

ILLUSTRATED PARTS BREAKDOWN

KC8ML/M CONSOLE

HOW TO USE THE IPB

GENERAL

This IPB is compiled following the organization and nomenclature of the engineering drawing structure.

MAJOR ASSEMBLY LOCATOR

The Major Assembly Locator (first illustration) is an index that provides a description and a figure reference for all illustrations used in this manual.

INDENTED PARTS LIST

This manual identifies each assembly being broken down (figure reference callout), and all parts of that assembly. Further breakdown of an assembly is shown by an asterisk (*) preceding the item callouts in the Description Column. The number of asterisks preceding an item is used to denote the subordination of that item with respect to the Major Assembly. A single asterisk preceding an item description indicates that the item is part of the major assembly being illustrated. Items that are subordinate to single asterisks items, are denoted by two asterisks (**) and immediately follow the related single asterisk item. Additional asterisks are used, as required, to denote further subordination. This system of part identification, provides a means for the user to identify the next higher assembly item and make alternate selections for parts when the required replacement part or assembly is not immediately available.

COLUMN CALLOUT DESCRIPTION

Figure & Item — Indicates the figure number and item number of each part.

Description — Lists the name of the part and pertinent specifications (when required). Asterisks preceding the description denote the subordination of the part to the next higher assembly.

DEC Part No. — Lists the DEC part ordering number. A blank in this column indicates a DEC part number was not assigned at the time of publication.

ECO Cut-In — The notation at the top of this column indicates the ECO level of the system (option), at which the IPB was initially prepared. Subsequent ECO level designations, that modify existing parts or add new parts to the device, are inserted in the ECO Cut-In column next to the part that is added or modified. A bracket ([]) preceding the item description is used to indicate the parts affected by ECO's.

Vendor Code/Part No. — Indicates vendor parts that are not stocked by DEC. Refer to the Field Service Spares Catalog (vendor part number to DEC part number) for the vendor code cross-reference.

Used On Code — Letters in this column correspond to the variation codes assigned in Figure 1. Parts with an Alpha notation(s) are used only in those option variations. A blank indicates that the part is used on all option variations.

Ref Fig No. — A cross reference between illustrations. For each Major Assembly, the number in this column denotes the figure of the next higher assembly. For all subassemblies, the number in this column denotes the figure showing additional detailed breakdown.

SYMBOL USAGE

Hardware Designators — Alpha designators for screws (S), washers (W), nuts (N), and retaining rings (R) are inserted after the item number callouts on the illustration when stacked item numbers are used.

Attaching Hardware — The @ symbol is inserted before any part that is used as attaching hardware. Attaching hardware is denoted as those parts that are not an integral part of the referenced assembly.

(NFR) Not Field Repairable — The (NFR) symbol is inserted after any assembly that is not to be field dismantled.

Other Symbols — Any other symbols that are required for kits, accessories, etc., will be explained and appear as part of the item description.

REVISION HISTORY

PRINTING	ECO LEVEL	DATE	PAGES AFFECTED
1st Printing	KC8ML 00002-0006A	10/26/73	N/A
"	5409668 0002A-00007		"
"	KC8M 00002-00002		"

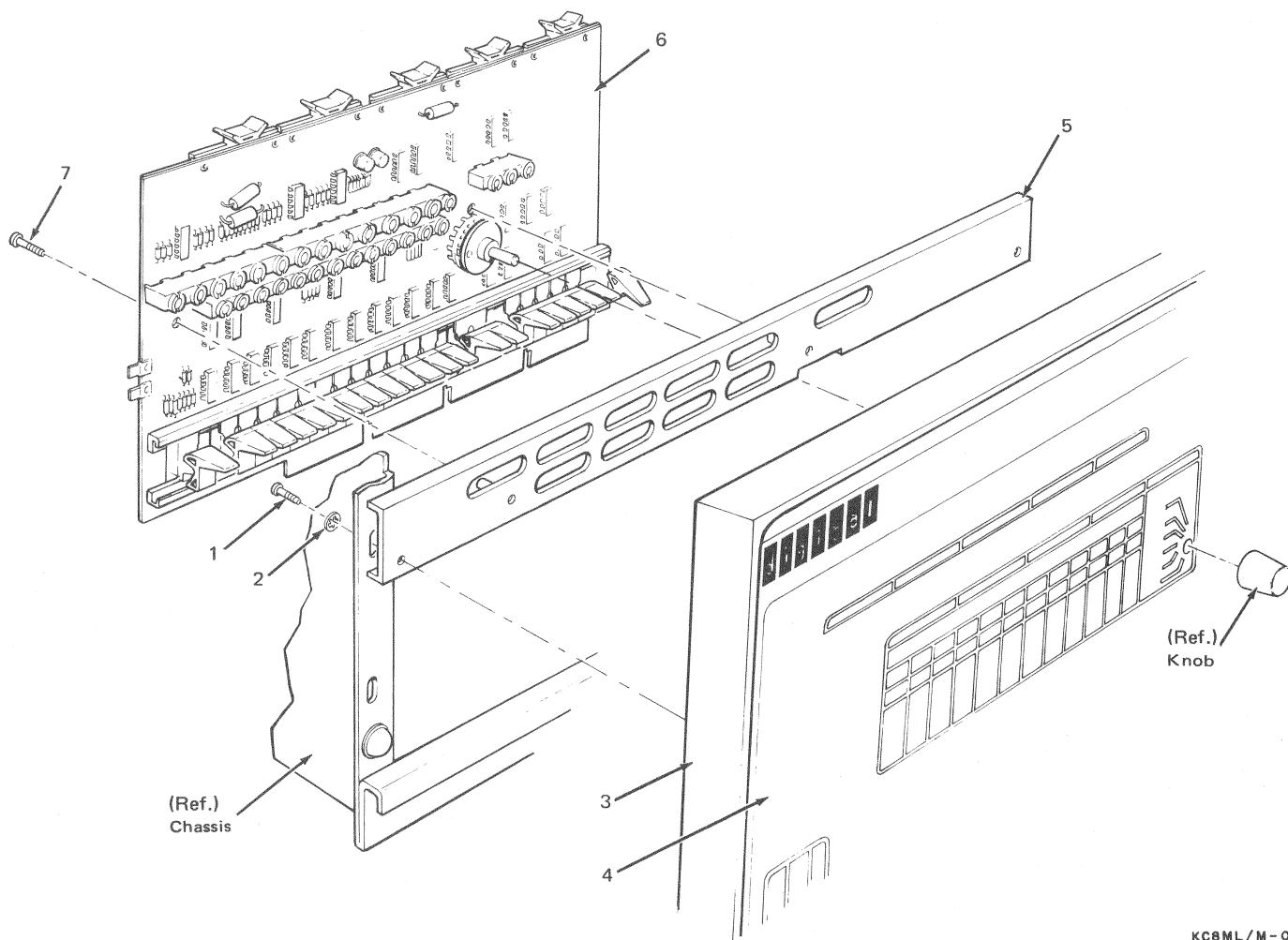
Copyright © 1973, by Digital Equipment Corporation

