

TRAV'LER® Multi-Satellite HDTV Antennas

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TRAV'LER® Multi-Satellite HDTV Antennas

Pre installation

Introduction

Congratulations!

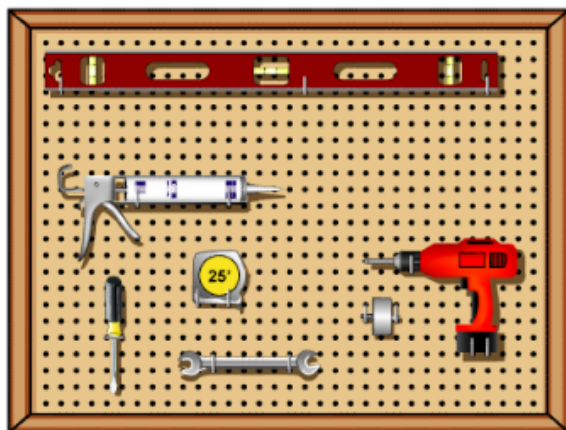
You have selected the Winegard TRAV'LER Automatic Multi-Satellite TV Antenna. The TRAV'LER will deliver the ability to view up to five satellites at the same time with unmatched signal strength, the lowest travel height on the market, maximum HD capabilities and easy to use functionality— just like you get at home.

This course provides important information on the installation and operation of your Satellite Interface Box. After completing this course, you will be able to understand the steps involved in installing and operating TRAV'LER antennas.



Tools Required

The tools required for Winegard TRAV'LER satellite mobile antenna installation are:



- Level
- Tape measure
- Drill with 5/16" bit
- 1/2" and 1-1/4" hole saw
- 7/16" open end wrench
- #2 Phillips screwdriver
- Caulk gun
- Sealant (consult RV manufacturer for proper sealant)

Safety

Before beginning the installation of the satellite dish system, note these important recommendations.

Install only in dry conditions. **DO NOT** attempt to install this system in the rain or under any wet conditions. Moisture may affect electronics and void your warranty!

For best performance and to reduce signal acquisition time, park the vehicle on a level surface, free of obstructions such as trees or large buildings.



Unpacking Unit

Let's get started with the installation.

Using a knife or sharp object, cut open the cardboard box. Use caution when opening the box, taking care not to cut the unit.

Remove the unit and all packing material from the cardboard box. Use two people when removing the unit.

Do not attempt to paint the TRAV'LER. Painting the TRAV'LER may result in your warranty being voided.



Parts list

Included with your Winegard TRAV'LER Automatic Multi-Satellite TV Antenna:

- Installation/Operation Manual
- Mount Base
- TRAV'LER Interface Box
- Reflector
- 24" AC Power Cord
- 48V 2.5 A 120 W Power Supply
- Gray Coaxial Cable 30'
- Black Coaxial Cable 30'
- Mounting Hardware Bag
- Cable Entry Hardware Bag
- 30' Cable – Power/Control Cable

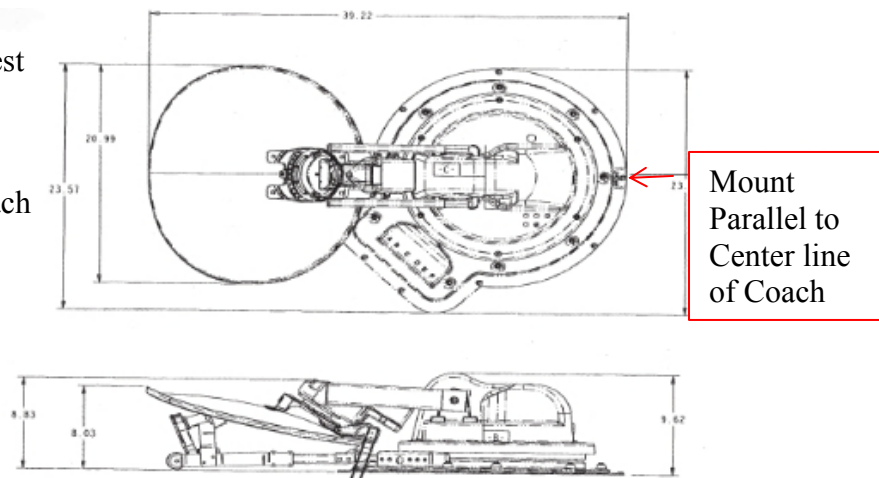
Installation

Roof Location Requirements

The minimum roof space required for the TRAV'LER is 43" L x 24" W. **The operational space requires that no obstructions taller than 8 inches be mounted within 3 feet of the base.**

The unit must be level for best operation.

Make sure that the location offers enough support to attach the TRAV'LER securely.



Using the level, locate a level spot on the RV roof for installation.

Check with your RV dealer or manufacturer, your RV may be pre-wired or have a reinforced area for this system, **DO NOT install this unit on an arch that will create a gap larger than 3/16" between the RV roof and the base (as shown in the graphic.)**

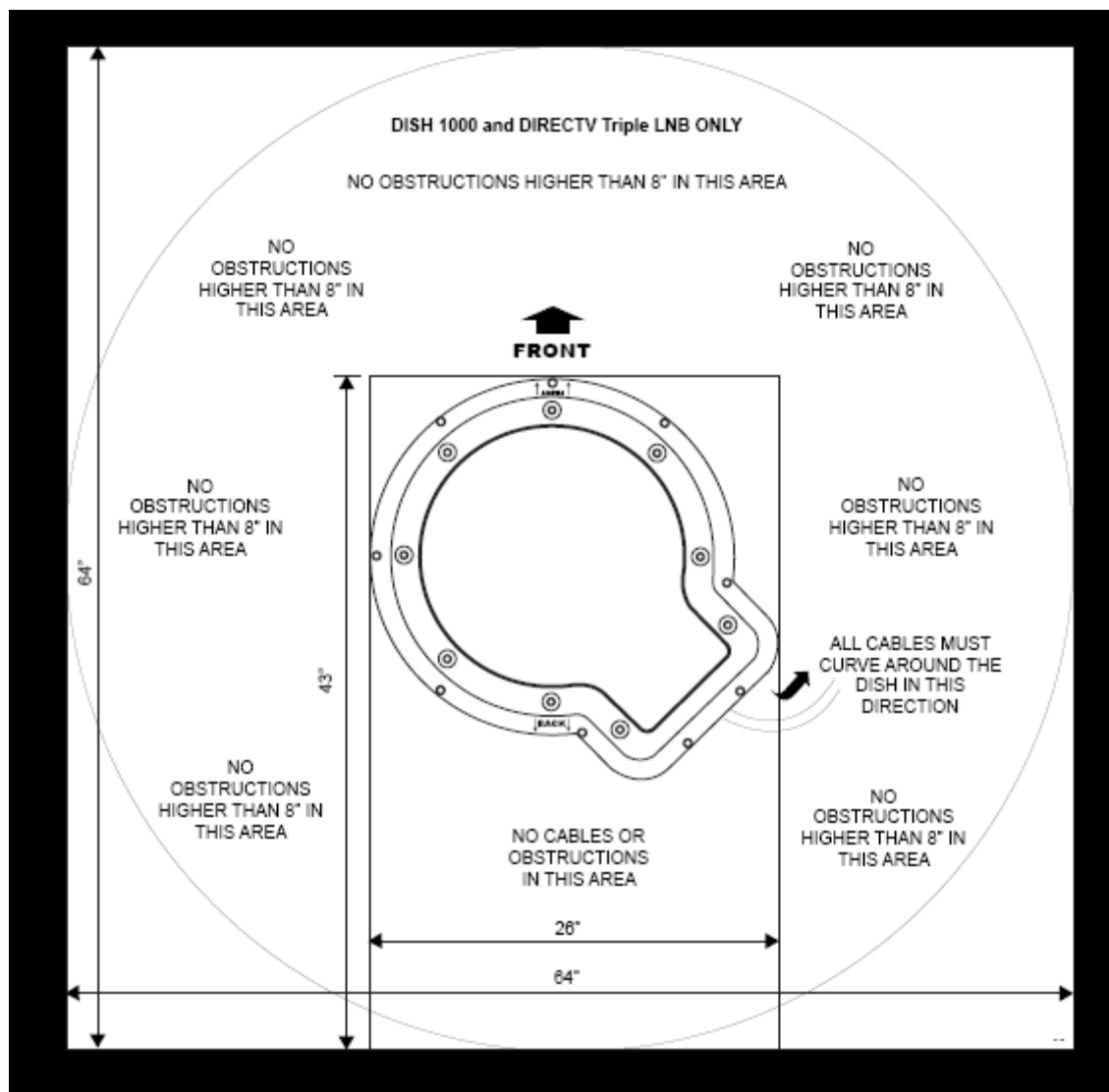
The base is marked "FRONT" and "BACK". Be sure "FRONT" faces the FRONT of the RV.

