



INSTALLATION, OPERATION & APPLICATION GUIDE

For more information on our complete range of American-made products – plus wiring diagrams, troubleshooting tips and more, visit us at www.icmcontrols.com

IMPORTANT SAFETY INFORMATION



HIGH VOLTAGE WARNING! – Turn off power at the main service panel before installing.

Limited lifetime product. Up to a 3-year \$10,000 connected equipment warranty.



INSTALLATION

1. Remove cover by extracting the screw from the bottom of the enclosure.
2. Remove desired size knock-outs from the enclosure needed to install the required conduits (1/2" or 3/4").
3. Mount the enclosure to the desired surface with (4) screws and pull any conduits through the knockouts on the bottom as needed (refer to **Figure 0**).
4. Rest the front panel door in a vertical position using the contactor bracket as a base of support as seen in **Figure 1**.
5. Hold the contactor and unscrew the two Phillips head mounting screws on the front of the panel also seen in **Figure 1**.
6. Whilst holding the contactor against the front panel, lay the front panel face down as seen in **Figure 2**.
7. Rotate the contactor 90 degrees counter clockwise and rest it on its base as seen in **Figure 3**. This orientation will give you access to the L1, L3 and T1, T3 terminal screws which are needed to mount the heavy gauge wires of the 60 AMP circuit. **** CAUTION: DO NOT USE THE 1/4" QUICK CONNECT TERMINALS IN A 60 AMP CIRCUIT.**
8. Insert the line wires from the incoming power to the L1 & L3 terminals and tighten down the screws as seen in **Figure 4**.
9. Insert the load (equipment) wires to T1 & T3 and tighten down the screws as seen in **Figure 5**.
10. Rotate the contactor 90° clockwise, then rotate the whole front panel and contactor assembly 180° counter clockwise so the front panel is facing up and the contactor is resting on its side as seen in **Figure 6**.
11. Adjust the position of the contactor to align the mounting bracket threaded holes with the front panels through holes also seen in **Figure 6**.
12. Re-insert the two Phillips head screws which secure the contactor to the front panel and tighten down securely seen again in **Figure 6**.
13. Tilt front panel diagonally and insert the panel into the enclosure as seen in **Figure 7**.
14. Lay the front panel horizontally in the enclosure and align the holes on the sides of the case one at a time also seen in **Figure 7**.
15. Using the two larger screws included in the kit, attach the front panel to the enclosure as seen in **Figure 8**, (do not overtighten screws).
16. Close the hinged front plate and secure the upper right corner into the bracket with the small screw provided in kit as seen in **Figure 9 & 10**.
17. Once settings have been configured, attach the top cover and secure with screw.

