



Lighting Contactor (Mechanically and Electrically Held)

(Cat 500LG_)

WARNING

To prevent electrical shock, disconnect from power source before installing or servicing. Follow NFPA 70E requirements. Install in a suitable enclosure. Keep free from contaminants.

Bulletin 500LG lighting contactor installation must be performed by a "Qualified Person" as defined by the National Electrical Code.

NOTICE

To prevent malfunction or shortened life, protect the 500LG lighting contactor from construction grit and metal chips.

The Bulletin 500LG lighting contactor is available in either electrically-held (Figure 1) or mechanically-held (Figure 2) configurations.

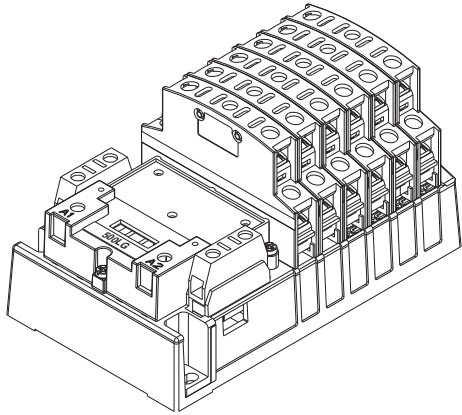


Figure 1: Electrically-Held

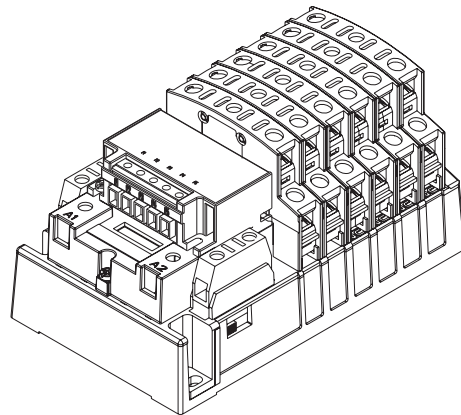


Figure 2: Mechanically-Held

Main Base

The base of the lighting contactor has provisions to accept up to 12 power poles where 12 N.O. contacts are possible or any combinations of N.O. and N.C. Positions 1 through 4 on the base can be configured to either normally open (N.O.) or normally closed (N.C.) while positions 5 and 6 can only be configured as normally open (N.O.).

Power Pole

Power poles are available in either single pole (500LG-1PCK) or double poles (500LG-2PCK).

Auxiliary Contact

The auxiliary contact blocks are available in either single pole (500LG-141C) or double poles (500LG-142C) contact. Auxiliary contact can be installed on either side of the base. When installed on the RIGHT side, the auxiliary contact functions as a N.C. contact. When installed on the LEFT side, the auxiliary contact functions as a N.O. contact.

Control Module Kits

Control module kits enable conversion of an electrically held contactor to a mechanically held contactor. These kits are available in either 2-wire or 3-wire control versions in a variety of voltages. See renewal parts section (page 5) for catalog number.

NOTICE

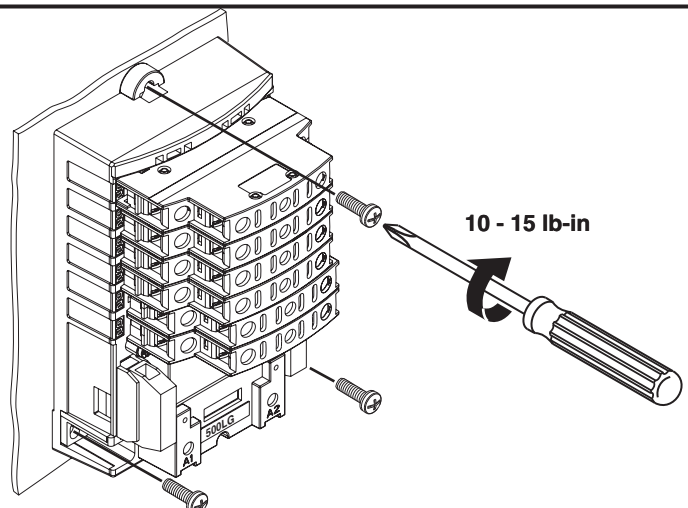
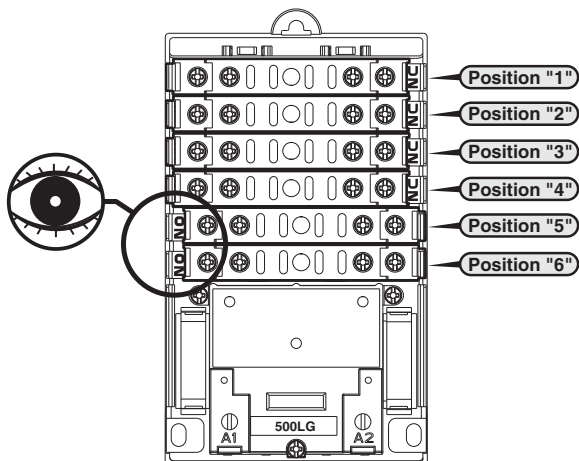
The control module is available up to 277V maximum. For control voltage greater than 277V, use a control transformer.

