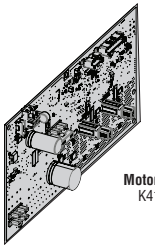
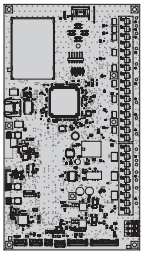
Repair Parts

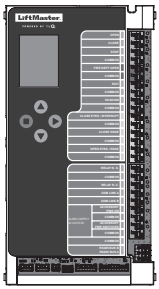
Transformer
K204C0211



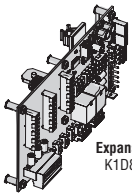
Motor Drive Board
K41-0434-000

Main Control Board
K41-0431-000

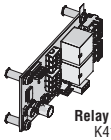




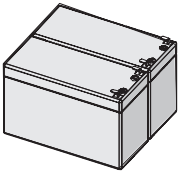
EMI Board
K1D7078



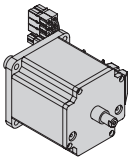
Expansion Board
K1D8387-1CC



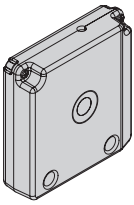
Relay Adapter Board
K41-0072-000



Battery, 7AH 12 VDC
K74-30762 (1)
29-NP712 (2)

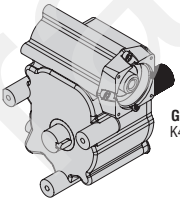


Motor
K41-0435-000



Limit System Encoder
K41-0450-000

Bridge Rectifier
K41-0083-000



Gear Reducer
K41-0436-000

Alarm
BGALARM

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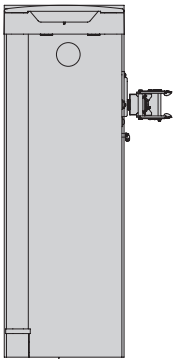
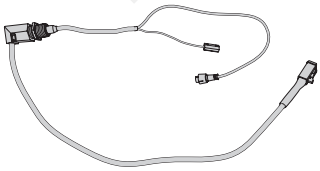
OVERVIEW





Arm to Housing Cable
K41-0447-000

NOT SHOWN

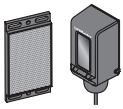
K41-0477-000	BG Replacement Spring Set
K41-0437-000	PBG Spring Module
K41-0438-000	CBG Spring Module
K41-0439-000	IBG Spring Module
K41-0440-000	Arm Bracket Kit
K41-0441-000	Shaft Output Cover and Seal
K41-0442-000	Arm Retention Kit
K41-0443-000	LED Lid (White)
K41-0444-000	LED Lid (Gray)
K41-0445-000	Cabinet Door (White)
K41-0446-000	Cabinet Door (Gray)
K41-0449-000	Arm Mounting Hardware
K41-0452-000	Lock and Key
K41-0461-000	Barrier Gate Warning Sign
K41-0257-000	Harness Kit
K41-0432-000	Plastic PCB Tray
K41-0433-000	PCB Pivot Assembly
K41-0452-000	Lock and Key
K41-0451-000	Antenna Kit

Accessories

SAFETY DEVICES

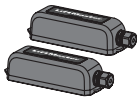
LiftMaster monitored through beam photoelectric sensor

Model LMTBUL



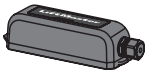
LiftMaster monitored retro-reflective photoelectric sensor

Model LMRRUL



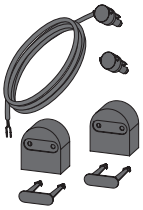
LiftMaster monitored wireless edge kit (transmitter and receiver)

Model LMWEKITU



LiftMaster monitored wireless edge transmitter

Model LMWETXU



Small profile monitored edge (82-ft. roll)

Model S50

Small profile ends kit

Model S50E

REMOTE CONTROLS

LiftMaster offers a variety of LiftMaster remote controls to satisfy your application needs. Single-button to 4-button, visor or key chain. The following remote controls are compatible with all current gate operator models. Contact your authorized LiftMaster dealer for additional details and options.

3-button remote control

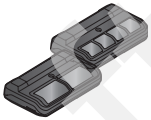
The 3-button remote control can be programmed to control the operator. Includes visor clip.

Model 893MAX

3-button mini-remote control

The 3-button remote control can be programmed to control the operator. Includes key ring and fastening strip.

