GRID MOUNT INSTALL OPTIONS

Grid drivers can be mounted in 2 standard orientations, either vertical or horizontal to accommodate various plenum heights. There is also a 3rd detached method for shallow plenum spaces or where structural or mechanical obstructions interfere with mounting points.

For ease of installation Standard Vertical method is recommended.

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- Installation and servicing should be performed by qualified service personnel.
- Install in accordance with the National Electrical Code, Canadian Electrical Code, and any local regulations.
- A Constant/Unswitched AC source is required (120 through 277 VAC, 50 or 60 Hz).
- The Constant/Unswitched lead must be fed from the same branch circuit as the Switched lead.
- The maximum mounting height of the suspended luminaire is 10 feet, for emergency lighting purposes.
- The luminaire is not suitable for wet or hazardous locations.
- To reduce risk of electric shock, disconnect both the Switched (normal) and Constant/Unswitched (emergency charging) connections before servicing the luminaire.
- Disconnect the battery pack “blade” fuse before servicing the batteries – line voltage compartment.
- Do not install near gas or electric heaters.
- Equipment should be installed in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than its intended use.

SAVE THESE INSTRUCTIONS
INSTALLATION: DRIVER ENCLOSURE

Ceiling Type | Grid
Version      | Battery Pack Vertical

OPTION 1: Standard Vertical

TOOLS + MATERIALS REQUIRED

Tools:
- Laser Line Tool
- Measuring Tool
- Pliers
- Conduit & Wiring Tools
- Phillips Screwdriver
- 4" Diameter Hole Saw
- Knife

Materials:
- Caddy 512 (for Off-Grid suspension points)

IMPORTANT

All fixtures should be installed in accordance with national and local building and electrical codes.

Do not install insulation within 3 inches (76mm) of any part of the enclosure.

For model IDC-G24 or models IDC-G2101 through to IDC-G2600, note the following regulatory requirements.

Install with minimum spacing between:
- center-to-center of adjacent luminaires: 24 inches (600mm)
- top of luminaire driver enclosure to overhead building member: 0.5 inches (13mm)
- luminaire driver enclosure mount center to side of building member: 12 inches (300mm)
1 DETERMINE SUSPENSION POINT LOCATIONS

Refer to Row Configuration Document

Layout the luminaire suspension point locations. Luminaire suspension points are 48” or 96” apart, depending on the luminaire. For a continuous run luminaire, note the location of the “non-power” suspension point (one point in from one of the ends).

2A ON-GRID: MOUNT T-BAR CLIPS

1. Mount T-bar clips to the T-bar at the suspension point locations.
2. Install a support wire vertically to the building structure.
   Skip to step #10 for non-power suspension points.

2B OFF-GRID: INSTALL TILE + SUPPORT BARS

1. Mark location + drill 4” diameter hole in ceiling tile.
2. Install ceiling tile + leave in place for remaining steps.
3. Mount Caddy-512 bars (by others) in orientation shown.
4. Install T-bar clips to Caddy-512 bars with vertical support wire to building structure.
   Skip to step #10 for non-power suspension points.

3 REMOVE WIRING LID

Remove wiring lid and locate parts bag.

4 INSTALL FLEX CONDUIT

For ON-GRID + OFF-GRID mounts:
Remove the end 9/16” knockout and install the low voltage flex conduit between the mount clip and the enclosure using pliers to compress the conduit fittings.

5 MOUNT DRIVER TO T-BAR CLIP

For ON-GRID + OFF-GRID mounts:
Hook driver enclosure onto T-bar clip.

6 ATTACH DRIVER TO SUSPENSION WIRE

For ON-GRID + OFF-GRID mounts:
1. Rotate end bracket and close tab to trap suspension wire in place.
2. Optionally zip tie to suspension wire to stop movement noise.

7 MOUNT DRIVER TO T-BAR CLIP

For ON-GRID + OFF-GRID mounts:
Screw the driver enclosure to the T-bar clip with supplied screws.

