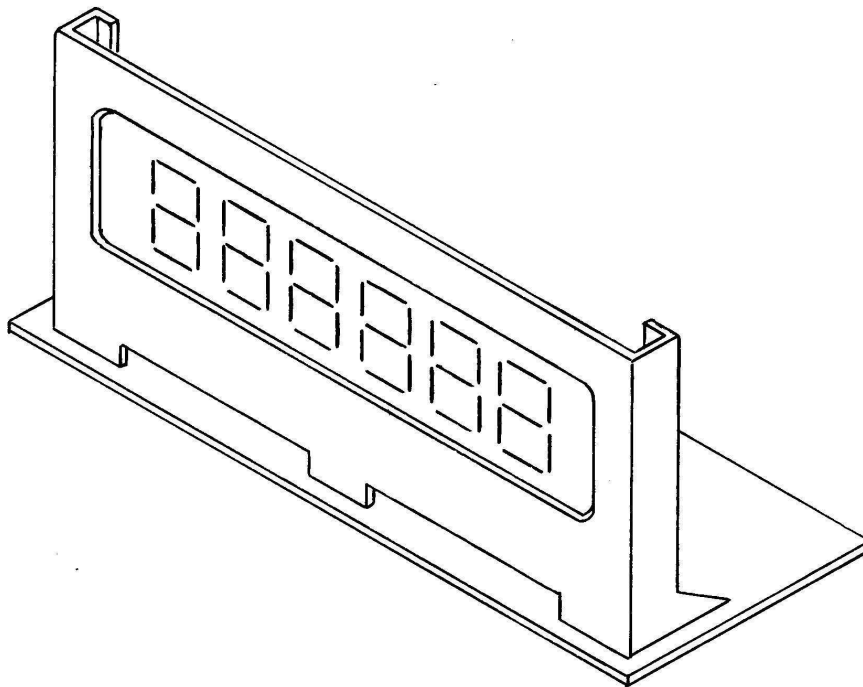


STERN'S



SOLID STATE DIGIT DISPLAY
REPAIR PROCEDURES
SERVICE BULLETIN #15



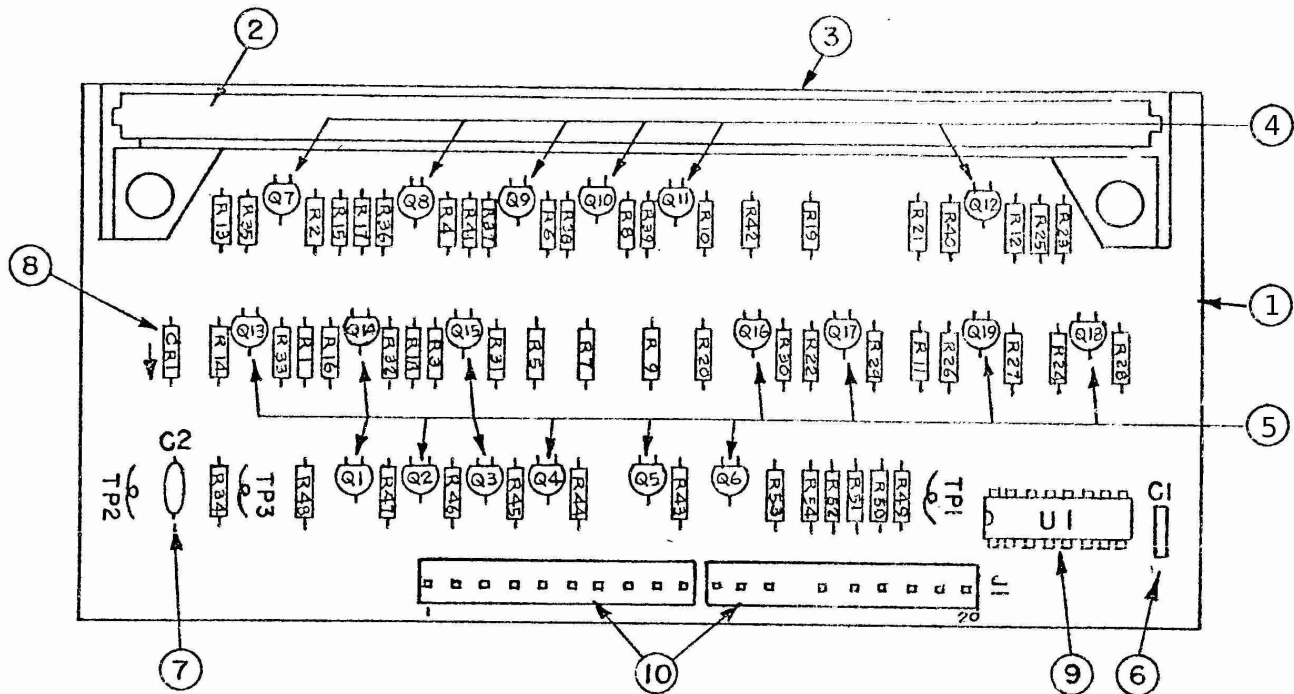
ELECTRONICS, INC.

