

# AIRNETIX, LLC

INNOVATIONS IN WIRELESS TECHNOLOGY

2218 Edgartown Lane SE, Smyrna, GA 30080 - 678-677-4961 - [www.airnetix.com](http://www.airnetix.com)

StreetSounds®

## Fixed Master Installation Guide

V2.0

December 2020



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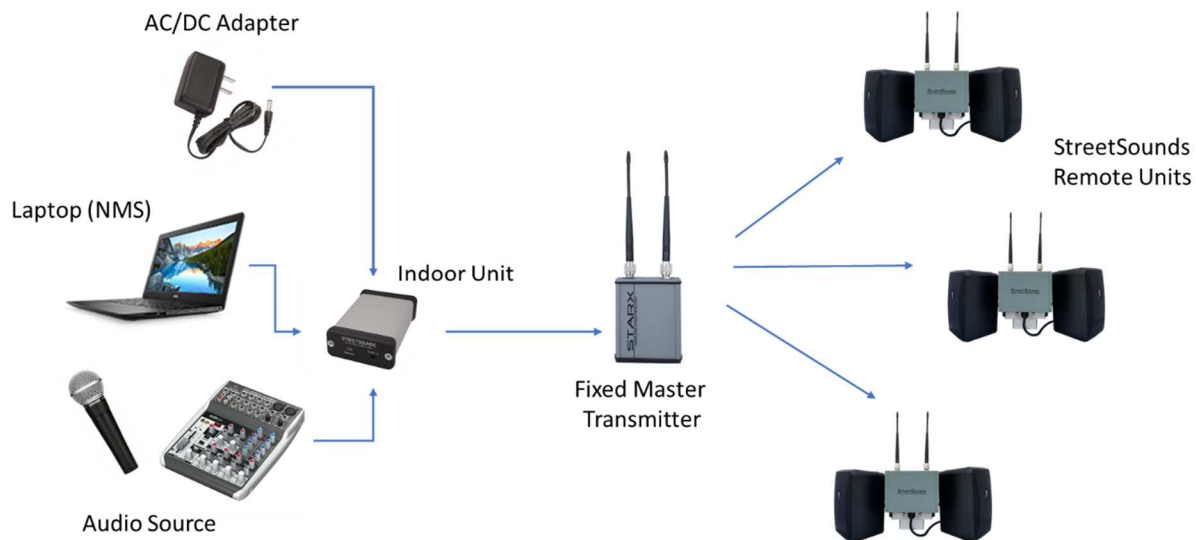
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## Pre-Installation Planning

The *StreetSounds Design and Planning Guide* should be read thoroughly prior to installing your network. This guide provides a great deal of important information that will make the actual equipment installation go smoothly.

## Installing the Fixed Master Kit

The Fixed Master transmitter kit consists of a STARX-ODU-DC (DC powered Outdoor Unit), a 150' shielded Cat5 cable, dual-omni high-gain antenna kit, and an STARX-DC-IDU (DC powered Indoor Unit).



## Installing the STARX Outdoor Unit Radio (STARX-ODU-DC)

The ODU should be mounted on the roof of a building overlooking the main coverage area of the radios. It is important that the antennas be mounted as high as possible so that they are not obstructed by any solid objects on the roof. *It is also important that the mount be located as close to the front edge of the roof as possible* so that the downward look angle to the remote units is as clear as possible. The “line of sight” does not need to be completely clear of obstacles, but the clearer the line of sight, the better the signal at the receivers.

***AirNetix does not provide a mount for the Fixed Master. The customer is responsible for purchasing a suitable mount.*** Below are several mounts that are recommended for use with the STARX-ODU-DC radio. The “non-penetrating roof mounts” tend to work best.

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## Maxxwave MW-NON-PEN-2 Adjustable 2in Non-Penetrating Roof Mount



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### Adjustable 2in Non-Penetrating Roof Mount



MW-NON-PEN-2

#### Product Features

- Heavy duty, Galvanized (12 gauge) steel frame
- Tilting mechanism included (as pictured)
- 57.5" (1.46 m) tall, galvanized pole, can extend up to 13 feet (with user-supplied pipe)
- Pipe diameter: 1.75 OD" (4.5 cm) and can be extended vertically by placing a 1.50" OD pipe inside it. Pipe clamp is included.
- Base dimensions: 29.5" (75cm) x 35" (89cm)
- Product Weight: 28lbs
- Assembles in 15 minutes (all bolts, nuts & mounting accessories plus assembly instructions are included)
- Takes up to 6 cinder blocks to secure
- Mast can be adjusted from a flat roof surface to a 45° angle or more

