



lumiDigit®

LED Electronic Price Display System

March 2006

Operator's Manual

IN00815P

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Introduction

The LumiDigit LED Electronic Price Display System is based on Display Arrays of remotely controlled LED numeric modules that provide greater readability than other typical LED digits.

Price changes are easily and safely accomplished from inside the station. The problems of weather conditions, ladders, changer arms, placards, or personnel availability are gone!

Long life, energy-efficient LED's require no maintenance, are microprocessor controlled, and provide a 140° wide viewing angle for maximum exposure to the consumers.

Operational input is easily accomplished using a hand-held Keypad/Console that incorporates an LCD monitor to visibly confirm the price being displayed at the sign. This control is done using a radio or (optional) hardwire configuration.

This affordable and user friendly system uses a wide range of digit sizes to give your customers the prices, at whatever distance you need. Everbrite is proud to offer an Electronic Price Display System that truly sets itself apart from the rest of the industry.

Manual Overview

This manual is intended for the user of the Everbrite lumiDigit LED Electronic Price Display. Read this manual carefully before starting the equipment.

This manual contains important information for correct installation, 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 Electronic Price Display system, please do not hesitate to contact us. Contact information is listed inside on back cover Technical Support.

Topics Covered in This Manual

- Safety Information: An explanation of equipment, environmental and operating safety issues.
- Features & Control Keypad.
- Specifications: Lists the general specifications and requirements.
- Installation and Setup: Outlines procedures for unpacking setup and installation.
- Operating Procedures: Outlines installation, setup and operation.
- Maintenance: Outlines lamp replacement, and cleaning.
- Technical Support: Contact information for lumiDigit technical issues and questions.

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 useful tips.

Warranty

Two Year Limited Warranty

Non-compliance with procedures of Installation, Safety, Operation and/or Maintenance practices defined in this manual may result in a Warranty issue.

This warranty extends to and is enforceable by only the original consumer purchaser and only for the period (during the applicable term) which the product remains in the possession of the original consumer purchaser. "Original consumer purchaser" means the person who first purchased the product covered by this warranty other than for purpose of resale. This warranty does not apply if it is found that at 'any time' the equipment has not been used for its intended purpose.

NOTE: Please ask your dealer, distributor, or sales representative for details.



CAUTION! Any unauthorized changes or modifications to this unit without our prior written approval will void the user's warranty and will transfer health and safety obligations to the user



CAUTION! Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

NOTE: 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 Owner's Manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense.

Table of Contents

Introduction.....	i
Manual Overview	ii
Warranty	iii
Table of Contents	iv
1. Safety Information.....	5
2. lumiDigit Sign Features	6
2.1 Pricing Sign Description.....	6
2.2 Controller Description	7
2.2.1 RF Control Configuration	7
2.2.2 IFSF/LON Control Configuration	7
2.2.3 Non IFSF Hardwire Configuration	7
2.3 Cooling System.....	7
2.4 Corrosion Protection	7
3.0 Control Keypad Functions.....	8
4.0 Specifications	9
4.1 Table I	9
4.2 Special Configurations	9
4.3 Wiring Diagrams	
4.3.1 Two Circuit Configuration	10
4.3.2 One Circuit Configuration	10
4.3.3 Controller Configuration Schematics.....	11
4.3.4 Cable and Wiring Harness Layout	12
4.4 Unit Identification	13
5. Installation.....	13
5.1 Unpacking/Pre-Installation	13
5.2 Site Layout.....	13
6. Maintenance.....	14
6.1 Accessing Cabinets.....	14
7. Trouble Shooting	15
7.1 Table II: Problem/Cause.....	15
Appendix A: Array Frame Assembly Retrofit Installation	18
Appendix B: T - Mount Frame Assembly Retrofit Installation	21
Appendix C: Array Retrofit Installation	25
Technical Support	29

1. Safety Information

The owner of the lumiDigit Sign is responsible for safe operation and repair. He therefore 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 manufacturers' 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.

Everbrite recommends that your main power be installed by a licensed electrician 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 cease 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 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, ANY OTHER MATERIALS ARE REMOVED FROM THE UNIT, AND 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.

2.0 lumiDigit Display Features

2.1 Pricing Sign Description

The lumiDigit is a remote controlled illuminated, price changing system that displays dollars and cents with fractions for U.S. and decimals for Canada. A standard sign calls for three Price Lines with an option for up to five (both sides). Within the Sign Cabinet there are two digit assemblies per line (one for each side) referred to as an Digit Module. Each controllable number is considered a Digit and displays 0-9 or blank.

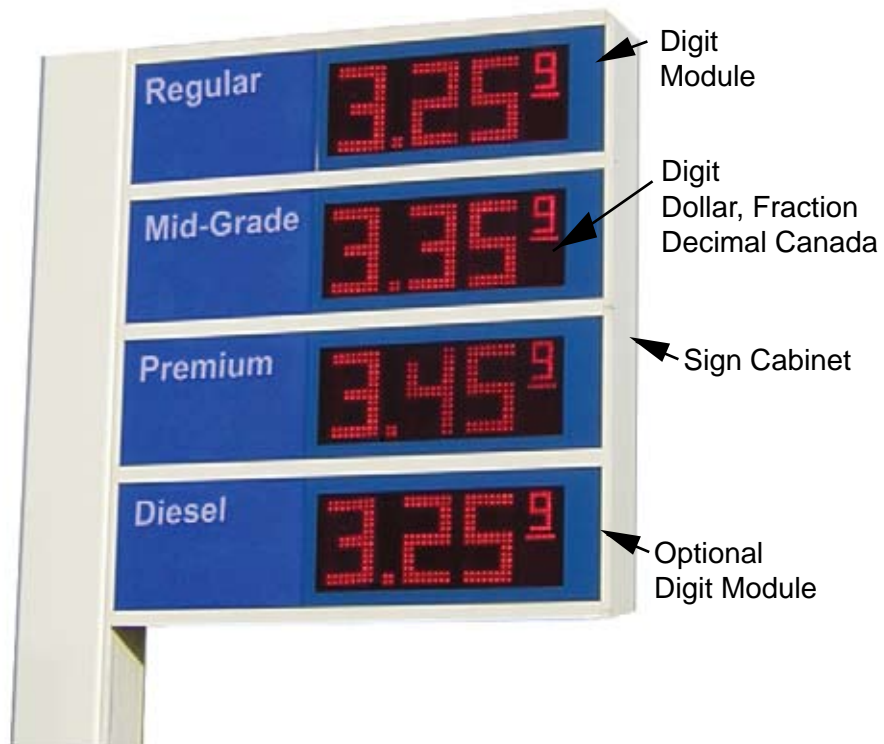


Photo 1: Features of The lumiDigit Price Changing Display

2.2 The Interface/ Controller

The sign Interface/ Controller located in the Sign Cabinet handles various system functions. It sends and receives instructions for dimming and pricing settings to be displayed via the interface configuration (RF or hardwire). It controls the Digit Modules by sending data to the Driver Board located within the module. It then sends confirming data back to the Keypad/Console updating the price settings being displayed.

2.3 Keypad/Console

The Keypad/Console has a touch sensitive keypad that allows the operator to enter all pertinent information and a screen console display with step by step instructions for setup. It then sends the information to the Interface/Controller within the sign by way of a radio or hardwire. It is powered by a Wall Cube/ Power Adapter.

2.4 Control Interface Systems

There are two remote control interfaces available.

RF- Radio frequency control system (Standard)

Hardwire control system (Optional)

2.4.1 RF Configuration (Standard)

The RF has a 2.4 Ghz, Frequency Hopping Radio that is set up site specific to insure that no interference will occur. The sign control is managed by the Keypad/Console that has a RF signal setting to communicate the prices displayed and dimming levels for day or night. Control is possible up to 3000 feet away, depending on conditions.

2.4.2 Hardwire Configuration (Optional)

The Hardwire is actually two communication pairs; one that sends to the controller and one that receives from the controller. The Keypad/Console is plugged into a junction box (CAT-5), very similar to a telephone connector junction box. This configuration is limited to a maximum of 4000 feet.

2.5 Cooling System


The system consists of two fans within each module, that are thermostatically controlled to come on at 38°C (100°F) blowing external air across the components and forcing the hot air out of the module.

2.6 Corrosion Protection


All the PC board assemblies are conformal coated and all connectors have gold-plated pins.

3.0 Control Keypad Functions


When the Control Keypad is turned on

Keypad Screen Display will show: 

To Change the Price Display press  then press 


Keypad Screen Display will show: 

Enter the new price using the numeric keypads.

Enter the 3 digits of the price followed by 


NOTE: Four (4) digits must be entered the last entry is 9.

To change the nighttime Light Sensor Dimming setting press 

Keypad Screen display will show: 

Press  to SYSTEM SETUP ← then press 


The arrow will be pointing at DIM LEVEL ← press ENTER again.

