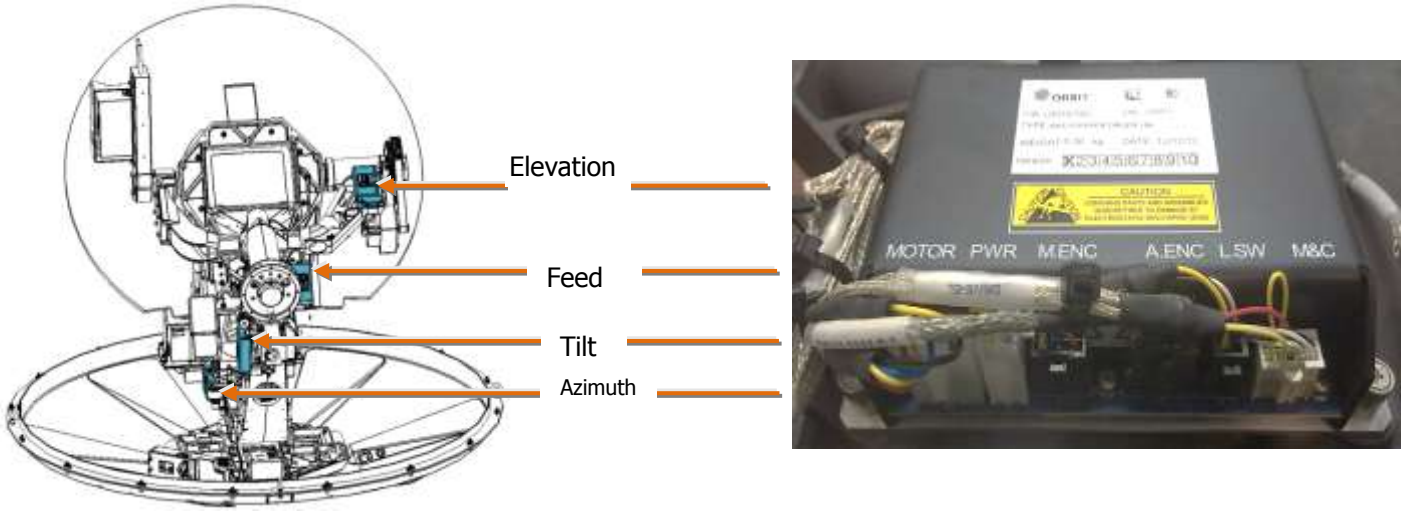


Figure 1-1 x4 Servo Drivers Locations

Before You Start

General warnings and instructions!

WARNING!

- Only qualified and authorized personnel are allowed to carry out system service/maintenance procedures.

Before starting the procedure:

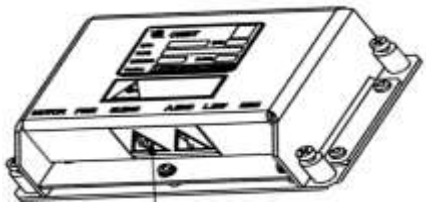
- Open the radome hatch. Inside the RADOME, Switch off the ADE Power switch at the Antenna pedestal base.
- Manually rotate the pedestal axes to gain convenient access to the serviced unit.

General instructions relevant to this procedure

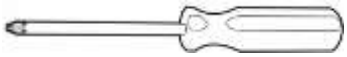
Note the following:

- **Make sure you have latest software package (GSupdate.zip) on your computer/CCU.**
- All servo drivers are identical and interchangeable

Box content: (P/N: OTRx-AXIS DRIVE-001-SP)

Quantity	Description	
1	Servo Driver (AXIS STEPPER DRIVER 10A)	

Required tools

Tool/Part Name	Figure
Flat screwdriver	
Tie cutter	

1. Removing the Servo Driver

Step 1.

- Locate the Servo Driver to be replaced.
- Remove all the connectors by pressing the locking pin and CAREFULLY removing connector.

Figure 1-1 Remove All Connectors

Step 2.

- Release 4x captive screws using a medium Phillips screwdriver.
- Remove Servo Driver and set aside.

Figure 1-2 Release x4 Captive Screws

Step 3.

- Remove Servo Driver and set aside.

2. Installing the Servo Driver

Step 1.

- Position Servo Driver on pedestal frame in its relevant location.
- Using a medium Phillips screwdriver, tighten the 4x captive screws.

Figure 2-1 Release x4 Captive Screws

Step 2.

Connect all the cables to the servo-driver.

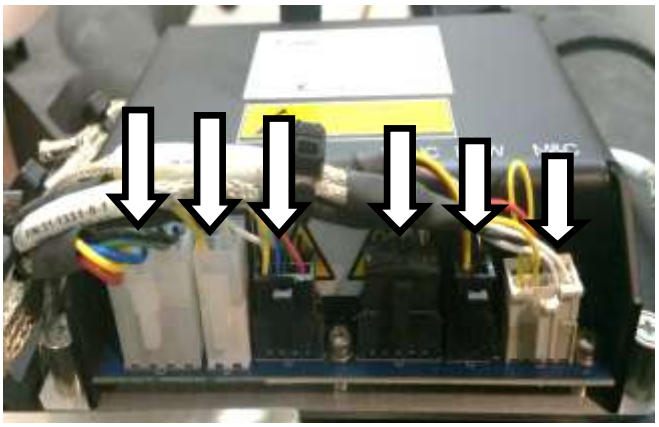


Figure 2-2 Connect the Connectors

Step 3.