MADE WITH PRIDE IN THE USA

#### New Features Include

Shipping box is now sized so no extra dimensional fees apply

Galvanized frame

Galvanized 57.5" tall pole

Fewer parts for easier and even quicker assembly

Pole retention clamp packaged separately

#### Assembly Instructions

[Non-penetrating Roof Mount Assembly Instructions](#)



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## EZ NP-72-200 Non-Penetrating Roof Mount

Electronics > Accessories & Supplies > Audio & Video Accessories > Satellite TV Equipment > Mounting Accessories > Satellite Dish Mounts



Click image to open expanded view

### EZ NP-72-200 Non-Penetrating Roof Mount with 2" x 72" Mast w/ROHN Roof Mat

Brand: Easy-Up  
★★★★★ 9 ratings

Price: **\$168.99 & FREE Shipping**

**Coupon**  Save an extra 5% when you apply this coupon. Details

Save up to 5% with business pricing. Sign up for free Amazon Business account

- EASY UP NON-PENETRATING ROOF MOUNT FOR SATELLITE DISHES, WIRELESS INTERNET ANTENNAS, ETC
- ROHN FRMMAT: 1/8" THICK x 42" x 36" ROOF MAT TO PROTECT ROOF FROM FRAME RAILS
- STEEL CONSTRUCTION. 35" X 28" BASE
- FEATURES 2" X 72" X 18 GAUGE GALVANIZED MAST
- USES STANDARD CONCRETE BLOCKS TO ANCHOR

Compare with similar items

Report incorrect product information.

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Replacement Earpad for Sennheiser GSP 600, GSP 670, GSP 500 Professional Gaming Headphones...  
\$16.89 **prime**

Sponsored

**\$168.99**  
& **FREE Shipping**

Arrives: **Dec 2 - 4**

Fastest delivery: **Thursday, Dec 3**

In Stock.

Qty: 1

**Add to Cart**

**Buy Now**

Secure transaction

Ships from Antenna Parts Outlet  
Sold by Antenna Parts Outlet

Return policy: Extended holiday return window till Jan 31, 2021

**Add a Protection Plan:**

- 3-Year Protection for **\$21.99**
- 2-Year Protection for **\$15.99**

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## Ubiquiti UB-AM "J-Mount"

An alternative mounting option is to use a Ubiquiti "J-Mount" (Ubiquiti UB-AM ~\$20) as shown below. This mount is smaller but requires drilling into the façade of the building for the anchor bolts and CAT5 cable.



Click image to see enlarged view

### Ubiquiti Universal Antenna Mount UB-AM (Original Version)

Brand: Ubiquiti Networks  
★★★★★ 560 ratings | 26 answered questions  
Amazon's Choice for "nbe-sac-gen2-us"

List Price: ~~\$23.00~~  
Price: **\$15.19** ✓prime & FREE Returns  
You Save: **\$7.81 (34%)**

Get \$125 off: Pay \$0.00 upon approval for the **Amazon Business Prime Card**. Terms apply.

May be available at a lower price from other sellers, potentially without free Prime shipping.

- Product Type:Antenna Mount
- Brand Name:Ubiquiti
- Manufacturer:Ubiquiti Networks, Inc
- Product Model:UB-AM
- Product Name:Universal Antenna Mount

New (11) from **\$15.11** ✓prime FREE Shipping

Report incorrect product information.



Five Star Cable Cat6 1000ft Twisted Pair 23AWG Solid UTP Network Ethernet Cable, 550Mhz, PVC RJ45 Wire Bulk Pull Box, Blue  
★★★★★ 58  
\$60.00 ✓prime

**\$15.19**

✓prime & FREE Returns

FREE delivery: **Wednesday, Dec 2**  
Order within 9 hrs and 59 mins  
Details

In Stock.

Qty: 1

Secure transaction

Ships from Amazon  
Sold by sclass

Return policy: Returnable until Jan 31, 2021  
 Add gift options

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## Assembling the Dual 5dbi Omni Antenna Kit

Dual 5dbi Omni Antenna Kit with Combination Antenna Extender & Radio Mount acts both as an antenna extender and a radio mount. It provides a simple mounting surface for either pole or wall mounting, as well as an extender for the antennas.



## Assembly Instructions

Place the combo bracket over the two Type N antenna connectors on the radio. **DO NOT REMOVE THE EXISTING NUTS AND LOCK WASHERS ON THE RADIO CONNECTORS.** The kit comes with two additional

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Place one nut and lock washer for attaching the MNT-ANTEX-COMBO. Place one nut and lock washer on each of the antenna connectors. Tighten securely.



Insert the two Type N bulkhead connectors in the outer holes at either end of the antenna extender arm. Secure with the supplied nuts and lock washers.



Attach the two RF cables between the radio antenna connector and the bulkhead connectors on each side of the extender.

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Below is the finished radio assembly.



