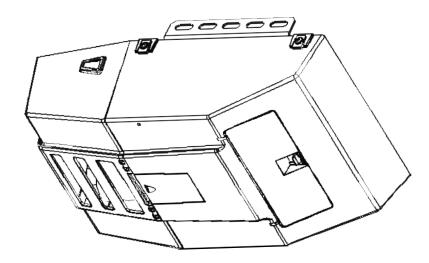
# **Installation Instructions and Owner's Manual**

# RESIDENTIAL GARAGE DOOR OPERATOR

# Chain/Belt Drive

Models: LX5000C, LX5010C, LX5020C, LX5030C, LX5000B, LX5030B



For residential sectional overhead garage doors only! Do not use on one piece doors!

**IMPORTANT!** The door and opener will not function properly until infrared safety sensors are installed and properly adjusted!

## **Important Notice!**

Read the enclosed instructions carefully before installing this garage door opener.

Pay close attention to all warnings and notes.

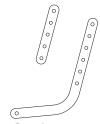
This manual MUST be attached to the wall in close proximity to the garage door.

© Copyright 2013 Lynx Industries Inc.



## **Package Contents**

NOTE: Depending on the opener model, some parts listed may not be supplied.



Door Arms Lower and Upper



Door Bracket



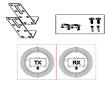
Wall Mounting Bracket



Keychain/Visor Transmitter (s)



Red Emergency Release Knob



Safety Beams (including hardware)



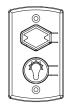
**Entrapment Label** 



**Emergency Release Label** 



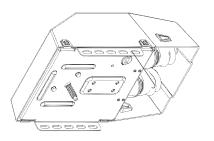
Multifunction Wall Station w/Hardware (Option)



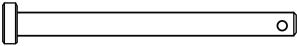
Wired Deluxe Wall Station with 30' of wire and Hardware



5 Button wireless **Keyless Entry** w/Hardware (Option)



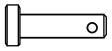
Operator / Light Diffuser



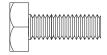




Hairpin Cotter (2)



1" Clevis Pin



(2) 1/4"-20 x 3/4" **Machine Bolts** 



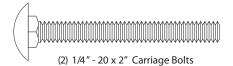
(4) 1/4"-20 x 1/2" Fastner Hex Flange Head Bolt



(2) 1/4"-20 x 5/8" Self Drilling Screws

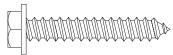


(2) 1/4" Locking Nuts





(2) 1/4" Nylock Nuts



(2) 5/16 x 11/2 Lag Screws



# PRE-INSTALLATION INSPECTION OF YOUR GARAGE DOOR PRIOR TO OPENER INSTALLATION

To ensure your new opener works as intended, your garage door must be properly installed and balanced.

Before installing your garage door opener, open and close the door manually to ensure it operates smoothly from top to bottom. A properly balanced door should not take a lot of effort to open or close by hand. The door should stay in the open and in the closed position without drifting down or creeping up. If a door opens fast, the door may need spring tension reduced. If the door drops fast, the door may need spring tension increased. If the door operates properly, then proceed to the installation manual for instructions how to install the opener.

If the operation of the door does not meet these requirements, adjust the spring balance per your door's installation manual or call a professional installer to make adjustments before installing the opener.

Instruction manuals are available for download at www.lynx-nsw.com

Once the door is properly balanced and operates smoothly, you may proceed with the installation of your opener.

## **Table of Contents**

Package Contents	2	Programing Keyless Entry	25
Pre-Installation Inspection	3	Installing Keyless Entry	26
System Features	5	Safety Instructions	27
Tools Needed	5	Operating Wireless Wall Station	29
Installation Notes	6	Customizing the setting	30
Attaching Opener to Rail	7	Opener Controls	30
Setting Belt/Chain Tension	8	Programing for Homelink	31
Positioning and Installing		Force adjustment	33
Front Wall Bracket	9	Programming Wireless Wall Station	
Attaching Rail to Wall Bracket	10	or Transmitter(s) to Opener	34
Positioning Opener End of Rail	10	Maintenance	35
Mounting Opener End	11	Accessories	36
Mounting Door Bracket	12	Troubleshooting	37
Wired Wall Station Installation	13	Templates	38
Wireless Wall Station Installation	15		
Entrapment Warning Label	16		
Safety Beams Installation	17		
Safety Beams Wiring	18		
Connecting Trolley to Door	19		
Installing Light Bulbs	20		
Connecting Operator to Outlet	20		
Alignment of Safety Beams	21		
Connecting Door to Trolley	22		
Setting Opener limits	22		
Contact Obstruction Test	23		
Safety Sensor Obstruction Test	24		

#### **Pre-Installation**



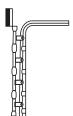
IMPORTANT! Before starting the installation read these instructions thoroughly to familiarize yourself with all aspects of installation and adjustment.

**IMPORTANT:** IF YOUR GARAGE HAS NO SERVICE ENTRANCE DOOR, INSTALL AN OPTIONAL OUTSIDE QUICK RELEASE LOCK. THIS ACCESSORY ALLOWS MANUAL OPERATION OF GARAGE DOOR FROM OUTSIDE IN CASE OF POWER FAILURE.

#### **IDENTIFY YOUR DOOR**

Identify your door by referring to illustrations below and verify that your door type is a sectional door with curved track. Do not install if the door is any type of one piece door.

**NOTE**: The opener has been designed for sectional doors. Do not attempt to install this opener on any style one piece door. Using this opener on a one-piece door may result in serious personal injury or property damage.









#### **TEST YOUR DOOR**

Before you begin, complete the following two tests to ensure that the door is balanced and working properly. A door that binds, sticks or is out of balance could cause severe injury. Do not attempt to compensate for an improperly adjusted door by the installation of an opener. This will interfere with the proper operation of the opener's safety features and/or may damage the door or opener. Have a qualified service person make any needed adjustments or repairs before proceeding with installation.

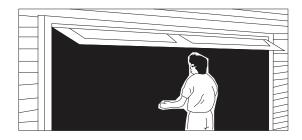
#### **Door Test One**

Raise and lower the door and check closely for any sticking or binding that may occur. Lift the door approximately half way open, as illustrated. When releasing the door, it should stay in position. If spring tension pulls the door further open or door weight pulls it down, your door is not properly adjusted.



#### **Door Test Two**

When properly installed, a door should remain clear of the opening, when allowed to rest at its natural, full open position. If "door drift" pulls door back into opening or spring tension is not sufficient to pull door totally clear of the opening, the door is not properly adjusted.



**CAUTION: KEEP CLEAR OF ALL ROTATING AND MOVING PARTS.** 



FAILURE TO KEEP CLEAR OF ROTATING AND MOVING PARTS CAN RESULT IN SEVERE INJURY.



## **System Features**

#### 1. Open and Close Cycle Control:

Allows garage door to be started and stopped by push button, transmitter or wall station. The next signal sends a stopped garage door in the opposite direction.

#### 2. Emergency Disconnect:

Manual disconnect permitting operation of door during power failure with automatic reconnect when opener is reactivated.

#### 3. Opener light:

Automatically turns on when opener is activated and remains on for four minutes for convenience and safety.

#### 4. Mechanical Door Lock:

When properly adjusted, opener locks door in closed position, preventing unwanted entry.

### 5. Obstruction Warning Light:

The convenience light will fl ash after sensing an obstruction in the down or up direction and/or if the safety system malfunctions while in the open position.

#### 6. Safety System:

Up and down force adjustment. When properly adjusted, the safety system will automatically reverse the door when obstructed in down direction and return to fully open position. The door will stop when obstructed in the up direction.

#### 7. Infrared Safety Sensors:

Wired infrared safety sensors detect an obstruction in door path and react by reversing the door.

#### 8. Multi-Function Wall Station:

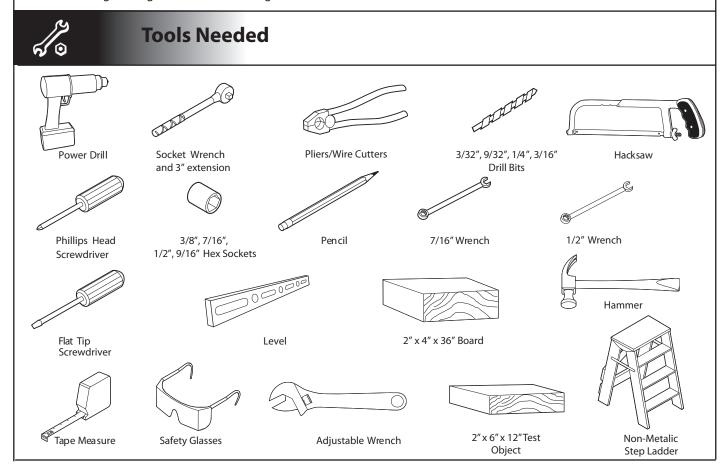
Wired wall station provides up/down door motion control and independent overhead light on/off control. Wireless multi-function wall station provides up/down door motion control, independent overhead light on/off control, door down delay, adjustable "pet position" function, and "pet position" program button.

#### 9. Homelink® Compatibility:

Opener is capable of "learning" automobile equipped Homelink® transceivers.

### 10. Rolling Code Technology:

Wireless transmitters, multi-function wall stations and wireless keyless entry use rolling code which prevent would-be thieves from "grabbing" the transmitter's digital code.





# **Installation Notes**

## Definition of key words used in this manual:

**△WARNING** 

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

**CAUTION:** PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

**IMPORTANT:** REQUIRED STEP FOR SAFE AND PROPER OPENER OPERATION.

**NOTE:** Information assuring proper installation of the opener.

## **△WARNING**

INCORRECT INSTALLATION CAN LEAD TO SEVERE OR FATAL INJURY. FOLLOW THESE INSTRUCTIONS CAREFULLY.

