MONITORED WIRELESS EDGE KIT

Models LMWEKITU and LMWETXU

⚠ WARNING

To prevent possible SERIOUS INJURY or DEATH from a closing gate or door:

- Be sure to DISCONNECT ALL POWER to the operator BEFORE installing the wireless edge kit.
- The gate or door MUST be in the fully opened or closed position BEFORE installing the LiftMaster® Monitored Entrapment Protection device.
- Correctly install and connect the wireless edge kit.
- LiftMaster® Monitored Entrapment Protection devices are for use with LiftMaster® UL 325 compliant Gate and Commercial Door Operators ONLY. Use with ANY other product voids the warranty.
- Monitored external entrapment protection devices MUST be installed per the operator installation manual for each Entrapment Zone.

WARNING: This product can expose you to chemicals including lead, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

INTRODUCTION

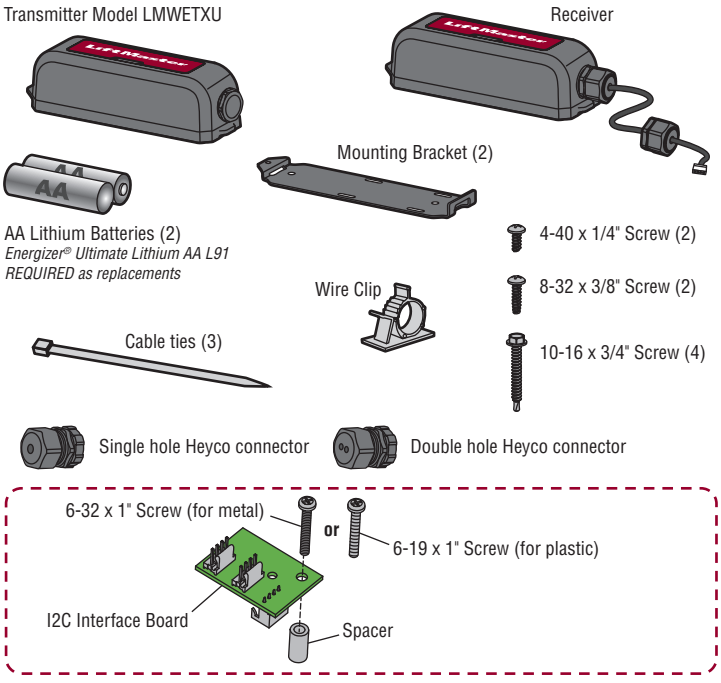
The LiftMaster Wireless Edge Kit provides a Bluetooth® connection between a LiftMaster monitored resistive edge (not included) and the gate operator. Maximum range is 130 ft. (39.6 m.) (for best results install with a clear line of sight between transmitter and receiver, objects in the path may reduce range). You can program up to 4 transmitters to the receiver. The kit works with LiftMaster monitored resistive edge sensors ONLY. Contact closure edge sensors are NOT supported. Refer to your gate operator manual to ensure compatibility (LMWEKITU and LMWETXU is listed under Monitored Entrapment Protection devices of the *Accessories* section). Transmitter and receiver are UL Recognized Components and meet UL 325 requirements. A monitored entrapment protection device MUST be installed in each entrapment zone.

Compatible LiftMaster® Gate Operators:

- CSW24U/UL
- RSW12U/UL
- SL585U/UL
- LA400U/UL
- HDSL24UL
- CSL24U/UL
- RSL12U/UL
- SL5959U/UL
- LA412U/UL
- LA500U/UL
- CSW200U/UL
- SL300U/UL
- HDSW24UL
- IHSL24UL
- INSL24UL

Illustrations in manual are for reference only, your application may look different.

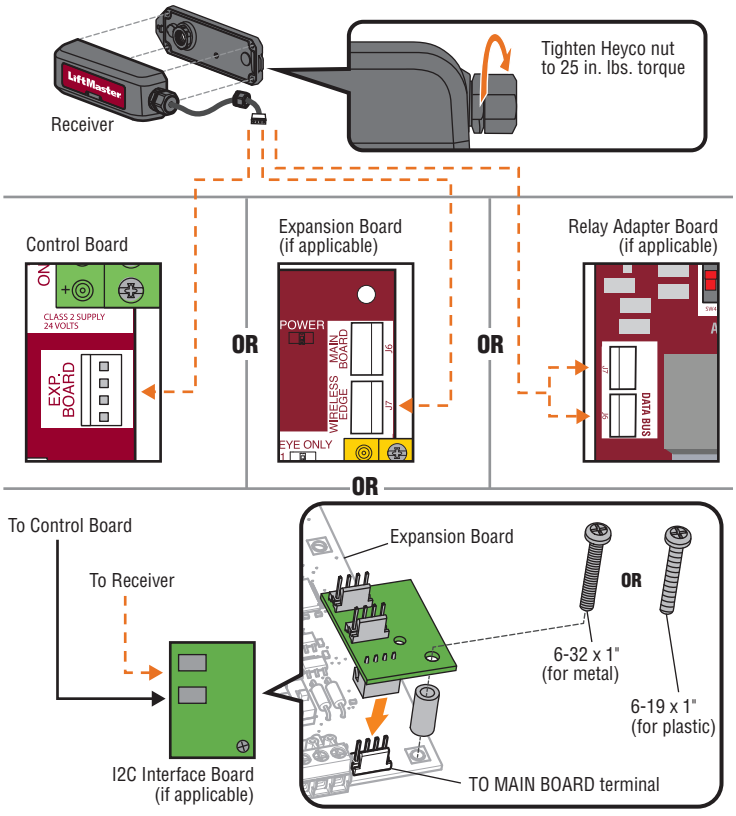
CARTON INVENTORY



1 WIRE THE RECEIVER

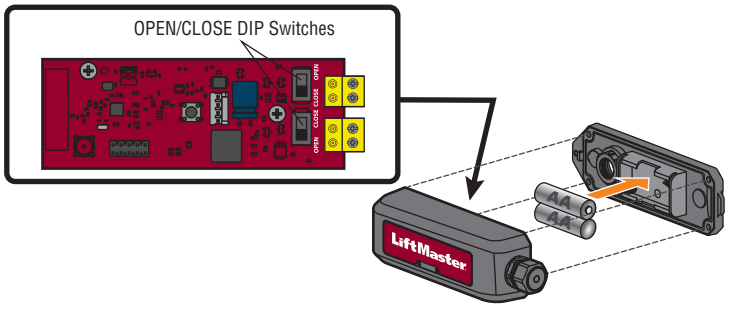
IMPORTANT: *Disconnect ALL power to the operator.*