Mounting Position

NOTICE

Mount lighting contactor in the vertical position only as shown below.

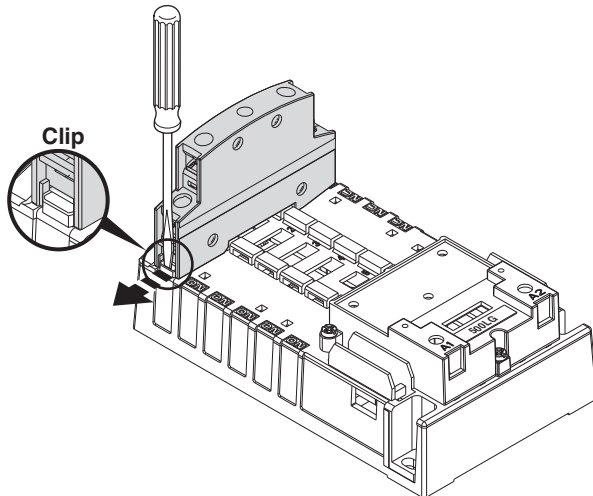
A maximum of 12 poles may be installed on the base. Positions "1" thru "4" on the base may be configured as either normally open "N.O." or normally closed "N.C.", while positions "5" and "6" may be configured as "N.O." only.



10 - 15 lb-in

Power Pole Removal

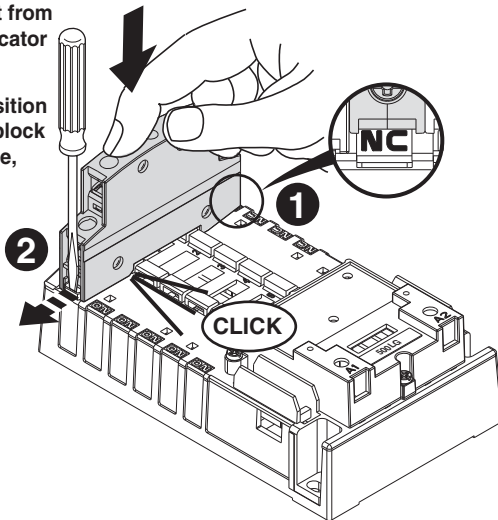
- 1 Remove power pole block by inserting screwdriver into the plastic clip and pull it out to release the power pole block from the base.



Power Pole Installation

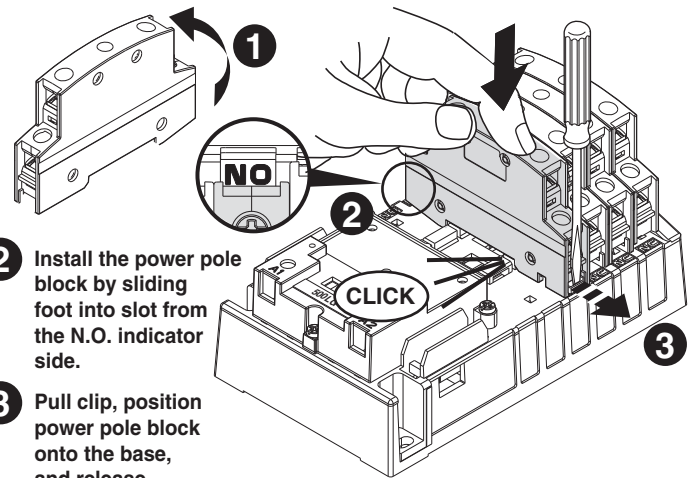
N.C. Power Pole Installation

- 1 Install the power pole block by sliding foot into slot from the N.C. indicator side.
- 2 Pull clip, position power pole block onto the base, and release.



