349)	EA	3							*	*	18	9
PADZZ	5961-852-8571	TRANSISTOR 2N1711 (81349)	EA	9							*	*	18	10
PADZZ	5961-054-0046	TRANSISTOR 2N3503 (01295)	EA	3							*	*	18	11
PADZZ	5961-878-4286	SEMICONDUCTOR DEVICE,DIODE 1N971B (81349)	EA	6							*	*	18	12
PADZZ	5961-842-9864	SEMICONDUYCTOR DEVICE,DIODE 1N914 (81349)	EA	18							*	*	18	13
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE,DIODE 1N645 (81349)	EA	3							*	*	18	13A
PADZZ	5970-956-4972	INSULATOR,DISC 10079 (07047)	EA	12							*	*	18	14
PADZZ	4920-001-4107	KIT,CARD H-4711 (97525)	EA	1							*	*	18	15
XADZZ		CIRCUIT BOARD 283810-01 (80063)	EA	1									18	16
PAFDD		CODE/READ DRIVER II 283812 (80063)	EA	1	*	*	*	*	*	*	*	*	19	
PADZZ	5961-842-9864	SEMICONDUCTOR DEVICE,DIODE 1N914 (81349)	EA	15							*	*	19	1
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE,DIODE 1N645 (81349)	EA	5							*	*	19	2
PADZZ	5961-954-0626	TRANSISTOR 2N3502 (01295)	EA	5							*	*	19	3

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
PADZZ	5961-852-8171	TRANSISTOR 2N1711 (81349)	EA	5							*	*	19	4
PADZZ	6970-956-4972	INSULATOR,DISC 10079 (07047)	EA	10							*	*	19	5
PADZZ	5905-945-6957	RESISTOR,FIXED, COMPOSITION RC05GF222J (81349)	EA	5							*	*	19	6
PADZZ	5905-122-2815	RESISTOR,FIXED,COMPOSITION RC05GF153J (81349)	EA	5							*	*	19	7
PADZZ	5905-922-7176	RESISTOR,FIXED,COMPOSITION RC05GF104J (81349)	EA	5							*	*	19	8
PADZZ	5905-957-2009	RESISTOR,FIXED,COMPOSITION RC05GF622J (81349)	EA	5							*	*	19	9
PADZZ	4920-001-4107	CARD KIT H-4711 (07525)	EA	1							*	*	19	10
XADZZ		CIRCUIT BOARD 283812-01 (80063)	EA	1									19	11
PAFDD		RELAY/DRIVER 283815 (80063)	EA	1	*	*	*	*	*	*	*	*	20	
PADZZ		SEMICONDUCTOR DEVICE,DIODE 1N748A (81349)	EA	5							*	*	20	1
PADZZ	5961-842-9864	SEMICONDUCTOR DEVICE,DIODE 1N914 (81349)	EA	6							*	*	20	2
PADZZ		REALY,DPDT,26V 712-26 (24176)	EA	8							*	*	20	3
PADZZ	5961-954-0626	TRANSISTOR 2N3502 (01295)	EA	5							*	*	20	4
PADZZ	5905-922-7217	RESISTOR,FIXED RC05GF363J (81349)	EA	5							*	*	20	5
PADZZ	5905-458-9500	RESISTOR,FIXED RC05GF102JS (81349)	EA	5							*	*	20	6
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	20	7
XADZZ		CIRCUIT BOARD 283815-01 (80063)	EA	1									20	8
PAFDD		DECODER 283816 (80063)	EA	1	*	*	*	*	*	*	*	*	21	
PADZZ	5962-252-0227	INTEGRATED CIRCUIT U6B930159X (07263)	EA	4							*	*	21	1
PADZZ		CAPACITOR,FIXED,CERAMIC MC605C104RM (00656)	EA	1							*	*	21	2
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	21	3
XADZZ		CIRCUIT BOARD 283816-01 (80063)	EA	1									21	4
PAFDD		PRINTED WIRING ASSEMBLY 283822 (80063)	EA	1	*	*	*	*	*	*	*	*	22	
PADZZ		INTEGRATED CIRCUIT U6A998979X (07263)	EA	5							*	*	22	1
PADZZ		INTEGRATED CIRCUIT U6B930159X (07263)	EA	1							*	*	22	2
PADZZ	5962-011-2963	INTEGRATED CIRCUIT U6A993659X (07263)	EA	1							*	*	22	3
PADZZ	5962-890-7640	INTEGRATED CIRCUIT MC789P (01537)	EA	1							*	*	22	4

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
PADZZ	5962-927-1748	INTEGRATED CIRCUIT U6A994559X (07263)	EA	1							*	*	22	5
PADZZ	5963-927-1748	CAPACITOR,TANTALUM CSR13BF476M (81349)	EA	1							*	*	22	6
PADZZ	5910-236-8766	CAPACITOR,TANTALUM CSR13BF106M (81349)	EA	1							*	*	22	7
PADZZ	5960-420-8555	CAPACITOR,TANTALUM CSR13RF225M (81349)	EA	1							*	*	22	8
PADZZ	5910-007-2004	CAPACITOR,TANTALUM CSR13HF475M (81349)	EA	1							*	*	22	9
PADZZ		CAPACITOR,CERAMIC MC6050104RM (00656)	EA	1							*	*	22	10
PADZZ	5905-131-1255	RESISTOR,COMPOSITION RCR07G122JS (81349)	EA	1							*	*	22	11
PADZZ		RESISTOR,COMPOSITION RCR07GF752J (81349)	EA	2							*	*	22	12
PADZZ		RESISTOR,VARIABLE 224P-1-502 (80294)	EA	3							*	*	22	13
PADZZ	5905-136-8406	RESISTOR,COMPOSITION RCR07G242JS (81349)	EA	1							*	*	22	14
PADZZ	5905-119-8811	RESISTOR,COMPITION RCR07GF151J (81349)	EA	1							*	*	22	15
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	22	16
XADZZ		CIRCUIT BOARD 283822-01 (80063)	EA	1									22	17
PAFDD		ROM I 283823 (80063)	EA	1	*	*	*	*	*	*	*	*	23	
PADZZ	5962-400-1842	INR\TEGRATED CIRCUIT U6A962459X (07263)	EA	4							*	*	23	1
PADZZ	5962-161-8319	INTEGRATED CIRCUIT SL9352 (07263)	EA	1							*	*	23	2
PADZZ		INTEGRATED CIRCUIT U6A962559X (07263)	EA	4							*	*	23	3
PADZZ		CAPACITOR,CERAMIC MC605C104RM (00656)	EA	1							*	*	23	4
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	23	5
XADZZ		CIRCUIT BOARD 283823-01 (80063)	EA										23	6
PAFDD		ROM 2 283824 (80063)	EA		*	*	*	*	*	*	*	*	24	
PAFZZ	5962-400-1842	INTEGRATED CIRCUIT U6A962459X (07263)	EA	4							*	*	24	1
PAFZZ		INTEGRATED CIRCUIT SL9352 (07263)	EA	1							*	*	24	2
PAFZZ		INTEGRATED CIRCUIT U6A962559X (07263)	EA	4							*	*	24	3
PAFZZ		CAPACITOR,CERAMIC MC605C104RM (00656)	EA	1							*	*	24	4
PAFZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	24	5
XADZZ		CIRCUIT BOARD 283824-01 (80063)	EA	1									24	6

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
PAFDD		DIODDE 283825 (80063)	EA	1	*	*	*	*	*	*	*	*	25	
PADZZ	5931-842-9864	SEMICONDUCTOR DEVICE,DIODE 1N914 (81349)	EA	43							*	*	25	1
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	25	2
XADZZ		CIRCUIT BOARD 283825-01 (80063)	EA	1									25	3
PAFDD		SOLENOID DRIVERS 283847 (80063)	EA	1	*	*	*	*	*	*	*	*	26	
PADZZ	5961-954-0626	TRANSISTOR 2N3502 (01295)	EA	5							*	*	26	1
PADZZ	5970-956-4972	INSULATOR DISK 10079 (07047)	EA	5							*	*	26	2
PADZZ	5961-821-8976	TRANSISTOR 2N297A (81349)	EA	2							*	*	26	3
PADZZ		SCREW,MACHINE,PAN HEAD MS35206-228 (96906)	EA	4							*	*	26	4
PADZZ		WASHER,LOCKING MS35340-41 (96906)	EA	4							*	*	26	5
PADZZ		NUT,PLAIN,HEXAGON MS35649-62 (96906)	EA	4							*	*	26	6
PADZZ	5961-842-9864	SEMICONDUCTOR DEVICE,DIODE 1N914 (81349)	EA	6							*	*	26	7
PADZZ	5961-577-6084	SEMICONDUCTOR DEVICE DIODE 1N645 (81349)	EA	1							*	*	26	8
PADZZ	5905-114-0708	RESISTOR,FIXED,COMPOSITION RCR07G1202JS (81349)	EA	2							*	*	26	9
PADZZ	5905-116-8555	RESISTOR,FIXED,COMPOSITION RCR07G153JS (81349)	EA	2							*	*	26	10
PADZZ	5910-111-1679	RESISTOR,FIXED RCR07G512JS (81349)	EA	2							*	*	26	11
PADZZ	5905-104-8358	RESISTOR,FIXED,COMPOSITION RCR07G822JS (81349)	EA	2							*	*	26	12
PADZZ	5905-186-2972	RESISTOR,FIXED,COMPOSITION RC42GF11J (81349)	EA	2							*	*	26	13
PADZZ	5905-110-0620	RESISTOR,FIXED,COMPOSITION RCR07GF102J (81349)	EA	1							*	*	26	14
PADZZ	5905-141-1132	RESISTOR,FIXED,COMPOSITION RCR07GF752JS (81349)	EA	1							*	*	26	15
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	26	16
XADZZ		CIRCUIT BOARD 283847-01 (80063)	EA	1									26	17
PAFDD		PRINTED WIRING ASSEMBLY 283861 (80063)	EA	1	*	*	*	*	*	*	*	*	27	
PADZZ	5910-851-9192	CAPACITOR CK06CW103M (81349)	EA	7							*	*	27	1
PADZZ	5905-121-9920	RESISTOR RCR07G303JS (81349)	EA	7							*	*	27	2
PADZZ	5905-435-1718	RESISTOR RCR07G241J (81349)	EA	18							*	*	27	3
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	27	4

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
XADZZ		CIRCUIT BOARD 283861-01 (80063)	EA	1									27	5
PAFDD		PRINTED WIRING ASSEMBLY 283862 (80063)	EA	1	*	*	*	*	*	*	*	*	28	
PADZZ	5965-011-2762	INTEGRATED CIRCUIT SN7483N (01295)	EA	1							*	*	28	1
PADZZ		INTEGRATED CIRCUIT U6B930159 (07263)	EA	1							*	*	28	2
PADZZ		CAPACITOR CK06CW103M (81349)	EA	2							*	*	28	3
PADZZ	5910-106-2869	CAPACITOR VK30BX104M (95275)	EA	1							*	*	28	4
PADZZ	5961-577-6064	DIODE 1N645 (81349)	EA	2							*	*	28	5
PADZZ		REALY 712-6 (24176)	EA	1							*	*	28	6
PADZZ	5905-279-2627	RESISTOR RFC42GF750J (81349)	EA	2							*	*	28	7
PADZZ		RESISTOR RCR07GGF303J (83149)	EA	5							*	*	28	8
PADZZ	5961-855-2786	DIODE,ZENER 1N3022B (81349)	EA	1							*	*	28	9
PADZZ	4920-001-4107	CARD KIT H-4711 (97525)	EA	1							*	*	28	10
XADZZ		CIRCUIT BOARD 283862-01 (80063)	EA	1									28	11
PAFDD	3920-001-6394	U7780 TRUCK HAND BOX 337827 (80063)	EA	1	*	*	*	*	*	*	*	*	29	
XAFZZ		DRAWER 100-1616 (10199)	EA	1									29	1
XAFZZ		BRACKET 337827-03 (80063)	EA	1									29	2
XAFZZ		SCREW,MACHINE,PLAIN HEAD MS35226-64 (96906)	EA	2									29	3
XAFZZ		WASHER,FLAT AN960-10L (88044)	EA	2									29	4
XAFZZ		NUT,SELF-LOCKING, HEXAGON MS21044N3 (96906)	EA	2									29	5
XAFZZ		CLIP 337827-04 (80063)	EA	2									29	6
XAFZZ		SCREW,MACHINE,PLAIN HEAD MS35226-64 (96906)	EA	2									29	7
XAFZZ		WASHER,FLAT AN960-10L (88044)	EA	2									29	8
XAFZZ		NUT,SEFL-LOCKING,HEXAGON MS21044N3 (96906)	EA	2									29	9
XAFZZ		ZEE 37827-01 (80063)	EA	2									29	10
XAFZZ		SCREW,MACHINE,PLAIN HEAD MS35226-64 (96906)	EA	4									29	11
XAFZZ		WASHER,FLAT AN960-10L (88044)	EA	4									29	12
XAFZZ		NUT,SELF-LOCKING,HEXAGON MS21044N3 (96906)	EA	4									29	13

SECTION III. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION / REF. NUMBER & MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(7) 30 DAY DS MAINT ALLOWANCE (A) 1-20	(B) 21-50	(C) 51-100	(8) 1-YR ALW PER 100 EQUIP CNTGY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION (A) FIG. NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
XAFZZ		PLATE IDENTIFICATION 198550-001 (80063)	EA	1									29	14
XAFZZ		SCREW,MACHINE PLAIN HEAD MS35225-14 (96906)	EA	2									29	15
XAFZZ		NUT,SELF-LOCKING,HEXAGON MS21044N04 (96906)	EA	2									29	16
XAFZZ		TRUCK HAND BOX 29-2620 (10199)	EA	1									29	17

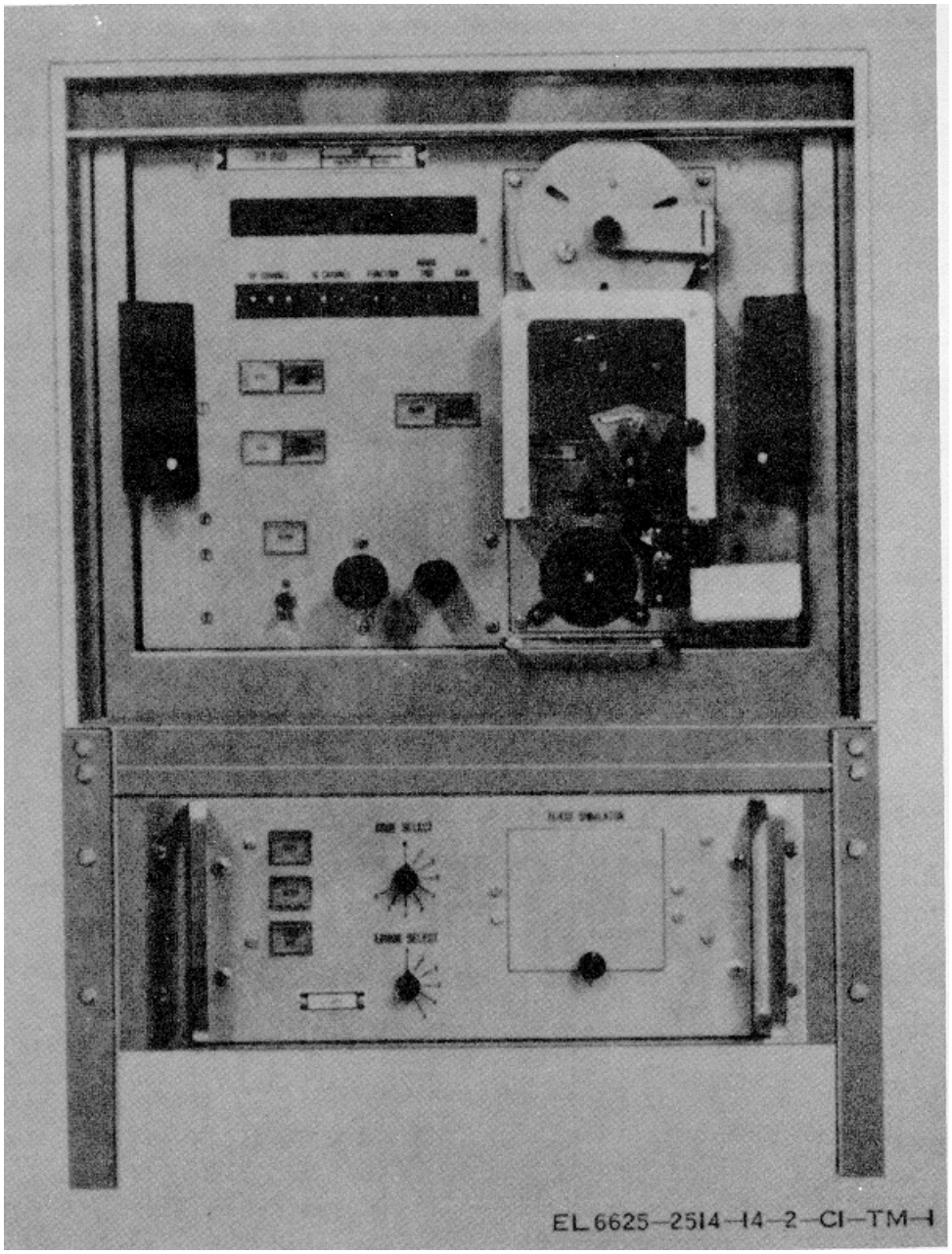


Figure 1. PT1561 Programmer Test Set with U7483 Printer, U7484 Simulator and U7780 Service Cart.

