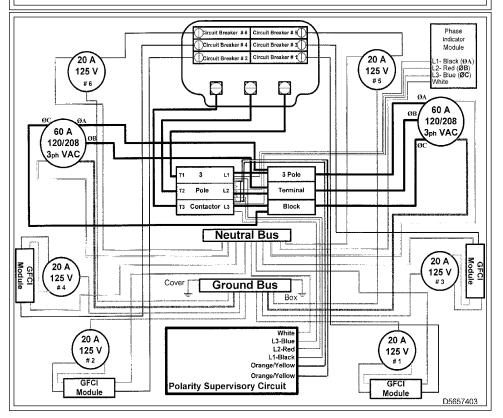
# **WIRING DIAGRAM**



## NOTICE: REMOVE PROTECTIVE PLASTIC FILM ON COVER AND DISCARD PRIOR TO USE.

# HUBBELL 60AMP SPIDER® II

Temporary branch power distribution unit with ground fault protection for personnel

# Installation and Operating Instructions

## **SPECIFICATION**

These installation and operating instructions apply to the following SPIDER II temporary power branch distribution system components. Do not discard these instructions, save for future reference.

## PORTABLE SPIDER II POWER DISTRIBUTION UNITS

Units are rated 60 amps, 120/208 VAC, Three Phase, with 5 milliampere leakage current trip level. Downstream protection is not provided through the 60 amp outlet. The six 20 amp, 120 volt outlets are individually protected by circuit breakers and four of six are protected by GFCI circuit modules.

Model Number	20 Amp Receptacle (6)
SCTL0M2	TWIST LOCK
SCSB0M2	STRAIGHT BLADE

## **INTRODUCTION**

Hubbell SPIDER II units equipped with Circuit Guard® GFCI products, will protect you from shock hazards resulting from ground faults. Ground faults are current leaks and can result in electric shock. Currents of only 60/1000 of an ampere can be fatal. The GFCI protection provided by Hubbell SPIDER II units significantly minimizes shock hazards. Hubbell SPIDER II products, which are listed by Underwriters Laboratories as Class A, Group I interrupters, respond to fault currents as low as 5 milliamperes, and will shut off the current within 1/40<sup>th</sup> of a second.

The SPIDER II provides ground fault protection only for four of six circuits to which it supplies power. The SPIDER II does not protect its power supply circuit or any circuits which are not supplied from the Spider unit.

Wiring Device-Kellems Hubbell Incorporated (Delaware) 185 Plains Road Milford, CT 06460-8897 (203) 882-4800 PD1942 PRINTED IN U.S.A. The SPIDER II is designed to provide protection against electrical shock hazards due to line-to-ground faults. Although the Circuit Guard Module does not limit the magnitude of the fault current, and therefore cannot prevent electric shock, it does limit the duration of the shock to a period considered safe for normally healthy persons.

English

Circuit Guard Modules will provide protection against ground faults only. They will not protect against overloads or short circuits. There is no known device that will guard against the electrical shock hazard resulting from simultaueous contact with both the "hot" and neutral wires of the electric circuit. ELECTRICITY IS DANGEROUS. EVEN WHEN SAFETY DEVICES ARE PRESENT, HANDLE WITH CARE AND USE REASONABLE CAUTION.

## LET CAUTION PREVAIL

The Hubbell SPIDER II is designed to be used on a grounded electrical supply system. It will not operate when supplied from a power source which is not grounded. Over-current protection of the proper rating, according to the National Electrical Code, Article 240, must be used on the supply circuit feeding the SPIDER II.

# TEST PROCEDURE

## All Models

Connect the SPIDER II unit to an appropriate power source.

## CAUTION

• Power is immediately available at the 60 amp outlet when the source is energized on all SPIDER II models.

**Note:** The internal contactor will close after an initial 1-2 second delay.

1. Verify all circuit breakers are in the "on" position.



- 2. Push the test button on the individual GFCI module. The unit should trip.
- 3. Push the reset button. The indicator light should come on.
- 4. Repeat steps 2 & 3 for the remaining modules.

### TROUBLESHOOTING THE SPIDER II

The main power contactor within the SPIDER II unit will trip whenever one or more of the following abnormal conditions exist in the line (supply) side circuit:

- 1. Any line (hot) conductor is transposed with the neutral conductor.
- 2. Any line (hot) conductor is or neutral conductor open (disconnected).
- 3. There is an excessive voltage imbalance between line 1 and line 2 circuits. This may be the result of an open neutral conductor in the supply circuit.

When the abnormal condition(s) in the supply circuit is corrected, the unit may be reset for normal use by completely removing and then reapplying line power. It is recommended that the GFCI test procedure be repeated at this time.

When a GFCI module trips, attempt to reset it by pressing the reset switch, being careful to look for possible danger to personnel. If the module resets, the fault was momentary and has cleared. If it trips again immediately, the fault is still present and the GFCI module is performing its safety function. To locate the fault, disconnect all loads and again try pressing the reset switch. The module should reset. Reconnect the loads one at a time. The module will trip when the faulted load is reconnected. Inspect all tools, appliances and extension cords in the faulted load circuit, repairing or replacing any that are not in good condition.

**NOTE:** Tripping of a branch circuit breaker in the models can only result from an overload or short circuit condition in its individual load circuit. When the fault in the load circuit is corrected or removed, the circuit breaker can be reset for normal use by turning handle to "OFF" position and then to the "ON" position.

#### **APPLICATION NOTES**

 Tripping of individual branch circuit breakers in any SPIDER II unit has no effect on downstream units connected through the 60 amp outlet.

- There is no overload protection for the 60 amp outlet.
- 3. When shutting down the temporary power at the end of the working day, do so by pressing the test button on the individual modules on the SPIDER II unit.

# NUISANCE TRIPPING

All cables have some capacitive leakage. In a 120 V system, there is a limit to the length of cable which can be run before sufficient leakage to ground will build up causing a GFI to trip. In the Hubbell SPIDER II system, however, capacative leakage in the two power lines flows in opposite directions. This design cancels the capacative leakage effect, and there is no theoretical limit to the length of interconnecting cable runs between SPIDER II units. Individual 120 volt branch circuit load cords, however, should be limited to 250 feet in length.

#### **MAINTENANCE & REPAIR**

**CAUTION:** Electrical power supply MUST BE OFF AND DISCONNECTED before and during any repair or maintenance. Repair and maintenance must be performed by a trained and competent electrician.

**WARNING:** If any parts or components of Spider II unit appear to be missing, broken or show signs of damage, DISCONTINUE USE IMMEDIATELY! Do not modify these devices in any way. Replace worn or damaged components. Failure to do so could cause serious personal injury and/or equipment damage.

Manufacturer	Replacement Device	Description	Part Number
HUBBELL	Receptacle	20 A 125 V Twist-Lock	HBL2310SW
HUBBELL	Receptacle	20 A 125 V Straight Blade	HBL53R61
AMPHENOL	Receptacle	60 A 120/208 V Class L	MS90558C32412P
AMPHENOL	Wall Mount Plug	60 A 120/208 Class L	MS90555C32412S
HUBBELL	Supervisory Module	Polarity Supervisory Circuit	SSK 60
HUBBELL	GFCI Module	20 A 120 VAC	GFM20
HUBBELL	Cover	Circuit Breaker	SCBC
HUBBELL	Legs	Replacement Leg Kit	SLK
General Electric	Circuit Breaker	20 A Single Pole	THQL1120

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