EUROfase HEATING

TRIAC DIMMABLE CONTROL BOX

INSTALLATION MANUAL

EFURCBT SERIES



Intertek | INDOOR | OUTDOOR RATED | LIMITED 3 YEARS WARRANTY | MADE IN CANADA

PLEASE SAVE THIS MANUAL FOR FUTURE REFERENCE.

READ THIS MANUAL CAREFULLY.
SEE INSIDE COVER FOR IMPORTANT INFORMATION ABOUT THIS MANUAL. KEEP INSTRUCTION WITH APPLIANCE FOR FUTURE REFERENCE.

Version 09282026

Warnings

PLEASE READ ALL INSTRUCTIONS PRIOR TO INSTALLING THE EUROFASE HEATING ELECTRICAL CONTROL BOX.

This manual contains important information about the installation and operation of the Eurofase Heating Electrical Control Box. Please pay close attention to the important safety information shown throughout this instruction manual.

A LICENSED ELECTRICIAN IS REQUIRED TO INSTALL THIS PRODUCT.

⚠ WARNING

- READ THIS MANUAL CAREFULLY before installing or servicing the Eurofase Heating Electrical Control Box.
- Improper installation or operation can result in death, severe injury, or property damage.
- Use this Eurofase Heating Electrical Control Box only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- This Eurofase Heating Electrical Control Box is intended for fixed installation in accordance to its rating plate 240 V max power supply.
- Installation MUST be performed by a licensed and authorized technician in accordance with National Electrical Code (NEC) or Canadian Electrical Code (CEC), along with other local electrical codes as applicable.
- Eurofase Heating Electrical Control Box rated for 240 V or less are intended for both residential and commercial use.

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Note: Eurofase Heating reserves the right to make changes to specifications, parts, components and equipment without prior notification.
This Installation, operation and service manual may not be reproduced in any form with prior written consent from Eurofase Heating.

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Warnings

WARNING

The Eurofase Heating Electrical Control Box should only be used as described in this manual.
Any use not recommended by the manufacturer may result in fire, electric shock, or personal injury.

- Use this Eurofase Heating Electrical Control Box only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to person (s).
- Improper installation, adjustment, or alteration and failure to follow the warnings and instructions in this manual could result in severe personal injury, death or property damage.
- The manufacturer is not responsible for any damage from improper use. The manufacturer emphasises this Eurofase Heating Electrical Control Box should be used in a responsible manner and that all procedures, warnings, and safety instructions contained in this booklet be followed strictly.
- The product must be fixed on surfaces which cannot be damaged by the high temperature. It cannot be hermetically closed. It must be fixed vertically.
- The connection cables must be protected against any accidental impacts, by using proper conduits.
- This Eurofase Heating Electrical Control Box is not intended for use in bathrooms, laundry areas and similar indoor locations. Never locate Eurofase Heating Electrical Control Box where it may fall into a bathtub or other water container.
- Do not install the Eurofase Heating Electrical Control Box directly near a bathtub, shower or swimming pool. Any switches or controls must not be within reach of a person in the bathtub, shower or swimming pool.
- Extreme caution is necessary when the Eurofase Heating Electrical Control Box is used by or near children or individuals and whenever the Eurofase Heat Electrical Control Box or heater is left operating and unattended.
- This Eurofase Heating Electrical Control Box is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Keep packaging materials out of reach of children.
- Children and adults should be alerted to the hazards of electrocution and should stay away to avoid serious personal injury.
- Children should be carefully supervised when they are in the area of the Eurofase Heating Electrical Control Box.
- Do not attempt to alter the Eurofase Heating Electrical Control Box in any manner.
- Do not paint any surface of the Eurofase Heating Electrical Control Box.
- Do not touch the Eurofase Heating Electrical Control Box with wet hands at any time.
- Do not use or store flammable materials near this appliance.
- Do not spray aerosols or flammable materials in the vicinity of the Eurofase Heating Electrical Control Box while it is in operation.
- Never operate the Eurofase Heating Electrical Control Box in an explosive environment such as areas where petrol or other flammable liquids or vapours are stored.

INSTALLATION

- IMPORTANT - Installation must be carried out by a licensed or authorized person.
- The installer shall ensure the installation in compliance with a local authority, local electrical installation code, municipal building codes, and any other relevant statutory regulations.
- This Eurofase Heating Electrical Control Box must only be used no greater than its rating plate that is 240 V max.
- This Eurofase Heating Electrical Control Box is NOT intended to be installed on recreational vehicles and/or boats.
- Do not run cord under carpeting. Do not cover with throw rugs, runners or the like arrange cord away from traffic area and where it will not be tripped over.
- A Eurofase Heating Electrical Control Box has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint or flammable liquids are used or stored.
- This Installation manual should not be removed from the site of installation. Installer should leave manual with the customer for future reference.
- Any guard or other protective device removed for servicing (conducted by an authorised person) must be replaced before operating the Eurofase Heating Electrical Control Box.
- If the Eurofase Heating Electrical Control Box has not been used, or will not be used, for a long period of time, disconnect power supply.
- For the disconnection from the power line, use an all-pole switch with contacts having a dimension of at least 3.5mm.

MAINTENANCE / REPAIR

- Installation and repair must be carried out by a qualified & licenced service person only. The Eurofase Heating Electrical Control Box should be inspected before use and at least annually serviced & inspected by a qualified & licenced service person.
- Do not perform maintenance until Eurofase Heating Electrical Control Box has been turned off and power disconnected.
- Check for damage to the Eurofase Heating Electrical Control Box regularly. If damage to the appliance is suspected, discontinue use immediately and contact the supplier or qualified person to repair.
- If any conductor is damaged, it must be replaced by an authorized and licenced person in order to avoid a hazard.
- At the end of this product's useful life, it must not be disposed of as domestic waste, but must be taken to a collection centre for waste electrical and electronic equipment. It is the user's responsibility to dispose of this appliance through the appropriate channels at the end of its useful life.
  Failure to do so may incur the penalties established by laws governing waste disposal. Proper differential collection and the subsequent recycling, processing and environmentally compatible disposal of waste equipment avoids unnecessary damage to the environment and possible related health risks, and also promotes recycling of the materials used in the appliance. For further information on waste collection and disposal, contact your local waste disposal service, or the place of purchase.