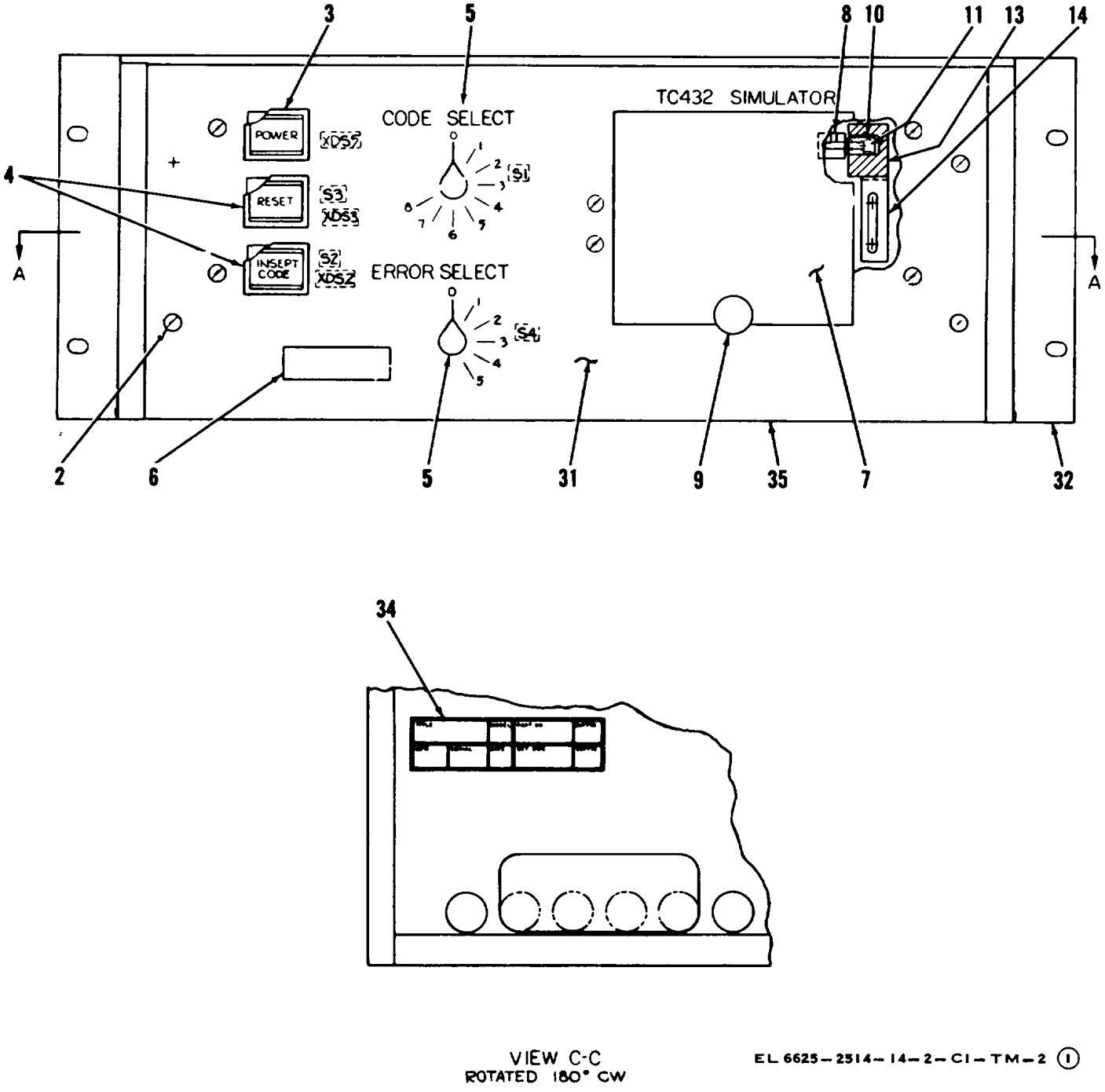


Figure 2.(1) U7484 Simulator (sheet 1 of 2).

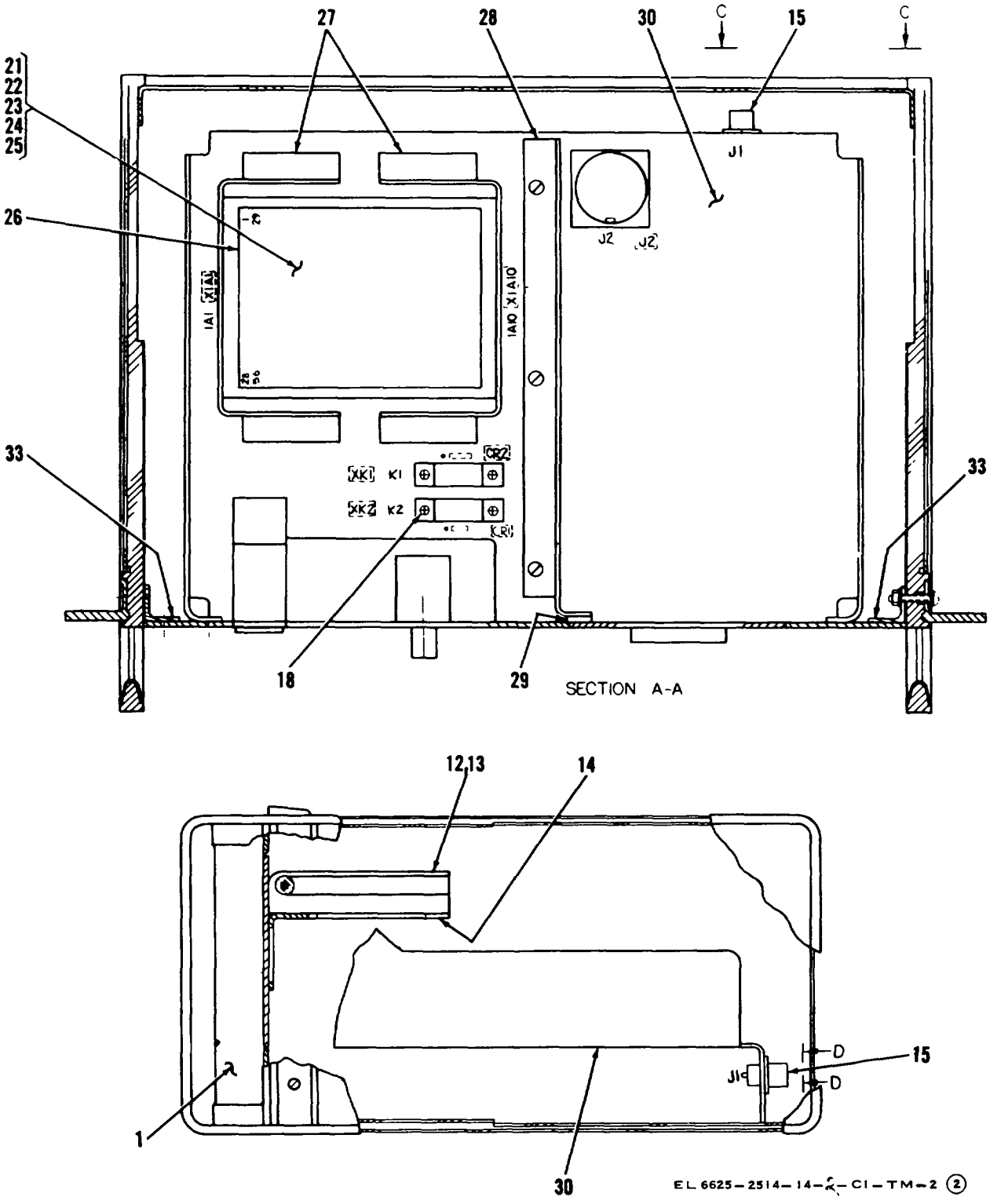


Figure 2.(2) U7484 Simulator (sheet 2 of 2).

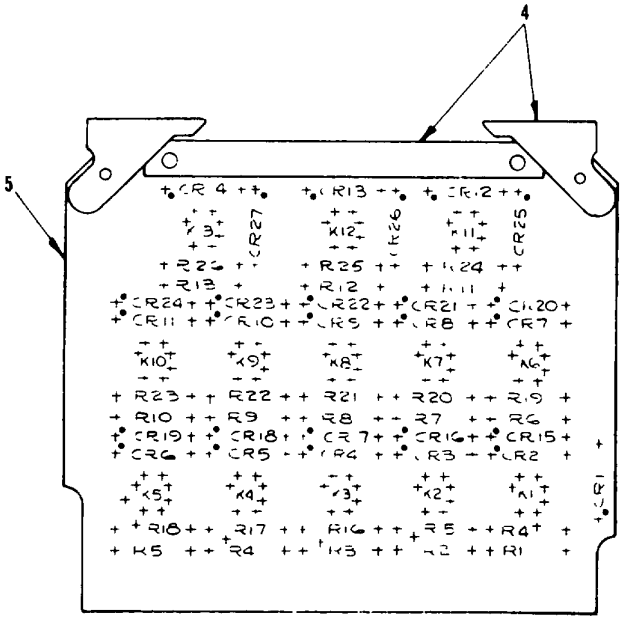


Figure 3. Latching Relays (see figure 6-14 for schematic).

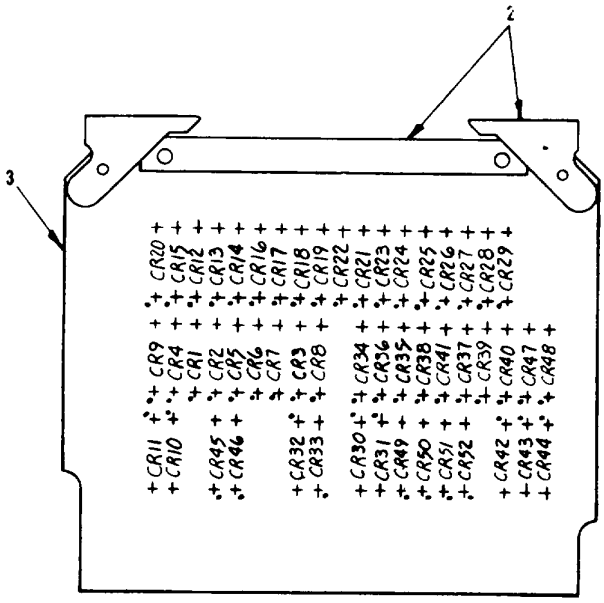


Figure 5. Diode Matrix (see figure 6-16 for schematic).

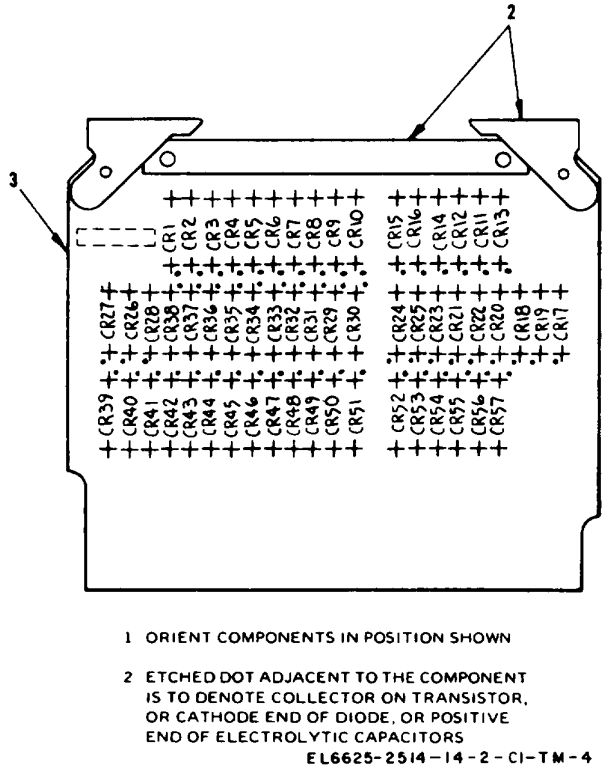


Figure 4. Diode Matrix (see figure 6-5 for schematic).

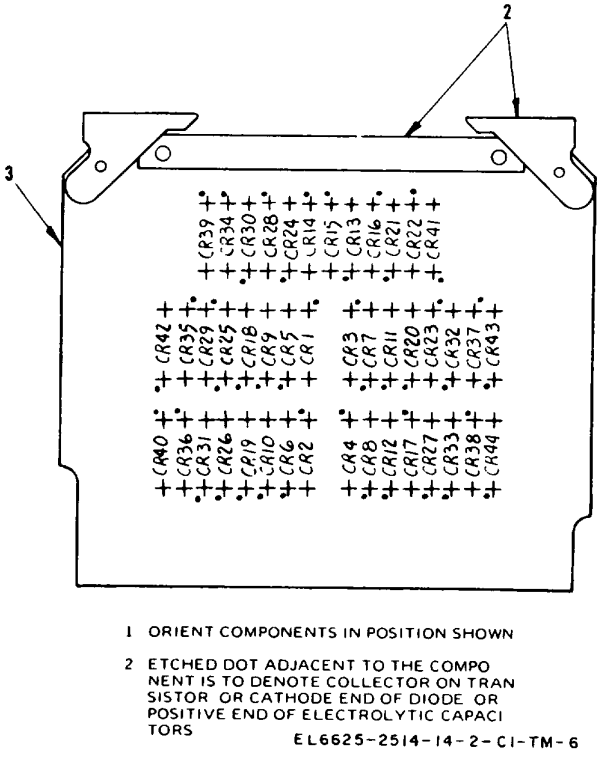
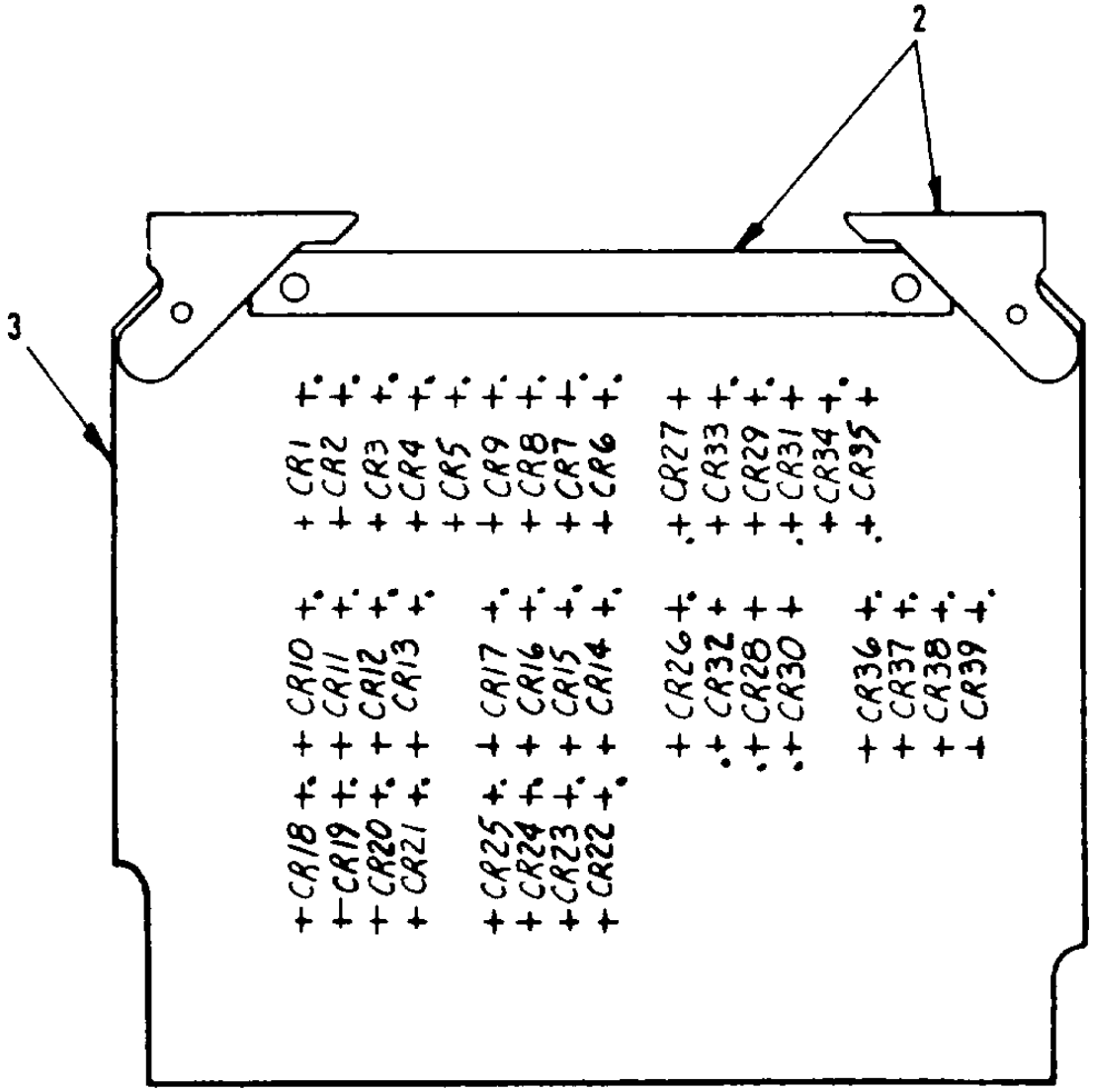


Figure 6. Diode Matrix (see figure 6-17 for schematic).



