IMPORTANT! Special Instructions for the TracVision M3DX Conversion System (01-0279-05)

You have purchased a special TracVision® M3DX conversion system that can be configured for either circular or linear satellite signals. These instructions explain how to configure the system for your desired satellite(s). For example, if you travel from the U.S. to Mexico, refer to these instructions to convert the system from a circular configuration to a linear configuration.

IMPORTANT!

To configure the system for circular signals, you will need to wire the system differently from the wiring diagrams shown in the *Installation Guide* and *User's Guide*. Your conversion system comes with a **linear** interface box, which gives you the flexibility to simply add a destacker for circular use. Be sure to read these special instructions for complete details.

Tools Required

- #2 Phillips-head screwdriver
- 7/16" open-end wrench
- Cutting pliers
- Flashlight

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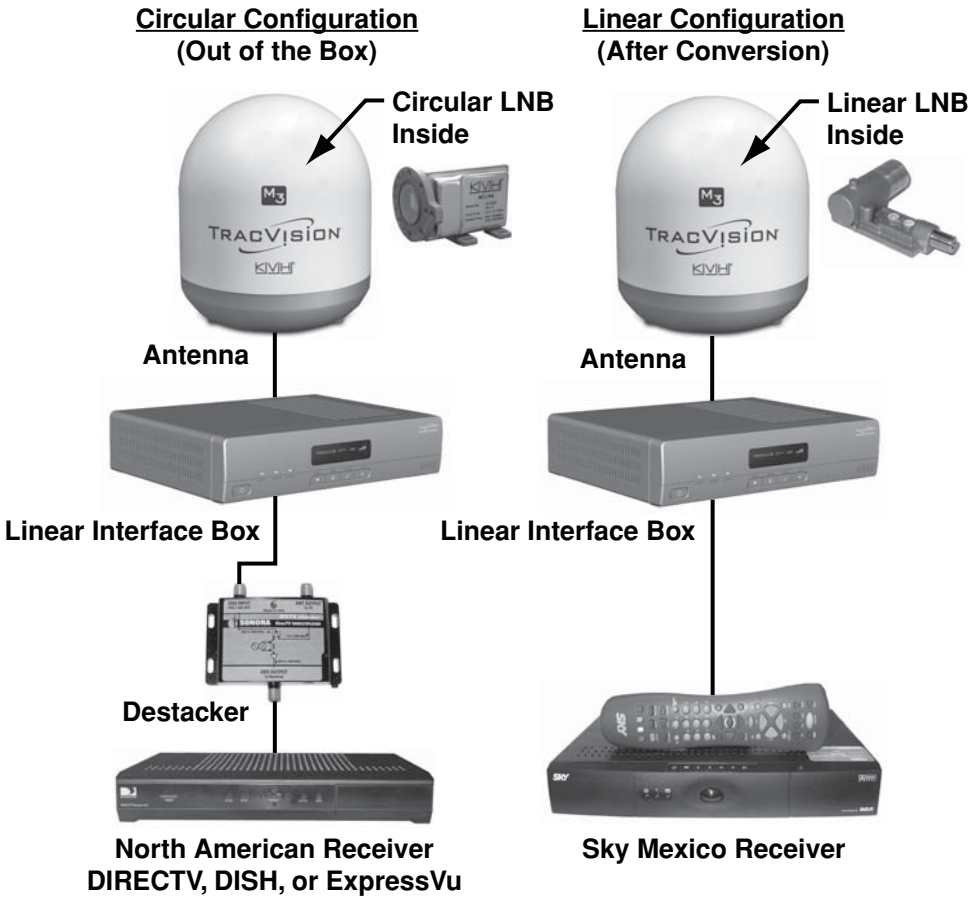
Overview of Circular and Linear Configurations

The diagram below illustrates the differences between circular and linear configurations using the conversion system.

Figure 1 Circular and Linear Configurations



If you want to receive signals from a North American satellite, such as DIRECTV, DISH Network, or ExpressVu, a circular LNB (Low Noise Block) must be installed in the antenna and a destacker must be connected between the interface box and your receiver. The destacker is necessary because, unlike a circular interface box, your conversion system's linear interface box does not convert stacked signals into unstacked signals. North American receivers can decode only unstacked signals.

