# Getting TV Service on the Road

Getting TV into our homes is pretty simple. There is probably a local cable TV service, several local dealers who can come to your house and set up satellite TV, or perhaps in rural areas you have an antenna mounted on the house or a pole in the yard. Once installed, these work pretty much without further concern on your part. However, when you travel in your RV, these services may not always be available and watching your favorite TV programs can present some challenges such as...

How do I get TV service?

Will we be able to watch our favorite network shows?

Can I get HDTV?

## TV Service

There are three main ways to receive TV service in your RV. These include: Over The Air Antenna (OTA), Cable, and Satellite. Each of these services has its advantages and drawbacks but each of them may not be available in certain areas or under certain conditions. Costs for each of the services vary from free to nearly \$100.00 per month.

The first two are explained here. The third, Satellite, is more complex and deserves it's own major section below.

**OTA or Antenna...** TV service is free and pretty simple to receive. Since nearly every RV has a basic crank-up TV antenna on the roof, you simply raise the antenna until it is vertical and rotate it to get the best reception on one local channel. Once you get a picture (with most TVs), you can activate the TV's "auto program" search option to locate the rest of the available channels.

OTA service is digital TV and offers superbly sharp pictures from whatever stations are in reach. However, you need a digital TV to receive digital pictures without

using additional equipment. If your RV has an older, analog TV, you can still receive modern digital video by using a "Digital Converter," available at many of the big stores for about \$40.00.

You can even receive "high-definition TV" (HDTV) through OTA service if you have an HD-capable TV. Whereas the digital picture is much higher quality than the old analog picture, the "high-def" picture is definitely higher quality than the digital picture. Simply, today, HD is the best quality picture you can receive.

With OTA TV, you typically receive TV reception from stations that locally broadcast in the local geographic area where your RV is parked. The stations, their call signs (WTTV, WBIF, etc.), and the hourly programming will be different than at your home. Most major network channels will remain the same, but the local programming will be different. On the plus side, you get local weather and news.

The drawback to OTA reception is that it likely will be very limited in remote locations – perhaps even non-existent. You will be able to prove this if you take your RV to Alaska.

In and around cities or in mostly flat terrain, the OTA signal is usually good and the choice of stations can be broad, but at some distance, you may only receive a single station. Unfortunately, the signal may disappear altogether.

One of the detrimental characteristics of digital TV is that once the signal weakens to a certain point, it cannot be seen and the sound becomes garbled. When the signal is good it's great, but when it gets weak, you may have no reception at all.

Cable TV... can be found in some campgrounds. Chances are your RV is equipped with a cable-ready jack that will enable you to plug into the campground's service. Some campgrounds charge a small daily fee for cable service, but many do not. You must plug the coax cable from your RV to the cable outlet at your campsite (usually found on the shore power pole) and, as with OTA TV, activate the TV's auto-program search to identify local channels. Once it finishes, you are good to go.

Cable TV is often the old fashioned analog signal, so older TVs (without a digital tuner) can function without a digital converter box. The downside is that analog cable cannot provide HDTV, but digital cable can.

There are two types of cable TV: community antenna and franchised CATV. In a community antenna system, the cable service merely receives the local OTA programming via a large, central antenna and rebroadcasts it through the coax cable to your RV. The programming will be that available in the local area and news and weather will be local. In a franchised CATV system, the supplier often has additional sources of signals—e.g., satellite dishes or microwave—and typically offers additional network stations and perhaps HBO, ESPN, TNT or similar premium channels. This is the level of service for which RV parks often charge extra.

Cable TV may or may not provide HDTV—this capability depends on what is available locally and what the franchise offers in that area, if available at all. Most TV networks now broadcast their prime time shows in HDTV, but the cable system may not pass that on.

## Satellite TV

You have seen satellite domes or dishes on the tops of RVs and some dishes are set up on the ground, typically mounted on a tripod. Satellite TV service is offered by Dish Network and Direct TV in the US, but Bell TV (formerly, Bell ExpressVu) also covers a portion of the US.

