

WINEGARD[®] **RAYZAR[®] AIR**

User Guide

for Model RVRZ39W White Rayzar Air Antenna
and Model RVRZ39B Black Rayzar Air Antenna



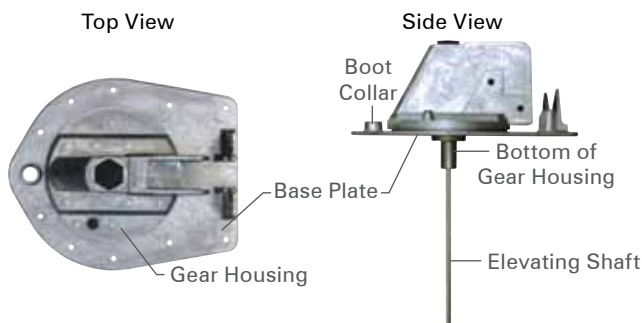
For help, email help@winegard.com or call 1-800-788-4417

Parts

Antenna



Mounting Bracket



Other Hardware

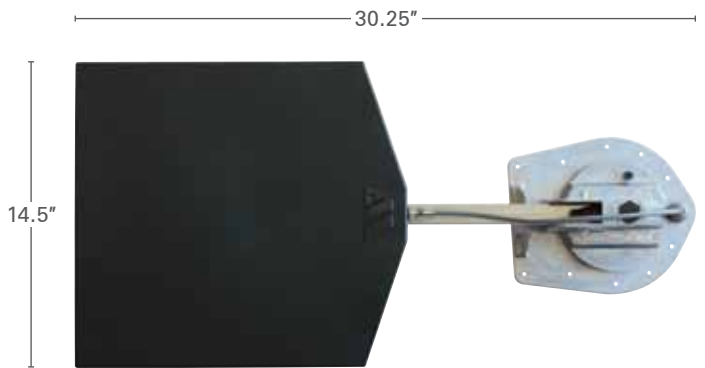


Specifications

For H-VHF & UHF digital and HD TV channels
 Bidirectional, amplified antenna
 Dimensions (stowed): 30.25" x 14.5" x 4.4"
 Weight: 5 lbs; Height when raised: 26.4"
 For outdoor use only

Clearance Requirements

The Rayzar Air antenna requires a minimum roof space of 30.25" x 14.5" for the stowed antenna. When stowed, the antenna rests 4.4" above the roof.



The antenna requires a clearance radius of 26.4" for the antenna to raise to the vertical position.



The Rayzar Air antenna should be installed a minimum of 12" from the nearest obstruction and 16" from the edge of the roof.

Installation

Choosing a Location for the Antenna

! Install in dry conditions only!

1. Before choosing a location for the antenna, contact your RV dealer or manufacturer. Your RV may be pre-wired or have a reinforced area for this system.
2. Keep in mind that the antenna must be mounted on or parallel to the centerline of the RV with the front of the antenna (the mounting bracket) facing the front of the RV.
3. Choose a location on the roof of the RV that meets the following requirements:

a) Offers enough support for a secure installation

b) Has a minimum roof space (clearance) of 30.25" x 14.5" for the stowed antenna

c) Enables the antenna to raise and rotate without interference from other roof-mounted equipment

- clearance distance of 24" from antenna to the front of the vehicle
- clearance radius of 26.4" for antenna to raise to the vertical position

- clearance distance of 16" from antenna to the edge of the roof
- clearance distance of 12" from all sides of the antenna to the nearest obstruction

d) Is within five degrees of level (or for best operation, must be within three degrees of level)

- For sloped/rounded roofs, Winegard recommends model RW-2000 exterior roof wedge (sold separately) to level installation.