1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625-2514-14-2-C1-TM-7

Figure 7. Diode Matrix (see figure 6-18 for schematic).

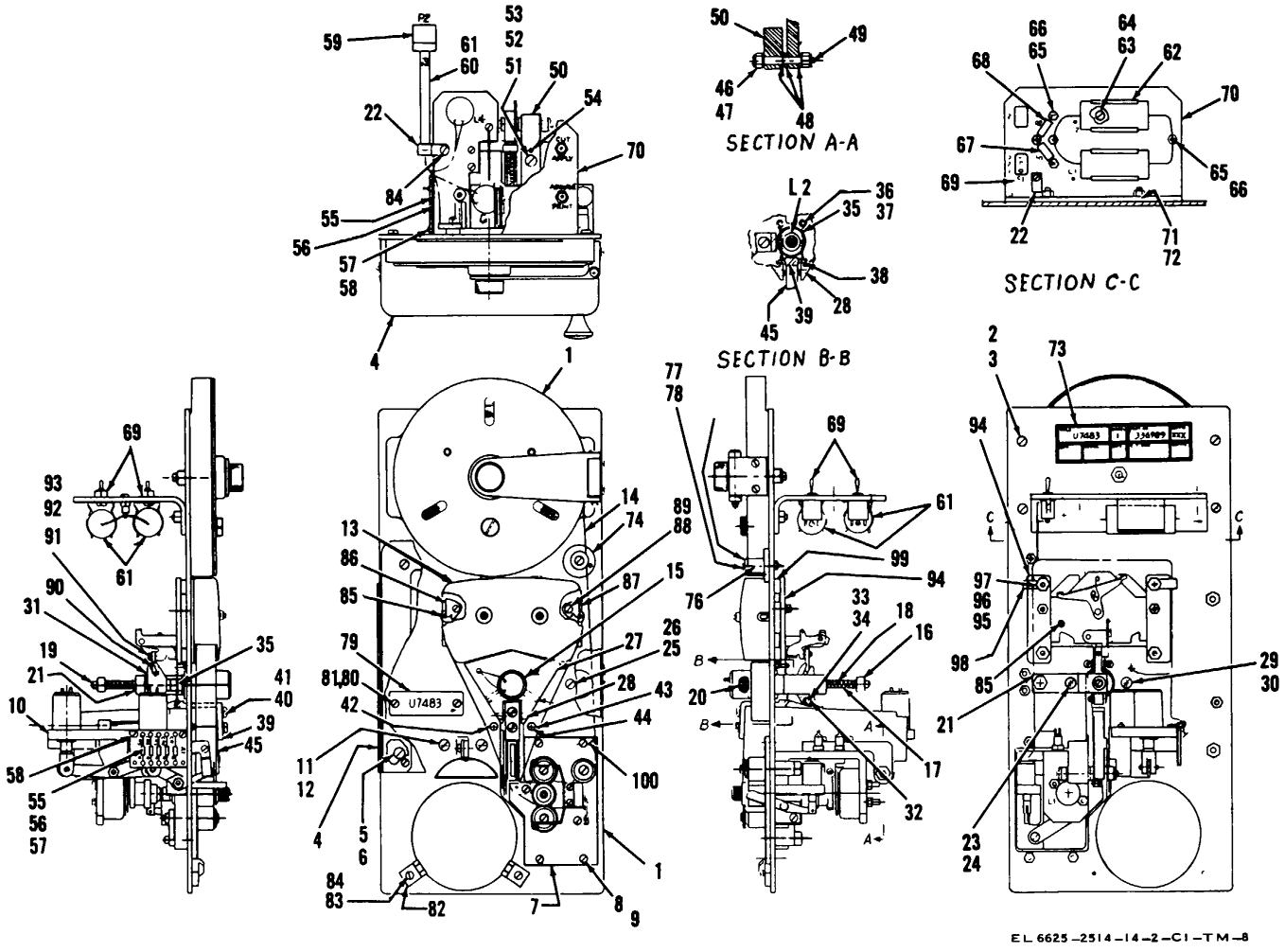


Figure 8. U7483 Printer.

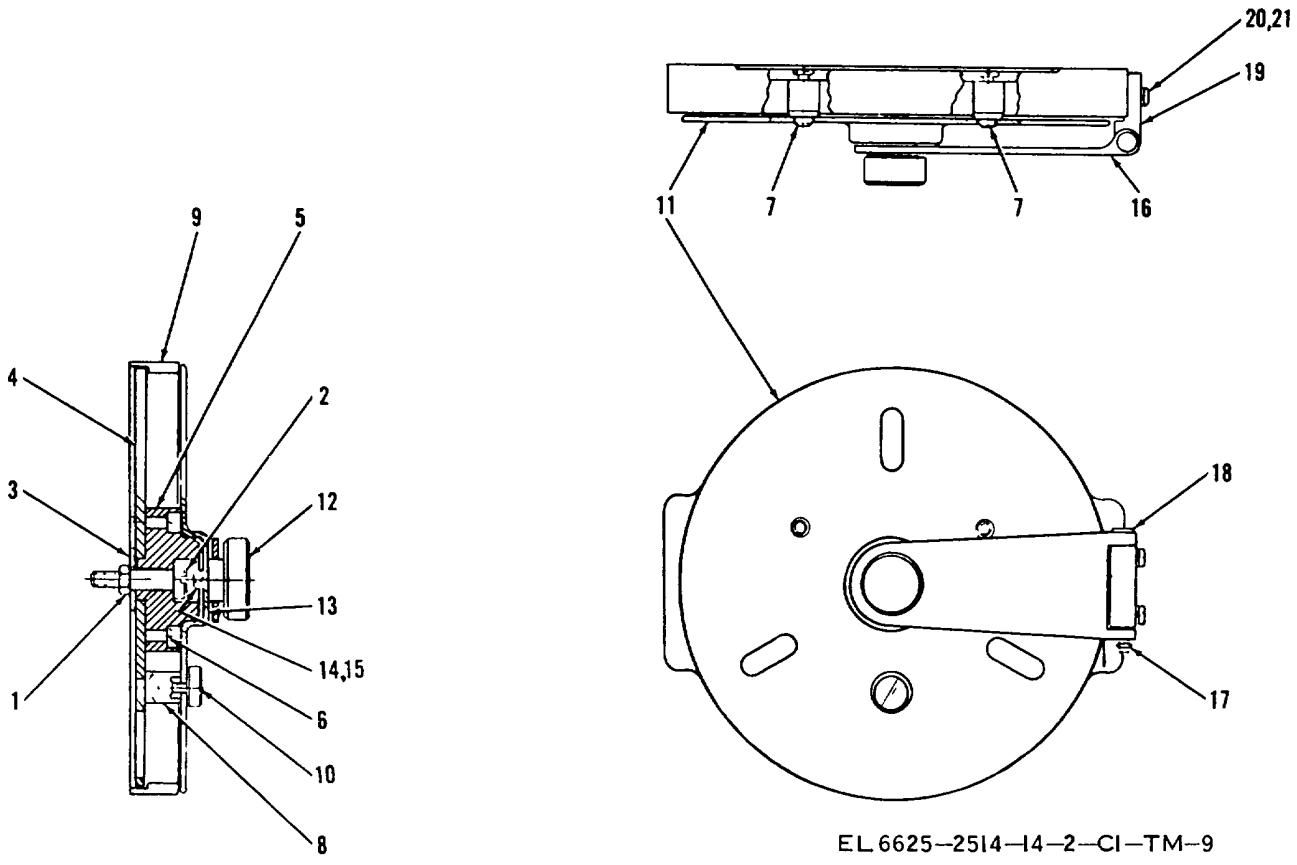


Figure 9. U7483 Tape Supply Holder.

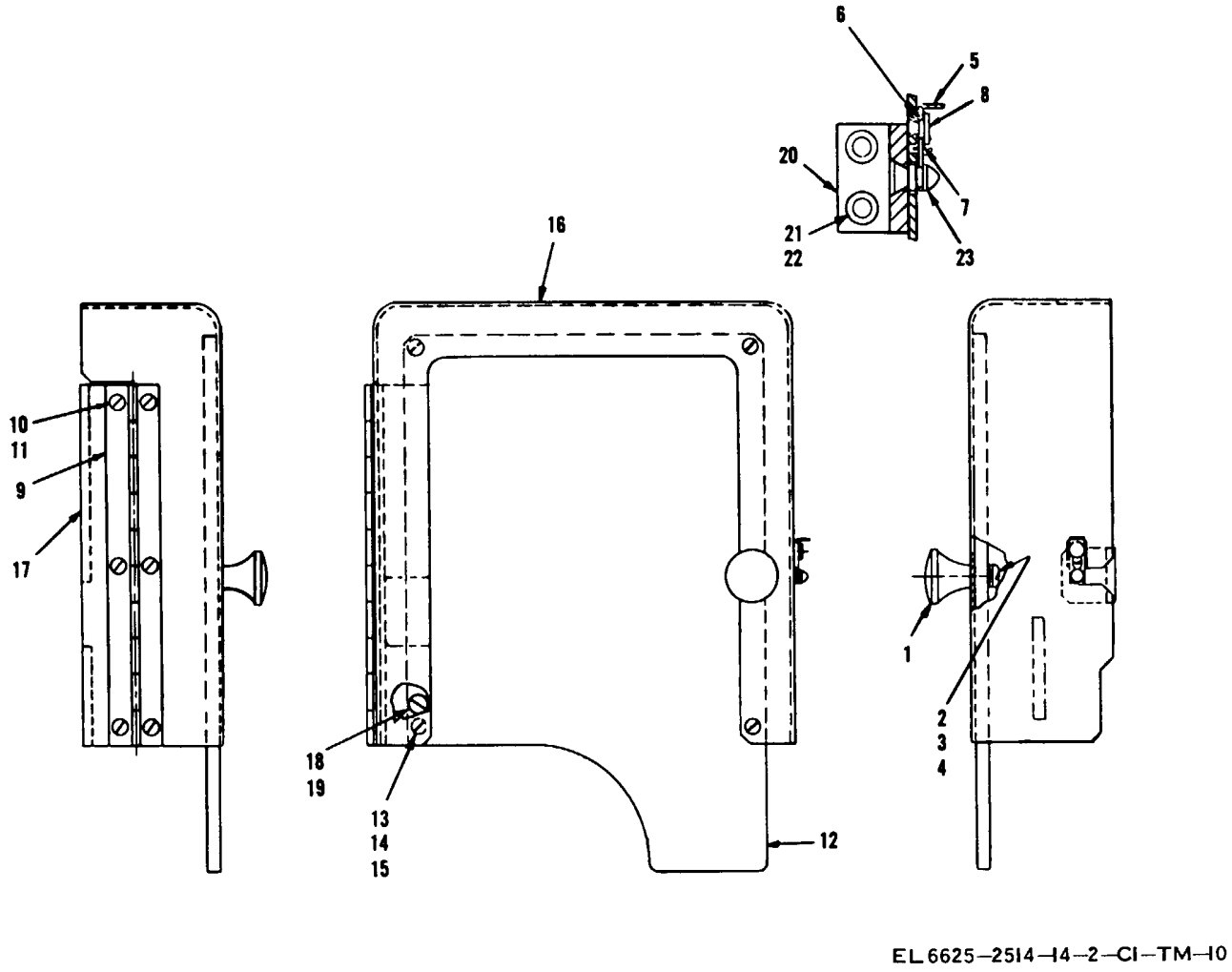


Figure 10. U7483 cover assembly.

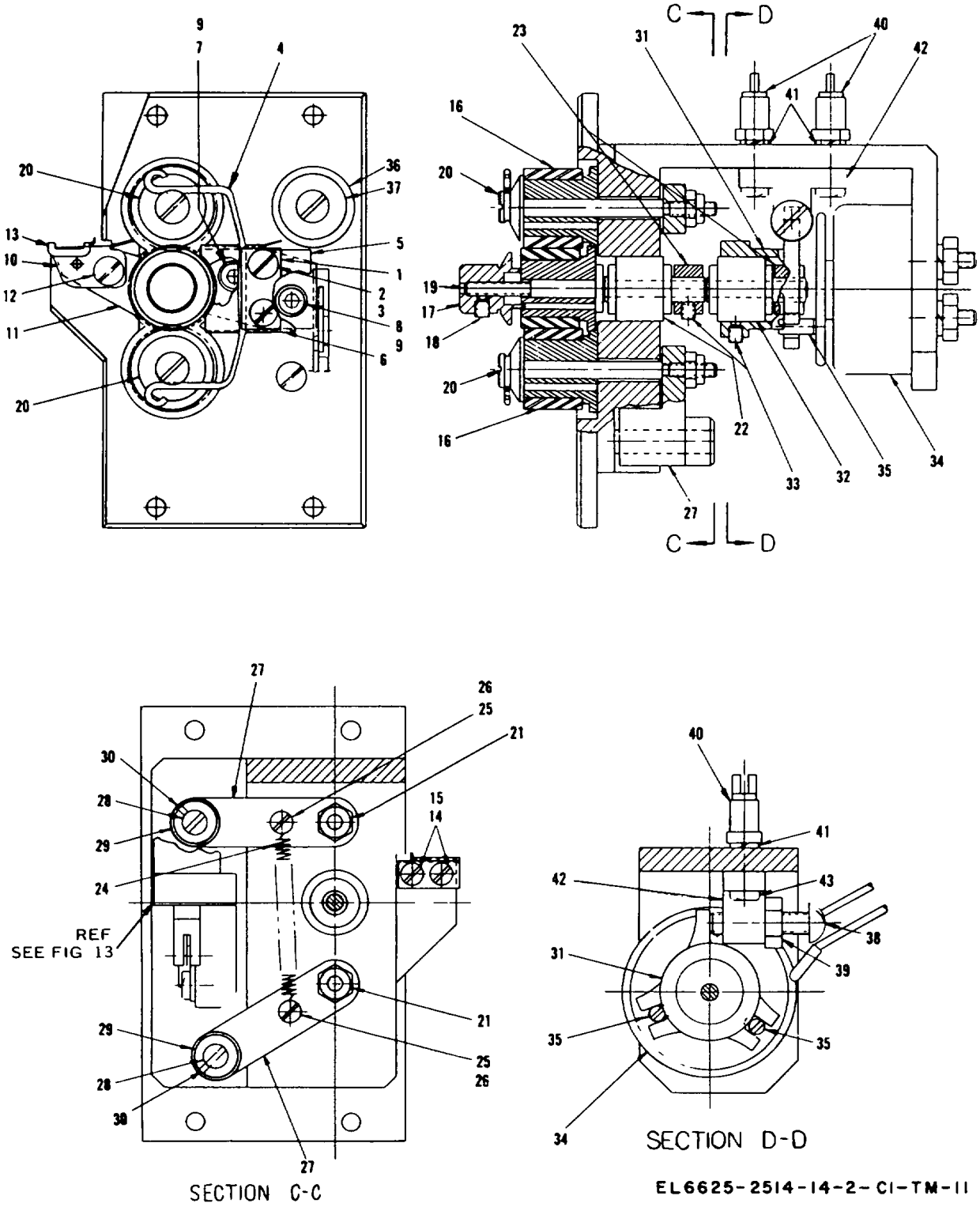


Figure 11. U7483 Tape Feeding mechanism.

