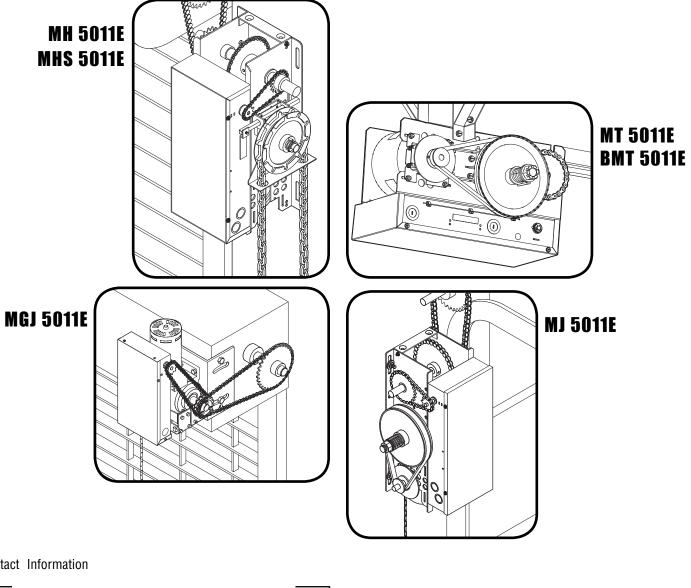
MEDIUM DUTY LOGIC USER'S GUIDE



Contact Information

Installation Date _

www.liftmaster.com

Radio Receiver Built on Board

315MHz



INTRODUCTION

Congratulations on purchasing a quality, LiftMaster Medium Duty Commercial Door Operator. Your new operator is capable of operating up to 12 cycles per hour or 50 cycles per day. It is equipped with a built in radio receiver that is compatible with our existing 315 MHz product line as well as a Timer To Close (TTC) feature that can be enabled when LiftMaster Commercial Protector System[®] is installed and aligned properly.

BASIC PROGRAMMING

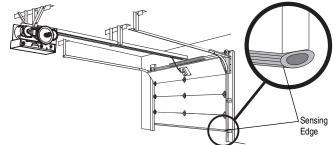
DETERMINE THE WIRING TYPE

The functionality of this operator is based on the wiring type. The operator is shipped from the factory in standard C2 wiring type (factory default). Some wiring types will require an optional safety device. Refer to the following descriptions of wiring types, requirements and programming.

NOTE: 1. The LED on the logic board will blink once when in C2 and twice when in B2.

- 2. The operator will automatically convert to B2 wiring (option D) when Monitored Safety Device is installed. If the Monitored Safety Device is removed, the operator will go into a Restricted Close mode**. Turn power OFF and ON to reset wiring type.
- ** Restricted close mode requires a constant pressure close command. The operator will begin closing after a 5 second delay and will continue to close to the close limit switch. The operator will stop if the pressure to close is released before reaching the close limit.
- **C2 WIRING TYPE WITHOUT MONITORED SAFETY DEVICE** (Factory Default)
- Momentary contact to open and stop with constant pressure to close.
- Open override that reverses when closing by any opening device.
- Wiring for safety device to reverse. **NOTE:** The operator will automatically convert to B2 wiring (option D) when Monitored Safety Device is installed. (See accessories page for Monitored Safety Devices)
- Timer to Close (TTC) feature not available.

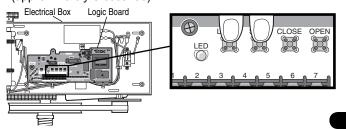
NON-MONITORED SAFETY DEVICE



RESET TO C2 WIRING TYPE (Factory Default)

Remove any monitored safety devices.

Disconnect then reconnect power to the operator. Press and hold the LEARN and STOP buttons until the LED goes out (approximately 3 seconds).



CAUTION

To prevent possible SEVERE INJURY or DEATH, install reversing sensors when:

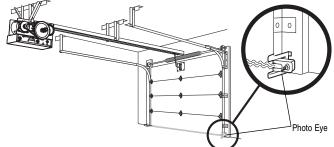
- The radio is used.
- The 3-button control station is out of sight of the door.
- Or ANY other control (automatic or manual) is used.
- Reversing devices are recommended for ALL installations.



