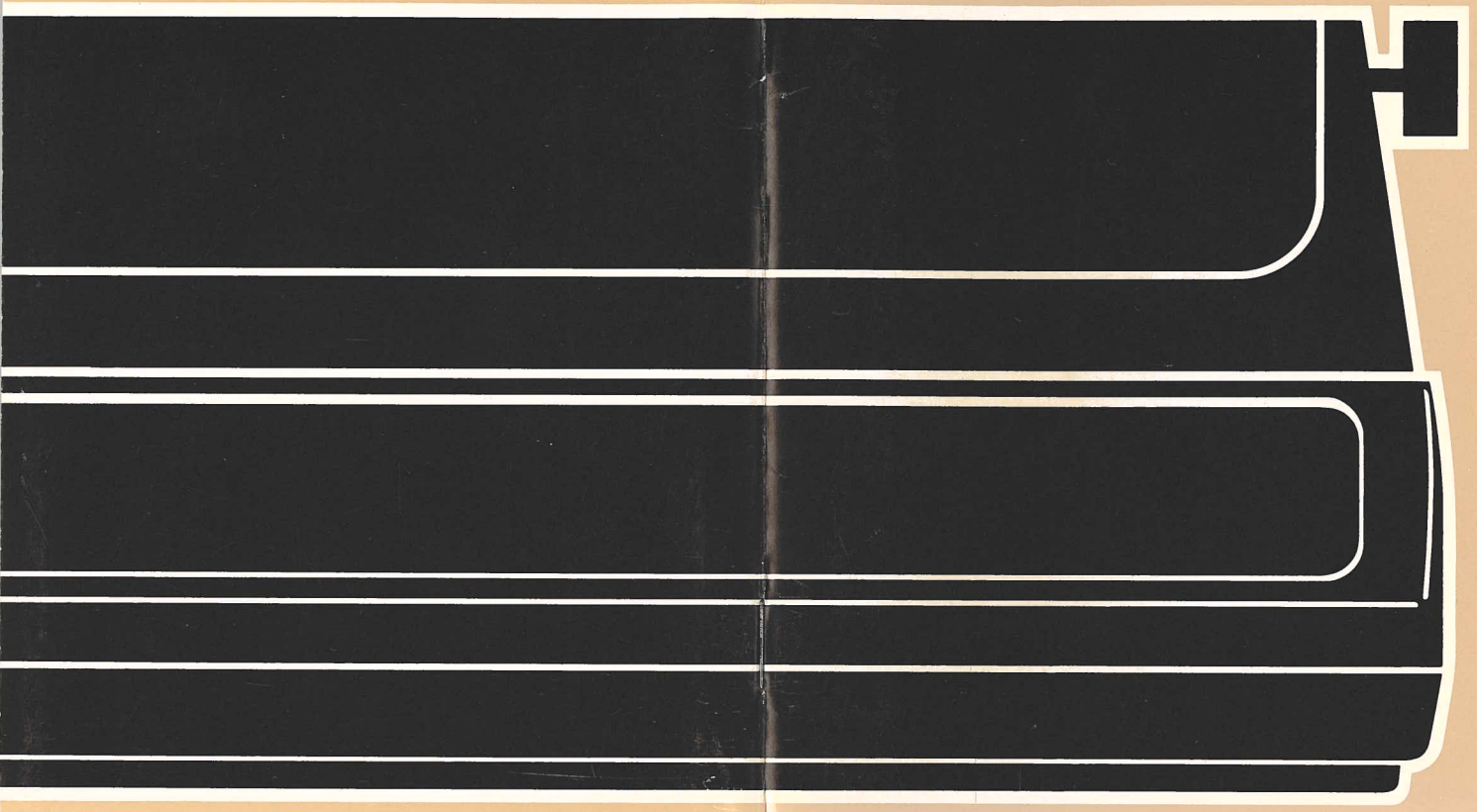
LA34

POCKET SERVICE GUIDE



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FIGURES

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TABLES

1 TROUBLESHOOTING THE LA34

1.1 TROUBLESHOOTING THE BASIC LA34

Table 1-1 lists the most common LA34 failures, and the symptoms associated with each failure. To use this procedure simply select the symptom that most closely matches the printer failure.

1.2 TROUBLESHOOTING LA34 OPTIONS

Troubleshooting the LA34 options should be performed after the basic terminal is checked and is found to be operational. Once this is done, perform the option checkout procedure for the suspected faulty option. If the option does not check out correctly, replace it.

1.3 TROUBLESHOOTING HINTS

The troubleshooting chart (Table 1-1) assumes that only one Field Replaceable Unit (FRU) has failed. The symptoms displayed may be representative of multiple failures and, as a result, the symptoms may change as the FRUs are replaced. Always troubleshoot according to the current symptoms.

Spare parts do fail. The possibility of a failure should not be discounted just because the FRU has been replaced once.

Power must be turned off before any of the FRUs are disconnected or replaced.

The printout of the status message indicates the logic board is functioning properly. This does not include communications circuits.

Table 1-1 LA34 Troubleshooting Chart

Symptom	Probable Cause	Remedy
No response when POWER ON/OFF switch (S1) is set to the on position, LED indicators are off (carriage does not move)	1. Power fuse (F1)	1. Replace fuse
	2. Not plugged in	2. Plug in
	3. No power at wall receptacle	3. Try a different receptacle if possible, check breaker, call electrician
	4. 115/230 voltage selector switch	4. Ensure that the 115/230 voltage is set to the proper range.
	5. Power supply	5. Replace power supply
	6. Power switch (S1)	6. Replace switch
	7. Logic board	7. Replace logic board
LED indicators off, but carriage moves	1. Keyboard cable	1. Check keyboard connector at J6 on the logic board
	2. Keyboard assembly	2. Replace keyboard assembly
	3. Logic board	3. Replace logic board
Power ON, both indicators come on and stay on	1. Logic board	1. Replace logic board
Power/Fault light flashes (no bell tone)	1. Paper out	1. Install paper
	2. Access cover open	2. Close cover
	3. Access cover switch	3. Replace switch
		NOTE 1 **Without touching access cover, reach in and move the carriage assembly. If it moves freely, either the access cover is not seated properly, or the switch is bad.**

Table 1-1 LA34 Troubleshooting Chart (Cont)

Symptom	Probable Cause	Remedy
		NOTE 2 **The access cover interlock switch is a magnetic proximity type switch. Before replacing switch, check magnet in access cover.**
	4. Logic board	4. Replace logic board
Print head prints, but carriage does not move	1. Pulley/tension gear	1. Replace pulley/tension assembly
	2. Timing belt broken or slipped out of carriage	2. Check and replace timing belt if necessary
Power light flashes and bell tone sounds	1. Head jam	1. Clear jam and reset fault by pressing the VIEW key
	2. Servo motor encoder connectors	2. Check servo connectors at J1, J3 of the logic board, and con nectors on servo motor encoder assembly
	3. Encoder wheel loose	3. Tighten encoder wheel
	4. Servo motor encoder assembly	4. Replace servo motor encoder assembly
	5. Logic board	5. Replace logic board
No line feeds when the LINE FEED key is pressed	1. Platen assembly	1. Check that gears are properly engaged, also platen clutch/gear assembly
	2. Platen assembly dirty	2. Clean platen assembly (Paragraph 2.2)

