

# Getting Started with Satellite TV

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This guide is intended to assist Heartland Owners in understanding how to get started with satellite TV for the RV.

## **Important Notices**

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This document has been created by Heartland Owners independently of the Heartland RV Company, and is posted to the Heartland Owners Forum as a service to the owner community.

### **Errors and Omissions**

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## Getting Started with Satellite TV in your RV

There's a confusing array of technologies, products, and issues that need to be understood in order to equip your RV with satellite TV. A lot comes down to deciding on trade-offs between money and convenience. But other issues arise when it comes time to run the wires, or hook up more than one TV. When just starting out, there are many questions and few answers. Here's a brief overview of what you need to know.

### Selecting a Satellite Programming Provider

This is usually the place to start because other decisions are often dependent on this choice. In the U.S., the primary choices are DirecTV and Dish Network. In Canada, it's primarily Bell and Shaw. If you already have satellite service at home, often the easiest and most cost-effective solution is to use the same provider in your RV. This avoids paying for a 2<sup>nd</sup> programming package. For example, if you have DirecTV at home, you're already paying for programming. If you carry your home receiver(s) with you in the RV, or get additional receiver(s) for the RV, your home programming will be available without purchasing a 2<sup>nd</sup> programming package from another company.

If you don't have satellite at home, differences between vendors can be significant. For example, Dish Network offers RVers a "pay as you go" package where you pay for the service only those months when you use it. There is no contract that requires you to commit to longer than 1 month at a time. So if you RV from April through September, you might choose to pay for only 6 months of service during the year. DirecTV allows you to suspend service 2 times per year, but still requires you to pay for 24 months of service, even if it takes longer than 24 calendar months.

Programming packages are slightly different between DirecTV and Dish, but the most commonly watched channels are available on both. I'm afraid I don't know how Bell and Shaw stack up, but I'd expect they also carry all the major channels.

### Selecting Equipment

The minimum that you'll need to watch satellite programming is a dish of the right type that captures the broadcast signal, and a receiver that interprets that signal, allows you to select channels, and outputs the selected channel to your TV(s). You'll also need coaxial cable to connect the dish to the receiver and an appropriate cable to attach the receiver to the TV.

Once you know which provider you'll be using, you can look over equipment offerings and check to see whether that provider is supported by the equipment. Some equipment supports DirecTV and Dish, as well as Bell. But the support may not be equivalent for each provider. For example, many dishes that support high-def TV on Dish Network, support only standard-def TV on DirecTV. So you have to look a little deeper.

### **High-Def or Standard-Def TV**

RVs built over the past few years all have flat-panel digital TVs, mostly with 1080p capability (high definition TV). Some smaller TVs may only support 720p which is slightly lower quality, but on a smaller screen will still appear as high definition.

The tricky part is that the signal that comes into the TV must be high definition in order to produce a high definition picture on a high-def TV. If you start with a standard-def signal that would look ok on an older 25" analog TV, and feed it to a 42" high-def digital TV, the picture will not look nearly as good as a high-def picture. For those of us with "old" eyes, maybe this is ok. However, to avoid surprises, it's important to match your equipment with your expectations.

Keep in mind that if you have younger visitors, they'll be used to high-definition TV and will probably think your standard-def setup has something wrong with it.

### **Automatic Aiming vs. Manual Aiming**

You also need to decide on the tradeoff between cost and convenience. It's very convenient to have a rooftop dish that automatically finds the satellite(s) and begins working at the press of a button. It's also the most expensive choice.

At the other end of the cost spectrum, you would simply buy an appropriate high-def or standard-def dish and mount it on a collapsible tripod. Each time you set up camp, you would locate the tripod and mount the dish. Then you would aim the dish at the correct satellite and connect the coaxial cable to the receiver. For manual aiming, you generally need a signal strength meter. A \$200 meter is easier to work with than a \$20 meter.

In between these two ends of the cost/convenience spectrum you'll find numerous products that make manual setup easier and faster, or provide lower-cost automatic setup and aiming.

### **Digital Video Recording and/or Watching on More than One TV**

With a home satellite installation, if you want a DVR (to record), or if you want to watch on more than one TV (separate rooms), the satellite company will typically run wires to each desired location, and install a receiver in each location. To add record capability, a DVR enabled receiver is installed in place of a simpler receiver that doesn't record. Of course, each step up costs a bit extra.

DirecTV and Dish also offer a newer technology that allows recorded programs to be watched on any receiver in the house (DirecTV "Whole Home" using Single Wire Module (SWM) technology. Dish using "Hopper" and "Joey" receivers.) These newer technologies require matching dishes and receivers, and in some case some additional components.

In your RV, the same choices apply, but may be a little more difficult to implement because most of the time the satellite provider will not do the cabling for an RV as they would for a house. In some cases, your RV may have the necessary coax for satellite

already run to one or more locations. In other cases you may have to install or modify the wiring.

### **Cabling**

The Cable TV coax and over-the-air Antenna coax come together at the signal booster that's often located in the bedroom. The signal booster will not pass satellite signals. Without you making modifications to the wiring, connecting a satellite dish to the Cable TV connector just won't work.