Keypad Screen display will show: 

Select a level setting by pressing 1 - 9.  for brightest -  for dimmest ,then press 

To change the daytime Light Sensor Dimming setting press 

Press  to SYSTEM SETUP ← then press . Press again until it is pointing at BRIGHT LEVEL ← press ENTER again.

Keypad Screen display will show: 

Select a level setting by pressing 1 - 9.  for brightest -  for dimmest, then press 

To get back to the original Screen Display, press  two times.



Photo 2: Controller Keypad

4.0 Specifications

4.1 Table I

Specification	Discription
LED Rating	100,000 Hr @ -40°C (-40°F) to 100°C (212°F)
General Electronics Rating	-40°C (-40°F) to 85°C (185°F)
Display Cooling System	Thermostatically controlled, brushless fans, rated @ 60,000 Hr
Power Supply Rating	49,795 Hr @ full brightness (5.7 Years)
Corrosion Protection	Gold Plated Connectors, Conformal Coating on electronics
Circuit Requirments	(AC line must have dedicated HOT, NEUTRAL and GROUND)
Two Circuit Configuration (Recommended)	Sign Lighting 20 amp circuit, (approx 3-5 amp) — Price Display Modules 20 amp circuit, (approx 15 amp)
Single Circuit Configuration (Not recommended)	30 amp circuit for 4 product sign — 15 amp circuit for 3 product sign, (Do not use for Release “A” serials signs)
Communication	
RF System Transceiver	200mw 2.4 GHZ, distance between units 3000 ft max
Hardwire System	Optically isolated serial link

4.2 Special Configurations

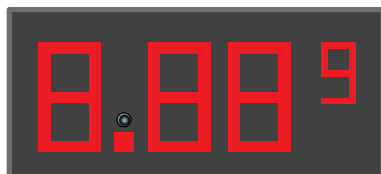


Photo Cell Located above decimal (Top Module Only)

U.S. Configuration

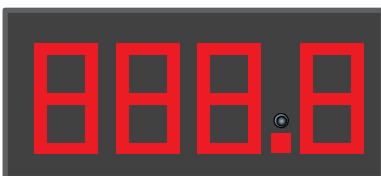
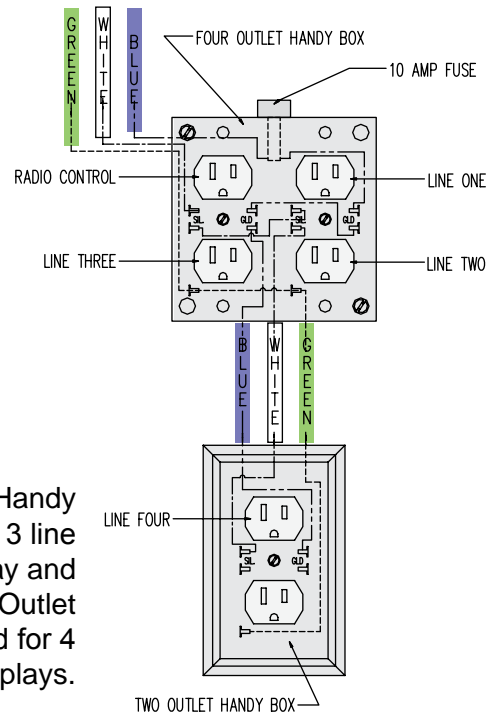


Photo Cell Located above decimal (Top Module Only)

Canadian Configuration

Figure 1 : Module Configurations

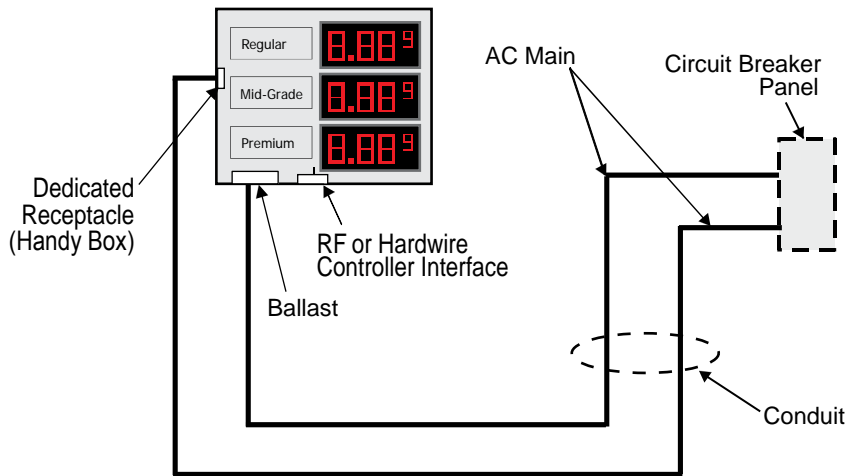


NOTE: 4 Outlet Handy Box required for 3 line Digital Display and an additional 2 Outlet Handy Box needed for 4 or 5 line displays.

Figure 2 : Handy Box Wiring Diagram

4.3 Wiring Diagrams

4.3.1 Two Circuit Configuration (Recommended)

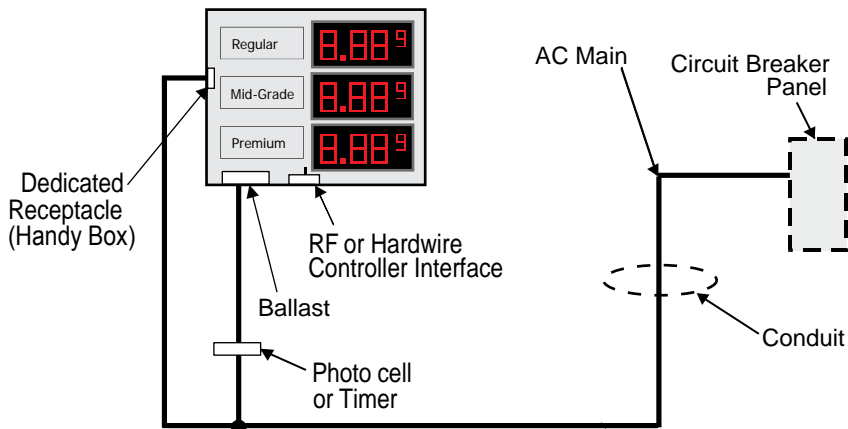


One of the two circuits is used for the sign lighting system and the other circuit is used for the price display modules. Check circuit specifications Table I.

Figure 3: Two Circuit Schematic

4.3.2 One Circuit Configuration (Not Recommended)

One circuit is not recommended but can be used if only a single circuit is available. The Sign Interface and the Sign Ballast are wired together. Check circuit specifications Table I.



NOTE: A light sensitive switch or timer can be used in a one circuit configuration. This will allow the sign to be changed regardless of the state of the lighting circuit (Not Recommended).