#### IMPORTANT INSTALLATION INSTRUCTIONS

- READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
- 2. Do not connect the opener to electrical power until instructed to do so.
- 3. Install the entrapment warning label next to the wall station in a prominent location.
- 4. Install the emergency disconnect label on the emergency disconnect cord.
- 5. Remove all ropes and make all locks connected to the garage door inoperative in the unlocked position, before installing the opener.
- 6. Do not wear rings, watches or loose clothing when installing or servicing a garage door system.
- 7. It is important that you install all of the components supplied with the opener, i.e., wall stations, safety sensors, etc.

  Use of substitute parts may cause the opener to malfunction and create unsafe conditions.
- 8. Wear protective eye wear when installing or servicing the opener or door.
- 9. Install opener on a properly balanced and operating garage door. Have a qualified service person make adjustments/repairs to cables, spring assemblies, and other hardware before installing the opener. An improperly balanced door could cause severe or fatal injury.
- 10. Where possible, install the opener seven feet or more above the floor. Mount the emergency disconnect six feet above the floor.
- 11. Locate the wall station: (a) within sight of door, (b) at a minimum height of five feet, so small children cannot reach it, and (c) away from all moving parts of the door.
- 12. After installing the opener, the door must reverse when it contacts a 1-1/2" high object (or 2 x 4 board laid flat) on the floor.
- 13. Installation and wiring must comply with local building and electrical codes. Connect the power cord to a properly grounded outlet. Do not remove the ground pin from power cord.
- 14. To reduce the risk of injury to persons, use this opener only with sectional overhead doors.
- 15. Top section of garage door may need to be reinforced before attaching opener. Check with your garage door manufacturer for their recommendations.
- 16. Do not use sensitivity adjustments to compensate for a poorly operating door. This will prevent proper operation of the safety reverse feature and may damage the door and cause possible severe or fatal injury.
- 17. An open door must not close and closing door must reverse and open if infrared safety sensors are obstructed by 6" high object placed on garage floor.
- 18. Use a sturdy, non-metallic step ladder when installing opener.

AFTER INSTALLATION IS COMPLETE, FASTEN THIS MANUAL NEAR GARAGE DOOR. PERFORM OBSTRUCTION TESTS MONTHLY AND MAINTENANCE AS RECOMMENDED. SEE SECTION 19 & 20 FOR MORE INFORMATION ON OBSTRUCTION TESTS.

# Attaching Opener to Rail

Tools Required – 3/8" & 7/16" Sockets, Ratchet Wrench

IMPORTANT: THE MOTOR SHAFT ON THE OPENER MUST BE FULLY INSERTED IN THE BELT PULLEY OR CHAIN SPROCKET AND RAIL MOUNTING BOLTS FULLY TIGHTENED BEFORE POWERING UP THE OPENER. FAILURE TO DO SO MAY RESULT IN DAMAGE TO THE OPENER OR RAIL ASSEMBLY.

Place opener on floor with motor shaft facing up and light sockets toward garage door. Use card board or other soft material under opener to prevent damage to the housing.

Lay rail on floor next to opener with drive pulley/ sprocket support facing up and located near opener.

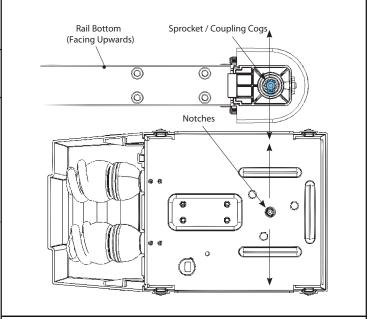
Place opposite end of rail (door side) on temporary support approximately 6 inches in height.

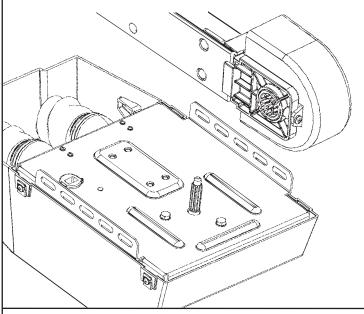
Disconnect Trolley from belt/chain by moving latch lever down. Slide Trolley toward end of rail opposite opener. Belt/Chain Connector should be near the middle of the rail. If it is not move it back toward middle of rail. Once opener is attached belt/chain cannot be moved manually.

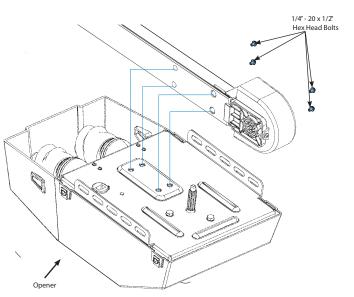
Remove temporary bolt and nut from opener side of rail. Lift opener end of rail and slide drive pulley/sprocket onto motor shaft. Pulley/sprocket may need to be moved slightly to engage splines. This can be done by moving belt /chain or rotating opener slightly.

When rail is fully seated the motor shaft should be visible in top bushing of drive pulley/sprocket and rail will be resting on opener top plate. Insert four 1/4-20 x 1/2 inch hex flange head bolts through rail and drive pulley/sprocket support and into threaded holes in opener top plate. The opener may need to be rotated slightly to get holes to line up. Using a 3/8 inch socket tighten bolts securely.

IMPORTANT: DO NOT PLUG OPENER POWER CORD INTO ELECTRICAL OUTLET UNTIL OPENER IS FULLY INSTALLED AND YOU ARE INSTRUCTED TO DO SO IN THIS MANUAL







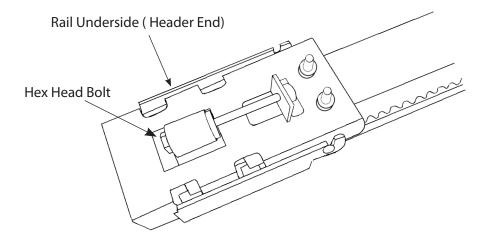
## **Setting Belt/Chain Tension**

Tools Required – 7/16 inch Open End Wrench, Tape Measure

Tension of belt or chain is adjusted by tightening hex head bolt on underside of rail support at header end of rail. Turning bolt to the right (as you face the bolt head) tightens the belt/chain.

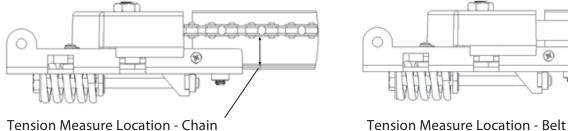
# **WARNING**

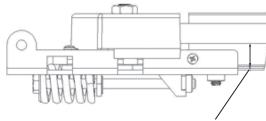
DO NOT ATTEMPT TO INCREASE TENSION OF BELT/CHAIN UNTIL OPENER IS FASTENED TO RAIL. BELT/CHAIN TENSION MUST BE REDUCED BEFORE REMOVING OPENER FROM RAIL



Tighten hex bolt until distance from bottom of rail to bottom of chain is 3/4 inches or to bottom of belt is 5/8 inches.

Take measurement at point where rail attaches to rail support as shown in the illustration below.





# 3

# **Positioning and Installing Front Wall Bracket**

Tools Needed: Carpenters Level, 1/2" socket, Ratchet Wrench, Power Drill, Tape Measure, 1/4" drill bit

**NOTE:** It is recommended that the door opener be installed 7 feet or more above the garage floor.

#### REINFORCE THE HEADER WALL

Reinforce the header wall (wall above door opening) as required to ensure rigid mounting of the front wall bracket.

# **△WARNING**

DO NOT ATTEMPT TO LOOSEN OR REMOVE ANY PORTION OF DOOR SPRING SYSTEM IN ORDER TO REINFORCE HEADER WALL OR TO MOUNT WALL BRACKET. SPRING SYSTEM IS UNDER EXTREME TENSION AND CAN CAUSE SEVERE OR FATAL INJURY. SUCH WORK SHOULD BE DONE BY A QUALIFIED SERVICE PERSON.

Locate the vertical centerline of the garage door and mark it on the header above the door and on the top edge of the door. Mark on top of door will aid in positioning opener end of rail in a later step.

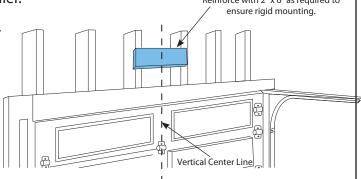
Raise the door slowly until the top section reaches the highest point of travel (high arc point). Using a carpenters level, transfer and mark the highest point of travel onto the header wall. Close the door.

Position the front wall bracket with its lower edge 1/2 to 1 inch above the high arc line on the header wall and centered on the vertical line marked earlier.

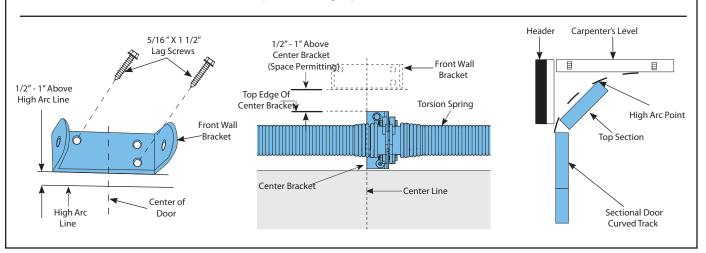
Reinforce with 2" x 6" as required to

NOTE: For low headroom torsion counterbalance, position wall bracket bottom edge 1/2 to 1 inch above top edge of torsion spring center bracket (space permitting) and centered on vertical line.

Mark wall bracket mounting holes and pilot drill with 1/4 inch drill bit. Mount wall bracket using supplied 5/16 x 1-1/2 Hex Flange Head Lag Screws to ensure rigid support of rail.



Once bracket is mounted measure distance from ceiling or joists to clevis holes in front wall bracket. This distance will be used later when positioning opener.



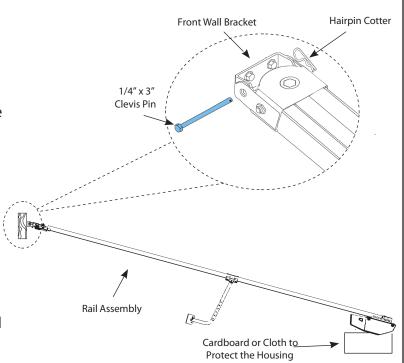
## **Attach Rail to Front Wall Bracket**

Tools Required - None

Raise the front end of the rail assembly and lean against header wall above garage door. Use cardboard or other soft material under opener to prevent damage to the housing.