ELECTRICAL CONNECTIONS

- All connections must be rated acording to rating plate that is 240 V max power supply, with an earth connection; and at no times exceed its rated requirements.
- Arrange all the necessary safety devices and use only materials that comply with standard electrical installations.
- The protective device must protect the building from overcurrents and short circuit.
- A readily accessible disconnect device shall be incorporated in the building installation wiring.
- The cable must have a section properly rated according to the load connected and nominal temperature minimum 60°C.

Safety Information

The purchaser is solely responsible for determining the suitability of this product for use in any specific application or equipment. Suitability shall be evaluated in accordance with applicable standards, including but not limited to UL and cUL. The complete system incorporating this component must be tested and verified to comply with those standards. Consult local authorities and applicable wiring codes to ensure compliance for the intended application.

WARNING

Isolate mains before installing.
Use only on a properly secured heater

FIRE HAZARD!
Even quality electronic components CAN FAIL, KEEPING FULL POWER ON! Provide a SEPARATE (redundant) protective device where advisable and or required by local codes.

HIGH VOLTAGE!
This Eurofase Heating Electrical Control Box is used to control HIGH VOLTAGES and must be installed in a GROUNDED enclosure by a qualified electrician in accordance with applicable local and national codes including NEC and other applicable code.

INSTALLATION
Control boxes must be installed in a well-ventilated area, as dimming operation generates heat. Heat sink fans provide cooling for the zones.
DO NOT BLOCK, OBSTRUCT, OR COVER THE HEAT SINK

Product Overview

PRODUCT OVERVIEW				
MODELS & SPECIFICATIONS				
Item Number	**EFURCBT24M1**	**EFURCBT24M2**	**EFURCBT24M3**	**EFURCBT24M4**
Input Voltage	208V-240V			
Zone Capacity	50 AMP			
Maximum AMP	50 AMP	100 AMP	150 AMP	200 AMP
Control Voltage	0-120V AC			
Mounting Type	Surface Mount			
Dimensions	16.25"L x 16" W x 6" D		22.25"L x 20" W x 6" D	
Enclosure Rating	NEMA 4			

Eurofase Heating Electrical Control Box

The Eurofase Universal Relay Control Box simplifies the management of your comfort zone. It facilitates the control of multiple heaters and enables the creation of diverse heat zones throughout your space. This control box is particularly beneficial for commercial spaces like restaurant patios, where customers may have individual heat preferences. Customize each area with precise temperature conditions, easily accessible and achievable with this versatile control box.

Features and benefits:

- Ability to manage multiple heaters and create "zone" control
- 0% to 100% Dimming capabilities (dimmer switch sold separately)
- NEMA 4 rated for reliable performance in indoor/outdoor environments
- Compatible with industry leading home automation systems such as:

  LUTRON CRESTRON Control4 and others
- Smart Dimmers
- Any On/Off switch, and programmable sequential timer
- Control heaters with voltage ranging from 208 V to 240 V at the rated amperage

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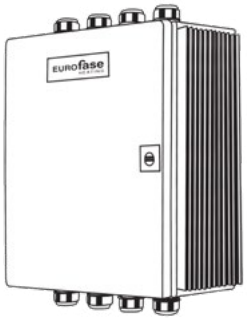
* All third-party trademarks, including Lutron®, Crestron®, Control4®, Android™, Apple®, iOS®, Bluetooth®, ETL®, Google Home™, and Alexa®, are the property of their respective owners and are used for compatibility reference only. Use of these marks does not imply endorsement.

What's in the box?

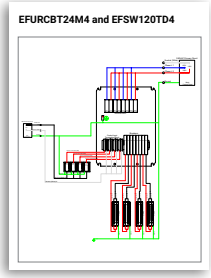
Please inspect that all parts are included in the package.



Universal Relay Control Box (x1)



Instruction Manual (x1)



Wiring Diagram (x1)



Warnings and safety information Sheet (x1)

Scan to Check out our Contactor Box and Wifi Controller

Contactor Box

Wifi Controller

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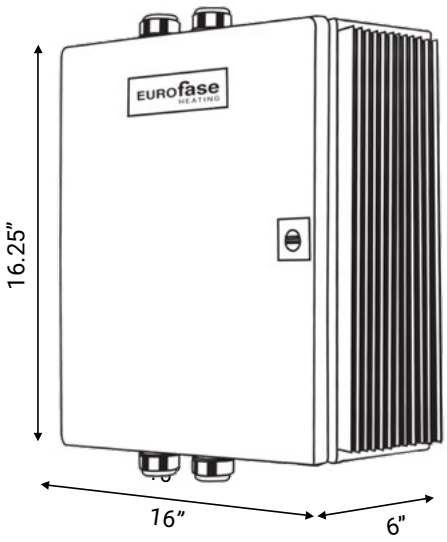
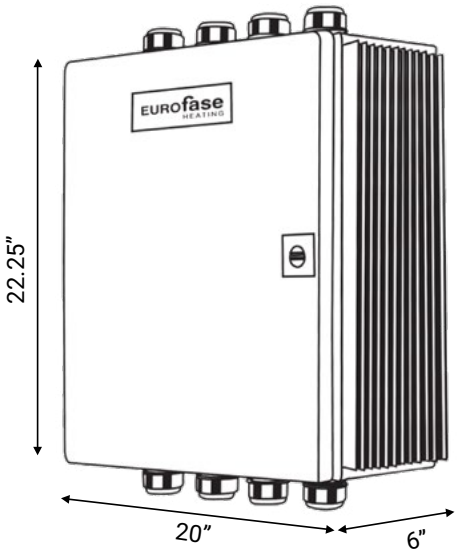
Dimensions

1 AND 2 ZONE



3 AND 4 ZONE
(Heatsink on both sides)



*** Heatsink dimensions (1 and 2 Zone): 13” X 2”**
*** Heatsink dimensions (3 and 4 Zone): 18” X 2”**

Heater Load

Heater Wattage	240 V (Amps)	208 V (Amps)
3000 W	12.5 A	14.4 A
4000 W	16.7 A	19.2 A
5000 W	20.8 A	24.0 A
6000 W	25.0 A	28.8 A*