N.O. Power Pole Installation

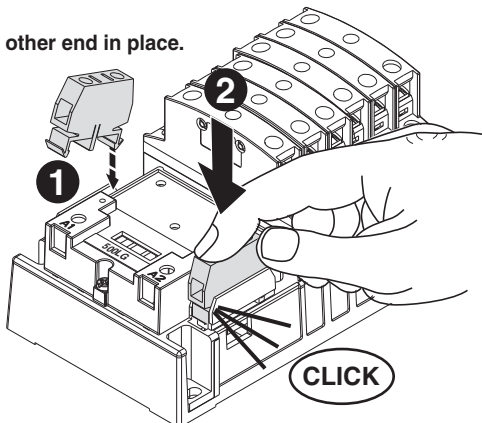
- 1 Rotate the power pole block 180 degrees to convert the contact blocks from N.C. to N.O.
- 2 Install the power pole block by sliding foot into slot from the N.O. indicator side.
- 3 Pull clip, position power pole block onto the base, and release.



Auxiliary Installation

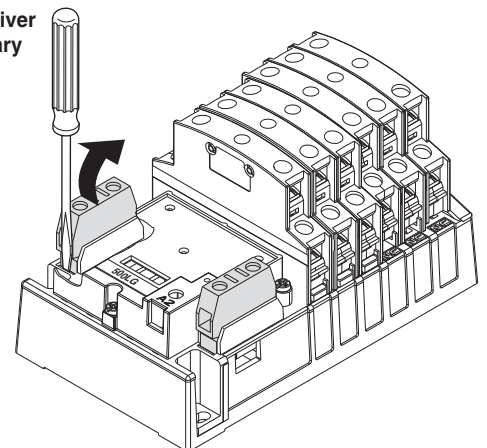
A 3-wire mechanically-held lighting contactor utilizes one N.O. and one N.C. auxiliary contacts. A 2-wire mechanically-held utilizes one N.C. auxiliary contact installed on the right side.

- 1 Insert one end of auxiliary.
- 2 Snap other end in place.



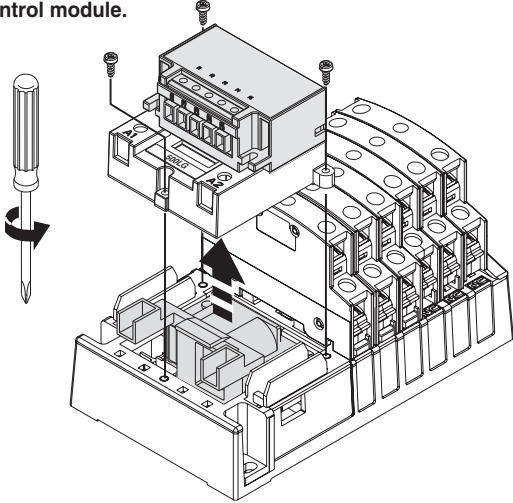
Auxiliary Removal

- 1 Slide flat screwdriver into clip of auxiliary contact and lift.

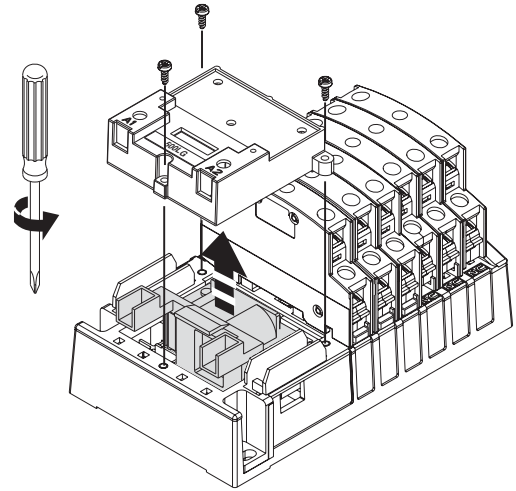


Coil Replacement

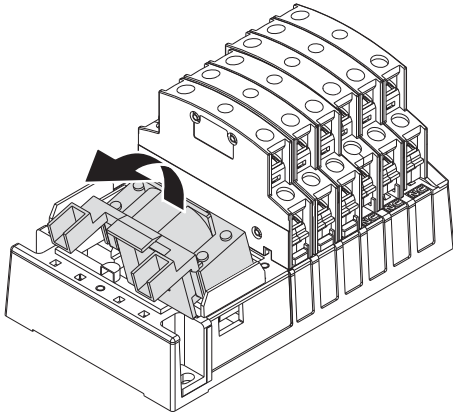
- 1** For mechanically-held contactors, remove all wires from the control module and remove the coil cover along with the control module.



