



**B**

# Clock rac

## 2552

### Alignment

#### AM circuit (IF)

Connect sweep generator to MW aerial. Connect oscilloscope to R20/earth. Switch radio to MW and tune to quiet point on the band.

Inject a sweep signal centred on 465kHz, with marker, and adjust the cores of T3, T5 and T6 for maximum output and symmetry of output waveform. Repeat these steps until no further improvement can be obtained.

#### AM circuits (RF)

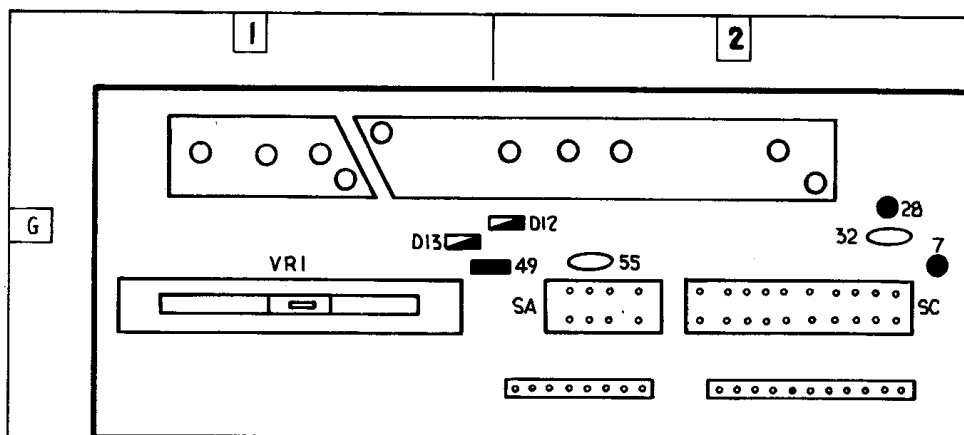
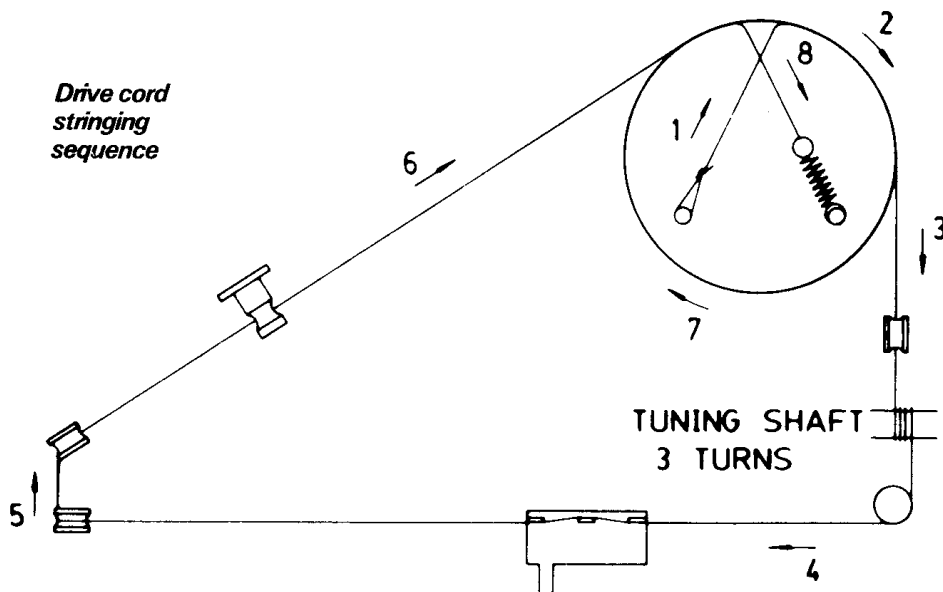
Connect signal generator to coupling loop placed near to ferrite rod. Connect

output meter to speaker terminals.

Tune receiver to low frequency end of MW band. Radiate an AM signal of 515kHz and adjust the core of oscillator coil T9 for maximum output. Retune receiver to high frequency end of band, radiate a signal of 1630kHz and adjust CT4 for maximum output.