Table 1-1 LA34 Troubleshooting Chart (Cont)

Symptom	Probable Cause	Remedy
	3. Stepper motor connector	3. Check stepper motor connector at J2 on the logic board
	4. Logic board	4. Replace logic board
	5. Keyboard cable	5. Check keyboard cable at J6 on the logic board
	6. Keyboard/ keycap assembly	6. Replace keyboard/keycap assembly
	7. Paper drive cluster gear	7. Replace gear
	8. Stepper motor	8. Replace motor
Improper line feeds (inconsistent vertical motion)	1. Platen assembly	1. Check that gears are properly engaged, also platen clutch/gear assembly
	2. Paper guide	2. Check paper guide is properly seated
	3. Stepper motor connector	3. Check stepper motor connector at J2 on the logic board
	4. Logic board	4. Replace logic board
	5. Stepper motor	5. Replace stepper motor
Continual line feeds	1. Keyboard/ keycap assembly	1. Replace keyboard/keycap assembly
	2. Logic board	2. Replace logic board
No printout when any printable character key is pressed, in local mode (carriage does not move)	1. Keyboard cable	1. Check keyboard connector at J6 on the logic board
	2. Keyboard/ keycap assembly	2. Replace keyboard/keycap assembly
	3. Logic board	3. Replace logic board
	4. Power supply	4. Replace power supply

Table 1-1 LA34 Troubleshooting Chart (Cont)

Symptom	Probable Cause	Remedy
No printout when any printable character key is pressed in local mode (carriage does move)	1. Print head adjustment	1. Adjust print head assembly
	2. Ribbon cartridge	2. Replace ribbon cartridge
	3. Print head cable	3. Check print head connector at J5 on the logic board
	4. Logic board	4. Replace logic board
	5. Print head assembly	5. Replace print head assembly
Missing dots on any printable character (always same row missing)	1. Print head cable	1. Check print head connector at J5 on the logic board
	2. Print head assembly	2. Replace print head assembly
	3. Logic board	3. Replace logic board
Missing dots only when certain printable keys are pressed	1. Logic board	1. Replace logic board
Print density drops off to no impression	1. Print head adjustment	1. Adjust print head assembly
	2. Ribbon cartridge	2. Replace ribbon cartridge
	3. Platen assembly	3. Platen not seated properly; reseat
	4. Ribbon drive cable	4. Check cable, replace if necessary
	5. Ribbon drive pulley	5. Replace carriage assembly
Print density varies randomly across page	1. Ribbon cartridge	1. Replace ribbon cartridge
	2. Ribbon drive cable	2. Check cable and replace if necessary
	3. Carriage assembly	3. Replace carriage assembly

Table 1-1 LA34 Troubleshooting Chart (Cont)

Symptom	Probable Cause	Remedy
No bell tone when CTRL and BELL keys are pressed in local mode	1. Keyboard cable	1. Check keyboard connector at J6 on the logic board
	2. Keyboard/ keycap assembly	2. Replace keyboard/keycap assembly
	3. Logic board	3. Replace logic board **NOTE** **Use your hand to cause a head jam. If no bell tone sounds logic board is bad.**
Printer operates in local but not online (EIA operation)	1. LINE/LOC switch.	1. Check for proper switch selection
	2. EIA input cable	2. Check EIA connector J7; if necessary replace cable
	3. Logic board	3. Replace logic board
	4. Keyboard/ keycap assembly	4. Replace keyboard/keycap assembly
	5. Power supply (+12 V, -12 V)	5. Replace power supply

2 MECHANICAL SERVICING

2.1 GENERAL

This chapter contains information pertaining to the removal, replacement and adjustment of the mechanical assemblies of the LA34.

Figure 2-1 lists all the removal procedures described in this chapter and the sequence in which these procedures are performed. As an example, to remove the stepper motor the printer housing cover and paper drive cluster gear must first be removed.

2.2 PRINTER HOUSING COVER

The following procedure describes the removal and installation of the printer housing cover.

1. Disconnect the ac plug from the wall receptacle and then the terminal.
2. If the paper low option is installed in the roll paper holder, disconnect the jack from the rear of the terminal.
3. Remove the paper, paper holder and/or tractor options.
4. Lift the access cover and depress the two access cover retainer clips. Lift the access cover straight up (Figure 2-2).
5. Remove the ribbon cartridge.
6. Lift the bail bar to gain access to the platen. Remove the platen by simultaneously depressing the two platen release levers. Lift the platen straight up (Figure 2-3).

   NOTE
   If it becomes necessary to clean the platen, use a damp cloth only.

7. Return the bail bar to its normal position.
8. With a small-blade screwdriver, release the four snap fasteners that secure the printer housing cover to the base assembly (Figure 2-4).
9. Remove the printer housing cover by lifting straight up.