Figure 4 : One Circuit Schematic



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

4.3.3 Controller Wiring Configuration Schematics

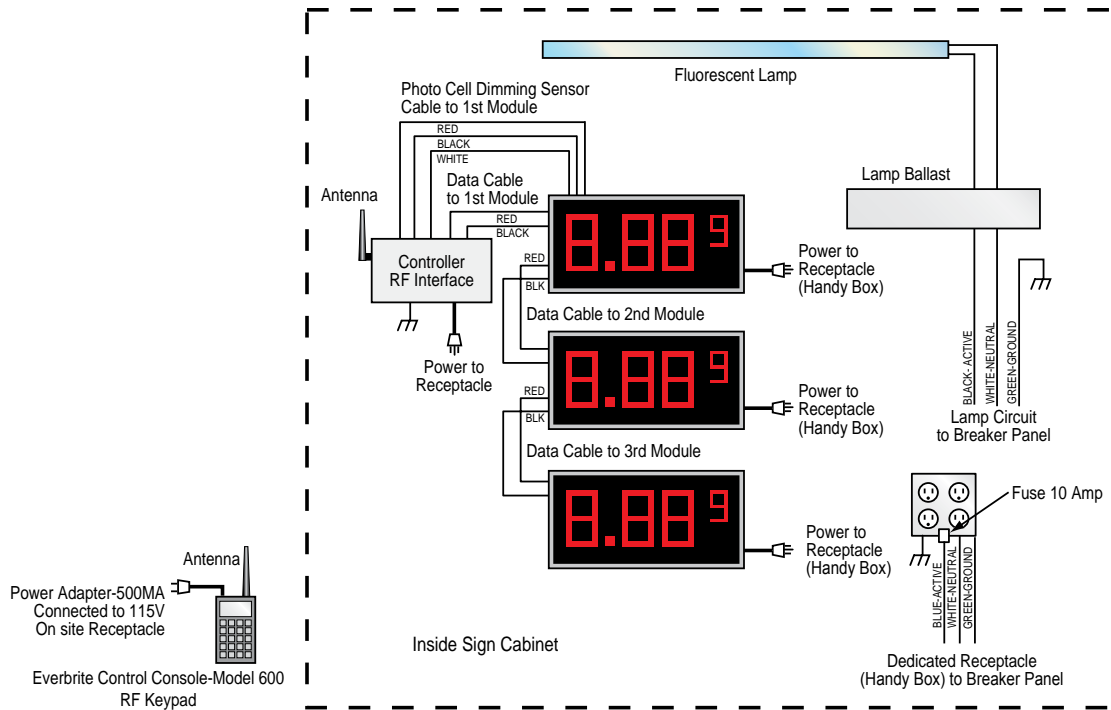


Figure 5: RF Schematic

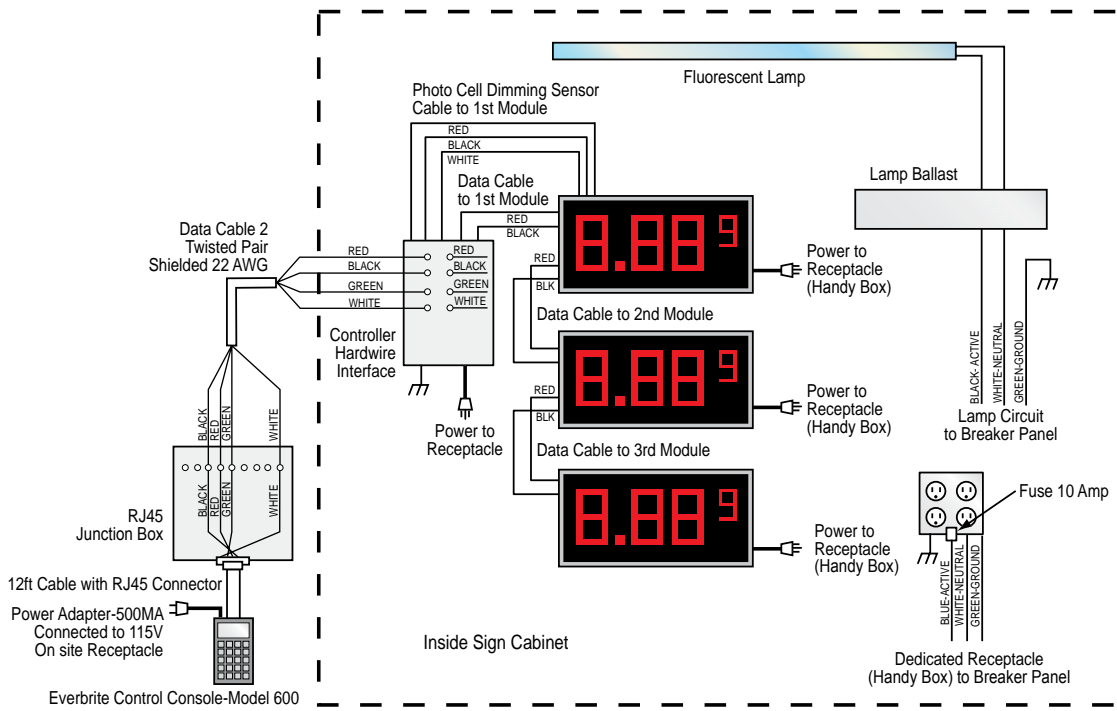


Figure 6: Hardwire Schematic

4.3.4 Cable and Wiring Harness Layout

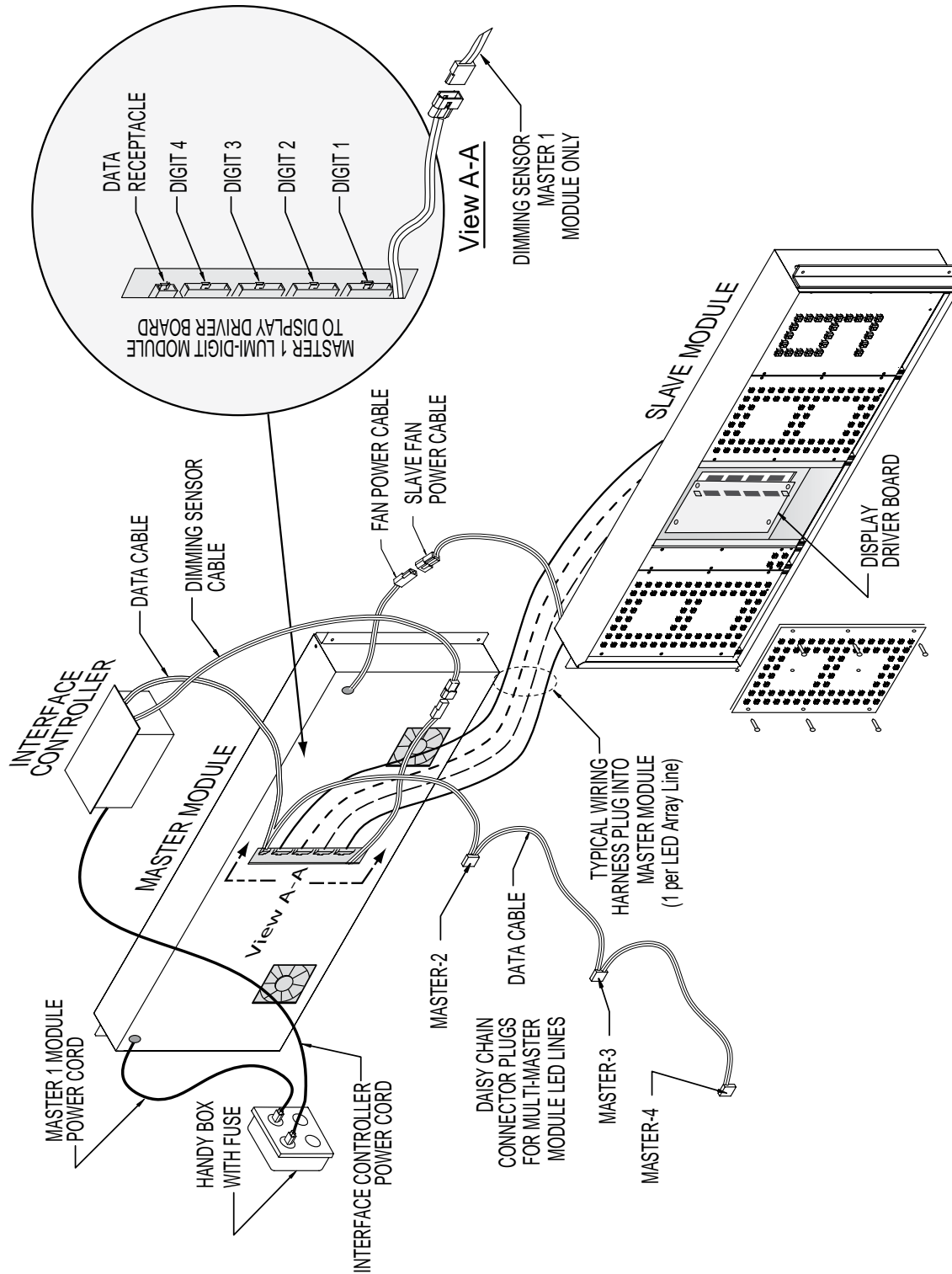


Figure 7: Cable Layout

4.4 Unit Identification

The Sign identification label is located on the inside of the sign face retainer molding.

5. Installation



CAUTION: Everbrite recommends that the sign be installed by a licensed contractor. Must be installed per the detailed instructions sent with the unit and meet all local and national building codes.

5.1 Unpacking/Pre-Installation

Dependent on the Sign Configuration ordered, the lumiDigit unit comes crated with different items attached and/or unattached and with different installation hardware.

NOTE: Take care Un-crating as not to damage the units.

NOTE: During installation check all connectors on all the data cables to insure good connections.

The shipment should include:

- Installation instructions.
- Operators manual (This manual).
- LED Digital Display Cabinet.
- Keypad Controller With Power Cord.

5.2 General Site Layout

There will be a set of Installation Instructions/Drawings, included with the shipment.

