

WINEGARD®

RoadTrip® T4

Automatic In-Motion Roof-Mounted
Satellite TV Antenna



www.winegard.com/mobile

For Technical Services, email help@winegard.com
or call 1-800-788-4417.

For Receivers and Programming, call 1-866-609-9374.

DO NOT RETURN ANTENNA TO PLACE OF PURCHASE.

For up-to-date information on receiver compatibility and programming,
visit www.winegard.com/receivers.

Product Registration

Please register your Winegard product by completing the online
registration form at www.winegard.com/myantenna.

Manuel disponible en français
au www.winegard.com/support

Manual disponible en español
en www.winegard.com/support



It is dangerous to watch television while you are driving a vehicle. The RoadTrip® T4 is designed specifically to provide entertainment to vehicle passengers and should never be connected to active video screens visible to the vehicle driver while the vehicle is in motion. Failure by the driver of the vehicle to pay full attention to traffic and road conditions could result in an accident or collision with personal injury or death resulting.

Specifications

- Supports up to two single or one dual receiver
- Depending on receiver type and location, can access the following satellites:
 - DISH® Western Arc:** 110°, 119°, 129°
 - DIRECTV®:** 119° or 101° (will not receive HD on 110° or any KA-band HD on 99° and 103°)
 - Bell TV™:** 91° or 82°
- Elevation range: 18–65°
- Azimuth: 0–416°
- Max amperage: 2.0 A
- Unit operating voltage: 9–16 V
- Supply voltage: 12–13.8 V
- UV-protected plastic dome



Models

RT2000T / RTT-20W / RTT-ODW (white dome)
RT2035T / RTT-20B / RTT-ODB (black dome)

One dome and base with electronics, dish and dual LNBF are included with the RoadTrip® T4 antenna. Aftermarket versions also include all mounting hardware and cabling required for a single receiver installation.

Safety Recommendations



Do not attempt to install this system in the rain or under any wet conditions. Moisture may affect electronics and void your warranty.

Do not paint this antenna. Painting the RoadTrip® T4 antenna will void your warranty.

For best performance and to reduce signal acquisition time, make sure the vehicle is on a level surface that is free of obstructions such as trees or large buildings. Make sure you have a clear view of the southern sky.

Trademarks

Winegard is registered trademarks of Winegard Company. DISH is a registered trademark of DISH Network L.L.C. DIRECTV is a registered trademark of DIRECTV, Inc., a unit of Hughes Electronics Corp. Bell TV is a trademark of Bell Canada, Inc.

Reference made to products or services provided by companies, other than Winegard Company, does not represent any endorsement of those products or services.

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 market. Information provided in this manual was accurate at time of printing. If the RoadTrip®T4 antenna does not function as expected, please contact Winegard Company at 1-800-788-4417, or visit our website at www.winegard.com/mobile.

Unpacking the Unit



If using a knife to open carton, be careful. **Do not** cut the dome on the unit.



Use two people when removing the unit from the carton.

Open box, and remove packing material. Lift the unit out of the box vertically. Do not turn box and “roll” out the unit. Do not turn box upside-down to remove.

WINEGARD MOBILE PRODUCTS LIMITED WARRANTY (2 YEARS PARTS; 1 YEAR LABOR)

Winegard Company warrants this product against defects in materials or workmanship for a period of two (2) years from the date of original purchase. During year one (1) of such warranty, Winegard Company will also pay authorized labor costs to an authorized Winegard dealer to repair or replace defective products. No warranty claim will be honored unless at the time the claim is made, Customer presents proof of purchase to an authorized Winegard dealer (to locate the nearest authorized Winegard dealer, contact Winegard Company, 3000 Kirkwood Street, Burlington, Iowa 52601, Telephone 800-288-8094 or visit www.winegard.com). Customer must provide proof of purchase with a dated sales receipt for the Winegard product to verify the product is under warranty. If the date of purchase cannot be verified, the warranty period shall be considered to begin thirty (30) days after the date of manufacture.

If a defect in material or workmanship is discovered, Customer may take the product to an authorized Winegard dealer for service. Customer must provide proof of purchase to verify the product is under warranty. If the product is brought to an authorized Winegard dealer for service prior to expiration of year one (1) of the warranty period and a defect in material or workmanship is verified by Winegard Technical Services, Winegard Company will cover the Winegard dealer's labor charges for warranty service. The Winegard dealer must contact Winegard Technical Services in advance for pre-approval of the service. Approval of the service is at the sole discretion of Winegard Company.

