ADCHOICE
LED SIGNS

Outdoor Series

Installation Guide

AdChoice LED Signs
72 Stard Rd
Unit 5
Seabrook, NH 03874
www.adchoiceledsigns.com

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INSTALLATION OVERVIEW

The following basic steps will assist in getting your *AdChoice Outdoor Series* LED advertising display operational quickly and successfully.   More detailed instructions are found in corresponding sections of this manual. Verify that each of the following steps and requirements are accounted for before beginning installation.

WATER CONTACT - Measures should be taken to direct run off from roofs or other signs and structures above the LED display away from the display through the use of gutters or flashing. In addition, in low or monument installations, the ground below the sign should be graded appropriately and/or the sign installed high enough to avoid contact from pooling water on the ground, and to prevent water from sprinkler/irrigation systems from contacting the display and display accessories. In areas where snow is common, snow should be kept clear (several feet) from the signs to prevent the air intakes from drawing snow into the cabinets. Do not plow and create snow banks near the displays and make sure snow is cleared away from the signs during heavy snow fall. Signs that are mounted on a roof top should be monitored for snow build up as well, clearing snow away as needed.
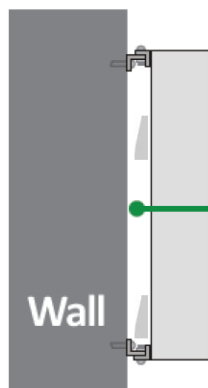
VENTILATION

Ensure that adequate ventilation is provided behind each display. Air intake and exhaust vents are on the back of each cabinet. Internal fans draw in outside air to cool the display cabinet. Blocking the air intakes could result in serious damage to the internal components of the display. 3" minimum clearance in the rear is required.

Display Ventilation
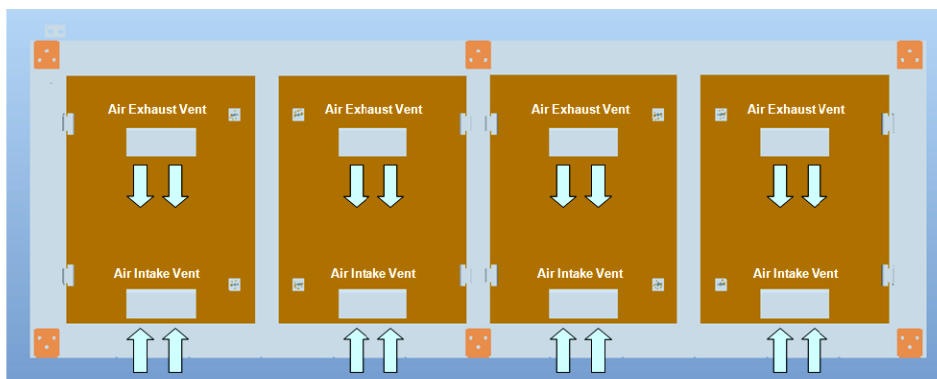
Rear View

Important:
You must provide a minimum 3" clearance around the sides and back of the display for proper airflow.

All install conditions must allow exhaust to escape from the area of the sign. Failure to provide proper ventilation will void the warranty of the display.

Side View

LIFTING AND MOUNTING

Lifting points are provided on the top of each display. Proper lifting is essential to prevent damage to the display cabinet. Mounting brackets are provided on each display to allow for easy mounting on most structures. Ensure that proper structural integrity exists in the mounting location before installing the display. See **Display Handling** and **Display Mounting** on pages 6-8 for more detailed instructions.

Lifting the Display

With a Spreader Bar
(Recommended)

Lifting Eyes are provided and should be removed after install. The eyes are captive and do not need to be sealed after removal.
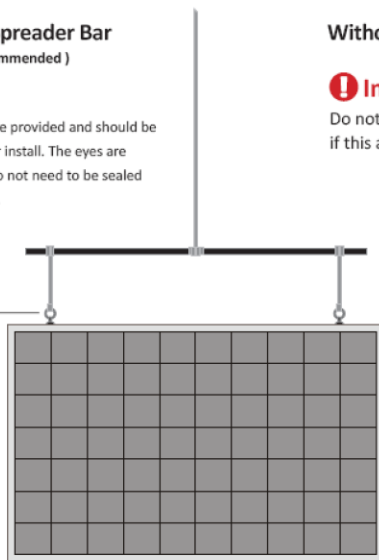
Without a Spreader Bar

Important:
Do not use this method if this angle is more than **45°**

45°
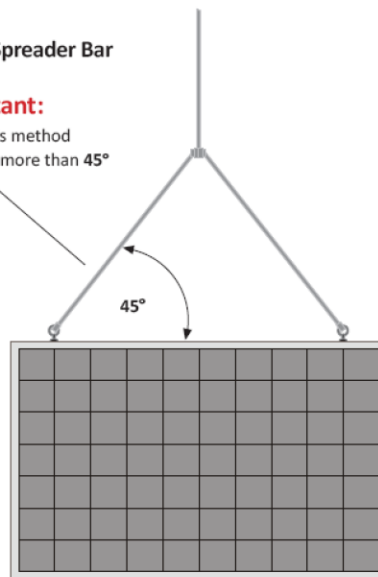
⊘ Important:

Attach and lift only from the lifting eyes.

Use care when lifting the display using **ALL** the provided lifting points. Use only approved lifting straps which meet the appropriate load requirements.
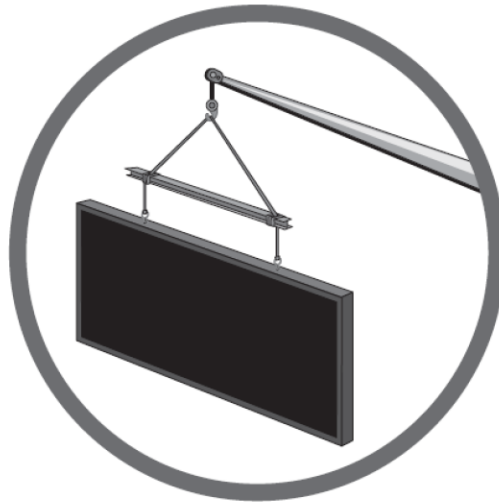
ELECTRICAL AND EARTH GROUNDING

Ensure an electrical ground connection (usually a green wire) is properly connected to the power input terminal block. Ensure that a proper earth ground is provided to the display structure before energizing the electrical service. An earth grounding lug is provided on the rear of each display. Consult a licensed electrician, if necessary.   See **Connecting an Earth Ground** on page 13 for more detailed instructions.

Grounding the Display

Connection

Back of Display Cabinet

❶ Connect a copper ground wire to the Ground Lug Connection

❷ Connect to the Grounding Rod
Install the rod into the ground near the sign according to N.E.C. Code, typically 8 ft.
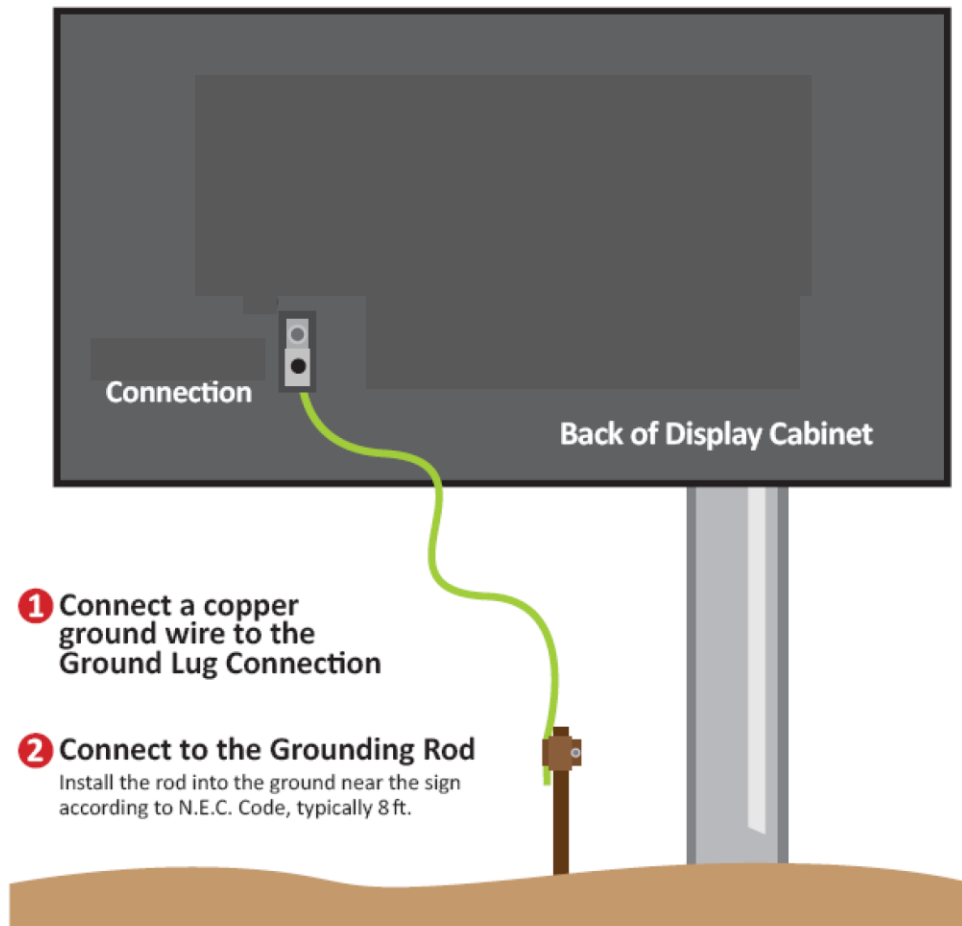
FOR ADDITIONAL ASSISTANCE: CALL: **603 382 9280** or EMAIL: **techsupport@adchoiceledsigns.com**

ELECTRICAL SERVICE

Verify the electrical service being provided is correct and matches the electrical service specified on the Display Specification Label. If there is a discrepancy in the power, contact AdChoice LED Signs before connecting. Route the power to the display per National and Local Electrical Codes. Connect the service to the Power Terminal Block supplied with the display. See **Electrical Requirements, Power and Data Inputs and Power Connections** on pages 13-16 for more detailed instructions.