C2 WIRING TYPE WITH MONITORED SAFETY DEVICE

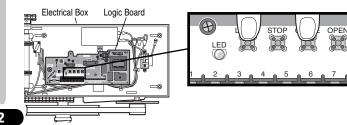
- Momentary contact to open and stop with constant pressure to close.
- Open override that reverses when closing by any opening device.
- Wiring for safety device to reverse. **NOTE:** The operator will automatically convert to B2 wiring (option D) when Monitored Safety Device is installed. (See accessories page for Monitored Safety Devices)
- Timer to Close (TTC) feature not available.

MONITORED SAFETY DEVICE



TO PROGRAM

Press and hold the LEARN and CLOSE buttons until the LED goes out (approximately 3 seconds).



BASIC PROGRAMMING

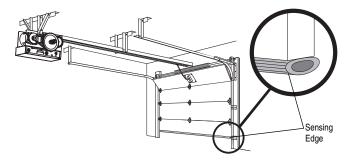


B2 WIRING TYPE WITHOUT MONITORED SAFETY DEVICE

Requires a non-monitored safety device.

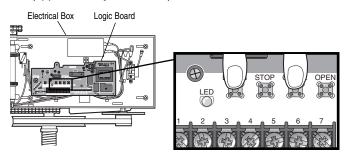
- Momentary contact to open, close and stop.
- Open override that reverses when closing by any opening device.
- Wiring for safety device to reverse. **NOTE:** The operator will automatically convert to B2 wiring (option D) when Monitored Safety Device is installed. (See accessories page for Monitored Safety Devices)
- Timer to Close (TTC) feature not available.

NON-MONITORED SAFETY DEVICE



TO PROGRAM

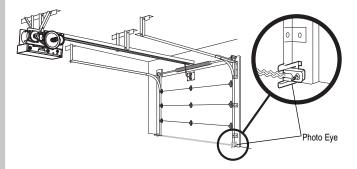
Start with operator in factory default C2 mode. Press and hold the LEARN and CLOSE buttons until the LED goes out (approximately 3 seconds).



B2 WIRING TYPE WITH MONITORED SAFETY DEVICE

- Momentary contact to open, close and stop.
- Open override that reverses when closing by any opening device.
- Wiring for safety device to reverse. **NOTE:** The operator will automatically convert to B2 wiring when Monitored Safety Device is installed. (See accessories page for Monitored Safety Devices)
- Timer to Close (TTC) feature available.

MONITORED SAFETY DEVICE



NO PROGRAMMING REQUIRED

BASIC PROGRAMMING

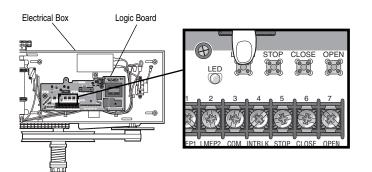
REMOTE CONTROLS

SINGLE BUTTON REMOTE CONTROL

Built in 315 MHz radio receiver permits as many as 20 Security $\bullet^{\textcircled{B}}$ remote controls or dip switch remote controls in any combination.

TO PROGRAM

- 1. Press and release the LEARN button (LED will light).
- Press and hold the button on the remote control until the LED flashes rapidly, then release to complete programming (LED will go out).
- 3. Repeat steps 1 and 2 for additional remote controls.

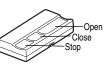


3-BUTTON REMOTE CONTROL TO OPERATE AS A WIRELESS 3-BUTTON CONTROL STATION

NOTE: The feature will use 3 of the 20 memory channels in the operator.

TO PROGRAM

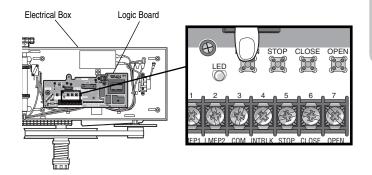
1. Press and hold the LEARN button (LED will light).



