

KOLSTER BRANDES LTD.

CRAY WORKS, SIDCUP, KENT

SERVICE MANUAL

MODEL
KB MUSEUM ORG
880

NEW SERIES

ISSUED JUNE, 1940 (Reprinted Jan., 1946)

IMPORTANT This Receiver uses BRIMAR valves and was specifically designed round them. Its performance will be impaired unless BRIMAR valves of the correct types are used when replacements are needed.

REMOVAL OF CHASSIS.

REMOVE: Knobs, two L.S. clips on baffle, and four chassis bolts. The chassis may then be slid out of cabinet.

● For general information refer to Instruction Book and Instruction Card.

ALIGNMENT CHART FOR 880

*Operations **MUST** be carried out in the order indicated.

*Operation	Alignment of	Connect Signal Gen. to	Inject Signal via	Adjust Input Signal to	Set Wave Band Switch to	Set Tuning Pointer to	To be adjusted for maximum output
1	I.F.	Grid of 20D2	1mf.	464kc/s	M.W.	580m	Cores of L9, L10, L11, L12
2	M.W.	Aer I	Standard Dummy Aerial	600kc/s	"	500m	Core of L7 (M.W. Tracker)
3	"	"	"	1,400kc/s	"	214m spot	Trimmers, T5 & T2
4	"	Repeat	Repeat	Operation		No. 2	Rock Tuning Condenser slightly while adjusting, for max. gain
5	"	Repeat	Repeat	Operation		No. 3	Trimmers, T5 & T2
6	L.W.	Aer I	"	175kc/s	L.W.	1,714m spot	Core of L8 (L.W. Tracker)
7	"	"	"	350kc/s	"	857m	Trimmers, T6 & T3
8	"	Repeat	Repeat	Operation		No. 6	Rock Tuning Condenser slightly, for max. gain
9	"	Repeat	Repeat	Operation		No. 7	Trimmers, T6 & T3
10	S.W.	Aer I	400Ω	15mc/s	S.W.	20m	" T4 & T1

ALL ON COIL UNIT

VOLTAGE CHART KB 880

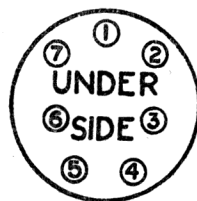
Line Voltage 230v. A.C. in 225v. tap.
Aerial & Earth Disconnected

Band Switch—M.W.

