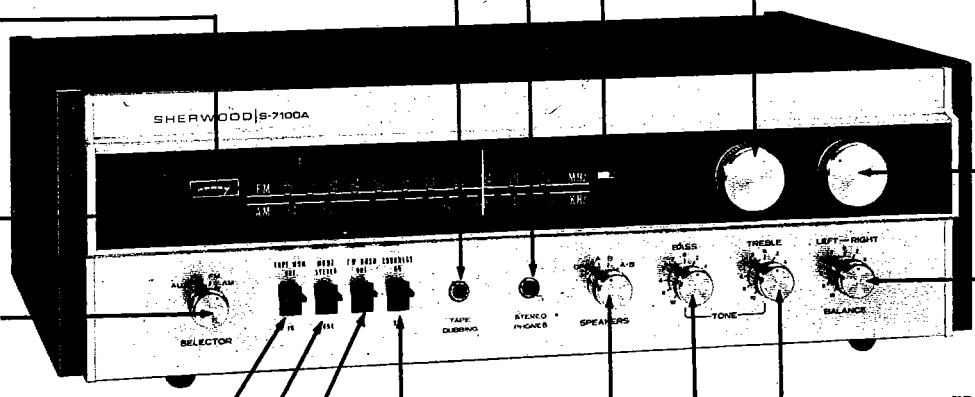
SHERWOOD

MODEL S-7100A
STEREO RECEIVER
SERVICE MANUAL



STEREO PHONES
For private listening with stereo headphones.

TAPE DUBBING
Permits recording to, or playing back from, a second tape recorder. Also, permits dubbing from one recorder to the other.

STEREO INDICATOR
Indicates FM stereo broadcasts.

TUNING
Counterbalanced for easy tuning of FM and AM station.

M-AM TUNING METER
or precise tuning of FM or M stations (tune for maximum right-hand deflection).

LOUDNESS
Master power ON/OFF and volume control for your speakers. Also automatically adds bass compensation at low levels.

UNING SCALES
M band marked in MHz. AM nd marked in KHz. See your cal paper for frequency assignments of your local AM d FM stations.

BALANCE
Balances the relative volume levels between your right and left speakers.

ELECTOR CONTROL
elects your listening source: uxiliary, Phono, FM or AM.

TREBLE
Increases treble tones up to +13 db, decreases up to —15 db.

TAPE MONITOR
Permits recording to (up) or playing back from (down) tape recorder(s); permits monitoring during recording.

BASS
Increases bass tones up to +13 dB, decrease up to —13 db.

LOUDNESS
When depressed, defeats loudness control compensation circuit (which automatically increases bass tones at low volume levels).

MODE SWITCH
Depress for Mono listening, or for sending a single channel signal to both speakers.

SPEAKERS
Selects your main stereo speakers (A), remote stereo speakers (B), both sets, or turns speakers off (for headphone listening).

FM HUSH
When depressed, mutes out noise between FM stations.

SPECIFICATIONS

amplifier:

POWER OUTPUT (IHF): 70 watts total.

POWER OUTPUT — RMS, both channels driven:
27 watts X 2 @ 4 ohms, 1 KHz
22 watts X 2 @ 8 ohms, 1 KHz
14 watts X 2 @ 8 ohms, 20-20,000 Hz
18 watts X 2 @ 8 ohms, 40-20,000 Hz

HARMONIC DISTORTION: 0.9% @ 8 ohm rated output, 0.20% @ 10 watts.

INTERMODULATION DISTORTION: 1.0% @ 8 ohm rated output — 0.35% @ 10 watts.

STEREO & MONO SPEAKER OUTPUT IMPEDANCE: 4, 8, or 16 ohms.

STEREO HEADPHONE OUTPUT: high or low impedance

STEREO RECORDING OUTPUT: 200 mv, 2K ohm.

POWER BANDWIDTH: 15-50 KHz — 1% Dist.

FREQUENCY RESPONSE: Aux. 20-20 KHz ±1 dB.
Phono : RIAA Std. ±1.5 dB.

DAMPING FACTOR: 30:1 @ 8 ohms.

BASS CONTROL: ± dB @ 100 Hz.

TREBLE CONTROL: ±13 dB @ 10 KHz.

INPUT SENSITIVITY (for rated output)
Phono, 1.5 mv.
Auxiliary, 200 mv.

INPUT CAPABILITY FOR 1% dist.
Phono: 60 mv.
Auxiliary, 3.8 V.

HUM AND NOISE (IHF): Phono —65 dB.
Aux. —75 dB.
Vol. Control Min. —85 dB.

CROSSTALK: —40 dB @ 1 KHz.

tuner (fm):

FM SENSITIVITY (IHF): 1.9 μv
(—30 dB noise & dist.)
SIGNAL-TO-NOISE RATIO: —65 dB.
CAPTURE RATIO: 2.8 dB.
SUPPRESSION OF AM: —50 dB.
TUNING RANGE: 87.5 to 108.5 MHz.
DISTORTION: 0.5% @ 100% Mod.
SPURIOUS RESPONSE REJECTION: —87 dB.
STABILITY: ±15 KHz (±.015%)
IMAGE REJECTION: —78 dB.
IF REJECTION: —90 dB.
ALTERNATE-CHANNEL SELECTIVITY: 50 dB.
STEREO SEPARATION: 40 dB @ 1 KHz.
FREQUENCY RESPONSE: 20-15 KHz ±1 dB (STEREO)
ANTENNA: 300-ohm balanced.

tuner (am):

SENSITIVITY: 5 μv @ 60% mod. for 6 dB S/N.
SELECTIVITY: 7.5 KHz @ —6 dB.
FREQUENCY RESPONSE: —6 dB — 4.0 KHz.
TUNING RANGE: 530 to 1625 KHz.
IMAGE REJECTION: —40 dB @ 1 MHz.
IF REJECTION: —40 db @ 1 MHz.
ANTENNA: Ferrite Rod (rotatable), High Imp. input.

general:

POWER REQUIREMENTS: 115-125V, 50/60 Hz. (Export models, 230V). 10 to 100 watts fused.
AC OUTLETS: 100 W. switched.
SIZE (Overall): 5⅝″H, 17½″W, 13½″D.
SHIPPING WEIGHT: 30 Lbs.

