



1404 N. Marshall Ave. El Cajon CA. 92020

Semi-Automatic Ratchet & Rollertube Operation Instructions



RATCHET OPERATION & REPLACEMENT



607-0035

WLH 04/02/19

For technical support call us at (877) 861-6265 or visit our website at Pulltarps.com.



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Required Tools

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Installing Tarp and Adding Spring Tension to Ratchet

Step 1: Align the Roller Tube groove with the Slot in the Housing (Opposite of the Ratchet Plate). Take the end of the tarp with the Hemtube and insert in to the system housing (Fig. 1).

Note: Make sure the Pulltarps logo is facing up.



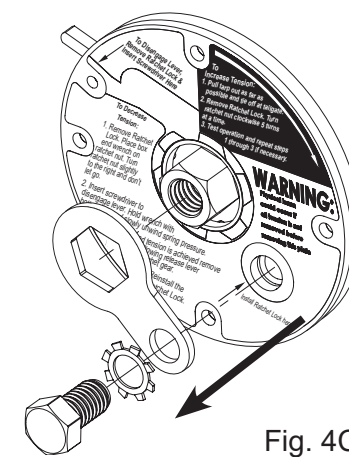
Step 2: Carefully slide the tarp through the Roller Tube groove until the tarp is centered (Fig. 2).



Step 3: Fully extend tarp and tie off on the Tailgate (Fig. 3).



Step 4: Remove the Ratchet Lock Nut, Star Lock Washer and Ratchet Lock (Fig. 4A, B & C).





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Installing Tarp and Adding Spring Tension to Ratchet

Step 5: With the included Ratchet Wrench, turn the ratchet nut clockwise to the appropriate number of rotations (Fig. 5A & B).

Approximate pre-load rotations or winds.

Fig.5B

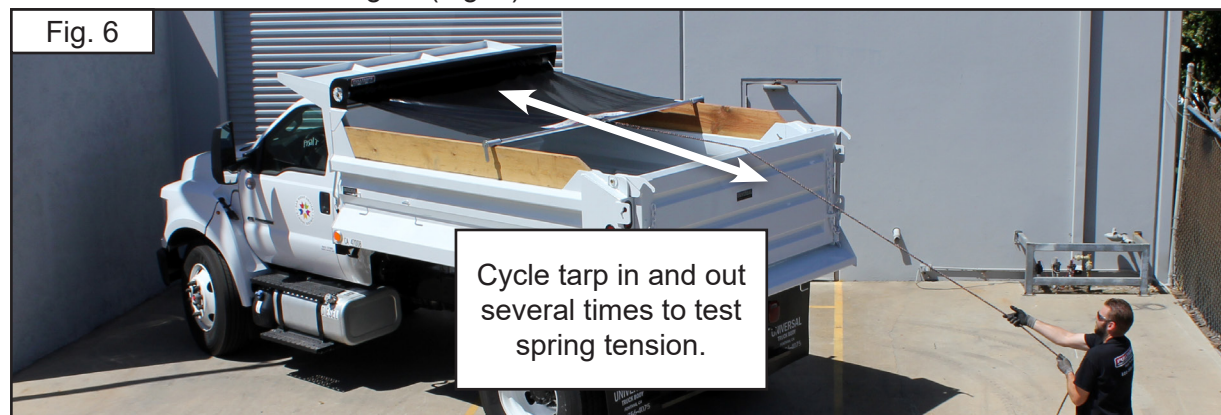
Tarp Length	13 feet	18 feet	25 feet	30 feet
Winds or Rotation (360° = 1 rotation)	25/30	30/35	35/40	45/50
Flaps	Longer taps with flaps may require 5 to 10 additional turns			

NOTE: DO NOT EXCEED 65 WINDS.

Tarp must be fully extended when adding tension to the spring.



Step 6: Test the spring tension by having a team member cycle the tarp in and out, and if tarp returns to the housing, no more winds are needed. If more winds are needed, repeat Steps 3-5 then add 5 winds and test again (Fig. 6).



Step 7: Reinstall the Ratchet Lock (Fig. 7A & B).



