Contents

TAPCO®
TECHNICAL AUDIO PRODUCTS CORPORATION

6000 SERIES
Repair Manual

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M00179 0378/500/JPI

6000 SERIES SPECIFICATIONS

Frequency Response	10 Hz to 40 KHz ±1 dB			
Distortion	.15%			
Input Level:	70mV RMS			
Preamp gain:	6 dB below clipping			
Input Z:	150Ω			
Equivalent Input Noise	−122 dBM			
Available Gain	>120 dB			
MIKE INPUTS				
Impedance Matching	Low Z	or	High Z	
Max. Input Level	1.7V RMS		2.5V RMS	
LINE INPUT				
Input Impedance	82K			
Max. Input Level	10V RMS			
EQUALIZATION	Shelving Type Continuously Variable ±15 dB			
Bass	80 Hz			
Treble	10 KHz			
Mic EQ (6000R only)	+9 dB @ 20 KHz			
HI LEVEL OUTPUT	10V RMS into 2K or greater load			
Max. Output Level	+16 dBm into 600			
Output Z	150			
LOW LEVEL OUTPUT				
Max. Output Level	20 dB down from Hi Level Output			
Output Z	4.7K			

ADDITIONAL SPECIFICATIONS — 6000R ONLY

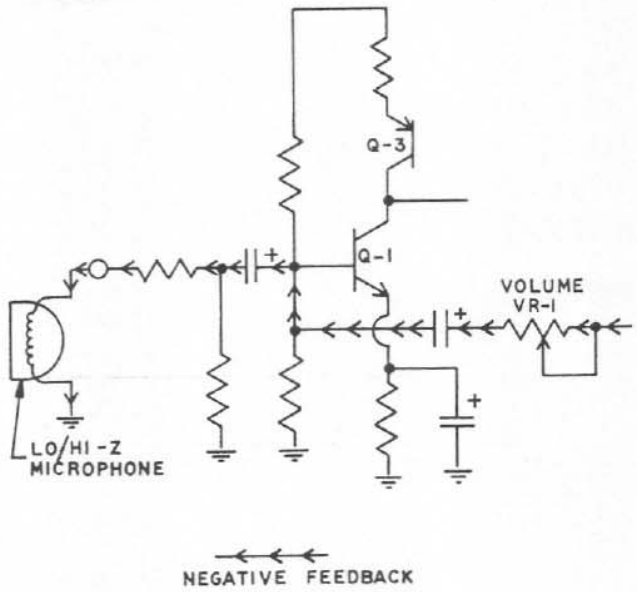
	Maximum Output Level	Output Z
Effects Send High	7.5V RMS into 1K or greater load	150
Effects Send Low	12 dB down from Effects Send High	82K
Monitor Send (rear panel)	7.5V into 10K or greater load	1K

Reverb Tank	Accutronics Type 4, modified			
Power Requirements	115VAC, 7 watts			
WEIGHT				
6000	7 pounds			
6000R	10 pounds			
DIMENSIONS	L	W	H	Rack mounting
6000	15½ ×	7¼ ×	3¼	kit available
6000R	17 ×	10¼ ×	3¾	for both units

2. General Circuit Functions

The Tapco 6000 Series mixers are designed to satisfy a wide range of high quality P.A., sound reinforcement and recording requirements. An increasing demand for low cost versatility has produced several design innovations. The 6000 Series output stages are integrated circuit op-amps, selected for low noise and high output capability. The input preamp is capable of very wide dynamic range, and will accept either low or high Z microphones. These preamp features are the result of a unique design whose fundamentals must be understood before attempting repairs:

1. **Gain Control** The volume level of most preamps is controlled by a fader *after* the preamp. In the 6000 Series, the actual gain of the circuit is governed by the volume knob. Referring to the schematic, note that potentiometer VR1 varies the amount of negative feedback applied to the base of the first input transistor, Q1. More feedback, lower gain; less feedback, more gain. With this control in the full counter-clockwise (off) position, preamp gain before the tone controls is 10 dB. In the full clockwise position the preamp gain is over 60 dB. Proper use of this control will always prevent preamp overload distortion.



Negative Feedback Signal Flow
Fig. 2-1

2. **Automatic Impedance Matching** Well, matching isn't exactly the right term. Actually, automatic impedance accepting is more accurate. The measured impedance at the input of the preamp varies between 1K and 2K ohms, depending on the setting of the volume control. However, the circuit behaves as if it were perfectly matched with either low or high Z mikes. Visualize a low impedance mike connected to the input of the preamp, as in Fig. 2-1. Any negative feedback returned to the input through the volume control will be shunted to ground by this low impedance. This loading of the feedback loop effectively reduces the amount of negative feedback that reaches the input, so the gain goes up. Now let's say there's a high Z mike connected to the input. This presents a much lighter load to the feedback loop, so more of the feedback reaches the input. This lowers the circuit gain, automatically matching the higher output level of the high Z mike.

The actual 1 to 2K input impedance of the 6000 Series preamp presents a nearly ideal load for both low and high impedance microphones. In the case of low Z mikes, the dynamic range, output level and transient response are dependent upon the load the microphone "sees" looking into the preamp input. When a low Z microphone is operated into an impedance equal to its own, dynamic range and output level are reduced, and transient response suffers. The net result is a sound that's just not quite as clean as it should be. That's why most microphone manufacturers recommend terminating their mikes into a load NO LOWER THAN THREE TIMES THE MIKE'S IMPEDANCE. That means a 150Ω mike should see NO LESS than 450 ohms, and a 600Ω mike should see 1.8K. Under these recommended conditions, the amount of distortion produced by the microphone itself is greatly reduced, and the mike's output level is greatly increased. The 1 to 2K input impedance of the 6000 Series preamp meets or exceeds microphone manufacturers recommendations. This can produce a significant improvement in perceived quality and signal to noise performance.

High Z microphones perform better into the 6000 Series preamp also. Most dynamic microphone elements are, by their very nature, low impedance. In order to make a high Z dynamic mike, most manufacturers put a small low to high Z transformer right inside the microphone housing. Of course, any transformer that'll fit inside a mike has to be pretty small. The bigger the transformer, the more voltage you can get out of it. That little transformer in the mike housing isn't going to give you much signal before it starts producing a lot of distortion. However, the amount of signal the transformer has to handle can be effectively reduced by loading the secondary. In other words, plugging this high impedance mike into the 6000 Series "medium" impedance preamp will greatly reduce the voltage swing the transformer is required to handle. This will tend to keep the levels in the transformer within the *real* limits of the transformer's size. The net result is cleaner sounding performance from high Z microphones.

The tone control section of the preamp is the usual pas-

sive configuration. The two most notable characteristics of this type of tone control are 1.) the signal is attenuated the same amount as the available boost or cut; and 2.) the response of the network is not exactly "flat" with the controls at center. In the 6000 Series, the signal is processed through the tone controls, then mixed through a 10K resistor. The other side of this resistor is the virtual ground summing junction of an op-amp. Because this junction is almost at electrical ground, very little signal will be seen here.

The dual low-noise op-amps used for all mixing and output functions are capable of 10 volts RMS output. Full use of this headroom is made available to the operator by the gain controlled mixing stage, IC4A. This summing op-amp is operated in the inverting mode, with a variable resistor in the feedback loop to control gain. This prevents this stage from being overloaded under all conditions. The mixing stage is followed by an op-amp line driver with a gain of 12 dB (IC4B). You'll notice on the schematic, between the mixing and output stages, the "stacking output." This connection is provided for combining two or more mixers. As you can see, connecting mixers together at this point puts the mix buss signal from each mixer onto the output amp of every other mixer. All signals from any mixers connected like this will appear at any other mixer's main output, while the master volume control on each mixer remains a submaster for its six input channels. With the exception of the Mic EQ circuit, the 6000 standard and 6000R mixing and output sections are essentially the same.

