

murphy service information

MURPHY MODEL MD57 SERVICE INFORMATION

REFERENCE LIST FOR CIRCUIT DIAGRAM

Abbreviations:

cer	-	ceramic	elect.	-	electrolytic
p.s.m.	-	protected silver mica	v.d.c.	-	d.c. voltage rating
tub.	-	paper tubular	W.	-	wattage rating
m.tub.	-	metallised paper tubular	lin.	-	linear law
p.f.	-	plastic film	log.	-	logarithmic law.

<u>Part No.</u>	<u>Cir. No.</u>	<u>Value</u>	<u>Tolerance & Remarks</u>
M56325	C 1	2.5-15 pf	Trimmer
M66775	C 2	10 pf	10% cer. 750 v.d.c.
	C 3		Trimmer, with VC1
M66177	C 4	470 pf	20% cer. 750 v.d.c.
M49454	C 5	.04 mf	25% m.tub. 150 v.d.c.
M28156	C 6	100 pf	5% p.s.m. 350 v.d.c.
M28172	C 7	68 pf	5% p.s.m. 350 v.d.c.
	C 8		Trimmer, with VC2
M66292	C 9	220 pf	5% p.f. 350 v.d.c.
M49454	C10	.04 mf	25% m.tub. 150 v.d.c.
M75233	C11	560 pf	2% p.f. 350 v.d.c.
M56325	C12	2.5-15 pf	Trimmer
M66292	C13	220 pf	5% p.f. 350 v.d.c.
XP2403	C14	6300 pf	5% p.s.m. 350 v.d.c.
M66292	C15	220 pf	5% pf. 350 v.d.c.
M66174	C16	270 pf	20% cer. 500 v.d.c.
M41403	C17	.05 mf	20% tub. 350 v.d.c.
M66298	C18	390 pf	5% p.f. 350 v.d.c.
M49447	C19	.01 mf	25% m.tub. 150 v.d.c.
M49441	C20	.1 mf	25% m.tub. 150 v.d.c.
M41411	C21	.02 mf	20% tub. 500 v.d.c.
M49450	C22	.001 mf	25% tub. 350 v.d.c.

<u>Part No.</u>	<u>Cir.No.</u>	<u>Value</u>	<u>Tolerance & Remarks</u>
M51551	C23	.005 mf	25% tub. 500 v.d.c.
M41418	C24	.005 mf	25% tub. 1000 v.d.c.
M46532	{ C25	32 mf	± 50% 20% elect. 350 v.d.c.
	{ C26	32 mf	± 50% 20% elect. 350 v.d.c.
M66162	C27	27 pf	± 20% cer. 750 v.
<u>NOTE:</u> C27 does not appear on circuit diagram. Please add.			
M26086	R 1	1M ohm 10%	.4W
XP5842	R 2	27K ohms 10%	.5W
M25446	R 3	22K ohms 10%	.4W
M25574	R 4	47K ohms 10%	.4W
XP5837	R 5	10K ohms 10%	.5W
M24518	R 6	82 ohms 10%	.4W
M24230	R 7	15 ohms 10%	.4W
M25638	R 8	68K ohms 10%	.4W
M26150	R 9	1.5M ohms 10%	.4W
M24742	R10	330 ohms 10%	.4W
M26470	R11	10M ohms 10%	.4W
M25830	R12	220K ohms 10%	.4W
M25958	R13	470K ohms 10%	.4W
M25702	R14	100K ohms 10%	.4W
M25062	R15	2.2K ohms 10%	.4W
XP5816	R16	180 ohms 10%	.5W
M25023	R17	1.5K ohms 10%	1W
M74796	{ VC1	2 gang capacitor.	
	{ VC2		
DP2020	VR1 & S2	500K	Linear variable resistor
DP2021	VR2	250K	Log. variable resistor
EP2644	S 1		Switch, 4 pole, 2 pos.

<u>Part No.</u>	<u>Cir. No.</u>	<u>Value</u>	<u>Tolerance & Remarks</u>
EW1016	L1	53 ohm	M.W. Aerial Coil
	L2	2.3 "	
EW3348	L3		S.W. Aerial Coil
	L4		
EW1017	L5		M.W. Osc. Coil
	L6	1.6 ohm	
EW3349	L7		S.W. Osc. Coil
	L8		
DW2570	T1	5.6/5.6 ohm	1st I.F.T.
DW2571	T2	5.6/4.1 ohm	2nd I.F.T.
EW1015	T3	5.3 ohm anti-hum	Output Transformer
		315 " prim.	
EW1003	T4	220 ohm H.T. Sec.)	Mains Transformer
		235 ")	
		53 " Prim.)	

