ELECTRONIC DISPLAYS INC.
135 S. CHURCH STREET
ADDISON, ILL. 60101
www.electronicdisplays.com

XR Series Matrix Specifications:

- Super-bright Red 5mm LEDS.
- The XR Series Matrix is designed with four 5mm LEDS per pixel. 1 inch spacing between pixels.
- Six 16 inch panels make up the one face of the display.
- The display can either display a single line of 15 inch high characters or 2 lines of 7 inch high characters.
- 10 Base T Ethernet connection provides fast downloads to the display.
- Matrix Messenger Software provided to communicate to the display.

XR Series Matrix Installation Instructions:

POWER WIRING:

One side of the Matrix display contains two gray boxes. The power disconnect box is rated at 240VAC @ 30 Amps. This is where the 120VAC is to be wired. There are 2 knockouts located on the bottom of the power disconnect box. There is one knockout on each side of the disconnect box. Either one of these can be knocked out and used to wire in the 120VAC as shown in FIGURE 1. Wire the ground wire to the terminal GND as shown in FIGURE 2. Wire the 120VAC Line signal to the terminal LINE as shown in FIGURE 2. Wire the 120VAC Neutral signal to the terminal NEUTRAL as shown in FIGURE 2.

COMMUNICATION WIRING USING A ETHERNET HUB(CABLES A & B):

The second box will have the temperature sensor and the Ethernet communication wires terminated by terminal blocks. The temperature sensor is already connected. There are 4 wires required for the Ethernet communication. A network card in the PC will be required. This network card must support a 10 Base T Ethernet. An Ethernet hub will also be required that supports 10 Base T Ethernet communication. A straight through cat 5E cable from the PC's network card to the Ethernet HUB is required(Cable A). A straight through cat 5E cable from the hub no more than 200 feet is required(Cable B). Open the box and you will see a terminal block located inside the box for Ethernet communication wiring. (See Figure 4 for more details)

- Connect a CAT 5E no more than 200 feet in length to a hub.
- Note the pin placement in to the RJ-45 at the display end. (See figure 3)
- Cut the cable and strip back ¼" insulation on the wires shown in figure 3.
- Connect pin 1 from the CAT 5E cable to our terminal labeled T+.
- Connect pin 2 from the CAT 5E cable to our terminal labeled T-.

- Connect pin 3 from the CAT 5E cable to our terminal labeled R+.
- Connect pin 6 from the CAT 5E cable to our terminal labeled R-.

NOTE: The (T+ and T-) and (R+ and R-) wires must be a twisted pair inside the cable.

Examples:

- The T+ wire will be White with a Blue stripe. The T- wire will be solid Blue or Blue with a White strip.
- The T+ wire will be White with a Green stripe. The T- wire will be solid Green or Green with a White stripe.

- The R+ wire will be White with an Orange stripe. The R- wire will be solid Orange or Orange with a White stripe.
- The R+ wire will be White with a Brown stripe. The R- wire will be solid Brown or Brown with a White stripe.

COMMUNICATION WIRING USING A CROSSOVER CABLE (CABLE C):

The second box will have the temperature sensor and the Ethernet communication wires terminated by terminal blocks. The temperature sensor is already connected (See Temperature Probe Mounting in the next section). There are 4 wires required for the Ethernet communication. A network card in the PC will be required. This network card must support a 10 Base T Ethernet. A cat 5E crossover cable from the PC's Network Card to the Matrix display no more than 200 feet is required. Open the box and you will see a terminal block located inside the box for Ethernet communication wiring. (See Figure 3 for more details)

- Connect a CAT 5E no more than 200 feet in length to a hub.
- Note the pin placement in to the RJ-45 at the display end. (See figure 3)
- Cut the cable and strip back ¼" insulation on the wires shown in figure 3.
- Connect pin 1 from the CAT 5E cable to our terminal labeled T+.
- Connect pin 2 from the CAT 5E cable to our terminal labeled T-.
- Connect pin 3 from the CAT 5E cable to our terminal labeled R+.
- Connect pin 6 from the CAT 5E cable to our terminal labeled R-.

