



Excellence in Compliance Testing

Certification Test Report

**908.42 MHz Low Power Communication Device Transceiver
372 MHz Discrete Receiver**

FCC ID: KJ8-0001715

IC: 3540A-0001715

FCC Rule Part: 15.249

IC Radio Standards Specification: RSS-210

ACS Report Number: 07-0186 - 15C

Manufacturer: Wayne-Dalton Corporation

Model: 3790-Z

Installation Guide

Section 2

R3

End Bracket Removal

Tools Needed:

Power Drill

7/16" Socket Driver

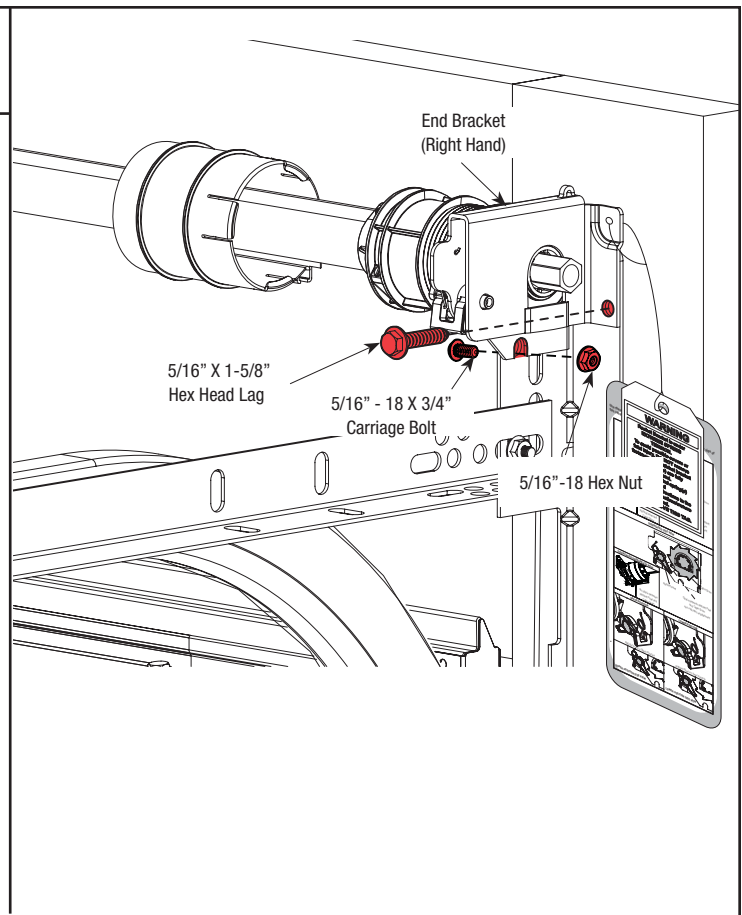
1/2" Wrench

Step Ladder

To remove end brackets, start with the right hand end bracket and remove the lower lag screw and carriage bolt.

Repeat for left hand end bracket.

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



R4

Center Bracket & Cable Drum Removal

Tools Needed:

Power Drill

7/16" Socket Driver

Step Ladder

To remove the cable drum/center bracket, follow the steps below:

a. Remove the two 1/4" lag screws from the center bracket. slide center bracket to the right side of the torque tube.

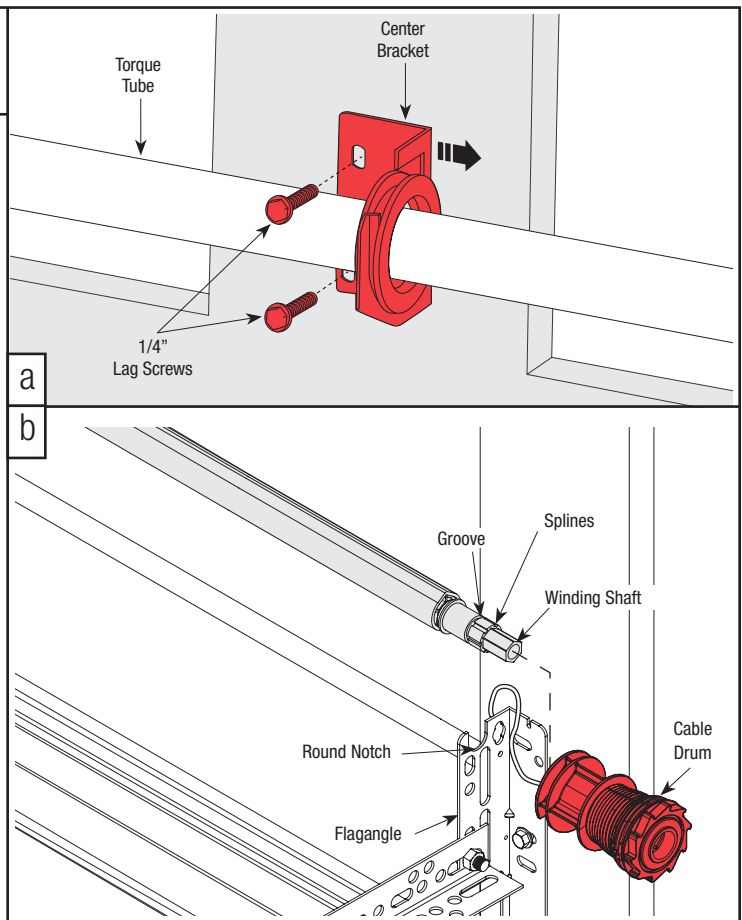
Lift the right side of the torque tube up and slide the cable drum and center bracket off the end of the torque tube. discard the center bracket.

b. Drape the cable drum over the flagangle by the counterbalance cable and re-align the groove in the winding shaft with the round notch in the flagangle.