DEC reserves the right, without notice, to make substitutions and modifications in the specifications of products documented in this manual and further reserves the right to withdraw any of these products from the market without notice.

DEC is not responsible for errors which may appear in the technical description (including illustrations and photographs) of the products covered by this manual.

None of the descriptions contained in this manual imply the granting of any license whatsoever to make, use or sell equipment constructed in accordance therewith.

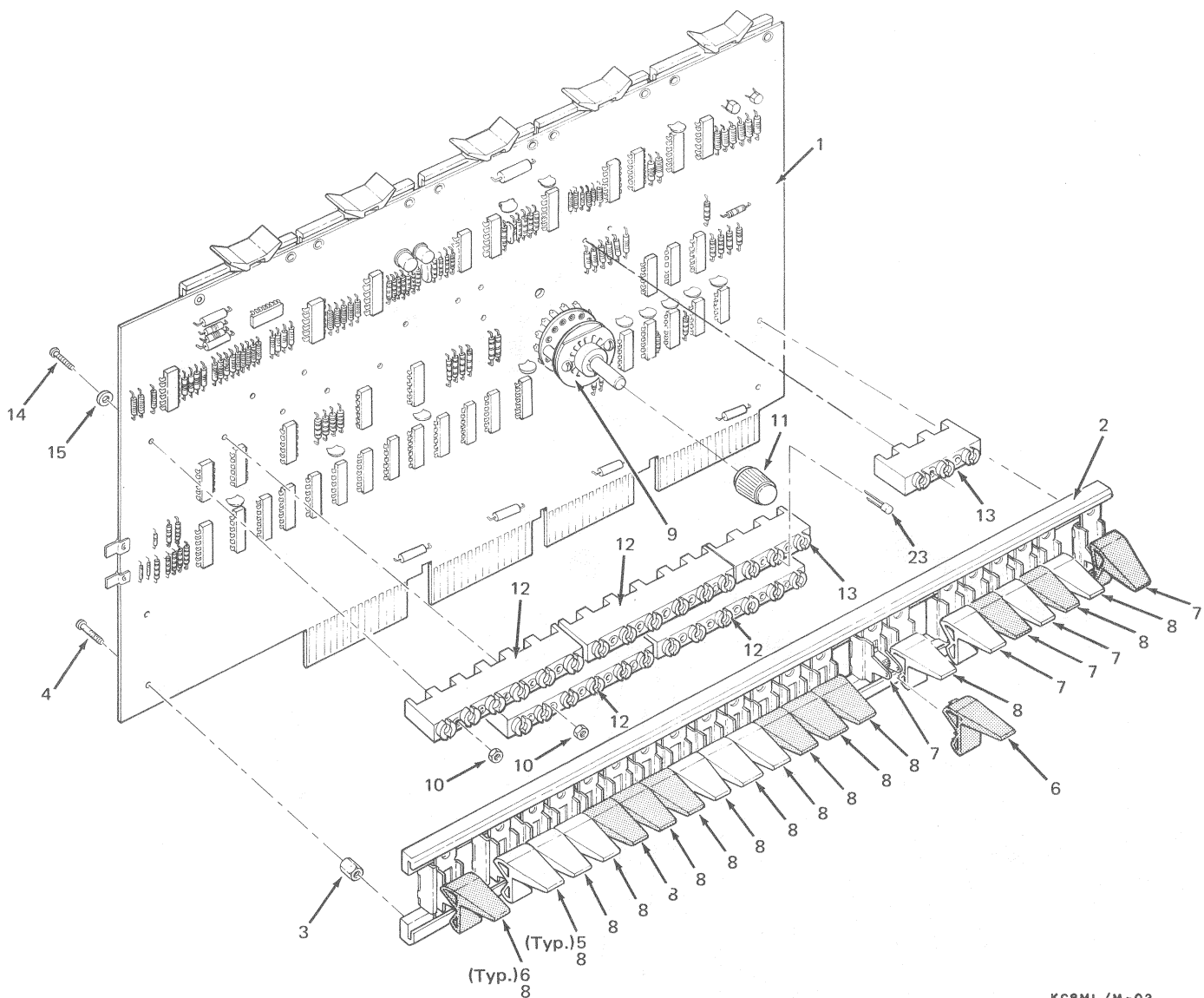
FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN KC8ML 00002	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
1-	CONSOLE ASSEMBLY (PROGRAMMER)	KC8-ML-0					
1	@Screw Phl Hd Pan No 8-32 x .25 lg	90-06035-01					
2	@Washer, Int Tooth, Lock No. 8	90-06634-00					
3	* Bezel	12-10065-00					
4	* Control Panel, Programmer	74-09228-00					
5	* Support LED	74-09354-00					
6	* FRONT PANEL, CONTROL BOARD ASSY	54-09668-00					2
7	* Screw, Phl Hd Pan Nylon No. 8-32 x .50	90-08208-00					
	NOTE: SEE FIG. 3 FOR OPERATOR'S CONSOLE ASSEMBLY, KC8M.						



