

User Manual & Installation Guide

Electric Instant Shower Heater

Princeton



- This booklet should be retained by the user after installation.
- Installation must be done by qualified / approved personnel only.



Contents

S/N	Contents	Page
1.	Introduction	1
2.	Package – Standard Contents	2
3.	About Electric Instant Shower Heater	3
4.	Site Requirements – Plumbing & Electrical	5
5.	Product Installation	
	5.1 Plumbing Connections	6
	5.2 Shower Set Installation	8
	5.3 Testing Plumbing Connections	12
	5.4 Electrical Connections	13
	5.5 Front Cover Mounting	15
	5.6 Testing Electrical Connections	16
6.	Usage of Electric Instant Shower Heater	
	6.1 Operation Instructions	17
	6.2 Safety Precautions	18
7.	Electrical Information	19

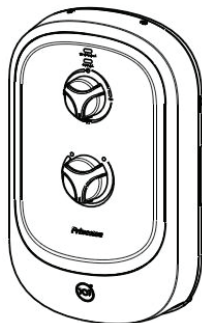
1. Introduction

707 Princeton Electric Instant Shower Heater is intended for heating water to the temperature suitable for a shower.

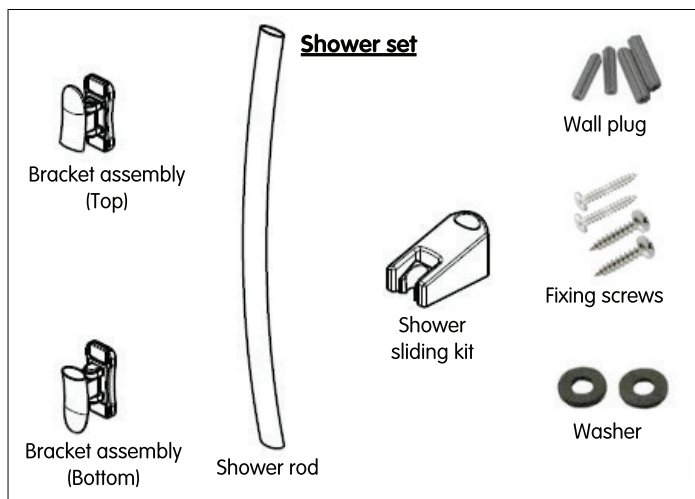
Specifications:

Brand	707
Model	Princeton
Power rating	3.0kW / 3.3kW / 3.5kW / 3.65kW / 4.5kW
Ingress protection rating	IPX5
Rated pressure	0 MPa
Inlet & outlet water connection	Ø 15mm (1/2" BSP)
Minimum water ow rate	3ℓ/min
Recommended water flow rate	4 – 6ℓ/min
Permissible inlet water pressure	0.1 – 0.3 MPa (1 – 3 bar)
Recommended inlet water pressure	0.1 MPa (1 bar)
Dimensions (L x H x W)	242 x 375 x 102 mm
Weight	2.35 Kg

