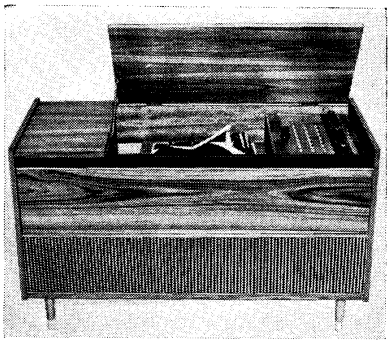
E R T

SERVICE CHART 1585

New Series



DECCA 545/565 STEREOGRAMS

Additional copies of this chart price 1s. 6d. post free. Payment with order please to ERT, 40 Bowling Green Lane, London EC1

TRANSISTORISED AM-FM stereograms covering LW, MW and VHF.

Mains. 200-250V AC 50c/s.

Wavebands. MW 187.3-571m (1600-525kc/s), LW 1150-2006m (260-149kc/s), VHF 87.5-101mc/s.

Transistors. TR1 AF180 FM RF amplifier, TR2 AF115 FM oscillator mixer, TR3 AF114 AM mixer and FM IF amplifier, TR4 AF114 AM/FM IF amplifier, TR5 AF114 AM/FM IF amplifier, TR6/TR7 AC156 audio preamplifiers, TR8/TR9 AC165 audio pre-drivers, TR10 AC166 and TR11 AC168 complementary push-pull drivers, TR12 AC168 and TR13 AC166 complementary push-pull drivers, TR14/TR15 AC177 push-pull output, TR16/TR17 AC177 push-pull output.

Diodes. D1 OA79 AGC clamp, D2/D3 OA79 FM ratio detector, D4 OA70 AM detector, D5 SFD107DC blocking diode, D6/D7/D8/D9 AA120 bias compensating diodes.

HT rectifier. Westinghouse LT123 bridge rectifier.

Pilot lights. Two 12V 0.1A MES.

Speakers. Two 8 x 5in. high flux 20ohms.

Output. 3W per channel.

Aerials. Internal ferrite aerial for MW and LW, internal dipole for VHF. Provision for external aerials for AM and FM. Aerial director control on MW and LW (model 565 only).

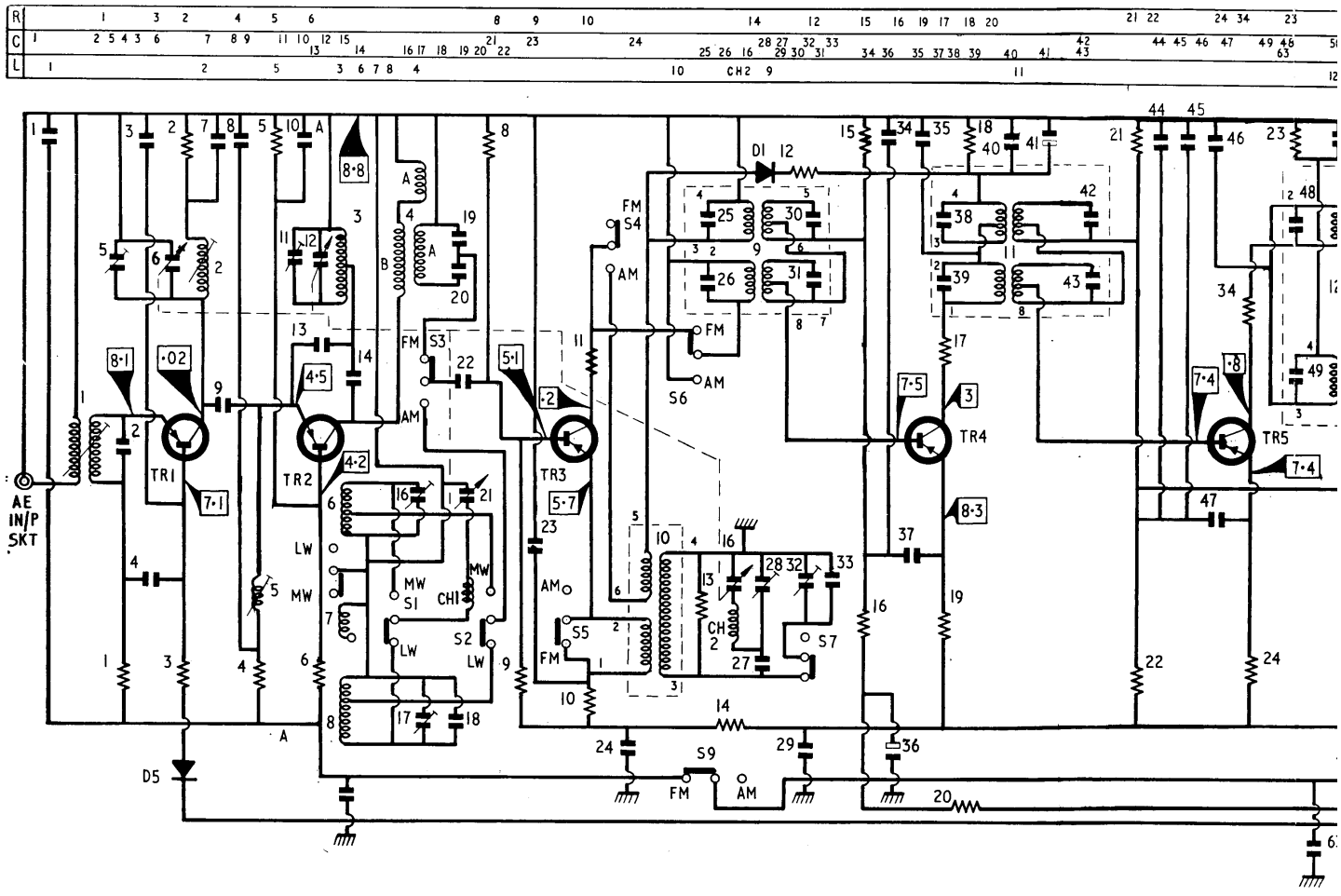
IFs. AM 472kc/s, FM 10.7mc/s.