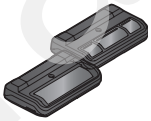
Model 890MAX



Security+ 2.0 learning remote control

One button can control a gate operator and the other(s) can control garage door(s). It can also be programmed to Security+ or Security+ 2.0 code format.

Models 892LT and 894LT



Programmable DIP Remote Controls

Ideal for applications requiring a large number of remote controls.

Models 811LMX and 813LMX

Wireless commercial keypad

Durable wireless keypad with blue LED backlight metal keypad, zinc-alloy metal front cover and 5 year 9V lithium battery. Security+ 2.0 compatible.

Model KPW250

Commercial access control receiver

Access control receiver for up to 1,000 devices (any combination of remote controls and wireless keyless entries).

Model STAR1000

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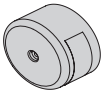
Accessories (continued)

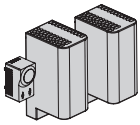
MISCELLANEOUS



3-Phase Converter

Changes input voltage (208/240/480/575 VAC) to an output voltage of 120 VAC.

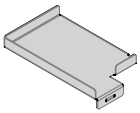
Model 3PHCONV



Barrier Gate Heater

The heater keeps the gearbox and batteries at a suitable temperature when the outside temperature is below -4°F (-20°C). The thermostat MUST be set between 45°F and 60°F (7°C and 15.5°C) to ensure proper gate operation. The heater can be powered by 110 to 250 VAC.

Model BGHEATER



33AH Battery Tray

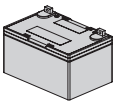
Battery tray, wire harness kit, and fasteners.

Model TRAY33AH

BGARMFOAM

BGALARM

BATTERIES



33AH Batteries Kit

Upgrade 33 AMP-Hour Battery, 12 VDC. Ideal for solar applications and extended battery backup. Two required.

Model A12330SGLPK

Must use TRAY33AH - mounting bracket.

ARTICULATING ARMS

BGARM10ART84

10′ Functional Length Arm with 84″ Clearance

BGARM10ART98

10′ Functional Length Arm with 98″ Clearance

BGARM12ART84

10′ Functional Length Arm with 84″ Clearance

BGARM12ART98

10′ Functional Length Arm with 98″ Clearance

STRAIGHT ARMS

BGARM10

10′ Functional Length Arm

BGARM10LED

10′ Functional Length Arm w/LEDs

BGARM12

12′ Functional Length Arm

BGARM12LED

12′ Functional Length Arm w/LEDs

BGARM14

14′ Functional Length Arm

BGARM14LED

14′ Functional Length Arm w/LEDs

BGARM18

18′ Functional Length Arm

BGARM24

24′ Functional Length Arm

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Warranty

LIFTMASTER® 2 YEAR LIMITED COMMERCIAL WARRANTY

LiftMaster ("Seller") warrants to the first purchaser of this product, for the structure in which this product is originally installed, that it is free from defect in materials and/or workmanship for a period of 2 year commercial installation from the date of purchase [and that the PBG24DCW, PBG24DCG, CBG24DCW, CBG24DCG, IBG24DCW, IBG24DCG are free from defect in materials and/or workmanship for a period of 2 year commercial installation from the date of purchase]. The proper operation of this product is dependent on your compliance with the instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this limited warranty in its entirety.

If, during the limited warranty period, this product appears to contain a defect covered by this limited warranty, call 1-800-528-2806, toll free, before dismantling this product. Then send this product, pre-paid and insured, to our service center for warranty repair. You will be advised of shipping instructions when you call. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product returned for warranty repair. Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

