

R Gran

MURPHY SERVICE INFORMATION

MURPHY 'MELODIST 5' MODEL G202 SERVICE INFORMATION

REFERENCE LIST FOR CIRCUIT DIAGRAM

Abbreviations

- cer - ceramic
- p.s.m. - protected silver mica
- tub. - paper tubular
- m. tub. - metallised paper tubular
- log. - logarithmic law
- i.s. tub. - insulated sealed paper tubular (metal case)
- elect. - electrolytic
- v.d.c. - d.c. voltage rating
- W. - wattage rating
- ve - negative temperature coefficient

PART NO.	CIRCUIT NO.	VALUE	TOLERANCE AND REMARKS
27237	R1	68K ohm	.4 W. 20%
25445	R2	22K ohm	.4 W. 10%
27461	R3	1M ohm	.4 W. 20%
24517	R4	82 ohm	.4 W. 10%
24229	R5	15 ohm	.4 W. 10%
25445	R6	22K ohm	.4 W. 10%
25485	R7	27K ohm	.5 W. 10%
27493	R8	1.5M ohm	.4 W. 20%
24613	R9	150 ohm	.4 W. 10%
27653	R10	10M ohm	.4 W. 20%
27333	R11	220K ohm	.4 W. 20%
25261	R12	6.8K ohm	.5 W. 10%
27397	R13	470K ohm	.4 W. 20%
27269	R14	100K ohm	.4 W. 20%
25477	R15	27K ohm	.4 W. 20%
24653	R16	180 ohm	.5 W. 10%
25023	R17	1.5K ohm	1 W. 10%
25125	R18	3.3K ohm	.4 W. 10%
27397	R19	470K ohm	.4 W. 20%
52149	C1	4.7 pf	20% cer 500 v.d.c.
	C2	trimmer	Part of V.C.1.
66177	C3	470 pf	20% cer 750 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.
28368	C8	100 pf	10% p.s.m. 350 v.d.c.
	C9	Trimmer	Part of V.C.2.
66162	C10	27 pf	20% cer. 750 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.

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PART NO.	CIRCUIT NO.	VALUE	TOLERANCE AND REMARKS
49447	C16	.01 mfd	25% m.tub. 150 v.d.c.
41412	C17	.05 mfd	20% tub. 500 v.d.c.
41411	C18	.02 mfd	20% tub. 500 v.d.c.
66177	C19	470 pf	20% cer. 750 v.d.c.
41412	C20	.05 mfd	20% tub. 500 v.d.c.
74816	(C21	20-40-40 mfd	+ 50% elect 350 v.d.c. - 20%
	(C22		
	(C25		
41418	C23	.005 mfd	25% tub. 1000 v.d.c.
56168	C24	50 mfd	+ 100% elect 12 v.d.c. - 20%
49441	C26	.1 mfd	25% m.tub. 150 v.d.c.
49457	C27	.002 mfd	25% m.tub. 350 v.d.c.
74796	(VC1	528 pf swing	Ganged capacitor/Aer section
	(VC2		
52832	VR1	1M ohm	Volume control
52840	VR2	250K log	Treble control with switch
52841	VR3	2M ohm rev/log	Bass control
RP1551	S1		2 position radiogram switch
67694	T1	(14.5 ohm	Pri 1st I.F.T.)
		(14.5 ohm	Sec 1st I.F.T.)
67695	T2	(14.5 ohm	Pri 2nd I.F.T.)
		(5.5 ohm	Sec 2nd I.F.T.)
RW1080	T3	(630 ohm	Pri (Total))
		(26 ohm	Pri (Tap to Finish) Output
		(.8 ohm	Sec) Transformer
RW1078	T4	(53 ohm	Pri)
		(196-200 ohm	HT sec) Mains
		(.7 ohm	Rect. Htr sec) Transformer
		(.2 ohm	6.3 V Htr sec)
RW1016	(L1	53 ohm	Prim Aer coil)
	(L2	2.3 ohm	Sec Aer coil)
RW1017	(L3	.6 ohm	Prim Osc coil)
	(L4	1.6 ohm	Sec Osc coil)

