



## Wireless Wi-Fi Bridge Installation Instructions

The Wireless Wi-Fi Bridge is a high power outdoor 250mW wireless bridge system. It creates a transparent wireless bridge between two networks up to 3 miles apart with good line of sight. It supports multiple MAC addresses and DHCP across the wireless link. It provides connectivity for networks in two or more buildings, internet access sharing, remote video surveillance or remote network access.

***This WiFi Bridge solution is intended to extend line-of-site, network connectivity between two points where a wired connection is not viable or possible. In order to maintain PCI compliance for the product and the car wash payment system solution, Unitec advises and recommends this WiFi Bridge is installed between two points that do NOT share or transmit Credit Card Holder data of any kind.***



### Items in Kit:

- 2 Wireless WiFi Bridge Boxes
- 2 Mounting brackets
- 2 POE (Power Over Ethernet) Power Supplies
- 2 75' Shielded CAT5 Cables

## Use Case Scenarios

### NOT SUPPORTED When Payment Station Accepts Credit Cards



## SUPPORTED (unless Wayne Credit Interface Is Used)



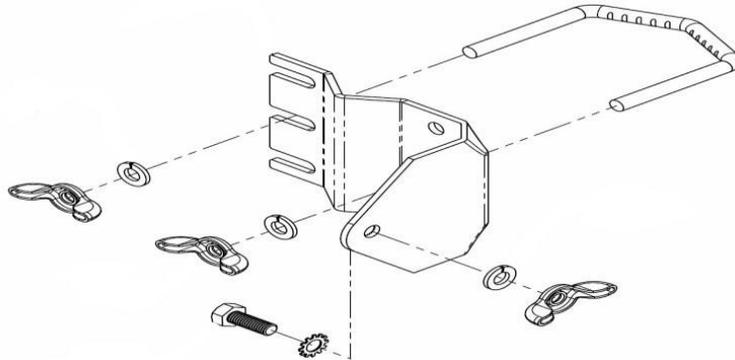
# SUPPORTED



## Hardware Installation:

### At BOTH the home and remote site:

Choose a mounting location with good line of sight from the home location to the remote location. The supplied bracket can be mounted to a wall or to an existing pole up to 2" diameter. If only really short distances are needed, the antenna can be mounted inside a building.



1. To mount to a wall: The supplied u-bolt is not used and the bracket is screwed directly to a wall using customer supplied screws. To mount to a pole: Use the supplied U-Bolt and wing nuts. Make sure to use a lock washer at each wing nut. Tighten wing nuts evenly by hand. Use pliers if additional tightness is needed.



2. Mount the antenna housing to the bracket. Put the hex head bolt thru the housing back fin. Put the star lock washer so it is between plastic housing and metal bracket. Install

wing nut with lock washer. Adjust desired tilt angle and tighten wing nut. Use pliers if additional tightness is needed.



3. Remove the antenna bottom cover by using a coin or house key or screwdriver to push in one of the side snaps and then remove the cover.



4. Route a CAT5 cable through the bottom cover and plug into the RJ45 Jack inside the unit. Keep the black gasket material in the bottom of the cover to help keep out dust and insects.
5. Route a CAT5 cable from the antenna into the building.  
**Note:** Always create a strain relief near the antenna so the cable is not pulling directly on the antenna. Use the CAT5 strain relief hook feature built into the housing back fin.  
**Note:** The Ethernet spec allows for a maximum cable length of 295 feet.



6. Connect a CAT5 cable from your computer, switch or Unitec router to the LAN connector on the wall plug POE inserter. Connect the CAT5 from the antenna to the POE connector on the wall plug POE inserter. Plug the wall plug POE inserter into a surge protected AC power source to power up the bridge  
NOTE: The bridge will operate from 12V to 24V. Applying a voltage higher than 24V will damage the unit and void the warranty.

