

REMOVING AN EXISTING DOOR/ PREPARING THE OPENING

Instructions

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These instructions are to be used as a supplement to the main Installation Instruction and Owner's Manual provided with the door.

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Definition of key words used in this manual:

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

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

IMPORTANT: REQUIRED STEP FOR SAFE AND PROPER DOOR REMOVAL.

NOTE: Information assuring removing an existing door properly.

△ WARNING

TO AVOID POSSIBLE INJURY, READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A TRAINED DOOR SYSTEMS TECHNICIAN, USING PROPER TOOLS AND INSTRUCTIONS, PERFORM THE WORK.

- 1. READ AND FOLLOW ALL INSTRUCTIONS.
- Wear protective gloves to avoid possible cuts from sharp metal edges.
- It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
- Doors 12' 0" wide and over should be removed by two persons, to avoid possible injury.
- If a door becomes hard to remove, have work done by a trained door system technician using proper tools and instructions.
- DO NOT place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
- 7. Garage doors are under constant extreme spring tension, DO NOT attempt any adjustment, repair or alteration to any part of the door, especially on springs, spring brackets, bottom corner brackets, red colored fasteners, cables or supports without first safely removing the tension from the springs. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.

Tools Required POWER DRILL RATCHET WRENCH PLIERS/WIRE CUTTERS TAPE MEASURE 1/8", 3/16" DRILL BITS PHILLIPS HEAD SCREWDRIVER FLAT TIP SCREWDRIVER **PENCIL NEEDLE NOSE PLIERS GLOVES** 3/8", 7/16", 1/2", 9/16" 7/16" SOCKET DRIVER SAFETY GLASSES 7/16", 1/2", 9/16" SOCKETS WRENCHES STEP LADDER **HAMMER** VICE GRIPS VICE CLAMPS (2) SAW HORSES

Important Safety Warnings

△ WARNING

IF YOUR COUNTERBALANCE SYSTEM IS OTHER THAN THOSE MENTIONED IN SECTIONS P1, P2, P3 AND P4, DO NOT ATTEMPT TO WORK ON IT, BUT HAVE A TRAINED DOOR SYSTEMS TECHNICIAN, USING PROPER TOOLS AND INSTRUCTIONS, PERFORM THE WORK. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

△ WARNING

DISCONNECT AND REMOVE ANY ELECTRIC OPENER PRIOR TO REMOVAL OF COUNTERBALANCE SYSTEMS TO PREVENT UNINTENDED DOOR OPERATION. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

△ WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

△ WARNING

IF YOU HAVE BACK PROBLEMS DO NOT ATTEMPT THIS, OR SEVERE INJURY COULD RESULT.

△ WARNING

REMOVING AN EXISTING DOOR CAN BE DANGEROUS. FOLLOW INSTRUCTIONS CAREFULLY, OTHERWISE SEVERE OR FATAL INJURY COULD RESULT.

The process of removing an existing door begins by identifying the counterbalance system. Generally, you will encounter one of three (3) types of counterbalance systems: Extension spring, Wayne-Dalton® exclusive TorqueMaster®/TorqueMaster® Plus and Torsion Spring counterbalance systems. Carefully follow the instructions on removing the counterbalance system on your existing door. If you are not removing an existing door, ensure that the opening is properly prepared to receive the new door.

For technical information regarding the opening preparation, installation and use of your garage door and opener, you can go to www.dasma.com and click on Publications and then Technical Data Sheets Number 156, 161 and 164.

2

P1

Tools Needed:

Recommended tools from page 2

Torsion Spring Removal

Do not release the torsion spring tension unless you are qualified and experienced. Instead have a trained door systems technician, using proper tools and instructions, release the tension.

△ WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELEASED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

Step 1: Close the door and place vice clamps on the back legs of both vertical tracks, above the third roller to prevent the door from possibly lifting as you unwind the spring(s). Use only approved winding bars available from your dealer. Do not use undersized steel rods, screw drivers or anything else to unwind the spring(s). Position the ladder just off to the side of the winding cone. The winding cone should be easy to reach without putting your body directly in front of it.

△ WARNING

FAILURE TO USE APPROVED WINDING BARS CAN CAUSE SPRING ENERGY TO BE RELEASED SUDDENLY, RESULTING IN SEVERE OR FATAL INJURY.