The 6000R has another completely separate mixing section for reverb and effects. This effects mixing section performs many functions. It provides signals for the internal reverb, the monitor output on the rear panel, and the effects send outputs on the rear panel. It also provides the return path for external effects devices to feed back into the mixing system. Referring to the schematic, note that IC1A performs the effects buss mixing function. The output of this amp drives the high and low effects send outputs on the rear panel, as well as the next stage of the effects section. IC1B provides pre-equalization for the reverb drive amps. IC2A & B are both used to drive the reverb tank in a push-pull, or balanced differential configuration. IC2A is operated non-inverting, IC2B is inverting (180° out of phase). The signal from the output of the reverb tank is very small, maybe a millivolt or so. IC3A amplifies and re-equalizes this signal. PLEASE NOTE SWITCH SW2A IS PART OF THE REAR PANEL MONITOR SEND JACK. WHEN A PLUG IS INSERTED INTO THIS JACK, THE INTERNAL REVERB IS COMPLETELY DISCONNECTED FROM THE REST OF THE SYSTEM. This allows the effects buss to be used as a completely separate mix buss for external effects mixing, stage monitoring or what have you. When used in this manner, the signal flows from the output of IC1A through the effects/reverb mix pot VR7 and into the effects system master amp, IC3B. This is the master gain control amp for ALL effects system functions. Its output is mixed onto the main buss through isolation resistor R53, and mixing resistor R54.

3. PERFORMANCE CHECK

Because of the unusual operating features and many different functions available in the Tapco 6000 Series mixers, the following performance check should be made BEFORE OPENING THE CASE. These simple tests will isolate the general area in which a defect may have occurred.

PREAMP SECTION

- ☐ VOLUME to *5*
- ☐ BASS and TREBLE to *0*
- ☐ EFFECTS to *0*
- ☐ CHANNEL IN/OUT to *IN*
- ☐ MASTER EFFECTS to *0*
- ☐ MIC EQ to *OUT*
- ☐ MASTER VOLUME to *5*
- ☐ 20mV/1000Hz to MIC IN
- ☐ 30V P-P on HI LEVEL OUT?
- ☐ 2.8V P-P on LO LEVEL OUT?

EFFECTS SECTION

- ☐ VOLUME to *5*
- ☐ BASS and TREBLE to *0*
- ☐ EFFECTS to *5*
- ☐ CHANNEL IN/OUT to *IN*
- ☐ MASTER EFFECTS to *5*
- ☐ REVERB CONTOUR to *5*
- ☐ MIC EQ to *OUT*
- ☐ MASTER VOLUME to *0*
- ☐ EFFECTS/REV at *MAX*
- ☐ 2.8V P-P on EFFECTS SEND HI?
- ☐ 3.6V P-P on MONITOR SEND?

Signal to Noise Ratio Test The isolation scheme of Fig. 4-1 MUST be used for this test. Resistor R2 in the isolation network represents the reference impedance for the test. In other words, to specify S/N ratio for 150Ω microphone impedance, R2 is 150Ω. For 600Ω, R2 is 600Ω, etc. One other precaution: BE SURE TO SET THE GENERATOR OUTPUT LEVEL TO PRODUCE THE DESIRED LEVEL AT THE INPUT OF THE MIXER, NOT AT THE OUTPUT OF THE GENERATOR.

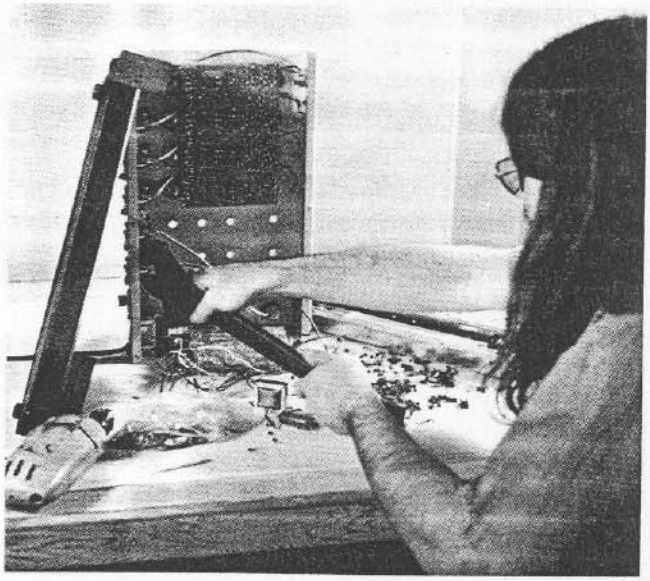
As an example, let's say you want to make a S/N ratio test to determine noise performance for a 150 Ω mike that puts out 10mV RMS. Further, the output level of the mixer is to be 0 dBm.

1. With the test set-up of Fig. 4-1, adjust the generator for 10mV at the mixer input.
2. Set the preamp volume somewhere in the normal use range for this input level: approx. "5" on the volume knob.
3. Bring the master volume control up as far as necessary to produce the 0 dBm reference level at the output, INTO A 600Ω LOAD.
4. Now either turn off or ground the generator output. Remember, the gain of the preamp is affected by load resistor R2. If you ground the preamp input the gain will go way up. This will alter every parameter of the S/N ratio test and produce incorrect results.
5. Read the residual noise voltage appearing at the output. If you have a very accurate, well shielded meter calibrated in dBm, you may be able to read the result directly. If your meter is not calibrated in dBm, calculate:

$$S/N = 20\text{Log}\frac{\text{0 dBm at output}}{\text{residual noise of mixer}}$$

