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LBI-4093D
(DE-4072)

INSTRUCTIONS FOR CARRIER OPERATED RELAY ASSEMBLY 19C303533G3 & G4 (OPTIONS 7610 & 9912)

Carrier Operated Relay Assembly 19C303533G3 (Option 7610) and 19C303533G4 (Option 9912) provide 4 form C contacts which may be used for controlling external circuits whenever a carrier is received. The 19C303533G3 relay assembly can be mounted on MASTER Station Power Supplies (Types KP-38-A & KP-39-A), Monitor Receivers (Types ER-51-A, ER-52-A & ER-53-A) or a MASTER® Desk Top Station Control Unit (Type EC-69-A, B) as shown on the Installation Diagrams. The 19C303533G4 assembly mounts in the MASTER® Executive II Station.

When the radio receiver is unquelled, a positive voltage (approximately 2 Volts) from the base of the receiver audio amplifier transistor turns on Q1 in the carrier operated relay circuit. Current flow in the collector circuit of Q1 forward biases Q2 causing it to conduct and energizes relay K1. Voltage "spikes" produced across K1 (when K1 de-energizes) are absorbed by diode CR1 to prevent damage to transistors Q1 and Q2.

PARTS LIST

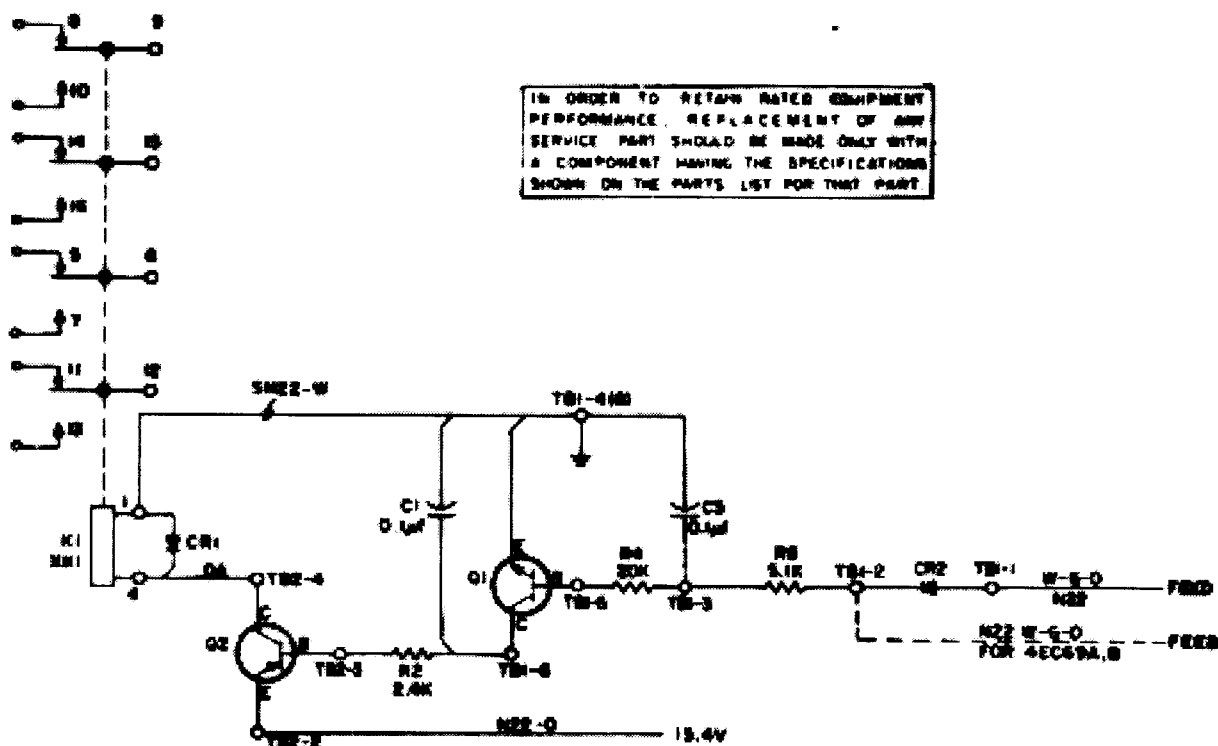
<u>Symbol</u>	<u>GE Part Number</u>	<u>Description</u>
- - - - -CAPACITORS- - - - -		
C1	19B209243P7	Polyester: 0.1 μ F \pm 20%, 50 VDCW.
C3	19B209243P7	Polyester: 0.1 μ F \pm 20%, 50 VDCW.
- - - - - DIODES- - - - -		
CR1	5494922P1	Silicon; sim to Type 1N456.
CR2	19A115250P1	Silicon.
- - - - -RELAYS - - - - -		
K1	5491595P14	Armature: 1.5 W operating, 520 ohms \pm 15% coil res, 4 form C contacts rated at 0.5 amp at 12 VDC; sim to Allied Control T154-X-131.
- - - - - TRANSISTORS - - - - -		
Q1	19A115123P1	Silicon: NPN; sim to Type 2N2712.
Q2	19A115706P1	Silicon: PNP.
- - - - -RESISTORS- - - - -		
R2	3R77-P242J	Composition: 2400 ohms \pm 5%, 1/2 W.