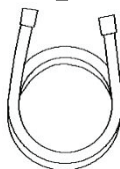
2. Package – Standard Contents



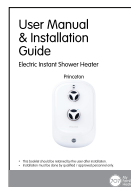
Main Unit



Luxurious shower head

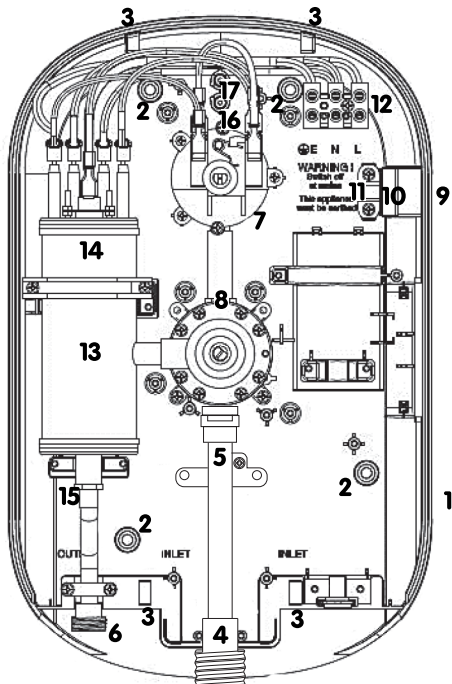


Shower hose



Instruction manual

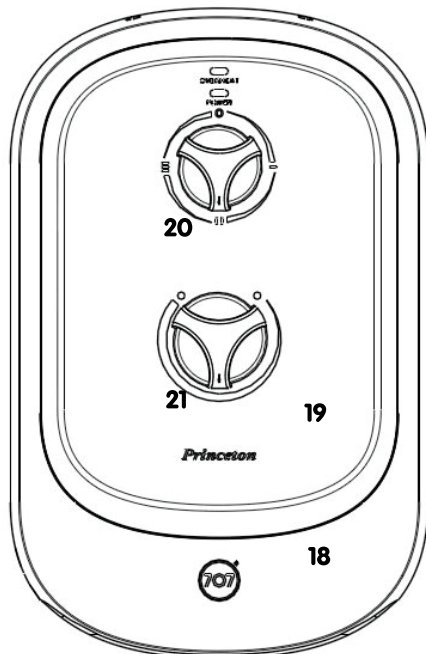
3. About Electric Instant Shower Heater



**Princeton Electric Instant Shower Heater Unit
(without Front Cover)**

1. Base plate
2. Wall mounting screw holes
3. Front Cover screw fixing
4. Water inlet pipe
5. Inlet
6. Outlet
7. Power selector (PS)
8. Temperature flow control valve
9. Power supply cable entry
10. Cable seal
11. Cable clamp
12. Terminal block
13. Heating tank
14. Thermostat
15. Pressure relief device (PRD)
16. Indicator light – power
17. Indicator light – over heat

3



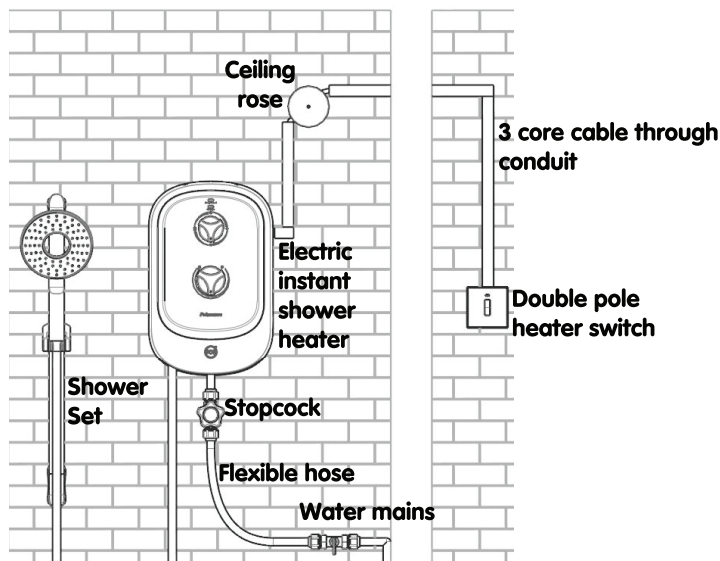
**Princeton Electric Instant Shower Heater Unit
(with Front Cover)**

18. Front cover
19. Panel front
20. Power selector knob
21. Temperature flow control knob

Features:

- Copper class tank: 707 tanks are constructed of superior copper, and built to stringent specifications for reliability, longevity and performance
- Pressure relief device: Built-up pressure in the water tank is automatically released for added protection and safety
- Warning indicator: Lights up in the event the water temperature reaches scalding level
- Splash proofing: The internal circuitry of each heater is isolated by sturdy, splash-proof casing and manufactured in accordance with international safety standards
- Pledge of safety: 707 shower heaters are rigorously tested for compliance with multiple Singapore safety standards
- Temperature flow control: Temperature flow control regulates water flow for preferred shower temperature
- Anti-scald protection: 707 shower heaters automatically detect and correct when water temperatures reach un-safe levels
- Non-slip rubberized control: 707's stylish rubber controls are insulated and reliable, while its non-slip properties allow for effortless adjustments to water temperature and pressure

4. Site requirements – Plumbing & Electrical



- Please check that a 20 amps double pole heater switch is connected directly to the mains and installed outside the bathroom.
- If a ceiling rose connector is present, please ensure it is rated 20 amps and the 3 core cable between switch and connector should be at least 2.5mm² per wire.
- Pressure of water supply from mains should be at least 0.1 MPa (1 bar) and it should not exceed 0.3MPa (3bar).
- Required minimum inlet water flow rate is 3ℓ/min.
- Please proceed with installation only if you meet the above site requirements.