NOTE: If you have a torsion spring counterbalance system it will be necessary to raise the opener and support it on a stepladder or other temporary support to attach the front end of the rail assembly to the wall bracket.

Attach front support of rail to front wall bracket using the ¼ x 3 inch clevis pin and hairpin cotter.



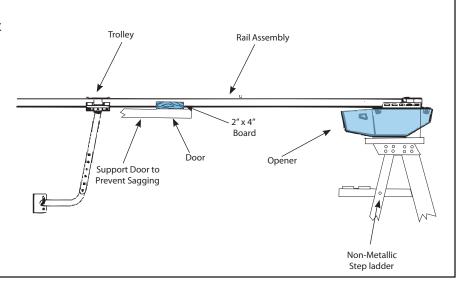
# **Positioning Opener End of Rail**

Tools Required: 2" x 4" board at least 36" long, Non-metallic Step Ladder

Raise opener and support it so that the garage door may be moved to its full open position. The best support would be the top of a step ladder if the door can move freely under the rail. If this is not possible an assistant will have to support the opener until the door can be opened.

Once the door is fully open the opener can be supported by a 2" x 4" board laid across the open garage door. Be sure the door is strong enough or support the center to prevent sagging of the door.

IMPORTANT: TO PREVENT DAMAGE TO DOOR OR OPENER, POSITION TROLLEY AS CLOSE AS POSSIBLE TO DOOR END OF RAIL. BE SURE DOOR WILL CLEAR TROLLEY BEFORE ATTEMPTING TO OPEN THE DOOR.



# **Mounting Opener End**

Tools Required – Power Drill, Hacksaw. 1/4 Drill Bit, 1/2 inch, 7/16 inch sockets and ratchet wrench, adjustable wrench or 1/2 inch and 7/16 inch openend wrenches, tape measure, carpenters level

Additional Materials Required (not supplied) - perforated angle straps, 5/16 x 1-1/2 inch lag screws, 5/16-18 x 3/4 inch bolts, nuts and lock washers.

Align the center of the rail assembly with centerline on top section of garage door marked in Step 3. This will ensure rail will be parallel to direction of door travel.

Using perforated angles hang opener end from ceiling joists as illustrated. Be sure horizontal angle spans at least three joists.

Recommended distances from header wall to horizontal angle is shown below:

7 foot rail – 122 inches

8 foot rail - 134 inches

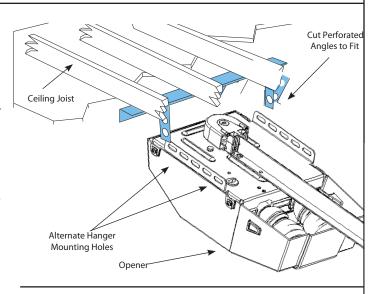
10 foot rail - 158 inches

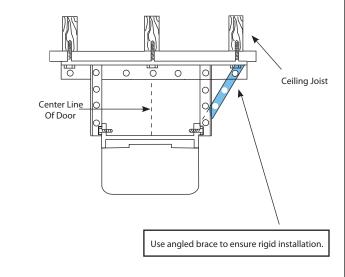
Length of vertical angles is determined by adding 1-1/2 to 2 inches to distance measured from ceiling or joists to wall hanger bracket in Step 3. An additional angle brace is recommended to ensure a rigid installation.

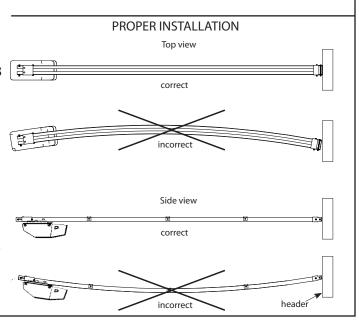
Pilot drill into joists with 1/4 inch drill and fasten horizontal perforated angle to joists with 5/16 x 1-1/2 inch lag screws. Vertical straps are attached to horizontal straps with appropriate bolts, nuts and washers. Attach opener to vertical straps with 5/16-18 x 3/4 inch bolts, nuts and lock washers. Before tightening 5/16 hanger bolts be sure rail is level.

When opener is securely attached to perforated angles remove 2" x 4" from top of door (if used) and close door.

Opener rail should be aligned perpendicular to the garage door when properly installed. There should be no sagging of rail in any direction.







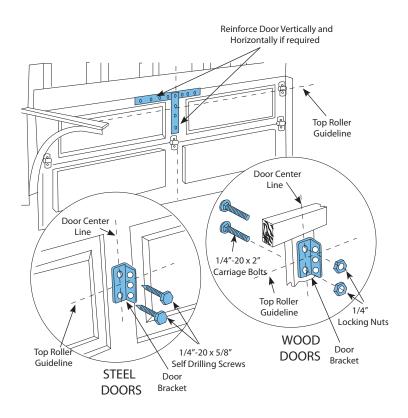
# **Mounting Door Bracket**

Tools Required – 3/8 & 7/16 inch sockets, Ratchet Wrench, Power Drill, 9/32 inch drill bit

IMPORTANT: DOORS MAY NEED TO BE REINFORCED TO PREVENT DAMAGE TO THE DOOR. CHECK WITH THE GARAGE DOOR MANUFACTURER FOR PROPER REINFORCEMENT REQUIRED ON YOUR DOOR.

For Wood Doors: Align door bracket on centerline of door with middle hole in line with top rollers. Mark and drill mounting holes using 9/32 inch drill bit and mount bracket to door with supplied  $\frac{1}{4}$ "-20 x 2" carriage bolts and lock nuts.

For Metal Doors: Align door bracket on centerline of door with middle hole in line with top rollers. Mount door bracket with two supplied  $\frac{1}{4}$ "-20 x 5/8" self-drilling screws.



## **Wired Wall Station Installation**

Tools Required – Power Drill, Phillips Head Screwdriver, Small Flat Blade Screwdriver, 3/32 inch drill bit, hammer, wire cutter/stripper.

# △WARNING

TO PREVENT POSSIBLE INJURY, INSTALL WALL STATION OUT OF THE REACH OF CHILDREN AND IN A LOCATION WHERE THE DOOR CAN BE SEEN WHEN THE OPENER IS ACTIVATED. DO NOT MOUNT WALL STATION NEAR OR NEXT TO GARAGE DOOR.

IMPORTANT: THE STANDARD WALL STATION OR DELUXE WALL STATION MUST BE THE ONLY TYPE USED FOR PROPER DOOR OPERATION. THE USE OF ANOTHER WALLSTATION NOT SUPPLIED BY LYNX COULD CAUSE OPENER TO MALFUNCTION.

#### **Wired Wall Station:**

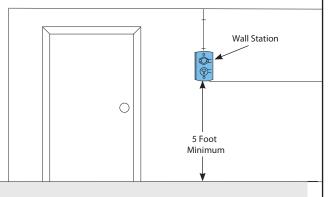
Uncoil and connect supplied bell wire to wall station terminal screws as illustrated (see next page).

**IMPORTANT:** CONNECT WIRES TO WALL STATION TERMINALS USING A "J" HOOK CONFIGURATION. IF WIRE IS COMPLETELY WRAPPED AROUND TERMINAL SCREW IT CAN PREVENT PROPER CONTACT.

Locate wall station adjacent to service entrance door at a minimum height of 5 feet and at least 6 feet away from garage door.

Fasten the wall station with supplied flat head screws.

Pilot drill mounting holes using 3/32 inch drill bit and install screws tightening them just enough to seat wall station against wall. Do not over tighten. Be sure wires are passed through notch at top of wall station and are not trapped between wall and wall station.





# **Wired Wall Station Installation (Continued)**

Additional wired wall stations may be installed in accordance with these instructions.

**CAUTION:** Over tightening screws could damage plastic case.

Route the wires from wall station location up the garage wall and across the ceiling then down to front of opener. Tack the wires in place using wire staples (Not Supplied).

Take care to run wires in a location where they will not interfere with the operation of the door or present a hazard to persons in the garage. Take care to position staples so they do not penetrate the wires and cause a malfunction.

Open Light Cover by depressing lock buttons on either side of Light Cover and swinging cover down. Wiring can be performed without removing Light Cover but if removal is desired squeeze legs of hinge arms together and disengage tabs from front of housing.

Set Light Cover aside in a safe location.

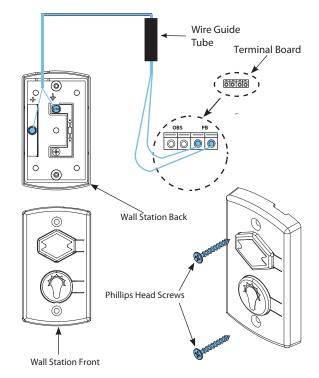
Pass wires from wall station through wire guide tube on left side of opener front panel and out through opening at terminal block.

Cut wires to length about 2 inches below terminal

block opening being sure wires are not pulled tight. Strip about ½ inch of insulation from ends of wires using a wire stripper. Be sure wire is not nicked while stripping insulation. Wall station wires are inserted into right side holes of terminal block.

Using a small screwdriver, depress orange tab above terminal block hole, insert wire fully to insulation and release tab. Test connection by gently pulling on wire to be sure it is secure. Install second wire in remaining right side hole and test connection.

Pull wires gently up guide tube and fold into opening above terminal block. Keep wires to the right so there is space to install light beam wires on opposite side of terminal block.



# **Deluxe Multi-Function Wireless Wall Station Installation** (If Included)

Tools Required – Power Drill, Phillips Head Screwdriver, 3/32 inch drill bit, 3/16 inch drill bit.

## ⚠ WARNING

TO PREVENT POSSIBLE INJURY, INSTALL WALL STATION OUT OF THE REACH OF CHILDREN AND IN A LOCATION WHERE THE DOOR CAN BE SEEN WHEN THE OPENER IS ACTIVATED.

DO NOT MOUNT WALL STATION NEAR OR NEXT TO GARAGE DOOR.

**NOTE:** For proper operation, mount the wall station on a flat surface.

The wall station can be mounted to a NEMA standard electrical box or directly to any wall surface. No wiring is required.

