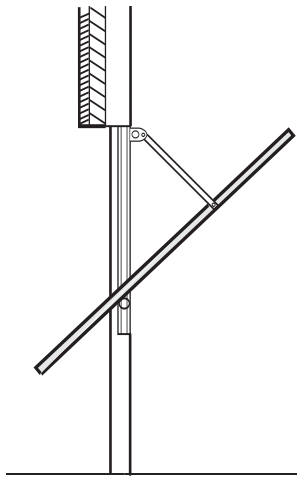


CHAMBERLAIN™
MotorLift™

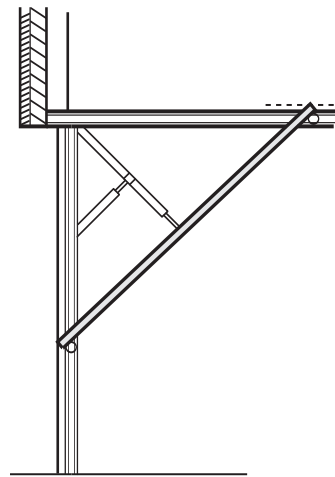
MODEL 1703EML - THE CHAMBERLAIN ARM™
INSTALLATION INSTRUCTIONS

**To be used in conjunction with the
Chamberlain Garage Door Operator Owner's Manual
Models: ML700, ML750, ML850**

Before you begin, please read this *entire* instruction manual.



**One-Piece Canopy Door
(vertically tracked)**



**One-Piece Door with Dual Track
(vertical and horizontal)**

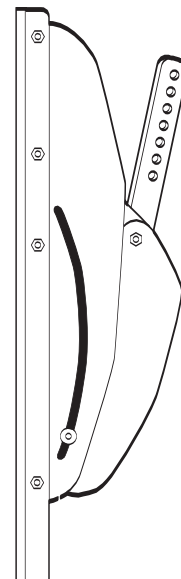
For use only with one-piece canopy and dual track doors as illustrated above. Do not use this door arm with sectional doors, fully retractable doors or canopy doors with jamb hardware.



Review all safety warnings on Page one of your garage door operator owner's manual. Ensure that the door and all its operating gear is in good condition and works easily when it is manually operated.

Lubricate all garage door working parts before installing the door arm. Ensure that the timber or metal garage door frame on both sides and above the door is in good and sound condition and is securely fixed to the main structure of the garage. If there is any doubt, consult a professional garage door installer. (See the Yellow Pages under Garage Doors)

Do not run the operator until installation is complete.



The Chamberlain Arm™

HOTLINE:

Germany 06838 / 907100 • France 03.87.95.39.28 • UK 0800 317847 • NL 20 684 7978

Planning

You may find it helpful to refer to the applicable illustration as you proceed with the installation of your garage door operator and The Chamberlain Arm™. The garage door opener *must* be installed parallel to the floor. Follow rail assembly instructions as shown in the Owner's manual. **Note:** For the best operating result of canopy doors, use only 3-sections of the 4-piece rail or add a rail support bracket as shown (16). Make sure rail support bracket does not interfere with the trolley movement (Purchase part no. 600121). If 3 rails sections are used, the chain (belt) must be cut by the same amount. For belts, a new belt clip is recommended (Purchase part no. 041B5669).

1. Header wall	11. Garage door opener manual release
2. Header bracket	12. Chamberlain Arm™
3. Garage door opener rail	13. Garage door track
4. Ceiling	14. Garage door, should be horizontal in fully open position
5. Garage door opener hanging brackets	15. Use limit adjustment of garage door opener to level the garage door
6. Trolley	16. Rail support bracket (not supplied)
7. Extension arm	
8. Garage door	
9. Garage door spring	
10. Operator	

Header Bracket Installation

For a canopy door, the instructions (Figures 2A & 2B) replace Step 13 in the Owner's manual which refer to positioning the header bracket. If you have an inward facing lintel, which does not allow the header bracket to be fitted directly above the garage door, you should see Figure 16 & text with this instruction. For dual track doors, install the header bracket 50mm (2") above the high point of door travel as shown in the Owner's manual.

