



## SA25-100 SETUP PROCEDURES

### RF SECTION CHECK

1. Apply AC power.
2. Measure high voltage DC on Capacitor C3. Readings are approximate: 100 watt = 225 VDC, 50 watt = 165 VDC, 25 watt = 110 VDC.
3. Measure 12 VDC at TB2 pin 4 on PWB-299 (AC power supply) as 11.7 VDC (+/- 5%).
4. Measure 5 VDC at TP1 on PWB-296 (SPA) as 5VDC (+/- 5%).
5. Measure 5 VDC at TP3 on PWB-301 (EXC MTBD) as 5 VDC (+/- 5%).
6. Check that RF LEVEL and MOD potentiometers are fully CCW.
7. Connect 50-ohm dummy load to Transmitters output.
8. Switch RF to ON. PA voltage should read 0. Switch PA READ to current. PA current should read less than .3A.
9. Set MONITOR to DSBL. LED above switch should be ON.
10. Set MODE switch to CARR.
11. Switch PA READ to VOLTAGE and adjust RF LEVEL for a reading of 20V.
12. Switch PA READ to CURRENT. Current should be approximately 0.5 Amps.
13. Connect oscilloscope to the Dummy Load.
14. Adjust RF LEVEL for rated power using the oscilloscope voltage on the dummy load.
  - 25 Watts = 100 Vpp +/- 2.5%
  - 50 Watts = 141 Vpp +/- 2.5%
  - 100 Watts = 200 Vpp, +/- 2.5%

NOTE: PA voltage (with PA READ switch in voltage position) should NEVER exceed 90 V.

### METER ADJUSTMENT

1. Set RF METER switch to REFL.
2. Turn R6 on AMTR1 PWB CW for a half scale meter reading.
3. Adjust C2 on the HWRF PWB for the lowest meter reading, and then turn R6 CCW.
4. Set RF METER switch to FRWD.
5. Adjust R5 on AMTR1 PWB for the correct power reading.
6. Turn RF LEVEL CCW.
7. Disconnect the dummy load.
8. Slowly turn RF LEVEL CW for a reading of 20% full power.
9. Set RF METER switch to REFL.
10. Adjust R6 on the AMTR1 PWB for the same reading as in FRWD power.
11. Turn RF LEVEL CCW and reconnect the dummy load.
12. Adjust RF LEVEL for full rated power.
13. Place MODE switch in CONT and adjust MOD CW for 95% modulation using scope.
14. Place RF METER switch in READ and adjust METER SET for a meter reading of 95%.
15. Place MODE switch in CARR and RF METER switch in SET. Adjust R2 on the AMTR1 PWB for a meter reading at the SETline.