



# INSTALLATION MANUAL

PROJECT NAME: \_\_\_\_\_

*Dear valued customer,*

Welcome to your new LED display and congratulations on your recent purchase! Our goal is to provide you with high quality displays and customer service.

This manual includes critical information on how to handle, install and maintain your LED display. Please take your time in reading through the following pages. It is especially important that ventilation and electrical requirements are followed carefully.

It is highly advised that LED displays be tested prior to installation. Please take a few moments to turn on your display to ensure no damage was incurred during transit. To send a test message to your LED display please follow the directions on pages 8-9.

For any additional information please visit [www.5starledinc.com](http://www.5starledinc.com).

*Thank you for your business,*

*5 Star LED Inc.*

# INSTALLATION OF LED DISPLAY

## Project Name:

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Model : \_\_\_\_\_

Batch Number : \_\_\_\_\_

Matrix : \_\_\_\_\_

Single Sided

Double Sided (Master/Master)

Double Sided (Master/Slave)

## Communication System:

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Ethernet

Wifi

4G

RWF Radio

IP Address : \_\_\_\_\_

## Control System:

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C10

M30

K13

C3

C4

TB3

Other : \_\_\_\_\_

## Electrical Requirement Per Face:

Amps

Volts

# 1 **PACKAGING**

Please remove all packing materials carefully. Be sure that you have removed all accessories before throwing away the packing material.

# 2 **CHECKLIST**

- LED Display
- Laptop (optional)
- Wireless Antennas (optional)
- Temp Probe (optional)
- Additional Hardware Ordered

# 3 **TESTING**

Please test up your displays before installing them. Be sure that you are able to send a test message to the display.

# 4 **LIFTING**

Proper lifts are necessary to avoid frame damage.

Always use all available lifting eye bolts.

Displays with more than 2 lifting eye bolts must use a spreader bar.

# 5 **COMMUNICATION**

Install communication devices facing each other. Confirm your devices are connected and send a test message to the display.

Review your checklist and verify that all components of your order have been received.

# INSTALLATION OF LED DISPLAY

## Cabinet Types

There are 2 different types of cabinet styles.

VR Series > Rear Accessible Cabinet  
LR Series >

NH Series > Hinged Front Accessible Cabinet  
VH Series >

\*Please refer to the following pages for further instructions on how to install your display.

## Structure

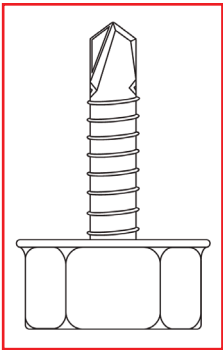
Ensure that existing or new structure is able to withstand the weight and wind load of your display.

## Codes

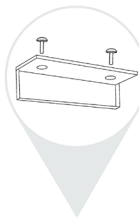
Check with your local Department of Buildings for codes regarding the proper installation of your display.

## VR Series / LR Series

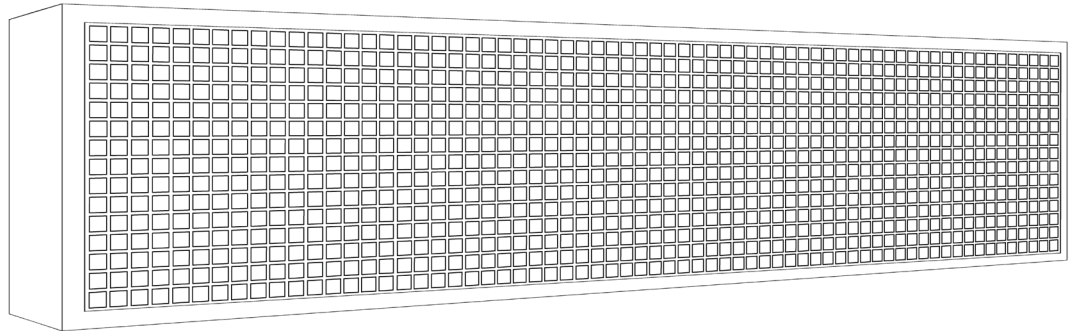
3" Rear Accessible Cabinet



Use self-drilling metal screws (no more that 1.5")



