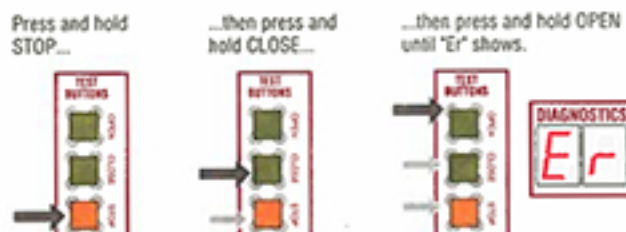


### WARNING

- DISCONNECT power and battery BEFORE installing or servicing operator.
- Replace ONLY with fuse of same type and rating.
- To be compliant with UL325 and industry safety guidelines, qualified monitored external entrapment protection devices such as photoelectric sensors or edge sensors are required to be installed with this operator at each entrapment zone.
- See manual regarding maintenance and required safety testing prior to servicing.

### Diagnostic Codes

TO VIEW THE CODES:



The operator will show the code sequence number followed by the code number:



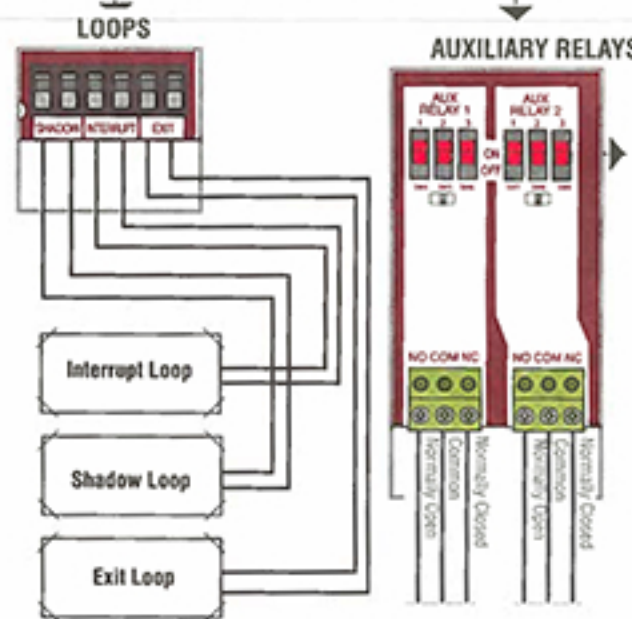
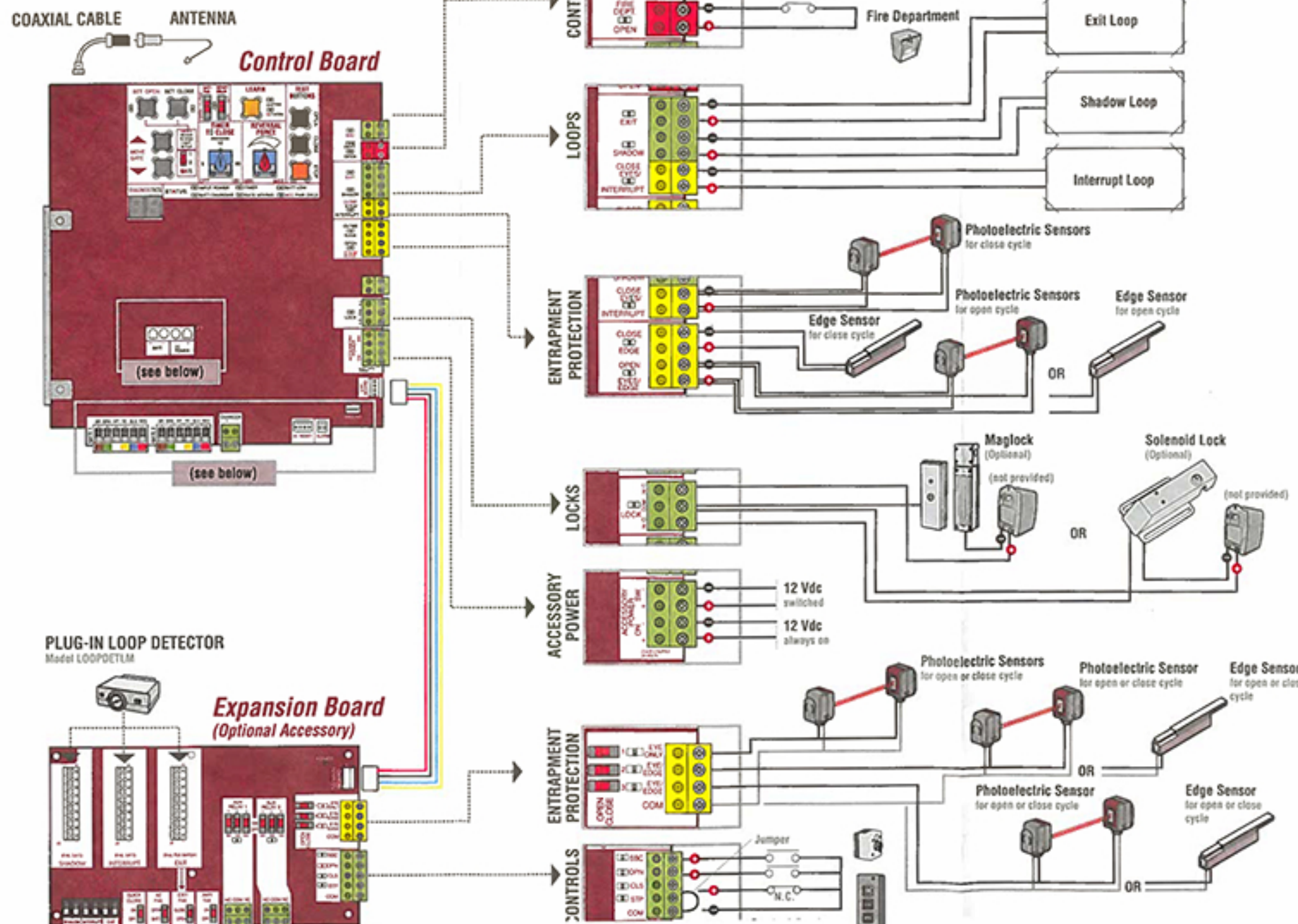
**CODE SEQUENCE NUMBER**  
The first number shown is the most recent code (example: "01"). The display will show the sequence of codes that occurred starting with "01" and going up to code "20".

