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VICTORIA 20/20F

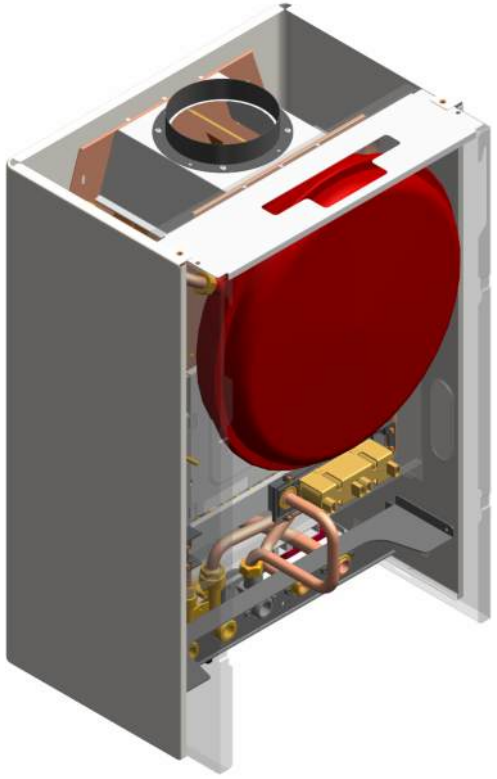
Wall-Hung On-Demand Combination Water Heater

Table of contents

Victoria wall-hung boilers
Heating training centres

ROCA

Victoria 20/20 F



CE marked. These waterheaters comply with the requirements of the Electromagnetic Compatibility Directive **89/336/EEC**, the Gas Appliance Directive **90/396/EEC**, the Low Voltage Directive **73/23/EEC**, and the Efficiency Directive **92/42/EEC** ⋆⋆.

CSA CERTIFIED FOR USA and CANADA.

Overall view

Victoria wall-hung waterheaters

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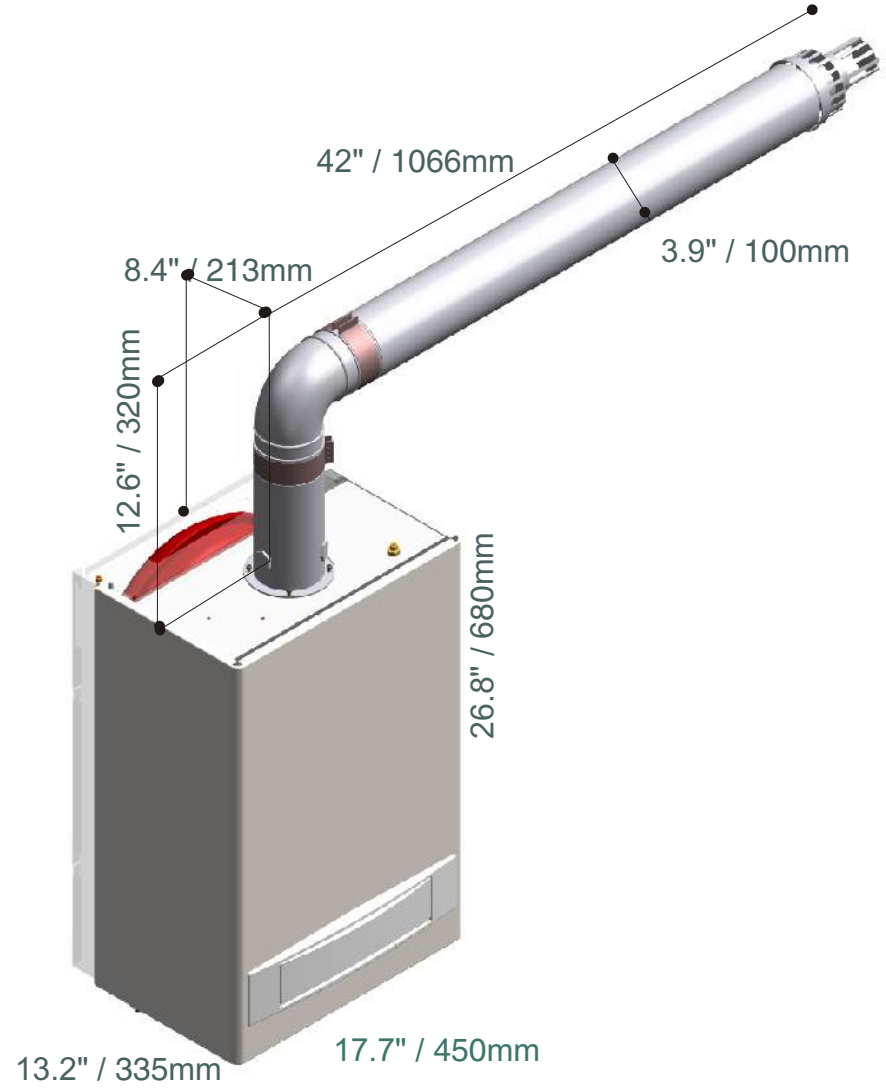

Victoria 20/20 F

Overall dimensions

Victoria wall-hung waterheaters
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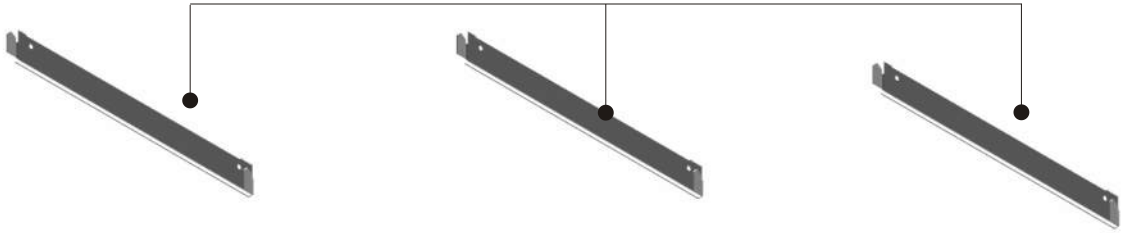
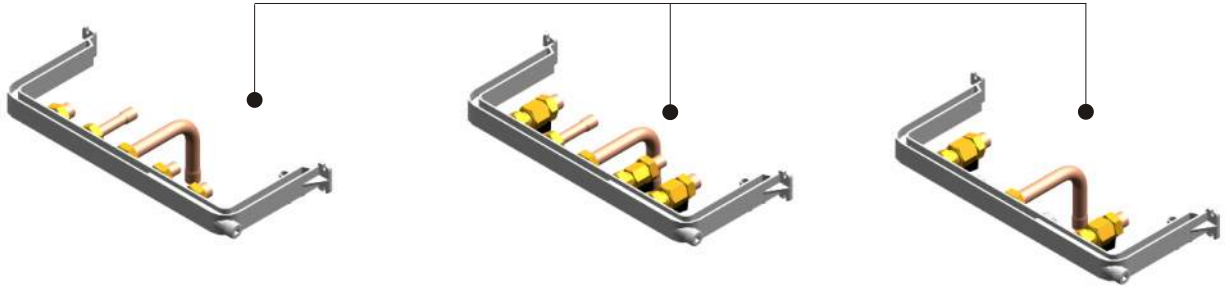
Wall-mounting bracket, supplied
with the pre-plumbing jig



Distance from the wall: 5.5" / 140 mm

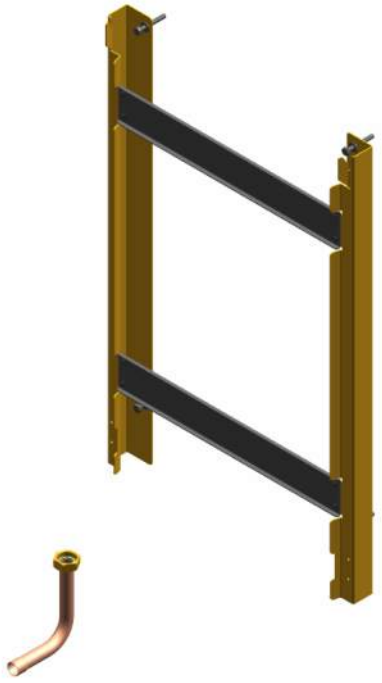
Gap between connections: 2.36" / 60mm



PMI with no cocks

PMI with cocks

PMCA with cocks



Wall Spacing Frame (1.38"/35 mm)