NOTE: If you have standard lift, front mount low headroom torsion spring with inside hookup or rear mount low headroom with outside hookup, follow Steps 2 and Step 3.

NOTE: If you have front mount low headroom torsion spring with outside hookup, follow Steps 2a and Step 3a.

Step 2: Insert an approved winding bar into one of the holes in the winding cone. EXERT UPWARD PRESSURE. Using caution, loosen the two (2) set screws in the winding cone. Be prepared to support the full torsion force of the spring(s) when the set screws are loosened (use Fig. 1 & Fig. 2).

Step 2a: Insert an approved winding bar into one of the holes in the winding cone. EXERT DOWNWARD PRESSURE. Using caution, loosen the two (2) set screws in the winding cone. Be prepared to support the full torsion force of the spring(s) when the set screws are loosened (use Fig. 1 & Fig. 2).

(use Fig. 1 & Fig. 2).

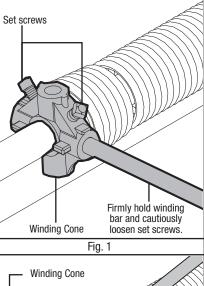
Step 3: Once set screws are loose, slowly and carefully lower the winding bar until it contacts the door. Insert other winding bar into the upper hole. Push up and remove lower bar. Carefully lower upper winding bar 1/4 turn at a time. Repeat the process of alternating winding bars until all tension is relieved. If your door is equipped with two (2) torsion springs, follow the same procedure to relieve tension on the second spring.

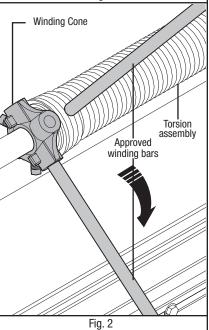
Step 3a: Once set screws are loose, slowly and carefully raise the winding bar a 1/4 turn at a time. Insert other winding bar into the lower hole. Push down and remove upper bar. Carefully raise lower winding bar 1/4 turn at a time. Repeat the process of alternating winding bars until all tension is relieved. If your door is equipped with two (2) torsion springs, follow the same procedure to relieve tension on the second spring.

Step 4: Remove vice clamps from tracks, unbolt torsion shaft assembly and remove from work

Step 4: Remove vice clamps from tracks, unbolt torsion shaft assembly and remove from work area.

NOTE: Continue with "P5" on page 7 after completing this step.





P2

Tools Needed:

Recommended tools from page 2

TorqueMaster® Spring Removal

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

A TorqueMaster $^{\scriptsize (\!g\!)}$ spring system can be identified by the right and left hand end brackets.

 For single spring applications, the right hand end bracket will always have a drive gear, counter gear, counter cover, and a winding bolt head. The left hand end bracket will have no gears, counter cover, or winding bolt head. The hole for the winding bolt head will be plugged.

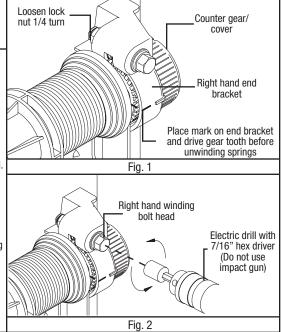
 For double springs, both the right hand and left hand end brackets will always have a drive gear, counter gear, counter cover and a winding bolt head

Note: Make sure door is closed before removing spring tension.

Step 1:

For end brackets with a black counter cover: Place a mark on the drive gear tooth and an adjacent mark on the right hand end bracket (Fig. 1). Loosen the lock nut 1/4 turn using a 7/16" wrench and continue with step 2. For end brackets with a gray counter cover: Loosen the lock nut 1/4 turn using a 7/16" wrench and continue with step 2.

CAUTION: DO NOT USE IMPACT GUN TO UNWIND SPRINGS. **IMPORTANT**: DO NOT REFERENCE THE COUNTER COVER WHEN COUNTING THE NUMBER OF TURNS BEING UNWOUND ON THE SPRING, BUT FOLLOW THE INSTRUCTIONS ABOVE.



TorqueMaster® Spring **Removal Continued...**

Tools Needed:

Recommended tools from page 2

Step 2:

Starting on the right hand side and using an electric drill (high torque/ gear reduced to 1300 rpm preferred) with a 7/16" hex head driver, unwind the right hand winding bolt head counterclockwise (Fig. 2) and count the number of turns the mark on the drive gear passes the adjacent mark on the end bracket. Referencing the chart below, by door height, stop unwinding the spring once the counted turns have reached the listed number of turns. For double springs, repeat the same process on the left hand side.

