

**GENERAL PURPOSE RETROFIT SIGN CONVERSION**

**FOR USE ONLY IN ACCORDANCE WITH KIT INSTRUCTIONS**

KIT IS COMPLETE ONLY WHEN ALL PARTS  
REQUIRED BY THE INSTRUCTIONS ARE PRESENT

## EPCU LX Complete Unit Part Numbers

### EPCULX-xf-ssC

EPCULX	Series Name
x	Type MR (Master with radio), M (Master without radio), S (slave)
f	Number Format 1 (8.889), 2 (88.88)
ss	Digit size in inches: 6, 9, 12, 15, 18, 24
C	Color: G (green), R (red), A (amber), W (white), B (blue)

Example: EPCULX-MR1-18G     Master with radio, format (8.889), 18" Green digits

Description	Qty per Frame
<b>LX Digit</b>	<b>4</b>
<b>LX Decimal</b>	<b>1</b>
<b>Digit Cable</b>	<b>4</b>
<b>Data Cable</b>	<b>1</b>
<b>AC Supply Cable</b>	<b>1</b>
<b>Power Supply 12V</b>	<b>1 (18" and 24" 2pcs.)</b>
<b>Controller</b>	<b>1 (Master Only)</b>
<b>Handheld Remote</b>	<b>1 (Master Only)</b>
<b>Aluminum Frame</b>	<b>1</b>
<b>Instruction Packet</b>	<b>1</b>
<b>Paper Drilling Template</b>	<b>1</b>
<b>PricePad</b>	<b>1 (Master with Radio Only)</b>
<b>PricePad Antenna</b>	<b>1 (Master with Radio Only)</b>

## PRE-INSTALL CHECKLIST



### WARNING!

- **RISK OF FIRE OR ELECTRIC SHOCK.** LED Retrofit Kit installation requires knowledge of sign electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- **RISK OF FIRE OR ELECTRIC SHOCK.** Install this kit only in host signs that are UL Listed and where input rating of the retrofit kit does not exceed the input rating of the sign.
- **RISK OF FIRE OR ELECTRIC SHOCK.** Installation of this LED retrofit kit may involve drilling or punching holes into the structure of the sign. Check for enclosed wiring and components to avoid damage to wiring and electrical parts.
- Always disconnect power from the sign before service.



### ATTENTION!

- EPCU LX frames can only be installed behind faces made of enclosure-rated material (i.e. polycarbonate).
- Make all cable connections prior to applying power.
- Threaded standoffs may become misaligned during shipping. If this occurs, align standoffs with ¼" socket or nut driver.
- On transparent faces, ensure that wiring is secured away from the face to prevent shadowing.
- LED signs are to be on a dedicated 120V – 240V, 20-amp circuit. This circuit should only operate the LED sign.
- It is the installer's responsibility to ensure the sign is weather proof upon completion of the installation. This includes installing any lids or covers.
- Never run the LED portion of the sign off of a generator from a service truck.

- All team members on site must have proper Personal Protective Equipment (PPE): Hard Hat, Safety Vest / Reflective Clothing, Long Pants, Work Boots (steel toed), Safety Glasses, and Gloves.
- Any non-crew member entering the work zone must be escorted at all times, and must wear a Hard Hat, Reflective Vest, and Safety Glasses.
- Appropriate barricades (48" minimum height, continuous) with caution signs must be used around the work zone at all times.
- There is to be no smoking, alcohol, drugs, or explosive materials on site.
- Check to make sure that all components are present.
- If any components are missing or damaged, please contact your distributor prior to installation.
- Ensure that power has been provided to the sign via a dedicated 120V – 240V 20A circuit.

The following instructions are for retrofitting an existing sign with EPCU LX.

