



## **Guide for Using DIRECTV® SWM Technology with Winegard® Mobile Satellite TV Antennas**



**For up-to-date information on receiver compatibility & programming,  
visit [www.winegard.com/receivers](http://www.winegard.com/receivers)**

Receivers Compatible with SWM Technology

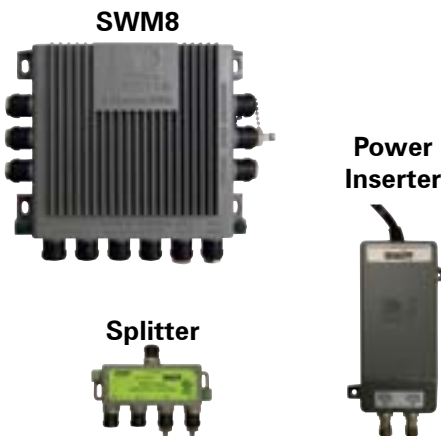
Winegard mobile satellite TV antennas operate with Multi-switch technology and require separate accessories to operate with DIRECTV Single Wire Multi-switch (SWM) only technology receivers. For an up-to-date list of DIRECTV DVR and non-DVR receiver models that are only compatible with SWM technology, visit [www.winegard.com/directv](http://www.winegard.com/directv). This website also lists Winegard mobile satellite TV antennas that are compatible with DIRECTV. If unsure of your receiver model, check the back of the receiver or the inside front door of the smart card slot.



SWM Kit Parts

Winegard mobile satellite TV antennas require separate accessories to operate with DIRECTV SWM only technology receivers. For proper SWM operation with Winegard satellite TV antennas, the SWM8, DIRECTV PI-28 or PI-29 power supply, and DIRECTV approved splitter (typically 2, 4, or 8 port) must be used. Failure to use this equipment may cause issues with your system.

The DIRECTV power inserter PI-28 or PI-29 may damage a DIRECTV receiver if improperly connected in the system. The SWM output of the power inserter should never be directly applied to the input of a receiver. During installation, verify all wiring before applying power to the power inserter.



Calculating Tuners for SWM Installation

DIRECTV SWM8 allows the use of up to eight tuners with a Winegard satellite antenna. Count the tuners in your SWM installation to check that there are less than or equal to eight tuners being used with SWM8.

- Keep in mind the following when counting the number of tuners:
- A non-DVR receiver counts as one tuner.
  - A DVR receiver has dual tuners and counts as two tuners (even though only one coaxial cable is needed to connect to a DVR receiver). The exception is the HR34 DVR receiver, which has five tuners and counts as five tuners when calculating tuners for a SWM installation.

Number of non-DVR receivers + 2 x Number of DVR receivers = Total tuners for SWM8 installation







Maximum of 8 non-DVR receivers      Maximum of 4 DVR receivers      Total tuners ≤ 8 for SWM8 installation

**Example**  
Two non-DVR receivers and three DVR receivers are being used for a SWM8 installation.  
2 non-DVR receivers + 2 x 3 DVR receivers = 8 total tuners for SWM installation

Warnings

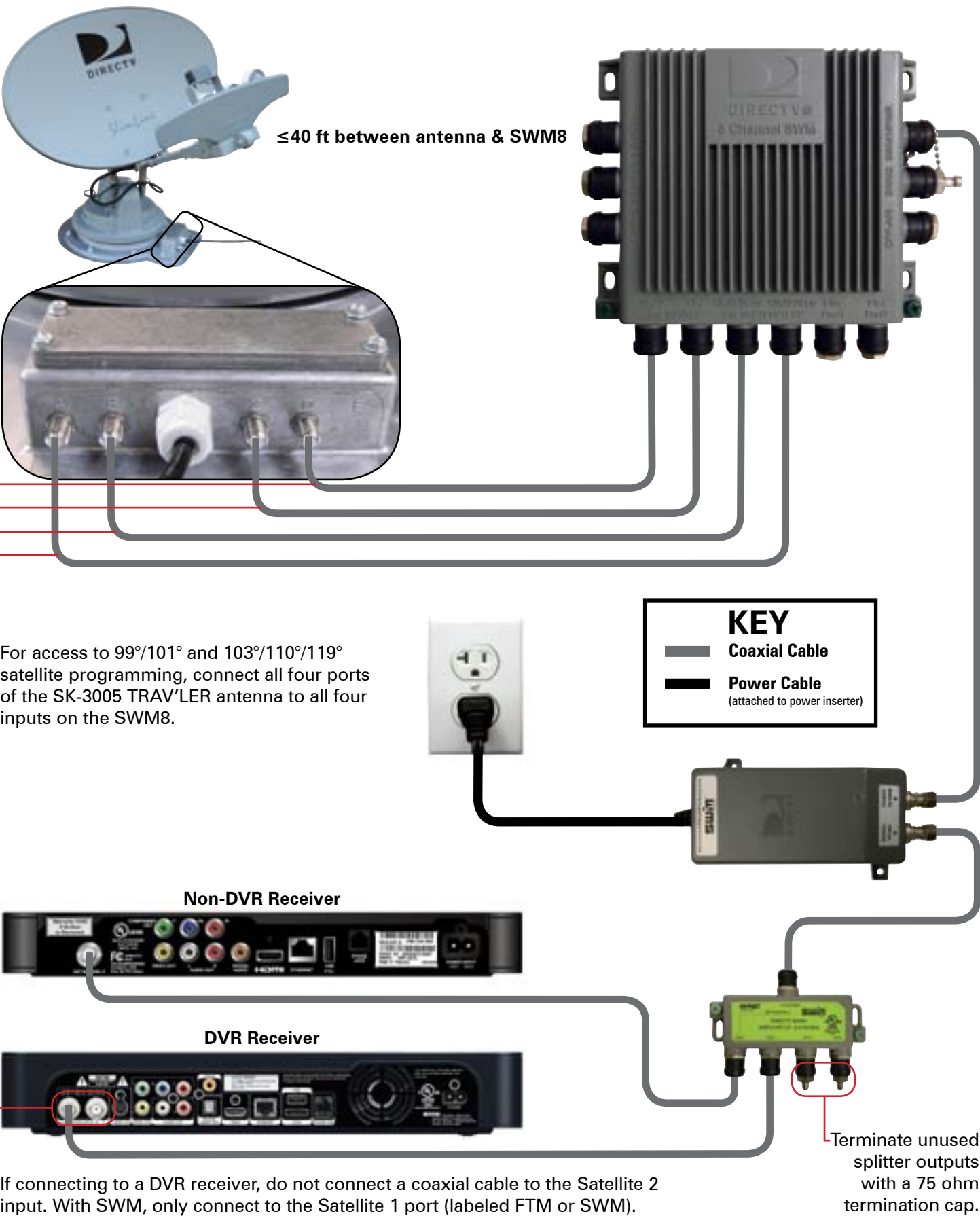
- Never use B-Band converters with SWM8.
- Do not use a DIRECTV PI-21 power inserter with a SWM8. Use a DIRECTV power inserter PI-28 or PI-29.
- Never power on all receivers at once. Sequentially power receivers since every receiver must get a SWM assignment.