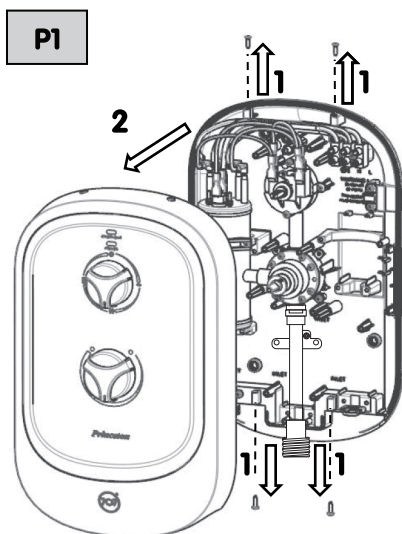
Materials and tools needed for installation:

- 3 core cable of at least 2.5 mm² per wire
- Flexible hose and/or copper pipes
- Spanner
- Power drill
- Hammer
- Cross head screw driver
- Flat head screw driver
- Marker

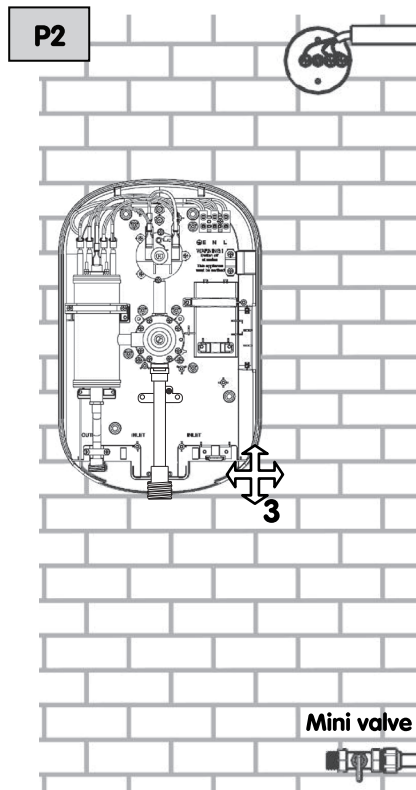
5. Product Installation

5.1 Plumbing Connections

- Turn off electricity supply.
- Turn on water supply and flush pipe to clear any debris.
- Install a mini valve at the mains water supply in the bath room for ease of maintenance and servicing.

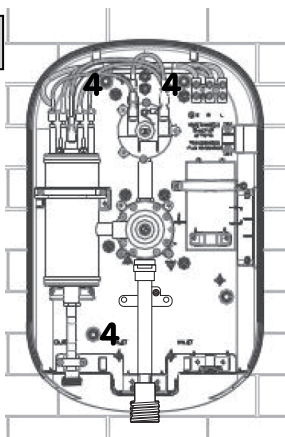


- Unscrew the bottom and top case mounting screws (1)
- Remove the front cover (2)



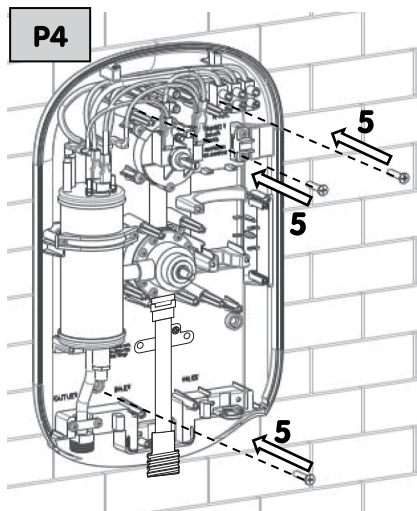
- Take note of the electricity and water supply location and find a suitable place for the heater unit. Make sure the unit is in an upright position (3)

P3



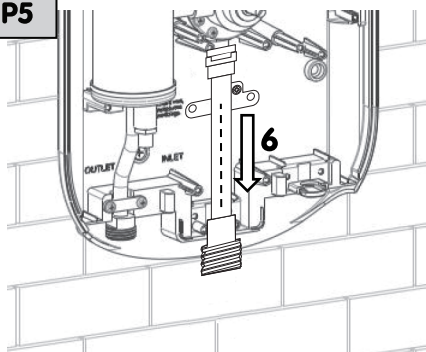
- Hold the heater on the desired location and mark the mounting hole positions on the wall. Put the heater down and drill the holes as per marking. Insert wall plugs into the holes (4)

P4



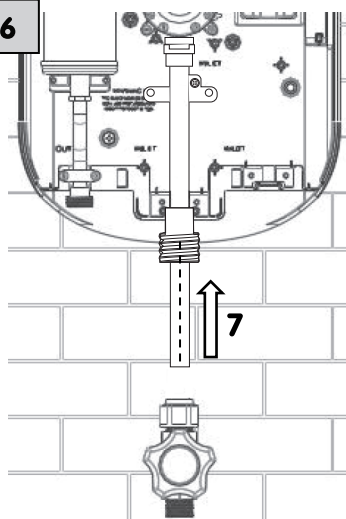
- Align the heater and screw it tightly onto the wall (5)