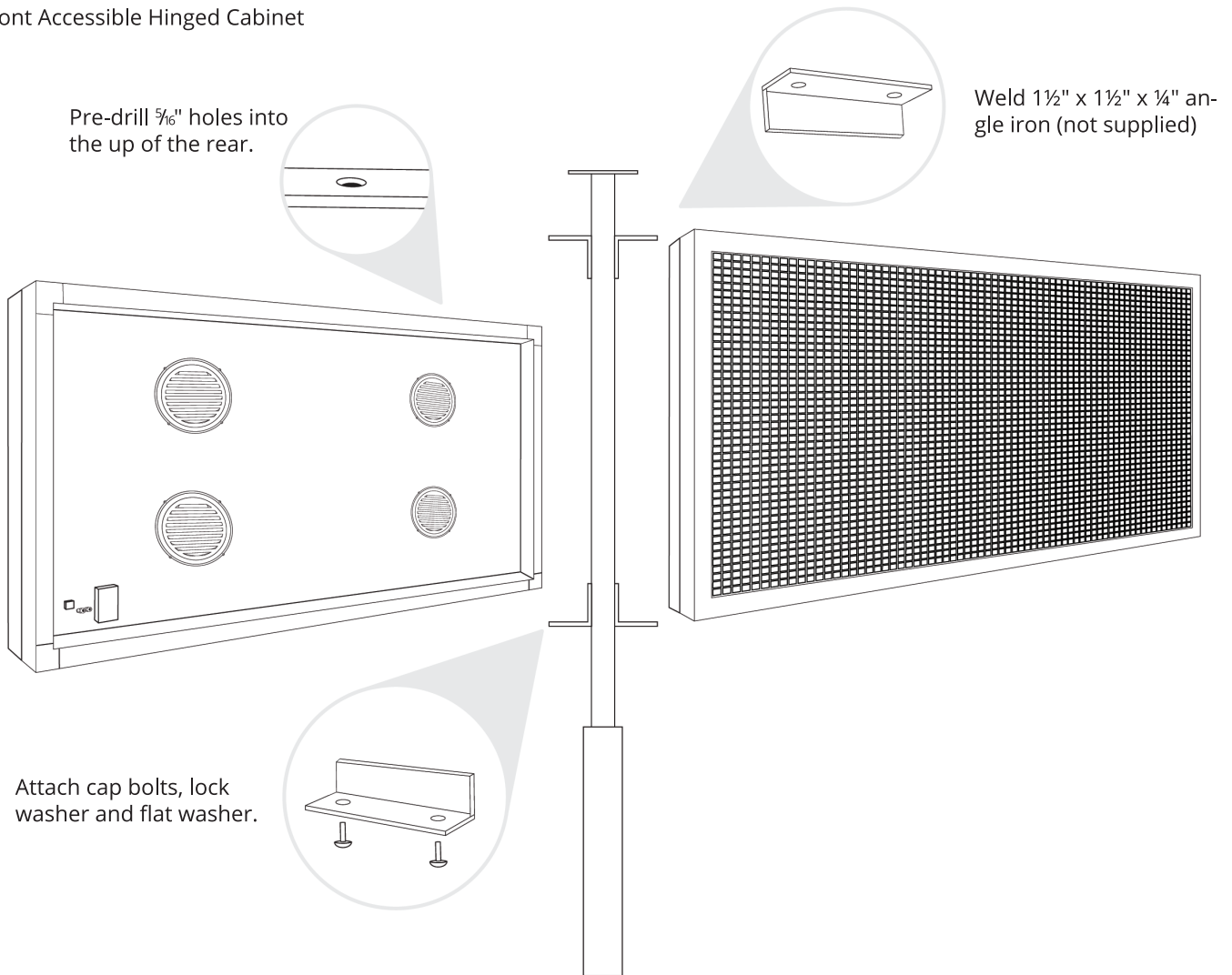
Use the appropriate bracket based on the weight of your display



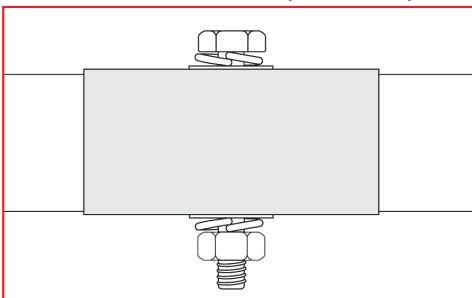
Remember to seal any welds, screws and bolts with silicone.