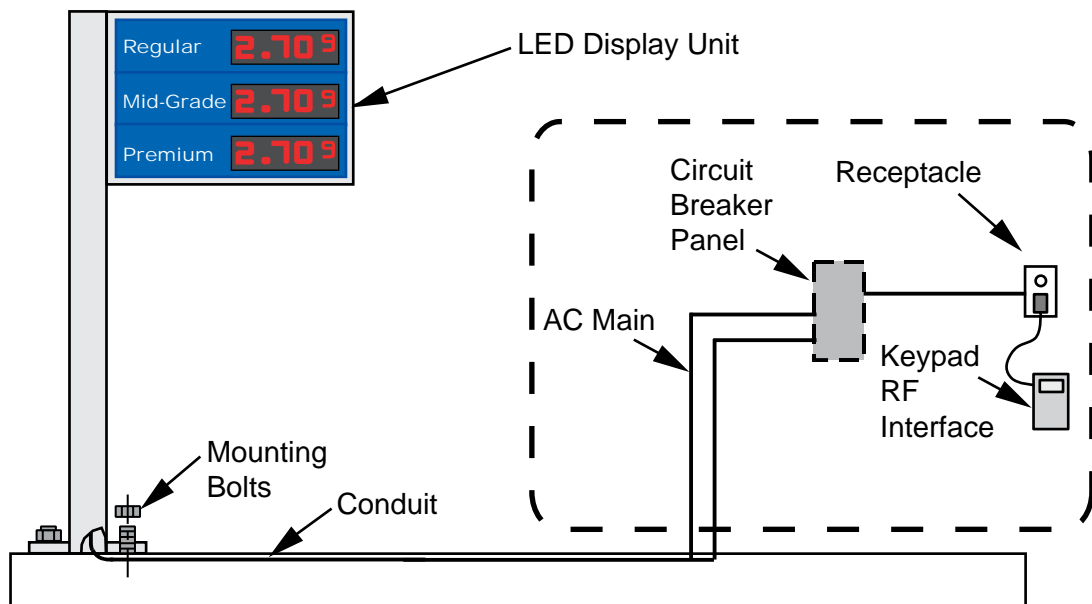


Figure 8: Installation Layout

6. Maintenance

Use a window type product for cleaning, with a soft cotton cloth.



CAUTION: Do not use a power washer, solvent product, or abrasive materials for cleaning.

6.1 Accessing Cabinets

To access the sign cabinet remove side end frame by unscrewing the two frame screws, remove the frame end, and slide the face panel out.

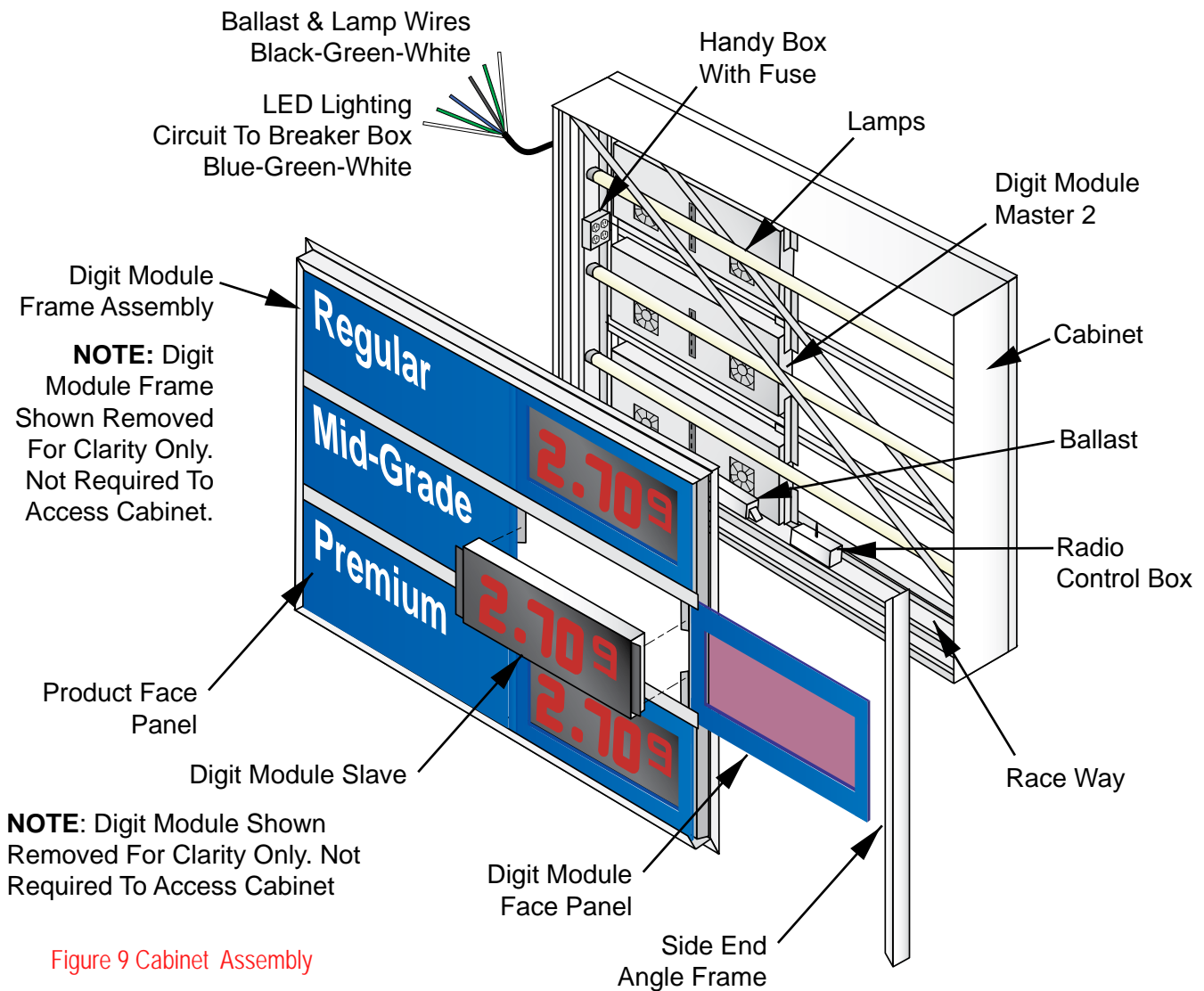


Figure 9 Cabinet Assembly

7. Trouble Shooting

7.1 Table II: Problem/Cause

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



CAUTION: When re-installing a connector on a digit; it is extremely important to get the connector on properly. Mis-alignment of a pin or connecting backwards will cause permanent damage to the Driver Board.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Sign doesn't light	Site circuit breaker	Check to see that the site circuit breaker is on. If voltage is missing, call your electrician to inquire about the power hookup
	Site wall receptacle	Check that there is power to the site wall receptacle
	Sign receptacle (Handy Box) fuse	Check the fuse in the sign, replace with 10-amp fuse if bad. With a volt ohm meter (VOM), check for 120 volts AC at all outlets of the dedicated receptacle in the sign. If voltage is present, re-connect the module and the interface/controller and attempt to send prices to the sign.
Keypad/Console is blank.	Power Adapter for the Keypad/Console	Verify the Keypad/Console is plugged in. Check that the output of the provided +9VDC 500ma Power Adapter is +10 to +15 volts DC, if not call service to replace. If this voltage is correct, call service for replacement of the Console/ Keypad.
Price LED displays blank or won't change	Interface configuration Improper price setup is not communicating	1. Re-send the price changes, see page 8. *1 2. Check RJ-45 connectors for the control system. *1 3. Check the wiring connections at the RJ-45 Junction Box and at the terminal block on the Hardwire Interface/ Controller.
	Console/ Keypad	Keypad/Console is defective if the LCD does not read properly.
	Interface/Controller	Interface/ Controller is defective if the console LCD displays "sign not responding" or "E1".
	1 st Array Driver Board is defective.	If the Keypad/Console says the changes have been made but nothing changed, swap the bottom module Driver board into the 1 st Array and unplug the bottom Array from the dedicated receptacle. Note that the price from the bottom module should now be in the 1 st Re-send the price changes for the remaining module and see if they change. If they change, the driver board removed is bad. Replace the driver board.

Trouble Shooting Continued

PROBLEM	POSSIBLE CAUSE	SOLUTION
4* One or more modules below the 1 st module do not change price	Driver Board	<ol style="list-style-type: none"> 1. Inspect Data Cable and connections. 2. Disconnect the data connector from the lowest functioning module (this could be the top module) and move it down to the top most malfunctioning module. 3. Re-enter the prices, keep in mind the module you are checking is the module you moved the data cable to and it will load as the module above it. <p>If the module being tested fails to function, its driver board is faulty. Replace the driver board.</p> <p>If the module you are testing now functions, the driver board that was working in the module above has a bad output to the next module. Replace the driver board.</p>
One Digit Array will not light on both sides	Cabinet is over temperature limit	Turn off sign for 20 minutes to cool and restart as test. If the module lights up correctly, check the fan cable connections in the cabinet. If the module doesn't light up at all, see next possible cause.
	Power Supply is shutting down due to a malfunction.	Check all cables between the master and slave module for potential shorts or pinched cables. Disconnect the AC power cord for the problem array and ohm the wires out of the power supply for shorts to ground or between red and black. If shorts were found, remove them and recycle power to the sign, re-enter price changes.
	Power Supply is defective.	Check the input power at the 3 pin terminal block for 120 volts AC. If absent, check for broken wires. If present check the output for 24 volts DC (*3 except 10" digits, unless green, check for 12volts DC). If proper voltage is present, continue troubleshooting. If output voltages are bad, replace the Power Supply.
	Driver Board	Swap the potentially defective driver board with a known good driver board; if it works the problem could be in the previous drivers' output. If it does not work the driver board is defective. Call for service.
Entire Display flashes dim and bright	Photocell Circuit	Using a VOM on the ohms scale, check the resistance of the Photo Sensor by disconnecting the cable near the Interface/ Controller. Ohm between the white and red wires. When light it should be between 900 and 1200 ohms, and when covered or dark between 5,000 and 12,000 ohms. If bad, call service for replacement of the Photo Sensor. Leave the sensor unplugged until the replacement arrives.



