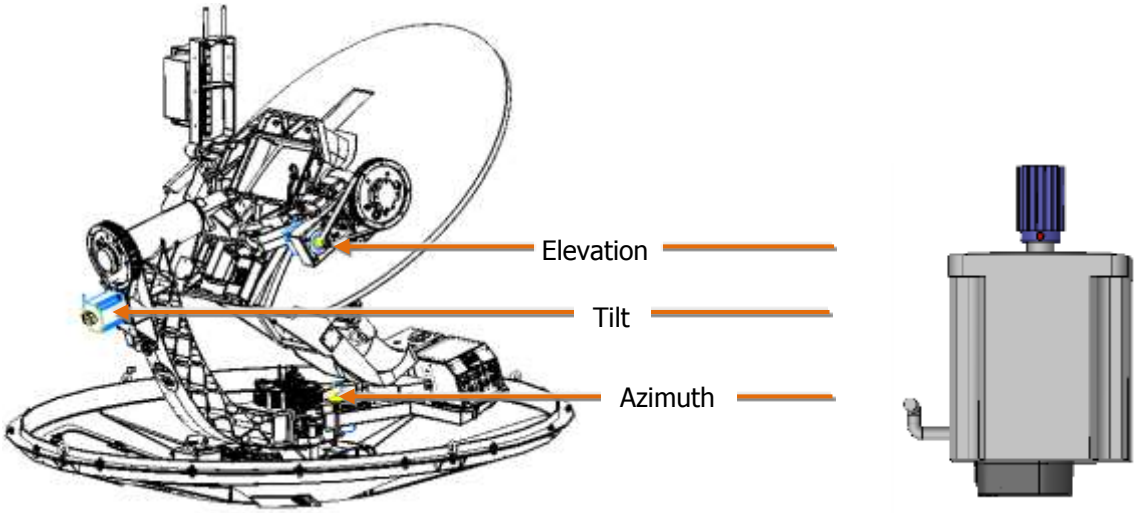


Figure 1 Axes motors Locations

Before You Start

General warnings and instructions!

WARNING!

- Only qualified and authorized personnel are allowed to carry out system service/maintenance procedures.
- **Switch OFF antenna from the power switch on the power box.**
- **Do not touch power input and output connectors of the power box**

BEFORE starting the procedure:

- Manually rotate the pedestal axes to gain convenient access to the serviced unit.

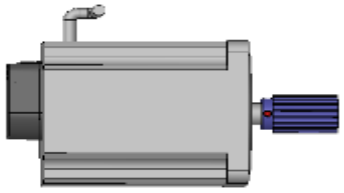
General instructions relevant to this procedure

Note the following:

- Before beginning work on Axis motor, secure the axis using stow lock or with tie warps
- All Axes motors are identical and interchangeable

1. Applicable for : (P/N: OTRx4-MOTOR-001-SP and OTRx4-Belts-001-SP)

KIT Content OTRx4-MOTOR-001-SP

Quantity	Description	Figure
5	Tie wraps	
1	AXIS Motor	
4	Bolts M6X20	
4	Washer	
4	Spring washer	

KIT Content OTRx4-Belts-001-SP

Quantity	Description	Figure
1	BELT(encoder) 127T W=9MM (encoder)	
2	BELT(encoder) 133T W=9MM	
1	BELT (azimuth)140T W=25MM	
1	BELT (Tilt) 148T W=25MM	
1	BELT (elevation) 172T W=25MM	

2. Required tools

Tool/Part Name	Figure
Side cutter	
Allen keys: 4mm, 5mm T-handle	
Open wrench 10mm	

3. Removing the Axis Motor

Step 1.

Locate the Axis motor to be replaced.

Figure 1 Azimuth Motor

Figure 2 Elevation Motor

Figure 3 Tilt Motor

Step 2.

- Cut the tie wraps securing the motor cables
- Disconnect the MOTOR & M.ENC connectors from the servo driver

Figure 3-Disconnect cables

Step 3.