P5

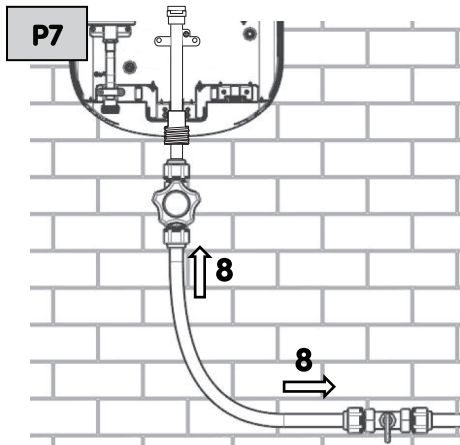


- Remove the bottom coupling from cc coupling assembly (6)

P6

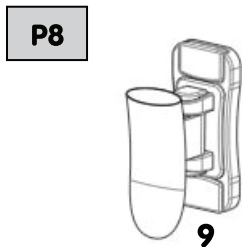


- Connect a stopcock to the inlet pipe (7)



- Connect the stopcock to the mains supply using flexible hose or copper pipe (8)

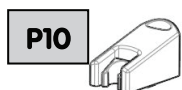
5.2 Shower Set Installation



- Take one of the bracket assemblies and hold it as shown (9)



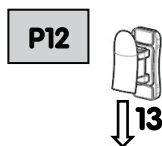
- Insert one end of the shower rod into the bracket (10)



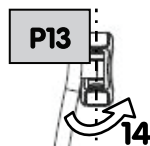
- Locate the shower head holder at the top end of shower rod using guides (11)



- To fix the holder at suitable height, press the friction release button at the bottom of the holder and move it up and down. Finally release the friction button at desired level (12)

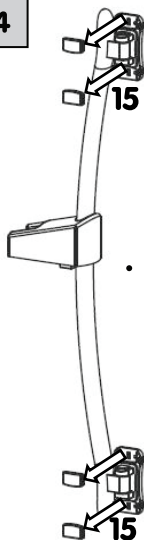


- Insert other bracket assembly at the top end of the rod (13)



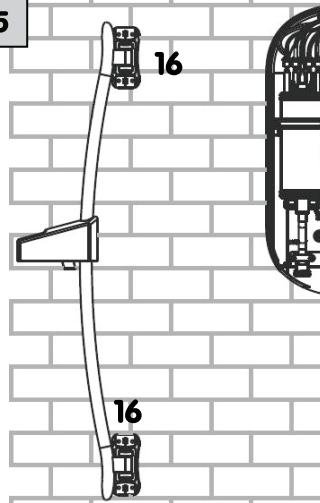
- Holding the shower rod by hand rotate both top and bottom brackets as shown (14)

P14



- Take out the screw covers from the brackets (15)

P15



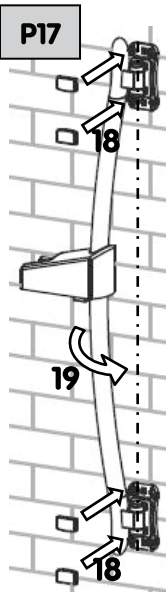
- Hold shower set on the desired location on the wall. Mark 2 screw holes each at top and bottom. Put down shower set, drill holes and fix wall plugs (16)

P16

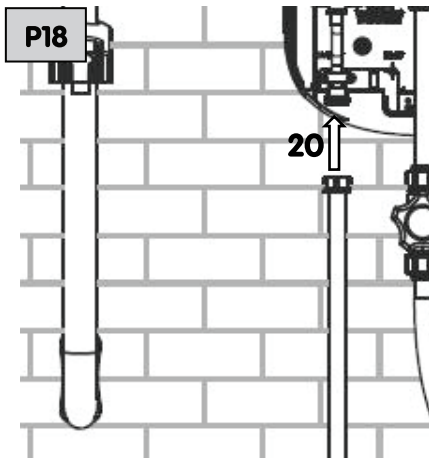


- Fix shower set using screws (17)