Level the base of the satellite unit front to back and side to side. The more level the base is, the faster it will be to locate the correct satellite. An unlevelled base may also prevent the unit from acquiring a satellite signal.



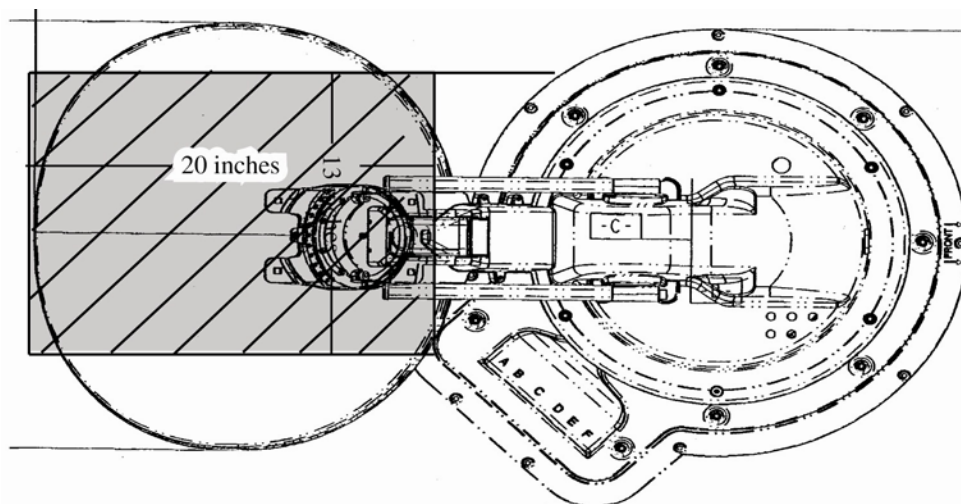
It is important to find a location on the roof that provides enough space for the TRAV'LER antenna to operate. The TRAV'LER antenna has a front and a back and must be mounted correctly to avoid damage to the antenna or to the coach. The base for the TRAV'LER unit is marked FRONT and BACK.

Be sure there are no obstructions in close range to where the satellite unit will be installed. Use the provided graphic and measure to ensure adequate space between the obstruction and the satellite unit. The TRAV'LER antenna must be mounted parallel to the center line of the coach.



Decide where the wires will enter the vehicle. One coaxial cable per receiver and a control cable will need to be run into the vehicle.

Warning: Do not run the wires through the gray area shown on this graphic: anything in the gray area will interfere with the operation of the TRAV'LER antenna and may cause damage to the object or the antenna.



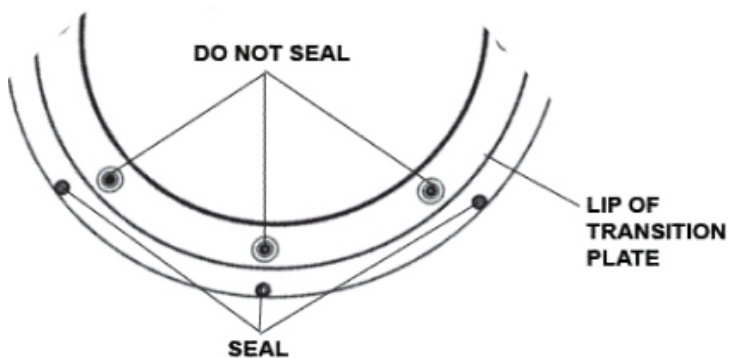
TRAV'LER Mount Installation

Verify the “FRONT” of the transition plate is facing the front of the vehicle then place the mount on the roof where you plan to install it. Mark through the screw holes on the base so you can see them on the roof. Then move the mount out of the installation area.

Use a solid bead of sealant to connect these marks in the shape of the base.

Carefully place the TRAV'LER back onto the markings/sealant and screw it to the roof. Check with your vehicle manufacturer for any special screw requirements before using the supplied screws.

Run a solid bead of sealant around the **OUTSIDE** of the transition plate, making sure to cover each screw head. **Be careful not to get any sealant above this lip.**



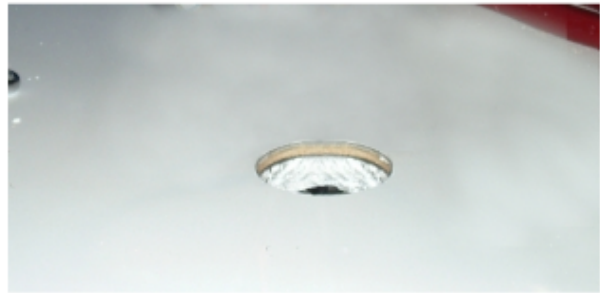
The mount comes pre-attached to the transition plate. It is important not to seal the mount to the transition plate so the unit can be removed from the plate without breaking the sealant.

Cable Entry Plate Installation

Decide the best location for the cables to enter the vehicle.
You will need to run:

- A coaxial directly to each receiver location.
- A control cable to the Internal Display unit.

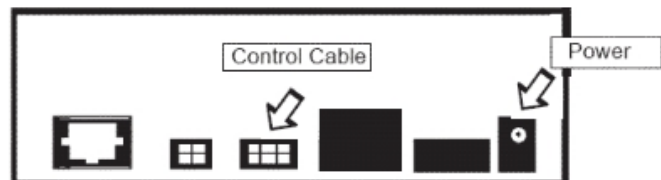
Drill a hole in the roof and push the required wires through. (Installations for multiple receivers may require a larger hole or multiple holes as each receiver requires a dedicated coax cable.) See the receiver manual for wiring details.