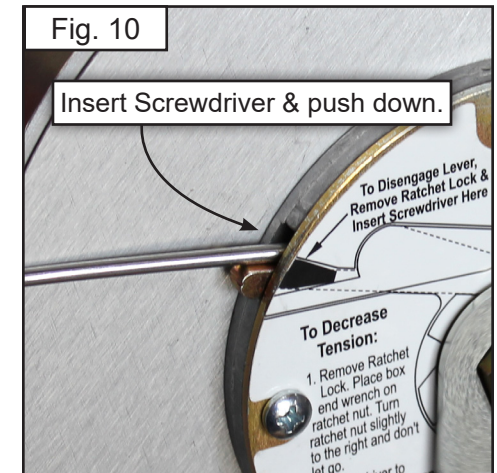


Releasing Spring Tension from Ratchet (With Tarp Installed)

Step 1: Fully extend tarp and tie off on the Tailgate (Fig. 8).

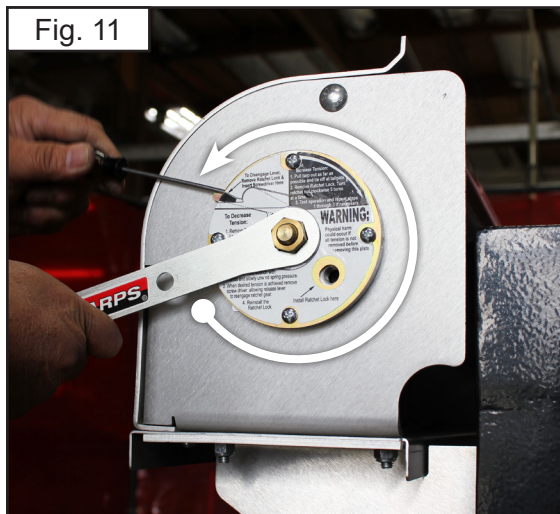


Step 2: Remove the Ratchet Lock Nut and Star Lock Washer (Fig. 9A & B).

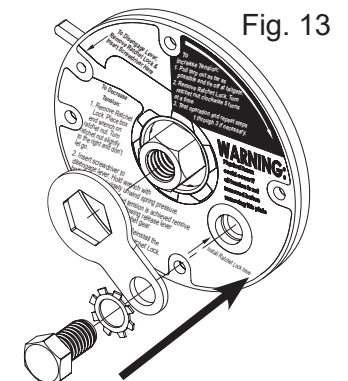
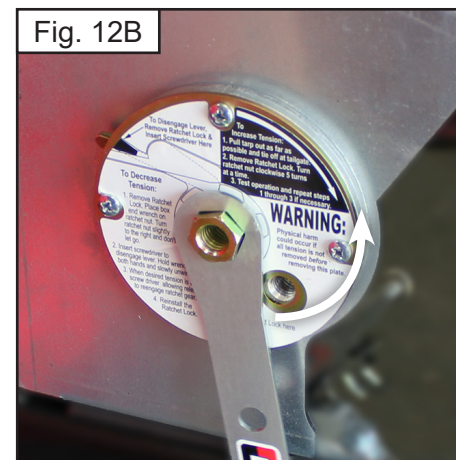
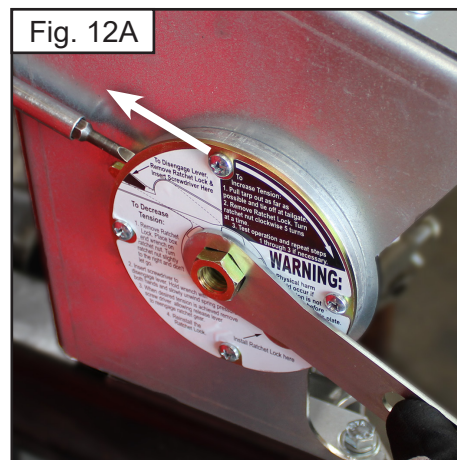


Step 3: Insert screwdriver to disengage lever (Fig. 10).

Step 4: Hold wrench and slowly unwind spring pressure (Fig. 11).



Step 5: When desired tension is achieved remove screwdriver, allowing release lever to reengage ratchet gear (Fig. 12A & B).



Step 6: Reinstall the Ratchet Lock (Fig. 13).



Releasing Spring Tension from Ratchet (Without Tarp Installed)

Step 1: Remove the Ratchet Lock Bolt, Star Lock Washer & Ratchet Lock (Fig. 14A, B & C).