KC8ML/M-01

Figure 1. Console Assembly (Programmer)

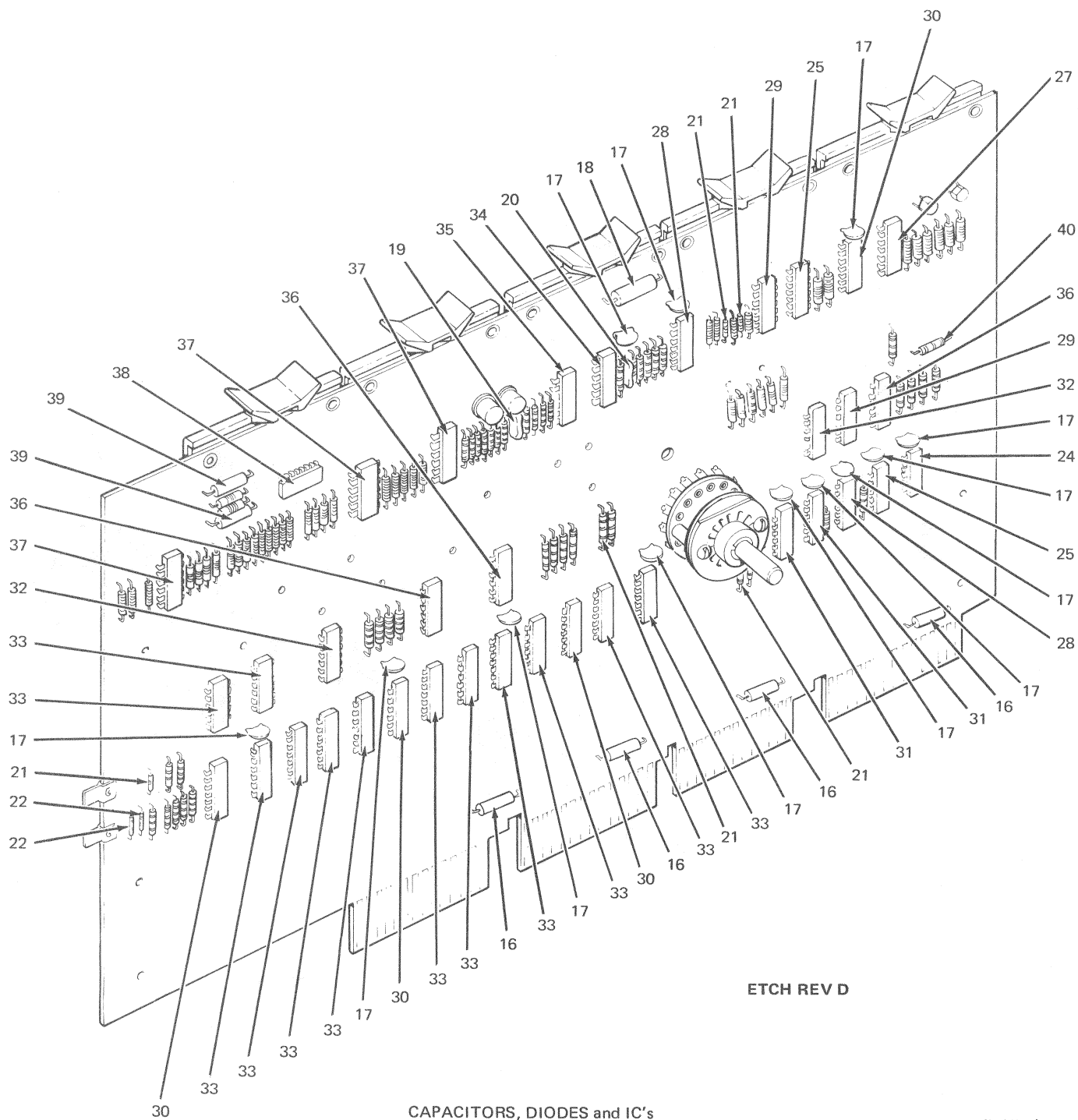




KC8ML/M-02

ETCH REV D

Figure 2. Front Panel Control Board Assembly (Etch Rev D) Sheet 1 of 3



