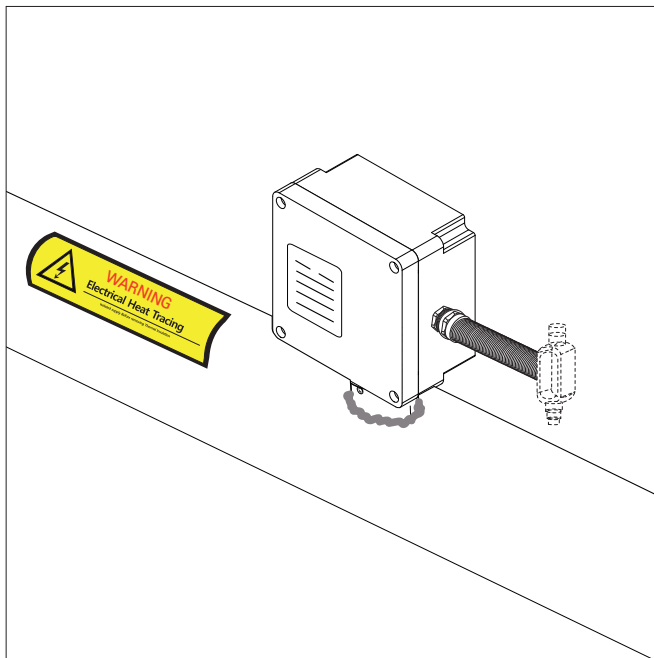


Gaumer Connection Kits

Installation Instructions

GB100S-A / GB100S-E

On-Pipe Single Entry Power Connection Kits



Description

- GB100S is an above insulation power connection kit for use with GAUMER GHT-CR, GHT-CT, GHU-CT and GHK-CT self-regulating heating cables.
 - GB100S-A (Power connection kit for North America) has one 3/4" through hole for 3/4" conduit and fittings.
 - GB100S-E (Power connection kit for Europe and Asia) has one M25 through hole for M25 conduit and fittings.
- This kit can be utilized to connect power to one heating cable, and can be used for splice of two heating cables and end termination if the through hole is blocked with a certified plug.
- GB100S employs terminal blocks that accommodate maximum conductor size of 8AWG(10 mm²)* for fine-stranded conductors.
 - * If a maximum conductor size of 6AWG(16 mm²) is required, please contact Gaumer Process for larger terminal blocks.

Approvals

「 GB100S-A 」



FM24US0113X, FM24CA0042X

Hazardous (classified) locations, indoors and outdoors
Class I, Division 2, Groups A, B, C and D T*;
Class II/III, Division 2, Groups E, F and G T*;
Class I, Zone 1, AEx/Ex eb IIC Gb
Zone 21, AEx/Ex tb IIIC T* °C Db
Type 4X, IP66
Ta = -40°C to +55°C

「 GB100S-E 」



FM24ATEX0018X

II 2 G Ex 60079-30-1 IIC T* Gb;
II 2 D Ex 60079-30-1 IIIC T* °C Db;
II 2 G Ex eb IIC Gb;
II 2 D Ex tb IIIC Db
IP66
Ta = -40°C to +55°C

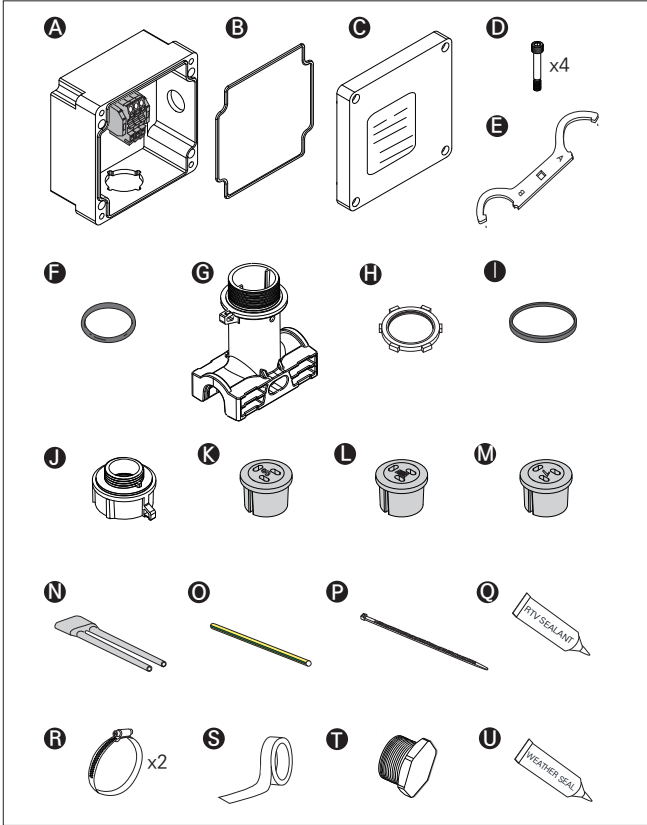


IECEx FMG 24.0017X

Ex eb IIC T* Gb
Ex tb IIIC T* °C Db

- T* = For T-rating, please refer to cable documentation.

Kit Contents



Item	Description	Qty.
A	Junction Box with Terminal Blocks	1
B	Box Gasket	1
C	Junction Box Lid	1
D	M6 Bolt	4
E	Wrench	1
F	Stand O-Ring	1
G	Junction Box Stand	1
H	Lock Nut	1
I	Square-Ring for Compression Cap	1
J	Compression Cap	1
K	GHU-CT/GHT-CT Grommet (3 holes)	1
L	GHT-CR Grommet (3 holes)	1
M	GHK-CT Grommet (3 holes)	1
N	Core Sealer	1
O	Insulation Tube	1
P	Cable Tie	1
Q	RTV Adhesive	1
R	Pipe Strap (Sold Separately)	2
S	Fixing Tape (Sold Separately)	1
T	Certified Plug (Sold Separately)	1
U	Weather Seal (Sold Separately)	1

Tools Required

- Wire cutters
- Marking pen
- Adjustable pliers
- Needle nose pliers
- Utility knife
- Large slotted screwdriver
- 3/16" (or 5mm) hex key

Additional Materials Required

- Pipe Strap

GPS-SS02	Pipe up to 2" Outer Diameter
GPS-SS05	Pipe up to 5" Outer Diameter
GPS-SS10	Pipe up to 10" Outer Diameter
GPS-SS18	Pipe up to 18" Outer Diameter
GPS-SS24	Pipe up to 24" Outer Diameter

- For installation on small pipes smaller than 1" (25mm), contact Gaumer Process for small pipe adapter, GSPA.
- Fixing Tape
 - GFT-L98 : Fiberglass Tape low temp; 1/2" * 98ft (30m)
 - GFT-H98 : Fiberglass Tape high temp; 1/2" * 98ft (30m)
 - GAT2/3-L164 : Aluminum tape low temp; 2" or 3" * 164ft (50m)
- Stand Extension

For installation with insulation thicker than 3" (76mm), or on very hot pipe, contact Gaumer Process for stand extension, GPSE.