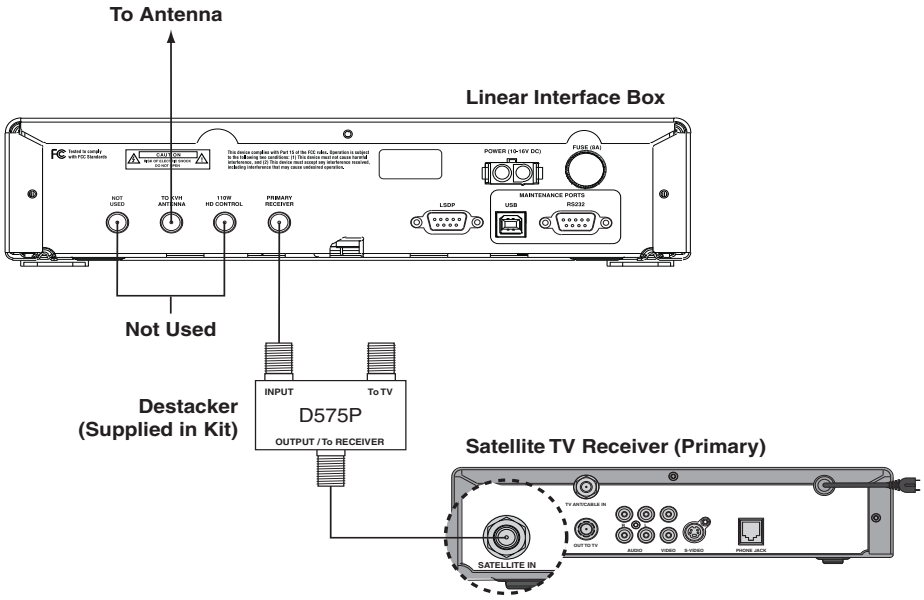
If you want to receive signals from the Sky Mexico satellite, a linear LNB must be installed in the antenna. No destacker is necessary because your conversion system is equipped with a linear interface box.

Configuring for Circular Signals, Out of the Box

(Valid for DIRECTV®, DISH Network®, and ExpressVu services)

Your TracVision M3DX antenna comes preconfigured for circular signals using a linear interface box. All you need to do differently from a standard circular system installation is connect the supplied destacker between the linear interface box and your satellite TV receiver, as shown in the wiring diagram below. The destacker converts this stacked signal into an unstacked signal, which standard North American receivers can decode.

Figure 2 Wiring Diagram for DIRECTV, DISH Network, or ExpressVu (Circular Receiver)



NOTE: *For details on wiring an optional Tri-Sat AutoSwitch for DIRECTV Ku-band Tri-Sat service, refer to the instructions that came with the Tri-Sat AutoSwitch kit.*

Converting from Circular to Linear

(Valid for Sky Mexico service)

The TracVision system comes from the factory configured for circular satellite signals. If you wish to receive Sky Mexico signals instead, follow the steps below to convert the system to a linear configuration.

1. Turn off and unplug your satellite TV receiver, if it is connected to the TracVision system.

2. Press the Power switch on the front of the TracVision interface box to turn off the TracVision system. Make sure the VOLTAGE light goes out.

> **CAUTION**
>
> Disconnect power from the antenna before you remove the radome. The antenna has moving parts that can cause injury.

3. Remove the three #10-32 Phillips screws securing the radome to the antenna.

4. Carefully remove the radome and set it aside in a safe place.

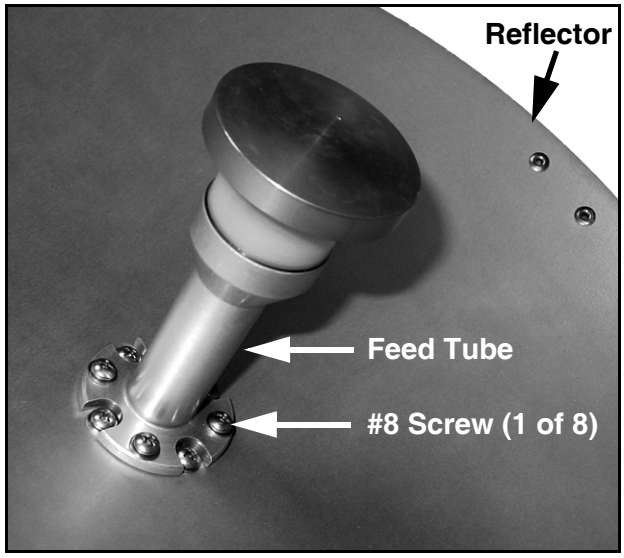
Figure 3 Removing the Radome

IMPORTANT!

Do not grasp the reflector at any time during this procedure. A warped reflector can significantly reduce antenna performance.

