

Farm King

ASSEMBLY INSTRUCTION MANUAL

500, 600, 660, 5010, 6010 & 6610 Snowblower
Electric Spout Rotation Kit Instructions

Note

Electric spout rotation kit is to be used in place of a hydraulic or hand crank kit. If snowblower is equipped with either of these kits, their respective components will need to be removed prior to installation. The existing spout cable may be reused. If existing cable is frayed or worn, contact your local dealer to get a replacement cable (part # 965616).

A universal wiring harness with a quick disconnect is provided so that the snowblower can be disconnected from the tractor without removing the wiring harness from the tractor or snowblower (815595). The tractor portion of the wiring harness requires a 50-amp in-line fuse. The fuse will blow when the spout reaches the limits of its rotation (extreme: left or right) if held for longer than 2 or 3 seconds.

Assembly

On older snowblower models one mounting hole may need to be added. See diagram for hole location. If a hole is not present, drill a .56" (9/16) hole directly below the existing hole as shown. Remove weld spatter and clean the area where the electric winch bracket will mount (815587). Deburr the hole to ensure that the bracket does not come loose during operation. Install electric winch bracket with 1/2" hardware, included in kit, and tighten fully (84048, 81966, 81620).

Remove and discard the cable guard from the spool area of the winch (815590). Orientate the winch, motor/terminal posts downward, and attach to bracket that was installed in the first step using 5/16" hardware and tighten fully (81484, 84541, 812026).

Note

Wear appropriate personal protective equipment (PPE) when handling the spout cable.

Determine and mark the center point of the spout cable. Electrical tape works well for this.

Disassemble the two-piece clamping collar and insert the spout cable into the drilled hole of the collar (815589). The clamping collar should be positioned at the center point of the cable, marked in the previous step, and kept there throughout assembly.

Assemble the two-piece clamping collar with spout cable onto the spool of the winch. Center the clamping collar between the ends of the spool and tighten bolts evenly.

Disengage the winch spool by using the knob on top of the winch. Pull knob up and rotate 90 degrees to disengage. Rotate spool so the hole of the clamping collar and cable are oriented away from the open side of the winch bracket. Engage spool by rotating knob 90 degrees and lowering into original position (spool should no longer rotate freely). Orientate the spout of the snowblower so that it points in the direction of travel when in use. Spout should be at a right angle in relation to the auger. The orientations of the spout and clamping collar are important so that full rotation can be achieved during use. Pull spout cable ends away from winch to help keep the cable ends separate and untangled. Ensure that the spout cable exits the spool from opposite sides. Wrap spout cable two revolutions on each side of the clamping collar (one end of the cable should be wrapped clockwise and the other end wrapped counter-clockwise).

Pull ends of spout cable tight to remove excess slack in the spool. The spout cable should be tightly wrapped around the spool, minimizing the amount of overlap. Wrap ends of the spout cable around the base of the snowblower spout.

Note

Cable ends "exiting" the winch assembly should "enter" the opposite side of the spout. When viewed from above, cables should appear to cross each other in the form of a figure 8. This improves performance and provides for an extended range of motion. Feed free ends into the cable clamp(s) located on the spout.

Note

Older models will only have one set of holes on the spout base to attach the cable clamp.

On these models it is necessary to use the second cable clamp to hold the free ends of spout cable after final adjustment. The second cable clamp will not be bolted to the spout base. New models have a second set of holes for the cable clamp to bolt to. Feed the cables through both cable clamps on new models. Using the second cable clamp will stop the cable from slipping during operation.

Using vise grip pliers or similar tool, grab ends of spout cable and pull tight.

Tighten cable clamps (961658). It is important to keep the cable clamp(s) centered between the ends of the spout cable.

Determine suitable location on tractor for rotation control switch (815598). Switch should be in a convenient location for operation while blowing snow. Choose a location that will keep the switch protected as well as maintaining safe operation of the tractor. Once location is selected, attach bracket to tractor using appropriate hardware (not included). Do not snap switch into bracket until correct direction of operation is found.

Disconnect the tractor portion of the wiring harness (includes fuse and switch). Place loosely into switch bracket and establish a suitable routing of harness so that ring terminals can be connected directly to the battery posts, or a switched DC power source. Once these connections are made, secure harness to tractor where required to prevent damage and allow regular use of tractor.