Verify switch is set to MAINT for normal operation

Figure 2-3. Verify switch is on MAINT

3. Update Servo Driver Firmware

This procedure consists of:

Updating the servo driver firmware using (Gsupdate.zip) file – acquired from Orbit.

Verifying the Servo Driver software version has been updated.

3.1. Updating servo driver firmaware

To load the GSU file

1. Copy the Gsupdate.zip on to a USB flash drive:
   - Obtain the latest General Software Update Module (**GSU)** files from Orbit.
   - Connect the flash drive to the USB port on the **CCU** front panel.
2. Launch the **MtsDock** application from the CCU (directly or via a connected computer),
3. From the **ThisHost** menu, choose **General Software Update...**. The **Select ZIP Archive with Software Updates** dialog box appears.

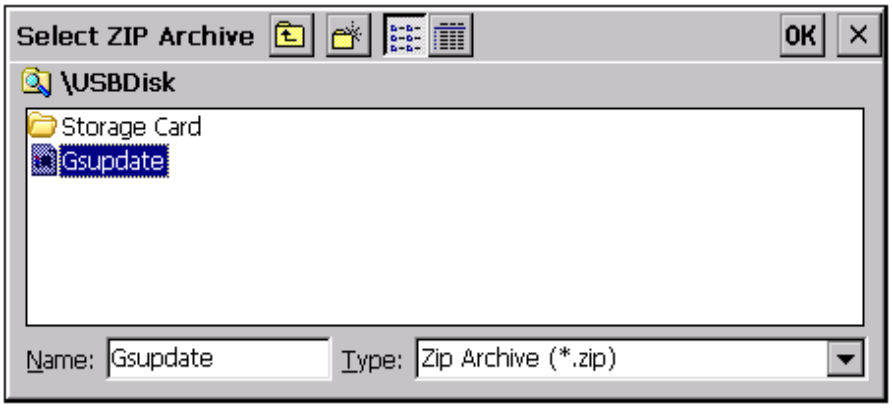


Figure 3-1 ***Select ZIP Archive with Software Updates*** *Dialog Box*

4. Browse for the **GSU** file from the **USB Flash** drive and click **Open.** You will be prompted to enter the ACU IP Address

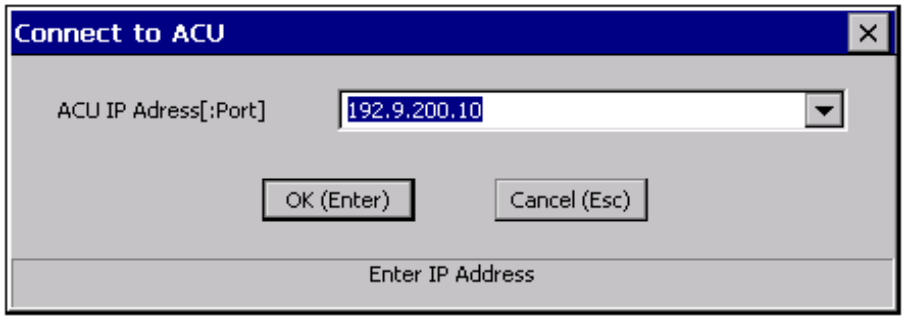


Figure 3-2: Connect ACU, CCU Message Box

5. Enter the IP address of the ACU and click **OK (Enter)**.
6. The system will start automated software update process.
7. At the end of the process, respond to the reboot prompt by clicking **OK**.

3.2. Verifying the Software Upgarde

To verify the software version on the Servo Driver

1. The following is assumed at this phase:
   - System is powered-on.
   - The **MtsLink** application is launched.
   - Communication is established with the ACU.
2. To verify versions:
   - In the **MtsLink** main window, select the **Config** menu.
   - Choose **Hardware ID.**

   Verify that the new Servo Driver SW version is reflected in the *relevant* Servo Driver.

