



Unison Foundry

Mini Panel

Installation and User Operation Manual

Version 1.0.1

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Table of Contents

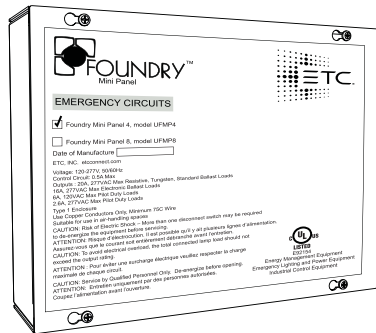
	Introduction	1
	Features and Specification	2
	Codes and Standards	2
	Important Safeguards	2
	Warnings and Notice Conventions	2
	Help from ETC Technical Services	3
	Contact ETC	3
Chapter 1	Prepare for Installation	4
	Inspect the Shipment	4
	Main Circuit Breaker Protection	4
	Installation Environment	4
	Tools and Supplies	5
	Conduit Access	5
	Electrical Input Wiring Requirements	6
	Control Wiring Requirements	7
Chapter 2	Installation	8
	Mount the Mini Panel	8
	Rough-In and Terminate Cable	9
	High Voltage Wiring	9
	Low Voltage Wiring	13
	Configure the Mini Panel	16
	Set the Emergency UL 924 Configuration Switch	16
	Set the Sense Enable Switch	16
	Set the Emergency UL 924 Load Shed Switch	16
	Set the Emergency UL 924 Inclusion Switches	17
	Set the Demand Response Levels	17

Chapter 3	Power Up and Set DMX Address	18
	Before Applying Power to the Mini Panel	18
	Power Up.	18
	Set the DMX Address	19
	Manually Set the DMX Address.	19
	Check Features	22
	Demand Response	22
	Set the Data Loss Behavior.	23
	Troubleshooting	23
	Update the Software	23
	Restore Defaults	23
Appendix A	RDM Parameters	24

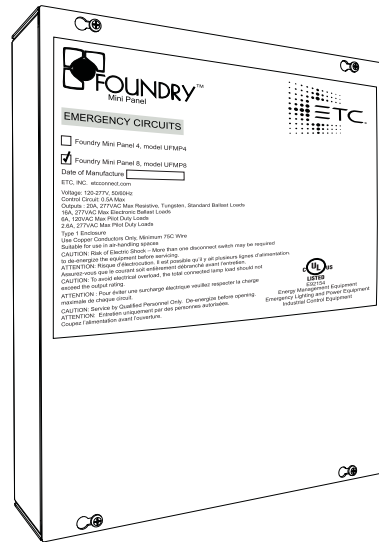
Introduction

Welcome to the installation and user operation manual for the Unison Foundry Mini Panel. This manual contains the procedures for safe and efficient installation of the Mini Panel.

The Mini Panel is designed for 120–277VAC, 47–63 Hz installations and provides switching of four or eight zones with integrated, fully isolated 0–10V dimming control per output, all in a compact, surface-mount enclosure.



4-Relay Mini Panel



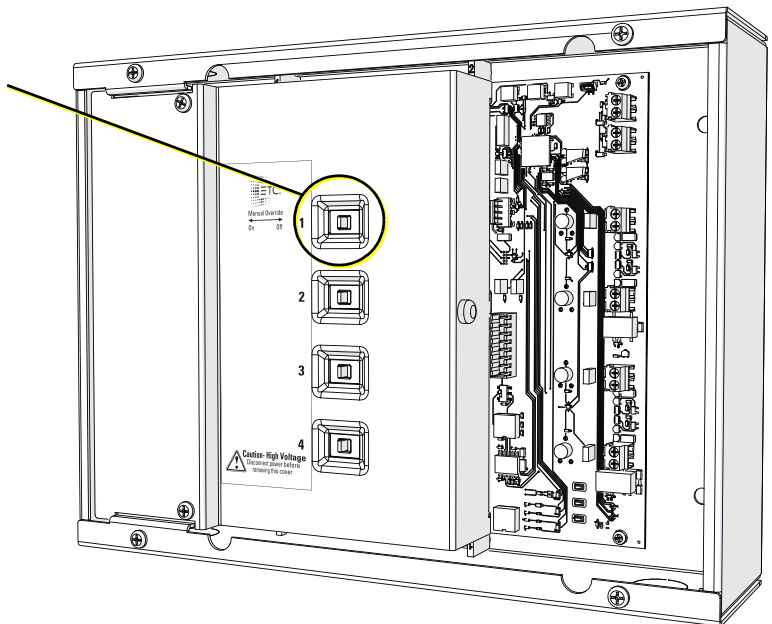
8-Relay Mini Panel

Two models are available:

- 4 relays with Demand Response input, UL 924 control bypass contact input and sense circuit
- 8 relays with Demand Response input, UL 924 control bypass contact input and sense circuit

You can manually override each relay on or off.

- Slide the relay switch left to turn on
- Slide the relay switch right to turn off



Note: If you manually override a relay when DMX is present, the relay will remain in its overridden state until DMX control is reasserted (when the DMX control level crosses the control threshold again).

Features and Specification

Mini Panels are designed for indoor use only!

The Mini Panel features:

- Either four or eight mechanically latching relays. Relays are rated for the following load types:
 - 100,000 cycles of 20A resistive load
 - 30,000 cycles of 20A tungsten load at 277 VAC
 - 30,000 cycles of standard ballast at 20A, 120 or 277 VAC
 - 30,000 cycles of electronic ballast at 16A, 120 or 277 VAC
- Either four or eight 0–10V outputs with current sink of 100 mA
- Dry contact closures for UL 924 control bypass and Demand Response control input
- Integrated sense circuit for UL 924 control bypass

Codes and Standards

The Mini Panel meets or exceeds the following regulatory standards:

- UL 916 for energy management equipment
- UL 924 for emergency lighting and power equipment
- UL 2043 for installation in air-handling (plenum) spaces

Important Safeguards

READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

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

- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not readily 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 anything other than its intended use.
- Operation and servicing by qualified personnel only!

SAVE THESE INSTRUCTIONS

Warnings and Notice Conventions

These symbols are used in this document to alert you to danger or important information.



Note: *Notes are helpful hints and information that is supplemental to the main text.*



CAUTION: *A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, potential for data loss or an equipment problem.*



WARNING: **A Warning statement indicates situations where damage may occur, people may be harmed, or there are serious or dangerous consequences of an action.**



WARNING: **RISK OF ELECTRIC SHOCK! This warning statement indicates situations where there is a risk of electric shock.**

Help from ETC Technical Services

If you are having difficulties, your most convenient resources are the references given in this manual. To search more widely, try the ETC Web site at etconnect.com. If none of these resources is sufficient, contact ETC Technical Services directly at one of the offices identified below. Emergency service is available from all ETC offices outside of normal business hours.

When calling for help, please have the following information handy:

- Product model and serial number (located on the product label)
- List of connected load types
- Connected devices, if any

Contact ETC

Americas

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Middleton, WI 53562
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Please email comments about this manual to: TechComm@etconnect.com.

Chapter 1

Prepare for Installation

Inspect the Shipment

Before you begin installation, check your shipment and confirm that it arrived complete and undamaged.

- 1: Check the shipping box for physical damage.
 - If you find damage, document it to help with a claim against your shipper.
- 2: Inspect the order for completeness.
 - Check the box contents received against the packing list to ensure that your order received is complete.
 - If you discover a problem with the contents of the shipment, contact ETC Technical Services at the location nearest you. See [Help from ETC Technical Services](#) on [page 3](#).

Main Circuit Breaker Protection

Before beginning installation of your Mini Panel, make sure you have installed a main circuit breaker cabinet or other readily accessible input power disconnect device.

When more than one power source is supplying the Mini Panel, a voltage barrier may be required by local code. This voltage divider is an accessory option, sold separately, and available for use when local code requires. Order ETC part number 7187A4021.



WARNING: Mini Panel circuits installed without an accessible power disconnect device cannot be serviced or operated safely.

Installation Environment

Follow these guidelines for the installation environment:

- Intended for surface wall mounting. The installation location and the mounting hardware must support at least 20 lb (9 kg).
- Install the enclosure in a location where it will not be subject to tampering or vandalism.
- For indoor use only! Operates at ambient temperature between 0C–40C (32°F–104°F), dry room 5–90% non-condensing relative humidity.
- The Mini Panel is rated for installation in a plenum space.



