16

Drum Wraps

Tools Needed:

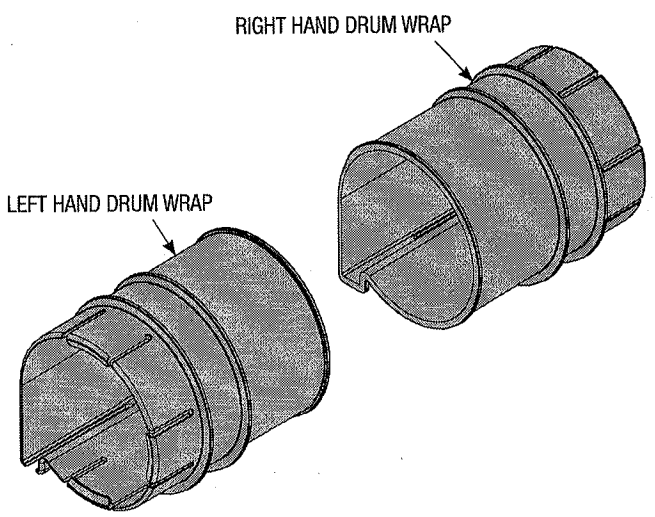
None

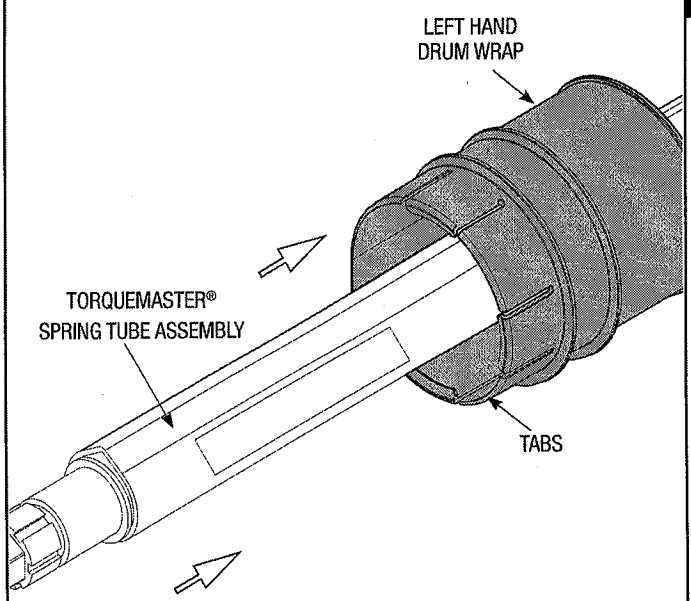
IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

Drum wraps are identified as right and left.

Slide the left hand drum wrap over the left side of the TorqueMaster® spring tube assembly with the tabs facing left. Continue sliding the left hand drum wrap towards the center of the TorqueMaster® spring tube assembly.

Repeat for opposite side.





17

Cable Drums

Tools Needed:

Tape Measure

Step Ladder

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 the top of the flagangles.

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

Pre-wrap the TorqueMaster® Plus cable drum with the counter balance cable either 1/2 or 1-1/2 wraps (see illustrations).

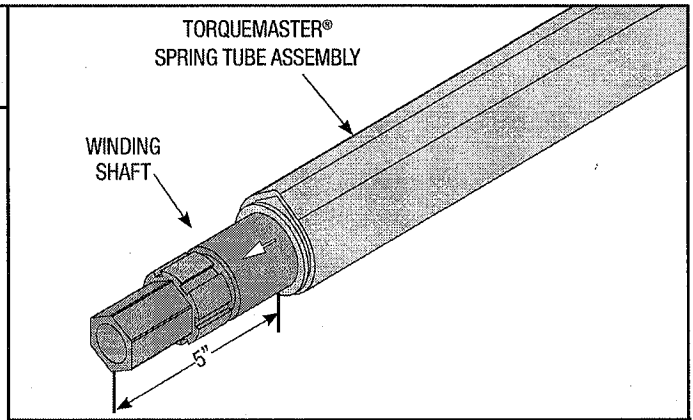
To install the cable drum, slide the correct cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube assembly.