Locate wall station adjacent to service entrance door at a minimum height of 5 ft., and at least 6 ft. away from garage door.

If mounting to a NEMA electrical box, use machine thread screws (provided) in place of the wood screws. No drilling is required. If high voltage wiring is contained in the box, a standard NEMA solid faceplate must be installed between the box and the wall station.

If fastening into drywall or concrete, use anchors provided. When mounting to wood use a 3/32" drill bit and the drilling template located at the end of the manual. Drill the two 3/32" mounting holes using the drill template.

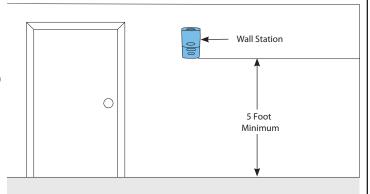
Drill 3/16" holes if using anchors.

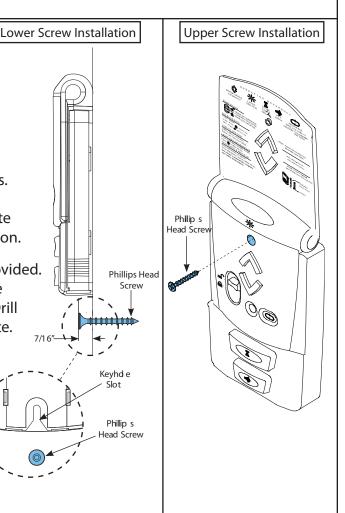
Install lower screw leaving 7/16" of the screw exposed. Slide wall station keyhole slot onto the lower phillips head screw.

Wall station should slide onto screw, providing a snug fit. If necessary remove wall station and loosen or tighten lower phillips head screw until a snug fit is achieved.

Once wall station is fitted on lower screw, install upper screw. Do not over-tighten.

**CAUTION:** Over tightening the upper screw could deform plastic case.



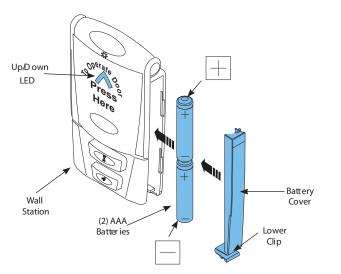




# **Deluxe** Multi-Function Wireless Wall Station Installation (Continued) (If Included)

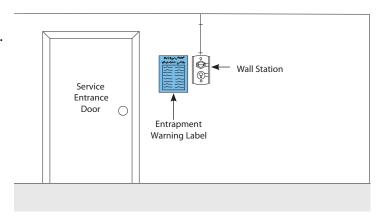
Remove the battery cover (right-hand side of wall station) by disengaging the battery cover's lower clip. Install two AAA batteries into the wall station observing the polarity, (+) and (-), of both batteries. After about three seconds, the red LED will begin to blink every three seconds. Re-install the battery cover by first inserting its top into the wall station then inserting and securing its bottom.

NOTE: To slow the blink rate or to completely turn it off, refer to Wall Station operation on page 30 "Back Lit LED Light".



# Entrapment Warning Label

Apply entrapment warning label in a convenient location next to the wall station. Use mechanical fasteners if adhesive will not adhere.



# 11

# **Wired Infrared Safety Sensor Bracket Installation**

Tools Required: Ratchet wrench, tape measure, power drill, 1/4 inch drill bit, 7/16 inch socket, pencil

**IMPORTANT:** BOTH WALL BRACKETS MUST BE MOUNTED AT THE SAME HEIGHT FOR PROPER ALIGNMENT.

**IMPORTANT:** IDENTIFY WHICH SIDE OF THE GARAGE DOOR IS EXPOSED TO THE MOST SUNLIGHT. MOUNT THE SENDING UNIT (UNIT WITH RED LED) ON THE SIDE WHICH IS EXPOSED TO THE MOST SUN. SUNLIGHT MAY AFFECT THE SAFETY SENSORS AND THIS ORIENTATION WILL HELP REDUCE THE EFFECT.

Note: Use the following steps to install sensors on both sides of the door

Select and mark with a pencil a mounting location no more than 5 inches above the floor to the

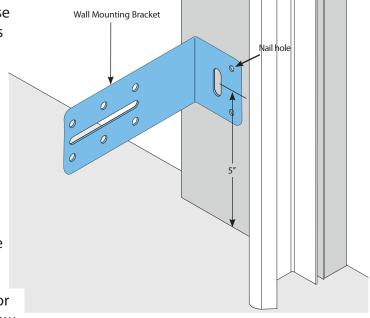
center line of the wall mounting bracket.

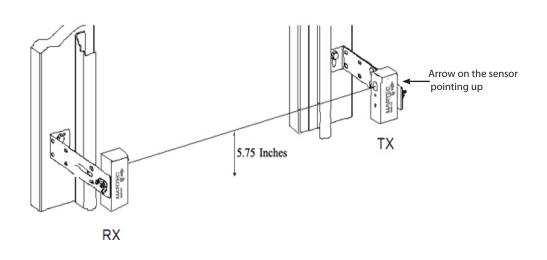
The safety sensors should be mounted as close to the door track or inside edge of the door as possible to offer maximum entrapment protection. It is very important that both brackets be mounted at the same height for proper alignment.

Drill pilot hole using a1/4 inch drill bit. Attach bracket to wall using provided 5/16 x 1-1/2 lag screw and nail as illustrated.

In some installations it may be necessary to attach a wooden spacer to the wall to achieve the required alignment.

After both brackets are mounted attach sensor units to brackets using wing nuts. Be sure arrow on sensors are pointing up.



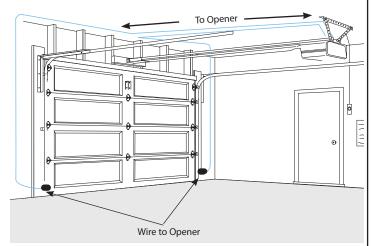


## **Wired Infrared Safety Sensor Wiring**

Tools Required – Hammer, Small Flat Blade Screwdriver, wire cutter/stripper

Uncoil and route wire from left and right safety sensors up the garage wall, across the ceiling and down to front of opener. Tack the wires in place using wire staples (Not Supplied). Take care to run wires in a location where they will not interfere with the operation of the door or present a hazard to persons in the garage. Take care to position staples so they do not penetrate the wires and cause a malfunction.

**NOTE**: If wires must be lengthened or spliced into pre-wired installation, use wire nuts or other suitable connectors.



Pass wires from safety sensors through wire guide tube on left side of opener front panel and out through opening at terminal block. Cut wires to length about 2 inches below terminal block opening being sure wires are not pulled tight.

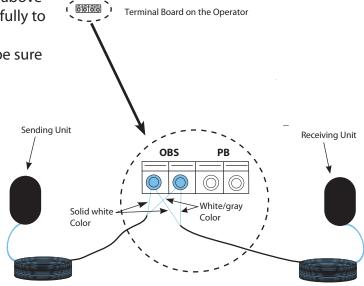
Strip about 1/2 inch of insulation from end of wires using a wire stripper. Be sure wire is not nicked while stripping insulation. Pair two white wires and two white/gray wires together.

Safety sensor wires are inserted into left side holes of terminal block.

Using a small screwdriver depress orange tab above terminal block hole, insert paired white wires fully to insulation in one hole and release tab.

Test connection by gently pulling on wire to be sure it is secure. Install paired white/gray wires in remaining hole and test connection.

Pull wires gently up guide tube and fold into opening above terminal block. Keep wires to the left.

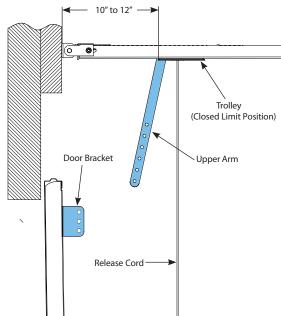


# **Connecting Trolley To Door**

## **△WARNING**

TO AVOID POSSIBLE SEVERE OR FATAL INJURY, KEEP PEOPLE AND OBJECTS CLEAR OF THE MOVING DOOR ARM.

**NOTE**: Installation instructions apply to a typical door. Adjustments to position and orientation of Upper and Lower Door Arms may be required for specific installations.



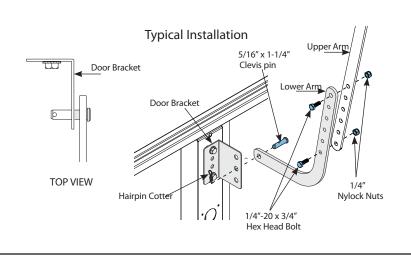
Be sure that garage door is fully closed. Remove Clevis Pin Hairpin and Clevis Pin from Trolley. Insert Upper Door Arm (end without multiple holes) in between Trolley flanges and replace Clevis Pin through Trolley flange, Upper Door Arm and opposite Trolley flange. Replace Hairpin Cotter in Clevis Pin.

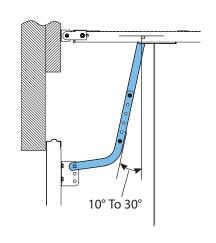
Install Lower Door Arm on door bracket. Align single hole on Lower Door Arm with center hole on door bracket. Install clevis pin and hairpin cotter.

Position Trolley about 10"-12" from header. Align holes in Upper and Lower Arms and insert 1/4-20 Hex bolt through one set of holes. Slide Trolley as needed to align

second set of holes and insert second bolt. Install hex lock nuts and tighten fully. A properly positioned Upper Door Arm will be at an angle of 10-30 degrees from vertical. Lower Door Arm can be repositioned to upper or lower door bracket holes, if needed, to bring arm angle into range noted above.

**NOTE**: Two bolts must be used in Door Arm assembly to prevent movement of Door Arms during opener operation.





# 14

## **Installing Light Bulbs**

Open Light Cover by depressing lock buttons on either side of Light Cover and swinging cover down. If Light Cover was removed in Section 8 (page 14), replace it by squeezing together one set of hinge legs and installing in square opening on front of opener. Squeeze remaining hinge together and insert in other opening.

Install two Compact Fluorescent bulbs or Incandescent bulbs. Use 60-watt maximum if incandescent bulbs are used.

