

Current Held, One Shot Relay.

Cat 770REL1 Series

Specification (at 25°C)

Supply voltage:	230–250 V.A.C.
Frequency:	50Hz
Current max:	20 Amp (4800 Watts Resistive)
Current min:	5 Amp (1200 Watts Resistive)
Dimensions:	Plate enclosure: 72mmH x 47mmW x 37mmD. Plate size: 114 x 70mm. Relay enclosure: 72H X 47W x 37D mm.
Approval No:	CS 5275N



Features:

The HPM Current Held, One Shot Relay has been designed for use with solar hot water systems. When solar heat is insufficient to maintain the desired water temperature, the relay can be used to manually switch on the booster element inside the hot water system. This can also apply when guests exhaust the readily available supply of hot water.

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, weeks, even months, at the general rate – very costly.

The function of the HPM Current Held, One Shot Relay is to allow the water to be electrically heated to the desired temperature. When the thermostat opens it resets the relay and returns the hot water system to normal solar operation. Boosting only takes place when required, at the push of a button.

Another advantage of the HPM Current Held Relay 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 neons on the front plate give the status of the hot water system, ie: Hot, Cold or Boost Required. 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.

There are other applications for this relay which can be applied with only a change to the front plate. (Availability on application.)

Installation:

For best operation, ensure the HPM Cat 770REL1 is installed in the vertical position.

Remote indicator and switch requires Cat 707 Amber, Cat 707 Red and Cat 770X mechanisms fitted to a Cat 770DVH plate (refer Fig. 3). Suits accessories with 84mm mounting centres, Cat 140P mounting block, Cat 429 wallbox, Cat 711 and 712 mounting clips, Cat 143 and V&S404 mounting brackets and Cat 953 adaptor plate.

Refer to Fig. 2 for Wiring Diagram.

Operation :

Operation of the 770REL1 is very simple, as the neon indicators show.

- 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.
- 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.
- Both amber and red indicator neons 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:

Amber neon only ON	Water temperature cold - booster element required. Press button to boost.
Red neon only ON	Boost power 'on' – water heating.
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 rated 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.

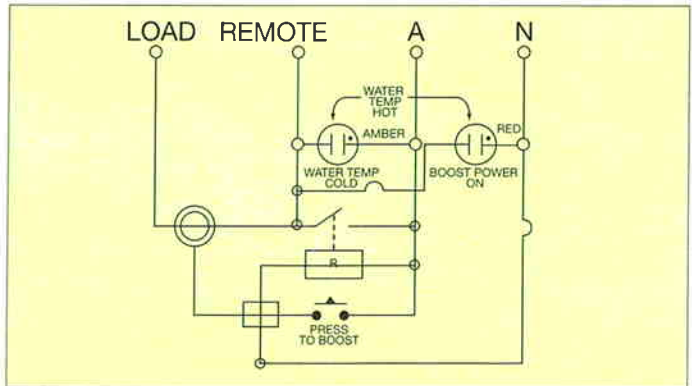


Fig 1. Internal block diagram

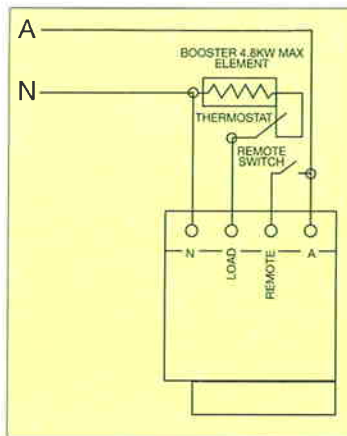


Fig 2 Wiring diagram for connection to a solar hot water service

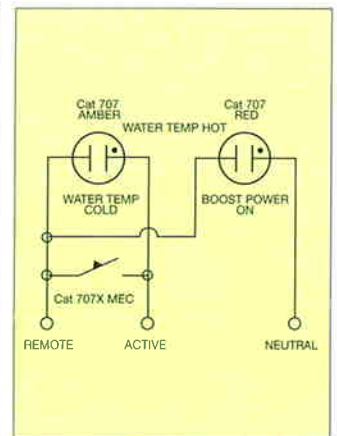


Fig 3 Wiring diagram for remote indication and switching

Warranty

HPM Cat 770REL1 is warranted as here and after appears, against faulty material and/or workmanship for a period of one year from date of purchase.

The obligation of the manufacturer, under this warranty, is limited to servicing and replacing defective parts when the unit is returned to HPM Industries, or the distributors in your state, freight pre-paid.

This warranty becomes void on any unit which has been tampered with or damaged by accident, short circuited, loaded beyond rating or damaged otherwise by improper operation.

The warranty is also conditional on the unit being fitted to a genuine HPM switchplate and being installed by a licensed electrical contractor.

All other warranties, whether expressed or implied, and whether arising by operation of law or otherwise are hereby excluded.

HPM Industries Pty. Ltd.