LectroCount® XL LED Remote Display Installation & Parts

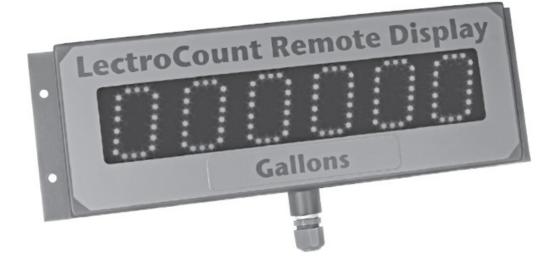


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XL LED Remote Display

This manual provides instructions for the installation, operation, and maintenance of the LectroCount XL LED Remote Display. LectroCount XL LED Remote Displays display the volume of metered product in a six-digit configuration of high-intensity LED lights. The 2½-inch digits are viewable at up to 250 feet from the display.

NOTE: Throughout this guide, the XL LED Remote Display is referred to as "Display" (unless otherwise specifically referenced by name).

Features

- 6-digit, high-intensity LED display with 2½-inch display characters
- Viewable from up to 250 feet
- 30-foot, four-wire, shielded cable
- Weatherproof NEMA 4X enclosure

Model Numbers & Device Compatibility

The four models of the LectroCount XL LED Remote Display are compatible with all current and legacy LectroCount registers, solid-state quadrature pulsers, solid-state single channel pulsers, and the LCMag[™] HML210 converter.

LectroCount XL LED Remote Display Compatibility



VERIFY COMPATIBILITY

To ensure that the LectroCount XL LED Remote Display with the device to which it will connect, verify the model number on the serial number tag. The serial number tag can be found on the top of display, as shown in the figure below.

The display is compatible with these devices:

E1615 LectroCount LCR® 600 and LectroCount LCR-II

- E1616 LectroCount LCR, LectroCount3
- E1616 Quadrature pulsers (solid-state and calibrated)
- E1616 LCMag HML210 and single-channel pulsers (solid state and calibrated)

Prior to installation, ensure that the model number of the LectroCount XL LED Remote Display is compatible with the device that you are connecting. If the display model is incompatible, the display will not work and damage could occur when you power it on.

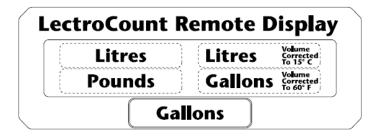


Remote Display Serial Number Tag

Models E1615, E1616, E1617, E1618 of the LectroCount XL LED Remote Display render LectroCount LCD Remote Display models E1610, E1611, E1612, and E1613 obsolete.

Remote Display Label

Each shipment of the LectroCount XL LED Remote Display includes a set of four (4) additional display labels. At the factory, all displays receive the **Gallons** label. If necessary, choose one of the additional labels and simply place it over the **Gallons** label.



Verify Contents in Each Shipment

Before installation, check your shipment against the packing list to ensure that no parts are missing. The packing list is included in the same red information packet as this manual.

Resources in this Guide

For convenience, you can easily download the <u>PDF edition of this guide</u>. Liquid Controls recommends that you read through the introductory and safety information, and then proceed to both the Installation & Operation and the Maintenance chapters.

NOTICE

This manual provides warnings and procedures that are intended to inform the owner and/or operator of the hazards present when using the Liquid Controls Meter on LP gas and other products. The reading of these warnings and the avoidance of such hazards is strictly in the hands of the owner-operators of the equipment. Neglect of that responsibility is not within the control of the manufacturer.

Publication Updates

The most current versions of all Liquid Controls publications are available on our web site, www.LCmeter.com/resources/technical/manuals. If there are questions about the language or interpretation of any LC manuals, instructions, or specification sheets, please first contact your local distributor for help with your inquiry.

For service related issues that require further support from the Liquid Controls Service Team, please call the number below.

