

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA			INSTALLATION NOTES
		SCOTT PART No.	STANDARD REPLACEMENT	8MA BASE TYPE	
V1	Pre Amp.	12SL7GT	12SL7GT	8BD	
V2	Treble Boost-Bass				
V3	Boost	12SL7GT	12SL7GT	8BD	
V4	Control Amp.	6SN7GT	6SN7GT	8B	
V5	Treble Gate	12SG7	12SG7	8BK	
V6	Treble Gate	12SG7	12SG7	8BK	
V7	Bass Gate	12SG7	12SG7	8BK	
V8	AF Amp. -Phase Inv.	6SN7GT	6SN7GT	8BD	
V9	Power Output	6B4G	6B4G	5S	
V10	Power Output Rectifier	6B4G	6B4G	5S	
V10	Rectifier	5Y4G	5Y4G	5L	

CAPACITORS

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

ITEM No.	RATING CAP. VOL.	REPLACEMENT DATA			IDENTIFICATION CODES AND INSTALLATION NOTES
		SCOTT PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.	
C1A	20 475		AF4444X	4UP2250	DI4744
C1B	20 475			4UP2250	
C1C	20 475		AF4444X	4UP2250	DI4744
C2A	20 475			4UP2250	
C2B	20 475			4UP2250	
C3A	20 475		AF4444X	4UP2250	DI4744
C3B	20 475			4UP2250	
C3C	20 475			4UP2250	
C4	100 15		BRH-151	BRH-151	UHC-115
C5	25 25		PR2525	PR2525	TV-6
C6	25 25		PR2525	PR2525	TV-6
C7	25 25		PR2525	PR2525	TV-6
C8	100 15		BRH-151	BRH-151	UHC-115
C9	470 500		1A68-0005	5W575	GP2K-470
C10	-01 600		638T-01	TVCS651	PX-116
C11	2400 500		1A68-00025	1W5D25	MS-425
C12	2400 500		1A67-0025	TVCS652	GP2M-0025
C13	-02 400		689-02	TVCS652	GP2M-0025
C14	50 500		1A68-00005	5W5Q5	GP1K-50
C15	-05 600		689-05	TVCS655	PX-156
C16	500 600		1A68-00025	5W575	GP2K-250
C17	2400 500		1A67-0025	1W5D25	GP2M-0025
C18	2400 500		1A68-0005	5W575	GP2K-470
C19	470 500		1A68-0005	5W575	GP2K-470
C20	470 500		1A68-0005	5W575	GP2K-470
C21	470 500		1A68-0005	5W575	GP2K-470
C22	1000 500		1A68-0005	5W575	GP2K-470
C23	2400 500		1A67-0025	1W5D25	GP2M-0025
C24	470 500		1A68-0005	5W575	GP2K-470
C25	-05 600		689-05	TVCS655	PX-156
C26	-01 600		638T-01	TVCS651	PX-116
C27	-05 600		689-05	TVCS655	PX-156
C28	-02 400		689-02	TVCS652	PX-126
C29	100 500		1A68-0001	5W5T1	IFM-31
C30	-02 400		689-02	TVCS652	PX-126
C31	2400 500		1A67-0025	1W5D25	GP2M-0025
C32	1000 500		1A68-0005	5W575	GP2K-470
C33	1000 500		1A68-0005	5W575	GP2K-470
C34	-02 400		689-02	TVCS652	PX-126
C35	2400 500		1A67-0025	1W5D25	GP2M-0025
C36	-01 600		638T-01	TVCS651	PX-116
C37	470 500		1A68-0005	5W575	GP2K-470
C38	470 500		1A68-0005	5W575	GP2K-470
C39	-02 400		689-02	TVCS652	PX-126