User Provided Materials

- Conduit, fittings and conduit drain

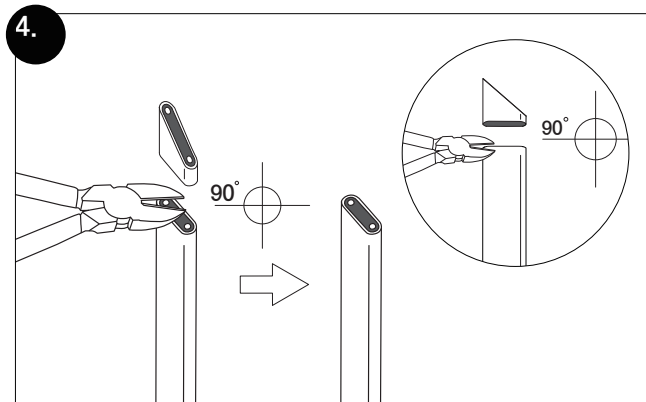
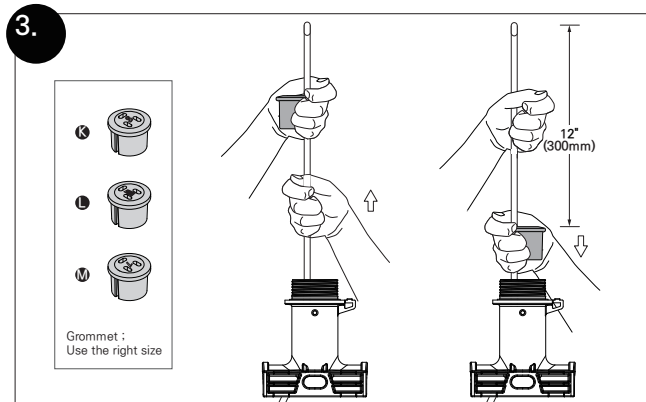
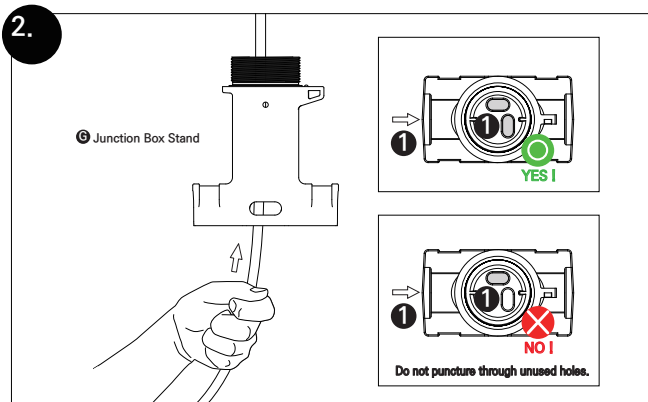
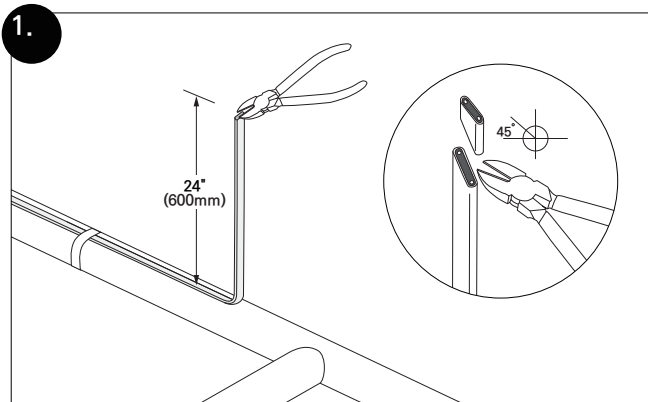
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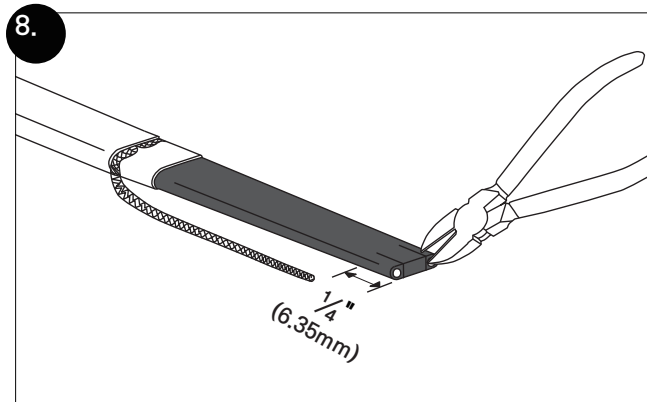
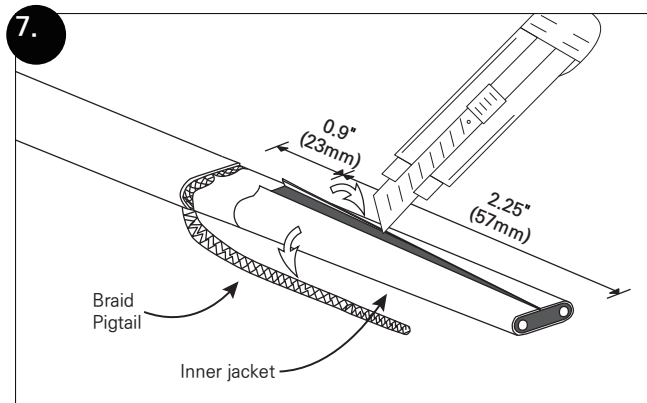
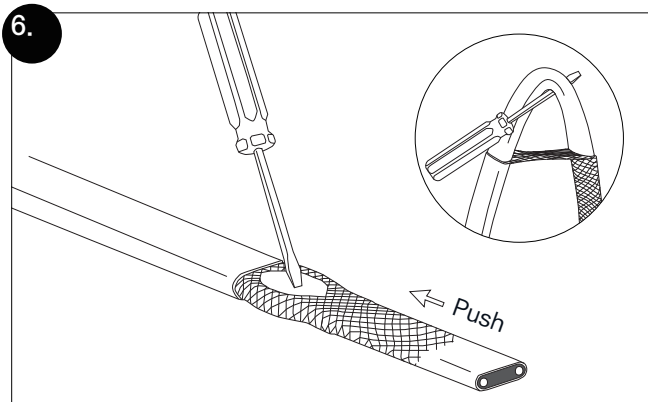
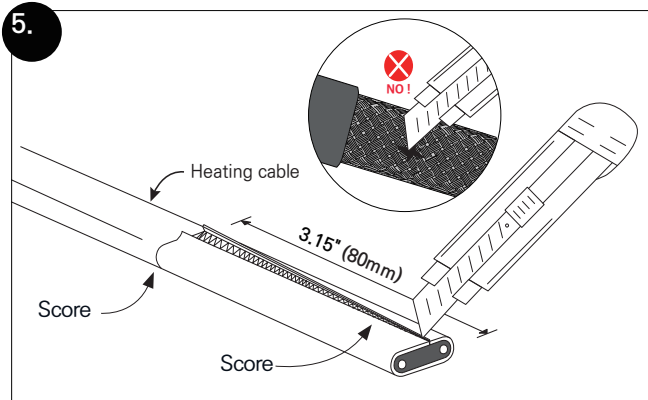
- The minimum installation temperature is -40°F (-40°C). For more convenient installation, we recommend performing the installation at a temperature above freezing. Store the kit at a temperature above freezing until installation.
- Only qualified personnel shall design and install ground fault equipment, circuit breakers, thermal insulation to cover the heating cable on the pipes, and to provide commissioning, service, operation, maintenance, and supervision.
- During installation, it's essential to employ the appropriate personal protective equipment (PPE). If you have further inquiries, do not hesitate to contact Gaumer Process.

