silENT 700®
electronic data terminals

MODELS 735, 752, 753, 754, AND 755 MAINTENANCE MANUAL

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TEXAS INSTRUMENTS
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SECTION I

GENERAL DESCRIPTION

1-1 SCOPE OF MANUAL.

This manual contains descriptions, theory of operation, and maintenance procedures for the Model 735 Portable, the Models 752 and 753 OEM, and the Models 754 and 755 Receive-Only Electronic Data Terminals manufactured by the Digital Systems Division of Texas Instruments Incorporated. The information presented herein is intended to help in maintaining and servicing these data terminal models. The information in this manual should help service personnel solve minor maintenance problems in the field and assist analysis of major troubles at regional TI service centers. A general description of Models 735, 752, 753, 754, and 755 Data Terminals and their modules is included in this section of the manual. Necessary interfacing and installation information is contained in Part II, and a general theory of operation for each PC card function is included in Part III. Parts lists and related mechanical drawings and electrical schematics are included in appendixes to this manual.

1-2 EQUIPMENT DESCRIPTION.

Each Silent 700® Data Terminal is a self-contained locally controlled, and/or remotely controlled, electronic data terminal designed for use in a wide variety of telecommunications systems. Silent electronic printing is achieved using a five-by-seven-dot matrix on a monolithic solid-state printhead which prints up to 80 characters across the page. The dot matrix is composed of 35 separate, solid-state heating elements, each electronically controlled. A voltage is applied to the appropriate elements for each printable character, transferring thermal energy to heat-sensitive paper, thus creating a visible image.

1-2.1 MODEL 735 PORTABLE. The Model 735 shown in Figure 1-1 is a portable, light-weight, electronic printing data terminal with a built-in acoustic coupler. The Model 735 is capable of operating in full- or half-duplex modes at 10, 15, or 30 characters per second (CPS) using the character set and code compatible with the American Standard Code for Information Interchange (ASCII). The Model 735 is a self-contained unit and may be locally and/or remotely controlled. The 735 is designed to use commercial telephone facilities for interrogation of a computerized data base from a remote location.

The following options are available for the Model 735.

a. The External Interface Cable Kit which includes an EIA interface cable and a coupler EIA interface cable.

b. 240 Vac operation.

1-2.2 MODEL 752 OEM. The Model 752 OEM Data Terminal shown in Figure 1-2 is a receive-only data terminal with TTY interface. It can print the Baudot code at 6.67, 10, or 13.3 characters per second.

The following options are available for the Model 752.

a. 120 Vac internal power supply

b. 240 Vac internal power supply

c. Paper-out indicator signal.

1-2.3 MODEL 753 OEM TERMINAL. The Model 753 shown in Figure 1-2 is a receive-only data terminal with EIA interface. It can print the ASCII code at 10, 15, or 30 characters per second.

The following options are available for the Model 753.

a. ASCII code operation with TTY interface

b. ASCII code operation with parallel interface

c. 120 Vac internal power supply

d. 240 Vac internal power supply

e. Paper-out indicator signal.

1-2.4 MODEL 754. The Model 754 shown in Figure 1-3 is a receive-only data terminal with TTY interface. It can print the Baudot code at 6.67, 10, or 13.3 characters per second.

The following options are available for the Model 754:

a. Paper-out indicator signal.

b. 240 Vac operation.

1-2.5 MODEL 755. The Model 755 shown in Figure 1-3 is a receive-only data terminal with EIA interface. It can print ASCII code at 10, 15, or 30 characters per second.

The following options are available for the Model 755.

a. ASCII code operation with TTY interface

b. ASCII code operation with parallel interface

c. Paper-out indicator signal

d. 240 Vac operation.

1-3 OPTIONAL EQUIPMENT.

1-3.1 TTY LINE INTERFACE (NEUTRAL OR POLAR). The TTY line interface replaces the standard EIA interface for the Models 753 and 755. Signalling is accomplished by opening and closing the circuit presented to the data terminal I/O connector. Nominal operating current is field-adaptable to either 60 mA or 20 mA (20 mA standard).

1-3.2 STAND. A terminal stand shown in Figure 1-4 is available to securely support a data terminal. The stand is designed so that the lower row of key tops is 29 inches from the floor. The stand provides at least 24 inches of leg room from the bottom of the stand to the floor and at least 14 inches of leg room from the front edge of the terminal stand to the back of the stand. The stand weighs approximately 45 pounds.

1-3.3 PAPER-OUT SIGNAL (MODELS 752, 753, 754, and 755). A paper-out signal option provides a TTL output signal to advise the equipment which transmits to the Silent 700 that the paper supply roll has only 10 ±5 feet remaining.

FIGURE 1-1. TEXAS INSTRUMENTS MODEL 735 PORTABLE ELECTRONIC DATA TERMINAL

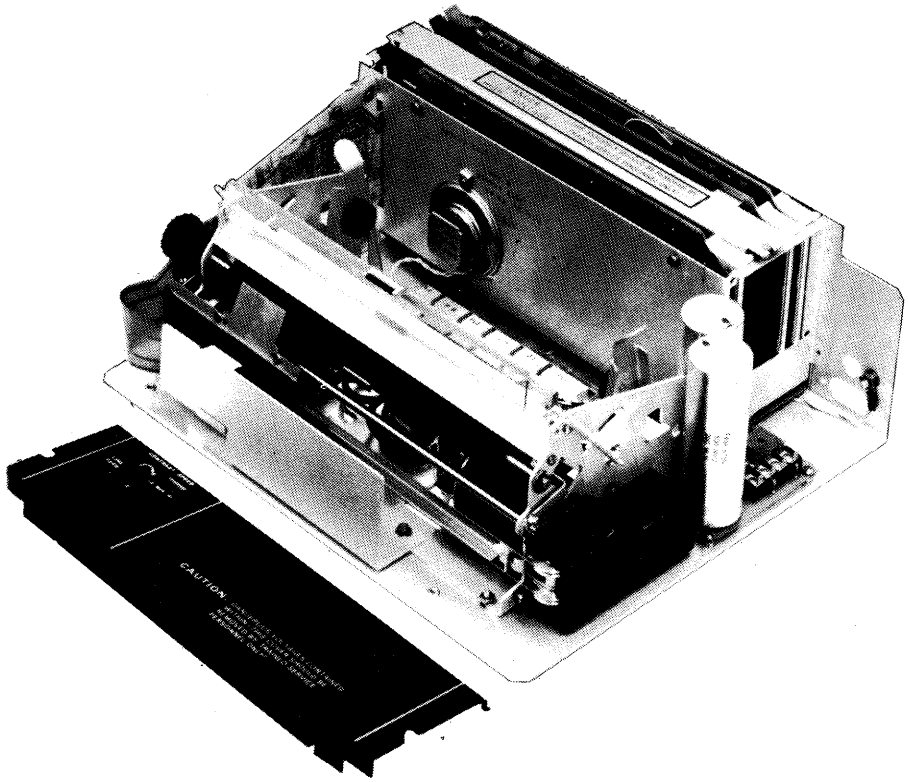

FIGURE 1-2. TEXAS INSTRUMENTS MODELS 752, 753 RECEIVE – ONLY DATA TERMINAL

FIGURE 1-3. TEXAS INSTRUMENTS MODELS 754, 755 RECEIVE – ONLY DATA TERMINAL

FIGURE 1-4. DATA TERMINAL STAND

SECTION II

EQUIPMENT INSTALLATION

2-1 PRELIMINARY CHECKOUT.

Visually check the data terminal before applying power. Check for any obvious shipping damage such as a cracked or bent top cover. Look for packing material inside the case. Check to see that the top opens and closes freely. Loosen the two screws securing the PC card rack cover (see Figure 2-1), and remove the cover. Visually check for foreign objects which could possibly short any of the circuits. Press down on the ejectors of all PC cards to be sure they are all plugged into their sockets tightly. Replace the PC card rack cover.

Before applying power, load paper in the terminal (see Paragraph 2-4).

CAUTION

The printer should never be operated without paper on the platen (drive roller); damage to both platen and printhead could result.

Also check the Model 735 to be sure that all keys on the keyboard operate smoothly without binding. Lift the pinch roller (Figure 2-1) on all models and move the printhead across the carriage to see that the printhead moves freely without interference.

2-2 MODEL 735 INSTALLATION.

The Model 735 Portable Electronic Data Terminal is a self-contained unit requiring no auxiliary equipment for standard data terminal operation.

2-2.1 POWER CONNECTIONS. The Model 735 Data Terminals are factory-wired for three-wire, 120 Vac or 240 Vac, 50/60 Hz power.

2-2.2 COMMUNICATION INTERFACE CONNECTION. The data link to the Model 735 Data Terminal is made through a built-in acoustic coupler. Complete the data link as follows:

a. Set the SPEED selection switch (Figure 2-1) to 10, 15, or 30 characters per second (100, 150, and 300 baud).

b. Set the transmission mode DUPLEX toggle switch (Figure 2-1) to the HALF or FULL duplex mode.

c. Set the PARITY switch (Figure 2-1) to ODD, EVEN, or MARK.

d. Set the INTERFACE switch to the INT (internal) position.

e. Set the LINE FEED switch for SINGLE or DOUBLE line feed as desired.

f. Set the POWER switch to ON.

g. Release the ON-LINE key to place the data terminal in the *local* mode.

NOTE

The CARRIER detect indicator may illuminate if the PWR switch is ON and the telephone handset is not placed in the coupler muffs. In addition, random characters may be printed if the ON-LINE key is depressed. These anomalies are caused by room noise detected by the sensitive acoustic coupler.

h. On the telephone, dial the appropriate number to connect the data terminal to the data equipment at the other end of the telephone line. An audible high frequency signal (MARK) will occur when communication is established.

i. Place the telephone handset into the acoustic coupler muffs so that the telephone handset cord is to the left side of the data terminal (marked CORD atop the inner cover).

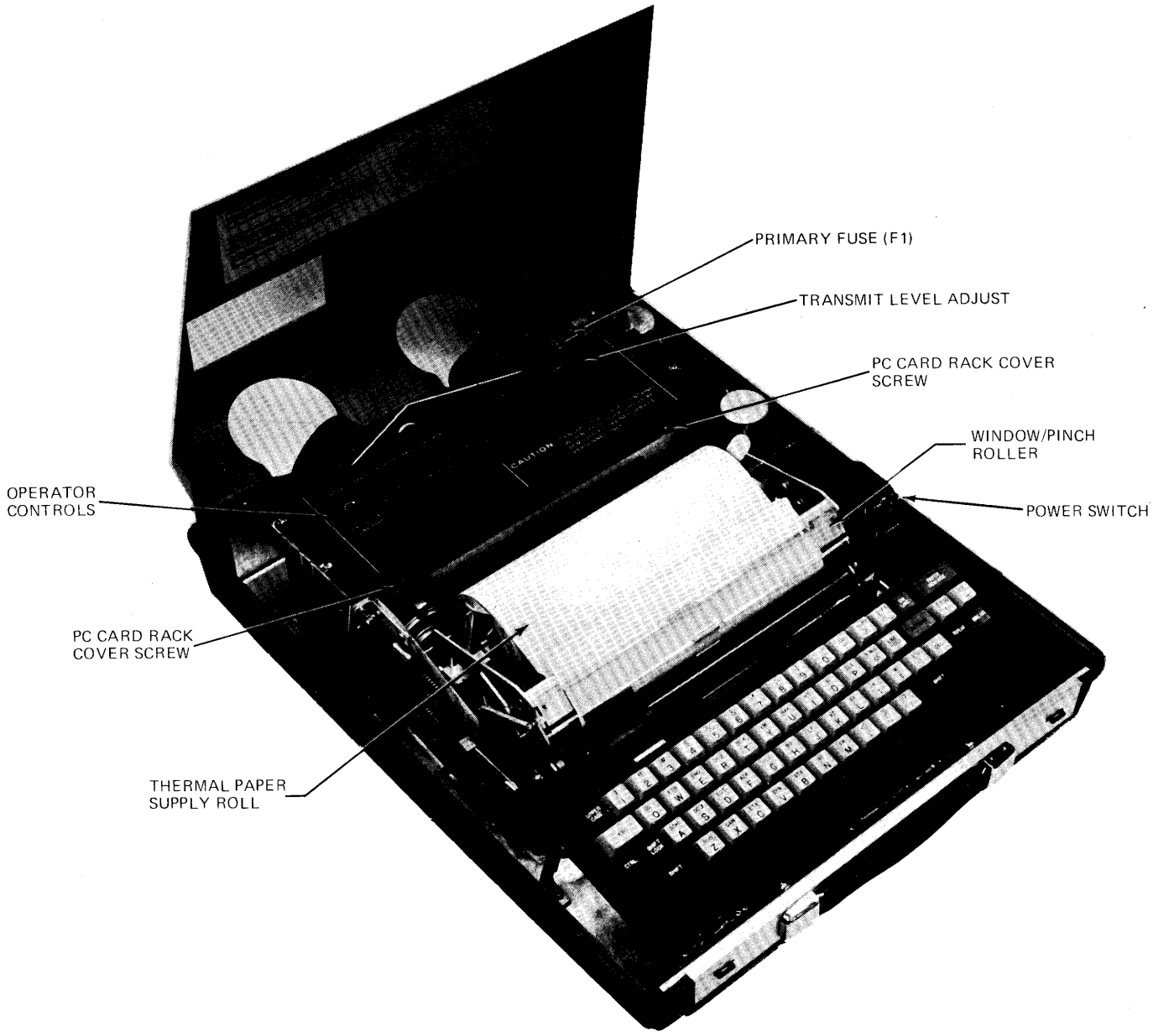

FIGURE 2-1. TYPICAL DATA TERMINAL OPERATOR CONTROLS (MODEL 735 SHOWN)

j. Immediately depress the ON-LINE key. The acoustic coupler will generate the appropriate tones to complete the connection and activate the CARRIER detect indicator.

k. Begin communication according to your system instructions.

NOTE

After prolonged operation the carbon particles in the telephone handset transducer elements may settle, causing data errors. If this occurs, simply remove the telephone handset from the muffs and rap the handset several times in the palm of your hand.

l. In the event the communication channel is lost during operation (the CARRIER detect indicator extinguishes), replace the telephone handset in its cradle, return to step g., and repeat the procedure.

2-3 MODELS 754/755 INSTALLATION.

The Models 754/755 Electronic Data Terminals are self-contained units requiring no auxiliary equipment for standard receive-only data terminal operation.

2-3.1 **POWER CONNECTIONS.** The power connection for the Models 754/755 is three-wire 120 Vac or 240 Vac, 50/60 Hz.

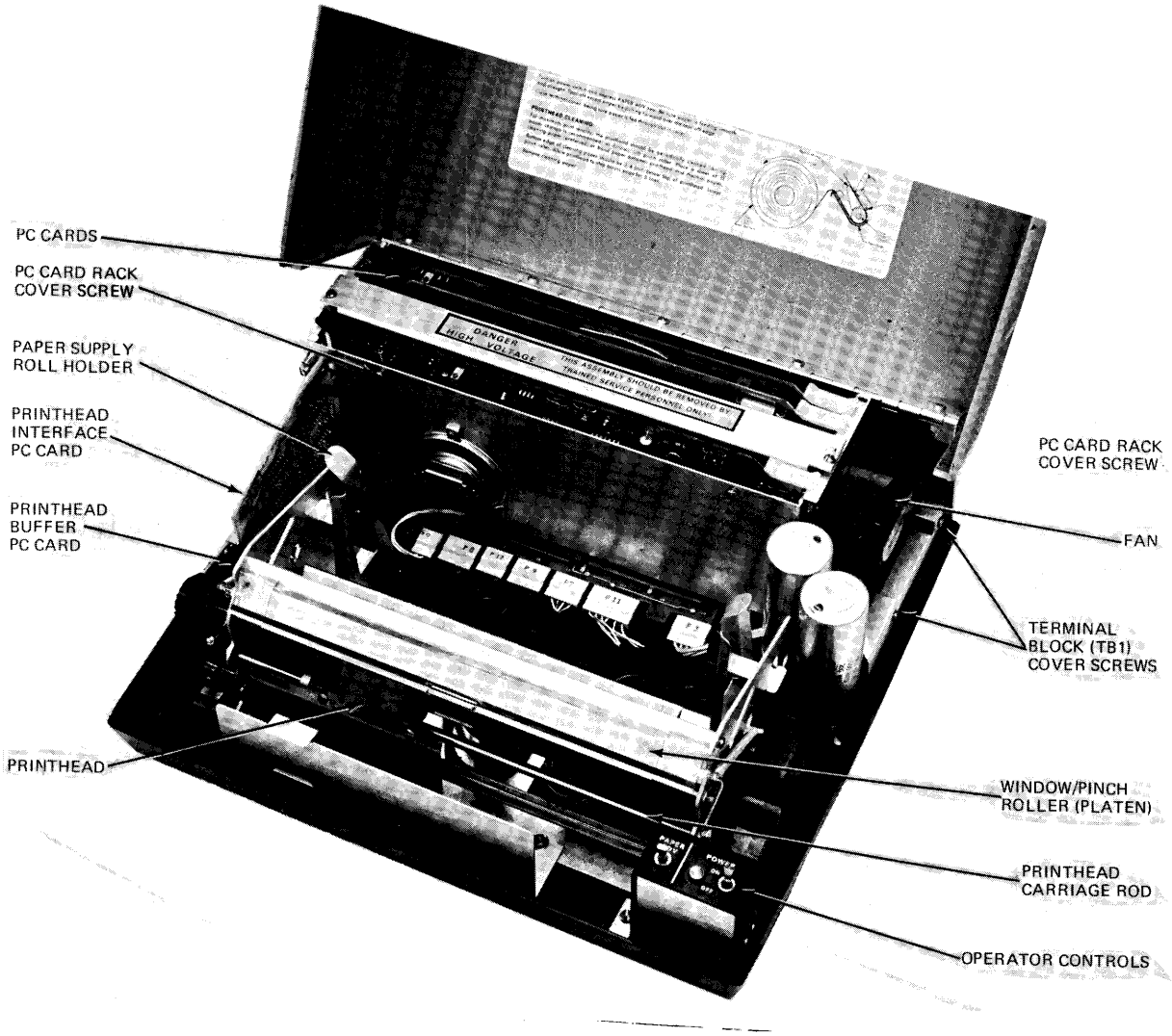

FIGURE 2-3. INTERNAL COMPONENTS, MODELS 754/755

2-3.2 STANDARD COMMUNICATION INTERFACE CONNECTION. The data link to the Models 754 and 755 Data Terminals is made through the communication line interface connector (see Figure 2-4). The connector is designed to mate with an AMP connector, model 582963-2.

2-3.2.1 Model 755. A 6-foot cable (TI Part No. 973251-0001) terminated in a 25-pin male connector (Cannon DB-25P or equivalent) is provided with the standard EIA interface for the Model 755. Pin assignments are listed in Table 2-1. The procedure for completing the data link is as follows:

a. Set the SPEED selection toggle switch (Figure 2-3) to the appropriate speed: 10, 15, or 30 characters per second (110, 150, or 300 baud), marked LO, MED, and HI.

b. Connect the 6-foot cable between the terminal and a signal source such as a Bell 103F data set (or equivalent).

c. Set the LINE FEED switch to 1 (single space) or 2 (double space) as desired.

d. Set the data terminal POWER switch to ON.

To break the connection, simply switch the data terminal POWER switch to OFF.

2-3.2.2 Model 754. A teletype cable terminated with two spade lugs (TI Part No. 959383-0002) is provided with the standard TTY current loop interface for the Model 754. Pin assignments are listed in Table 2-2. The procedure for completing the data link is as follows:

a. Set the SPEED selection toggle switch (Figure 2-3) to the appropriate speed: 6.67, 10, or 13.3 characters per second (50, 75, or 100 baud), marked LO, MED, and HI.

b. Connect the 6-foot cable between the terminal and the signal source.

c. Set the LINE FEED switch to 1 (single space) or 2 (double space) as desired.

d. Set the data terminal POWER switch to ON.

To break the connection, simply switch the data terminal POWER switch to OFF.

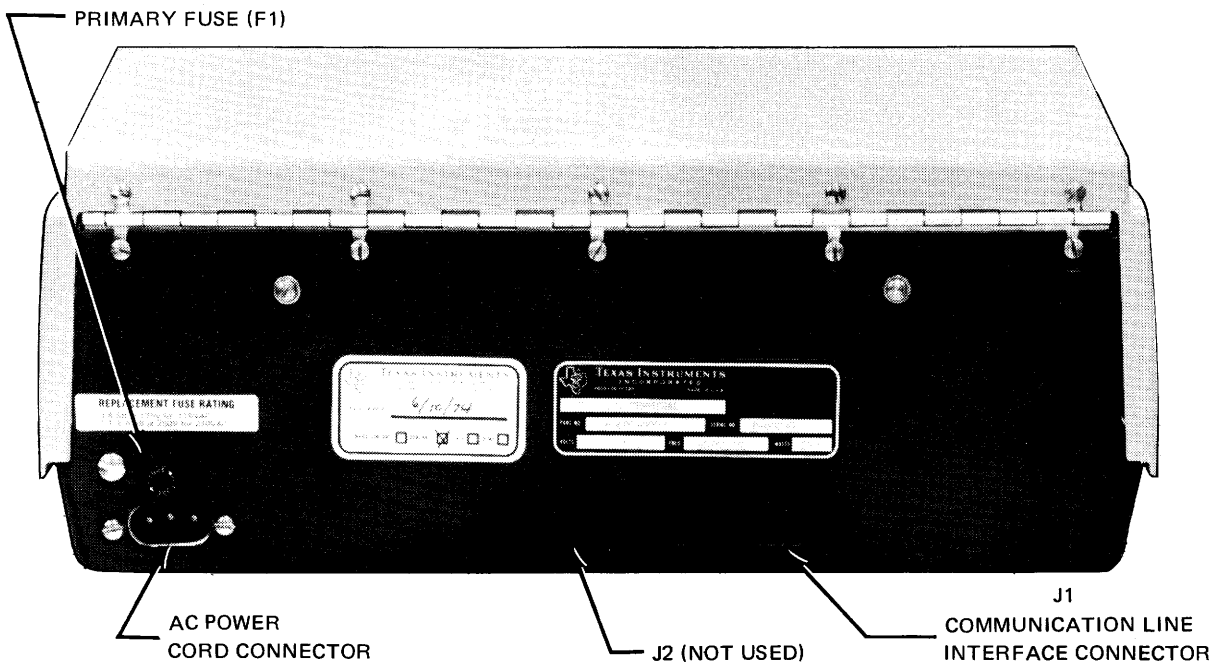

FIGURE 2-4. MODELS 754/755 EXTERNAL CONNECTORS (REAR OF TERMINAL).

2-3.3 OPTIONAL COMMUNICATION INTERFACE CONNECTIONS (MODEL 755).

2-3.3.1 TTY Current Loop. A Teletype cable (TI Part No. 959383-0002) may be used to connect the Model 755 to the communication line. This cable consists of an edge connector for connection at the rear of the terminal attached to a 6-foot cable terminated with two spade lugs. For specific pin functions see Table 2-2.

2-3.3.2 Parallel TTL Interface. Connection is made at the rear of the 755 Data Terminal with an edge connector (AMP connector No. 582963-2 or equivalent). For specific pin assignments see Table 2-3.

2-3.4 PAPER-OUT INDICATOR KIT FOR MODELS 752, 753, 754, and 755. The Paper-Out Indicator Kit (TI Part No. 973959) may be installed on the Silent 700® Data Terminals, Models 752, 753, 754 RO, and 755 RO as follows.

a. Set the POWER switch to OFF and disconnect the ac power cord.

b. Lift the terminal cover and remove the paper supply roll.

c. Remove the right-hand paper supply roll support bracket by removing the two 6-32 nuts, flat washers, and splitlock washers which attach the bracket to the terminal base.

d. Mount the bracket supplied with the kit (TI Part No. 969634) by reinstalling the two flat washers, splitlock washers, and two 6-32 nuts.

e. Connect plug P6 from the bracket to connector J6.

f. Replace the paper supply roll and lower the terminal cover.

2-4 PAPER LOADING (ALL MODELS).

CAUTION

Only use paper in this equipment which meets TI Specification 213714-0001. Other papers may permanently damage the printhead and/or paper handling mechanism.

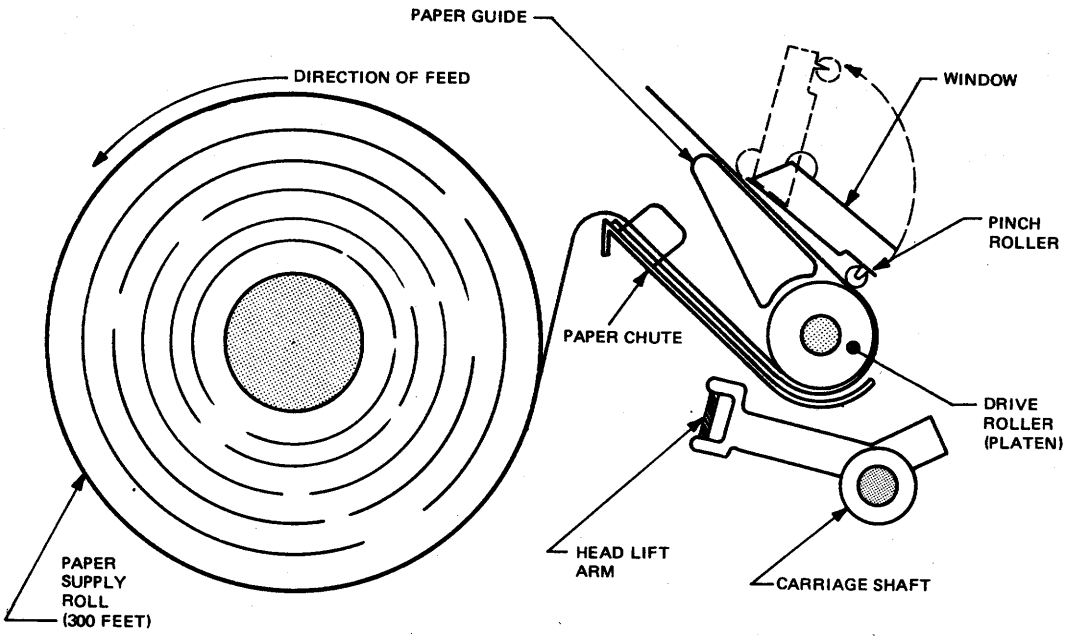

FIGURE 2-5. PAPER LOADING DIAGRAM (LEFT SIDE VIEW)

The data terminal must be loaded with paper before applying power. Load the paper as follows:

a. Lift the terminal cover (if so equipped) and lift the paper pinch roller (see Figure 2-5). Do not turn the platen unless the pinch roller is lifted.

b. Press the roll holders aside and place the paper supply roll on the holders. Ascertain that the roll can turn freely.

c. Feed paper down the paper chute, then between the paper chute and the drive roller as shown in Figure 2-5. Be sure the paper is centered in the paper chute.

d. Lower the pinch roller, checking that paper is between the pinch roller and the platen.

e. Set the POWER switch to ON and depress the PAPER ADV key. Check that paper is feeding smoothly and straight. Tear off excess paper by pulling forward over the tear-off edge.

f. If so equipped, close the terminal cover and feed the paper through the slot in the terminal cover.

2-5 CONTRAST SETTING.

To increase print contrast, rotate the CONTRAST adjustment (Figures 2-1 and 2-3) clockwise; to decrease, rotate counterclockwise.

TABLE 2-1. EIA INTERFACE CABLE PIN FUNCTIONS

Connector Pin Number		Pin Function
Terminal J1	Cannon	
J	1	Protective Ground
8	3	Received Data
6	6	Data Set Ready[1]
5	7	Signal Ground
9	8	Data Carrier Detector
7	20	Data Terminal Ready[2]

[1] Held to an ON condition when data set is operative.
[2] Held to an ON condition by data terminal.

TABLE 2-2. TTY CURRENT LOOP INTERFACE CABLE PIN FUNCTION

Terminal Pin No.	Wire Color At Spade Lug	Pin Functions
L	Black	Teletype positive receiver input loop
K	Red	Teletype receiver input loop

TABLE 2-3. PARALLEL TTL INTERFACE PIN FUNCTIONS

Terminal J1	Function
A	Data Input Bit 1
B	Data Input Bit 2
C	Data Input Bit 3
D	Data Input Bit 4
E	Data Input Bit 5
F	Data Input Bit 6
H	Data Input Bit 7
J	Chassis Ground
1	Busy
2	Ready
3	Paper Out (Optional)
4	Paper Advance
K,L,5,6,7,8,9	Signal Ground
10	Start

SECTION III

THEORY OF OPERATION

3-1 GENERAL.

The theory of operation differs in various basic functions between the Models 735, the 754/755, and the 752/753 OEM Data Terminals. Therefore, the following discussions are clearly labeled where differences exist.

Each data terminal function is controlled or performed by one printed circuit (PC) card in the terminal; therefore, PC card functions are described in this theory of operation. Frequent references are made to Texas Instruments assembly and electrical drawings; these drawings are contained in Appendix C of this manual. Signal signatures (mnemonics) are listed and defined in Appendix A.

3-1.1 MODEL 735. Five basic functions are performed within each Model 735 Data Terminal:

a. Power supply (described in paragraph 3-4)

b. Printer control (described in paragraph 3-5)

c. Keyboard and interface (described in paragraph 3-6)

d. Acoustic coupler (described in paragraph 3-7)

e. Terminal control (described in paragraph 3-8)

3-1.2 MODELS 752/753. Two basic functions are performed within each 752/753 Receive-Only (RO) Data Terminal:

a. Printer control (described in paragraph 3-5)

b. Terminal control (described in paragraph 3-8)

3-1.3 MODELS 754/755. Three basic functions are performed within each 754/755 Receive-Only (RO) Data Terminal:

a. Power supply (described in paragraph 3-3)

b. Printer control (described in paragraph 3-4)

c. Terminal control (described in paragraph 3-8).

3-2 SYSTEM ARCHITECTURE.

3-2.1 MODEL 735. Figure 3-2.1 is a system block diagram of the Model 735 Data Terminal. The transmitter/receiver on the Terminal Control PC card receives data from several sources: the keyboard, an external modem, the acoustic coupler, or an external device such as a tape cassette unit. Data may be transmitted from the keyboard to the external modem, to the external device, or through the acoustic coupler to telephone lines.

Data from the Terminal Control PC card is sent to the Printhead Interface PC card buffer which applies the base drive to the 35 printhead heating elements. When the print pulse (PVOLT) occurs (generated by the printhead compensation circuit), the character stored in the printhead buffer is printed.

The Printer Control PC card contains the logic and analog circuitry necessary to control the printer subsystem functions of head stepping, end-of-line warning, paper feeding, and print cycle. The signals for paper advance, head lift, head stepping, and the print pulse are applied to the Power/Driver PC card which provides the current drive necessary to perform these functions.

3-2.2 MODELS 752, 753, 754, AND 755. Figure 3-2.2 is a system block diagram of Models 752, 753, 754, and 755 Data Terminals. The systems are similar to the Model 735, except both are receive-only. Models 752, 753, 754, and 755 receive EIA data from an external modem, TTY data to the internal TTY interface, or parallel TTL data.

3-3 MOTHERBOARD.

The motherboards on the Model 735 and Models 754/755 perform two functions: (1) interconnection between the various PC card assemblies and (2) conversion of the 120 or 240 Vac input to the terminal to 300 Vdc to power the direct line inverter/converter located on the Power/Motor Driver PC card assembly.

There are five motherboard assemblies; their TI part numbers and associated schematics are

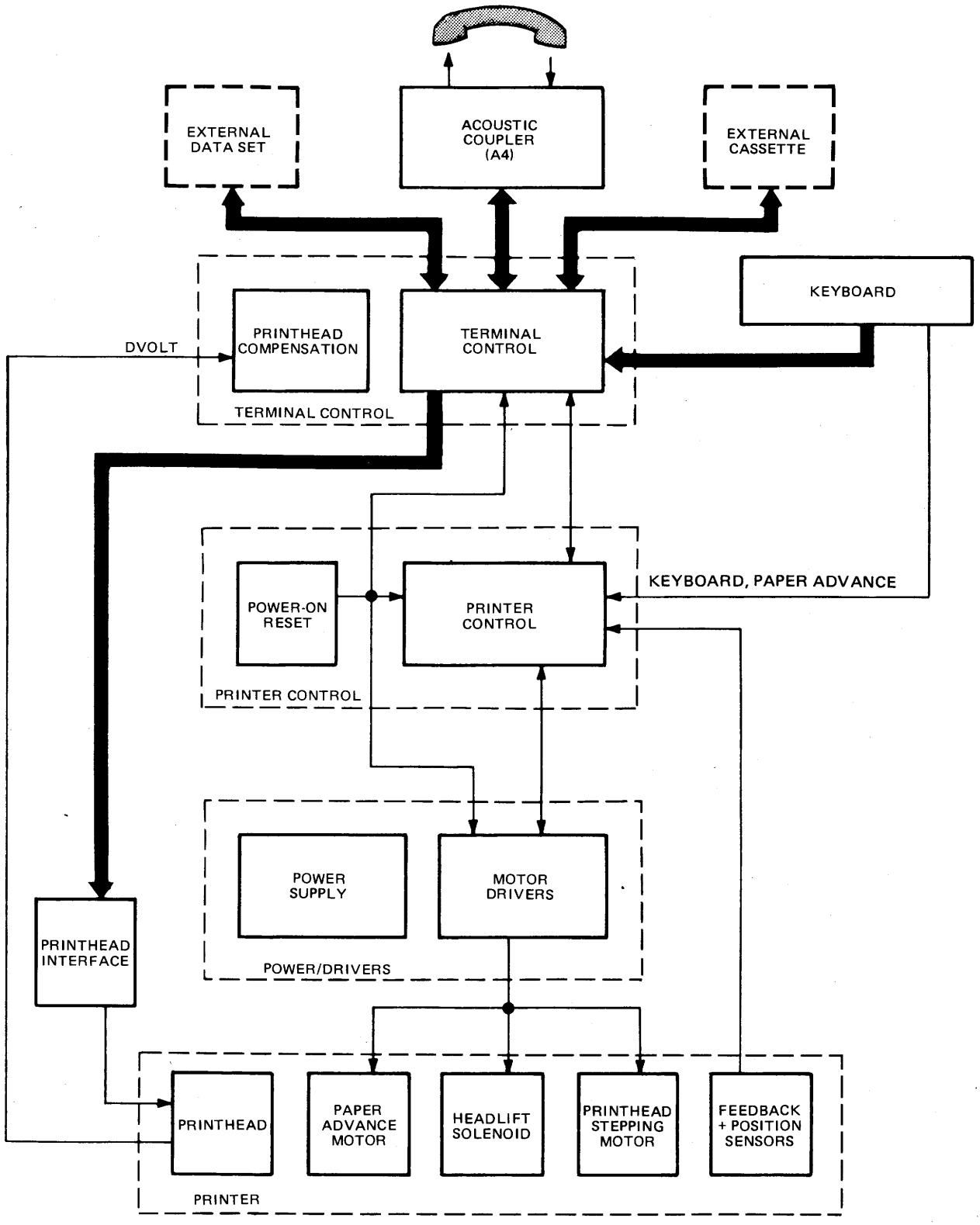

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FIGURE 3-2.1. MODEL 735 DATA TERMINAL SYSTEM ARCHITECTURE

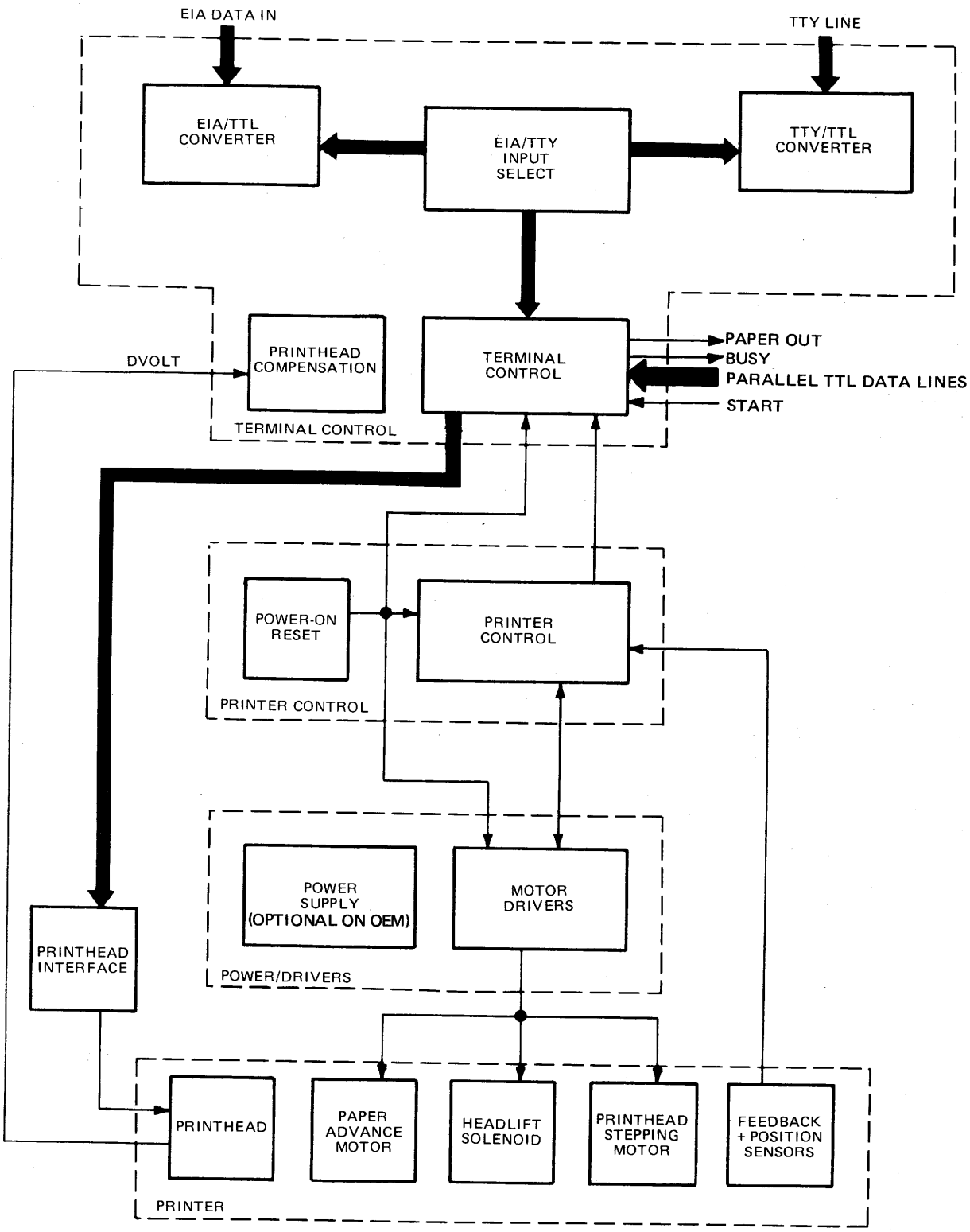

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FIGURE 3-2.2. MODELS 752, 753, 754, and 755 DATA TERMINALS SYSTEM ARCHITECTURE

Description	TI Part No.	Schematic
735 Motherboard (120 Vac)	969465-0001	969487
735 Motherboard (240 Vac)	969465-0002	968487
754/755 Motherboard (120 Vac)	969467-0001	969488
754/755 Motherboard (240 Vac)	969467-0003	969488
752/753 Motherboard (120 Vac) *with* Power Supply	969467-0001	969488
752/753 Motherboard *with* Power Supply (240 Vac)	969467-0003	969488
752/753 Motherboard *without* Power Supply	969467-0002	969488

Essentially the same "soft start" circuit is used on both motherboard assemblies to convert 120 or 240 Vac input to the 300 Vdc required by the Power/Motor Driver PC card. The purpose of the soft-start circuit is to limit surge current when ac power is applied to assure reliability of the power switch (S1), the rectifiers (CR6, CR7, CR8, and CR9), and the filter capacitors (C5 and C6).

Line current is controlled when power is applied by varying the conduction angle of Triac Q1. In principle a Triac is similar to an SCR, except it conducts on both half-cycles of the sine wave once triggered. The Triac is triggered by a Diac (CR1). The Diac is a negative-resistance device which begins conducting (breakover) at approximately 28 volts and remains on as a constant voltage regulator until the source voltage falls below 21 volts. The Diac is a symmetrical device on both positive and negative half cycles.

When power is first applied, the Triac begins conducting at 175°, stops at 180°, then starts on the opposite half cycle at 355° and stops at 360°. The conduction angle is slowly changed as thermistors R4 and R5 decrease in resistance as a result of the power they dissipate. Eventually, an equilibrium state is reached; then the Triac begins conducting at 90° and stops at 180°; then starts on the opposite half cycle at 270° and stops at 360° (see Figure 3-3.1).

A double-RC circuit is used to obtain the correct amount of phase shift to control conduction. For 120-Vac operation the first RC consists of R2, R4, and C4; the second RC consists of R5, R6, and C3. For 240-Vac operation the first RC consists of R12, R11, R3, R20, and C4. The equilibrium operating point of the first thermistor (R5) is chosen for approximately a 20- to -1 resistance change. The diode bridge, comprising CR2, CR3, CR4, and CR5, serves to discharge capacitor C3 every half cycle. This eliminates a hysteresis effect which could produce false Triac triggering on one or more of the first half cycles after energizing. The snubber circuit, consisting of R1 and C1, slows the rate of voltage rise across Q1 upon energizing to prevent false triggering of the Triac.

3-4 POWER/MOTOR DRIVER PC CARD (ALL MODELS).

The Power and Motor Drive Assembly (TI Part No. 969588, schematics 969486 and 969490), used on all five data terminal models, comprises the following:

(1) A direct line inverter/converter which provides ±12V, +5V, and +30V power with transformer isolation from a dc input of 300 ±50 volts

(2) Three-phase motor drivers in a closed-loop switching regulator configuration for the head stepping motor

(3) Three-phase motor drivers as a closed-loop switching regulator for the paper advance stepping motor

(4) A single-phase driver as a closed-loop switching regulator for the head lift solenoid

(5) Printhead power interface connections and a power transistor.

3-4.1 POWER SUPPLY AND DIRECT LINE INVERTER/CONVERTER SECTION. The power supply diagrammed in Figure 3-4.1 is designed to operate from either 120 Vac or 240 Vac. When operated from 240 Vac, the capacitor input filter is charged from a full wave bridge connection. When operated from 120 Vac, the capacitor input filter is charged from a voltage doubler connection.

120 Vac RMS X 1.414 X 2 = 340 volts peak
240 Vac RMS X 1.414 X 1 = 340 volts peak

The inverter frequency is set for 25 kHz, corresponding to a 40-microsecond period. Two operations are performed during one inverter period: energy storage and energy transfer. The first 10 microseconds (maximum) is allocated for energy storage. The remaining time is used for energy transfer.

Energy storage and transfer are performed using two low-loss, ferrite pot-core transformers. The transformers provide primary-to-secondary isolation to prevent shock hazard. The transformers are designed for a close match of energy requirements for each secondary source. This precludes the need for an individual regulator for each source.

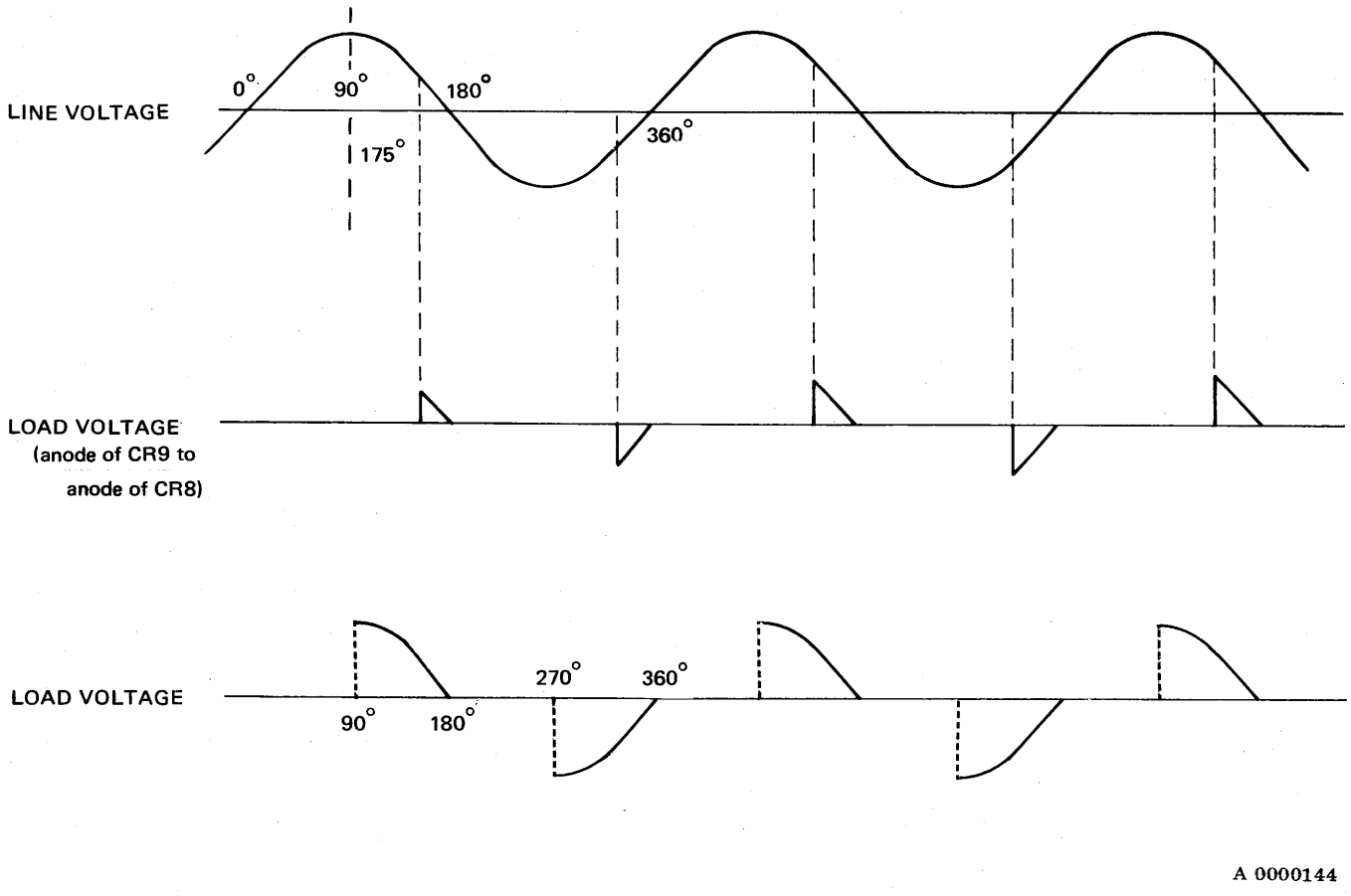

FIGURE 3-3.1. MOTHERBOARD SOFT-START CIRCUIT, VOLTAGE WAVEFORMS

Energy is stored in the transformer directly across 300V through a power switch Darlington:

$$J = 1/2\ LI^2$$

where,

J = joules = watt-seconds
L = parallel primary inductance
I = peak primary current.

Maximum load requires 3770 $X10^{-6}$ joules, distributed as follows:

30V at 2.0 amps
+12V at 0.5 amps
+ 5V at 2.5 amps
-12V at 0.5 amps

The transformers are connected with parallel primaries and series-aiding secondaries such that the secondary and energy distribution taps correspond:

Transformer – 0001	Transformer – 0002
+6.5 at 1300 μjoules	+19.5 at 1560 μjoules
+13.0 at 650 μjoules	
-13.0 at 260 μjoules	
2210 μjoules	1560 μjoules

Each transformer is wound for a primary inductance of 576 microhenries, producing an effective primary inductance of 288 microhenries when connected in parallel. The

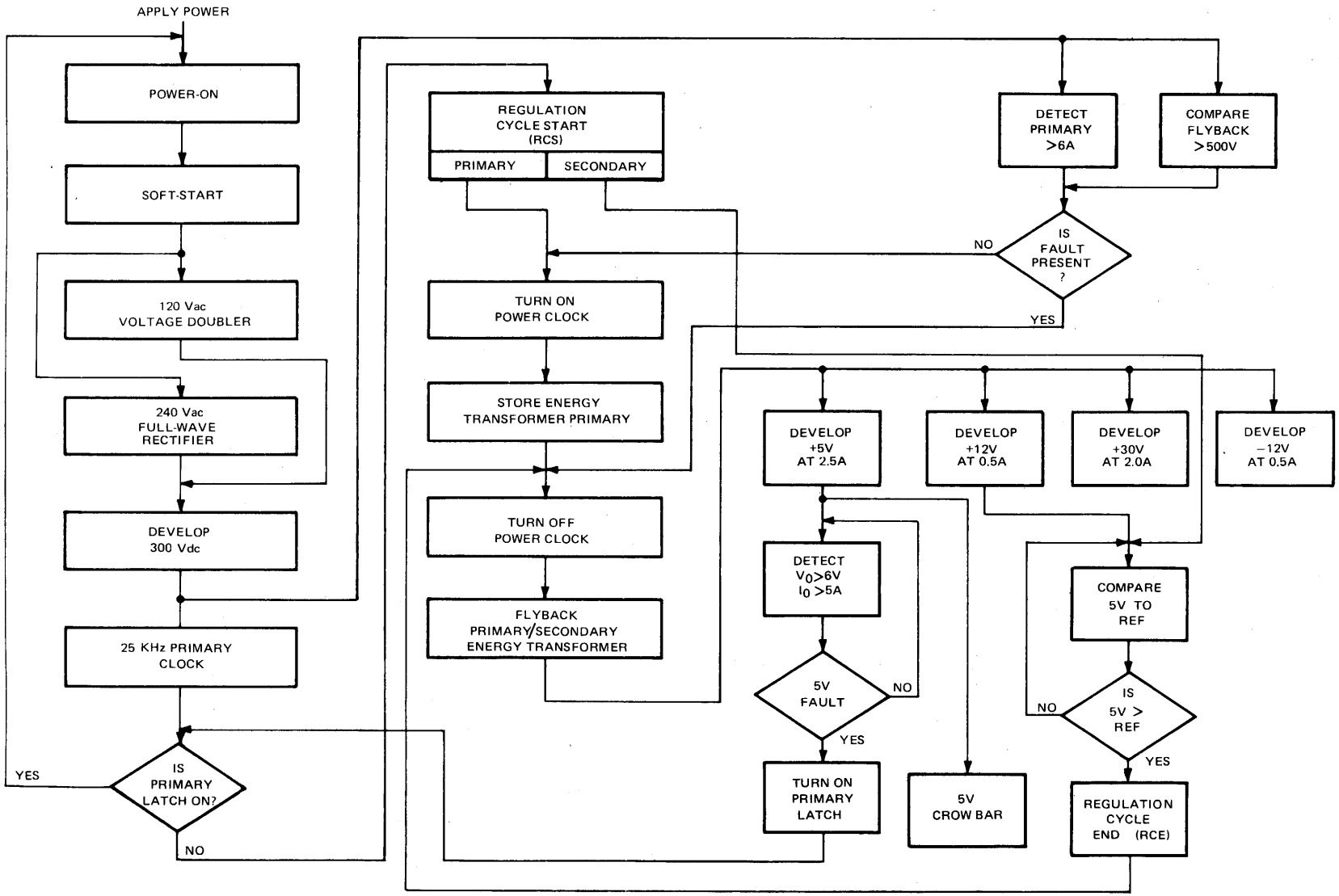

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FIGURE 3-4.1. MODELS 735/755 OFF-LINE POWER SUPPLY FLOW CHART

maximum primary current required for 2210 μjoules +1560 μjoules is

$$I = \sqrt{\frac{2.3770}{288}} = 5 \text{ amps peak.}$$

The current ramp time, if a function of input 300V, is

$$E = L\ di/dt$$

for I = 5 amps,

E =	250V	300V	350V
t =	5.8μsec	4.8μsec	4.1μsec

The inverter efficiency for this energy level is 65 percent:

$$J_{input} \text{ X } 0.65 = J_{output},$$

$$J_{input} = \frac{3770}{0.65} = 5800 \text{ μjoules} = 145 \text{ watts.}$$

Energy transfer is performed through the transformer during the flyback recovery mode. This implies full transformer recovery on a cycle basis, establishing the volt-second requirements.

$$V_{LINE} \cdot t_{charge} = V_{flyback} \cdot t_{XFER}.$$

The maximum flyback is limited by the BV_{CBO} rating of the power switch transistors. A flyback voltage of 156 volts was chosen so as to remain within safe bounds for both constraints.

Regulation is accomplished by converting the 5-volt output to a proportional pulse width. A linear ramp function is generated which is level-dependent on the +5 volt output. This ramp is compared with a constant reference voltage to develop voltage-proportional pulse width modulation. This function is synchronized with the energy storage cycle, using opto-electronic couplers. The start of the regulation cycle is identified by a signal from the primary to the secondary from the optically coupled signal called the regulation-cycle-start (RCS). The comparator can end the energy storage cycle by producing an opto-coupled secondary-to-primary signal called the regulation-cycle-end (RCE). The energy storage cycle is automatically terminated at 10 microseconds if RCE is not transmitted. It is important to note that RCE is derived at charge time t_n but is based on the load requirement during t_n-1.

The energy storage cycle is inhibited if:

5V secondary is greater than 7.0 volts
5V secondary load is greater than 3 amperes load.

These conditions are communicated from the secondary to the primary through a third optical coupler signal called power supply overvoltage (POVL). Any of these conditions sets a primary latch which inhibits any further energy storage cycles and any condition requires a power-on reset to clear.

Two additional fault modes will interrupt the energy storage cycle:

(1) The flyback-protect disables the power switch when the flyback energy storage capacitor exceeds 550 volts.

(2) The primary current limit latch disables the power switch when the primary current exceeds 5 amps.

A recovery time constant is associated with both of these faults. Both return to normal operation automatically when the fault is removed.

3-4.2 MOTOR DRIVERS. Three driver groups control the motion of the printer mechanism:

(1) Printhead stepping motor drivers

(2) Paper stepping motor drivers

(3) Printhead lift solenoid driver.

All five are located on the Power/Motor Driver PC card (PC card slot A1), shown in schematic 969486, sheet 5.

3-4.2.1 Printhead Stepping Motor Drivers. Each set of five motor phase drivers utilizes the same switching regulator. The Printer Control PC card (slot A2, see schematic 969484) provides the input signal (command) telling each driver when to initiate an action. When the printhead motor drivers receive a signal telling the motor to step to another phase (HPHSA, HPHSB, or HPHSC) and gives the command HPC, comparator AR3 permits the appropriate motor phase driver transistor (Q33, Q39, or Q42) to energize during the comparator-on time allowed by the switching-regulator 25.6-KHz clock (PWRCLK). During the comparator-on time, comparator AR3 compares the input reference voltage (HPC) from the Printer Control PC card with the voltage across R93 produced by the current flowing

through a motor phase. When the current in a motor phase produces sufficient voltage during a PWRCLK, the comparator stops the drive to the motor phase during that particular PWRCLK. The level of HPC will be reduced by the time the next PWRCLK occurs, and the motor phase driver will again be energized.

The purpose of the input command HPC is to maintain a constant current through the motor phases (via the switching regulator), producing a constant number of ampere turns and thus a constant torque to step (accelerate or decelerate) the motors. When the printhead stepping motor driver is not in the process of moving the printhead, the driver maintains a "holding current" in one of the phase windings to prevent inadvertent motor shaft movement. The amount of holding current also is controlled by the switching regulator via comparator AR3 and is determined by the input signal HPC. The transistor Q30 collector should be switching between 0 volts and 5 volts at all times except during a power reset.

3-4.2.2 Paper Stepping Motor Driver. The paper stepping motor drivers and printhead stepping motor driver circuits are nearly identical. Only the inputs and outputs differ. The inputs to the paper stepping drivers are PPHSA, PPHSB, PPHSC, and PACA, which all use the same switching regulator (PWRCLK). The outputs are PPHA, PPHB, and PPHC.

3-4.2.3 Printhead Lift Solenoid Driver. The printhead lift solenoid driver is also a switching type regulator similar to both motor driver regulators. It provides current to a solenoid which lifts the printhead during a carriage return, line feed, or paper advance. The input signal (command) to initiate head lift (LIFTHEAD) is provided by the Printer Control PC card. During the comparator-on time permitted by the switching clock (25.6 kHz), comparator AR1 compares the input reference voltage (LIFTHEAD) with the voltage across R31 produced by the current flowing in the head lift solenoid. When the current in the solenoid produces sufficient voltage, comparator AR1 switches off the drive to the solenoid to maintain the appropriate solenoid current. When the head lift signal (LIFTHEAD) is not present, R16 injects sufficient current to the comparator to ensure that it remains in the off state; therefore, no current is provided to the head lift solenoid. The collector of Q17 should switch (between 5 volts and 33 volts) only when LIFTHEAD is present.

3-5 PRINTER CONTROL LOGIC.

The Printer Control PC card, diagrammed in Figure 3-5.1, contains logic and analog circuitry to control the following printer subsystem functions.

(1) Stepping the printhead to the right (print or space)

(2) Stepping the printhead to the left (backspace)

(3) Slewing the printhead to the left margin (carriage return)

(4) Advancing paper (line feed)

(5) Lifting the printhead during line feed and carriage return

(6) Sounding the end-of-line warning.

The character decoding circuitry of the Terminal Control PC card and the keyboard PAPER ADV key provide command inputs to the printer control section. Basic timing signals are provided by the Terminal Control PC card clock dividers. Limit switches and position sensors on the drive mechanism assembly provide status and feedback control signal inputs.

Printer control provides output signals to the Power Supply/Motor-Driver PC card stepping motor and solenoid drivers and to the printhead compensation and bell circuits of the Terminal Control PC card. It also supplies "busy" signal outputs to terminal control. A logic diagram of the Printer Control PC card (969484) is contained in Appendix C.

3-5.1 FUNCTIONAL BLOCKS. The printer control section consists of the following functional blocks. Timing diagrams for various printer control functions are shown in Figures 3-5.2 through 3-5.6.

a. Asynchronous input register – accepts carriage return, line feed, backspace and print/no-print commands from the printer code character decoder on the Terminal Control PC card; and also accepts the paper advance (simultaneous line feed and carriage return) command from the keyboard discrete functional (unencoded) key.

b. Automatic carriage return generator - initiates line feed and carriage return if a print command is received while the printhead is at the right margin.

c. Character timer – counts down the 12.8-kHz clock to time each character period in 5-msec increments (*character period* is defined as the

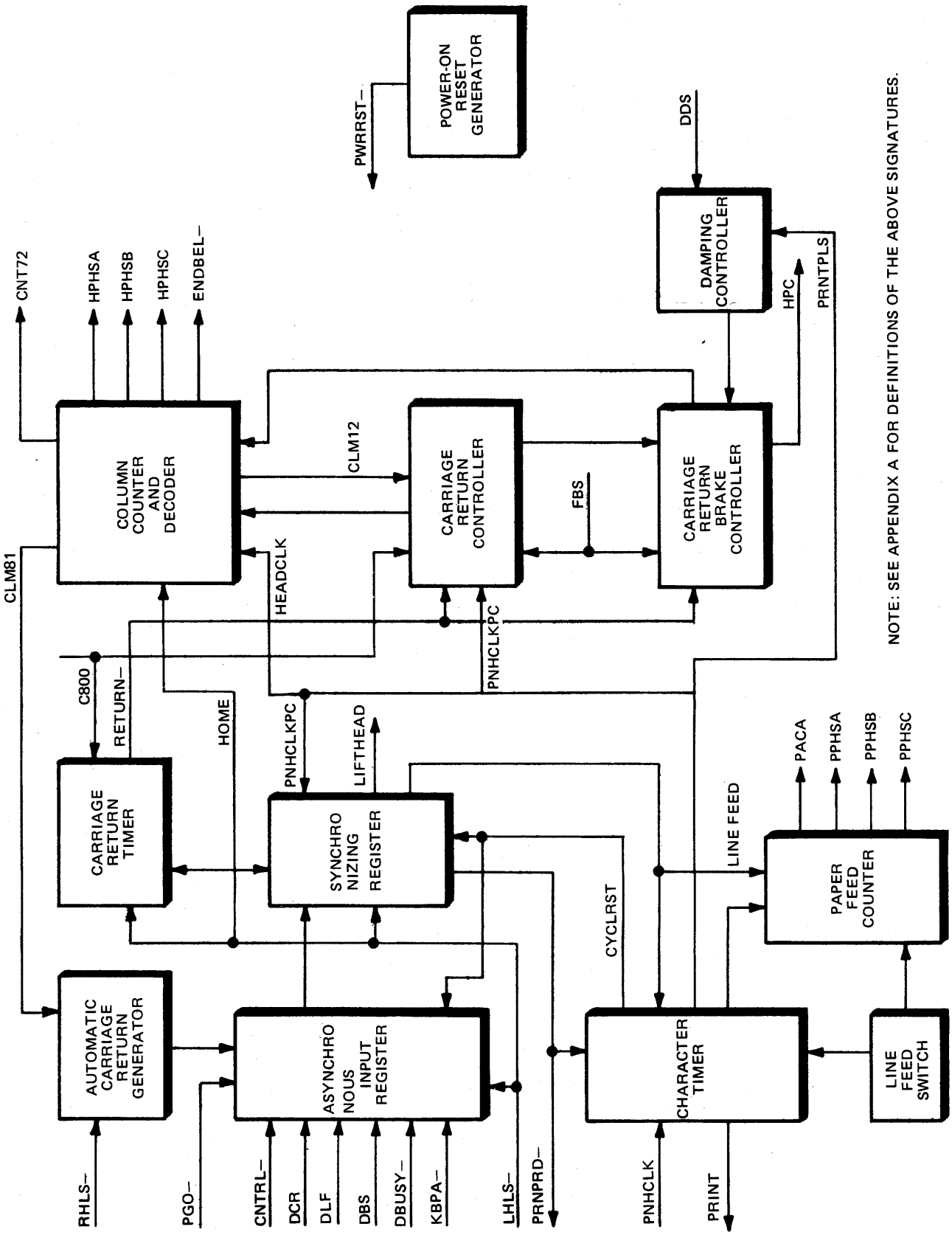


FIGURE 3-5.1. DATA TERMINAL MODELS 735/755 PRINTER CONTROL BLOCK DIAGRAM

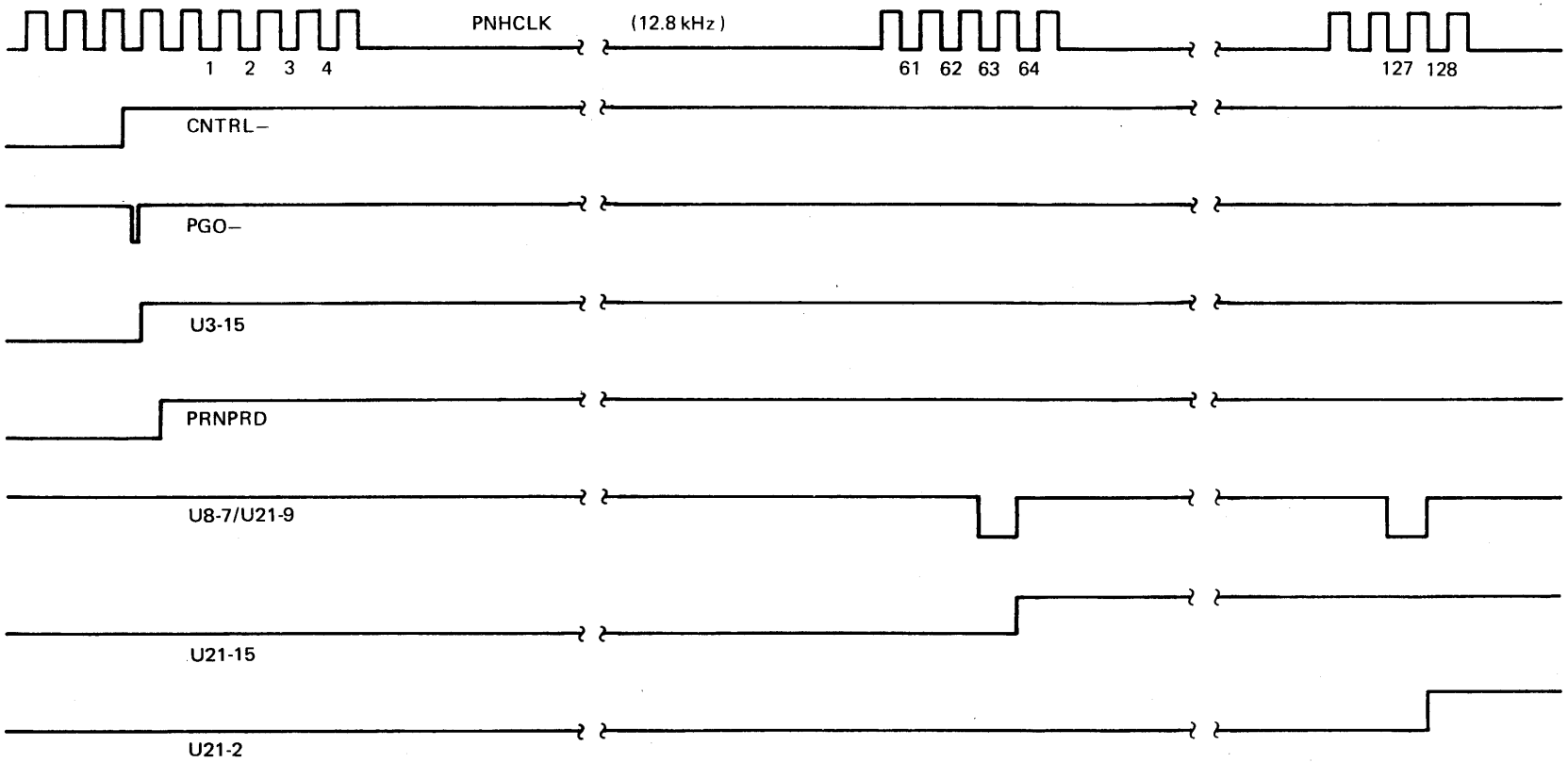


FIGURE 3-5.2. PRINTER CONTROL TIMING SYNCHRONIZATION

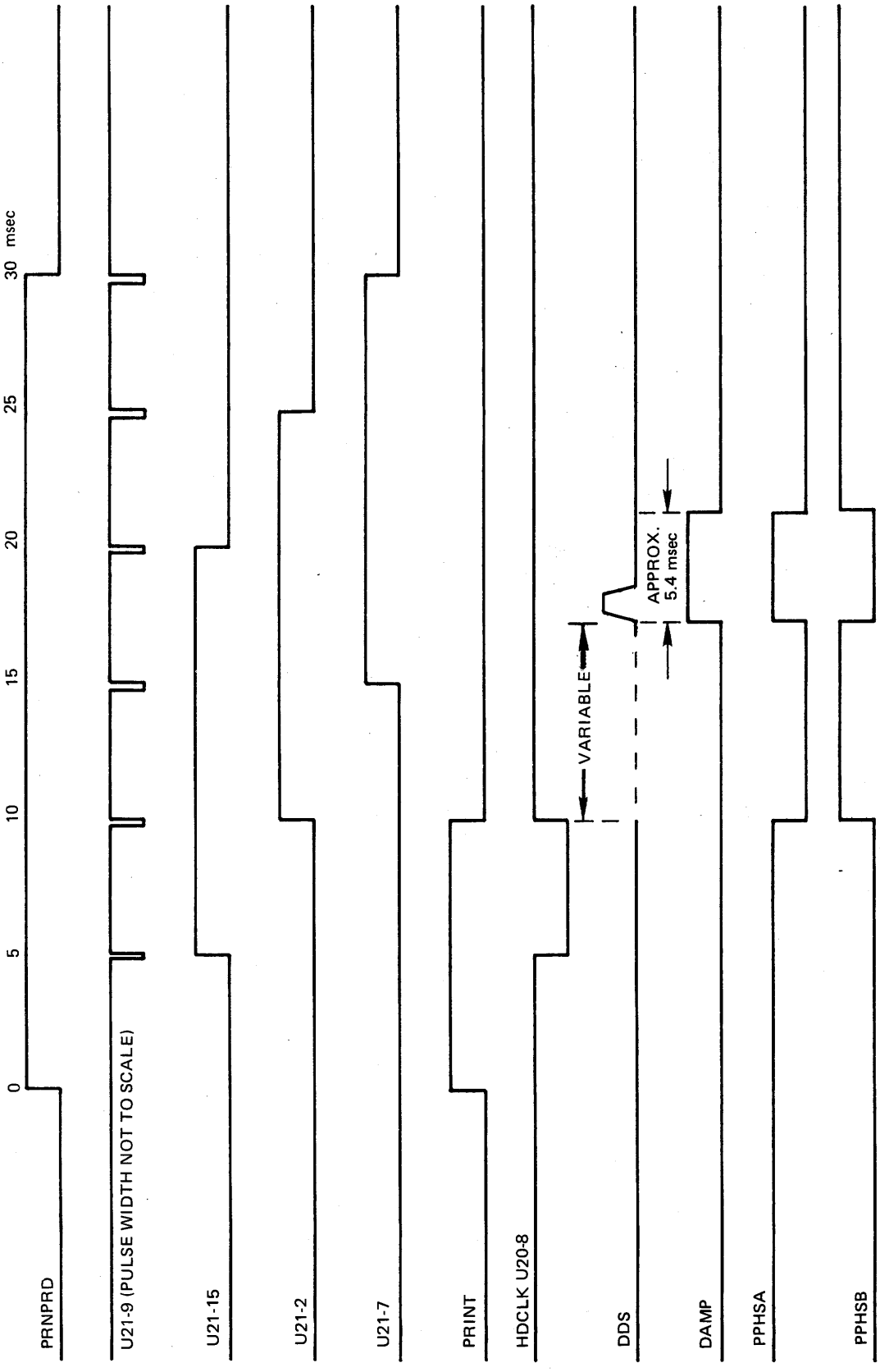


FIGURE 3-5.3. PRINTER CONTROL TIMING PRINTING IN COLUMNS 1, 4, ETC.

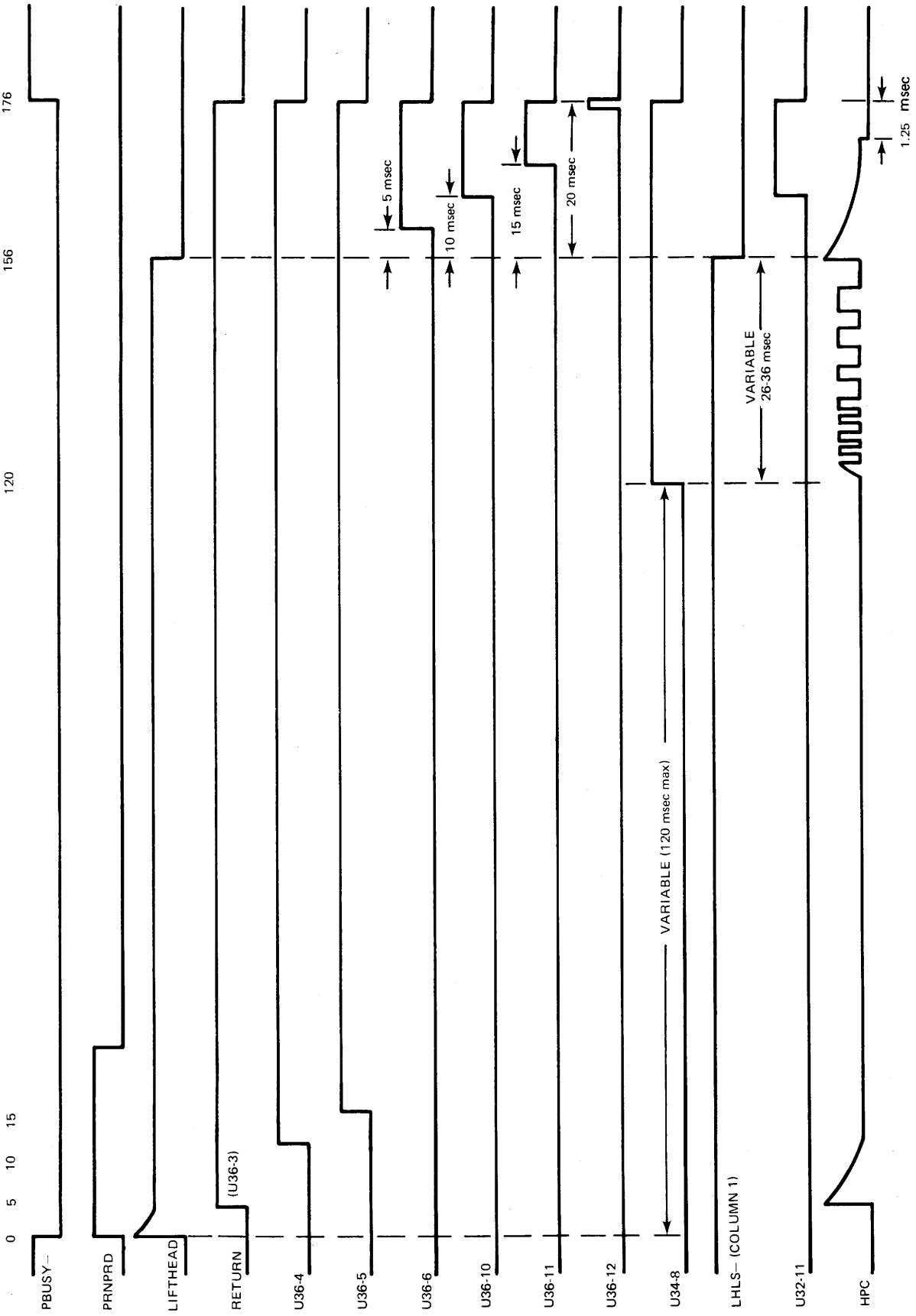


FIGURE 3-5.4. PRINTER CONTROL NORMAL CARRIAGE RETURN TIMING DIAGRAM
(CARRIAGE RETURN FROM COLUMN 81)

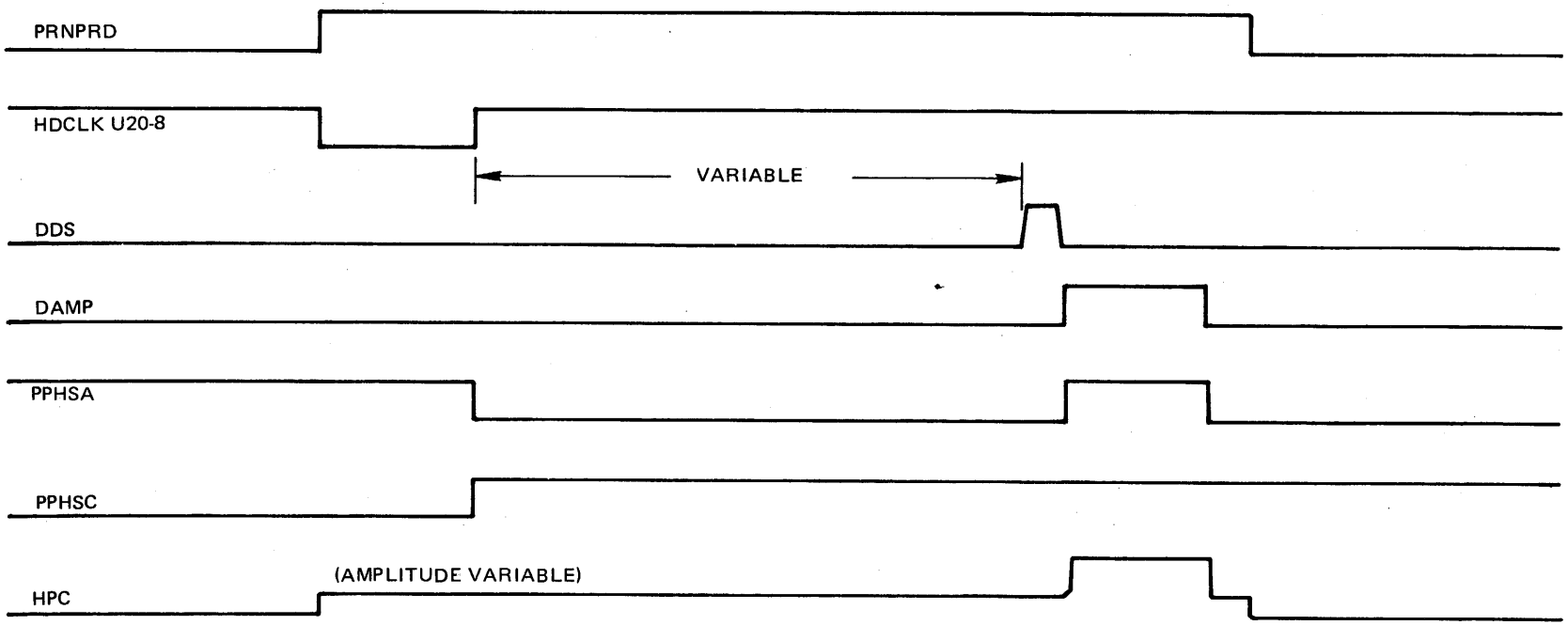


FIGURE 3-5.5. PRINTER CONTROL TIMING, BACKSPACE FROM COLUMNS 4, 8, ETC.

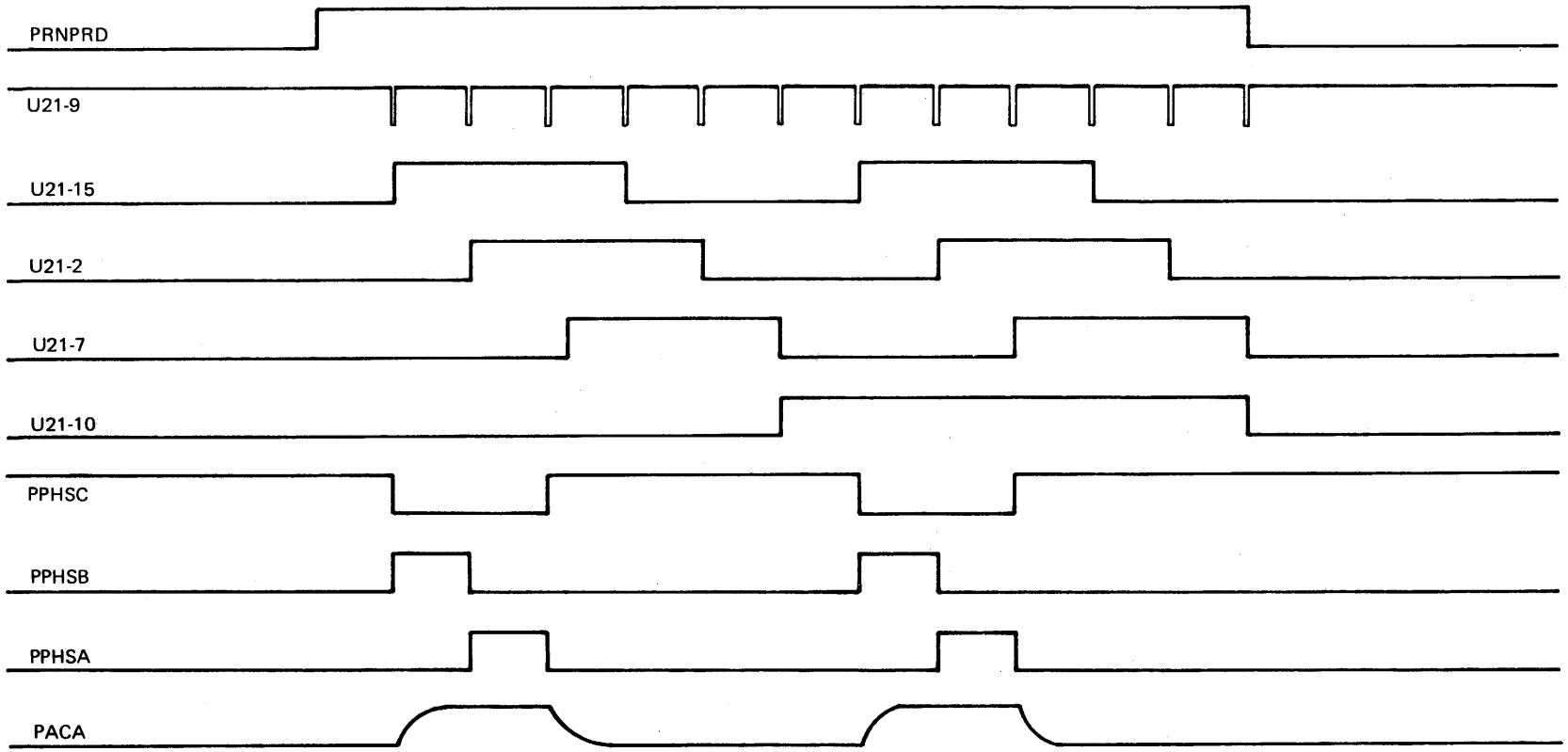


FIGURE 3-5.6. PRINTER CONTROL, LINE FEED TIMING DIAGRAM (DOUBLE LINE SPACING)

time required to perform a space, backspace, or print operation: 30 msec). Line feed is performed in one or two character periods, depending on whether single or double line spacing is selected. Note that the printer control character period is independent of the terminal communication rate. All command inputs are inhibited while the character timer is counting.

d. Carriage return timer – counts down the PNHCLK clock (12.8 kHz) to provide a "busy" delay during execution of carriage return. The print command and all asynchronous command inputs are inhibited during the carriage return delay. The delay terminates approximately 12 msec after initiation of carriage return.

e. Synchronizing register – provides synchronous input commands to the 12.8-kHz clock and starts the character period and carriage return timers as required. Associated gating inhibits invalid commands (e.g., carriage return or backspace when the printhead is at the left margin).

f. Column counter and decoder – stores and controls the printhead position. The counter counts up (module 3) to 81 as the printhead steps to the right and down to 0 as the printhead moves to the left during backspace or carriage return. The counter is cleared to zero whenever the printhead is at the left margin. Decoder outputs select the printhead stepping motor phases to be energized, enable the end-of-line alarm, initiate the automatic carriage return from the right margin, and enable operation of the carriage return brake. Inputs and outputs of the printer control read-only-memory are listed in Table 3-5.1.

g. Damping controller – provides closed-loop control of printhead deceleration when stepping to the right or left to minimize acoustic noise and settling time. When triggered by a position sensor on the stepping motor assembly, a monostable momentarily applies power to the lagging phase of the stepping motor to develop the required retrotorque.

h. Carriage return controller – receives pulses from a second position sensor (tachometer) on the printhead stepping motor and synchronizes them to the 12.8-kHz clock to drive the column counter during carriage return. The sensor pulses are phased so that the printhead stepping motor is operated in a slewing (continuous rotation) rather than a controlled (stepping) mode. When the printhead has returned to column 12, the controller switches the column counter clock from the leading to the trailing edge of the tachometer pulse which then begins to declerate the printhead.

The controller also checks for the absence of tachometer pulses which indicate premature stopping of the printhead. When this occurs the controller enters a "failsafe" mode, reducing power and supplying clocks at 20-msec intervals to return the printhead to the left margin. Failsafe carriage return is initiated automatically when power is switched on.

i. Carriage return brake controller – provides closed-loop control of printhead deceleration as the head approaches the left margin, maintaining carriage return time and acoustic noise within specified limits independent of friction, temperature, and line voltage variations. The controller operates by integrating tachometer pulses, comparing the resulting voltage to a reference ramp voltage, and applying retrotorque current to the stepping motor when the difference exceeds a preset limit.

j. Paper feed counter – controls power to the paper advance motor phases. Paper is advanced one line each time the counter cycles through its three-state sequence, sequentially energizing the three stepping motor phases.

3-5.2 POWER-ON RESET CIRCUIT. A power-on reset circuit on the Printer Control PC card holds the terminal in a reset state during power up and resets the terminal when a momentary power failure occurs. It also protects the motor driver circuits in case of clock failure or removal of the Printer Control PC card while power is ON.

Referring to schematic 969484, sheet 2, U12 (12,13,14) holds the power reset bus (PWRRST-) at ground during a power up until turned on by U4 (5,6,7). U4 (5,6,7) is turned on by U12 (8,9,10) and U12 (5,6,7). U12 (5,6,7) is controlled by a voltage dependent on an RC time constant

TABLE 3-5.1. PRINTER CONTROL READ-ONLY MEMORY INPUTS AND OUTPUTS

Word	Inputs						Outputs							
	Binary Select													
	A	B	C	D	E	ENABLE	Y_1	Y_2	Y_3	Y_4	Y_5	Y_6	Y_7	Y_8
0	L	L	L	L	L	L	H	L	L	H	H	L	L	H
1	H	L	L	L	L	L	L	H	L	H	L	H	L	H
2	L	H	L	L	L	L	L	L	H	H	L	L	H	H
3	H	H	L	L	L	L	L	L	L	H	H	L	L	H
5	H	L	H	L	L	L	L	H	H	H	L	H	L	H
6	L	H	H	L	L	L	L	L	L	L	L	L	H	L
7	H	H	H	L	L	L	L	L	L	H	H	L	L	H
8	L	L	L	H	L	L	H	L	L	H	L	L	H	H
9	H	L	L	H	L	L	L	H	L	H	H	L	L	H
10	L	H	L	H	L	L	L	L	H	H	L	H	L	H
11	H	H	L	H	L	L	L	L	L	H	H	L	L	H
12	L	L	H	H	L	L	H	L	H	H	L	L	H	H
13	H	L	H	H	L	L	L	H	H	H	H	L	L	H
14	L	H	H	H	L	L	L	L	L	L	L	H	L	L
15	H	H	H	H	L	L	L	L	L	H	H	L	L	H
16	L	L	L	L	H	L	L	H	H	L	H	L	L	H
17	H	L	L	L	H	L	L	L	L	H	L	H	L	H
18	L	H	L	L	H	L	H	L	L	H	L	L	H	H
19	H	H	L	L	H	L	L	L	L	H	H	L	L	H
20	L	L	H	L	H	L	L	H	L	H	H	L	L	H
21	H	L	H	L	H	L	L	L	H	H	L	H	L	H
22	L	H	H	L	H	L	H	L	H	H	L	L	H	H
23	H	H	H	L	H	L	L	L	L	H	H	L	L	H
24	L	L	L	H	H	L	L	H	H	L	H	H	L	H
25	H	L	L	H	H	L	L	L	L	H	L	H	H	H
26	L	H	L	H	H	L	H	L	L	H	H	L	H	H
27	H	H	L	H	H	L	L	L	L	H	H	L	L	H
28	L	L	H	H	H	L	L	H	L	H	H	H	L	H
29	H	L	H	H	H	L	L	L	H	H	L	H	H	H
30	L	H	H	H	H	L	H	L	H	H	H	L	H	H
31	H	H	H	H	H	L	L	L	L	H	H	L	L	H
ALL	X	X	X	X	X	H	H	H	H	H	H	H	H	H

L = low
H = high

set by C32 and the current through U12 (1,2,3). During a momentary power failure C32 discharges immediately through CR17, turning off U12 (5,6,7), U12 (8,9,10), U4 (5,6,7) and U12 (12,13,14), causing the power reset bus to be grounded by two 82-ohm, 0.5-watt resistors located on the Power/Motor Driver PC card.