Satellites able to be viewed using SWM Technology with Winegard Mobile Satellite TV Antennas

Winegard Mobile Satellite TV Antennas		Sat 99°	Sat 101°	Sat 103°	Sat 110°	Sat 119°	Wiring diagram
	 TRAV'LER® SK-3005 DIRECTV Slimline	✓	✓	✓	✓	✓	See page 3 for a SWM8 installation. See pages 5–8 for an SK-3005 combined with a dome antenna.***  See page 14 for receiver settings.
	 TRAV'LER SK-3003 DIRECTV Triple LNB		✓		✓**	✓**	See pages 9–10 for two wiring options for a SWM8 installation.  See page 14 for receiver settings.
	 Carryout® GM-1518, GM-1599, RoadTrip® Mission® & MiniMax™ and DuraSAT®		✓*				See page 4 for a SWM8 installation with dome antennas.  See page 14 for receiver settings.
	 Carryout Anser™		✓*				See page 11 for a SWM8 installation.  See page 14 for receiver settings.
	 Carryout MP1™		✓*				See page 12 for a SWM8 installation.  See page 14 for receiver settings.
	 Crank-ups, Dish & Tripod Kits (TR-6018 , PM-2000)		✓*				See page 13 for a SWM8 installation.  See page 14 for receiver settings.

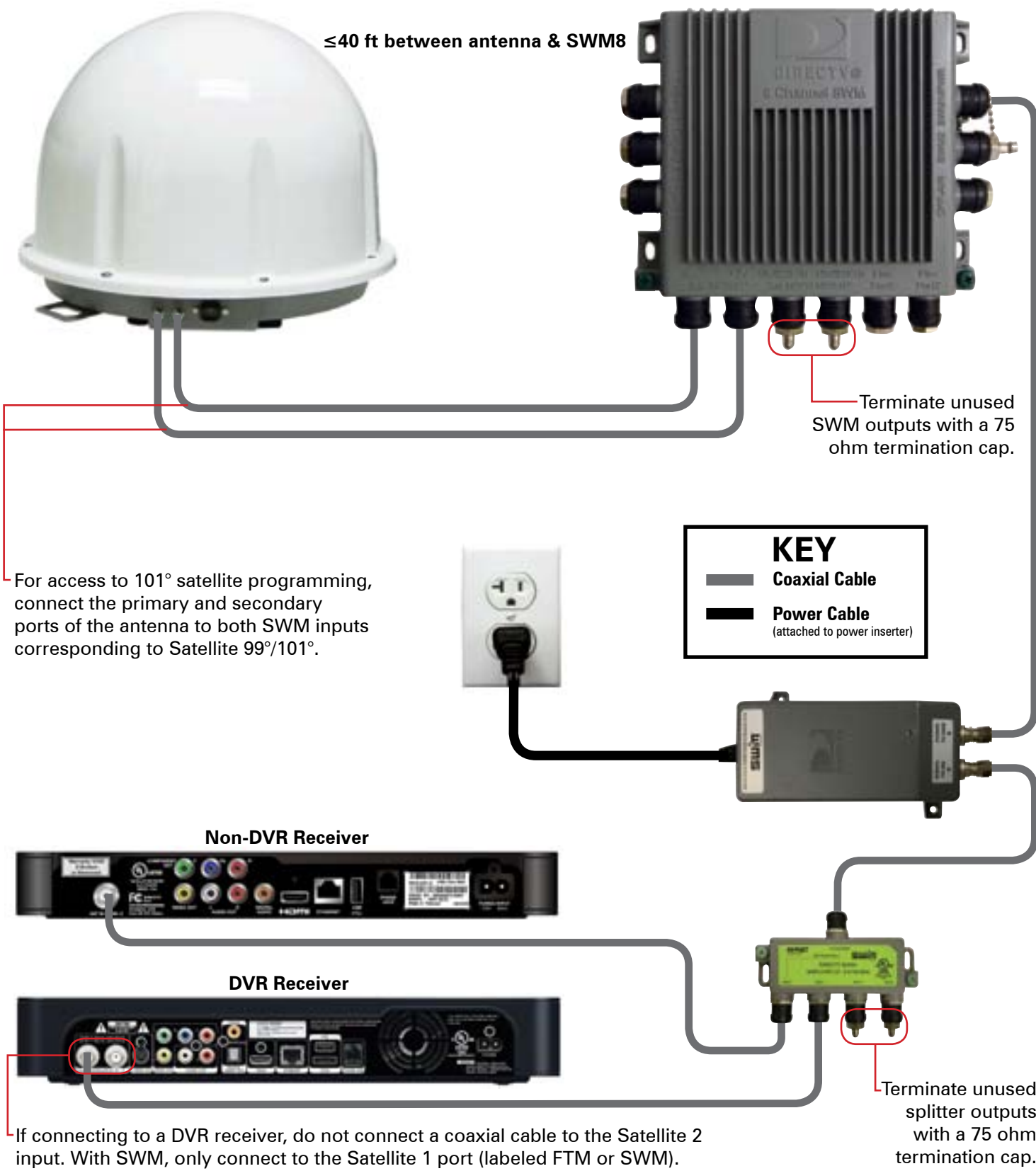
\*DIRECTV primary 101 programming only. Toggling to alternate satellites is not supported.  
\*\*Availability of channels on Satellites 110 and 119 is dependent upon the satellite port to which Port C of the TRAV'LER interface is connected.  
\*\*\*Each antenna will see satellites as listed in the above table. Note that additional parts (not included) are needed for the combined setup of the TRAV'LER antenna and domed antenna with SWM technology.