Cable Installation

Attach the TRAV'LER control cable to the TRAV'LER interface box as shown in the graphic.

Attach the output cable from the power supply to the TRAV'LER interface box. Then, plug the power supply into a 110 AC outlet.



Finally connect a separate coaxial cable to each of the receivers being used with the TRAV'LER Automatic Satellite Dish.

Make all the necessary connections to the receiver. For best operation, use the coax ports on the unit in order. (Port “A” for the main receiver, Port “B” for a secondary, etc.)

- Connect the coax cable from the dish to the “SATELLITE IN” on the rear of the receiver.

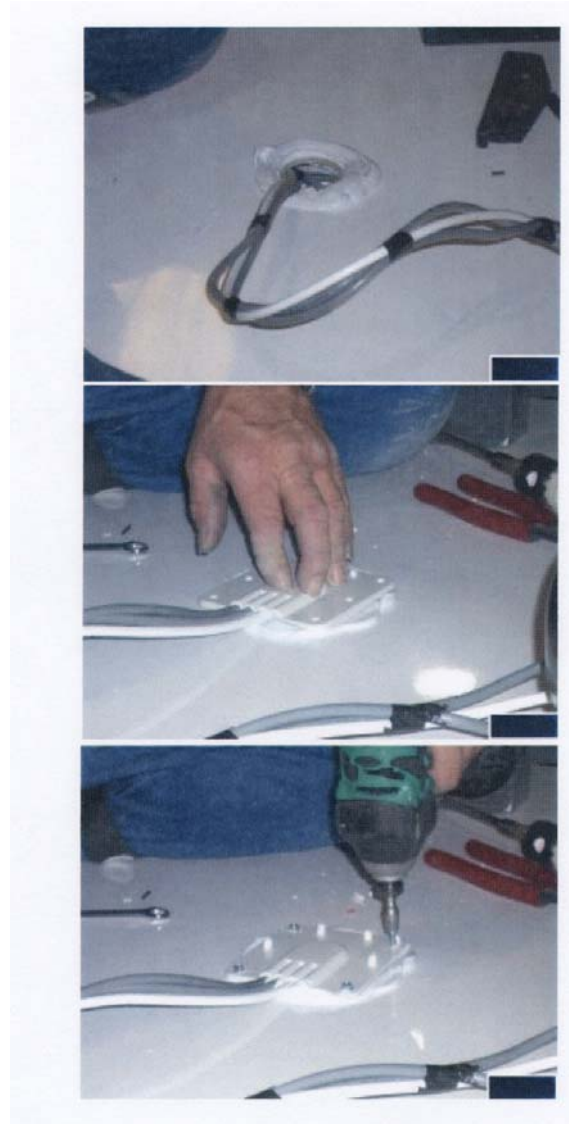


SATELLITE IN

- If connecting a second receiver, feed the opposite end of the coax cable through the hole in the roof and connect it to the “SATELLITE IN” on the rear of the secondary receiver in the vehicle.

After completing the wiring, return to the roof.
Follow the steps listed below.

- Apply approved sealant around the outer edge of the hole.
- Use the cable-entry plate and position it over the hole and cables.
- Use the appropriate number of screws to secure the plate to the roof.
- Apply sealant around the perimeter of the plate and over the screws.



TRAV'LER® Interface Box

Once the wires are run and the sealant has started to cure:

Press the POWER button and hold for one second to turn the TRAV'LER interface box on.

Then press ENTER and hold for two seconds or until the unit enters the menu mode.

Press SELECT until the asterisk is on “Yes”
and press ENTER to go into the user menu.



Press the SELECT button to move the asterisk to “installation” and press ENTER.



When asked to provide a code, press ENTER four times, to enter 0000 for the code.

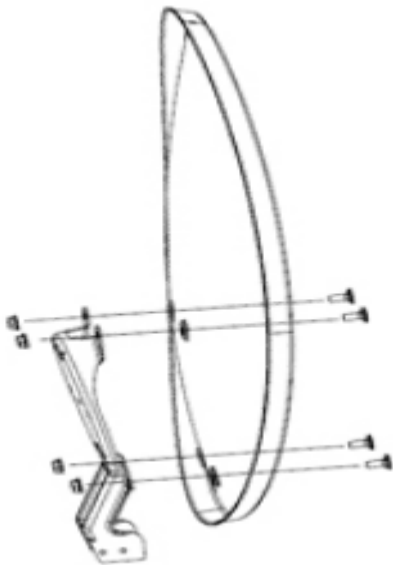
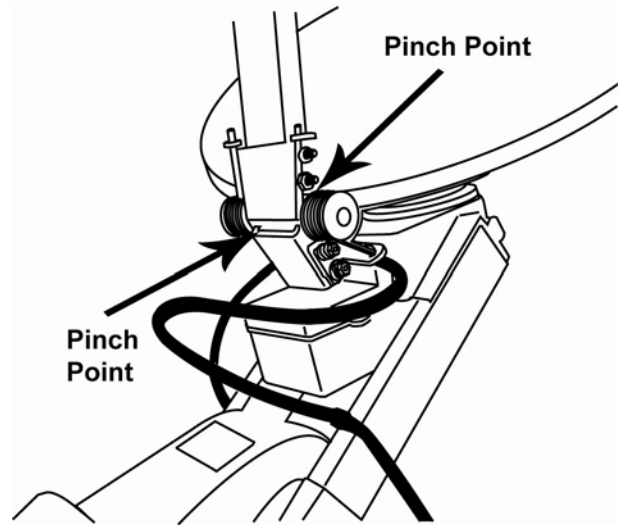
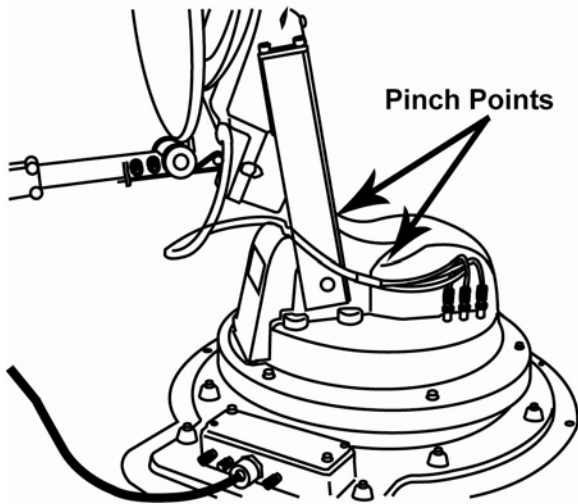
Press SELECT to move the asterisk to “Raise Antenna” and press ENTER. The TRAV'LER will raise about half way up and make it possible to attach the reflector.

If the LED displays an “EL MOTOR STALL” this is normal and the reflector is ready to be installed. This message is used to verify that the antenna has raised completely to the upper limit.



Pinch Points

WARNING: Pay attention to these pinch points as the antenna raises.



Attach the reflector to the mounting bracket, using the nuts and bolts provided.

Press **POWER** to stow the antenna to the travel position.

Once the antenna is stowed, the power will shut off.

Congratulations!

You have now completed installation of the
Winegard TRAV'LER Satellite Antenna.