Satellite TV is a fee-based service that you must contract for yourself. You must purchase a satellite dish or dome to capture the signal and buy or lease the receiver that processes it for your TV. Equipment costs for a satellite system can be anywhere from around \$100.00 for a simple tripod-mounted dish to as much as \$2,000.00 for an inmotion dome system or automatic dish. Many newer RVs come equipped with a satellite dome or may be pre-wired for satellite service. Equipment may also be present in a used RV, but you still have to contract with a satellite TV service to utilize it. Setting up your RV for satellite service can be frustrating — the local satellite dealers rarely

know much about mobile satellite service for RVs and many will not work on them. An RV dealer or a store like Camping World may be a good source for help in getting started with satellite TV in an RV. In some areas there are satellite system companies that specialize in mobile installations and are experienced with installation in RVs.

## **Distant Network Services (DNS)**

The best option in mobile-satellite service for many RVers is called Distant Network Services (DNS). DNS is intended to provide major network programming to satellite users who are truly mobile and not permanently associated with any one locale. It is available only to mobile account subscribers and you must file an affidavit and a copy of the RV's vehicle registration with the satellite service to obtain it. If you want DNS in your RV and also have a fixed home account, you must establish a separate account for the RV. You cannot have DNS on an account that also receives local programming.

DNS provides TV programs direct from the major network's home studios—typically New York City and Los Angeles—but no local programming when you are about 200 miles away from the "fixed address" you supplied. With DNS, you can receive ABC, NBC, CBS, and Fox and can get both the East Coast and West Coast network feeds—you receive all of this nationwide. This provides you with a very nice option of viewing times for most major shows. When you return close to your "fixed address," you, once again, will automatically receive the local programming in addition to the network feeds. There is an extra charge for DNS, about \$3.00 per channel selected, but there are discounts for multiple channels.

#### Satellite TV Services

There is little material difference between the major satellite TV services so individual choice is normally based on the programming packages available.

Programming packages are offered at several different price levels and you can select what you like and the amount your budget will handle. Monthly service fees range

from around \$39.00 for a basic 55-channel package to as much as \$99.00 for 250+channels.

If you insist on receiving HDTV and have a dome-type satellite antenna, Dish Network is the only real choice. Dish Networks HDTV programming is accessible via a dome. Direct TV broadcasts their HD channels via a "Ka band" satellite and no dometype antenna available today can receive those signals.

# **Satellite Dish Options**

The classic satellite antenna is an open-faced dish that must be aimed in the direction of the satellite. Setting up this dish is a one-time job at a fixed location, like a house, but every time you move your RV or the dish itself, you must re-aim it at the satellite that provides your service. Dish Network and Direct TV use different satellites, so the satellite must be aimed at different targets.

Both services are locked onto their respective multiple satellites simultaneously. This is accomplished by the curvature of the dish allowing signals from multiple satellites to hit the dish surface in different spots and reflect that signal to one of the LNBs—that "horn-like" device attached to the arm of your dish. Each LNB collects the signal from its corresponding satellite.

An open face dish can have multiple LNBs, one for each of the satellites to be used. To get all of Direct TVs many channels in every area of the USA, a five-LNB dish is required, though 3 suffices in many regions. However, you can get all major networks and a good selection of other national programming with just a single LNB dish or dome. That includes the HDTV broadcast on the networks, but not the special HDTV channels such as Discovery HD. In some regions the local channels will be on a separate satellite as well. For Dish Network, a two-LNB dish is needed for full service and most subscribers get along fine with one. As you can imagine, manually aiming a tripod-mounted dish to pick up three or more satellites can be quite a chore, so most people select either the one or two needed to get the major networks and popular extra channels. Dome type dishes, however, have only one LNB, though, and must re-aim to

view another satellite. Some can do this automatically as you change channels, while others may require manual intervention to switch.

Open faced dishes... can also be fixed mounted on top of the RV and can be either manually aimed or automatic. The automatic aiming relieves you of the chore of finding the right satellite and adjusting to get maximum signal quality. Basically the dish searches for the right satellite and then "locks on' when it finds it and you are ready to go. It typically takes 1-2 minutes for the dish to search and lock. Automatic dishes are single LNB but they can move between satellites as needed to watch different channels. Depending on the dish make and model, the move can be automatic or manually triggered via a selector switch inside the RV. There are automatic aim, open face dishes available that can handle either Dishnet or Direct TV, including full HDTV service.