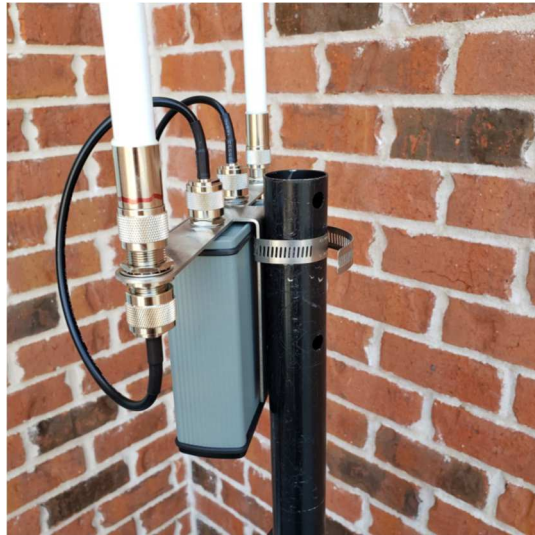
The radio assembly can be attached to a ~2" pole using the supplied hose clamp. Larger hose clamps can be used for larger diameter poles.



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Attach the two 5dbi whip antennas to the two outer bulkhead connectors.



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## Running the CAT5 Shielded Cable

AirNetix supplies a pre-terminated CAT5 Shielded cable for connecting the Outdoor Unit to the Indoor Unit. This cable is supplied with a weatherproof connector on the outdoor end, and a standard RJ-45 connector on the indoor end.

**IT IS IMPORTANT TO PROTECT BOTH THE OUTDOOR CONNECTOR AND INDOOR RJ-45 CONNECTOR WHILE INSTALLING THE CABLE TO PREVENT THEM FROM BEING DAMAGED. A DAMAGED CONNECTOR WILL CAUSE UNRELIABLE AND/OR INTERMITTENT BEHAVIOR OF THE NETWORK MANAGEMENT SYSTEM.**

**DO NOT CUT THIS CABLE. THE SHIELD IS USED AS A GROUND WIRE AND WILL NOT WORK PROPERLY IF THIS GROUND IS NOT FULLY CONNECTED. LEAVE THE CABLE COILED AT ONE END IF EXCESS CABLE IS PRESENT AFTER INSTALLATION.**

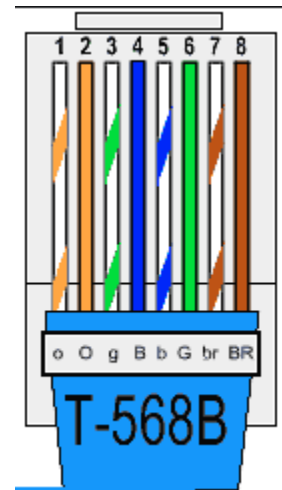
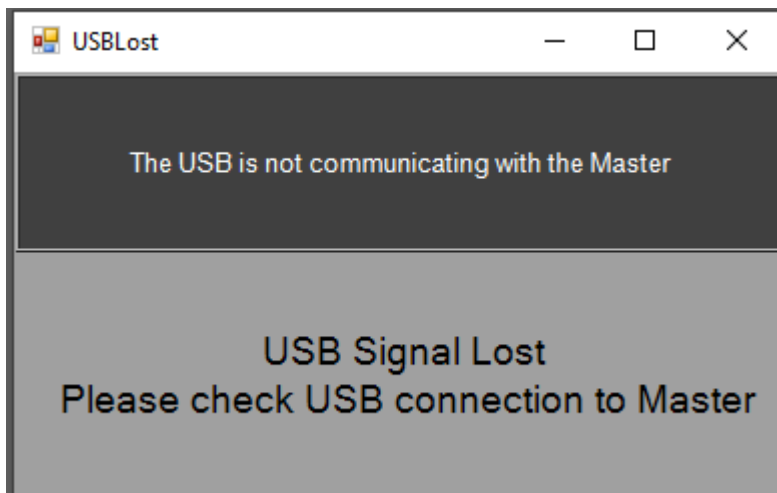
**THIS IS NOT AN ETHERNET/LAN CABLE. Each wire is used in a proprietary way to conduct DC power (+12V), stereo-audio, and USB signals for the NMS. DO NOT PLUG THIS CABLE INTO A POE POWERED NETWORK PORT, IT WILL DAMAGE THE ODU.**

If you must re-terminate the indoor end of the cable, use a SHIELDED RJ-45 connector and make sure that both the drain wire and foil shield are firmly attached to the metal shell of the RJ-45 connector.

If you must re-terminate the outdoor end of the cable, contact AirNetix for a replacement outdoor connector housing.

The cable uses standard T568-B pinouts (right).