Press and hold the power button for one second, and the dish will raise and begin its search routine. Once locked on the signal, the receiver may need a one time set up run. Refer to receiver manual for instructions.

When using the TRAV'LER, pressing the power button at any time will stow the antenna for travel and turn off the Interface box. **DO NOT MOVE THE COACH WITH THE TRAV'LER IN THE RAISED POSTION.**



TRAV'LER Multi-Satellite HDTV Antenna Notes

1. If a third receiver is used, connect coax C. Coax port C on the unit is disabled during the search mode. It may be easiest for most customers if they do not have the third receiver powered on until the search is completed. The coax for a third receiver is not supplied; you will need to add this coax if a third receiver is required.
2. If the customer levels the vehicle after the unit has completed a search, the dish may no longer be on signal and a new search would be required.
3. If the unit cannot find the primary satellite (119° for DISH, 101° for DIRECTV, or 91.5° for ExpressVu) due to an obstruction, the search will fail. The RV would have to be moved to a location where this satellite can be found.
4. If a secondary or the third satellite were to be blocked, the unit will provide the viewer with the satellites available.
5. If installing the system in a building or under a roof, make sure that you have a minimum of 40 inches from the roof of the RV to any thing above the system. If not, damage or injury may occur.
6. From the installation menu you can raise the dish to install the reflector. If you do not get into the installation menu within the first 10 seconds after turning the unit on, it will enter the search routine. Once it is in the search routine, it is still easy to enter the menu but the TRAV'LER will continue to move. If the antenna raises past half way before you select "RAISE ANTENNA", the TRAV'LER will raise until it hits its upper hard stop and motor stall.
7. This is normal. The 'Motor Stall' message is the unit's way of telling you that you are already all the way up and it cannot raise anymore. The reflector can now be installed. After installation is completed, press [Power] to clear the error and stow the antenna.
8. You can also lower the dish from the installation menu. It is important to remember that "Lowering" the antenna is not "Stowing" the antenna, even though the system may appear "stowed". The "Lower" function was implemented to help a user who might hit an obstruction while deploying and who needs a way to lower the unit to prevent damage. (Caution: When lowering the antenna in this manner, the dish comes down no matter where it is, potentially onto anything that is under it.)
9. Bell TV users require an SK-1000 dish and a Bell ExpressVu receiver.
10. If you plan to shorten the length of the supplied coax cables, caution is recommended as the black coax and the black control cable are somewhat similar. **The control cable MAY NOT be cut.**
11. Should more than 3 or 4 receivers be installed, depending on the model, this would be accomplished the same as in a residential installation. Install the multi-switch per multi-switch instructions, covered in subsequent pages.

12. If the TRAV'LER antenna is up and will not come down, using the Controller, select Calibrate EL, YES, ENTER. The antenna is not broken. It has "gotten lost." Calibrating EL will usually correct this problem. If it doesn't, call Winegard Technical Services 1-800-788-4417.
 13. Receiver set-up: The steps for setting up the receivers are the same steps used for domed systems. Refer to pages 25 through 27. EXCEPTION: the "Installed device" for DISH Network TRAV'LER SK-1000 is Switch DPP1K.2. For DIRECTV TRAV'LER SK-3003, select 3 LNBF 18X20. For SK-3005, select 5 LNBF Multi-Sat or Slimline – 5. DO NOT select any "SWM" options. For some of the newer DIRECTV receivers, with SWM printed on the chassis near satellite inputs 1 or 2, proper set-up is Select Slimline-5 (with nothing after it). Then toggle down once and select (Multi-Switch), **NOT** SWM. Next select "continue". This saves the changes you made.
 14. If using a DIRECTV HD receiver, remember you must install the B-band converter that came with the receiver in order to receive all satellites.
- NOTE: The DIRECTV receiver HR-23 has the B-band internal NOT an external device.**
15. TRAV'LER antennas may be installed on roofs with a + or – 5 degree slope without the use of a roof wedge. .

Additional Features

CL-SK34 Auto Stow Feature (cable installation)

Route the Auto-stow cable from the controller to the signal source, in many cases this could be a brake light or an automotive fuse panel. If going to a fuse panel, you would look for one that is hot when the ignition is on and no power when the ignition is off.

Black wire must be connected to a good chassis ground.

Red wire is connected to a source that has no VDC. When it gets 12 VDC it will stow the dish. Caution: While the 12 VDC remains, the dish will not deploy.

The brown wire should have 12 VDC, when the voltage goes to 0 VDC the dish will stow. If the 12 VDC does not return, the unit will not deploy again. Also, it is not required to use the brown wire, meaning if it has 0 VDC all the time, it is inactive.

Orange wire is not used at this time; please do not connect the orange wire to any circuit.

Emergency Manual Stow

This can be done if the unit has no power and it is stuck in the raised position. Only when the dish has no power, can you manually rotate the base to a stow position. To lower the reflector assembly, remove the black plug and insert a ¼ drive extension and ratchet the dish down. Rotating should be done holding the base **NOT** the reflector.

Emergency Stop

This can be accessed by FIRST holding the power button and SECOND pressing the select button. This will power off the unit immediately and stop all movement. (Caution: the auto stow feature is disabled at this time. **DO NOT** move the RV until the system is restored and stowed.)

CL-SK26 Control Cable Extension

25' extension power/communication cable for TRAV'LER antennas. Connects directly to the existing TRAV'LER power/communication cable to allow for runs up to 50'.

SKA-004 Roller Plate

Roller plate for protecting rubber RV roof.

SKA-008 Thin Roof Plate

Thin roof support plate for reinforcement at TRAV'LER mounting location.

SK-7003/SKA-733 SHAW DIRECT TRAV'LER HD Antenna

The solution for Canadian RVers! Fully automatic, one button on/off antenna receives signals simultaneously from Shaw Direct KU-band satellites 107.3° (English language programs) and 111.1° (French language programs and HD programming). Includes reflector and triple LNB (unlike the competition where dish and LNB are sold separate). Unit wt: 54 lbs. Travel ht: 11.75", Dim: 48"L x 38"W. **Note: This unit is shipped in TWO boxes.**

NOTE: NOT FOR USE WITH DOMED SATELLITE SYSTEMS!

Quick Facts

DISH Pro Plus Separator

Highlights

- Provides a single-cable connection from DISH Pro Plus receivers to DISH Pro Plus switches or LNBFs.

Description

The DISH Pro Plus Separator is to be used in conjunction with a DISH Pro Plus switch or LNBF to connect the two satellite tuner inputs of a DISH Pro Plus (dual-tuner) receiver using one cable.