1725 Diversey Parkway, Chicago, Illinois 60614

(312) 935-4600, Telex 25-4657

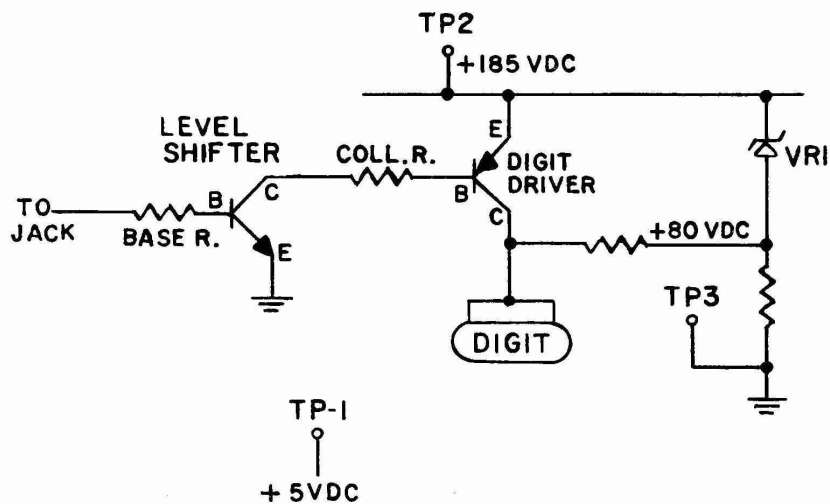
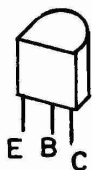
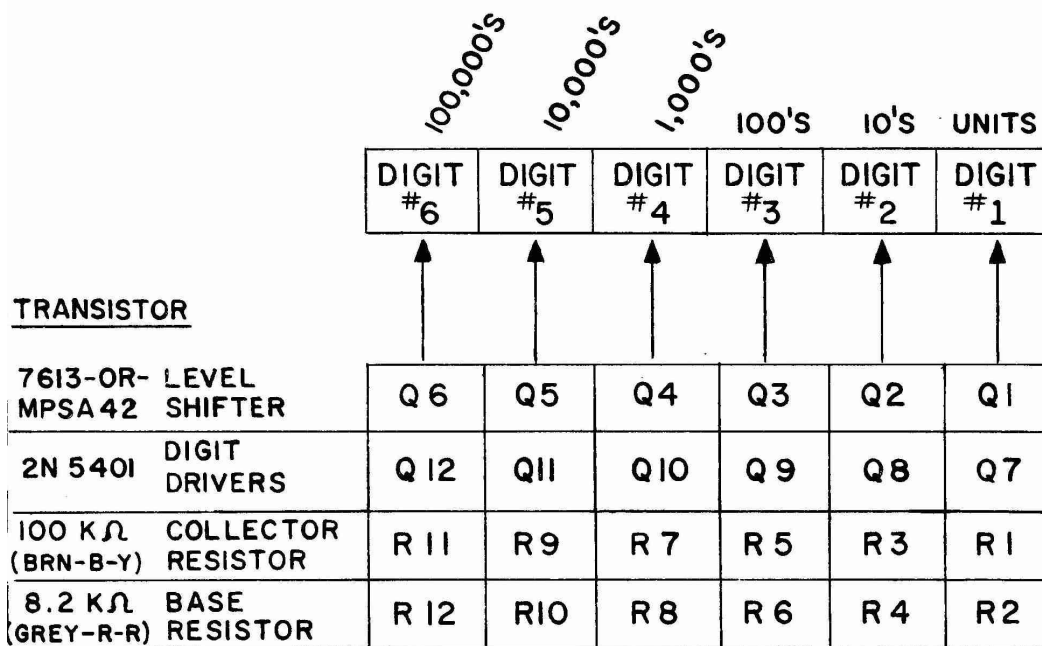
Toll Free Service Assistance (800) 621-6424