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

Trouble Shooting Continued

PROBLEM	POSSIBLE CAUSE	SOLUTION
*2 Pricer displays different prices on each side.	Driver Board, wire harness, Interface/ Controller	Because of current requirements of the 24" lumiDigits, all modules are masters and each side has a separate output from the Interface/ Controller. The Interface/ Controller is specially modified for the 24" LED signs. Starting from the top of the sign; on the side that is wrong, remove the driver of the module that has wrong prices. Swap a driver from the side that works with the suspected bad driver and re-send prices. If the problem is fixed the driver replaced is bad. If the problem remains, replace the driver in the module above it. If there is no array above, then the harness is bad or the controller was never modified for 24" digit. Call for service.
Digit doesn't light	Driver Board, cable, Digit	Remove power from the driver by pulling off the connectors from the driver at J10 & J11. Swap the digit's cable with a working digit's cable on the driver board, in the same module. Replace the power connectors at J10 & J11. If the problem moves to the other digit, the driver board is bad. If the problem stays with the original unlit digit, the cable or digit are bad. Once again remove power from the driver at J10 & J11. Swap the digit's cable at the digit, with a known good digit. If the problem stays with the same digit, that digit is bad. If the problem moves to the other digit, the cable is bad.
Segment of digit is unlit.	Conformal coating on the Digit connector, LED's open on the Digit, Driver Board.	Remove power from the driver by pulling off the connectors from the driver at J10 & J11. Remove and replace the connector at the digit several times to help clean off potential conformal coating overspray. Replace the power connectors at J10 & J11. If problem remains, digit is defective. Swap digit and cable at the driver board, to a working digit driver board connection. If the digit now works, the driver board is defective
Single Pixel or LED on digit is unlit	LED on digit is shorted.	Replace Digit
Segment or Pixel is on all the time.	Transistor on the Driver board is shorted.	Replace Driver Board.
Console/Keypad is on, but won't operate.	Console/ Keypad	Replace Keypad /Console

NOTES:

*1 = Hardwire Configuration ONLY!

*2 = 24" lumiDigit ONLY

*3 = All 10" lumiDigit, except GREEN

*4 = For troubleshooting purposes, the data cable out of the Interface/ Controller can be pulled from the top module and plugged directly into any module to determine if it is functioning with data directly from the controller. ONLY the first data connector works for this purpose, only if the controller actually works properly. Remember that the module in question should operate like it was the top module.

Appendix A: Frame Assembly Retrofit Cabinet Assembly Drawing

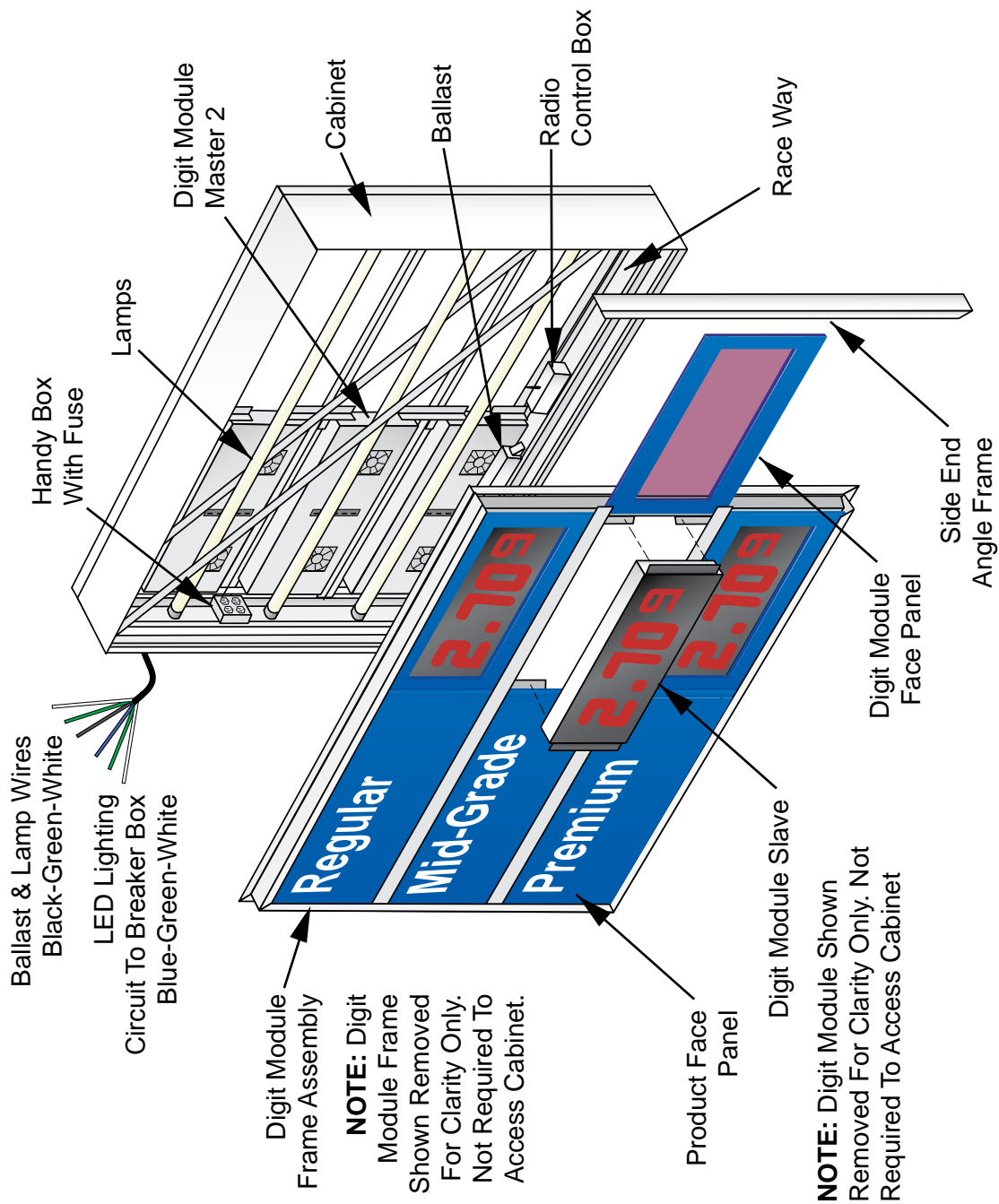


Figure A1 Cabinet Assembly

Appendix A: Frame Assembly Retrofit Installation Instructions



CAUTION: Information and diagrams included in Section 4, Pages 9-12 are required for this installation. See Figure A1: Cabinet Assembly.

NOTE: Everbrite recommends using a scaffolding or boom truck bucket for installation.

Retrofit Conversion Kit Items included;

- 2 - Digit Frame Assemblies (Master and Slave)
- 1 - Remote control box with fasteners
- 1 - Four outlet electrical box with fuse. (Handy Box)
- 1- Two outlet electrical box (*If required).
- 1- (*2 if required)- Heyco bushing.
- 1 - Operators manual.
- 1 - Keypad Controller With Power Cord.

***NOTE:** 4 outlet Handy Box required for 3 line Digital Display and an additional 2 outlet Handy Box needed for 4 or more line displays.

STEP 1: Shut off power to the sign at the site circuit breaker box.



WARNING! USE A LOCK OUT/TAG OUT ON CIRCUIT BREAKERS OR “POWER ON/OFF” SWITCHES WHEN PERFORMING REPAIRS OR MAINTENANCE.

STEP 2: Remove display face frame fasteners and hinge fasteners, to remove existing face frame assemblies that are to be replaced. Replace hinge screws back into enclosure if not able to get at hinge fasteners, remove hinge pin then remove all the lamps.

STEP 3: Find a good location for the installation of one or more of the Outlet Electrical Boxes (Handy Box). Mark the location, unscrew and remove the Raceway Cover .

NOTE: Take care With the Existing Wiring Connections.

Cut a 7/8” hole in the Raceway Cover, at the location that was marked. Mount the Handy Box to the cover with the #10-24 screws included (match drill as required).