Close Light cover by swinging cover up and lightly pushing cover toward opener. Lock buttons will snap into openings in Light Cover when cover is fully closed. Be sure cover is locked in place on both sides.

# 15

## **Connecting Operator to Outlet**

# △WARNING

TO REDUCE THE RISK OF ELECTRICAL SHOCK, THE EQUIPMENT HAS A GROUNDING TYPE PLUG THAT HAS A THIRD GROUNDING PIN. THIS PIN WILL FIT IN A POLARIZED OUTLET ONLY ONE WAY. IF THE PLUG DOES NOT FIT FULLY IN THE OUTLET, REVERSE THE PLUG. IF IT STILL DOES NOT FIT, CONTACT A QUALIFIED ELECTRICIAN TO INSTALL THE PROPER OUTLET. DO NOT CHANGE THE POWER CORD IN ANY WAY.

**IMPORTANT**: THE OPENER MUST BE CONNECTED TO A PROPERLY GROUNDED 3-PRONG, 120 VOLT OUTLET.

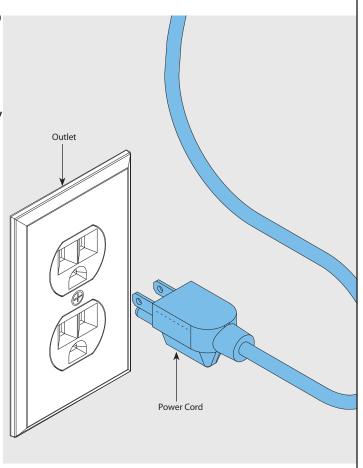
**Note:** The opener can be permanently wired, if required by local electrical codes. To permanently wire the unit, contact a qualified electrician.

Plug the power cord into the closest grounding type receptacle. Excess power cord length must be routed and contained safely away from any moving parts.

As soon as power is applied to the opener, the lamps will turn on, then turn off.

# △WARNING

DO NOT ATTEMPT TO OPERATE OPENER UNTIL INSTRUCTED TO DO SO. OPENER WILL NOT OPERATE UNTIL SAFETY SENSORS ARE PROPERLY ALIGNED AND DOOR LIMITS ARE SET.



# **Alignment of Wired Infrared Safety Sensors**

## ⚠WARNING

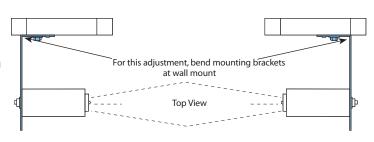
TO AVOID POSSIBLE SEVERE OR FATAL INJURY, KEEP PEOPLE AND OBJECTS CLEAR OF THE MOVING DOOR ARM.



IMPORTANT: THE SAFETY SENSOR SENDS AN INVISIBLE BEAM OF LIGHT FROM THE SENDING UNIT TO THE RECEIVING UNIT ACROSS THE PATHWAY OF THE DOOR. THE OPENER WILL NOT OPERATE UNTIL THE SAFETY SENSORS ARE CONNECTED TO THE OPENER AND PROPERLY ALIGNED. IF THE INVISIBLE BEAM OF LIGHT IS OBSTRUCTED, AN OPEN DOOR CANNOT BE CLOSED BY THE TRANSMITTER OR A MOMENTARY ACTIVATION OF THE WALL STATION UP/DOWN BUTTON. HOWEVER, THE DOOR MAY BE CLOSED BY CONTINUOUSLY HOLDING YOUR FINGER ON THE WALL STATION UP/DOWN BUTTON (CONSTANT PRESSURE) UNTIL THE DOOR TRAVELS TO A FULLY CLOSED POSITION.

The safety sensors must be aligned by moving the sending and receiving units until the alignment lights turn on. The wing nuts on the sensors can be loosened and the sensors slid in and out as required.

If you have difficulty aligning sensors, check that both brackets are mounted at the same height. (See Section 11) and re-mount as necessary. Additional minor adjustments can be made by slightly bending mounting brackets.



Once alignment lights come on, tighten all wing nuts and mounting screws.

Note: The Red LED (on the Transmitter module) will be ON whenever the sensors are powered. The Green LED (on the Receiver module) will be ON steady when the sensors are properly aligned. If the Green LED is unsteady, flashes or dims, realign the sensors or check for obstructions.

## **Connecting Door to Trolley (Chain or Belt)**

Tools Required - None

With door in fully closed position, release disconnect lever by pulling red knob towards door.

Open garage door until trolley latches into belt/chain connector near center of rail assembly.

Attach warning label to red release cord. Thread the red release cord through the pull knob. Tie a double knot at the end of the release cord to secure pull knob. Cut any excess cord below knot and pull release knob over knot.

**NOTE:** Pull knob should hang 6 feet above floor. Ensure that the rope and knob clear the tops of all vehicles to avoid entanglement.

# Setting Opener Limits

WARNING

TO AVOID POSSIBLE SEVERE OR FATAL INJURY, KEEP PEOPLE AND OBJECTS

CLEAR OF MOVING DOOR AND OPENER COMPONENTS DURING LIMIT SETTING.

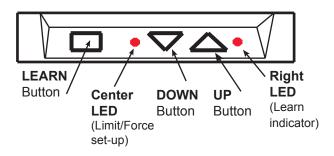
**IMPORTANT:** AFTER LIMIT SETTING PROCEDURE IS COMPLETE THE GARAGE DOOR WILL PERFORM ONE OPEN/CLOSE CYCLE TO AUTOMATICALLLY SET FORCE THAT IS REQUIRED TO OPERATE THE DOOR. KEEP PEOPLE AND OBJECTS CLEAR OF MOVING DOOR AND OPENER COMPONENTS DURING THIS CYCLE.

Open the control door at rear of opener by pushing latch tab forward. Allow the door to swing down.

Press and hold both the rectangular LEARN button and UP arrow button until the center LED blinks. Release both buttons. Use the UP arrow button to move door up until it is fully open. The UP and DOWN arrows may both be used to jog the door into the desired position.

Once the door is in the desired Open position, momentarily press and release the LEARN button to switch to Down Limit mode. The LED will blink faster to indicate you are now setting the Down Limit. Hold the DOWN arrow button to move door until it is fully closed. UP and DOWN arrows can be used to jog door into desired position.

Once the door is in the desired Closed position, press and release rectangular LEARN button to exit limit setting mode. The door will now automatically close and open one time. The lamp will blink three times if limit setting was successful.



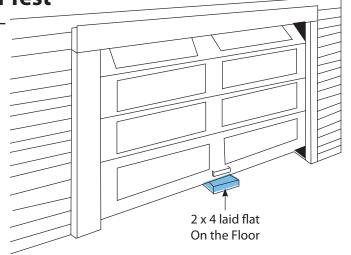
# 19

# **Contact Obstruction Test**

Tool needed - 2 x 4 board

After installing the opener, the door must reverse when it contacts a 1 1/2 inch high object (or a 2 x 4 board laid flat) on the garage floor.

Using the wall station, activate the door to the fully open position. Place a 2 x 4 flat on the garage floor, under the door path.



Activate the door to the closed position with the wall station. Upon contacting the 2 x 4 board, the door should reverse.

If door stops on the 2 x 4 board, adjust the close limit as per Section 18 until door reverses upon contact with 2 x 4 board.

When the door reverses, remove the 2 x 4 board and run the full cycle of open and close of the door. Door should not reverse when it comes to the fully closed position on the floor.

**NOTE:** If opener fails to pass this test, adjust the force as per page 33 (Opening and Closing Force Adjustment) and repeat Section 19 test.

# △WARNING

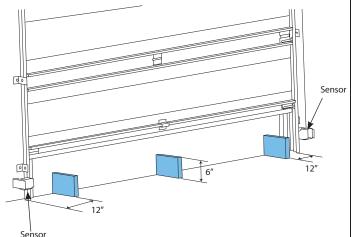
IF OPENER DOES NOT RESPOND PROPERLY TO THESE TESTS (Sections 19 AND 20), HAVE A QUALIFIED SERVICE PERSON MAKE NECESSARY ADJUSTMENTS/REPAIRS, OR SEVERE OR FATAL INJURY COULD RESULT FROM OPERATING THE DOOR/OPENER.

# **Safety Sensor Obstruction Test**

Tools needed - 2 x 6 x 12

## **△WARNING**

WHEN PERFORMING THIS PART OF THE TEST, DO NOT PLACE YOURSELF UNDER DESCENDING DOOR, OR SEVERE OR FATAL INJURY MAY RESULT.



Starting with the door fully open, place

a 6" high object on the floor, in line with sensors, 12" from the left side of the door.

Activation of the opener with the wall station Up/Down button should cause the door to move no more than one foot, stop and then reverse to fully open position.

Repeat this test with the 6" high object placed at the center of the door and then 12" from the right side of the door.

The 6" high object, when placed on the floor in line with sensors while door is closing, should also cause the door to reverse.

**NOTE:** If opener fails to pass this test, adjust the force as per page 33 (Opening and Closing Force Adjustment) and repeat Sections 19 and 20 tests.

# △WARNING

IF OPENER DOES NOT RESPOND PROPERLY TO THESE TESTS (Section 19 AND 20), HAVE A QUALIFIED SERVICE PERSON MAKE NECESSARY ADJUSTMENTS/REPAIRS, OR SEVERE OR FATAL INJURY COULD RESULT FROM OPERATING THE DOOR/OPENER.

# **Programming Wireless Keyless Entry (If Included)**

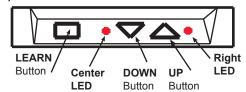
# △WARNING

DURING PROGRAMMING, THE GARAGE DOOR MAY OPERATE. KEEP PEOPLE AND OBJECTS CLEAR OF THE MOVING DOOR TO PREVENT DOOR DAMAGE OR POSSIBLE PERSONAL INJURY.

**NOTE:** To simplify installation, program the wireless keyless entry to the opener, before mounting to the wall.

**NOTE:** Before programming ensure garage door is in the "DOWN" position.

1. Press and hold the LEARN button on the opener until the red Right LED on the opener turns on. It will remain lit for 15 seconds, indicating that it is ready to learn the keyless entry.



