

SMT - 770 Chameleon

Residential & Commercial Networking Thermostat

Making Life Comfortable

General Description

Selecting the correct thermostat for a project is often a difficult process. As the thermostat is the main focus of any heating or cooling system it must look good on the wall, be very easy to use and meet all the needs of the user and the equipment it is controlling. This may seem an impossible task for a single thermostat especially when you consider all the different control variations required (Heat pump or heat cool logic, single or multiple fan speed control etc) as well as cater for the individual needs of all thermostat users.

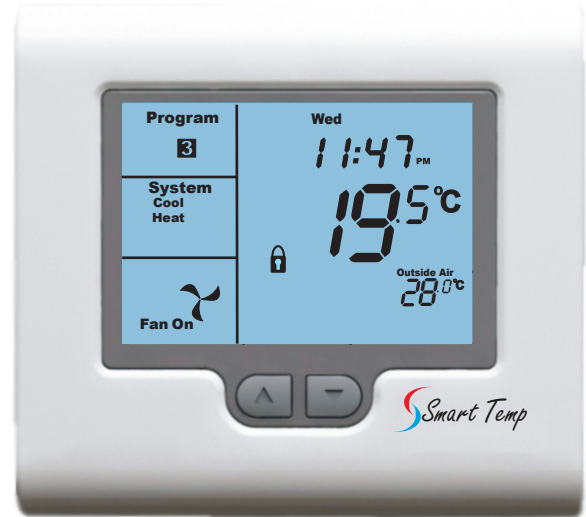
This thermostat is like the reptile that it takes its name from, the Chameleon thermostat adapts quickly to suit its surroundings – a single thermostat that can control almost any type of heating, cooling or air conditioning system as well as meet all the individual needs of the people using it.

The installer is able to configure the Chameleon to control Heat pump systems, (with auxiliary or emergency heating if necessary), gas/oil heating systems with add on cooling, control high and low balance points as well as the number of heating and cooling stages needing precise control. It can even adapt to manage the number of fan speeds it must control.

The user can choose their Chameleon to be programmable or manual with single or multiple set points or the number programs as required, and then if they change their mind, the Chameleon will adapt without fuss to suit their new needs.

When larger projects are considered, or central control is necessary then the Chameleon has integrated Modbus communication. Every function and setting within the Chameleon can be viewed, locked, changed or edited from a centralised location as desired or automatically from a suitable building management system.

The Chameleon is simply a thermostat so advanced, so simple and so attractive it will be the last thermostat you should ever need to buy.



Features

- Auto Season Change Over.**
- Selectable programmable or manual mode.**
- Heat cool or heat pump (O/B) logic.**
- Add on & Emergency Heat Control.**
- High & Low balance points.**
- Single or 3 speed fan control.**
- Keyboard and/or Temperature Locks.**
- Occupancy sensor inputs.**
- Programmable occupancy inputs.**
- Adaptive Recovery (Optimised Start).**
- Smart Fan logic for Commercial Control.**
- PIN protected menus (installer PIN).**
- Outside air temperature display.**
- 24V powered with memory backup.**
- Volt Free (clean contact) relays.**
- Large backlit EL Display.**
- Remote temperature sensors available.**
- Integrated Modbus option.**
- Replaces almost all 24V thermostats.**

Installer options

Pin number select 00 to 99.
 Keyboard Lock 5 levels.
 Max Heat set point 0 to 37 deg (32 to 99F)
 Min Cool set point 1 to 38 deg (33 to 100F)
 LCD Display Units Deg C / Deg F
 Sensor calibration +/- 5 deg.
 Time display 12 or 24 Hour.
 Temperature display Room & set temp / set temp only.
 After Hours O/R time 0 to 12 hours
 Stop mode Cool temp Off 0-35c (32 - 95F)
 Stop mode Heat temp Off 0-35c (32 - 95F)
 1 Set point Dead band 0.5 to 5
 Advanced fan options Cycle with heat and on with cool.
 Commercial "Smart fan".
 Smart fan with Cool run on.

Fan purge period 0-5 minutes
 Mode Auto season mode.
 Cooling only mode.
 Heating only mode.

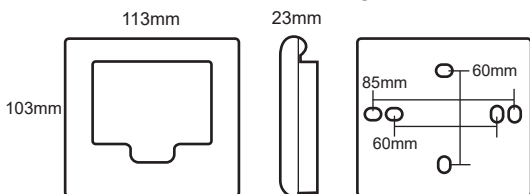
"W2" Output Logic Auxiliary Heat
 Add On Heat
 Emergency Heat
 TT Terminal Function Outside air temp display.
 Remote room temp sensor.
 Average room temp sensor.
 Remote override to OFF.
 Occupancy mode On/Off
 Off or 5c (40F).