Pre-plumbing jig and wall Spacing Frame

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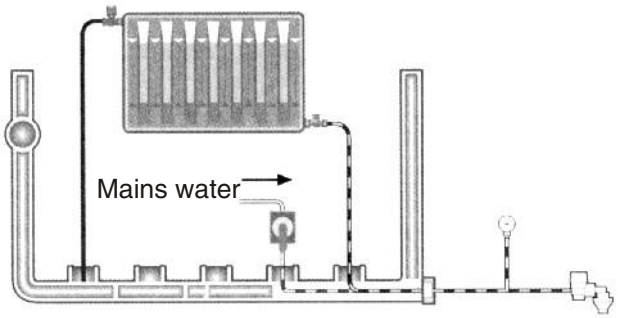
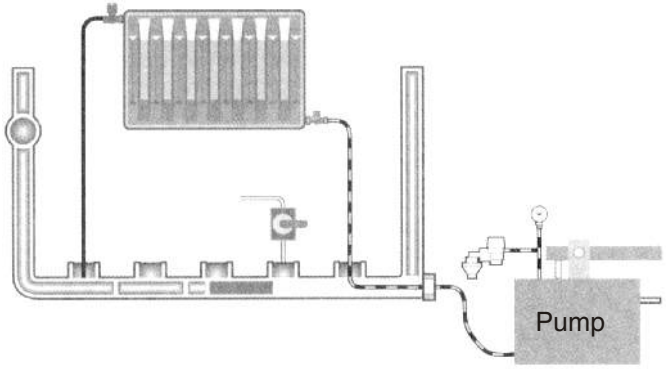
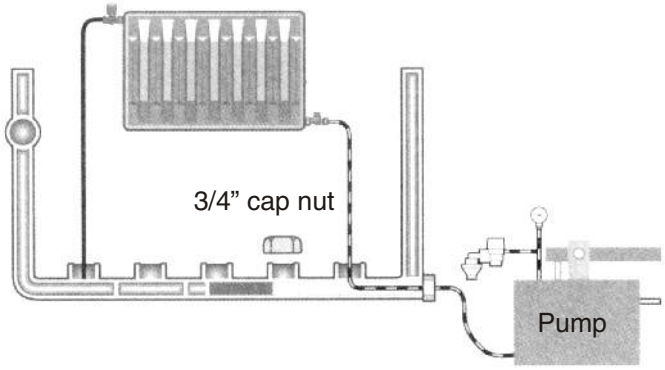






The PMCA is supplied with the 3/4” cap nut. The PMI could do without the pump; in this case, the mains pressure and connection should be used for filling the system. Monitor the operation through the necessary controls: Pressure gauge and safety valve.

Hydraulic test

Observe current regulations and minimum distance from flammable materials.

Please refer to the Instructions delivered with the waterheater

Installation recommendations

- Please refer to the instructions which are delivered with the waterheater.
- Power supply 230V Live/Neutral. (Do not reverse polarity).
- Room thermostat connection.
- Work on the pump motor shaft to unlock it if it were jammed.
- Manually vent the boiler.
- Fill the primary loop (if no DHW cylinder has been installed) slowly until the pressure reaches 14.5 - 29 PSI / 1-2 bar. (If a DHW cylinder has been installed, then fill the secondary loop first).
- Open the DHW circuit for it to fill up and vent
- With the gas inlet cock still closed, program the Heating mode. The boiler will perform a lighting cycle and will then lock out under code 60-70-90.
- Leave it like that for five minutes so that the pump, which is still running, can help vent the circuit. Next, check the pressure level and top up if it has dropped to 14.5 PSI / 1 bar.
- Open the gas inlet cock, reset the system (code 60-70-90) and the boiler will start operating.
- Allow the waterheater to operate in the Heating mode for ten minutes, during which check that all radiators warm up. Should one radiator fail to warm up, bleed the air in it. But if it still does not warm up, then the flow rates in all radiators should be balanced, always optimizing the pump performance curve (flow rate/pressure) through its speed selector control.
- Open the DHW tap with the highest flow rate in the house. The waterheater will operate for ten minutes continuously at full output (79,366 Btu / 20,000 kcal/h). If the flue spillage detection thermostat does not trip, that means that the removal of flue gases is correct.
- If a gas meter is available, check the gas input rate, as indicated in the waterheater Instructions

Start-up recommendations (I)

- Where a water column is available, connect it to the gas valve pressure test point and check the working pressure with the waterheater operating at full output (79,366 Btu / 20,000 kcal/h).
- Program the Heating mode again.
- Program the DHW mode again. For a higher level of comfort, particularly where substantial pressure variations in the water supply occur, set the program close to the draw-off temperature.
- Remove the water column, replace the plug and washer, start the system, and using soapy water check the whole circuit for gas tightness.
- Ensure that the waterheater room has a proper ventilation and air renewal system.

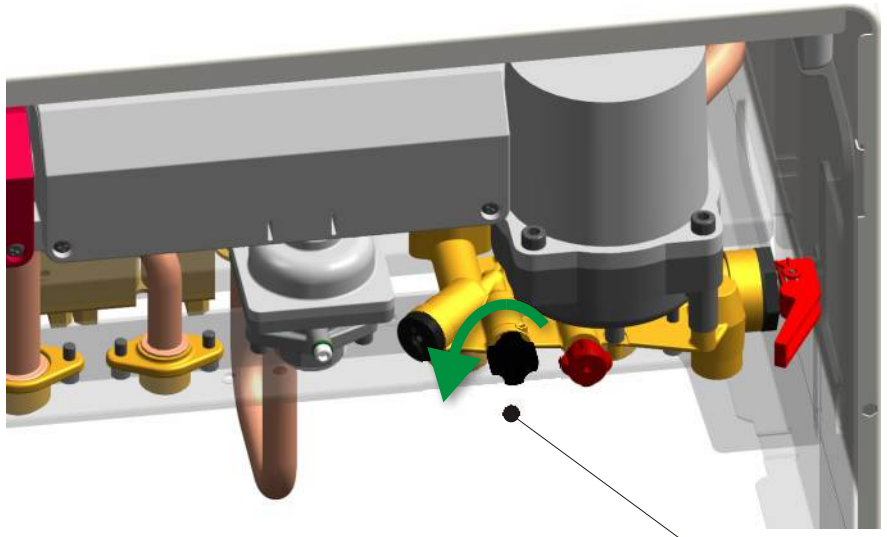
Instruct the user on the following points:

- Recommend him/her to read the User's Instructions.
- Instruct him/her on how to program the Heating and DHW temperature and the room thermostat (if any).
- Instruct him/her on how to fill and/or top up the Heating system.
- Demonstrate how the fault codes work for insufficient gas (60-70-90 and 40-80-90) and how to reset (R) after opening the gas inlet cock or changing the gas cylinder.
- Recommend him/her to turn the selector switch to the "R" position whenever a red fault lamp lights up.
- If the red light appears two or three consecutive times, tell the user to write down the number of the temperature LEDs which light up and then to notify the nearest Service Center or Installer.
- Train him/her on the various safety devices, recommendations and maintenance operations specified in the waterheater Instructions.

