START HERE

IMPORTANT! READ IMPORTANT SAFETY NOTICES AND REFER TO INSERT SHEET INSTRUCTIONS TITLED "REMOVING THE OLD DOOR/PREPARING THE OPENING". IF THE INSERT SHEET INSTRUCTIONS ARE NOT INCLUDED, CONTACT WAYNE-DALTON CORP. FOR A FREE COPY.
If removing an existing door, carefully follow the directions given on the insert sheet instruction in the portion titled "Removing the Old Door".

WARNING!

REMOVAL OF AN EXISTING DOOR CAN BE DANGEROUS. FOLLOW INSERT SHEET INSTRUCTIONS CAREFULLY, OTHERWISE SERIOUS INJURY OR DEATH COULD RESULT.

Begin the installation of the door by checking the opening. It must be the same size as the door. Vertical jambs must be plumb and the header level. Side clearance, from edge of door to wall, must be minimum of 3-1/2" (89 mm) on each side. For proper opening preparation refer to the portion of the insert sheet instructions titled "Preparing the Opening". Follow the steps below. The steps correspond to the illustrations on the garage door layout.

NOTE: It is recommended that 5/16" x 1-5/8" lag screws be pilot drilled using a 3/16" drill bit, and 1/4" x 2" lag screws be pilot drilled using a 1/8" drill bit, prior to fastening.

1A- 1C

Using a hammer, tap the horizontal angle towards the curved end of the track until the hole in track and angle are aligned. Set tracks aside.

NOTE: For larger size doors, a full length horizontal angle is already spot welded to the horizontal track.

2

Secure the vertical track to the lower slot in the flagangle using (1) stud plate and (2) flanged hex nuts.

3A-3B

To attach the bottom jamb bracket, locate the lower hole/slot pattern of the vertical track. Align the slot in the jamb bracket with the lower hole of the hole/slot pattern in the vertical track. Secure jamb bracket, using (1) 1/4-20 x 9/16" track bolt and nut. Place the center jamb bracket over the hole/slot pattern nearest to the center of the track. Loosely fasten the bracket onto the track with (1) 1/4-20 x 9/16" track bolt and nut. See **Jamb Bracket Installation** on backside of this manual.

4

Align top two holes of bottom bracket with #3 and #5 holes in end stile of the bottom section (see **END STILE LAYOUT** located on the bottom, right side of the door layout). Secure the bottom bracket using (2) 1/4-20 x 5/8" self drilling screws and (1) Tamper-proof self drilling screw. TorqueMaster™ drums are marked right and left. Make sure you place the cable from the right hand drum onto the milford pin of the right hand bottom bracket, and cable from the left hand drum onto the milford pin of the left hand bottom bracket. Insert rollers with spacers into bottom brackets.

NOTE: Bottom section can be identified by the factory attached bottom astragal and by the bottom bracket warning labels on each end stile.

NOTE: Verify astragal (bottom seal) is aligned with door section. If there is more than 1/2" excess astragal on either side, trim off so that astragal is aligned with door section.

NOTE: Only doors provided to professional installers, who have required tools will be supplied with a tamper-proof fastener. Use a (3) 1/4-20 x 5/8" self drilling screws in bottom bracket, if not provided with a tamper-proof screw .

IMPORTANT! Right and left hand is always determined from inside the building looking out.

STRUT INSTALLATION: Struts are required on all doors 14' wide and over (See **Strutting Schedule** located on the bottom, right side of the door layout). Center the strut side to side on the section at the location shown, and secure the strut to the section using (2) 1/4-20 x 5/8" self drilling screws at each end and center stile location.

4B-5B

Locate the lower (numbered) leaf of the #1 end hinges and required #1 center hinges over the pre-punched holes in the end stiles and center stile(s) at the top of the bottom section. Secure the hinges to the section using (2) 1/4-14 x 5/8" self tapping screws each. Insert rollers into hinge tubes. Repeat for all other sections using the #2 end hinges on the second (lock section) and the #3 end hinges on the third section. If required, attach struts to their respective locations after hinges are installed (see **strut installation**).

NOTE: #4 End hinges are used on fourth section of five section doors.

IMPORTANT! When placing rollers into end hinges number 2 and higher, the roller goes into tube furthest away from section.

6B **Standard Step/Lift Plate**

NOTE: For alternative step/lift plate installation, see Alternative Installations section on the reverse side of this manual. Locate the center stile on the bottom section of the door. Using the pre-punched holes at the bottom of the stile as a template, drill (2) 7/32" (6mm) dia. holes through the section. Using the previously drilled holes as a guide, enlarge the holes from outside the door to 7/16" (11mm) dia. and assemble the outside and inside step/lift plates to the section using (2) #8 x 1-5/8" screws. **NOTE: Do not drill through or enlarge holes on the inside of the door.**

6B **Standard Lock Section 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" (100 mm) from the bottom of the second section.

IMPORTANT! The distance between the step/lift plate and the middle of the lift handle must be 20" (500 mm) minimum to 30" (800 mm) maximum. If needed reposition upper lift handle to stay within the required dimension.

Drill two 9/32 in (8mm) dia. holes through section. Enlarge the holes from **outside** the door to 1/2" (13mm) dia. Assemble the outside and inside lift handle to the section using (2) 1/4" x 2-1/2" carriage bolts and nuts and (2) spacers.