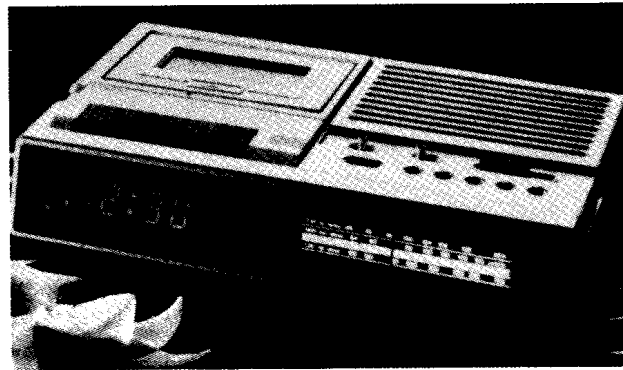
Radiate a signal of 600kHz, tune in signal, then adjust the position of L5 on ferrite rod for maximum output. Radiate a signal of 1400kHz, tune in the signal and then adjust CT3 for maximum output.

Repeat the T9, CT4, L5 and CT3 steps until no further improvement can be obtained.



# USH 6680

## Radio cassette recorder



Switch receiver to LW and tune to low frequency end of the band. Radiate a signal of 145kHz and, if necessary, re-adjust T9. Retune receiver to the high frequency end of the band, radiate a signal of 265kHz and adjust CT5 for maximum output.

Radiate a signal of 180kHz, tune in signal and then adjust the position of L8 on ferrite rod for maximum output. Radiate a signal of 240kHz, tune in signal then adjust CT6 for maximum output.

Repeat the T9 check and the CT5, L8 and CT6 steps for optimum results.

### FM circuits (IF)

Connect sweep generator to C14/earth. Connect oscilloscope to R18/earth. Switch receiver to VHF and tune to a quiet position on band.

Inject a sweep signal centred on 10.7MHz, with markers at 10.6, 10.7 and 10.8MHz. Adjust the cores of T1, T2 and T4 for maximum output consistent with symmetrical response.

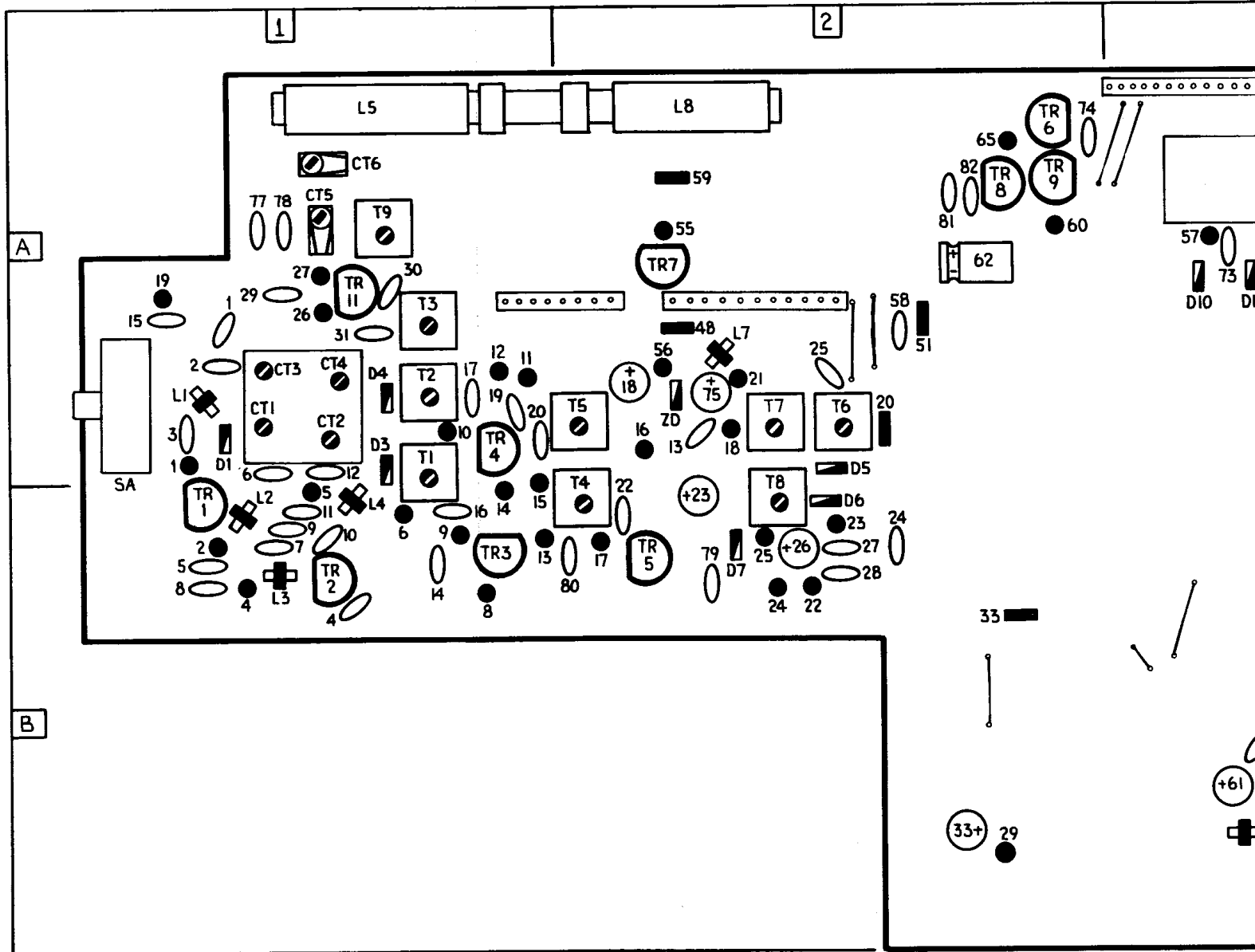
Transfer oscilloscope to R24/earth. Then adjust the cores of T7 and T8 for straight and symmetrical S-curve.

