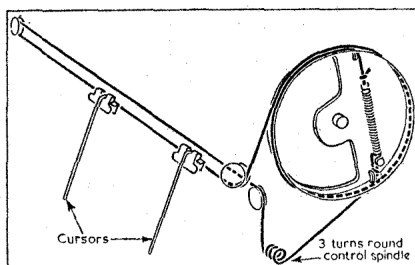
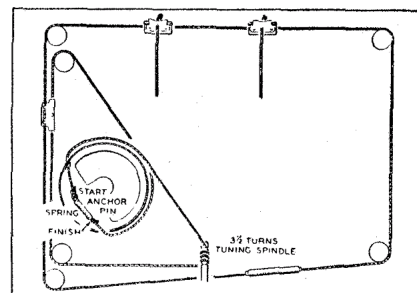


Valve	Anode		Screen		Cath.
	V	mA	V	mA	
V1 X78	168	1.3	64	1.8	—
V2 W77	90	4.0	—	—	—
V3 DH77	78	0.8	—	—	—
V4 N78	210	22.0	218	3.7	4.7
V5 U78	255†	—	—	—	280.0

† A.C. voltage.



Sketch of the drive cord system, drawn as seen in our sample chassis when viewed from the front right-hand corner of the chassis with the gang at maximum capacitance. It is the same in Models 1122, 1123 and 1616.

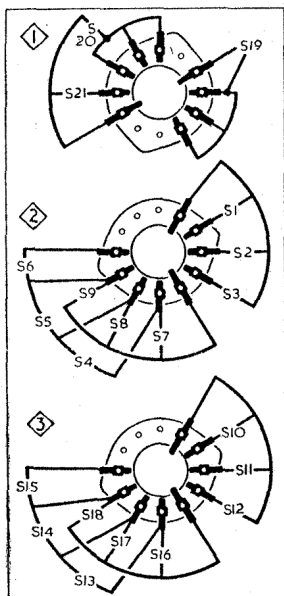


Reproduction of the drive cord system of the Model 1615 table autoradiogram, as it is shown in the makers' service manual. Two separate cords are used, the gang cord being driven and the cursor cord being clamped to it. The cursor cord is provided with its own tension spring.

RESISTORS		Values	Locations
R1	V1 C.G. ...	470kΩ	F3
R2	H.T. potential divider ...	15kΩ	F3
R3	V1 osc. C.G. ...	12kΩ	G3
R4	V1 osc. C.G. ...	22kΩ	G3
R5	Osc. stabilizer ...	100kΩ	G4
R6	Osc. anode load ...	22kΩ	G3
R7	V2 S.G. feed ...	15kΩ	F4
R8	V2 C.G. stopper ...	10kΩ	F3
R9	L.F. stopper ...	100kΩ	F4
R10	A.G.C. decoupling ...	1.5MΩ	F3
R11	Volume control ...	500kΩ	D3
R12	V3 C.G. ...	3.3MΩ	F4
R13	V3 anode load ...	100kΩ	F4
R14	V4 C.G. ...	220kΩ	E4
R15	V4 C.G. stopper ...	10kΩ	E4
R16	H.T. smoothing ...	2kΩ	E4
R17	Tone control ...	20kΩ	D4
R18	V4 G.B. ...	200kΩ	E4
R19	H.T. smoothing ...	1kΩ	E3

Model 1122 Switch Units

Switches	L.W.	M.W.	S.W.	Gram.
S1	—	—	—	—
S2	—	—	—	—
S3	—	—	—	—
S4	—	—	—	—
S5	—	—	—	—
S6	—	—	—	—
S7	—	—	—	—
S8	—	—	—	—
S9	—	—	—	—
S10	—	—	—	—
S11	—	—	—	—
S12	—	—	—	—
S13	—	—	—	—
S14	—	—	—	—
S15	—	—	—	—
S16	—	—	—	—
S17	—	—	—	—
S18	—	—	—	—
S19	—	—	—	—
S20	—	—	—	—
S21	—	—	—	—



Diagrams of the waveband switch units of the model 1122. They are drawn as seen in the direction of the arrows in our underside view of the chassis.

Model 1615 is a table autoradiogram employing a type 45000A8 record changer, which plays ten 10in or 12in records unmixed, with a No. 2 rim drive motor. Its chassis is basically that of the 1122, but the order of control knob sequence is different, the waveband and tuning controls being transposed. The drive cord system is therefore different.