If this cable is damaged, the Network Management System (NMS) will not communicate with the Outdoor Unit, and thus, the network cannot be controlled. The following error message will appear on the NMS screen.



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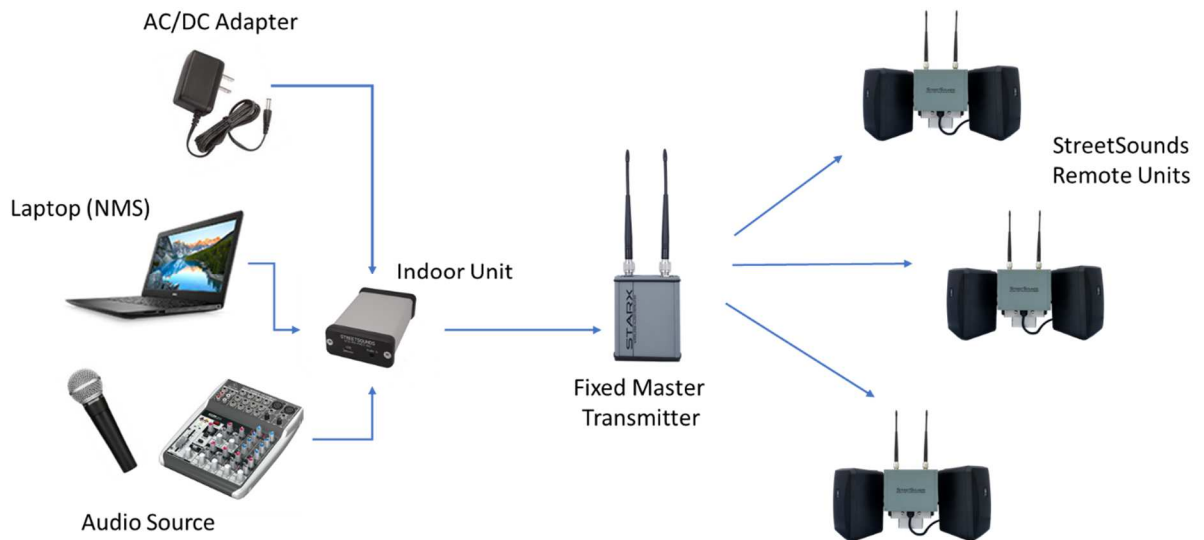
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## Connecting the Indoor Unit



The Indoor Unit (IDU) will be connected to the Cat5 cable from the roof at an interior location in the building. There are four connections to the IDU:

1. Cat5/RJ45 cable to the ODU on the roof.
2. DC power from the AC/DC adapter provided with the kit.
3. Audio feed to the network. This generally comes from the earphone output of the Laptop.
4. USB cable connects to the laptop for Network Management System control and monitoring.
- 5.



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## Network Management System (NMS)

AirNetix provides a Network Management System application for controlling and monitoring the StreetSounds network. This can be downloaded from the Support page of our website.

The customer must provide a laptop that is dedicated to the StreetSounds network. It must be a Windows PC running either Windows 7 or Windows 10. The Network Management System will not run on a Mac. There are no special hardware requirements for the PC, so a mid-range or used laptop should work fine. Below are desired specs for the laptop:

Windows 7 or 10

6GB RAM

Intel i5 or better processor.

Minimum screen resolution of 1366 x 768

(Note: Dell offers refurbished PC's with these capabilities for \$400 - \$450).

## Enabling Remote Access to the Laptop

AirNetix will need to have open, full-time remote access to the NMS PC. We recommend that you create a unique Gmail account for your StreetSounds network (i.e. [yourcitystreetsounds@gmail.com](mailto:yourcitystreetsounds@gmail.com)). Create a password that you can share with AirNetix and any others who may need access to the laptop remotely. When creating the account, you will be asked to create a PIN. We generally use 515151 so it is easy to remember.

Once the Gmail account has been created, download and install the Chrome browser (if not already installed). Log into the newly created account on the Chrome browser, then download and install Chrome Remote Desktop ([remotedesktop.google.com](http://remotedesktop.google.com)). You can do this by entering "remotedesktop.google.com" in the browser address bar. You should then click on the "Remote Access" tab at the top of the screen. This will lead you through the installation of the "host" application that allows remote access by authorized users. Finally, you must "Enable remote connections" to enable remote access. After doing this, you can test the connection from any other computer by logging into the new Gmail account and typing "remotedesktop.google.com" in the address bar. The remote laptop should show up as a green icon in the "Remote Devices" section of the screen.

**THIS IS A VERY IMPORTANT FIRST STEP IN THE INSTALLATION PROCESS AND MUST BE DONE BEFORE WE CAN ASSIT WITH THE CONFIGURATION OF THE NETWORK.** If you need help with this, AirNetix can walk you through the process.