Repeat these steps in sequence until no

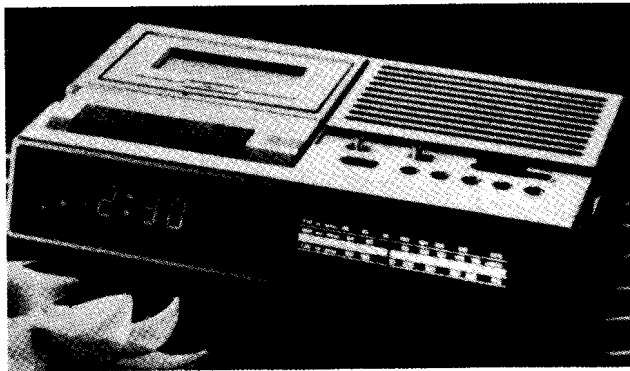
further improvement can be obtained. Remove sweep generator and oscilloscope.

### FM circuits (RF)

Connect signal generator to C1/earth via matching network. Tune receiver to the low frequency end of the VHF band. Inject a signal of 87MHz FM and adjust L4, by opening or closing coil turns, for maximum output on output meter connected to speaker terminals. Return receiver to the high frequency end of the band, inject a signal of 109MHz and



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**FM circuits (IF)**

Connect sweep generator to C14/earth. Connect oscilloscope to R18/earth. Switch receiver to VHF and tune to a quiet position on band.

Inject a sweep signal centred on 10.7MHz, with markers at 10.6, 10.7 and 10.8MHz. Adjust the cores of T1, T2 and T4 for maximum output consistent with symmetrical response.

Transfer oscilloscope to R24/earth. Then adjust the cores of T7 and T8 for straight and symmetrical S-curve.

Repeat these steps in sequence until no

further improvement can be obtained. Remove sweep generator and oscilloscope.

**FM circuits (RF)**

Connect signal generator to C1/earth via matching network. Tune receiver to the low frequency end of the VHF band. Inject a signal of 87MHz FM and adjust L4, by opening or closing coil turns, for maximum output on output meter connected to speaker terminals. Retune receiver to the high frequency end of the band, inject a signal of 109MHz and

adjust CT2 for maximum output.