RW-2000



Sold Separately

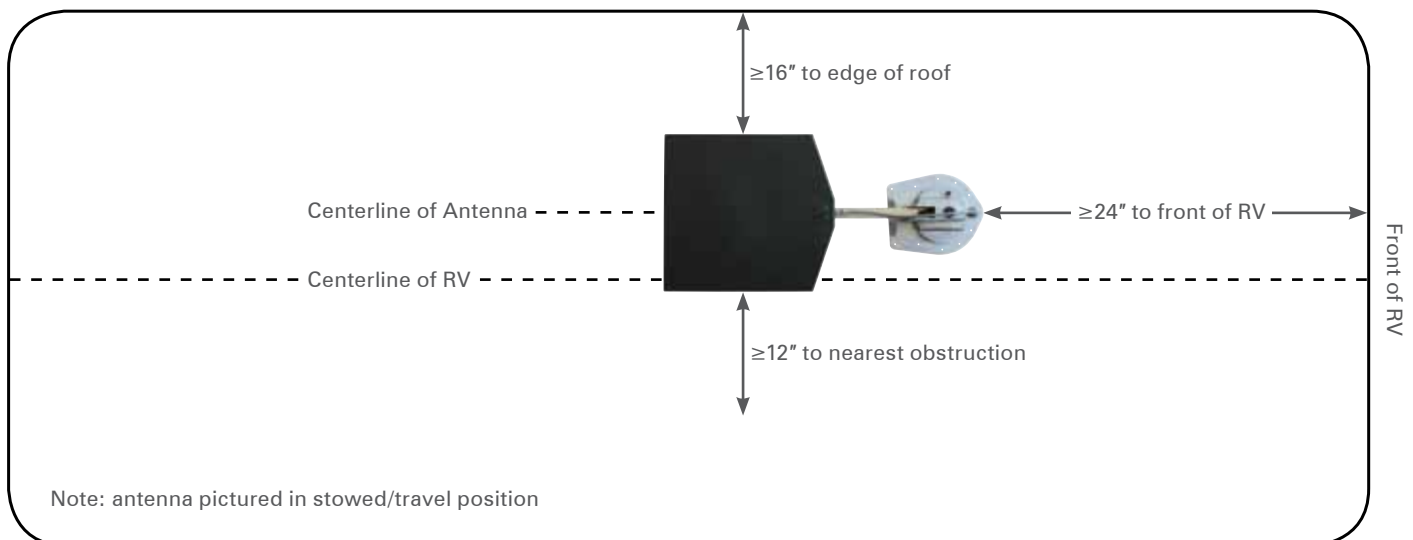
- Model IW-5000 interior wedge (sold separately) is also available to level installation.

IW-5000



Sold Separately

4. Make sure the chosen location meets all of these requirements before installing the antenna. Refer to the diagram below.



Making Cable Entry Holes

1. After choosing a location for the antenna, make sure the ceiling area is clear underneath the chosen location for the mounting bracket. The ceiling plate will be mounted inside the vehicle directly underneath the mounting bracket.
2. Using the template on the last page of this manual, drill a 1- $\frac{3}{4}$ " hole through the roof and ceiling of the vehicle. Be careful not to damage any wiring between the roof and ceiling when drilling.
3. Using the template on the back page, drill a $\frac{1}{2}$ " hole for cable entry through the roof only. Do not drill through the ceiling.
4. Connect the provided 20' coax cable to the coax cable running from the antenna head, and route the coax cable through the ceiling and wall to the chosen location for the power supply.

Assembling the Antenna

1. Insert the elevation gear into the end of the boom. The raised side of the elevation gear should slide into the slot in the end of the boom.
2. With the "W" logo on the antenna head facing upwards, insert the elevation gear in the opening of the gear housing. The holes in the boom and elevation gear should align with the top set of holes in the gear housing.
3. Insert a pin through the aligned holes in the gear housing, boom, and elevation gear.
4. Push the e-clip over the grooved segment of the pin.
5. Make sure the weather boot is in place over the boot collar of the mounting bracket.

Installing the Mounting Bracket

1. If using a roof wedge or interior wedge, put the wedge in place before proceeding to install the mounting bracket or interior hardware.
2. Center the elevating shaft in the 1- $\frac{3}{4}$ " diameter hole.
3. Check with your vehicle manufacturer to determine if the provided mounting screws are suitable for mounting the mounting bracket to your roof. Then, temporarily secure the base plate of the mounting bracket to the roof with two mounting screws.
4. Make sure the antenna is in the stowed/travel position in the chosen location. The coax cable should be routed to the chosen location for the power supply.
5. To prevent leaks, apply a liberal amount of approved nonhardening sealing compound to the bottom of the base plate.

