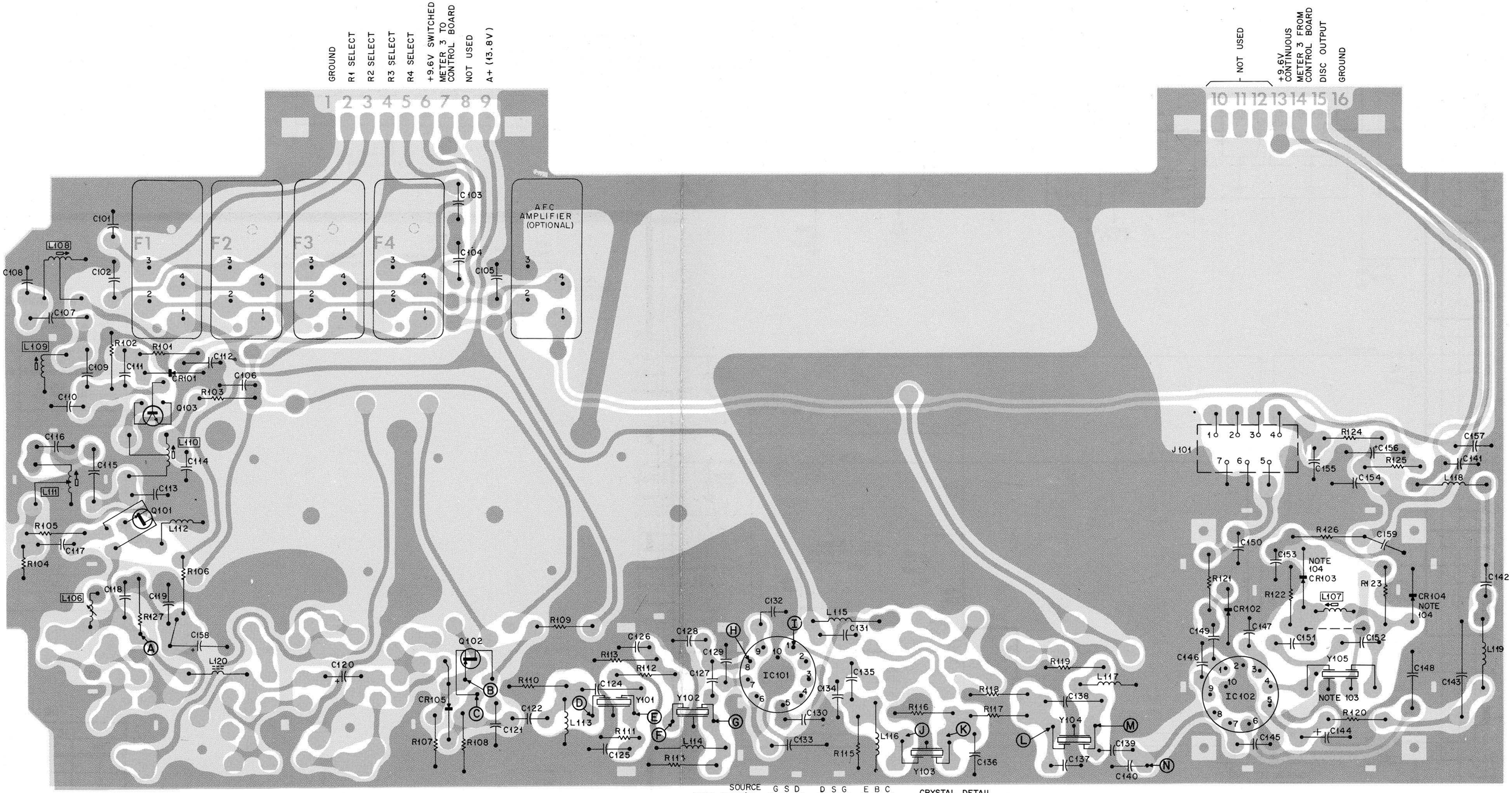
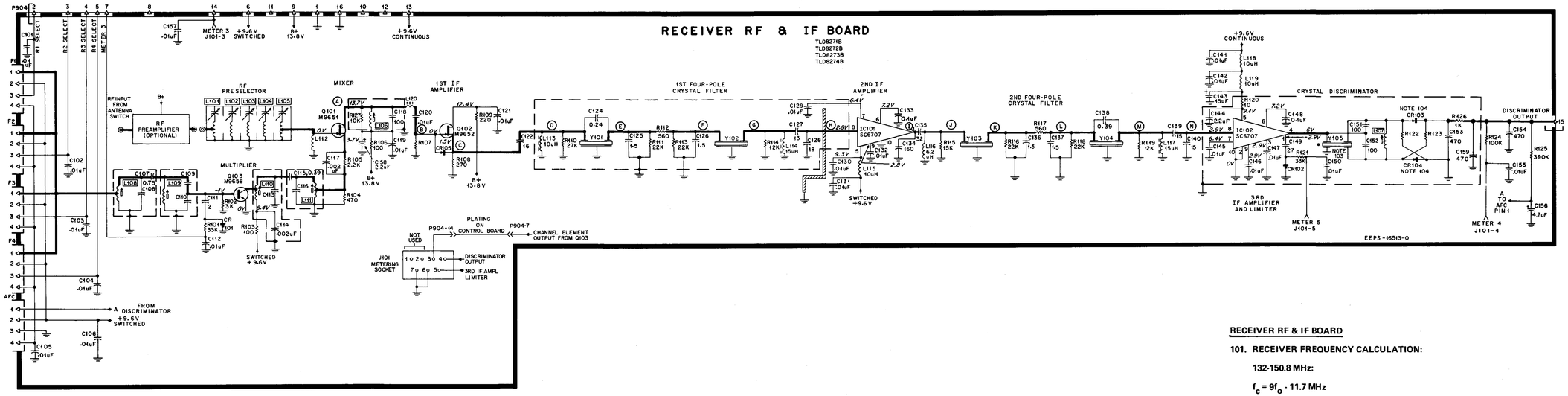