## NH Series / VH Series

7" Front Accessible Hinged Cabinet

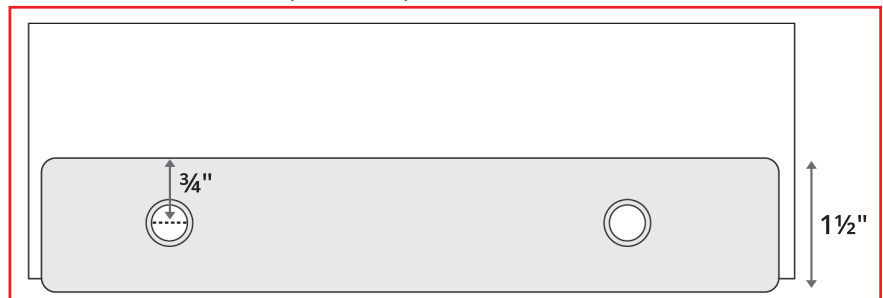


Frame Fastened to Bracket (SIDE VIEW)



Fasten the LED onto the bracket using:  
 $\frac{5}{16}$ " x 2" cap bolts  
 $\frac{5}{16}$ " lock washers  
 $\frac{1}{4}$ " flat washers

Frame Fastened to Bracket (TOP VIEW)



Pre-drill holes in the center of the bracket.

**CAUTION:** Do not drill additional holes into the LED Display or house cabinets in other enclosures. These actions will void all warranties.

Remember to seal any welds, screws and bolts with silicone.

## VENTILATION REQUIREMENTS

Proper ventilation is **absolutely** critical to preventing short and long term damage to the display.

### **DON'Ts**

Never encase your display in a sealed enclosure.

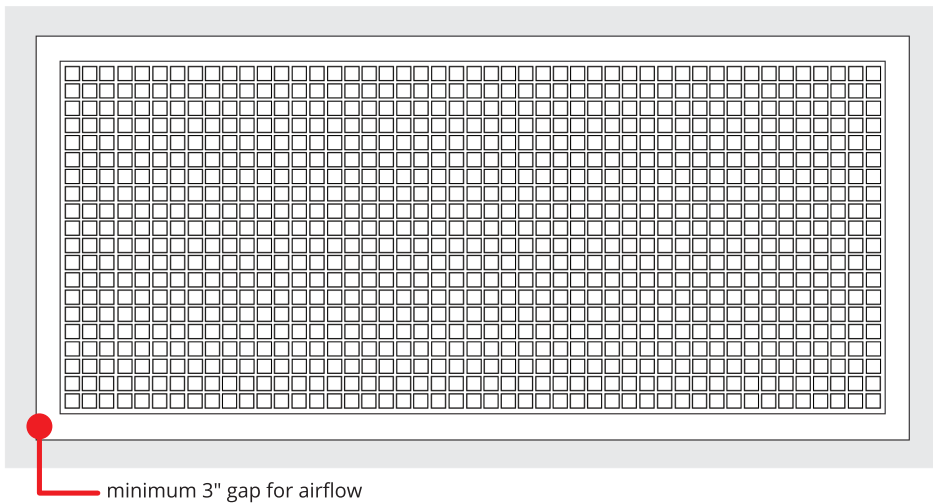
If an enclosure is required it is critical that louvers or vents be added onto the enclosure.

Never install Lexan glass on any type of polycarbonate on the face of the display.