ALL IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE 2 YEAR COMMERCIAL LIMITED WARRANTY PERIOD SET FORTH ABOVE [EXCEPT THE IMPLIED WARRANTIES WITH RESPECT TO THE PBG24DCW, PBG24DCG, CBG24DCW, CBG24DCG, IBG24DCW, IBG24DCG, WHICH ARE LIMITED IN DURATION TO THE 2 YEAR COMMERCIAL LIMITED WARRANTY PERIOD FOR THE PBG24DCW, PBG24DCG, CBG24DCW, CBG24DCG, IBG24DCW, IBG24DCG, AND NO IMPLIED WARRANTIES WILL EXIST OR APPLY AFTER SUCH PERIOD. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. THIS LIMITED WARRANTY DOES NOT COVER DAMAGE CAUSED BY IMPROPER INSTALLATION, OPERATION OR CARE (INCLUDING, BUT NOT LIMITED TO ABUSE, MISUSE, FAILURE TO PROVIDE REASONABLE AND NECESSARY MAINTENANCE, UNAUTHORIZED REPAIRS OR ANY ALTERATIONS TO THIS PRODUCT), LABOR CHARGES FOR REINSTALLING A REPAIRED OR REPLACED UNIT, OR REPLACEMENT OF BATTERIES. THIS LIMITED WARRANTY ALSO DOES NOT COVER ANY PROBLEMS CAUSED BY INTERFERENCE. ANY SERVICE CALL THAT DETERMINES THE PROBLEM HAS BEEN CAUSED BY ANY OF THESE ITEMS COULD RESULT IN A FEE TO YOU. UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES ARISING IN CONNECTION WITH USE, OR INABILITY TO USE, THIS PRODUCT. IN NO EVENT SHALL SELLER'S LIABILITY FOR BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE OR STRICT LIABILITY EXCEED THE COST OF THE PRODUCT COVERED HEREBY. NO PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS PRODUCT.

Some states and provinces do not allow the exclusion or limitation of consequential, incidental or special damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights, which vary from state to state and province to province.

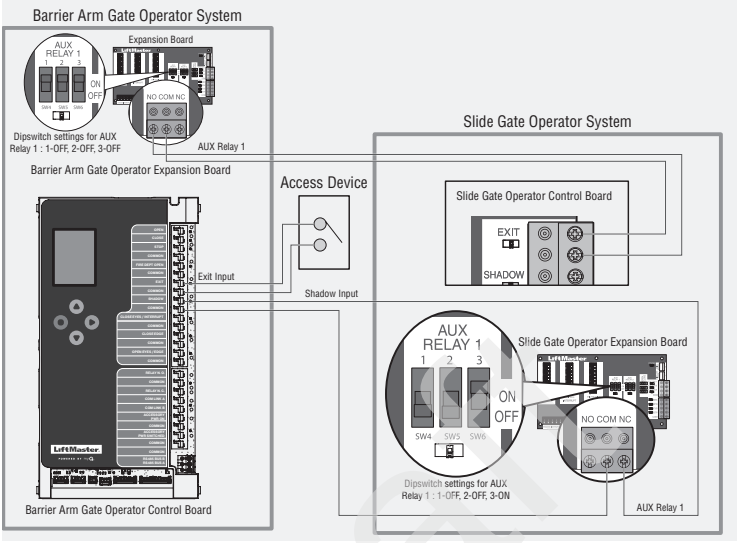
DRAFT

Appendix

SAMS Wiring with Relays Not Energized

SAMS OPERATION

To keep vehicles from rushing the gate, the barrier arm stays in closed position until the gate reaches fully open position then the barrier arm is released to open and allow vehicles to pass.



Dual Gate Settings

NOTE: *We recommend that all accessories, except safety devices, and board configurations are set on the primary operator.*

MAIN CONTROL BOARD

Feature	Primary Operator	Secondary Operator
Timer-to-Close	Set the TTC in display menu	OFF
Speed	Set the speed control dial on each operator to the desired setting. Speed can be adjusted via display menu (see "Speed Control" on page 35 for more details).	

EXPANSION BOARD

Feature	Primary Operator	Secondary Operator
Timer-to-Close	ON	OFF
Bi-Part Delay Switch	ON	OFF
Speed		
	OPEN	OPEN

AMERICAN WIRE GAUGE (AWG)	WATTS OF PANELS		
16	(71.6 m)	(35.1 m)	(24.4 m)
14	(114.3 m)	(57.9 m)	(38.1 m)
12	(182.9 m)	(91.4 m)	(61 m)
10	(286.5 m)	(144.8 m)	(96 m)
Chart assumes: copper wire, 65°C, 5% drop, 30V nominal			

Draft

Appendix (continued)

