

# PRODUCT MANUAL

## ***ELECTRONIC DISPLAYS INC.***

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**ED100 – 3C – 1611 – N1 – SR1/SR2**

**ED100 – 3C – 2011 – N1 – SR1/SR2**

### **DESCRIPTION:**

- Indoor, 4 inch or 2 lines of 2 inch high, 3color LED scrolling marquee; 16 or 20 characters
- Single line: addressable with RS232, RS485, or Ethernet input @ 1200BPS, NO PARITY / 8 DATA BITS / 1 or 2 STOP BITS
- Windows based software is provided to edit and send messages to the sign.
- Power: 120 VAC@ 60Hz. / Six foot line cord provided.

### **OPERATION:**

This single line display is designed to receive serial input via a PC/PLC, or an EDI supplied Ethernet adapter. The marquee will communicate using a serial input and has a 3 digit address. A terminal block or Sub-D connector is located on the right side of the display which, allows wiring between display and PC/PLC for RS232 or RS485 serial communication. An RJ-45 will be located on the display if the Ethernet option is used. 25 pin female sub-D located on the right side of the display for serial communication. Baud rate is 1200BPS @ 8 Data Bits / No Parity / 1 Stop Bit. NEMA rated, aluminum enclosure with a black, powder coat finish. Windows based software is provided to control the marquee. The software is included on a 3.5" floppy disk with the manual. See the wiring diagram in this manual for details. It is recommended to use a shielded, 18 AWG. cable in a PVC jacket.

**If there are any questions or comments regarding this order, please call our Toll-free number: 1 - 800 - 367 - 6056**

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## Unpacking Instructions:

A copy of these instructions is packed with each unit. Open carefully to avoid scratching the unit's paint and plastic lens or cutting the line cord.

## Mechanical Mounting Instructions:

This unit is designed with two brackets attached to the back of the cabinet. A 5/16" hole in each bracket allows mounting to a wall / support. The cabinet is provided with a hinged front cover. Remove the front screws to access the inside of the display.

## Power Requirements:

This unit is equipped with a standard, eighteen-gauge, three-wire line cord that is designed to be plugged into a standard, 120 VAC, 60 Hertz, grounded outlet. The maximum current draw for this unit (at 120 VAC) is \_\_1.2\_\_ Amperes.

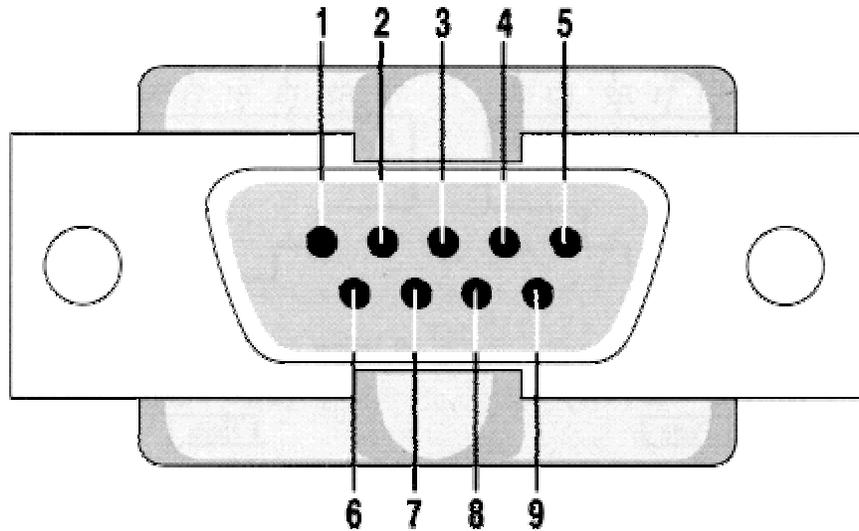
## Signal Requirements:

If your unit has serial input (either RS-232, RS-422, RS-485, etc.), the standard communication format for this unit is 1200 bits per second (baud rate) with one start bit, eight data bits, no parity, and one or two stop bits per character.