Once aligned, lower the winding shaft and torque tube onto the flagangle.

Repeat cable drum removal for left side.

After completing this step, continue with Step R5 on page 5.



R1

Retro-Fit Installation Spring Tension Removal

Tools Needed:
7/16" Wrench
Power Drill
7/16"
Socket Driver
Step Ladder

Counterbalance spring tension must be relieved before removing any hardware.

⚠️ WARNING

A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE, EVEN FATAL INJURY.

NOTE: Warning tag removed for illustration clarity.

Place door in the fully closed position and remove drum wraps from cable drums (if installed).

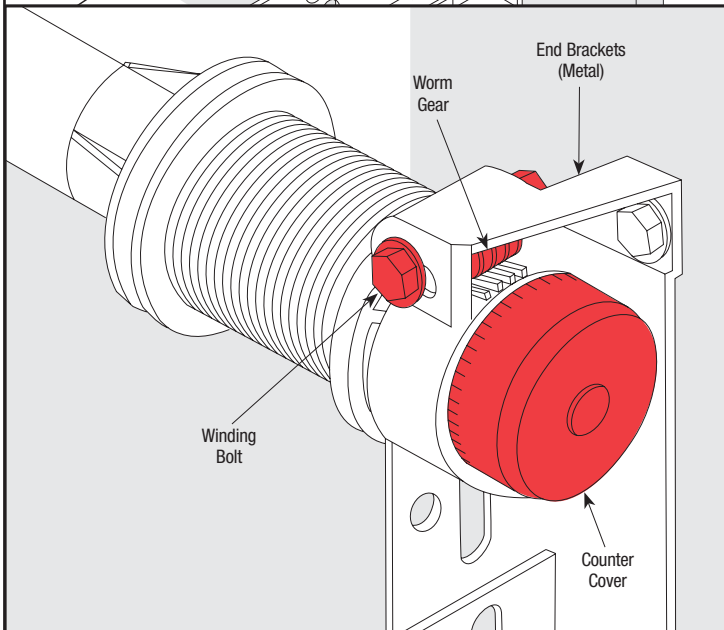
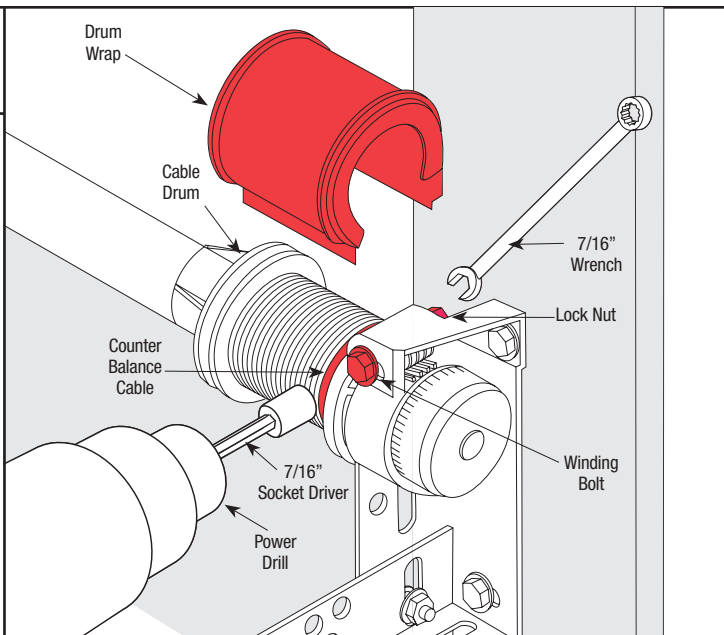
Using a 7/16" wrench, loosen lock nut on the back of the end bracket. Using a power drill (high torque/gear reduced to 1300 RPM preferred), with a 7/16" socket driver, unwind the right hand winding bolt counter clockwise until the counter cover shows "0" (zero). If the door has two springs, repeat this process for the left hand side.

NOTE: A door with only one spring will not have a counter assembly on the left hand side.

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

CAUTION: DO NOT USE AN IMPACT GUN TO UNWIND THE SPRINGS!

NOTE: It is recommended that cable drums and end bracket assemblies get updated to current designs for optimal performance. current end brackets are made of metal instead of plastic, and counter cover and worm gears are made of grey plastic, instead of black and white plastic. If new parts are required, contact Wayne-Dalton customer service.