### **DOs**

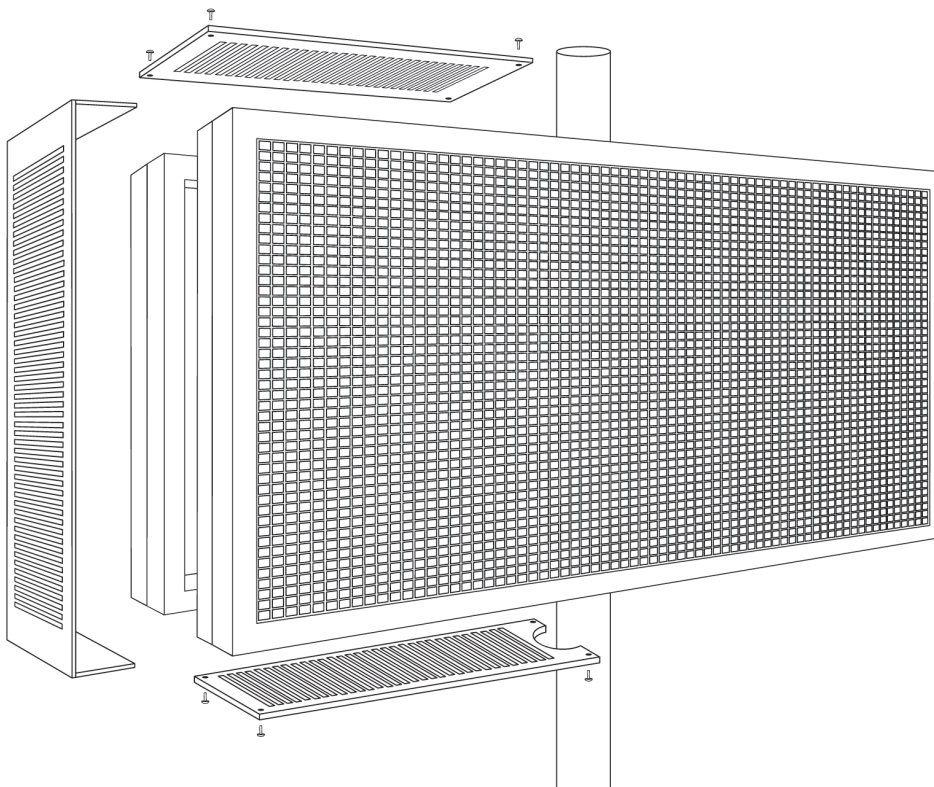
Allow a minimum gap of at least 3" behind the display for proper air flow.

Allow at least ¼" clearance on the bottom of the display for water drainage.



### **Recessed Installation**

Allow at least 3" of space along the perimeter of the LED to allow for air circulation and water drainage.



### **Shroud Installation**

Do not use non-perforated sheets to cover the sides of your display. This will cause the LED to overheat. It is critical that you use perforated aluminum.

## ELECTRICAL REQUIREMENTS

Refer to the display configuration page for electrical specifications.

While small displays generally require 120-volt single phase electrical sample, larger displays will require 240-volt single phase power.

**Do not** put display on timer or turn off connecting power and earth ground.

The display should always be on. To show a black screen schedule the display to turn on “sleep mode.” This will consume little power and prevent moisture build up.