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

Step 3: Verify that the spring tension has been released by pulling the counterbalance cables on the right and left hand cable drums away from the header (Fig. 3). If the spring tension has been released, the cables will be loose and the TorqueMaster® spring tube should be free to rotate in either direction.

NOTE: If the counterbalance cable(s) is still taut and the TorqueMaster® spring tube is difficult to rotate, that is an indication that spring tension still exists. Repeat Steps 1 and 2 for releasing spring tension.

Step 4:

Starting on the right hand side and using a flat tip screwdriver, pry the counter gear and counter cover from the right hand end bracket (Fig. 4). Discard the counter gear and counter cover. Remove the upper 5/16" x 1-5/8" lag screw from the right hand end bracket (Fig. 5). Next, attach locking pliers to the upper portion of the end bracket and hold the end bracket steady while removing the lower 5/16" x 1-5/8" lag screw and the #10 x 1/2" phillips head screw from the right hand end bracket (Fig. 6).

- For single spring applications, attach locking pliers to the upper portion of the end bracket and hold the end bracket steady while removing the lower 5/16 x 1-5/8" lag screw and the #10 x 1/2" phillips head screw from the left hand end bracket.
- On double spring applications, repeat the same process for the left hand end bracket.

CAUTION: THE WINDING SHAFT MAY ROTATE WHEN REMOVING THE END BRACKET AND DRIVE GEAR.

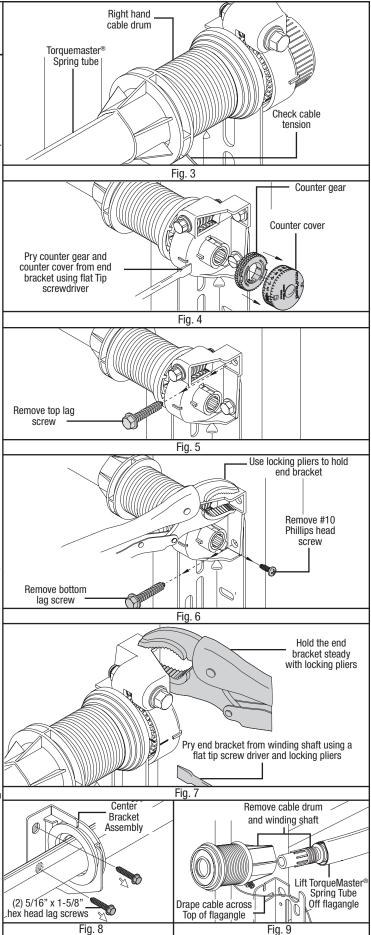
While hold the end bracket with the locking pliers, pry the end bracket from the winding shaft using a flat tip screw driver (Fig 7).

Remove the two (2) 5/16" x 1-5/8" lag screws attaching the center bracket assembly to the header board (Fig. 8).

Step 7:

Lift the right hand side of the TorqueMaster® spring tube and slide the cable drum off. Realign the groove in the winding shaft with the round notch in the flagangle and drape the counterbalance cable with drum over the flagangle (Fig. 9). Repeat the same process for the left hand side. Lift the TorqueMaster® spring assembly off the flagangles and out of the doorway. Unhook the counterbalance cables from the right and left hand bottom brackets. Remove all TorqueMaster^e counterbalance parts from the work area.

NOTE: The cable drums may be difficult to remove. If so, twist the cable drum to aid in removal. NOTE: Continue with "P5" on page 7 after completing



P3

Tools Needed:

Recommended tools from page 2

TorqueMaster® Plus Spring Removal

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

△ WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE INJURY.

STEP 1: Start with the right hand side, unlock the drum wraps from cable drums (if installed) by unlocking the cable drum snap. Pull the cable away from the snap (not to break it off) and then twisting the drum wrap while pulling it away from the drum and leaving it on the back end of the cable drum, as shown in Fig. 1.1.

STEP 2: If there is spring tension and starting with the right hand side, ensure ratchet pawl knob is in upper position, as shown in Fig. 1.2.

IMPORTANT: PAWL KNOB MUST BE IN UPPER POSITION TO REMOVE SPRING TENSION, AS SHOWN IN FIG. 1.3.

<u>STEP 3</u>: Check for spring tension by pulling the counterbalance cable on the right hand cable drum away from the header, as shown in Fig. 1.4.