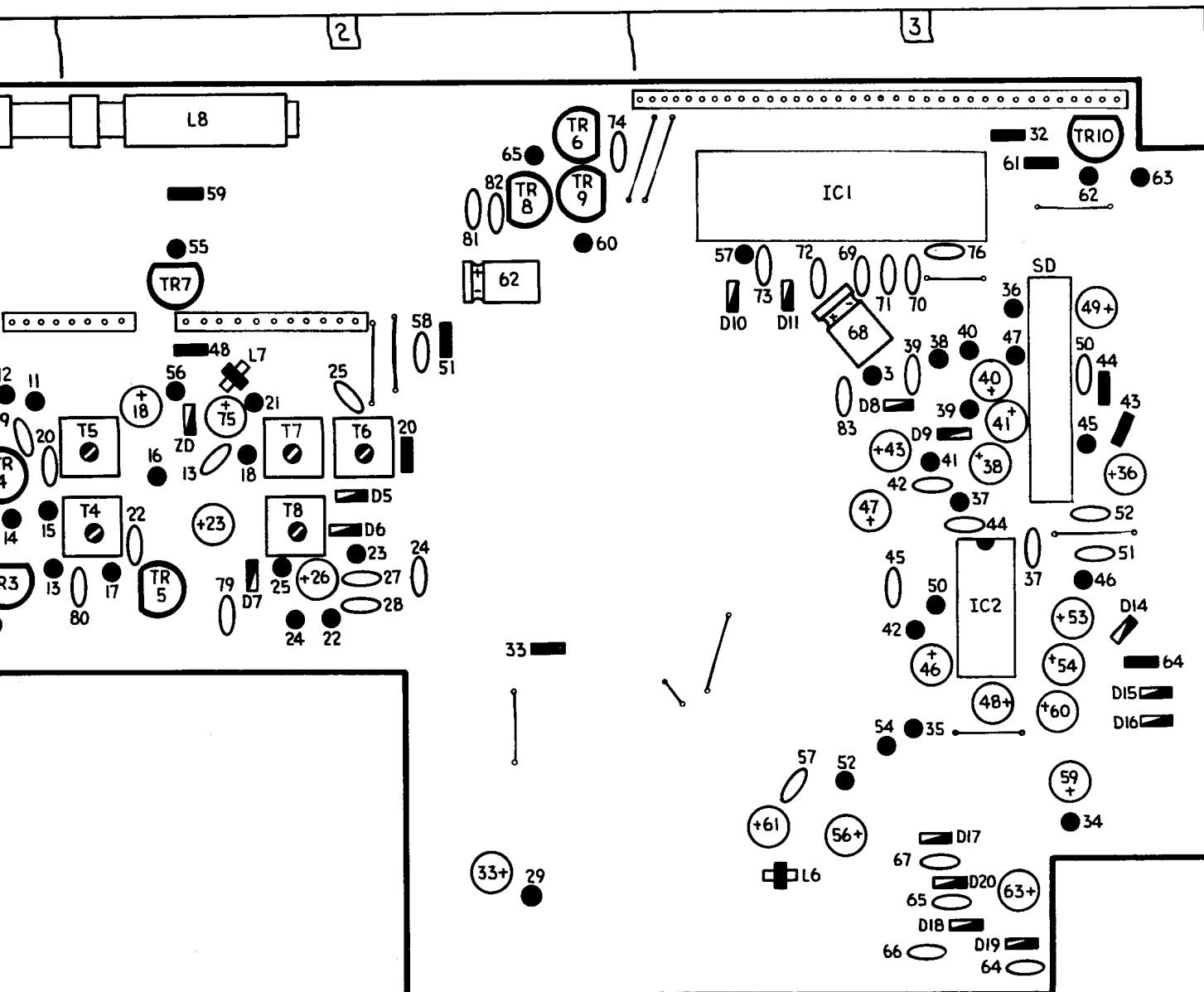
Inject a signal of 90MHz, tune in signal and adjust L2, by opening or closing coil turns, for maximum output. Inject a signal of 106MHz, tune in signal and adjust CT1 for maximum output.

Repeat the L4, CT2 L2 and CT1 steps until no further improvement can be obtained.

Remove all test equipment.

**Manufacturer**

Bush Radio plc, Wharf Road, Enfield, Middx. EN3 4TE. Tel: 01-805 1664.