$$= 20\text{Log}\frac{.775\text{V RMS}}{.0005\text{V RMS}}$$

$$= 20(3.19) = 63.8\text{ dB}$$

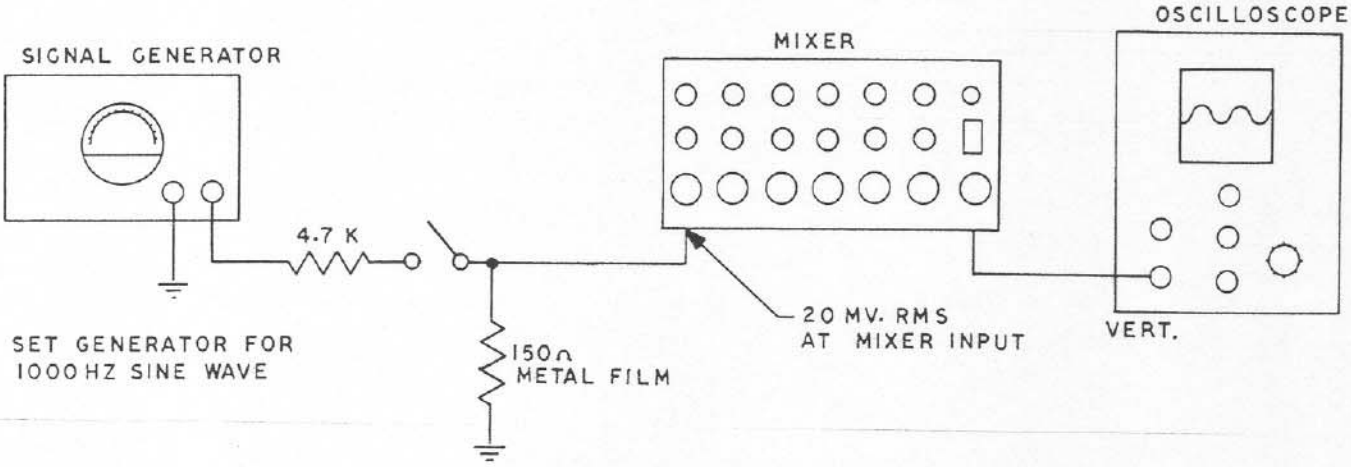


Typical Repair Scene
Fig. 4.2

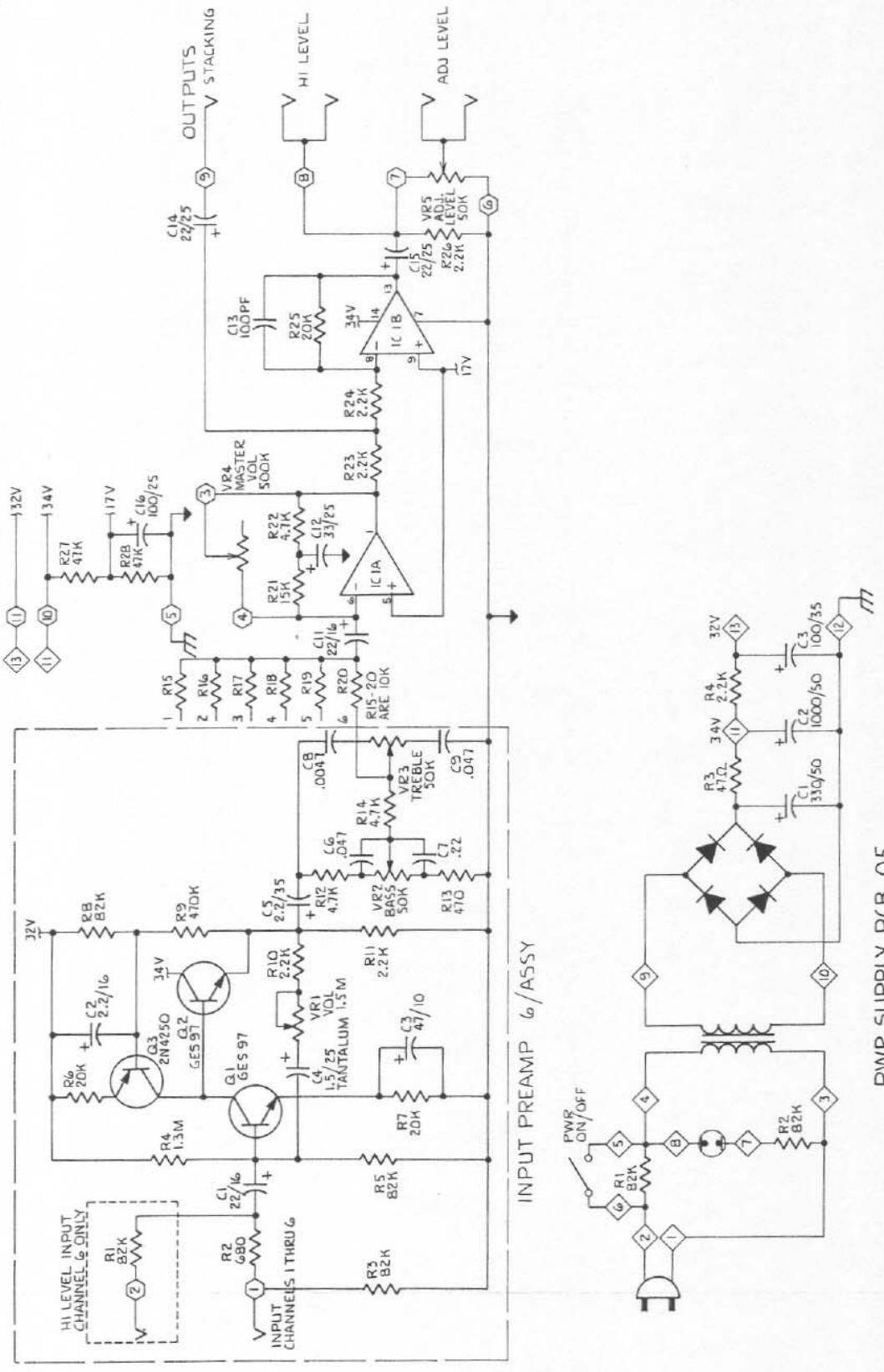
4. TROUBLE SHOOTING PROCEDURES

Equipment Required: Oscilloscope Low Distortion Sine Wave Generator VTVM

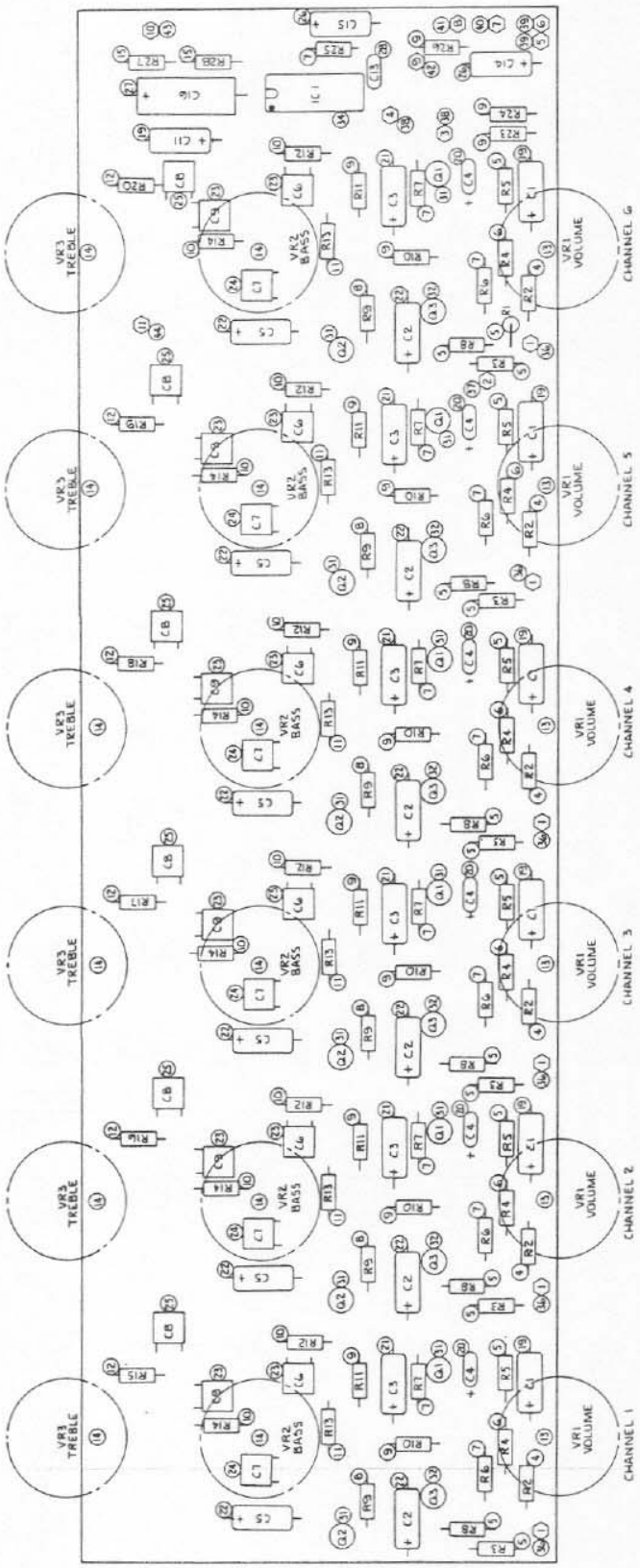
BECAUSE OF THE UNUSUAL CONFIGURATION OF THE 6000 SERIES INPUT PREAMP, THE GAIN OF THE PREAMP IS PARTLY DETERMINED BY THE IMPEDANCE OF THE SIGNAL SOURCE. SIGNAL GENERATORS MUST BE ISOLATED IN THE FOLLOWING MANNER TO GUARANTEE THE ACCURACY OF ANY TESTS TO BE PERFORMED:



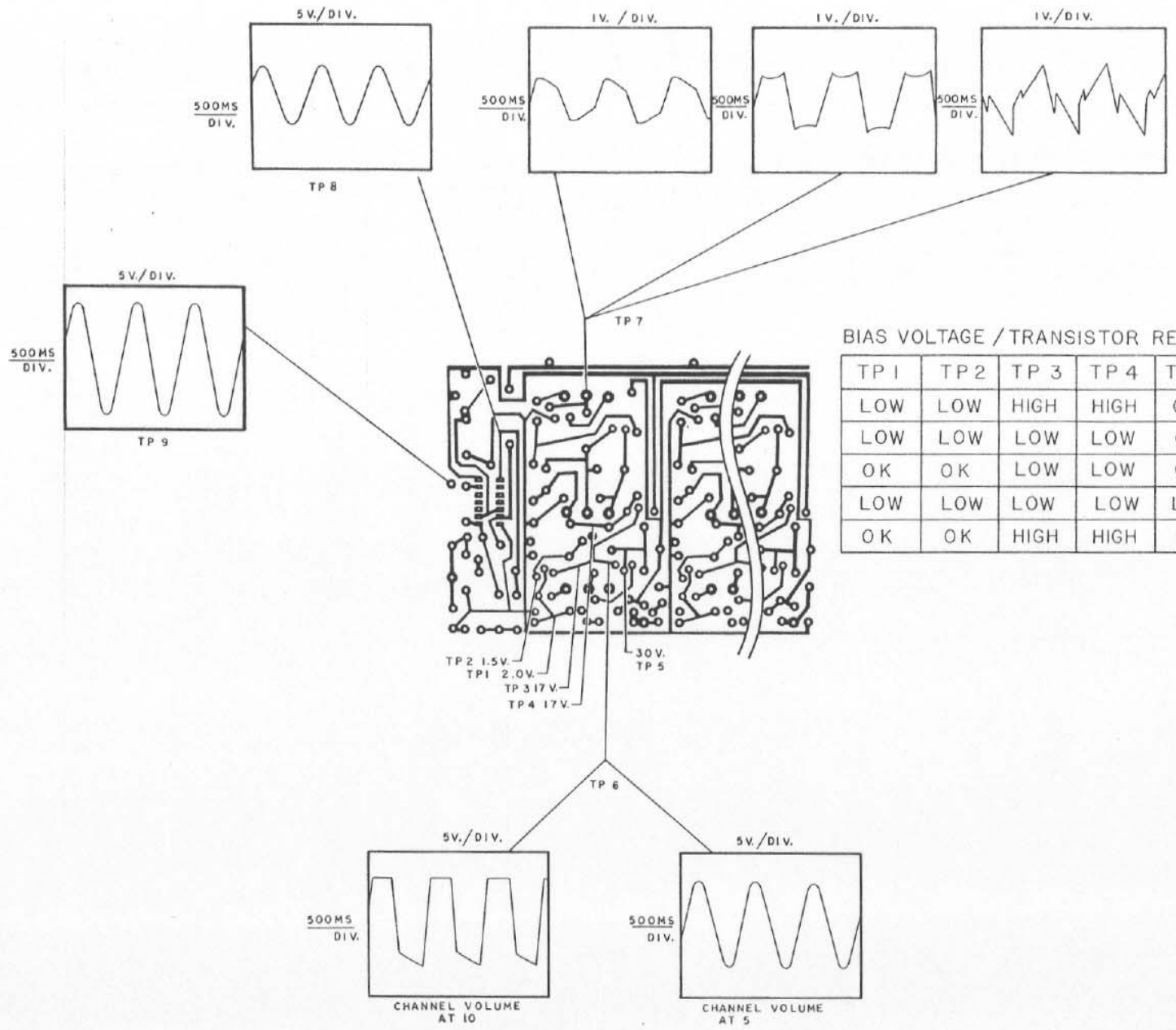
Input Isolation Scheme
Fig. 4-1



6000 Standard Schematic Diagram
Fig. 4-3



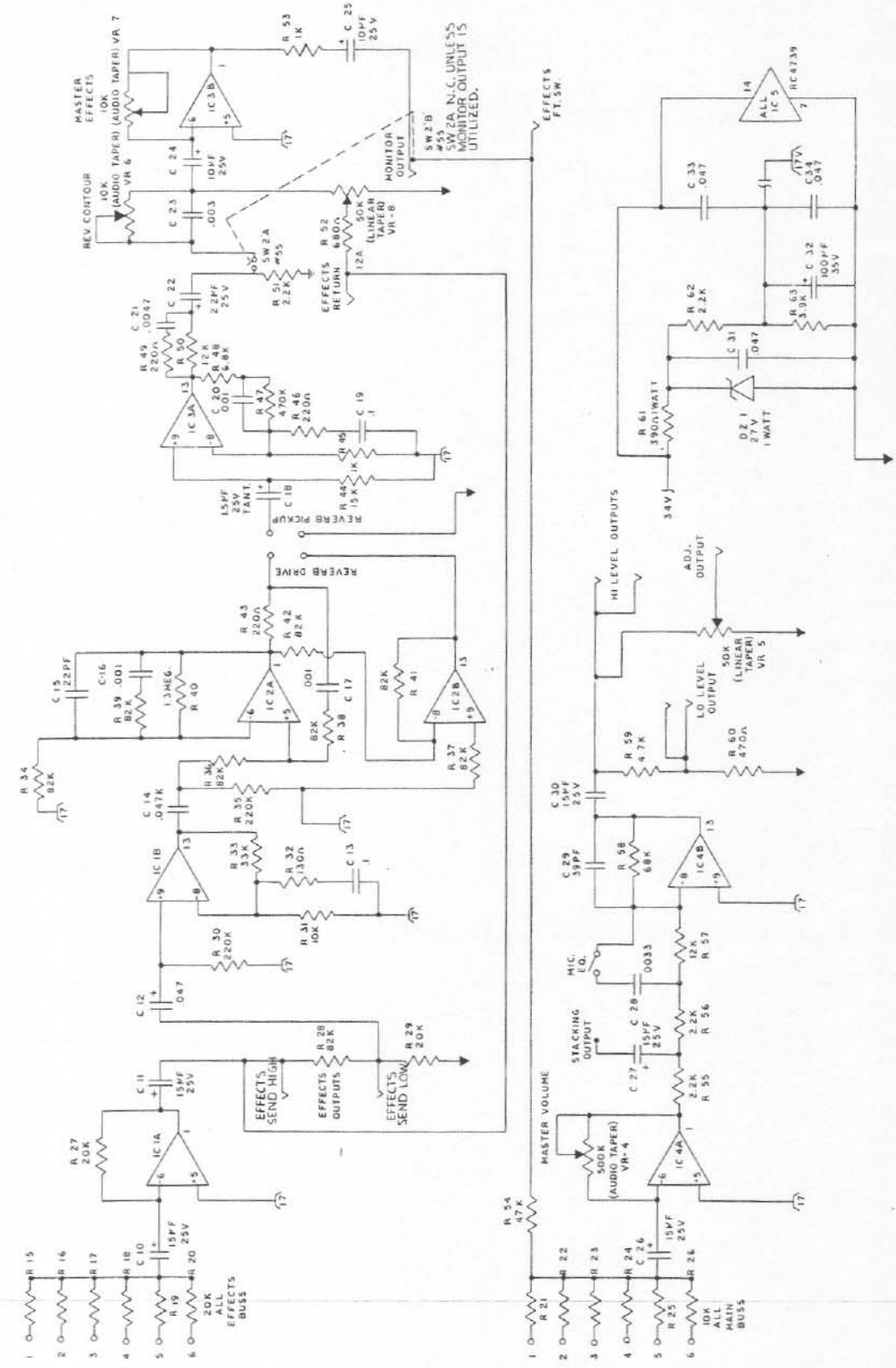
6000 Standard Circuit Board Component Placement
Fig. 4-4