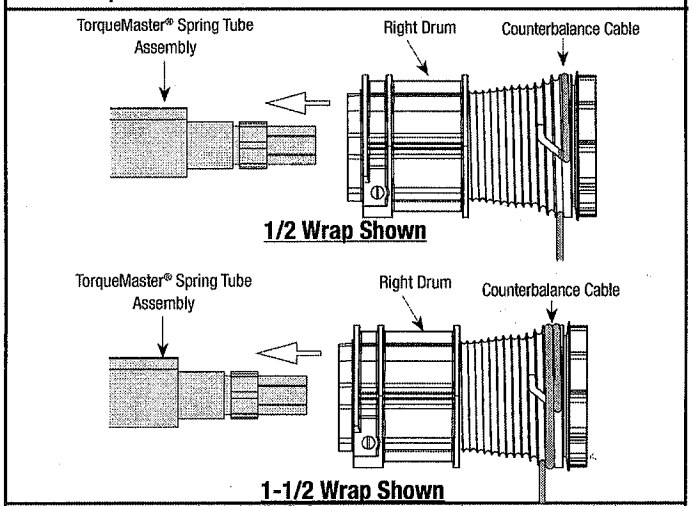
The winding shaft must extend past the cable drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle.

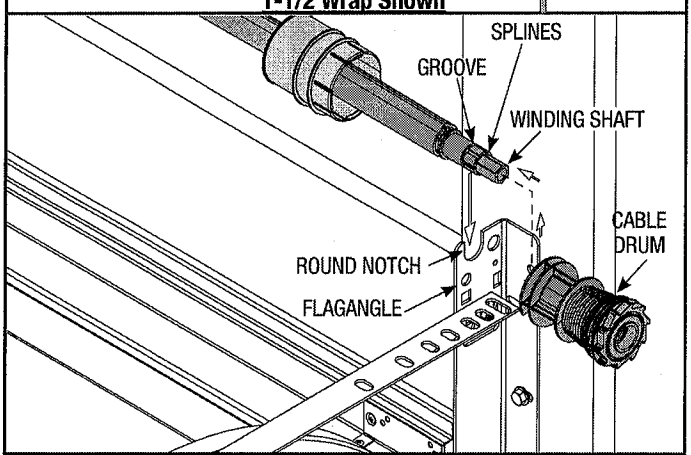
For double spring applications: Repeat for opposite side.

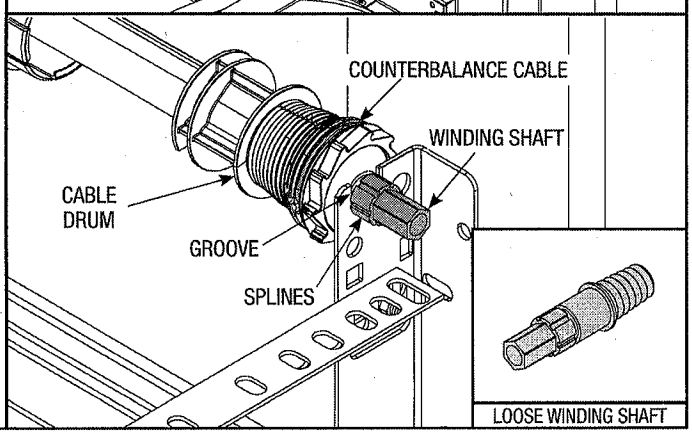
For single spring applications: Insert the loose winding shaft into the left hand cable drum prior to sliding the cable drum over the TorqueMaster® spring tube assembly.

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









18

End Brackets

Tools Needed:

Power Drill

7/16" Socket Driver

1/2" Wrench

Step Ladder

IMPORTANT: WARNING TAGS MUST BE SECURELY ATTACHED TO BOTH END BRACKETS.