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA		IDENTIFICATION CODES
		SCOTT PART No.	IRC PART No.	
R40	2.2 Meg.		BTS-2.2 Meg.	Treble Diode Load
R41	470K		BTS-470K	Treble Diode Load
R42	1 Meg.		BTS-1 Meg.	Treble Diode Filter
R43	220K		BTS-220K	Treble Diode Filter
R44	100K		BTS-100K	Treble Gate Grid
R45	220K		BTS-220K	Treble Gate Grid
R46	100K		BTA-100K	Treble Gate Screen
R47	10K		BTS-10K	Tone Compensation
R48	2.2 Meg.		BTS-2.2 Meg.	Tone Compensation
R49	220K		BTS-220K	Treble Gate Grid
R50	220K		BTS-220K	Voltage Divider
R51	22K		BTS-22K	Treble Gate Plate
R52	47K		BTA-47K	Treble Gate Plate
R53	220K		BTS-220K	Tone Compensation
R54	470K		BTS-470K	Tone Compensation
R55	2.2 Meg.		BTS-2.2 Meg.	Tone Compensation
R56	47K		BTS-47K	Tone Compensation
R57	22K		BTS-22K	Tone Compensation
R58	1 Meg.		BTS-1 Meg.	Tone Compensation
R59	10K		BTS-10K	Voltage Divider
R60	100K		BTA-100K	Bass Gate Screen
R61	470K		BTS-470K	Bass Gate Plate
R62	470K		BTS-470K	Tone Compensation
R63	22K		BTS-22K	Tone Compensation
R64	470K		BTS-470K	Tone Compensation
R65	22K		BTS-22K	Tone Compensation
R66	470K		BTS-470K	Tone Compensation
R67	22K		BTS-22K	Tone Compensation
R68	100K		BTS-100K	Tone Compensation
R69	100K		BTS-100K	Bass Boost Cathode
R70	100K		BTS-100K	Bass Boost Cathode
R71	220K		BTS-220K	AF Cathode
R72	47K		BTA-47K	AF Cathode
R73	1 Meg.		BTS-1 Meg.	Phase Inv. Grid
R74	4.7 Meg.		BTS-4.7 Meg.	Phase Inv. Grid
R75	47K		BTS-47K	Feedback
R76	1 Meg.		BTS-1 Meg.	Feedback
R77	330K		BTS-330K	Output Grid
R78	330K		BTS-330K	Output Grid
R79	100K		BTS-100K	Output Grid
R80	330K		BTS-330K	Output Grid
R81	100K		BTS-100K	Output Grid
R82	10K		BTS-10K	Voltage Divider
R83	10K		BTS-10K	Voltage Divider
R84	175K		AB-200	Filter, Wire Wound
B	210-MW5		AB-200	Filter, Wire Wound
C	500K		AB-500	Filter, Wire Wound
D	500K		AB-500	Filter, Wire Wound
E	100K		AB-100K	Filter, Wire Wound
R85	150K		BTS-150K	Filter, Wire Wound
R86	22K		BTS-22K	Filter, Wire Wound
R87	22K		BTS-22K	Filter, Wire Wound
R88	700K		DG-700K	Voltage Dropping, Wire Wound
R89	60K		BTS-60K	Filament Dropping, Wire Wound
R90	220K		BTS-22K	Phase Inv. Cathode
R91	22K		BTS-22K	Voltage Divider
R92	22K		BTS-22K	Tone Compensation
R93	2.2 Meg.		BTS-2.2 Meg.	Tone Compensation

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA		
		PR1	SEC. 1	SEC. 2
T1	117V AC	750VCT	5VAC	6.3VAC
	ALL 2A	100ADC	2A	2.9A

PARTS LIST AND DESCRIPTIONS (Continued)

ITEM No.	RATING CAP. VOL.	REPLACEMENT DATA			IDENTIFICATION CODES AND INSTALLATION NOTES
		SCOTT PART No.	AEROVOX PART No.	CORNELL DUBILIER PART No.	
C40	-02 400		689-02	TVCS652	PX-126
C41	2400 500		1A67-0025	1W5D25	GP2M-0025
C42	-05 600		689-05	TVCS655	PX-156
C43	-01 800		1089-01	TVCS1081	PX-111
C44	1000 500		1A68-004	1W5D1	IFM-21
C45	1000 500		1A68-004	1W5D1	IFM-21
C46	-05 600		689-05	TVCS655	PX-156
C47	-2 120		489-25	TVCS655	PX-26
C48	-05 600		689-05	TVCS655	PX-156
C49	100 500		1A68-0001	5W5T1	IFM-31
C50	-05 600		689-05	TVCS655	PX-156
C51	-05 600		689-05	TVCS655	PX-156
C52	-005 1000		838T-005	TVCS1005	PX-251
C53	-005 1000		838T-005	TVCS1005	PX-251

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING	REPLACEMENT DATA			INSTALLATION NOTES
		IMPEDANCE	DC RES.	SCOTT PART No.	
T2		PR1	SEC. 1	SEC. 2	
		117V AC	750VCT	5VAC	6.3VAC
		ALL 2A	100ADC	2A	2.9A

FILTER CHOKE

ITEM No.	RATINGS	REPLACEMENT DATA			INSTALLATION NOTES
		TOTAL DIRECT CURRENT	D.C. RESISTANCE	INDUCTANCE 1000 μH	
L1			550K	1 Henry	
L2			145K	.3 Henry	

MISCELLANEOUS

ITEM No.	PART NAME	SCOTT PART No.	NOTES
101	Fuse		
102	Switch		
			2 Amp. 250 Volt Freq. Range

