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Section 1: Introduction

Welcome to Home2US communications Inc.
Please keep these things in mind during installation:

1. If you find that you cannot successfully install your AMC - 4 system by yourself, one of Home2US's professional satellite installers can be called upon to finish the install for you. However, you will still be charged the full install price no matter what stage of the install you are on.

2. Please read this manual thoroughly before starting the install. If you have any questions, please call us at (888)312-2182.
Section 2: Recommended Tools and Materials

Note: The items below are not included with this system and will need to be obtained separately. Please read this manual completely for additional tools and materials.

1. Satellite signal meter (preferably a Birdog or similar)
2. 7/16” and 1/2” Wrenches
3. Socket Set
4. Drill (hammer drill is preferred for brick walls)
5. 5/16 Wood or Masonry Bit
6. 5/16 Lag Bolts for a wooden structure or 5/16 concrete anchors for a block or brick wall
7. Torpedo Level
8. Phillips-head Screwdriver
9. Feed-through Bushings
10. Caulk
11. Permanent Marker
Section 3: Getting Started

The first step in installing your Satellite Dish is to make sure you’ve received all of the components. You should have:

1. Satellite Dish
2. LNBF
3. Receiver
4. Compass
5. Coaxial Cable RG-6 75 ohm 75 feet

The next step is to determine where on your property is the best place for installing the antenna.
Once you have the position of the satellite, walk the property with a compass (shown in Figure 1) to determine the best placement of the dish with a **CLEAR VIEW** towards the satellite. This means there can be no buildings, trees, power lines, etc., between your dish and the sky. Then determine where the dish must be installed and how the cable needs to be run to reach the Receiver.

![Figure 1](image)

Now, let’s begin to assemble the satellite dish. First, lay out all the parts included in the antenna box (refer to Figures 2 - 6).

![Figure 2](image)  ![Figure 3](image)  

**Figure 2**  **Figure 3**

![Figure 4](image)  ![Figure 5](image)  ![Figure 6](image)  

**Figure 4**  **Figure 5**  **Figure 6**

*NOTE: Your dish may be slightly different than the example in this manual. Please refer to instructions included with the dish for more detailed assembly instructions.*
Section 4: Satellite Dish Assembly

Lay the dish flat to ensure it is not out of shape or damaged. Then attach the left and right reflector brackets and hand tighten them using four (4) \(\frac{1}{4}'' \times \frac{1}{2}''\) round head bolts and \(\frac{1}{4}''\) hex nuts.

Assemble the LNB Mast Bracket using two (2) \(\frac{1}{4}'' \times 2''\) round head bolts with \(\frac{1}{4}''\) hex nuts on the sides and two (2) \(\frac{1}{4}'' \times \frac{7}{8}''\) round head bolts with \(\frac{1}{4}''\) hex nuts on the end of the bracket.

Then, attach the bracket to the dish using two (2) \(\frac{1}{4}'' \times 1''\) round head bolts and \(\frac{1}{4}''\) hex nuts on the top and bottom and one (1) \(\frac{1}{4}'' \times 1''\) bolt and \(\frac{1}{4}''\) hex nut on the end of the LNB Bracket to secure the LNB after the dish has been mounted.

Tighten all nuts and bolts with the 7/16'' ratchet wrench or socket. Insert the plastic covers at the ends of the LNB Bracket, and set it aside.

Now let’s work on installing the Mast Bracket. Go on to Section 5 (page 9) if you intend to Wall-Mount it, Section 6 (page 10) if you intend to Pole-Mount it and Section 7 (page 12) if you intend to Roof-Mount it.
Section 5: Wall-Mounting the Mast Bracket

First, find a smooth surface with a clear view of the satellite (refer to the Azimuth and Elevation you got from http://home2us.com/b2c/content/satellite-locator).

**Masonry:** (See Figure 8) Drill a 5/16” pilot hole through the upper left hole in the bracket with the masonry bit. Using a torpedo level, **make sure the bracket is perfectly level and plumb.** Drill the remaining three (3) holes, and then insert four (4) 5/16” x 1 ½” red head anchors for masonry walls.

**Wood:** (See Figure 9) Drill a 5/16” pilot hole through the upper left hole in the bracket with a wood bit. Using a torpedo level, **make sure the bracket is perfectly level and plumb.** Drill the remaining three (3) holes, and then insert four (4) 5/16” x 1 ½” lag bolts.