Alternatively, Customer may ship the product prepaid to Winegard Technical Services (located at 2736 Mt.Pleasant Street, Burlington, Iowa 52601, Telephone 800-788-4417). Customer must return the product along with a brief description of the problem and provide Winegard Technical Services with Customer's name, address, and phone number. Customer must also provide proof of purchase to verify the product is under warranty. If the product is returned before the expiration of the warranty period, Winegard Company will (at its option) either repair or replace the product.

This Limited Warranty does not apply if the product has been damaged, deteriorates, malfunctions or fails from: improper installation, misuse, abuse, neglect, accident, tampering, modification of the product as originally manufactured by Winegard in any manner whatsoever, removing or defacing any serial number, usage not in accordance with product instructions or acts of nature such as damage caused by wind, lightning, ice or corrosive environments such as salt spray and acid rain. This Limited Warranty also does not apply if the product becomes unable to perform its' intended function in any way as a result of the television signal provider making any changes in technology or service.

RETURN AUTHORIZATION POLICY

A Return Material Authorization (RMA) is required prior to returning any product to Winegard Company or Winegard Warranty Services under this warranty policy. Please call our Technical Services Department at 800-788-4417 or send an e-mail to warranty@winegard.com to obtain the RMA number. Please furnish the date of purchase when requesting an RMA number. Enclose the product in a prepaid package and write the RMA number in large, clear letters on the outside of the package. To avoid confusion or misunderstanding, a shipment(s) without an RMA number(s) or an unauthorized return(s) will be refused and returned to Customer freight collect.

WINEGARD COMPANY DOES NOT ASSUME ANY LIABILITIES FOR ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, MADE BY ANY OTHER PERSON.

ALL OTHER WARRANTIES WHETHER EXPRESS, IMPLIED OR STATUTORY INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY ARE LIMITED TO THE TWO YEAR PERIOD OF THIS WARRANTY.

In states that do not allow limitations on implied warranties, or the exclusion of limitation of incidental or consequential damages, the above limitations or exclusions do not apply.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty gives Customer specific legal rights. Customer may also have other rights that may vary from state to state.

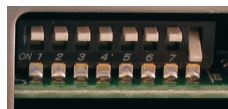
SATELLITE RECEIVER WARRANTY

See manufacturer's limited warranty policy.

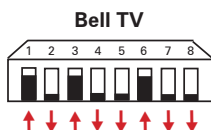
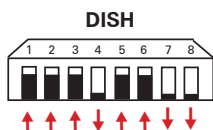
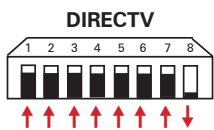
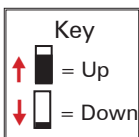
WS-MOBWARREV3

Quick Reference Guide

The RoadTrip® T4 antenna switch settings are preset for DIRECTV. If you have a DISH or Bell TV receiver, you *must* change the numbered switches found on the electronics box under the dome.



(factory preset
for DIRECTV)

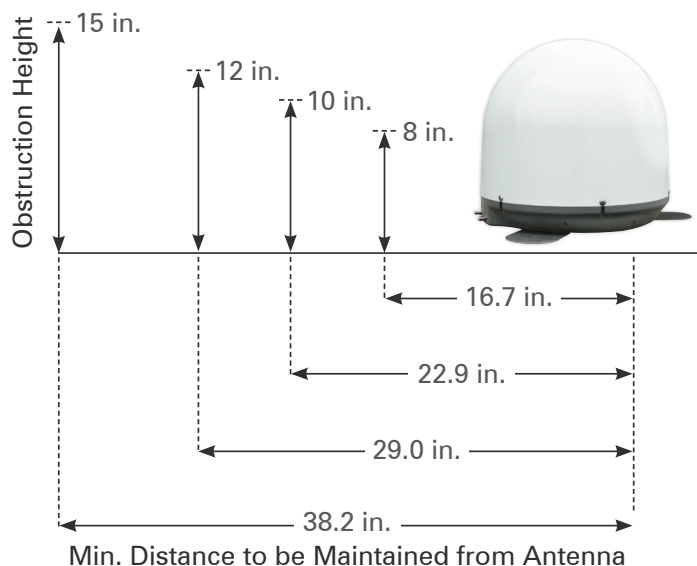


Installing Unit on Roof of Vehicle



Do not attempt to install the antenna in the rain or under any wet conditions. Install in dry conditions only.