Anti freeze Off or 5c (40F).
 Occupied Heating SP Off 0-37 C (32-99F).
 Occupied Cooling SP Off 1-38 C (100F).
 Span stage 1 1 -5 deg C or F.
 Span stage 2 1 -5 deg C or F.
 Upstage Delay time 5 ~ 60 minutes.
 Adaptive recovery On or Off.
 Outside sensor Calibration +/- 5 deg
 Outside Temp Cool Inhib. 0-35C (32 - 95F)
 Outside Temp Heat Inhib. 0-35C (32 - 95F)
 High Balance point 0-35C (32 - 95F)
 Low Balance point -9.5 -35C (15 - 95F)
 Modbus Address 0-99
 Filter monitor Off to 900 hours.
 Commissioning Mode On/Off
 IP Rating IP30

Switch Functions

	Off	On
Sw 1 - Fan Speed.	1 Speed (2 Heat / 2 Cool)	3 Speed (1 Heat / 1 Cool)
Sw 2 - A/C Equip.	Heat & Cool	Heat Pump O/B Terminals
Sw 3 - Stages (if Sw1 = OFF)	1 Stage	2 Stages
Sw 4 - Reversing Valve When Sw2 = ON (HP Mode)	Energized Cool (O)	Energized Heat (B)
Sw 4 - Fan Mode When Sw2 = OFF (HC Mode)	Fan by Heater (HG)	Fan by T'stat (HE)
Sw 5 - Anti cycle delay	Off	4 Minutes
Sw 6 - Operation	Manual Thermostat	Programmable Thermostat
Sw 7 - Min Run time	2 minutes	6 Minutes
Sw 8 - Prog Type When Sw6 = ON (programmable)	Commercial Programmable	Residential Programmable
Sw 8 - # Events When Sw6 = OFF (Manual)	Single Set Point	2 Set points

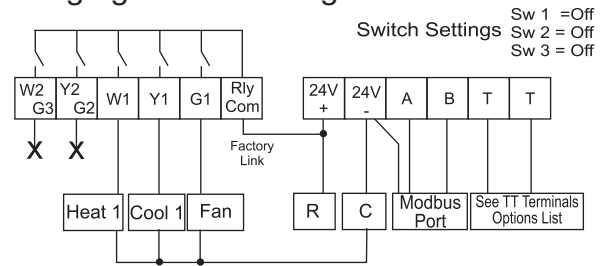
Case size & mounting holes



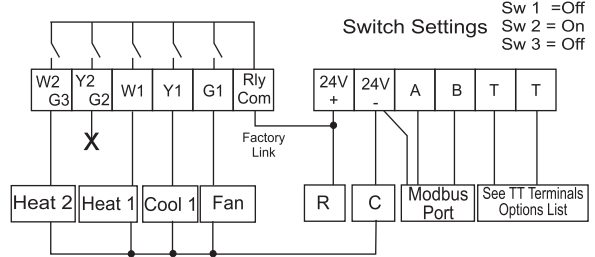
Wiring Examples

Note: there are in excess of 192 possible control combinations with the Chameleon thermostat, the following examples are the more popular configurations.

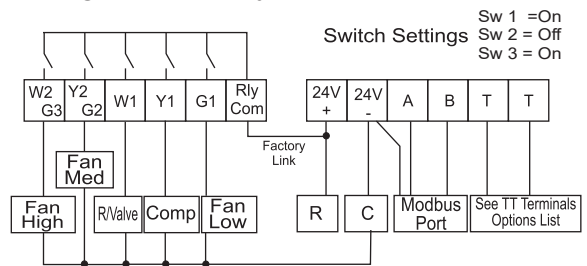
1 stage gas heat 1 stage add on cool



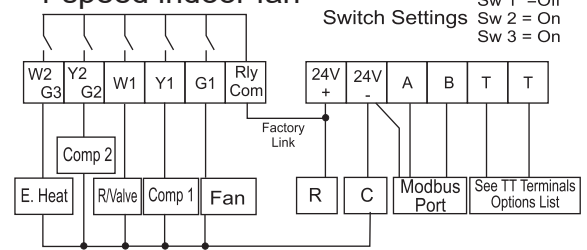
2 stage gas heat 1 stage add on cool



1 stage reverse cycle 3 speed fan



2 stage Heat Pump with Emergency Heat 1 speed indoor fan



Terminal Designations

24-	24V - 0v input.
24+	24V - Active input.
R/com	Relay common.
G1	Fan low.
Y1	Compressor 1 / Cool 1
W1	Reversing Valve / Heat 1
G2/Y2	Fan Med / 2nd Compressor / Cool 2.
G3/W2	Fan High / Aux Heat. / Heat 2
T	Remote Terminal
T	Remote Terminal
A	Modbus Data
B	Modbus Data



Another Quality Product manufactured by Smart Temp Australia

Smart Temp Australia P/L 20/1488 Ferntree Gully Rd Knoxfield Vic 3180 Phone (03) 9763 0094

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

Due to continuous product improvement - specifications subject to change without notice.