- Press the desired button on the logic board (OPEN, CLOSE or STOP). Release both buttons.
- 3. Press and hold the desired button of the remote control until LED flashes rapidly, then release.
- 4. Repeat steps 1 through 3 to program additional buttons.

TO ERASE ALL REMOTE CONTROLS

Press and hold the LEARN button (over 5 seconds) until the LED goes out. All programmed remote controls will be erased.



NOTICE: To comply with FCC and or Industry Canada (IC) rules, adjustment or modifications of this receiver and/or transmitter are prohibited, except for changing the code setting or replacing the battery. THERE ARE NO OTHER USER SERVICEABLE PARTS.

Tested to Comply with FCC Standards FOR HOME OR OFFICE USE. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TIMER TO CLOSE (TTC)

Timer to Close feature enables the operator to close from the open limit after a preset time, adjustable from 5 to 60 seconds. **Requires LiftMaster monitored safety device.**

TO PROGRAM

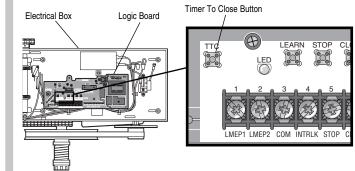
- 1. Begin with door in fully closed position.
- 2. Press and release the LEARN button (LED will light).
- 3. Press and release the TTC button.
- Every press and release of the STOP button will add 5 seconds to the Timer to Close. Example: 30 second TTC = 6 presses of the STOP button.
- 5. Press and release the TTC button to exit programming mode.
- 6. The LED will flash once per 5 seconds of timer setting.

The TTC will become active after completion of the next open cycle.

NOTE: The LED does not indicate that timer is running.

TO VERIFY TIMER TO CLOSE (TTC) SETTING

- 1. Press and release the LEARN button.
- 2. Press and release the TTC button.
- 3. Press and release the TTC button a second time.
- 4. The LED will flash once per 5 seconds of timer setting.



CLEAR THE TIMER TO CLOSE (TTC)

- 1. Press and release the LEARN button (LED will light.)
- 2. Press and hold the TTC button for 6 seconds.
- 3. Release the TTC button (LED will go out).

The TTC will no longer be active.

TIMER DEFEAT

The TTC can be temporarily disabled by pressing a STOP button. TTC will become enabled after the next open command.

RADIO OPERATION						
MODE	OPEN	CLOSE	STOP	REVERSE WHILE CLOSING	TTC RESET	
B2	X	X	Х	Х		
B2 with TTC	x	X (3 button remote)	x	x	X WHEN Open	
C2	X		X	Х		

MANUAL DISCONNECT (MODELS MT/BMT & MH)

door or arm:

The operators have provisions for manually operating the door in case of emergency or power failure. Refer to the appropriate instructions for your model operator.

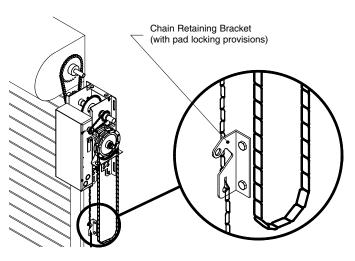
MODEL MT/BMT

• DO NOT stand under the door arm when pulling the emergency release. 0 0 0 0 • If possible, use emergency release handle to disengage trolley 000000000 ONLY when door is CLOSED. Weak or broken springs or έo unbalanced door could result in an open door falling rapidly and/ or unexpectedly. Emergency Disconnect • NEVER use emergency release handle unless doorway is clear of persons and obstructions. TO DISCONNECT DOOR FROM OPENER TO RECONNECT DOOR ARM TO TROLLEY Lift free end of door arm to trolley. Pull Emergency Emergency emergency handle Disconnect Pull emergency Disconnect to allow arm to release handle 0 engage roll pin. straight down. Release handle. 0 Emergency Door Emergency disconnect will Door Arm disconnect will 0 Arm open. close. Emergency Release Handle

MODEL MH

These operators are equipped with a manual hoist. An electrical interlock will disable the electrical controls when the hoist is used. To operate the hoist:

- 1. Pull the disconnect chain (sash chain) to engage the hoist mechanism. The disconnect chain may be locked in position by slipping the end through the keyhole of the chain retaining bracket mounted on the wall.
- 2. Operate the door in the desired direction by pulling on one side or the other of the continuous loop hoist chain.
- 3. The disconnect chain must be released from the chain retaining bracket before the door will operate again electrically.