A-434 DISPLAY DRIVER MODULE



COMPONENT PARTS LIST

ITEM	REFERENCE DESIGNATION	STERN PART NO.	DESCRIPTION
1	A1	A-434	DISPLAY DRIVER MODULE, COMPLETE
2	DS1	25C-17-1	DIGITAL DISPLAY PANEL
3		4C-226	DISPLAY MOUNTING
4	Q7 THRU Q12	25A-2-5401	TRANSISTOR, 2N-5401
5	Q1 THRU Q6	25A-2-1	TRANSISTOR, MPS-A42 OR 7613
	Q13 THRU Q19		
6	C1	25A-261	CAPACITOR, AXIAL .01 MFD, 50V.
7	C2	25A-12-7	CAPACITOR, 01. MFD, 500V.
8	CR1	25A-1-1	ZENER DIODE, 110V., 1W, IN3045
9	U1	25A-MC14543B	I.C. DECODER, 14543B
10	J1	4B-215-10	(2) 10 PIN WAFER CONNECTORS
	R1, R3, R5, R7, R9, R11, R34	25A-5-104-104	RESISTOR, 100K, 1/4 WATT
	R2, R4, R6, R8, R10, R12	25A-5-04-222	RESISTOR, 2.2K, 1/4 WATT
	R13, R15, R17, R19, R21	25A-5-04-912	RESISTOR, 9.1K, 1/4 WATT
	R23, R25		
	R14, R16, R18, R20, R22, R24	25A-5-04-304	RESISTOR, 300K, 1/4 WATT
	R26, R35, R36, R37, R38, R39, R40		
	R27, R28, R29, R30, R31, R32	25A-5-04-102	RESISTOR, 1K, 1/4 WATT
	R33		
	R41	25A-5-04-393	RESISTOR, 39K, 1/4 WATT
	R42	25A-5-04-244	RESISTOR, 240K, 1/4 WATT
	R43 THRU R48	25A-5-04-822	RESISTOR, 8.2K, 1/4 WATT
	R49 THRU R54	25A-5-04-203	RESISTOR, 20K, 1/4 WATT



CHECK TEST POINTS:-

- TP-1 + 5 VDC
TP-2 + 185 VDC (SEE PAGE 6)
TP-3 GROUND

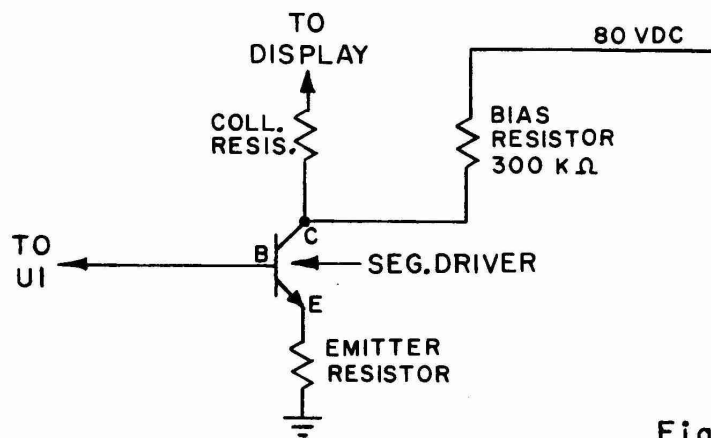
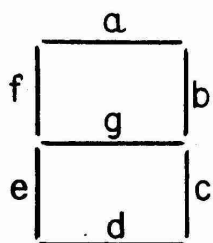