Liquid Controls Corporate Office:

Phone: +1 847 295-1050 Toll-free: 800 458 5262

Address: Liquid Controls LLC, 105 Albrecht Drive, Lake Bluff, IL 60044 USA

Website: www.LCmeter.com

Safety Procedures



BE PREPARED

- Before using this product, read and understand the instructions.
- All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of equipment and/or systems in accordance with all applicable codes and ordinances.
- When handling electronic components/boards, always use proper Electrostatic Discharge (ESD)equipment and follow proper procedures.
- Make sure that all necessary safety precautions have been taken.
- Provide for proper ventilation, temperature control, fire prevention, evacuation, and fire management.
- Provide easy access to appropriate fire extinguishers for your product.
- Consult with your local fire department, state, and local codes to ensure adequate preparation.
- Read this manual and all the literature provided in your owner's packet.
- Save these instructions for future reference.
- Failure to follow the instructions in this publication could result in, personal injury, or death from fire and/or explosion, property damage, or other hazards that may be associated with this type of equipment.



SAFELY EVACUATE PIPING SYSTEM

Before disassembly of any meter or accessory component: **ALL INTERNAL PRESSURES MUST BE RELIEVED AND ALL LIQUID DRAINED FROM THE SYSTEM IN ACCORDANCE WITH ALL APPLICABLE PROCEDURES.**

- Pressure must be 0 (zero) psi.
- Close all liquid and vapor lines between the meter and liquid source.

Failure to follow this warning could result in property damage, personal injury, or death from fire and/or explosion, or other hazards that may be associated with this type of equipment.



OBSERVE NATIONAL & LOCAL CODES

Power, input, and output (I/O) wiring must be in accordance with the area classification for which it is used (Class I, Div 2). For North America, installations must be per the U. S. National Electrical Code, NFPA 70, or the Canadian Electrical Code in order to maintain Class I, Division 2 ratings. This may require using connections or other adaptations in accordance with the requirements of the authority having jurisdiction.

Peripheral equipment must be suitable for the hazardous location where it is installed. (L'équipement périphérique doit être adapté à la zone dangereux où il est installé.)

WARNING: Explosion Hazard

When in hazardous locations, turn power OFF before replacing or wiring modules. (Lorsque dans des endroits dangereux, coupler le courant avant de remplacer ou de câbler des modules.)

DO NOT disconnect equipment unless power has been switched OFF or the area is known to be Non-Hazardous. (NE PAS déconnecter l'équipement san coupler l'alimentation ou sans s'assurer que la zone est non dangereuse.)

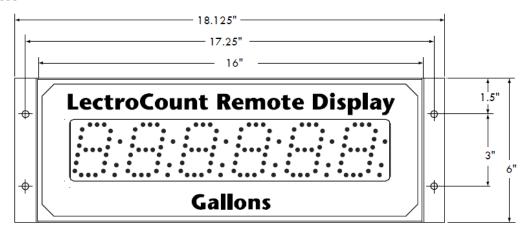
WARNING: Use 3.5 in • lb (0.4 N • m) torque when tightening terminal block screws.

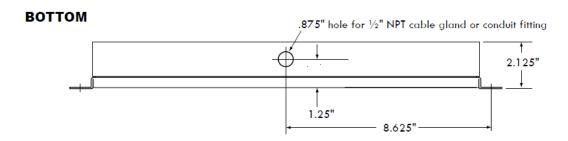
Specifications

Temperature Range	• -40° to 158°F (-40° to 70°C)				
Environmental Rating	• NEMA 4X				
Input Voltage	Voltage: 9-28 VDC				
	Current: 500 mA maximum				
Input Signal Levels	• High: >= 2.50 VDC				
	• Low: <= 2.0 VDC				
Maximum Frequency Input	• LectroCount LCR 600 = N/A				
	• LectroCount LCR II = N/A				
	LectroCount LCR = 5 kHz				
	• LectroCount LCR³ = 5 kHz				

Dimensions

FRONT





Installation

The LectroCount XL LED Remote Display ships with a 30-foot, 4-wire, shielded cable that threads through a cord grip at the bottom of the display housing. Also, there is a collection of display labels twist-tied to the display.



INSTALL ACCORDING TO SAFETY CODES

The LectroCount XL LED Remote Display and accessories (whether supplied by Liquid Controls or other) must be installed and operated in accordance with all applicable federal, state, and local construction, electrical, environmental and safety codes. Failure to do so could result in serious injury or death.

Follow these general steps to install the LectroCount XL LED Remote Display:

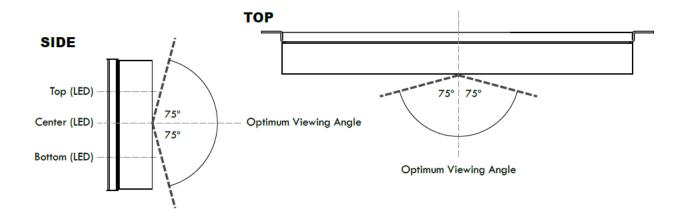
- 1. Check contents of the shipment and ensure that it contains the correct model.
- 2. Determine which accessories and settings are necessary and include them into your installation.
- 3. Mount the LectroCount XL LED Remote Display.
- 4. Wire the LectroCount XL LED Remote Display.

Guidelines

- Read this manual prior to start of installation If you have any questions, consult with your full-service distributor or call the Service Department at Liquid Controls.
- Avoid excessive vibration or shock Ensure that the display does not sustain any
 excessive vibration or shock. Also ensure that the display maintains a secure mount to a
 platform or supportive member.
- Match LectroCount XL LED Remote Display with the proper device The four models of the LectroCount XL LED Remote Display are designed for use only with the devices in the list above. No attempt should be made to connect the display to an input other than a compatible device. Model numbers and compatibility are shown on the serial number tag for the display. See Model Number and Device Compatibility in XL LED Remote Display
- Use Proper Cabling and Wires The LectroCount XL LED Remote Display comes with a 30-foot, 4-wire shielded cable with 22 gauge wire. The shielded cable should be adequate for most installations. If alternate cabling is necessary, Liquid Controls recommends a 4-wire shielded cable with 22-gauge wire (or larger) and a maximum cable length of 30 feet.
- Secure Cable and Tighten Cover Up on Reassembly LectroCount XL LED Remote Displays ship ready for final cable termination. If it's necessary to remove the pre-installed shielded cable during installation, be sure to secure the cable and tighten the cover screws in the correct torque pattern so the vapor seal remains intact. See Torque Specifications 28 for more information.

Mounting

LED displays have an optimum viewing angle. Outside of the optimum viewing angle, displays have an apparent loss of contrast and can be difficult to view. To provide a wide viewing area, a bias has been designed into the LectroCount XL LED Remote Display. The bias creates a optimum viewing angle offset by 75° in either direction from the horizontal and vertical perpendicular. The LectroCount XL LED Remote Display will appear to have the maximum contrast when viewing from within this viewing angle.



BEFORE MOUNTING

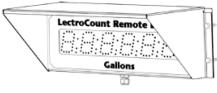
Review the manual and determine the necessary steps for your specific installation. Some XL LED Remote Display accessories and settings require connections and settings inside the display housing. Complete these installations and configurations prior to mounting the display.

Follow these steps to mount the LectroCount XL LED Remote Display:

- 1. Select a mounting location where the display is inside the optimum viewing angle at the most common viewing points.
- 2. Using four ½" screws, screw the display to a secure location through the four holes in the rear cover of the display.

Remote Display Shield Accessory (PN 81879)

In some installations, sun or bright light may produce glare on the display. A Remote Display Shield is available as an accessory to the LectroCount XL LED Remote Display to reduce the effect of glare.

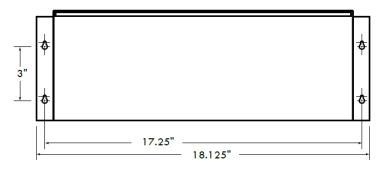


Remote Display Shield

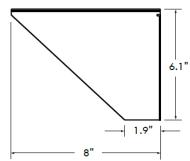
Follow these steps to mount the Remote Display Shield:

- 1. Slide the shield over the display.
- 2. Align the four slot-holes in the shield with the four holes in the rear cover of the LectroCount XL LED Remote Display.
- 3. Using four ¼-inch screws, screw the display and the shield to a secure location through the four holes in the rear cover of the display and the four holes of the display shield.





SIDE



Wiring

This chapter provides instructions on the wiring for:

- Model E1615
- Model E1616
- Model E1617
- Model E1618
- Automatic display shutoff
- Dual display kit
- · Rate of flow switch kit
- Reset switch kit

Shielded cable for each display type - All display models

All four display models ship with a 30-foot 4-wire shielded cable with 22-gauge wire. If alternate cabling is necessary, Liquid Controls recommends a similar 4-wire shielded cable with 22 gauge wire or larger and a maximum cable length of 30 feet.

Connect the J1 Jumper - All display models

All four display models ship with a jumper, which must be installed between terminal 52 and terminal 53 on the J1 terminal block of the display. During rewiring, take time to ensure that this jumper is in place.

Wiring for Model E1615

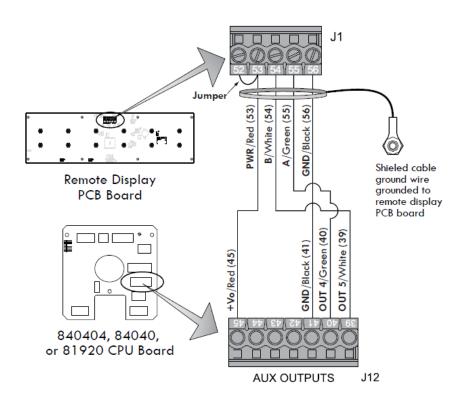
Model E1615 of the LectroCount XL LED Remote Display is designed for use with a LectroCount LCR-II or LCR 600. LectroCount LCR-II or LCR 600 electronic registers contain a 840404, 84040, or 81920 CPU board.

24 VDC Power

If the power to the LectroCount LCR-II or LCR 600 exceeds 24 VDC, then the remote display should be powered from Pin 32 on J8, 5 VDC.

Refer to the figure below and follow these steps to wire the LectroCount XL LED Remote Display model E1615 to a 840404, 84040, or 81920 CPU board:

- 1. Open the LectroCount register. Refer to the specific LectroCount Register Manual for specific instructions regarding opening, closing, and sealing the electronic register.
- 2. Attach a cable gland to a port on the LectroCount electronic register.
- 3. Route the shielded cable through the cable gland and into the LectroCount register housing.
- 4. Connect the four wires of the shielded cable to these terminals on the J12 terminal block on the LectroCount CPU board:
 - XL LED terminal 53 (red wire) to LCR-II/600 terminal 45
 - XL LED terminal 54 (white wire) to LCR-II/600 terminal 39
 - XL LED terminal 55 (green wire) to LCR-II/600 terminal 40
 - XL LED terminal 56 (black wire) to LCR-II/600 terminal 41
- 5. Tighten the cable gland and close the LectroCount register.



Wiring for Model E1616

Model E1616 of the LectroCount XL LED Remote Display is designed for use with a LectroCount LCR (CPU board 81547-2) or a LC3 CPU board (Terminal Board 81924).

24 VDC Power

If the power to the LectroCount LCR-II or LCR 600 exceeds 24 VDC, then the remote display should be powered from Pin 32 on J8, 5 VDC.

Refer to the figure below and follow these steps to wire the LectroCount XL LED Remote Display model E1616 to a 81547-2 or LC3 CPU board:

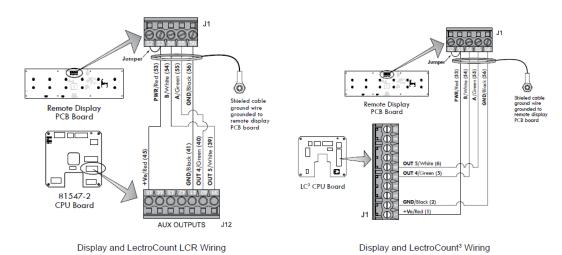
- 1. Open the LectroCount register. Refer to the specific LectroCount Register manual for specific instructions regarding opening, closing, and sealing the electronic register.
- 2. Attach a cable gland and/or conduit connector to a port on the LectroCount electronic register.
- 3. Route the shielded cable through the cable gland and into the LectroCount register housing.
- 4. Connect the four wires of the shielded cable to these terminals on the LectroCount CPU board:

LectroCount LCR – On the J12 terminal block (81547-2), connect:

- XL LED terminal 53 (red wire) to LCR terminal 45
- XL LED terminal 54 (white wire) to LCR terminal 39
- XL LED terminal 55 (green wire) to LCR terminal 40
- XL LED terminal 56 (black wire) to LCR terminal 41

LectroCount LCR – On the J1 terminal block (81924) connect:

- XL LED terminal 53 (red wire) to LC3 terminal 1
- XL LED terminal 54 (white wire) to LC3 terminal 5
- XL LED terminal 55 (green wire) to LC3 terminal 6
- XL LED terminal 56 (black wire) to LC3 terminal



5. Tighten the cable gland and close the LectroCount register.

Wiring for Model E1617

Model E1617 of the LectroCount XL LED Remote Display is designed to receive a calibrated (50 pulses per revolution) solid state quadrature pulse output. Typically, Model E1617 operates in conjunction with a solid state quadrature pulser (PN 077733) mounted onto a mechanical register using mounting kit (PN 47824).

