

MA700E Series

Installation Instructions



IMPORTANT SAFEGUARDS READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

When using electrical equipment, basic safety precautions should always be followed including the following:

- **DISCONNECT AC POWER SUPPLY BEFORE SERVICING.**
- Installation and servicing of this equipment should be performed by qualified service personnel only.
- Ensure that the electrical wiring conforms to the National Electrical Code NEC® and local regulations if applicable.
- Do not mount near gas or electrical heaters.
- Do not use outdoors.
- Equipment should be mounted in locations and at heights where it will not be readily subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Any modification or use of non-original components will void the warranty and product liability.
- Do not use this equipment for other than intended use.
- For use with metal enclosed wiring systems.

SAVE THESE INSTRUCTIONS!

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Wall Mount Installation

1. Extend unswitched building AC power supply to junction box (supplied by others). The AC supply should now be energized at this time
2. Remove the EXIT sign faceplate by unscrewing the faceplate cover screw and sliding the faceplate down and out of the EXIT frame. Be careful not to damage the loose stencil when sliding the faceplate down the EXIT frame. (Fig. 2)
3. Remove the appropriate knockouts for the mounting pattern and/or wire pass through hole on the EXIT backplate to fit the junction box or wiring connector being used (supplied by others).
4. Route AC supply leads through the center hole on the housing. Place fixture housing against the wall surface and secure tightly.
5. Make the proper wire connections. Connect the white wire to neutral. If using 120VAC, connect the black wire to the hot lead. If using 277VAC, connect the orange wire to the hot lead. Cap the unused lead. Refer to the Wiring Diagram section.
6. Feed excess wires into the junction box.
7. Remove chevrons out of the EXIT faceplate as needed and re-secure the faceplate to the frame. (Fig. 2)
8. Turn on the building AC power supply.

Ceiling/End Mount Installation

1. Repeat steps 1 and 2 of **Wall Mount Installation** above.
2. If double-face is required then remove the backplate cover screw and slide the backplate down and out of the EXIT frame. Replace with second faceplate provided and reattach cover screw.
3. On the top and both sides of the EXIT frame there are three (3) holes for the canopy. Two (2) for the mounting screws and one (1) wire pass through hole. Remove the appropriate knockouts for your installation. (Fig. 3)
4. Secure universal canopy kit in the desired location on the EXIT sign using the supplied 1" screws, washers and nuts. Snap the plastic bushing into the wire pass through hole in the center of the canopy.
5. Route AC supply leads through the center hole on the housing. Make the proper wire connections. Connect the white wire to neutral. If using 120VAC, connect the black wire to the hot lead. If using 277VAC, connect the orange wire to the hot lead. Cap the unused lead. Refer to the **Wiring Diagram** section.
6. Feed excess wires into the junction box.
7. Secure universal mounting plate to the junction box and then canopy to the universal mounting plate. (Fig 4)
8. Remove chevrons out of the EXIT faceplate(s) as needed and re-secure the faceplate(s) to the frame. (Fig. 2)
9. Turn on the building AC power supply.

With Battery Units

1. For with battery units, plug battery into circuit board. Refer to Fig. 6 for the wiring diagram.

Fig. 1

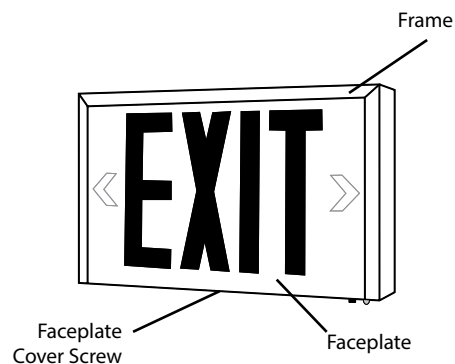


Fig. 2



Fig. 3

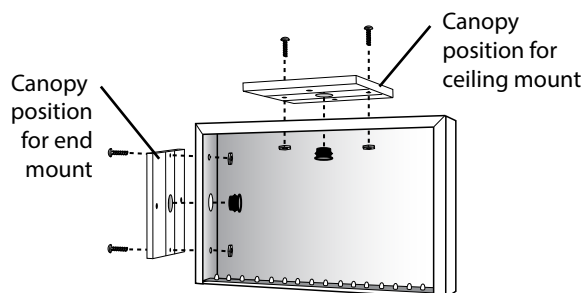
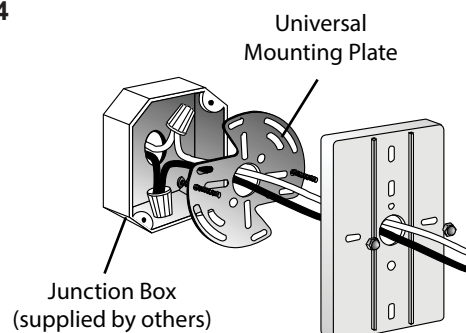


Fig. 4



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Electrical Connections

All electrical connections should be made inside junction box.