Sockets. Jack sockets for tape record and playback.

Record unit. Decca autochanger Part No. D590385.

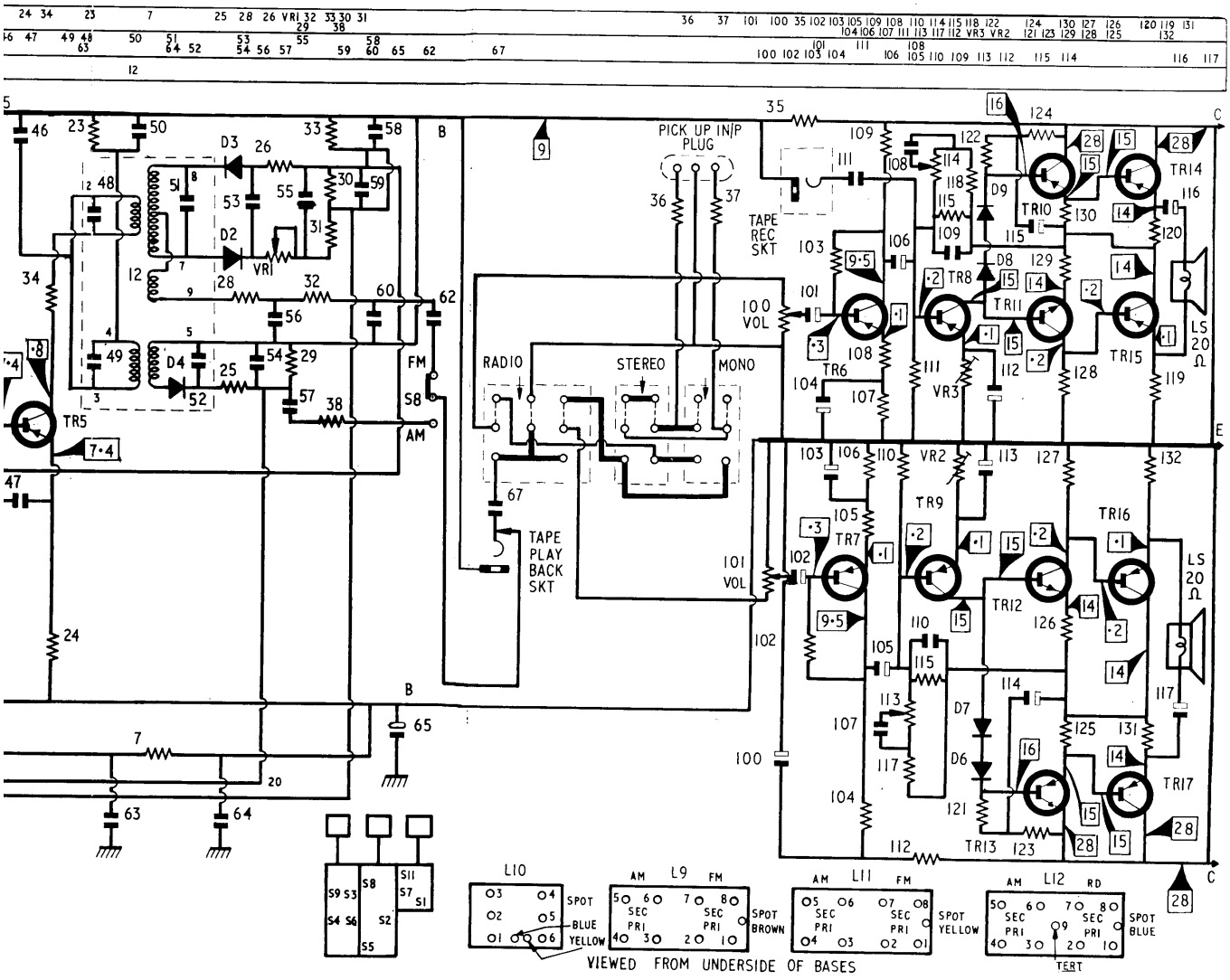
Cartridge. Sonotone 19T.