Snap the 7/8” Heyco Bushing into the hole in the Handy Box and Raceway cover for wiring protection.

STEP 4: Make up a wiring harness of the proper length 3 wire, 14 Ga. THHN or equivalent, Blue (Hot), White (Neutral), and Green (Ground). Feed the harness thru the existing cabinet outlet and down the column to wiring access hole to the handy box(s). Leave a 24” pigtail for hookup at the bottom of the column for main circuit hookup and 12” pigtails at each Handy Box used.

NOTE: Recommend Using Wire Ties every 12” to 18”.

STEP 5: Lay the harness in the Raceway and feed the 12" pigtail thru to the Handy Box and hookup to receptacles (Figure 2 Handy Box Wiring Diagram). Reinstall Raceway Cover taking care not to pinch any wires.

STEP 6: Attach the Remote Control Box to the Raceway closest to the top inside Digit Module location. Use the four #10-24 Sheet Metal Screws.

NOTE: Take care not to damage Remote Control Box Power, Dimmer Sensor, or Data Cables during next assembly.

STEP 7: Locate the LED Master Display frame assembly (the one with power cables). This LED display assembly will be installed on the side of the display that puts the LED Master Digit Modules with power cables closest to the Handy Box(s). Fasten Assembly using #12 X1 HXWHD drill screws.

STEP 8: Install the LED Slave Display frame assembly in the opposite side as in previous step.

STEP 9: Remove the side Retainer angle molding and slide out all of the display panels.

NOTE: Removing display panels on both sides may make the following steps a little easier.

STEP 10: Replace Lamps into Cabinet.

STEP 11: Connect the Data Cable from the Remote Control Box to the Master Modules as required. Data Cable is connected to Master Modules Only.

STEP 12: Connect Dimming Sensor Cable from the Remote Control Box to the Master 1 Module

STEP 13: Connect the Slave Modules Wiring Harness into the Master Modules in the same line, Digit 1 to Digit 1, Digit 2 to Digit 2, and so forth.

STEP 14: Plug all Master Modules power cables and the Remote Control Box power cable into a Handy Box as required.

STEP 15: Unlock and turn main power circuit breaker on to test for proper operation of the lumiDigit Price Display System (Section 3.0 of owner's manual for Keypad Functions).



CAUTION: Consider environmental conditions before powering up an open Cabinet.

STEP 16: Slide in the new Price Sign Face Panels and reinstall the cabinet retainer angle.



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

NOTE: If display is not functioning see Section 7.0 Trouble Shooting in the Owner Manual.

Appendix B: T - Mount Frame Assembly Retrofit Cabinet Assembly Drawing

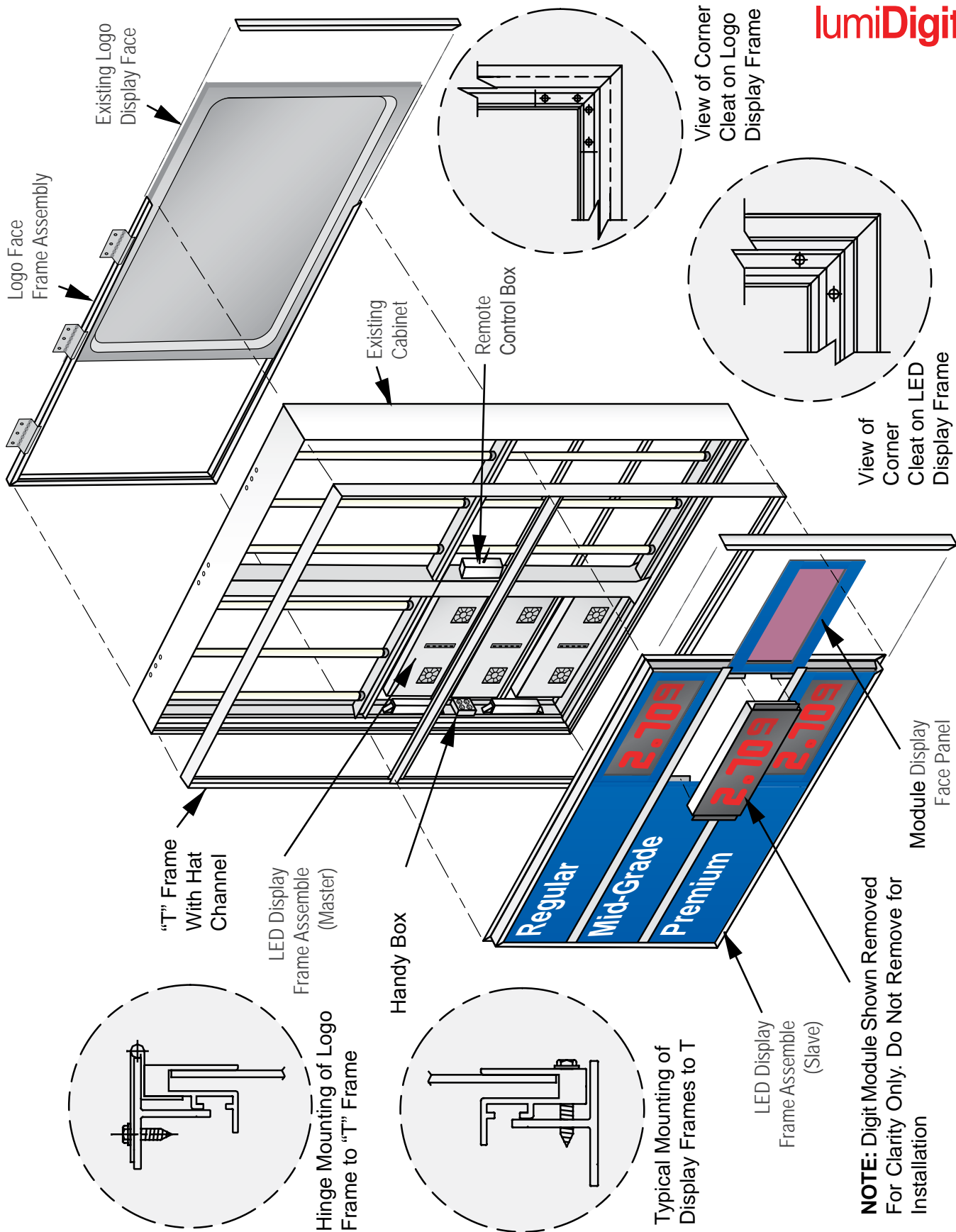


Figure B1: Cabinet Assembly With Details

Appendix B: T - Mount Frame Assembly Retrofit Installation Instructions



CAUTION: Information and diagrams included in Section 4, Pages 9-12 are required for this installation. See Figure B1: Cabinet Assembly with Details and Parts List.

NOTE: Everbrite recommends using a scaffolding or boom truck bucket for installation.

STEP 1: Check installation parts and fasteners included in shipment (Parts List Page 23). Review this section prior to installation.

STEP 2: Shut off power to the sign at the site circuit breaker box.



WARNING! USE A LOCK OUT/TAG OUT “POWER ON/OFF” SWITCHES WHEN PERFORMING INSTALLATION.

STEP 3: Remove existing display frame fasteners including hinges and frame support angle both sides. The resulting holes from the old frame removal will require sealing with a paint-able exterior silicon sealant (especially holes on the top of the cabinet). After removing the old display, disassemble the frame as needed to slide the Header Logo Faces out and set aside.

NOTE: Take care not to damage the Logo Faces as they will be reinstalled.

STEP 4: Remove existing lamps and set aside.

STEP 5: Locate mitered “T” Frames (Top, Bottom, and 2 Sides). Attach “T” frames to existing cabinet using #10 X 3/4 HXWHD drill screws, 5 PL each side.

NOTE: “T” Frame may require trimming. If there are gaps at corners, mount frame so that the gaps are at the bottom of the cabinet and seal with a paint-able exterior silicon sealant. Gaps larger than .10 are unacceptable - contact Everbrite immediately.

STEP 6: Measure the LED Display Assembly and the new Logo Frame and mark ‘T’ Frame. Locate Hat Channel and check for fit using measured markings. Install the Pop-rivet Hat Channel to the using ‘T’ Frame 3/16” rivet.

NOTE: If there appears to be interference or excessive spaces between the Frame the Hat Channel and/or the LED Display, contact Everbrite immediately.

STEP 7: Remove side molding from the Logo Frame, Measure the Old Logo Face for fit and slide into new frame assembly. Reinstall side angles.

NOTE: Logo Faces may require trimming.

STEP 8: Install the Logo Frame’s hinge side to the top ‘T’ Frame using #10 X 3/4 HXWHD drill screws.

Appendix B: T- Mount Frame Assembly Parts List

*1. NOTE: 4 outlet Handy Box is required for 1-3 Digit Module Lines. 2 and 4 outlet Handy Boxes are required for 4 Digit Module Lines. A Heyco Bushing is required for each Handy Box used.