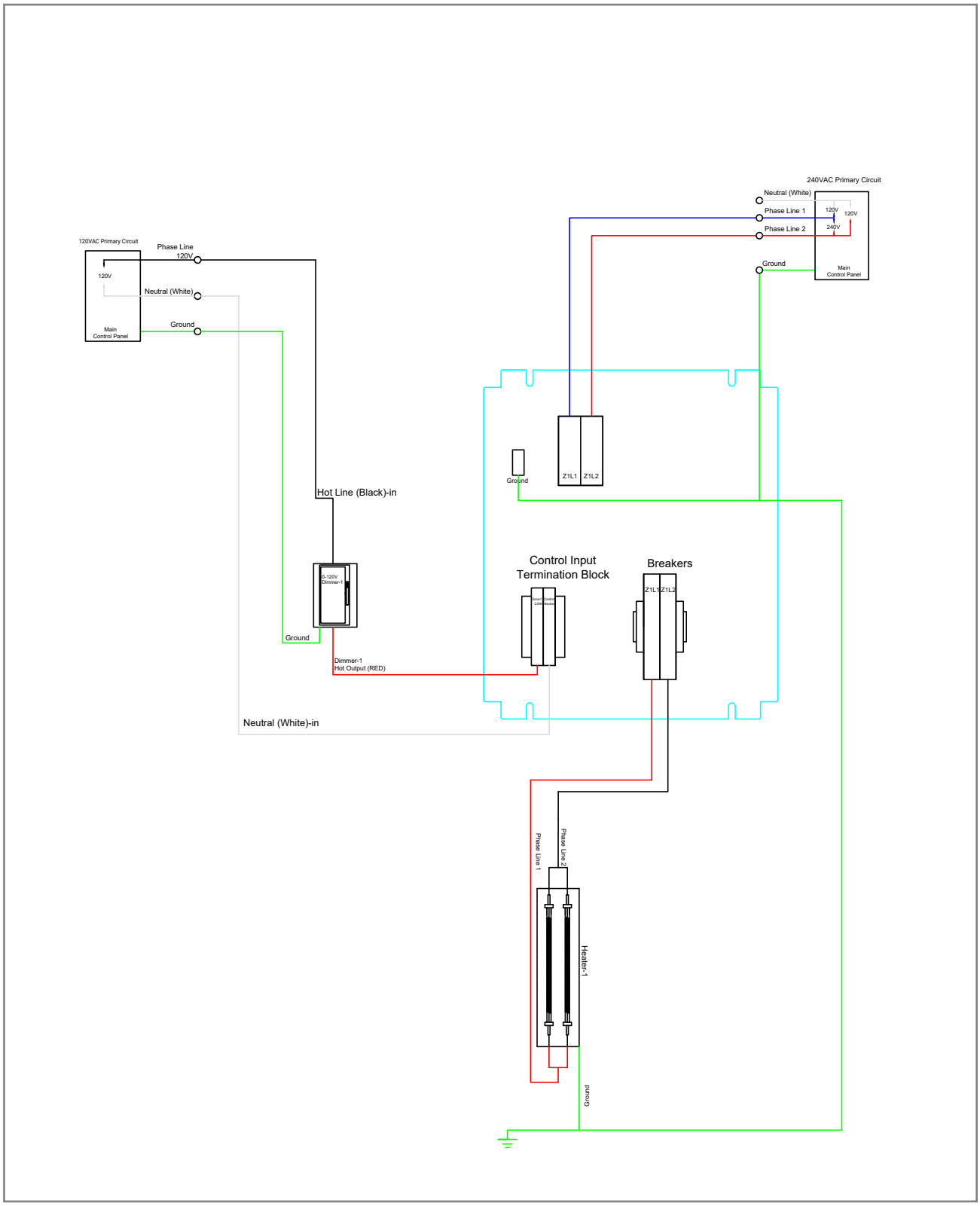
Zone Capacity Chart

Supply Voltage	NEC 80% Continuous Load Limit	Maximum Heater Wattage
240 V	40 A	9000 W
208 V	40 A	8000 W

*No more than two heaters should be installed per zone.

Wiring Diagram (240 V Example)