Since quadrature pulsers do not have an output signal to reset the LED Remote Display, a Reset Switch Kit (PN 82592) is required for this application. The Reset Switch Kit resets the XL LED Remote Display to zero between deliveries. To complete the installation, the installer must provide a 12 VDC external power source and a junction box.

24 VDC Power

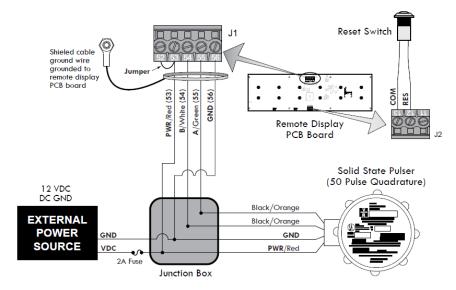
If the power to the LectroCount LCR-II or LCR 600 exceeds 24 VDC, then the remote display should be powered from Pin 32 on J8, 5 VDC.

Reversing the Display Counter Direction

Quadrature pulse outputs can send a signal to the display to count in either direction—either up or down. If the display is counting in the wrong direction, switch the connections of signal wires from the pulser (black and orange for PN 077733) to the display (J1 terminals 54 and 55) to reverse the counter direction.

Refer to the figure below and follow these steps to wire the LectroCount XL LED Remote Display model E1615 to a 840404, 84040, or 81920 CPU board:

- 1. Install Reset Switch Kit.
- Set the junction box.
- 3. Route the shielded cable, the pulser wires, and the wires from the external power source into the junction box. Use the appropriate connectors.
- 4. Connect the shielded cable wires to the following pulser and external power source wires:
 - XL LED terminal 53 (red wire) to Pulser power (red wire) to External Power Source voltage (+Vo)
 - XL LED terminal 54 (white wire) to Pulser signal (black/orange wire)
 - XL LED terminal 55 (green wire) to Pulser signal (black/orange wire)
 - XL LED terminal 56 (black wire) to Pulser ground (white wire) to External Power Source ground
- 5. Tighten connectors and close the boxes.



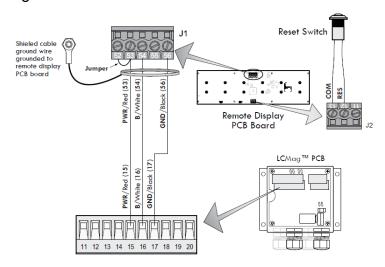
Wiring for Model E1618 - LCMag™

Model E1618 of the LectroCount XL LED Remote Display will accept the calibrated pulse output of the LCMag HML210 converter.

Since the HML210 does not have an output signal to reset the LED Remote Display, a Reset Switch Kit (PN 82592) is required for this application. The Reset Switch Kit resets the XL LED Remote Display to zero between deliveries.

Refer to the figure below and follow these steps to wire the LectroCount XL LED Remote Display model E1618 to the HM L210 Converter:

- 1. Install Reset Switch Kit.
- 2. Open the LCMag HML210 converter. Refer to manual IEM200-10 for specific instructions regarding opening, closing, and sealing the converter.
- 3. Route the shielded cable through a cable gland and into the HML210 housing.
- 4. Connect the shielded cable wire to the designated terminals on the HML210 CPU board:
 - XL LED terminal 53 (red wire) to LCR-II/600 terminal 45
 - XL LED terminal 54 (white wire) to LCR-II/600 terminal 39
 - XL LED terminal 55 (green wire) to LCR-II/600 terminal 40
 - XL LED terminal 56 (black wire) to LCR-II/600 terminal 41
- 5. Tighten the cable gland and close the HML210 converter.



Wiring for Model E1618 - Single Channel Pulsers

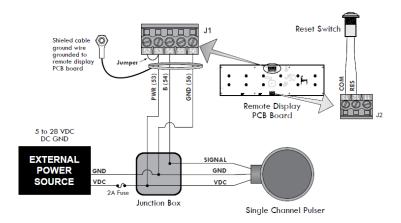
Model E1618 of the LectroCount XL LED Remote Display is designed to receive a calibrated single channel pulse output. A common application of Model E1618 is with a 100 pulses per revolution solid state single channel pulser (PN 07525) mounted onto a mechanical register using mounting kit (PN 42695). The E1618 is also compatible with any single channel pulser that meets the required specifications listed below.