NOTE: The (T+ and T-) and (R+ and R-) wires must be a twisted pair inside the cable.

Examples:

- The T+ wire will be White with a Blue stripe. The T- wire will be solid Blue or Blue with a White strip.
- The T+ wire will be White with a Green stripe. The T- wire will be solid Green or Green with a White stripe.
- The R+ wire will be White with an Orange stripe. The R- wire will be solid Orange or Orange with a White stripe.
- The R+ wire will be White with a Brown stripe. The R- wire will be solid Brown or Brown with a White stripe.

XR Series Matrix Mounting:

The display is designed to be welded to a structure using the weld plates located on the sides of the display. This method must be capable of supporting up to 350 lbs. See appendix A for Product Components. See Appendix B for Wiring.

TEMPERATURE PROBE MOUNTING:

The temperature probe will come with a 20ft. cable and will be connected already to the Data / Temp interface box. Two self-tapping are taped to the cable connecting the temperature probe. These two screws will be used to mount the temperature probe. NOTE: The temperature probe must be mounted in the shade. The two screws can be used to mount the temperature probe underneath the display cabinet as long as it is shaded.

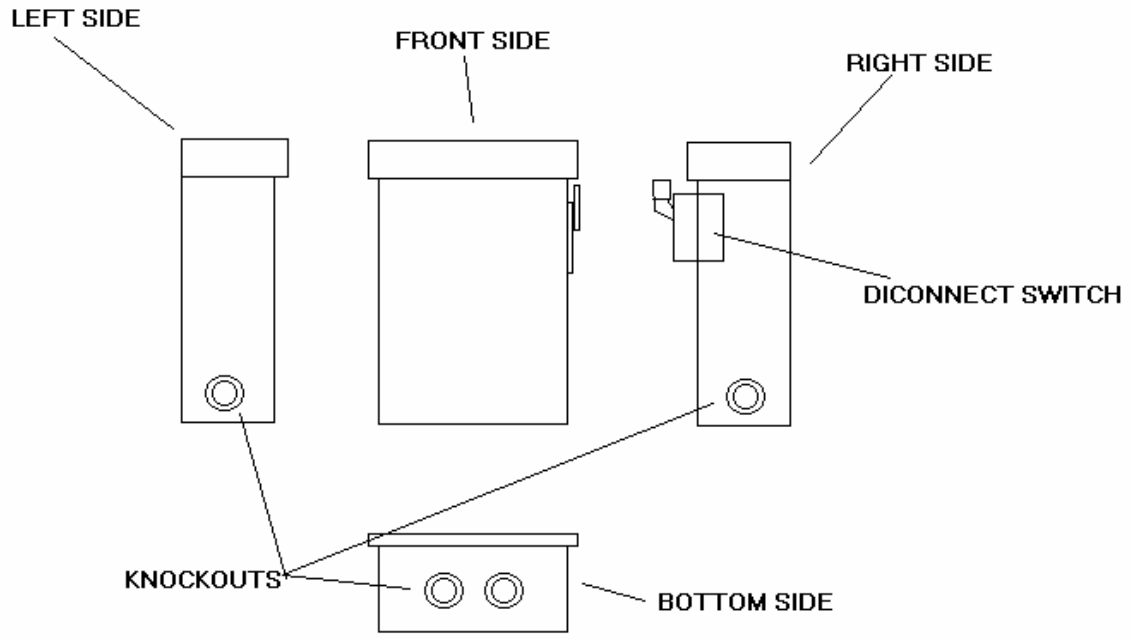


FIGURE 1:

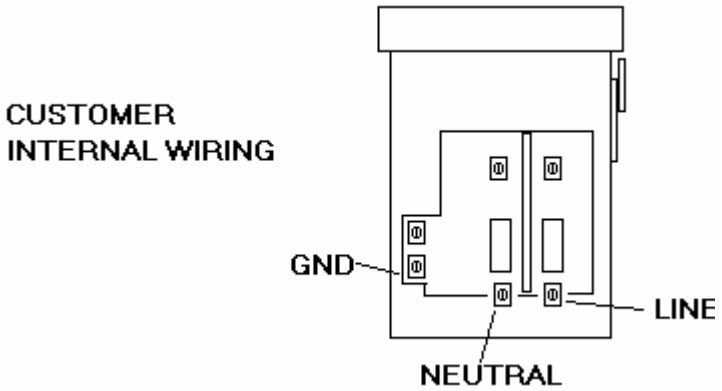


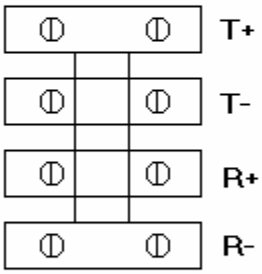
FIGURE 2:

1. Connect pin 1 from the RJ-45 cable to the terminal labeled T+

2. Connect pin 2 from the RJ-45 cable to the terminal labeled T-

3. Connect pin 3 from the RJ-45 cable to the terminal labeled R+

4. Connect pin 6 from the RJ-45 cable to the terminal labeled R-



Note: Picture is with Locking Tab Down

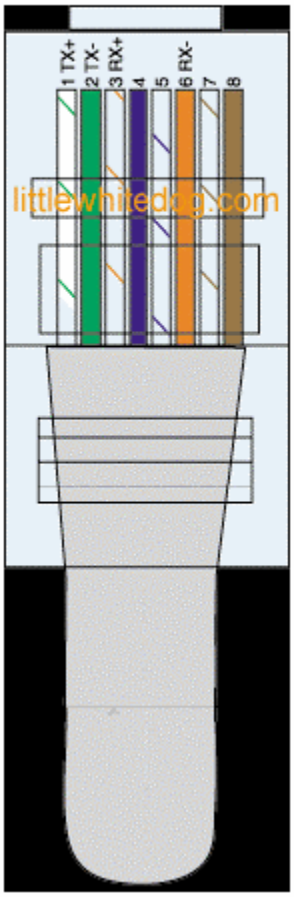


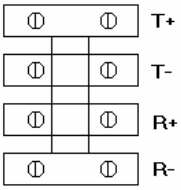
FIGURE 3:

1. Connect Pin 1 from the crossover cable to therminal labeled R+.

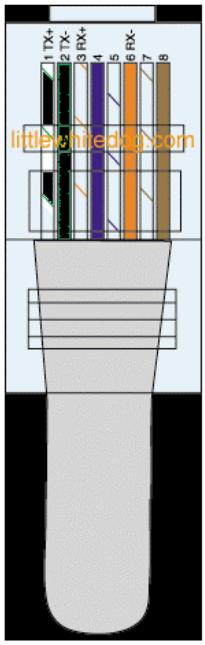
2.Connect Pin 2 from the RJ-45 crossover cable to the terminal labedled R-.

3.Connect Pin 3 from the RJ-45 crossover cable to the terminal labedled T+.

3.Connect Pin 6 from the RJ-45 crossover cable to the terminal labedled T-.



PC Network Card Connection



Display Terminal Block Connection

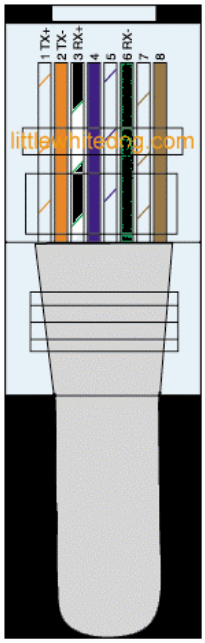


FIGURE 4: