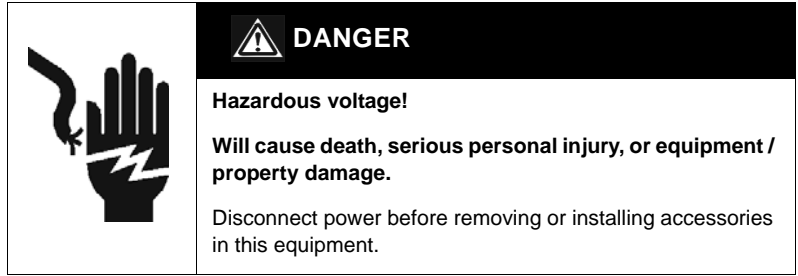


## Mechanism Operated Contacts WL Circuit Breaker Accessory



WL Circuit Breaker





## MECHANISM OPERATED CONTACTS (MOC)

The circuit breaker may be equipped with an external auxiliary switch assembly. This external set of auxiliary switches, also known as mechanism operated contacts, is known in short as the MOC.

The circuit breaker may be optionally ordered with either (a) no internal auxiliary switches, (b) a set of four internal auxiliary switches (2 a + 2 b contacts), or (c) eight internal auxiliary switches (4 a + 4 b contacts). With the addition of a MOC device, an additional eight auxiliary switches (4 a + 4 b contacts) may be added to a circuit breaker.

The MOC device is mounted within the circuit breaker compartment (cradle). The MOC is connected to the main drive shaft via a coupler, which is added to the circuit breaker during the MOC installation.

### Note:

*“a” contact: A secondary contact that is open when the circuit breaker is open, and closed when the circuit breaker is closed*

*“b” contact: A secondary contact that is closed when the circuit breaker is open, and open when the circuit breaker is closed*


## MOC Versions

The MOC device may be ordered in one of three versions:

The most common version is for drawout circuit breakers, and is known as the “Connect Only” version of the MOC device. In this version, the contacts only change state when the circuit breaker is opened/closed while it is in the “CONNECTED” position within the circuit breaker compartment. There are two distinct models of the “connect only” MOC, one for circuit breaker frame sizes 1 and 2 (WLMOCC), and a second model for circuit breaker frame size 3 (WLMOCC3).

The second version is also for drawout circuit breakers, and is known as the “Test and Connect” version. In the “Test and Connect” version, the contacts change state when the circuit breaker is opened/closed while it is in the “TEST” or “CONNECTED” positions within the circuit breaker compartment. Like the “Connect Only” version, there are two distinct models of the “connect only” MOC, one for circuit breaker frame sizes 1 and 2 (WLMOC), and a second model for circuit breaker frame size 3 (WLMOC3).

The third version is for fixed-mounted circuit breakers. There are two models of MOCs for fixed mounted circuit breakers, with one for frame size 1 circuit breakers (WLMOCUL1), and a second model for circuit breaker frame sizes 2 and 3 (WLMOCUL).

	<b>⚠ DANGER</b>
	<b>Hazardous voltage!</b>
	<b>Will cause death, serious personal injury, or equipment / property damage.</b>
Disconnect power before removing or installing accessories in this equipment.	

## Installation Instructions

**Only Qualified Personnel should work on this equipment, after becoming thoroughly familiar with all warnings, safety notices, and maintenance procedures contained herein and on the devices. A qualified person is one as defined in NFPA 70.**

### Installing the Coupler

In order to interface the MOC assembly (mounted in the circuit breaker compartment), the circuit breaker must be outfitted with a coupler (see Figure 1).



**Figure 1**



In order to install the coupler, you must first remove the clear plastic plug in the righthand sidewall of the circuit breaker assembly (see Figure 2). This is easily accomplished by levering with a small screwdriver.

**Figure 2**



	 <b>DANGER</b>
	<b>Hazardous voltage!</b>
	<b>Will cause death, serious personal injury, or equipment / property damage.</b>
Disconnect power before removing or installing accessories in this equipment.	

The coupler snaps onto the end of the steel main shaft. The steel band should not be removed when installing the coupler. Also ensure that the coupler is oriented properly when installed. Figure 3 illustrates the proper installed orientation of a shaft extension (circuit breaker shown in the OPEN position), with the tapered flange facing the rear of the circuit breaker.

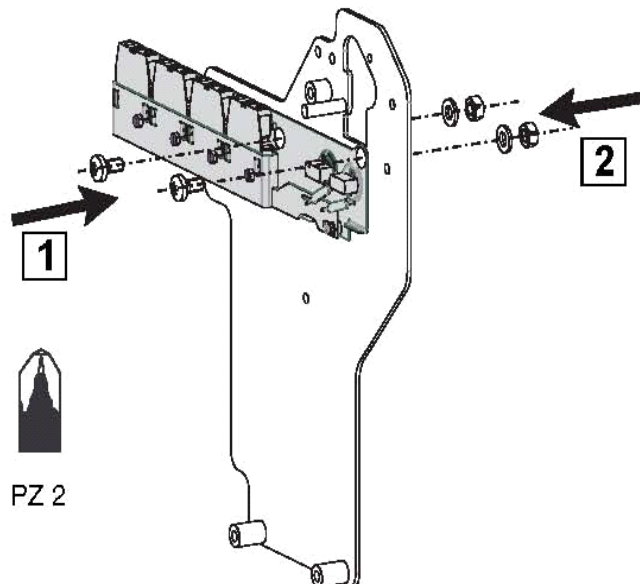
**Figure 3**





### Installing the Fixed-Mounted MOC Baseplate Assembly (WLMOCUL and WLMOCUL1)

The MOC baseplate assembly is secured to the two screws (as shown in Figure 4). With the screws inserted from the inside of the cubicle, and the nuts and lockwashers on the outside, the nuts must be torqued to 71 lbin (8 Nm).

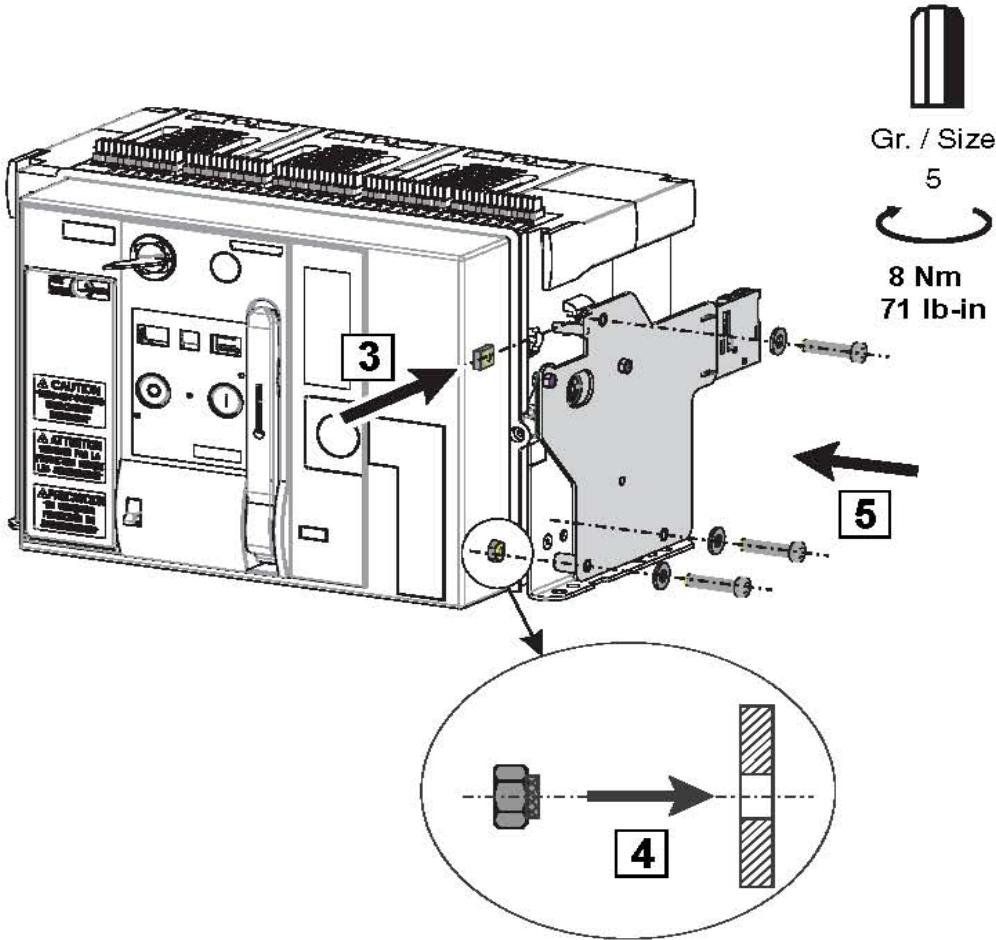
**Figure 4**




	 <b>DANGER</b>
	<b>Hazardous voltage!</b>
	<b>Will cause death, serious personal injury, or equipment / property damage.</b>
Disconnect power before removing or installing accessories in this equipment.	

The MOC baseplate assembly (Figure 5) is then secured to the circuit breaker (see Figure 5), with the screws and lockwashers inserted from the outside of the assembly, and the captive nuts on the inside. The screws must be torqued to 71 lbin (8 Nm).

**Figure 5**

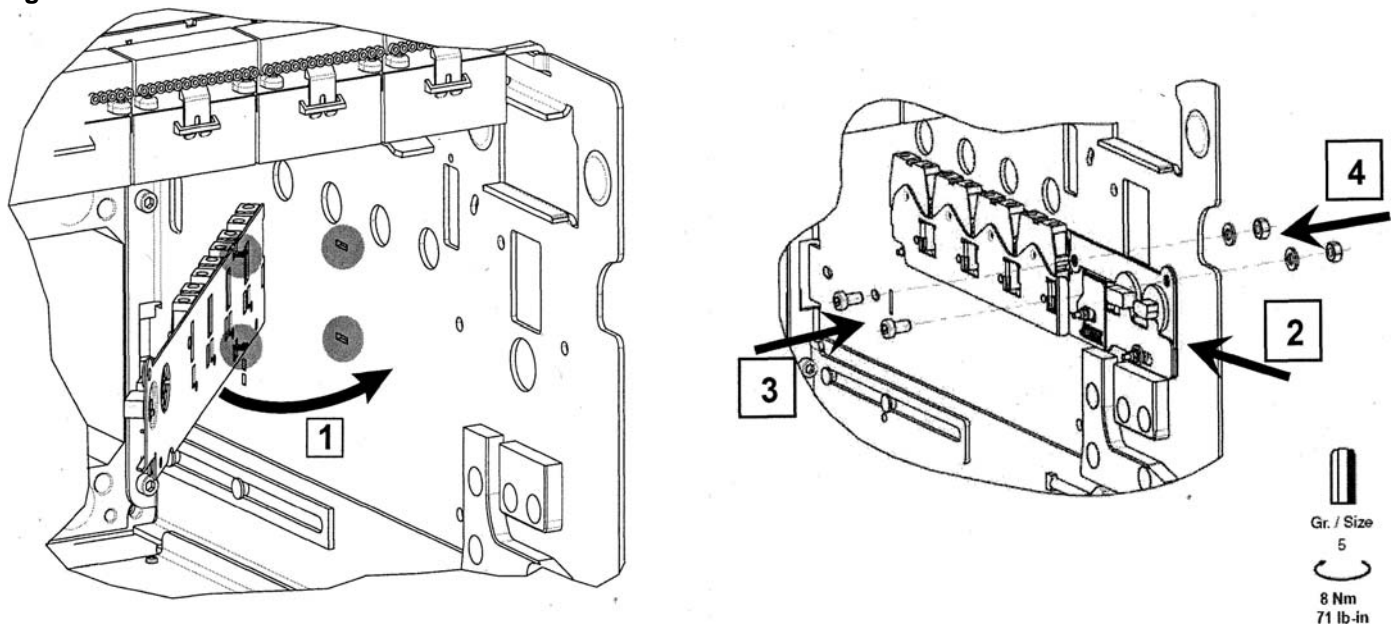




	<b>⚠ DANGER</b>
	<b>Hazardous voltage!</b>
	<b>Will cause death, serious personal injury, or equipment / property damage.</b>
Disconnect power before removing or installing accessories in this equipment.	

## Installing the Drawout Circuit Breaker Cradle MOC Baseplate Assembly (WLMOC, WLMOCC, WLMOC3, WLMOCC3)

The MOC baseplate assembly is secured to the circuit breaker compartment (cradle) by two tabs in the rear and two screws in the front. With the screws inserted from the inside of the cubicle, and the nuts and lockwashers on the outside, the nuts must be torqued to 71 lbin (8 Nm).

**Figure 6**



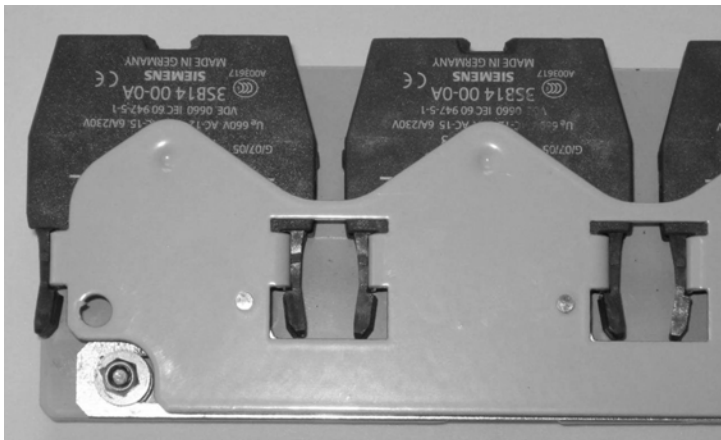
	 <b>DANGER</b>
	<p><b>Hazardous voltage!</b></p> <p><b>Will cause death, serious personal injury, or equipment / property damage.</b></p>
	<p>Disconnect power before removing or installing accessories in this equipment.</p>

## Removing the Contact Blocks

CAUTION
<p><b>MOC reliability.</b></p> <p>May cause intermittent signaling.</p> <p>All four contact blocks, whether wired, or not, must be installed into the MOC assembly to ensure reliable operation.</p>

The contact blocks must be removed in order to access the terminals for wiring. The contact blocks should be removed by applying a small amount of outward pressure with a thin blade screwdriver, in the area shown in Figure 6.

**Figure 6**



CAUTION
<p><b>Contact block damage.</b></p> <p>May cause loss of signaling.</p> <p>Do not over-extend the feet of the contact block when removing from the MOC assembly.</p>

**DANGER**

**Hazardous voltage!**

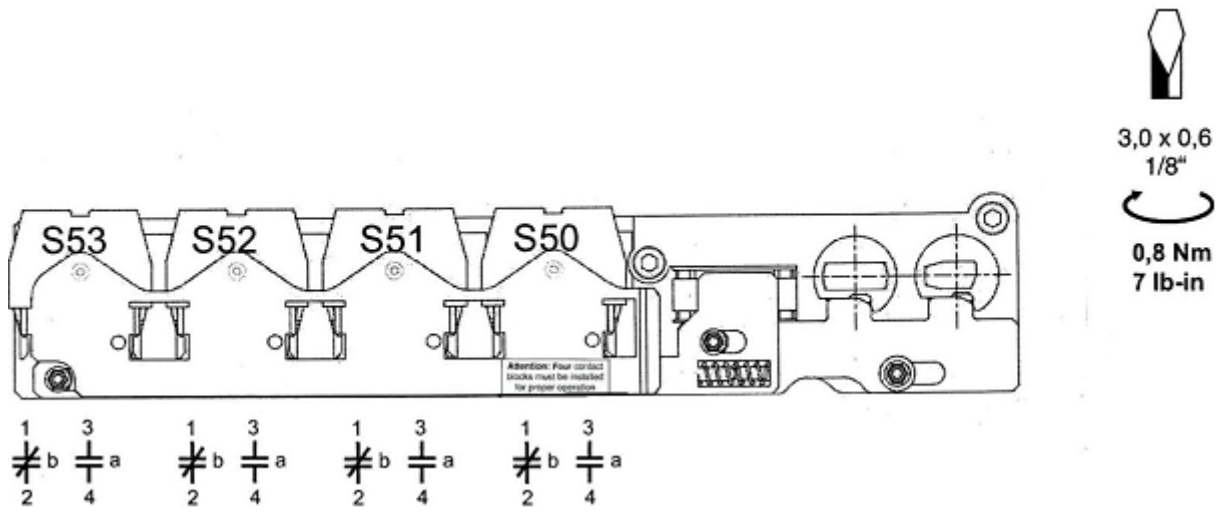
**Will cause death, serious personal injury, or equipment / property damage.**

Disconnect power before removing or installing accessories in this equipment.

## Wiring the Contact Blocks

The contact blocks are designated (front of cradle to rear of cradle) S50, S51, S52, and S53. Each contact block contains one "a" and one "b" contact, with the terminal designations as shown below. Each terminal accepts a maximum of one wire, 14 AWG (or smaller), and shall be tightened to 7 lbin (0.8 Nm).


**Figure 7**



## Contact Ratings

Voltage	Maximum Current		
	Continuous	Making	Breaking
120 VAC	10 A	30 A	3 A
240 VAC	10 A	30 A	3 A
24 VDC	5 A	1.1 A	1.1 A
48 VDC	5 A	1.1 A	1.1 A
125 VDC	5 A	1.1 A	1.1 A
250 VDC	5 A	0.55 A	0.55 A





	<b>⚠ DANGER</b>
	<b>Hazardous voltage!</b>
	<b>Will cause death, serious personal injury, or equipment / property damage.</b>
Disconnect power before removing or installing accessories in this equipment.	

## Installing the Contact Blocks

<b>CAUTION</b>
<b>MOC reliability.</b>
May cause intermittent signaling.
All four contact blocks, whether wired, or not, must be installed into the MOC assembly to ensure reliable operation.

The contact blocks must be firmly seated, with the feet of the contact block latched into the MOC assembly housing. If there is damage to the contact block assembly, a replacement contact block must be used. Replacement contact blocks may be purchased per catalog number WLMOCSWK (includes four replacement contact block assemblies).

<b>CAUTION</b>
<b>Contact block damage.</b>
May cause loss of signaling.
Do not over-extend the feet of the contact block when reinstalling into the MOC assembly.

	 <b>DANGER</b>
	<p><b>Hazardous voltage!</b></p> <p><b>Will cause death, serious personal injury, or equipment / property damage.</b></p> <p>Disconnect power before removing or installing accessories in this equipment.</p>

## Catalog Numbers

	Catalog Number
<b>Frame Size 1 &amp; 2 Test and Connect Version</b>	WLMOC
<b>Frame Size 1 &amp; 2 Connect Only Version</b>	WLMOCC
<b>Frame Size 3 Test and Connect Version</b>	WLMOC3
<b>Frame Size 3 Connect Only Version</b>	WLMOCC3
<b>Replacement Contact Block Assembly (Set of 4 Contact Blocks)</b>	WLMOCSWK

# SIEMENS

Siemens Energy  
& Automation, Inc.

3333 Old Milton Parkway  
Alpharetta, GA 30005

1-800-241-4453  
[seainfo@sea.siemens.com](mailto:seainfo@sea.siemens.com)

[www.sea.siemens.com/power](http://www.sea.siemens.com/power)