1. Find your operator diagram on pages 5-7 to see the mounting location for the receiver and wire routing.
2. Open the receiver housing.
3. Route the wire harness from the receiver to the operator. Connect the wire harness to one of the following locations depending on your operator and application:
   - The EXP. BOARD or EXPANSION terminal on the control board.
   - The WIRELESS EDGE terminal on the expansion board (if installed).
   - One of the data bus terminals on the relay adapter board: **Models HDSL24UL, and HDSW24UL ONLY.**
   - The I2C interface board: **Required ONLY when using an expansion board with a single terminal labeled TO MAIN BOARD.** Install and connect as shown below (if installed).
4. Tighten the Heyco connector with 25 in. lbs. of torque to make receiver watertight.
5. Reconnect power to the operator. The receiver blue power LED will come on.



2 INSTALL TRANSMITTER BATTERIES AND SET EDGE DIRECTION

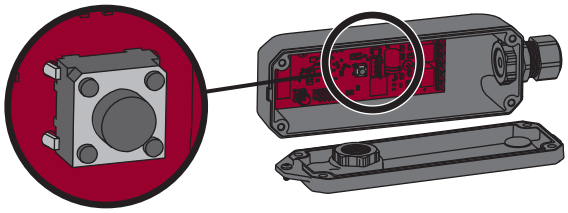
1. Open the transmitter housing.
2. Install the batteries. DO NOT let the bottom housing hang by the wires. Energizer® Ultimate Lithium AA L91 batteries are REQUIRED as replacements.
3. Decide the direction (open or closed) the edge will be installed. Set OPEN/CLOSE DIP switch to match the direction of the edge protection.



3 PROGRAMMING

The receiver can learn up to 4 transmitters.

1. Press the learn button on the RECEIVER board. The red LED will come on to indicate programming mode. ***NOTE:*** *To exit programming mode, press the learn button again.*
2. Press the learn button on the TRANSMITTER to be learned. The red LED on the RECEIVER will blink 4 times. If adding an additional TRANSMITTER, press it's learn button. ***NOTE:*** *Learn mode times out after 60 seconds if no transmitters are added or the capacity is reached. After each transmitter is learned there will be an additional 60 seconds to complete programming.*

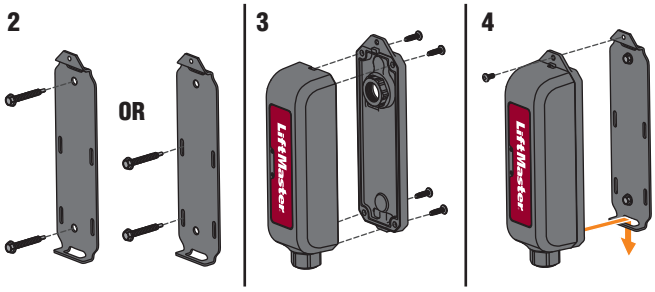


Learn Button

4 MOUNT THE RECEIVER

IMPORTANT: *Disconnect ALL power to the operator.*

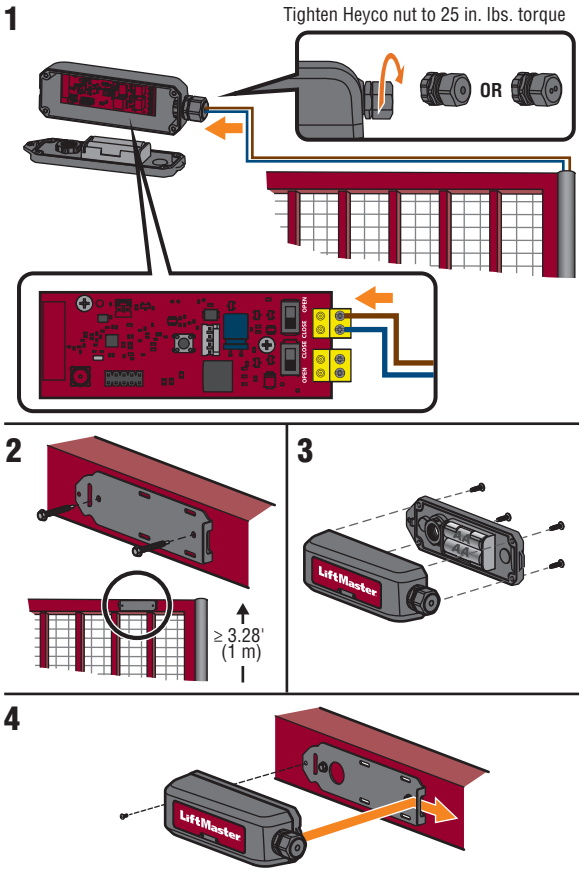
1. Find the operator diagram on pages 5-7 to see the mounting location for the receiver.
2. Attach the mounting bracket to the gate operator with the screws provided (8-32 3/8" or 10-16 3/4").
3. Attach the receiver housing with screws provided.
4. Place the receiver onto the mounting bracket and secure with the 1/4" screw provided.
5. Reconnect power to the operator.



