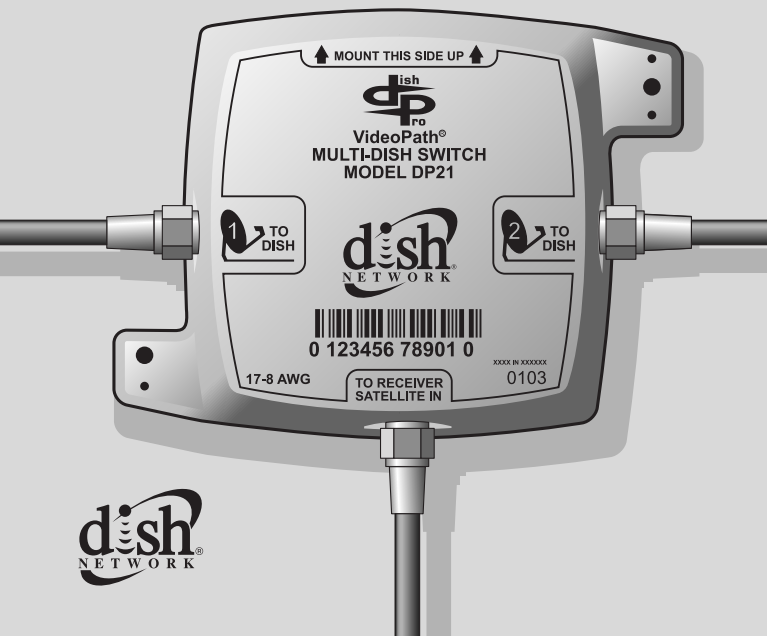




DishPro 21 Multi-Dish Switch Installation Guide



Important Safety Instructions

You *must* keep safety in mind when you install and use the DP21 switch. Refer to the safety instructions in the installation instructions that came with your system. In this *Guide*, the following notes tell you when you need to pay special attention:

<p>WARNING!</p> 	<p>Marks a procedure where the following may happen:</p> <ul style="list-style-type: none">• Personal injury or death may occur.• Equipment or property may be damaged.
<p>ATTENTION!</p> 	<p>Marks the following issues:</p> <ul style="list-style-type: none">• Important operation or maintenance instructions follow.• Special attention is required.

Important Regulatory Factors

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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Introduction

A DishPro 21 (DP21) Multi-Dish Switch allows you to receive signals from two DishPro LNBFs, and route these signals to a DishPro satellite receiver (see page 10 for wiring diagrams).

This guide explains how to install a DP21 Multi-Dish Switch. Use this guide along with the *DishPro Installation Instructions* that are in the user guide that came with your receiver.

WARNING!



The DP21 switch can be used only with DishPro LNBFs, DishPro Receivers, and non-DishPro receivers equipped with the DishPro Adapter. DishPro products can be identified by the DishPro logo shown below.



How to Install a DP21 Switch

ATTENTION!



The following instructions assume you have already pointed your dish for the strongest possible signal, that you have run **Check Switch** with the DishPro LNBF connected directly to the receiver's **Satellite In** port, and that you have taken a software upgrade from the satellite. If not, follow the Dish installation instructions that came with your receiver.

Connections

1. Mount the DP21 switch onto the side of a building, or on some other sturdy structure. Make sure that the switch is mounted with the port labeled **To Receiver Satellite In** pointing down. Fasten the switch tightly to the surface.

Note: The DP21 switch is designed for outside use.

ATTENTION!



You can have up to 200 feet of RG-6 cable between a DishPro LNBF and a DishPro satellite receiver with the DP21 Switch connected at any point along the 200 feet of RG-6 cable. The cable must be RG-6 or Series 6 and marked for use at 2200MHz or higher. If you are unsure contact your local DISH Network retailer, or DISH Network at 1-800-333-DISH (3473) to arrange for a professional installation. Use of the incorrect type of cable may affect system operation or performance.

2. Connect the coaxial cables from a DISH 500 or a DISH 300 to the ports on the DP21 switch labeled **To Dish** as shown in the wiring diagrams that begin on page 10.
3. Connect the cable from the satellite receiver port labelled **Satellite In** to the DP21 port labeled **To Receiver Satellite In**.