Volume Control Full On
Readings + or - 10%

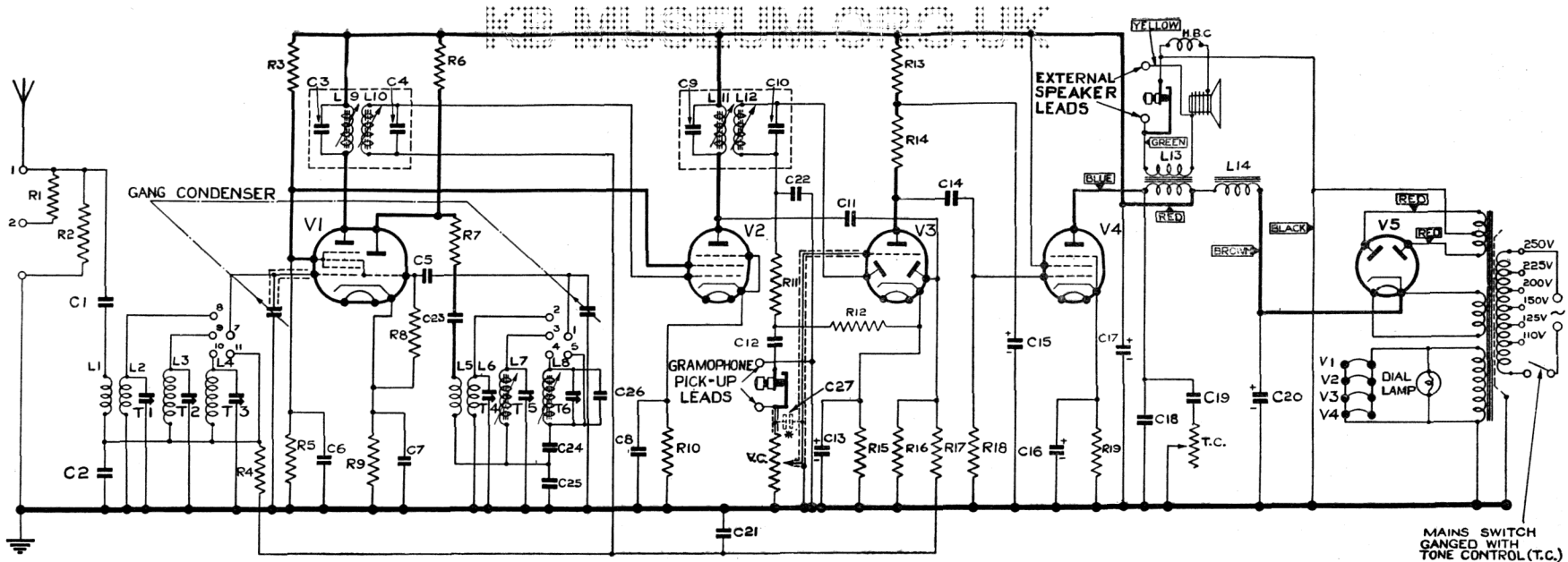
Contacts numbered as diagram below

Valve	Function	Volts measured between SOCKET and CHASSIS							
		1	2	3	4	5	6	7	TOP CAP
20D2	Frequency Changer	58	- 4½	69	★12.5	0	2.1	280	0
9D2	Pentode I.F. amp.		280	2.5	0	★12.5	2.5	69	0
11D5	2nd det, AVC & LF	0		0	0	★12.5	1.6	105	0
7D5	Output Pentode		0	280	0	★12.5	18	290	
R2	Rectifier	Anodes = 324v. A.C.				Heaters = 370v.			
Voltage Across Output Transformer		...	...	...	L13	9.5 volts			
" " Field Coil		...	...	...	L14	85 "			
Current through " "		...	...	...		74mA.			
" " Mains Transformer Primary		...	...	...		310mA. A.C.			
Total Consumption		...	...	...		72 watts			

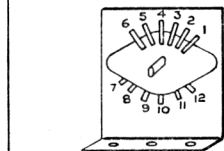


* Asterisk indicates A.C. voltages measured on Rectifier-type meter.

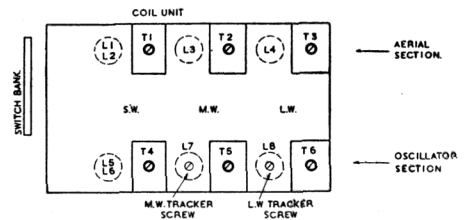
All D.C. voltages measured on 1000 ohm per volt meter.