Make Electrical Connections as follows:

120VAC

White - Neutral

Black - 120V

Green - Ground

277VAC

White - Neutral

Orange - 277V

Green - Ground

Note: Cap unused leads to prevent shorting.

2CI option models have two transformers, one for the main AC input and the other for the auxiliary AC input. Please make connections as follows:

AC Line

White - Neutral

Black - 120/277V

Auxiliary Line

Blue - Neutral

Brown - 120/277V

Note: The AC and auxiliary power cannot be live simultaneously. Consult the factory for a solution.

Wiring Diagram

Note: The fixture backplate is designed to conceal a typical junction box. A 7/8" knockout is provided to feed power to the fixture. Cap off the UNUSED input lead. Failure to do so can cause an unsafe operating condition.

Fig. 5 - AC Only

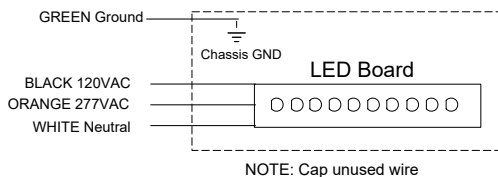


Fig. 6 - With Battery

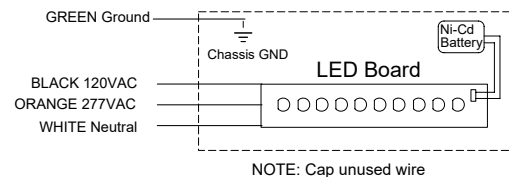
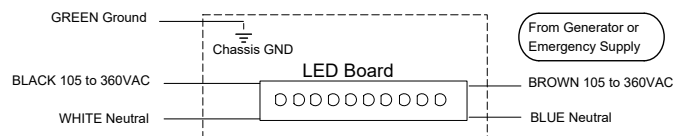


Fig. 7 - 2CI



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Self-Test/Self-Diagnostics (G2)

The Self-Test/Self-Diagnostics (G2) continuously monitors normal unit operation and automatically perform discharge tests at programmed intervals to exercise the battery and check emergency operation. The self-diagnostic logic circuits detect malfunctions in the battery, LEDs, charger or transfer circuit by means of a separate multi-color LED indicator. The function is factory preset and no field adjustments are required.

After battery connection and AC power is applied, the Auto-test counter will be activated to schedule the following tests.

1. A 5 minute battery discharge and self-testing every 30 days
2. Two 90 minute battery discharge and self-testing every 6 months, 48 hours apart.

Diagnostic Display

1. The diagnostic LED indicator will be OFF at emergency mode (AC failure).
2. If the diagnostic LED does not light up even though a battery is connected to the circuit board, it might imply that battery voltage is too low to be accepted by the charger. Disconnect battery and measure voltage; replace battery if needed.
3. To keep the optimum performance of the battery, do not leave battery connected to the unit without the presence of AC power for more than 24 hours.

● ●	Double Blink (Red)	Normal operation
●	Flashing (Green)	Testing under way
● ●	Flashing (Red/Green)	High charging
■	Steady On (Red)	Battery disconnected or charger malfunction
●	Flashing (Red)	Battery failed testing
● ● ●	Three Blinks (Red)	LED failure

Manual Testing

The unit provides manual testing as below.

Manual Test	How?	LED Indication		
		In progress	Pass	Fail
LED test	Press and HOLD TEST button for 3 sec.	● ● ● RED triple blink, ONCE	● ● Flashing RED/ GREEN or	● ● ● ***RED triple blink, CONTINUOUS
*30 sec. battery test	Press TEST button 2 times (within 3 sec.)	● Flashing GREEN for 30 sec.	● ● Red Double Blink	● Flashing RED
**15 min. battery test	Press TEST button 3 times (within 3 sec.)	● Flashing GREEN for 15 min.		
**90 min. battery test	Press TEST button 4 times (within 3 sec.)	● Flashing GREEN for 90 min.		
CANCEL test	Press and HOLD TEST button for over 5 sec.			

*Always allowed, except Auto-Test or other manual test is in progress

**15 min. and 90 min. manual tests are NOT allowed if in the past 24 hours:

- a) AC power failure occurred, or
- b) Auto-Test (90 mins) occurred or is in progress, or
- c) Manual test (15 mins or 90 mins) occurred or is in progress, or
- d) Battery is not fully charged.

***RED triple blink, CONTINUOUS, will also occur if test button is pressed and HELD for over 5 sec. (or "stuck button")

**** To RESET LED Board disconnect the battery and AC power and wait 10 seconds. Then first reconnect the battery to the board and then restore AC power

Battery failure on any of the above tests activates "Flashing Red" on the diagnostic LED, which will remain until the LED board is RESET. Under any conditions such that the diagnostic LED does not light up or the board malfunctions, RESET the board to clear all errors.