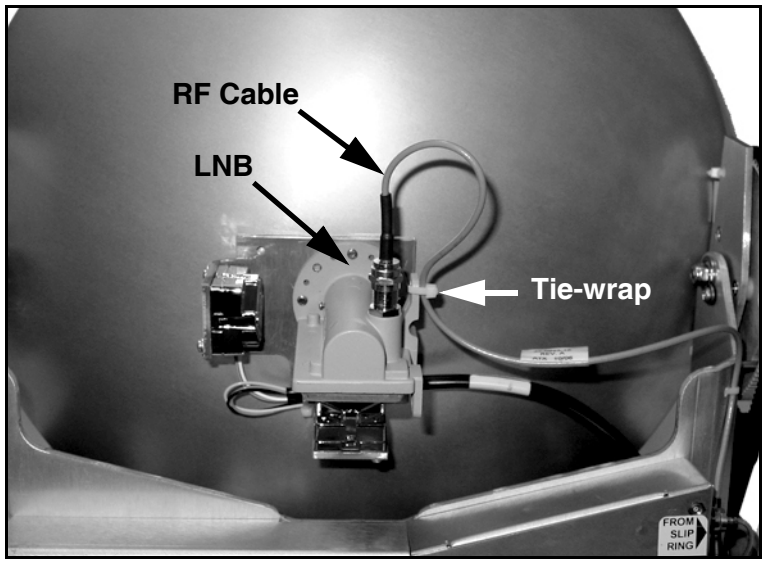
5. Remove the four #8 Phillips screws securing the feed tube to the reflector. Remove the feed tube and set it aside in a safe place.

Figure 4 Feed Tube



6. Using a 7/16" wrench, carefully disconnect the RF cable from the circular LNB on the back of the reflector.

Figure 5 Circular LNB



7. Cut the tie-wrap securing the RF cable to the LNB. **Be careful not to cut the RF cable while you are cutting the tie-wrap.**

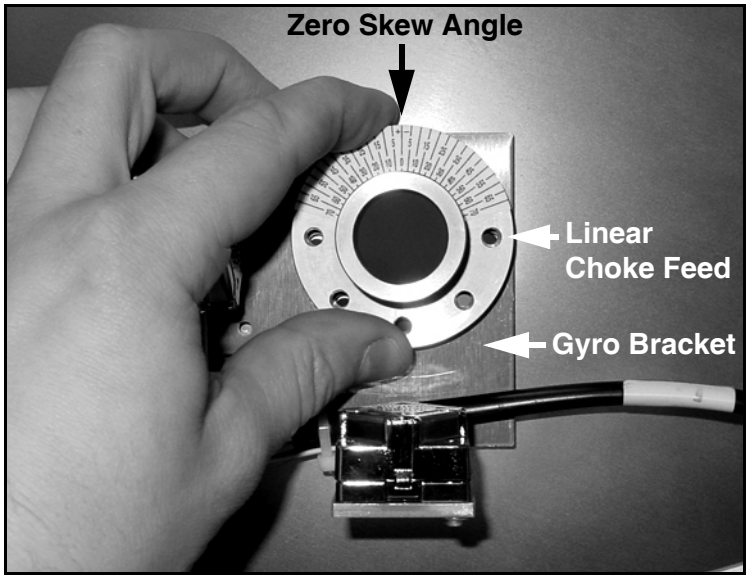
8. Remove the four remaining #8 Phillips screws securing the gyro bracket and LNB to the reflector. Save the circular LNB for future use.

9. Place the gyro bracket and linear choke feed against the reflector as shown in the figure below. Align all holes in the choke feed, gyro bracket, and reflector.

IMPORTANT!

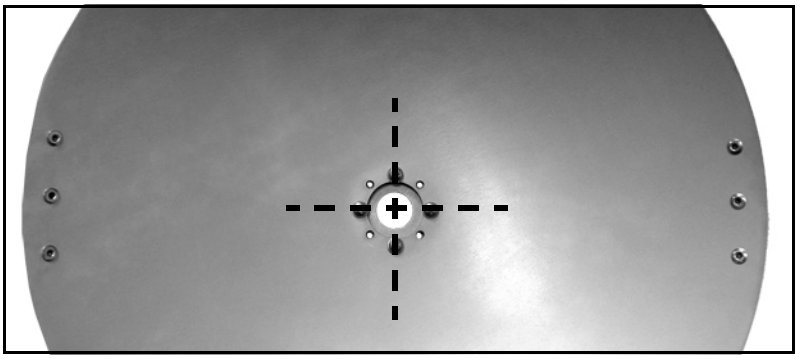
Be sure to orient the choke feed so that the zero (0) mark on its skew angle label is centered at the top (see Figure 6).

Figure 6 Positioning the Gyro Bracket and Linear Choke Feed



10. While holding the choke feed and gyro bracket in place, insert the four shorter (1/2") #8 Phillips screws in a cross pattern from the front side of the reflector. Hand-tighten the screws.