Note: *Always follow applicable building and local electrical code requirements when installing this equipment.*

Tools and Supplies

The following tools and supplies are required for installation but are not included with the Mini Panel.

- Mounting hardware: four mounting bolts or screws



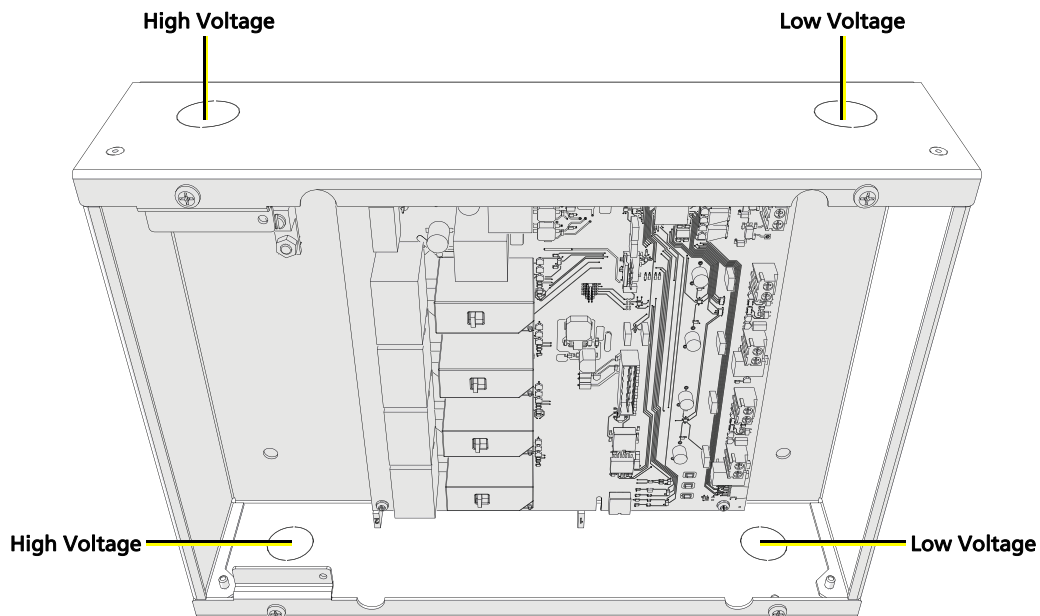
Note: *Both the installation location and the mounting hardware must support a fully installed unit (including conduit and cable), which weighs approximately 20 lb (9 kg).*

- Set of screwdrivers, including both flat-blade and Phillips-head types
- Conduit and supporting hardware
- Insulation stripping tool
- Appropriately sized wire nuts or WAGO® installation connectors
- Small 4–6 in (10–15 cm) cable ties

Conduit Access

Take care to separate high voltage power from low voltage (Class 2) control wiring. Use the knockouts on the top and bottom of the enclosure for conduit access into the unit. You can create additional conduit access using a knockout punch as needed.

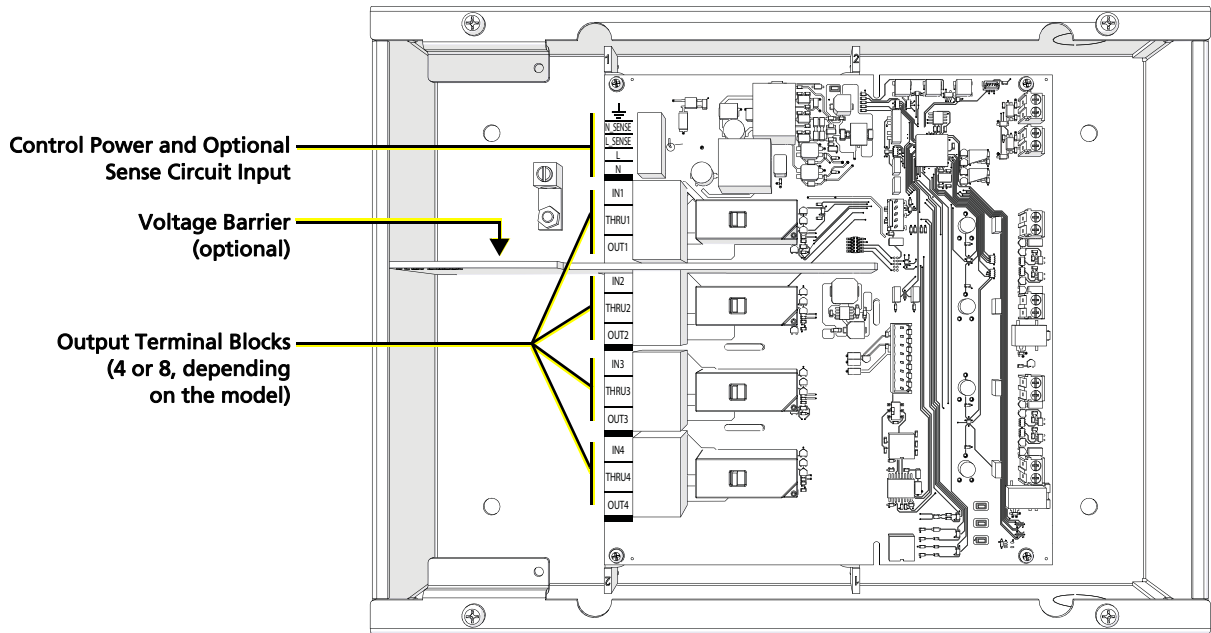
- High voltage wires: Left side (top or bottom) of the enclosure
- Low voltage wires: Right side (top or bottom) of the enclosure



Note: *All low voltage (Class 2) control cables must run in separate conduit from high voltage power wires. To maintain the integrity of the voltage separation, use the provided voltage barrier inside the enclosure to separate all low voltage components from the high voltage power.*

Electrical Input Wiring Requirements

Remove the main cover and the high voltage cover to access the high voltage electrical terminations, including control power input and relay inputs/outputs, which are located on the left side of the enclosure.



Note: Always follow applicable US National Electrical Code (NEC) and local electrical code requirements when installing and powering this equipment.



CAUTION: For your own safety, do not supply power to the enclosure until all installation is complete, connected circuits have been tested and found free of electrical shorts, and covers have been replaced. Follow appropriate Lockout/Tagout procedures as described in National Fire Protection Association (NFPA) Standard 70E.

Electrical Terminations

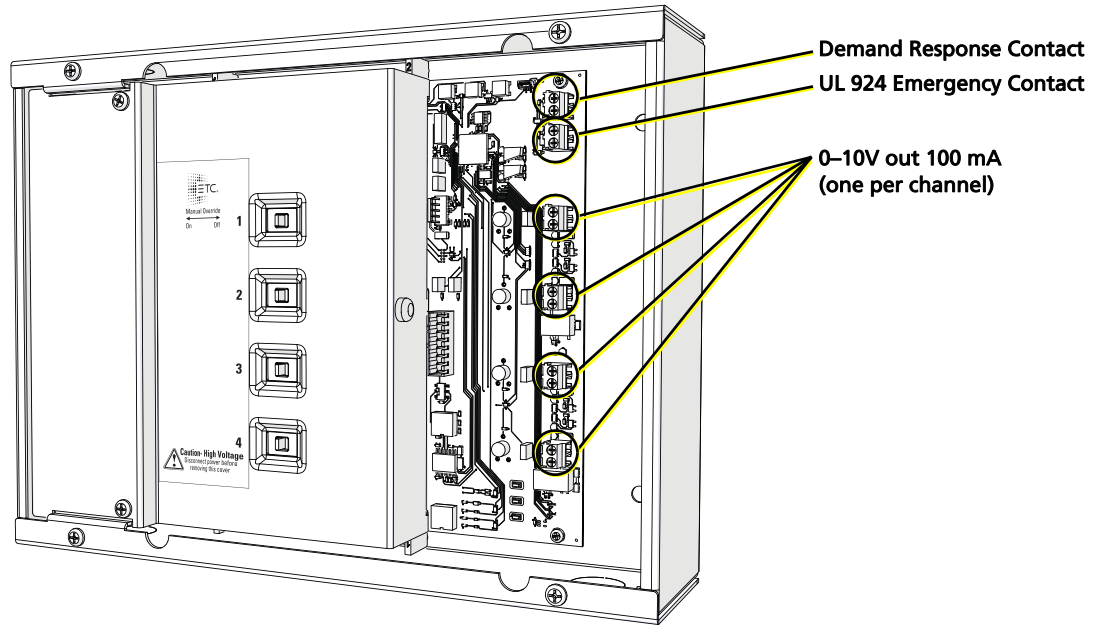
Purpose	Terminal Accepts	Type	Notes
Power Input	12–20 AWG (4–0.5 mm ²)	Supports a 20A input breaker (maximum)	20A maximum, 120–277 VAC, 47–63 Hz
UL 924 Emergency Sense Circuit	12–20 AWG (4–0.5 mm ²)	Optional sense circuit with a 20A maximum input breaker	Upon loss of normal sense power, activates Mini Panel emergency state, driving configured loads On, and others Off.
Relay Output	6–20 AWG (16–0.5 mm ²)	Each relay supports a maximum current of 20A in discrete feed configuration	<ul style="list-style-type: none"> Relays may be discretely fed with separate hot connections A single hot feed may be bridged to multiple relay outputs