Fig. 14A



Fig. 14B

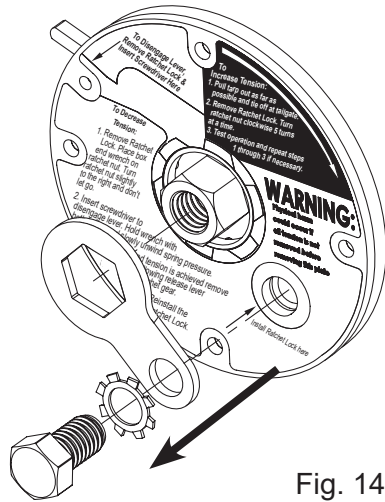
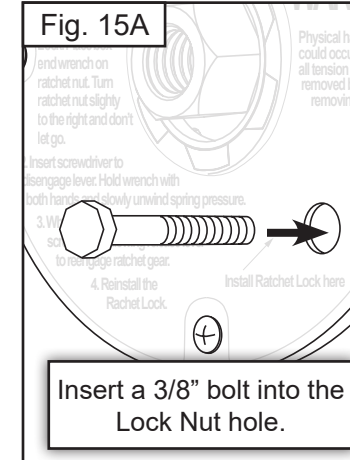


Fig. 14C

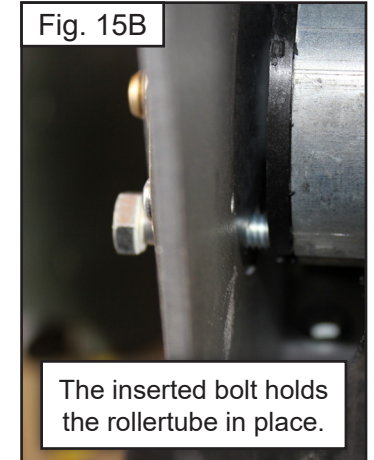
Step 2: Insert 3/8" into Lock Nut hole. This will keep the rollertube in place while removing tension from the rollertube spring (Fig. 15A & B).

Fig. 15A



Insert a 3/8" bolt into the Lock Nut hole.

Fig. 15B



The inserted bolt holds the rollertube in place.

Step 3: Insert screwdriver to disengage lever (Fig. 16). Hold wrench and slowly unwind spring pressure (Fig. 17).

Fig. 16

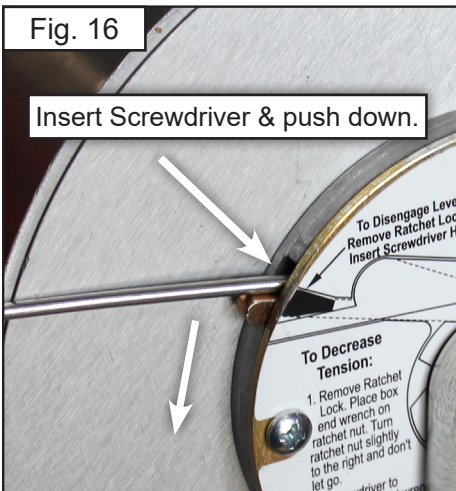


Fig. 17

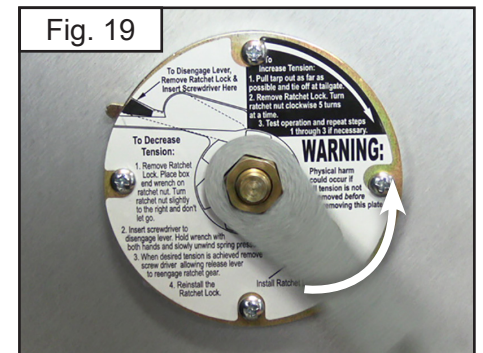


Fig. 18



Step 4: When desired tension is achieved remove screwdriver, allowing release lever to reengage ratchet gear (Fig. 18).

