To avoid possible injury, read and fully understand the enclosed instructions carefully before installing and operating the garage door. Pay close attention to all warnings and notes. After installation is complete, fasten this manual near garage door for easy reference.

This Installation document is available at no charge from:
- Your local Wayne Dalton Sales Center, or
- Online at www.Wayne-Dalton.com, or
- By mailing to: Wayne Dalton, a division of Overhead Door Corporation, P.O. Box 67, Mt. Hope, OH., 44660
**Important Safety Instructions**

**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.

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

**REMARK:** Question about any of the procedures, do not perform the work. Instead, have a trained door systems technician do the installation or repairs.

**IMPORTANT:** Required step for safe and proper door operation.

**WARNING**
CAUTION

- Property damage or injury can result from failure to follow instructions.
- Important: Required step for safe and proper door operation.
- Note: Information assuring proper installation of the door.

1. Read and follow all installation instructions.
2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
5. Doors 12”-0” wide and over should be installed by two persons, to avoid possible injury.
6. Operate door only when it is properly adjusted and free from obstructions.
7. If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/or repairs made by a trained door system technician using proper tools and instructions.
8. Do not stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
9. Do not place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
10. Do not permit children to operate garage door or door controls. Severe or fatal injury could result should the child become entrapped between the door and the floor.
11. Due to constant extreme spring tension, do not attempt any adjustment, repair or alteration to any part of the door, especially springs, spring brackets, bottom corner brackets, fasteners, counterbalance lift cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer’s instructions.
14. Visually inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
15. Test electric opener’s safety features monthly, following opener manufacturer’s instructions.
16. Never hang tools, bicycles, hoses, clothing or anything else from horizontal tracks.
17. Track systems are not intended or designed to support extra weight.
18. This door may not meet the building code wind load requirements in your area. For new or retro-fit construction, it is recommended to follow the procedures outlined in DASMA technical data sheets #156, #161 and #164 at www.dasma.com.
19. To avoid possible injury and to ensure proper installation, it’s highly recommended that you read and fully understand the complete instructions on removing an existing Door & Preparing the Opening. These are available for download at www.Wayne-Dalton.com or at your local Wayne Dalton Sales Center.

**WARNING**
A powerful spring releasing its energy suddenly can cause severe or fatal injury. To avoid injury, have a trained door systems technician, using proper tools and instructions, release the spring tension.

To avoid possible injury and to ensure proper installation, it’s highly recommended that you read and fully understand the complete instructions on removing an existing Door & Preparing the Opening. These are available for download at www.Wayne-Dalton.com or at your local Wayne Dalton Sales Center.

**WARNING**
Impact guns are not recommended. When installing 5/16” lag screws using an electric drill/driver, the drill/driver clutch must be set to deliver no more than 200 in-lbs of torque. Fastener failure could occur at higher settings.

**WARNING**
Keep people clear of opening while door is moving. Do not allow children to play with the Door Opener. Do not operate a Door that jams or one that has a broken spring.

**WARNING**
Do not try to remove, install, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or other like items.

**WARNING**
Do not permit children to play with the Door Opener.

**WARNING**
Do not permanently attach weatherstrips to the header and jambs at this time.

For the header, align the weatherstrip 1/8” to 1/4” inside the header edge, and temporarily secure it to the header with equally spaced nails. Starting at either side of the jamb, fit the weatherstrip up tight against the temporarily attached weatherstrip in the header and 1/8”

**WARNING**
Moving door
High tension spring

(continued on next page)
to 1/4” inside the jamb edge. Temporarily secure the weatherstrip with equally spaced nails. Repeat for other side. This will keep the bottom section from falling out of the opening during installation. Equally space nails approximately 12” to 18” apart.

**HEADROOM REQUIREMENT:** Headroom is defined as the space needed above the top of the door for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2” (64 mm) of additional headroom is required.

**NOTE:** 6” low headroom conversion kit is available for 12” radius only. Contact your local Wayne Dalton dealer.

**BACKROOM REQUIREMENT:** Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.

### BACKROOM REQUIREMENTS

<table>
<thead>
<tr>
<th>DOOR HEIGHT</th>
<th>TRACK</th>
<th>MANUAL LIFT</th>
<th>MOTOR OPERATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'5&quot; to 7'0&quot;</td>
<td>12&quot;,14&quot; Radius</td>
<td>98&quot; (2489 mm)</td>
<td>125&quot; (3175 mm)</td>
</tr>
<tr>
<td>7'1&quot; to 8'0&quot;</td>
<td>12&quot;,14&quot; Radius</td>
<td>110&quot; (2794 mm)</td>
<td>137&quot; (3480 mm)</td>
</tr>
</tbody>
</table>

### HEADROOM REQUIREMENTS

<table>
<thead>
<tr>
<th>TRACK TYPE</th>
<th>SPACE NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>14&quot; Radius track</td>
<td>13-1/2&quot; (343 mm)</td>
</tr>
<tr>
<td>12&quot; Radius track</td>
<td>11&quot; (279 mm)</td>
</tr>
<tr>
<td>6&quot; LHR KIT</td>
<td>6&quot; (152 mm)</td>
</tr>
</tbody>
</table>

**NOTE:** Depending on the door model, some parts listed will not be supplied if not required. Rear Back Hangs may not be included with your door.

### Package Contents

- Door sections (as required)
- TorqueMaster® spring tube
- Horizontal tracks RH/LH
- Vertical tracks RH/LH
- Flag angles RH/LH (as required)
- Weatherstrip & nails (If included)
- Cable drum assemblies RH/LH
- Drum wraps RH/LH (optional)
- Left hand end bracket (as required)
- Right hand end bracket
- Idler bracket (single spring only)
- Idler bracket RH/LH (single spring only)
- Left hand end bracket (as required)
- Right hand end bracket
- 1/4"-20 x 7/8" Self drilling screws (as required)
- 1/4"-20 x 5/8" Carriage bolts
- 1/4"-20 Hex nuts (lift handles)
- 1/4"-14 x 5/8" Self tapping screws (as required)
- 3/8"-16 Hex nuts (as required)
- 3/8"-16 x 3/4" Hex bolts (as required)
- 5/16"-18 Hex nuts (as required)
- 5/16"-18 Hex nuts (as required)
- 5/16" Washers (as required)
- 1/4"-20 Flanged hex nuts (as required)
- (2) 1/4"-20 Flanged hex nuts (as required)
- (2) 5/16"-18 x 3/4" Carriage bolts
- (1) 5/16"-18 x 3/4" Carriage bolts
- (2) Lift handles & Spacers
- (2) Roller spacers
- Graduated hinges (as required)
- Pull down rope (if included)
Door Section Identification

<table>
<thead>
<tr>
<th>Door Height</th>
<th>Bottom</th>
<th>Lock (second)</th>
<th>Intermediate I (third)</th>
<th>Intermediate II (fourth)</th>
<th>Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'0&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>NA</td>
<td>18&quot;</td>
</tr>
<tr>
<td>6'3&quot;</td>
<td>21&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>NA</td>
<td>18&quot;</td>
</tr>
<tr>
<td>6'6&quot;</td>
<td>21&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>NA</td>
<td>21&quot;</td>
</tr>
<tr>
<td>6'9&quot;</td>
<td>21&quot;</td>
<td>21&quot;</td>
<td>21&quot;</td>
<td>NA</td>
<td>18&quot;</td>
</tr>
<tr>
<td>7'0&quot;</td>
<td>21&quot;</td>
<td>21&quot;</td>
<td>21&quot;</td>
<td>NA</td>
<td>21&quot;</td>
</tr>
<tr>
<td>7'6&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>7'9&quot;</td>
<td>21&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>8'0&quot;</td>
<td>21&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>21&quot;</td>
</tr>
</tbody>
</table>

When installing your door you must use sections of the appropriate height in the right stacking order. What section heights you need to use in what order depends on the height of your door.