R2

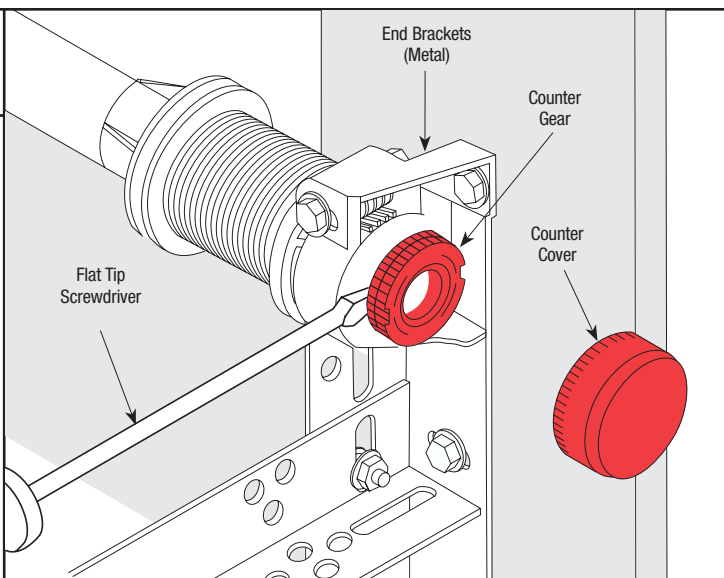
Right Hand Counter Removal

Tools Needed:
Flat Tip
Screwdriver
Step Ladder

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

Remove the counter cover. Slide a flat tip screwdriver between the end bracket and the counter gear.

Gently pull the counter gear away from the end bracket. If the door has two springs, repeat this process for the opposite side.



R3

End Bracket Removal

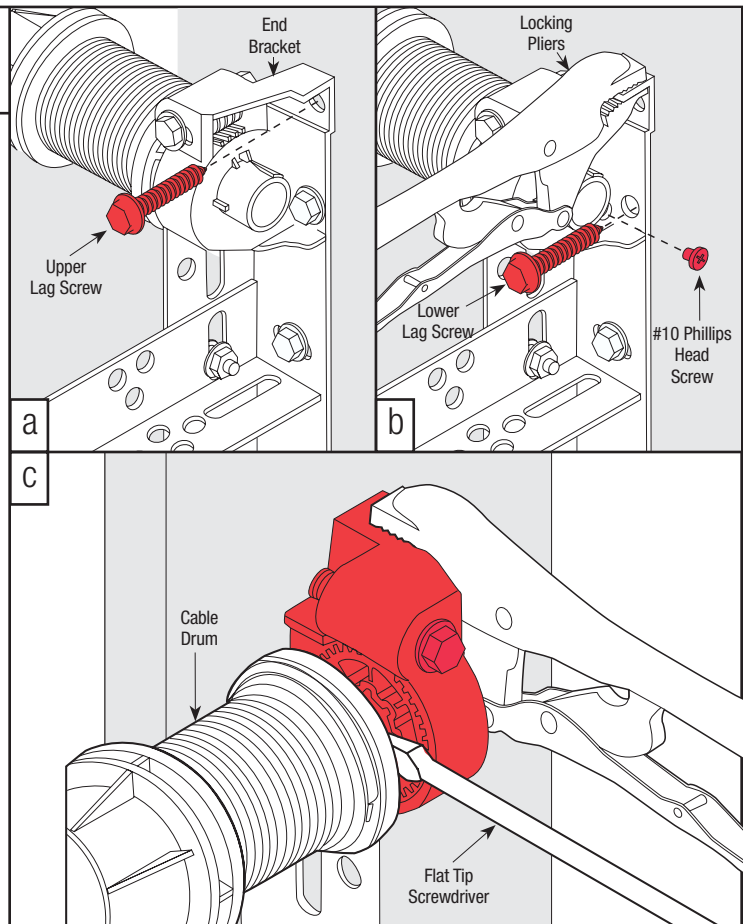
Tools Needed:
Locking Pliers
Phillips Head Screwdriver
Flat Tip Screwdriver
Power Drill
7/16" Socket Driver
Step Ladder

To remove the end brackets, follow the steps below starting with the right hand end bracket first:

- Remove the upper lag screw from the end bracket.
- Attach a pair of locking pliers to the upper portion of the end bracket and hold the end bracket steady while removing the lower lag screw. If present, remove and save the #10 phillips head screw.
- Holding the end bracket with the locking pliers, carefully pry the end bracket from the cable drum with a flat tip screwdriver.

Repeat for left hand end bracket.

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



R4

Center Bracket & Cable Drum Removal

Tools Needed:
Power Drill
7/16" Socket Driver
Step Ladder

To remove the cable drum/center bracket, follow the steps below:

- Remove the two 1/4" lag screws from the center bracket. Slide center bracket to the right side of the torque tube.

