installation manual

ComWriter® Jr.

Contents

Installation Instructions

1.0 INTRODUCTION

Inspect the contents of each carton for damage which may have occurred during shipping. If any assembly has been damaged, keep the packing materials for that assembly and report the damage immediately to the deliverer. When inspection is complete, continue with the installation.

1.1 Tools

The only tools required for installation are two screwdrivers; a flat blade and a Phillips screwdriver.

1.2 Installation Regulation (DDD Terminals Only)

FCC Regulations for Telephone Modems (U.S. Use Only)

Extel Corporation warrants that each Telephone Modem/Interface Connector assembly complies with all the applicable FCC Rules and Regulations, Part 68, Sub-part D.

Users connecting terminal equipment to the telephone network shall, before such connection is made, give notice to the telephone company of the particular line or lines to which such connection is made, and shall provide to the telephone company, the FCC Registration Number of the equipment. (Reference FCC Part 68.106.)

The equipment may not be used with party lines or coin lines. (Reference FCC Part 68.218, B 1; Part 68.502, A 1.)

INSTALLATION - The user must make appropriate arrangements with the local telephone operating company to provide a USOC Code RJ11C# jack, or equivalent (including adapter if required), for each teleprinter terminal employing the registered equipment. (Reference FCC Part 68.218, B 1; Part 68.502, A 1.)

If trouble is experienced, the user must disconnect the terminal associated with the registered equipment from the telephone line to determine if the registered equipment is malfunctioning. If so, the use of such equipment shall be discontinued until the problem has been corrected. (Reference FCC Part 68.218, B 3.)

The registration number and ringer equivalent number are found on the label located on the Telephone Modem Interface Board assembly, connector mounting bracket.

2.0 INSTALLATION

1. Unpack the CRT Monitor and perform all the required steps outlined in its installation instructions.

   Next, install the four rubber feet in the monitor kit (if supplied) to the bottom of the monitor. Position the CRT Monitor at its location. Place the ComWriter Jr. in front of it.

   Set the HI/LO Impedance switch to the LO position. Refer to **Figure 1**.
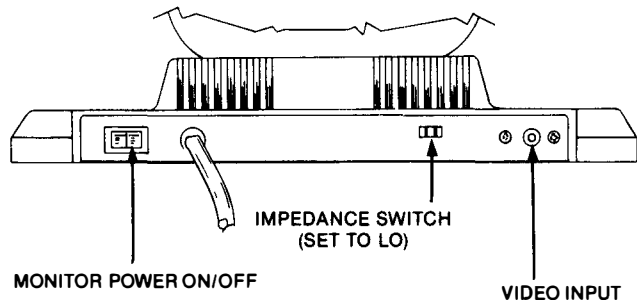
Figure 1. Monitor Rear View

2. If a printer is to be used, unpack the printer and perform all the steps outlined in its installation instructions. Perform any operations on the printer required before switching on its power (Setting switches, installing ribbon, paper, etc.)

   If the printer is the alternate 9-needle dot matrix printer, there are recommended settings for the DIP switches on the rear of the printer. Refer to the operating instructions for the printer for more information.