*Note: The lag bolts and anchors are not supplied with the antenna.*

Attach the pole to the bracket you mounted with one (1) ¼” x 2 ¼” hex head cap bolt with ¼” hex nut through the bracket and pole. At this time, simply hand-tighten to allow for adjustments. Using the torpedo level, adjust the pole so that the vertical section is **level and plumb** (refer to Figures 11 and 12).

Attach the clamp and side brackets using one (1) 5/16” x 3” hex screw with 5/16” hex nut and two (2) lag bolts for either wood or concrete as required (refer to Figure 13). **Make sure the pole is level and plumb** and then tighten everything down.
Section 6: Pole-Mounting the Mast Bracket

Recommended Tools and Materials:

1. Post hole digger
2. Shovel
3. Concrete
4. Wheelbarrow or large pail for mixing concrete
5. Steel Pipe - 6 foot (it is recommended that you bring your mast bracket with you to ensure you have the right size pipe)
6. Flange
7. 4 bolts with nuts ¼”
8. Cinder Block 8” square (to fit over pole on ground)

Find a place on the property close to where the cable will penetrate the wall that has a clear view of the satellite (refer to the Azimuth and Elevation from Section 3) for placement of the pipe.

Screw the flange onto the pipe and insert the four (4) bolts looking up from the bottom and attach the nuts. This will prevent the pipe from spinning in the hole. Set aside until the hole is ready (refer to Figures 14 and 15).

Dig a hole in the ground approximately 3 feet deep and 8” round. Insert the pipe with flange on the bottom, and fill with concrete (refer to Figures 16 and 17).
When the hole is filled to the ground level, insert the block over the pipe and fill with concrete (refer to Figures 18 - 20). **Make sure the pipe is perfectly plumb and level.**

![Figure 18](image1.png) ![Figure 19](image2.png) ![Figure 20](image3.png)

Continue to check the pipe for level and plumb. Once the concrete hardens, you are ready to insert the dish over it and continue with the installation.
Section 7: Roof-Mounting the Mast Bracket

Note: Home2US does not support the penetrating of any roof nor will be held liable for any damages resulting from the mounting of the dish on to or on top of any structure of any kind.

Recommended Tools and Materials:

1. Felt Paper
2. Cinder Blocks
3. Dry Wall Bead
4. Tin Snips

This section will outline a low cost method for installations of this type. However, it should never be used in a public building, a building over two (2) stories, or a high wind area. If you need clarification on this, please call (888)312-2182 for assistance.

Installing the dish on a flat roof can be dangerous if not done properly. Before going forward, Home2US recommends that you contact a structural engineer to calculate wind load and stress factors as well as purchase an approved non-penetrating roof mount with the appropriate number of blocks.

Lay out the felt paper under the blocks. Using three (3) blocks initially, attach the Mast Bracket to the cinder blocks by drilling holes through the top of the blocks and attaching the bracket using four (4) 5/16” x 2” bolts, flat washers and lock washers with the 5/16” hex nuts and one (1) 5/16” x 2” bolts, flat washers and lock washers with the 5/16” hex nuts on each of the side brackets. Use additional washers as needed for leveling and plumbing of mount. Lay out the additional blocks; following the block pattern diagram (refer to Figure 21-23).
Using your tin snips cut the bottom side of the dry wall bead, then bend it into a 90 degree angle, and insert it under the blocks. At each row end, cut it again and wrap the blocks. This will make a secure channel that the blocks will set in. You can attach the overlapping bead with a screw and nut or a rivet if available. Also, it is recommended to place cement bags on the blocks for extra weight.

**Make sure the pole is perfectly level and plumb** and then continue with the installation.
Section 8: Attaching the Satellite Dish and LNB

Carefully lift the satellite dish you assembled earlier and place it over the pole so it slips down (refer to Figures 24 and 25). Then slightly tighten the bolts.

Attach the LNB to the bracket (see Figure 26) and position the “F” connector at the "5" o’clock position (see Figure 27).

The LNB should be placed in the middle of the bracket. The “F” connector should face the "5" o’clock position when looking towards the front of the dish (see Figure 27). The LNB must be placed in the center of the bracket (see Figure 28).