Fig. 4



SEGMENT	SEGMENT DRIVER TRANSISTOR	EMITTER RES.	COLL RES.
a	Q13	R33	R13
b	Q14	R32	R15
c	Q15	R31	R17
d	Q16	R30	R19
e	Q17	R29	R21
f	Q18	R28	R23
g	Q19	R27	R25

Fig.5

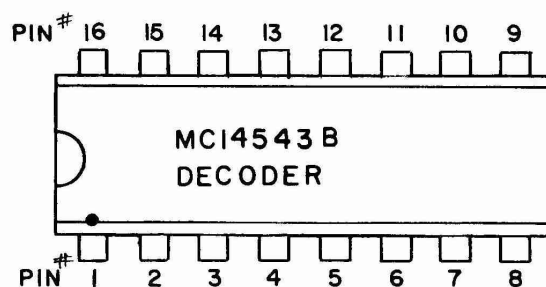
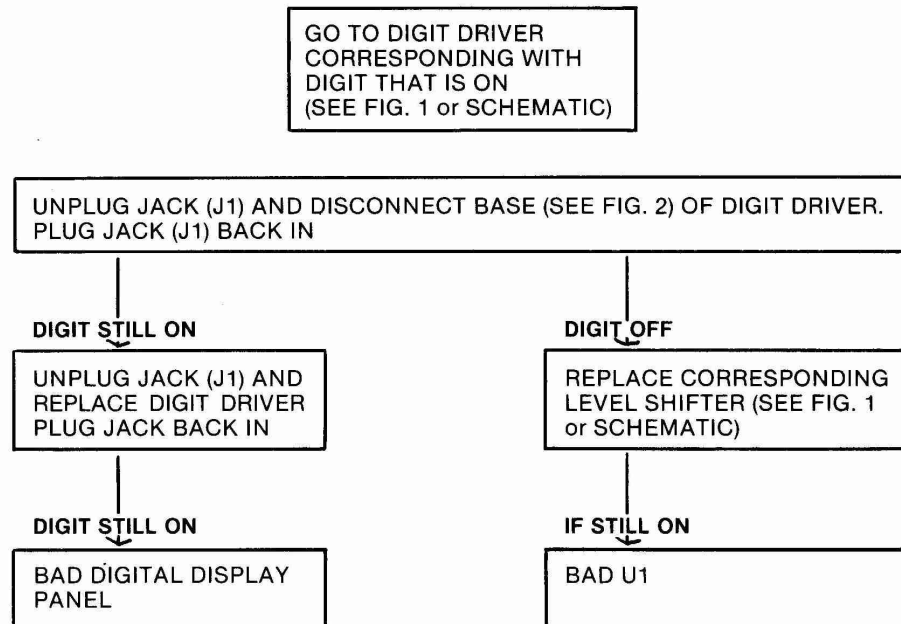
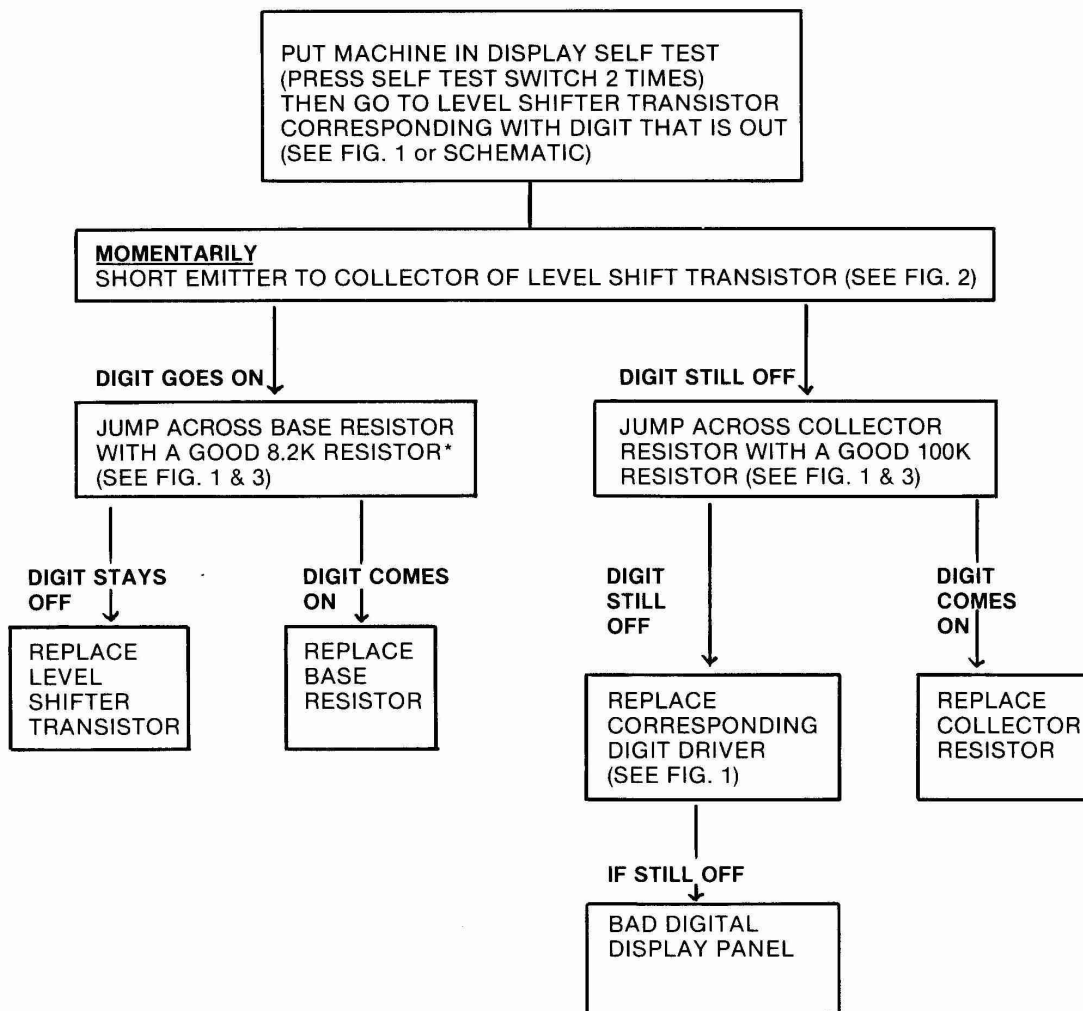