SW1			SW2	
Switch	Recommended Setting		Switch	Recommended Setting
1	OFF		1	OFF
2	OFF		2	OFF
3	ON		3	ON
4	ON		4	ON
5	OFF		5	ON
6	OFF		6	OFF
7	OFF		7	OFF
8	OFF		8	OFF
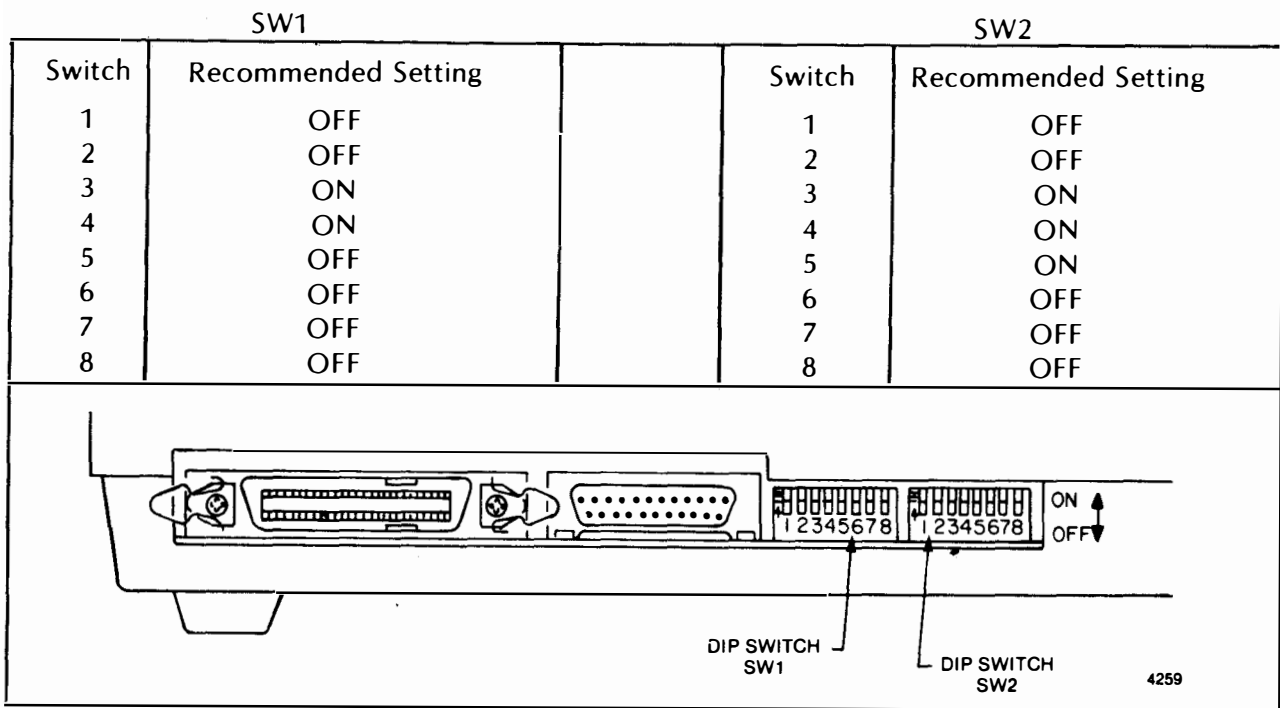
Position the Printer in an area to the right of the Monitor.

3. Remove the Monitor, Signal Line, and Printer cables from the box and attach them as follows:

   a. Monitor Cable - The monitor cable is a single pin cable. Plug this cable into the connector marked VIDEO on the rear of the terminal.

   b. Signal Cable - Plug the signal cable into the right hand (as viewed from the front) modular jack marked SIGNAL LINE.

   c. Printer Cable - Plug the cable into the connector to the right of the signal line marked PRINTER and tighten the two connector locking screws.

   d. Route the three cables under the Monitor's base.

4. Plug the Monitor cable into the connector on the rear of the Monitor's base.

5. Plug the signal line cable into the jack at the wall.

6. Plug the printer cable into the connector on the printer and lock in place.

7. Remove the Power Supply from the box. Remove the twist tie from each cable and set them aside. Place the Power Supply on the floor behind the Monitor. Route the cable with the five pin connector up to the Monitor, then under its base and plug it into the ComWriter Jr. at the left rear jack marked POWER. **Note:** This connector is keyed and can only be plugged in one way.