Fig. 19



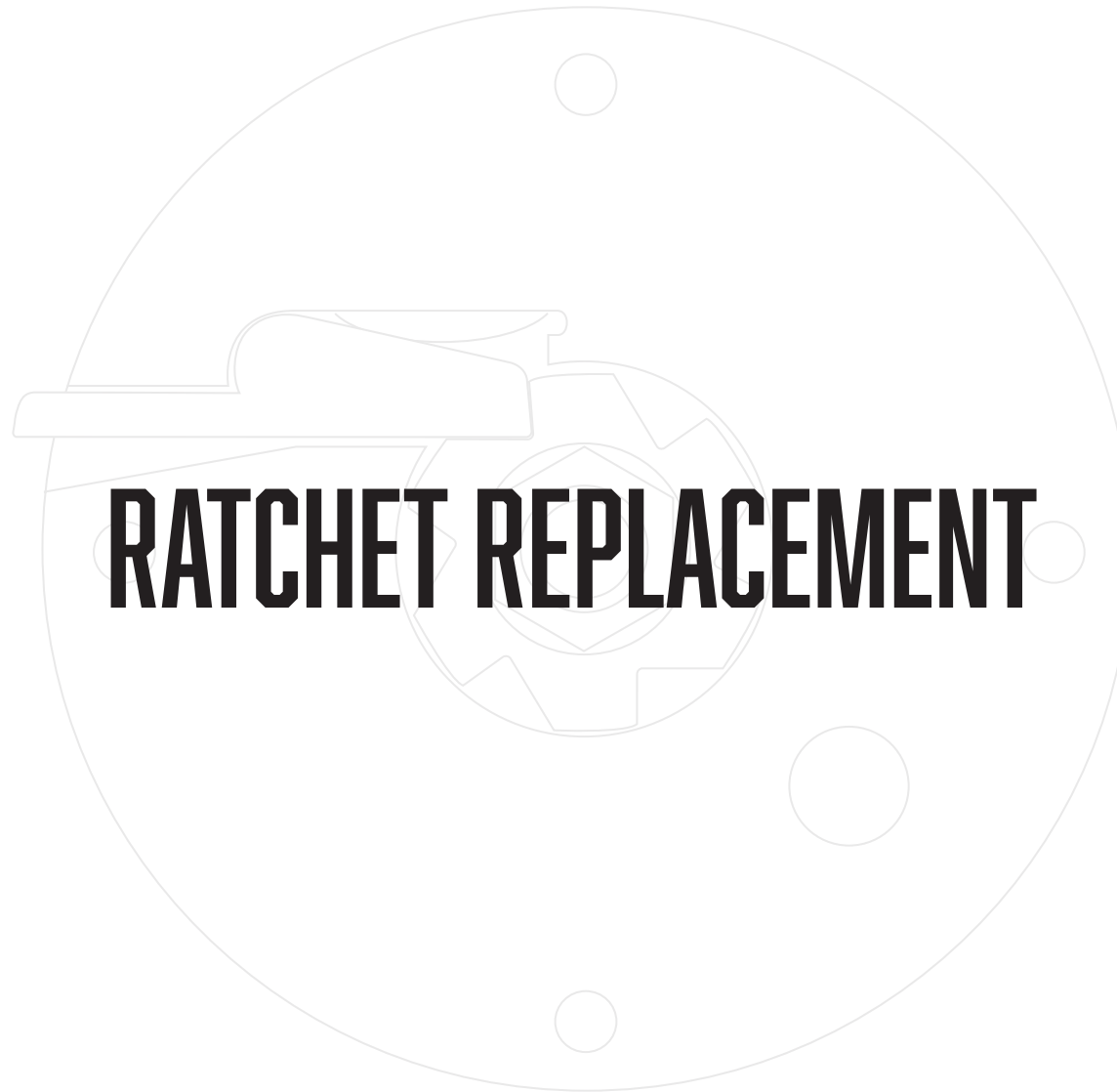
Step 5: Rotate counter clockwise until lever reengages (Fig. 19).

Step 6: Remove the 3/8" bolt and Reinstall the Ratchet Lock. See page 4 (Fig. 13).



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Removing Tarp & Roller Tube

Step 1: Extend tarp until it is completely unrolled from the roller tube (Fig. 20A & B) and over the tail gate. Once tarp is fully extended, tie off at the end of the tail gate, so tarp will not roll back.