OTHER COMPONENTS ON MD57 RECEIVER

EP4657	Bracket Chassis Mounting, L.H.
EP4669	" " " R.H.
AP4654	Cabinet
DP4655	Cabinet Back
EP4670	Cursor, Pointer Assembly, MD57
XP1209	Drive Cord, Nylon
EP1680	Drive Cord, Spring
EP1024	Dial Pulley
EP2509	Dial Pulley, Pin
XP1251	Dial Drum
M16888	Panel Lamp, 6.8v. .3 amp
XP1389	Panel Lampholder
DP4660	Reflector
CP4656	Tuning Scale
EP4667	Tuning Spindle
M42580	Tuning Spindle, Circlip
XP3390	Knob, (Volume, Tuning, Tone, W/C)
XP1774	Knob Felt Washer
XA3735	Loudspeaker, 4" x 7"
XP1146	Valve ECH81 or 6C12 (Freq. Conv.)
XP1147	Valve EF89 or 6F18 (I.F. Amplifier)
XP1149	Valve EBC81 or 6LD13 (Demodulator). 1st Audio Amplifier, Automatic Gain Control)
XP1143	Valve EL84 Audio Freq. Pentode Power Amplifier
XP1150	Valve EZ80 (Fullwave Rectifier).
M59142	Valveholder B9A

MURPHY MODEL MD57 CIRCUIT ALIGNMENT TABLE

N.B. SW. ADJUSTMENTS TO BE MADE BEFORE M.W. - IF S.W. RE-ADJUSTED, M.W. MUST BE RE-ADJUSTED

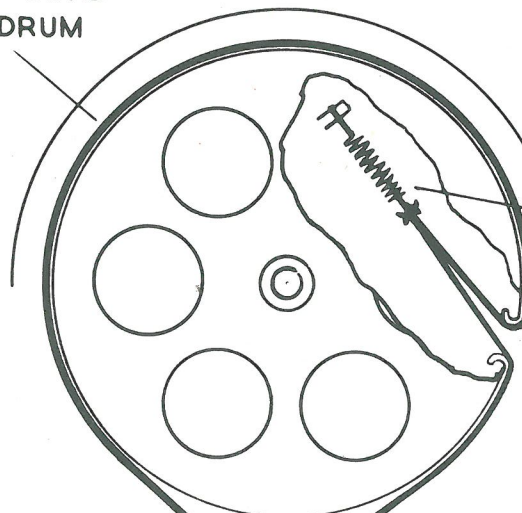
<u>Circuit</u>	<u>Notes</u>	<u>Sig.Gen.</u> <u>Freq.</u>	<u>Sig.Gen.</u> <u>Termin.</u>	<u>Connect</u> <u>Sig.Gen to</u>	<u>Receiver</u> <u>Setting</u>	<u>Adjustments</u>
2nd I.F.T.	Unscrew sec core (top of can) before starting adjustments.	455 Kc/s	Via 0.01mf capacitor	V2 grid 1 (Pin 2)	Gang closed.	T1 (pri) below chassis T1 (sec) top of can. Do not re-adjust Pri. Core.
1st I.F.T.	As above	455 Kc/s	As above	V1 grid 1 (Pin 2)	Gang closed.	T2 (pri) below chassis T2 (sec) top of can. Do not re-adjust Pri. Core.
SW.		7.25Mc/s	Dummy Aerial	Aerial Lead	7.25 Mc/s	L8 (adjust above chassis) L4 (adjust below chassis).
		17.8 Mc/s	As above	As above	17.8Mc/s	C8 (under gang) C3 (condenser)
Medium Wave		1364 Kc/s	Dummy Aerial	Aerial Lead	1364 Kc/s	Osc. trimmer C12 on back of chassis. Aerial Trimmer C1 on top of chassis.
		600 Kc/s	As above	As above	600 Kc/s	Iron core of L6 (above chassis). Iron core of L2 (below chassis.) Repeat this and previous adjustments if necessary.

