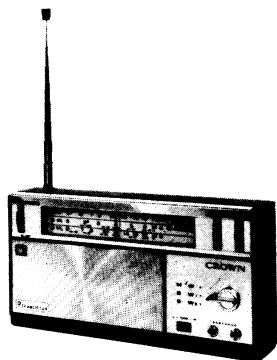


CROWN

CROWN MODEL TR-950 C17

3-BAND 9-TRANSISTOR PORTABLE RADIO MODEL TR-950



SPECIFICATIONS

MODEL:
TR-950

CIRCUIT:
9 Transistor, 3 Band, Superheterodyne

MAIN PARTS:

Transistor 2SA350 (converter)
2SA234 (oscillator)
2SA12 x 2 (IF amplifier)
2SB75 x 2 (AF amplifier)
2SB75 (driver)
2SB77 x 2 (power amplifier)

Thermistor CS-120 x 2 (temperature compensator)

Diode 1N34A (detector)

Band Selector Switch. 8 circuit 3 position, rotary

Bar Antenna ferrite, 10 $\frac{1}{2}$ x 100m/m

Tone Switch 2 circuit 2 position, slide

Variable Condenser. 2 gang, equal capacitance, Poly.

Variable Resistor... 5k Ω , "A" curve, w/switch

Battery Indicator ... DC meter

Cabinet styrole molded

Dial string drive (gear type), slide rule

RATING & PERFORMANCE:

Frequency Range ... MW 535 - 1605kc
SW1 2 - 6Mc
SW2 6 - 18Mc

IF 455kc

Output Power undistorted: 230mW or over
maximum: 350mW or over

Power Source 6V, 1.5V x 4, penlight battery

Sensitivity(maximum).MW: 33dB \pm 4dB/1000kc
SW1: 34dB \pm 4dB/3.8Mc
SW2: 20dB \pm 4dB/11Mc
Condition: W=10mW, dummy ant. used for SW2.

Sensitivity (usable) ..MW: 41dB \pm 4dB/1000kc
SW1: 38dB \pm 4dB/3.8Mc
SW2: 20dB \pm 4dB/11Mc
Condition: S/N=10dB

S/N Ratio MW: 30dB \pm 4dB/1000kc
SW1: 32dB \pm 4dB/3.8Mc
SW2: 32dB \pm 4dB/11Mc
Condition: input=60dB (44dB for SW2)

Selectivity more than 20dB (detuning= \pm 10kc)

Electrical Frequency Response ... 200 - 3000c/s, -5dB

Current Consumption..no signal time: 13mA \pm 5mA
usable output: 74mA \pm 10mA
maximum output: 91mA \pm 10mA

Non-working Voltage. 3V or lower

OTHERS:

Dimensions 8-7/16 x 4-5/16 x 1-9/16

Weight 1.7 lbs

REPLACEMENT PARTS

Symbol No.	Description	Symbol No.	Description	Symbol No.	Description
TRANSISTORS					
Q1	2SA350	R10	12k Ω	C7	Electrolytic, 100, 6vw
Q2	2SA234	R11	4.7k Ω	C8	Polyethylene, 330pf
Q3	2SA12	R12	1k Ω	C9	Mylar, 0.01
Q4	2SA12	R13	560 Ω	C10	Polyethylene, 1500pf
Q5	2SB75	R14	4.7k Ω	C11	Mylar, 0.0022
Q6	2SB75	R15	82 Ω	C12	Polyethylene, 3900pf
Q7	2SB75	R16	68k Ω	C13	Mylar, 0.001
Q8	2SB77	R17	6.8k Ω	C14	Ceramic, 0.02
Q9	2SB77	R18	150 Ω	C15	" 7pf
THERMISTORS					
THR1	CS-120	R19	3.9k Ω	C16	" 12pf
THR2	CS-120	R20	4.7k Ω	C17	" 7pf
DIODE					
D	1N34A	R21	15k Ω	C18	Electrolytic, 30, 3vw
RESISTORS					
Fixed compositions, 1/2w, \pm 10%, unless otherwise specified.					
R1	4.7k Ω	R22	3.3k Ω	C20	" 0.02
R2	27k Ω	R23	560 Ω	C21	" 5pf
R3	2.7k Ω	R24	10 Ω	C22	" 0.02
R4	1k Ω	R25	330 Ω	C23	" 4pf
R5	8.2k Ω	R26	1.8k Ω	C24	" 0.02
R6	3.3k Ω	R27	1.8k Ω	C25	Electrolytic, 1, 6vw
R7	1k Ω	R28	100 Ω	C26	Mylar, 0.039
R8	82k Ω	CAPACITORS			
R9	560 Ω	All capacitor values in μ f unless otherwise specified.			
C1	Ceramic, 12pf	C27	" 0.001	C28	Electrolytic, 1, 6vw
C2	" 0.02	C29	" 5, 6vw	C30	Ceramic, 0.01
C3	Mylar, 0.01	C31	" 0.01	C32	Electrolytic, 100, 6vw
C4	Ceramic, 0.02	C33	Ceramic, 0.04	C34	Electrolytic, 150, 6vw
C5	Electrolytic, 150, 6vw	C34	Electrolytic, 150, 6vw	C35	" 150, 6vw
C6	Ceramic, 0.02				