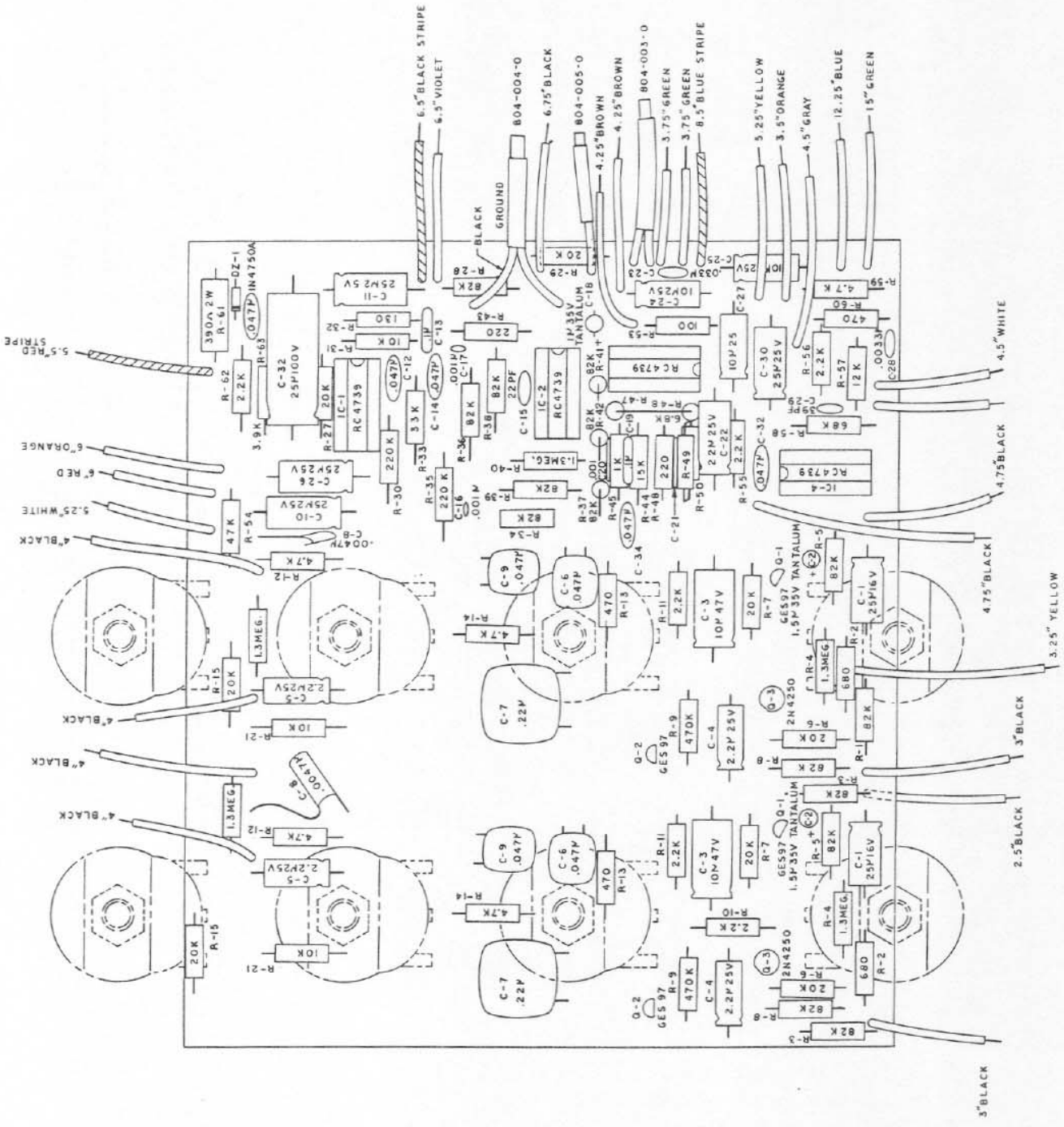
BIAS VOLTAGE / TRANSISTOR REPLACEMENT

TP 1	TP 2	TP 3	TP 4	TP 5	REPLACE
LOW	LOW	HIGH	HIGH	OK	Q 1
LOW	LOW	LOW	LOW	OK	Q 1
OK	OK	LOW	LOW	OK	Q 2
LOW	LOW	LOW	LOW	LOW	Q 3
OK	OK	HIGH	HIGH	OK	Q 3

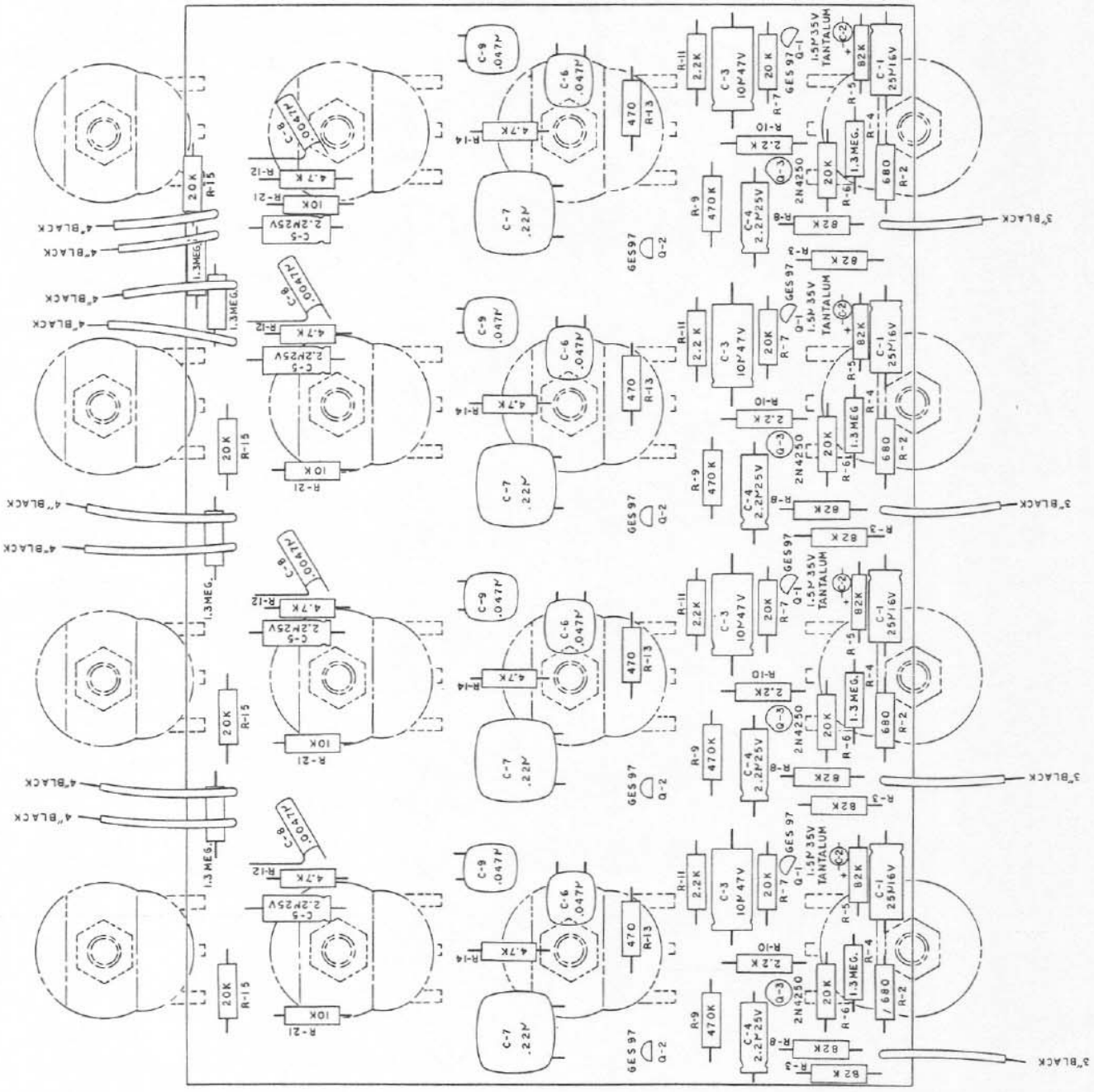
6000 Standard Trouble Shooting Guide
Fig. 4-5