Features

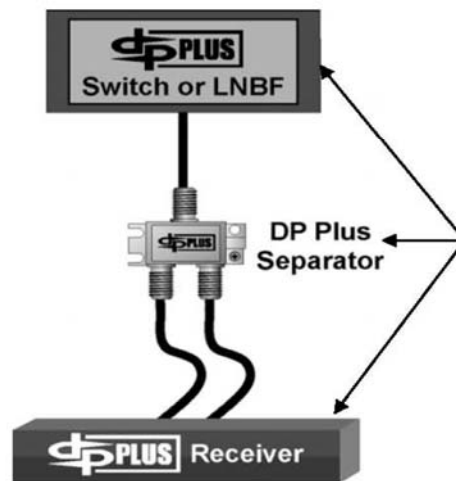
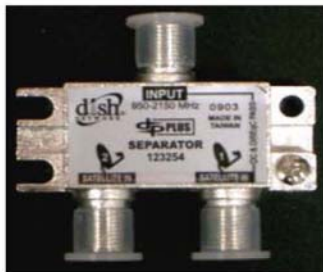
- The "Input" port is used to connect to a DISH Pro Plus switch or LNBF.
- Two "Satellite In" ports are used to connect to a DISH Pro Plus dual-tuner receiver's two "Satellite In" ports.

DISH Pro Plus (dual-tuner) receivers include:

- DISH 322
- DISH Player-DVR 522
- DISH 721
- DISH Player-DVR 921
- Equivalent JVC and RCA models

Installation Information

- See the "DISH Pro Plus Separator Installation Considerations" document for more details.



For the single-cable dual-tuner advantage, all three components must be DISH Pro Plus.



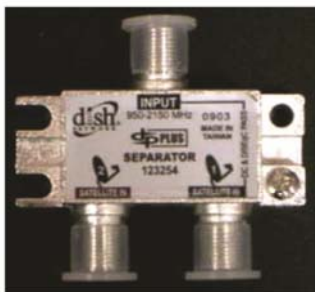
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Rev. 8/23/04

DISH Pro Plus Separator

Basics

- Provides a single-cable connection from DISH Pro Plus receivers to DISH Pro Plus switches or LNBFs.



Receiver Connectivity

- The DISH Pro Plus Separator must be used in conjunction with a DISH Pro Plus switch or LNBF to feed the satellite signal to both tuners of a DISH Pro Plus (dual-tuner) receiver for single-cable installations.
- The DP Plus Separator can only be used with DISH Pro Plus receivers and DISH 721. DISH Pro Plus receivers have a DISH Pro Plus logo.
- The DP Plus Separator cannot be used to connect two single-tuner receivers.
- The DP Plus Separator cannot be used with DISH Pro LNBFs or Switches to provide the single-cable benefit.
- If desired, the two satellite tuners of a DISH Pro Plus receiver can be connected to an LNBF or switch using two cables (instead of using a DP Plus Separator).

Additional Information

- As with all DISH Pro installations, cable and components between the LNBFs, switches, DP Plus Separator and receivers must be rated to 2150 MHz and pass DiSEqC.
- Do not install the DP Plus Separator between diplexers.
- DISH Pro-approved splitters, diplexers, etc., cannot be substituted for a DISH Pro Plus Separator.

Why can't I just use a DP-approved splitter?

Because it won't work!

- A splitter merely feeds the same signal to two places.
-
- The DP Plus Separator was specially-designed to separate the single cable's 950-1450 MHz band and the 1650-2150 MHz band, for the single cable to two tuner "bandtranslating" technology.



Note: All receivers using this switch must be DISH Pro Plus.
Example: DP 311 is not compatible.

DISH Pro Plus 44 Multi-Dish Switch

Run Check Switch

After you have connected your switch to the LNBs and receivers in the system, you will need to run **Check Switch** on each receiver in your system, one at a time. Follow these instructions for each receiver:

1. Open the **Point Dish/Signal Strength** screen. See your DISH Network satellite receiver user's guide for instructions. A **Point Dish/Signal** screen similar to the one shown as Figure 2 will open.

Note: Models 2800, 3900, 4900, and 6000 must select **SuperDISH/129** to see the fourth port.

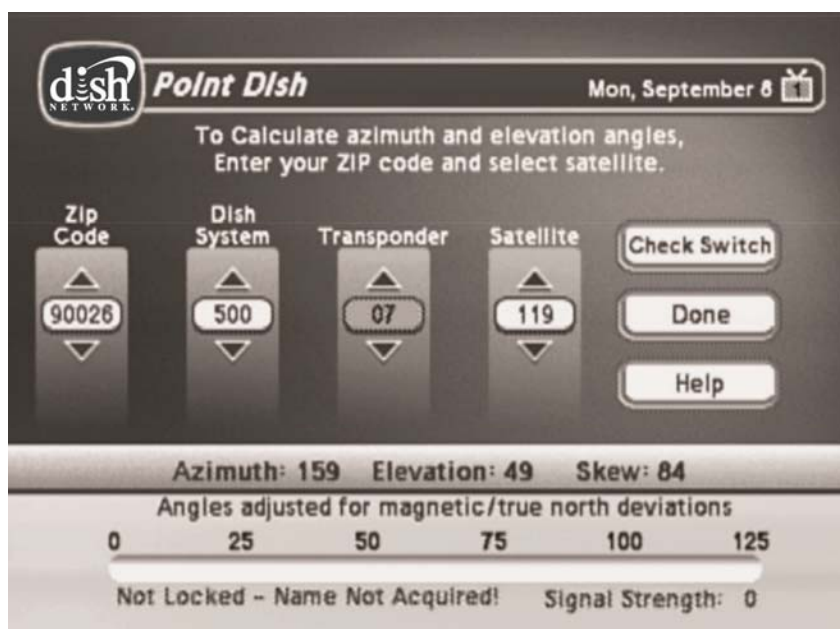


Figure 2 Point Dish Screen

2. Select **Check Switch** or **Test**, depending on your receiver model. The **Check Switch** screen will open. Select **Check** or **Test**, depending on your receiver model.
3. The **Check Switch** procedure will run. When it finishes, you will see an **Installation Summary** screen.

- For DISH Pro and DISH Pro Plus receivers, this screen should identify the installed switch as a DISH Pro Plus 44. You should see all of the satellites received by your system on the **Satellite** line, and the word **All** under the **Dish Input** numbers. You should also see the message **Satellite reception verified**.

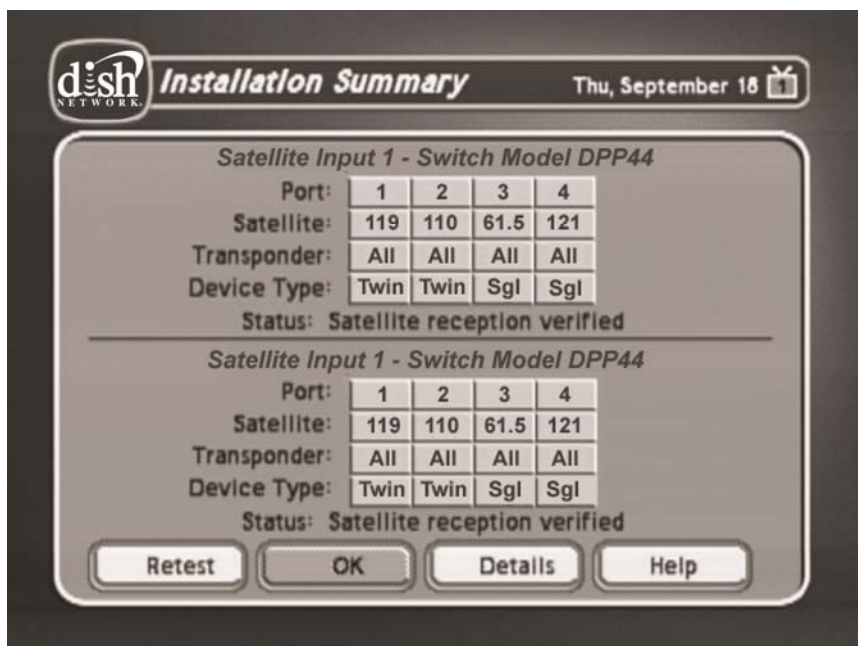


Figure 3. DISH PRO PLUS Installation Summary

- For non-DISH Pro receiver models 2800, 3900, 4900, and 6000, this screen should identify the installed switch as an **SW21 4Sat**. You should see all of the satellites received by your system on the **Satellite** line, and the words **Even** and **Odd** under the **Dish Input** numbers. You should also see the message **Satellite reception verified**.