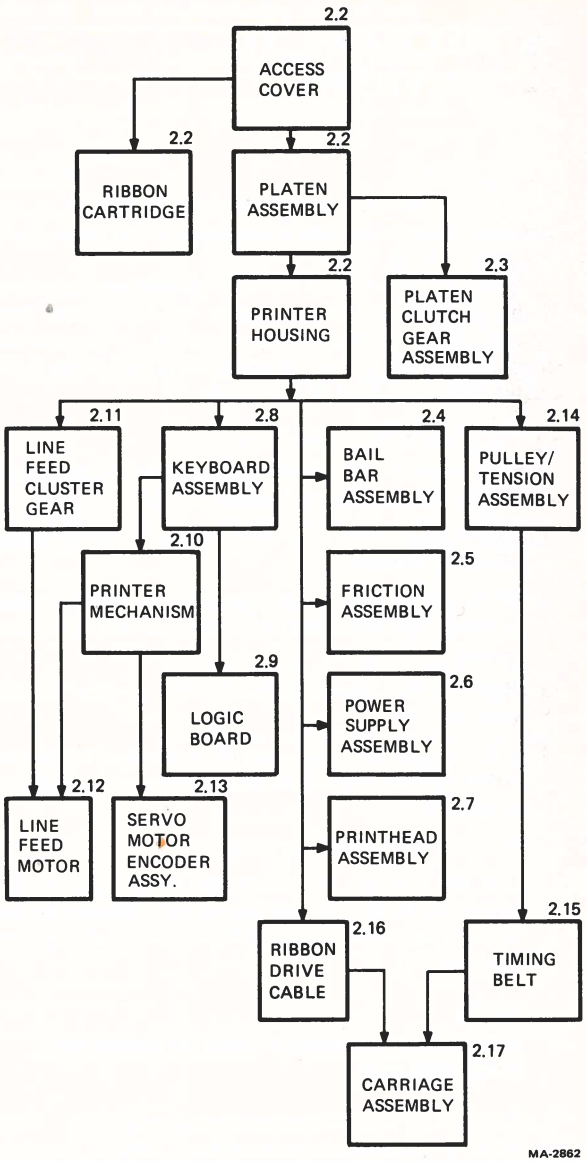


Figure 2-1 Assembly Removal Sequence

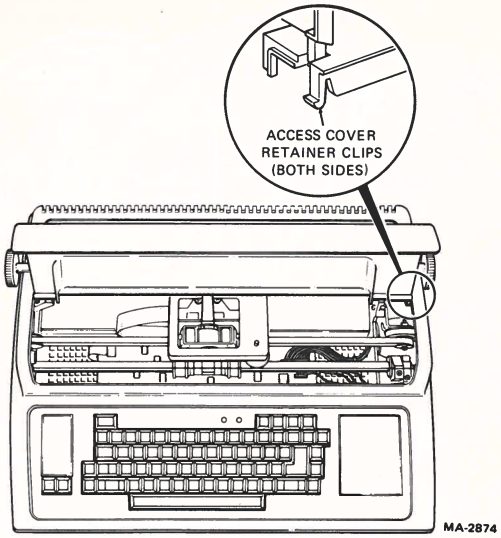


Figure 2-2 Access Cover Removal

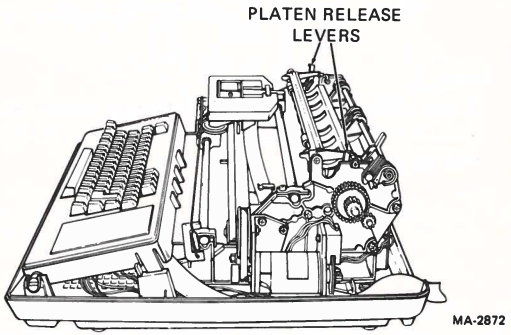


Figure 2-3 Platen Removal

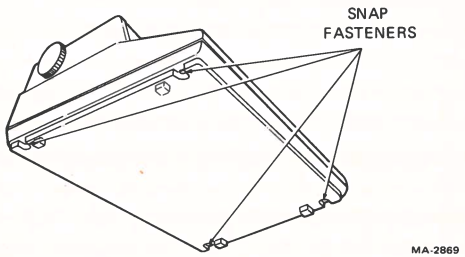


Figure 2-4 Printer Housing Cover Removal

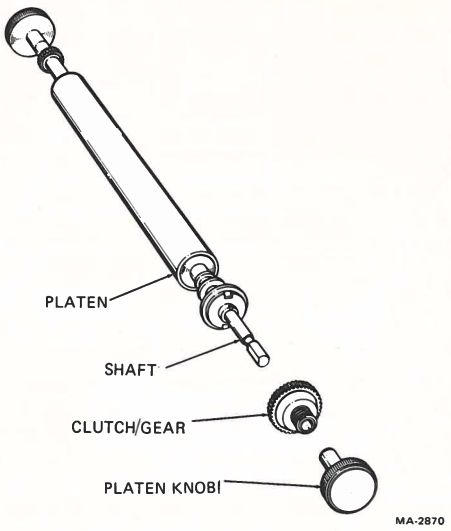


Figure 2-5 Platen Clutch/Hub Assembly

NOTE
When reinstalling the printer housing cover, ensure that the cover is properly aligned with the rear insert.

10. To install the printer housing cover, perform steps 1–9 in reverse order.

2.3 PLATEN CLUTCH/HUB ASSEMBLY

The following procedure describes the removal and installation of the platen clutch/hub assembly.

1. Perform steps 1–6 of the printer housing cover removal procedure (Paragraph 2.2).
2. Using a small-blade screwdriver, lift the tab on the end of the platen knob enough to release the knob from the platen shaft (Figure 2-5).
3. Remove the platen clutch/hub assembly.
4. To install the new platen clutch/hub assembly, slide the new assembly onto the shaft, ensuring that the gear is engaged and properly lined up.
5. Reinstall the platen knob ensuring that the knob is keyed to the shaft.

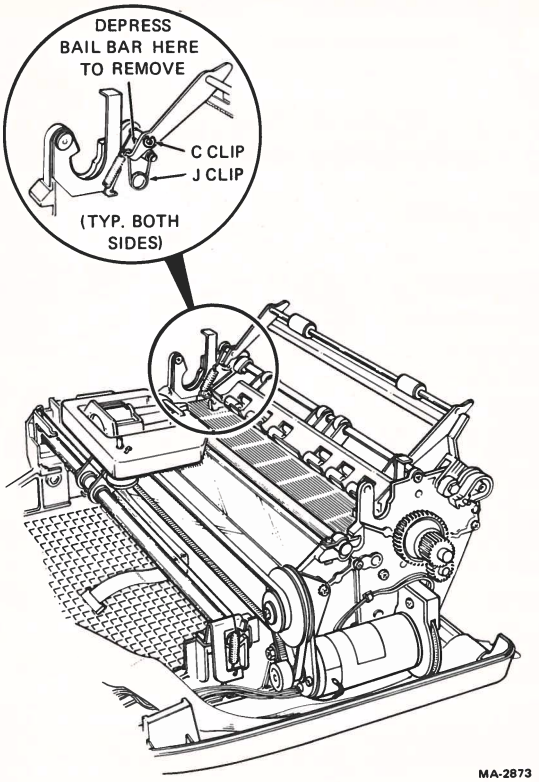


Figure 2-6 Bail Bar Assembly

2.4 BAIL BAR ASSEMBLY

The following procedure describes the removal and installation of the bail bar assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Using needlenose pliers, remove one end of the J-clips from each end of the bail bar (Figure 2-6).
3. Using needlenose pliers, remove the bail bar retainer clips from each end of the bail bar (Figure 2-6).
4. Press both ends of the bail bar and lift straight up (Figure 2-6).
5. To install a new bail bar assembly, perform steps 1–4 in reverse order.

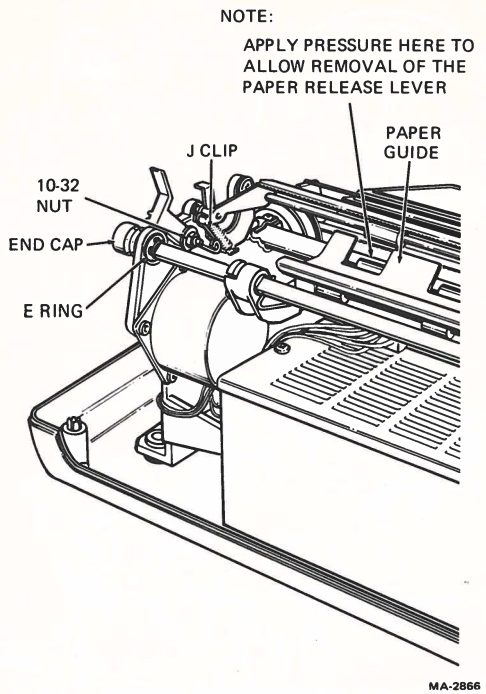


Figure 2-7 Friction Assembly Removal

2.5 FRICTION ASSEMBLY

The following procedure describes the removal and installation of the friction assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Lift the bail bar to gain access to the paper guide. Lift the paper guide straight out (Figure 2-7).
3. Remove the J-clip that secures the paper release lever to the bail bar assembly (Figure 2-7).
4. Remove the (10-32) nut that secures the paper release lever to the right side plate (Figure 2-7).
5. While holding the friction assembly down, slide the stud out of the right side plate and lift the paper release lever straight up.
6. With a blade screwdriver, remove the E-ring that secures the friction assembly end cap to the right side plate (Figure 2-7).