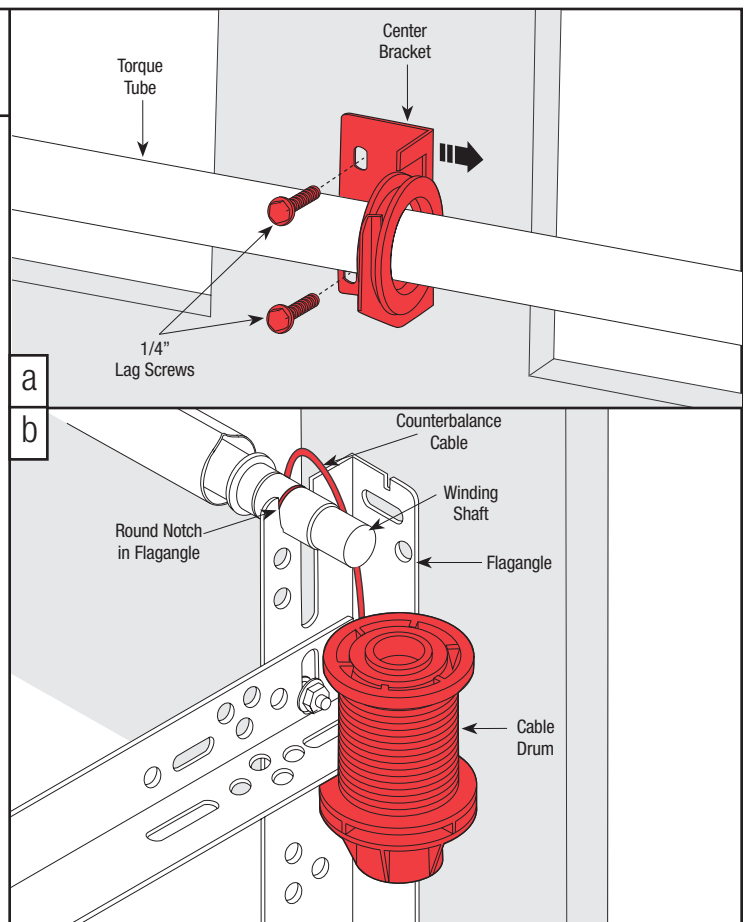
Lift the right side of the torque tube up and slide the cable drum and center bracket off the end of the torque tube. Discard the center bracket.

- Drape the cable drum over the flagangle by the counterbalance cable and re-align the groove in the winding shaft with the round notch in the flagangle.

Once aligned, lower the winding shaft and torque tube onto the flagangle.

Repeat cable drum removal for left side.

After completing this step, continue with Step R5 on page 5.



R5

9100 Top Bracket Re-Install (If Necessary)

Tools Needed:
Power Drill
7/16" Socket Driver
Step Ladder

If installing an idrive® opener on an installed 9100 door, the top bracket and roller location will have to be adjusted for the opener to work properly.

Loosen the (2) 1/4"-20 nuts from the top bracket slide.

Remove the (4) 1/4"-14 x 5/8" self-tapping screws from the top bracket.

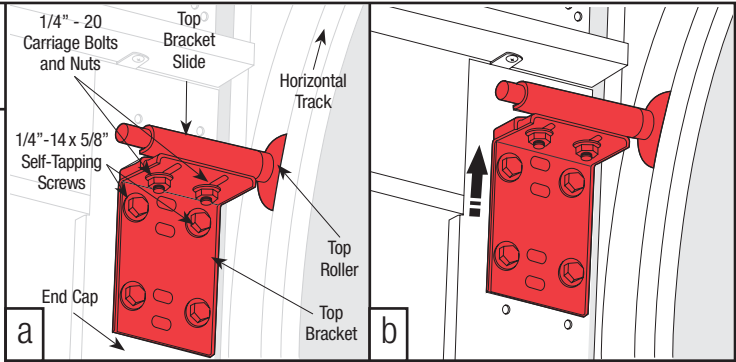
Raise the top bracket to align the bottom slots with the second set of holes in the end cap.

Re-attach top bracket to the end cap with the (4) 1/4"-14 x 5/8" self-tapping screws.

Re-align the top roller in the horizontal track by moving the top bracket slide out to force the door section against the weather seal.

Tighten (2) 1/4"-20 Nuts.

Repeat for the opposite side.



NOTE: The 9100 doors have a painted steel face, foam insulation and white paper backing. If your door does not match this description you may skip this step.

CAUTION: TO AVOID THE TOP PANEL FROM FALLING, COMPLETE RE-INSTALLATION ON ONE SIDE BEFORE BEGINNING THE OTHER.

R6

8000/8100/8200 Track Vertical Track Height Adjustment (If Required)

Tools Needed:
Power Drill
7/16" Socket Drive
Pencil
Tape Measure
Step Ladder

NOTE: The door must be in the fully closed position.

