

SATK40 & Procyl[®]

heat interface unit



Installation Operation & Maintenance Instructions

 **CALEFFI**
Hydronic Solutions

CE



altecnic

SATK40 & Procyl® heat interface unit

SATK40103



Function

SATK40 Heat Interface Units (HIU) control the heating and domestic hot water generation in an individual apartment within a centralised boiler or district heating system.

NOTE: Due to the specification ordered, or the country of destination, the actual unit may differ from those shown.

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Product Range

SATK40103 Wall-mounted indirect Heat Interface Unit (HIU) for use with Domestic Hot Water (DHW) indirect storage cylinder.

SATK40103 HE As SATK40103 but with high efficiency pump.

SATK40103 Procyl® Floor standing or wall mounted indirect Heat Interface Unit (HIU) with Domestic Hot Water (DHW) indirect storage cylinder.

SATK40103 HE Procyl® As SATK40103 Procyl® but with high efficiency pump.

Safety Instructions

WARNING These instructions must be read and understood before installing and maintaining the HIU.



CAUTION! FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN A SAFETY HAZARD!

- 1 The device must be installed, commissioned and maintained by qualified technical personnel in accordance with national regulations and/or relevant local requirements.
- 2 If the device is not installed, commissioned and maintained correctly in accordance with the instructions provided in this manual, it may not work correctly and may endanger the user.
- 3 Flush the pipework thoroughly before installing the HIU to remove any particles, rust, incrustations, limescale, welding slag and any other contaminants.
The water circuits must be clean and free from debris.
- 4 Make sure that all connection fittings are watertight.
- 5 When connecting water pipes, make sure that threaded connections are not mechanically overstressed. Over time this may result in breakage, causing water damage and/or personal injury.
- 6 Water temperatures higher than 50°C may cause severe burns. When installing, commissioning and maintaining the device, take the necessary precautions so that these temperatures will not be hazardous for people.










Safety Instructions

- 7 In the case of particularly hard or impure water, there must be suitable provision for filtering and treating the water before it enters the device, in accordance with current legislation. Failure to do so may result the HIU becoming damaged or working incorrectly.
- 8 Any use of the HIU other than it's intended use is prohibited.
- 9 Any coupling of the device with other system components must be made while taking the operational characteristics of both units into consideration.
- 10 An incorrect coupling could compromise the operation of the device and/or system.

NOTE: Risk of electric shock. Live parts. Shut off the electric supply before opening the HIU cover.

- 1 During installation and maintenance operations, always avoid direct contact with live or potentially hazardous parts.
- 2 The device must not be exposed to water drops or humidity, direct sunlight, the elements, heat sources or high intensity electromagnetic fields.
This device cannot be used in areas at risk of explosion or fire.
- 3 The device must be connected to an independent bipolar switch. If work has to be done on the device, switch off the electric supply first. Do not use devices with automatic or time reset, or which may be reset accidentally.
- 4 Use suitable automatic protection devices in compliance with current legislation.
- 5 The device must always be earthed before it is connected to the electric supply. If the device has to be removed, always disconnect the earth connection after disconnecting the electric supply. Check that the earth connection has been made to the highest of standards under current legislation.
- 6 Electrical installation must only be carried out by a qualified technician, in accordance with current requirements.

Key to Symbols

	Primary circuit flow
	Primary circuit return
	Domestic cold water inlet
	Cylinder circuit flow
	Cylinder circuit return
	Low temperature circuit flow
	Low temperature circuit return
	High temperature circuit flow
	High temperature circuit return

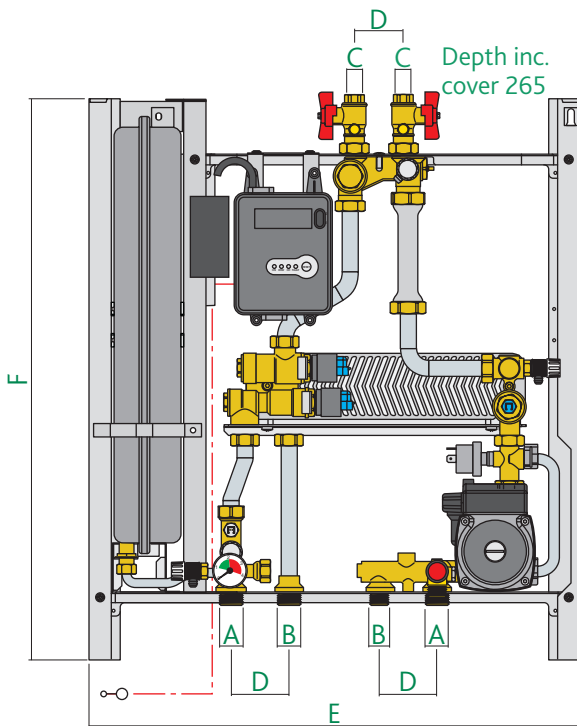
General Information

- Please leave the manual as a reference guide for the user.
- Dispose of any packaging in an appropriate manner, most of which can be recycled.
- In this Installation, Operation and Maintenance guide we have endeavoured to make the information as accurate as possible.