KC8ML/M-03

Figure 2. Front Panel Control Board Assembly (Etch Rev D) Sheet 2 of 3

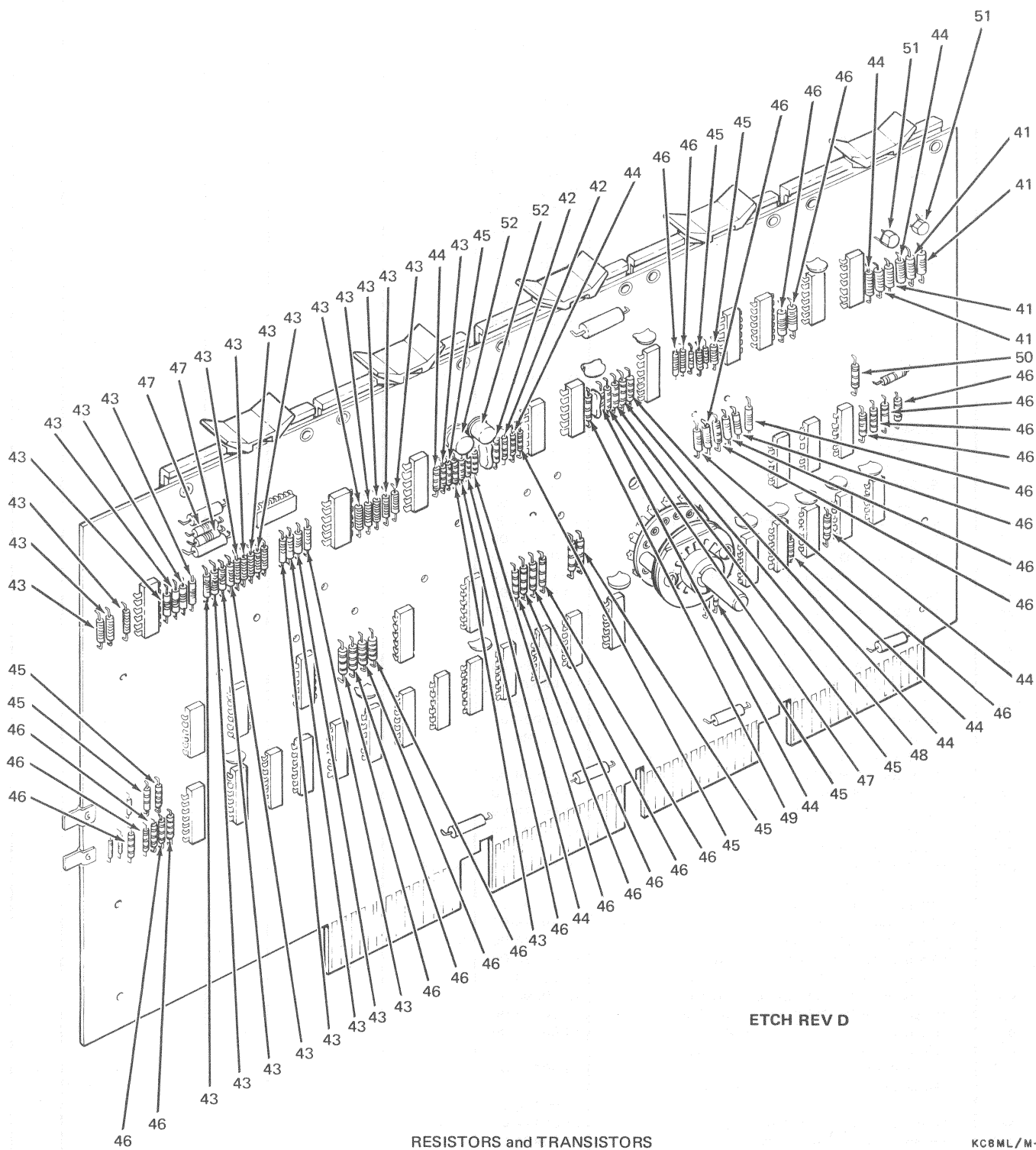
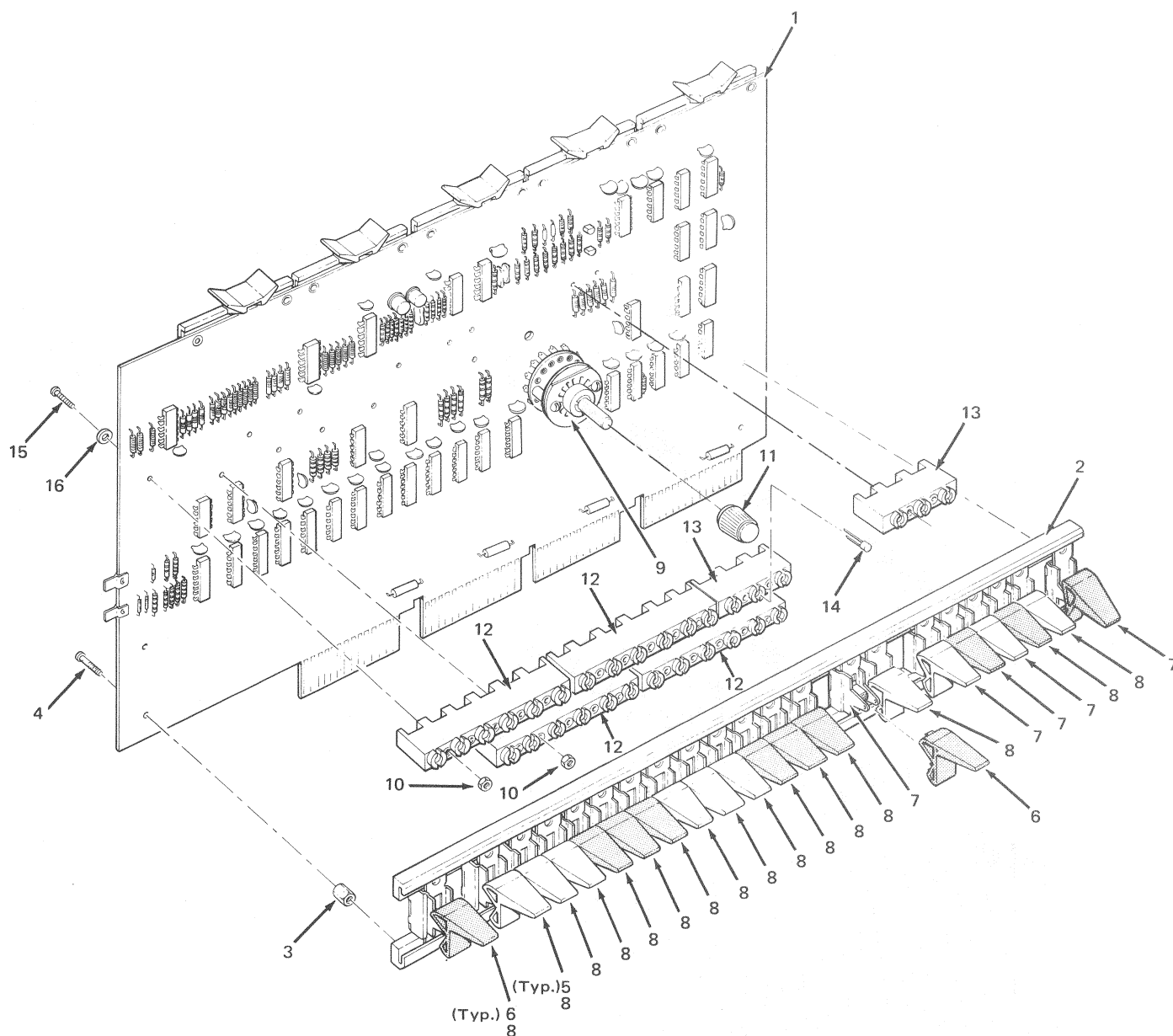