Unless your door is five sections in height, you will not receive an Intermediate II section.

The **Bottom Section** can be identified by the factory attached bottom astragal, the factory attached bottom corner brackets, and by the bottom corner bracket warning labels on each end stile.

The **Intermediate I Section** may have a warning label attached to either right or left hand end stile of the section. This section is always the 3rd section from the bottom of the door.

![Intermediate I section](image)

Tools Required

- Power drill
- Phillips head screwdriver
- Ratchet wrench
- Tape measure
- Pliers / Wire cutters
- Flat tip screwdriver
- Vise clamps
- Locking pliers
- Safety glasses
- Saw horses
- Approved winding bars
- Step ladder
A. FLAG ANGLES:
   A1. Fully Adjustable (F.A.) Flag Angles

B. JAMB BRACKETS:
   B1. Fully Adjustable (F.A.) Jamb Brackets

C. TRACK ROLLERS (AS REQUIRED):
   C1. Short Stem Track Rollers
   C2. Long Stem Track Rollers

D. GRADUATED END Hinges (AS REQUIRED):
   D1. Single Graduated End Hinges (S.E.H.), Industry Standard
   D2. Double Graduated End Hinges (D.E.H.), Industry Standard

E. STACKED SECTIONS:
   E1. Top Section
   E2. Intermediate(s) Section
   E3. Lock Section
   E4. Bottom Section

F. TOP FIXTURES (AS REQUIRED):
   F1. Top Fixture Assemblies

G. STRUT(S) (AS REQUIRED):
   G1. Strut (U-shaped)

H. DRAWBAR OPERATOR BRACKET (FOR TROLLEY OPERATED DOORS):
   H1. Drawbar Operator Bracket (Supplied By Others)

I. TRACKS:
   I1. Left Hand And Right Hand Horizontal Track Assemblies
   I2. Left Hand And Right Hand Vertical Tracks

J. TORQUEMASTER PLUS® SPRING ASSEMBLY:
   J1. Center Bracket Bushing Assembly
   J2. TorqueMaster® Spring Tube (Single Or Double Springs)
   J3. Left Hand End Bracket (Double Springs Only)
   J4. Right Hand End Bracket (Disconnect Cable Guide)
   J5. Left Hand And Right Hand Cable Drum Assemblies
   J6. Idler bracket (Single Spring Only)
   J7. Left Hand And Right Hand Drum Wraps (Optional)

K. REAR BACK HANGS:
   K1. Left Hand And Right Hand Rear Back Hang Assemblies

L. BOTTOM CORNER BRACKETS (AS REQUIRED):
   L1. Left Hand And Right Hand Bottom Corner Brackets

NOTE: The illustrations shown on this page are general representations of the door parts. Each specific door models may have unique variations.
DOOR INSTALLATION INSTRUCTIONS

Before installing your door, be certain that you have read and followed all of the instructions covered in the pre-installation section of this manual. Failure to do so may result in an improperly installed door.


IMPORTANT: IT IS IMPORTANT TO DEDUCE VERTICAL TRACK CUT LENGTH.
1/4" - 20 x 5/8" carriage bolts and (2) 1/4" - 20 flange hex nuts.

Preparing Vertical Tracks

NOTE: If you have a wall angle track assembly, skip this step.

NOTE: Refer to Door Section Identification / Parts Breakdown Of Parts, to determine if you have vertical tracks.

Vertical tracks may or may not have to be cut to the proper length, prior to installing.

IMPORTANT: VERTICAL TRACKS ARE NOT REQUIRED TO BE CUT DOWN IF YOU HAVE DOOR HEIGHTS 7'-0" OR 8'-0".

Determine the radius of your horizontal track.

Refer to the vertical track cutting chart to determine the length needed to be cut off at the top of the vertical tracks. Using this measurement, measure and cut the vertical track off at the top, as shown. Remove any burrs from the cut edge of vertical track.

Vertical Track Cutting Chart

<table>
<thead>
<tr>
<th>Horizontal Track Radius</th>
<th>Vertical Track Cut Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>10&quot; Or 12&quot; Radius</td>
<td>Door Height Minus 10&quot;</td>
</tr>
<tr>
<td>14&quot; Radius</td>
<td>Door Height Minus 8&quot;</td>
</tr>
</tbody>
</table>

Now, two holes must be drilled into the top of the cut vertical track. Using the illustration shown below, mark and drill the hole locations using a 5/16" drill bit. Once the holes have been drilled, remove any burrs from the drilled holes. Repeat the same process for the other vertical track.

Attaching Flag Angles and Jamb Brackets To Vertical Tracks

Hand tighten the left hand flag angle to the left hand vertical track using (2) 1/4" - 20 x 5/8" carriage bolts and (2) 1/4" - 20 flange hex nuts.

NOTE: The bottom jamb bracket is always the shortest bracket, while the center jamb bracket is the next tallest. If three jamb brackets per side are included with your door, you will have received a top jamb bracket, which is the tallest.

To attach the bottom jamb bracket, locate lower hole of the hole/ slot pattern of the 1st hole set on the vertical track. Align the slot in the jamb bracket with the lower hole of the hole/ slot pattern. Hand tighten jamb bracket using (1) 1/4" - 20 x 5/8" carriage bolt and (1) 1/4" - 20 flange hex nut.

Place the center jamb bracket over the lower hole of the hole/ slot pattern that is centered between the bottom jamb bracket and flag angle of the 2nd hole set. Hand tighten jamb bracket using (1) 1/4" - 20 x 5/8" carriage bolt and (1) 1/4" - 20 flange hex nut.

If a top jamb bracket was included, hand tighten it to vertical track using the lower hole of the hole/ slot pattern in the 3rd hole set and (1) 1/4" - 20 x 5/8" carriage bolt and (1) 1/4" - 20 flange hex nut.

Attaching Bottom Corner Brackets

NOTE: Refer to door section identification, located in the pre-installation section of this manual or refer to Breakdown Of Parts.

NOTE: Cable drum assemblies are marked right and left hand.

WARNING
ENSURE TIGHT FIT OF CABLE LOOP OVER MILFORD PIN TO PREVENT COUNTERBALANCE LIFT CABLE FROM COMING OFF THE PIN, WHICH COULD ALLOW THE DOOR TO FALL AND RESULT IN SEVERE OR FATAL INJURY.

Uncoil the counterbalance lift cables from the cable drum assemblies. Locate the left hand bottom corner bracket. Slide the left hand cable loop of the counterbalance lift cable onto milford pin. Position the left hand bottom corner bracket onto the bottom section. Attach the bottom corner bracket to the bottom section with (3) 1/4" - 20 x 11/16" RED HEAD self drilling screws. Repeat same process for the right hand side.

IMPORTANT: THE 1/4" - 20 x 11/16" RED HEAD SELF DRILLING SCREWS MUST BE MUST BE INSTALLED THROUGH THE HOLES OF THE BOTTOM CORNER BRACKETS, AS SHOWN.

Insert a short stem track roller with a roller spacer into the bottom corner bracket. Repeat the same process for the other side.

