Connect RF Cables & Alarms to BTS

Connect all of the cables to the BTS. The connection points are shown in Figures 39, 40, 41, and 42. Torque the cable connectors to 20-24 inch-pounds. If applicable, connect the cabinet alarm connector and Battery Backup connector (Cabinet Alarm and BBU) to the back of the chassis. More information on connecting alarms, rectifiers, and battery backup equipment are provided in Appendix P and Appendix J, respectively.
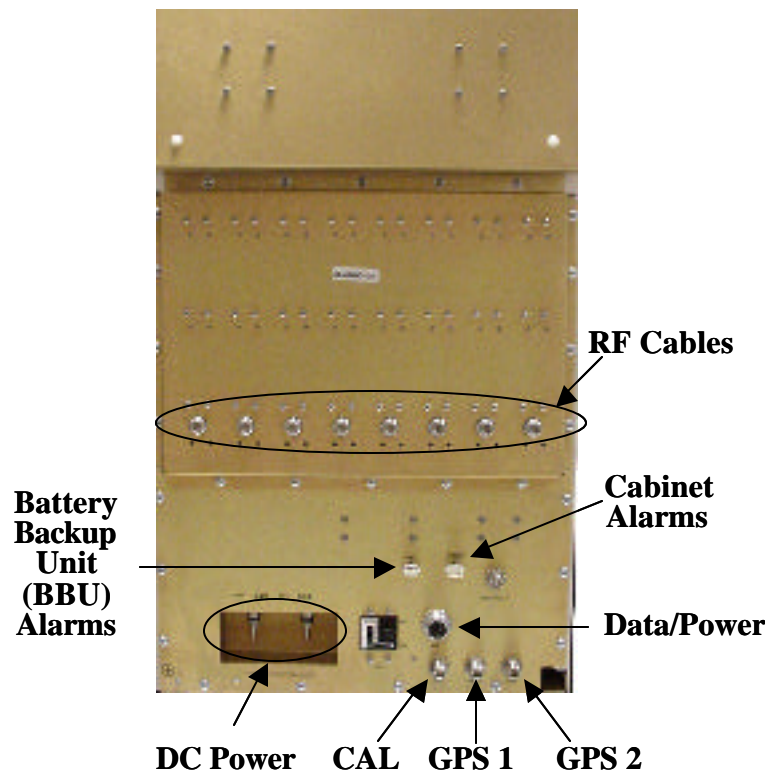
Figure 39: Combo Chassis Rear View