TIP: Run sealant around the holes for the mounting screws, around the hole for cable entry, and around the bottom gear housing.

! Do not get sealing compound on the bearing surface between the base plate and rotating gear housing.

! Do not paint the top of the base plate or around the rotating gear housing.

6. Place the mounting bracket in the chosen location, and secure the base plate to the roof with ten mounting screws. Once secured, run a solid bead of sealant over the mounting screws to help prevent leaks.

Cutting the Directional Handle to fit the Roof Thickness

1. Determine the roof thickness. The mount is designed to fit roofs from 1" to 4-³/₄" thick.

If the roof is less than or equal to 4-³/₄" thick, continue to the next step.

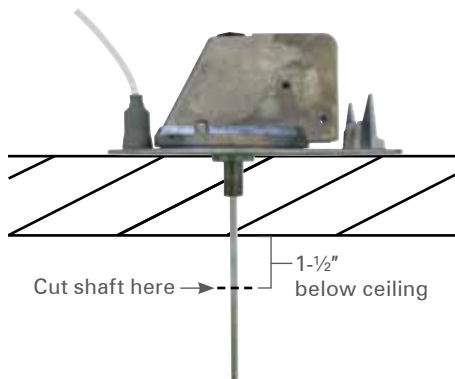
If the roof is more than 4-³/₄" thick (max. 7" thick), a directional handle extension is needed. Winegard recommends model EK-1036 directional handle extension (sold separately).

EK-1036

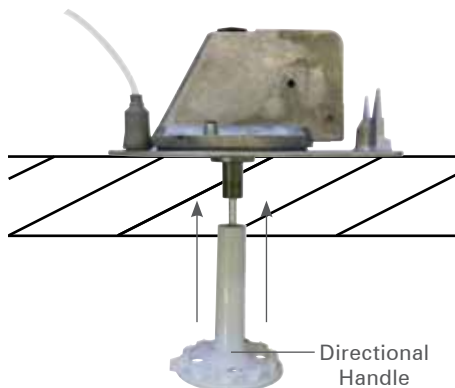


Sold Separately

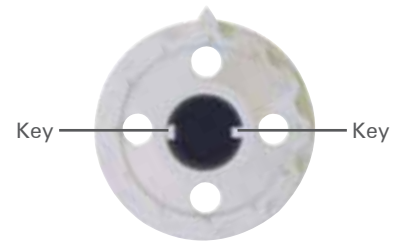
2. Inside the vehicle, mark the elevating shaft 1-¹/₂" below the ceiling. Cut the shaft on this mark.



3. Push the directional handle up into the ceiling and over the shaft.



4. Carefully align the keys inside the directional handle with the keyways on the bottom of the gear housing. (The keys only line up one way—do not force.)

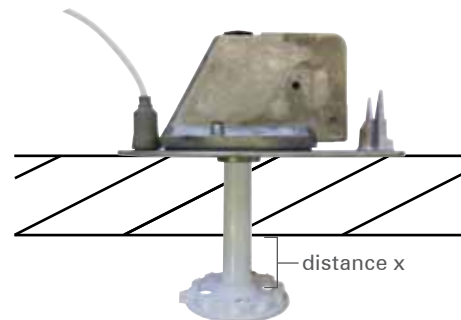


5. Make sure the top of the directional handle is snug against the bottom of the base plate.

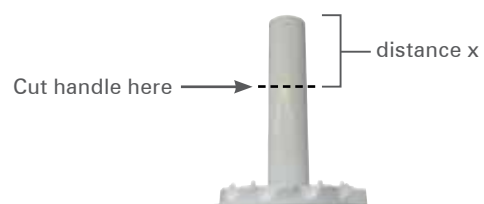


TIP: The pointer on the handle should point toward the back of the coach.

