

# Smart Pak



The Smart Pak interface module has been designed where a 24v thermostat or other low voltage device needs to switch equipment with 240V control circuitry.

The Smart Pak has a number of innovative and time saving features that will assist in your setting up and commissioning of the interface.

**Power LED.**

A green power LED will inform you when 24V is available to power the thermostat.

**Relay LEDs.**

Each 24V relay input has a amber LED to indicate that input is active and the relay is closed.

**Interlock relay.**

the 6th relay in the smart pak is isolated from the other 5 to provide a isolated input and output where needed.

**Fault input and LED.**

The Smart Pak has a volt free fault input that when active, will isolate relay 1 to 5 outputs. A red LED will indicate when this input is active.

**Magic wire ready.** (Optional magic wire interface required P/NSP-MW)

Magic wire permits 2 signals such as Heat & cool to share a single wire from the thermostat, the Smart Pak 6 then separate these two signals and sends the output to the appropriate relay for connection to the equipment.

**Function switches**

2 DIP switches are provided to provide additional control capability.

- Dip switch 1      Input 3 activate relay 1 & 3
- Dip switch 2      Input 3 activates relay 2 & 3

These switches permit the Smart Pak to control a Heat pump system with a heat cool type thermostat if necessary.

**NOTE: Normally when using Smart Temp thermostat both of these switches should be OFF.**

**Control Logic**

The Smart pak 6 logic is very basic, thermostat (low voltage) input number 1, switches relay 1 which switches output 1 etc.

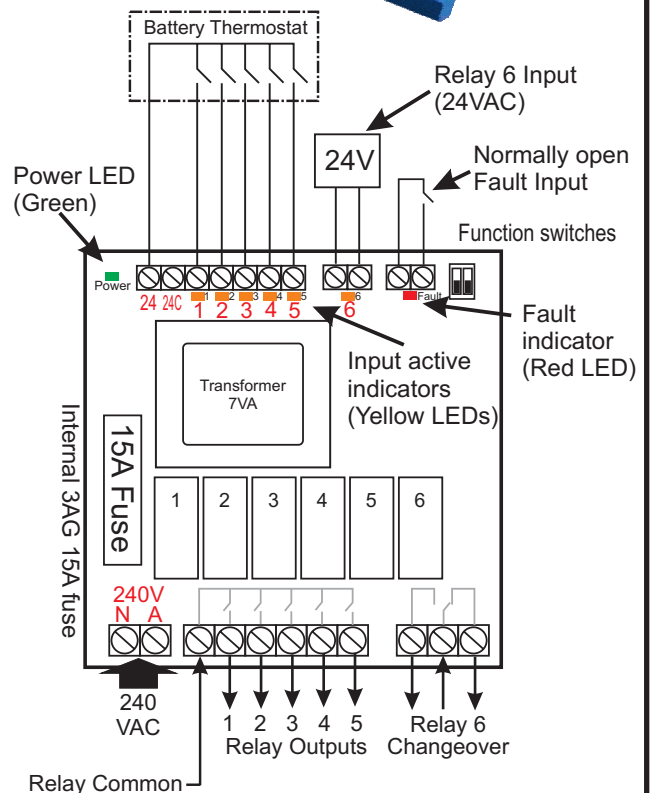
Simply put.....

- Input 1 switches relay 1**
- Input 2 switches relay 2**
- Input 3 switches relay 3**
- Input 4 switches relay 4**
- Input 5 switches relay 5**
- Input 6 switches relay 6**

**Relay 6**

Input 6 is a completely separate relay requiring its own 24V & C input to operate. If necessary this can be looped from the Smart Pak 24 & 24C terminals.

The 6th relay is a change over volt free relay permitting the Smart Pak to switch a separate voltage if needed.



## Specifications

Size	145 x 112 x 66 108 x 112 x 66 (with terminal covers off)
Relays	Omron G2R or similar 10A @ 240V
Transformer	240 ~ 24 7VA unregulated
Fuse	Equipment - 3AG 15Amp Internal 0.75 Amp self resetting PTAC
LEDS	Power (Green) Relay 1 to 6 (Amber) Fault active (Red)
Power	Input 220 ~ 240V @ 50/60 htz Out to thermostat 24 ~30VAV
Approvals	C-Tick N10697

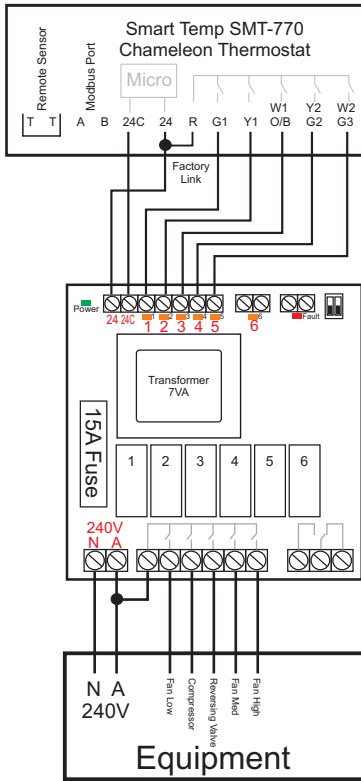
*Manufactured by Smart Temp Australia using local and imported components.*

