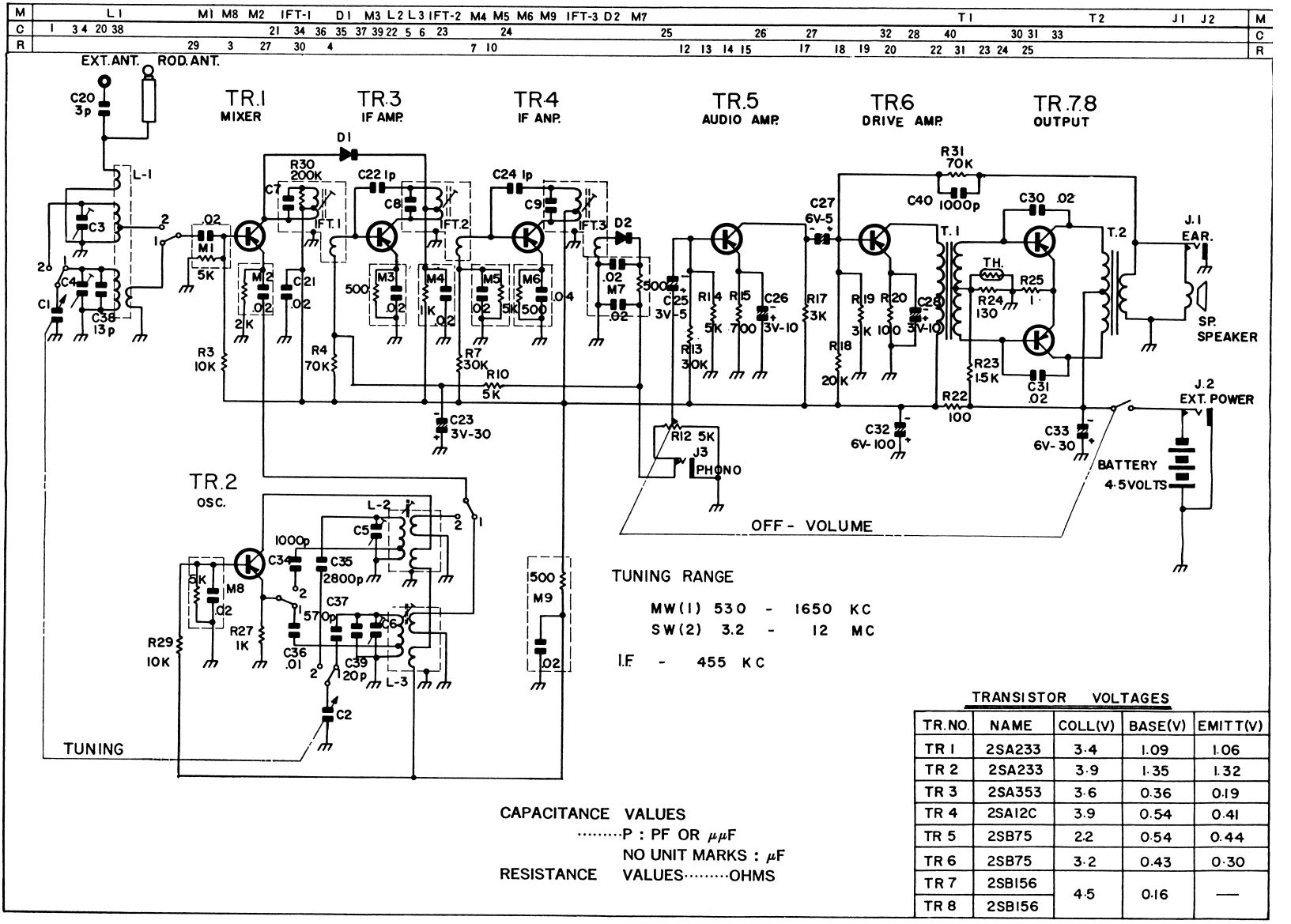


TUNING RANGE

MW(1) 530 - 1650 KC
SW(2) 3.2 - 12 MC

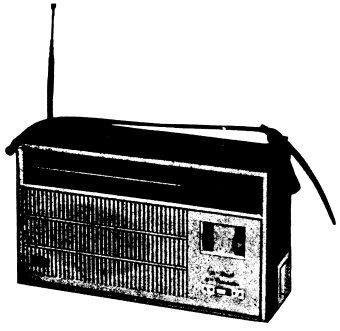
I.F - 455 KC

CAPACITANCE VALUES
.....P : PF OR μμF
NO UNIT MARKS : μF
RESISTANCE VALUES.....OHMS

TRANSISTOR VOLTAGES

TR.NO.	NAME	COLL(V)	BASE(V)	EMITT(V)
TR 1	2SA233	3.4	1.09	1.06
TR 2	2SA233	3.9	1.35	1.32
TR 3	2SA353	3.6	0.36	0.19
TR 4	2SA12C	3.9	0.54	0.41
TR 5	2SB75	2.2	0.54	0.44
TR 6	2SB75	3.2	0.43	0.30
TR 7	2SB156	4.5	0.16	—
TR 8	2SB156			

S173



MODEL
BX-385

SPECIFICATIONS

Frequency Range
- MW ..... 530~1650KC
- SW ..... 3.2~12MC

Intermediate Frequency 455KC

Power Supply ..... UM-1×3(4.5V)

Power Output
- Undistorted 350MW
- Maximum 500MW

Speaker ..... $4\frac{15}{16}$″×$2\frac{13}{16}$″PM

Transistor Complement
- TR.1 2SA233 ..... Mixer
- TR.2 2SA233 ..... Oscillator
- TR.3 2SA353 ..... 1st IF Amplifier
- TR.4 2SA12C ..... 2nd IF Amplifier
- TR.5 2SB75 ..... AF Amplifier
- TR.6 2SB75 ..... Audio Driver
- TR.7 2SB156 ..... Output
- TR.8 2SB156 ..... Output

GENERAL DESCRIPTION

The circuitry used in this portable radio incorporates 8 transistors, 2 diodes and 1 thermistor. A bar antenna feeds the MW/SW broadcast signal to the mixer. A rod antenna feeds the SW broadcast signal to the mixer. Local oscillator voltage is fed back to the mixer.

After going through 2 IF amplifiers and 1 diode detector, the signal passes through a 4 transistor audio amplifier circuit.

An AM amplified AGC voltage is fed back to lst IF amplifier.

CHASSIS REMOVAL

1. Remove 2 screws located on the back cover and lift back cover.
2. Remove battery compartment cover and pull out battery pack.
3. Remove 4 screws located on the printed circuit board.
4. Remove dial cord from indication angle.
5. Exercise caution when removing the chassis to avoid puncturing the speaker cone.

ALIGNMENT INSTRUCTION

Should it become necessary at any time to check the alignment of this receiver, proceed as follows:

1) Connect an output meter across the speaker voice coil lugs.
2) Set volume control to maximum.
3) Use the lowest setting of signal generator capable of producing adequate indication on the lowest scale of output meter.
4) Use a non-metallic alignment tool.
5) Repeat adjustments to insure good results.

