### **Polaris Quick Start Guide**



Thank you for buying a Stewart Sign! Care has been taken to provide a quality product that will serve you well for many years. If for any reason you are not entirely satisfied with your new sign, please contact our Customer Support Department at 1-855-841-4624. Welcome to the family of the thousands of satisfied Stewart sign owners.

elivery

- 1. Your new sign will arrive in one or more crates depending on the size of the sign. Each crate contains one fully assembled component.
- Inspect the sign for damage and confirm that you are receiving the correct number of crates/packages. If you suspect damage, please refer to the Visible Damage section. Note any damage or discrepancies on the Delivery Receipt **BEFORE** the driver pulls away. Failure to note the damage will result in the freight carrier denying your claim.
- 3. You will need sufficient manpower, forklift, bucket truck or crane to offload your sign. Stewart Signs always recommends lifting equipment. Always think "Safety First."
- 4. Your sign may have shipped with one lifting eye bolt or two lifting brackets. The lifting brackets are designed to lift at an angle.
- 5. If your sign has a separate leg section, there will be holes on the inside of both legs to allow you to use hooks to lift the legs onto the anchor bolts. Please note that the design of certain models may not allow for lifting holes.

upport

If you require further assistance, consult your manual or contact our Customer Support team at 1-855-841-4624. All Stewart Signs include online and phone support. All software training and parts replacement assistance is available upon request. Any requested assistance will require an appointment with an agent. For the full user manual, installation video and software information, please visit: https://www.stewartsigns.com/support

isible Damage

Your signature on the delivery slip is verification that you received the product in good condition. If there is visible damage, refuse the shipment. Have the driver note the nature and extent of damage on the carrier's copy and the delivery copy of the freight bill. See your owner's manual for details.

*If your shipment is damaged contact Stewart Signs immediately at 1-855-841-4624.* 

storage

If you will not be installing your sign immediately after receiving it, please store your sign in an upright position. Although many signs are shipped upside down, they must be stored upright. You may lean the sign against a wall at a slight angle. Do not lay it flat, upside down or on its side when storing.

ue Kolts

- 1. Remove any eye bolts and washers from top of sign.
- Replace each eye bolt with the colored replacement bolt and 2 washers (1 metal on top and 1 rubber on bottom) included inside plastic bag with touch-up paint.
- 3. Tighten the replacement bolt to ensure water doesn't leak into the sign.

# **Getting Started**

### What's Included





Fasteners needed for installation (eye bolt or lifting brackets) 1-Can of touch up paint to match your sign

l.

#### For Wireless Options Only:



1-External Antenna

1- Base or Building end Rad

ommunication Devices

A display purchased with short-range wireless options is equipped with an industry-leading Ubiquiti© PicoStation© receiver for wireless communications. Your sign may also come with a separate black receiver antenna. If this part has been shipped separately, attach it by screwing it into the receiver port. (Typically located on the side of the sign.) Point antenna straight up for best signal reception. For best connectivity, it is recommended to have direct line of sight between the transmitter and the receiver. If line of sight is not achievable, place the transmitter at the closest available point with the least number of obstructions between the transmitter and the sign.



Tools Needed



#2 Phillips Screwdriver



5/16 Hex Nut Driver and 1/4 Hex Nut Driver



T-25 Torx Bit



1/8 Allen Wrench

Flectrical

### Stewart Signs requires a licensed electrician for all electrical work.

120V wires are black, green and white. 240(277)v wires are black, red, green and white. **WARNING:** The electrical source and the data/communication line cannot share the same conduit, as this may result in data transmission errors.

learance

Displays are rear vented, and air must be allowed to flow unimpeded to and from ALL air vents in order to maintain warranty coverage. Air temperature in the sign must be maintained between -22F and 120F to prevent damage to the electrical components. In addition, clearance may be required for hinged cabinets to open properly.

- 1. A minimum of 3" of clearance is required behind the display, and from 6" to 8" between displays that are mounted backto-back.
- Wall installations require an additional 1" of rear clearance for every additional 10 feet of display length.
- 3. A minimum of 2" of clearance is required around the perimeter of the display cabinet when installing near other signs or structures.
- A minimum of 5" of clearance is required around the perimeter of the display cabinet for recessed signs.

# Installation

Pedestal and Monument Mount

- Locate and remove the cardboard box from the crate. This box will contain your wireless components, touchup paint, and replacement bolts and washers (metal & rubber) for the lifting eye bolts.
- 2. Remove the wooden crate from around each component. You should have a component consisting of the identification sign and LED display, and a component consisting of the support structure.
- 3. Verify that the bottom nuts and washers on the anchor bolts are level both front to back and side to side. It is much easier to level the nuts *BEFORE* you install the sign.
- 4. Orient each component with the electric coming into your footer. The electric in the support structure will run through the leg has three bolts on the side. There will be an access door on the lower leg to allow the electrician to access the wires to make the connection. If your sign's data connection will be via Ethernet connection, there will be an access door below the side of the support structure that has two bolts. Electric wires coming from the bottom of the display component are taped in blue.
- 5. Lift the support structure onto the anchor bolts and immediately place the upper washers and nuts on the anchor bolts. Tighten the top nuts. Double check that the support structure is level and adjust as necessary.
- 6. Lift the sign portion to a working height and pull the wires down out of the stub legs. Feed the electrical lines down into the corresponding leg and pull through the access hole in the side of the leg near the base plate. There will be two or more sets of electrical lines; one set for the identification sign and one set per side for the LED display. Each set requires a dedicated circuit. Please refer to your sign quote or order form for the specific electrical requirements of your sign model.
- 7. If applicable, perform the same action with the Ethernet data cable in the opposite leg.
- 8. Remove the bolts from the outside of the stub legs and lower the sign component. The stub legs will sleeve into the legs of the support structure. Once fully lowered, fasten the support structure to the stub legs with the bolts.