REPLACEMENT PARTS

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
CC1	AM-W-39	Compound Element, 0.01 x 2	FVC	AM-VC-84	Variable Condenser, fine tuning
L1&L2	AM-LA-152	MW Antenna Coil, 265 μ H/SW2 Antenna Coil, 20 μ H	JA	J-0501	Earphone Jack
L3	AM-LA-153	SW2 Antenna Coil, 1.9 μ H	JB	J-0501	Earphone Jack
L4	AM-LO-102	MW Oscillator Coil, 140 μ H	L	AM-Q-3	Dial Lamp
L5	AM-LO-103	SW1 Oscillator Coil, 17 μ H	M	502	Battery Indicator Meter
L6	AM-LO-104	SW2 Oscillator Coil, 1.8 μ H	S1-S8	AM-S-3	Rotary Switch, 8 circuit 2 position
L7	AM-LI-58	IF Transformer, 50k Ω : 800 Ω	ST	AM-S-77	Slide Switch, 2 circuit 2 position
L8	AM-LI-27	IF Transformer, 30k Ω : 500 Ω	SL	Z-504	Push Switch
L9	AM-LI-54	IF Transformer, 15k Ω : 5k Ω	B1	AM-K-40	Rod Antenna, 10 step
T	AM-T-148	Input Transformer, 5k Ω : 1.5k Ω x 2	B2	AM-B-143	Printed Board (small)
SP	AM-P-52	Speaker, z=16 Ω		AM-B-144	Printed Board (large)
VR1	AM-VR-50	Variable Resistor, 5k Ω , "A" curve, w/switch		AM-E-1	Earphone
VR2	AM-VR-116	Semi-fixed Resistor, 5k Ω			
VC	AM-VC-81	Variable Condenser, max=330pf			