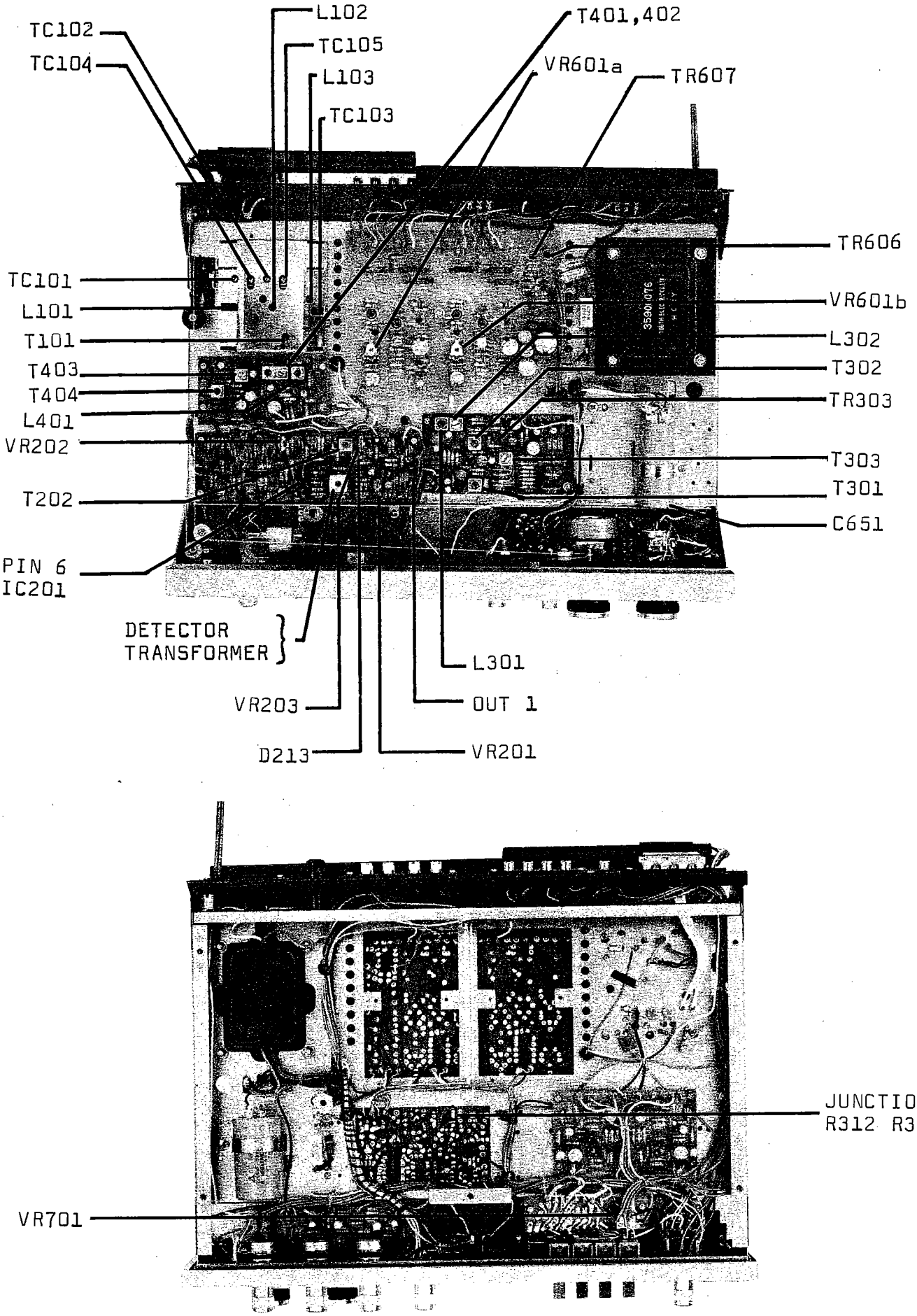

TC102
TC104
L102
TC105
L103
TC103
T401,402
VR601a
TR607
TR606
VR601b
L302
T302
TR303
T303
T301
C651
TC101
L101
T101
T403
T404
L401
VR202
T202
PIN 6
IC201
DETECTOR
TRANSFORMER
L301
OUT 1
VR203
D213
VR201
JUNCTION
R312 R31
VR701

FIGURE 1

NOTE: All references in the following material refers to Figure 1 unless otherwise indicated.

I. FM ALIGNMENT

1. Set the SELECTOR switch to "FM" and the FM muting switch off. Connect a FM Generator to the 300 ohm FM antenna terminals using a matching network if necessary as shown. (Figure 2)

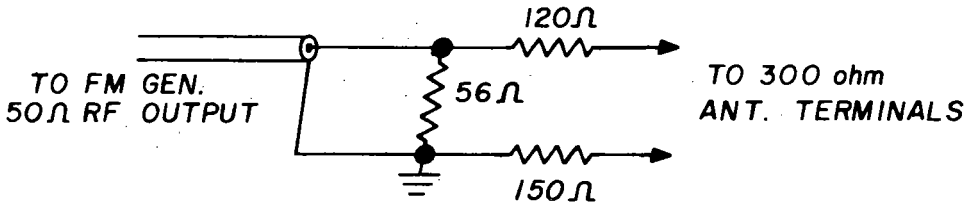


Figure 2

2. Tune the receiver to a point of no signal or interference near 90MHz.

3. Tune the FM Generator, modulated ± 300KHz @ approximately 20uv output level to the receiver frequency. Connect a RF detector probe to Pin 6, of the TA7061 (IC201) and center the FM IF response on the oscilloscope. The FM IF bandpass characteristics are now being displayed. Adjust transformer core, of the RF converter (T101) for maximum gain and symmetry (see Figure 3).

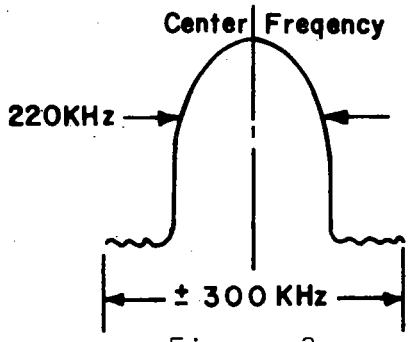


Figure 3

4. The FM front end alignment can also be determined while observing the oscilloscope display of Step 3. Tune the receiver and generator to a point of no interfering signal near 90MHz. Check that the receiver dial pointer indicates within ± 100KHz from the generator frequency. (If the generator output frequency is not accurately calibrated a FM station can be used as a calibration reference.) If

the dial deviation exceeds the above mentioned limit, adjust the local oscillator coil, (L103) slightly until optimum dial calibration is obtained. Next, adjust the coils of the RF amplifiers L101 and L102, tuned circuits, for maximum gain. Tune the receiver and generator to a point of no interferance near 106MHz. Check the dial calibration. If required, adjust the local oscillator trimmer (TC103) until optimum dial calibration is obtained. Now, adjust the RF amplifier trimmers TC101 and TC102 for maximum gain. Repeat alignment at 90MHz and 106MHz until no further improvement is obtained.