FIGURES 0-10



Figure 0

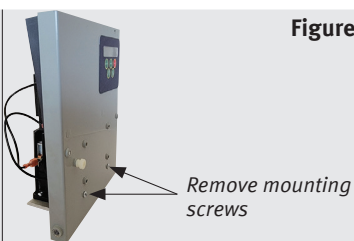


Figure 1

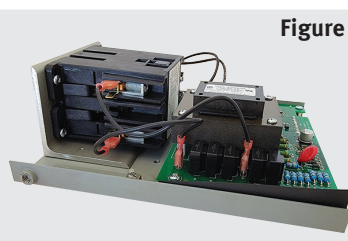


Figure 2

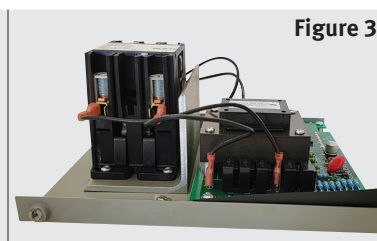


Figure 3

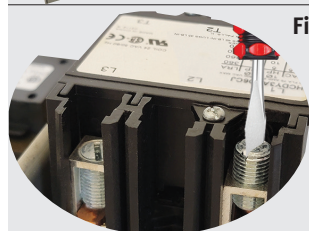


Figure 4



Figure 5

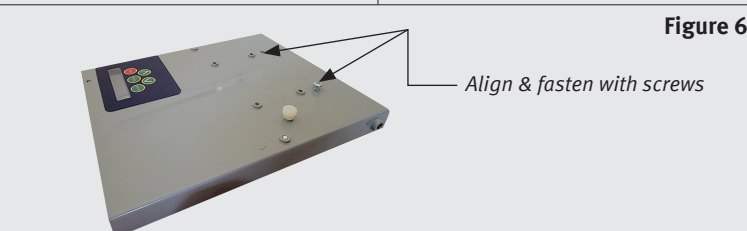


Figure 6

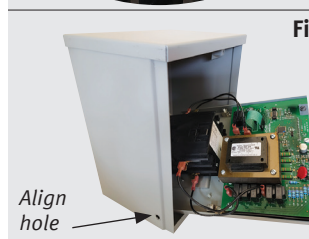


Figure 7



Figure 8



Figure 9

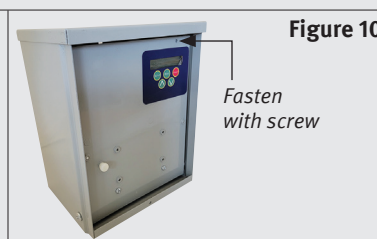
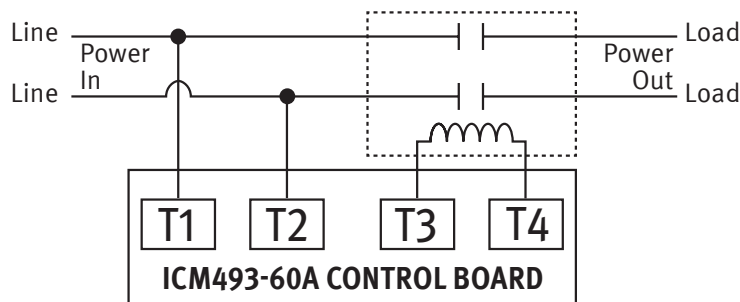


Figure 10

WIRING DIAGRAM



Use 75°C Copper wire only

SPECIFICATIONS

Input:

- 195-264 VAC
- 50/60 Hz

Contact Ratings:

- **Voltage:** 240 VAC
- **FLA:** 60A
- **LRA:** 360A

Control Operating Temperature:

- **Operating temperature:** -40°F to 167°F (-40°C to 75°C)
- **Storage temperature:** -40°F to 185°F (-40°C to 85°C)
- **LCD operating temperature:** -4°F to 167°F (-20°C to 75°C)

Mechanical:

- **Mounting:** Four mounting holes in back of enclosure
- **Enclosure:** NEMA/Type 3R, rain-tight enclosure rated for outdoor installation
- **Dimensions:** 8"L x 10"W x 6"H

Parameters:

- **Line voltage:** 200-240 VAC, adjustable
- **Over/under voltage setting:** 5%-10%, adjustable (under voltage limited to 195 VAC)
- **Anti-short cycle time delay:** 0.5-10 minutes
- **Number of trials:** 1-5, auto
- **Number of movistors:** 0-5

SPECIFICATIONS (CONT.)

Parameter	Description	Range	Default	Recommended
Line voltage	The expected line voltage	200-240	240	Nameplate voltage**
Over/under voltage	The allowed percentage over and under the set line voltage	5% to 10%	10%	10% over/under
Anti-short delay	The amount of time delay between the end of a fault, and closing of the contactor	0:30 to 10:00	0:30	4 minutes
Reset mode retries	The number of retries after a fault has occurred. Auto has unlimited retries.	1 to 5, Auto	Auto	Auto
Allowed MOV fail	The number of surge devices allowed to fail while maintaining operation. Setting to "5" will allow operation, even when surge protection has been exhausted.	0 to 5	5	Set to "5" for ensured operation. Set to "4" for max. operation while ensuring surge protection.

** For best recommendations, consult manufacturer of equipment.

SETTING THE PARAMETERS

1. Press the **SETUP** button to scroll through various user-configurable settings.
2. Use the **▲** **▼** buttons to change the set point.
3. When the last parameter has been set, you will return to the read screen.

BUTTON FUNCTIONS

- SETUP** Press to enter setup mode, and to toggle through user-configurable settings.
- READ** Press at any time to return to the Read screen, which will display any faults, the current line voltage, and the number of remaining MOVs.
- FAULT** Press to scroll through past recorded faults. Hold for 5 seconds to clear fault memory.
- ▲** **▼** Press to adjust settings **▲** & **▼**. Hold for 2 seconds to enter line voltage calibration.
- SETUP** **FAULT** Hold for 2 seconds to reset unit.

CALIBRATION FEATURE

The **ICM493-60A** can be calibrated to match the reading from a true RMS meter.

1. Measure input voltage from T1 to T2 using a true RMS meter.
2. Hold **▲** **▼** buttons simultaneously until line voltage starts to flash.
3. Adjust voltage using **▲** or **▼** buttons to match measured voltage from step 1.
4. Push **SETUP** button to lock values into memory.

LIMITED LIFETIME PROTECTION WARRANTY

Review enclosed warranty information for full details & registration information

For warranty registration, please go to www.icmcontrols.com and click on **Warranty Registration**



7313 William Barry Blvd., North Syracuse, NY 13212
 Phone: 315-233-5266 | Fax: 315-233-5276 | www.icmcontrols.com

800.365.5525
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