⚠ WARNING

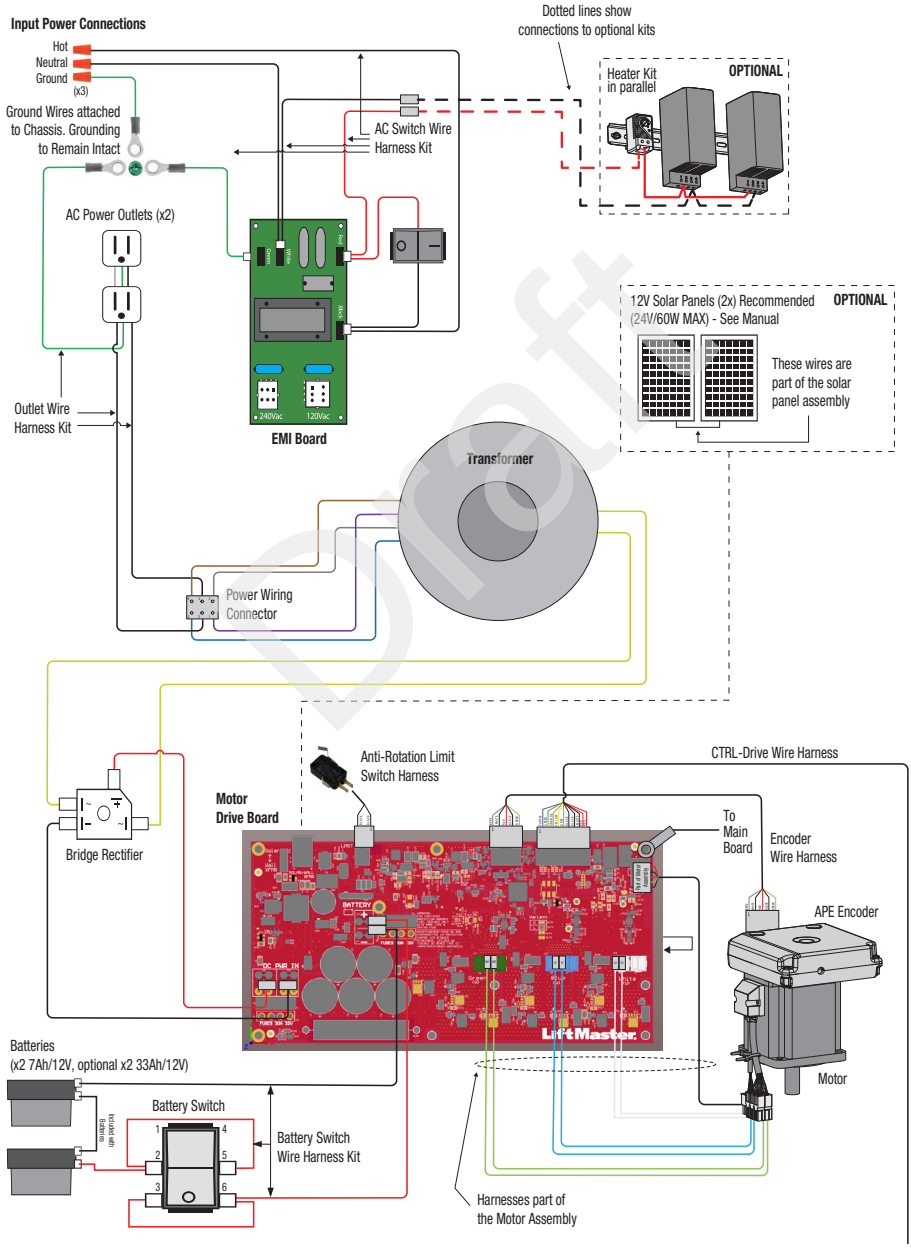
To protect against fire and electrocution:

- DISCONNECT power (AC or solar and battery) BEFORE installing or servicing operator.

For continued protection against fire:

- Replace ONLY with fuse of same type and rating.