Run Check Switch

After you have connected cables and DP21 Switches to all receivers in the system, run **Check Switch** *on each receiver in your system*, one at a time. To do this, follow these instructions which apply to most receivers or consult your user guide:

1. Select the **Main Menu**, then **System Setup**, **Installation**, and **Point Dish/Signal**.
2. A **Point Dish/Signal** menu similar to the one shown as Figure 1 on page 7 will open.
3. Select **Check Switch**. The **Check Switch** screen will open. Select **Check**.

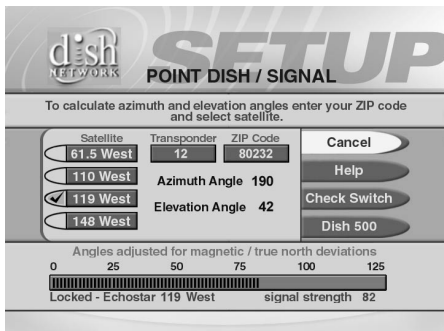


Figure 1. Point Dish/Signal

4. The **Check Switch** procedure will run. When it finishes, you will see an **Installation Summary** screen similar to Figure 2 on page 8. This screen should identify the installed switch as a DP21. You should see every satellite location that your system is receiving on the **Satellite** line, and the word "All" on the **Transp** line under both **1** and **2**.



Figure 2. Installation Summary with Identified Devices

Note: If you use a DishPro compliant splitter, one side of the splitter blocks the communications between the receiver and the LNBF, but will allow the satellite TV signals to pass. You will see an Installation Summary screen similar to the one shown in Figure 3, which will identify the DP Single LNBF as a “Feed.” This is OK because the satellite signal from the DP Single LNBF is still being received from all transponders. See the next section regarding operating with a DishPro compliant splitter.



Figure 3. Installation Summary without Identified Devices



5. If the **Installation Summary** does not show that Check Switch completed successfully as shown in step 4, check your connections on all cables at the receivers, switches, and LNBFs, and then run Check Switch again.
6. If you still do not see the **Satellite reception verified** message, turn the receiver off and reconnect your it directly to the LNBF so you can upgrade your receiver's software (see your receiver's user guide for more information). After receiving the upgrade, reinstall your DP21 and run check switch.

7. If you still do not see the **Satellite reception verified** message, call the DISH Network Customer Service Center at 1-800-333-DISH (3474).

Operating with a DishPro Compliant Splitter

When using a DishPro compliant splitter to split the signal from a DishPro single LNB (as shown in Figures 4 and 5), the receiver whose DP21 switch is connected to the passing side of the splitter must be plugged into a live power outlet at all times. If not, the DishPro single LNB will not have any power and will not be able to provide satellite signal to the other receiver.

Wiring Diagrams

<p>WARNING!</p> 	<p>The wiring diagrams that begin on page 11 omit cable drip loops and grounding for clarity. Make sure to use drip loops, and to ground the system per the <i>National Electrical Code</i> (NEC) and all local electrical codes.</p>
<p>ATTENTION!</p> 	<p>The wiring diagrams that begin on page 11 show optional splitters between the LNBFs and the DP21. Only use DishPro compliant splitters. Use of splitters that are not DishPro compliant may cause undesirable operation, including loss of channels, black screens, and incorrect Check Switch results.</p>

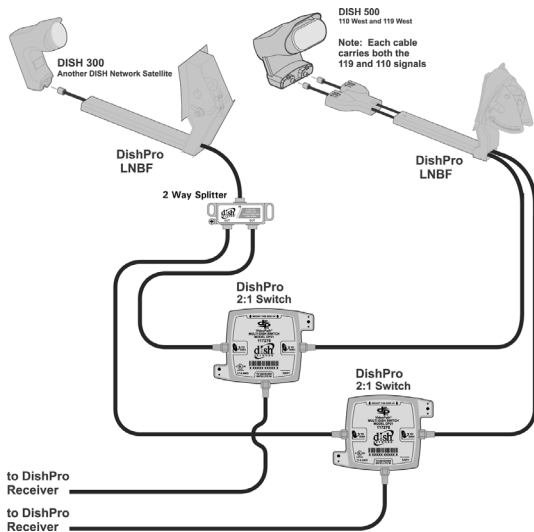


Figure 4. DISH 500 with DishPro Twin LNB, DISH 300 with a Single LNB, Two DP21 Switches, and a DishPro Compliant Splitter. Supports two receivers from three satellite locations.