Since single channel pulsers do not have an output signal to reset the LED Remote Display, a Reset Switch Kit (PN 82592) is required for this application. The Reset Switch Kit resets the XL LED Remote Display to zero between deliveries. To complete the installation, the installer must provide a 5 to 28 VDC external power source and a junction box.

Refer to the figure below and follow these steps to wire the LectroCount XL LED Remote Display model E1618 to a single channel pulser:

- 1. Install Reset Switch Kit.
- 2. Set the junction box.
- 3. Route the shielded cable, the pulser wires, and the wires from the external power source into the junction box. Use the appropriate connectors.
- 4. Connect the shielded cable wires to the following pulser and external power source wires:
 - XL LED terminal 53 (red wire) to Pulser power (red wire) to External Power Source voltage (+Vo)
 - XL LED terminal 54 (white wire) to Pulser signal
 - XL LED terminal 56 (black wire) to Pulser ground (white wire) to External Power Source ground
- 5. Tighten connectors and close the boxes.

Specifications for Single Channel Pulsers					
Single Channel Pulse Device	Solid State				
Signal Level	≥ 2.50 VDC high≤ 2.00 VDC low				
Output	• 1.5 mA sinking				
Frequency	• 5 kHz maximum				

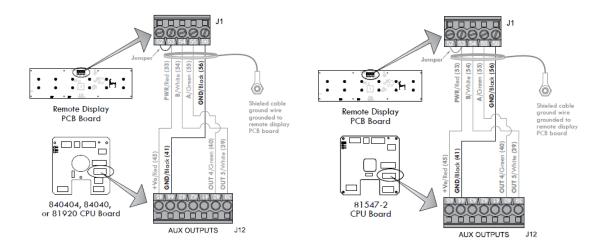


Wiring for the Automatic Shutoff

The LectroCount XL LED Remote Display can be wired to turn on and shut off automatically. If wired for automatic shutoff, the display will automatically turn on when a delivery is initiated. The display will remain lit until a delivery ticket is printed. When the delivery ticket begins printing, the display will automatically shut off. Only models E1615 and E1616 can be wired for automatic shutoff.

Refer to the figure below and follow these steps to wire the LectroCount XL LED Remote Display for automatic shutoff:

- 1. Connect the power and two signal wires.
- 2. Instead of connecting the black (GND) wire to terminal 41 on the J12 terminal block, connect the black (GND) wire to terminal 44 of the J12 terminal block on the LectroCount register CPU board.

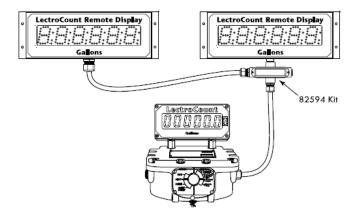


Model E1615 Automatic Shutoff Schematic

Model E1616 Automatic Shutoff Schematic

Wiring for Dual Displays

The dual display kit allows two LectroCount XL LED Remote Displays to display the delivery volume of a single LectroCount electronic register.



This dual display kit includes:

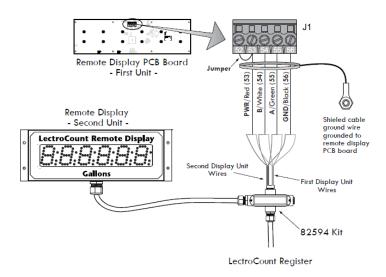
- 4-port conduit box
- Cord grip (2)
- Nipple & seal washer

Secure cable and tighten cover upon reassembly

LectroCount XL LED Remote Displays ship ready for final cable termination. If the preinstalled shielded cable is removed during installation, be sure to secure the cable and tighten the cover so the vapor seal remains intact.

