

## Gamma Lighting Control Enclosures

### Product Description

The Siemens Industry Gamma Lighting Control Enclosures support Gamma Lighting system components and other panel-mounted devices that snap into DIN rails. A Data Rail 190/32 (with integrated connector, 324 mm) (5WG1 190-8AB32), which is sold separately, distributes KNX bus power and communications to 17 module widths (MW) of N-System devices that only have a data rail connector. A removable dead front holds a removable/reversible door with documentation pouch.

Table 1: Gamma Lighting Enclosure Dimensions.


|                           | LCC-2020-MV | LCC-2028-MV | LCC-2044-MV  |
|---------------------------|-------------|-------------|--------------|
| Height                    | 20" (51 cm) | 28" (71 cm) | 44" (112 cm) |
| Width                     | 20" (51 cm) | 20" (51 cm) | 20" (51 cm)  |
| Depth                     | 4" (10 cm)  | 4" (10 cm)  | 4" (10 cm)   |
| DIN Rails <sup>a, b</sup> | 2           | 3           | 5            |


- a) Each DIN rail accommodates 20 MW (Gamma N-system module widths). 1 MW = 0.71" (18 mm).
- b) The top DIN rail in each enclosure is commonly reserved for low-voltage modules. If no low voltage modules exist in the enclosure, the top DIN rail may be used for line voltage modules.


### Product Numbers

|             |   |
|-------------|---|
| LCC-2020-MV | Gamma Lighting Control 20" (51 cm) Enclosure  |
| LCC-2028-MV | Gamma Lighting Control 28" (71 cm) Enclosure  |
| LCC-2044-MV | Gamma Lighting Control 44" (112 cm) Enclosure |

### Warning/Caution Notations

|   |   |
|---|---|
|  | <b>WARNING</b>  |
|   | Serious injury, death, or severe equipment damage could occur if a procedure or instruction is not followed as specified.<br><b>AVERTISSEMENT</b><br>Le non respect d'une procédure ou instruction peut provoquer des blessures graves voir mortelles ou endommager l'équipement. |

|   |   |
|---|---|
|  | <b>CAUTION</b>  |
|   | Minor or moderate injury may occur if a procedure or instruction is not followed as specified.<br><b>ATTENTION</b><br>Le non respect d'une procédure ou instruction peut provoquer des blessures mineures ou modérés. |

|   |  |
|---|--|
|  | <b>NOTICE</b>  |
|   | Equipment damage may occur if a procedure or instruction is not followed as specified.<br><b>REMARQUE</b><br>Le non respect d'une procédure ou instruction peut provoquer endommager l'équipement. |

### Expected Installation Time

30 minutes


## Required Tools and Materials


- Electric drill
- Punch
- Hammer
- Level
- Marker
- 1/8" blade screwdriver
- Tape measure
- Four corrosion resistant 1/4-20 bolts, flat washers and nuts

### To mount on concrete or masonry:

- Hammer drill
- Carbide-tipped masonry bit
- Four 1/4-20 corrosion resistant wall anchors

## Installation

|   |  |
|---|--|
|  | <b>CAUTION</b>   |
|   | <p>Always refer to local codes or the local authorities having jurisdiction before proceeding.</p> <p><b>ATTENTION</b><br/>         Veuillez vous référer aux réglementations locales en vigueur avant toute intervention.</p> |

|   |   |
|---|---|
|  | <b>NOTICE</b>   |
|   | <p>Mount the enclosure on a stable surface that will support its weight.</p> <p><b>REMARQUE</b><br/>         Monter le coffret sur une surface stable capable de supporter son poids.</p> |

