

INSTRUCTIONS  
FOR  
LOGIC STANDBY POWER BOARD  
(OPTION 9688)  
FOR MASTR® II STATIONS

— TABLE OF CONTENTS —

	<u>Page</u>
DESCRIPTON .....	1
CIRCUIT ANALYSIS .....	1
OUTLINE DIAGRAM .....	2
SCHEMATIC DIAGRAM .....	3
PARTS LIST .....	4
INSTALLATION INSTRUCTIONS .....	5

### DESCRIPTION

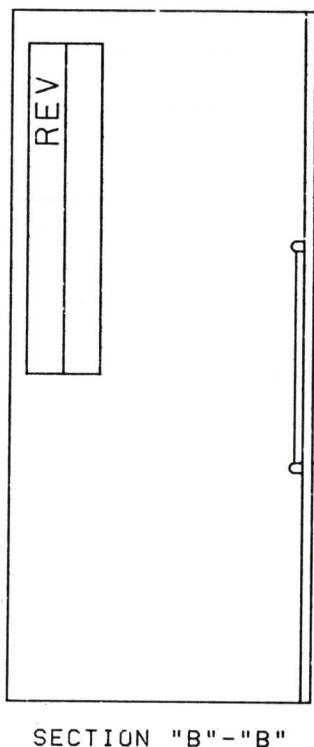
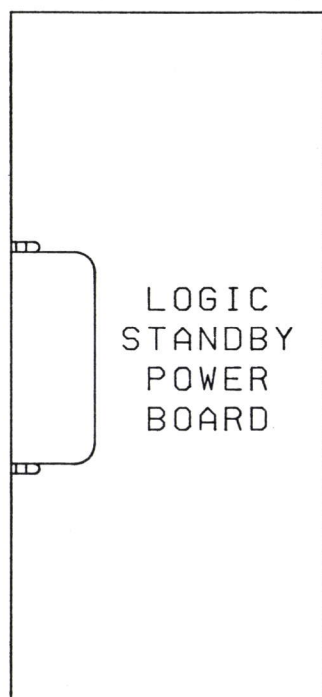
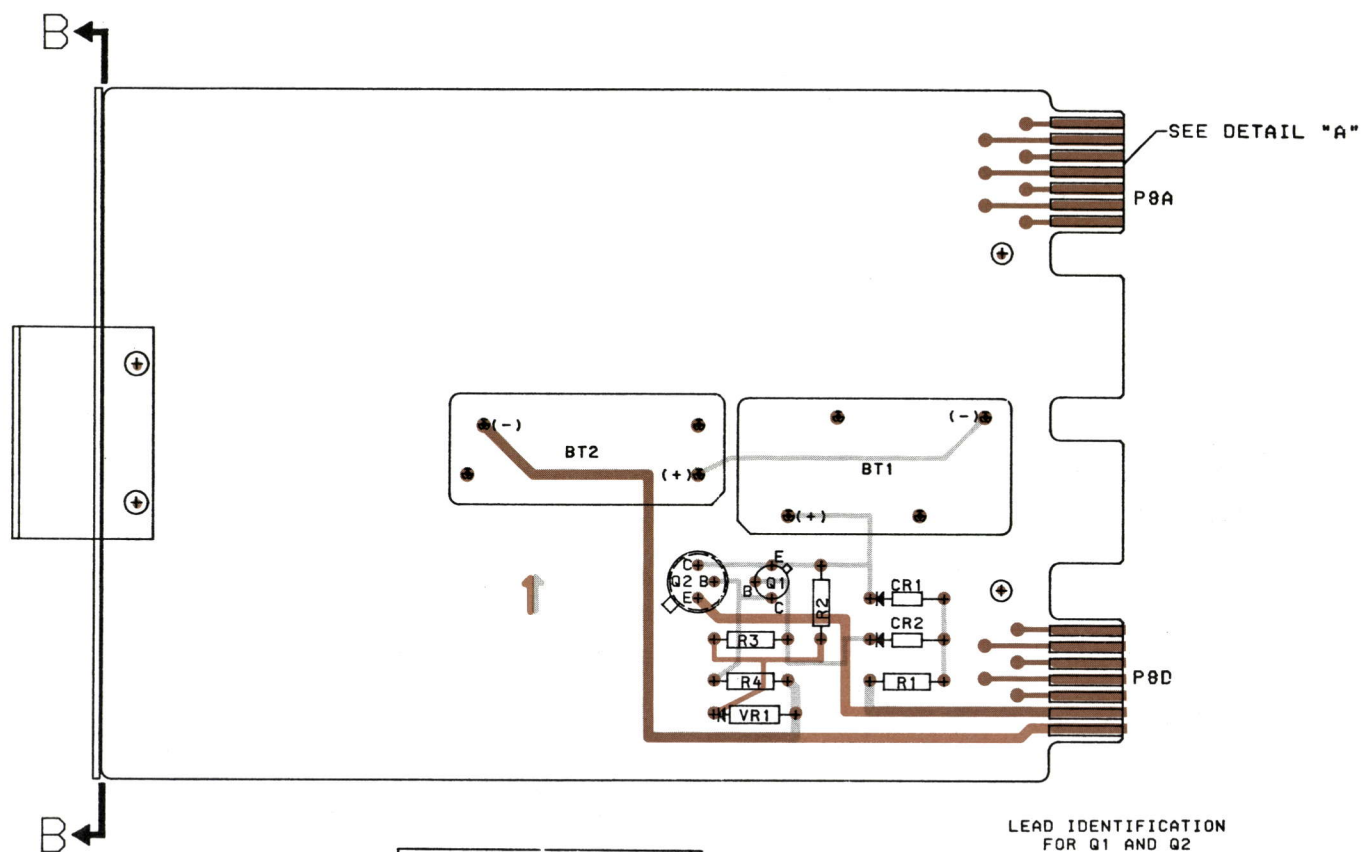
The Logic Standby Power Board (19D432093G1) is plugged into either of the two auxiliary control slots (J1212 or J1213) on the MASTR II Station Control Shelf. This option prevents loss of memory of the tone control system if the main AC power should fail. Loss of memory would result in the selected tone functions to change state with no indication at the control point.