EFURCBT24M1 and EFSW120TD1



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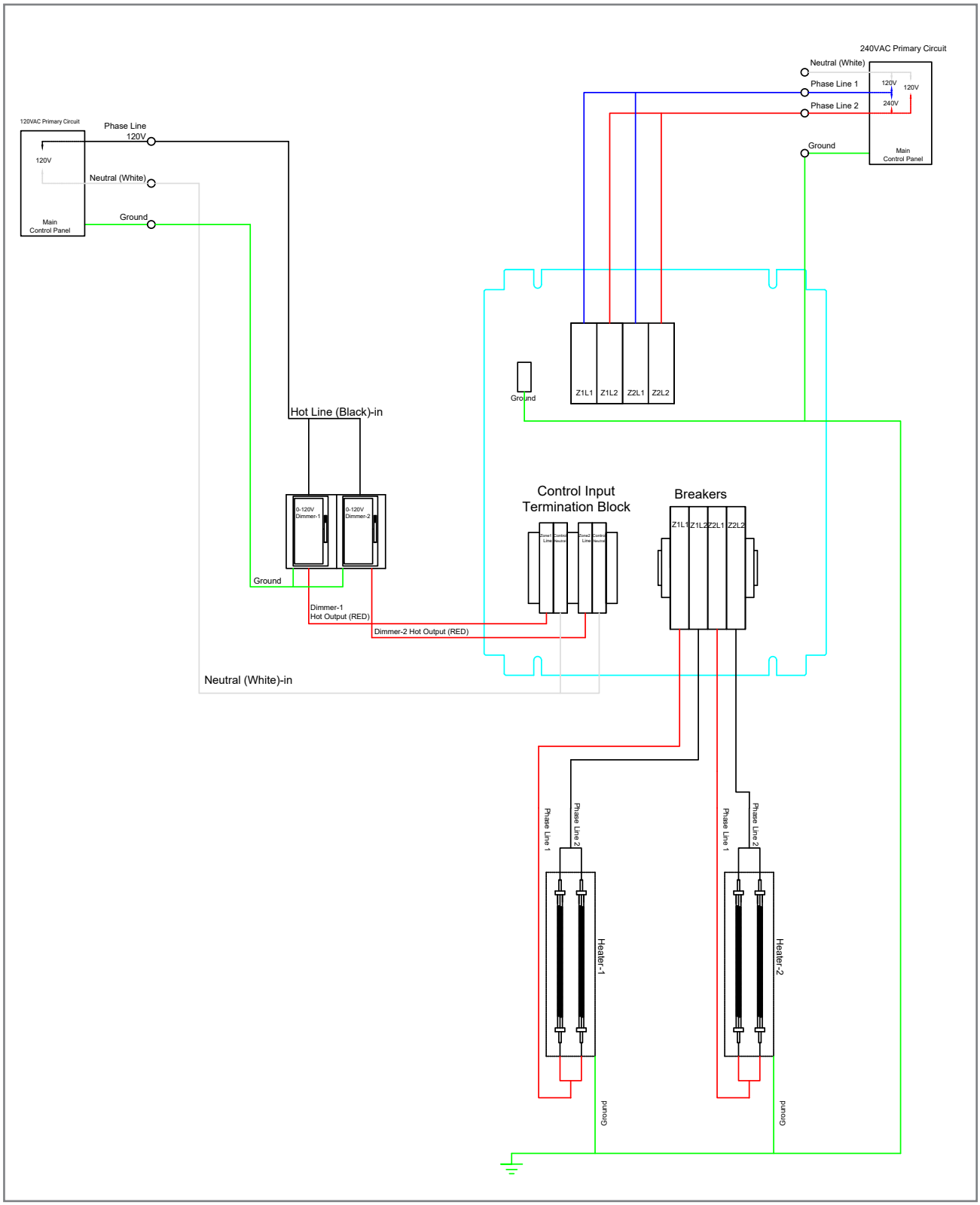
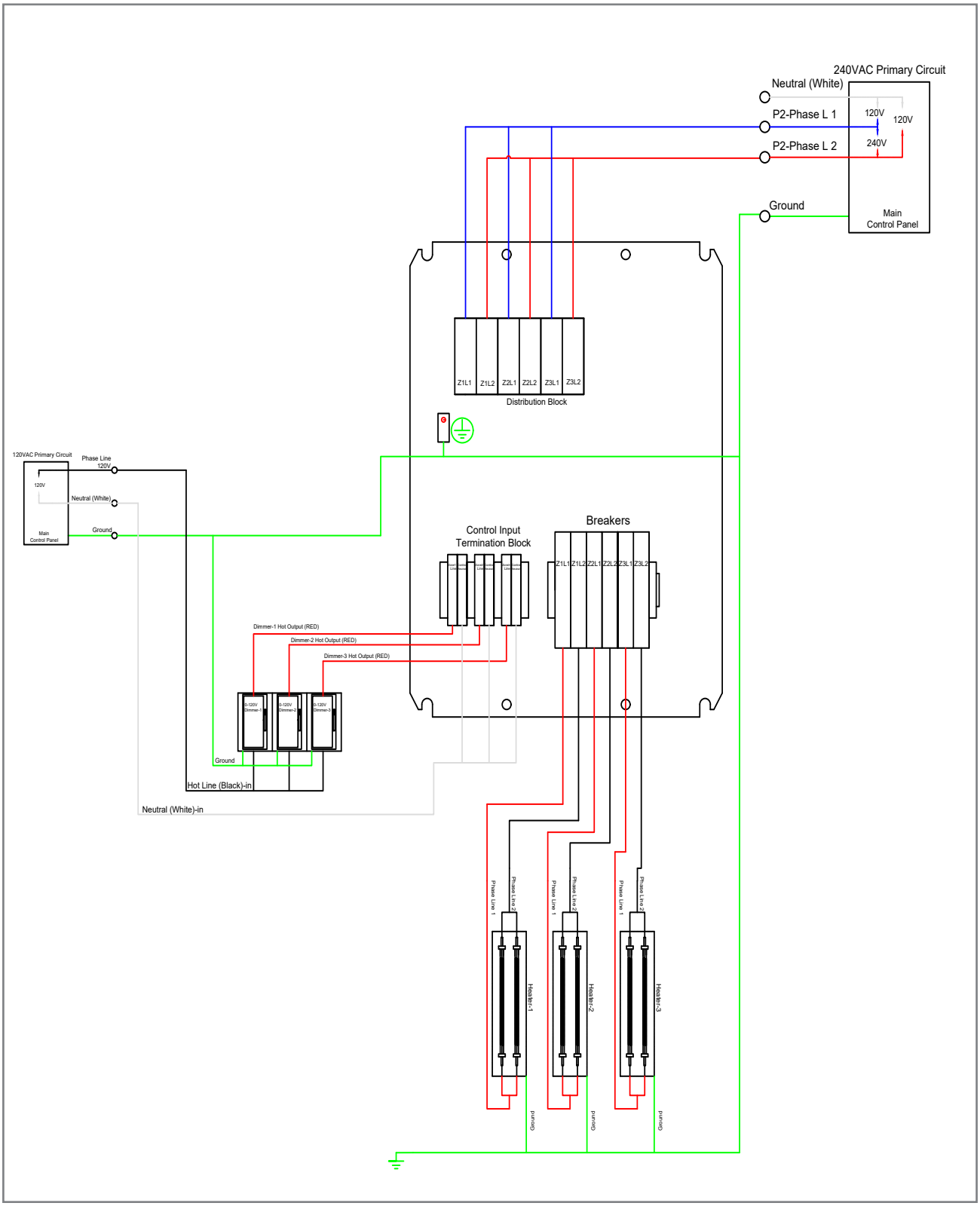
EFURCBT24M2 and EFSW120TD2