Figure 2. Front Panel Control Board Assembly (Etch Rev D) Sheet 3 of 3

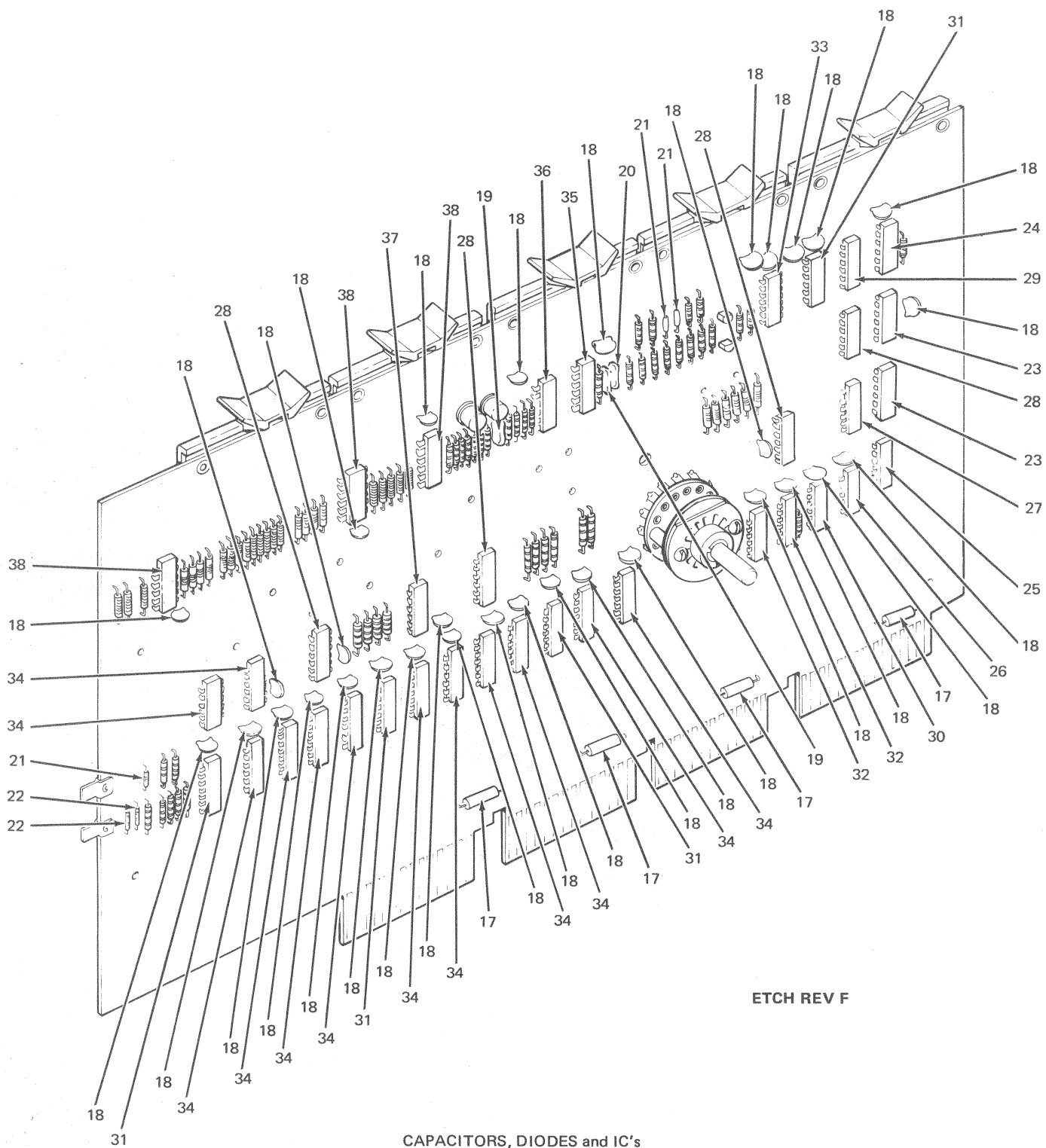
FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN 5409668 0002A	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
2-	FRONT PANEL, CONTROL BOARD ASSEMBLY (ETCH REV D)	54-09668-00					1
1	*Board, Etched Circuit, (Etch Rev D)	50-09667-00					
2	*Switch, Mounting Bar	74-08246-00					
3	*Spacer, 1/4 AF x 1/4 lg x No. 6 Hole	90-06800-00					
4	*Screw, Phi Hd Pan No 6-32 x 7/16 lg	90-06023-01					
5	*Handle, Rocker (S3,S5,S6,S9,S11-S13,S17-S19) Russet Orange	12-05849-06					
6	*Handle, Rocker (S2,S4,S7-S8,S10,S14-S16, S20-S22) Terra Cotta	12-05849-13					
7	*Switch, Rocker (S3-S8) R5-9-3-FB	12-05375-00					
8	*Switch, Slide (S2, S9-S22)	12-10626-00					
9	*Switch, Rotary (S1)	12-10627-00					
10	*Nut, Hex No 4-40 x 1/4 x 1/16	90-06556-00					
11	*Knob, Control Panel	12-10144-00					
12	*Support, LED	12-10795-01					
13	*Support, LED	74-09561-03					
14	*Screw, Sltd. Bd. Hd. No 4-40 x 7/8 lg	90-06016-04					
15	*Washer, Flat Nylon No. 4 Hole	90-06706-00					
16	*Capacitor, (C1-C4) 6.8 MFD 35V 20% S. TANT	10-00067-00					
17	*Capacitor, (C5-C16) .01 MFD 100V 20% DISC	10-01610-00					
18	*Capacitor, (C17) 6.8 MFD 15V 10% S. TANT (deleted)	10-0082-00					
	*Capacitor, (C17) 47 MFD 15V 10% S. TANT (added)	10-04814-00	00005				
19	*Capacitor, (C18) 470 PFD 100V 5% DM	10-00024-00					
20	*Capacitor, (C19) 100 PFD 100V 5% DM	10-00016-00					
21	*Diode, (D1-D5) D664	11-00114-00					
22	*Diode, (D6, D7) D662	11-00113-00					
23	*Diode, Light Emitting (D8-D35) OSL-45	11-10625-00					
24	*IC (E1) DEC 7474	19-05547-00					
25	*IC (E2, E10) DEC 5380	19-10392-00					
26	*IC (E3) DEC 7410	19-05576-00					
27	*IC (E4) DEC 7402	19-09004-00					
28	*IC (E5, E14) DEC 5384	19-10394-00					
29	*IC (E6, E12) DEC 7400	19-05575-00					
30	*IC (E7,E16,E26,E34) DEC 97401	19-09973-00					
31	*IC (E8,E11) DEC 8235	19-09935-00					
32	*IC (E9,E21,E30) DEC 7404	19-09686-00					
33	*IC (E13,E15,E18,E20,E22,E23,E27,E29, E31-E33,E35) DEC 74L54	19-10624-00					
34	*IC (E17) DEC 9601	19-09373-00					
35	*IC (E19) DEC 7440	19-05579-00					
36	*IC (E24) DEC 5314	19-10391-00					
37	*IC (E25,E28,E36) DEC 7417	19-09929-00					
38	*IC (E37) DEC 74123 (added)	19-10936-00	00004				
39	*Capacitor, (C21,C22) 22 MFD 35V 20% S. TANT (added)	10-02433-00	00004				
40	*Capacitor (C20) 39 MFD 35V 10% TANT (del)	10-00076-00					
	*Capacitor, (C20) 1 MFD 35V 10% TANT (add)	10-01776-00	0002A				
41	*Resistor (R1-R4) 27 Ohm 1/4W 10%	13-01420-00					
42	*Resistor (R5,R6) 47 Ohm 1/4W 10%	13-00204-00					
43	*Resistor (R7-R34) 330 Ohm 1/4W 10%	13-00293-0					
44	*Resistor (R35-R42) 470 Ohm 1/4W 10%	13-00317-00					
45	*Resistor (R43-R50,R52) 1.5K 1/4W 5%	13-00391-00					
46	*Resistor (R53-R56,R58-R76,R78-R83) 3K 1/4W 5%	13-00432-00					
47	*Resistor (R51,R85,R86) 15K 1/4W 5% (R85-R86 added)	13-00496-00	00004				
48	*Resistor (R57) 7.5K 1/4W 5% (added)	13-01422-00	0002A				
49	*Resistor (R77) 10K 1/4W 10%	13-00481-00					
50	*Resistor (R84) 3K 1/4W 5% (deleted)	13-00432-00					
	*Resistor (R84) 1K 1/4W 5% (added)	13-00365-00	0002A				
51	*Transistor (Q1,Q2) DEC 30098	15-03100-00					
52	*Transistor (Q3,Q4) DEC 2904	15-01742-00					