5 WIRE AND MOUNT THE TRANSMITTER(S)

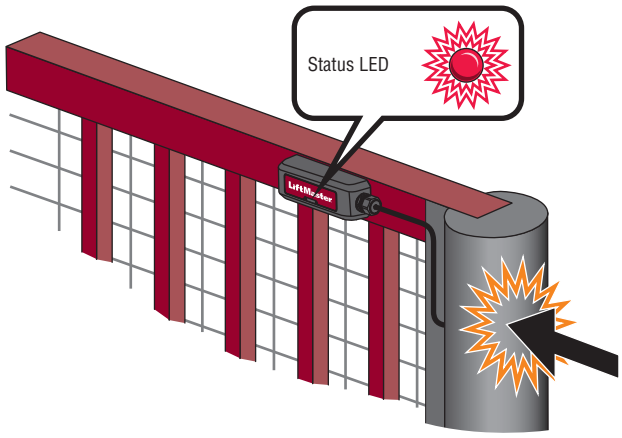
For best results, install with a clear line of sight between transmitter and operator. The transmitter can be wired to 1 or 2 edge sensors.

1. Route the wires from the edge sensor into the transmitter. Connect the wires to either terminal block (polarity is NOT important). The operator will beep once to indicate the edge sensor has been learned. Apply pressure to edge. The red LED will flash if the transmitter is wired correctly. Tighten the Heyco connector with 25 in. lbs. of torque to make transmitter watertight. Use double hole Heyco connector when connecting 2 edge sensors.
2. Attach the mounting bracket to the gate with the screws provided (8-32 3/8" or 10-16 3/4") at least 3.28 ft. (1 m) above the ground. If installing on a round surface, use zip ties (not provided).
3. Attach the transmitter housing with the screws provided.
4. Place the transmitter onto the mounting bracket and secure with the 1/4" screw provided.



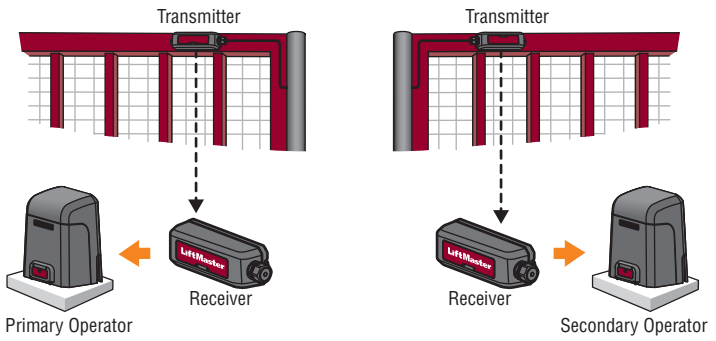
6 TEST

Apply pressure to edge. The red LED on the TRANSMITTER and the corresponding open or close edge LED on the gate operator control board will flash. If the TRANSMITTER LED does not flash, check the transmitter for proper installation and wiring, see *Transmitter and Receiver Troubleshooting* page 4 and check the edge sensor for proper installation and wiring, see *Edge Sensor Troubleshooting* page 4.



DUAL GATE SETUP

For dual gate applications, one receiver (with corresponding transmitter) is REQUIRED for each gate operator.

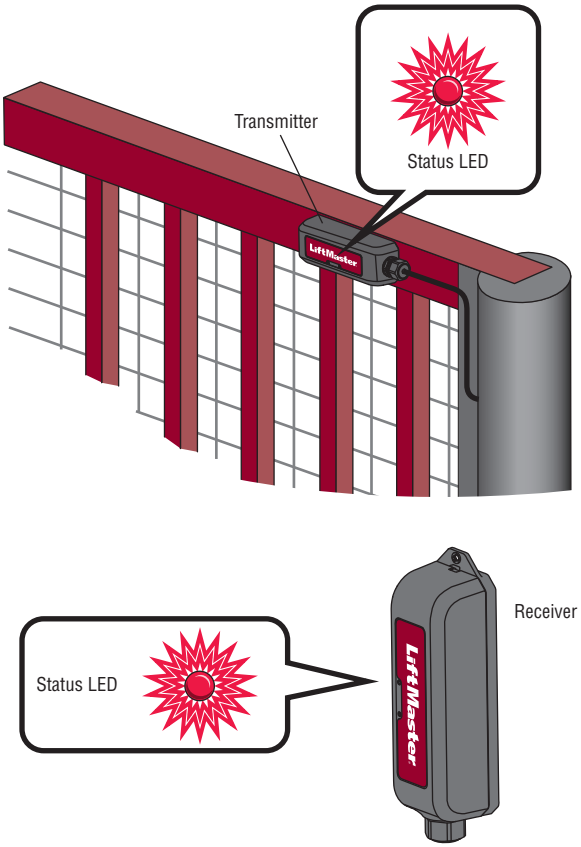


BATTERY STATUS

When the edge is activated, the red status LEDs on the transmitter(s) and receiver flash to indicate the battery status.