**CODE NUMBER**  
The second number shown after the code sequence number is the code itself (31-99, example "31").

CODE COLOR KEY:

- Yellow: LiftMaster System
- Orange: Installed System
- Green: Informational
- Red: External Entrapment Protection
- Grey: Inherent Entrapment Protection

CODE	MEANING	SOLUTION
31	Main control board has experienced an internal failure.	Disconnect all power, wait 15 seconds, then reconnect power (reboot). If issue continues, replace main control board.
32	Linear Drive Disengaged (Arm 1)	Disengage then re-engage arm. Check wiring and connections.
33	Linear Drive Disengaged (Arm 2)	Disengage then re-engage arm. Check wiring and connections.
34	Absolute Position Encoder Error, not getting position information from encoder	Check the operator cable connections, then reprogram the limits.
35	Max-Run-Time Exceeded Error	Check for an obstruction, then reprogram the limits.
36	Product ID Error	Was the 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 Failure	Unplug product ID harness then plug back in. Disconnect all power, wait 15 seconds, then reconnect power before replacing product ID harness.
38	Hard Stop Limit (Arm 1)	Limit may be set too tightly against a non-recessed hard stop (re-adjust limit). Operator may be at end of travel (re-adjust mounting).
39	Hard Stop Limit (Arm 2)	Limit may be set too tightly against a non-recessed hard stop (re-adjust limit). Operator may be at end of travel (re-adjust mounting).
40	Battery overvoltage	Too much voltage on the battery. Check harness. Make sure there is NOT a 24V battery on a 12V system.
41	Battery event/circuit	Possible short of the battery charge harness. Check harness. Make sure you do NOT have a 12V battery on a 24V system.
42	No battery at boot up	Check battery connections and installation. Replace batteries if depleted to less than 20V on a 24V system or less than 10V on a 12V system. Make sure there is NOT a single 12V battery on a 24V system.
43	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.
44	Shadow 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.
45	Interrupt 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.
46	Wireless edge battery low	Replace batteries in wireless edge.
50	Run-Obstacle Error	Gate imbalance detected. Make sure the gate is installed on a level surface and not on an excessive grade.
91	Face-point not detected (Arm 1)	Check yellow post-point wiring. If limits are not accurate, reprogram.
92	Face-point not detected (Arm 2)	Check yellow post-point wiring. If limits are not accurate, reprogram.
93	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.
94	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 reprogram the second operator.
99	Normal Operation	No action required
60	Minimum number of monitored entrapment protection devices (panel not installed)	Review monitored entrapment protection device connections.
61	CLOSE EYE/INTERRUPT held more than 3 minutes	Check wired input on main control board, check for alignment or obstruction.
62	CLOSE EDGE held more than 3 minutes	Check wired input on main control board, check for alignment or obstruction.
63	OPEN EYE/EDGE held more than 3 minutes	Check wired input on main control board, check for alignment or obstruction.
64	CLOSE EYE/INTERRUPT held more than 3 minutes	Check wired input on expansion board, check for alignment or obstruction.
65	CLOSE EYE/EDGE held more than 3 minutes	Check wired input on expansion board, check for alignment or obstruction.
66	OPEN EYE/EDGE held more than 3 minutes	Check wired input on expansion board, check for alignment or obstruction.