Note: When bridging input power (hot) across relays in the enclosure, the total loading of all bridged relays is limited to 20A.

Control Wiring Requirements

All control wires are terminated to the low voltage (right) side of the enclosure, accessible with the main cover removed.



Control Terminations

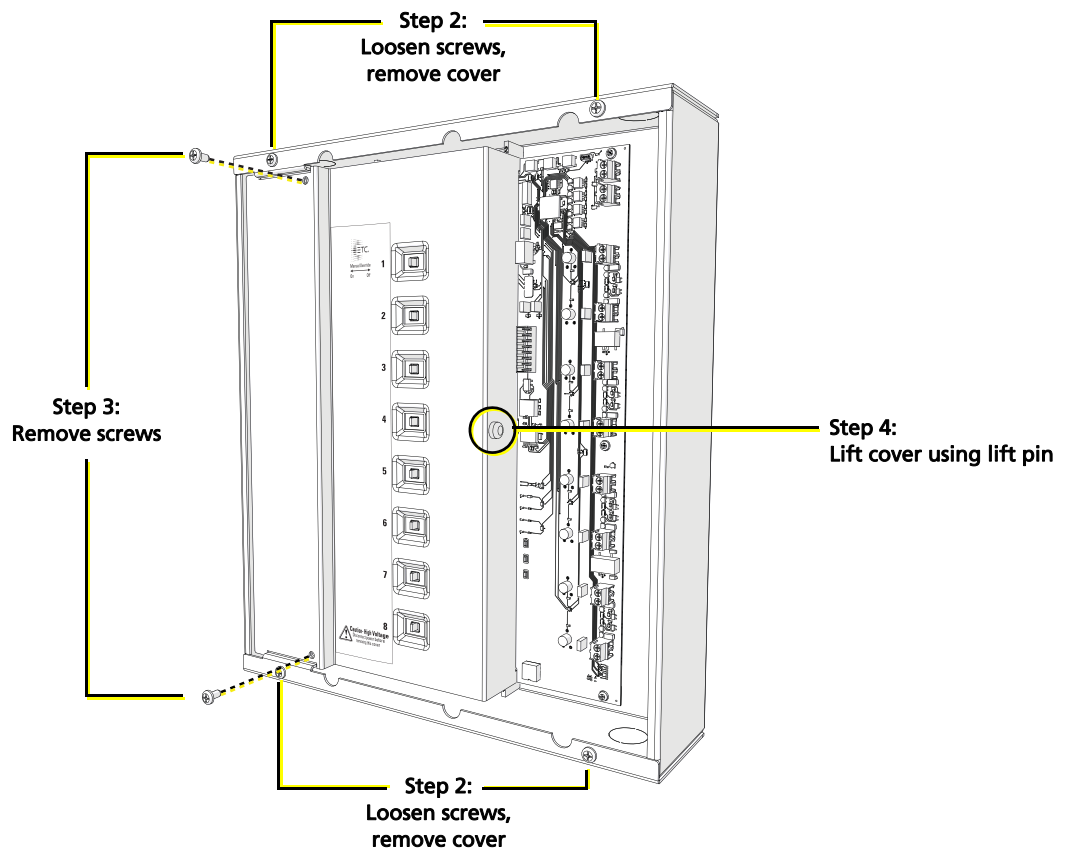
Purpose	Terminals Accept	Type	Notes
UL 924 Emergency Contact Input	16–22 AWG (1.5–0.5 mm ²)	Dry: Normally Open (default) or Normally Closed Closure	Activates Mini Panel emergency state, driving configured loads On, and others Off. See About Contact Inputs on page 13 .
Demand Response Contact Input		Dry: Maintained Closure	Limits the maximum level of each output to the configured level set at the configuration potentiometers. See About Contact Inputs on page 13 .
0–10V Outputs		Capable of sinking 100 mA of current	Allows for 0–10V dimming control of connected compatible loads. See Terminate 0–10V Outputs on page 14 .

Chapter 2

Installation

Mount the Mini Panel

- 1: Determine where the Mini Panel will be installed using the details outlined in [Installation Environment](#) on [page 4](#).
- 2: Remove the front cover from the Mini Panel.
 - a: Loosen, *but do not remove*, the four screws securing the front cover.
 - b: Slide the cover sideways, aligning the keyholes with screws, and then lift the cover off the enclosure.
- 3: Remove the two screws securing the high voltage cover.
- 4: Lift the high voltage cover off the enclosure using the provided lift pin.



- 5: Align the enclosure in the installation location and mark the mounting holes.
- 6: Remove the enclosure from the installation location and pre-drill the mounting holes.
- 7: Remove conduit knockouts or use knockout punch as required to accommodate control wiring. See [Conduit Access](#) on [page 5](#).
- 8: Re-align the enclosure in the mounting location and install the mounting hardware. Tighten the mounting hardware securely.
- 9: Attach and tighten the conduit fittings to the enclosure.

Rough-In and Terminate Cable

All terminations are accessible from the front of the enclosure with the covers removed. The left side of the enclosure provides conduit entry for high voltage wires and the right side provides conduit entry for low voltage wires.



Note: *Low voltage control cables must run in separate conduit from input power wires. To maintain the integrity of the voltage separation inside the enclosure, a cover over the high voltage terminations serves as a mechanical voltage barrier, separating the low voltage power wiring from the high voltage power inside the enclosure.*



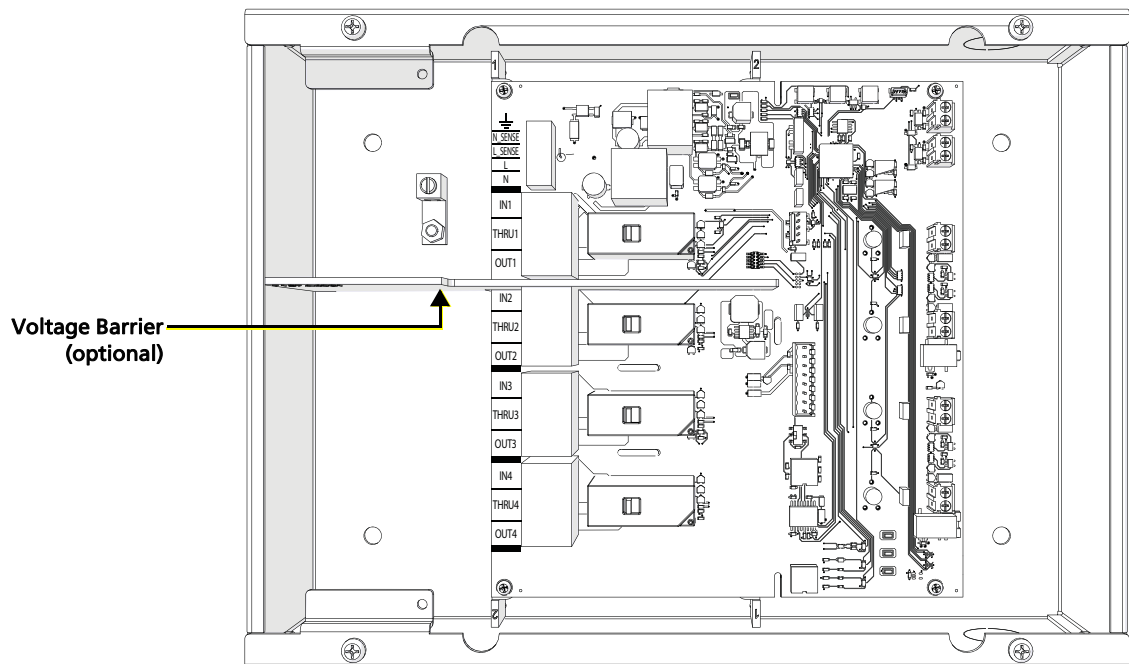
WARNING: RISK OF DEATH BY ELECTRIC SHOCK! Before installing input power to the Mini Panel, make sure the upstream source of power is off or isolated. Follow appropriate Lockout/Tagout procedures as described in NFPA Standard 70E.