MULTIPLE FACES

If your system has more than one face, a separate power connection is required for each face. There are no power connections between faces.

DATA CABLES AND CONNECTIONS

CAT5 type data cables are used for communication with your displays. Outdoor rated cables must be used for any unprotected cables exposed to the elements. The maximum length of cat5 between Master and Slave displays is 150 feet. See **Data Connections** on page 17 for more detailed instructions on handling and installing data cables.

COMMUNICATION METHODS

The communication protocol between your computer and your display is TCP/IP (Ethernet) using one of two common methods:

- Hardwire – CAT5 type cable communication (300' maximum cable length from router to sign)
- RF Wireless – Radio communication (optional accessory)

For ease of setup a router is recommended as part of the computer system. Data connections will vary depending on the specific features and configuration of your display(s). See the **Appendix** section of the Installation Manual for all **connection diagrams.**

LIGHT AND TEMPERATURE SENSOR

If included, mount the Light and/or Temperature Sensor(s) near the display in a location that provides good airflow and avoids direct sunlight. Do not extend the sensor cable(s). See **Light and Temperature Sensor Installation** on pages 17-18 for more detailed instructions.

BEFORE APPLYING POWER

Always double-check for correct voltage and wire color code before applying power to the display. Ensure that all breakers in the main service panel are properly engaged.

SOFTWARE

A disk(s) with the *iCreate* content creation software and additional documentation is provided with each system.   Install *iCreate* software on the controlling and/or client computer at this time.

ONLINE TRAINING

Contact AdChoice LED Signs Technical Support Center at 603-382-9280 or email at techsupport@AdChoiceLEDSigns.com to schedule your online training.

TECHNICAL SUPPORT

Call AdChoice LED Signs at (603) 382-9280 with any questions or concerns regarding the installation, start-up, or maintenance of your *AdChoice Outdoor Series* LED display.

CLAIMS FOR SHIPPING DAMAGE

AdChoice LED Signs packages its LED displays properly for travel to their designated destinations. If, for any reason an LED Display does not arrive in satisfactory condition, please document any and all damage, both in writing and with photographs, and immediately forward this documentation to AdChoice LED Signs. This documentation is best done before the displays are unloaded, so that any necessary claims with transportation providers can be handled expeditiously with a minimum of dispute.

STRUCTURAL REQUIREMENTS

Prior to mounting the display(s), carefully inspect the structural integrity of the structure and verify with the display drawings and specifications that proper strength, weight, and wind load requirements are met.

CAUTION: The installer is ultimately responsible to ensure the mounting structure and hardware is able to support the display and the structure conforms to and meets local codes.

AdChoice LED Signs cannot be responsible for the physical mounting or structural integrity of the support structures provided by others.

DISPLAY HANDLING

While the provided lift points are designed and engineered to safely lift each display, proper lifting procedures must be followed. Of particular import is the use of a lifting bar or spreader bar when needed. A lifting bar allows a vertical or near vertical lift at the lifting points. Tie straps should be of sufficient length to allow a lifting angle of less than 45° from vertical (See illustration below). All displays have 2 lift points for eye bolts. Use only the provided eyebolts to prevent damage to the threaded inserts. **USE BOTH LIFT POINTS PROVIDED!** Do not attempt to permanently support the display(s) by the lift points. All threaded inserts are internally
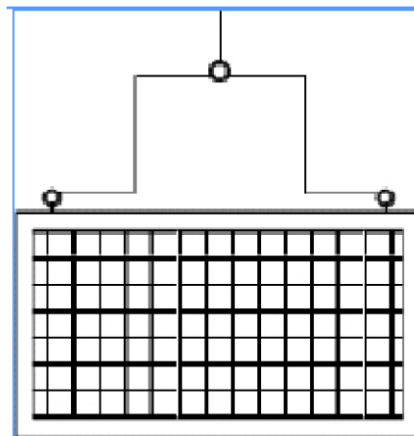
sealed to prevent water intrusion. Bolt thread length must not exceed OEM specifications to prevent damage to the inserts. Lifting picks or eyebolts should be removed once the display is securely mounted in place.

CORRECT LIFTING METHOD	INCORRECT LIFTING METHOD
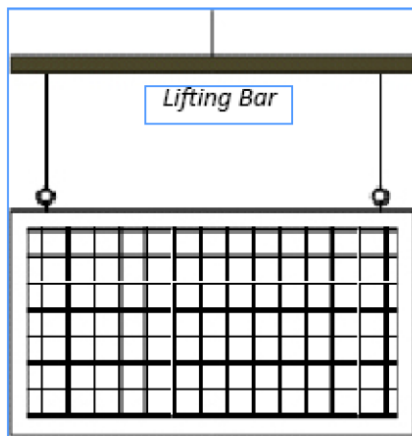
Maximum Pick-Point Strength

Pick-Point Strength Compromised

DRILLING AND WELDING PRECAUTIONS

Use the provided power and data openings in the display cabinet to make all connections. Do not drill any additional holes in the cabinet. Do not drive self drilling screws into the cabinet for any reason. Drilling holes may damage internal components.

Make certain that any metal shavings or welding slag is shielded from coming in contact with electronic components and that all shavings or slag are removed from the cabinet and surrounding areas before energizing the display.

Your warranty will be voided if the cabinet is drilled or cut in any manner!

DISPLAY MOUNTING

Before beginning the installation process, a responsible installer must always verify the following:

* The mounting structure will provide a square and straight frame for the display.

- The mounting structure will support the display without flexing or buckling at any unsupported points after the mounting is complete.
- The finished structure will provide sufficient clearance on all sides of the display for air flow.
- Mounting is accomplished using the mounting brackets located on the rear of each cabinet.
- Direct rain or water runoff from roofs or other signs and structures above the LED display will be directed away from the LED display through the use of gutters or flashing.
- The signs will not be contacted by water spray from any pre-existing irrigation/sprinkler systems. Irrigation/sprinkler systems that may be installed after the sign installation must be installed in a way to avoid contact with the signs. This is most common in monument style or low to the ground installations.
- The signs will be high enough off the ground, or the ground will be graded accordingly to avoid any standing or pooling water on the ground from contacting the sign. This is most common in monument style or low to the ground installations, and in install sites with either heavy rain seasons, or irrigation/sprinkler systems. The appropriate height and ground grading will vary depending on the terrain and conditions at the site so the installer must plan accordingly.