WARNING

DO NOT insert or remove the power connector at the rear of the terminal with power applied. Unplug the power supply from the wall outlet first. Failure to do so can cause damage to the terminal's internal components.
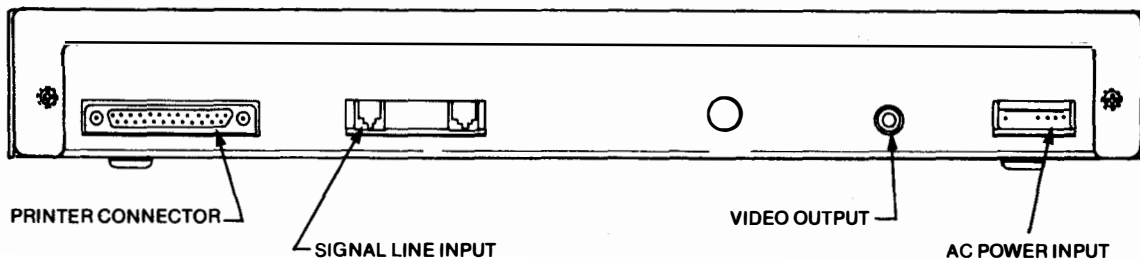

Figure 2. ComWriter Jr. Rear View.

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8. Operating Instruction Strip Placement

   a. Place the Operating Instruction Strip at the top of the keyboard such that the bottom edge of the strip rests against the top row of keys. The strip need not be fastened in any way.

3.0 PROGRAMMABLE OPTIONS

The "Installation Mode" is used by the installer to program certain terminal options, such as Answerback, private wire option, and size of left margin.

To set the programmable options:

1. Turn power off by unplugging the power supply at the wall.

2. Remove the plastic plug on the rear panel (refer to **Figure 2**.) Insert a screwdriver into the opening and slide the configuration switch to the right as seen from the rear. Refer to **Figure 3**.

3. Plug the power supply back in. The terminal is now in the Installation Mode. The questions asked in this mode are listed in paragraphs 3.1 and 3.2.

4. After all the questions are answered, slide the configuration switch back to the left then touch the New Line key. The terminal will return to the Idle Mode. Re-insert the plug into the configuration switch opening.

CONFIGURATION SWITCH ACCESS PLUG   4257
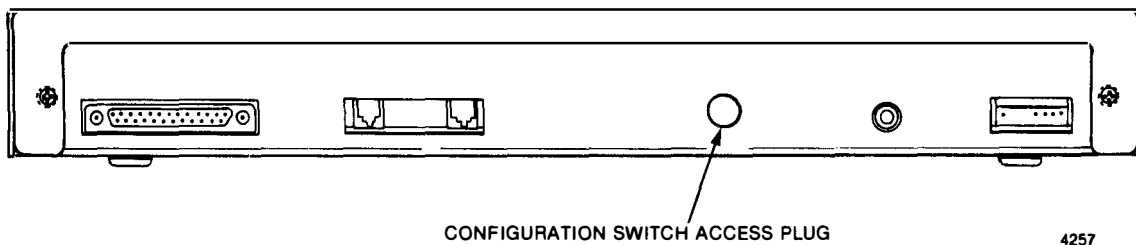
Figure 3. Configuration Switch Access.

3.1 INSTALLATION QUESTIONS - Private Wire/Telex

Question	Explanation
A/B ? (ENTER ? TO REMOVE A/B)	Up to 32 characters can be entered for the Answerback. Touch the WRU key to terminate. Touch ? to delete the current Answerback.
PW (Y/N)? __	For selecting Private Wire. Touch Y for Private Wire, and N for Telex. If No is the answer, the next question will be skipped.
FDX PW (Y/N)? __	For Full Duplex in Private Wire. Touch Y or N. This question is skipped if the above question was answered No.
ALLOWING INCOMING CALL ON LOW PAPER (Y/N)? __	If answered No, the terminal will not answer an incoming call when a printer fault exists. A printer fault is caused by Paper Out, no power to the printer, or the printer being de-selected.
ANSWER MODE = 1, ORIGINATE MODE = 0 ? __	Enter 1 to set the terminal interface to the Answer Mode, enter 0 to set to the Originate Mode.

3

ENTER COMM SPEED CODE (0 = 50, 1 = 75, 2 = 100, 3 = 200, 4 = 225) ? __

This sets the Baud rate for transmitting messages. The digit entered will set the speed listed:

0 - 50 Baud
1 - 75 Baud
2 - 100 Baud
3 - 200 Baud
4 - 225 Baud

Default is 50 Baud.