DP 4668

1 TURN OF CORD
AROUND DRUM

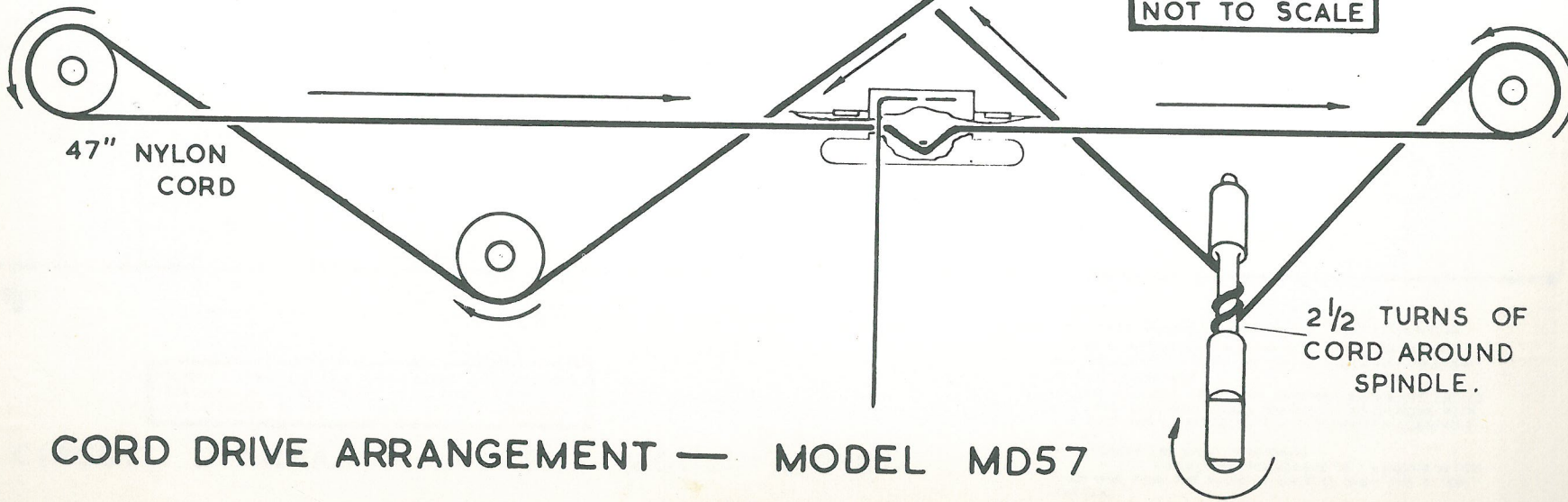
ARROWS SHOW DIRECTION OF
TRAVEL OF POINTER AND CORD
WHEN THE TUNING SPINDLE IS
ROTATED CLOCKWISE.

THE FULLY CLOCKWISE IS SHOWN,
AS VIEWED FROM THE FRONT.
IN THIS POSITION THE POINTER
MUST REGISTER WITH DATUM
POINTS ON RIGHT-HAND END OF
SCALE APERTURE, WITH GANGED
CAPACITOR FULLY CLOSED.



SPRING BEHIND
DRUM.
EXTENDED TO
1/2" ± 1/16"