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Due to continuing product improvements, specifications and dimensions are subject to change without notice. Consult www.fluxwerx.com for most current technical information.
For ON-GRID + OFF-GRID mounts:
1. Screw on the battery pack sensor metal bracket to the T-bar clip with supplied screw.
2. Remove one of the back lower 7/8” knockouts and install the supplied flex conduit for the battery pack test switch wires.

**8 WIRE SOURCE LINE**

For ON-GRID + OFF-GRID mounts:
Wire the source line voltage to driver box “line voltage cavity”.

**NOTE:** For Dimming Control Wiring:
1. Follow product label indicating whether dimming wiring is Class1 or Class2, Class1 Only, or Class2 Only.
2. For Class1 dimming control wiring, make connections in Line Voltage Cavity and wire field dimming wires with the line voltage wires or in separate conduit.
3. For Class2 dimming control wiring, route the driver dimming wires through the barrier hole to the Low Voltage Cavity and make connections to field Class2 dimming wires in the Low Voltage Cavity. Use the knock-outs in the Low Voltage Cavity for the field Class2 dimming wires.

**9 ATTACH BATTERY PACK BRACKET + CONDUIT**

For ON-GRID + OFF-GRID mounts:
Wire the source line voltage to driver box “line voltage cavity”.

**NOTE:** For Dimming Control Wiring:
1. Follow product label indicating whether dimming wiring is Class1 or Class2, Class1 Only, or Class2 Only.
2. For Class1 dimming control wiring, make connections in Line Voltage Cavity and wire field dimming wires with the line voltage wires or in separate conduit.
3. For Class2 dimming control wiring, route the driver dimming wires through the barrier hole to the Low Voltage Cavity and make connections to field Class2 dimming wires in the Low Voltage Cavity. Use the knock-outs in the Low Voltage Cavity for the field Class2 dimming wires.

**10 INSTALL TILE (ON-GRID) + CEILING CANOPY**

For ON-GRID mounts ONLY:
1. Mark position + cut notch in ceiling tile, 2” radius.
2. Install ceiling tile.

For ON-GRID + OFF-GRID mounts:
3. Install aircraft cable with larger supplied ceiling canopy with pre-installed battery switch.
4. Feed battery switch wires wires through the conduit + press switch body inside the conduit.

**11 WIRE BATTERY PACK SWITCHES**

For ON-GRID + OFF-GRID mounts:
Connect battery switch wires using supplied lever nuts.

**12 INSERT FUSE AFTER CIRCUIT IS ENERGIZED**

For ON-GRID + OFF-GRID mounts:
Insert fuse after fixture drop cord wires are connected and after branch circuit is energized.
OPERATION

When the circuit is energized, the charging indicator light is illuminated, indicating the batteries are being charged. When power fails, the internal emergency driver automatically switches to emergency battery power, operating the luminaire at over 1500 lumens output. When the circuit power is restored, the emergency driver returns to charging mode. The emergency driver will operate the luminaire at over 1500 lumens output for a minimum of 90 minutes.

MAINTENANCE

Although no routine maintenance is required to keep the emergency luminaire functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the luminaire at 30-day intervals for a minimum of 30 seconds by depressing the test switch. The luminaire should switch to battery operation and illuminate.
3. Conduct a 90-minute discharge test once a year by de-energizing the lighting circuit. The emergency luminaire should be illuminated for a minimum of 90 minutes.

TROUBLE SHOOTING + REPLACEMENT

* Servicing should be performed by qualified service personnel *

If the luminaire fails to light during an emergency test, the output fuse or the batteries may need replacing. De-energize both the Constant/Unswitched and Switched circuits.

• Open the driver enclosure line voltage wiring compartment and locate the yellow fuse holder and remove the fuse. Replace the fuse if necessary with a new 2 A, 32 Vdc non-time delay blade fuse.
• Contact Fluxwerx for replacement batteries, NOT Philips Bodine. To replace the batteries, first remove the fuse from the yellow fuse holder, then disconnect the battery cable connections (pull apart) in the driver compartment and unscrew the sheet metal bracket. Re-assemble in reverse order. The batteries are Nickel-Cadmium rechargeable batteries and must be recycled or disposed of properly, per local regulations.

