Advisories

The Orby TV dish and antenna are intended for residential use only.

Orby TV service is available only in the 48 contiguous United States. Customers living in rental properties must ask for and receive landlord’s permission before carrying out the installation.

The Orby TV equipment should only be used for Orby TV service. Equipment from other service providers should not be used and is not compatible with Orby TV.

The Orby TV satellite dish supports service for up to four Orby TV receivers or DVRs.

Safety Information

SELF-INSTALLATION IS AT YOUR OWN RISK. ORBY TV ASSUMES NO LIABILITY AND IS IN NO WAY RESPONSIBLE FOR DAMAGE, INJURY OR HARM TO YOU OR YOUR HOME.

Professional installation for the dish and antenna is strongly recommended. A professional installer can also provide advice on the ideal location for the installation providing best signal quality. Orby TV equipment sold by an authorized retailer comes with a one-year limited warranty. However, outdoor equipment and its installation is only warrantied when installed by an Orby TV-recommended professional installer. For more information, visit OrbyTV.com/install.

Please read instructions thoroughly before attempting a self-installation. Anyone not comfortable with these steps or who does not have the recommended tools or experience should not attempt the self-installation and should visit OrbyTV.com/install for further information on professional installation.

Ensure that the system is grounded correctly by connecting to the earth grounding system of the building as close to the point of cable entry as practical as required by National, State and Local regulations.

Do not locate the dish or antenna near weatherhead or power lines.

Do not carry out the installation during bad weather or electrical storms.

It is important that all building codes and the electrical standards specified by National, State and Local building codes, including the National Electric Code are adhered to, as well as standard safety procedures for installing and working with this type of equipment.

Improper procedures or installation will result in any or all of the following; poor or erratic signal quality, damage to the equipment or the building, or even potential harm to the installer.
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Necessary Knowledge, Tools and Materials

Elements of the installation may involve working high above the ground and should not be attempted without access to suitable safety equipment.

You should:

- Be comfortable working with power tools.
- Be comfortable working on ladders and at heights.
- Be able to use a plumb line or level to set horizontal and vertical surfaces.
- Know how to drill holes in the selected mounting surface which could be brick, cinder block, wood, etc. and identify suitable fixings to suit the material for a safe secure mount.
- Know how to drill holes for the cable entering the building, fit connectors to cable, run the cables to the receive location, weather proof and seal all holes made during the installation.
- Be confident that the alignment and installation can be completed.
- Have or purchase the following items that are not supplied in the Orby TV package:
  - Coaxial cable for connection of antenna to LNB, LNB to grounding block and grounding block to Orby TV receiver.
    - Recommended coaxial cable: RG6. 1mm conductor, swept to 3Ghz dual shield
  - recommended cable clips and 75-ohm F-Type compression connectors.
  - Fixings to allow the dish, grounding block, cable and antenna to be mounted to the home.
  - Grounding materials as specified by the National Electric Code
  - Coaxial cable ties
  - Cable splitter, if needed: Only use in-line splitters that pass power on all ports and are rated from at least 5-2300
  - Tools to complete the installation: compass, Phillips head screwdriver, power drill (masonry-compatible as required), correct size drill bits for fixings, level or plumb line, adjustable wrench, silicone filler for holes, cable cutters/prep tool, hammer.

Additional recommended tools: satellite finder/meter, mobile phone / computer for communication. We recommend the V8 Finder BT03 satellite meter for best results. Instructions can be found in the Appendix.
Orby TV Dish Kit Contents

- 27" Elliptical dish
- Elevation back fixing bracket
- LNB Feed arm
- Dish J Pole
- Floor / Wall mount bracket
- Fixing bolts
- LNB
- Terrestrial antenna
- Terrestrial antenna to J pole (mast) and bracket
- Terrestrial antenna fixing bolts
- Grounding block
- Diplexer
- Two 1M RF coaxial cables

Other Items Needed for Installation (Not Included):

- Coaxial cable: RG6, 1mm conductor, swept to 3GHz dual shield. **NOTE:** Standard RG 59 cable causes too much DC drop and signal drop and cannot be used to pass the satellite signal.
- Connectors
- Cable clips
- Wall / floor secure fixings
- Tools:
  - Compass
  - Phillips head screwdriver
  - Power drill (masonry-compatible as required)
  - Correct size drill bits for fixings
  - Level or plumb line
  - Adjustable wrench
  - Cable cutters/prep tool
  - Hammer
  - Silicone filler for holes

These items can typically be found at a local hardware store and should be purchased prior to beginning the installation. It is recommended that dual shield 1mm conductor Coaxial cable (RG6) be used for the connection from the LNB to grounding block, grounding block to the Orby TV receiver location and for the terrestrial antenna to LNB connection.
Orby TV Installation Overview

The Orby TV satellite is in a south facing direction, located at 116.8 degrees West (Eutelsat 117W A).

