

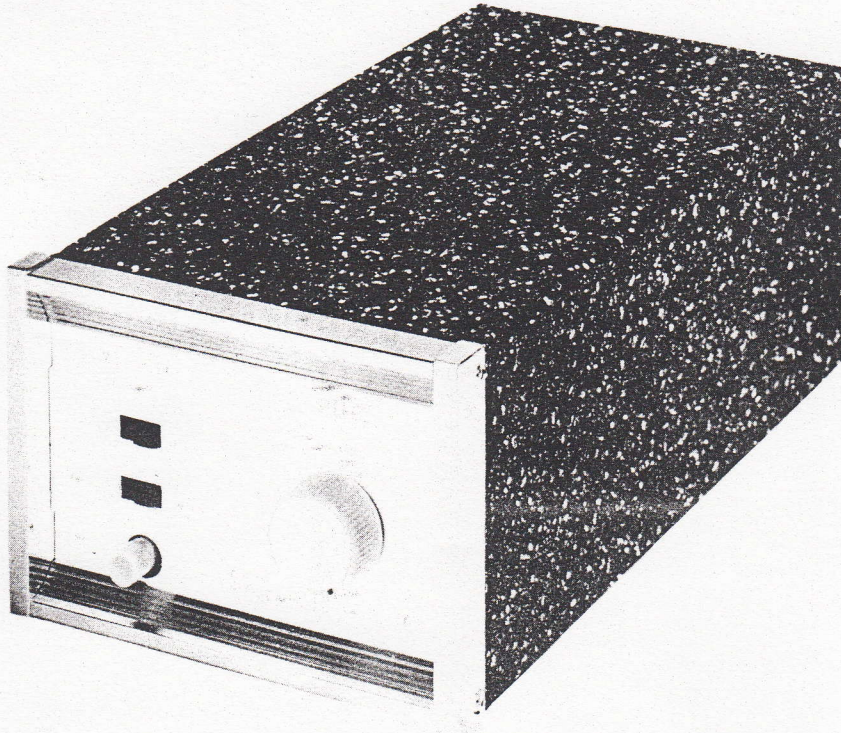
POWER IN
SET REL.

PROFACT Folder



SHERWOOD MODELS SMX-A, -B, -S

SHERWOOD MODELS
SMX-A, -B, -S



SHERWOOD MODELS
SMX-A, -B, -S

TRADE NAME	Sherwood Models SMX-A, SMX-B, SMX-S		
MANUFACTURER	Sherwood Electronic Laboratories, Inc., 4300 N. California Ave., Chicago 18, Illinois		
TYPE SET	AC Operated 4 Tube FM Multiplex Adapter		
POWER SUPPLY	110-125 Volts AC, 50-60 Cycles	RATING	14 Watts, .16 Amp. @117 Volts AC

ADJUSTMENTS

SPLIT CHANNEL STEREO

Place the Circuit Selector switch in SPLIT position, Balance control in FM position and then rotate clockwise to MX. Adjust sound level with the MX Level control until equal sound output is heard as the Balance control is switched between FM and MX. Turn Balance control to Stereo. Further balancing of the program can be done by moving the Balance control to the right or left from the Stereo position.

CROSBY SYSTEM STEREO

Place the Circuit switch in CROSBY position, Balance control to FM and then rotate clockwise to MX. Adjust

the sound level with the MX Level control until equal sound output is heard as Balance control is switched between FM and MX. Rotate Balance control to Stereo. The Balance control will now serve as the Demension control. Rotation toward MX will result in greater separation and rotation toward FM will provide less separation.

