

Handwritten note:
500/6/52/122

TECHNICAL INFORMATION

COVERING

DUAL WAVE RECEIVER TYPE 625IE

COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET.—A.C. Superhetrodyne.

TUBES (Six).—ECH21 Converter, 6BA6 I.F. Amp., 6AV6 Det.-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.

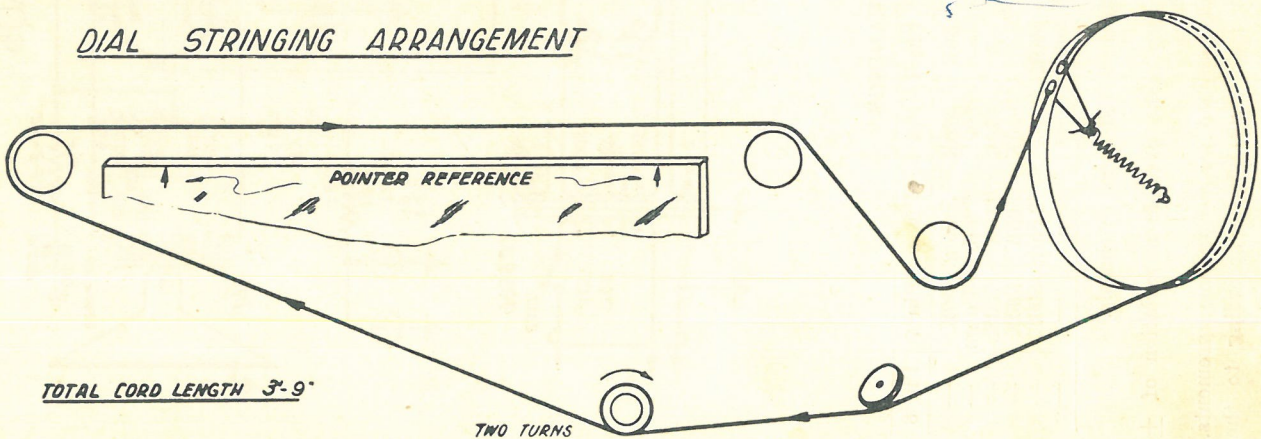
ALIGNMENT INSTRUCTIONS

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.

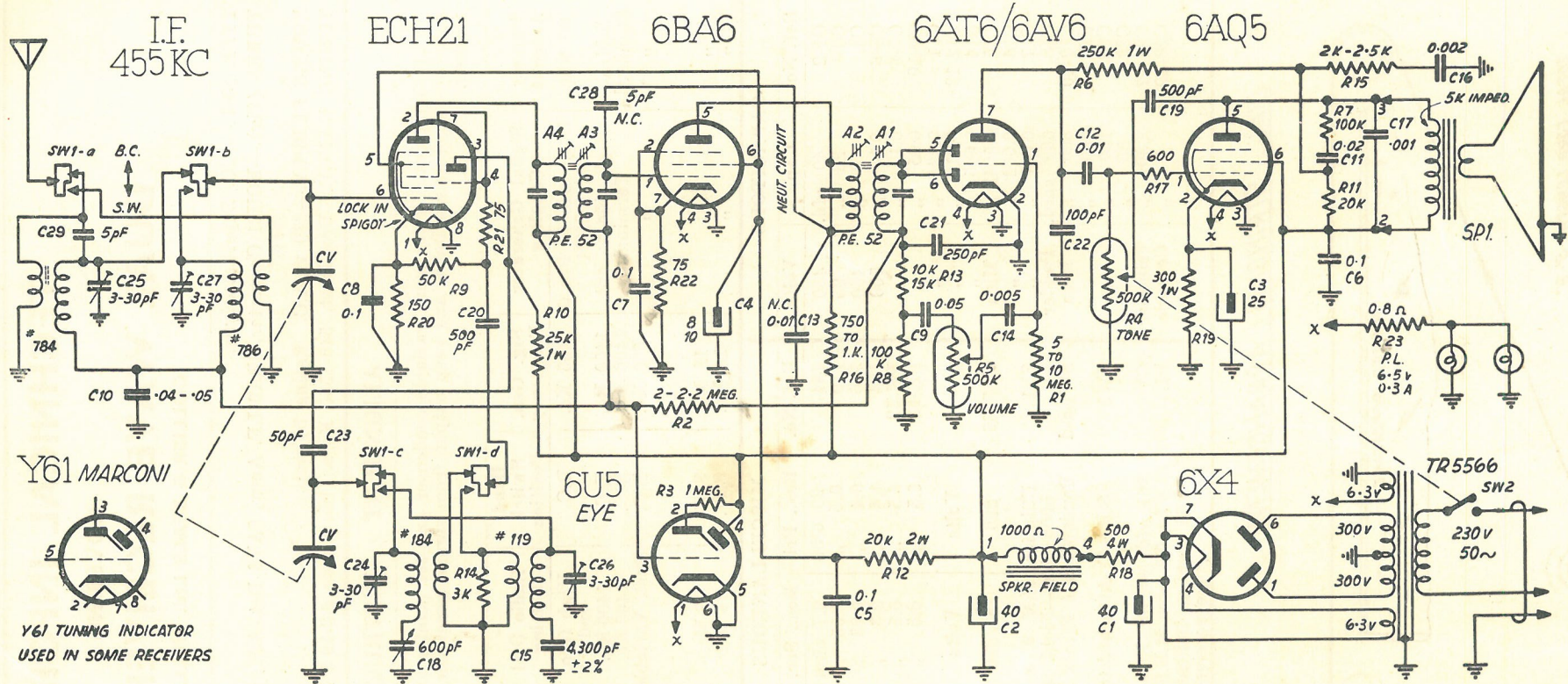
Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
0.1 μ fd.	High side to Pin 6 of ECH21	455 Kc.	B.C.	High freq. end	Across voice coil	A1, A2, A3, A4,	Adjust for maximum output
R.M.A. Standard	High side to ant. Terminal	1400 Kc.	B.C.	1400 Kc.	"	C24	" "
"	"	1400 Kc.	B.C.	1400 Kc.	"	C25	" "
"	"	600 Kc.	B.C.	Rock Variable	"	C18	" "
"	"	18 Mc.	S.W.	18 Mc.	"	C26	Recheck C25 & C24 at 1400 Kc/s. If necessary recheck C18 at 600 Kc/s.
"	"	18 Mc.	S.W.	18 Mc.	"	C27	Adjust for maximum output.