To optimize the signal quality, slide the LNB in both directions (as shown in Figure 29) and find the peak signal (see Section 11 for Signal Measurement information).
Section 9: Coaxial Cable and Connectors

The RG-6 cable should be of 60% or better braiding, copper clad and no longer than 150 feet in length.

There are many approved manufactures of “F” connectors. Home2US recommends F56-324T connectors by the USA Electronics, Gilbert and LRC (see Figures 30 and 31).

These outdoor connectors have a ring and sealant that is used for weather protection. We also recommend using a weather boot for additional protection.

In installing the connectors, strip the coaxial cable with a cable stripper (9/16”) to expose the white dielectric. Then, strip the white dielectric to expose 5/16” of the copper center conductor (see Figure 32). The outside of the center conductor carries the signal, be very careful not to score or damage it.

Note: Make sure the center conductor is clean of all materials, and that none of the braiding is touching it. If the braid or shielding touches the center conductor, it can short out the LNB and attenuate the signal.

Carefully slip the stripped cable into the connector. Again, make sure that only the center conductor fits through the hole. Push the cable into the connector until the white dielectric is level with the bottom of the nut. Crimp the connector with a hex type RG-6 crimping tool.
To test the 18Vdc voltage from the modem, connect the coaxial cable to the modem after it is installed. Next, using an approved volt meter set the probes to read DC voltage. Place the common probe (−) on the outside of the connector, and the positive probe (+) on the center conductor. This should read +18Vdc.

If there is no voltage, check the connector(s) carefully to ensure that there is no braids shorting it out. If the coaxial cable is clean, you may have a bad satellite modem and you should contact Home2US technical support.
Section 10: Grounding the Satellite Dish

The satellite installation should be grounded to prevent any damage to your Receiver. Please refer to the NEC codes in your area for specific rules and regulations.

If there are no specific codes, Home2US recommends the following:

1. Install an approved ground block before the point where the cable penetrates the building.
2. Make sure you install weather boots and the correct outdoor connectors.
3. Run a RG-6 solid copper insulated wire to a cold water pipe or an electrical meter if it’s within 25 feet of your ground block.
4. If not, insert an 8 foot ground rod into the ground. Connect the insulated wire.
5. There are ground blocks with lightning arrestors for additional protection available.
6. Use a surge protector for protection where you plug your Receiver into the wall outlet.
Section 11: Signal Measurement

While aligning your dish, you can measure your signal strength by using either the indicator built in to your satellite receiver's software or a signal level meter.

Signal strength updates every few seconds, so there will be some delay from when you move the dish and when the change registers on the TV screen. If you can't see the screen, have someone watch it for you during the moving process so you can ensure the best-possible signal.

Also, remember that your Receiver should be powered off and unplugged whenever connecting or disconnecting the RG-6 coax cable. You can damage your satellite Receiver by connecting and disconnecting the RG-6 while your Receiver is powered on and plugged in.

Of course, the Receiver will need to be turned on again in order to get a signal reading.
Section 12: Satellite Dish Alignment

Now, connect the coaxial cable from the LNB to a Signal Meter or the satellite receiver (make sure the Receiver and TV are off before connecting).

Refer to your SatFinder results from Section 3 of this guide for your Elevation. Lightly tighten all the bolts on the elevation bracket and mast bracket to allow for slight movement and adjustment.

Standing at the rear of the dish, carefully set the elevation by adjusting the bolt to the respective setting (refer to Figures 33 and 34). Remember to tighten the bolts enough so that the dish won’t slip, but is still slightly movable.

Refer to your SatFinder results from Section 3 of this guide for your Azimuth.

Standing behind the dish, move it towards the correct compass setting. Now, very slowly, move it in both directions until you receive a signal on your meter/screen. Then move the dish very slowly up and down to peak the signal.

Then turn the LNB very slowly and move it in and out of the bracket. These steps should be done repeatedly, until the maximum signal is received. Once you are satisfied with your signal strength, tighten all the bolts.

Using a permanent marker, draw a line on the elevation bracket where the bolts are and also three (3) lines on the mast bracket to the pole for a reference should the dish ever move. Confirm the elevation setting on the bracket.
Section 13: Finishing Up

If you used a Signal Meter to align the dish, refer to Sections 1 - 5 of the Home2US Satellite Dish Installation Manual to complete the installation of the receiver.

Enjoy your Satellite TV by Home2US Communications.