We cannot accept any responsibility should it be found that in any respect the information is inaccurate or incomplete or becomes so as a result of further developments or changes to the products.

SATK40 & Procyl® heat interface unit

Dimensions - SATK40103



A	B	C	D	E	F	kg
G¾B	G¾B	G¾	65	550	630	16

Technical Specification

Medium:	water
Maximum percentage of glycol:	30%
Maximum medium temperature:	85°C
Maximum working pressure:	- primary circuit: 16 bar - secondary circuit: 3 bar
Nominal DHW exchanger capacity:	50 kW
Maximum recommended primary circuit flow rate:	1,2 m³/h
Maximum differential pressure on modulating valve:	Δp 1.5 bar
Power supply:	230 V (ac) $\pm 10\%$ 50Hz
Pump SATK40103 HE:	UPS2 15-60
Power consumption:	75 W
Pump SATK40 103:	UPS 15-60
Power consumption:	105 W
Protection class:	IP 40
Pump by-pass setting:	0.45 bar
Actuators:	stepper 24 V
Probes:	NTC 10 k Ω
Safety relief valve setting:	3 bar
Safety thermostat:	55°C ± 3
Expansion vessel:	7.5 l
Pressure switch:	opening 0.4 bar - closing 0.8 bar
Min. incoming domestic water pressure	0.5 bar

Material

Components:	brass BS EN 12165 CW617N
Pipes:	stainless steel
Frame:	RAL 9010 sprayed steel
Protective shell cover:	PPE
Exchanger:	brazed stainless steel

Installation

The SATK series HIUs are designed for installation in a sheltered domestic environment (or similar), therefore cannot be installed or used outdoors, i.e. in areas directly exposed to atmospheric agents. Outdoor installation may cause malfunctioning and hazards.

If the device is enclosed inside or between cabinets, sufficient space must be provided for routine maintenance procedures. It is recommended that electrical devices are NOT placed underneath the HIU, as they may be damaged in the event of discharge from the safety valve, if it is not connected to a discharge tundish, or in the event of leaks occurring at the hydraulic fittings.

If this advice is not heeded, the manufacturer cannot be held responsible for any resulting damage.

In the event of a malfunction, fault or incorrect operation, the device should be deactivated; contact a qualified technician for assistance.

Preparation

After establishing the position where the HIU will be installed, perform the following operations:

- Mark the holes required for securing the HIU to the wall.
- Mark the position of the water pipe connections.

Check the measurements again before installing pipework and electrical cables.

Hydraulic connections:

- 1 connection to the pipework from the centralised boiler plant
- 2 heating circuit connections
- 3 storage cylinder connections
- 4 domestic water circuit connection
- 5 discharge from safety relief valve

Electrical:

- 1 electric supply line 230 V (ac) – 50 Hz
- 2 time clock/thermostat line (potential-free)
- 3 boiler thermostat (potential contact)
- 4 centralised bus line for heat meter data transmission (if required)
- 5 centralised electric supply line for heat meter (if required)

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Installation

The whole system should be thoroughly flushed to remove any debris that may be in the supply pipework to the HIU and to the domestic hot water indirect storage cylinder and heating pipework in the apartment before connecting the HIU.

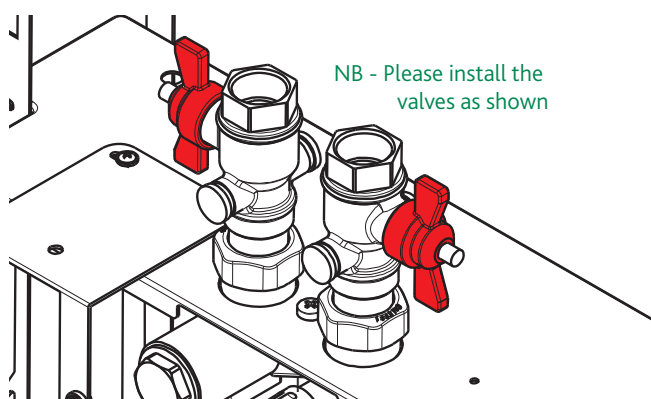
Fix the HIU to the wall

N.B.: the wall anchors (not supplied) can only guarantee effective support if inserted correctly (in accordance with good technical practice) into walls built using solid or semi-solid bricks. If working with walls built using perforated bricks or blocks, mobile dividing panels or any masonry walls other than those indicated, a preliminary static test must be carried out on the support system.

Isolation Valves

The SATK40 is supplied with isolation valves. We recommend that all connections are fitted with isolation valves to allow any maintenance work to be carried out.

We would also recommend that the primary system includes a flushing bypass, with an isolation valve, immediately upstream of the HIU, to allow the primary system to be flushed prior to the first operation of the unit.



Heat Meter Installation

The HIU is designed to house a compact heat meter (installed in return pipe) with 1" threaded connections and 130 mm long.

