

TECHNICAL INFORMATION

COVERING

ALL WAVE RECEIVER TYPE 11352

COLLIER & BEALE Ltd. WELLINGTON.

TYPE SET—A.C. Superhetrodyne. Five-position Tone Control.
TUBES (Eleven)—6BA6 R.F. Amp., ECH 42 Converter, 6BA6 I.F. Amp., 6AV6 Det.-A.F., 6BA6 A.F. Equalizer, 6BA6 Phase Inv., 6V6GT Power Output, 6V6GT Power Output, GZ32 Rectifier, 6U5 Tuning Indicator, 6AU6 Pre-amp.

POWER SUPPLY—230 v. A.C. Rating, 90 watts.

TUNING RANGE—Broadcast, 535-1630 K.C., Medium Wave, 3.2-8.2 Mc., Shortwave, 7.5-22.3 Mc.

ALIGNMENT INSTRUCTIONS

To set pointer, fully mesh 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 No. 6 (grid) ECH42	455 Kc.	B.C.	High freq. end	Across voice coil	A1, A2, A3, A4, C40	Adjust for maximum output
R.M.A. Standard	High side to ant. Terminal	1400 Kc.	"	1400 Kc.	"	C41 & 42	" "
"	"	1400 Kc.	"	1400 Kc.	"	C32	" "
"	"	600 Kc.	"	Rock Variable	"	C43	" "
"	"	7.5 Mc.	M.W.	7.5 Mc.	"	C44 & 45	" "
"	"	7.5 Mc.	"	7.5 Mc.	"	C46	" "
"	"	20 Mc.	S.W.	20 Mc.	"	C47 & 48	" "
"	"	20 Mc.	"	20 Mc.	"	"	" "

CAPACITORS

Ref. No.	Cap.	Volts
C1-2	40 μ fd.	450
C3	25 "	25
C4	10 "	450
C5	10 "	"
C6	10 "	"
C7	0.25 "	500-600
C8	0.1 "	"
C9	0.1 "	"
C10	0.1 "	"
C11	0.1 "	"
C12	0.1 "	"
C13	0.1 "	"
C14-22	0.05 "	"
C23	0.03 "	"
C24	0.01 "	"
C25	0.01 "	"
C26	0.0057 "	Mica
C27	0.005 "	"
C28	0.0035 "	"
C29	0.002 "	"
C30	0.001 "	"
C31	0.001 "	"
C32	600 μ fd.	Padder
C33	500 "	Mica
C34	500 "	"
C35	300 "	"
C36	100 "	"
C37	100 "	"
C38	100 "	"
C39	50 "	"
C40-48	3-30 "	Trimmer
C49	25 "	Ceramic
C50	25 "	"
C51	25 "	"
C52	25 "	"
C53	15 "	"
C54	5 "	"
C55	5 "	"
C56	5 "	"

