AUDIO PERFORMANCE

Audio Response……. Meets FCC Pre-emphasis curve

Distortion……..< 1% THD

FM Noise……..... < 50 db or better

AM Noise……< 40 db or better

AM Synchronous Noise…….< 40 db typical

GENERAL

Operating Temperature…….. -10 to +35 Degrees Celsius Ambient
+14 to +95 Degrees Fahrenheit Ambient

Altitude…….. 5,000 ft without additional cooling

Cooling Requirement……. Unobstructed air flow to internal cooling system should be 2,000 CFM minimum

RF Output Connectors……1 5/8” EIA Flange

Weight……450 lbs

Dimensions Overall……23” x 77” x 32” (W x H x D)

Section III

Transmitter Installation

III -- TRANSMITTER INSTALLATION

To ensure long and reliable trouble-free service from the UTX2K ULTRA transmitter the following steps for installation are recommended:

1. **MECHANICAL INSTALLATION:** The UTX2K ULTRA was designed to be installed in a building protected from the weather. The building should have a hard-surface floor such as concrete with a moisture barrier. This barrier could be pressure-treated wood sub flooring which could be anchored to the concrete and to the transmitter to make the installation earthquake resistant.

   Allow a minimum of three feet around the transmitter cabinet for service access. The top of the transmitter should be clear for three feet above to allow the air to exhaust from the transmitter.

   Air flow thru the transmitter is approximately 2,000 CFM. Provisions for air inlet and exhaust from the room must allow air flow with minimal obstruction. In the event that the room temperature exceeds 35º Celsius (95º F), cooling air must be provided so that the room temperature will not exceed 35 degrees Celsius under worse case conditions.

   Notice: This equipment is **HEAVY** and must be handled by professional movers with proper equipment. Any damage caused by the installers is not covered under warranty. Check to ensure that installing crews have proper insurance coverage.

2. **GROUNDING:** Transmitter grounding is **VERY IMPORTANT** and must be done correctly for safety and operational reasons. A typical installation may be done as follows:

   Use a heavy gauge wire such as #2 AWG stranded copper or solid copper buss one (1) inch wide by 1/8 inch thick for connections. The bonding between the transmitter and the ground rods must be good quality and protected from corrosion. The ground wires should run over the floor and be connected to the ground rods located outside the building. The wire should not go thru the concrete floor but over and around it.

3. **AC WIRING:** Wiring to the house electrical sub-panel will be routed to the AC terminal block mounted in the back of the rack.

   Connections to the AC Main should be made as follows:

   --- RED and BLACK are connected to the 220 VAC.
   --- WHITE WIRE is connected to NEUTRAL.
   ---GREEN WIRE is connected to SAFETY GROUND.

   NOTICE: All wiring of this type must be done by a QUALIFIED ELECTRICIAN and must conform to LOCAL and NATIONAL wiring CODES.

   Consult with your electrician to ensure that the proper breaker size is selected for the main circuit.

4. ANTENNA CONNECTION: The transmitter is equipped with 1 5/8" EIA flange connectors located at the top of the rack. Conditions vary from site to site so some engineering may be required to ensure that the antenna is receiving the correct amount of power to comply with FCC licenses and to ensure safety from lightning, etc.

Section IV

Transmitter
Turn-On

IV --- TRANSMITTER TURN-ON PROCEDURE

Before applying AC Power to the transmitter for initial turn-on and check out, the installation should be approved by a qualified broadcast engineer. The turn-on procedure that follows is recommended by Pineapple Technology, Inc. engineering staff:

1. Check transmitter load or antenna for proper installation and connection to the transmitter.

2. Open the transmitter and inspect all cables and wires for loose connections or broken wires in the rack assembly.

3. Check for damage to the equipment mounted in the rack.

4. Check all AC breakers and on/off switched to ensure that they are all in the **OFF** position.

5. Turn-on Main AC breaker located in the house service sub-panel.

6. Turn-on the Main AC breaker located on the two (2) ACDIS2 Power Distribution panel located on the front of Transmitter. A green light should come on indicating power is on.

7. Turn-on the AC Switch located on the front of the ADP500. The indicating lights should be on and ready for operation.

8. Turn-on the AUX Breaker located on the ACDIS2 front panel. The PA fans and rack exhaust fans should come on.

9. Turn-on the AC Power breakers located on the front panel of the ACDIS2. Check the AC2009 power modules, three (3) each, to see if the green lights are lighted indicating normal operation.

10. Using the ADP500 and PAS3, check the idling currents on each PA to ensure that the currents are in the correct range. Typical range is 0.5 to 2.5 amps. See ADP500 Operating Section for details.

NOTICE: The Modulator has been set at the factory so that the output power indication on the ADP500 will show 100% or 2 KW p-sync power level. It is important to read the instruction manual supplied with the modulator to locate key adjustment devices on the front panel. The output level adjustment will be necessary for the next step in the turn-on procedure.

11. Locate the output level adjustment on the modulator and turn the level down to minimum or CCW.

12. Turn-on the power switch located on the modulator rear panel.

13. Apply a video signal (1 volt P-P) to the video input terminal.

14. Slowly increase the output level adjustment while watching the **RF Output** level on the APD500 meter until it reads to 50%.

15. Using the ADP500 reflected power indication, check the LOAD reflected power. This should be less than 5% reflected.

16. Return to the PA current readings on the ADP500 to verify that all the currents are approximately the same.

17. With successful performance to Step 17, the transmitter output power can be increased using the output level adjustment on the modulator to achieve 100%. The aural power can be added at this time not exceeding 10% of output p-sync power as indicated on the ADP500.