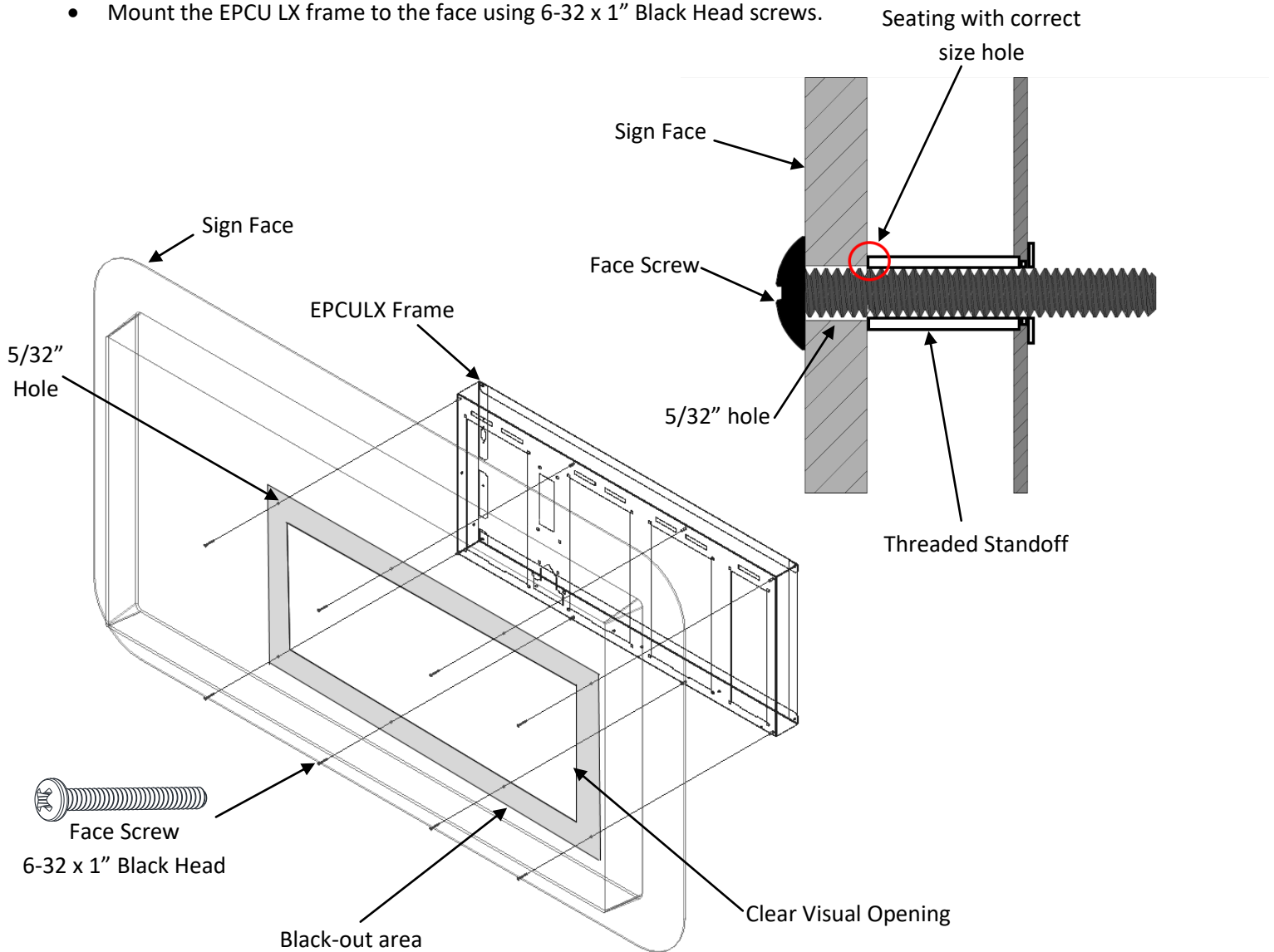
**Note:** If replacement faces are provided, skip to **Installation**.