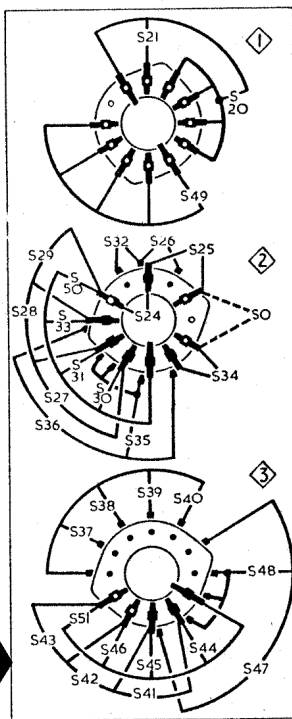
Diagrams of the waveband switch units in the 1123
S0 (shown dotted) is an "accidental" switch, not shown in the circuit diagram.

CAPACITORS		Values	Locations
C1	Aerial shunts ...	22pF	G4
C2	Aerial trimmer ...	220pF	G3
C3	V1 C.G. ...	85pF	G3
C4	V1 S.G. decoup. ...	220pF	G3
C5	1st I.F. trans. ...	0.1μF	G3
C6	tuning ...	100pF	B1
C7	V1 osc. C.G. ...	100pF	B1
C8	A.G.C. decoupling ...	0.047μF	F3
C9	S.W. osc. tracker ...	3,900pF	G4
C10	M.W. osc. tracker ...	510pF	G3
C11	L.W. osc. tracker ...	180pF	G3
C12	Osc. trimmer ...	100pF	G3
C13	Osc. anode coup. ...	100pF	G4
C14	V2 S.G. decoup. ...	0.1μF	F3
C15	2nd I.F. trans. ...	100pF	B2
C16	tuning ...	100pF	B2
C17	L.F. by-pass ...	100pF	F4
C18	A.F. coupling ...	0.047μF	F4
C19	L.F. by-pass ...	220pF	F4
C20	A.F. coupling ...	0.047μF	F4
C21	H.T. smoothing ...	16μF	E3
C22*	Part tone control ...	0.05μF	E4
C23	Tone corrector ...	0.005μF	E4
C24	H.T. smoothing ...	32μF	E3
C25*	S.W. aerial trim. ...	30pF	F4
C26*	M.W. aerial trim. ...	30pF	F4
C27†	L.W. aerial trim. ...	30pF	F3
C28†	Aerial tuning ...	—	A2
C29†	S.W. osc. trimmer ...	30pF	A2
C30†	M.W. osc. trimmer ...	30pF	A1
C31†	L.W. osc. trimmer ...	30pF	A1
C32†	Oscillator tuning ...	—	A2
C33†	L.W. pre-set ...	135pF	—
C34†	M.W. pre-set ...	450pF	—
C35†	M.W. pre-set ...	450pF	—
C36†	M.W. pre-set ...	450pF	—
C37†	M.W. pre-set ...	450pF	—
C38†	M.W. pre-set ...	450pF	—
C39	M.W. trim. ...	47pF	—
C40	Tracker ...	220pF	—
C41	Tuner ...	330pF	—

* Electrolytic. † Variable ‡ Pre-set.

Model 1123 Switch Units

Switches	PB	L.W.	M.W.	S.W.	Gram
S20	—	—	—	—	—
S21	—	—	—	—	—
S22	—	—	—	—	—
S23	—	—	—	—	—
S24	—	—	—	—	—
S25	—	—	—	—	—
S26	—	—	—	—	—
S27	—	—	—	—	—
S28	—	—	—	—	—
S29	—	—	—	—	—
S30	—	—	—	—	—
S31	—	—	—	—	—
S32	—	—	—	—	—
S33	—	—	—	—	—
S34	—	—	—	—	—
S35	—	—	—	—	—
S36	—	—	—	—	—
S37	—	—	—	—	—
S38	—	—	—	—	—
S39	—	—	—	—	—
S40	—	—	—	—	—
S41	—	—	—	—	—
S42	—	—	—	—	—
S43	—	—	—	—	—
S44	—	—	—	—	—
S45	—	—	—	—	—
S46	—	—	—	—	—
S47	—	—	—	—	—
S48	—	—	—	—	—
S49	—	—	—	—	—
S50	—	—	—	—	—
S51	—	—	—	—	—
S52	—	—	—	—	—



OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Aerial coupling coils ...	0-1	G4
L2	Aerial coupling coils ...	29-0	G4
L3	Aerial coupling coils ...	62-0	G3
L4	Aerial coupling coils ...	0-1	G4
L5	Aerial tuning coils ...	3-0	G4
L6	Aerial tuning coils ...	25-0	G3
L7	Oscillator reaction coils ...	0-1	G4
L8	Oscillator reaction coils ...	3-9	G3
L9	Oscillator tuning coils ...	0-5	G4
L10	Oscillator tuning coils ...	3-5	G3
L11	Oscillator tuning coils ...	7-0	G3
L12	1st I.F. trans. { Pri. ...	5-0	B1
L13	1st I.F. trans. { Sec. ...	5-0	B1
L14	2nd I.F. trans. { Pri. ...	5-0	B2
L15	2nd I.F. trans. { Sec. ...	5-0	B2
L16	Speech coil ...	3-0	—
L17	M.W. pre-set ...	10-65	—
L18	M.W. pre-set ...	5-0	—
L19	M.W. pre-set ...	2-5	—
L20	M.W. pre-set ...	2-5	—
T1	O.P. trans. { Pri. ...	310-0	B2
T2	O.P. trans. { Sec. ...	0-1	—
T3	O.P. trans. { H.T. sec. ...	60-0	—
T4	O.P. trans. { H.T. sec. ...	0-1	C2
T5	O.P. trans. { H.T. sec. ...	900-0	—
S1-	Waveband switches ...	—	G4
S21	Waveband switches ...	—	G4
S22	Mains sw., g'd R11 ...	—	D3
S23	Mains sw., g'd R11 ...	—	D3
S24-	W/b switches ...	—	—
S51	W/b switches ...	—	—
S52-	W/b switches ...	—	—
S55	Pb switches ...	—	—
F1, F2	1 amp fuses ...	—	B2

CIRCUIT ALIGNMENT

As the tuning scale is fixed to the cabinet, the following alignment instructions should be carried out with the chassis in the cabinet, core and trimmer adjustments being made accessible upon removing the back and base cover. Connect the signal generator output via an 0.01μF capacitor in the "live" lead, to control grid (pin 1) of V1 and chassis.

I.F. Stages.—Switch set to M.W. and turn gang to minimum. Feed in a 470 kc/s (838.3 m) signal and adjust the cores of L15 (location reference F4), L14 (B2), L13 (F3) and L12 (D1) for maximum output, reducing the input as the circuits come into line to avoid A.G.C. action. Repeat these adjustments.

R.F. and Oscillator Stages.—Transfer signal generator leads, via a dummy aerial, to A and E sockets. Check that with the gang at maximum capacitance the cursors coincide with the ends of the tuning scales. The cursors can be individually adjusted by sliding them along the drive cord.

S.W.—Switch set to S.W., tune to 50 m, feed in a 50 m (6 Mc/s) signal and adjust the cores of L9, L4 (A1). Tune set to 16.8 m, feed in a 16.8 m (17.8 Mc/s) signal and adjust C31, C27 (A2) for maximum output. Repeat these adjustments.

M.W.—Switch set to M.W., tune to 510 m, feed in a 510 m (588 kc/s) signal and adjust the cores of L10 (A1) and L5 (A2) for maximum output. Tune to 186.9 m, feed in a 186.9 m (1,605 kc/s) signal and adjust C32 (A1) for maximum output. Tune set to 210 m, feed in a 210 m (1,427 kc/s) signal and adjust C28 (A2) for maximum output while rocking the gang for optimum results. Repeat these adjustments.

L.W.—Switch set to L.W., tune to 1,850 m, feed in a 1,850 m (162 kc/s) signal and adjust the cores of L11, L6 (A1) for maximum output. Tune set to 1,000 m, feed in a 1,000 m (300 kc/s) signal and adjust C33 (A1) and C29 (A2) for maximum output.

Pre-set stations, Model 1123.—A signal generator output may be used to set these adjustments roughly, but they should be subsequently adjusted on the stations they are intended to receive.

Numbering from left to right the pre-set press-buttons are: 1, 1,175-2,000 m; 2, 330-510 m; 3, 273-400 m; 4, 187-300 m. The receiver should be allowed to warm up for fifteen minutes at the user's house before final adjustments are made. If adjustments are made during alignment to L5 or L6, the pre-set trimmer capacitors should be readjusted.

DRIVE CORD REPLACEMENT

Models 1122, 1123, 1616.—About six feet of nylon-braided glass yarn is required for a new tuning drive cord, a single length being employed for both gang and cursor drives. The course is shown in the sketch in col. 4, where the system is drawn as seen in our sample chassis of the 1122 when viewed from the front right-hand corner of the chassis when the gang is at maximum capacitance.

First tie a loop about 3/8 in diameter at one end of the cord, hook it to the anchorage provided and pass the cord through the rim of the gang drum to the external groove, and run the cord as shown in the sketch, pulling against the gang stop to hold the cord in position. Finally tie off the free end to the tension spring so that the spring is extended to about one and a half times its relaxed length when hooked to the anchorage.