SIEMENS

Installation Instructions
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Modular Equipment Controller (MEC)

Product Description

The Modular Equipment Controller (MEC) is a field panel device that mounts to a stable vertical surface or inside an MEC enclosure. The MEC contains a processor and memory, and can communicate with other field panels on the Building Level Network (BLN). Digital and analog point blocks are also available for point expansion.

The MEC with HAND-OFF-AUTO (HOA) enables digital outputs to be manually placed into HAND (ON), OFF, or AUTO control. Analog outputs can be placed into AUTO control and nine manual control positions. Digital and analog point blocks with HOA control switches are available for point expansion.

MEC Models 200F, 210F, 300F and 310F provide Floor Level Network (FLN) communication ports and higher performance.

MEC Models 101 and 201 provide 16 DIs, 8 AIs, 4 DOs, and 4 AOs; HOA switches are not available.

MEC Model 310FB adds BACnet® support to the MEC 310F feature set.

For more information on MEC hardware and applications, see the *Modular Equipment Controller Owner's Manual* (125-2183).

Product Numbers

549-021	MEC Model 100 (HOA Ready)
549-022	MEC Model 200 (HOA Ready)
549-023	MEC Model 300 (HOA Ready)
549-041	MEC Model 101 (HOA Not available)
549-042	MEC Model 201 (HOA Not available)
549-031	MEC Model 110 (HOA Included)
549-032	MEC Model 210 (HOA Included)
549-033	MEC Model 310 (HOA Included)
549-007	MEC Model 200F (HOA Ready)
549-008	MEC Model 210F (HOA Included)
549-009	MEC Model 300F (HOA Ready)
549-010	MEC Model 310F (HOA Included)
549-901	MEC Model 310FB (HOA Included)

Warning/Caution Notations

WARNING:		Personal injury/loss of life may occur if you do not perform a procedure as specified.
CAUTION:		Equipment damage, or loss of data may occur if you do not follow procedure as specified.

Required Tools and Material

- Wire stripper/side cutters
- Phillips screwdriver
- Level
- Tape measure
- Digital multimeter (DMM)

To mount on a surface:

- Electric drill
- Black marker
- Four No. 8 × 3/8 self-tapping Phillips screws

To mount on concrete or masonry:

- Masonry drill bit
- Four lead wall anchors

Expected Installation Time

20 minutes

Prerequisites

- All necessary wiring pulled
- For mounting in an MEC enclosure
  - MEC enclosure installed
  - 115V or 230V service box kit installed, if applicable

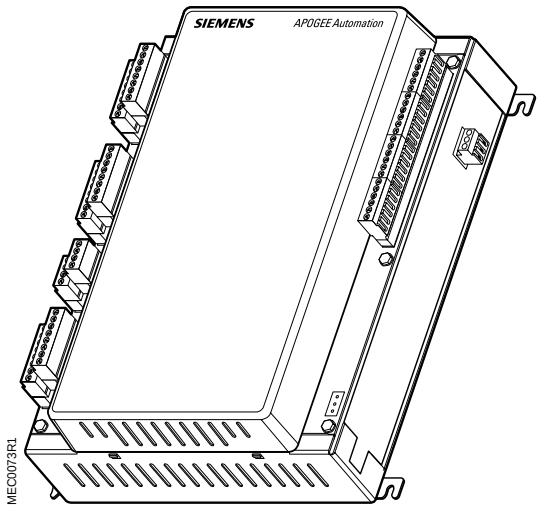

Figure 1. Modular Equipment Controller (MEC) Generic Example.

Installation

There are two options for installation:

- Mounting the MEC on a surface is for energy management only.
- Mounting the MEC inside an MEC enclosure is for smoke control applications and CE compliance.

CE Compliance Requirements

For installations requiring CE compliance, the MEC must be installed in a metal enclosure rated at IP20 minimum.

A ferrite clamp must be clamped around any cable permanently attached to the Man Machine Interface (MMI) port. Ferrite clamps can be ordered in a 10-pack kit (587-669). Contact your Siemens Building Technologies representative for more information.

NOTE: The clamp must be installed so that it is within one inch of the MMI connector.

MECs with FLN meet CE compliance requirements (except the 549-901) without modification.

CAUTION:
Class I wiring must be kept away from all Class II wiring. Class I and Class II wiring are required by UL to be kept separate from each other.

NOTE: When installing the MEC with HOA control switches (549-008, 549-010, 549-031, 549-032, 549-033, 549-901), verify that all control switches are in the AUTO position.

Mounting on a Surface

For energy management only

CAUTION:
Do not install the MEC on a vibrating surface (for example, an air handler or ductwork).

1. Align the MEC on the mounting surface. The MEC must be positioned to provide a 3-inch minimum clearance on both the left and right sides for wires to ports and connectors.
2. Using the mounting ears on the back of the controller as a template, mark the position of the four mounting holes on the surface.
3. Drill the four mounting holes, or start the screws into the marked template holes.
4. Secure the controller using the appropriate mounting hardware for the surface.
5. Terminate wires to both the power supply and appropriate connectors.

