

Air conditioning and any related heat exhaust ducts should be in place before continuing with the installation of the Transmitter.

Installation of Cabinets and Trays

Please inspect the Cabinets and all other material thoroughly upon arrival. Axcera certifies that upon leaving our facility the equipment was undamaged and in proper working order. The shipping containers should be inspected for obvious damage that indicates rough handling. Check for dents, scratches, broken switches, meters or connectors. Any claims against in-transit damage should be directed to the Carrier. Also please inform Axcera as to the extent of the damage.

Remove the Cabinets, Trays, Hybrid Combiner, Bandpass Filter, Trap Filter and Output Couplers along with the Installation Material that make up the 835A from the crates and boxes. Remove the straps which hold the Cabinets to the shipping skids and slide the Cabinets from the skids. Remove the plastic wrap and foam protection from around the Cabinets. Do not remove any labeling or tags from any cables or connectors, for these are identification markers which make reassembly of the Transmitter as easy as possible.

There are three Cabinets, (A1) the Single UHF Exciter Assembly, (A2) the Side A 2-3 kW Amplifier Array Assembly and (A3) the Side B 2-3 kW Amplifier Array Assembly. These Cabinets should be arranged from left to right with you facing the front, the A1 Single UHF Exciter Cabinet, the A2 Side A Amplifier Cabinet and the A3 Side B Amplifier Cabinet.

The cabinets should be positioned with consideration taken for adequate air intake and exhaust, the opening of the rear door, access to the Trays including sliding them out for testing, the AC hook up and the installation of the Output Transmission Line. The Cabinets should be Grounded using copper strapping material and also should be permanently mounted to the floor of the Site using the holes in the bottom of the Cabinets.

Remove the two L-brackets, mounted on the front panel rails of the Single Exciter Cabinet, which hold the Trays in place during shipment. The UHF Amplifier Trays are shipped separately from the Amplifier Array Cabinets because of the weight of each Tray. The Trays are mounted in the cabinet using Chassis Trak cabinet slides. The Tray Slides are on the Top and Bottom of the UHF Amplifier Trays and on the sides of the UHF Exciter Tray and the Variable Phase/Gain Trays. Inspect for any loose hardware or connectors, tightening where needed. Open the rear door, the key to unlock the door, if the door has the Optional lock, is found in a tan envelope taped to the door, and inspect the interior for packing material. Carefully remove any packing material that is found. Slowly slide each Tray in and out to verify that they do not rub against each other and have no restriction to free movement. **Note: The UHF Amplifier Trays must be placed into the Cabinets in the proper location according to the labeling on each Tray or the Gain and the Phasing will not be maximized.**

The UHF Amplifier Trays are labeled to indicate where they are positioned in the Side A or the Side B Amplifier Cabinets. They are mounted in each Cabinet from bottom left to top right, with A1 the bottom left Tray and A6 the top right Tray. Locate the Tray labeled A1 and slide it into the Side A Cabinet, the bottom left position. Locate the Tray labeled A2 and slide it into the Side A Cabinet, the bottom right position. Locate the Tray labeled A3 and slide it into the Side A Cabinet, the center left position. Locate the Tray labeled A4 and slide it into the Side A Cabinet, the center right position. Locate the Tray labeled A5 and slide it into the Side A Cabinet, the top left position.

Locate the UHF Amplifier Tray labeled B1 and slide it into the Side B Cabinet, the bottom left position. Locate the Tray labeled B2 and slide it into the Side B Cabinet, the bottom right position. Locate the Tray labeled B3 and slide it into the Side B Cabinet, the center left position. Locate the Tray labeled B4 and slide it into the Side B Cabinet, the center right position. Locate the Tray labeled B5 and slide it into the Side B Cabinet, the top left position. All of the Amplifier Trays should now be installed. Slowly slide each Tray in and out to verify that they do not rub against each other and have no restriction to free movement.

