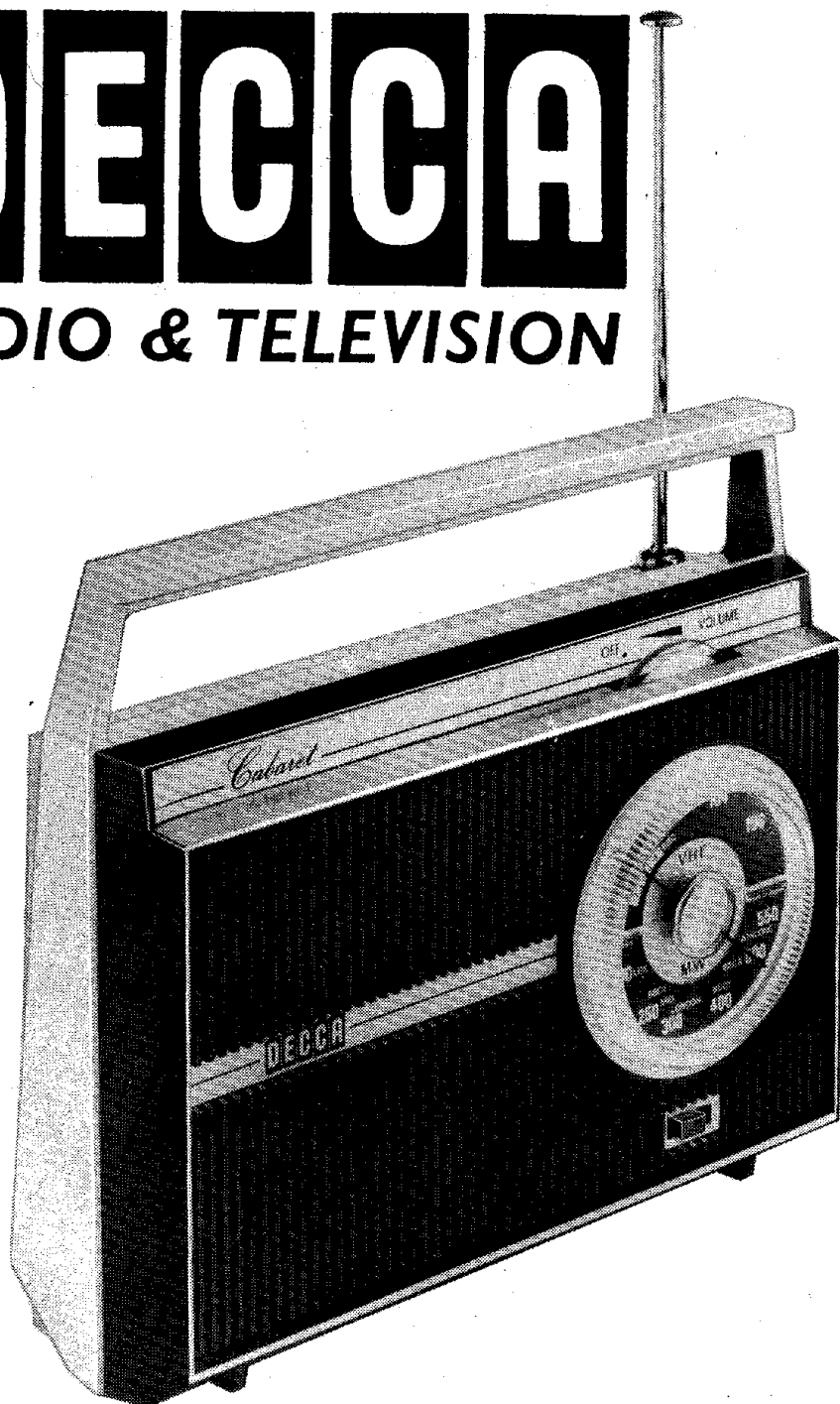


DECCA

RADIO & TELEVISION



MODEL PR 199
CABARET
TRANSISTOR PORTABLE
(V.H.F./MW.)
SERVICE DATA

SPECIFICATION

Decca Cabaret Model PR 199

AERIALS:

Internal aerial for Medium waveband.
Pull-out telescopic aerial for VHF.

WAVEBANDS:

Medium wave (AM) 540 to 1600kc.
VHF (FM) 88 to 108mc.

LOUDSPEAKER:

4" round. 8 ohms.

BATTERY:

(3 off) Ever Ready U2, Vidor LP V2 or equivalent.

SOCKET:

Earphone.

ADDITIONAL ACCESSORY

Earphone.

CONTROLS:

Three controls are provided, Tuning;
VHF/Medium waveband Switch; combined volume, on/off.

Medium waveband

If one particular station gives a weak signal or is subject to interference, improvement can often be affected by rotating the receiver for a position of best reception.

VHF/FM

For a weak VHF signal pull out the stereoscopic aerial to its fullest

extent and rotate in horizontal plane for position of best reception – this will not be necessary if the operator is in good signal area.

ADDITIONAL SOCKET:

Earphone socket is provided and plugging in the earphone provided automatically mutes the internal speaker.