Wiring Diagram



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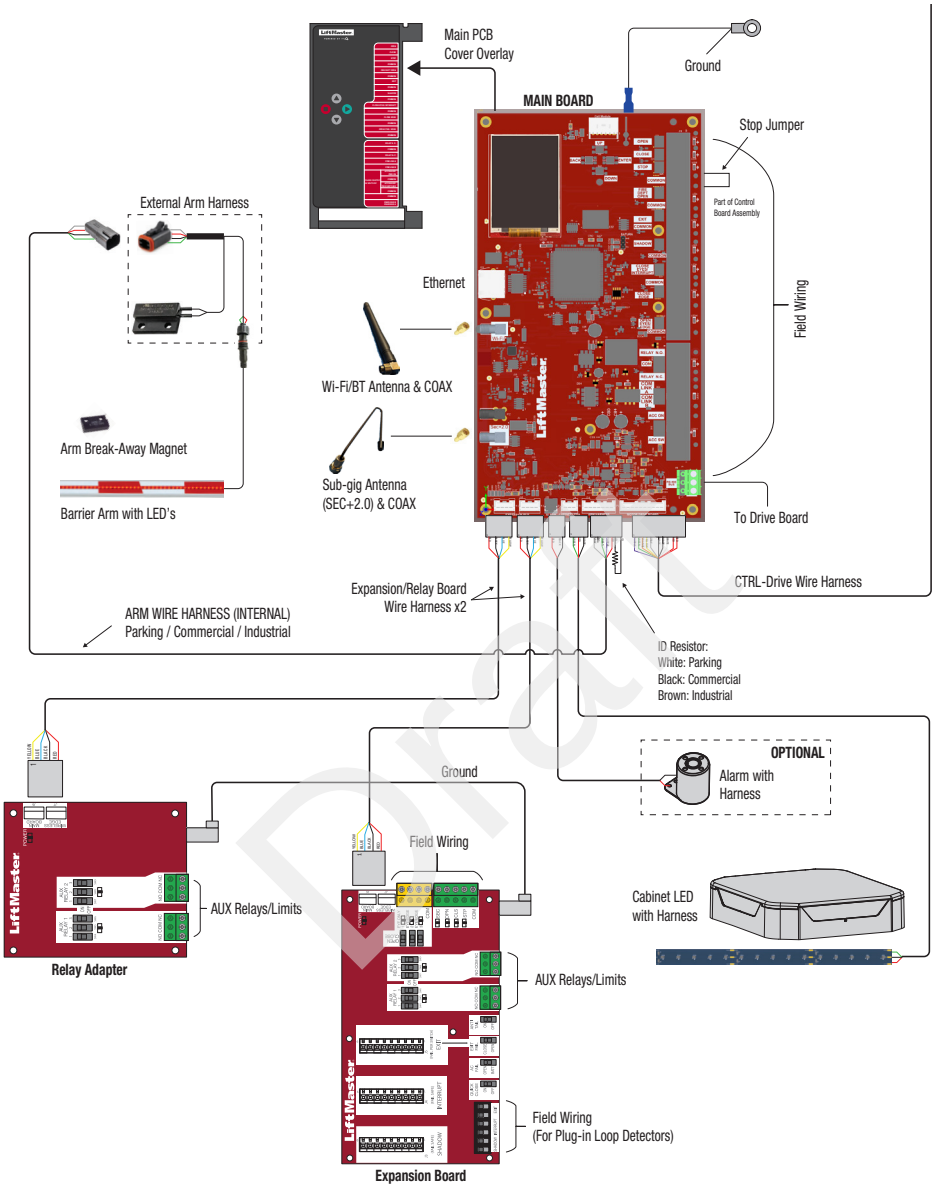
Appendix (continued)



Draft

Appendix (continued)

Diagnostic Codes Table

Some codes are saved in the code history and some are not. If a code is not saved, it will briefly appear on the display as it occurs, then disappear.

LiftMaster System | Installed System | Informational | External Obstruction Detection | Inherent Obstruction Detection

Code	UI Display Text	Meaning	Solution
8	NO CONFIG	Configuration invalid or missing	The following settings were reset due to corruption of the previous configuration: • Reversal Force • Open and Close limit positions • Arm Length • Language • Arm and Cabinet LED • Buzzer • Operator Sync • Timer-To-Close • Power Fail • Arm Speed Perform Adjustment and Programming procedures to set the limits and adjust default settings. If issue continues, replace the main control board.
14	NO LIMITS	Limit positions are not set or stored.	Limit positions are not set due to being a new product or factory reset was performed. Enter Limit Setup mode and set the limits.
31	CTRL BOARD	Main control board has experienced an internal error	Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue continues, replace the main control board.
34	APE ASM	Absolute Position Encoder error, not getting position information from encoder	Check APE assembly and wiring connections. Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue persists, replace the APE assembly.
35	OVER TRAVEL	Travel range exceeded	While learning limits, the arm position has exceeded the allowable travel range in the open direction. If still in Limit Learn menu, reverse direction of travel and check the following: • Verify that the counterbalance spring assembly is installed in the correct position for the intended arm handing. • Verify that the arm bracket was in the correct orientation when the hub bolts were torqued. • Inspect the spring protection switch connections and cable.
36	ID MISMATCH	Current Product ID does not match stored Product ID	Was the main control board just replaced? If so, erase limits, enter limit setup mode and set limits. If not, disconnect all power, wait 15 seconds, then reconnect power before changing product ID harness.
37	PRODUCT ID	Product ID failure	Unplug product ID harness then plug back in. Disconnect all power, wait 15 seconds, then reconnect power before replacing product ID harness.
40	BATT OVERVOLT	Battery overvoltage	Too much voltage on the battery. Check harness.
41	BATT OVERCURR	Battery overcurrent	Possible short of the battery charge harness. Check harness. Make sure you do NOT have a 12V battery on a 24V system.