EFURCBT24M3 and EFSW120TD3



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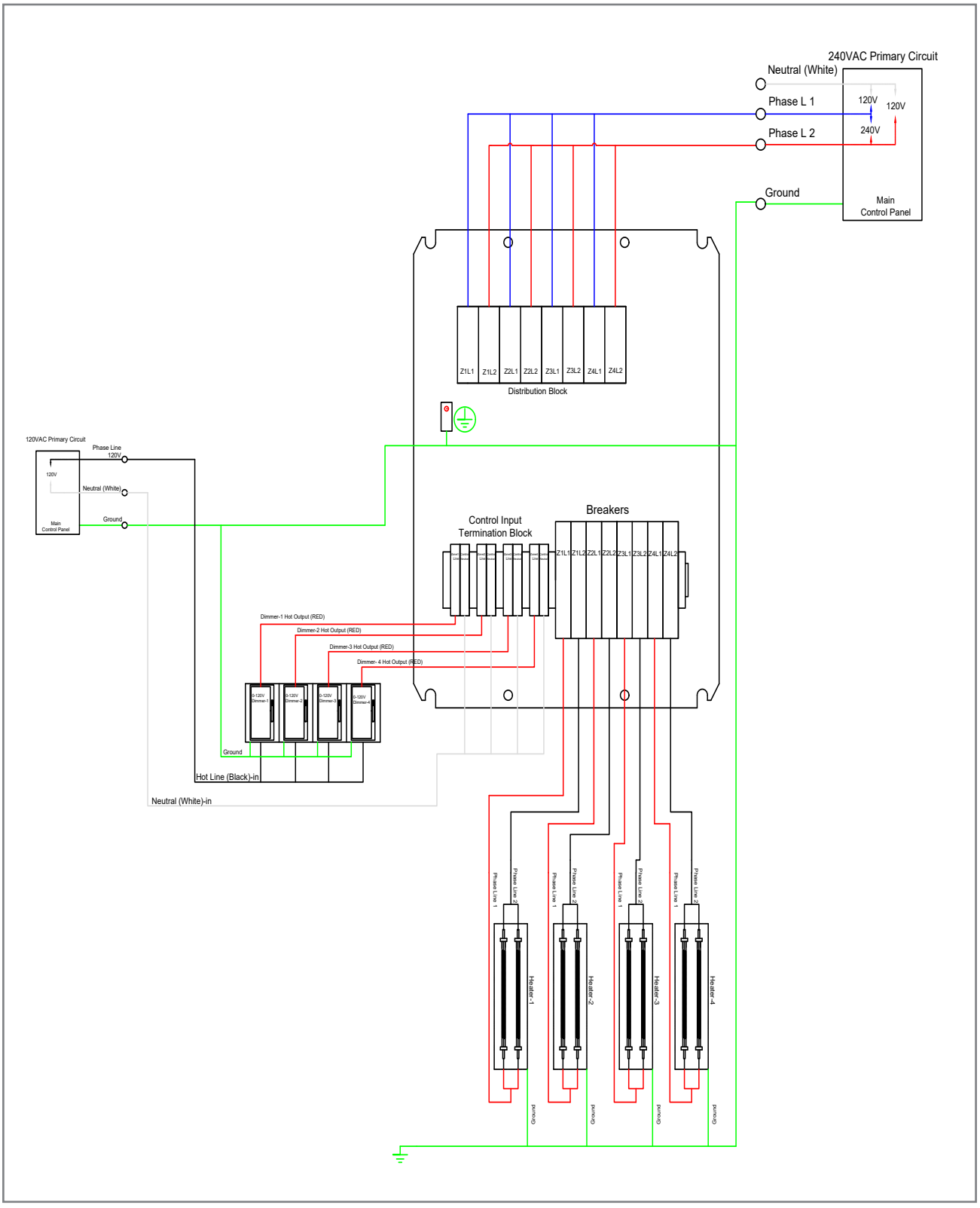
EFURCBT24M4 and EFSW120TD4

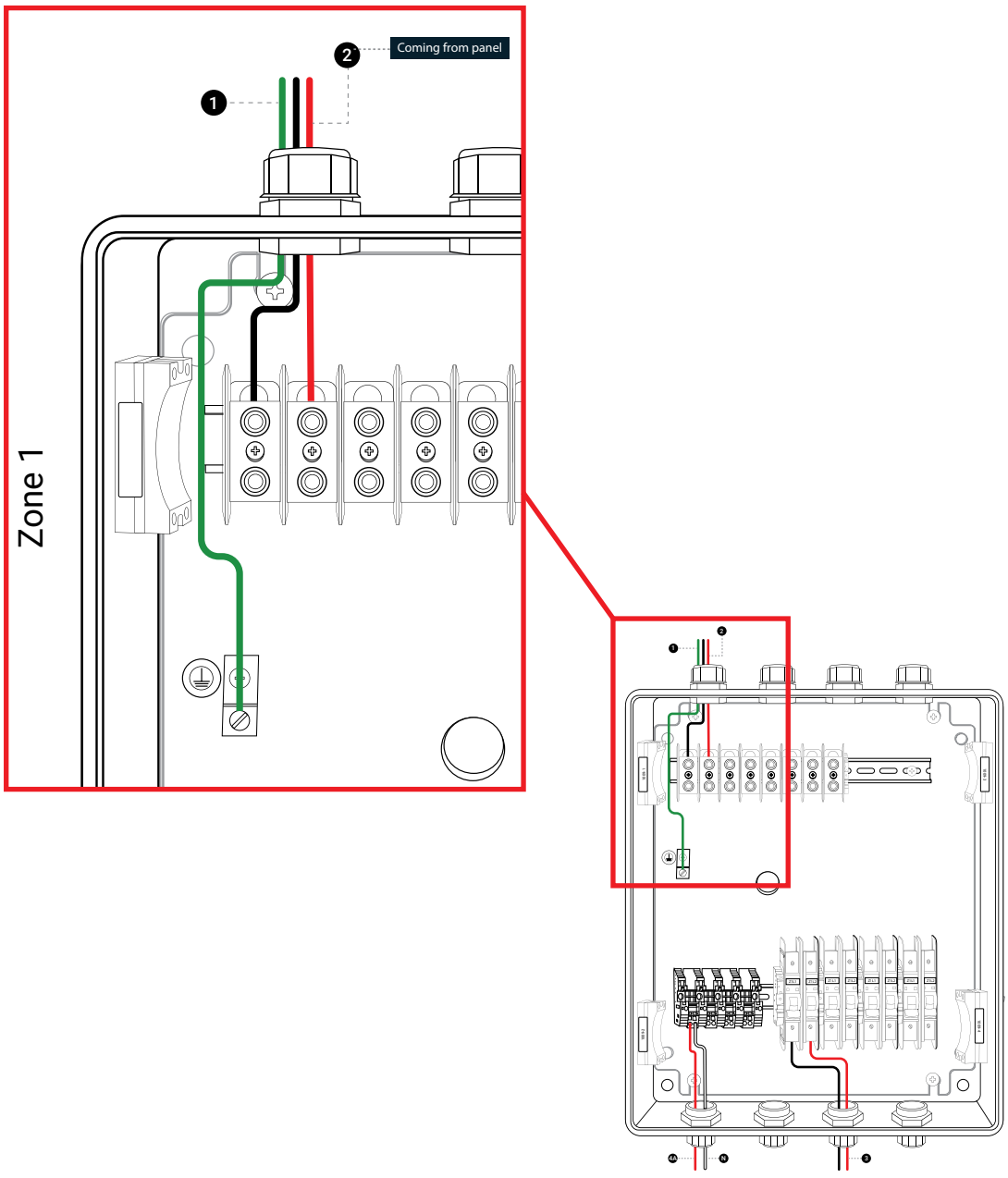


Installation Instructions

STEP 1:

1.Turn the power OFF at the circuit breaker before installation.