**Face Preparation:**

If there are no replacement faces for the sign, holes must be drilled into the existing face to mount the EPCU LX frames.

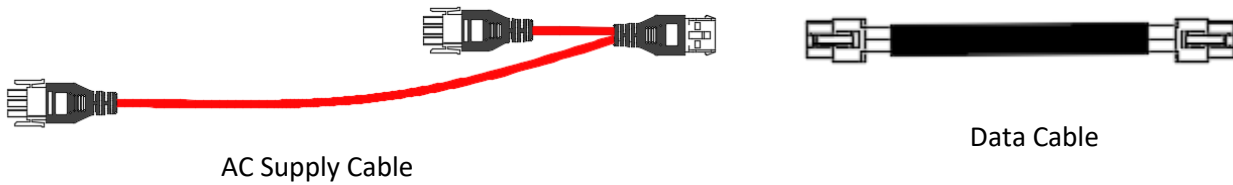
- EPCU LX must have a clear visual opening. Required visual opening dimensions are provided on the paper pattern. Modify the face of the sign to meet visual opening requirements if needed.
- Using the provided hole pattern and a 5/32 drill bit, drill holes into the front of the faces.
- **Note:** The correct drill bit **MUST** be used. If the bit used is larger than 5/32", the threaded standoff will not seat properly on the back of the sign face.

- Mount the EPCU LX frame to the face using 6-32 x 1" Black Head screws.

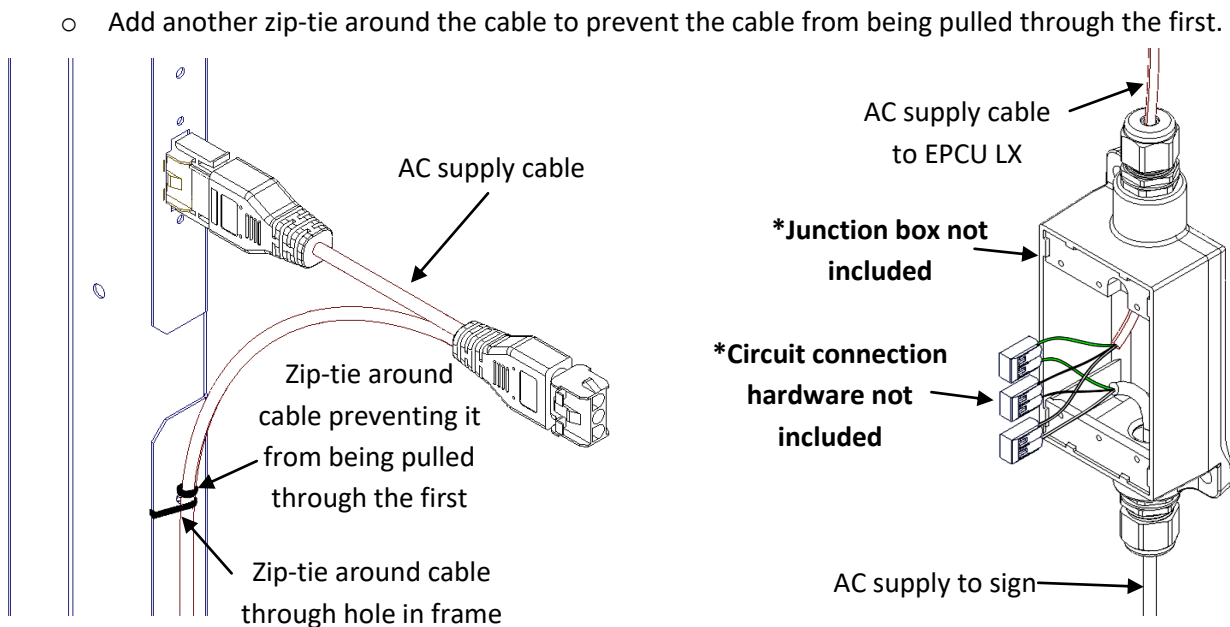


## Installation:

- All AC supply cables and data cables must be connected properly before the faces are fixed to the sign.



