

TECHNICAL INFORMATION

COVERING

DUAL WAVE RECEIVER TYPE 628

COLLIER & BEALE Ltd., WELLINGTON.

Jan 1949

TYPE SET—A.C. Superhetrodyne.

TUBES (Six)—6K8 Converter, 6SK7 I.F. Amp., 6SQ7 Det.-A.F., 6V6GT Power Output, 6X5GT Rectifier, 6U5 Magic Eye.

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

TUNING RANGE—Broadcast, 530-1620 K.C.; Short Wave, 625-19.2 M.C.

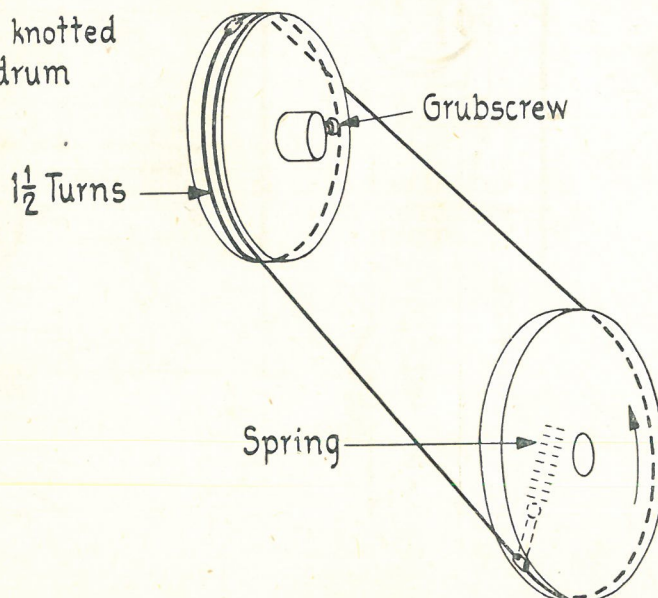
ALIGNMENT INSTRUCTIONS

Set volume control at maximum and keep output from signal generator no higher than necessary to obtain output readings. Position of scale can be adjusted in cabinet by loosening grub screw on top drive drum and revolving scale to desired position before retightening grub screw.

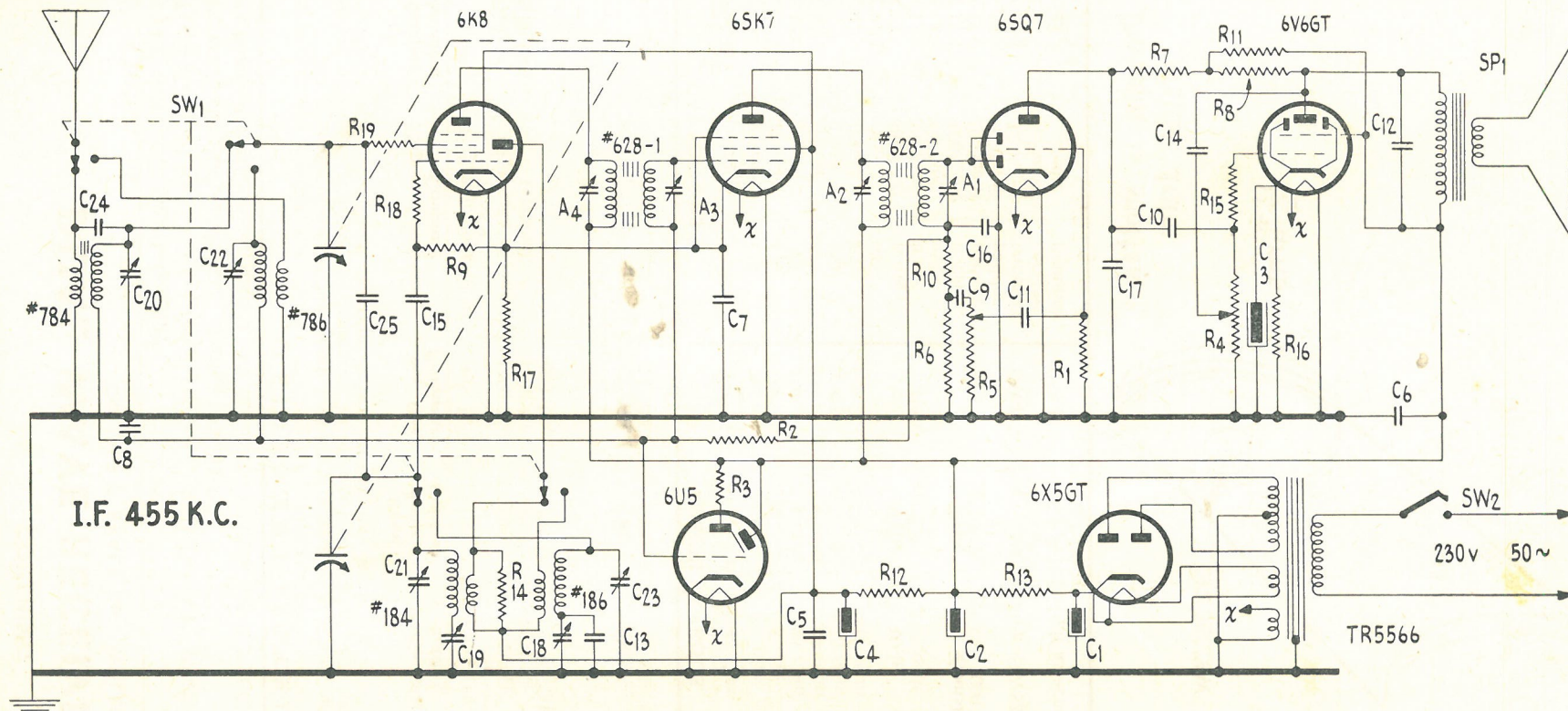
Dummy Antenna	Signal Generator Coupling	Sig. Gen. Frequency	Band Switch Position	Radio Dial Setting	Output Meter	Adjust	Remarks
.1mfd	High side to grid of 6K8	455 Kc.	BC	High freq. end	Across voice coil	A1, A2, A3, A4.	Adjust for maximum output
R.M.A. Standard	High side to ant. terminal	1400 Kc.	BC	1400 Kc.	"	C21	" "
"	" "	1400 Kc.	BC	1400 Kc.	"	C20	" "
"	" "	600 Kc.	BC	Rock Variable	"	C19	Recheck C21 at 1400 Kc.
"	" "	18 Mc.	SW	18 Mc.	"	C23	If C21 is changed recheck C19.
"	" "	18 Mc.	SW	18 Mc.	"	C22	Adjust for maximum output