LBI-4003

PARTS LIST

<u>Symbol</u>	<u>GS Part Number</u>	<u>Description</u>
B4	3R77-P303J	Composition: 20,000 ohms $\pm 5\%$, 1/2 W.
B5	3R77-P512J	Composition: 5100 ohms $\pm 5\%$, 1/2 W.
- - - - - TERMINAL BOARDS - - - - -		
TB1	7487434P36	Miniature, phen: 6 terminals.
TB2	7775500P6	Phen: 4 terminals.
- - - - - SOCKETS - - - - -		
KK1	5491595P3	Relay: 16 contacts: sim to Allied Control 30054-2.
- - - - - MISCELLANEOUS - - - - -		
	5491595P9	Spring retainer: sim to Allied Control 30054-2. (Used with K1.)

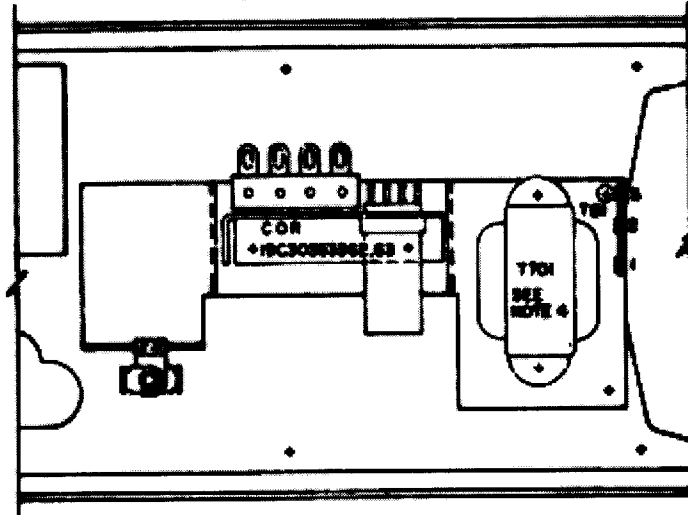
SCHEMATIC DIAGRAM



(19C317386, Rev. 4)

MOBILE RADIO DEPARTMENT
GENERAL ELECTRIC COMPANY
LYNCHBURG, VIRGINIA 24502

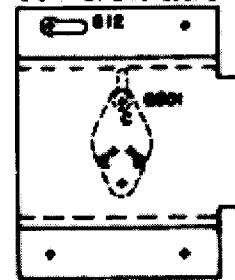
1 MASTER DESK TOP STATION CONTROL UNIT
EC-69-A & EC-69-B (SEE DETAIL D, SH. 2)