When selecting the display mounting location, *special attention* should be paid to:
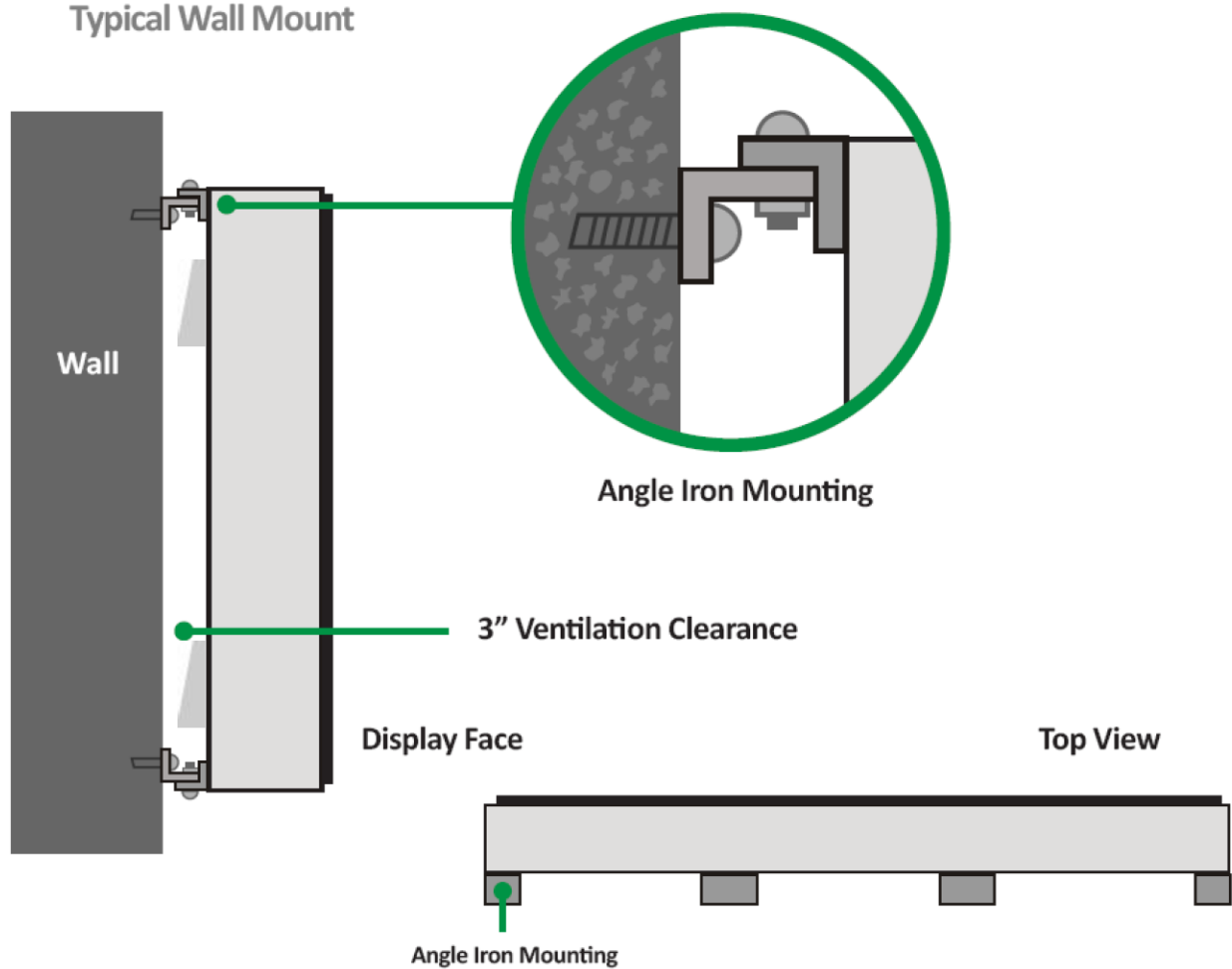
Cabinet ventilation:

Display ventilation is critical and if not properly allowed for, can quickly cause damage to internal electronic components.   Do not block the display intake or exhaust areas.   Provide a minimum of 3 inches for ventilation between the display cabinet and the mounting structure behind it.

Power lines:

Use great care when working around overhead power lines. Overhead high voltage lines seem to commonly exist in the same locations that are popular to install displays. Installation often requires the use of cranes or booms that extend well beyond the height of the display and therefore are more likely to come in contact with power lines. Even after the display is installed, it is recommended to have as much distance as possible between a display and any overhead power lines.

Mounting the Display

Typical Wall Mount

Wall

Angle Iron Mounting

3" Ventilation Clearance

Display Face

Top View

Angle Iron Mounting

Mounting the Display

Single Pole

Digital Display Cabinet

Weld Angle Iron Brackets
to the Structure Pole as required

Angle Iron Mounting

Side View

Mounting the Display

Double Pole Front

Weld Angle Iron L Brackets
to the Structure Pole
as required

Bolt the Display Cabinet
to the L Brackets

Front View
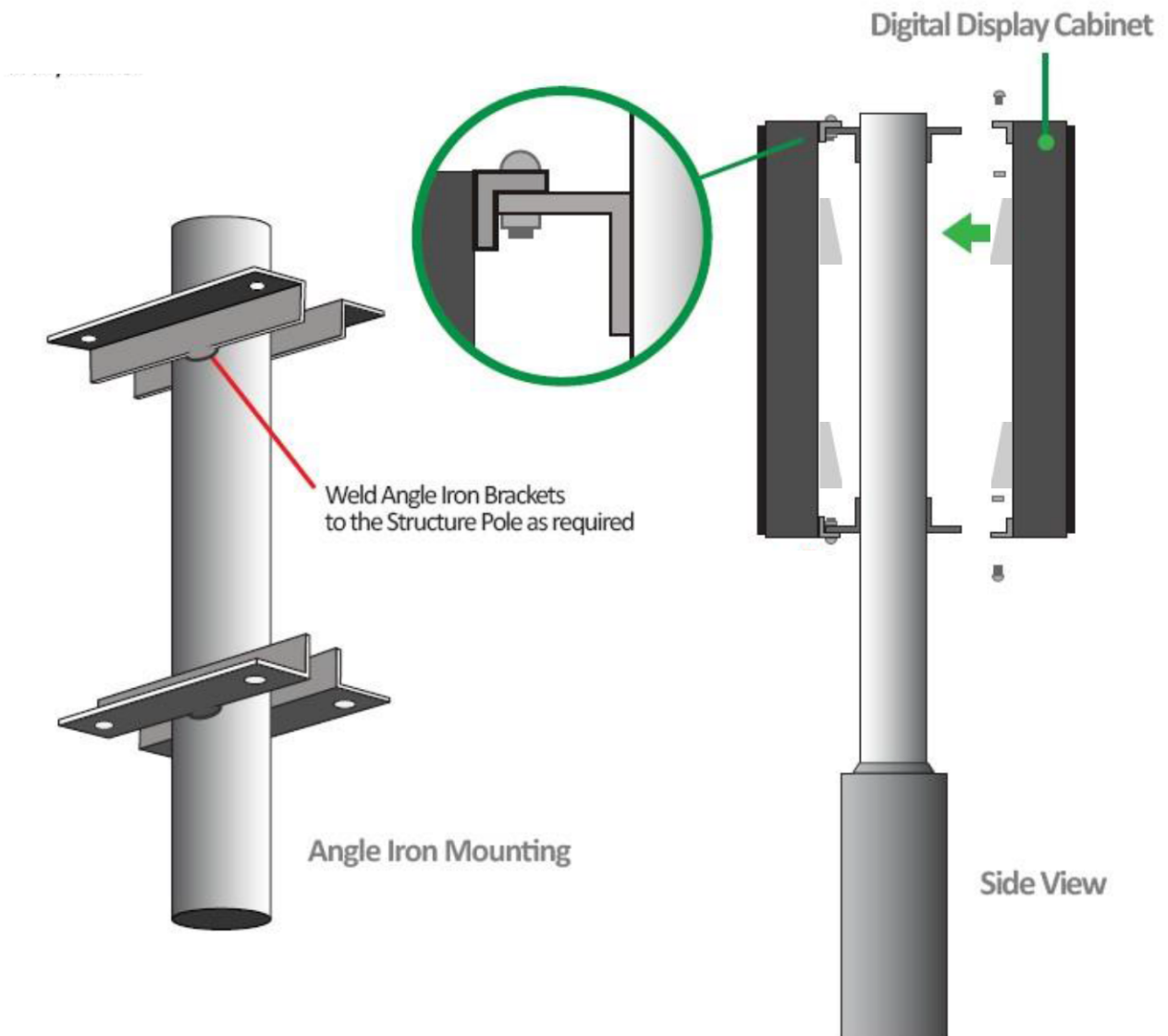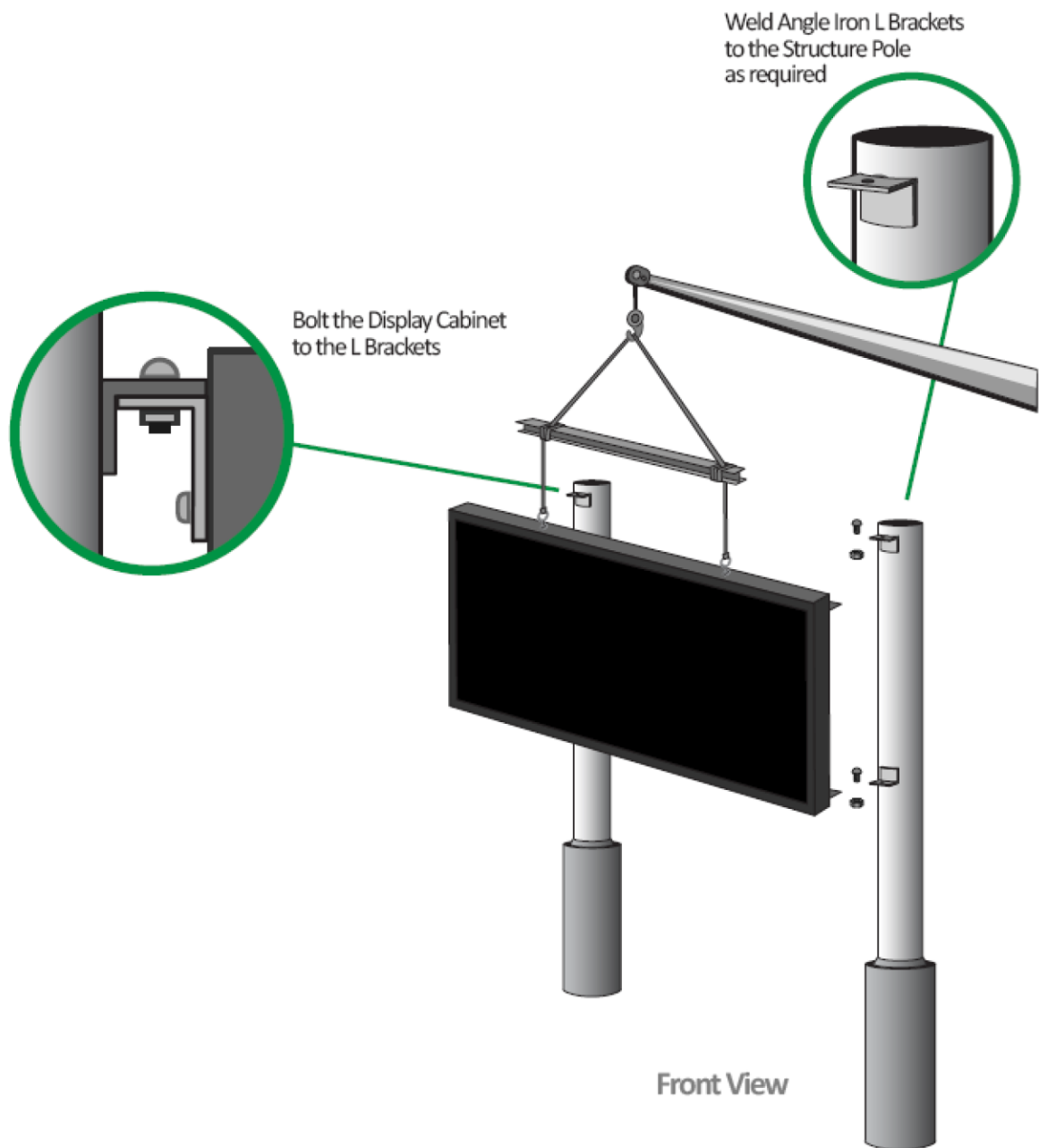
Mounting the Display
Double Pole Inside

