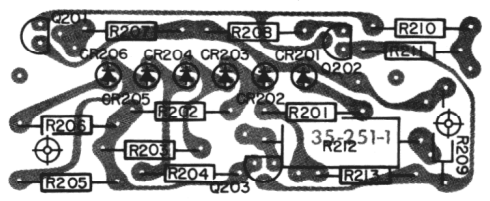


- NOTES:
1. ALL RESISTOR VALUES IN OHMS UNLESS OTHERWISE SPECIFIED.
 2. ALL CAPACITOR VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
 3. VOLTAGES TAKEN USING 10 MΩ INPUT VTVM, MEASURED WITH RESPECT TO CHASSIS GROUND.
 4. ○ = RF VOLTAGE READINGS TAKEN WITH BOONTON 91C RF VOLT METER (100:1 PROBE), UNMODULATED 3-7 WATT RF POWER OUTPUT.
 5. □ = SQUELCHED CONDITION VOLTAGE READING.
 6. ALL VOLTAGES ON DIODES SHOWN IN RECEIVE CONDITION.
 7. S2A AND B ARE SHOWN IN CHANNEL ONE POSITION AS VIEWED FROM THE KNOB END OF SHAFT.
- ▲ S100 AND ASSOCIATED CIRCUITRY LOCATED BETWEEN J3 AND S1 AS PER DETAIL ▲.
 MESSENGER 1235J CIRCUIT GROUND IS ISOLATED FROM CHASSIS COMMON.
 ▲ C91 AND C92 ARE USED ONLY ON THE 242-0123-504 MODELS.

CRYSTAL SYNTHESIZER SCHEME

CHANNEL	HF CRYSTAL	RECEIVE L.F. CRYSTAL	RECEIVE OUTPUT	TRANSMIT L.F. CRYSTAL	TRANSMIT OUTPUT
1	32.700	6.1904	26.5096	5.735	26.965
2	32.700	6.1804	26.5196	5.725	26.975
3	32.700	6.1704	26.5296	5.715	26.985
4	32.700	6.1504	26.5496	5.695	27.005
5	32.750	6.1904	26.5596	5.735	27.015
6	32.750	6.1804	26.5696	5.725	27.025
7	32.750	6.1704	26.5796	5.715	27.035
8	32.750	6.1504	26.5996	5.695	27.055
9	32.800	6.1904	26.6096	5.735	27.065
10	32.800	6.1804	26.6196	5.725	27.075
11	32.800	6.1704	26.6296	5.715	27.085
12	32.800	6.1504	26.6496	5.695	27.105
13	32.850	6.1904	26.6596	5.735	27.115
14	32.850	6.1804	26.6696	5.725	27.125
15	32.850	6.1704	26.6796	5.715	27.135
16	32.850	6.1504	26.6996	5.695	27.155
17	32.900	6.1904	26.7096	5.735	27.165
18	32.900	6.1804	26.7196	5.725	27.175
19	32.900	6.1704	26.7296	5.715	27.185
20	32.900	6.1504	26.7496	5.695	27.205
21	32.950	6.1904	26.7596	5.735	27.215
22	32.950	6.1804	26.7696	5.725	27.225
23	32.950	6.1504	26.7996	5.695	27.255

NOTE: All frequencies are in MHz.



LED METER BOARD
SOLDER SIDE VIEW

MESSENGER 123A AND 123S SCHEMATIC DIAGRAM
(FOR M123A WITH "H" OR LATER AND M123S WITH "C" OR LATER
REVISION LETTER DESIGNATOR ON SERIAL NUMBER STICKER)