

## Installation Instructions

### PUSWHOTWVP

## Switch Hot Water Booster 5A Min 20A Max 240V ac 4.8kW Suitable for Solar Hot Water and Load Shedding Systems Vandal Proof

#### Specification (at 25°C)

Supply Voltage:	230-240V a.c
Frequency:	50Hz
Current max:	20Amp (4800 Watts Resistive)
Current min:	5 Amp (1200 Watts Resistive)
Dimensions:	Plate enclosure:72mm(h) x 47mm(w) x 37mm(d)
Plate size:	114 x 70.
Relay enclosure:	72mm(h) x 47mm(w) x 37mm(d)
Approval No.	GMA-525313-EA

#### Features:

The Trader Hot Water Booster Switch has been designed for use with solar hot water systems up to 20A. Designed as a temporary override for heating solar hot water systems and connected to the booster element inside the hot water system. On overcast, cloudy days the solar hot water system may not heat the water enough to the desired temperature, or in cases where the demand is greater than usual where guests may be visiting and increased usage has exhausted the existing hot water. The system can be boosted and controlled through the thermostat of the hot water system.

If a conventional switch is used to turn the booster element on, it is possible to forget to switch the booster element off. The booster may be left running for days, or even longer and can be very costly.

The function of the Trader hot Water Booster Switch is to allow the water to be electrically heated to the desired temperature. When the thermostat opens it resets the relay and returns hot water system to normal solar operation. Boosting only takes place when required, at the push of a button. Another advantage of the Hot Water Booster Switch is that it is easy to wire on existing or new locations. There is no need to alter any of the hot water system's internal wiring. You simply wire through the relay to the terminals of the hot water service.

Indicator lights on the front plate give the status of the hot water system, ie: Hot, Cold or Boost Required.

If setting up a remote plate, this can be marked using the TRADER plate marking or mechanism marking service to help show what the plate is for. Remote indicators and switches may also be connected to the main relay for the convenience of two-way switching, from the bathroom, kitchen or laundry.

#### Installation:

For best operation, ensure the Booster Switch is installed in the vertical position.

Terminals suitable for maximum 6mm<sup>2</sup> cable.

When installed the Booster switch system circuit must be overcurrent protected with a 20A circuit breaker.

If setting up with a remote wall plate assembly, the remote indicator and switch requires MENOR Orange/Amber, MENRD Red for the indicators and MEPBR bell press return mechanisms fitted to a Trader range wall plate (refer Fig 3.). The PUSWHOTWVP suits mounting accessories with 84mm mounting centres.

Refer to Fig 2. for Wiring Diagram.

#### Operation:

Operation of the PUSWHOTWVP is very simple, as the neon indicators show.

a) When the amber neon is ON, water temperature is cold. The sun's radiation has not been sufficient to keep the water hot and the thermostat has closed, boosting is required.

b) Red neon ON. This indicates boost power is on. When the BOOST button is pressed, the relay closes, turning the booster element on and the amber neon off.

c) When both orange and red indicator neon's illuminate ON, Indicates that water temperature is hot. When the correct water temperature is reached, the thermostat opens and the relay cuts out, returning the solar hot water system to its normal function.

#### Quick reference guide:

Orange/Amber neon only ON	Water temperature cold - booster element required. Press button to boost.
Red neon only ON	Booster power 'on' - water heating water to temperature.
Orange/Amber and Red neon ON	Water temperature hot - working normally on solar operation.

#### Operating temperatures:

Units must be derated when used above their rated temperature up to their limit of 75°C. Units for mounting in standard accessories (enclosed) are rate 25-30°C ambient. Surface mounting units are unenclosed for 35-40°C ambient. Account must also be taken of adjacent heat producing sources such as dimmers etc.

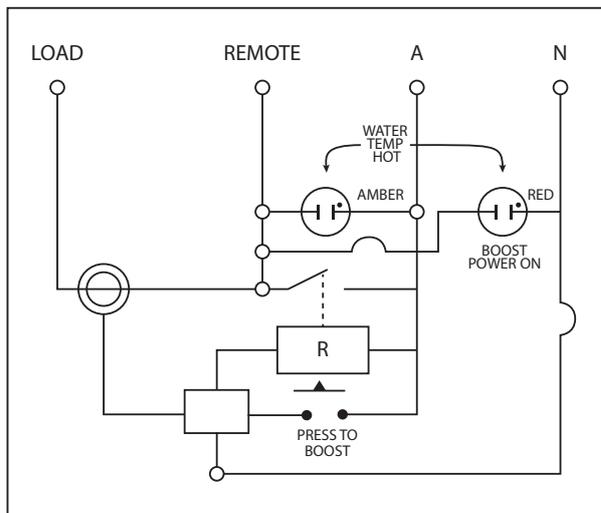


Fig. 1 Internal block diagram

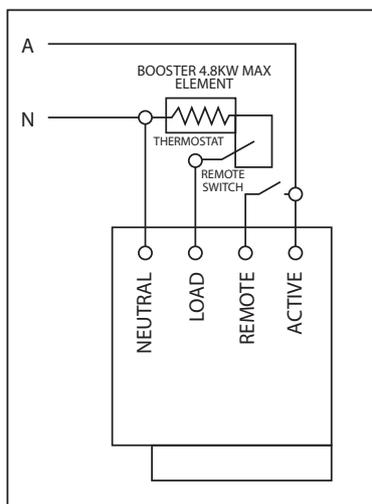


Fig. 2 Wiring diagram for connection to a solar hot water service

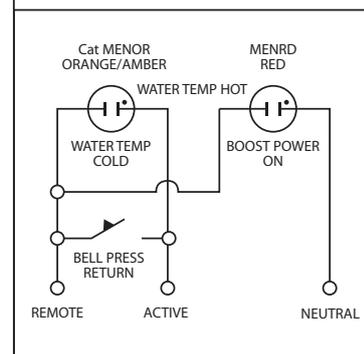


Fig. 3 Wiring diagram for remote indication and switching service

#### Warranty

This product has been manufactured to the highest quality standards. This product is warranted to the original purchaser and is not transferable.

The product is guaranteed to be free from defects in workmanship and parts for a period of 2 Years from the date of purchase, for full warranty detail please refer to [www.gsme.com.au](http://www.gsme.com.au)

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