MISCELLANEOUS

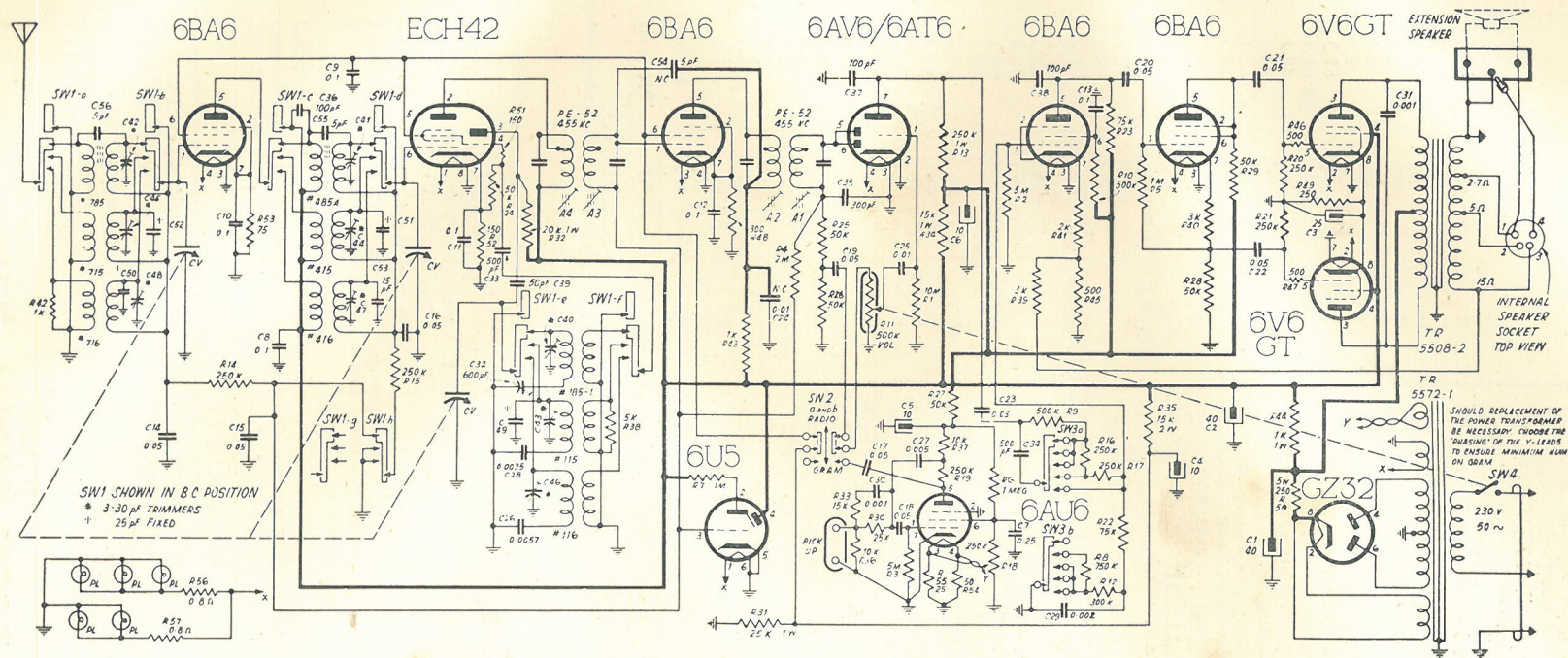
Ref. No.	Res., Pri.	Res., Sec.
785	17.5 ohm	2.57 ohm
69	2.4 "	2.4 "
185-1	2.1 "	2.5 "
716	0.23 "	0.028 "
416	0.44 "	0.028 "
116	0.47 "	0.025 "
415	0.63 "	0.14 "
715	1 "	0.14 "
115	0.58 "	0.14 "
PE-52	6.5 volts	6.5 volts
TR5572-1	230 volts	290 a side
TR5508-2	O.P. trans. 10,000 ohm-15, 5, 2.7 ohm.	
SW1A-H	3 pos. 8-pole band switch.	
SW2A-B	2 pos. 2-pole radio-gram. switch.	
SW3A-B	5 pos. 2-pole tone switch.	
SW4	S.P.S.T. switch attached to R11.	
	Plessey Gang Type 9393/L22 (437 μ fd. swing).	
	Signal Section.	
	Graded stage-gains to enhance AVC action. Neutralization of the I.F. amplifier ensures freedom from regeneration. The feedback voltage is derived from the HT feed to the I.F. transformer.	
	Demodulator arranged to cope with high modulation percentages.	
	Audio Section.	
	The substantial inverse feedback and large speaker transformer combine to handle considerable power output with negligible distortion.	
	Five-position tone switch permits selection of several degrees of bass and treble compensation to deal with radio programmes or recordings.	
	In Model 11352 there is a gramophone pre-amplifier equalized at low frequencies for optimum results with the General Electric variable-reluctance pick-up. Care has been taken to minimise hum interference with the high-gain stages.	
	Pilot lamps are operated at reduced voltage to give extended life.	

RESISTORS

Ref. No.	Res.	Watts
R 1	10 meg.	$\frac{1}{2}$
R 2	5 "	"
R 3	5 "	"
R 4	2 "	"
R 5	1 "	"
R 6	1 "	"
R 7	1 "	"
R 8	750 K ohm	"
R 9	500 K	"
R 10	500 K	"
R 11	500 K	Pot
R 12	300 K	"
R 13	250 K	"
R 14-21	250 K	"
R 22	75 K	"
R 23	75 K	"
R 24-29	50 K	"
R 30	25 K	"
R 31	25 K	"
R 32	20 K	"
R 33	15 K	"
R 34	15 K	"
R 35	15 K	"
R 36	10 K	"
R 37	10 K	"
R 38	5 K	"
R 39	3 K	"
R 40	3 K	"
R 41	2 K	"
R 42	1 K	"
R 43	1 K	"
R 44	1 K	"
R 45	500 "	"
R 46	500 "	"
R 47	500 "	"
R 48	300 "	"
R 49	250 "	"
R 50	250 "	"
R 51	150 "	"
R 52	150 "	"
R 53	75 "	"
R 54	50 "	"
R 55	25 "	"
R 56	0.8 "	"
R 57	0.8 "	"

Feb 1953

11352



SCHEMATIC DIAGRAM MODEL 11352.

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	0	0.6	—	6.3 AC	225	85	0.6	—
Conv.	ECH42	6.3 AC	225	67	—8	85	0	1.5	—
I.F.	6BA6	0	2.4	6.3 AC	—	220	85	2.4	—
Det.A.F.	6AV6	0	—	—	6.3 AC	0	0	75	—
Eq'izer.	6BA6	0	1.8	—	6.3 AC	125	27	1.8	—
Inv.	6BA6	15	107	—	6.3 AC	107	107	67	—
Output	6V6GT	—	6.3 AC	270	230	0	—	—	14
Output	6V6GT	—	6.3 AC	270	230	0	—	—	14
Rect.	GZ32	—	275	—	250 AC	—	250 AC	—	275
Eye	6U5	6.3 AC	20	0	225	—	—	—	—
Pre-amp	6AU6	0	—	2 AC	4 AC	112	17.5	—	—

