

DC Overloads

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Caused by too much current in Supply.

Trouble Shooting

[AM-146-TLH](#) outline

Phase detect and recycle relays on the relay board 1A4

there are four relays on this board,
2 are 6vdc relays - K1,K2
2 are 24vdc relays - K3,K4

If a 6vdc relay is in the K4 position, will get DC overload.

Customer may have discovered that Tx will come on if Overload RESET button is held in for a second or two.

Grid I & DC overloads:

Grid I normal with PDM at zero (all the way down)

Turn up PDM until Grid I begins to drop off.
Adjust Filament voltage.
If grid drive comes back up, replace tube.

If filament has no effect, problem in grid circuit.

Other:

The HV [Protection](#) board will give a DC Fault. Check the HV protection board itself to see if fault LED is on.

Various Notes

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PDM Coils:

- [PDM Filter](#) Trouble shooting

Ball Gaps:

- E1, E3, E4, E5, = 1/2 inch

- E6 = .010
- E7 = .125
- 1A3E1 = .040

Testing Damper diodes:

- Using Fluke or Simpson (9 volt bat)
- on high ohm scale (These are good readings)
- Forward Bias = High Reading
- Reverse Bias = Even Higher Reading
- Each 'Hockey puck' contains several diodes.
- Possible for one or all to open.

Plate Volt meter: (Loss of RF Drive)

Pegged (pos) - check 'sandwich' resistor mounted on underside of PA cavity above/behind blower.

Limits - Check operation of PDM and [MOD Bias](#).

Audio Driver

Output of 1A1A3 (Audio Driver) has waveform that changes a little bit duty wise but mainly changes DC level that it is riding upon. ie: 40vpp square wave that moves from -100 volts to -250 volts as power pot is adjusted. Check C8 15uf/450v electrolytic.

Problem - Output of Audio Driver was clamped at 53 volts amplitude, pulse action was

normal.

Resolution - Removed Q1 and measured with ohm meter found leakage from Collector to Emitter. Replaced and all is fine.

IPA:

Current as high as you can get it (1.1 amp is good).

Check [stability](#) by viewing Square wave at output of IPA while rocking 'grid tune' off resonance both sides down to 200ma. Duty cycle should not shift. Minor adjustments (1/8") of L2 (IPA) should correct this.

PA Grid Tune:

Adjust slug rack L3,L4,L5,L6, for MAX Grid Current, But RF DRVR I does not exceed 8.5 amp.

RF DRVR I Too high = too much capacitance. (1A2A3C3 control RF DRVR I).

Noise

An open rectifier in the HV supply will cause the noise to rise from the normal -60db to -45db.

Obsolete [Switch](#) replacement.

Distortion:

[Distortion](#).

[Audio board](#)

Modulation:

[Poor Positive Modulation](#).

Misc:

[Differences](#) of 5 and 5A