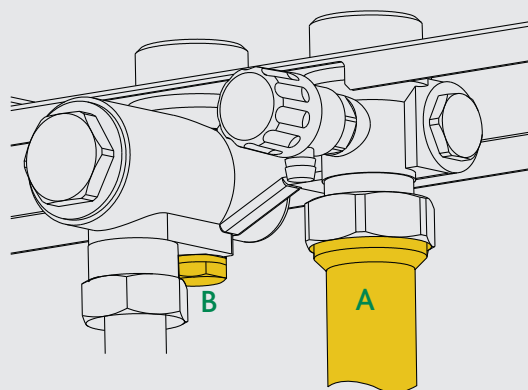
Before carrying out any maintenance, repair or part replacement

work, proceed as follows:

- switch off the electric supply
- remove the cover
- close the shut-off valves
- empty the HIU using the drain cocks provided
- remove the spacer piece (A)
- remove the blanking plug (B)
- install the flow probe in the 1/4" pocket (B) provided
- install the flow meter on the return pipe.

Please refer to the heat meter technical data sheets for further information.

Heat Meter Installation



Electrical Connections

Make sure that the electrical system can withstand the maximum power consumption of the appliance, with particular emphasis on the cross-section of the cables.

If in doubt, contact a qualified technician to thoroughly check the electrical system.

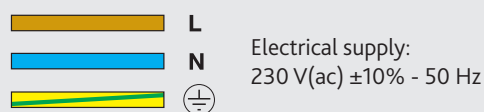
Electrical safety of the appliance is only achieved when it is correctly connected to an effective earthing system, constructed as specified in current safety regulations. This is a compulsory safety requirement.

Connection to the main supply

The device is supplied with an electric supply cable - plug not supplied.

The device should be electrically connected to a 230 V (ac) single phase + earth mains supply using the three-wire cable marked with the label as specified below, observing the LIVE (L) - NEUTRAL (N) polarities and the earth connection.

This line must be connected to a circuit breaker device.

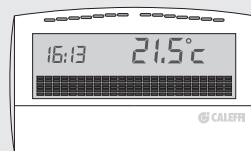


Connection to the timeclock/thermostat

The SATK series HIU includes a connection, suitable for a time clock/thermostat, allowing the tenant to control individual apartment heating requirements

The connection to this device (potential-free contact) must be made with the two-wire cable marked with the label as specified below.

Should it be necessary to extend this cable, use one with the same cross-section (max 1 mm²) and maximum length 30 m.



Room thermostat

SATK40 & Procyl[®] heat interface unit

Electrical Connections

Connecting to the storage cylinder ancillary equipment

When a hot water storage cylinder is used it will require ancillary control/safety equipment which will require wiring externally to the electricity connection box (15).

The hot water timer (17), cylinder temperature controller (high limit thermostat (18) and temperature control thermostat (19)) and the motorised valve must be wired from the electricity supply connection terminal (11) to the storage cylinder connection (14) in series as shown in Electrical Wiring on page 12.

First Operation

Filling the central heating system

Open the isolation valves on the connections to the centralised boiler plant to fill and pressurise the system to the design pressure.

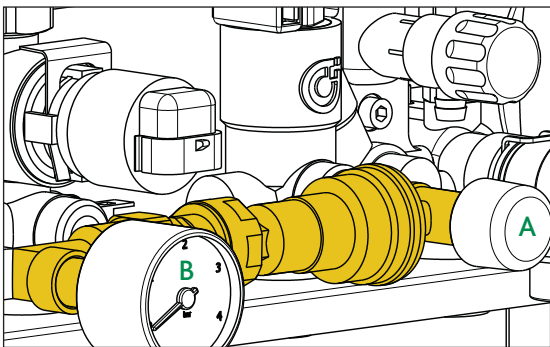
Once completed, vent the system and check the system pressure again, repeat the filling process if necessary.

Filling the secondary circuit

The SATK40 HIU is fitted with a filling loop complete with double check valve and isolation valves.

The first time the system is filled, or for re-pressurising following a heating circuit pressure switch fault indication, restore the system pressure (1.2 to 2 bar) by opening the cock (A) and monitoring the value using the pressure gauge (B).

Once the correct pressure has been reached, close the cock (A), vent the system and check its pressure again, repeat the filling process if necessary.



NOTE: For UK markets, a filling loop is supplied in lieu of the back-flow preventer.

System start-up

Before switching on the HIU, visually check all joints are water tight and the electric wiring is complete and correct. After finishing the check, activate the electric supply to the HIU and check for the presence of any error signals.

If any error signals are indicated, eliminate the faults indicated, setting the domestic water temperature and the heating controller to the desired temperatures and times. Check that the operating cycles are correct.