RESISTORS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA		IDENTIFICATION CODES
		SCOTT PART No.	IRC PART No.	
R8	10K		BTS-10K	Squelch Filter
R9	33K		BTS-33K	Squelch Filter
R10	15K		BTS-15K	Voltage Divider
R11	220K		BTS-220K	Voltage Divider
R12	220K		BTS-2.2 Meg.	Pre Amp. Grid
R13	220K		BTS-220K	Pre Amp. Cathode
R14	470K		BTS-470K	Pre Amp. Plate
R15	1 Meg.		BTS-1 Meg.	Tone Compensation
R16	100K		BTS-100K	Tone Compensation
R17	100K		BTS-100K	Tone Compensation
R18	100K		BTS-100K	Tone Compensation
R19	470K		BTS-470K	Tone Compensation
R20	100K		BTS-100K	Tone Compensation
R21	470K		BTS-470K	Tone Compensation
R22	100K		BTS-100K	Tone Compensation
R23	470K		BTS-470K	Tone Compensation
R24	100K		BTS-100K	Tone Compensation
R25	100K		BTS-100K	Tone Compensation
R26	33K		BTS-33K	Treble Boost Cathode
R27	68K		BTS-68K	Treble Boost Cathode
R28	33K		BW-330	Tone Control Amp. Grid
R29	33K		BW-330	Control Amp. Cathode
R30	100K		BTS-100K	Control Amp. Cathode
R31	470K		BTS-470K	Control Amp. Cathode
R32	220K		BTS-220K	Control Amp. Cathode
R33	1 Meg.		BTS-1 Meg.	Control Amp. Plate
R34	470K		BTS-470K	Tone Compensation
R35	2.2 Meg.		BTS-2.2 Meg.	Bass Diode Load
R36	1 Meg.		BTS-1 Meg.	Bass Diode Load
R37	2.2 Meg.		BTS-2.2 Meg.	Bass Diode Load
R38	2.2 Meg.		BTS-2.2 Meg.	Bass Diode Load
R39	1 Meg.		BTS-1 Meg.	Tone Compensation

SQUELCH

The amplifier incorporates a squelch circuit which silences the amplifier during the operation of a record changer and an automatic fade-in feature, preventing any undesirable effects as the squelch releases. To use the squelch feature, a simple contactor is added to the record changer which shorts to the changer frame during the entire change cycle. The contactor is connected to pin #3 of the 4-prong plug marked SQUELCH. The frame of the changer must be grounded by either the shield on the pickup lead or a wire to pin #1 on the squelch plug; not both.

HUM ADJUSTMENTS

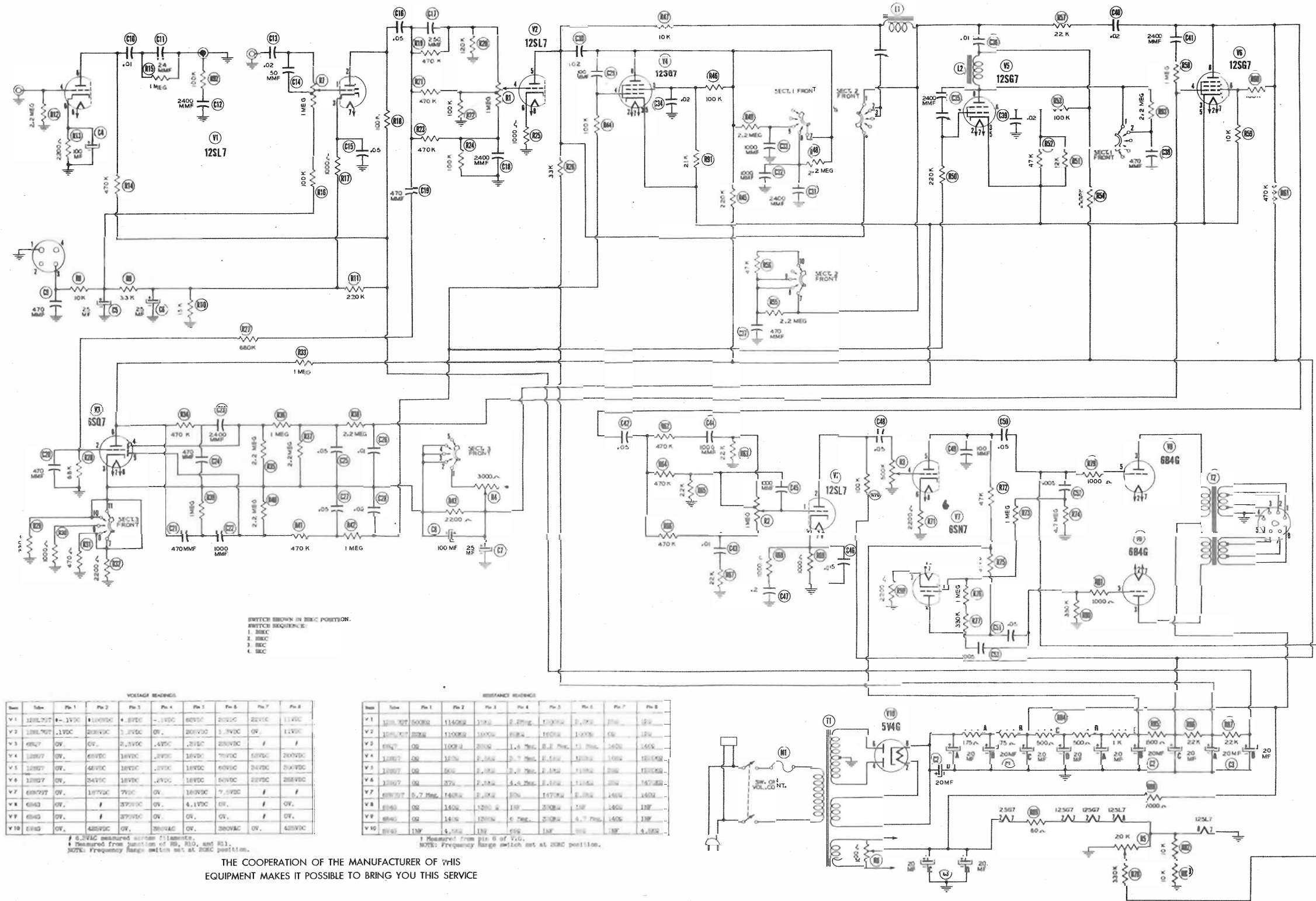
On the amplifier chassis are two screwdriver hum adjustments. These are set at the factory for minimum hum with the original tubes in the amplifier. When new tubes are installed or hum becomes objectionable for any reason, these should be readjusted. The one nearest the control panel is set first, with the Volume control off (power switch on), Bass control on full, Range switch on 20K. Then the Volume control is turned on full and the second hum adjustment made.