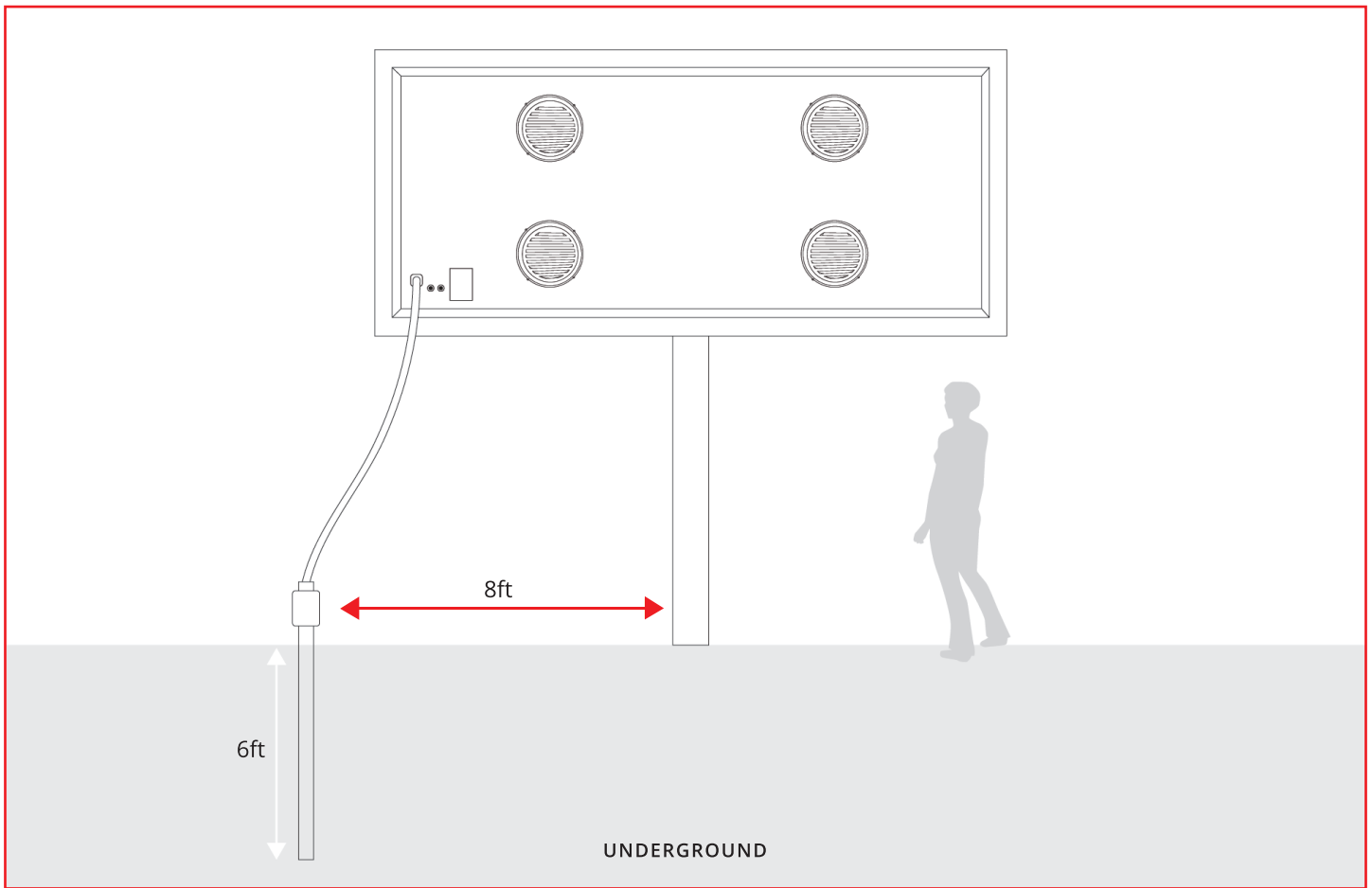
## Conduit Installation

Install outdoor rated conduit for all electrical wires and network cables.

**Do not** lay power and network cables together in the same conduit pipe.

## GROUNDING REQUIREMENTS

### BACK VIEW

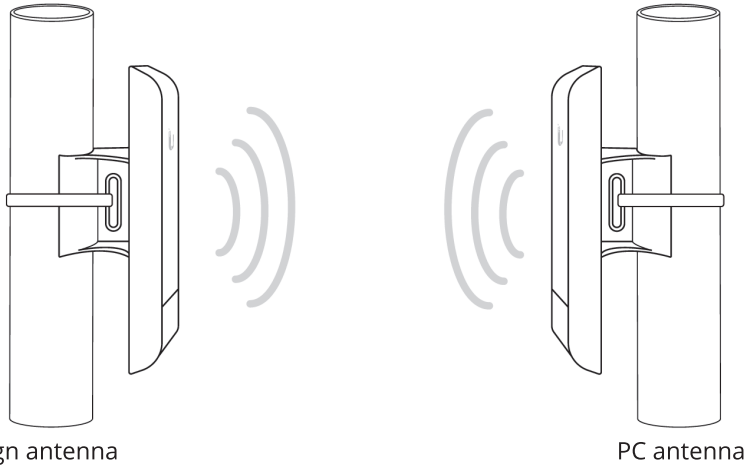


Install the ground rod approximately 8ft from the center of your display and connect ground wire to the Ground Lug Connection.



## INSTALLATING SIGN ANTENNA

1



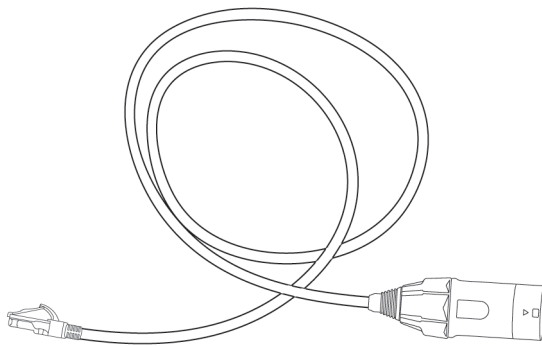
Sign antenna

PC antenna

Each display will come with 2 radios. Ensure that the antenna labeled "Sign" is installed to the display.

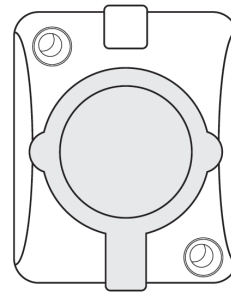
Mount the antenna on a wall or pole NOT onto the LED display. Align the front of the sign antenna towards the PC antenna and tighten the cable tie around the pole.