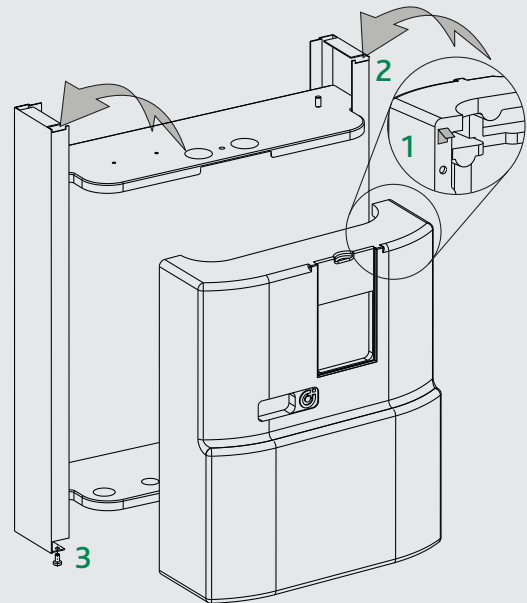
Once the HIU is hydraulically filled (primary and secondary), the HIU should be left permanently connected to the mains supply and switched on. This allows the unit to operate its pump anti-clog protocol.

Fitting the cover

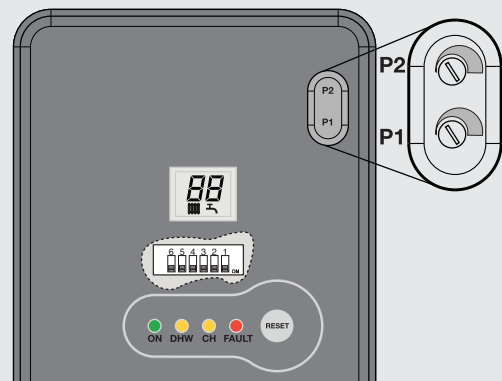
Place the casing over the frame, inserting the upper tabs (1) into the corresponding slots (2).

Place the lower part of the casing over the frame.

Tighten the screws (3).



Electronic Controller



Operating Principle

All heating and domestic hot water functions offered by SATK40 are controlled by a digital controller.

There are a number of specific DIP SWITCHES on the controller circuit board; the way these are configured will determine the settings of the various models and the optional functions enabled.

Automatic Controller Functions

Reset mixing/modulating valve to zero

Immediately after the power supply has been switched on, the position of the installed mixing/modulating valve is reset to zero.

SATK40 & Procyl[®] heat interface unit

Pump anti-clog

When the pump is not in use it is powered for a period of 5 seconds every 24 hours.

Mixing valve/modulating valve anti-clog

The anti-clogging cycle for the mixing/modulating valve is run every 24 hours.

User Interface

The user interface, built into the PCB, consists of the following devices.

Indicator LED

The various functions and faults are signalled by either flashing or permanent illumination of the LEDs.



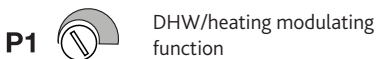
Reset key



This allows restoration of normal function after the safety thermostat has been triggered and activation/deactivation of the under floor heating function.

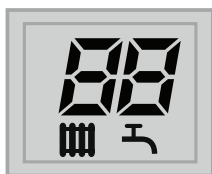
Setting the temperatures

These allow the specified temperatures for the heating and domestic water cycles to be set and view the relative values on the display.



LED display

Shows the heating set point and the error codes.



Dip switches

These enable the setting of the option functions.



Safety and alarms

Error codes associated with faults are signalled by the illumination of the FAULT LED shown on the display.

Heating circuit pressure switch fault - Error code: 4



The SATK40 HIU continuously monitors the pressure in the apartments secondary heating circuit. If the pressure falls in this circuit, the pressure switch is activated, the circulation pump shuts down and the regulating valve closes.

Heating cycle activation is indicated by a flashing fault LED on the electronic controller. This fault does not affect the generation of the domestic hot water.

NOTE: A low vessel pre-charge value could cause a pressure fault.

Removing a fault

Once the correct pressure has been achieved on the heating circuit, the controller can be reset.



Probe fault

If the domestic water temperature probe fails, domestic water generation will cease immediately. Heating performance will not be affected.

If the heating probe fails, the heating will cease immediately. The domestic water generation will not be affected. The probe fault is indicated by a flashing fault LED on the electronic controller.

Heating probe fault - Error code: 5



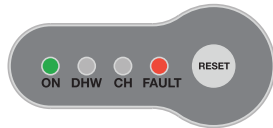
Compensation probe fault - Error code: 15



Removing a fault

Normal operation will be restored once the probe is replaced. (see page 11).

Safety thermostat cutout - Error code: 69 LOW temperature setting



The HIU constantly monitors the heating flow temperature and includes a safety thermostat.

If the thermostat is activated during a general cycle, the circulation pump will immediately stop and the mixing valve will close.

Safety thermostat activation is indicated by a steady, red fault LED on the electronic controller. This fault locks all functions.

In the event of a power failure, the thermal safety valve prevents hot water for heating purposes from entering the system.

After the user has reset the isolation imposed by the safety thermostat, the shut-off valve can only be re-enabled when the mixing/modulating valves are completely closed again.