### CIRCUIT ANALYSIS

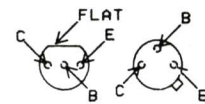
+10 VDC applied to the Logic Standby Power Board at pin D6 from the station regulator board forward biases diodes CR1 and CR2, preventing transistors Q1 and Q2 from conducting. Loss of the +10 VDC supply voltage reverse biases CR1 and CR2, permitting Q1 and Q2 to conduct. Conduction of Q1 and Q2 allows current from the batteries (BT1 and BT2) to pass to pin D9. Zener diode VR1 maintains the voltage level at D9 to +5 VDC.

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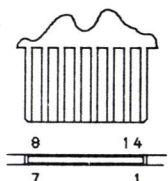


LEAD IDENTIFICATION  
FOR Q1 AND Q2



IN-LINE TRIANGULAR  
TOP VIEW

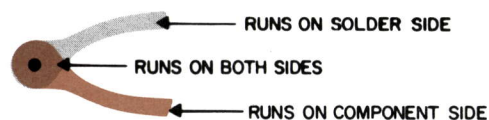
NOTE: LEAD ARRANGEMENT, AND NOT  
CASE SHAPE, IS DETERMINING  
FACTOR FOR LEAD IDENTIFICATION.



SOLDER SIDE  
TYP. NUMBERING OF  
CONTACT FINGERS.

DETAIL "A"

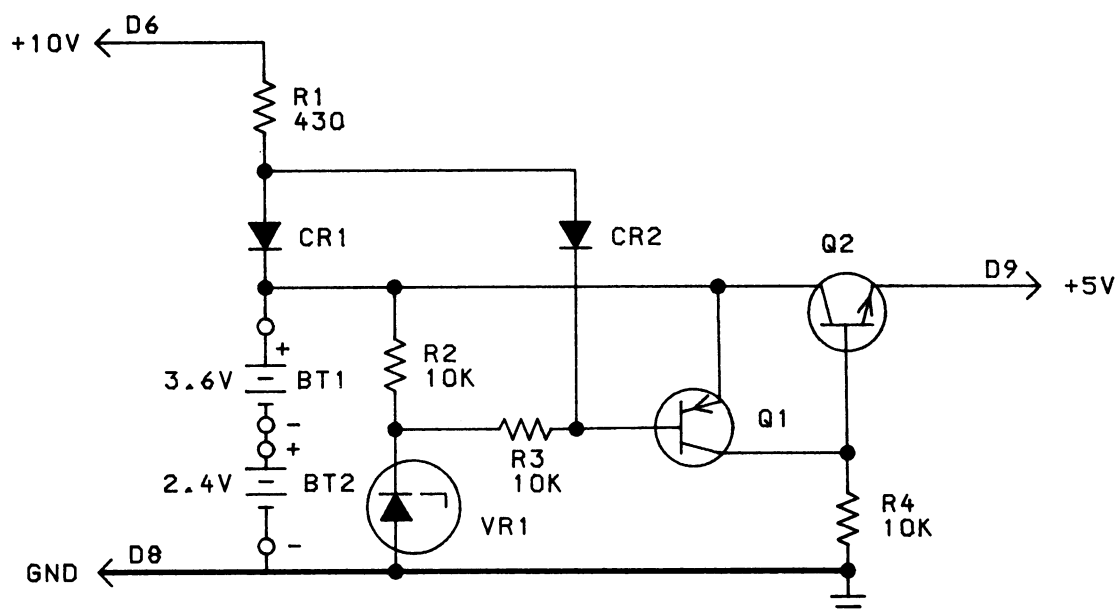
ROTATED 90 DEG.  
CLOCKWISE



(19D432095, Rev. 1)  
(19A143208, Sh. 1, Rev. 1)  
(19A143208, Sh. 2, Rev. 1)

## OUTLINE DIAGRAM

LOGIC STANDBY POWER BOARD



ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K-1000 OHMS OR MEG-1,000,000 OHMS. CAPACITOR VALUES IN PICO FARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF-MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH-MILLIHENRYS OR H-HENRYS.