- Use the wiring diagram on **page 5** to connect AC supply cables to the frames and data cables from the controller to the proper decimal points.
    - AC and Data cable connections for a face may already be made if EPCU LX frames were shipped attached to a face. In this case, only AC Supply connection and AC/Data cable connections between faces will need to be made.
  - **Note:** Any unused AC supply connectors must have an end cap to prevent electrical shorts.
  - **Note:** The Master (frame with controller board) must be Product 1.
  - **Note:** The Data cables can be connected to either data port on a decimal point.
- When installing the AC supply cables, give the cables strain relief by zip-tying the cable to the frame through the hole in the frame as shown in the diagram below.

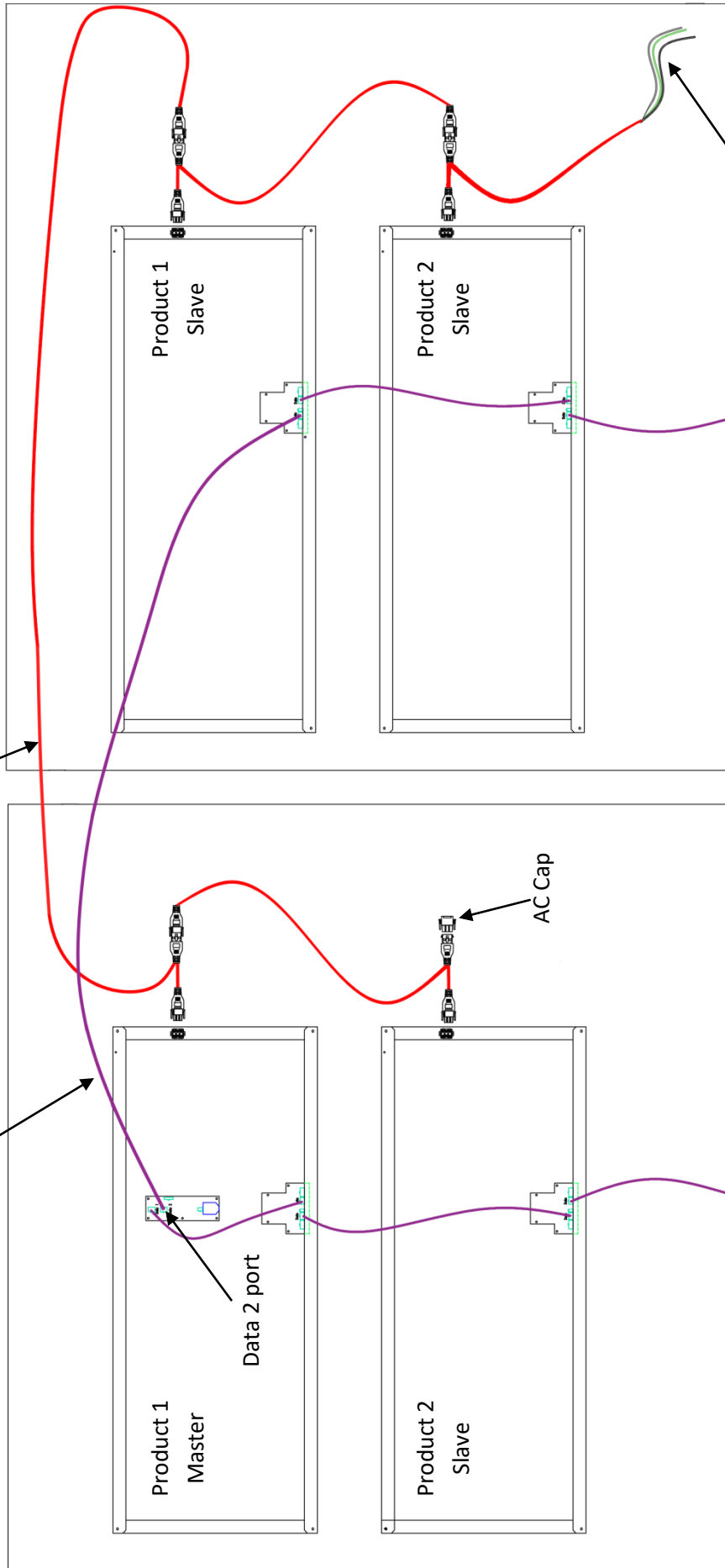


- **Be sure to secure all loose wiring away from the face to prevent shadowing on translucent faces.**