Figure 7 Cross Pattern of Screws to Secure Gyro Bracket/Choke Feed

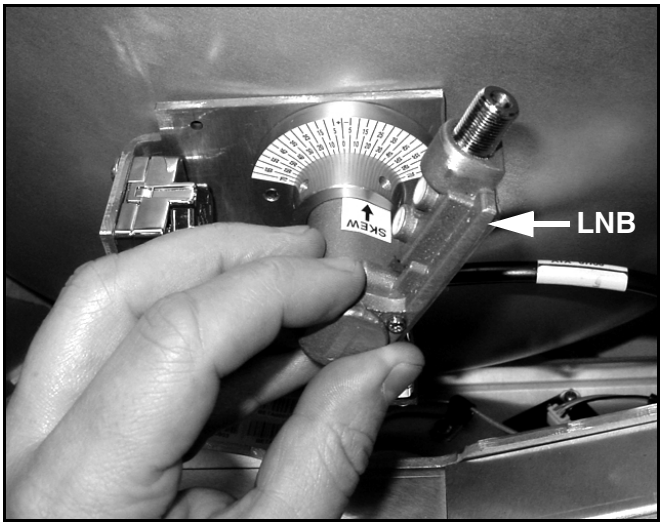


11. Attach the feed tube to the reflector, gyro bracket, and choke feed using the four long (3/4") #8 Phillips screws. Hand-tighten the screws (see Figure 4 on page 5).

12. Tighten all eight screws evenly in an alternating manner to prevent cross-threading. *Tighten the shorter screws first, then tighten the longer feed tube screws.*

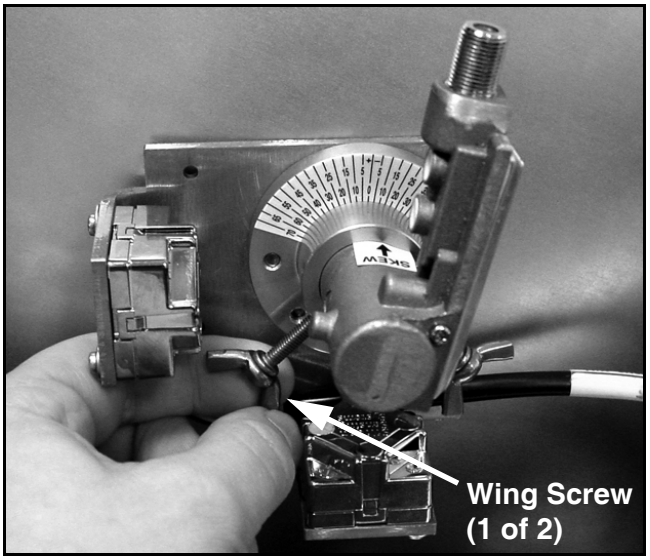
13. Insert the linear LNB into the choke feed as far as it will go. Don't worry about setting the skew; you will adjust it later.

Figure 8 Inserting the Linear LNB into the Choke Feed



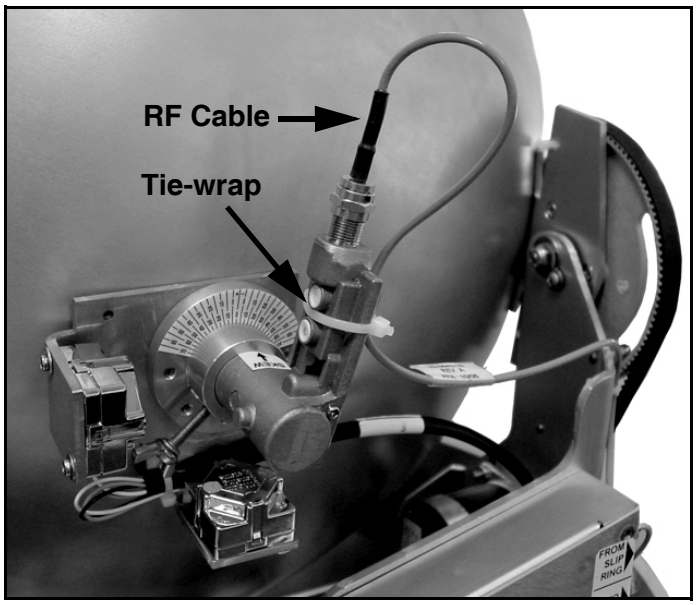
14. Secure the LNB to the choke feed with the two supplied wing screws.

Figure 9 Tightening the Wing Screws



15. Connect the RF cable to the LNB. Hand-tighten, then tighten with a 7/16" wrench for 1/4 turn.

Figure 10 Connecting the RF Cable to the LNB



16. Using a tie-wrap, secure the RF cable to the LNB body. **Be sure to maintain an adequate bend radius in the cable, as shown in the figure above.**

17. Using your finger or a non-metallic tool, set the voltage switch on the circuit board fully to the LEFT to the "**Linear 13V-18V**" position.