- Open the nuts on the tension adjuster.
- Loosen the bolts of the motor support

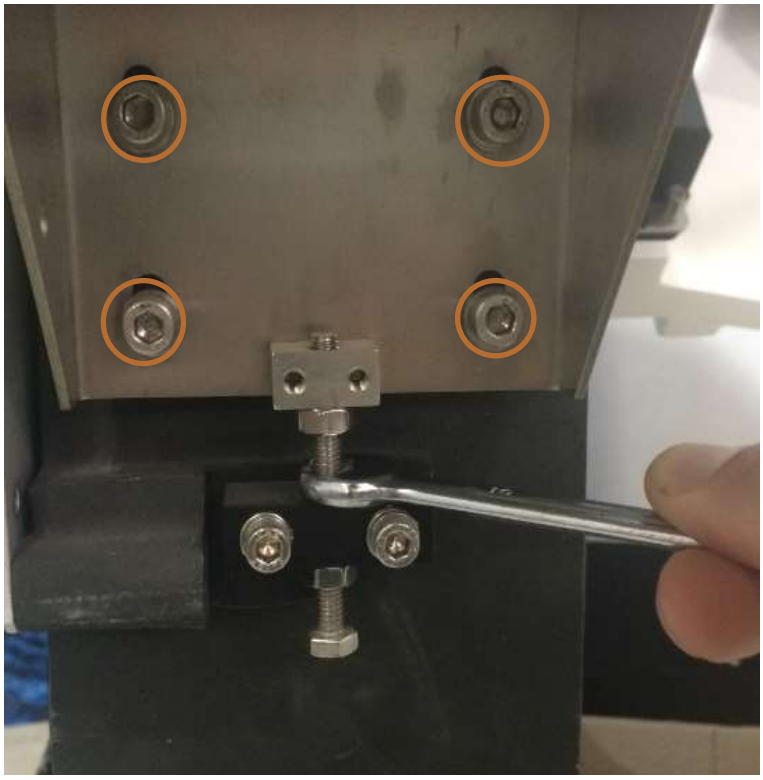
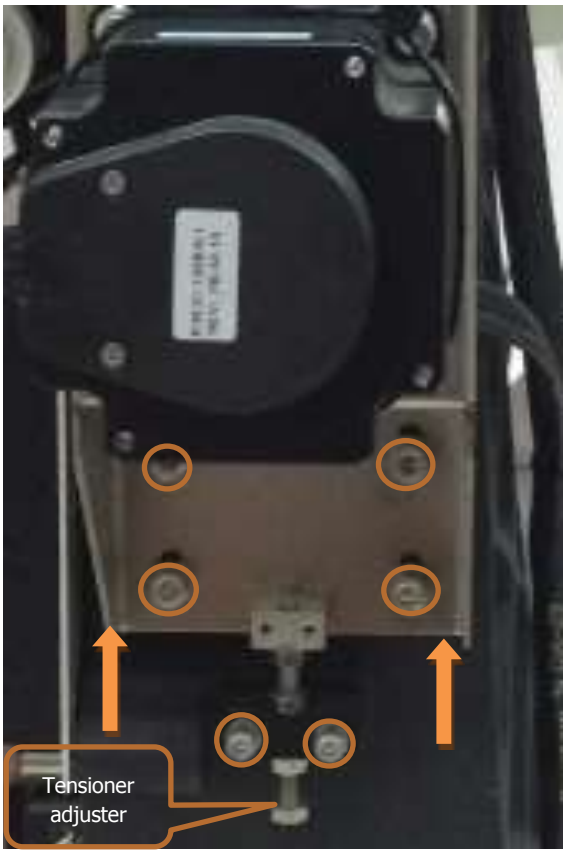


Figure 4 Open Tension adjuster

Step 4

- Move the support forward the driven pulley and release the belt.
- Remove the tensioner adjuster
  By removing its bolts
- Remove the support with the motor completely (marked bolts)