Attach ring terminals of snowblower portion (does not contain fuse or switch) to winch motor. Secure harness to winch rotation bracket with wiring clip and 1/4" hardware, to prevent strain on connections and to direct the harness towards the tractor (814063, 81484, 81922, 81525). After harness is mounted with wiring clip, carefully flatten wiring clip with a rubber mallet. Route harness towards tractor so that it can be connected to the tractor portion of the harness. Secure to snowblower using ty-raps as required to prevent damage and allow regular use of the snowblower (812962).

Note

The snowblower portion of the harness will stay with the snowblower when it is disconnected from the tractor. Do not attach the snowblower portion of the harness to the tractor.

Check to ensure that the spout cable is properly wrapped around spout base and winch spool. Operate switch briefly to determine direction of rotation. Snap switch into switch mounting bracket in desired orientation, to allow ease of use during snow removal.

Rotate spout. Watch the spool and cable while staying clear of moving parts. Run winch in one direction until approximately 1/2 of a cable wrap remains on the spool. Pull cables tight as before and retighten cable clamp(s). Run winch in opposite direction until approximately 1/2 of a cable wrap remains on the spool. Pull cables tight and retighten cable clamp(s). Repeat as necessary until cables remain tight.

Note

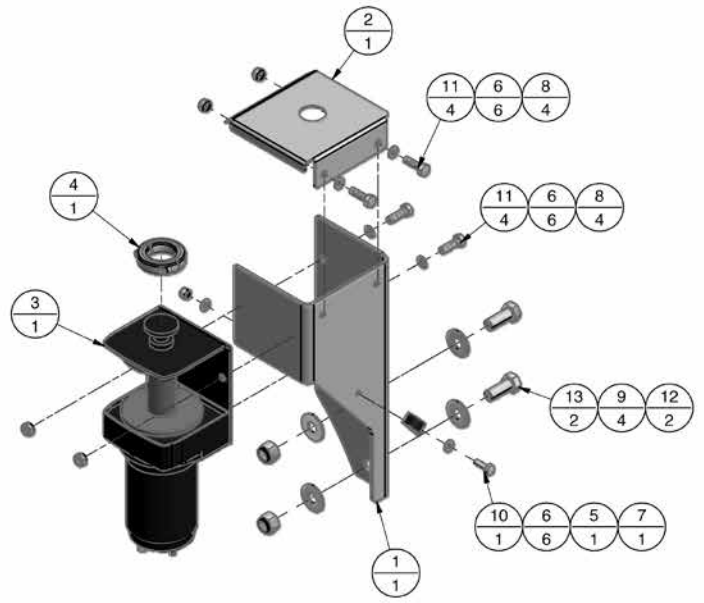
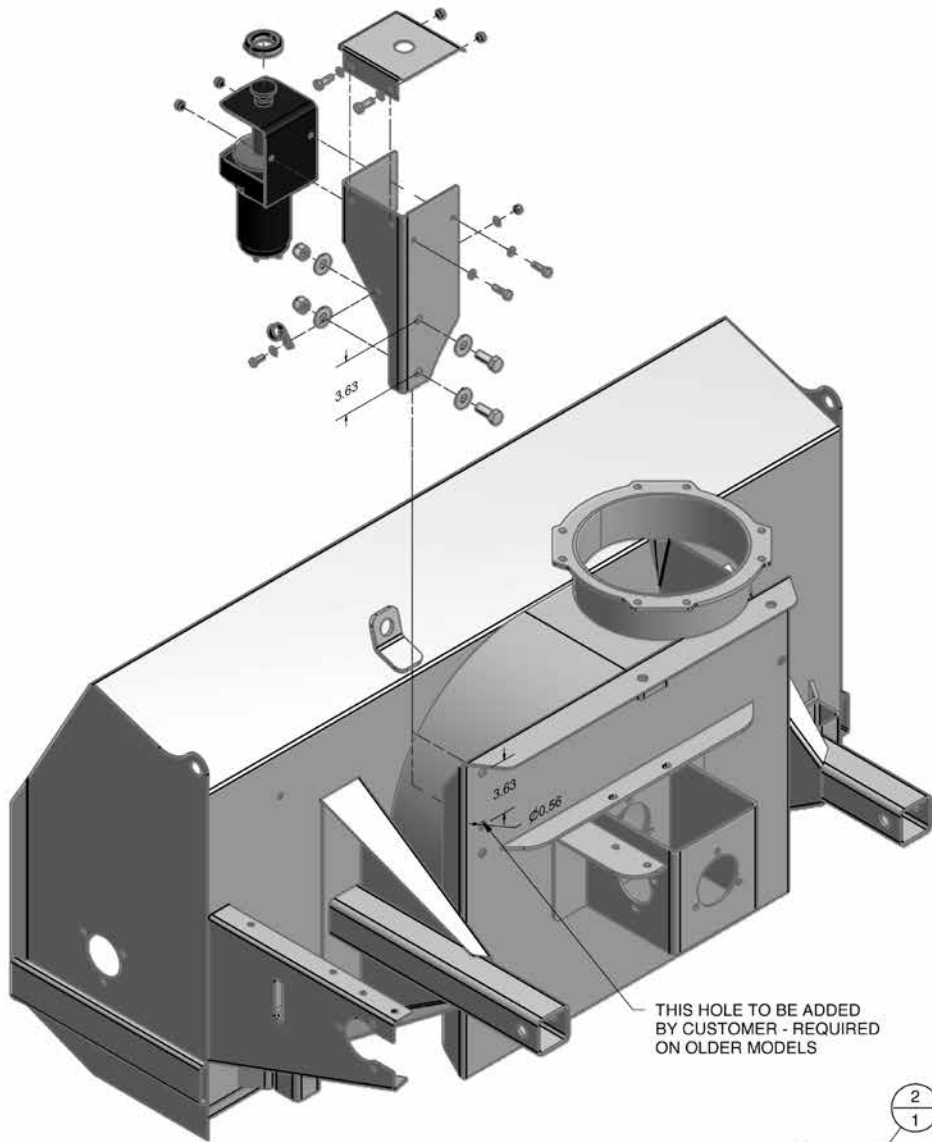
Cables must always be kept tight so that the cable cannot overlap on the spool. Overlapping cable on the spool will cause binding and could lead to premature failure of the cable or winch.