NOTE: Do not drill through or enlarge holes on the inside of the door.

2A-7A

Before installing the bottom section, measure and cut vinyl jamb weather-seal (may not be included) for entire garage door opening. Vinyl weather seal must be installed prior to door installation. Attach the weather seal to the door jamb 1/8" to 1/4" past door jamb. Temporarily nail the weather-seal to the door jambs and header. This will help hold the bottom door section in place. Center the bottom section in the door opening. Level it using wooden shims under the bottom astragal as needed. Hold the section in the opening while attaching vertical tracks.

3A-8C

Position the first vertical track over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. If installing an **idrive™ opener** to the door, raise the track so that the bottom of the track is 1" higher than the bottom of the door. For **non-idrive™** operated garage doors, install the track so that it is aligned with the bottom of the door. Secure jamb brackets and flagangles to the jamb using 5/16" x 1-5/8" lag screws. Install the other vertical track the same way. Hang cables over flagangles.

IMPORTANT! Vertical tracks must be mounted at the same elevation to keep tracks level from side to side.

9

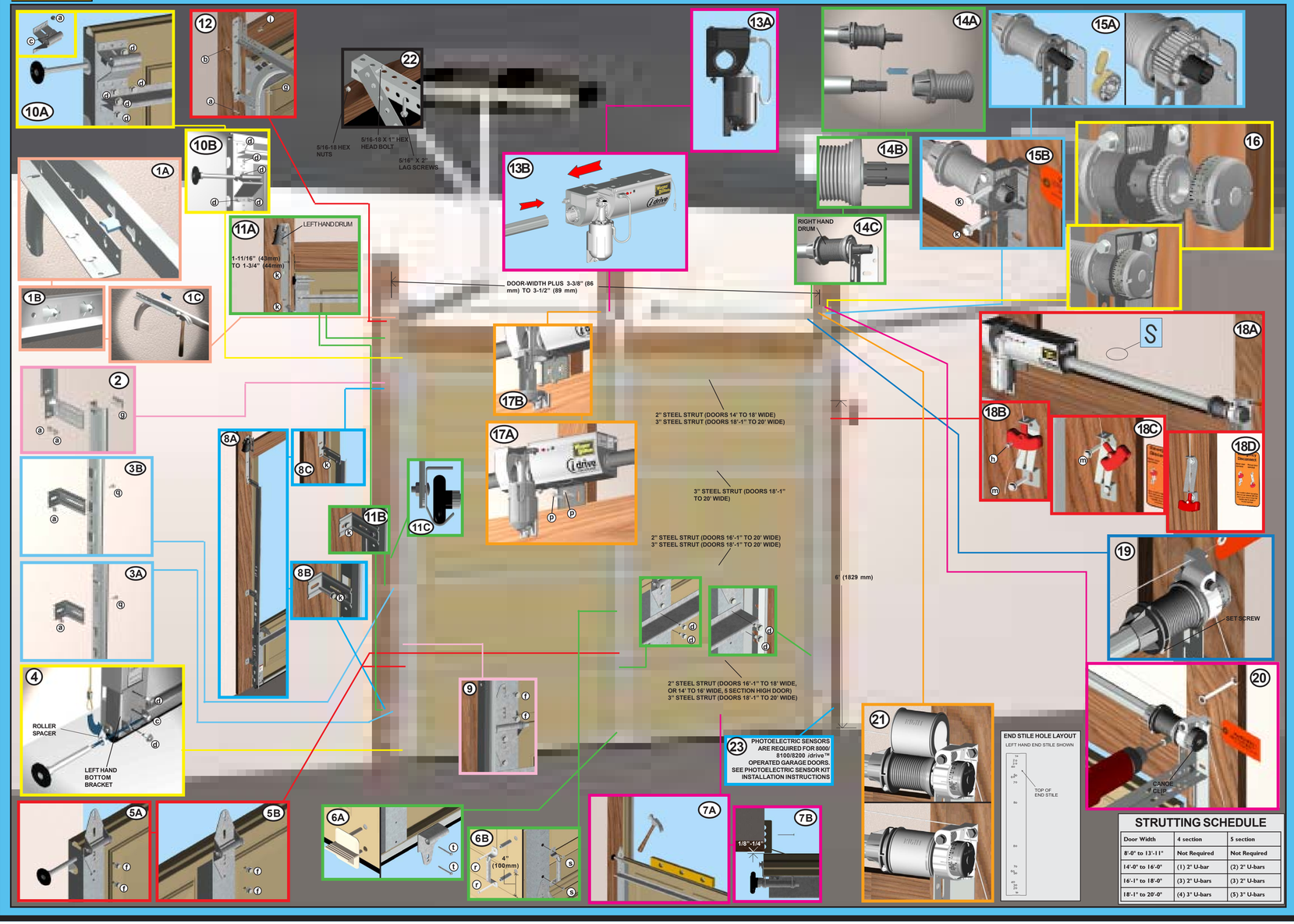
Make sure top leaves of all hinges on the bottom section are folded down. With assistance lift the second section and place rollers over the tops of the vertical tracks. Install by guiding rollers into the vertical track on both sides and gently lowering this section onto the bottom section. Keeping the ends of the sections aligned, install remaining section(s), except top section, in same manner. Now flip up, hold tight against section, and fasten center hinges first, and end hinges last, using (2) 1/4-14 x 5/8" self tapping screws.