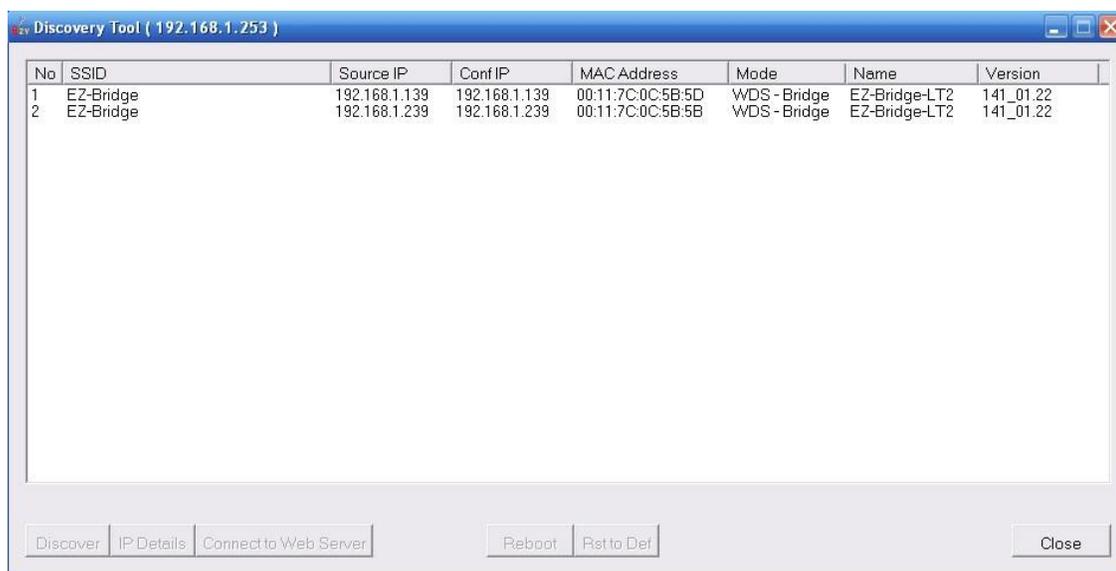
## Installation Best Practices

Microwaves travel in straight lines and they lose strength quickly when going thru buildings and trees. If there are objects in the microwave path, then useable distance will be reduced. If the target unit is less than 1 mile away then you won't have to worry too much about a couple obstructions but if over 1 mile and there are some obstructions in the microwave path, then the performance will be reduced. 2.4GHz is more forgiving than 5GHz.

## Testing Communications Between Bridges

**NOTE:** When plugging in and unplugging Ethernet cables between the POE inserter and the Bridge, do so **ONLY** when POE inserter is unplugged. Plugging/unplugging while the POE inserter is powered can permanently damage the Ethernet Port/Radio Board on the bridge.

1. Download the **Discovery Tool** for your particular EZ-Bridge at <http://ez-bridge.com/support/>



2. Run the **Discovery Tool**. If you see both units in the **Discovery Tool** window then the units are connected and communicating wirelessly with each other.
3. If a link goes down, the first thing to do is run the **Discovery Tool** from both sides of the network. If you can see the Local unit using the **Discovery Tool** from the Local side only, and the Remote unit from the Remote side then it means that the Ethernet communications to the units are good but the units are not communicating wirelessly with each other. Reset both units to factory defaults and power cycle them. (See below for reset procedure).
4. Check the following settings:

**IP ADDRESS:** Default IP addresses for the EZ-Bridge™ are 192.168.1.139 and 192.168.1.239. To access the EZ-Bridge™ your computer IP address must be on the same subnet ie; 192.168.1.xxx. The EZ-Bridge ships with DHCP client enabled so if the unit has access to your network it will get its IP address automatically from your net-work. To find the units IP address use the Discovery Tool.

**SECURITY:** Security is pre-configured with system passwords, WPA2 encryption and Mac Address verification pre-set. This is so that you can setup a plug and play link and have confidence that the link is secure and that your data and network are safe. Once you feel comfortable with the system and its operation, we would recommend the following security changes:

**PASSWORD:** Change the user name and password on each side of the link by going to ADMIN | Web Access and re-setting the first user name and password. *The default is user name = **EZTEAM** and password = **link4me***

**ENCRYPTION:** Change the WPA2 encryption key by going to SECURITY SETTINGS .

When setting encryption you must setup both sides of the link to have identical encryption keys. You can setup the remote unit first and then the local unit last in order to be able to configure both units from one location across the wireless link. HEX Encryption keys can use the letters A to F, a to f and numbers 0 to 9. Passphrase keys can use any ASCII characters. The more random the key, the more secure the code.

5. If you can't see any units from one side or the other using the **Discovery Tool**, then it can mean the power supply is bad, the POE injector is bad, the CAT5 cable is bad or the unit is bad. Best way to trouble shoot is to swap the power supply and POE injector from one side to the other to see if the problem follows the POE Injector or power supply If you can't find any issue when swapping power supply and POE injector, reset both units to factory defaults. After reset, power cycle the units. (See below for reset procedure). If **Discovery Tool** doesn't run or can never find any units, it could mean that there is a Firewall or Program (Antivirus) blocking the ports on your computer. Disable the Firewall and or Programs to see if that is the problem.