NOTE: Verify bottom weather seal is aligned with bottom section. If there is more than 1/2" excess weather seal on either side, trim weather seal even with bottom section.
Attaching Hinges and Strut(s) To Sections

NOTE: Refer to door section identification, located in the pre-installation section of this manual.
NOTE: The graduated hinges can be identified by the number stamped on the lower hinge leaf.
NOTE: The #1 graduated end hinges serves as end hinges on the bottom section. The #1 graduated end hinges also serves as center hinges on all sections, except for the top section.
NOTE: The #2 graduated end hinges serves as end hinges on the Lock section.
NOTE: The #3 graduated end hinges serves as end hinges on the Intermediate I section.
NOTE: The #4 graduated end hinges serves as end hinges on the Intermediate II section.

ATTACHING HINGES TO SECTIONS: Starting on the left hand side of the bottom section, align the lower hinge leaf of the #1 graduated end hinge over the holes, located at the top of the end caps. Attach lower leaf to the end caps with (2) 1/4" - 14 x 5/8" self tapping screws. Repeat for other side. Next, align the lower hinge leaf of the #1 center hinges with the pre-punched holes at each center stile location(s), located at the top of the bottom section. Attach lower hinge leaf to the center stile with (2) 1/4" - 14 x 5/8" self tapping screws.

IMPORTANT: Once the 1/4" - 14 x 5/8" self tapping screws are snug against the lower hinge leaves, tighten an additional 1/4 to 1/2 turn to receive maximum design holding power.

ATTACHING STRUT(S) TO SECTIONS: Using the strut schedule, determine the placement of the struts for your door width and door height.

INSTALLATION ON THE TOP SECTION: Locate and center the strut at the top of the top section surface. Secure strut to top section using (2) 1/4" - 20 x 7/8" self drilling screws at each end and at each center stile location(s).

INSTALLATION ON ALL OTHER SECTIONS: Locate and center the strut onto the section surface and up against the bottom of the hinges. Center the strut side to side. Secure strut to the section using (2) 1/4" - 20 x 7/8" self drilling screws at each end and center stile location(s).

NOTE: All struts are placed at the top of the sections and up against the bottom of the graduated hinges, for the intermediate, lock and bottom sections.

Strutting Schedule For Model 8200

<table>
<thead>
<tr>
<th>Door Heights</th>
<th>Section Qty</th>
<th>Section Type</th>
<th>Door Widths</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>14&quot;0&quot; - 16&quot;0&quot;</td>
<td>17&quot;0&quot; - 18&quot;0&quot;</td>
</tr>
<tr>
<td>6'0&quot; - 7'0&quot;</td>
<td>4</td>
<td>Solid</td>
<td>(2) TS, BS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Windows</td>
<td>(1) TS, (1) 2&quot; BS</td>
</tr>
<tr>
<td>7'6&quot; - 8'0&quot;</td>
<td>5</td>
<td>Solid</td>
<td>(2) TS, BS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Windows</td>
<td>(1) 3&quot; TS, (1) 2&quot; BS</td>
</tr>
</tbody>
</table>

Strutting Schedule For Models 8000 and 8100

<table>
<thead>
<tr>
<th>Door Heights</th>
<th>Section Qty</th>
<th>Section Type</th>
<th>Door Widths</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>14&quot;0&quot; - 16&quot;0&quot;</td>
<td>17&quot;0&quot; - 18&quot;0&quot;</td>
</tr>
<tr>
<td>6'0&quot; - 7'0&quot;</td>
<td>4</td>
<td>Solid</td>
<td>(3) TS, LS, BS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Windows</td>
<td>(1) 3&quot; TS, (2) 2&quot; LS, BS</td>
</tr>
<tr>
<td>7'6&quot; - 8'0&quot;</td>
<td>5</td>
<td>Solid</td>
<td>(3) TS, I1, BS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Windows</td>
<td>(1) 3&quot; TS, (2) 2&quot; I1, BS</td>
</tr>
</tbody>
</table>

Insert a short stem track roller into the hinge tube of the #1 graduated end hinges. Repeat graduated hinge attachment using the appropriate graduated end hinges for all remaining sections except the top section.

IMPORTANT: When placing short stem track rollers into the #2 graduated end hinges and higher, the short stem track roller goes into hinge tube furthest away from section.

NOTE: Depending on your door some sections may or may not require a strut to be installed onto the section.

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NOTE: Depending on your door some sections may or may not require a strut to be installed onto the section.
5 Step Plate

NOTE: Depending on your door, you may have two different kinds of Step Plates or two of the same kind of Step Plates. Refer to Package Contents, to determine which Step Plates you have.

IF YOU HAVE TWO OF THE SAME KINDS OF STEP PLATES: Locate the center most center stile of the bottom section of the door. On the inside of the door, center the step plate on the center most stile no higher than 6" from the bottom of the door. Using the previously drilled holes as a template, drill (2) 9/32" dia. holes through the lock section. LIFT HANDLE TO STAY WITHIN THE REQUIRED DIMENSION. HANDLE MUST BE 20" MINIMUM TO 30" MAXIMUM. IF NECESSARY REPOSITION THE UPPER END CAP.

IMPORTANT: BE EXTREMELY CAREFUL TO KEEP DRILL STRAIGHT.

Mount the inside step plate and the outside step plate back to back, straddling the center stile. Secure with (2) 1/4" - 20 x 2-3/4" carriage bolts and 1/4" - 20 hex nuts.

IMPORTANT: DO NOT MOUNT THE STEP PLATE HIGHER THAN 6" FROM THE BOTTOM OF THE SECTION.

DO NOT MOUNT THE STEP PLATE HIGHER THAN 6" FROM THE BOTTOM OF THE SECTION.

IF YOU HAVE TWO DIFFERENT KINDS OF STEP PLATES: Locate the center most center stile on the bottom section of the door. On the inside of the door and using the pre-punched holes at the bottom of the center stile as a template, drill (2) 7/32" dia. holes through the section. Using the previously drilled holes as a guide, enlarge the holes from the outside the door to 7/16" dia, and assemble the outside and inside step plates to the section using (2) #8 x 1-5/8" screws.

CAUTION
DO NOT DRILL THROUGH OR ENLARGE HOLES ON THE INSIDE OF THE DOOR SECTION.

NOTE: After completing this step, continue with Step Lift Handles.

6 Lift Handle

NOTE: Doors with a Keyed lock do not require this lift handle.

Locate the inside center stile or the desired lift handle location on the lock (2nd) section of the door. Position the lower hole in the lift handle 4" from the bottom of the lock (2nd) section.


Using the lift handle holes as a template, drill (2) 9/32" dia. holes through the lock section. Enlarge the holes from the outside the door to 1/2" dia.

CAUTION
DO NOT DRILL THROUGH OR ENLARGE HOLES ON THE INSIDE OF THE DOOR SECTION.

Assemble the outside and inside lift handles to the lock section using (2) spacers, (2) 1/4" - 20 x 2-1/2" carriage bolts and (2) 1/4" - 20 hex nuts.

7 Attaching Top Fixtures To Top Section

Starting on the left hand side, align the upper-center hole of top fixture base with the hole in the end stile of the top section or below strut (if applicable) and even with the edge of the top section, as shown. The slotted half of the top fixture base should be facing upwards. Fasten to section using (4) 1/4" - 20 x 11/16" self drilling screws. The top fixture slide will be tightened and adjusted later, in step, Adjusting Top Fixture. Insert short stem track roller into top fixture slide. Repeat same process for other right hand side.

NOTE: The top fixture slide will be tightened and adjusted later, in step, Adjusting Top Fixture.

NOTE: Ensure the top fixture slide is able to slide along the top fixture base. If needed, loosen the 1/4" - 20 flange hex nut.