SUPPRESSOR LEVEL ADJUSTMENT

This adjustment is set at the factory for the particular pickup supplied and the setting of this control should not be varied unless another pickup or tuner is connected to the suppressor in jack. For setting of this adjustment proceed as follows: Connect a 20,000 ohm-per-volt meter from the plate of the 12SG7 in the rear corner of the chassis to ground. With the Range switch on "10" set the suppression control so the meter reads 125 volts. Play the 1000 cycle band of the Columbia 10004 M test record with the pickup in question. Adjust the level control so that the meter reads the following voltages for the three positions of the range switch:

METER READING	
POSITION	
10K	245 - 250
8K	220 - 225
5K	185 - 195

This level control should be set so that the meter readings agree "on the average" with the above values, for all positions of the Range switch. In the 20K position, the meter should read well over 250 volts with or without input signal.



SWITCH SHOWN IN BNC POSITION.
 SWITCH SEQUENCE:
 1. BNC
 2. BNC
 3. BNC
 4. BNC

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V1	12SL7	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC
V2	12SL7	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC	1.5VDC
V3	6507	OV	OV	OV	OV	OV	OV	OV	OV
V4	12SL7	OV	OV	OV	OV	OV	OV	OV	OV
V5	12SL7	OV	OV	OV	OV	OV	OV	OV	OV
V6	12SL7	OV	OV	OV	OV	OV	OV	OV	OV
V7	6507	OV	OV	OV	OV	OV	OV	OV	OV
V8	6507	OV	OV	OV	OV	OV	OV	OV	OV
V9	6507	OV	OV	OV	OV	OV	OV	OV	OV
V10	6507	OV	OV	OV	OV	OV	OV	OV	OV

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V1	12SL7	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K
V2	12SL7	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K	1.5K
V3	6507	OV	OV	OV	OV	OV	OV	OV	OV
V4	12SL7	OV	OV	OV	OV	OV	OV	OV	OV
V5	12SL7	OV	OV	OV	OV	OV	OV	OV	OV
V6	12SL7	OV	OV	OV	OV	OV	OV	OV	OV
V7	6507	OV	OV	OV	OV	OV	OV	OV	OV
V8	6507	OV	OV	OV	OV	OV	OV	OV	OV
V9	6507	OV	OV	OV	OV	OV	OV	OV	OV
V10	6507	OV	OV	OV	OV	OV	OV	OV	OV

1. 6.3VAC measured across filament.
 2. Measured from junction of R1, R10, and R11.
 NOTE: Frequency range switch set at 200K position.

THE COOPERATION OF THE MANUFACTURER OF THIS EQUIPMENT MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 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 on component values makes possible a variation of + 10% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.