# SK-3005 TRAV'LER Antenna with DIRECTV SWM8



# Dome Antenna with DIRECTV SWM8

The wiring diagram below applies to dome antennas, including the Carryout GM-1518 & GM-1599, RoadTrip Mission & MiniMax and DuraSAT antennas. The diagram applies to both stationary and tracking models. Model GM-1518 Carryout automatic antenna is shown below.





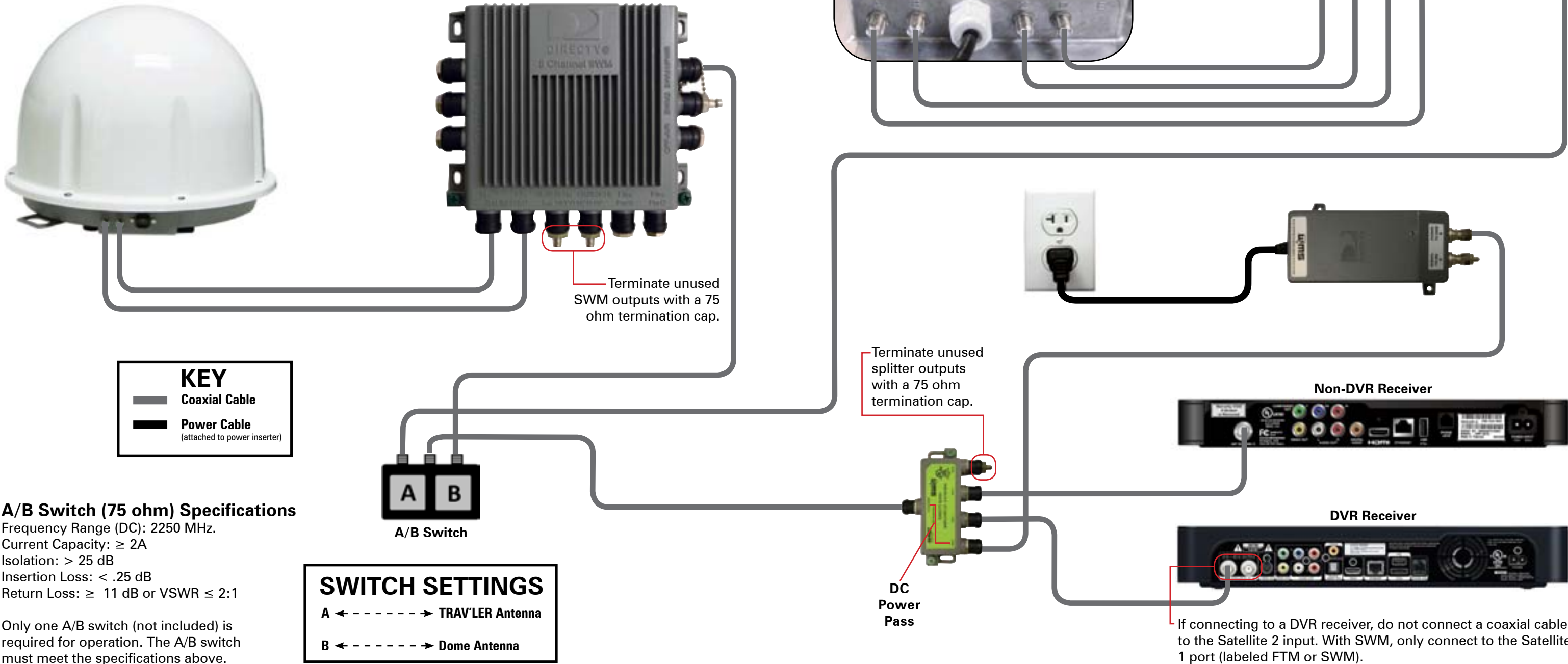
# SK-3005 TRAV'LER Antenna with Dome Antenna

## Wiring Version 1

Set the Dish Type to 04: Slimline-5, and set the Switch Type to 01: SWM. For more information on receiver setup and complete step-by-step instructions, refer to your product manual or go online to <http://www.winegard.com/receivers/setupguide.php>.

When the receiver settings above are used with the SK-3005 TRAV'LER antenna, all HD and SD programming will be available. The same receiver settings will also work for the dome antenna but will display the "Searching for Signal" message on HD channels. To remove the "Searching for Signal" message, change the preferences setting in the Display Menu to "Hide all HD Channels" when in dome operation. However, the receiver would need to be changed back to "Display All Channels" or "Hide All SD Duplicates" when changing back to TRAV'LER SK-3005 mode.

**NOTE** It may take several minutes for the DIRECTV receiver to load HD channels or to purge HD channels from the channel guide.



# SK-3005 TRAV'LER Antenna with Dome Antenna

## Wiring Version 2

Set the Dish Type to 04: Slimline-5, and set the Switch Type to 01: SWM. For more information on receiver setup and complete step-by-step instructions, refer to your product manual or go online to <http://www.winegard.com/receivers/setupguide.php>.

