



**Everbrite LD1600**  
**Electronic Price Display Console**  
**with EMC Control**  
**Owner/Operator Manual**



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### 1. MANUAL OVERVIEW

This manual is intended for the user of Everbrite's lumiDigit Sign using the Model LD1600 Console. Read this manual carefully before starting the equipment.

This manual contains important information for correct operation and maintenance of the equipment. It also contains important instructions to prevent accidents, personal injury, and/or serious damage prior to or during operation of the equipment. Familiarize yourself thoroughly with the function and operation of this equipment and strictly observe the directions given.

If you have any questions or need further details on specific aspects related to the lumiDigit Sign, please do not hesitate to contact us. In this manual you will find three levels of flagged notes or warnings.



**WARNING!** THE WARNING MESSAGE IS USED WHEN A LIFE THREATENING SITUATION MAY ARISE OR PERSONAL INJURY CAN RESULT.



**CAUTION!** The caution message is used when there is a danger of damage to the equipment, materials, or other important information, such as Warranty issues.

**NOTE:** *The Note message is used to give operational information and tips.*

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## 2. SAFETY

The owner of the lumiDigit Sign is responsible for safe operation and repair. Therefore, the owner is obliged to familiarize operating personnel with the contents of this manual and make them aware of all possible hazards.

**NOTE:** When using this equipment, always follow the manufacturer's instructions for safe operation. In case of emergency, please telephone Technical Support or a qualified service technician.

Do not operate the sign until it is completely assembled and installed per the instructions supplied by Everbrite.

Main power to your Everbrite sign shall be installed in accordance with the local building and electrical codes.

All equipment must be grounded in accordance with the local building and electrical codes. Everbrite recommends Earth Link Ground.

If any part of the lumiDigit Sign equipment is malfunctioning or has been damaged, stop all operation and consult with Everbrite Technical Support or qualified service technician before further use.

Use only Everbrite specified or recommended replacements parts.



**WARNING!** USE A LOCK OUT/TAG OUT DEVICE ON CIRCUIT BREAKERS OR "POWER ON/OFF" SWITCHES WHEN PERFORMING INSTALLATION REPAIRS, OR MAINTENANCE.

When performing repairs be mindful of the weather and work area conditions. Avoid the unit's exposure to the elements, water and debris, or anything that may be dangerous or cause damage to the equipment.



**WARNING!** OPERATION OF THE UNIT WITH THE ELECTRICAL CIRCUITRY EXPOSED IS DANGEROUS. BE SURE ALL TOOLS AND ANY OTHER MATERIALS ARE REMOVED FROM THE UNIT. BE SURE ALL ACCESS COVERS ARE REPLACED AND CLOSED BEFORE POWER IS TURNED ON.



**CAUTION:** Use of solvent cleaners or a power washer on your lumiDigit Sign may cause permanent damage.

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## 3. BASIC INFORMATION

### A. Sign Features

lumiDigit is a modular LED (light emitting diode) gas price sign. Numbers and characters are displayed using strings of LEDs. The proper segment strings are combined to make all possible numbers. The LEDs are driven by electronics on the digit PCB (printed circuit board).

Information and power are sent to the Price Line Digits by a wire harness. Locking connectors and ferrule crimped wires are used to ensure good connections between digits, wiring harnesses, light sensors, temperature sensor, controller, and power supplies.

The controllers are the heart of the sign. They send data through the harness to each digit in the price lines. They receive and send temperature and light level information. The console sends and receives information to and from the controllers by way of radio or buried cable.

The operator can control the sign by interacting with the LD1600 Console keypad and LCD display. The intensity levels at daytime or nighttime and the level at which the lamps turn on are all controlled by the settings the operator inputs into the console keypad. The sign sends back information such as intensity, temperature of the sign and sign controller, actual prices of each line, number of signs, and the vital information of each side.

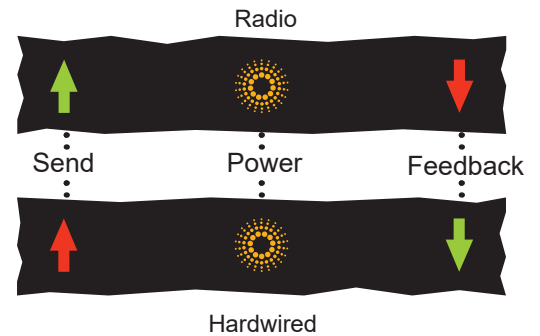
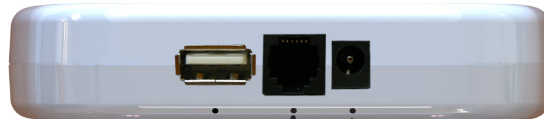
**B. Console Features**
**Top View**


**Antenna Connection** .....  
Sends signal to sign via Radio.  
Must be in direct line of sight.

**RS232 Input**  
(POS Interface)

**Hotkeys** .....  
Used to quickly maneuver  
through the program

**Keypad** .....  
Responsive tactile keys

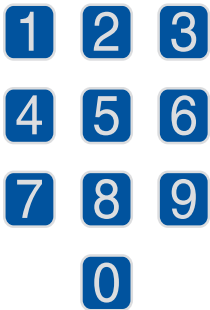

**LED Indicators**

**Bottom View**


**Keyboard and Update** .....  
Plug keyboard in for Everbrite Message Center.  
Update the console with USB thumbdrive.

**Hardwire Input**  
Control the sign via  
hardwire connection

**AC Adapter Input**  
(9-12 VDC Power Supply)

## C. Key Identification



**Number Keys:**  
Used to enter in gas prices, select lines, and adjust light levels

To insert a blank space in place of the digit, see “Blank Space” description.



**Line Select:**  
In the price entry screen, lets user pick a gas price



**Read Sign:**  
Loads the current prices from the sign to display them on the console’s display screen



**Esc/Clear:**  
Used to go back a screen or exit



**Enter:**  
Locks in a value, or goes to the next screen



**Setup:**  
Used to go into the price sign setup screen



**Price/Message:**  
Used to alternate between the lumi-Digit screens and EMC screens



**Blank Space**  
When entering prices, a blank space may be inserted rather than a zero by pressing this button. May also be used to blank the tenths digit.