IMPORTANT

THIS PRODUCT CONTAINS NICKEL-CADMIUM BATTERIES. BATTERIES MUST BE RECYCLED OR DISPOSED OF PROPERLY
INSTALLATION: DRIVER ENCLOSURE

Ceiling Type: Grid
Version: Horizontal Battery Pack

TOOLS + MATERIALS REQUIRED

Tools:
- Laser Line Tool
- Measuring Tool
- Pliers
- Conduit & Wiring Tools
- Phillips Screwdriver
- 4” Diameter Hole Saw
- Cordless Drill
- Knife

Materials:
- Caddy 512 (for Off-Grid suspension points)

OPTION 2: Standard Horizontal

IMPORTANT
- All fixtures should be installed in accordance with national and local building and electrical codes.
- Do not install insulation within 3 inches (76mm) of any part of the enclosure.
- For model IDC-G24 or models IDC-G2101 through to IDC-G2600, note the following regulatory requirements.
- Install with minimum spacing between:
  - center-to-center of adjacent luminaires: 24 inches (600mm)
  - top of luminaire driver enclosure to overhead building member: 0.5 inches (13mm)
  - luminaire driver enclosure mount center to side of building member: 12 inches (300mm)
1 **DETERMINE SUSPENSION POINT LOCATIONS**

Refer to Row Configuration Document

Layout the luminaire suspension point locations. Luminaire suspension points are 48” or 96” apart, depending on the luminaire. For a continuous run luminaire, note the location of the “non-power” suspension point (one point in from one of the ends).

2A **ON-GRID: MOUNT T-BAR CLIPS**

1. Mount T-bar clips to the T-bar at the suspension point locations.
2. Install a support wire vertically to the building structure.

Skip to step #13 for non-power suspension points.

2B **OFF-GRID: INSTALL TILE + SUPPORT BARS**

1. Mark location + drill 4” diameter hole in ceiling tile.
2. Install ceiling tile + leave in place for remaining steps.
3. Mount Caddy-512 bars (by others) across suspension point in orientation shown.
4. Install the T-bar clips to the Caddy-512 bars with vertical support wire to building structure

Skip to step #13 for non-power suspension points.

3 **REMOVE WIRING LID**

Remove wiring lid and locate parts bag.

4 **DETERMINE BRACKET HEIGHT / HOLES**

1. Test fit the driver enclosure by hooking the driver enclosure onto T-bar clip in either the left or right horizontal orientation.
2. Determine which set of holes to use for support bracket (to allow the enclosure to be level).

5 **ATTACH SUPPORT BRACKET**

ON-GRID + OFF-GRID:
Unhook the driver and mount the support bracket to the driver enclosure with supplied screws.
6 INSTALL FLEX CONDUIT

ON-GRID + OFF-GRID:
Remove the end 9/16” knockout and install the low voltage flex conduit between the mount clip and the enclosure using pliers to compress the conduit fittings.

7 MOUNT DRIVER TO T-BAR CLIP

ON-GRID: Re-hook the driver enclosure to the T-bar clip and rest the support bracket on the T-bar.

OFF-GRID: Re-hook the driver enclosure to the T-bar clip and rest the support bracket on the Caddy-512.

8 TIE TO SUSPENSION WIRE

ON-GRID + OFF-GRID:
Bend top corner tab out and install zip tie from corner tab hole to vertical suspension wire.

NOTE: Alternatively, the suspension wire can be installed directly to the corner tab hole instead of the T-bar clip and the zip tie used to keep the T-bar clips together.

9 INSTALL SCREWS TO T-BAR CLIP

ON-GRID + OFF-GRID:
Screw the driver enclosure to the T-bar clip with supplied screws.