PRINTER TYPE (0 = ComScribe, 1 = Facit, 2 = Okidata, 3 = Character)? __

Enter the number for the type of printer being used. For star printer, enter same as Facit.

PRINTER LINE LENGTH (0 = No Limit, 1 = 69, 2 = 72, 3 = 80, 4 = 96, 5 = 132)? __

Enter the digit that equals the number of characters to be printed on each line by the printer.

HOW MANY SPACES IN LEFT MARGIN (0-9) ? __

This sets how far the printer will space over from the left margin before printing each line of text.

After answering the final question, the terminal will display:

END OF INSTALLATION MODE.

If you make an error on any of these questions, cycle the power off then ON and step through the questions again, touching WRU to skip the questions that are correct.

3.2 Installation Questions - ASCII TWX/DDD

Question	Explanation
A/B? (ENTER ? TO REMOVE A/B)	Up to 32 characters can be entered for the Answer-back. Touch the ENQ key to terminate.
ALLOWING INCOMING CALL ON LOW PAPER (Y/N)? __	If answered No, the terminal will not answer an incoming call when a printer fault exists. A printer fault is caused by Paper Out, no power to the printer, or the printer being de-selected.
WHICH AUTO SEQ KEYS (1-4) SHOULD BE AUTO CALL (END WITH ENQ)? __	This programs which AUTO key(s) will perform an Auto Call. Enter the desired key(s). If more than one, Do Not separate the numbers with a space. Terminate the entry with ENQ.
DISABLE CALL KEY AND AUTO CALL KEY (Y/N)? __	If answered Y for Yes, the CALL and AUTO CALL keys will not function. This is for use when all calling is done through the use of the AUTO keys.
ENABLE SEND-RECEIVE PRINT DIFFERENTIATION (Y/N)? __	When answered Y, send data will be printed in a slanted font and receive data will be printed in a straight font. If answered N, both send and receive data will be printed in the straight font. **Note:** If the standard thermal printer is being used, this question should be answered N for NO.

If you make an error on any of the questions, cycle the power OFF then ON and step through the questions again, touching ENQ to skip the questions that are correct.

After the last ENQ is entered, the monitor displays:
END OF INSTALLATION MODE.

3.3 Neutral Terminal Strap Options

If the terminal being installed is a Neutral Interface terminal, several straps must be set for proper configuration. The following Strap Designation table and the Strap Options Chart are supplied to properly configure the terminal.

If a strap is not to be used, lift the plug up and turn it 90 deg. so that it is attached to one pin only. This removes the strap and allows storage of the plug.