Weld Angle Iron L Brackets
to the Structure Pole as required

Bolt the Display Cabinet
to the L Brackets

Back View
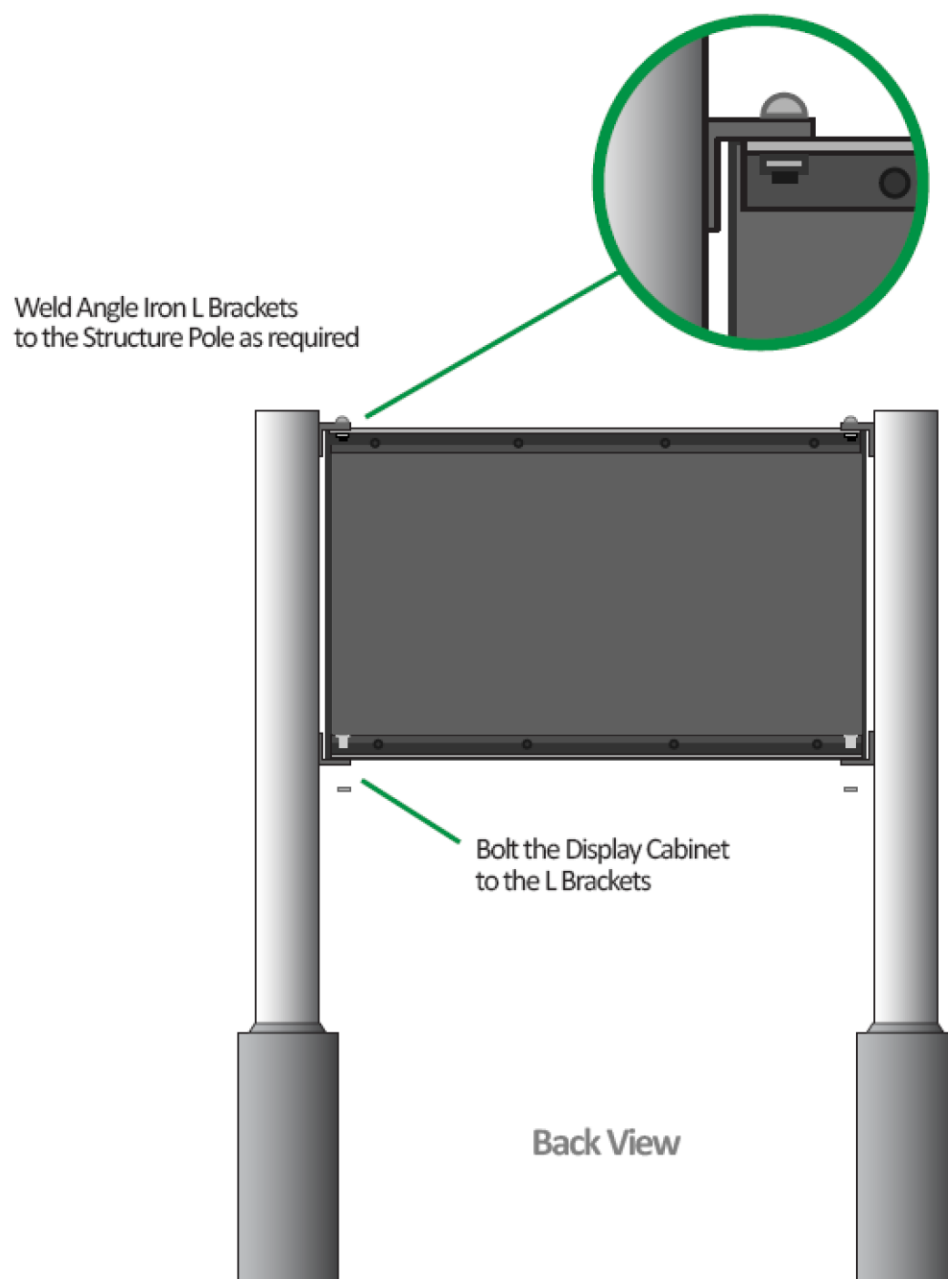
Electrical Requirements

NOTE: All displays require an external electrical disconnect. This is usually be accomplished by providing a dedicated power run from a main breaker panel. Verify the incoming service including required external disconnects, are properly installed to meet all local and national electrical codes.

SERVICE REQUIREMENTS

All displays require a 120-volt, single phase service (1 Hot, 1 Neutral and 1 Ground) per face. Smaller displays require a 20 amp service. Larger displays require a 30 amp service. Refer to the Display Specification Label to verify the proper service is being provided for the display. Questions regarding power requirements for a specific display should be directed to AdChoice LED Signs tech support before connecting any service.

CONNECTING AN EARTH GROUND

A grounding rod must be installed at the display location, and it must be attached to the ground connection on the rear of the display. The ground rod should be a copper-clad 8' ground rod, driven vertically and fully into the ground near the display structure. The steel structure of a display or a rebar rod is not a sufficient ground. If it is not possible to drive a ground rod at the display, ensure that a proper earth ground be brought to the display location with the rest of the electrical service. If a ground rod is installed and an earth ground is also provided with the incoming service, both grounds should be connected to the display(s). Keep in mind the better the display is grounded, the better protection the display has from lightning and static discharges.

Typical Ground Rod Installation

CODE REQUIREMENTS

All displays are intended to be installed in accordance with existing local codes, as well as with Article 600 of the National Electrical Code (NEC). This includes proper electrical grounding. Always consult with a licensed electrician to ensure that proper wire sizing is implemented, including accounting for voltage drop over long service runs.

Power and Data Inputs

The drawing below shows the typical power and data entry points on each cabinet.

- **Data Input Jacks** – The Data Input Jacks are located on the rear of the display cabinet.
- **Data Output Jacks** – The Data Output Jacks are located on the rear of the display. In a two sided configuration: use this Jack to connect data to the second side (slave-side) of the display. Cat5 cable between master and slave displays cannot exceed 150 feet.
- **Power Access**– The Power Terminal Block is located inside the cabinet, which is accessible through an access door on the rear of the cabinet.   Make these connections before mounting the display cabinet.
- **Power In** – A chassis knock-out is provided to accept a ¾" conduit connector. Remove the Power Access Cover Plate to facilitate installation of the power input conduit.
- **Earth Ground** – A ground lug is provided to facilitate an Earth Ground.