6000R Schematic Diagram
Fig. 4-6



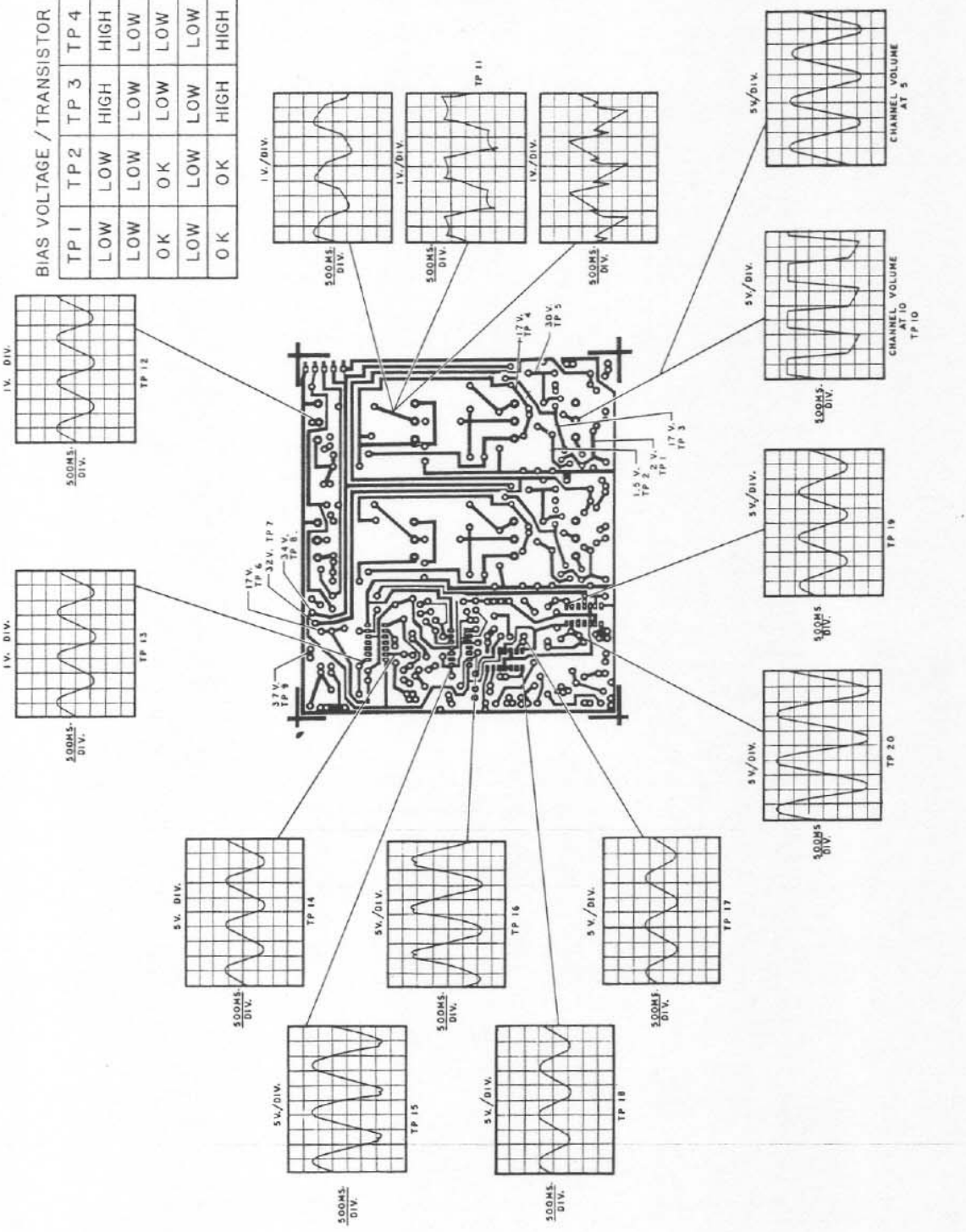
6000R Input Board Component Placement
Fig. 4-7



6000 Output Board Component Placement
Fig. 4-8

BIAS VOLTAGE / TRANSISTOR REPLACEMENT

TP 1	TP 2	TP 3	TP 4	TP 5	REPLACE
LOW	LOW	HIGH	HIGH	OK	Q 1
LOW	LOW	LOW	LOW	OK	Q 1
OK	OK	LOW	LOW	OK	Q 2
LOW	LOW	LOW	LOW	LOW	Q 3
OK	OK	HIGH	HIGH	OK	Q 3



6000R Trouble Shooting Guide
Fig. 4-9

5. 6000 STANDARD DISASSEMBLY PROCEDURE

Tools Required:
- #1 Phillips Screwdriver
- Needle-nose Pliers
- Low Power Soldering Pencil (800° max.)
- Diagonal Cutters
- Narrow tip flat blade Screwdriver
- ½" Nut Driver

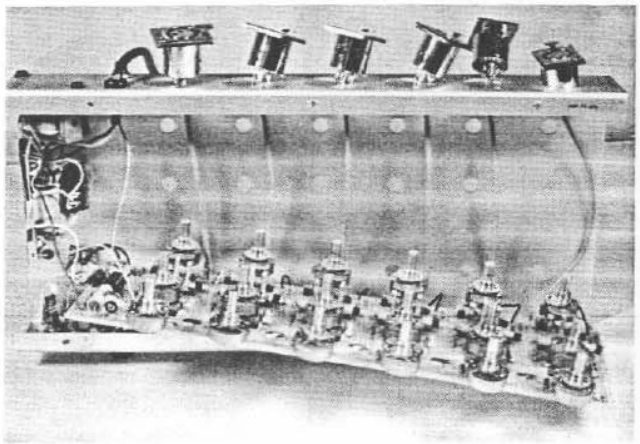
Interior Access **Reference:** Fig. 5-1

Step 1. With mixer resting on knobs, remove six Phillips screws securing bottom plate. DO NOT REMOVE FEET! Carefully lift off bottom plate.

Step 2. Remove all 3 pin XLR connector mounting screws.

Step 3. Turn unit face up. Remove all knobs on channels 1-6. Remove all pot nuts on channels 1-6.

Step 4. With the 3 pin XLR connectors hanging out, fold out the circuit board as in Fig. 5-1. Try not to bump the lock washers off the pot bushings when you do this — it'll save you the trouble of replacing them all when you put it back together.



6000 Standard Disassembly
Fig. 5-1

Reassembly: Reverse steps 1-4 above. Be sure there's a lock washer on *every* pot. Also, take care not to pinch any of the coax cables from the 3 pin connectors under the pots. After you get the board secured with 2 or 3 pot nuts, give each of those cables a gentle tug to make sure they're not pinched.