- For best performance and to reduce signal acquisition time, park the vehicle on a level surface that is free of obstructions such as trees or large buildings. Make sure you have a clear view of the southern sky.
- Select a level spot on your roof for installation. Level the base front-to-back and side-to-side. If the base is not level, the antenna may require more time to locate the correct satellite or may not locate the correct satellite.
- Ensure proper distance to other rooftop equipment is maintained. Be sure no roof-mounted equipment is blocking the satellite "line of sight".

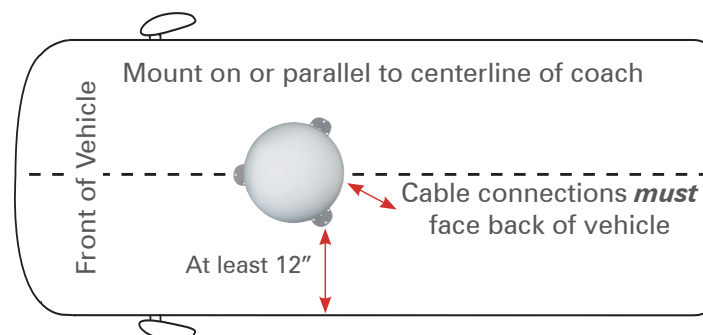


Installing the Mounting Feet

- Remove the RoadTrip® T4 dome screws with a Phillips screwdriver, and remove the dome.
- Locate **ports** on dome. Insert the two threaded posts on a mounting foot through the **two holes opposite the ports**, and thread a hex nut onto each post (see image).
- Locate the other **holes for the remaining two mounting feet**; once installed, the mounting feet should be equally spaced around the base (see image). Insert the two threaded posts on the other two mounting feet through the corresponding holes in the base, and thread a hex nut onto each post.
- Using a 3/8" socket wrench, tighten all hex nuts holding the mounting feet to the base.
- Place the dome back onto the base.
- Align the holes in the dome with the holes in the base. Insert a dome screw through each aligned hole. Tighten.



- After selecting a location for the antenna, make sure that the centerline of the antenna is on or parallel to the centerline of the vehicle; the centerline of the antenna runs through the point between the two feet where cable connections are located.

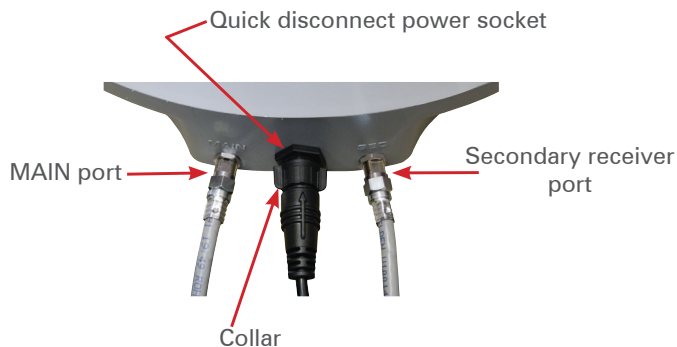


- Position the antenna with cables exiting toward the rear of the vehicle. To ensure proper installation, check that the distance from the edge of the roof to any foot is at least twelve inches.
- Place the unit on the roof in its permanent location, and mark around each base foot.
- Clean the roof area where the base feet will attach to the roof; do not erase your marks.
- Check with your vehicle manufacturer for approved sealant, and put approved sealant in the areas marked for the base feet. Place the base feet on top of the sealant.
- Before using the supplied mounting screws, check with your vehicle manufacturer for any special screw requirements. Screw down with four screws for each foot. After all base feet are secured to the roof, put sealant around the edge of feet and over screws.



Installing the Cables

- 1) Connect the quick disconnect power cable to the quick disconnect power socket on the back of the RoadTrip® T4 unit.



- 2) Decide the best location for the power and coax cables to enter the vehicle. Decide the location of the power switch and receiver. Drill a 3/4" hole in the roof, and push the wires inside, making sure the cables are accessible from the area where the power switch and receiver will be located.
- 3) Connect a coax cable from the "Satellite in" port of the primary receiver to the main port on the back of the T4 unit. For a two receiver or dual tuner (DVR) installation, connect a second coax cable (not provided) to the secondary port on the back of the T4 unit.