NOTE: To install lock (sold separately), see lock instructions included in the lock assembly bag.

10A **idrive™ Operated Door Installation**

Align upper-center hole of top bracket with #2 hole in the end stile. Secure with (1) 1/4-14 x 5/8" self drilling screw. Ensure top bracket is level and aligned with edge of section. Secure with (2) 1/4-14 x 5/8" self drilling screws, one in each bottom corner of the top bracket. Loosely fasten top bracket slide with 1/4-20 x 5/8" carriage bolt and nut. Insert roller and repeat for other side.

For doors 14' wide and over, locate strut underneath the top bracket and secure with (2) 1/4-14 x 5/8" self drilling screws at each end and center stile location.



Door Width	4 section	5 section
8'-0" to 13'-11"	Not Required	Not Required
14'-0" to 16'-0"	(1) 2" U-bar	(2) 2" U-bars
16'-1" to 18'-0"	(3) 2" U-bars	(3) 2" U-bars
18'-1" to 20'-0"	(4) 3" U-bars	(5) 3" U-bars

10E **non-idrive™ Operated Door Installation**

Align upper-center hole of top bracket with #7 hole in the end stile. Secure with (1) 1/4-14 x 5/8" self drilling screw. Ensure top bracket is level and aligned with edge of section. Secure with (2) 1/4-14 x 5/8" self drilling screws, one in each bottom corner of the top bracket. Loosely fasten top bracket slide with 1/4-20 x 5/8" carriage bolt and nut. Insert roller and repeat for other side.

For doors 14' wide and over, locate strut above top bracket and secure with (2) 1/4-14 x 5/8" self drilling screws at each end and center stile location.

11A-11C

Place top section in the door opening, align with other sections and secure it temporarily by driving a nail into the header near the center of the door and bending it over the section. Now flip up, and fasten center hinges and end hinges.

When installing a door with a TorqueMaster™ counterbalance system, vertical track alignment is critical. Position flagangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door. Flagangles must be parallel to the door sections. Now complete the vertical track installation on both sides by securing the center jamb bracket and tightening the other lag screws and track bolts.

IMPORTANT! The dimension between the flagangles must be door-width plus 3-3/8" (86mm) to 3-1/2" (89 mm) for smooth, safe door operation.

IMPORTANT! Vertical tracks must be secured so that the rollers are touching the curved side of the track (see **11C**).

12

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the top of vertical track. Secure the track to the flagangle with (2) 1/4-20 track bolts or (1) stud plate and nuts. Level the horizontal track and secure position by bolting the horizontal angle to the slot in the flagangle using (1) 3/8-16 x 3/4" truss head bolt and nut. Repeat for other side. With tracks installed you can adjust the top brackets. Vertically align the top section with the lower sections. Once aligned, position top roller in adjustable slide against horizontal track, maintain position and tighten nut(s). Repeat for other side. Remove the nail from above the top section.

IMPORTANT! Failure to remove nail before attempting to raise door could cause permanent damage to top section.

WARNING!

DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR AS OUTLINED IN STEP 22, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE INJURY OR DEATH.

13A-15E **idrive™ Installation**

NOTE: For non-idrive™ operated garage doors see **Alternative Installations** on the reverse side of this manual.

Lay the torque tube on the floor (inside garage) in front of the door with the labeled end to the left. **NOTE: Opener will not slide over a torque tube label.** Attempting to slide opener over the left end of the torque tube can damage the internal electronics.

NOTE: Hold opener by the main body. Do NOT hold by the motor.

Look into the opener's left side to ensure the left hand bearing and the internal (black) sleeve are aligned with the torque tube profile. Once aligned, slide the opener power head onto the right hand end of the torque tube. As the right end of the torque tube enters the internal (black) sleeve, rotate the opener back and forth slightly to help aid alignment.

NOTE: Do not force the opener onto the torque tube if misalignment occurs.

Continue sliding the opener power head onto the torque tube. Align the right hand bearing with the torque tube and slide the opener power head completely onto the torque tube until the torque tube exits the opener power head's right hand bearing. Continue sliding the opener power head to the center of the torque tube and plug the motor power cord into the opener power head.

IMPORTANT! Right and left hand are always determined from inside the garage looking out.

14A-14C

Shake the torque tube 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 torque tube.

Lift the torque tube and rest on top of flagangles. Orient torque tube so that back of opener is flat against header/spring pad.

Cable drums and torque tube are cam shaped to fit together only one way. To install the cable drum, slide the drum over the winding shaft until the drum seats against the torque tube. The winding shaft must extend past the drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle. Repeat for opposite side for double spring applications.

For single spring applications, insert the left hand loose winding shaft into the left hand drum prior to sliding the drum over the torque tube.

NOTE: On single spring applications, take care in handling the loose winding shaft (left side) so that it does not slide back into the torque tube.

15A-15E

Beginning with the right hand side, lubricate entire circumference of the drive gear with the oil provided in the packet. DO NOT SUBSTITUTE OIL. Slide the drive gear onto the winding splines until it touches the flagangles.

NOTE: No drive gear is required for the left side on single spring applications.

IMPORTANT! Warning tags must be securely attached to both end brackets.

Slide the right hand end bracket over the drive gear. Secure end bracket and the flagangle to the jamb using (2)5/16 x 1-5/8" lag screws.

