



# Winding Mechanism for TorqueMaster® Plus

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**NOTE:** Use this Instruction in conjunction with the Installation Instructions and Owner's Manual provided with the door.

## STEP 1

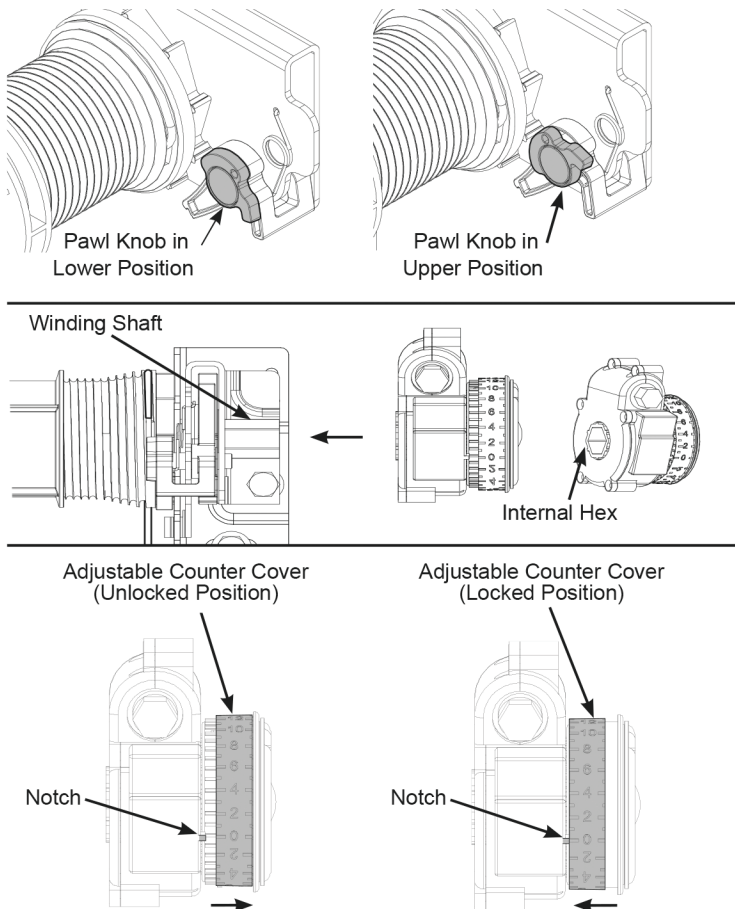
Clamp locking clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding the counter balance springs.

### **WARNING**

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

## STEP 2

Beginning with the right hand side, turn the pawl knob to the upper position. Align the internal hex of winding mechanism with the right hand side winding shaft and slide the mechanism onto the shaft until the mechanism is flush with ratchet bracket. Pull the adjustable counter cover out (unlock position) and align the "0" on the adjustable counter cover with the notch in the winding mechanism. Once the "0" is aligned with the notch, push the adjustable counter cover back (lock position).



### **IMPORTANT! Do not use impact gun to wind spring(s)**

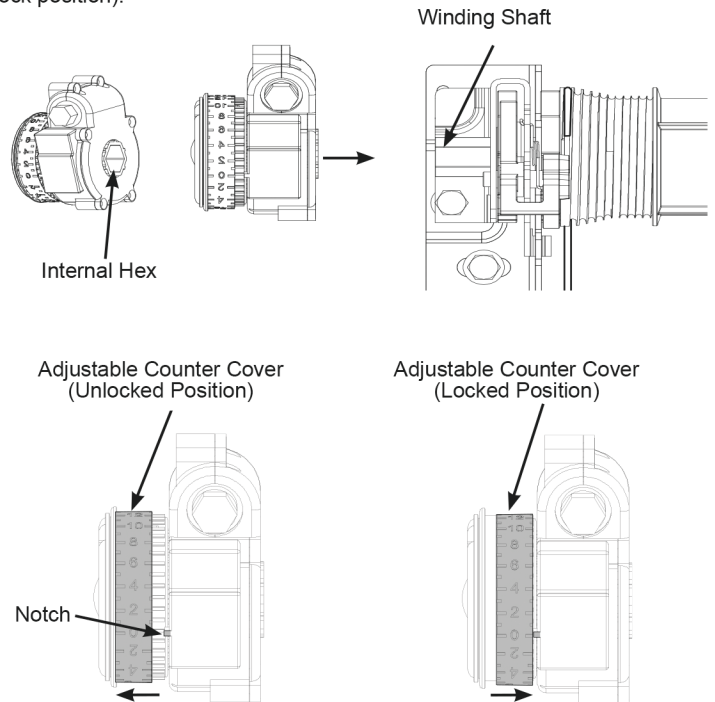
Ensure that the cable is in the outer slot and first groove of the right hand cable drum. Using an electric drill (high torque gear reduced to 1300 RPM preferred) with a 7/16" socket, carefully rotate the winding bolt clockwise, until counter cover shows 2-3 turns. This will keep the counterbalance cable taut while adjusting the left hand side counter balance cable.

