



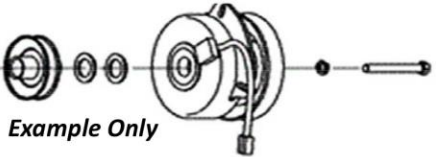

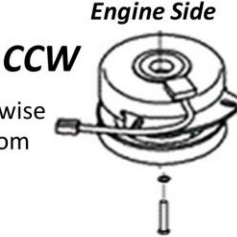
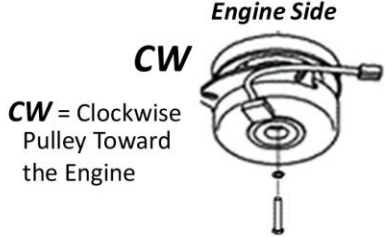



Installation Instructions



Electrical Preparation (Important)

TASK	INSTRUCTIONS	NOTES
1). Inspect Electrical Circuit  <i>Sometimes the reason the clutch failed is the electrical system !</i>	<ul style="list-style-type: none"> - With the motor off: Unplug the clutch and attach a voltage meter to the connection Coming from the mower. Start the mower and Turn the PTO on (blade engage switch). Monitor the meter: 13.2 to 14 vlt DC is ok. - Turn the PTO off: 0.0 VDC is perfect. 	<ul style="list-style-type: none"> - With the PTO switch in the on position the voltage should be between 13.2 - 14.0 VDC If the voltage is different there is a problem with the mowers' electrical system. - PTO ON = Voltage is 13.2 DC Minimum - PTO OFF = Voltage is 0.0 DC
2). Remove Tie Wraps and Inspect the Wire harness	<ul style="list-style-type: none"> - Remove the wire harness connector(s) Look for pinching, chaffing, fraying or tares - Check the Entire wire harness for damage. 	<ul style="list-style-type: none"> - Look closely: This is a common failure

Removing the Old Clutch

TASK	INSTRUCTIONS	NOTES
3). Remove the Belt	<ul style="list-style-type: none"> - Release the belt tensioner located on the mower deck. 	<ul style="list-style-type: none"> - IMPORTANT: Inspect pulley bearings, spindle bearings, and the belt for damage.
4). Note Component locations 	<ul style="list-style-type: none"> - It is Important to note how the components are assembled. It is critical that everything goes back together correctly. 	
5). Note Clutch Orientation  <i>Note: If the clutch rotation is installed incorrectly, the clutch will immediately fail (violently), and void the warranty</i>	<p>CCW = Counter Clockwise Pulley is Away from the Engine</p> 	<p>CW = Clockwise Pulley Toward the Engine</p> 
6). Remove Clutch 	<ul style="list-style-type: none"> - Remove the clutch bolt. An impact wrench will work great for this task.  <p>D-Spacer</p>	<ul style="list-style-type: none"> - If you do not have an impact wrench you will need to hold the D-Spacer to prevent the engine crankshaft from turning.
7). Inspect & Clean Crankshaft 	<ul style="list-style-type: none"> - Remove any rust and contamination on the crankshaft. A piece of emery paper and some WD40 works great. - Inspect the crankshaft keyway for damage. Remove any burrs with a file 	<ul style="list-style-type: none"> - If this step is skipped it may be very difficult (or impossible) to install the new clutch. - Make sure the keyway has a 30 degree chamfer lead-in for the mating clutch key.

Installation Instructions



Installing Your New Clutch

TASK	INSTRUCTIONS	NOTES			
8). Install Drive Pulley & Spacer(s)	- Use your notes from the removal process and install the parts onto the crankshaft	- These items should install very easily. If not re-clean the crankshaft & check the keyway			
9). A Note about D-Spacers  <i>D-Spacer</i>	- If your mower uses a D-Spacer: It is very important that the D-Spacer does NOT touch the end of the crankshaft	- Some mowers use a D-Spacer. Others only use a heavy duty washer. If your old clutch did NOT use a D-Spacer remove ours & discard			
10). Install The New Clutch 	- Line up the crankshaft keyway to the clutch key and slide clutch onto the crankshaft - Install CLEAN & DRY Bolt.	- It is a little tricky to get key and keyway aligned. DO NOT STRIKE! Striking the clutch onto the crankshaft will cause damage			
11). Torque Bolt (see chart below)  <i>Impact wrenches can overtorque and cause internal clutch damage</i>	- It is Important to use a torque wrench for this task. Hold the D-Spacer (if equipt) with a wrench to stop the crankshaft from turning. - Proper torque is CRITICAL to the life of the clutch. Over-tightening WILL cause damage!	 - Failure to torque to the requirements below will degrade clamping forces and can allow the clutch to separate from the crankshaft. This can cause risk of serious personal injury.			
12). Install the Deck Belt	- Install belt and tension	- Make sure the belt is on every pulley			
13). Inspect the Anti Rotation device 	- It is very important that the clutch is free to move up and down and a little side to side. - Use only an approved anti rotation device	- All Mowers have Anti Rotation Devices. The clutch WILL be damaged if the anti-rotation does not allow for movement.			
14). Connect the clutch wire and secure with tie wraps.	- When attaching tie wraps make sure to leave some slack for the natural movement of the clutch. Secure tie wraps tightly and trim	 - Make sure wire routing does not allow for chaffing or rubbing on any moving parts. Look Closely !			
15). Torque Mower Blades	- This clutch has very strong blade brakes. Improper blade torque or damaged blade hardware can lead to blade loosening and will cause risk of serious personal injury.				
16). IMPORTANT FINAL STEP!! Burnish 	- Use an open area with no by-standers. Reduce engine RPM's to 1/2 and engage the clutch. Allow the blades to reach full speed for a few seconds. Disengage blades and allow them to completely stop. Repeat 10 times. Shut the engine off. Check the blade & clutch bolt torque Important Note: If the new clutch is not burnished it will warp and shorten the life.				
BOLT SIZE		BOLT GRADE		TORQUE SPECIFICATIONS	
	3/8" - 24	Grade 8 ONLY			40 - 45 ft. lbs.
	7/16" - 20	Grade 5 (no imports)			50 - 55 ft. lbs.
	M10 - 1.5	10.9 Class			40 - 48 ft. lbs.