16

Beginning with the right side, install the counter gear with the missing tooth toward the outside, away from the end bracket. Press the counter gear onto the end bracket until snaps engage. Select the right hand counter cover assembly and align the hex of the counter cam with the end of the winding shaft. Also, align the "0" on the counter cover with the raised rib on the end bracket. Press the counter cover assembly against the counter gear until it locks into place. Repeat for left hand side for double spring applications.

NOTE: No drive gear, counter gear or counter cover assembly is required on left hand side for single spring applications. Only an end bracket is needed.

IMPORTANT! At this time do not wind counter balance springs!

17A-17E **idrive™ Installation**

NOTE: For non-idrive™ operated garage doors proceed to step 19.

Locate the spring pad. The spring pad is a vertical running board directly above the center of the door. Remove (2) 1/4-20 flange nuts from bottom of opener power head. **NOTE: Do not discard flange nuts.** Place the support bracket underneath opener power head, to the right side of motor, centered on spring pad. Level the torque tube to the top of the door section with the idrive™ resting on the support bracket. Once torque tube is level, secure support bracket to the spring pad with (2) 1/4 x 2" lag screws.

Lift and slide the opener power head over the support bracket, aligning the mounting studs with the bracket slots. Loosely fasten to mounting studs with the (2) 1/4-20 flange nuts. **NOTE: Do not tighten 1/4-20 flange nuts to power head studs at this time.**

18A-18E **idrive™ Installation**

Attach the loose disconnect cable (located in operator hardware bag) to the opener power head with "S" hook. Close both ends of "S" hook to lock assembly together. Thread the disconnect cable through hole in right hand end bracket and remove all slack between power head and right hand end bracket.

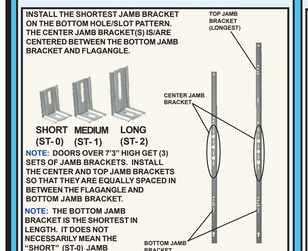
Mark location on right door jamb, 6' (1829 mm) above the ground to mount disconnect handle. Thread disconnect cable through handle bracket and then handle. Align top of handle bracket with mark on wall. Remove all cable slack between the power head and top of handle bracket.

Insert and tighten #6-20 x 1/2" screw until snug, and then tighten screw 1 to 1-1/2 additional turns to secure cable in handle. Trim off excess cable from bottom of handle.

CONTINUE INSTALLATION INSTRUCTIONS ON REVERSE SIDE.

Jamb Bracket Installation

INSTALL THE SHORTEST JAMB BRACKET ON THE BOTTOM HOLE/SLOT PATTERN. THE CENTER JAMB BRACKET(S) IS/ARE CENTERED BETWEEN THE BOTTOM JAMB BRACKET AND FLAGANGLE.

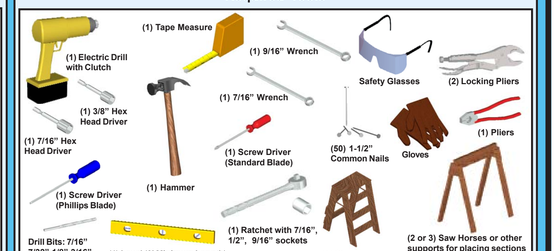


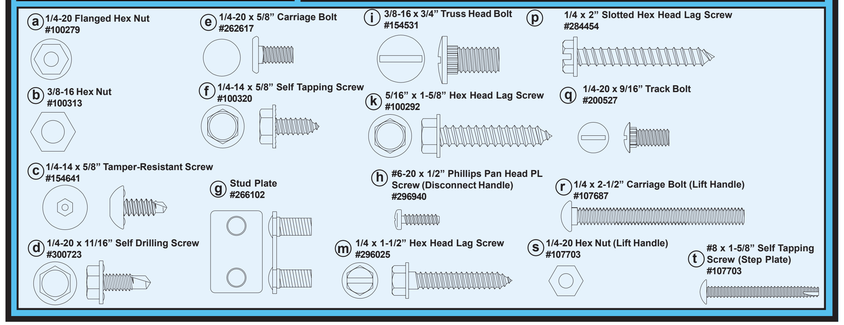
SHORT (ST- 0) MEDIUM (ST- 1) LONG (ST- 2)

NOTE: DOORS OVER 7'3" HIGH GET (3) SETS OF JAMB BRACKETS. INSTALL THE CENTER AND TOP JAMB BRACKETS SO THAT THEY ARE EQUALLY SPACED IN BETWEEN THE FLAGANGLE AND BOTTOM JAMB BRACKET.

NOTE: THE BOTTOM JAMB BRACKET IS THE SHORTEST IN LENGTH. IT DOES NOT NECESSARILY MEAN THE "SHORT" (ST-0) JAMB BRACKET.

Required Tools





Wayne Dalton

Wayne-Dalton Corp.
P.O. Box 67
Mt. Hope, Ohio 44660

IMPORTANT SAFETY NOTICES

Read these instructions carefully before attempting installation. If in question about any of the procedures, do not perform the work. Instead, have a qualified door agency do the installation or repairs.

1. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.

2. It is always recommended to wear eye protection when using tools, otherwise serious eye injury could result.

3. Avoid installing your new door on windy days. Door could fall during the installation and cause damage and personal injury.

4. If the door is to be electrically operated at any time, all pull ropes **MUST** be removed to prevent injury or death to children who may become entangled in the rope. The locking mechanism **MUST** also be disengaged.