PART NO.	CIRCUIT NO.	DESCRIPTION
16882	LP1, LP2	Panel lamp 6.5V .3 amp M.E.S.
RP1133	V1	Valve 6C10 or ECH42
RP1134	V2	Valve 6F15 or EF41

PART NO.	CIRCUIT NO.	DESCRIPTION
RP1135	V3	Valve 6LD3 or EBC41
RP1136	V4	Valve EL41
RP1138	V5	Valve EZ40 or U.U.9.
74792	SK1	P.U. Socket 2 pin (Cinch 2624)
74794)	SK2	L.S. Socket 4 pin (Cinch 75/444)
74794)	SK3	Ext. L.S. 4 pin (Cinch 75/444)
74790	PL1	Plug - P.U. 2 pin (Cinch 2724)
74793	PL2	Plug - L.S. 4 pin (Cinch 2745)
74793	PL3	Plug - L.S. 4 pin (Cinch 2745)
74791		Shell for all plugs (Cinch 2706)

VARIOUS OTHER COMPONENTS FOR MURPHY MELODIST '15' MODEL G202

PART NO.	DESCRIPTION	REMARKS
<u>DIAL GROUP</u>		
RM1011	Bearing, spindle	
RP1358	Channel rubber	For holding dial scale
37569	Clip Dial	
2033/5	Cord Nylon	48"
60771	Cursor Assembly	Pointer & Carrier
RM1013	Drum	Dial Tuning
RD1584	Dial Scale	
RM1055	Flywheel	Tuning
RP1389	Lampholder	
RM1008	Reflector Dial	Less Pulleys
10413	Screw Grub 2.B.A. x $\frac{1}{4}$ "	For small knobs
RM1012	Spindle tuning	
47478	Spring	Dial
RP1024	Pulley plastic	For dial
RP1025	Rivet Stepped	For dial
<u>MISCELLANEOUS</u>		
74828	Knob Small (Less Grub Screw)	
34588	Washer Felt	For Knobs
RP1585	Back Cabinet	
RC1729	Cabinet	Light Ash
RC1730	Cabinet	Med. Dark Ash
RC1742	Cabinet	Dark Ash
46910	Core Iron Dust	I.F. Transformer
75731	Core Iron Dust	Aerial and Oscillator Coils
RP1079	Fabric Speaker	Light Ash Cabinet $2\frac{1}{2}$ sq. ft.
1829/17	Fabric Speaker	(Med. Dark Ash Cabinet $2\frac{1}{2}$ sq. ft. (Dark Ash Cabinet $2\frac{1}{2}$ sq. ft.

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CIRCUIT ALIGNMENT (G202)

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 400mW, or approximately 1.2 V. across the loudspeaker 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:

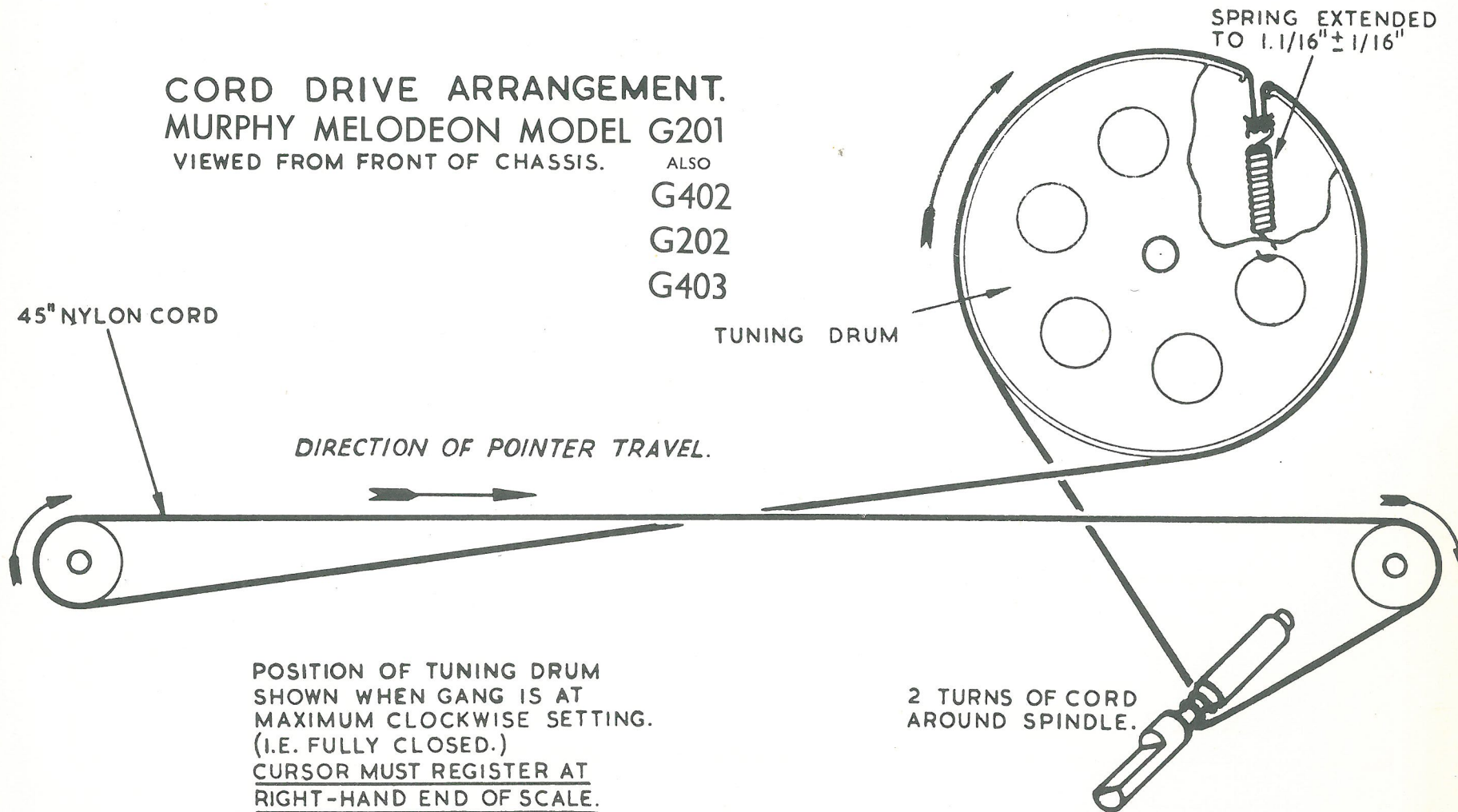
This should be made according to the alignment table given.