MODEL NO.	REV. LETTER

NOTE 1  
BATTERIES ARE SHOWN FOR ELECTRICAL REFERENCE AND TEST PURPOSES ONLY AND ARE NOT ASSEMBLED AT THIS LEVEL.

(19B233561, Rev. 2)

## SCHEMATIC DIAGRAM

LOGIC STANDBY POWER BOARD

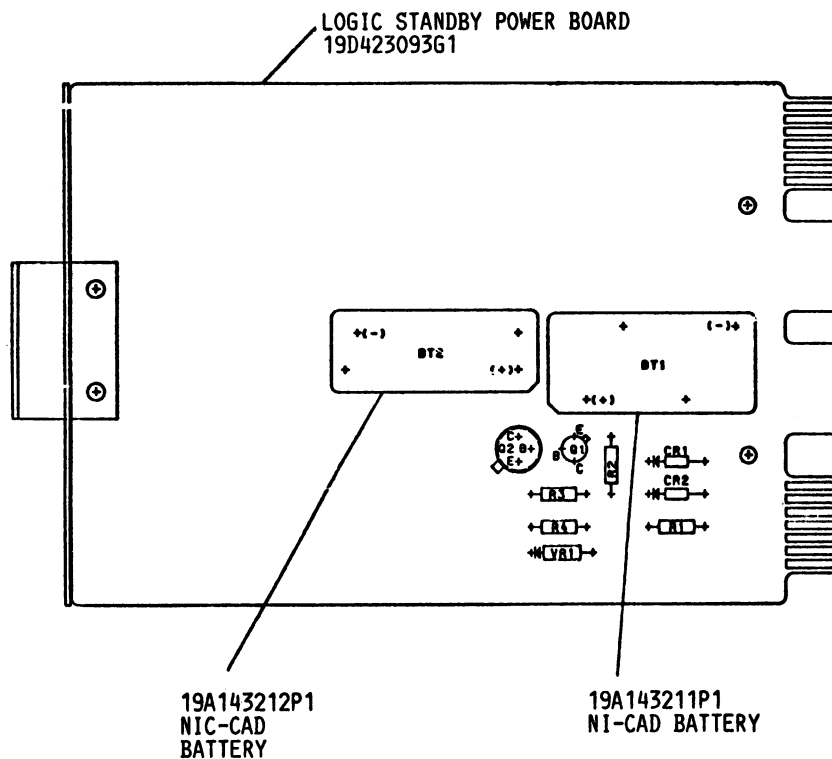
Issue 1

3

## PARTS LIST

LOGIC STANDBY POWER BOARD  
19D432093G1  
ISSUE 1

SYMBOL	GE PART NO.	DESCRIPTION
BT1 BT2	19A143211P1	----- BATTERIES ----- Storage, nickel-cadmium: 3.6 volts.
	19A143212P1	Storage, nickel-cadmium: 2.4 v; sim to GE Model No. DS2SB.
CR1 and CR2	19A700028P1	----- DIODES AND RECTIFIERS ----- Silicon, fast recovery; sim to Type 1N4148.
		----- PLUGS ----- (Part of printed board 19D432094P1).
Q1 Q2	19A700022P1	----- TRANSISTORS ----- Silicon, PNP; sim to Type 2N3906.
	19A115300P4	Silicon, NPN.
R1 R2 thru R4	3R152P431J	----- RESISTORS ----- Composition: 430 ohms $\pm 5\%$ , 1/4 w.
	19A700106P87	Composition: 10K ohms $\pm 5\%$ , 1/4 w.
VR1	19A700025P6	----- VOLTAGE REGULATORS ----- Zener: Fwd. voltage 1.0 v, 400 mW.
		----- MISCELLANEOUS -----
	19B219704P2	Panel.
	19B219690G1	Handle assembly.
	19A129383P1	Support. (Used with handle assembly).
	4033555P1	Insulator, washer: nylon. (Used with Q2).
	19A115834P5	Contact, electrical: sim to AMP 3-331272-5. (Used with BT1 & BT2).
	NP280931	Nameplate. (LOGIC STANDBY POWER BOARD).
	7141225P2	Hex nut: No. 4-40. (Secures handle to support).



THESE INSTRUCTIONS COVER THE INSTALLATION OF THE MASTR II LOGIC STANDBY POWER BOARD OPTION NI-CAD BATTERIES.

1. FOR ASSEMBLED STATIONS, INSERT BATTERIES INTO CONTACTS ON LOGIC STANDBY POWER BOARD. CUT OFF TERMINAL EXCESS FLUSH WITH BOTTOM OF BOARD CONTACT.
2. WHEN THIS OPTION IS SHIPPED OR STORED SEPARATELY, PACK NI-CAD BATTERIES SEPARATELY AND PROTECT BATTERY TERMINALS.

(19B233711, Rev. 0)

## INSTALLATION INSTRUCTIONS

LOGIC STANDBY POWER BOARD