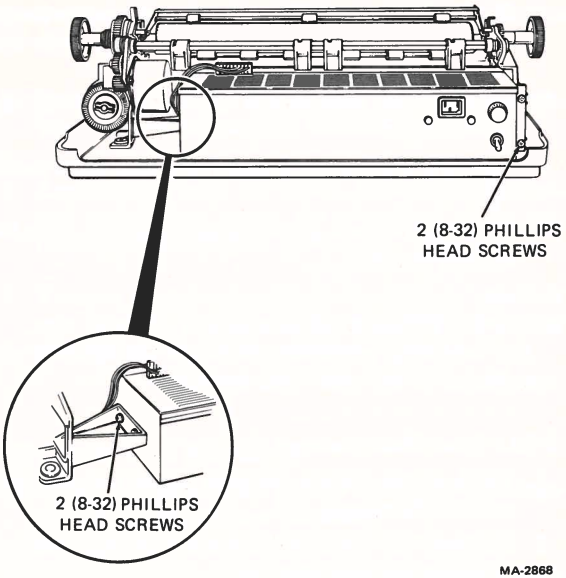


Figure 2-8 Power Supply Removal

7. Remove the end cap from the friction assembly (right side plate) (Figure 2-7).

NOTE
When reinstalling the friction assembly ensure that the springs on each end cap are properly seated in the side plates.

8. Pull the friction assembly towards the right side plate until it is free from the left side plate.
9. To install a new friction assembly, perform steps 1–8 in reverse order.

2.6 POWER SUPPLY ASSEMBLY

The following procedure describes the removal and installation of the power supply assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Remove the rear insert.
3. Loosen the two (8-32) screws that secure the power supply to the left side as viewed from the rear of the terminal (Figure 2-8).

4. Remove the two (8-32) screws that secure the power supply to the right side as viewed from the rear (Figure 2-8).
5. Remove the logic/power cable from J6 on the power supply.
6. Carefully slide power supply from the printer mechanism.
7. To install the new power supply, perform steps 1–6 in reverse order.

2.7 PRINT HEAD ASSEMBLY

The following procedure describes the removal and installation of the print head assembly.

2.7.1 Print Head Removal

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Perform the keyboard/keycap assembly removal procedure (Paragraph 2.8).
3. Remove the logic board safety cover to gain access to the print head cable. Gently disconnect the print head ribbon cable from J5 on the logic board by lifting the top cover of the plug (Figure 2-9).

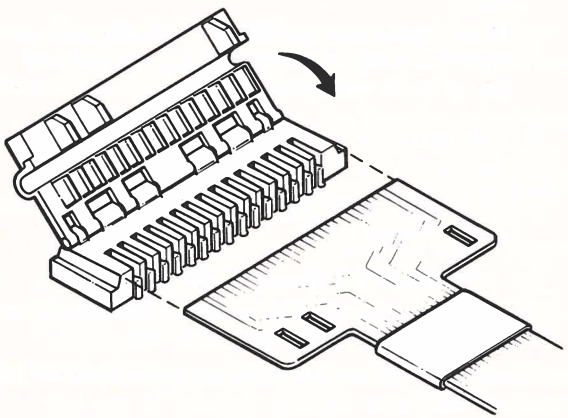


Figure 2-9 Print Head Ribbon Cable Removal

4. Remove the print head ribbon cable from the two clips that secure it to the printer mechanism.
5. Remove the U-clip that secures the print head ribbon cable to the carriage assembly.
6. Remove the two (6-32) screws, spacers, flat washers and springs that secure the print head to the carriage assembly (Figure 2-10).
7. Remove the print head from the carriage assembly and carefully guide the print head ribbon cable up through the slot in the carriage assembly.

2.7.2 Print Head Installation

1. Thread the print head ribbon cable down through the slot in the carriage assembly.
2. Secure the print head to the carriage assembly with the two (6-32) screws, spacers, flat washers and spring.

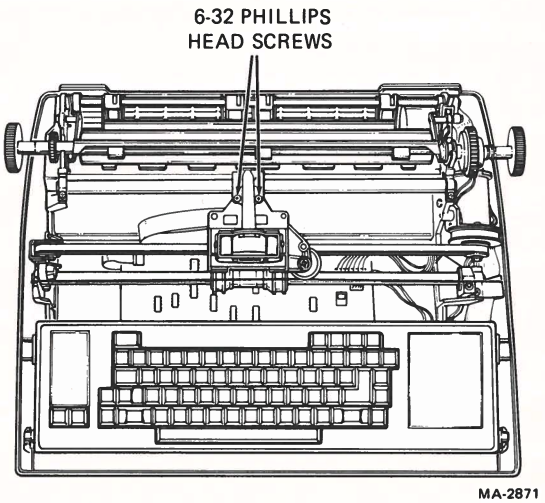


Figure 2-10 Print Head Removal

3. Secure the print head ribbon cable to the carriage assembly using the ribbon cable U-clip.

4. Secure the print head ribbon cable to the printer mechanism. Ensure that the cable lies completely flat and does not obstruct the path of the carriage assembly.

5. Connect the print head ribbon cable connector to J5 on the logic board.

CAUTION
The ribbon cable is keyed and must be reinstalled correctly to ensure proper operation (Figure 2-9).

6. Reinstall the logic board safety cover.

CAUTION
Move the carriage assembly to the extreme right and left to ensure that there is adequate slack in the print head cable to prevent any strain being placed on the cable or print head board.

7. Perform the keyboard/keycap assembly installation (Paragraph 2.8).

8. Perform the printer housing cover installation procedure (Paragraph 2.2).

2.8 KEYBOARD/KEYCAP ASSEMBLY

The following procedure describes the removal and installation of the keyboard/keycap assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).