NOTE The secondary receiver will not toggle.

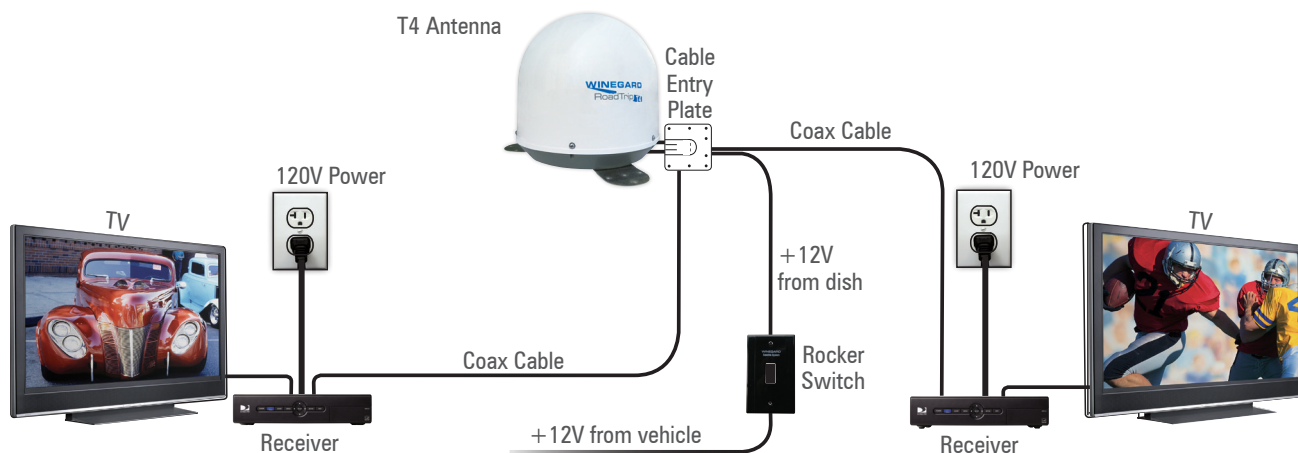
- 4) Place the provided cable entry plate over the hole and cables. Screw the plate in place. Seal the plate and screw holes with approved sealant (not included).

Depending on the length of the cable, you may need to use cable clamps or wire ties (not provided) between the unit and the cable entry plate. Clamping every 12"-16" should eliminate any unnecessary cable movement.



Nicks or cuts in wiring jacket may cause water to leak into vehicle.

Overall Installation



Placing the Dome on the Unit



TIP This is not required for DIRECTV® Installation. This is only required if the dome has been removed to change the switch settings for a different satellite provider (see page 4).

- 1) Place the T4 dome over the unit so that the decals on the dome face away from the centerline of the vehicle.
- 2) Line up the holes in the dome with the holes in the T4 base.
- 3) Insert all of the dome screws, and tighten.

Installing the Power Switch

- 1) Choose a location to install the T4 power On/Off switch. When selecting a location, remember that you will need to run the +12VDC power cable from the T4 antenna to the switch.
- 2) For a wall or panel mount, drill 1 1/4" hole, and pull wires through wall or panel.

Step 3

On/Off Rocker Switch (shown in OFF Position)



Steps 4 and 5

+12 V from vehicle

Steps 6 and 7

+12 V from dish

Step 8

Barrel crimp splice

- 3) Be sure the switch is in the **OFF** position before continuing.
- 4) Connect the +12V power wire from the vehicle to a small red flag connector.
- 5) Connect a small red flag connector to isolated spade on switch.
- 6) Connect the red wire from the antenna to the small red flag connector.
- 7) Connect the small red flag connector to the center spade on switch.
- 8) Slide the ground wire from the vehicle into one end of the barrel crimp splice, and slide the black ground wire from the antenna into the opposite end of the splice. Crimp the splice.

Continue to page 4 for DISH receiver setup or page 5 for DIRECTV receiver setup.



If using two DISH® receivers with the RoadTrip® T4 antenna, both receivers must be configured off of the primary port by following the steps below.

If using a receiver that is currently active or has been used previously, you will need to complete the setup by doing a Check Switch test. To access the receiver menu for running a Check Switch test, follow the steps below.

If you need to access the receiver menu after initial setup, follow the steps below to reach the receiver menu.