G202 CIRCUIT ALIGNMENT TABLE

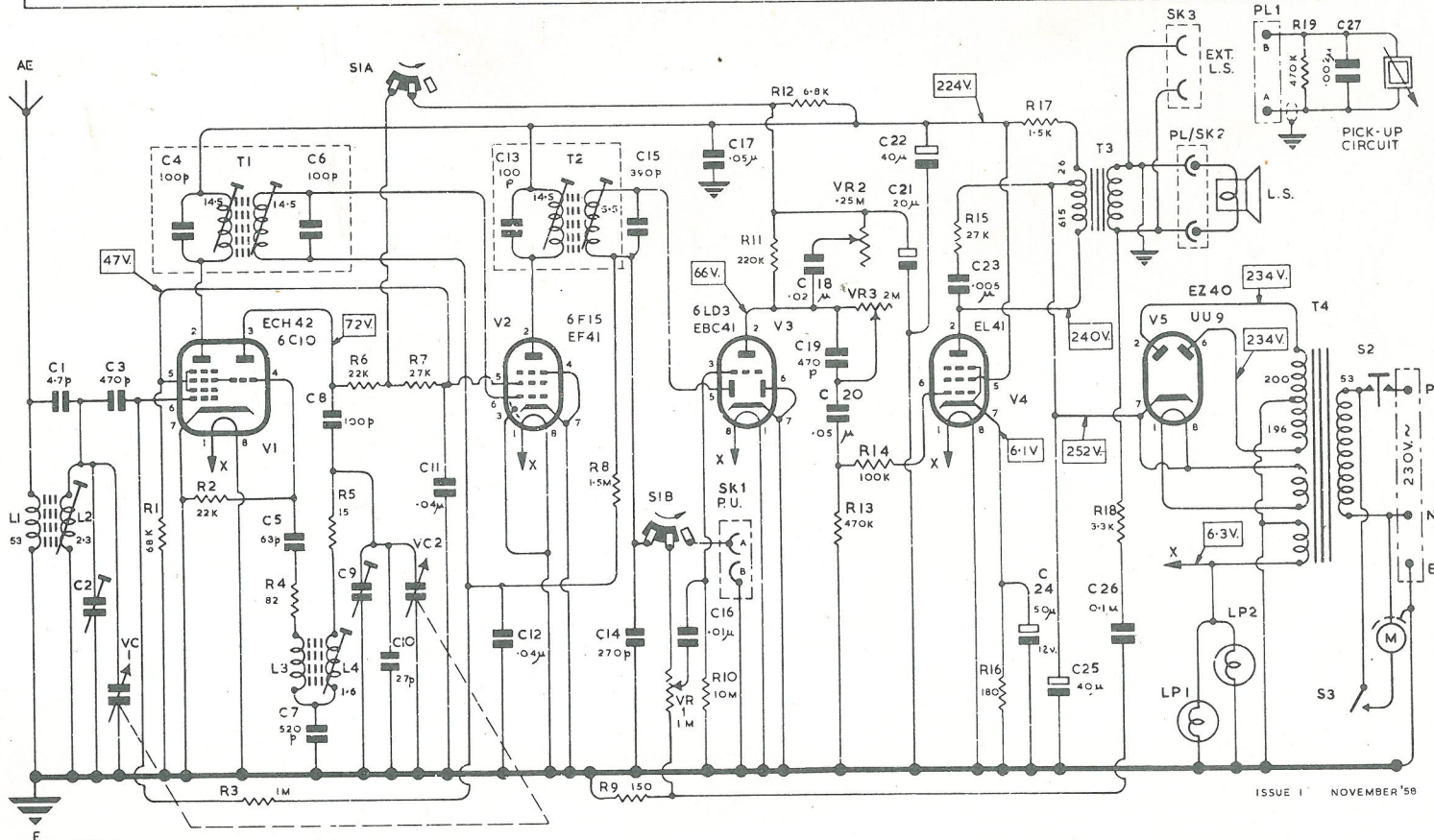
CIRCUIT	NOTES	SIG. GEN. FREQUENCY	SIG. GEN. TERMINATION	CONNECT SIG. GEN. TO	RECEIVER SETTING	ADJUSTMENTS
2nd I.F.T.	Unscrew sec. core (top of can) before starting adjustments.	470 Kc/s.	Via .01 mfd. capacitor	V2 grid 1 (pin 6)	Ganged capacitor fully meshed.	T2 (pri.) below chassis T2 (sec.) top of can.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

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

ALSO
G402
G202
G403



C	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18,19,20	21	22	23	24	25	26	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	T1	L3	L4	VC2	S1A				V2	T2	S1B	VR1	SK1	V3		VR2,3	V4			T3	SK3	V5	L.S.	PL1	SK2	LPI	LP2	L.S.	T4	S2	S3	MISC.



NOTE:-
a. RESISTANCES ARE QUOTED IN OHMS, CAPACITANCES IN PARTS OF A FARAD, WHERE THE RESISTANCE OF A WINDING IS LESS THAN ONE OHM, THE VALUE IS OMITTED FROM THE CIRCUIT DIAGRAM.
b. THE POWER SWITCH S2, IS SHOWN IN THE "OFF" POSITION.
c. THE RADIO/GRAM SWITCH S1A-S1B, IS SHOWN IN THE "RADIO" POSITION WITH ARROWS INDICATING CLOCKWISE ROTATION OF SWITCH SPINDLE.

CIRCUIT DIAGRAM · MURPHY MELODIST RADIOGRAM MODEL G 202.

RP 1583

ISSUE 1 NOVEMBER '58