CAPACITORS			MISCELLANEOUS			RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.	Ref. No.	Res.	Watts
C1-2	40 μ fd.	450	784	20 ohm	2.7 ohm	R1	10 meg.	$\frac{1}{2}$ watt
C3	25 "	25	119	0.5 "	0.05 "	R2	2 "	"
C4	8 "	450	786	0.4 "	0.03 "	R3	1 "	"
C5-6	0.1 "	500	184	1.8 "	2.3 "	R4-5	500K ohm	Pot
C7-8	0.1 "	"	PE-52	6.5 "	6.5 "	R6	250K "	1 watt
C9-10	0.05 "	"	PE-52	6.5 "	6.5 "	R7-8	100K "	$\frac{1}{2}$ watt
C11	0.02 "	"		Volts	Volts	R9	50K "	"
C12-13	0.01 "	"		Volts	Volts	R10	25K "	1 watt
C14	0.005 "	"		Volts	Volts	R11	20K "	$\frac{1}{2}$ watt
C15	0.0043 "	Mica	TR5566	230	350/350	R12	20K "	2 watt
C16	0.002 "	"				R13	10K "	$\frac{1}{2}$ watt
C17	0.001 "	"	SP1	Elliptical E.M. 9" x 6". Trans.		R14	3K "	"
C18	600 μ fd.	Padder		5000 ohm—Field 1000 ohm.		R15	2500 "	"
C19-20	500 "	Mica	SW1.a-d	Bandswitch 4 Pole 2 Pos. rotary		R16	1000 "	"
C21	250 "	"		S.P.S.T. Attached to T.C. R4		R17	600 "	"
C22	100 "	"	SW2			R18	500 "	4 watt
C23	50 "	"				R19	300 "	1 watt
C24-27	3.30 "	Trimmer	CV	351 μ fd. swing Polar C90-02/1		R20	150 "	$\frac{1}{2}$ watt
C28-29	5 "	Ceramic	PL	6.5v. 0.3 amp. M.E.S. Tubular		R21-22	75 "	"
				* Y61 Tuning Indicator used in some receivers.		R23	0.8 "	1 watt

DIAL STRINGING ARRANGEMENT



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Y61 MARCONI

 Y61 TUNING INDICATOR
 USED IN SOME RECEIVERS

SCHEMATIC DIAGRAM MODEL 625 IE

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.*	ECH21	6.3 a.c.	250	75	—3	95	0	—3	—
I.F.	6BA6	0	1	—	6.3 a.c.	250	95	1	—
Det.-AF	6AV6	0	—	—	6.3 a.c.	0	0	75	—
Output	6AQ5	0	12	—	6.3 a.c.	250	255	0	—
Rect.	6X4	300 a.c.	—	350	345	—	300 a.c.	350	—
Eye	6U5	6.3 a.c.	1.5	0	230	—	—	—	—

* Conv. Cathode on lock in spigot = 2 volts to chassis.