Fig. 20A

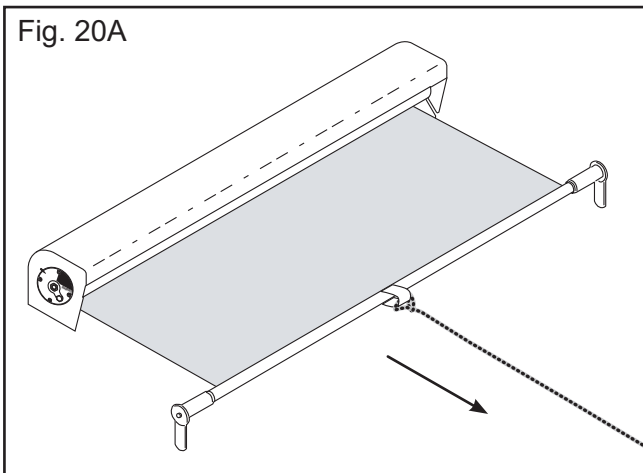
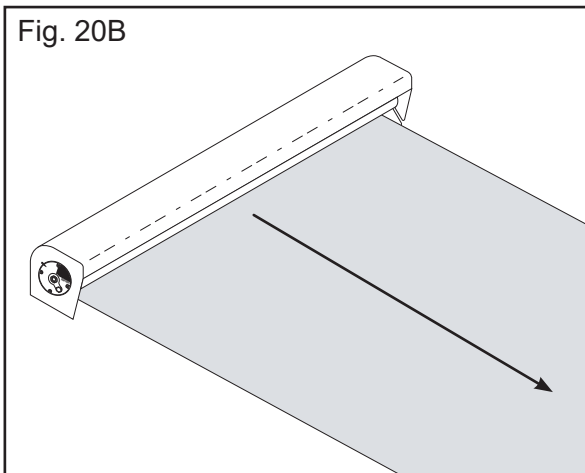
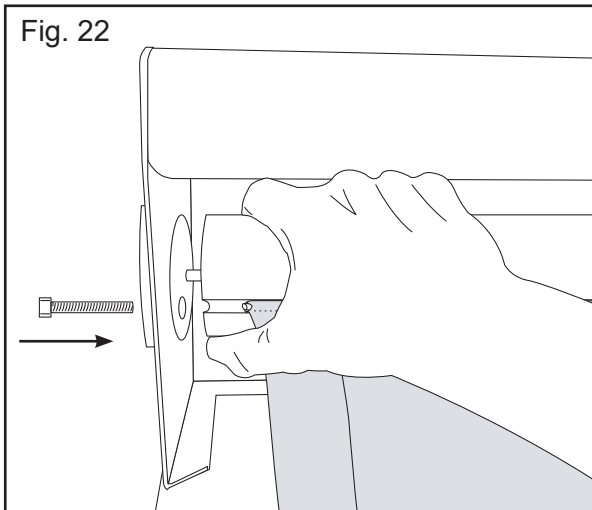


Fig. 20B



NOTE: See page 4 for example of tarp extended and properly tied off.

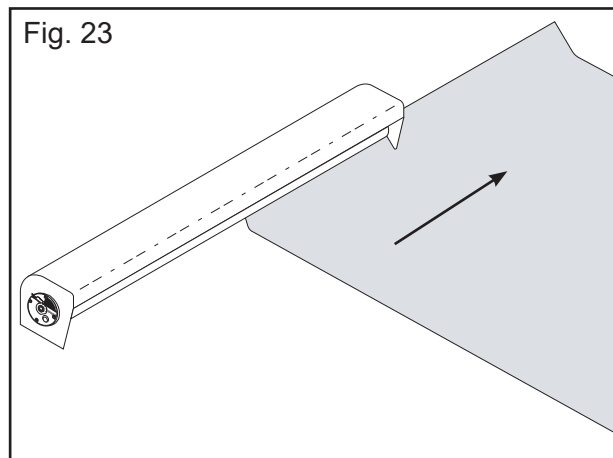
Fig. 22



Step 3:

After removing Ratchet Lock bolt, roll the roller tube hem tube groove to align with the bolt hole. When the two are aligned, hold the tube in place and insert the provided 3/8" bolt into the hole and roller tube. This will assure that the roller tube will not rotate as the tarp is removed (Fig. 22).

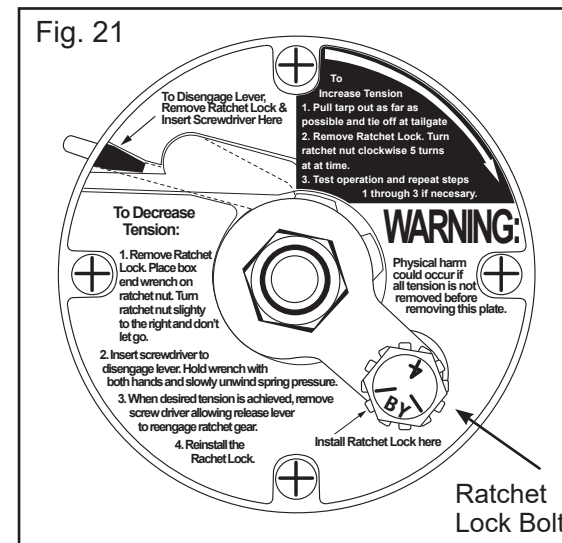
Fig. 23



Step 4:

Once roller tube is secure, remove tarp from groove through slot on the right side and set aside (Fig. 23).