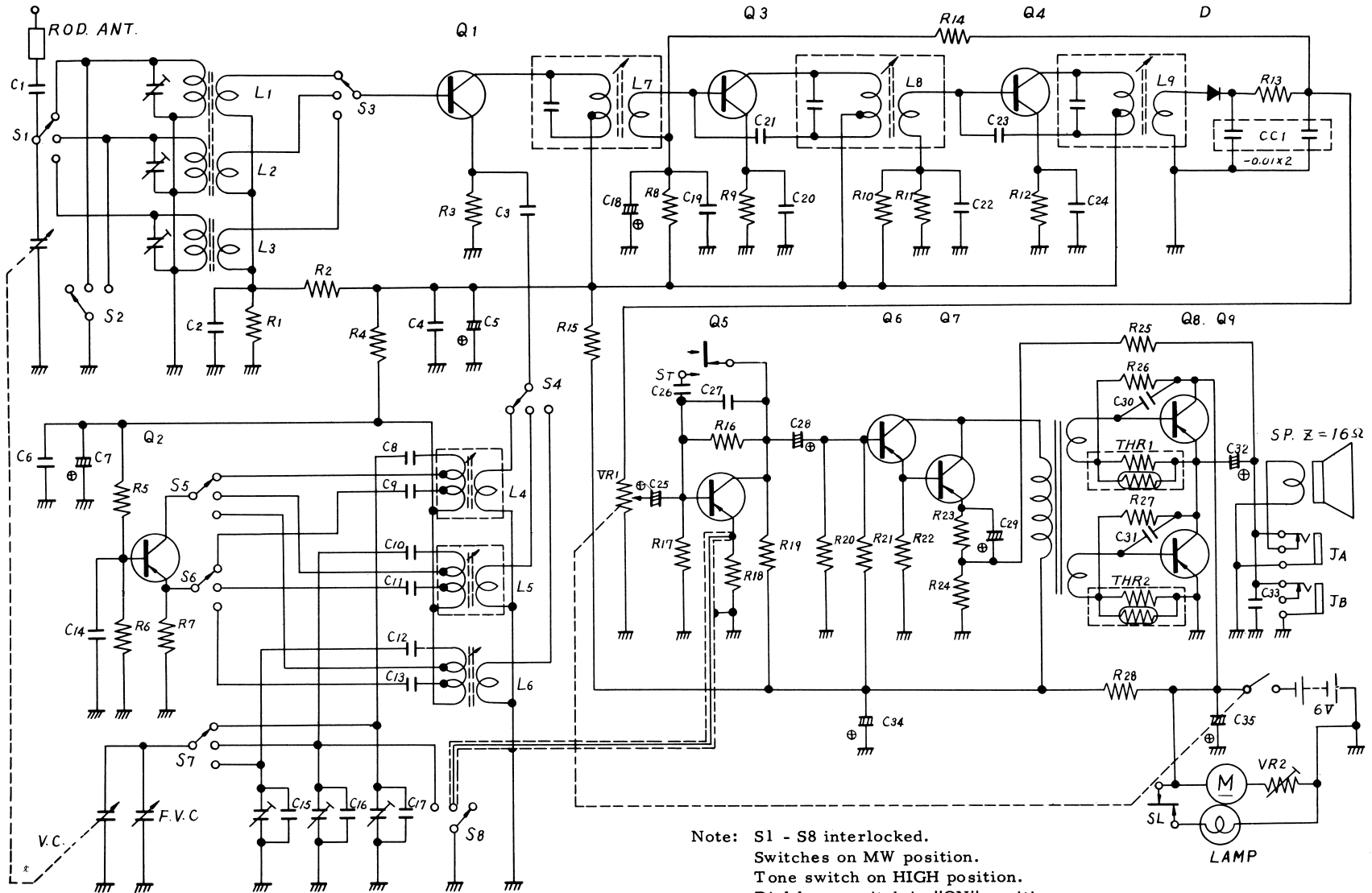
VOLTAGE & CURRENT MEASUREMENT DATA

	Collector (V)	Base (V)	Emitter (V)	Emitter (mA)	Collector (V)	Base (V)	Emitter (V)	Emitter (mA)
Q1	5.0	0.7	0.74	0.27	Q6	4.7	1.2	1.1
Q2	3.7	1.05	1.0	1.0	Q7			0.95
Q3	5.05	0.42	0.28	0.5	Q8	6.0	3.1	1.7
Q4	5.1	1.3	1.2	1.2	Q9	3.0	0.17	
Q5	3.0	0.2	0.08	0.56				

Voltage measured by test-meter (DC 20k Ω /V, at no signal time)



CROWN RADIO CORPORATION



Note: S1 - S8 interlocked.
 Switches on MW position.
 Tone switch on HIGH position.
 Dial lamp switch in "ON" position.

Fig. 1

CHASSIS LAYOUT
(Component Side)

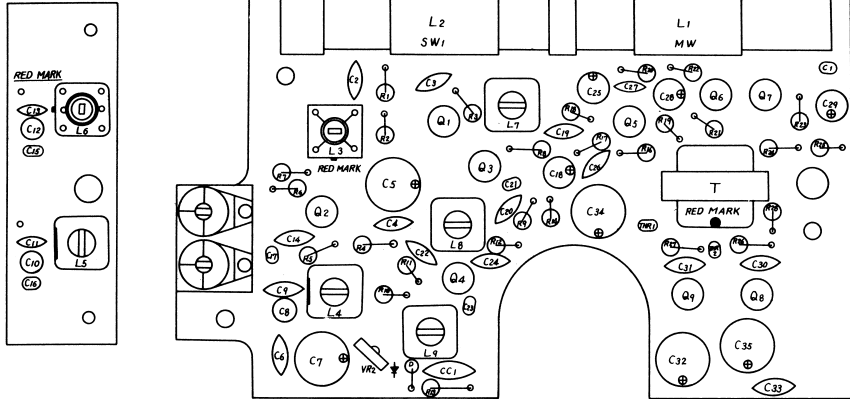


Fig. 2

CHASSIS LAYOUT
(Wiring Side)