Information required for satellite dish alignment includes:

**Azimuth**: Horizontal/pointing direction of the satellite dish  
**Elevation**: Vertical direction of the satellite dish  
**Skew**: Satellite dish rotation with respect to the ground, measured in degrees.

Information required to point terrestrial antenna:  
**Location of the local TV towers.** This information is necessary for an installation site survey to identify the most suitable location to install the dish and antenna and to decide on the cable run into the home. NOTE: The satellite dish and antenna pointing are independent – they can point in completely different directions.

To find the correct satellite parameters for your zip code, visit Orbytv.com/dish-pointer-tool.  
Or, visit dishpointer.com or download the Dishpointer app.

Enter your address, then click “All Satellites”. Select “116.8W SATMEX 8” from the list. The site will provide the correct azimuth, elevation, and skew for your address. Record the parameters in the chart below, in part 1.

For terrestrial antenna information and TV tower locations in your area, download the Antenna Point app. It shows the TV towers in your area along with the distance to each tower, based on your location.

Or, visit antennaweb.org. Enter your address and click submit. Do not check the “antenna height” box.

The site shows the approximate number of over-the-air (OTA) channels available in your area and the locations of the TV towers. In many cities, there may be multiple TV tower locations. The terrestrial antenna should be pointed in the direction of the tower with the most available channels, or the tower that broadcasts the channels you watch most.
PREPARATION, ASSEMBLY AND INSTALLATION

Part 1: Gather information and materials

1. Locate the Orby TV satellite direction and ensure that there is a clear, all year, unobstructed line of sight to the satellite. Check that no buildings or trees are in the signal path and it is also free from occasional blockages due to vehicles or passers-by. Locate the local TV tower direction. It is worth looking at neighboring homes with terrestrial outdoor antennas to note which direction antennas are pointed. Information about how to locate local TV towers can be found in the Installation Overview section above or at antennaweb.org.

2. Visit dishpointer.com to find the dish pointing parameters for your home. Record the details in the table below as the information will be required during dish and antenna site survey and during alignment.

<table>
<thead>
<tr>
<th>Zip code of installation address</th>
<th>Azimuth direction</th>
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<tr>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Elevation setting</td>
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<td></td>
</tr>
<tr>
<td>Local TV tower direction</td>
<td></td>
</tr>
<tr>
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</table>

3. With the information above, identify a suitable external location to install the satellite dish and terrestrial antenna.

4. Choose the ideal location in the home for the Orby TV receiver or DVR.

5. Measure all cable runs and purchase source cable, cable clips, connectors, dish and antenna fixings.

6. Unpack and assemble the dish and antenna.

7. Install the dish and antenna system to a solid stable surface, install grounding system, run cables to Orby TV receiver location and align dish and antenna.

8. Connect all cables and power to Orby TV receiver and TV and power on to test.
**Part 2: Choose an installation position.**

The dish and antenna can be co-located on the same bracket if a position can be found on the building or at the chosen mount location allowing both signals to be received. The antenna can be mounted above the dish using the supplied J pole (mast) and bracket or below the dish to the Dish J Pole using the supplied bracket. If the dish and antenna cannot be co-located, then the terrestrial antenna cable can be run to the dish location or installed directly to the Orby TV receiver location where a cable combiner will be required.

Care should be taken in choosing the distance of the dish with respect to the Orby TV receiver and it is recommended that no more than 100 feet of cable is used between the two.

The dish can be mounted to various surfaces as long as the correct fixings are utilized. This could be brick, cinder block, wood, flagstones or a pole mounted into the ground. It is possible to install on some roofs or wall sidings, but this should only be attempted by a professional installer who has had the correct training. Care should be taken to ensure that the Dish J Pole is installed in a precisely vertical position for the parameters recorded earlier in the table to be accurate.