Standard canopy garage doors

Canopy doors are normally provided without a frame, for fixing to a timber frame. In this case, ensure header bracket is located as shown below:

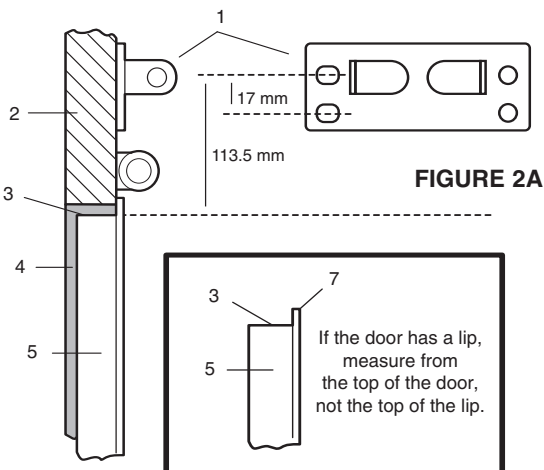


FIGURE 2A

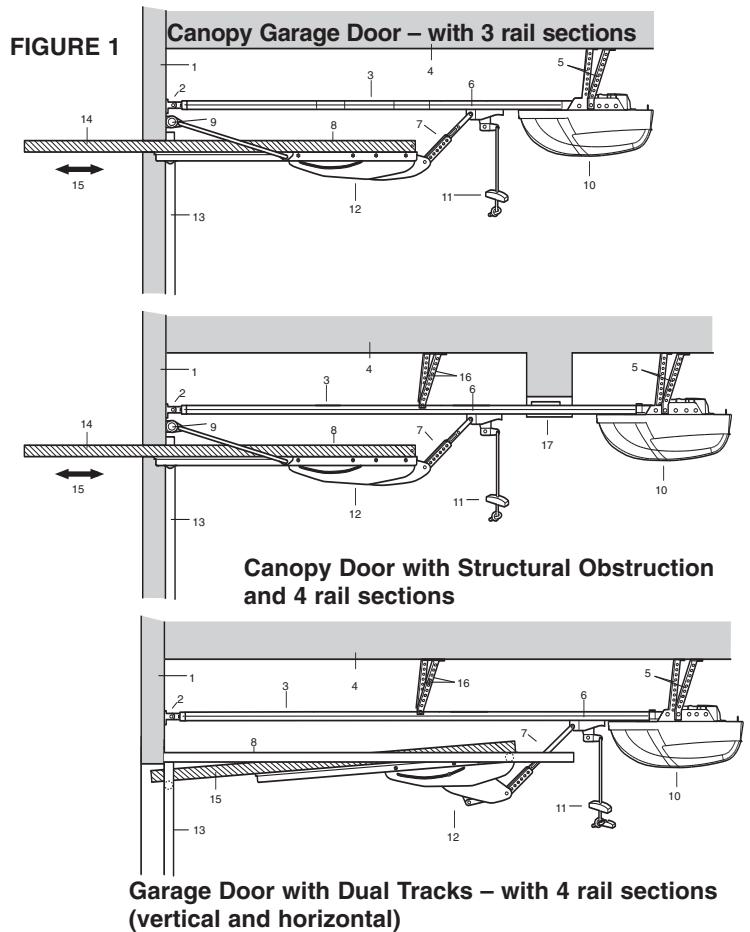


FIGURE 1

For pre-hung canopy garage doors

For doors either pre-hung in a metal frame or supplied with a metal frame for self-assembly, ensure header bracket is located as shown below:

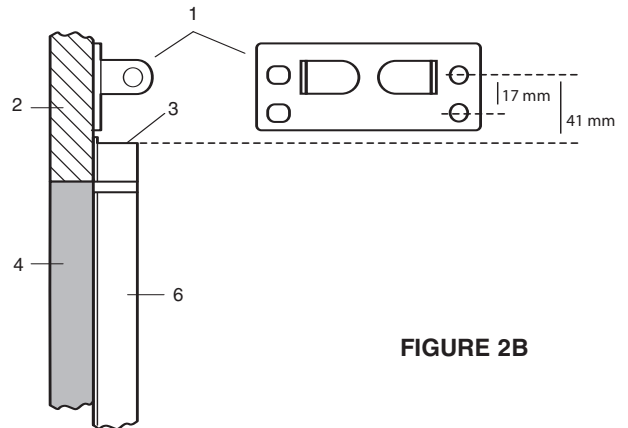


FIGURE 2B

1. Header bracket	5. Garage Door
2. Header frame	6. Pre-hung door with frame
3. Top of Garage Door	7. Lip
4. Door jamb	

Proceed with Steps 14 in your Owner's Manual. Replace Step 15 in the Owner's Manual with the following instructions. Raise the operator until the rail is horizontal. The rail should be parallel to the floor. Temporarily support the operator using a step ladder. Continue with Steps 16 through 18 in the Owner's Manual. In Step 15, the removal of 25mm (1") board does not apply to canopy doors. After Step 18 is completed, proceed to page 4 in this manual to begin the installation of the Chamberlain Arm™.

Representative Locking Mechanism

CAUTION

To prevent damage to garage door and operator: Ensure that turning the outside handle will not actuate ANY of the locking mechanisms supplied with the door.

- Remove all door latching mechanisms (Figure 3), and secure any locking bars in the open position.

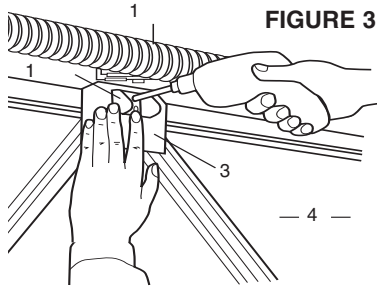


FIGURE 3

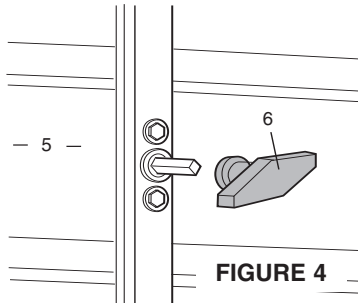


FIGURE 4

- | | |
|---------------|------------------------------|
| 1. Spring | 4. Canopy Door |
| 2. Latch | 5. Inside of Canopy Door |
| 3. Door Plate | 6. Remove inside Door Handle |

- Remove inside door handle but leave the barrel in place in door (Figure 4).
- Ensure that turning the outside handle will not actuate ANY of locking mechanism supplied with the door. Failure to do so will result in serious damage to your door and operator. This is not covered by the Manufacturer's Warranty.

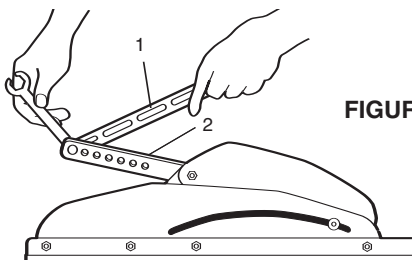


FIGURE 5

- Unbolt the extension arm from the door arm (Figure 5).

- | | |
|-------------------|--------------------|
| 1. Connection Arm | 2. Canopy Door Arm |
|-------------------|--------------------|

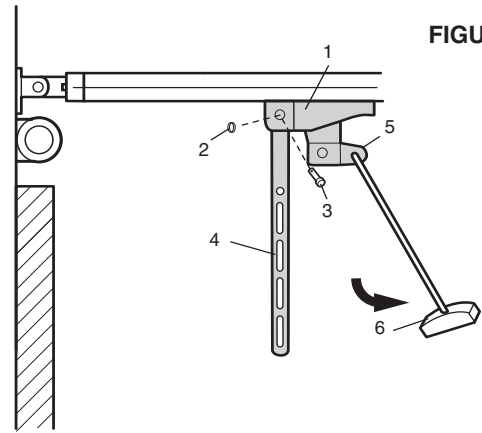


FIGURE 6

- Disengage the outer trolley from the inner trolley by pulling *down* the manual release rope and handle (Figure 6).
- Connect and secure the extension arm to outer trolley with the clevis pin and ring fastener provided with the garage door operator.

- | | |
|----------------|----------------------------|
| 1. Trolley | 4. Extension Arm |
| 2. Clevis ring | 5. Trolley disengage lever |
| 3. Bolt | 6. Manual release |

Template

The template is provided for use with two different types of doors. Position and mark holes as directed below, based on your requirements.