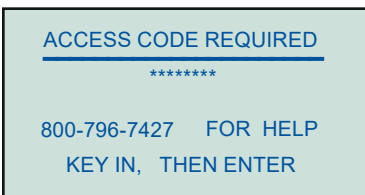
**Arrows:**  
Used to move up or down in the LD1600 screens



## D. Access Code

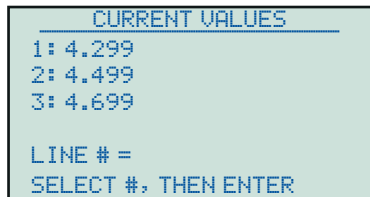
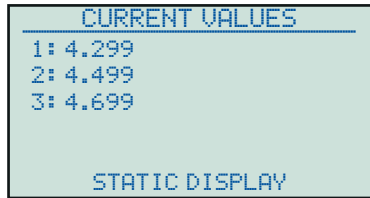
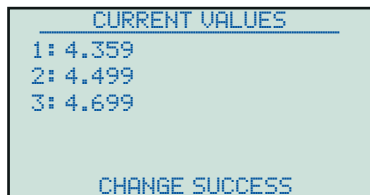
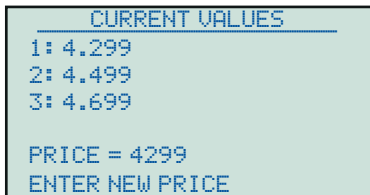
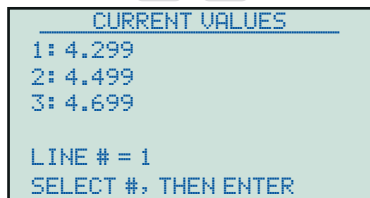


**Power Up:**  
Displays model and version number.



**Access Code:**  
Only appears the very first time the console is turned on. This has an eight digit code that needs to be entered to gain access to the program. The Current Prices screen will be the normal screen shown on subsequent power ups.

--	--	--	--	--	--	--	--

**A. Price Entry**

**Price Change Example:**

**Current Values/Main Page:**

The price entry screen is the default home page for the LD1600 Console. The number of price lines displayed shall match the number of lines on the sign, and can be edited in the "Setup" process.

**Basic Price Entry:**

From the CURRENT Values screen, press **LINE** key to begin the price change process. Key in the desired price line 1-6, then press **ENTER**. Typically, the line at the top of the sign is line 1. The lines run from top to bottom, left to right.

**NOTE:**

**4 digits must be entered to account for the tenths of a penny (Enter 4359 for \$4.35<sup>9</sup>). The current price for the selected line will be displayed.**

To insert a Blank Space anywhere in the price line, press the  key.

Key in the 4 digit price, then press **ENTER** to send the new value to the sign. The new price will show on the display and PLEASE WAIT will appear on the screen. After a delay of about 2 seconds, PLEASE WAIT will disappear with the new price will be displayed on the sign and the console.

The 9/10 digit can be configured to display "9", "9/10", nothing, or "-".

A "9" will be displayed for 0,4,8.

A "9/10" will be displayed for 1,5,9

Nothing (blank) will be displayed for 2,6, blank space

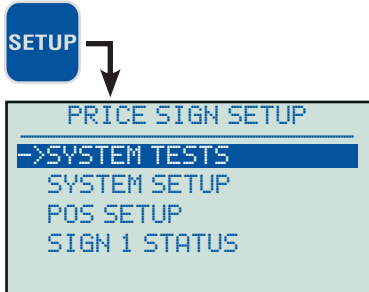
A "-" will be displayed for 3,7

**Note:**

**The example on the left illustrates a static price change to Line 1. To change other lines, simply repeat the process and select a new line. If the sign is set up with alternating captions (toggle pricing) such as CASH and CREDIT, the display will prompt for multiple prices for each priceline.**



## B. Sign Setup: System Tests

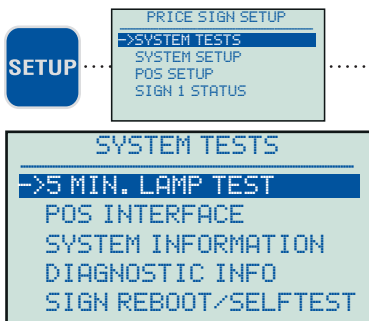


### Price Sign Setup:

Press the **SETUP** key to enter the Price Sign Setup screen. The Price Sign Setup screen allows the operator to access setup functions, run tests, and receive current sign status information.

The **↑** and **↓** arrow keys and the **ENTER** key are used to navigate through the various setup screens.

The **CLEAR** key is used to cancel or go back to the previous screen.

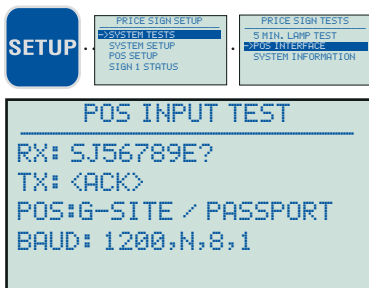


### System Tests:

From the Price Sign Setup screen, press the **↑** or **↓** key to point to the SYSTEM TESTS prompt. Press **ENTER** to open the System Tests screen.

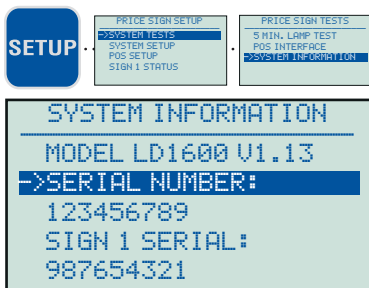
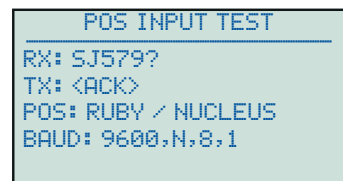
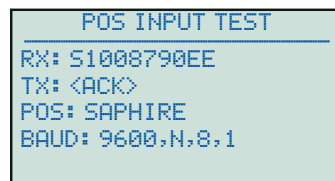
### 5 Minute Lamp Test:

For signs with a lamp control relay installed, use this function to test them. To start the lamp test, press the **↑** or **↓** key to point to 5 MIN LAMP TEST. Press the **ENTER** key to start the test. The lamps will be on for 5 minutes and then shut off. No other tests can run during this time.



### POS Interface Test:

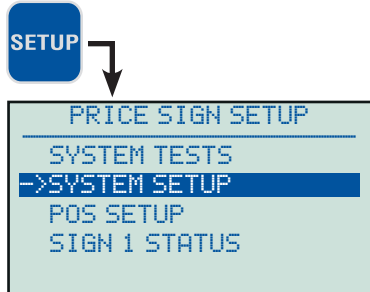
Press the **↑** or **↓** key to point to the POS INTERFACE test prompt. Press **ENTER** to start the POS test. The data received will be displayed on the screen. POS must be setup in the Price Sign Setup screen prior to test. See examples of possible responses.






### System Information:

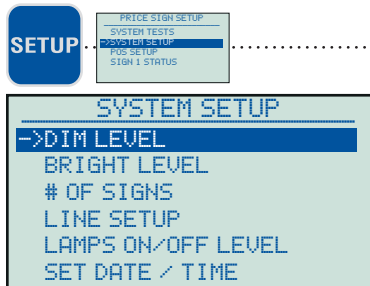
Press the **↑** or **↓** key to point to the SYSTEM INFORMATION test prompt. Press **ENTER** to get serial number information for the console and the sign(s).

## C. Sign Setup: System Setup



### System Setup:





From the Price Sign Setup screen, press the  or  key to point to the SYSTEM SETUP prompt. Press  to open the System Tests screen.