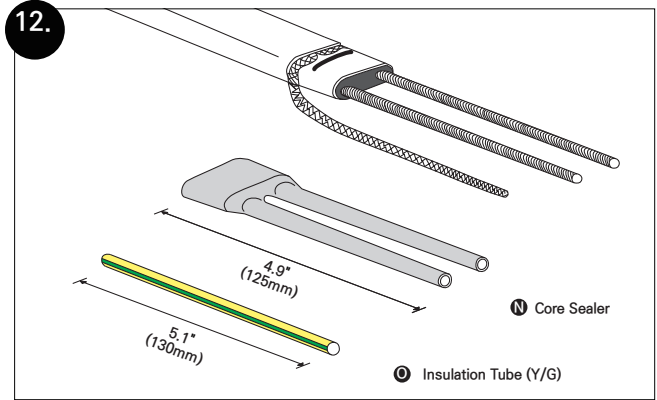
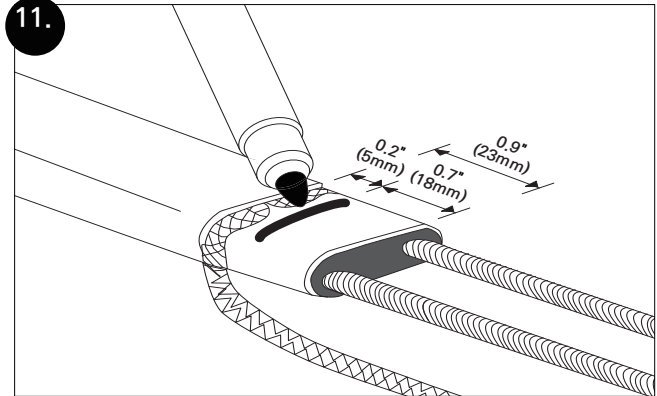
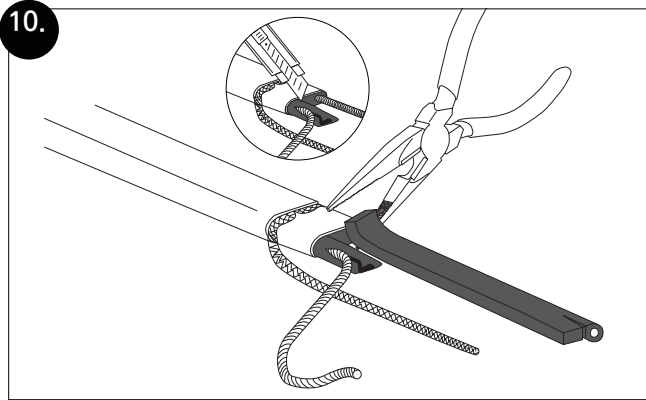
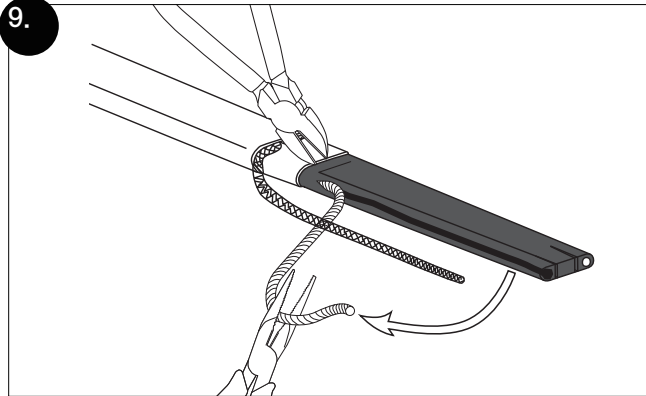
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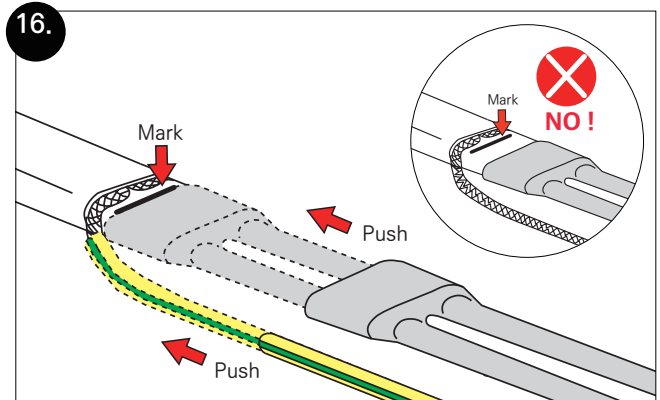
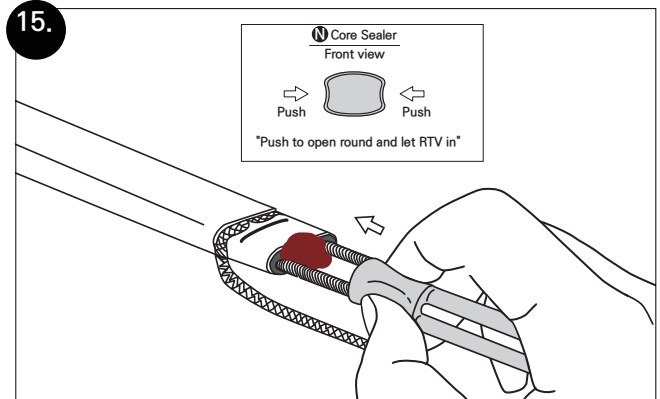
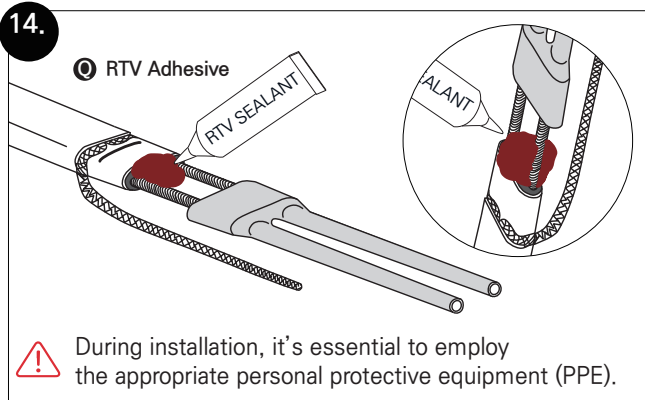
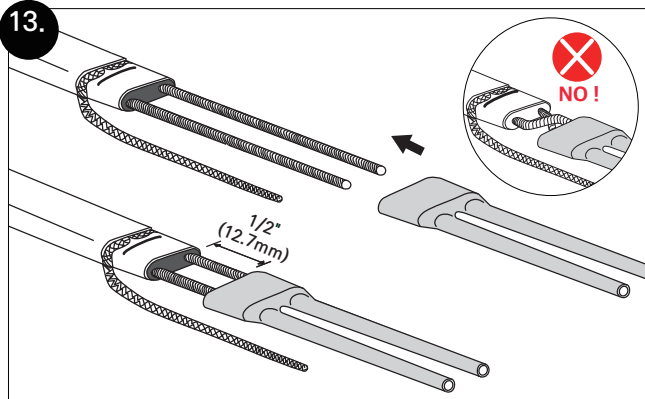
- Gaumer heat-tracing systems must be installed correctly to ensure proper operation and to prevent shocks and fires. Pay attention to warnings and carefully follow applicable installation instructions.
- For two or more heating cables powered by a single circuit, the total length of all heating cables should not exceed the maximum circuit length allowed in the chart published in Gaumer self-regulating heating cables datasheets or design guide. Additionally, the total current of all heating cables should not surpass 80% of the circuit breaker rating.
- **ELECTRIC SHOCK OR FIRE HAZARD**
 - The installation must comply with Gaumer's requirements and adhere to the guidelines outlined in the National Electrical Code (NEC) and Canadian Electrical Code (CEC), as well as any other relevant national and local codes.
 - Ground-fault equipment protection must be utilized on each heating cable branch circuit.
 - L1 and L2 jumpers on terminal blocks must be removed if the power connection is energized by two power circuits.
- The approvals and performance of the heat tracing systems are based exclusively on the use of Gaumer Process specified parts. It is imperative that parts are not substituted and commonly used electrical tape for insulation of heating cable is not allowed.
- Damaged bus wires have the potential to overheat or cause short circuits. When scoring the jacket or core, it is essential to avoid breaking the bus wire strands.