Caution: Each UHF Amplifier Tray has a hard-line coaxial cable connected to the rear panel and will not slide out without first removing this connection. In order to pull out the Tray for test purposes or other reasons, use the test cable included in the Installation Material Kit for connection from the Tray to the Output Cable. Adjustments to the position of the Trays may be necessary, and are accomplished by loosening the cabinet slide mounting bolts that hold the front of the slide to the mounting frame of the Cabinet and moving the Tray, up or down, left or right, as needed to correct for the rubbing.

Main AC Inputs

Once the Cabinets are in place and the Trays are checked for damage and alignment, the Main AC Hook-Up is ready to be made. Before connecting the 208/240 VAC, make certain that all of the circuit breakers associated with the Transmitter are switched Off. There are three AC Input circuits to the Transmitter, one 208/240 VAC 20 Amp for the Exciter Cabinet and two 208/240 VAC 100 Amp for single phase or two 208/240 VAC 55 Amp for three phase, one to each of the Amplifier Cabinets.

The 20 Amp, 208/240 VAC Input connections are made to the Terminal Block A8-TB1, which is part of the AC Distribution Assembly, Exciter Cabinet (1245-1500), located near the center right hand side, rear portion of Cabinet #1. Terminal 1 Line 1, Terminal 3 Line 2 (208/240 VAC) and Terminal 2 (Chassis Ground).

Three Phase AC Installation to the Amplifier Cabinets

Connect one of the 55 Amp, 208/240 VAC Inputs to the Terminal Block A10-TB1, which is part of the AC Distribution Assembly, Amplifier Assembly (1278-1100), located near the center right hand side, rear portion of Cabinet #2. Connect Line 1 to TB1-1A, Line 2 to TB1-2A, Line 3 to TB1-3A, and Safety Ground to TB1-4A.

Connect the other 55 Amp, 208/240 VAC Input to the Terminal Block A10-TB1, which is part of the AC Distribution Assembly, Amplifier Assembly (1278-1100), located near the center right hand side, rear portion of Cabinet #3. Connect Line 1 to TB1-1A, Line 2 to TB1-2A, Line 3 to TB1-3A, and Safety Ground to TB1-4A.

Single Phase AC Installation to the Amplifier Cabinets

Connect one of the 100 Amp, 208/240 VAC Inputs to the Terminal Block A10-TB1, which is part of the AC Distribution Assembly, Amplifier Assembly (1278-1200), located near the center right hand side, rear portion of Cabinet #2. Connect Line 1 to TB1-1A, Line 2 to TB1-3A and Safety Ground to TB1-4A.

Connect the other 100 Amp, 208/240 VAC Input to the Terminal Block A10-TB1, which is part of the AC Distribution Assembly, Amplifier Assembly (1278-1200), located near the center right hand side, rear portion of Cabinet #3. Connect Line 1 to TB1-1A, Line 2 to TB1-3A and Safety Ground to TB1-4A.

Output Connections

The RF Output of the (A2) Amplifier Assembly connects through (A5) a 1-5/8" to 3-1/8" Adaptor to J1 on (A4) the Hybrid Combiner and the RF Output of the (A3) Amplifier Assembly connects through (A6) a 1-5/8" to 3-1/8" Adaptor to J2 on (A4) the Hybrid Combiner. The Reject Output of the combiner at J4 connects through (A12) a 1-5/8" to 3-1/8" Adapter to (A7) a Directional Coupler (1016-1043) to (A8) a 2500 Watt Reject Load. The combined RF Output of the Combiner at J3 connects to through (A9) Bandpass Filter to (A10) the Output Trap Filter Assembly. The filtered output connects through (A11) the Output Coupler Assembly (1020-1002) to the Transmission Line that is connects to your Antenna System.

This completes the Unpacking and Installation of the 835A UHF Transmitter, Internally Diplexed. Refer to the Set Up and Operation Procedure which follows before applying power to the Transmitter.