2. Press the desired five digit PIN (PERSONAL IDENTIFICATION NUMBER), example 1-3-8-2-5. The red Right LED on the opener will turn on and off three times indicating a successful learn.

**NOTE:** Do not set a code that presents the numbers in sequential order, as an example 1/2, 3/4, 5/6, 7/8, 9/0. Studies show that people naturally press the buttons in a sequential pattern. Also, do not select a code that uses the same button five times consecutively. Thieves can easily figure out these types of codes.

**NOTE:** If at anytime, an error was made entering the code, simultaneously press and release the 7/8 and 9/0 buttons to reset the keyless entry; then repeat programming steps above.

**NOTE:** A single wireless keyless entry device may be programmed to operate multiple garage door openers. To program additional openers, repeat programming steps using a different five digit PIN for each additional opener.

## **How Your Keyless Entry Operates Your Door:**

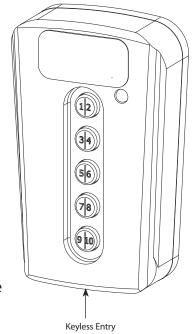
The following explains how your Keyless Entry can be used to OPEN, CLOSE, START, and STOP your door.

1. Enter your 5-digit PIN (personal identification number); door will move.

**NOTE:** If you inadvertently enter an incorrect code, the door will not move. To reset, simultaneously press and release the 7/8 and 9/0 buttons and reenter your PIN number.

2. Unit remains active for next 25 seconds.

During this time, Pressing any key, will stop the door if opening, and reverse the door if closing. It will also activate the door from fully open or close position.

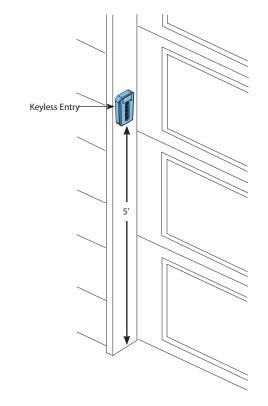


# **Installing Wireless Keyless Entry (If Included)**

Tools Needed: Power Drill, 5/64" Drill Bit, Phillips Head Screwdriver

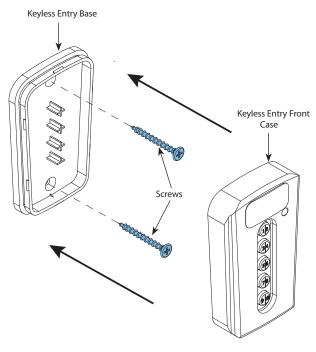
**IMPORTANT:** INSTALL ALL WALL CONTROLS OUT OF THE REACH OF CHILDREN AND IN A LOCATION WHERE THE DOOR CAN BE SEEN BEFORE ACTIVATING.

Locate a convenient place to mount the wireless keyless entry, that does not interfere with the normal opening and closing of the door. To keep keyless entry out of the reach of children, measure and mark a spot at least 5 feet up from the floor. Use the drilling template included in this manual to determine hole positions. Drill 5/64" pilot holes 3/4" deep at each screw location.



Snap open the wireless keyless entry case with a coin. Secure keyless entry base into wood framing using the two screws provided. Snap the front case half back onto the base. Remove paper backing from instruction label and apply to a clean surface inside garage.

**NOTE:** Two screws are included for mounting to wood structures. Ensure proper hardware is used for mounting to other materials.



### **IMPORTANT SAFETY INSTRUCTIONS**

## △WARNING

## TO REDUCE THE RISK OF SEVERE INJURY OR DEATH:

#### 1. READ AND FOLLOW ALL INSTRUCTIONS.

- **2.** Never let children operate or play with the door controls. Keep remote controls away from children.
- **3.** Always keep a moving door in sight and keep people and objects away until it is completely closed. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
- 4. NEVER GO UNDER A STOPPED, PARTIALLY OPEN DOOR.
- **5.** Test the Door/Opener monthly per Sections 19 and 20. The garage door MUST reverse on contact with a 1-1/2 inch high object (or a 2 x 4 board laid flat) on the floor. The door MUST also reverse when a 6" high object is placed on the floor in line with safety sensors. If Door/Opener fails these tests, have adjustments/repairs made immediately. Failure to make adjustments/repairs may cause severe or fatal injury.
- **6.** When possible, use the Emergency Disconnect only when the door is in the closed position. Be very cautious using the Emergency Disconnect when the door is open. Weak or broken spring(s) may allow the door to fall rapidly, causing a severe or fatal injury.
- **7.** KEEP THE GARAGE DOOR PROPERLY BALANCED. See the owner's manual included with the door. An improperly balanced door could cause a severe or fatal injury. Have a qualified service person make repairs to the cables, spring assemblies, and other hardware.

### 8. SAVE THESE INSTRUCTIONS.

### **Door Activation:**

Upon activation by either the wall station Up/Down button, transmitter or wireless keyless entry, the door will move in the following manner:

- 1. If open, the door will close. If closed, the door will open.
- 2. If closing, the door will stop and reverse. Next activation (while the door is moving) will stop.
- **3.** If opening, the door will stop. Next activation will close.
- **4.** If an obstruction is contacted or the safety sensor beam is interrupted while closing, the door will reverse and the light will flash.
- **5.** If an obstruction is encountered while opening, the door will stop and the light will flash. The next activation will close the door.
- **6.** The Infrared Safety Sensor uses an invisible beam which, when broken by an obstruction, causes a closing door to reverse, prevents an open door from closing and causes the light to flash.



## **IMPORTANT SAFETY INSTRUCTIONS (Continued)**

# **△WARNING**

ALWAYS KEEP MOVING DOOR IN SIGHT AND KEEP PEOPLE AND OBJECTS AWAY UNTIL IT IS COMPLETELY CLOSED. TO PREVENT A SEVERE OR FATAL INJURY, AVOID STANDING IN A OPEN DOOR WAY OR WALKING THROUGH THE DOORWAY WHILE THE DOOR IS MOVING.

## △WARNING

NEVER LET CHILDREN OPERATE DOOR OR PLAY WITH THE DOOR CONTROLS. KEEP REMOTE CONTROLS AWAY FROM CHILDREN. FATAL INJURY COULD RESULT SHOULD A CHILD BECOME TRAPPED BETWEEN THE DOOR AND FLOOR.

## **△WARNING**

KEEP THE GARAGE DOOR PROPERLY BALANCED. AN IMPROPERLY BALANCED DOOR COULD CAUSE SEVERE OR FATAL INJURY. HAVE A QUALIFIED SERVICE PERSON MAKE ADJUSTMENTS/REPAIRS TO CABLES, SPRING ASSEMBLIES, AND OTHER HARDWARE.

## **Emergency Disconnect:**

## **△WARNING**

THE DOOR SHOULD BE FULLY CLOSED WHEN ACTIVATING THE EMERGENCY RELEASE DISCONNECT. WEAK OR BROKEN SPRINGS COULD ALLOW AN OPEN DOOR TO FALL RAPIDLY POSSIBLY CAUSING SEVERE OR FATAL INJURY.

The opener is equipped with an emergency release recessed trolley type disconnect system, enabling manual operation of the garage door during power failure. The trolley is disconnected from the chain or belt by pulling down on the red release knob, allowing the garage door to be operated manually. Do not use the manual release knob to pull the door open or closed. The trolley will automatically reconnect when power is restored and door is activated. If emergency release is used, close door before operating opener.

**NOTE:** Outside keylock emergency releases are an available accessory and are recommended for garages without a service entrance.

#### HOW THE LIGHT WORKS AND WHAT IT MEANS WHEN IT FLASHES:

- **1.** Overhead light automatically turns on when opener is activated and remains on for about 5 minutes for convenience and safety.
- **2.** The light will flash 4 times if opener senses an obstruction in the up or down direction, to warn you of a problem. It will flash 5 times if the safety sensors have been interrupted during the closing cycle (and the door will reverse).
- **3.** If the light begins to flash and the door moves a short distance and then reverses when you try to close the door, the safety sensor is activated or defective. To temporarily override safety sensor device and close door, activate wall station up/down button, keeping button depressed; opener will begin in down direction. The button must remain depressed until cycle is completed. If the button is released before cycle is completed, the door will reverse and come to full up position. Problems in the safety system should be corrected by a qualified service person.

**NOTE:** A fully open door with a blinking light indicates an obstruction or problems with external safety sensors during close travel.



## **Operating the Wireless Wall Station**

### **Up-Down Button:**

Momentarily pressing the Up/Down button starts or stops door movement or changes door's direction. Pressing and holding Up/Down button during the door's travel will override safety sensors. The Up/Down Button (when unit is closed) can be activated by pressing flip cover.

## **<b>△WARNING**

IF DOOR REQUIRES THAT SAFETY SENSORS BE OVERRIDDEN THAT CONDITION MUST BE CORRECTED IMMEDIATELY. FAILURE TO MAKE ADJUSTMENTS/REPAIRS COULD RESULT IN SEVERE OR FATAL INJURY.

## Light Button:

Momentarily pressing the light button turns on the convenience light. The light will remain on until either the light button is pressed again or the door is activated. The light automatically turns on with a door activation and remains on for about 5 minutes. Pressing the light button before the 5 minutes has elapsed will turn off the light. While the door is in motion, the light button functions identically as the Up/Down button, stopping or reversing the door immediately.

# Timer Button:

Momentarily pressing the timer button causes a delayed activation of a stationary fully open door. The light fixture or the opener's lamp will blink on and off for about 10 seconds prior to closing the door, allowing enough time to exit the garage when the opener is in the timer mode. Pressing any button, except the program button while the opener lamp is blinking cancels the timer mode.

**NOTE:** The timer feature will only function with the door in the fully open position. Pressing the timer button with a stationary door in any other position will cause the opener lamp to blink 4 times and the door will not be activated. While the door is in motion, the timer button functions identical to the Up/Down button, stopping or reversing the door immediately.

#### Vacation Slide Switch:

The slide switch has two positions: Normal, and Door lock.