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Appendix (continued)

Code	UI Display Text	Meaning	Solution
42	NO BATTERY	No battery at boot up	Check battery connections and installation. Replace batteries if depleted to less than 20V on a 24V system. Make sure there is NOT a single 12V battery on a 24V system.
43	EXIT LOOP	Exit loop error	Failure or missing loop (SHORT or OPEN - LiftMaster Plug-in Loop Detector only). Check loop wiring throughout connection. May be a short in the loop, or an open connection in the loop. Refer to LiftMaster Loop Detector Installation Manual to determine loop state.
44	SHADOW LOOP	Shadow loop error	
45	INTRPT LOOP	Interrupt loop error	
46	EDGE BATT LOW	Wireless edge battery low	Replace batteries in wireless edge.
47	MOTOR DRIVE	Motor Drive Fault	Check motor drive connections. Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue persists, replace motor drive board.
48	HALL SENSOR	Hall Sensor Fault	Check motor and motor drive connections. Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue persists, replace motor.
49	MOTOR COMM	Motor Drive Communications Fault	Verify drive board power and connection to the main control board. Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue continues, replace motor drive
51	NO ARM	No Arm detected in Arm Bracket	Arm is not installed/detected. Review: • Verify the arm detection cable is connected to the arm bracket. • Verify the arm is securely installed within the arm bracket. • Verify the arm detection magnet is properly installed on the arm and aligned with the sensor on the arm bracket. • Inspect arm detection sensor, arm detection magnet, and cable for damage. If issue persists, replace sensor, magnet, and arm cable.
53	BROWNOUT	Brownout occurred	AC/DC board supply dipped below allowable level. Review power supply and wiring. If rebooting, ensure enough time for discharge of power to force a fresh boot.
54	OPERATOR COMM	Wireless second operator communication error	Check the second operator for power. If OFF, restore power and try to run the system. If powered, deactivate the wireless feature and then re-learn the second operator.
61	CLOSE EYE HELD	CLOSE EYE/INTERRUPT held	Check wired input on the main control board; check for alignment or obstruction; squeeze and release the edge and verify main board edge LED changes; check for eye alignment or obstruction.
62	CLOSE EDGE	CLOSE EDGE held	
63	OPEN EYE EDGE	OPEN EYE/EDGE held	
64	CLOSE EYE INTRPT	CLOSE EYE/INTERRUPT held (expansion board)	Check wired input on expansion board; check for alignment or obstruction; squeeze and release the edge and verify main board edge LED changes; check for eye alignment or obstruction.
65	CLOSE EYE EDGE	CLOSE EYE/EDGE held (expansion board)	
66	OPEN EYE EDGE	OPEN EYE/EDGE held (expansion board)	
67	WIRELESS EDGE	Wireless edge triggered extended time	Check wired input for wiring issue or obstruction; squeeze and release the edge and verify main board edge LED changes

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Appendix (continued)