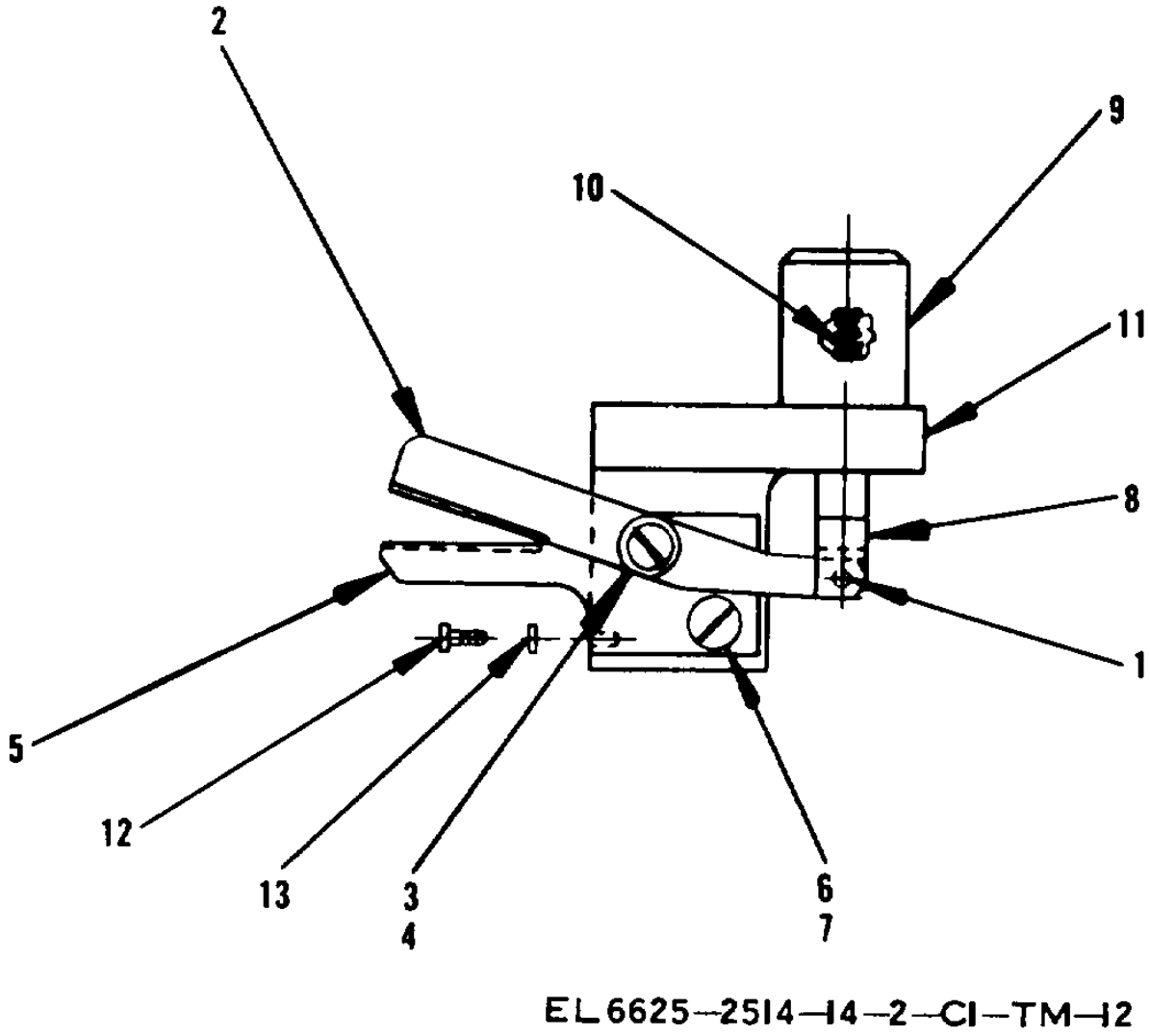


Figure 12. Paper cutter.

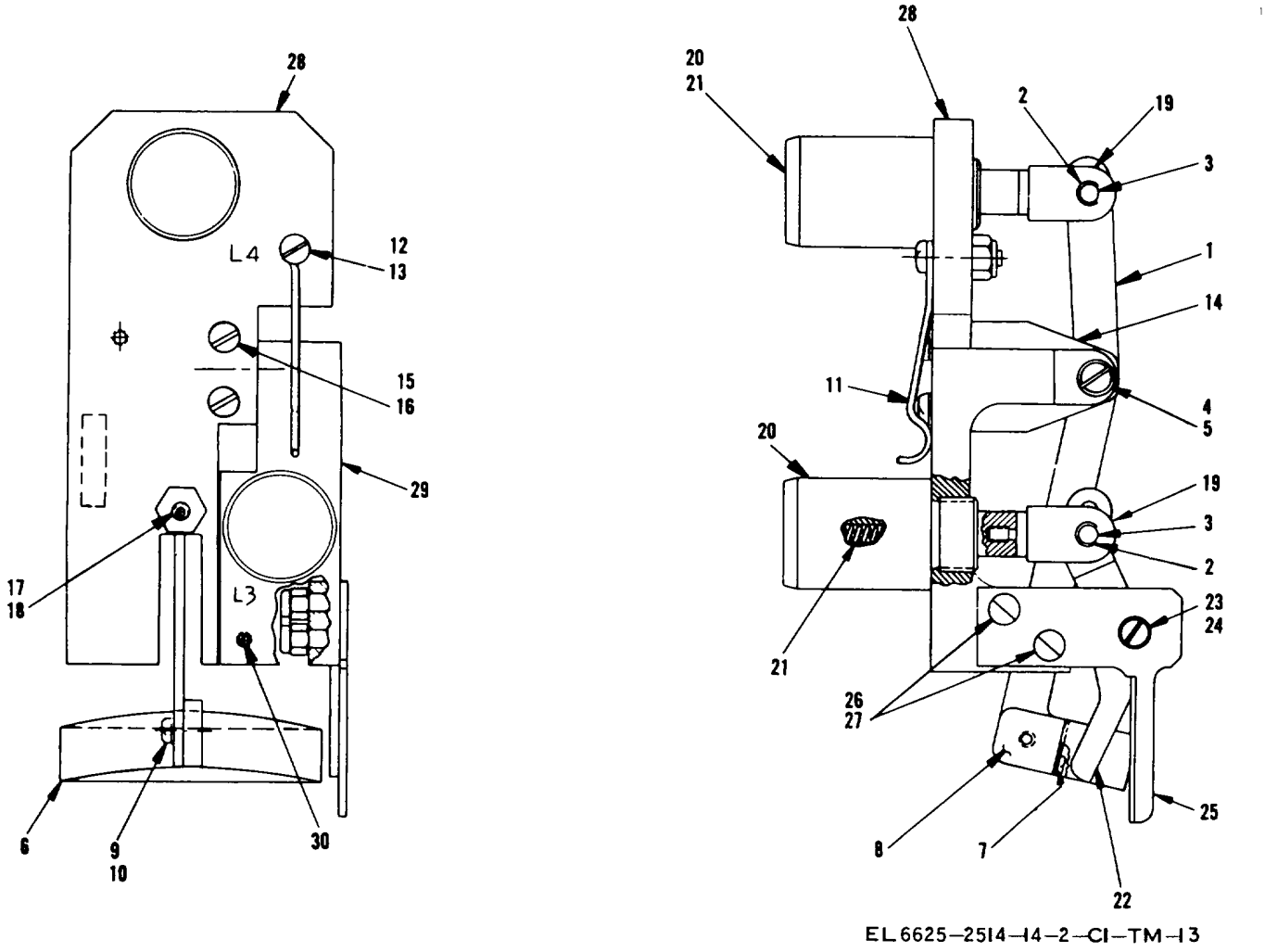


Figure 13. U7483 Tape Cutter and Applicator.

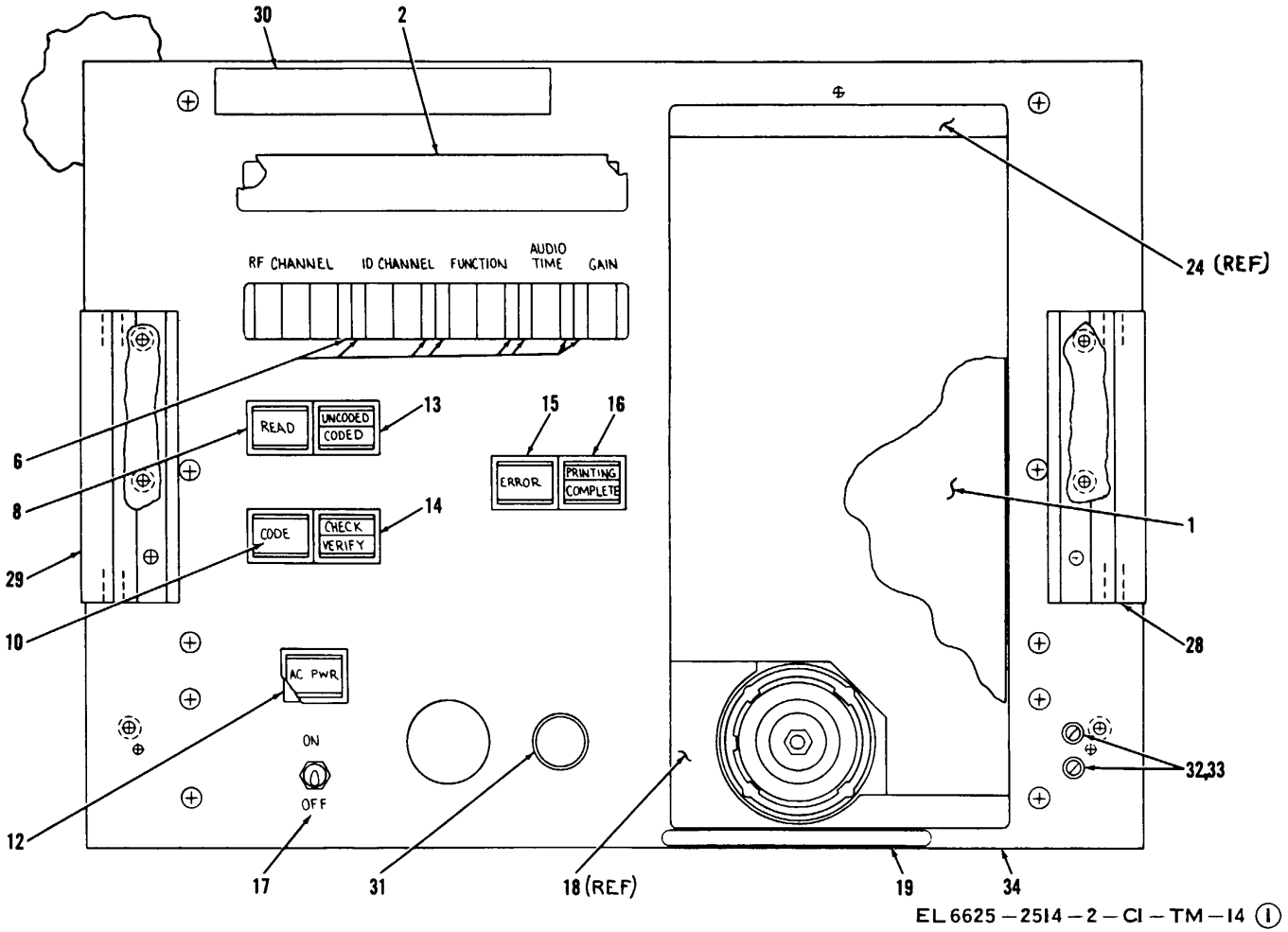


Figure 14.(1) Pt1561, TC 432 Programmer (sheet 1 of 2).

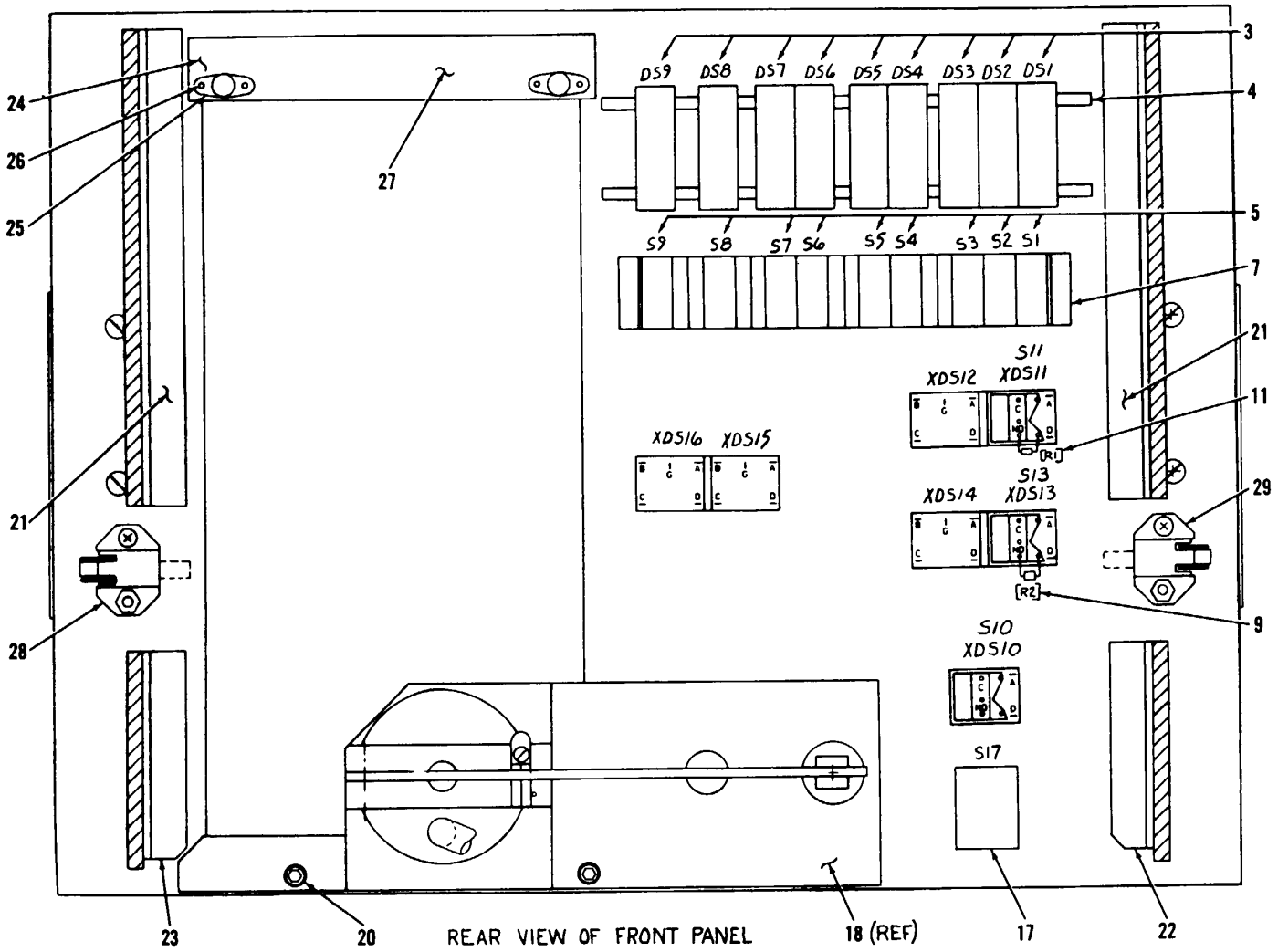


Figure 14.[2] PT1561, TC432 Programmer (sheet 2 of 2).

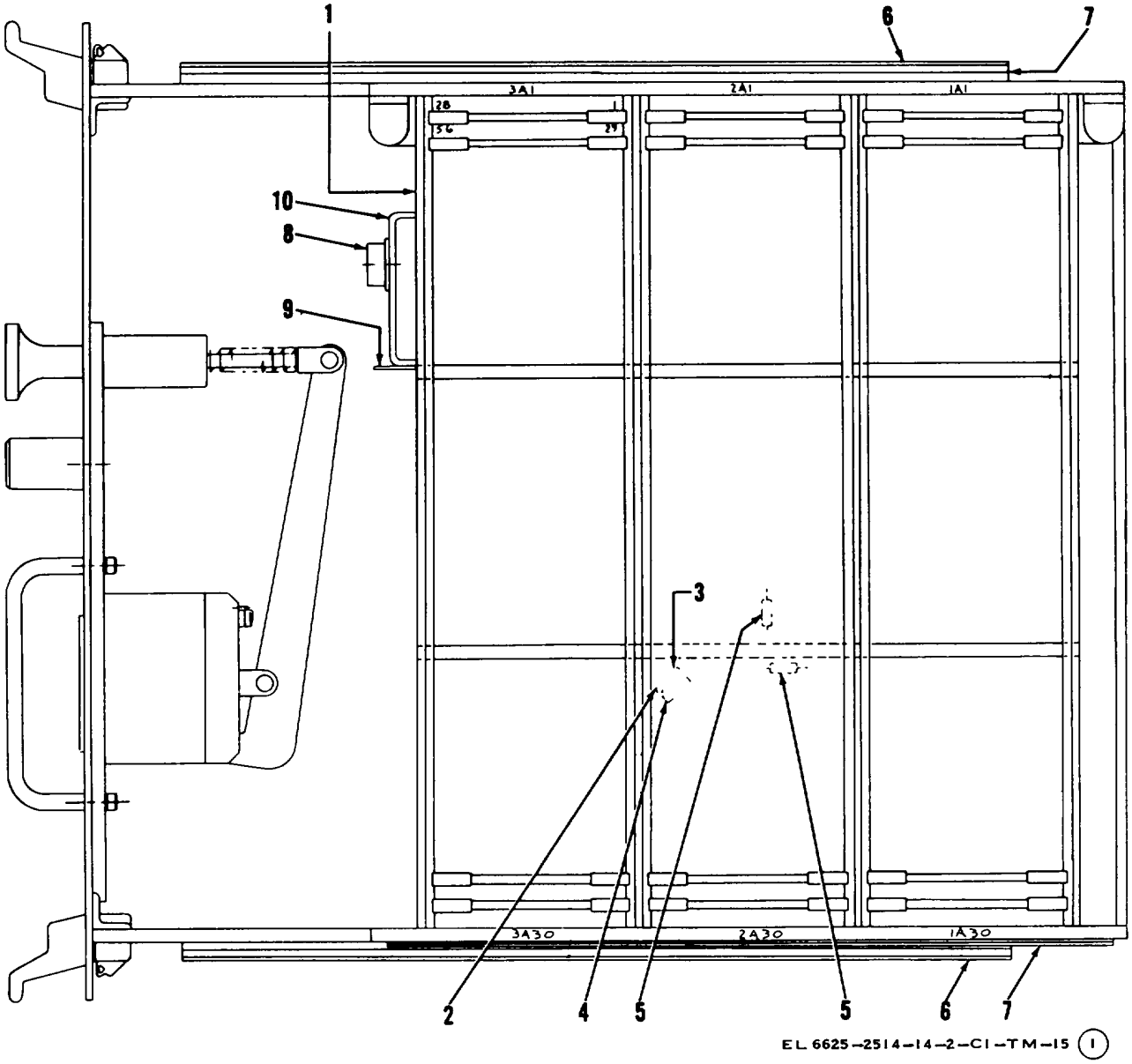


Figure 15.(1) PT1561, TC432 Programmer (sheet 1 of 3).