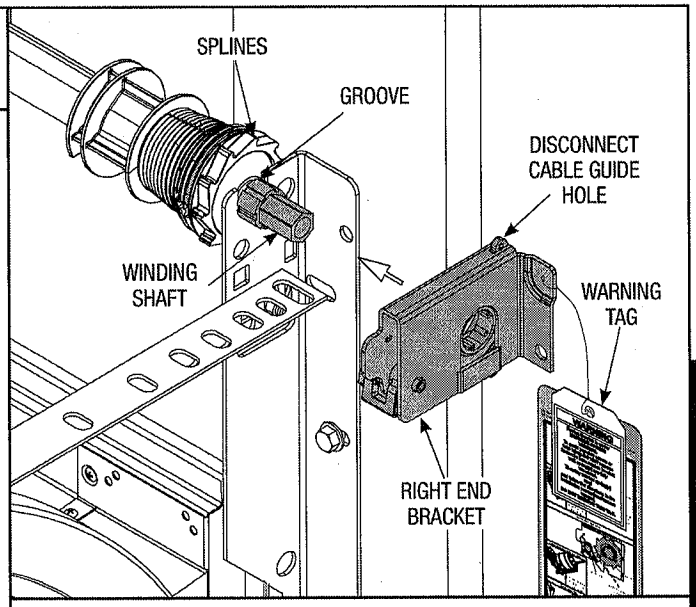
End brackets are right and left hand. You can identify the right hand end bracket by the disconnect cable guide hole in the top of the bracket.

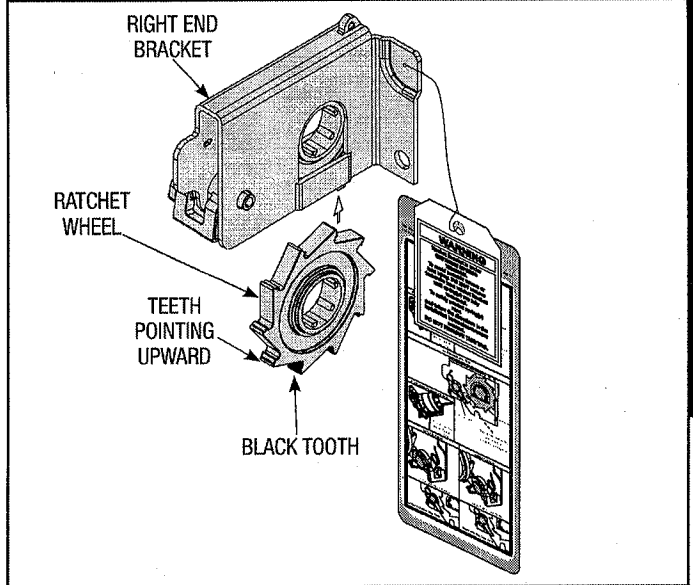
Beginning with either side, slide the end bracket onto the winding shaft so that the grooves in the ratchet wheel fit onto the winding shaft splines.

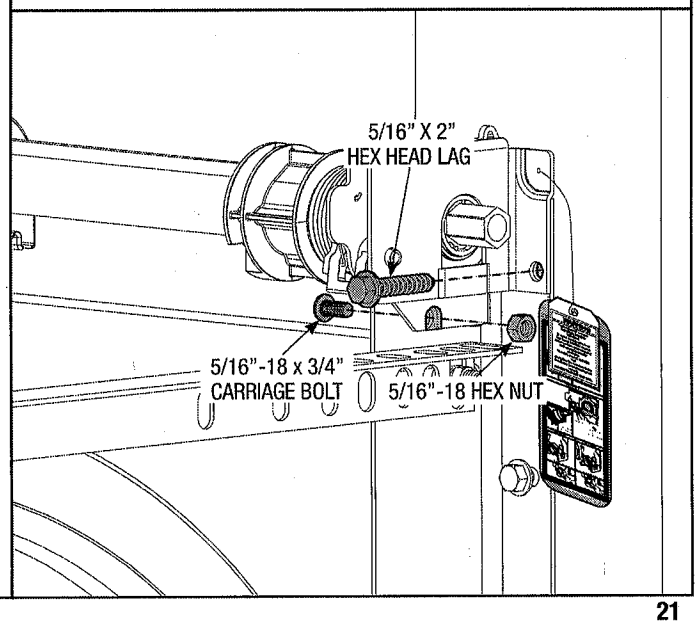
Secure end bracket to the jamb using (1) 5/16" x 2" hex head lag screw and (1) 5/16"-18 x 3/4" carriage bolt and hex nut.