Code	UI Display Text	Meaning	Solution
68	WIRELESS EDGE	Wireless edge loss of monitoring	Check wireless edge inputs.
69	WIRELESS EDGE	Wireless edge triggered	IF an obstruction occurred, no action required. If an obstruction did NOT occur, check inputs and wiring.
70	CLOSE EYE BLOCK	CLOSE EYE/INTERRUPT triggered, causing reversal, preventing close, or resetting TTC	IF an obstruction occurred, no action required. If an obstruction did NOT occur, check alignment, inputs, and wiring on the main control board.
71	CLOSE EDGE	CLOSE EDGE triggered, causing reversal, preventing close, or canceling TTC	
72	OPEN EYE EDGE	OPEN EYE/EDGE triggered, causing reversal or preventing opening	
73	CLOSE EYE INTRPT	CLOSE EYE/INTERRUPT triggered, causing reversal, preventing close, or resetting TTC	IF an obstruction occurred, no action required. If an obstruction did NOT occur, check alignment, inputs, and wiring on expansion board.
74	CLOSE EYE EDGE	CLOSE EYE/EDGE triggered, causing reversal and preventing close or canceling TTC	
75	OPEN EYE EDGE	OPEN EYE/EDGE triggered, causing reversal or preventing opening	
80	CLOSE EYE EDGE	Close input (EYE/EDGE) communication fault from other operator	Check inputs and communication method between operators, either wired bus or radio. Ensure operator is powered. May have to erase the wireless communication and reprogram the two operators.
81	OPEN EYE EDGE	Open input (EYE/EDGE) communication fault from other operator	
82	CLOSE EYE EDGE	Close input (EYE/EDGE) communication fault (expansion board)	Check the connections between the main control board and the expansion board.
83	OPEN EYE EDGE	Open input (EYE/EDGE) communication fault (expansion board)	
84	NON MONITORED	Non-monitored device detected on the wireless safety system	Non-monitored contact closure devices are not supported. Make sure connected devices are monitored. Check edges for proper orientation and resistive end cap connection.
85	CLOSE EYE EDGE EVENT	CLOSE EYE/EDGE triggered on paired operator, causing reversal and preventing close or canceling TTC	IF an obstruction occurred, no action required. If an obstruction did NOT occur, check alignment, inputs, and wiring on paired operator.
86	OPEN EYE EDGE EVENT	OPEN EYE/EDGE triggered on paired operator, preventing opening	

Draft

Appendix (continued)

Code	UI Display Text	Meaning	Solution
90	LOW VOLT	Low Voltage Input to Motor Drive Fault	Verify incoming power meets voltage requirement of operator. Verify battery voltage is above 20V. Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue persists, replace power supply.
91	FORCE LIMIT	Force limit exceeded	If motor stopped while opening, check for excess weight on arm. Check for obstruction. If no obstruction, check that the mechanical assembly is engaged and free to move. See "Limit, Speed, and Force Adjustment" on page 34. Check spring chart and ensure correct number of springs are installed.
93	RPM STALL	RPM / STALL detected	If motor stopped while opening, check for excess weight on arm. Check for obstruction. If no obstruction, check the operator wiring and that the mechanical assembly is engaged and free to move. Replace APE assembly. Check spring chart and ensure correct number of springs are installed.
95	DRIVE TEMP	Motor Drive Board temperature too high	Check ambient temperature and ensure it is within the operational ratings of the operator. Check that dust or other debris is not built up inside cabinet. Replace motor drive board if issue persists.
96	DRIVE CURR	Motor Drive Board current too high	Check connections to motor drive board. Power cycle and retry. Replace motor drive board if issue persists.
97	BATT DPLTD	Battery depleted (below 23 V)	Battery voltage has been drained to critical level. Restore AC or solar power and ensure battery recharges properly. Test batteries with suitable battery tester. Replace batteries if damaged, depleted, or older than 2 years. Always replace both batteries as a set. Do not mix old and new batteries or use mismatched types.
98	AC PWR LOSS	AC power loss, system operating on battery	Incoming power loss. Review: • Input voltage. • Circuit breaker is not tripped. • AC Switch inside cabinet is in the ON position. • Transformer connections to EMI board connectors. If voltage is out of specification, consult an electrician.
99	MAINT DUE	Maintenance Cycle count reached, service operator	Complete maintenance and reset maintenance cycle counter.