CAUTION: Do not drill holes or use self-drilling screws in the cabinet for any reason. Doing so may damage internal components and allow water intrusion into the cabinet. Warranty will be voided if the cabinet is drilled or cut in any manner!
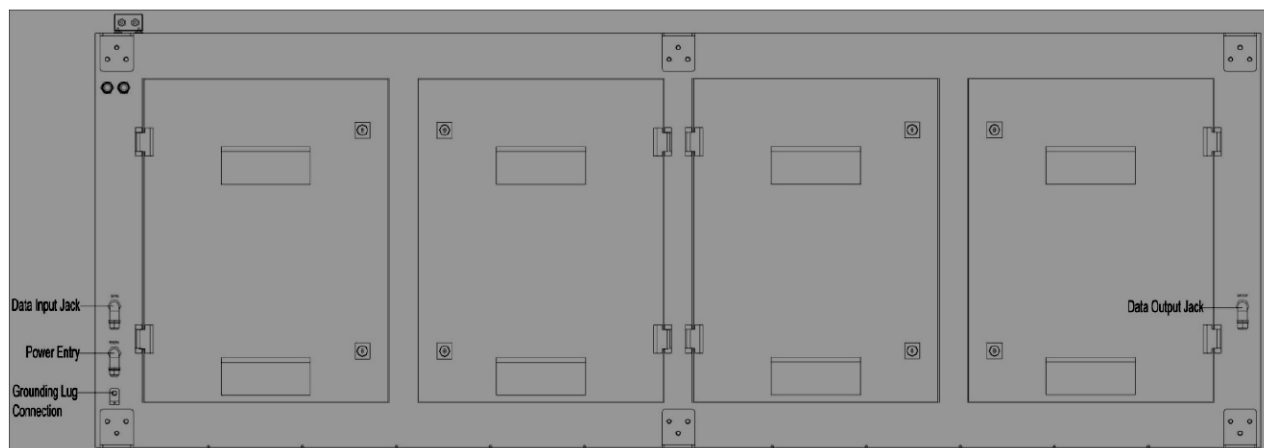
Typical Cabinet Rear View
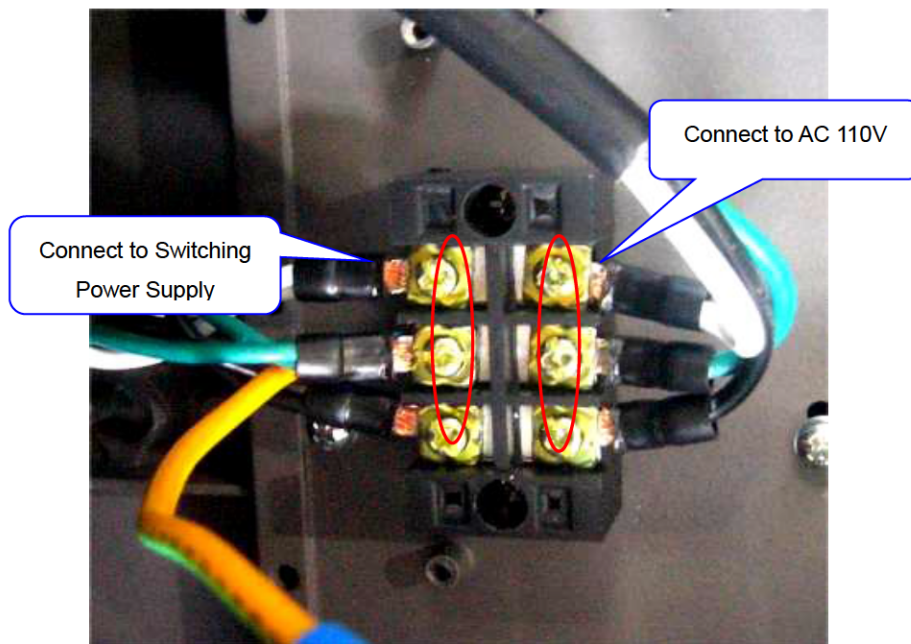
POWER CONNECTIONS

All displays are configured for 110V @ 60 Hz and conform to the National Electrical Code (NEC) color code standard for wiring as follows:

Black = Hot or Line (L)

White = Common or Neutral (N)

Green = Ground (G)

Primary power is connected to the Power Terminal Block located inside the display. Please connect the power cable exactly the same as shown in following diagram. To avoid any problem caused by connecting power cables, please make sure every connecting point of power connector and cable holder/terminal is screwed down tightly.
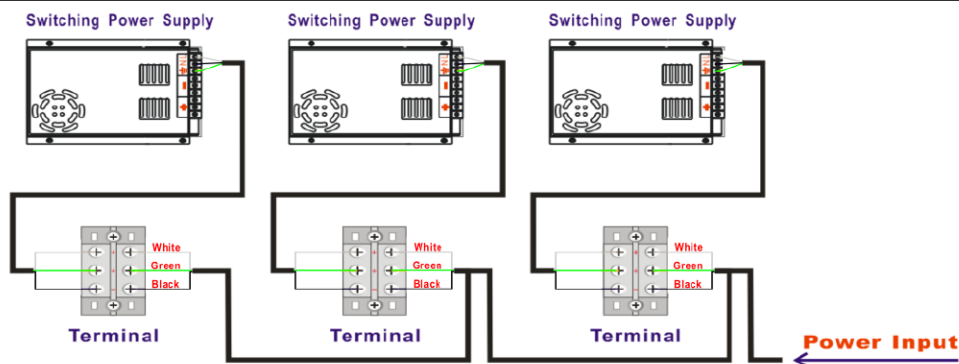

Power Terminal Block Connections

Diagram of Power Distributor Power Cables

Consult the Product Specification Label to calculate appropriate circuit protection and wire size.

DATA CONNECTIONS

All data connections are made using CAT5 type cables. Weatherproof RJ45 jacks are provided for each data connection. Proper assembly of the Weatherproof RJ45 Jacks is essential to prevent water intrusion into the connector.

1. Remove the outer housing, cable gasket and outer cap assembly by turning the outer housing *only* counter-clockwise. The inner housing and RJ45 Jack will remain mounted in the cabinet.
2. Use care to prevent loss of the ring gasket between the inner and outer housings.
3. Disassemble the outer housing, cable gasket and outer cap.
4. Slide the outer cap over the RJ45 plug on the end of the CAT5 cable.
5. Install the cable gasket on to the CAT5 cable and slide back approximately 12" from the RJ45 plug. The cable gasket is split to allow for easy placement on the CAT5 cable.
6. Slide the outer housing over the RJ45 plug.
7. Confirm the ring gasket is in place on the threads of the inner housing.
8. Insert the CAT5 cable into the Data access point and thread toward the RG45 Jack inside the sign cabinet.
9. Insert the RJ45 plug on the end of the CAT5 cable into the RJ45 jack. Pull lightly on the cable to confirm the plug is seated and locked in place. **The outer housing, cable gasket and outer cap remain disassembled until the cable is plugged in.**
10. Slide the outer housing *only* toward inner housing and <u>hand tighten</u> by turning clock-wise.
11. Slide the cable gasket along the CAT5 cable and into the end of the outer housing.
12. Slide the outer cap toward the outer housing and hand tighten by turning clock-wise.
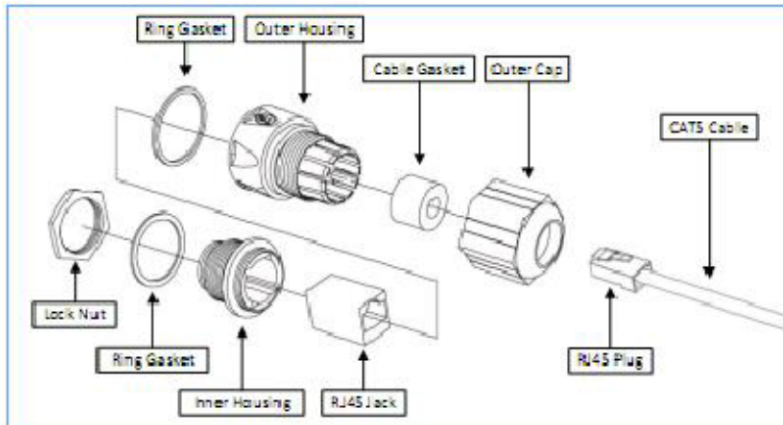
NOTE: The outer cap compresses the cable gasket to prevent water intrusion into the connector. Use care to avoid cross-threading the housings and cap. Hand-tighten only – do not use tools.

To unplug the CAT5 cable, first remove the outer cap. Next, slide the cable gasket out of the outer housing. Once the cable gasket is clear, remove the outer housing by turning counter-clockwise. To prevent damage to the RJ45 plug, press the release latch on the plug before removing.

LIGHT AND TEMPERATURE SENSOR INSTALLATION

-Note: The Light and Temperature Sensors are optional accessories and therefore may not be included with your *AdChoice Outdoor Series* display(s).

The light and temperature sensors should be mounted in areas where there is constant free air flow. Do not mount the sensors in an enclosed cabinet. The light sensor should be mounted in an area free from artificially created light. The temperature sensor should be mounted in an area free from direct sunlight and the effects of output vents.

Recommended mounting areas for the Light Sensor:
● Above the display, located away from artificially lit areas.
● Under an open-air eave, where open air flow is always present and ambient (natural) light is available.
● Under the display on the mounting pole structure where ambient (natural) light is available.

Mounting precautions for the Light Sensor:
● If the light sensor is located under a street light or another source of artificial light, it may continue to hold the display in the day mode after it should have changed to night mode.