-
- Both components and cable ends must be kept dry before and throughout the installation process.
 - The potential for bus wires to overheat or short circuit exists if the bus wire strands are broken while preparing the cable for connection. Reuse of grommets or use of the wrong grommet can result in leaks, cracked components, shocks, or fires. Ensure the type or opening size of grommet is correct for the heating cable being installed. A new grommet is recommended whenever the cable has been pulled out of the component.
 - Before and during installation or servicing, all power circuits must be de-energized.
 - Read the MSDS for RTV and components carefully.
 - It is recommended to use fire-resistant insulation that is compatible with the application and the maximum exposure temperature of the heat tracing system.



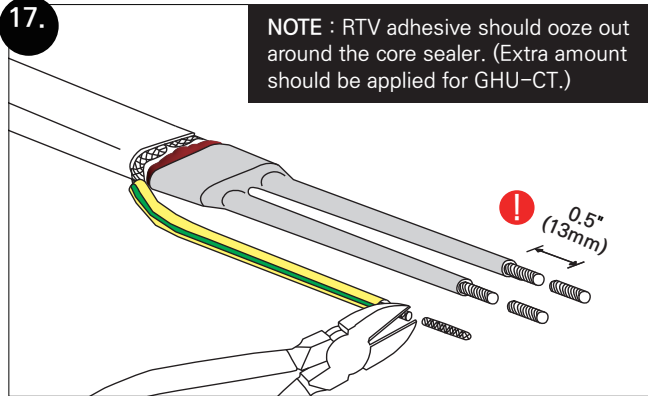




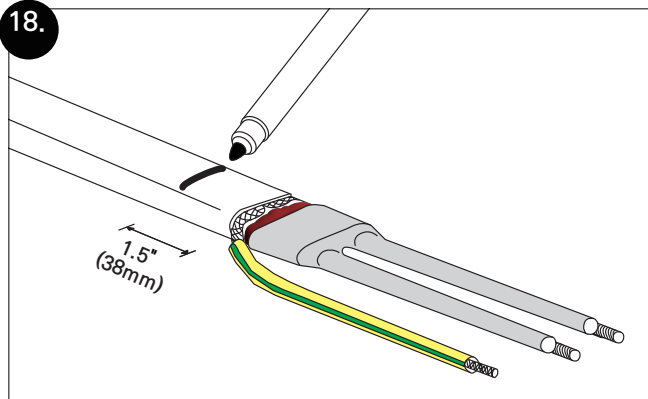


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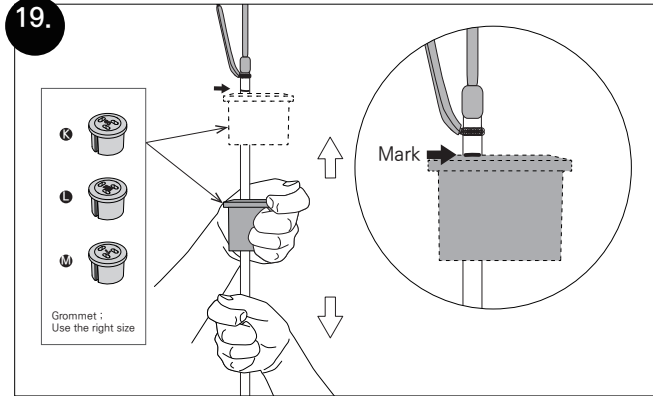
NOTE : RTV adhesive should ooze out around the core sealer. (Extra amount should be applied for GHU-CT.)