Fig.6

ONE DIGIT ALWAYS ON

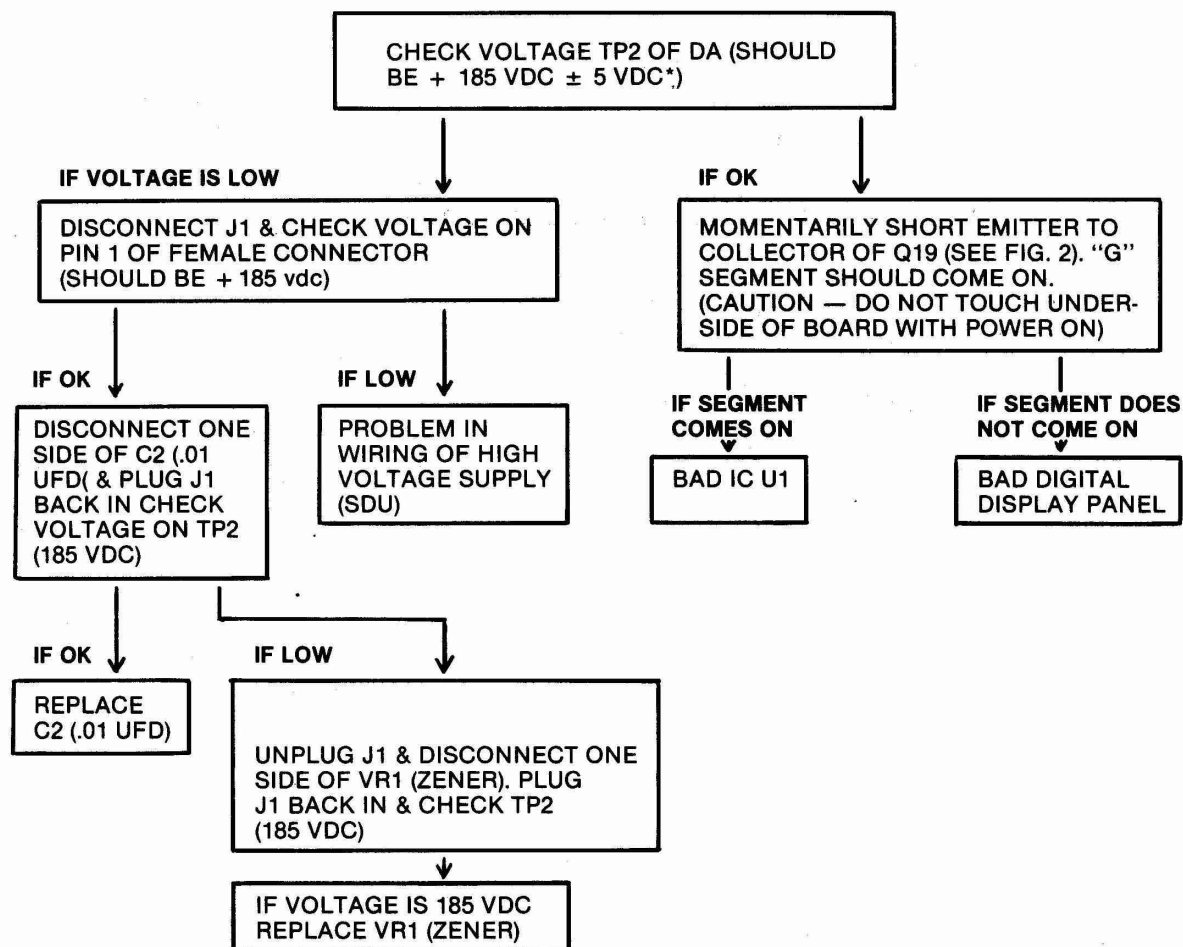


ONE DIGIT ALWAYS OFF OR WEAK



*NOTE: EARLIER SCHEMATICS MAY HAVE 9.1K CALLED OUT

ALL DIGITS OFF

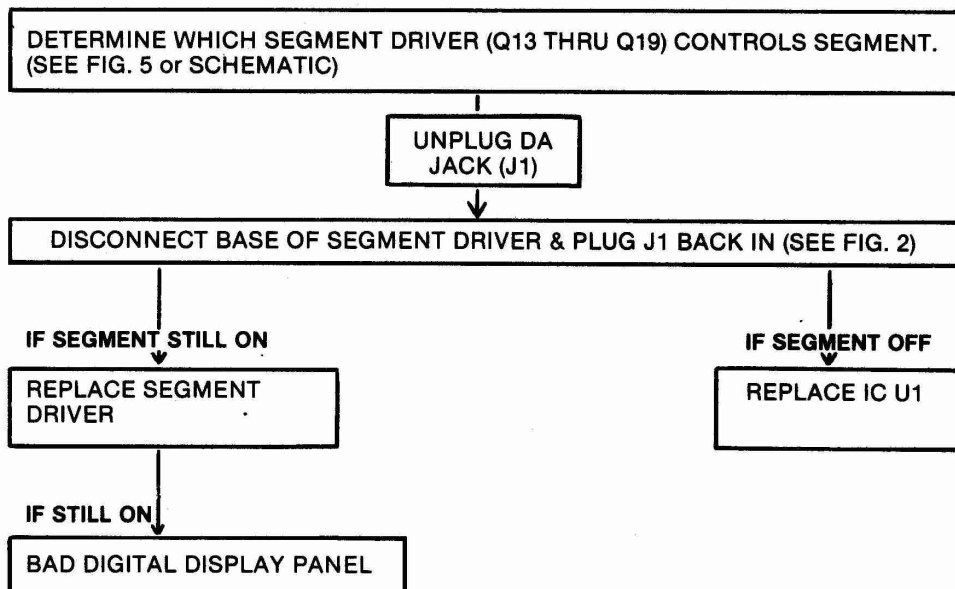


*NOTE: EARLIER SCHEMATICS MAY HAVE CALLED OUT 175 VDC