Start-up recommendations (II)

It should be ON

It should be between 14.5 and 29 PSI / 1 and 2 bar



Fill and/or top up if pressure is less than 14.5 PSI / 1 bar

Start-up recommendations (III)

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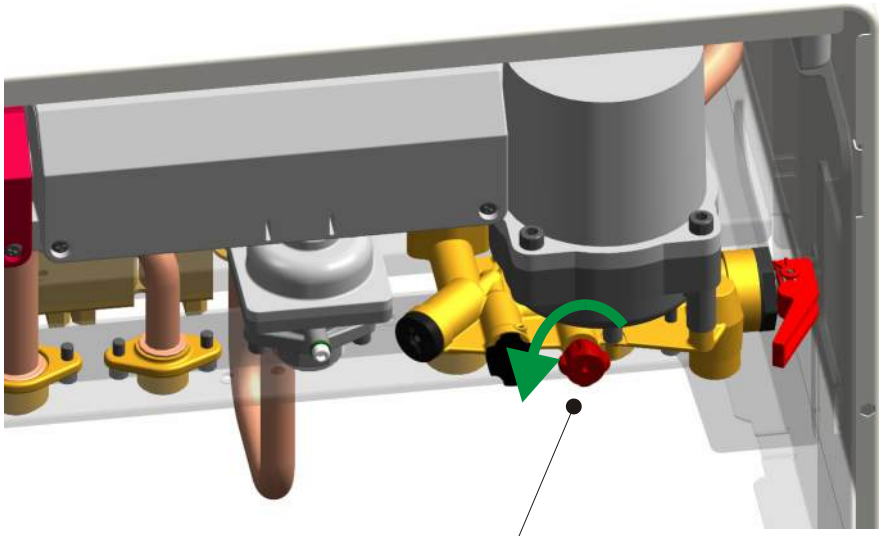
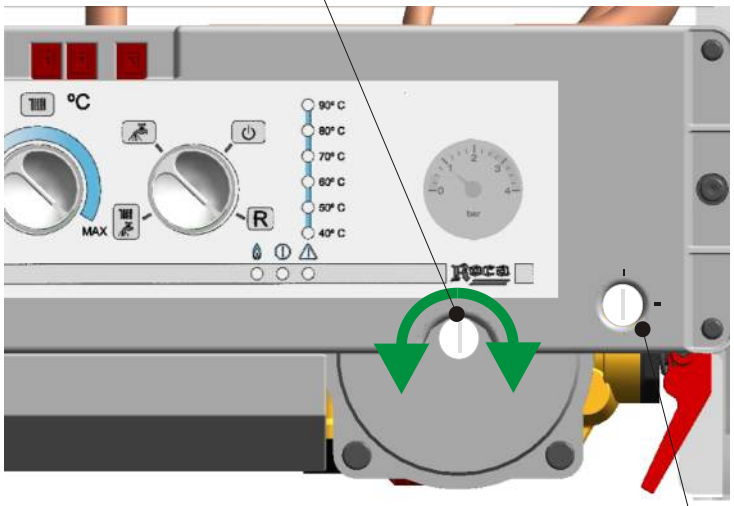


Bleed air and/or drain

Turn



Set the minimum speed possible to reduce system rumbling as much as possible. See the pump performance graph (flow rate/pressure).

Start-up recommendations (IV)

Automatic air vent Kit

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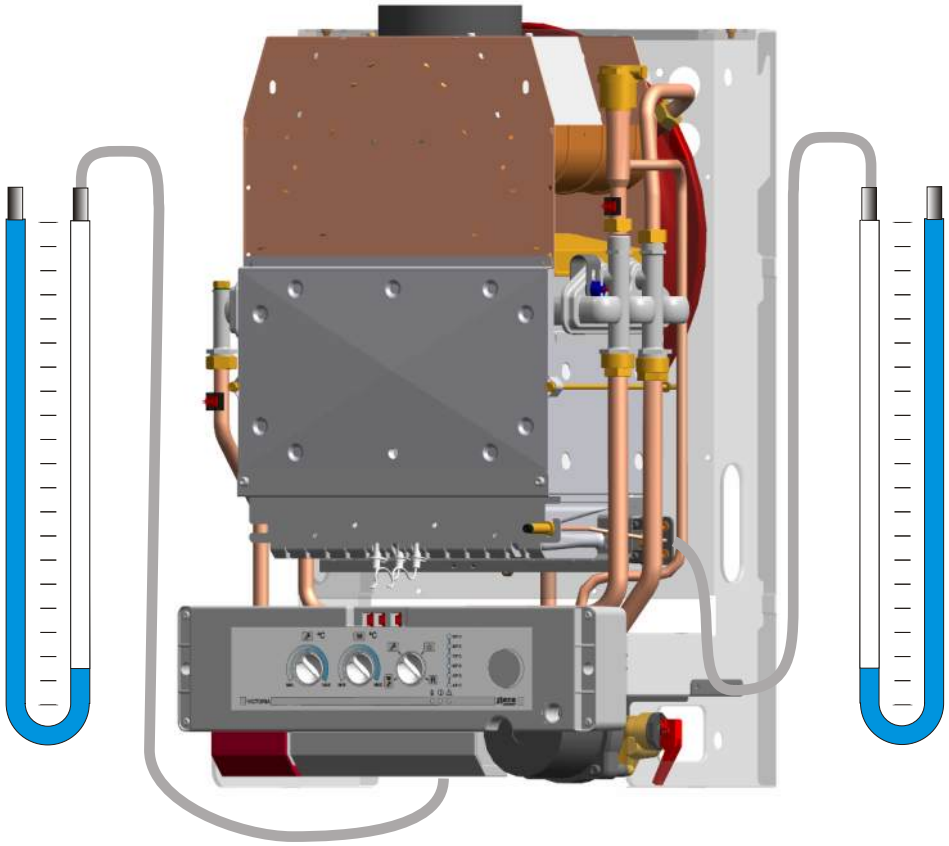
Gas Inlet Pressure:
G20(GN): 20 mbar
G30(GB): 28 ÷ 30 mbar
G31(GP): 37 mbar

	Gas Input Rate (m^3/h)(*)			Pressure (mmwg) (**)		
Heat Output	G20	G30	G31	G20	G30	G31
79,366 Btu/20,000 Kcal/h	2.39	0.83	1.03	85	270	341
47,620 Btu/12,000 Kcal/h	1.46	0.57	0.71	36	140	158
27,778 But/7,000 Kcal/h	0.87	0.31	0.38	14	47	52

Gas input rates and pressures with Natural Gas (G20) are for a L.H.O. = 9,200kcal/m^3, density = 0.62, 15 °C and 1,013mbar.

(*) measured under standard conditions (15°C and 1013mbar)
(**) burner setting pressure



Pressures of gas

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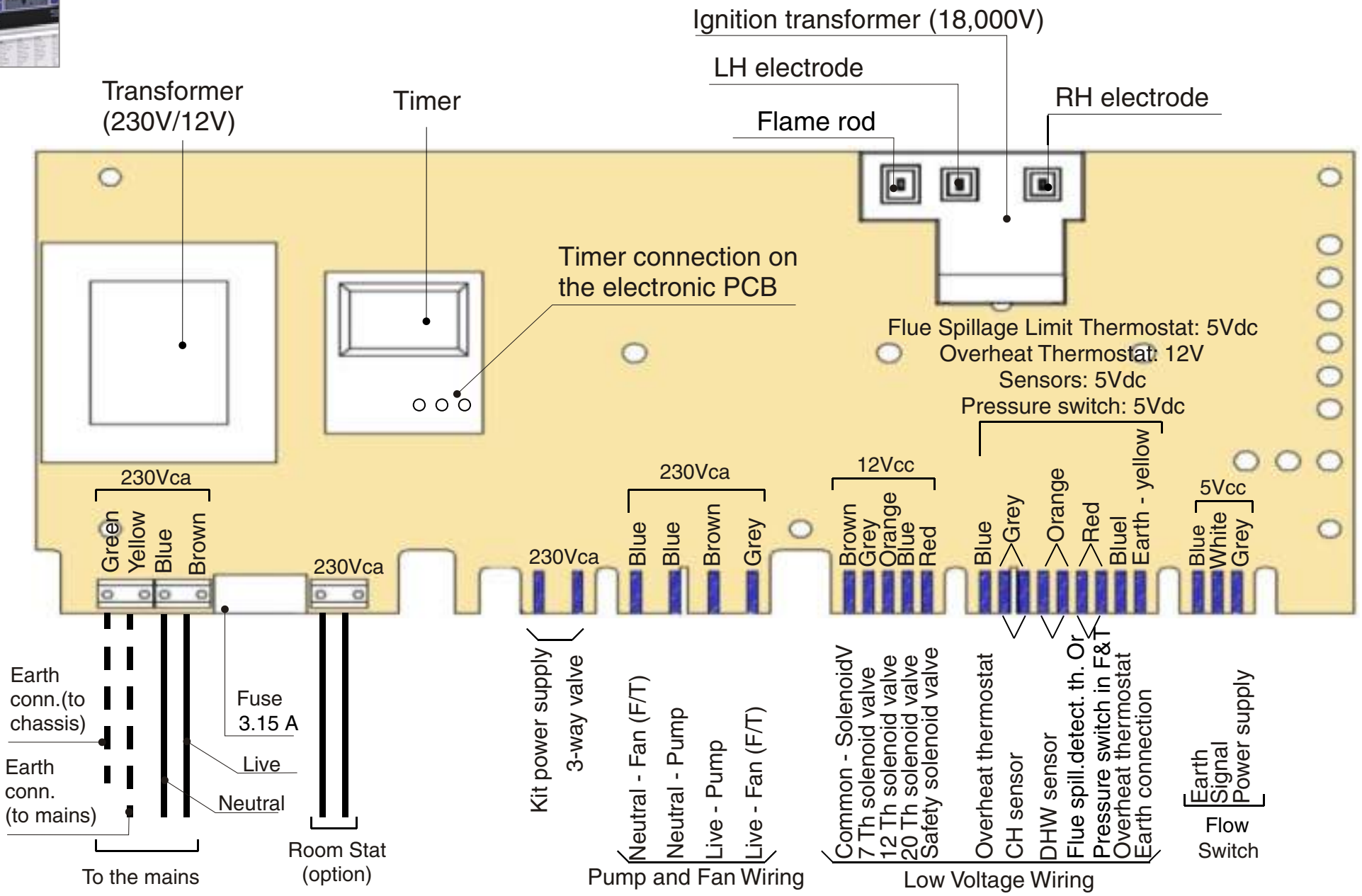