10 SECURE SUPPORT BRACKET TO GRID

ON-GRID: Screw the support bracket to the T-bar using the supplied self-drilling sheet metal screw.

OFF-GRID: Zip tie the support bracket to the Caddy-512.

NOTE: For additional support and/or for earthquake requirements, the support bracket and the corner tab holes can be used with suspension wire to connect to the building structure.

11 WIRE SOURCE LINE

ON-GRID + OFF-GRID:
Wire the source line voltage to the driver box “line voltage cavity”.

NOTE: For Dimming Control Wiring:
1. Follow product label indicating whether dimming wiring is Class1 or Class2, Class1 Only, or Class2 Only.
2. For Class1 dimming control wiring, make connections in Line Voltage Cavity and wire field dimming wires with the line voltage wires or in separate conduit.
3. For Class2 dimming control wiring, route the driver dimming wires through the barrier hole to the Low Voltage Cavity and make connections to field Class2 dimming wires in the Low Voltage Cavity. Use the knockout’s in the Low Voltage Cavity for the field Class2 dimming wires.
12 ATTACH BATTERY PACK BRACKET + CONDUIT

ON-GRID + OFF-GRID:
1. Screw on the battery pack sensor metal bracket to the T-bar clip with supplied screw.
2. Remove the back lower 7/8" knockout and install the supplied flex conduit for the battery pack test switch wires.

13 INSTALL CEILING TILE (ON-GRID) + CANOPY

For ON-GRID mounts ONLY:
1. Mark position + cut notch in ceiling tile, 2" radius.
2. Install ceiling tile.

For ON-GRID + OFF-GRID mounts:
3. Install aircraft cable with larger supplied ceiling canopy with pre-installed battery switch.
4. Feed battery switch wires through the conduit + press switch body inside the conduit.

14 WIRE BATTERY PACK SWITCH WIRES

ON-GRID + OFF-GRID:
Connect battery pack switch wires using supplied lever nuts.

15 INSERT FUSE AFTER CIRCUIT IS ENERGIZED

ON-GRID + OFF-GRID:
Insert fuse after fixture drop cord wires are connected and after branch circuit is energized.
OPERATION

When the circuit is energized, the charging indicator light is illuminated, indicating the batteries are being charged. When power fails, the internal emergency driver automatically switches to emergency battery power, operating the luminaire at over 1500 lumens output. When the circuit power is restored, the emergency driver returns to charging mode. The emergency driver will operate the luminaire at over 1500 lumens output for a minimum of 90 minutes.

MAINTENANCE

Although no routine maintenance is required to keep the emergency luminaire functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the luminaire at 30-day intervals for a minimum of 30 seconds by depressing the test switch. The luminaire should switch to battery operation and illuminate.
3. Conduct a 90-minute discharge test once a year by de-energizing the lighting circuit. The emergency luminaire should be illuminated for a minimum of 90 minutes.

TROUBLE SHOOTING + REPLACEMENT

* Servicing should be performed by qualified service personnel *

If the luminaire fails to light during an emergency test, the output fuse or the batteries may need replacing. De-energize both the Constant/Unswitched and Switched circuits.

• Open the driver enclosure line voltage wiring compartment and locate the yellow fuse holder and remove the fuse. Replace the fuse if necessary with a new 2 A, 32 Vdc non-time delay blade fuse.
• Contact Fluxwerx for replacement batteries, NOT Philips Bodine. To replace the batteries, first remove the fuse from the yellow fuse holder, then disconnect the battery cable connections (pull apart) in the driver compartment and unscrew the sheet metal bracket. Re-assemble in reverse order. The batteries are Nickel-Cadmium rechargeable batteries and must be recycled or disposed of properly, per local regulations.

IMPORTANT

THIS PRODUCT CONTAINS NICKEL-CADMIUM BATTERIES. BATTERIES MUST BE RECYCLED OR DISPOSED OF PROPERLY
INSTALLATION: DRIVER ENCLOSURE

Ceiling Type  | Grid
---|---
Version  | Detached with Battery Pack

Alternative installation method for shallow plenum spaces, or where structural or mechanical obstructions interfere with mounting points.