CAUTION: *Connecting to and configuring the Mini Panel requires contact with the printed circuit board inside the enclosure, which has electrostatic discharge (ESD) sensitive components on it. To avoid risk of damage to the equipment, ensure body static is discharged first by touching a grounded surface or wearing suitable ESD grounding equipment while terminating cables.*

High Voltage Wiring

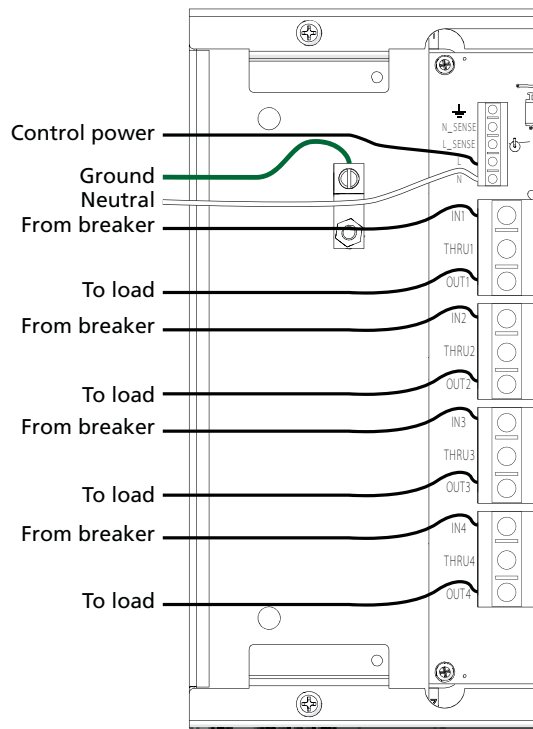
High voltage wire terminations are located in the left side of the enclosure, separated from the low voltage terminations with a high voltage cover. An additional voltage barrier (part number 7187A4021) is available to separate normal power and emergency power circuits or varying power inputs within the high voltage wiring in the enclosure (as needed).



The recommended cable for each termination is limited to the termination connectors provided in the Mini Panel. See [Electrical Input Wiring Requirements](#) on [page 6](#).

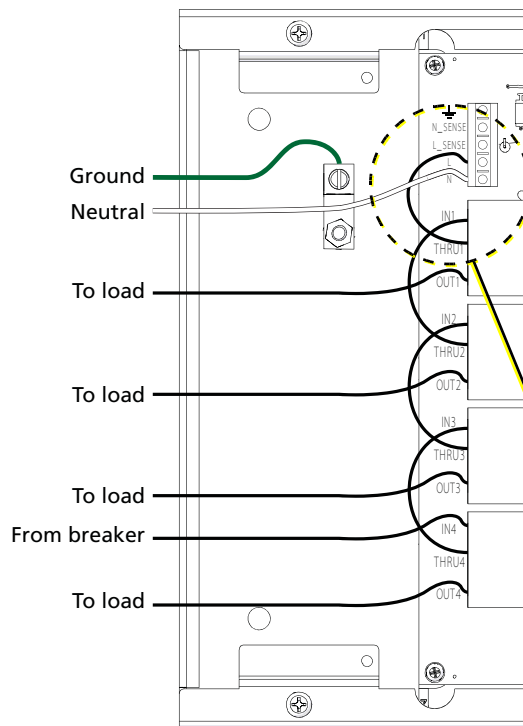
Sample Power Input and Relay Output Terminations

The following are sample termination scenarios for Mini Panel installations. Use these scenarios only as a reference, and refer to your electrician and wiring plans for your specific installation requirements.



Discrete Power for each Relay Output

In this typical installation scenario, power input would be provided from an upstream breaker panel, with one breaker for each relay plus one for the control power feed.

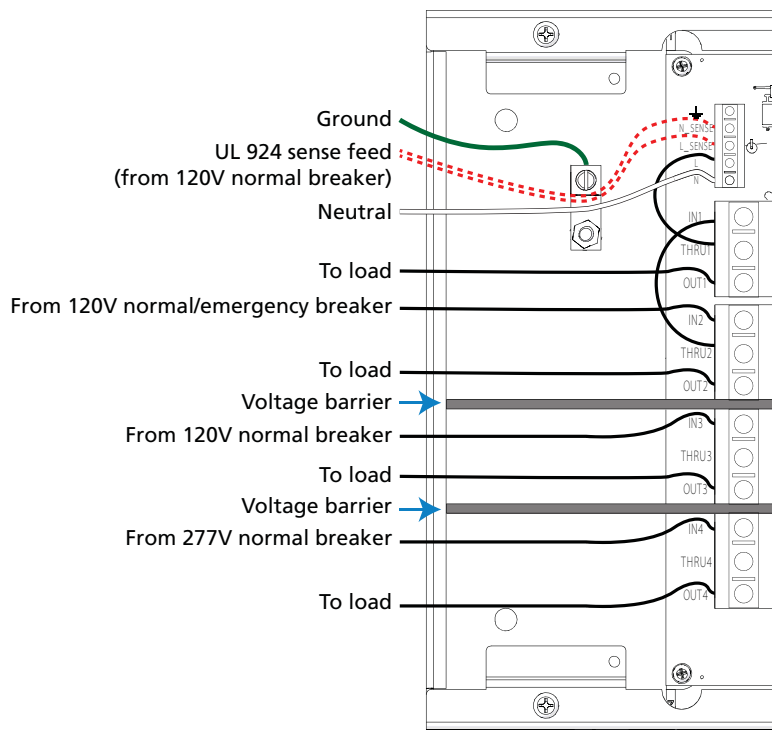


Bridging a Single Input Power Connection Across Relay Outputs

In this installation scenario, a single input power connection (line, neutral, and ground) is bridged between the power input and all relays. Partial bridging, where multiple input power connections feed multiple output relays, is also acceptable.

When bridging the input power, the total load is limited to 20A across all connected relays.

The control power feed is also bridged off of the input power connection.



Bridging Relays with Normal/Emergency Power and Discrete Fed Breakers

In this installation scenario, a single Normal/Emergency input power connection (line, neutral, and ground) is bridged between the control input (L) and one or more relay inputs (IN1 and IN2, using THRU1 and THRU2). Additional relays can be discretely fed from circuit breakers that are fed by other panels (IN3 and IN4).

Because the input power is Normal/Emergency, a Normal sense circuit has been added to drive the Mini Panel to its emergency control configuration on loss of normal power (N_SENSE and L_SENSE). This circuit does not feed a load from the Mini Panel, nor does it provide power to the controller.

Voltage barriers (part number 7187A4021) are available and sold separately for separating between mixed voltage or normal and emergency loads.

When bridging the input power, the total load is limited to 20A across all connected relays.