ETCH REV F

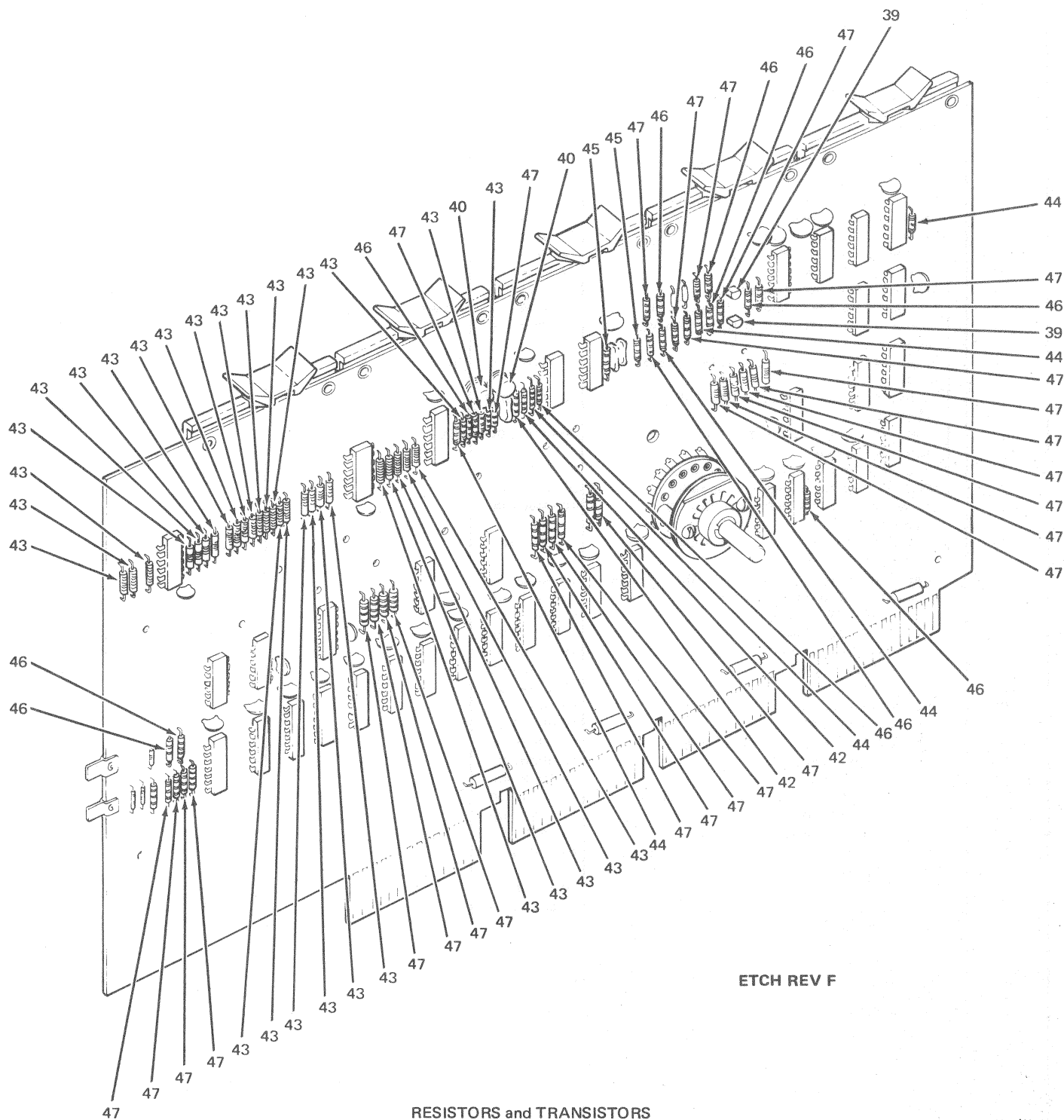
KC8ML/M-04

Figure 2A. Front Panel Control Board Assembly (Etch Rev F) Sheet 1 of 3



KC8ML/M-05

Figure 2A. Front Panel Control Board Assembly (Etch Rev F) Sheet 2 of 3



KC8ML/M-05

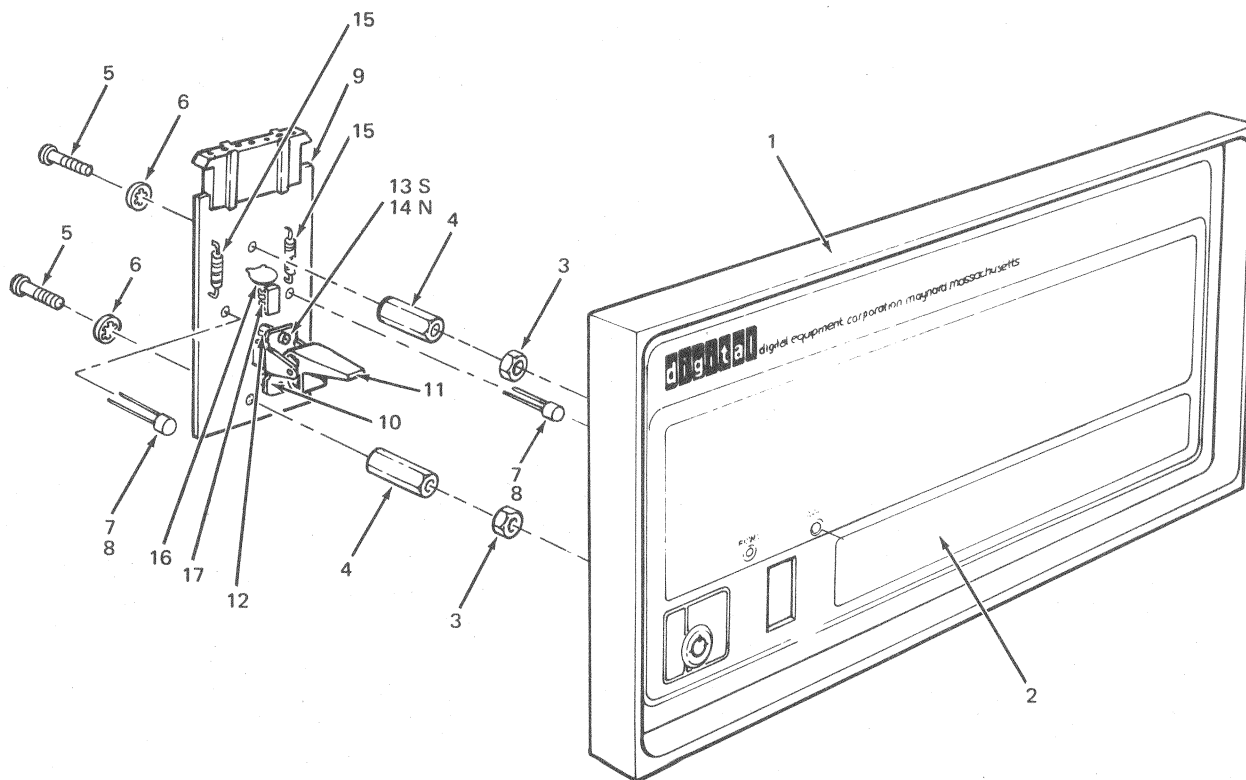
Figure 2A. Front Panel Control Board Assembly (Etch Rev F) Sheet 3 of 3

FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN 5409668 00006	USED ON CODE	VENDOR CODE	PART NO.	REF FIG NO.
2A	FRONT PANEL, CONTROL BOARD ASSEMBLY (ETCH REV F)	54-09668-00					1
1	*Board, Etched Circuit (Etch Rev F)	50-09667-00					
2	*Switch, Mounting Bar	74-08246-00					
3	*Spacer, 1/4 AF x 1/4 Ig x No. 6 Hole	90-06800-00					
4	*Screw, Phl. Hd. Pan No. 6 x 7/16 Ig.	90-06023-01					
5	*Handle, Rocker (S3, S5, S6, S9, S11—S13, S17—S19) Russet Orange	12-05849-06					
6	*Handle, Rocker (S2, S4, S7—S8, S10, S14—S16, S20—S22) Terra Cotta	12-05849-13					
7	*Switch, Rocker (S3—S8) R5-9-3-FB	12-05375-00					
8	*Switch, Slide (S2, S9—S22)	12-10626-00					
9	*Switch, Rotary (S1)	12-10627-00					
10	*Nut, Hex No. 4-40 x 1/4 x 1/16 (deleted)	90-06556-00	0006A				
11	*Knob, Control Panel	12-10144-00					
12	*Holder, LED See Note No. 1	12-10795-01					
	*Holder, LED (Added) See Note No. 1	12-10795-02	0006A				
13	*Support, LED (deleted)	74-09561-03					
	*Holder, LED Triple (added) See Note No. 1	12-10940-01					
	*Holder, LED Triple (added) See Note No. 1	12-10940-02	0006A				
14	*Diode, Light Emitting (D8—D35) OSL-45 See Note No. 1	11-10625-00					
	*Diode, Light Emitting (D8—D35) (added) See Note No. 1	11-10864-00	0006A				