Remove the knob on the top of the winch (threaded). Install the electric winch shield with the remaining 5/16" hardware (815588, 81484, 84541, 812026). Reinstall the knob on top of the winch.

Operation, Maintenance and Trouble Shooting

1. Spout base should be kept lubricated.
2. Spout cable tightness should be checked prior to each use.
3. Spout cable should be inspected periodically for wear and fraying.
4. Ensure that the two-piece clamping collar is clamped tight on the winch spool.
5. For winch related problems consult winch manual, included with kit.
6. Do not exceed 50-amp fuse or damage may occur to equipment.
7. Reasons for blown fuse:
 - spout was rotated to the end of the available range (extreme: left or right)
 - spout is encountering an obstruction
 - spout cable is loose allowing cable to overlap in the spool causing binding
 - damage to wiring harness - inspect for grounded wire

Item #	Part Number	Description	Quantity
1	815587	Electric Winch Bracket	1
2	815588	Electric Winch Shield	1
3	815590	Electric ATV Winch	1
4	815589	Two Piece Clamping Collar 1.19 I.D.	1
5	814063	Clamp, Wiring Harness	1
6	81484	Washer Flat Std 0.25 HS PL	6
7	81922	Lock Nut (Nylon) 0.25 NC	1
8	84541	Lock Nut (Nylon) 0.313 NC	4
9	84048	Washer 0.500 Flat Sae BS PL	4
10	81525	Bolt Hex 0.250 x 0.750 Gr5 PL	1
11	812026	5/16" x 1" Hex Bolt PL	4
12	81966	Nut Lock (Nylon) 0.500 NC PL	2
13	81620	Bolt Hex 0.500 NC x 1.25 Gr5 PL	2
14	961658	1/4" Cable Clamp	1
15	816958	50-Amp Slow Blow Fuse	1
16	812962	7-1/4" Ty-Rap	3
17	815595	Electric Winch Wiring Harness	1
18	815598	Spout Rotation Switch Bracket	1



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