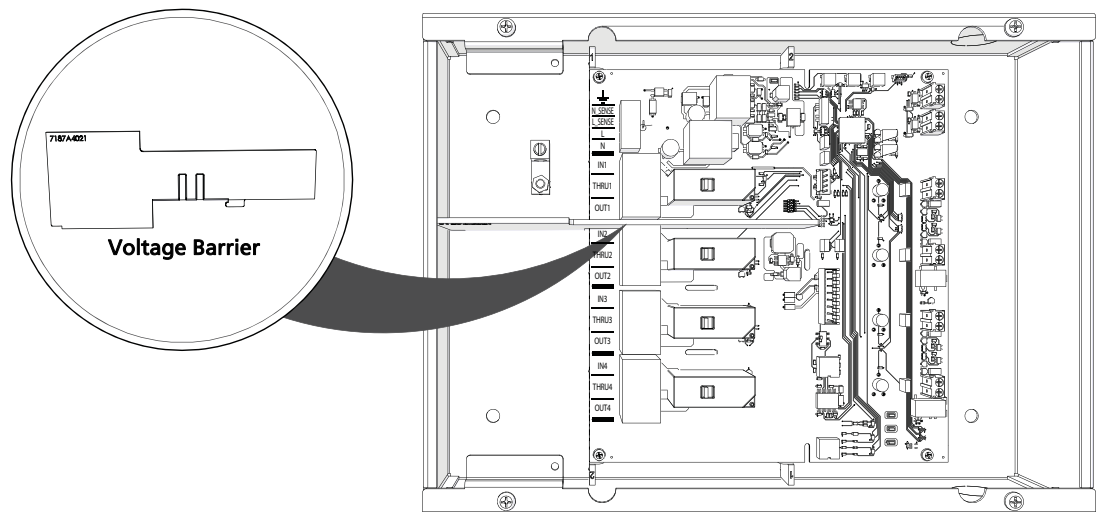
Note: *If any emergency circuits are fed or controlled from this panel, the panel must be located electrically where fed from a UPS, generator, or other guaranteed source of power during emergency and power outage situations.*



Note: *Voltage barriers between normal circuits with different voltage inputs are only required if the wiring used for 120V circuits is not rated for 277V.*

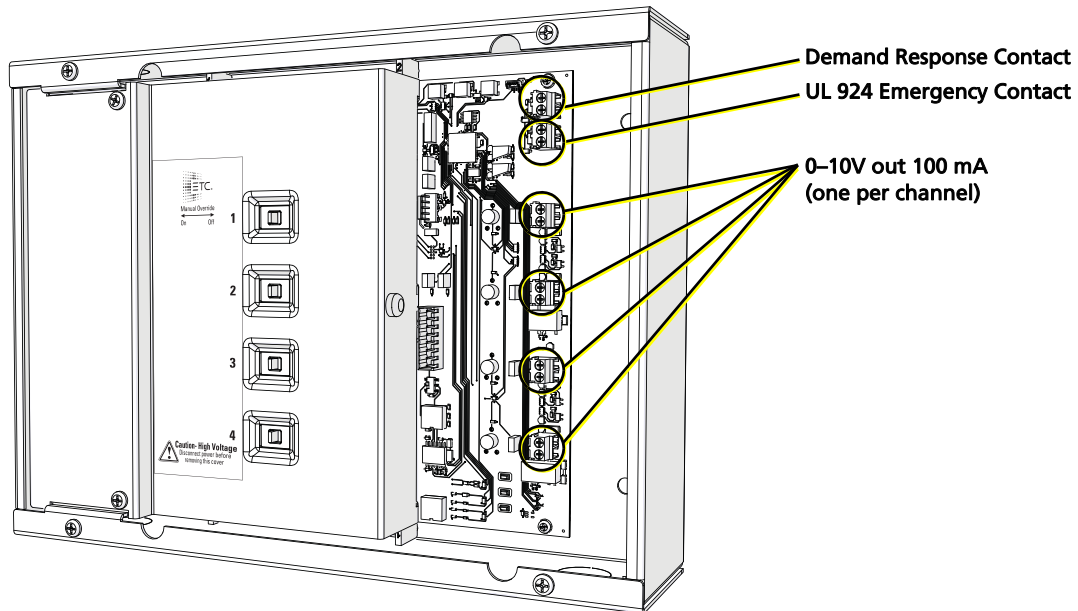
Terminate Input Power and Relay Outputs

- 1: Terminate control input power (as shown in [Discrete Power for each Relay Output](#) on [page 10](#)) or control input power and sense circuit, if used (as shown in [Bridging Relays with Normal/Emergency Power and Discrete Fed Breakers](#) on [page 11](#)).
 - a: Pull input power (2 wires plus ground) to the left side of the enclosure.
 - b: Strip 1/2 in (12 mm) of insulation from each wire.
 - c: Insert the ground wire into the ground terminal (labeled with a ground symbol), and torque the terminal to 1.3 foot-pounds (1.76 N·m).
 - d: Insert the line (hot) wire into the L terminal and torque the terminal to 1.3 foot-pounds (1.76 N·m).
 - e: Insert the optional sense circuit line and neutral wires into the N_SENSE and L_SENSE terminals, and torque the terminals to 1.3 foot-pounds (1.76 N·m).
 - f: Insert the neutral wire into the N terminal and torque the terminal to 1.3 foot-pounds (1.76 N·m).
- 2: Terminate relay outputs (4 or 8 relays):
 - a: Pull relay output wires (2 to 3 wires for each relay, depending on the installation requirements) to the left side of the enclosure.
 - b: Strip 1/2 in (12 mm) of insulation from each wire.
 - c: Insert the line (hot) wire into the terminal marked IN* (IN2, IN3, etc.) and torque the terminal to 1.3 foot-pounds (1.76 N·m).
 - d: When bridging relay outputs, insert a wire between the THRU* terminal and the next relay IN* terminal. If you are not bridging outputs, do not terminate to the THRU terminal.
 - e: Connect the load wire to the terminal marked OUT* (OUT2, OUT3, etc.) and torque the terminal to 1.3 foot-pounds (1.76 N·m).
- 3: Install a relay voltage barrier between any normal power relays and emergency power relays in the enclosure, or between relays with different voltage inputs. Additional relay voltage barriers are available for purchase from ETC. Order part number 7187A4021.



Low Voltage Wiring

Low voltage wire terminations are located on the right side of the enclosure, visible with the front cover removed.



About Contact Inputs

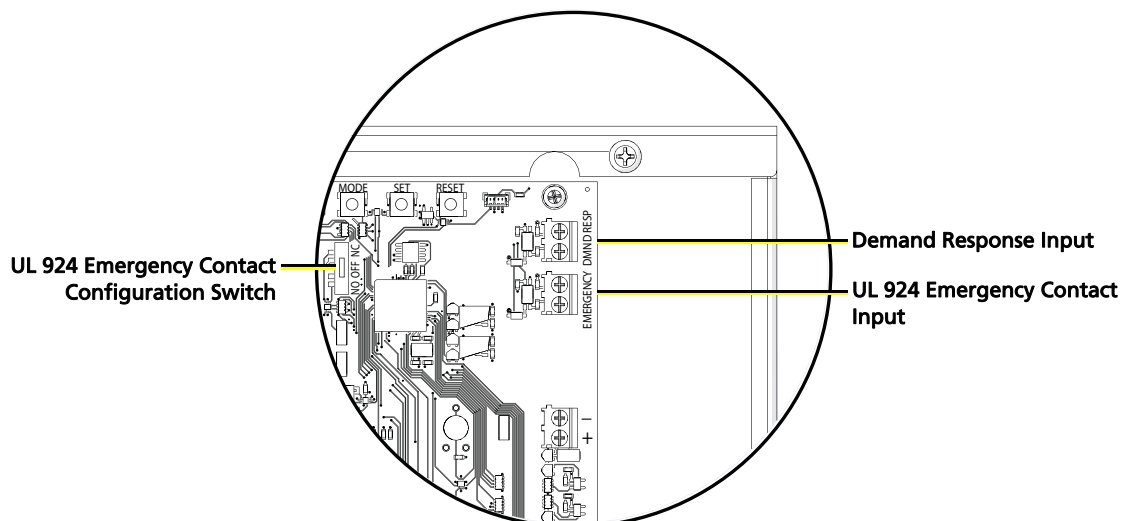
Contact inputs are available for:

- Demand Response Input: Accepts a remote trigger that allows the Mini Panel to reduce lighting levels, thereby reducing power consumption.
- UL 924 Emergency Contact Input: Triggers emergency lighting control bypass from a system such as a fire alarm.