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

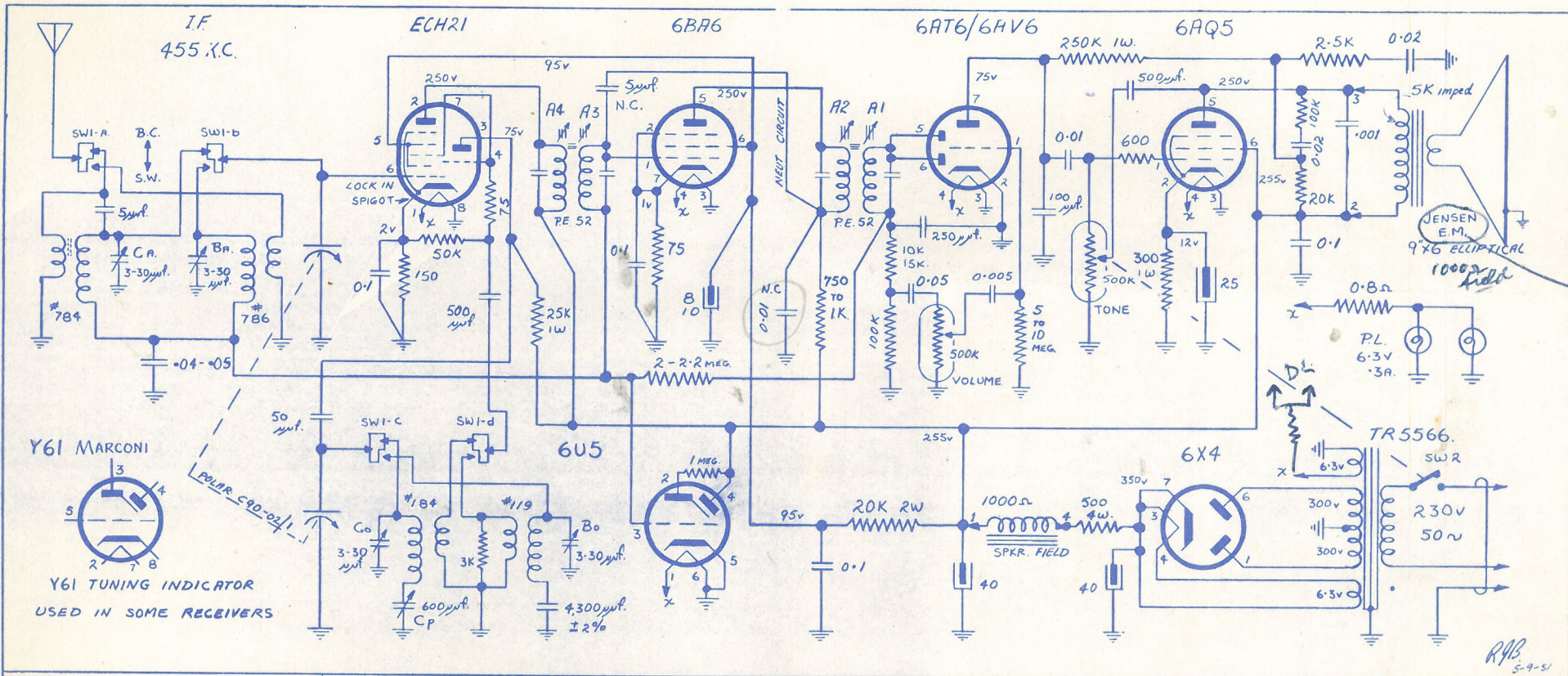
RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.*	ECH21	0	500K	530K	50K	520K	2.2 meg	50K	—
I.F.	6BA6	2.2 meg.	75 ohm	—	—	500K	520K	75 ohm	—
Det.-AF	6AV6	5 meg.	—	—	0	110K	110K	750K	—
Output	6AQ5	500K	300 ohm	—	0	500K	500K	500K	—
Rect.	6X4	275 ohm	—	500K	500K	—	272 ohm	500K	—
Eye	6U5	0	1.5 meg	2.2 meg	500K	—	—	—	—

* Conv. Cathode on lock in spigot = 150 ohms 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.

Note use of Jensen 9" x 6" EM speaker (see insertion data sheet)



SCHEMATIC DIAGRAM MODEL 6251E — INTERIM DATA — 7-9-51

THIS DATA WILL BE SUPERSEDED BY THE USUAL TECHNICAL INFORMATION SHEET TO BE PUBLISHED LATER.

TUNING RANGES : BROADCAST : 540 Kc/s to 1550 Kc/s
SHORTWAVE : 6.3 Mc/s to 19.5 Mc/s.

ALIGNMENT : IF 455KC : ADJUST A1, A2, A3, A4 FOR MAXIMUM OUTPUT.
 1400 KC : " C0 AND CA " " "
 600 KC : " CP " " "
SHORTWAVE 18 Mc : " B0 AND BA " " "

FEATURES : PLATE TUNED OSCILLATOR FOR SHORTWAVE STABILITY
 : BASS AND TREBLE COMPENSATION
 : INVERSE FEEDBACK
 : 9" X 6" ELECTRO-DYNAMIC SPEAKER.

MODEL 6251E

IF instability - decrease NC = 0.01 µf to 0.004 µf

COLLIER AND BERLE LTD. 0-122.
 WELLINGTON. N.Z.

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6251E

Sept 1951

RAB 5-9-51