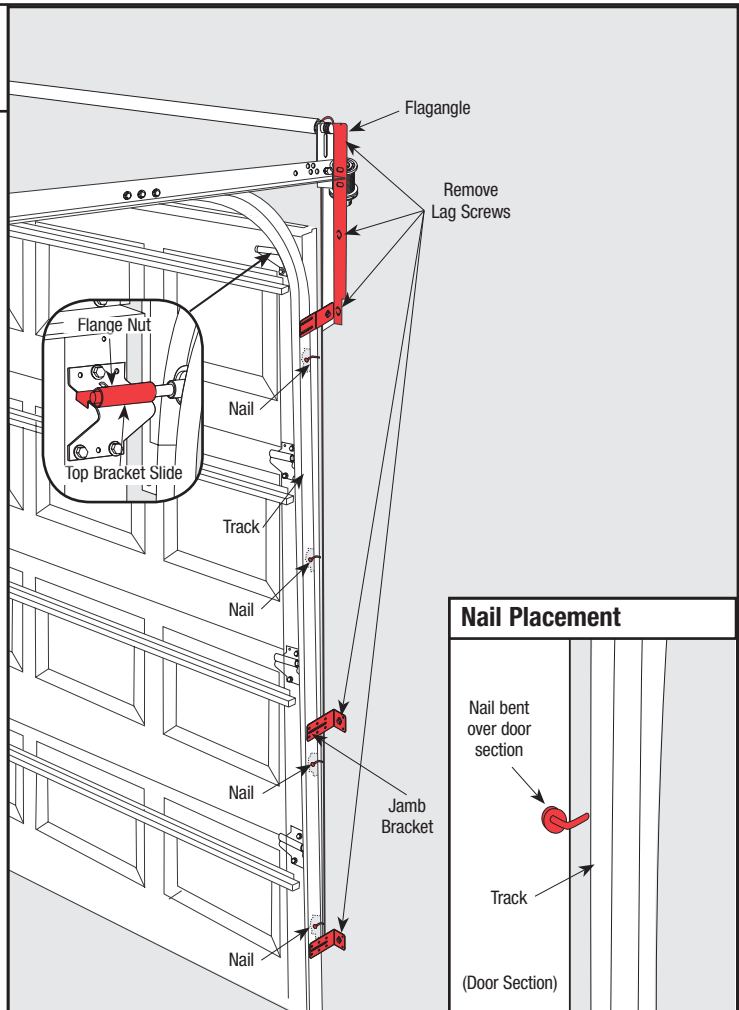
If installing an idrive® opener on an 8000/8100/8200 door, the top roller location and track height will have to be modified for the opener to work properly. Perform the following steps:

NOTE: The bottom edge of the track needs to be spaced 1" above the floor. If the track is already spaced off the floor 1", skip this step.

Fasten a nail in the door jamb, between the door and the track at the ends of each section. Bend the nail over each section to hold them in place.

Remove the lag screws from the flagangle and each jamb bracket. Using a 7/16" socket driver, loosen the flange nut on the Top bracket slide. Place a mark 1" up from one of the tops of one of the jamb brackets. Raise the track up and align the jamb bracket with this line. With the track relocated, re-attach the flagangle, end bracket, and jamb brackets to the header and/or door jamb. Make certain to maintain spacing between edge of door and vertical track.

NOTE: Pilot drill all lag screw locations.



R7

8000/8100/8200 Track Horizontal Track Height Adjustment (If Required)

Tools Needed:
Level
1/2" Wrench
Step Ladder

⚠ WARNING

FAILURE TO RE-ATTACH HORIZONTAL TRACKS TO THE SUPPORT BEFORE OPENING DOOR CAN CAUSE DOOR TO FALL FROM OVERHEAD POSITION, POSSIBLY CAUSING SEVERE OR FATAL INJURY.

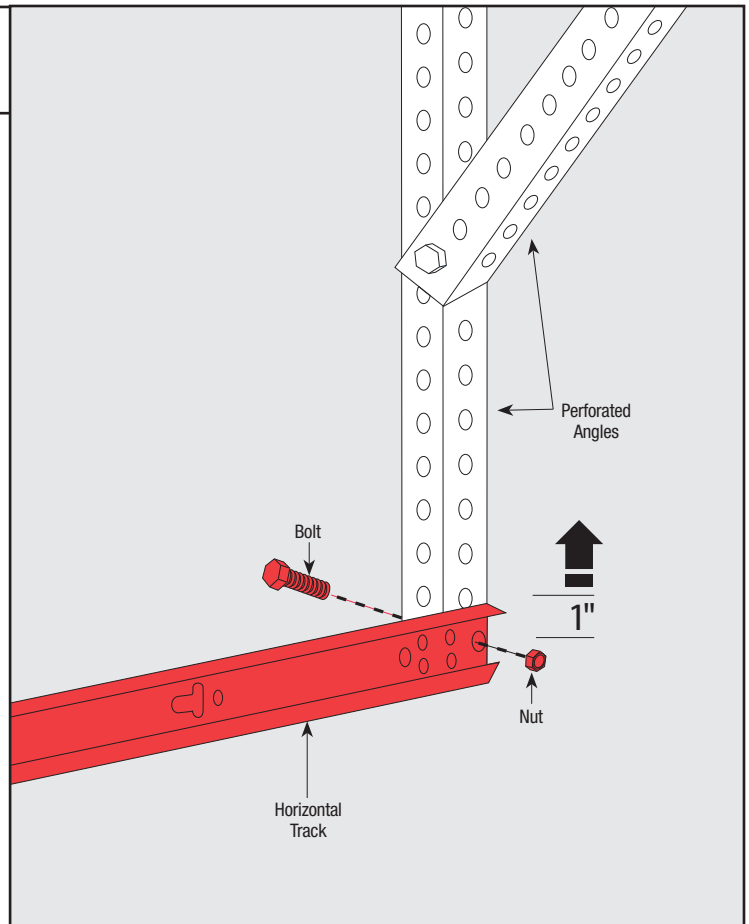
NOTE: Door must be in the fully closed position.