5. To align the FM Detector, with the FM generator connected as in Step 1, move the oscilloscope to the record output jack on rear panel. Reduce the modulation to ± 75KHz and connect a DC VTVM to the detector output (OUT 1). Adjust the top core of the detector transformer for a zero indication on the DC VTVM and the bottom core of the detector transformer for a maximum gain and linearity (see Figure 4).

6. A distortion analyzer should be used in conjunction with an oscilloscope to obtain the best linearity, using 400Hz, ± 75KHz modulation. Fine adjust top and bottom cores of the detector transformer for lowest distortion (slight adjustment only). Adjust VR201 detector load resistance for zero volts at (OUT 1) using VTVM or by observing zero indication on tuning meter.

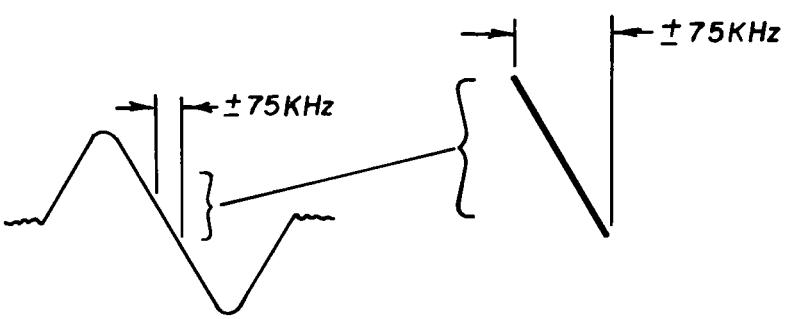


Figure 4

II. MUTING STEREO THRESHOLD ADJUSTMENT

1. This receiver is equipped with a muting circuit which automatically removes or reduces the noise (rushing sound) normally heard between broadcast channels on highly sensitive FM tuners. The noise threshold level in this electronic circuit can be adjusted with the muting threshold control, (VR203) located on the FM IF board. Normal threshold level is approximately 7 micro volts.

2. To adjust muting sensitivity, connect the FM generator and oscilloscope as in Step 5 of FM Alignment. With the muting switch in, slowly increase the generator output from zero to the automatic muting threshold level. Audio can now be observed on the oscilloscope. The desired threshold level can be set by adjusting VR203 and repeating the above. The pre-adjusted narrow band gain control (VR202) may be adjusted to compensate for RF or IF gain changes if normal threshold can not be obtained with VR203.

3. If when tuning through a station the hush/stereo threshold does not switch symmetrical, align T202 for symmetry while observing oscilloscope with probe at anode of D213.

II. MULTIPLEX ALIGNMENT

1. Set up the equipment as shown below (Figure 5) with the composite stereo generator set for pilot only. Before attempting multiplex alignment be certain that the FM I.F.'s have been properly aligned.

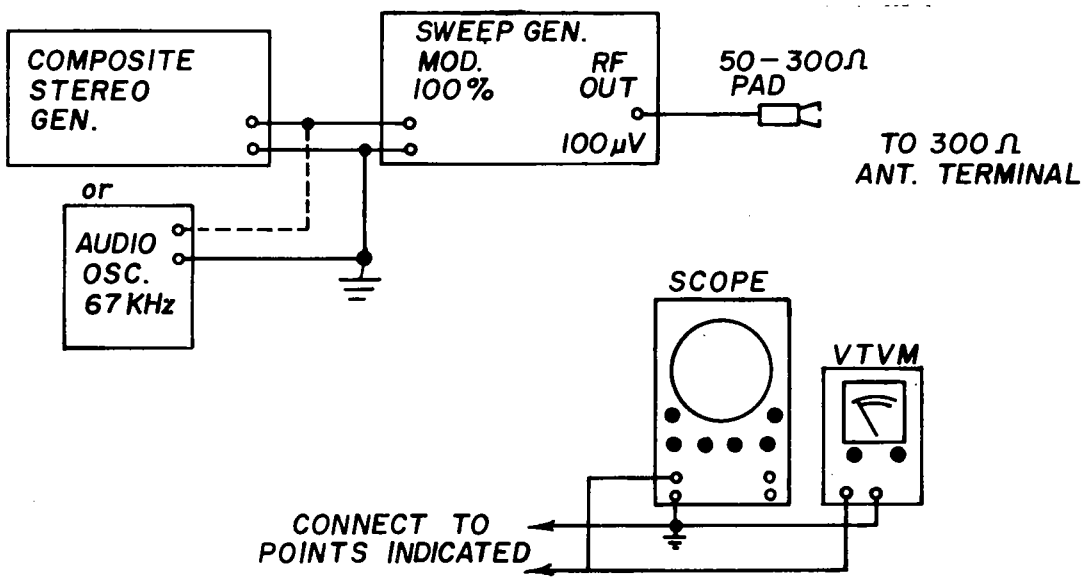


Figure 5

2. Tune the receiver to a point of no signal or interference near 90MHz and tune the FM sweep generator to this frequency.

3. Connect a CRO or AC VTVM to the collector of TR303. Adjust T301, T302 and T303 for maximum 38KHz output.

4. Move probe to the junction of R312 and R313. Adjust L301 for minimum 19KHz output.

5. Set the stereo generator for 67KHz, SCA signal. Adjust L302 for minimum output.

6. Set the generator for a composite, LEFT channel only, multiplex signal. Move probe to "REC OUT" jack of the unmodulated (RIGHT) channel. Adjust, VR701 for minimum 400Hz output. The null should be greater than -40dB from the modulated (LEFT) channel output. Potentiometer, VR701, is located on Board #7012-1, near the lever switches.

7. Check RIGHT channel separation. Usually there will be some difference in the required VR701 adjustment. Re-adjust VR701 for minimum difference between the left and right separation.

8. Check RIGHT and LEFT RECord output jacks on the rear panel for 19KHz/38KHz residual output. It should be a minimum of -40dB below audio reference.

9. Stereo threshold adjustment: To test for correct automatic stereo threshold of 7uV, reduce the FM/MX generator to zero. While observing the stereo light slowly increase the generator output to the threshold level.

10. To set the threshold to the desired signal level, adjust potentiometer, VR203. Note: Potentiometer, VR203 is located on the FM IF board. Again slowly increase the generator output from zero and observe stereo threshold signal level.

IV. AM ALIGNMENT

1. Set the receiver SELECTOR switch to "AM". Tune the receiver to a point of no signal or interference near 600KHz. Connect the scope/VTVM to the RECord output jack. Connect the AM Generator output to the receiver AM antenna terminal through a 330 ohm resistor.