2. Press the keyboard retainer clips and rotate the keyboard toward the front of the terminal (Figure 2-11).

3. Remove the keyboard connector from J6 on the logic board.

4. Lift the keyboard straight up.

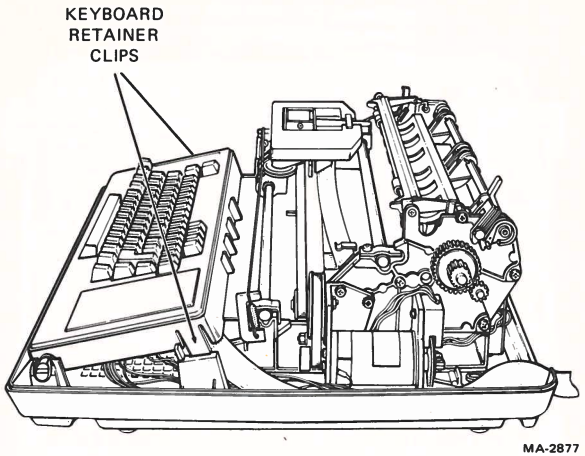


Figure 2-11 Keyboard/Keycap Assembly Removal

NOTE
When reinstalling the keyboard/keycap assembly be sure the keyboard is properly seated before attempting to rotate the keyboard to its normal position.

5. To install the new keyboard/keycap assembly, perform steps 1–4 in reverse order.

2.9 LOGIC BOARD

The following procedure describes the removal and installation of the logic board.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Perform the keyboard/keycap removal procedure (Paragraph 2.8).
3. Remove the logic board safety cover.
4. Squeeze the three snap fasteners on the front of the board to free the logic board from the base assembly.
5. Slide the logic board toward the front of the terminal.

NOTE
When installing a new logic board, be sure that the rear edge of the logic board is lined up with the corresponding slot in the printer mechanism.

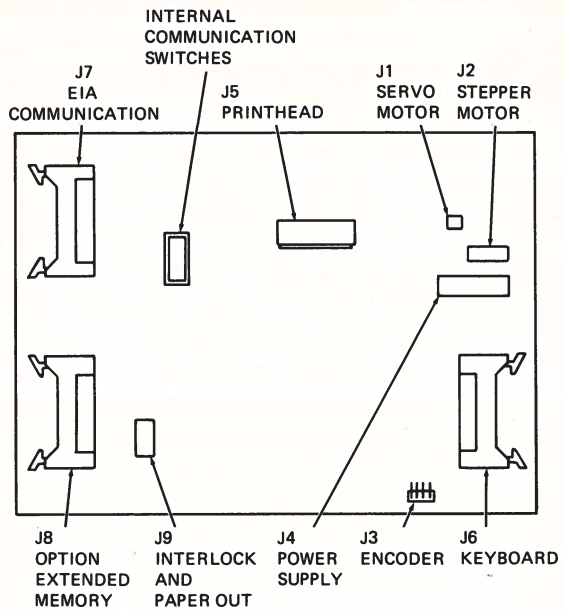


Figure 2-12 Logic Board Removal

Refer to Figure 2-12 for steps 6 through 12.

6. Disconnect the EIA communication cable from J7 on the logic board.
7. Disconnect the logic/power cable from J4 on the logic board.
8. Disconnect the servo motor cable from J1 on the logic board.
9. Disconnect the stepper motor cable from J2 on the logic board.
10. Disconnect the encoder cable from J3 on the logic board.
11. Disconnect the print head ribbon cable from J5 on the logic boad.
12. Disconnect any option connectors from J8 and J9 on the logic board.
13. To install new logic board, perform steps 1–12 in reverse order.

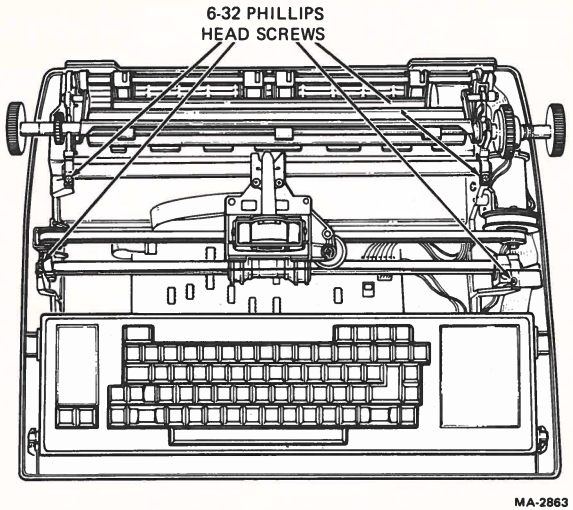


Figure 2-13 Printer Mechanism Removal

2.10 PRINTER MECHANISM

The following procedure describes the removal and installation of the printer mechanism.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Perform the keyboard removal procedure (Paragraph 2.8).
3. Remove the rear insert.
4. Remove the four hex-head screws that secure the printer mechanism to the base. (Figure 2-13).
5. Lift the printer mechanism straight up.
6. To install a new printer mechanism, perform steps 1–5 in reverse order.

2.11 PAPER DRIVE CLUSTER GEAR

The following procedure describes the removal and installation of the paper drive cluster gear.

1. Perform the printer housing removal procedure (Paragraph 2.2).

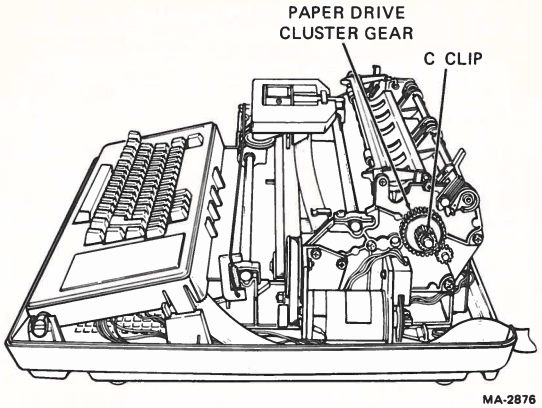


Figure 2-14 Paper Drive Cluster Gear Removal

2. Using retainer clip pliers, remove the C-clip that secures the paper drive cluster gear (Figure 2-14).
3. Remove the paper drive cluster gear and washers.
4. To install the new paper drive cluster gear, perform steps 1–3 in reverse order.

NOTE
Before reinstalling the printer housing cover ensure that some movement of the paper drive cluster gear is possible and that the gear is not jammed.

2.12 STEPPER MOTOR ASSEMBLY

The following procedure describes the removal and installation of the stepper motor assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Remove the rear insert.
3. Press the keyboard retainer clips and rotate the keyboard toward the front of the terminal.
4. Perform the printer mechanism removal procedure (Paragraph 2.10).
5. Remove the logic board safety cover.
6. Disconnect the stepper motor connector from J2 on the logic board (Figure 2-12).