5. Operate door **ONLY** when properly adjusted and free of obstructions.

6. Should the door become hard to operate or completely inoperative, a qualified door agency should correct the problem to prevent damage to the door or serious personal injury.

7. **DO NOT PERMIT** children to play with the garage door or the electrical controls. Fatal injury could result, should the child become entrapped between the door and the floor.

8. To prevent serious injury or death, avoid standing in the open doorway or walking through the doorway while the door is moving.

9. Door is constantly under **EXTREME SPRING TENSION**. To prevent possible serious injury or death, adjustments, repairs, removal or installation, **ESPECIALLY of SPRING ASSEMBLIES, CABLES or BOTTOM CORNER BRACKETS**, should be performed **ONLY** by qualified door service people.

10. If your existing garage door opener does not have a reversing mechanism, you should consider purchasing one that has up to date safety features. These features can prevent opener related property damage or personal injury.

11. Check all bolted connections monthly during the lifetime of the door to prevent damage or personal injury caused by loose connections.

12. Definition of key words used in this manual:

WARNING! -- Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

IMPORTANT! -- Required step for safe and proper door operation.

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

MAINTENANCE AND PAINTING INSTRUCTIONS FOR PRE-PAINTED STEEL DOORS

MAINTENANCE

While factory-applied finishes for steel garage doors are so durable that they will last many years longer than ordinary paints, it is desirable to clean them thoroughly on a routine basis. Apparent discoloration of the paint may occur when it has been exposed in dirt-laden atmospheres for long periods of time. Slight chalking may also cause some change in appearance in areas of strong sunlight. A good cleaning will generally restore the appearance of these coatings and render repainting unnecessary. An occasional light cleaning will also help maintain an aesthetically pleasing appearance. To maintain the original finish of the garage doors, the only regular maintenance necessary is that of annual washing. Mild solutions of detergents or household ammonia will aid in the removal of most dirt, and the following are recommended levels:
One cup of Tide™, or other common detergents, which contain less than 0.5% phosphate, dissolved into five gallons of warm water. NOTE: The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors. CAUTION: NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

SURFACE PREPARATION FOR PAINTING

Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a gray (not green!) 3M ScotchBrite pad saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose dust or soap film.
Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded with 0000 steel wool or No. 400 sand paper to create a smoother surface. Care must be taken to not expose the substrate under the paint (see Note No. 2). Once this exposed condition exists, the likelihood for rusting is greatly increased. See the following paragraph if the metal substrate is observed.
Exposed substrate must be treated to prevent rust from forming (see Note No. 2). Sand the exposed area lightly and paint with high quality metal primer to protect from corrosion. Follow drying time on primer can label before applying topcoat.
The surface to be recoated must not be to smooth or the repaint material will not adhere to it (see Note No. 2). It is advisable to test a representative area to evaluate adhesion. If poor adhesion is observed, the surface must be abraded by sanding or buffing using grades mentioned above. Care must be taken to not expose the substrate under the paint.

PAINTING

After the surface has been properly prepared it must be allowed to dry thoroughly, then coated immediately with a premium quality latex house paint. Follow the paint label directions explicitly. Oil base paint is not recommended. Please note that if substrate is exposed, painting with latex paint may cause accelerated rusting of steel.

NOTES:

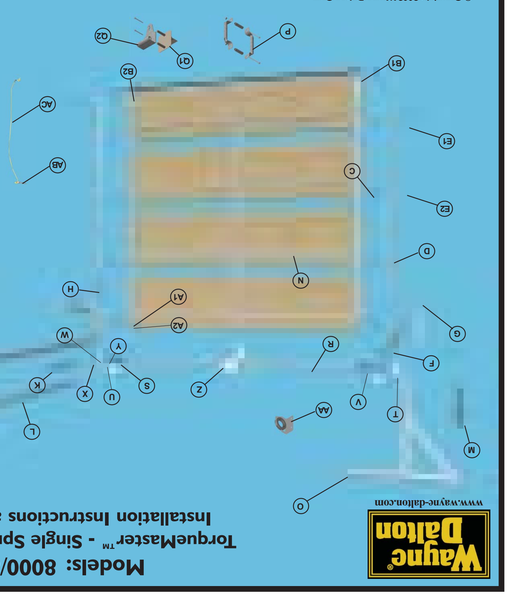
1. Repainting of finish painted steel doors cannot be warranted as this condition is totally beyond door manufacturer's control.
2. If the steel door surface has a finish painted textured surface representing wood grain, stucco, etc., this step should not be attempted as danger of exposing substrate is greatly increased.
3. Consult a professional coatings contractor if in doubt about any of the above directions.
4. Follow directions explicitly on the paint and solvent container labels for proper applications of coatings and disposal of containers. Pay particular attention to those directions involving acceptable conditions in which to paint.

