

# Skew Motor/Belt Replacement Instructions for TracVision® M9

These instructions explain how to replace the skew motor or skew motor belt in a TracVision M9 antenna.

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## Installation Steps

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## Tools Required

This procedure requires the following tools:

- Phillips screwdrivers
- 5/64" Allen key
- 3/32" Allen key
- Tension meter
- 7/16" open-end wrench

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## Technical Support

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

**N. America, S. America, Australia:**

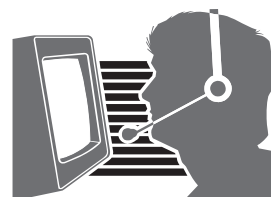
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E-mail: [support@kvh.dk](mailto:support@kvh.dk)



## Skew Motor Replacement Instructions

Follow the steps below to replace the skew motor.

### 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.

- a. Disconnect power from the TracVision system and any connected receivers and/or multiswitch.
- b. 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 - Remove the Feed Tube and Reflector Bracket

Follow the instructions below to remove the feed tube and reflector bracket.

- a. Using a 5/64" allen key, loosen the two screws securing the feed tube to the reflector (see Figure 2). Then remove the feed tube and set it aside in a safe place.
- b. While holding in place the reflector bracket located on the rear of the reflector (see Figure 3), use a Phillips screwdriver to remove the six screws and washers securing the reflector bracket in place (see Figure 2).

Figure 1 Radome Screws

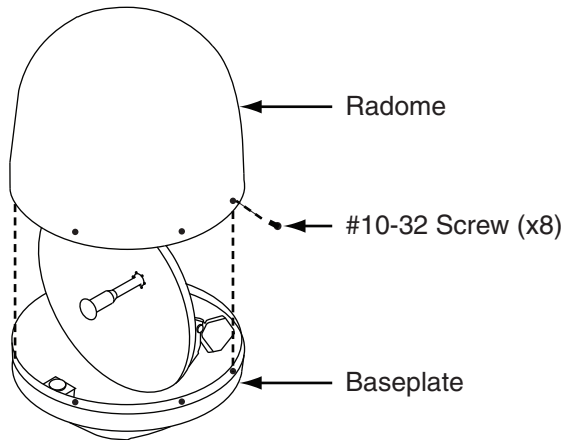


Figure 2 Feed Tube/Reflector Bracket Screws

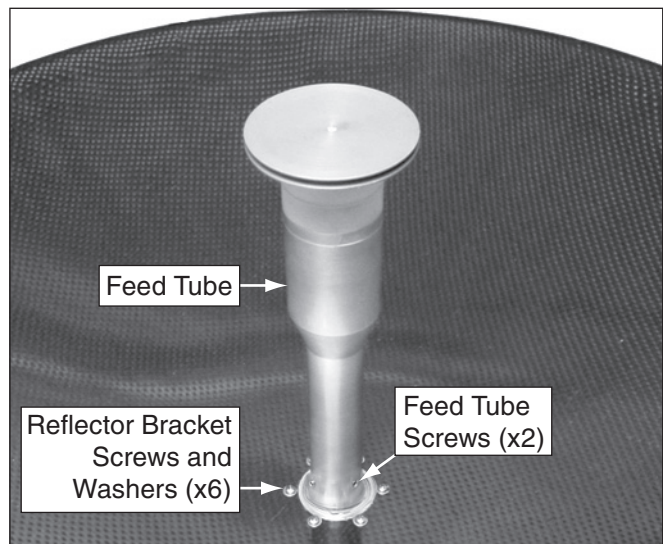
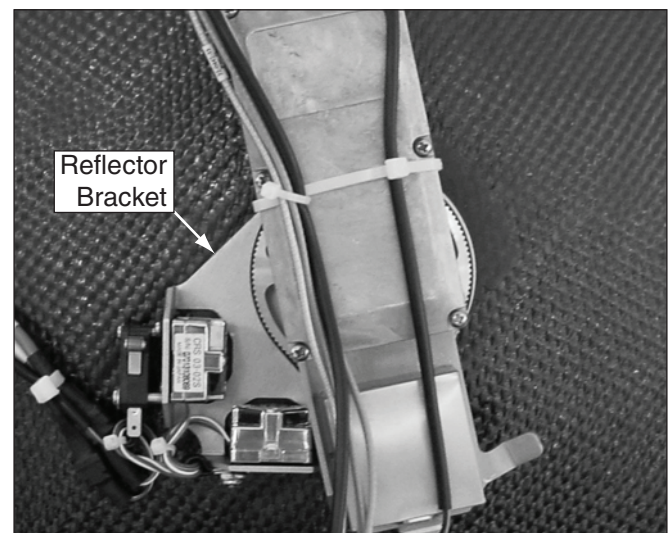


