

———— RECEIVE
 - - - - - TRANSMIT

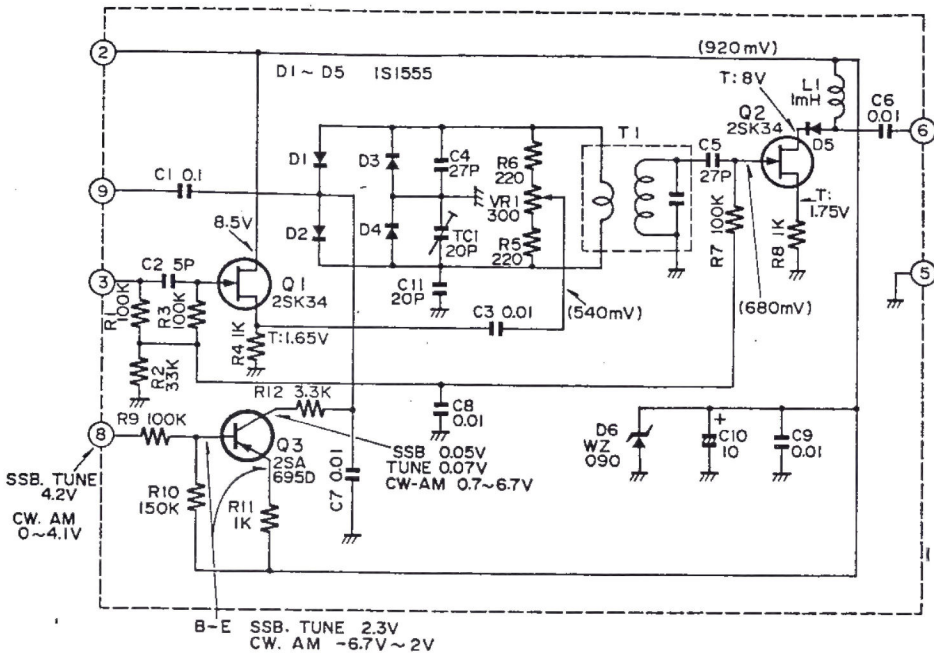
- 40m 11.0MHz
- 15m 35.5MHz
- 10mA (42.5MHz)
- 10mB 43.0MHz
- 10mC (43.5MHz)
- 10mD (44.0MHz) (OPTION)

BLOCK DIAGRAM

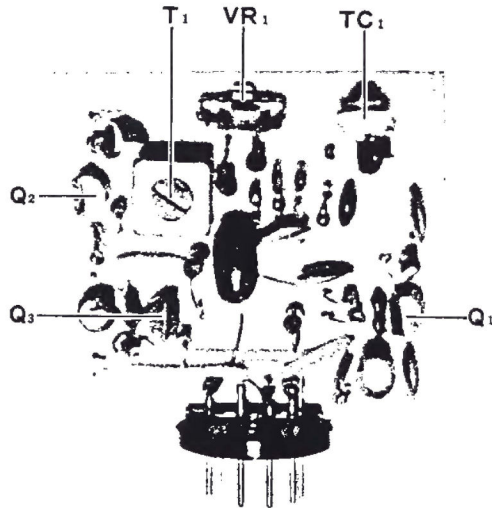
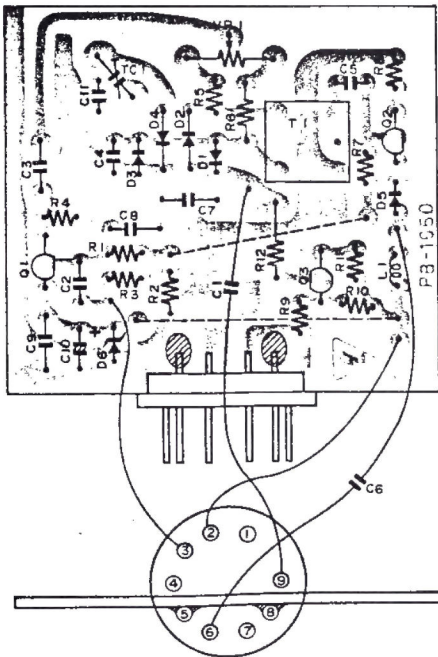
FT-200
 FT-250
 TEMPO ONE

BALANCED MODULATOR UNIT

REF DESIG	NAME			RATING/ DESCRIPTION
PB	PRINTED CIRCUIT BOARD			PB-1650
Q 1	FET			2SK34E
2	"			2SK34E
3	TRANSISTOR			2SA695D
D 1	SILICON DIODE			1S1555
2	" "			1S1555
3	" "			1S1555
4	" "			1S1555
5	" "			1S1555
6	ZENER	"		WZ090
R 1	RESISTOR	CARBON FILM	1/4W	100K Ω
2	"	" "	"	33K Ω
3	"	" "	"	100K Ω
4	"	" "	"	1K Ω
5	"	" "	"	220 Ω
6	"	" "	"	220 Ω
7	"	" "	"	100K Ω
8	"	" "	"	1K Ω
9	"	" "	"	100K Ω
10	"	" "	"	150K Ω
11	"	" "	"	1K Ω
12	"	" "	"	3.3K Ω
VR 1	POTENTIOMETER	EVL-SOA 00B32		300 Ω B
C 1	CAPACITOR	MYLAR	50WV	0.1 μ F
2	"	DIPPED MICA	"	5PF
3	"	CERAMIC DISC	"	0.01 μ F
4	"	DIPPED MICA	"	27PF
5	"	" "	"	27PF
6	"	CERAMIC DISC	"	0.01 μ F
7	"	" "	"	0.01 μ F
8	"	" "	"	0.01 μ F
9	"	" "	"	0.01 μ F
10	"	ELECTROLYTIC	16WV	10 μ F
11	"	DIPPED MICA	50WV	20PF
TC 1	TRIMMER CAPACITOR	ECV-1ZW 20x40		20PF
T 1	TRANSFORMER	R12-4171A		
L 1	MICRO INDUCTOR	1mH		
P 1	9 PIN PLUG	SI 8501		



) Signal level.



BM UNIT (PB-1650)

BM Unit (PB-1650)

Viewed from Solder Side

Transmitting Section (Page 2)

The carrier signal generated by carrier oscillator V106, 12AU7 is fed through a buffer Q1, 2SK34 to a balanced modulator D1 - D4, 1S1555.

The speech signal is amplified by a microphone amplifier V105, 12AX7A and is also fed through pin 9 to the balanced modulator.

The modulated signal, which is a double sideband signal, is fed through a buffer amplifier Q2, 2SK34 to a crystal filter XF101 where unwanted sideband is rejected.

On AM and CW modes, a CARRIER control potentiometer on the rear panel is set in such a way so that the collector voltage of carrier controller Q3, 2SA695D is used to unbalance the balanced modulator producing the carrier signal.

TRANSMITTER ALIGNMENT (Page 13)

1. Balanced modulator

Connect a dummy load to the antenna connector. Set the FUNCTION switch to TUNE and the meter switch to PO position. Tune up the transmitter for a maximum PO meter reading.

Peak T1 for a maximum output. Set the MODE switch to SSB and MIC GAIN to a fully counter-clockwise position. Peak VR1 and TC1 for a minimum power output.

Repeak VR1 and TC2 alternately with the sideband switch at NOR and REV positions until same carrier suppression is obtained.