Figure 40: Split Chassis RF/PA Shelf Rear View

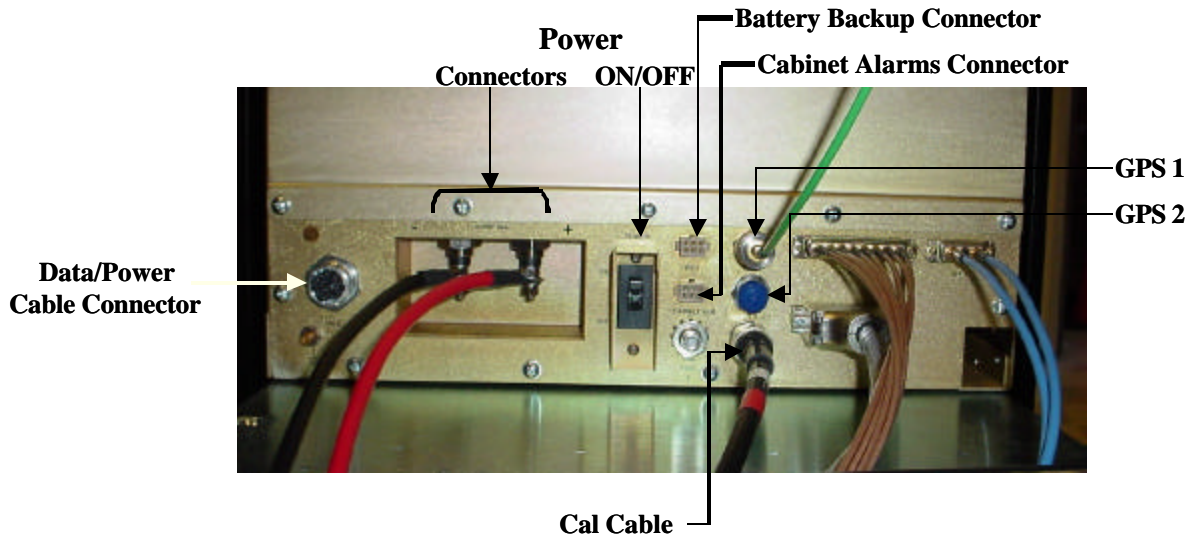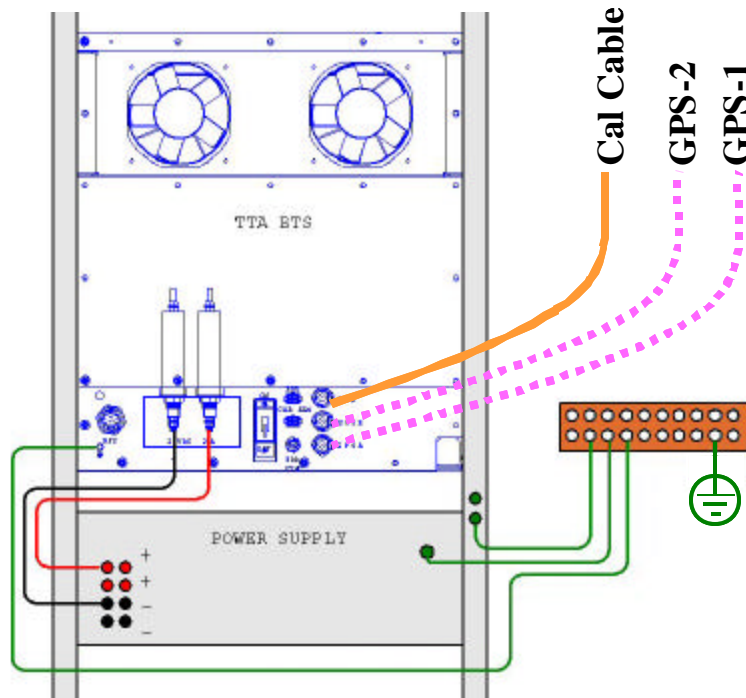**Figure 41: Split Chassis Digital Shelf Rear View**

**Figure 42: TTA Chassis Digital Shelf Rear View**

NOTE: <u>Do not</u> ground the negative terminal of the rectifier for the TTA installation.

Omni Antenna

The RFS Omni antenna is installed on a structure, such as a tower or a pole, which is defined in the site survey and design. Following are the steps to complete the installation of the panel antenna. Refer to the Regulatory Information in Chapter 1, Page 8 prior to installing.

Assemble the Antenna Mount per the instructions that come with it (Figure 43). Use a compass to determine which direction is true East (incorporating declination angle - see Figure 31).