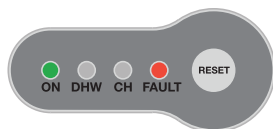
This means that if a domestic water cycle is in progress, the activation of the shut-off valve will be postponed until the end of that domestic water cycle.

Removing a fault

Before resetting the controller, the manual reset button will need to be pressed.



Switch setting incorrect - Error code: 79



Removing a fault

Restore correct dip switch settings (see page 8)

SATK40 & Procyl® heat interface unit

Components - SATK40103

Item	Component
1	Frame
2	Expansion vessel
3	Electronic control unit
4	Primary modulating control valve
5	Three port diverting valve
6	Plate heat exchanger (DHW + space heating)
7	Safety relief valve - 3 bar
9	Drain cock
12	Heat meter spool piece - replaced by heat meter when fitted
14	Heating flow temperature sensor
15	Pump
16	Pump safety bypass
18	DP switch
19	Strainer (heating circuit)
22	Primary filter and heat meter probe pocket
23	Heating return temperature sensor
24	Primary isolation valve
25	Probe
26	Pressure gauge
27	Electric connection box
26	Filling loop double check valve*
27	Filling loop*
28	Filling loop isolation valve*
29	Room controller* (not supplied)
*	Not shown on Components illustration

Functional characteristics

Heating range:

LOW temperature setting 25 to 45°C.

MEDIUM/HIGH temperature setting 50 to 75°C

Optional functions

Heating cycle: modulating temperature regulation with compensated set point floor slab heating function.

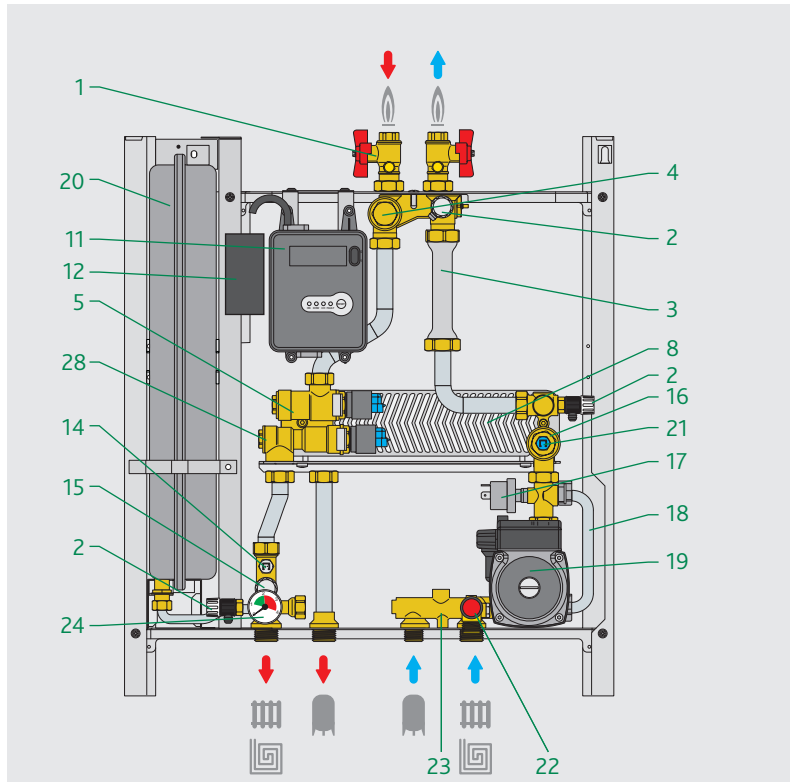
Factory settings

SATK 40103 HIUs are factory set to support MEDIUM/HIGH temperature heating (50 to 75°C) with the dip switches set as shown.

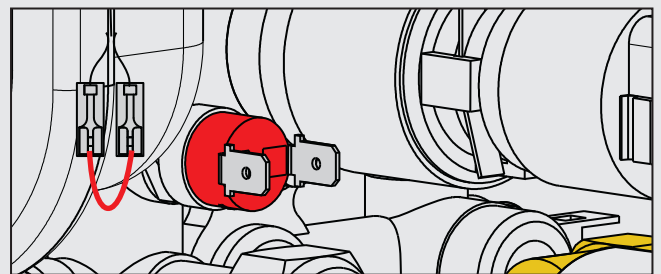


To modify the factory settings and enable the HIU to support LOW temperature systems (25 to 45°C) proceed as follows;

- 1 Switch off the electricity power supply to the HIU
- 2 Set the switches 2 and 3 with the ON-OFF setting



Factory settings



- 3 Remove the safety thermostat jumper cable and connect the cables to the thermostat.
- 4 Switch on the electricity power supply to the HIU.



Factory set - DO NOT CHANGE



May be switched to activate optional functions
 Switch 1: modulating temperature regulation with compensated set point
 Switch 2-3: change setting

SATK40 & Procyl® heat interface unit

Operating Cycles

Domestic water generation:

When a tap or shower is turned on the domestic water cycle is activated, due to the storage thermostat intervention.

