

AC GUARDIAN™

Flasher Cabinet Monitor Installation Guide



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Introduction

To install the AC Guardian™, you will need:

- All items shipped with your AC Guardian™ product including pre-wired enclosure, two pre-installed mounting brackets, one wiring harness, one DB9 connection harness, two tech screws, Velcro®, and (optional) door switch
- Phillips-head screw driver, drill and crimp tool
- Thin flathead screwdriver for Terminal Block 1
- Two 8/32" x 1/2" screws (only if you purchased new RTC time switch)
- Appropriately-sized cabinet that will fit the AC Guardian™ enclosure and bracket

Step 1 – Disconnect Power

To prevent harm to product and self, turn off the AC breaker to the cabinet before installing.

Step 2 – Plan and Adjust for Installation

Please Note: *The AC Guardian™ is designed to work alongside RTC time switches and M2M modems. You should either have an existing RTC time switch / M2M installation or have purchased these along with your Guardian™ Series product. The RTC time switch and M2M will need to fit inside your cabinet with the AC Guardian™ installation.*

Take time to plan how and where you will be fitting the AC Guardian™ enclosure, time switch, and cell modem. If necessary, remove existing hardware to make room for the AC Guardian™ enclosure. Be sure to keep track of mounting hardware for future use. Existing RTC customers shouldn't need to remove their existing RTC time switch / M2M products, but it may vary based on cabinet type and space.

Step 3 – Mount AC Guardian™ Enclosure

AC Guardian™ orders ship with two pre-installed mounting brackets for various installations and tech screws to secure a bracket to the enclosure.

One of the mounting brackets is a long "bar" bracket, which is ideal for existing RTC customers and new customers who have open space on their panel next to the RTC time switch. To mount, simply drill the two tech screws through the two outside holes of the mounting bracket and into the cabinet. Note: This bracket can also be taken off the side of the enclosure and moved to the top of the enclosure and similarly mounted, if necessary.

The other mounting bracket is a smaller U-shaped bracket, pre-installed to the top of the enclosure, which is designed to be used when there isn't enough panel space available for the AC Guardian™. This mounting process uses the space created from removing the RTC time switch in Step 2 above. Mount the AC Guardian™ by guiding the existing screw that was used to mount the RTC time switch through the "keyhole" opening on the back of the AC Guardian™ enclosure and pulling down on the blue enclosure.

Step 4 – Add Terminal Forks and Connect Wiring

(see wiring assignment on enclosure lid)

Trim the wires of the wiring harness to the desired length. Then, using a crimp tool, crimp the five

AC Guardian™ wires (black, white, red, red/black, and red/white) to the provided #8 terminal forks. Then, connect the terminal forks to the proper location following the wire assignment on the front of the enclosure or the front of this installation guide. A full system wiring diagram is included on the last page of this guide.

Tip: Connect the red AC Guardian™ wire to the same point that supplies AC+ to the NEMA Flasher or Flash Cube. The termination point wire color will vary cabinet-to-cabinet.

Step 5 - Remount RTC Time Switch and M2M

If the RTC time switch or M2M were removed in Step 2, remount them inside the cabinet. If the AC Guardian™ needed to be installed where the time switch was previously, the u-shaped AC Guardian™ mounting bracket is designed to mount the RTC time switch directly on top of the AC Guardian™. Loosen the screw on the front of the u-shaped AC Guardian™ bracket, thread the screw head through the “keyhole” opening on the back of the time switch, and pull down on the time switch enclosure. Tighten the screw to secure the time switch to the AC Guardian™ enclosure.

If cabinet space allows it, the M2M can mount on top of the RTC time switch or you can use the provided Velcro® to secure it nearby.

Step 6 - Connect RTC Time Switch and M2M to AC Guardian

Using the provided connection harness (P/N 507403HAC), connect the RTC time switch, M2M, and AC Guardian™. The DB9 connector labeled “507403HAC” connects to the bottom of the AC Guardian™ enclosure. The DB9 connector labeled “TS” connects to the lid of the time switch. The DB9 connector labeled “M2M” and the power connector both connect to the M2M.

Step 7 – Install Door Switch (optional)

Please Note: In order for the Guardian™ door-monitoring feature to work, a door switch must be ordered and correctly installed. Door switches do not come standard with Guardian™ Series Products, but can be purchased separately from RTC and shipped along with your order.