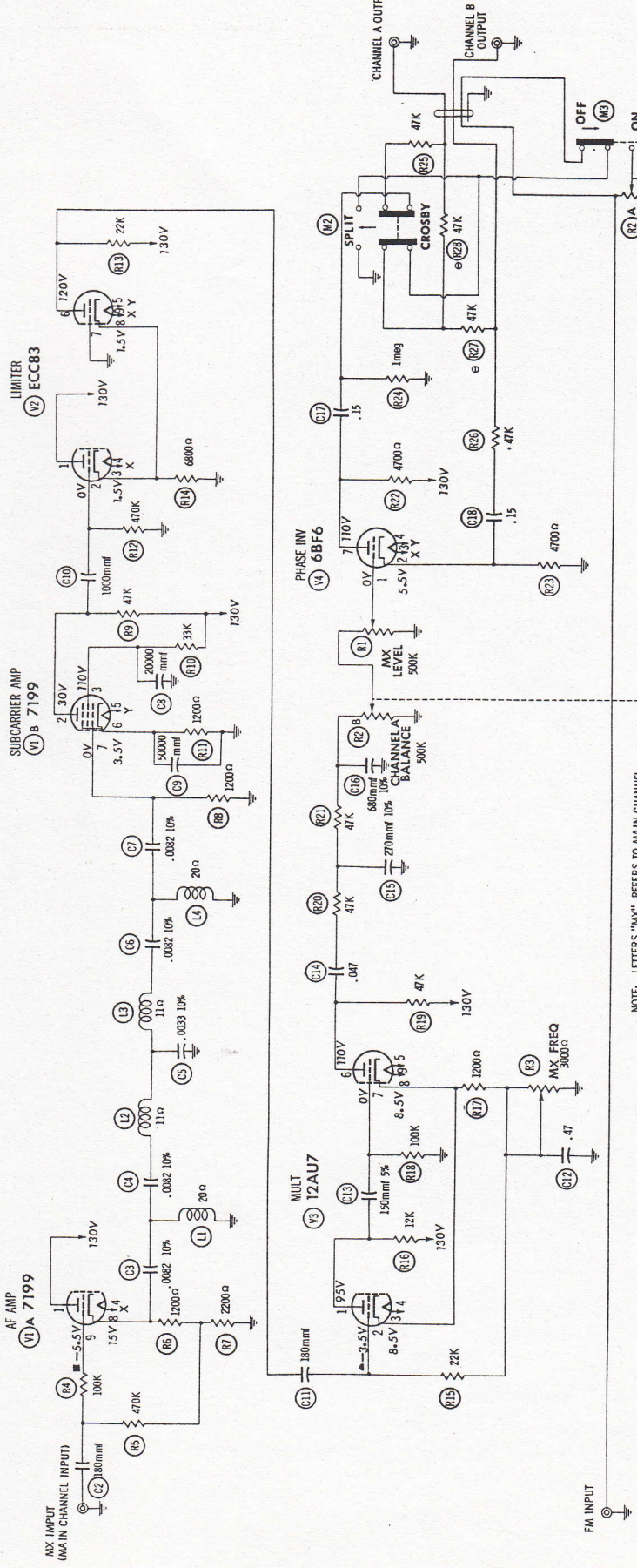
FREQUENCY CONTROL

The Frequency control is located on top of the chassis and may be reached thru a hole in the bottom plate with a screwdriver. Adjust for the clearest reception. This adjustment is not critical and for most cases may be set in the center of its range.

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STAYS ALIVE TO



NOTE: LETTERS "MX" REFERS TO MAIN CHANNEL

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	7199	1.400Ω	1.48K	1.34K	.1Ω	.1Ω	1200Ω	1200Ω	3400Ω	570K
V2	ECC83	1.400Ω	470K	6800Ω	.1Ω	.1Ω	1.23K	0Ω	6800Ω	.1Ω
V3	12AU7	1.12K	.25K	4200Ω	.1Ω	.1Ω	1.48K	100K	4200Ω	.1Ω
V4	6BE6	0Ω	4700Ω	.1Ω	.1Ω	TP	NC	16100Ω		

- † MEASURED FROM OUTPUT OF M1.
- MEASURED FROM PIN 8 OF V1.
- ▲ MEASURED FROM PIN 3 OF V3.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltage measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance of component values makes possible a variation of ±15% in voltage and resistance readings.
6. All controls at minimum, proper output load connected.