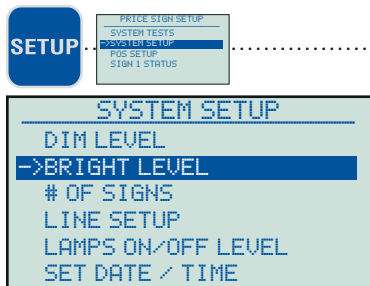


### Dim Level (Nighttime LED Brightness):





#### Note:

**To help comply with local codes, this feature is locked by the factory. To access, call Tech Support.**

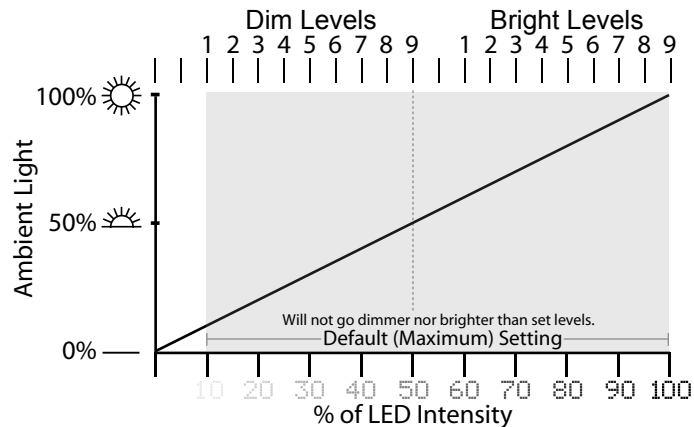
Press the  or  key to point to the DIM LEVEL prompt, then press  to set the Dim Level. Ambient light is measured by a photo cell on both sides of the sign. The LEDs will become dimmer as nighttime approaches. The Dim Level tells the sign to not get dimmer than a certain value. Key in the desired value 0-5 then  to send the new value to the sign, the default setting is 0.



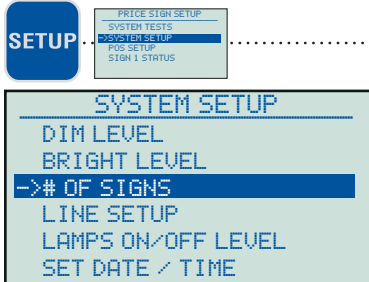
### Bright Level (Daytime LED Brightness):

From the SYSTEM SETUP screen, press the  or  key to point to the BRIGHT LEVEL prompt, then  to set the Bright Level. Ambient light is measured by a photo cell on both sides of the sign. The LEDs will become brighter in the daytime. The Bright Level tells the sign to not get brighter than a certain value. Key in the desired value 0-9 then  to send the new value to the sign, the default setting is 9.

**Note: To avoid having the LEDs pulse between different levels of brightness due to different sources of artificial light (automobiles, etc), the levels operate with a timed delay. Any changes to the Dim and Bright levels will not be instantaneous.**

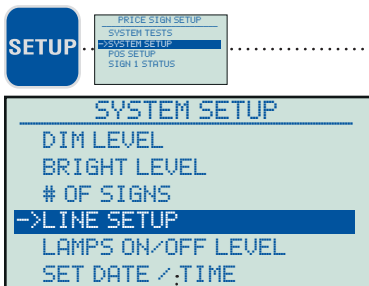


## Sign Setup: System Setup (Continued)



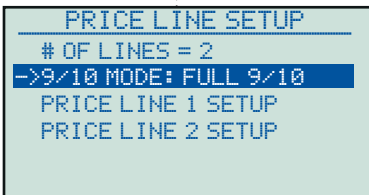
### Number of Signs:

From the SYSTEM SETUP screen, press the or key to point to the # OF SIGNS prompt, then press to set the number of signs. 1-4 signs can be set. Key in the number of signs, then to save the new value.



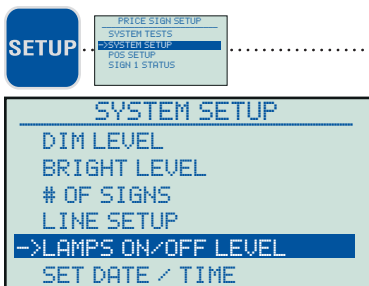
### Line Setup:

From the SYSTEM SETUP screen, press the or key to point to the LINE SETUP prompt, then press to set the number of price lines. 1-8 lines can be selected. Key in the number of lines, then to save the new value.



9/10 MODE setting can be changed from displaying a full 9/10 in the tenths of a cent digit to only the '9' in the numerator. With the 9/10 MODE line selected, press the to change the setting.

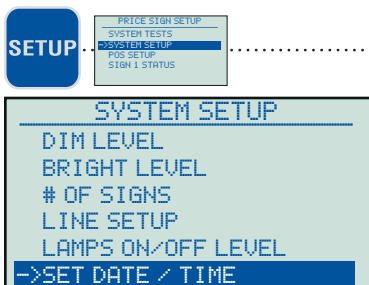
For Alternating (Cash/Credit Toggle Pricing) signs, see next page for additional information.



### Lamps ON/OFF Level:

From the SYSTEM SETUP screen, press or to point to the LAMPS ON/OFF LEVEL prompt, then to set the point at which the lamps are turned ON and OFF. Levels 0-9 reflect the intensity of ambient light. Key in the value, then press to send the new value to the sign. For example, to set the lamps to turn on earlier in the day (when there is more ambient light present), set the level to 9. To set the lamps later in the day (when there is less ambient light), set the level to 1. The default level is 9.

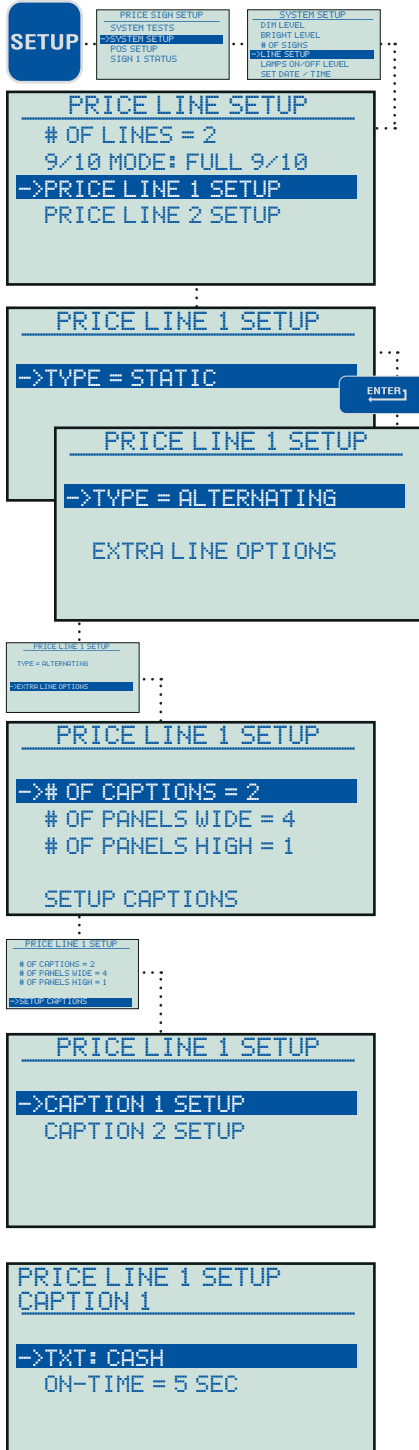
**Note:** To avoid having the sign turn on and off due to different sources of artificial light (automobiles, etc), the relay operates with a time delay. Any changes to the lamp settings will not be instantaneous.