When the receiver settings above are used with the SK-3005 TRAV'LER antenna, all HD and SD programming will be available. The same receiver settings will also work for the dome antenna but will display the "Searching for Signal" message on HD channels. To remove the "Searching for Signal" message, change the preferences setting in the Display Menu to "Hide all HD Channels" when in dome operation. However, the receiver would need to be changed back to "Display All Channels" or "Hide All SD Duplicates" when changing back to TRAV'LER SK-3005 mode.

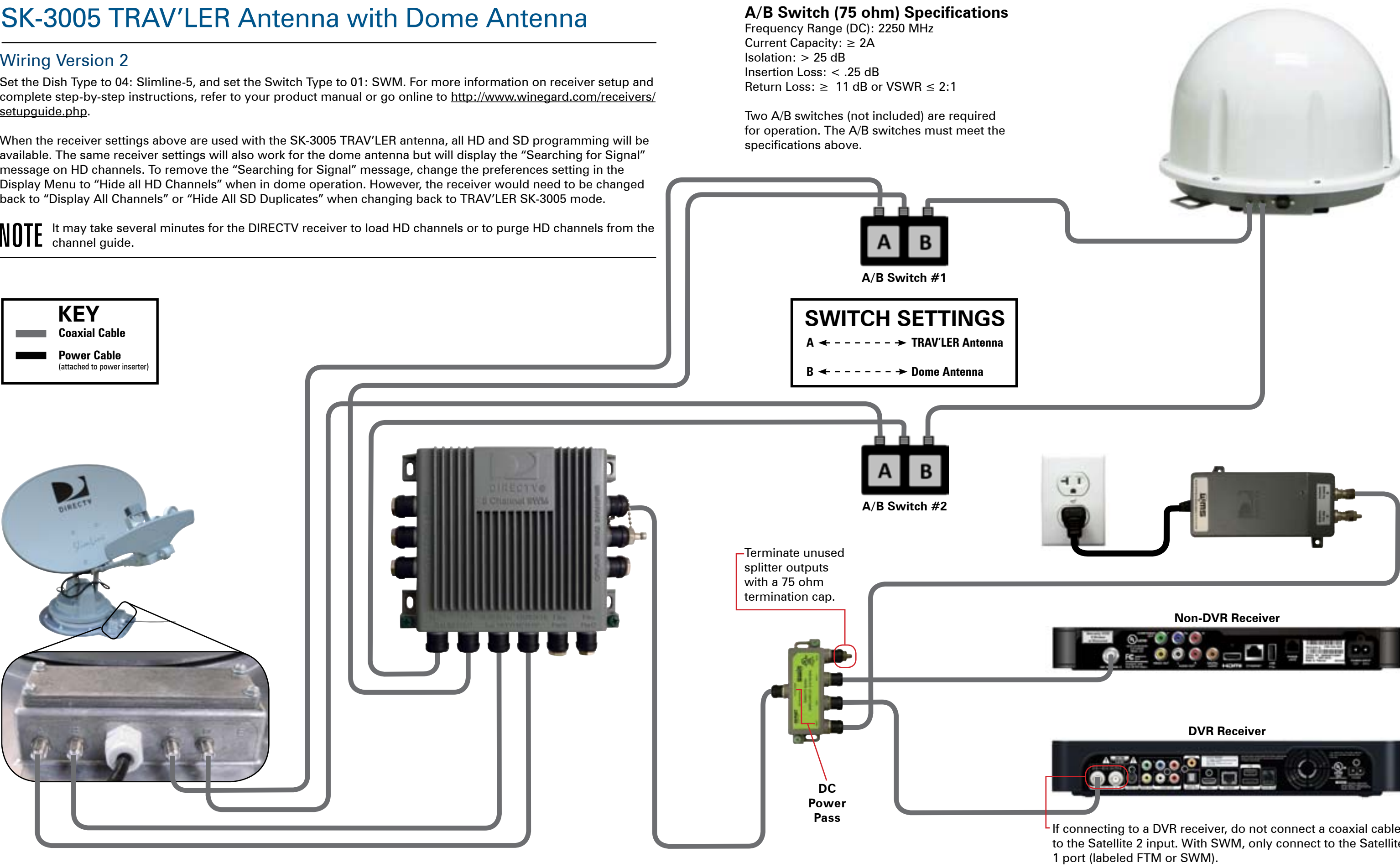
**NOTE** It may take several minutes for the DIRECTV receiver to load HD channels or to purge HD channels from the channel guide.

**KEY**  
Coaxial Cable  
Power Cable  
(attached to power inserter)

## A/B Switch (75 ohm) Specifications

Frequency Range (DC): 2250 MHz  
Current Capacity: ≥ 2A  
Isolation: > 25 dB  
Insertion Loss: < .25 dB  
Return Loss: ≥ 11 dB or VSWR ≤ 2:1

Two A/B switches (not included) are required for operation. The A/B switches must meet the specifications above.

