

## **Installation Instructions**

### **D500 & D600 SERIES**

### **“INTERNALLY SWITCHED”**

### **DUAL COIL SOLENOIDS**

---

In the installation of internally switched dual coil solenoids, it is critical that the solenoid plunger be allowed to travel to its fully engaged position to insure that the plunger will automatically open the internal switch and disconnect the high current pull-in coil, eliminating the chance of coil burnout.

#### **IMPORTANT**

Improper linkage adjustment will cause coil burnout within 2 minutes. Please follow instructions carefully. Solenoids that burn out due to improper adjustment are not covered by factory warranty. If you have questions, please call the Factory Service Department at (262) 251-5454 before proceeding.

1. Securely bolt the solenoid in its mounting position, making sure to align the plunger as straight as possible to the connecting linkage. Do not connect the linkage at this time.
2. Using the Wire Size Recommendation Table on page 2, select the proper wire size for your installation.

#### **IMPORTANT**

To insure proper operation of the solenoid, the total connecting wire length for both leads combined, must not exceed the recommended maximum lengths indicated in the table on page 2.

WIRE SIZE RECOMMENDATION TABLE										
Solenoid	Wire Voltage	Maximum Lead Length for all leads (in feet)								
		Wire Gage/Size								
		22 GA	20 GA	18 GA	16 GA	14 GA	12 GA	10 GA	8 GA	6 GA
D610	12 VDC	----	----	4	6	9.5	15	24	38	60
	24 VDC	----	----	15	24	38	60	96	150	240
D613 / 513	12 VDC	----	----	2.5	4	6	10	16	25	40
	24 VDC	----	----	10	16	25	40	64	100	160

**NOTE:** Circuit Protection! A slow blow fuse **must** be installed in the positive lead (+) to protect the solenoid from burnout should a jammed linkage or other obstruction occur. The following fuse sizes are recommended for all models.

BUSS Fuse: MDL 10 . For 12VDC systems

MDL 5 . For 24VDC systems

3. Wire the solenoid through the appropriate switches and/or safety systems.
4. After making a final wiring check, energize the solenoid and make sure plunger is fully seated inside the solenoid.
5. With the solenoid **energized**, connect the linkage to the threaded rod of the plunger
6. Adjust the linkage to position the lever to the desire location and tighten all connection points securely.
7. De-energize solenoid. Visually check linkage by manually moving linkage through its entire stroke to make sure that the linkage is free from obstructions. Total movement of the linkage **MUST NOT EXCEED** the maximum recommended stroke of the solenoid.
8. Re-energize the solenoid and check for proper system operation. If you suspect a problem contact the factory **BEFORE** proceeding.