CAPACITORS			MISCELLANEOUS				RESISTORS		
Ref. No.	Cap.	Volts	Ref. No.	Res., Pri.	Res., Sec.		Ref. No.	Res.	Watts
C1	40mfd	450	784	20 ohm	2.7 ohm		R1	10 meg	$\frac{1}{2}$ watt
C2	40mfd	450	184	1.8 ohm	2.3 ohm		R2-3	1 meg	$\frac{1}{2}$ watt
C3	25mfd	25	786	.4 ohm	.03 ohm		R4-5	.5 meg	Pot.
C4	8mfd	450	186	.4 ohm	.03 ohm		R6	.47 meg	$\frac{1}{2}$ watt
C5-7	.1mfd	600	628-1	6.75 ohm	6.75 ohm		R7	.27 meg	$\frac{1}{2}$ watt
C8	.05mfd	400	628-2	6.75 ohm	6.75 ohm		R8	.1 meg	$\frac{1}{2}$ watt
C9-11	.01mfd	600					R9	.051 meg	$\frac{1}{2}$ watt
C12	.001mfd	mica		Volts 230	Volts 350 aside	Volts 2 x 6.3	R10	.033 meg	$\frac{1}{2}$ watt
C13	.001mfd	mica	TR5566				R11	15,000 ohm	$\frac{1}{2}$ watt
C14	.0005mfd	mica		Type 8" P.M.	Transformer 5000 ohm		R12	15,000 ohm	1 watt
C15-17	.0001mfd	mica					R13	1,500 ohm	5 watt
C18	1000mmf	padder	SP1				R14	1,000 ohm	$\frac{1}{2}$ watt
C19	600mmf	padder					R15	500 ohm	$\frac{1}{2}$ watt
C20-23	3-30mmf	trimmer	SW1		Bandswitch SW5283-1 $\frac{1}{2}$		R16	300 ohm	1 watt
C24	5mmf	ceramic					R17	150 ohm	$\frac{1}{2}$ watt
C25	1mmf	gimmick	SW2		S.P.S.T. switch attached to R4		R18	75 ohm	$\frac{1}{2}$ watt
							R19	47 ohm	$\frac{1}{2}$ watt

Drivecord is knotted inside drum



NOTE: Drum shown with gang at max. cap.



SCHEMATIC DIAGRAM MODEL 628

VOLTAGE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6K8	O	O	240	95	-5	90	6.3 a.c.	3.5
I.F.	6SK7	O	O	3.5	O	3.5	90	6.3 a.c.	240
Det.-AF.	6SQ7	O	O	O	O	O	120	6.3 a.c.	O
Output	6V6GT	O	O	225	240	O	O	6.3 a.c.	13
Rect.	6X5GT	O	340	320 a.c.	O	320 a.c.	O	340	340
Eye	6U5	O	20	O	240	O	6.3 a.c.		

RESISTANCE READINGS

Use	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
Conv.	6A8	O	O	.5 meg	.515 meg	50 K	.515 meg	O	150 ohm
I.F.	6SK7	O	O	150 ohm	1.55 meg	150 ohm	.515 meg	O	.5 meg
Det.-AF.	6SQ7	O	10 meg	O	.55 meg	.55 meg	1 meg	O	O
Output	6V6GT	O	O	.5 meg	.5 meg	.505 meg	.5 meg	O	300 ohm
Rect.	6X5GT	O	.5 meg	275 ohm	Inf	270 ohm	Inf	.5 meg	.5 meg
Eye	6U5	O	1.5 meg	1.5 meg	.5 meg	O	O		

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

4. Nominal Tolerance on component value 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 condition of filter capacitors.