6. 6000R DISASSEMBLY PROCEDURE

Tools Required:
- #1 Phillips Screwdriver
- Needle-nose Pliers
- Low Power Soldering Pencil (800° max.)
- Diagonal Cutters
- Narrow tip flat blade Screwdriver
- ½" Nutdriver

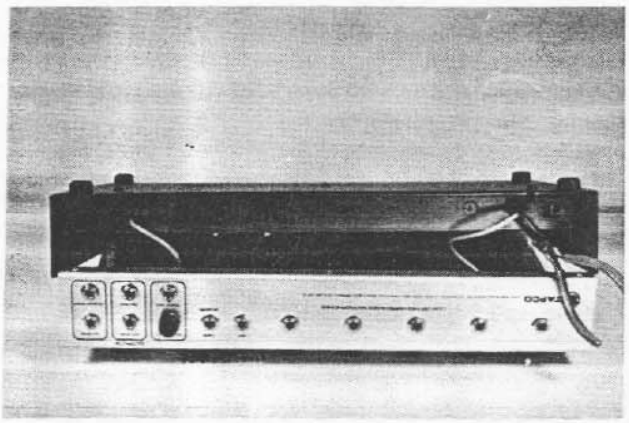
Interior Access **Reference:** Fig. 6-1

Step 1. With the unit resting on knobs, remove six outer Phillips screws securing bottom plate. DO NOT REMOVE FEET!

Step 2. Facing front (¼" phone jack side) of mixer, carefully lift the bottom plate, exposing the front of the reverb tank and the cables that plug into it (Fig. 6-1).

Step 3. With needle-nose pliers, carefully remove the cables from the jacks in the front of the reverb tank. Grasp the plugs on the cables by the metal cable clamp that extends toward you. This will ensure the structural integrity of the cable.

Step 4. Carefully lift off the bottom plate.



6000R Bottom Plate Removal
Fig. 6-1

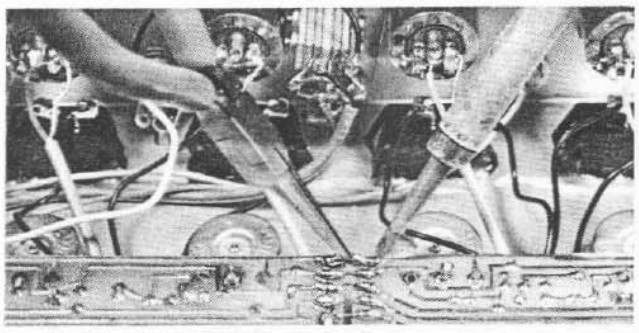
Input PC Board Removal **Reference:** Fig. 6-2, 6-3

Step 1. Remove the securing nuts from the ¼" phone jacks for channels 1-4.

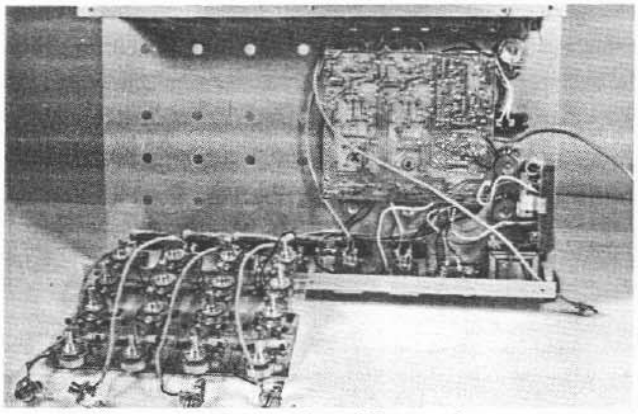
Step 2. Referring to Fig. 6-2, desolder the SIX buss wires that connect the two main PC boards.

Step 3. Turn the unit face up. Remove all knobs from channels 1-4. Remove all pot nuts from channels 1-4.

Step 4. Referring to Fig. 6-3: With the unit resting on the rear apron, fold out the input board.

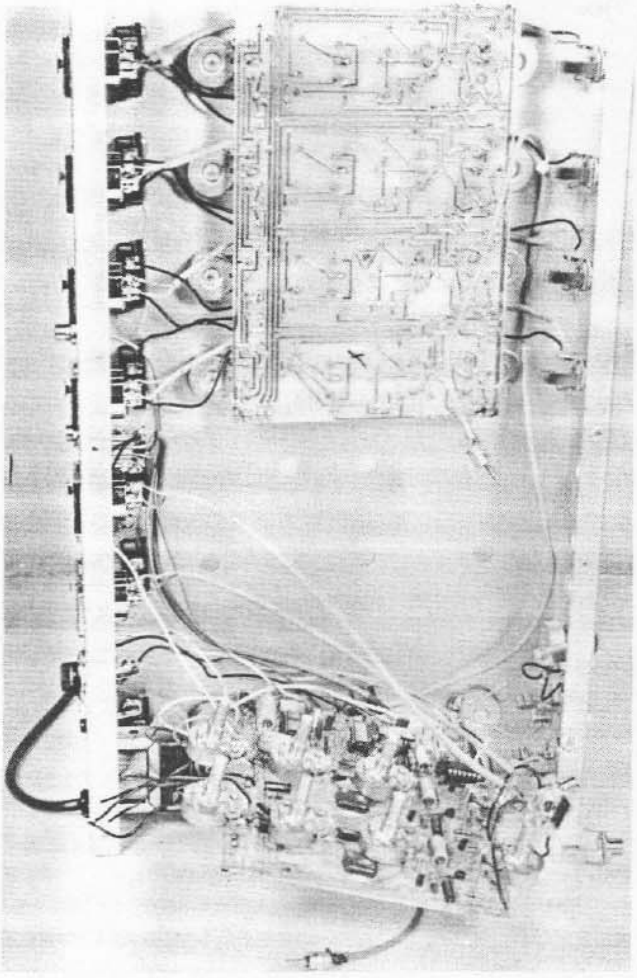


6000R Buss wire Removal
Fig. 6-2



6000R Input Board Removal
Fig. 6-3

Reassembly: Reverse Steps 1-4 above. Be sure there's a lock washer on *every* pot, and that none of the 3 pin XLR connector coax cables are pinched under the pots when you replace the board. After you get a couple of pot nuts replaced, check to make sure the coax cables are free.



6000R Output Board Removal
Fig. 6-4

Output PC Board Removal **Reference:** Fig. 6-2, 6-4

Step 1. Referring to Fig. 6-2: Desolder the SIX buss wires that connect the two main PC boards.

Step 2. Desolder the black wires from the channels 5 and 6 "IN/OUT" switches.

Step 3. Clip the white nylon cable tie that secures the reverb pickup cable to the (short black) channel 5 input wire.

Step 4. Remove the securing nuts from the ¼" phone jacks for channels 5 and 6. Don't forget the "TAPE/HI LEVEL" jack at channel 6.

Step 5. Turn the unit face up. Remove all knobs for channels 5 and 6. Remove all pot nuts for channels 5 and 6.

Step 6. With the unit standing on its right side, fold out the output board as shown in Fig. 6-4.

Reassembly: Reverse Steps 1-6 above. Be sure there's a lock washer on *every* pot. Look out for those coax cables that go to the XLR connectors on the rear panel. After you get the board back in place, pull gently on each coax to be sure it's not pinched under a pot.