When a power failure ends and power is reapplied to the terminal, C32 again charges, turning on U12 (5,6,7) approximately 400 msec later. U12 (8,9,10) turns on, turning on U4 (5,6,7) and U12 (12,13,14). U12 (12,13,14) draws current through the two 82-ohm resistors which again removes the power reset bus from ground. If the power clock (PWRCLK) fails, the Q output of one-shot U11 will go to a logic HIGH, turning on U4 (1,2,3) which in turn provides a discharge path for C32 through CR19. C32 will discharge and remain discharged, and the terminal will remain in a power reset state when the clock is not working, protecting the motor driver transistors (see the Power Supply/Motor circuit, schematic 969486).

If the Terminal Control PC card is accidentally removed while power is on, the two 82-ohm resistors are at ground potential, simulating a power-on reset to protect the motor driver transistors (see schematic 969486).

3-6 KEYBOARD (MODEL 735).

The standard keyboard used in the Model 735 is a fully encoded, alphanumeric keyboard with two-key rollover. The output of the keyboard is serial by character and parallel by bit with 7 data bits and a strobe pulse; no parity is generated by the keyboard. The strobe pulse is shown in Figure 3-6.1 relative to a typical data bit. The strobe occurs within 2.0 μsec after a key is depressed. The data remains valid at least until the next key is depressed. The ASCII codes generated are shown in Table 3-6.1. All output signals are TTL-compatible (data and strobe). The following special function keys are isolated single-contact closure to ground:

(1) ON-LINE

(2) PAPER ADVance

(3) BREAK

(4) REPEAT.

Figures 3-6.2 through 3-6.5 show keyboard layout and symbolization and the effects of SHIFT and CTRL (control) keys.

3-7 ACOUSTIC COUPLER (MODEL 735).

The Model 735 Electronic Data Terminal is equipped with an acoustic coupler which is compatible with a Bell 103A data set or equivalent. The coupler operates asynchronously up to a maximum speed of 300 baud in the full or half-duplex mode using standard dial telephone facilities. The acoustic coupler is an originate-mode unit using transmit frequencies of 1270 Hz for MARK and 1070 Hz for SPACE and receive frequencies of 2225 Hz for MARK and 2025 Hz for SPACE.

The interface to the acoustic coupler is completed using a standard telephone handset. After the receive carrier frequency is present at the receiver for 150 ±50 msec, the Model 735 Data Terminal is enabled to receive data, and the transmit carrier frequency is enabled.

The acoustic coupler contains all circuitry needed to convert logic signals from the terminal to audio signals for transmission over telephone lines. These circuits also convert audio signals to logic signals for transmission to terminal control circuits in the terminal. In addition, the acoustic coupler circuits supply carrier detect signals to the terminal control circuits to signify when the received data carrier has been received. The coupler provides the timing required for communication with two data sets at the other end of the line. The acoustic coupler is designed to provide reliable operation over the full range of received signals, even under high noise and low signal level conditions. Operation equals or exceeds the performance of the 103-type data sets in half duplex (110 baud) mode.

All circuitry is located on a PC board which may be easily removed for repair or replacement. Adjustment is not required, and all critical factory adjustments are sealed to prevent maladjustment.

3-8 TERMINAL CONTROL – MODEL 735.

The Terminal Control PC card in the Model 735 is equipped with a DUPLEX switch and an INTERFACE switch. These switches provide for operation in several configurations as described in the following text. A block diagram of the Terminal Control PC card is shown in Figure 3-8.1. A schematic (969485) is contained in Appendix C.

3-8.1 OPERATION WITH EIA INTERFACE. Normal operation is conducted through the internal acoustic coupler with the INTERFACE switch set to INTernal. The DUPLEX switch may be in either the FULL or HALF duplex position. The received and transmitted signals described below conform to the timing shown in Figure 3-8.2.

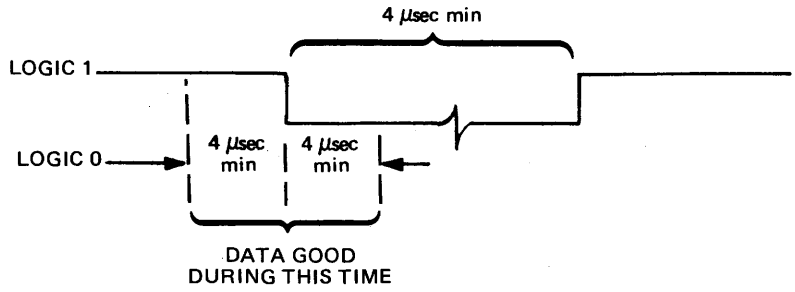


FIGURE 3-6.1. KEYBOARD STROBE PULSE

TABLE 3-6.1. ASCII CODE SYSTEM AND CHARACTER SET

b_4 b_3 b_2 b_1	b_7 → 0 b_6 → 0 b_5 → 0	0 0 1	0 1 0	0 1 1	1 0 0	1 0 1	1 1 0	1 1 1
0 0 0 0		NUL	DLE	SP	0	@	P	\	p
0 0 0 1		SOH	DC1	!	1	A	Q	a	q
0 0 1 0		STX	DC2	"	2	B	R	b	r
0 0 1 1		ETX	DC3	#	3	C	S	c	s
0 1 0 0		EOT	DC4	$	4	D	T	d	t
0 1 0 1		ENQ	NAK	%	5	E	U	e	u
0 1 1 0		ACK	SYN	&	6	F	V	f	v
0 1 1 1		BEL	ETB	'	7	G	W	g	w
1 0 0 0		BS	CAN	(	8	H	X	h	x
1 0 0 1		HT	EM	)	9	I	Y	i	y
1 0 1 0		LF	SUB	*	:	J	Z	j	z
1 0 1 1		VT	ESC	+	;	K	[	k	{
1 1 0 0		FF	FS	,	<	L	\	l	¦
1 1 0 1		CR	GS	-	=	M	]	m	}
1 1 1 0		SO	RS	.	>	N	^	n	~
1 1 1 1		SI	US	/	?	O	—	o	DEL

PRINTABLE CHARACTERS

PRINTER CONTROL CHARACTERS

CODES GENERATED AND TRANSMITTED BY THE TERMINAL, BUT NO ACTION IS TAKEN.

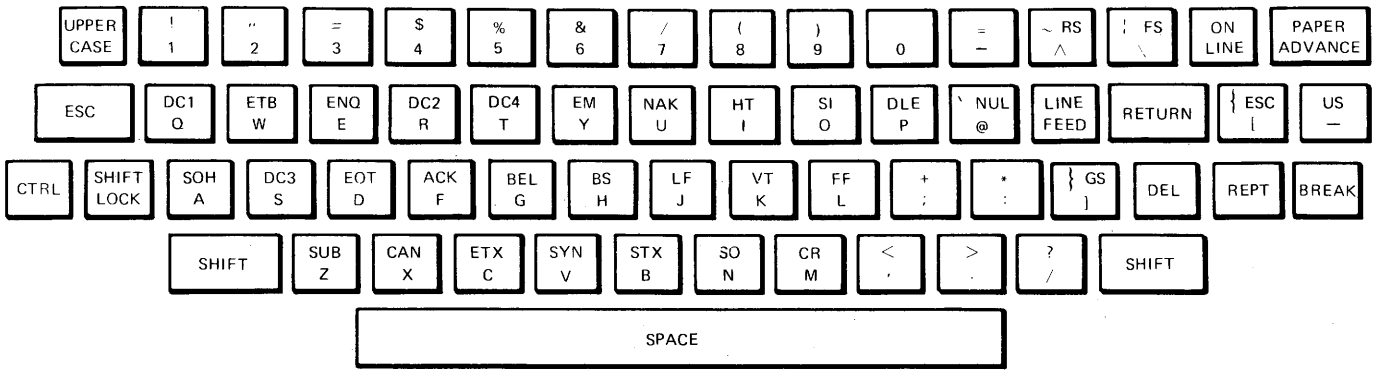
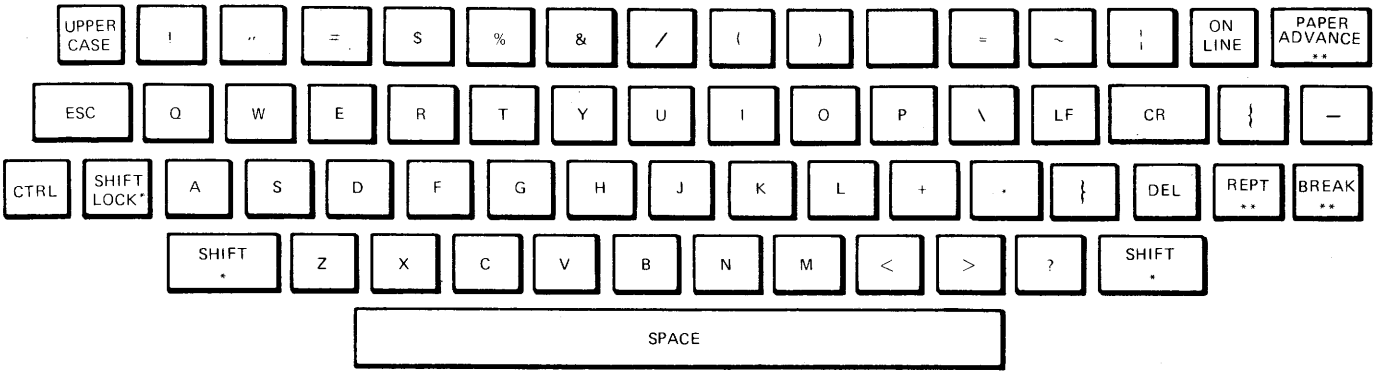


FIGURE 3-6.2. MODEL 735 KEYBOARD LAYOUT AND SYMBOLIZATION



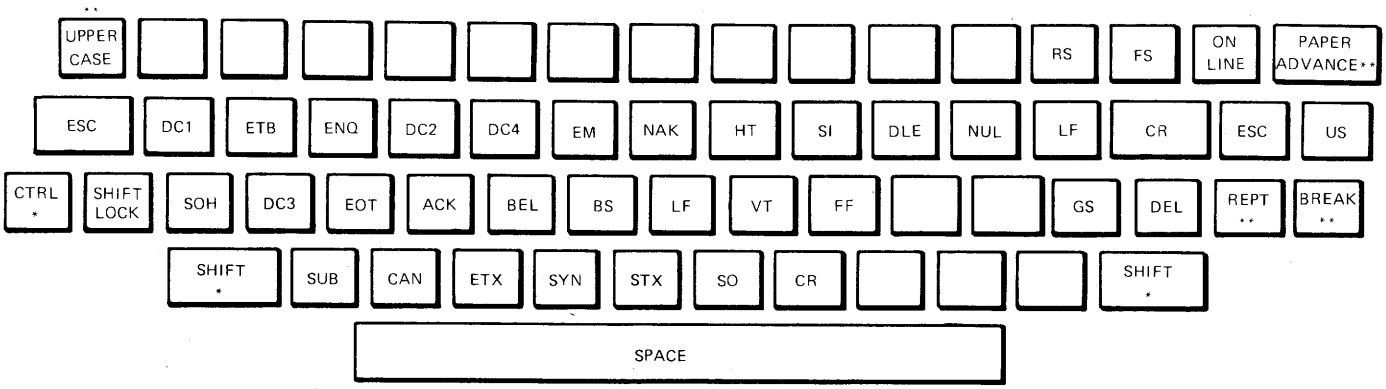
NOTES:

* The above codes are generated when the labeled key and the SHIFT key are depressed. UPPERCASE has no effect.

** Not a code-generating key

A blank key indicates strobe inhibit. Depressing SHIFT and CTRL (control) together inhibits strobe.

FIGURE 3-6.3. SHIFTED CHARACTERS, MODEL 735 KEYBOARD



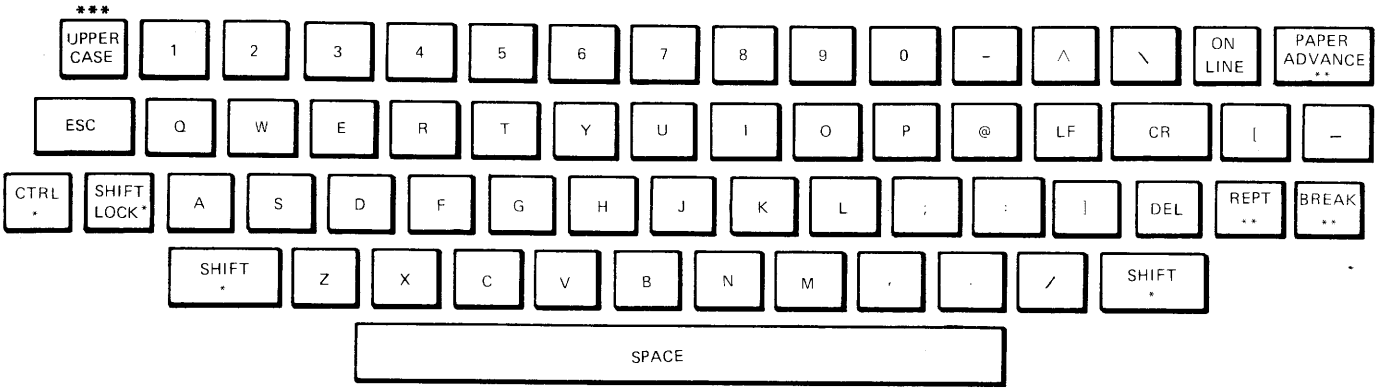
NOTES:

* The above codes are generated when the labeled key and the CTRL (control) key are depressed. UPPERCASE and SHIFT keys have no effect.

** Not a code-generating key.

A blank key indicates strobe inhibit. Depressing SHIFT and CTRL (control) together inhibits strobe.

FIGURE 3-6.4. CONTROL CHARACTERS, MODEL 735 KEYBOARD

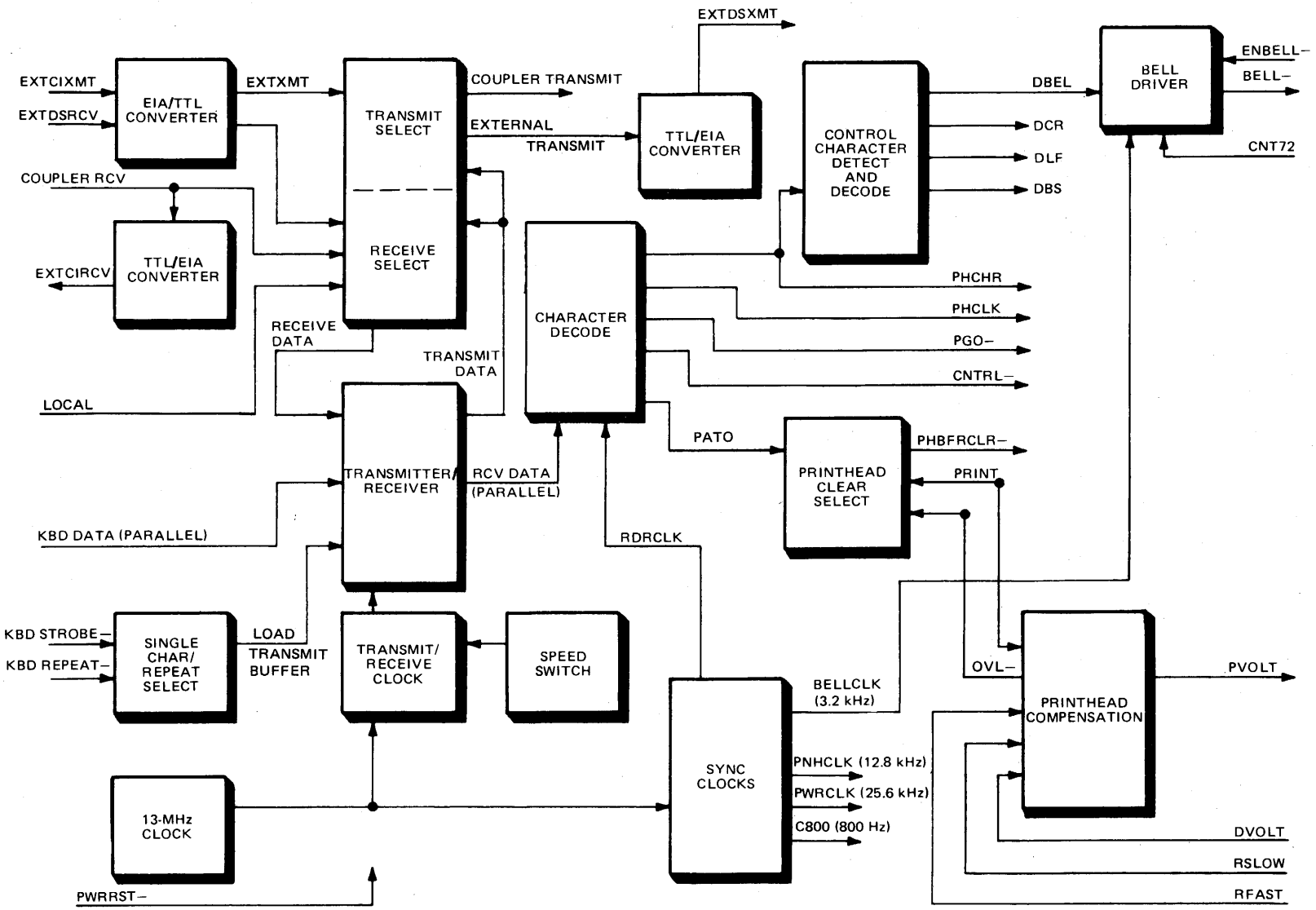


* The above codes are generated when the labeled key is depressed but neither the SHIFT nor the CTRL (control) key is depressed.

** Not a code-generating key.

*** If UPPER CASE is depressed, only uppercase alphabet codes are generated; otherwise, lowercase alphabetic codes are generated.

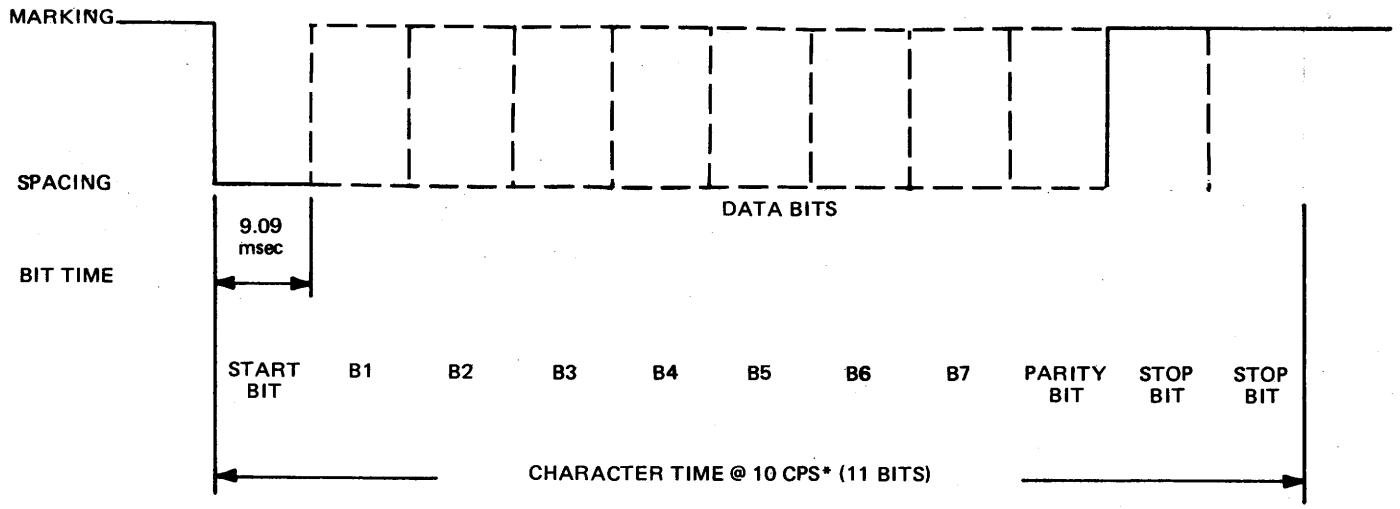
FIGURE 3-6.5. UNSHIFTED CHARACTERS, MODEL 735 KEYBOARD



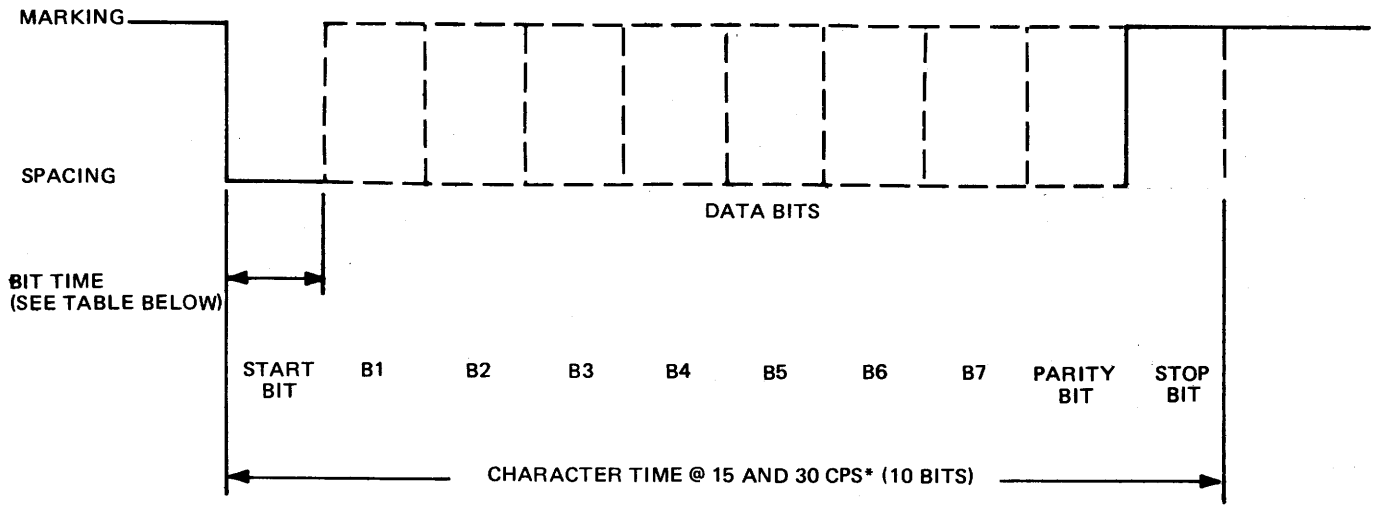
NOTE: SEE APPENDIX A FOR DEFINITIONS OF THE ABOVE SIGNATURES.

A 0000145

FIGURE 3-8.1. MODEL 735 TERMINAL CONTROL BLOCK DIAGRAM



10 CPS* TIMING



(SEE TABLE BELOW)

	15 CPS*	30 CPS*
BIT TIME	6.67 msec	3.33 msec
CHARACTER TIME	66.7 msec	33.3 msec

*CPS = CHARACTERS PER SECOND

FIGURE 3-8.2. ASCII LINE DATA FORMAT

3-8.1.1 **Full Duplex – (On Line).** Parallel data from the keyboard is clocked into the transmit buffer register of U7 by the keyboard strobe pulse. The data is then clocked out serially by the transmit register clock (TRC). This serial data is sent to the Acoustic Coupler PC card for transmission. The data received from the acoustic coupler comes in on pin 25 of the PC card edge connector. This data is clocked into the receive register input (RI) of U7 by the receive register clock (RRC). Note that RRC and TRC are actually the same clock.

3-8.1.2 **Half Duplex – (On Line).** Parallel data from the keyboard is clocked into the transmit buffer register of U7 by the keyboard strobe pulse. The data is then clocked out serially from the transmit register by the transmit register clock. The serial data is gated to the receive register input and clocked in by the receive register clock. The transmit register output is also sent to the Acoustic Coupler PC card for transmission.

The data received from the acoustic coupler is gated to the receive data input of U7. This makes simultaneous printing of keyboard data and receive data possible.

3-8.2 **OPERATION WITH AN EXTERNAL MODEM (INTERFACE SWITCH TO EXT).** When an external data set is used with the Model 735, EIA data comes in on pin 17 of the PC card edge connector. The EIA levels are converted to TTL by U3. When the external data set data-carrier-detect signal (EXTDSDCD) is present, the data is gated through U13 to the receive data input of U7. The data from the keyboard is clocked into U7 by the keyboard strobe, and the serial data out of U7 is connected to U15 by U14. U15 converts the logic levels from TTL to EIA. The output of U15 is the external data set transmit (EXTDSXMT) signal. The keyboard data coming from U7, pin 25, is also controlled by the DUPLEX switch and U13, pin 2. In full duplex the keyboard data is not sent to the receive data input of U7, but in half duplex the data is sent to U7 and, therefore, may be printed.

3-8.3 **OPERATION WITH AN EXTERNAL DEVICE.** When an external device such as a cassette tape player is used, data to the printer comes in on connector pin 17 and the data carrier detect on pin 16. These signals are changed from EIA to TTL by U3. With the INTERFACE switch in the EXTernal position, the data is gated through U14 and U13 to the receive data input of U7.

Keyboard data from U7, pin 25, is gated through U14 and converted to EIA by U15. This data is then sent to the external device. Note that the DUPLEX switch may also be used in this situation to control whether or not the keyboard data is also printed by the terminal.

The external device may also be connected to transmit and receive over a phone line by using the data terminal internal coupler. Data is input to the line through connector pin 24. The EIA levels are converted from EIA to TTL by U3. This data is gated with the on-line signal to connector pin 27 which is the coupler transmit input. The data received by the coupler comes in on connector pin 25. This is converted to EIA levels by U16 and sent to the external device via connector pin 23.

3-8.4 **OPERATION WITH EXTERNAL DEVICE AND EXTERNAL MODEM.** The external device is connected to the telephone line through the external modem. The connection from the external device to the terminal is external data set receive, pin 17 of the connector and external data set transmit, pin 18 of the connector. All other functions are the same as explained above.

3-8.5 **PRINTHEAD COMPENSATION CIRCUIT.** The printhead compensation circuit for the Model 735 is located on the Terminal Control PC card (schematic 969485), and the printhead driver transistor is located on the Power/Motor Driver PC card (schematic 969486).

Current for the printhead drivers is provided by a constant current source consisting of Q6 and CR9. This source provides current for printhead driver transistor Q7. The PVOLT output voltage is controlled by the voltage compensation circuit which adjusts the voltage by sinking a portion of the current available for PVOLT drive. This compensation consists of two operational amplifier circuits AR2 and AR3. AR3, an operational amplifier which sinks current, has two negative inputs: one from the slow printing bias circuit and the other negative input from the gain feedback loop. The slow printing bias is set by choosing the slow resistor on the printhead. This sets PVOLT to the proper level for slow printing (1 character per second) for each particular printhead. The gain feedback loop consists of resistor R54 and variable resistor R55. R55 acts as a contrast adjustment, capable of changing the gain of this stage from 15 to 50. The positive input to AR3 becomes effective when the printer is operating at fast printing speeds.

The operational amplifier AR2 is used as a sensing amplifier for the printhead temperature-compensation diode. This amplifier is set for a gain of 30. A resistor divider R42 and R43 will hold the negative input to a constant reference voltage. The voltage of the printhead diode is applied to the

positive input. This diode is provided with 1 mA current from the 9-volt reference voltage through R40 and the balance resistor located on the printhead. The balance resistor is chosen at room temperature to ensure that all printheads have the same diode voltage at room temperature (0.901 volts). When the printhead is not printing (PRINT is low), Q4 and Q2 turn on FET Q5. This allows capacitor C10 to charge up to the diode voltage (DVOLT). When the print command is given, Q4 turns off Q5, and capacitor C19 is isolated to retain the DVOLT level during the 10-msec printing time.

When the data terminal is printing, the temperature of the diode rises and falls quickly. When printing slowly, the diode has time to return to ambient temperature. In this condition the output of AR2 is zero, and the gain of AR3 is controlled exclusively by the slow resistor. When the printer is running fast, the temperature of the printhead rises, causing the diode voltage to drop. This change is amplified by AR2, enabling the fast resistor which controls the gain of AR3. Thus, as the ambient temperature of the head increases, the print voltage is decreased proportionately.

When the print command is low, a transistor (U11-8) clamps PVOLT to ground through CR10 and CR11. If the print command stays high too long (longer than 11 to 12 msec), one-shot U26 will time out and the buffers on the Printhead Interface PC card will be cleared (PHBFRCLR), removing the base drive from the printhead. Overvoltage protection for the printhead is provided by CR12, CR13, CR14, and Q8. If PVOLT rises high enough for CR12 and CR13 to conduct, Q8 will generate PHBFRCLR which removes the base drive to the head. At the end of each print pulse, U19 generates PHBFRCLR to remove base drive from the printhead; a timing diagram is shown in Figure 3-8.3.

Current regulation to the head is provided by U11-1,2,3. This limits the short-circuit current of PVOLT to less than 3.5 amps.

Reference voltages for the compensation circuits are provided by voltage regulator AR1. Resistors R9 and R18 are selected to produce the correct reference voltage (approximately 9.0 volts).

3-8.6 CHARACTER DECODING. As shown in the printer decode block diagram in Figure 3-8.4, when data ready from the receive register goes high the state pattern counter is enabled. The pattern counter clocks the pattern from the MOS character generator and counts the number of patterns sent to the printhead buffer/driver. If the first pattern is a ONE, the character is a control character so the pattern is also clocked to the control decode. The printer control monitors the flip-flop to detect whether the character is a printable character or a control character.

When the printer decode sends out PGO, printer control either prints the character in the printhead buffer/driver or performs the control function in the control decode register. A flow chart for the character decoding is shown in Figure 3-8.5, and a timing diagram is shown in Figure 3-8.6.

3-8.7 CLOCK GENERATION. A diagram of the clock generation circuits is shown in Figure 3-8.7. Frequencies are shown for each operating speed. A 13.5168-MHz crystal oscillator is used as the primary frequency source. The oscillator may be inhibited by INTCKINH-, and an external clock substituted (EXTCKIN).

Timing diagrams for the transmit buffer register load (TBRL) clock and keyboard strobe clocks are shown in Figure 3-8.8 for a single character and Figure 3-8.9 for repeated characters; i.e., characters generated with the REPEAT line held at a logic ZERO.

3-8.8 PRINTHEAD PROTECTION CIRCUIT. If the print pulse width exceeds 12 μsec, U26 generates PHBFRCLR-; this signal clears the buffer registers on the Printhead Interface PC card, thus removing the base drive from the printhead. A timing diagram of the printhead buffer clear (PHBFRCLR) function is shown in Figure 3-8.3.

3-8.9 BELL DRIVER. The bell driver also is located on the Terminal Control PC card. When the printhead reaches column 72 or the BEL character is received, a one-shot is fired; this gates the bell clock (3.2kHz) to transistor Q2 and applies a 3200-Hz tone to the speaker.

3-9 MODELS 752, 753, 754, AND 755 TERMINAL CONTROL.

A block diagram of the Models 752, 753, 754 and 755 Terminal Control PC card (TI Part No. 969469, schematic 969489) is shown in Figure 3-9.1. The PC card functions may be broken down into six sections: the clock generators, TTY interface, EIA interface, receiver, character-decoding circuits, and printhead compensation circuit. A block diagram of the parallel interface terminal control card (TI Part No. 969501, Schematic 969499) is shown in Figure 3-9.2. This card replaces TI Part No. 969469 for TTL parallel data interface only on late 1975 Model 753 and 755 terminals.

3-9.1 CLOCK GENERATION. A diagram of the clock generation circuits for TI Part No. 969469 is shown in Figure 3-9.3. Frequencies are shown for both ASCII and Baudot operation. A 13.5168-MHz crystal oscillator is used as the primary frequency source. The oscillator may be inhibited by INTCKIN- and an external clock substituted (EXTCKIN-).

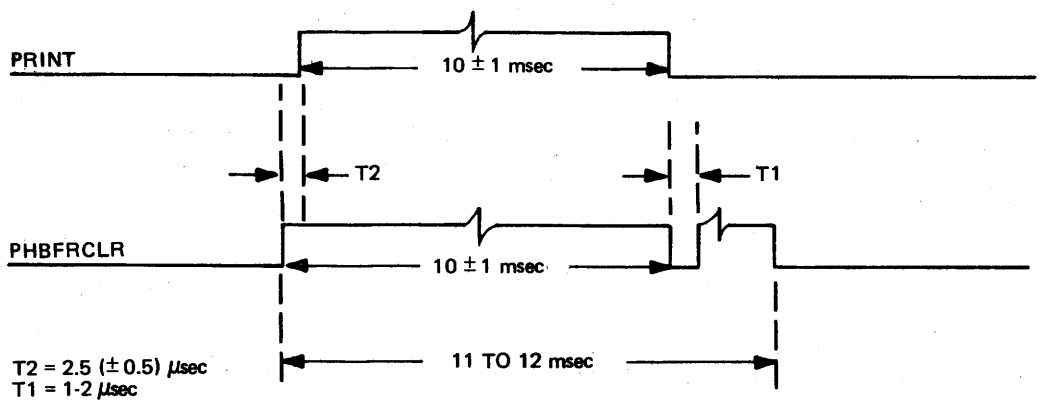
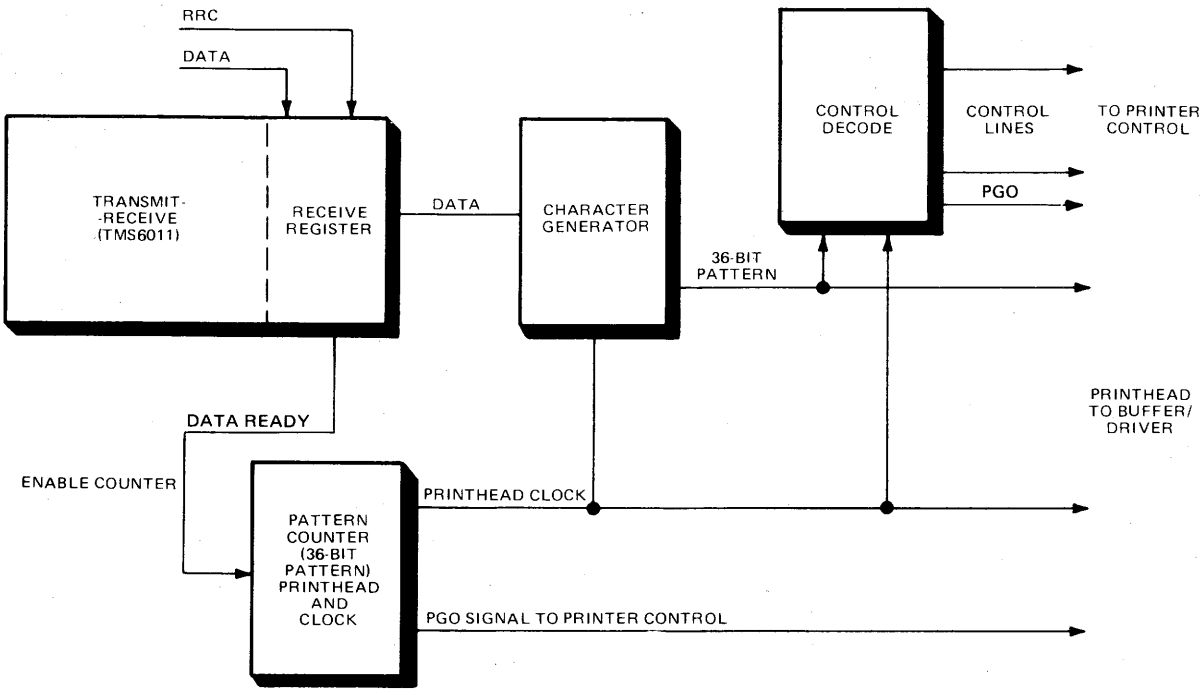
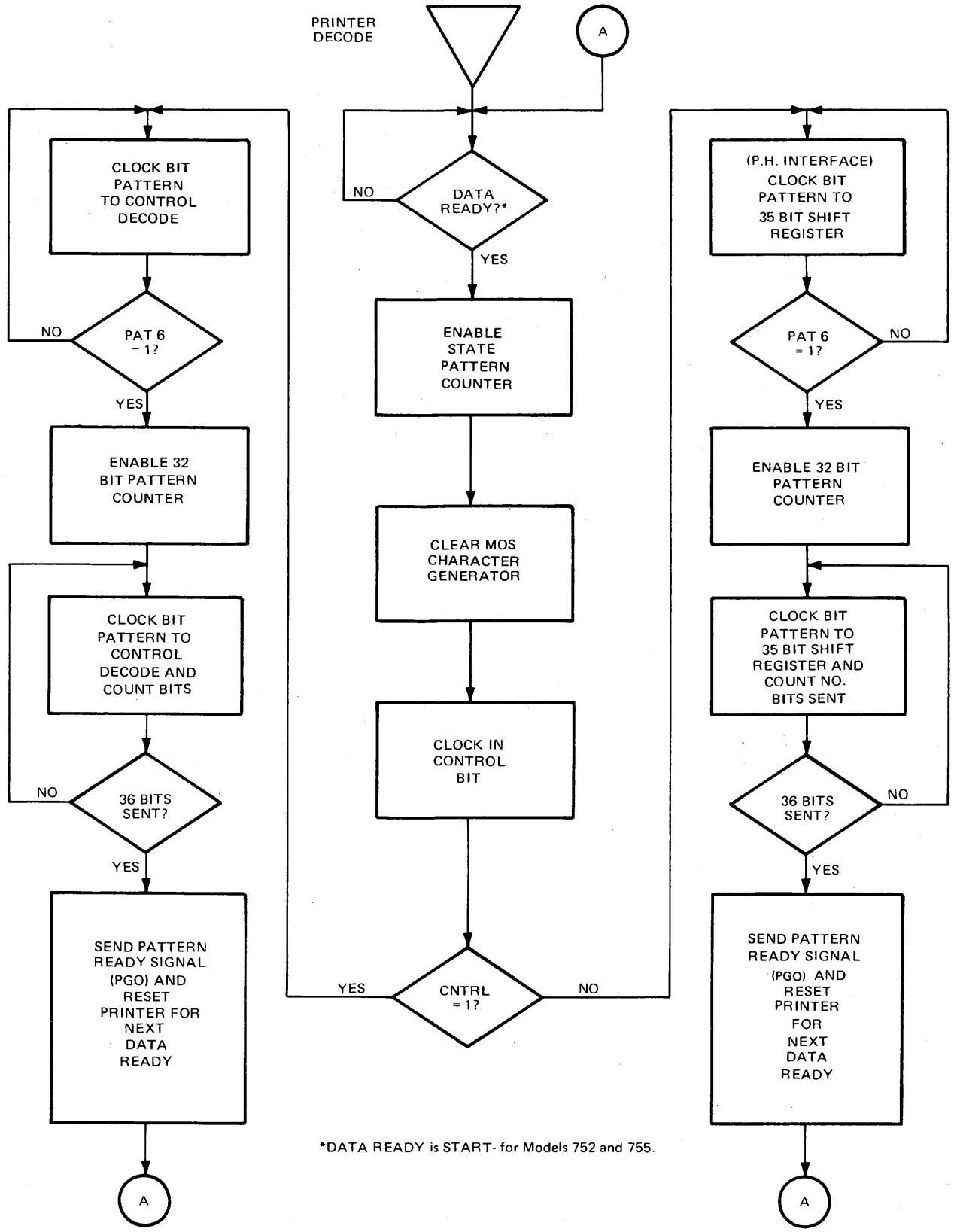


FIGURE 3-8.3. PRINTHEAD BUFFER CLEAR (PHBFRCLR) TIMING DIAGRAM



A 0000146

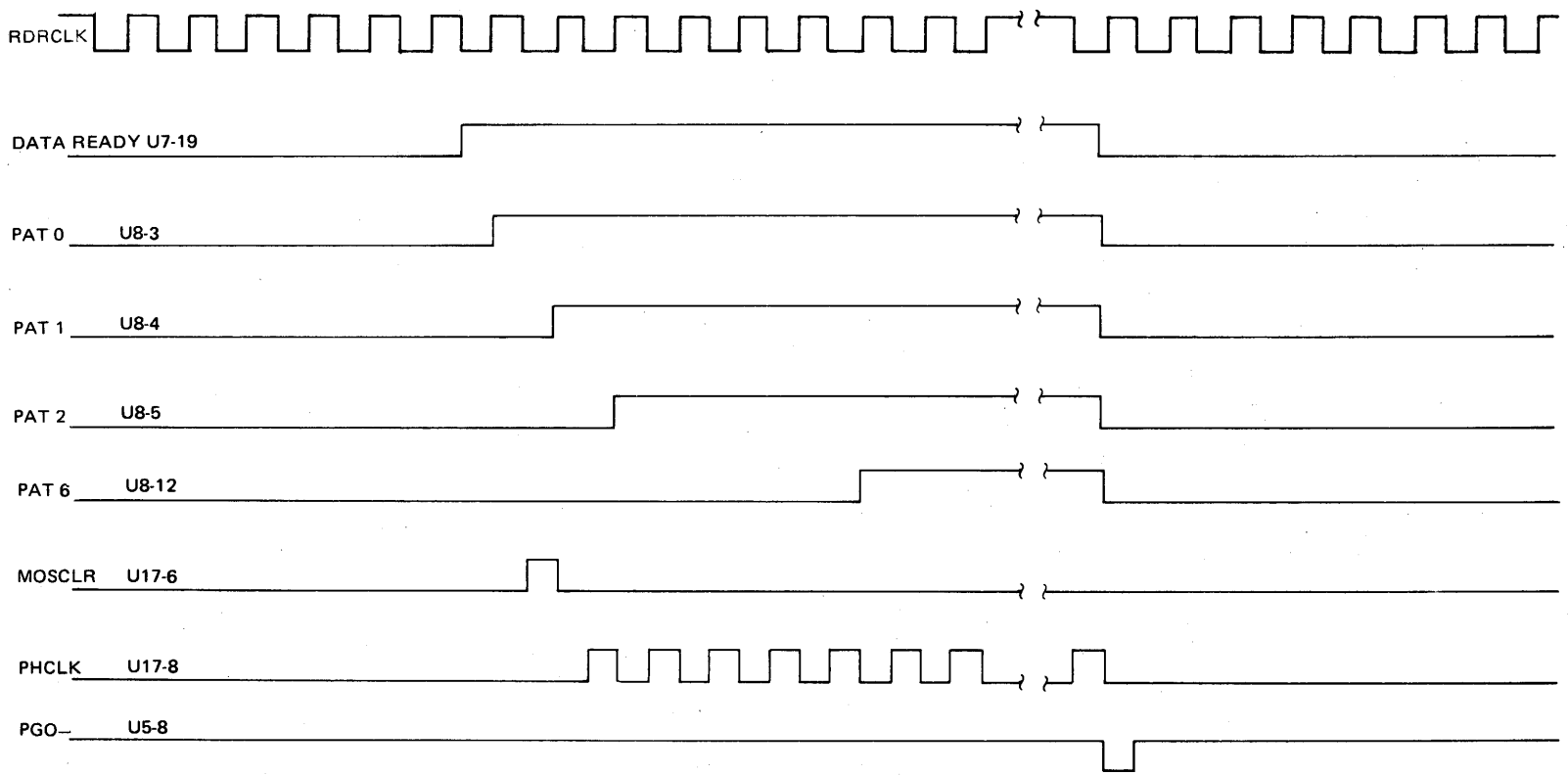
FIGURE 3-8.4. MODEL 735 TERMINAL CONTROL PRINTER DECODING BLOCK DIAGRAM



*DATA READY is START- for Models 752 and 755.

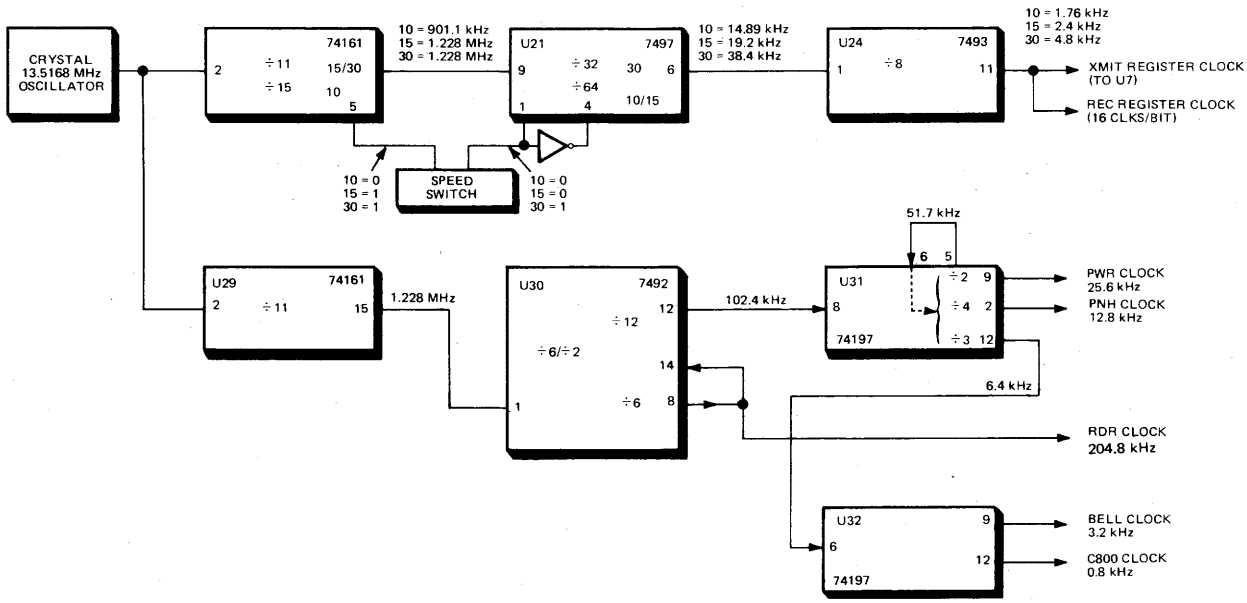
A 0000147

FIGURE 3-8.5. MODELS 735, 752, 753, 754 and 755 TERMINAL CONTROL CHARACTER-DECODING FLOW CHART



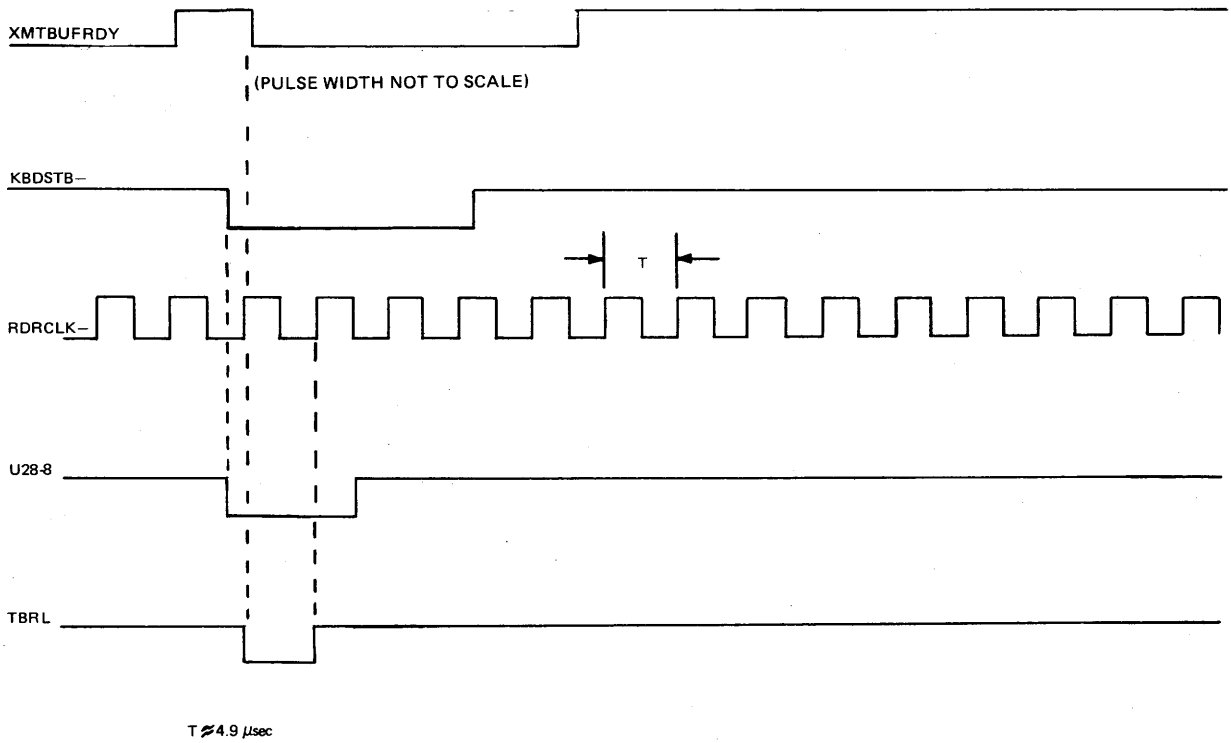
B 0000141

FIGURE 3-8.6. MODEL 735 TERMINAL CONTROL CHARACTER – DECODING TIMING DIAGRAM



A 0000148

FIGURE 3-8.7. MODEL 735 TERMINAL CONTROL CLOCK GENERATION



A 0000153

FIGURE 3-8.8. TRANSMITTER BUFFER REGISTER LOAD CLOCK TIMING DIAGRAM, SINGLE CHARACTER

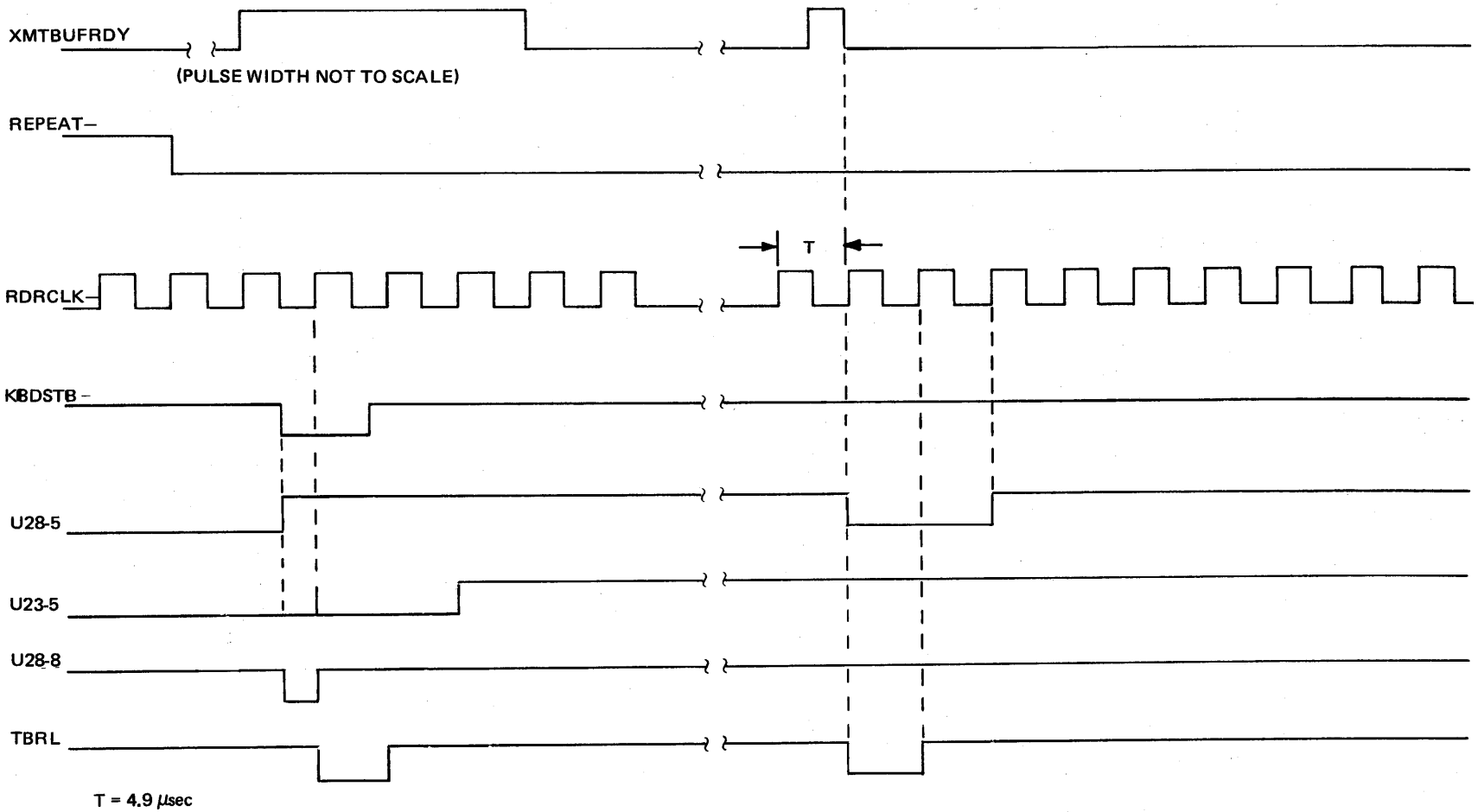


FIGURE 3-8.9. TRANSMITTER BUFFER REGISTER LOAD CLOCK TIMING DIAGRAM, REPEAT CHARACTER

A 0000149

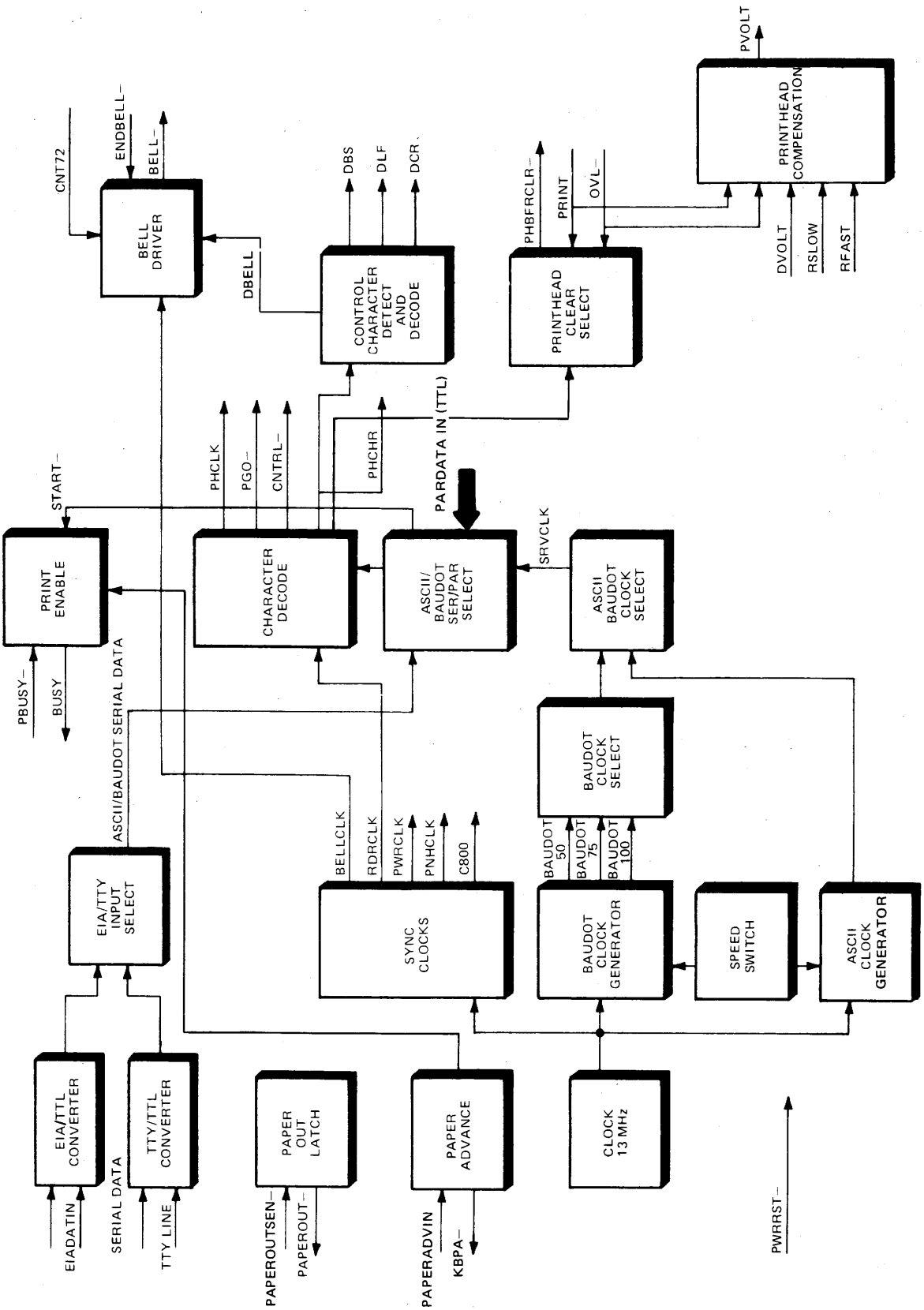
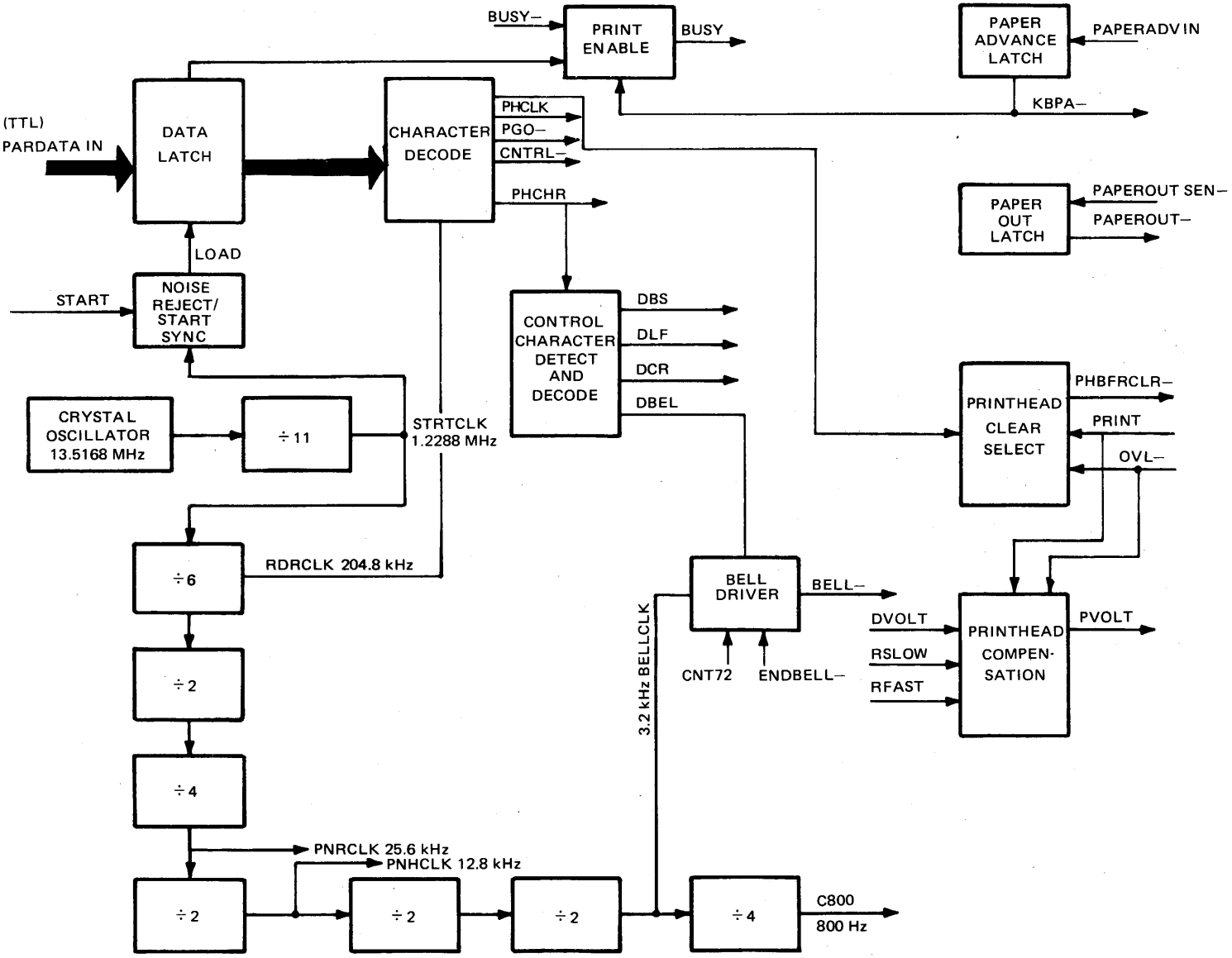


FIGURE 3-9.1. MODELS 752 AND 755 TERMINAL CONTROL BLOCK DIAGRAM

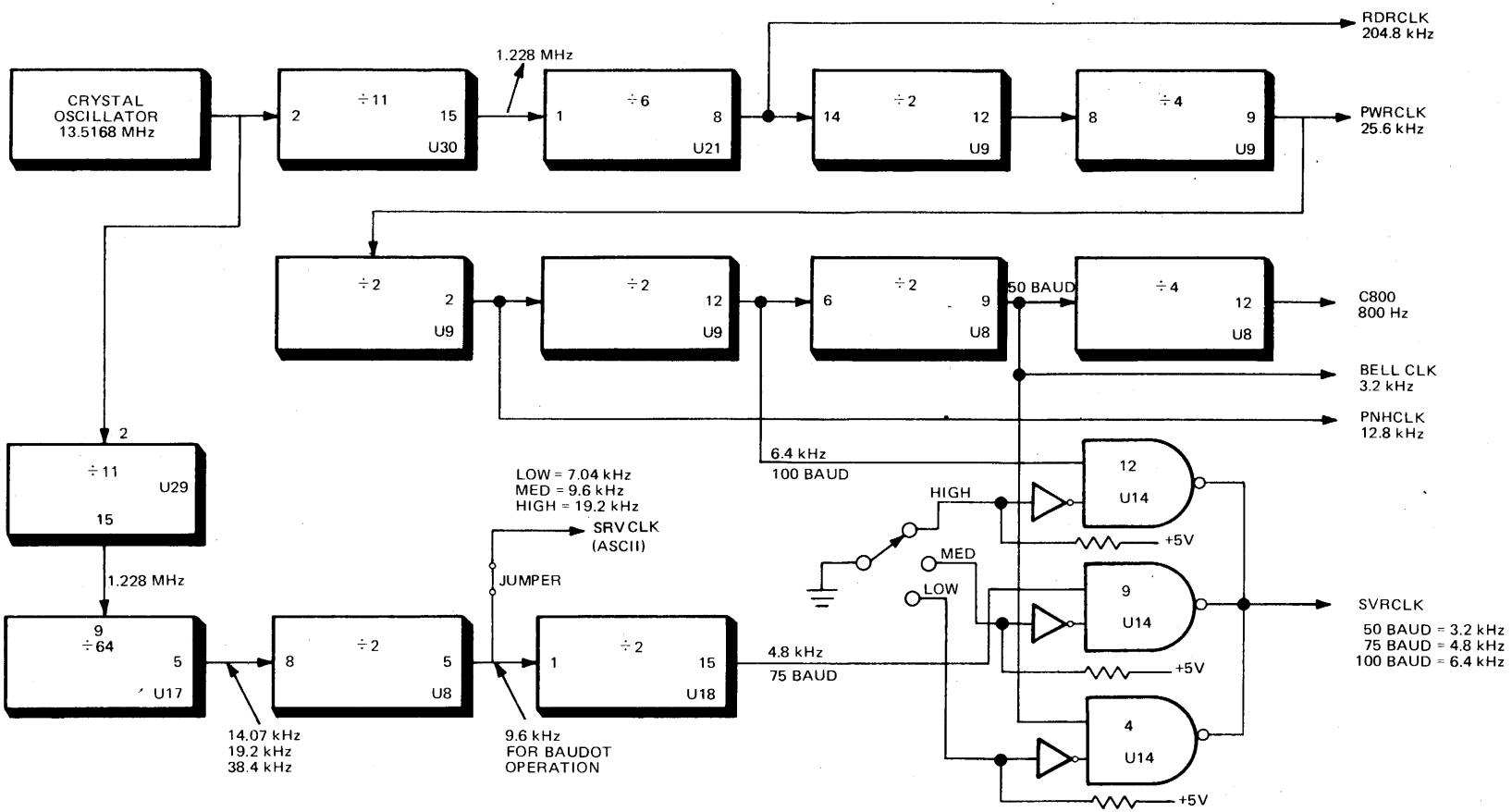
A 0000150



(TI PART NUMBER 969501, SCHEMATIC 969499)

A0000489

FIGURE 3-9.2. MODELS 753, and 755 TERMINAL CONTROL BLOCK DIAGRAM, TTL PARALLEL INTERFACE



NOTE: FOR ASCII OPERATION U18 AND U14 ARE REMOVED, AND THE JUMPER IS ADDED.

(TI PART NUMBER 969469-0001 through 0006

A 0000152

FIGURE 3-9.3. MODELS 752, 753, 754 and 755 TERMINAL CONTROL CLOCK GENERATION DIAGRAM

3-9.2 TTY INTERFACE CURRENT LOOP – NEUTRAL. The Teletype (TTY) neutral receiver consists of the necessary circuitry to sense current from an outside source and convert the current levels to the appropriate TTL-logic levels. The voltage drop across the receiver inputs (TTY lines 1 and 2) under working conditions (current flow) should be less than or equal to 5 volts. The MARK/SPACE nominal threshold decision current at 20-mA operation (R35 removed) should be 10 (±20 percent) mA and at 60 mA operation (R35 installed) should be 30 (±20 percent) mA.

The receiver utilizes a differential transistor pair to sense the 10 mA or 30 mA current level. Upon sensing the decision level the transistor pair switches the current load from one to the other. When the second transistor of the pair starts sinking current through its collector, a voltage sufficient to switch on the optical coupler (Q1) is produced across resistor R37. When the optical coupler transistor switches on, Q3 turns on and puts a ZERO logic level on U11-9 which provides a TTL-logic level output (logic ONE) corresponding to a MARK on the input receiver (TTYDATIN).

In like manner, when the current is below the decision level on the input line, the differential pair switches back to normal, the optical coupler switches off, the logic level goes back to a SPACE condition (logic ZERO) on the input receive lines (TTY L1 and TTY L2), and the TTL level on U11-8 is a ZERO. Diode CR1 is provided to protect the receiver circuit from transients.

3-9.3 EIA INTERFACE. The EIA data is received via connector pin 19, EIADSR on pin 17, and EIADSR on pin 20. These signals are converted to TTL-logic levels by U2. This data may be applied to the receive section by the addition of R28; when this is done, R3 must be removed to isolate the TTY interface section.

3-9.4 RECEIVER CIRCUIT. When the start bit is received, U32-9 removes clear from the divide-by-64 counter U27. The first clock is generated after 32 input clocks, and then each succeeding clock is generated after 64 input clocks. A timing diagram of the receiver circuit is shown in Figure 3-9.4.

The data bits and stop bit, which comply with the timing shown in Figures 3-8.2 and 3-9.5, are then clocked into the serial-to-parallel converter U4. When the stop bit is clocked into U4, RESET and START- are generated. Reset clears U27, and START- presets U6 to generate BUSY. START- also clocks the data from the serial-to-parallel converter into the receiver buffer register and enables the state pattern counter.

3-9.5 CHARACTER DECODING. The Models 752, 753, 754, and 755 printer decode flow chart and block diagram are the same as that for the Model 735 (see Figure 3-8.3), except DATA READY should read START- in the flow chart. The circuit is the same as that described in Section 3-8.6.

3-9.6 PRINTHEAD COMPENSATION CIRCUIT. The printhead compensation circuit for the Models 752, 753, 754, and 755 is the same as that for the Model 735 described in Section 3-8.5. Some differences exist in the reference designators in the schematics of the five models. See schematics 969489, 969490, and 969499 for Models 752 through 755 in Appendix C.

3-10 PRINTHEAD.

The printhead consists of a five by seven matrix of 35 separate heating elements and a diode mounted on a monolithic chip. The chip is mounted on a heatsink and is connected to the Printhead Interface PC card with a flat cable connected to a PC board. Mounted on this board are the balance, slow, and fast resistors used by the printhead compensation circuit. The printhead is controlled by switching both (1) base drive to each element and (2) print voltage to the entire head (PVOLT). The diode voltage on the chip varies with temperature, and the compensation circuit uses this voltage to control print voltage. The balance, slow, and fast resistors are used to match individual printhead characteristics to the compensation circuit.

3-11 PRINTHEAD INTERFACE.

The Printhead Interface PC card (TI Part No. 959141, schematic 959180) accepts serial data (35 bits) from the character generator and converts it to parallel data using five 7-bit shift registers. Each bit is then buffered and sent to the appropriate heating element (base lead) on the printhead, thus creating an image on heat-sensitive printing paper.

3-12 PAPER DRIVE MECHANISM.

The paper drive mechanism feeds paper through the printer and moves the printhead to print out individual characters and lines from data fed to the terminal. Major components of the paper drive include:

(1) The printhead stepping motor

(2) Paper advance motor

(3) Printhead-lift solenoid

(4) Margin limit switch.

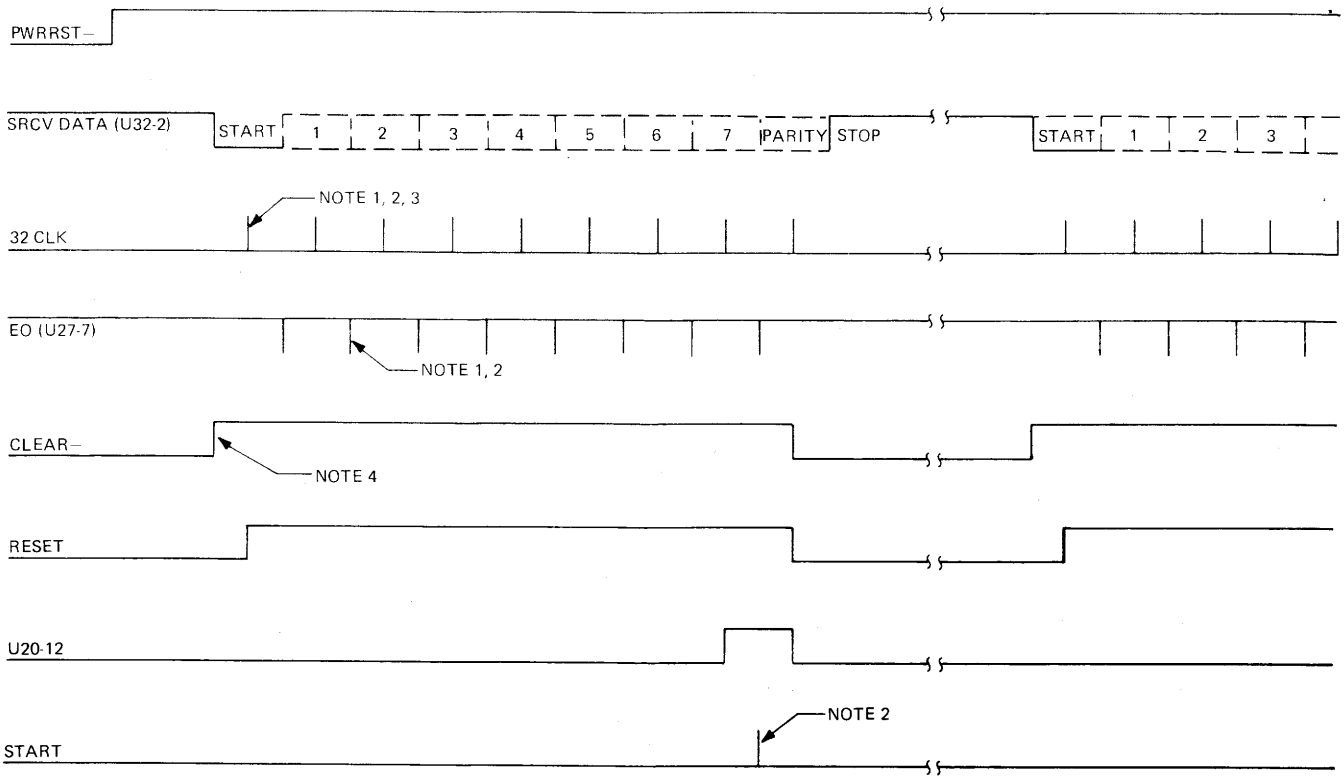
Adjustments for printhead lift, printhead damping, and printhead return speed are described in Section IV.

3-13 OPTIONAL PAPER-OUT INDICATOR.

The optional paper-out indicator consists of a mechanical switch mounted on the right paper supply roll support bracket. In operation the switch provides either a TTL or, in some models, an EIA signal to indicate that 10 (+8, −5) feet of paper remain on the supply roll. The TTL signal, supplied at pin 2 of the power input plug (J2), is normally high and goes low when paper supply is sensed. The EIA signal, actually the data-terminal-ready (DTR) signal, is OR'ed to the paper-low signal on the Terminal Control PC card. The EIA signal is supplied at pin 7 of connector J1.

When the paper-out switch closes, a TTL signal (PAROUTSEN-) is fed to the Terminal Control PC card (input pin T).

When the paper-out switch closes, a Schmitt trigger applies a positive input to a flip-flop which latches up, forcing the "paper out" TTL and EIADTR signals to go LOW until paper is reloaded, and the terminal is reset by a power-up sequence. On parallel interface terminals, using the Terminal Control PC card (969501) no power-up sequence is necessary to reset the "paper-out" latch.



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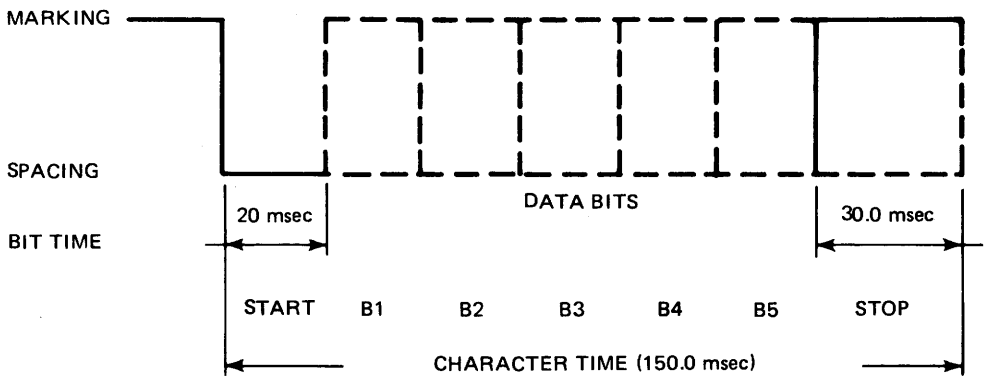
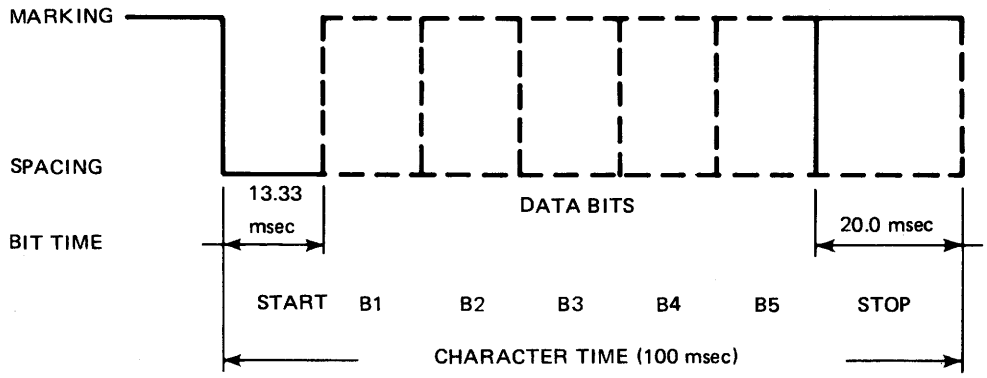
NOTES:

1. REP RATE IS 1/64 OF SRVCLK
2. WIDTH=PULSE WIDTH OF SRVCLK
3. FIRST 32 CLK OCCURS 32 SRVCLKS AFTER "START" ARRIVES
4. 1 SRVCLK CYCLE AFTER "START" TRANSITION

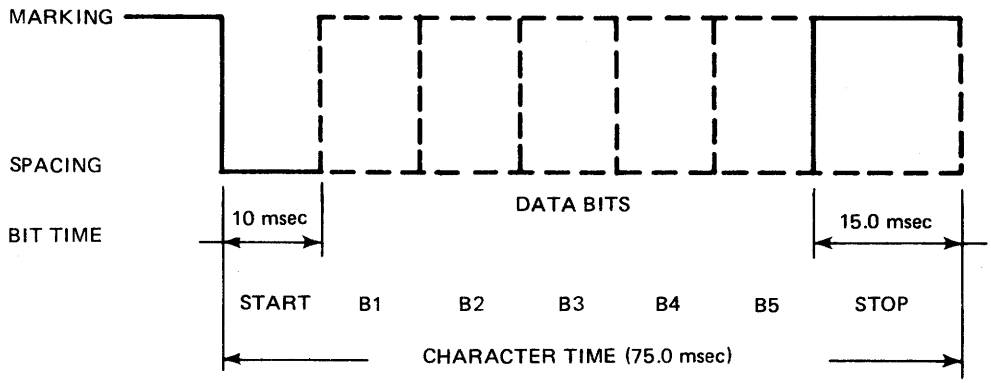
FIGURE 3-9.4. MODELS 752, 753, 754, 755 TERMINAL CONTROL RECEIVER TIMING DIAGRAM (ASCII CODE)



CHARACTER TIMING: 50 baud

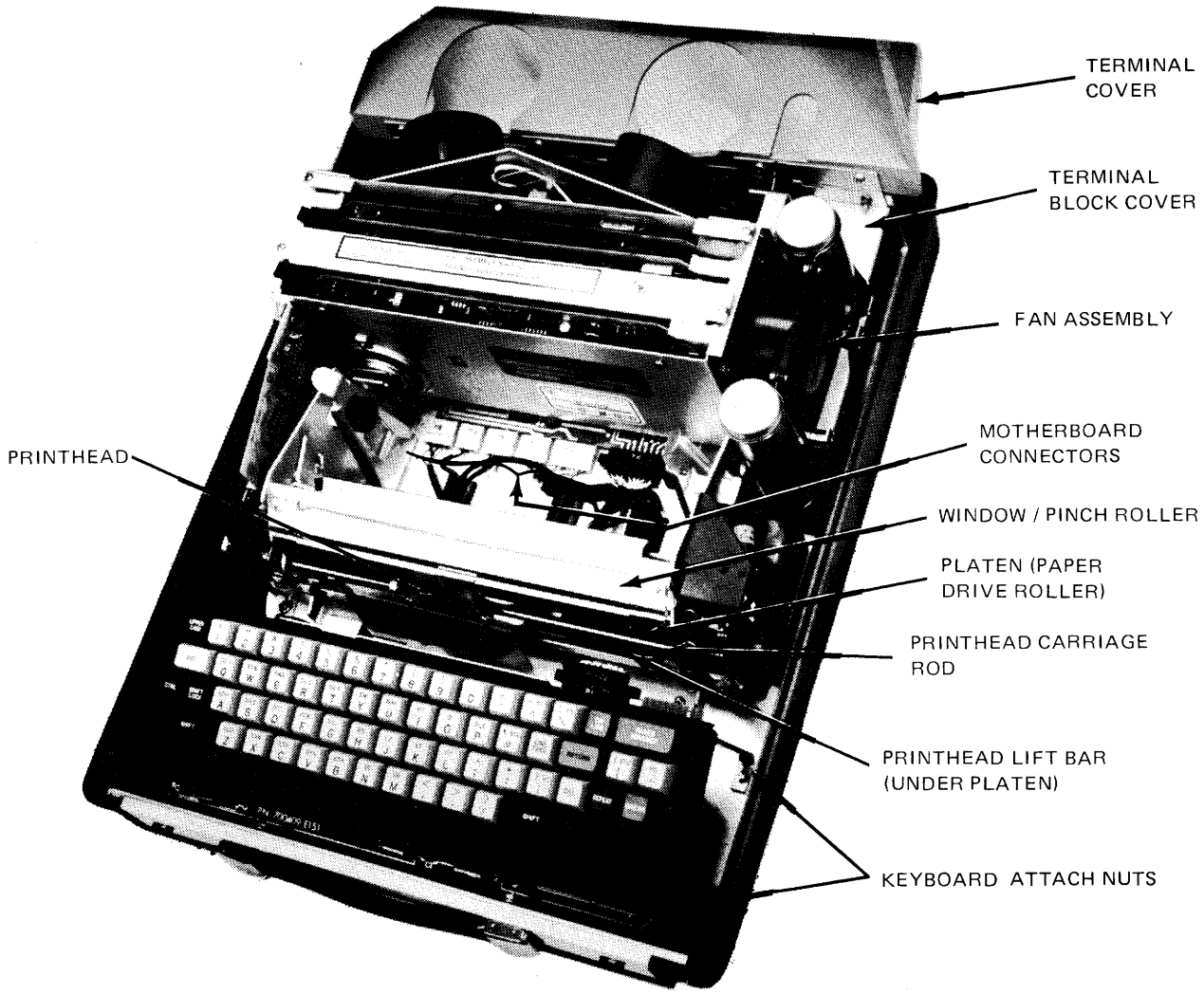


CHARACTER TIMING: 75.0 baud



CHARACTER TIMING: 100 baud

FIGURE 3-9.5. BAUDOT LINE DATA FORMAT



(MODEL 735 SHOWN)

FIGURE 4-1. TYPICAL DATA TERMINAL INTERNAL COMPONENTS (RIGHT SIDE VIEW)

SECTION IV

MAINTENANCE

4-1 PREVENTIVE MAINTENANCE.

Models 735/754/755 Data Terminals are designed and built to provide long term trouble-free operation under rigorous operating conditions. To ensure that the highest performance levels are maintained, the following preventive maintenance procedures should be performed at regular intervals. These consist primarily of keeping the thermal printer mechanism clean and free of foreign objects. Refer to Figure 4-1 for location of components.

4-1.1 PRINTHEAD CLEANING. To ensure that the thermal printer continues to provide acceptable print quality, the printhead periodically should be cleaned as follows:

a. Remove the thermal paper from the platen and paper chute.

b. Insert a sheet of good quality bond paper into the paper chute and around the platen and lower the window/pinch roller.

c. Type or cause to print four to six lines on the bond paper.

NOTE

The thermal printer will not print visibly.

d. Remove the cleaning paper and reload the thermal paper.

This printhead cleaning procedure should be completed each time a new roll of paper is loaded into the printer or more often if the printed images start to fade as a result of residue buildup on the printhead.

4-1.2 PAPER DRIVE ROLLER CLEANING. To maintain uniform line spacing the paper drive roller must be kept clean. Use the following procedure.

a. Switch off power to the data terminal.

b. Remove paper from around the drive roller (platen). Leave the window/pinch roller up.

c. Manually slide the printhead to the far right side of the platen.

d. Wipe the left half of the platen with a soft rag or paper towel moistened with denatured alcohol. Rotate the drive roller manually to ensure that the entire roller is cleaned.

e. Slide the printhead to the far left and clean the right half of the platen.

f. Load the thermal paper back around the platen, lower the window/pinch roller, and switch power on.

This procedure should be repeated every 3 months or more often if line spacing becomes erratic.

4-1.3 PRINTHEAD DRIVE MECHANISM CLEANING. To ensure continued smooth, quiet operation of the printer mechanism, the printhead carriage rod and printhead lift bar must be kept clean. A dirty carriage can cause increased audible noise and can reduce the lifetime of the printer mechanism. Clean the carriage rod and printhead lift bar as follows.

a. Switch off power to the terminal and remove the thermal paper from the platen and paper chute.

b. Clean the printhead carriage rod and printhead lift bar (see Figure 4-1) with a soft rag to remove paper residue.

c. Carefully apply light grade machine oil (10W) to the carriage rod and light grade multipurpose grease (Shell Darina) on the top and bottom edges of the printhead lift bar.

d. Manually slide the printhead back and forth several times.

e. Reload the thermal paper and switch on power.

This cleaning procedure should be performed every 3 months or whenever the carriage rod and printhead lift bar appear dirty.

4-2 TROUBLESHOOTING.