ERT SERVICE CHART 2552 BUSH 6680

R	1	2	26	4	5	6	8	7	9	10	44	45	28	11															
C	2	1	3	4	5	33	6	CT1	7	29	8	9	10	11	12	31	CT2	14	16	33	37	38	39	40	41	46	53		
L	1	5	8							2	3				T9	4	T7											T2	T3

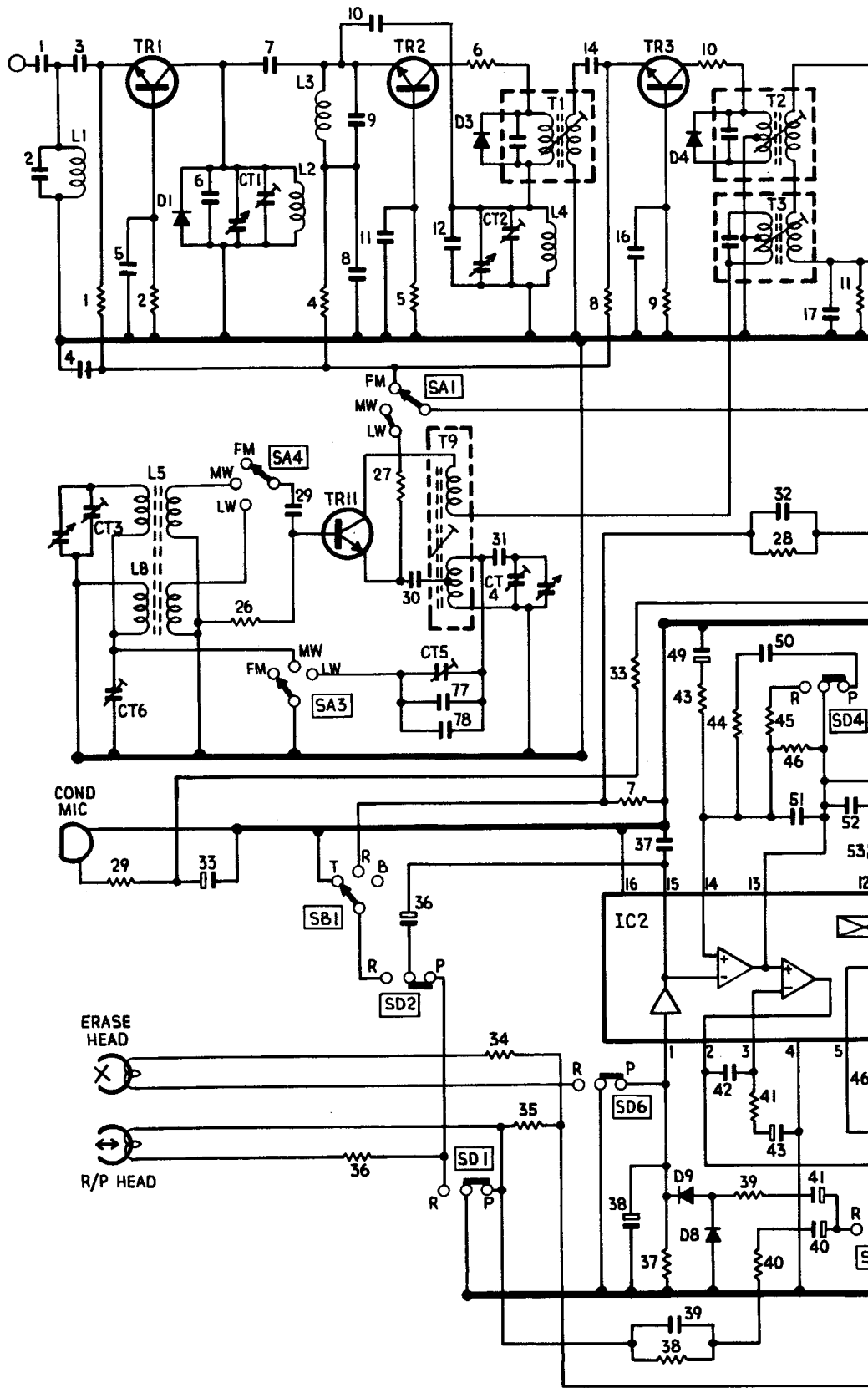
**RESISTORS**

R1	1k5	B1
R2	430k	B1
R3	430K	A3
R4	3k3	B1
R5	430k	B1
R6	56	B1
R7	56	C2
R8	470	B1
R9	330k	B1
R10	330	A1
R11	39k	A1
R12	5k6	A1
R13	220	B1
R14	470	B1
R15	22k	B1
R16	330k	A2
R17	680	B2
R18	680	A2
R19	680	A1
R20	1k	A2
R21	10k	A2
R22	4k7	B2
R23	1k	B2
R24	4k7	B2
R25	1k	B2
R26	2k2	A1
R27	2k2	A1
R28	39k	C2
R29	1k	B2
R32	8k2	A3
R33	1k	B2
R34	330	B3
R35	27k	B3
R36	10k	A3
R37	330k	B3
R38	8k2	A3
R39	5k6	A3
R40	10k	A3
R41	330	B3
R42	180	B3
R43	220	A3
R44	6k8	A3
R45	27k	A3
R46	430k	B3
R47	3k9	A3
R48	1k	A2
R49	1k	C2
R50	56k	B3
R51	100k	A2
R52	10	B3
R54	33	B3
R55	150	A2
R56	220	A2
R57	4k7	A3
R58	3k3	A2
R59	3k3	A2
R60	33	A2
R61	100	A3
R62	100k	A3
R63	15k	A3
R64	100k	B3
R65	4M7	A2
VR1	10k	C2