If there is no spring tension the cable will be loose. In addition, the torque tube should be free to rotate in either direction. If the counterbalance cable is still taut and the torque tube is difficult to rotate, that is an indication that spring tension still exists, and should be unwound.

△ WARNING

IT IS RECOMMENDED THAT LEATHER GLOVES BE WORN WHILE UNWINDING THE TORQUEMASTER® PLUS SPRINGS. FAILURE TO WEAR GLOVES MAY CAUSE INJURY TO HANDS.

STEP 4: To remove spring tension, place a ratchet with a 5/8" socket on the winding shaft, as shown in Fig. 1.3.

NOTE: A 3" extension is recommended for added clearance from the horizontal track assembly.

Ensure the ratchet and socket is set so that it will add tension (counter clockwise) on the right hand side and (clockwise) on the left hand side. Rotate ratchet to relieve pressure between the pawl and the ratchet wheel. Push in on the pawl to allow the ratchet wheel teeth to pass by.

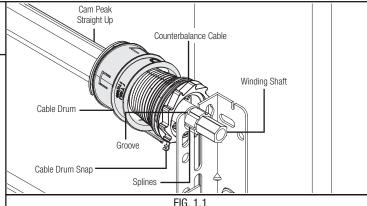
CAUTION: BE PREPARED TO HOLD THE FULL TENSION OF THE SPRING.

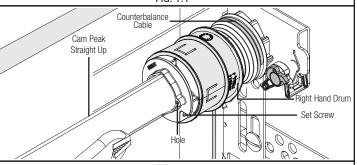
Gently let the ratchet rotate upward, while watching the number of teeth on the ratchet wheel pass by the pawl. Remove 3/10 of a turn (watch the 3 teeth of the ratchet wheel pass the pawl) at a time.

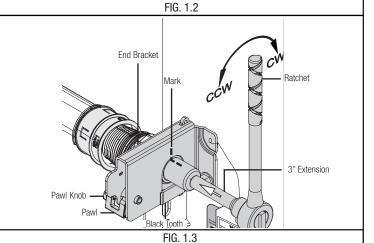
Release the pawl to allow it to engage with the ratchet wheel. Repeat this process until all spring tension has been removed from spring.

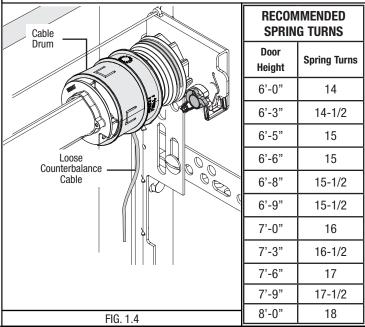
For Double Springs, repeat the same process for the left hand side. Cables should be loose and the torque tube should be free to rotate in either direction.

NOTE: Spring(s) are fully unwound when counterbalance cables have no tension.









TorqueMaster® Plus Spring Removal Continued.....

Tools Needed:

Recommended tools from page 2

STEP 5: Remove the 5/16" x 2" hex head lag screw and 5/16"-18 x 3/4" carriage bolt, 3/4" washer and nut hex nut.

STEP 6: Holding the end bracket with a pair of locking pliers, carefully pry the end bracket from the flagangle/rear support bracket and winding shaft with a flat head screwdriver, as shown in Fig. 1.6. Repeat for left hand end bracket.

CAUTION: THE WINDING SHAFT MAY ROTATE WHEN REMOVING THE END BRACKET AND DRIVE GEAR.

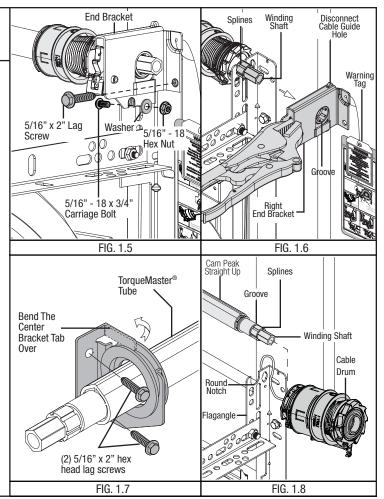
Now take note on how many cable wraps have been applied to your cable drum. Your cable drum will need to be rewrapped later.

STEP 7: Remove the (2) 5/16" x 2" hex head lag screws, as shown in Fig. 1.7.