To restore the temperature of the stored water in the cylinder the unit begins repeated 10 minute cycles.

After the first 10 minute cycle has been completed a second cycle begins again supplying only the cylinder with heat followed by a third or fourth until the water in the cylinder has reached the set temperature.

To enable the division of the 10 minute cycle, to apportion the time for heating and DHW, dip switch 5 needs to be on.

By altering P1 a portion of each 10 minute can be directed to the space heating circuit, for example 9 minutes to the cylinder and 1 minute to the heating circuit or 7 minutes to the cylinder and 3 minutes to the heating circuit.

When the specified domestic hot water temperature is reached, the circulation pump switches off and the modulating valve is closed again.

The domestic water cycle, when active, is indicated by the steady yellow DHW LED while the symbol is blinking.

The temperature of the hot domestic water within the indirect cylinder should be set using the cylinder thermostat (only supplied with the Procyl® option).

Heating cycle: Set point regulation

When space heating is requested by the room thermostat, the circulation pump is powered while the modulating valve is opened gradually until the set point temperature is reached.

At the end of the heating cycle, the circulation pump comes to a stop and the modulating valve is closed.

The active heating cycle is signalled by the yellow CH LED which comes on.

The heating cycle temperature set point can be set using trimmer P2 and shown on the display.

Under floor heating function: at LOW temperature setting

This cycle aids the drying of the underfloor heating screed at low temperatures. This function can only be activated and executed if there are no faults

It can be activated by pressing and holding the RESET button for 8 seconds.

The yellow CH LED blinks while the under floor heating drying function is in operation.

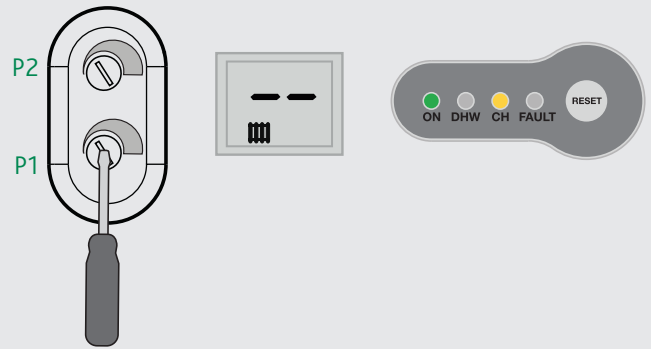
The function has a duration of 240 hours, and is carried out by simulating a request to run in heating mode starting from a set point of 25°C and rising in regular intervals to a temperature of 45°C.

Once the maximum set point has been reached, the function is executed, following the same procedures, in reverse (from the maximum set point to the minimum set point).

This function has priority over heating and hot water cycles, and can be suspended at any time by pressing and holding the RESET button for 8 seconds.

Optional functions - to activate/deactivate the optional functions the electric power supply must always be turned off.

Operating Cycles



SATK40 & Procyl® heat interface unit

Operating Cycles

Heating cycle

Modulating temperature regulation with compensated set point - LOW temperature

The function is enabled by setting dip switch 1 to the OFF position.

When the function is enabled, the flow temperature is modified according to the temperature detected by the compensation probe.

This keeps the actual thermal output of the under floor heating and therefore the ambient thermal load under control. The thermal response time of the system is thus minimised.

Safety and alarms

Error codes associated with faults signalled by the lighting up of the FAULT LED are also shown on the display (see page 7).

Maintenance

All maintenance procedures should be carried out by an qualified technician.

Regular maintenance guarantees better efficiency and helps to save energy.

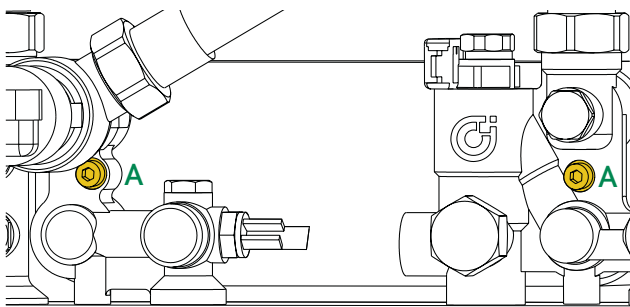
Before carrying out any maintenance, repair or part replacement work, proceed as follows:

- Switch off the electric supply
- Remove the cover
- Close the shut-off valves
- Empty the HIU using the drain cocks provided.

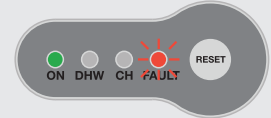
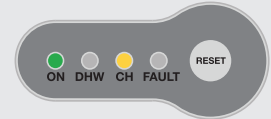
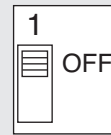
Heat exchanger replacement

- To remove the heat exchanger, loosening the 2 hexagon headed screws holding it in place (A)
- Replace the heat exchanger and the O-rings.
- Refit and tighten the two fixing screws (A) with a maximum torque of 3.5 N/m.

