DANGER!

HAZARDOUS VOLTAGES MAY BE PRESENT DURING INSTALLATION.
Electrical shock can cause death or serious injury.
Installation should be done by qualified personnel following all national, state and local electrical codes.

BE SURE POWER IS DISCONNECTED PRIOR TO INSALLATION!
FOLLOW NATIONAL, STATE, AND LOCAL CODES!
READ THESE INSTRUCTIONS ENTIRELY <u>BEFORE</u> INSTALLATION!

! WARNING !

UNEXPECTED OUTPUT ACTUATION CAN OCCUR.
Use hard-wired safety interlocks where personnel and/or equipment hazards exist.
Failure to follow this instruction can result in death, injury or equipment damage.

The Model LSRU-FC is a load monitor intended to control feed mechanisms in a variety of applications. The Model LSRU-FC optimizes these systems by stopping the feeder when the grinder, chipper, saw or auger nears overload. When the load is reduced to a preset level, the feeder is restarted. The LSRU-FC trips at the overcurrent setpoint and resets at the undercurrent setpoint.

INSTALLATION

1. Mount the Model LSRU-FC near one of the conductors of the load being monitored. If the unit will be used in a dusty or wet environment, an appropriate NEMA rated enclosure should be used.
2. Insert one of the conductors of the load through the sensor hole in the LSRU-FC.
   a) For currents greater than 1 amp, proceed to step #3.
   b) For currents less than 1 amp, the conductor must be looped. Refer to the table below to determine the number of conductors needed through the sensor window.

   NOTE: The OC and/or UC trip points must be set based on 'I_{eff}' for current range 1 units.

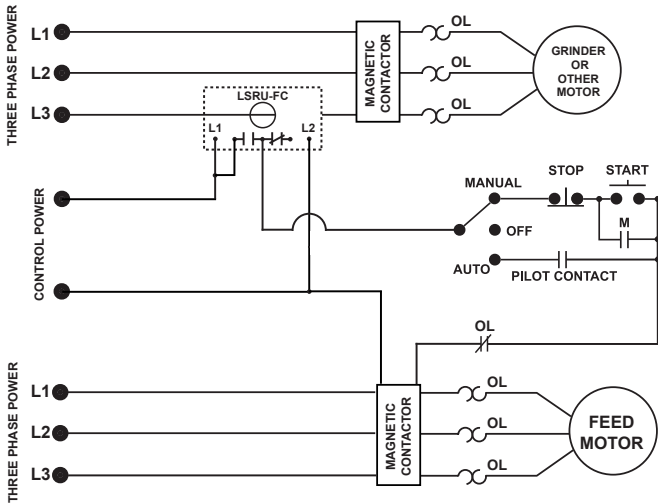| ACTUAL CURRENT	NUMBER OF CONDUCTORS	EFFECTIVE CURRENT (I_{eff})
0.5 - 1.0	3	1.5 - 3.0
0.25 - 0.5	5	1.25 - 2.5
For values less than 0.25 consult the factory.		

3. Turn the user adjustments to the desired settings.
4. Wire the appropriate control voltage to L1 and L2.
5. Connect the output relay to the control circuitry. The proper wiring scheme may vary depending on the required action when a fault occurs. (A wiring diagram is shown in Figure 1 that utilizes the NO contact.)

6. Energize the load to be monitored. Verify normal running amps have been achieved. The LED will be lit under normal operating conditions (the current sensed is at an acceptable level) indicating the output contacts are energized (NO is closed and NC is open).

NOTE: The LSRU-FC is a fail-safe design, meaning the NO (normally open contact) will be open if the LSRU fails or control power is interrupted.

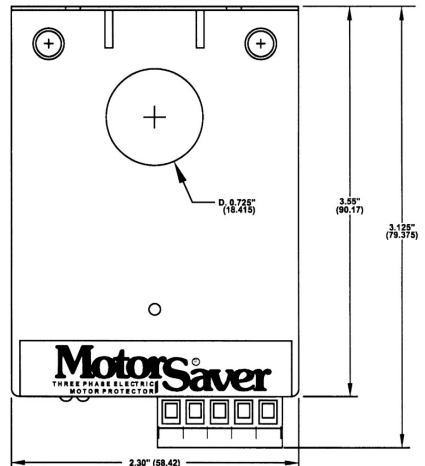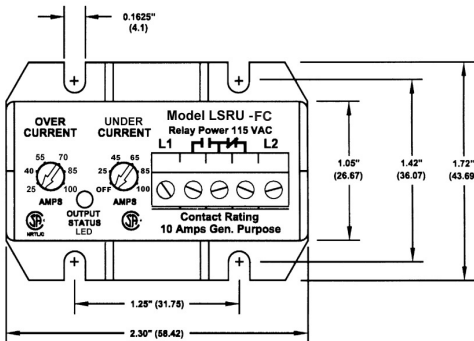7. The installation is now complete.

FIGURE 1: TYPICAL WIRING DIAGRAM

Unit Description

Model #	Voltage Range	Options	Current Range
LSRU		F C	
	024 - 18 to 30 VAC		1 - 0 to 5 Amps
	115 - 90 to 135 VAC		2 - 5 to 25 Amps
			3 - 25 to 100 Amps

Any questions or comments call SymCom at 1-800-843-8848 or 1-605-348-5580

MODEL LSRU-FC SPECIFICATIONS	
CONTROL VOLTAGE	
LSRU-024-xx-x	18 - 30 VAC
LSRU-115-xx-x	90 - 135 VAC
FREQUENCY	50 to 60 Hz
POWER	2 Watts (Maximum)
CURRENT RANGE	
LSRU-xxx-xx-1	0 - 5 Amps
LSRU-xxx-xx-2	5 - 25 Amps
LSRU-xxx-xx-3	25 - 100 Amps
ADJUSTMENTS	
Overcurrent (can not be set below UC)	Adjustable through entire current range
Undercurrent (can not be set above OC)	Adjustable through entire current range
FIXED TRIP DELAY(not selected as an option)	1 Seconds
FIXED RESTART DELAY(not selected as an option)	0.5 Second
MOTOR ACCELERATION TIME	2 Seconds
REPEATABILITY	
Current	$\pm2\%$
Timing	$\pm10\%$
ISOLATION	600 VAC
OUTPUT CONTACT RATING - SPDT	
Pilot Duty Rating	480 VA @ 240 VAC
General Purpose Rating	10 A @ 240 VAC
OPERATING TEMPERATURE	-40^0 to $+70^0$ C
TERMINALS	
Wire AWG	#12 - #24
Maximum Torque	7 inch-pounds
STANDARDS PASSED	
CSA and CSA-NRTL/C	LR 46510-35

08/09/03

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