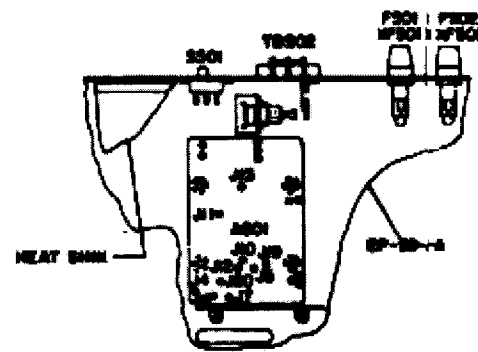
CONNECTION CHART FOR EC-69-A		
FROM COR TO EP-51-A WIRE COLOR		
T82-2	T8001-3	RED-0
T81-2	T8001-4	RED-W-B-0
SEE NOTE 6, DETAIL C		
T82-1	EC-69-A	RED BK
T81-1	T8001-3	RED BK

CONNECTION CHART FOR EC-69-B		
FROM COR TO EP-59-A WIRE COLOR		
T82-2	T8001-3	RED-0
T81-2	EP-59A-ASO-4	RED-W-B-0
SEE NOTE 6, DETAIL C		
T82-1	EP-69-B T81-3	RED BK

SOLDER WIRE FROM
COR T81-2 TO 600-0

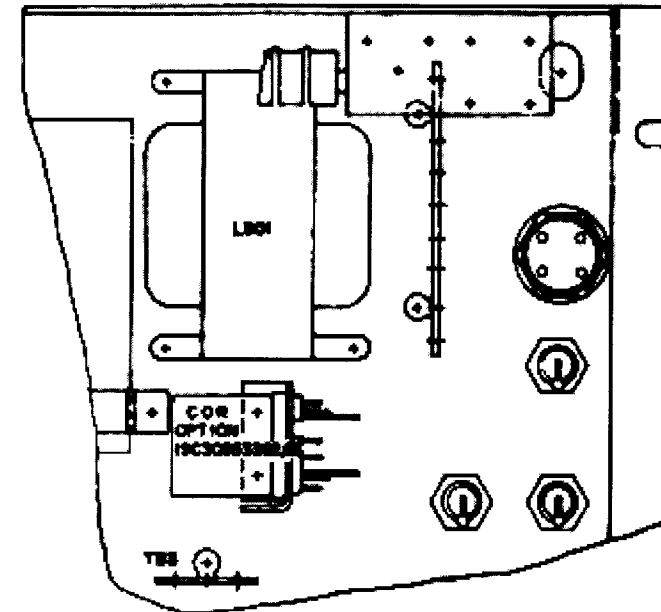


DETAIL "A"



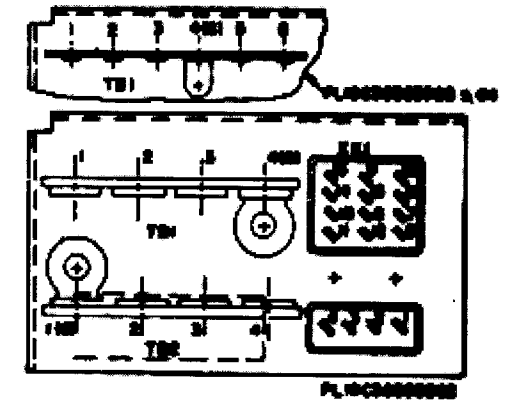
DETAIL "C"
BOTTOM VIEW OF EP-59-A

3 MASTER STATION POWER SUPPLY
4EP38A10,11



CONNECTION CHART		
FROM COR TO EP-59-A WIRE COLOR		
T82-2	T8001-3	RED-0
T81-1	T8001-4	RED-W-B-0

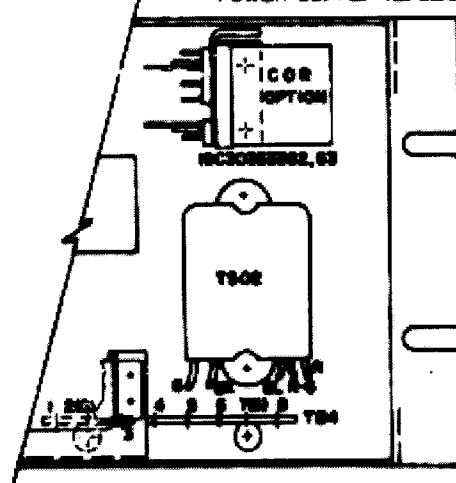
COR ASSEMBLY
(TERMINAL VIEW)