Qty.	Discription
2	LED Face Panels Frame Assembly
1	Remote Control Box (includes 4 #10-24 Sheet Metal Screws)
1	*4-Outlet Electrical Receptacle Box (Handy Box) includes fuse, cover and outlets.
*If Required	*2-Outlet Electrical Receptacle Box (Handy Box) includes fuse, cover and outlets.
*As Required	Heyco Bushing
2	"T" Molding Hinged - Top
2	"T" Molding Bottom
4	"T" Molding Side
2	Hat Channel Molding
4	Fasteners, Remote Control Box #12-11X1/2 Type A
*As Required	Fasteners, Handy Box #10-24 match screws
20	Fasteners, "T" Molding #10-24X3/4 HX WHD Drill Screw
9	Fasteners, Logo Frame Hinges #10-24X3/4 HX WHD Drill Screw
16	Fasteners, Logo Frame Assembly #10-24X1-1/4 HX WHD Drill Screw
20	Fasteners, LED Frame Assembly #10-24X1-1/4 HX WHD Drill Screw

STEP 9: Find a good location for the installation of the Outlet Electrical Box (Handy Box). Mark the location, and remove the Raceway Cover.

NOTE: Take care With the Existing Wiring.

Cut a 7/8" hole in the Raceway Cover, at the location that was marked. Mount the Handy Box to the cover with the #10-24 screws included (match drill as required).

Snap the 7/8" Heyco Bushing into the hole in the Handy Box and Raceway cover for wiring protection.

NOTE: See Owners Manual for recommended two circuit wire diagram.

STEP 10: Make up a wiring harness of the proper length 3 wire, 14 Ga. THHN or equivalent, Blue (Hot), White (Neutral), and Green (Ground). Feed the harness thru the existing cabinet outlet and down the column to wiring access hole to the Handy Box. Leave a 24" pigtail for hookup at the bottom of the column for main circuit hookup and 12" pigtails at each Handy Box used.

NOTE: Recommend Using Wire Ties every 12" to 18".

STEP 11: Lay the harness in the Raceway and feed the 12" pigtail thru to the Handy Box and hookup to receptacles (Figure 2 Wiring Diagram). Reinstall Raceway Cover taking care not to pinch any wires.

STEP 12: Attach the Remote Control Box to the Raceway closest to the top inside Digital Array Box location. Use the four #10-24 Sheet Metal Screws.

NOTE: Take care not to damage the Remote Control Box Power, Dimmer Sensor, or Data Cables recommend tying-up out of the way during next assembly.

STEP 13: Locate the LED Master Display frame assembly (the one with power cables). This LED display assembly will be installed on the side of the display that puts the LED Master Digital Array boxes with power cables closest to the Handy Box. Fasten Assembly to the 'T' Moldings using #12 X 1 HXWHD drill screws.

STEP 14: Install the LED Slave Display frame assembly in the opposite side as in previous step.

STEP 15: Remove the side Retainer angle molding and slide out all of the display panels.

NOTE: Removing display panels on both sides may make the following steps a little easier.

STEP 16: Connect the Data Cable from the Remote Control Box to the Master Arrays as required. Data Cable is connected to Master Arrays Only.

STEP 17: Connect Dimming Sensor Cable from the Remote Control Box to the Master 1 Array box

STEP 18: Connect the Slave Array Wiring Harness into the Master Arrays boxes in the same line, Digit 1 to Digit 1, Digit 2 to Digit 2, and so forth.

STEP 19: Plug all Master Array Boxes power cables and the Remote Control Box power cable into a Handy Box.

STEP 20: Replace Lamps into cabinet.

STEP 21: Unlock and turn main power circuit breaker on to test for proper operation of the lumiDigit Price Changing System (Section 3.0 : Keypad Functions).



CAUTION: Consider environmental conditions before powering up an open Cabinet.

STEP 22: Slide in the new Price Sign Face Panels and reinstall the cabinet retainer angle.



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

NOTE: If display is not functioning see Section 7.0 Trouble Shooting.

Appendix C: Digit Module Retrofit Assembly Drawing

1. NOTE: 4 outlet Handy Box is required for 1-3 Digit Module Lines. 2 and 4 outlet Handy Boxes are required for 4 or 5 Digit Module Lines. A Heyco Bushing is required for each Handy Box used.

2. NOTE: An additional 4 Middle Mounting Angles (Item 10) will be required for each Line of Digit Module that exceed 3 lines.

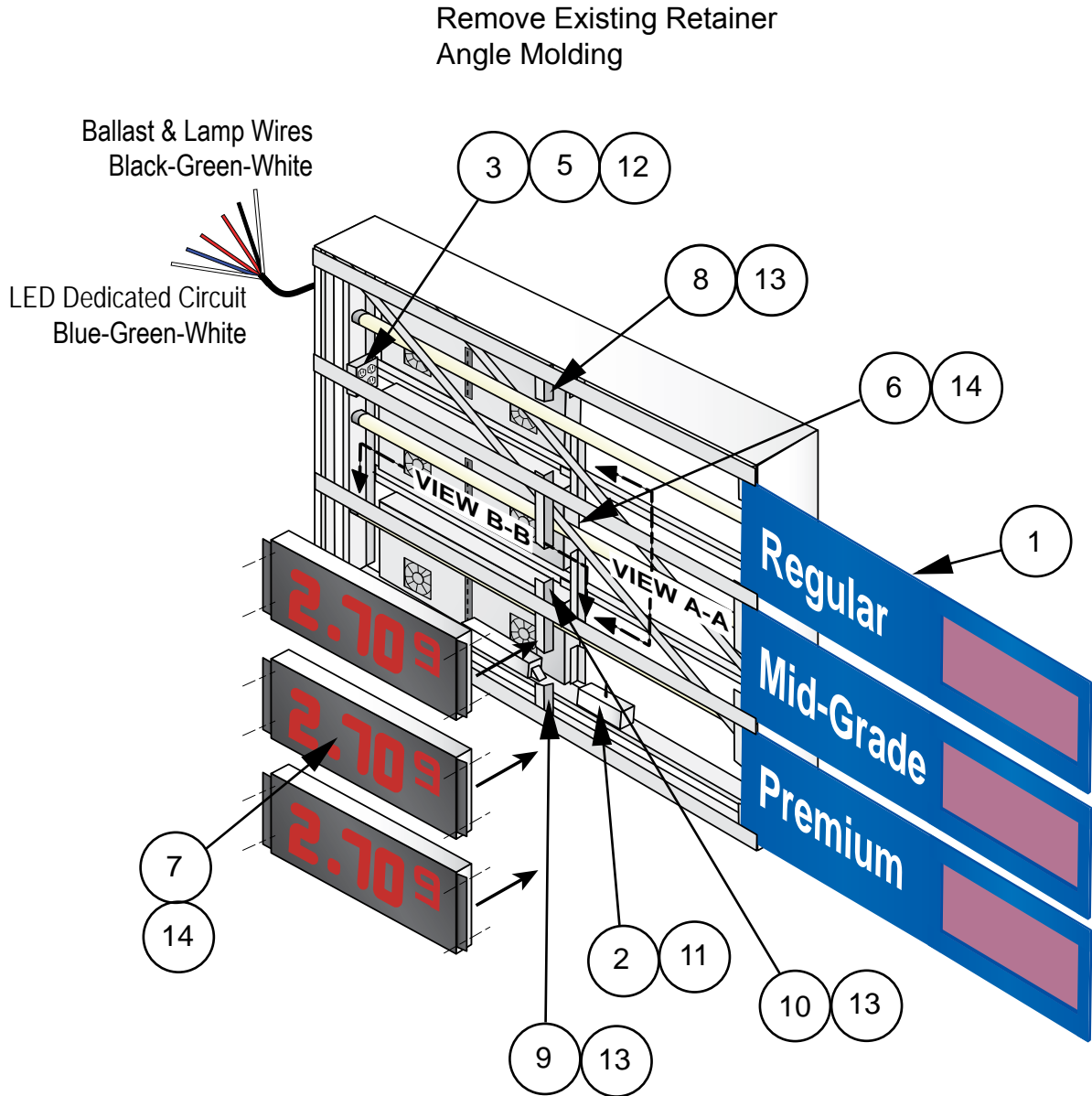


Figure C1: Cabinet Assembly

Appendix C: Array Installation Assembly Parts List

Item No.	Qty.	Description
1	2 per line	Face Panels
2	1	Remote Control Box (includes 4 #10-24 Sheet Metal Screws)
3	1	*1 4-Outlet Electrical Receptacle Box (Handy Box) includes fuse, cover and outlets.
4	1	*1 2-Outlet Electrical Receptacle Box (Handy Box) includes fuse, cover and outlets.
5	*1 As Required	Heyco Bushing
6	1 per line	Master Digit Module (opposite side from slave)
7	1 per line	Slave Digit Module (opposite side from master)
8	4	Top Cabinet Mounting angle
9	4	Bottom Cabinet Mounting angle
10	*28	Middle Cabinet Mounting angle (Based on 3 Lines)
11	4	Fasteners, Remote Control Box- #12-11X1/2 Type A
12	As Required	Fasteners, Handy Box - #10-24 match screws
13	8 per line	Fasteners, Mounting Angle - #10-24X3/4 HX WHD Drill Screw
14	8 per line	Fasteners, Mounting Angle - #10-24X3/4 HX WHD Drill Screw