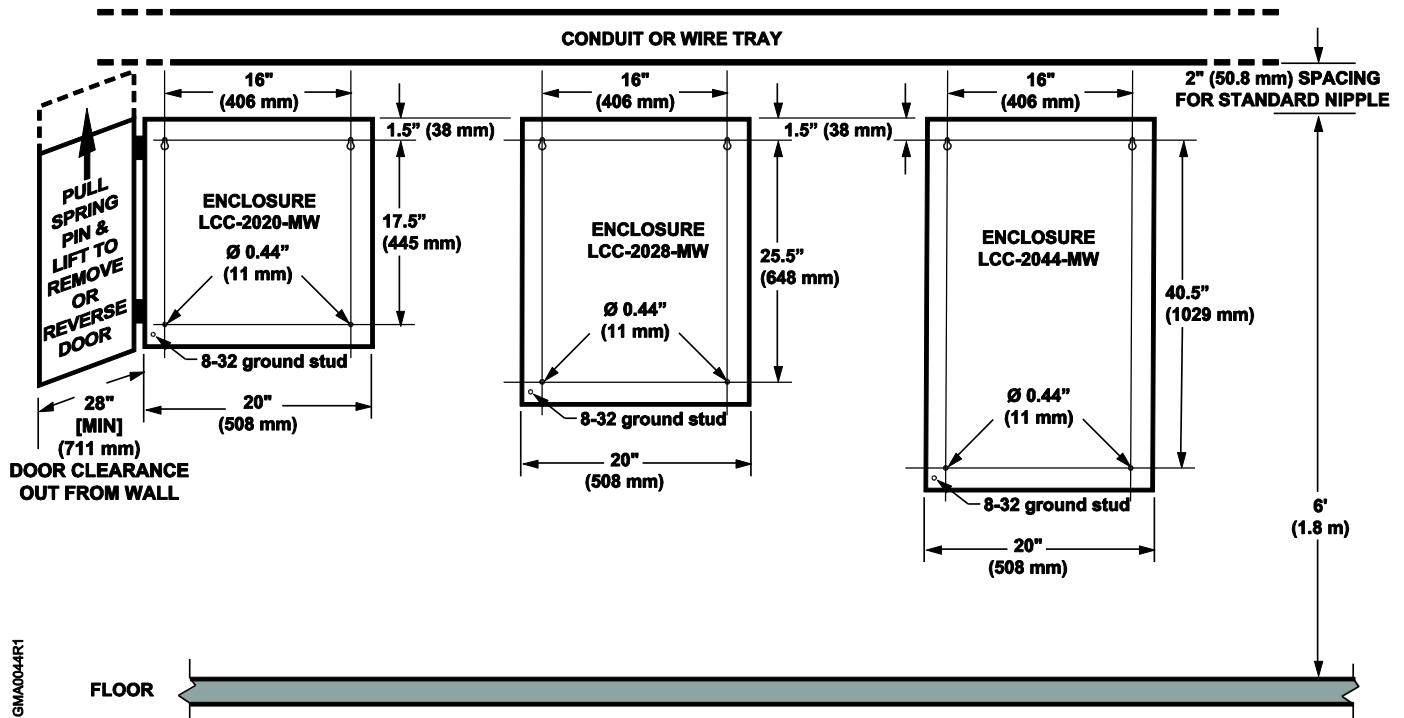


Figure 1: Enclosure Placement Dimensions.

## Positioning the Enclosure

- Determine the mounting location of the enclosure using the following spacing requirements and Figure 1.
  - Space between the face of the panel and an obstruction in front of the panel must be at least 11 inches (28 cm) to allow for door removal at 40 degrees.
  - To fully open the door, a clear space of at least 28 inches (71 cm) is required from a wall on the hinged side.



**NOTE:**  
 The enclosure door can be reversed. See Figure 3.

- Using the dimensions in Figure 1 for placement, drill the two upper mounting holes.
  - Partially insert mounting bolts in holes.
  - Mount the enclosure to the wall. Check the enclosure to be sure it is level.
  - Tighten the mounting bolts.
  - Drill the two lower mounting holes.
  - Insert and tighten the remaining mounting bolts.
- ⇒ The installation is now complete.

## Removing the Knockouts

|  |  |
|--|--|
|  | <p><b>CAUTION</b></p> <p>Separate knockouts should be used for high voltage and low voltage wiring. Leave at least a 2-inch (5 cm) space between the Class 2 and other wires in the panel.</p>                   |
|  | <p><b>ATTENTION</b></p> <p>Utiliser des débouchures séparées pour les lignes de haute et de basse tension. Laisser un espace d'au moins 5 cm entre les lignes de Classe 2 et les autres fils dans l'armoire.</p> |

- Open the enclosure door and remove the enclosure dead front.
- If necessary, remove the DIN rail assembly from the enclosure by removing the mounting nuts.

- Determine the entry locations for wiring. See Figure 2 and Figure 4.
- The following steps apply to Class 1 lighting and power circuits entering on the left side of the enclosure.
  - Punch one entrance on the left-most 1/2" knockout (either on the top or side) for the 120V line voltage wiring to the power supply and other 120V Gamma modules.
  - Punch entrances as needed on the left side to route wiring for the lighting power circuits to and from the switching relays.
- The following steps apply to Class 2 control wiring for KNX, AUX, 0-10V, 24V, and DALI:
  - Punch additional entrances as needed on the enclosure side that is opposite the Class 1 lighting and power wiring.
  - Ensure all Class 2 knockouts are at least 2 inches (5 cm) from other wiring knockouts.