Refer to the figure below and follow these steps to install the dual display kit:

- 1. Remove the rear panel from one LectroCount XL LED Remote Display.
- 2. Remove the cable wires from the J1 terminal block on the PCB.
- 3. Remove the cord grip and cable from the port on the bottom of the unit.
- 4. Attach the 4-port conduit box to the empty port on the bottom of the unit.
- 5. Attach the cord grips to the 4-port conduit box.
- 6. Route the shielded cable from the second LectroCount XL LED Remote Display through one of the cord grips on the 4-port conduit box.
- 7. Route the shielded cable from the first LectroCount XL LED Remote Display through the other cord grip on the 4- port conduit box.
- 8. Connect the wires from both shielded cables to the J1 terminal block on the PCB of the first LectroCount XL LED Remote Display.
- 9. Replace the rear panel of the display.
- 10.Connect the cable wires from the first LectroCount XL LED Remote Display to the LectroCount electronic register CPU board.



Wiring for the Rate of Flow Switch Kit

The dual display kit allows two LectroCount XL LED Remote Displays to display the delivery volume of a single LectroCount electronic register.

For Model E1615 Only

The Rate of Flow Switch Kit is compatible with LectroCount LCR-II and LCR 600 electronic registers only.

The Rate of Flow Switch Kit is an optional accessory that toggles the LectroCount XL LED Remote Display from the delivery volume to the current flow rate. To toggle to the current flow rate display, push the button. After five seconds, the display will return to the delivery volume. The select switch kit includes:

- Push button (w/ cord grip)
- Cord grip (2)
- 4-port conduit box
- 30-foot, 2-wire, shielded cable

The switch kit accessory connects directly to a LectroCount LCR-II or LCR 600.

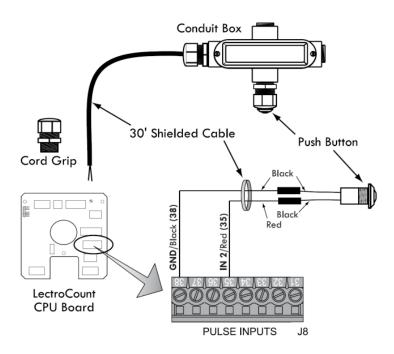
LCR 600 Software Requirements

To function with an LCR 600, the Rate of Flow Switch Kit must be wired to a 840404 CPU board flashed with version 2.12 or higher of the SR600 firmware.

Follow these steps to install the Rate of Flow Switch Kit:

- 1. Determine the best location for the push button.
- 2. Mount the conduit box at the determined location.
- 3. Screw a cord grip into the conduit box and a port in the LectroCount register.
- 4. Route the 30-foot shielded cable through the cord grips in the conduit box and the LectroCount register and tighten the cord grips.

- 5. Screw the push button into the conduit box and connect the push button wires to the cable wires.
- 6. Connect the 30-foot shielded cable's red wire to terminal 35 and black wire to terminal 38 on the J8 terminal block on the LectroCount CPU board.



Secure Cable and Tighten Cover Upon Reassembly

LectroCount XL LED Remote Displays are assembled and shipped ready for final cable termination. If the pre-installed shielded cable is removed during installation, be sure to secure the cable and tighten the cover so the vapor seal is maintained. See <u>Torque</u> Specifications 28.

Wiring the Reset Switch Kit (PN 82592) - Models E1617 & E1618

The Reset Switch Kit (P. N. 82592) is required for the installation of XL LED Remote Display models E1617 and E1618. The reset switch resets the XL LED Remote Display to zero between deliveries.

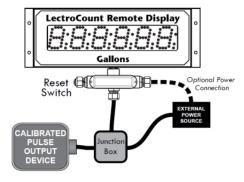
The reset switch can not zero out the totalizer while a delivery is active. To zero the display totalizer, the reset switch must be pushed when the display is not receiving a pulse output. The switch must be pushed and held for two seconds before the display will reset to zero.

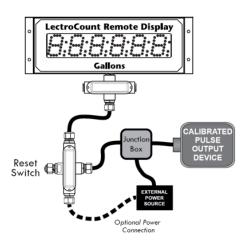
The Reset Switch Kit includes:

- ½", 4-port conduit box (2)
- Port plugs (2)
- Cord grips (3)
- Reset switch
- Nipple
- 30-foot shielded cable

Follow these steps to install the Rate of Flow Switch Kit:

- 1. Determine the best location for the push button.
- 2. Mount the conduit box at the determined location.
- 3. Attach a 4-port conduit box to the empty port on the bottom of the unit.
- 4. If mounting the reset switch directly to the XL LED Display, screw the reset switch into a port on the 4-port conduit box.
- 5. If mounting the reset switch remotely, mount the second 4-port conduit box and screw the reset switch into a port on the second 4-port conduit box.
- 6. Screw the cord grips into the conduit box(es). Use diagrams below to determine the best ports for cord grips.





