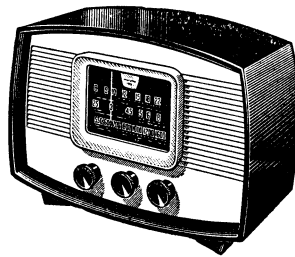


TAI92

TAI92

# MURPHY SERVICE INSTRUCTIONS



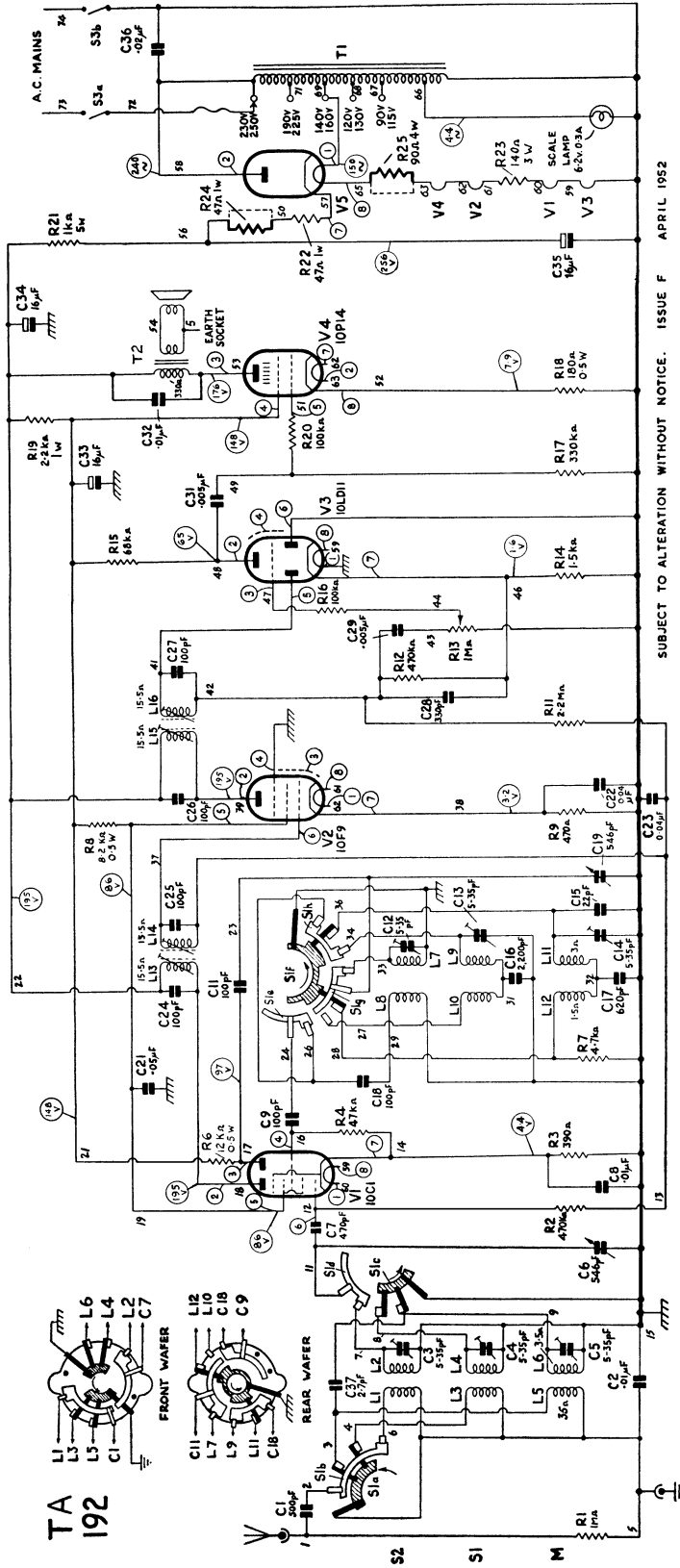
## SPECIFICATION

MAINS SUPPLY:	90-160 and 190-250 volts a.c., 40-100 c/s						
CONSUMPTION:	38 watts (approx.)						
WAVE BANDS:	<table> <tbody> <tr> <td>Medium:</td> <td>535-1630 Kc/s (560-185 metres)</td> </tr> <tr> <td>S1:</td> <td>2.5-8.2 Mc/s (120-36.6 metres)</td> </tr> <tr> <td>S2:</td> <td>8.0-22.5 Mc/s (37.5-13.33 metres)</td> </tr> </tbody> </table>	Medium:	535-1630 Kc/s (560-185 metres)	S1:	2.5-8.2 Mc/s (120-36.6 metres)	S2:	8.0-22.5 Mc/s (37.5-13.33 metres)
Medium:	535-1630 Kc/s (560-185 metres)						
S1:	2.5-8.2 Mc/s (120-36.6 metres)						
S2:	8.0-22.5 Mc/s (37.5-13.33 metres)						
INTERMEDIATE FREQUENCY:	470 Kc/s						
VALVES:	Ediswan-Mazda 10C1, 10F9, 10LD11, 10P14, U404 or Mullard UY41						
SCALE LAMP:	6.2 volts, 0.3 amp. (M.E.S.)						
SPEECH COIL IMPEDANCE:	3 ohms						
CABINET DIMENSIONS:	14½ in. (37 cms.) wide, 10¼ in. (26 cms.) high, 7¼ in. (18.5 cms.) deep						
WEIGHT:	12 lb. (5.5 kg.)						

*Issued by*

**MURPHY RADIO LTD · WELWYN GARDEN CITY  
HERTS · ENGLAND PHONE: WELWYN GARDEN 800**

**FOREIGN TELEGRAMS AND CABLES: RADMURPHY, LONDON**



SUBJECT TO ALTERATION WITHOUT NOTICE. ISSUE F APRIL 1952

V5 { U404 (EDISWAN-MAZDA) -----  
UY41 (MULLARD) -----

The switch wafers are drawn as seen from the rear of the receiver. The black contacts and inner rotors are on the hidden sides of the wafers. Blank positions and anchoring tags are shown by a spot.

The Waveband Switch is shown in the S2 position; rotate anti-clockwise for S1 and M.

When measuring the voltages, the receiver was switched to the M band, with no signal input. A 20,000  $\Omega/V$  meter was used and the readings are given in the large circles on the diagram.

The valve pin numbers are shown in the small circles. Component terminals and connecting leads are identified by test point numbers which correspond with those appearing on the chassis drawings.

Coil resistances are omitted where the values are less than one ohm.

NOTE: L5 may be a low inductance winding in which case C37 (2.7 pF) is not fitted between points 3 and 9 on the wave-band switch.