Troubleshooting the data terminal is facilitated by Table 4-1, which will aid in localizing a failure to a particular PC card or assembly. Where more than one possible cause is listed for a particular problem, the PC card or subassembly is listed in descending order of probable cause. The omission of any PC card or subassembly as a cause for a specific problem does not eliminate that area, but the possibility of a failure is considered remote on the basis of experience.

4-3 ADJUSTMENTS.

The Model 735 Data Terminal has only two field adjustments in normal use: the print CONTRAST control and the coupler transmit level control. The Models 754/755 Data Terminal has only the print CONTRAST control. All other adjustments are completed at the factory and should not be changed unless replacement of a component or subassembly makes readjustment necessary.

TABLE 4-1. FAILURE ANALYSIS CHART

Symptom	Power Assembly	Drive Assembly	Keyboard *	Power Supply/Motor Driver	Printer Control	Terminal Control	Coupler *	Printhead Interface	Printhead
Terminal Completely Inoperative	1			2	4	3			
Printhead Does Not Return When Power Applied	1	4		2	3				
Printhead Returns To Wrong Column		1		2	3				
Paper Advance Inoperative		3	4	2	1				
Will Not Print Although Printhead Steps						1		2	3
Printhead Oscillates		2		3	1				
Printhead Steps Erratically		2		3	1				
Printhead Does Not Lift On Paper Advance		1		2	3				
Keyboard Inoperative Except Paper Advance *			1			2			
Specific Keys Will Not Print *			1			2			
Serial Data Not Transmitted			3			1	2		
Serial Data Not Received						2	1		
Carriage Return Too Slow		1			2				
Does Not Print All Elements						3		2	1
Printhead Does Not Step		2		1	3	4			

NOTE: Numbers within boxes indicate order of failure probability.

*Model 735 Only

4-3.1 PRINT CONTRAST. To adjust print image contrast raise the hinged terminal cover and locate the CONTRAST potentiometer. This potentiometer is accessible through a clearance hole in the PC card cage cover. To darken the printed image, slowly rotate the adjustment screw clockwise while printing characters from the keyboard until the desired contrast is achieved. To lighten the printed image, rotate the adjustment screw counterclockwise.

CAUTION

(1) DO NOT rotate the adjustment screw more than one-quarter turn clockwise without checking contrast by printing a character. Contrast settings which cause scorching or sticking of the paper can result in permanent damage to the printhead.

(2) If a new printhead is installed, rotate the adjustment screw fully counterclockwise before reapplying system power. Then slowly turn the screw clockwise while printing until the desired contrast is obtained.

4-3.2 ACOUSTIC COUPLER TRANSMIT ADJUSTMENT (MODEL 735). This adjustment controls the audio level of the signal applied to the telephone handset. The audio level is set by the factory to produce -15 dBm (0 dBm = 1 millivolt dissipated in a 600-ohm load) on the telephone line after passing through the telephone handset. The level may be adjusted to accommodate different handsets and telephone systems. The adjustment is set as follows:

a. Raise the terminal cover and locate the potentiometer marked XMT LEVEL (Figure 2-1). This potentiometer is accessible through a clearance hole in the PC card cage cover.

b. Establish contact with the remote terminal.

c. With a small screwdriver, slowly turn the XMT LEVEL adjustment screw clockwise until the terminal begins to receive bad data from the remote source. Reduce the level slightly to achieve error-free operation; this is the maximum transmit level.

4-3.3 PRINTER SUBSYSTEM ADJUSTMENTS. Under normal operating conditions the closed-loop control circuitry of the printer subsystem will compensate for friction changes caused by wear, temperature variations, and component aging. Field adjustments should not be required unless a critical component or subassembly is replaced. If printing performance becomes unsatisfactory, do not attempt adjustments until the cause is fully understood. Be sure that the drive assembly is cleaned and lubricated according to the preventive maintenance instructions. Also, check for excessively worn parts such as a frayed drive cable or loose carriage body before adjusting.

Special test equipment is used at the factory to optimize adjustments so that the printer will perform within specified ranges of temperature, humidity, and power line voltage. The field adjustment procedures listed below should return the printer to operation after replacement of a critical subassembly. The field adjustments may not be optimum, however, and readjustments may be required if operating conditions are changed radically. Field adjustments should always be made under conditions which duplicate as closely as possible the intended operating environment of the terminal.

4-3.3.1 Printhead Lift Adjustment.

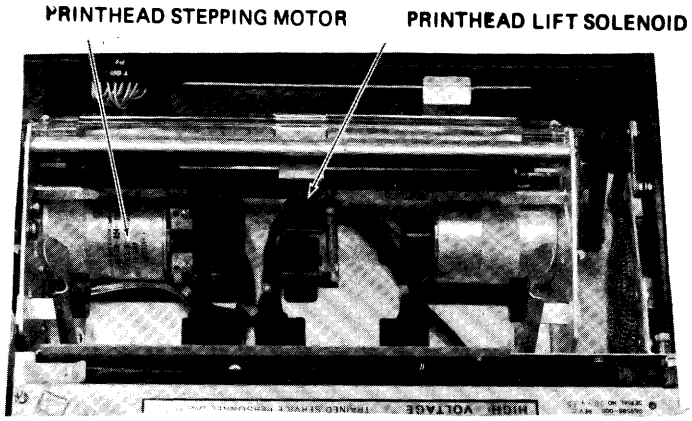
a. Switch off power and raise the terminal cover.

b. Cut or tear the printing paper so that a 6-inch strip remains on the platen; remove the paper roll.

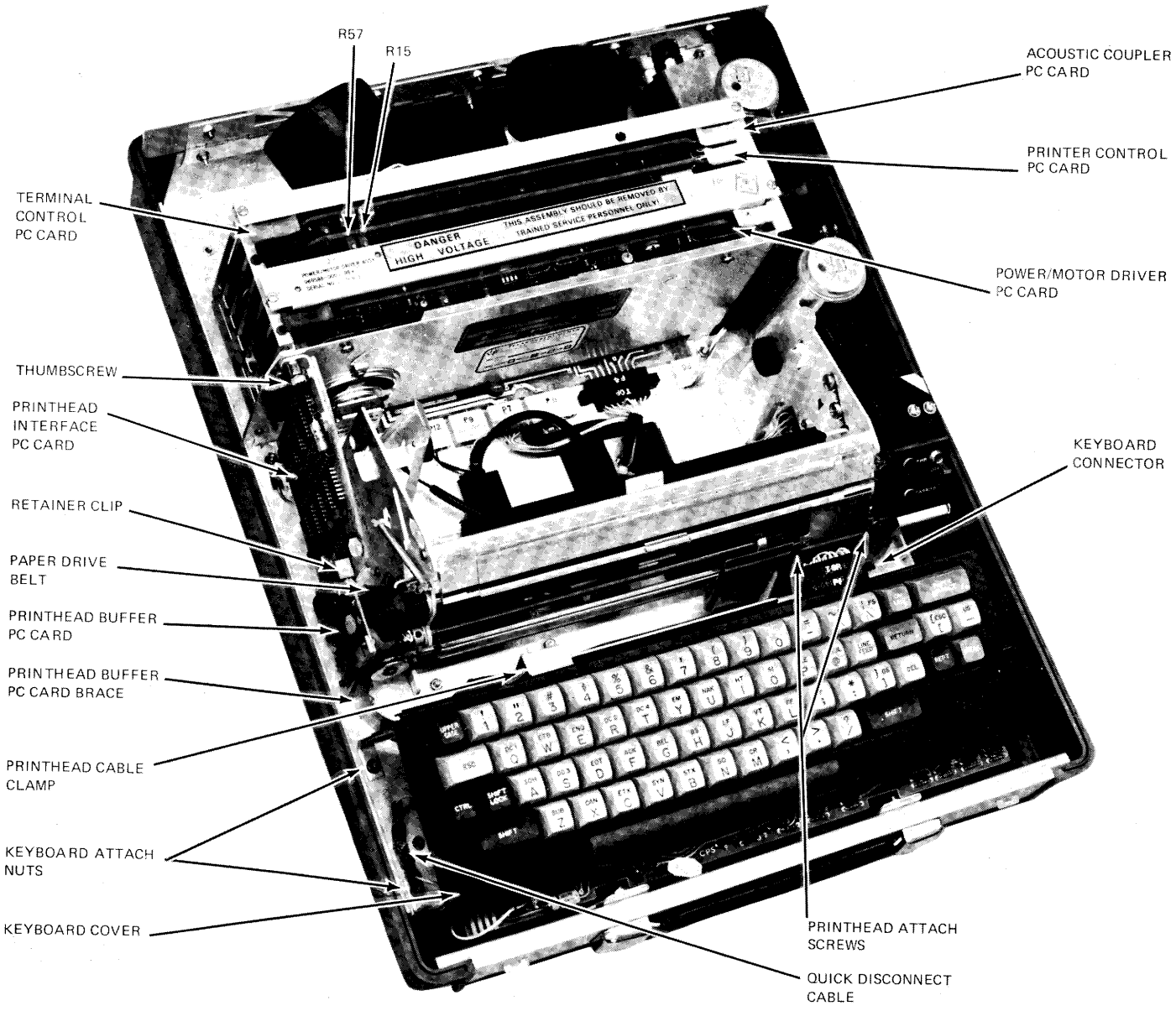
c. Remove the drive belt from the paper advance motor (Figure 4-2).

d. Apply power and activate PAPER ADV to raise the printhead. With a feeler gauge, carefully measure the clearance between the printhead and the platen (roller). If not 0.025 (±.010) inch, adjust the solenoid stroke by turning the knurled knob on the bottom of the solenoid (looking down – CW to increase, CCW to decrease). To prevent the solenoid plunger from rotating, support the black retainer into which the solenoid plunger screws with your other hand or a 3/8 inch open-end wrench.

e. With the stroke adjusted and power off, measure the printhead force against the platen, using a force gage calibrated from 0 to 32 ounces (Hunter T-2P-TC or equivalent). The head force should be 12 (±1) ounces; if not, replace the spring adjacent to the head lift solenoid.



REAR VIEW OF DRIVE MECHANISM



(MODEL 735 SHOWN)

FIGURE 4-2. TYPICAL DATA TERMINAL INTERNAL COMPONENTS (LEFT SIDE VIEW)

4-3.3.2 Holding Current Adjustment, Suggested Method.

a. Switch power off, load the printing paper, remove the PC card rack cover, and adjust R57 (see Figure 4-2) fully counterclockwise.

b. Manually move the printhead to approximately column 70. Switch power on and adjust R57 clockwise until the printhead returns to column 1.

c. Switch power off and again manually move the printhead to approximately column 70. Switch power on; the printhead should smoothly return to column 1.

d. If the printhead does not return to column 1, rotate R57 one revolution clockwise and repeat step c.

e. When a setting is found for which the printhead smoothly returns to column 1 from column 70 when power is switched on, the adjustment is complete.

f. Switch power off and install the PC card rack cover.

NOTE

See paragraph 4-3.3.3 below for an alternate, but less convenient, method to adjust holding current.

4-3.3.3 Holding Current Adjustment, Alternate Method.

a. Switch off power.

b. Use a force gage (Hunter T-2P-TC or equivalent) to pull the printhead smoothly across the paper (with head down) from column 1 to column 80. Maximum friction force should not exceed 11 ounces. Minimum and maximum force measurements should not vary more than 3 ounces. If these conditions are not met, check for dirt, improper lubrication, and worn or damaged parts.

c. Switch on power and step the printhead to column 40. Measure the force required to pull the head to column 41; if not 18 (±1) ounces, remove the PC card rack cover and adjust the Printer Control PC card (Figure 4-2) potentiometer R57 (clockwise to increase, counterclockwise to decrease holding force).

d. Recheck the holding force each time R57 is adjusted 1/4 turn until the force is 18 (±1) ounces.

4-3.3.4 Forward Stepping Adjustment (Model 735).

a. Switch off power and raise the terminal cover.

b. Cut or tear the printing paper between the supply roll and the platen so that a 6-inch long strip remains on the platen; remove the paper supply roll from the terminal.

c. Locate the damping sensor adjustment screw on the rear of the head stepping motor assembly. The damping sensor is on that side of the motor opposite the keyboard.

d. Depress a printable character key. The printhead should print the character and step to the right one column. If it does, continue with step f.

e. Rotate the adjustment screw fully counterclockwise, then a half turn clockwise.

f. Press and hold the REPT (repeat) key and then the I key; release the I key and observe the tach wheel on the stepping motor. The tach wheel should appear to be standing still and the slots in the wheel should be clearly visible. Adjust the damping sensor screw until the edges of the slots are sharply defined (no blurring of either the left or right edges). If necessary, place a flashlight on the opposite side of the tach wheel to help observe the edges more clearly.

g. Check the quality of the printed characters. They should be sharply defined (minimum dot smearing). Be sure the print contrast is set correctly when checking print quality (see paragraph 4-3.1). The printer also should generate minimum acoustic noise while printing in the repeat mode.

4-3.3.5 Backspace Current Adjustment (Model 735).

a. Step the printhead to any column except column 1. Depress the CTRL (control) and then the H (BS) key. The printhead should step one column to the left. If it does, go to step c.

b. Rotate printer control PC card potentiometer R15 counterclockwise to its stop. Then rotate it one turn clockwise. Again depress the CTRL and H (BS) keys. Repeat this procedure, adjusting R15 one turn clockwise at a time until the printhead steps smoothly to the left.

c. Momentarily press the RETURN key. Next, press and hold the REPT key and press the H key. Release the keys before the printhead reaches column 80. Then press and hold the REPT, CTRL, and H (BS) keys in that order. The printhead should step smoothly to the left until the REPT key is released. Press and hold the REPT key and press the H key again. The printer should print the character H again on the same line.

d. If the printhead does not step to the left smoothly or the characters are blurred by overprinting, press the LINE FEED key, adjust R15 1/4 turn, and repeat steps c. and d. until optimum performance is achieved.

4-3.3.6 Carriage Return Adjustment.

a. Switch power off, and remove the paper supply roll.

b. Lift the paper window and the terminal cover (see Figure 4-1).

c. Locate the feedback sensor adjustment screw on the rear of the head stepping motor assembly (see Figure 4-2). (The feedback sensor and its adjustment screw are on the side of the motor nearest the keyboard. Adjust the screw setting fully counterclockwise.

d. Connect a DC voltmeter (set to read a maximum of 5 volts) to the terminal as follows:

(1) Connect the ground lead to any point on the chassis.

(2) Connect the positive lead to the feedback sensor emitter lead.

e. Switch power on, manually slide the printhead to the approximate center of the carriage, and turn the screw clockwise until the meter indicates a voltage greater than 3 volts. If the meter never approaches 3 volts, the sensor is defective.

f. Rotate the screw clockwise until the meter reads 0.0 ±.1 volts.

g. Reach the final setting by rotating the screw one additional revolution clockwise.

4-4 SUBASSEMBLY REMOVAL AND REPLACEMENT.

Many modular-design subassemblies are easily removed to facilitate repair or replacement. Figures 4-1 and 4-2 show some of the important modules and their attach and plug-in points. Detailed procedures are described in the following paragraphs.

4-4.1 KEYBOARD (MODEL 735 ONLY). To remove the keyboard from the Model 735 unit, proceed as follows:

a. Switch off power to the terminal.

b. Lift the terminal cover to expose the entire keyboard.

c. Remove the keyboard connector from the back right edge of the keyboard.

d. Remove the quick-disconnect ground cable terminal from the chassis base.

e. Remove the four nuts which hold the keyboard brackets to the chassis.

f. After lifting out the keyboard, place protective foam across the pins of the MOS encoder chip.

CAUTION

Do not touch the MOS encoder pins at any time; damage to the MOS device may result.

To install the keyboard on the Model 735 Data Terminal, proceed as follows (see Figure 4-1).

a. Switch off power to the terminal and remove the old keyboard as described in steps a. through f. above.

b. After removing the old keyboard from the terminal, remove the keyboard cover by loosening the two screws which fasten the cover to the keyboard. Also remove the keyboard backets by removing four screws.

c. Reinstall the keyboard brackets and the cover on the new keyboard, ascertaining that all keyboard keys may move freely.

d. Remove the protective foam which may cover the MOS encoder on the new keyboard, and place the foam on the MOS encoder of the old keyboard. Be careful not to touch the MOS encoder pins at any time on either the old or new keyboards as this may damage the MOS devices.

e. Mount the new keyboard on the chassis using the four nuts from the old keyboard.

f. Replace all keyboard connectors on the back right edge of the keyboard, being sure each connector is positioned with the numbers on top.

g. Reconnect the ground cable to the chassis base.

4-4.2 PRINTHEAD. To remove the printhead see Figure 4-2 and proceed as follows.

a. Switch off power to the terminal and raise the cover to expose the paper drive mechanism.

b. Loosen the nut which attaches the Printhead Buffer PC card brace to the chassis.

c. Remove the Printhead Buffer PC card retainer clip and hardware from the Printhead Interface PC card connector. Save all hardware for reuse.

d. Disconnect the Printhead Buffer PC card from th Printhead Interface PC card.

e. Lift the window and move the printhead to the far right margin, noting the curvature of the printhead cable. The cable should lay flat against the printhead for a distance of at least 1/4 inch before curving to the printhead plate.

f. Remove the clamp which holds the cable to the printhead plate.

g. Loosen the two screws which hold the printhead to the carriage and remove the entire printhead assembly from the terminal.

Install the printhead as follows (see Figure 4-2).

a. Switch off power to the terminal and remove the old printhead as described in steps a. through g. above.

b. Be sure the carriage is moved to the far right hand margin.

c. Place the printhead back on the carriage, being sure the slot and the hole in the printhead are aligned with pins on the carriage, and tighten the two screws which secure the printhead.

d. Clamp the cable back on the printhead cable plate; the cable should lay flat against the printhead for at least a distance of 1/4 inch before it starts curving toward the printhead cable plate.

e. Plug the Printhead Buffer PC card into the Printhead Interface PC card and tighten the screw which fastens the printhead card brace to the terminal base.

f. Replace the Printhead Buffer PC card retainer clip, using the existing hardware.

g. Lower the window and apply power to the terminal.

h. Type several characters or have them transmitted. If full characters do not print, loosen the two printhead mounting screws, turn the printhead-adjust slotted pin located on the carriage (CW to raise; CCW to lower). The pin protrudes through the lower left corner of the printhead. Retighten mounting screws.

CAUTION

The full adjustment range of the slotted pin is 1/4 turn of the slot from the horizontal either CW or CCW. Do NOT exceed.

4-4.3 **DRIVE ASSEMBLY.** To remove the drive assembly, see Figure 4-2 and proceed as follows.

a. Switch off power to the terminal and disconnect the power cord.

b. Loosen the screw which fastens the Printhead Buffer PC card brace to the terminal base.

c. Remove the Printhead Buffer PC card retainer and hardware from the Printhead Interface PC card connector.

d. Remove any paper in the printer.

e. Unplug all cable connectors to the drive assembly from the front edge of the motherboard.

f. Loosen the four screws (Models 754/755) or nuts (Model 735) which hold the drive assembly to the terminal base.

g. On the Models 754/755 loosen and remove the grounding strap between the PC card rack and the mechanism.

h. On the Model 735 remove the PWR switch assembly from the mechanism.

i. Carefully lift out the drive mechanism, being sure the printhead cable or PC card does not catch on any other part of the terminal.

To install the drive assembly, complete the following steps.

a. Switch off power to the terminal and disconnect the power cord.

b. Mount the drive assembly on its mounts in the terminal base and retighten the four screws (or nuts) which fasten the mechanism to the base plate.

c. Install all cable connectors, as marked, along the front edge of the motherboard.

d. On the Models 754/755 install the grounding strap between the card cage and the mechanism by retightening the screw.

e. Mount the printhead on the drive assembly as instructed in paragraph 4-4.2 above.

f. On the Model 735 replace the PWR switch assembly and adjust to cover opening.

g. Reinsert print paper in the terminal and apply power.

4-4.4 **PRINTHEAD INTERFACE PC CARD.** Remove the Printhead Interface PC card as follows (see Figure 4-2).

a. Switch off power to the terminal and disconnect the power cord.

b. Loosen the screw holding the Printhead Buffer PC card brace to the terminal base, remove the retainer and hardware, and unplug the Printhead Buffer PC card.

c. Loosen the thumbscrew holding the Printhead Interface PC card brace to the PC card rack and remove the Printhead Interface PC card.

Install the Printhead Interface PC card as follows (see Figure 4-2).

a. Switch off power to the terminal and disconnect the power cord.

b. Plug the new Printhead Interface PC card (component side out) into the connector on the Power/Motor Driver PC card through the opening in the PC card rack.

c. Tighten the Printhead Interface PC card brace thumbscrew.

d. Plug in the Printhead PC card and tighten the screw which fastens the Printhead PC card brace to the terminal base.

e. Replace the retainer and hardware.

4-4.5 **PLUG-IN PC CARDS.** Remove PC cards as follows (see Figure 4-2).

a. Switch off Power to the terminal and disconnect the power cord.

b. Lift the terminal cover and loosen the PC card rack cover screws and remove the cover.

c. Insert thumbs under the card ejectors (to inside of card) and lift the ejectors.

Install PC cards as follows.

a. Switch off power to the terminal and disconnect the power cord.

b. Locate the appropriate PC card rack slot for the card to be inserted. The left-hand card ejector (viewing the card from the component side) should match the colored dot on the PC card rack.

c. Slide the PC card into the PC card rack slot and press it firmly down, applying equal pressure to both card ejectors.

d. Replace the PC card rack cover, being sure the two tabs at the rear of the cover are properly inserted into the slots at the rear of the PC card rack. Tighten the screws holding the cover to the PC card rack.

e. Close the terminal cover and apply power.

4-4.6 SECONDARY FUSES. Secondary fuses are located on the Terminal Control PC card (orange ejector) and on the Power/Motor Driver PC card (brown ejector). Consult the drawings and parts lists in the appendixes for fuse sizes and locations.

a. Switch off power to the terminal and disconnect the power cord.

b. Lift the terminal cover and remove the PC card rack cover.

c. Remove the Terminal Control PC card (orange ejector) and test F1 with a volt-ohmmeter (VOM)

d. Remove the Printhead Interface PC card as instructed in paragraph 4-4.4.

e. Remove the Power/Motor Driver PC card (brown ejector) and test the fuses with a VOM, according to data terminal model, as follows:

(1) Model 735 – fuses F1 through F8

(2) Models 752/753 OEM with power supply – fuses F1 through F8.

(3) Models 752/753 OEM without power supply – fuses F3 and F4.

(4) Models 754/755 – fuses F1 through F8.

f. Replace any defective fuses with a fuse of the *same size and rating*. The fuses may be removed and replaced without solder (except F1 and F6 on some models).

g. Replace the PC cards as instructed in paragraph 4-4.5.

4-4.7 FAN ASSEMBLY, MODELS 754 and 755. Remove the fan from Models 754 and 755 as follows.

a. Switch off power to the terminal and disconnect the power cord.

b. Open the terminal cover and remove the PC card rack cover and the terminal block cover.

c. Remove all PC cards (see paragraph 4-4.5).

d. Remove the fan connections from TB1-1 and TB1-2.

e. Loosen and remove the four screws which hold the fan assembly in place.

f. Remove the fan.

Install the fan as follows.

a. Switch off power to the data terminal and disconnect the power cord.

b. Mount the fan so that the ac power line for the fan exits at the rear of the data terminal and the air flow passes over the module.

c. Route the fan ac line up to the ac power assembly; connect one fan wire to terminal block TB-1 and the other to TB1-2.

d. Insert four screws to fasten the fan to the PC card rack with two hex spacers on the bottom of the fan assembly. Use four flat washers as spacers between the fan and the card rack.

e. Replace the terminal block cover.

f. Plug the PC cards into the PC card rack, replace the PC card rack cover, and close the terminal cover.

g. Plug in the ac power cord and switch POWER to ON.

4-4.8 FAN ASSEMBLY, MODEL 735. Remove the fan from the Model 735 as follows (see Figure 4-1).

a. Switch off power to the terminal and disconnect the power cord.

b. Loosen and remove the four screws and bumpers on the bottom of the case which hold the chassis to the luggage case.

c. Disconnect the quick-disconnect ground cable terminal and remove the chassis from the case.

d. Open the terminal cover and remove the PC card rack cover and the terminal block cover.

e. Remove all PC cards.

f. Remove the fan connections from terminal block TB1-1 and TB1-2.

g. Loosen and remove the two capacitor clamps and the four screws which secure the fan assembly.

h. Remove the fan.

Install the fan assembly in the Model 735 as follows (see Figure 4-1).

a. Switch off power to the terminal and disconnect the power cord.

b. Mount the fan so that the fan ac power line exits at the rear of the terminal and the air flows toward the module.

c. Route the fan ac line up to the ac power assembly; connect one wire to terminal block TB1-1 and the other to TB1-2.

d. Insert four screws to fasten the fan to the PC card rack with the two hex spacers on the bottom of the fan.

e. Replace the capacitor clamp and the terminal block cover.

f. Replace the chassis into the printer case; insert four screws and bumpers to fasten the chassis to the printer case.

g. Reconnect the quick-disconnect ground cable.

h. Plug the PC cards into the PC card rack, replace the PC card rack cover, and close the terminal cover.

i. Connect the power cord and apply power to the data terminal.

4-4.9 LINE FILTER ASSEMBLY, MODELS 754 and 755. Remove the filter as follows.

a. Switch off power to the terminal and disconnect the power cord from the rear of the chassis.

b. Open the terminal cover and remove the terminal block cover.

c. Remove the line filter connections from filter terminal F1-1 (blue wire), the splice (brown wire), and E1 (green wire).

d. Loosen and remove the two screws which secure the filter assembly and remove the filter assembly.

Install the line filter as follows.

a. Mount the line filter with the information label (line – load) to the top and insert two screws to fasten the line filter to the data terminal base plate.

b. Route the ac line filter wires to filter terminal F1-1 (blue wire), the splice (brown wire), and E1 (green wire).

c. Replace the terminal block cover, plug the line cord into the rear of the chassis and apply power.

4-4.10 LINE FILTER ASSEMBLY, MODEL 735. Remove the filter as follows.

a. Switch off power to the terminal and disconnect the power cord from the ac line filter (rear of the terminal).

b. Loosen and remove the four screws and bumpers which secure the chassis to the printer case, remove the ground wire, and remove the chassis from printer case.

c. Remove the terminal block cover and the fuse cover and remove the line filter connections from fuse terminal F1-1 (blue wire), the splice (brown wire), and E1 (green wire).

d. Loosen and remove the two screws which secure the filter assembly.

e. Remove the line filter assembly.

Install the line filter as follows.

a. Mount the line filter with the information label (line – load) to the top and insert two screws to fasten the line filter to the chassis.

b. Route the ac line filter wires to fuse terminal F1-1 (blue wire), the splice (brown wire), and the E1 (green wire). Replace the terminal block cover and the fuse cover.

c. Replace the chassis into the printer case; insert four screws and bumpers to fasten the chassis to the printer case.

d. Reconnect the ground wire.

e. Plug the power cord into the ac line filter and apply power to the data terminal.

4-4.11 POWER MODULE ASSEMBLY, MODELS 754 AND 755. Remove the power module assembly (PC card rack and attachments) as follows.

a. Switch off power to the data terminal and disconnect the power cord.

b. Remove the two screws at the rear of the data terminal which fasten the PC card rack to the base plate.

c. Lift the terminal cover and remove the Printhead Interface PC card as instructed in paragraph 4-4.4.

d. Remove any printing paper in the machine.

e. Disconnect all connectors along the front edge of the motherboard, except connector P5.

f. Remove the terminal block cover.

g. Remove wire connections F1-1 (blue wire), F1-2 (white/brown), TB1-1 (white/black), TB1-2 (white/red), and both resistor wires (white/orange) from the splices.

h. Loosen the two screws at the front right and lower left corners of the PC card rack which fasten the PC card rack assembly to the base plate. Remove the four screws at the right side of the motherboard which fasten the motherboard to the base plate. Remove the ground wire at the lower left corner of the PC card rack cover.

i. Slide the assembly forward as far as possible and lift the front of the PC card rack forward and up.

Install the power module assembly as follows.

a. Mount the power module on the chassis while guiding the PC card edge connectors through the connector hood at the rear of the data terminal.

b. Ascertain that no wires are trapped between the base plate and motherboard and slide the assembly back as far as possible to the rear of the data terminal. Attach the ground wire and tighten the two screws at the front lower right and left edges of the PC card rack; then install the four screws at the right side of the motherboard.

c. Install the two screws at the rear of the terminal which secure the PC card rack to the base plate.

d. Install all connectors to the front edge of the motherboard.

e. Route and connect all power wires to F1-1 (blue wire), F1-2 (white/brown wire), TB1-1 (white/black wire), TB1-2 (white/red wire), and both resistor wires (white/orange) to the splices.

f. Reinstall the Printhead Interface PC card and the terminal block cover. Reload the printing paper.

g. Close the terminal cover, plug in the power cord, and apply power to the data terminal.

4-4.12 **POWER MODULE ASSEMBLY, MODEL 735.** Remove the power module assembly (PC card rack and attachments) as follows (see Figure 4-2).

a. Switch off power to the data terminal and disconnect the power cord.

b. Lift the terminal cover and remove the Printhead Interface PC card and the terminal block cover.

c. Remove any printing paper from the machine.

d. Disconnect all connectors along the front edge of the motherboard except connector P5.

e. Remove the fuse cover and remove wire connections F1-1 (blue wire), F1-2 (white/brown), TB1-1 (white/black wire), TB1-2 (white/red wire), and two resistor wires (white/orange) from the splices.

f. Loosen the four nuts at the front and rear right and lower left corners of the PC card rack which fasten the PC card rack assembly to the base plate. Remove the ground wire and remove the two screws at the right side of the motherboard which fasten the motherboard to the base plate.

g. Slide the assembly forward as far as possible and lift the front of the PC card rack forward and up.

Install the Model 735 power module assembly as follows.

a. Position the power module on the baseplate and guide the PC edge connector through the connector hood at the rear of the data terminal case.

b. Ascertain that no wires are trapped between the base plate and the motherboard and slide the assembly back as far as possible to the rear of the terminal. Attach the ground wire and tighten the four nuts at the front and rear lower right and left corners of the PC card rack. Install the two screws at the right side of the motherboard.

c. Connect all connectors to the front edge of the motherboard.

d. Route and connect all power wires to F1-1 (blue wire), F1-2 (white/brown), TB1-1 (white/black wire), TB1-2 (white/red wire), and both resistor wires (white/orange) to the splices. Replace the fuse cover.

e. Replace the Printhead Interface PC card and the terminal block cover.

f. Reload the printing paper, close the terminal cover, plug in the power cord, and apply power to the data terminal.

APPENDIX A

SIGNATURE LIST

APPENDIX A

SIGNATURE LIST

Signature	Definition	Function
BELL-	bell	output to speaker
BELCLK	bell clock	3.2 kHz clock
BFIGS	figures	go to figures mode
BKSPCQ	back space	indicates printer is backspacing
BRAKE BKSP	brake backspace	controls power to head step motor (HPC) during backspace break time
BREAK	break	from keyboard, sends SPACE to line
BUSY	busy	indicates terminal is performing an operation and cannot receive data.
C800	800 Hz Clock	800 Hz clock
CLAMP	clamp	clamps PVOLT to ground when no print signal is received
CLEAR	clear	inhibits start circuit when terminal is busy
CLM 81	column 81	signifies printhead is at column 81
CNT 72	count 72	signifies column 72
CNTRL	control	logic ZERO for control character
COUPLER DCD	coupler data carrier detect	indicates valid data on coupler RCV
COUPLER RCV	coupler receive	TTL data from coupler
COUPLER XMT	data coupler transmitter	TTL data to be transmitted by coupler
CRCLK	carriage return clock	clock for backspacing head during carriage return
CTLCLK	control clock	clocks control latch when control character is received
CYCLRST	cycle reset	resets printer control after a regular cycle (30 msec)
CRQ	carriage return	indicates printer is performing carriage return
DDS	dynamic damping sensor	input to damping controller produced by tachwheel
DBELL	decode bell	indicates BELL character has been received
DBS	decode backspace	indicates back-space character has been received
DCD	data carrier detect	detects data carrier
DCDLIGHT	data carrier detect light	illuminates CARRIER detect lamp when carrier is detected by coupler
DCR	decode carriage return	indicates carriage return character has been received
DHTFIG	figures	control decode
DLF	decode line feed	indicates line feed character has been received
DR	data ready	indicates receiver register is loaded
DVOLT	printhead diode voltage	temperature compensation of print voltage (PVOLT)
DVOLTGND	diode voltage ground	printhead temperature diode ground return
EIADATIN	EIA data input	
EIADCD	EIA data carrier detect	
EIADSR	EIA data set ready	
EIADTR	EIA data terminal ready	
EIASIGNAL GND	EIA signal ground	
ENDBEL-	end bell	end of column 72 bell
EXTCIDSR	external coupler data set ready	EIA output from terminal indicating coupler is ready for operation

Signature	Definition	Function
EXTCIDCD	external coupler data carrier detect	EIA output from terminal indicating valid carrier is being received from the coupler
EXTCICTS	external coupler clear to send	EIA output from terminal indicating coupler is ready to transmit data
EXTCIRCV	external coupler receive	EIA output of received data from coupler
EXTCIXMT	external coupler transmit	EIA input data to be transmitted by coupler
EXTCKIN	external clock in	allows input of external clock signal to terminal control
EXTDSCDC	external data set data carrier detect	EIA input which indicates valid data received by external data set
EXTDSDTR	external data set data terminal ready	EIA output indicating terminal is ready to operate
EXTDSGR	external data set ground	ground connection between terminal and external data set
EXTDSRCV	external data set receive	EIA input of data received by external data set
EXTDSRTS	external data set request to send	EIA output indicating terminal wishes to transmit data
EXTDSXMT	external data set transmit	EIA output from terminal to be transmitted by external data set
FSB	feedback sensor	input to carriage return controller from tach wheel
FSCLK	feedback sensor clock	indicates printhead is to be moved one position to left during carriage return operation
HDCLK	head clock	indicates printhead is to be moved
HDRS1,2	head resistors 1 and 2	fast and slow print compensation adjust
HMRET	head motor return	return line for head motor
HPC	head power control	analog signal – programs current to head stepping motor
HDSOL	head solenoid	head lift solenoid drive
HDSOLDR	headlift solenoid drive	
HDSOLDRET	head solenoid return	head lift solenoid drive return
HOME	home	indicates carriage at left margin
HPHA	head phase A	head motor drive from power/driver PC card
HPHB	head phase B	head motor drive from power/driver PC card
HPHC	head phase C	head motor drive from power/driver PC card
HPHSA	head phase A	logic level signal from printer control PC card to turn on motor phase
HPHSB	head phase B	logic level signal from printer control PC card to turn on motor phase
HPHSC	head phase C	logic level signal from printer control PC card to turn on motor phase
INTCKINH	internal clock inhibit	inhibits 13.5168 MHz oscillation on terminal control PC card
KBDBIT1,7	keyboard data bits 1 through 7	parallel TTL output from keyboard to terminal control; bit 1 is least significant bit
KBDSTB	keyboard strobe	indicates valid data on keyboard data lines
KBPA	keyboard paper advance	ground level when PAPER ADV key is depressed
LHLS	left hand limit switch	zero volts when head is in left margin
LIFTHEAD	lift head	indicates printer doing a head lift
LNFDQ	line feed	indicates printer doing line feed
LOAD	load	loads parallel data into register

Signature	Definition	Function
LOCAL	local	indicates printer is operating in local mode
MOSCLK	MOS clock	clock for MOS character generator
MOSCLR	MOS clear	clears MOS character generator
ONLINE-	on line	allows reception and transmission of data by the terminal.
OVL	over voltage	indicates overvoltage condition on printhead
PACA	paper advance control	controls current to paper stepping motor
PAPERADVIN	paper advance input	keyboard or switch manual command
PAPEROUT	paper-out indicator	
PAROUTSEN	paper-out sensor	sensor output indicates paper supply is low
PAT6	pattern six	enables second part of pattern counter
PAT0	pattern ZERO	removes printhead clear
PBUSY	printer busy	print time (30 msec) or carriage return time (190 msec)
PGO	printer go	start pulse from terminal control, starts Printer Control operation
PHBFRCLR	printhead buffer clear	clears buffer register on printhead interface PC card
PHCHR	printhead character	data from terminal control PC card to printhead interface PC card
PHCLK	printhead clock	clocks printhead buffer register
PI	parity input	controls parity generation of TMS 6011
PIBIT	parallel input bit	one of seven ASCII parallel data inputs
PMRET	paper motor return	return path for paper stepping motor
PNHCLK	punch clock	12.8 kHz
PNHCLKPC	punch clock printer control	12.8 kHz clock input to printer control PC card
PPHA	paper phase A	paper stepping motor drive from power/driver PC card
PPHB	paper phase B	paper stepping motor drive from power/driver PC card
PPHC	paper phase C	paper stepping motor drive from power/driver PC card
PPHSA	paper phase A	logic level signal from printer control PC card to turn on motor phase
PPHSB	paper phase B	logic level signal from printer control PC card to turn on motor phase
PPHSC	paper phase C	logic level signal from printer control PC card to turn on motor phase
POVL	power supply overvoltage	indicates an overvoltage condition has been detected on power supply output lines
PRINT	print	TTL command to print character
PRNPRD	printer period	a low level indicates printer control will not accept command inputs; goes low for one character period (30 msec) after receipt of PGO- or an asynchronous input; remains low for two character periods when line feed is double space
PVOLT	print pulse	prints character (10 msec)
PVOLTXSTRB	print voltage transistor base	base connection to print pulse driver transistor
PVOLTXSTRC	print voltage transistor collector	resets all logic when power switched on
PWRCLK	power clock	15.6 kHz clock for motor driver regulators
PWRRST	power-on reset	resets all logic when power switched on
QLHLS	left-hand limit switch	limit switch input synchronized with system clock
QPA	paper advance	paper advance input synchronized with system clock

Signature	Definition	Function
RCE	regulation cycle end	power supply regulation
RCS	regulation cycle start	power supply regulation
RDRCLK	reader clock	204.8 kHz clock
READY	ready	terminal power is switched on
REPEAT	repeat	initiates repetitive transmit register clocks
RETURN	return	indicates carriage return
RFAST	fast resistor	printhead resistor selected for 30 CPS operation
RI	receive register input	serial data input to TMS 6011
RRC	receive register clock	clock to receive register on TMS 6011
RSLOW	slow resistor	printhead resistor selected for 10 CPS operation
RSTCRTN	reset carriage return	resets carriage return controller
SBS	stop bit select	selects number of stop bits to be received and transmitted by TMS 6011
SELECTA	select phase A	signal to select motor phase A after carriage returns to left margin
SRCVDATA	serial receive data	serial data (EIA or TTY) input to data register
SRVCLK	serial receive clock	9.6 kHz for Baudot; 7.04 kHz, 9.6 kHz, or 19.2 kHz for ASCII
START	start	strobe or start pulse loads data into register
STRTCLK	start clock	1.228 MHz clock syncs start pulse with terminal
TBR	transmit buffer register	register in TMS 6011
TBRE	transmit buffer register empty	indicates transmit buffer in TMS 6011 is empty
TBRL	transmit buffer register load	loads data into transmit buffer of TMS 6011
TRC	transmit register clock	clock to transmit register of TMS 6011
TRE	transmit register empty	high when transmit buffer register is empty
TRO	transmit register output	output from transmit register of TMS 6011
TTY1,2	TTY line 1 or 2	TTY (polar or neutral) data input lines
TTYDATIN	TTY data input	TTY data converted to TTL level
XMIT DATA	transmit data	data output of TMS 6011
XMTBUFRRDY	transmit buffer ready	transmitted by TMS 6011

APPENDIX B

ASSEMBLY DRAWINGS AND PARTS LISTS

This appendix contains drawings and parts lists of major modules and components of the Models 735, 752, 753, 754, and 755 Electronic Data Terminals. The drawings and associated parts lists are divided into the following groups, and in numerical order within each group.

(1) Major assemblies

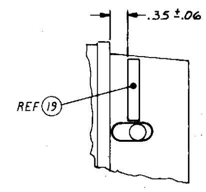
(2) Major subassemblies

(3) Cable assemblies

(4) Printed circuit cards

Title	TI Drawing Number
MAJOR ASSEMBLIES	
Model 735 Portable	969600J
Models 752/753 OEM chassis with power supply	969601J
Models 754/755 Receive-Only	969602M
Models 752/753 OEM chassis without power supply	969603J
Models 752/753 OEM Printer Assembly with power supply	969604D
Models 752/753 OEM Printer Assembly without power supply	969605E
MAJOR SUBASSEMBLIES	
Drive Mechanism	959391W
Printhead	959422D
Chassis, Models 754, 755	969585K
Chassis, Model 735	969586P
Power Supply, Models 735, 752, 753, 754, 755	969588E
PC Card Rack, Models 752, 753, 754, 755	969590F
PC Card Rack, Model 735	969591H
Case, Model 735	969615B
Fan, Models 735, 754, 755	963247D
PRINTED CIRCUIT CARDS	
Printhead Interface	959141F
Printer Control	969459K
Terminal Control, Model 735	969461G
Power Supply PC card, Models 735, 752, 753	969463Y
Motherboard, Model 735	969465J
Motherboard, Models 752, 753, 754, 755	969467J
Terminal Control, Models 752, 753, 754, 755	969469D
Motor Driver, Models 752, 753 w/o power supply	969474H
Terminal Control, Models 753, 755, Parallel Interface	969501A
Plate Assembly, Power Supply	969587L

	Title	TI Drawing Number
CABLES		
	TTY Cable, Models 754, 755 (TTY units)	959383D
	Power Switch Cable, Model 735	973245F
	Control Panel Cable, Models 754, 755	973246K
	Indicator Lamps Cable, Model 735	973249D
	Keyboard Cable, Model 735	973250D
	EIA cable, Models 735, 754 (EIA units)	973251D
	Coupler EIA Cable, Model 735	973253A



VIEW C-C

NOTES:

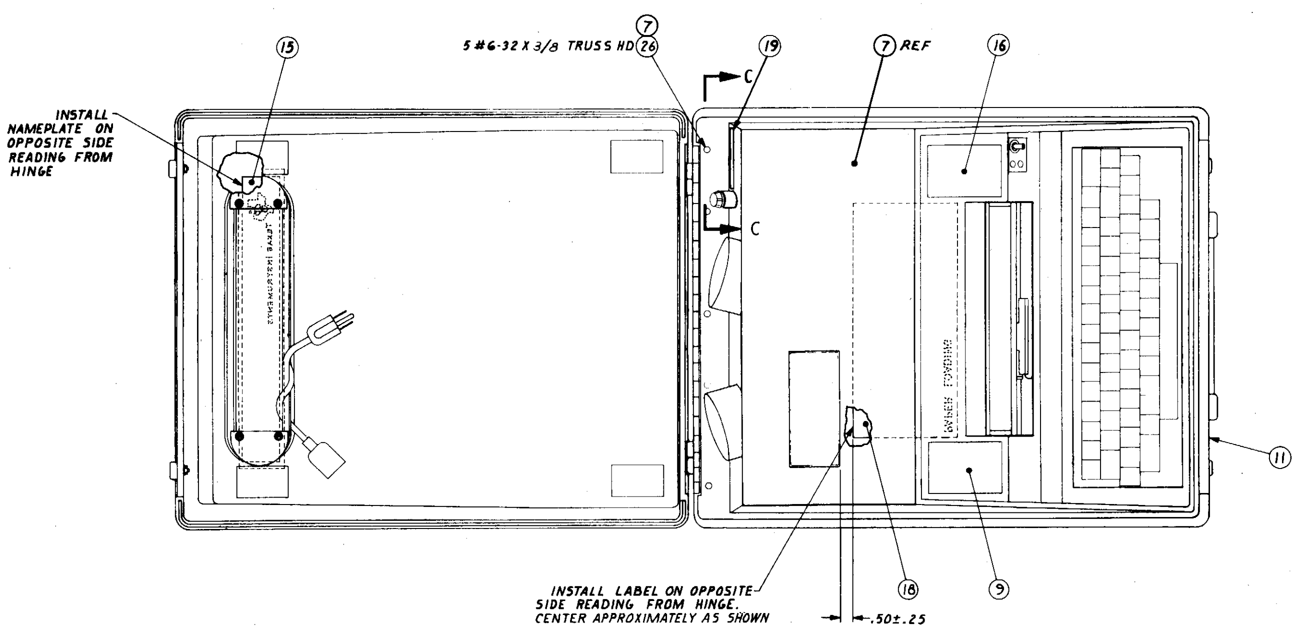
1. REMOVE CONDUCTIVE FORM FROM BACK OF TERMINAL CONTROL CARD (ITEM 31) AND KEYBOARD (ITEM 1) BEFORE INSTALLING IN TERMINAL.
2. ROUTE KEYBOARD CABLE (ITEM 5) UNDER KEYBOARD AS SHOWN. MAKE CERTAIN PRINTHEAD CLEARS CABLE. INSTALL TYRAP, ITEM 39 TO SECURE KEYBOARD CABLE TO BASE PLATE SUCH THAT THE KNUCKLE DOES NOT INTERFERE WITH PRINTHEAD MOVEMENT OR IS LOCATED BETWEEN THE BOTTOM OF THE CHASSIS AND THE SUITCASE.
3. TO INSTALL ITEM 35 RING LUG TO CASE. REMOVE UPPERMOST #6 NUT AND REPLACE FLAT & SPLIT WASHER WITH #6 EXT TOOTH LOCKWASHER (ITEM 36).

NOTES CONT'D.

B.) REMOVE THE PRIMARY FUSE (F1) LOCATED AT THE REAR OF THE TERMINAL AND REPLACE IT WITH A 3 AMP/250 V FUSE P/N 231341-0001
C.) ON THE MOTHERBOARD ASSEMBLY MOVE THE FOLLOWING RESISTORS. RESISTORS ARE IN PLUG SOCKETS. SEE DETAIL D FOR COMPONENT LOCATION.

FROM	TO
R16	R15
R18	R17
R2	R20
R19	R3
R21	R12

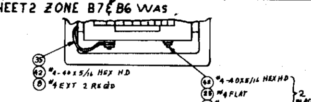
D.) MARK PROPER VOLTAGE RATING ON IDENTIFICATION PLATE (ITEM 20).



TOP VIEW
CASE (ITEM 11) SHOWN IN OPEN POSITION

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	372486 C R. Conti 6-29-73 DELETED 1) ITEM 5 WAS QTY 1, PN 959290-0001 2) ITEM 8 WAS PN 973209-0001, QTY 1 ADDED 1) ITEMS 18, 21 THRU 27, AND 29	7-19-73	Vitek
	B	370639 (D) 8/2/73 1) ITEM "20" WAS P/N "953012-0001," WAS INSTALLED ON ITEM "7" (2). ADDED ITEM "28." (3). ADDED ITEM "30" TEST PROCEDURE. (4) ADDED ITEMS "31 & 32."	8-3-73	R. Conti
	C	382888 (C) R. Conti 10-4-73 ADDED ITEMS 2A, 2B, 33, 33A, AND 33B	10-4-73	
		FORMAL RELEASE		
	D	386811 (C) 2-26-74 ADD: 1.) IT. 5, 8, 34, 35, 36, & 37 2.) IT. 8, 21, 35, 36 & 37 CALLOUT, SH. 2	3/1/74	
C1		3.) DIM. 3.00±.25 SH. 2		
		4.) NOTES 1, 2, & 3		
C8		5.) VIEW D SH. 2		
B5		6.) NOTE #2 CALLOUT, SH. 2; F1 CALLOUT ZONE D6, SH. 2 CHG:		
D7		1.) DIM. .35±.06 WAS .12±.06, SH. 1		
C1		2.) DIM. 2.50±.25 WAS .50±.25, SH. 2		
C1		3.) DIM. 1.80±.25 WAS 3.62±.25, SH. 2		
C1		4.) DIM. 1.30±.25 WAS 1.50±.25, SH. 2 DELETE: 1.) IT. 2A & 2B WAS: THIS ITEM MAY BE USED AS AN ALTERNATE TO ITEM 33 2.) IT. 3 WAS: QTY. 1.0, 959422-0001 3.) IT. 6 WAS: QTY. 1.0, 959418-0001 4.) IT. 26 WAS: QTY. 1.0, 959141-0001 5.) IT. 33 WAS: QTY. 0.0, 969616-0001 6.) IT. 33A & 33B WAS: THIS ITEM MAY BE USED AS AN ALTERNATE TO ITEM 2		
A4		7.) IT. 21 CALLOUT		
	E	393747 (B) 7-10-74 ADDED: (1.) IT'S 38 THRU 42. (2.) VIEW E ZONE A-8. CHANGED: (1.) QTY OF IT 24 WAS 4. (2) QTY OF IT. 25 WAS 4. (3) QTY OF IT. 8 WAS 3. (4) QTY OF IT 21 WAS 4. (5.) BALLOON CALLOUT 35, 42, 8, ZONE B-8 WAS 35, 21, 8. (6.) BALLOON CALLOUT 42, 25, 24, ZONE A-5 WAS 21, 8. ALL CHANGES WERE MADE TO SHEET 2.	7/12/74	
	F	396785 (B) Andy Willson 7-22-74 CHANGED: 1) ITEM 19 P/N WAS 971424-0001	7/22/74	
	G	398822 (C) Andy Willson 8-24-74 SHEET 2 ZONE B7 & B6 WAS	8/27/74	Vitek
	H	403593 (B) R. Nelson 1-6-75 1) -0001 LM IT. 26 P/N WAS: 235052-0010 2) -1 LM IT. 39 P/N WAS 235026-0016 3) -1 LM IT. 35 QTY & P/N WAS: QTY 1. P/N 960967-0001 4) -1 LM IT. 12 P/N WAS: 537408-0001 5) GENERATED -2 LM. 6) SH. 1 A-7 DELETED BALLOON IT. 12 7) SH. 1 ZONE C-6 IT. 26 WAS: 5#6-32X 1/4 TRUSS HD. 8) SH. 2 ZONE A-7 IT. 39 WAS: #4-40 X 1/16 BH. 9) SH. 2 ZONE C-8 DELETED VIEW D.	1/17/75	Vitek



"H" REVISIONS CONT'D SH. 2 ZONE D-2

PARTS LIST

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001	
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001	

NEXT ASSY	USED ON
969645	8727
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
- 3 PLACE DECIMALS ±.010
- 2 PLACE DECIMALS ±.02

MATERIAL:

DWN R. Conti 6-22-73
CHK Ed Vitek 7-19-73
ENGR 10-2-73
QA
APVD 10/4/73
CONTR NO 10/11/73
DESIGN ACTIVITY RELEASE 10/11/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

PORTABLE ELECTRONIC DATA TERMINAL— MODEL 735

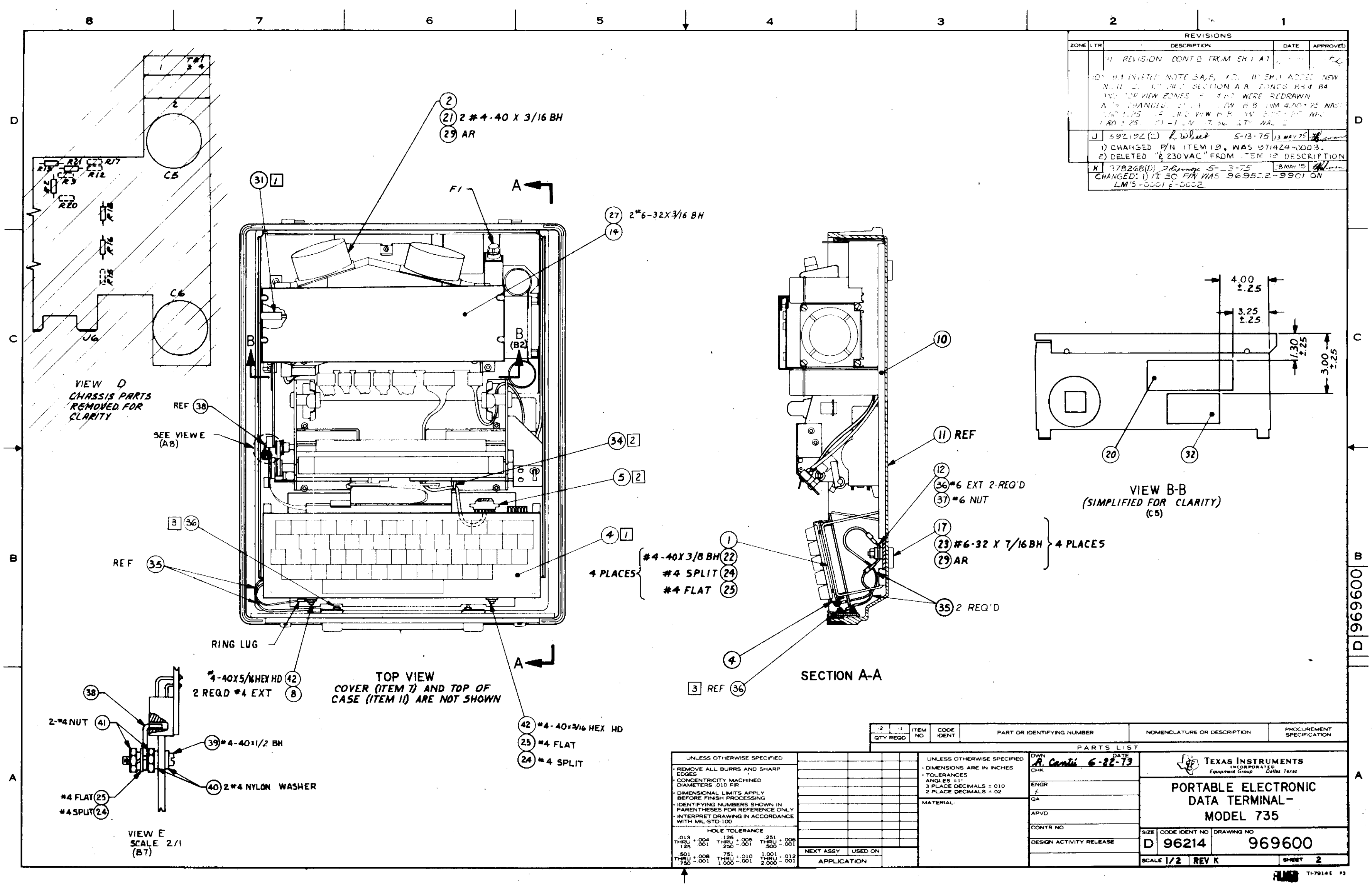
SIZE	CODE IDENT NO	DRAWING NO
D	96214	969600

SCALE 1/2 REV K SHEET 1 OF 2

LM

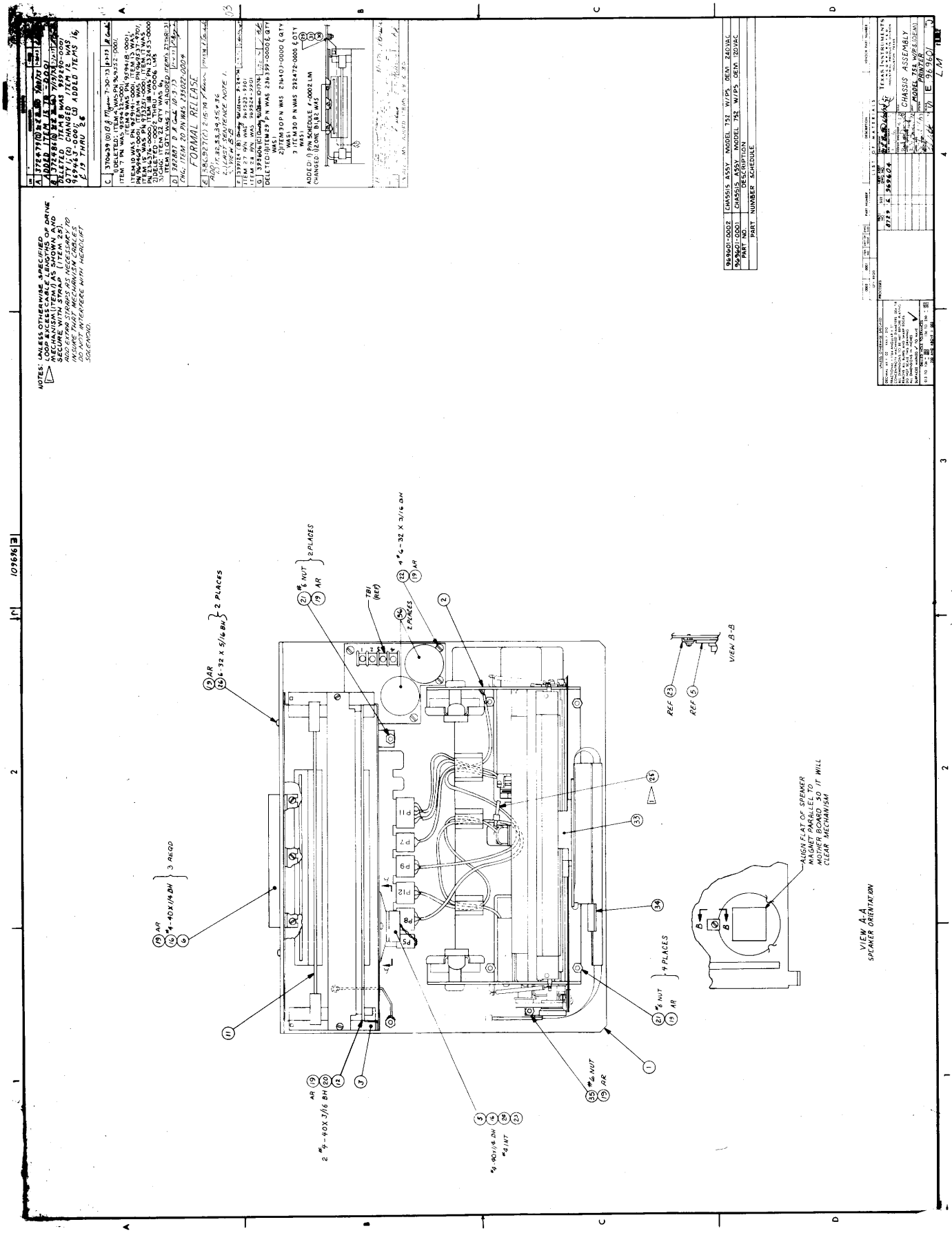
TI-7914E

D 969600


REVISIONS
ZONE
LTR
DESCRIPTION
DATE
APPROVED
J
1) CHANGED P/N ITEM 19, WAS 971424-0003.
2) DELETED "& 230VAC" FROM ITEM 12 DESCRIPTION
K
CHANGED: 1) IT 30 P/N WAS 969552-9901 ON LM'S -0001 & -0002.
2 #4-40 X 3/16 BH
AR
F1
2#6-32X3/16 BH
VIEW D
CHASSIS PARTS REMOVED FOR CLARITY
REF
SEE VIEW E (A8)
RING LUG
#4-40X5/16HEX HD
2 REQD #4 EXT
TOP VIEW
COVER (ITEM 7) AND TOP OF CASE (ITEM 11) ARE NOT SHOWN
#4-40X3/8 BH
#4 SPLIT
#4 FLAT
4 PLACES
#4-40x5/16 HEX HD
#4 FLAT
#4 SPLIT
2-#4 NUT
#4-40x1/2 BH
2#4 NYLON WASHER
VIEW E
SCALE 2/1
(B7)
REF
#6 EXT 2-REQ'D
#6 NUT
#6-32 X 7/16 BH
2 REQ'D
SECTION A-A
VIEW B-B
(SIMPLIFIED FOR CLARITY)
(C5)
4.00 ±.25
3.25 ±.25
1.30 ±.25
3.00 ±.25
PARTS LIST
QTY REQD
ITEM NO
CODE IDENT
PART OR IDENTIFYING NUMBER
NOMENCLATURE OR DESCRIPTION
PROCUREMENT SPECIFICATION
UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .010 FIR
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100
HOLE TOLERANCE
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02
MATERIAL
NEXT ASSY
USED ON
APPLICATION
DWN R. Canti 6-22-73
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas, Texas
PORTABLE ELECTRONIC DATA TERMINAL- MODEL 735
SIZE D
CODE IDENT NO 96214
DRAWING NO 969600
SCALE 1/2
REV K
SHEET 2
D 969600

PART NUMBER REV DESCRIPTION.....
969600-0001 J PORTABLE ELECTRONIC DATA TERM-MODEL 735

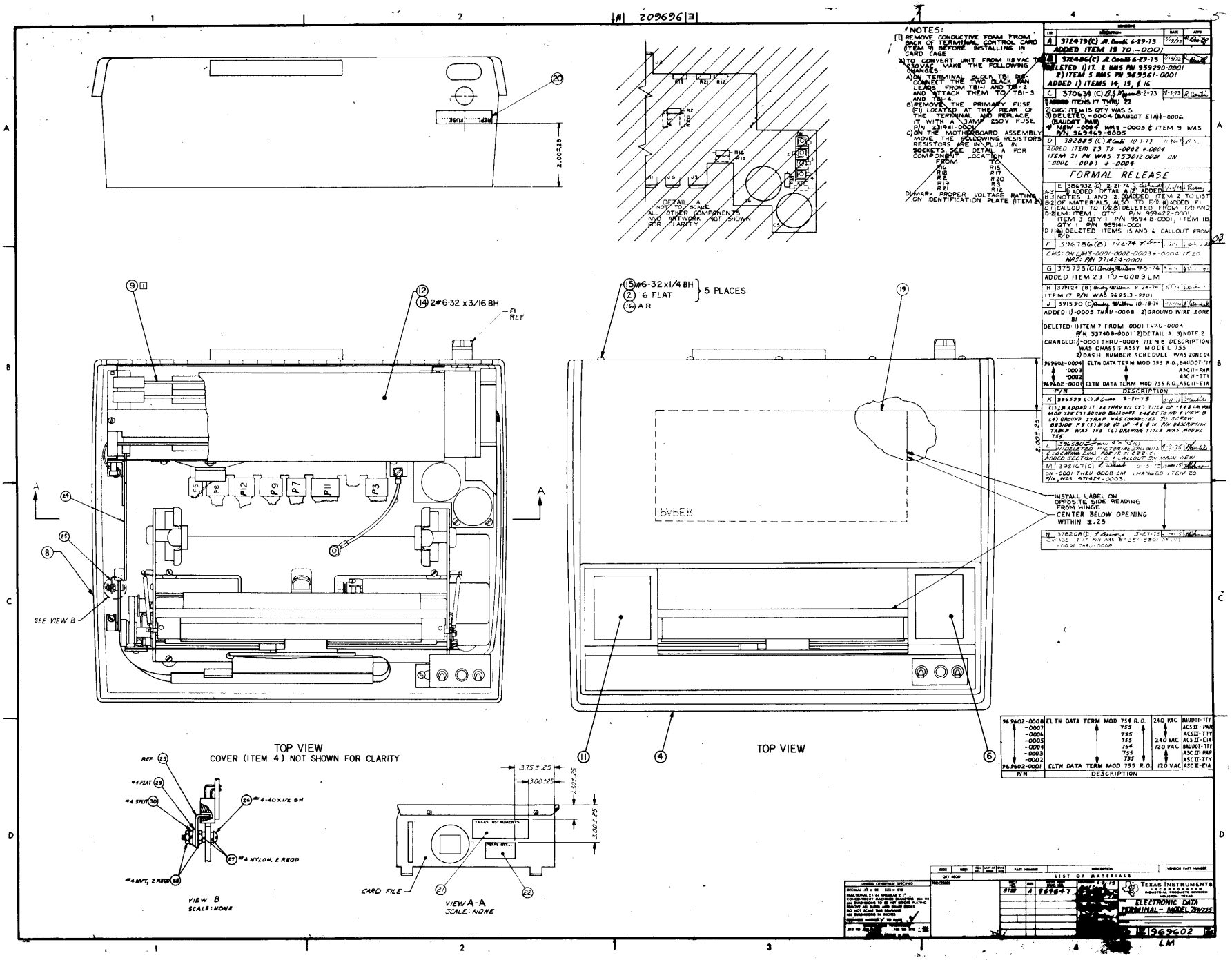
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969510-0001	KEYBOARD,MODEL 735,FULL ASCII-ENCODED	EA
0002	00001.000	969511-0001	ACOUSTIC COUPLER-735	EA
0004	00001.000	969546-0001	COVER-KEYBOARD 1204-0009-009	EA
0005	00001.000	973250-0001	CABLE ASSY,KEYBOARD 1204-0051-032	EA
0007	00001.000	969571-0001	COVER,PRINTER MODEL 735	EA
0008	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0009	00001.000	969573-0002	NAMEPLATE,COVER,W/SSCRN-MOD 735/755 1204-0028-000	EA
0010	00001.000	969586-0001	CHASSIS ASSY PRINTER-MODEL 735 120VAC 1204-0054-024	EA
0011	00001.000	969615-0001	CASE ASSY-735	EA
0012	00001.000	972392-0001	TERMINAL,ELECT,QUICK DISC,TAB,250WIDE SEE- TI DRAWING	EA
0013	00001.000	969538-9701	OPERATOR MANUAL,MODEL 735 1204-0113-000	EA
0014	00001.000	969549-0001	COVER,CARD FILE-MODEL 735 1204-0026-009	EA
0015	00001.000	969572-0001	NAMEPLATE, CASE-MODEL 735 1204-0024-002	EA
0016	00001.000	969573-0001	NAMEPLATE,COVER-MODEL 735/755 1204-0025-002	EA
0017	00004.000	954766-0001	BUMPER 01+00+03 1204-4766-028	EA
0018	00001.000	971412-0001	LABEL,PAPER LOADING	EA
0019	00001.000	971424-0004	LABEL,FUSE RATING	EA
0020	00001.000	962571-0001	PLATE,IDENTIFICATION	EA
0021	00002.000	418293-0012	SCREW 4-40 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-12	EA
0022	00004.000	418293-0015	SCREW 4-40 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-15	EA
0023	00004.000	418293-0029	SCREW 6-32 UNC-2A X .438 PAN HEAD CRES QPL- MS1957-29	EA
0024	00006.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0025	00006.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0026	00005.000	235054-0010	SCREW 6-32X3/8 TRUSS-HD,SST	EA
0027	00002.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0029	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0030	REF	969522-9901	TEST PROC,SYSTEM-MODEL 735 PRINTER	EA
0031	00001.000	969461-0001	MODEL 735 TERMINAL CONTROL 1210-0084-030	EA
0032	00001.000	960141-0001	LABEL,SERVICE	EA
0034	00001.000	235463-0002	STRAP STANDARD BUNDLE DIA 0 TO 1-3/4 IN PND-SST-2	EA
0035	00002.000	973266-0001	CABLE,ELECTRICAL GROUND 1204-3266-002	EA
0036	00003.000	411101-0058	LOCKWASHER #6 EXTERNAL TOOTH CRES QPL- MS35335-58	EA
0037	00001.000	416453-0022	NUT,PLAIN 6-32 UNC-2B HEX CRES,SMALL QPL- NAS671C6	EA
0038	00001.000	973282-0001	RETAINER,PADDLE CARD	EA
0039	00001.000	418293-0017	SCREW 4-40 UNC-2A X .500 PAN HEAD CRES QPL- MS1957-17	EA
0040	00002.000	236380-0001	WASHER FLAT NYLON .281ODX.115IDX.047 THK SMI-2514	EA
0041	00002.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0042	00002.000	470786-0020	SCREW 4-40 THR .202 W .3125 LG HEX CRES	EA


NOTES: UNLESS OTHERWISE SPECIFIED
1. LOOP EXCESS CABLE LENGTHS OF DRIVE MECHANISM (ITEM 1) AS SHOWN AND SECURE WITH TIES AS NECESSARY.
2. ARRANGE CABLES AS NECESSARY TO INSURE THAT MECHANISM CABLES DO NOT INTERFERE WITH HEADLIFT SOLENOID.
969601-0002 CHASSIS ASSY MODEL 752 W/PS, OEM 240VAC
969601-0001 CHASSIS ASSY MODEL 752 W/PS, OEM 120VAC
PART NO. DESCRIPTION
PART NUMBER SCHEDULE
TEXAS INSTRUMENTS
CHASSIS ASSEMBLY
MODEL 752 W/PS (OEM)
PRINTER
969601 - 0001
VIEW A-A
SPEAKER ORIENTATION
VIEW B-B
ASSY FLAT OF SPEAKER MAGNET PARALLEL TO MOTHER BOARD SO IT WILL CLEAR MECHANISM

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION.....
969601-0001	J	CHASSIS ASSY MODEL 752 W/PS OEM 120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969567-0001	BASE,OEM 1204-0006-002	EA
0002	00001.000	959391-0001	DRIVE MECHANISM ASSY 1209-9391-506	EA
0003	00001.000	969590-0002	PWB HOLDER ASSY,MODEL 752 W/PS 120VAC 1204-0058-000	EA
0005	00001.000	959378-0001	SPEAKER ASSY 1209-9378-041	EA
0006	00001.000	969544-0001	RECEPTACLE,CONNECTOR-INTERFACE	EA
0011	00001.000	969459-0001	MODEL 735/755 PRINTER CONTROL 1210-0085-032	EA
0012	00001.000	969588-0001	POWER/MOTOR DRIVER ASSY 1210-0099-035	EA
0016	00004.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-13	EA
0019	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0020	00002.000	418293-0012	SCREW 4-40 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-12	EA
0021	00006.000	411115-0064	NUT,PLAIN 6-32 UNC-2B HEX CRES QPL- MS35649-264	EA
0022	00004.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0023	00001.000	972380-0001	CLAMP,COMPONENT-1/16 X.048 CPS	EA
0024	00001.000	411100-0070	LOCKWASHER #4 INTERNAL TOOTH CRES QPL- MS35333-70	EA
0025	00001.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA
0026	00002.000	418293-0027	SCREW 6-32 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-27	EA
0027	REF	970745-9901	TEST PROCEDURE,PRINTER CHAS ASSY	EA
0028	REF	970730-9901	TEST PROCEDURE,PRINTER CHASSIS ASSY	EA
0029	REF	971251-9901	T PROC CHAS ASSY RUN IN MOD 735,752,755	EA
0030	REF	971479-9901	SYSTEM TEST FLOW PROCEDURE	EA
0033	00001.000	959422-0001	PRINT HEAD ASSY,EPN 1-4 1209-9422-062	EA
0034	00001.000	959418-0001	CLIP SUBASSY,FLEX CABLE 1209-9418-028	EA
0035	00001.000	411115-0064	NUT,PLAIN 6-32 UNC-2B HEX CRES QPL- MS35649-264	EA
0036	00002.000	972032-0003	CAP,FIXED ELECTROLYTIC 500MFD 200VDC DUB- FAH 6769	EA


NOTES:
1) REMOVE CONDUCTIVE FOAM FROM BACK OF TERMINAL CONTROL CARD (ITEM 9) BEFORE INSTALLING IN CARD CAGE.
2) TO CONVERT UNIT FROM 115 VAC TO 230 VAC MAKE THE FOLLOWING CHANGES:
A) ON TERMINAL BLOCK TB1 DISCONNECT THE TWO BLACK JUMPER LEADS FROM TB1-1 AND TB1-2 AND ATTACH THEM TO TB1-3 AND TB1-4.
B) REMOVE THE PRIMARY FUSE (F1) LOCATED AT THE REAR OF THE TERMINAL AND REPLACE IT WITH A 3AMP 250V FUSE. P/N 23940-0001.
C) ON THE MOTHERBOARD ASSEMBLY REMOVE THE FOLLOWING RESISTORS. ARE IN PLUG IN SOCKETS SEE DETAIL A FOR COMPONENT LOCATION.
FROM TO
R16 R15
R18 R17
R2 R20
R19 R3
R21 R12
D) MARK PROPER VOLTAGE RATING ON IDENTIFICATION PLATE (ITEM 21)
DETAIL A
NOT TO SCALE
ALL OTHER COMPONENTS AND ARTWORK NOT SHOWN FOR CLARITY
FORMAL RELEASE
REF FUSE
2.00±.25
#6-32 x 1/4 BH
6 FLAT
AR
5 PLACES
2#6-32 x 3/16 BH
F1 REF
SEE VIEW B
INSTALL LABEL ON OPPOSITE SIDE READING FROM HINGE CENTER BELOW OPENING WITHIN 2.25
TOP VIEW
COVER (ITEM 4) NOT SHOWN FOR CLARITY
TOP VIEW
REF
#4 FLAT
#4 SPLIT
#4-40 X 1/2 BH
#4 NYLON, 2 REQD
#4 NUT, 2 REQD
VIEW B
SCALE: NONE
3.75±.25
3.00±.25
3.00±.25
3.00±.25
TEXAS INSTRUMENTS
CARD FILE
VIEW A-A
SCALE: NONE
96 9602-0008 ELTN DATA TERM MOD 754 R.O. 240 VAC AMUDOT-TTY
-0007 755 ACS II-PAR
-0006 755 ACS II-TTY
-0005 755 240 VAC ACS II-CIA
-0004 754 120 VAC BAUDOT-TTY
-0003 755 ASC II-PAR
-0002 755 ASC II-TTY
96 9602-0001 ELTN DATA TERM MOD 755 R.O. 120 VAC ASC II-EIA
P/N DESCRIPTION
LIST OF MATERIALS
TEXAS INSTRUMENTS
ELECTRONIC DATA TERMINAL - MODEL 754/755
969602
LM

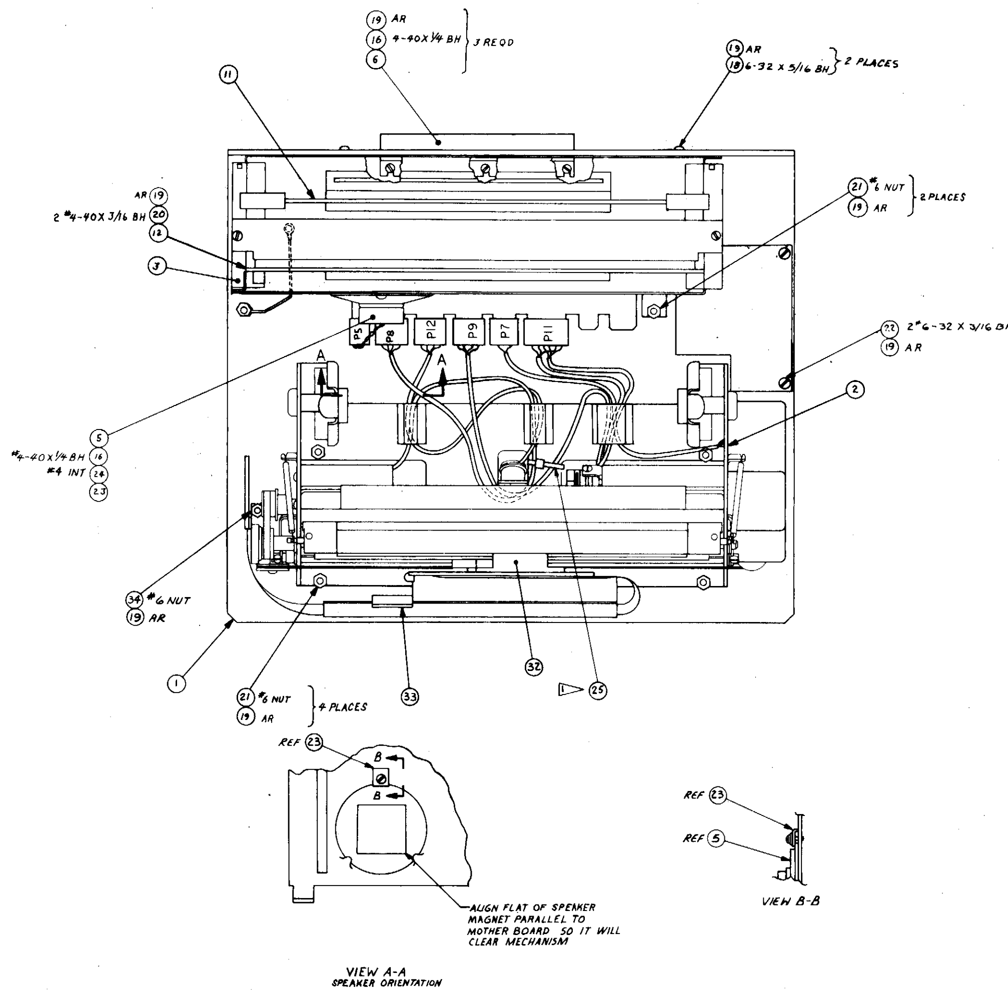
MAY 16, 1975 LIST OF MATERIAL

PART NUMBER	REV	DESCRIPTION
969602-0001	M	ELTN DATA TERM,MOD 755,ASCII-EIA/120VAC
969602-0002	M	ELTN DATA TERM,MOD 755,ASCII-TTY/120VAC
969602-0003	M	ELTN DATA TERM,MOD 755,ASCII-PAR/120VAC
969602-0004	M	ELTN DATA TERM,MOD 754,BOUDOT-TTY/120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0002	00005.000	418154-0058	WASHER,FLAT #6 CRES QPL- NAS620-C6	EA
0004	00001.000	969564-0001	COVER,PRINTER-INJECTION MOLDING	EA
0006	00001.000	969569-0001	PLATE,DRESS-755 1204-0003-002	EA
0008	00001.000	969585-0001	CHASSIS ASSY,MODEL 755,120VAC 1204-0056-015	EA
0009	00001.000	969469-0001	MODEL 755 TERM CONTROL,ASCII-EIA 1210-0088-008	EA
0009	00001.000	969469-0002	MODEL 755 TERM CONTROL,ASCII-TTY 1210-0089-007	EA
0009	00001.000	969469-0003	MOD 755 TERM CONT,ASCII PRL ST- BUSY + 1210-0090-009	EA
0009	00001.000	969469-0004	MOD 755 TERM CONTROL,BAUDOT-TTY 1210-0091-006	EA
0010	00001.000	969536-9701	OPERATORS MANUAL,MODEL755 1204-0114-000	EA
0011	00001.000	969573-0002	NAMEPLATE,COVER,W/SSCRN-MOD 735/755 1204-0028-000	EA
0012	00001.000	969552-0001	COVER,POWER MODULE-MODEL 755 1204-0027-009	EA
0013	00001.000	973251-0001	CABLE ASSY,EIA INTERFACE-MOD 752/755 1204-0094-008	EA
0014	00002.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0014	00002.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0015	00005.000	418293-0026	SCREW 6-32 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-26	EA
0016	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0017	REF	971251-9901	T PROC CHAS ASSY RUN IN MOD 735,752,755	EA
0019	00001.000	971412-0001	LABEL,PAPER LOADING	EA
0020	00001.000	971424-0004	LABEL,FUSE RATING	EA
0021	00001.000	962571-0001	PLATE,IDENTIFICATION	EA
0022	00001.000	960141-0001	LABEL,SERVICE	EA
0023	00001.000	959383-0002	CABLE ASSY,RO TTY INTERFACE 1204-0116-007	EA
0023	00001.000	973928-0001	EXTERNAL CONNECTOR KIT,DUAL 10 POSITION 1209-3928-000	EA
0024	00001.000	959141-0001	PRINTHEAD INTERFACE 1210-9141-093	EA
0025	00001.000	973282-0001	RETAINER,PADDLE CARD	EA
0026	00001.000	418293-0017	SCREW 4-40 UNC-2A X .500 PAN HEAD CRES QPL- MS1957-17	EA
0027	00002.000	236380-0001	WASHER FLAT NYLON .281ODX.115IDX.047 THK SMI-2514	EA
0028	00002.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0029	00001.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0030	00001.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA

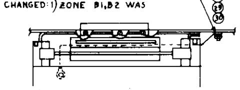
NOTES: UNLESS OTHERWISE SPECIFIED

1. LOOP EXCESS CABLE LENGTHS OF DRIVE MECHANISM (ITEM 1) AS SHOWN AND SECURE WITH STRAPS (ITEM 25) ADD EXTRA STRAPS AS NECESSARY, TO INSURE MECHANISM CABLES DO NOT INTERFERE WITH HEADLIFT SOLENOID.