GROUND
R1 SELECT
R2 SELECT
R3 SELECT
R4 SELECT
+9.6V SWITCHED METER 3 TO CONTROL BOARD
NOT USED
A+ (13.8V)
NOT USED
+9.6V CONTINUOUS METER 3 FROM CONTROL BOARD
DISC OUTPUT
GROUND
1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16
AFC AMPLIFIER (OPTIONAL)
F1
F2
F3
F4
IC101
IC102
J101
Y101
Y102
Y103
Y104
Y105
Q101
Q102
Q103
CR101
CR102
CR103
CR104
CR105
NOTE 104
NOTE 103
SHOWN FROM SOLDER SIDE
WHT DOT
SOURCE
GATE DRAIN
(CODED BRN)
G S D
D S G
E B C
ALL OTHERS
TRANSISTOR DETAILS
M9651
CRYSTAL DETAIL
(Y105)
IMPORTANT– ORIENT INDEX DOT ON TOP OF CAN AS SHOWN ON CIRCUIT BOARD DETAIL
COMPONENT SIDE
SOLDER SIDE
BD-EEPS-6418-C
OL-EEPS-16514-A

NON-"EXTENDER" RECEIVER RF VOLTAGE TABLE

SET RF INPUT AT ANT. TO OBTAIN (NOTE 105)	AT TEST POINT	RF INPUT SHOULD BE (MAY VARY APPROX. 2 TO 1)
300 mV	A	13 mV
	B	13 mV
50 mV	C	8 mV
	D	3 mV
	E	4 mV
	F	5 mV
	G	5 mV
	H	13 mV
	I	50 uV
	J	10 uV
	K	14 uV
	L	20 uV
	M	21 uV
	N	72 uV

EPS-6370-B



DC VOLTAGE TABLE FOR IC'S

IC101 PIN	IC101 VOLTAGE	IC102 PIN	IC102 VOLTAGE
1	2.8 V	1	2.9 V
5	9.3 V	2	0 V
6	7.2 V	3	2.9 V
7	6.4 V	4	6 V
8	2.8 V	5	9.1 V
9	2.8 V	6	7.2 V
10	0 V	7	6.4 V
		8	2.9 V
		9	2.9 V
		10	0 V

EPS-6360-A

RECEIVER RF & IF BOARD COMPONENT VALUES

REFERENCE SYMBOL	132-142 MHz	142-150.8 MHz	150.8 - 162 MHz	162-174 MHz
C108	30	27	30	27
C109	56	47	56	47
C110	100	80	100	80
C113	10	7.5	10	7.5
C116	10	7.5	10	7.5
R107	8.2K	8.2K	12K	12K
R122	8.2K	8.2K	10K	10K
R123	15K	15K	8.2K	8.2K

EPS—6487—D

RECEIVER RF & IF BOARD

101. RECEIVER FREQUENCY CALCULATION:

132-150.8 MHz:

$$f_c = 9f_o - 11.7\ \text{MHz}$$

$$f_o = \frac{f_c + 11.7\ \text{MHz}}{9}$$

150.8-174 MHz

$$f_c = 9f_o + 11.7\ \text{MHz}$$

$$f_o = \frac{f_c - 11.7\ \text{MHz}}{9}$$

WHERE: f_c = CARRIER FREQUENCY f_o = CHANNEL ELEMENT FREQUENCY

102. DASHED LINES REPRESENT SHIELDING.
103. INDEX DOT ON Y105 CRYSTAL CAN INDICATES PHYSICAL ORIENTATION REQUIRED.
104. DIODES CR103 AND CR104 ARE SHOWN FOR 150.8-174 MHz MODELS. REVERSE POLARITY OF THESE DIODES FOR 132-150.8 MHz MODELS.
105. RF VOLTAGES TAKEN WITH MOTOROLA SOLID-STATE DC MULTIMETER WITH PLUG-IN RF PROBE.
106. UNLESS OTHERWISE STATED: CAPACITOR VALUES ARE IN PICOFARADS. RESISTOR VALUES ARE IN OHMS.
107. UNLESS OTHERWISE STATED, VOLTAGE MEASUREMENTS ARE FOR DC VOLTAGES MEASURED WITH AN 11 MEGOHM INPUT RESISTANCE VOLTMETER IN RESPECT TO CHASSIS GROUND.

TLD8270B Series Receiver RF & IF Board
Schematic Diagram
Motorola No. PEPS-16512-B
(Sheet 2 of 3)
10/14/76-UP

EPS-6240-B