2. Adjust the AM Generator to 455KHz RF output, modulated 400Hz, 50%. Tune the AM converter (T401 & T402), 1st AM I.F., (T403), and the 2nd AM I.F. (T404) cores for maximum audio output.

3. Adjust the AM generator for 600KHz. If required, adjust the AM oscillator coil (L401), so that the generator signal is received by the receiver at 600KHz, as indicated on the dial glass. Adjust the rod antenna core (located at the end of the antenna rod assembly) for maximum output as indicated on the scope/VTVM.

4. Tune the receiver and generator to a point of no interfering signal near 1400KHz. Check the dial calibration and if necessary adjust the AM oscillator trimmer, (TC105) for optimum dial calibration. Adjust the antenna trimmer, (TC104) for maximum output.

5. Repeat Steps 3 and 4 until no further improvement is obtained.

V. AMPLIFIER SERVICING AND ADJUSTMENT

NOTE: To simplify the following descriptions only the left channel and its related circuitries are described. The right channel is identical except for reference symbol numbers. (see schematic diagram) All reference numbers refer to Figure 1 unless otherwise specified.

Preliminary checks of the dc voltages present at various points in your receiver can indicate whether a transistor is open, shorted, or functioning. Fault isolation in the preamplifier, tone amplifier, and driver stages can generally be isolated by checking the dc voltages or by comparing gain measurements at 1KHz as indicated on the schematic or by comparing the operating channel with the defective channel.

AMPLIFIER PROTECTIVE CIRCUITRY AND SPEAKER SYSTEM CHECKS:

This receiver incorporates special overload protective circuitry, which automatically truns off the drive to the power amplifiers when danger to the receiver output circuitry exists. If the receiver delivers distorted drive limited sound, check the speaker connections for shorted wires or shorted speakers. (Speaker load resistances should not indicate less than 4 ohms resistance on an ohmmeter)

The overload protective circuit consists of an electronic switch which is bridge connected to the output stages so as to develope a positive base drive to the base of TR607 (located in the power supply), when the speaker line power requirements are exceeded. At approximately 3.5A output current TR607 is driven on, clamping the base of TR606 to ground thereby removing B+ to the pre-driver, preventing AC drive to the power amplifier. The circuit is self correcting and operation returns to normal when the overload condition is corrected.

If the power amplifier is suspected, verify center-point voltage on the dc side of the output electrolytic, (C651) for approximately one-half of the B+ supply voltage. If the center-point voltage reads extremely low, suspect a defective output transistor on the low side (schematic shows transistor as bottom device in each channel). If center-point voltage reads extremely high, suspect a defective high side output transistor.

If the output transistors are not at fault, then verify that the output coupling electrolytic capacitor is not shorted, other capacitors are not shorted, circuit board contains no solder or etching shorts, open resistors, poor solder connections or broken pads.

The following performance indicates a properly operating amplifier with an 8 ohm resistive load.

Less than 0.1% IM or Harmonic (1KHz) Distortion at 2.0V

Typically 0.2% IM or Harmonic (1KHz) Distortion at 10V

Typically 22 Watts Dual Channel at 0.9%

Typically 26 Watts Single Channel at 0.9%

OUTPUT TRANSISTOR BIAS:

Proper output transistor operation and output bias adjustment are most important to assure correct performance of the receiver. Check the bias adjustment if the output transistors are replaced,* or if any of the transistors in the driver circuitry, or the amplifier exhibits one or more of the following symptoms:

1. Overheating of the output transistors under normal operating conditions.
2. Excessive low level Intermodulation or Harmonic Distortion-more than 0.25% at 2.0 volts across 8 ohms.

*It is extremely important that the mica insulating washers used to separate the output transistors from their heat sinks be unbroken and installed properly with silicon grease liberally applied to all surfaces in contact with each other. Make certain the emitter and base pins of the output transistors do not contact any part of the heat sinks.