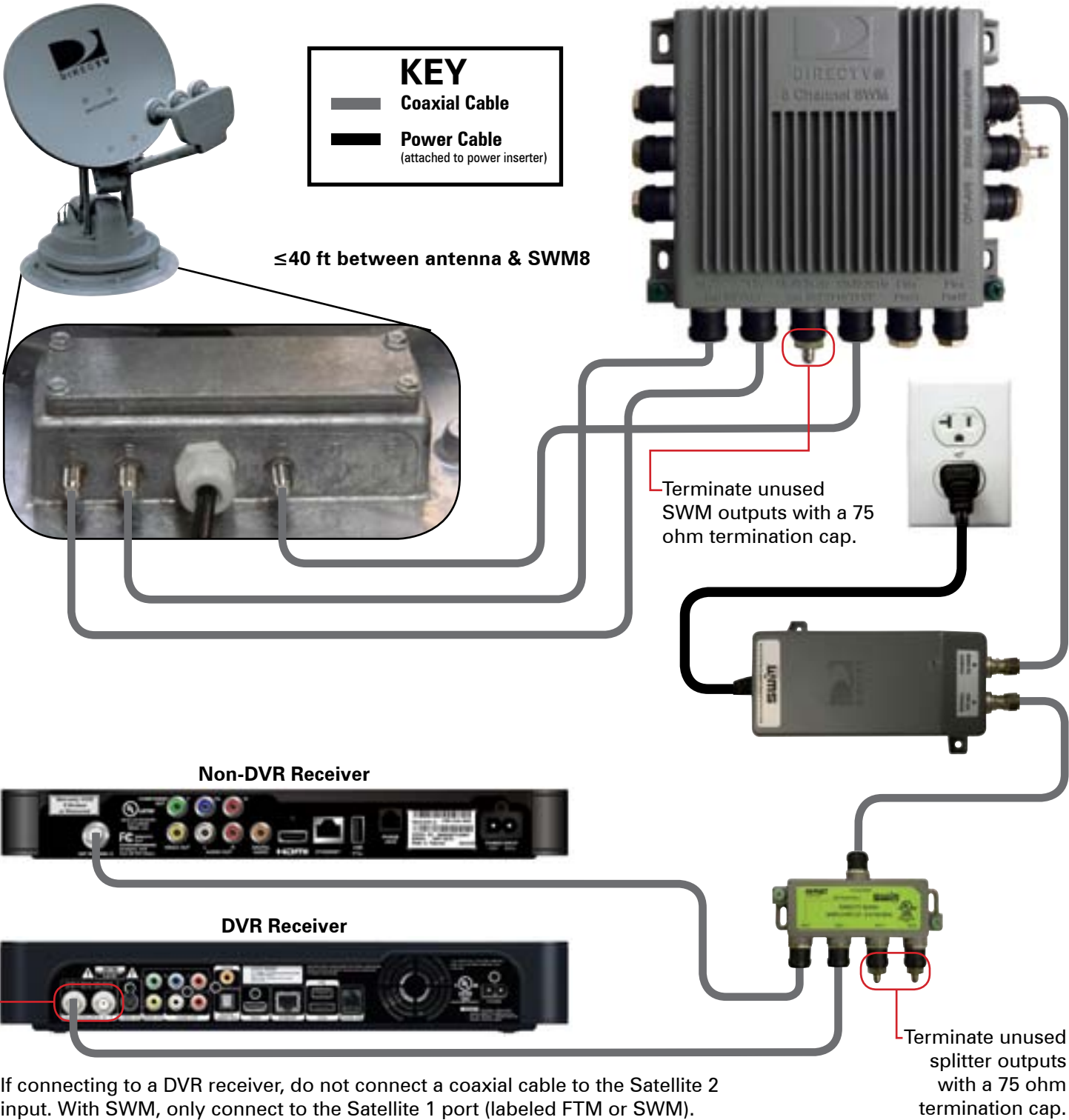


# SK-3003 TRAV'LER Antenna with DIRECTV SWM8

## Wiring Version 1

All three ports of the SK-3003 TRAV'LER antenna must be connected as shown to three inputs on the SWM8 for access to 101° odd and even transponders, 119° odd transponder only programming.

Even (18V) transponders will not be available in Wiring Version 1.  
This will be verified in the receiver installation status screen shown to the right.