**Dome type satellite antennas**... have a fixed cover over a small dish. Automatic aiming is standard, so the dome finds the right satellite and locks on. A premium type of dome is the *in-motion* dome, which can actively track the satellite and adjust on the fly, making it possible to receive satellite TV as you drive down the road. Even if a family member (not the driver!) isn't watching the TV as you travel, some people love

to have the in-motion dish active so their DVR can record shows as they travel. Daytime soap opera fans and sports enthusiasts are among those who do that sort of thing. Another advantage of the latest in-motion dome is that it has a GPS inside that enables it to nearly instantly find the satellite when you park, so the family can be watching TV as you set up your site.



**Portable Packaged Satellite System...** A recent innovation in portable satellite is the packaged system such as the VuQube or Winegard CarryOut. These are essentially a dome type dish in a lightweight, portable package. You carry it outside where there is a view of the southern sky and use a remote control to set the aim. Or get the automatic model that finds the satellite by itself. Simple and easy. Figure about \$500-\$600 for the base model and \$700-\$800 for the automatic model.



# The Downside of Satellite Systems

A drawback to all forms of satellite TV is the need for a clear view of the southern sky (the satellites are all located over the Equator, pretty much due south of Texas). For those of you who love to camp under trees or nestled in a mountain valley, you may find that the satellite is not visible from your location and, therefore, no TV is

available. A fixed mount dish or dome is the most susceptible to this problem because you may have to move the RV to change the satellite's view of the sky. A portable tripod mounted dish can sometimes be moved around enough to find a spot that can "see" the satellite, but the options are limited when you have to move the whole RV to move the dish.

On a related issue, experience has shown that mounting your satellite dish as far as possible toward the front of your motorhome roof will provide you with more flexibility. When you back into a classic tree-covered or tree-lined campsite, your ability to locking on the satellite signal is severely limited. With the dish mounted to the extreme front on the coach roof, you can often pull the coach forward in the campsite and position it just off the driving lane through the campground. This will position the satellite dish in what is usually a much more open area (the entrance to the campsite). With a bit of luck, you will be able to get a signal lock.

In addition to being blocked by trees or adjacent mountains, all satellite service suffers from "rain fade." This is caused by water droplets in the air degrading the signal to the point where it becomes unusable. Dome type satellite antennas are more susceptible to rain and dew than are the open face dish types because the water droplets accumulate on the dome itself.

#### Your Home-Satellite Receiver

It is also possible to use your home-satellite **receiver** in the RV. Take a receiver from the house and hook it to the dome or dish in the RV and to the TVs. This is a great choice for people who only use their RV occasionally and have satellite service at home. There is no extra cost and your RV then receives the same satellite service you have at home, as long as you are within about 200 miles.

Somewhere beyond that, the local stations may disappear because they are sent on a "spot beam" that is local to your region. You can call the provider and temporarily change the service area (zip code) and get those locals instead, but that also changes

what is available back at home. This is not a problem if everybody is with you in the RV, but if your mother-in-law stayed home she may not be speaking to you when you return!

If you have multiple TV sources available at the campsite, e.g. satellite and cable or OTA, in most RVs you can switch back and forth easily or even watch one source on one TV and a different source on the other. The details of how to do this will depend on how your RV is wired, but many have a video switch box which makes it easy to select different sources for each TV.

With OTA and cable TV, you can generally watch different programs on each TV simply by changing the channel. However, if you have a satellite receiver or a digital converter box for an older analog TV, the tuner (channel selector) is in the receiver or converter, so the TV sees only what the box has selected. If you want different programs on different TVs, then each TV must have its own satellite receiver or converter box.

As you can see, there are a variety of choices for TV reception on the road and the choice can be challenging if you want all the services you may have had in your home. Satellite offers the most capability for the nationwide traveler, but it is also the most complex, with many options and differences depending on where you travel, what channels you subscribe to and your need for local and HD programming. Cable and OTA, on the other hand, are pretty simple and will meet most people's needs if available where they camp.