Styli. 19T diamond LP (colour code



RESISTORS

R1	330	tuner	R106	18	B1	C6	238pF	gang	C47	220KpF	C3
R2	100	tuner	R107	18	B2	C7	1KpF	tuner	C48	300pF	in L12
R3	1K	tuner	R108	5.6	B3	C8	560pF	tuner	C49	250pF	in L12
R4	3K3	tuner	R109	2K2	B2	C9	5.6pF	tuner	C50	100KpF	B3
R5	10K	tuner	R110	4K7	B1	C10	1KpF	tuner	C51	50pF	in L12
R6	10K	tuner	R111	4K7	B3	C11	2-25pF	tuner	C52	10KpF	in L12
R7	47	B3	R112	820	B2	C12	238pF	gang	C53	1KpF	C3
R8	33K	B4	R115	220K	B1	C13	8.2pF	tuner	C54	20KpF	B3
R9	6K8	B4	R116	220K	B2	C14	68pF	tuner	C55	10mF	B3
R10	1K	B4	R117	10K	A1	C15	100KpF	A4	C56	1KpF	B3
R11	220	A4	R118	10K	A1	C16	3-30pF	A3	C57	220KpF	B3
R12	680	B4	R119	3.3	C2	C17	3-30pF	B3	C58	47KpF	B3
R13	330K	B3	R120	3.3	C2	C18	35pF	A3	C59	1KpF	B3
R14	2K2	B4	R121	6K8	C2	C19	1KpF	tuner	C60	22KpF	B3
R15	56K	C4	R122	6K8	C2	C20	3KpF	tuner	C61	238pF	gang
R16	3K3	B4	R123	2K2	B2	C21	238pF	gang	C62	22KpF	A3
R17	330	C4	R124	2K2	B2	C22	10KpF	B4	C63	100KpF	B3
R18	1K5	B4	R125	150	C2	C23	20KpF	A4	C64	100KpF	B3
R19	470	C4	R126	56	B2	C24	100KpF	B4	C65	500mF	B3
R20	3K3	B3	R127	150	C1	C25	560pF	in L9	C67	250KpF	A3
R21	10K	C4	R128	150	C2	C26	180pF	in L9	C100	650mF	B2
R22	2K2	C4	R129	56	C2	C27	190pF	A3	C101	10mF	A2
R23	47	C3	R130	150	C2	C28	3-30pF	A3	C102	10mF	A2
R24	470	C3	R131	3.3	C2	C29	100KpF	C4	C103	100mF	B1
R25	390	B3	R132	3.3	C1	C30	560pF	in L9	C104	100mF	B2
R26	680	B3				C31	180pF	in L9	C105	10mF	B2
R28	82	C3	**POTENTIOMETERS**			C32	3-30pF	B3	C106	10mF	B2
R29	6K8	B3	R100	25K log	B3	C33	180pF	B3	C107	1K5pF	B1
R30	6K8	B3	R101	25K log	A3	C34	100KpF	C4	C108	1K5pF	B1
R31	22K	B3	R113	250K log	A1	C35	1K5pF	C4	C109	120pF	B2
R32	1K	B3	R114	250K log	B1	C36	10mF	B3	C110	120pF	B1
R33	2M2	B3	VR1	5K lin	B3	C37	100KpF	C4	C111	100KpF	A2
R34	220	C3	VR2	2K lin	B1	C38	300pF	in L11	C112	100mF	B3
R35	820	B2	VR3	2K lin	B2	C39	180pF	in L11	C113	100mF	B1
R36	1M5	A2				C40	1KpF	B4	C114	30mF	B2
R37	1M5	A2	**CAPACITORS**			C41	2mF	B4	C115	30mF	B2
R38	47K	B3	C1	10KpF	tuner	C42	300pF	in L11	C116	500mF	C2
R102	220K	B2	C2	47pF	tuner	C43	180pF	in L11	C117	5000mF	C1
R103	220K	B2	C3	1KpF	tuner	C44	100KpF	C4	C118	3000mF	B1
R104	2K2	B2	C4	1KpF	tuner	C45	100KpF	B3	C119	1K8pF	B1
R105	5.6	B1	C5	2-25pF	tuner	C46	1KpF	C3	C120	1K8pF	B1