WAVERANGE SWITCH CONTACTS

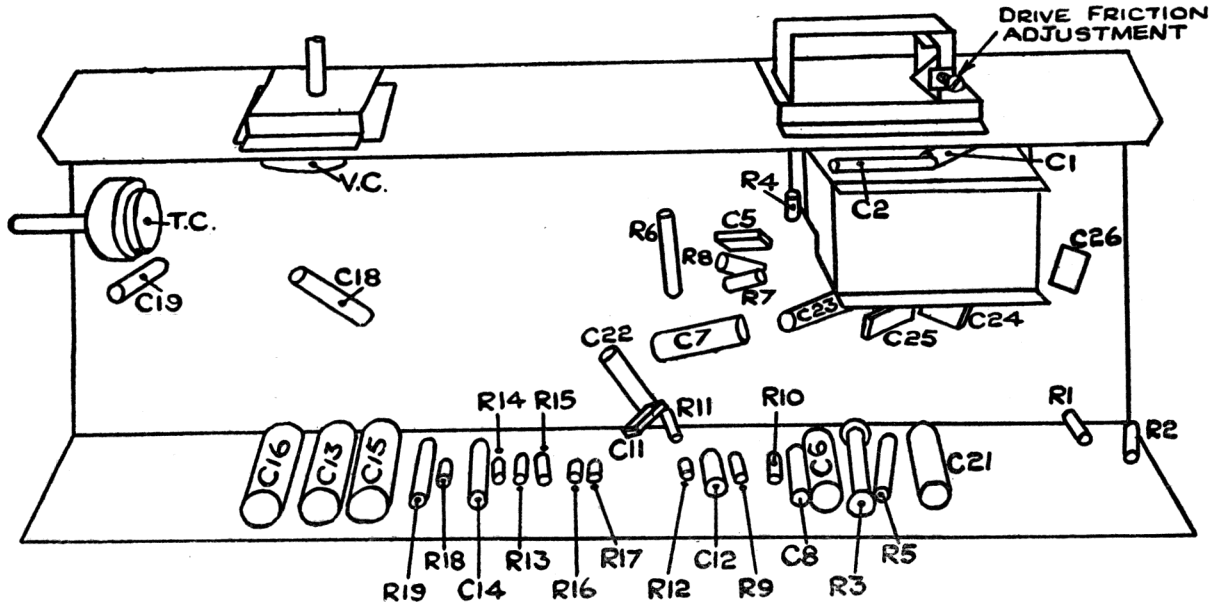


THE CONTACTS SPECIFIED ON THE RIGHT, CONNECT WHEN THE SWITCH IS IN POSITION SHOWN BELOW	6 S 12 ARE NOT USED
SHORT WAVE	1 TO 2 3 TO 4 & 5 7 TO 8 9 TO 10 & 11
MEDIUM WAVE	1 TO 3 4 TO 5 7 TO 9 10 TO 11
LONG WAVE	1 TO 4 7 TO 10



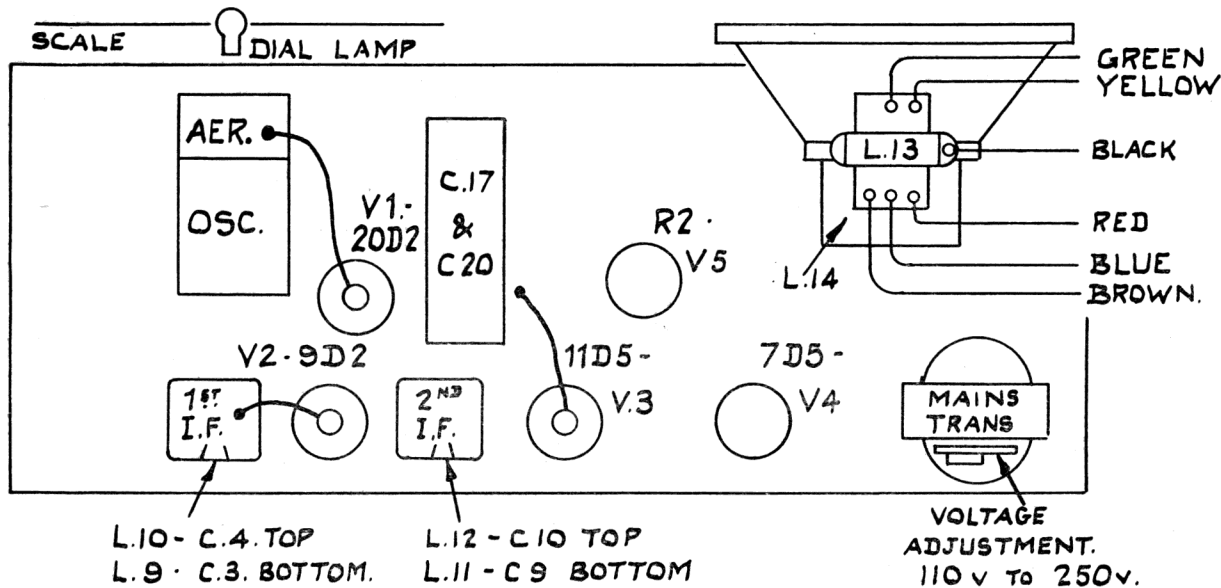
MAINS SWITCH GANGED WITH TONE CONTROL (T.C.)