2.Connect the ground wire to the ground lug.



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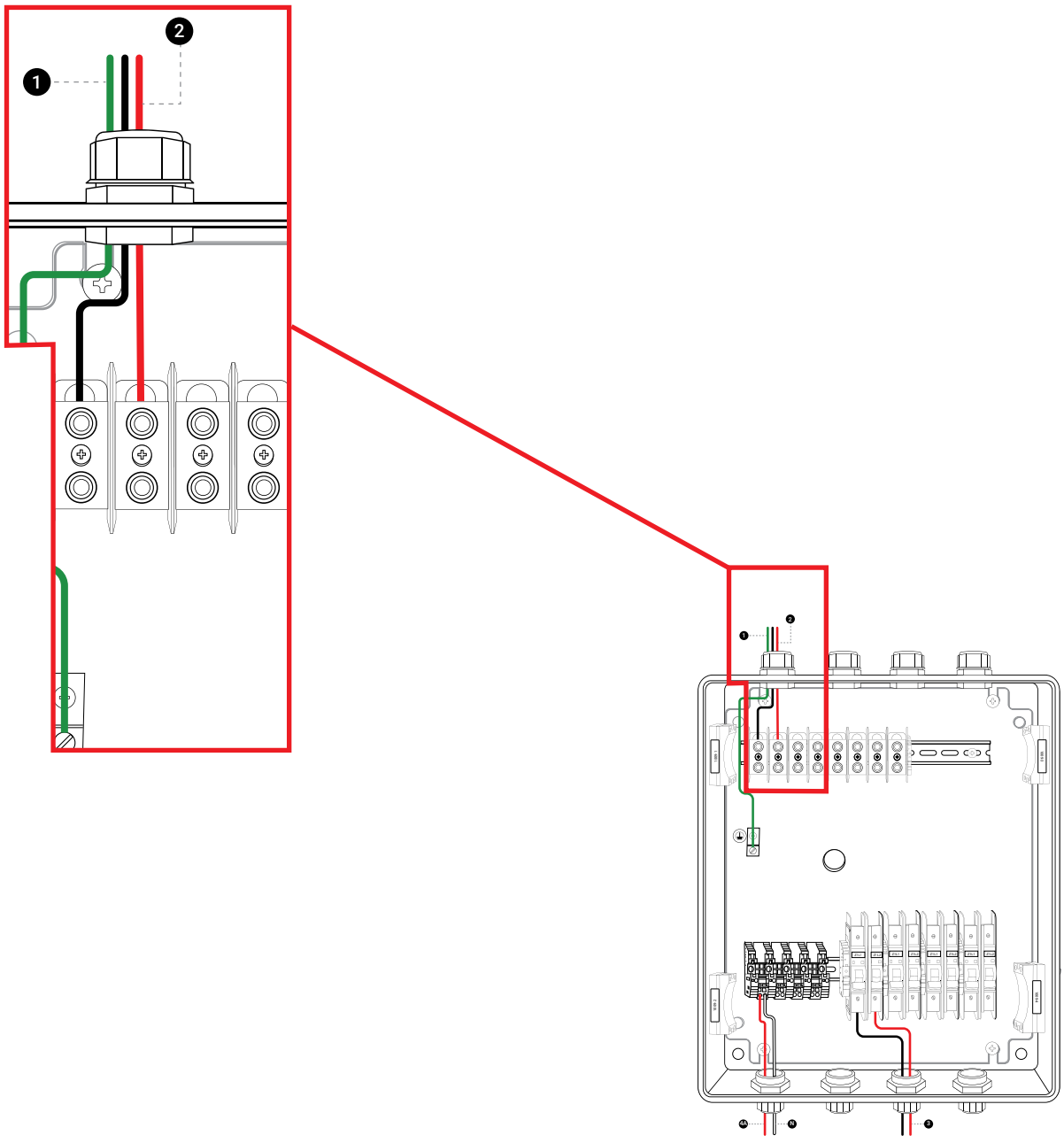
STEP 2:

1.The wiring illustration below applies to Zone 1, Repeat this procedure for all remaining zones, if applicable

2.Connect the line wires from the MAIN power source to Zone 1 terminals L1 and L2. Each zone is rated for a maximum load of 50 A.