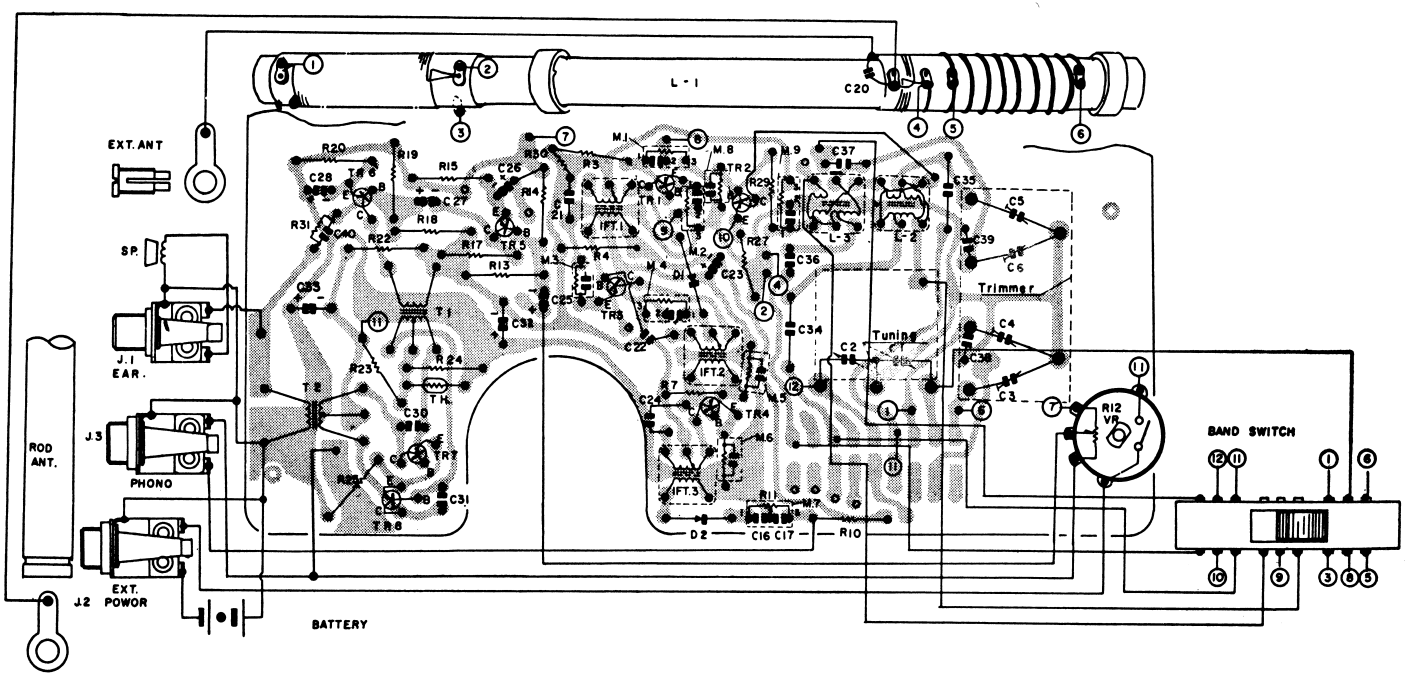
ALIGNMENT CHART

SIGNAL GENERATOR				RECEIVER		ADJUST
Step	Band	Connection to receiver	Input signal frequency	Dial setting	Remarks	
1	M.W.	Connect signal generator through a 10KΩ dummy to the antenna tuning condenser. Ground lead to the receiver chassis.	Exactly 455KC. (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Adjust for maximum output on speaker voice coil lugs.	3rd-IF Trans. core 2nd-IF Trans. core 1st-IF Trans. core
2	M.W.	Use radiating loop. Loop of several turns of wire, or place generator lead close to receiver for adequate signal pick up. Connect generator output to one end of this wire.	Exactly 520KC. (400%, 30%, AM modulated.)	Tuning gang fully closed. (Maximum capacity)	Same as step 1.	MW Oscillator core L-3
3	M.W.	Same as step 2.	Exactly 1680KC. (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Same as step 1.	MW Oscillator trimmer C6
4	M.W.	Same as step 2.	Exactly 600KC. (400%, 30%, AM modulated.)	600 KC	See NOTE A	
5	M.W.	Same as step 2.	Exactly 1400KC. (400%, 30%, AM modulated.)	1400 KC	Same as step 4.	MW Antenna trimmer C4
6	M.W.	Repeat steps 2,3,4 and 5 until no further improvement is obtained.				
7	S.W.	Same as step 2.	Exactly 3.05MC (400%, 30%, AM modulated)	Tuning gang fully closed (maximum capacity)	Same as step 1.	SW Oscillator core L-2
8	S.W.	Same as step 2.	Exactly 12.2MC (400%, 30%, AM modulated)	Tuning gang fully open (minimum capacity)	Same as step 1.	SW Oscillator trimmer C5
9	S.W.	Same as step 2.	Exactly 3.7MC (400%, 30%, AM modulated)	3.7MC	Same as step 4.	
10	S.W.	Same as step 2.	Exactly 10MC (400%, 30%, AM modulated)	10MC	Same as step 4.	SW Antenna trimmer C3
11	S.W.	Repeat steps 12, 13, 14 and 15 until no further improvement is obtained.				

NOTE

Check alignment of receiver antenna coil by bringing a piece of powdered iron (such as a coil slug) near the antenna loop stick, then a piece of brass. If powdered iron increases output, loop requires more inductance. If brass increases output, loop requires less inductance, change loop inductance by sliding the bobbin toward the center of ferrite core to increase inductance, or away to decrease inductance.

BOTTOM VIEW OF PRINTED CIRCUIT BOARD



DIAL CORD STRINGING