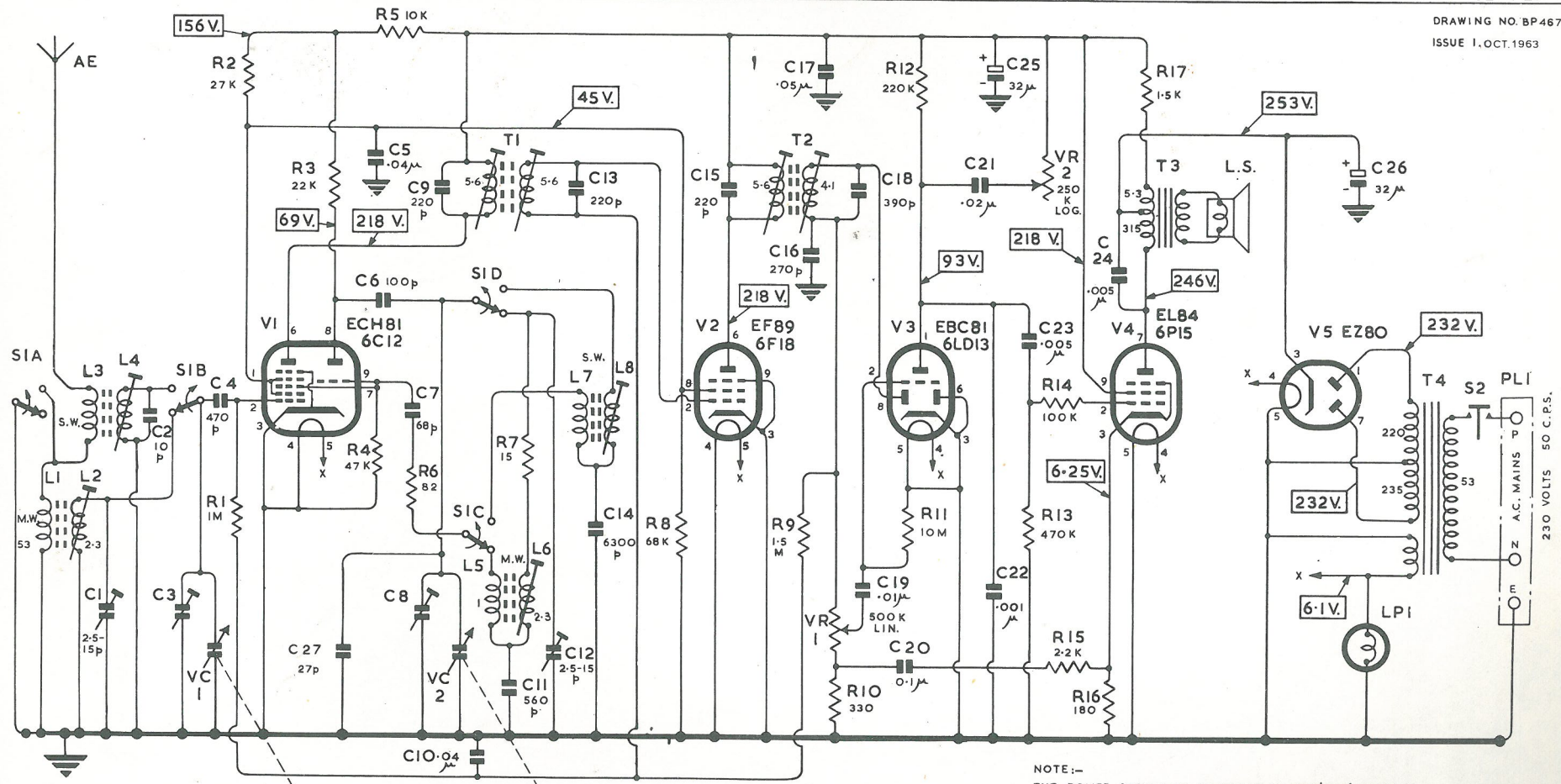
NOT TO SCALE



CORD DRIVE ARRANGEMENT — MODEL MD57

CAP.	1	2	3	4	27	56	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	25	22	23	24	26	CAPACITORS		
RESISTORS			1	2	3	4	5	6			7				8	9	10	11	12			13	14	15	16	17	RESISTORS		
MISC.	SIA	L3	L4	SIB	VI	VC1	VC2	SIC	SID	TI	L7	L8			V2	T2	VR1	V3			VR2	V4	T3	L.S.	V5	LPI	MISCELLANEOUS		
	L1	L2		VC1					L5	L6																	T4	S2	PLI

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REFER TO PARTS LIST FOR PART NUMBERS AND COMPLETE DESCRIPTIONS OF ELECTRICAL COMPONENTS. ORDER ALL REPLACEMENTS BY PART NUMBER AND LIST DESCRIPTION.

NOTE:-
THE POWER SWITCH S2 IS SHOWN IN THE 'OFF' POSITION.
THE WAVECHANGE SWITCH SIA-SID IS SHOWN IN THE M.W. POSITION WITH ARROWS INDICATING CLOCKWISE ROTATION OF SWITCH SPINDLE.
CIRCUIT VOLTAGES ARE SHOWN ARROWED WITHIN RECTANGLES AND WERE MEASURED UNDER NO-SIGNAL CONDITIONS WITH THE RECEIVER SWITCHED TO M.W. AND USING A 20KA/VOLT METER.
RESISTANCES ARE QUOTED IN OHMS WHERE THE RESISTANCE OF A WINDING IS LESS THAN ONE OHM THE VALUE IS OMITTED FROM THE CIRCUIT DIAGRAM.
VALVE PIN NUMBERS ARE SHOWN ADJACENT TO ELECTRODES.

BP4673

CIRCUIT DIAGRAM • MURPHY MODEL MD 57