15	*Screw, Sltd. Bd. Hd. No. 4-40 x 7/8 Ig. (deleted)	90-06016094					
	*Screw, Self Tapping No. 6 x 1/4 Ig. Black Pass (added)	90-08230-00	0006A				
16	*Washer, Flat, Nylon No. 4 Hole (deleted)	90-06706-00					
	*Washer, Flat, Nylon No. 6 Hole (added)	90-06707-00	0006A				
17	*Capacitor, (C1—C4) 6.8 MFD 35V 20% S. TANT	10-00067-00					
18	*Capacitor, (C5—C17, C21—C39) .01 MFD 100 V 20% DISC	10-01610-00					
19	*Capacitor, (C18, C19) 470 PFD 100 V 5% DM	10-00024-00					
20	*Capacitor, (C20) 100 PFD 100 V 5%	10-00016-00					
21	*Diode, (D1—D4) D664	11-00014-00					
22	*Diode (D5, D6) D662	11-00013-00					
23	*I.C. (E1, E2) DEC 74175	19-10651-00					
24	*I.C. (E3) DEC 9318	19-10454-00					
25	*I.C. (E4) DEC 7474	19-05547-00					
26	*I.C. (E5) DEC 5380	19-10392-00					
27	*I.C. (E6) DEC 7410	19-05576-00					
28	*I.C. (E7, E12, E22, E31) DEC 7404	19-09686-00					
29	*I.C. (E8) DEC 74H11	19-09267-00					
30	*I.C. (E9) DEC 5384	19-10394-00					
31	*I.C. (E10, E17, E27, E35) DEC 97401	19-09973-00					
32	*I.C. (E11, E14) DEC 8235	19-09935-00					
33	*I.C. (E13) DEC 7400	19-05575-00					
34	*I.C. (E15, E16, E19, E21, E23, E24, E28, E30, E32, E33, E34, E36) DEC 74L54	19-10624-00					
35	*I.C. (E18) DEC 74123	19-10436-00					
36	*I.C. (E20) DEC 7440	19-05579-00					
37	*I.C. (E25) DEC 5314	19-10391-00					
38	*I.C. (E26, E29, E37) DEC 7417	19-09929-00					
39	*Transistor, (Q1, Q2) DEC 30098	15-03100-00					
40	*Transistor, (Q3, Q4) DEC 2904	15-01742-00					
41	*Resistor, (R1—R4) 27 Ohm 1/4 W 10%	13-01420-00					
42	*Resistor (R5, R6) 47 Ohm 1/4 W 10%	13-00204-00					

FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN 5409668 00006	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
2A-							
43	*Resistor, (R7-R34) 330 Ohm 1/4 W 10%	13-00293-00					
44	*Resistor, (R35, R37-R39, R41) 470 Ohm 1/4 W 10%	13-00317-00					
45	*Resistor, (R36, R40) 10K 1/4 W 10%	13-00481-00					
46	*Resistor, (R42-R52) 1.5K 1/4 W 5%	13-00391-00					
47	*Resistor, (R53-R56, R63-R76, R78-R83) 3K 1/4 W 5%	13-00432-00					
	Note 1: There are two types of LED's and LED holders used on the Control Board Assembly. They are to be used as follows: Item No. 14 Item No. 12 Item No. 13 11-10625-00 used with 12-10795-01 and 12-10940-01 11-10864-00 used with 12-10795-02 and 12-10940-02						



FIG & ITEM NO.	DESCRIPTION	DEC PART NO.	ECO CUT-IN KC8-M 00002	USED ON CODE	VENDOR		REF FIG NO.
					CODE	PART NO.	
3-	CONSOLE ASSEMBLY (OPERATOR)	KC8-M-0					
1	*Bezel	12-10065-00					
2	*Panel, Operators	74-09291-00					
3	*Spacer, Al. No. 10 .38 AF x .19	90-06828-00					
4	*Spacer, No. 10-32, .38 AF x .75	90-07662-00					
5	*Screw, Phl. Hd., Pan No. 10-32 x .25	90-08007-01					
6	*Washer, Lock, Int. Tooth No. 10	90-06636-00					
7	*Lamp, Solid State	11-10324-00					
8	*Clip, Mtg., Solid State Lamp	12-10791-00					
9	*Operator's Panel	54-09705-01					
10	**Switch, Rocker (S1)	12-05941-00					
11	**Handle, Rocker Switch, Terra Cotta (deleted)	12-05849-13					
	**Handle, Rocker Switch, Russet Orange (added)	12-05849-06	5409705-01 00002				
12	**Spacer, 1/4 AF x 7/16 lg. No. 6 Hole	90-08120-00					
13	**Screw, Phl. Hd., Pan No. 6-32 x 3/4 lg.	90-06026-01					
14	**Nut, Kep, No. 6-32 x 1/8 x 1/8	90-08185-00					
15	**Resistor (R1, R2) 330 Ohm 1/4 W 10%	13-00293-00					
16	**Capacitor (C1) .01 MFD 100 V. 20% DISC	10-01610-00					
17	**I.C. (E1) DEC 7417	19-09929-00					



KC8ML/M-06

Figure 3. Console Assembly (Operator)



ILLUSTRATED PARTS BREAKDOWN COMMENT SHEET

Any and all comments and suggestions for correcting errors and/or additional information to improve this manual will be reviewed and researched for possible use when this manual is revised and/or reprinted. Enter your comments and suggestions in the form provided below and return to Technical Documentation.

MODEL _____

PUBLICATION NO. _____

FIGURE NO. _____ ITEM NO. _____

FIGURE NO. _____ ITEM NO. _____

CHANGE FROM _____

CHANGE FROM _____

CHANGE TO _____

CHANGE TO _____

FIGURE NO. _____ ITEM NO. _____

FIGURE NO. _____ ITEM NO. _____

CHANGE FROM _____

CHANGE FROM _____

CHANGE TO _____

CHANGE TO _____

FIGURE NO. _____ ITEM NO. _____

FIGURE NO. _____ ITEM NO. _____

CHANGE FROM _____

CHANGE FROM _____

CHANGE TO _____

CHANGE TO _____

ADDITIONAL COMMENT(S)

Name _____

Cost Center _____

date: _____

Fold Here -----

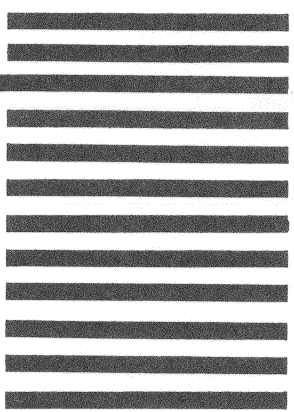
Do Not Tear - Fold Here and Staple -----

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

Postage will be paid by:

Digital Equipment Corporation
Technical Documentation Department
146 Main Street
Maynard, Massachusetts 01754

FIRST CLASS
PERMIT NO. 33
MAYNARD, MASS.





6

7



8

9





1
0
1



8
8