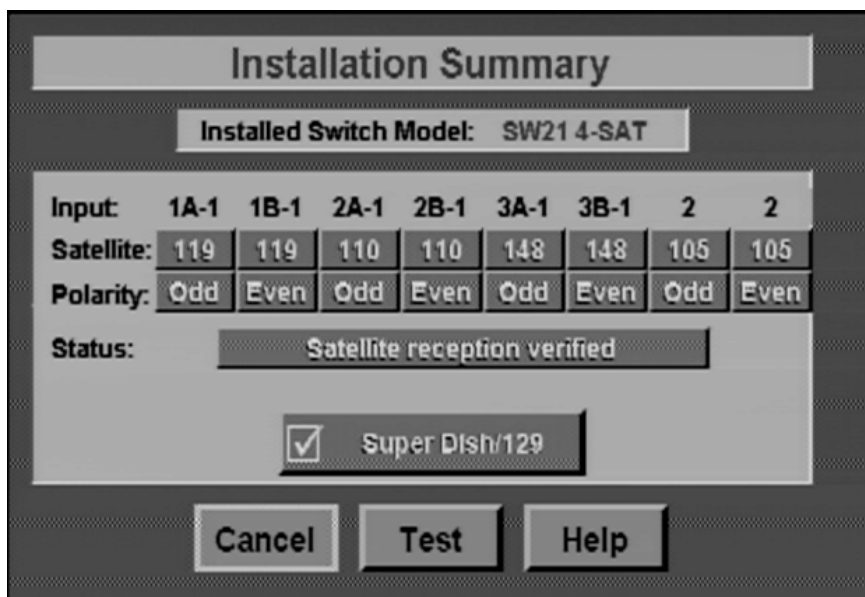


Figure 4. Non-DISH Pro Installation Summary

- For non-DISH Pro receiver models 1000, 2000, 3000, 4000, 5000, JVC D-VHS, 7100, and 7200, this screen should identify the installed switch as an **SW21 4Sat**. You should see all of the satellites received by your system from switch ports 1 through 3 (except FSS satellites) on the **Satellite** line, and the words **Even** and **Odd** under the **Dish Input** numbers. You should also see the message **Satellite reception verified**.

The screenshot shows a screen titled "Installation Summary". Below the title is a box labeled "Installed Switch Model:" with the value "SW64". Below this is a table titled "Switch Inputs". The table has columns for "Dish Input:", "1A", "1B", "2A", "2B", "3A", and "3B". The rows are "Satellite:", "Transponder:", and "Status:". The "Status:" row contains a single box with the text "Satellite reception verified". At the bottom of the screen are three buttons: "Retest", "OK", and "Help".

Dish Input:	1A	1B	2A	2B	3A	3B
Satellite:	119	119	110	110	148	148
Transponder:	Odd	Even	Odd	Even	Odd	Even
Status:	Satellite reception verified					

Figure 5. Non-DISH Pro Installation Summary

4. If you do not see the information as described in step 3 of this procedure, you will need to check all cables and switches, and then run **Check Switch** again. Select **Details** for information that may be helpful in troubleshooting the problem or in reporting it to the DISH Network Customer Service Center.

Adding More Switches

You can install two additional DISH Pro or DISH Pro Plus switches to the system, to support up to 12 satellite receivers total. Add the switches by repeating the previous installation instructions except connect the ports marked **TO DISH** on each added switch to the ports marked **TO ADDITIONAL SWITCHES** on an installed switch. See Figure 6.

Note: You must use the same group of trunk ports on each switch throughout the system. However, cables can be connected to any port in the group. For example: If **TO DISH** port numbers 1 through 3 are connected on the first switch, you must connect all switches together using ports 1 through 3.

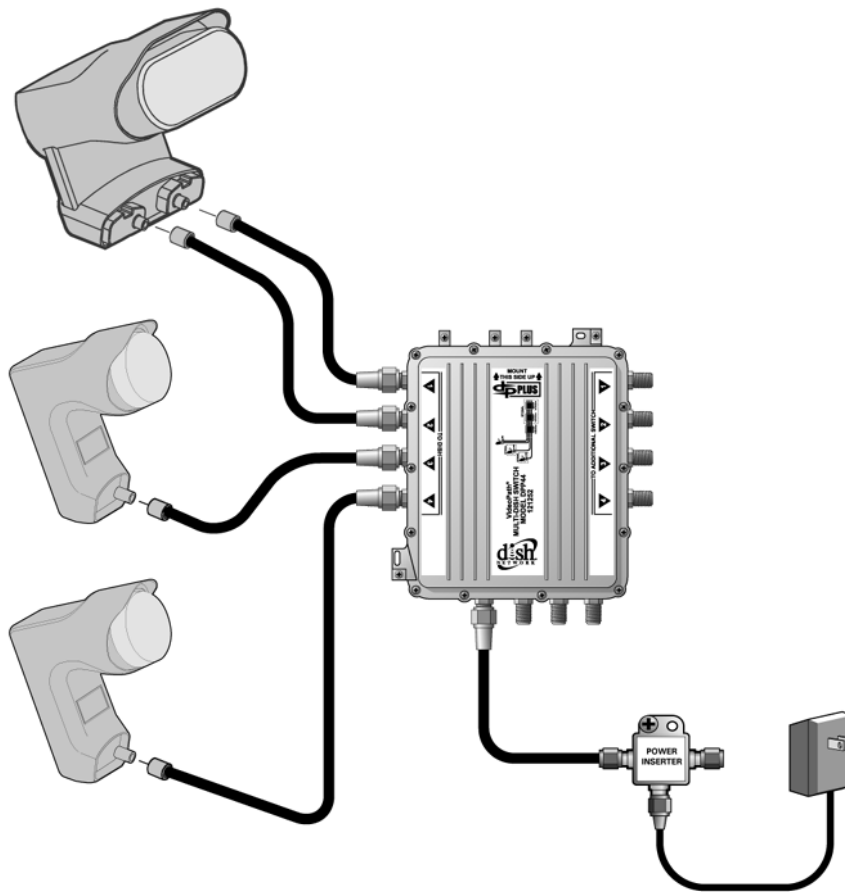
Very important!

The TRAV'LER antenna, for DISH Network will see the 119 the 110 and the 129 satellites only. These will be the three you will see on the installed switch screen.