The contact inputs can be configured as follows:

- Demand Response input requires a normally open dry contact closure.
- UL 924 Emergency Contact input is configurable to be a normally open or normally closed contact, and requires a maintained dry contact closure.

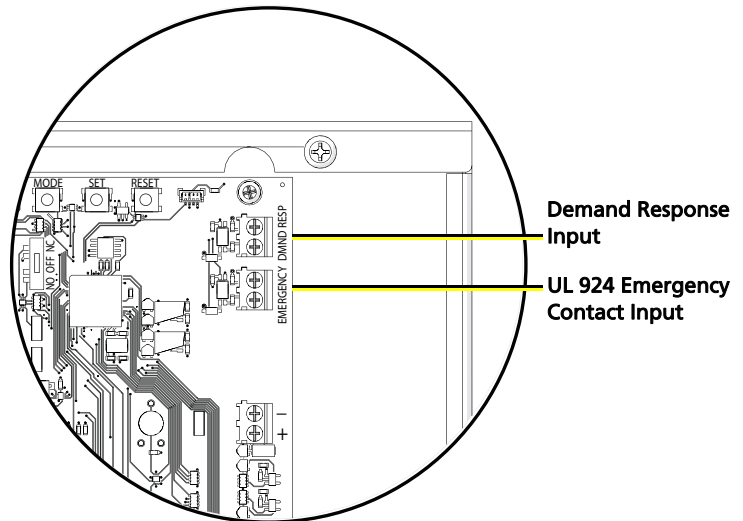
A configuration switch is available for the UL 924 Emergency Contact to further define normally closed (maintained) configuration as needed. Demand Response contacts are always open and are not provided with additional configuration options.



Terminate Contact Inputs

Dry contact input terminations are the same regardless of function.

- 1: Pull 2 wires to the right side of the enclosure.
- 2: Strip 1/4 in (6 mm) of insulation from each wire.
- 3: Insert one wire into each terminal for the contact input, and torque the terminal to 4.4 inch-pounds (0.5 N·m).



Terminate 0–10V Outputs



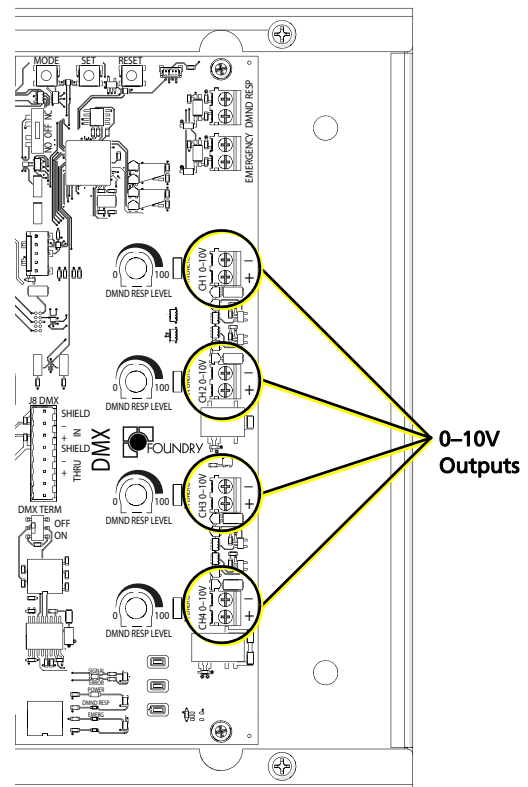
WARNING: RISK OF DEATH OR INJURY BY ELECTRIC SHOCK! 0–10V wiring may not be fully isolated from high voltage AC power. Do not assume that 0–10V wiring is safe to touch, even when run as an NEC Class 2 signal. Test for AC voltage to ground before terminating any 0–10V control wiring to the Mini Panel.



CAUTION: *Only ballasts and drivers with isolating transformers are recommended for use with the Mini Panel.*

The Mini Panel offers fully isolated 0–10V output control for each zone, allowing direct connection to dimming ballasts and LED drivers. The 0–10V outputs are capable of sinking a current of up to 100 mA.

- 1: Pull 0–10V wiring (typically a gray and violet wire pair) to the right side of the enclosure.
- 2: Strip 1/4 in (6 mm) of insulation from each wire.
- 3: Insert the positive wire (typically violet) into the terminal labeled "+" and torque the terminal to 4.4 inch-pounds (0.5 N·m).
- 4: Insert the negative wire (typically gray) into the terminal labeled "-" and torque the terminal to 4.4 inch-pounds (0.5 N·m).



About DMX Control Wiring

The Mini Panel connects to a DMX512-A source (provided by others) for control.

DMX wiring runs can be daisy chains of up to 32 devices with no Y's or loops. Each DMX daisy chain must be terminated for proper control performance (see [Terminate the Final DMX Device](#) on [page 15](#)).

ETC recommends using Belden 9729 (or approved equivalent) Class 2 wire. Belden 1583A or equivalent Cat5, Cat5e, or Cat 6 UTP wire is also acceptable when properly shielded or installed in grounded metal conduit and connected using the Cat5 IDC termination kit (ETC part number 4100A1013). This termination kit is not provided with the Mini Panel. Contact ETC to purchase termination kits if required.

The total combined length of a DMX wire run (using Belden 9729 or equivalent) may not exceed 1,000 ft (305 m).



Note: All control wiring should be installed and terminated by a qualified installer and should follow standard wiring installation practices.

For more information on DMX control wiring requirements, see these and other support articles at etcconnect.com:

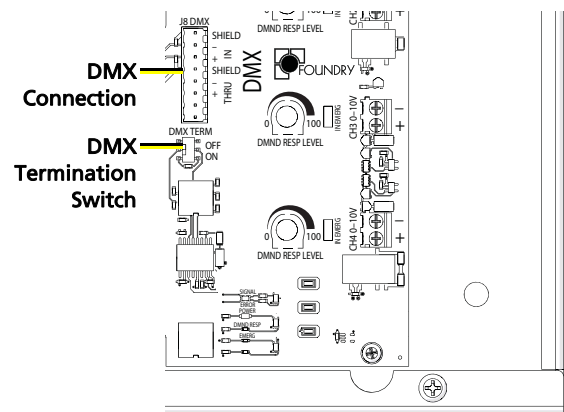
- etcconnect.com/Support/Articles/DMX-512-Info.aspx
- etcconnect.com/Support/Articles/DMX-Over-Cat5.aspx

Terminate DMX

- 1: Pull DMX wiring to the right side of the enclosure.
- 2: Terminate the DMX cable to the DMX header by following the steps in the termination kit supplied with the unit.
- 3: Insert the DMX header into the DMX connection on the Mini Panel.

Terminate the Final DMX Device

You must terminate the final device (and only the final device) in each DMX daisy chain for proper control performance. To terminate the final device in a chain, set the DMX termination switch to ON (see image at right).

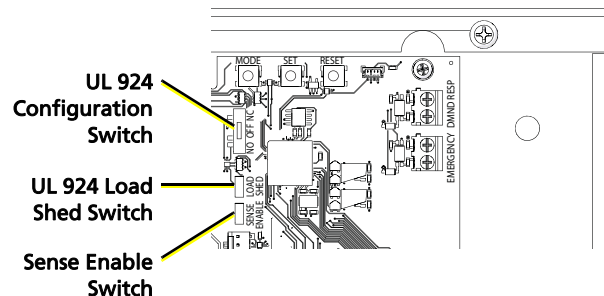


Configure the Mini Panel

Set the Emergency UL 924 Configuration Switch

To configure the UL 924 contact input, set the Emergency UL 924 Configuration switch to one of the following options:

- NO (normally open [default])
- NC (normally closed)
- Off (disabled)



Set the Sense Enable Switch

Set the Sense Enable switch to On if your installation uses the optional sense circuit (see image above right). The default setting is Off.

When Sense Enable is set to On, the Mini Panel will trigger the UL 924 emergency lighting control bypass when power to the normal sense is absent. See [Electrical Input Wiring Requirements](#) on [page 6](#) and [Bridging Relays with Normal/Emergency Power and Discrete Fed Breakers](#) on [page 11](#).