Some of the straps use a common center pin. In this case, simply move the plug from one set of the pins to the alternate set.
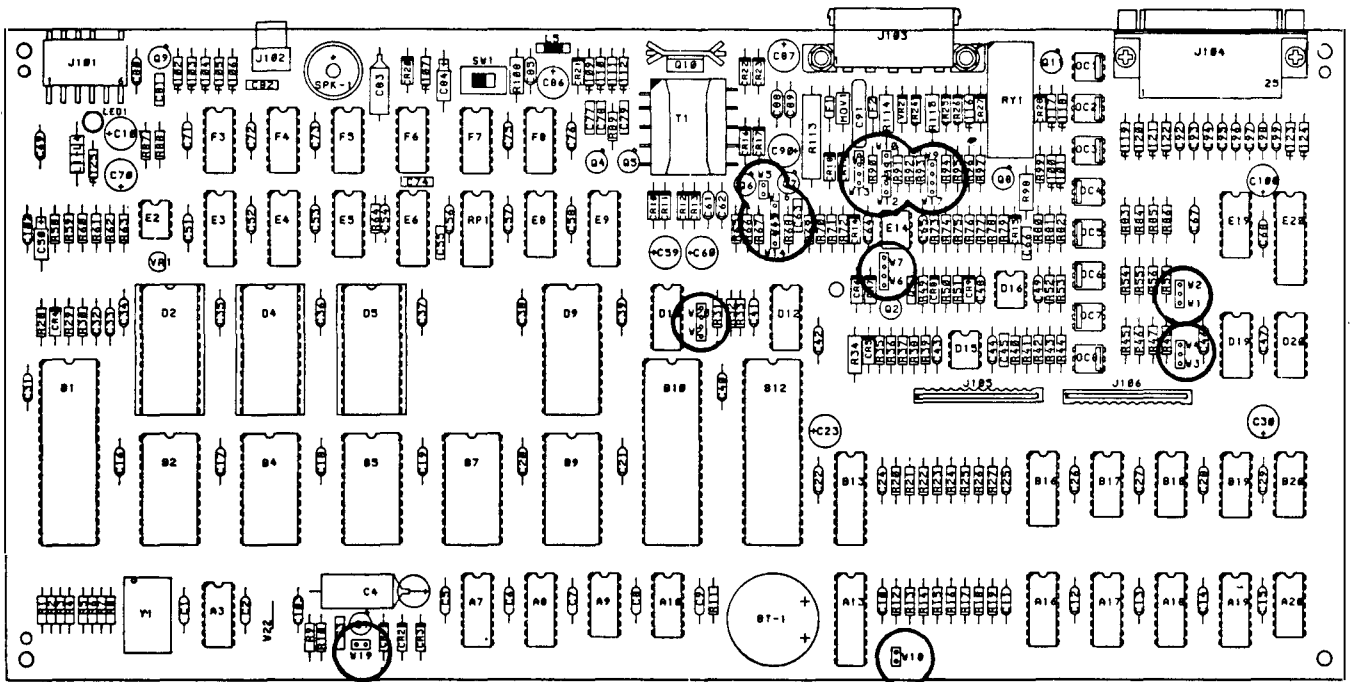
Neutral Strap Locations

STRAP DESIGNATION TABLE

STRAP	DESIGNATION
W1	IN for Telex: Enables Polarity Detector.
W2	IN for Private Wire: Disables Polarity Detector.
W3	IN for Half Duplex: Disables Receive Data when sending.
W4	IN for Full Duplex: Enables Receive Data when sending.

W5		OUT for Zero Idle Current.
W6		OUT for Full Duplex, IN for Half Duplex operation.
W7		OUT for Full Duplex, IN for Half Duplex operation.
W8		IN for Telex: Ties send loop to receive loop for idle current.
W9		IN for full current at idle.
W10		IN for 2mA idle current.
W11		IN for 5mA idle current.
W12		IN for 10mA idle current.
W13		OUT for reduced idle current at power off.
W14		IN for 60mA loop current - receive sense at 24mA.
W15		IN for 40mA loop current - receive sense at 16mA.
W16		IN for 20mA loop current - receive sense at 8mA.
W17		IN for Multi-drop Half Duplex Private Wire.
W18		IN for 60Hz, OUT for 50Hz Monitor Vertical Sweep.
W19		IN for Battery Back-up (normally IN).
W20	W21	Font Selection
IN	IN	ASCII

IN	OUT	International Telex
OUT	IN	Domestic Telex
OUT	OUT	Spanish Telex

STRAP OPTIONS CHART

OPTIONS	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	
1	X		X		X	X	X	X			X		X				X	TELEX 20MA,5MA,IDLE
2	X		X		X	X	X	X			X		X		X			TELEX 40MA,5MA,IDLE
3	X		X		X	X	X	X			X		X	X				TELEX 60MA,5MA,IDLE
4	X		X		X	X	X	X			X						X	TELEX 20MA,5MA,IDLE,2MA,PWR.OFF
5	X		X			X	X	X				X					X	TELEX 20MA,0MA,IDLE
6	X		X		X	X	X	X	X			X					X	TELEX 20MA,FULL CURRENT IDLE
7		X	X			X	X	X									X	NOTE 3 PRIVATE WIRE,HDX,20MA.
8		X	X			X	X	X								X		NOTE 3 PRIVATE WIRE,HDX,40MA.
9		X	X			X	X	X						X				NOTE 3 PRIVATE WIRE,HDX,60MA.
10		X		X												X		PRIVATE WIRE,FDX,20MA.
11		X		X												X		PRIVATE WIRE,FDX,40MA.
12		X		X										X				PRIVATE WIRE,FDX,60MA.