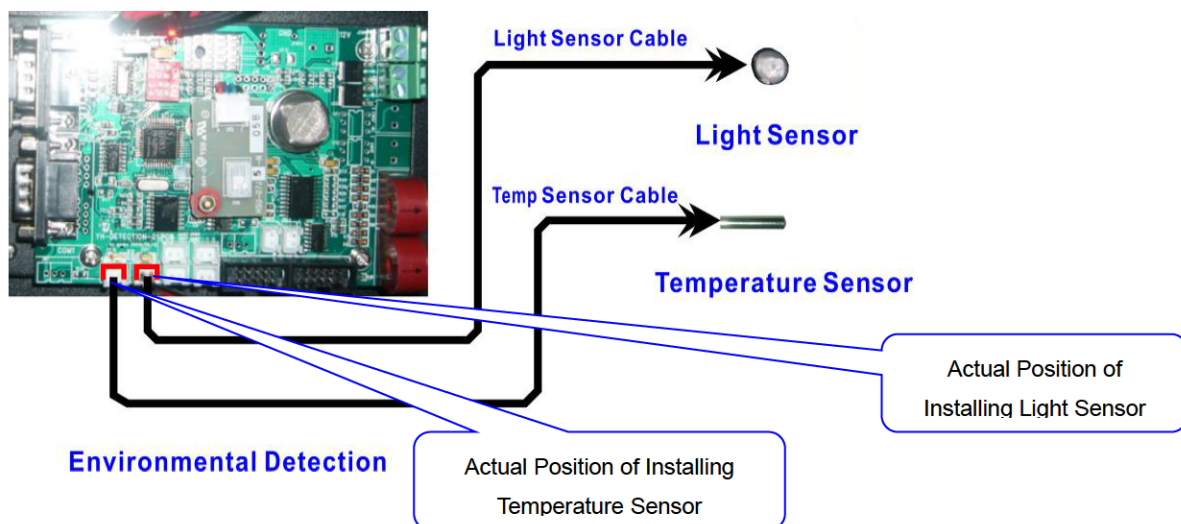**Recommended mounting areas for the Temperature Sensor:**

● Above the display, located away from direct sun lit areas that create sun load heating.

● Under an open-air eave, where open air flow is always available.

● Under the display on the mounting pole structure away from air vents and direct sun light.
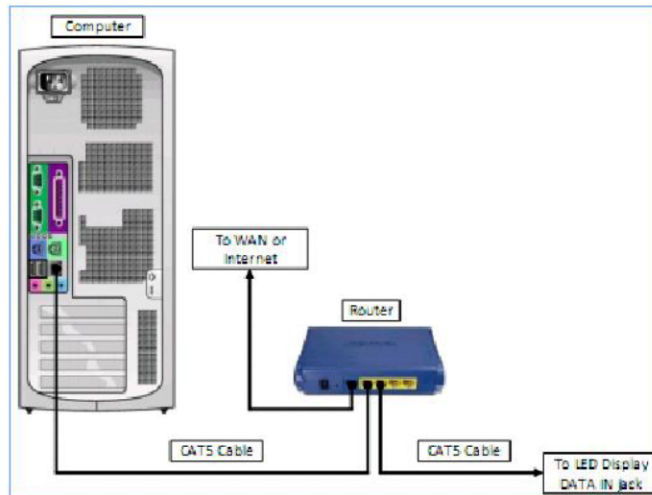
Mounting precautions for the Temperature Sensor:

● If the temperature sensor is located in reflective, sun loaded areas; it will tend to read consistently high during the day, but normal at night.

● If the temperature sensor is located in an area with restricted airflow; it will tend to read consistently high, particularly during the day.

● If the temperature sensor is mounted near a heat source (exhaust fan, etc.); it will tend to read consistently high.

Sensor Connections

1. Insert the sensor cable(s) into the corresponding access point on the rear of the cabinet and thread the cable toward the Environmental Detection Card located inside the sign cabinet.

2. Securely connect the sensor cable(s) to the Environmental Detection Card located inside the sign cabinet.
    NOTE: the temp sensor connection is on the left of the Environmental Detection Card **(see diagram below)**
    NOTE: the light sensor connection is on the right of the Environmental Detection Card **(see diagram below)**

3. Pull lightly on the cable to confirm it is seated and locked in place.

4. Hand tighten the outer housing(s) by turning clock-wise.

Light Sensor Cable

Light Sensor

Temp Sensor Cable

Temperature Sensor

Environmental Detection

Actual Position of Installing Temperature Sensor

Actual Position of Installing Light Sensor

COMPUTER CONNECTION DIAGRAM – CAT 5 COMMUNICATION

The diagram above shows typical computer connections using the Cat5 communication method. Your computer and router may differ.

1. Connect a CAT5 cable from the Ethernet jack on the computer to an open jack on the router. These jacks are usually numbered 1 through 4.
2. Connect a CAT5 cable from a router jack to the DATA IN port on the LED display.
3. CAT5 cable length should not exceed 300 feet. Outdoor rated CAT5 cables should be used for any exposed data cables.

Note: The WAN port on the router is connected to the internet or other network as needed.

RF Wireless Installation

Unit Identification and Disassembly

The RF Wireless kit comes with two units that are identical in appearance. However, they have been pre-configured in the factory to make setting up a wireless network easier.
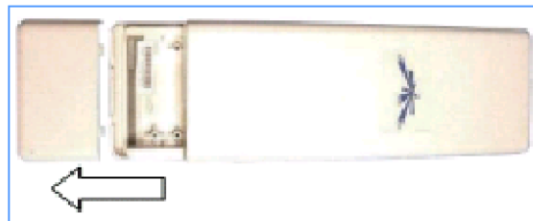

Access Point   *Remote Station*

One unit is configured as an Access Point while the other is configured as a Remote Station. The outside of each box has been marked with these designations. Additionally, both units have been marked with either an **AP** (Access Point) or an **RS** (Remote Station) under the cover plate.

Press Release Latch   *Slide Cover Away From Main Body*

To remove the cover plate, push the release latch in the direction of the arrow, then slide the plate away from the main body as shown.   It may be necessary to use a small, flat blade screwdriver to help remove the cover plate. The cover plate must also be removed to connect the CAT5 cable for communications.

The RJ45 Jack accepts a CAT5 type data cable. The **AP** marking means the unit has been configured as an Access Point. The **RS** marking means the unit has been configured as a Remote Station.

The RJ45 Jack accepts a CAT5 type data cable. The **AP** marking means the unit has been configured as an **Access Point**. The **RS** marking means the unit has been configured as a **Remote Station**.

Access Point, Remote Station and Bracket Installation

The mounting brackets are steel and can be mounted to any flat surface. One bracket should be mounted to your building for the installation of the Access Point, and one should be mounted at the structure by your sign for the installation of the Remote Station. The mounting location for these brackets should allow unobstructed line of site between the two mounting locations for optimal signal strength between the RF wireless devices. Use the plastic mounting ties included with your RF wireless devices to secure the devices to the brackets. The wireless devices must be attached to the mounting brackets with the Ethernet cable coming out of the bottom of the device to prevent water infiltration into the wireless device.
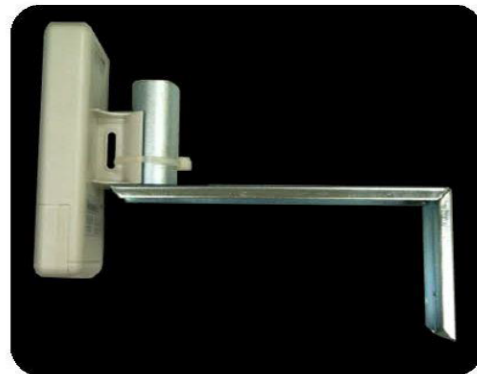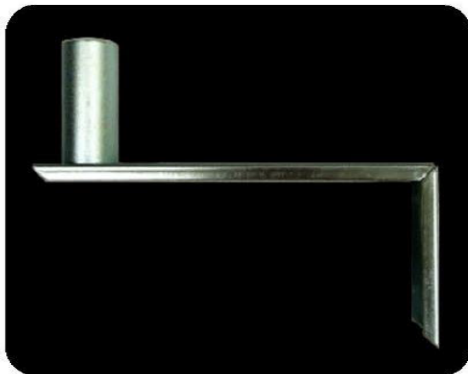
CAUTION: Do not attach the Remote Station mounting bracket to the LED display cabinet or your warranty will be voided."

POWER AND DATA CONNECTIONS

The Access Point and Remote Station require a power source to operate. The CAT5 data cable also provides a path for power to these units. Power is injected into the CAT5 cable by a Power-Over-Ethernet (POE) adapter. Photos of the POE adapter are shown below.

POE Adapter (Front View)   *POE Adapter (Rear View)*

On the front of the POE adapter are two RJ45 jacks which accept CAT5 type data cables. On the rear of the POE adapter is a 110AC power input socket. A 110AC power cord is supplied with each POE Adapter.

The POE connection instructions for the Access Point are as follows:

1. Connect a CAT5 data cable from the Ethernet jack on your computer and to any of the open jacks on the router (Do not use the WAN or Internet Port). These jacks are usually numbered 1 through 4.
2. Connect a CAT5 data cable from another open jack on the router to the LAN jack on the POE adapter. (Do not use the WAN or Internet jack on the router)
3. Connect a CAT5 cable from the POE jack on the POE adapter to the RJ45 jack on the Access Point unit. If this cable is exposed to the weather, use an outdoor rated CAT5 cable.