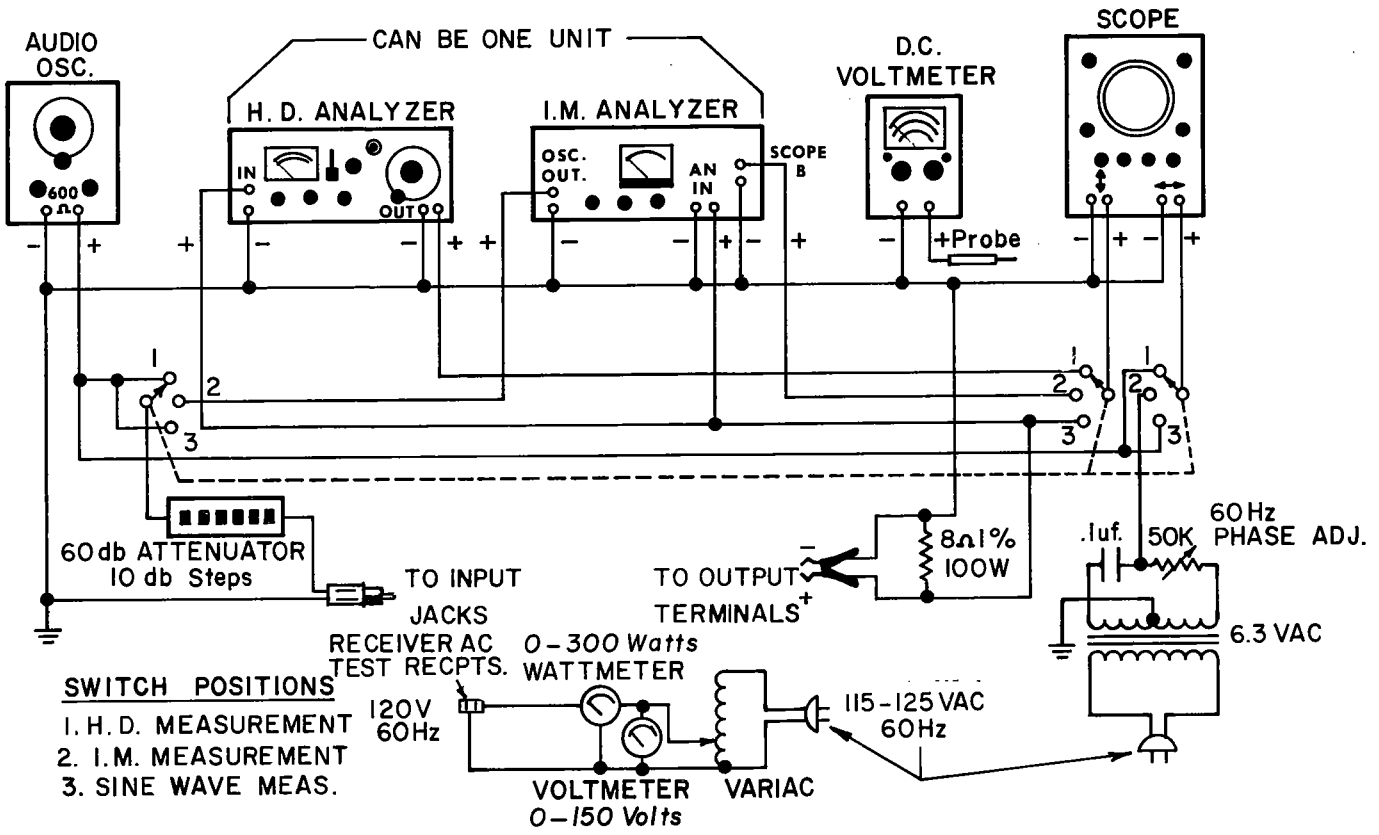


Figure 6

OUTPUT AND BIAS ADJUSTMENT USING AN INTERMODULATION DISTORTION ANALYZER

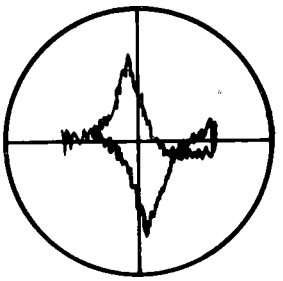
1. Connect the receiver for testing similar to Figure 6.

2. Connect an Intermodulation Distortion Analyzer with a ratio of 4:1 using 60Hz and 7000Hz to the receiver (AUX) input and set the selector switch to AUX.

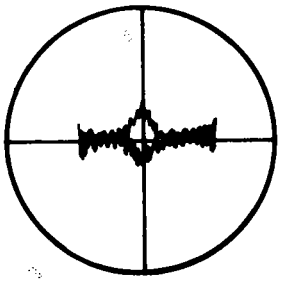
3. Set the volume control to maximum and adjust the generator for a receiver output of 2.0 volts across 8 ohms.

4. While observing the resultant distortion waveform, adjust the bias potentiometer(VR601a) so that the crossover distortion is at a point of being eliminated. (Class "AB") Note: Class "A" operation (continued CW rotation) causes output transistors to overheat and draw excessive current.

REFER TO DIAGRAMS BELOW:



IMPROPER BIAS ADJUSTMENT



PROPER BIAS ADJUSTMENT

5. Repeat Steps 3 to 6 for the opposite channel.

   The following performance indicates a properly operating amplifier with an 8 ohm load.

   Less than 0.25% IM Distortion at 2.0V
   Typically 0.3% IM Distortion at 10V
   26 Watts of power per channel at clipping

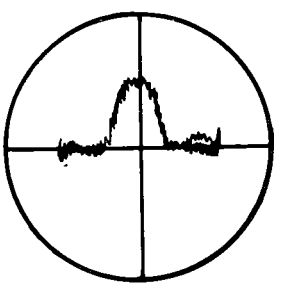
If an Intermodulation Distortion analyzer is not available an oscillator and a Harmonic Distortion analyzer may be used for adjustment of the output transistor bias as follows:

1. Connect the receiver for testing similar to Figure 6.

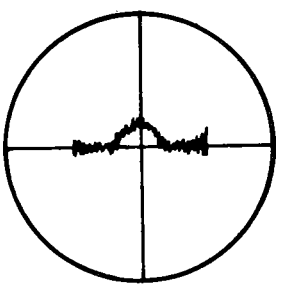
2. Connect an oscillator with less than .05% distortion at 1KHz to the receiver (AUX) input and set the selector switch to AUX.

3. Set the volume control to maximum and adjust the oscillator for a receiver output of 2.0 volts across 8 ohms.

4. Using the Harmonic Distortion Analyzer looking at the distortion of the receiver output, properly nulled, make the adjustment as follows: Adjust the bias for Class "AB" operation by turning the bias potentiometer (VR601a) so that the crossover is at a point of being eliminated. Note: Class "A" operation (continued CW operation) causes the output transistors to draw excessive current and overheat. Refer to diagrams below:



IMPROPER BIAS ADJUSTMENT



PROPER BIAS ADJUSTMENT

5. Repeat Steps 3 to 6 for the opposite channel.

The following performance indicates a properly operating amplifier with an 8 ohm load @ 1KHz.

Less than 0.25% THD at 2.0V
Typically 0.3% THD at 10V
26 Watts of power per channel at clipping

Bias can also be adjusted by using a VARIC equipped with a line wattmeter:

1. Turn the loudness control to minimum.

2. Adjust the bias potentiometers (VR601a & VR601b), to the point at which the receiver begins to cause a very slight increase in line wattage consumption.

PART DESCRIPTION	SCHEMATIC REFERENCE NO.	PART NO.	LIST PRICE*
TRANSISTORS			
2SA202B	TR402	30000021	.74
2SA203B	TR403	30000032	.74
2SA354A	TR401	30000010	.80
2SA666A	TR601a,601b	30000131	.96
2SC693F	TR502a,502b,901a,901b	30200124	.98
2SC710C	TR202,205	30200381	.71
2SC710D	TR201,203,204	30200382	.71
2SC711F	TR206,207	30200362	.71
2SC828Q	TR301,302,303	30200241	.60
2SC828R	TR304	30200242	.60
2SC871E	TR501a,501b	30200301	1.20
2SC945	TR603a,603b	30200521	.60
2SC1047C	TR102,103	30200461	.84
2SC1318Q	TR602a,602b,606,607	30200484	.90
2SC1318S	TR305	30200481	.90
2SD315D	TR608a,608b,609a,609b	30300101	5.40
2SK41F	TR101	30400032	2.80
CDC8002C	TR604a,604b	30200531	1.50
CDC9002C	TR605a,605b	30000172	1.50
DIODES			
1N34A	D208,209,302,303,304, 305,306,307	30600020	.40
1S188	D201,202,203,204,205, 206,210,211,213,251, 401,402,403,601a,601b, 602a,602b	30600260	.30
1S1212	D301	30600090	.42
V03C	D603,604	30600040	.68
Z-1-12	D605	30600300	1.98
INTEGRATED CIRCUITS			
TA-7061	IC201	30900040	5.50
CAPACITORS, ELECTROLYTIC			
1 uf @ 50V	C228,309,321,322,323	64045105	.32
3,3 uf @ 25V	C601a,601b	64043335	.48
4.7 uf @ 25V	C218,901a,901b	64043475	.48
10 uf @ 16V	C301,302,310,324,404	64042106	.48
10 uf @ 25V	C502a,502b,506a,506b, 902a,902b	64043106	.48
10 uf @ 50V	C308,605a,605b,614	64045106	.56
33 uf @ 16V	C409	64042336	.48
47 uf @ 50V	C510a,510b,602a,602b	64045476	1.20
100 uf @ 6.3V	C420,505a,505b	64040107	.48
100 uf @ 16V	C311,414	64042107	.56
100 uf @ 35V	C611	64044107	.56
100 uf @ 50V	C604a,604b	64045107	1.25
220 uf @ 16V	C612	64042227	.68
220 uf @ 35V	C609	64044227	1.30