GENERAL NOTES

- FOR CONNECTIONS TO TERMINAL BOARDS CUT LEADS TO APPROPRIATE LENGTH AND ADD TERMINAL, FURNISHED.
- HEAVY C.O.R. ASSEMBLY WITH HARDWARE FURNISHED.
- WIRES FROM C.O.R. SHOULD BE PLACED IN A NEAT MANNER, TACK LACED TO EXISTING HARNESS IF POSSIBLE.
- T701 IS NOT PRESENT IN 4EC69B.
- RED W.G.O. WIRE TO BE WRAPPED & SOLDERED TO P505. P505 CONNECTS TO 4601-J6 WITH A W.G.O. WIRE.
- FOR APPLICATION OF C.O.R. TO 4EC69A, B, WIRE THE RED W.G.O. WIRE, NORMALLY CONNECTED TO T81-1, TO T81-2.

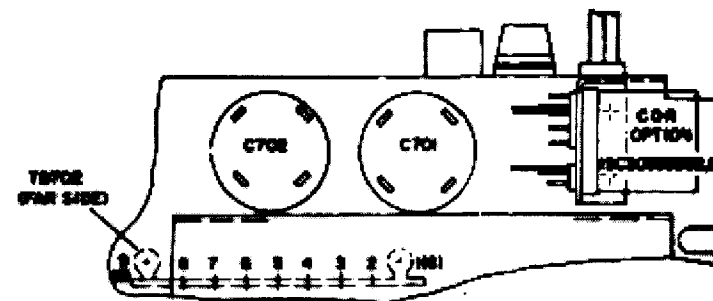
2 MASTER 2ND RECEIVER
POWER SUPPLY 4EP38A10



CONNECTION CHART		
FROM COR TO EP-59-B WIRE COLOR		
T82-2	T8001-3	RED-0
T81-1	T8001-4	RED-W-B-0

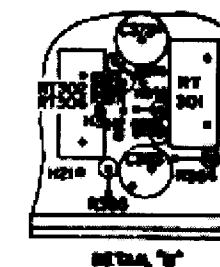
IF T84 IS NOT LOCATED AS SHOWN
UNSOLDER ALL WIRES AND COMPONENTS
FROM T84 AND ROTATE T84 180°
RESOLDER WIRES AND COMPONENTS
IN APPROPRIATE LOCATIONS.

4 MONITOR RECEIVER CHASSIS
18C31001



CONNECTION CHART		
FROM COR TO		
T82-2	T8702-5	RED-0
T81-1	LOW BAND RIGHT END NEAR RT302	RED-W-B-0
	HIGH BAND RIGHT END NEAR RT302	
	480 MHZ RIGHT END NEAR RT302	
	SEE DETAIL "B"	

MONITOR RECEIVER
BOARD



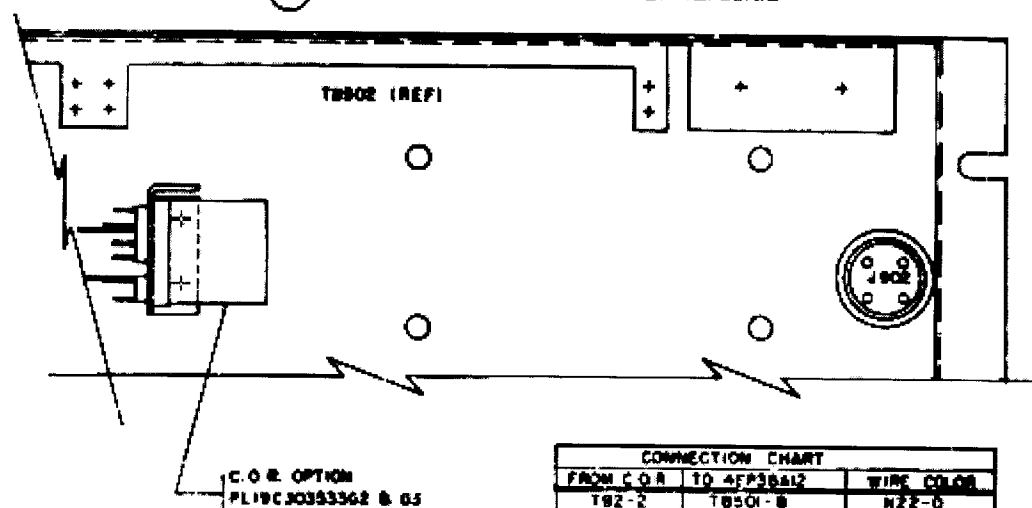
DETAIL "B"