CAUTION

To prevent possible SERIOUS INJURY or DEATH from a falling

Electrical Interlock with Hoist for Model MH

MANUAL DISCONNECT (MODELS MJ/MGJ & MHS)

MODEL MJ/MGJ

This operator has a floor level disconnect chain to disconnect the door from the door operator.

- 1. To disengage, pull the chain and secure in the disengaged position by slipping the end through the keyhole bracket mounted on the wall. Or if emergency egress device is used, pull handle to disengage operator from door.
- 2. The door may now be pushed up or pulled down manually.
- 3. Release the disconnect chain or reset the emergency egress device to operate the door again electrically.

CAUTION

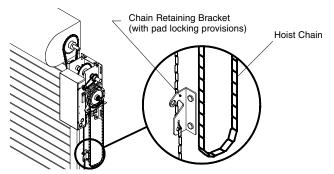
To prevent possible SERIOUS INJURY from a moving chain, DISCONNECT electric power to the operator BEFORE manually operating your door.

MODEL MHS

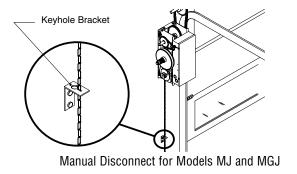
This operator includes two methods of manual operation:

- 1. A disconnect sash chain for push-up/pull-down operation. This chain can be found on the hoist side of the operator. See Manual Disconnect Model MJ/MGJ for instructions.
- 2. A hoist engagement sash chain for manual hoist operation. This chain can be found on the clutch side of the operator. See Manual Disconnect Model MH for instructions.

When operator is disconnected by the manual operation chain, hoist and electrical operation will not function.



Electrical Interlock with Hoist Chain (when present) for Model MHS



TESTING

Turn on power, LED will flash 7 times on power up. Test all controls and safety devices to make sure they are working properly. If the operator does not function properly, contact your installing dealer.

IMPORTANT NOTES:

- Do not leave power to the operator on unless all safety and entrapment protection devices have been tested and are working properly.
- Be sure you have read and understand all safety instructions included in this manual.
- Be sure the owner or person(s) responsible for operation of the door have read and understand the safety instructions, know how to electrically operate the door in a safe manner and how to manually disconnect the door from the operator.

TEST 3-BUTTON CONTROL STATION

- 1. Press OPEN button. (The door should move in the open direction.)
- 2. Press STOP button. (The door should stop.)
- 3. Press CLOSE button. (The door should move in the close direction.)
- 4. Release CLOSE button. Door should stop if in C2 mode. (The door should continue closing if in B2 mode.)
- 5. Press STOP button. (The door should stop.)

TEST LIMIT ADJUSTMENT

- 1. Press OPEN button. (The door should open.)
- 2. Allow the door to fully open.
- 3. Press CLOSE button. (The door should close.)
- 4. Allow the door to fully close.
- 5. If the limits are not set properly, contact your installing dealer.

A WARNING

To avoid SERIOUS PERSONAL INJURY or DEATH from electrocution, disconnect ALL electric power BEFORE performing ANY maintenance.

TEST THE SAFETY DEVICES (IF INSTALLED)

- 1. Open the door.
- 2. Place an obstruction in the path of the photo eyes or sensing edge.
- 3. Press the CLOSE button.

The door should not close if photo eyes are installed. The door should close to obstruction and reverse if sensing edge is installed.

- 4. Remove the obstruction.
- 5. Press CLOSE button. Door should close.

If door did not reverse from obstruction, check safety devices.

TEST REMOTE CONTROL

- * Requires B2 wiring type and compatible LiftMaster remote control. In C2 wiring the remote control will open the door only.
- 1. Press remote control button.
- 2. Door should open. Allow the door to fully open.
- 3. Press remote control button.
- 4. Door should close. Allow door to fully close.