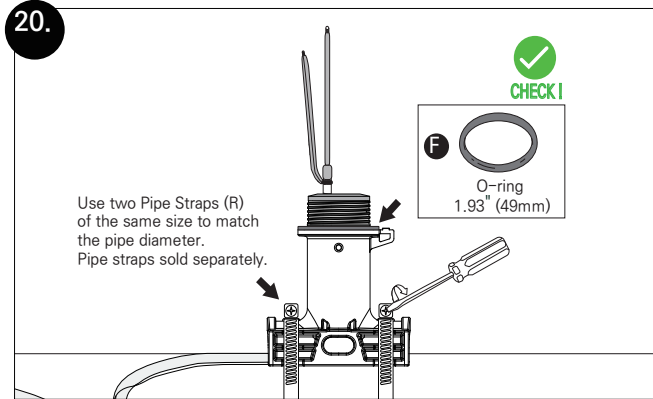
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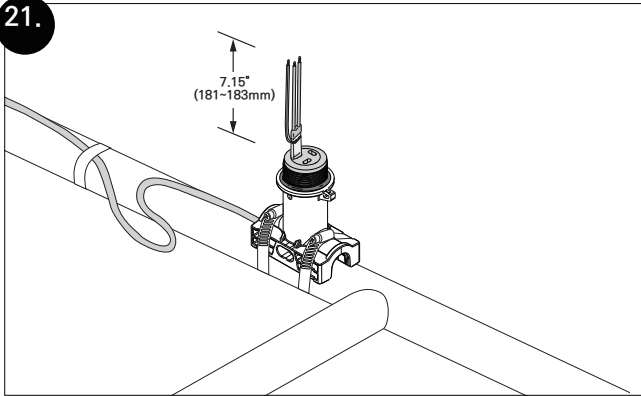
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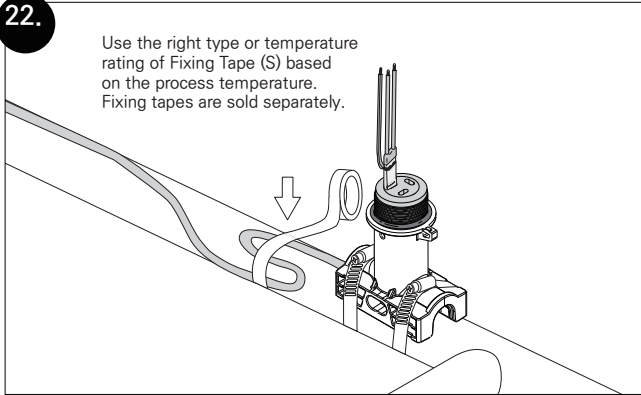


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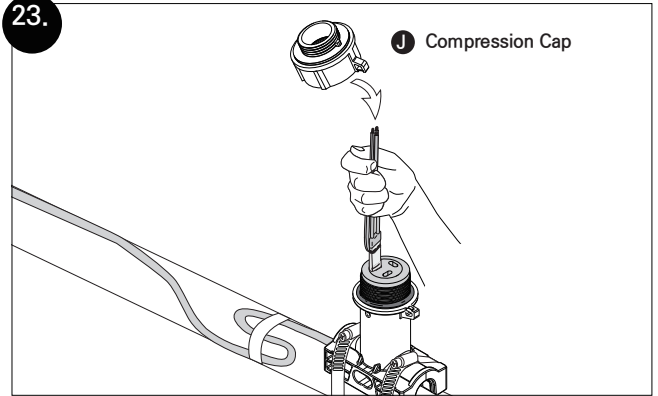


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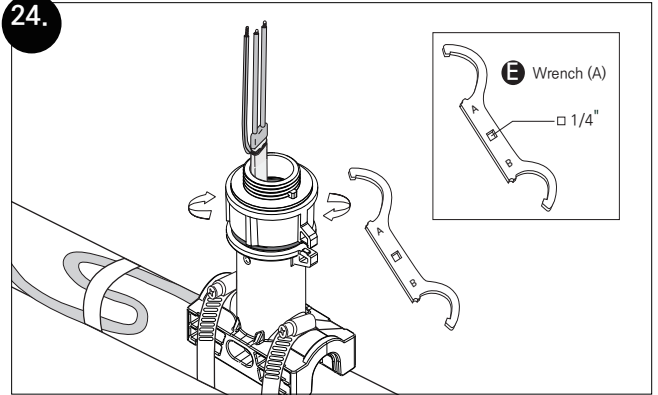
Use the right type or temperature rating of Fixing Tape (S) based on the process temperature. Fixing tapes are sold separately.