Note: Lowering the load will limit the channel option

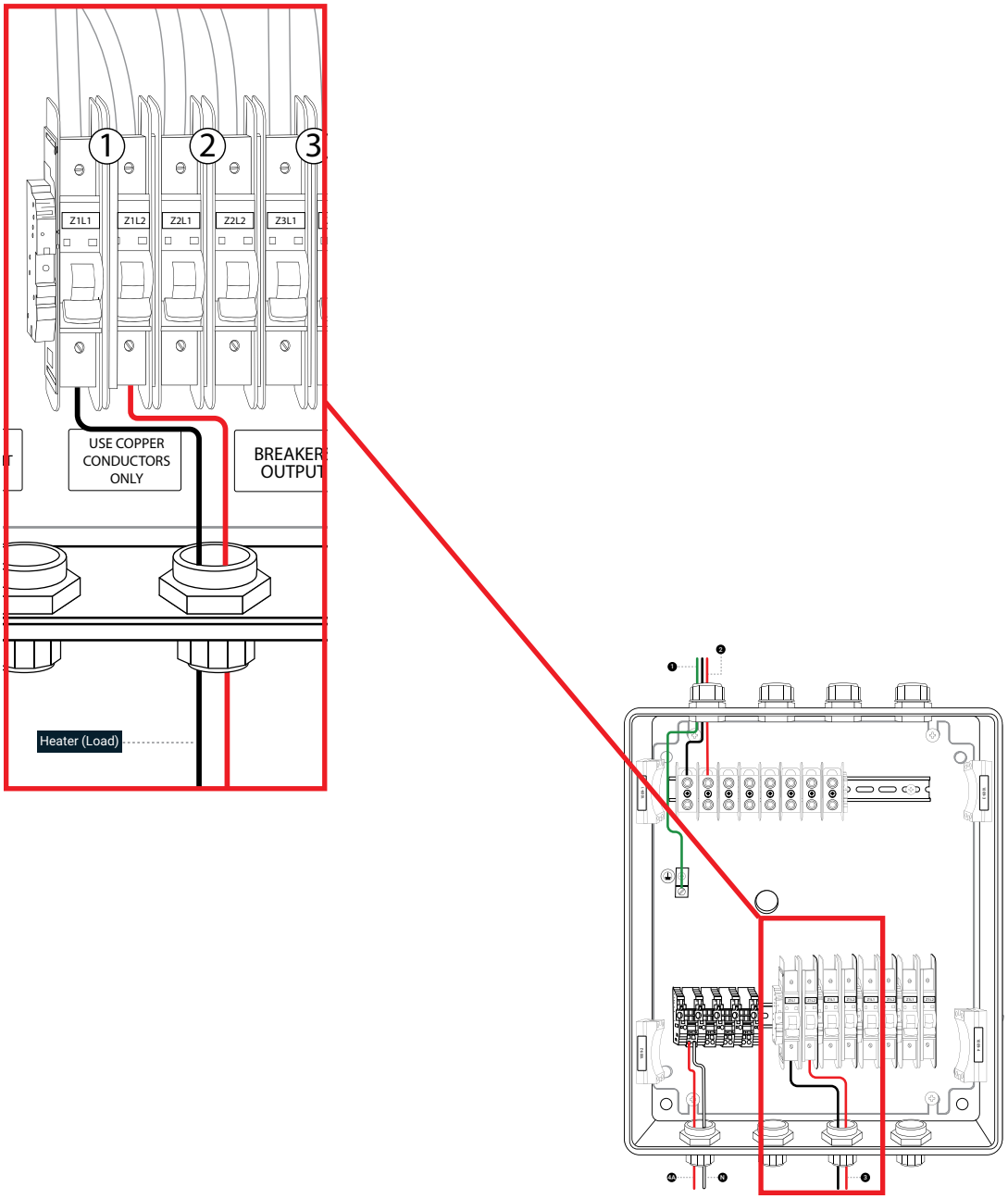


STEP 3:

1. The wiring illustration below applies to Zone 1, Repeat this procedure for all remaining zones, if applicable

2. Connect the Zone 1 (Z1L1) load wire from the breakers inside the control box to the heater L1 line wire (Black wire in the heater).

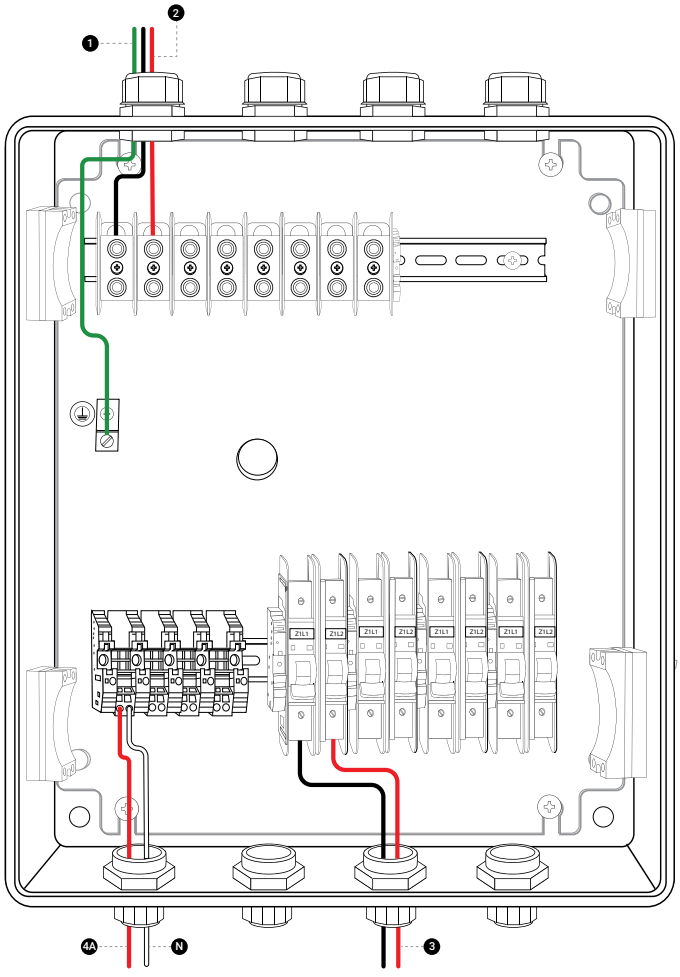
3. Connect the Zone 1 (Z1L2) load wire from the breakers inside the control box to the heater L2 line wire(Red wire in the heater)



Step 4A-1 Dimmer/Timer for 1 Zone:

1.Connect dimmer/timer output load wire from the dimmer/timer switch to terminal Block of zone 1 switch (Line) on the Eurofase Heating Electrical Control Box.

2.Connect dimmer/timer neutral wire from the dimmer/timer switch to terminal Block of zone 1 switch (neutral) on the Eurofase Heating Electrical Control Box.