|  |   |
|--|---|
|  | <p><b>NOTICE</b></p> <p>Step 4 and Step 5 may be reversed so that power wiring enters on the right side of the enclosure. However, if data rails are used, the order of the Data Rail 190/x2 connector terminals must be reversed to maintain the correct polarity. For more information, see the <i>Data Rails 190 with Connector Installation Instructions</i> (2515054115).</p> <p><b>REMARQUE</b></p> <p>Les étapes 4 et 5 peuvent être inversées afin que l'alimentation puisse être amené par le coté droit du coffret. Cependant, en cas d'utilisation de rails porteurs de données, l'ordre des bornes de raccordement du rail 190/x2 doit être inversé pour respecter la polarité. Pour plus d'informations, voir <i>Data Rails 190 with Connector Installation Instructions</i> (2515054115).</p> |
|--|---|

**A = 1" and 1-1/4" Knockouts**  
**B = 1/2" and 3/4" Knockouts**

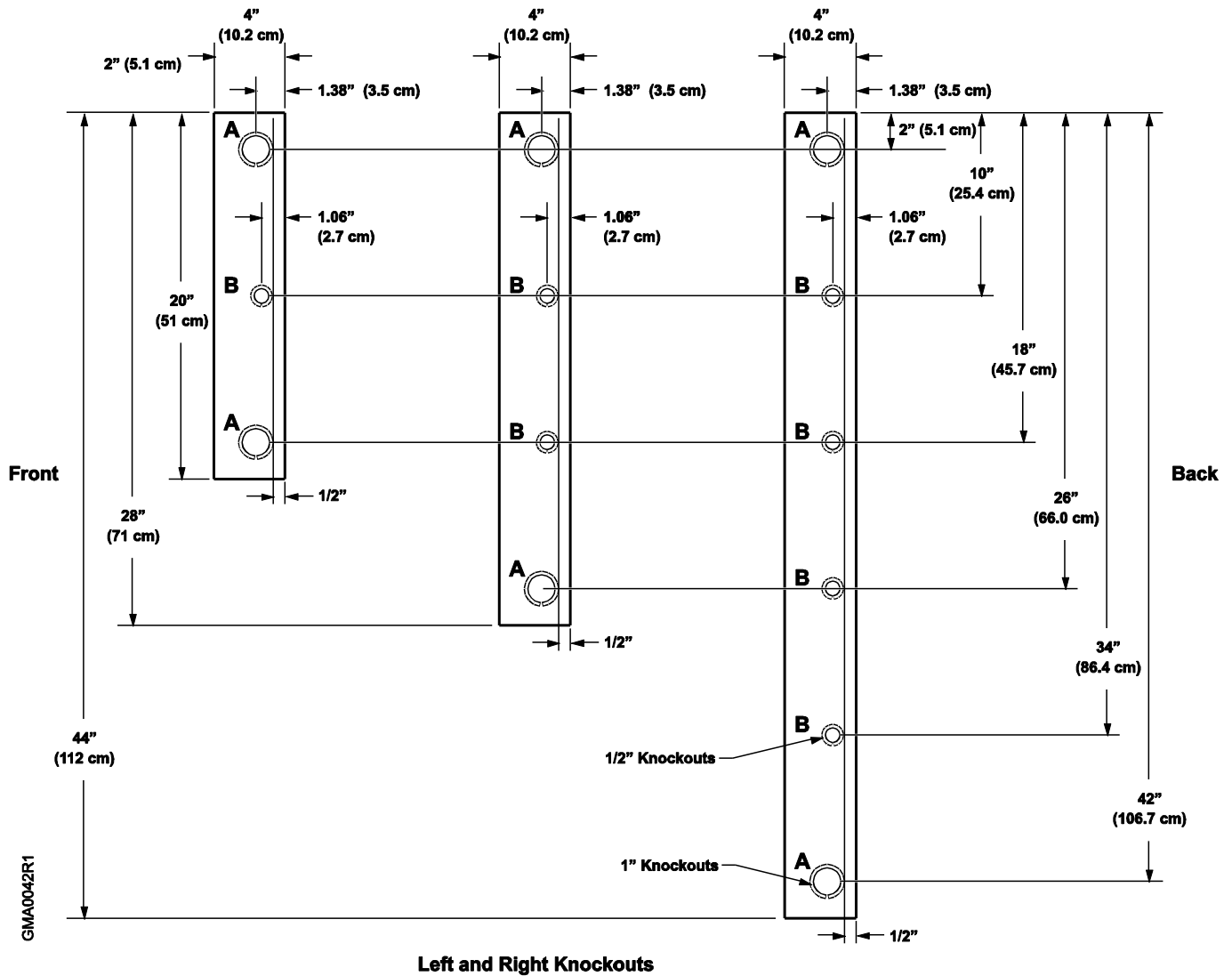
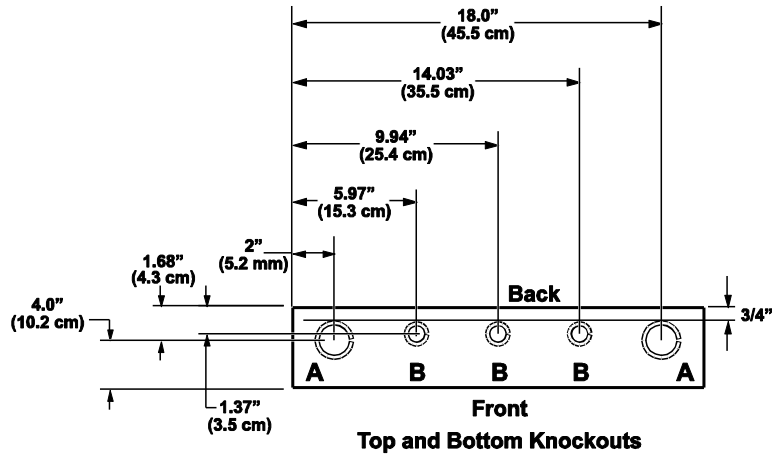