8 Positioning Bottom Section

Center the bottom section in the door opening. Level the section using wooden shims (if necessary) under the bottom section. When the bottom section is leveled, temporarily hold it in place by driving a nail into the jamb and bending it over the edge of the bottom section on both sides.
**Attaching Vertical Tracks To Jambs**

**IMPORTANT:** IF YOUR DOOR IS TO BE INSTALLED PRIOR TO A FINISHING CONSTRUCTION OF THE BUILDING’S FLOOR, THE VERTICAL TRACKS AND THE DOOR BOTTOM SECTION ASSEMBLY SHOULD BE INSTALLED SUCH THAT WHEN THE FLOOR IS CONSTRUCTED, NO DOOR OR TRACK PARTS ARE TRAPPED IN THE FLOOR CONSTRUCTION.

**IMPORTANT:** THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT, THE VERTICAL TRACK ON THE SHIMMED SIDE MUST BE RAISED THE HEIGHT OF THE SHIM.

**NOTE:** Make sure the counterbalance lift cable is located between the track rollers and the door jamb.

Starting on the left hand side of the bottom section, remove the nail. Position the left hand vertical track assembly over the track rollers of the bottom section and install, as shown. Drill 3/16" pilot holes into the door jamb for the lag screws.

Loosely fasten jamb brackets and flag angle to the jamb using 5/16" x 2" lag screws. Tighten lag screws, securing the bottom jamb bracket to jamb, maintain 3/8" to 5/8" spacing, between the bottom section and vertical track. Hang counterbalance lift cable over flag angle. Repeat same process for other side.

**Stacking Sections**

**NOTE:** The sections can be identified by the graduation of the installed graduated end hinges. The smallest graduated end hinge on the section should be stacked on top of the bottom section, with each graduated end hinge increasing as the sections are stacked, see door section identification or Breakdown Of Parts.

**NOTE:** Make sure graduated end and center hinges are flipped down, when stacking another section on top.

**NOTE:** Larger doors will use long stem track rollers with double graduated end hinges. Place track rollers into graduated end hinges of remaining sections. With assistance, lift second section and guide the track rollers into the vertical tracks. Lower section until it is seated against bottom section. Flip hinges up, Fasten center hinge(s) first, then end hinges last using 1/4" - 14 x 5/8" self tapping screws.

**NOTE:** Larger doors with double graduated end hinges, fasten both hinges to connect the sections using 1/4" - 14 x 5/8" self tapping screws.

**NOTE:** Larger doors with double graduated end hinges, fasten both hinges to connect the sections using 1/4" - 14 x 5/8" self tapping screws.

Repeat same process for other sections, except top section.

**IMPORTANT:** PUSH & HOLD THE HINGE LEAVES SECURELY AGAINST THE SECTIONS WHILE SECURING WITH FASTENERS TO IT. THERE SHOULD BE NO GAP BETWEEN THE HINGE LEAVES AND THE SECTIONS.

**NOTE:** Install lock at this time (sold separately). See optional installation step, Side Lock.

**Stacking Top Section**

Place the top section in the opening. Install a nail to prevent the top section from falling backwards. Now, flip up the hinge leaves, hold tight against section, and fasten center hinges first and end hinges last (refer to step, Stacking Sections). Vertical track alignment is critical. Position flag angle or wall angle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door; tighten the bottom lag screw. Flag angles must be parallel to the door sections. Repeat for other side.

**IMPORTANT:** THE DIMENSION BETWEEN THE FLAG ANGLES MUST BE DOOR WIDTH PLUS 3-3/8" (86MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.

Complete the vertical track installation by securing the jamb bracket(s) and tightening the other lag screws. Push the vertical track against the track rollers so that the track rollers are touching the deepest part of the curved side of the track; tighten all the carriage bolts and nuts. Repeat for other side.
12 Attaching Horizontal Tracks

WARNING
DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP, REAR BACK HANGS, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.

To install horizontal track, place the curved end over the top track roller of the top section. Align the bottom of the horizontal track with the top of the vertical track. Tighten the horizontal track to the flag angle with (2) 1/4" - 20 x 5/8" carriage bolts and (2) 1/4" - 20 flange hex nuts.

Next level the horizontal track assembly and bolt the horizontal track angle to the first encountered slot in the flag angle using (1) 3/8" - 16 x 3/4" hex head bolt and (1) 3/8" - 16 hex nut. Repeat for other side. Remove nail that was temporarily holding the top section in position.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

13 Adjusting Top Fixtures

With horizontal tracks installed, you can now adjust the top fixtures. Vertically align the top section of the door with the lower sections. Once aligned, position the top fixture slide, out against the horizontal track. Maintaining the slide’s position, tighten the 1/4" - 20 flange hex nut to secure the top fixture slide to the top fixture base. Repeat for other side.

14 Preparing The TorqueMaster® Spring Tube Assembly

NOTE: TorqueMaster® springs come lubricated and pre-assembled inside the TorqueMaster® spring tube.

To prepare for install, lay the spring tube assembly on the floor, inside garage, in front of the door, and with the labeled end to the left. Next, remove the shipping boots from the ends of the TorqueMaster® spring tube.

Being cam shaped, the center bushing only fits one way. Slide the center bracket bushing assembly towards the center of the TorqueMaster® spring tube, from the right side, as shown.

NOTE: Refer to Package Contents / Breakdown of Parts, to determine if you have drum wraps (optional).

Drum wraps (optional) are marked right and left hand. Beginning with the left hand side, slide the left hand drum wrap onto the TorqueMaster® spring tube. Repeat for the right hand side. The drum wrap will be secured later, in Step, Securing Drum Wraps.

15 Installing Cable Drum Assemblies

NOTE: Cable drum assemblies are marked right and left hand. Cable drums and TorqueMaster® spring tube assembly are cam shaped to fit together only one way.

Shake the TorqueMaster® spring tube assembly gently to extend the winding shafts out about 5" on each side. For single spring applications, there will be no left hand spring in the TorqueMaster® spring tube assembly. Lift the TorqueMaster® spring tube assembly and rest it on top of the flag angles.

NOTE: Temporarily support the center of the TorqueMaster® spring tube assembly until the center bracket is installed in Step Attaching Center Bracket to Wall.
NOTE: For single spring applications, there will be no left hand spring in the TorqueMaster® spring tube assembly.

NOTE: If winding shaft is not visible out of the right hand side, gently shake the TorqueMaster® spring tube until winding shaft sticks out 5".

NOTE: If both winding shafts are not visible, gently shake the TorqueMaster® spring tube until both winding shafts stick out 5".

NOTE: Winding shaft is pointing straight up. Slide the cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube assembly so the cam peak is pointing straight up. Slide the cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube assembly. The winding shaft must extend past the cable drum far enough to expose the splines and the grooves. Align the winding shaft grooves with the round notch in the flag angle.

FOR SINGLE SPRING APPLICATIONS: Insert the idler bracket into the left hand cable drum. Lightly press the idler bracket into the cable drum until two distinct clicks are heard, or the bracket is inserted all the way.

IMPORTANT: Ensure the snaps on the idler bracket (left hand side) are engaged into the left hand cable drum, so that it does not come back out.

FOR DOUBLE SPRING APPLICATIONS: Insert the idler bracket to the jamb using (1) 5/16" x 2" lag screw. Drill 3/16" pilot holes into header for the lag screws. Align the idler bracket groove with the round notch in the flag angle. If ratchet wheel falls out of end bracket, refer to illustration for proper insertion orientation.

ATTACHING END BRACKETS TO FLAG ANGLES

FOR DOUBLE SPRING APPLICATIONS: Repeat same process for left hand end bracket.