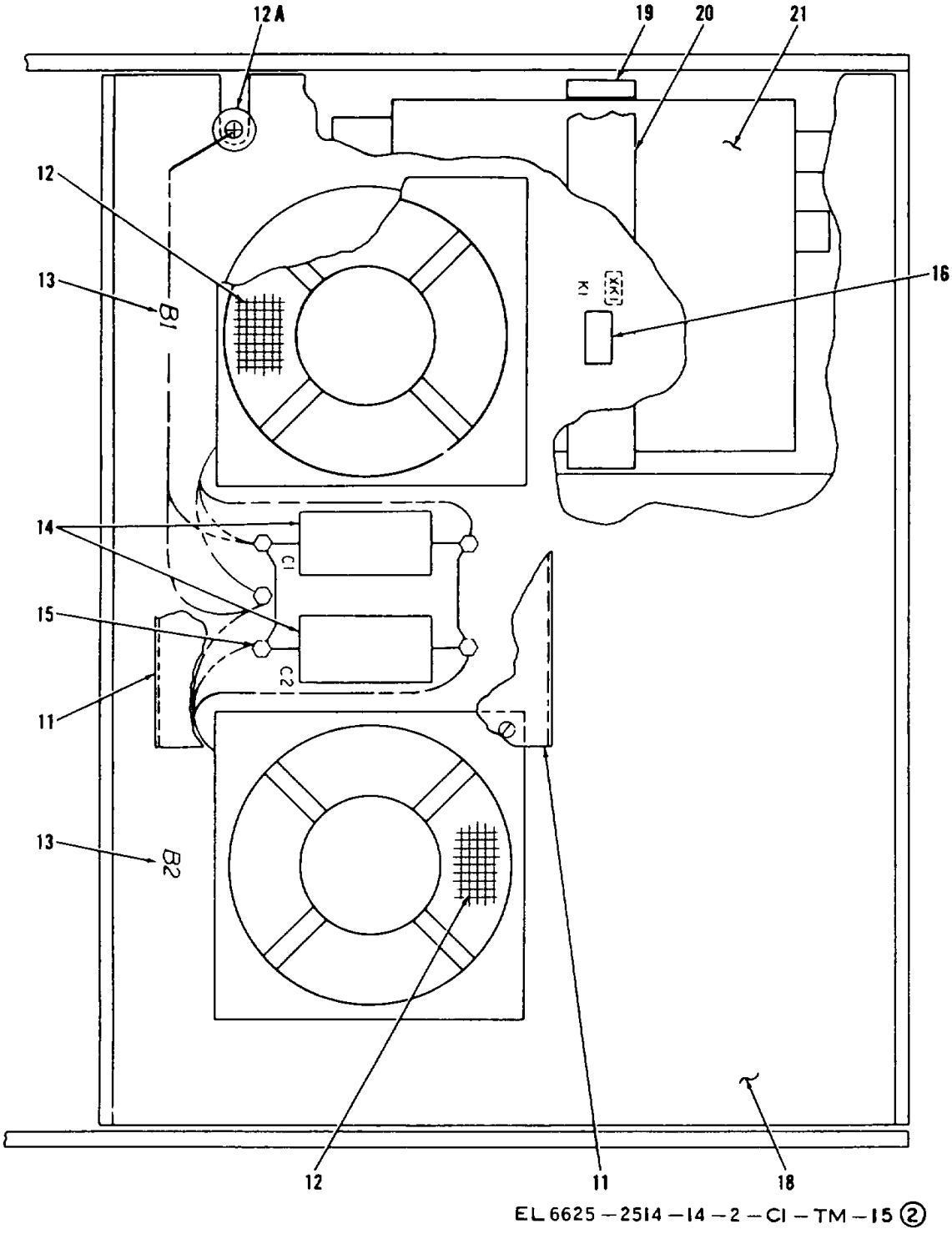


Figure 15.(2) PT1561, TC432 Programmer (sheet 2 of 3).

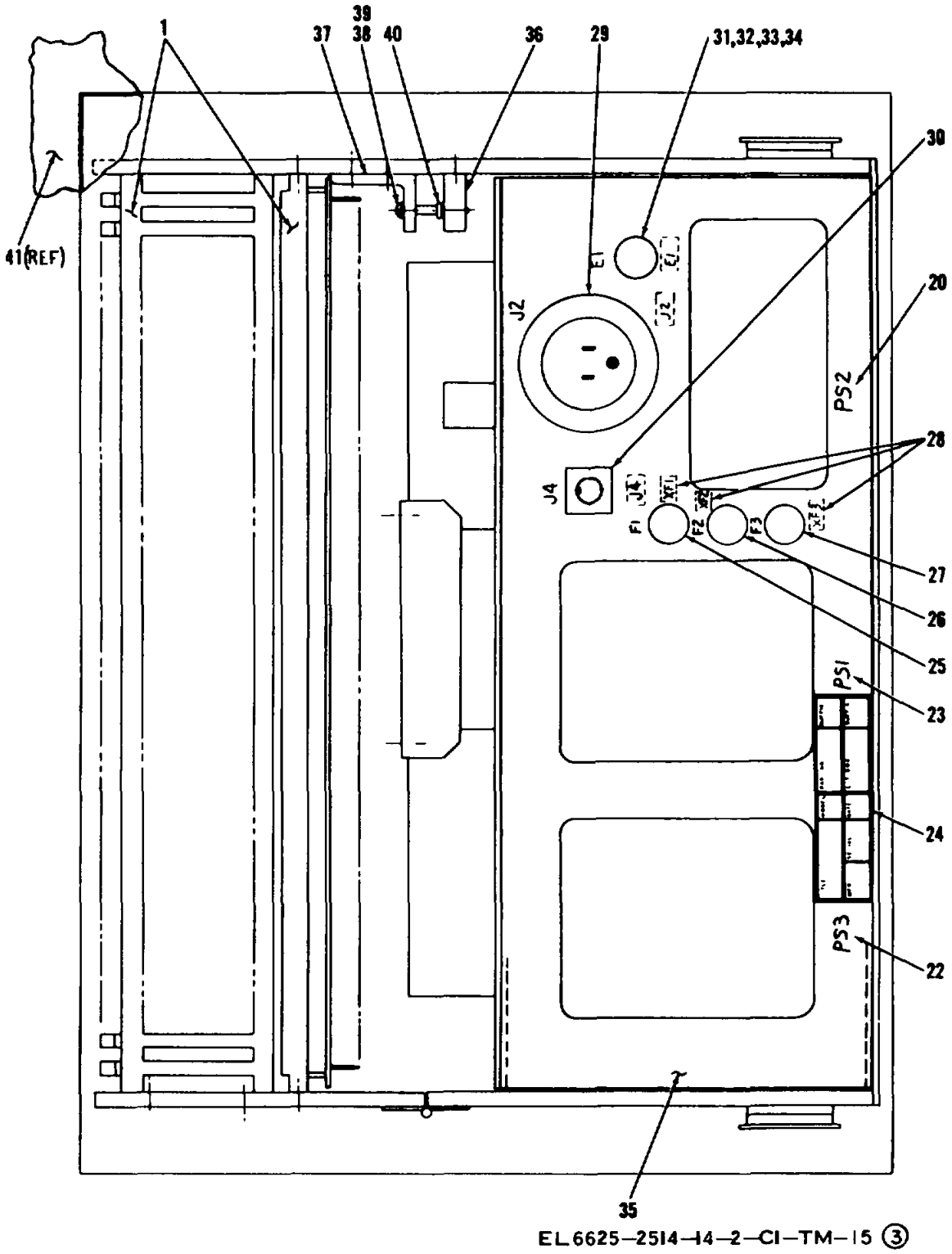


Figure 15.[3] PT1561, TC432 Programmer (sheet 3 of 3).

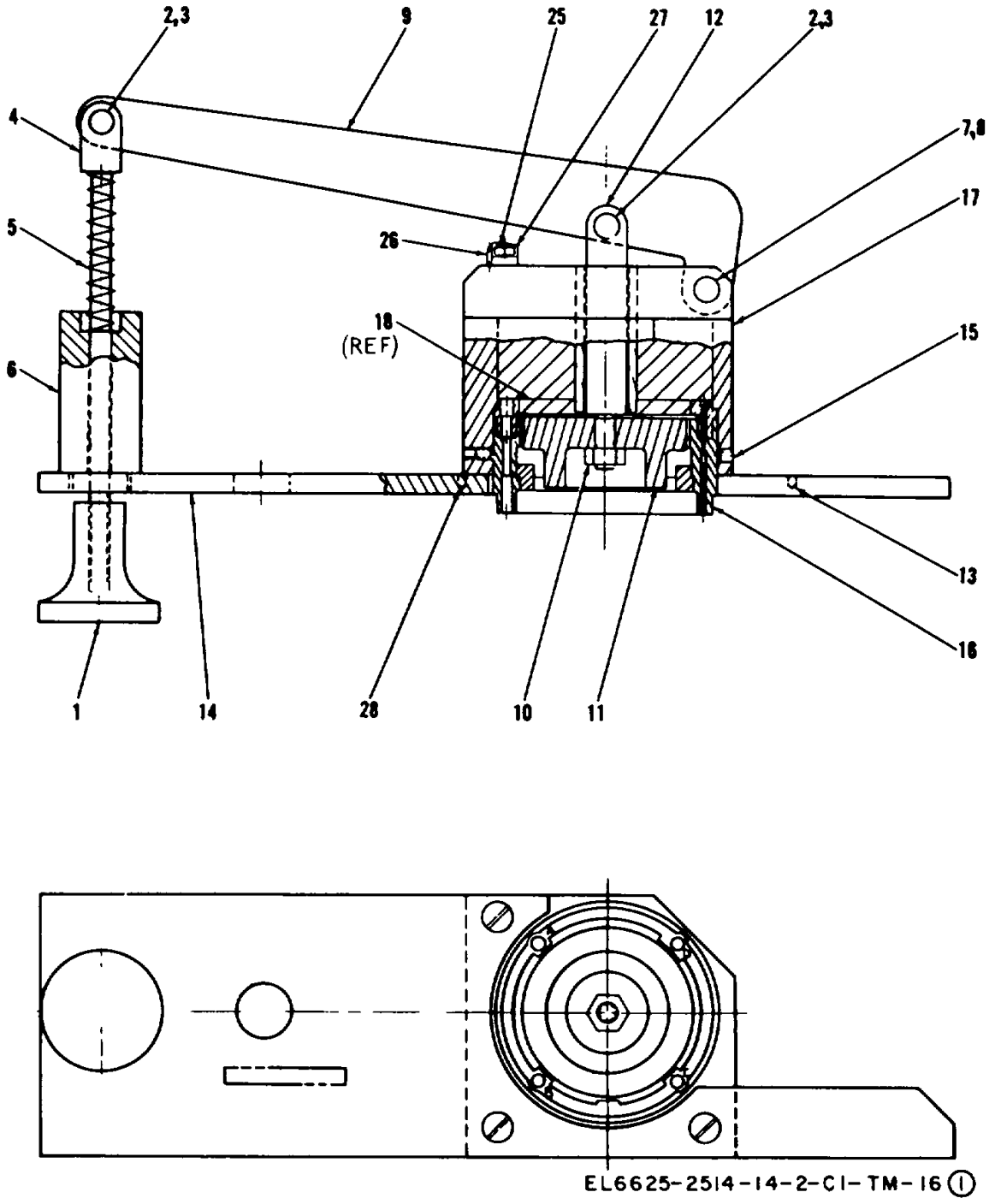


Figure 16.(1) Holding and Ejecting Fixture (sheet 1 of 2).

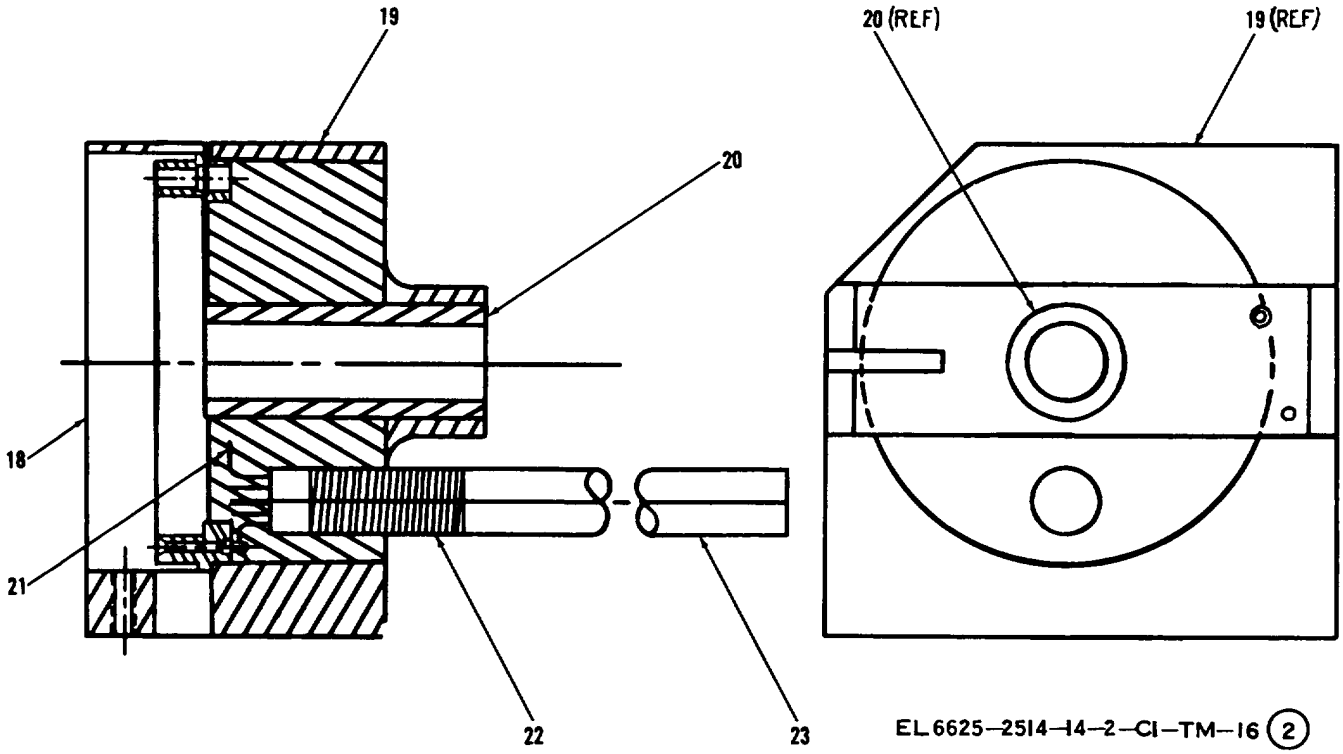


Figure 16.[2] Holding and Ejecting Fixture (sheet 2 of 2).