Figure 3 Reflector Bracket



### Step 3 - Measure the Current Belt Tension

Use a tension meter to measure and record the current skew motor belt tension (see Figure 4). You will need to reset the belt tension to this measurement later.

### Step 4 - Replace the Motor

Follow the steps below to replace the skew motor.

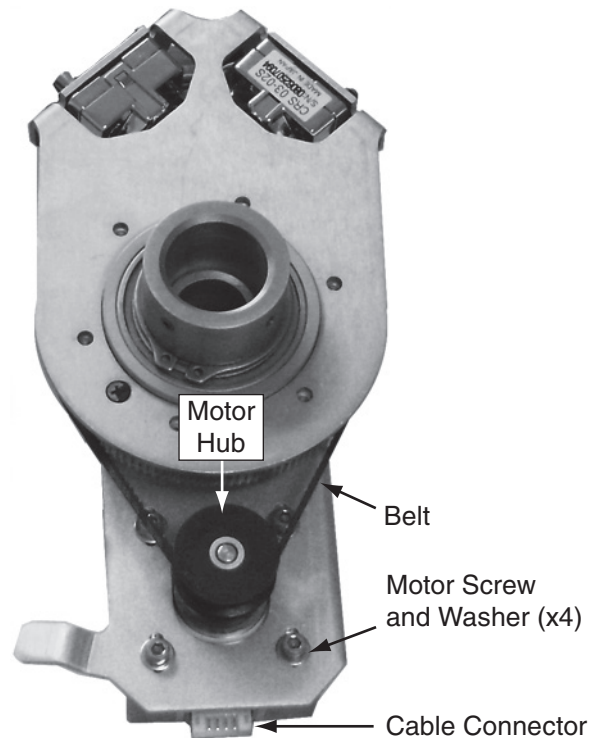
- a. Disconnect the motor cable from the motor (see Figure 4).
- b. Using a 3/32" allen key, remove the four screws and washers securing the skew motor (see Figure 4) to the reflector bracket.
- c. Gently slide the motor hub to relieve belt tension. Then extract the motor.
- d. Insert the new motor into place. Use the four screws and washers you removed in Step b to loosely fasten the skew motor to the reflector bracket.
- e. Connect the motor cable to the motor.

### Step 5 - Set the Belt Tension

Follow the steps below to set the belt tension.

- a. Using a tension meter, slide the motor hub as necessary to achieve the reading you measured in "Step 3 - Measure the Current Belt Tension."
- b. Tighten the motor screws once you achieve the correct tension.

Figure 4 Skew Motor Belt, Screws, and Washers



## Step 6 - Reinstall the Reflector Bracket and Feed Tube

Follow the instructions below to reinstall the feed tube and reflector bracket.

- a. Properly align the reflector bracket to the reflector (see Figure 5).
- b. Secure the reflector bracket into place using the six screws and washers you removed in Step 2b. on page 2 (see Figure 6).
- c. Reinstall the feed tube fully into the choke feed. Then tighten the two 5/64" allen screws to secure it in place (see Figure 6).
- d. Reinstall the radome. Then restore power to the TracVision system and any connected receivers and/or multiswitch.