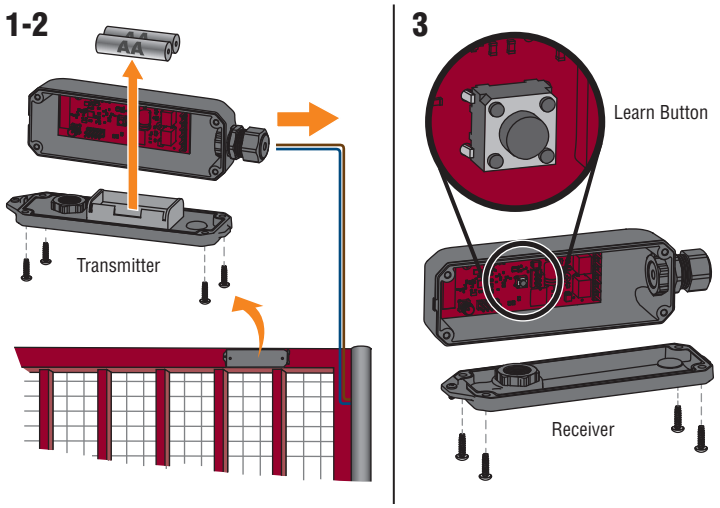
NOTE: *The receiver LED corresponds to the lowest battery level of all transmitters.*

1 Flash	Battery is fine.
2 Flashes	Battery is low; the operator will beep twice.
3 Flashes	Battery is critically low; the operator will not function until the battery is replaced. The operator will either open automatically (fail-safe) or latch at close (fail-secure) based on the operator setting (see the gate operator manual for more information).



REMOVE A TRANSMITTER

1. Disconnect the edge sensor wires from the TRANSMITTER.
2. Remove the batteries from the TRANSMITTER.
3. Press and hold the RECEIVER learn button until the red status LED begins to flash (about 3 seconds) then release. The receiver will return to normal operation after 60 seconds. Any transmitters that have been removed will automatically be erased from memory.



ERASE ALL TRANSMITTERS FROM MEMORY

Press and hold the RECEIVER learn button until the red status LED begins to flash. Press and hold the receiver learn button until after the learn button stops flashing. The gate operator will beep for 5 seconds to confirm all transmitters are erased.

TROUBLESHOOTING

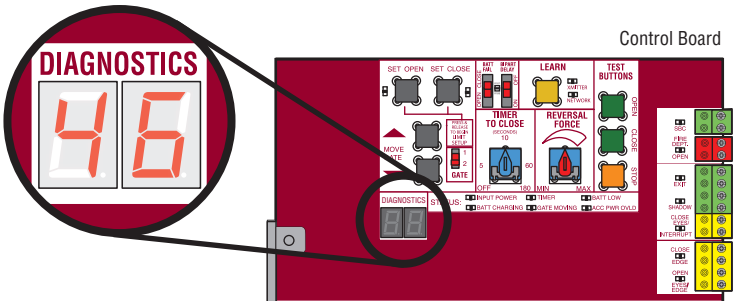
The diagnostic display on the gate operator control board shows a code to indicate a problem.

View Diagnostic Codes

1. Press and hold the STOP button.
2. Press and hold the CLOSE button.
3. Press and hold the OPEN button until “Er” shows on the display.

The operator will show the code sequence number followed by the code number. The operator will save the 20 most recent codes. Use the OPEN and CLOSE buttons to scroll through the saved codes.

Diagnostic mode will time out after 2 minutes of inactivity or press and release the STOP button to exit diagnostic mode.



Diagnostic Codes for LMWEKITU

46	**Wireless edge battery low**	Replace batteries in wireless edge.
67	**Wireless edge triggered more than 3 minutes**	Check wired input for wiring issue or obstruction.
68	**Wireless Edge triggered**	Normal response when an edge makes contact with an object. See *Edge Sensor Troubleshooting* page 4.
69	**Wireless Edge loss of monitoring**	See troubleshooting steps below, paying attention to intermittent wire connections.
84	**Non-monitored device detected on the wireless safety system**	Ensure that the installed edge is a LiftMaster product. Install a LiftMaster monitored edge sensor.

Advanced Diagnostic Codes

Advanced diagnostic codes for the LMWEKITU are available in control board firmware version 3.5 or higher.

Check the firmware version of a **DC operator board**:

1. Remove the charger connector if installed.
2. Unplug the J-15 connector from the main board.
3. Wait for 20 seconds.
4. Plug in the J15 connector and observe the seven segment display.
5. Plug in the charger connector if it was installed.

Check the firmware version of an **AC operator board**:

1. Unplug the 24VAC IN connector from the control board.
2. Wait for 20 seconds.
3. Plug in the 24VAC IN connector.

The diagnostic display will flash a series of three codes. The third code is the firmware version, for example: 3.5.

View Advanced Diagnostic Codes

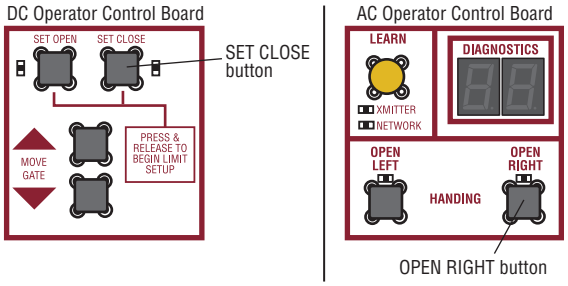
First enter diagnostic mode, see *View Diagnostic Codes* page 3. Then follow the instructions for your operator type.

DC operators:

1. Press and hold the SET CLOSE button until “Ad” shows on the diagnostic display.
2. Release the SET CLOSE button.

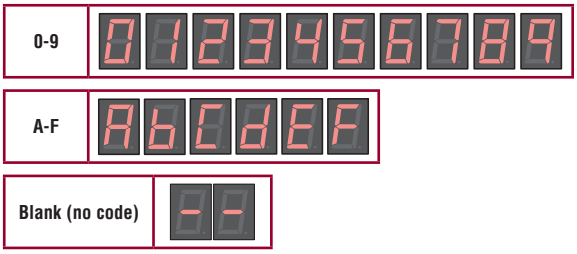
AC operators:

1. Press and hold the OPEN RIGHT button until “Ad” shows on the diagnostic display.
2. Release the OPEN RIGHT button.



The operator will show the advanced code sequence number followed by the advanced code number. The operator will save the 20 most recent codes. Use the OPEN and CLOSE buttons to scroll through the saved codes.