<u>STEP 8</u>: Lift right hand side of the TorqueMaster[®] tube and slide the cable drum off the tube. **NOTE**: The cable drums and springs may be difficult to remove. If so, twist the cable drum and TorqueMaster[®] tube to aid removal.

Realign the groove in the winding shaft with the round notch in the flagangle/rear support bracket and drape the counterbalance cable with drum over the flagangle/rear support bracket. Repeat for the other side. Remove TorqueMaster[®] tube and gently lay it on the floor. Remove the left and right hand spring(s) from the torque tube.

NOTE: Single spring application will have no spring on the left hand side, only a loose winding shaft.



P4

Extension Spring Removal

Tools Needed:

Recommended tools from page 2

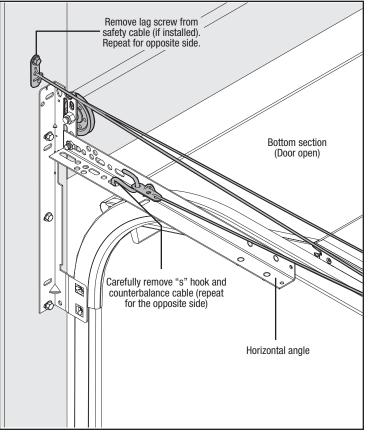
Step 1: Raise the door to the fully open position and place vice clamps to the back legs of both vertical tracks, below the bottom rollers to prevent the door from falling. By opening the door you release most of the spring tension.

Carefully unfasten the S-hook from the horizontal angle. Remove cable, sheave and extension spring. Repeat for the other side. If safety cables are running through the extension springs, remove them also. Remove parts from work area.

Step 2: Holding door in the open position, remove the vice clamps, be prepared to support the entire weight of the door. Garage doors can weigh 200-400 pounds.

With assistance, carefully lower the door, by grasping the door firmly by its lift handles. Do not place fingers or hands near joints, between sections, or between bottom of door and floor, otherwise severe injury could result.

NOTE: Continue with "P5" on page 7 after completing this step.



P5

Removing an Existing Door

Tools Needed:

Recommended tools from page 2

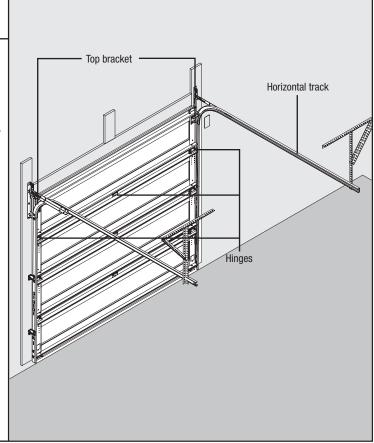
Having removed the counterbalance system, the door can now be disassembled.

Start by first removing the top row of hinges.

With assistance, hold the top section to keep it from falling and remove the top brackets. With assistance, lift the top section out of the opening and remove it from the work area. Repeat for all remaining sections.

After door is disassembled, unbolt both track assemblies from the jambs and remove all material from the work area. You can neatly dispose of the old door by placing it in the carton of your new door.

Clean up area after "Removing an Existing Door".



P6

Tools Needed:

Recommended tools from page 2

Preparing the Opening

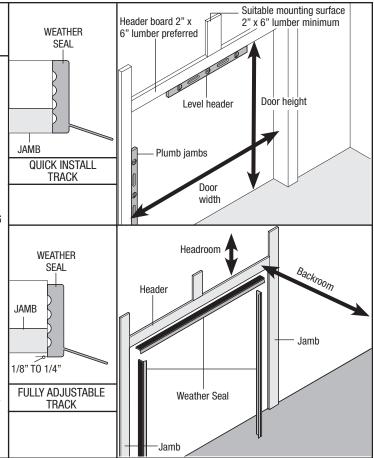
△ WARNING

FAILURE TO SECURELY ATTACH
A SUITABLE MOUNTING PAD TO
STRUCTURALLY SOUND FRAMING
COULD CAUSE SPRINGS TO
VIOLENTLY PULL MOUNTING PAD
FROM WALL, RESULTING IN SEVERE
OR FATAL INJURY.

If you just removed your existing door or you are installing a new door, complete all steps in PREPARING THE OPENING.

To ensure secure mounting of track brackets, side and center bearing brackets, or steel angles to 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.