Set the Emergency UL 924 Load Shed Switch

The Emergency UL 924 Load Shed switch (see image above right) provides configuration to enable or disable load shedding when an Emergency Contact input is activated (opened or closed depending on the state of the Emergency UL 924 Configuration switch). By factory default, this switch is set to On (enabled).

Load shedding functions in conjunction with the Emergency UL 924 Inclusion switch for each output (see [Set the Emergency UL 924 Inclusion Switches](#) on [page 17](#)). The table below describes what occurs when the Emergency Contact input is activated.

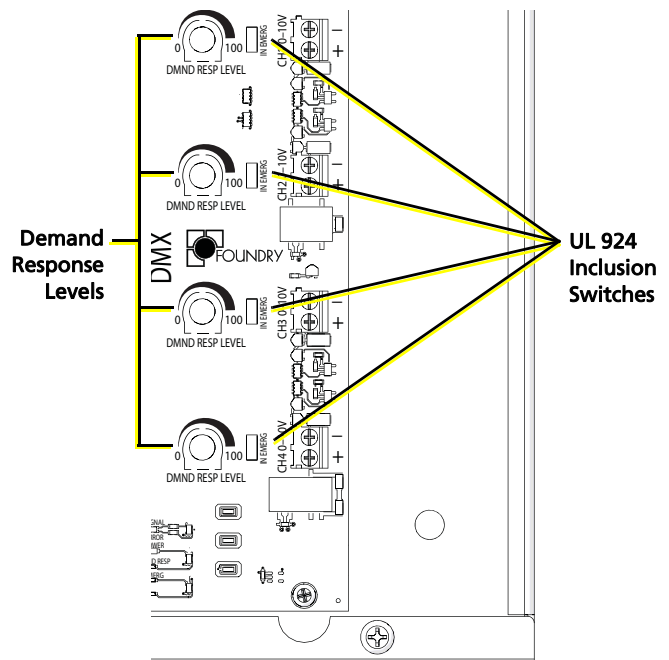
UL 924 Load Shedding

Output Included in Emergency?	Load Shed Switch State	Result
Yes	On or Off	Relay will close and the 0–10V output will be driven to its maximum output level.
No	On	Load and its connected 0–10V output will be turned off.
No	Off	Load remains at its current level.

Set the Emergency UL 924 Inclusion Switches

Each output in the Mini Panel has an Emergency UL 924 Inclusion Switch, which configures the circuit to be included or excluded from the Emergency UL 924 configuration. By factory default, all outputs are set to On (included) in Emergency.

- An output that is included in Emergency (switch is set to On) will turn the load on to full when the Emergency Contact input is activated.
- An output that is excluded from Emergency (switch is set to Off) will behave according to the UL 924 Load Shed switch. See [Set the Emergency UL 924 Load Shed Switch](#) on [page 16](#).



Set the Demand Response Levels

When closed, the Demand Response contact input limits the maximum 0–10V level of each output to the configured level that was determined by the Demand Response rotary fader corresponding to each zone.

Use a precision screwdriver to change the rotary fader level to any value between 0–100%. A Demand Response rotary fader setting of 0 turns the relay off when Demand Response is triggered. The Demand Response rotary faders are set to 50% as a default.

Chapter 3

Power Up and Set DMX Address

Before Applying Power to the Mini Panel

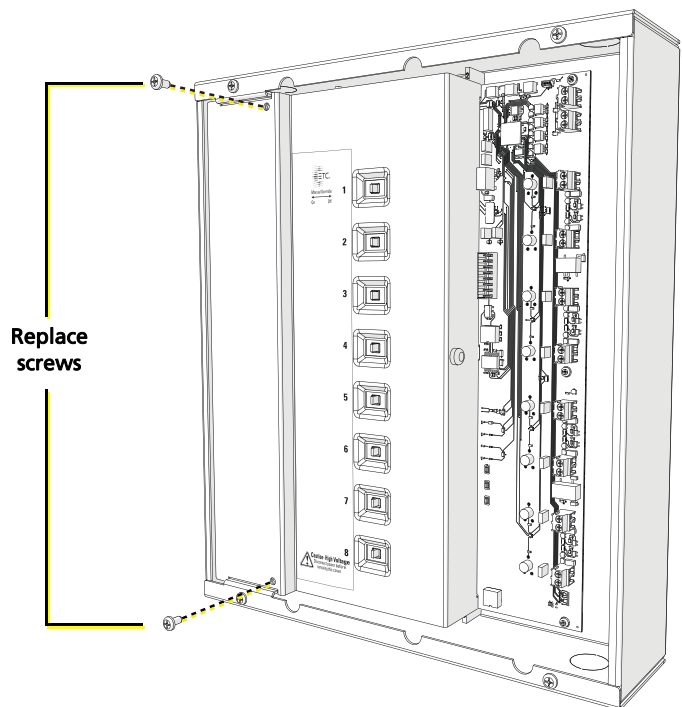


WARNING: RISK OF ELECTRIC SHOCK! Power must be off when you perform this procedure.



CAUTION: *Checking the Mini Panel installation requires contact with the printed circuit board inside the enclosure, which has electrostatic discharge (ESD) sensitive components on it. To avoid risk of damage to the equipment, ensure that body static is discharged first by touching a grounded surface or wearing suitable ESD grounding equipment while terminating cables.*

- 1: Clean out dust, metal scraps, or other debris from the enclosure.
- 2: Check for loose connections, bare wires, or damaged insulation on both the low voltage and high voltage sides of the enclosure.
- 3: Replace the high voltage cover on the unit and secure with screws.
- 4: Check that all configuration switches are set according to the installation requirement. See [Configure the Mini Panel](#) on [page 16](#).



Power Up

Apply power at the breaker that supplies power to the electronics.



WARNING: RISK OF ELECTRIC SHOCK! Mains voltage is present inside the high voltage compartment of the enclosure. Do not remove the high voltage cover when power is applied.

Set the DMX Address

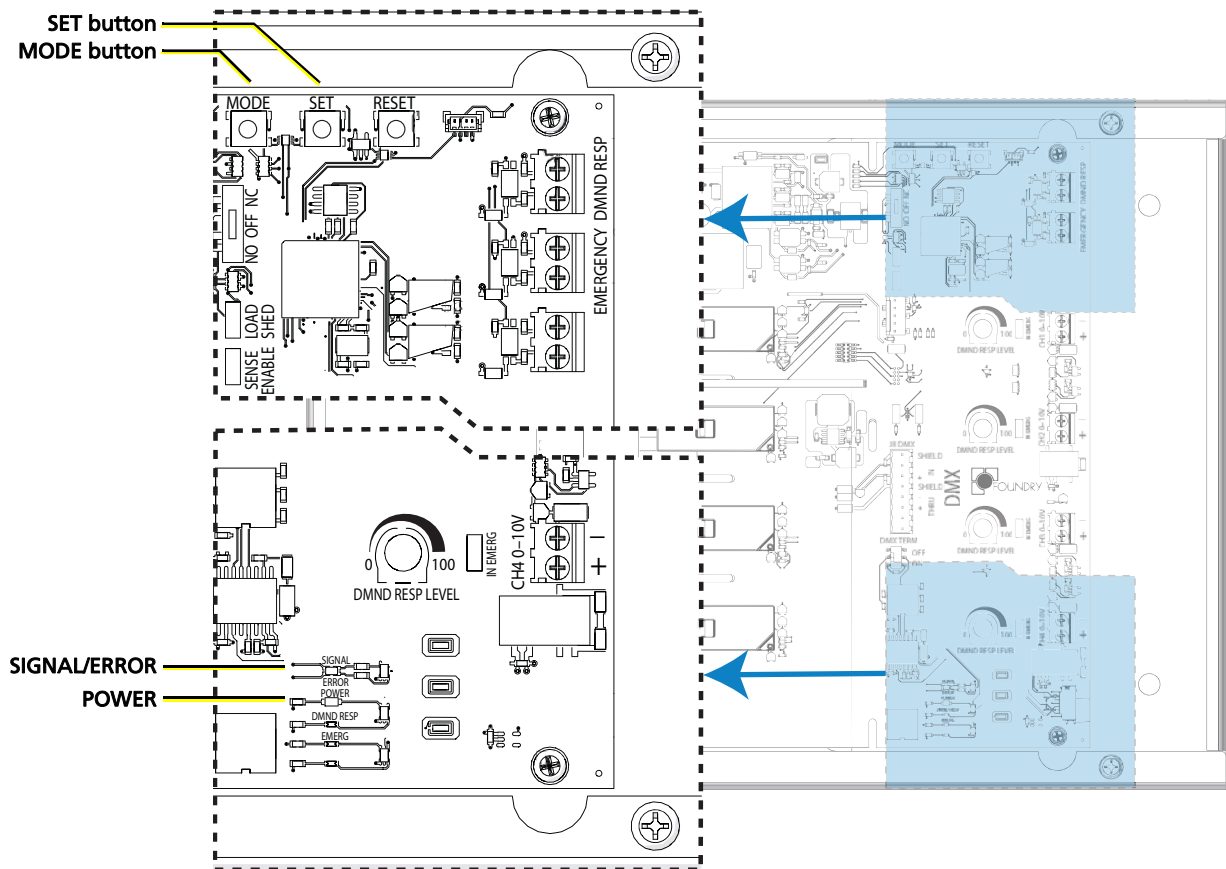
You can assign each Mini Panel a unique DMX start address from 1–512. You can assign DMX addresses to an entire daisy chain of Unison Foundry devices using Net3 Concert or another RDM controller (see [RDM Parameters](#) on [page 24](#)). If you cannot assign the DMX addresses using RDM, you can manually set the DMX start address on the device.