Figure 11 Voltage Switch on Circuit Board

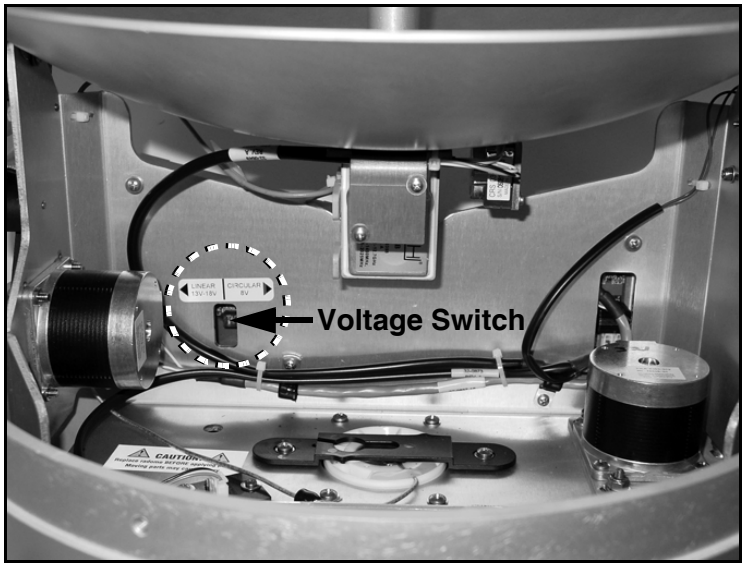
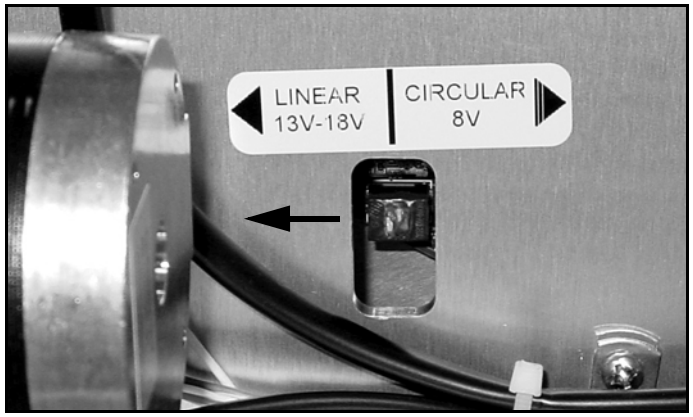


Figure 12 Voltage Switch, Close-up



18. Disconnect the destacker from the belowdecks interface box, if you have one connected. In a linear configuration, you can connect your Sky Mexico linear receiver directly to the "Primary Receiver" output on the interface box. No destacker is necessary.
19. Plug in and turn on your satellite TV receiver.
20. Press the Power switch on the front of the TracVision interface box to turn on the TracVision system.
21. Follow the instructions in Chapter 4 of the *User's Guide (Linear Configuration)* to set up the TracVision system for your desired satellites and set the LNB skew angle.

IMPORTANT!

Be sure to adjust the antenna's LNB to the correct skew angle, as described in the *User's Guide*. Unlike circular signals, which are transmitted in a corkscrew pattern, linear signals are transmitted in a precise cross pattern. Therefore, the LNB needs to be oriented in the same manner to optimize reception.

22. Reattach the radome and secure in place using the three #10-32 Phillips screws you removed earlier.

Converting from Linear to Circular

(Valid for DIRECTV, DISH Network, and ExpressVu services)

If you converted the system previously to a linear configuration and now wish to receive North American satellite TV signals, follow the steps below to convert the system back to a circular configuration.

1. Turn off and unplug your satellite TV receiver, if it is connected to the TracVision system.

2. Press the Power switch on the front of the TracVision interface box to turn off the TracVision system. Make sure the VOLTAGE light goes out.

> **CAUTION**
>
> Disconnect power from the antenna before you remove the radome. The antenna has moving parts that can cause injury.