REVISIONS

LTR	DESCRIPTION		
A	372479 D R. Conti 7-20-73	7-20-73	
	ADDED ITEM 15 TO -0001		
B	372486(D) R. Conti 7-20-73	7-20-73	
	DELETED 1) ITEM 8 WAS PN 959290-0001, QTY 1 ADDED 1 ITEMS 16 AND 18 THRU 25		
C	370639 (D) B.J. Myers 8-1-73	8-3-73	
	DELETED: 1) ITEM 4 PN WAS 969552-0001, 2) ITEM 7 WAS PN 959422-0001, 4) ITEM 9 WAS PN 959418-0001, 5) ITEM 10 WAS PN 959141-0001, 6) ITEM 13 WAS PN 969469-0001, 7) ITEM 14 WAS PN 969537-9701, 8) ITEM 15 WAS PN 973251-0001, DELETED -0002 THRU -0006 LMS CHG: ITEM 22 QTY WAS 4 2) ITEM 21 QTY WAS 7 3) ITEM 12 P/N WAS 969474-0001 ADDED ITEMS 26 THRU 30		
D	382887 D R. Conti 10-3-73	10-4-73	
	CHG; ITEM 20 PN WAS 235022-0004		
	FORMAL RELEASE		
E	386928(C) 2-19-74	20 FEB 74	
	ADD: 1.) IT. 31, 32, 33, 34 2.) LAST SENTENCE NOTE 1. 3.) VIEW B-B		
F	399124 (B) Andy Wilson 9-24-74		
	ITEM 26 P/N WAS 969523-9901 ITEM 27 P/N WAS 989524-9901		
G	398609 (C) Andy Wilson 10-17-74		
	DELETED: 1) ITEM 28 P/N WAS 236399-0000 & QTY WAS 1 2) ITEM 29 P/N WAS 236403-0000 & QTY WAS 1 3) ITEM 30 P/N WAS 232472-0000 & QTY WAS 1 CHANGED: 1) ZONE B1, B2 WAS		
H	396582 (C) 3-11-75	3/11/75	
	(1) DELETED IT 31 FROM LMS F/D		
J	378251 (D) R. Wheat 5-13-75		
	ON ALL LMS ADDED ITEMS 28 & 29		



LIST OF MATERIALS

8729 E 969603

TEXAS INSTRUMENTS INCORPORATED

CHASSIS ASSEMBLY

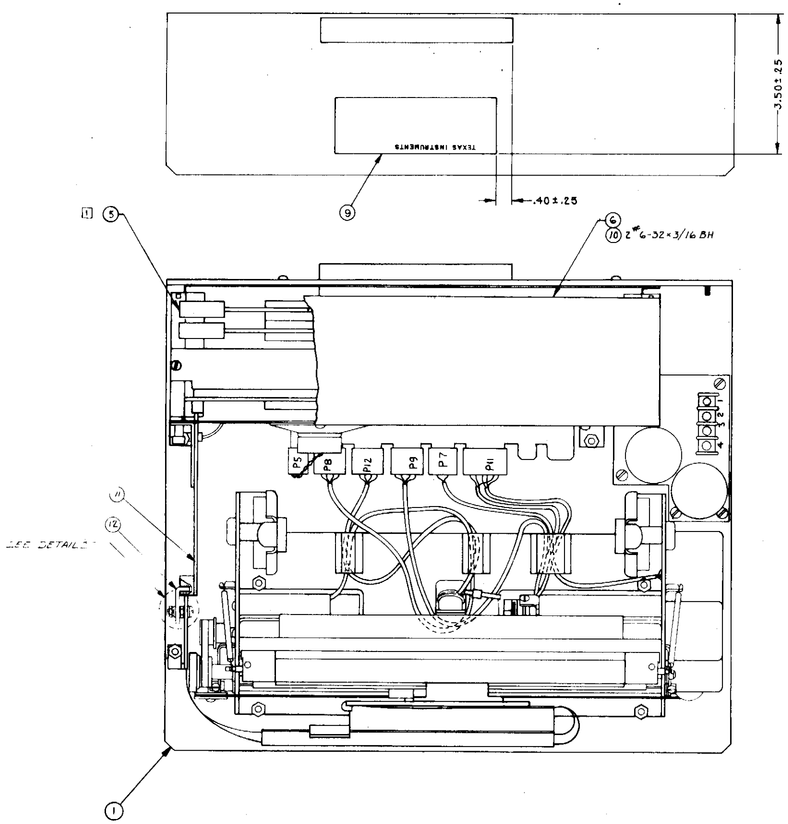
969603

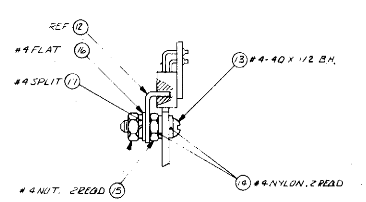
LM

MAY 16, 1975 L I S T O F M A T E R I A L

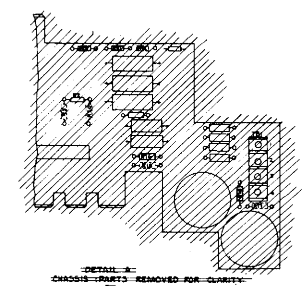
PART NUMBER	REV	DESCRIPTION.....
969603-0001	J	CHASSIS ASSY,PRINTER MODEL 752 WO/PS OEM

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969567-0001	BASE,OEM 1204-0006-002	EA
0002	00001.000	959391-0001	DRIVE MECHANISM ASSY 1209-9391-506	EA
0003	00001.000	969590-0003	PWB HOLDER ASSY,MODEL 752 W/O P.S. 1204-0059-000	EA
0005	00001.000	959378-0001	SPEAKER ASSY 1209-9378-041	EA
0006	00001.000	969544-0001	RECEPTACLE,CONNECTOR-INTERFACE	EA
0011	00001.000	969459-0001	MODEL 735/755 PRINTER CONTROL 1210-0085-032	EA
0012	00001.000	969588-0002	MOTOR DRIVER ASSY 1210-0100-000	EA
0016	00004.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-13	EA
0018	00002.000	418293-0027	SCREW 6-32 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-27	EA
0019	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0020	00002.000	418293-0012	SCREW 4-40 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-12	EA
0021	00006.000	411115-0064	NUT,PLAIN 6-32 UNC-2B HEX CRES QPL- MS35649-264	EA
0022	00002.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0023	00001.000	972380-0001	CLAMP,COMPONENT-1/16 X.048 CPS	EA
0024	00001.000	411100-0070	LOCKWASHER #4 INTERNAL TOOTH CRES QPL- MS35333-70	EA
0025	00001.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA
0032	00001.000	959422-0001	PRINT HEAD ASSY,EPN 1-4 1209-9422-062	EA
0033	00001.000	959418-0001	CLIP SUBASSY,FLEX CABLE 1209-9418-028	EA
0034	00001.000	411115-0064	NUT,PLAIN 6-32 UNC-2B HEX CRES QPL- MS35649-264	EA





DETAIL B
SCALE: 2/1


~~DETAIL A~~
~~CHASSIS PARTS REMOVED FOR CLARITY~~
2

NOTES:

1. REMOVE CONDUCTIVE FOAM FROM BACK OF TERMINAL CONTROL CARD (ITEM 5) BEFORE INSTALLING IN CARD CAGE.
2. ~~A) TO CONVERT UNIT FROM 115VAC TO 230VAC. MOVE THE FOLLOWING RESISTORS ON THE MOTHER-BOARD ASSY. RESISTORS ARE IN PLUG IN SOCKETS SEE DETAIL A FOR COMPONENT LOCATION.~~

~~FROM~~	~~TO~~
~~R16~~	~~R15~~
~~R18~~	~~R17~~
~~R2~~	~~R20~~
~~R19~~	~~R3~~
~~R21~~	~~R11~~

~~B) MARK PROPER VOLTAGE RATING ON IDENTIFICATION PLATE (ITEM 9)~~

REVISIONS

LTR	DESCRIPTION	DATE	APP'D
A	386930 (C) 2-18-74 1) ON LM'S -0001 THRU-0004 FOLLOWING ITEMS DELETED 0002 00001,000 EA 959422-0001 0003 00001,000 " 359418-0001 0004 00001,000 " 959941-0001 0012 00001,000 " 232055-0000 0013 AR TU 235182-0002 2) NOTES 1&2 WERE ADDED 3) IN ZONE B-3 VIEW "A" WAS ADDED	19 FEB 74	[illegible]
B	395607(C) 11-6-74 ADD: -0005, -0006, -0007 & -0008 LM; -0005, -0006, -0007 & -0008 TO DESC. BLOCK ZONE C-4; CHG: -0001 -0002 -0003 ZONE C-4 WAS MODEL 752 PICTORIAL ZONE B-1 WAS: DELETE: NUT AND GROUND ZONE B-2; NOTE 2; VIEW A ZONE B-3;	12-3-74	[illegible]
C	396532(C) 3/12/75 (1) ADDED ITEMS 11 THRU 17 -0001 THRU -0008 TO LM'S [illegible] CALLOUTS PER DETAIL B	3/12/75	[illegible]
D	378268(D) 5-23-75 CHANGED IT. 8 P/N WAS 969513-[illegible] ON LM'S -0001 THRU -0008.	[illegible]	[illegible]

DESCRIPTION	PART NUMBER
MOD 752 OEM W/P.S., BAUDOT-TTY 240 VAC	969604-0008
MOD 753 OEM W/P.S., ASCII-PARALLEL 240 VAC	-0007
MOD 753 OEM W/P.S., ASCII-TTY 240 VAC	-0006
MOD 753 OEM W/P.S., ASCII-EIA 240 VAC	-0005
MOD 752 OEM W/P.S., BAUDOT-TTY 120 VAC	-0004
MOD 753 OEM W/P.S., ASCII PARALLEL 120 VAC	-0003
MOD 753 OEM W/P.S., ASCII-TTY 120 VAC	-0002
MOD 753 OEM W/P.S., ASCII-EIA 120 VAC	969604-0001

LIST OF MATERIALS

-0002	-0001	ITEM NO	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
QTY REQD							

UNLESS OTHERWISE SPECIFIED
DECIMAL XX ± .02 XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1°
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE ✓

PROCESSES

PROJ NO.	SIZE	NEXT ASSY DWG NO.
8729	A	969646

TEXAS INSTRUMENTS INCORPORATED
INDUSTRIAL PRODUCTS DIVISION
HOUSTON TEXAS

PRINTER ASSEMBLY
MODEL 753 W/P.S (OEM)
PRINTER
E 969604 D
LM

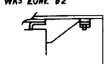
MAY 16, 1975 L I S T O F M A T E R I A L

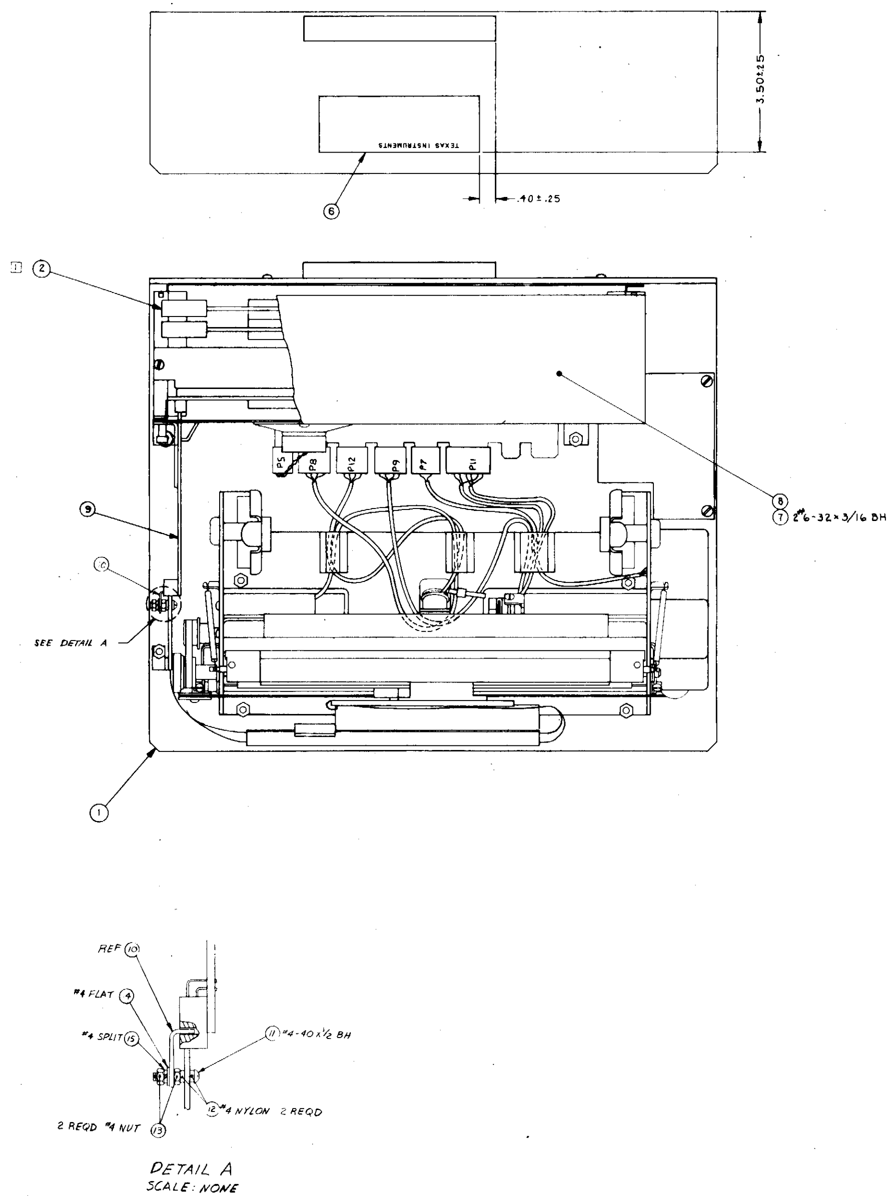
PART NUMBER	REV	DESCRIPTION.....
969604-0001	C	MOD 753 OEM W/P.S.,ASCII-EIA 120VAC
969604-0002	C	MOD 753 OEM W/P.S.,ASCII-TTY 120VAC
969604-0003	C	MOD 753 OEM W/P.S.,ASCII-PARALLEL.120VAC
969604-0004	C	MOD 752 OEM W/P.S.,BAUDOT-TTY 120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969601-0001	CHASSIS ASSY MODEL 752 W/PS OEM 120VAC 1204-0069-004	EA
0005	00001.000	969469-0001	MODEL 755 TERM CONTROL,ASCII-EIA 1210-0088-008	EA
0005	00001.000	969469-0002	MODEL 755 TERM CONTROL,ASCII-TTY 1210-0089-007	EA
0005	00001.000	969469-0003	MOD 755 TERM CONT,ASCII PRL ST- BUSY + 1210-0090-009	EA
0005	00001.000	969469-0004	MOD 755 TERM CONTROL,BAUDOT-TTY 1210-0091-006	EA
0006	00001.000	969552-0001	COVER,POWER MODULE-MODEL 755 1204-0027-009	EA
0008	REF	969513-9901	TEST PROCEDURE,SYSTEM,MOD 752/755	EA
0009	00001.000	962571-0001	PLATE,IDENTIFICATION	EA
0010	00002.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0011	00001.000	959141-0001	PRINTHEAD INTERFACE 1210-9141-093	EA
0012	00001.000	973282-0001	RETAINER,PADDLE CARD	EA
0013	00001.000	418293-0017	SCREW 4-40 UNC-2A X .500 PAN HEAD CRES QPL- MS1957-17	EA
0014	00002.000	236380-0001	WASHER FLAT NYLON .281ODX.115IDX.047 THK SMI-2514	EA
0015	00002.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0016	00001.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0017	00001.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA

NOTES:
[1] REMOVE CONDUCTIVE FOAM FROM BACK OF TERMINAL CONTROL CARD (ITEM 2) BEFORE INSTALLING IN CARD CAGE

LTR	DESCRIPTION	DATE	APPD
A	386929 (C) 2-18-74	18 FEB 74	
	1) ON LM S-0001 THRU-0004, ITEMS DELETED: 0003 00001,000 EA 959141-0001; 0009 00001,000 " 959422-0001; 0010 00001,000 " 959418-0001; 0012 00001,000 " 232455-0000; 0013 AR TU 235182-0002. 2) NOTE 1 WAS ADDED		
B	395602 (C) Andy Willman 10-17-74	10/25/74	
	GROUND WIRE WAS ZONE B2		
C	396526 (C) 12-19-74	1/29/75	
	CHG IN P/N SCHEDULE -0001 -0002 AND -0003 MOD 753 WAS MOD 752.		
D	396589 (C) 3-11-75	3/11/75	
	(1) ADDED IT 9 THRU 15 TO LM & F/D (2) ADDED VIEW A (3) MODEL NO. IN TITLE WAS MOD 752		
E	378268 (D) 5-23-75		
	CHANGED IT. 5 P/N WAS 969513-0001 ON LM'S -0001 THRU -0004.		





DETAIL A
SCALE: NONE

PART NUMBER	DESCRIPTION
969605-0004	MOD 752 OEM W/O P.S., BAUDOT-TTY
-0003	MOD 753 OEM W/O P.S. ASCII-PARALLEL
-0002	MOD 753 OEM W/O P.S. ASCII-TTY
969605-0001	MOD 753 OEM W/O P.S., ASCII-EIA

LIST OF MATERIALS

8729 A 969648

PRINTER ASSEMBLY
MOD 75? W/O P.S. (OEM) PRINTER
E 969605
LM

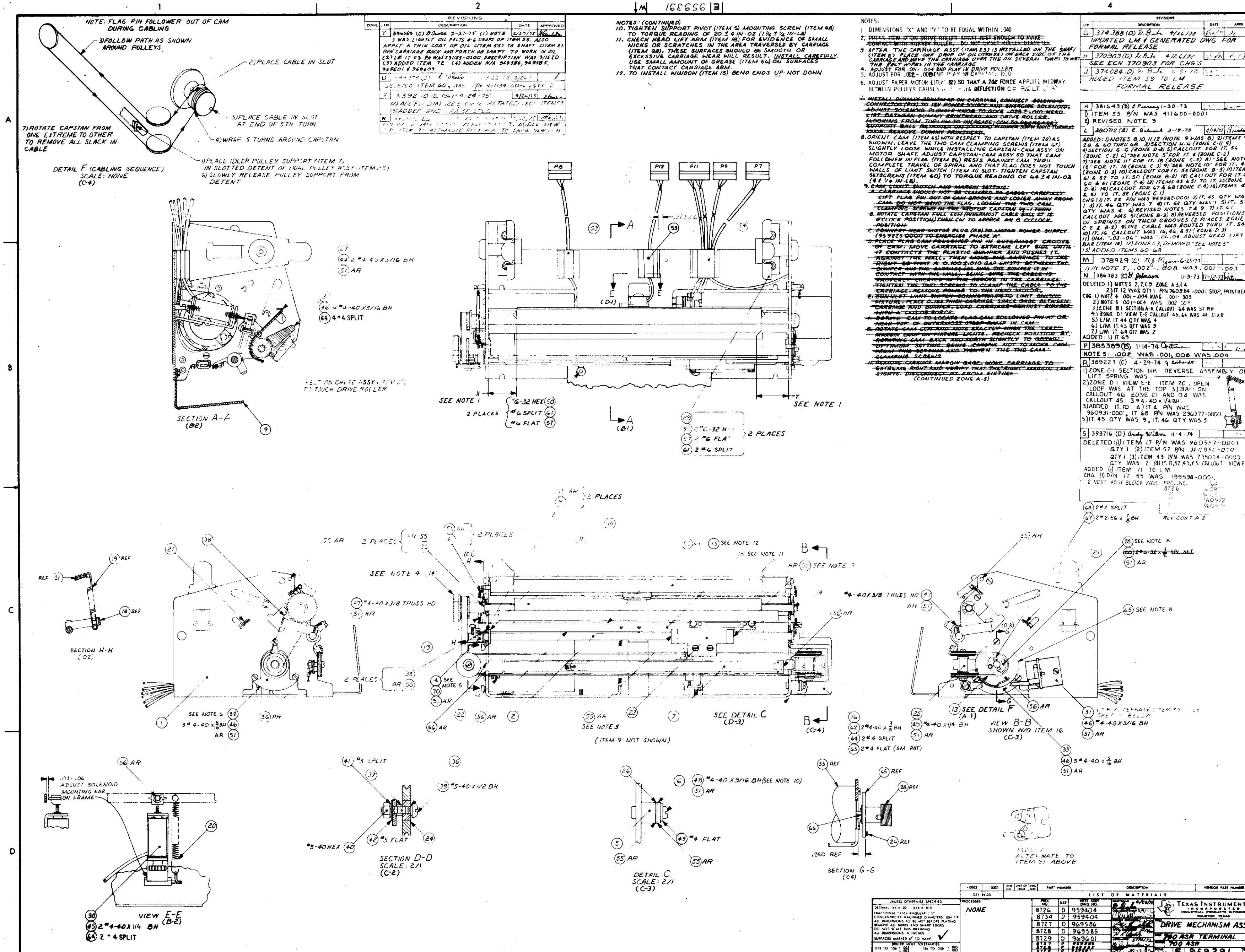
MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION.....
969605-0001	D	MOD 753 OEM W0/PS,ASCII-EIA
969605-0002	D	MOD 753 OEM W0/PS,ASCII-TTY
969605-0003	D	MOD 753 OEM W0/PS,ASCII-PARALLEL
969605-0004	D	MOD 752 OEM W/O PS,BAUDOT-TTY

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969603-0001	CHASSIS ASSY,PRINTER MODEL 752 W0/PS OEM 1204-0075-002	EA
0002	00001.000	969469-0001	MODEL 755 TERM CONTROL,ASCII-EIA 1210-0088-008	EA
0002	00001.000	969469-0002	MODEL 755 TERM CONTROL,ASCII-TTY 1210-0089-007	EA
0002	00001.000	969469-0003	MOD 755 TERM CONT,ASCII PRL ST- BUSY + 1210-0090-009	EA
0002	00001.000	969469-0004	MOD 755 TERM CONTROL,BAUDOT-TTY 1210-0091-006	EA
0005	REF	969513-9901	TEST PROCEDURE,SYSTEM,MOD 752/755	EA
0006	00001.000	962571-0001	PLATE,IDENTIFICATION	EA
0007	00002.000	418293-0025	SCREW 6-32 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-25	EA
0008	00001.000	969552-0001	COVER,POWER MODULE-MODEL 755 1204-0027-009	EA
0009	00001.000	959141-0001	PRINTHEAD INTERFACE 1210-9141-093	EA
0010	00001.000	973282-0001	RETAINER,PADDLE CARD	EA
0011	00001.000	418293-0017	SCREW 4-40 UNC-2A X .500 PAN HEAD CRES QPL- MS1957-17	EA
0012	00002.000	236380-0001	WASHER FLAT NYLON .281ODX.115IDX.047 THK SMI-2514	EA
0013	00002.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0014	00001.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0015	00001.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA

MAJOR SUBASSEMBLIES

Title	TI Drawing No.
Drive Mechanism	959391
Printhead	959422
Chassis, Models 754, 755	969585
Chassis, Model 735	969586
PC Card Rack, Models 752, 753, 754, 755	969590
PC Card Rack, Model 735	969591
Case, Model 735	969615
Fan, Models 735, 754, 755	973247
Power Supply, Models 735, 752, 753, 754, 755	969588



NOTES:
1. DIMENSIONS "X" AND "Y" TO BE EQUAL WITHIN .040
3. AFTER THE CARRIAGE ASSY (ITEM 23) IS INSTALLED ON THE SHAFT (ITEM 2) PLACE ONE DROP OF OIL (ITEM 35) ON EACH SIDE OF THE CARRIAGE AND MOVE THE CARRIAGE OVER THE OIL SEVERAL TIMES TO WET THE FELT WIPES IN THE CARRIAGE
4. ADJUST FOR .001-.004 END PLAY IN DRIVE ROLLER.
6. ADJUST PAPER MOTOR (ITEM 32) SO THAT A 2OZ FORCE APPLIED MIDWAY BETWEEN PULLEYS CAUSES .14 DEFLECTION OF BELT
8. ORIENT CAM (ITEM 65) WITH RESPECT TO CAPSTAN (ITEM 28) AS SHOWN. LEAVE THE TWO CAM CLAMPING SCREWS (ITEM 67) SLIGHTLY LOOSE WHILE INSTALLING CAPSTAN-CAM ASSY ON MOTOR SHAFT. ADJUST CAPSTAN-CAM ASSY SO THAT CAM FOLLOWER IN FLAG (ITEM 26) RESTS AGAINST CAM THRU COMPLETE TRAVEL OF SPIRAL AND THAT FLAG DOES NOT TOUCH WALLS OF LIMIT SWITCH (ITEM 31) SLOT. TIGHTEN CAPSTAN SETSCREWS (ITEM 60) TO TORQUE READING OF 64 ± 4 IN-OZ (4 ± 1/4 IN-LB).
(CONTINUED ZONE A-3)
NOTES: (CONTINUED)
10. TIGHTEN SUPPORT PIVOT (ITEM 5) MOUNTING SCREW (ITEM 48) TO TORQUE READING OF 20 ± 4 IN-OZ (1 1/4 ± 1/4 IN-LB)
11. CHECK HEAD LIFT ARM (ITEM 18) FOR EVIDENCE OF SMALL NICKS OR SCRATCHES IN THE AREA TRAVERSED BY CARRIAGE (ITEM 23). THESE SURFACES SHOULD BE SMOOTH OR EXCESSIVE CARRIAGE WEAR WILL RESULT. INSTALL CAREFULLY. USE SMALL AMOUNT OF GREASE (ITEM 56) ON SURFACES THAT CONTACT CARRIAGE ARM.
12. TO INSTALL WINDOW (ITEM 15) BEND ENDS UP-NOT DOWN
NOTE: FLAG PIN FOLLOWER OUT OF CAM DURING CABLING
DETAIL F (CABLING SEQUENCE) SCALE: NONE (C-4)
SECTION A-A (B2)
SECTION H-H (C2)
VIEW E-E (B-2)
SECTION D-D SCALE: 2/1 (C-2)
DETAIL C SCALE: 2/1 (C-3)
SECTION G-G (C4)
VIEW B-B SHOWN W/O ITEM 16 (C-3)
ITEM 7 ALTERNATE TO ITEM 31 ABOVE
LIST OF MATERIALS
PROCESSES NONE
TEXAS INSTRUMENTS INCORPORATED INDUSTRIAL PRODUCTS DIVISION HOUSTON, TEXAS
DRIVE MECHANISM ASSY
700 ASR TERMINAL
700 ASR
E 959391 W
FILMED LM

MAY 16, 1975 LIST OF MATERIAL

PART NUMBER 959391-0001 REV W DESCRIPTION..... DRIVE MECHANISM ASSY

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....		UM
0001	00001.000	959259-0001	FRAME,DRIVE MECHANISM 1209-9259-022		EA
0002	00001.000	959260-0001	SHAFT,STRAIGHT-CARRIAGE 1209-9260-019		EA
0003	00001.000	959263-0001	GUIDE,PAPER 1209-9263-019		EA
0004	00001.000	215577-0001	COLLAR,DRIVE SHAFT 1210-5577-027	01+00+04	EA
0005	00001.000	959291-0001	SUPPORT,PIVOT - - -000		EA
0006	00001.000	960925-0001	WASHER,NONMETALLIC		EA
0007	00001.000	959281-0001	SUPPORT,IDLER PULLEY 1209-9281-012		EA
0008	00004.000	959286-0001	BEARING,SLEEVE-DRIVE ROLLER - - -000		EA
0009	00001.000	959290-0001	GUIDE,FLEX CABLE 1209-9290-012		EA
0010	00001.000	959261-0001	ROLLER,DRIVE		EA
0011	00001.000	244440-0003	BUMPER,.500 O.D. 1209-1021-000	01+00+02	EA
0013	00001.000	959297-0001	CABLE,DRIVE		EA
0014	00001.000	959283-0001	PULLEY,36T		EA
0015	00001.000	959428-0001	WINDOW ASSY 1205-9428-000		EA
0016	00001.000	960930-0001	COVER LIMIT SWITCH		EA
0018	00001.000	959266-0001	ARM,HEAD LIFT 1209-9266-024		EA
0019	00001.000	960933-0001	SPRING,LIFT		EA
0020	00001.000	959268-0001	SPRING,HEAD FORCE		EA
0021	00002.000	959270-0001	SPRING,TOGGLE		EA
0022	00001.000	971417-0001	SPRING,CABLE TENSION		EA
0023	00001.000	959413-0001	CARRIAGE ASSY 1209-9413-035		EA
0024	00001.000	959402-0001	PULLEY,CABLE 1209-9402-000		EA
0025	00001.000	959417-0001	DUAL PULLEY ASSY 1209-9417-027		EA
0026	00001.000	959416-0001	FLAG,LIMIT SWITCH 1209-9416-018		EA
0027	00001.000	959421-0001	CHUTE ASSY 1209-9421-034		EA
0028	00001.000	959273-0001	CAPSTAN,MOTOR 1209-9273-024		EA
0029	00002.000	959424-0001	SUPPORT SUBASSY,PAPER ROLL 1209-9424-119		EA
0030	00001.000	959412-0001	SOLENOID ASSY 1205-9412-000		EA
0031	00001.000	986371-0001	LIMIT SWITCH ASSY 1209-6371-000		EA
0032	00001.000	959400-0001	PAPER MOTOR ASSY 1205-9400-000		EA
0033	00001.000	959399-0001	HEAD MOTOR ASSY 1205-9399-000		EA
0034	00001.000	234907-0000	RING 5133-25 -5133-25		EA
0035	00004.000	236413-1000	WASHER THRUST.252X.4375X.03 HPP-C1-1019-01		EA
0036	00001.000	154295-0016	SPACER-BEARING 1210-1018-000		EA
0037	00001.000	154295-0094	SPACER - BEARING 1209-1019-009		EA
0038	00001.000	537711-0002	BELT,TIMING 40DP 3/16 WIDE 85 TH ICO-P36051-0085		EA
0039	00001.000	235042-0011	SCREW 5-40X1/2 SS BH		EA
0040	00001.000	232454-0010	NUT 5-40X1/4X3/32 THK SST SMALL PATTERN		EA
0041	00001.000	236383-0002	WASHER #5 CAD.PLTD.SPLITLOC		EA
0042	00001.000	418154-0058	WASHER,FLAT #6 CRES QPL- NAS620-C6		EA

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER REV DESCRIPTION.....
959391-0001 W DRIVE MECHANISM ASSY

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0044	00002.000	418293-0012	SCREW 4-40 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-12	EA
0045	00003.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL--MS1957-13	EA
0046	00011.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-14	EA
0047	00002.000	235025-0010	SCREW 4-40X3/8 TRUSS HD	EA
0048	00001.000	235027-0050	SCREW 4-40X9/16 BH	EA
0049	00001.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0050	00006.000	416453-0022	NUT,PLAIN 6-32 UNC-2B HEX CRES,SMALL QPL- NAS671C6	EA
0051	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0053	00002.000	231123-0510	CLIP ADHESIVE BACK PLASTIC 1/4 ID DEK-DK-250	EA
0054	00001.000	231123-0520	CLIP ADHESIVE BACK PLASTIC 3/8 ID DEK-DK-375	EA
0055	00001.000	232573-0001	OIL #43 TERRESTIC HUM-	EA
0056	AR	232334-0050	LUBRICANT SILICONE GRS LT GR 2 OZ TUBE GE -G-322-L 2 OZ.	TU
0057	00006.000	418154-0058	WASHER,FLAT #6 CRES QPL- NAS620-C6	EA
0058	REF	959226-9901	TEST PROCEDURE	EA
0059	REF	962299-9901	DIAGRAM,ELTN SCHEMATIC-DRIVE MECHANISM	EA
0061	00004.000	418431-0025	LOCKWASHER # 6 SPLIT,HELICAL CRES QPL- NAS1676-C6	EA
0062	00002.000	418293-0015	SCREW 4-40 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-15	EA
0063	00002.000	411027-0803	WASHER .125 X .250 X .022 FLAT CRES QPL- MS15795-803	EA
0064	00008.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0065	00001.000	959271-0001	CAM,CONTROL - - -000	EA
0066	00001.000	959274-0001	CLAMP,CAM 1209-9274-014	EA
0067	00002.000	418293-0010	SCREW 2-56 UNC-2A X .875 PAN HEAD CRES QPL- MS1957-10	EA
0068	00002.000	418431-0023	LOCKWASHER # 2 SPLIT,HELICAL CRES QPL- NAS1676-C2	EA
0069	REF	971468-9901	ADJUSTMENT PROCEDURE	EA
0070	00001.000	411121-0021	SETSCREW 6-32 UNC-3A X .125 CUP POINT QPL- MS51021-21	EA
0071	REF	984199-9901	RMR TEST PROCEDURE,DRIVE MECH ASSY	EA
0072	REF	984112-9901	ADJUSTMENT PROD-DPG AND FDBK SENSOR	EA
0073	REF	959419-0001	LIMIT SWITCH ASSY	EA
0073A			ITEM 73 MAY BE USED AS AN 1205-9419-000	
0073B			ALTERNATE TO ITEM 31 1205-9419-000	

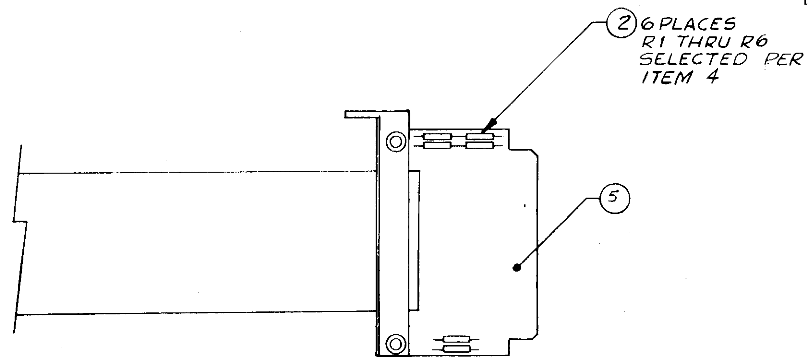
NOTES:

~~1 MARK APPROPRIATE MAX VOLTAGE AND SERIAL NO. FARSIDE WHEN ALTERNATE PRINT HEAD ASSEMBLY (ITEM 1) IS USED~~

C | 959422 | REV D

REVISIONS

LTR	DESCRIPTION	DATE	APPD
A	376189 R. Gurcell 7/5/72 IT. 4 WAS 954708, REF: TITLE WAS PRINTHEAD ASSY; TITLE OF IT. 3 WAS DIAGRAM, SCHEM - EPN-1 PRINTHEAD	[illegible]	[illegible]
	FORMAL RELEASE		
B	374829 (D) [illegible] 3-30-73 (1) REDRAWN WITH CHANGES	4/4/73	[illegible]
C	395687 (C) [illegible] 2-26-75 (1) QTY IT 1 WAS 1 (2) ADDED IT 1A, 1B & 5 (3) ADDED NOTE 1 (4) FLAG 1 WAS MARK APPROPRIATE MAX VOLTAGE & SERIAL NO FARSIDE	2/26/75	[illegible]
D	389617 (C) [illegible] 5/27/75 (1) DELETED NOTE 1 AND ITEMS 1, 1A, 1B (2) REVISED PICTORIAL	5/28/75	[illegible]



-0002	-0001	ITEM NO.	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
QTY REQD						LIST OF MATERIALS	

UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1°
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE ✓
DRILLED HOLE TOLERANCES
.013 TO .136 + .003 − .002 .136 TO .250 + .005 − .003
.250 AND ABOVE ± .005

PROCESSES
1. RUBBER STAMP F-100 HEIGHT .12, COLOR BLACK

PROJ NO.	SIZE	NEXT ASSY DWG NO.
8726	E	960970
8726	E	960971
8726	E	960972
8726	E	960973

DRAFTSMAN 10/25/71 R. Gurcell
CKD—DRAFTSMAN 7/11/72
DESIGN ENGINEER
APPD—ENGINEER 7/11/72
APPD—MFG 7/14/72
RELEASE 7/14/72

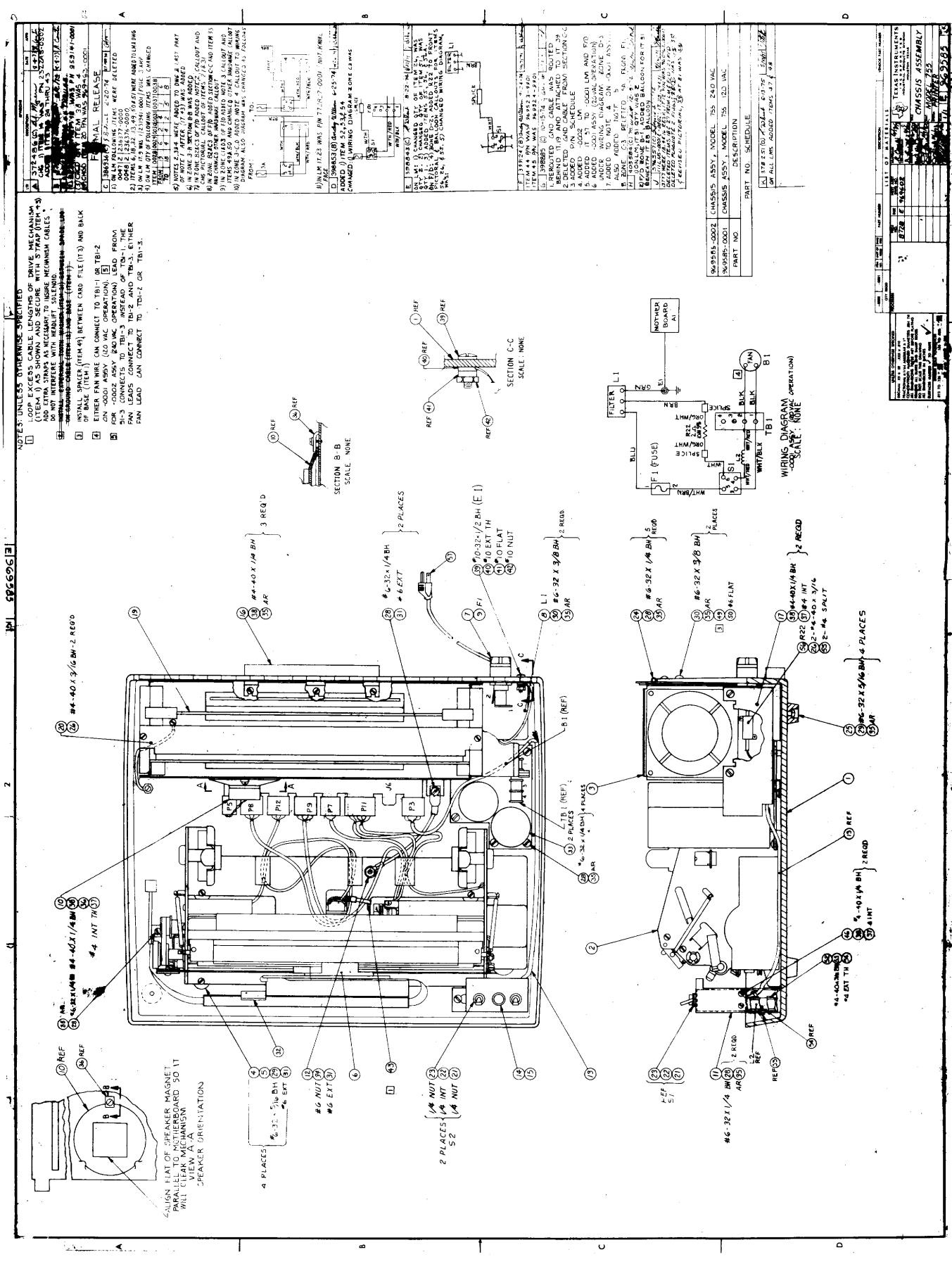
TEXAS INSTRUMENTS INCORPORATED
INDUSTRIAL PRODUCTS DIVISION
HOUSTON, TEXAS

TITLE PRINT HEAD ASSY, (EPN 1-4)
UNIT TERMINAL ASSEMBLY
SYSTEM 700 ASR
SCALE 1/1 | C | 959422 | REV. D

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION.....
959422-0001	C	PRINT HEAD ASSY,EPN 1-4

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00000.000	959394-0001	PRINT HEAD SUBASSY,EPN 1-4 1209-9394-000	EA
0001A			THIS ITEM IS AN ALTERNATE FOR 1209-9394-000	
0001B			ITEM 5 1209-9394-000	
0002	00006.000	399999-9702	RESISTOR SELECTED AT UNIT TEST	EA
0002A			R1 THRU R6	
0003	REF	959190-9901	DIAGRAM,SCHEMATIC-EPN 1-4 PRINT HEAD	EA
0004	REF	960996-9901	TEST PROCEDURE,RESISTOR SELECTION-EPN1-4	EA
0005	00001.000	971534-0001	PRINTHEAD ASSEMBLY EPN1-6 1209-1534-000	EA



969585 - 1

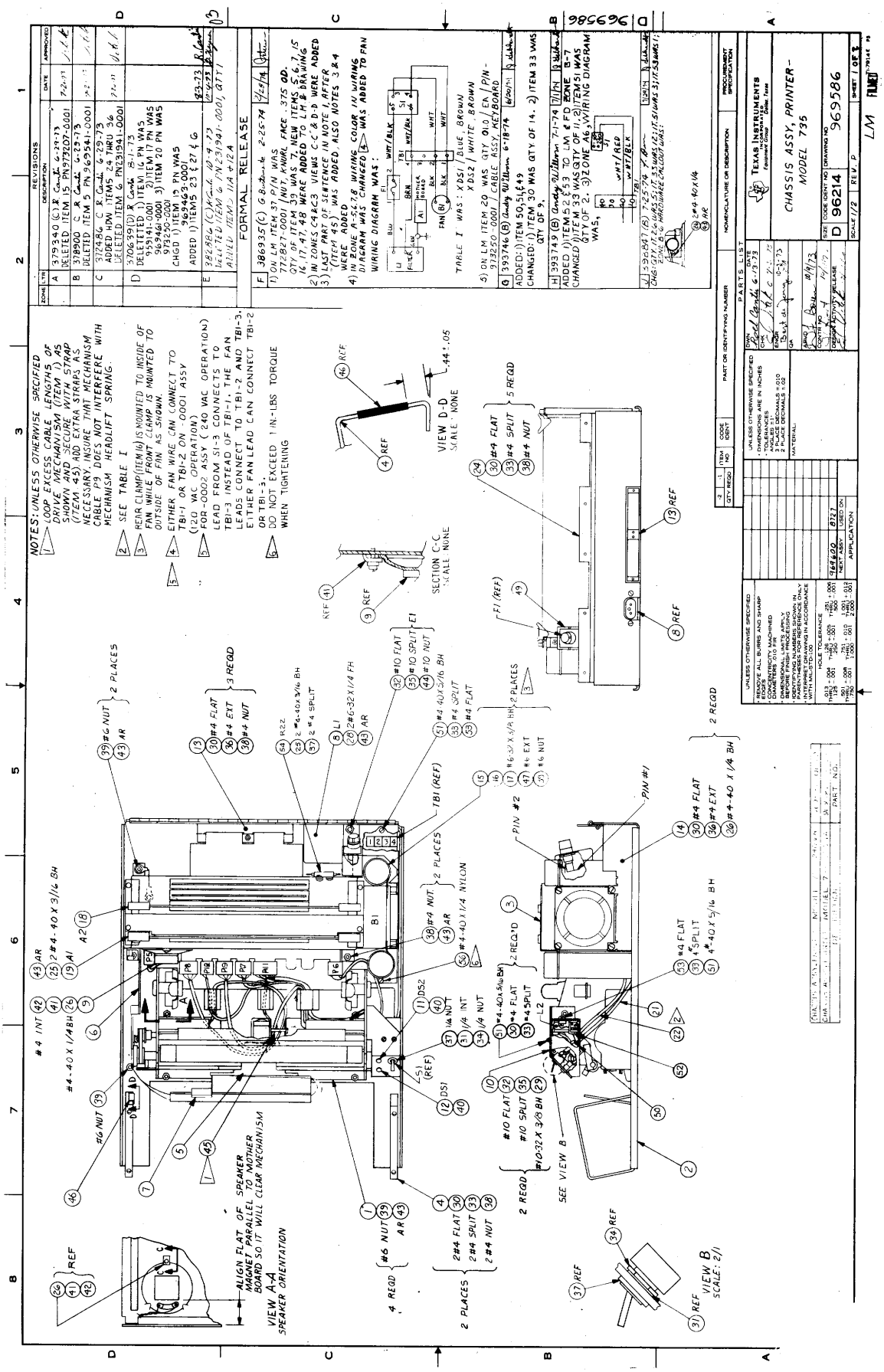
PART NUMBER REV DESCRIPTION.....
969585-0001 K CHASSIS ASSY,MODEL 755,120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969566-0001	BASE,PRINTER COMMON ASSY 1204-0002-008	EA
0002	00001.000	959391-0001	DRIVE MECHANISM ASSY 1209-9391-506	EA
0003	00001.000	969590-0001	PWB HOLDER ASSY,MODEL 755,120VAC 1204-0057-000	EA
0004	00004.000	539805-0004	GROMMET,PLATE MTG LOD-J-3112-1-6	EA
0005	00004.000	960941-0001	BUSHING,MOUNTING 1209-0941-017	EA
0006	00001.000	959422-0001	PRINT HEAD ASSY,EPN 1-4 1209-9422-062	EA
0007	00001.000	232097-0210	HOLDER FUSE PNL MTG W/QIK CONN TERMINALS BUS-HTA-DD W/QIK CONN	EA
0008	00001.000	973248-0001	FILTER ASSY 1204-0083-031	EA
0008A			L1 1204-0083-031	
0009	00001.000	231950-0001	FUSE 5 AMP 250V MTH-5 FB LIT-312005. 416-434-0503 79915	EA
0009A			F1 416-434-0303 79915	
0010	00001.000	959378-0001	SPEAKER ASSY 1209-9378-041	EA
0011	00001.000	969551-0001	BRACKET,POWER SWITCH-MODEL 755 1204-0017-000	EA
0012	00001.000	986373-0001	GROUND CABLE 754/755 1204-6373-003	EA
0013	00001.000	973246-0001	CONTROL PANEL CABLE,MODEL 755 1204-0082-016	EA
0014	00001.000	232245-0502	LAMP FLUSH 14V.08A CART/LENS CAP RED DRA-14-507 RED	EA
0015	00001.000	231845-7507	FASTENER FOR CARTRIDGE LAMP DRA-763	EA
0016	00001.000	969544-0001	RECEPTACLE,CONNECTOR-INTERFACE	EA
0017	00001.000	969559-0001	COVER,TERMINAL STRIP 755/760 1204-0001-005	EA
0019	00001.000	969459-0001	MODEL 735/755 PRINTER CONTROL 1210-0085-032	EA
0020	00001.000	969588-0001	POWER/MOTOR DRIVER ASSY 1210-0099-035	EA
0021	00002.000	232478-2001	NUT 1/4-40 HEX FOR SWITCH C&K-7100 SERIES SW	EA
0022	00002.000	236406-0600	WASHER 1/4 INT TOOTH FOR SWITCH C&K-7100 SERIES SW	EA
0023	00002.000	972345-0001	NUT,PANEL DRESS 1/4-40 .375 OD .120 THK C-K- A7099	EA
0024	00001.000	969561-0001	HINGE,COVER-MODEL 755 1204-0022-007	EA
0025	00004.000	230205-0249	BUMPER BLK POLYETHYLENE 3/8 HI SCREW MTG PGD-101-1138	EA
0026	00004.000	418293-0012	SCREW 4-40 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-12	EA
0028	00014.000	418293-0026	SCREW 6-32 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-26	EA
0029	00008.000	418293-0027	SCREW 6-32 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-27	EA
0030	00004.000	418293-0028	SCREW 6-32 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-28	EA
0031	00007.000	411101-0058	LOCKWASHER #6 EXTERNAL TOOTH CRES QPL- MS35335-58	EA
0032	00001.000	959418-0001	CLIP SUBASSY,FLEX CABLE 1209-9418-028	EA
0033	00002.000	972032-0003	CAP,FIXED ELECTROLYTIC 500MFD 200VDC DUB- FAH 6769	EA
0034	00001.000	411115-0064	NUT,PLAIN 6-32 UNC-2B HEX CRES QPL- MS35649-264	EA
0035	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0036	00001.000	972380-0001	CLAMP,COMPONENT-1/16 X.048 CPS	EA
0037	00005.000	411100-0070	LOCKWASHER #4 INTERNAL TOOTH CRES QPL- MS35333-70	EA
0038	00008.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-13	EA
0039	00001.000	418255-0063	SCREW 10-32 UNF-2A X .500 PAN HEAD CRES QPL- MS51958-63	EA
0040	00001.000	411101-0060	LOCKWASHER #10 EXTERNAL TOOTH CRES QPL- MS35335-60	EA

MAY 16, 1975 LIST OF MATERIAL

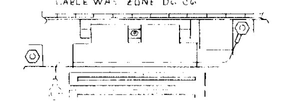
PART NUMBER REV DESCRIPTION.....
969585-0001 K CHASSIS ASSY,MODEL 755,120VAC

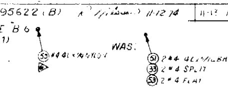
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0041	00001.000	418154-0061	WASHER,FLAT #10 CRES LIGHT QPL- NAS620-C10L	EA
0042	00001.000	416453-0024	NUT-PLAIN HEXAGON SMALL PATTERN	EA
0043	00001.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA
0044	REF	970745-9901	TEST PROCEDURE,PRINTER CHAS ASSY	EA
0045	REF	970730-9901	TEST PROCEDURE,PRINTER CHASSIS ASSY	EA
0046	00001.000	969557-0001	SHIELD,POWER SWITCH-MODEL 755 PRINTER 1204-0033-007	EA
0047	REF	971251-9901	T PROC CHAS ASSY RUN IN MOD 735,752,755	EA
0048	REF	971479-9901	SYSTEM TEST FLOW PROCEDURE	EA
0049	00002.000	960966-0001	WASHER,SHOULDER	EA
0050	00002.000	418154-0058	WASHER,FLAT #6 CRES QPL- NAS620-C6	EA
0051	00002.000	235394-1000	SPLICER LINE FOR AMP 250 SERIES AMP-1-321235-1	EA
0052	00001.000	973284-0001	BRACKET,RETAINER-INDUCTOR 1204-0122-004	EA
0053	00001.000	418293-0015	SCREW 4-40 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-15	EA
0054	00001.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0055	00002.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0056	00001.000	973263-0001	RESISTOR ASSEMBLY 1204-0055-019	EA
0056A			R22 1204-0055-019	
0057	00001.000	537408-0001	CABLE,POWER ELECTRICAL	EA


NOTES: UNLESS OTHERWISE SPECIFIED
1. COOP EXCESS CABLE LENGTHS OF DRIVE MECHANISM AS SHOWN AND SECURE WITH STRAP (ITEM 45) ADD EXTRA STRAPS AS NECESSARY. INSURE THAT MECHANISM CABLE P9 DOES NOT INTERFERE WITH MECHANISM HEADLIFT SPRING.
2. SEE TABLE I
3. REAR CLAMP (ITEM 16) IS MOUNTED TO INSIDE OF FAN WHILE FRONT CLAMP IS MOUNTED TO OUTSIDE OF FAN AS SHOWN.
4. EITHER FAN WIRE CAN CONNECT TO TB1-1 OR TB1-2 ON -0001 ASSY (120 VAC OPERATION)
5. FOR -0002 ASSY (240 VAC OPERATION) LEAD FROM S1-3 CONNECTS TO TB1-3 INSTEAD OF TB1-1. THE FAN LEADS CONNECT TO TB1-2 AND TB1-3. EITHER FAN LEAD CAN CONNECT TB1-2 OR TB1-3.
6. DO NOT EXCEED 1 IN-LBS TORQUE WHEN TIGHTENING
REVISIONS
FORMAL RELEASE
PART LIST
PART OR IDENTIFYING NUMBER
NOMENCLATURE OR DESCRIPTION
TEXAS INSTRUMENTS
CHASSIS ASSY, PRINTER-MODEL 735
SIZE D
CODE IDENT NO 96214
DRAWING NO 969586
SCALE 1/2
SHEET 1 OF 3
VIEW A-A
SPEAKER ORIENTATION
VIEW B
SCALE: 2/1
VIEW D-D
SCALE NONE
SECTION C-C
SCALE NONE
ALIGN FLAT OF SPEAKER MAGNET PARALLEL TO MOTHER BOARD SO IT WILL CLEAR MECHANISM
SEE VIEW B
TABLE I WAS: XDS1 / BLUE, BROWN
XDS2 / WHITE, BROWN
#4 INT
#4-40 X 1/4 BH
#6 NUT
#4-40 X 3/16 BH
#10 FLAT
#10 SPLIT
#10-32 X 3/8 BH
#4 FLAT
#4 SPLIT
#4-40 X 5/16 BH
#4 EXT
#4-40 X 1/4 NYLON
1/4 INT
1/4 NUT
PIN #1
PIN #2

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APP'D
		REVISIONS CONT'D; SHEET ZONE A-1		
	K	398857(B) M. Wlett 8-8-74 ON LM: (1) ADDED ITEM 54 (2) IT. 25 QTY WAS 2 (3) IT. 33 QTY WAS 14 (4) IT. 48 QTY WAS 1 5) IT. 23 P/N WAS 969518-9901 (6) IT. 27 P/N WAS 969517-9901. ON F/D: (7) ADDED IT. 54 AND HARDWARE, ZONE C-5, C-6 (8) ADDED SH 2 TO DRAWING (9) ADDED R22 TO WIRING DIAGRAM (10) ADDED SPLICE BETWEEN R22 AND S1-2 (11) MOVED WIRING DIAGRAM AND TABLE I FROM SH 1 TO SH 2, ZONES A-2 THRU A-6	8/4/74	
	L	395605(C) 10-18-74 ADDED: 1) 0002 2) ITEM 54 3) NOTE 5 4) DASH NUMBER SCHEDULE TO SHEET 1 CHANGED: 1) -0001 TITLE WAS CHASSIS __ MODEL 735 2) SHEET 2 LOGIC DESCRIPTION WAS WIRING DIAGRAM 3) NOTE 4 WAS EITHER ____ TB1-1 OR TB1-2 4) GROUND CABLE WAS ZONE D6-C6		
	M	395622(B) 11-12-74 1) ZONE B 6 (SH. 1) WAS: 2) ZONE B-5 ADDED CALLOUT FOR ITEMS 51, 33, & 53 (SH. 1) 3) SH 1 ADDED NOTE 6 4) LM IT. 33 QTY WAS 16. 5) IT. 51 QTY WAS 5 6) IT. 53 QTY WAS 3 7) ADDED IT. 56.	11-13-74	
	N	403583 (D) 12-11-74 CHG: (1) P/N IT. 47 WAS 236385-0000 (2) IT. 49 P/N WAS 981307-0001	12/	
	P	378251 (D) 5-13-75 ON ALL LMS ADDED ITEMS 57 & 58	5/23/75	

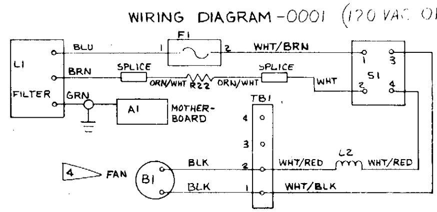




2 TABLE I

INDICATOR LIGHT CABLE COLOR CODE (ITEM 22)	
LAMP	COLOR OF WIRES
DS2	RED/WHT & WHT
DS1	BLU/WHT & RED/WHT

WIRING DIAGRAM -0001 (120 VAC OPERATION)



SIZE	CODE IDENT NO	DRAWING NO
D	96214	969586
SCALE NONE	REV P	SHEET 2

PART NUMBER REV DESCRIPTION.....
969586-0001 P CHASSIS ASSY PRINTER-MODEL 735 120VAC

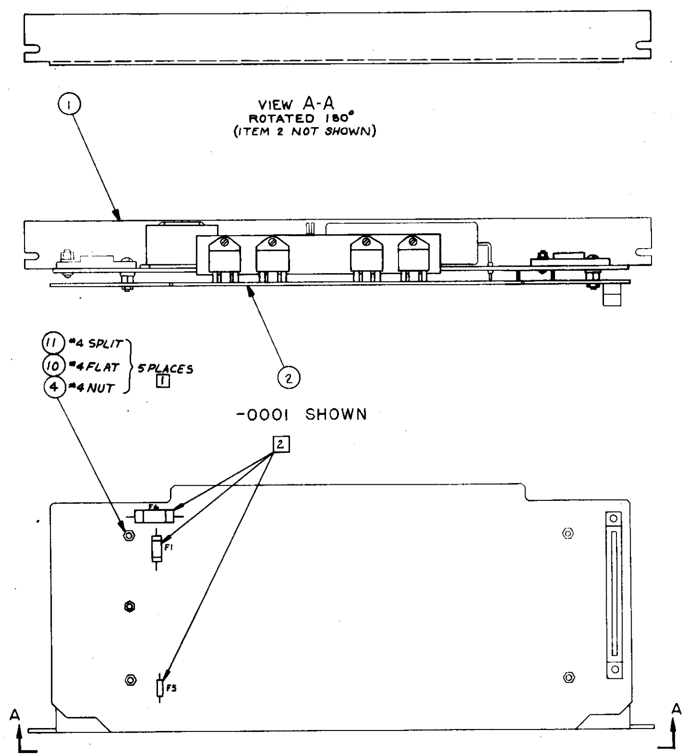
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	959391-0001	DRIVE MECHANISM ASSY 1209-9391-506	EA
0002	00001.000	969550-0001	BASE PLATE 1204-0013-009	EA
0003	00001.000	969591-0001	CARD FILE ASSY,MODEL 735 120VAC 1204-0055-000	EA
0004	00002.000	969542-0001	BRACKET,MOUNTING-KEYBOARD 1204-0014-007	EA
0005	00001.000	959422-0001	PRINT HEAD ASSY,EPN 1-4 1209-9422-062	EA
0006	00001.000	959141-0001	PRINTHEAD INTERFACE 1210-9141-093	EA
0007	00001.000	959418-0001	CLIP SUBASSY,FLEX CABLE 1209-9418-028	EA
0008	00001.000	973248-0001	FILTER ASSY 1204-0083-031	EA
0009	00001.000	959378-0001	SPEAKER ASSY 1209-9378-041	EA
0010	00001.000	969543-0001	PANEL,SWITCH MODEL 735 1204-0023-011	EA
0011	00001.000	232245-0502	LAMP FLUSH 14V.08A CART/LENS CAP RED DRA-14-507 RED	EA
0011A			DS2 DRA-14-507 RED	
0012	00001.000	232245-0505	LAMP FLUSH 14V.08A CART/LENS CAP GREEN DRA-14-507 GREEN	EA
0012A			DS1 DRA-14-507 GREEN	
0013	00001.000	969544-0001	RECEPTACLE,CONNECTOR-INTERFACE	EA
0014	00001.000	973208-0001	SHIELD,POWER 1204-0012-009	EA
0015	00002.000	972032-0003	CAP,FIXED ELECTROLYTIC 500MFD 200VDC DUB- FAH 6769	EA
0016	00002.000	973207-0001	CLAMP CAPACITOR	EA
0017	00002.000	418293-0028	SCREW 6-32 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-28	EA
0018	00001.000	969459-0001	MODEL 735/755 PRINTER CONTROL 1210-0085-032	EA
0019	00001.000	969588-0001	POWER/MOTOR DRIVER ASSY 1210-0099-035	EA
0021	00001.000	973245-0001	POWER SWITCH CABLE,MODEL 735 1204-0081-026	EA
0022	00001.000	973249-0001	CABLE,INDICATOR LIGHT 1204-0050-027	EA
0023	REF	970730-9901	TEST PROCEDURE,PRINTER CHASSIS ASSY	EA
0024	00001.000	973209-0001	HINGE,INNER COVER-MODEL 735 1204-0010-009	EA
0025	00004.000	418293-0012	SCREW 4-40 UNC-2A X .188 PAN HEAD CRES QPL- MS1957-12	EA
0026	00003.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-13	EA
0027	REF	970745-9901	TEST PROCEDURE,PRINTER CHAS ASSY	EA
0028	00002.000	418198-0026	SCREW 6-32 UNC-2A X .250 FLAT HEAD CRES QPL- MS51959-26	EA
0029	00002.000	418255-0061	SCREW 10-32 UNF-2A X .375 PAN HEAD CRES QPL- MS51958-61	EA
0030	00016.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0031	00001.000	236406-0600	WASHER 1/4 INT TOOTH FOR SWITCH C&K-7100 SERIES SW	EA
0032	00003.000	418154-0061	WASHER,FLAT #10 CRES LIGHT QPL- NAS620-C10L	EA
0033	00015.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0034	00001.000	232478-2001	NUT 1/4-40 HEX FOR SWITCH C&K-7100 SERIES SW	EA
0035	00003.000	418431-0027	LOCKWASHER # 10 SPLIT,HELECAL CRES QPL- NAS1676C10	EA
0036	00005.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0037	00001.000	972345-0001	NUT,PANEL DRESS 1/4-40 .375 OD .120 THK C-K- A7099	EA
0038	00014.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0039	00009.000	411115-0064	NUT,PLAIN 6-32 UNC-2B HEX CRES QPL- MS35649-264	EA

PART NUMBER REV DESCRIPTION.....
969586-0001 P CHASSIS ASSY PRINTER-MODEL 735 120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0040	00002.000	231845-7507	FASTENER FOR CARTRIDGE LAMP DRA-763	EA
0041	00001.000	972380-0001	CLAMP,COMPONENT-1/16 X.048 CPS	EA
0042	00001.000	411100-0070	LOCKWASHER #4 INTERNAL TOOTH CRES QPL- MS35333-70	EA
0043	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0044	00001.000	416453-0024	NUT-PLAIN HEXAGON SMALL PATTERN	EA
0045	00001.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA
0046	00002.000	959237-0001	CLAMP,FLEX CABLE 1209-9237-021	EA
0047	00002.000	411101-0058	LOCKWASHER #6 EXTERNAL TOOTH CRES QPL- MS35335-58	EA
0048	00002.000	235394-1000	SPLICER LINE FOR AMP 250 SERIES AMP-1-321235-1	EA
0049	00001.000	969649-0001	COVER,FUSE BRACKET	EA
0050	00001.000	973283-0001	SHIELD,POWER SWITCH 1204-0111-004	EA
0051	00004.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-14	EA
0052	00001.000	973284-0001	BRACKET,RETAINER-INDUCTOR 1204-0122-004	EA
0053	00002.000	411027-0803	WASHER .125 X .250 X .022 FLAT CRES QPL- MS15795-803	EA
0054	00001.000	973263-0001	RESISTOR ASSEMBLY 1204-0055-019	EA
0055	00001.000	537408-0001	CABLE,POWER ELECTRICAL BEL-17258	EA
0056	00001.000	418653-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD NYLON QPL- MS18212-13	EA

NOTES
1. TIGHTEN NUTS WITH 8IN-LBS TORQUE.
2. FOLLOWING ASSY TEST (ITEM 9) SOLDER FUSES F1 AND F5 TO PCB RECEPTACLES (4 PLACES) AND CONFORMAL COAT FUSES F1, F6, AND F5 PER PROCESS 1.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	B	2) ITEM ON LM 0001 & 0002 & DRAWINGS WERE -0001 FROM 4 TO 5 SH 1 -0002 3 4 SH 2		
	C	393744 C 8-1-74 1) ADDED NOTE 1 AND CALLOUT TO SH 1 & 2 FD. 2) DELETE DIMENSIONS 2.50±.25 AND .17±.10 FROM VIEW A-A. 3) DELETED IT. 10 PN WAS 973229-0001 QTY WAS 1, FROM LM AND FD, SHEET 1 VIEW AA.	8-8-74	
	D	393721 (C) 10-22-72 ADDED: VIEW ON F/D OF F1,F5,&F6) 2 CALLOUT ON F/D ZONE B-6; NOTE 2 ZONE D-3; PROCESS 1 ZONE A-6	11/1/74	
	E	403527(C) 12-12-74 ON LM (1)-0001 & -0002, ADDED ITEMS 10 & 11 ON F/D (2) ZONE C-7; SH 1 & 2, ADDED BALLOON CALLOUTS FOR ITEMS 10 & 11	12/17/74	



PROCESSES:
1. CONFORMAL COAT, F503-2

SHEET	DESCRIPTION	PART NUMBER
2	MOTOR DRIVER ASSY	969588-0002
1	POWER/MOTOR DRIVER ASSY	969588-0001

PARTS LIST

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
969603	8728
969601	8729
969585	8729
969586	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02

MATERIAL:

DWN / CHK / ENGR / QA / APVD / CONTR NO / DESIGN ACTIVITY RELEASE — DATE 8/7/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

POWER/MOTOR DRIVER ASSY,

SIZE	CODE IDENT NO	DRAWING NO
D	96214	969588

SCALE 1/1 REV E SHEET 1

LM

D 969588

TEXAS INSTRUMENTS
INCORPORATED

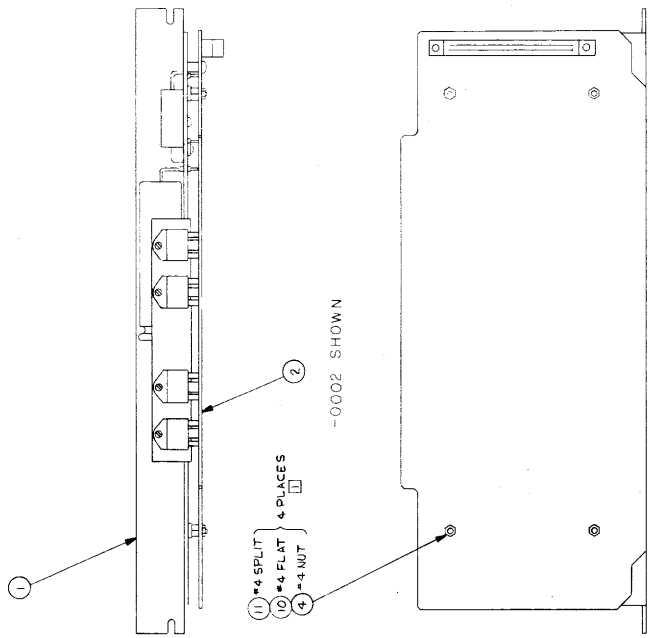
DATE 04/26/75 — **LIST OF MATERIAL** — PAGE 1 of — PART NUMBER LM 969588-0001 E

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		969587-0001	PLATE ASSY,POWER MOTOR DRIVER	
0002	00001.000	EA		969463-0001	POWER/MOTOR DRIVER	
0004	00005.000	EA		232453-3000	NUT 4-40X3/16X1/16 THK SMALL PATTERN	
0006	REF	EA		969486-9901	DIAGRAM,LOGIC	
0009	REF	EA		969533-9901	TEST PROC,POWER/MOTOR DRIVER ASSY	
0010	00005.000	EA		418154-0054	WASHER #4 FLAT .115 X.209 X.03 SST	
0011	00005.000	EA		418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES	QPL- NAS1676-C4

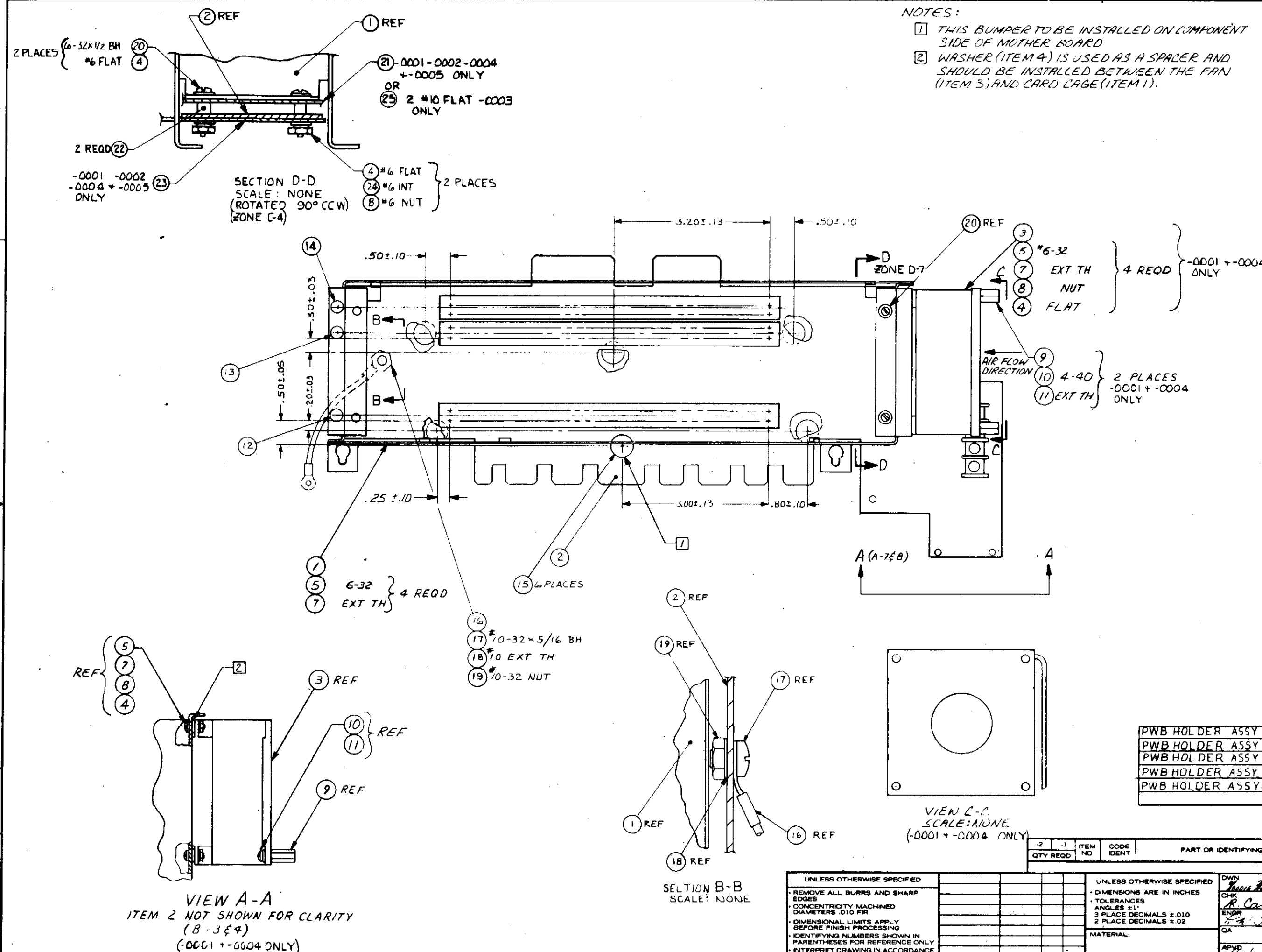
TEXAS INSTRUMENTS
INCORPORATED

DATE 04/26/75 — **LIST OF MATERIAL** — PAGE 1 of — PART NUMBER LM 969588-0002 E

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		969587-0002	PLATE ASSY,MOTOR DRIVER	
0002	00001.000	EA		969474-0001	MOTOR DRIVER	
0004	00004.000	EA		232453-3000	NUT 4-40X3/16X1/16 THK SMALL PATTERN	
0006	REF	EA		969490-9901	DIAGRAM,LOGIC,DET-MOTOR DRIVER	
0009	REF	EA		969534-9901	TEST PROC,MOTOR DRIVER ASSY	
0010	00004.000	EA		418154-0054	WASHER #4 FLAT .115 X.209 X.03 SST	
0011	00004.000	EA		418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES	QPL- NAS1676-C4



TEXAS INSTRUMENTS INCORPORATED — POWER/MOTOR DRIVER ASSY
SIZE D — CODE IDENT NO 96214 — DRAWING NO 969588 — SHEET 2 — REV E — SCALE 1/1



NOTES:

1. THIS BUMPER TO BE INSTALLED ON COMPONENT SIDE OF MOTHER BOARD
2. WASHER (ITEM 4) IS USED AS A SPACER AND SHOULD BE INSTALLED BETWEEN THE FAN (ITEM 3) AND CARD CAGE (ITEM 1).

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	370817 5/1/73 1) ADDED VIEW A-A & ITEMS 9, 10, & 11 TO F/D 2) LM-0001 ITEM 4 WAS 235036-0001 QTY 8; ITEM 6 WAS 235027-0001 QTY 1; ITEM 7 QTY WAS 4 3) LM-0002 & -0003 ITEM 4 WAS 3 & ITEM 7 WAS 4	6-5-73	
		FORMAL RELEASE		
	B	378795 (C) 9-19-73 1) ON LM-0001, IT. 9 P/N WAS 235392-0823 2) ADDED ITEMS 12 THRU 19 TO ALL LMS & F/D		
	C	386933 (C) 2-14-74 ADD: 1.) IT. 5 -0002 & -0003 LM 2.) NOTES 1 & 2 ZONE D4 3.) NOTE 1 CALLOUT ZONE B5 4.) VIEW C-C ZONE B4 5.) NOTE 2 CALLOUT ZONE B8 6.) IT. 10 & 11 CALLOUT ZONE B7 7.) IT. 4 CALLOUT ZONE B8 & C3 8.) IT. 5 CALLOUT ZONE B7 CHG: 1.) LM-0001 IT. 4 WAS: 4, 235053-0001 2.) LM-0001 IT. 10 WAS: AR, TU, 235182-0802 3.) LM-0001 IT. 11 WAS: 2, 235067-0001 4.) LM-0001 IT. 5 QTY. WAS 2 5.) LM-0001 IT. 7 QTY. WAS 6 6.) LM-0001 IT. 8 QTY. WAS 2 7.) LM-0001 IT. 9 WAS: 2, 235392-0824 8.) AIR FLOW WAS LOCATED ZONE C-4 9.) NO. REQD CALLOUT ZONE C3 WAS 2 10.) IT. 10 ZONE C3 WAS IT. 11 11.) IT. 11 ZONE C3 WAS IT. 10 DELETE: 1.) IT. 4 CALLOUT ZONE B7 2.) IT. 11 ZONE A8 3.) CAPACITORS ZONE B4 4.) -0002 & -0003 LM IT. 4 WAS: 4/235053-0001		
	D	395614 (C) 10-3-74 ADDED: 1) -0004 & -0005 TO LM CHANGED: 1) -0001 TITLE WAS PWB HOLDER ASSY MODEL 755 2) -0002 TITLE WAS PWB HOLDER ASSY MODEL 752 W/PS 3) ZONE C7, C6, C5, & C4 WAS [sketch] 4) SECTION B-B WAS VIEW B-B	11/13/74	
	E	399170 (B) 1-15-75 ON LM: (1) -0001 + -0004 CHG QTY IT. 4 WAS 4 IT. 8 WAS 4. (2) -0001, -0002, -0003, -0004 + -0005 CHG QTY IT. 5 WAS 8 IT. 7 WAS 8. (3) -0001 -0002 -0004 + -0005 ADDED IT'S 20 THRU 24 (4) -0002 -0003 + -0005 ADD IT'S 4 + 8 (5) -0003 ADDED IT'S 20, 22, 24 + 25 ON F/D: (1) VIEW A-A VIEW C-C + ZONE C-3 2 PLACES "-0001 + -0004 ONLY" WAS "-0001 ONLY" (2) ZONE C-4 ADDED SECTION D-D CALLOUT ALSO (20) REF (3) ADDED SECTION D-D ZONE D8+7.	1/20/75	
	F	396561 (C) 1) RELOCATED BUMPER BUTTON .70 TO RIGHT OF PRESENT LOCATION, ZONE C6	2/6/75	

PARTS LIST

DESCRIPTION	PART NUMBER
PWB HOLDER ASSY MODEL 752 W/PS. 240 VAC	969590-0005
PWB HOLDER ASSY MODEL 755 240 VAC	969590-0004
PWB HOLDER ASSY MODEL 752 W/O PS.	969590-0003
PWB HOLDER ASSY MODEL 752 W/PS. 120 VAC	969590-0002
PWB HOLDER ASSY MODEL 755 120 VAC	969590-0001

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

NEXT ASSY	USED ON
969603	8729
969601	8729
969585	8728

APPLICATION

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02

MATERIAL:

DWN 4-11-73 · CHK R. Canti 6-5-73 · ENGR · QA · APVD · CONTR NO · DESIGN ACTIVITY RELEASE 6/6/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

HOLDER ASSY, PWB
MODEL 752/755

SIZE D · CODE IDENT NO 96214 · DRAWING NO 969590

SCALE 1/1 · REV F · SHEET

LM

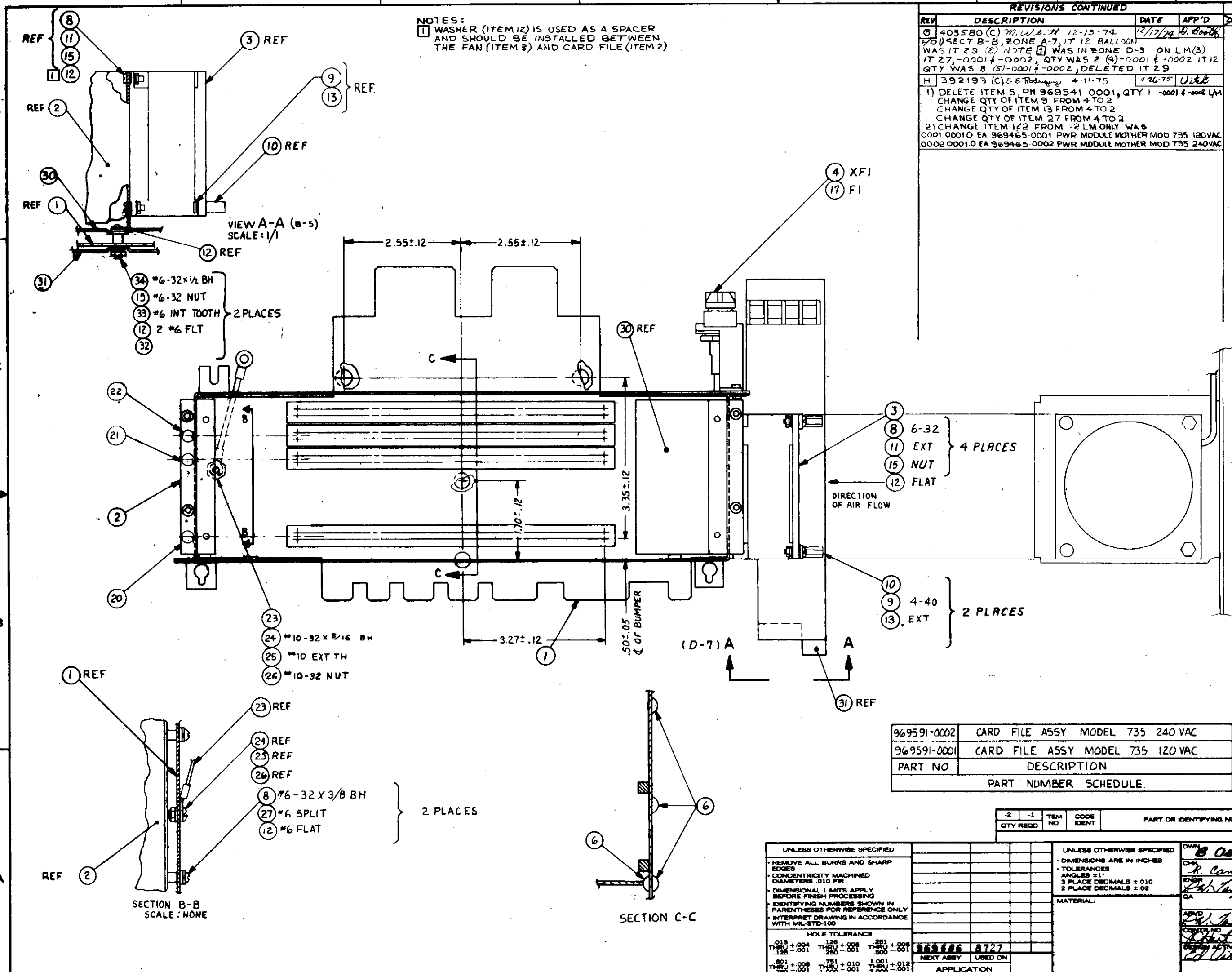
TI-7914 E

MAY 16, 1975 LIST OF MATERIAL

PART NUMBER	REV	DESCRIPTION.....
969590-0001	F	PWB HOLDER ASSY,MODEL 755,120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969558-0001	HOLDER 3 POSITION 1204-0004-006	EA
0002	00001.000	969467-0001	POWER MODULE MOTHER,MODEL 755 120VAC 1210-0061-010	EA
0003	00001.000	973247-0001	FAN ASSY 120 VAC 1204-0052-026	EA
0004	00008.000	418154-0058	WASHER,FLAT #6 CRES QPL- NAS620-C6	EA
0005	00006.000	418293-0028	SCREW 6-32 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-28	EA
0007	00006.000	411101-0058	LOCKWASHER #6 EXTERNAL TOOTH CRES QPL- MS35335-58	EA
0008	00006.000	416453-0022	NUT,PLAIN 6-32 UNC-2B HEX CRES,SMALL QPL- NAS671C6	EA
0009	00002.000	972766-0007	SPACER,HEXAGONAL .500 HHS-2332	EA
0010	00002.000	418293-0015	SCREW 4-40 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-15	EA
0011	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0012	00001.000	231792-0001	DOT BRN QD-25 BRA-QD-25	EA
0013	00001.000	231792-0002	DOT RED QD-25 BRA- QD-25	EA
0014	00001.000	231792-0003	DOT ORN QD-25 BRA- QD-25	EA
0015	00006.000	230205-0007	BUMPER BUTTON RUBBER GRAY .195THKX.45DIA MMM-Y-3020-GRAY	EA
0016	00001.000	973252-0001	CABLE,GROUND 1204-0102-022	EA
0017	00001.000	418255-0060	SCREW 10-32 UNF-2A X .312 PAN HEAD CRES QPL- MS51958-60	EA
0018	00001.000	411101-0060	LOCKWASHER #10 EXTERNAL TOOTH CRES QPL- MS35335-60	EA
0019	00001.000	416453-0024	NUT-PLAIN HEXAGON SMALL PATTERN	EA
0020	00002.000	418293-0030	SCREW 6-32 UNC-2A X .500 PAN HEAD CRES QPL- MS1957-30	EA
0021	00001.000	973297-0001	SHIELD,HIGH-VOLTAGE,UPPER 752/755 1204-3297-004	EA
0022	00002.000	973286-0001	SPACER,INSULATOR-M/B 1204-3286-004	EA
0023	00001.000	973298-0001	SHIELD,HIGH-VOLTAGE,LOWER 752/755 1204-3298-005	EA
0024	00002.000	411100-0071	LOCKWASHER #6 INTERNAL TOOTH CRES QPL- MS35333-71	EA

NOTES:
1. WASHER (ITEM 12) IS USED AS A SPACER AND SHOULD BE INSTALLED BETWEEN THE FAN (ITEM 3) AND CARD FILE (ITEM 2)



REVISIONS CONTINUED

REV	DESCRIPTION	DATE	APP'D
G	403580 (C) M. W. Lutt 12-13-74 F/D) SECT B-B, ZONE A-7, IT 12 BALLOON WAS IT 29 (2) NOTE 1 WAS IN ZONE D-3 ON LM(3) IT 27, -0001 & -0002, QTY WAS 2 (4) -0001 & -0002 IT 12 QTY WAS 8 (5) -0001 & -0002, DELETED IT 29	12/17/74	D. Booth
H	392193 (C) E.E. Rodriguez 4-11-75 1) DELETE ITEM 5, PN 969541-0001, QTY 1 -0001 & -0002 L/M CHANGE QTY OF ITEM 9 FROM 4 TO 2 CHANGE QTY OF ITEM 13 FROM 4 TO 2 CHANGE QTY OF ITEM 27 FROM 4 TO 2 2) CHANGE ITEM 1/2 FROM -2 LM ONLY WAS 0001 0001.0 EA 969465-0001 PWR MODULE MOTHER MOD 735 120VAC 0002 0001.0 EA 969465-0002 PWR MODULE MOTHER MOD 735 240VAC	4-26-75	Uhl

REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	378892 (D) R. Conti 6-4-73 DELETED 1) ITEM 6 PN959378-0001 CHG 1 ITEM 7 PN WAS 235054-0001 2 ITEM 9 PN WAS 235027-0001 3 ITEM 10 PN WAS 972766-0002 4 ITEM 15 PN WAS 232453-0000	6-4-73	R. Conti
	FORMAL RELEASE		
B	378798 (C) 9-19-73 ADDED ITS 20, 21, 22, 23, 24, 25, 26 CHG ITEM 10 WAS 972766-0003 F/D ZONE B4 DELETED IT. 13 L/M CHG QTY IT. 13 WAS 4	9/27/73	
C	386934 (C) 2-14-74 1) ON LM FOLLOWING ITEMS WERE DELETED 0007 00004 235025-0001; 0016 00002 973207-0001; 0018 00002 235036-0011; 0019 AR 235182-0002 2) FOLLOWING ITEMS ON LM WERE: 0008 00004 235056-0001; 0009 00003 235022-0001; 0010 00002 972766-0007; 0011 00008 236387-0000; 0012 00002 236385-0000; 0013 00002 236375-0000; 0017 00001 231941-0001 3) ADDED ITEM 6 TO LM & DRAWING 4) VIEW A-A, ZONE D-8 CHANGED HARDWARE CALLOUT 5) IN ZONE B-8 & C-6 HARDWARE CALLOUT BALLOON 11 WAS "INT" 6) NOTE 1 WAS ADDED	2/18/74	Uhl
D	398855 (B) Andy Wilson 7-16-74 ADDED: 1) ITEMS 27, 28 & 29 CHANGED: 1) ITEM 11 QTY WAS 8 2) BALLOON 2 WAS BALLOONS 2 & 11 BALLOONS 8 & 11 WERE 4 PLACES ZONE B8 3) SECTION B-B WAS ZONE A8, B8 4) VIEW AA WAS ZONE D8, C8 & D7 — VIEW A-A (B5) SCALE 1-1 ITEM 1 NOT SHOWN FOR CLARITY	7/22/74	
E	395604 (C) 10-16-74 1. SHORTENED GROUND CABLE IT 28 2. ADDED -0002 LM ALSO ADDED P/N SCHEDULE	10/22/74	Uhl
F	395619 (B) 11-8-74 ON LM -0001 & -0002: ADD IT'S 30 THRU 34, CHG QTY IT. 6 WAS 3 IT. 8 WAS 8 IT. 12 WAS 4 IT 27 WAS 4 DELETE IT 28 P/N WAS 236378-0925 QTY WAS 2. QTY IT. 15 WAS 4 ADDED DIM'S 3.35±.12 & 2.55±.12 — VIEW A-A WAS AS SHOWN; 34 #6-32 x 3/8 BH, 33 #6 SPLIT, 12 #6 FLAT, 32 #6 FIBER 2 PLACES; SECTION C-C WAS AS SHOWN	11/15/74	Uhl

PART NUMBER SCHEDULE

PART NO	DESCRIPTION
969591-0002	CARD FILE ASSY MODEL 735 240 VAC
969591-0001	CARD FILE ASSY MODEL 735 120 VAC

PARTS LIST

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.006 -.001	.251 THRU .500 +.008 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
969556	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°, 3 PLACE DECIMALS ±.010, 2 PLACE DECIMALS ±.02

MATERIAL:

DWN B. Oakes 4-11-73
CHK R. Conti 6-4-73
ENGR 6-4-73
QA
APPD 6-4-73
CONTR NO
DESIGN ACTIVITY RELEASE 6/6/73

TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

CARD FILE ASSY-
MODEL 735

SIZE D CODE IDENT NO 96214 DRAWING NO 969591
SCALE 1/1 REV H SHEET

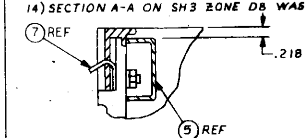
MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER REV DESCRIPTION.....
969591-0001 H CARD FILE ASSY,MODEL 735 120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969465-0001	POWER MODULE MOTHER MODEL 735 120VAC 1210-0060-030	EA
0002	00001.000	969545-0001	HOLDER,PW BOARD 1204-3005-000	EA
0003	00001.000	973247-0001	FAN ASSY 120 VAC 1204-0052-026	EA
0004	00001.000	232097-0210	HOLDER FUSE PNL MTG W/QIK CONN TERMINALS BUS-HTA-DD W/QIK CONN	EA
0006	00005.000	230205-0007	BUMPER BUTTON RUBBER GRAY .195THKX.45DIA MMM-Y-3020-GRAY	EA
0008	00006.000	418293-0028	SCREW 6-32 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-28	EA
0009	00002.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-14	EA
0010	00002.000	972766-0005	SPACER,HEXAGONAL .375 HHS-2331	EA
0011	00004.000	411101-0058	LOCKWASHER #6 EXTERNAL TOOTH CRES QPL- MS35335-58	EA
0012	00010.000	418154-0058	WASHER,FLAT #6 CRES QPL- NAS620-C6	EA
0013	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0015	00006.000	416453-0022	NUT,PLAIN 6-32 UNC-2B HEX CRES,SMALL QPL- NAS671C6	EA
0017	00001.000	231950-0001	FUSE 5 AMP 250V MTH-5 FB LIT-312005. 416-434-0503 79915	EA
0020	00001.000	231792-0001	DOT BRN QD-25 BRA-QD-25	EA
0021	00001.000	231792-0002	DOT RED QD-25 BRA- QD-25	EA
0022	00001.000	231792-0003	DOT ORN QD-25 BRA-QD-25	EA
0023	00001.000	973252-0001	CABLE,GROUND 1204-0102-022	EA
0024	00001.000	418255-0060	SCREW 10-32 UNF-2A X .312 PAN HEAD CRES QPL- MS51958-60	EA
0025	00001.000	411101-0060	LOCKWASHER #10 EXTERNAL TOOTH CRES QPL- MS35335-60	EA
0026	00001.000	416453-0024	NUT-PLAIN HEXAGON SMALL PATTERN	EA
0027	00002.000	418431-0025	LOCKWASHER # 6 SPLIT,HELICAL CRES QPL- NAS1676-C6	EA
0030	00001.000	973287-0001	SHIELD,HI-VOLT-UPPER-735 1204-3287-006	EA
0031	00001.000	973288-0001	SHIELD,HI-VOLT-LOWER-735 1204-3288-006	EA
0032	00002.000	973286-0001	SPACER,INSULATOR-M/B 1204-3286-004	EA
0033	00002.000	411100-0071	LOCKWASHER #6 INTERNAL TOOTH CRES QPL- MS35333-71	EA
0034	00002.000	418293-0030	SCREW 6-32 UNC-2A X .500 PAN HEAD CRES QPL- MS1957-30	EA

NOTES:
1. TWO WASHERS (ITEM 21) MAY BE SUBSTITUTED FOR ONE SPACER (ITEM 18)
2. LUBRICATE HANDLE RETRACTING MECHANISM (ITEM 11) USING LUBRICANT (ITEM 8)