Electronic PCB

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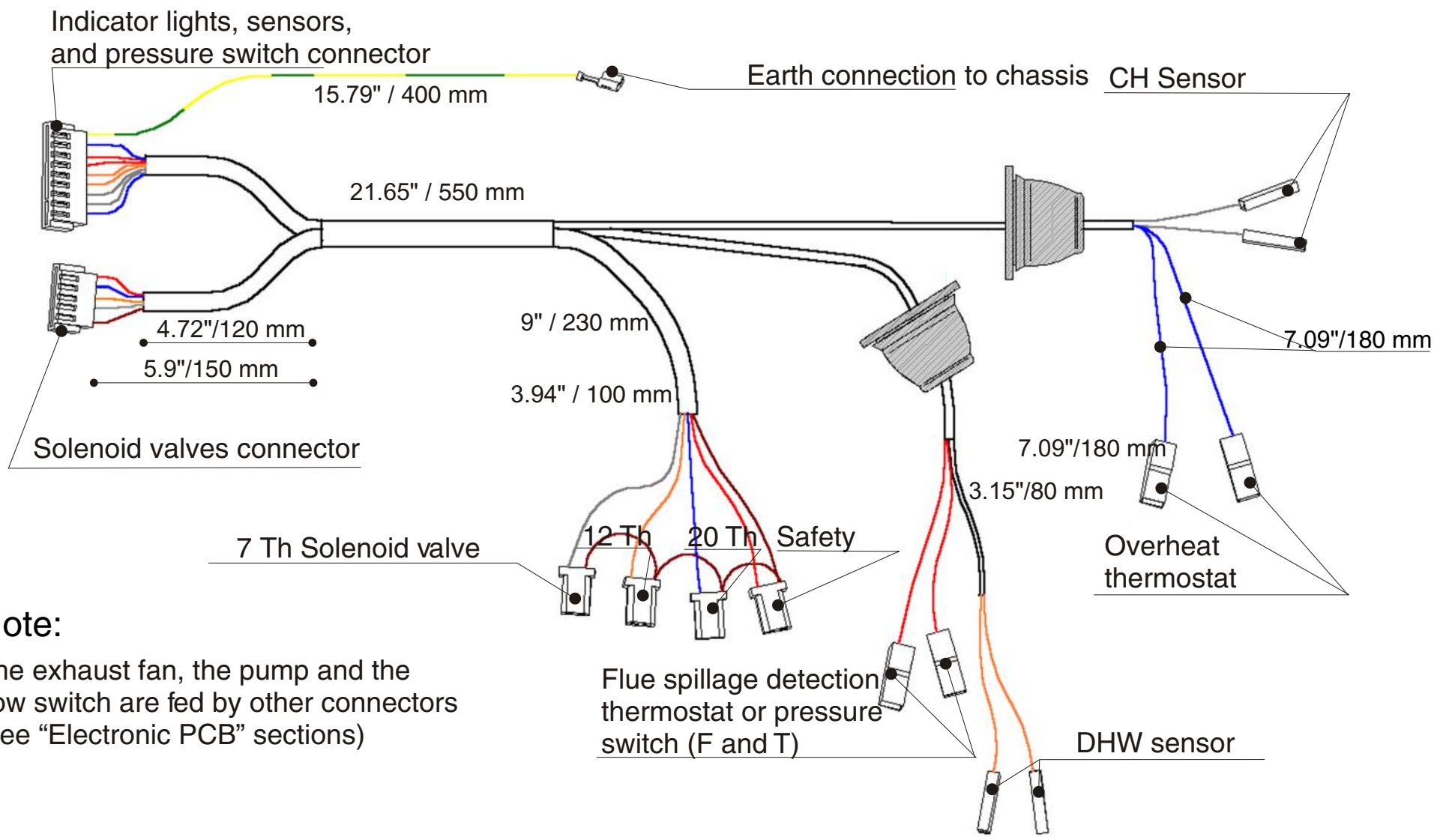
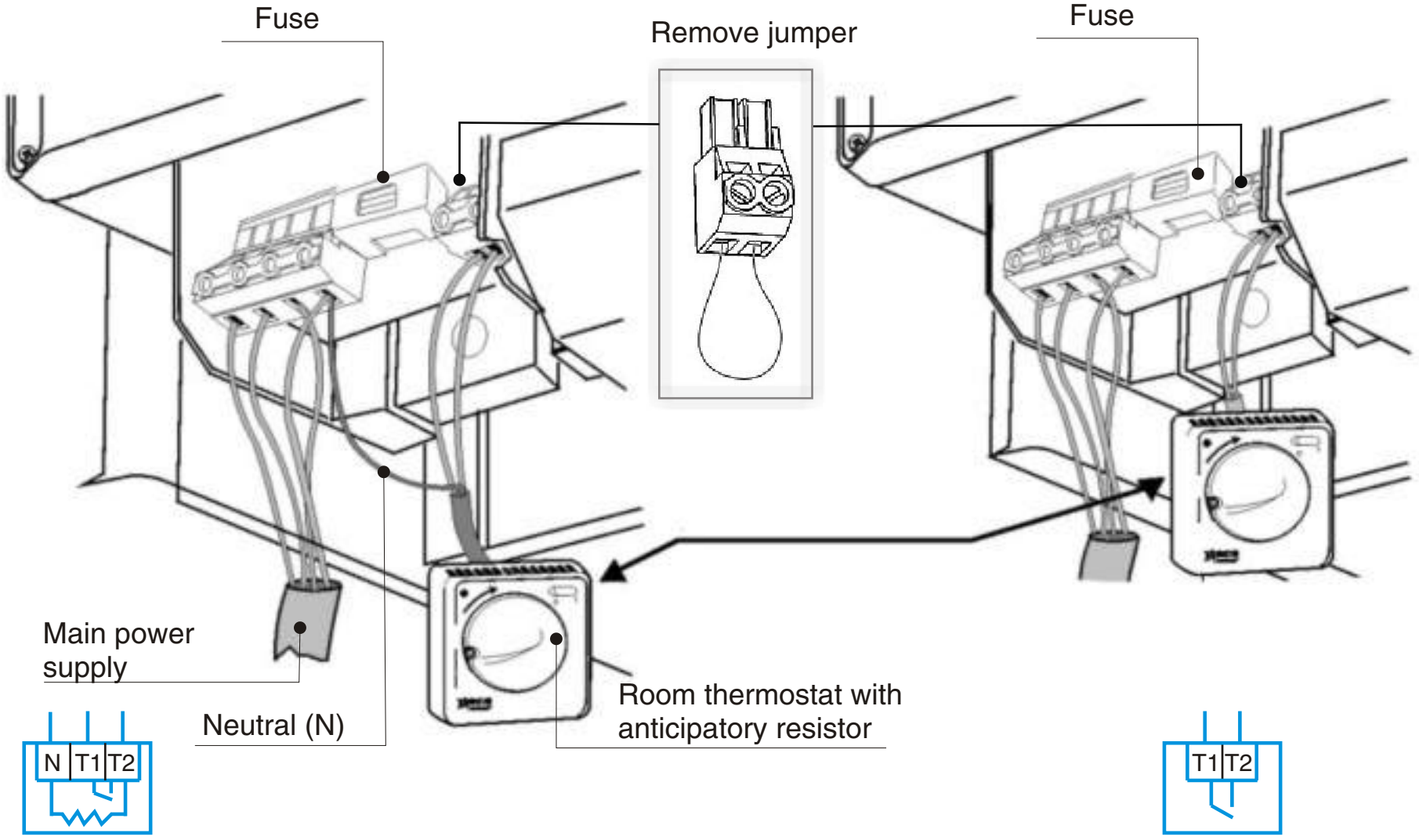
Low Voltage Wiring