2



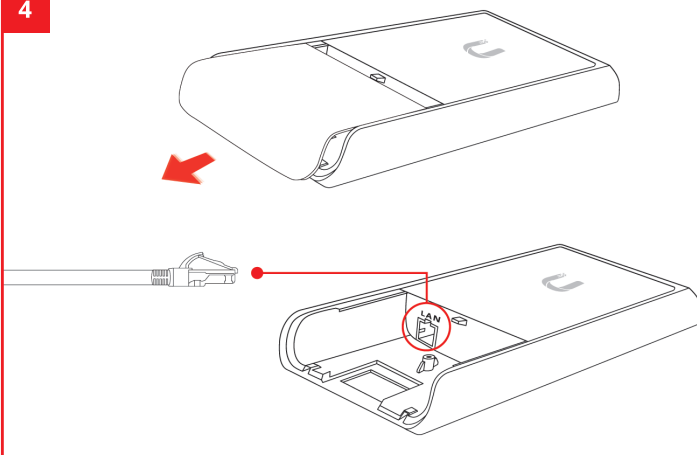
Locate the CAT5 network cable (provided).

3



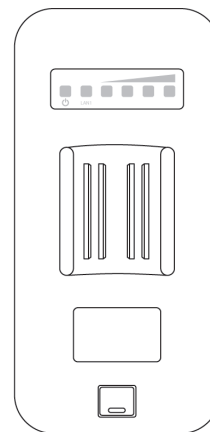
Plug the network cable into the connection port on the back of the LED display.

4



Press the port cover release bottom located at the back of the antenna and slide the cover off. Insert the other end of the network cable into the LAN port

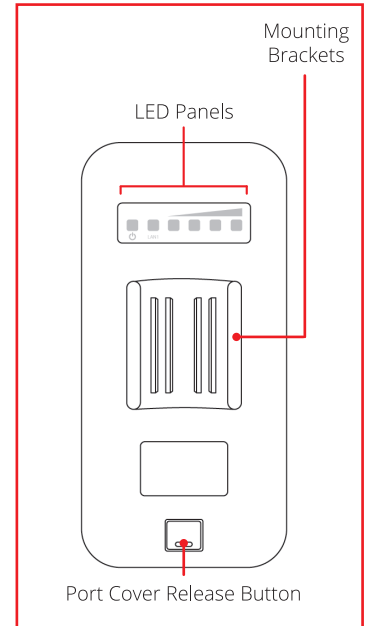
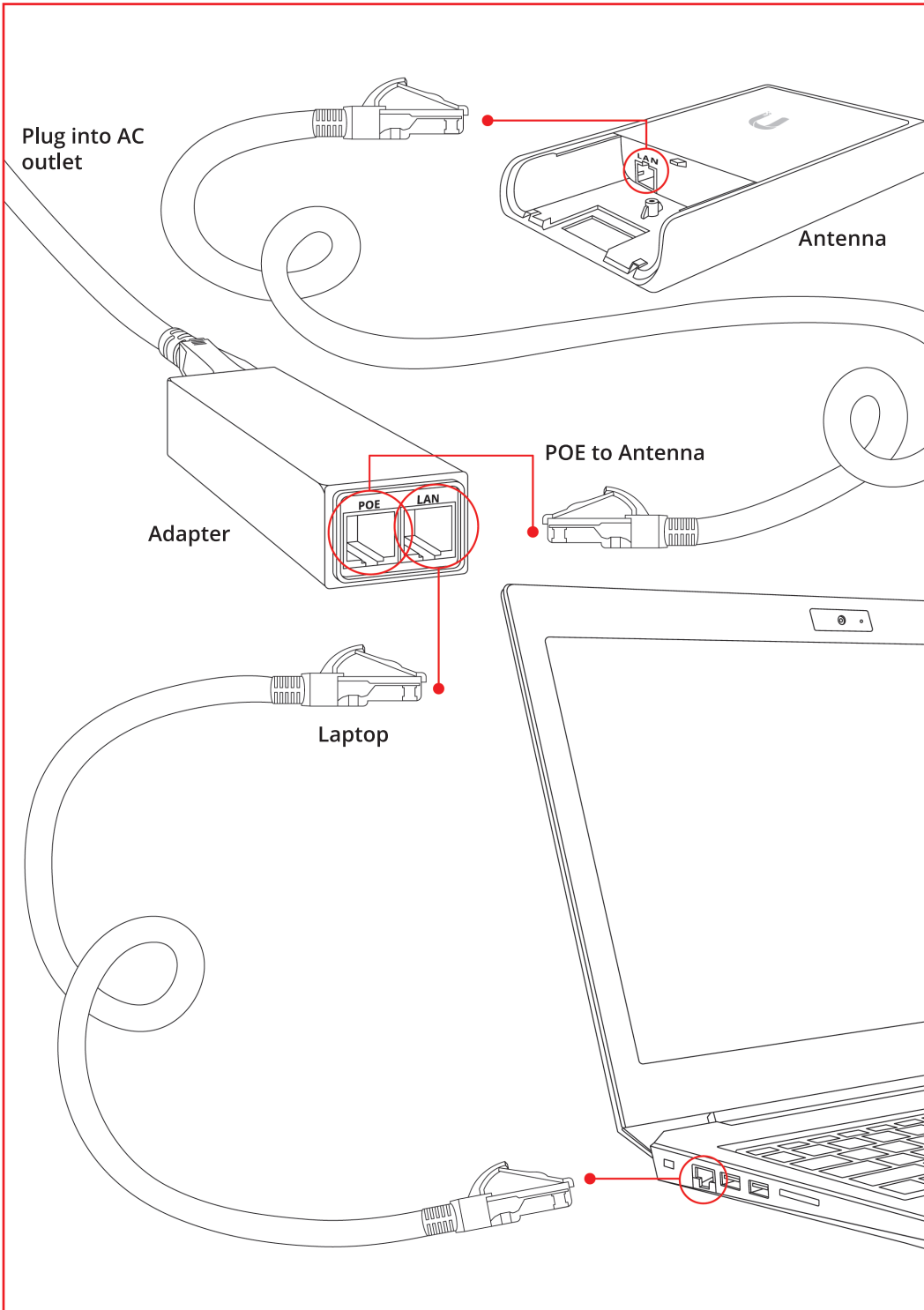
5