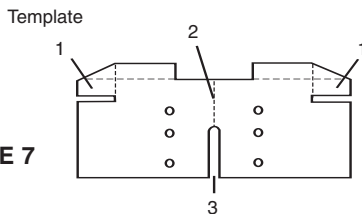


FIGURE 7

- | | |
|---------------------------|--|
| 1. Tab | 3. Slot for Extension Arm Alignment Test |
| 2. Centerline of Template | |

Door without a Lip

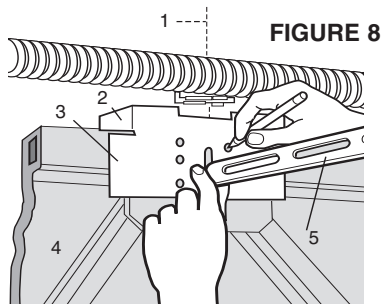
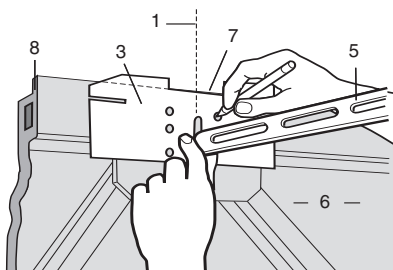


FIGURE 8

- Bend back tabs on the template (Figure 7).
- Rest the bottom of the tabs on the top of the door as shown in Figure 8 (door without a lip). This provides proper vertical replacement of holes.

Door with a Lip

FIGURE 9



- For a door with a lip, as shown in Figure 9, *do not* bend back the tabs on the template. Instead, position the horizontal dotted line at the top of the lip. This provides proper vertical placement of the holes.

- | | |
|---------------------------------|--------------------------------------|
| 1. Centerline of Header Bracket | 5. Extension Arm |
| 2. Tab | 6. Canopy Door with Lip |
| 3. Template | 7. Top of Template for Door with Lip |
| 4. Canopy Door without Lip | 8. Top of Door with Lip |

- Position the template horizontally to match up the centerlines of the header bracket and the template. Refer to Figure 8 or Figure 9, depending on your door style.

- To check, place the extension arm on the trolley into the slot on the template. The extension arm should be straight and in line with the garage door operator rail.

Note: The door arm should extend about 13mm (1/2") over the top of the door (Figure 10 or Figure 11). If not, check template and hole positions.

- Select and mark the (2) template holes which will allow the mounting screws the best possible support in the door, (preferable hole locations into the door's main bracing) as shown in Figures 10/11. **If possible, use additional screws.**

The garage door may require additional bracing to provide suitable support.

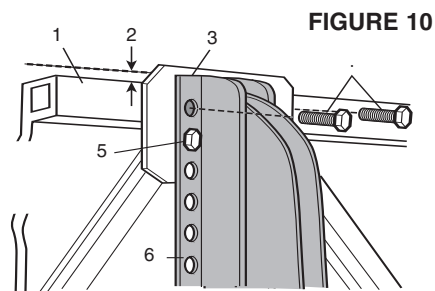


FIGURE 10

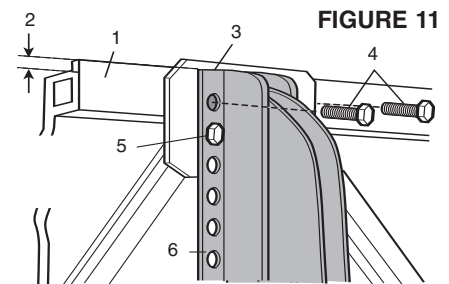


FIGURE 11

- | | |
|-----------------------------------|--------------------------------------|
| 1. Top of Canopy Door without Lip | 4. Screws |
| 2. 13mm (1/2") | 5. Use additional screws if possible |
| 3. Top of Door Arm | 6. Door Arm |