3. Remove the three #10-32 Phillips screws securing the radome to the antenna.

4. Carefully remove the radome and set it aside in a safe place.

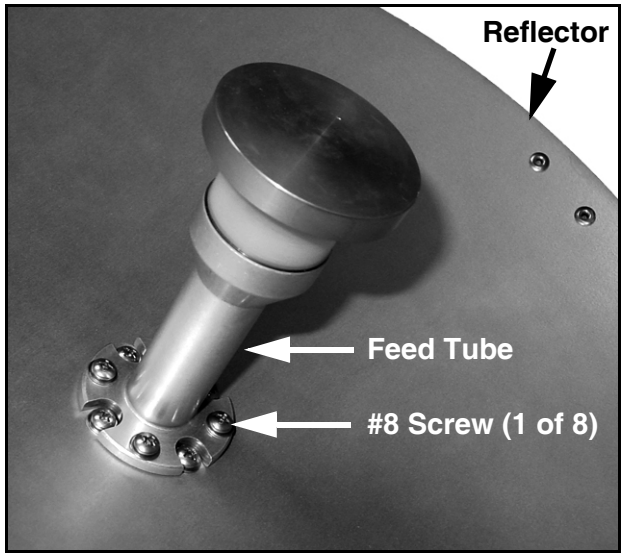
Figure 13 Removing the Radome

IMPORTANT!

Do not grasp the reflector at any time during this procedure. A warped reflector can significantly reduce antenna performance.

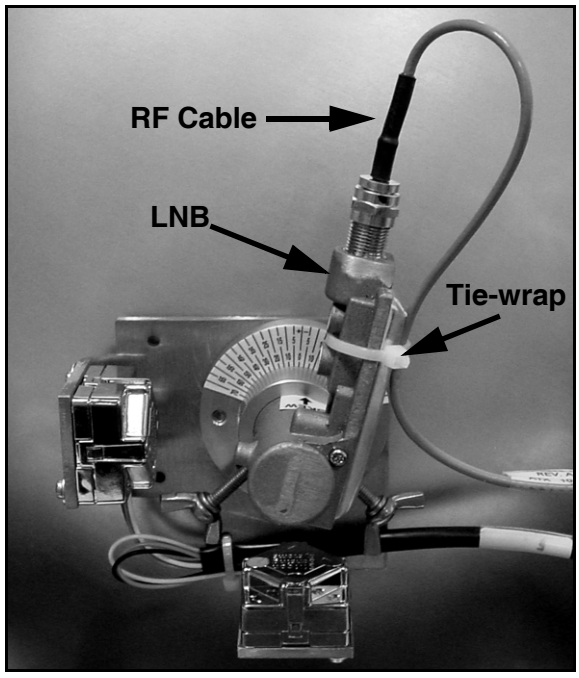
5. Remove the four #8 Phillips screws securing the feed tube to the reflector. Remove the feed tube and set it aside in a safe place.

Figure 14 Feed Tube



6. Using a 7/16" wrench, carefully disconnect the RF cable from the linear LNB on the back of the reflector.

Figure 15 Linear LNB

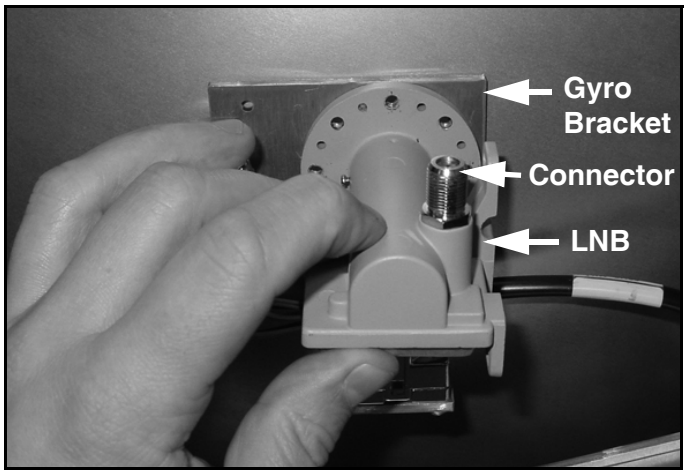


7. Cut the tie-wrap securing the RF cable to the LNB (see Figure 15 on page 11). **Be careful not to cut the RF cable while you are cutting the tie-wrap.**
8. Remove the four remaining #8 Phillips screws securing the gyro bracket and LNB choke feed to the reflector. Save the linear choke feed and LNB for future use.
9. Place the gyro bracket and circular LNB against the reflector as shown in the figure below. Align all holes in the LNB, gyro bracket, and reflector.

IMPORTANT!

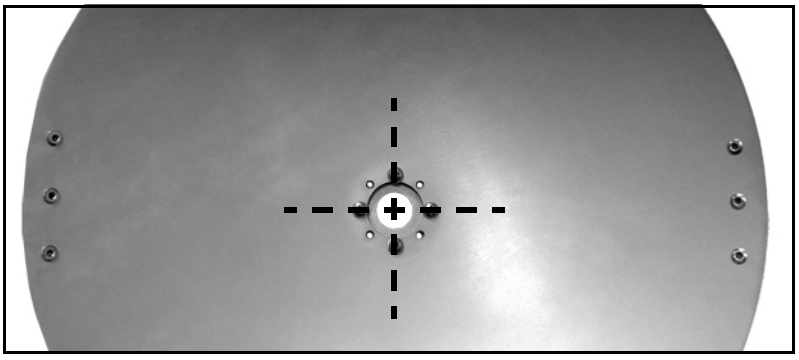
Be sure to orient the LNB so that the RF connector is facing upward (see Figure 16).