### PC Com Port - RS-232 pin out DB-9 pin



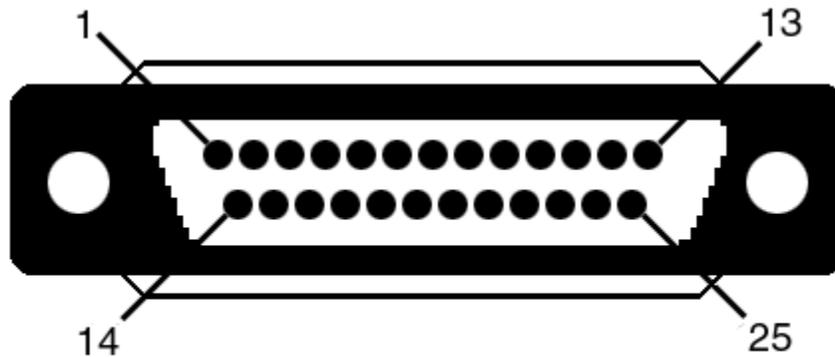
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Pin	Signal	Pin	Signal
1	Data Carrier Detect	6	Data Set Ready
2	Received Data	7	Request to Send
3	Transmitted Data	8	Clear to Send
4	Data Terminal Ready	9	Ring Indicator
5	Signal Ground		

Pin 3 from your PC to Pin 3 on our DB-25 or DATA on our terminal block.  
Pin 5 from your PC to Pin 7 on our DB-25 or GND on our terminal block.

## PC Com Port - RS-232 pin out DB-25 pin



**RS232 Cable - DB25 Male  
(on Cable)**

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RS232 - 25 Pin		
1	GND	Chassis / Frame Ground
2	TD	Transmitted Data
3	RD	Receive Data
4	RTS	Request to Send
5	CTS	Clear to Send
6	DSR	Data Set Ready
7	GND	Signal Ground
8	DCD	Data Carrier Detect
9	TD+	Transmit +
11	TD-	Transmit -
18	RD+	Receive +
20	DTR	Data Terminal Ready
22	RI	Ring Indicator
25	RD-	Receive -

Pin 2 from your PC to Pin 3 on our DB-25 or DATA on our terminal block.

Pin 7 from your PC to Pin 7 on our DB-25 or GND on our terminal block.

## Label Definitions:

The following page shows some commonly used labels and their definitions. A terminal strip on the left side of the display is will allow wiring between the display and the driving device.

LABEL	DEFINITION
<b>Data</b>	Positive side of balanced data line for RS232 serial input signals. From data signal of the driving device.
<b>GND</b>	Negative side of balanced data line for RS232 serial input signals. From the ground of the driving device.

## WARNING – SHOCK HAZARD

*Always completely disconnect power from the display before opening the unit. Do not reapply power to the display until the unit has been securely closed.*

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## Power-up Response:

When power is first applied to this unit, the display will show a configuration message including baud rate and the two-digit address of the marquee until a message is received. Baud rate is factory set at **1200BPS** and the address is **001**.

## Addressing:

This sign was set from address '001' at the factory. The addressing can be re-configured by dip switches located on the back of the CPU.

## Protocol:

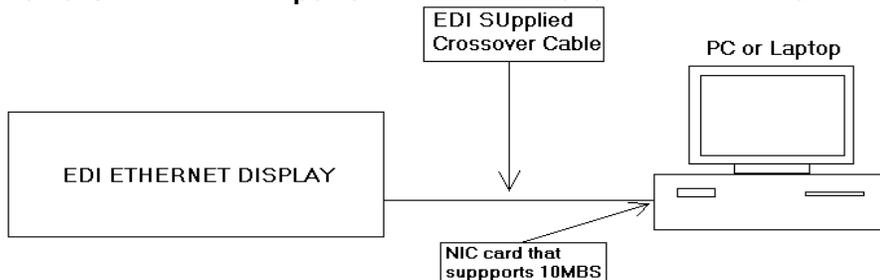
See the Windows based software manual provided for sending messages to the displays.

## Ethernet Communication:

### I: Initial Setup:

**NOTE: DURING THIS PROCEDURE, DO NOT POWER UP UNIT UNTIL INSTRUCTED TO DO SO!**

1. Place unit on table near a PC or Laptop used only for initial configuration.  
**NOTE: PC must have a 10 base T or 10/100 base T network card installed and must be configured for Auto Detect or 10 Megabits only. (Please refer to your Network Card Manual if you need to change this.) This PC should be running Windows 98/ME/2000, /XP/NT 4.0.**
2. Attach one end of the supplied crossover cable the Ethernet device located on the right endplate.
3. Connect the other end to the network in the PC (See Diagram in Figure 1).
4. Power up the unit with 110 VAC.
5. Insert the 3.5" floppy disk into your floppy drive. Navigate to the floppy drive and you will find IPUTIL.EXE. Double click on the IPUTIL.EXE
6. Run IPUTIL and you should see all the network settings that were set to the EDI Ethernet device.
7. Highlight the Device you would like to change and Click Change IP Address...(See Figure 2)
8. This screen allows you to enter the Subnet Mask, the IP address, and the Gateway. (These settings will have to be obtained from your IT department).
9. Enter the settings and click OK. The Ethernet device will reset in 5 seconds.
10. Remove power and all cables.



