

LED Double-Line Message Centers

8 to 64 Characters

EDV111 Series

EDV111-16160-MC



SECURITY ALERT
LEVEL: YELLOW

These double-line, multi-color message centers are indoor rated and display 2.25" and 4.8" high characters. They can be controlled using PC software provided or an easy-to-use infrared remote programmer. An optional Ethernet device can be used to network the displays into a facility wide communication system. When networked, individual message centers with a specific address can receive a discrete message or a general broadcast message can be sent to all the message centers in the network.

Included are brackets and hardware that allow for wall or ceiling mounts. The message centers are designed for indoor use in an industrial, retail, government and educational facility or anywhere communication is important. These units can display production goals, company announcements, safety messages and boost employee moral. They can be used in a retail environment to inform customers of product specials, store hours and promotions. Educational facilities can display facility meetings, school activity schedules and student messages.

Hand Held Remote Programmer

A hand held remote control keyboard with easy to understand programming instructions is supplied with each EDI Message Center. Batteries included.

Models Include

- Infrared message loader with battery
- Wall or ceiling mount bracket
- 30 ft. RS232 data cable
- PC software

Accessories

- Ethernet communication device ED2160

FEATURES

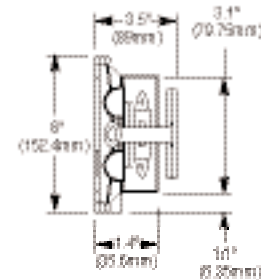
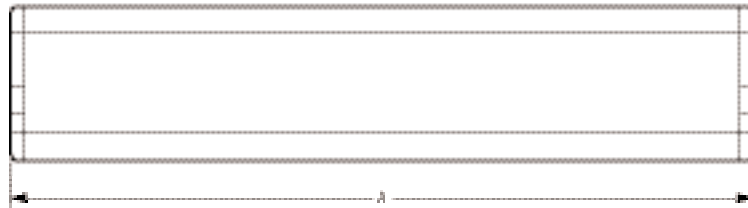
- Stores up to 100 messages
- 100,000 Hr. multi-color LED lamp technology
- Display one line or two lines of text
- Built-in animations
- Built in real-time clock, 12 or 24 hour format
- Addressable
- Password protected
- Wireless remote
- 30 ft. RS232 data cable
- Mounting brackets
- Four display speeds
- 5mm pixel diameter
- 160 degree viewing angle
- Runs on Windows 98/2000/XP
- 120 VAC power supply
- Battery backup saves messages up to 6 months

MESSAGE CENTERS & ANNUNCIATORS

Electronic Displays, Inc.



TECHNICAL INFORMATION



Part No.	EDV111-1680-MC	EDV111-16120-MC	EDV111-16160-MC	EDV111-16240-MC	EDV111-16320-MC
Dimension A	26" (660.4mm)	40" (1016mm)	52" (1320.8mm)	73" (1854.2mm)	96" (2438.4mm)

Cat. No.	Power	No. of Characters/Line (max.)	Character size Array	Pixel Size Diameter Pixel Pitch	Pixel Color	Weight	Max. viewing distance w/largest font*	Message Capacity	Operating Environment	Case Dimensions / Display Dimensions
EDV111-1680-MC	120V AC ± 10% 40 watt max.	One line 8 Two lines 16	One line 4.6" Two line 2.0" Array 80 x 16 pixels	.2" (5mm) .08" (20mm)	8 colors and 5 rainbow effects	22 lbs.	200 ft.	100 different messages can be stored & displayed, 28,000 characters	32-120°F 0-95% relative humidity non-condensing	26"L 3"D 6"H/ 4.7"H 24.4"L
EDV111-16120-MC	120V AC ± 10% 40 watt max.	One line 12 Two lines 24	One line 4.6" Two line 2.0" Array 120 x 16 pixels	.2" (5mm) .08" (20mm)	8 colors and 5 rainbow effects	29 lbs.	200 ft.	100 different messages can be stored & displayed, 28,000 characters	32-120°F 0-95% relative humidity non-condensing	40"L 3"D 6"H/ 4.7"H 38.4"L
EDV111-16160-MC	120V AC ± 10% 40 watt max.	One line 16 Two lines 32	One line 4.6" Two line 2.0" Array 160 x 16 pixels	.2" (5mm) .08" (20mm)	8 colors and 5 rainbow effects	35 lbs.	200 ft.	100 different messages can be stored & displayed, 28,000 characters	32-120°F 0-95% relative humidity non-condensing	52"L 3"D 6"H/ 4.7"H 50.4"L
EDV111-16240-MC	120V AC ± 10% 50 watt max.	One line 24 Two lines 38	One line 4.6" Two line 2.0" Array 240 x 16 pixels	.2" (5mm) .08" (20mm)	8 colors and 5 rainbow effects	42 lbs.	200 ft.	100 different messages can be stored & displayed, 28,000 characters	32-120°F 0-95% relative humidity non-condensing	73"L 3"D 6"H/ 4.7"H 70.4"L
EDV111-16320-MC	120V AC ± 10% 100 watt max.	One line 32 Two lines 64	One line 4.6" Two line 2.0" Array 320 x 16 pixels	.2" (5mm) .08" (20mm)	8 colors and 5 rainbow effects	49 lbs.	200 ft.	100 different messages can be stored & displayed, 28,000 characters	32-120°F 0-95% relative humidity non-condensing	96"L 3"D 6"H/ 4.7"H 94.4"L

*Seven fonts available including wide, bold and international character sets.