Figure 2: Enclosure Knockout Locations.

## Wiring and Module Installation

|   |   |
|---|---|
|  | <b>⚠ WARNING</b>  |
|   | De-energize Class 1 circuits, tag and lockout the breaker panel.<br><b>AVERTISSEMENT</b><br>Mettre les circuits de Classe 1 hors tension, étiqueter et cadenasser le disjoncteur. |

1. De-energize Class 1 circuits, tag and lockout the breaker panel.
2. Run conduit and pull wires into the panel.
  - Leave enough wire for future changes or additions
  - Allow for full door swing clearance.
3. If it was removed, reinstall the DIN rail assembly.
4. Snap Gamma modules onto the DIN rails.
  - To make wiring separation easier and reduce wiring terminations, use the top DIN rail for low voltage devices that require a Data Rail 190/x2. See Figure 4 and Figure 5.
5. Route Class 1 wires through the knockouts that you designated for Class 1 and terminate on the Gamma devices.
6. Route Class 2 wires through knockouts on the opposite side of the enclosure and terminate on the Gamma devices.
7. Using wire ties, secure the Class 1 and Class 2 wires to opposite edges of the wire barrier to maintain wire separation. See the magnified section of Figure 5 for an example.
8. Reinstall the dead front.
9. If needed, reverse the door by pulling the hinge pin down and rotating the door out of the socket. See Figure 3.

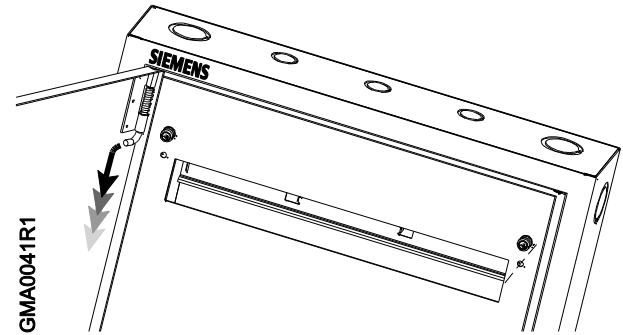


Figure 3: Reversing the Enclosure Door.

10. Place the panel layout sheet in the label pouch inside the door.
11. Remove breaker panel tag and lockout and energize Class 1 circuits.
12. Set Gamma devices in Manual Operation if needed.
13. Close and lock the enclosure door.

The wiring and module installation are now complete.