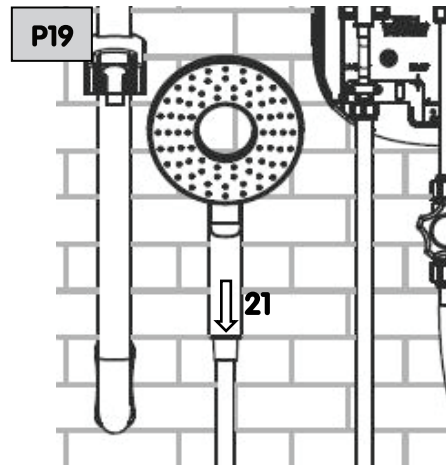
P17



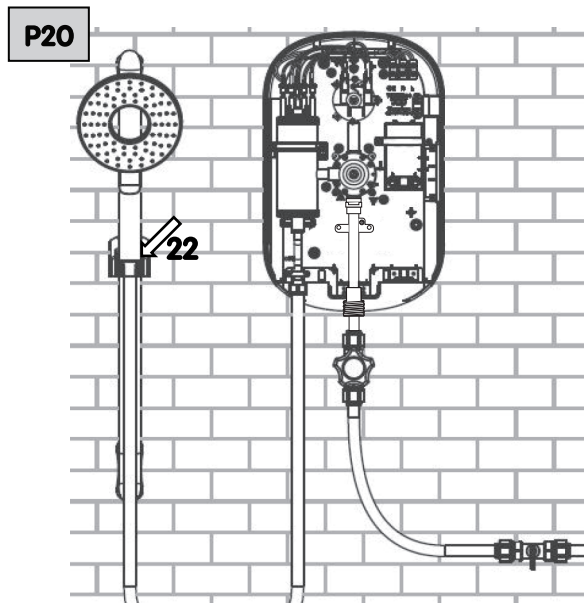
- Put back screw covers (18)
- Rotate shower rod to desired angle (19)



- Connect shower hose to heater outlet (20)



- Connect hose to shower head (21)

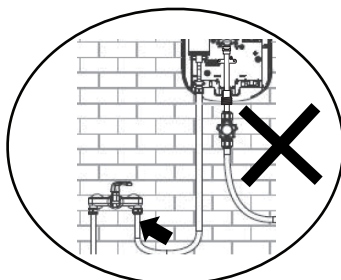


- Place shower head on shower holder (22)
- Completed plumbing connections will look like above picture

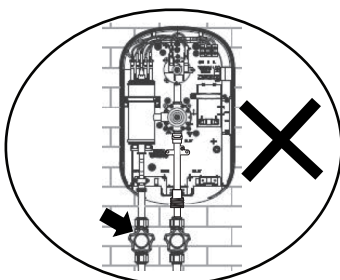
5.3 Testing Plumbing Connections

- Turn on the water supply and check all connections for leakage. Rectify if there is any leakage found.
- Test and adjust water flow rate to approximately 4 to 6ℓ/min. Contact us for advice if water flow rate is too high or too low.

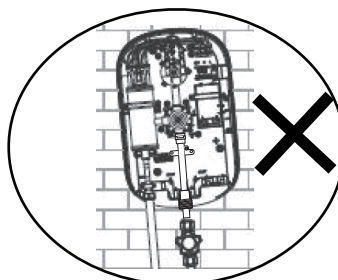
Common errors to avoid in plumbing connections:



- **Do not connect heater outlet to any mixer water faucet.**



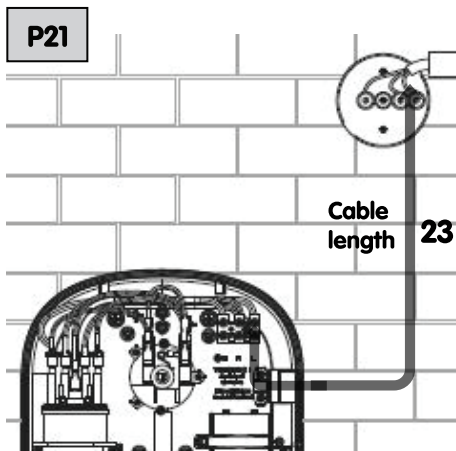
- **Do not add any open-close valve / stopcock at the outlet.**



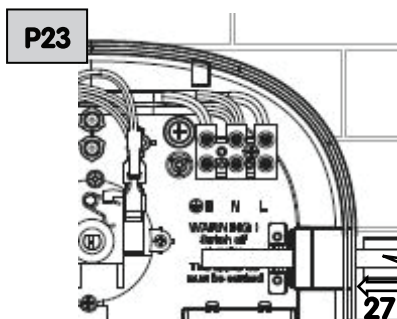
- **Ensure heater unit is not tilted. It must be in an upright position.**

5.4 Electrical Connections

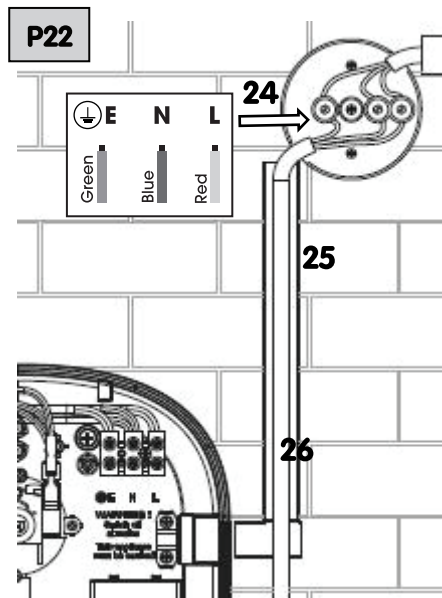
Proceed with electrical connections only after completing plumbing connections.