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ASCII PROTOCOL

Overview

All protocols shall be in the following format:

8 data bits, no parity, 1 stop bit.

Baud rates:

The sign shall support the following baud rates as a standard:

1200, 9600, and 19200. The default baud rate shall be 9600 baud.

The sign shall support at least 16 different addresses numbered 01 to 16.

Communication shall only be in one direction – to the sign.

The sign shall powerup showing the baud rate and address for at least 3 seconds. If it has a previously stored message, it may show that.

The fonts to be used are the standard fonts that normally come with the sign.

The colors to be used are the standard colors that normally come with the sign, or as a minimum – red, green, .

Protocol

These are the desired mechanisms to control the display:

- Command to clear the entire display.
- Command to clear a certain area of the display.
- Command to set text to the display.
- Command to set pixels on the display.
- Command to change the configuration.

All commands start with the following codes:

Code	Ascii value in hex	Description
<STX>	\$02	Start of transmission

'0'-'1'	\$30-\$31	Tens of address
'0'-'9'	\$30-\$39	Units of address

When this is given, the sign shall accept the message if the address matches or the address is '00'.

Then follows the data for each command (list below sections)

Then the last character is the code <ETX> - \$03 – End of transmission. When the sign receives this, it then processes the command.

The entire message will never be more than 250 bytes in length.

When accepting messages, the sign shall not flicker or clear to temporarily process the message, it must keep whatever is currently displayed.

Clear All Command

This command clears the entire display. There is no data to follow.

Code	Ascii value in hex	Description
'X'	\$58	Clear command

Clear Area Command

This command clears a certain area.. The sign will clear the area to off for the window given below inclusive.

Code	Ascii value in hex	Description
'C'	\$43	Clear Area Command
'0'-'9'	\$30-\$39	Hundreds – start pixel column
'0'-'9'	\$30-\$39	Tens – start pixel column
'0'-'9'	\$30-\$39	Unit – start pixel column
'0'-'9'	\$30-\$39	Tens – start pixel row
'0'-'9'	\$30-\$39	Unit – start pixel row
'0'-'9'	\$30-\$39	Hundreds – width pixel columns
'0'-'9'	\$30-\$39	Tens – width pixel columns
'0'-'9'	\$30-\$39	Unit – width pixel columns
'0'-'9'	\$30-\$39	Tens – height pixel rows
'0'-'9'	\$30-\$39	Unit – height pixel rows

Set Text

This command will draw the text in the selected font and color given in the command. It will start the text with the coordinates given as the upper left hand corner. Clipping shall be performed at the pixel level.

Code	Ascii value in hex	Description
'T'	\$54	Set Text Command
'0'-'9'	\$30-\$39	Hundreds – start pixel column
'0'-'9'	\$30-\$39	Tens – start pixel column
'0'-'9'	\$30-\$39	Unit – start pixel column
'0'-'9'	\$30-\$39	Tens – start pixel row
'0'-'9'	\$30-\$39	Unit – start pixel row
'0'-'?'	\$30-\$3F	Font code + \$30 – open to implementation
'0'-'?'	\$30-\$3f	Color code + \$30 – open to implementation
'0'-'?'	\$30-\$3f	Future use
'0'-'?'	\$30-\$3f	Future use
' ','~'	\$20-\$7e	Ascii characters representing the text. Up to 235 characters to display (if possible)

Set Pixels

This command sets 4 column pixels starting at certain row. It sets red and green pixels. The green pixels are ignored if only one color is capable on the sign. Clipping shall be at the pixel level.

Code	Ascii value in hex	Description
'P'	\$50	Set Pixels Command
'0'-'9'	\$30-\$39	Hundreds – start pixel column
'0'-'9'	\$30-\$39	Tens – start pixel column
'0'-'9'	\$30-\$39	Unit – start pixel column
'0'-'9'	\$30-\$39	Tens – start pixel row
'0'-'9'	\$30-\$39	Unit – start pixel row
'0'-'9'	\$30-\$39	Hundreds – width pixel rows
'0'-'9'	\$30-\$39	Tens – width pixel rows
'0'-'9'	\$30-\$39	Unit – width pixel rows
There are two bytes supplied for each row. If you give a height of 3 rows, there will be six bytes. The first pair starts at the start row supplied, and increments by one for each pair.		

'0'-'?'	\$30-\$3f	Red color bits, the order goes like this – 0011abcd Where a,b,c,d is starting col+0, col+1, col+2, col+3 for the row specified
'0'-'?'	\$30-\$3f	Green color bits, the order goes like this – 0011abcd Where a,b,c,d is starting col+0, col+1, col+2, col+3 for the row specified

Change Configuration

This command changes the internal configuration. The display should show “config changed” when receiving. It should be persistent. A reboot can be used if needed to change config correctly.

Code	Ascii value in hex	Description
'G'	\$47	Configuration command
'0'-'1'	\$30-\$31	New Tens of address
'0'-'9'	\$30-\$39	NewUnits of address
'0'-'2'	\$30-\$32	New baud rate, 0=1200, 1=9600, 2-19200.