FOR SINGLE SPRING APPLICATIONS: Secure the idler bracket to the flag angle using (1) 5/16" - 18 x 3/4" carriage bolt, (1) 5/16" washer and (1) 5/16" - 18 hex nut. Then secure the idler bracket to the jamb using (1) 5/16" x 2" lag screw.
**Attaching Center Bracket to Wall**

**IMPORTANT:** TORQUEMASTER® SPRING TUBE MUST BE LEVEL BEFORE SECURING CENTER BRACKET BUSHING ASSEMBLY TO HEADER.

**NOTE:** Drill 3/16” pilot holes into header for the lag screws.

To locate the center bracket bushing assembly, mark the header halfway between the flag angles and level the TorqueMaster® spring tube. Fasten the center bracket bushing assembly to the header using (2) 5/16” x 2” lag screws.

**Securing Door For Winding Spring(s)**

With the door in the fully closed position, place locking pliers onto both vertical tracks just above the third track roller. This is to prevent the garage door from rising while winding spring(s).

**NOTE:** Check the following before attempting to wind spring(s):
- a. Counterbalance lift cables are secured at bottom corner brackets.
- b. Counterbalance lift cables are routed unobstructed to cable drums.
- c. Counterbalance lift cables are correctly installed and wound onto cable lift drums.
- d. TorqueMaster® spring tube is installed correctly.
- e. Review the label attached to the spring warning tag, to determine number of spring turns required.

**NOTE:** Door MUST be closed and locked when winding or making any adjustments to the spring(s).

**WARNING**

FAILURE TO PLACE LOCKING PLIERS ONTO VERTICAL TRACK CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.

**WARNING**

IT IS RECOMMENDED THAT LEATHER GLOVES BE WORN WHILE WINDING SPRINGS. FAILURE TO WEAR GLOVES MAY CAUSE INJURY TO HANDS.

**Adjusting Counterbalance Lift Cable**

Starting on the right side, adjust the cable drum assembly by rotating the drum until the set screw faces directly away from the header. The position of the cam peak on the TorqueMaster® spring tube should be pointing straight up.

Loosen the set screw no more than 1/2 turn. Ensure counterbalance lift cable is aligned and seated in the first and second grooves of the cable drum. Pull on the end of the cable to remove all cable slack.

Snug the set screw and then tighten an additional 1-1/2 turns. Measure approximately 6” of cable and cut off excess cable. Insert end of the cable into the hole of cable drum. Repeat for left hand cable drum assembly.

**IMPORTANT:** ENSURE THE COUNTERBALANCE LIFT CABLE IS SEATED IN THE FIRST GROOVE OF THE CABLE DRUM PRIOR TO WINDING SPRINGS.

**Winding Spring(s)**

**IMPORTANT:** VERIFY THAT THERE ARE NO OBSTRUCTIONS IN THE TRAVEL PATH OF THE DOOR SECTIONS OR COUNTERBALANCE LIFT CABLES.

**IMPORTANT:** INSPECT EACH COUNTERBALANCE LIFT CABLE MAKING SURE IT IS SEATED PROPERLY ONTO THE CABLE DRUM AND THAT BOTH COUNTERBALANCE LIFT CABLES HAVE EQUAL TENSION.

**PRIOR TO WINDING SPRING(S), CHECK COUNTERBALANCE LIFT CABLES FOR EQUAL TENSION:**
1. Attach locking pliers to track above top roller.
2. Grasp cable at approximate mid-door height location.
3. Draw cable toward you about 1/2” to 1” and release, noting the response of the cable.
4. Repeat above steps for other cable.
5. Adjust cable tension as needed until right and left cables both respond the same.

**WARNING**

WINDING SPRING IS AN EXTREMELY DANGEROUS PROCEDURE AND SHOULD BE PERFORMED ONLY BY A TRAINED DOOR SYSTEM TECHNICIAN USING PROPER TOOLS AND INSTRUCTIONS.
ratchet wheel or the mark on the winding shaft. After 2 to 3 turns, remove the ratchet wheel and adjust the counterbalance lift cable on the left side. Ensure counterbalance lift cables are in the first groove of the cable drums, as shown in Step Adjusting Counterbalance Lift Cable.

NOTE: Single spring applications require no spring winding on the left hand side, but lift cable tension needs to be adjusted.

FOR SINGLE SPRING APPLICATIONS: Return to the right hand end bracket and continue winding the spring to the required number of turns for your door following the double spring instructions below. Place pawl knob in upper position.

FOR DOUBLE SPRING APPLICATIONS: Either use the black tooth on the ratchet wheel for winding reference or place a mark on the winding shaft and end bracket. Place the ratchet wrench with 5/8” socket and a 3” ratchet extension onto the left hand winding shaft end. To wind the spring, rotate the winding shaft clockwise, while watching the black tooth on the ratchet wheel or the mark on the winding shaft. Rotate the winding shaft to the required number of winding turns for your door. Then return to the right hand side and wind the right hand spring to the required number of turns. Place pawl knob in upper position on both sides.

IMPORTANT: MARK THE NUMBER OF SPRING TURNS ON THE END BRACKET WARNING TAG.

## WINDING SPRING TURN CHART

<table>
<thead>
<tr>
<th>DOOR HEIGHT</th>
<th>SPRING TURNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'-0&quot;</td>
<td>14</td>
</tr>
<tr>
<td>6'-3&quot;</td>
<td>14-1/2</td>
</tr>
<tr>
<td>6'-5&quot; - 6'-6&quot;</td>
<td>15</td>
</tr>
<tr>
<td>6'-8&quot; - 6'-9&quot;</td>
<td>15-1/2</td>
</tr>
<tr>
<td>7'-0&quot;</td>
<td>16</td>
</tr>
<tr>
<td>7'-3&quot;</td>
<td>16-1/2</td>
</tr>
<tr>
<td>7'-6&quot;</td>
<td>17</td>
</tr>
<tr>
<td>7'-9&quot;</td>
<td>17-1/2</td>
</tr>
<tr>
<td>8'-0&quot;</td>
<td>18</td>
</tr>
</tbody>
</table>

NOTE: Since total turns to balance door can deviate from winding spring turn chart values by ± 1 turn, adjustments to the recommended number of turns may be required after rear back hangs are installed.

---

### Securing Drum Wraps (Optional)

**NOTE:** If you don’t have drum wraps, then skip this step. Refer to Package Contents / Parts Breakdown, to determine if you have drum wraps.

Starting on the left hand side, position the left hand drum wrap, as shown. Slide the left hand drum wrap over the cable drum assembly.

**IMPORTANT:** PULL THE COUNTERBALANCE LIFT CABLE AWAY FROM THE HEADER TO CLEAR THE LATCH, WHILE SIMULTANEOUSLY SLIDING THE DRUM WRAP AGAINST THE LAST RIB UNTIL THE THREE CATCHES ENGAGE THE 3RD RIB.

Secure the hinge latch by rotating upward until a distinct snap is felt. Confirm the catch is fully engaged by lightly tugging on it. Repeat the same process for right hand side.

---

### Attaching Rear Back Hangs

**IMPORTANT:** HOLD THE DOOR DOWN TO PREVENT IT FROM RISING UNEXPECTEDLY IN THE EVENT THE SPRING(S) WERE OVER-WOUND AND CAUTIOUSLY REMOVE LOCKING PLIERS FROM VERTICAL TRACKS.

Raise the door until the top section and half of the next section are in the horizontal track radius. Do not raise door any further since rear of horizontal tracks are not yet supported.

**WARNING**

RAISING DOOR INTO THE LOOSE HORIZONTAL TRACKS CAN RESULT IN DOOR FALLING AND CAUSE SEVERE OR FATAL INJURY.