Nota

Support the motor by hand while removing it

Step 5

- Remove the motor from the support

4. Installing the Axis Motor

Step 1

- Install the motor in reverse order

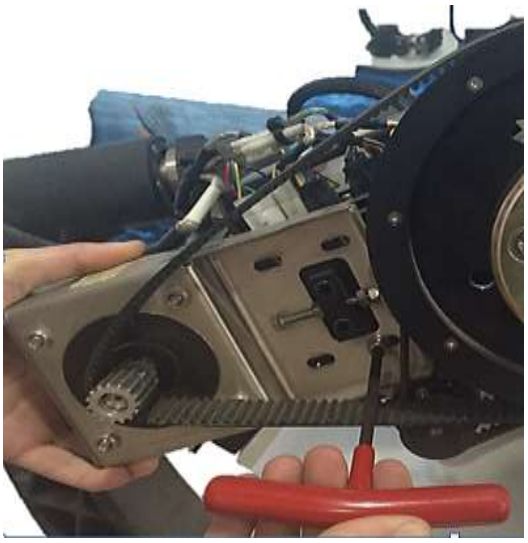


Figure 5 Installing support assembly

If the belt is damaged or worn replace it!
For Azimuth belt you have to disconnect all the slip-ring-RJ assembly cables(IMU, Power, RF)

Step 3

- Secure the motor with support with on all bolts
- Open bolts with oval holes ¾ turn
- Adjust belt tension using the adjusting nuts on the tensioner screw.
- Close tight the support bolts after adjustment

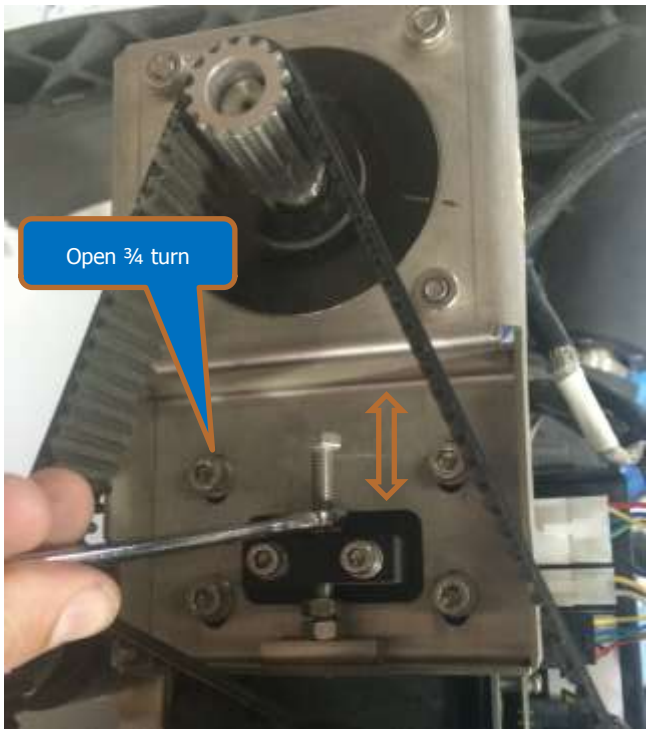


Figure 6 Adjusting the belt tension

Pay attention when adjusting the tension. When you tight the bracket bolts the tension will increase. Compensate for this while adjusting the nuts

Nota

The tension of the belts should be proper otherwise axis may fail to initialize

Step4

- Connect the cables to the servo-driver.
- Secure wiring with tie wraps

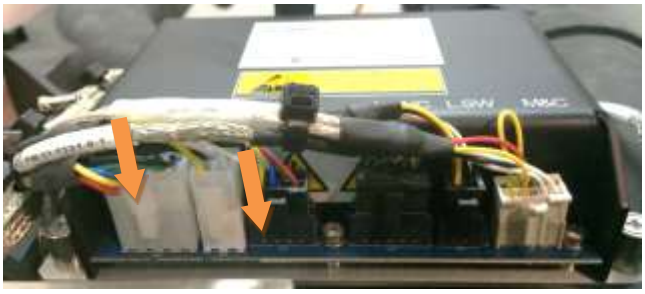


Figure 9. Connect cables

5. Performing Verification Test

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

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

   If initialization fails check cable connections and belt tension

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.