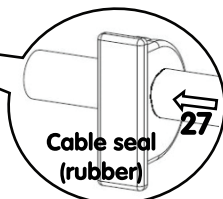
- Measure the cable length required to connect heater to the ceiling rose or heater switch (23)
- Cut the cable to the measured length with 10cm allowance



- Enter the cable into the heater by piercing through the cable seal made of rubber (27)

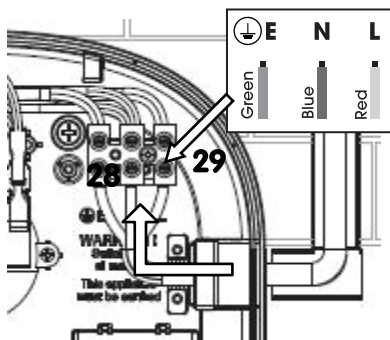


- Connect stripped end of 3 wires one by one to the ceiling rose / heater switch tightly (24)
- In order to secure the cable, fix the conduit base along its path from the ceiling rose / heater switch to heater (25)
- Route the cable over conduit base (26)

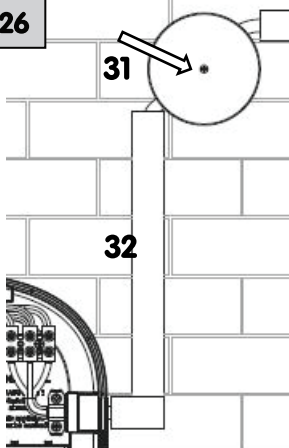


P24

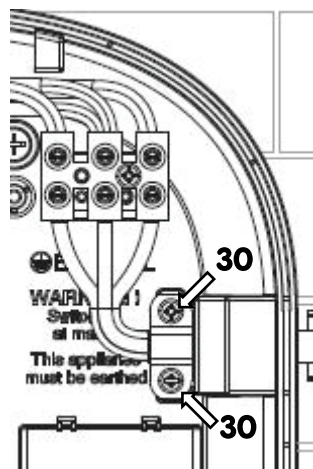
Live cable to terminal marked L
 Neutral cable to terminal marked N
 Earth cable to terminal marked ⊕ E



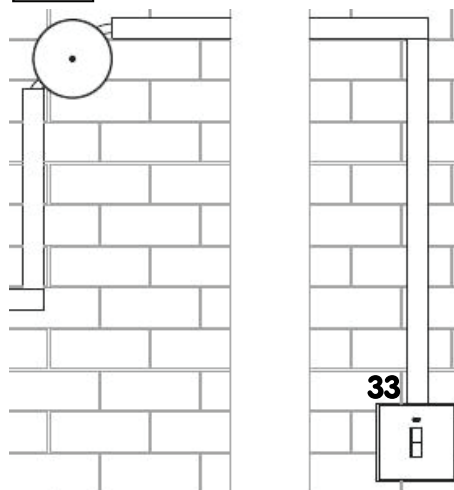
- Pull the cable inside the heater towards terminal block and strip the cable to the required length (28)
- Connect stripped end of 3 wires (one by one) to the terminal block using its in-built screws tightly (29)

P26

- Close the ceiling rose / heater switch with its cover and secure it with screw (31)
- Cover the conduit base with its cover (32)

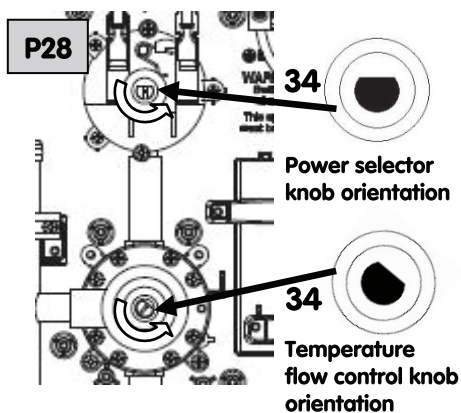
P25

- Clamp the cable using the cable clamp with screws (30)