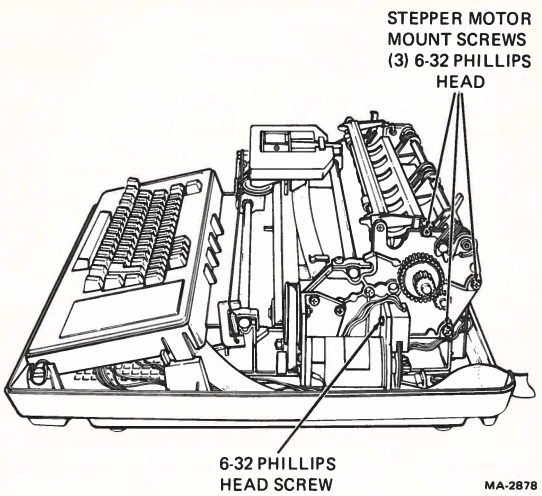


Figure 2-15 Stepper Motor Removal

7. Perform the paper drive cluster gear removal procedure (Paragraph 2.11).
8. Remove the three accessible (6-32) Phillips-head screws that secure the stepper motor to the right side plate (Figure 2-15).
9. Remove the ground strap and note its position (Figure 2-15).
10. Remove the encoder assembly by removing the (6-32) Phillips-head screw (Figure 2-15).
11. Remove the last (6-32) Phillips-head screw that secures the stepper motor to the right side plate.
12. Carefully feed the stepper motor cable through the printer mechanism and remove the stepper motor assembly.
13. To install the stepper motor perform steps 1–12 in reverse order.

2.13 SERVO MOTOR AND ENCODER ASSEMBLY

The following describes the removal and installation of the servo motor and encoder assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).

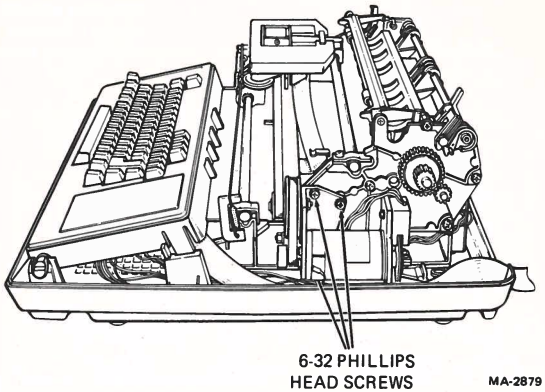


Figure 2-16 Servo Motor/Encoder Removal

2. Disconnct the encoder connector from J3 on the logic board (Figure 2-12).
3. Disconnect the servo drive connector from J1 on the logic board (Figure 2-12).

NOTE
Note original cable routing and ensure that the original routing is followed when installing a new assembly.

4. Perform the pulley/tension assembly removal procedure (Paragraph 2.14).
5. Remove the four hex-head screws securing the print mechanism to the base assembly.
6. Remove the three (6-32) Phillips-head screws securing the motor to the right side plate (Figure 2-16).
7. Lift the motor free from the right side plate.
8. To install the new servo motor and encoder, perform steps 1–6 in reverse order.

2.14 PULLEY/TENSION ASSEMBLY

The following procedure describes the removal and installation of the pulley/tension assembly.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).

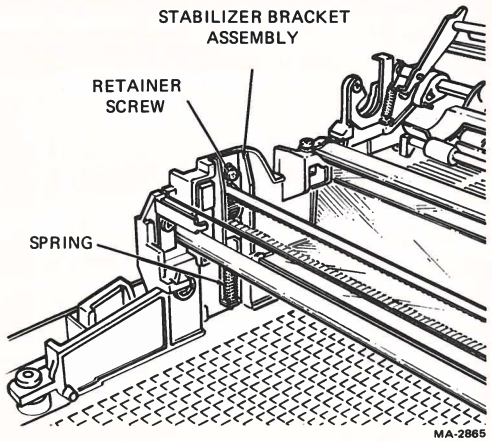


Figure 2-17 Pulley/Tension Assembly Removal

2. Remove the spring from the bottom of the idler stabilizer bracket (Figure 2-17).
3. Lift the idler stabilizer bracket assembly over the retainer screw (Figure 2-17).
4. Remove the pulley and tension assembly.
5. To install a new pulley/tension assembly, perform steps 1–4 in reverse order.

2.15 TIMING BELT

The following procedure describes the removal and installation of the timing belt.

1. Perform the printer housing cover removal procedure (Paragraph 2.2).
2. Perform the print head removal procedure (Paragraph 2.7).
3. Perform the pulley/tension assembly removal procedure (Paragraph 2.14).
4. Remove the timing belt from the servo motor pulley.
5. Remove the clip that secures the timing belt to the carriage assembly.

6. Slip the timing belt out of the carriage assembly. Remove the timing belt.
7. To install the new timing belt, perform steps 1–6 in reverse order.

2.16 RIBBON DRIVE CABLE

The following procedure describes the removal and installation of the ribbon drive cable assembly.

1. Perform the printer housing removal procedure (Paragraph 2.2).
2. Slide cable over right bracket to relieve pressure.
3. Remove the spring that secures the cable to the bracket.
4. Remove the ribbon drive cable.
5. To install a new ribbon drive cable, perform steps 1–4 in reverse order.

2.17 CARRIAGE ASSEMBLY

The following procedure describes the removal and installation of the carriage assembly.

1. Perform the printer housing removal procedure (Paragraph 2.2).
2. Perform the print head removal procedure (Paragraph 2.7).
3. Remove the clip that secures the timing belt to the carriage assembly.
4. Slide the timing belt from the carriage assembly.
5. Perform the ribbon drive cable removal procedure (Paragraph 2.16).
6. Remove the rear carriage shaft by removing the two (8-32) Phillips-head screws that secure at each end of the front carriage shaft (Figure 2-18).
7. Loosen the two (8-32) Phillips-head screws at each end of the front carriage shaft (Figure 2-18).
8. Remove the front carriage shaft by sliding it out towards the left side plate.
9. Remove the carriage assembly.
10. To install a new carriage assembly, perform steps 1–9 in reverse order.

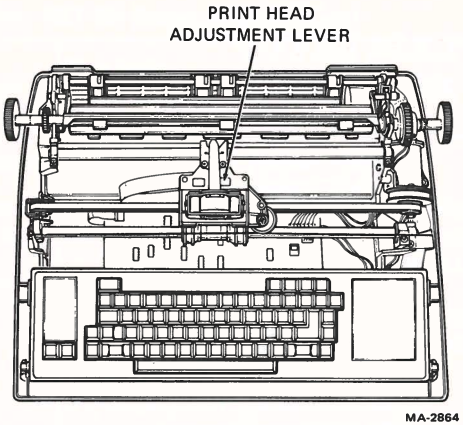


Figure 2-18 Carriage Assembly Removal

2.18 RECOMMENDED SPARES LIST (RSL)

Table 2-1 lists the recommended spares for the basic LA34.

Table 2-1 Recommended Spares List (RSL)

Quantity	Description	Part Number
1	Power supply	H7834
1	Ribbon drive cable	12-15348
1	Paper drive cluster gear	12-15350
1	Timing belt	12-15362
1	Stepper motor	12-15558
1	Keyboard/keycap assembly	70-15514
1	Logic board	54-13374
1	EIA cable assembly	70-15386-3F
1	Print head assembly	70-15490
1	Platen assembly	70-15727
1	Paper guide assembly	70-15728
1	Friction assembly	70-15733
1	Carriage assembly	70-15734
1	Idler/pulley assembly	70-15735
1	Interlock switch assembly	70-15736
1	Servo motor/encoder assembly	70-15737
1	Bail bar assembly	70-15738
1	Logic/power cable	70-15739
1	Clutch/hub assembly	70-15742

3 LA34 SETUP FEATURE SUMMARY

Table 3-1 summarizes the LA34 SET UP features. To examine or change these features the LA34 must be in SET UP mode.