Figure 16 Positioning the Gyro Bracket and Circular LNB



10. While holding the gyro bracket and LNB in place, insert and hand-tighten the four shorter (1/2") #8 Phillips screws in a cross pattern from the front of the reflector.

Figure 17 Cross Pattern of Screws to Secure Gyro Bracket/LNB

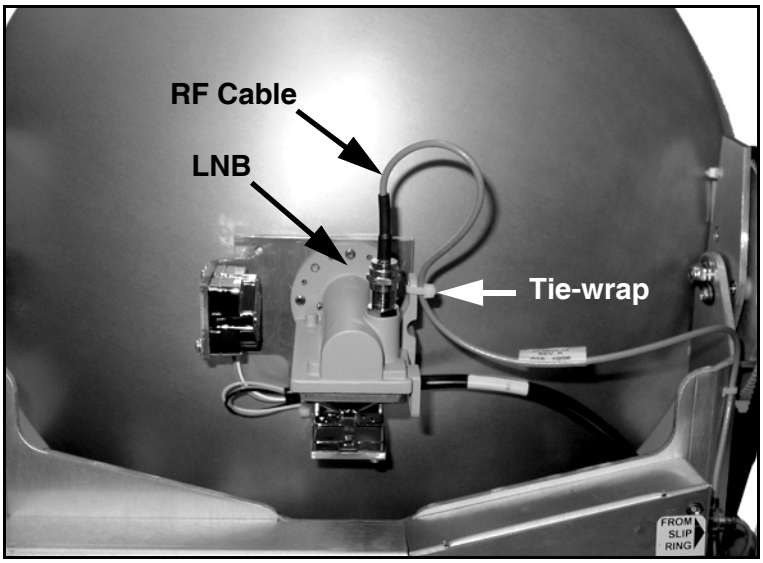


11. Attach the feed tube to the reflector, gyro bracket, and LNB using the four longer (3/4") #8 Phillips screws. Hand-tighten the screws (see Figure 14 on page 11).

12. Tighten all eight screws evenly in an alternating manner to prevent cross-threading. *Tighten the shorter screws first, then tighten the longer feed tube screws.*

13. Connect the RF cable to the LNB. Hand-tighten, then tighten with a 7/16" wrench for 1/4 turn.

Figure 18 Connecting the RF Cable to the LNB



14. Using a tie-wrap, secure the RF cable to the LNB body. **Be sure to maintain an adequate bend radius in the cable, as shown in Figure 18.**

15. Using your finger or a non-metallic tool, set the voltage switch on the circuit board fully to the RIGHT to the "**Circular 8V**" position.

Figure 19 Voltage Switch on Circuit Board

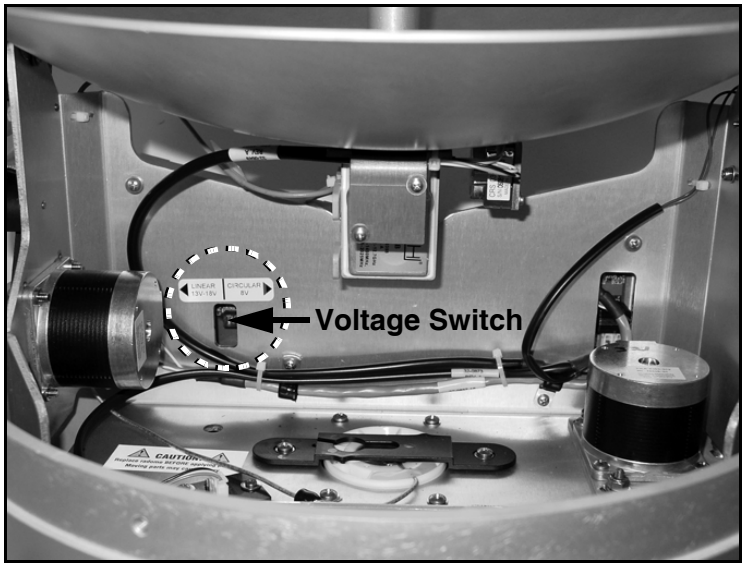
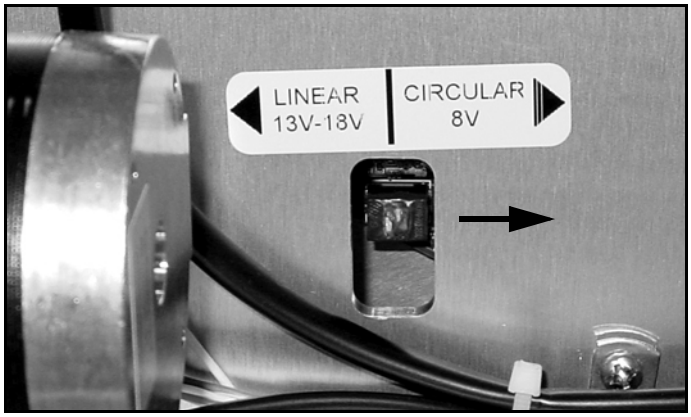