PART DESCRIPTION	SCHEMATIC REFERENCE NO.	PART NO.	LIST PRICE*
CAPACITORS, ELECTROLYTIC (CONT.)			
220 uf @ 50V	C610	64045227	1.45
2200 uf @ 35V	C651a,651b	64344228	2.88
2200 uf @ 63V	C851	64346228	3.25
CAPACITORS, TANTALUM			
.47 uf @ 35V	C418	66064474	.63
1.5 uf @ 35V	C507a,507b	66064155	.80
3.3 uf @ 25V	C501a, 501b	66063335	.80
COILS AND TRANSFORMERS			
COIL, FM ANTENNA (107A)	L101	35501071	1.04
COIL, FM RF (102B)	L102	35501022	1.20
COIL, FM OSC. (106L)	L103	35501066	1.04
COIL, FM CHOKE	L105	35500070	.30
COIL, RF CHOKE	L151	35500100	1.20
COIL MPX (313E)	L301	35603135	1.26
COIL MPX (312E)	L302	35603125	1.26
COIL, AM OSC. (402L)	L401	35504026	2.05
TRANSFORMER, FM IF (106A)	T101	35701061	1.12
TRANSFORMER, FM IF (211D)	T201	35702114	1.68
TRANSFORMER, FM IF (204E)	T202	35702045	1.12
TRANSFORMER, (311A)	T301	35603111	1.26
TRANSFORMER, (309B)	T302	35603092	1.26
TRANSFORMER, (305D)	T303	35603054	1.26
TRANSFORMER, AM IF (401A)	T401,402	35704011	2.05
TRANSFORMER, AM IF (401B)	T403	35704012	2.05
TRANSFORMER, AM IF (401D)	T404	35704014	2.05
TRANSFORMER, POWER		35900076	25.08
VARIABLE RESISTORS			
DETECTOR SYMMETRY ZERO ADJ.(20K)	VR201	28100008	.78
HUSH/STEREO THRESHOLD (20K)	VR203	28100034	.78
NARROW BAND GAIN CONTROL (5K)	VR202	28100067	.78
AM LEVEL (10K)	VR451	28000008	2.88
BALANCE CONTROL (100K)	VR551	28000050	4.38
LOUDNESS CONTROL W/SWITCH (100K)	VR552	28100047	.86
BIAS ADJUST. (1K)	VR601a,601b	28100029	.89
SEPARATION ADJUST. (5K)	VR701	28000001	2.88
TONE CONTROLS (50K)	VR901,902		
GENERAL SECTION			
SWITCH, ROTARY (SELECTOR)	SW1	27100047	4.62
SWITCH, ROTARY (SPEAKERS)	SW2	27100018	2.34
SWITCH, FLIP LEVER	SW3a,3b,4a,4b,5a,5b,6	27600001	1.68
METER, TUNING		60150008	6.12
LAMP, METER (8V-0.15A)	PL1	37008005	.54
LAMP, DIAL (8V-0.3A)	PL2,3	37008008	.90
LAMP, STEREO (8V-30MA)	PL351	37008001	1.20
THERMISTOR D-22A	TH601a,601b	30700010	.72

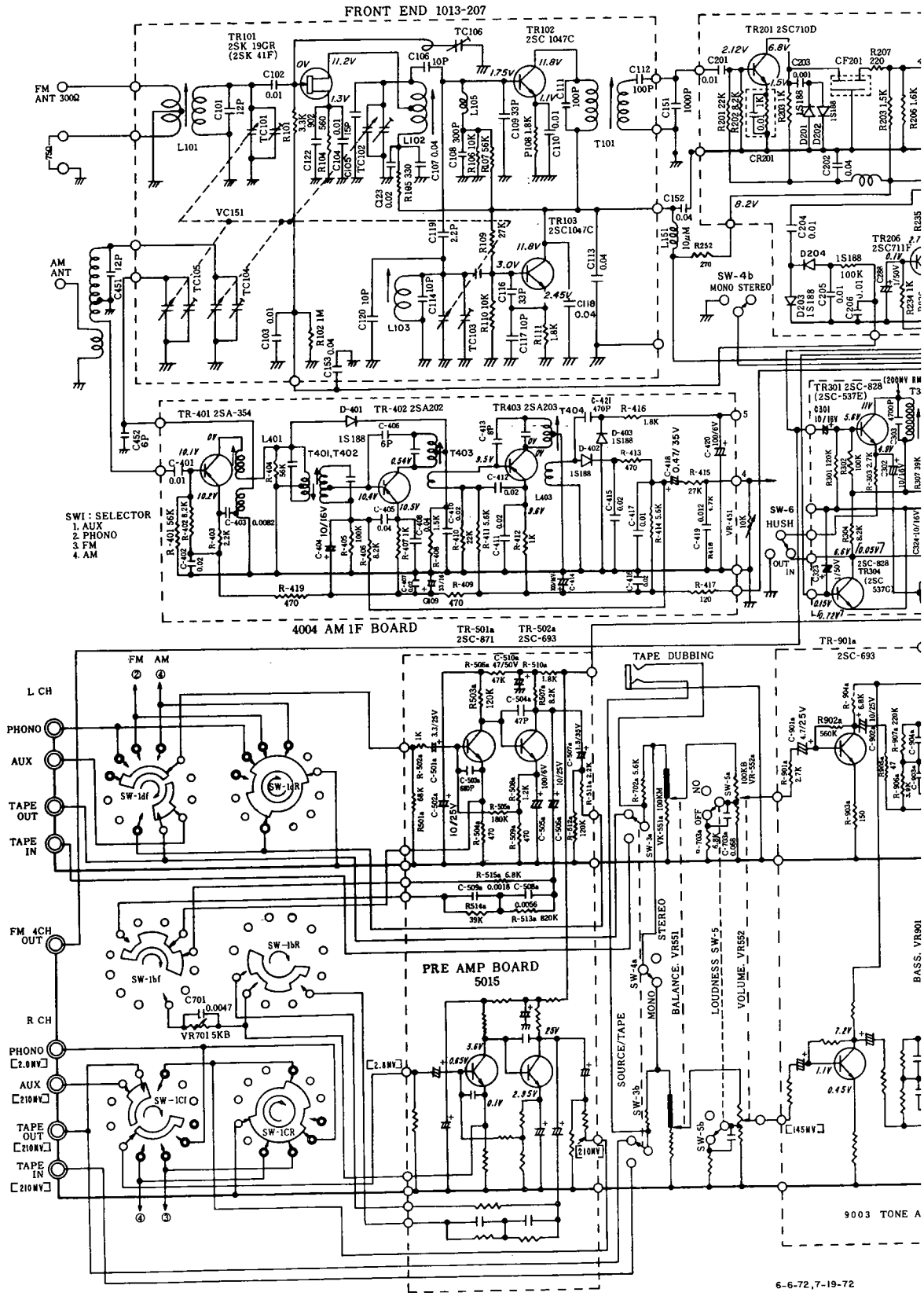
PART DESCRIPTION	SCHEMATIC REFERENCE NO.	PART NO.	LIST PRICE*
GENERAL SECTION (CONT.)			
CR NETWORK (PK1008)	CR201,202,203,204	43000011	.89
CR NETWORK (S1K)	CR205	43000001	1.53
FUSE		38300020	.30
BAR ANTENNA		35400121	3.65
CERAMIC FILTERS	CF201,202	35300006	1.20