The digits used in advanced diagnostic codes are hexadecimal values 0-9 and A-F:



Advanced Diagnostic Codes for LMWEKITU

Ab	**Loss of Bluetooth wireless communication for an open edge**	Check the Bluetooth signal of any transmitter installed for the open direction. See *Bluetooth® Communication Troubleshooting* page 5.
AC	**Loss of Bluetooth wireless communication for a close edge**	Check the Bluetooth signal of any transmitter installed for the close direction. See *Bluetooth® Communication Troubleshooting* page 5.
Ad	**Loss of I2C communication for an open edge**	See *I2C Communication Troubleshooting* page 5. ***NOTE:*** *If there is an edge in both directions, Ad and AE may both be showing in the advanced diagnostic log.*
AE	**Loss of I2C communication for a close edge**	See *I2C Communication Troubleshooting* page 5. ***NOTE:*** *If there is an edge in both directions, Ad and AE may both be showing in the advanced diagnostic log.*

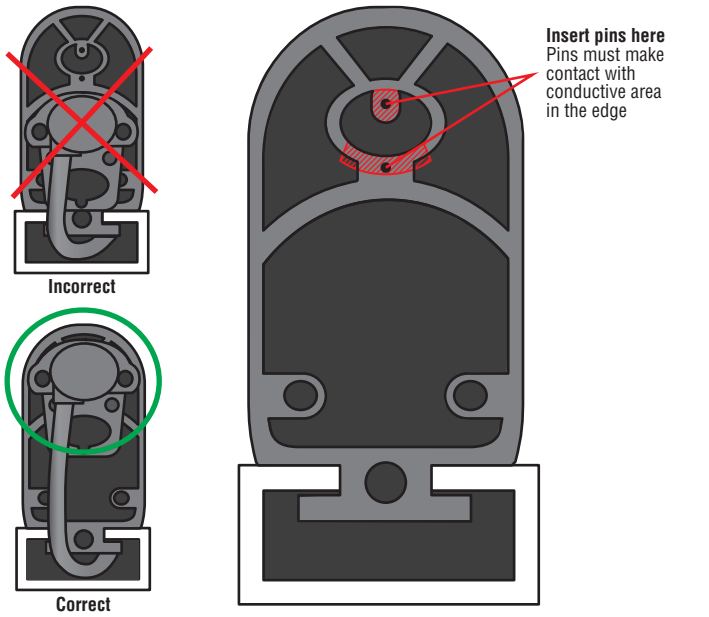
More than one problem may exist. A combination of issues may be affecting the performance of the LMWEKITU. Work each issue individually until all LMWEKITU advanced diagnostics stop logging.

Transmitter and Receiver Troubleshooting

- Test programming from transmitters to receiver, see *6 TEST* page 2. Ensure you receive a signal (status LED) when you depress the edge(s). Reprogram transmitters as necessary.
- Test the battery status in all transmitters, see *BATTERY STATUS* page 3. Replace batteries if necessary. Energizer® Ultimate Lithium AA L91 batteries are REQUIRED as replacements. If incorrect batteries are installed, the transmitter will fail within a few months.
- Check the OPEN/CLOSE DIP switch configuration on transmitters for correct open or close direction, see *2 INSTALL TRANSMITTER BATTERIES AND SET EDGE DIRECTION* page 2. If you change the dip switch configuration unlearn and relearn all safety devices. Refer to your gate operator manual for relearning safety devices.
- If using the I2C interface board, bypass the board to test the receiver:
  1. Unplug the I2C board from the control board.
  2. Connect the receiver to the EXP. BOARD terminal on the control board.
  3. Test for proper operation from the edge sensor(s), see *6 TEST* page 2. If edge sensor(s) operate normally then replace I2C board or check for proper installation of I2C board to expansion board, see *1 WIRE THE RECEIVER* page 1.

Edge Sensor Troubleshooting

- Open the edge sensor caps and ensure the contact plug is installed correctly and the pins are not corroded. Make sure that the lower edge cap is installed correctly, the weep holes are open and free of obstruction, and the sense resistor pins are not corroded.



- Test edge sensor wiring:
  1. Remove the wires from the transmitter terminal blocks.
  2. Measure the resistance between the two wires to the edge. The resistance should read 8.0kΩ to 8.4kΩ without the edge depressed.
     - If it reads open (infinite ohms), the resistor is missing or incorrectly installed. Make sure the contact plug installed as shown above. Cut 1/4" - 1/2" off the edge and reinstall the contact plug as shown. If it still reads open, replace the edge.
     - If it reads below 100Ω, replace the edge.
  3. Depress (squeeze) the edge. If it reads more than 100Ω, replace the edge.
  4. Replace the parts on the edge when complete.

Bluetooth® Communication Troubleshooting

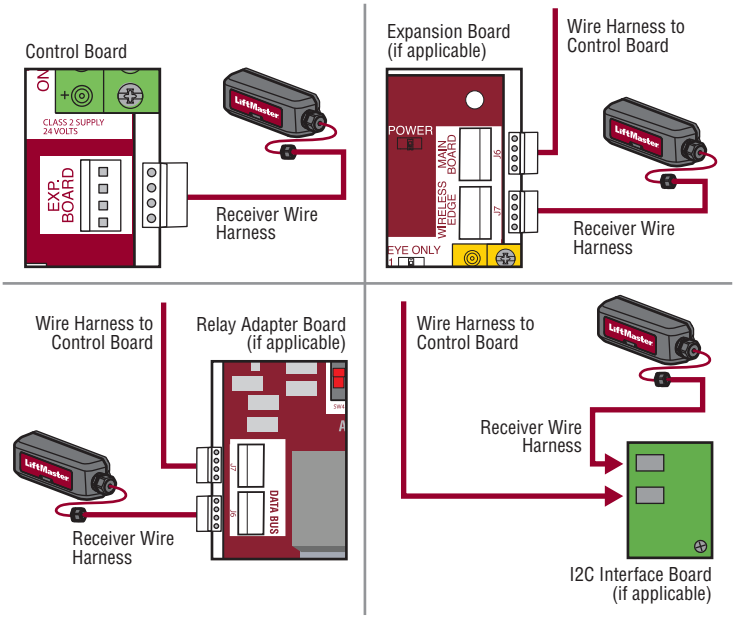
- Check for electromagnetic interference from nearby electronics which could be broadcasting at the frequencies used by the transmitter.
  - **LED and fluorescent lighting systems**: Turn off the lights and see if performance improves.
  - **Wi-Fi®, security systems, radio, cellular, and other wireless equipment:** Disable if possible or shorten the distance between the transmitter and receiver.
  - **Motor magnetic fields, possibly including the operator motor:** Make sure the receiver is installed in the recommended location, see *RECEIVER MOUNTING LOCATION* page 5.