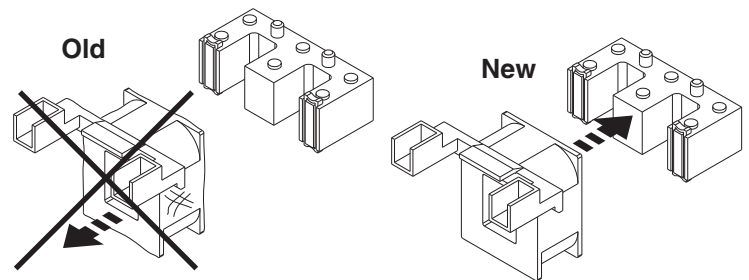
- or **2** For electrically-held contactors, remove the coil cover.



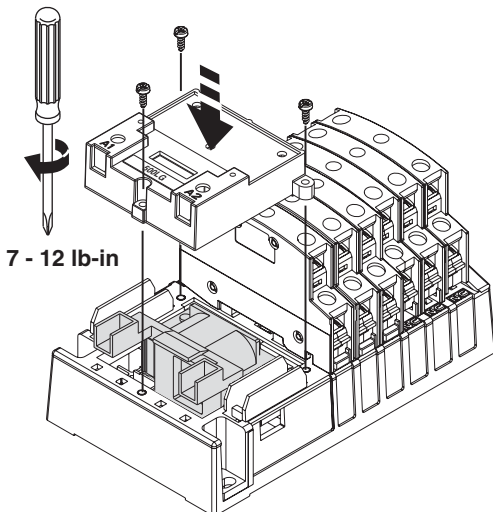
- 3** Remove old coil assembly.



- 4** Replace with new coil.

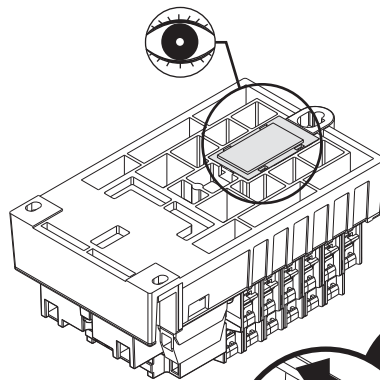


- 5** For electrically-held, re-install coil assembly and cover.

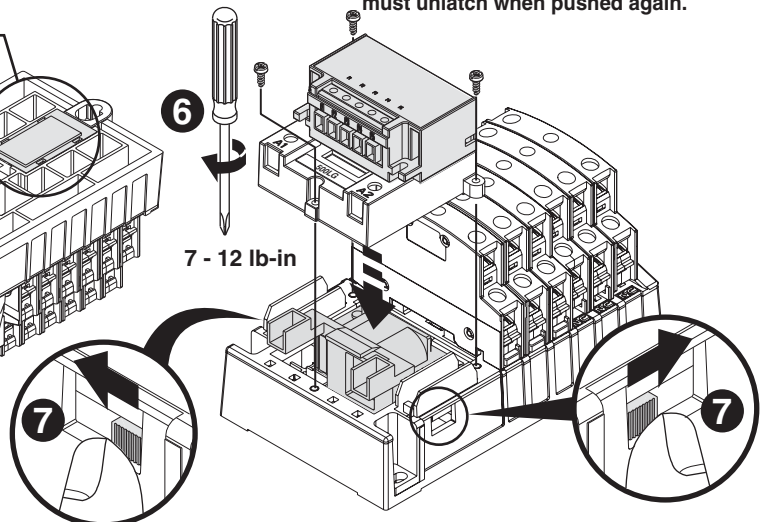


OR

- 6** For mechanically-held contactor, re-install the control module and cover. Check that the latch and latch cover at the bottom are still properly installed.



- 7** Operate the contactor manually, using manual operating tabs on the side. The mechanically-held contactor must latch when tabs are pushed forward and must unlatch when pushed again.