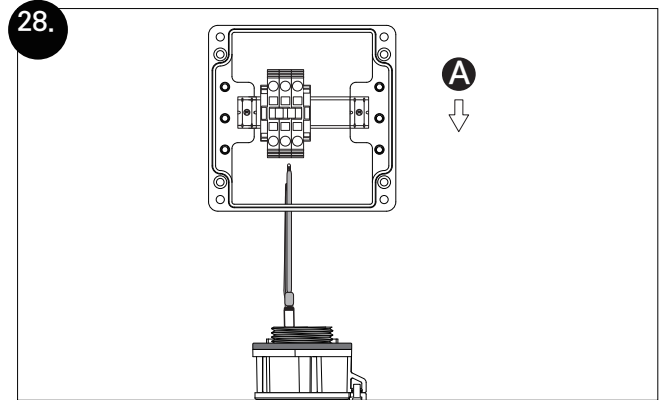
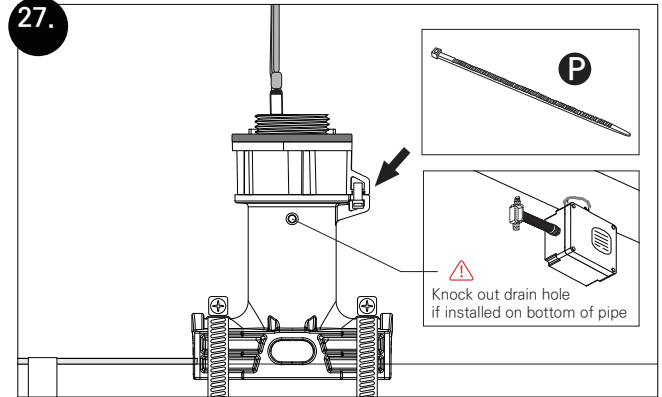
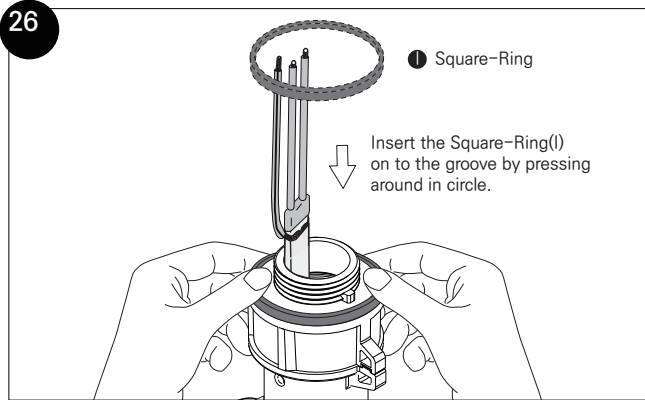
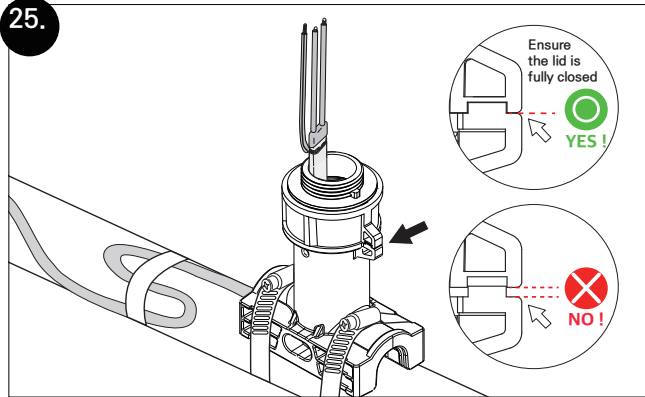


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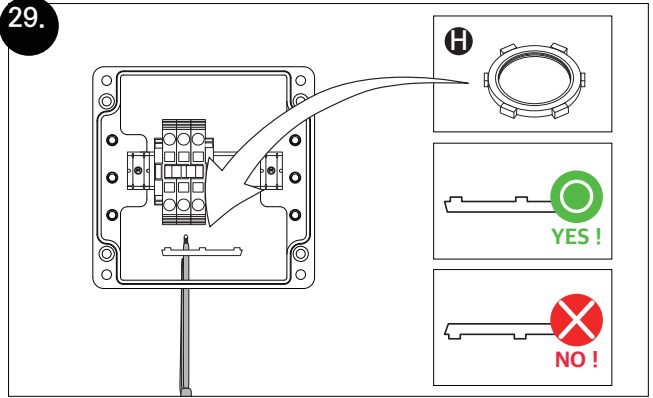


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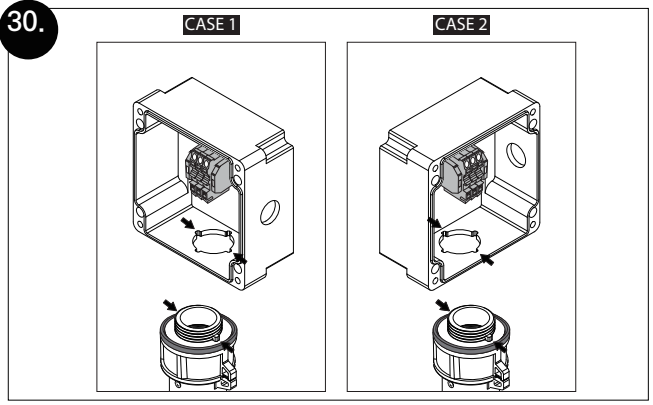




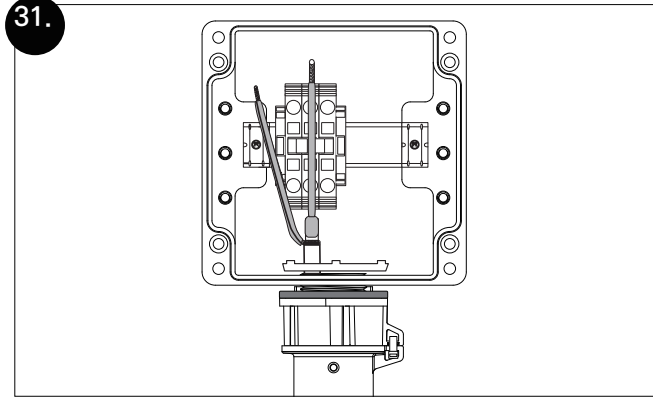
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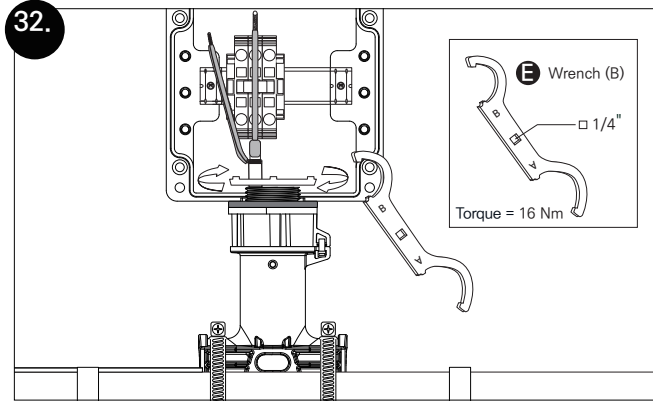
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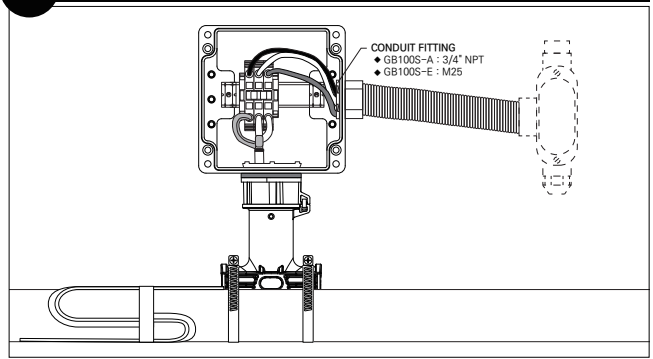