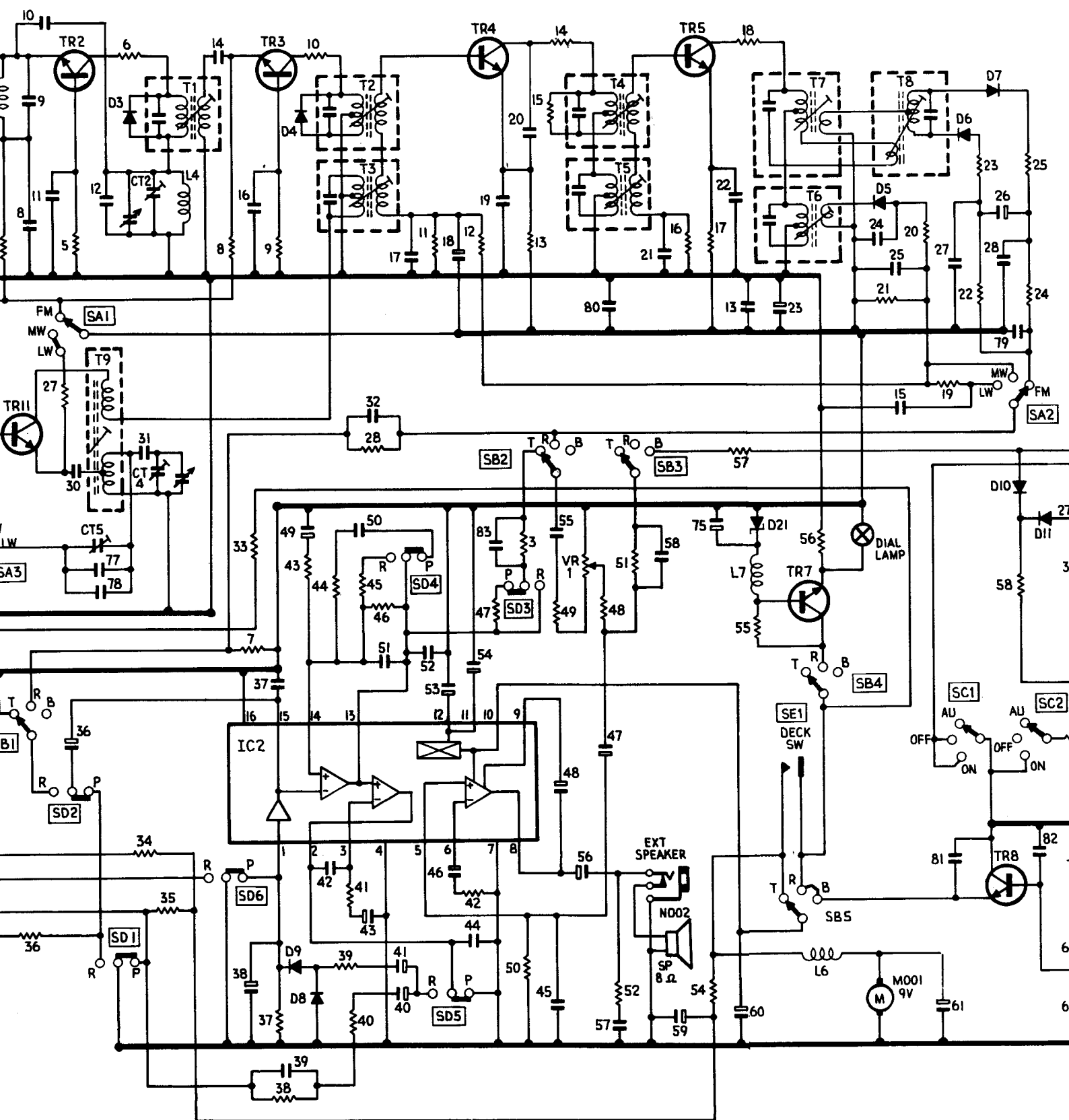
**CAPACITORS**

C1	8p	A1
C2	30p	A1
C3	50p	A1
C4	20n	B1
C5	4n7	B1
C6	22p	A1
C7	5p	B1
C8	300p	B1
C9	30p	B1
C10	5p	B1
C11	4n7	B1
C12	22p	A1
C13	22p	A2
C14	10n	B1
C15	10n	A1
C16	20n	B1
C17	20n	A1
C18	10u	A2
C19	20n	A1
C20	20n	A1
C21	20n	A2
C22	20n	B2
C23	220u	B2
C24	20n	B2
C25	20n	A2
C26	10u	B2
C27	1n	B2
C28	1n	B2
C29	10n	A1

C30	10n	A1	C38	47u	A3	C44	10n	B3	C50	150n	A3
C31	150p	A1	C39	10n	A3	C45	1n	B3	C51	500p	B3
C32	100p	C2	C40	10u	A3	C46	47u	B3	C52	10n	B3
C33	10u	B2	C41	10u	A3	C47	4u7	A3	C53	47u	B3
C36	4u7	A3	C42	500p	A3	C48	47u	B3	C54	100u	B3
C37	2n2	B3	C43	10u	A3	C49	10u	A3	C55	100n	C2