INSTALLATION DIAGRAM

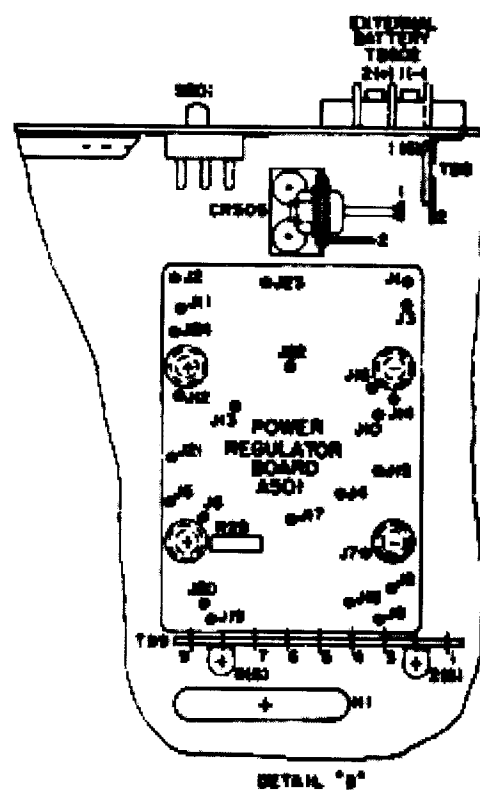
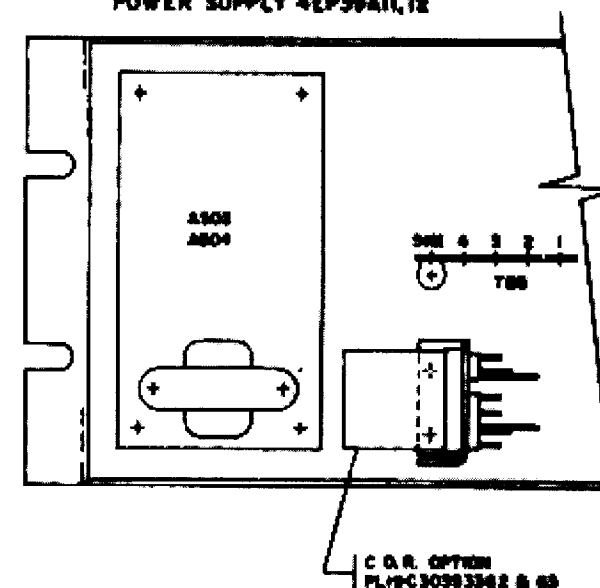
CARRIER OPERATED RELAY ASSEMBLY
19C303533G3 (OPTION 7610)