## CIRCUIT ALIGNMENT

**Output reading.** Connect an output meter to the loudspeaker speech coil. Turn the volume control to maximum output. Make all adjustments for maximum output. Adjust the signal generator attenuator so that the output does not exceed 180mW (0.7V).

**Drive drum setting.** Check that the ganged capacitor plates are fully meshed (i.e. maximum capacitance) when 0° on the drive drum registers with the "V" on the indicator.

**Tuning pointer adjustment.** The pointer should register with the

spots at the left of the tuning scale when the ganged capacitor plates are fully meshed.

**Replacement s.w. coils.** The inductance of the tuned windings of replacement S band aerial and oscillator coils may be adjusted after fitting as follows. Refer to the alignment table and where it states "No Adjustment", adjust the spacing of the end turns of the S band aerial and oscillator coils. Readjust the trimmers at the h.f. end of the wave band. Make final adjustments to the coils and then seal the windings with wax.

## CIRCUIT ALIGNMENT TABLE

*Note: On all wave bands the local oscillator frequency is higher than the signal frequency*

CIRCUIT	NOTES	SIG. GEN. FREQUENCY	SIG. GEN. TERMINATION	CONNECT SIG. GEN. TO	DRIVE DRUM SETTING	ADJUSTMENTS
2nd i.f.t.	Unscrew sec. core (top of can) before starting adjustments	470 Kc/s	Via 0.01 $\mu$ F capacitor	V2 signal grid (pin 6)	0° M Band	L15 (pri.) under chassis L16 (sec.) top of can DO NOT RE-ADJUST PRI. CORE
1st i.f.t.	As above	As above	As above	V1 signal grid (pin 6)	As above	L13 (pri.) under chassis L14 (sec.) top of can DO NOT RE-ADJUST PRI. CORE
M		1363.6 Kc/s (220 m.)	Dummy aerial	Aerial socket	154°	M osc. trimmer (C14) M ae. trimmer (C5)
		600 Kc/s (500 m.)	As above	As above	29°—34°	No adjustment
S1	Set osc. trimmer to lower capacitance peak	7.25 Mc/s (41.4 m.)	As above	As above	162°	S1 osc. trimmer (C13) S1 ae. trimmer (C4)
		3.0 Mc/s (100 m.)	As above	As above	44°	No adjustment
S2	As above	17.8 Mc/s (16.85 m.)	As above	As above	142°	S2 osc. trimmer (C12) S2 ae. trimmer (C3)
		9.6 Mc/s (31.25 m.)	As above	As above	43°	No adjustment