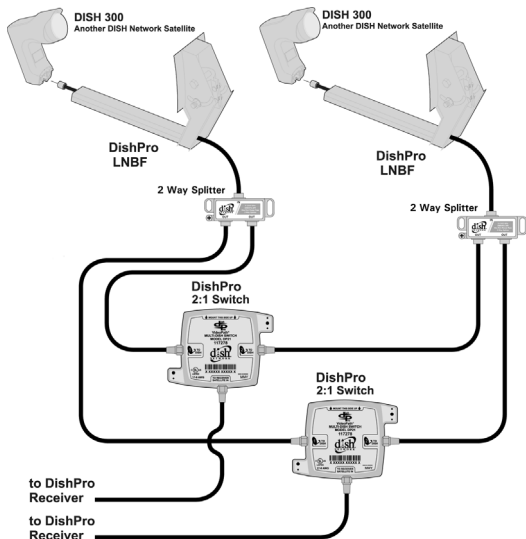


Figure 5. Two DISH 300s with Single DishPro LNBs, Two DP21 Switches, and Two DishPro Compliant Splitters. Supports two receivers from two satellite locations.

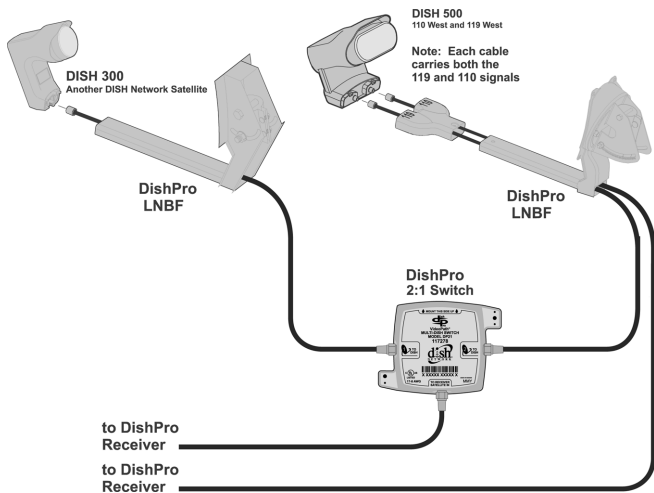


Figure 6. One Dish 500 with a Twin LNB, One Dish 300 with a Single LNB, and One DP21 Switch. Supports one receiver from three satellite locations and one receiver from two satellite locations.

Limited Warranty

This warranty extends only to the original user of the DISH Network™ DP21 Switch (“you,” “your”) and is limited to the purchase price of the switch. EchoStar Communications Corporation and its affiliated companies (“we,” “our,” “us”) warrant this switch control against defects in materials or workmanship as follows.

For one year from the original date of purchase, if we find that the switch is defective subject to the limits of this warranty, we will replace the switch at no charge for parts or labor. We warrant any such work done against defects in materials or workmanship for the remaining part of the original warranty period.

This warranty does not cover installation of the DISH Network System; consumer instruction; physical set up or adjustment of any consumer electronic device; switch batteries; signal reception problems; loss of use of the equipment; unused programming charges due to equipment malfunction; cosmetic damage; damage due to lightning, electrical or telephone line surges, fire, flood, or other acts of Nature; accident; misuse; abuse; repair or alteration by other than our factory service; negligence; commercial or institutional use; improper or neglected maintenance; equipment sold AS IS or WITH ALL FAULTS; equipment removal or reinstallation; shipping damage if the equipment was not packed and shipped in the manner we prescribe; nor equipment purchased, serviced, or operated outside the contiguous United States of America.