  NOTE: *If a Bluetooth® headset used by a technician has interference problems, there is likely interference between the transmitter and receiver.*

- Test the battery status in transmitter, see *BATTERY STATUS* page 3. Replace batteries if necessary.
- Distance between transmitter and receiver may be too far. Shorten the distance between the transmitter and receiver.
- Check for loose wiring connections between the edge sensor and transmitter which can cause intermittent drop outs. See, *Edge Sensor Troubleshooting*.
- Open the edge sensor, transmitter, and receiver to make sure no moisture is present.
- Test the transmitter and receiver, see *6 TEST* page 2. A bad transmitter or receiver is the least likely cause, test all other alternatives first.

I2C Communication Troubleshooting

- Check that the POWER LED on the expansion board. If it is not flashing once a second, an I2C communication problem is likely. ***NOTE:*** *If the I2C interface board is installed, the POWER LED will be underneath.*
- Check the DATA LED on the control board. If it is not flashing, press and release the STOP button on the control board to wake the system.
- Check the wire harness to ensure that the plugs are correctly inserted over the jacks pin for pin.
- Check for a loose pin on one of the wire harnesses:
  - Replace the existing wire harness and check for proper operation.
  - Plug the receiver directly into the control board and check for proper operation.

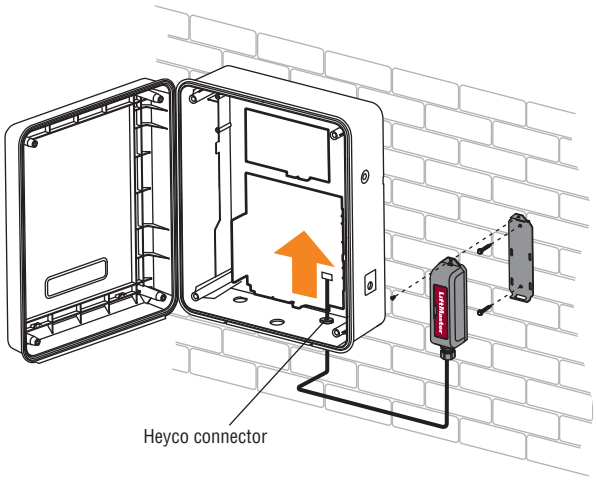


- Check that the I2C interface board is installed correctly. Make sure the I2C board plug is correctly installed on the expansion board jack. See *1 WIRE THE RECEIVER* page 1.
- Check the accessories:
  - Remove all accessories from the expansion board, connect them to the control board, and check for proper operation.
  - If the plug in loop detector model LOOPDETLM is installed, substitute with an external loop detector and check for proper operation.
- A bad control board, expansion board, or I2C interface board can cause failure, but is unlikely. Check other possibilities before replacing boards.

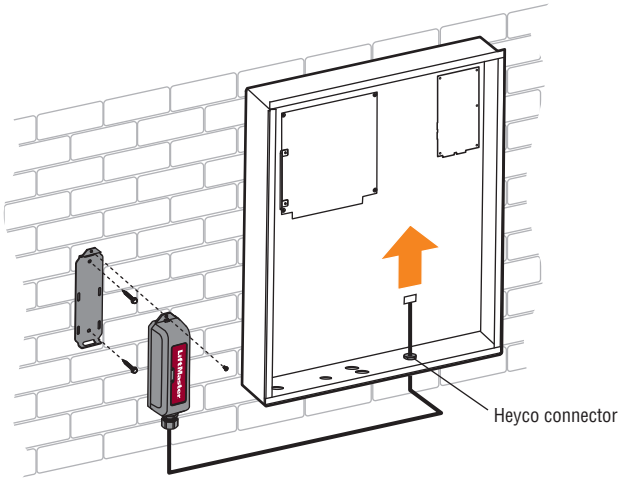
RECEIVER MOUNTING LOCATION

Drill .15" (3.8 mm) holes with a #25 drill bit for the mounting the bracket.