On the left hand side, ensure the counterbalance cable is in the first groove of the left hand cable drum.

**NOTE:** Proceed to Step 4 for single spring applications

## STEP 3

For double spring application: Beginning with the left hand side, turn the pawl knob to the upper position. Align the internal hex of winding mechanism with the left hand side winding shaft and slide the winding mechanism onto the shaft until the mechanism is flush with ratchet bracket. Pull the adjustable counter cover out (unlock position) and align the "0" on the adjustable counter cover with the notch in the winding mechanism. Once the "0" is aligned with the notch, push the adjustable counter cover back (lock position).



## STEP 3

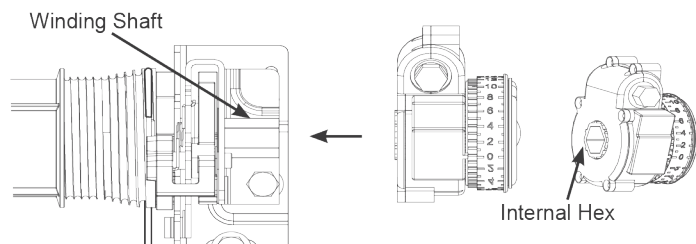
**IMPORTANT! Do not use impact gun to wind spring(s).**

Using an electric drill (high torque gear reduced to 1300 RPM preferred) with a 7/16" socket, carefully rotate the winding bolt head clockwise until the counter shows the correct number of turns for your door height. (See the Spring Turn chart in the Installation Instructions and Owner's Manual for the recommended number of turns.)

Adjust the power drill to low speed setting (number "1" position) and torque level to 40 in-lbs. With low trigger pressure, turn the winding bolt counter-clockwise until ratchet pawl is seated into the ratchet wheel. When ratchet pawl is seated into the ratchet wheel less tension is applied to the winding shaft, allowing removal of winding mechanism.

## STEP 4

Now return to the right hand side and align the internal hex of winding mechanism with the winding shaft and slide the winding mechanism onto the winding shaft until the winding mechanism is flush with ratchet bracket. Pull the adjustable counter cover out (unlock position) and adjust the adjustable counter cover to read the same number of turns initially applied to the right hand side "2-3 turns". Once the initial number on the adjustable counter cover is aligned with the notch, push the adjustable counter cover back into the winding mechanism (lock position).

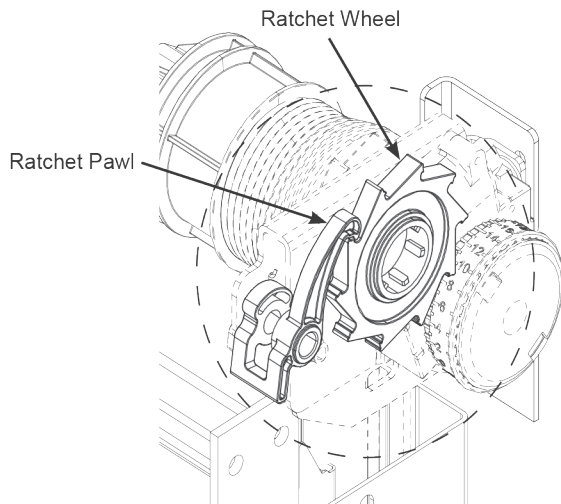


## STEP 5

**IMPORTANT! Do not use impact gun to wind spring(s).**

Using an electric drill (high torque gear reduced to 1300 RPM preferred) with a 7/16" socket, begin winding the bolt head clockwise until the counter shows the correct number of turns for your door height. (See the Spring Turn chart in the Main Installation Instructions manual for the recommended number of turns.)