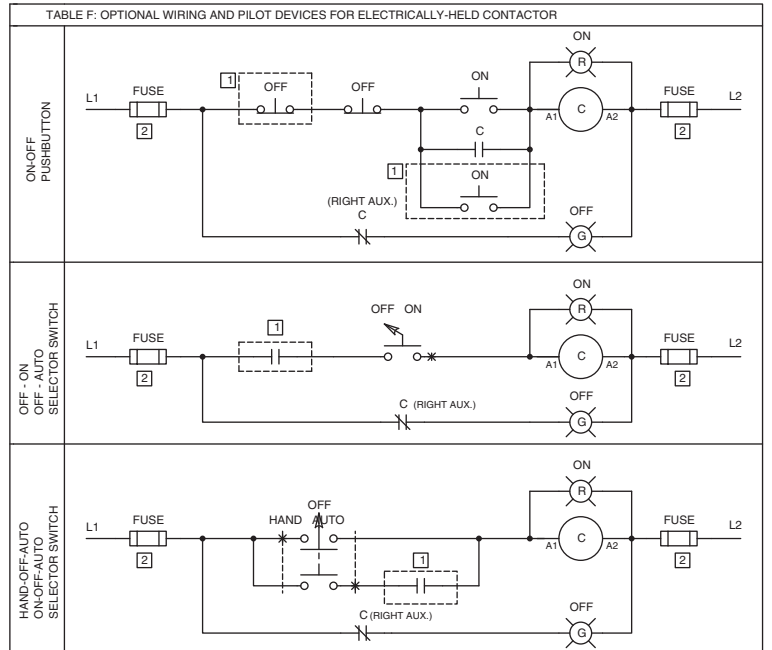
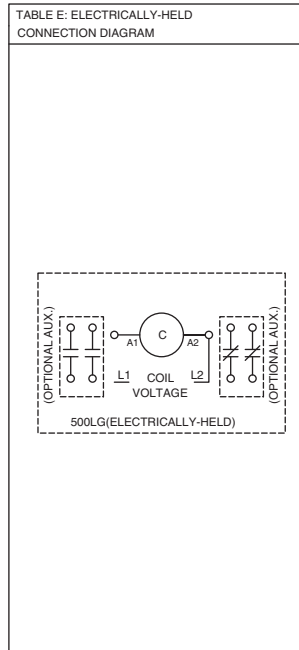
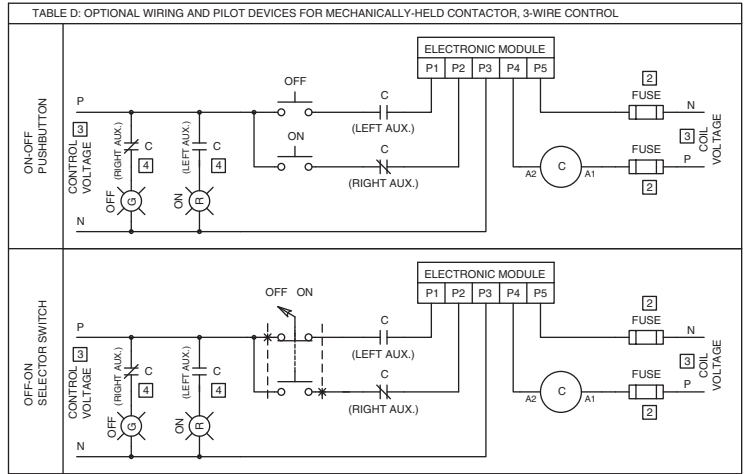
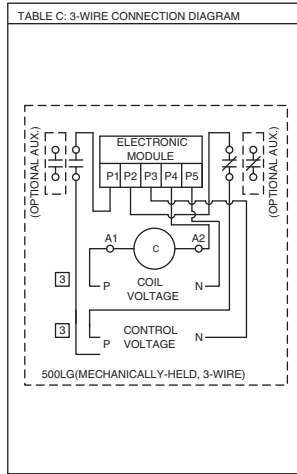
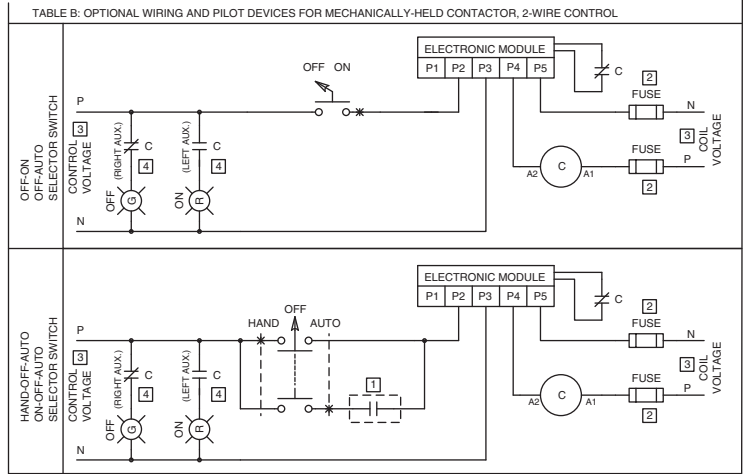
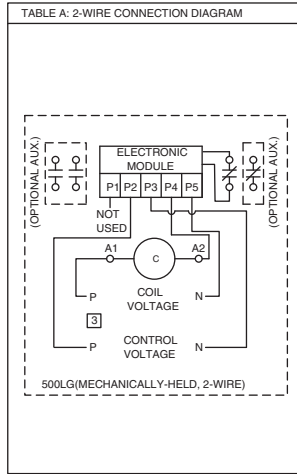
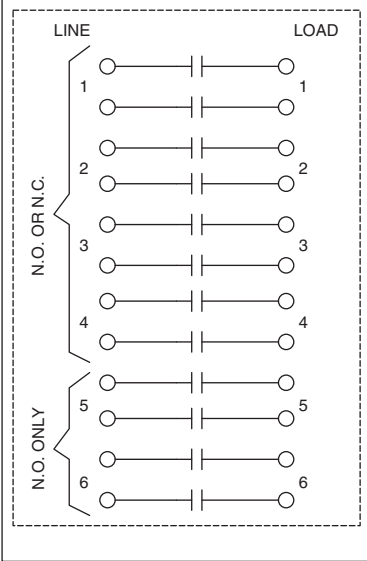


NOTICE

For mechanically-held contactors, latch and control module must be used together to ensure proper operation. Failure to do so will void warranty. Follow the control module instruction sheet 42052-193-01.

Wiring Diagram

TABLE G: CONTACT BLOCK POSITIONS
REFER TO TABLE A, C OR E FOR CONTROL CONNECTION DIAGRAM



- 1 Remote device
- 2 Additional control circuit overcurrent protection may be required when the control circuit conductors extend beyond the enclosure. Refer to National Electrical Code.
- 3 Coil and control voltages may not be the same. check the voltage of the electronic module and coil before applying power.
- 4 For additional contact blocks for pilot lights or other signal indications, order two DSPT (500LG-142C) auxiliary contact blocks. 2-wire or 3-wire mechanically held lighting contactor comes standard with one SPST (500LG-141C) or two SPST (500LG-141C) respectively.

Short Circuit Current Rating

Available Symmetrical Amperes RMS			
At AC Service Voltage	Short Circuit Current Rating (amps)		Maximum Breaker Size (amps)
250V	14,000		30
277V	10,000		30
480V	5,000		40
600V	5,000		40
600V or less	Class J	Class RK1	Maximum Fuse
	100,000	50,000	30

Maximum horsepower rating(Normal Duty)			
Across the line AC motor starting	PH	HP	FLA
110 - 120VAC	1Ø	1	16
	3Ø	1.5	12
220 - 240VAC	1Ø	2	12
	3Ø	5	15.2
440 - 480VAC	1Ø	5	14
	3Ø	10	14
550 - 600VAC	1Ø	5	11.2
	3Ø	15	17

Renewal Parts

Component		Voltage	Cat. No.
Coil		115 - 120V 60Hz / 110V 50 Hz	500LG-CCKA1
		230 - 240V 60Hz / 220V 50 Hz	500LG-CCKA2
		265 - 277V 60Hz / 240V 50 Hz	500LG-CCKA3
		347 VAC / 60 Hz	500LG-CCKA4
		460 - 480V 60Hz / 440V 50 Hz	500LG-CCKA5
		575 - 600V 60Hz / 550V 50 Hz	500LG-CCKA6
Power Pole		Single Power Pole	500LG-1PCK
		Double Power Pole	500LG-2PCK
Control Module Kit	2 Wire	12 - 24 VDC	500LG-47CM12
		24 VAC / 60/50 Hz	500LG-47CM24
		110 - 120 VAC / 60/50 Hz	500LG-47CM120
		200 - 277 VAC / 60/50 Hz	500LG-47CM277
	3 Wire	12 - 24 VDC	500LG-48CM12
		24 VAC / 60/50 Hz	500LG-48CM24
Auxiliary Contact		1 NO / NC	500LG-141C
		2 NO / NC	500LG-142C

Component	# of Wire	Wire Range AWG (Solid or Stranded)	Wire Temp.	Torque (lb-in)
Power Poles	1 or 2	#14 - 8	75° C Cu	35
Coil	1 or 2	#18 - 14	60° / 75° C Cu	15
Control Module	1	#22 - 12	60° / 75° C Cu	5
Auxiliary Contacts	1 or 2	#22 - 12	60° / 75° C Cu	7 - 12