The procedure is complete!

Figure 5 Reflector Bracket Alignment

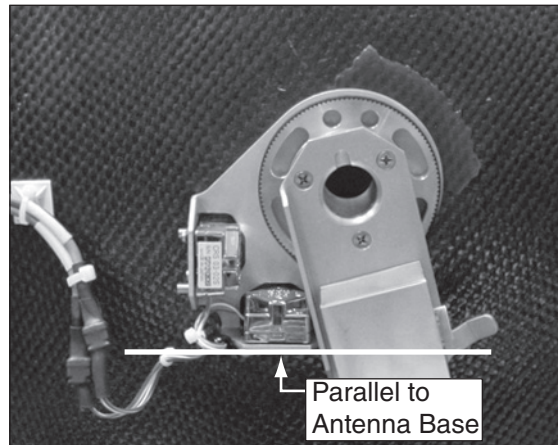
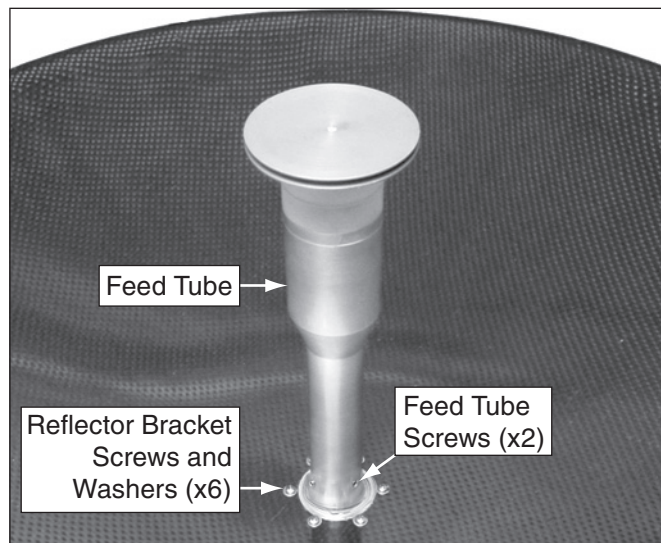


Figure 6 Feed Tube/Reflector Bracket Screws





## Skew Motor Belt Replacement Instructions

Follow the steps below to replace the skew 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 7). Then remove the radome and set it aside in a safe place.

### Step 2 - Remove the Feed Tube and Reflector Bracket

Follow the instructions below to remove the feed tube and reflector bracket.

- Using a 5/64" allen key, loosen the two screws securing the feed tube to the reflector (see Figure 8). Then remove the feed tube and set it aside in a safe place.
- While holding in place the reflector bracket located on the rear of the reflector (see Figure 9), use a Phillips screwdriver to remove the six screws and washers securing the reflector bracket to the reflector (see Figure 8).