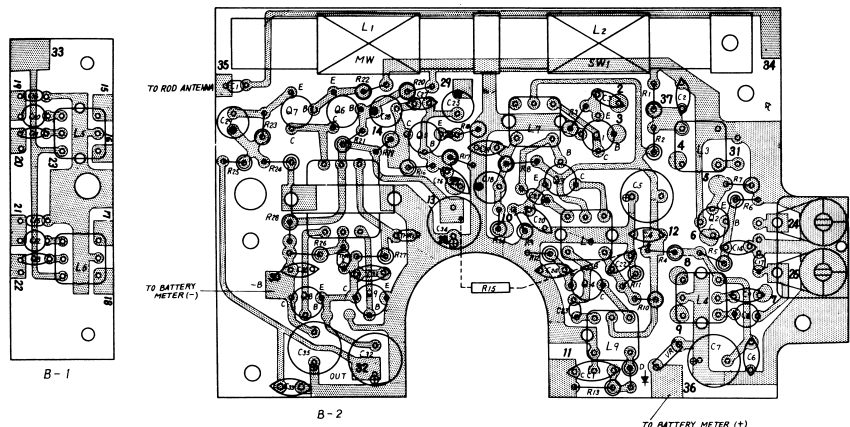
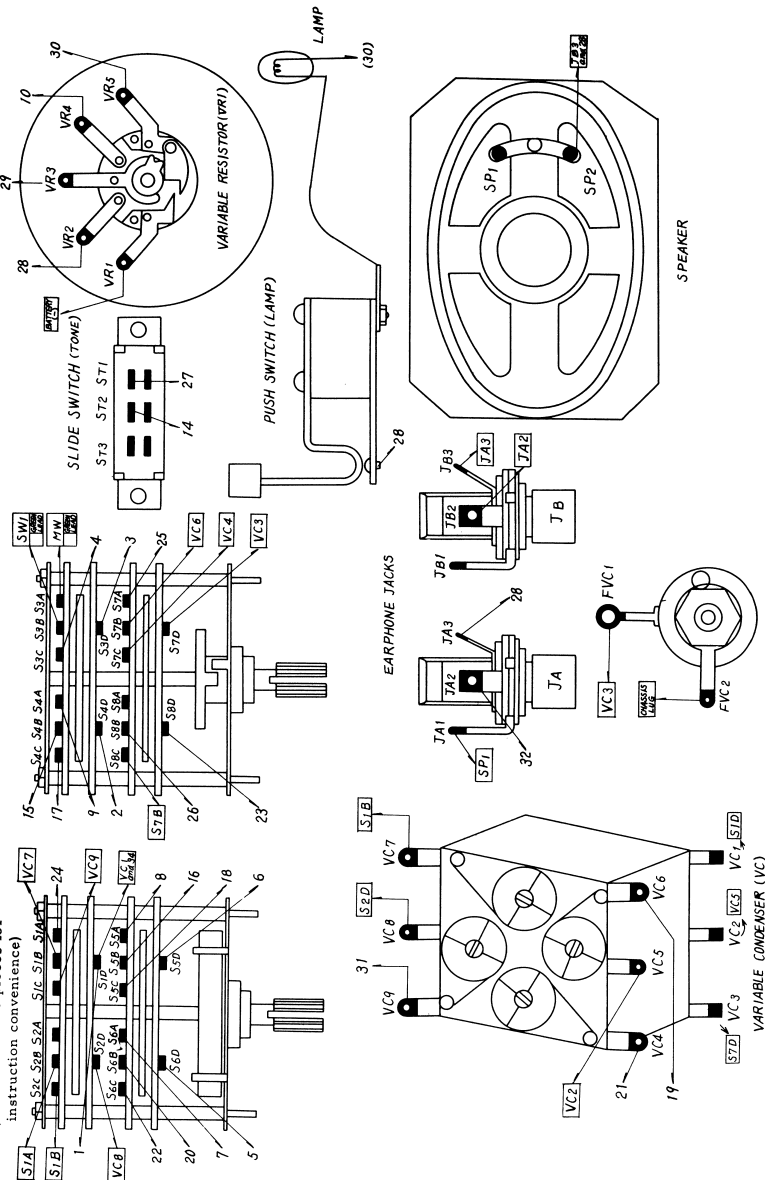


Fig. 3

WIRING INSTRUCTIONS

Band Selector
Interlocked switch (S1 - S8)
(Broken into two pieces for
instruction convenience)



FINE TUNING (FVC)

Fig. 4