N.B. The pins fixing the heat exchanger are positioned in such a way as to allow it to be placed only in the correct direction.



Operating Cycles



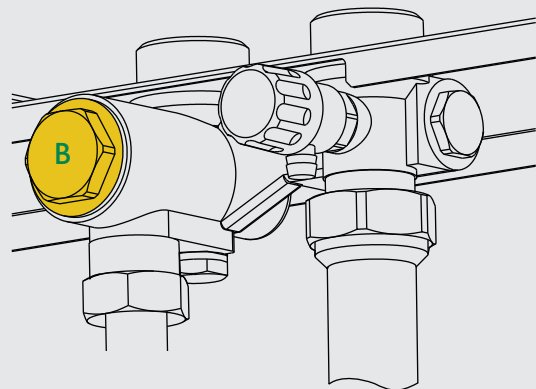
Maintenance

Cleaning the strainer element

The HIU has a strainer on the flow (inlet) from the centralised boiler plant and on return from the heating circuit.

To clean these strainers, carry out the following maintenance procedure:

- Unscrew the cap (B)
- Remove the strainer mesh and discard any impurities
- Put the strainer mesh back in
- Screw the cap back on.

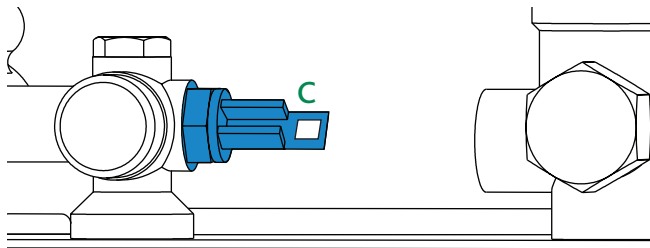


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Maintenance

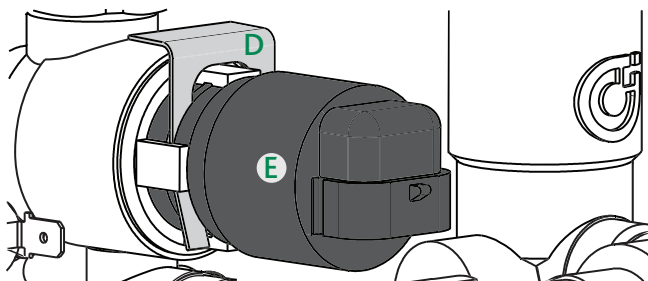
Temperature probe replacement

- Disconnect the probe cable, lightly folding the tab (C) and extracting the connector (see page 16).
- Unscrew the probe.
- Fit the new probe.
- Reconnect the connector respecting the only possible way it can be inserted.



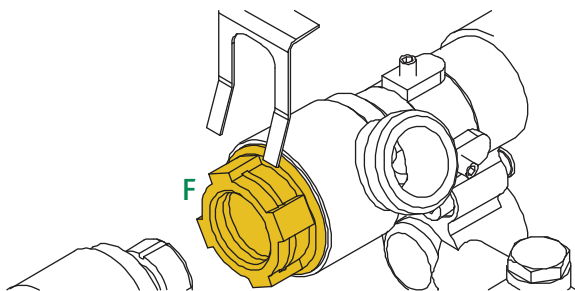
Replacing the valve actuator

- Disconnect the actuator cable, lightly pressing the tab on the connector and extracting it (see page 16).
- Extract the fixing clip (D) and then the actuator.
- Position the new actuator (E).
- Insert the fixing clip, respecting the correct direction.
- Reconnect the connector.



Replacing the valve obturator

- Disconnect the valve actuator (see previous paragraph).
- Extract the obturator, unscrewing the locking nut (F).
- Replace the obturator and screw on the locking nut (F), then insert the actuator.
- Insert the fixing clip, respecting the correct direction
- Reconnect the connector.



Expansion vessel pre-charge check

For the system to work properly, the expansion vessel pre-charge value must be checked regularly (at least once every six months) using the following method:

- Close the shut-off valves.
- Drain the HIU.
- Check the pre-charge value using a pressure gauge.
- Eventually restore the value indicated on the technical specification.

General

When carrying out maintenance on the electrical system, for the connections follow the diagram on page 12.

After concluding maintenance, refill the system and check the operations described in the chapter "Commissioning" and re-fit the cover.

For information regarding spare parts or other technical information, please contact Altecnic.

Only genuine Altecnic re-placement components should be used.