### SET DATE / TIME:

From the SYSTEM SETUP screen, press or to point to the SET DATE/ TIME prompt, then . A screen will prompt

## D: Sign Setup: Alternating Prices (Cash/Credit Toggle)




### Price Line Setup:

From the PRICE LINE SETUP screen, press the  or  key to point to the LINE SETUP prompt, then press . Select the priceline to be configured, then press .

### Static vs. Alternating:

The sign can be set up to display a static price (same price displayed all the time) or as alternating prices (also called Toggle Pricing). An alternating sign can show up to 4 different prices per priceline with customizable LED captions such as CASH and CREDIT.

From the PRICE LINE [NUMBER] SETUP screen, press  to toggle between ALTERNATING and STATIC.

### EXTRA LINE OPTIONS (ALTERNATING ONLY)

#### Number of Captions:

Each line can display up to 4 different prices, each with its own caption. **NOTE: Even if not used by the sign, caption descriptions may be helpful for the user when entering prices (example: console will ask for a “new diesel” price).**

The following values (height and width) are set at the factory, and should not need to be altered under normal circumstances.

#### Number of Panels Wide/High:



Number of panels that make up the caption. Answering these questions incorrectly will cause the text height to be cut off (too high) or the text to wrap (to short).

#### Sending the new Caption Height and Width Information to the Sign:

Once changes have been made to the caption height or width, the console will prompt you to send the new information to the sign.

### Caption Setup:

By selecting the appropriate setup option, options to change the alternating text (for example, CASH, CREDIT, DEBIT, DIESEL, etc.) will be available.

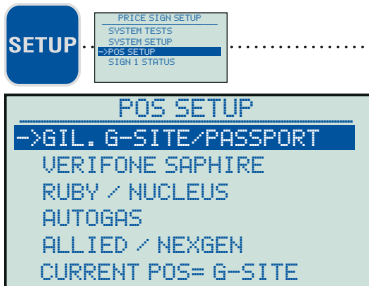
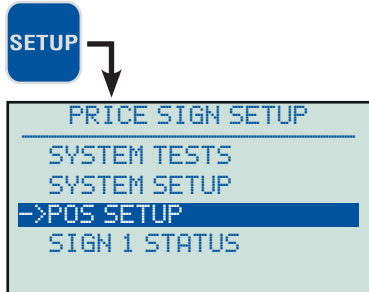
To change the text, select the TEXT: option and press . The next window will display the list of captions available. This list can contain up to 10 captions (arrow down past caption 5 for captions 6-10); each caption can be customized per location. Select the appropriate caption and press .

### On-Time Setup:

To change the length of time that the caption and associated price will be displayed, select the ON-TIME option and select a value between 3 and 16 seconds.

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## E. POS Setup



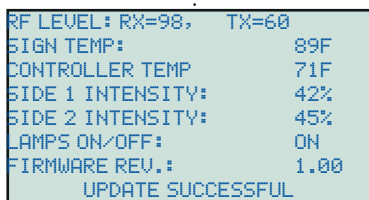
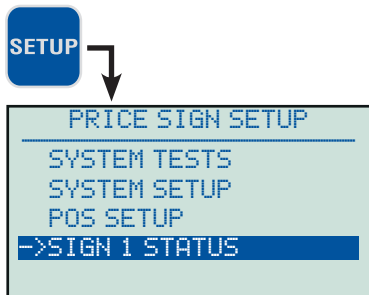
### POS Setup:

From the PRICE SIGN SETUP screen, press or to point to the POS SETUP prompt, then press . Select the correct POS system that will be connected to the input on the back of the console and press . Test the POS Interface by selecting System Tests from the main SETUP menu (see Section 4.B). There is a second page of supported POS systems to choose from. Press or on the bottom or top line to change to the next or previous page.

### Supported POS Systems:

- Gilbarco G-Site
- Gilbarco Passport
- Verifone Ruby
- Verifone Sapphire
- Dresser Wayne Nucleus
- Autogas Regal
- Allied Andi
- Allied NexGen
- Midax
- NCR Radiant

## F. Sign Status

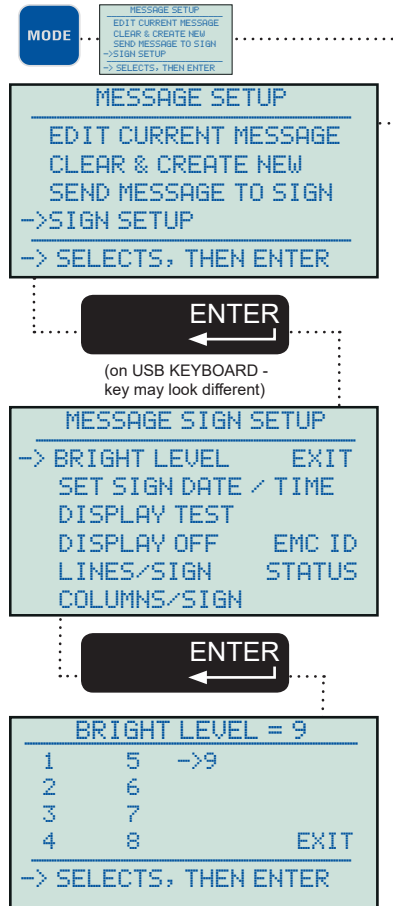


### Sign Status:

From the PRICE SIGN SETUP screen, press or to point to the SIGN STATUS prompt, then press to request the sign status information from the sign.

Once status information is requested and successfully received, the LD1600 Console will display pertinent sign information. Please note that the values shown on the left will likely differ from the values displayed on the console.

## 5. Message Center F: Message Center Setup



**Note:** To avoid having the LEDs pulse between different levels of brightness due to different sources of artificial light (automobiles, etc), the levels operate with a timed delay.

**Any changes to the Bright level will not be instantaneous.**



### Console and Keyboard Setup:

Press **MODE** on the LD1600 console to toggle between Message Center and Priceline Mode. Plug in a standard USB Keyboard in the bottom of the LD1600 console. Once in Message Mode all functionality will be controlled via the USB keyboard.