NOTE: Install carriage bolt and hex nut first then apply lag into header.

Repeat for other end bracket.







19

Securing Center Bracket Assembly

Tools Needed:

Power Drill

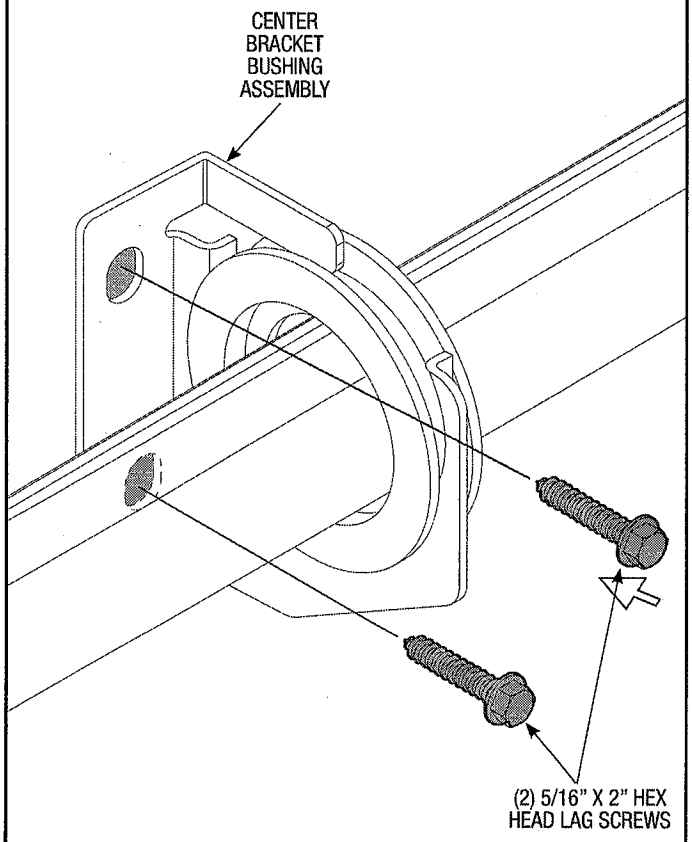
7/16" Socket Driver

3//16" Drill Bit

Step Ladder

NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly, follow these instructions.

To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 3/16" pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 5/16" X 2" lag screws.



20

Securing Door for Spring Winding

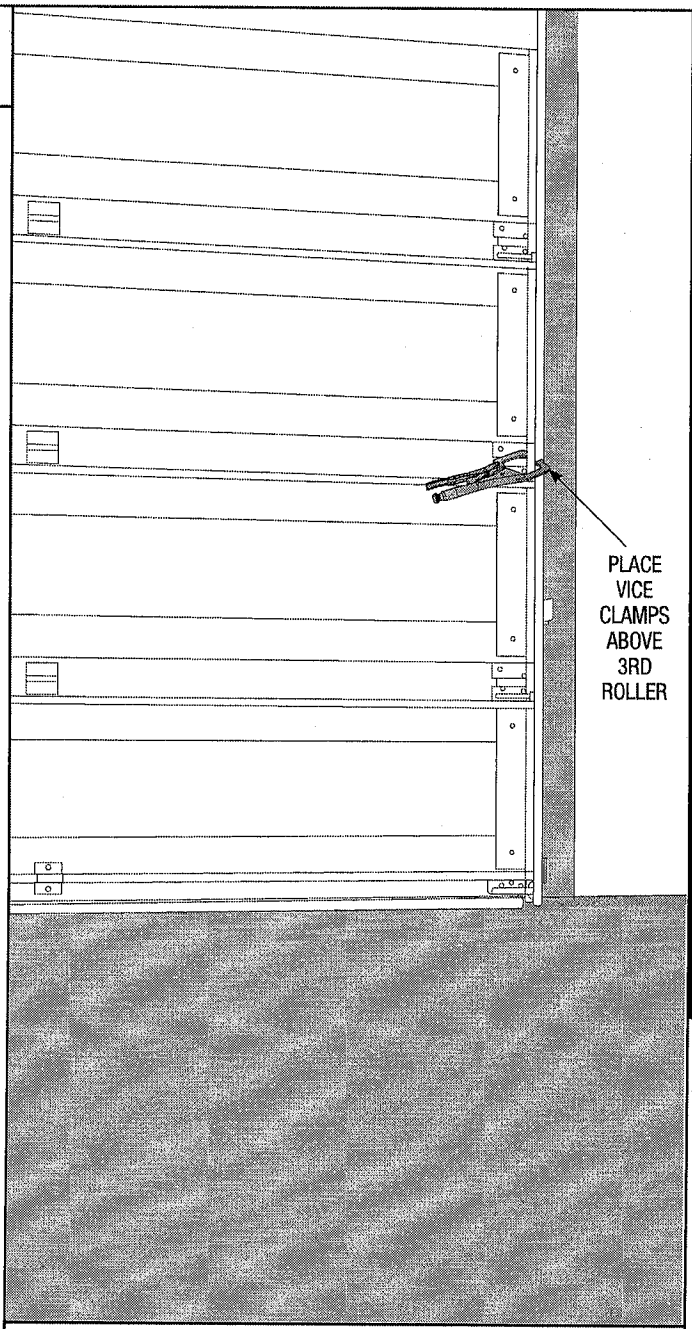
Tools Needed:

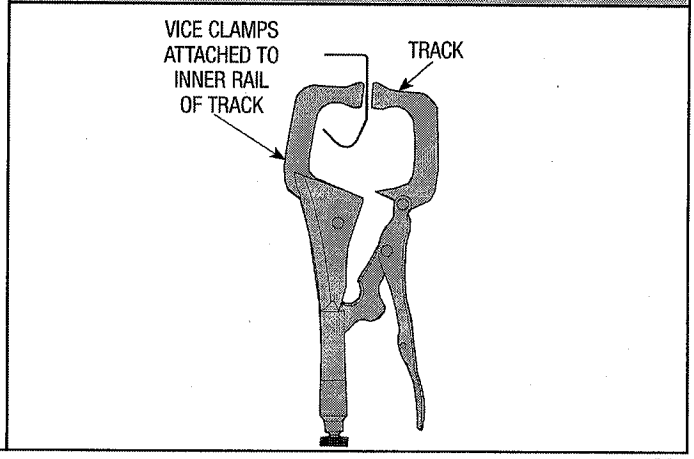
Vice Clamp

Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding counterbalance springs.

⚠ WARNING

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





21 Cable Adjustment

Tools Needed:

Pliers

Flat Tip Screwdriver

Step Ladder

Starting on the right hand side, rotate the cable drum until the set screw faces directly away from the header. Torque tube cam peak should be pointing straight up.

Loosen the set screw no more than 1/2 turn. Using locking pliers, pull on the end of the cable to remove all cable slack.

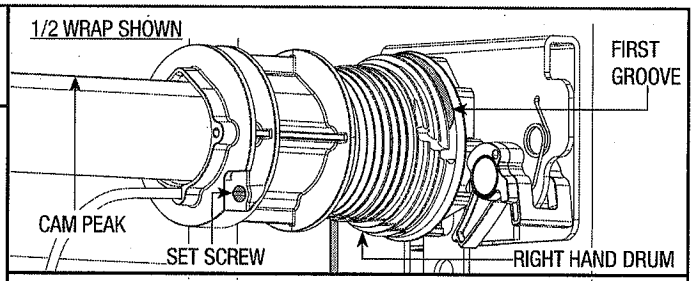
IMPORTANT: A MINIMUM OF A 1/2 WRAP IS REQUIRED FOR PROPER DOOR OPERATION. CABLE MUST BE TAUT AND IN THE SPIRAL, OR THREAD, OF THE CABLE DRUM.