green), 19T sapphire 78 (colour code blue).

Controls. Pushbuttons: mono, stereo, radio, MW, LW, VHF. Dual concentric volume controls, tone-on/off and tuning.

Manufacturer. Decca Radio and Television.

Service department. Ingate Place, Queenstown Road, London SW8. Tel.: Macauley 6677.

SERVICE NOTES

Slight readjustment of tuner alignment may be required if TR1 or TR2 is replaced. In the event of any fault apart from transistors occurring in the tuner, the whole assembly, including gang condenser, should be returned to the makers.

ALIGNMENT

Equipment required. AM and FM signal generators, output meter 20ohms or AC voltmeter on low AC volts range, 10KpF capacitor, 1K resistor, trimming tools.

Remove chassis. Connect output meter in place of one speaker, or AC voltmeter in parallel with one speaker. Turn volume to maximum.

FM IF. Tune FM generator to 10.7 mc/s with 22kc/s deviation. Fully close main tuning gang. Switch receiver to FM. Connect output from generator via C22 (10KpF) to base of TR3 (AF114). Join screening to printed circuit earth.

Inject low-level signal to give slight reading on meter. Adjust top and bottom cores of L9, L11 and L12 for maximum output. Repeat until no further improvement is obtained.

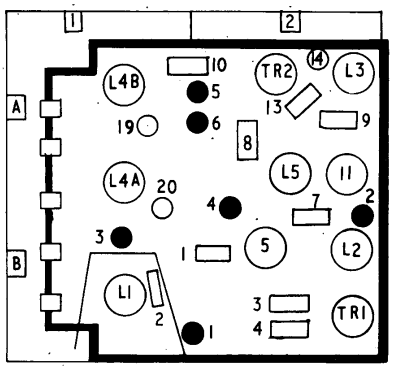
Change generator conections to FM aerial input terminals. Increase signal level and adjust L4 for maximum output. Switch generator to AM. Adjust VR1 for minimum output (maximum rejection). Repeat operations for optimum performance.

FM RF. Tune generator to 88mc/s with 22kc/s deviation. Tune receiver pointer to 88mc/s mark on dial. Switch to FM. Connect generator output between FM aerial socket and chassis. Adjust cores of L2 and L3 for maximum output.

Change generator tuning to 100mc/s deviated 22kc/s. Tune receiver to 100mc/s on dial. Adjust trimmers C11 and C5 for maximum output. Tune receiver pointer to 95mc/s. Adjust cores of L1 and L5 for maximum output.

AM IF. Fully close tuning gang. Switch to MW. Set generator to 472kc/s. Disconnect tag lead connecting MW aerial coil to TR3 base. Connect generator output between free end of lead and chassis.