67	Wireless edge triggered more than 3 minutes	Check wired input for wiring issue or obstruction.
68	Wireless edge loss of monitoring	Check wireless edge inputs.
69	Wireless edge triggered	If an obstruction occurred, no action required. If an obstruction did NOT occur, check inputs and wiring.
70	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 main control board.
71	CLOSE EDGE 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 main control board.
72	OPEN EYE/EDGE triggered, causing reversal or preventing opening	If an obstruction occurred, no action required. If an obstruction did NOT occur, check alignment, inputs, and wiring on expansion board.
73	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 triggered, causing reversal or preventing opening	If an obstruction occurred, no action required. If an obstruction did NOT occur, check alignment, inputs, and wiring on expansion board.
75	OPEN EYE/EDGE triggered, causing reversal or preventing opening	If an obstruction occurred, no action required. If an obstruction did NOT occur, check alignment, inputs, and wiring on expansion board.
80	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 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.
82	Close input (EYE/EDGE) communication fault (expansion board)	Check the connections between the main board and the expansion board.
83	Open input (EYE/EDGE) communication fault (expansion board)	Check the connections between the main board and the expansion board.
91	Force Reversal (Operator 1)	Check for obstruction. If no obstruction, check that the mechanical assembly is engaged and free to move. See section on Limit and Force Adjustment, and Obstruction Test in the manual.
92	Force Reversal (Operator 2)	Check for obstruction. If no obstruction, check that the mechanical assembly is engaged and free to move. See section on Limit and Force Adjustment, and Obstruction Test in the manual.
93	RPM / STALL Reversal (Operator 1)	Check for obstruction. If no obstruction, check the operator wiring and that the mechanical assembly is engaged and free to move. Replace APE assembly.
94	RPM / STALL Reversal (Operator 2)	Check for obstruction. If no obstruction, check the operator wiring and that the mechanical assembly is engaged and free to move. Replace APE assembly.



### SWITCH SETTINGS

1	2	3	RELAY 1	RELAY 2
OFF	OFF	OFF	Relay always off	Relay always off
OFF	OFF	ON	Energizes at open limit	Energizes at open limit
OFF	ON	OFF	Energizes when not at close limit	Energizes when not at close limit
OFF	ON	ON	Energizes when motor is on	Energizes when motor is on
ON	OFF	OFF	Energizes 3 seconds prior and during gate motion	Energizes 3 seconds prior and during gate motion
ON	ON	OFF	Energizes with AC or solar power	Energizes with battery
ON	OFF	OFF	Energizes when gate is tampered with	Energizes when gate is tampered with
ON	ON	ON	LEDs will blink cycle count	Not used

### RED/GREEN LIGHT FUNCTIONALITY

Red light wired to AUX RELAY 1. Green light wired to AUX RELAY 2.

GATE STATE	AUX RELAY 1 SWITCHES			AUX RELAY 2 SWITCHES		
	1 OFF	2 OFF	3 OFF	1 ON	2 ON	3 ON
CLOSED	Red light OFF*			Green light OFF		
OPENING	Red light ON/FLASH			Green light OFF		
OPEN	Red light OFF			Green light ON		
CLOSING	Red light ON/FLASH			Green light OFF		
Defined Mid Stop	n/a			n/a		
Undefined Mid Stop	Red light ON			Green light OFF		
Timer more than 5 seconds	Red light OFF			Green light ON		
Timer less than 5 seconds	Red light ON/FLASH			Green light OFF		

\* For red light ON when gate is closed, set switch 1 on AUX RELAY 1 to ON