Pole mounts may require the pole being cemented into the ground. If so, the pole cement will need time to set. 150 lbs of fast-setting concrete is recommended for a pole mount.

The installation should not be in a place where it can be damaged during normal day to day living such as being bumped by children playing.

The satellite dish and antenna has been built to withstand most kinds of weather. However, extremely strong winds could cause damage or move the dish or antenna causing signal disruption. A strong and stable mounting surface is required to ensure that the signal is robust and uninterrupted reception of Orby TV services is maintained during snow, rain, and heavy cloud cover. Seasonal changes can affect tree cover which could interfere with the signal path. Consideration should also be given to access to the dish if it becomes necessary to clear snow or ice from its surface.

Make sure the best and final location for the dish and antenna has been identified before drilling any holes in the building or setting up the mounting pole to avoid causing unnecessary damage.

Once the position for the dish and antenna installation has been confirmed using the direction location of the satellite and local TV towers, identified earlier, it should be possible to carry out a test installation to ensure that clear line of site is achievable and the satellite and terrestrial signals can be received at the dish / antenna location. If a signal meter is not available, the Orby TV receiver signal test screen will be used to assist in pointing the dish to the strongest quality signal.
Part 3: Choose a mounting option

The dish mount can be mounted on brick, cinder block, wood, pole on the building side or flat surface. The dish mount can also be fitted on the roof; however, care should be exercised, and roof and siding installations should only be attempted by qualified professionals. It is important that all fixing surfaces should be flat and even. Weather sealant should be applied to any drilled holes.

Mortar between bricks or cinder blocks should be in very good condition. The wall mount should straddle several bricks, not be mounted to the mortar between bricks or in the top layer of bricks or those at the edge of the wall. On cinder block walls or surfaces suitable toggle anchors should be inserted into the cinder block cavity.

It is not recommended that the system is fitted to aluminium or vinyl siding. When fitting to siding it may be necessary to fit shims to even the surface where it is not flush, and the fixings should be fitted to the solid background surface or to the studwork. The studwork can be identified by tracking the fixing nails or using a stud finder.

When fitting the reception system to a roof, care should be exercised and only attempted by a professional. The mounting brackets should be attached through the roof to the rafters. To prevent the roof from leaking, caulk or silicone sealant should be used around all the holes and at the bottom of the mounting bracket where it contacts the roof surface.

When fitting on a wooden deck or beam it is important to ensure that the wood has a solid foundation and that it does not flex at all. Wooden bannisters or railings are not suitable locations.

The dish assembly can be fitted to a pole which is cemented into the ground. The pole should be robustly cemented into the ground, should be plumb and not able to flex. 150 lbs of fast-setting concrete is recommended. The diameter of the pole should be chosen to suit the back assembly on the dish and antenna brackets. Ground work inspection should be carried out to ensure that the pole does not interfere with power, gas, water or sewerage utilities. Care should be taken when running the coaxial and grounding cables to ensure that they are not a tripping hazard or could be damaged. Contact local utility companies for location of any buried cables/pipes before digging.
**Part 4: Assemble the dish and antenna.**

Unpack the terrestrial antenna and fold out the 2 rear elements as shown and tighten in place using the fitted wing nuts. These can be fully tightened as they are not required for later adjustment.

Fold out the 2 inner looped elements as shown and tighten in place using the fitted wing nuts. These can be fully tightened as they are not required for later adjustment.

Using the TV Tower location setting detail recorded earlier, fit the antenna to the toothed clamp in the correct orientation and slide the clamp onto the antenna mast pole. Loosely fix the wing nuts on the U clamp bolts to prevent the antenna from sliding down the mast during the other adjustments but do not tighten as further adjustment will be necessary. If the antenna is being fitted to the Dish J Pole of the dish assembly below the dish the mast may not be required.

Unpack the dish parts and fasteners. Some bolts should be fitted only finger tight until final installation takes place.
Dish Assembly Step 1

If a satellite dish from another company is already installed, it may be possible to replace it with the Orby TV satellite dish. If a DIRECTV dish is present, you may be able to use the existing mast. If a Dish Network dish is present, install a 1 5/8" to 2" pole adaptor. If neither of these options are available, install the Orby TV mast.