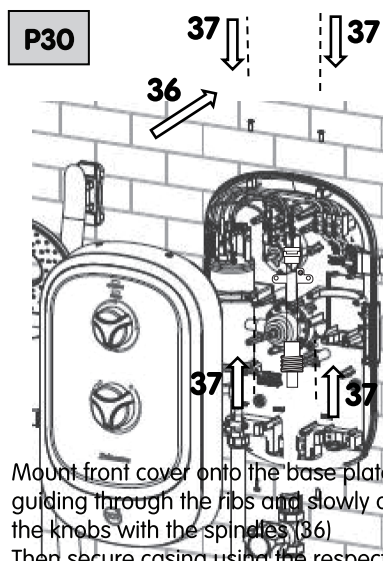
P27

- Complete rest of the electrical connections until double pole heater switch located at outside the shower room (33)

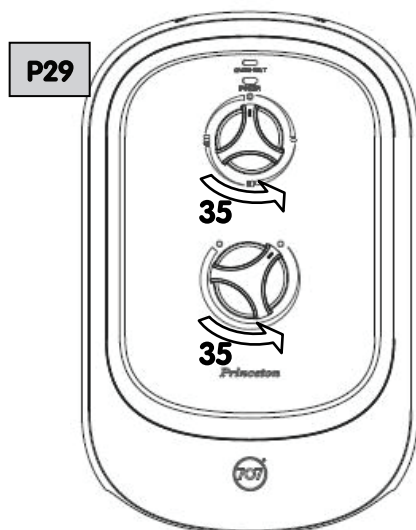
5.5 Front Cover Mounting



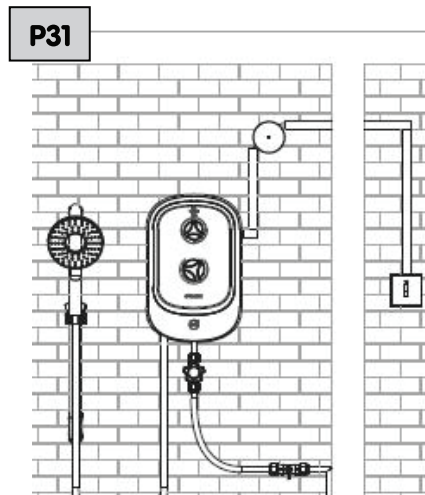
- Adjust the orientation of temperature flow control & power selector by rotating them such that the flat surface of D-shaped spindles are in positions as shown for easy alignment of the knobs with respective internal parts (34)



- Mount front cover onto the base plate by guiding through the ribs and slowly align the knobs with the spindles (36)
- Then secure casing using the respective screws (37)



- Take the front cover and adjust top knob by aligning the pointer with [0] marking and bottom knob by aligning the pointer with blue [•] marking (35)

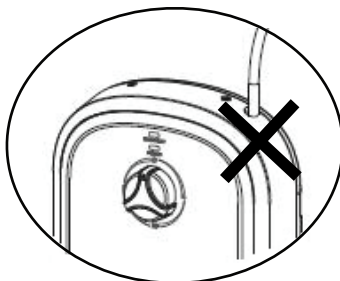


- Completed installation of heater

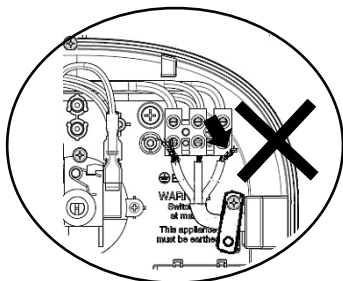
5.6 Testing Electrical Connections

- Turn on water supply to fill the tank with water.
- Turn on power supply
- Test for hot water at different power settings.

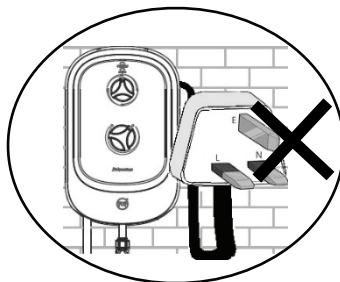
Common errors to avoid in electrical connections:



- **Do not cut heater casing to insert cable. Use existing cable slot at right side of heater**



- **Avoid loose electrical connections**



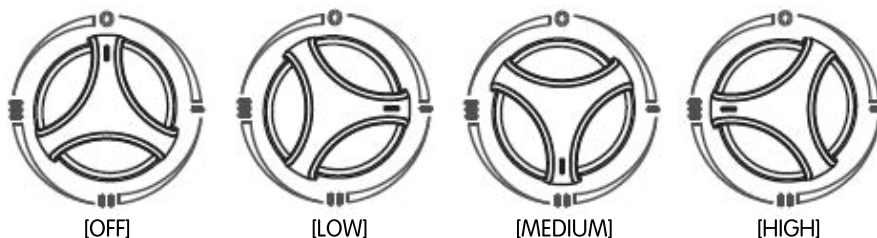
- **Do not use 3 pin power plug and socket for electrical connections**