Check the LED panel at the back of the antenna for signal strength (the LED display must be on).

## CONNECTING PC ANTENNA

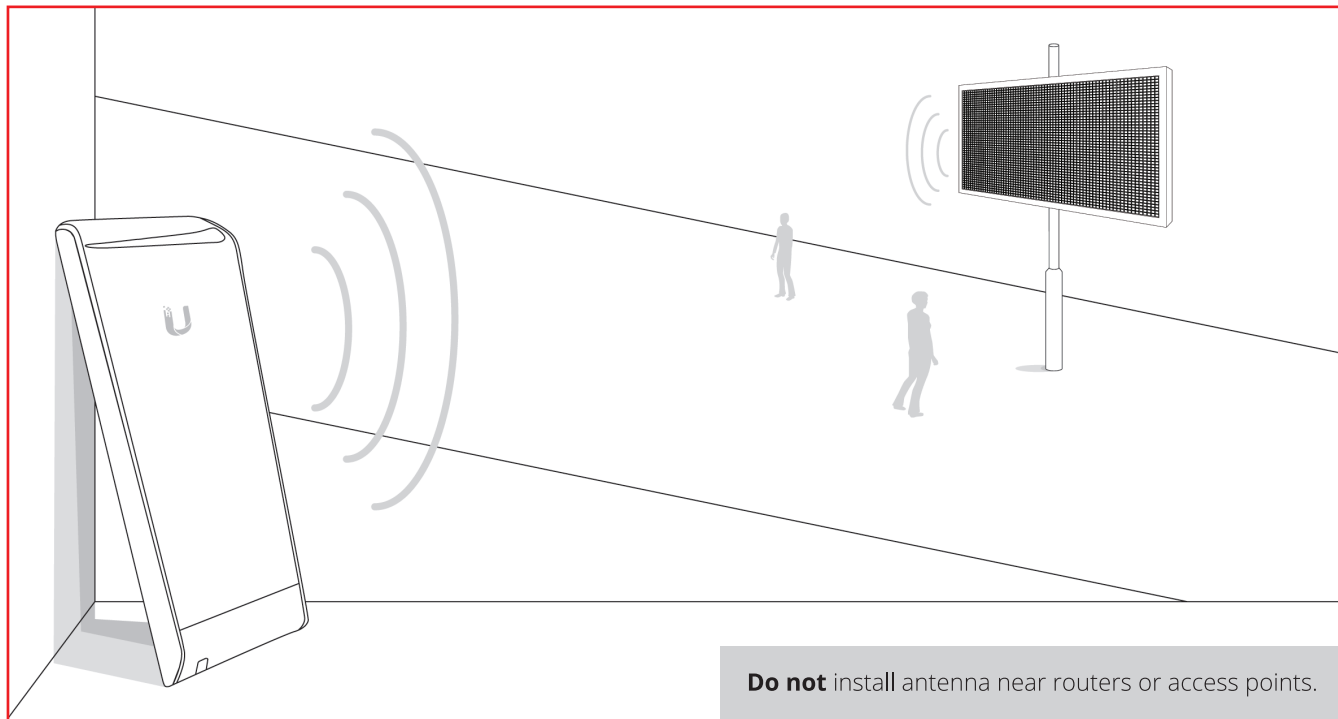
Ensure that the antenna labeled "PC" is connected to your PC.