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
R.F.	6BA6	2.4 meg	75	—	—	500 K	515 K	75	—
Conv.	ECH42	—	500 K	520 K	50 K	—	2.4 meg	150	—
I.F.	6BA6	2.1 meg	300	—	—	500 K	515 K	300	—
Det.A.F.	6AV6	10 meg	—	—	—	100 K	100 K	750 K	—
Eq'izer.	6BA6	5 meg	2.5 K	—	—	575 K	1 meg	2.5 K	—
Inv.	6BA6	1 meg	550 K	—	—	550 K	550 K	53 K	—
Output	6V6GT	—	—	—	500 K	250 K	—	—	250
Output	6V6GT	—	—	—	500 K	250 K	—	—	250
Rect.	GZ32	—	500 K	—	70	—	70	—	—
Eye	6U5	—	500 K	2.1 meg	1.5 meg	—	—	—	—
Pre-amp	6AU6	5 meg	—	20	20	800 K	250 K	—	—

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 common negative. Bandswitch in B.C. position.

4. Nominal tolerance on component values make possible a variation of $\pm 10\%$ 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.

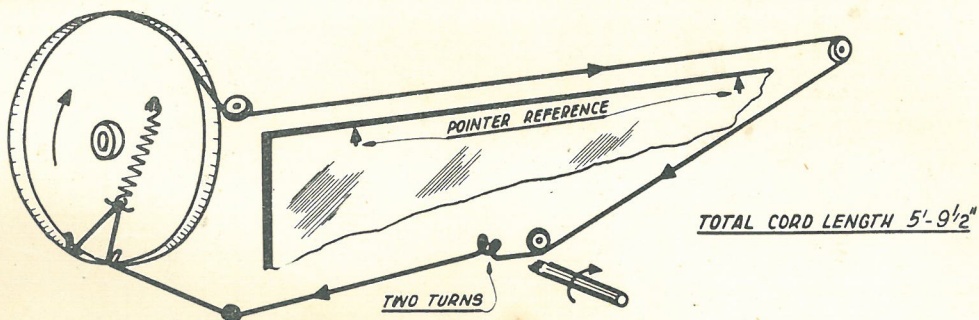
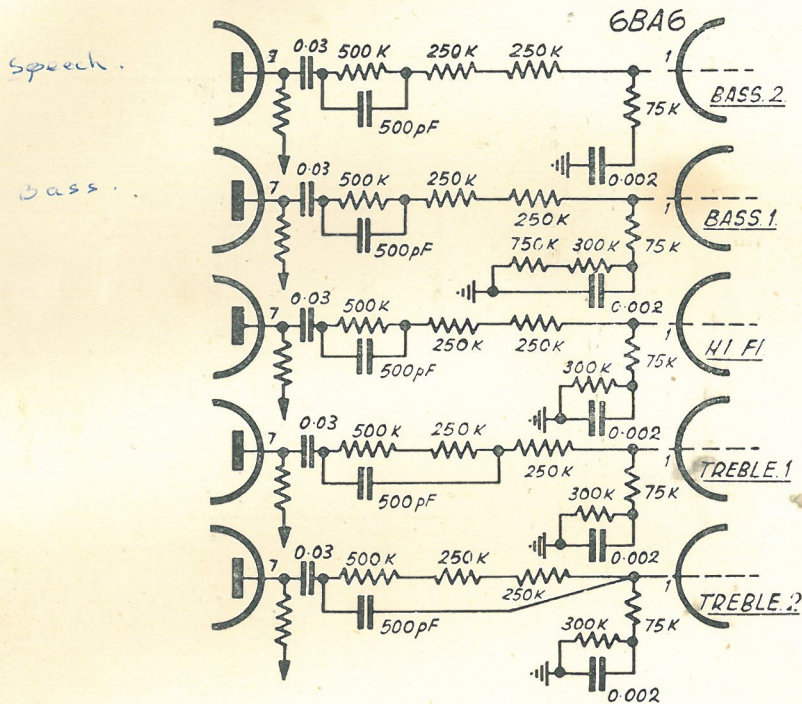
TECHNICAL INFORMATION

COVERING

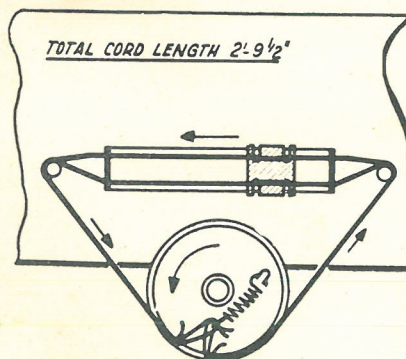
ALL WAVE RECEIVER TYPE 11352

COLLIER & BEALE Ltd. WELLINGTON.

TONE SELECTOR SWITCHING CIRCUIT CONDITION IN EACH SETTING



DIAL STRINGING ARRANGEMENT



SWITCHING INDICATORS

STRINGING DIAGRAMS

11352
11V 3 born 1952