

murphy service information

MURPHY 'MELODEON' MODEL G201 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	log.	-	logarithmic law

Part No.	Circuit No.	Value	Tolerance & Remarks
52149	C1	4.7 pf	20% cer. 500 v.d.c.
	C2	Trimmer	Part of VC1
54083	C3	470 pf	20% cer. 500 v.d.c.
52630	C4	100 pf	5% p.s.m. 350 v.d.c.
28172	C5	68 pf	5% p.s.m. 350 v.d.c.
52630	C6	100 pf	5% p.s.m. 350 v.d.c.
28288	C7	520 pf	1% p.s.m. 350 v.d.c.
28156	C8	100 pf	5% p.s.m. 350 v.d.c.
	C9	Trimmer	Part of VC2
54063	C10	27 pf	20% cer. 500 v.d.c.
49454	C11	.04 mfd.	25% m.tub. 150 v.d.c.
49454	C12	.04 mfd.	25% m.tub. 150 v.d.c.
52630	C13	100 pf	5% p.s.m. 350 v.d.c.
54080	C14	270 pf	20% cer. 500 v.d.c.
28205	C15	390 pf	5% p.s.m. 350 v.d.c.
49447	C16	.01 mfd.	25% m.tub. 150 v.d.c.
49450	C17	.001 mfd.	25% m.tub. 350 v.d.c.
41412	C18	.05 mfd.	20% tub. 500 v.d.c.
41411	C19	.02 mfd.	20% tub. 500 v.d.c.
74816	C20, C21, C24	20-40-40	plus 50%) minus 20%)elect. 350 v.d.c.
41419	C22	.01 mfd.	25% tub. 1000 v.d.c.
56168	C23	50 mfd.	plus 100%) elect. 12 v.d.c. minus 20%)
41405	C25	.25 mfd.	20% tub. 350 v.d.c.
41412	C26	.05 mfd.	20% tub. 500 v.d.c.
49457	C27	.002 mfd.	25% m.tub. 350 v.d.c.
27237	R1	68K ohm	20% .4W
25445	R2	22K ohm	10% .4W
27461	R3	1M ohm	20% .4W
24517	R4	82 ohm	10% .4W
24229	R5	15 ohm	10% .4W
25445	R6	22K ohm	10% .4W
25485	R7	27K ohm	10% .5W
27493	R8	1.5M ohm	20% .4W

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Part No.	Circuit No.	Value	Tolerance & Remarks
24485	R9	68 ohm	10% .4W
27653	R10	10M ohm	20% .4W
27333	R11	220K ohm	20% .4W
25261	R12	6.8K ohm	10% .5W
27397	R13	470K ohm	20% .4W
27269	R14	100K ohm	20% .4W
27085	R15	10K ohm	20% .5W
24653	R16	180 ohm	10% .5W
25023	R17	1.5K ohm	10% 1 W
25125	R18	3.3K ohm	10% .4W
27397	R19	470K ohm	20% .4W
FW-1016 }	L1	53 ohm	Pri. } Ae. coil Sec. }
	L2	2.3 ohm	
FW-1017 }	L3	.6 ohm	Pri. } Osc. coil Sec. }
	L4	1.6 ohm	
75736	S1		2 position, radiogram
67694 }	T1	14.5 ohm	Pri. } 1st I.F.T. Sec. }
		14.5 ohm	
67695 }	T2	14.5 ohm	Pri. } 2nd I.F.T. Sec. }
		5.5 ohm	
FW-1080 }	T3	630 ohm	Pri. (total) } Output Sec. } transformer Pri. (tap to top) }
		.8 ohm	
		26 ohm	
FW-1078 }	T4	53 ohm	Pri. } H.T. Sec. } Mains Vc Htr. Sec. } transformer Main Htr. Sec. }
		196-200 ohm	
		.7 ohm	
		.2 ohm	
74796 }	VC1	588 pf	Ganged capacitor, ae. section
	VC2	528 pf	Ganged capacitor, osc. section
75734	VR1	.5M ohm log.	Ganged with S2 (vol. control)
75735	VR2	.25Mohm log.	(tone control)