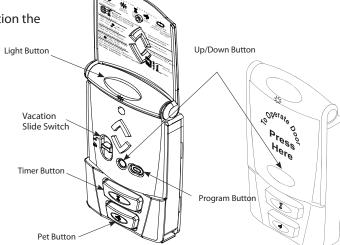
## Normal position:

Move the slide switch to normal position for all normal functions of the opener. The normal position will cancel the door lock feature.

**NOTE:** When the slide switch is moved to the unlocked position the opener light fixture will blink on/off three times.

## Door Lock position:

If the door is stopped (fully open, fully closed or partially open) move the slide switch to the door lock position to suspend all normal functions of the opener. The opener will remain completely disabled and non-operational in this mode. All wall stations, transmitters and keyless entry units are ignored until the slide switch is moved to the normal position. If the door is moving when the slide switch is moved to the door lock position, the door lock mode is not activated and all functions of the opener remain active.



NOTE: When the slide switch is moved to the locked position, the opener light fixture will blink on/off three times.

## Pet position:

Pressing the pet button opens a closed door to a preset position between 5 and 30 inches above the floor, allowing pets to enter and exit the garage without the door being fully open. The door must be fully closed to activate the pet open feature. Pressing the pet button with a stationary door in the pet open position will cause the door to close. Pressing the Up/Down button while the door is in the pet position will cause the door to open. While the door is in motion, the pet button functions identically to the Up/Down button, stopping or reversing the door immediately. The pet feature allows for custom setting of the pet position door height.

NOTE: A door in the "pet position" (open 5-30 inches) is not locked and should not be used as a secured door position.



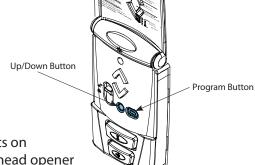
## **Customizing the Settings**

#### **Custom pet position:**

The pet button opens a closed door to a preset position between 5 and 30 inches above the floor, allowing pets to enter and exit the garage without the door being fully open. To change the automatic pet opening height:

Start with the door in the closed position.

1. Open the door then stop it (by pushing the Up/Down button while the door is moving up) at the desired height. If desired height is not achieved, the door must be returned to the closed position.



**2.** Press and hold the Wall Station Program button until the LED lights on the Wall Station blinks fast. Release the Program button. The overhead opener lights will flash on and off at a slow rate.

**3.** Press the pet button while the overhead lights flashing (within 10 seconds). The LED lights on the Wall Station blinks fast for a short time, the overhead opener lights will flash on and off two times indicating successful programming or four times (fast) if you trying to set it up outside the door limits.

### **Backlit LED Light:**



The red LED blinks intermittently to help you locate the wall station in a dark garage. This blink rate can be changed for longer battery life or can be turned off. The default blink rate is one blink every 3 seconds. For longer battery life the blink rate can be changed to blink once every 6 seconds.

To change the blink rate, remove the battery cover and remove one battery.

Re-install the battery and within 2 seconds, press the Light button.

Re-install the battery cover.

For longest battery life, the blink can be turned off. To turn off the blink, remove the battery cover and remove one battery. Re-install the battery and within 2 seconds, press the Pet button.

Reinstall the battery cover.

### **Multi-Door Programming:**

Momentarily pressing the button programmed in the transmitter programming step activates the door. Other buttons can also be programmed to activate different doors, for multi-door installations. Each button or a combination of two buttons pressed simultaneously can be programmed to activate a different door. Only one button at a time can be programmed to activate a specific opener.



## **Opener Controls**

The LEARN button located on the back side of the opener (under a door) has several functions.

- 1. Pressing and holding the LEARN button for about 3 seconds, will turn on the Right LED. This mode allows programming of transmitters, wireless keyless entry, and wireless wall stations. The programming mode is exited if no activity is performed within 15 seconds.
- 2. Pressing and holding the LEARN button for 10 seconds will erase all transmitters, multi-function wall station and wireless keyless entry from memory. The Right LED will blink 8 times indicating a successful erase operation.



## **Programing for HomeLink® to the Operator**

**NOTE:** This step can only be done on automobiles equipped with the HomeLink® System.

**NOTE:** Programming HomeLink® requires a Transmitter that is programmed to the opener (the wallstation and transmitter(s) supplied with the opener, come pre-programmed from the factory). Any additional wallstation(s) or transmitter(s) will need to be programmed to the opener.

**IMPORTANT:** Use the programming instructions provided with your vehicle first. Follow these instructions if the HomeLink® unit does not learn the transmitter, when using the vehicle's instructions.

**NOTE:** If Primary Programming does not work then use the Alternate Procedure on next page.

**NOTE:** Vehicle may need to be in accessory position when programming. Check car owner's manual.

**NOTE:** HomeLink® is a registered trademark of Johnson Controls.

### **Programming/Training HomeLink® Unit**

GARAGE DOOR MAY OPERATE DURING PROGRAMMING. TO AVOID POSSIBLE SEVERE OR FATAL INJURY, PLACE THE EMERGENCY DISCONNECT HANDLE IN THE MANUAL OPERATED POSITION.

- 1. With the door in the fully closed position, pull the manual disconnect to put the opener in the disengaged position.
- **2.** Verify the HomeLink® unit has an empty channel. Press the desired HomeLink® button and observe the indicator light if it flashes slowly, the channel is empty and ready for programming. If pressing the desired channel/button causes the indicator light to blink rapidly, or come on without blinking this channel is already programmed. You either need to choose a different channel/button on the HomeLink®, or perform Step 3 below.
- **3. OPTIONAL** To completely clear all channels on the HomeLink® unit, press and hold the two outside buttons on the HomeLink® unit until the HomeLink® indicator light begins to flash rapidly (approx. 20 seconds), then release both buttons. (Do not perform this step to train additional hand-held transmitters.) **NOTE:** This operation erases all previously learned transmitters and you will need to re-teach any other transmitters to your HomeLink® unit.
- **4.** Hold the end of the hand-held transmitter approximately 1 to 3 inches away from the HomeLink® surface keeping the HomeLink® indicator light in view.
- **5.** Simultaneously press and hold the transmitter large button and desired button on the HomeLink® module, continue to hold both buttons. In less than 10 seconds the LED on the HomeLink® module will either go solid or give a single quick flash (or, in some cars, will change from blinking slow to blibking fast). Release both buttons. **NOTE:** If this procedure is unsuccessful perform Alternate procedure.

### **Teaching HomeLink® to the opener**

- **6.** Press and hold the LEARN button on the opener . The Right LED on the opener will turn on and remain on for one minute, indicating that it is ready to learn.
- 7. Press the HomeLink® button used in Step 5 above for 1 to 3 seconds. The Right LED on the opener and the lights of the opener will turn on and off three times indicating a successful learn.
- **8.** Press the HomeLink® button once more to operate the door. The opener will activate and the trolley will travel towards open, the next activation will cause the trolley to travel to the closed position and reengage, subsequent operations will move the door.



## Alternate Programing for HomeLink® to the Operator

**NOTE:** This step can only be done on automobiles equipped with the HomeLink® System.

**NOTE:** Programming HomeLink® requires a transmitter that is programmed to the opener (the wallstation and transmitter(s) supplied with the opener, come pre-programmed from the factory). Any additional wallstation(s) or transmitter(s) will need to be programmed to the opener.

**IMPORTANT:** Use the programming instructions provided with your vehicle first. Follow these instructions if the HomeLink® unit does not learn the transmitter, when using the vehicle's instructions.

**NOTE:** Vehicle may need to be in accessory position when programming. Check car owner's manual.

**NOTE:** HomeLink® is a registered trademark of Johnson Controls.

## **Programming/Training HomeLink® Unit**

△ WARNING GARAGE DOOR MAY OPERATE DURING PROGRAMMING. TO AVOID POSSIBLE SEVERE OR FATAL INJURY, PLACE THE EMERGENCY DISCONNECT HANDLE IN THE MANUAL OPERATED POSITION.

- **1.** With the door in the fully closed position, pull the manual disconnect to put the opener in the disengaged position.
- **2.** Press and hold the two outside buttons on the HomeLink® unit until the HomeLink® indicator light begins to flash rapidly (approx. 20 seconds), then release both buttons. (Do not perform this step to train additional hand-held transmitters.)

**NOTE:** This operation erases all previously learned transmitters and that you need to re-teach any other transmitters to your HomeLink® unit by repeating steps 3 - 6 below.

- **3.** Hold the end of the hand-held transmitter approximately 1 to 3 inches away from the HomeLink® surface keeping the HomeLink® indicator light in view.
- **4.** Use the large button on the transmitter. Simultaneously press and hold desired Homelink® button and the transmitter large button. Continue to press both buttons counting LED flashes on the HomeLink® module; between 50 to 60 LED flashes the LED will either come on solid or do one "quick flash"; when either of these occur release both transmitter and HomeLink® buttons.

### **Teaching HomeLink® to the opener**

- **5.** Press and hold the LEARN button on the opener. The Right LED on the opener will turn on and remain on for one minute, indicating that it is ready to learn.
- **6.** Press the HomeLink® button used in Step 4 above for 1 to 3 seconds. The Right LED on the opener and the lights of the opener will turn on and off three times indicating a successful learn.
- **7.** Press the HomeLink® button once, the opener will activate and the trolley will travel towards open, the next activation will cause the trolley to travel to the closed position and reengage, subsequent operations will move the door.



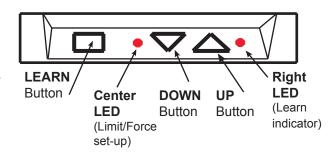
## **Opening and Closing Force Adjustment**

This garage door opener is built with a safety system that allows the door to reverse when closing and stop when opening. This must be adjusted so your opener does not use excessive force in the down direction or react to the weight of the door during upward travel. The operator automatically measures the force that the door is opening or closing with, every time the door goes up or down. It is constantly monitoring the force required for the door to open or close, so that the door never stops or reverses in error. It also ensures that the door will stop or reverse if it detects an obstruction.

However, if you wish to make the door more or less sensitive to obstructions in the door installation, you can change the threshold limit above or below the standard criteria used to stop or reverse the door.

