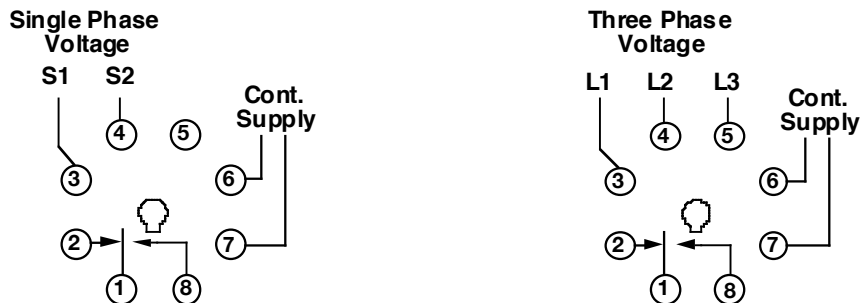


MVPL Installation & FAQs

10/6/09

MVPL Installation:

- Remove all power from the control, single and three phase.
- Install and wire a 600VAC rated socket according to the MVPL connection diagram for single phase or three phase, which ever is appropriate



Wiring diagrams are viewed from the base of the MVPL. Wire according to the numbers imprinted on the socket rather than the pictures.

- Plug the MVPL into the socket. The base of the MVPL and the socket are keyed.

MVPL Set-Up:

BEFORE APPLYING POWER

- Determine what voltage the MVPL will be monitoring
 - Determine if the monitored voltage is single or three phase
- Based on the voltage and number of phases, set the adjustable knobs on the MVPL:

Set the voltage

- Adjust the top knob labeled "LINE VOLT" to the operating voltage
This should be the operating voltage for the equipment and the measured voltage on the single or three phase lines
- Next set the "%±" knob to either "SINGLE PHASE" on the left side of the dial or "3 PHASE" on the right side of the dial
- After selecting single or 3 phase, set the "%" knob to the percentage of Over and Undervoltage desired
A typical over & undervoltage percentage is 10%

Set the restart time delay (Auto or Manual)

- Adjust the "RESTART DELAY" knob
- For automatic or manual restart after recovery of voltage:
 - Auto – Select 2 seconds up to 5 minutes
After recovery of line voltage this is how long the MVPL will wait before energizing the output relay
 - MANUAL RESET - Full clockwise knob adjustment to the "MR" indication
After recovery of line voltage the Manual Reset button located between the 2 LEDs must be pressed

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MVPL Set-Up: (Continued)

Now that the settings have been made, you can apply the supply and line voltages to the MVPL. The MVPL will only operate when the Supply Voltage is available.

On power up, with the line Voltage and the Supply Voltage applied, the MVPL takes 3 to 10 Seconds to evaluate the Line Voltage, compare that voltage to the knob settings and then energize if all parameters are satisfied or will remain off if any operating parameter is incorrect.

All of the know adjustments are adjustable after power up, but the voltage range (ie: within 440 to 480VAC, but not to 208 to 240VAC) will not change and going from single or 3 phase to the other will not change.

LED Information

 Red is red
  Green is green
  Yellow is alternating red & green

Power up LED functions

Characteristic

Power up with no 1Ø or 3Ø voltage present

Supply	1Ø or 3Ø	Left LED On/Off	Right LED Ø Loss/Rev
Yes	No Signal	Yellow	Out

Power up with 1Ø or 3Ø voltage present and matching knob adjustments

Supply	1Ø or 3Ø	Left LED On/Off	Right LED Ø Loss/Rev
Yes	Good Voltage	Yellow	Out
Evaluation sequence		Out	Yellow
“ “		Yellow	Out
Signal is good, timing		Yellow flashing	Green
Voltage good, Relay energized		Green	Green

Going into trip condition after operating conditions were good

Supply	1Ø or 3Ø	Left LED On/Off	Right LED Ø Loss/Rev
Yes	Good Voltage	Green	Green
Yes	Bad Voltage	Green flashing	Red
Signal is bad, timing, Relay still energized		Green flashing	Red
Signal is bad, Relay de-energized		Red	Red

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Power up LED functions (Continued)

Characteristic

Going to good condition from trip condition – Automatic reset timing

Supply	1Ø or 3Ø	Left LED On/Off	Right LED Ø Loss/Rev
Yes	Bad Voltage	Red	Red
Yes	Good Voltage	Red flashing	Green
Signal is good, timing, Relay still de-energized		Red flashing	Green
Signal is good, Relay energized		Green	Green

Going to good condition from trip condition – Manual reset

Supply	1Ø or 3Ø	Left LED On/Off	Right LED Ø Loss/Rev
Yes	Bad Voltage	Red	Red
Yes	Good Voltage	Yellow flashing	Green
Signal is good, timing, Relay still de-energized		Yellow flashing	Green
Manual Reset is pressed		Green	Green

Frequently Asked Questions

The wrong line voltage was selected

If you have selected the incorrect line voltage when you applied the Supply Voltage:

1. Disconnect the Supply Voltage
2. Re-adjust the LINE VOLT knob
3. Re-apply the Supply Voltage.

The MVPL will go through its evaluation process again and, if the voltage matches the knob selected parameters, the output relay will energize after the re-start time delay or after the Manual reset is pressed.

Single or 3 Phase was selected incorrectly

If you selected the number of phases incorrectly when you applied the Supply Voltage:

1. Disconnect the Supply Voltage
2. Re-adjust the %± knob
3. Re-apply the Supply Voltage.

The MVPL will go through its evaluation process again and, if the voltage matches the knob selected parameters, the output relay will energize after the re-start time delay or after the Manual Reset is pressed.

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Frequently Asked Questions (Continued)

The measured line voltages and LINE VOLT knob match and the Single/3Ø is selected correctly, but the Ø Loss/Rev is still Red.

If it is a 3Ø application, you may have the phase rotation reversed.

1. Disconnect the line voltage and Supply Voltage
2. Switch two of the 3Ø line voltage connections on the MVPL socket
3. Verify correct rotation is connected to equipment
4. Re-apply the Supply Voltage.

The MVPL will go through its evaluation process again and, if the line voltage phase rotation matches the MVPL connections, the output relay will energize after the re-start time delay or after the Manual reset is pressed.