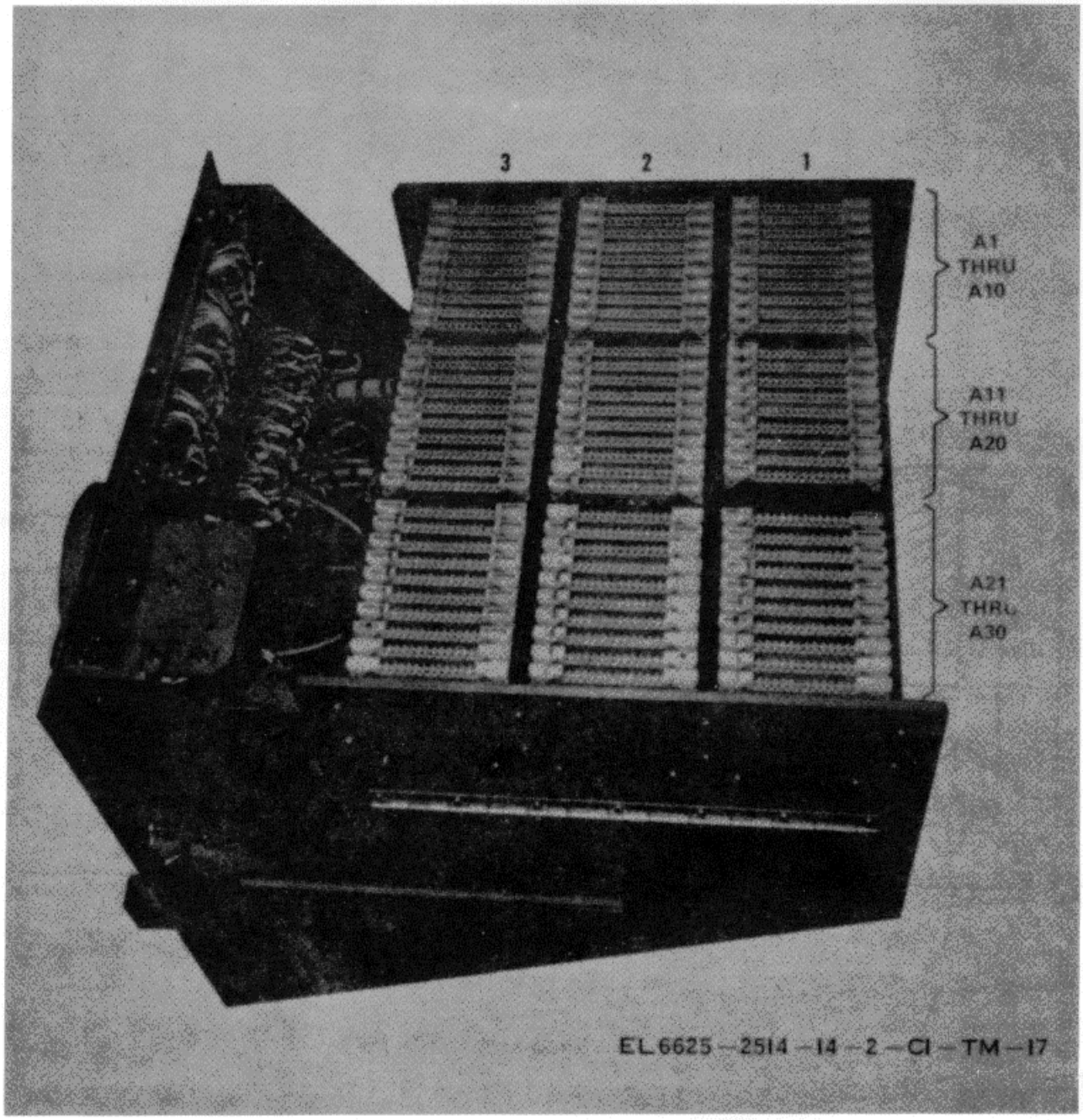


Figure 17. Fixed Card File, 90 Card.

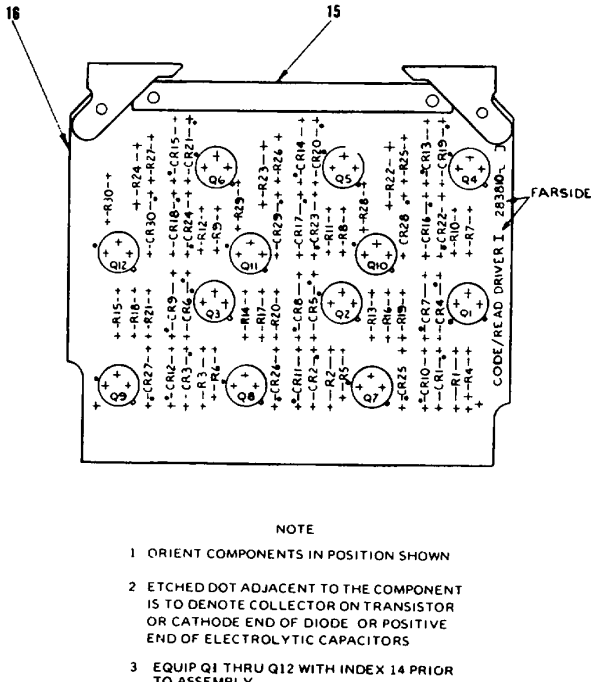


Figure 18. Code/Read Drive 1

(see figure 6-19 for schematic).

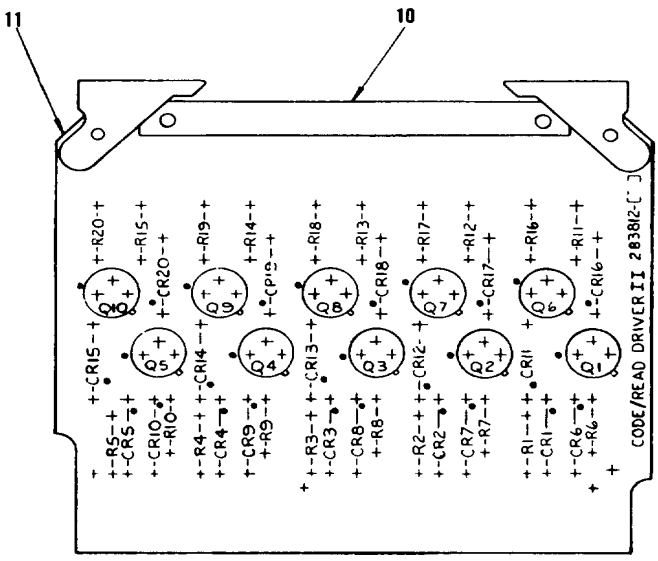
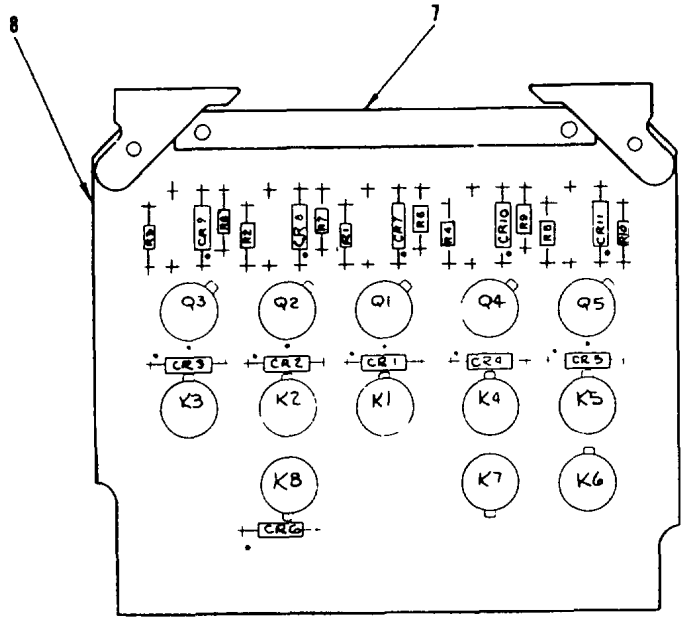


Figure 19 Code/Read Driver 11

Figure 19. Code/Read Driver 11

(see figure 6-20 for schematic).



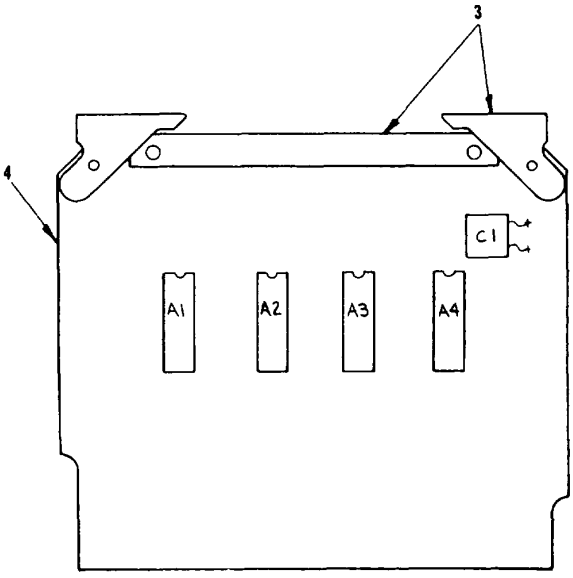
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPO NENT IS TO DENOTE COLLECTOR ON TRAN SISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACI TORS

EL 6625-2514-14-2-CI-TM-20

Figure 20. Relay/Driver (see figure 6-21 for schematic).



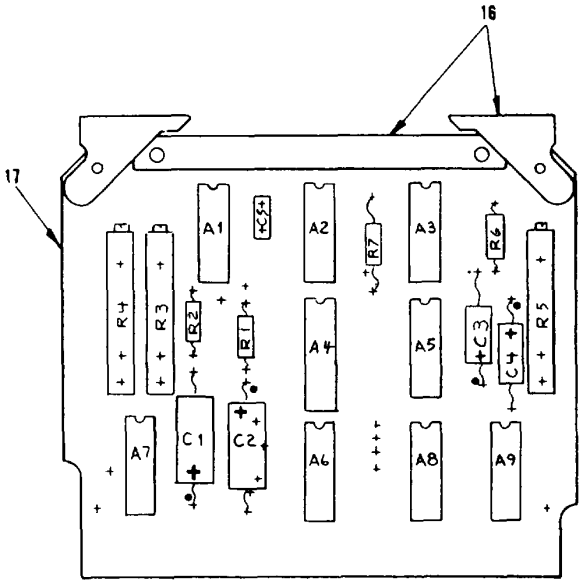
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625-2514-14-2-CI TM-21

Figure 21. Decoder, 1 of 32 (see figure 6-23 for schematic).



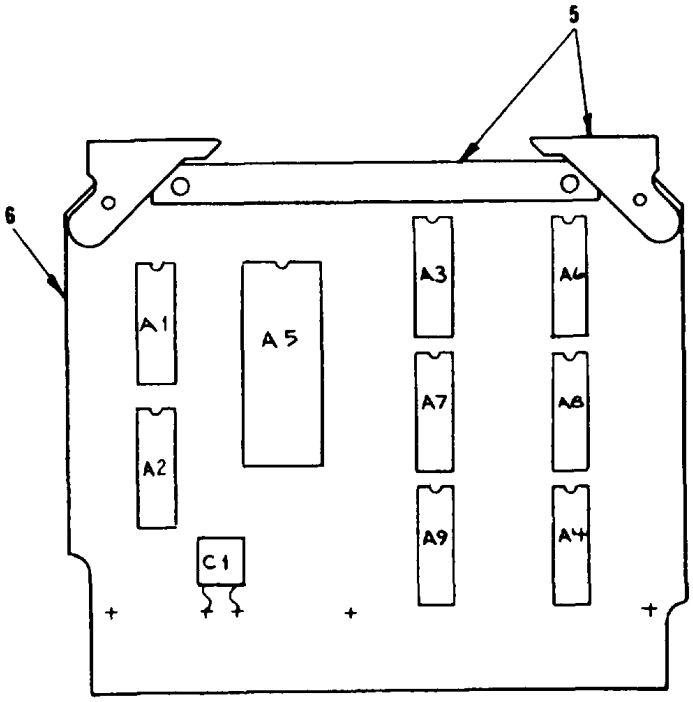
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625-2514-14-2-CI-TM-22

Figure 22. Printed Wiring Assembly (Oscillator) (see figure 6-23 for schematic)



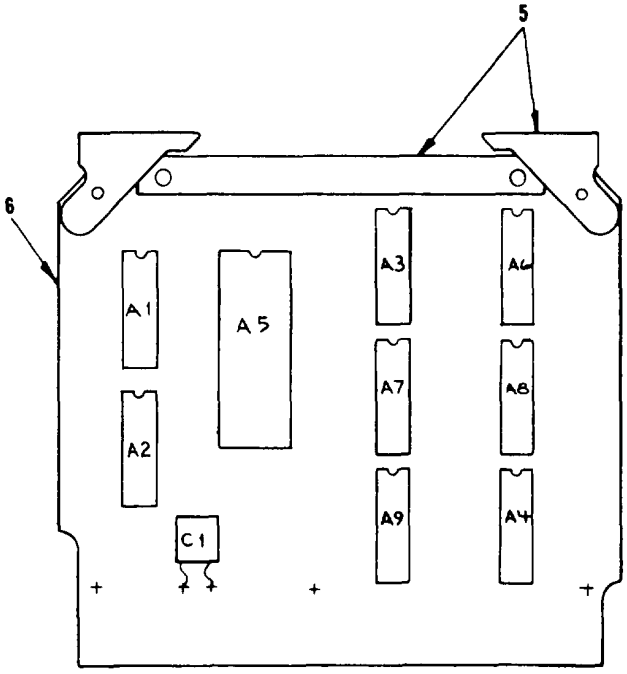
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPO NENT IS TO DENOTE COLLECTOR ON TRAN SISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACI TORS

EL6625-2514-14-2-C1-TM-23

Figure 23. ROM 1 (see figure 6-24 for schematic).



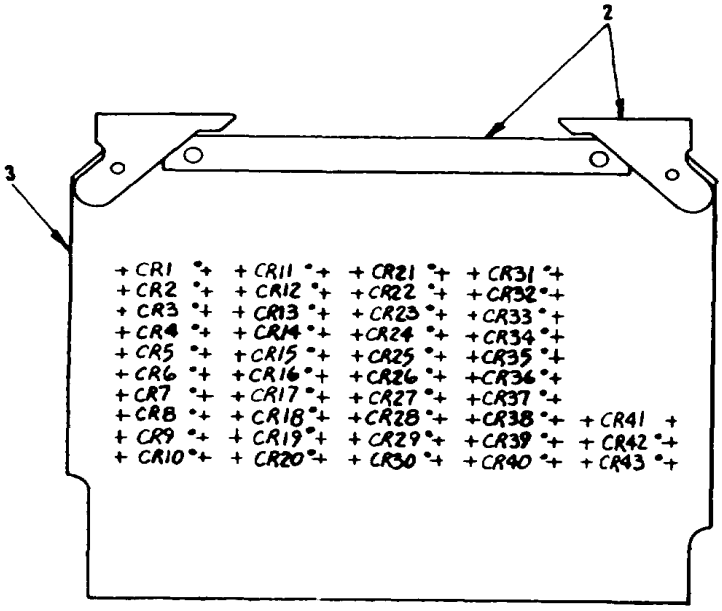
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625-2514-14-2-C1-TM-24

Figure 24. ROM 2 (see figure 6-25 for schematic



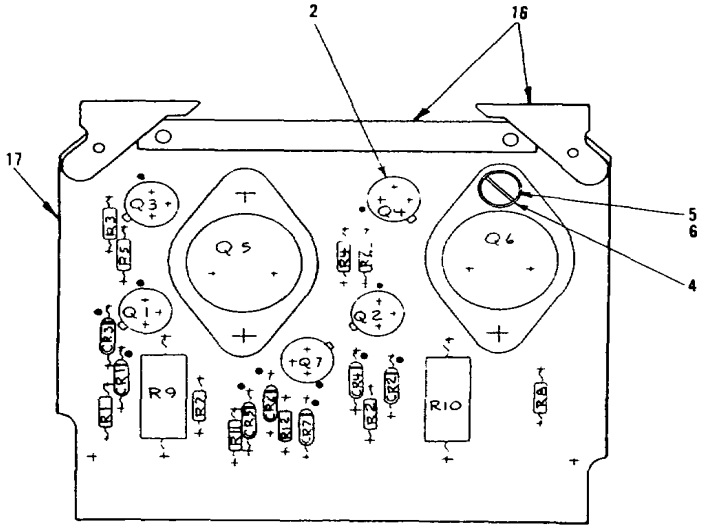
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR, OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625-2514-14-2-CI-TM-25

Figure 25. Diode (see figure 6-2 for schematic



NOTE

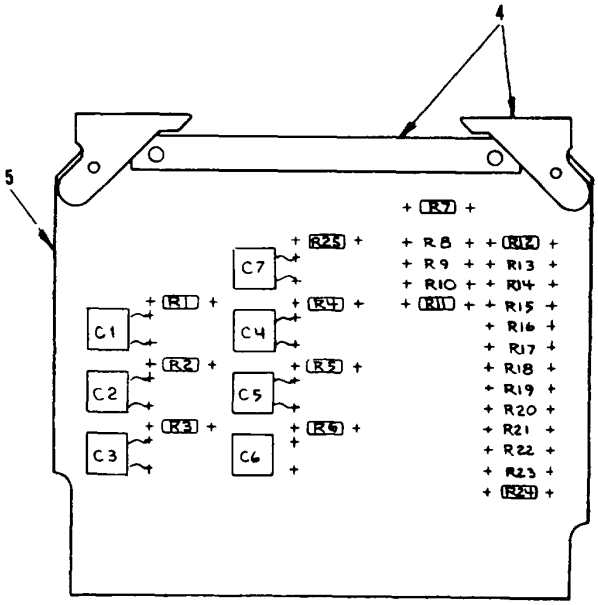
1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACITORS

3 EQUIP Q1 THRU Q4 AND Q7 WITH INDEX No 2 PRIOR TO ASSEMBLY

EL6625-2514-14-2-CI-TM-26

Figure 26. Solenoid Drivers (see figure 6-27 for schematic).