Models LA400/UL, LA412/UL, and LA500/UL - Standard Control Box

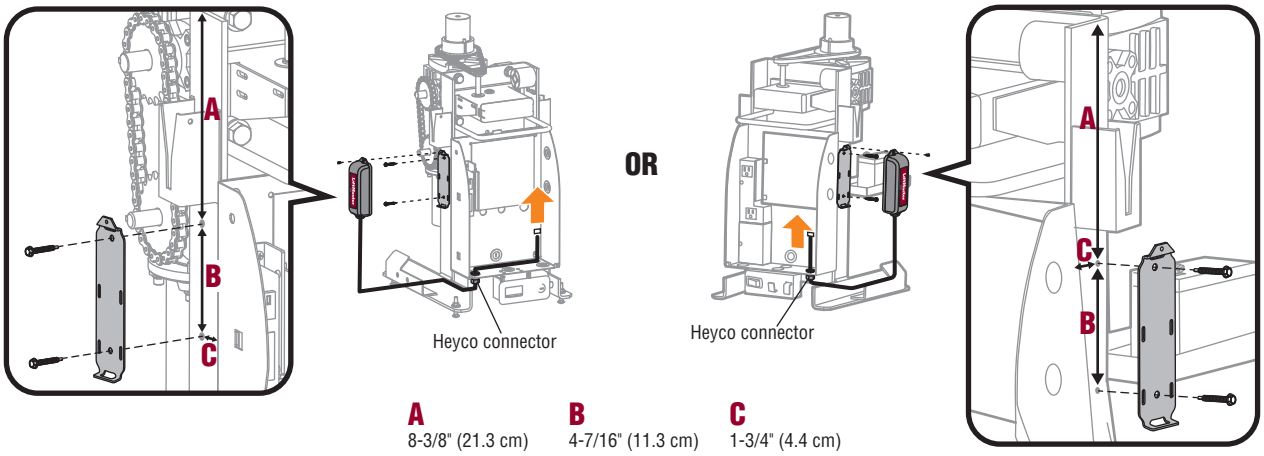


Models LA400/UL, LA412/UL, and LA500/UL - Large Metal Control Box and Control Box for Solar Applications



Models RSW12U/UL, and CSW24U/UL

Mount the bracket on the side facing the gate.

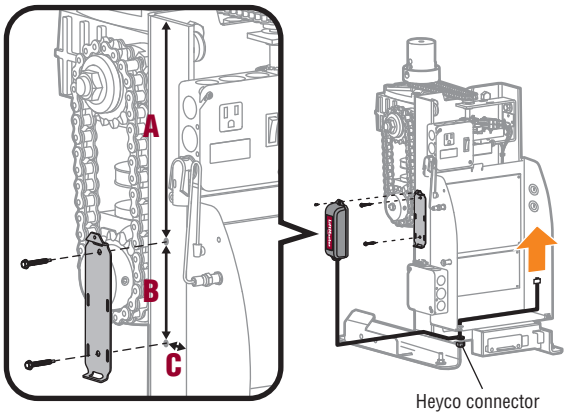


A 8-3/8" (21.3 cm) **B** 4-7/16" (11.3 cm) **C** 1-3/4" (4.4 cm)

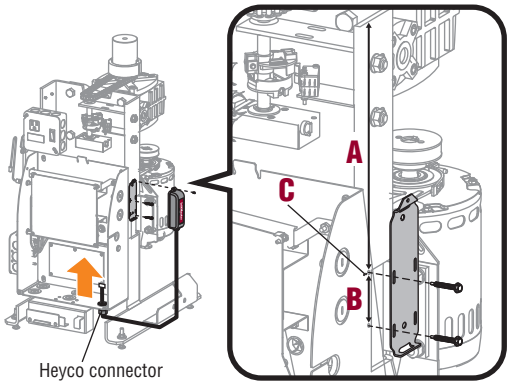
Models CSW200U/UL

Mount the bracket on the side facing the gate.

A 8-7/16" (21.4 cm)
B 4-7/16" (11.3 cm)
C 1-1/2" (3.8 cm)

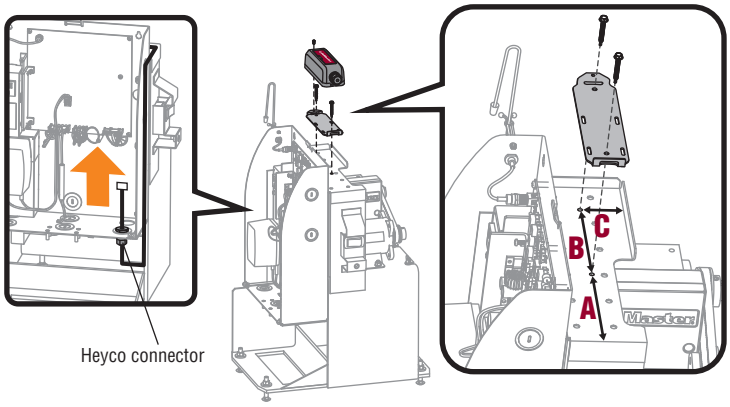


OR



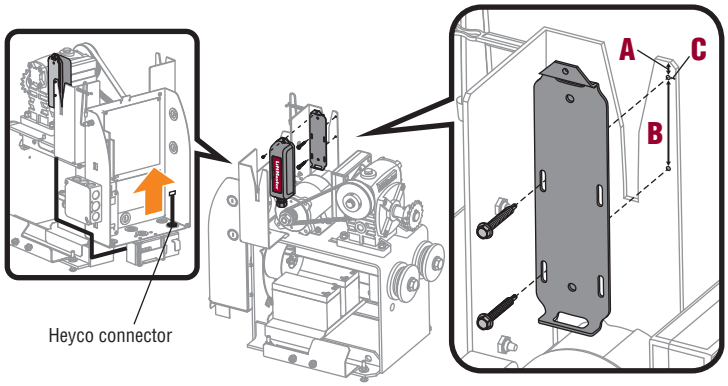
A 10-3/8" (26.4 cm)
B 2-1/8" (5.4 cm)
C 1/3" (0.8 cm)

Models RSL12U/UL



A 4-9/16" (11.6 cm) **B** 4-7/16" (11.3 cm) **C** 1-3/4" (4.4 cm)