If the Dish J Pole and foot/wall fitting is being used, assemble the Dish J Pole to the foot/wall mast using the short bolts into the slotted adjustment channel. Fit the long bolt through the tube and the pivot holes. Fit the nuts and finger tighten as further calibration is required for vertical adjustment during mounting.

Dish Assembly Steps 2 and 3

Insert the 2 short canister tightening bolts into the canister clamping edge, fit the nuts and finger tighten as further calibration is required for azimuth adjustment during alignment. Place the canister into the elevation bracket and fit the long bolt through the tube and the pivot holes of the elevation bracket. Fit the 2 small bolts into the slotted elevation adjustment channel and into the canister holes. Fit the nuts and finger tighten as further calibration is required for elevation adjustment during alignment.

Dish Assembly Step 4

Fit the LNB feed arm to the back frame and secure using the 4 short screws. These can be fully tightened as they are not required for later adjustment.
**Dish Assembly Step 5**

Fit the back frame to the elevation bracket using the 3 short bolts. Fit the nuts and finger tighten as further calibration is required for skew adjustment during alignment. The bolt heads should be inside the back frame to allow access to the nuts after the reflector has been fitted.

**Dish Assembly Step 6**

Fit the reflector to the back frame using the 4 short bolts. Fit the nuts - these can be fully tightened as they are not required for later adjustment.

**Dish Assembly Step 7**

Fit the LNB into the feed arm by pushing it fully in and fit the short bolt. Fit the nut and fully tighten as this is not required for later adjustment.
**Dish Assembly Step 8**

If wall or floor mounted and the Dish J Pole is being used drop the canister over the end of the Dish J Pole but do not tighten as further calibration is required for azimuth adjustment during alignment. If the dish is fitted to a pole in the ground or other alternative fitting, then the canister will drop onto that installed pole.

![Image of Dish Assembly Step 8](image)

**Dish Assembly Step 9**

If the terrestrial antenna is being co-located with the dish, fit the antenna mast clamp to the Dish J pole so it sits either to the left or right of the main Dish J pole, as required, and finger tighten the nuts on the mast clamp. Fit the terrestrial antenna to the end of the mast and finger tighten to prevent it sliding down the mast. The terrestrial antenna will need to be fitted either in its vertical or horizontal mode depending on the information recorded earlier.

![Image of Dish Assembly Step 9](image)
Part 5: Install the Dish Mount

- Before the dish is installed into its final location, ensure that it is possible to route the cable from the dish location into the building where the Orby TV receiver is located, drilling holes where necessary.
- Depending on the final location of the dish and antenna, mount the wall / floor / pole to the chosen solid surface using suitable screws.
- Slide the dish canister off the Dish J Pole and set the dish assembly aside taking care not to damage any of the component parts.
- Fix the wall / floor / pole mount to its final location, using a level or plumb line to adjust the Dish J Pole so that, when the wall / floor / pole mount is fixed to the surface, the vertical part of the mast behind the dish is as close to vertical as possible. Tighten the wall / floor / pole fixing bolts according to the supplier recommendations.

![Diagram](image1)

- Place the dish assembly on the Dish J Pole with the canister securing bolts finger tight. At this point the dish assembly should support itself allowing adjustment during alignment.

![Diagram](image2)

- Using the elevation detail recorded earlier tilt the elevation bracket to the approximate elevation of the satellite using the reference edge on the canister which is visible through the slot and the markings at the rear of the dish on the elevation bracket. Loosely fix the bolts to prevent the dish from moving during the other adjustments but do not tighten as further adjustment will be necessary.
Using the skew setting detail recorded earlier rotate the back frame bracket to the approximate skew of the satellite using the arrow marking at the rear of the dish on the elevation bracket. Loosely fix the bolts to prevent the dish from moving during the other adjustments but do not tighten as further adjustment will be necessary.

• Using a compass and the bearing (azimuth) detail recorded earlier, rotate the canister on the mast so that the dish and feed arm is pointing in the approximate direction indicated by the compass. Loosely fix the bolts to prevent the dish from moving during the other adjustments but do not tighten as further adjustment will be necessary.

• Fit an F-Type compression connector to the end of the coaxial cable at the dish location and screw the connector onto the satellite IF F-Type connection on the LNB, ensuring that the cable is not kinked or crushed.

After the initial mounting of the dish system is completed, the dish and antenna will need to be finely adjusted to ensure the strongest signals are being received.