The installation is now complete.

Mounting in an MEC Enclosure

Required for smoke control applications

WARNING:
Turn off AC power to the MEC enclosure at a circuit breaker panel.

1. Carefully align the MEC on the perforated backplane of the enclosure (Figure 2).
2. Using the rear of the controller as a template, mark the position of the four mounting holes.
3. Start the screws (provided with the enclosure) in the perforated backplane.
4. Place the MEC on the backplane of the enclosure so that the mounting ears rest on the screws and tighten the four screws.
5. Terminate wires to both the power supply and appropriate connectors.

The installation is now complete.

If you need more information on the MEC service box, see the *MEC Service Box Installation Instructions* (586-135).

Verifying Correct Functioning of Switches

For MECs with HOA, a green LED is located below the HOA switches. The LED flashes after start-up, indicating that the switches are in the AUTO position and are functioning correctly.

If any control switch is moved out of AUTO, the light will stop flashing and remain on.

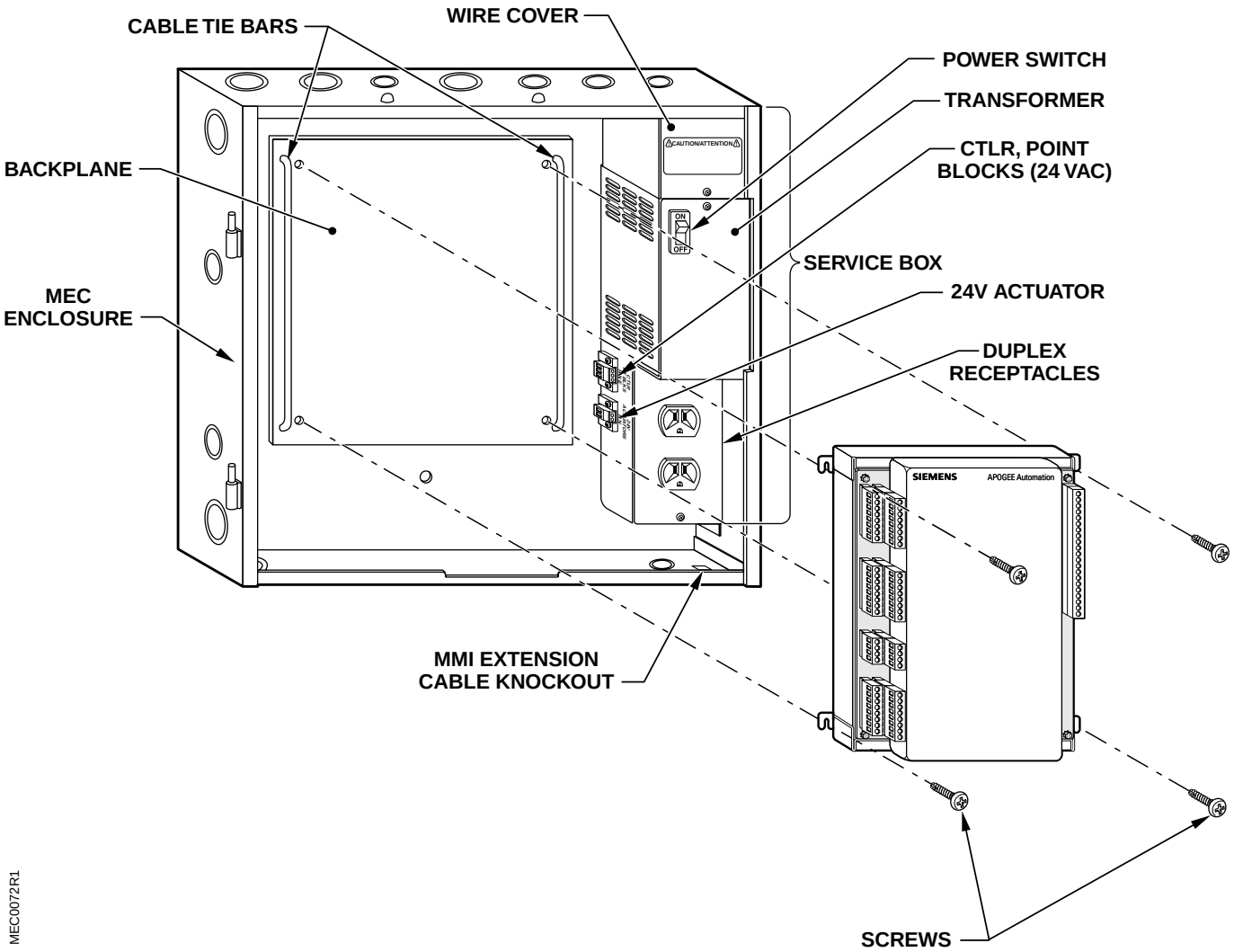

Figure 2. Mounting the MEC Inside an enclosure.