Note:
1. "X" Denotes Strap is IN.
2. Option number 1 straps are installed for shipment.
3. WI 7 IN for Multidrop systems only.

Neutral Connector Pin Assignments:

HALF DUPLEX (Telex)

Pin	Description	Wire Color
1	Line (+ for Idle)	Black
2	Line (− for Idle)	White
3	N.C.	Brown
4	N.C.	Red
5	Chassis Ground	Green

FULL DUPLEX

Pin	Description	Wire Color
1	Receive (−)	Black
2	Send (+)	White
3	Receive (+)	Brown
4	Send (−)	Red
5	Chassis Ground	Green

4.0 DIAGNOSTICS

The terminal can automatically test its program, battery, and printer. Unplug the power supply at the wall, hold down the AUTO 1 key (on a Telex terminal) or the OPTIONS key (on a TWX/DDD terminal), and plug the power supply back in. The terminal will display its diagnostics on one line. For example:

After the diagnostics are displayed, touch the New Line key and the complete character font will be printed.

If you wish to enter the Terminal Set-up Mode to access User Options, touch the New Line key again. If not, cycle the power OFF then ON to return to normal operation.

I.D.   A58A *   BATTRY OK *   PRINT OK

Explanation of each item:

I.D.:   This is the program identification number.

BATTERY: Either BATTERY OK or BATTERY FAULT will be displayed. A fault condition indicates that data stored in the user memory has been lost due to the battery failure.

PRINT: PRINT FAULT will be displayed if any of the following conditions exist:

1. Paper Out Condition.

2. Printer Power OFF or Printer Power Fail.

3. Printer Not Selected.

5.0 MAINTENANCE

Before performing any of the maintenance procedures, disconnect the power supply from the wall outlet.

5.1 Operator Console Internal Access

1. Remove the four cover mounting screws. There are two screws holding the cover to the back panel (one at each end of the panel) and two screws holding the cover to the base (located on the under side, centered near the front edge).
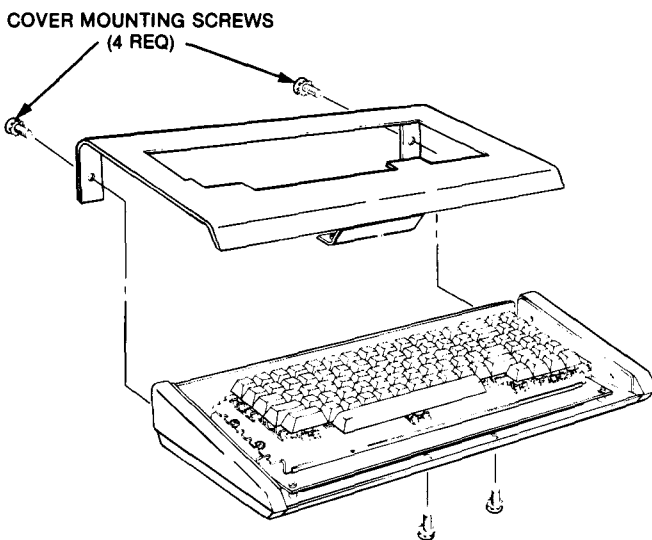
2. Lift the cover straight up and set to one side.

COVER MOUNTING SCREWS
(4 REQ)

Figure 4.

4265

KEYBOARD MOUNTING SCREWS
(4 REQ)

4264

KEYBOARD CONNECTORS

4262

Figure 5.