NOTE
Do not use the SHIFT key unless specified.

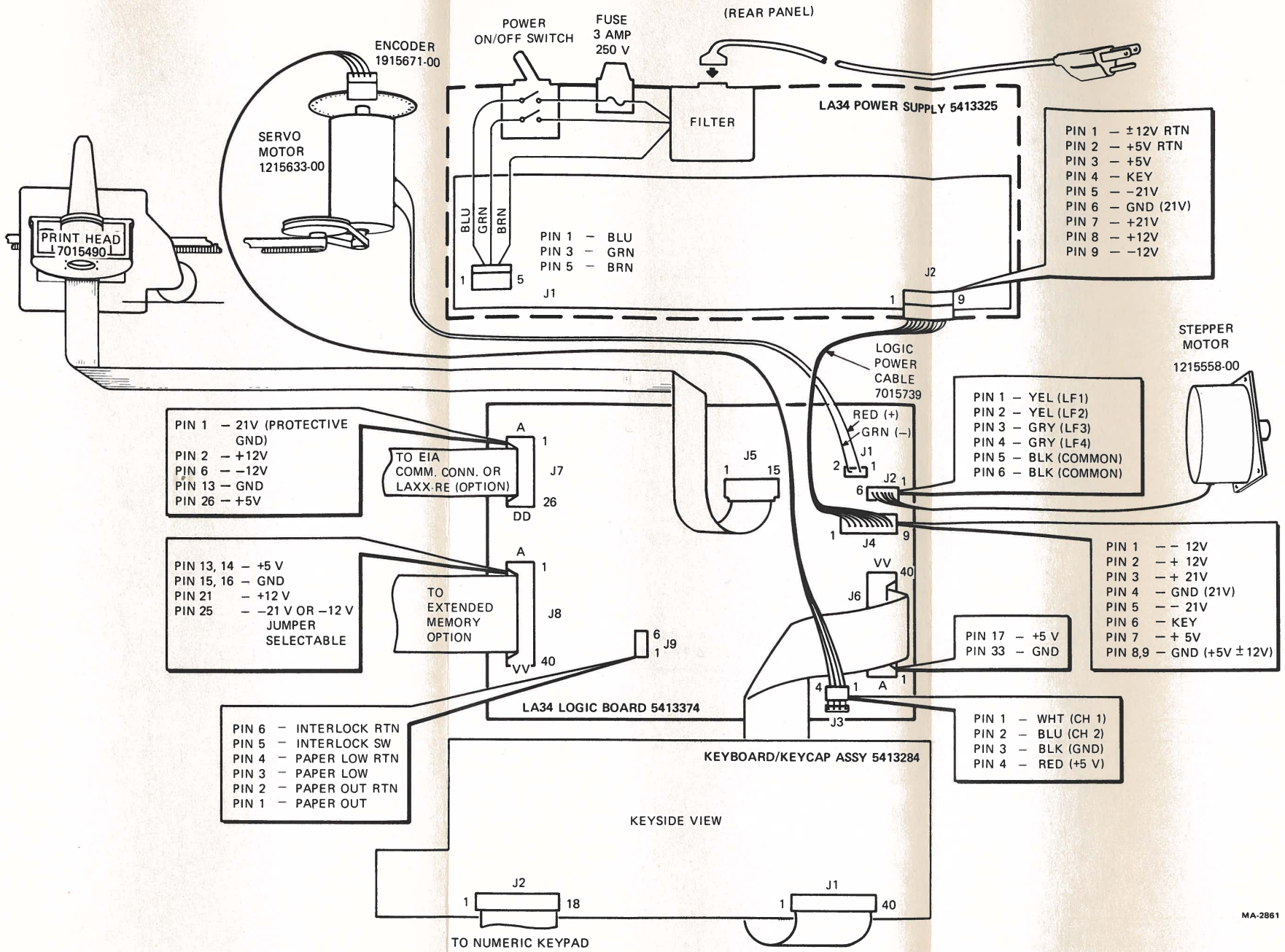
Table 3-1 SET UP Feature Summary

SET UP Feature	Keys Used To Change Feature	Function
Status	8	Prints the current terminal status
	H RETURN	Prints out the horizontal pitch (characters per inch) status information
	V RETURN	Prints out the vertical pitch (lines per inch) status information
Terminal reset	I RETURN	Resets the temporarily stored SET UP features to initial settings and causes the terminal to exit SET UP mode
Tabs	1	Sets a horizontal tab stop at the current column
	2	Clears the horizontal tab stop at the current column
	3	Clears all horizontal tab stops
Margins	5	Sets the left margin at the current column
	6	Sets the right margin at the current column
	7	Clears both the left and right margins

Table 3-1 SET UP Feature Summary (Cont)

SET UP Feature	Keys Used To Change Feature	Function
Horizontal pitch	H = A RETURN	Selects 10 char/in
	H = B RETURN	Selects 12 char/in
	H = C RETURN	Selects 13.2 char/in
	H = D RETURN	Selects 16.5 char/in
Vertical pitch	V = D RETURN	Selects 2 lines/in
	V = E RETURN	Selects 3 lines/in
	V = F RETURN	Selects 4 lines/in
	V = A RETURN	Selects 6 lines/in
	V = B RETURN	Selects 8 lines/in
	V = C RETURN	Selects 12 lines/in
Self-test	T RETURN	Prints out a ripple pattern
	T SHIFT	Prints out a pattern of multiple vertical bars in four passes per line
	T and any printable character	Prints out the selected character continually
	T SPACEBAR	Spaces across the platen, line feeds, and then repeats.

NOTE
Self-test ends when any character is typed on the keyboard.



LA34 Physical/Functional Block Diagram

LA34

POCKET SERVICE GUIDE

digital

EK-3LA34-IN-001

LAX34-KL Numeric Keypad
Option Installation Guide

digital equipment corporation • maynard, massachusetts

1st Edition, June 1979

Printed in U.S.A.

INTRODUCTION

The numeric keypad option allows the operator to enter numbers in calculator or adding machine fashion. Each number key, the minus key, the period key, and the comma key normally generate the same codes as the corresponding unshifted keys on the main keyboard. The SHIFT key does not affect the numeric keypad. The PF1-4 keys generate multiple codes which may have special meaning to the host computer.

UNPACKING

1. Open the shipping carton and remove the keypad option from the packing material.

2. Carefully inspect the keypad and cable for damaged or missing parts. If damage is evident, contact your local DIGITAL branch office.

