

# PRODUCT MANUAL

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

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**ED206 – 101 – 4D – N1 / N12 / N4 / PM**

**ED406 – 101 – 4D – N1 / N12 / N4 / PM**

### **DESCRIPTION:**

- Four-digit time of day clock in 12 hour mode. HH:MM Format.
- Two pushbuttons on the endplate to set hours and minutes.
- Terminal block on endplate to wire remote contacts.
- Receives from Windows based software program via 10 BASE T Ethernet connection.
- MASTER sends an RS485 data signal to secondaries (SLAVES).
- NEMA Rated or Panel Mount enclosure.

### **OPERATION:**

This 4-digit MASTER will receive serial data through a 10 BASE T Ethernet connection. This master will transmit data through RS485 interface to the SLAVES (secondary). Slaves can be connected in a multi-drop network for up to 30 displays. A terminal strip is provided to allow wiring between PC Master and the Master clock. See appendix G for cabling diagram of RS232 comports. Two pushbuttons are located on the right endplate for fast/slow set. A terminal block inside the endplate can be used to wire remote switches and RS485 serial inputs and outputs. See the wiring diagram in this manual for installing the switches. Software is supplied to configure the Ethernet adapter card in our display. See section IP address configuration.

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

# PRODUCT MANUAL

## 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 equipped with two rivnuts in the top of the unit for mechanical mounting purposes. The bolts that are screwed into these rivnuts are standard 5/16 by 1 1/4" bolts. To avoid damaging the rivnuts, do not tighten these bolts more than 10 ft/lbs. For a panel mount model, the display is attached to red acrylic and could be placed in a panel cutout.

## Power Requirements:

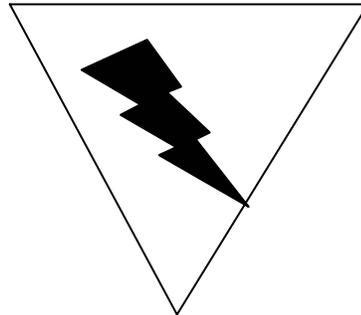
This unit is equipped with a standard, eighteen-gauge, three-wire line cord that is designed to be plugged into a standard, 120 VAC, 60 Hertz, grounded outlet. The maximum current draw for this unit (at 120 VAC) is 1 Ampere for ED400-101-4D-N1 and 3/4 Ampere for ED225-101-4D-N1.

## Power-up Response:

UPON POWER UP, THE UNIT WILL DISPLAY " 12:00" AND START TIMING. SET THE DISPLAY BY PRESSING THE FAST AND SLOW SET SWITCHES. THE DISPLAY IS IN A 12 HOUR FORMAT.

## IP Address Configuration:

Installation:



## 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.

### 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)

# PRODUCT MANUAL

- 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). **NOTE: THE SAME IP ADDRESS CANNOT EXIST MORE THAN ONCE ON THE SAME NETWORK!**
- Enter the settings and click OK. The Ethernet device will reset in 5 seconds.
- Remove power and all cables.

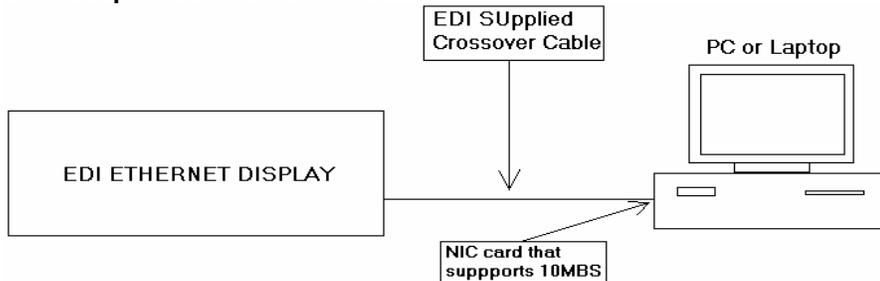


FIGURE 1:

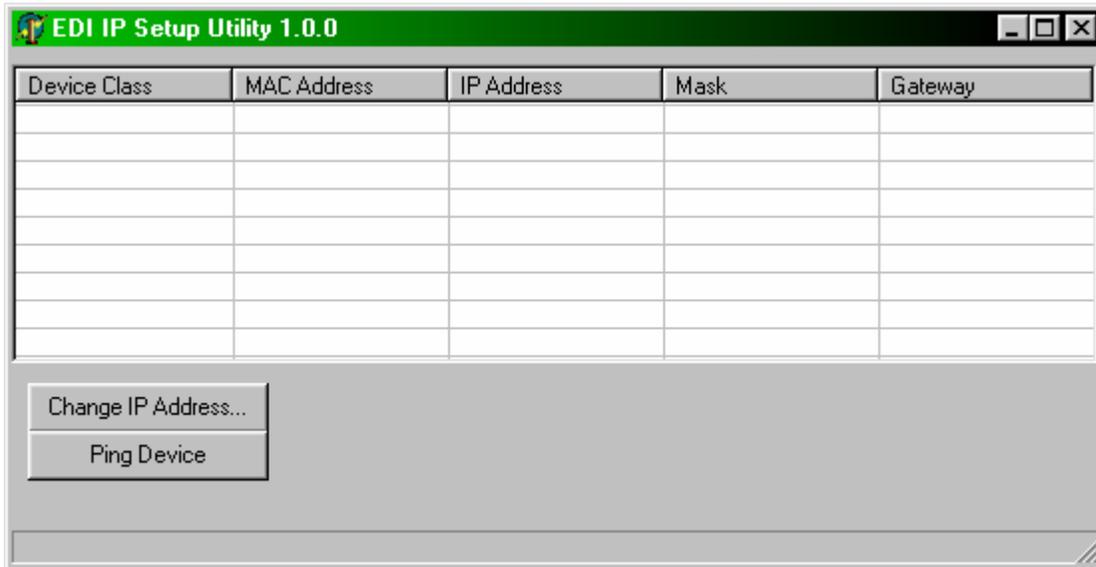


FIGURE 2

## II. Final Configuration:

- Connect one end of a CAT5E cable to our display's RJ-45, Ethernet connection.
- 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.**
- The unit is now ready to be mounted.
- Mount to a structure using one of the following methods:
  - Wall mount
  - Hang mountThis 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 MANUAL

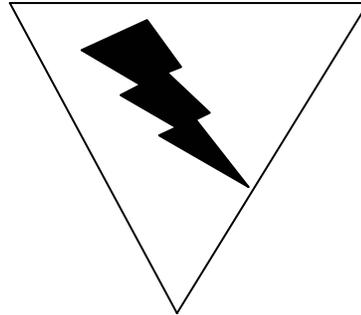
## Label Definitions:

The following table shows some commonly used labels and their definitions. These labels are right next to the terminal block on the inside of right end plate.

LABEL	DEFINITION
FAST	Advances hour's digits. Optically coupled input, active high, requires 12 milli-amperes of current to activate.
SLOW	Advances minute's digits. Optically coupled input, active high, requires 12 milli-amperes of current to activate.
GND	"COMMON" – When using customer power supply, connect ground of your power supply to this terminal. Also used for remote switches with external power supply.
232IN	RS232 data signal.
GND	Ground for RS232 data signal
TX+	Positive side of balanced data line for RS-422 or RS-485 serial output signals. <b>TX+ to RX+</b>
TX-	Negative side of balanced data line for RS-422 or RS-485 serial output signals. <b>TX- to RX-</b>

## **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.***



# PRODUCT MANUAL

## **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.

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

## **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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