

# Tech Bulletin

## Replacing or servicing S602296 or S602297 slip ring assemblies produced on/after 6/1/2023

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### Safety Precautions

Personal injury and/or equipment damage may result if proper safety precautions are not observed.

- Ensure that only a qualified electrician installs/services this equipment.
- Ensure that power supply voltage does not exceed maximum voltage rating of reel.
- Ensure that reel is properly installed before connecting to power supply.
- All cord reels with flying leads must be hard wired to ensure proper function.
- Ensure that all electrical power is removed from reel before servicing.
- A high-tension spring assembly is contained within the reel. Exercise extreme caution.
- Check for frayed and/or broken wires before each use. Pull electrical cord from reel by grasping the electrical cord itself, not the work device.
- If an electrical malfunction should occur, remove power from reel immediately.
- Ensure that reel, electrical cord, and equipment being serviced are properly grounded. Use an ohmmeter to check ground continuity.
- If reel ceases to unwind or rewind, remove power immediately. Do not pull or jerk on electrical cord!
- Treat and respect the reel as any other piece of machinery, observing all common safety practices.

1. Remove old brushes from collector ring brush holder.
2. Unscrew brush assemblies from terminal block.
3. Remove outlet cord and ground assembly from terminal block.
4. Remove wire tie and splicing connectors from inlet cord assembly.
  - a. Ensure all wires on the inlet cord are stripped back no further than 0.433" (11 mm).
5. Remove snap ring from main shaft.
  - a. Retain locating plate and snap ring for reinstallation.
6. Remove collector ring assembly from shaft.

### For reels manufactured prior to 6/1/2023 please follow the below instructions

1. Cut terminals off of the outlet cord and ground cord assemblies (do not cut ring terminal from ground cord).
2. Strip back insulation 0.433" (11 mm) on all cords listed above.

### If replacing brush holder assembly, please follow below instructions

1. Remove 3 nuts from studs.
2. Keep the cable clamp around outlet cord.
3. Remove old brush holder assembly and replace with new brush holder assembly.
4. Reinstall cable clamp in original position.
5. Reinstall 3 nuts.

Proceed to step 7.

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7. Install new collector ring assembly onto main shaft and ensure proper seating onto locating plate as shown in figures 1 and 2.
  - a. Collector ring assembly should not rotate when installed properly.

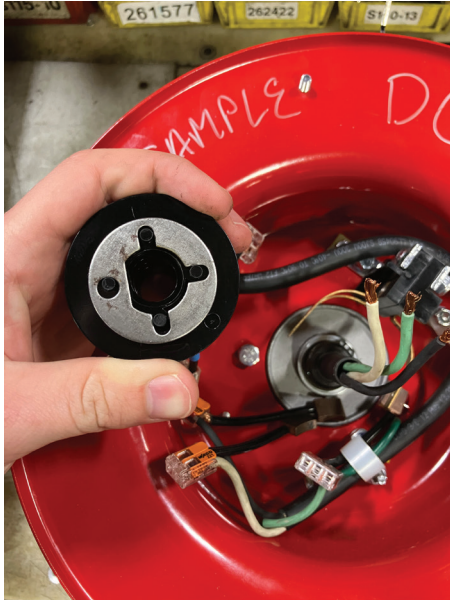


Figure 1: Locating plate correctly on the slip ring

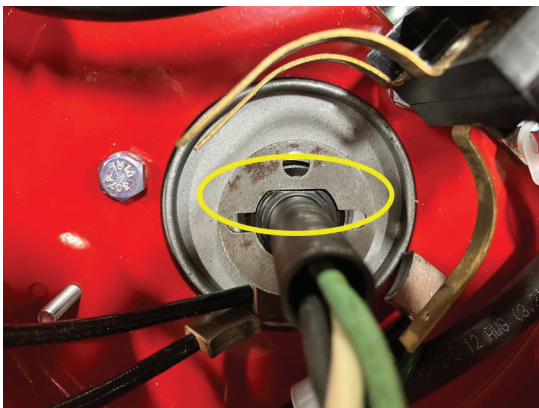


Figure 2: Locating plate correctly on the shaft

8. Install snap ring onto the shaft.
9. Using two-port splicing connectors, connect the inlet cord to the collector ring in the following order as shown in figures 3 and 4:
  - a. Connect white inlet wire to red #1 slip ring wire.
  - b. Connect green inlet wire to yellow #2 slip ring wire.
  - c. Connect black inlet wire to blue #3 slip ring wire.

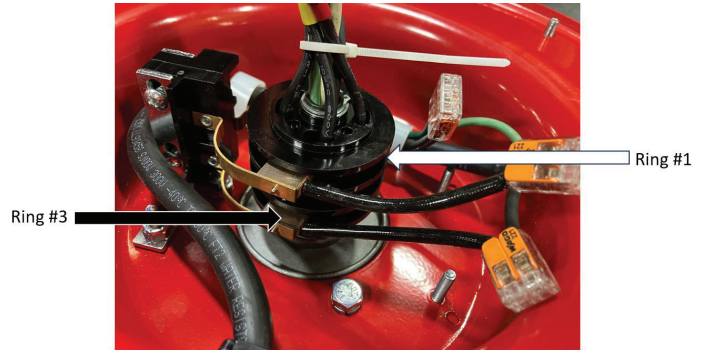


Figure 3: Location of collector ring #1 and #3

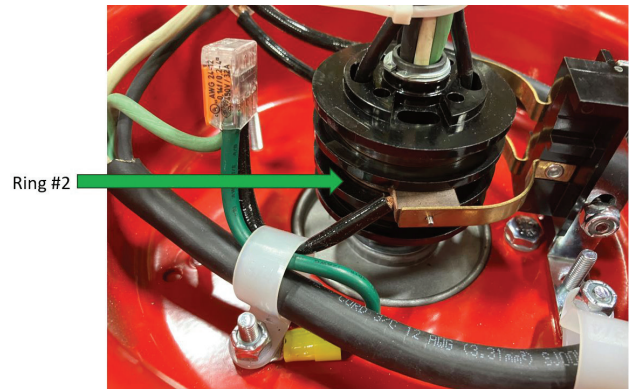


Figure 4: Location of collector ring #2

10. Bundle inlet wires with provided wire tie as seen in picture.
11. Remove nut from ground stud and route outlet cable through cable clamp using the afore-mentioned nut.
12. Using two 2-port splicing connectors and one 3-port splicing connector, connect the outlet cord to the new collector ring brushes as shown in figures 3 and 4.
  - a. Using a 2-port splicing connector, connect white outlet wire to collector ring brush that mounts to ring #1.
  - b. Using a 3-port splicing connector, connect green outlet wire to collector ring brush that mounts to ring #2. Also, connect ground cord assembly to the third port of the splicing connector.
  - c. Using a 2-port splicing connector, connect black outlet wire to collector ring brush that mounts to ring #3.

13. Test continuity between the inlet and outlet cable for each conductor and visually inspect wiring to match figure 5.
14. Reinstall collector ring cover.



Figure 5: Final wiring of the reel