

Elevation Motor/Belt Replacement Instructions for TracVision® M9

These instructions explain how to replace an elevation motor and/or elevation motor belt in a TracVision M9 antenna.

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Tools Required

This procedure requires the following tools:

- Phillips screwdrivers
- Needle-nose pliers
- Tension meter (30 lb/13.06 Kg or greater)
- Scribe or pencil

Technical Support

If you need technical assistance, please contact KVH Technical Support:

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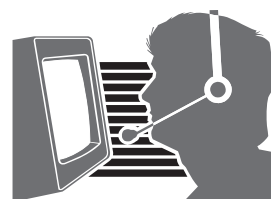
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Elevation Motor/Belt Replacement Instructions

Follow the instructions below to replace the elevation motor and/or motor belt.

Step 1 - Remove the Radome

Follow the steps below to remove the radome.



CAUTION

For your own safety, be sure to disconnect power from all wired components before performing this procedure.

- Disconnect power from the TracVision system and any connected receivers and/or multiswitch.
- Remove the eight Phillips screws securing the radome (see Figure 1). Then remove the radome and set it aside in a safe place.

Step 2 - Mark the Current Belt Tension

You need to record the current belt tension to ensure the belt is replaced correctly. This procedure requires a scribe (or pencil) and a tension meter.

NOTE: Improper belt tension might impair antenna performance.

- Locate the elevation motor assembly (see Figure 2).
- Using a tension meter, apply 30 lbs of force on the belt at the location shown in Figure 3.
- Use a scribe to mark the belt's deflection on the frame while applying 30 lbs (13.06 Kg) of force. You will use this scribe mark later when you replace the belt (see Figure 3).

Figure 1 Radome Screws

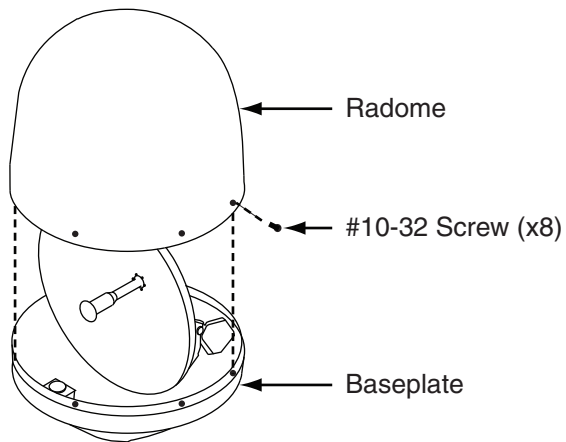


Figure 2 Elevation Motor Assembly Location

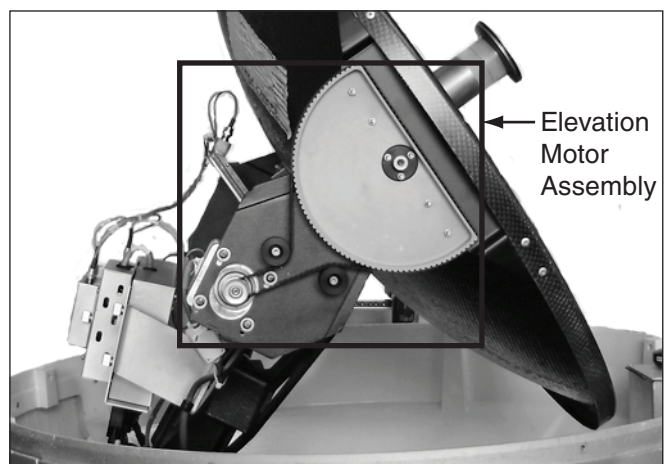
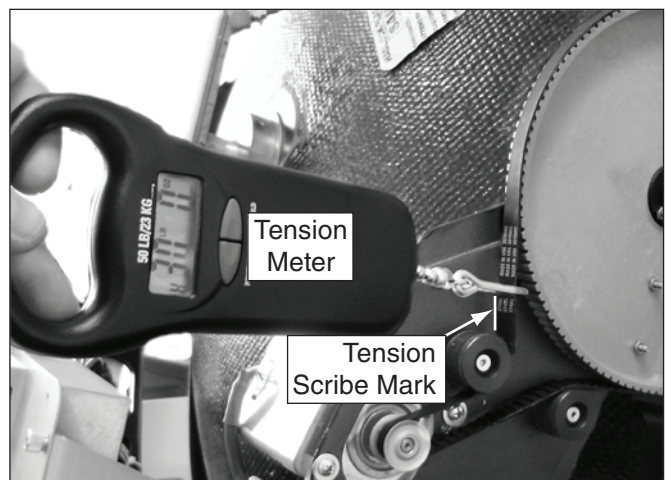