Receiver setup instructions are accurate at time of printing and may change without notice. Call Winegard tech line for assistance: 1-800-788-4417.



TIP Check out online receiver setup guides for your antenna at www.winegard.com/support. For more information on receiver compatibility and programming, visit www.winegard.com/receivers.

- 1) Press Home button twice on your remote. On the “Home” tab, select “Settings”. Figure 1.
- 2) Within the “Settings” menu, select “Diagnostics”. Figure 2.
- 3) Within the “Diagnostics” menu, select “DISH” on the left side. Figure 3.
- 4) Press “Test Installation 5” to start the Check Switch test. Figure 4.
- 5) The “Check Switch Status” screen will show the progress. Figure 5.
- 6) The receiver will acquire the signal. Figure 6.
- 7) Lastly, the receiver will download the Program Guide. Figure 7.



NOTE The instructions shown are for the DISH Wally®. If using any other DISH receiver, instructions are available online at www.winegard.com/receivers/setupguide.php.

Figure 1

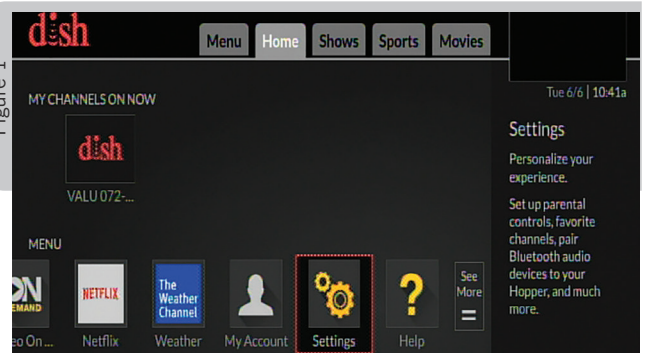


Figure 2

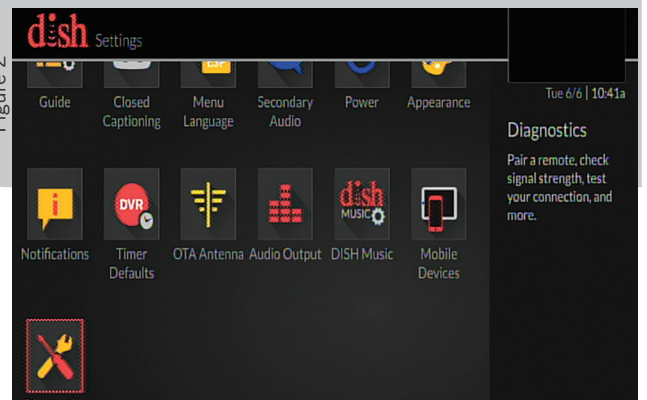


Figure 3

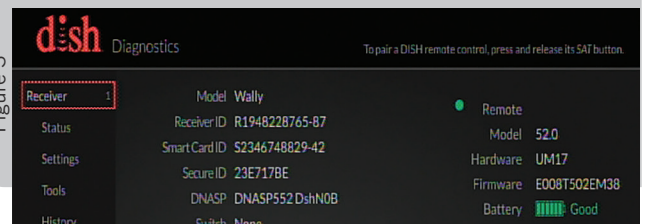


Figure 4

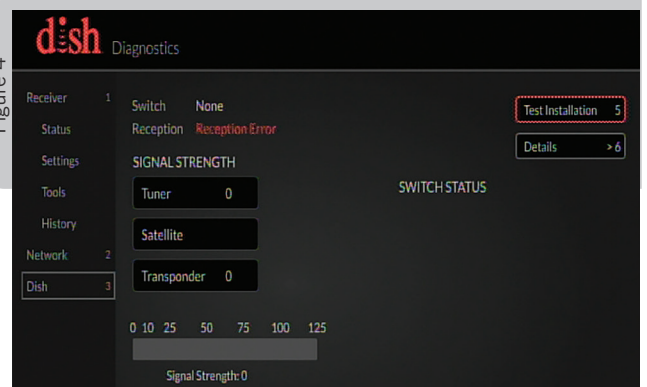


Figure 5

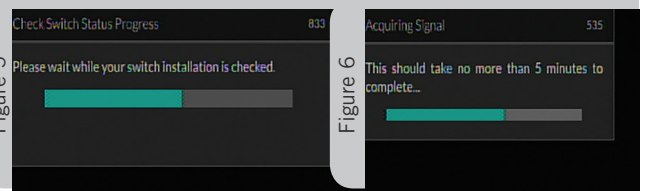


Figure 6

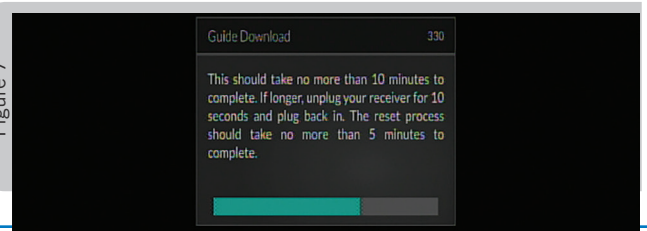


Figure 7

DISH® Receiver Recommendations

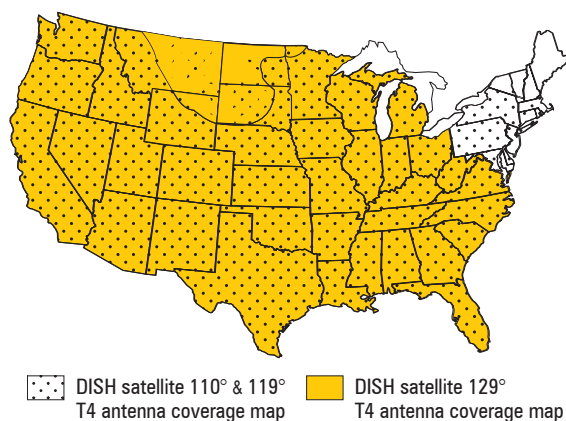
The RoadTrip® T4 antenna will operate with most DISH receivers. **Winegard does not recommend using receivers with hard drives not recommended by the manufacturer for mobile applications. Winegard recommends using a single tuner DISH receiver.**