ITEMS 8-10

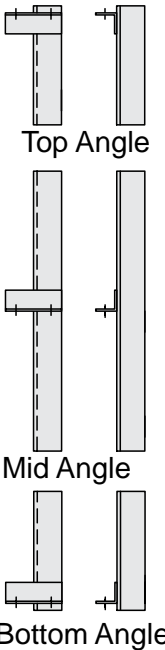


Figure C4: Mounting Angles

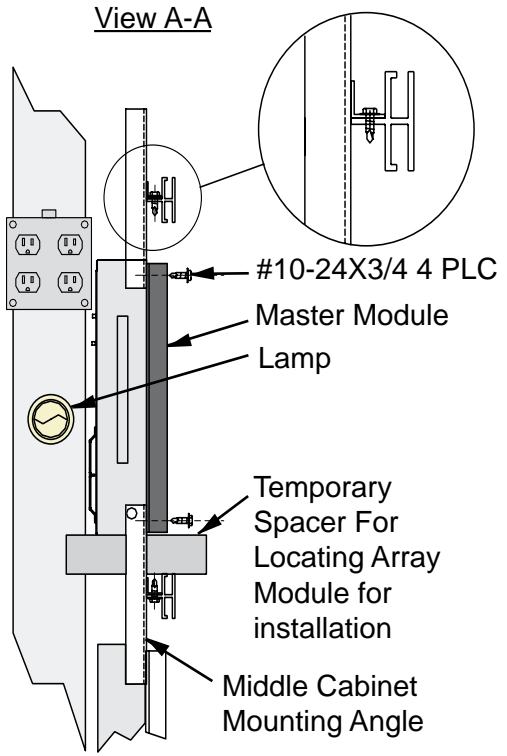


Figure C2: Side View

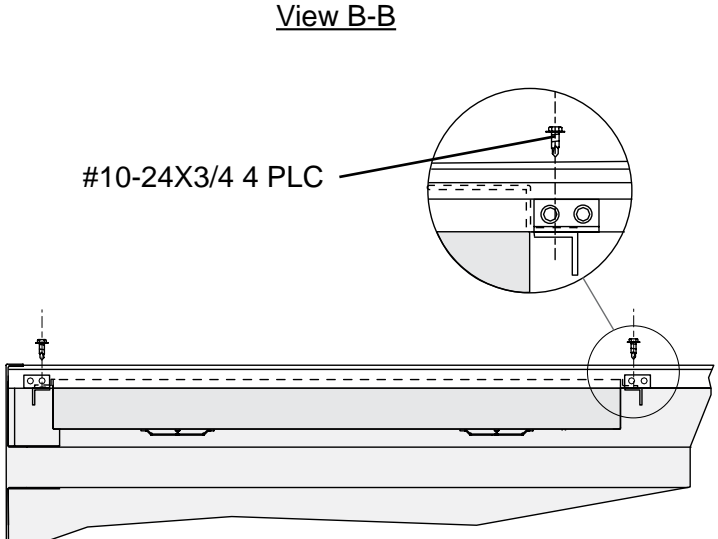


Figure C3: Top View

Appendix C: Digit Module Installation Retrofit Installation Instructions



CAUTION: Information and diagrams included in Section 4, Pages 9-12 are required for this installation. See Figure A1: Cabinet Assembly.

NOTE: Everbrite recommends using a scaffolding or boom truck bucket for installation.

STEP 1: Shut off power to the sign at the site circuit breaker box.



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

STEP 2: Remove Face Panel cabinet retainer angle (Figure C1) and slide out all the pricing Face Panels (Item 1) that are to be replaced then remove all the lamps.

STEP 3: Find a good location for the installation of one or more of the Outlet Electrical Boxes (Handy Box). Mark the location, unscrew and remove the Raceway Cover (Figure C1).

NOTE: Take care With the Existing Wiring Connections.

Cut a 7/8" hole in the Raceway Cover, at the location that was marked. Mount the Handy Box to the cover with the #10-24 screws included (match drill as required).

Snap the 7/8" Heyco Bushing (Item 5) into the hole in the Handy Box and Raceway cover for wiring protection.

STEP 4: Make up a wiring harness of the proper length adding a 12" for pigtails at each Handy Box and a 24" pigtail for hookup at the bottom of the column for main circuit hookup. 3 wire, 14 Ga. THHN or equivalent, Blue (Hot), White (Neutral), and Green (Ground). Feed the harness thru the existing cabinet outlet and down the column to wiring access hole

NOTE: Recommend Using Wire Ties every 12" to 18".

STEP 5: Lay the harness in the Raceway and feed the 12" pigtail thru to the Handy Box and hookup to receptacles. Reinstall Raceway Cover taking care not to pinch any wires.

NOTE: There are three types and two lengths of angle mounting members (See Figure C1). The two shorter ones (Items 8 and 9) are used for the top or bottom modules and the longer one (Item 10) is used for modules that go in the middle of a cabinet. For multiple Digit Module installations it is recommended to start at the top and work down.

STEP 6: Locate outside top angle members (Items 8) along outside vertical edge of cabinet then using a spacer and Digit Modules to position horizontal location of top inside angle members. Attach mounting angles using two #10-24 HX WSH HD screws provided.

Locate the next (Middle Cabinet) angle members (Item 10) directly below. Using a Digit Modules and spacers, center angle member on cabinet frame (Figure C2). Mount angle using two #10-24 HX WSH HD screws provided. Repeat the process for any other Mid Cabinet Digit Modules.

The bottom Angle Member (Item 9) will be located along outside bottom vertical edge of cabinet then use a spacer and Digit Module to position off the bottom inside Angle Member.

STEP 7: Attach the Remote Control Box to the Raceway closest to the top inside Digit Module location. Use the four #10-24 Sheet Metal Screws (Figure C1).

NOTE: Tie up the Power Dimmer Sensor and Data Cables coming from the Remote Control Box temporarily out of the way for next assembly.

STEP 8: Attach the Master 1 Digit Module at the top inside location of the Cabinet. Using two spacers to locate the box and fasten it using the 4 #10-24 HX WSH HD drill screws (Figure C2 and Figure C3). Repeat process for all Master Module as required.

STEP 9: Attach the Slave 1 Digit Module at the top outside location of the Cabinet. Using two spacers to locate the box fasten it using the 4 #10-24 HX WSH HD drill screws (Figure C2 and Figure C3). Repeat process for all Slave Modules as required.

STEP 10: Replace Lamps into Cabinet.

STEP 11: Untie the cables from the Remote Control Box and connect Data Cable connection to the Master Modules as required. Data Cable is connected to Master Modules Only.

STEP 12: Connect Dimming Sensor Cable from the Remote Control Box to the Master 1 Module

STEP 13: Connect the Slave Module Wiring Harness into the Master Modules in the same line, Digit 1 to Digit 1, Digit 2 to Digit 2, and so forth.

STEP 14: Plug all Master Modules power cables and the Remote Control Box power cable into a Handy Box as required.

STEP 15: Unlock and turn main power circuit breaker on to test for proper operation of the lumiDigit Price Changing System (See Section 3.0 for Keypad Functions).



CAUTION: Consider environmental conditions before powering up an open Cabinet.

STEP 16: Slide in the new Price Sign Face Panels and reinstall the cabinet retainer angle.



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

8. Technical Support

8.1 Customer Service

Customer satisfaction is the top priority at Everbrite. Our skilled, experienced Account Management teams are dedicated to providing highly responsive service through all phases of our client's programs.

These teams are computer-linked to each of our manufacturing facilities to provide "on-line" updates on the status of customer orders. Furthermore, Everbrite's EDI capabilities allow electronic interchange to efficiently process customer orders.

8.2 Field Services

Everbrite's field service group provides clients with cost-effective, nationwide installation, maintenance and leasing capabilities. Qualified installers provide expert site surveys, setup and service. National maintenance programs can be tailored to meet specific requirements. Contracts include on-call service and repair, periodic inspection, cleaning, painting, and lamp replacement. Everbrite also offers a variety of convenient leasing options for all identity programs.

8.3 Contact Information

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Web Site: www.Everbrite.com



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**Call Everbrite at 800-558-3888
for more information**

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