**Smart Temp Australia P/L**  
**U20/1488 Ferntree Gully Road Knoxfield Vic 3180**  
**Phone (03) 9763 0094 Fax (03) 9763 0098**

www.thermostat.com.au      www.smarttemp.com.au

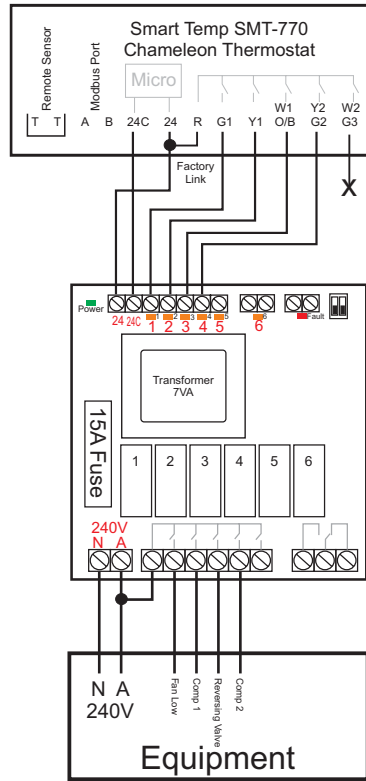
**Fig 1**

Typical Heat pump - 3 speed fan



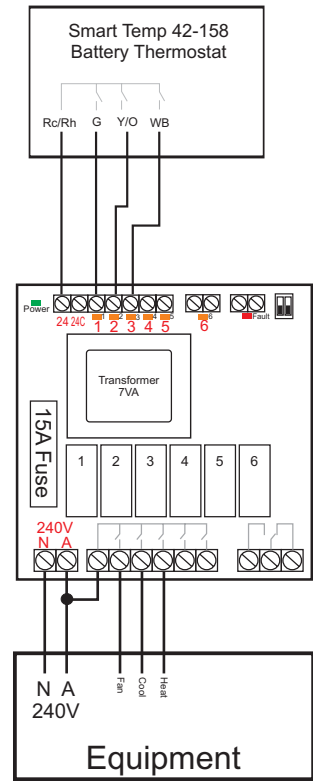
**Fig 3**

Typical Heat pump - 2 stage 1 fan speed



**Fig 3**

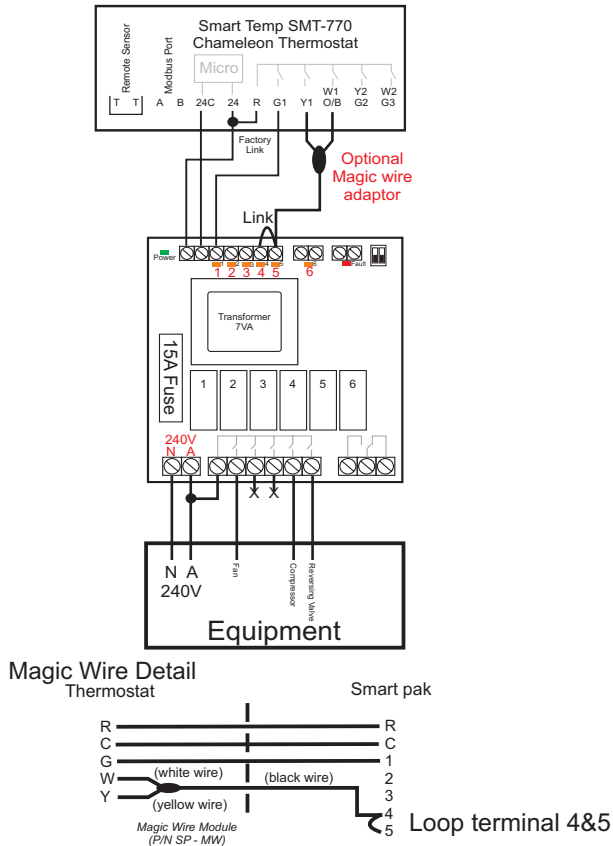
Typical battery thermostat Gas heat & add on cool



**Fig 4**

## Magic wire

Typical Heat pump - 1 speed fan using magic wire



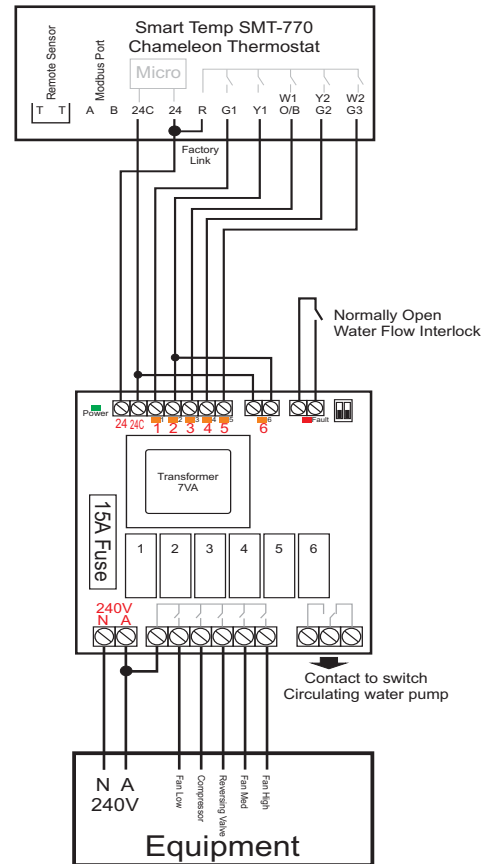
The optional magic wire interface permits the use of 1 field wire to perform 2 functions, perfect when replacing a battery thermostat with a 24V powered thermostat.

The above example shows the Smart Pak using a magic wire to permit a SMT-770 to control a single stage heat pump with just 4 wires

Optional magic wire interface required, P/N SP - MW.

**Fig 5**

## Typical water sourced with flow interlock



When the thermostat calls for heating or cooling, the Smart Pak makes a circulating water pump call and a equipment call provided the water flow interlock is satisfied.

If low water is detected by the water interlock switch the Smart Pak will hold off calls to the equipment until the water interlock is satisfied.