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	403577 (C) Andy Willson 12-13-74 ADDED: 1) ITEM 15 2) NOTES 1 & 2 3) SECTION CC & B-B 4) ITEM 22 TO CALLOUT ZONE D3 SH2 5) 6) ITEM 18 TO CALLOUT ZONE A7 SH3 CHANGED: 1) ITEM 8 P/N WAS 772334 & QTY WAS 4 2) ITEM 17 P/N WAS 235024-0002 3) ITEM 18 P/N WAS 235025-0001 & QTY WAS 4 4) ITEM 19 P/N WAS 235026-0016 & QTY WAS 4 5) ITEM 21 P/N WAS 232453-0000 & QTY WAS 4 6) ITEM 22 QTY WAS 12 7) ITEM 23 QTY WAS 12 8) ITEM 24 QTY WAS 4 9) CALLOUT IN ZONE C2 SH 2: DELETED ITEM (21) 2 REQD 10) CALLOUT IN ZONE B2 SH2: DELETED ITEM (21) 2 REQD 11) CALLOUT IN ZONE D8 SH2: ADDED ITEMS (5) (15) & (8) 12) CALLOUT IN ZONE B8 SH3: DELETED ITEMS (22), 2 PLACES & ADDED ITEMS (21) & (24) 13) CALLOUT IN ZONE C2 SH3 WAS (8) (6) (18) 2 REQD, (23) 2 REQD, & (22) 2 REQD LOCATED IN 2 PLACES 14) SECTION A-A ON SH3 ZONE D8 WAS 	17DEC74	[illegible]
	B	400900 (C) D Cross 3-10-75 LM (1) QTY IT 22 WAS 18 (2) IT 17 WAS 235029-0001 SCREW, 4-40 X 1/4 B.H. (3) DELETED IT 23 (4) SH 2 DELETED BALLOONS 23 & 22	3/10/75	[illegible]

QTY REQD -2	QTY REQD -1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
	4	28		232456-0000	NUT, #6 HEX	
	4	27		236388-0000	WASHER, #6 SPLIT	
	4	26		236385-0000	WASHER, #6 FLAT	
	4	25		232452-0000	NUT, #4 LARGE PATTERN	
	6	24		236375-0000	WASHER, #4 INT TH SST	
	~~8~~	~~23~~		~~236376-0000~~	~~WASHER, #4 SPLIT LOCK~~	
	10	22		236377-0002	WASHER, #4 FLAT	
1	2	21		236377-0000	WASHER #4 FLAT .125X.312X.03	
	2	20		235027-0001	SCREW, 4-40X1/2 BH	
	8	19		418176-0012	SCREW, #4 X 3/8 SELF TAP PH	
1	2	18		973210-0002	SPACER, .120X.312X.06	
	8	17		536745-0015	POP RIVET, CLOSED END, CSK	
	2	16		235021-0001	SCREW, 4-40X1/4 BH	
	2	15		973280-0001	RETAINER, COVER	
	4	14		236371-0000	WASHER, WAVE SPRING	SNA-3500-05-16 [illegible]
	2	13		972490-0001	HINGE, SLIP	
	2	12		972769-0001	LATCH ASSY	
	1	11		972471-0001	HANDLE ASSY	
	1	10		969579-0001	COVER, PWR [illegible] CONN	
	1	9		969577-0001	COVER, EIA CONNECTOR	
	AR	8		232334-6050	LUBRICANT, GE. VERSILUBE	G.E. 322L
	2	7		969575-0001	STRIKE	
	2	6		969574-0001	PLATE, CORD WINDER	
	1	5		969580-0001	STIFFENER, HANDLE	
	1	4		969583-0001	VALANCE, UPPER CASE	
	1	3		969584-0001	VALANCE, LOWER CASE	
	1	2		969570-0001	CASE, PRINTER, BOTT M	
	1	1		969570-0002	CASE, PRINTER, TOP	

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE
.013 THRU .125 +.004 −.001; .126 THRU .250 +.005 −.001; .251 THRU .500 +.006 −.001; .501 THRU .750 +.008 −.001; .751 THRU 1.000 +.010 −.001; 1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
969600	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02

MATERIAL:

DWN [signature] DATE 4-27-73
CHK Rael Conti I 4-27-73
ENGR [signature] 4-27-73
QA [signature] 4/27/73
APPD [signature] 4-27-73
CONTR NO [signature] 1/8/75
DESIGN ACTIVITY RELEASE [signature] 4/27/73

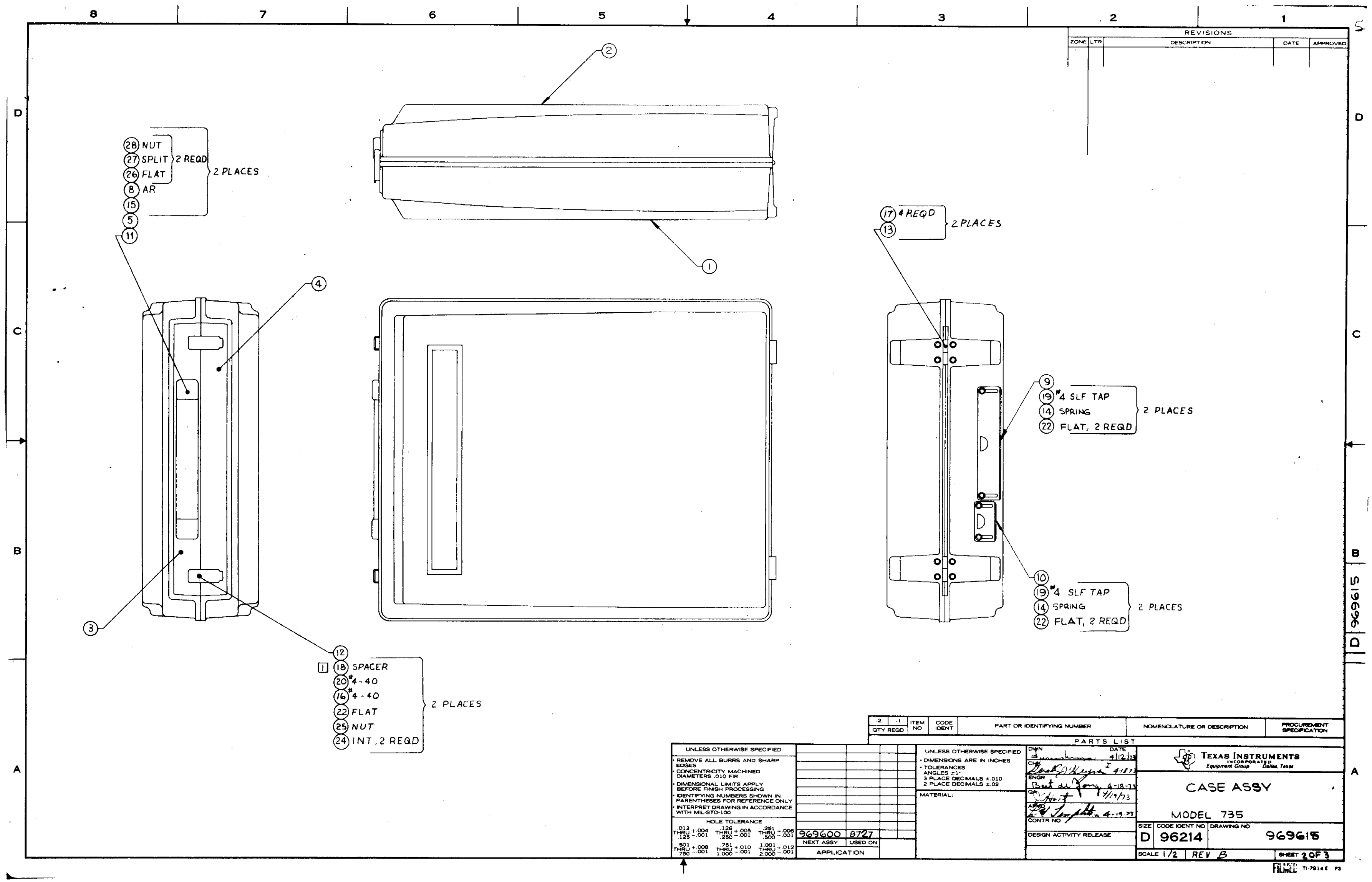
TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

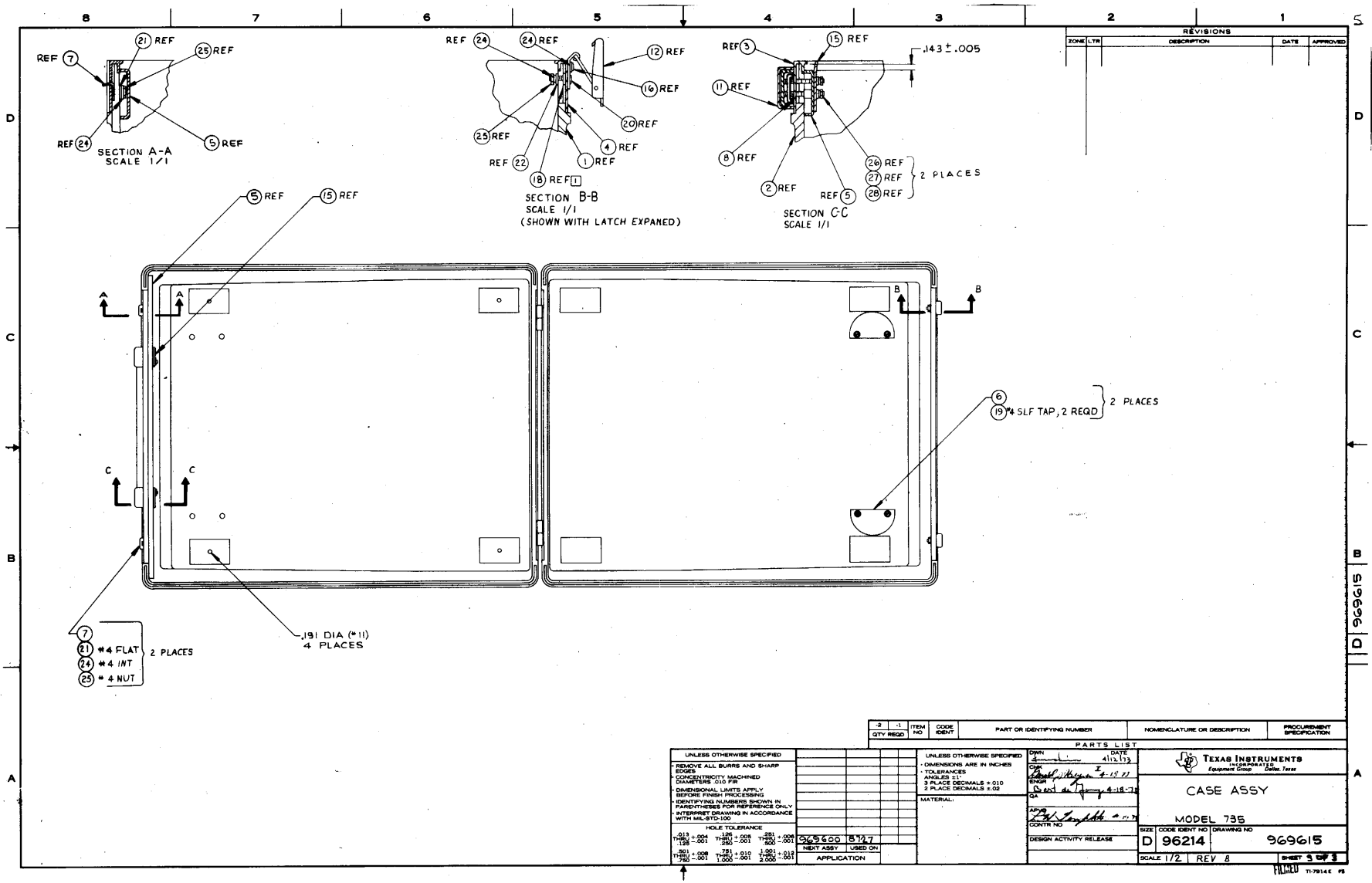
CASE ASSY
MODEL 735

SIZE	CODE IDENT NO	DRAWING NO
D	96214	969615

SCALE NONE REV B SHEET 1 OF 3

D 969615


REVISIONS
ZONE LTR DESCRIPTION DATE APPROVED
28 NUT
27 SPLIT 2 REQD
26 FLAT
8 AR
15
5
11
2 PLACES
2
1
4
3
17 4 REQD
13
2 PLACES
9
19 #4 SLF TAP
14 SPRING
22 FLAT, 2 REQD
2 PLACES
10
19 #4 SLF TAP
14 SPRING
22 FLAT, 2 REQD
2 PLACES
12
18 SPACER
20 #4-40
16 #4-40
22 FLAT
25 NUT
24 INT, 2 REQD
2 PLACES
QTY REQD ITEM NO CODE IDENT PART OR IDENTIFYING NUMBER NOMENCLATURE OR DESCRIPTION PROCUREMENT SPECIFICATION
PARTS LIST
UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .010 FIR
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100
HOLE TOLERANCE
969600 8727
NEXT ASSY USED ON
APPLICATION
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02
MATERIAL:
DESIGN ACTIVITY RELEASE
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas, Texas
CASE ASSY
MODEL 735
SIZE D CODE IDENT NO 96214 DRAWING NO 969615
SCALE 1/2 REV B SHEET 2 OF 3



REVISIONS			
ZONE	LTR	DESCRIPTION	DATE	APPROVED

PARTS LIST

-2 QTY REQD	-1 QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.001 −.001	.126 THRU .250 +.001 −.001	.251 THRU .500 +.001 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.013 −.001

NEXT ASSY	USED ON
969600	B727
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02

MATERIAL:

DWN DATE 4/13/72
CHK I 4-19-72
ENGR
QA 4-18-72
APVD 4-19-72
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

CASE ASSY

MODEL 735

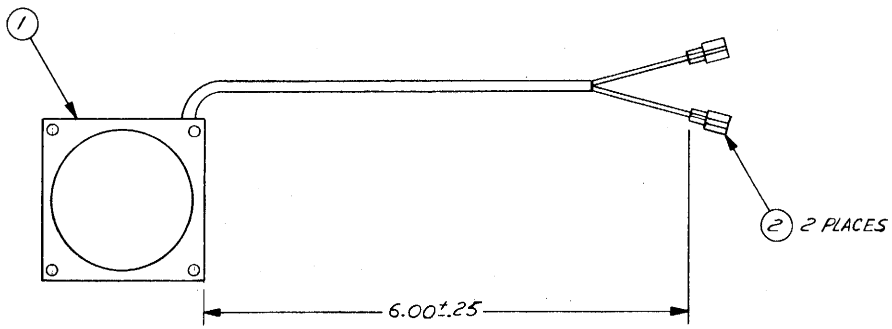
SIZE	CODE IDENT NO	DRAWING NO
D	96214	969615

SCALE 1/2 REV 8 SHEET 1 OF 3

FILMED TI-7914 E PS

969615 - 3

969615 D



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	3?3 [illegible]	9/12/7[illegible]	[illegible]
LM	B	3?6925 (C) 2-20-74 [illegible] (1) ITEM 1 WAS P/N 231837-0200	2/20/74	[illegible]
LM	C	392491 (B) 4-29-74 [illegible] IT. 1 PN WAS 539715-0004	5/9/74	[illegible]
	D	398883 (C) 9-27-74 [illegible]	10/3/[illegible]	[illegible]
B-1		1. ADDED P/N SCHEDULE		
LM		2. ADDED -0002 LM & CHG TITLE -0001 LM WAS FAN ASSY.		

PART NO	DESCRIPTION
973247-0002	FAN ASSY 230 VAC
973247-0001	FAN ASSY 120 VAC

PART NUMBER SCHEDULE

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
969586	9727
969585	9729

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ± 1° 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .02

MATERIAL:

		DATE
DWN	[illegible]	4-4-73
CHK	[illegible]	4/10/73
ENGR	[illegible]	
QA	[illegible]	
APVD	[illegible]	
CONTR NO		
DESIGN ACTIVITY RELEASE	[illegible]	

TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

FAN ASSY

SIZE	CODE IDENT NO	DRAWING NO
C	96214	973247
SCALE NONE	REV D	SHEET

LM

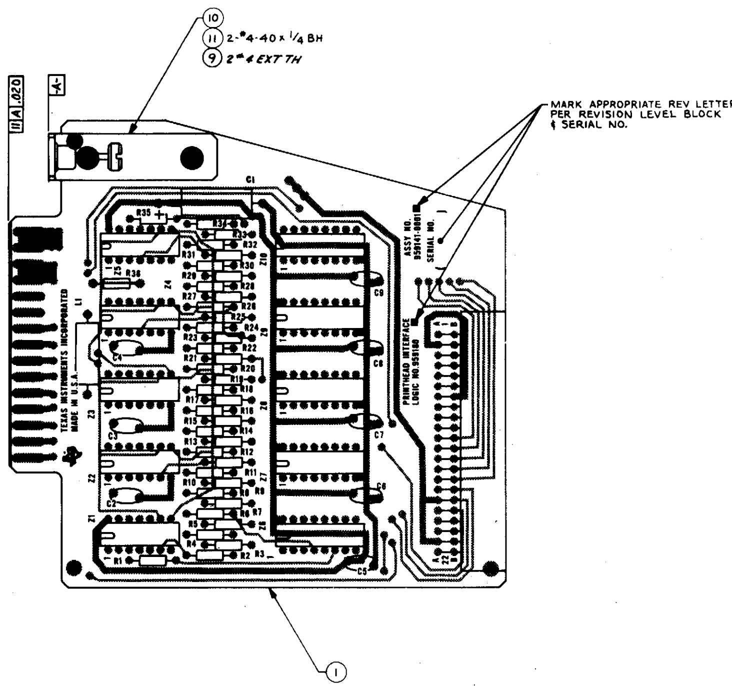
C 973247

PRINTED CIRCUIT CARDS

Title	TI Drawing No.
Printhead Interface	959141
Printer Control	969459
Terminal Control, Model 735	969461
Power Supply, PC Card Models 735, 752, 753	969463
Motherboard, Model 735	969465
Motherboard, Models 752, 753, 754, 755	969467
Terminal Control, Models 752, 753, 754, 755	969469
Motor Driver, Models 752, 753 without power supply	969474
Terminal Control, Models 753, 755, Parallel Interface	969501
Plate Assembly	969587

LTR	DESCRIPTION	DATE	APPD
A	367327 W. Tatarchuk 11-2-71 QTY OF ITEM 6 WAS 9, DELETED C10.	—	
B	371139 (C) W. Tatarchuk 11-2-71 ADDED ITEMS 10 & 11.		
C	370632 (E) 2-16/72 ITEM 7 WAS 231038-0030. ITEM 9 WAS 236376-0000. UPDATED TO AGREE WITH NEW ARTWORK CHANGES.		
D	376212 (E) 5-8-72 CHANGE ITEM 4 FROM 244578-001 TO 958780-0001	5-9-72	
	FORMAL RELEASE		
E	391540 (E) 1-23-74 UPDATED REV LEVEL BLOCK UPDATED BOARD ASSY TO AGREE WITH LATEST ARTWORK CHANGE.	1/31/74	
F	408461 (C) 11-20-74 1) ZONE B-1, B-2; ADDED DATUM "A" AND PARALLEL DIMENSION TO DATUM "A"		

D 959141 F



REVISION LEVEL						
PWB (959140-0001)	A	B	C	D	E	F
LOGIC DIAGRAM FOR -0001 ASSY (959180-9901)	A	A	B	B	B	B
ASSEMBLY	A	B	C	D	D	E

UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1°
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE
DRILLED HOLE TOLERANCES
.013 TO .136 +.003/-.001 .126 TO .250 +.003/-.001 .250 AND ABOVE ± .005

PROCESSES
1. WAVE SOLDER F-124
2. RUBBER STAMP F-100, HGT .09, COLOR BLK

PROJ NO.	SIZE	NEXT ASSY DWG NO.
8726	E	959404

LIST OF MATERIALS

TEXAS INSTRUMENTS INCORPORATED
INDUSTRIAL PRODUCTS DIVISION HOUSTON, TEXAS

DRAFTSMAN W. Tatarchuk 11-2-71

TITLE PRINTHEAD INTERFACE
UNIT COMMON PRINTER
SYSTEM 700 ASR
SCALE 2/1 D 959141 F

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION
959141-0001	F	PRINTHEAD INTERFACE

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.	UM
0001	00001.000	959140-0001	PW BOARD,PRINTHEAD INTERFACE 1209-9140-000	EA
0002	00005.000	222222-7164	NETWORK SN74164N TI--SN74164N	EA
0002A			Z1 THRU Z5 TI--SN74164N	
0003	00036.000	972946-0077	RES FIX 3.3K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0003A			R1 THRU R36 ROH- R-25	
0004	00005.000	958780-0001	NETWORK, SN21111N SELECTED	EA
0004A			Z6 THRU Z10	
0005	00001.000	972924-0011	CAP FIX TANT SOLID 68 MFD 10 % 15 VOLT QPL-M39003/1-2274	EA
0005A			C1 QPL-M39003/1-2274	
0006	00008.000	532736-0002	CAP FIX CERAMIC .02 MF 20/80% 25 VOLT CRL- 2DDU60E203ZAC	EA
0006A			C2 THRU C9 CRL- 2DDU60E203ZAC	
0007	00001.000	538433-0001	CCIL RF 5.60 UH .13 OHM 885 MA LT10K158 QPL- MS90542-14	EA
0007A			L1 QPL- MS90542-14	
0008	00001.000	215756-0001	CONNECTOR,PC- 44 DOUBLE ROW .100 C/C	EA
0008A			XA1	
0009	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0010	00001.000	959318-0001	SUPPORT,PRINT HEAD INTERFACE BD 1210-9318-000	EA
0011	00002.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-13	EA
0012	REF	959180-9901	DIAGRAM,LOGIC DET-PRINTHEAD INTERFACE	EA

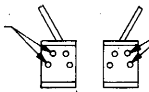
NOTES CONT:

~~9 MASK ALL AREAS AS SHOWN PRIOR TO PROCESS 3.~~

~~10 MASKING TOLERANCE ± .03~~

NOTES CONT:

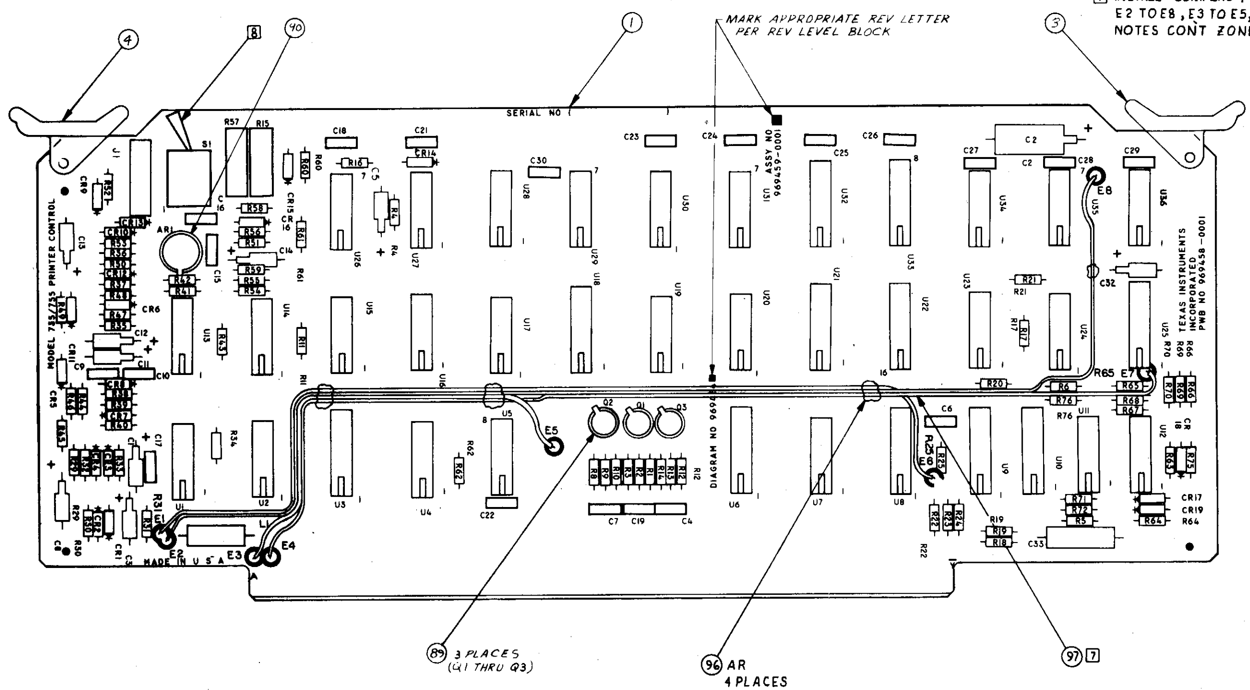
8 TO PREVENT DAMAGE TO SWITCH (ITEM 86) SOLDER WITH LEVER IN POSITION SHOWN BELOW.



NOTES CONT ZONE A1

NOTES: UNLESS OTHERWISE SPECIFIED

1) DO NOT CLINCH COMPONENT LEADS.
2) DO NOT SOLDER ON COMPONENT SIDE.
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS.
4) EJECTORS (ITEMS 3 AND 4) ARE TO BE INSTALLED AFTER WAVE SOLDERING.
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
7 INSTALL JUMPERS FROM E1 TO E6, E2 TO E8, E3 TO E5, AND E4 TO E7. NOTES CONT ZONE A2



PROCESSES:
1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-127
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK
~~3. CONFORMAL COAT, F-503-2~~

REVISIONS

LTR	DESCRIPTION	DATE	APPD
B	372034 (D) R. Candi 9-10-73 UPDATED LM FOR RELEASE, CREATED PICTORIAL. FORMAL RELEASE		
C	385724 (C) 1-14-74 CHG: RELOCATED C32 & PICTORIAL ZONE B-3. CHANGED C33 PICTORIAL TO SHOW CORRECT SIZE.	17 JAN 74	
D	392408 (D) G. Buttoomote 3-18-74 IT.88 P/N ON LM WAS 235360-0100	3/19/74	
E	396643 (B) 6-12-74 1) CHANGED ITEM 61 ON LM, WAS P/N 234255-0010, QTY 1	6/12/74	
F	389267 (D) 7-22-74 CHG: (1.) ON FD ZONE D-2 CALLOUT 89 WAS 4 PLACES (Q1 THRU Q4). (2.) ON LM IT 26 QTY WAS 3, IT. 26A WAS Q1 Q3 Q4 (3.) ON LM IT 44 QTY WAS 4, IT 44A WAS R2 R13 R27 R75. (4) ON LM IT 45 QTY WAS 3, IT 45A WAS R3 R14 R28 (5) ON LM IT 46 QTY WAS 7, IT 46A WAS R1 R5 R8 R12 R26 R47 R63 (6) ON LM IT 73 QTY WAS 5, IT 73A WAS C4 C7 C9 C19 C20. (7.) ON LM IT. 89 QTY WAS 4. DELETED ON FD ZONE C-2 Q4 C20 R26 R27 R28. UPDATE REVISION LEVEL BLOCK.	7/24/74	
G	391418 (B) 9-11-74 1. ADDED ITEMS 96 AND 97 TO LM AND FD 2. ADDED NOTE 7 & 8 UPDATED REVISION LEVEL STATUS BLOCK	10/4/74	
H	395616 (B) 10-22-74 ADDED: 1) NOTES 9, 10, & NOTE CALLOUTS 2) PROCESS 3 3) DIM .375	1/15/74	
J	400896 (C) 1-6-75 DELETED: (1) NOTES 9 & 10 AND ALL FLAG CALLOUTS FOR NOTES 9 & 10. (2) PROCESS 3. CHG VIEW ZONE C-1, 2 & 3 WAS [.375 9 10 BOTH SIDES]	1/7/75	
K	395623 (C) 5-6-75 CHG: UP DATE REV STATUS BLOCK	14 MAY 75	

REVISION LEVEL										
PRINTED WIRING BOARD (969458-0001)					E	F	F	F	H	
~~LOGIC DIAGRAM FOR -0002 ASSY (-9901)~~										
LOGIC DIAGRAM FOR -0001 ASSY (969484-9901)	A	A	B	C	D	E	E	E	F	
ASSEMBLY 969459	A	B	C	D	E	F	G	H	J	K

UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE
DRILLED HOLE TOLERANCES .013 TO .136 +.002 -.003, .136 TO .250 +.003 -.003, .250 AND ABOVE ±.005

LIST OF MATERIALS

PROJ NO	SIZE	NEXT ASSY DWG NO
8728	D	969585
8727	D	969586
8729	D	96[illegible]
8729	D	969603

DRAFTSMAN 9-10-73

TEXAS INSTRUMENTS INCORPORATED INDUSTRIAL PRODUCTS DIVISION HOUSTON TEXAS

PRINTER CONTROL

MODEL 735/755

SCALE 2/1 D 969459 K

LM

PART NUMBER REV DESCRIPTION.....
969459-0001 K MODEL 735/755 PRINTER CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0072	00001.000	972929-0397	CAP FIX CERAMIC .001 UF 10% 200V QPL-M39014/01-1397	EA
0072A			C6 QPL-M39014/01-1397	
0073	00004.000	972965-0012	CAP FIX CERAMIC .010 MF 10% 200V QPL- CK06BX103K	EA
0073A			C4 C7 C9 C19 QPL- CK06BX103K	
0074	00001.000	058023-0012	CAP FIX .033 MFD 5 % 100V MYLAR FOIL TRW- 663UW	EA
0074A			C33 TRW- 663UW	
0075	00015.000	972965-0020	CAP FIX CERAMIC .047 MF 10% 100V QPL- CK06BX473K	EA
0075A			C10 C15 THRU C18 C21 THRU C30 QPL- CK06BX473K	
0076	00002.000	230649-0000	CAP .3300 MF 35V 10% CASE SIZE-A MIL-CS13BF334K	EA
0076A			C5 C8 MIL-CS13BF334K	
0077	00005.000	972924-0021	CAP FIX TANT SOLID 1.0 MFD 10 % 50 VOLT QPL-M39003/1-2356	EA
0077A			C1 C3 C11 C12 C14 QPL-M39003/1-2356	
0078	00001.000	230721-0000	CAP 2.700 MF 15V 10% CASE SIZE A MIL-CS13BD275K	EA
0078A			C13 MIL-CS13BD275K	
0079	00001.000	972924-0001	CAP FIX TANT SOLID 6.8 MFD 10 % 6 VOLT QPL-M39003/1-2242	EA
0079A			C32 QPL-M39003/1-2242	
0080	00001.000	972924-0012	CAP FIX TANT SOLID 150 MFD 10 % 15 VOLT QPL-M39003/1-2277	EA
0080A			C2 QPL-M39003/1-2277	
0083	00018.000	972932-0001	DIODE SWITCHING,75V P1V 75MA 4NS TRR TI - IN914B	EA
0083A			CR1 THRU CR17,CR19 TI - IN914B	
0084	00001.000	231784-0000	DIODE- 2 PELLET, SILICON,MULTI GE -MPD200	EA
0084A			CR18 GE -MPD200	
0086	00001.000	235722-0006	SWITCH SUBMINI. TOGGLE 2 POSITION - C-CT8201	EA
0086A			S1 - C-CT8201	
0088	00001.000	539544-0001	SOCKET,IC 14 PIN TI -C931402	EA
0088A			J1 TI -C931402	
0089	00003.000	185113-0001	SPACER XST TO-18 CASE * -	EA
0090	00001.000	232583-0005	PAD INTEGRATED CKT.TO-5 8 LEADS .350 DIA THR-7717-107-N-WHT	EA
0092	REF	969484-9901	DIAGRAM,LOGIC-PRINTER CONTROL MOD 735	EA
0093	REF	969512-9901	TEST PROGRAM,PRINTER CONTROL MOD 735	EA
0095	00001.000	539371-0481	RES FIX FILM 10.0K OHM 1% .13 WATT COR- NC4	EA
0095A			R60 COR- NC4	
0096	AR	417559-0001	SILICONE RUBBER (RTV) DOW 3140 SEE- TI DRAWING	TU
0097	00004.000	538555-2999	WIRE 24 AWG HOOKUP UL-1609 WHITE EFTE QPL- M22759/18-24-9	FT

PART NUMBER REV DESCRIPTION.....
969459-0001 K MODEL 735/755 PRINTER CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0045	00002.000	972946-0085	RES FIX 6.8K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0045A			R3 R14	
			ROH- R-25	
0046	00006.000	972946-0089	RES FIX 10 K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0046A			R1 R5 R8 R12 R47 R63	
			ROH- R-25	
0047	00001.000	972946-0100	RES FIX 30 K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0047A			R48	
			ROH- R-25	
0048	00001.000	972946-0113	RES FIX 100K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0048A			R53	
			ROH- R-25	
0049	00001.000	972976-0183	RES FIX COMP 1/4 W 10 MEGOHM 5 %	EA
			QPL-RC07G106JS	
0049A			R42	
			QPL-RC07G106JS	
0053	00001.000	539370-0305	RES FIX FILM 147 OHM 1% .25 WATT	EA
			COR- NA55	
0053A			R35	
			COR- NA55	
0054	00001.000	539370-0397	RES FIX FILM 1.33K OHM 1% .25 WATT	EA
			COR- NA55	
0054A			R33	
			COR- NA55	
0055	00002.000	539370-0417	RES FIX FILM 2.15K OHM 1% .25 WATT	EA
			COR- NA55	
0055A			R37 R54	
			COR- NA55	
0056	00001.000	539370-0437	RES FIX FILM 3.48K OHM 1% .25 WATT	EA
			COR-NA55D-100PPM/C	
0056A			R56	
			COR-NA55D-100PPM/C	
0057	00002.000	539370-0445	RES FIX FILM 4.22K OHM 1% .25 WATT	EA
			COR- NA55	
0057A			R51 R59	
			COR- NA55	
0058	00002.000	539370-0453	RES FIX FILM 5.11K OHM 1% .25 WATT	EA
			COR- NA55	
0058A			R39 R45	
			COR- NA55	
0059	00002.000	539370-0469	RES FIX FILM 7.50K OHM 1% .25 WATT	EA
			COR-NA55D-100PPM/C	
0059A			R44 R55	
			COR-NA55D-100PPM/C	
0060	00001.000	539370-0495	RES FIX FILM 14.0K OHM 1% .25 WATT	EA
			COR- NA55	
0060A			R30	
			COR- NA55	
0061	00001.000	539370-0489	RES FIX FILM 12.1K OHM 1% .25 WATT	EA
			COR- NA55	
0061A			R31	
			COR- NA55	
0062	00001.000	539370-0509	RES FIX FILM 19.6K OHM 1% .25 WATT	EA
			COR- NA55	
0062A			R58	
			COR- NA55	
0063	00002.000	539370-0517	RES FIX FILM 23.7K OHM 1% .25 WATT	EA
			COR- NA55	
0063A			R16 R50	
			COR- NA55	
0064	00001.000	539370-0521	RES FIX FILM 26.1K OHM 1% .25 WATT	EA
			COR-NA55D-100PPM/C	
0064A			R32	
			COR-NA55D-100PPM/C	
0065	00001.000	539370-0525	RES FIX FILM 28.7K OHM 1% .25 WATT	EA
			COR- NA55	
0065A			R46	
			COR- NA55	
0066	00001.000	539370-0539	RES FIX FILM 40.2K OHM 1% .25 WATT	EA
			COR- NA55	
0066A			R52	
			COR- NA55	
0070	00002.000	537570-0015	RES VAR CERMET 50 K OHMS 10 % .75 WATT	EA
			BEC-79PR50K	
0070A			R15 R57	
			BEC-79PR50K	

MAY 16, 1975 LIST OF MATERIAL

PART NUMBER REV DESCRIPTION.....
969459-0001 K MODEL 735/755 PRINTER CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969458-0001	PWR,PRINTER CONTROL-MODEL 735/755	EA
0003	00001.000	231802-0009	EJECTOR WHT 8-200 - 0-000	EA
0004	00001.000	231802-0002	EJECTOR RED 8-200 SCA-8-200	EA
0006	00001.000	538433-0001	COIL RF 5.60 UH .13 OHM 885 MA LT10K158 QPL- MS90542-14	EA
0006A			L1 QPL- MS90542-14	
0007	00003.000	222222-7400	NETWORK SN7400N - 3-000	EA
0007A			U5,U23,U30 - 3-000	
0008	00005.000	222222-7402	NETWORK SN7402N TI--SN7402N	EA
0008A			U2,U7,U16,U24,U28 TI--SN7402N	
0009	00001.000	222222-7403	NETWORK SN7403N	EA
0009A			U13	
0010	00002.000	222222-7404	NETWORK SN7404N	EA
0010A			U17,U35	
0011	00001.000	222222-7409	NETWORK-SN7409N	EA
0011A			U1	
0012	00002.000	222222-7410	NETWORK SN7410N - 3-000	EA
0012A			U14,U26 - 3-000	
0013	00002.000	222222-7427	NETWORK SN7427N TI--SN7427N	EA
0013A			U15,U34 TI--SN7427N	
0014	00001.000	240000-7454	NETWORK-SN74H54N	EA
0014A			U20	
0015	00002.000	222222-7474	NETWORK SN7474N - 3-000	EA
0015A			U29,U31 - 3-000	
0016	00002.000	222222-7497	NETWORK SN7497N	EA
0016A			U8,U25	
0017	00001.000	222222-7121	NETWORK SN74121N	EA
0017A			U27	
0018	00001.000	222222-7122	NETWORK SN74122N	EA
0018A			U11	
0019	00001.000	222222-7132	NETWORK SN74132N	EA
0019A			U19	
0020	00001.000	222222-7161	NETWORK SN74161N -SN74161N	EA
0020A			U32 -SN74161N	
0021	00001.000	222222-7164	NETWORK SN74164N TI--SN74164N	EA
0021A			U36 TI--SN74164N	
0022	00001.000	222222-7174	NETWORK SN74174N	EA
0022A			U3	
0023	00005.000	222222-7175	NETWORK SN74175N	EA
0023A			U6,U10,U18,U21,U22	
0024	00001.000	222222-7191	NETWORK SN74191N	EA

PART NUMBER REV DESCRIPTION.....
969459-0001 K MODEL 735/755 PRINTER CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0024A			U33	
0025	00001.000	226748-0011	NETWORK ROM SN37228 -SN37228	EA
0025A			U9 -SN37228	
0026	00002.000	972948-0002	TRANSISTOR, NPN,GEN.PURP.SW TO-18 TI - 2N2222A	EA
0026A			Q1 Q3 TI - 2N2222A	
0027	00001.000	972958-0002	TRANSISTOR, PNP,GEN.PURP.SW TO-18 TI - 2N2907A	EA
0027A			Q2 TI - 2N2907A	
0028	00001.000	972242-0001	TRANSISTOR MPQ2222/SQ1062 QUAD - - -	EA
0028A			U4 - -	
0029	00001.000	972243-0001	TRANSISTOR,QUAD,DUAL-IN-LINE MOT--MPQ 2907	EA
0029A			U12 MOT--MPQ 2907	
0030	00001.000	222225-0311	NETWORK LM311H	EA
0030A			AR1	
0032	00C01.000	972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0032A			R20 ROH- R-25	
0033	00002.000	972946-0034	RES FIX 51.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0033A			R9 R64 ROH- R-25	
0034	00002.000	972946-0041	RES FIX 100 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0034A			R40 R68 ROH- R-25	
0035	00001.000	972946-0048	RES FIX 200 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0035A			R66 ROH- R-25	
0036	00001.000	972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0036A			R67 ROH- R-25	
0037	00006.000	972946-0058	RES FIX 510 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0037A			R29 R38 R49 R61 R71 R72 ROH- R-25	
0038	00001.000	972946-0059	RES FIX 560 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0038A			R65 ROH- R-25	
0039	00002.000	972946-0061	RES FIX 680 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0039A			R6 R34 ROH- R-25	
0040	00003.000	972946-0065	RES FIX 1.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0040A			R76 R36 R41 ROH- R-25	
0041	00001.000	972946-0069	RES FIX 1.5K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0041A			R70 ROH- R-25	
0042	00013.000	972946-0072	RES FIX 2.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0042A			R4 R10 R11 R17 R18 R19 ROH- R-25	
0042B			R21 THRU R25 R43 R62 ROH- R-25	
0043	00001.000	972946-0073	RES FIX 2.2K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0043A			R69 ROH- R-25	
0044	00003.000	972946-0077	RES FIX 3.3K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0044A			R2 R13 R75 ROH- R-25	

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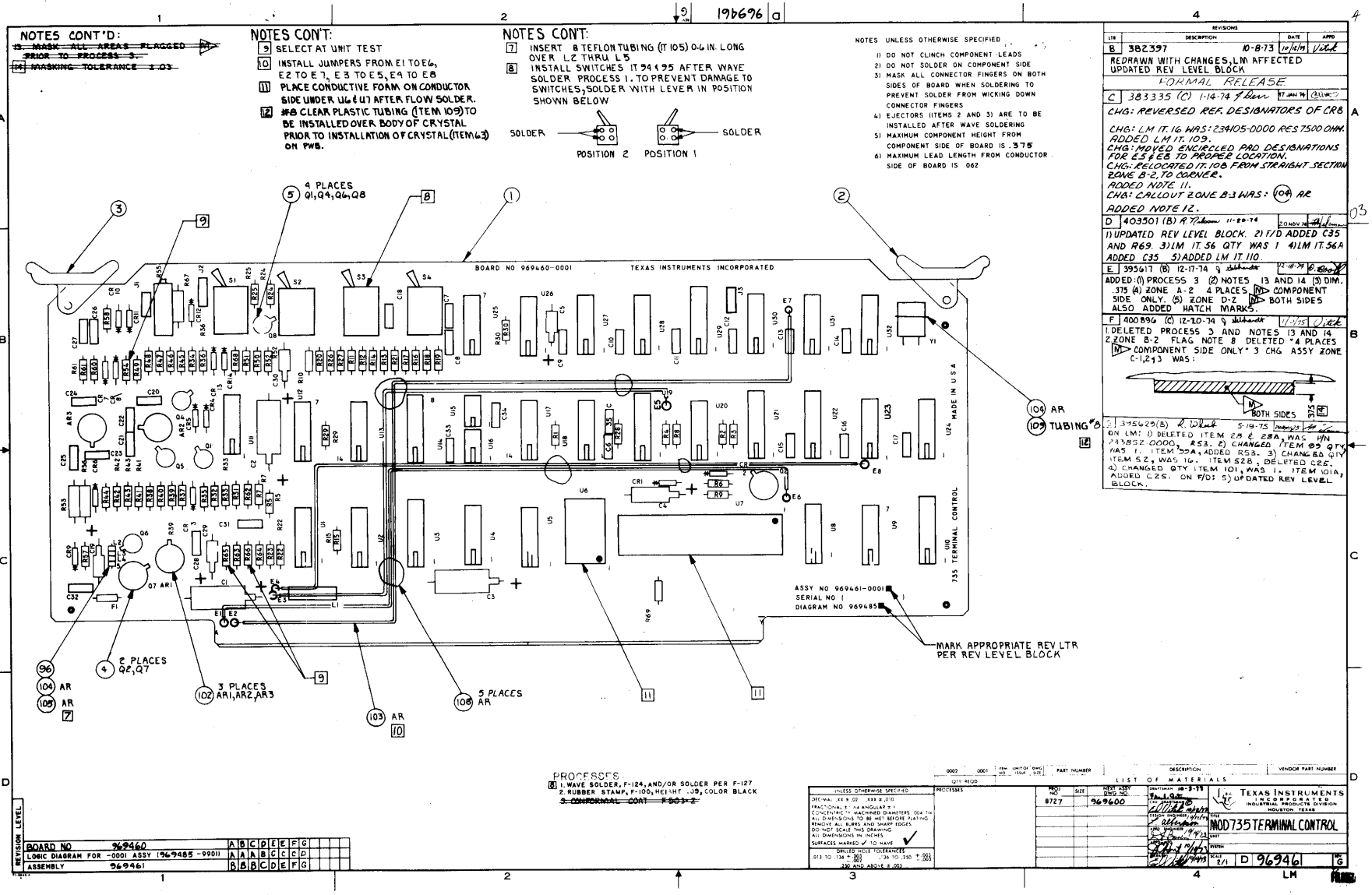

NOTES CONT'D:
~~15 MASK ALL AREAS FLAGGED (M) PRIOR TO PROCESS 3.~~
~~14 MASKING TOLERANCE ± .03~~
NOTES CONT:
9 SELECT AT UNIT TEST
10 INSTALL JUMPERS FROM E1 TO E6, E2 TO E7, E3 TO E5, E9 TO E8
11 PLACE CONDUCTIVE FOAM ON CONDUCTOR SIDE UNDER U6 & U7 AFTER FLOW SOLDER.
12 #8 CLEAR PLASTIC TUBING (ITEM 109) TO BE INSTALLED OVER BODY OF CRYSTAL PRIOR TO INSTALLATION OF CRYSTAL (ITEM 63) ON PWB.
NOTES CONT:
7 INSERT .8 TEFLON TUBING (IT 105) 0.6 IN. LONG OVER L2 THRU L5
8 INSTALL SWITCHES IT 94 & 95 AFTER WAVE SOLDER PROCESS 1. TO PREVENT DAMAGE TO SWITCHES, SOLDER WITH LEVER IN POSITION SHOWN BELOW
SOLDER
POSITION 2
POSITION 1
SOLDER
NOTES UNLESS OTHERWISE SPECIFIED
1) DO NOT CLINCH COMPONENT LEADS
2) DO NOT SOLDER ON COMPONENT SIDE
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4) EJECTORS (ITEMS 2 AND 3) ARE TO BE INSTALLED AFTER WAVE SOLDERING
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
5 4 PLACES Q1, Q4, Q6, Q8
8
1
2
3
9
BOARD NO 969460-0001
TEXAS INSTRUMENTS INCORPORATED
MADE IN U.S.A.
735 TERMINAL CONTROL
104 AR
109 TUBING "B" 12
MARK APPROPRIATE REV LTR PER REV LEVEL BLOCK
ASSY NO 969461-0001
SERIAL NO (
DIAGRAM NO 969485
96
104 AR
105 AR 7
4 2 PLACES Q2, Q7
102 3 PLACES AR1, AR2, AR3
103 AR 10
108 5 PLACES AR
9
11
11
PROCESSES
6 1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-127
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK
~~3. CONFORMAL COAT F-503-2~~
REVISIONS
LTR | DESCRIPTION | DATE | APPD
B 382397 10-8-73 10/4/73
REDRAWN WITH CHANGES, LM AFFECTED
UPDATED REV LEVEL BLOCK
FORMAL RELEASE
C 383335 (C) 1-14-74
CHG: REVERSED REF. DESIGNATORS OF CR8
CHG: LM IT. 16 WAS: 234105-0000 RES 7500 OHM.
ADDED LM IT. 109.
CHG: MOVED ENCIRCLED PAD DESIGNATIONS FOR E5 & E8 TO PROPER LOCATION.
CHG: RELOCATED IT. 108 FROM STRAIGHT SECTION ZONE B-2, TO CORNER.
ADDED NOTE 11.
CHG: CALLOUT ZONE B-3 WAS: 104 AR
ADDED NOTE 12.
D 403501 (B) 11-20-74
1) UPDATED REV LEVEL BLOCK. 2) F/D ADDED C35 AND R69. 3) LM IT. 56 QTY WAS 1 4) LM IT. 56A ADDED C35 5) ADDED LM IT. 110.
E 395617 (B) 12-17-74
ADDED: (1) PROCESS 3 (2) NOTES 13 AND 14 (3) DIM. .375 (4) ZONE A-2 4 PLACES M> COMPONENT SIDE ONLY. (5) ZONE D-2 M> BOTH SIDES ALSO ADDED HATCH MARKS.
F 400896 (C) 12-20-74
1. DELETED PROCESS 3 AND NOTES 13 AND 14 2. ZONE B-2 FLAG NOTE 8 DELETED "4 PLACES M> COMPONENT SIDE ONLY" 3 CHG. ASSY ZONE C-1,2,3 WAS:
.375
M> BOTH SIDES
12
G 395629(B) 5-19-75
ON LM: 1) DELETED ITEM 28 & 28A, WAS I/N 233852-0000, R53. 2) CHANGED ITEM 93 QTY WAS 1. ITEM 93A, ADDED R53. 3) CHANGED QTY ITEM 52, WAS 16. ITEM 52B, DELETED C25. 4) CHANGED QTY ITEM 101, WAS 1. ITEM 101A, ADDED C25. ON F/D: 5) UPDATED REV LEVEL BLOCK.
LIST OF MATERIALS
ITEM NO | QTY REQD | PART NUMBER | DESCRIPTION | VENDOR PART NUMBER
PROJ NO 8727
SIZE
NEXT ASSY DWG NO 969600
DRAWN 10-3-73
TEXAS INSTRUMENTS INCORPORATED INDUSTRIAL PRODUCTS DIVISION HOUSTON, TEXAS
TITLE MOD 735 TERMINAL CONTROL
SCALE 2/1
D 96946
REVISION LEVEL
BOARD NO 969460 A B C D E F G
LOGIC DIAGRAM FOR -0001 ASSY (969485 -9901) A A A B C C D
ASSEMBLY 969461 B B B C D E F G
UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1°
CONCENTRIC TY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE
DRILLED HOLE TOLERANCES
.013 TO .136 +.003 -.002
.138 TO .250 ± .005
.250 AND ABOVE ± .005

PART NUMBER REV DESCRIPTION.....
969461-0001 G MODEL 735 TERMINAL CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969460-0001	PW BOARD TERMINAL CONTROL	EA
0002	00001.000	231802-0009	EJECTOR WHT 8-200 - 0-000	EA
0003	00001.000	231802-0003	EJECTOR ORN 8-200 SCA-8-200	EA
0004	00002.000	232583-0008	PAD XST MTG TO-5 WHT THR-7717-4N	EA
0005	00004.000	185113-0001	SPACER XST TO-18 CASE * -	EA
0007	00002.000	232164-0190	JACK TIP PRNTD CKT HORIZONTAL RED EFJ-105-1102-001	EA
0007A			TP1J1 TP2J2 EFJ-105-1102-001	
0008	00001.000	232164-0200	JACK TIP PRNTD CKT HORIZONTAL BLK EFJ-105-1103-001	EA
0008A			TP3J3 EFJ-105-1103-001	
0009	00015.000	972946-0072	RES FIX 2.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0009A			R1 R2 R3 R4 R19 R20 R21 R22 ROH- R-25	
0009B			R23 R24 R25 R26 R27 R29 R17 ROH- R-25	
0010	00006.000	972946-0065	RES FIX 1.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0010A			R5 R11 R12 R13 R14 R45 ROH- R-25	
0011	00001.000	972946-0037	RES FIX 68.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0011A			R6 ROH- R-25	
0012	00002.000	972946-0061	RES FIX 680 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0012A			R7 R8 ROH- R-25	
0013	00001.000	972946-0096	RES FIX 20 K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0013A			R9 ROH- R-25	
0014	00003.000	972946-0089	RES FIX 10 K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0014A			R10 R15 R28 ROH- R-25	
0015	00003.000	972946-0057	RES FIX 470 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0015A			R16 R18 R34 ROH- R-25	
0016	00001.000	972946-0087	RES FIX 8.2K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0016A			R30 ROH- R-25	
0017	00002.000	234225-0000	RES 15000. OHM .25W 5. AB -CB1535	EA
0017A			R31 R36 AB -CB1535	
0018	00003.000	972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0018A			R32 R33 R62 ROH- R-25	
0019	00001.000	972946-0067	RES FIX 1.2K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0019A			R35 ROH- R-25	
0020	00001.000	972946-0077	RES FIX 3.3K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0020A			R37 ROH- R-25	
0021	00001.000	972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0021A			R38 ROH- R-25	
0022	00001.000	972946-0121	RES FIX 220K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0022A			R39 ROH- R-25	
0023	00001.000	972946-0064	RES FIX 910 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0023A			R41 ROH- R-25	

PART NUMBER REV DESCRIPTION.....
969461-0001 G MODEL 735 TERMINAL CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0024	00001.000	972946-0047	RES FIX 180 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0024A			R57	
			ROH- R-25	
0025	00002.000	972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0025A			R58 R68	
			ROH- R-25	
0026	00001.000	972946-0033	RES FIX 47.0 OHM 5 % .25 W.CARBON FILM	EA
			ROH- R-25	
0026A			R60	
			ROH- R-25	
0027	00001.000	972946-0071	RES FIX 1.8K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0027A			R61	
			ROH- R-25	
0029	00001.000	972947-0079	RES FIX 3.9K OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0029A			R56	
			ROH- R-50	
0030	00001.000	539812-0003	RES FIX FILM 8.06K OHM 0.1% .13 WATT	EA
			COR-NC4-50PPM/C	
0030A			R40	
			COR-NC4-50PPM/C	
0031	00001.000	539812-0004	RES FIX FILM 8.87K OHM 0.1% .13 WATT	EA
			COR-NC4-50PPM/C	
0031A			R42	
			COR-NC4-50PPM/C	
0032	00001.000	539812-0011	RES FIX FILM 1.02K OHM 0.1% .13 WATT	EA
			COR- NC4	
0032A			R43	
			COR- NC4	
0033	00001.000	539812-0018	RES FIX FILM 30.9K OHM 0.1% .13 WATT	EA
			COR- NC4	
0033A			R44	
			COR- NC4	
0034	00001.000	539812-0012	RES FIX FILM 1.82K OHM 0.1% .13 WATT	EA
			COR- NC4	
0034A			R46	
			COR- NC4	
0035	00001.000	539812-0008	RES FIX FILM 200 OHM 0.1% .13 WATT	EA
			COR- NC4	
0035A			R47	
			COR- NC4	
0036	00001.000	539812-0002	RES FIX FILM 38.3K OHM 0.1% .13 WATT	EA
			COR-NC4-50PPM/C	
0036A			R48	
			COR-NC4-50PPM/C	
0037	00002.000	539812-0014	RES FIX FILM 3.01K OHM 0.1% .13 WATT	EA
			COR- NC4	
0037A			R49 R51	
			COR- NC4	
0038	00001.000	539812-0001	RES FIX FILM 4.12K OHM 0.1% .13 WATT	EA
			COR-NC4-50PPM/C	
0038A			R50	
			COR-NC4-50PPM/C	
0040	00001.000	539812-0009	RES FIX FILM 243 OHM 0.1% .13 WATT	EA
			COR- NC4	
0040A			R52	
			COR- NC4	
0042	00001.000	539370-0480	RES FIX FILM 9.76K OHM 1% .25 WATT	EA
			COR- NA55	
0042A			R63	
			COR- NA55	
0043	00001.000	539370-0413	RES FIX FILM 1.96K OHM 1% .25 WATT	EA
			COR- NA55	
0043A			R64	
			COR- NA55	
0044	00003.000	399999-9702	RESISTOR SELECTED AT UNIT TEST	EA
0044A			R54,R65,R66	
0045	00001.000	537570-0002	RES VAR CERMET 100 K OHMS 10 % .75 WATT	EA
			BEC-79PR100K	
0045A			R55	
			BEC-79PR100K	
0046	00001.000	972924-0012	CAP FIX TANT SOLID 150 MFD 10 % 15 VOLT	EA
			QPL-M39003/1-2277	
0046A			C1	
			QPL-M39003/1-2277	

PART NUMBER REV DESCRIPTION.....
969461-0001 G MODEL 735 TERMINAL CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0047	00002.000	972924-0019	CAP FIX TANT SOLID 22 MFD 10 % 35 VOLT	EA
			QPL-M39003/1-2306	
0047A			C2 C3	
			QPL-M39003/1-2306	
0048	00001.000	972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT	EA
			QPL-M39003/1-2259	
0048A			C4	
			QPL-M39003/1-2259	
0049	00003.000	972924-0013	CAP FIX TANT SOLID 2.2 MFD 10 % 20 VOLT	EA
			QPL-M39003/1-2283	
0049A			C5 C29 C30	
			QPL-M39003/1-2283	
0050	00003.000	972929-0394	CAP FIX CERAMIC 680 PF 10 % 200 V	EA
			QPL-M39014/01-1394	
0050A			C6 C18 C26	
			QPL-M39014/01-1394	
0051	00001.000	972965-0016	CAP FIX CERAMIC .022 MF 10% 100V	EA
			QPL- CK06BX223K	
0051A			C7	
			QPL- CK06BX223K	
0052	00015.000	972965-0020	CAP FIX CERAMIC .047 MF 10% 100V	EA
			QPL- CK06BX473K	
0052A			C8 C9 C10 C11 C12 C13 C14 C15	
			QPL- CK06BX473K	
0052B			C16 C17 C20 C22 C24 C33 C34	
			QPL- CK06BX473K	
0053	00001.000	972924-0009	CAP FIX TANT SOLID 3.3 MFD 10 % 15 VOLT	EA
			QPL-M39003/1-2268	
0053A			C19	
			QPL-M39003/1-2268	
0054	00001.000	230365-5000	CAP 3.000 PF 500V 20. %	EA
			ELM-DM10-030D	
0054A			C21	
			ELM-DM10-030D	
0055	00001.000	972926-0010	CAP FIX MICA 500V 20.0 PF 5 %	EA
			QPL-CM04E200J0D	
0055A			C23	
			QPL-CM04E200J0D	
0056	00002.000	972965-0012	CAP FIX CERAMIC .010 MF 10% 200V	EA
			QPL- CK06BX103K	
0056A			C27 C35	
			QPL- CK06BX103K	
0057	00001.000	230396-1000	CAP 47.00 PF 200V 10. %	EA
			MIL-CK05BX470K	
0057A			C28	
			MIL-CK05BX470K	
0058	00001.000	972929-0382	CAP 150 PF 10% 200V FXD CER STYLE CKR05	EA
			MIL-C-39014/1C-1382	
0058A			C31	
			QPL-CM05E131J0D	
0059	00009.000	972932-0001	DIODE SWITCHING,75V PIV 75MA 4NS TRR	EA
			TI - IN914B	
0059A			CR1 CR2 CR3 CR4 CR5 CR7 CR10	
			TI - IN914B	
0059B			CR11 CR14	
			TI - IN914B	
0060	00001.000	972934-0010	DIODE SI VOLT REGULATOR 7.5 V 20 MA	EA
			QPL- 1N755A	
0060A			CR6	
			QPL- 1N755A	
0061	00002.000	972934-0013	DIODE SI VOLT REGULATOR 10 V 20 MA	EA
			QPL- 1N758A	
0061A			CR8 CR13	
			QPL- 1N758A	
0062	00001.000	231784-6000	DIODE- 2 PELLET, SILICON,MULTI	EA
			GE -MPD200	
0062A			CR9	
			GE -MPD200	
0063	00001.000	538031-0006	CRYSTAL UNIT QUARTZ 13.5168 MHZ .005%	EA
			MIL-CR60A/U13.5168MHZ	
0063A			Y1	
			MIL-CR60A/U13.5168MHZ	
0064	00001.000	538433-0001	COIL RF 5.60 UH .13 OHM 885 MA LT10K158	EA
			QPL- MS90542-14	
0064A			L1	
			QPL- MS90542-14	
0065	00002.000	972948-0002	TRANSISTOR, NPN,GEN.PURP.SW TO-18	EA
			TI - 2N2222A	
0065A			Q1 Q8	
			TI - 2N2222A	

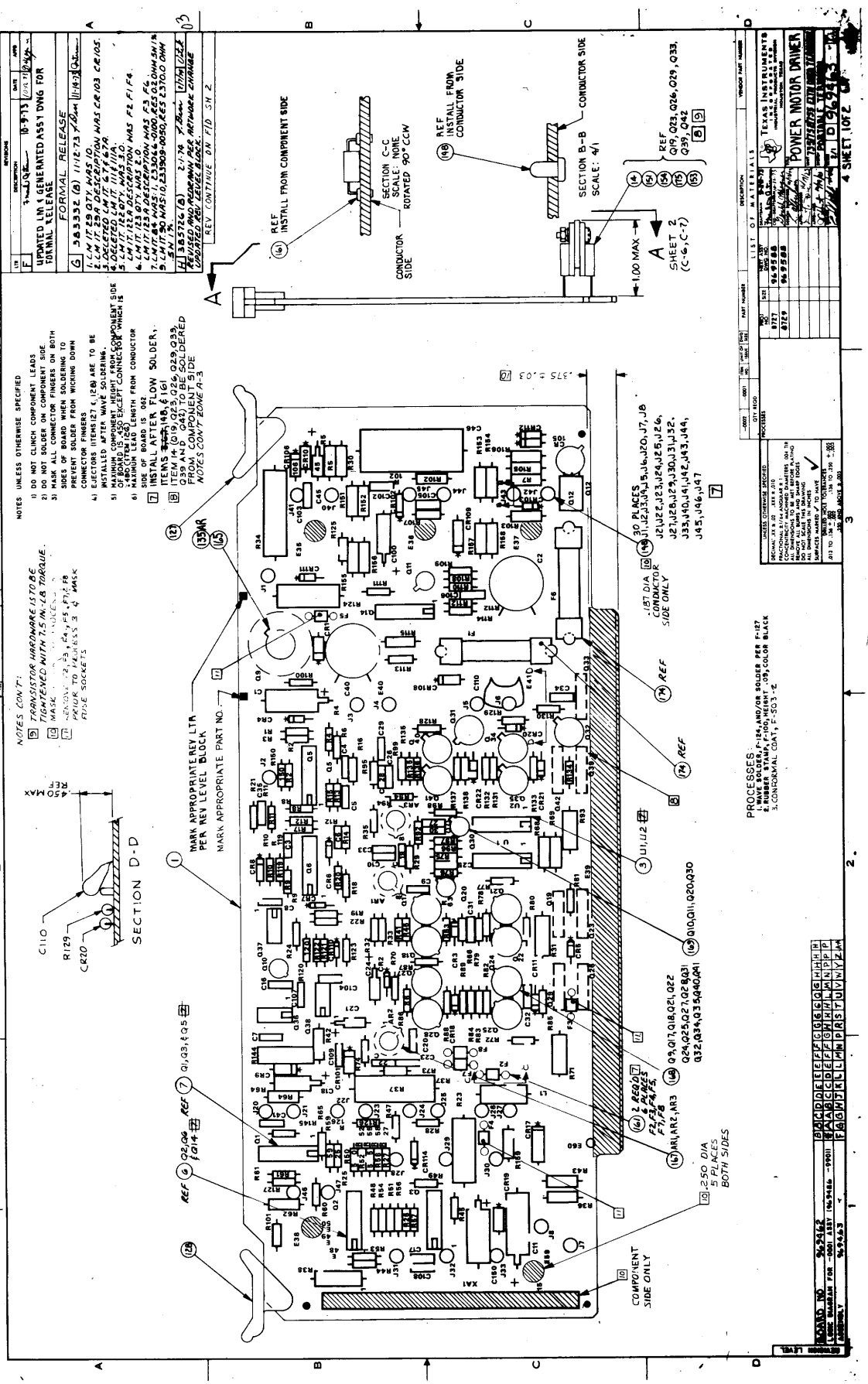
PART NUMBER REV DESCRIPTION.....
969461-0001 G MODEL 735 TERMINAL CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0066	00002.000	236052-0000	TRANSISTOR 2N1711 418-288-0001 QPL19500	EA
0066A			Q2 Q7 418-288-0001 QPL19500	
0067	00002.000	972958-0002	TRANSISTOR, PNP,GEN.PURP.SW TO-18 TI - 2N2907A	EA
0067A			Q4 Q6 TI - 2N2907A	
0068	00001.000	248490-5245	XST,HI-RELBL N-CHAN FET SKA5729 NKL LEAD	EA
0068A			Q5	
0069	00001.000	232426-0100	NETWORK VOLTAGE REGULATOR NSC-LM-305	EA
0069A			AR1 NSC-LM-305	
0070	00002.000	222224-2013	NETWORK LM201AH OPERATIONAL AMP -LM201AH	EA
0070A			AR2 AR3 -LM201AH	
0071	00001.000	222222-7400	NETWORK SN7400N - 3-000	EA
0071A			U25 - 3-000	
0072	00001.000	222222-7401	NETWORK SN7401N	EA
0072A			U13	
0074	00004.000	222222-7404	NETWORK SN7404N	EA
0074A			U1,U9,U18,U27	
0075	00001.000	222222-7408	NETWORK-SN7408N	EA
0075A			U2	
0076	00001.000	222222-7410	NETWORK SN7410N - 3-000	EA
0076A			U12 - 3-000	
0077	00001.000	222222-7427	NETWORK SN7427N TI--SN7427N	EA
0077A			U17 TI--SN7427N	
0078	00001.000	222222-7433	NETWORK SN7433N	EA
0078A			U20	
0079	00003.000	222222-7474	NETWORK SN7474N - 3-000	EA
0079A			U5,U23,U28 - 3-000	
0080	00001.000	222222-7492	NETWORK-SN7492N	EA
0080A			U30	
0081	00001.000	222222-7493	NETWORK-SN7493N	EA
0081A			U24	
0082	00002.000	222222-7497	NETWORK SN7497N	EA
0082A			U10,U21	
0083	00001.000	222222-7121	NETWORK SN74121N	EA
0083A			U26	
0084	00001.000	222222-7123	NETWORK SN74123N	EA
0084A			U19	
0085	00001.000	222222-7157	NETWORK SN74157N	EA
0085A			U14	
0086	00002.000	222222-7161	NETWORK SN74161N -SN74161N	EA
0086A			U22,U29 -SN74161N	

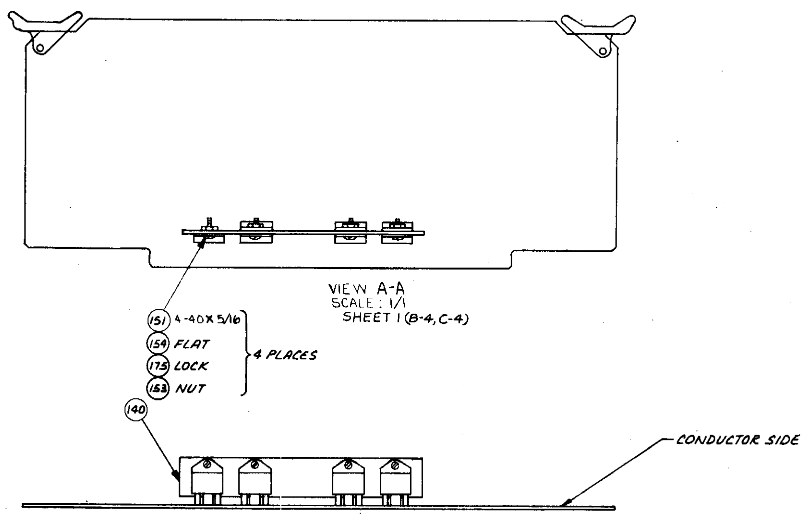
MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION
969461-0001	G	MODEL 735 TERMINAL CONTROL

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0087	00002.000	222222-7164	NETWORK SN74164N TI--SN74164N	EA
0087A			U4,U8 TI--SN74164N	
0089	00002.000	222222-7197	NETWORK SN74197N	EA
0089A			U31,U32	
0090	00002.000	537948-0001	NETWORK SN75150P TI -SN75150P	EA
0090A			U15,U16 TI -SN75150P	
0091	00001.000	537947-0001	NETWORK SN75154N TI -SN75154N	EA
0091A			U3 TI -SN75154N	
0092	00001.000	959328-0001	NETWORK CHAR GEN ASCII TMS1856 TI -TMS1856	EA
0092A			U6 TI -TMS1856	
0093	00001.000	971001-0002	NETWORK ASYNCHRONOUS DATA INTERFACE -TI-TMS6011NC	EA
0093A			U7 - 3-000	
0094	00002.000	235722-0006	SWITCH SUBMINI. TOGGLE 2 POSITION - C-CT8201	EA
0094A			S2 S4 - C-CT8201	
0095	00002.000	235665-1075	SWITCH SUBMINI TOGGLE-CENTER OFF - C-CT8206	EA
0095A			S1 S3 - C-CT8206	
0096	00004.000	230029-0001	BEAD SHIELDING FER-5659065/4A	EA
0096A			L2 L3 L4 L5 FER-5659065/4A	
0097	00001.000	231928-0100	FUSE 1 AMP PICO 276001. LIT-276001.	EA
0097A			F1 LIT-276001.	
0098	00001.000	972242-0001	TRANSISTOR MPQ2222/SQ1062 QUAD - -	EA
0098A			U11 - -	
0099	00002.000	972947-0061	RES FIX 680 OHM 5% .5 W CARBON FILM ROH- R-50	EA
0099A			R53 R67 ROH- R-50	
0100	00001.000	972934-0014	DIODE SI VOLT REGULATOR 12 V 20 MA QPL- 1N759A	EA
0100A			CR12 QPL- 1N759A	
0101	00002.000	972965-0024	CAP FIX CERAMIC .100 MF 10% 100V QPL- CK06BX104K	EA
0101A			C25 C32 QPL- CK06BX104K	
0102	00003.000	232583-0005	PAD INTEGRATED CKT.TO-5 8 LEADS .350 DIA THR-7717-107-N-WHT	EA
0103	00004.000	457313-0006	WIRE 24 AWG SOLID,TEFLON,WHITE QPL- MIL-W-16878/4E	FT
0104	00000.500	411400-0022	WIRE 22AWG ELETRO-TIN-PLATED,COPPER	FT
0105	00000.250	236269-0000	TUBING TEFLON #8 -#8	FT
0106	REF	969485-9901	DIAG,LOGIC-DETAILED-735 TERMINAL CONTROL	EA
0107	REF	969535-9901	TEST PROCEDURE	EA
0108	AR	417559-0001	SILICONE RUBBER (RTV) DOW 3140 SEE- TI DRAWING	TU
0109	00000.800	415780-0013	SLEEVE,VINYL .133 DIA CLEAR .020 WALL QPL- MIL-I-7444C	FT
0110	00001.000	972946-0041	RES FIX 100 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0110A			R69 ROH- R-25	


POWER MOTOR DRIVER
969463-1
NOTES UNLESS OTHERWISE SPECIFIED
NOTES CONT:
SECTION D-D
SECTION C-C
SECTION B-B
PROCESSES:
LIST OF MATERIALS
TEXAS INSTRUMENTS
4 SHEET 1 OF 2

969463 - 1



REVISIONS CONT

S 395618 (B) 1-28-5 2/5/75
1) ADDED NOTES 10 & 11. 2) ON F/D, ADDED FLAGS & LOCAL NOTES FOR GENERAL NOTES 10 & 11. 3) UP-DATED REVISION LEVEL BLOCK

T 389269 (C) 2-7-75 2/11/75
1) LM ITEM 162 P/N WAS: 539544-0001. 2) SH.1 DELETED CALLOUTS FOR ITEM 162. 3) DELETED PICTORIAL OF IT. 162 AT U1, U2, Q1, Q2, Q3, Q5, Q6 & Q14 ON SH.1
4) SH.1 DELETED CALLOUTS FOR NOTE 7 & 10 ON ITEM 3, 6, & 7. 5) NOTE 10 DELETED REF TO ITEMS 3, 6, & 7.
6) ADDED NOTE 7 CALLOUT TO BALLOON IT. 161
7) UPDATED REV. LEVEL BLOCK

U 395613 (D) 4-12-75 4-14-75
1) CHANGE ON LM ITEM 31 & 31A WAS 2.0 EA 539468-0007 DIODE, IN4007 CR111-CR108, 1210
2) ADD ITEM 184 & 184A, 1.0 EA 972268-0006 DIODE, IN4937 CR 108
3) CHANGE ITEM 68 WAS 1.0 EA 233334-0000 RES 39 OHM .5W 5.
UPDATED REVISION LEVEL BLOCK

V 396528 (B) 4-24-75 4/30/75
ON LM 969463
1) CHANGE QTY OF ITEM 108, P/N 230618-0100, WAS 7.0
2) CHANGE ITEM 108B WAS C108
3) ADDED: ITEM 185, P/N 236528-0000
(DRAWING 969463) ON SHEET 1, SECTION D-D, CHANGE DIMENSION WAS .550 MAX. REF.
CHANGE: NOTE 5 ON SHEET 1 WAS: 5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .550.

W 396572 (B) 5-2-75 5/13/75
CHG: QTY. ITEM 21 WAS 6. ADDED CR105 REF DESIGNATOR TO ITEM 21A. ITEM 29 DELETED: CR105 AND ADDED CR118. DELETED ITEM 69. ITEM 71 ADDED R5 AND CHG: QTY. WAS "1".

Y 391702 (B) 5-16-75
ON LM: 1) CHANGED QTY ITEM 57, WAS 2. DELETED R120. 2) CHANGED QTY ITEM 53, WAS 8. ADDED R120. 3) CHANGED QTY ITEM 58, WAS 8. DELETED R122. 4) CHANGED QTY ITEM 50, WAS 5. ADDED R122. 5) CHANGED ITEM 18 P/N, WAS 972874-0001. 6) CHANGED ITEM 20 P/N, WAS 972873-0001. 7) UPDATED REV LEVEL BLOCK.

Z 392062 (B) 5-27-75 5/10/75
1) CHANGE IT. 8 QTY WAS 10.
2) ADDED: C104 TO IT. 108 B

AA 392146 (D) 6-4-75 6-4-75
CHG: 1) NOTE 11 ON SHEET 1 WAS: REMOVE F1, F3, F4, F5, & F6 PRIOR TO PROCESS 3 & MASK FUSE SOCKETS 2) IT. 36 QTY WAS 7. 3) IT. 31 QTY WAS 1. 4) IT. 123 QTY WAS 2. 5) IT. 122 QTY WAS 1.
DELETED: 1) IT. 176 P/N 972736-0023 QTY. 4. 2) IT. 178 P/N 972946-0017 QTY. 1. 3) IT. 184 P/N 972268-0006 QTY 1. 4) DELETED (176) & (177) FROM F1 LOCATION & CHG. (173) REF TO (174) REF. 5) DELETED (176) & (177) FROM F6 LOCATION. 6) DELETED F3 FROM IT. 123A.
ADDED: 1) R28 TO IT. 36 B. 2) CR108 TO IT. 31A. 3) F3 TO IT. 122A.