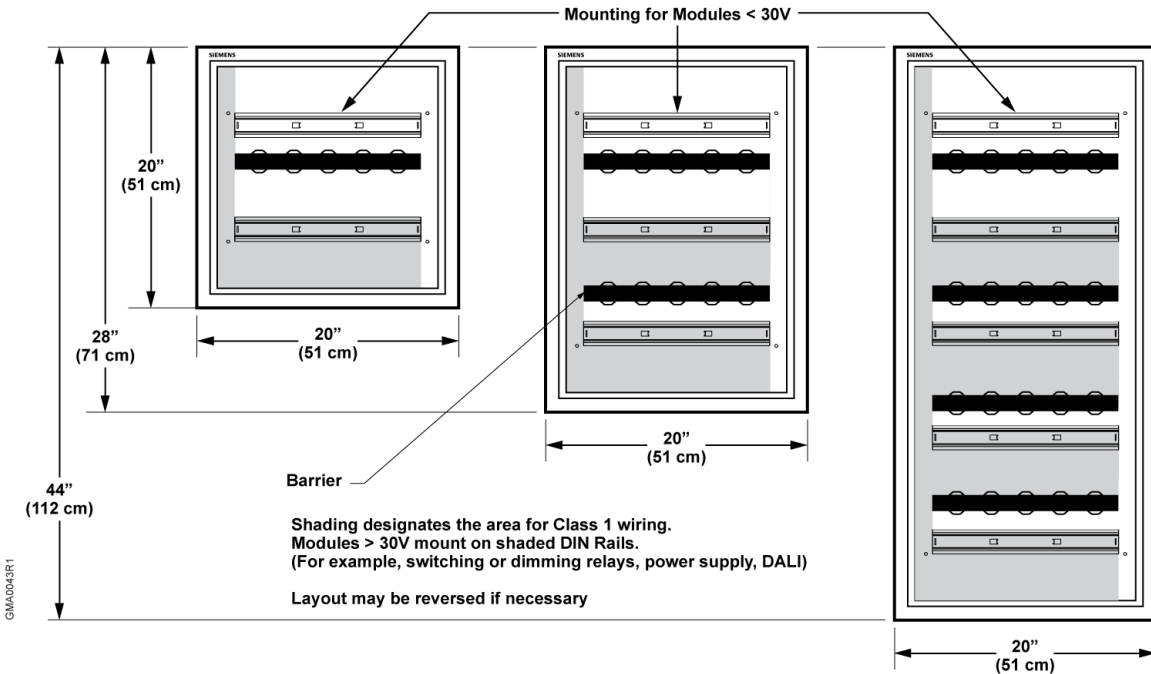


Figure 4: Enclosure Dimensions and Module Placement.

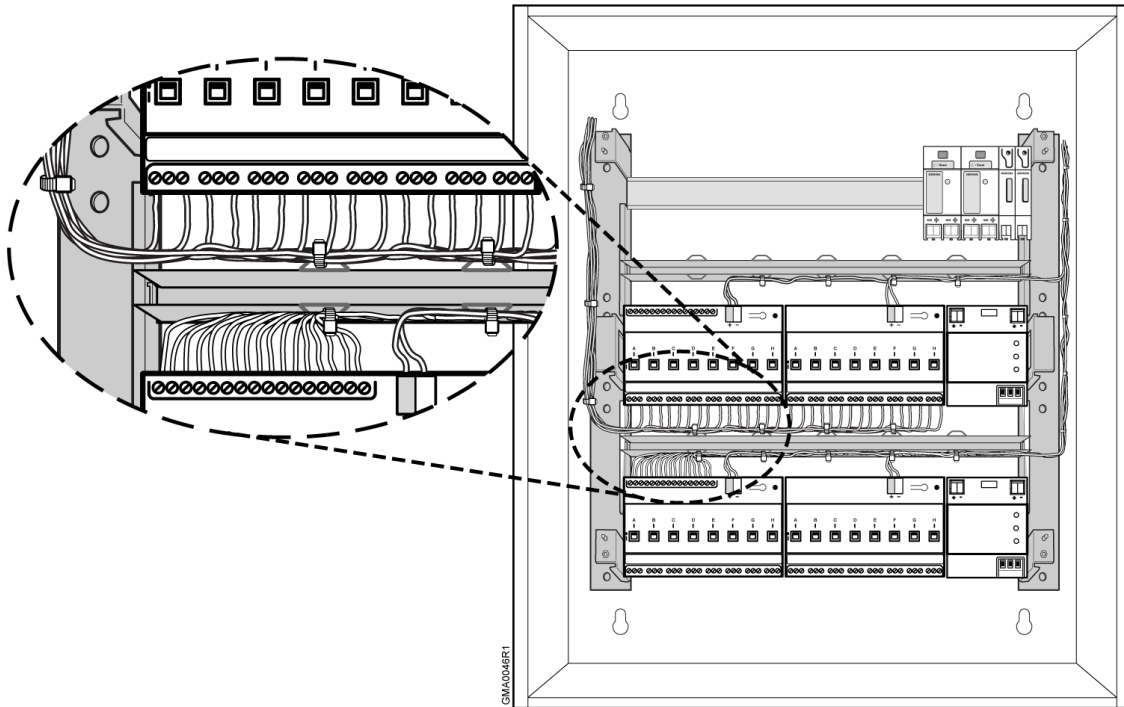


Figure 5: Using the Wire Barrier to Maintain Class 1 and Class 2 Wire Separation.

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