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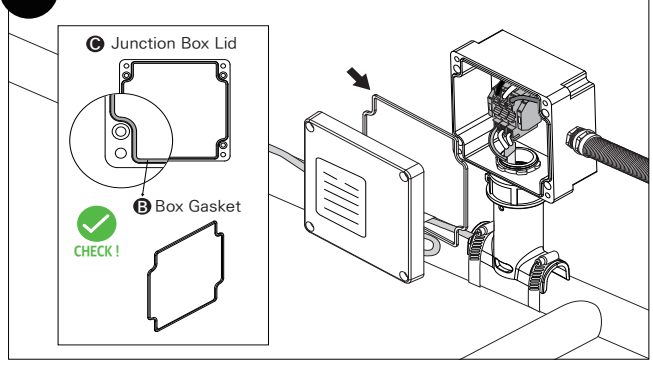


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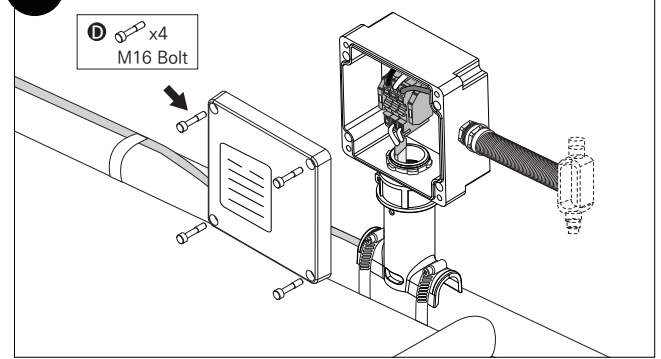
Power Connection



34.

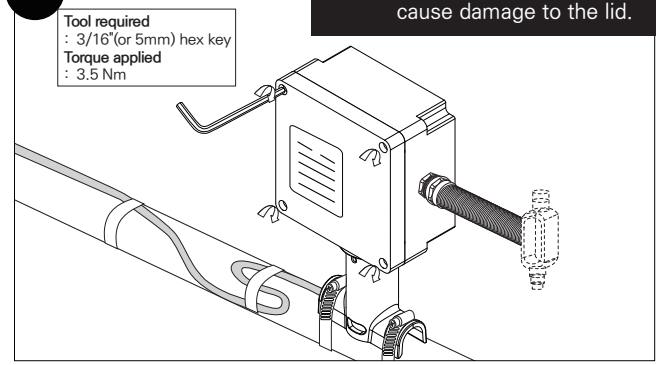


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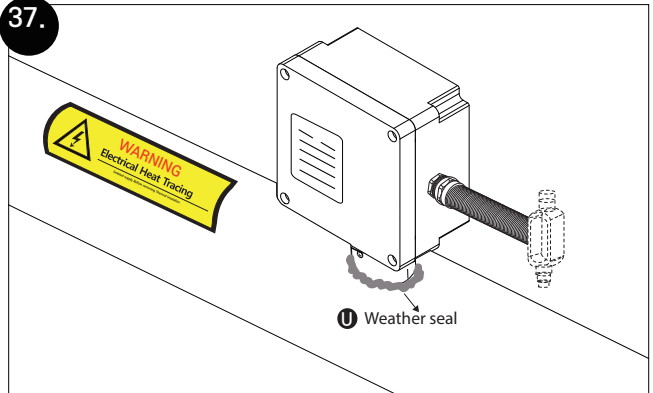


36.

NOTE : Excessive torque may cause damage to the lid.

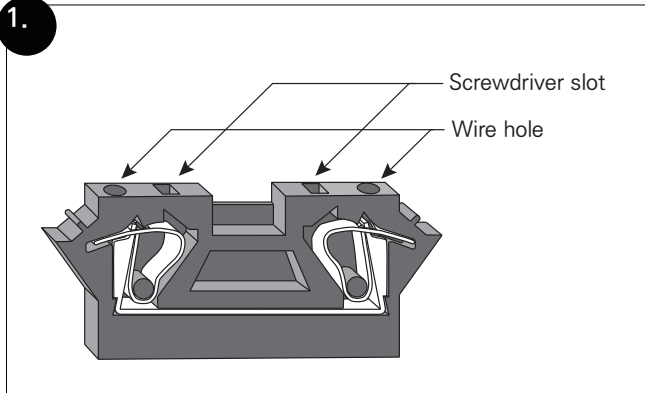


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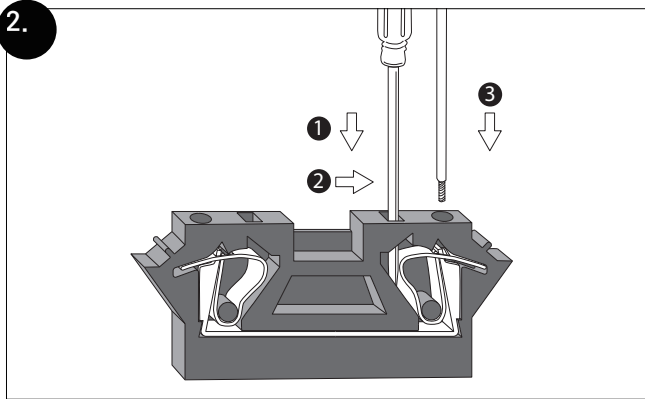


Terminal Blocks

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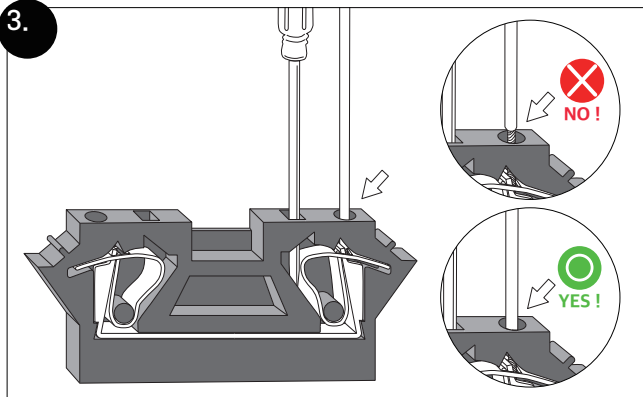