**NOTE:** Do not stand under door during this adjustment.

1. Press and hold the LEARN button and the DOWN button simultaneously. The Center LED will light. As the Center LED lights, the Right LED will blink the current setting of the force level (total of 5 levels of force, level 5 is the maximum force).



- 2. Pressing the UP or the DOWN key will change the force level. The Right LED will blink the force level after each press of the UP or DOWN push button. The LED will blink 5 times for maximum force and 1 time for minimum force.
- 3. When you are satisfied that you are at the proper level, press and release the LEARN button. The Center LED will blink 4 times and then turn off to indicate the process is complete.
- **4.** If you do not press a button within 30 seconds, the mode will exit without change.



## **Programming Wireless Wall Station(s) Or Transmitter(s) to Opener**

DURING PROGRAMMING THE GARAGE DOOR MAY OPERATE. KEEP PEOPLE AND OBJECTS CLEAR OF THE MOVING DOOR TO PREVENT DOOR DAMAGE OR POSSIBLE PERSONAL INJURY.

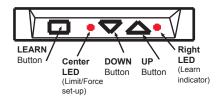
**NOTE:** Programming failure can occur if the wall station or transmitter is too close to the opener during the programming sequence. There must be a minimum of 6 feet between the wall station/transmitter and the opener.

**NOTE:** The opener can be activated by up to 8 remote transmitters, 2 wall stations and 2 Keyless entries. If a 9th remote is programmed, the first remote programmed will be lost from memory. The same is true if a third wall station or a third Keyless entry is programmed, the first will not longer be in memory and will not operate the opener..

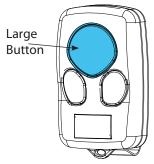
**NOTE:** Do not press any button on the wall station or transmitter until instructed.

#### **TRANSMITTER:**

1. Press and hold the LEARN button located on the garage door opener. The red Right LED on the opener unit will turn on and remain lit for 15 seconds, indicating activation of the learn mode.

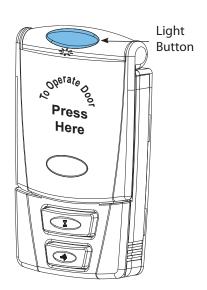


- 2. Press one of the buttons on the transmitter you wish to use to operate the door. The red Right LED on the garage door opener will turn on and off three times indicating a successful learn.
- 3. Press the same button on the transmitter once more to confirm operation. The opener will turn on and move the door. At this point you will be able to activate the opener.



#### **WIRELESS WALL STATION:**

- 1. Press and hold the LEARN button located on the garage door opener. The red Right LED on the opener unit will turn on and remain lit for 15 seconds, indicating activation of the learn mode.
- 2. Press the light On/Off button on the Wall Station. The red Right LED on the opener will turn on and off three times indicating a successful learn.
- 3. Press the light on/off button on the Wall Station once more to confirm operation. The overhead light on the garage door opener will toggle from on to off and from off to on. At this point you will be able to activate the opener.



# \*

### Maintenance

### **Monthly Maintenance:**

- 1. Lubricate hinges and rollers of garage door.
- 2. Inspect the door for loose fasteners, worn or frayed counterbalance cables and the presence of legible safety labels/ tags. Have repairs made by a qualified service person. Contact customer assistance for free replacement safety labels/ tags.
- **3.** With door fully closed, pull down on the emergency disconnect to manually operate the door. If the door feels unbalanced or binds, have a qualified service person make necessary adjustments or repairs to the door.
- **4.** Perform the contact/obstruction tests. See Section 19 and 20 for the contact/obstruction test instructions. If door/opener fails contact/obstruction test, reset the door close limits according to the instructions in this manual, adjusting until door reverses on contact with a 2 x 4 board laid flat on the garage floor. If opener still fails, have a qualified service person make adjustments/repairs or this could result in severe or fatal injury.
- **5.** Failure of door/opener to respond to transmitter, multi-function wall station or wireless keyless entry may be due to a weak or dead battery. Replace the battery.

#### Twice a Year:

Check chain or belt tension. If chain or belt rests on bottom of rail, adjust tension as per the instructions in Section 2.

### **Battery Replacement for Wireless Wall Station:**

Remove the battery cover completely (right-hand side of wall station) by disengaging the battery cover's lower clip; remove the old batteries. Install two AAA batteries into the wall station, observing the polarity, (+) and (-), of both batteries. After a few seconds, the red LED will begin to blink every three seconds. If it is desired to slow the LED blink rate refer to the wall station operation section in this manual under section "Backlit LED Light". Re-install the battery cover by first inserting its top into the wall station then inserting and securing its bottom.

**Note:** Use only two AAA batteries.

Note: Dispose of dead batteries properly.

### **Battery Replacement for Transmitter:**

Insert a coin in the coin slot of the transmitter and twist coin to access the dead battery. Replace the battery, being careful to match the positive (+) symbols on the circuit boards with the battery; snap case back together.

**Note:** Transmitters use (1) CR2016 or equivalent battery.

**Note:** Dispose of dead battery properly.

### **Battery Replacement for Wireless Keyless Entry:**

To change battery, snap open case with a coin and remove old battery. Replace the battery, being careful to match the positive (+) symbols on the circuit boards with the battery; snap case back together.

**Note:** Keyless entries use (1) CR2032 or equivalent battery.

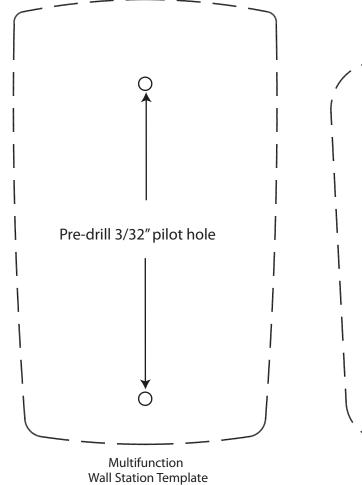
**Note:** Dispose of dead battery properly.

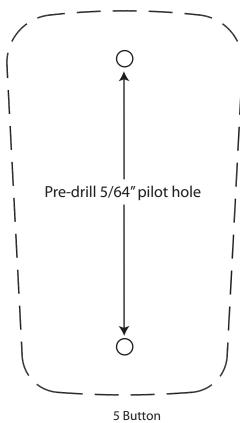
# **Accessories** Three Button Mini / Visor Controls up to 6 doors or wireless accessories. Includes visor clip. Transmitter Allows independent door up/down control and Wired Deluxe Wall Station overhead light on/off control. Wireless Multi-Function RF Completely wireless unit with independent door Wallstation up/down control, light on/off control, custom pet opening, delay exit timer, and program button. 10 digit numeric keypad which allows the 5 digit numeric keypad which allows the operation of the garage door opener from operation of the garage door opener from outside Wireless Keyless Entry outside by entering a programmable by entering a programmable personal code on a personal code on a keypad. Can be keypad. Can be programmed to hundreds of doors. programmed to hundreds of doors. Recommended for all vault type garages without an **Key Cable Outside Disconnect** access door Used to open the door automatically from outside the **Outside Key Switch** garage, whenever the remote control is not available. Shipped with 2 keys. 80ft. 22 gauge, 2 conductor polarized. UL listed Wire Spool (CL-2X, 75deg. C.). Safety sensors communicate with door opener Wired Infrared Safety Sensors via direct wire connections to detect obstructions in path of door and reacts by reversing door.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION	
Opener won't work from wall button or radio control.	No power to opener.  Short circuit in wires to opener or wall button.	Check cord to outlet, wall switch and circuit breaker. Isolate by disconnecting the wires at the opener from the wall station.	
Opener works from wall button but not from radio control.	Radio control system non-operational.	Weak or dead battery in transmitter. replace battery.	
		Security code not matched between receiver and transmitter (see page 33).	
		If two or more transmitters don't work, have motor control board tested.	
Door does not open and opener light flashes.	Something obstructing door travel.	Disconnect door from operator. Operate door by hand to locate obstruction.	
	Insufficient opening force.	Adjust force. ( See Opening and Closing Force Adjustment).	
	Build up of ice and snow around door.	Shovel and clear door area.	
Door does not open fully and light does not flash.	Open limit not set properly.	Adjust opener limits (see Section 18).	
Door stops and does not close fully.	Close limit not set properly.	Adjust opener limits (see Section 18).	
Door closes and then returns to fully open position and opener light flashes.	Door arm adjustment.	Adjust door arm	
	Close travel adjustment is set beyond normal door position.	Adjust opener limits (see Section 18).	
	Obstructions on floor.	Check for stone or ice under door	
When activated with door in fully open position, door travels for 1 second,	Infrared safety sensors out of adjustment or defective.	Infrared safety sensors alignment should be checked per instructions. (See Section 16).	
stops, and returns to fully open position and light begins to flash.	Obstructions in door opening.	Check for object blocking Infrared safety sensors.	
Door reverses travel before reaching fully closed position and opener light flashes.	Activation of obstruction sensing system.	Check for binding in door travel (door "stops", door tracks, etc).	
	Loose or hanging objects on door activating Infrared safety sensor.	Remove objects.	
	Insufficient closing force.	Adjust closing force. (See Opening and Closing Force Adjustment).	
Door fully opens and then light flashes.	Open limit is set too high and trolley is hitting the stop bolt.	Adjust opener limits (see Section 18).	
soor rany opens and their light hashes.			
soon rany opens and their light hashes.			
soon rany opens and themight hashes.			



# **Cut-Out Template to Aid Installation**





Keyless Entry Template

#### Patent Information

Made under the following US patents and methods D413,579; D505,393; 6,326,754; 6,897,630; 6,903,650; 7,109,677; 7,116,072; 7,183,732; 7,190,266; 7,193,502; 7,211,975; 7,280,031; 7,327,107; 7,327,108; 7,327,249; 7,375,484; 7,375,612; 7,376,401. Other US and Foreign Patents pending.

### **FCC and IC Statement**

#### **FCC Regulatory Information:**

This device complies with Part 15 of the FCC Rules. 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.

## IC Regulatory Information:

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

WARNING: Changes or modifications to this unit not expressly approved by party responsible for compliance could void user's authority to operate this equipment.