Wiring Diagrams



The wiring diagram in this *Guide* omit cable drip loops and grounding for clarity. Make sure to use drip loops, and to ground the system per the *National Electric Code* (NEC) and all local electrical codes..

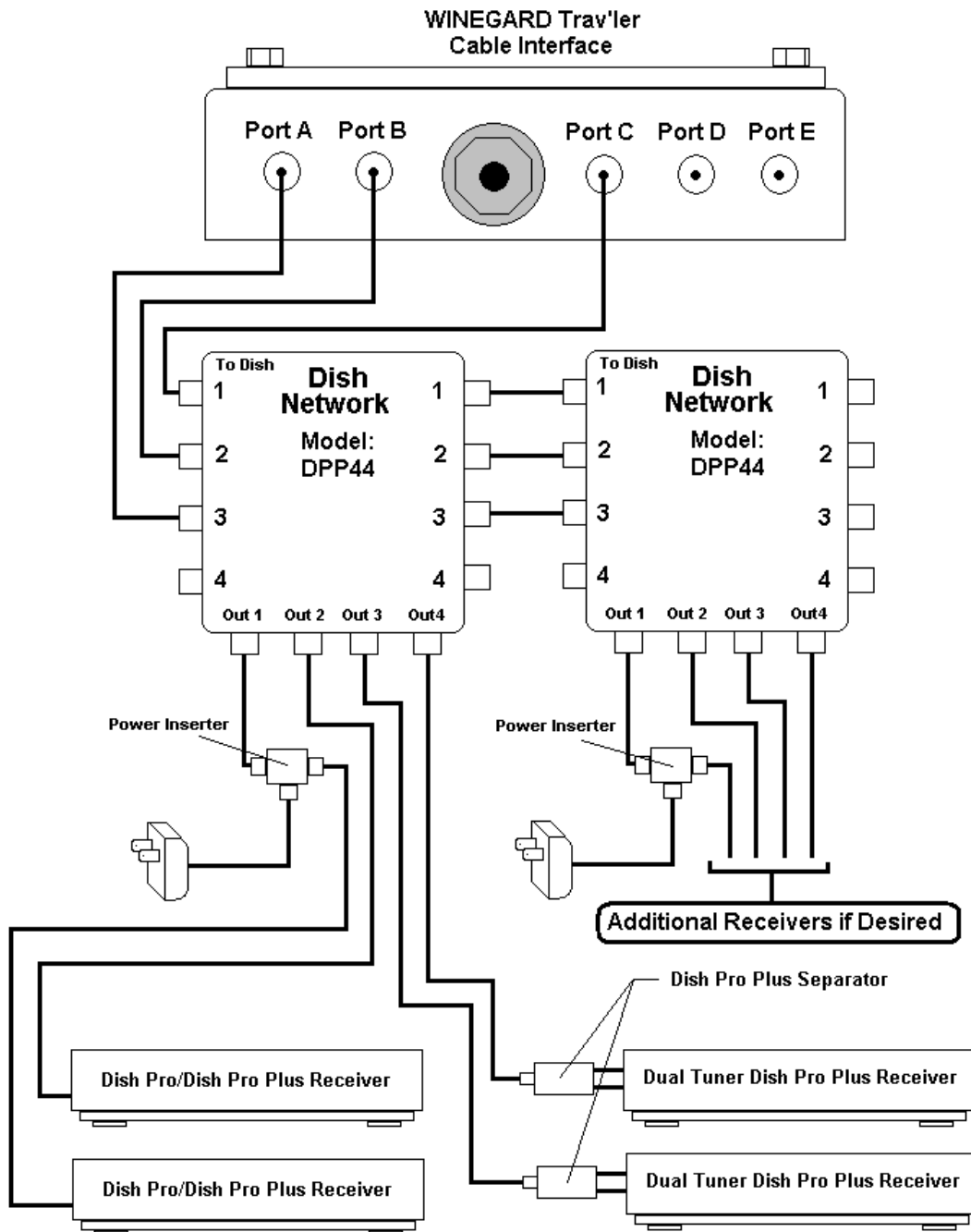


NOTE: This device requires AC voltage to operate.

Figure 6. DISH Pro Plus 44 Connections

WINEGARD TRAV'LER SK-1000

DISH Network Dish 1000.2 Wiring Diagram



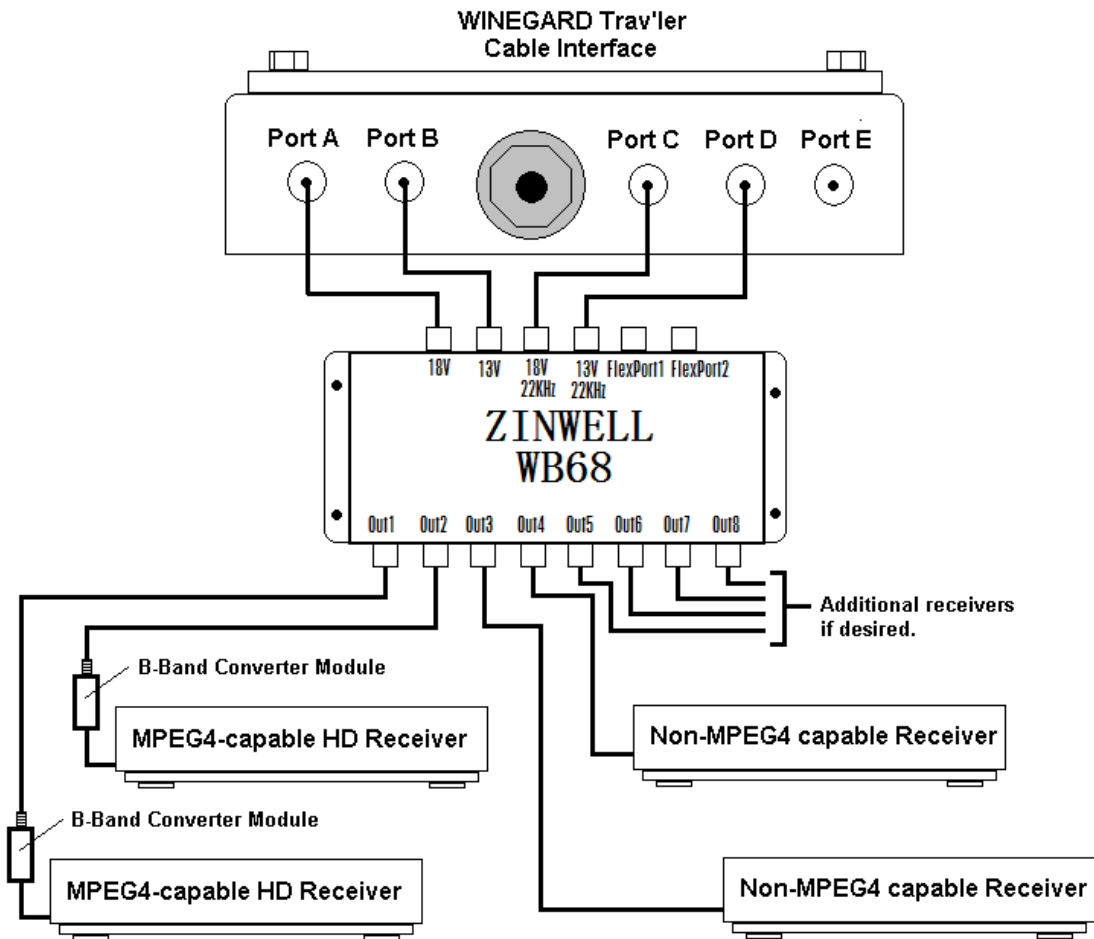
(Cont.)