Figure 3 Measuring Belt Tension



Step 3 - Remove the Belt

Follow the steps below to remove the belt.

- a. Loosen the four Phillips screws and washers securing the motor to the frame until the motor is free to move upward (see Figure 4).
- b. Move the motor upward as necessary to relieve tension, then roll the belt over the motor hub while slowly moving the antenna reflector through its vertical range.
- c. Remove the belt.

Step 4 - Remove and Replace the Elevation Motor (if required)

Follow the steps below to replace the elevation motor. If you do not need to replace the motor, skip to “Step 5 - Replace the Belt.”

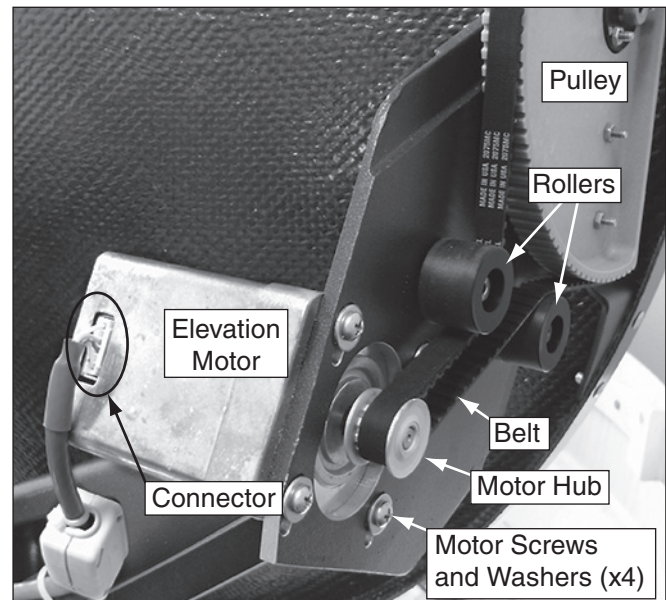
- a. Using needle-nose pliers, gently disconnect the motor’s cable connector.
- b. Remove the four screws and washers securing the motor to the frame.
- c. Install the new motor. Loosely secure the motor onto the frame using the four screws and washers you removed in the previous step. You will tighten these screws later.
- d. Reconnect the motor’s cable connector.

Step 5 - Replace the Belt

Follow the steps below to install/re-install the elevation motor belt.

- a. Carefully work the belt in between the antenna pulley and reflector (see Figure 4). Ensure that the belt teeth are positioned inside the belt loop.
- b. Route the belt between the rollers and onto the motor hub.
- c. Once the belt is in place, slowly move the reflector through its vertical range to ensure the belt is aligned and the teeth engage the pulley and motor hub.

Figure 4 Elevation Motor Assembly



Step 6 - Set the Belt Tension

Follow the steps below to set the belt to the correct belt tension you measured in “Step 2 - Mark the Current Belt Tension” on page 2.

NOTE: Improper belt tension might impair antenna performance.

- a. Reposition the motor as necessary to achieve the approximate belt deflection you marked with a scribe in Step 2c. on page 2. Then tighten the motor screws to secure the motor in place.
- b. Use the tension meter to verify that the belt tension is set properly.
- c. Repeat Steps a. and b. as required.
- d. Reinstall the radome. Then reconnect power to the Tracvision system and any connected receivers and/or multiswitch.

The procedure is complete!

Figure 5 Measuring Belt Tension