5.2 Keyboard Removal

1. Remove the four keyboard mounting screws (two at each end of the keyboard assembly). Refer to **Figure 5**.

2. Move the keyboard towards the front of the base far enough to expose the two keyboard connectors. Disconnect the two keyboard cables from the main logic assembly.
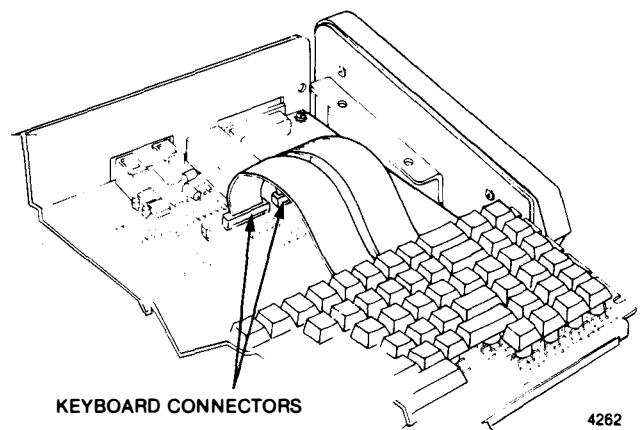
3. Lift the keyboard assembly away from the base.
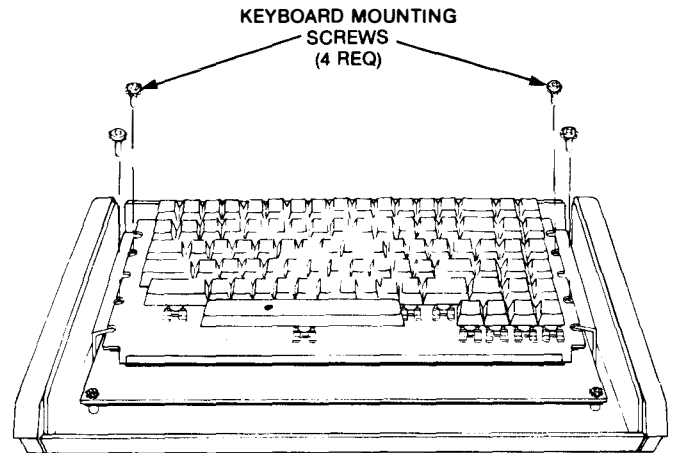
5.3 Main Logic Board Assembly Removal

1. Remove the keyboard assembly.

2. Disconnect the power connector, Video cable, Signal Line, and Printer cable from the main logic board.

3. Remove the five (5) main logic board mounting screws. Refer to **Figure 6**.

4. Angle the main logic board up slightly to clear the front edge of the base and slide the board toward the front of the base until it clears the two keyboard brackets.
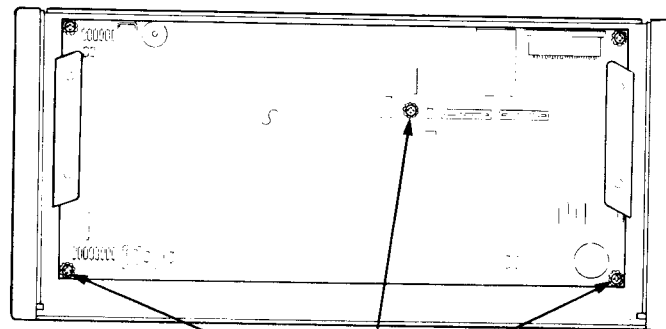
MAIN LOGIC BOARD
MOUNTING SCREWS
(5 REQ)

4263

REMOVE
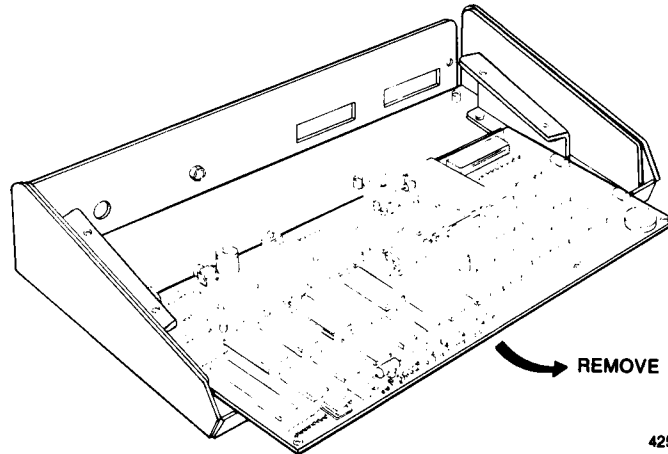
4256

Figure 6.

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