TROUBLESHOOTING

To locate a dealer in your area visit us online at www.liftmaster.com

CONDITION	POSSIBLE CAUSE	FIX
OPERATOR WILL NOT Respond to Any Commands	No power	► Check circuit breaker.
	Accessory failure	 Verify photo eyes are aligned.
	Possible component failure	► Contact your installing dealer.
OPERATOR MAKES Noise but door does Not move	Operator requires adjustment Contact your installing dealer.	
DOOR DRIFTS AFTER Operator stops	Operator or door requires adjustment	► Contact your installing dealer.
DOOR OPENS/CLOSES Too far	Operator requires adjustment	► Contact your installing dealer.
DOOR REVERSES UNEXPECTEDLY	Safety device activated	Verify photo eyes are aligned. If photo eyes are aligned and operator still does not operate properly, contact your installing dealer.
RADIO FUNCTIONALITY		
NO RESPONSE	Remote control is not programmed	► See PROGRAMMING REMOTE CONTROLS section.
	Low battery	► Replace battery.
REMOTE CANNOT BE PROGRAMMED	Low battery	► Replace battery.
POOR RANGE	Low battery	► Replace battery.
	Possible radio interference	► Contact your installing dealer.

MAINTENANCE SCHEDULE

Every 3 months or 5,000 cycles repeat all tests in the Testing section.

Call qualified service contractor for maintenance. To locate a dealer in your area visit us online at www.liftmaster.com.

The operator should be serviced at the following intervals:

- Every 3 months or 5,000 cycles
- Every 6 months or 10,000 cycles
- Every 12 months or 20,000 cycles

WARNING

To avoid SERIOUS PERSONAL INJURY or DEATH from electrocution, disconnect ALL electric power BEFORE performing ANY maintenance.

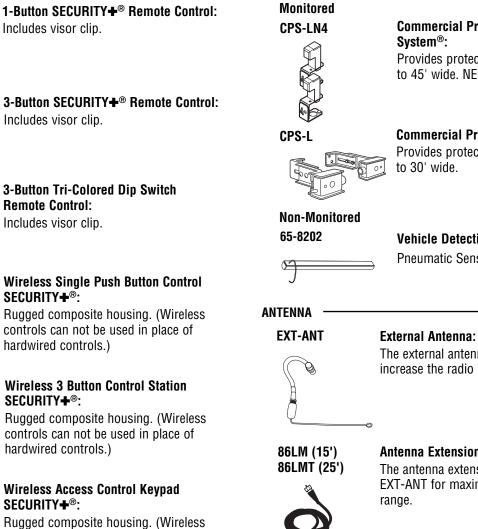
OPERATOR NOTES

OPERATOR NOTES

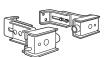
OPERATOR NOTES

ACCESSORIES

ENTRAPMENT PROTECTION DEVICES



Commercial Protector System®: Provides protection on doors up to 45' wide. NEMA-4 rated.



Commercial Protector System®:

Provides protection on doors up to 30' wide.

Vehicle Detection System

Pneumatic Sensing Edge Kit

The external antenna can be used to increase the radio receiver range.

Antenna Extension Kit:

The antenna extension kit can be used with EXT-ANT for maximum radio receiver range.

WIRE

65-7WIREL

21-2LM



7 Conductor 20 AWG Wire (500'): Recommended for control wiring.

2-Strand 22 AWG Wire (500'): Color coded, white and white/black.

50-104-1

Coil Cord 18 AWG Wire (20'): Black coil cord, 2 wire, 18 AWG, 20' extended.

3-Button Control Station: Steel enclosure.



Indoor flush mount, NEMA 1.











REMOTE CONTROLS 315MHz (O)

Includes visor clip.

Includes visor clip.

Remote Control:

SECURITY+®:

SECURITY+®:

SECURITY+®:

Steel enclosure.

hardwired controls.)

hardwired controls.)

hardwired controls.)

2-Button Control Station:

controls can not be used in place of

Includes visor clip.

371LM

373LM

333LM

WPB1LM

WPB3LM

WKP5LM

CONTROL STATIONS

02-102

02-103

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