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY. WE SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ON THIS DEVICE, NOR FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE RESULTING FROM THE

USE OF, OR INABILITY TO USE, THIS DEVICE. UNDER NO CIRCUMSTANCES SHALL OUR LIABILITY, IF ANY, EXCEED THE PURCHASE PRICE PAID FOR THIS DEVICE. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS DEVICE IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. WE RESERVE THE RIGHT TO REFUSE TO HONOR THIS WARRANTY IF WE DETERMINE ANY OF THE ABOVE EXCEPTIONS TO HAVE CAUSED THIS DEVICE NOT TO HAVE PERFORMED PROPERLY. THIS WARRANTY SHALL BE VOID IF ANY FACTORY-APPLIED IDENTIFICATION MARK, INCLUDING BUT NOT LIMITED TO SERIAL OR CONDITIONAL ACCESS NUMBERS, HAS BEEN ALTERED OR REMOVED. THIS WARRANTY SHALL ALSO BE VOID IF THE DEVICE HAS BEEN OPENED BY AN UNAUTHORIZED PERSON.

This warranty gives you specific legal rights which may vary from state to state. Some states do not allow the exclusion or limitations of incidental or consequential damages, or allow limitations on the duration of an implied warranty, so those limitations may not apply to you.

Advance Exchange Program

The Advance Exchange Program allows you to have replacement equipment shipped immediately to you (depending upon where you live, it could take three to five business days). Along with replacement equipment, you will receive a prepaid shipping label and instructions on how to return the defective equipment.

The shipping charge, for receiving replacement equipment and returning the defective equipment, is a one time fee based on EchoStar's competitive bulk shipping rates (additional charges may apply outside of the continental US). This fee will be charged to your billing account or your valid credit card.

If you do not ship the defective equipment to EchoStar within ten days after receiving the replacement, your billing account or credit card will be charged the market price of the replacement. If you return the defective equipment after ten days, you will receive a full refund less an administrative fee.

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, your billing account or credit card will be charged the market price of the replacement.

Post Receipt Exchange Program

You may choose to ship the equipment to us at your cost. To provide faster service, upon receipt of your equipment you will be shipped a replacement. Your original equipment will not be available for return.

The equipment you return will be checked to verify whether it is covered under this warranty. If the defective equipment is covered under this warranty, it will be replaced and shipped back to you at no additional cost (additional charges may apply outside of the continental US).

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, your billing account or credit card will be charged the market price of the replacement.

Accessory Warranty

An accessory is any DISH Network branded equipment, displaying the DISH Network logo, excluding the receiver, Smart Card, cables and hookups, and non-mechanical components. A one-year warranty becomes effective upon the activation of the DISH system or date of purchase, if bought separately. A proof of purchase is required to verify the purchase date. If an accessory has an expired warranty, no exchange will be issued. You may purchase replacement accessories from DISH Network or your local retailer.

If You Need Help

Review this Guide.

Call the DISH Network[™] Service Center at 1-800-333-DISH (3474). Have the date of purchase and your customer account number ready.

A Representative will assist you. The Representative will try to troubleshoot any problem you may be having. He or she also will check whether the switch is covered under this warranty.

If the Representative finds that you should return the switch, you will get a telephone number to call for a Return Authorization (RA) number. Before shipping any equipment to us, you must get a Return Authorization number from the Service Center.

You must package returned equipment properly. Follow the instructions that the Representative gives you. Write the RA number in large, clearly visible characters on the outside of the shipping box used to return the equipment. To avoid confusion and misunderstandings, we will return shipments without an RA number clearly visible on the outside of the box to you at your expense.

We will:

Check the switch, including whether it is covered under the warranty.

Replace any switch that we find is defective with a new or refurbished switch, if the defective switch is covered under the warranty. We will ship the replacement switch at our expense.

If a defective switch is not covered under the warranty, we will tell you. We may assess you a flat rate charge for a replacement switch, including shipping and insurance.

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If you modify this equipment in any way, you will no longer be authorized to use it.



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