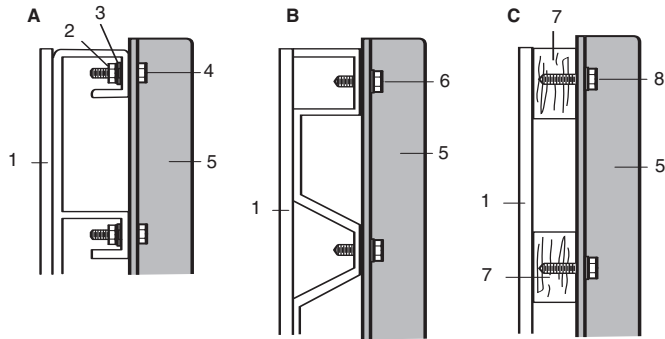
Door Arm Installation

CAUTION

To prevent damage to garage door, do NOT drill through the entire door.

- With a 4.5mm (3/16") bit, drill two holes, 25mm (1") deep.

FIGURE 12



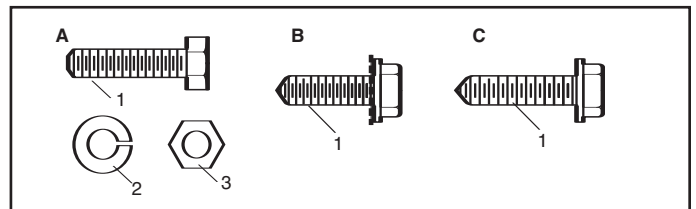
- | | |
|---------------------|------------------------|
| 1. Exterior of Door | 5. Door Arm |
| 2. Nut | 6. Self-trapping screw |
| 3. Lock Washer | 7. Timber support |
| 4. Bolt | 8. Lag screw |

- Attach the door arm with proper hardware provided (Figure 12).

Note: Whenever possible, use the nuts and bolts supplied (A).

For metal or metal-braced doors, use self-tapping screws supplied (B). For timber or timber-braced doors, use wood screws supplied (C).

- Before tightening the screws**, align the door arm so it is vertical. *Use a level to assist.* Then tighten the screws.



- | | |
|----------------|----------------------------|
| A | B |
| 1. Bolt | 1. Metal or Metal-Braced |
| 2. Lock Washer | C |
| 3. Nut | 1. Timber or Timber-Braced |

Connecting the Extension Arm

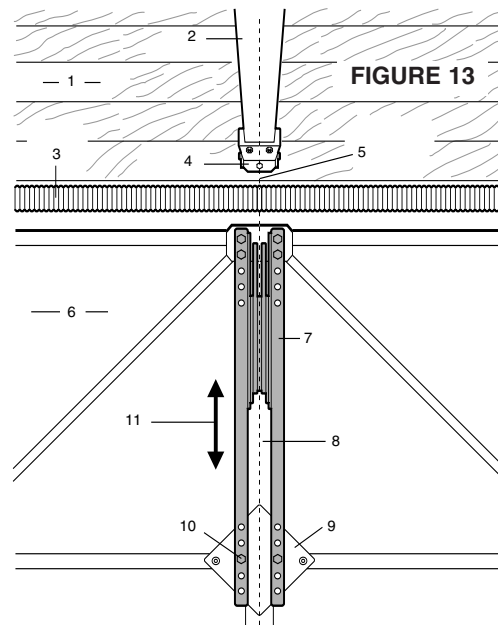
- Select the two bottom holes in the door arm that will allow the screws to go into a cross bracing support of the door (Figure 13). Door may REQUIRE ADDITIONAL bracing to provide suitable support.
- Mark and drill two 4.5mm (3/16") holes. Use the proper screws provided.

The centerline of the garage door opener and the centerline of the door arm should match to prevent binding of the arm in operation.

- Recheck and if not aligned, correct.
- With the door fully closed, slide outer trolley (with extension arm connected), against door arm. *Line up the extension arm and insert into slot in door arm* (Figure 14).

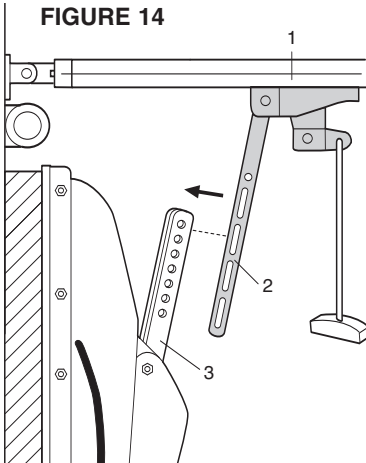
Note: Do not move the door arm to meet the extension arm—move the extension arm to meet the angle of the door arm.