The inside perimeter of your garage door opening should be framed with wood jamb and header material. The jambs and header must be securely fastened to sound framing members. It is recommended that 2" x 6" lumber be used. The jambs must be plumb and the header level. The jambs should extend a minimum of 12" (305 mm) above the top of the opening for TorqueMaster and Extension counterbalance systems.



Preparing the Opening Continued...

Tools Needed:

Recommended tools from page 2

The jambs should extend a minimum of 14" (356 mm) above the top of the opening for Torsion spring applications. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2" (89 mm).

IMPORTANT: CLOSELY INSPECT EXISTING JAMBS, HEADER AND MOUNTING SURFACE. ANY WOOD FOUND NOT TO BE SOUND, MUST BE REPLACED.

For TorqueMaster and Torsion spring applications, a suitable mounting surface must be firmly attached to the wall, above the header at the center of the opening. The mounting surface must be 2" x 6" lumber minimum (Select southern yellow pine lumber. Do not use lumber marked as spruce-pine-fur or SPF). The mounting surface must be securely attached to the wall with four (4) 3/8" anchors for masonry constructions or four (4) 5/16" x 4" lag screws for wood construction.

NOTE: Drill a 3/16" pilot hole in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

Weather Seal (May Not Be Included): Cut the weather seal if necessary to fit the header and jambs.

For quick install track: Align the header seal with the inside edge of the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and flush with the inside edge of the jamb. Temporarily secure the jamb seals with equally space nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

For fully adjustable track: Align the header seal 1/8" to 1/4" inside the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and 1/8" to 1/4" inside the jamb. Temporarily secure the jamb seals with equally space nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

NOTE: Do not permanently attach weather seal to the jamb at this time.

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" LHR 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.

HEADROOM REQUIREMENT				
	TRACK TYPE	Torsion		
	12" Radius track	12.5"		
	15" Radius Track	14.5"		
	6" LHR Kit	9"		
	TRACK TYPE	Extension Springs		
	12" Radius Track	11"		
	15" Radius Track	13.5" (9000 Models) 14.5" (8000 Models)		
	6" LHR Kit	6"		
	TRACK TYPE	TorqueMaster®		
	12" Radius track	11"		
	15" Radius track	13.5" (9000 Models) 14.5" (8000 Models)		
	6" LHR Kit	6.5"		
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BACKROOM REQUIREMENT

	Torsion						
	DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED			
	6'6"	12", 15" Radius	98"	125"			
	7'0"	12", 15" Radius	98"	125"			
	7'6"	12", 15" Radius	110"	137"			
	8'0"	12", 15" Radius	110"	137"			
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TorqueMaster					
DOOR HEIGHT	DOOR HEIGHT TRACK 7'0" 12", 15" Radius		MOTOR OPERATED		
7'0"			125"		
8'0"	12", 15" Radius	110"	137"		

Extension					
DOOR HEIGHT TRACK		MANUAL LIFT	MOTOR OPERATED		
6'6", 7'0"	12", 15" Radius	98"	125"		
7'6", 8'0"	12", 15" Radius	110"	137"		

HEADROOM REQUIREMENT-PORTLAND MADE DOORS

	TRACK TYPE	Torsion
	10", 12" Radius Track	11"
	14" Radius Track	13"
_	6" LHR Kit	7.5"
L	TRACK TYPE	Extension Spring
Ľ	10", 12" Radius Track	9"
	14" Radius Track	11"
	6" LHR Kit	6"
	TRACK TYPE	TorqueMaster®
Ŀ	10", 12" Radius track	10"
	14" Radius track	12"
	6" LHR Kit	6.5"

BACKROOM REQUIREMENT-PORTLAND MADE DOORS

Torsion				
DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED	
6'6"	10", 12", 14" Radius	96"	125"	
7'0"	10",12", 14" Radius	96"	125"	
7'6"	10",12", 14" Radius	103"	137"	
8'0"	10",12", 14" Radius	103"	137"	

TorqueMaster						
DOOR HEIGHT TRACK MANUAL LIFT MOTOR OPERATED					MOTOR OPERATED	
7'0" 10",12", 14" Radius		us	91"		125"	
8'0"		10",12", 14" Radius 1		103"		137"
Extension						
DOOR HEIGHT TRACK MANUAL			ANUAL LIFT		MOTOR OPERATED	
6'6" 7'0"	10	" 10" 14" Podius		oe"		105"