Models CSL24U/UL

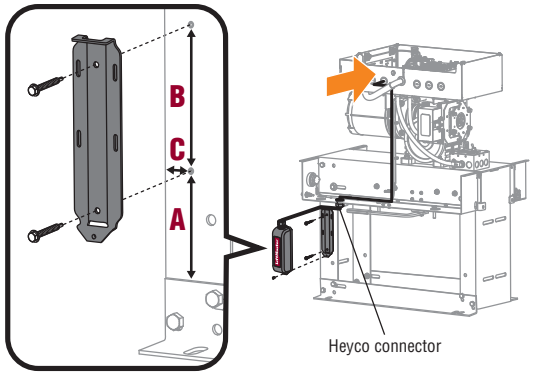


A 1/2" (1.3 cm) **B** 2-1/8" (5.4 cm) **C** 1/4" (0.6 cm)

Models SL585U, SL585UL - RECEIVER MOUNTING LOCATION

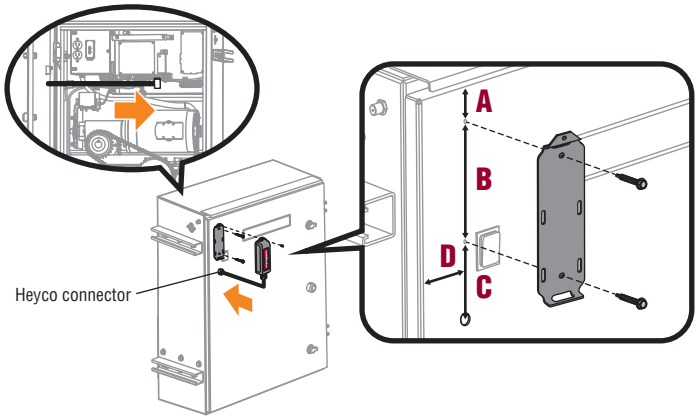
Drill .15" (3.8 mm) holes with #25 drill for mounting bracket.
Mount the bracket on the side facing the gate.

A
4-1/16" (10.3 cm)
B
4-7/16" (11.3 cm)
C
1" (2.5 cm)



Models SL595U, SL595UL, INSL24UL, IHSL24UL - RECEIVER MOUNTING LOCATION

Drill .15" (3.8 mm) holes with #25 drill for mounting bracket.



A
1-3/4" (4.4 cm)

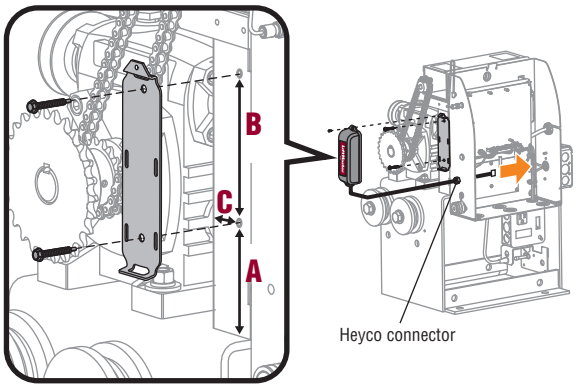
B
4-7/16" (11.3 cm)

C
3-1/4" (8.3 cm)

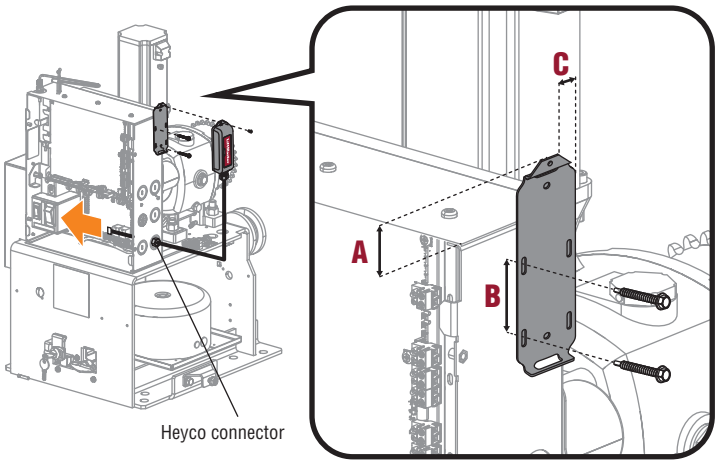
D
1-3/4" (4.4 cm)

Models SL3000U/UL

A
3-1/4" (8.3 cm)
B
4-7/16" (11.3 cm)
C
1" (2.5 cm)



Models HDSL24UL

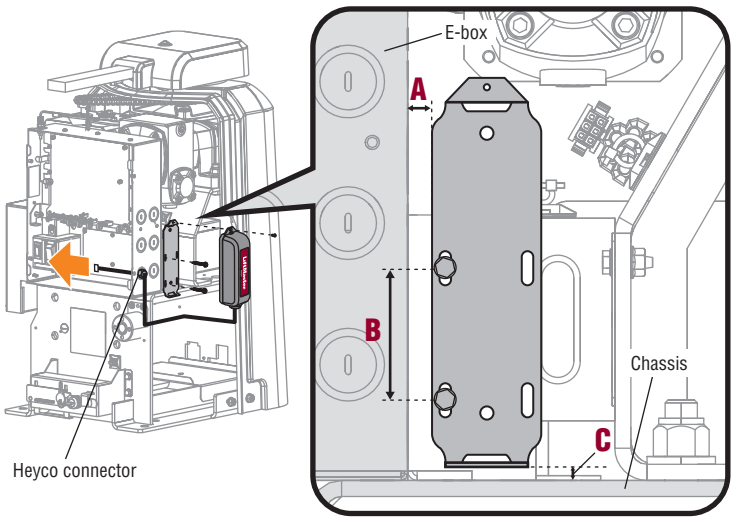


A
Past the edge of the operator
1.4" (3.6 cm)

B
2-1/8" (5.4 cm)

C
Past the edge of the operator
3/8" (1 cm)

Model HDSW24UL



A
Distance from E-box
1/4" (6.4 mm)

B
2-1/8" (5.4 cm)

C
Distance from top of chassis
1/8" (3.2 mm)