Note:

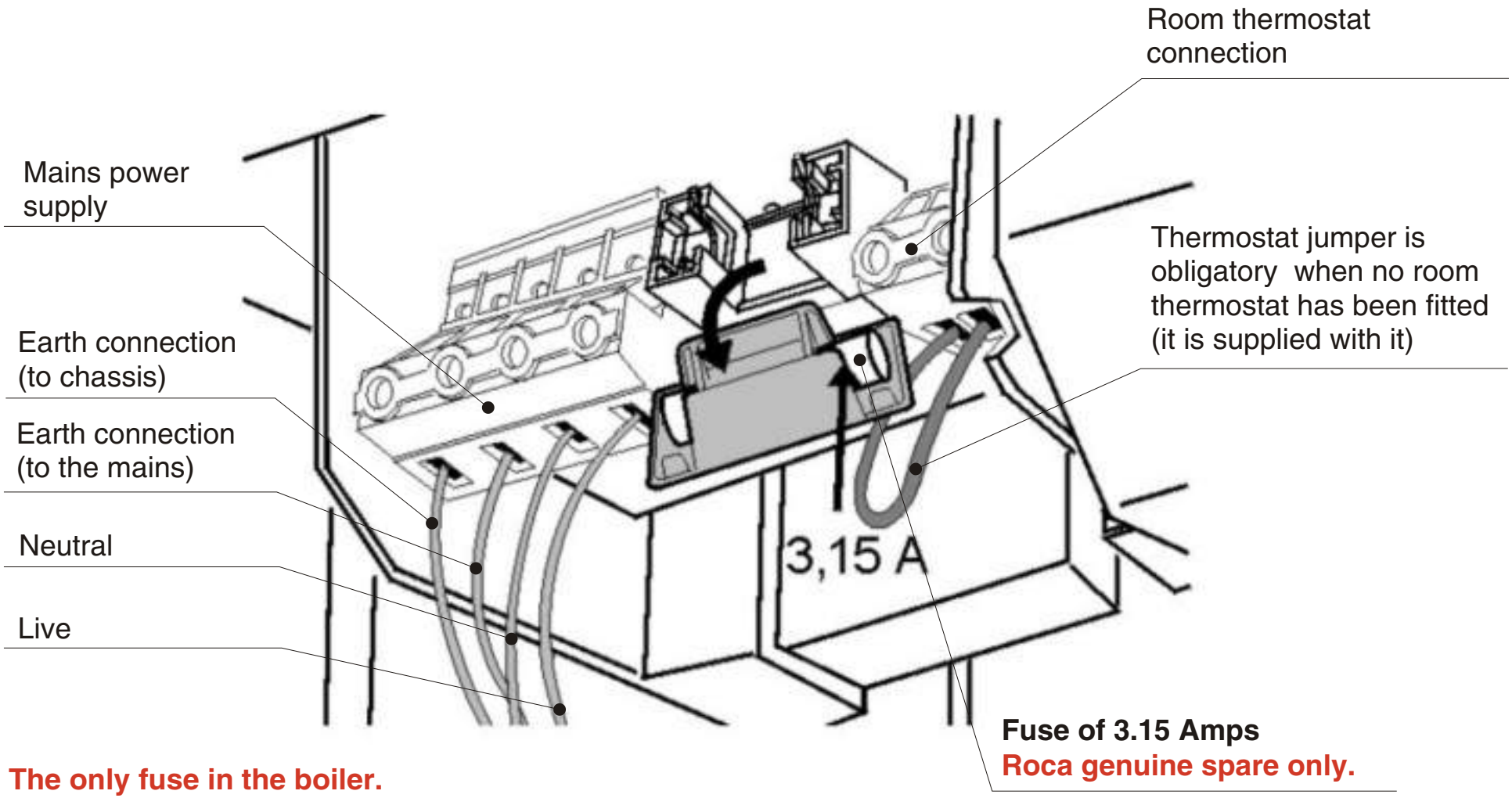
The exhaust fan, the pump and the flow switch are fed by other connectors (see “Electronic PCB” sections)



Thermostat with anticipatory resistor

Thermostat without anticipatory resistor

Room thermostat connection



The only fuse in the boiler.
It can be accessed after removing the lower LH cover in the waterheater and then pulling out the cover holding it.

Fuse change

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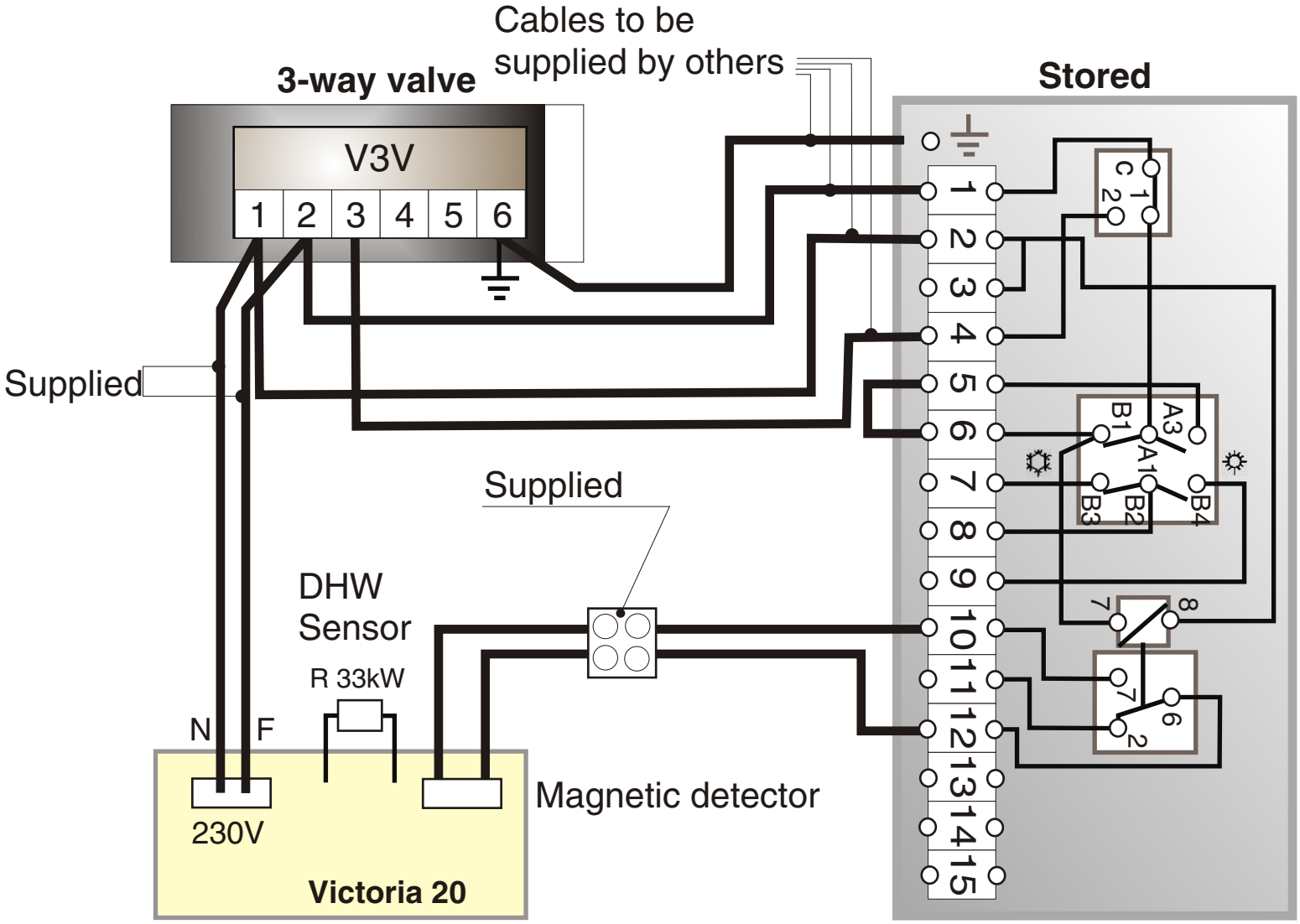