The POE adapter for the Remote Station has been pre-installed inside the LED display cabinet. A single CAT5 cable connection is all that is required to connect the Remote Station.

1. Connect an outdoor rated CAT5 cable from the RJ45 jack on the Remote Station unit to the DATA IN jack on the rear of the Master Face.

CAUTION: The POE jack on the POE adapter is never to be connected directly to a router or computer. Permanent damage could result if you connect this jack to your computer or router. DOUBLE CHECK all of your connections before applying power to the POE adapter.

TESTING AND ALIGNMENT

Access Point   *Remote Station*
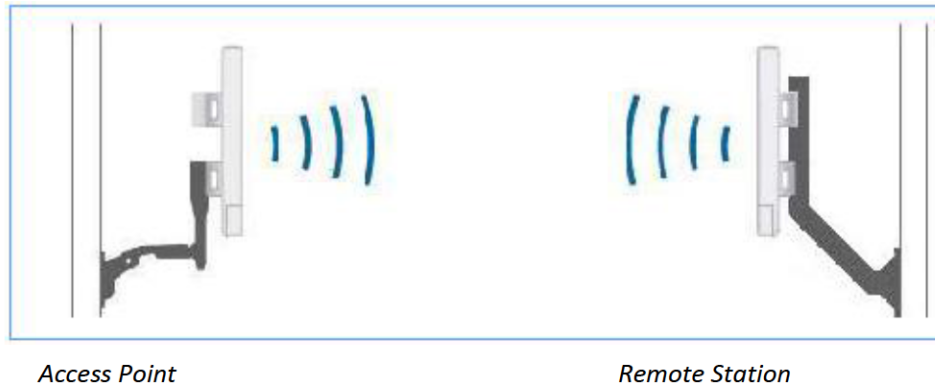
The RF Wireless units are mounted with the front of the units facing toward each other as shown above. Once the Access Point and Remote Station units are mounted and power is connected, it is necessary to check the relative signal strength being measured by the units and adjust them as needed. This will ensure reliable data communications between the computer and the display(s).

On the top rear of each unit are (6) LED indicators used to indicate Power, LAN/Link, and Signal Strength. The Power Indicator confirms that power is being supplied to the unit. The LAN/Link Indicator confirms a data link between the Access Point and the Remote Station. The Signal Strength Meter indicates the relative signal strength being measured. The goal is to achieve the highest possible signal strength.

First confirm the Power and LAN/Link Indicators are lit. The Signal Strength Meter is read from left to right. The lowest signal strength is indicated by the first LED on the left. The stronger the signal strength, the more LED's are lit. The strongest signal strength would light all four LED's. It may be necessary to adjust the vertical and horizontal position of the Access Point and Remote Stations to achieve the highest possible signal strength.
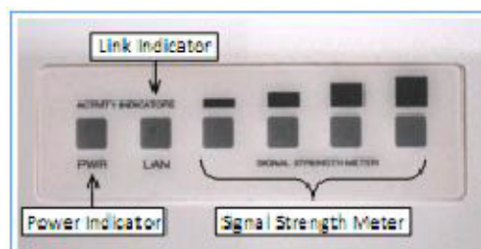
LED Indicators

Important: The Access Point and Remote Station units are line-of-site devices. Best results are achieved if you can visually see each unit from the other unit's mounting location. The performance of these devices can be greatly hindered by metal buildings and other metal structures. However, these devices are capable of transmitting and receiving data through buildings, trees and other obstructions. All RF Wireless devices are susceptible to external RF interference caused by high power radio stations and cell towers. If you are using these units in such an environment, it may be necessary to consider another method of communication. Contact technical support if you have trouble achieving adequate signal strength.

Computer Connection Diagram – RF wireless communication
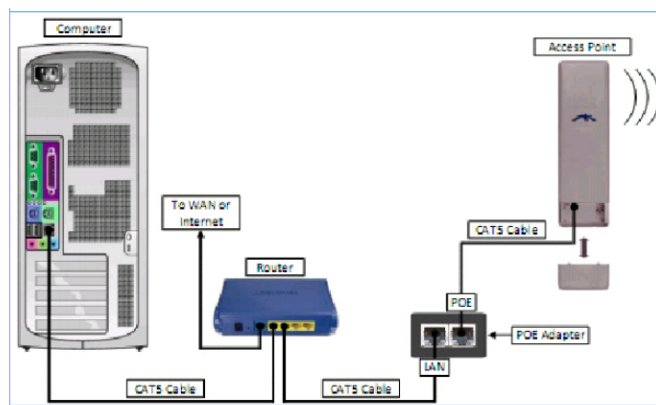
The above diagram shows typical computer system connections using the RF Wireless communication method. Your computer and router may differ.

1. Connect a CAT5 data cable from the Ethernet jack on the computer an open jack on the router. These jacks are usually numbered 1 through 4.
2. Connect a CAT5 data cable from a router jack to the LAN input jack on the POE adapter.
3. Mount the Access Point in a suitable location. (See Installation Instructions)
4. Connect a CAT5 cable from the POE jack on the POE adapter to the Access Point.
5. Plug the power cable into the rear of the POE Adapter.

***Double check all connections before applying power to the POE adapter.***

Note: The WAN port on the router is connected to the internet or other network as needed.

For Data Connection Diagrams on the LED display(s), refer to the Appendix at the end of the manual.

SIGN MAINTANENCE

Your AdChoice Outdoor Series signs need very little maintenance but should be inspected from time to time to ensure they run smoothly for years to come. Below are some items that you should check periodically.

1. General inspection of the installation. This would be a basic walk around to look for any damage or issues that have developed over time.

   - Look to make sure that any accessories that may have been part of the sign purchase are still in place and have not fallen or moved. This is especially important after bad weather as high winds or hail are the most common cause of accessories falling out of place or damage to the displays or accessories.

   - Look for any bird nests or bees nests and if present have them removed. Bird and Bees nests can damage wiring, block air vents and lead to issues with the sign down the road.

2. Filter screen inspection. Your sign is outfitted with air vent filter screens on the bottom air intakes to keep the inside of the signs as clean as possible. Below is a drawing showing the positioning of the air intakes indicated by the arrows.
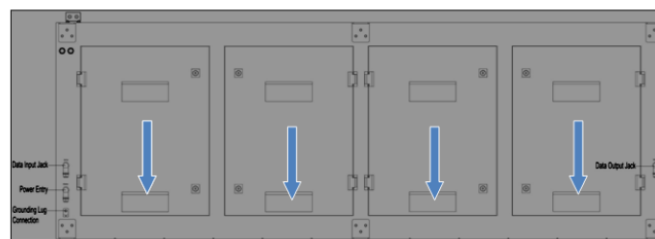
Typical Cabinet Rear View

The number of air intakes and screens varies by sign size. These screens should be inspected at least quarterly in the beginning of the signs life, removed and cleaned if necessary with water. They should be allowed to dry fully before reinstallation. The frequency of the screen inspections can be increased or decreased based on how quickly they get dirty. Access to the screens can be gained by opening the doors on the back of the signs if accessible. If the sign doors on the back of the sign are not accessible, then display modules will need to be removed to access these screens from the front of the displays.
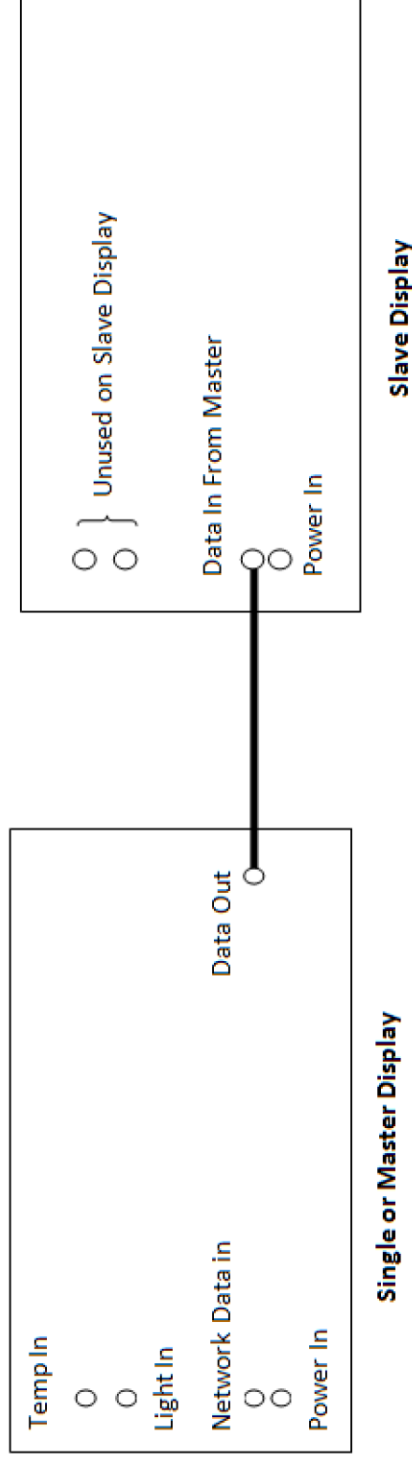
3. General cleaning of the sign. Signs near busy highways may get dirty from road grime and dirt being kicked into the air from traffic. If your signs are getting so dirty its affecting the brightness of the display, you can lightly hose the sign off with a basic hose, and wipe it down with a very soft bristle brush. **<u>DO NOT USE A PRESSURE WASHER. PRESSURE WASHERS CAN DAMAGE LEDS AND LEAD TO WATER INFILTRATION.</u>**