- Insert the two mounting bolts provided into holes as far apart as possible and tighten (Figure 15).
- Cut off the shipping cable tie to release the mechanism (Figure 14 and Figure 15).



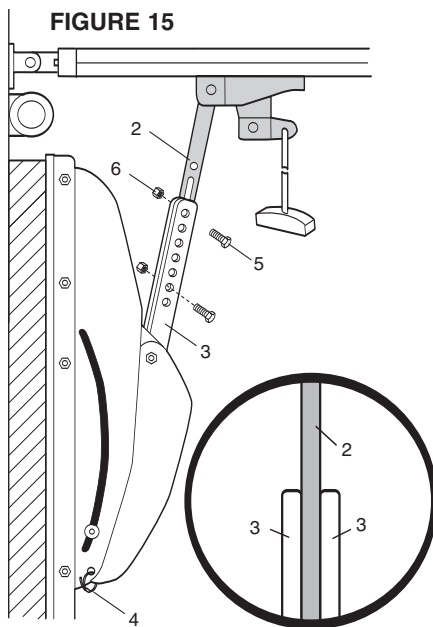
- | | |
|---------------------------------|---|
| 1. Header Wall | 7. Door Arm |
| 2. Rail Assembly | 8. Centerline of Door Arm |
| 3. Door Spring | 9. Cross Bracing |
| 4. Header Bracket | 10. Mounting Screw |
| 5. Centerline of Header Bracket | 11. Door Arm must be vertical (use level) |
| 6. Canopy Door | |

Garage door with lintel in line with the garage door



- | | |
|-------------------|--------------------|
| 1. Trolley | 3. Canopy Door Arm |
| 2. Connection Arm | |

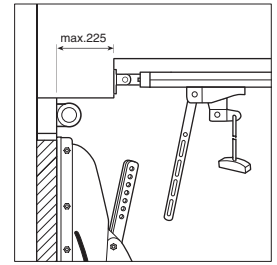
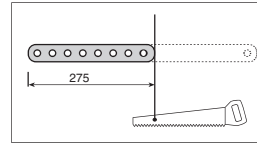
Release the trolley and slide the connection arm into the slot of the door arm.
Do not move the door arm. Leave in upright position.



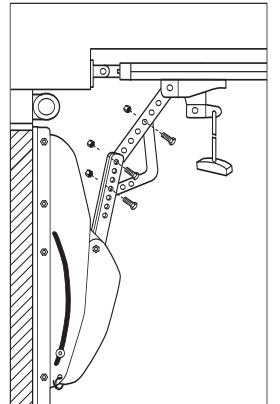
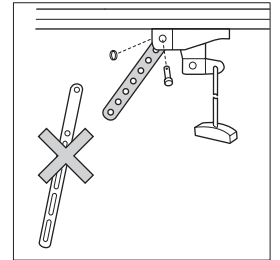
- | | |
|-----------------------|----------------------------|
| 1. Trolley | 5. Screw 5/16" - 18 x 7/8" |
| 2. Connection Arm | 6. Nut |
| 3. Canopy Door Arm | |
| 4. Shipping cable tie | |

Garage door with inward protruding lintel

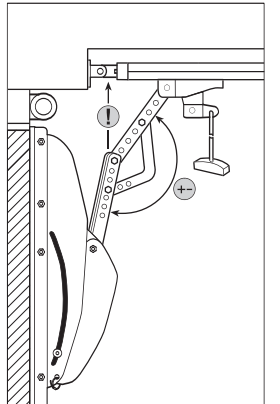
- To install the Chamberlain Door Arm at inward protruding lintel situations the door arm must be mounted in a different way.
- Cut down the door arm supplied with your garage door opener (275mm).



- Mount the cut down door arm to the trolley as shown. Do not use the slotted arm supplied with the Chamberlain Door Arm.
- Take the curved door arm supplied with the Garage Door Opener and fit all as shown together. If you disconnect the trolley you can move it easily in any position for the installation. Use M8 screws with lock nuts (not supplied).