Clamp a pair of locking pliers onto the vertical tracks just above the second track roller on one side, and just below the second track roller on the other side. This will prevent the door from raising or lowering while installing the rear back hangs.

Using the chart below, select the appropriate perforated angle (may not be supplied). Fabricate and install rear back hangs, as shown.

**Perforated Angle Gauge Weight Limitations:**

<table>
<thead>
<tr>
<th>Perforated Angle Gauge</th>
<th>Door Balance Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; x 2&quot; x 12 Gauge</td>
<td>Less Than 800 lbs.</td>
</tr>
<tr>
<td>1-1/4&quot; x 1-1/4&quot; x 13 Gauge</td>
<td>Less Than 305 lbs.</td>
</tr>
<tr>
<td>1-1/4&quot; x 1-1/4&quot; x 15 Gauge</td>
<td>Less Than 220 lbs.</td>
</tr>
<tr>
<td>1-1/4&quot; x 1-1/4&quot; x 16 Gauge</td>
<td>Less Than 175 lbs.</td>
</tr>
</tbody>
</table>

**NOTE:** If an opener is installed, position horizontal tracks one hole above level when securing them to the rear back hangs.

**WARNING**

KEEP HORIZONTAL TRACKS PARALLEL AND WITHIN 3/4” TO 7/8” MAXIMUM OF DOOR EDGE, OTHERWISE DOOR COULD FALL, RESULTING IN SEVERE OR FATAL INJURY.

**WARNING**

MAKE SURE BACK HANGS ARE BRACED SUFFICIENTLY TO RESIST ANY MOTION DURING SPRING APPLICATION AND DOOR TRAVEL. IF BACK HANGS PIVOT OR DEFLECT, ADD REINFORCEMENT UNTIL THEY REMAIN FIRM AND STATIONARY. ANY BACK HANG THAT HAS BENT MUST BE REPLACED.

**IMPORTANT:** DO NOT SUPPORT THE WEIGHT OF THE DOOR ON ANY PART OF THE REAR BACK HANGS THAT CANTILEVERS 4” OR MORE BEYOND A SOUND FRAMING MEMBER.

**NOTE:** If rear back hangs are to be installed over drywall, use (2) 5/16” x 2” hex head lag screws and make sure lag screws engage into solid structural lumber.

**WARNING**

FAILURE TO ASSEMBLE AND ATTACH REAR BACK HANGS PROPERLY ACCORDING TO THE ABOVE INSTRUCTIONS MAY RESULT IN DOOR FALLING WHEN RAISED, CAUSING SEVERE OR FATAL INJURY.

**NOTE:** Perforated angle must be attached to sound framing members and nails should not be used.
## Attaching Weather Seal

Permanently attach the weatherstrips on both door jambs and header. The weatherstrips were temporarily attached in Preparing the Opening, in the pre-installation section of this manual.

**NOTE:** When permanently attaching the weatherstrips to the jambs, avoid pushing the weatherstrips too tightly against the face of door.

## Balancing Door

- **NOTE:** Windows may cause the top section to be significantly heavier than the remaining sections. Wayne Dalton attempts to balance the door at the top and bottom. To prevent any sudden door acceleration between the top and bottom, we recommend motor operating all doors with windows.

  Remove any locking pliers. Lift the door and check its balance. Adjust spring(s) if door lifts by itself (hard to pull down) or if door is difficult to lift (drifts down). Anytime spring adjustments are made, ratchet pawl knob must be in the upper position. An unbalanced door can cause TorqueMaster® Plus operation problems.

  Close the door and place locking pliers onto both vertical tracks just above the third track roller. This is to prevent the garage door from rising while adjusting the spring(s).

  **IMPORTANT:** TO ADJUST SPRINGS, ONLY ADD OR REMOVE A MAXIMUM OF 3/10 OF A TURN (THREE TEETH ON THE RATCHET WHEEL) AT A TIME. BOTH SIDES NEED TO BE ADJUSTED EQUALLY ON DOUBLE SPRING DOORS.

### WARNING

WINDING SPRINGS IS AN EXTREMELY DANGEROUS PROCEDURE AND SHOULD BE PERFORMED ONLY BY A TRAINED DOOR SYSTEM TECHNICIAN USING PROPER TOOLS AND INSTRUCTIONS.

**ADD SPRING TENSION:** The ratchet wheel is made of 10 teeth. To add spring tension, tighten counter clockwise on the right hand side and clockwise on the left hand side. Place pawl knob in upper position. Place the ratchet with 5/8" socket and 3" ratchet extension onto the winding shaft, to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the pawl, creating three “clicks”. Place pawl knob in lower position. For double spring applications, repeat the same process for the other side.

**REMOVE SPRING TENSION:** To remove spring tension, place a regular 5/8" wrench onto the winding shaft. Place pawl knob in upper position. **IMPORTANT:** BE PREPARED TO HOLD THE FULL TENSION OF THE SPRING. Pull down on the wrench to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the pawl, as you carefully allow the wrench to be rotated upward by the spring tension, release the pawl to allow it to engage with the ratchet wheel. Place pawl knob in lower position. For double spring applications, repeat the same process for the other side.

**IMPORTANT:** DO NOT ADD OR REMOVE MORE THAN 1 SPRING TURN (1 SPRING TURN EQUALS 10 TEETH ON RATCHET WHEEL) FROM THE RECOMMENDED NUMBER OF TURNS SHOWN ON THE WINDING SPRING TURN CHART.

If the door still does not operate easily, lower the door into the closed position, unwind spring(s) completely, and recheck the following items:

1.) Is the door level?
2.) Are the TorqueMaster® spring tube and flag angles level and plumb?
3.) Does the distance between the flag angles equal door width plus 3-3/8" to 3-1/2"?
4.) Do the counterbalance lift cables have equal tension? Adjust if necessary.
5.) Rewind the spring(s).
6.) Make sure door is not rubbing on jambs.
TorqueMaster® Plus Reset Instructions

**IMPORTANT:** The drawbar operator force settings must be adjusted according to the manufacturer's instructions. Some lighter weight doors are designed to operate with a single counterbalance spring. If that counterbalance spring breaks and the drawbar operator’s force settings are not adjusted according to the manufacturer’s specifications, the drawbar operator may then have the capability of lifting the door to the open position, despite the broken counterbalance spring. This scenario will cause the counterbalance lift cables to go slack and engage the TorqueMaster® Plus safety system. If a person is unaware of the slack counterbalance lift cables and the engaged TorqueMaster® Plus safety system and activates the misadjusted drawbar operator, damage will likely occur to the door and drawbar operator. The potential also exists that the person activating the drawbar operator under this scenario could be severely injured.

**WARNING**

Read these instructions carefully before attempting to reset the TorqueMaster® Plus system. If in question about any of the procedures, do not perform the work. Instead, have a qualified door systems technician reset the system.

**WARNING**

To avoid severe or fatal injury, do not stand or walk under a moving door, or permit anyone to stand or walk under an electrically operated door.

This door is equipped with a TorqueMaster® plus system, a safety feature which prevents the door from rapidly descending in case of spring failure or forceful manual operation. If the system engages with the door in the open position, personal items that are left unattended in the garage or home are at risk to theft. To ensure the safekeeping of these items, close the garage door.