If the vertical track was raised then the horizontal track will need to be adjusted.

Remove bolt securing back of horizontal track to the perforated angle and reposition horizontal track UP 1" (25mm) from it's original position.

Re-attach the horizontal track to the perforated angle with the same bolt and nut.

Assemble bolt and nut from the direction shown so bolt will extend inside of track.



R8

8000/8100/8200 Track Top Roller Adjustment (If Necessary)

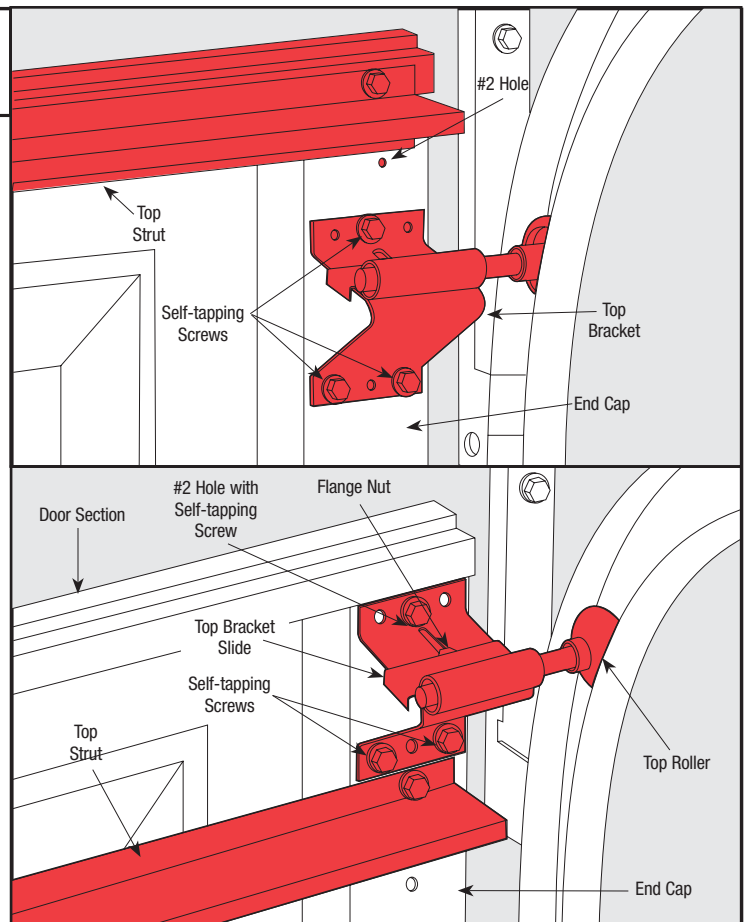
Tools Needed:
Power Drill
7/16" Socket
Driver
Step Ladder

Remove the (3) self-tapping screws from the top bracket.

Align the top hole of the top bracket with the #2 hole in the end cap and re-attach the top bracket to the end cap with the same three self-tapping screws. It may be necessary to relocate the top strut (if installed) to correctly place the top bracket in its new location.

Re-align the top roller in the track by moving top bracket slide out until door section is straight up and down. Tighten the flange nut.

Repeat for opposite side.



1

Idrive® for Torquemaster® Installation Assembling Opener

Tools Needed:
None

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

NOTE: Older versions of the torque tube have a label applied on the right side that the opener will not slide over. Check the location of the label on the torque tube. If your torque tube has the label located on the right side, document the information on the label, then remove it completely using an adhesive remover or mineral spirits. If your torque tube has the label located on the left side, proceed with the following instructions.

Lay the torque tube on the floor (inside garage) in front of the door with the labeled end to the left.

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.

IMPORTANT! HOLD OPENER BY THE MAIN BODY. DO NOT HOLD BY THE MOTOR.

Once aligned, slide the opener 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.

