

## TEST PROCEDURE

### IMPERIAL AND CUSTOM MODELS

#### AMPLIFIER CONTROL SETTINGS

Volume Controls	- Off
Bass Controls	- On
Contour Control	- On
Reverb Control	- Off
Intensity & Speed Controls	- Off

Connect the chassis to the test bench, and turn on power.

Driver transistor bias adjustment.

Adjust the variable bias control to give a 30 ma. collector current. The correct current is determined by measuring the voltage drop across the drive transformer. This voltage will read 3V when the OT433 driver transformer is used. Install the correct resistor.

The Reverb driver transistor bias is adjusted in the same manner to give a 10V drop across the 475 ohm collector load resistor. Install the correct resistor.

#### POWER SUPPLY VOLTAGE MEASUREMENTS

Bridge Voltage	$\pm 32V \pm IV$
Preamp Source voltage	$-22V \pm IV$
Drive transistor source voltage	$-25V \pm IV$
Reverb driver source voltage	$-25 \pm IV$

These test are made with the line voltage set at 120V.

#### POWER OUTPUT TEST

1. Adjust the amplifier load to 8 ohm.
2. Connect signal generator to normal input.
3. Adjust signal generator to 300 cycles - .1V Rms Output.
4. Increase the amplifier volume to the clipping level as seen on the scope. The clipping should be symmetrical.

5. Reduce the volume to an output just below the clipping level, the power output should read between 35 to 40 Watts and the wave shape should be free from visible distortion.
6. Reduce the volume to zero. The amplifier should not be operated for more than a few minutes at a time at full power, which may cause overheating or damage to the load resistor.

#### FREQUENCY RESPONSE

1. Adjust the signal generator to 3KC, .1V Rms.
2. Adjust power meter to 15W range.
3. Connect signal generator to the normal input and adjust the amplifier volume to 0dB on the power meter.
4. Turn treble control off. The output should drop at least 15dB. Turn treble control on.
5. Switch signal generator to 300 cycles. The output should drop 15dB.
6. Switch signal generator to 100 cycles, and adjust the amplifier volume to 0dB output. Turn the bass control off. The output should drop 10dB. Turn bass control on.
7. Switch signal generator back to 300 cycles. The output should drop 5 to 6dB. Turn contour control off. The output should drop to 10dB.
8. Repeat this test on the tremolo channel. The results should be the same except for test #7. The output will drop to 10dB since there is no contour on the tremolo channel.

#### TREMELO TEST

1. Adjust the signal generator to 300 cycles - .1V Rms.
2. Set power meter on 15W scale.
3. Connect signal generator to the tremolo channel and adjust the volume for 0dB output.
4. Increase the intensity control to full intensity. The modulation seen on the scope should not exceed 100% or be less than 50%. The variation on the speed control should be approximately 5 to 10 c.p.s.

### REVERB TEST

1. Adjust signal generator to 300 cycles - .1V Rms.
2. Switch power meter to VTVM 1V scale.
3. Connect power meter input to yellow lead of yellow module.
4. Connect 4-C spring unit to amplifier and adjust volume and reverb controls to max.
5. Peak the output of the yellow module by slowly increasing the signal generator frequency. Output voltage should be at least .3V Rms at the peak.

### STABLITIY

1. Disconnect signal generator from amplifier input.
2. Turn volume, Reverb, Intensity and speed controls off.
3. Connect bench speaker to output of the amplifier and check the scope for high frequency oscillation.

This concludes the electrical test. Check the amplifier for poor or unsoldered connections and mechanical defects.