BATTERY REPLACEMENT:

A general deterioration in performance indicates that the batteries need replacing. The back is easily removed after the coin slotted screw has been rotated in an anti-clockwise direction, and a coin or small implement prised into the slot at the bottom of the cabinet. Batteries *must* be replaced in threes and polarity must be observed.

ALIGNMENT INSTRUCTIONS

Instrument Required
Signal Source

1. RF Signal Generator (AM, FM).
2. IF Sweep Generator (centred @ 460 KC for AM and @ 10.7 MC for FM).

Output Indicator

3. V.T.V.M.
4. Oscilloscope.

General Preparation

1. Check source voltage.
2. Set function switch to band being aligned.
3. Loudness control should be turned to maximum except for IF alignment.

4. Telescopic Antenna should be shortened.
5. Connect low side of signal source and output indicator to chassis ground unless otherwise specified.
6. Signal input should be kept as low as possible to avoid AVC and AFC action. (Set output indicator to high sensitivity.)
7. Standard modulation is 400c/s at 30% amplitude for AM. (400c/s at 22.5 KC for FM.)

Regular Adjusting Step

For Band

- 1st: FM
- 2nd: AM

For Stages on each band

- 1st: IF (and detector on FM)
- 2nd: RF Frequency Range
- 3rd: RF Tracking

AM IF ALIGNMENT

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR
1.	AM IF Sweep Gen. A standard radiating loop	Sweep centred @ 460 KC	Oscilloscope TP3 : TP2	Min. Freq.	T3 (1st IFT)	Maximum
2.	AM IF Sweep Gen. A standard radiating loop	Sweep centred @ 460 KC	Oscilloscope TP3 : TP2	Min. Freq.	T5 (2nd IFT)	Maximum
3.	AM IF Sweep Gen. A standard radiating loop	Sweep centred @ 460 KC	Oscilloscope TP3 ; TP2	Min. Freq.	T8 (3rd IFT)	Maximum
4.	(Repeat steps 1 to 3)					

AM RF ALIGNMENT

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR
1.	AM Signal Gen. A standard radiating loop	505 KC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	505 KC (low end)	L6 (Osc. Coil)	Maximum
2.	AM Signal Gen. A standard radiating loop	1650 KC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	1650 KC (high end)	TC4 (Osc. Trim.)	Maximum
3.	(Repeat steps 1 and 2 as necessary to obtain frequency range)					
4.	AM Signal Gen. A standard radiating loop	600 KC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	600 KC	L5 (Ant. Coil)	Maximum
5.	AM Signal Gen. A standard radiating loop	1400 KC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	1400 KC	TC3 (Ant. Trim)	Maximum
6.	(Repeat steps 4 and 5 as necessary to minimize tracking error, and also step 3 if necessary.)					