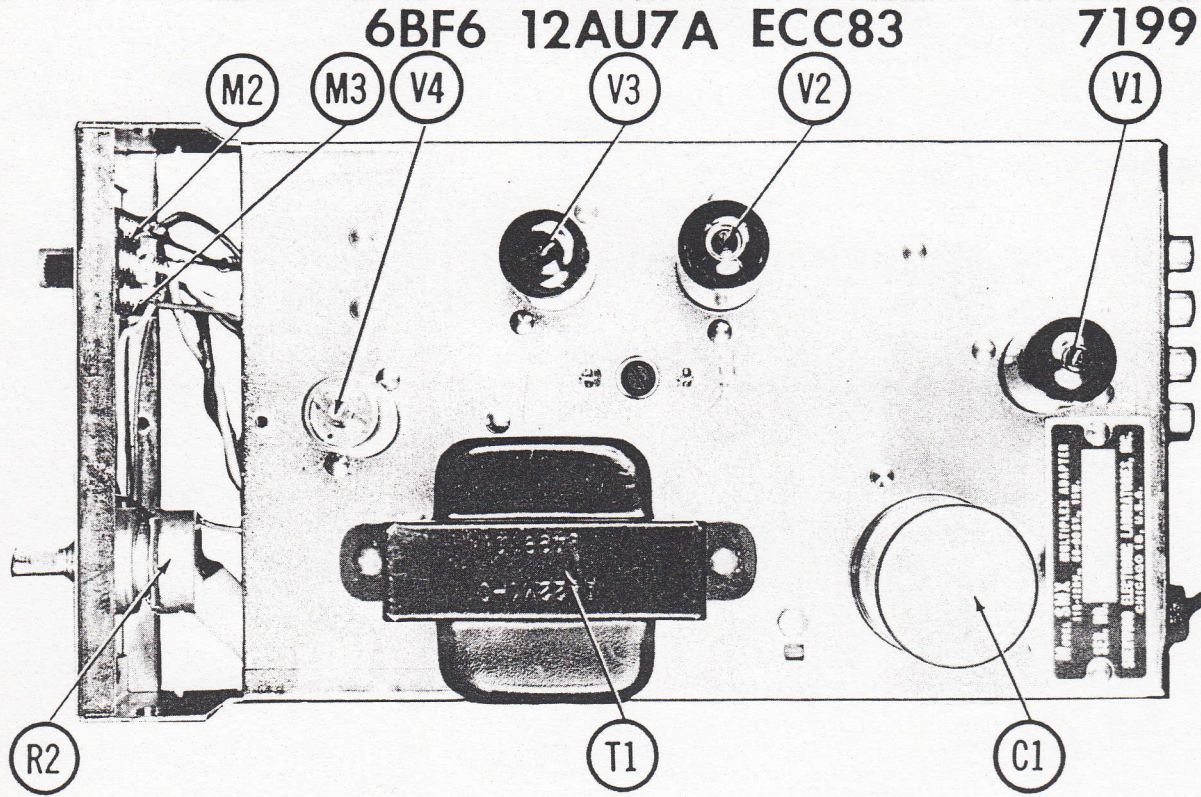
SHERWOOD MODELS
SMX-A, -B, -S

PARTS LIST AND DESCRIPTIONS TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	AF Amp.-Sub Carrier Amp	7199	V3	Multivibrator	12AU7A
V2	Limiter	ECC83 (2AX7) *	V4	Phase Inverter	6BF6

* Alternate

CHASSIS—TOP VIEW



ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP. VOL.	REPLACEMENT DATA				NOTES
		AEROVOX PART No.	CORNELL- DUBILIER PART No.	MALLOY PART No.	PYRAMID PART No.	
C1A	#60 200		B0190		TMD-22	TV1S-3485.5 *
C1B	#60 200		BR4025		TD-40-250	
C1C	#40 200					