INSTALLATION

1. Turn the power ON/OFF switch located at the rear of the terminal to the OFF position and disconnect the ac plug.

2. Remove the paper, and if installed, the roll paper holder or tractor options.

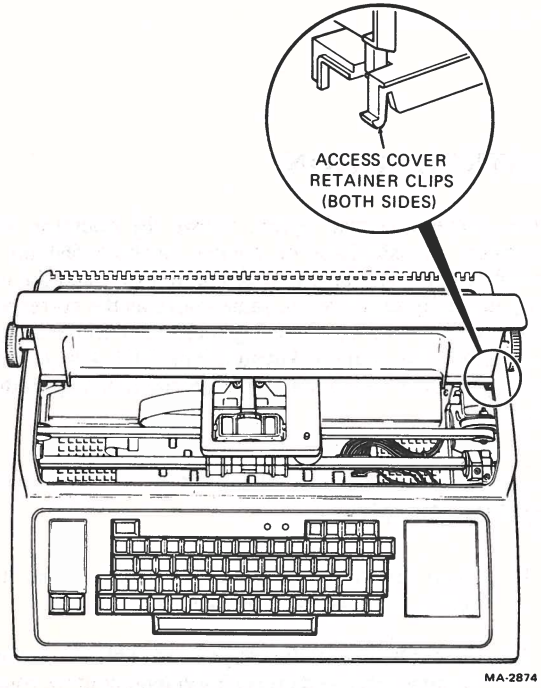


Figure 1 Access Cover Removal

3. Remove the access cover by pressing the left and right access cover retainer clips and lifting the cover away from the printer (Figure 1).

4. Remove the ribbon cartridge.

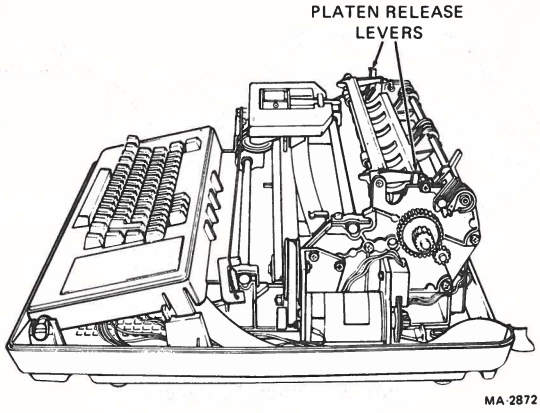


Figure 2 Platen Removal

5. Lift the bail bar to gain access to the platen. Remove the platen by simultaneously pressing the two platen release levers (Figure 2). Lift the platen straight out.

6. With a small blade screwdriver, release the four snap fasteners that secure the printer housing to the base assembly (Figure 3).

7. Remove the printer housing by lifting straight up.

8. Press the keyboard retainer clips and rotate the keyboard toward the front of the terminal (Figure 4).

9. Remove the keyboard connector from J6 on the logic board.

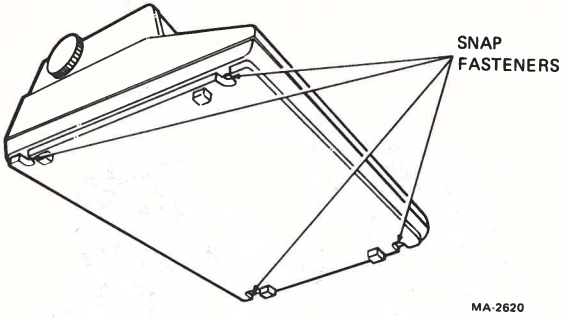


Figure 3 Snap Fasteners

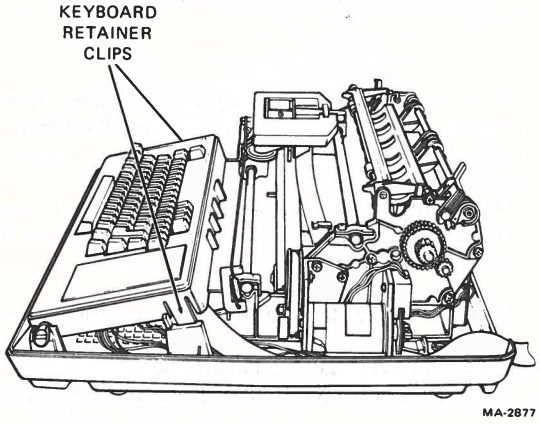


Figure 4 Keyboard Removal

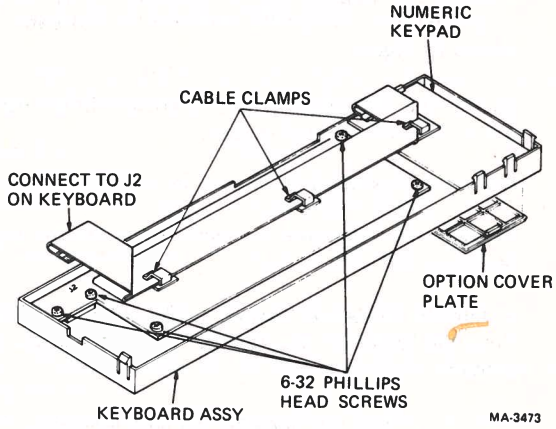


Figure 5 Numeric Keypad Installation

10. Lift the keyboard straight out.

11. Turn the keyboard upside down on a piece of foam or bubble plastic and remove the five 6-32 Phillips head screws that secure the keyboard to the bezel (Figure 5).

12. Remove the keypad option cover plate by pressing the retaining clips at both ends (Figure 5).

13. To install the numeric keypad, carefully snap the new assembly into place.

14. Attach the cable clamps to the keyboard assembly as shown in Figure 5.

15. Connect the numeric keypad connector to J2 on the main keyboard. Route the numeric keypad cable as shown in Figure 5.

16. Secure the keyboard to the keyboard bezel using five 6-32 Phillips head screws.

17. Return the keyboard to the slots in the base assembly.

18. Connect the keyboard connector to J6 on the logic board.

19. Rotate the keyboard forward to its normal position. Press the keyboard retainer clips to seat the keyboard correctly.

20. Press the printer housing onto the base assembly snap fasteners. Press the fasteners closed.

21. Press the platen into place, making sure it is properly seated.

22. Replace the access cover and press the access cover retainer clips into their original position.

23. Reinstall the paper handling options, ribbon, and paper.

RELATED DOCUMENTS

The following LA34 hardware manuals can be purchased from DIGITAL's Accessory and Supply Group.

Part No.	Title
EK-0LA34-UG-001	LA34 User's Guide
EK-0LA34-SV-001	LA34 Pocket Service Guide
EK-0LA34-TM-001	LA34 Technical Manual

All purchase orders for hardware manuals should be forwarded to:

Digital Equipment Corporation
Supplies and Accessories Group
Cotton Road
Nashua, New Hampshire 03060

Purchase orders must show shipping and billing addresses and state whether or not a partial shipment will be accepted.

All correspondence and invoicing inquiries should be directed to the above address.