Fig. 21



Step 2: Remove the Ratchet Lock bolt (Fig. 21).

NOTE: See page 4 for instructions.



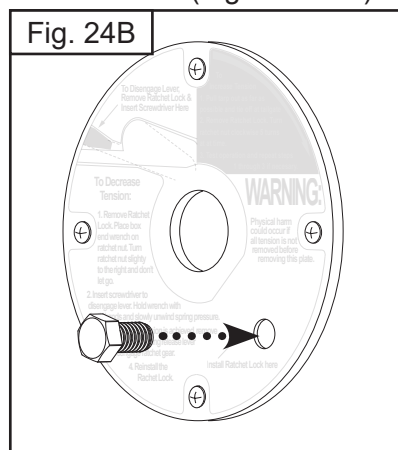
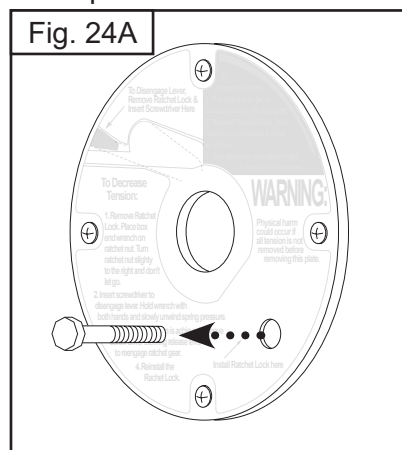
Releasing Spring Tension & Replacing Ratchet



Step 1: Release spring tension.

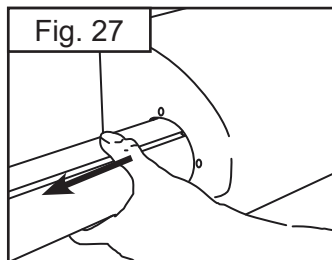
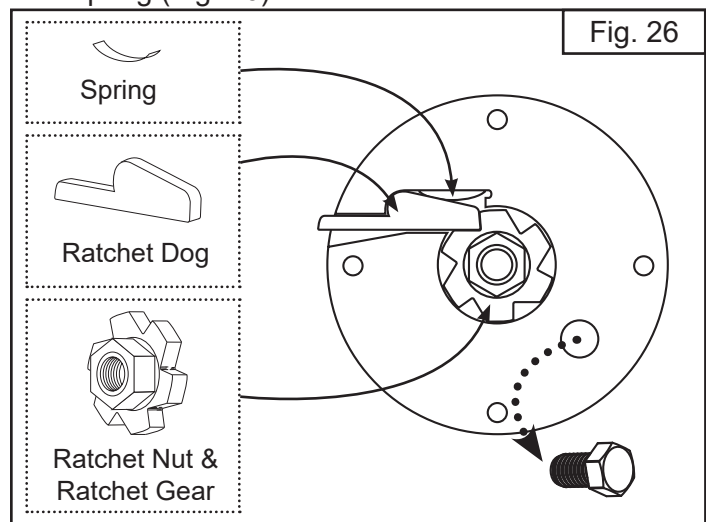
NOTE: To release spring tension, see page 4.

Step 2: Once tension is released, remove 3/8" bolt from ratchet cover plate. Install the 7/16" Ratchet Lock Bolt (Fig. 24A & B).

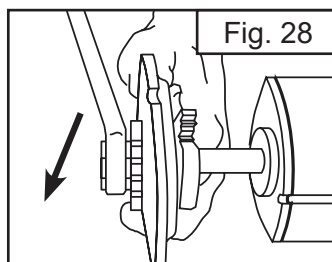


NOTE: The four (4) ratchet plate screws stay in place in Step 2.

Step 4: Remove Ratchet Lock Bolt, Ratchet Dog and Spring (Fig. 26).