(19D402880, Sh. 1, Rev. 11) 3

⑥ MASTER STATION POWER SUPPLY 4EP38A12



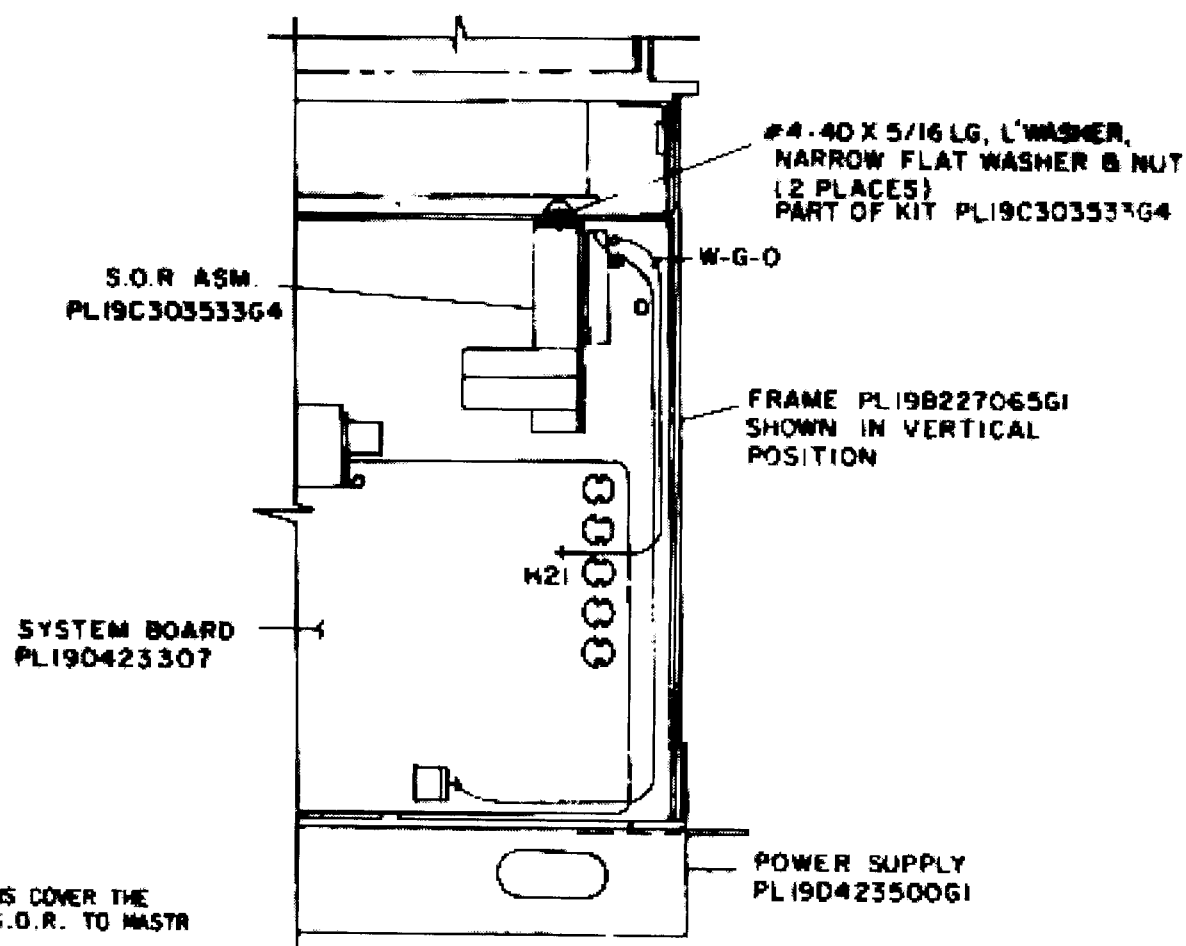
⑤ MASTER 2ND RECEIVER POWER SUPPLY 4EP38A11,12



CONNECTION CHART		
FROM C.O.R.	TO 4EP78A	WIRE COLOR
T82-2	T8501-2	N22-0
T81-2	A501-J1	N22-W-6-0
T82-1	EC-42-2 T8501-15	N22-W-6-0

INSTALLATION DIAGRAM

CARRIER OPERATED RELAY ASSEMBLY
19C303533G3 (OPTION 7610)



THESE INSTRUCTIONS COVER THE
INSTALLATION OF S.O.R. TO MASTER
EXEC II STATION.

INSTRUCTIONS:

1. MOUNT AS SHOWN.
2. SOLDER ORANGE WIRE TO HOLE 20,
AND W-G-O WIRE TO HOLE 21, ON
SYSTEM BOARD.

BOTTOM VIEW OF
RADIO FRAME

(19B227065, Rev. 31)

INSTALLATION DIAGRAM

CARRIER OPERATED RELAY ASSEMBLY
19C303533G4 (OPTION 9912)