

TECHNICAL INFORMATION

COVERING

DUAL WAVE RECEIVER TYPE 6250E.

COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET.—A.C. Superhetrodyne.

TUBES (Six)—6K8 Converter, 6BA6 I.F. Amp., 6AT6 De t.-A.F., 6AQ5 Power Output, 6X4 Rectifier, 6U5 Magic Eye.

POWER SUPPLY.—230 v. A.C. Rating 50 watts.

TUNING RANGE—Broadcast, 540-1550 Kc/s.; Shortwave 6.3-19.5 Mc/s.

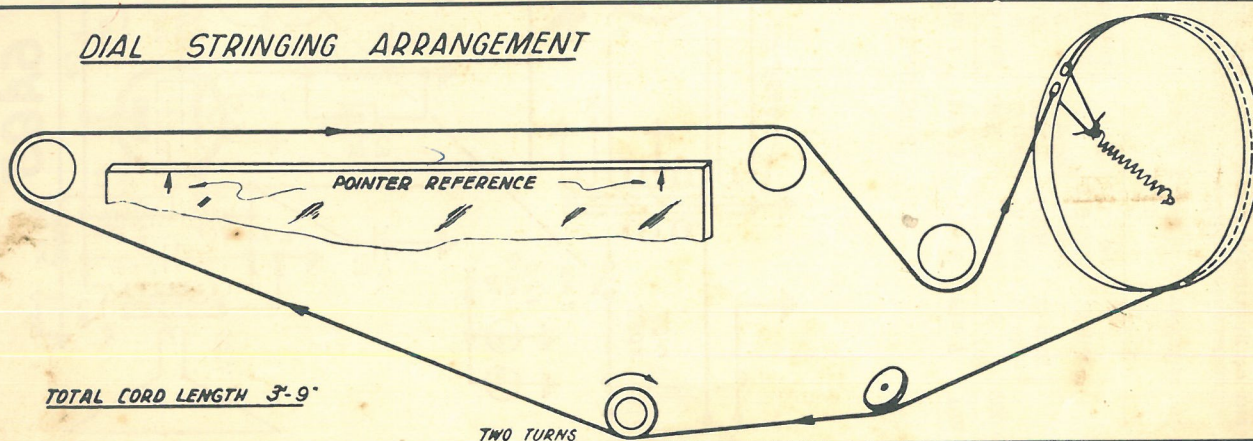
ALIGNMENT INSTRUCTIONS

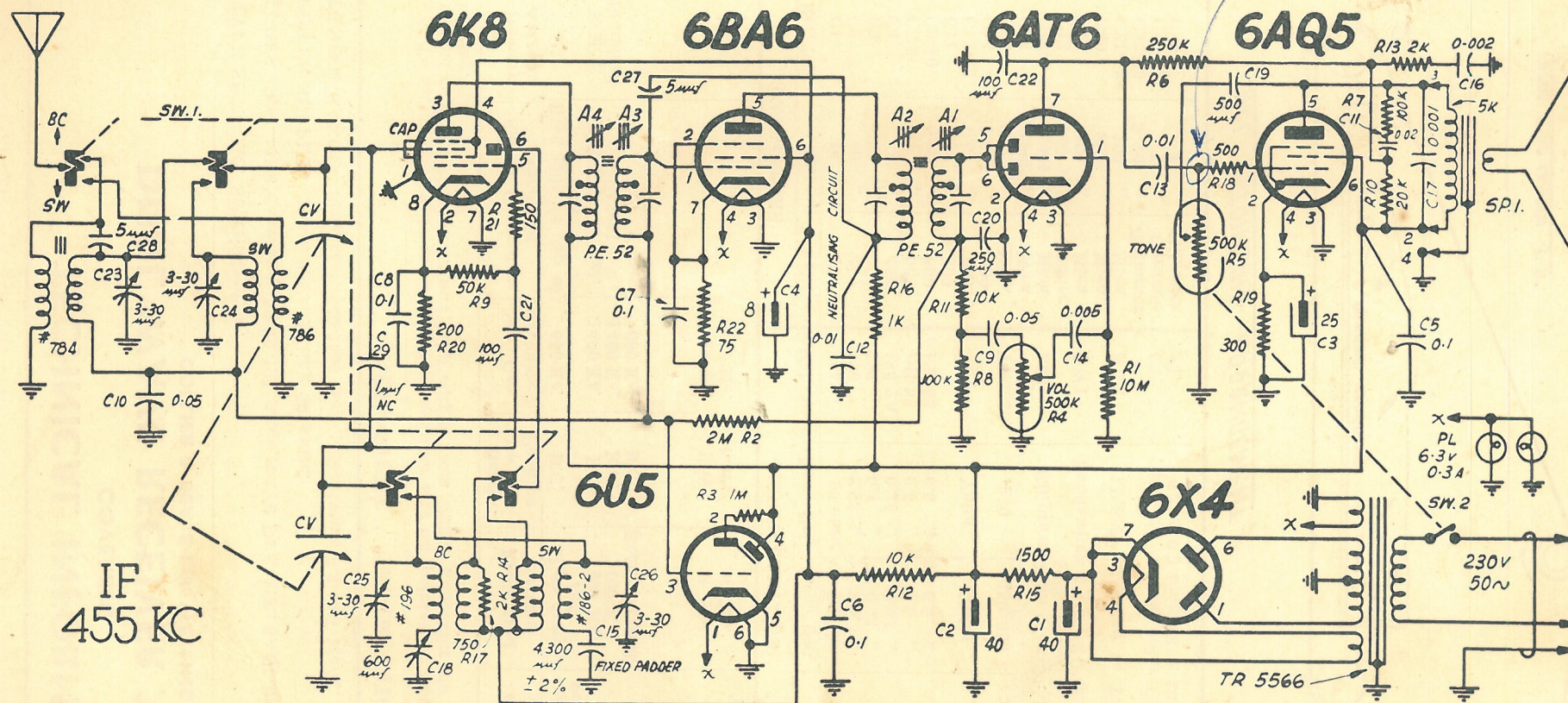
To set pointer, fully mesh variable condenser and set pointer at last reference mark at left end of dial. Set volume control at maximum and keep output from signal generator no higher than necessary to obtain output reading.

Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
.1 μ f.	High side to cap of 6K8	455 Kc.	B.C.	High freq. end	Across voice coil	A1, A2, A3, A4.	Adjust for maximum output
R.M.A. Standard	High side to ant. Terminal	1400 Kc.	B.C.	1400 Kc.	"	C25	" "
"	"	1400 Kc.	B.C.	1400 Kc.	"	C23	" "
"	"	600 Kc.	B.C.	Rock Variable	"	C18	" "
"	"	18 Mc.	S.W.	18 Mc.	"	C26	Recheck C25 & C23 at 1400 Kc/s. If necessary recheck C18 at 600 Kc/s.
"	"	18 Mc.	S.W.	18 Mc.	"	C24	Adjust for maximum output.

CAPACITORS			MISCELLANEOUS			RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.	Ref. No.	Res.	Watts
C1	40 μ f	450	784	20 ohm	2.7 ohm	R1	10 meg.	$\frac{1}{2}$ watt
C2	40 "	450	196	2.03 "	2.5 "	R2	2 "	"
C3	25 "	25	786	0.4 "	0.03 "	R3	1 "	"
C4	8 "	450	186-2A	0.45 "	0.03 "	R4	500K ohm	Pot.
C5-8	0.1 "	500	PE-52	6.5 "	6.5 "	R5	500K "	Pot.
C9-10	0.05 "	500	PE-52	6.5 "	6.5 "	R6	250K "	$\frac{1}{2}$ watt
C11	0.02 "	500				R7-8	100K "	"
C12-13	0.01 "	500				R9	50K "	"
C14	0.005 "	500				R10	20K "	"
C15	0.0043 "	Mica	TR5566	230	350/350	R11	10K "	"
C16	0.002 "	Mica				R12	10K "	2 watt
C17	0.001 "	Mica	SP1	Elliptical P.M. 9" x 6". Trans.		R13-14	2K "	$\frac{1}{2}$ watt
C18	600 μ f.	Padder		5000 ohms.		R15	1500 ohm	5 watt WW.
C19	500 "	Mica	SW1	Bandswitch 4 Pole 2 Pos. rotary		R16	1000 "	$\frac{1}{2}$ watt
C20	250 "	Mica	SW2	S.P.S.T. Attached to T.C. R5		R17	750 "	"
C21-22	100 "	Mica				R18	500 "	"
C23-26	3-30 "	Trimmer	CV	351 μ f. swing Polar C90-02/1		R19	300 "	1 watt
C27-28	5 "	Ceramic	PL	6.3 v. 0.3 amp. Mes. tubular		R20	200 "	$\frac{1}{2}$ watt
C29	1 "	Gimmick				R21	150 "	"
						R22	75 "	"

DIAL STRINGING ARRANGEMENT





SCHEMATIC DIAGRAM MODEL 6250E

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6K8	—	6.3 a.c.	230	90	—2	90	—	2.5
I.F.	6BA6	0	1	—	6.3 a.c.	—	90	1	—
Det-AF.	6AT6	0	—	—	6.3 a.c.	0	0	65	—
Output	6AQ5	0	10	—	6.3 a.c.	225	230	—	—
Rect.	6X4	325 a.c.	—	320	320	—	325 a.c.	320	—
Eye	6U5	6.3 a.c.	15	0	230	—	—	—	—

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6K8	0	0	.5 meg	.5 meg	50K	.5 meg	0	200 ohm
I.F.	6BA6	2.1 meg	75 ohm	0	0	.5 meg	.5 meg	75 ohm	—
Det-AF.	6AT6	10 meg	0	0	0	100K	100K	.75 meg	—
Output	6AQ5	.5 meg	300 ohm	0	0	.5 meg	.5 meg	—	—
Rect.	6X4	275 ohm	—	.5 meg	.5 meg	—	270 ohm	.5 meg	—
Eye	6U5	0	1.5 meg	2.1 meg	.5 meg	0	0	—	—

1. D.C. voltage measurements are at 2,000 ohms per volt—A.C. voltage measurements at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to chassis.

4. Nominal tolerance on component values make possible a variation of + 10% in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.
6. Resistance readings in B+ circuits may vary widely according to the condition of filter capacitors.

6250 E

Hum: (not filter) came pickup from the point of R18, R5, C13 located between H.T. terminals on P.T. board of P.T. remedy:— remove grid wiring from