• Connect the HDMI or composite cable from the Orby TV receiver to the television, connect the satellite coaxial cable to the input connection of the Orby TV receiver and connect the Orby TV receiver power supply to the power outlet. Turn ON the television and the Orby TV receiver and select the correct input on the TV to show the screen of the Orby TV receiver.

• With the dish assembly mounted use the azimuth, elevation and skew settings recorded earlier. This requires fine adjustment to ensure the dish is pointing at the right satellite, the antenna is pointing at the correct TV tower and both are peaked to receive the strongest signals.

• The dish alignment can be carried out by one person if the television can be seen and heard from where the dish is mounted or if a suitable signal meter is used.
• If a signal meter is not available or the screen cannot be viewed from the install location, adjustment of the dish is best accomplished by two people: one to position the dish while another provides information about the effect of the adjustments by watching the signal strength bar on the television. Communication between the two is needed to obtain a peak signal level.

• Use the Orby TV receiver setup screen to select the signal strength option from the menu.

• Avoid standing directly in front of the satellite dish while aiming it to prevent the satellite signal being blocked.

Part 6: Install the grounding block

The dish system, antenna and coaxial cable should be grounded in accordance with National, State and Local electrical codes to protect against damage caused by lightning strikes and other electrical discharges. WARNING: Severe damage to electrical wiring and appliances may occur without proper grounding.

The following guidelines apply to all grounding systems:

A copper-clad iron rod driven into the soil as close to the building as possible provides good grounding. The grounding block should be located as close as possible to the grounding rod, be fixed securely to the building structure and a copper cable should be fitted from the grounding block body screw to the grounding rod. Additional grounding options can be used as described in the National Electric Code. National Electric Code is published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts, 02269-9101 and may be available at your local public library.

The coaxial cable from the LNB should be run to the grounding block taking the shortest possible route and connected to one of the F Type connections on the grounding block. A coaxial cable connected to the other end of the grounding block F Type connection should then be run directly into the home and connected to the Orby TV receiver or the wall socket near the Orby TV receiver.

A grounding cable must be connected into the hole of the grounding block and the screw tightened securing the grounding cable. The other end of the grounding cable must be connected to the clamp on the grounding rod.

To protect the house and Orby TV receiver, the Dish J Pole mast must also be grounded. To ground the mast a grounding cable can be run from one of the bolts securing the wall / floor / pole mount to the grounding rod, using the shortest possible path.
**EXTRA: Multi-room Installations**

When setting up receivers in multiple rooms, an Orby TV-approved splitter should be used in conjunction with a properly bonded and grounded ground block. Any splitter used should be able to pass DC power on all ports and should be rated to pass at least 5-2300 MHz. The splitter utilized should have the same number of ports as receivers you are installing, as having unused ports causes extreme signal loss.

NOTE: DO NOT use splitters from any other satellite or cable service. Other splitters such as DIRECTV SWiM, Dish Network Solo and Duo Nodes, or any cable service utilized component will NOT work with Orby TV.

Approved Splitters:

Eagle Aspen - All ports power passing 5-2600MHz

Perfect Vision - All ports power passing 5-2300MHz

WDC - Worldtec Distributing Corp – All ports power passing 5-2300MHz

**It’s very important to have all ports passing EVERYWHERE. All of these brands of splitters have versions with one port or no ports passing power.**

This is an example of an Eagle Aspen splitter approved for use in a three-room system:

![Eagle Aspen Splitter Diagram](image)

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Below is a diagram illustrating the proper use of a splitter:
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![Diagram Illustrating Proper Use of a Splitter](image)
Part 7: Run the coaxial cable

WARNING: Use caution when drilling into walls. Ensure that no existing electrical wiring is in place to avoid electrocution.

Use the shortest route possible to run the coaxial cable from the LNB to the grounding block and from the grounding block into the building and to the Orby TV receiver. Do not kink or pinch the cable. The cable should not be bent at right angles. Any bend should have at least a 3-inch radius. Securing clips should be spaced about 18 inches apart when the cable is run horizontally along the wall and 36 inches apart when vertical. The clips should hold the cable firmly but not crush it.

The simplest method is to locate the Orby TV receiver inside the building against or near an outside wall. Drill a hole through the outer wall to pass the cable through to inside the building so that it can be connected to the Orby TV receiver. Ensure that there is sufficient cable inside the property to allow it to be neatly dressed from the hole to the Orby TV receiver.

