

1. Preparation

Pre Arrival

- Ensure professional appearance & conduct
- Verify correct tools, equipment, & supplies
- Review work order
- Status the customer

Arrival

- Update appointment status to "Start"
- Gather materials
- Set out safety cones
- Briefly look for line of sight
 - If potential LOS issue, skip to step #4 after introduction with customer

Status the customer

- Introduction
- Give estimated time of arrival
- Confirm customer's address
- Are pets secured?
- Someone 18+ years old present?

Gather materials

- Tablet
- PPE
- Boot covers
- Multi-line identifier
- LAN tester
- Receptacle tester
- Inclinator
- 7/16 wrench or security shield

2. Customer Confirmation

- Introduction with customer
- Put on boot covers
- Confirm customer's order

Confirm customer's order

- Number of rooms to install
- Equipment in each room
 - HD or SD
 - DVR
- Programming
- Billing amount
- Terms of commitment

3. Receiver/Connectivity Site Survey

- Identify the 1st receiver location
 - Test outlet with receptacle tester
 - If pre-wired, check for high frequency barrel and tone out the line
 - If not, determine penetration location
- Check for internet/phone connectivity
- Identify TV2 location (dual tuner only)
 - If pre-wired, tone out the line
 - If not, determine penetration location
- Repeat steps for multiple receivers
- Identify potential cable routes
 - Home run box
 - Verify correct lines with multi-line ID
 - Crawl space/attic/garage

Tip

Use a standard color for toning out rooms:

Receiver #1	- Brown
TV2	- Red
Receiver #2	- Orange
TV2	- Yellow

Tip

- Identify if there is existing cable for the internet
- Determine what connectivity equipment will be used
- Use connectivity pamphlet to explain benefits of connecting

4. Mounting/Cabling Site Survey

- Determine grounding option(s)
- Determine line of sight
- Determine mount location/mount type
- Determine cable route and configuration
- Measure/estimate messenger cable needed (from dish to ground block)
- Measure/estimate ground wire needed (from ground block to ground source)
 - Must be less than 20 ft.

5. Pre-Install Customer Walk Through

Walk Through

- Inform customer on mount location, cable route, penetrations, and receiver locations
 - Inform customer service call charge will apply to reconfigure receivers
 - Gain approval and estimate job length
- ### Vehicle Run #1
- Go back to vehicle
 - Add time to appointment (if needed)
 - Put tablet in standby mode

Advise customer

YOU are the expert! Inform the customer on the best place to mount the dish and run the cables. Only offer additional options if requested by the customer.

6. Dish Preparation

Dish Assembly

- Set up work area at the back of vehicle
- Load tool belt
- Gather and arrange materials
- Adjust skew & elevation to local standards
- Attach skew plate to reflector
- Attach bracket to arm
- Cut and prep estimated messenger cable
- Attach LNBF to messenger cable & bracket
- Attach ground lug/screw to mast
- Specialty mount assembly (if needed)

Transport Materials

- Gather SBSM, dish assembly, and single RG-6
- Bring all materials to mount site
- If a ladder is needed, take a second trip

Load tool belt

- Ground block(s)
- Connectors
- Diplexer(s)
- Flex clips
- Lag screws
- Ground lug/screw
- Grounding component
- Silicone
- Bushing(s)
- Wall plate(s)
- Cut-in box(es)
- Ground wire
- Zip ties

7. Dish Installation

Dish Mount (Direct to Wall)

- Set up and climb the ladder (if needed)
- Find and mark the stud
- Level the footplate
- Mark and pre-drill center holes
- Apply silicone to holes and footplate
- Drive in center lag screws 99%
- Verify mast is level
- Tighten center lag screws
- Drive in & tighten remaining lag screws
- Tighten hardware
- Attach struts (1000.4 long mast, 500+, 1000+)
- Place dish on mast

Gather materials

- PPE
- Reflector, mast, hardware, bracket
- LNBF, messenger cable
- Additional mounting materials
- Drill bit (if needed)

Pointing & Peaking

- Connect SBSM and confirm settings
- Point dish to optimum signal
- Peak dish with fine tune adjustments (if applicable)
- Lock it in and tighten hardware
- Perform a limit scan

Critical steps

- Make sure you hit a STUD when mounting the dish
- Make sure you PRE-DRILL center holes
- Make sure to use the correct number of LAGS:

- Wall	= 6 lags (center 2 in stud)
- Brick	= 4 lags (not in mortar)
- Fascia	= 4 or 5 lags (2/3 in stud)
- Angled	= 6 lags (center 2 in stud)
- Under Eave	= 4 lags (all 4 in stud)
- Telescoping	= 6 lags (center 2 in stud)

8. Grounding

- Attach messenger wire to ground lug/screw
- Run messenger cable to ground block
- Install ground block(s)
- Connect messenger cable to ground block
- Connect messenger wire and ground wire to ground block
- Install grounding component
- Run the ground wire to grounding component and connect

Critical step

- Secure cables every 12"-24"
- Build a 4" drip loop below connections
- Torque all outdoor connectors to 30 in-lbs

9. Cabling

Exterior Cabling - Pre Wired House

- Use multi-line identifier to ID proper lines
- Connect proper cables to ground block(s) and/or diplexer(s)
- DNS approved RG-6

Exterior Cabling - Running New Cables

- Drill all penetrations
- Feed cables through bushing and apply silicone
- Run the remaining exterior cables
- Secured every 12"-24"
- Connect cables to ground block(s) and/or diplexer(s)

Drill penetrations

- Tips:
- Identify a reference point
 - Measure both entrance and exit
 - Drill inside - out (wood)
 - Drill outside - in (brick)
- Steps:
- 1- Clear both entrance/exit
 - 2- Cut hole for cut-in box
 - 3- Inspect for obstructions
 - 4- Drill through the wall

Tip

When making a wall penetration, utilize the hole in the tip of the 3/4" drill bit to attach the coax cable and feed the cable through the hole.

Vehicle Run #2

- Gather equipment and clear away trash from outside
- Go back to vehicle
- Prepare interior cables
- Gather items
- Put on boot covers and proceed inside
- May take multiple trips (if needed)

Gather items

- Receiver(s)
- Connectivity device
- Tablet
- Vacuum
- SBSM
- Interior cables
- Wall fishing supplies (if needed)
- Interior ladder (if needed)
- Screen cleaner

Interior Cabling

- Wall fish (if requested)
- Attach wall plate to cable
- Attach wall plate to wall
- Run interior cables to TV
- Secured every 12"-24"

10. Receiver Installation

Receiver Set Up (ViP and earlier)

- Check signal strength with limit scan
- Unwrap receiver and place in well ventilated area
- Connect appropriate items (coax, triplexer, and/or remote antenna)
- Connect the receiver to the TV
- Plug receiver into outlet
- Run check switch & download software
- Prepare remote(s)
- Clean up receiver trash (including box)
- Repeat for all receivers
- TV2 (if applicable)
 - Connect TV2 to backfeed
 - Program TV2 remote to TV
 - Set SAT Auto Tune
 - Run auto channel scan on TV2
 - Repeat for all TV2s

Tip

Perform a limit scan before you set up the receiver, so that you can identify any issues in the install prior to activating and downloading the receiver.

Tip

While the receiver is downloading the software, proceed onto the next steps. Do not wait for download to finish.

Prepare remotes

Put on labels and batteries

Device Code - Power Scan
[TV mode] hold - [power] - [up arrow] - TV turns off - [#]

Limited Mode
[TV mode] hold - [page up] - [#]

SAT Auto Tune
Program: [TV mode] hold - [*] - [TV2 channel ex. 60] - [#]
Enable: [sat mode] hold - [*] - [vol up] - [#]

Remote Address
At "System Info" screen:
[sat mode] hold - enter digits [1-15] - [#] - [Record]

Activate and Finalize Set Up

- Activate receiver(s) on tablet
- Connect the receiver to internet/phone
 - Run STB Health Live
 - Verify signal strength and connectivity
 - Retrieve positive code
- Change HDTV settings (if applicable)
- Verify programming on all TVs
- Clean up any mess with vacuum
- Enter work notes and/or paperwork

Tip

USE THE VACUUM even if you do not believe you made a mess. This will instill a level of confidence with the customer that we CLEAN UP after our installs. This can help you on your CSAT scores.

11. Customer Education

- Explain work completed to customer
- With permission, clean all TVs
- Hand the remote to the customer
- Use the Getting Started with DISH Guide
- Use the Getting Started with DVR Guide (if applicable)

12. Post Installation

- Have customer sign agreement(s)
- Thank customer
- Ensure you have all tools and equipment
- Go back to vehicle
- Update appointment status to "Complete"
- Depart

Use the Getting Started Guide

Quiz the customer on the basics of the system, including the 5 troubleshooting steps. Have the customer show you that they can get back to the correct input or channel.