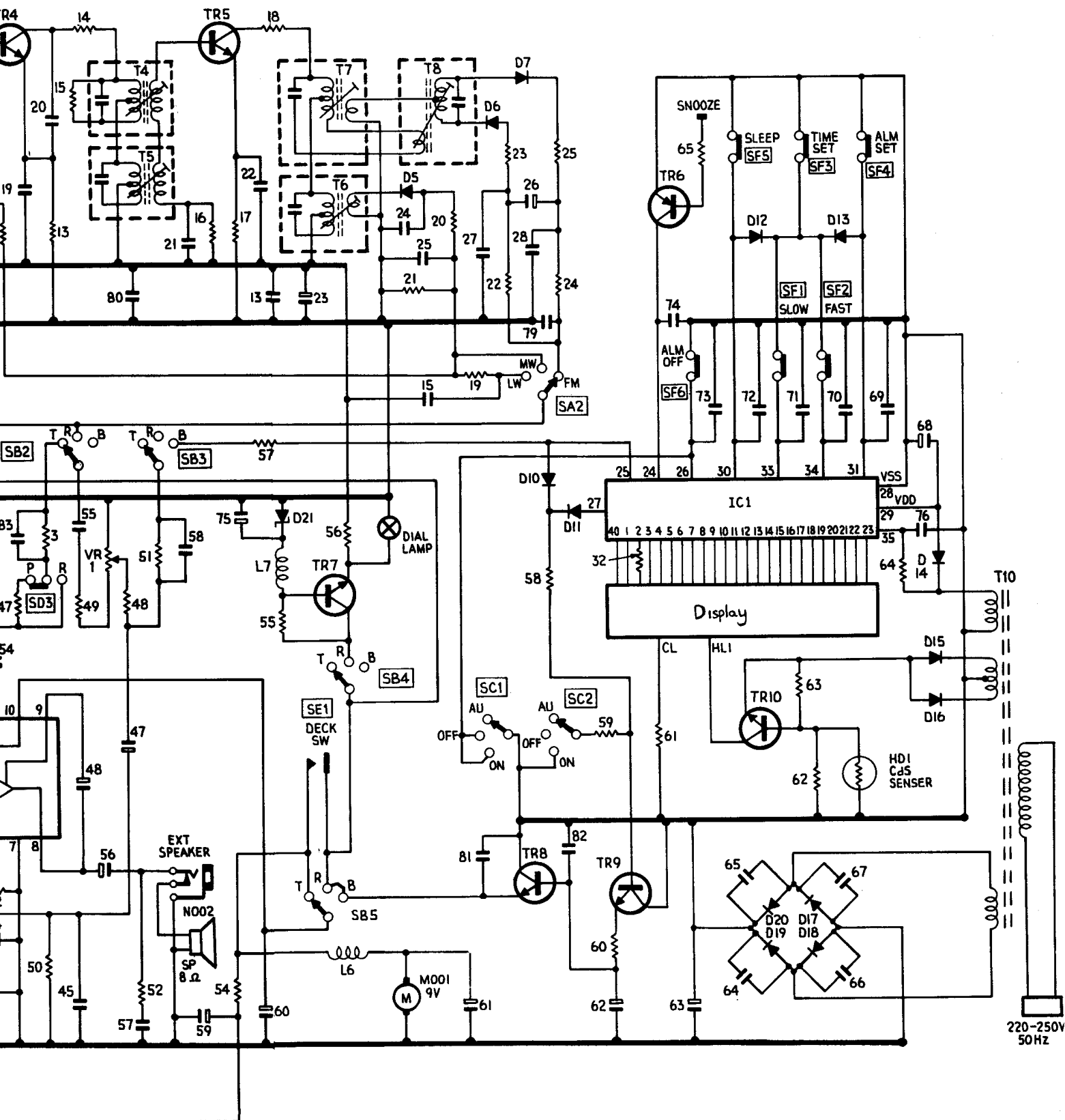


4 5 6 8 7 9 43 10 44 45 28 11 12 13 15 14 VR1 51 16 17 18 57 56 21 20 19 22 23 24 25 58  
 6 27 34 35 33 37 38 39 40 41 46 42 47 50 3 49 48 52 54 55 56 21 20 19 22 23 24 25 58  
 8 9 10 11 12 31 CT2 14 16 49 42 50 32 41 17 53 18 44 19 45 55 20 75 22 13 23 24 25 27 26 28 79  
 36 30 CTS 77 78 CT4 38 37 39 43 51 40 52 46 54 83 20 48 80 57 58 59 60 27 26 28 79 62  
 3 T9 4 T7 T2 T3 T4 T5 7 6 T7 T6 T8



C44	10n	B3	C50	150n	A3	C56	470u	B3	C62	47u	A2	C68	220u	A3
C45	1n	B3	C51	500p	B3	C57	20n	B3	C63	1000u	B3	C69	10n	A3
C46	47u	B3	C52	10n	B3	C58	10n	A2	C64	20n	B3	C70	10n	A3
C47	4u7	A3	C53	47u	B3	C59	10u 220V	B3	C65	20n	B3	C71	10n	A3
C48	47u	B3	C54	100u	B3	C60	470u	B3	C66	20n	B3	C72	10n	A3