Note: Consider the number of outputs in the Mini Panel when you assign the DMX start address. If any outputs are assigned an address above 512 they will have no DMX control. For example, if you set a DMX start address of 511 for a 4-Relay Mini Panel the last two outputs will have no DMX control.

Manually Set the DMX Address

If you cannot assign the DMX addresses using RDM, use the **MODE** and **SET** buttons to set the value of each digit in the three-digit DMX address in sequence.



Task	What to do	What you will see
1: Put the Mini Panel into DMX addressing mode.	Press and hold the MODE button.	<ul style="list-style-type: none"> The POWER LED indicator blinks 3 times to indicate that you can set the 100s digit of the DMX address. The SIGNAL/ERROR LED indicator blinks the 100s digit in the current DMX address. For example, if the current DMX address is 201, the SIGNAL/ERROR LED indicator blinks 2 times. (If the 100s digit is a 0, the indicator remains lit and does not blink.)

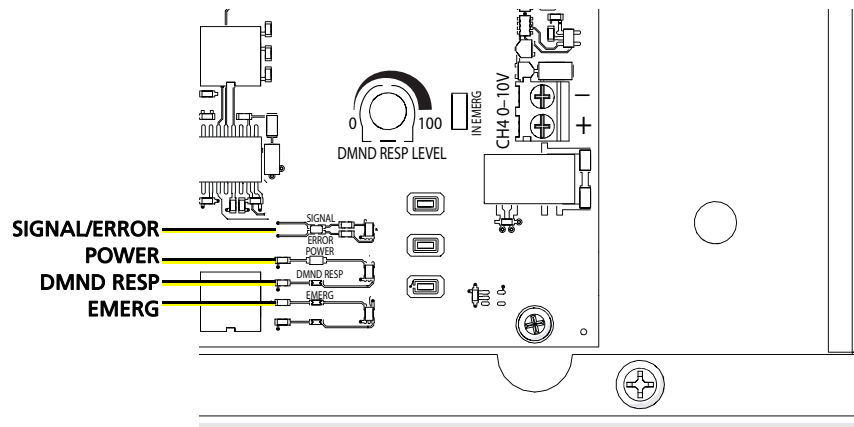
Task	What to do	What you will see
4: Set the 1s digit of the DMX address. 	Press the MODE button to advance to the 1s digit.	<ul style="list-style-type: none"> • The POWER LED indicator blinks once to indicate that you are setting the 1s digit of the DMX address. • The SIGNAL/ERROR LED indicator blinks the 1s digit in the current DMX address. For example, if the current DMX address is 201, the SIGNAL/ERROR LED indicator blinks once. • If the SIGNAL/ERROR LED indicator rapidly blinks red, this means that you set the 10s digit to an invalid value. When this occurs, the Mini Panel exits DMX addressing mode without saving.
	Press the SET button to set the 1s digit. If the 1s digit in the new DMX address is the same as in the current DMX address, you can keep the digit by skipping to step 5.	<ul style="list-style-type: none"> • The POWER LED indicator continues to blink once to indicate that you are setting the 1s digit of the DMX address. • The SIGNAL/ERROR LED indicator blinks the value that you set for the 1s digit in the DMX address.
5: Save the new DMX address.	Press the MODE button.	<ul style="list-style-type: none"> • The POWER LED indicator and SIGNAL/ERROR LED indicator return to their normal functions (see Check Features on page 22). • If the SIGNAL/ERROR LED indicator rapidly blinks red, this means that you set the 1s digit to an invalid value. When this occurs, the Mini Panel exits DMX addressing mode without saving.



Note: *The Mini Panel will exit DMX addressing mode after 1 minute of inactivity. When this occurs, the Mini Panel retains the current DMX address.*

Check Features

- 1: Locate the status LEDs on the low voltage side of the enclosure.



LED Indicator	Color	State	Description
SIGNAL/ERROR	Green	Solid	DMX present, system OK
		Slow blinking	DMX absent. Verify that the DMX wiring is correct, and verify that the DMX source is functioning correctly.
		Rapid blinking	DMX errors. Verify that the DMX wiring is correct, and verify that the DMX source is functioning correctly.
POWER	Blue	Solid	Power is OK.
DMND RESP (Demand Response)	Green	Solid	Demand Response input is closed.
EMERG (UL 924)	Red	Solid	UL 924 is active.

- 2: Test each contact input to ensure that it functions as expected. With contact activity, the configured relays should respond and the status LEDs should indicate. See [Configure the Mini Panel](#) on [page 16](#) as needed for further configuration.
- 3: Replace the main cover on the unit and secure the screws firmly.

Demand Response

When Demand Response is active, check that the outputs are at the expected level.

If the observed output level is different than expected, check the Demand Response LED for indication of activation. See [Check Features](#) above for LED indications.

The outputs generated with an active Demand Response will not exceed the level set by each of the corresponding Demand Response rotary faders. See [Set the Demand Response Levels](#) on [page 17](#).

Set the Data Loss Behavior

Use RDM to set the behavior of the Mini Panel when DMX is lost. The Mini Panel has three options for data loss behavior:

- Hold last look (default data loss behavior)
- Wait and fade
- Go to full

Troubleshooting

Update the Software

You can update the software for the Mini Panel using ETC Updater software and an ETC Gadget II or Gateway. The SIGNAL/ERROR and POWER LED indicators, located on the low voltage side of the enclosure, blink rapidly during software updates. See [Check Features](#) on [page 22](#) for information about the LED indicators.

Restore Defaults

Return the Mini Panel to factory defaults by pressing and holding both the **MODE** and **SET** buttons simultaneously for 5 seconds. The SIGNAL/ERROR and POWER LED indicators, located on the low voltage side of the enclosure, blink rapidly to indicate that the factory defaults have been restored. See [Check Features](#) on [page 22](#) for information about the LED indicators.

Appendix A

RDM Parameters

You can set the following RDM parameters on the Mini Panel using Net3 Concert or another RDM controller.

Parameter	ID and Number	Description	Default Value
Device Label	E120_DEVICE_LABEL 0x0082	User-configurable name for the device	ETC DMX 4 Ch. Mini Panel or ETC DMX 8 Ch. Mini Panel
DMX Start Address	E120_DMX_START_ADDRESS 0x00F0	DMX address, range = 1–512. See Set the DMX Address on page 19 .	1
DMX Fail Mode (Data Loss)	E137_1_DMX_FAIL_MODE 0x0141	Configures the behavior when DMX is lost: <ul style="list-style-type: none">• Hold last look• Wait and fade• Go to full	Hold last look
Packet Delay	ETC_E120_PACKET_DELAY 0xB000	Requires any change of level to be present for at least this number of packets before action is taken (open/close the relay or change 0–10V output)	0



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