Step 4B-1 Dimmer/Timer for up to 4 Zones:

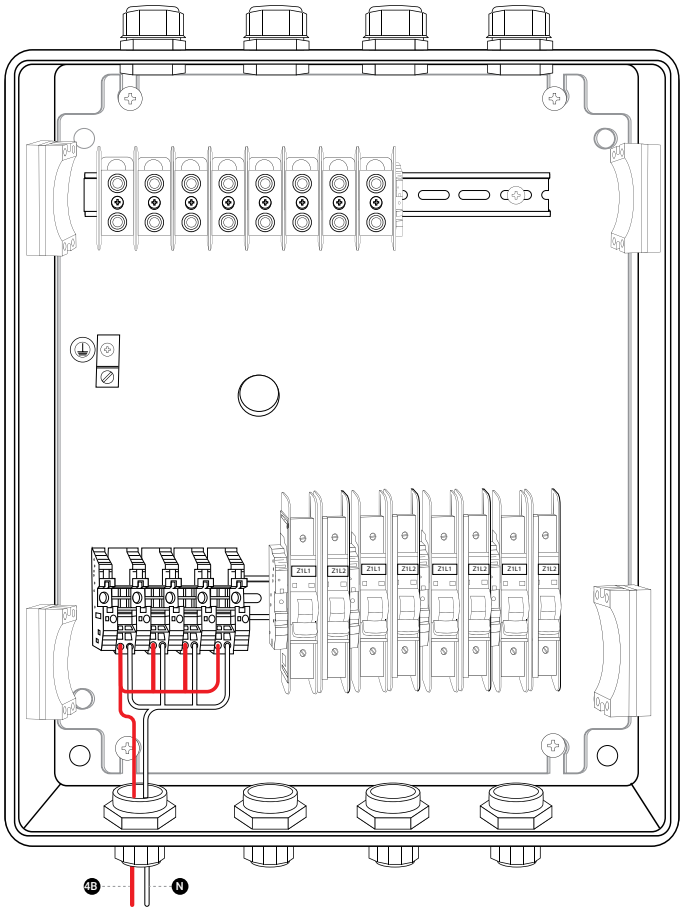
1.Connect dimmer/timer output load wire from the dimmer/timer switch to terminal Block of zone 1 switch (Line) on the Eurofase Heating Electrical Control Box.

2.Connect dimmer/timer neutral wire from the dimmer/timer switch to terminal Block of zone 1 switch (neutral) on the Eurofase Heating Electrical Control Box.

3.Jump Red load wire of zone 1 switch (Line) to zone 2 switch on terminal Block

4.Jump white neutral wire of zone 1 switch (neutral) to zone 2 switch on terminal Block

5. Repeat step 3 & 4 for zone 3 and 4.



Step 4C-2 Dimmers / Timers for 4 Zones:

Side 1

1.Connect dimmer/timer output load wire from the dimmer/ timer switch to terminal Block of zone 1 switch (Line) on the Eurofase Heating Electrical Control Box.

2. Connect dimmer/timer neutral wire from the dimmer/timer switch to terminal Block of zone 1 switch (neutral) on the Eurofase Heating Electrical Control Box.

3. Jump Red load wire of zone 1 switch (Line) to zone 2 switch on terminal Block

4. Jump white neutral wire of zone 1 switch (neutral) to zone 2 switch on terminal Block

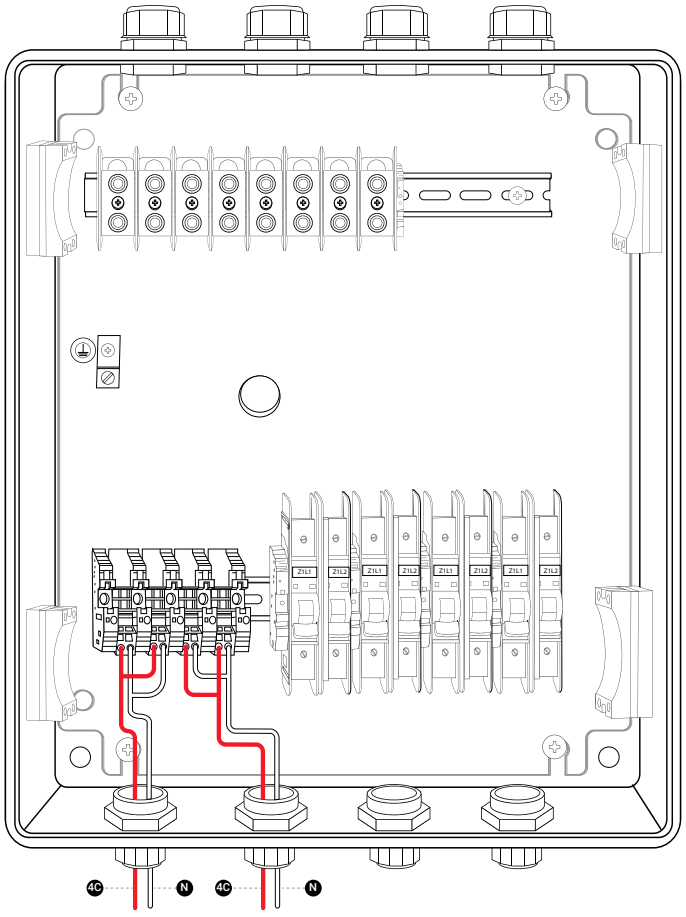
Side 2

1.Connect dimmer/timer output load wire from the dim mer/timer switch to terminal Block of zone 3 switch (Line) on the Eurofase Heating Electrical Control Box.

2.Connect dimmer/timer neutral wire from the dimmer/ timer switch to terminal Block of zone 3 switch (neutral) on the Eurofase Heating Electrical Control Box.

3. Jump Red load wire of zone 3 switch (Line) to zone 4 switch on terminal Block

4. Jump white neutral wire of zone 3 switch (neutral) to zone 4 switch on terminal Block



Final Step-Electrical Connection Verification and Initial Testing

1. Verify that all electrical connections are completed correctly according to Steps 1–5.

2. Check the heater connections for each zone:
   • Z1L1 must be connected to the two black wires on the heater.
   • Z1L2 must be connected to the two red wires on the heater.
   • Ensure the ground wire is properly connected to the heater junction box.

3. Measure the phase-to-phase line voltage between Line 1 and Line 2 for each zone. The voltage must read 240 V.

4. Confirm that the dimming switch is correctly connected to the terminal block:
   • Black and white wires are securely connected to their designated terminals.

5. After verifying all electrical connections, perform the initial test:
   • Turn the system ON and OFF using the switch to confirm basic operation.

6. Once ON/OFF functionality is confirmed, test the dimming switch by rotating the dial up and down to ensure proper dimming control.

NEED MORE INFORMATION?

If you have further questions please contact us at:
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- 1-833-346-6682


EUROfase
HEATING
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