6. Measure the distance between the bottom of the handle to the ceiling.



7. Pull the handle down, and transfer this dimension to the shaft end of the directional handle. Mark this, and cut the handle at the mark. The handle cut must be flat.

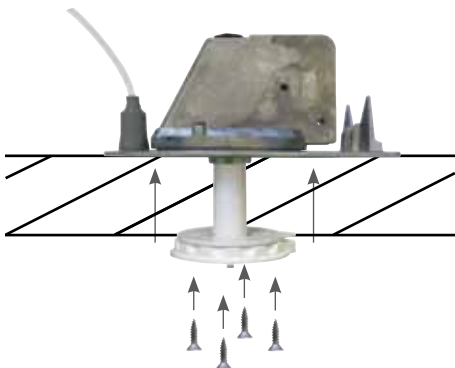


Installing the Crank Assembly

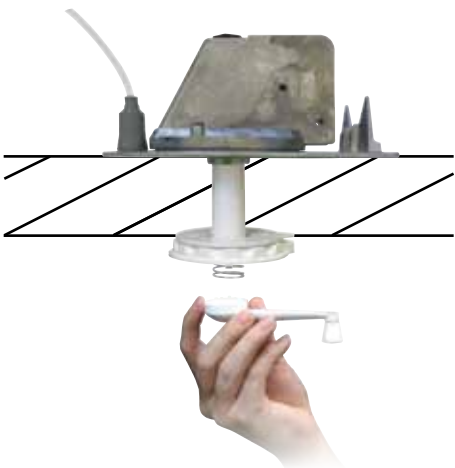
1. Slide the ceiling plate over the top of the directional handle with the pointers aligned.

TIP: The knobs on the directional handle should fit into the grooves on the ceiling plate.

2. Slide the ceiling plate and directional handle assembly over the elevating shaft.
3. Drill pilot holes in the ceiling. Then, mount the ceiling plate with the four provided ceiling plate screws.

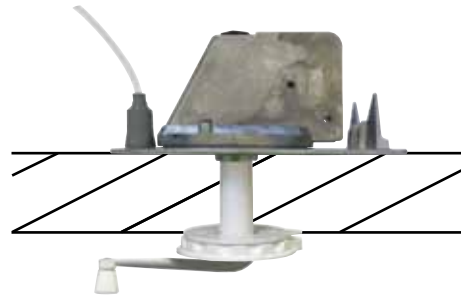


4. Remove the backing from the decal, and place the decal on the bottom of the directional handle.
5. Slide the spring over the elevating shaft.
6. Set the nylon bearing over the top of the crank handle.
7. Slide the crank handle onto the elevating shaft.



8. Check that the set screw aligns with one of the flat sides of the elevating shaft.

9. Tighten the set screw until it touches the elevating shaft, and then tighten only ¼ turn more. Note that the set screw simply holds the crank handle to the elevating shaft.



Installing the Power Supply

1. The power supply may be flush mounted in most standard electrical boxes. To flush mount, cut a hole in the wall to fit the box. Run two #12 wires between the wall plate and +12 VDC source, and route download cable to this location.
2. Before connecting any cables or wires, make sure the power supply is turned off. Then, select a location for the power supply.
3. Make 12 volt connection to the power supply. Install terminals on wires from +12 VDC source, and crimp the terminals with an appropriate crimping tool. If in doubt as to the polarity of the wires, connect them temporarily to the tabs, and press the power button on the front of the wall plate; if the light comes on, the polarity is correct. Turn the power off.
4. Connect the coax cable from the antenna to the "ANTENNA" port on the power supply, and tighten until fingertight. (The coax cable should have been routed through the ceiling and wall to the chosen wall plate location.)
5. If connecting the antenna to a second television, connect a coax cable from the "SET 2" port on the back of the power supply to the "Antenna In" port on the television.

6. If hooking up a cable input, connect the cable from the cable input to the "CABLE" port on the back of the power supply.
7. Mount the power supply in the wall with the provided white screws.
8. Connect the 72" coax cable from the F-jack on the front of the power supply to the "Antenna In" F-jack on the TV.
9. Press the "ON" switch on the front of the power supply, and check that the light is on.

