

4. INSTALLATION

In MASTR III base stations, the EA101292V21 and EA-101292-021 Power Amplifiers are designed to replace the 19D902797G6, 19D902797G7, 19D902797G8, and the 19D902797G11 Power Amplifier and their associated Low Pass Filter Assembly. The EA101292V22 and EA-101292-022 Power Amplifiers are designed to replace the 19D902797G3, 19D902797G9, and 19D902797G10 Power Amplifiers. Earlier versions of the MASTR III base station are equipped with a 12VDC power supply. The EA101292V21, EA-101292-021, EA101292V22, EA-101292-022 and EA-101292-023 Power Amplifiers are designed to operate with a 26VDC power supply.

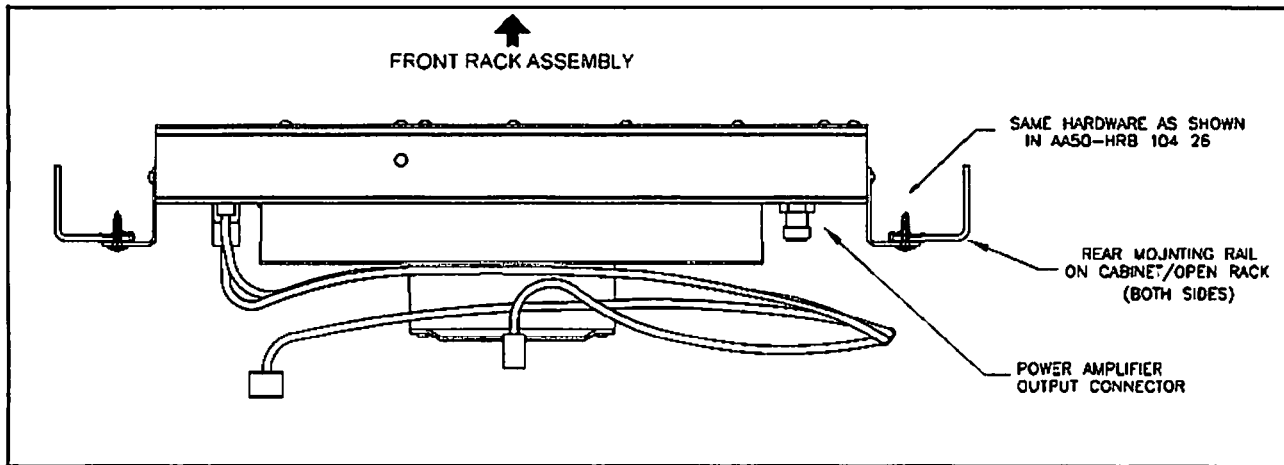


Figure 4-1: Standard Tall Rack Application (Top View)

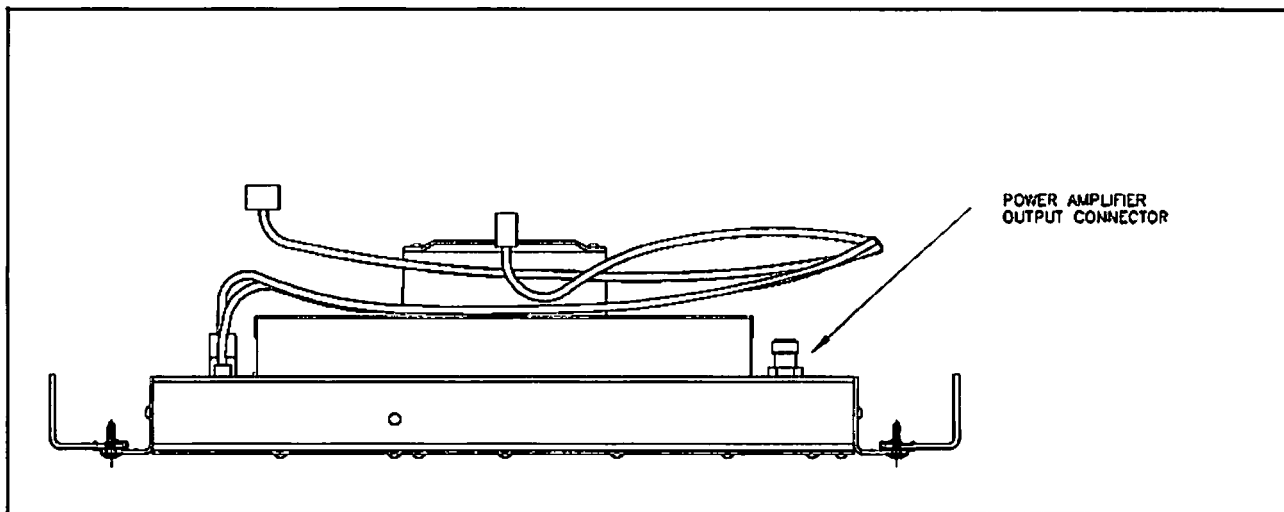


Figure 4-2: Standard 37-Inch Rack Application (Top View)

Adjustable rack ears allow installation in all standard configurations as well as many non-standard configurations, without requiring modification of the rack. Before beginning the installation of the Power Amplifier, check the rack configuration. As shipped, the unit is configured to mount directly in the standard 83-inch and 69-inch rack configurations without adjusting the rack ears (see Figure 4-1). For the standard 37-inch rack configuration, however, the rack ears need to be reversed as shown in Figure 4-2.

To reverse the rack ears, simply remove the three retaining screws on each rack ear, reverse and re-orient the rack ears, then replace and properly torque (30 ± 1 in. lbs.) the retaining screws.

In the standard configurations, the unit mounts on the rear rack rail, behind the T/R Shelf, with the fan facing the T/R Shelf and the front of the rack. This configuration protects the cabling against accidental damage, and provides adequate spacing in front of the fan to allow ample cooling airflow.

For non-standard configurations, the ears can be offset and/or reversed, as needed, to allow sufficient clearance for the cables, surrounding equipment, and fan intake. Extra holes in the rack ears allow for mounting with a $\frac{1}{2}$ inch offset, if necessary. When selecting a configuration, consider all cable routing carefully. The unit should be positioned to allow adequate clearance for all cables between the unit and surrounding equipment. In particular, ensure the RF output coaxial cable does not require an excessively small bend radius and all cables are clear of sharp edges that could pierce the outer jacket. Also, be sure that the fan intake is not blocked.

Once the unit is configured for mounting, the PA is ready for installation. Be sure that power to the station is turned off then connect the RF output cable to the PA. Next, connect the control cable to P103 on the T/R Shelf Interface Board, located on top of the T/R Shelf.



Once the PA is mounted, it will be difficult to access the RF output connection. Ensure this critical connection is secure prior to mounting the PA.



Ensure the power supply output voltage matches the rating of the Power Amplifier (26.0 VDC, 12A for 100 Watt UHF PA) before applying power to the unit.

Connect the DC power cable to the station power supply, normally mounted just below the T/R Shelf. Ensure that the power supply output voltage matches the rating of the Power Amplifier before applying power to the unit.

Finally, mount the Power Amplifier to the rack rail using four (4) standard rack screws.