### SIGN SETUP:

**NOTE:** Setup will be completed at the factory. Skip SIGN SETUP unless there is a problem with the existing setup or if instructed to do so by technical support.

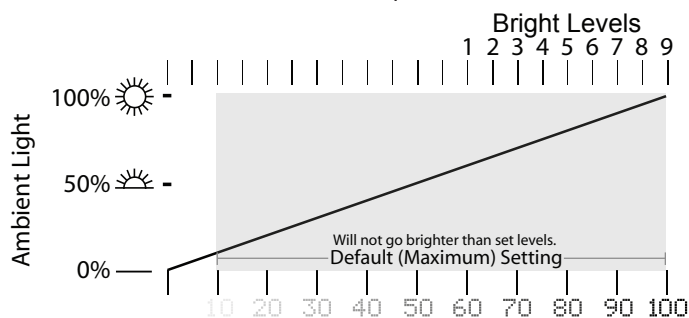
On the USB Keyboard, use the arrow keys to select SIGN SETUP. Press the ENTER key on the keyboard.

To keep the current settings in any SETUP item, press the ESCAPE key on the USB keyboard to exit out of the setting window without making changes.

### Bright Level (Daytime LED Brightness):

Ambient light is measured by a photo cell on both sides of the sign. The LEDs will become brighter in the daytime, making them easier to see in bright light. The Bright Level tells the sign to not get brighter than a certain value.

Arrow down to the desired level and press ENTER.



---

## Message Center Setup Continued....

```
MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
-> SET SIGN DATE / TIME
DISPLAY TEST
DISPLAY OFF      EMC ID
LINES/SIGN      STATUS
COLUMNS/SIGN
```

```
SET SIGN DATE / TIME
-----
-> DATE: MM/DD/YY
    TIME:  :
    AM/PM:
    DAY:      SEND  GET
-----
-> SELECTS, THEN ENTER
```

### SET SIGN DATE / TIME:

Setting the date and time is required to display timed programs and to display the correct date and time. NOTE: Number pad on keyboard may be disabled.

Arrow down to the desired field:

**DATE:** Press ENTER to select, enter 2 digit month, 2 digit day, 2 digit year

Example: January 5, 2018 would be entered by  
ENTER,010518

**Time:** Press ENTER to select and enter 3 or 4 digit time.

**AM/PM:** Press ENTER to switch from AM to PM.

**DAY:** Press ENTER to toggle through different days of the week.

**SEND:** Press ENTER to send information to sign.

**GET:** Press ENTER to get the current time and date from the .

**EXIT:** Press ENTER to return to Sign Setup.

**DAYLIGHT SAVINGS TIME** is automatically calculated. For this feature to work correctly, all information above must be entered and sent to the sign.

To check the current time stored in the sign, arrow down to "GET" and press enter. All fields will be displayed and can be changed by changing them through the console and sending to the sign. Date and Time information is stored only in the sign and is not saved or stored in the console.

```
MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
SET SIGN DATE / TIME
-> DISPLAY TEST
DISPLAY OFF      EMC ID
LINES/SIGN      STATUS
COLUMNS/SIGN
```

### DISPLAY TEST:

Select DISPLAY TEST and press ENTER to put the sign into display mode. Sign will display an LED test and display information pertinent to technical support. To stop displaying the test, arrow down to DISPLAY OFF and press ENTER.

```
MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
SET SIGN DATE / TIME
DISPLAY TEST
-> DISPLAY OFF      EMC ID
LINES/SIGN      STATUS
COLUMNS/SIGN
```

### DISPLAY OFF:

Select DISPLAY OFF and press ENTER to blank the sign. The sign will remain blank until a new message is sent.-

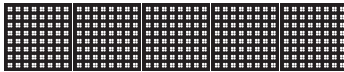
## Message Center Setup Continued...

```

MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
SET SIGN DATE / TIME
DISPLAY TEST
DISPLAY OFF      EMC ID
-> LINES/SIGN     STATUS
COLUMNS/SIGN
  
```

```

LINES / SIGN = 0
-----
-> ONE
   TWO
   THREE
   DISABLED
-----
-> SELECTS, THEN ENTER
  
```



One Line

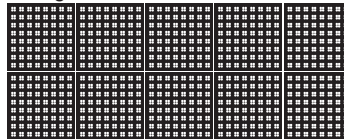
### SIGN SETUP:

**NOTE:** Setup will be completed at the factory.  
**DO NOT CHANGE THESE SETTINGS WITHOUT READING AND UNDERSTANDING THE FUNCTIONS.**

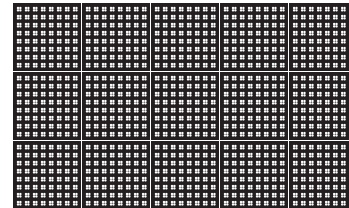
### LINES/SIGN (Vertical Tile Count):

Lines per sign refers to the height of the sign and the number of lines that can be displayed on one side of a sign. Each EMC sign is made from square tiles that are connected together. Each tile is capable of displaying a maximum of 1 row of text. Arrow down to the appropriate number and press ENTER. The maximum number of rows in an EMC is 3.

Select LINES/SIGN and press ENTER. Select the appropriate number of lines available in the sign. This setting will control the amount of lines that can be entered in the console so that the correct number of lines are sent to the sign. Select DISABLED if your sign does not have an EMC.



Two Line



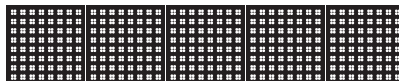
Three Line

```

MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
SET SIGN DATE / TIME
DISPLAY TEST
DISPLAY OFF      EMC ID
-> LINES/SIGN     STATUS
COLUMNS/SIGN
  
```

```

COLUMNS / SIGN = 40
-----
-> 40  72  104
   48  80  112
   56  88
   64  96      EXIT
-----
-> SELECTS, THEN ENTER
  
```

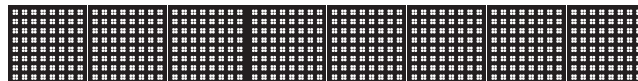


5 Panels x 8 Columns = 40 Columns

### COLUMNS/SIGN (Horizontal Tile Count):

Columns per sign refers to the overall width of the sign and is measured by the number of columns in a given sign. Each EMC sign is made from square tiles. Each tile contains 8 columns of pixels. Therefore, one tile contains 8 columns, 2 tiles side by side contain 16 columns, 3 tiles contain 24 columns and so on.

Setting the proper column width is essential for proper text positioning and overflow text limits. Arrow down to the appropriate number and press ENTER.