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	J	383340 (C) G. Bodenstein 3-13-74 1) ON SH. 1, ZONE C-3 CROSS-HATCH WAS REMOVED ON CR105 & R104 2) ON LM CHANGES WERE: a) ITEM 37 QTY WAS 6; b) DESIGNATOR R28 DELETED FROM IT. 37A; c) ITEM 68 QTY WAS 2; d) DESIGNATOR R7 DELETED FROM IT. 68A; e) ITEMS 173 & 173A DELETED; f) ITEM 174 QTY WAS 1; g) TO IT. 174A ADDED "F1"; h) ITEMS 177, 177A, 178 & 178A ADDED	3/14/74	
	K	385794 (E) G. Bodenstein 3-20-74 1) ON SH. 1, ZONE D1 REV. LEVEL BLOCK WAS UP-DATED 2) ON SH. 1, ZONE C3, CAP. C104 WAS REMOVED, ALSO IN SILKSCREEN 3) ON LM ITEMS 98 & 98A DELETED. QTY. WAS 1 & P/N 233908-2371, ALSO ITEM 90A WAS "R43" & QTY. OF ITEM 90 WAS 1 4) ON LM ITEM 14 P/N WAS 958759-0003. ITEM 29 P/N WAS 972121-0001 5) TO LM ITEMS 179, 179A, 179B, 180, 180A, & 180B WERE ADDED	3/26/74	
	L	393743 (B) Andy Willborn 6-21-74 DELETED: 1) R109 FROM ITEM 50A ADDED: 1) ITEM 181, 181A. UPDATED REVISION LEVEL BLOCK.	6/21/74	
	M	398804 (B) 7-17-74 DELETE L/M IT'S. 47 & 47A; CHG: IT. 31 WAS: 1.0; IT. 31A WAS CR111; IT. 33 WAS: 3.0, 972122-0001; IT. 33A WAS: CR107, CR108, CR109; IT. 25 WAS: 2.0; IT. 25A WAS: CR17, CR19; DELETE IT'S. 82 & 82A; CHG: IT. 113 WAS: 2.0; IT. 113A WAS: C100, C150; IT. 103 WAS 230506-0000; IT. 37 WAS: 5.0; IT. 37A WAS: R98, R54, R110, R47, R100; IT. 43 WAS: 2.0; IT. 43A WAS: R108, R126; IT. 44 WAS 233650-0000; IT. 29 WAS: 8.0; IT. 29A WAS: CR103; IT. 21 WAS: 7.0; IT. 21A WAS: CR4, CR6, CR7, CR102, CR105, CR106; CHG: SH. 1 VIEW A-A WAS: [drawing] ADDED NOTE 9 SH. 1 DELETED IT. 135 & CALLOUT, SH 2 ZONE C-6 CHG: IT. 181 WAS: 233675-0000 ADDED IT. 182 & 182A UPDATED REV. LEVEL BLOCK. (14) (151) (154) (175) (153) REF Q19, Q23, Q26, Q29, Q33, Q39, Q42 [8]	8/20/74	
	N	396683 (E) 9-3-74 ON LM CHG P/N'S: IT. 79 WAS 233065-0010, IT 86 WAS 539747-0001, IT 85 WAS 539747-0006 UPDATED REVISION LEVEL BLOCK.	9-5-74	Andy Willborn
	P	398808 (B) Andy Willborn 1-9-75 ADDED: 1) ITEMS 183 & 183A DELETED: 1) ITEM 42, P/N 234077-0000, QTY 1 2) ITEM 42A, R39 CHANGED: 1) ITEM 178 PN WAS 233258-0000 2) ITEM 25 QTY WAS 8 & ITEM 25A WAS CR19, CR17, CR109 3) ITEM 93 PN WAS 233484-0101 4) ITEM 106 QTY WAS 14, ITEM 106A WAS C9, C10, C19 THRU C23, & ITEM 106B WAS C25 THRU C30, C33 5) UP DATED REVISION LEVEL BLOCK 6 ITEM 110 PN WAS 230716-0003, QTY WAS 2 & ITEM 110A WAS C24 C45	1/13/75	
	R	398878 (C) Andy Willborn 1-17-75 ITEM 11 PN WAS 554137-0001 UPDATED REVISION BLOCK	1/29/75	

REVISIONS CONT ZONE D4

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02

MATERIAL:

DWN		DATE 9-28-73
CHK		
ENGR		
QA		
APVD		
CONTR NO		
DESIGN ACTIVITY RELEASE		

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

POWER / MOTOR DRIVER

SIZE	CODE IDENT NO	DRAWING
D	96214	969463
SCALE	REV. A-A	SHEET 2 OF 2

D 969463

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER REV DESCRIPTION.....
969463-0001 POWER/MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969462-0001	PRINTED WIRING BOARD,POWER/MOTOR CRIVER	EA
0003	00002.000	222222-7438	NETWORK SN7438N	EA
0003A			U1 U2	
0004	00003.000	222225-0311	NETWORK LM311H	EA
0004A			AR1 AR2 AR3	
0006	00003.000	972242-0001	TRANSISTOR MPQ2222/SQ1062 QUAD	EA
0006A			Q2 Q6 Q14	
0007	00003.000	972243-0001	TRANSISTOR,QUAD,DUAL-IN-LINE MOT--MPQ 2907	EA
0007A			Q1 Q3 Q5	
0008	00002.000	972958-0002	TRANSISTOR, PNP,GEN.PURP.SW TO-18 TI - 2N2907A	EA
0008A			Q10 Q11 TI - 2N2907A	
0011	00001.000	972542-0001	TRANSISTOR HV, PNP, FN5416/S41802	EA
0012	00001.000	972240-0001	TRANSISTOR MJE250 SEE- TI DRAWING	EA
0012A			Q12 SEE- TI DRAWING	
0014	00007.000	972008-0001	TRANSISTOR,TIP3055-POWER,SILICON,NPN TI--TIP3055	EA
0014A			Q19 Q23 Q26 Q29 Q33 Q39 Q42 TI--TIP3055	
0016	00007.000	972954-0001	TRANSISTOR, NPN,65V,5W TO-5 TI - 2N2102	EA
0016A			Q17 Q21 Q24 Q27 Q31 Q34 Q40 TI - 2N2102	
0017	00002.000	972955-0001	TRANSISTOR, NPN,HIGH SPEED SW TO-18 MOT- 2N2369A	EA
0017A			Q20 Q30 MOT- 2N2369A	
0018	00002.000	972874-0002	GATE,5082-4361 OPTICALLY ISOLATOR	EA
0018A			Q36 Q37	
0019	00007.000	772494-0001	TRANSISTOR 2N5322 SEE- TI DRAWING	EA
0019A			Q18 Q22 Q25 Q28 Q32 Q35 Q41 SEE- TI DRAWING	
0020	00001.000	972873-0002	ISOLATOR,5082-4350A OPTICALLY COUPLED	EA
0020A			Q38 HP--5082-4350	
0021	00007.000	972932-0001	DIODE SWITCHING,75V P1V 75MA 4NS TRR TI - IN914B	EA
0021A			CR4 CR6 CR7 CR102 CR105 CR106 TI - IN914B	
0021B			CR110 TI - IN914B	
0022	00001.000	972460-0001	DIODE SI VOLT REGULATOR 3.3 V 0.4W, 1%	EA
0022A			CR9	
0023	00001.000	972460-0005	DIODE SI VOLT REGULATOR 4.7 V 0.4W, 1%	EA
0023A			CR8	
0024	00001.000	972460-0008	DIODE SI VOLT REGULATOR 6.2 V 0.4W, 1%	EA
0024A			CR10	
0025	00002.000	231768-5545	DIODE 1N5338B ZENER MOT-1N5338B	EA
0025A			CR17 CR109 MOT-1N5338B	
0029	00009.000	972268-0002	DIODE 1N4934-1 AMP MOT- 1N4934	EA
0029A			CR103 CR112 CR3 CR5 CR11 CR18 MOT- 1N4934	

PART NUMBER REV DESCRIPTION.....
969463-0001 POWER/MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0050A			R6 R9 R65 R113 R122 R145 ROH- R-25	
0051	00001.000	972946-0067	RES FIX 1.2K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0051A			R112 ROH- R-25	
0052	00002.000	972946-0071	RES FIX 1.8K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0052A			R60,R150 ROH- R-25	
0053	00009.000	972946-0072	RES FIX 2.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0053A			R1 R2 R3 R12 R16 R22 R114 ROH- R-25	
0053B			R120 R123 ROH- R-25	
0054	00005.000	972946-0073	RES FIX 2.2K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0054A			R32 R72 R76 R94 R97 ROH- R-25	
0055	00001.000	972946-0076	RES FIX 3.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0055A			R61 ROH- R-25	
0056	00002.000	972946-0062	RES FIX 750 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0056A			R59 R27 ROH- R-25	
0057	00001.000	972946-0082	RES FIX 5.1K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0057A			R24 ROH- R-25	
0058	00007.000	972946-0089	RES FIX 10 K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0058A			R8 R10 R11 R13 R14 R119 R127 ROH- R-25	
0059	00003.000	234225-0000	RES 15000. OHM .25W 5. AB -CB1535	EA
0059A			R35 R73 R95 AB -CB1535	
0060	00002.000	972946-0080	RES FIX 4.3K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0060A			R25 R26 ROH- R-25	
0061	00001.000	972946-0107	RES FIX 56 K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0061A			R33 ROH- R-25	
0064	00002.000	972947-0009	RES FIX 4.7 OHM 5 % .5 W CARBON FILM ROH- R-50	EA
0064A			R36 R102 ROH- R-50	
0065	00001.000	972946-0058	RES FIX 510 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0065A			R15 ROH- R-25	
0066	00001.000	972947-0025	RES FIX 22 OHM 5 % .5 W CARBON FILM ROH- R-50	EA
0066A			R103 ROH- R-50	
0068	00001.000	233331-0500	RES 37.400 OHM .5 W 1. ELE-MF6C-D-F	EA
0068A			R64 ELE-MF6C-D-F	
0070	00002.000	972947-0039	RES FIX 82 OHM 5% .5 W CARBON FILM ROH- R-50	EA
0070A			R68 R69 ROH- R-50	
0071	00002.000	972947-0041	RES FIX 100 OHM 5% .5 W CARBON FILM ROH- R-50	EA
0071A			R30 R5 ROH- R-50	
0072	00001.000	972947-0065	RES FIX 1.0K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0072A			R42 ROH- R-50	
0073	00001.000	972947-0049	RES FIX 220 OHM 5% .5 W CARBON FILM ROH- R-50	EA
0073A			R105 ROH- R-50	

PART NUMBER REV DESCRIPTION.....
969463-0001 POWER/MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0074	00001.000	972947-0054	RES FIX 360 OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0074A			R62	
			ROH- R-50	
0075	00001.000	972947-0056	RES FIX 430 OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0075A			R106	
			ROH- R-50	
0076	00002.000	972947-0089	RES FIX 10 K OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0076A			R115,R159	
			ROH- R-50	
0077	00008.000	233096-0001	RES 1.0000 OHM .5 W 5.	EA
			AB -EB10G5	
0077A			R151 THRU R158	
			AB -EB10G5	
0079	00001.000	972554-0004	RESISTOR,FIXED,WIREWOUND .2 OHM 2W 5%	EA
			SEE- TI DRAWING	
0079A			R38	
			SEE- TI DRAWING	
0081	00001.000	538425-0060	RES 75.00 OHM 2W 5%	EA
			RCR-42G750JS	
0081A			R23	
			RCR-42G750JS	
0083	00001.000	538425-0143	RES .22 MEG-OHM 2W 5%	EA
			RCR-42G224JS	
0083A			R124	
			RCR-42G224JS	
0084	00001.000	972554-0001	RESISTOR,FIXED,WIREWOUND.1 OHM 5W 5%	EA
			SEE- TI DRAWING	
0084A			R37	
			SEE- TI DRAWING	
0085	00001.000	972554-0007	RESISTOR,FIXED,WIREWOUND 30K 7W 1%	EA
			SEE- TI DRAWING	
0085A			R34	
			SEE- TI DRAWING	
0086	00003.000	972554-0006	RESISTOR,FIXED,WIREWOUND .5 OHM 3W 1%	EA
			SEE- TI DRAWING	
0086A			R31 R71 R93	
			SEE- TI DRAWING	
0090	00002.000	539370-0421	RES FIX FILM 2.37K OHM 1% .25 WATT	EA
			COR- NA55	
0090A			R43 R45	
			COR- NA55	
0091	00001.000	539370-0269	RES FIX FILM 61.9 OHM 1% .25 WATT	EA
			COR- NA55	
0091A			R58	
			COR- NA55	
0092	00001.000	539370-0221	RES FIX FILM 19.6 OHM 1% .25 WATT	EA
			COR-NA55D-100PPM/C	
0092A			R51	
			COR-NA55D-100PPM/C	
0093	00001.000	233563-0110	RES 249.0 OHM .25W 1% TI-MC55D2490F	EA
			539-370-0327 01295	
0093A			R55	
			539-370-0327 01295	
0094	00003.000	539370-0341	RES FIX FILM 348 OHM 1% .25 WATT	EA
			COR-NA55D-100PPM/C	
0094A			R49 R52 R57	
			COR-NA55D-100PPM/C	
0095	00001.000	539370-0357	RES FIX FILM 511 OHM 1% .25 WATT	EA
			COR- NA55	
0095A			R56	
			COR- NA55	
0096	00002.000	539370-0373	RES FIX FILM 750 OHM 1% .25 WATT	EA
			COR- NA55	
0096A			R50 R53	
			COR- NA55	
0097	00001.000	539370-0405	RES FIX FILM 1.62K OHM 1% .25 WATT	EA
			COR- NA55	
0097A			R44	
			COR- NA55	
0099	00003.000	539370-0425	RES FIX FILM 2.61K OHM 1% .25 WATT	EA
			COR- NA55	
0099A			R29 R70 R92	
			COR- NA55	
0100	00001.000	537570-0008	RES VAR CERMET 500 OHMS 10 % .75 WATT	EA
			BEC-79PR500	
0100A			R144	
			BEC-79PR500	

PART NUMBER REV DESCRIPTION.....
969463-0001 POWER/MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0101	00002.000	972929-0379	CAP FIX CERAMIC 100 PF 10 % 200 V	EA
			QPL-M39014/01-1379	
0101A			C5 C6	
			QPL-M39014/01-1379	
0102	00001.000	972929-0391	CAP FIX CERAMIC 470 PF 10 % 200 V	EA
			QPL-M39014/01-1391	
0102A			C103	
			QPL-M39014/01-1391	
0103	00001.000	972928-0024	CAP FIX MICA 500V 5000PF 5%	EA
			QPL-CM05F502J0D	
0103A			C110	
			QPL-CM06F252J0D	
0104	00002.000	972929-0397	CAP FIX CERAMIC .001 UF 10% 200V	EA
			QPL-M39014/01-1397	
0104A			C41 C108	
			QPL-M39014/01-1397	
0105	00005.000	972965-0012	CAP FIX CERAMIC .010 MF 10% 200V	EA
			QPL- CK06BX103K	
0105A			C3 C4 C16 C105 C106	
			QPL- CK06BX103K	
0106	00013.000	972965-0020	CAP FIX CERAMIC .047 MF 10% 100V	EA
			QPL- CK06BX473K	
0106A			C9 C10 C19 C20 C22 C23 C25	
			QPL- CK06BX473K	
0106B			C26 C27 C28 C29 C30 C33	
			QPL- CK06BX473K	
0107	00002.000	230595-1000	CAP .05000 MF 500 V +80./-20. %	EA
			SPR-5HK-S50	
0107A			C2 C40	
			SPR-5HK-S50	
0108	00010.000	972965-0024	CAP FIX CERAMIC .100 MF 10% 100V	EA
			QPL- CK06BX104K	
0108A			C7 C8 C17 C35 C102 C107	
			QPL- CK06BX104K	
0108B			C31 C32 C34 C109	
			QPL- CK06BX104K	
0110	00003.000	972924-0013	CAP FIX TANT SOLID 2.2 MFD 10 % 20 VOLT	EA
			QPL-M39003/1-2283	
0110A			C21 C24 C45	
			QPL-M39003/1-2283	
0112	00001.000	972924-0019	CAP FIX TANT SOLID 22 MFD 10 % 35 VOLT	EA
			QPL-M39003/1-2306	
0112A			C1	
			QPL-M39003/1-2306	
0113	00001.000	972924-0011	CAP FIX TANT SOLID 68 MFD 10 % 15 VOLT	EA
			QPL-M39003/1-2274	
0113A			C150	
			QPL-M39003/1-2274	
0117	00001.000	972030-0001	CAP 1.0 UF 200V 10%	EA
			SEE- TI DRAWING	
0117A			C46	
			SEE- TI DRAWING	
0118	00001.000	230834-0000	CAP 47.000 MF 6V 10% CASE SIZE B	EA
			MIL-CS13BB476K	
0118A			C18	
			MIL-CS13BB476K	
0121	00003.000	231928-0100	FUSE 1 AMP PICO 276001.	EA
			LIT-276001.	
0121A			F5 F7 F8	
			LIT-276001.	
0122	00001.000	537399-0010	FUSE 3AMP	EA
			LIT-276003	
0122A			F4	
			LIT-276003	
0123	00002.000	530588-0011	FUSE,CARTRIDGE 5AMP BLK	EA
			LIT-275005	
0123A			F2 F3	
			LIT-275005	
0126	00001.000	772278-0001	CONNECTOR PC 15PIN SINGLE ROW	EA
			MSR-MC15S/2-2	
0126A			XA1	
			MSR-MC15S/2-2	
0127	00001.000	231802-0009	EJECTOR WHT 8-200 - 0-000	EA
0128	00001.000	231802-0001	EJECTOR BRN 8-200	EA
			SCA-8-200	
0131	00001.000	538433-0001	COIL RF 5.60 UH .13 OHM 885 MA LT10K158	EA
			QPL- MS90542-14	
0131A			L1	
			QPL- MS90542-14	

PART NUMBER REV DESCRIPTION.....
969463-0001 POWER/MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0135	AR	231143-0001	COMPOUND THERMAL 8 OZ WAK--120-8 OZ	EA
0140	00001.000	973202-0001	HEATSINK,POWER SUPPLY 1210-0007-010	EA
0148	00030.000	539493-0003	RECEPTACLE,ACCEPTS LEAD SIZE .018-.040 AMP- 380598-2	EA
0148A			J1 J2 J3 J4 J5 J6 J7 J8 J20 AMP- 380598-2	
0148B			J21 J22 J23 J24 J25 J26 J27 AMP- 380598-2	
0148C			J28 J29 J30 J31 J32 J33 J40 AMP- 380598-2	
0148D			J41 J42 J43 J44 J45 J46 J47 AMP- 380598-2	
0151	00004.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-14	EA
0153	00004.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0154	00004.000	411027-0803	WASHER .125 X .250 X .022 FLAT CRES QPL- MS15795-803	EA
0161	00012.000	972736-0014	SOCKET,GLD SPRING,TIN EYLT-.025 PIN DIA	EA
0165	00001.000	232067-0001	HEATSINK TRANSISTOR WAK-NF-205 419-253-0003 05820	EA
0167	00003.000	232583-0005	PAD INTEGRATED CKT.TO-5 8 LEADS .350 DIA THR-7717-107-N-WHT	EA
0168	00015.000	153763-0001	INSULATOR XISTOR TO-5&TO-9CASE TI -153763	EA
0169	00004.000	185113-0001	SPACER XST TO-18 CASE * -	EA
0170	REF	969525-9901	TEST PROC,POWER/MOTOR DRIVER	EA
0171	REF	969486-9901	DIAGRAM,LOGIC	EA
0174	00002.000	972217-5000	FUSE,5AG SB 250V RADIAL LEAD BUS-GJV5	EA
0174A			F1 F6 BUS-GJV5	
0175	00004.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0176	00004.000	972736-0023	SOCKET,GLD SPRING,GLD EYLT	EA
0177	00001.000	972947-0038	RES FIX 75 OHM 5% .5 W CARBON FILM ROH- R-50	EA
0177A			R7 ROH- R-50	
0178	00001.000	972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0178A			R28 ROH- R-25	
0179	00000.000	958759-0003	XST TIP 35B SOA TESTED TI -TIP35B	EA
0179A			THIS ITEM MAY BE USED AS AN TI -TIP35B	
0179B			ALTERNATE TO ITEM 14 TI -TIP35B	
0180	00000.000	972121-0001	DIODE,1N5804 UNT--1N5804	EA
0180A			THIS ITEM MAY BE USED AS AN UNT--1N5804	
0180B			ALTERNATE TO ITEM 29 UNT--1N5804	
0181	00001.000	972946-0063	RES FIX 820 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0181A			R109 ROH- R-25	
0182	00001.000	972924-0012	CAP FIX TANT SOLID 150 MFD 10 % 15 VOLT QPL-M39003/1-2277	EA
0182A			C11 QPL-M39003/1-2277	
0183	00001.000	972460-0007	DIODE, 5.6V, 0.4W, 10%	EA
0183A			CR19	
0184	00001.000	972268-0006	DIODE IN4937 1 AMP SEE- TI DRAWING	EA
0184A			CR108 SEE- TI DRAWING	
0185	00000.500	236528-0000	WIRE 22 AWG 1 COND WHITE TEFLON SOLID	FT

PART NUMBER REV DESCRIPTION.....
969463-0001 POWER/MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
00298			CR20 CR21 CR22 MOT- 1N4934	
0031	00001.000	539468-0007	DIODE, 1N4007 TI -1N4007	EA
0031A			CR111 TI -1N4007	
0032	00001.000	972117-0001	DIODE,UZ4710 SEE- TI DRAWING	EA
0032A			CR1 SEE- TI DRAWING	
0033	00001.000	972924-0026	CAP FIX TANT SOLID 3.9 MFD 10 % 75 VOLT QPL-M39003/1-2411	EA
0033A			C100 QPL-M39003/1-2411	
0034	00001.000	231784-6001	DIODE MPD300 3 PELLET SILICON MULTI GE -MPD300	EA
0034A			CR101 QPL-M39014/01-1379	
0035	00002.000	972934-0007	DIODE SI VOLT REGULATOR 5.6 V 20 MA QPL- 1N752A	EA
0035A			CR2 CR114 QPL- 1N752A	
0036	00007.000	972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0036A			R66 R81 R85 R89 R130 R134 ROH- R-25	
0036B			R138 ROH- R-25	
0037	00004.000	972946-0034	RES FIX 51.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0037A			R48 R54 R47 R100 ROH- R-25	
0038	00007.000	972946-0037	RES FIX 68.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0038A			R78 R82 R86 R99 R131 R135 ROH- R-25	
0038B			R101 ROH- R-25	
0039	00007.000	972946-0038	RES FIX 75.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0039A			R63 R80 R84 R88 R129 R133 ROH- R-25	
0039B			R137 ROH- R-25	
0040	00005.000	972946-0041	RES FIX 100 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0040A			R107 R111 R18 R20 R121 ROH- R-25	
0041	00007.000	972946-0043	RES FIX 120 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0041A			R46 R79 R83 R87 R128 R132 ROH- R-25	
0041B			R136 ROH- R-25	
0043	00003.000	972946-0049	RES FIX 220 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0043A			R108 R110 R126 ROH- R-25	
0044	00001.000	539370-0351	RES FIX FILM 442 OHM 1% .25 WATT COR- NA55	EA
0044A			R125 COR- NA55	
0045	00002.000	972946-0053	RES FIX 330 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0045A			R17 R74 ROH- R-25	
0046	00001.000	972946-0054	RES FIX 360 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0046A			R4 ROH- R-25	
0048	00001.000	972946-0069	RES FIX 1.5K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0048A			R19 ROH- R-25	
0049	00006.000	972946-0061	RES FIX 680 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0049A			R21 R41 R75 R77 R96 R98 ROH- R-25	
0050	00006.000	972946-0065	RES FIX 1.0K OHM 5 % .25 W CARBON FILM ROH- R-25	EA

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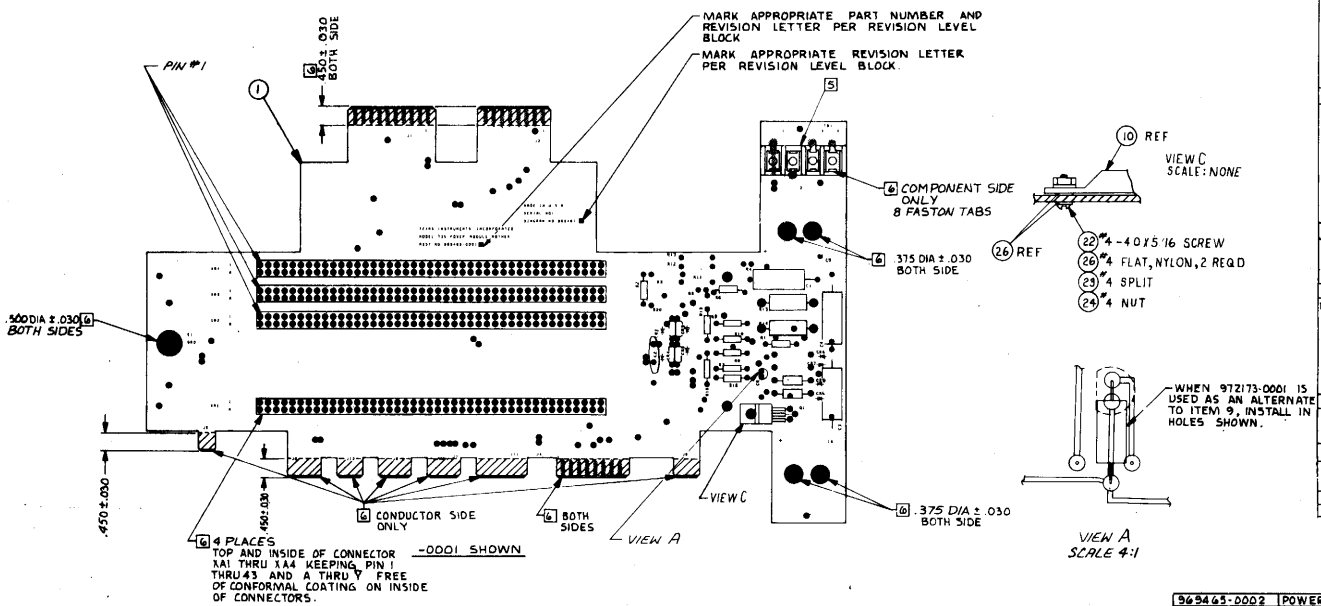
NOTES:
1. COMPONENT LEADS MAY BE CLINCHED.
2. DO NOT SOLDER ON COMPONENT SIDE
3. MASK ALL CONNECTOR FINGERS, WHERE THEY EXIST, ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4. MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
5. MOUNT TB1, R4, & R5 FLUSH TO BOARD.
6. MASK ALL AREAS FLAGGED PRIOR TO PROCESS 3



PROCESS:
1. WAVE SOLDER, F124 AND/OR SOLDER PER F127
2. RUBBER STAMP, F100, HEIGHT .09, COLOR BLACK
6 3. CONFORMAL COAT, F503-2

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	6-16-73 M. Nguyen UPDATED LM I GENERATED ASSY DWG FOR FORMAL RELEASE	6-16-73	
	B	9-10-73 UPDATED LM	9-10-73	
		FORMAL RELEASE		
	C	383333 (B) 1-18-74	1-21-74	
		ADDED: 1.) ITEMS 8-21; 2.) VIEW A; 3.) VIEW B-B; 4.) NOTE 5. CHG'D: 1.) ITEM 4 P.N. WAS 972882-0001. 2.) ITEM 4A WAS CR1. 3.) ITEM 3A WAS R1, R2. 4.) NOTE 1. WAS: DO NOT CLINCH COMPONENT LEADS. DELETED: 1. ITEM 5 P.N. WAS: 972032-0003, QTY. 2. 2. ITEM 5A WAS C1, C2. UPDATED REV. LEVEL BLOCK.		
	D	386877 (B) Andy Wilson 5-9-74	5/13/74	
		ADDED: 1) ITEMS 22, 23, 24, 25, & 26 2) VIEW C ZONE C3 CHANGED: 1) ITEM 16 WAS 234414-0000 2) NOTE 5 WAS MOUNT TB1 FLUSH TO BOARD. DELETED 1) ITEM 20 P/N 417559-0001 2) VIEW B ZONE B2 (10 REF, 20 AR)		
	E	398844 (B) Andy Wilson 7-12-74	7/17/74	
		CHANGED: 1) ITEM 26 P/N WAS 236378-0001 2) VIEW C BALLOONS 26 WERE 25 DELETED: 1) ITEM 25 P/N 958770-0001 (QTY OF 1)		
	F	395010 (C) 10-3-74	10/16/74	
		DELETED (1) QTY ITEM 4 WAS 8, FROM AA CR7 AND CR8. (2) QTY ITEM 15 WAS 4, FROM 15A R11, R19, R21. (3) ITEM 19 P/N WAS 339493-0001 QTY WAS 17 ALSO ITEM 19 A, B & C DESCRIPTION J13 THRU J29 4. REFERENCE DESIGNATORS J13 THRU J20 FROM FD. ADDED: (1) -0002 LM (2) P/N SCHEDULE. UPDATED REVISION LEVEL BLOCK		
	G	398826 (B) 11/6/74	11/8/74	
		1. ADDED: NOTE 6 AND NOTE 6 CALLOUTS PROCESS 3. ALL NOTES AND DIMENSIONS ASSOCIATED WITH NOTE 6 CALLOUT		
	H	400894 (C) R. Nelson 1-17-75	1/17/75	
		1) LM -1 & -2 IT. 15 P/N WAS: 234229-0000. 2) UPDATED REV LEVEL BLOCK		
	J	395638 (E) 5-5-75	5-6-75	
		UPDATED ASSY. DWG. TO REFLECT NEW ARTWORK.		

PART NO	DESCRIPTION
969465-0002	POWER MODULE MOTHER, MODEL 735 240VAC
969465-0001	POWER MODULE MOTHER, MODEL 735 120VAC

PART NUMBER SCHEDULE

REVISION LEVEL																		
PRINTED WIRING BOARD FOR -0001 AND -0002 (969464-0001)	A	B	C	D	E	E	E	E	E	E	F	F						
DIAGRAM SCHEMATIC FOR -0001 AND -0002 ASSY (969487-9501)	*	*	*	A	B	B	C	D	D	E	E							
ASSEMBLY	A	B	B	B	C	D	E	E	F	G	H	T						

2 QTY REQD	1 ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY, MACHINED DIAMETERS .010 F.I.M.
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .038	.126 THRU .250	.251 THRU .500
.006 .001	.008 .001	.009 .001
.501 THRU .750	.751 THRU 1.000	1.001 THRU 2.000
.009 .001	.010 .001	.012 .001

969591 | 8727
NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ± 1°
- 3 PLACE DECIMALS ± .010
- 2 PLACE DECIMALS ± .02

MATERIAL

		DATE
DWN	Y. Ben	1-18-74
CHK		1-21-74
ENGR		1-21-74
QA		
APPROVED		1/21/74
DESIGN ACTIVITY RELEASE		1/22/74

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

POWER MODULE MOTHER, MODEL 735

SIZE	CODE IDENT NO	DRAWING NO
D	96214	969465

SCALE 1/1 REV J SHEET 1 OF 1

LM

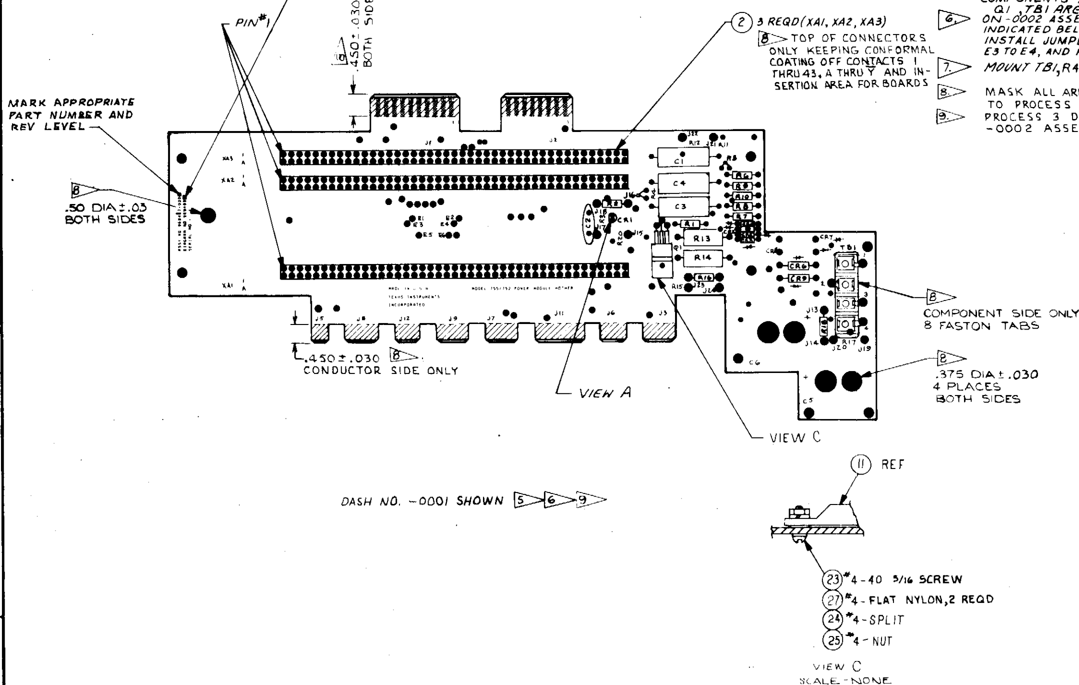
FILMED

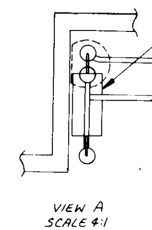
969465 D

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION
969465-0001	J	POWER MODULE MOTHER MODEL 735 120VAC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	969464-0001	PWB,POWER MODULE MOTHER,MODEL 735	EA
0002	00004.000	244209-0001	CONNECTOR,MOTHER BOARD	EA
0002A			XA1,XA2,XA3,XA4	
0003	00002.000	234331-0001	RES 33000. OHM 2. W 5. AB -HB3335	EA
0003A			R13,R14 AB -HB3335	
0004	00002.000	972164-0004	DIODE,MR506/UT1060A-3A 600V SILICONE	EA
0004A			CR6 CR9	
0006	00001.000	969568-0001	TERMINAL BLOCK-4 TERMINAL	EA
0006A			TB1	
0007	REF	969487-9901	ELTN SCHEM DIAG,PWR MOD MOTHER-MODEL 735	EA
0008	00004.000	539468-0007	DIODE, 1N4007 TI -1N4007	EA
0008A			CR2,CR3,CR4,CR5 TI -1N4007	
0009	00001.000	972138-0008	DIAC MOT--1N5760A	EA
0009A			CR1,P/N 972173-0001 MAY BE MOT--1N5760A	
0009B			USED AS ALTERNATE MOT--1N5760A	
0010	00001.000	972129-0002	TRIAC,SILICON 8AMP 400V SEE- TI DRAWING	EA
0010A			Q1 SEE- TI DRAWING	
0011	00002.000	972030-0003	CAP .068 MF 400V 10% SEE- TI DRAWING	EA
0011A			C3,C4 SEE- TI DRAWING	
0012	00001.000	972030-0004	CAP .1 MF 400V 10% SEE- TI DRAWING	EA
0012A			C1 SEE- TI DRAWING	
0013	00001.000	230567-0002	CAP .02000 MF 1000V 20% SPR-5GA-S20	EA
0013A			C2 SPR-5GA-S20	
0014	00002.000	972947-0003	RES FIX 2.7 OHM 5 % .5 W CARBON FILM ROH- R-50	EA
0014A			R16,R18 ROH- R-50	
0015	00001.000	972947-0089	RES FIX 10 K OHM 5% .5 W CARBON FILM RCH- R-50	EA
0015A			R2 ROH- R-50	
0016	00001.000	972947-0081	RES FIX 4.7K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0016A			R6 ROH- R-50	
0017	00004.000	972947-0101	RES FIX 33 K OHM 5% .5 W CARBON FILM RCH- R-50	EA
0017A			R7,R8,R9,R10 ROH- R-50	
0018	00002.000	972178-0003	THERMISTER,GLASS BEAD- 150000.00 OHMS	EA
0018A			R4,R5	
0021	00001.000	972947-0065	RES FIX 1.0K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0021A			R1 ROH- R-50	
0022	00001.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-14	EA
0023	00001.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0024	00001.000	232453-0000	NUT 4-40X3/16X1/16 THK SMALL PATTERN	EA
0026	00002.000	236380-0001	WASHER FLAT NYLON .281ODX.115IDX.047 THK SMI-2514	EA





NOTES:

1. COMPONENT LEADS MAY BE CLINCHED.
2. DO NOT SOLDER ON COMPONENT SIDE
3. MASK ALL CONNECTOR FINGERS, WHERE THEY EXIST, ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4. MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
5. ON ASSEMBLY DASH NO. -0002, COMPONENTS R1-R21, C1-C6, CR1-CR9, Q1, TB1 ARE NOT USED.
6. ON -0002 ASSEMBLY INSTALL JUMPERS AS INDICATED BELOW USING WIRE, ITEM 7. INSTALL JUMPERS FROM E1 TO E2, FROM E3 TO E4, AND FROM E5 TO E6
7. MOUNT TB1, R4 & R5 FLUSH TO BOARD.
8. MASK ALL AREAS FLAGGED PRIOR TO PROCESS 3
9. PROCESS 3 DOES NOT APPLY TO -0002 ASSEMBLY

PROCESSES:

1. WAVE SOLDER PER F-124 AND/OR SOLDER PER F-127
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK
3. CONFORMAL COAT, F-503-2 (9)

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	7-10-73 1) UPDATED LM 2) GENERATED DRAWING FOR FORMAL RELEASE	7-10-73	
	B	9-10-73 UPDATED LM FOR FORMAL RELEASE		
		FORMAL RELEASE		
	C	383333 (B) 1-21-74. ADDED: ON-0001 ITEMS 9 THRU 22, VIEW A, VIEW B & NOTE 7. CHG'D: ON-0001 IT. 4 P/N WAS 972882-0001 IT. 4A WAS CR1, IT. 3A WAS R1, R2. ON-0002 IT. 7 P/N WAS 236520-0009. DELETED: IT. 5 P/N WAS 972032-0003, IT. 5A WAS C1, C2. UPDATED REV. LEVEL BLOCK.	1-21-74	
	D	389266 B 5-9-74. ADDED: 1) ITEMS 23, 24, 25, 26 & 27 2) VIEW C. CHANGED: 1) NOTE 5 WAS ON ___ CR, Q14, TB1 ___ USED. 2) NOTE 7 WAS MOUNT TB1 FLUSH TO BOARD. 3) ITEM 17 WS P/N 234410-0000. DELETED 1) ITEM 21 P/N 417559-0001, QTY AR 2) VIEW B ZONE B2 (19) REF (21) AR	5/14/74	
	E	398882 (B) 8-22-74. 1. DELETED IT 26 PN WAS 958770-0001, QTY WAS 1 ALSO DELETED BALLOON 26 FROM VIEW C. 2. IT. 27 PN WAS 236378-0001, QTY WAS 1. 3. IT 27 BALLOON WAS #4 FIBER. UPDATED REVISION LEVEL BLOCK		
	F	395611 (C) 11-14-74. 1) LM-0001 IT. 4 QTY WAS 4 2) LM-1 IT. 4A DELETED CR7, CR8. 3) LM-1 IT. 16 QTY WAS 4 4) LM-1 IT. 16A DELETED R11, R19 & R21 5) LM-1 IT. 20 WAS QTY, 17/539493-0001. 6) IT 20A WAS J13, J14, J15, J16, J17, J18, J19 7) IT 20B WAS J20, J21, J22, J23, J24, J25 & J26 8) IT. 20C WAS J27, J28, J29. 9) ADDED -0003 TO P/N SCHEDULE & LM. 10) F/D ZONE 5C DELETED CR7, CR8, R11, R19, R21, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23, J24, J25, J26, J27, J28, J29.	15 NOV 74	
	G	398825 (B) 11/20/74. 1) ZONE A-6 ADDED PROCESS 3. 2) ZONE C-4 ADDED FLAG NOTES 8, AND 9 AND ALL FLAG CALLOUTS PERTAINING TO NOTES 8 AND 9 3) ADDED DIM .450±.030 ZONES C-7 AND B-7	5 DEC 74	
	H	400894 (C) 1-17-75. 1) LM -1 & -3 IT. 16 P/N WAS: 234229-0000. 2) UPDATED REVISION LEVEL BLOCK.	1/20/75	
	J	396554 (B) 2-21-5. REDRAWN WITH CHANGES. UP-DATED REV LEVEL BLOCK.	18 MAR 75	

PART NUMBER	DESCRIPTION	
969467-0003	POWER MODULE MOTHER	MODEL 755 240 VAC
969467-0002	POWER MODULE MOTHER	MODEL 752
969467-0001	POWER MODULE MOTHER	MODEL 755 120 VAC

2	1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

REVISION LEVEL

PRINTED WIRING BOARD FOR -0001 THRU -0003 ASSEMBLIES (969466)	A	B	C	D	E	F	F	G	H	
DIAGRAM SCHEMATIC FOR -0001 THRU -0003 ASSEMBLIES (969488)	*	*	*	A	B	F	D	D	E	E
ASSEMBLY	A	B	B	C	D	E	F	G	H	J

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125: .004 .001	.126 THRU .250: .005 .001	.251 THRU .500: .006 .001	
.501 THRU .750: .008 .001	.751 THRU 1.000: .010 .001	1.001 THRU 2.000: .012 .001	

NEXT ASSY	USED ON
969590	8728
969590	8729

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
- 3 PLACE DECIMALS ±.010
- 2 PLACE DECIMALS ±.02

MATERIAL

DWN 1-18-74 · CHK -21-74 · ENGR 1-21-74 · QA · APVD 1-22-74 · CONTR NO 1/21/74 · DESIGN ACTIVITY RELEASE 1-23-74

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

POWER MODULE MOTHER MODEL 755/752

SIZE D · CODE IDENT NO 96214 · DRAWING NO 969467

SCALE 1/1 · REV J · SHEET

LM

PART NUMBER	REV	DESCRIPTION
969467-0001	J	POWER MODULE MOTHER,MODEL 755 120VAC
969467-0002	J	POWER MODULE MOTHER,MODEL 752

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.	UM
0001	00001.000	969466-0001	PWB,POWER MODULE MOTHER,MODEL 755/752	EA
0002	00003.000	244209-0001	CONNECTOR,MOTHER BOARD	EA
0002A			XA1,XA2,XA3	
0003	00002.000	234331-0001	RES 33000. OHM 2. W 5. AB -HB3335	EA
0003A			R13,R14 AB -HB3335	
0004	00002.000	972164-0004	DIODE,MR506/UT1060A-3A 600V SILICONE	EA
0004A			CR6 CR9	
0006	00001.000	969568-0001	TERMINAL BLOCK-4 TERMINAL	EA
0006A			TB1	
0007	00000.250	236528-0000	WIRE 22 AWG 1 COND WHITE TEFLON SOLID	FT
0008	REF	969488-9901	ELTN SCHEM DIAG,PWR MOD MOTHER-755/752	EA
0009	00004.000	539468-0007	DIODE, 1N4007 TI -1N4007	EA
0009A			CR2,CR3,CR4,CR5 TI -1N4007	
0010	00001.000	972138-0008	DIAC MOT--1N5760A	EA
0010A			CR1,P/N 972173-0001 MAY BE MOT--1N5760A	
0010B			USED AS ALTERNATE MOT--1N5760A	
0011	00001.000	972129-0002	TRIAC,SILICON 8AMP 400V SEE- TI DRAWING	EA
0011A			Q1 SEE- TI DRAWING	
0012	00002.000	972030-0003	CAP .068 MF 400V 10% SEE- TI DRAWING	EA
0012A			C3,C4 SEE- TI DRAWING	
0013	00001.000	972030-0004	CAP .1 MF 400V 10% SEE- TI DRAWING	EA
0013A			C1 SEE- TI DRAWING	
0014	00001.000	230567-0002	CAP .02000 MF 1000V 20% SPR-5GA-S20	EA
0014A			C2 SPR-5GA-S20	
0015	00002.000	972947-0003	RES FIX 2.7 OHM 5 % .5 W CARBON FILM ROH- R-50	EA
0015A			R16,R18 ROH- R-50	
0016	00001.000	972947-0089	RES FIX 10 K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0016A			R2 ROH- R-50	
0017	00001.000	972947-0081	RES FIX 4.7K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0017A			R6 ROH- R-50	
0018	00004.000	972947-0101	RES FIX 33 K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0018A			R7,R8,R9,R10 ROH- R-50	
0019	00002.000	972178-0003	THERMISTER,GLASS BEAD- 150000.00 OHMS	EA
0019A			R4,R5	
0022	00001.000	972947-0065	RES FIX 1.0K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0022A			R1 ROH- R-50	
0023	00001.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES QPL- MS1957-14	EA
0024	00001.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0025	00001.000	232453-0000	NUT 4-40X3/16X1/16 THK SMALL PATTERN	EA
0027	00002.000	236380-0001	WASHER FLAT NYLON .281ODX.115IDX.047 THK SMI-2514	EA

969469-1

NOTES CONTD:
[11] INSTALL JUMPERS FROM E3 TO E4, E5 TO E6, E7 TO E8, E9 TO E10, E11 TO E12, E15 TO E16, E21 TO E22, E23 TO E24, E25 TO E26, E27 TO E28.
[12] R46 TO BE USED FOR FUTURE OPTIONS
[13] #8 CLEAR PLASTIC TUBING (ITEM 132) TO BE INSTALLED OVER BODY OF CRYSTAL Y1 ITEM 112 PRIOR TO INSTALLATION OF CRYSTAL ON PWB.

NOTES CONTD:
[7] INSERT #8 TEFLON TUBING (ITEM 128) 0.6 IN. LONG OVER L4 THRU L7
[8] ▨ INDICATES COMPONENTS NOT USED
[9] INSTALL SWITCH (ITEM 118) AFTER WAVE SOLDER (PROCESS 1) TO PREVENT DAMAGE TO SWITCH, SOLDER WITH LEVER IN POSITIONS SHOWN BELOW:

SOLDER ← POSITION 2 POSITION 1 → SOLDER

[10] SELECTED AT UNIT TEST.

NOTES UNLESS OTHERWISE SPECIFIED
1) DO NOT CLINCH COMPONENT LEADS.
2) DO NOT SOLDER ON COMPONENT SIDE.
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4) EJECTORS (ITEMS 3 AND 4) ARE TO BE INSTALLED AFTER WAVE SOLDERING
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062

LTR	DESCRIPTION	DATE	APPD
B	Rod Cantu 9-26-73 UPDATED LM'S AND GENERATED ASSY DWG FOR FORMAL RELEASE	10-1-73	
	FORMAL RELEASE		
C	385727 (C) S Pinney 2-1-74 CHG: (1) SH 1, NOTE 11 WAS "INSTALL JUMPERS FROM ----- TO E16. (2) ALL SHEETS E4, R51 & CR4 RELOCATED TO MATCH A/W CHANGE. (3) ALL LM'S, QTY OF IT. 127 WAS 3.0 FT (4) SH 4, ZONE C1, CROSS HATCHED R35 ADDED: (1) SH 1, NOTES 12 & 13, NETWORK U34, E21 THRU E28; JUMPERS BETWEEN E21-E22, E23-E24, E25-E26, E27-E28 (2) ITEM 132 TO ALL ASSY'S (3) SH 2 & 3, E21 THRU E28 & CROSS HATCHED PICTORIAL OF U34. (4) ITEM 25 & 25A TO -0001 LM DELETED: ON -0001 LM QTY OF IT. 75 WAS 2 & IT. 75A WAS R46, R76 CHG. CONT'D: (9) ON ALL LM'S IT. 83 WAS PART NUMBER 234105-0000	1-6-74	
D	396787 (B) 7-9-74 (1) SH. 3 -0003 ADDED JUMPER WIRE FROM E15 TO E16. (2) SH 4 -0004 DELETED CROSS HATCHING LINES FROM R17 ZONE C-2.	7-9-74	

BOARD NO 969468-0001
TEXAS INSTRUMENTS INCORPORATED
755 TERMINAL CONTROL
MADE IN U.S.A.
DASH NO 969469-0001 B
SERIAL NO
ASSEMBLY NO 969469-0001 B

(9) (12) 3 PLACES AR1, AR2 & AR3
(4) (10)
(1)
(3)
MARK APPROPRIATE REVISION LETTER PER REVISION LEVEL BLOCK PER PROCESS 2
MARK APPROPRIATE DASH NUMBER PER PROCESS 2
(20) 3 PLACES Q7, Q11, & Q9
(16) L4 THRU L7
(26) AR
(28) AR
(7)
(19) 2 PLACES Q10, Q4
(8)
(12)
(27) AR (11)
(29) AR 10 PLACES
(26) AR
(13a) AR (13)

ASSEMBLY
969469-0001

SHEET	PART NO.	DESCRIPTION
4	969469-0004	MODEL 755 TERMINAL CONTROL, BAUDOT-TTY
3	969469-0003	MODEL 755 TERMINAL CONTROL, ASCII-PARALLEL
2	969469-0002	MODEL 755 TERMINAL CONTROL, ASCII-TTY
1	969469-0001	MODEL 755 TERMINAL CONTROL, ASCII-EIA

PROCESSES:
[5] 1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-127
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK

-0003 QTY REQD	-0001 QTY REQD	ITEM NO.	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
PROCESSES						LIST OF MATERIALS	
		8728	D		969602		
		8729	D		969604		
		8729	D		969605		

UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED √ TO HAVE
DRILLED HOLE TOLERANCES
.013 TO .136 +.003 -.002
.136 TO .250 +.004 -.003
.250 AND ABOVE ± .005

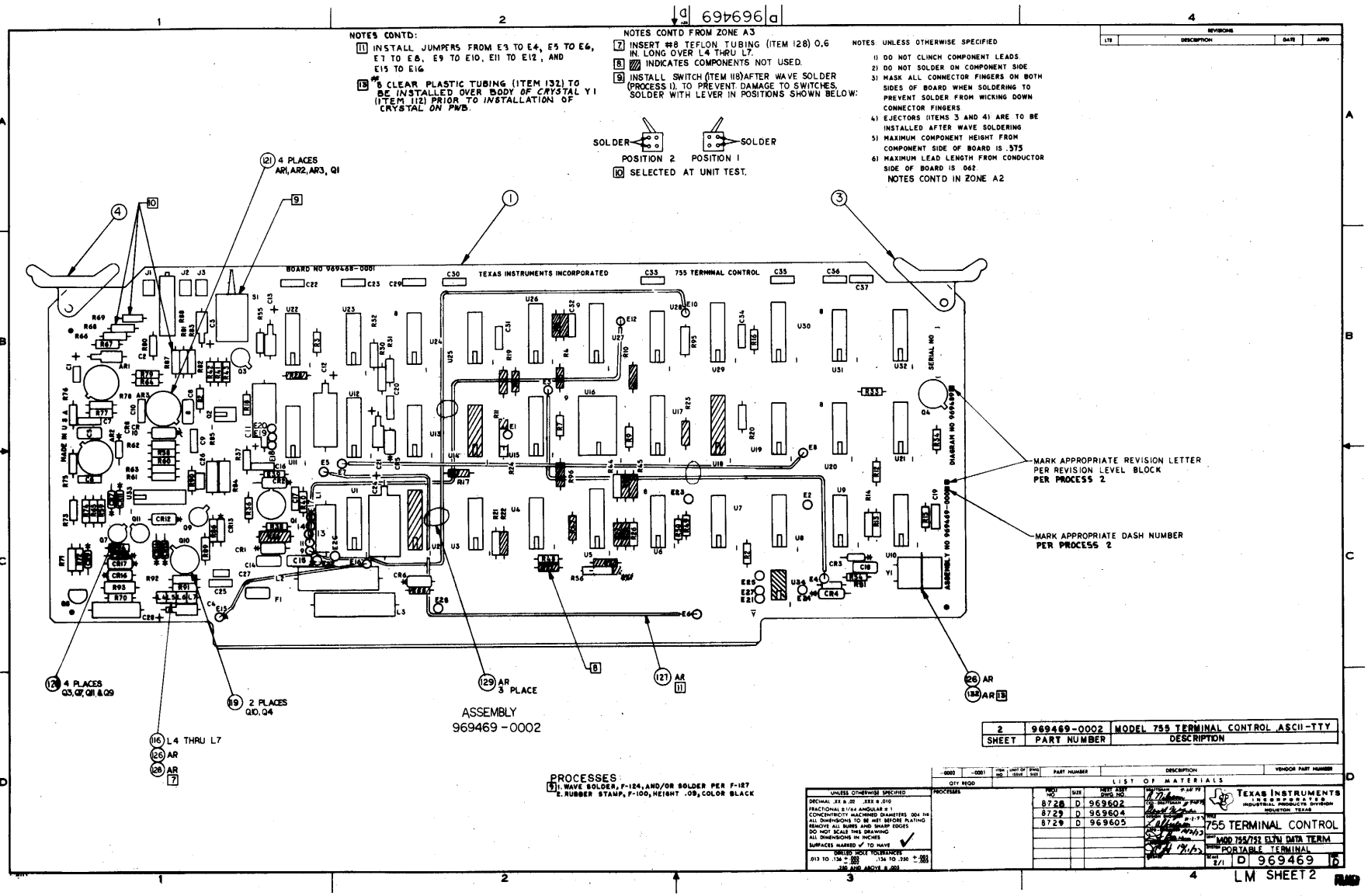
TEXAS INSTRUMENTS INCORPORATED
INDUSTRIAL PRODUCTS DIVISION
HOUSTON, TEXAS

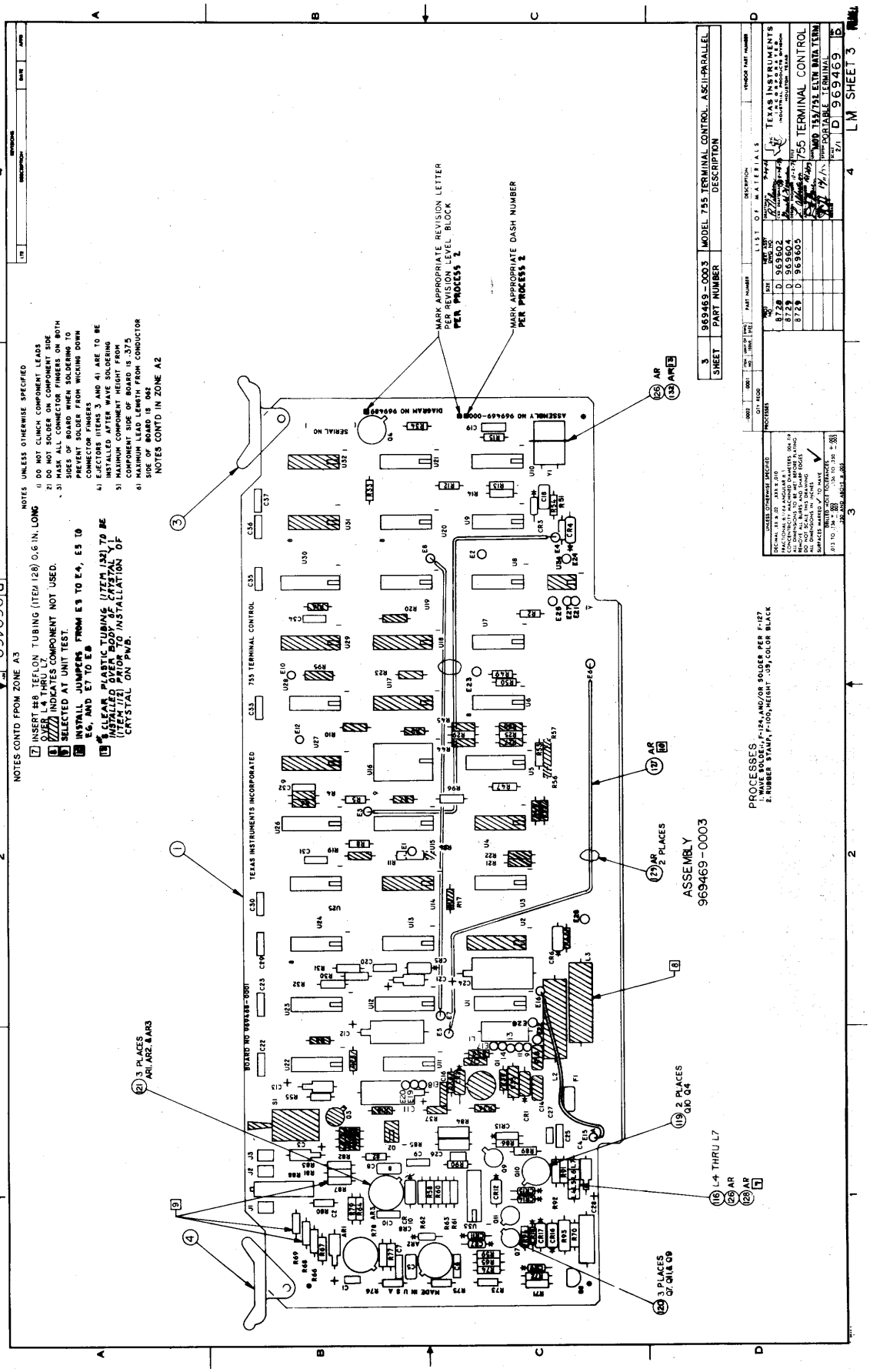
755 TERMINAL CONTROL
MOD 755/752 ELTN DATA TERM
PORTABLE TERMINAL
SIZE D 969469 REV B
SCALE 1/1

REVISION LEVEL

PWB FOR -0001 THRU -0004 ASSY'S (969468)	C	D
LOGIC DIAGRAM FOR -0001 THRU -0004 ASSEMBLIES (969489-9901)	A	A
ASSEMBLY	B	C

LM SHEET 1 OF 4

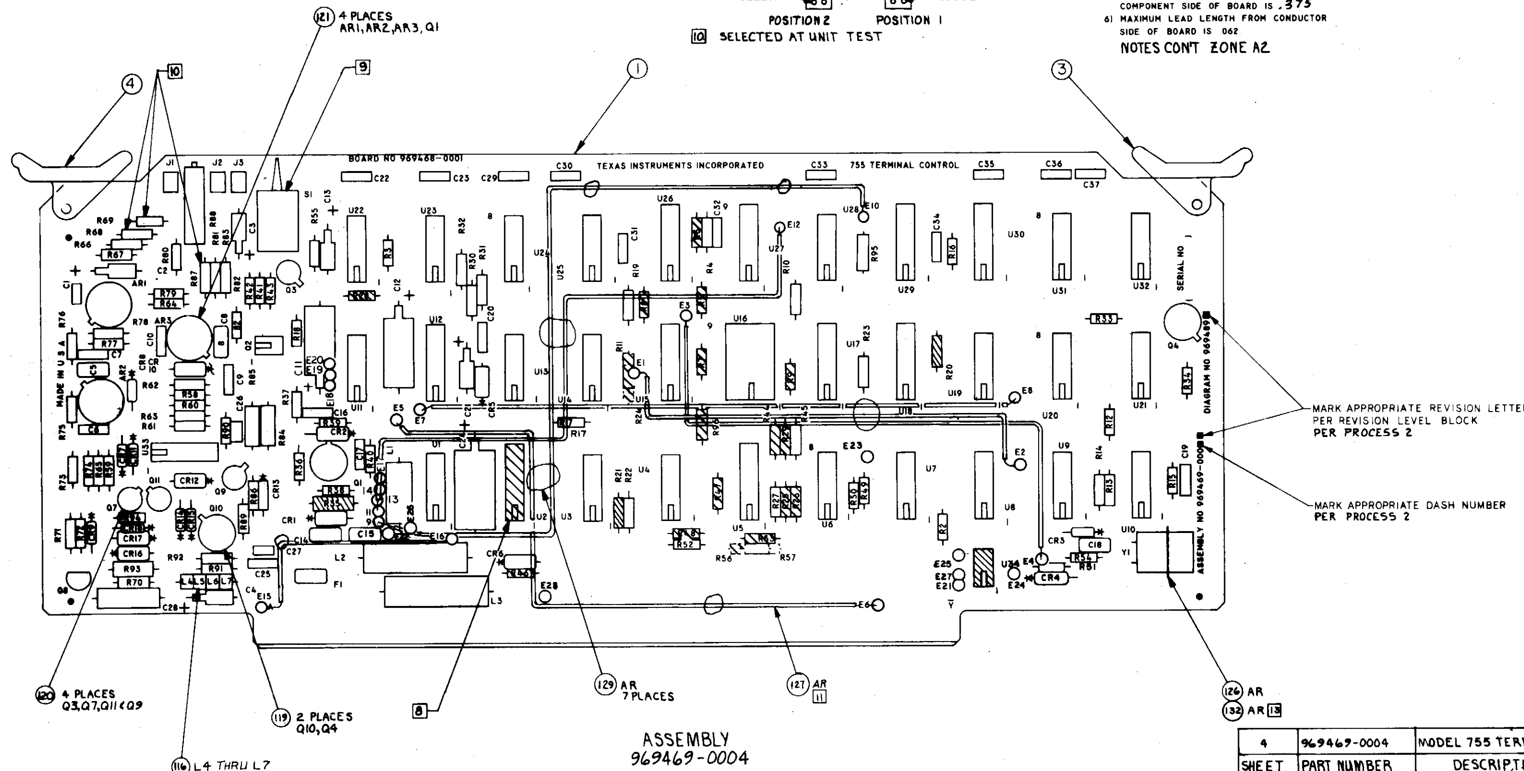

NOTES CONTD:
11 INSTALL JUMPERS FROM E3 TO E4, E5 TO E6, E7 TO E8, E9 TO E10, E11 TO E12, AND E15 TO E16
13 B CLEAR PLASTIC TUBING (ITEM 132) TO BE INSTALLED OVER BODY OF CRYSTAL Y1 (ITEM 112) PRIOR TO INSTALLATION OF CRYSTAL ON PWB.
NOTES CONTD FROM ZONE A3
7 INSERT #8 TEFLON TUBING (ITEM 128) 0.6 IN. LONG OVER L4 THRU L7.
8 INDICATES COMPONENTS NOT USED.
9 INSTALL SWITCH (ITEM 118) AFTER WAVE SOLDER (PROCESS 1), TO PREVENT DAMAGE TO SWITCHES. SOLDER WITH LEVER IN POSITIONS SHOWN BELOW:
SOLDER
POSITION 2
POSITION 1
SOLDER
10 SELECTED AT UNIT TEST.
NOTES: UNLESS OTHERWISE SPECIFIED
1) DO NOT CLINCH COMPONENT LEADS
2) DO NOT SOLDER ON COMPONENT SIDE
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4) EJECTORS (ITEMS 3 AND 4) ARE TO BE INSTALLED AFTER WAVE SOLDERING
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .575
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
NOTES CONTD IN ZONE A2
REVISIONS
LTR DESCRIPTION DATE APPD
21 4 PLACES AR1, AR2, AR3, Q1
BOARD NO 969468-0001
TEXAS INSTRUMENTS INCORPORATED
755 TERMINAL CONTROL
SERIAL NO
DIAGRAM NO 969469-0002
ASSEMBLY NO 969469-0002
MARK APPROPRIATE REVISION LETTER PER REVISION LEVEL BLOCK PER PROCESS 2
MARK APPROPRIATE DASH NUMBER PER PROCESS 2
12 4 PLACES Q3, Q7, Q11, & Q9
19 2 PLACES Q10, Q4
16 L4 THRU L7
26 AR
28 AR 7
129 AR 3 PLACE
8
121 AR 11
26 AR
132 AR 13
ASSEMBLY
969469-0002
2 969469-0002 MODEL 755 TERMINAL CONTROL ASCII-TTY
SHEET PART NUMBER DESCRIPTION
PROCESSES
9 1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-187
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK
LIST OF MATERIALS
PART NO SIZE PART ASSY DWG NO
8728 D 969602
8729 D 969604
8729 D 969605
UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1°
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE
DRILLED HOLE TOLERANCES
.013 TO .136 +.003 -.000
.136 TO .250 +.003 -.005
.250 AND ABOVE ± .005
TEXAS INSTRUMENTS INCORPORATED
INDUSTRIAL PRODUCTS DIVISION
HOUSTON, TEXAS
755 TERMINAL CONTROL
MOD 755/752 ELTN DATA TERM
PORTABLE TERMINAL
SIZE D 969469 REV
SCALE 8/1
LM SHEET 2


NOTES UNLESS OTHERWISE SPECIFIED
1) DO NOT CLINCH COMPONENT LEADS
2) DO NOT SOLDER ON COMPONENT SIDE
3) MASK ALL CONNECTOR FINGERS TO WIDTH SHOWN ON BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4) EJECTORS (ITEMS 3 AND 4) ARE TO BE INSTALLED AFTER WAVE SOLDERING
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUN LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
NOTES CONTD IN ZONE A2
NOTES CONTD FROM ZONE A3
7 INSERT #8 TEFLON TUBING (ITEM 128) 0.6 IN. LONG OVER L4 THRU L7.
8 INDICATES COMPONENT NOT USED.
9 SELECTED AT UNIT TEST.
10 INSTALL JUMPERS FROM E9 TO E4, E5 TO E6, AND E7 TO E8
11 #6 CLEAR PLASTIC TUBING (ITEM 130) TO BE INSTALLED PRIOR TO INSTALLATION OF CRYSTAL ON PWB.
MARK APPROPRIATE REVISION LETTER PER REVISION LEVEL BLOCK PER PROCESS 2
MARK APPROPRIATE DASH NUMBER PER PROCESS 2
DIAGRAM NO 969469-0000
ASSEMBLY NO 969469-0000
SERIAL NO
BOARD NO 969469-0001
TEXAS INSTRUMENTS INCORPORATED
755 TERMINAL CONTROL
3 PLACES AR1, AR2, & AR3
2 PLACES Q10 Q4
L4 THRU L7
3 PLACES Q7, Q11 & Q9
PROCESSES
1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-127
2. NUMBER STAMP, F-100, HEIGHT: .05", COLOR BLACK
ASSEMBLY
969469-0003
3 SHEET
969469-0003 PART NUMBER
MODEL 755 TERMINAL CONTROL, ASCII-PARALLEL DESCRIPTION
LIST OF MATERIALS
TEXAS INSTRUMENTS
MODEL 755/751 ELTN DATA TERM
PORTABLE TERMINAL
D 969469
LM SHEET 3

NOTES CONT:
11 INSTALL JUMPERS FROM E1 TO E2, E3 TO E4, E5 TO E6, E7 TO E8, E9 TO E10, E11 TO E12, AND E15 TO E16
13 *8 CLEAR PLASTIC TUBING (ITEM 132) TO BE INSTALLED OVER BODY OF CRYSTAL Y1 (ITEM 112) PRIOR TO INSTALLATION OF CRYSTAL ON PWB.

NOTES CON'T FROM ZONE A3
7 INSERT #8 TEFLON TUBING (ITEM 128) 0.6 IN. LONG OVER L4 THRU L7.
8 [hatched box] INDICATES COMPONENTS NOT USED
9 INSTALL SWITCH (ITEM 118) AFTER WAVE SOLDER PROCESS 1. TO PREVENT DAMAGE TO SWITCHES, SOLDER WITH LEVER IN POSITION SHOWN BELOW:
SOLDER — POSITION 2 — SOLDER — POSITION 1
10 SELECTED AT UNIT TEST

NOTES UNLESS OTHERWISE SPECIFIED
1) DO NOT CLINCH COMPONENT LEADS
2) DO NOT SOLDER ON COMPONENT SIDE
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS
4) EJECTORS (ITEMS 3 AND 4) ARE TO BE INSTALLED AFTER WAVE SOLDERING
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062
NOTES CON'T ZONE A2



ASSEMBLY
969469-0004

PROCESSES
5 1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-127
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK

SHEET	PART NUMBER	DESCRIPTION
4	969469-0004	MODEL 755 TERMINAL CONTROL, BAUDOT TTY

LIST OF MATERIALS

PROJ NO	SIZE	NEXT ASSY DWG NO
8726	D	969602
8729	D	969604
8729	D	969605

UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL ± 1/64 ANGULAR ± 1
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE ✓
DRILLED HOLE TOLERANCES
.013 TO .136 +.003/−.002 .136 TO .250 +.003/−.003
.250 AND ABOVE ± .005

TEXAS INSTRUMENTS INCORPORATED
INDUSTRIAL PRODUCTS DIVISION
HOUSTON TEXAS

755 TERMINAL CONTROL
MOD 755/752 ELTN DATA TERM
PORTABLE TERMINAL
SCALE 2/1 D 969469 REV D
LM SHEET 4

PART NUMBER REV DESCRIPTION.....
969469-0001 H MODEL 755 TERM CONTROL,ASCII-EIA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969468-0001	PWB,MODEL 755 TERMINAL CONTROL	EA
0003	00001.000	231802-0009	EJECTOR WHT 8-200 - 0-000	EA
0004	00001.000	231802-0003	EJECTOR ORN 8-200 SCA-8-200	EA
0006	00002.000	222222-7400	NETWORK SN7400N - 3-000	EA
0006A			U10,U20 - 3-000	
0008	00001.000	222222-7402	NETWORK SN7402N TI--SN7402N	EA
0008A			U1 TI--SN7402N	
0009	00003.000	222222-7404	NETWORK SN7404N	EA
0009A			U13,U24,U28	
0010	00001.000	222222-7408	NETWORK-SN7408N	EA
0010A			U19	
0011	00001.000	222222-7427	NETWORK SN7427N TI--SN7427N	EA
0011A			U23 TI--SN7427N	
0012	00004.000	222222-7474	NETWORK SN7474N - 3-000	EA
0012A			U6,U7,U31,U32 - 3-000	
0014	00001.000	222222-7492	NETWORK-SN7492N	EA
0014A			U21	
0015	00003.000	222222-7497	NETWORK SN7497N	EA
0015A			U17,U26,U27	
0016	00001.000	222222-7121	NETWORK SN74121N	EA
0016A			U22	
0017	00001.000	222222-7123	NETWORK SN74123N	EA
0017A			U12	
0018	00001.000	222222-7132	NETWORK SN74132N	EA
0018A			U11	
0019	00002.000	222222-7161	NETWORK SN74161N . -SN74161N	EA
0019A			U29,U30 -SN74161N	
0020	00003.000	222222-7164	NETWORK SN74164N TI--SN74164N	EA
0020A			U3,U4,U25 TI--SN74164N	
0021	00002.000	222222-7175	NETWORK SN74175N	EA
0021A			U5,U15	
0022	00002.000	222222-7197	NETWORK SN74197N	EA
0022A			U8,U9	
0023	00001.000	537947-0001	NETWORK SN75154N TI -SN75154N	EA
0023A			U2 TI -SN75154N	
0024	00001.000	959328-0001	NETWORK CHAR GEN ASCII TMS1856 TI -TMS1856	EA
0024A			U16 TI -TMS1856	
0025	00001.000	537948-0001	NETWORK SN75150P TI -SN75150P	EA
0025A			U34 TI -SN75150P	
0026	00001.000	232426-0100	NETWORK VOLTAGE REGULATOR NSC-LM-305	EA

PART NUMBER REV DESCRIPTION.....
969469-0001 H MODEL 755 TERM CONTROL,ASCII-EIA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0026A			AR1 NSC-LM-305	
0027	00002.000	222224-2013	NETWORK LM201AH OPERATIONAL AMP -LM201AH	EA
0027A			AR2 AR3 -LM201AH	
0030	00001.000	972242-0001	TRANSISTOR MPQ2222/SQ1062 QUAD - -	EA
0030A			U33 - -	
0031	00002.000	236052-0000	TRANSISTOR 2N1711 418-288-0001 QPL19500	EA
0031A			Q4 Q10 418-288-0001 QPL19500	
0032	00001.000	972948-0002	TRANSISTOR, NPN,GEN.PURP.SW TO-18 TI - 2N2222A	EA
0032A			Q11 TI - 2N2222A	
0033	00002.000	972958-0002	TRANSISTOR, PNP,GEN.PURP.SW TO-18 TI - 2N2907A	EA
0033A			Q7 Q9 TI - 2N2907A	
0035	00001.000	248490-5245	XST,HI-RELBL N-CHAN FET SKA5729 NKL LEAD	EA
0035A			Q8	
0037	00010.000	972932-0001	DIODE SWITCHING,75V PIV 75MA 4NS TRR TI - IN914B	EA
0037A			CR3 CR5 CR6 CR7 CR8 CR9 CR11 TI - IN914B	
0037B			CR14 CR15 CR18 TI - IN914B	
0038	00001.000	972934-0010	DIODE SI VOLT REGULATOR 7.5 V 20 MA QPL- 1N755A	EA
0038A			CR10 QPL- 1N755A	
0039	00002.000	972934-0013	DIODE SI VOLT REGULATOR 10 V 20 MA QPL- 1N758A	EA
0039A			CR12 CR17 QPL- 1N758A	
0040	00001.000	972934-0014	DIODE SI VOLT REGULATOR 12 V 20 MA QPL- 1N759A	EA
0040A			CR16 QPL- 1N759A	
0041	00001.000	231784-6000	DIODE- 2 PELLET, SILICON,MULTI GE -MPD200	EA
0041A			CR13 GE -MPD200	
0043	00001.000	153733-0001	DIODE GTD-132 / CGD-949	EA
0043A			CR4	
0045	00001.000	230365-5000	CAP 3.000 PF 500V 20. % ELM-DM10-030D	EA
0045A			C5 ELM-DM10-030D	
0046	00001.000	972926-0010	CAP FIX MICA 500V 20.0 PF 5 % QPL-CM04E200J0D	EA
0046A			C8 QPL-CM04E200J0D	
0047	00001.000	230396-1000	CAP 47.00 PF 200V 10. % MIL-CK05BX470K	EA
0047A			C1 MIL-CK05BX470K	
0048	00001.000	972929-0382	CAP 150 PF 10% 200V FXD CER STYLE CKR05 MIL-C-39014/1C-1382	EA
0048A			C26 MIL-C-39014/1C-1382	
0049	00002.000	972929-0394	CAP FIX CERAMIC 680 PF 10 % 200 V QPL-M39014/01-1394	EA
0049A			C20 C27 QPL-M39014/01-1394	
0051	00001.000	058023-0008	CAP FIX .010 MFD 5 % 100V MYLAR FOIL TRW- 663UW	EA
0051A			C28 TRW- 663UW	
0052	00001.000	972965-0016	CAP FIX CERAMIC .022 MF 10% 100V QPL- CK06BX223K	EA
0052A			C19 QPL- CK06BX223K	

PART NUMBER REV DESCRIPTION.....
969469-0001 H MODEL 755 TERM CONTROL,ASCII-EIA

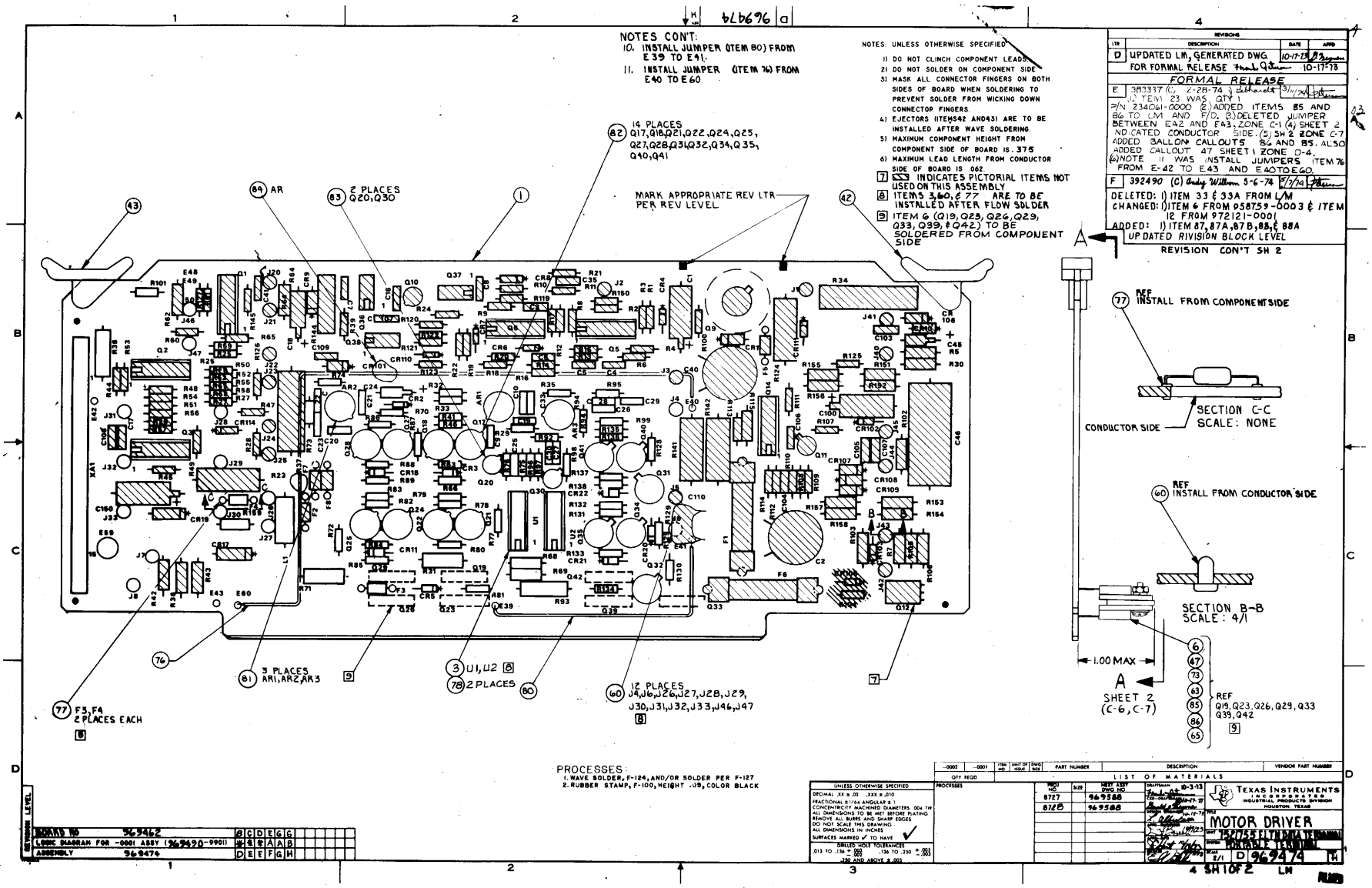
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0053	00016.000	972965-0020	CAP FIX CERAMIC .047 MF 10% 100V	EA
			QPL- CK06BX473K	
0053A			C6,C7,C9,C10,C18,C22	
			QPL- CK06BX473K	
0053B			C23,C29 THRU C37	
			QPL- CK06BX473K	
0054	00001.000	972965-0024	CAP FIX CERAMIC .100 MF 10% 100V	EA
			QPL- CK06BX104K	
0054A			C25	
			QPL- CK06BX104K	
0055	00003.000	972924-0013	CAP FIX TANT SOLID 2.2 MFD 10 % 20 VOLT	EA
			QPL-M39003/1-2283	
0055A			C2 C3 C13	
			QPL-M39003/1-2283	
0056	00001.000	972924-0009	CAP FIX TANT SOLID 3.3 MFD 10 % 15 VOLT	EA
			QPL-M39003/1-2268	
0056A			C4	
			QPL-M39003/1-2268	
0057	00002.000	972924-0019	CAP FIX TANT SOLID 22 MFD 10 % 35 VOLT	EA
			QPL-M39003/1-2306	
0057A			C11 C12	
			QPL-M39003/1-2306	
0058	00001.000	972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT	EA
			QPL-M39003/1-2259	
0058A			C21	
			QPL-M39003/1-2259	
0059	00001.000	972924-0012	CAP FIX TANT SOLID 150 MFD 10 % 15 VOLT	EA
			QPL-M39003/1-2277	
0059A			C24	
			QPL-M39003/1-2277	
0063	00011.000	972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM	EA
			ROH- R-25	
0063A			R7,R9,R20,R21,R24,R26	
			ROH- R-25	
0063B			R28,R44,R48,R56,R95	
			ROH- R-25	
0065	00002.000	972946-0027	RES FIX 27.0 OHM 5 % .25 W.CARBON FILM	EA
			ROH- R-25	
0065A			R49 R50	
			ROH- R-25	
0067	00001.000	972946-0033	RES FIX 47.0 OHM 5 % .25 W.CAPBON FILM	EA
			ROH- R-25	
0067A			R91	
			ROH- R-25	
0068	00001.000	972946-0037	RES FIX 68.0 OHM 5 % .25 W.CARBON FILM	EA
			ROH- R-25	
0068A			R34	
			ROH- R-25	
0069	00001.000	972946-0047	RES FIX 180 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0069A			R86	
			ROH- R-25	
0070	00002.000	972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0070A			R89,R94	
			ROH- R-25	
0071	00003.000	972946-0057	RES FIX 470 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0071A			R14 R15 R62	
			ROH- R-25	
0072	00001.000	972946-0059	RES FIX 560 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0072A			R51	
			ROH- R-25	
0073	00001.000	972946-0061	RES FIX 680 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0073A			R33	
			ROH- R-25	
0074	00001.000	972946-0064	RES FIX 910 OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0074A			R72	
			ROH- R-25	
0075	00001.000	972946-0065	RES FIX 1.0K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0075A			R76	
			ROH- R-25	
0076	00001.000	972946-0067	RES FIX 1.2K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0076A			R59	
			ROH- R-25	

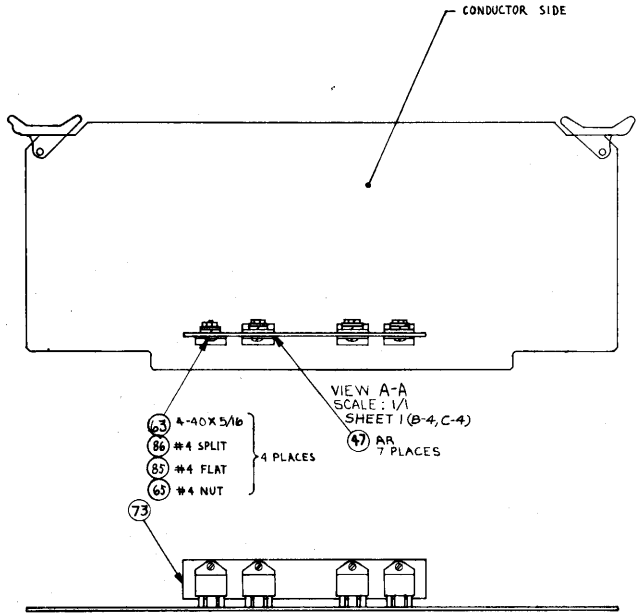
PART NUMBER REV DESCRIPTION.....
969469-0001 H MODEL 755 TERM CONTROL,ASCII-EIA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0077	00001.000	972946-0071	RES FIX 1.8K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0077A			R92	
			ROH- R-25	
0078	00006.000	972946-0072	RES FIX 2.0K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0078A			R2 R12 R13 R16 R18 R32	
			ROH- R-25	
0079	00003.000	972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0079A			R58 R61 R90	
			ROH- R-25	
0080	00001.000	972946-0077	RES FIX 3.3K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0080A			R64	
			ROH- R-25	
0081	00001.000	972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0081A			R65	
			ROH- R-25	
0082	00001.000	972946-0084	RES FIX 6.2K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0082A			R54	
			ROH- R-25	
0083	00001.000	972946-0087	RES FIX 8.2K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0083A			R55	
			ROH- R-25	
0084	00001.000	972946-0089	RES FIX 10 K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0084A			R31	
			ROH- R-25	
0085	00002.000	234225-0000	RES 15000. OHM .25W 5.	EA
			AB -CB1535	
0085A			R60 R63	
			AB -CB1535	
0086	00001.000	972946-0121	RES FIX 220K OHM 5 % .25 W CARBON FILM	EA
			ROH- R-25	
0086A			R70	
			ROH- R-25	
0087	00003.000	399999-9702	RESISTOR SELECTED AT UNIT TEST	EA
0087A			R68,R69,R87	
0089	00001.000	972947-0061	RES FIX 680 OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0089A			R93	
			ROH- R-50	
0091	00001.000	972947-0079	RES FIX 3.9K OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0091A			R85	
			ROH- R-50	
0096	00001.000	539370-0413	RES FIX FILM 1.96K OHM 1% .25 WATT	EA
			COR- NA55	
0096A			R67	
			COR- NA55	
0097	00001.000	539370-0480	RES FIX FILM 9.76K OHM 1% .25 WATT	EA
			COR- NA55	
0097A			R66	
			COR- NA55	
0098	00001.000	539812-0008	RES FIX FILM 200 OHM 0.1% .13 WATT	EA
			COR- NC4	
0098A			R78	
			COR- NC4	
0099	00001.000	539812-0009	RES FIX FILM 243 OHM 0.1% .13 WATT	EA
			COR- NC4	
0099A			R83	
			COR- NC4	
0100	00001.000	539812-0011	RES FIX FILM 1.02K OHM 0.1% .13 WATT	EA
			COR- NC4	
0100A			R74	
			COR- NC4	
0101	00001.000	539812-0012	RES FIX FILM 1.82K OHM 0.1% .13 WATT	EA
			COR- NC4	
0101A			R77	
			COR- NC4	
0102	00002.000	539812-0014	RES FIX FILM 3.01K OHM 0.1% .13 WATT	EA
			COR- NC4	
0102A			R79 R82	
			COR- NC4	

PART NUMBER REV DESCRIPTION.....
969469-0001 H MODEL 755 TERM CONTROL,ASCII-EIA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0103	00001.000	539812-0001	RES FIX FILM 4.12K OHM 0.1% .13 WATT COR-NC4-50PPM/C	EA
0103A			R81 COR-NC4-50PPM/C	
0104	00001.000	539812-0003	RES FIX FILM 8.06K OHM 0.1% .13 WATT COR-NC4-50PPM/C	EA
0104A			R71 COR-NC4-50PPM/C	
0105	00001.000	539812-0004	RES FIX FILM 8.87K OHM 0.1% .13 WATT COR-NC4-50PPM/C	EA
0105A			R73 COR-NC4-50PPM/C	
0106	00001.000	539812-0018	RES FIX FILM 30.9K OHM 0.1% .13 WATT COR- NC4	EA
0106A			R75 COR- NC4	
0107	00001.000	539812-0002	RES FIX FILM 38.3K OHM 0.1% .13 WATT COR-NC4-50PPM/C	EA
0107A			R80 COR-NC4-50PPM/C	
0109	00001.000	537570-0002	RES VAR CERMET 100 K OHMS 10 % .75 WATT BEC-79PR100K	EA
0109A			R88 BEC-79PR100K	
0110	00001.000	972946-0096	RES FIX 20 K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0110A			R30 ROH- R-25	
0112	00001.000	538031-0006	CRYSTAL UNIT QUARTZ 13.5168 MHZ .005% MIL-CR60A/U13.5168MHZ	EA
0112A			Y1 MIL-CR60A/U13.5168MHZ	
0114	00001.000	538433-0001	COIL RF 5.60 UH .13 OHM 885 MA LT10K158 QPL- MS90542-14	EA
0114A			L1 QPL- MS90542-14	
0116	00004.000	230029-0001	BEAD SHIELDING FER-5659065/4A	EA
0116A			L4 L5 L6 L7 FER-5659065/4A	
0118	00001.000	235665-1075	SWITCH SUBMINI TOGGLE-CENTER OFF - C-CT8206	EA
0118A			S1 - C-CT8206	
0119	00002.000	232583-0008	PAD XST MTG TO-5 WHT THR-7717-4N	EA
0120	00003.000	185113-0001	SPACER XST TO-18 CASE * -	EA
0121	00003.000	232583-0005	PAD INTEGRATED CKT.TO-5 8 LEADS .350 DIA THR-7717-107-N-WHT	EA
0123	00002.000	232164-0190	JACK TIP PRNTD CKT HORIZONTAL RED EFJ-105-1102-001	EA
0123A			TP1J1 TP2J2 EFJ-105-1102-001	
0124	00001.000	232164-0200	JACK TIP PRNTD CKT HORIZONTAL BLK EFJ-105-1103-001	EA
0124A			TP3J3 EFJ-105-1103-001	
0125	00001.000	231928-0100	FUSE 1 AMP PICO 276001. LIT-276001.	EA
0125A			F1 LIT-276001.	
0126	00000.500	411400-0022	WIRE 22AWG ELETRO-TIN-PLATED,COPPER	FT
0127	00006.000	457313-0006	WIRE 24 AWG SOLID,TEFLON,WHITE QPL- MIL-W-16878/4E	FT
0128	00000.250	236269-0000	TUBING TEFLON #8 -#8	FT
0129	AR	417559-0001	SILICONE RUBBER (RTV) DOW 3140 SEE- TI DRAWING	TU
0130	REF	969489-9901	DIAGRAM LOC DETAILED-MOD 755 TERM CONT	EA
0131	REF	969529-9901	TEST PROC,MOD 755 TERM CONTROL	EA
0132	00000.100	415780-0013	SLEEVE,VINYL .133 DIA CLEAR .020 WALL QPL- MIL-I-7444C	FT


NOTES CON'T:
10. INSTALL JUMPER (ITEM 80) FROM E39 TO E41.
11. INSTALL JUMPER (ITEM 76) FROM E40 TO E60
NOTES: UNLESS OTHERWISE SPECIFIED
1) DO NOT CLINCH COMPONENT LEADS.
2) DO NOT SOLDER ON COMPONENT SIDE
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS.
4) EJECTORS (ITEMS 42 AND 43) ARE TO BE INSTALLED AFTER WAVE SOLDERING.
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062.
7 INDICATES PICTORIAL ITEMS NOT USED ON THIS ASSEMBLY
8 ITEMS 3, 60, & 77 ARE TO BE INSTALLED AFTER FLOW SOLDER
9 ITEM 6 (Q19, Q23, Q26, Q29, Q33, Q39, & Q42) TO BE SOLDERED FROM COMPONENT SIDE
MARK APPROPRIATE REV LTR PER REV LEVEL
14 PLACES Q17,Q18,Q21,Q22,Q24,Q25, Q27,Q28,Q31,Q32,Q34,Q35, Q40,Q41
2 PLACES Q20,Q30
AR
3 PLACES AR1,AR2,AR3
2 PLACES
U1,U2
12 PLACES J4,J6,J26,J27,J28,J29, J30,J31,J32,J33,J46,J47
2 PLACES EACH F3,F4
REVISIONS
LTR DESCRIPTION DATE APPD
D UPDATED LM, GENERATED DWG. FOR FORMAL RELEASE 10-17-74
FORMAL RELEASE
E 383337 (C) 2-28-74
1) ITEM 23 WAS QTY 1 P/N 234061-0000 (2) ADDED ITEMS 85 AND 86 TO LM AND F/D, (3) DELETED JUMPER BETWEEN E42 AND E43, ZONE C-1 (4) SHEET 2 INDICATED CONDUCTOR SIDE. (5) SH 2 ZONE C-7 ADDED BALLOON CALLOUTS 86 AND 85. ALSO ADDED CALLOUT 47 SHEET 1 ZONE D-4. (6) NOTE 11 WAS INSTALL JUMPERS ITEM 76 FROM E-42 TO E43 AND E40 TO E60.
F 392490 (C) Andy Williams 5-6-74
DELETED: 1) ITEM 33 & 33A FROM LM
CHANGED: 1) ITEM 6 FROM 058759-0003 & ITEM 12 FROM 972121-0001
ADDED: 1) ITEM 87, 87A, 87B, 88, & 88A
UPDATED REVISION BLOCK LEVEL
REVISION CON'T SH 2
REF INSTALL FROM COMPONENT SIDE
SECTION C-C SCALE: NONE
CONDUCTOR SIDE
REF INSTALL FROM CONDUCTOR SIDE
SECTION B-B SCALE: 4/1
1.00 MAX
SHEET 2 (C-6, C-7)
REF Q19,Q23,Q26,Q29,Q33 Q39,Q42
PROCESSES:
1. WAVE SOLDER, F-124, AND/OR SOLDER PER F-127
2. RUBBER STAMP, F-100, HEIGHT .09, COLOR BLACK
LIST OF MATERIALS
QTY REQD -0002 -0001 ITEM NO UNIT OF ISSUE DWG SIZE PART NUMBER DESCRIPTION VENDOR PART NUMBER
UNLESS OTHERWISE SPECIFIED
DECIMAL .XX ± .02 .XXX ± .010
FRACTIONAL 1/64 ANGULAR ± 1
CONCENTRICITY MACHINED DIAMETERS .004 TIR
ALL DIMENSIONS TO BE MET BEFORE PLATING
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING
ALL DIMENSIONS IN INCHES
SURFACES MARKED ✓ TO HAVE
DRILLED HOLE TOLERANCES
.013 TO .136 +.003 -.005 .136 TO .250 +.003 -.005
.250 AND ABOVE ± .003
PROD NO 8727 8728 SIZE NEW ASSY DWG NO 969388 969388
DRAFTSMAN 10-3-13
TEXAS INSTRUMENTS INCORPORATED INDUSTRIAL PRODUCTS DIVISION HOUSTON, TEXAS
TITLE MOTOR DRIVER
SHT SIZE D DWG NO 969474 REV M
4 SH 1 OF 2 LM
BOARD NO 969462
LOGIC DIAGRAM FOR -0001 ASSY (969490-9901)
ASSEMBLY 969474
REVISION LEVEL
969474 - 1



REVISIONS			
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	G	396683 (E) 9-3-74 CHG P/N'S ON LM'S: IT. 25 WAS 233065-0010, IT 26 WAS 539747-0001. UPDATED REVISION LEVEL BLOCK	9-5-74	
	H	400898 (B) 11-21-5 1) SH 1, ZONE C1, REMOVED CROSS-HATCH FROM R158. 2.) ON LM, DELETED ITEMS 88, 88A, 88B, WAS: ITEM 88, P/N 372121-0001, DIODE, IN5804. 88A, THIS ITEM MAY BE USED AS AN 88B, ALTERNATE TO ITEM 12. 3) ON LM, ADDED ITEMS 89 & 89A. 4.) UPDATED REVISION LEVEL BLOCK	11/25/75	

2 QTY REQD	1 QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .128 +.004 -.001	.129 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02

MATERIAL

DWN 9-20-73 DATE
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

MOTOR DRIVER

SIZE	CODE IDENT NO	DRAWING NO
D	96214	969474

SCALE | REV. H | SHEET 2 OF 2

969474 D

TI-7914E P4

PART NUMBER 969474-0001 REV H DESCRIPTION..... MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	969462-0001	PRINTED WIRING BOARD,POWER/MOTOR DRIVER	EA
0003	00002.000	222222-7438	NETWORK SN7438N	EA
0003A			U1 U2	
0004	00003.000	222225-0311	NETWORK LM311H	EA
0004A			AR1 AR2 AR3	
0006	00007.000	972008-0001	TRANSISTOR,TIP3055-POWER,SILICON,NPN TI--TIP3055	EA
0006A			Q19 Q23 Q26 Q29 Q33 Q39 Q42 TI--TIP3055	
0008	00007.000	972954-0001	TRANSISTOR, NPN,65V,5W TO-5 TI - 2N2102	EA
0008A			Q17 Q21 Q24 Q27 Q31 Q34 Q40 TI - 2N2102	
0009	00002.000	972955-0001	TRANSISTOR, NPN,HIGH SPEED SW TO-18 MOT- 2N2369A	EA
0009A			Q20 Q30 MOT- 2N2369A	
0010	00007.000	772494-0001	TRANSISTOR 2N5322 SEE- TI DRAWING	EA
0010A			Q18 Q22 Q25 Q28 Q32 Q35 Q41 SEE- TI DRAWING	
0012	00007.000	972268-0002	DIODE 1N4934-1 AMP MOT- 1N4934	EA
0012A			CR3 CR5 CR11 CR18 CR20 CR21 MOT- 1N4934	
0012B			CR22 UNT--1N5804	
0013	00001.000	972934-0007	DIODE SI VOLT REGULATOR 5.6 V 20 MA QPL- 1N752A	EA
0013A			CR2 QPL- 1N752A	
0015	00007.000	972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0015A			R66 R81 R85 R89 R130 R134 ROH- R-25	
0015B			R138 ROH- R-25	
0016	00007.000	972946-0037	RES FIX 68.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0016A			R78 R82 R86 R99 R131 R135 ROH- R-25	
0016B			R101 ROH- R-25	
0017	00007.000	972946-0038	RES FIX 75.0 OHM 5 % .25 W.CARBON FILM ROH- R-25	EA
0017A			R63 R80 R84 R88 R129 R133 ROH- R-25	
0017B			R137 ROH- R-25	
0018	00007.000	972946-0043	RES FIX 120 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0018A			R46 R79 R83 R87 R128 R132 ROH- R-25	
0018B			R136 ROH- R-25	
0019	00001.000	972946-0053	RES FIX 330 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0019A			R74 ROH- R-25	
0020	00005.000	972946-0061	RES FIX 680 OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0020A			R41 R75 R77 R96 R98 ROH- R-25	
0021	00005.000	972946-0073	RES FIX 2.2K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0021A			R32 R72 R76 R94 R97 ROH- R-25	
0022	00003.000	234225-0000	RES 15000. OHM .25W 5. AB -CB1535	EA
0022A			R35 R73 R95 AB -CB1535	
0023	00001.000	972946-0107	RES FIX 56 K OHM 5 % .25 W CARBON FILM ROH- R-25	EA
0023A			R33 ROH- R-25	

PART NUMBER REV DESCRIPTION.....
969474-0001 H MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0024	00002.000	972947-0039	RES FIX 82 OHM 5% .5 W CARBON FILM	EA
			ROH- R-50	
0024A			R68 R69	
			ROH- R-50	
0025	00001.000	972554-0004	RESISTOR,FIXED,WIREWOUND .2 OHM 2W 5%	EA
			SEE- TI DRAWING	
0025A			R38	
			SEE- TI DRAWING	
0026	00003.000	972554-0006	RESISTOR,FIXED,WIREWOUND .5 OHM 3W 1%	EA
			SEE- TI DRAWING	
0026A			R31 R71 R93	
			SEE- TI DRAWING	
0029	00003.000	539370-0425	RES FIX FILM 2.61K OHM 1% .25 WATT	EA
			COR- NA55	
0029A			R29 R70 R92	
			COR- NA55	
0031	00014.000	972965-0020	CAP FIX CERAMIC .047 MF 10% 100V	EA
			QPL- CK06BX473K	
0031A			C9 C10 C19 C20 C21 C22 C23	
			QPL- CK06BX473K	
0031B			C25 C26 C27 C28 C29 C30 C33	
			QPL- CK06BX473K	
0032	00001.000	972924-0013	CAP FIX TANT SOLID 2.2 MFD 10 % 20 VOLT	EA
			QPL-M39003/1-2283	
0032A			C24	
			QPL-M39003/1-2283	
0038	00001.000	537399-0010	FUSE 3AMP	EA
			LIT-276003	
0038A			F4	
			LIT-276003	
0039	00001.000	530588-0011	FUSE,CARTRIDGE 5AMP BLK	EA
			LIT-275005	
0039A			F3	
			LIT-275005	
0041	00001.000	772278-0001	CONNECTOR PC 15PIN SINGLE ROW	EA
			MSR-MC15S/2-2	
0041A			XA1	
			MSR-MC15S/2-2	
0042	00001.000	231802-0009	EJECTOR WHT 8-200	EA
			- 0-000	
0043	00001.000	231802-0001	EJECTOR BRN 8-200	EA
			SCA-8-200	
0044	00001.000	538433-0001	COIL RF 5.60 UH .13 OHM 885 MA LT10K158	EA
			QPL- MS90542-14	
0044A			L1	
			QPL- MS90542-14	
0047	AR	231143-0001	COMPOUND THERMAL 8 OZ	EA
			WAK--120-8 OZ	
0060	00012.000	539493-0003	RECEPTACLE,ACCEPTS LEAD SIZE .018-.040	EA
			AMP- 380598-2	
0060A			J4 J6 J26 J27 J28 J29 J30 J31	
			AMP- 380598-2	
0060B			J32 J33 J46 J47	
			AMP- 380598-2	
0063	00004.000	418293-0014	SCREW 4-40 UNC-2A X .312 PAN HEAD CRES	EA
			QPL- MS1957-14	
0065	00004.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL	EA
			MS -35649-244	
0073	00001.000	973202-0001	HEATSINK,POWER SUPPLY	EA
			1210-0007-010	
0074	REF	969526-9901	TEST PROC,MOTOR DRIVER	EA
0075	REF	969490-9901	DIAGRAM,LOGIC,DET-MOTOR DRIVER	EA
0076	00001.000	538555-4099	WIRE 20 AWG HOOKUP UL-1609 BK/WH EFTE	FT
			QPL- M22759/18-20-90	
0077	00004.000	972736-0014	SOCKET,GLD SPRING,TIN EYLT-.025 PIN DIA	EA
0078	00002.000	539544-0001	SOCKET,IC 14 PIN	EA
			TI -C931402	
0080	00001.000	538555-4299	WIRE 20 AWG HOOKUP UL-1609 RD/WH EFTE	FT
			QPL- M22759/18-20-92	
0081	00003.000	232583-0005	PAD INTEGRATED CKT.TO-5 8 LEADS .350 DIA	EA
			THR-7717-107-N-WHT	
0082	00014.000	153763-0001	INSULATOR XISTOR TO-5&TO-9CASE	EA
			TI -153763	
0083	00002.000	185113-0001	SPACER XST TO-18 CASE	EA
			* -	
0084	AR	417559-0001	SILICONE RUBBER (RTV) DOW 3140	TU
			SEE- TI DRAWING	

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION
969474-0001	H	MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0085	00004.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0086	00004.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0087	00000.000	958759-0003	XST TIP 35B SOA TESTED TI -TIP35B	EA
0087A			THIS ITEM MAY BE USED AS AN TI -TIP35B	
0087B			ALTERNATE TO ITEM 6 TI -TIP35B	
0089	00001.000	972947-0089	RES FIX 10 K OHM 5% .5 W CARBON FILM ROH- R-50	EA
0089A			R159 ROH- R-50	

105696 D

NOTES CONTD

[7] INSERT #8 TEFLON TUBING (ITEM 98) .60 LONG LONG OVER L4 THRU L7

[8] (hatched) INDICATES COMPONENTS NOT USED FOR USASCII MODES

[3] ~~#8 CLEAR PLASTIC TUBING (ITEM 101) TO BE INSTALLED OVER THE CRYSTAL (ITEM 89) RETAINING WIRE~~ (ITEM 103)

[10] INSTALL R45 & R50 (ITEM 49) BETWEEN THE 'J' NUMBERS AS INDICATED IN THE PART NO. SCHEDULE FOR EACH DASH NO.