Wayne Dalton

Models: 8000/8100/8200

TorqueMaster™ - Single Spring and Double Spring Installation Instructions and Owners Manual

www.wayne-dalton.com



PART NO. 301728

New 1/16/03

Parts List

(A1) Top Bracket Base	# 270343
(A2) Top Bracket Slide	# 270344
(B1) Bottom Bracket (Left)	# 269091
(B2) Bottom Bracket (Right)	# 269092
(C) Roller	# 154469
(D) Vertical Track	1 PAIR
(E1) Jamb Bracket (ST-0)	# 267865
(E2) Jamb Bracket (ST-1)	# 270345
(E3) Jamb Bracket (ST-2)	# 270346
(F) Horizontal Track	1 PAIR
(G) R 12" Flagangle (Left, 18-1/2")	# 263206
(H) R 12" Flagangle (Right, 18-1/2")	# 263207
(I) R 15° Flagangle (Left, 19-7/8")	# 263214
(J) R 15° Flagangle (Right, 19-7/8")	# 263215
(K) 21-15/16" Horizontal Angle (22-7/16")	# 263537
(L) 90° Horizontal Angle (Right, 80-5/8")	# 263541
(M) 90° Horizontal Angle (Left, 80-5/8")	# 263540
(N) Struts	As Needed
(O) Rear Supports	Sold Separately
(P) Outside & Inside L/R Handle	# 102654
(Q1) Outside Single/Lift Plate	As Needed
(Q2) Inside Single/Lift Plate	# 263727

TORQUEMASTER™ COUNTERBALANCE SYSTEM

NOTE: See Torquemaster™ with *i*drive™ Parts List

(R) TorqueMaster™ Tube	1 ASSEMBLY
(S) Cable/Drum Assembly (Pair)	# 280086
(T) End Bracket (LH)	# 282339
(U) End Bracket (RH)	# 282340
(V) Loose Winding Shaft (Single Spring)	# 280066
(W) Counter Gear	# 284035
(X) Counter Cover Asm. (RH)	# 287722
(Y) 36 Tooth Worm Gear	# 282335
Counter Cover Asm. (LH) (Double Spring)	# 287721
(Z) *i*drive™ Opener	Sold Separately

NOTE: Depending on the door model, some parts listed will not be supplied if not necessary.

Alternate Parts List

(AA) Center Bracket Asm.	# 297246
(AB) 8 x Screw Eye	# 100362
(AC) 60" Pull Rope	# 274684

...CONTINUED INSTALLATION INSTRUCTIONS

Holding handle bracket, remove all remaining slack between power head. With slack removed, secure bottom of handle bracket with (1) 1/4 x 1-1/2" lag screw.

CAUTION: Pull handle just enough to remove the cable slack. Pulling the cable more could cause the opener power head to disconnect from the torque tube.

Rotate disconnect handle to one side exposing upper mounting hole in handle bracket. Secure handle bracket with a second 1/4 x 1-1/2" lag screw. Apply emergency disconnect label next to the mounted bracket. Use mechanical fasteners if adhesive will not adhere.
Using the emergency disconnect, pull disconnect handle downwards and place it in the manual door operated position. Use disconnect label for reference. Motor will be rotated 90° from its packaged position.

NOTE: If motor does not pivot 90°, see troubleshooting section in the *i*drive™ main installation manual.

18

Clamp locking pliers onto both vertical tracks just above third roller. This is to prevent garage door from rising while winding counterbalance springs.

WARNING!

FAILURE TO CLAMP TRACK CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE INJURY OR DEATH.

Adjust the counter balance cables by rotating the drum until the set screw faces directly away from the header. Loosen the set screw no more than 1/2 turn. Pull on the end of the cable to remove all cable slack. Check to ensure the cable is aligned and seated in the first groove of the cable drum. Snug the set screw, then tighten an additional 1-1/2 turns. Cut off excess cable.

20

IMPORTANT! DO NOT USE IMPACT GUN TO WIND SPRING(S)

Beginning with the right hand side. Press and hold in the canoe clip. Ensure the cable is in the first groove of the drum. Using an electric drill (high torque gear reduced to 1300 RPM preferred) with a 7/16" socket, carefully rotate right hand winding bolt clockwise, until counter shows 2-3 turns. This will keep the counterbalance cable taut while adjusting the left hand side counterbalance cable. Repeat step 19 for left side. **NOTE:** Single spring applications require no spring winding.

Ensure counterbalance cable tension is equal for both sides prior to fully winding spring(s) to appropriate number of turns.

Carefully rotate the winding bolt head clockwise until the counter shows the correct number of turns for your door. See the **Spring Turn** chart on the back cover page of this manual. Repeat for the opposite side on double spring TorqueMaster™ systems.
After spring is wound, hold the lock nut (in back of end bracket) stationary with a 7/16" wrench while rotating the winding bolt clockwise until snug. Tightening of the lock nut prevents spring from unwinding. Repeat for opposite side if necessary.

IMPORTANT! Adjustments to the recommended number of turns may be required. AFTER REAR SUPPORT ASSEMBLY IS COMPLETE, check door balance. If door raises off of floor under spring tension alone, then reduce turns until door will rest on floor. A "hot" door such as this can cause *i*drive™ operation problems.

21

Locate right hand drum wrap. Drum wraps (supplied with TorqueMaster™ counterbalance systems) are identified as right and left. To install, place the drum wrap over the cable drum and under the *i*drive™ disconnect cable (if installed). Align the outside flange over the outside edge of the cable drum and push the drum wrap down onto the cable drum. Repeat for the left side.

22

Hold the door down to prevent it from rising unexpectedly in the event the spring was overwound and carefully remove the locking pliers from the vertical tracks. Raise the door until the top section and half of the next section are in a horizontal position. Do not raise door any further since rear of horizontal track is not yet supported.

WARNING!

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE INJURY OR DEATH.