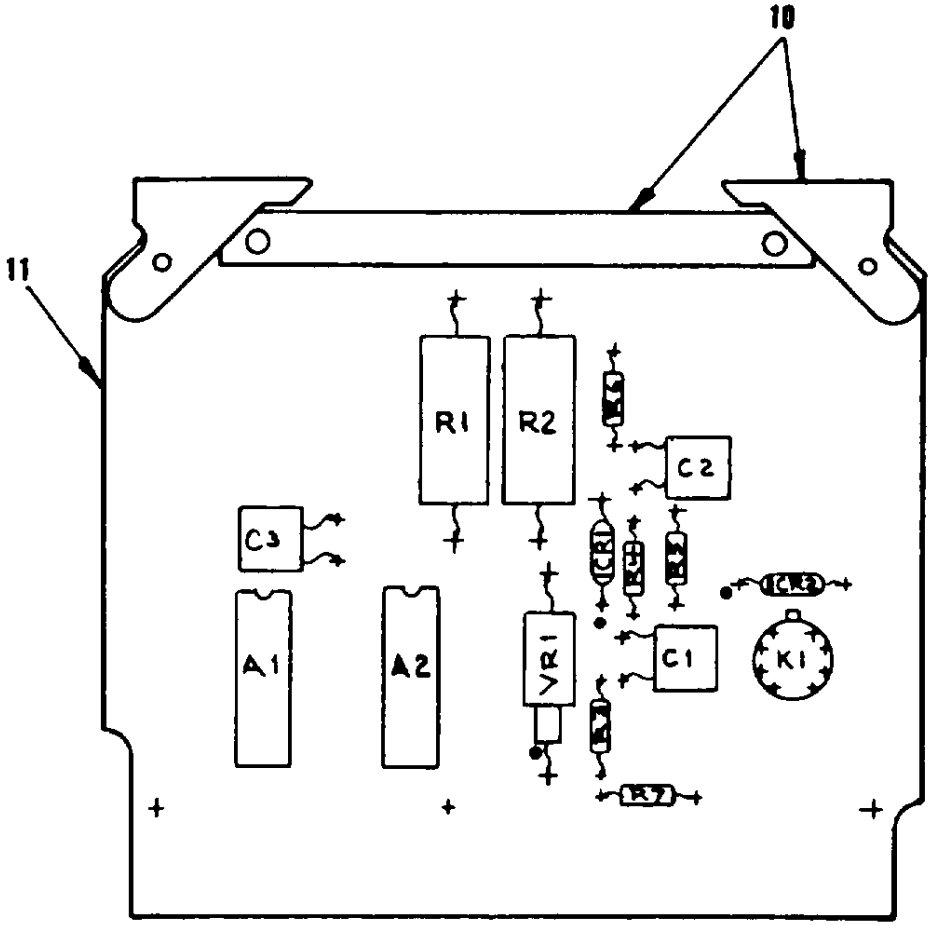
NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625-2514-14-2-CI-TM-27

Figure 27. Printed Wiring Assembly (Pulse coupling) (see figure 6-28 for schematic).



NOTE

1 ORIENT COMPONENTS IN POSITION SHOWN

2 ETCHED DOT ADJACENT TO THE COMPONENT IS TO DENOTE COLLECTOR ON TRANSISTOR OR CATHODE END OF DIODE, OR POSITIVE END OF ELECTROLYTIC CAPACITORS

EL6625—2514—14—2—CI—TM—28

Figure 28. Printed Wiring Assembly (Resistors) (see figure 6-29 for schematic).

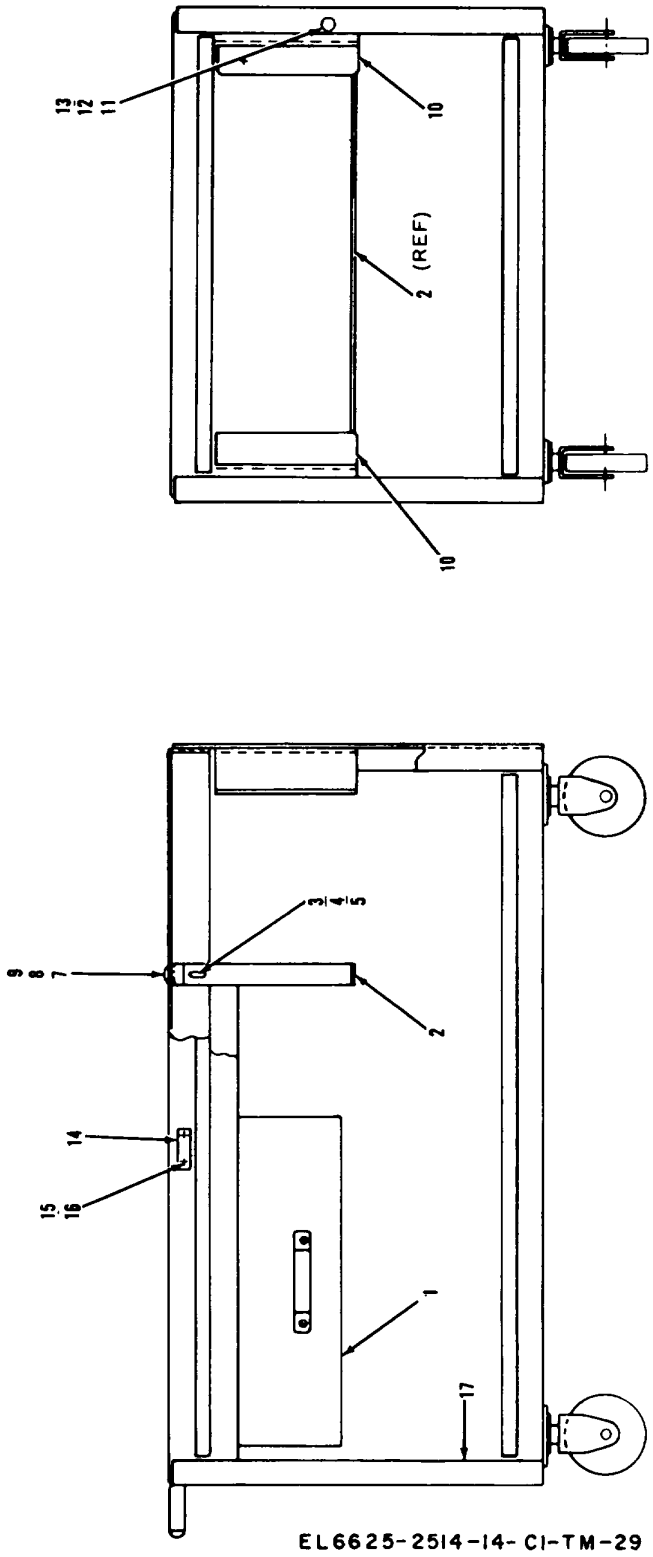


Figure 29. Cart, Service U7780.

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION

NOTE: LATEST FEDERAL STOCK NUMBER ASSIGNMENTS ARE INCLUDED AT END OF INDEX

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
3920-001-6394	1	5
4920-001-4107	3	4
4920-001-4107	4	2
4920-001-4107	5	2
4920-001-4107	6	2
4920-001-4107	7	2
4920-001-4107	18	15
4920-001-4107	19	10
4920-001-4107	20	7
4920-001-4107	21	3
4920-001-4107	22	16
4920-001-4107	23	5
4920-001-4107	24	5
4920-001-4107	26	16
4920-001-4107	27	4
4920-001-4107	28	10
5305-889-2999	8	8
5305-978-9350	2	11
5305-984-4988	8	2
5305-984-6192	8	5
5305-984-6194	8	11
5305-988-1169	8	44
5310-209-5606	10	7
5310-515-8058	8	47
5310687-6293	11	26
5310-809-3365	8	12
5310-839-3770	8	3
5325-202-1311	10	5
5355-038-7360	16	1
5355-667-9614	2	9
5355-667-9614	10	1
5360-256-3719	12	10
5360-349-8396	11	2
5360-355-7489	8	20
5360-355-7489	13	21
5360-405-5506	8	18
5865-093-5851	8	7
5865-093-5853	8	1
5865-094-2081	8	42
5865-094-2418	8	43
5895-033-6311	2	21
5895-036-3957	8	4
5895-036-3958	2	10
5895-094-2468	13	11
5895-094-2485	14	8
5905-104-8358	26	12
5905-106-1249	15	3
5905-110-0620	14	9
5905-110-0620	26	14
5905-114-0708	26	9
5905-116-8555	26	10
5905-119-8811	22	15
5905-131-1255	22	11
5905-136-8406	22	14
5905-141-0717	18	3
5905-186-2972	26	13
5905-192-3973	3	3
5905-279-2627	28	7
5905-435-1718	27	3
5905-458-9500	18	6
5905-458-9500	20	6
5905-903-7985	8	68
5905-912-2815	18	8
5905-914-2152	18	4
5905-922-7271	18	1
5905-922-7271	18	5
5905-922-7271	20	5
5905-945-6957	18	9
5905-945-6957	19	6
5905-9524a85	18	7

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION

NOTE: LATEST FEDERAL STOCK NUMBER ASSIGNMENTS ARE INCLUDED AT END OF INDEX

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5905-985-6317	8	67
5910-106-2869	28	4
5910-111-1679	26	11
5910-121-9920	27	2
5910-141-1132	26	15
5910-851-9192	27	1
5920-280-9328	15	27
5920-280-9545	15	26
5920-462-3342	15	28
5920-848-8882	15	25
5930-156-3635	8	69
5930-k38-4672	2	5
5930-984-9883	14	17
5935-061-7829	15	30
5935-660-5207	15	29
5935-854-3197	15	8
5940-296-5946	15	16
5940-666-0866	2	18
5945-422-5169	2	17
5950-052-8402	15	5
5961-577-6084	3	1
5961-577-6084	4	1
5961-577-6084	5	1
5961-577-6084	6	1
5961-577-6084	7	1
5961-577-6084	18	13a
5961-577-6084	19	2
5961-577-6084	26	8
5961-577-6084	28	5
5961-821-8976	26	3
5961-577-6084	2	20
5961-577-6084	15	2
5961-577-6084	18	13
5961-577-6084	19	1
5961-577-6084	20	2
5961-842-9864	26	7
5961-852-5171	18	10
5961-852-5171	19	4
5961-855-2786	28	9
5961-878-4286	18	12
5961-954-0626	19	3
5961-954-0626	20	1
5961-954-0626	26	1
5962-011-2963	22	3
5962-011-3010	22	5
5962-252-0227	21	1
5962-400-1842	23	1
5962-400-1842	24	1
5962-890-7640	22	4
5963-927-1748	22	6
5965-011-2762	28	1
5970-956-4972	18	14
5970-956-4972	19	5
5970-956-4972	26	2
6130-499-2527	15	22
6350-401-9087	15	23
6350-482-2941	11	16
6625-195-1635	15	21
7510-134-8208	8	13

REFERENCE NO.	MFG CODE	FIG NO.	ITEM NUMBER OR REF. DESIGNATION
AGC-2	71400	15	25
AN122676	88044	12	1
AN960-10L	88044	29	1
AN960-10L	88044	29	8
AN960-10L	88044	29	12
AN960-2	88044	8	93
AN960-4	88044	10	14
A960-516L	88044	15	34
AN960-6	88044	8	96

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
AN960-8	88044	8	47
AN960-8	88044	8	53
AN960-8	88044	10	4
BC2206F-Z	92702	15	13
BR19-S355	09026	2	17
CD10E		8	45
CK06CW103M	81349	27	1
CKD6CW103M	81349	28	3
CSR13BF106M	81349	22	7
CSR13BF225M	81349	22	8
CSR13BF475M	81349	22	9
CSR13BF476M	81349	22	6
CS-2	12139	11	18
CS-2	12139	11	30
CS-2	12139	11	33
CS-9	12139	2	8
CS-L1	12139	8	17
CS-L1	12139	8	28
C-114-18	98376	15	6
C1-2	12139	8	16
C1-2	12139	11	23
C1-2	12139	11	29
C193263	97525	14	6
E1 -012B-6-SS	84830	8	35
HRT-202M	02289	15	17
H-2159-031	81840	11	34
H-4711	97525	3	4
H-4711	97525	4	2
H-4711	97525	5	2
H-4711	97525	6	2
H-4711	97525	7	2
H-4711	97525	18	15
H-4711	07525	19	10
H-4711	97525	20	7
H-4711	97525	21	3
H-4711	97525	22	16
H-4711	97525	23	5
H-4711	97525	24	5
H-4711	97525	26	16
H-4711	97525	27	4
H-4711	97525	28	10
KLJ75K5	05397	15	4
LC-022-9-SS	84830	8	18
LC-032E-15	84830	16	5
LE-O18A-3	84830	11	24
MC605C104M	00656	21	2
MC605C104M	00656	22	10
MC605C104M	00656	23	4
MC605C104M	00656	24	4
MCT89P	01537	22	4
MDL-1/8	Tn400	15	26
MDL.-1-1/2	71400	15	27
MIL.-P-18177	81349	15	9
MIL-T-713	81349	16	22
MIL-W-16878	81349	8	60
MIL-16878	81349	16	21
MIL-1-7444	81349	16	23
MS16562-192	96906	16	26
MS16633-1012		8	33
MS16997-11	96906	11	7
MS16997-13	96906	11	8
MS16997-22	96906	2	11
MS17160-132	96906	8	62
MS20257C1-500	96906	10	9
MS20392020C33	96906	16	8
MS20392-1C43	96906	9	18
MS20392-2-C17	96906	16	3

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REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
MS2104NN3	96906	9	1
MS21044N3	96906	29	5
MS21044N3	96906	29	9
MS21044N04	96906	8	9
MS21044N04	72962	8	36
MS21044N04	96906	8	78
MS21044N04	96906	8	82
MS21044N04	96906	8	89
MS21044N04	96906	10	11
MS21044N04	96906	10	15
MS21044N06	96906	11	21
MS21044N06	96906	29	16
MS21044N06	96906	8	6
MS21044N08	96906	8	72
MS21044N08	96906	8	97
MS21044N08	96906	8	6
MS21044N08	96906	8	26
MS21044N3	96906	8	46
MS2104404	96906	29	13
MS2104404	96906	13	5
MS2104404	96906	13	13
MS2104404	96906	13	24
MS2104404	96906	13	27
MS212080F1-10	96906	16	28
MS24665-132	96906	9	17
MS24665-132	96906	16	2
MS24665-132	96906	16	7
MS25307-222	96906	14	17
MS29513-5	96906	15	40
MS35190-8	96906	8	37
MS35190-12	96906	8	66
MS35190-223	96906	10	13
MS35190-2	96906	13	26
MS93519-27	96906	8	71
MS35190-28	96906	8	95
MS35206-201	96906	11	1.4
MS35206-201	96906	13	7
MS35206-203	96906	8	58
M835206-203	96906	8	91
MS35206-203	969(6	lo	18
MS35206-205	96906	8	38
MS35206-205	96906	11	25
MS35206-211	96906	8	44
MS35206-213	96906	13	9
MS35206-214	96906	8	80
MS35206-214	969(6	8	83
MS35206-214	96906	8	88
MS35206-214	96906	9	14
MS35206-214	96906	10	10
MS35206-214	96906	12	6
MS35206-215	96906	9	6
MS35206-215	96906	9	20
MS35206-215	96906	11	2
MS35206-217	96906	8	8
MS35206-217	96906	11	43
MS35206-217	96906	12	12
MS35206-217	96906	13	12
MS35206-217	96906	13	15
MS35206-218	96906	11	12
MS35206-228	96906	8	2
MS35206-228	96906	8	40
MS35206-228	96906	8	63
MS35206-228	96906	26	4
MS35206-244	96906	8	5
MS35206-244	96906	8	29
MS35206-245	96906	10	2
MS35206-246	96906	8	11
MS35206-246	96906	8	51
MS35206-247	96906	8	23
MS35225-14	96906	29	15
MS35226-64	96906	29	3
MS35226-64	96906	29	11