Connection of Victoria 20 + V3V kit

Compact casing

Top fixing: Locating pins
Bottom fixing: Screws
Removable decor. lid
“Spring-effect” flanges

Color of casing

WHITE - RAL 9016

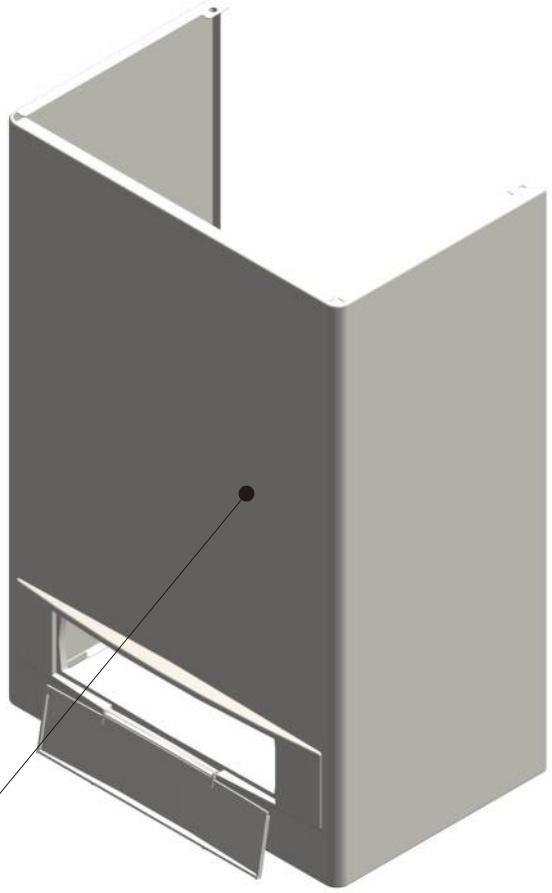
Stages of Output:

27,778 Btu / 7,000 kcal/h
47,620 Btu / 12,000 kcal/h
79,366 Btu / 20,000 kcal/h

Adjustable for Heating

Net efficiency: 91.7%

★★ , as per Efficiency Directive **92/42/CEE**



CSA CERTIFIED EFFICIENCY: 87%

Main components (I)

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Draught Diverter
Flue socket collar Ø 5" / 127 ID
Flue duct Ø 4.9" / 125 OD

Expansion Vessel
Fill pressure: 10.88 PSI / 0.75 bar Butyl diaphragm and nitrogen charge
Total/useful capacity: 2.1 gal/1.2 gal - 8 litres/4.5 litres

Flue Spillage Limit Thermostat
Set at: 149°F / 65°C

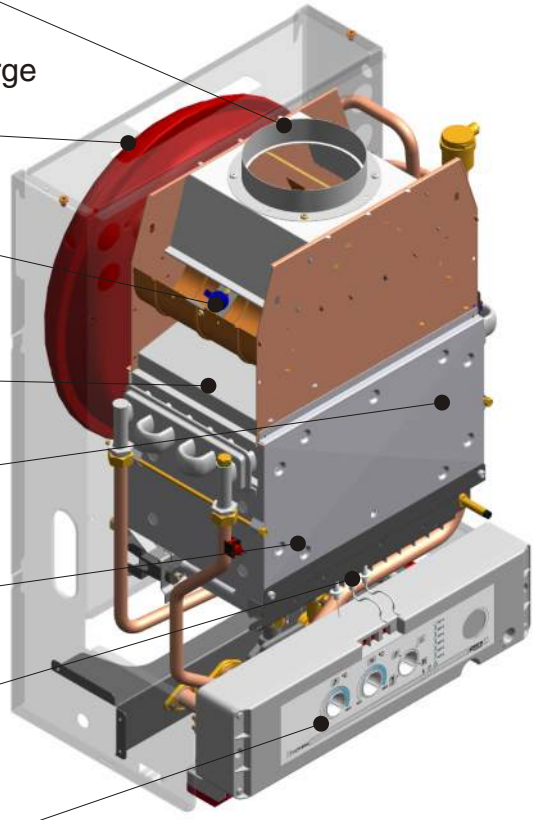
Heat Exchanger
Bithermal. 6 steps in DHW and Heating. Made of copper and high-temperature aluminium paint

Combustion Chamber
Compact. Side fixing rods

Burner
Stainless steel. 13 “becks” “Clover-like” flame on the ends for interlighting

Ignition electrodes and flame rod
Burner Centred

Control panel
Direct access to the boiler wiring and fuse (3.15A).
Fault codes in Heating temperature leds.
Ignition transformer on electronic board (18,000V)



Main components (II)

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DHW Temp. Selector
Temperature range: 104°F/40°C ÷ 140°F/60°C

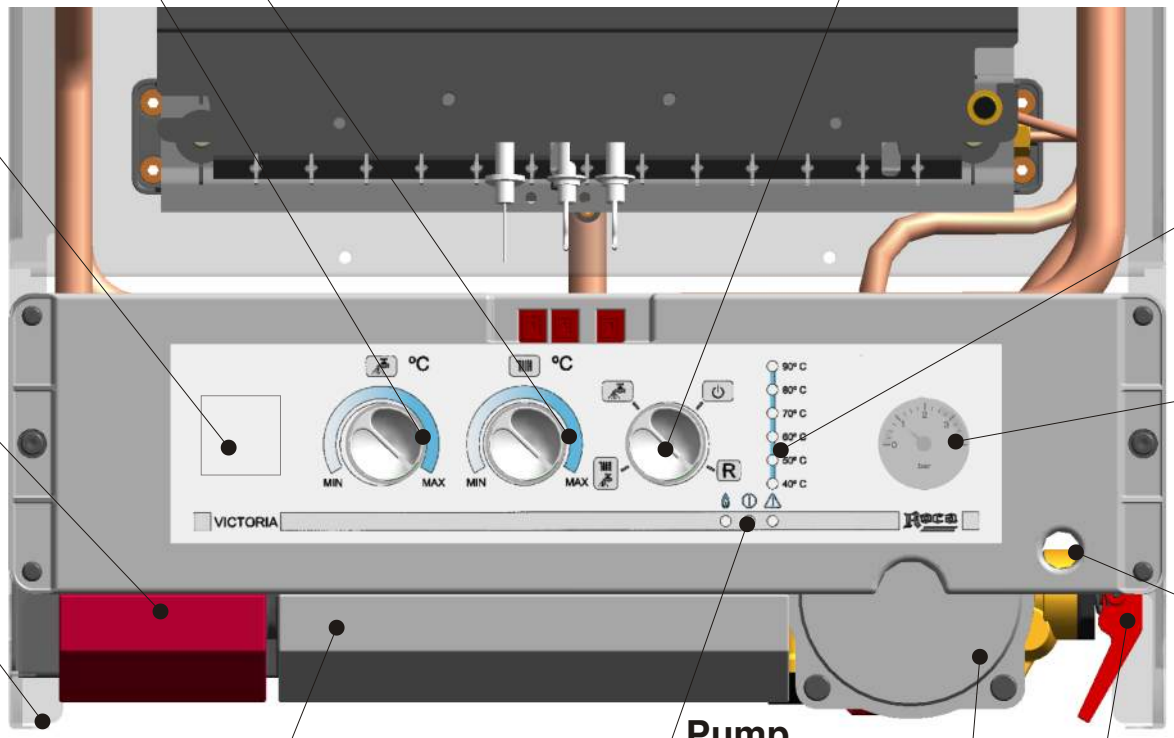
CH Temp. Selector
Temperature range: 104°F/40 °C ÷ 194°F/90 °C