- 7. Route the 30-foot shielded cable (supplied with the reset switch kit) from the reset switch through the conduit box(es) into the XL LED Remote Display housing.
- 8. Connect the shielded cable wires to the reset switch inside its conduit box and to terminals 12 and 13 on the J2 terminal block on the XL LED Remote Display PCB.
- 9. Route the shielded cable (supplied with the XL LED Remote Display) out of the display housing and through the conduit box(es).
- 10. Replace the rear panel of the display. See Torque Specifications 28.
- 11. Install and wire the calibrated pulse output device according to the instructions in the sections above.

Secure Cable and Tighten Cover Upon Reassembly

LectroCount XL LED Remote Displays are assembled and shipped ready for final cable termination. If the pre-installed shielded cable is removed during installation, be sure to secure the cable and tighten the cover so the vapor seal is maintained. See <u>Torque</u> Specifications 28.

Decimal Place Jumper Setting - Model E1616

The decimal place setting of model E1616 LectroCount XL LED Remote Displays is determined by the position of jumpers on the J3 and J4 terminals on the PCB. The terminals are located on the bottom of the PCB on the left side.

For Model E1616 Only

The decimal place displayed on Model E1615 coincides with the LectroCount LCR-II/LCR 600 decimal place setting and does not require positioning of the jumpers.

To set the decimal place of Model E1616 LectroCount XL LED Remote Displays:

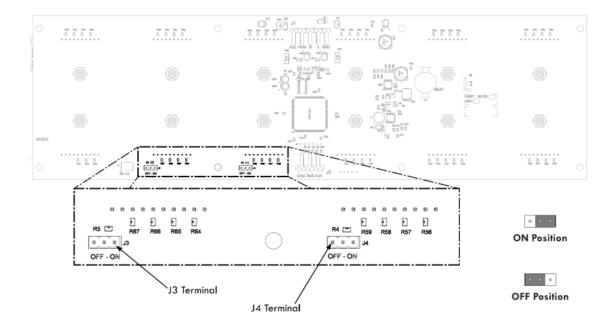
- 1. Remove the rear panel of the display.
- 2. Slide the J3 and J4 jumpers over the terminal pins in the desired position. see table below.

Jumpers Must Be on Terminal Pins: Do not remove and discard jumpers. The absence of a jumper does not qualify as the OFF position. If whole units are desired, J3 and J4 must both have a jumper in the OFF position.

J3 and **J4** <u>cannot</u> both be in the ON position: If this is the case, two decimal points will appear on the display. This is not a valid jumper configuration.

3. Replace the rear panel of the display. See <u>Torque Specifications</u> 28.

Decimal Jumper Settings — Model E1616									
UNITS	Wh	Whole Tenths Hur		Hundi	dredths				
JUMPER	13	J4	13	J4	13	J4			
POSITION	OFF	OFF	ON	OFF	OFF	ON			

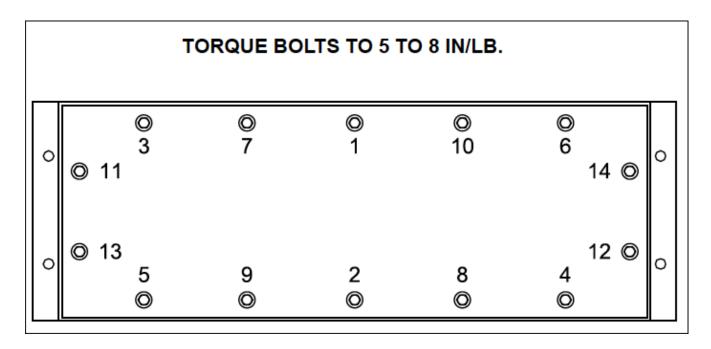


Secure Cable and Tighten Cover Upon Reassembly

LectroCount XL LED Remote Displays are assembled and shipped ready for final cable termination. If the pre-installed shielded cable is removed during installation, be sure to secure the cable and tighten the cover so the vapor seal is maintained. See <u>Torque</u> Specifications [28].

Torque Specifications

When reassembling the LectroCount XL LED Remote Display, follow the torque pattern shown below to reattach the rear panel of the display.







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