! WARNING: Do not connect high current devices such as hair dryers to this receptacle. Maximum current rating of receptacle is 8 amps at +12 VDC.

Operation

! WARNING: Check parking location for obstructions before raising the antenna.

1. Turn the crank handle clockwise in the "UP" direction until some resistance is noted.
2. Ensure the antenna power supply is in the "ON" position and the green indicator light is illuminated.
3. While the antenna is in the initial raised/deployed position, follow the instructions from the TV manufacturer to perform a channel scan on the TV. Make certain to scan in AIR or ANTENNA mode.
4. If few or no channels are found, pull down on the directional handle to disengage from the ceiling plate, and rotate the directional handle 90 degrees clockwise. Perform a second channel scan according to instructions in step 3.

TIP: Check out antennaweb.org to help locate or fine-tune specific channels in your area by inputting the zip code of your current location.

5. To improve the number of received channels and/or picture quality, fine-tune between and around the two scan points by slowly rotating the directional handle.
6. When finished using the antenna, make sure the directional handle is engaged with the ceiling plate by pushing upwards, and rotate the crank counter-clockwise in the "DOWN" direction until some resistance is noted. Turn off antenna power supply.

! WARNING: Don't travel with the antenna in the deployed position. Stow the antenna before traveling or when wind speeds reach 70 mph.

How to Enhance your Rayzar Air Antenna Experience

Enhance your Rayzar Air Antenna experience with the addition of the Winegard SensorPro® TV signal strength meter.

The SensorPro signal meter provides more detailed feedback on the signals that the antenna is receiving and allows for signals to be amplified or attenuated to best suit a variety of locations.



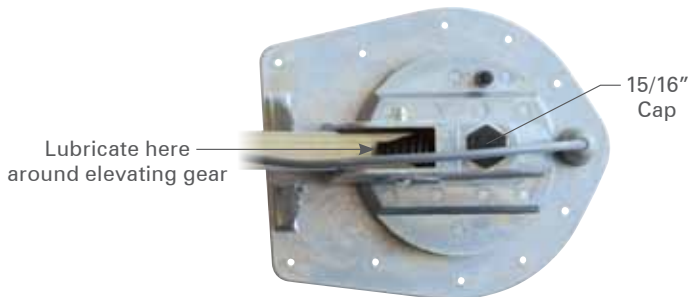
Checking the Power Supply Operation

Tune the television receiver to the nearest station, and rotate the antenna for the best picture and sound.

This unit is equipped with a polyswitch, a current limiting device, which will shut down +12 VDC if there is a direct short between the antenna and power supply. The green indicator light will not light. Once the short is eliminated, the device will reset itself.

Maintenance

Lubricate gears 3–4 times a year for optimal performance. Use silicone spray to lubricate gears; never use WD-40 oil as it will damage the gears!

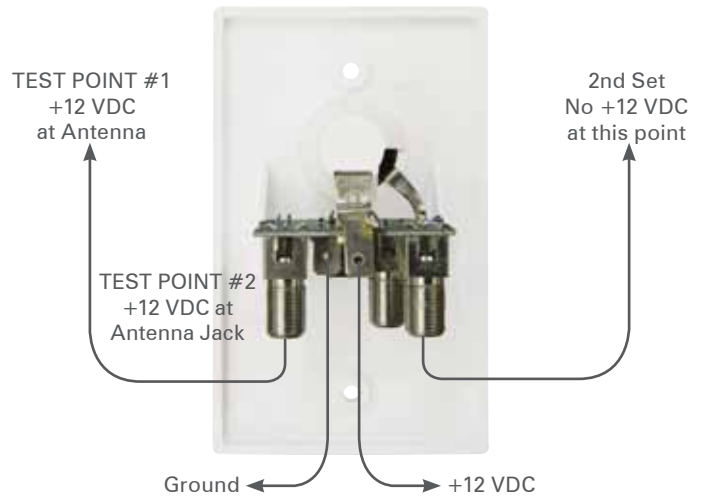


3–4 times a year or in the event that rotating the antenna becomes difficult, use silicone spray to lubricate the elevating gear. Apply a liberal amount of silicone spray lubricant to the elevating gear. The lift should be in the down position. Then, run the lift up and down to distribute the lubricant over gears. (This is easiest if one person cranks up and down from inside the vehicle while another person sprays the gears.)