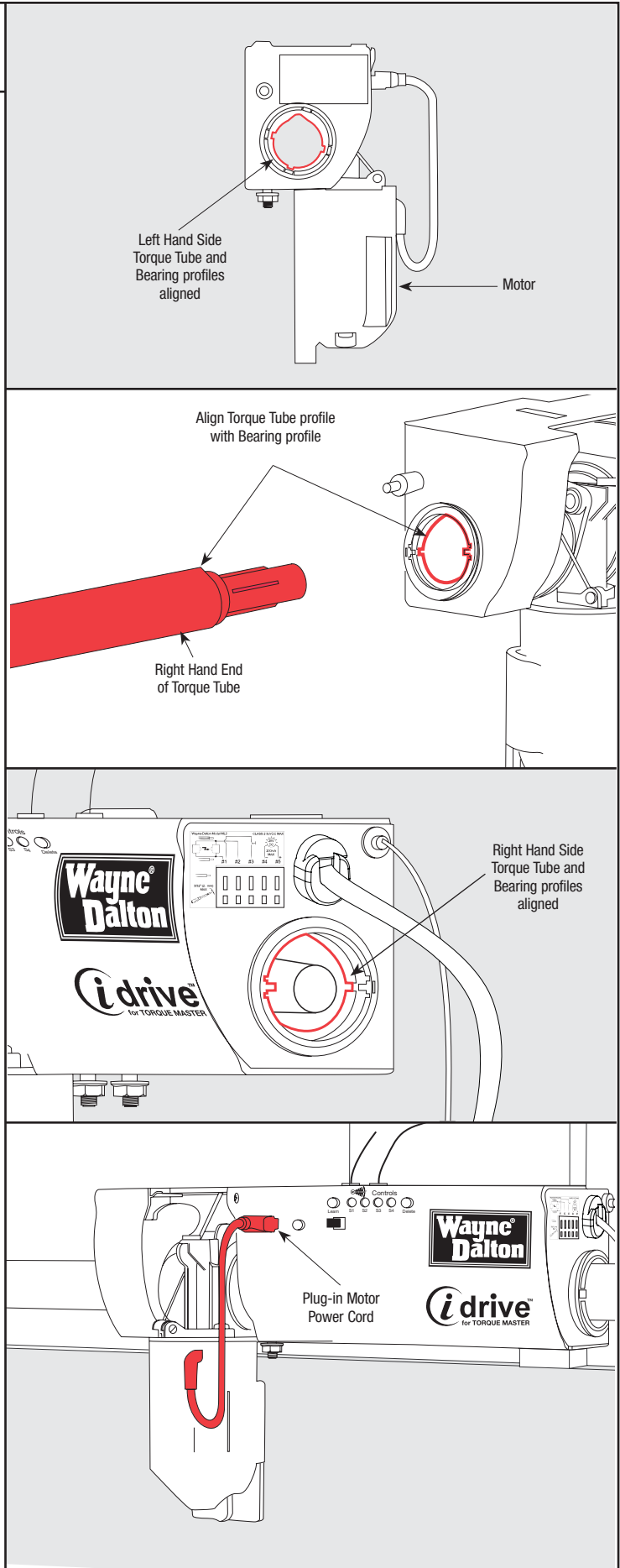
Continue sliding the opener onto the torque tube. Align the right hand bearing with the torque tube and slide the opener completely onto the torque tube until the torque tube exits the opener right hand bearing.

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

Continue sliding the opener to the center of the torque tube.

Plug the motor power cord into the opener.

After completing this step, continue with Step 2 on page 8 for Torquemaster® Plus; Step 2 on page 11 for Torquemaster®.



2

Drum Wraps

Tools Needed:
None

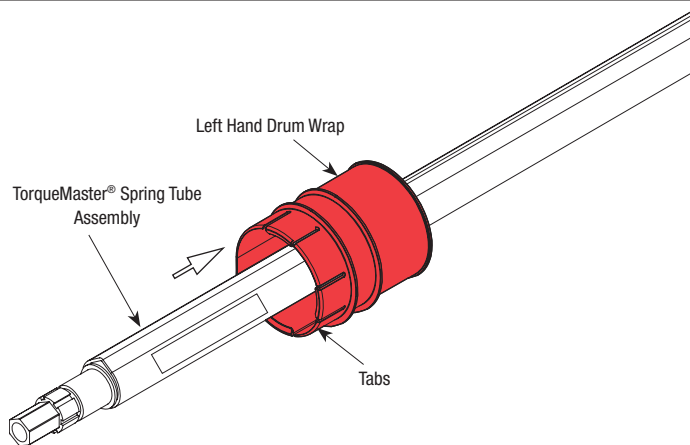
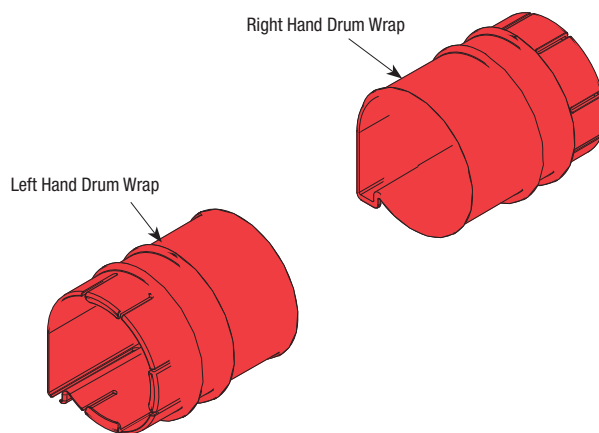
NOTE: If you have a Torquemaster® counterbalance, skip this step and continue with Step 2 on page 11. If you have a Torquemaster® Plus counterbalance system, complete Steps 2-4 on pages 8, 9 and 10.