**FIGURE 1:**

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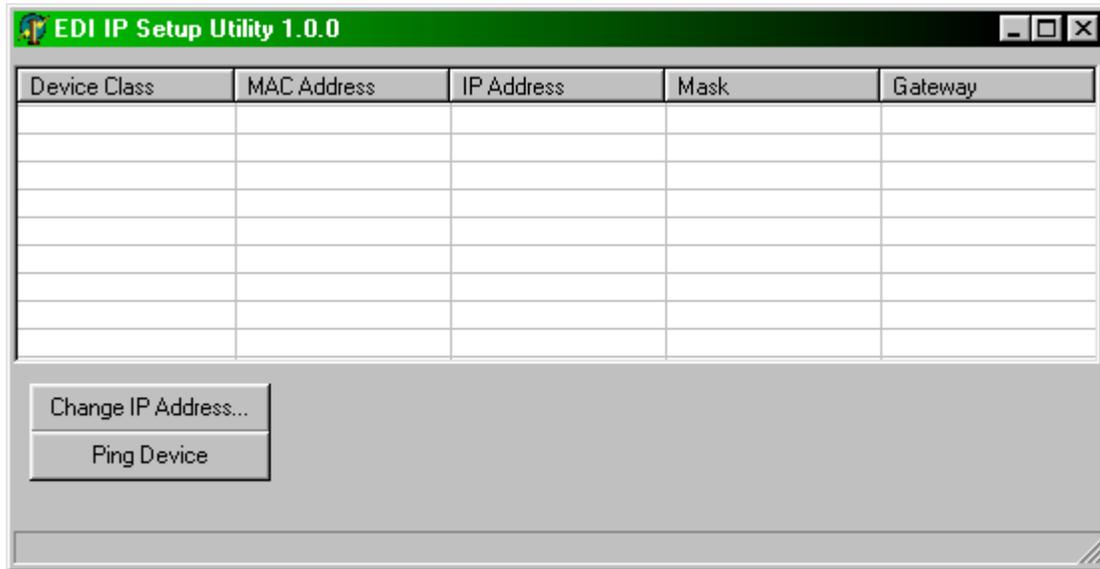


FIGURE 2

## II. Final Configuration:

1. Connect one end of a CAT5E cable to our display's RJ-45, Ethernet connection.
2. Run the other end to a Hub on your network. Plug the RJ-45 into the hub that supports 10MBPS.

**NOTE:** The wire positions on this end must be the same as the other end to create a "Pass Through" cable.

3. The unit is now ready to be mounted.
4. Mount to a structure using one of the following methods:
  - Wall mount
  - Hang mount

*This Ethernet device is equipped with RS485 serial output to the display.*

### *Other Important Notes:*

*These Ethernet adapters were tested on a Windows N.T. 4.0 server network. The actual workstations operating systems these devices would communicate to were as follows:*

- Windows 98/NT/2000/ME/XP

**All other operating systems have not been tested.**

### **Disclaimer.**

Although our Ethernet units will support gateways, we cannot provide technical support due to the amount and variety of network configurations when using gateways. Please contact your IT department for technical support when using gateways.

## **Product Components:**

See appendix A.

## **Wiring Diagram:**

See appendix B.

## **Service:**

There are no parts in your unit classified as 'user serviceable' parts. The plastic or glass cover can be cleaned using a soft cloth and a gentle glass cleaning solution.

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## Warranty:

The standard warranty for all products is one year on all parts and labor at our facilities. All products are designed and manufactured by Electronic Displays Inc. If you need assistance, please call or FAX us and we will be happy to provide technical assistance. If you feel that your unit needs repair, please call us first and then ship the unit to:

**Electronic Displays Inc.**  
**135 South Church Street**  
**Unit A**  
**Addison, Ill. 60101**  
**Attn: Repair department**

Our telephone number is:

**(630) 628-0658**

Our FAX number is:

**(630) 628-0936**

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