8 Panels x 8 Columns = 64 Columns



---

## Message Center Setup Continued....

```
MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
SET SIGN DATE / TIME
DISPLAY TEST
DISPLAY OFF  ->EMC ID
LINES/SIGN      STATUS
COLUMNS/SIGN
```

### EMC ID:

By default, EMC ID is set to 5. If a site has multiple EMC signs, the IDs will be set to a different number.

```
EMC SIGN ID
-----
-> 1   5*
    2
    3
    4           EXIT
-----
-> SELECTS, THEN ENTER
```

```
MESSAGE SIGN SETUP
-----
BRIGHT LEVEL      EXIT
SET SIGN DATE / TIME
DISPLAY TEST
DISPLAY OFF      EMC ID
LINES/SIGN      ->STATUS
COLUMNS/SIGN
```

### STATUS:

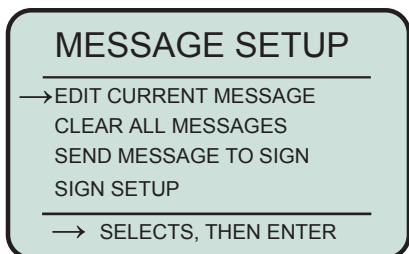
Select STATUS to pull vital information from the sign to the console. This information may be requested by technical support.

```
EMC SIGN STATUS
-----
->MSG SIGN 5 STATUS
```

## G: Entering and Editing Messages

### Entering Messages

1. Plug in lumiDigit II Console as illustrated in **General Startup Instructions**. Sign may be turned on, but sign does not need to be on until messages are ready to send.
2. Using arrow keys, select **EDIT CURRENT MESSAGE**, press **ENTER**.



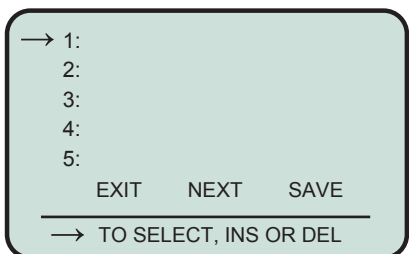
#### Message Setup Screen:

This screen will load automatically when console is plugged in. Use arrow keys on keyboard to move arrow on screen. Pressing ENTER will select command.

NOTE: Selecting CLEAR ALL MESSAGES will clear all messages. Once messages are cleared, the screen will go to the next screen (explained below).

### 3. Select Frame Number

MESSAGE SETUP -> EDIT CURRENT MESSAGE



**Quick Overview:** Messages are made of a series of frames and displayed one by one in numerical order. Messages refer to the entire loop of frames.

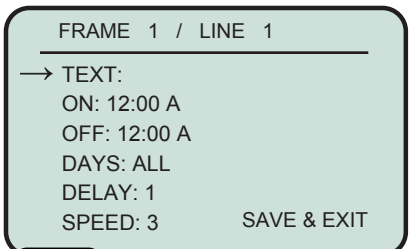
#### Select a Frame Number:

Frames are arranged by numbers, from 1 to 20. As a rule of thumb, always start messages with frame number 1 (1:).

Select **1:**, Press **ENTER**.

### 4. Entering Text

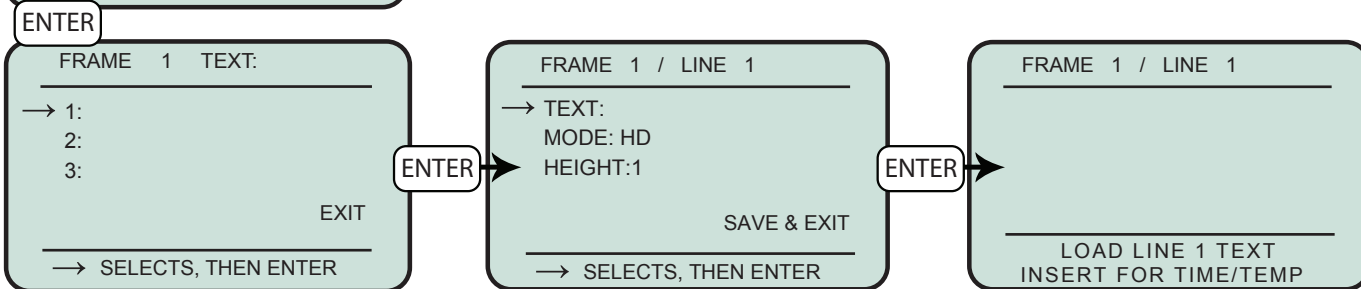
MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER



#### Frame Text Screen:

A frame is defined as what your sign is able to display at any given time. Signs can display 1, 2 or 3 lines (rows) at once. The number of rows that can be displayed is dependant on the sign type (see advanced setup). A sign that is only capable of showing 1 row will only allow 1 row to be entered. **Always start a frame with line 1.**

Select **1:**, Press **ENTER**.



#### Enter Text:

Enter the text for line 1 of the frame. Depending on the Column Width (see Advanced Setup) and Mode (see next section), the console will restrict the number of characters that can be entered to the amount that can fit on your sign.

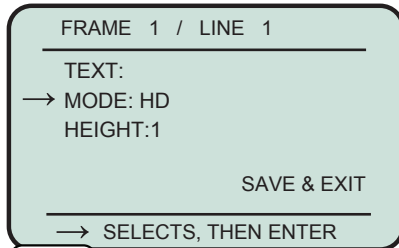
Type in message. When finished, press **ENTER**. The LCD will return to the Mode and Height screen.

**Tip:** If using Travel as the Mode (see next section), a message can be 50 characters long. If planning on using travel as the mode, first select your mode and then enter your text.

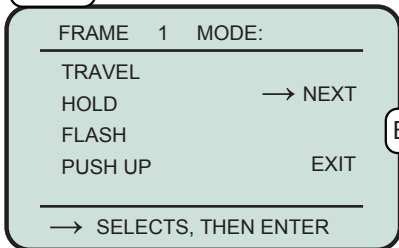
## Entering Messages (continued)

### 5. Selecting a Mode

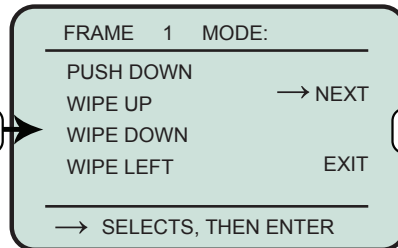
MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER -> TEXT



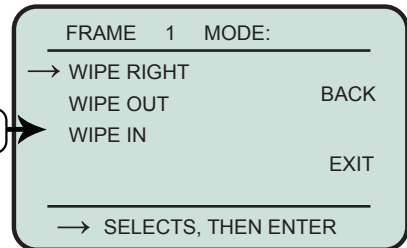
ENTER



ENTER



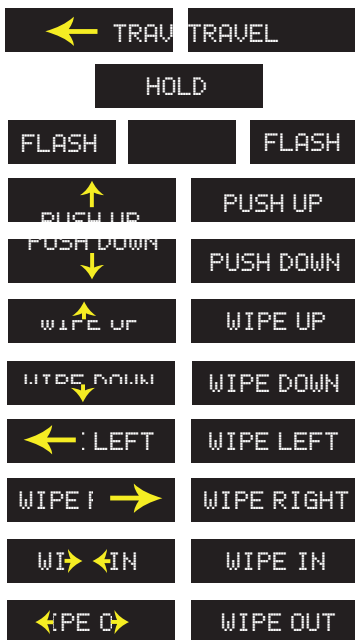
ENTER



#### Mode:

After entering a message, the LCD will return to the Mode and Height screen (left). Arrow down to **MODE:** and press **ENTER**.