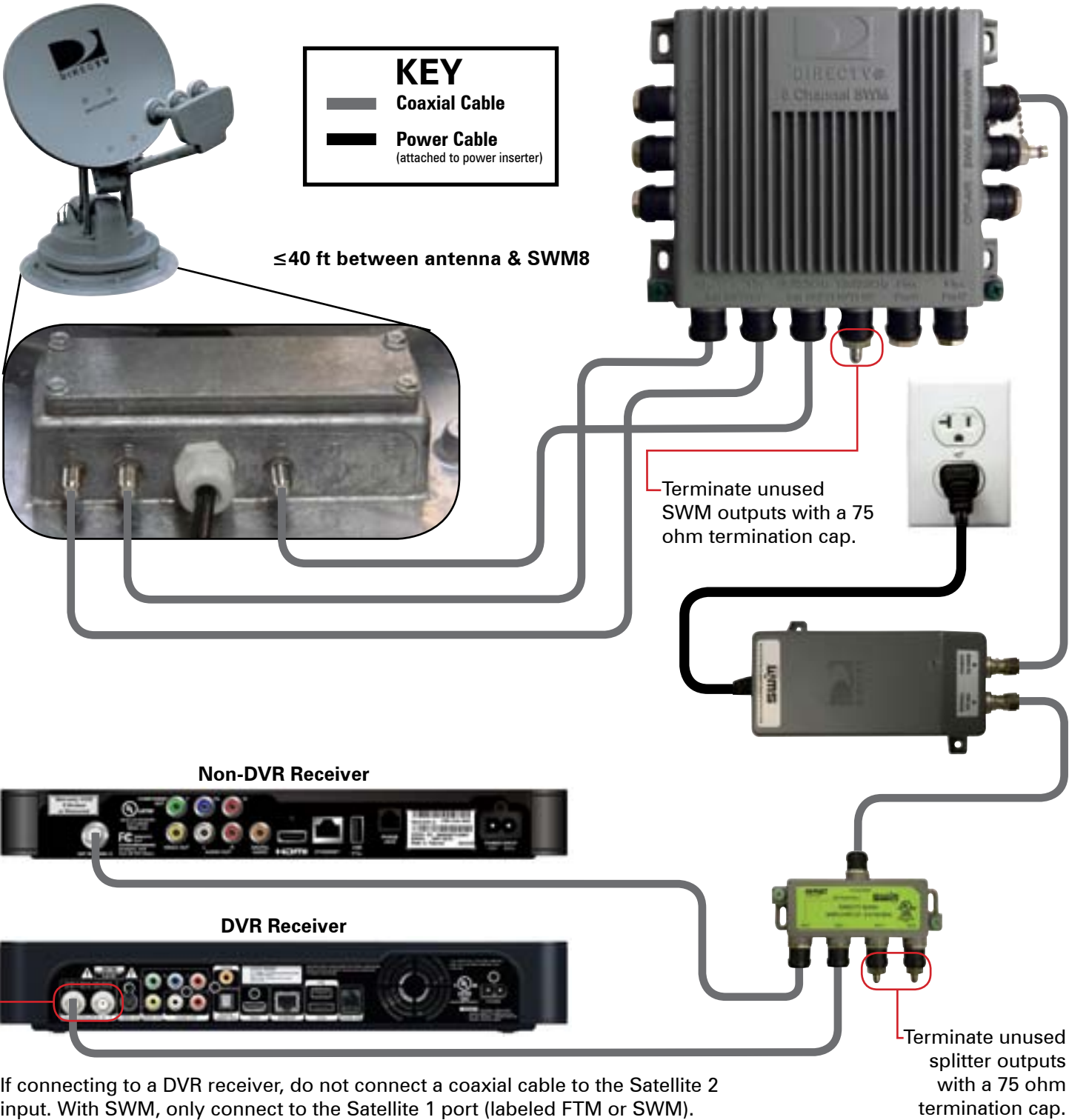


# SK-3003 TRAV'LER Antenna with DIRECTV SWM8

## Wiring Version 2

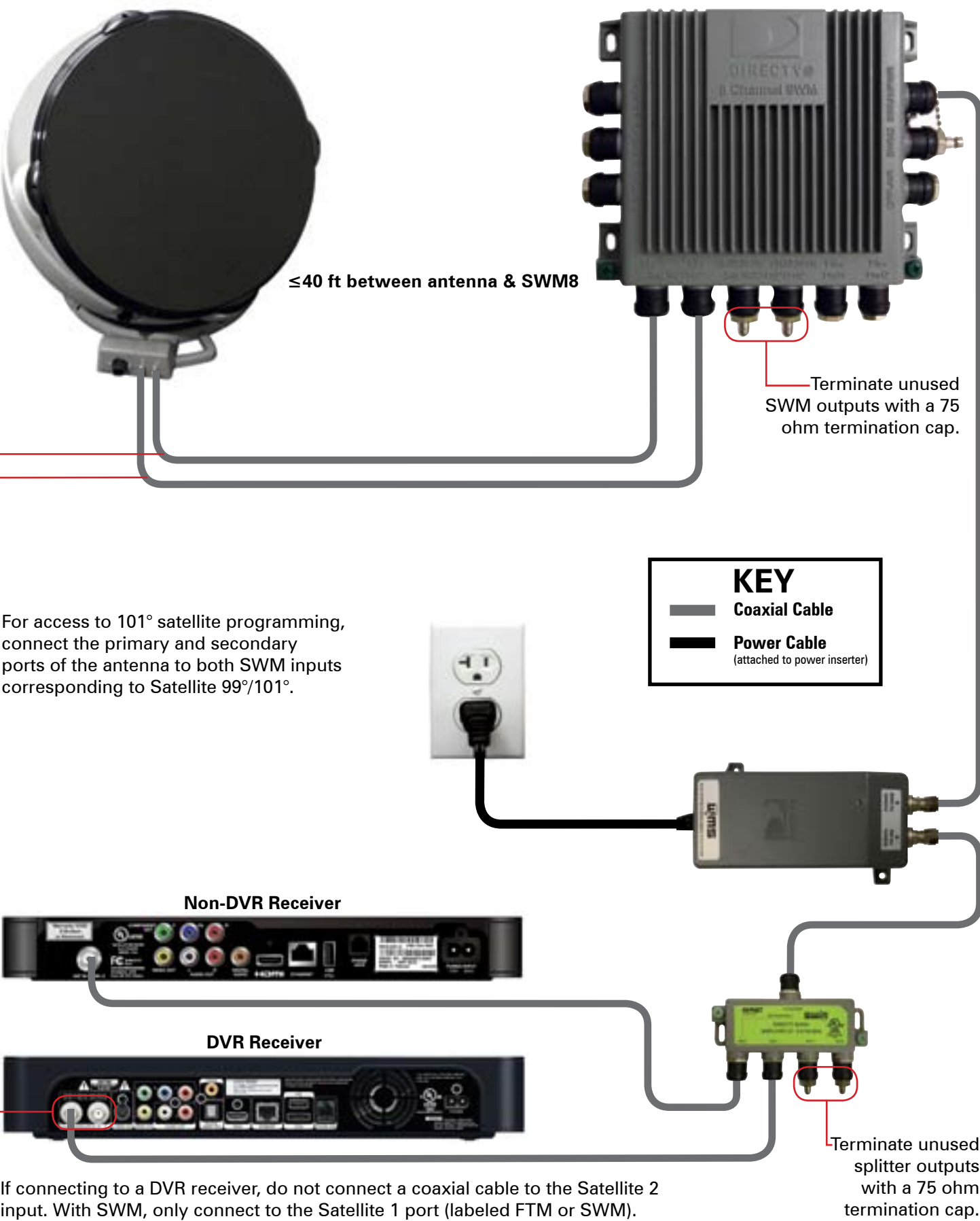
All three ports of the SK-3003 TRAV'LER antenna must be connected as shown to three inputs on the SWM8 for access to 101° odd and even transponders, 110° and 119° even transponder programming.

Odd (13V) transponders will not be available in Wiring Version 2.  
This will be verified in the receiver installation status screen shown to the right.