**ON GRID**

- Uses the universal mounting clip. Requires a horizontal switchbox, conduit, connectors and fasteners; supplied and installed by others.

**OFF GRID**

- Uses the universal mounting clip. Requires a Caddy 512 bar, switchbox, conduit, connectors and fasteners; supplied and installed by others.

**OPTION 3: Detached Method**

Alternative installation method for shallow plenum spaces, or where structural or mechanical obstructions interfere with mounting points.

**IMPORTANT**

All fixtures should be installed in accordance with national and local building and electrical codes.

Do not install insulation within 3 inches (76mm) of any part of the enclosure.

For model IDC-G24 or models IDC-G2101 through to IDC-G2600, note the following regulatory requirements.

Install with minimum spacing between:

- center-to-center of adjacent luminaires: 24 inches (600mm)
- top of luminaire driver enclosure to overhead building member: 0.5 inches (13mm)
- luminaire driver enclosure mount center to side of building member: 12 inches (300mm)
INSTALLATION

1. DETERMINE SUSPENSION POINT LOCATIONS

Refer to Row Configuration Document

Layout the luminaire suspension point locations. Luminaire suspension points are 48" or 96" apart, depending on the luminaire. For a continuous run luminaire, note the location of the “non-power” suspension point (one point in from one of the ends).

2A. ON-GRID: MOUNT T-BAR CLIPS

1. Mount T-bar clips to the T-bar at the suspension point locations.
2. Install a support wire vertically to the building structure.

Skip to step #12 for non-power suspension points

2B. OFF-GRID: INSTALL TILE + SUPPORT BARS

1. Mark location + drill 4" diameter hole in ceiling tile.
2. Install ceiling tile + leave in place for remaining steps.
3. Mount Caddy-512 bars (by others) across suspension point in orientation shown.
4. Install the T-bar clips to the Caddy-512 bars with vertical support wire to building structure.

Skip to step #12 for non-power suspension points.

3. REMOVE WIRING LID

Remove wiring lid and locate parts bag.

TOOLS + MATERIALS REQUIRED

Tools:
• Laser Line Tool
• Measuring Tool
• Pliers
• Conduit & Wiring Tools
• Phillips Screwdriver
• 4” Diameter Hole Saw
• Knife

Materials:
• Caddy 512(for Off-Grid suspension points)
• (2)Single Gang J-Box
• 3/8” Trade Conduit Fitting
• J-box Coupler

Tools + materials required
**4A MOUNT DRIVER TO BUILDING STRUCTURE (opt. A)**

Option A: Screw through rear holes in enclosure wiring cavity and bend center end tab for end mounting hole (screws supplied by others).

**NOTE:**
1. See table of distance vs. wire gauge at end of section.

**4B MOUNT DRIVER TO BUILDING STRUCTURE (opt. B)**

Option B: Use corner tabs and suspend driver using suspension wire.

**NOTE:**
1. See table of distance vs. wire gauge at end of section.

**5 WIRE SOURCE LINE**

Wire the source line voltage to driver box “line voltage cavity”.

**NOTE:** For Dimming Control Wiring:
1. Follow product label indicating whether dimming wiring is Class1 or Class2. Class1 Only, or Class2 Only.
2. For Class1 dimming control wiring, make connections in Line Voltage Cavity and wire field dimming wires with the line voltage wires or in separate conduit.
3. For Class2 dimming control wiring, route the driver dimming wires through the barrier hole to the Low Voltage Cavity and make connections to field Class2 dimming wires in the Low Voltage Cavity. Use the knock-outs in the Low Voltage Cavity for the field Class2 dimming wires.

**6 FLATTEN HOOKS**

For ON-GRID + OFF-GRID mounts:
Fold T-bar clip hooks flat.

**7 INSTALL FLEX CONDUIT**

For ON-GRID + OFF-GRID mounts:
1. Cut low voltage flex conduit to length.
2. Install from T-bar clip to standard single gang junction box (supplied by others).