If the receiver is located in an interior room, the cable route should be through the outside wall, and into an attic, basement, or crawl space to access the Orby TV receiver location.

Seal the exterior hole with silicone or other weatherproof sealant material after installation.

Once the cable is inside the building, attach it to a wall socket or, after fitting the F Type connector, directly to the Orby TV receiver.

Do not overtighten the coaxial cable connection. General rule is finger tight plus a quarter turn using a small wrench.

Where the cable connects to the LNB, antenna, grounding block or enters the house through the hole in the wall, ensure that a drip loop is formed in the cable to ensure that water does not run into the connections or into the home.
Part 8: Set up the Orby TV Receiver and fine-tune alignment of the dish and antenna

- If a signal test meter is available, it should be connected using a short coaxial cable to the LNB and using the information recorded earlier, the elevation, azimuth and skew settings should be set. The meter can then be used to fine tune and peak the signals using the same process outlined below. Use the signal meter instruction booklet for guidance on its operation.

- If no signal test meter is available, the on-screen Orby TV signal test screens can be used by selecting the correct input channel on the TV and ensuring that the menu of the Orby TV receiver is displayed on the screen.

Proceed by following the on-screen prompts, making the necessary selections for your situation to continue.
During the fine-tuning alignment of the dish, the Signal Strength bar shows the signal level being received. It is important that all adjustments are carried out using very small steps to achieve the highest signal level on the signal graph.

The possible levels are between 0% and 100%. It is not necessary for the signal strength to reach 100%, and a standard installation is not likely to get the signal strength to this level.

Once a signal level is indicated on the signal strength bar and confirmation is received that the correct satellite has been found, proceed to peaking the signal level.

If no signal level is indicated on the signal strength bar or if the message stating that no satellite signal is present is displayed, loosen the cannister clamp bolts slightly and swing the dish very slowly in one direction. Keep doing this, in very small increments, swinging the dish about 10 degrees. The system takes a second to update the signal strength display, so it is important that the movements are slow and gradual with pauses between adjustments. If the signal is not located in the first direction, rotate the dish back to the starting position and carry out the procedure again, this time with the same small movements but in the opposite direction.
• Turn the dish assembly back and forth very slowly, until the signal strength bar indicates signal is present.

• If the signal still cannot be found, turn the dish assembly back to the original azimuth setting. Loosen the elevation bolts and increase the elevation angle by two degrees. Tighten the elevation bolts and turn the dish assembly slowly back and forth. Repeat these steps, raising and lowering the elevation, until the satellite signal is found.

• When the satellite is found, turn the dish assembly back and forth very slightly until the signal strength bar displays the maximum possible signal strength. Tighten the canister clamp bolts. Then, loosen the elevation bolts and adjust the elevation of the dish up and down slightly until the signal strength bar displays a maximum signal. Do not adjust the skew setting! Tighten all the bolts on the dish assembly so that the dish cannot be moved.

• When the strongest possible signal is found press next to proceed to the next step of the installation process.

Note: Make each of these adjustments individually, loosening the respective bolts before each movement. Very small adjustments (less than one degree) are required at this point.
The Orby TV receiver will scan for satellite channels and store them in the Orby TV receiver memory. Once complete, press next to proceed.

The Orby TV receiver will scan for local terrestrial TV channels and store them in the Orby TV receiver memory. Once complete, press next to proceed.

- If the terrestrial signal cannot be found, loosen the bolts securing the terrestrial antenna to the antenna pole and turn the antenna assembly slowly in one direction by a few degrees. Check again to see if terrestrial channels have been found. Repeat these steps until the local TV channel scan starts. If all the expected number of local TV channels are not seen following the scan, press back and repeat the process making small changes to the pointing direction of the antenna.
It is advisable to return to the software download step after the alignment and outside cable wiring process has been completed as it may take some time to download and install new Orby TV receiver software. The new software download will take a few minutes. To skip the new software download, press cancel to proceed to the next step of the installation process without downloading the new software - the new software will automatically update overnight.

Follow the screens activate the Orby TV service. Download the Orby TV app at OrbyTV.com. You’ll be able to active your service through the app.
Once service is activated, you should be able to see both local channels and satellite channels. Test a few of both to make sure that the system is working properly.

Choose a monthly programming package in the Orby TV app and get ready to enjoy!