DISH® Satellite Coverage

The antenna will locate and toggle between satellites 110°, 119° and 129° in Western Arc Mode. The T4 antenna will not operate in all areas where satellites 110°, 119° and 129° are available.

Satellite coverage maps are based on level, stationary operation. **Reception interruption may also occur during adverse weather conditions.**

DISH satellites 110°, 119° & 129° coverage map



Coverage maps are for reference only and do not guarantee coverage.

Receiver Recommendations

The RoadTrip® T4 antenna will operate with most DIRECTV receivers. **Winegard does not recommend using receivers with hard drives not recommended by the manufacturer for mobile applications.** Winegard does not recommend using an HD receiver since HD programming will not be available.

SWM only receivers require a SWM-D30 kit. For more information contact Technical Services at 1-800-788-4417.

DIRECTV® Satellite Coverage

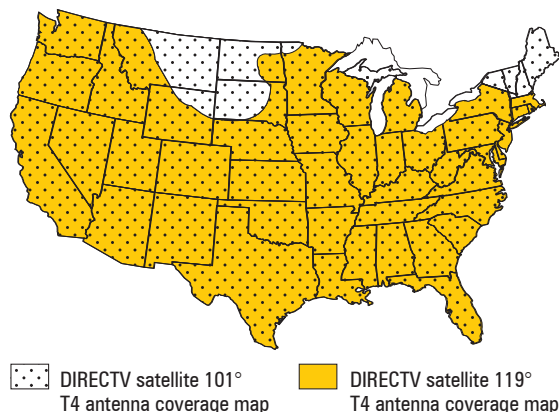
The antenna will locate and toggle between satellites 101° and 119°. The RoadTrip® T4 antenna will not operate in all areas where satellites 101° and 119° are available.

The T4 antenna is not compatible with 110° or KA-band satellites 99° and 103°.

Refer to the figure below for an operational coverage map of satellite 101° and 119°.

Satellite coverage maps are based on level, stationary operation. **Reception interruption may also occur during adverse weather conditions.**

DIRECTV satellite 101° & 119° coverage map



Coverage maps are for reference only and do not guarantee coverage.