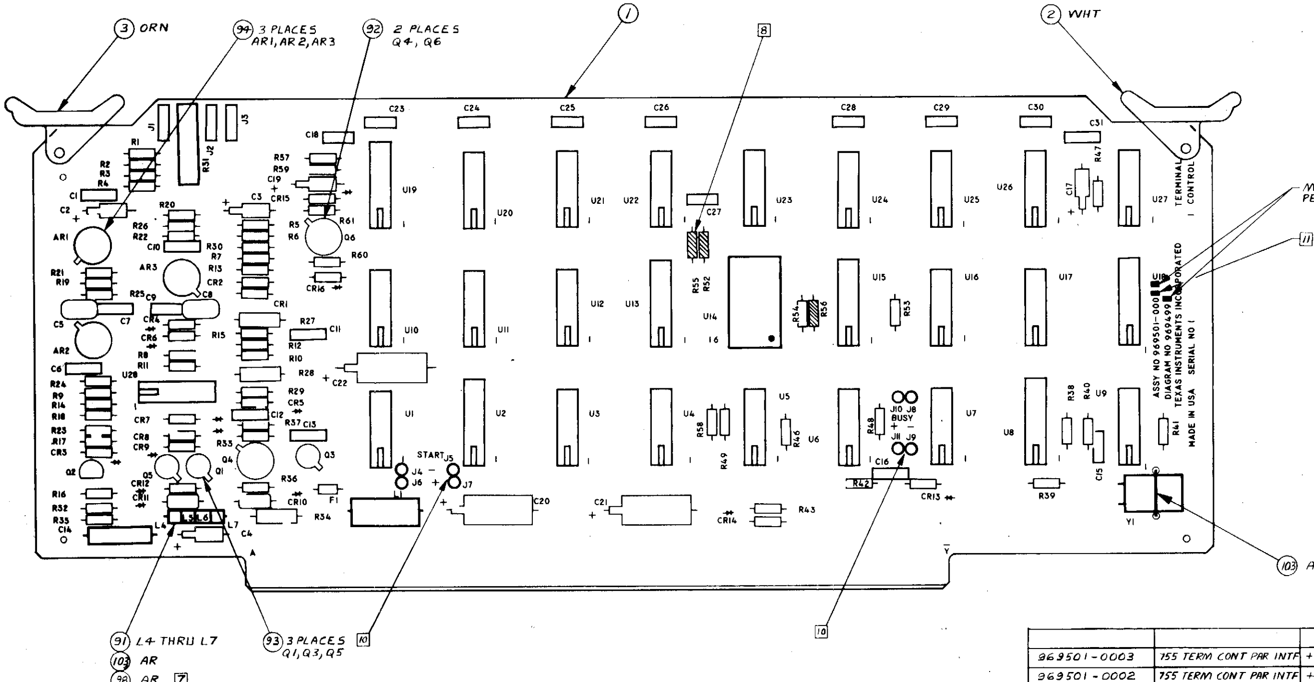
[11] AFTER FINAL TEST MARK APPROPRIATE DASH NUMBER PER PROCESS 2.

NOTES UNLESS OTHERWISE SPECIFIED

1) DO NOT CLINCH COMPONENT LEADS
2) DO NOT SOLDER ON COMPONENT SIDE
3) MASK ALL CONNECTOR FINGERS ON BOTH SIDES OF BOARD WHEN SOLDERING TO PREVENT SOLDER FROM WICKING DOWN CONNECTOR FINGERS.
4) EJECTORS (ITEMS 2 AND 3) ARE TO BE INSTALLED AFTER WAVE SOLDERING
5) MAXIMUM COMPONENT HEIGHT FROM COMPONENT SIDE OF BOARD IS .375
6) MAXIMUM LEAD LENGTH FROM CONDUCTOR SIDE OF BOARD IS .062

REVISIONS

LTR	DESCRIPTION	DATE	APPD
A	395636 (E) 5-29-75 1. ITEM 102 P/N WAS 539493-1; ITEM 101 P/N WAS 236314-0 SLEEVING DELETED NOTE 9		



PART NUMBER	DESCRIPTION	FUNCTION	START (R50) −	START (R50) +	BUSY (R45) −	BUSY (R45) +
969501-0003	755 TERM CONT PAR INTF	+ START − BUSY	NOT USED	J6-J7	J8-J9	NOT USED
969501-0002	755 TERM CONT PAR INTF	+ START + BUSY	NOT USED	J6-J7	NOT USED	J10-J11
969501-0001	755 TERM CONT PAR INTF	− START + BUSY	J4-J5	NOT USED	NOT USED	J10-J11

LIST OF MATERIALS

SEQ NO	PROCESS	F-SPEC	NO	ADDITIONAL CLASSIFICATION
2	MARK	100-02	01	HOT .12 ; CLR BLK
1	SLDR	124-02	00	
	IDENT			

REVISION LEVEL		
PWB	FOR ALL - ASSY (969500-99011)	A
LOGIC DIAGRAM FOR ALL	ASSY (969499-99011)	A
ASSEMBLY		A

UNLESS OTHERWISE SPECIFIED: DECIMAL .XX ± .02 .XXX ± .010; FRACTIONAL ± 1/64 ANGULAR ± 1°; CONCENTRICITY MACHINED DIAMETERS .004 TIR; ALL DIMENSIONS TO BE MET BEFORE PLATING; REMOVE ALL BURRS AND SHARP EDGES; DO NOT SCALE THIS DRAWING; ALL DIMENSIONS IN INCHES; SURFACES MARKED ✓ TO HAVE; DRILLED HOLE TOLERANCES .013 TO .136 +.002 −.002; .136 TO .250 +.003 −.003; .250 AND ABOVE ±.005

PROJ NO	NEXT ASSY DWG NO
8728	969602
8729	969602

DRAFTSMAN 5-29-75

TEXAS INSTRUMENTS INCORPORATED INDUSTRIAL PRODUCTS DIVISION HOUSTON TEXAS

TITLE: TERMINAL CONTROL, 755 PARALLEL INTERFACE

SYSTEM 700 ASR

SCALE 2/1 D 969501 REV A

LM

LIST OF MATERIALS TI-9639-D

* **CODE:** M2A - ADD M2C - CHANGE M2D - DELETE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS
MANUFACTURING ENGINEER FILL IN SHADED AREAS

DESCRIPTION: TERMINAL CONTROL, 735/755 PARALLEL INTERFACE (+START-BUSY)

DWG SIZE: D | ASSEMBLY DWG. NO. 14-131: 969501 0003 | REV: A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
	969501 0001	1	1				EA	TERM CONT. 735/755 PAR INF (-START+BUSY)	
	9674999901	2	1	REF			EA	DIAG, LOG, DET, NRI TERM CONT 735/755	

DRAFTSMAN: JW — DATE: 6-12-75 — CKD DRAFTSMAN — DATE — DESIGN ENGINEER — DATE — WORK ORDER NUMBER

APPD MFG — DATE — APPD PROJECT ENGINEER — DATE — RELEASED — DATE — PROJECT NUMBER: 8728/8729 — PAGE: 1 OF 1

REFERENCE DESIGNATORS

TI 1259 B

** CODE: M2A - ADD, M2C - CHANGE, M2D - DELETE

* NOTE: USE A-2 TO INDICATE ITEM SUBLETTERS FOR REFERENCE DESIGNATORS

1) PART NUMBER 4-13: 969501/0001

CODE **	COMPONENT PART NUMBER		ITEM	*	REFERENCE DESIGNATORS
	5398120012		80	AR	R21
	5398120014		81	AR	R7 R22
	5398120001		82	AR	R5
		0003	83	AR	R17
		0004	84	AR	R23
		0018	85	AR	R25
	5398120002		86	AR	R20
	5375700002		87	AR	R31
	9729460096		88	AR	R59
	5380310006		89	AR	Y1
	4180930010		90	AR	L1
	2300290001		91	AK	L4 L5 L6 L7
	2321640190		95	AK	TP1J1 TP2J2
	2321640200		96	AK	TP3J3
	2319280100		97	AK	F1
	5394930001		102	AK	J4 THRU J11

SH 4-4

LIST OF MATERIALS

TI-9639-D

* CODE: M2A - ADD, M2C - CHANGE, M2D - DELETE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS; MANUFACTURING ENGINEER FILL IN SHADED AREAS

DESCRIPTION: TERMINAL CONTROL, 735/755 PARALLEL INTERFACE (+START + BUSY)

DWG SIZE D | ASSEMBLY DWG NO. (4-13): 969501/0002 | REV A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
	969501000 1	1	1					TERM. CONT, 735/755 PAR INTF (-START + BUSY)	
	969499990 1	2	1	AREF				DIAG, LOG, JET, NON TERM CONT. 735/755	

DRAFTSMAN: [signature] DATE: 6-12-15

CKD DRAFTSMAN: DATE:

DESIGN ENGINEER: DATE:

APPD MFG: DATE:

APPD PROJECT ENGINEER: DATE:

RELEASED: DATE:

WORK ORDER NUMBER:

PROJECT NUMBER: 8728/8729

PAGE 1 OF 1

REFERENCE DESIGNATORS

- A -

** CODE: M2A - ADD
M2C - CHANGE
M2D - DELETE

* NOTE: USE A-2 TO INDICATE ITEM SUB-LETTERS FOR REFERENCE DESIGNATORS.

D | PART NUMBER 4-13 | 969501000 1

CODE **	COMPONENT PART NUMBER	ITEM	*	REFERENCE DESIGNATORS
1 2 3	14 15 16 17 18 19 20 21 22 23	24 25 26 27	28 29	30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
	972932 0001	29	B R	CR13 CR15 CR16
	972934 0010	30	A R	CR4
	972934 0013	31	A R	CR7 CR11
	972934 0014	32	A R	CR10
	231784 6000	33	A R	CR5
	153733 0001	34	A R	CR14
	230365 5000	35	A R	C5
	972926 0010	36	A R	C8
	230396 1000	37	A R	C1
	972929 0382	38	A R	C12
	972929 0394	39	A R	C13 C18
	058023 0008	40	A K	C14
	972965 0016	41	A K	C15
	972965 0020	42	A K	C6 C7 C9 C10 C23 C24 C25 C26
	972965 0020	42	A K	C27 C28 C29 C30 C31 C16
	972965 0024	43	A K	C11
	972924 0013	44	A K	C2 C3 C17
	972924 0009	45	A K	C4
	972924 0019	46	A K	C20 C21
	972924 0006	47	A K	C19
	972924 0012	48	A K	C22
	972946 0017	49	A K	R45 R50 R53 R54
	972946 0027	50	A K	R46 R49
	972946 0033	51	A K	R32
	972946 0037	52	A K	R61
	972946 0047	53	A K	R29

SH 2

- A -

** CODE: M2A - ADD
M2C - CHANGE
M2D - DELETE

* NOTE: USE A-2 TO INDICATE ITEM SUB-LETTERS FOR REFERENCE DESIGNATORS.

D | PART NUMBER 4-13 | 969501000 1

CODE **	COMPONENT PART NUMBER	ITEM	*	REFERENCE DESIGNATORS
1 2 3	14 15 16 17 18 19 20 21 22 23	24 25 26 27	28 29	30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
	972946 0055	54	A R	R33 R36
	0057	55	A R	R12 R40 R41
	0059	56	A R	R43
	0061	57	A R	R60
	0064	58	A R	R18
	0065	59	A R	R19
	0067	60	A R	R9
	0071	61	A R	R35
	0072	62	A R	R38 R39 R48 R58
	0075	63	A R	R8 R11 R37
	0075	64	A R	R13
	0081	65	A K	R14
	0084	66	A K	R42
	0087	67	A K	R47
	972946 0089	68	A K	R57
	234225 0000	69	A K	R10 R15
	972946 0121	70	A K	R16
	399999 9702	71	A K	R2 R3 R30
	972947 0061	72	A K	R34
	972947 0071	73	A K	R21
	972947 0079	74	A K	R28
	539370 0413	75	A K	R4
	539370 0480	76	A K	R1
	539812 0008	77	A K	R26
	539812 0009	78	A K	R6
	539812 0011	79	A K	R24

SH 3

LIST OF MATERIALS
TI-9839-D
DESCRIPTION

* CODE: M2A - ADD M2D - DELETE
M2C - CHANGE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS
MANUFACTURING ENGINEER FILL IN SHADED AREAS

DWG SIZE	ASSEMBLY DWG NO (4-13)	REV
D	9696950100 01	A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
1 2 3	14 15 16 17 18 19 20 21 22 23	24 25 26 27	30 31 32 33 34 35 36 37	38 39 40 41	42 43 44	45 46 47 48 49 50			
	4157800013	101	12				FT	TUBING, #8, .133 ID	
	5394930001	102	8				EA	RECEPTACLE	
	4114000022	103	5				FT	WIRE, 22 BUS TINNED SOL BARE	

DRAFTSMAN	DATE	CKD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	WORK ORDER NUMBER
APPD MFG.	DATE	APPD PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NUMBER

PAGE 5 OF 5

REFERENCE DESIGNATORS
TI-12338-B

** CODE: M2A - ADD
M2C - CHANGE
M2D - DELETE

* NOTE: USE A-2 TO INDICATE ITEM SUB-LETTERS FOR REFERENCE DESIGNATORS

-A-

PART NUMBER (4-13)
D 9696950100 01

CODE **	COMPONENT PART NUMBER	ITEM	*		REFERENCE DESIGNATORS
1 2 3	14 15 16 17 18 19 20 21 22 23	24 25 26 27	28	29	30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
	222222 7400	4	A	R	U9 U10
	7402	5	A	R	U21
	7406	6	A	R	U5 U17
	7408	7	A	R	U22
	7414	8	A	R	U4 U6
	7427	9	A	R	U25
	7470	10	A	R	U11 U20
	7474	11	A	R	U1 U7 U12
	7476	12	A	R	U2
	7492	13	A	R	U26
	7497	14	A	R	U8
	7121	15	A	R	U27
	7123	16	A	R	U19
	7161	17	A	R	U18
	7164	18	A	R	U3 U16
	7175	19	A	R	U13 U15
	222222 7197	20	A	R	U23 U24
	972242 0001	21	A	R	U28
	959328 0001	22	A	R	U14
	232426 0100	23	A	R	AR1
	222224 2013	24	A	R	AR2 AR3
	236052 0000	25	A	R	Q4 Q6
	972948 0001	26	A	R	Q5
	972958 0002	27	A	R	Q1 Q3
	248490 5245	28	A	R	Q2
	972932 0001	29	A	R	CR1 CR2 CR3 CR6 CR8 CR9 CR12

SH 1 - 4

LIST OF MATERIALS TI-9639-D

DESCRIPTION

* CODE: M2A - ADD, M2C - CHANGE, M2D - DELETE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS
MANUFACTURING ENGINEER FILL IN SHADED AREAS

DWG SIZE D | ASSEMBLY DWG NO (4-13) 1674501 | REV A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
	972746 0033	51	1				EA	RES, 41.0Ω .25W 5%	
	0071	52	1					, 68.0Ω .25W 5%	
	0047	53	1					, 180Ω .25W 5%	
	0055	54	2					, 390Ω .25W 5%	
	0057	55	3					, 470Ω .25W 5%	
	0059	56	1					, 560Ω .25W 5%	
	0061	57	1					, 680Ω .25W 5%	
	0064	58	1					, 910Ω .25W 5%	
	0065	59	1					, 1000Ω .25W 5%	
	0067	60	1					, 1200Ω .25W 5%	
	0071	61	1					, 1800Ω .25W 5%	
	0072	62	4					, 2000Ω .25W 5%	
	0075	63	3					, 2700Ω .25W 5%	
	0077	64	1					, 3300Ω .25W 5%	
	0081	65	1					, 4700Ω .25W 5%	
	0084	66	1					, 6200Ω .25W 5%	
	0087	67	1					, 8200Ω .25W 5%	
	972946 0089	68	1					, 10,000Ω .25W 5%	
	2342250000	69	2					, 15,000Ω .25W 5%	AB-CB-1535
	972946 0121	70	1					, 220KΩ .25W 5%	
	3999999702	71	3					RES, SELECTED AT UNIT TEST	
	972947 0061	72	1					RES, 680Ω .5W 5%	
	972947 0071	73	1					, 1800Ω .5W 5%	
	972947 0079	74	1					, 3900Ω .5W 5%	
	539370 0413	75	1					RES, 1960Ω .25W 1%	

DRAFTSMAN | DATE | CKD DRAFTSMAN | DATE | DESIGN ENGINEER | DATE | WORK ORDER NUMBER

APPD MFG | DATE | APPD PROJECT ENGINEER | DATE | RELEASED | DATE | PROJECT NUMBER | PAGE 3 OF

LIST OF MATERIALS TI-9639-D

DESCRIPTION

* CODE: M2A - ADD, M2C - CHANGE, M2D - DELETE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS
MANUFACTURING ENGINEER FILL IN SHADED AREAS

DWG SIZE D | ASSEMBLY DWG NO (4-13) 1696950 1/0001 | REV A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
	539370 0480	76	1					RES, 9760Ω .25W 1%	
	539812 0008	77	1					, 200Ω .12W .1%	
	0009	78	1					, 243Ω .12W .1%	
	0011	79	1					, 1020Ω .12W .1%	
	0012	80	1					, 1820Ω .12W .1%	
	0014	81	2					, 3010Ω .12W .1%	
	539812 0001	82	1					, 4120Ω .12W .1%	
	0003	83	1					, 8060Ω .12W .1%	
	0004	84	1					, 8870Ω .12W .1%	
	0018	85	1					, 30900Ω .12W .1%	
	539812 0002	86	1					, 383KΩ .12W .1%	
	537570 0002	87	1					, VAR, 100K HELITRIM	
	972946 0096	88	1					RES, 20K .25W 5%	
	538031 0006	89	1					CRYSTAL, 13.5168 MHZ	
	418093 0010	90	1					COIL, 5.6mh .130HM 10%	
	230029 0001	91	4					BEAD SHIELDING	FER-5659065/4N
	232583 0008	92	2					PAD, XST MTG TO-5 WHT	THR-7717-4N
	165113 0001	93	3					SPACER, XST TO-18	
	232583 0005	94	3					PAD, INTER CKT TO-5 BLEND	THR-7717-107-N-W/4
	232164 0190	95	2					JACKTIP, INT CKT RED	EFJ-105-1102-001
	232164 0200	96	1					JACKTIP, PRNTD CKT BLK	EFJ-105-1103-001
	231928 0100	97	1				EA	FUSE 1 AMP, PICO	LIT 276001
	236269 0000	98	.25				FT	TUBING, TEFLON #8	
	969499 0001	99	1	REF			EA	DIAG, LOGIC DETAIL (NOW) 753/755	TERM CONT.
		100	1	REF			EA	TEST PROC. (NOW) 753/755	TERM CONT.

DRAFTSMAN | DATE | CKD DRAFTSMAN | DATE | DESIGN ENGINEER | DATE | WORK ORDER NUMBER

APPD MFG | DATE | APPD PROJECT ENGINEER | DATE | RELEASED | DATE | PROJECT NUMBER | PAGE 4 OF

LIST OF MATERIALS
TI-9639-D

* CODE: M2A - ADD, M2C - CHANGE, M2D - DELETE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS
MANUFACTURING ENGINEER FILL IN SHADED AREAS

DESCRIPTION: TERMINAL CONTRL, 733/735 PARALLEL INTERFACE ( )

DWG SIZE: D | ASSEMBLY DWG NO. (4-13): 9695010001 | REV: A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
	9695000001	1	1				EA	PWB, 733/735 TERM CONT.	
	2318020009	2	1					EJECTOR, WHT 8-200	SCA-8-200
	2318020003	3	1					EJECTOR, ORN 8-200	SCA-8-200
	2222227400	4	2					NTWK, SN 7400N	
	7402	5	1					, SN 7402N	
	7404	6	2					, SN 7404N	
	7408	7	1					, SN 7408N	
	7414	8	2					, SN 7414N	
	7427	9	1					, SN 7470N	
	7470	10	2					,	
	7474	11	3					, SN 7474N	
	7476	12	1					, SN 7476N	
	7492	13	1					, SN 7492N	
	7497	14	1					, SN 7497N	
	71211	15	1					, SN 74121N	
	71231	16	1					, SN 74123N	
	71611	17	1					, SN 74161N	
	71641	18	2					, SN 74164N	
	71751	19	2					, SN 74175N	
	2222227197	20	2					NTWK, SN 74197N	
	9722420001	21	1				EA	X SISTOR, 4 DUAL-IN-LINE	MOT MPQ2222
	9593280001	22	1				EA	NTWK, CHAN GEN HEX II	TMS 1656
	2324260100	23	1					NTWK, VOLTAGE REG	NSC-LM-305
	2422640013	24	2					NTWK, LM 201AH OP AMP	LM 201AH
	2360520000	25	2				EA	X-SISTOR, 2N1711	AIR-288-0001 CTL 17500

DRAFTSMAN | DATE | CKD DRAFTSMAN | DATE | DESIGN ENGINEER | DATE | WORK ORDER NUMBER

APPD MFG | DATE 6-12-75 | APPD PROJECT ENGINEER | DATE | RELEASED | DATE | PROJECT NUMBER 8728/8729 | PAGE 1 OF 5

LIST OF MATERIALS
TI-9639-D

* CODE: M2A - ADD, M2C - CHANGE, M2D - DELETE

NOTE: DRAFTSMAN FILL IN ALL UNSHADED AREAS
MANUFACTURING ENGINEER FILL IN SHADED AREAS

DESCRIPTION:

DWG SIZE: D | ASSEMBLY DWG NO. (4-13): 9695010001 | REV: A

* CODE	COMPONENT PART NO.	ITEM NO.	QUANTITY PER	INV. CREDIT	LAST WORK STATION	DELIVER TO	U/M	DESCRIPTION	VENDOR
	9729480001	26	1				EA	X-SISTOR, 2N2222A	
	9729580002	27	2					, 2N2907A	
	2484905245	28	1					XSISTOR, HI-REL BL N-CHAN	FET SKA 5729 NKLLEINV
	9729320001	29	10					DIODE, 1N914B	
	9729340010	30	1					, 1N755A	
	9729340013	31	2					, 1N758A	
	9729340014	32	1					, 1N759A	
	2317846000	33	1					, 2 PELLET, SIL	MULTI GE MPJ1 200
	1537330001	34	1					DIODE, GTD-132/CGD 949	
	2303655000	35	1					CAP, 3.0 pF 500V 20%	ELM-DMM-030T
	9729260010	36	1					, 20.0 pF 500V 05	ELM DMM-200J
	2303961000	37	1					, 47.0 pF 200V 10%	M.L-CK
	9729290382	38	1					, 150.0 pF 200V 10%	
	9729290394	39	2					, 680.0 pF 200V 10%	
	0580230008	40	1					, .01 mf 100V 05%	
	9729650016	41	1					, .022 mf 100V 10%	
	9729650020	42	14					, .047 mf 100V 10%	
	9729650024	43	1					, .1 mf 100V 10%	
	9729240013	44	3					, 2.2 mf 20V 10%	
	9729240009	45	1					, 3.3 mf 15V 10%	
	9729240019	46	2					, 22 mf 35V 10%	
	9729240006	47	1					, 39 mf 10V 10%	
	9729240012	48	1					CAP, 150 mf 15V 10%	
	9729460017	49	4					RES, 10.0 OHM .25W 5%	
	9729460027	50	2				EA	, 27.0 Ω .25W 5%	

DRAFTSMAN | DATE | CKD DRAFTSMAN | DATE | DESIGN ENGINEER | DATE | WORK ORDER NUMBER

APPD MFG | DATE | APPD PROJECT ENGINEER | DATE | RELEASED | DATE | PROJECT NUMBER | PAGE 2 OF

WIRE NO	DESCRIPTION	TOTAL LENGTH	SIGNATURE	COMPONENT CONNECTION FOR START STATION	COMPONENT CONNECTION FOR FINISH STATION	REMARKS	N/A LM ITEM NO
1	RED/BLK			T1	E6	XFMR LEAD	36
2	WHT/BLK			T1	E4		36
3	RED			T1	E11		36
4	BLK			T1	E10		36
5	RED/BLK			T2	E5		35
6	WHT/BLK			T2	E8		35
7	RED			T2	E10		35
8	WHT			T2	E9		35
9	BLK			T2	E18		35
10	CLR			T2	E7	XFMR LEAD	35
11	WHT			E4	E8		24
12	BARE BUSS			E16	E17		41
13	BARE BUSS			E17	E18		41
14	BARE BUSS			E18	E19		41
15	WHT			E42	E3		24
~~16~~	~~WHT~~			E43	E8		24
~~17~~	~~WHT~~			A1-E3	E21		24

CONTD WIRE LIST SH 2 ZONE D8, D7, & D6

SCREW HEADS DO NOT TURN.)

[7] REMOVE ALL SOLDER FLAKES AND EXCESS FLUX FROM THE PLATE (ITEM 1) IN THE AREA BETWEEN THE TRANSFORMERS AND THE FOUR LEAD CAPACITORS AROUND THE BASES OF THE STANDOFFS. DO NOT CLEAN THE 4 LEAD CAPS IN FREON (ALL TYPES) OR TRICHLOROETHANE. SAFE SOLUTIONS FOR CLEANING THE 4 LEAD CAPS ARE ETHYL ALCOHOL, BUTYL ALCOHOL, METHYL ALCOHOL, PROPYL ALCOHOL, AND CALGONITE (DETERGENT). FOR COMPLETE LISTING OF SAFE AND UNSAFE CLEANING [illegible] TECH PAPER #7 F-72-2.

~~[8] THE INSULATORS (ITEMS 13 AND 48) MUST INSULATE THE SCREWS FROM BOTH THE HEATSINK PLATE AND TRANSISTOR BODY. SINCE THE TRANSISTOR HEADERS MAY VARY IN THICKNESS, IT MAY BE NECESSARY TO SUBSTITUTE ITEM 13 FOR ITEM 48 AND VICE VERSA.~~

(NOTES CONTINUE ZONE D4 ON SHEET 2)

NOTES:

[1] TIGHTEN NUT TO 1.5 INCH POUNDS. EXCESSIVE TORQUE WILL DESTROY TRANSFORMERS.

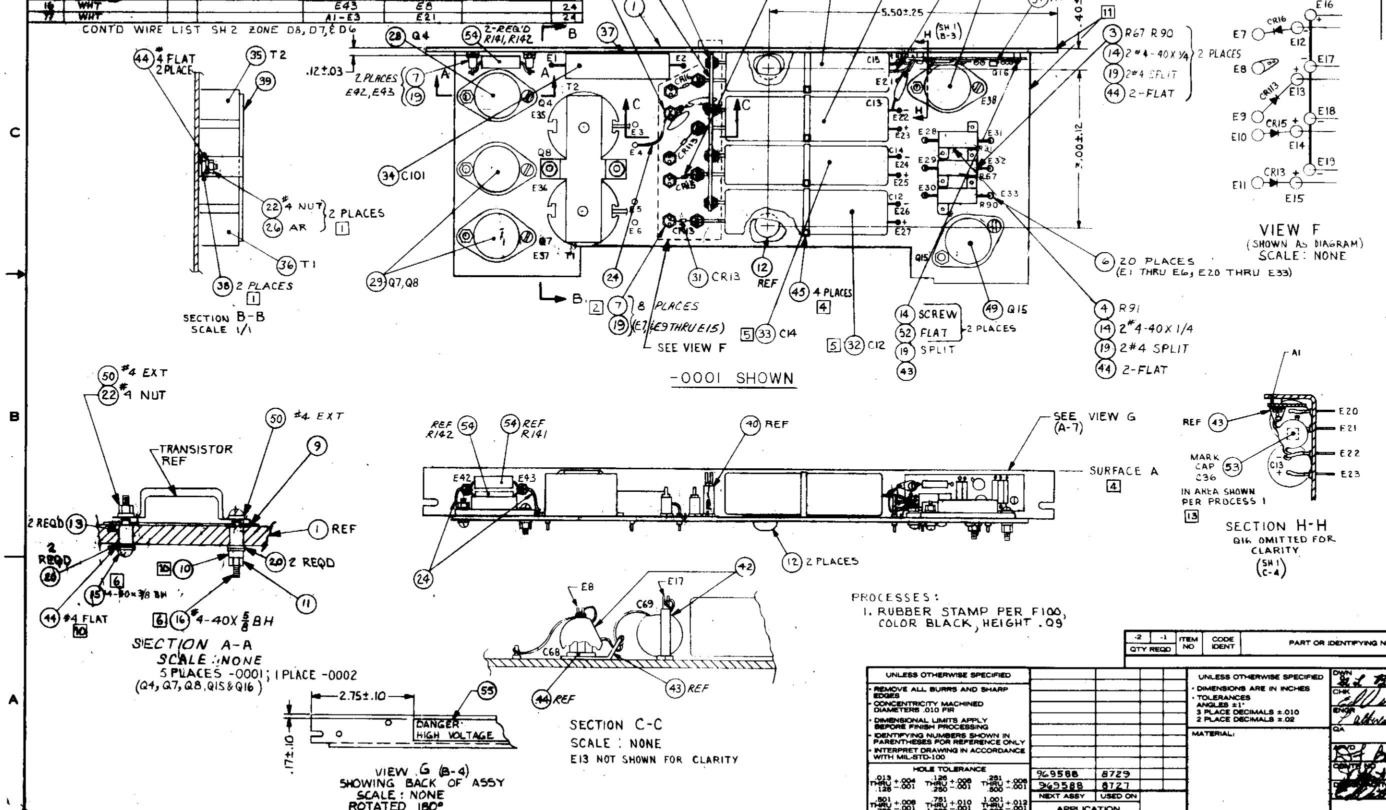
[2] CENTER BODY OF ALL DIODES BETWEEN STANDOFFS

~~[3] USE TWO TC-3 INSULATORS (ITEM 3) BETWEEN EACH XSTR (Q4, Q7, Q8, Q15, & Q16) AND PLATE~~

[4] TYRAP STRAP LOCKS MUST BE POSITIONED IN THE CREVICES BETWEEN THE CAPACITORS SO THAT THEY DO NOT EXTEND ABOVE THE EDGE OF THE PLATE (SURFACE A).

[5] CAPACITORS C12, C13, C14 AND C15 CAN BE REVERSED END TO END AS LONG AS POSITIVE LEADS ARE SOLDERED TO POSITIVE TERMINALS AND NEGATIVE TO NEGATIVE.

[6] TORQUE ALL HARDWARE SECURING POWER XSTR Q4, Q7, Q8 Q15 & Q16 TO 7.5 INCH LBS. TIGHTEN TO TORQUE REQUIREMENTS BY ROTATING NUTS ONLY. (INSURE THAT



PROCESSES:
1. RUBBER STAMP PER F100, COLOR BLACK, HEIGHT .09

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	382882 (C) J. Pinney 10-4-73 ON -0001 LM 1) IT 5A WAS C12 (2) ADDED IT. 6A (3) IT. 10, QTY WAS 8 4) IT. 32A WAS C13 (5) IT. 35A WAS T1 (6) IT. 36A WAS T2 7) QTY OF IT. 7 WAS .5 (8) IT. 38 P/N WAS 234866-0100 9) ADDED ITEMS 42 THRU 46 ON -0002 LM 1) IT. 5 P/N WAS 969514-0001 (2) ADDED IT. 6A 3) QTY OF IT. 10 WAS 4 (4) ADDED IT. 29 & 30	10/12/73	J.tk
	B	385303 (C) [illegible] 10-17-73 ON -0001 & -0002 LM'S ITEM 8 WAS P/N 533517-0005.	10-17-73	[illegible]
		FORMAL RELEASE		
	C	386843 (C) G. B[illegible] 3-4-74 1) ON LM-0001 & DRAWING, SHEET 1 ITEMS DELETED WERE: 0008, QTY 4, P/N 533517 0006; 0018, QTY 6, P/N 236366 0000, 0021, QTY 6, P/N 232447-0000 2) IN LM-0001 QTY OF ITEMS WERE IT. 9, 10, 11, 16 & 30 WAS 4, IT. 20 WAS 8, IT. 22 WAS 6 IT 41 & 42 WAS 1, IT. 44 WAS 2 3) ADDED TO LM-0001 & DRAWING SH. 1 ITEMS 24, 48 49, 49A & 50 4) ON LM-0001 FOLLOWING ITEMS WERE: IT. 3 QTY 1 P/N 410749-0007, IT. 4 QTY. 2 P/N 410749-0008; IT. 13 QTY 8 P/N 972520-0004, IT. 14 QTY 6 P/N 235005-0001 IT. 15 QTY 4 P/N 235027-0001, IT. 30A DESCRIPTION CR14, IT. 45 QTY AR P/N 231579-0000 5) IN ZONE A, B-7, 8 SECTION AA WAS CHANGED 6) NOTES 2 THRU 8 ADDED TO SH. 1, NOTE 9 TO SH 2 7) SECTION CC, ZONE A-6, 5 WAS CHANGED, ADDED CAP. C68 8) IN ZONE D-6, 7, 8 OF SH 1 ITEMS 11, 12, 13, 14 ADDED TO WIRE LIST 9) IN SH. 1, ZONE 3C, VIEW FF WAS ADDED 10) IN LM-0002 & DRAWING SH. 2 ITEMS DELETED IT. 8, QTY 1 P/N 533517-0006; IT. 18, QTY 6 P/N 236366-0007 IT. 21, QTY 6 P/N 232447-0000; IT. 23 QTY. 25 P/N 236521-0999 IT. 29, QTY AR P/N 231579-0000; IT. 30 QTY REF, P/N 969490-3901 11) IN LM-0002 IT. 20, QTY WAS 4, IT. 24 WAS .25, IT. 10 WAS 3, IT. 11 WAS 3 & IT. 17 WAS 2 12) TO LM-0002 & DRAWING SH. 2 ADDED ITEMS 44, 45 46, 50, 51 13) IN LM-0002 FOLLOWING ITEMS WERE IT. 3 QTY 1 P/N 410749-0007; IT. [illegible] 2 P/N 41074[illegible] IT. 14 QTY 6 P/N 235005-0001; IT. 15 QTY 1 P/N 2350[illegible]01 IT. 24 QTY .25 P/N 236521-2999; IT 19 QTY 6 P/N 236367-0000 14) TO LM-0002 IT. 13 ADD TO DESC. .125 15) IN ZONE 8C, SECTION E-E WAS CHANGED & IN ZONE 8B, SEC D-D WAS DELETED	3/13/74	[illegible]
	D	393757 (B) Andy Willson 6-12-74 ADDED: 1) ITEM 51, 51A, 52, & 53. 2) WIRE 15, 16, 17, TO WIRE LIST. CHANGED: 1) ITEM 19 WAS QTY OF 6. 2) ITEM [illegible] WAS QTY OF .10 FT. 3) ITEM 14 WAS QTY OF 6.	6/13/74	[illegible]

REVISIONS CONTINUED ON SH 2

PLATE ASSY, MOTOR DRIVER			969587-0002
PLATE ASSY, POWER-MOTOR DRIVER			969587-0001
DESCRIPTION			PART NUMBER

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE: .013 THRU .125 +.004 −.001; .126 THRU .250 +.006 −.001; .251 THRU .500 +.008 −.001; .501 THRU .750 +.008 −.001; .751 THRU 1.000 +.010 −.001; 1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
969588	8729
969588	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°; 3 PLACE DECIMALS ±.010; 2 PLACE DECIMALS ±.02

MATERIAL:

DWN [illegible] 8/7/73
CHK [illegible] 10/9/73
ENGR [illegible] 10/11/73
[illegible] 10/11/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

PLATE ASSY, POWER/MOTOR DRIVER

SIZE D | CODE IDENT NO 96214 | DRAWING NO 969587

SCALE 1/1 | REV N | SHEET 1 OF [illegible]

969587

WIRE NO	DESCRIPTION	TOTAL LENGTH	SIGNATURE	COMPONENT CONNECTION FOR START STATION	COMPONENT CONNECTION FOR FINISH STATION	REMARKS	N/A LM ITEM NO
18	WHT			C15 +	A1-E2	-12V REG	24
19	WHT			C15 -	A1-E1	-12V REG	24

NOTES: CONT'D

12 LEADS OF CAPACITOR MAY NOT BE USED TO MAKE CONNECTION TO -12V REGULATOR PCB (ITEM 51) NEGATIVE LEAD OF C15 SHOULD BE CUT TO .5 ± .1 INCHES FROM BODY OF CAPACITOR AND END BENT IN A LOOP. (ITEM 24) SHOULD BE USED TO MAKE CONNECTION FROM NEGATIVE LEAD OF C15 TO A1-E1.

13 C36 LEAD LENGTH AT EACH TERMINATION MUST NOT EXCEED 0.2 INCH MEASURED FROM THE CAPACITOR BODY O.D. TO THE POINT OF ATTACHMENT

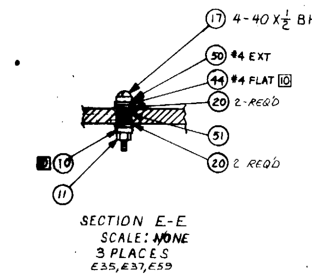
NOTES:

9 LEADS OF CAPACITOR C12 CAN BE USED TO MAKE CONNECTIONS TO E4 & E6 IN PLACE OF WIRE (ITEM 24) IF LONG ENOUGH; HOWEVER, LEADS MUST BE SOLDERED TO STANDOFFS FOR SUPPORT OF CAPACITOR.

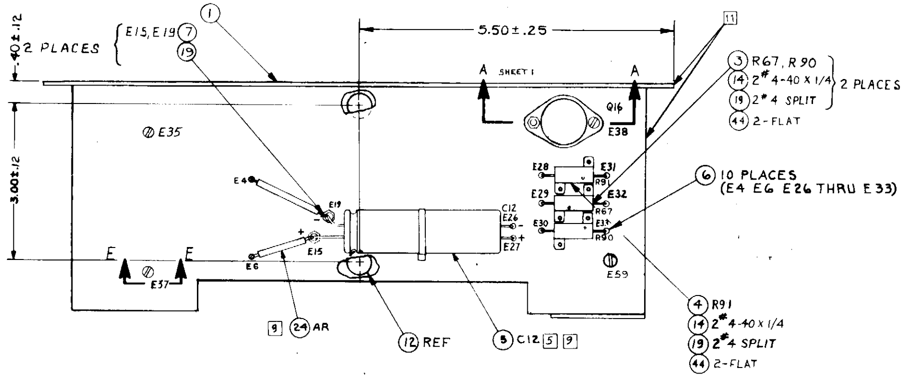
10 SMOOTH SIDE OF WASHER/SPACER MUST FACE TOWARDS PLATE.

11 WITH INDELIBLE INK, MARK SERIAL NUMBER AND PROPER REVISION LETTER ON TOP SIDE OF PLATE ASSY (969587), AS INDICATED BY SILKSCREEN, AND ON POWER SUPPLY/MOTOR DRIVER ASSY (969588)

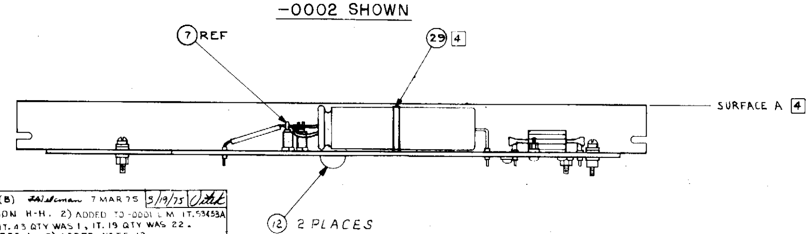
NOTES CONT'D ZONE D5



SECTION E-E
SCALE: NONE
3 PLACES
E35, E37, E59



-0002 SHOWN



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	E	396788(B)	6-25-74	6/26/74
C6		1.) SH 1, CALLOUT 37 WAS 32.		
A8		2.) SH 1, SECTION A-A: DELETED CALLOUT 25 AR FROM CALLOUT 8, ADDED 2 REQD TO CALLOUT 8 & CALLOUT 20. ADDED 10 TO CALLOUTS 10 & 44.		
D3, A3		3.) CHANGED NOTES 3 & 6.		
D3, A4		4.) SH 2, ADDED NOTES 10 & 11.		
C4		5.) ADDED NOTE 11 CALLOUT ON SH 1 & 2.		
D8		6.) WIRE 8 FINISH STATION WAS E8.		
B6		7.) SH 1, SIDE VIEW OF XSTR Q7 WAS:		
		ON LM -0001: 8) ADDED ITEMS 7A & 40A. 9) CHANGED ITEM 45, P/N WAS 236325-0002. 10) CHANGED ITEM 9, P/N WAS 232144-1030, QTY 5. 11) CHANGED ITEM 20 QTY, WAS QTY 10. 12) DELETED ITEM 25, P/N WAS 231143-0001, QTY AR. ON LM -0002: 13) ADDED ITEM 7A. 14) DELETED ITEM 25, P/N WAS 231143-0001, QTY AR. 15) CHANGED ITEM 9, P/N WAS 232144-1030, QTY 1.		
	F	398846 (B) 7-15-74	7/19/74	
		CHG: 1) -0001 LM IT. 19 QTY. WAS 8; 2) -0002 LM IT 19 QTY. WAS 6; 3) -0001 LM IT. 40 P/N WAS 083703-0003; 4) -0001 LM IT. 52 QTY. WAS 2; 5) IT. 7 PICTORIAL CALLOUT		
B-6		WAS: 7 9 PLACES (E7 THRU E15); IT. 40 PICTORIAL CALLOUT 40 AR		
D-6		WAS: 19 AR 40 4 PLACES (E16 THRU E19)		
D-6		6) ADDED IT'S 7, 52 & 43 CALLOUT TO -0001 PICTORIAL		
A-6		7) ADDED "REF" TO IT. 43 CALLOUT, SECTION C-C		
A-6		8) ADDED IT. 52 REF CALLOUT TO SECTION C-C		
		9) -0002 LM IT. 20 QTY. WAS 8.0; 10) ADDED "2-REQ'D" TO IT. 20 CALLOUT, 2 PLACES, SECTION E-E SH. 2		
C-7				
C-6		11) CHG: IT. 19 CALLOUT SH. 2 WAS "24 AR"		
		12) -0002 LM IT. 17 WAS: 235026-0016/SCREW 4-40 X 1/4 PAN SST		
A-6		13) ADDED IT'S. 17, 50, 44 & 20 ON -0002 BOTTOM VIEW SH. 2		
D-7		14) CHG: IT. 17 DESCRIPTION ON CALLOUT SH. 2 WAS: 4-40 X 1/4 BH		
C-7		15) ADDED FLAG NOTE 10 TO IT'S. 10 & 44 CALLOUT SH. 2		
		16) CHG: -0001 LM IT. 24 QTY. WAS .5 FT.		
		17) ADDED IT'S. 54 & 54A TO -0001 LM 18) CHG: -0001 LM IT. 7 QTY. WAS 9. 19) CHG: WIRE NO. 6 FINISH STATION WAS "E3", SH. 1 WIRE LIST. 20) CHG: WIRE NO 11 START STATION WAS "E3" SH. 1 WIRE LIST. 21) CHG: -0001 WIRE LIST, WIRE NO 15 WAS: BLK A1-E1, C15-, CAP LEAD, 33. WIRE NO. 16 WAS: A1-E2, E20. 22) ADDED IT'S. 7, 19, 54 & CALLOUTS TO F/D. SH. 1-0001 PICTORIAL. 23) CHG: SH. 1-0001 IT. 24 WAS LOCATED BETWEEN E8 & E3. 24) ADDED RES. LOCATION		
D-8 7, 6				
C-6				
C-7		DIM. SH. 1-0001. 25) ADDED IT'S. 54 & 24 TO F/D SH. 1-0001		
B-6		BOTTOM VIEW. 26) CHG: -0001 LM IT. 7A WAS E7 THRU E15		
C-8		ADDED TO SECTION E-E: E35, E36, E59		
B-4		ADDED E-59 TO -0002 PICTORIAL		

REVISION CONT'D

PLATE ASSY MOTOR DRIVER	969587-0002
DESCRIPTION	PART NUMBER

REVISION

	G	393744 (C) 8-1-74	8-8-74	
A6		1. ADDED IT 54 TO LM. 2. ADDED VIEW G SHEET 1.		

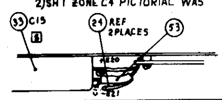
REVISION CONT'D ZONE B8, B7

H 398827(C) 1-29-75

ADDED: 1) NOTE 12 2) WIRES 18, 19 TO WIRE LIST

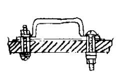
DELETED: 1) ON -0001 LM ONLY ITEM 53 P/N 236307-0000 QTY 0.75 FT

CHANGED: 1) ON -0001 & -0002 LM ITEM 3 QTY WAS 1, ITEM 3A WAS R67, ITEM 4 QTY WAS 2, & ITEM 4A WAS R90, R91 2) SH 1 ZONE C4 PICTORIAL WAS



J 395153(D) 2-7-5

ON -0001 LM: 1) DELETED ITEM 48, WAS QTY 6 P/N 972520-0006. 2) CHANGED QTY, ITEM 9 WAS QTY 10; ITEM 13 WAS QTY 4; ITEM 44 WAS QTY 7; ITEM 52 WAS QTY 3. ON -0002 LM: 3) CHANGED ITEM 51, WAS P/N 972520-0002. 4) CHANGED QTY ITEM 9, WAS QTY 2. ON BOTH LM: 5) CHANGED ITEM 10, WAS P/N 972210-0001. 6) CHANGED ITEM 13, WAS P/N 972520-0004. ON F/D: 7) DELETED FLAG NOTES 3 & 8. 8) ZONE D6, SH 1, ITEM 44 BALLOON CALLOUT WAS ITEM 52 BALLOON CALLOUT. 9) SH 1, ZONE A6, ITEM 44 BALLOON CALLOUT WAS ITEM 52 BALLOON CALLOUT. 10) SH 1, ZONE A & B8, CHANGED SECTION A-A, WAS:



CONT SH 2 ZONE A-6-7

K ECN 400877 (B) 7 MAR 75 3/19/75

1) ADDED SECTION H-H. 2) ADDED TO -0001 LM IT. 53453A 3) CHG -0001 LM: IT. 43 QTY WAS 1, IT. 19 QTY WAS 22. 4) ADDED: PROCESS 1. 5) ADDED NOTE 13

L 396789(D) 4-1-75 5/6/75

ON -0001 LM: 1) CHANGED P/N ITEM 2, WAS P/N 236091-0026; CHANGED P/N ITEM 30, P/N WAS 972121-0001; CHANGED P/N ITEM 51, P/N WAS 972121-0002. ON -0002 LM: 2) CHANGED P/N ITEM 2, P/N WAS 236091-0026.

M 395625(D) 5-21-75 5/21/75

ON -0001 LM: CHANGED ITEM 42, P/N WAS 230553-0000

N 396555(C) 5-27-75

1) ADDED IT. 44 BALLOON CALLOUT TO R67, R90, R91 IN -0001 AND -0002 PICTORIALS. 2) ADDED QTY 6 TO IT. 44 IN -0001 AND -0002 LM. QTY WAS 8 IN LM -0001 & 4 IN -0002.

QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
2	1				

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
- 3 PLACE DECIMALS ±.010
- 2 PLACE DECIMALS ±.02

MATERIAL:

DWN: B. L. Butler DATE 8/7/73
CHK
ENGR
QA
APVD 11/11/73
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

PLATE ASSY,
POWER/MOTOR DRIVER

SIZE	CODE IDENT NO	DRAWING NO
D	96214	969587

SCALE 1/1 REV N SHEET 2

LM

FILMED

D 969587

PART NUMBER REV DESCRIPTION.....
969587-0001 P PLATE ASSY,POWER MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	973205-0001	PLATE,POWER SUPPLY 1210-0016-023	EA
0002	00001.000	972265-0001	TRANSISTOR 2N6246 PNP 125W POWER RCA-2N6246	EA
0002A			Q16 RCA-2N6246	
0003	00002.000	410749-0009	RES 7.50 OHMS 10W 1% W/TPED HOLES	EA
0003A			R67 R90	
0004	00001.000	410749-0010	RES 15.00 OHMS 10W 1% W/TPED HOLES	EA
0004A			R91	
0005	00001.000	969514-0001	CAP 7500 UF,7.5V CDE-UFT	EA
0005A			C13 CDE-UFT	
0006	00020.000	972256-0001	TERMINAL,INSULATED,FEED-THRU - -	EA
0006A			E1 THRU E6,E20 THRU E33 - -	
0007	00011.000	083703-0001	TERMINAL-STAND-OFF THREADED INSERT 4-40 -BIFURCATED TYPE	EA
0007A			E7 THRU E15,E42 E43 -BIFURCATED TYPE	
0009	00005.000	972567-0001	INSULATOR,TO-3-TRANSISTOR-MICA	EA
0010	00005.000	973210-0002	SPACER,POWER SUPPLY 1210-3210-005	EA
0011	00005.000	972766-0001	SPACER,HEXAGONAL .125 HHS-8820	EA
0012	00002.000	230205-0007	BUMPER BUTTON RUBBER GRAY .195THKX.45DIA MMM-Y-3020-GRAY	EA
0013	00010.000	981330-0001	WASHER,ALIGNMENT-TO 3 CASE 1210-1330-007	EA
0014	00008.000	418293-0013	SCREW 4-40 UNC-2A X .250 PAN HEAD CRES QPL- MS1957-13	EA
0015	00005.000	418293-0015	SCREW 4-40 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-15	EA
0016	00005.000	418293-0018	SCREW 4-40 UNC-2A X .625 PAN HEAD CRES QPL- MS1957-18	EA
0019	00021.000	418431-0024	LOCKWASHER # 4 SPLIT,HELICAL CRES QPL- NAS1676-C4	EA
0020	00020.000	972767-0001	WASHER,INSULATOR,MICA SEE- THIS DRAWING	EA
0022	00007.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0024	00001.400	236528-0000	WIRE 22 AWG 1 COND WHITE TEFLON SOLID	FT
0026	AR	235182-0002	LOCTITE SEALENT GRADE 242 LOC--242	EA
0027	REF	969528-9901	TEST PROC,PLATE ASSY,POWER/MOTOR DRIVER	EA
0028	00001.000	972241-0001	TRANSISTOR, GMC- DTS-4060	EA
0028A			Q4 GMC- DTS-4060	
0029	00002.000	972239-0001	TRANSISTOR 2N6308 SEE- TI DRAWING	EA
0029A			Q7 Q8 SEE- TI DRAWING	
0030	00002.000	972268-0002	DIODE 1N4934-1 AMP MOT- 1N4934	EA
0030A			CR15 CR16 MOT- 1N4934	
0031	00002.000	972269-0002	DIODE MR821 5 AMP MOT- MR821	EA
0031A			CR13 CR113 MOT- MR821	
0032	00001.000	969514-0003	CAP 2300 UF,40V CDE-UFT	EA
0032A			C12 CDE-UFT	
0033	00002.000	969514-0002	CAP 3400 UF, 16V CDE-UFT	EA
0033A			C14 C15 CDE-UFT	
0034	00001.000	972030-0002	CAP 1.0 UF 600V 10% SEE- TI DRAWING	EA

MAY 16, 1975 LIST OF MATERIAL

PART NUMBER REV DESCRIPTION.....
969587-0001 P PLATE ASSY,POWER MOTOR DRIVER

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0034A			C101 SEE- TI DRAWING	
0035	00001.000	969515-0001	TRANSFORMER,25KHZ SW RGLTR 24:2:1:1	EA
0035A			T2	
0036	00001.000	969515-0002	TRANSFORMER,25KHZ SW RGLTR 8:1	EA
0036A			T1	
0037	AR	235739-0200	TAPE FOAM,DOUBLE SIDED 1/32" X 3/8WDE MMM-4032-1/32"X3/8"	RL
0038	00002.000	234866-0006	RING-O 5/32X9/32X1/16 NEOPR P-K-2-7-C147-7	EA
0039	00001.000	973206-0001	BRACKET,TRANSFORMER-POWER SUPPLY 1210-0011-018	EA
0040	00004.000	083703-0002	TERMINAL-STAND-OFF THREADED INSERT 4-40 -BIFURCATED TYPE	EA
0040A			E16 THRU E19 -BIFURCATED TYPE	
0041	00000.500	411400-0018	WIRE BARE TINNED 18 WG ROUND COPPER BUS 1WP- 18-630	FT
0042	00002.000	410529-0103	CAP FIX CERAMIC .010 MF GMV 1 KV CRL- DD-103	EA
0042A			C69 C68 CRL- DD-103	
0043	00002.000	232365-0001	TERMINAL,LUG,#4 ,12-20AWG, MS77068-1 412-257-0004	EA
0044	00008.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0045	00004.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA
0046	REF	969486-9901	DIAGRAM,LOGIC	EA
0049	00001.000	973273-0001	TRANSISTOR, NPN,70V,115W TO-3 FN3055	EA
0049A			Q15	
0050	00010.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0051	00001.000	973270-0001	12 VOLT SERIES REGULATOR 1204-0070-000	EA
0051A			A1 1204-0070-000	
0052	00002.000	411027-0803	WASHER .125 X .250 X .022 FLAT CRES QPL- MS15795-803	EA
0053	00001.000	230595-1000	CAP .05000 MF 500 V +80./-20. % SPR-5HK-S50	EA
0053A			C36 SPR-5HK-S50	
0054	00002.000	972060-0002	RESISTOR 800 OHM 5W 5% RCL--TR-N-5	EA
0054A			R141 R142 RCL--TR-N-5	
0055	00001.000	973229-0001	LABEL,WARNING	EA

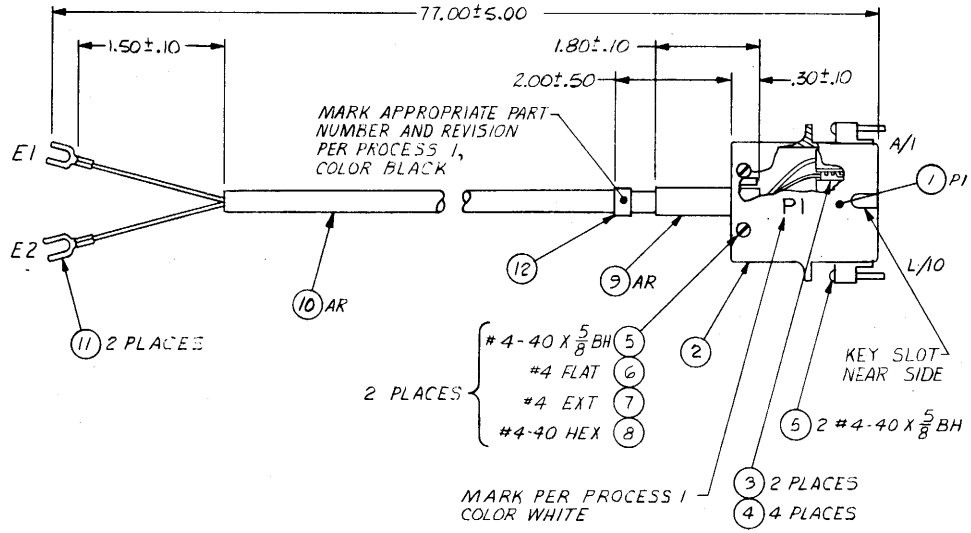
CABLES

Title	TI Drawing No.
TTY Cable, Models 754, 755 (TTY units)	959383
Power Switch Cable, Model 735	973245
Control Panel Cable, Models 754, 755	973246
Indicator Lamps Cable, Model 735	973249
Keyboard Cable, Model 735	973250
EIA Cable, Models, 735, 754 (EIA units)	973251
Coupler Cable, EIA, Model 735	973253

WIRE NO.	DESCRIPTION	TOTAL LENGTH	START STA	FINISH STA	ITEM NO	DASH NO.
1	20AWG-CABLE-BLK		P1-3	E1	11	-0001
2	20AWG-CABLE-RED		P1-C	E2	11	
1	20AWG-CABLE-BLK		P1-L	E1	11	-0002
2	20AWG-CABLE-RED		P1-K	E2	11	

NOTES:
1. INSTALL SPRING (ITEM 4) IN POSITIONS 6,10,F & L -0001 ONLY. INSTALL SPRING (ITEM 4) IN POSITIONS 1,8,10, & A -0002 ONLY

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	382195(C) [illegible] 8-31-73 1. LM ADDED IT. 13, DIT-MICO TEST PROCEDURE	9.8.73	
	B	386486 (D) C [illegible] 2-1-74 ADDED; -0002 L/M, P/N SCHEDULE -0002 WIRE LIST. NOTE 1 WAS INSTALL SPRING (IT. 4) IN POSITIONS 6,10,F, & L TITLE WAS CABLE ASSY MODEM & RO-TTY INTERFACE; ADDED TO N/A'S	2-4-74	
	C	396642 (C) Andy Wilson 6-17-74	6/18/74	
		CHANGED 1 -0002 ITEM13 WAS P/N 970659-9901		
	D	395868(E) R [illegible] 3-10-75	14 MAR 75	
		ADDED ITEM 14 TO -0001 & -0002 LM		



PART NO.	DESCRIPTION
959383-0002	CABLE ASSY RO-TTY INTERFACE
959383-0001	CABLE ASSY MODEM INTERFACE

PROCESSES:
1. HOT STAMP F-100, HEIGHT .2

-2 QTY REQD	-1 QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
				969605	8728	
				969604	8728	
				969602	8727	
				960973	8726	
				960972	8726	
				NEXT ASSY	USED ON	
				APPLICATION		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 ± .004 −.001	.126 THRU .250 ± .005 −.001	.251 THRU .500 ± .006 −.001
.501 THRU .750 ± .008 −.001	.751 THRU 1.000 ± .010 −.001	1.001 THRU 2.000 ± .012 −.001

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ± 1° 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .02

MATERIAL:

DWN R Cantu 8-7-72 DATE
CHK [illegible]
ENGR [illegible]
QA
APVD [illegible]
CONTR NO
DESIGN ACTIVITY RELEASE [illegible]

TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

CABLE ASSY, MODEM INTERFACE-ELECTRONIC PRINTER

SIZE	CODE IDENT NO	DRAWING NO
C	96214	959383

SCALE NONE | REV D | SHEET

959383-1

959383 C

LM

MAY 16, 1975 L I S T O F M A T E R I A L

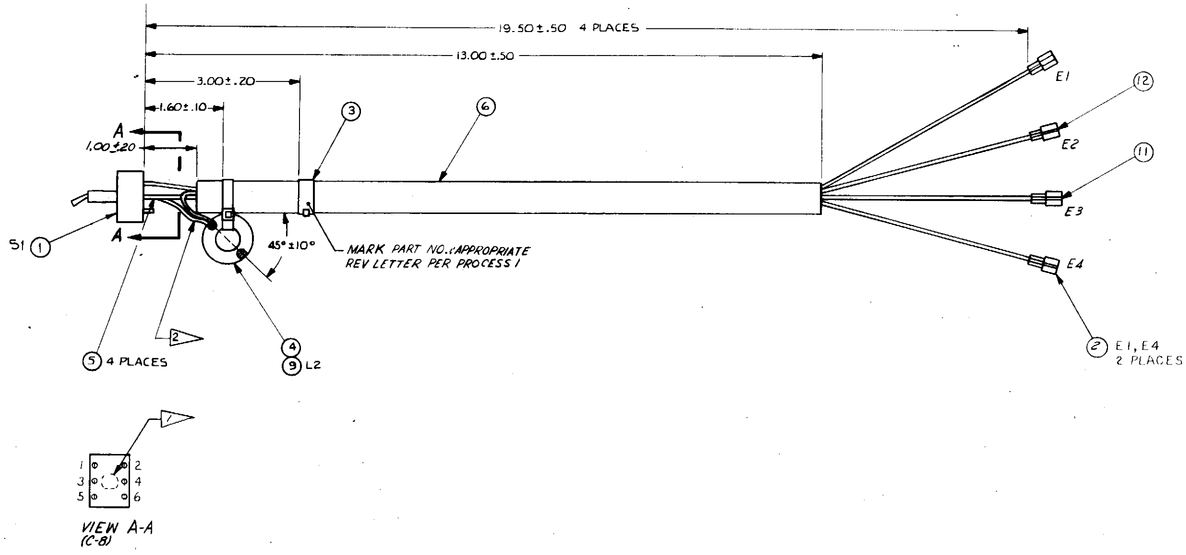
PART NUMBER REV DESCRIPTION.....
959383-0001 D CABLE ASSY,MODEM INTERFACE

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	232118-0075	HOUSING CONN.PC 10 DUAL POS PHENOLIC AMP-582963-2	EA
0001A			P1 AMP-582963-2	
0002	00001.000	960914-0001	HOOD,I/O CONNECTOR 10 PIN - - -000	EA
0003	00002.000	231553-0010	CONTACT LEAF 42717-3 AMP-42717-3	EA
0004	00004.000	235411-0050	SPRING PETAINING 42973-3 AMP-42973-3	EA
0005	00004.000	418293-0018	SCREW 4-40 UNC-2A X .625 PAN HEAD CRES QPL- MS1957-18	EA
0006	00002.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0007	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0008	00002.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0009	00000.200	236314-0090	TUBING CLR. PLAS.3/16ID 3/8 OD 3/32W-THK TYG-	FT
0010	00006.400	230248-0000	CABLE 20G 2COND VINYL INSL BEL-8205	FT
0011	00002.000	232361-0002	LUG #6 SPADE 41588 -41588	EA
0012	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA

NOTES:

1. PIN 1 OF S1 IS OPPOSITE FLAT SURFACE OF SHAFT ON SWITCH
2. PROVIDE .50±.10 SERVICE LOOP TO INDICATED WIRES.

		REVISIONS		
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	382762 (D) B.J. Myers 7-26-73 1) IN ZONE C-8, DELETED HARDWARE (DRESS NUT & HEX NUT) FROM SWITCH ASSY	7-27-73	
	B	386908 (C) George L. Butts 3/6/74 1) IN WIRE LIST: WIRE NO. 1 WAS WHT, WIRE NO. 2 WAS WHT/BLK, WIRE NO. 3 WAS WHT/BLK WIRE NO. 4 WAS WHT 2) ZONE C-6 DIM 19.50±.50 WAS 17.00±.50 3) ZONE B-8 VIEW A-A WAS [sketch] 4) ZONE C-3 ITEM 2 CALLOUT WAS E1,E2,E3,E4 4 PLACES 5) ON LM QTY ITEM 2 WAS 4 6) ON LM LENGHTS OF ITEMS 7 & 8 WERE 3 FT 7) ON LM ADDED ITEMS 9 THRU 12	3/11/74	
	C	396692 C Andy W. Warren 6-17-74 ADDED: 1) ITEM 13	6/18/74	
	D	393742 (B) 6-26-72 1) IT. 9 P/N WAS 538347-3299 QTY WAS 1.5 2) ON WIRE LIST ZONE A-7 WIRE NO. 4 START STATION WAS E4, ADDED WIRE NO. 5 3) DIM. 1.60±.10 WAS 1.50±.20, ADDED DIM. 45°±10° ZONE C-7. 4.) ADDED IT. 9 AND CALLOUT TO F/D. ALSO ADDED L2 TO IT 9 CALLOUT. ADDED NOTE 2 AND FLAG ZONE C-6.	6-27-74	
	E	399118 (D) 8-19-74 ON LM: CHANGED ITEM 1, WAS P/N 572250-0001, QTY 1.	1/13/74	
	F	392176 (C) 5-13-75 ON LM CHANGED ITEM 5, P/N WAS 236309-0000	[illegible]	



WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	REMARKS	LM IT. NO
5	WIRE #22 WHT RED 1PVC 19STR 1COND	L2-2	E4	L2 LONG WIRE	9
4	WIRE #22 WHT/RED 1PVC 19STR 1COND	L2-1	S1-4	L2 SHORT WIRE	9
3	WIRE #22 WHT/BRN 1PVC 19STR 1COND	E3	S1-1		10
2	WIRE #22 WHT 1PVC 19STR 1COND	E2	S1-2		8
1	WIRE #22 WHT/BLK 19STR 1COND	E1	S1-3		7

PROCESSES:

1. HOT STAMP, F-100, HEIGHT .09, COLOR BLK

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
969596	8727

APPLICATION

QTY REQD		ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
2	1					

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
- 3 PLACE DECIMALS ±.010
- 2 PLACE DECIMALS ±.02

MATERIAL:

DWN 4-3-73; CHK 4-17-73; ENGR; QA; APVD; CONTR NO; DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

POWER SWITCH CABLE MODEL 735

SIZE D | CODE IDENT NO 96214 | DRAWING NO 973245

SCALE NONE | REV F | SHEET

LM

D 973245

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION.....
973245-0001	F	POWER SWITCH CABLE,MODEL 735

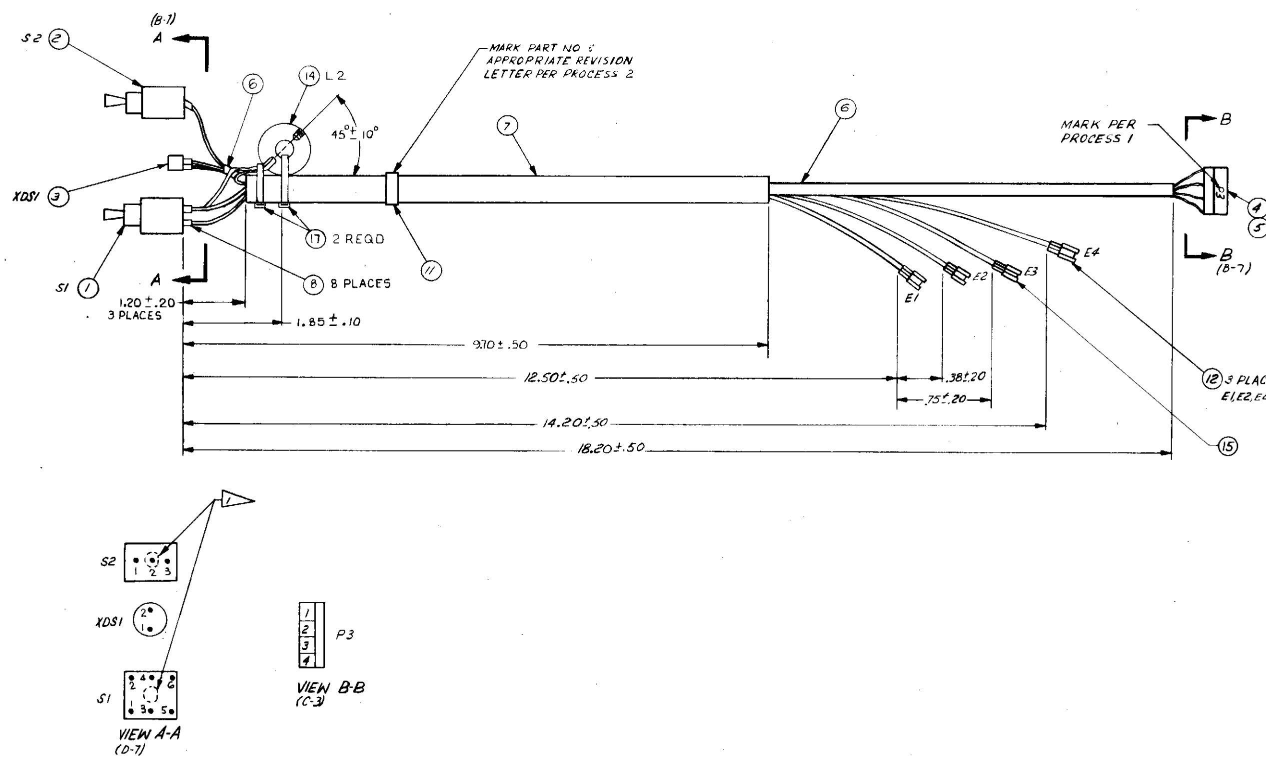
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	972250-0010	SWITCH TOGGLE-DPDT ON-NONE-ON C &- K 7201-PHZQ	EA
0002	00002.000	235837-1000	TERMINAL LUG FASTON INSUL AWG 22-18 AMP-60972-3 TAPE MTG	EA
0003	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA
0004	00001.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA
0005	00000.300	415780-0083	SLEEVE,VINYL .085 DIA BLACK .016 WALL QPL- MIL-I-7444C	FT
0006	00001.100	415780-0089	SLEEVE,VINYL .166 DIA BLACK .020 WALL QPL- MIL-I-7444C	FT
0007	00001.500	538347-3099	WIRE HOOKUP B-22 AWG 19 STR BK/WH JUD- HH0115	FT
0008	00001.500	538347-3999	WIRE HOOKUP B-22 AWG 19 STR WHITE JUD- HH0115	FT
0009	00001.000	973285-0001	INDUCTOR,POWER SWITCH	EA
0010	00002.000	538347-4199	WIRE HOOKUP B-20 AWG 19 STR BN/WH JUD- HH0118	FT
0011	00001.000	772163-0002	TERMINAL AWG 20-16 CRIMP FLAG TYPE SPT AMP-42800-2	EA
0012	00C01.000	235836-0100	TERMINAL ON MACHINE 42640-2 -42640-2	EA

NOTES:

1. PIN 1 OF S1 & S2 IS OPPOSITE FLAT SURFACE OF SHAFT ON SWITCHES

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	378898 (D) B.J. Myers 6/7/73 CHANGED PART NO. OF ITEM 2 FROM 972249-0001 TO 972249-0003	6/11/73	J.E.K.
	B	372483 (C) C.J. Myers 7-25/73 1) IN ZONE 8A, 7A WIRE #1 WAS WIRE #20 WHT IPVC 19STR ICOND, S1-3 2) IN ZONE 7-A, WIRE #2 WAS S1-5 3) IN ZONE 8-A, 7-A WIRE #3 WAS WIRE #20 WHT/BLK 4) IN ZONE 7-A, WIRE #4 WAS S1-6 5) ON LM, ITEM 10, QTY WAS 3.2 FT 6) ADDED ITEMS 13 & 14	7-27-73	
	C	386392 (C) K. Tabuck 08 Nov 73 L/M ITEM NO OF WIRE NO 1 WAS 9 & OF WIRE NO 3 WAS 10.	11/19/73	
C-4	D	383339 (C) 3-11-74 J. Ulbricht 1) ADDED IT. 15 TO LM AND F/D. 2) BALLON CALLOUT 12 WAS 4 PLACES, E1, E2, E3, E4	3/11/74	
	E	396642 (C) Andy Willson 6-17-73 ADDED: 1) ITEM 16	6/18/74	
	F	393740 (B) Andy Willson 7-1-74 ADDED: 1) ITEM 17 2) WIRE #10 CHANGED: 1) ITEM 14 WAS P/N 538347-4299 QTY WAS 1.1 2) WIRE 3 IN WIRE LIST WAS DESCRIPTION WIRE #20 WHT/RED IPVC 19STD ICOND, START STATION S1, FINISH STATION E1, LM, IT. NO. 14	7/1/74	
	G	399119 (D) R. Dhut 8-20-74 ON LM, CHANGED ITEM 1, WAS P/N 972250-0001, QTY 1.	1/21/74	
	H	399151 (D) 9-30-74 J. Ulbricht DIM. 9.70±.50 WAS 11.20±.50	10/3/74	
	J	403582 (D) R. Dhut 2-3-75 ON LM: 1) CHANGED ITEM 6, WAS P/N 236313-0000, DESC: TUBING #10 .106 ID. 2) CHANGED ITEM 7, WAS P/N 236319-0000, DESC: TUBING 3/8 .375 ID.	2/4/75	
	K	392168 (C) R. Dhut 5-13-75 ON LM: CHANGED ITEM 6, P/N WAS 236314-0000 & ITEM 8, P/N WAS 236309-0000.	13 May 75	



WIRE NO	DESCRIPTION	START STATION	FINISH STATION	REMARKS	LM IT. NO.
10	WIRE #22 WHT/RED IPVC 19STD ICOND	L2-2	E1	L2 LONG WIRE	14
9	WIRE #20 WHT IPVC 19STR ICOND	XDS1-2	P3-1		9
8	↓	XDS1-1	P3-3		↓
7	↓	S2-2	P3-2		↓
6	↓	S2-1	S2-3		↓
5	WIRE #20 WHT IPVC 19STR ICOND	S2-1	P3-4		9
4	WIRE #20 WHT/BLK IPVC 19STR ICOND	S1-3	E2		10
3	WIRE #22 WHT/RED IPVC 19STR ICOND	L2-1	S1-4	L2 SHORT WIRE	14
2	WIRE #20 WHT IPVC 19STR ICOND	S1-6	E3		9
1	WIRE #20 WHT/ORN IPVC 19STR ICOND	S1-5	E4		13

PROCESSES:

1. HOT STAMP F100, HEIGHT .09, COLOR WHT
2. HOT STAMP F100, HEIGHT .09, COLOR BLK

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
969585	8729

APPLICATION

QTY REQD -2	QTY REQD -1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02

MATERIAL:

DWN [signature] 4-3-73
CHK [signature] 4-13-73
ENGR [signature] 4-18-73
QA [signature] 5/1/73
APVD [signature]
CONTR NO
DESIGN ACTIVITY RELEASE [signature] 5/10/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

CONTROL PANEL CABLE MODEL 755

SIZE	CODE IDENT NO	DRAWING NO
D	96214	973246

SCALE NONE REV K SHEET

LM

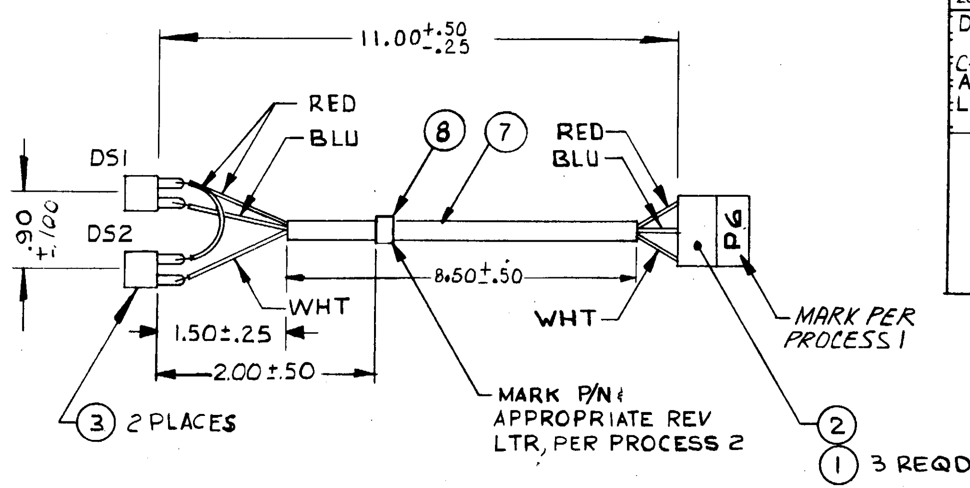
D 973246

FILMED

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION.....
973246-0001	K	CONTROL PANEL CABLE,MODEL 755

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	972250-0010	SWITCH TOGGLE-DPDT ON-NONE-ON C &- K 7201-PHZQ	EA
0002	00001.000	972249-0003	SWITCH,TOGGLE-SPDT MOM (ON)-OFF-(ON) C&K- 7105-PHZG	EA
0003	00001.000	231540-9001	CONNECTOR-FOR ATTACHING LEADS TO BI-PIN DRA-300-058	EA
0004	00001.000	231220-0102	CONNECTOR P.C. BOARD EDGE 4CKT AMP-480519-4	EA
0005	00004.000	231553-0008	CONTACT P.C. BD. AMP-61668-1	EA
0006	00001.500	415780-0089	SLEEVE,VINYL .166 DIA BLACK .020 WALL QPL- MIL-I-7444C	FT
0007	00000.800	411634-3300	INSULATION SLEEVING ELECT	EA
0008	00000.400	415780-0083	SLEEVE,VINYL .085 DIA BLACK .016 WALL QPL- MIL-I-7444C	FT
0009	00009.500	538347-4999	WIRE HOOKUP B-20 AWG 19 STR WHITE JUD- HH0118	FT
0010	00002.100	538347-4099	WIRE HOOKUP B-20 AWG 19 STR BK/WH JUD- HH0118	FT
0011	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA
0012	00003.000	235837-1000	TERMINAL LUG FASTON INSUL AWG 22-18 AMP-60972-3 TAPE MTG	EA
0013	00001.100	538347-4199	WIRE HOOKUP B-20 AWG 19 STR BN/WH JUD- HH0118	FT
0014	00001.000	973285-0001	INDUCTOR,POWER SWITCH	EA
0015	00001.000	235836-0100	TERMINAL ON MACHINE 42640-2 -42640-2	EA
0016	REF	970661-9901	TEST PROGRAM,755 CONTROL PANEL CABLE	EA
0017	00002.000	235463-0001	STRAP MINATURE BUNDLE DIA 0 TO 3/4 IN PND-SST-1	EA



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
D-5, C-4, A-3, LM	A	386906 (C) 2-20-74 1) DS1 WAS XDS2 (2) DS2 WAS XDS1 (3) ADDED DIM 1.50±.25 (4) 8727 WAS 8735, (5) ITEM 6 WAS 236524-0005	2/20/74	
	B	392433 (D) 5-20-74 Andy Wilborn. ADDED: 1) DIM 8.50±.50 & BALLOON ITEM 7. CHANGED: 1) DIM 11.00 +.50 -.25 WAS 11.00±.25 2) ITEM 7 QTY WAS 01.00 3) PROCESS 1 WAS HOT...... COLOR WHITE.	5/20/74	
	C	396642 (C) Andy Wilborn 6-17-74. ADDED 1) ITEM 9.	6/18/74	
	D	395612 (C) 11-4-74. DELETE: LM ITEM 9, QTY. REF, P/N 970662-9901	11/7/74	

PROCESSES:

1 HOT STAMP PER F-100 HEIGHT .12 COLOR CONTRASTING WHITE OR BLACK.

2 HOT STAMP PER F-100 HEIGHT .09 COLOR BLACK.

PARTS LIST

QTY REQD -2	QTY REQD -1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.250 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.750 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
969586	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ± 1°, 3 PLACE DECIMALS ± .010, 2 PLACE DECIMALS ± .02

MATERIAL:

DWN 4-5-73 DATE; CHK 4/5/73; ENGR 4-5-73; QA 4/6/73; APVD 4-6-73; CONTR NO; DESIGN ACTIVITY RELEASE 4/11/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

CABLE, INDICATOR LIGHT

SIZE	CODE IDENT NO	DRAWING NO
B	96214	973249

SCALE NONE. REV D SHEET

LM

TI-7913-D P2

MAY 16, 1975 L I S T O F M A T E R I A L

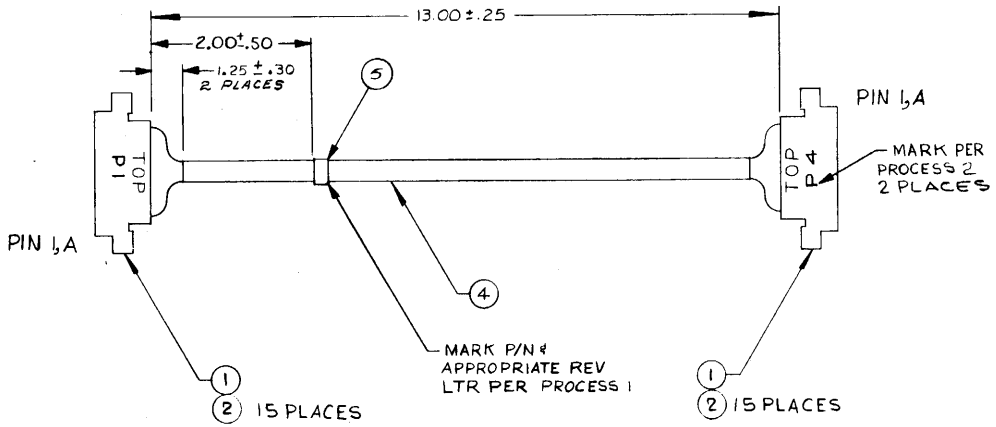
PART NUMBER	REV	DESCRIPTION.....
973249-0001	D	CABLE,INDICATOR LIGHT

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00003.000	231553-0008	CONTACT P.C. BD. AMP-61668-1	EA
0002	00001.000	231220-0101	CONNECTOR P.C. BOARD EDGE 3CKT AMP-480519-3	EA
0003	00002.000	231540-9001	CONNECTOR-FOR ATTACHING LEADS TO BI-PIN DRA-300-058	EA
0004	00001.000	538347-3999	WIRE HOOKUP B-22 AWG 19 STR WHITE JUD- HH0115	FT
0005	00001.200	538347-3299	WIRE HOOKUP B-22 AWG 19 STR RD/WH JUD- HH0115	FT
0006	00001.000	538347-3699	WIRE HOOKUP B-22 AWG 19 STR BL/WH JUD- HH0115	FT
0007	00000.750	415780-0089	SLEEVE,VINYL .166 DIA BLACK .020 WALL QPL- MIL-I-7444C	FT
0008	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA

WIRE NO	DESCRIPTION	START STATION	FINISH STATION	LM ITEM NO
1	*22 AWG TEF WHT	P1-1	P4-A	3
2	"	2	B	"
3	"	3	C	"
4	"	4	D	"
5	"	5	E	"
6	"	6	F	"
7	"	7	G	"
8	"	A	1	"
9	"	B	2	"
10	"	C	3	"
11	"	D	4	"
12	"	E	5	"
13	"	F	6	"
14	"	G	7	"
15	*22 AWG TEF WHT	P1-H	P4-8	3

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
D4	A	378800 (B) J Pacheco 9-27-73 1) START & FINISH STATIONS IN W/L REVISED TO AGREE WITH MOTHERBOARD	9/27/73	
C3 LM	B	386926 (C) 2-20-74 Hildreth (1) 13.00±.25 WAS 11.00±.25, (2) ADDED ITEM 6	2/20/74	
	C	393794 (D) R. Willett 8-28-74 ZONE C4, DIM 1.25 2 PLACES WAS .70 2 PLACES.	8/29/74	
	D	398824 (C) Andy Williams 11-4-74 1) DIM 1.25±.30 WAS 1.25 2) P1 TOP WAS P1 3) P4 TOP WAS P4	11/5/74	
	E	392112 (D) [illegible] 5/27/75 (1) PROCESS 2 WAS HOT STAMP, F-100... WHT	5/28/75	



PROCESSES:

1. HOT STAMP, F-100 HEIGHT .09, COLOR BLK
2. RUBBER STAMP, F-100 HEIGHT .12, COLOR WHT

PARTS LIST

-2 QTY REQD	-1 QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125	± .004 ± .001	.126 THRU .250	± .005 ± .001	.251 THRU .500	± .006 ± .001
.501 THRU .750	± .008 ± .001	.751 THRU 1.000	± .010 ± .001	1.001 THRU 2.000	± .012 ± .001

969596	8727		
NEXT ASSY	USED ON		
APPLICATION			

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ± 1° 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .02

MATERIAL:

DWN	DATE 4-3-73
CHK	4/5/73
ENGR	4-3-73
QA	4/6/73
APVD	4-6-73
CONTR NO	
DESIGN ACTIVITY RELEASE	4/11/73

TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

CABLE ASSY, KEYBOARD

SIZE	CODE IDENT NO	DRAWING NO
C	96214	973250

SCALE NONE | REV E | SHEET

959250-1

973250 C

LM

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION
973250-0001	D	CABLE ASSY,KEYBOARD

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00002.000	232118-0050	HOUSING CONN.PC 8 DUAL POS.PHENOLIC AMP-582140-5	EA
0002	00030.000	231553-0010	CONTACT LEAF 42717-3 AMP-42717-3	EA
0003	00016.000	538555-3999	WIRE 22 AWG HOOKUP UL-1609 WHITE EFTE QPL- M22759/18-22-9	FT
0004	00001.000	415780-0093	SLEEVE,VINYL .263 DIA BLACK .020 WALL QPL- MIL-I-7444C	FT
0005	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA
0006	REF	970659-9901	PD,DIT-MCO TST PRGM-MOD735 KYBD CABLE	EA

[illegible]	TOTAL LENGTH	START STATION	FINISH STATION	ITEM NO.
[illegible]		P1-J	P13-1	14
[illegible]		-8	-3	
[illegible]		-6	-6	
[illegible]		-5	-7	
[illegible]		-9	-8	
[illegible] IPVC WHT		P1-7	P13-20	14

-0001 MODEL 752/755
INSTALL RETAINING SPRING (ITEM 4) IN POSITIONS 1, A & E, FRONT ENTRY OF CONNECTOR, ITEM 1.