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

Drum wraps are identified as right and left hand.

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.

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



3

Cable Drums

Tools Needed:
Tape Measure
Step Ladder

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

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).

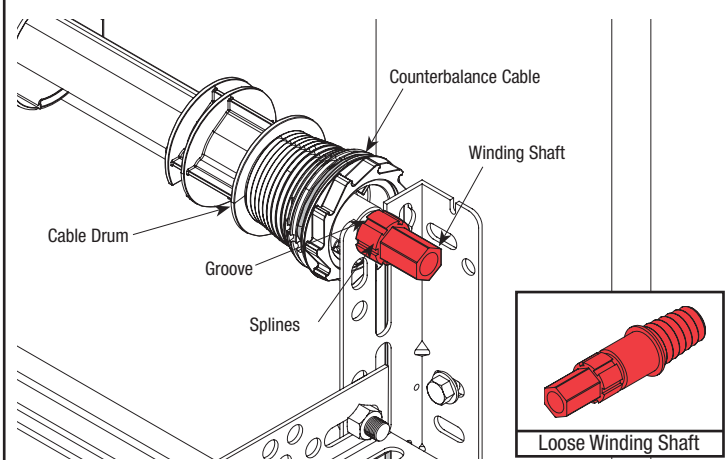
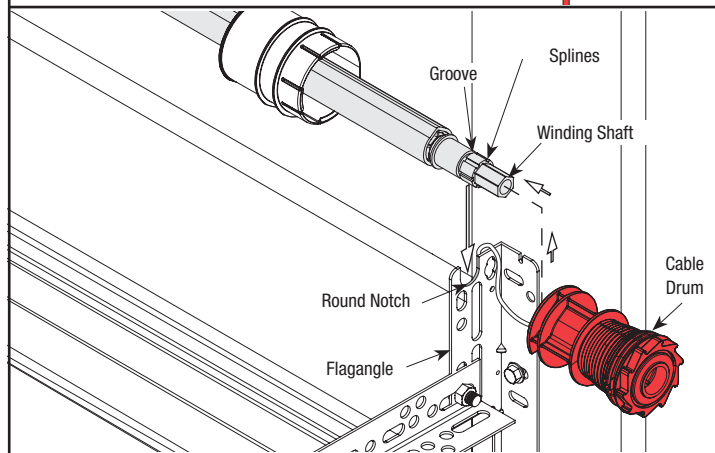
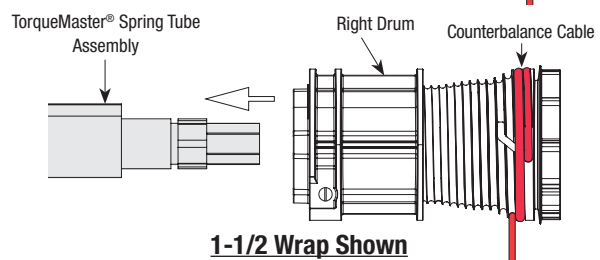
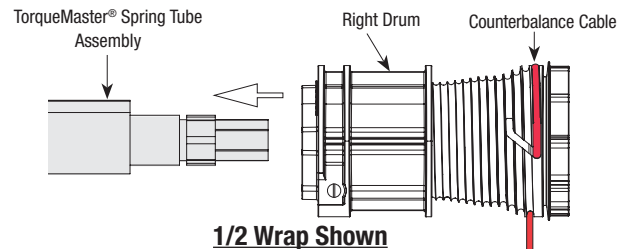
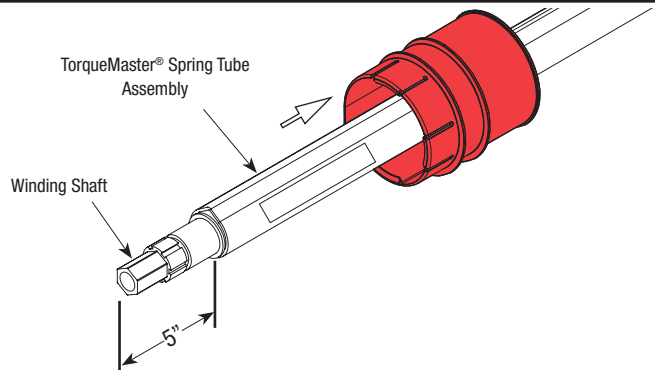
To install the cable drum, slide the correct cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube assembly.

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.



4

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.

Attach TorqueMaster® Plus warning tags to both end brackets prior to installing.

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 flag with (1) 5/16"-18 x 3/4" carriage bolt and hex nut and then secure to the jamb with 5/16" x 1-5/8" hex head lag screw.

Repeat for other end bracket.

NOTE: No ratchet wheel is required on the left hand side for single spring applications. Only an end bracket is needed.

After completing this step, continue with Step 5 on page 13.