Figure 20 Voltage Switch, Close-up



16. Reattach the radome and secure in place using the three #10-32 Phillips screws you removed earlier.

17. Connect a destacker between the interface box and your North American circular receiver, as described in the next section. Then plug in and turn on your receiver.

18. Press the Power switch on the front of the interface box to turn on the TracVision system.

19. Follow the steps in Chapter 4 of the *User's Guide (Circular Configuration)* to set up the system.

Modified Wiring Diagram for Circular Signals

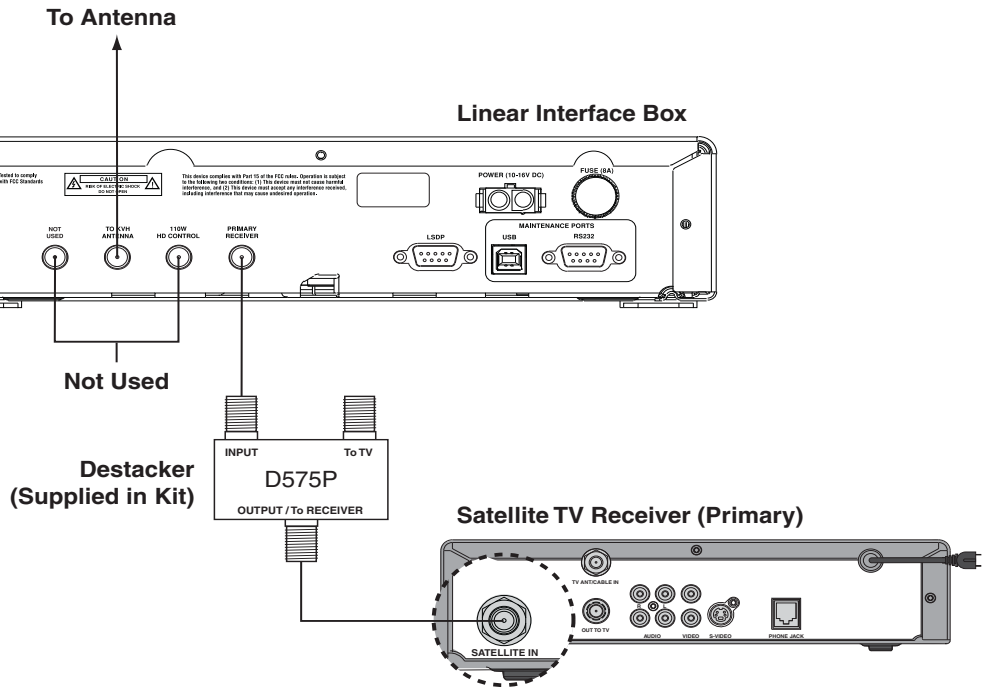
(Valid for DIRECTV, DISH Network, and ExpressVu services)

Your TracVision conversion system includes a special linear interface box that offers the flexibility to be used in either a circular or linear configuration. For circular configurations, you will need to install a destacker between the interface box and your receiver. Therefore, the wiring diagrams provided in the *User's Guide* are not entirely correct for your system. Refer to the modified wiring diagram below to connect your receiver.

IMPORTANT!

Unlike a standard circular interface box, your special linear interface box does not include a second output for connecting a second receiver. The satellite signal is only available at the "Primary Receiver" jack on the linear interface box.

Wiring One Standard Circular (N. American) Receiver



NOTE: *For details on wiring an optional Tri-Sat AutoSwitch for DIRECTV Ku-band Tri-Sat service, refer to the instructions that came with the Tri-Sat AutoSwitch kit.*

Wiring Diagram for Linear Signals

(Valid for Sky Mexico service)

The wiring for a linear configuration remains the same as presented in the User's Guide. No destacker is required.

Wiring One Standard Linear (Sky Mexico) Receiver