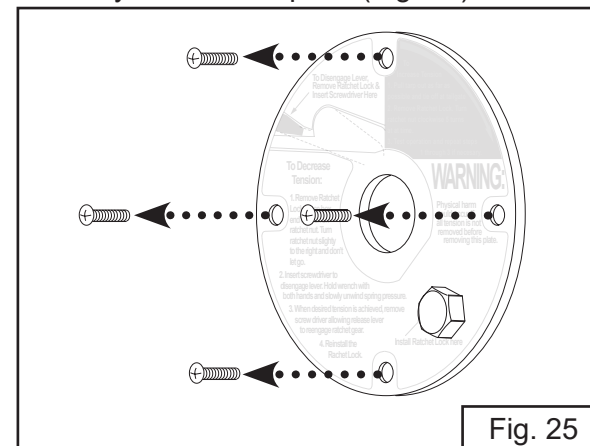


Step 5: out the side of the roller housing (Fig. 27).



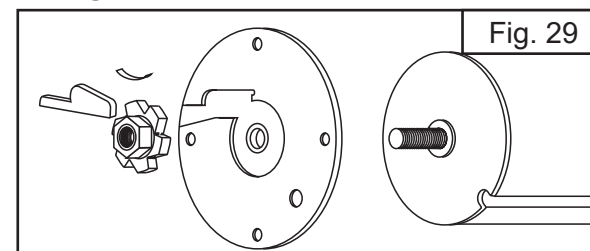
Step 6: Use a pair of vise grips or channel locks to secure spring shaft and remove ratchet nut (Fig. 287).

Step 3: With 7/16" bolt in place, remove the four (4) screws from ratchet plate cover and carefully take off the plate (Fig. 25).



SPECIAL NOTE:
When removing the ratchet plate, there may be some spring tension remaining in the roller tube. Let the ratchet plate spin until tension is fully released.

Step 7: Remove ratchet housing (Fig. 29).
NOTE: Do not remove nylon washer from spring shaft.

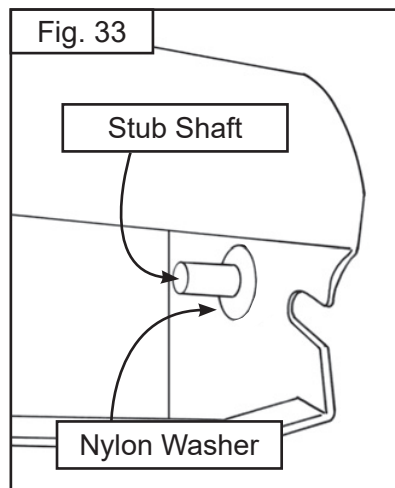
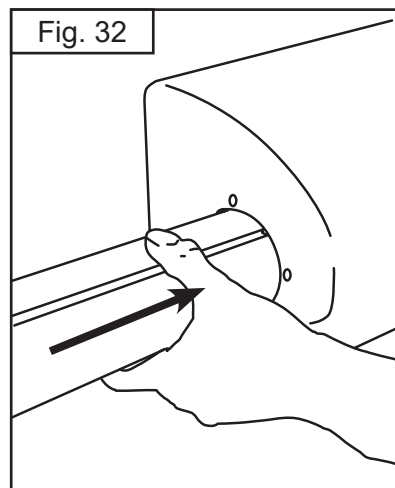
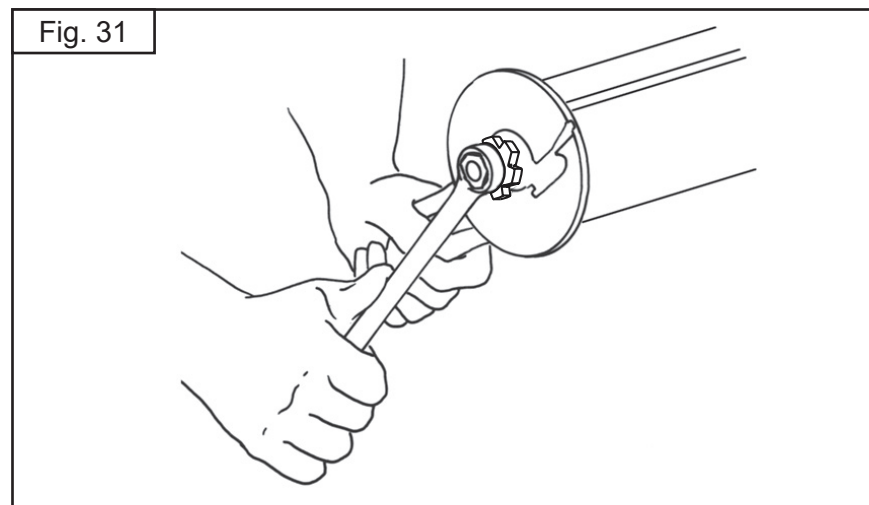
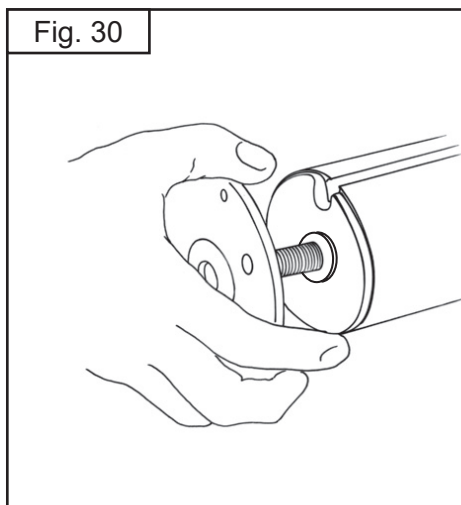