- Connect AC power to the EPCU LX system by trimming the end of the AC supply cable closest to the junction box, stripping the wire, and using circuit connection hardware (e.g. wire nuts) (**NOT INCLUDED**) to make the AC connection inside the junction box (**NOT INCLUDED**) located inside the sign.

**\*NOTE:** This diagram only shows one possible configuration for power cable wiring. This can change depending on the number of products, the placement of the internal AC junction box, etc. Use best judgment to reduce the amount of AC Supply cables and AC Caps needed.

Run this data cable from Data 2 port on controller to the data port on the decimal point for Product 1 on the opposite face

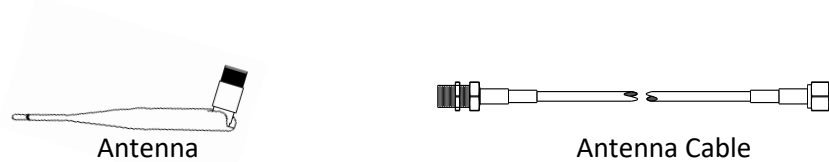
Plug end of this cable into AC supply cable for other face.



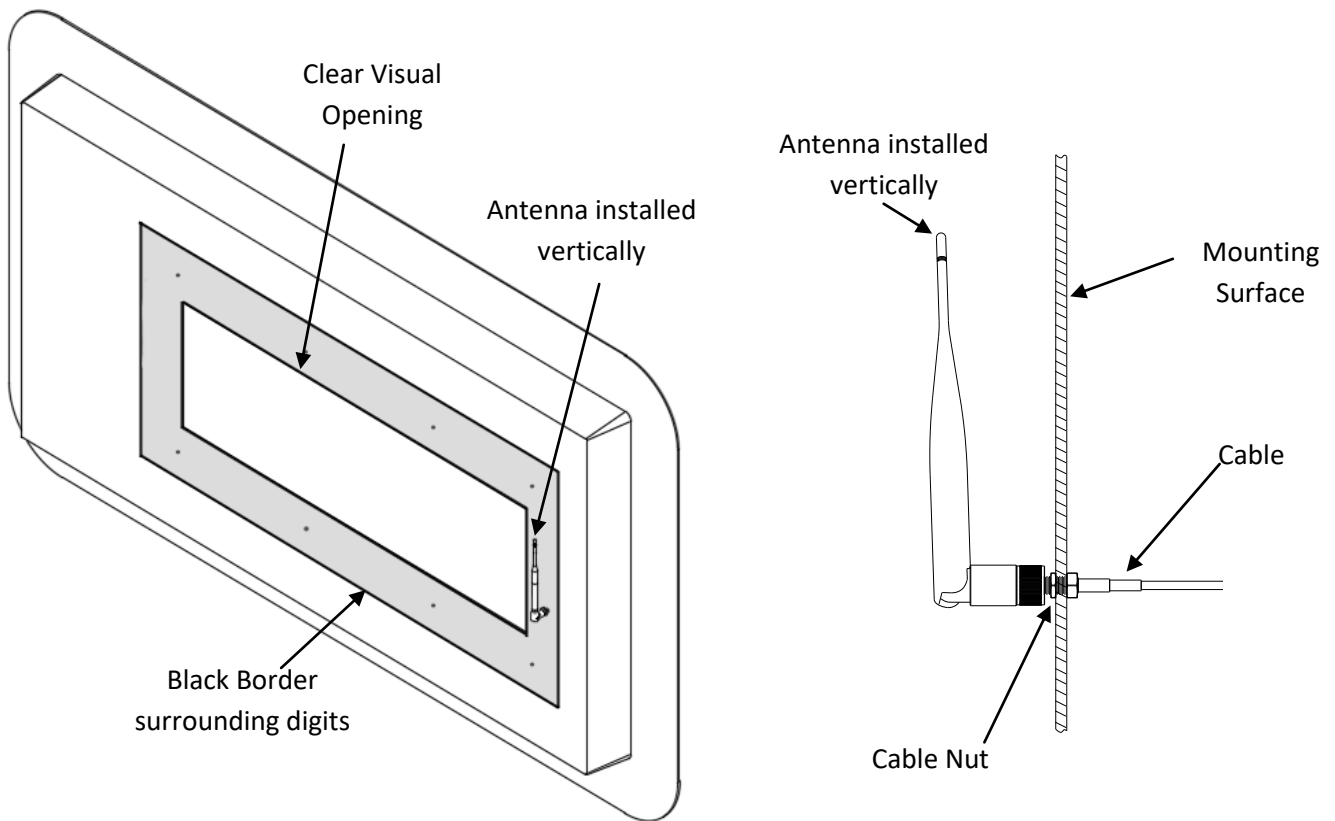
Use circuit connection hardware to connect wire internally to junction box