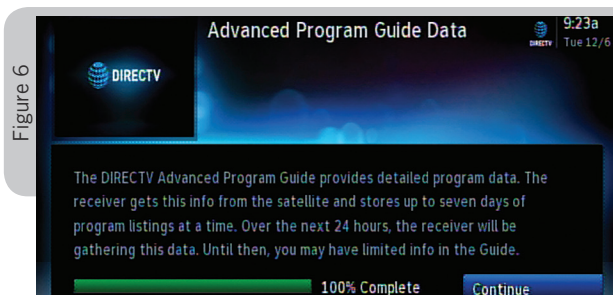
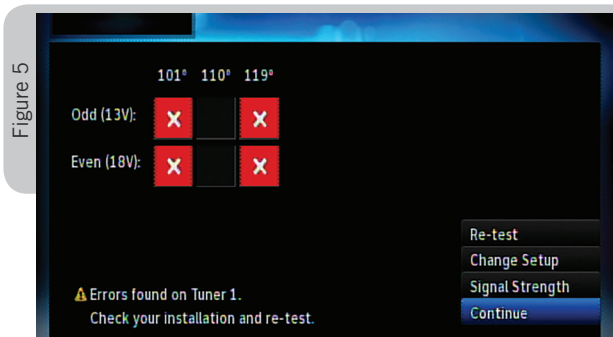
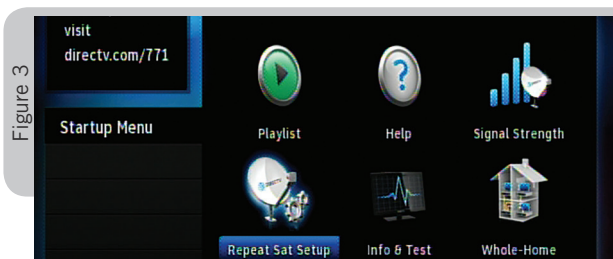
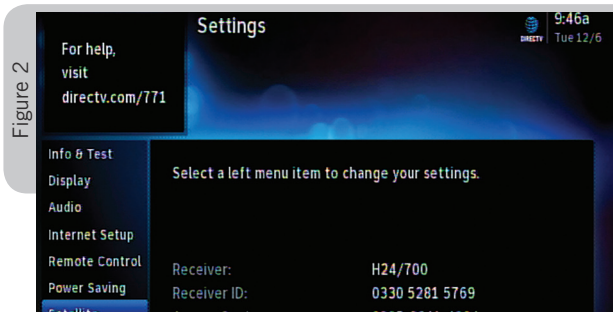
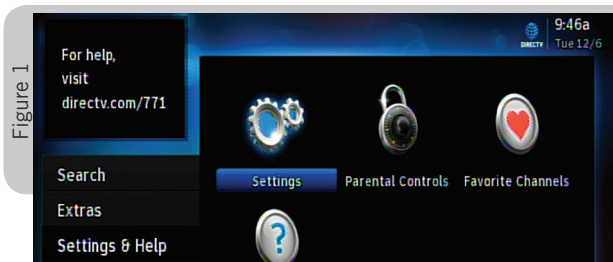


Connect the receiver to a power source, and complete receiver setup. Receiver setup for the primary receiver follows; if your receiver differs from the options shown, you may need to consult your receiver manual.

Receiver setup instructions are accurate at time of printing and may change without notice. Call Winegard tech line for assistance: 1-800-788-4417.

TIP Check out online receiver setup guides for your antenna at www.winegard.com/support. For more information on receiver compatibility and programming, visit www.winegard.com/receivers.

- 1) With power to the RoadTrip T4 off, press the Menu button on your remote. Select "Settings". Figure 1.
- 2) Select "Satellite". Figure 2.
- 3) In your receiver menu, you will need to identify the Satellite menu. Once there, find the option for Satellite Setup. Figure 3.
- 4) Select "3-LNB" (18"x 20") or "3 Satellites". If given the option of SWM or Multi-switch, select "Multi-switch". Figure 4.
- 5) Power on the antenna, and allow the antenna 3–4 minutes to acquire satellites. Once the antenna has finished acquiring a signal, the antenna will be silent. Do not proceed to the next step until this has happened.
- 6) After the antenna has acquired signal, press "Continue"; the receiver will automatically verify the setup.
- 7) Errors may be displayed on the screen. It is normal to see one or two boxes with an X instead of a √. Select "Continue". Figure 5.
- 8) Select "Continue" again. The program guide will download.
- 9) When the status bar reaches 100%, press "Continue". Figure 6.
- 10) The receiver will run Data Feed and Guide Feed Tests for a few moments.
- 11) When prompted to set up the remote, select "Setup Remote Later" to do this at a later time.
- 12) Select "Watch DIRECTV". Receiver setup is now complete.