Replacing Ratchet

Step 7: Replace ratchet housing and gear/nut on end of spring shaft by carefully following these steps.

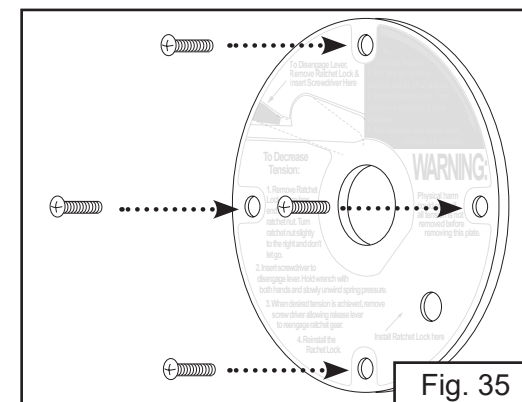
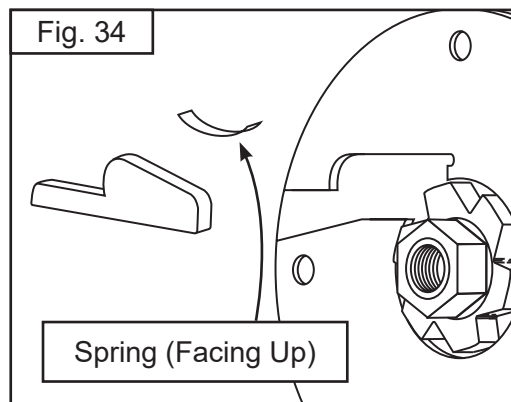
- Slide ratchet cover onto the end of the spring shaft (Fig. 30).
- Apply Red Lock-Tight to threads and tighten the ratchet gear/nut using a 3/4" box end wrench while holding the shaft with vise grips or channel locks. Tighten snugly but don't over tighten (Fig. 31).



Step 8: Slide roller assembly into roller housing and seat end cap onto stub shaft (Fig. 32 & 33). Be sure nylon washer is in place.

Step 9: The ratchet housing must be installed on the roller housing with the large hole in the lower right position and ratchet dog horizontal. Place new dog in dog slot and engage it in the gear teeth. Place new dog spring on top of dog with open end of arch facing up (Fig. 34). Replace ratchet cover plate and secure all four screws into housing (Fig. 35). Reinstall Ratchet Lock as shown on page 4 (Fig. 13).

NOTE: To add tension to spring, follow the steps on pages 1 & 2.





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A large, faint, light-gray background image of a ratchet wrench, oriented diagonally from the top left to the bottom right. The wrench has a hexagonal head at the top and a handle with a red and white label that reads "PULLTARPS".

REQUIRED TOOLS



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Tools used for Ratchet Operation and Replacement

ITEM	DESCRIPTION	QTY
1	Flat Blade Screw Driver	1
2	#2 Phillips Screw Driver	1
3	Ratchet Tool or 3/4" Box End Wrench	1
4	Vice Grips or Channel Locks	1
5	Red Lock Tight	1

WLH 03/25/19