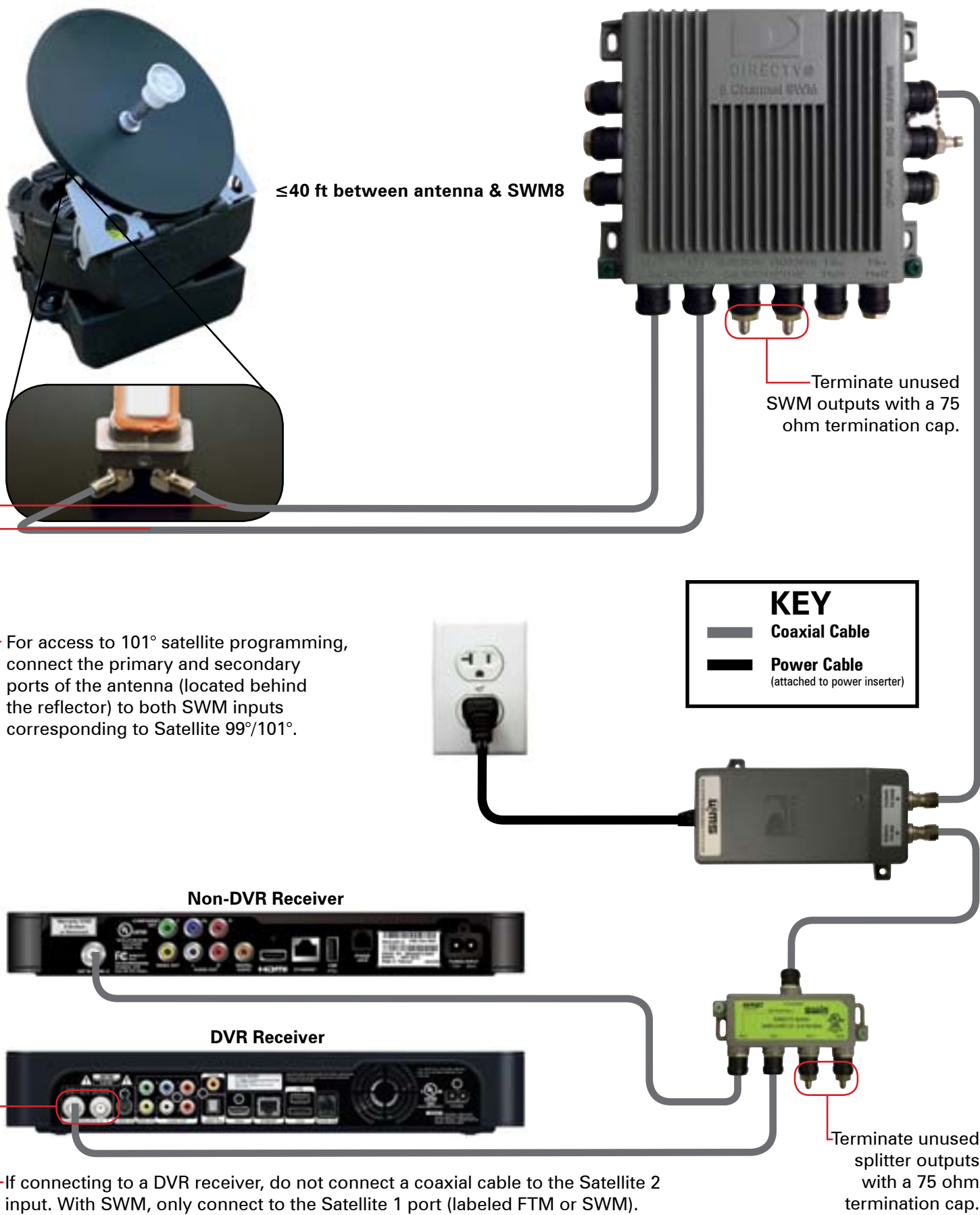




# Carryout Anser Antenna with DIRECTV SWM8

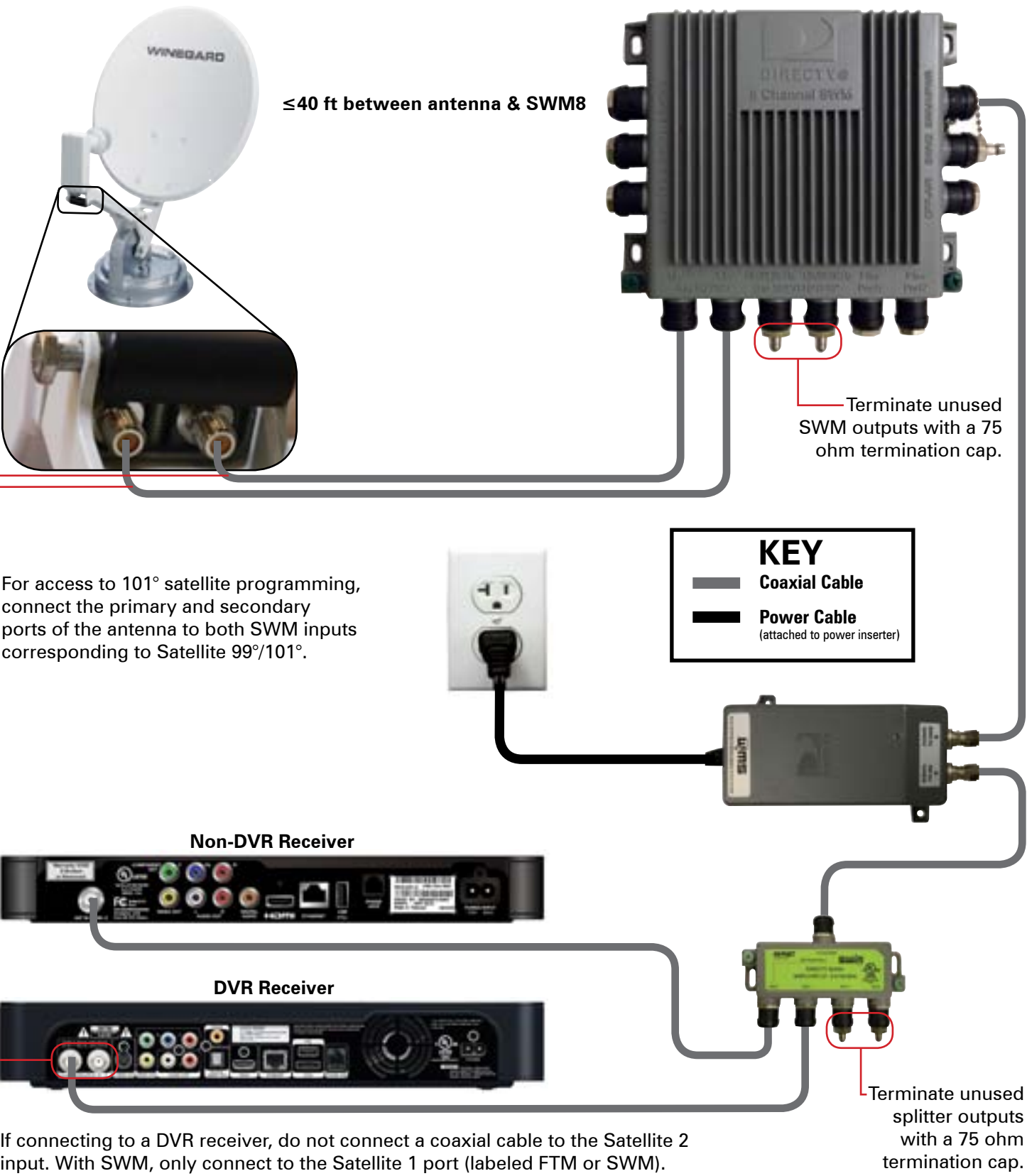


# Carryout MP1 Antenna with DIRECTV SWM8



# Crank-ups, Dish & Tripod Kits with DIRECTV SWM8

The wiring diagram below applies to most portable dishes and tripod kits not already covered. The coaxial connection ports can be found at the base of the LNB for crank-up antennas, dish and tripod kits. For additional tips on connecting coaxial cables to a crank-up antenna, see the back page. Toggling to alternate satellites is not supported.



# DIRECTV Receiver Settings

Receiver settings are listed below for Winegard antennas using SWM technology. For more information on receiver setup and complete step-by-step instructions, refer to your satellite TV antenna manual, or go online to <http://www.winegard.com/receivers/setupguide.php>.

## SK-3005 TRAV'LER Antenna with SWM Technology

Set the Dish Type for **04: Slimline-5**.  
Set the Switch Type for **01: SWM**.  
Note that B-Band Converters should not be used with SWM Technology.

## SK-3003 TRAV'LER Antenna with SWM Technology

Set the Dish Type for **02: 3-LNB (18"x20")**.  
Set the Switch Type for **01: SWM**.  
Note that B-Band Converters should not be used with SWM Technology.

## Dome Antennas, Carryout Anser & MP1 Antennas, Crank-up Antennas, Dish & Tripod Kits with SWM Technology

Set the Dish Type for **01: Round (18")**.  
Set the Switch Type for **01: SWM**.  
Note that B-Band Converters should not be used with SWM Technology.

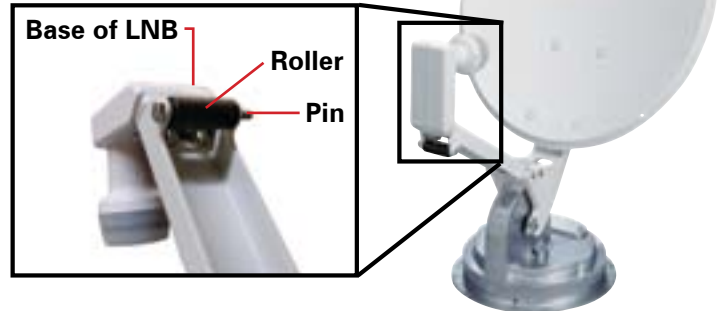


# Connecting Coaxial Cables to Crank-up Antennas

The coaxial connection ports are located on the base of the LNB. To connect a coaxial cable to each port, it may be necessary to remove the roller in front of the coaxial connection ports.