- Tighten the screws fully and back them off again 1/2 turn.



Open the garage door slowly and carefully by hand. Watch the movement of the door arm. If the Chamberlain Door Arm hits the rail before the garage door is fully open, the angle of the arms must change. Close the garage door and use another hole to change the angle of the system. Try again until the Chamberlain Door Arm does not hit the rail anymore. In some cases raising the operator head is quicker.

Initial Operation:

The Chamberlain Arm™ has been designed so that, when used with a Chamberlain manufactured operator, the door will open to a fully horizontal position (Figure 16).

Note: The door may be designed in such a way that it does not open to the full horizontal. Adjust the UP limit so that the door stops at a slightly downward angle when open.

Note: If safety reversing sensors (Protector System) must be installed, please refer to your owner's manual before proceeding to Setting the limits and learning the force:

Setting the limits and learning the force:

When returning to your Owner's Manual, adjust the trolley travel limits as follows:

1. With the inner and outer trolley sections still disconnected, manually open your door to the horizontal position. Make a mark on the rail where the end of trolley nearest to the operator stops.
2. Manually close the door and mark the rail where the end of the trolley nearest the door stops.
3. With the inner and outer trolley sections still disconnected, activate the operator and adjust the limits following the owners manual of the garage door opener, until the inner trolley stops on the marks you made. For models ML700, ML750, ML850 please read section #15, setting limits manually as found in the HAVING A PROBLEM section in your owner's manual. While setting the door limits manually, leave door and operator disconnected at all times.
4. Reconnect the inner and outer trolley sections so the door is connected to the operator.
5. Force must be learned after completion of the limit settings. For models ML700, ML750, ML850 please read section #26.
6. Run the operator again to ensure the door is opening and closing correctly.

Continue with the instructions in your Owner's Manual.

Having a problem?

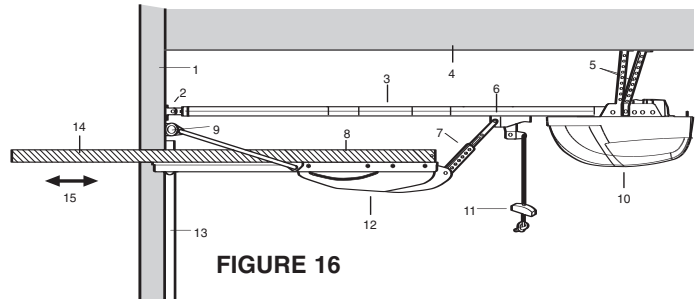
1. Pull the manual release handle to disengage the trolley.
2. Lift the door about halfway. Release the door. It should stay in place, supported entirely by its springs.
3. Raise and lower the door to see if there is any binding or sticking. If your garage door binds, sticks or is out of balance, call a professional garage door service engineer.

Note: Lubricate the inside and outside of the rail.

Note: In some cases you may find the door will not open fully until the force has been set.

Note: In rare installations, the canopy door may touch the operator rail when closing. This is NOT the fault of the operator or arm. If this occurs:

1. Manually check the operation of the canopy door to ensure that it is closing easily. The door must have a slight drop at the start of closing.
2. If the door is not running easily, check that the side wires are not catching or binding on the wire guides. Move the guides until the wires run free.
3. Raise the operator head by about 50mm (2") vertically so there is a slight downward angle on the rail.
4. The door spring may be over tensioned.



- | | |
|--|---|
| 1. Header wall | 10. Operator |
| 2. Header bracket | 11. Garage door opener manual release |
| 3. Garage door opener rail | 12. Chamberlain Arm™ |
| 4. Ceiling | 13. Garage door track |
| 5. Garage door opener hanging brackets | 14. Garage door, should be horizontal in fully open position |
| 6. Trolley | 15. Use limit adjustment of garage door opener to level the garage door |
| 7. Extension arm | |
| 8. Garage door | |
| 9. Garage door spring | |

WARNING

Do not attempt to adjust the spring. Call a local garage door installing professional.
The Protector System™ (a safety reversing sensor accessory) must be installed, if the Chamberlain Arm is used (model 770E).