(WHEN ORDERING FILTERS BE SURE TO INDICATE COLOR CODE NEEDED; BLACK, RED, YELLOW, WHITE, BLUE)

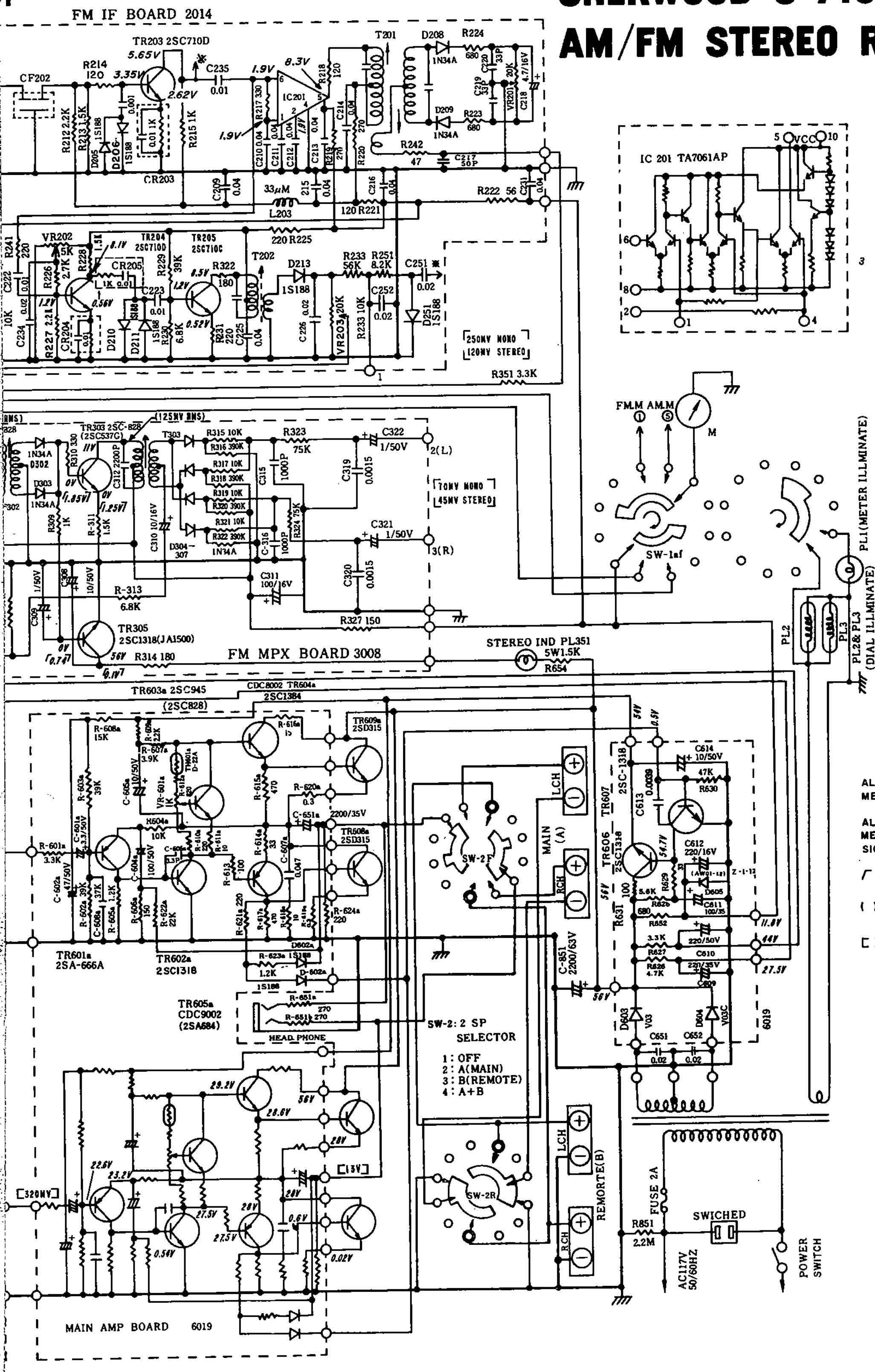
MECHANICAL SECTION		
BAR ANTENNA HOLDER	63030001	.56
ANTENNA TERMINAL BOARD	53041600	1.68
SPEAKER TERMINAL BOARD	53080200	3.10
4 CHANNEL OUTPUT JACK	33010100	.60
INPUT BOARD 8 JACK	33080300	2.50
A.C. OUTLET IN PLATE	63017001	.70
FLYWHEEL ASSEMBLY	23020001	2.40
JACKS(HEADPHONE & TAPE DUBBING)	33030400	1.20
MOUNTING PLATE, METER	63045001	.24
FUSE HOLDER	34032001	1.25
LAMP, SOCKET, PILOT LIGHT TYPE	34018001	.48
LAMP, SOCKET, FUSE HOLDER TYPE	34005001	.44
DIAL GLASS	20042001	3.10
DIAL POINTER	25007001	.58
DIAL DRUM	21006001	.65
PULLEY, NYLON	84010001	.12
DIAL SPRING	19017001	.24
KNOB, LARGE WITH MARK	29068001	1.20
KNOB, LARGE WITHOUT MARK	29067001	1.20
KNOB, SMALL	29087001	.96
POWER TRANSISTOR SOCKET	34014002	.48
ESCUTCHEON	10078001	22.14
WOOD CABINET	85029001	28.00
POLYETHYLENE BAG	81100007	.48
CARTON SHIPPING	86070001	5.40