Fault Finding

Fault	Indications	Possible Cause of Fault	Operations to be Performed
The water is not heating	DHW LED on	primary circuit isolating valve closed	open the isolating valve
		HIU strainer clogged	call qualified personnel to have it replaced
		modulating valve actuator disconnected	re-connect actuator connection
		modulating valve actuator disconnected from valve body	re-connect actuator
		modulating valve actuator faulty	call qualified personnel to have it replaced
		diverting valve actuator disconnected	re-connect actuator connection
		diverting valve actuator disconnected from valve body	re-connect actuator
		diverting valve actuator faulty	call qualified personnel to have it replaced
		pump not working	call qualified personnel to have it replaced
		pump cable not connected	re-connect the cable
		presence of air in the system	vent the system
		heat exchanger clogged	call qualified personnel to have it replaced
		electronic controller not working	call qualified personnel to have it replaced
		valve obturator blocked in closed position	call qualified personnel to have it replaced
	centralised system not working	contact person in charge of system	
	LED FAULT on + error code 4 active	heating circuit pressure too low	restore system pressure
	LED FAULT on + error code 79 active	incorrect switch setting	restore correct switch setting
	DHW LED off	cylinder thermostat DHW not connected	re-connect the thermostat
		cylinder thermostat DHW faulty	call qualified personnel to have it replaced
		electronic controller not working	call qualified personnel to have it replaced
all LEDs are off	electricity power supply switched off	switch on electricity supply	
	protection fuse burnt out	call qualified personnel to have it replaced	
	electronic controller not working	call qualified personnel to have it replaced	
The water is hot but does not reach the desired temperature	DHW LED on	domestic water cycle temperature set point too low	increase set point
		HIU strainer clogged	call qualified personnel to have it serviced
		pump not working	call qualified personnel to have it serviced
		pump cable not connected	restore connection
		heat exchanger clogged	call qualified personnel to have it serviced
		modulating valve actuator disconnected	re-connect actuator connection
		modulating valve control disconnected from valve body	re-connect actuator
		modulating valve faulty	call qualified personnel to have it serviced
		excessive demand for DHW	decrease demand
		electronic controller not working	call qualified personnel to have it replaced
		centralised system temperature insufficient	contact person in charge of system
		primary circuit flow rate insufficient	contact person in charge of system
The hot water temperature reached is too high	DHW LED on	domestic water cycle temperature set point too high	decrease set point
		thermostat not working	call qualified personnel to have it replaced
		modulating valve actuator faulty	call qualified personnel to have it replaced
		valve obturator blocked in intermediate or open position	call qualified personnel to have it replaced
		electronic controller not working	call qualified personnel to have it replaced

SATK40 & Procyl® heat interface unit

Fault Finding

Fault	Indications	Possible Cause of Fault	Operations to be Performed
Hot water flow rate is insufficient	DHW led on	HIU strainer clogged	call qualified personnel to have it replaced
		possible domestic water system shut-off valves partly open	open the valves
		centralised domestic circuit cold water flow rate insufficient	call qualified personnel to have it serviced
The is no hot water flow	DHW LED off	possible domestic water system shut-off valves closed	open the valves
		no cold water in centralised domestic circuit	contact person in charge of system
		HIU strainer clogged	call qualified personnel to have it serviced
The room is not reaching the desired temperature	CH LED on	heating cycle temperature set point too low	increase set point
		chrono-thermostat temperature setting incorrect	check programming of chrono-thermostat
		HIU strainer clogged	call qualified personnel to have it serviced
		modulating valve actuator connector disconnected	restore correct connection
		modulating valve control disconnected from valve body	re-connect actuator
		modulating valve faulty	call qualified personnel to have it serviced
		diverting valve actuator disconnected	re-connect actuator connection
		diverting valve actuator disconnected from valve body	re-connect actuator
		diverting valve actuator faulty	call qualified personnel to have it replaced
		presence of air in the system	vent the system
		pump not working	call qualified personnel to have it replaced
		pump cable not connected	restore connection
		heat exchanger clogged	call qualified personnel to have it replaced
		possible system shut-off valves closed	open the valves
		centralised system temperature insufficient	contact person in charge of system
		primary circuit flow rate insufficient	contact person in charge of system
		centralised system not working	contact person in charge of system
	electronic controller not working	call qualified personnel to have it replaced	
	CH LED off	timer/thermostat time setting incorrect	check programming of timer/thermostat
		timer/thermostat not working	check timer/thermostat
		electronic controller not working	call qualified personnel to have it replaced
	all LEDs are off	electric supply switched off	restore HIU electric supply
		protection fuse burnt out	restore HIU electric supply
	LED FAULT on + error code 4 active	heating circuit pressure too low	restore system pressure
	LED FAULT on + error code 5 active	heating temperature probe faulty	call qualified personnel to have it replaced
	LED FAULT on + error code 15 active	compensation temperature probe faulty	call qualified personnel to have it replaced
	LED FAULT on + error code 69 active	safety thermostat cut in	call qualified personnel to have it serviced
LED FAULT on + error code 79 active	incorrect switch setting	restore correct switch settings	

SATK40 & Procyl[®] heat interface unit

Notes

In these Installation, Operation and Maintenance Instructions we have endeavoured to make the information as accurate as possible.
We cannot accept any responsibility should it be found that in any respect the information is inaccurate or incomplete or becomes so as a result of further developments or otherwise.

E & O.E

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The logo for Altecnic, featuring the word "altecnic" in a lowercase, sans-serif font. The letter 'a' is stylized with a small green square inside its counter.