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
MS35290-43	96906	8	25
MS35340-39	96906	8	92
MS35340-39	96906	11	15
MS35340-40	96906	8	84
MS35340-40	96906	9	15
MS35340-40	96906	9	21
MS35340-40	96906	11	3
MS35340-40	96906	11	9
MS35340-40	96906	11	I1
MS35340-40	96906	12	7
MS35340-40	96906	12	13
MS35340-40	96906	13	10
MS35340-40	96906	13	16
MS35340-41	96906	15	39
MS35340-41	96906	8	3
MS35340-41	96906	8	41
MS35340-41	96906	26	5
MS35340-42	96906	8	12
MS35340-42	96906	8	24
MS35340-42	96906	8	30
MS35340-42	96906	8	52
M353340-42	96906	10	3
MS35340-44	96906	15	33
MS35241-23	96906	10	21
MS35689-6	96906	15	12A
MS35649-22	96906	11	26
MS35649-62	96906	13	18
MS35649-62	96906	26	6
MS35649-62	96906	11	39
MS51967-2	96906	15	32
MS51967-2	96906	16	10
MS5206-217	96906	13	12
NAS1081C02D4A4N	80205	13	30
NAS1081C02D4A4N	80205	8	54
NAS108/C06S12N	80205	13	17
BAS108-04A3N	80205	12	4
NAS108108D3N	80205	16	15
N-832X3/4	95987	11	38
PS-106	88557	2	5
PT00A-8-4P	77280	2	15
PT00A-8-4S	77820	15	30
PT00A-12-98S	77820	15	8
PT00A-12-36P	77280	2	16
PT06P-12-98P	77820	8	59
P62998-001	80063	16	16
P69901-002	80063	16	18
RCR07GF102J	81349	14	11
RCR07GF102J	81349	26	14
RCR07GF151J	81349	22	15
RCR07GF303J	81349	28	8
RCR07GF752J	81349	22	12
RCR07GF102J	81349	14	9
RCR07G122JS	81349	22	11
RCR07G153JS		26	10
RCR07G202JS	81349	26	9
RCR07G241JS	81349	27	3
RCR07G242JS	81349	22	14
RCR07G303JS	81349	2	2
RCR07G510JS	81349	15	3
RCR07G512JS	81349	26	11
RCR07G752JS	81349	26	15
RCR07G822JS	81349	26	12
RC05GF102J	81319	18	6
RC05GF102J	81349	20	6
RC05GF153J	81349	18	8
RC05GF204J	81349	18	4
RC05GF222J	81349	19	9
RC05GF222J	81349	19	6
RC05GF274J	81349	18	2
RC05GF363J	81349	18	1
RC05GF363J	81349	18	5
RC05GF363J	81349	20	5

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
RC42GF511J		26	13
RC05GF622J	81349	19	9
RC05GF753J	81349	18	7
RC05GF473J	81349	18	3
RC05GF471J	81349	3	35
RC05GF750J	81349	28	7
RW79U10R0F	81349	8	67
RW79U4R99F	81349	8	68
SFSW10R8CPG102A	12324	2	2
SL9352	07263	23	2
SL9352	07263	2	2
SN7483N	01295	28	1
S116839	97525	15	1
S116B4-1	97525	2	26
TYPE052	81349	8	61
TYPE2423	77902	2	2
U6A962459X	07263	23	1
U6A962459X	07263	24	1
U6A962559X	07263	23	3
U6A962559X	01263	24	3
U6A993659X	02633	22	3
U6A994559X	07263	22	5
U6A998979X	07263	22	1
U6B930159X	07263	21	1
U6B930159X	07263	2	2
U6B930159X	07263	28	2
VB10/1UWC11-42	05574	2	19
VK30BX104M	95275	28	4
X1421	06515	14	41
1-G-1	82813	10	6
1L	80813	10	5
1N3022B	81319	28	9
1N4586	81319	8	57
1N645	81319	3	1
1N645	81319	4	1
1N645	81319	5	1
1N645	81349	6	1
1N645	81349	7	1
1N645	81349	18	13a
1N645	813h9	19	2
1N645	81349	26	8
1N645	81349	28	5
1N748	81349	20	1
1N914	81349	2	20
1N914	81349	15	2
1N914	81349	18	13
1N914	81349	19	1
1N914	81349	20	2
1N914	81349	26	7
1N971B	81349	18	12
1-R-078	80813	10	8
1-S-063-093	80813	10	23
1-W	80813	10	7
100-1616	10199	29	1
10079	07049	18	14
10079	07049	19	5
10079	07049	26	2
1051A	28480	2	35
111-4	18482	12	10
1117840	30874	11	16
12TM124-50T	18482	13	20
112-4	18482	8	20
112-4	18482	13	21
1128403	30874	8	87
1128404	30874	8	86
1136138	30874	8	13
189055-13	92525	14	7
198550-001	80063	8	79
198550-001	80063	29	14
198550-1	80063	2	6
198571-004	80063	2	34
198571-004	80063	8	73

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
198571-004	80063	15	2
199929	97525	14	5
2BR-1735	02289	15	16
22NM40	72962	10	22
22NM-82	72962	10	19
2N1711	81349	18	10
2N1711	81349	19	4
2N297A	81349	26	3
2N3502	01295	19	3
2N3502	01295	20	4
2N3502	01295	26	1
2N3503	01295	18	11
224P-1-502	80294	22	13
2202-C	88245	8	55
2500-2		11	22
2500-2		11	32
283809-00	80063	14	3
283810-01	80063	18	16
283812-01	80063	19	11
283815-01	80063	20	8
283816-01	80063	21	4
283822-01	80063	22	17
283823-01	80063	23	6
283824-01	80063	24	6
283825-01	80063	25	3
283841-000	80063	1	18
283841-01	80063	16	9
283841-05	80063	16	19
283841-07	80063	16	11
283841-10	80063	16	13
283841-10	80063	16	17
283841-11	80063	16	12
283841-13	80063	16	27
283841-15	80063	16	20
283841-17	80063	16	6
283841-21	80063	16	1
283841-30	80063	16	14
283641-38	80063	16	11
283841-01	80063	26	17
283841	80063	2	21
283854-01	80063	3	5
283861-01	80063	27	5
28386201	80063	28	11
283864	80063	8	7
283864-01	80063	11	27
283864-03	80063	11	6
283864-05	80063	11	31
283864-07	80063	11	5
283864-11	80063	11	1
283864-13	80063	11	17
283864-15	80063	11	28
283864-17	80063	11	42
283864-21	80063	11	19
283864-23	80063	11	20
283864-25	80063	11	37
283864-27	80063	11	10
283864-33	80063	11	11
283864-31	80063	11	13
283864-33	80063	11	35
283864-37	80063	11	4
283864-43	80063	11	36
283879	80063	2	22
283879-01	80063	4	3
283889	80063	2	23
283889-01	80063	5	3
283890	80063	2	24
28389-01	80063	6	3
283891	80063	2	25
283891-01	80063	7	3
28452-01	80063	12	11
284542-05	80063	12	5
284542-05	80063	12	2

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
284542-07	80063	12	8
284542-10	80063	12	3
285215-000	80063	8	85
285224	80063	1	1
285225-C	80063	8	1
285225-01	80063	9	4
285225-03	80063	8	3
285225-05	80063	9	19
285225-11	80063	9	12
285225-13	80063	9	7
285225-15	80063	9	2
285225-15	80063	9	16
285225-17	80063	9	10
285225-21	80063	9	8
285225-23	80063	9	13
285225-27	80063	9	9
285225-31	80063	9	11
285225-97	80063	9	5
285226	80063	8	10
285226-01	80063	13	22
285226-03	80063	13	25
285226-05	80063	13	14
285226-07	80063	13	9
285226-11	80063	13	23
285226-13	80063	13	1
285226-13	80063	13	3
285226-15	80063	13	4
285226-17	80063	13	28
285226-21	80063	13	29
265226-25	80063	13	8
285226-27	80063	13	11
285226-31	80063	13	6
285714	80063	8	4
285714-01	80063	10	17
285714-03	80063	10	20
285714-10	80063	10	16
285715	80063	1	4
29-2620	10199	29	17
336467	80063	1	3
336467-05	80063	15	37
336467-11	80063	14	4
336467-13	80063	15	19
336467-25	80063	15	36
336467-35	80063	15	7
336467-33	80063	15	18
336467-37	80063	14	1
336467-41	80063	15	35
336467-45	80063	15	10
336467-47	80063	15	20
336467-51	80063	15	11
336467-53	80063	14	31
336467-70	80063	15	38
33698-63	88245	8	56
336989	80063	1	2
336989-01	80063	8	101
336989-03	80063	8	94
336989-05	90227	10	12
336989-07	80063	8	27
336989-15	80063	8	39
336989-17	80063	8	82
336989-21	80063	8	99
336989-23	80063	8	70
336989-25	80063	8	75
336989-30	80063	8	74
336989-31	80063	8	34
336989-33	80063	8	19
336989-41	80063	8	42
336989-43	80063	8	43
336989-47	80063	8	77
336989-50	80063	8	90
336989-51	80063	8	100
336946-55	80063	8	76

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TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO. OR REF. DESIGNATION
336989-55	80063	8	76
336989-57	80063	8	32
336989-61	80063	8	48
336989-63	88245	8	56
336989-65	80063	8	50
336989-67	83063	8	9
336990	83063	1	1
336990-01	80063	2	30
336990-03	80063	2	1L4
336990-05	80063	2	n
336990-07	80063	2	28
336990-10	80363	2	7
336990-11	18003	2	34
336990-13	80063	2	3
336990-15	80063	2	12
336990-17	80063	2	13
336990-25	80063	2	10
337827-01	80063	29	10
337827-1	80063	29	10
MS35226-64	96906	29	7
336990-27	80063	2	29
337837	80063	1	5
337827-03	80063	29	2
338727-04	80063	29	6
342001	75915	15	28
336989-10	80063	8	21
366989-11	80063	8	31
4169	12405	16	24
421-26	00712	3	2
4310	12139	16	29
5060-0775	80063	2	32
5060-0828	28480	2	1
5133-12	79136	13	2
5278	74545	15	29
60066-A	28480	15	22
60246B	28480	15	23
6218-A	28480	15	21
663F10594W	81349	15	14
6706	73545	15	42
69-93-1	92702	15	12
712-26	24176	20	3
712-6	24L76	28	6
7201	05191	15	31
750	83112	15	15
756	83112	8	65
756	83112	11	40
770	83112	2	18
8TM84040T	18482	12	9
8866X2	17465	8	69
888442-5A	12618	15	41
9330-24	76493	15	5
97	80813	2	9
97	80813	10	1

LATEST FEDERAL STOCK NUMBER ASSIGNMENTS

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5865-093-5857	2	23
5895-094-2287	2	24
5895-094-2327	2	25
5895-095-2654	2	22
5910-007-2004	22	9
5510-236-8766	22	7
5935-176-2219	2	15
5945-235-8806	3	2
5960-420-8555	22	8
5962-161-8319	23	2

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ADDENDUM C

MAINTENANCE ALLOCATION

C-1. General

This addendum provides a summary of the maintenance operations covered in the equipment literature. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This addendum may be used as an aid in planning maintenance operations.

C-2. Maintenance Functions

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and to detect incipient failure of measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean, preserve, drain, paint, or to replenish fuel/lubricants/hydraulic fluids or compressed air supplies.

d. Adjust. Maintain within prescribed limits by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

e. Align. To adjust specified variable elements of an item to about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipment used to precision measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment/system.

h. Replace. The act of substituting a serviceable like-type part, subassembly, module (component or assembly) in a manner to allow the proper functioning of an equipment/system.

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module/component/assembly, end item or system.

j. Overhaul. That maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (e.g., DMWR) in pertinent technical manuals. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like-new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like-new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipment/components.

l. Symbols. The uppercase letter placed in the appropriate column indicates the lowest level at which that particular maintenance function is to be performed.

C-3. Explanation of Format

a. Group Number. Column 1 lists group numbers, the purpose of which is to match components, assemblies, subassemblies and modules with the next higher assembly.

b. Functional Group. Column 2 lists the next higher assembly group and the item names of components, assemblies, subassemblies and

modules within the group for which maintenance is authorized.

c. Maintenance Functions. Column 3 lists the twelve maintenance functions defined in C-2 above. Each maintenance function required for an item is specified by the symbol among those listed in *d* below which indicates the level responsible for the required maintenance. Under this symbol is listed-an appropriate work measurement time value determined as indicated in *e* below.

d. Use of Symbols. The following symbols are used to prescribe work function responsibility:

C - Operator/crew
O - Organization
F - Direct support
H - General support
D - Depot

e. Work Measurement Time. The active repair time required to perform the maintenance function is included directly below the symbol identifying the category of maintenance. The skill levels used to obtain the measurement times approximate those found in typical TOE units. Active repair time is the average aggregate time required to restore an item (subassembly, assembly, component, module, end item or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, fault isolation/diagnostic time, and QA/QC time in addition to the time required to perform specific maintenance functions identified for the tasks authorized in the maintenance allocation chart. This time is expressed in man-hours and carried to one decimal place (tenths of hours).

f. Tools and Test Equipment. This column is used to specify, by code, those tools and test equipment required to perform the designated function.

g. Remarks. Self-explanatory.

C-4. Explanation of Format of Table I and TEST Equipment Requirements

The columns in table I follows:

a. Tools and Equipment. The numbers in this column coincide with the numbers used in the tools and equipment column of the maintenance allocation chart. The numbers indicate the applicable tool for the maintenance function.

b. Maintenance Category. The codes in this column indicate the maintenance category normally allocated the facility.

c. Nomenclature. This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

d. Federal Stock Number. This column lists the Federal stock number of the specific tool or test equipment.

e. Tool Number. Not used.

(Next printed page is C-3)

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) FUNCTIONAL GROUP COMPONENT ASSEMBLY NOMENCLATURE	(3) MAINTENANCE FUNCTIONS											(4) TOOLS & EQUIPMENT	(5) REMARKS
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild		
	CODE PLUG PROGRAMMER TEST SET PT 1561	C 0.1		C 0.4	0 0.3			C 0.3					1, 5	Visual
			F 1.0			F 0.5	D 0.6			F 1.5			1, 2, 3, 6 4	
											D 3.5	D 4.0		Depot facilities
01	SIMULATOR U7484	C 0.2			0 0.3								1, 5	
			F 0.8				D 0.6		F 0.4		F 0.8		1, 2, 3, 5 4	
											D 1.0			Depot facilities
0101	CONNECTORS	C **0.1**												
			O 0.3						0 0.3	0 0.4			1, 5	
0102	CABLES	C 0.1												
			O 0.4						O 0.2	O 0.4			1, 5	
0103	PRINTED CIRCUIT CARDS	0 0.1												
			F 1.0						F 0.4				1, 2, 3, 6	
											D 1.0			Depot facilities
0104	INDICATOR/SWITCH	O **0.1**	O 0.3										1, 5	
									F 0.3				1, 2, 3, 6	

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) FUNCTIONAL GROUP COMPONENT ASSEMBLY NOMENCLATURE	(3) MAINTENANCE FUNCTIONS											(4) TOOLS & EQUIPMENT	(5) REMARKS
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild		
0105	MISCELLANEOUS HARDWARE KNOBS, COVER, ETC.	C 0.1							O O.2				5	
0106	MISCELLAEOUS COMPONENTS RELAYS, DIODES, ROTARY SWITCHES, RECEPTACLES, ETC.	O 0.1		O 0.4					**0** 0.3				1, 5	
02	PRINTER U7483C	C 0.1	C 0.2	C 0.3										
					O 0.3	O 0.3			O 0.4	O 0.5			1, 5	
											D 2.0			Depot facilities
0201	PAPER TAPE	C 0.1							C 0.1					
0202	RIBBON CARTRIDGE	C 0.1							C 0.1					
0203	TAPE FEED MECHANISM	C 0.1												
			O 0.3	O 0.3									1, 5	
									F 0.3				1, 6	
0204	SOLENOIDS	0 0.1	0 0.3						0 0.3				1, 5	
0205	MISCELLANEOUS COMPONENTS RESISTORS, DIODES, RELAYS, ROTARY SWITCHES, RECEPTACLES, ETC.	O 0.1	O 0.3						O 0.4				1, 5	
03	PROGRAMMR TC 432	C 0.1												
			F 0.8						F 0.4	F 0.8			1, 2, 3, 6	
											D 1.0			Depot facilities

SECTION II. MAINTENANCE ALLOCATION CHART

(1) GROUP NUMBER	(2) FUNCTIONAL GROUP COMPONENT ASSEMBLY NOMENCLATURE	(3) MAINTENANCE FUNCTIONS											(4) TOOLS & EQUIPMENT	(5) REMARKS
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild		
0301	NUMERIC INDICATOR ASSEMBLY	C 0.1	C 0.2						0 0.4				1, 5	
0302	BINARY CODED SWITCHES	C 0.1	C 0.2						0 0.5	F 0.5			1, 5 1, 6	
0303	INDICATOR/SWITCH	O 0.1	O 0.3						F 0.4				1, 5 1, 6	
0304	PRINTED CIRCUIT CARDS	O 0.1	F 1.0						F 0.4	D 1.0			1, 5 1, 2, 3, 6	Depot facilities
0305	POWER SUPPLIES (PS 1, PS 2, PS 3)	0 0.1	0 0.4							0 0.4			1, 5	
0306	CABLES	C 0.1	O 0.4						O 0.2	O 0.4			1, 5	

TABLE I. TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOLS AND EQUIPMENT	MAINTENANCE CATEGORY	NOMENCLATURE	FEDERAL STOCK NUMBER	TOOL NUMBER
1	O, F, H, D	MUITIMETER TS-352B/U	6625-242-5023	
2	F, H, D	COUNTER, ELECTRONIC, DIGITAL READOUT AN/USM-207	6625-911-6368	
3	F, H, D	OSCILLOSCOPE AN/USM-281	6625-228-2201	
4	D	GENERAL PURPOSE AUTOMATIC TEST EQUIPMENT (GATE) AN/GSM-220	6350-133-7595	
5	O	TOOL KIT, ELECTRONIC EQUIPMENT TK-105/G	5180-610-8177	
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