Figure 7 Radome Screws

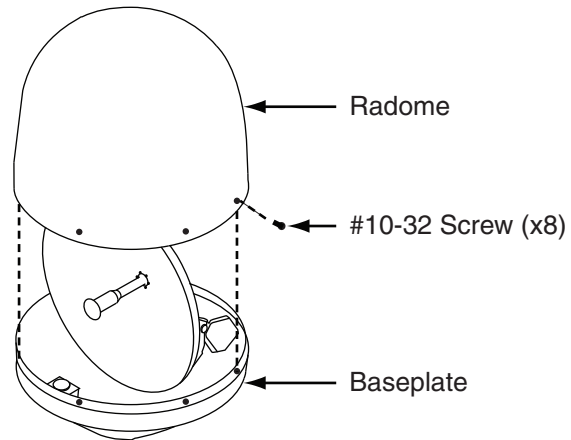


Figure 8 Feed Tube/Reflector Bracket Screws

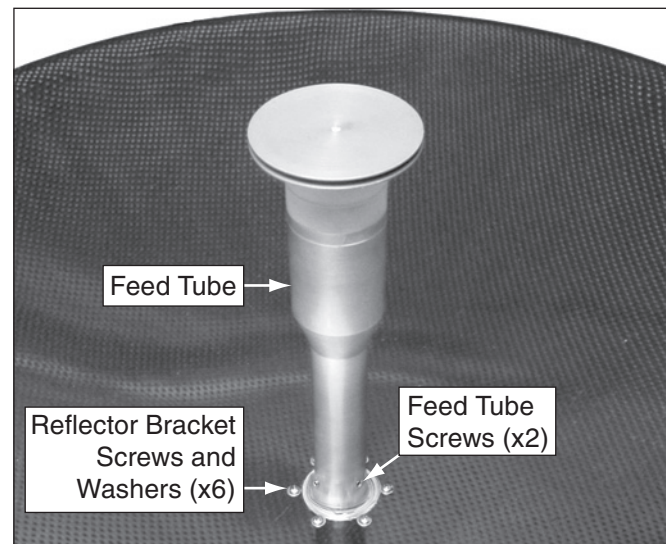
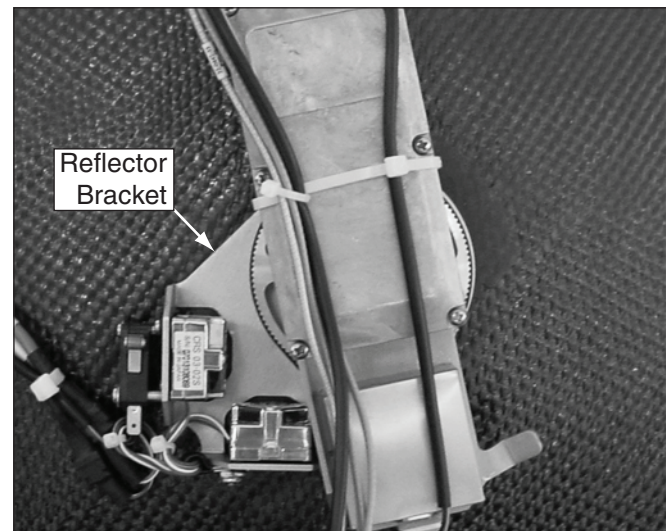


Figure 9 Reflector Bracket



### Step 3 - Replace the Belt

Follow the steps below to replace the skew motor belt.

- a. Using a 3/32" allen key, loosen but do not remove the four screws and washers securing the skew motor in place (see Figure 10).
- b. Using a Phillips screwdriver, remove the screw securing the choke feed to the reflector bracket (see Figure 10).
- c. Slide the motor hub to relieve belt tension and extract the belt (see Figure 11).
- d. Work the new belt over the choke feed pulley and motor hub. Ensure the teeth engage the belt.

### Step 4 - Set the Belt Tension

Follow the steps below to set the belt tension.

- a. Using a tension meter, slide the motor hub as necessary to achieve a 400-500 Hz (3.1 -4.8 lbs) reading.
- b. Tighten the motor screws once you achieve the correct tension.

### Step 5 - Reinstall the Reflector Bracket and Feed Tube

Follow the instructions below to reinstall the feed tube and reflector bracket.

- a. Secure the reflector bracket onto the choke feed using the screw you removed in Step 3b. (see Figure 10).