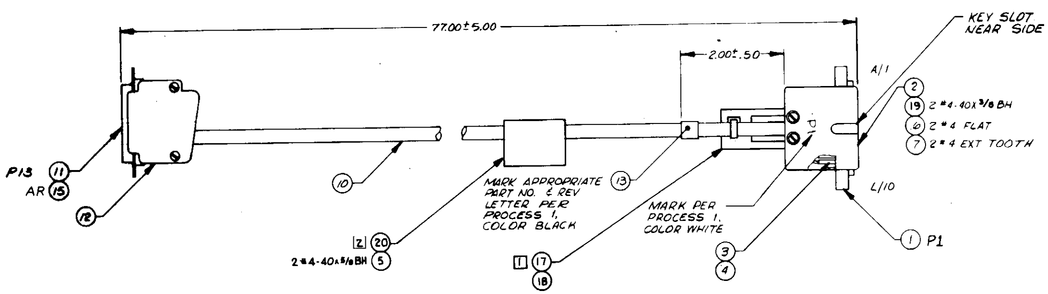
WIRE NO	DESCRIPTION	TOTAL LENGTH	START STATION	FINISH STATION	ITEM NO
1	22AWG IPVC WHT		P1-A	P13-1	14
2			-H	-2	
3			-10	-3	
4			-F	-4	
5			-7	-7	
6			-K	-8	
7	22AWG IPVC WHT		P1-6	P13-20	14

-0002 MODEL 735
INSTALL RETAINING SPRING (ITEM 4) IN POSITION 1 FRONT ENTRY OF CONNECTOR, ITEM 1.

NOTES
1. MAKE TIE ON FAR SIDE.
2. PLACE 2 CONNECTOR MOUNTING SCREWS ITEM 5 IN HEAT SEALABLE BAG (ITEM 20) AND SECURE AROUND CABLE NEAR P1.

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	386485 (C) J Piercy 10-23-73 DWG REVISED WITH CHANGES. ADDED -0002	10-25-73	
	B	391161 (D) 6/11/74 M. W. [illegible] ON LM: -0002, IT. 16 P/N WAS 960667-9901	6-12-74	
	C	392446 (D) 10-2-74 [illegible] ADDED: (1) ITEMS 17 THRU 20 TO LM AND FD (2) NOTES 1 & 2. DELETED: (1) ITEM 8 FROM LM AND FD P/N WAS 232452-0000 QTY WAS 2. (2) ITEM 9 FROM LM AND FD P/N WAS 230209-9000 QTY WAS 1. (3) BALLOON CALLOUT 5 FROM CALLOUT 1. CHANGED: 1 QTY ITEM 5 WAS 4.	10/7/74	
	D	395868 (F) L. [illegible] 3-10-5 ADDED ITEM 21 TO -0001 & -0002 LM	14MAR75	



DESCRIPTION	PART NUMBER
CABLE ASSY, EIA INTERFACE - MOD 735	973251-0002
CABLE ASSY, EIA INTERFACE - MOD 752/755	973251-0001

PROCESSES:
1. HOT STAMP F100 HEIGHT .12

PARTS LIST

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE
.013 THRU .125 +.004 -.001; .126 THRU .250 +.005 -.001; .251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001; .751 THRU 1.000 +.010 -.001; 1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
969602	8728
969645	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°; 3 PLACE DECIMALS ±.010; 2 PLACE DECIMALS ±.02

MATERIAL:

DWN [signature] 5-16-73
CHK [signature] 5/22/73
ENGR [signature] 5/21/73
QA
APVD [signature] 5/21/73
CONTR NO [signature] 5/21/73
DESIGN ACTIVITY RELEASE [signature] 6/1/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

CABLE ASSY, EIA INTERFACE MOD 752/755 & 735

SIZE D | CODE IDENT NO 96214 | DRAWING NO 973251
SCALE NONE | REV D | SHEET

LM FILMED

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION.....
973251-0001	D	CABLE ASSY,EIA INTERFACE-MOD 752/755

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.....	UM
0001	00001.000	232118-0075	HOUSING CONN.PC 10 DUAL POS PHENOLIC AMP-582963-2	EA
0001A			P1 AMP-582963-2	
0002	00001.000	960914-0001	HOOD,I/O CONNECTOR 10 PIN - - -000	EA
0003	00006.000	231553-0010	CONTACT LEAF 42717-3 AMP-42717-3	EA
0004	00003.000	235411-0050	SPRING RETAINING 42973-3 AMP-42973-3	EA
0005	00002.000	418293-0018	SCREW 4-40 UNC-2A X .625 PAN HEAD CRES QPL- MS1957-18	EA
0006	00002.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0007	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0010	00006.500	415780-0093	SLEEVE,VINYL .263 DIA BLACK .020 WALL QPL- MIL-I-7444C	FT
0011	00001.000	539409-0005	CONNECTOR PHD-20 25 PIN AMP-205208-1	EA
0011A			P13 AMP-205208-1	
0012	00001.000	539903-0001	HOOD ASSY W/HARDWARE AMP-205718	EA
0013	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA
0014	00038.500	538347-3999	WIRE HOOKUP B-22 AWG 19 STR WHITE JUD- HH0115	FT
0015	00006.000	539430-0003	CONTACT PIN .062 DIA AMP--205202-2	EA
0016	REF	970656-9901	TEST PROGRAM,DITMCO-MOD 752/755 CABLE	EA
0017	00001.000	981301-0001	CABLE BRACKET 1209-1301-005	EA
0018	00001.000	235463-0002	STRAP STANDARD BUNDLE DIA 0 TO 1-3/4 IN PND-SST-2	EA
0019	00002.000	418293-0015	SCREW 4-40 UNC-2A X .375 PAN HEAD CRES QPL- MS1957-15	EA
0020	00001.000	532997-0012	BAG,POLYETHYLENE,HEAT SEALED	EA

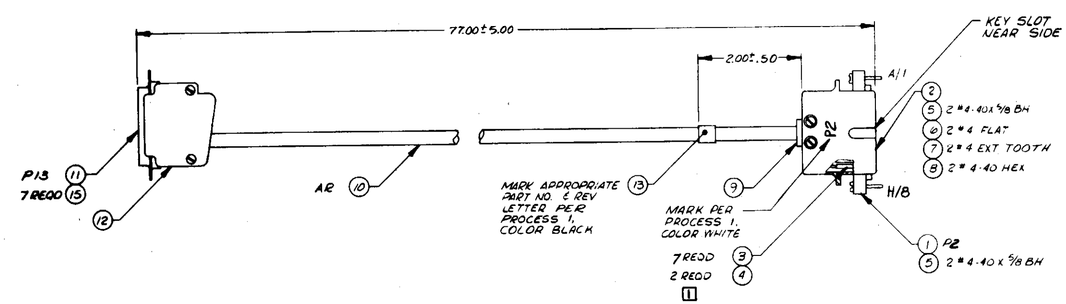
WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	ITEM NO.
1	22 AWG 1PVC WHT	P2-A	P13-1	14
2		-7	-2	
3		-5	-3	
4		-3	-5	
5		-2	-6	
6		-6	-7	
7	22 AWG IPVC WHT	P2-4	P13-8	14

NOTES:

1. INSTALL RETAINING SPRING, ITEM 4 IN POSITIONS H & D FRONT ENTRY OF CONNECTOR, ITEM 1

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	386840(C) G. Butenute 2-22-74 IT.2 ON LM P/N WAS 360914-0004 DESCRIPTION HOOD, I/D CONN, 8 PIN	2/25/74	



PROCESSES:

1. HOT STAMP F100, HEIGHT .12

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125	.126 THRU .250	.251 THRU .500
+.004 -.001	+.005 -.001	+.006 -.001
.501 THRU .750	**.751 THRU 1.000**	**1.001 THRU 2.000**
+.008 -.001	+.010 -.001	+.012 -.001

NEXT ASSY	USED ON
969645	8727

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02

MATERIAL:

DWN	[signature]
CHK	[signature] 10-10-73
ENGR	[signature] 10-10-73
QA	
APVD	[signature] 10-10-73
CONTR	[signature] 10/10/73
DESIGN ACTIVITY RELEASE	[signature] 10/10/73

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas

CABLE ASSY,
EIA COUPLER INTERFACE
MOD 735

SIZE	CODE IDENT NO	DRAWING NO
D	96214	973253

SCALE NONE REV. A SHEET

L/M

TI-7914E

D 973253

MAY 16, 1975 L I S T O F M A T E R I A L

PART NUMBER	REV	DESCRIPTION
973253-0001	A	CABLE ASSY,EIA COUPLER INTERFACE-MOD 735

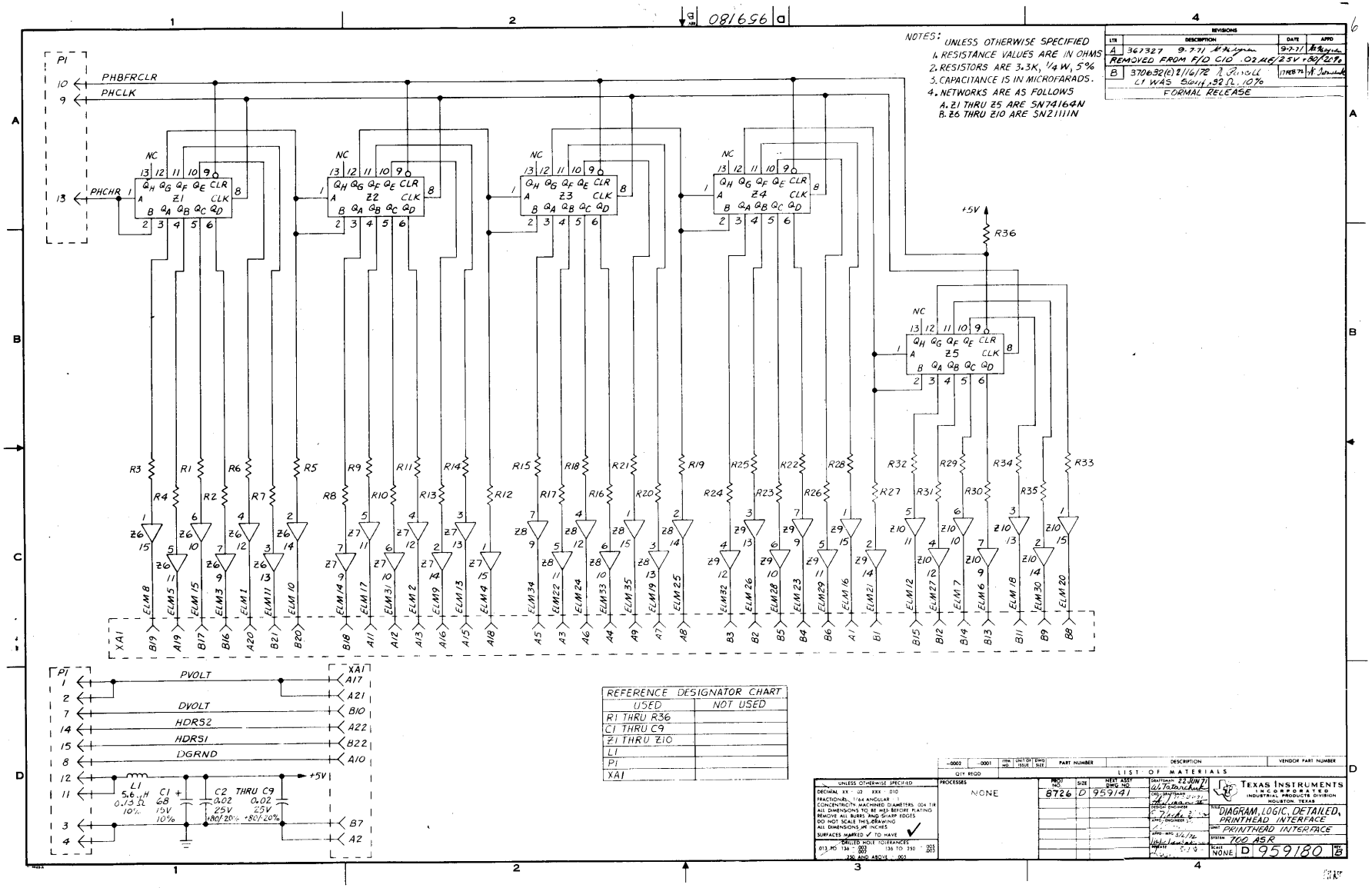
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	232118-0050	HOUSING CONN.PC 8 DUAL POS.PHENOLIC AMP-582140-5	EA
0001A			P2 AMP-582140-5	
0002	00001.000	244278-0002	CONNECTOR RECEPTACLE 10/15 1204-0120-003	EA
0003	00007.000	231553-0010	CONTACT LEAF 42717-3 AMP-42717-3	EA
0004	00002.000	235411-0050	SPRING RETAINING 42973-3 AMP-42973-3	EA
0005	00004.000	418293-0018	SCREW 4-40 UNC-2A X .625 PAN HEAD CRES QPL- MS1957-18	EA
0006	00002.000	411027-0804	WASHER .125 X .312 X .032 FLAT CRES QPL- MS15795-804	EA
0007	00002.000	411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL- MS35335-57	EA
0008	00002.000	411115-0044	NUT,4-40 HEXAGON CRES STEEL MS -35649-244	EA
0009	00001.000	230209-9000	BUSHING SNAP .3750D .251D HEY-SB-375-4	EA
0010	00006.500	415780-0093	SLEEVE,VINYL .263 DIA BLACK .020 WALL QPL- MIL-I-7444C	FT
0011	00001.000	539409-0006	CONNECTOR RCPT 25PINS RACK & PANEL AMP-205207-1	EA
0011A			P13 AMP-205207-1	
0012	00001.000	539903-0001	HOOD ASSY W/HARDWARE AMP-205718	EA
0013	00001.000	235463-0006	STRAP STD MKR BUNDLE DIA 0 TO 1-3/4 IN PND-SSM-2	EA
0014	00045.000	538347-3999	WIRE HOOKUP 8-22 AWG 19 STR WHITE JUD- HH0115	FT
0015	00007.000	539430-0004	CONTACT,SOCKET 24-20AWG .062ID AMP-205201-3	EA

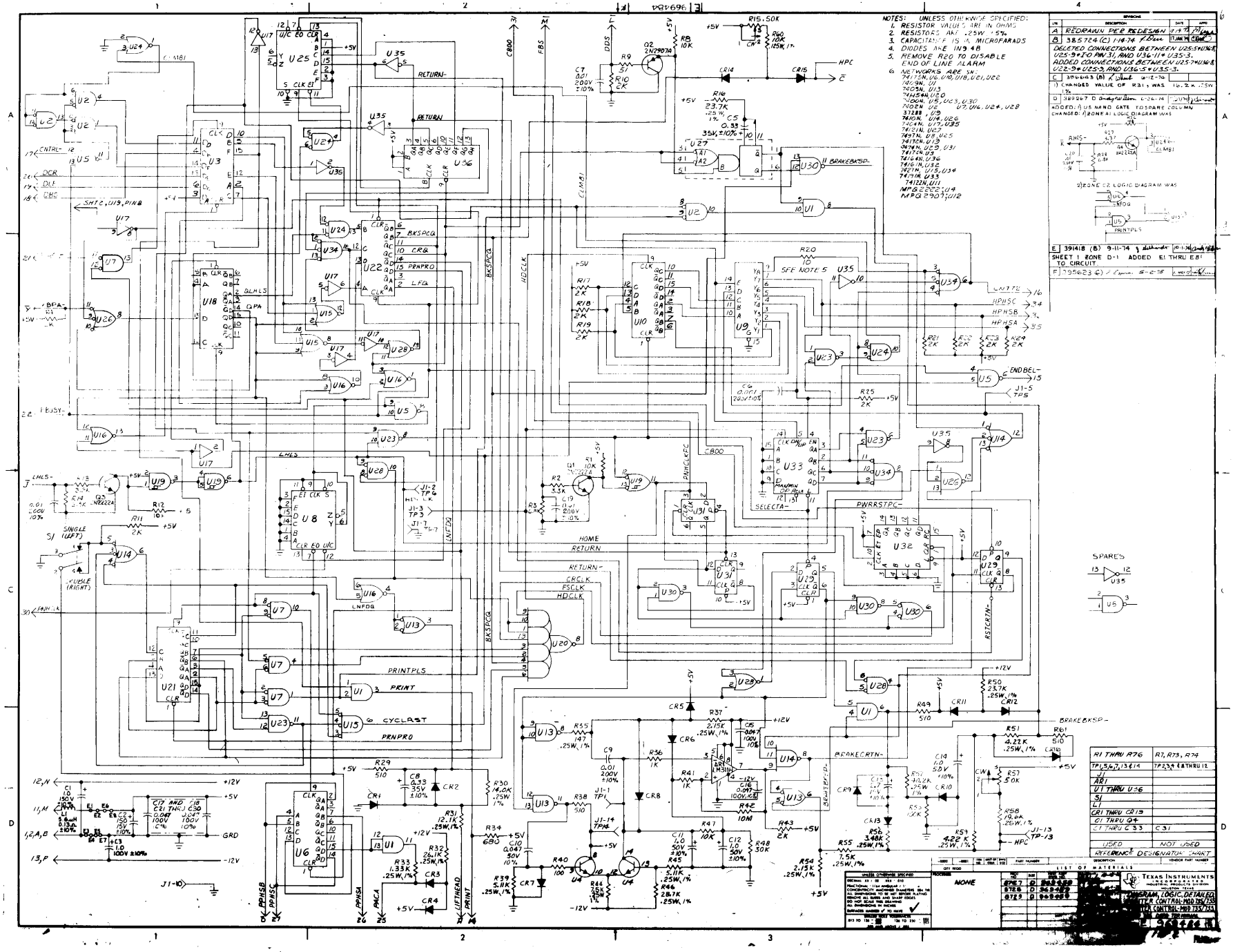
APPENDIX C

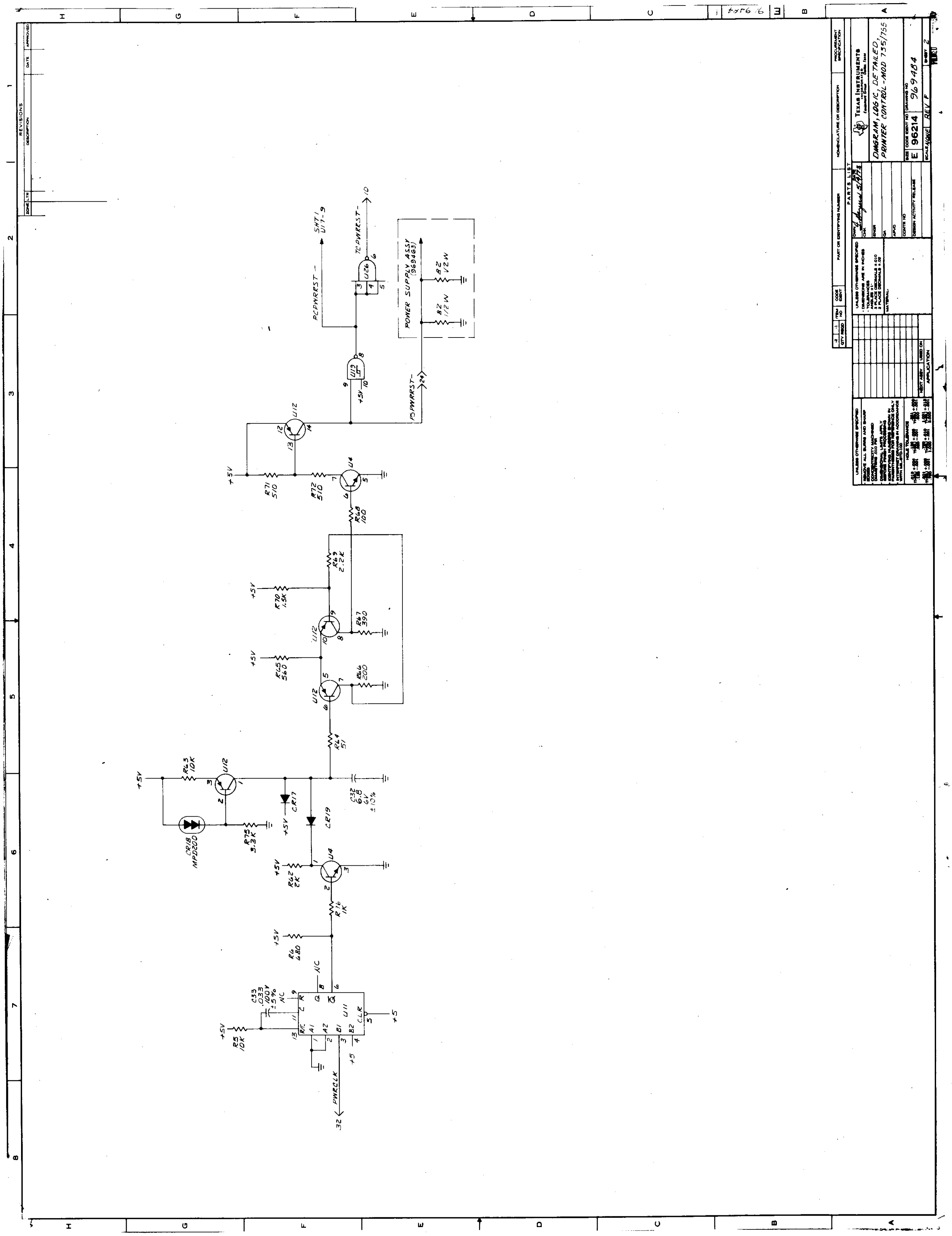
ELECTRICAL SCHEMATICS

This appendix contains electrical schematics and logic diagrams to help data terminal maintenance and troubleshooting. The drawings are arranged numerically in the following order:

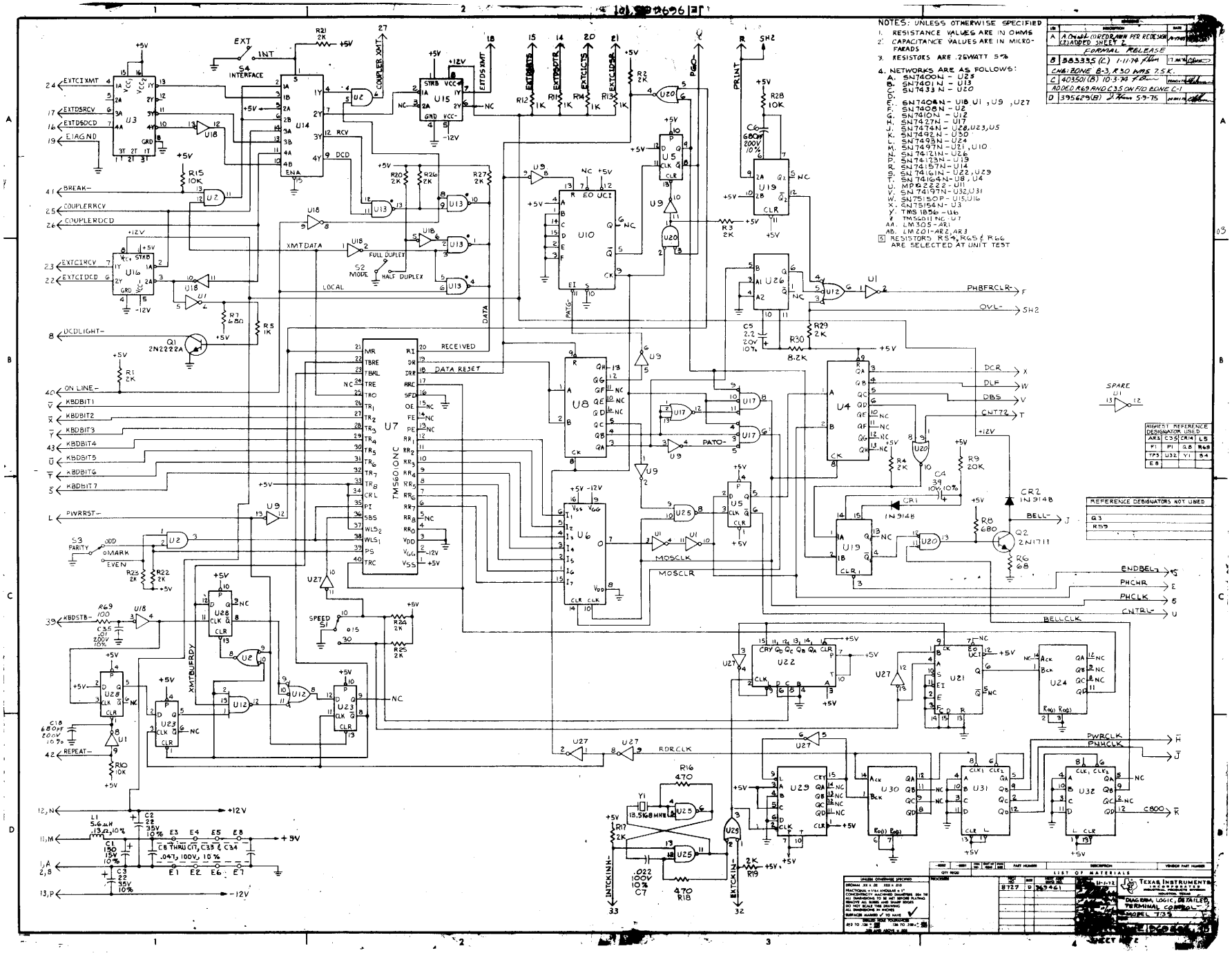
Title	TI Drawing No.
Printhead Interface	959180B
Printer Control	969484F
Terminal Control, Model 735	969485D
Power/Motor Driver, Models 735, 752, 753, 754, 755	969486T
Motherboard, Model 735	969487E
Motherboard, Models 752, 753, 754, 755	969488E
Terminal Control, Models 752, 753, 754, 755	969489D
Motor Driver, Models 752, 753 w/o power supply	969490C
Terminal Control, Models 753, 755, Parallel Interface	969499A

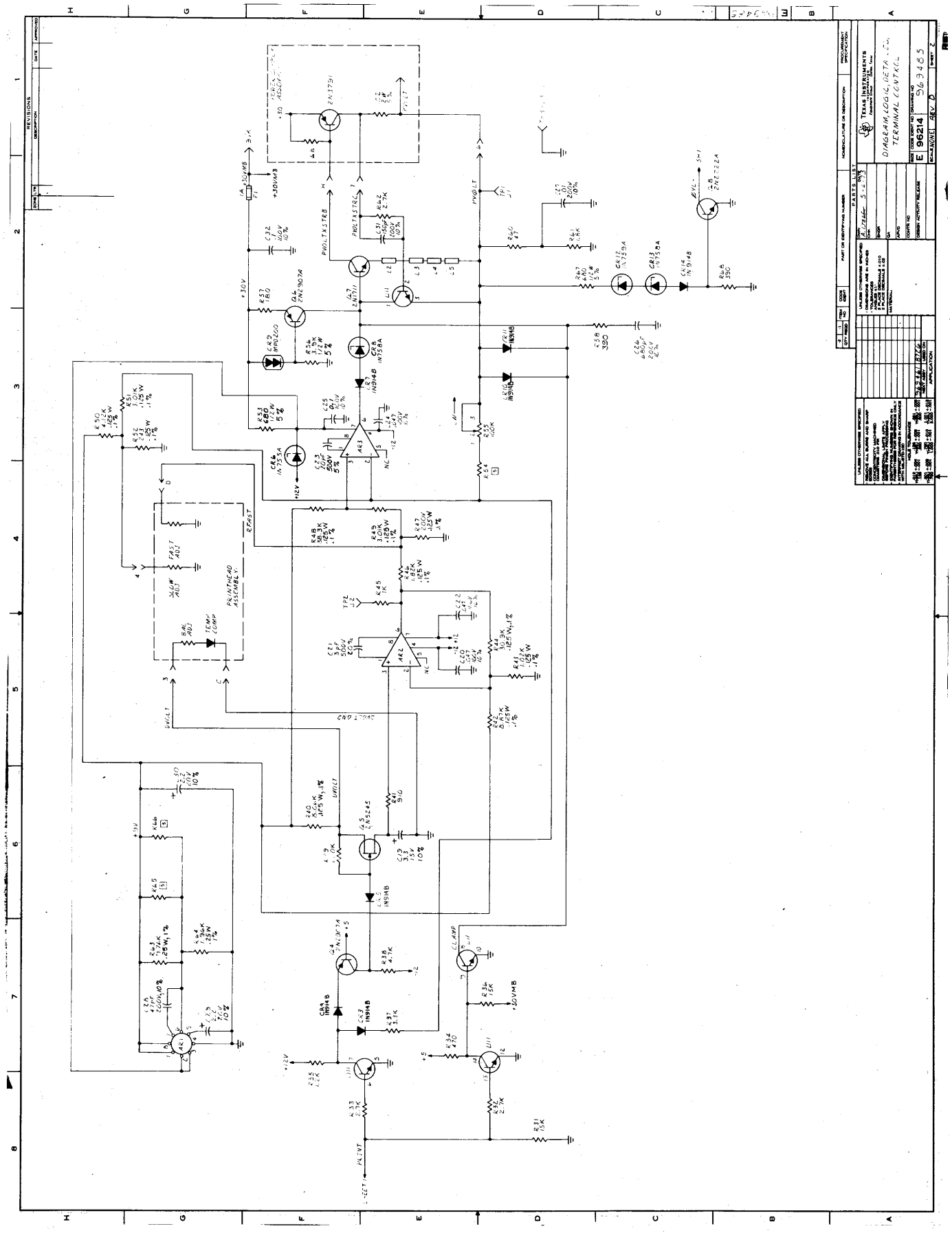

081696
NOTES: UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS
2. RESISTORS ARE 3.3K, 1/4 W, 5%
3. CAPACITANCE IS IN MICROFARADS.
4. NETWORKS ARE AS FOLLOWS
A. Z1 THRU Z5 ARE SN74164N
B. Z6 THRU Z10 ARE SN2111IN
REVISIONS
LTR DESCRIPTION DATE APPD
A 367327 9-7-71
REMOVED FROM F/O C10 .02 MF/25V +80/-20%
B 370632(R) 2/16/72
C1 WAS 56pF, .82Ω, 10%
FORMAL RELEASE
P1
PHBFRCLR
PHCLK
PHCHR
Z1
Z2
Z3
Z4
Z5
+5V
R36
XA1
PVOLT
DVOLT
HDRS2
HDRS1
DGRND
L1
5.6 μH
0.13Ω
10%
C1
68
15V
10%
C2 THRU C9
0.02
25V
+80/-20%
REFERENCE DESIGNATOR CHART
USED
NOT USED
R1 THRU R36
C1 THRU C9
Z1 THRU Z10
L1
P1
XA1
PART NUMBER
DESCRIPTION
VENDOR PART NUMBER
LIST OF MATERIALS
PROCESSES
NONE
TEXAS INSTRUMENTS
INCORPORATED
INDUSTRIAL PRODUCTS DIVISION
HOUSTON, TEXAS
DIAGRAM, LOGIC, DETAILED, PRINTHEAD INTERFACE
PRINTHEAD INTERFACE
700 ASR
959180

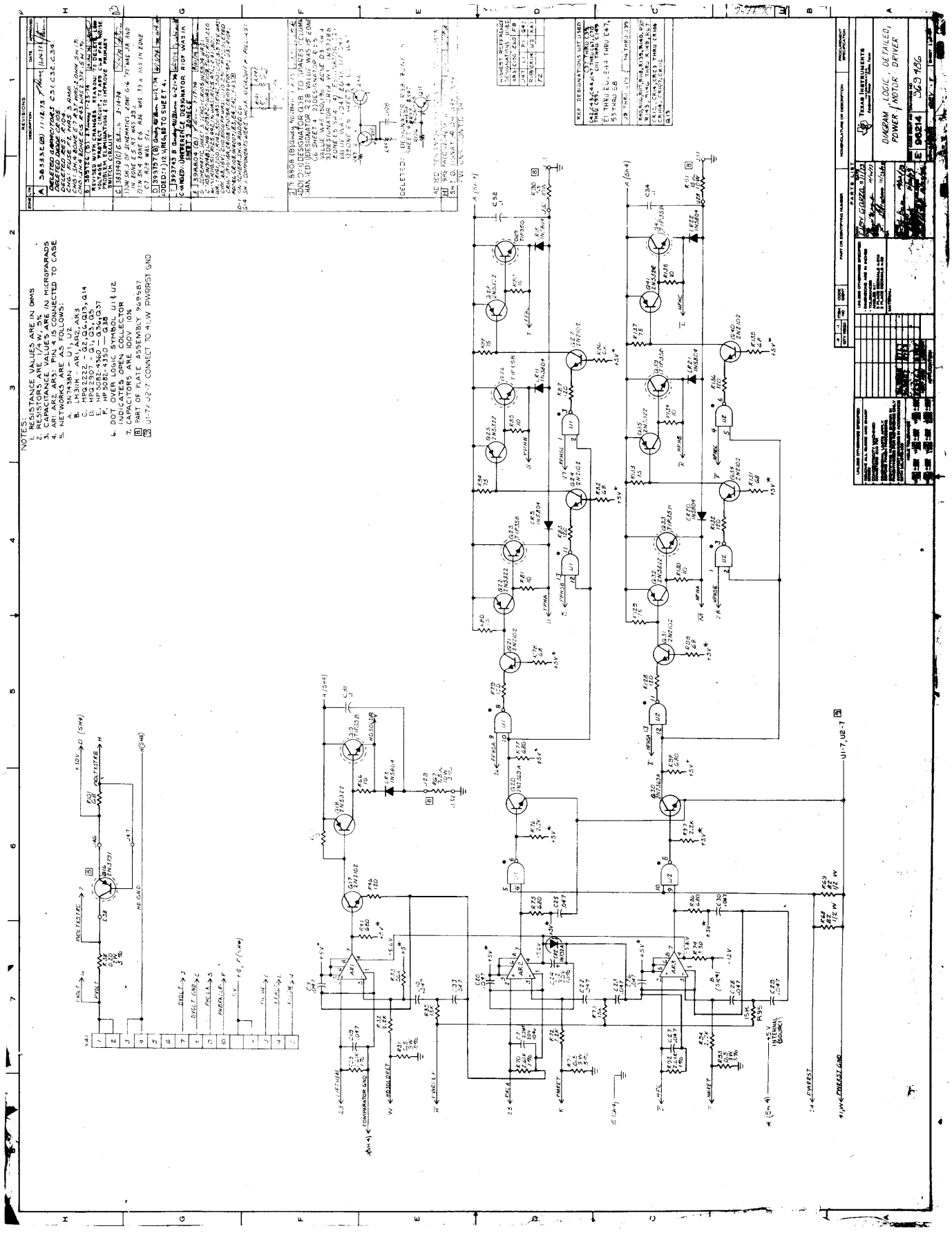

NOTES: UNLESS OTHERWISE SPECIFIED:
1. RESISTOR VALUES ARE IN OHMS
2. RESISTORS ARE .25W ±5%
3. CAPACITANCE IS IN MICROFARADS
4. DIODES ARE IN948
5. REMOVE R20 TO DISABLE END OF LINE ALARM
6. MATCHING SIDE SW:
74175N, U6, U10, U18, U21, U22
74L9N, U1
7403N, U13
74H54N, U20
7420N, U5, U23, U30
7400N, U2, U7, U16, U24, U28
37288, U9
7410N, U14, U26
74C4N, U17, U35
7413N, U27
7493N, U8, U25
7497N, U19, U25
7413CN, U19
9974N, U29, U31
74174, U3
7414N, U36
7416N, U32
7421N, U15, U34
74H1N, U33
74122N, U11
MPS2222/A4
MPQ2907/U12
SPARES
U35
U5
U6
U4
U1
U13
U14
U26
U29
U30
U31
U32
U33
U34
U36
U23
U24
U27
U28
U15
U16
U17
U19
U20
U7
U8
U9
U10
U11
U12
U18
U21
U22
U25
U3
U2
R1 THRU R76
R7, R73, R74
TP1,3,4,7,13 & 14
TP2,9 & THRU 12
J1
AR1
U1 THRU U36
S1
L1
CR1 THRU CR19
Q1 THRU Q4
C1 THRU C33
C31
USED
NOT USED
REFERENCE DESIGNATOR CHART
REDRAWN PER REDESIGN
DELETED CONNECTIONS BETWEEN U25-5 & U36-8, U25-9 & IO PIN 31, AND U36-11 & U35-3.
ADDED CONNECTIONS BETWEEN U25-7 & U36-8, U22-3 & U25-3, AND U36-5 & U35-3.
CHANGED VALUE OF R31 WAS 16.2K ±5%
ADDED: A US NAND GATE TO SPARE COLUMN
CHANGED: A ZONE A1 LOGIC DIAGRAM WAS
ZONE C2 LOGIC DIAGRAM WAS
SHEET 1 ZONE D-1 ADDED E1 THRU E8 TO CIRCUIT.
PROGRAM, LOGIC, DETAILED
PRINTER CONTROL-MOD 735/745
PRINTER CONTROL-MOD 735/745
TEXAS INSTRUMENTS
969484 - 1



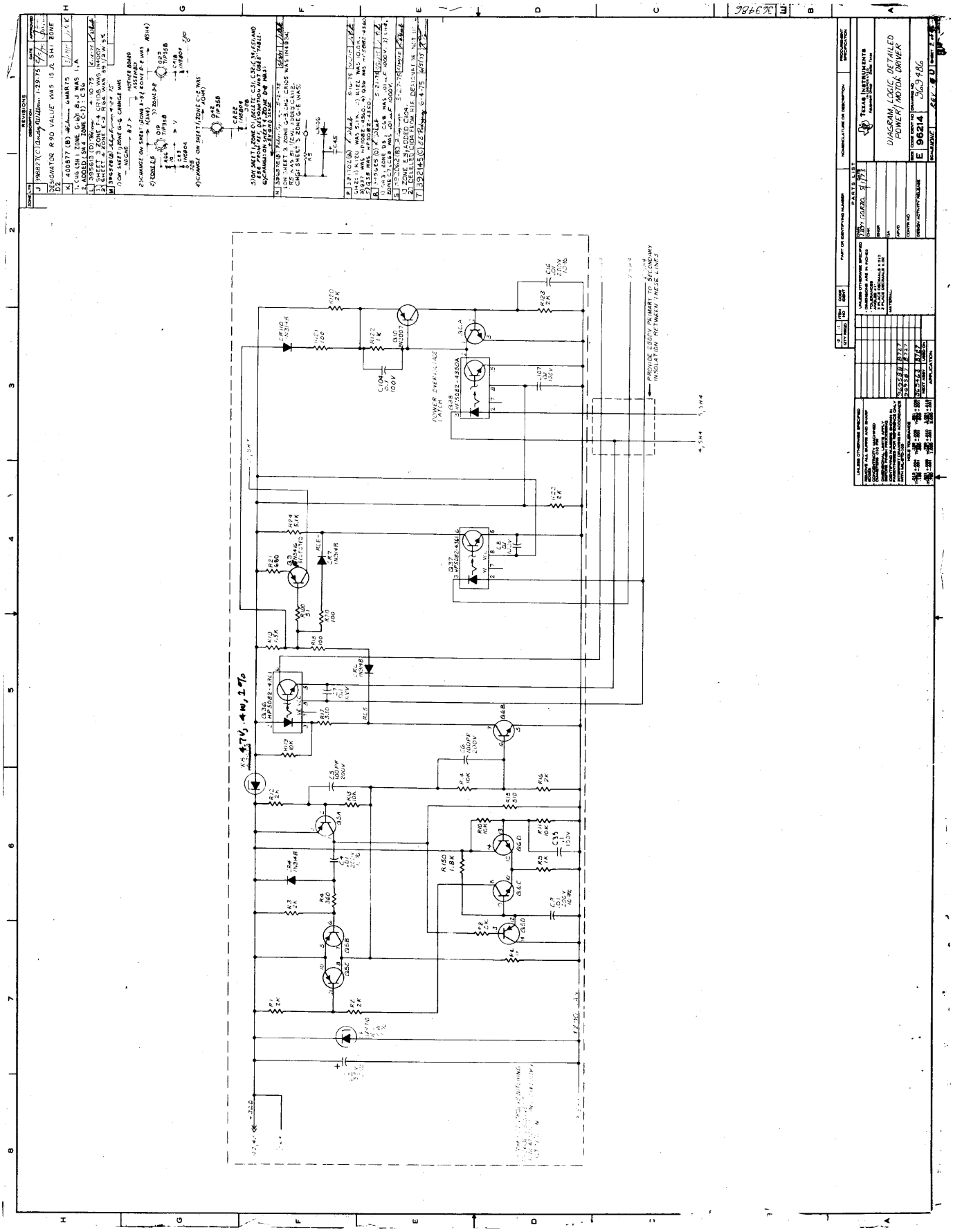
TEXAS INSTRUMENTS
DIAGRAM, LOGIC, DETAILED, PRINTER CONTROL - MOD 735/755
E 96214 969484
REV F
SHEET 2
POWER SUPPLY ASSY (969463)
PCPWRRST-
SHT 1 U17-9
TCPWRRST-
PWRCLK
CR18 MPD200

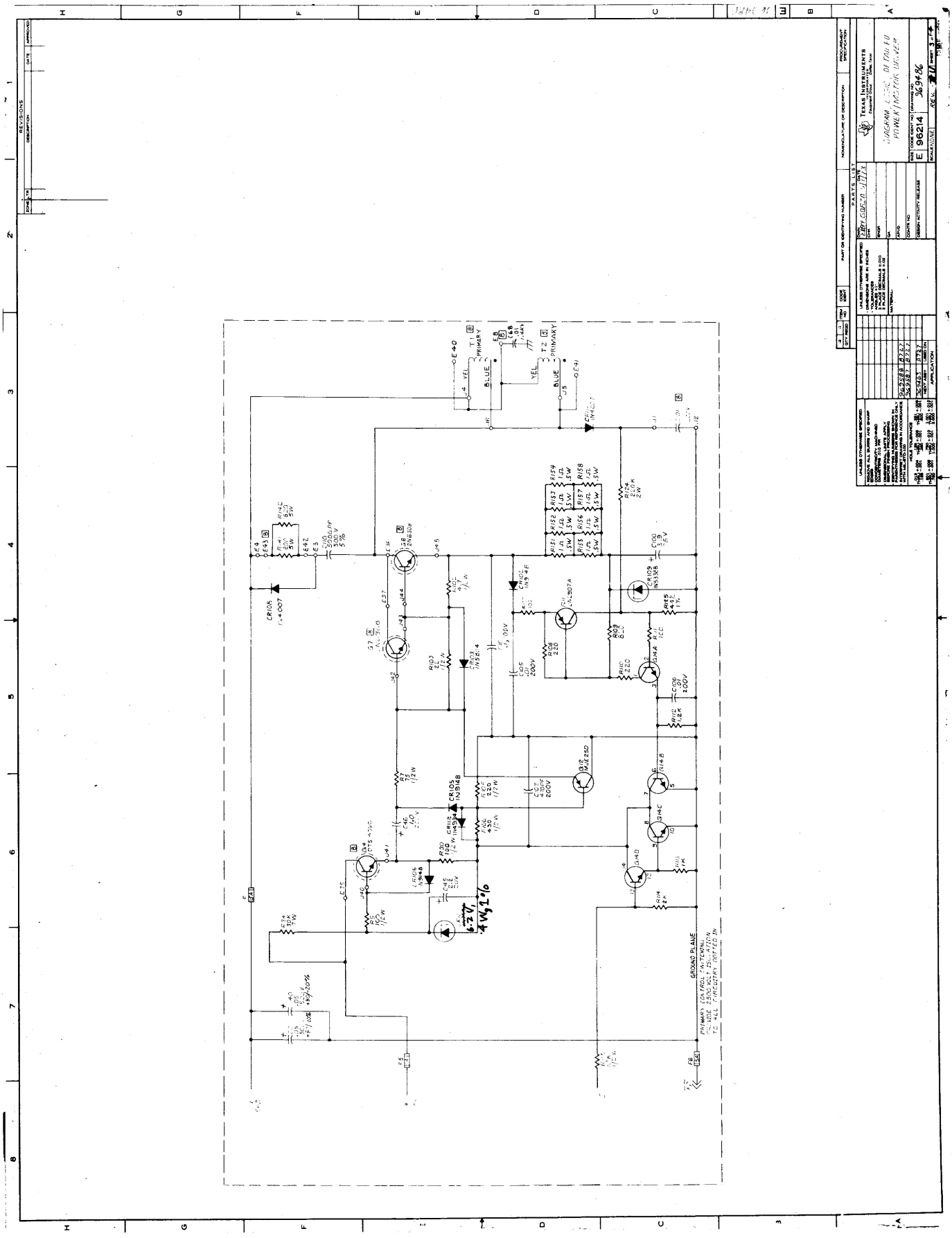

NOTES: UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS
2. CAPACITANCE VALUES ARE IN MICROFARADS
3. RESISTORS ARE .25WATT 5%
4. NETWORKS ARE AS FOLLOWS:
A. SN7400N - U25
B. SN7401N - U13
C. SN7433N - U20
D.
E. SN7408N - U18 U1 ,U9 ,U27
F. SN7406N - U2
G. SN7410N - U12
H. SN7427N - U17
J. SN7474N - U28,U23,U5
K. SN7492N - U30
L. SN7493N - U24
M. SN7497N - U21 ,U10
N. SN74121N - U26
P. SN74123N - U19
R. SN74157N - U14
S. SN7416N - U22,U29
T. SN74164N - U8, U4
U. MP62222 - U11
V. SN74197N - U32,U31
W. SN75150P - U15,U16
X. SN75154N - U3
Y. TMS1856 - U6
Z. TMS6011NC - U7
AA. LM305-AR1
AB. LM201-AR2,AR3
5 RESISTORS R54,R65 & R66 ARE SELECTED AT UNIT TEST
EXT
INT
S4 INTERFACE
COUPLER XMT
EXTDS XMT
EXTDS RCV
EXTDCD RCV
EXTCLCS RCV
EXTCLDS RCV
PRINT
PGO
SH2
EXTCI XMT
EXTDS RCV
EXTDCD RCV
E IAGND
BREAK-
COUPLER RCV
COUPLER DCD
EXTCI RCV
EXTCI DCD
DCD LIGHT-
ON LINE-
KBDBIT1
KBDBIT2
KBDBIT3
KBDBIT4
KBDBIT5
KBDBIT6
KBDBIT7
PWR RST-
S3 PARITY
ODD
MARK
EVEN
KBD STB-
REPEAT-
XMT DATA
FULL DUPLEX
S2 MODE
HALF DUPLEX
LOCAL
DATA
RECEIVED
DATA REJET
SPEED
S1
XMTBUFRDY
MOSCLK
MOSCLR
RDRCLK
PWRCLK
PHWCLK
PHBFRCLR
OVL-
PATO-
BELL-
BELLCLK
ENDBELL
PHCHR
PHCLK
CNTRL-
DCR
DLF
DBS
CNT72
SPARE
INTCKIN-
EXTCKIN-
+5V
+12V
-12V
+9V
REFERENCE DESIGNATORS NOT USED
Q3
R59
HIGHEST REFERENCE DESIGNATOR USED
DIAG DISPL LOGIC, DETAILED, TERMINAL CONTROL
MODEL 735
TEXAS INSTRUMENTS
8127
D
365461
969485-1

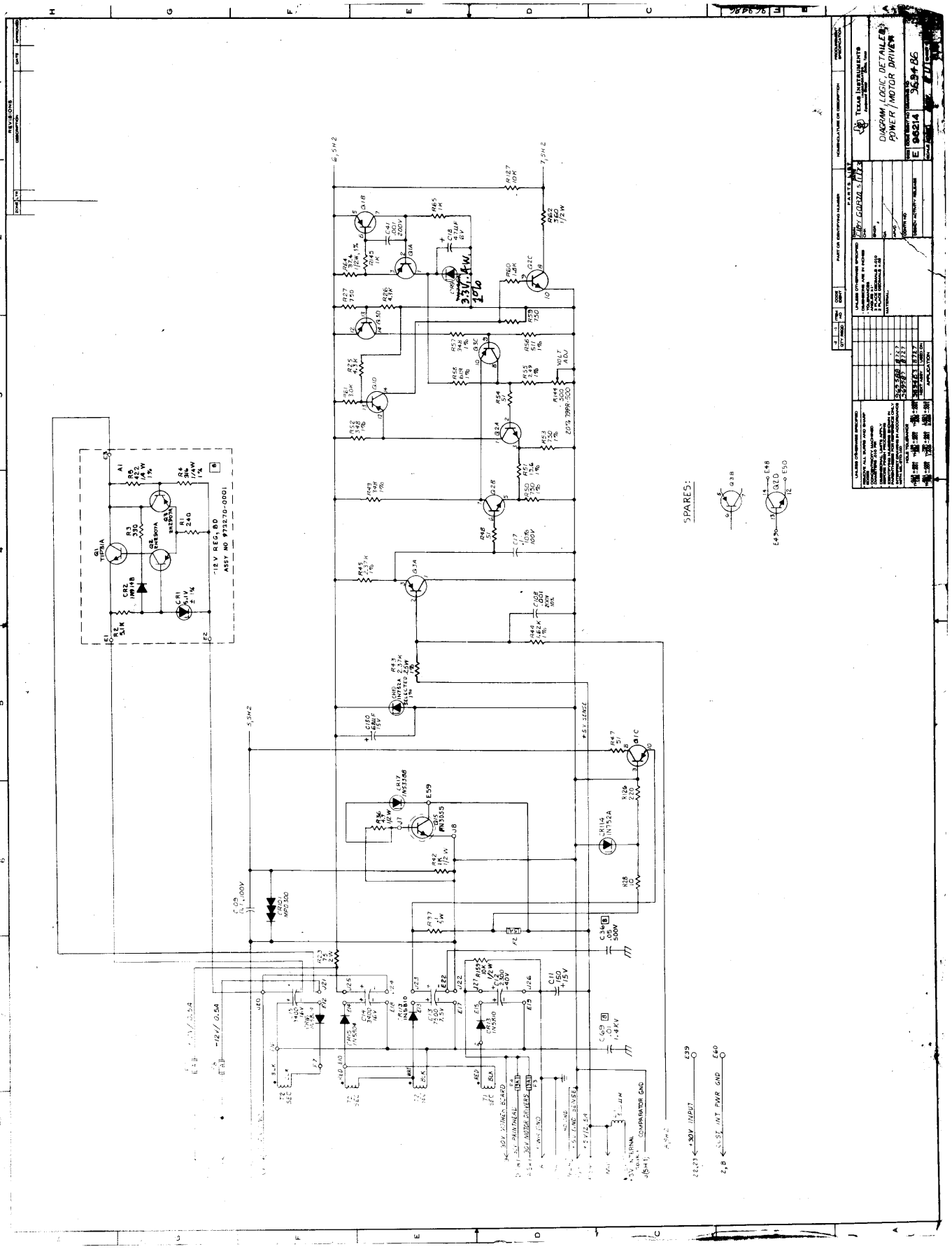


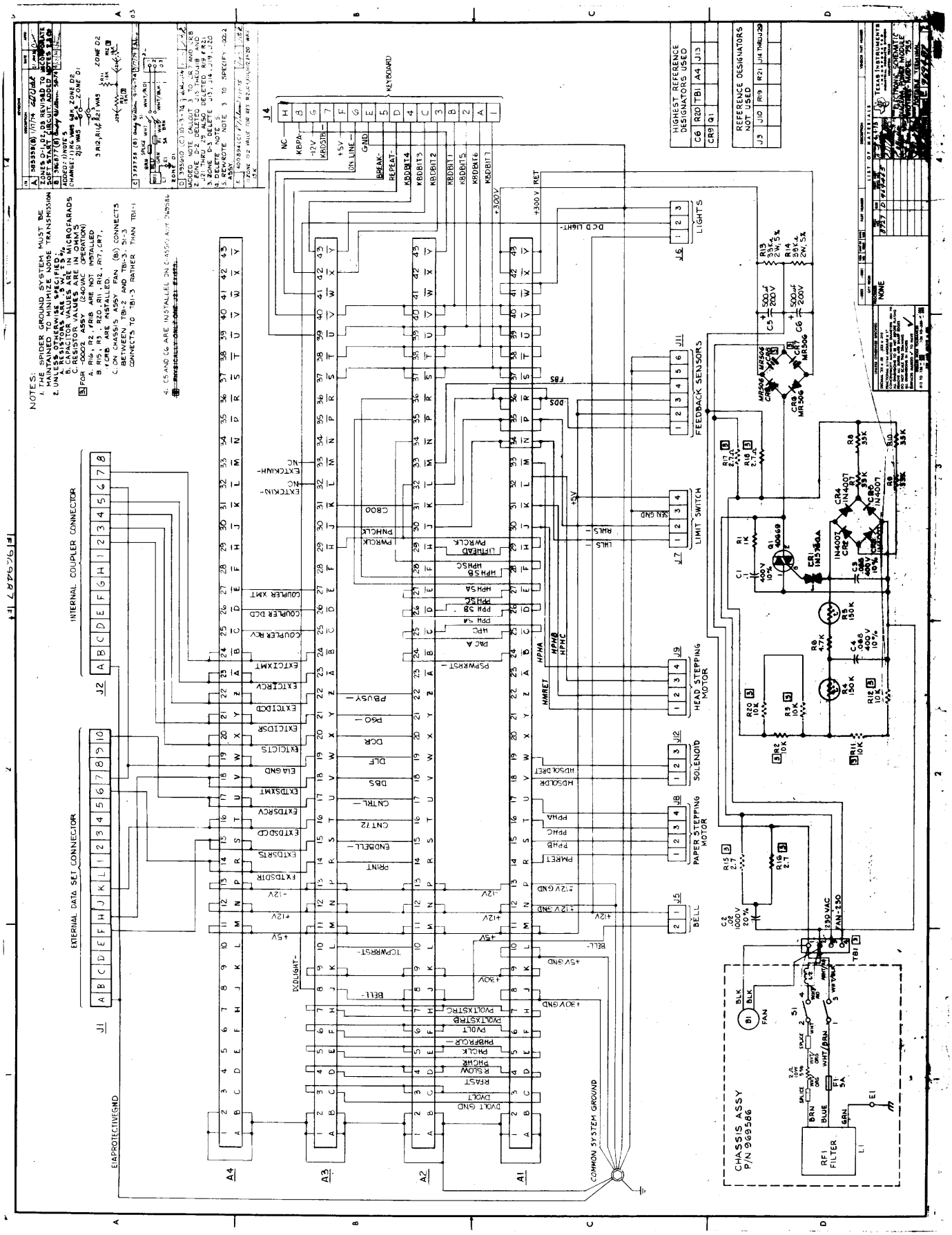


969486 - 1

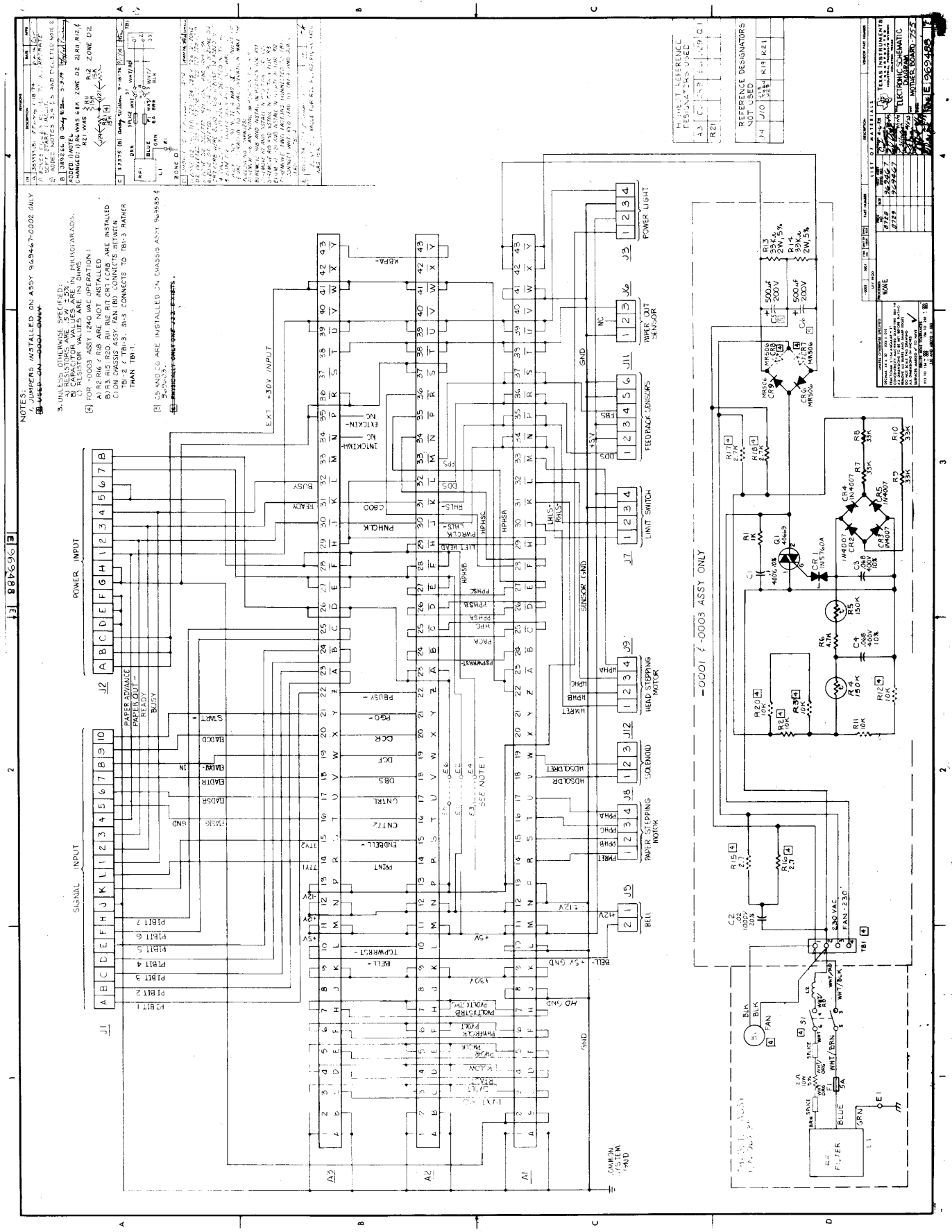

DIAGRAM, LOGIC, DETAILED
POWER/MOTOR DRIVER
E 96214
969486
REV. B 01
TEXAS INSTRUMENTS
PROVIDE 1500V PRIMARY TO SECONDARY INSULATION BETWEEN THESE LINES



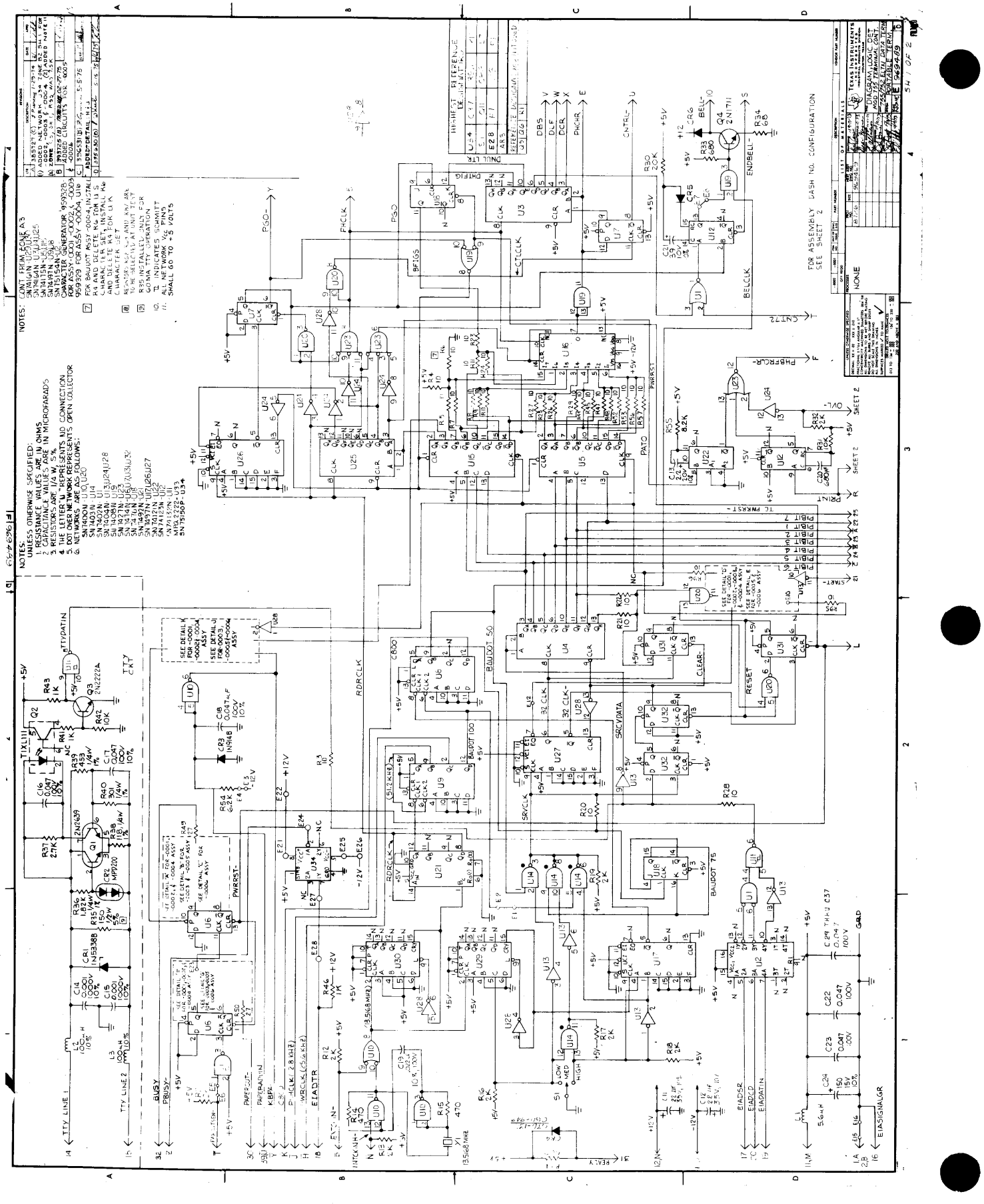

DIAGRAM, LOGIC, DETAILED
POWER MOTOR DRIVER
TEXAS INSTRUMENTS
E 96214
369486
-12V REG, BD
ASSY NO 9732270-0001
SPARES:
+30V INPUT
+5V INT PWR GND
-12V/0.5A
+5V/0.5A

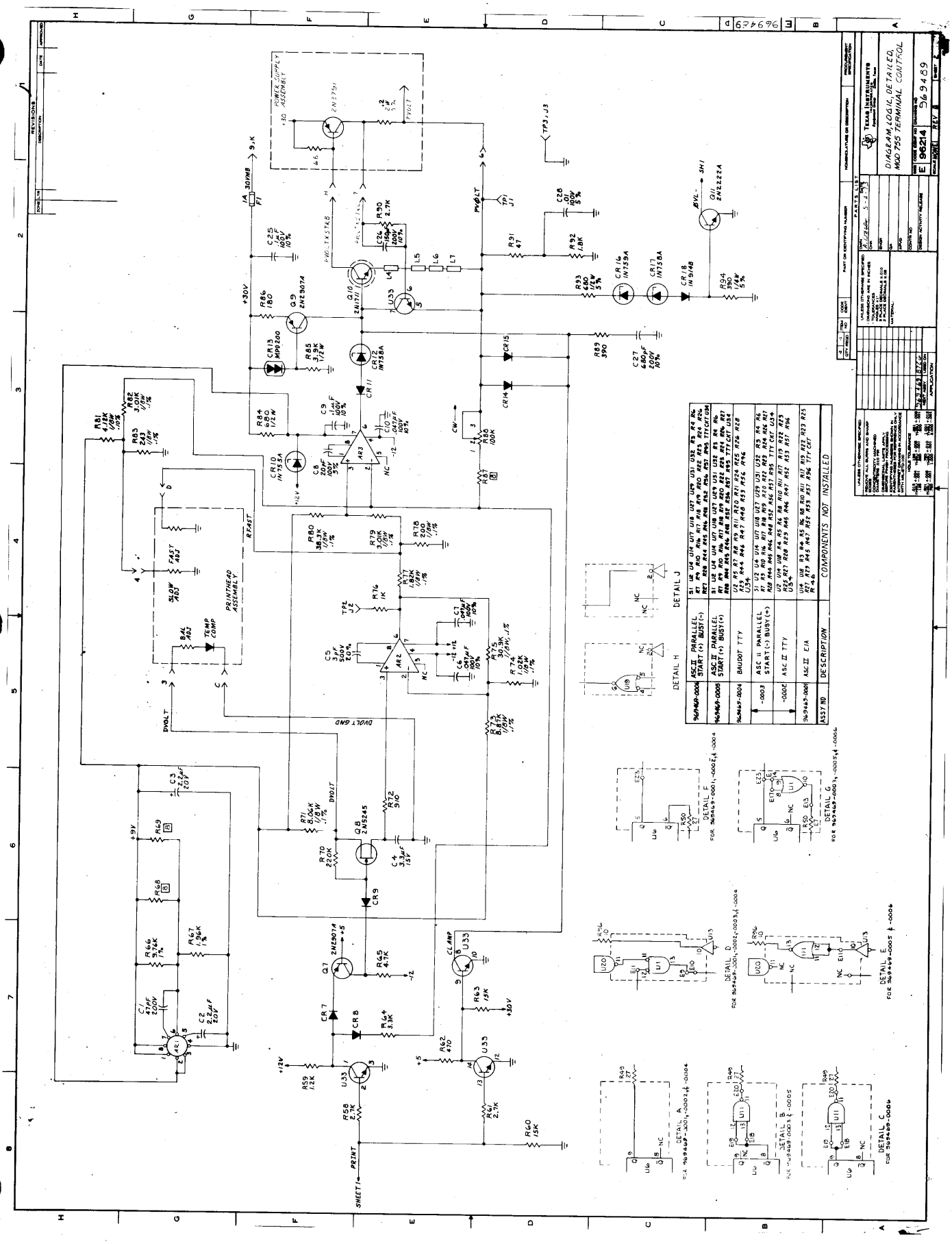


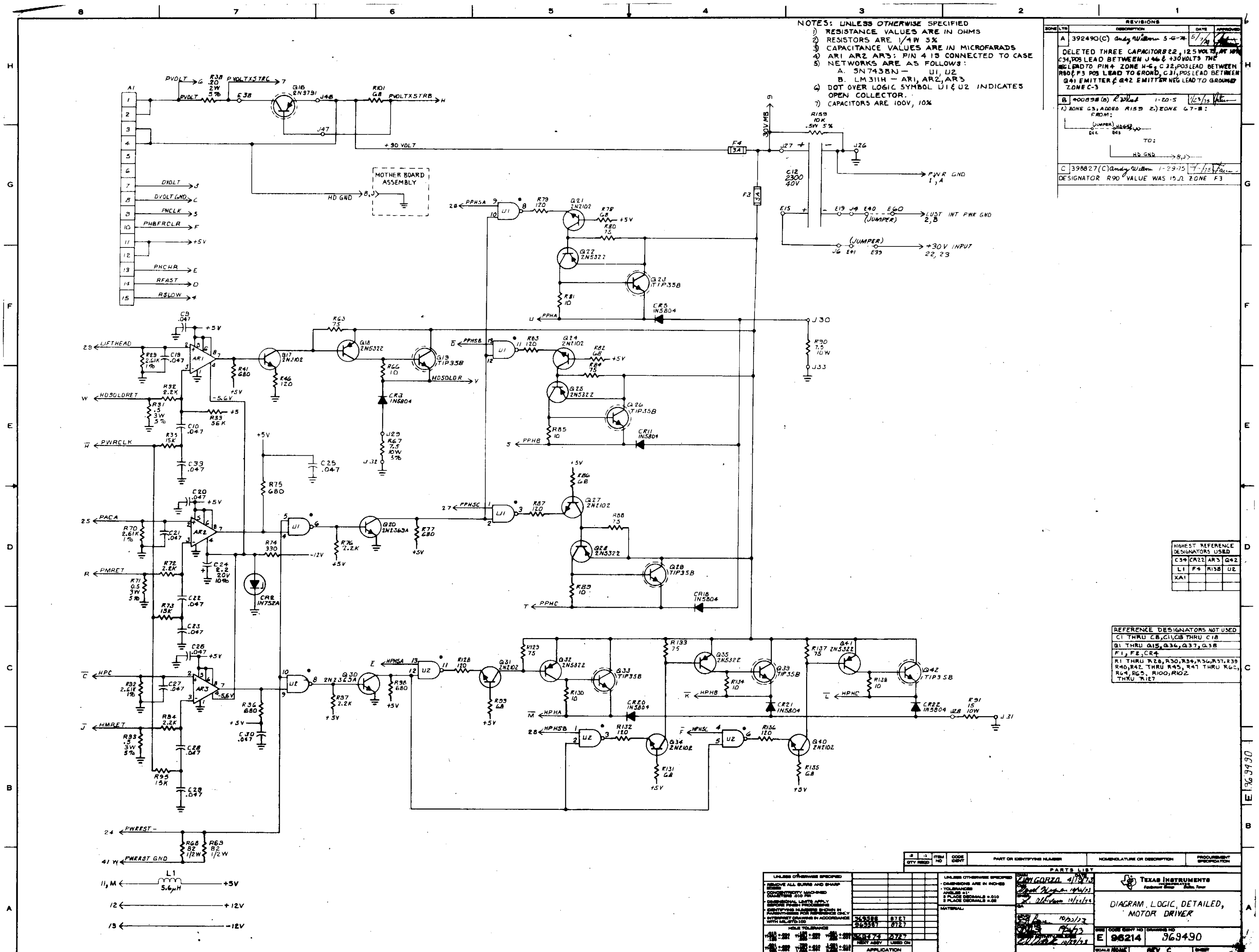
969487 - 1

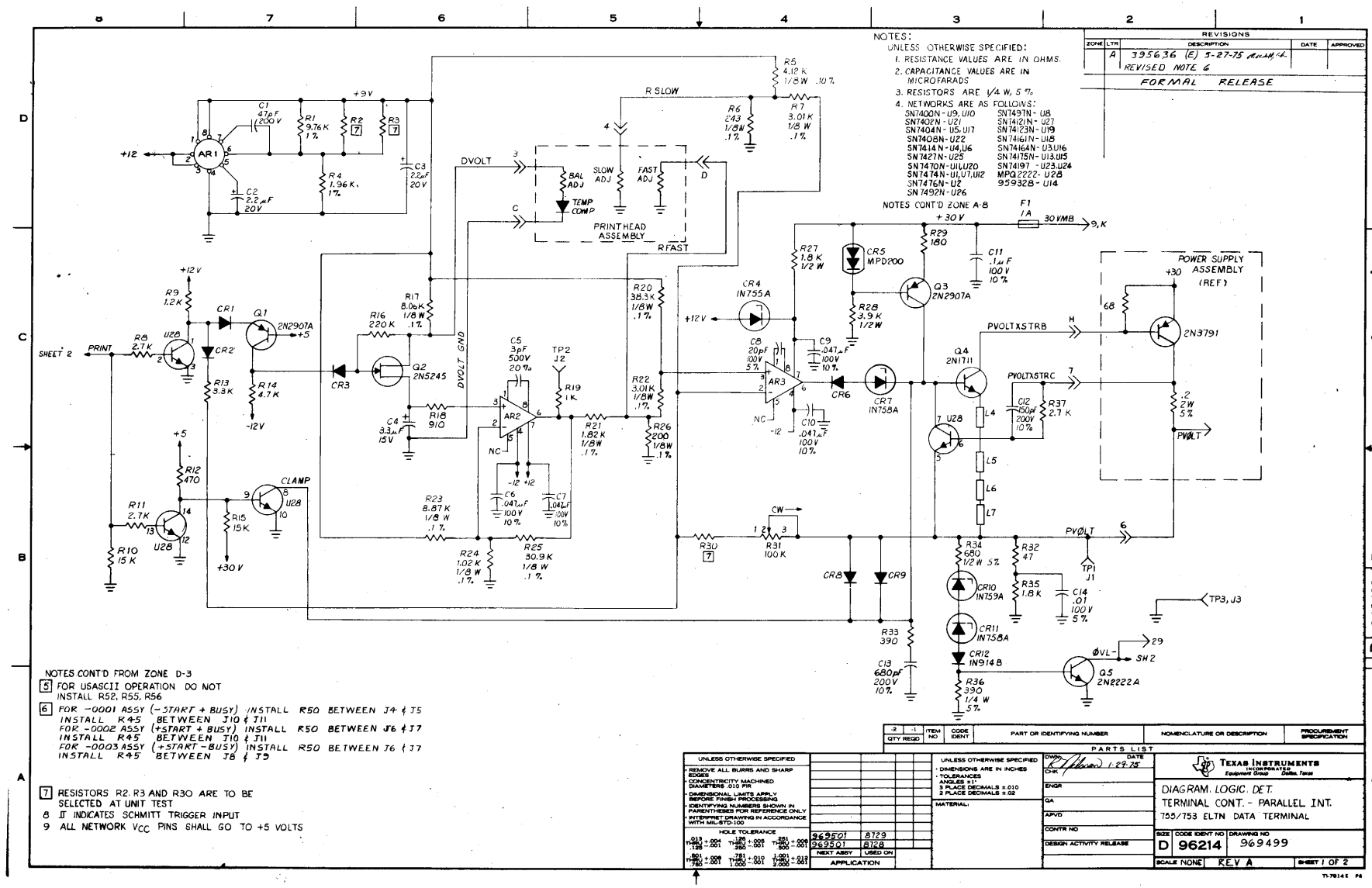


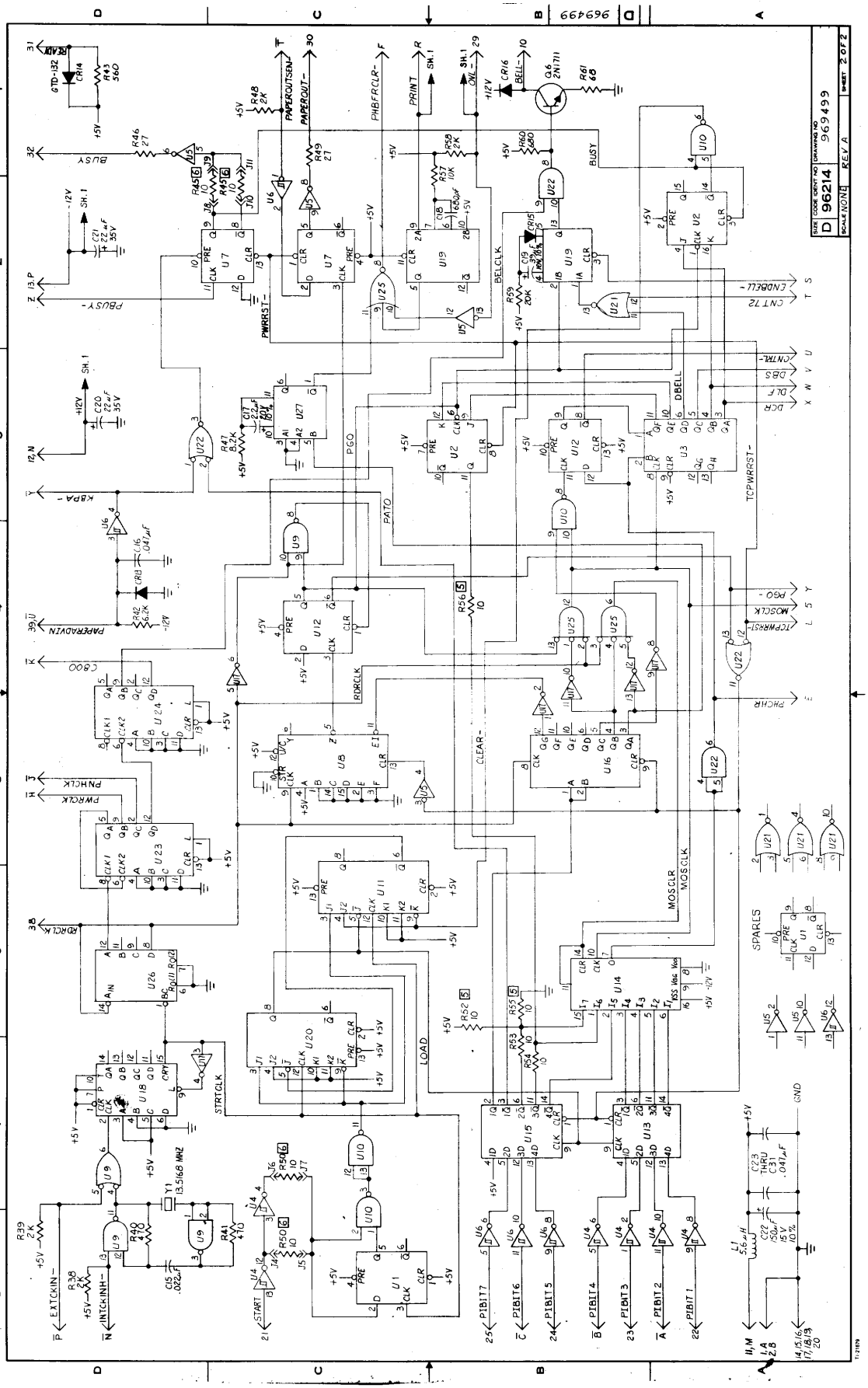
969488 - 1




DIAGRAM, LOGIC, DETAILED, MOD 755 TERMINAL CONTROL
969489
TEXAS INSTRUMENTS
PARTS LIST
DETAIL A
DETAIL B
DETAIL C
DETAIL D
DETAIL E
DETAIL G
DETAIL H
DETAIL J
COMPONENTS NOT INSTALLED


NOTES: UNLESS OTHERWISE SPECIFIED
1) RESISTANCE VALUES ARE IN OHMS
2) RESISTORS ARE 1/4W 5%
3) CAPACITANCE VALUES ARE IN MICROFARADS
4) AR1 AR2 AR3: PIN 4 IS CONNECTED TO CASE
5) NETWORKS ARE AS FOLLOWS:
A. SN7438N — U1, U2
B. LM311H — AR1, AR2, AR3
6) DOT OVER LOGIC SYMBOL U1 & U2 INDICATES OPEN COLLECTOR.
7) CAPACITORS ARE 100V, 10%
REVISIONS
A 392490(C) DELETED THREE CAPACITORS C22, 125 VOLTS, C34, POS LEAD BETWEEN J46 & +30 VOLTS THE NEG LEAD TO PIN 4 ZONE H-6, C32, POS LEAD BETWEEN R90 & F3 POS LEAD TO GROUND, C31, POS LEAD BETWEEN Q41 EMITTER & Q42 EMITTER NEG LEAD TO GROUND ZONE C-3
B 400838(B) 1) ZONE G3, ADDED R159 2) ZONE G7-8: FROM: TO:
C 398827(C) DESIGNATOR R90 VALUE WAS 15Ω ZONE F3
MOTHER BOARD ASSEMBLY
HIGHEST REFERENCE DESIGNATORS USED
C34 CR22 AR3 Q42
L1 F4 R138 U2
XA1
REFERENCE DESIGNATORS NOT USED
C1 THRU C8, C11, C13 THRU C18
Q1 THRU Q15, Q36, Q37, Q38
F1, F2, CR4
R1 THRU R28, R30, R34, R36, R37, R39, R40, R42 THRU R45, R47 THRU R62, R64, R65, R100, R102 THRU R127
PARTS LIST
TEXAS INSTRUMENTS
DIAGRAM, LOGIC, DETAILED, MOTOR DRIVER
E 96214 969490
REV C


NOTES:
UNLESS OTHERWISE SPECIFIED:
1. RESISTANCE VALUES ARE IN OHMS.
2. CAPACITANCE VALUES ARE IN MICROFARADS
3. RESISTORS ARE 1/4 W, 5 %
4. NETWORKS ARE AS FOLLOWS:
SN7400N - U9, U10
SN7402N - U21
SN7404N - U5, U17
SN7408N - U22
SN7414N - U4, U6
SN7427N - U25
SN7470N - U1, U20
SN7474N - U1, U7, U12
SN7476N - U2
SN7492N - U26
SN7491N - U8
SN74121N - U21
SN74123N - U19
SN74161N - U18
SN74164N - U3, U16
SN74175N - U13, U15
SN74197 - U23, U24
MPQ2222 - U28
959328 - U14
NOTES CONT'D ZONE A-B
NOTES CONT'D FROM ZONE D-3
5 FOR USASCII OPERATION DO NOT INSTALL R52, R55, R56
6 FOR -0001 ASSY (-START + BUSY) INSTALL R50 BETWEEN J4 & J5
INSTALL R45 BETWEEN J10 & J11
FOR -0002 ASSY (+START + BUSY) INSTALL R50 BETWEEN J6 & J7
INSTALL R45 BETWEEN J10 & J11
FOR -0003 ASSY (+START - BUSY) INSTALL R50 BETWEEN J6 & J7
INSTALL R45 BETWEEN J8 & J9
7 RESISTORS R2, R3 AND R30 ARE TO BE SELECTED AT UNIT TEST
8 ⫴ INDICATES SCHMITT TRIGGER INPUT
9 ALL NETWORK Vcc PINS SHALL GO TO +5 VOLTS
REVISIONS
ZONE LTR DESCRIPTION DATE APPROVED
A 395636 (E) 5-27-75
REVISED NOTE 6
FORMAL RELEASE
PARTS LIST
QTY REQD ITEM NO CODE IDENT PART OR IDENTIFYING NUMBER NOMENCLATURE OR DESCRIPTION PROCUREMENT SPECIFICATION
TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas
DIAGRAM, LOGIC, DET.
TERMINAL CONT. - PARALLEL INT.
755/753 ELTN DATA TERMINAL
SIZE D CODE IDENT NO 96214 DRAWING NO 969499
SCALE NONE REV A SHEET 1 OF 2
969499 - 1
969499 D


969499
SIZE D
CODE IDENT NO 96214
DRAWING NO 969499
SCALE NONE
REV A
SHEET 2 OF 2
PAPEROUTSEN
PAPEROUT-
PRINT
BUSY
PBUSY-
PWRRST-
PAPERADVIN
EXTCKIN-
INTCKINH-
PGO
PATO
PDRCLK
PWRCLK
PHCLK
CLEAR-
LOAD
STRTCLK
MOSCLK
SPARKS
BELCLK
TCPWRRST-
ENDBELL-
CNTR-
PHCHR
P1BIT7
P1BIT6
P1BIT5
P1BIT4
P1BIT3
P1BIT2
P1BIT1
GND
+5V
+12V
-12V
13.5168 MHZ

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