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						SPRAGUE PART No.
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	ELMENCO PART No.	MALLOY PART No.		
C2	180		DI-180	DD-181	LI0T18	CCD-181	6DP-2-822	GP318	10TS-T18
C3	.0082 400V 10%		BFD-02	DD-503	H-0555	6DP-2-822	GEM-16282	GEM-16282	6TM-D6
C4	.0082 400V 10%		BFD-05	DD-102	LI0T18	6DP-1-332	GEM-16233	GEM-16233	6TM-D33
C5	.0033 400V 10%		BYA10D1	DD-181	LI0T18	6DP-2-822	GEM-16282	GEM-16282	6TM-D8
C6	.0082 400V 10%		P288N-47	DD-203	BY9682	6DP-2-822	GEM-16282	GEM-16282	6TM-D8
C7	.0082 400V 10%		BFD-01	DD-503	H-0555	CCD-203	5HK-520	GP120	5HK-520
C8	20000		BFD-01	DD-503	H-0555	CCD-102	5HK-520	GP150	5HK-520
C9	50000		BYA10D1	DD-102	LI0T18	CCD-102	5HK-520	GP210	5HK-520
C10	1000		P288N-47	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C11	.47 200V		P488N-047	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C12	150 5%		1469-00015	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C13	.047 400V		P488N-047	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C14	270 10%		DI-270	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C15	680 10%		DI-680	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C16	15 200V		P288N-15	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C17	.15 200V		P288N-15	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C18	.15 200V		P288N-15	DD-181	LI0T18	CCD-102	5HK-520	GP318	5HK-520
C19	2000 1400V		DAC-3	DD30-202	HVC20D2	16DP-1-202	UAC-220	UAC-220	BL-D20
C20	2000 1400V		DAC-3	DD30-202	HVC20D2	16DP-1-202	UAC-220	UAC-220	BL-D20

CONTROLS

ITEM No.	RATING RESIST- ANCE	SHERWOOD PART No.	REPLACEMENT DATA			INSTALLATION NOTES
			CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R1	500K	A670M2				MX Level Balance, Channel A Balance, Channel B MX Frequency
R2A	100K	A670M1				
R2B	500K	A670M1				
R3A	3000Ω	A670M3	AB-8 AK-1	B47-3000Ω Not Req.	SU-3 Not Req.	

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R4	100K		R14	6800Ω		R24	1meg	
R5	470K		R15	22K		R25	47K	Note 1
R6	1200Ω		R16	12K		R26	47K	Note 1
R7	2200Ω		R17	1200Ω		R27	47K	
R8	1200Ω		R18	100K		R28	47K	
R9	47K		R19	47K		R29	680Ω	
R10	33K		R20	47K		R30	680Ω	
R11	1200Ω		R21	47K		R31	3.3Ω 1W	
R12	470K		R22	4700Ω				
R13	22K		R23	4700Ω				

Note 1. R27 & R28 matched within 3%.

COILS (RF-IF)

ITEM No.	USE	SHERWOOD PART No.	REPLACEMENT DATA				NOTES
			Grammer PART No.	Meissner PART No.	Merit PART No.	Rom PART No.	
L1	RF Choke						2.5MH
L2	RF Choke						1.6MH
L3	RF Choke						1.6MH
L4	RF Choke						2.5MH

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA			
		SHERWOOD PART No.	Halderson PART No.	Merit PART No.	Rom PART No.
T1	PRI. SEC. 1 SEC. 2 117V @ 115V @ 6.3VCT .16A .010A @ 1.3A	A922M1-3			

RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		SHERWOOD PART No.	INTERNATIONAL PART No.	ITT PART No.	SARKES JARZIAN PART No.	
M1	.010A	① RS065	① 1234AII	① 65	② SFR200	① Selenium Type ② Silicon Type

MISCELLANEOUS

ITEM No.	PART NAME	SHERWOOD PART No.	NOTES
M2	Switch		
M3	Switch		Split - Crosby (DPDT, Slide Type) Power Off-On (DPDT, Slide Type)

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
1725-K (7 1/2 Ft. Length)

CHASSIS—BOTTOM VIEW