Adjust the power drill to low speed setting (number "1" position) and torque level to 40 in-lbs. With low trigger pressure, turn the winding bolt head counter-clockwise until ratchet pawl is seated into the ratchet wheel. When ratchet pawl is seated into the ratchet wheel less tension is applied to the winding shaft, allowing removal of winding mechanism.



## SPRING ADJUSTMENTS

**IMPORTANT!:** Do not use the winding mechanism to make spring adjustments

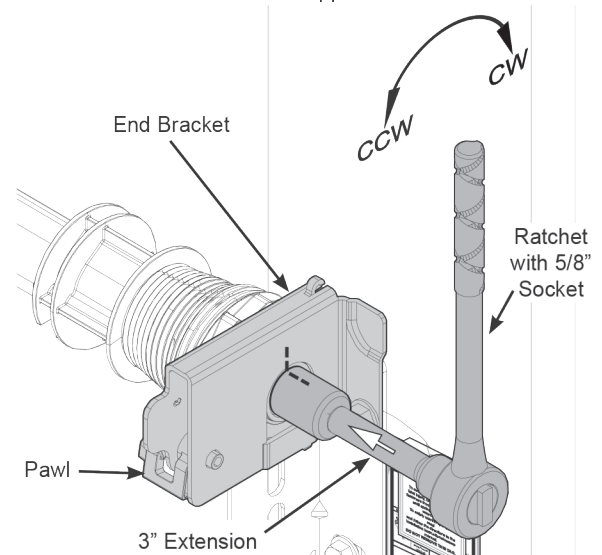
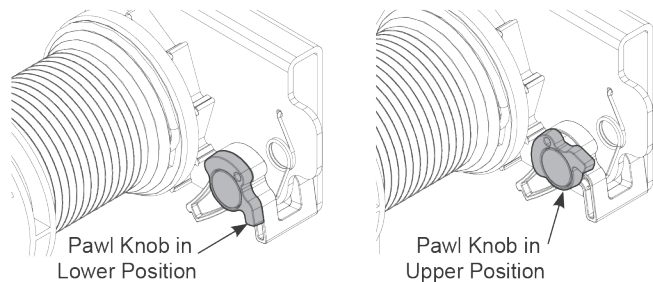
To make spring adjustments follow instructions below. Do not use the winding mechanism to make spring adjustments.

Clamp a pair of vice clamps on the vertical tracks just above the third roller on one side and just below the third roller on the other side. This will prevent the door from raising or lowering while adjusting the spring(s).

**To Add Spring Tension:** The ratchet wheel is made of 10 teeth. To add spring tension, use a ratchet wrench and 5/8" socket that is set so that it will tighten counter clockwise on the right hand side, and clockwise on the left hand side. Place the ratchet with 5/8" socket onto the winding shaft, pull down to add 3/10 of a turn. Watch as three teeth of the ratchet wheel pass over the ratchet pawl, creating three "clicks".

**To Remove Spring Tension:** To remove spring tension, ensure the ratchet wrench and 5/8" socket is set so that it will tighten clockwise on the right hand side and counter clockwise on the left hand side. Place the socket onto the winding shaft. Pull down on the wrench to relieve pressure between the ratchet pawl and the ratchet wheel. Push in on the pawl to allow the three ratchet wheel teeth to pass by the ratchet pawl, as you carefully allow the wrench to be rotated upward. Release the pawl to allow ratchet pawl to engage with the ratchet wheel.

Remove the vice clamps from the vertical tracks, re-check doors balance and adjust if necessary. When door is balanced and adjusted properly, place the pawl knobs in the active position (lower position).



## COMPLETE SPRING TENSION REMOVAL

**Using Winding Mechanism to COMPLETELY remove spring tension:** Align the internal hex of winding mechanism with the winding shaft and slide the mechanism onto the shaft until it is flush with ratchet bracket. Check the back of the TorqueMaster® Plus End Bracket Warning Tag for correct number of spring turns for your door height (reference installation instruction manual). Adjust the winding mechanism counter to correct number of turns. Make sure the pawl knob is in the lower position. Using an electric drill (high torque reduced to 1300 RPM preferred) with a 7/16" socket, with low trigger pressure begin winding the bolt head clockwise slowly until the pawl shifts down. Then switch the rotation of the drill to counter clockwise and completely unwind all tension from the spring until the mechanism counter reads "0".