C49	10u	A3	C55	100n	C2	C61	470u	B3	C67	20n	B3	C73	10n	A3

13	15	14	VR1	51	16	17	18	57	56	21	20	19	22	23	24	25	58	32	65	63	64	64					
7	50	3	49	48	52	54	55	55	56	21	20	19	22	23	24	25	59	60	61	62	HDI	64					
19	45	55	47	57	58	20	75	22	13	23	24	25	27	26	28	79	74	73	72	71	70	69	68				
83	20	48	80	80	59	59	60	60	60	15	61	81	82	82	82	62	63	64	65	67	66	66	76				
											T4	T5	7				6	T7	T6	T8		T10					



C56	470u	B3	C62	47u	A2	C68	220u	A3	C74	4n7	A2	C80	3n9	B2
C57	20n	B3	C63	1000u	B3	C69	10n	A3	C75	10u	A2	C81	300p	B2
C58	10n	A2	C64	20n	B3	C70	10n	A3	C76	10n	A3	C82	500p	B2
C59	10u 220V	B3	C65	20n	B3	C71	10n	A3	C77	10n	A1	C83	100p	A3
C60	470u	B3	C66	20n	B3	C72	10n	A3	C78	500p	A1	CT5	20p	A1
C61	470u	B3	C67	20n	B3	C73	10n	A3	C79	10n	B2	CT6	20p	A1