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NOTE RE CHASSIS REMOVAL

Remove control knobs at top and in front of cabinet. Remove two chassis mounting screws from back lip of chassis. Allow chassis to drop at the back, and tilt so that the bottom most part of the chassis is 2 or 3 inches from cabinet mounting board. This should allow the controls on the top panel to clear the top panel and chassis will then move backwards easily. Replacement of the chassis is made by first entering the volume control shaft through the hole in the front of the cabinet, then allowing the top controls to enter their respective holes.

CIRCUIT ALIGNMENT

Receiver Output

Make all adjustments for maximum output with the volume control at maximum, and the tone at maximum treble. Adjust the signal generator attenuator so that this output does not exceed 500mW or approx. 1.2 v. across the loudspeaker voice coil.

Trimming Tool

A non-metallic tool must be used for adjusting the I.F.T. cores.

Tuning Pointer (Cursor) Setting

This must be correct before aligning the R.F. circuits, and it must be adjusted only when the ganged capacitor is at maximum capacitance (not necessarily with fully closed plates). When the chassis is outside the cabinet, the left-hand edge of the cursor carrier must register with the extreme right-hand marker on the carrier rail. When the chassis is in the cabinet, the cursor itself must register with the back edge of the dial scale calibration. If necessary, shift cursor carrier, or dial drum.

Alignment

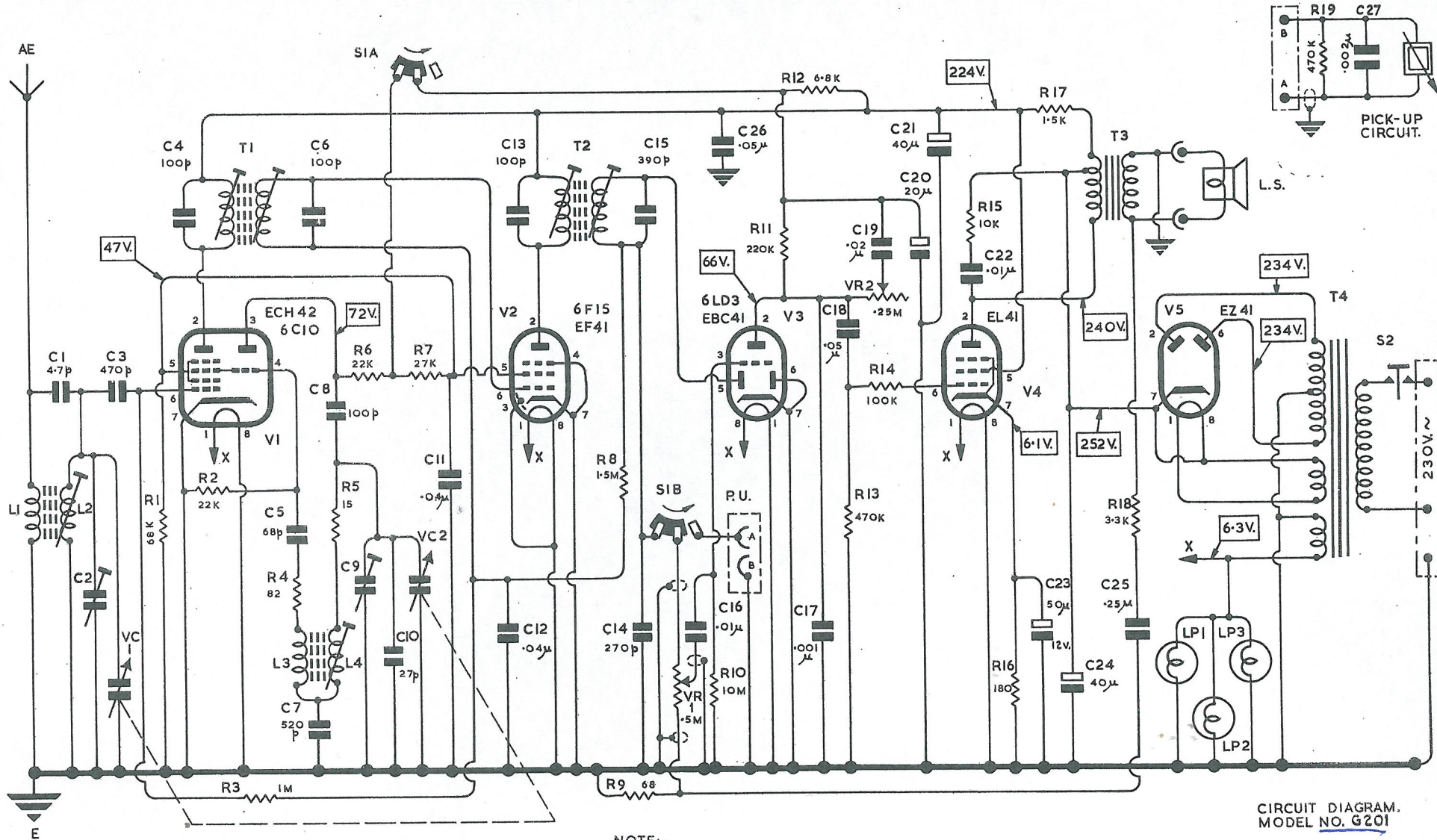
This should be made according to the alignment table given on the following page.