For most setups, you'll need to use the satellite connectors and cabling, or install your own if your RV didn't come with satellite wiring.

If your RV has separate satellite connections for living room and bedroom, you can have the same type of installation as you would at home. You need a dish that has 2 or more outputs so you can provide a signal to each room. Then you need a receiver in each room to decode the signal and output it to the TV. This is the same as at home. You can watch different programs on each TV because each has its own receiver.

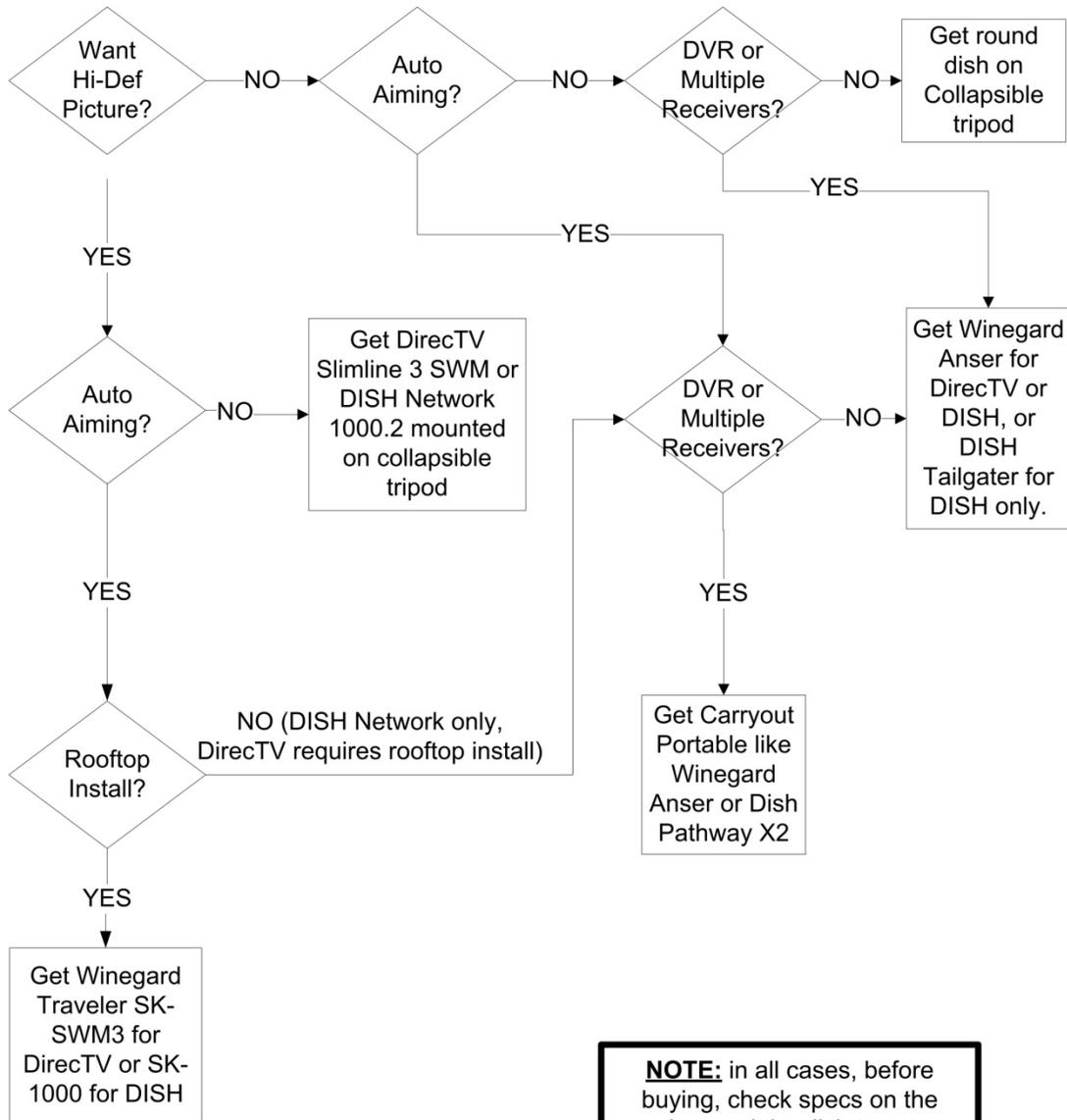
It's possible to share one receiver with multiple TVs, but it may require additional equipment to rebroadcast the signal, or wiring modifications to your RV.

### **Picking a Dish that Meets Your Needs**

The following flowchart walks through the choices you need to make to decide which dish to purchase for DirecTV or DISH network installations. The choices given are not necessarily the only ones available. Products are constantly coming onto the market and other choices may be available.

Some of the choices may also apply to Bell and Shaw, but the specific equipment choices may vary in Canada.

## Dish Selection Guide for DirecTV and DISH Network



SK-SWM3 is Whole Home & Genie Compatible  
 SK-1000 is DISH Network Hopper Compatible

**NOTE:** in all cases, before buying, check specs on the receiver and the dish to ensure they are compatible with one another.

## Revision History

January 19, 2014      Initial release.