* NOTE: PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

CIRCUIT DIA


FRONT END 1013-207
TR101 2SK 19GR (2SK 41F)
TR102 2SC 1047C
TR103 2SC1047C
TR201 2SC710D
FM ANT 300Ω
AM ANT
VC151
SW-4b MONO STEREO
TR-401 2SA-354
TR-402 2SA202
TR403 2SA203
SW1 : SELECTOR
1. AUX
2. PHONO
3. FM
4. AM
4004 AM 1F BOARD
TR-501a 2SC-871
TR-502a 2SC-693
TR-901a 2SC-693
TAPE DUBBING
SW-6 HUSH
TR301 2SC-828 (2SC-537E)
TR304 2SC-828 (2SC 537C)
L CH
PHONO
AUX
TAPE OUT
TAPE IN
FM 4CH OUT
R CH
PRE AMP BOARD 5015
SOURCE/TAPE
BALANCE VR551
LOUDNESS SW-5
VOLUME VR552
BASS, VR901
9003 TONE A
6-6-72,7-19-72

SHERWOOD S-7100A
AM/FM STEREO RECEIVER



ALL FM AND MULTIPLEX VOLTAGES MEASURED IN FM MODE, NO SIGNAL.

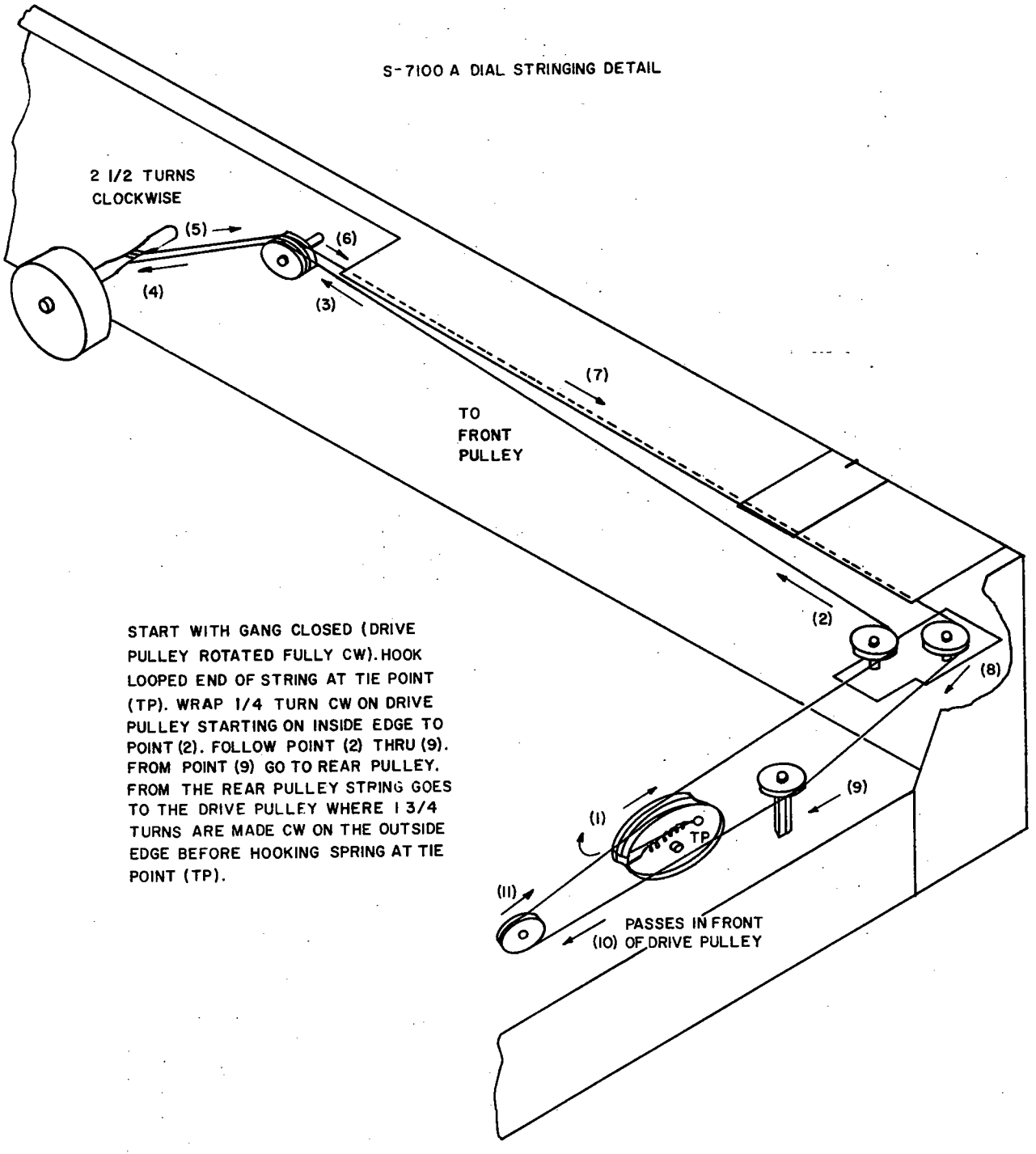
ALL OTHER VOLTAGES ARE MEASURED IN AM MODE. NO SIGNAL.

⌐ ⅂ 1000μV FM STEREO SIGNAL.

( ) RMS VOLTS WITH 1000μV FM STEREO SIGNAL.

[ ] AC:
AC SIGNAL VOLTAGES AT 1KHz, WITH AN 8 OHM LOAD, FOR RATED OUTPUT WITH VOLUME CONTROL AT MAX.

S-7100 A DIAL STRINGING DETAIL



START WITH GANG CLOSED (DRIVE PULLEY ROTATED FULLY CW). HOOK LOOPED END OF STRING AT TIE POINT (TP). WRAP 1/4 TURN CW ON DRIVE PULLEY STARTING ON INSIDE EDGE TO POINT (2). FOLLOW POINT (2) THRU (9). FROM POINT (9) GO TO REAR PULLEY. FROM THE REAR PULLEY STRING GOES TO THE DRIVE PULLEY WHERE 1 3/4 TURNS ARE MADE CW ON THE OUTSIDE EDGE BEFORE HOOKING SPRING AT TIE POINT (TP).

NOTES

SHERWOOD ELECTRONIC LABORATORIES, INC.

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