**Typical signs of an engaged system.**

**Single spring system:** Visually inspect the TorqueMaster® Plus right hand end bracket to confirm that the system has engaged (see illustration). If the system is engaged, then the door will not close. If the drawbar operator force settings were properly set during the initial installation, the door will not open. If the drawbar operator can physically overcome the weight of the door and lift it to the open position, then the counterbalance lift cables will be slack. If the system is engaged, DO NOT attempt to make the repairs. Instead, have a trained door system technician make the necessary repairs to counterbalance lift cables, spring assemblies and other hardware.

**Double spring system:** Visually inspect the TorqueMaster® Plus end brackets to confirm that the system has engaged (see illustration). Door makes a distinct “clicking” noise upon being opened. If the system is engaged, carefully follow the reset instructions below or refer to the reset instructions tag (attached to right hand end bracket) to reset the TorqueMaster® Plus system.

**Resetting an engaged TorqueMaster® Plus double spring system only:**

1. First, locate and visually inspect the TorqueMaster® plus end bracket(s) to confirm that the system has engaged (see illustration).
2. With the door in the fully closed position, place locking pliers onto both vertical tracks just above the third track roller. Disengage the drawbar operator (if installed) by pulling or placing the emergency disconnect in the manually operated position.
3. With assistance, carefully remove locking pliers and raise the door to the fully open position.
4. Place locking pliers onto both vertical tracks just below the bottom track roller on both sides.
5. Now is a good time to remove vehicles or personal items from garage to provide clear access to end brackets.
6. For **single spring applications:** Flip the ratchet pawl knob on the right hand end bracket to the upper position. For **double spring applications:** Flip the ratchet pawl knob on both end brackets to the upper position (see illustration).
7. Raise door 2”-3” and then lower door. Repeat this process until the system resets (see illustration). If the system is engaged, DO NOT attempt to make the repairs. Instead, have a trained door system technician make the necessary repairs to counterbalance lift cables, spring assemblies and other hardware.

**IMPORTANT:** To avoid possible injury, have a trained door systems technician make adjustments/repairs to counterbalance lift cables, spring assemblies and other hardware.

**WARNING**

Do not install pull down rope on doors with operators. Children may be become entangled in the rope causing severe or fatal injury.

Install the inside lock on the second section of the door. Secure the lock to the section with (4) 1/4” - 20 x 1 1/16” self drilling screws. Square the lock assembly with the door section, and align with the square hole in the vertical track. The inside lock should be spaced approximately 1/8” away from the section edge. **IMPORTANT:** Inside lock(s) must be removed or made inoperative in the unlocked position if an operator is installed on this door.

**WARNING**

Do not install pull down rope on doors with operators. Children may become entangled in the rope causing severe or fatal injury.

Measure and mark the jamb approximately 48” to 50” (1220 to 1270 mm) from floor on the right or left side of jamb. Drill 1/8” pilot hole for no. 6 screw eye. Tie the pull down rope to the no. 6 screw eye and to the bottom corner bracket, as shown.

**Inside Lock**

Install the inside lock on the second section of the door. Secure the lock to the section with (4) 1/4” - 20 x 1 1/16” self drilling screws. Square the lock assembly with the door section, and align with the square hole in the vertical track. The inside lock should be spaced approximately 1/8” away from the section edge. **IMPORTANT:** Inside lock(s) must be removed or made inoperative in the unlocked position if an operator is installed on this door.

**Pull Down Rope**

Do not install pull down rope on doors with operators. Children may be become entangled in the rope causing severe or fatal injury.

Measure and mark the jamb approximately 48” to 50” (1220 to 1270 mm) from floor on the right or left side of jamb. Drill 1/8” pilot hole for no. 6 screw eye. Tie the pull down rope to the no. 6 screw eye and to the bottom corner bracket, as shown.
No. 6 Screw eye

48” to 50” From floor

Pull down rope

Typical bottom corner bracket

Pull down rope
Cleaning Your Garage Door

IMPORTANT: DO NOT USE A PRESSURE WASHER ON YOUR GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight. Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

THE FOLLOWING CLEANING SOLUTION IS RECOMMENDED: A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water will aid in the removal of most dirt.

NOTE: The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

NOTE: Be sure to clean behind weatherstrips on both sides and top of door.

CAUTION

NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

Painting Your Garage Door

Refer to Instruction Insert: “Field Painting and Finishing Fiberglass or Steel Door Sections”.

Maintaining The Finish On Your Garage Door

If the factory finish is beginning to fade, the door may require a field applied top clear coat. Depending on environment and usage, this may be necessary after 1-3 years of use. Refer to Instruction Insert “Field Painting and Finishing Fiberglass Or Steel Door Sections”.

Operation And Maintenance

OPERATING YOUR GARAGE DOOR: Before you begin, read all warning labels affixed to the door and the installation instructions and owner’s manual. When correctly installed, your Wayne Dalton door will operate smoothly. Always operate your door with controlled movements. Do not slam your door or throw your door into the open position, this may cause damage to the door or its components. If your door has an electric opener, refer to the owner’s manual to disconnect the opener before performing manual door operation below.

MANUAL DOOR OPERATION: For additional information on manual garage door operations go to www.dasma.com and reference TDS 165.

WARNING

DO NOT PLACE FINGERS OR HANDS INTO SECTION JOINTS WHEN OPENING AND/OR CLOSING A DOOR. ALWAYS USE LIFT HANDLES / SUITABLE GRIPPING POINTS WHEN OPERATING THE DOOR MANUALLY.

OPENING A DOOR: Make sure the lock(s) are in the unlocked position. Lift the door by using the lift handles / suitable gripping points only. Door should open with little resistance.

CLOSING A DOOR: From inside the garage, pull door downward using lift handles / gripping point only. If you are unable to reach the lift handles/ suitable gripping points only, use pull down rope affixed to the side of door. Door should close completely with little resistance.

USING AN ELECTRIC OPERATOR:

IMPORTANT: PULL DOWNropes MUST BE REMOVED AND LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION.

When connecting a drawbar (trolley type) garage door operator to this door, a drawbar operator bracket must be securely attached to the top section of the door, along with any struds provided. Always use the drawbar operator bracket supplied with the door. To avoid possible damage to your door, Wayne Dalton recommends reinforcing the top section with a strut (may or may not be supplied). The installation of the drawbar operator must be according to manufacturer’s instructions and force settings must be adjusted properly. Refer to the owner’s manual supplied with your drawbar operator for complete details on installation, operation, maintenance and testing of the operator.

MAINTAINING YOUR GARAGE DOOR: Before you begin, read all warning labels affixed to the door and the installation instructions and owner’s manual. Perform routine maintenance steps once a month, and have the door professionally inspected once a year. Review your Installation Instructions and Owner’s Manual for the garage door. These instructions are available at no charge from Wayne Dalton, a division of Overhead Door Corporation, P.O. Box 67, Mt. Hope, OH., 44660, or at www.Wayne-Dalton.com. For additional information on garage door/operator maintenance go to www.dasma.com and reference TDS 151, 167 and 179.

Monthly Inspections:

1. Visual Inspection: Closely inspect jambs, header and mounting surface. Any material found not to be structurally sound must be replaced. It may be necessary to uninstall part or all of the door assembly in order to replace defective material. Refer to the supplemental instructions “Removing an Existing Door / Preparing the Opening” at www.Wayne-Dalton.com. Inspect the spring(s), counterbalance lift cables, track rollers, pulleys, rear hang, and other door hardware for signs of worn or broken parts. Tighten any loose screws and bolts, except on bottom corner brackets or on the counterbalance assembly. Check exterior surface of the door sections for any minor cracks. Verify door has not shifted right or left in the opening. If you suspect problems, contact a trained door system technician.