Complete the following steps to remove the roller and access the coaxial connection ports:

- ❶ Locate the pin that holds the roller to the feed arm.
- ❷ Using a 7/16" wrench, remove the nut from the pin.
- ❸ Remove the pin from the roller, and remove the roller.
- ❹ Connect a coaxial cable to each coaxial connection port.
- ❺ Align the holes in the roller with the holes in the feed arm.
- ❻ Place the pin through the holes in the feed arm and in the roller.
- ❼ Thread a nut onto the pin, and tighten.



In some installations, a clamp may be used to hold down cables on the roof of the RV. If using a clamp, install the SWM8 after the first clamp.

---

**[www.winegard.com/mobile](http://www.winegard.com/mobile)**

**For Technical Services, email [help@winegard.com](mailto:help@winegard.com) or call 1-800-788-4417**  
**For Receivers and Programming, call 1-866-609-9374**

**For up-to-date information on receiver compatibility and programming,**  
**visit [www.winegard.com/receivers](http://www.winegard.com/receivers)**

---



Winegard Company • 3000 Kirkwood St. • Burlington, IA 52601-2000  
800/788-4417 • FAX 319/754-0787 • [www.winegard.com](http://www.winegard.com) • Printed in U.S.A.  
©2012 Winegard Company Rev2 9/12 2452242

Winegard, TRAV'LER, Carryout, RoadTrip, Mission, and DuraSAT are registered trademarks of Winegard Company, and MiniMax, Anser, and MP1 are trademarks of Winegard Company. DIRECTV is a registered trademark of DIRECTV, Inc., a unit of Hughes Electronics Corp.

Disclaimer: although every effort has been made to ensure that the information in this manual is correct and complete, no company shall be held liable for any errors or omissions in this manual. Changes and technological advances are continuously being made in the satellite antenna market. Information provided in this manual was accurate at time of printing.