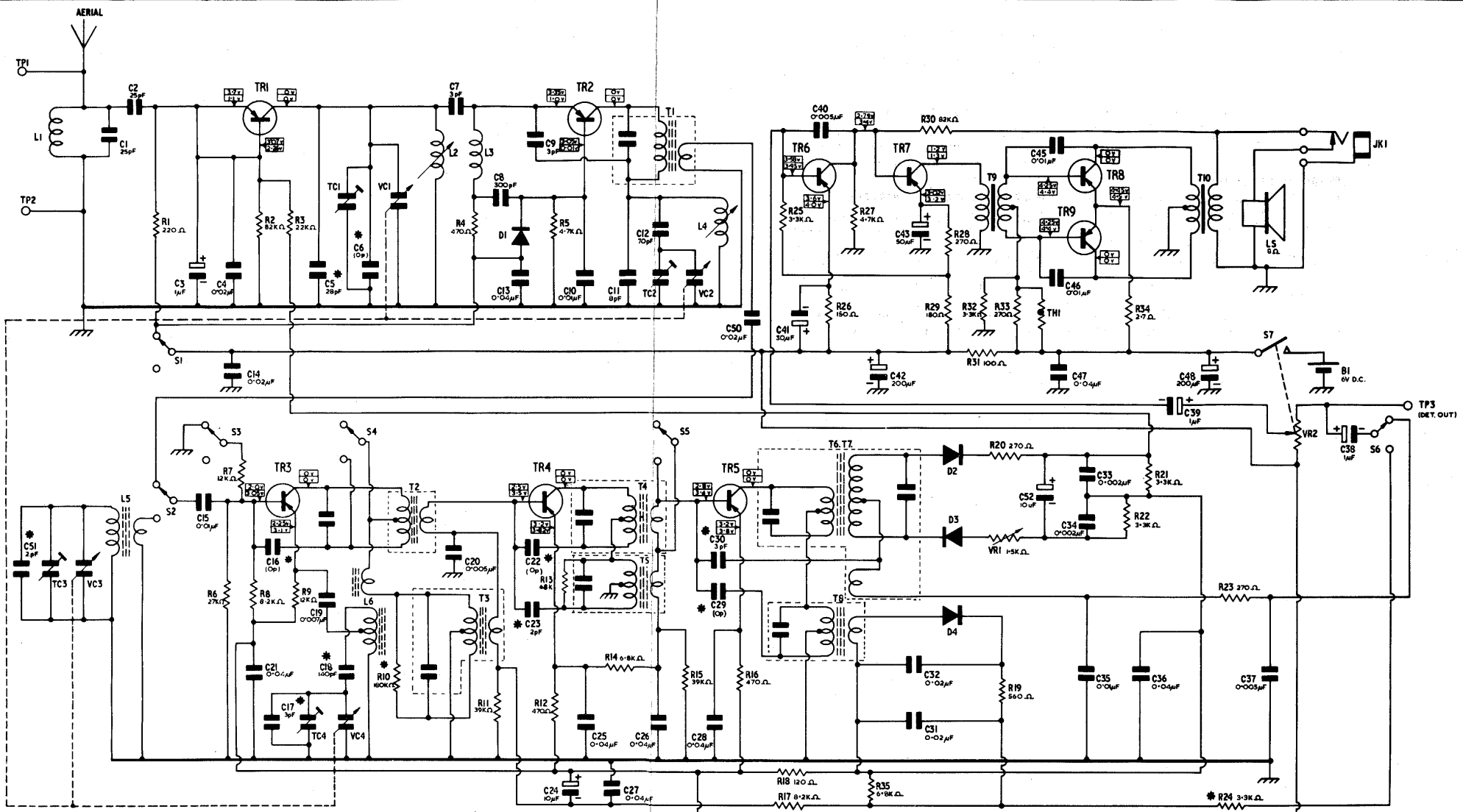
FM IF ALIGNMENT

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR
(IF and Detector Stages)						
1.	FM IF Sweep Gen. TP1, 2 (IF input term.)	Sweep centred @ 10.7 MC	Oscilloscope TP3 (AF input term.)	Max. Freq.	T1 (1st IFT)	Max. symmetrical response *equal heights
2.	FM IF Sweep Gen. TP1, 2 (IF input term.)	Sweep centred @ 10.7 MC	Oscilloscope TP3 (AF input term.)	Max. Freq.	T2 (2nd IFT)	Max. symmetrical response *equal heights
3.	FM IF Sweep Gen. TP1, 2 (IF input term.)	Sweep centred @ 10.7 MC	Oscilloscope TP3 (AF input term.)	Max. Freq.	T4 (3rd IFT)	Max. symmetrical response *equal heights
4.	FM IF Sweep Gen. TP1, 2 (IF input term.)	Sweep centred @ 10.7 MC	Oscilloscope TP3 (AF input term.)	Max. Freq.	T6 (4th IFT)	Max. symmetrical response *equal heights
5.	FM IF Sweep Gen. TP1, 2 (IF input term.)	Sweep centred @ 10.7 MC	Oscilloscope TP3 (AF input term.)	Max. Freq.	T7 (det. IFT)	Max. symmetrical response *equal heights
6.	(Repeat steps 1 to 5 to obtain an "S" curve linearity)					

FM RF ALIGNMENT

STEP	SIGNAL SOURCE CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARK
(RF Stage)							
1.	FM Signal Gen. TP1, 2 (FM Ant. term.) thr a matching network if necessary	86 MC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	86 MC (low end)	L4 (Osc. Coil)	Maximum	Antenna input impedance is 75 ohms
2.	FM Signal Gen. TP1, 2 (FM Ant. term.) thr a matching network if necessary	110 MC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	110 MC (high end)	TC2 (Osc. trim)	Maximum	Antenna input impedance is 75 ohms
3.	(Repeat steps 1 and 2 as necessary to obtain range.)						
4.	FM Signal Gen. TP1, 2 (FM Ant. term.) thr a matching network if necessary	90 MC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	90 MC	L2 (RF coil)	Maximum	Antenna input impedance is 75 ohms
5.	FM Signal Gen. TP1, 2 (FM Ant. term.) thr a matching network if necessary	106 MC (modulated)	V.T.V.M. Across speaker voice coil (using EP plug w/8 ohms resistor is recommended)	106 MC	TC1 trim	Maximum	Antenna input impedance is 75 ohms
6.	(Repeat steps 4 and 5 as necessary to minimize tracking error, and also step 3 if necessary.)						

C	C1	C2	C3	C4	C16	C5	C19	TC1	VC1	C6	C7	C8	C9	C10	C11	TC2	VC2	C30	C39	C40	C43	C45	C46	C47	C33	C34	C35	C39	C48	C38
	CS1	TC3	VC3	C15	C21	C17	TC4	VC4	C18	C20	C22	C23	C24	C25	C27	C26	C28	C32	C31	C52	C36	C37	C38	C37	C37	C37	C37	C37	C37	C37
R	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R18	R19	R25	R26	R27	R30	R28	R29	R32	R33	TH1	R34	R23	VR2



NOTE: VALUES OF COMPONENTS MARKED * MAY VARY ON EACH UNIT.

-VOLTAGE READINGS: FM AM

CIRCUIT LAYOUT -- CABARET PORTABLE RADIO

ALL COMPONENTS SHOWN DOTTED ARE ON UNDERSIDE OF BOARD