WARNING

DOOR GARAGE SPRINGS, COUNTERBALANCE LIFT CABLES, BRACKETS, AND OTHER HARDWARE ATTACHED TO THE SPRINGS ARE UNDER EXTREME TENSION. AND IF HANDLED IMPROPERLY, CAN CAUSE SEVERE OR FATAL INJURY. ONLY A TRAINED DOOR SYSTEMS TECHNICIAN SHOULD ADJUST THEM, BY CAREFULLY FOLLOWING THE MANUFACTURER’S INSTRUCTIONS.

WARNING

NEVER REMOVE, ADJUST, OR LOOSEN THE BOLTS, SCREWS AND/OR LAG SCREWS ON THE COUNTERBALANCE (END BEARING BRACKETS, DRUMS OR SPRING SYSTEM) OR BOTTOM CORNER BRACKETS OF THE DOOR. THESE BRACKETS ARE CONNECTED TO THE SPRING(S) AND ARE UNDER EXTREME TENSION. TO AVOID POSSIBLE SEVERE OR FATAL INJURY, HAVE ANY SUCH WORK PERFORMED BY A TRAINED DOOR SYSTEMS TECHNICIAN USING PROPER TOOLS AND INSTRUCTIONS.

TORQUEMASTER® PLUS SPRINGS: Pawl knob(s) (located on the TorqueMaster® end brackets above the door) should be engaged to prevent the door from rapidly descending in case of spring failure or forceful manual operation.

EXTENSION SPRINGS: A restraining cable or other device should be installed on the exten-

sion spring located above the horizontal tracks) to help contain the spring if it breaks.

2. Door Balance: Periodically test the balance of your door. If you have a garage door
drawbar operator, use the release mechanism so you can operate the door by hand when
doing this test. Start with the door in the fully closed position. Using handles or suitable grip-

ping points, lift the door to check its balance. Adjust TorqueMaster® or Extension spring(s), if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). DO NOT attempt to repair or adjust Torsion Springs yourself. To adjust TorqueMaster® or Extension spring(s), refer to your installation instructions and owner’s manual. If in question about any of the procedures, do not perform the work. Instead, have it adjusted by a trained door systems technician.

3. Lubrication: The door should open and close smoothly. Ensure the door track rollers are
routing freely when opening and closing the door. If track rollers do not rotate freely, clean
the door tracks, removing dirt and any foreign substances. Clean and lubricate (use a non-
silicon based lubricant) graduated end hinges, center hinges, steel track rollers, bearings and
torsion springs (tension spring coil surfaces). DO NOT lubricate plastic idler bearings, nylon
track rollers, door track. DO NOT oil a cylinder lock, if actuation is difficult use a graphite dust
lubricate.

CHECK FOR PRESENCE OF SAFETY LABELS:
Number of Installed Spring Turns

- (7' - 9'') 17 - 1/2
- (7' - 3'') 16 - 1/2
- (6' - 8'') 15 - 1/2
- (6' - 6'') 15
- (6' - 3'') 14 - 1/2
- (8' - 0'') 18
- (7' - 6'') 17
- (7' - 0'') 16
- (6' - 9'') 15 - 1/2
- (6' - 5'') 15
- (6' - 0'') 14

Door Height Spring Turns

- (5' - 8'') 11 - 8
- (5' - 6'') 10 - 7
- (5' - 0'') 9 - 6

Lift handles/gripping points are required when the door is operated manually.

Adjustments and repairs must only be made by a trained door systems technician using proper tools and instructions.

DO NOT stand or walk under a moving door, using proper tools and instructions.

Visually inspect door and hardware manufacturer's instructions.

Test electric opener's safety features monthly, following opener manufacturer's instructions.

Check to ensure door operates freely.

Check door and/or opener reinforced when attaching an electric system technician using proper tools and such work performed by a trained door systems technician using proper tools and instructions.

DO NOT permit children to operate garage door manually.

Alteration to any part of the door, Due to constant extreme spring tension, especially to springs, spring brackets, cables or supports. To avoid possible severe or fatal injury, have any system technician using proper tools and instructions.

DO NOT remove, cover or paint over this tag. Product user should inspect this tag periodically for legibility and should order a replacement from the door manufacturer as needed.

WARNING HIGH SPRING TENSION CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT

Track systems are not intended or designed to support such extra weight.

Do not hang tools, bicycles, hoses, clothing or anything else from horizontal tracks.

Place label at a readable height on door. DO NOT

Top section of door may need to be removed or made inoperative in the open (unlocked) position.

Ropes must be removed and locks must be inoperative or is damaged, immediately.

NEVER hang tools, bicycles, hoses, clothing or anything else from horizontal tracks.

Do not permit children to operate garage door manually.

Fasteners, cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.

The adjacent bottom corner bracket and milford pins, cotter pins, & clevis pins are all cable retention features including under HIGH SPRING TENSION.

Overhead Door Corporation

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Limited Warranty

Models 8000, 8100, 8200

Wayne Dalton, a division of Overhead Door Corporation (“Seller”) warrants to the original purchaser of the Models 8000, 8100, 8200 ("Product"), subject to all of the terms and conditions hereof, that the Product and all components thereof will be free from defects in materials and workmanship for the following period(s) of time, measured from the date of installation:

**TEN (10) YEARS** from the date of installation against:

- The Product becoming inoperable due to rust-through of the steel skin from the core of the Product section, due to cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.
- Peeling of the original paint as a result of a defect in the original paint or in the application of the original paint coating.

**TEN (10) YEARS** on Product hardware and tracks (except springs).

**ONE (1) YEAR** on all other component and parts.

Seller’s obligation under this warranty is specifically limited to repairing or replacing, at its option, any part which is determined by Seller to be defective during the applicable warranty period. Any labor charges are excluded and will be the responsibility of the purchaser.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is made to the original purchaser of the Product only, and is not transferable or assignable. This warranty applies only to Product installed in a residential or other non-commercial application. It does not cover any Product installed in commercial or industrial building applications. This warranty does not apply to any unauthorized alteration or repair of the Product, or to any Product or component which has been damaged or deteriorated due to misuse, neglect, accident, failure to provide necessary maintenance, normal wear and tear, acts of God, or any other cause beyond the reasonable control of Seller or as a result of having been exposed to toxic or abrasive environments, including blowing sand, salt water, salt spray and toxic chemicals and fumes.

All express and implied warranties for the Product, including but not limited to any implied warranties of merchantability and fitness for a particular purpose, are limited in time to the applicable warranty period reflected above. No warranties, whether express or implied, will apply after the limited warranty period has expired. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

In no event shall Seller be responsible for, or liable to anyone for, special, indirect, collateral, punitive, incidental or consequential damages, even if Seller has been advised of the possibility of such damages. Such excluded damages include, but are not limited to, loss of use, cost of any substitute product, or other similar indirect financial loss. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Claims under this warranty must be made promptly after discovery, within the applicable warranty period, and in writing to the authorized distributor or installer whose name and address appear below. The purchaser must allow Seller a reasonable opportunity to inspect any Product claimed to be defective prior to removal or any alteration of its condition. Proof of the purchase and/or installation date, and identification as the original purchaser, may be required. There are no established informal dispute resolution procedures of the type described in the Magnuson-Moss Warranty Act.

- **SELLER:**
  
- **SELLER’S ADDRESS:**
Thank you for your purchase.

**PLEASE DO NOT RETURN THIS PRODUCT TO THE STORE**

If you need assistance, please call 1-866-569-3799 (press Option 1) and follow the prompts to contact a customer service representative. They will be happy to handle any questions that you may have.

After installation is complete, leave this Installation Instructions And Owner’s Manual with the homeowner, or fasten it near garage door for easy reference.