Figure 43: Omni Antenna Mount
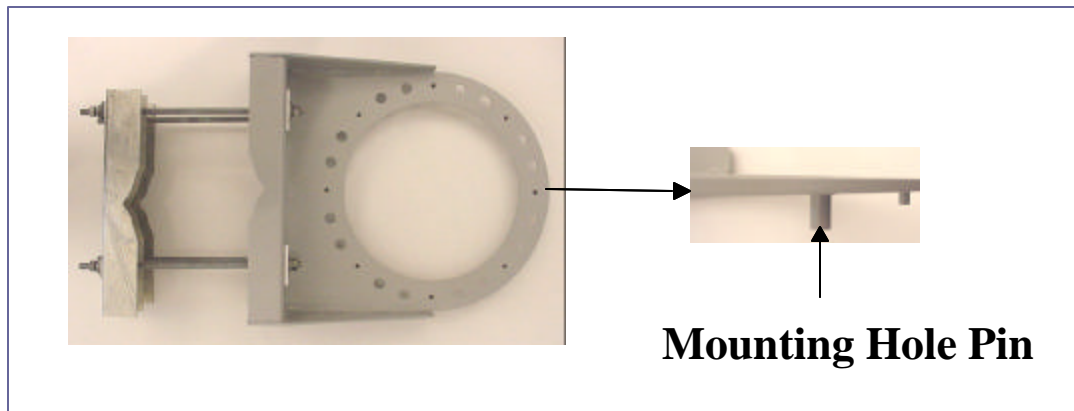

Mounting Hole Pin

Position the Antenna Mount in a direction to provide accessibility to the RFS after it is installed. Position and install the Antenna Mount on the mounting structure so that any one of the eight mounting hole pins is facing East. Tighten the Antenna Mount hardware to secure it to the structure (Figure 44).

Figure 44: Secured Omni Antenna Mount

Sweep the RFS antenna inputs for dB loss. Record all results for later calculations. Position the RFS on the Antenna Mount, ensuring that the arrow on the bottom of the Antenna Mount faces true East. Secure the RFS antenna to the Antenna Mount (Figure 45). Install surge protectors on the 8 antenna and 1 cal connectors.

Figure 45: Omni Ground Stud
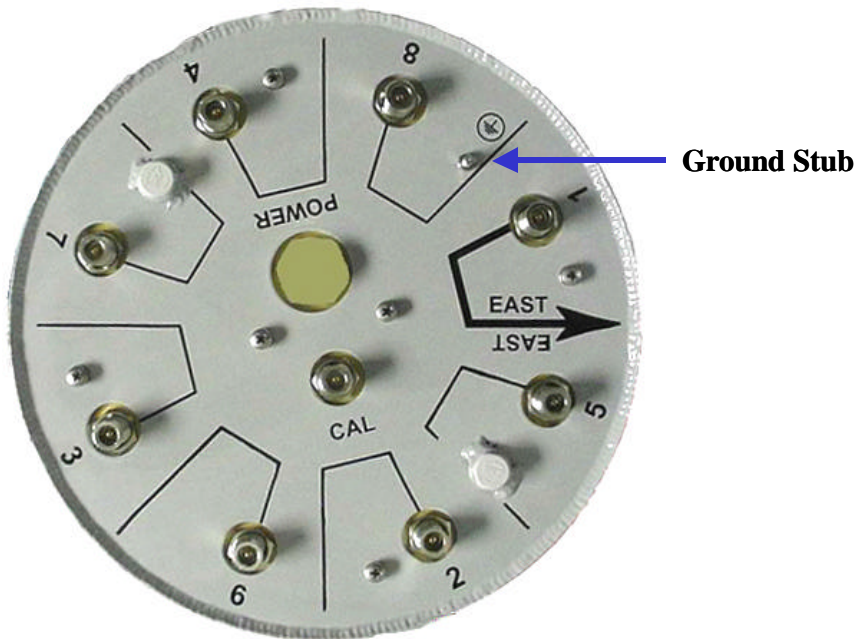
Connect the eight antenna cables, cal cable, and Data/Power cable to the RFS antenna. Attach the ground wire to the ground stud. Install grounding kits from RF cables to buss bars. Sweep the antenna and cables from the RF cable connectors that attach to the BTS. Record all measurements. Weatherize all connections (Figure 46).

Figure 46: Weatherized Connectors

Verify Installed Circuit Cards

 WARNING! Ensure that power to the BTS chassis is off before installing the circuit cards or any of the RF Power Amplifiers in the chassis.

FUSES ARE NOT FIELD-REPLACEABLE. In case of need to replace a fuse on a CHP (F1), CC (F33, F17-32), SYN (F3), MDM (F1) or PA (F1) contact Navini Networks Technical Support

 CAUTION! For continued protection against risk of fire, replace only with the same type and rating of fuse.

ATTENTION! Pour ne pas compromettre la protection contre les risques d'incendie, remplacer par un fusible du même type et des mêmes caractéristiques nominales.

 CAUTION! - Please contact Navini Technical support before attempting to exchange cards between chassis of different type and frequency to verify compatibility.