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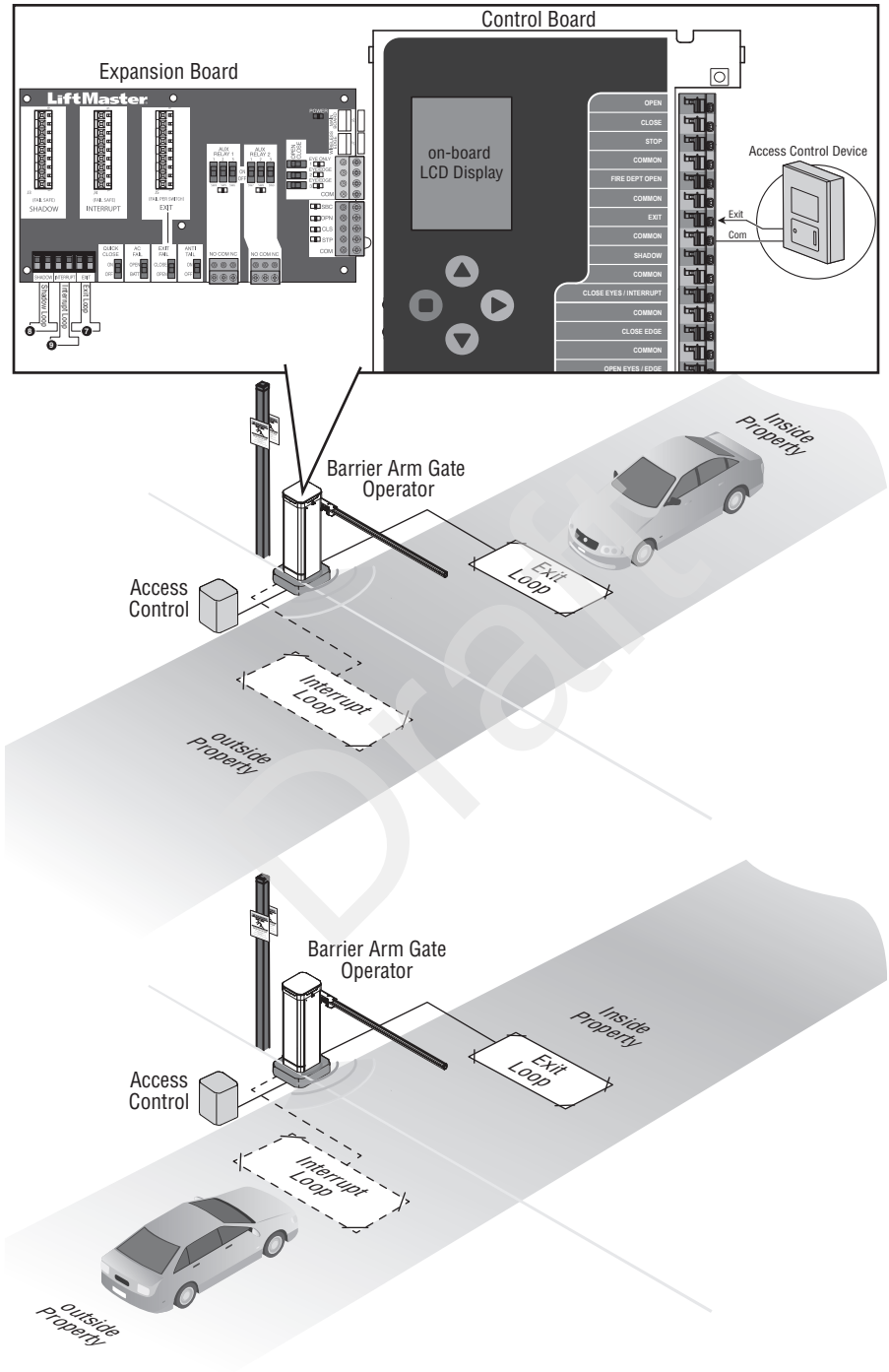
Appendix (continued)



Appendix (continued)

Two-Way Traffic Mode

- Two-way traffic mode provides the ability for traffic to enter and exit in the same lane.
- To turn on Two-Way Traffic Mode, on the LCD menu, navigate to “Timer to Close > Two Way Traffic > Enter”.

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Contact Information

LiftMaster.com

Visit LiftMaster.com to locate a professional installing dealer in your area.

LiftMaster Partner Portal:

Partner.LiftMaster.com/login

LiftMaster Training Academy:

LiftMasterTraining.com

For any additional questions, or support please contact LiftMaster Customer Service/Support at:

800-528-2806

Mon-Fri 5:00 am to 6:00 pm MST

For troubleshooting and support content/videos:

https://support.partner.liftmaster.com/s/gate-operators/barrier-gates/techna

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