**Mode refers to the animation of a line** and can describe a continuous animation or animation that only occurs as text enters a line.



#### Modes Defined:

Below is a description of the animation modes. On the left is a graphical illustration of the modes. The two letter abbreviation is what will be displayed on the LCD screen once a mode is selected. With the exception of Travel, the amount of characters that can be entered in your text depends on the columns in the sign and the height of the message.

**TRAVEL (TR)** - Line travels from right to left (50 Characters Max).

**HOLD (HD)** - Line appears and stays on line.

**FLASH (FL #)** - Line will flash on and off. Once flash is selected, console will ask for a number. This number refers to the amount of times that the message will flash.

**PUSH UP (PU)** - Line rises from the bottom of the line and stops when centered.

**PUSH DOWN (PD)** - Line enters from top and stops when centered.

**WIPE UP (WU)** - Line appears showing the bottom of the character and wiping up.

**WIPE DOWN (WD)** - Line appears showing the top of the character and wiping down.

**WIPE LEFT (WL)** - Message appears by wiping left from the end of the line.

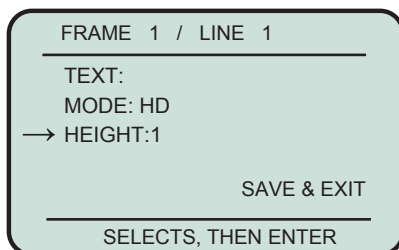
**WIPE RIGHT (WR)** - Message appears by wiping right from the beginning of the line.

**WIPE IN (WI)** - Message appears by wiping in from the outer edges of the sign to the center.

**WIPE OUT (WO)** - Message appears by wiping out from the center of the sign to the edges.

### 6. Selecting a Height

MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER -> TEXT



#### Height:

Height can only be changed if the sign has more than 1 row (see advanced setup). Height refers to the number of rows used by a single character. Text can be a height of 1 row, 2 rows or 3 rows depending on sign configuration. If a sign is 3 rows and 3 is selected as the height of line 1, lines 2 and 3 will not be available. If a sign is 3 rows and 2 is selected for the height of line 1, then line 2 will only have a height option of 1 line.

*Tip: When the height is increased, the width will also increase, which will decrease the amount of characters you can display on all modes except for TRAVEL.*

## Entering Messages (continued)

### 7. Saving a Line

MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER -> TEXT -> TEXT

```

FRAME 1 / LINE 1
-----
TEXT: ENTERED IN STEP 5.
MODE: TR
HEIGHT:3
-----
          -> SAVE & EXIT
-----
-> SELECTS, THEN ENTER
  
```

#### Save & Exit

Once the text is entered and the mode and height have been selected, **arrow down** to **SAVE & EXIT** and press **ENTER** on the keyboard.

*Tip: If all available lines have been used (user has a single line sign or used a height of 2 in a 2 line sign or a height of 3 in a 3 line sign), then Frame 1 is complete.*

*Tip: On many screens, pressing ESC will move to the previous window without saving.*

### 8. Adding a Line, Editing A Line or Exiting Frame

MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER -> TEXT

```

FRAME 1 TEXT:
-----
1: ENTERED IN STEP 5.
-> 2:
   3:
-----
                               EXIT
-----
CHECK LINE 1 OR 2 HT
  
```

#### Frame 1 Options:

After saving Line 1 of Frame 1, the LCD will return to the Frame options window. The text that was entered on line 1 will appear next to **1:** ("ENTERED IN STEP 5." was used for reference). If another line is available, repeat the steps that were used to enter text in line 1, but instead arrow down to **2:** and press **ENTER**. Repeat steps again until every line available is used or frame is complete.

*Tip: If unavailable lines are attempted to be used, a message will appear at the bottom of the LCD to check the height of line 1 or line 2.*

*Select a finished line for editing capabilities. Once in the text screen, arrows can be used to move the cursor back to make changes (delete words, correct spelling or add characters).*

When finished adding and editing, arrow down to **EXIT** and press **ENTER**.

### 9. Setting the Times and Days for the Message to Run

MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER

```

FRAME 1 / LINE 1
-----
TEXT:
-> ON: 12:00 A
   OFF: 12:00 A
   DAYS: ALL
   DELAY: 1
   SPEED: 3          SAVE & EXIT
  
```

#### Setting a Time:

Before the sign can display timed messages, the correct time must be set in the sign (see setup).

**ON:** Set the time for the message to start being displayed. A day starts and ends at 12:00A (midnight). *If you want a message to appear all day, set **ON:** to **12:00A** and **OFF:** to **12:00A** (default).*

**OFF:** Set the time for the message to stop being displayed.

*Tip: Because every day begins at 12:00A, a message that begins at 9:00P and runs until 2:00A will need to be entered twice. Run one message from 9:00P to 12:00A and an identical message from 12:00A to 2:00A.*

```

FRAME 1 / LINE 1
-----
DAYS:MON,
-----
-> MON TUES WED TH  FRI
   SAT  SUN  S-S  M-F ALL
   OFF
                               SAVE & EXIT
  
```

**DAYS:** Select days to display the message (default is set to ALL). Messages can run on individual days or a series of preprogrammed days. Messages can also be turned off and stored until needed.

*Tip: Multiple days can be selected for one message. Once a day is selected, a comma (,) will be placed after the selection. Another day can then be added.*

When finished adding days, arrow down to **SAVE & EXIT** and press **ENTER**.

## Entering Messages (continued)

### 10. Setting the Length of Time a Frame is Displayed

MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER

```

FRAME 1 / LINE 1
-----
TEXT:
ON: 12:00 A
OFF: 12:00 A
DAYS: ALL
-> DELAY: 1
SPEED: 3          SAVE & EXIT
  
```

ENTER

```

FRAME 1 DELAY
-----
          4   20   60   300
1         5   25  120
-> 2      10   30  180
3        15   45  240
-----
-> SELECTS, THEN ENTER
  
```

#### Delay:

Select DELAY to set the amount of time that a frame will be displayed.

Delay time refers to the amount of time each frame will be displayed before moving on to the next frame. Delay time is measured in seconds, from 1 second to 300 seconds (5 minutes).

*Tip: If only one message is needed for the sign, set the mode to HOLD and select any amount of time for the delay. The sign will hold the message until a new message is sent.*

#### SPEED:

Speed refers to the speed of the animation. For a quick animation transition between one frame and the next frame, select a speed of 3. For a slow animation transition, select a speed of 1.

To change speeds, arrow down to **SPEED** and press **ENTER**. The speeds will toggle between 1,2 and 3.