The door switch operates as the “lever” of the switch is pressed in towards the black base of the switch. The door switch needs to be installed in a position and location that allows the cabinet door to press in the switch “lever” when the cabinet door is closed and let off the “lever” when the cabinet is open. This will vary from cabinet to cabinet, but typically the side of the inside lip of the cabinet works well.

Choose a location that follows the above guidelines and mount the door switch using a drill and the provided mounting screws. If a door switch is ordered at the same time as the AC Guardian™, the door switch is prewired and ready to go. If the door switch is ordered separately, female slide in terminal forks need to be added to the blue and blue/white wires of the AC Guardian™ wiring harness and wired to the door switch. Cut the clear crimp caps off and use a crimp tool to add the provided specialty connectors. First, connect the blue/white wire to “N/C”, followed by the blue wire to “COM”.

Step 8 - Setup AC Guardian in RTC Connect™

After the hardware installation is complete, the AC Guardian™ unit must be set up in RTC Connect™. Detailed steps can be found in the Quick Start Guide in RTC Connect™. To access the guide, follow these steps:

1. Download and open RTC Connect™ software
2. Log in
3. Click on “Utilities” on the left toolbar
4. Select “Quick Start Guide”
5. Click on the “Adding A Guardian” title and follow directions

AC GUARDIAN™ REFERENCE

U-SHAPED BRACKET
*may be removed/repositioned
to the side of the unit*



ACCESSORY BAG
*contains tech screws
and terminal forks*

BAR BRACKET
*may be removed/repositioned
to the top of the unit*

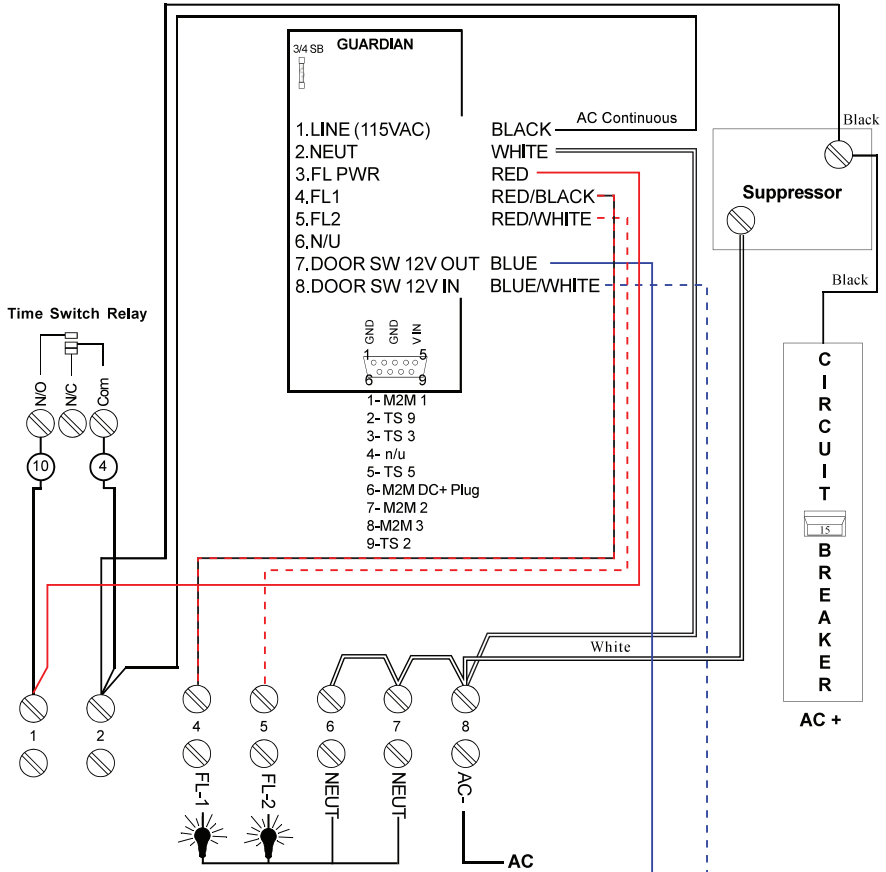
WIRING HARNESS

CRIMP CAPS
*remove if installing
optional door-switch*

507403HAC DB9
CONNECTION
HARNESS



TYPICAL AC GUARDIAN™ WIRING INSTALLATION



DOOR MONITORING SWITCH
 Switch must be installed on the lock side of the door and wired as illustrated to the right.
 First, connect the blue/white wire to "N/C", followed by the blue wire to "COM"