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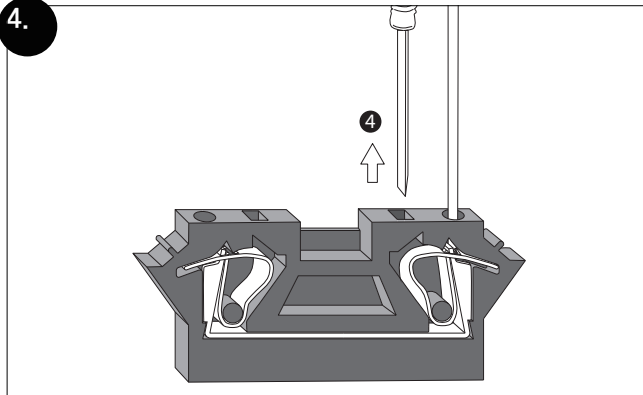


Terminal Blocks

3.

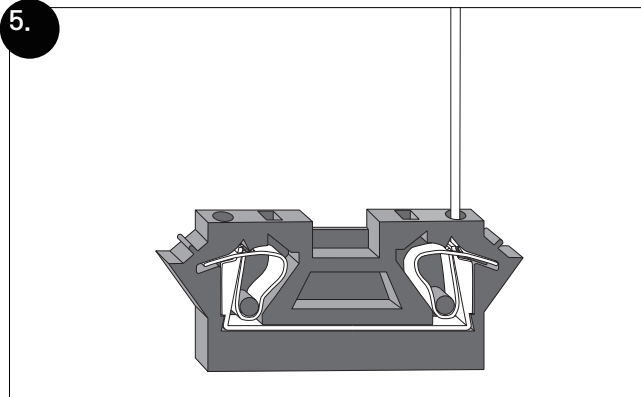


4.



Terminal Blocks

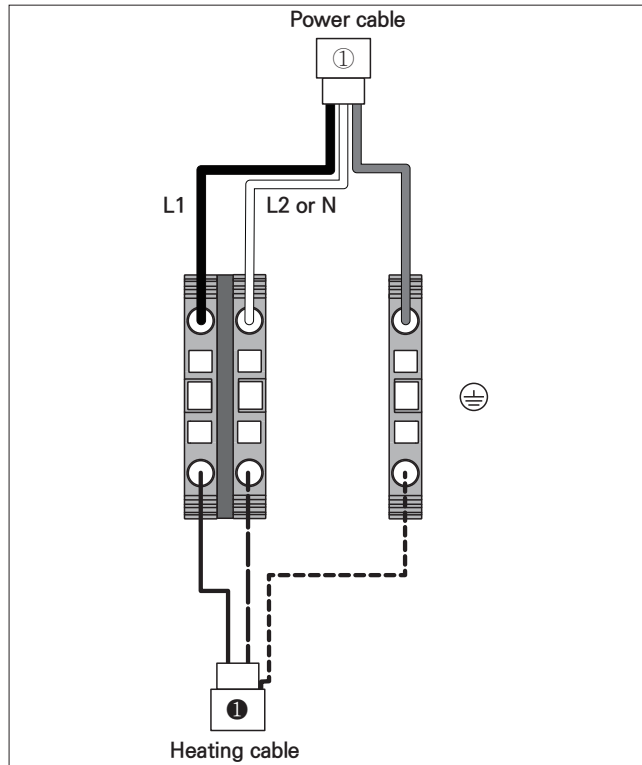
5.



Terminal Blocks (Wire Diagram)

1.

Power Connection

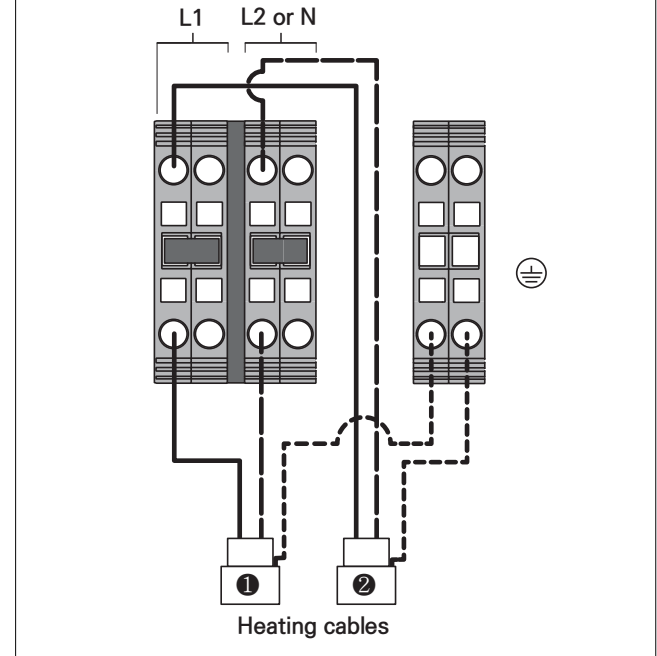


Terminal Blocks (Wire Diagram)

2.

Splice Connection

NOTE : Ensure the through-hole is sealed using an certified box plug.

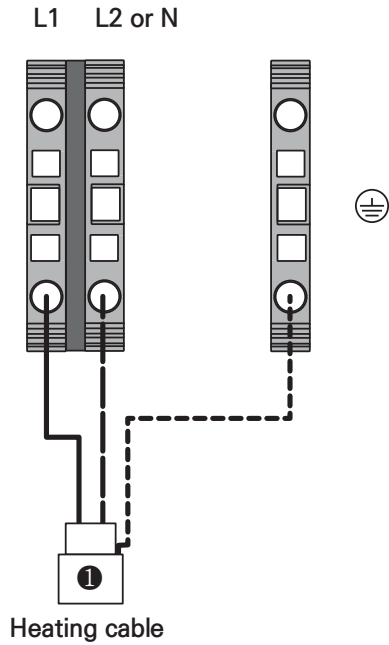


Terminal Blocks (Wire Diagram)

3.

End Termination

NOTE : Ensure the through-hole is sealed using a certified box plug.





Gaumer Process

ADDRESS 13616 Hempstead Road · Houston, TX, U.S.A., 77040

WEB www.gaumer.com TEL +1 (800) 460 5200 E-MAIL sales@gaumer.com