**Single Pole:** The most common way to mount the sign to an existing single pole structure is the Match Plate mount, where we match the mounting plate to your existing structure. The sign cabinet has both electrical and data connections within the one leg.

- 1. Pull electrical and data lines from the installed conduit or existing support structure, through the Electrical Access Panel.
- 2. Place sign into installation area.
- 3. Place washers on anchor bolts and attach lock nuts and washers. Refer to your Technical and Structural Engineer drawings for detailed information.

**Double Pole:** The mounting brackets for a Double Pole are custom made to match your existing structure. When your sign is installed between two poles, it will install similar to a Masonry Mount. When installed onto the front of a Double Pole, it will install similar to a Wall Mount. When installed on top of a Double Pole, it will install like a Single Pole.

#### Figure 3



Wall Mount

A wall mount kit is shipped separately from the sign components and contains several mounting angles and an air baffle.

The mounting angles (shown in red on the diagram) measure  $3'' \times 3''' \times 6''$  in length. Four angles are provided for LED cabinets less than 9' in length; two for the top and two for the bottom. Six angles are provided if the cabinet is longer than 9'; three for the top and three for the bottom.

The back of the LED cabinet has two integrated angles welded at the top and bottom. Once the mounting angles have been properly installed to the wall, the mounting angles and integrated angles are then bolted together.





The mounting angles do not have pre-drilled holes, since the proper positioning of the angles is unique for each installation.

(Side View)

Drilling into the mounting angles is required for attachment. The bolts to fasten the angles to the wall are not included, as the proper fastener is determined by the size of the sign and the type of structure it is mounted against.

If mounting to a brick or block wall, it is recommended to fasten into the face of the brick or block, and not into the mortar joint. If mounting to a wood frame wall, position the mounting angles so they are aligned with an internal support stud or beam. *Welding is strictly prohibited on the display cabinet. Any additional penetrations into the display cabinet must be authorized, in writing, by Stewart Signs. Damage incurred from water leaks and/or welding may void the warranty.* 

An air baffle consisting of a  $1\frac{1}{2}$ " x 3" aluminum angle with double sided mounting tape is also included. This baffle is used to separate the intake air vents from the exhaust vents, and prevent the recirculation of exhaust. Simply apply the double-sided tape to the 1  $\frac{1}{2}$ " side of the air baffle and attach it vertically to the center of the LED cabinet back.

Waterproof connectors for both electrical and data are on the back of the LED cabinet approximately 3" from the bottom. For full concealment, the electrical and data source should enter from behind the LED cabinet. As the LED cabinet is offset from the wall, the electrical and data conduits can enter from behind the cabinet at any location.

Masonry Mount

#### **STEP A: PREPARATION**

- To prevent potential difficulties, we STRONGLY encourage you to NOT build your brick mount until you have received the sign and have verified all measurements and properly aligned all hardware.
- 2. Run the electrical through the brick mount to the underside of the sign cabinet on either side of the brick opening. For single face signs, the electrical runs to the right side of the sign when facing it.

#### **STEP B: ERECTING THE SIGN**

- Your sign will arrive with "L" brackets welded to the cabinet. Corresponding "L" brackets will be set by bolts (provided by customer) into the brickwork.
- 2. Place the cabinet into the brick opening and mark the location of the "L" brackets against the brickwork.
- 3. Remove the cabinet. Attach the "L" brackets to the brickwork using your bolts.
- 4. Replace the cabinet and bolt the "L" brackets together.



Angle Bracket Detail

## **Post Installation**

Checking Connections

During shipment and installation, some cables or connections inside of the display may have been loosened. If you experience any display or communication issues after installation, please check the electrical and data connections inside of the display with the power off. These connections can be accessed in two ways:

- Individual LED boards can be removed using a 1/8" Allen wrench. Insert the Allen wrench in the small hole located in the middle of the affected LED board, and twist it to the left about 1/2 turn to unlock the board. Carefully remove the LED board making sure not to dislodge any cables. If needed, the data and power cables can be disconnected from the back of the board.
- 2. The entire LED display cabinet can also be opened by removing the bolt connectors located on the bottom of the cabinet. An adjustable wrench can be used to remove these bolts. Once the bolts are removed, the front of the display will open slowly on gas strut prop rods.

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#### **FCC Notice**

All components have been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The user is cautioned that any changes or modifications not expressly approved by the party responsible for FCC compliance could void the user's authority to operate the equipment.

#### Each sign will contain one of the following LED modules:

LED-10M-RGB-32X32P-320X320M, LED-16M-RGB-20X20P-320X320M, LED-20M-1RGB-16X16P-320X320M, LED-20M-1RGB-8x16P-160X320M, LED-20M-2R-8X16P-160X320M, LEDDM-10M-1RGB-32X32P-320X320M, LEDDM-16M-2RGB-32X32P-320X320M-2017, LEDDM-16M-2RGB-20X20P-320X320M, LEDDM-16M-2RGB-20X20P-320X320M-2017, LEDDM-20M-2RGB-16X16P-320X320M, LEDDM-20M-16X16P-320X320M-2017

**Power Supply:** 

Meanwell RSP-320-5

#### Send Card:

SENDCARD-NS

**Receive Card:** 

RECCARD-MRV560-NS

#### Control System:

Industrial PC - Lanner HQ-LEC-7020D V1.TS128MSQ64V8U GB DDR2 (FCC certified)

#### Wireless Radios and Modems (If ordered):

Ubiquiti BulletM2HP with POE 24v (FCC Certified)

Sierra Wireless Airlink LS300 (FCC Certified)

Sierra Wireless R5-S1-10 RV-50 (FCC Certified)