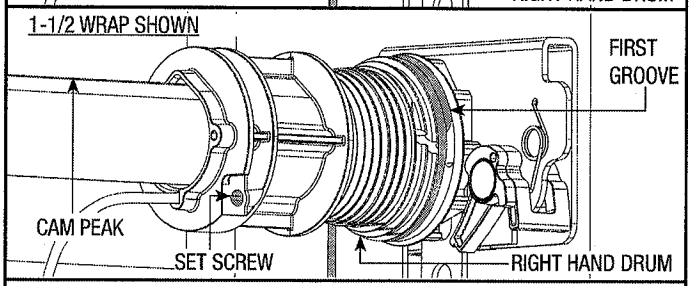
Check to ensure the cable is aligned and seated in the first groove of the cable drum. Snug the set screw, and then tighten an additional 1-1/2 turns. Left side will be adjusted in Step 23.

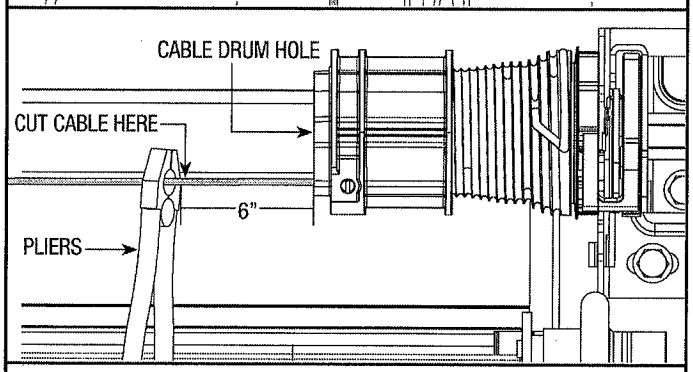
IMPORTANT: ENSURE THE CABLE IS ALIGNED AND SEATED IN THE FIRST GROOVE OF THE CABLE DRUM PRIOR TO WINDING SPRINGS.

Measure approximately 6" of cable and cut off excess cable. Insert end of cable in hole of cable drum.

NOTE: Illustrations show the right hand TorqueMaster® Plus drum, left hand TorqueMaster® Plus drum is symmetrically opposite.







22

Winding Springs

Tools Needed:

Ratchet Wrench

5/8" Socket

3" Extension

Gloves

⚠ WARNING

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

Double check to ensure the counterbalance cable is aligned in the first groove of the cable drum as shown in Step 21.

Staring with the right hand side, place a mark on winding shaft (or socket) and end bracket. Turn the pawl knob on the end bracket to the upper position.

IMPORTANT: USING A RATCHET WITH A 16 MM (5/8") SOCKET (NOTE: A 76 MM (3") EXTENSION IS ALSO RECOMMENDED FOR ADDED CLEARANCE FROM THE HORIZONTAL ANGLE.), WIND THE SPRING BY ROTATING THE WINDING SHAFT COUNTER CLOCKWISE, WHILE WATCHING THE MARK ON THE WINDING SHAFT. DO NOT USE IMPACT GUN TO WIND SPRING(S).

IMPORTANT: PAWL KNOB MUST BE IN UPPER POSITION TO ADD/ REMOVE REQUIRED NUMBER OF SPRING TURNS.
After 2-3 turns, remove the ratchet and adjust the cable on the left side. Ensure the cables are in the first groove and the cable drums, as shown in Step 21.

NOTE: Single spring applications require no spring winding of the left hand side but need cable tension adjustments.

IMPORTANT: COUNTERBALANCE CABLE TENSION MUST BE EQUAL ON BOTH SIDES PRIOR TO FULLY WINDING SPRINGS.

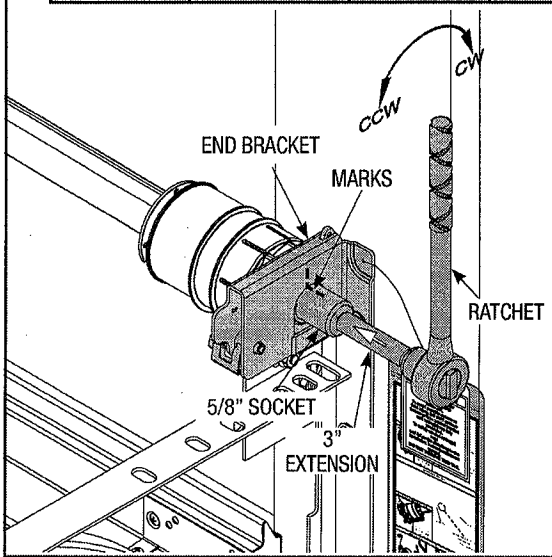
SEE THE SPRING TURN CHART FOR THE REQUIRED NUMBER OF TURNS:

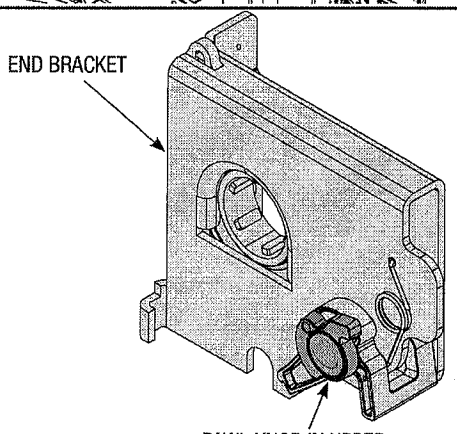
For single spring applications:
Return to the right hand and continue winding the spring to the required number of turns for your door. Place pawl knob in lower position.

For double spring applications:
Place a mark on the winding shaft and end bracket. Place the ratchet with 5/8" socket onto the left hand winding shaft end. To wind the spring, rotate the winding shaft clockwise, while watching the mark on the winding shaft.

Rotate the winding shaft to the required number of 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 lower position on both sides.

RECOMMENDED SPRING TURNS			
Door Height	Spring Turns	Door Height	Spring Turns
6'-0"	14	7'-0"	16
6'-3"	14-1/2	7'-3"	16-1/2
6'-5"	15	7'-6"	17
6'-6"	15	7'-9"	17-1/2
6'-8"	15-1/2	8'-0"	18
6'-9"	15-1/2		





⚠ WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE, THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.

Winding Springs Continued...

Tools Needed:

IMPORTANT: MARK NUMBER OF SPRING TURNS ON TORQUEMASTER® PLUS END BRACKET WARNING TAG.

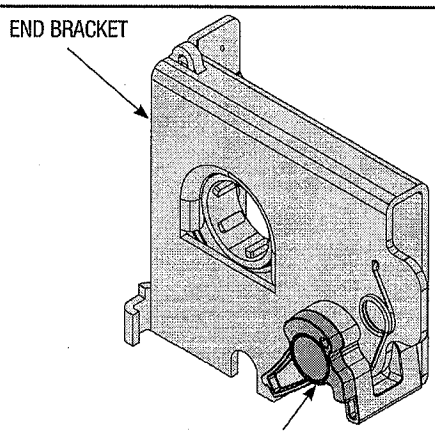
NOTE: Since total turns to balance door can deviate from SPRING TURN CHART values by ± 1/2 turn, adjustments to the recommended number of turns may be required AFTER rear hangers assembly is completed.

IMPORTANT: HOLD THE DOOR DOWN TO PREVENT IT FROM RISING UNEXPECTEDLY IN THE EVENT THE SPRING WAS OVERWOUND AND CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS.

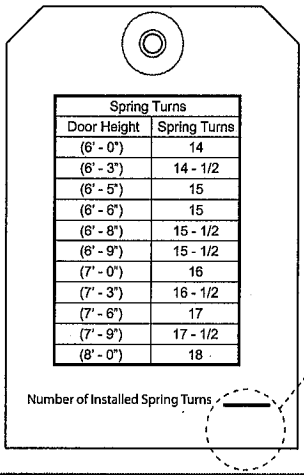
Do not raise the door until horizontal tracks are secured at the rear, as outlined in step 24.

⚠ WARNING

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



BACK OF TORQUEMASTER® PLUS END BRACKET WARNING TAG



23 Drum Wrap Installation

None

Starting with the left hand side, align the counterbalance cable with one of the slots in the drum wrap. Slide the drum wrap over the drum until the tabs snap between the cable drum and the ratchet gear. Repeat for right hand side.

IMPORTANT: RIGHT AND LEFT HAND ARE ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.