Notes:

1. Dish Pro Plus Separator is required for dual tuner Dish Pro Plus Receivers and will allow use of only 1 cable run to the receiver. Refer to “DP_Plus_Separator.pdf” file for additional details.
2. Refer to “DISH_Pro_Plus_44_Switch_Installation_Guide.pdf” file for maximum cable lengths allowed.
3. Up to 3 DPP44 switches may be cascaded together for a total of 12 output ports.
4. Refer to “DISH_Pro_Plus_44_Switch_Installation_Guide.pdf” file for check switch details and instructions.
5. Refer to “QuickFacts_DISH1000.2.pdf” and “Dish1000.pdf” for compatible receiver and additional technical details for Dish 1000.2.
6. The power inserter (DPP44) must have power to work. Be sure that if the satellite receiver has power, the power inserter must also have power.

WINEGARD TRAV'LER SK-3005

DIRECTV Slimline Wiring Diagram

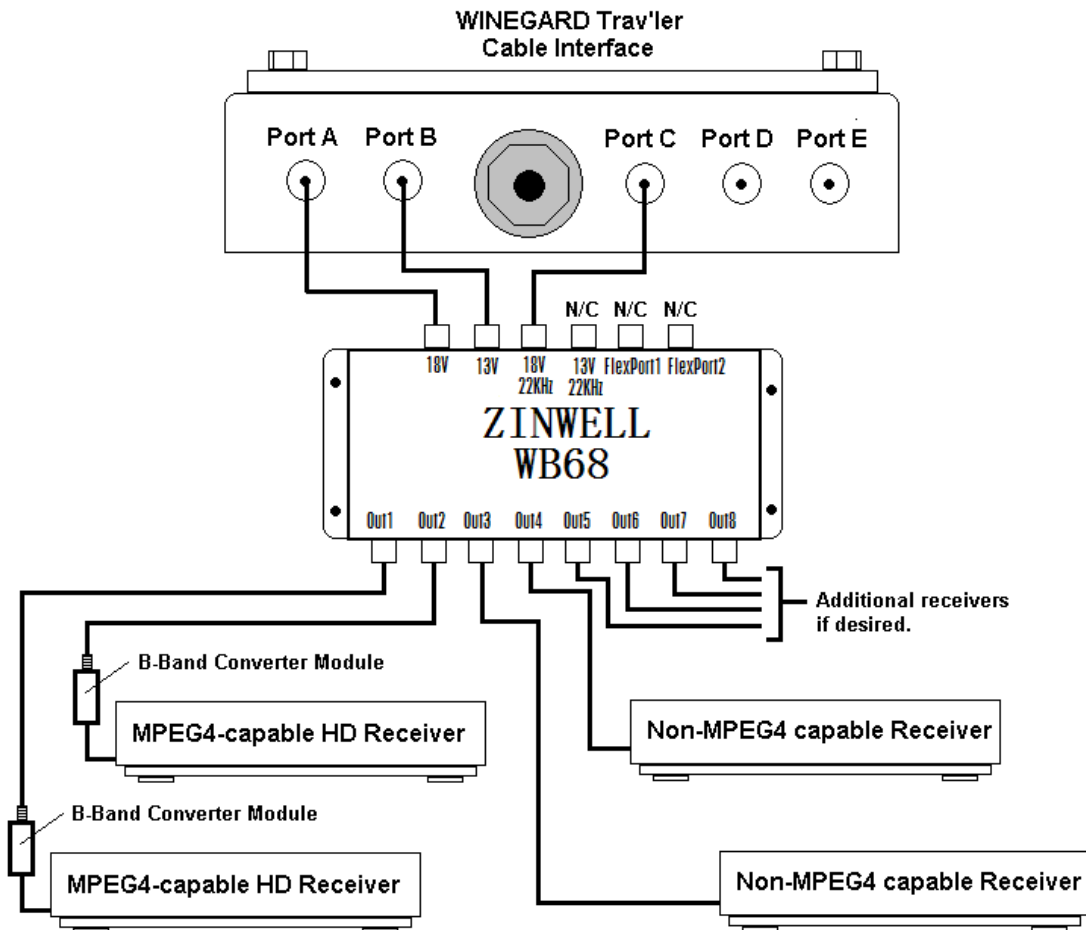


Notes:

1. A Zinwell WB616 can be substituted for the WB68 to expand the outputs from 8 to 16. Please refer to the "Zinwell WB616 manual.pdf" or "Zinwell WB68 manual.pdf" file for maximum cable lengths & all other technical information.
2. B-Band converters must be used on all MPEG4 HD receivers to receive HD programming.
3. The HR-23 DIRECTV receiver has the B-band converters internal.

WINEGARD TRAV'LER SK-3003

DIRECTV Triple Wiring Diagram



Notes:

1. A Zinwell WB616 can be substituted for the WB68 to expand the outputs from 8 to 16. Please refer to the "Zinwell WB616 manual.pdf" or "Zinwell WB68 manual.pdf" file for maximum cable lengths & all other technical information.
2. B-Band converters must be used on all MPEG4 HD receivers to receive HD programming.
3. 13V/22KHz port will not be used with the WINEGARD TRAV'LER SK-3003.

TRAV'LER™ REPLACEMENT KITS

All TRAV'LER™ Models

(SK-3005, SK-3003, SK-1000)

SK-3005 - DIRECTV SLIMLINE KU/KA
SK-3003 - DIRECTV TRIPLE LNB
SK-1000 - DISH 1000

REFLECTOR KITS

(DISH ONLY - DOES NOT INCLUDE DISH
BRACKET, FEED ARM ASSEMBLY OR LNB)

RP-SK35 (DISH FOR SK-3005)
RP-SK33 (DISH FOR SK-3003)
RP-SK11 (DISH FOR SK-1000)

LNB KITS

RP-SK05 (LNB FOR SK-3005)
RP-SK03 (LNB FOR SK-3003)
RP-SK01 (LNB FOR SK-1000)

LNB PLASTIC CLAMP
RP-SK17 (FOR SK-1000)

MOUNT KITS

(DOES NOT INCLUDE TRANSITION PLATE)

RP-SK55 (MOUNT FOR SK-3005 or LG MOUNT)
RP-SK50 (MOUNT FOR SK-1000/ SK-3003)

TRANSITION PLATE
(ALL MODELS) RP-SK20

DISH BRACKET AND FEED ARM
ASSEMBLY

RP-SK65 (FOR SK-3005)
RP-SK63 (FOR SK-3003)
RP-SK21 (FOR SK-1000)

OTHER REPLACEMENT KITS:

RP-SK80 ELECTRONICS
RP-SK83 TRAV'LER INTERFACE ONLY
RP-SK87 POWER SUPPLY
SKM-854 POWER SUPPLY WITH TRAV'LER INTERFACE