MURPHY MELODEON MODEL G201 CIRCUIT ALIGNMENT TABLE

CIRCUIT	NOTES	SIG. GEN. FREQUENCY	SIG. GEN. TERMINATION	CONNECT SIG. GEN. TO	RECEIVER SETTING	ADJUSTMENTS
2nd I.F.T.	Unscrew sec. core (top of can) before starting adjustments	470 Kc/s.	Via .01 mfd. capacitor	V2 grid 1 (pin 6)	Ganged capacitor fully meshed.	T2 (prim.) below chassis T2 (sec.) top of can. Do not readjust Prim. Core.
1st I.F.T.	As above	470 Kc/s.	As above	V1 grid 1 (pin 6)	As above	T1 (prim.) below chassis T1 (sec.) top of can. Do not readjust Prim. Core.
Medium Wave		1364 Kc/s.	Dummy Aerial	Aerial & Earth Leads	Extreme left marker on carrier rail	Osc. trimmer on C9 (under and nearest end of chassis) Aerial trimmer on C2 (below chassis)
		600 Kc/s.	As above	As above	3rd marker from left on carrier rail	Iron core on L4 (above chassis) Iron core on L2 (below chassis) Repeat this and previous adjustments if necessary.

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C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	26	17	18	19	20	21	22	23	24	25	27	CAPACITORS					
R		1	2	3	4	5	6	7						8	9	10		11	12	13	14		15	16	17	18		19	RESISTORS				
L	L1	L2	VC1		VI	TI	L3	L4	VC2	SIA		V2	T2	SIB	VR1		V3		VR2		V4				T3	V5	L.S.	LP1	LP2	LP3	T4	S2	MISC.



NOTE:-
 a. THE POWER SWITCH S2. IS SHOWN IN THE "OFF" POSITION.
 b. THE RADIO/GRAM SWITCH SIA-SIB. IS SHOWN IN THE "RADIO" POSITION WITH ARROWS INDICATING CLOCKWISE ROTATION OF SWITCH SPINDLE.

CIRCUIT DIAGRAM. MODEL NO. G201

**CORD DRIVE ARRANGEMENT.
MURPHY MELODEON MODEL G201
VIEWED FROM FRONT OF CHASSIS.**