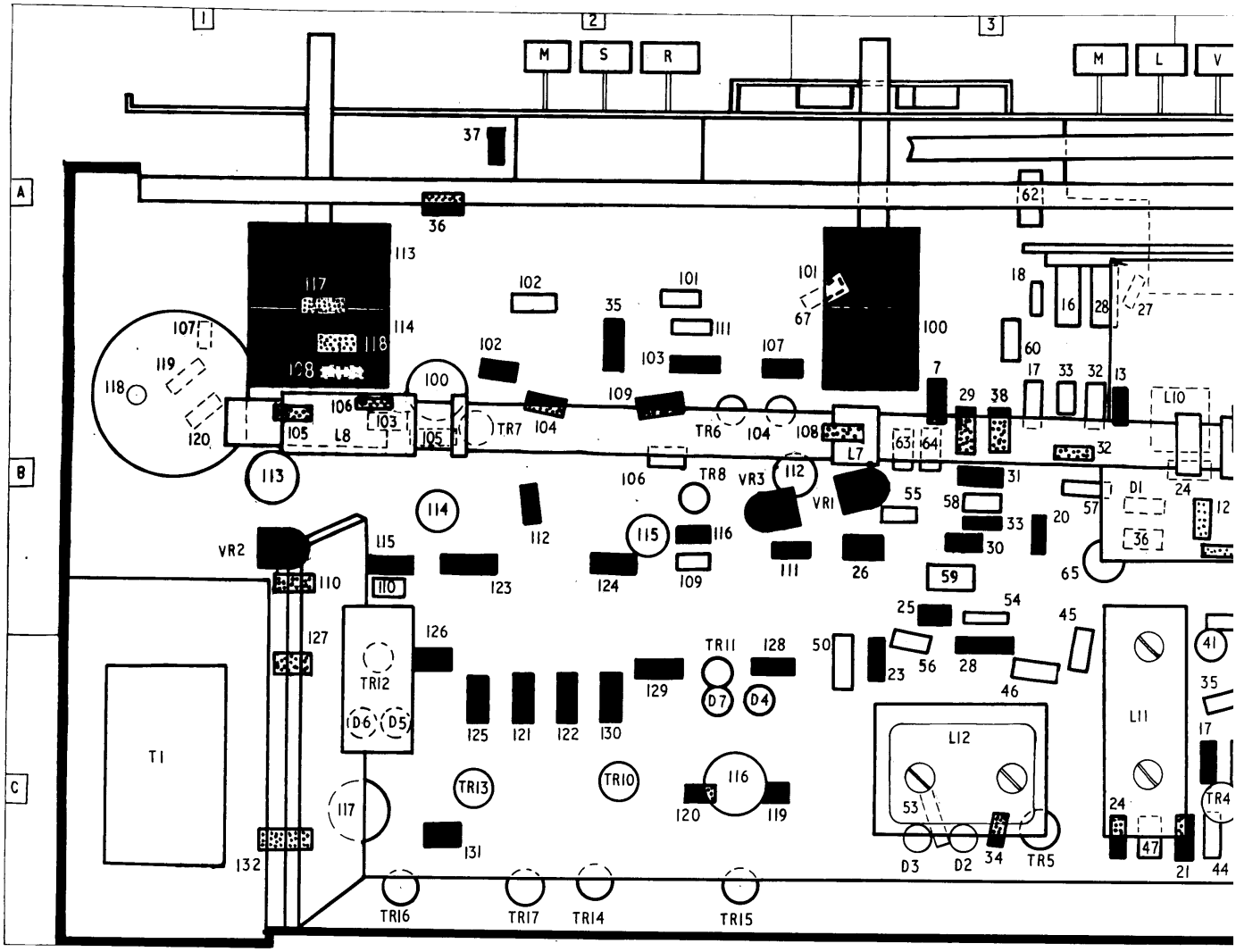
Peak top and bottom cores of L9



(AM) and L11 (AM). Peak L12 (one core only) for maximum output. Reduce generator output as circuits come into line. Repeat AM IF alignment for optimum performance. Reconnect lead to MW aerial coil.

AM RF. Switch to MW. Tune receiver pointer to 500m on dial. Tune generator to 600kc/s. Connect generator between AM aerial socket and chassis with 1K resistor in live lead. Adjust single core of L10 for maximum output. Adjust L6 for maximum output by sliding along ferrite rod.