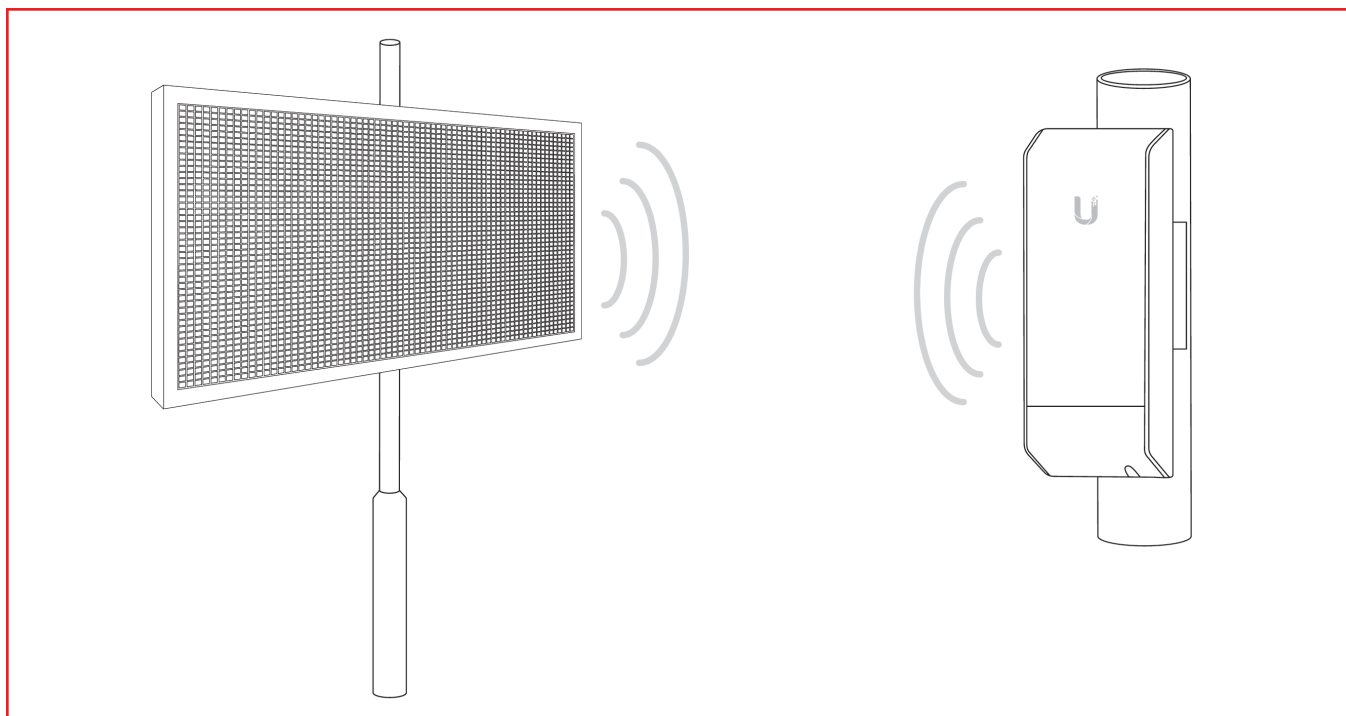
Check the LED panel at the back of the antenna for signal strength (the LED display must be on).

## MOUNTING PC ANTENNA

Mount your PC antenna within a clear line of sight to the display. Mounting the antenna near a window is ideal.



If line of sight cannot be obtained indoors, mount the antenna outdoors. The antenna and its cable are suitable for outdoor use. **The Adapter is not equipt for outdoor use.**





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