Figure 10 Choke Feed/Motor Screws

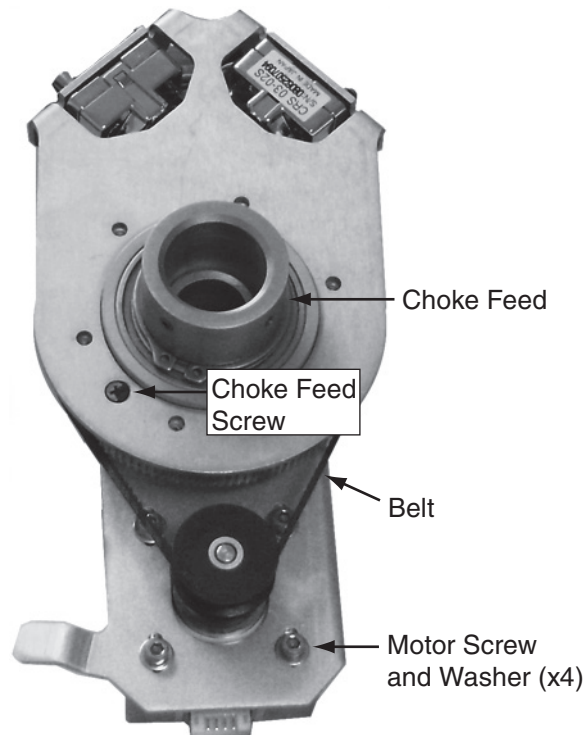
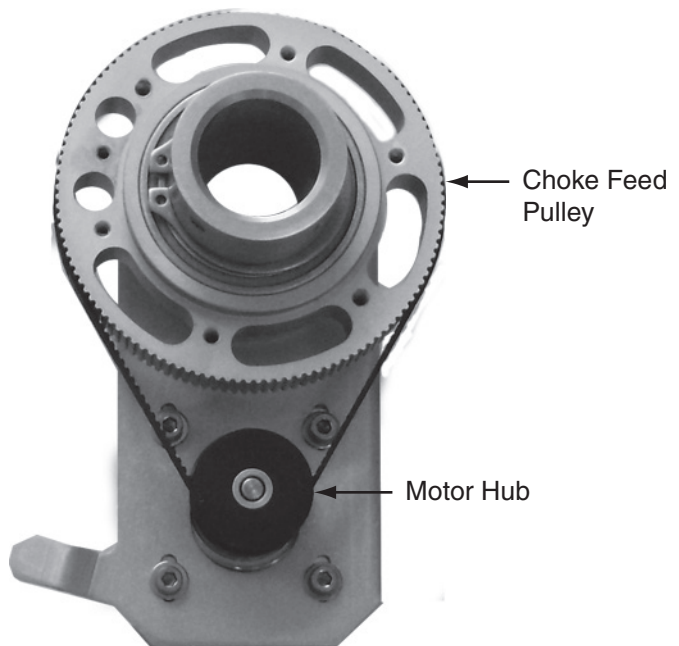


Figure 11 Belt Routing



- b. Properly align the reflector bracket to the reflector (see Figure 12).
- c. Secure the reflector bracket into place using the six screws and washers you removed in Step 2b. on page 5 (see Figure 13).
- d. Reinstall the feed tube fully into the choke feed. Then tighten the two 5/64" allen screws to secure it in place (see Figure 13).
- e. Reinstall the radome. Then restore power to the TracVision system and any connected receivers and/or multiswitch.

The procedure is complete!

Figure 12 Reflector Bracket Alignment

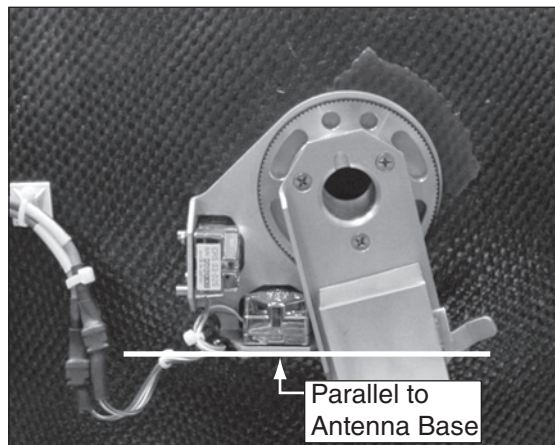


Figure 13 Feed Tube/Reflector Screws