### 11. Displaying Date, Time and Temperature

MESSAGE SETUP -> EDIT CURRENT MESSAGE -> FRAME NUMBER -> TEXT -> LINE -> TEXT

```

TIME / TEMP / DAY
-----
-----
LOAD LINE 1 TEXT
INSERT FOR TIME/TEMP
  
```

Insert

```

FRAME 1 / LINE 1
-----
-> TIME
TEMP
TIME & TEMP
DAY/DATE
-----
EXIT
-> SELECTS, THEN ENTER
  
```

Navigate to an open line in a frame. (see step 4)

If no line is open, start a new frame and continue. (see step 3)

Date, Time and Temperature can be inserted on any line, but line must be empty to properly be displayed.

Select an empty line, press the **insert key** on the keyboard.

Select **TIME** to display time of day on a line(s).

Select **TEMP** to display the current temperature on a line(s).

Select **TIME & TEMP** to display both time of day and temperature on a line(s).

Select **DAY/DATE** to display the day of the week, the date, or the day of the week and date. Once selected a new screen appears. Choose the appropriate option.

Once selected, select the height and mode. (see steps 5 & 6)

### 12. Inserting and Deleting a Frame

MESSAGE SETUP -> EDIT CURRENT MESSAGE

```

1:Frame 1 Text.
2:Frame 2 Text.
-> 3:Frame 3 Text.
4:Frame 4 Text.
5:
EXIT   NEXT   SAVE
-----
-> TO SELECT, INS OR DEL
  
```

Frames will be displayed in numerical order. Frames can be inserted or deleted at any location.

#### Inserting a Frame:

From the EDIT CURRENT MESSAGE window (left), use the arrow keys to move the selector next to the frame that will appear *after* the the new frame. Press the **INSERT** key on the keyboard. Existing frames will shift down and a new empty frame will be available.

#### Deleting a Frame:

From the EDIT CURRENT MESSAGE window (left), use the arrow keys to move the selector next to the frame that will needs to be deleted. Press the **DELETE** key on the keyboard. A new screen will appear to confirm the deletion.

## H: Sending Messages to Sign



### Sending Messages to Sign:

Press **MODE** on the LD1600 console to toggle between Message Center and Priceline Mode. Plug in a standard USB Keyboard in the bottom of the LD1600 console. Once in Message Mode all functionality will be controlled via the USB keyboard.

Once messages are entered into the console, messages can be sent to the sign.

*Make sure that the sign is powered on and is in direct line of sight from the console before sending messages. The console radio signal cannot travel through walls, trucks, refrigeration rooms, etc. If console cannot be used within direct line of sight to the sign, contact your sales associate or technical services to discuss options, such as ordering an external antenna for the console.*

From the Message Setup screen, use the arrow keys on the USB keyboard to select SEND MESSAGE TO SIGN, then press ENTER.

All messages saved in the console will be sent to the sign and stored in the sign until new messages are sent.

Once satisfied with the messages, the console can be turned off and stored away until messages need to be updated.

## 6. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Entire sign is blank	No power to sign Installation wiring problem Sign wiring problem Defective power supplies	Verify the sign circuit breaker is ON Verify that sign disconnect switch is ON Contact Everbrite Technical Support
Only decimal points are lit	Blank prices have been entered	Enter valid prices
One side of the sign is blank or pricelines are blank (including decimal points)	Defective power supply Wiring/connection problem	Contact Everbrite Technical Support
Sign prices will not change	Access code required Communication problem Not in line of sight (radio) or too close to sign Console and/or controller defective	Contact technical support for access code Move to direct line of sight and at least 15 feet from the sign Reset power to system and re-send prices Contact Everbrite if above attempts fail
Both sides of sign are too dim	Dim setting is too low Bright setting is too low Sign controller problem	Set dim setting to a higher value Set bright setting to a higher value Contact Everbrite Technical Support
Both sides of sign are too bright	Bright setting is too high Dim setting is too high Sign controller problem	Set bright setting to a lower value Set dim setting to a lower value Contact Everbrite Technical Support
Console LCD is blank	Defective control console Defective AC adapter AC receptacle problem	Check AC in another outlet Contact Everbrite Technical Support
Console LCD is dim	Incorrect AC adapter voltage Defective AC adapter	Use correct 9 to 12VDC adapter Contact Everbrite Technical Support
Lamps won't turn on/off	Setting incorrect in program, photosensor, or controller Lamp control relay not installed correctly	Change lamp control on/off level by using the console Contact Everbrite Technical Support



## 7 . WARRANTY

### Two Year Limited Warranty for lumiDigit LED Price Signs

Everbrite LD1600 Console and lumiDigit LED price signs and retrofit kits are warranted to be free from defects in material and workmanship for a period of two (2) years, from the date of shipment. During this period, replacement parts will be furnished free of charge, except for lamps and fuses, which are the responsibility of the customer. Any parts found to be defective must be returned by contacting Everbrite and receiving a Return Goods Authorization number. Items replaced under warranty will be warranted for the remainder of the original product warranty period. Contact Everbrite at 1-800-769-7427 to report any defective conditions or warranty claims.

LumiDigit retrofit kits installed into existing signs are warranted only for the components supplied by Everbrite. An existing sign's ballasts, lamps, wiring and other components are excluded in this warranty. Failure to follow retrofit installation instructions, for example, not making the sign cabinet weather-tight, will void this warranty.

If the installation was provided by Everbrite, this warranty will include labor expenses for a period of one year from the date of shipment. Everbrite must be contacted to arrange for the warranty service labor. Unauthorized repairs will not be reimbursed.

If Everbrite does not provide original installation services, customer is responsible for contacting Everbrite to register and activate the sign/retrofit kit.

Relocation of a lumiDigit sign or retrofit kit from the original address of activation voids the above warranty, unless Everbrite is contacted to handle the removal and reinstallation.

All products must be installed and operated in accordance with the manufacturer's recommended procedures and guidelines. Improper use or installation could void this warranty.

This warranty does not cover loss or damage due to accidents involving the product, acts of criminal aggression, other property disasters or acts of God. This includes but is not limited to improper installation conditions, mishandling, misapplication, faulty wiring, electrical surges, unauthorized attachments or modifications and improper maintenance.

Except for those warranties specifically and expressly set forth above, seller disclaims any and all warranties expressed, implied or statutory, including but not limited to, all warranties of merchantability and fitness for a particular purpose.

This equipment has been tested and found to comply with the limits for a class "A" digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual and the LD1600 owner/operation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference. In this case, the user is required to correct interference at their expense.



## **8: CONTACT INFORMATION**

**Please contact Everbrite Technical Support for any problems that may occur or cannot be resolved through the troubleshooting steps.**

***Note: Installers, see retrofit installation and troubleshooting manual.***

**Technical Support & Customer Service: 1-800-796-7427**

**Everbrite Pardeeville Office: 1-608-429-2121**

**Website: [www.everbrite.com](http://www.everbrite.com)**