Troubleshooting










Do not install digital converter boxes, couplers, splitters, etc. between the power supply and the antenna. Installation of any item on the downlead may cause a short in the system. The downlead supplies +12 VDC to the preamp in the antenna.

The power supply should be turned off when connecting or disconnecting cables to the power supply and antenna but should be turned on when testing for voltage.



1. To test the system, complete the following steps:
2. Make sure the TV set is working properly.
3. Switch the power supply on and off while checking for a difference in picture quality. If there is no difference, continue with the next step.
4. Disconnect the cable from the antenna, and check for +12 VDC at test point #1. If there is +12 VDC at test point #1, there may be a problem with the antenna.
5. If there is not +12 VDC at test point #1, reconnect the cable to the antenna. Remove the power supply from the wall, and visually inspect for burned/broken parts. If there are any burned/broken parts, replace the power supply.
6. Disconnect the cable from the antenna jack on the power supply. Check for +12 VDC at test point #2. If +12 VDC is present, there is a problem with the cable connecting the power supply to the antenna. Repair/replace cable.
7. If +12 VDC is not present at test point #2, be sure the green indicator light is on. If not, check the polarity of the ground and +12 VDC source wires to make sure there are +12 VDC present. If there is still not +12 VDC, replace the power supply.

Replacement Kits & Parts

RVRZ25W Rayzar Air Replacement Head (White)			RVRZ25B Rayzar Air Replacement Head (Black)			
	Part Description	Quantity		Part Description	Quantity	
	Antenna Head (White) with Boom Adapter	1		Antenna Head (Black) with Boom Adapter	1	
	Boom (16")	1		Boom (16")	1	
	1/4" x 20 Bolt	2		1/4" x 20 Bolt	2	
	Washer	4		Washer	4	
Nut	2	Nut	2			
RP-0154 Boot			RP-2658 Nylon Bearing (for Crank)			
	Part Description	Quantity		Part Description	Quantity	
	Boot (gray)	1		Nylon Bearing	1	
RP-2049 Gear Housing Assembly			RP-3000 Elevation Gear			
	Part Description	Quantity		Part Description	Quantity	
	Gear Housing	1		Elevation Gear	1	
	Pin	2	RP-3528 Base Plate			
	Nylon Nut	1		Part Description	Quantity	
	Nylon Bearing (for gear housing)	1		Base Plate	1	
	E-Clip	2		Mounting Screw	10	
Q-Ring	1	Boot (gray)	1	RP-6822 Spring		
Nylon Bearing (for base plate)	1		Part Description	Quantity		
RP-5895 Crank (Ivory)			RP-6795 Crank (White)			
	Part Description	Quantity		Part Description	Quantity	
	Crank (ivory)	1		Crank (white)	1	
RP-6200 Directional Handle & Ceiling Plate (Ivory)			RP-6300 Directional Handle & Ceiling Plate (White)			
	Part Description	Quantity		Part Description	Quantity	
	Spring	1		Spring	1	
	Decal	1		Decal	1	
	Ceiling Plate (ivory)	1		Ceiling Plate (white)	1	
	Directional Handle (ivory)	1		Directional Handle (white)	1	
	Screw	4		Screw	4	
RP-4000 Worm Gear Assembly			Repair parts are available at many RV dealers and/or service centers throughout the country. If you don't have a dealer/service center near you, call Winegard Company at 1-800-288-8094. All major credit cards accepted. Parts are available only in the packages shown. Order by the model number of the package needed (ex. RP-3000). Tax, shipping and handling additional.			
	Part Description	Quantity				
	Worm Gear	1				
Plug	1					

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 3111 Kirkwood 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 email 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.

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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.

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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.

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