Data connections to subsequent products (if present)

- If the sign is equipped with a PricePad, the antenna must be installed vertically on the exterior of the sign.



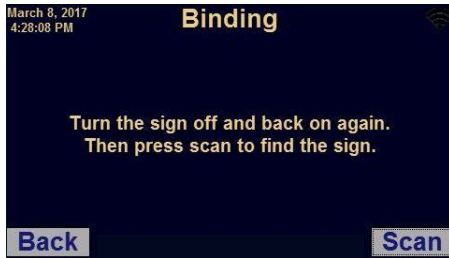
- The antenna and antenna cable can be found inside the master frame, zip-tied inside. Cut only the zip-tie holding it in place, then run the antenna cable from the controller to the exterior of the sign, facing the store for best reception.
  - **Note:** Recommended location for the antenna is within the black border surrounding the visual opening on the face, to the right of the digits.
- Drill a ¼" hole for the end of the cable to protrude from.
  - Use the provided nut on the end of the cable to fix the cable to the exterior of the sign.
  - **Note:** Maximum material thickness: 0.160"




- The faces may now be fixed to the sign or the cabinet may be closed.
  - Power can now be applied to the sign via the circuit breaker inside the store.

## PricePad Binding (if applicable):

The PricePad unit must be bound to the sign to function properly. If it is not already bound, follow the procedure below to bind the sign to the PricePad.



- Navigate to the **Signs Menu** by pressing the **Settings** icon  in the upper right corner, **Advanced**, then **Signs**.
- Press the “New” button.
- Follow the on-screen prompt and power cycle the sign. Then press the “Scan” button.
- Wait for scanning to complete. This may take up to a minute.
- Tap the address of a sign that is ready to bind.
- If there are multiple signs ready to be bound like in the image to the left, pick one by tapping it. Then press “Identify”. This will cause the sign to blink slowly.
- If the correct sign is selected press “Bind”, if not press “Back” and try another sign.
- Wait for Binding to complete.
- Press “Back” on the Binding Complete screen.
- If trying to bind multiple signs, they can be bound at this time.

## Activation:

After binding the PricePad, the EPCU LX sign must be activated using the handheld remote before it will display prices.

- Follow the procedure outlined in the **Activation** Guide.