Service Changeover Selector
Heating and DHW / DHW only / Reset / Off

Timer
Planned position in the supplied kit. Digital

Access cover for external connection
Supply Voltage: 230V
Input fuse: 3.15 Amps
Room Thermostat Power Supply (optional): 230V

Casing Fixing Screws
Bottom only.
Top - locating pins



Central Heating Temp. Leds
Fault codes

Mechanical Pressure Gauge
Recommended
Fill Pressure: 21.8 PSI/1.5 bar

Pump Speed Selector
(I, II and III)

Access Cover to Internal Wiring
All boiler's internal wiring

Indicator leds for:
Service, Voltage, Faults

Pump
3-speed type
2.6µF, 450V
Capacitor

Pressure Relief Valve
Set at 43.5 PSI/3 bar. Removable

Control panel

Victoria wall-hung waterheaters

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Flow Regulator
Limitation: 3.7gal/14 l/min.

By - pass

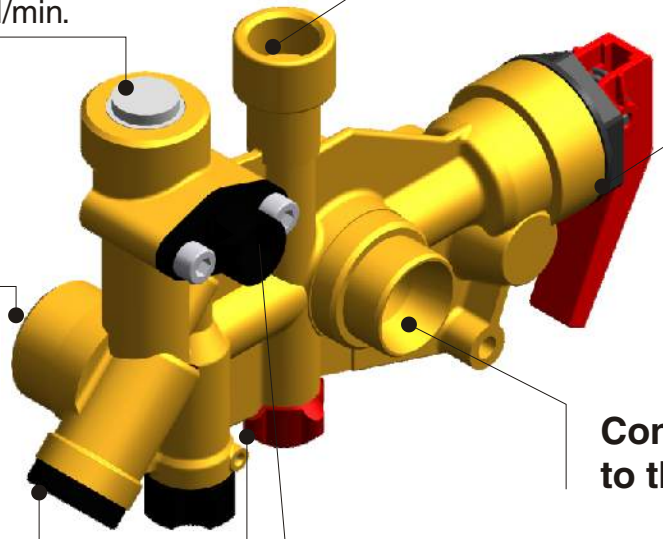
Pressure Relief Valve
Set at 3 bar
Serviceable and rotary

Outlet to the Heat Exchanger
Mains water

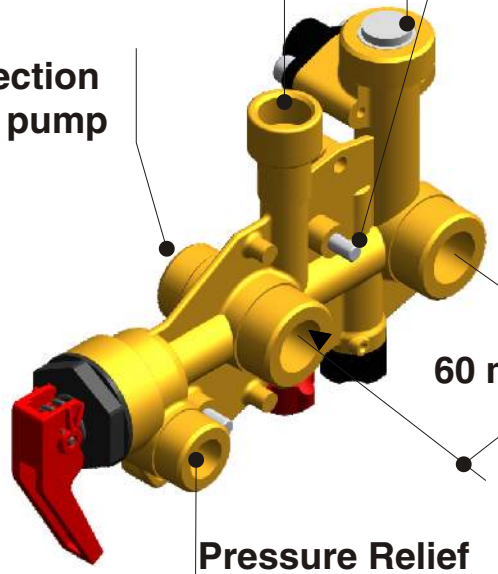
Mains Water Inlet

By - pass pipe Inlet

2 Chassis Fixing Screws
Allen 4



Connection to the pump



Mains Water Inlet Filter
Use Allen 4 key
or Screwdriver to open

Magnetic Detector

Mains Water Inlet (3/4”)

60 mm

CH Return (3/4”)

Fill Point Valve
Set in the Hydroblok
serviceable if captive
pin is removed

By - pass, Vent and Drain Cock
Tight: Fixed by - pass
Loose: Air vent or drain

Pressure Relief Valve Discharge (1/2”).
Route to a drain

Overall view of Hydroblock

Flow Regulator
Limitation: 3.7gal/14 l/min

Magnetic Float
Magnet material: Nd powder
Maximum Temperature: 302°F/150°C
Min. DHW Collection: 2.9PSI/0.2 bar
and 0.79gal/3 litres/min.

Mains Water Inlet

Mains Water Inlet Filter
Use Allen 4 key to open

Water Filter O-ring
Ø 13 ID x Ø 2

Fill Point Valve O-rings
Ø 7.2 ID x Ø1.9 and
Ø 2.6 ID x Ø1.9

By - pass, Vent and Drain Cock

Anti-friction Washer for Pressure Relief Valve
Ø 25,5 ID x Ø 28,6 OD x 1

Pressure Relief Valve
Set at 3 bar
Serviceable and rotary

Pressure Relief Set Pin
Ø 3 x 16 mm long

Pump O-ring
Ø 23 ID x Ø 3.6

Detector O-ring
Ø 8 ID x Ø 1.9

Magnetic Detector

Fill Point Valve Pin
Ø 2 x 16 mm long

Allen 4 Bolts
M4 x 12

By-pass O-ring.
Ø 4.2 ID x Ø 1.9

Hydroblock components

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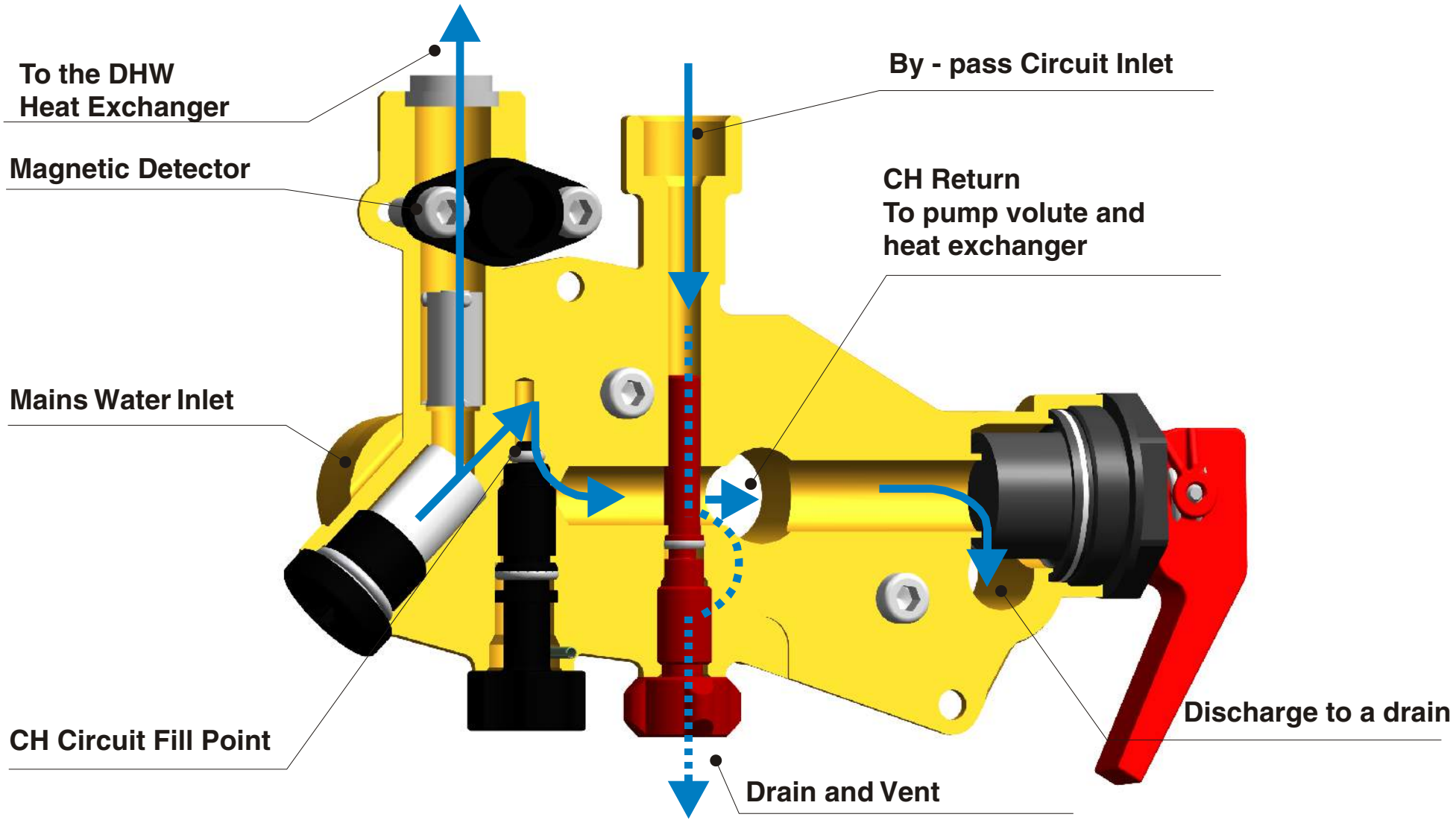