Now clamp a pair of locking pliers to the vertical tracks just above the second roller on one side, and just below the second roller on the other side. This will prevent the door from raising or lowering while installing the rear support. Using perforated angle, 2" lag screws and 5/16 bolts with nuts (may not be supplied), fabricate rear support for horizontal tracks. Attach horizontal tracks to the rear supports with 5/16-18 x 1-1/4" hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel with door.

WARNING!

KEEP HORIZONTAL TRACK PARALLEL AND WITHIN 3/4" OF DOOR EDGE, OTHERWISE DOOR COULD FALL, RESULTING IN SERIOUS INJURY OR DEATH.

Permanently attach the vinyl weather stripping to both door jambs and the header. Avoid pushing vinyl into force of door. Now, lift the door and check it's balance. Adjust, if door lifts by itself (also hard to pull down) or if door is difficult to lift (too easy to pull down). Anytime spring adjustments are made you must loosen the lock nuts to begin with and retighten both lock nuts afterwards. To adjust spring(s), only add or remove 1/4 turn on the counter reading at a time. Adjust both sides equally.
IMPORTANT! Do not add or remove more than 1 spring turn from specified amount.

If the door still does not operate easily, lower the door into the closed position, **UNWIND SPRING(S) TO ZERO**, and recheck the following items:
1.) Check the door for level.
2.) Check the TorqueMaster™ tube and flagangles for level and plumb.
3.) Check the distance between the flagangles - must be door width plus 3-3/8" to 3-1/2".
4.) Check the counterbalance cables for equal tension - loosen set screws and adjust if necessary.
5.) Rewind the spring(s).
6.) Make sure door isn't rubbing on jambs.

NOTE: As a safety feature, end brackets cannot be disassembled for service until the spring is completely unwound and the counter cover reads zero.

After door installation is completed, refer to the *i*drive™ owner's manual, starting at the **PRE-OPERATION INSTALLATION** section to complete the opener installation.

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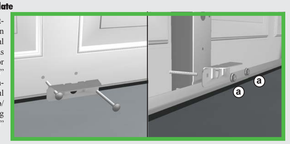
Install photoelectric sensors. See photoelectric sensor kit installation instructions.

ALTERNATIVE INSTALLATIONS

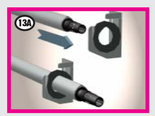
6A **Alternate Step/Lift Plate**

Locate the center stile on the bottom section of the door. Position step/lift plate directly above astragal retainer. Using the step/lift plate as a template, mark hole locations for mounting on door face. Drill 5/16" dia. holes through door face and insulation if necessary, being careful to keep drill straight. Mount step/lift plates back to back, straddling stile. Secure with (2) 1/4 x 2-3/4" carriage bolts and nuts.



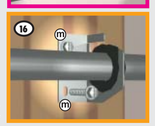
13A

If you are not installing the *i*drive™ operator on your garage door, you must install the center bracket bushing assembly. Follow these instructions for a non-*i*drive™ operated garage doors.
TorqueMaster™ springs come lubricated and pre-assembled inside the torque tube. To install, lay the torque tube on the floor in front of the door with the labeled end to the left. Slide the center bracket/bushing assembly onto the torque tube, from the right hand side, toward the center. Shake the TorqueMaster™ tube gently to extend the winding shafts out about 5" on both ends. Single spring TorqueMaster will only have the right hand spring. Slide center bracket/bushing assembly from the right side to the center of the torque tube.
IMPORTANT! Right and left hand are always determined from inside the



13B **DoorMaster™ Installation**

When installing a DoorMaster™ operator replace the bushing with the drive gear (located in DoorMaster™ package).



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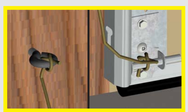
To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster tube. Fasten the metal bracket to the header using (2) 1/4 x 1-1/2" lag screws.

PULL ROPE

Screw the No. 6 screw eye into the wood jamb approximately 48" to 50" (1220 to 1270 mm) from the floor. Tie the pull rope to the screw eye and to the bottom bracket as shown.

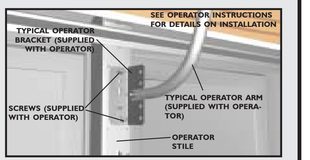
WARNING!

DO NOT INSTALL PULL ROPES ON DOORS WITH ELECTRIC OPERATORS. CHILDREN MAY BECOME ENTANGLED IN THE ROPE CAUSING INJURY OR DEATH.



TYPICAL TROLLEY OPERATOR INSTALLATION

If you are installing an electric operator on your door, the following information is provided to ensure proper function of your door/operator installation. The figure below shows a typical means of connecting the operator arm to the operator stile located in the center of the top section.

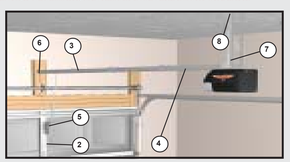


INSTALLATION TIPS:

1. Follow the installation instructions supplied with your operator.
2. Reinforce top section per manufacturer's recommendation prior to attaching operator. Typically, a 3" U-bar secured to the top of the section is recommended.
3. Install trolley rail 1/2" to 1-1/2" (13 - 38 mm) above high arc of top section of the door.
4. Mount operator to ceiling so that 1" to 1-1/2" (25 - 38 mm) clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).
5. The operator bracket must be mounted to the operator stile on the top section so it bridges the transition point in section thickness.
6. Attach operator rail to spring pad.
7. Attach operator to ceiling using perforated angle.
8. IMPORTANT! Angle must be attached to framing member(s).