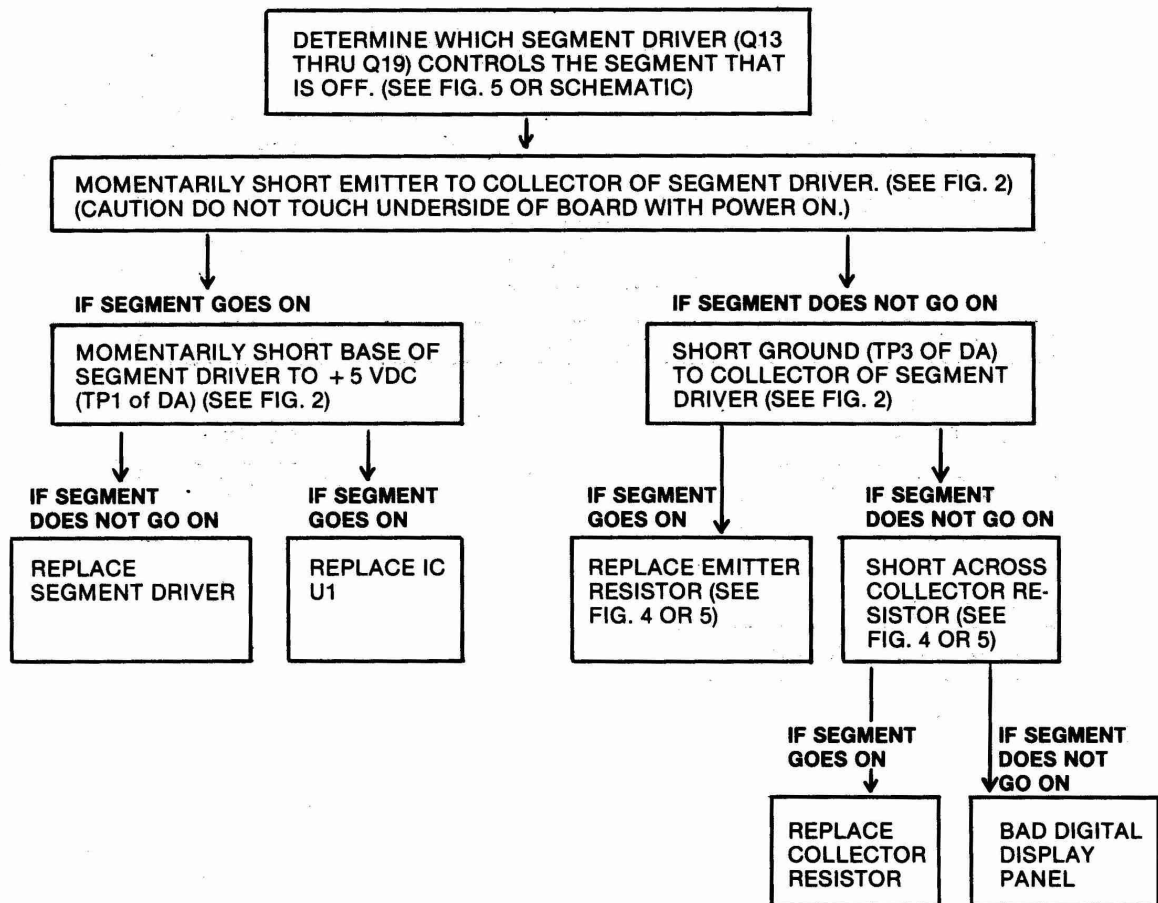
ALL DIGITS WEAK

- 1) CHECK 185 VDC (TP2 ON LDA)
- 2) IF OK REPLACE VR1
- 3) IF ALL DIGITS STILL WEAK, BAD DIGITAL DISPLAY PANEL

ONE SEGMENT ALWAYS ON



ONE SEGMENT ALWAYS OFF OR WEAK



DA COUNTS WRONG