**8 MOUNT JUNCTION BOX**

For ON-GRID + OFF-GRID mounts:
1. Mount standard single gang junction box (supplied by others) to T-bar clip with supplied screws.
2. Join second J-box with coupler fitting (supplied by others).
9 WIRE TO JUNCTION BOX

For ON-GRID + OFF-GRID mounts, wire:
- low voltage wires from driver enclosure low voltage cavity to T-bar clip junction box (conduit connectors + wire supplied by others).
- fixture wires to first junction box
- battery switch wires to second junction box

NOTE:
1. See table of distance vs. wire gauge.
2. Save supplied lever nuts & blue twist connectors for J-box connections to fixt. cord + bat. switch wires.

10 ATTACH BATTERY PACK BRACKET

For ON-GRID + OFF-GRID mounts:
Screw on the battery pack sensor metal bracket to the T-bar clip with supplied screw.

11 INSTALL TEST SWITCH WIRE CONDUIT

For ON-GRID + OFF-GRID mounts:
Remove one of the 7/8" knockouts from the second J-box and install the supplied flex conduit for the battery pack test switch wires.

12 INSTALL CEILING TILE (ON GRID) + CANOPY

For ON-GRID mounts:
1. Mark position + cut notch in ceiling tile, 2" radius.
2. Install ceiling tile.

For both ON/OFF-GRID mounts:
1. Install aircraft cable with larger supplied ceiling canopy with pre-installed battery switch.
2. Feed battery switch wires through conduit + press switch body inside conduit.

13 WIRE BATTERY PACK SWITCH WIRES

For ON-GRID + OFF-GRID mounts:
Connect appropriate battery switch wires to complete switch wiring using supplied lever nuts.

14 INSERT FUSE AFTER CIRCUIT IS ENERGIZED

For ON-GRID + OFF-GRID mounts:
Insert fuse after fixture drop cord wires are connected and after branch circuit is energized.

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Distance (ft), up to: | Recommended Wire Gauge for Minimal Losses (AWG)
---|---
30 | 18
50 | 14
80 | 12

Table 1. Low Voltage Distance vs. Wire Gauge
OPERATION

When the circuit is energized, the charging indicator light is illuminated, indicating the batteries are being charged. When power fails, the internal emergency driver automatically switches to emergency battery power, operating the luminaire at over 1500 lumens output. When the circuit power is restored, the emergency driver returns to charging mode. The emergency driver will operate the luminaire at over 1500 lumens output for a minimum of 90 minutes.

MAINTENANCE

Although no routine maintenance is required to keep the emergency luminaire functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the luminaire at 30-day intervals for a minimum of 30 seconds by depressing the test switch. The luminaire should switch to battery operation and illuminate.
3. Conduct a 90-minute discharge test once a year by de-energizing the lighting circuit. The emergency luminaire should be illuminated for a minimum of 90 minutes.

TROUBLE SHOOTING + REPLACEMENT

* Servicing should be performed by qualified service personnel *

If the luminaire fails to light during an emergency test, the output fuse or the batteries may need replacing. De-energize both the Constant/Unswitched and Switched circuits.
- Open the driver enclosure line voltage wiring compartment and locate the yellow fuse holder and remove the fuse. Replace the fuse if necessary with a new 2 A, 32 Vdc non-time delay blade fuse.
- Contact Fluxwerx for replacement batteries, NOT Philips Bodine. To replace the batteries, first remove the fuse from the yellow fuse holder, then disconnect the battery cable connections (pull apart) in the driver compartment and unscrew the sheet metal bracket. Re-assemble in reverse order. The batteries are Nickel-Cadmium rechargeable batteries and must be recycled or disposed of properly, per local regulations.

IMPORTANT

THIS PRODUCT CONTAINS NICKEL-CADMIUM BATTERIES. BATTERIES MUST BE RECYCLED OR DISPOSED OF PROPERLY

Ni-Cd