WARNING!

OPERATOR MUST BE TESTED AT TIME OF INSTALLATION AND MONTHLY THEREAFTER TO ENSURE THAT DOOR REVERSES ON CONTACT WITH 2 X 4 BOARD LAID FLAT UNDER THE DOOR. FAILURE TO ADJUST OPERATOR, IF NECESSARY, CAN RESULT IN SEVERE INJURY OR DEATH. IF YOUR OPERATOR IS EQUIPPED WITH PHOTOELECTRIC SYSTEM, THEN THIS MUST BE TESTED AT THE SAME TIME TO ENSURE THAT DOOR DOES NOT CLOSE AND A CLOSING DOOR OPENS IF SYSTEM IS OBSTRUCTED. FAILURE TO MAKE ADJUSTMENTS, IF NECESSARY, CAN RESULT IN SEVERE INJURY OR DEATH.



Wayne Dalton

Wayne-Dalton Corp.
P.O. Box 67, Mt. Hope, Ohio 44660
www.wayne-dalton.com

8000/8100/8200

LIMITED WARRANTY

The Manufacturer warrants the 8000, 8100 and 8200 Garage Doors for a period of ten (10) years, from the time of installation, against section rust through due to the exterior paint finish cracking, checking or peeling. The manufacturer will replace or restore (our option) any such defective garage door sections. This warranty does not extend to paint applied over the factory finish. Other conditions and exceptions as contained herein apply.

The Manufacturer warrants the garage door hardware and track, excluding springs, against defect in workmanship or material for a period of ten (10) years from time of installation.

This warranty extends to the original homeowner, providing the door is installed in his/her place of primary residence. It is not transferable. The warranty applies to residential property only and is not valid on commercial or rental property.

The Manufacturer warrants that any parts of the door not covered by the above limited warranty will be free from defects in workmanship and material for ONE YEAR from the time of installation.

The Manufacturer shall, upon notification, correct such nonconformity at its option, by repairing, replacing, or refunding original purchase price of any defective part(s). This warranty covers material only and excludes all other charges incurred.

NO EMPLOYEE, DISTRIBUTER, OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THE FOREGOING WARRANTIES IN ANY WAY OR GRANT ANY OTHER WARRANTY ON BEHALF OF MANUFACTURER.

The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of products, neglect or abuse, or attempt to use the products for other than the customary usage or for their intended purposes. This warranty does not cover normal wear or any damage beyond Manufacturer's control or replacement labor.

THIS WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS WARRANTY ACT. NO WARRANTIES, EXPRESSED OR IMPLIED, (INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), SHALL EXTEND BEYOND THE APPLICABLE TIME PERIOD STATED IN BOLD FACE TYPE ABOVE.

Claims for defects in material and workmanship covered by this warranty shall be made in writing to the dealer from whom the product was purchased within the warranty period. Manufacturer may either send a service representative or have the product returned to the Manufacturer at Buyer's expense for inspection. If judged by Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of Manufacturer, free from all charges except authorized transportation and replacement labor.

THE REMEDIES OF BUYER SET FORTH HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER REMEDIES. THE LIABILITY OF MANUFACTURER, WHETHER IN CONTRACT, TORT, UNDER ANY WARRANTY, OR OTHERWISE, SHALL NOT EXTEND BEYOND ITS OBLIGATION TO REPAIR OR REPLACE, AT ITS OPTION, ANY PRODUCT OR PART FOUND BY MANUFACTURER TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP. MANUFACTURER SHALL NOT BE LIABLE FOR COST OF REMOVAL OR INSTALLATION OR SHALL NOT BE RESPONSIBLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. However, some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Yearly maintenance as described in the Maintenance and Painting Instructions for Pre-painted Steel Doors is required. Should you need an additional copy, contact your local authorized Wayne-Dalton distributor.

TorqueMaster™ with *i*drive™

Parts List

(R) TORQUEMASTER TUBE	1 ASSEMBLY
(S1) CABLE /DRUM ASM. (PAIR)	# 280086
(S2) DRUM WRAP (LH)	# 300550
(S3) DRUM WRAP (RH)	# 300551
(T) END BRACKET (LH)	# 282339
(U) END BRACKET (RH)	# 282340
(V) LOOSE WINDING SHAFT (SINGLE SPRING)	# 280066
(W) COUNTER GEAR	# 284035
(X) COUNTER COVER ASM. (RH)	# 287722
(Y) 36 TOOTH WORM GEAR	# 282335
(Z) *i*drive™ OPENER	SOLD SEPARATELY
(AA) CENTER BRACKET ASM. (NON-*i*drive™ OPERATED)	# 297246

NOTE: See *i*drive™ Main Installation and Owners Manual for *i*drive™ parts

NOTE: Single Spring TorqueMaster™ shown in illustration.

Spring Turns

Door Height = Spring Turns
6'0" = 14 turns
6'-3" = 14-1/2 turns
6'-5" = 15 turn
6'-6" = 15 turns
6'-8" = 15-1/2 turns
6'-9" = 15-1/2 turns
7'-0" = 16 turns
7'-3" = 16-1/2 turns
7'-6" = 17 turns
7'-9" = 17-1/2 turns
8'-0" = 18 turns