Tune receiver to 200m on dial. Change



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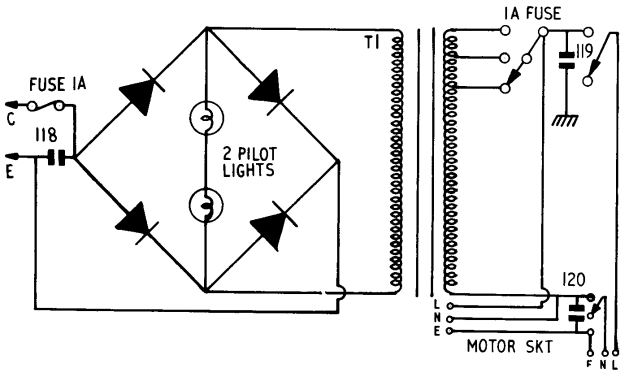
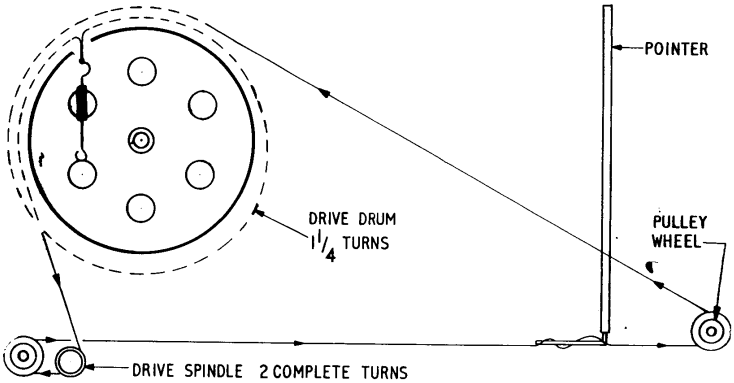
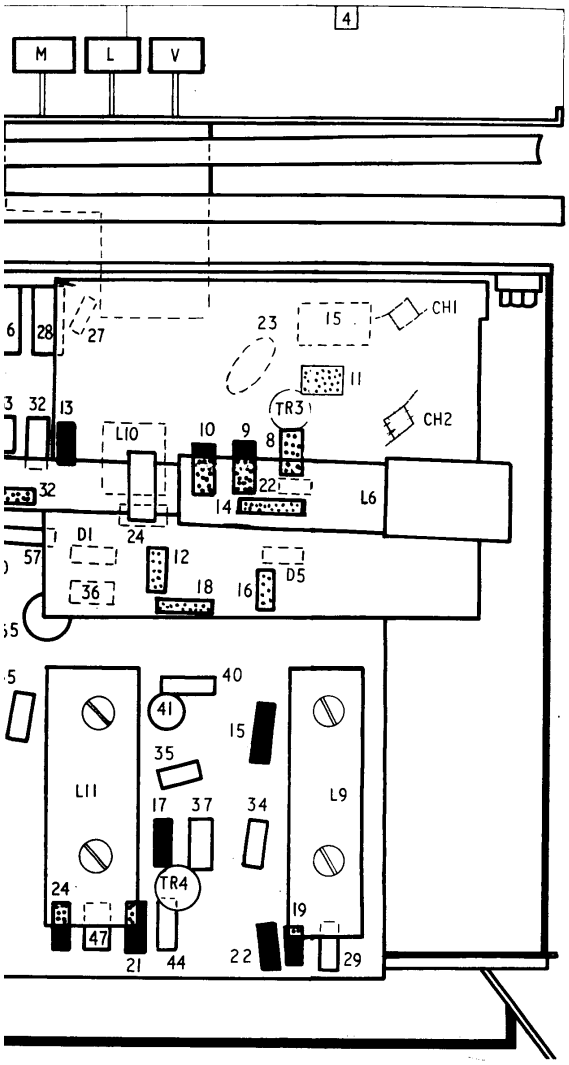




generator tuning to 1500kc/s. Adjust oscillator trimmer C28 and aerial trimmer C16 for maximum output. Repeat MW RF alignment adjustments for optimum performance.

Switch to LW. Tune receiver pointer to 1765m on dial. Tune generator to 170kc/s. Adjust LW oscillator trimmer C32 and LW aerial coil L8 (by sliding along ferrite rod) for maximum output. Retune receiver pointer to 1250m. Set generator to 240kc/s. Adjust trimmer C17 for maximum output. Repeat LW RF adjustments for optimum performance.



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