- 1) Turn on receiver and television set. The RoadTrip® T4 antenna must be connected to a receiver plugged into 120VAC.
- 2) Verify that you are getting the receiver's menu screens on the television. These screens are available with or without the dish finding the signal.
- 3) Ensure receiver is properly configured for your provider; for DISH see page 4, for DIRECTV see page 6.
- 4) Turn the power switch on for the antenna. Within 10–15 seconds the dish will begin moving and should make one or two revolutions during startup. During this process it is normal to hear a slight grinding sound as the unit checks its rotational limits. This does not harm the unit. The system will pause to acquire GPS.
- 5) Once the dish begins its search, it pauses on signals long enough to determine which satellite it has found. The antenna may move off the signal in an effort to verify the signal and should return shortly.

If you do not have signal, see "Troubleshooting" .



TIP Because the T4 antenna uses information from the last location where it was on signal, satellite acquisition may take longer if the dish is inactive over long distance traveling.

- 6) After the T4 has verified the correct satellite, it will continue to track the signal. The unit will go into "Sleep Mode" if the vehicle is stationary for 6 minutes. This involves a quick verification process where signal may be lost, then return to the signal and be silent. If the vehicle begins moving greater than 10 MPH, the in-motion T4 will resume tracking mode.

For smoother operation, use your on-screen guide to locate your channel rather than "channel surfing."



NOTE There are certain areas within the U.S. where the T4 antenna may experience limited or no coverage of the 129° satellite for HD programming. DISH home coverage has the same limitations. Problem areas include Washington, Oregon and California, but limited coverage may extend past these areas. Contact DISH for additional coverage questions (1-888-825-2557).



ALSO when the T4 dome is blocked (example: while going through a tunnel, under a bridge, by a building, etc.) programming will not be available. Once the block is removed, the programming will return.

Maintenance

The RoadTrip®T4 antenna is designed to be maintenance free. However, it is a good idea to clean the dome from time to time with a soft cloth, water and dish soap.



WINEGARD®

Issue	Possible Cause
The antenna does not attempt to find a satellite, or it never moves.	Verify power source is providing +12VDC to the antenna. Ensure that the quick disconnect power connector is fully seated and locked into the quick disconnect socket.
The antenna continuously searches and eventually stops without ever acquiring any satellites.	Verify the main coax cable from the antenna is connected to the "Satellite In" port on the back of the receiver. Verify all coax cables are properly terminated and that there are no loose connections. Check to see if the southern sky is clear. Trees, buildings, large signs or an overpass can block the signal. Rain, snow, or excessive dew on the dome can interrupt the signal. Brush any snow or dew off of the dome. If heavy rain or snowfall is blocking the signal, it may be necessary to wait until the weather clears.
With DIRECTV, the dish will find the alternate satellite but not the primary satellite.	Make sure that the switches on the electronics control box are set for DIRECTV. See page 2. These switches are found on the electronics box under the dome.
I am not getting all of the DISH channels that I subscribed to.	Go to the Check Switch Menu on the receiver. Make sure it is set for SW64. Both even and odd transponders on satellite 110°, 119°, and 129° should be listed. Local programming may not be available outside of your local coverage area.
I have switched satellite service providers. How do I set my dish for my new provider?	Remove the dome, and set switches to correct provider. See switch settings on page 2.
My receiver appears to be locked up and is not responding.	DIRECTV users should reboot by <i>one</i> of the following methods: Press the red reset button on the inside of the small door on the receiver, OR unplug the receiver from AC outlet for 20 seconds, and plug back in. DISH users should reboot by <i>one</i> of the following methods: Press and hold the power button on the receiver for 15 seconds, and then release, OR unplug the receiver from AC outlet for 20 seconds, and plug back in.
The antenna appears to lock onto signal, but my receiver does not show a picture or signal reading.	Verify the switch settings are set correctly for the desired provider. See switch settings on page 2. DIRECTV users should verify the antenna type is set to either 3 LNB "18 X 20" or 2 LNB oval. DISH/Bell users should verify the "Check Switch" installed in the receiver; DISH users should verify this to be SW64, and Bell users should verify this to be SW42. Note: a new receiver will initially have an "Unknown Check Switch", but the antenna will still perform a search; however, it will not toggle to alternate satellites.



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Follow proper safety practices. If in doubt, consult a professional RV technician.