7. Trouble Shooting Table #1 — 6000 Series Input Preamp

PROBLEM	POSSIBLE CAUSE	SUGGESTED REPAIR
Dead Channel, no signal at TP4	Defective Transistor	Check bias voltages, replace transistor as indicated in Fig. 4-5, 4-9.
Dead Channel, no signal at TP1.	3 pin connector wires touching. Broken input wire	Check input connections with ohm meter.
Input preamp will not clip (low gain)	Leaky capacitor	Replace C1, or C3
	Defective transistor	Replace Q2, or Q3
Scratchy sounding volume control	Dirty element	Spray contact cleaner inside pot
	Leaky capacitor	Replace C2
DC level shift when turning bass control, or channel volume control	Leaky capacitor	Replace C5, C2, or C7
	Defective 2N4250	Replace Q3
Preamp hums	Defective transistor	Replace Q1, Q2, or Q3
	Solder bridge	Look *very* closely

Malfunctions listed in order of probable occurrence

Trouble Shooting Table #2 — 6000 Standard Output Stages

PROBLEM	POSSIBLE CAUSE	SUGGESTED REPAIR
No output, distortion, oscillation, low output, noisy or hum	Defective RC4739	Replace IC
DC on output	Leaky capacitor	Replace C14 or C10
	Defective DC feedback loop	Check R24, R25, C11
Power supply hum	Leaky capacitor	Replace C35, C36, C37 or C15
	Defective 1N4001	Replace D1, D2, D3, D4
	High (34V) and Low (32V) supply busses shorted	With power off, check resistance between TP7 and TP8 (1.7K Nominal)

Malfunctions listed in order of probable occurrence

Trouble Shooting Table #3 — 6000R Effects/Output Stages

PROBLEM	POSSIBLE CAUSE	SUGGESTED REPAIR
No output, distortion, oscillation, low output, noisy or hum.	Defective RC4739	Replace IC4
No reverb, distorted reverb, no effects return	Defective RC4739	Replace IC3
Reverb or effects send noisy, distorted, low or dead	Defective RC4739	Replace IC1 or IC2
47Ω (R66) in power supply burned, or correct voltage at TP6.	IC in socket backwards	Check IC positioning
	Power supply shorted	Check for solder bridges or misplaced wires
Oscillation	Defective RC4739	Replace IC1, IC2, IC3, or IC4.
	Defective capacitor	Replace C15, C16, C17 or C13.
	Effects buss grounded	Inspect board for solder bridges (check jumper wires)
DC on output	Leaky capacitor	Replace C30 or C26

Malfunctions listed in order of probable occurrence

Trouble Shooting Table #3 — 6000R Effects/Output Stages

No reverb	Dirty or bent contacts on monitor send jack (rear)	Check monitor send jack switching action with ohm meter. Clean contacts as necessary.
No reverb, reverb hums	Loose reverb drive plug Loose reverb pickup plug	Insert plugs as necessary
	Incorrectly grounded bottom plate	Tighten bottom screws firmly
Excessive hum	Defective RC4739	Replace IC1, IC2, IC3, or IC4.
	Defective 1N4750A	Replace zener diode DZ1.
	Leaky capacitor	Replace C35, C36, C37, or C32.
	Defective 1N4001	Replace D1, D2, D3, D4.
	High (34V) and Low (32V) supply busses shorted.	With power off, check resistance between TP6 and TP7. (1.7K Nominal).

Malfunctions listed in order of probable occurrence

8. PARTS LIST

REFERENCE	TAPCO PART NUMBER	DESCRIPTION	SOURCE
R1, 3, 5, 8, 28, 34 36, 37, 38, 39, 41, 42	005114	82K	
R2, 52	005064	680 Ω	
R4, 40	005143	1.3M	
R6, 7, 27, 29, 15-20	005099	20K	
R9, 47	005132	470K	
R10, 11, 51	005076	2.2K	
R12, 14, 59	005084	4.7K	
R13, 60	005060	470 Ω	
R21-26, 31	005092	10K	
R30, 35, 43, 46	005124	220K	
R32	005047	130 Ω	
R33	005104	33K	
R35	005124	220K	
R43, 46, 49	005052	220 Ω	
R44	005096	15K	
R45, 53	005068	1K	
R48	005088	6.8K	
R50	005094	12K	
R54	005108	47K	
R55, 56, 62	005076	2.2K	
R57	000094	12K	
R58	005112	68K	
R61	005300	390 Ω, 1 watt composition	
R63	005082	3.9K	
R64	005143	1.3M	

All resistors 5%, ½w carbon film unless otherwise noted.

REFERENCE	TAPCO PART NUMBER	DESCRIPTION	SOURCE
C1	001308	22 μF 16V electrolytic	
C2	001403	2.2 μF 25V electrolytic	
C3	001211	47 μF 10V electrolytic	
C4, 18	002022	1.5 μF 25V tantalum	
C5	001403	2.2 μF 25V electrolytic	
C6, 9, 12, 14, 31, 33, 34	003061	.047 μF polyester	
C7	003085	.22 μF polyester	
C8, 21	003025	.0047 μF polyester	
C10, 11	001408	25 μF 25V electrolytic	
C13, 19	003073	.1 μF polyester	
C15	004013	22pF ceramic	
C16, 17, 20	003001	.001 polyester	
C22, 24, 25, 26, 27, 30	001408	22 μF 25V electrolytic	
C23	003055	.033 μF polyester	
C28	003019	.0033 μF polyester	
C29	004022	39pF ceramic	
C32	001412	100 μF 25V electrolytic	
Q1, 3	006001	NPN Transistor GES-97	GE Semiconductor
Q2	006002	PNP Transistor 2N4250	National Semiconductor Nanticoke
D1-4	008021	1N4001 Diode	
IC1-4	007002	RC4739 Dual Low Noise Op-Amp	Raytheon Semiconductor
DZ1	008042	1N4750A, 27V 1 watt zener diode	
T1	302001	Power Transformer 115V pri, 24V sec. @ 300mA.	ACR Electronics
Power Switch Chan. IN/OUT switch	301001	SPST rocker switch	Carling Switch (TA100TRB)
Pilot Light	301040	Neon pilot light (NEZ)	Kelvin Electronics
IC Socket	300100	14 pin DIP IC socket	Thermaloy
VR1	005400	CV9610, 1.5 meg. special audio taper	Tapco
VR2	005401	TC9611, 50K linear taper potentiometer, PC mount	Tapco
VR3	005401	TC9611, 50K linear taper potentiometer, PC mount	Tapco
VR4	005402	MV9612, 500K audio taper potentiometer	Tapco
VR5	005404	EF9614, 50K linear taper potentiometer	Tapco
VR6	005403	RC9613, 10K audio taper potentiometer	Tapco

REFERENCE	TAPCO PART NUMBER	DESCRIPTION	SOURCE
VR7	005403	RC9613, 10K audio taper potentiometer	Tapco
J1, 2 etc.	300001	¼" phone jack	Switchcraft #11
Monitor output jack (rear)	300003	¼" phone jack with multiple switch	Switchcraft #55
Effects return jack	300002	¼" phone jack with switch	Switchcraft #12A
XLR Connector	300006	3 pin XLR connector (round)	Switchcraft C3F
XLR Connector	300006	3 pin XLR connector (rectangular)	Amphenol #91-456
Reverb tank	802001	Modified reverb spring and can	Accutronics Type 4
Chassis	450001	6000 standard top plate	Tapco
Chassis	450003	6000CF top plate	Tapco
Chassis	450004	6000RCF top plate	Tapco
Chassis	450005	6000 bottom plate	Tapco
Chassis	450006	6000RCF bottom plate	Tapco
knob	400001	¾" Pointer knob	Tapco
knob	400002	Number knob	Tapco
knob	400003	½" Beak knob	Kelvin Electronics
Line cord	303001	2 cond. AC cord	Belden
6000 printed circuit board complete	800002	PCB w/6 preamps and output stage	Tapco
6000R Input printed circuit board complete	800003	PCB w/4 preamps	Tapco
6000R Output printed circuit board complete	800004	PCB w/2 preamps, effects, reverb drive, reverb return, and main output stages.	Tapco
6000 Series Power Supply Circuit Board complete	800001	PCB with rectifiers, pilot light, filter capacitors	Tapco