The circuit cards, including the RF/PA cards, normally come seated in the BTS chassis. If they are already installed, verify that the correct cards are placed and seated properly. The RF/PA modules may be installed in any position on the top (RF) shelf. For the Digital shelf, refer to Figure 47 for correct card placement. Table 4 describes the name of each type of card in the Digital shelf.

Tighten the screws to secure the RF/PAs into the RF shelf. For the circuit cards, follow the markings on the backplane for the position of each card in the Digital shelf. Make sure the ejectors on all cards are engaged in the chassis. Figure 46 represents a fully populated Digital shelf. If the BTS is not fully populated, blank panels are installed to fill in the empty card space. They are also used to fill in the empty space between the circuit cards and the end of the cabinet.

Table 4: Digital Card Names

Abbreviation	Card Name	Number of Cards
SYN	Synthesizer	1 or 2
IF	Intermediate Frequency	Always 2
CHP	Channel Processor	Always 2
MDM	Modem	Always 2
CC	Communications Controller	1 or 2

Figure 47: Digital Shelf
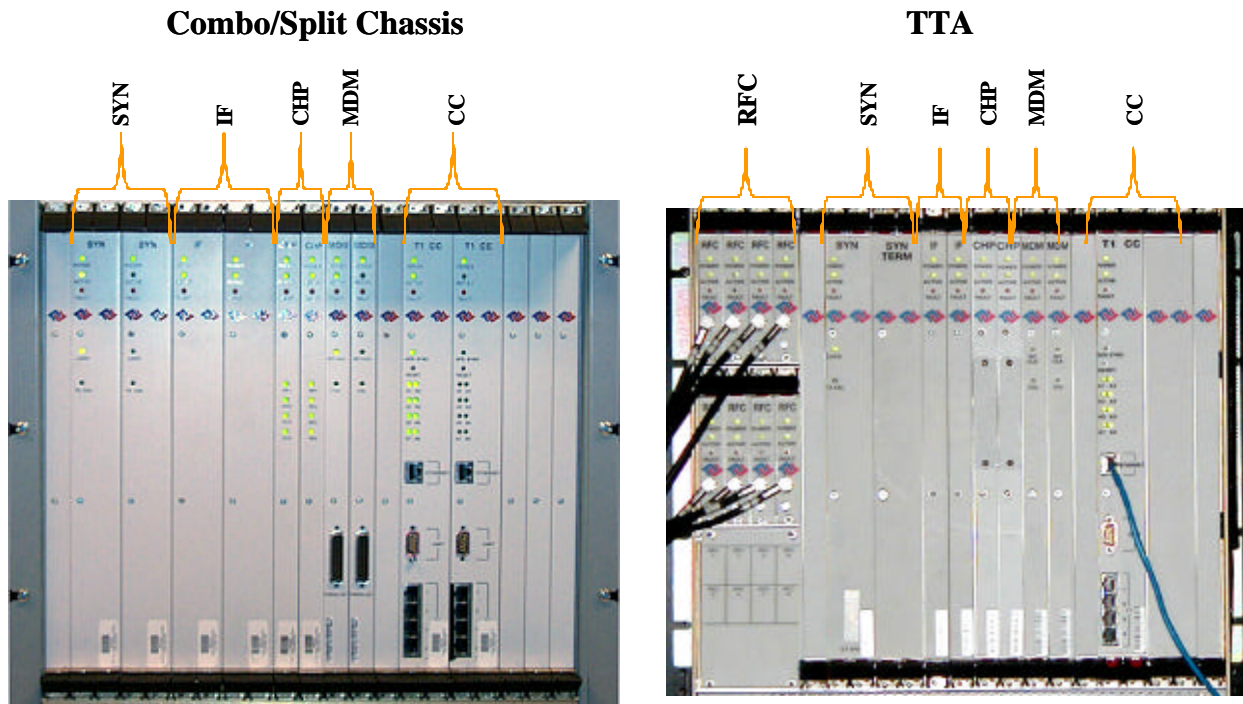
Base Station Installation Certification

When the installation of the equipment is complete, the Base Station Installation Certification form needs to be completed and signed off by both the installer and the customer. A copy of this form may be found in Appendix T.