Welcome to Orby TV!
**Part 9: Troubleshooting**

**No satellite signal**
- Satellite dish might not be aligned properly. Go to *Part 8: Set up the Orby TV Receiver and fine-tuning alignment of the dish and antenna* in this guide to review the dish pointing steps.
- Satellite dish mount and/or mast may not be plumb. Go to *Part 5: Install the Dish Mount* in this guide to review levelling steps.
- Make sure all cable connections are correct and each connection is seated/tightened properly.
- Inspect the inside of each cable connector for dirt or possible connector to case/shield short.
- Standard RG 59 cable causes too much DC drop and signal drop; it cannot be used to pass the satellite signal. RG 6 coaxial cable must be used.

**No OTA channels**
- The OTA antenna may not be aligned properly. Go to *Part 8: Set up the Orby TV Receiver and fine-tuning alignment of the dish and antenna* in this guide to review the OT antenna pointing steps.
- The diplexer may not be installed correctly. Make sure the SAT port on the diplexer is connected via coaxial cable to the satellite dish. The TV port (can also be named UHF/VHF or ANT) must be connected to the OTA antenna. The IN/OUT port must be connected directly to the receiver or with only an Orby TV-approved all port power passing splitter in line (when applicable for multi-room viewing). A second diplexer is not necessary as your Orby TV receiver has one built in.

**Intermittent Signal on local and satellite channels**
- There may be a line of sight issue with your satellite dish and/or terrestrial antenna. Go to *Part 5: Install the Dish Mount* in this guide to review the dish installation steps.
- The satellite dish/terrestrial antenna may not be installed on a flat surface. Make sure that the satellite dish mounting bracket is installed securely on a flat surface and can't be moved. Ensure that the dish and antenna are in a location where they can't be bumped out of alignment by people, tree branches, or other objects.

**One receiver or DVR is working, other receivers or DVRs in the home aren't working**
- Ensure that the splitter to additional receivers is an Orby TV-approved splitter. Splitters such as DIRECTV SWiM, Dish Network Solo and Duo Nodes, or any cable service utilized component will NOT work with Orby TV. Go to *EXTRA: Multi-Room Installations* in this guide to see the list of Orby TV-approved splitters.
APPENDIX

V8 Finder BT03 Programming Instructions

Please note the BT03 requires an external power supply via USB

The meter and application are designed for the point and peak process for satellite channels only. You will not be able to view or confirm any off-air antenna signals or channels.

### Step 1
Download the “V8 Finder” in iPhone App Store or Google Play Store

### Step 2
From the Main Screen, click the satellite icon on the bottom task bar

### Step 3
In the satellite list, select Orby TV if it’s already programmed, or click the “+” icon to add 116.8 W to the list. Follow steps 4 and 5 to add Orby TV.
**V8 Finder BT03 Programming Instructions (cont.)**

<table>
<thead>
<tr>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satellite Editor Steps</strong></td>
<td><strong>Once added, make sure to hit “Commit” in the TP Editor underneath “V” first, and then “Commit” again in the top right corner of the screen. (Android users only need to “Commit” once)</strong></td>
<td><strong>Back to Main Screen – Click on “Antenna” and you will see the “LNB Config” Screen</strong></td>
</tr>
<tr>
<td>• Name your satellite “Orby TV”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Position 116.8 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Click the “+” symbol to add Frequency, Symbol Rate and Polarization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Frequency: 11940</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Symbol Rate: 30000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Polarization V (vertical)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Step 7**
- Set your LNB Frequency to 10750
- Set 22K to “On”
- Leave Diseqc port “Off”

**Step 8**
- When the V8 BT03 green satellite meter is powered, you will see a blinking blue light on the meter itself.
- A blinking blue light means Bluetooth is on and searching.
- When you hit the Bluetooth logo within the app, this light should hold solid blue, meaning the meter and phone are connected.

**Step 9**
- The Main Screen is your Point and Peak screen.
- If your dish azimuth, skew and elevation are correct, you should see “Strength” almost instantly. This does not mean you are pointed at the correct satellite.
- **When you see significant signal under “Quality”, you are locked on 116.8 W.**
- Click on the “Channel Search” icon at the bottom of the app to confirm. You’ll see all channels that are coming in if your antenna and transponder settings are correct. If you see Orby TV channels (example: 101 (TNT), your settings are correct.