UNDER CHASSIS VIEW.

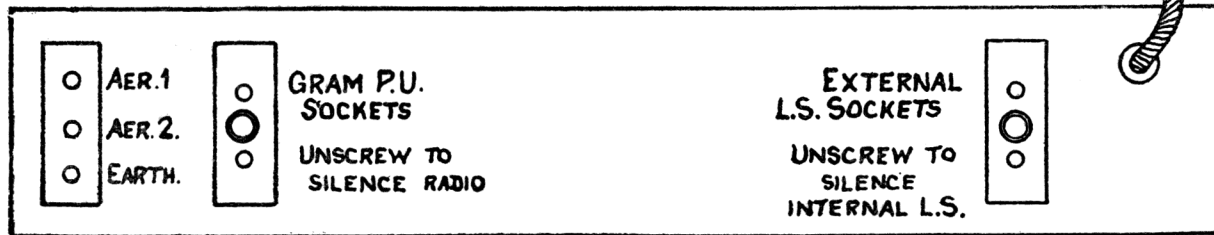


- R1. = 10,000 Ω
- R2. = 2,000 Ω
- R3. = 20,000 Ω 2 watt
- R4. = 500,000 Ω
- R5. = 25,000 Ω 1 watt
- R6. = 50,000 Ω 1 watt
- R7. = 150 Ω
- R8. = 50,000 Ω
- R9. = 300 Ω
- R10. = 300 Ω
- R11. = 50,000 Ω
- R12. = 500,000 Ω
- R13. = 50,000 Ω
- R14. = 150,000 Ω
- R15. = 7,000 Ω
- R16. = 500,000 Ω
- R17. = 500,000 Ω
- R18. = 500,000 Ω
- R19. = 400 Ω 1 watt
- V.C. = 500,000 Ω
- T.C. = 50,000 Ω
- C1. = .005 μF
- C2. = .004 μF
- C3. = 150 μF } Special
- C4. = 150 μF } Special
- C5. = .00005 μF (Mica)
- C6. = .1 μF
- C7. = .1 μF
- C8. = .02 μF
- C9. = 150 μF } Special
- C10. = 280 μF } Special

TOP VIEW OF CHASSIS, AND LOUDSPEAKER CONNECTIONS.



BACK OF CHASSIS



- C11. = .000025 μ F
- C12. = .005 μ F
- C13. = 25 μ F (Elect)
- C14. = .02 μ F
- C15. = 2 μ F (Elect)
- C16. = 25 μ F (Elect)
- C17. = 16 μ F (Elect)
- C18. = .001 μ F (450v.)
- C19. = .03 μ F (450v.)
- C20. = 16 μ F (Elect)
- C21. = .1 μ F
- C22. = .0005 μ F
- C23. = .001 μ F
- C24. = 230 μ F
- C25. = 400 μ F
- C26. = 25 μ Fs
- C27. = not used on 830—refer to 831 manual

Pilot Lamp, 12—16 volt .3 amp.

Code-Spot Colour

- L1. = Aerial S.W. Pri.] White
- L2. = Aerial S.W. Sec.]
- L3. = Aerial M.W. Sec. Red
- L4. = Aerial L.W. Sec. Green & Yellow
- L5. = Oscil : S.W. React.] Yellow
- L6. = Oscil : S.W. Sec.]
- L7. = Oscil : M.W. Sec. Yellow
- L8. = Oscil : L.W. Sec. Light Blue & Red
- L9. = } I.F. Pris.
- L11. = }
- L10. = } I.F. Secs.
- L12. = }
- L13. = Output Transformer Green
- L14. = Field 1,200 Ω Red

Square brackets indicate coils wound on one former.