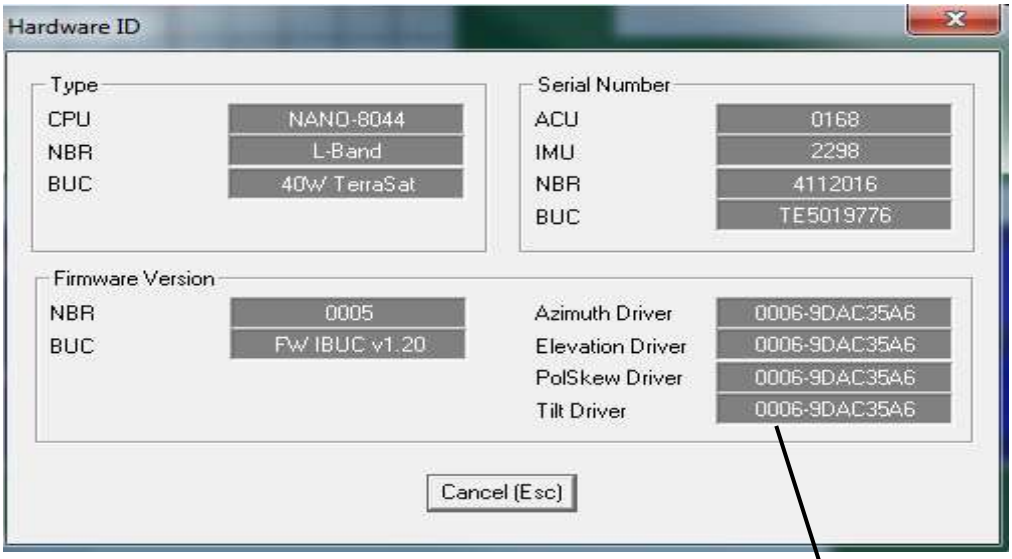


Figure 3-3: Element Versions

4. Performing Verification Test

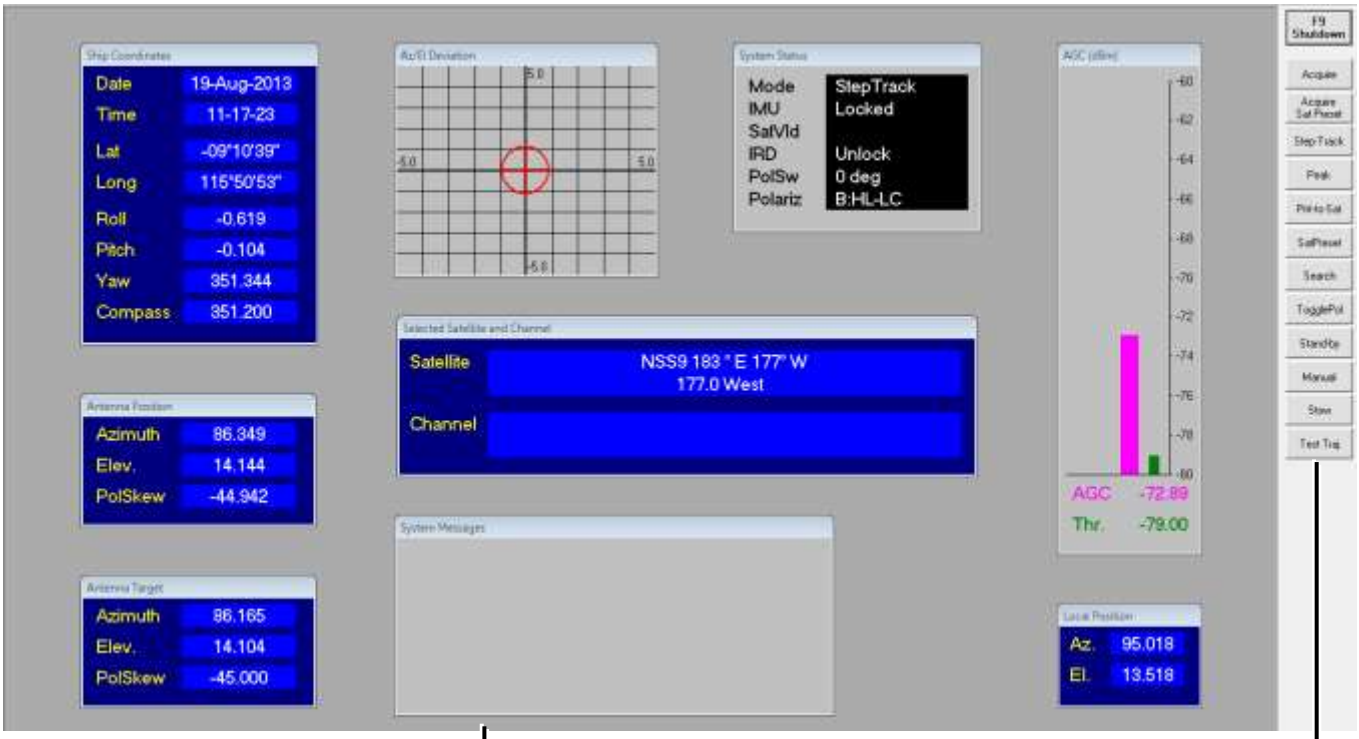
Verify the cable routing is correct and properly secured
Make sure all bolts properly tight and Radome clear of tools/spares

1. Power up the system and confirm system initializes properly.

If initialization fails check cable connections and Software upgarde

2. To make sure the technical process completed successfully, in the **MtsVLink** application:

- Select mode "test trajectory"
- Let the system run for 10 minutes
- Verify no error/warning messages appear in the System Messages window.
- Acquire satellite and verify you have proper AGC.



No error messages

Click on **Test Traj**

Figure 4-1: MtsVlink window