AdCHOICE
LED SIGNS

Appendix

AdChoice Outdoor Series LED Display
Connection Diagrams

AdChoice Outdoor Series LED Display
Connection Diagrams

Single or Master Display

Temp In

Light In

Network Data in

Power In

Data Out

Slave Display

Unused on Slave Display

Data In From Master

Power In

The above diagram shows Power and Data input layout for all display types. All Power and Data connections are made on the rear of the display cabinets. Data in connection on the master display would be the incoming connection from the network whether it's a straight connection from the network or the wireless device if applicable. Power connections are made by unlocking the back door of the cabinet to gain access to the Power Terminal Block. Refer to the install manual and Product Specification Label for power connection details. All Data connections are made using standard CAT5 type cables with RJ45 type connectors. Exposed CAT5 cables must be outdoor-rated. Refer to the install manual for proper assembly of the weatherproof CAT5 jacks to prevent water damage to the data cables and jacks.

CAT5 Communication

Computer Connection Diagram

Computer

To WAN or Internet

Router

CAT5 Cable

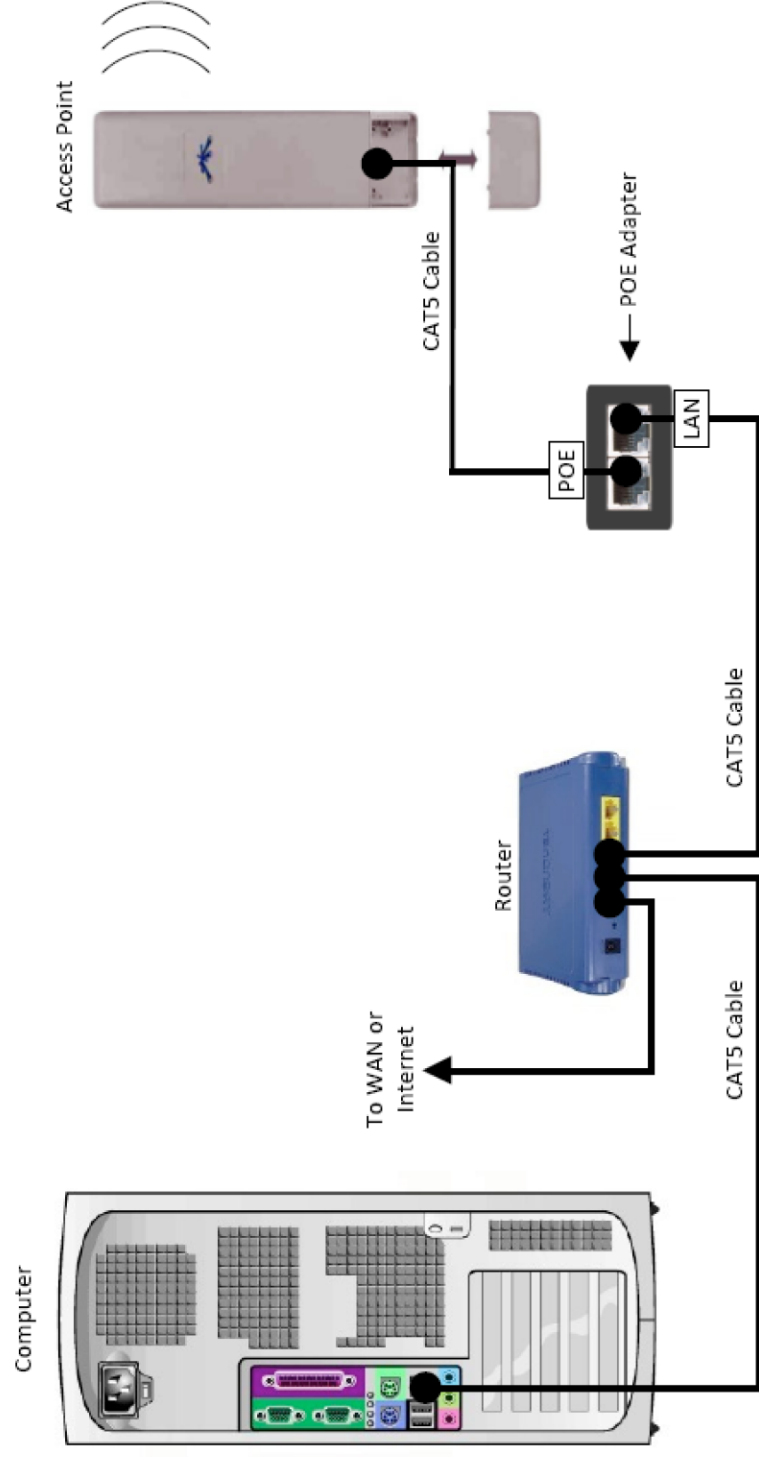CAT5 Cable

To LED Display
DATA IN jack
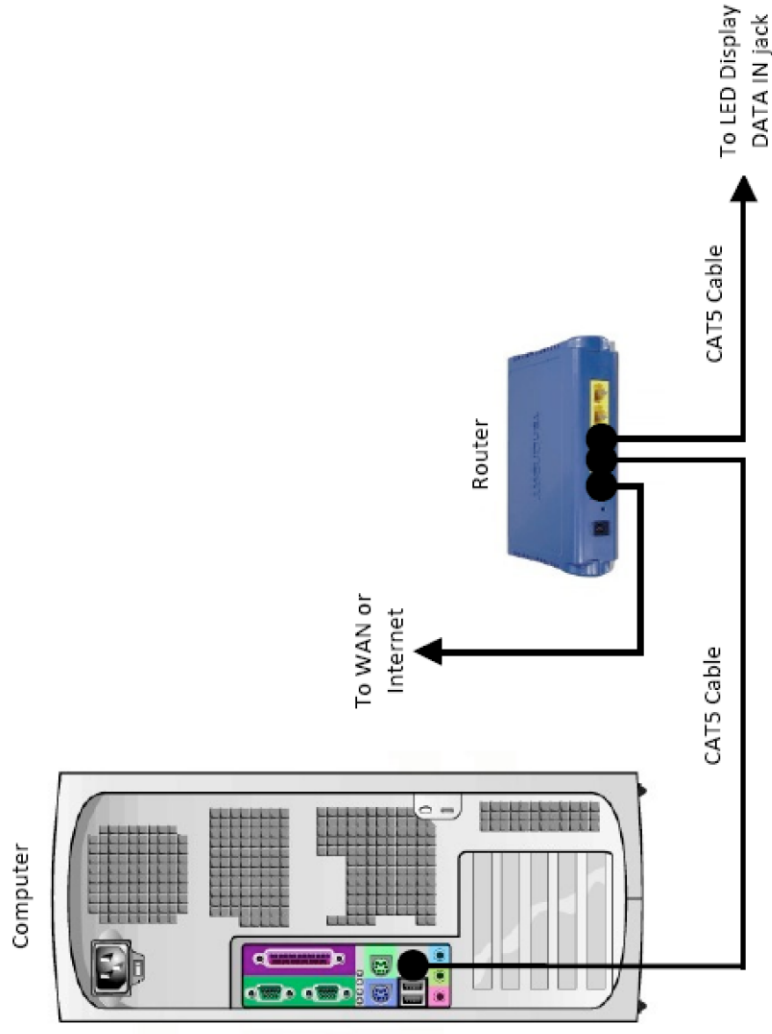
The above diagram shows a typical computer connection scheme using the Cat5 communication method. Your computer and router may differ.

1. Connect a CAT5 cable from the Ethernet jack on the computer an available router jack. These jacks are usually numbered 1 through 4.

2. Connect a CAT5 cable from an available router jack to the DATA IN port on the LED display.

3. CAT5 cable length should not exceed 330 feet. Outdoor rated CAT5 cables should be used for any exposed data cables.

Note: The WAN port on the router is connected to the internet or other network as needed.

RF Wireless Communication
Computer Connection Diagram

Access Point

CAT5 Cable

POE Adapter

POE

LAN

Router

CAT5 Cable

CAT5 Cable

To WAN or Internet

CAT5 Cable

Computer

The above diagram shows a typical computer connection scheme using the RF Wireless communication method. Your computer and router may differ.

1. Connect a CAT5 data from the Ethernet jack on the computer an available router jack. The jacks are usually numbered 1 through 4.

2. Connect a CAT5 data from an available router jack to the LAN input on the POE adapter.

3. Mount the Access Point in a suitable location. (See RF Wireless installation Instructions)

4. Connect a CAT5 cable from the POE jack on the POE adapter to the Access Point.