6. Usage of Electric Instant Shower Heater

6.1 Operation Instructions

To turn on the shower heater:

- Turn on the electrical switch
- Turn on the water supply
- Turn the power selector knob LOW, MEDIUM, or High



To adjust shower temperature:

- Adjust the power selector knob to control power settings.
 - * [OFF] – Cold setting
 - * [LOW] – Low power setting for economy and lower temperature
 - * [MEDIUM] – Medium power setting
 - * [HIGH] – High power setting for maximum power and higher temperature
- Adjust temperature flow control knob to adjust flow rate.
 - * Turn knob towards anticlockwise setting for maximum water flow rate and lower temperature
 - * Turn the knob towards clockwise setting for minimum water flow rate and higher temperature

To turn OFF unit:

- Turn the power selector knob to [OFF]
- Turn off the water supply
- Turn off the heater switch

Turn off stopcock to temporarily turn off water supply:

When you want to apply soap during shower, you can turn off the water supply temporarily by turning off the stopcock.

Be careful when turning on the water supply to resume using the shower heater. The first flush of water will be very hot. The overheat indicator light may activate to warn you.

Turn the shower head away from you to avoid any contact from the first flush of hot water. Turn on the water supply and test that the water temperature is alright before you resume using the shower heater. Check that the overheat indicator light is no longer activated.

6.2 Safety Precautions

- Do not use shower heater if water pressure is less than 1 bar.
- Do not use shower heater if water flow rate is lower than 3ℓ/min or higher than 8ℓ/min.
- Children, elderly, physically disabled or any individual who has difficulty in operating the shower heater safely, should not be allowed to use the shower in operating heater without supervision.
- Do not use shower heater when overheat indicator lights up.
- Do not use if the spray head is blocked. The spray head must be descaled regularly.

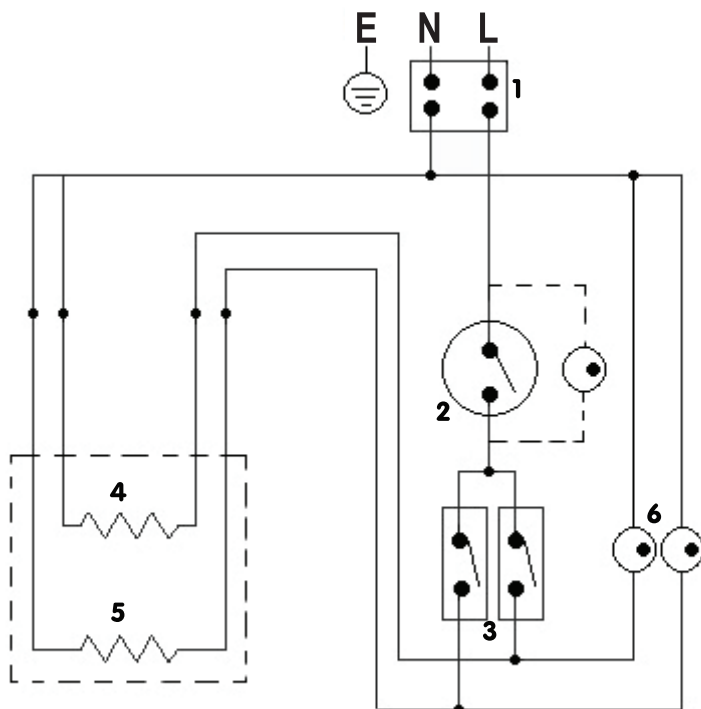
Warning: Do not switch on if there is a possibility that the water in the heater is frozen.

Stop using immediately when:

- Heater unit is damaged.
- Shower head, shower hose or any accessory is damaged.
- No water flow during operation.
- Heater functions significantly different from usual operation.

Turn off shower heater, water supply and heater switch and contact us for assistance if any of the above occurs

7. Electrical Information



1. Terminal block
2. Thermostat
3. Micro switches

4. Heating element 1
5. Heating element 2
6. Indicator lights



Giving the best we can through
knowledge and understanding
www.chg.com.sg

Cheong Hock Guan Water Heater Centre Pte Ltd

512 Chai Chee Lane, #07-07 Singapore 469028

☎ 6749 8885

📠 6749 8887

✉ mail@chg.com.sg

PK-1003-05-7-N Ver 2.0