Hydroblock operation

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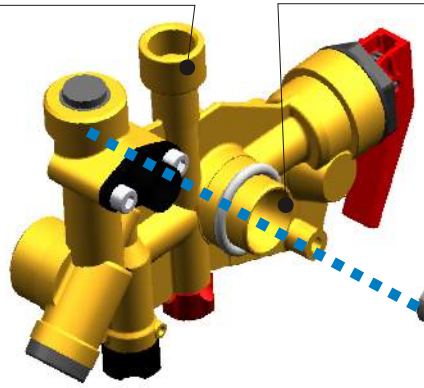


Return to radiators

O-ring
Ø 23 ID x Ø 3.6

Mains Water Inlet

To Heat Exchanger

Pressure Gauge Connection to Pump Volute

O-ring for fixing the Pressure Gauge. Ø 9.52 ID x Ø 1.78

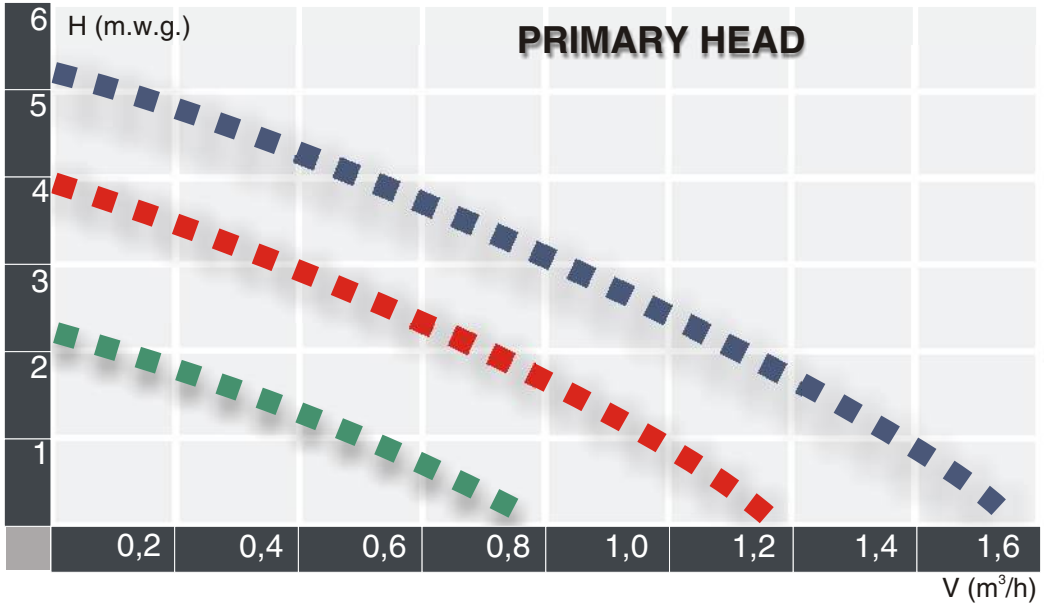
Mechanical Pressure Gauge Fixing

Unblocks of the pump

Fixing the body to the volute Allen 5 M6 x 20

Fixing the Pump to the Hydroblok

Mechanical Pressure Gauge



Hydroblock and pump

Victoria wall-hung waterheaters

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Expansion Vessel
Fill pressure: 10.88PSI/0.75 bar
Butyl diaphragm and nitrogen charge
Total/useful Capacity: 2.11gal/1.2 gal - 8 litres/4.5 litres

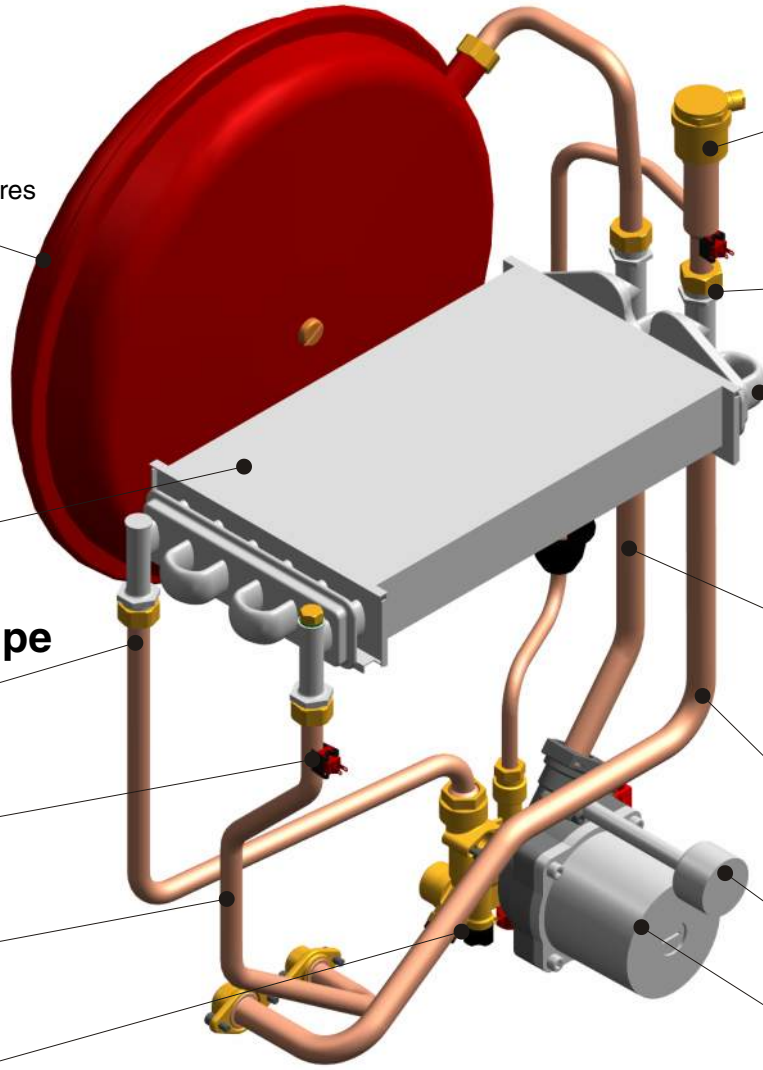
Heat Exchanger
6 steps in Heating:
3 for flow and 3
for return
Primary capacity: 0.08 gal/300 cm³
Secondary capacity: 0.71 gal/270 cm³

Domestic Cold Water Inlet Pipe
OD 0.55"/14 mm

DHW Sensor
Contact-type.

DHW Outlet Pipe
OD 0.55"/14 mm

Hydroblok



Air vent Kit

CH Sensor
Contact-type

Overheat Thermostat
Manual reset.
Set at 221°F/105°C

CH Return Pipe
Ø OD 0.71"/18 mm

CH Flow Pipe
Ø OD 0.71"/18 mm

Mechanical Pressure Gauge

Pump 3-speed type.

Water loop

Victoria wall-hung waterheaters

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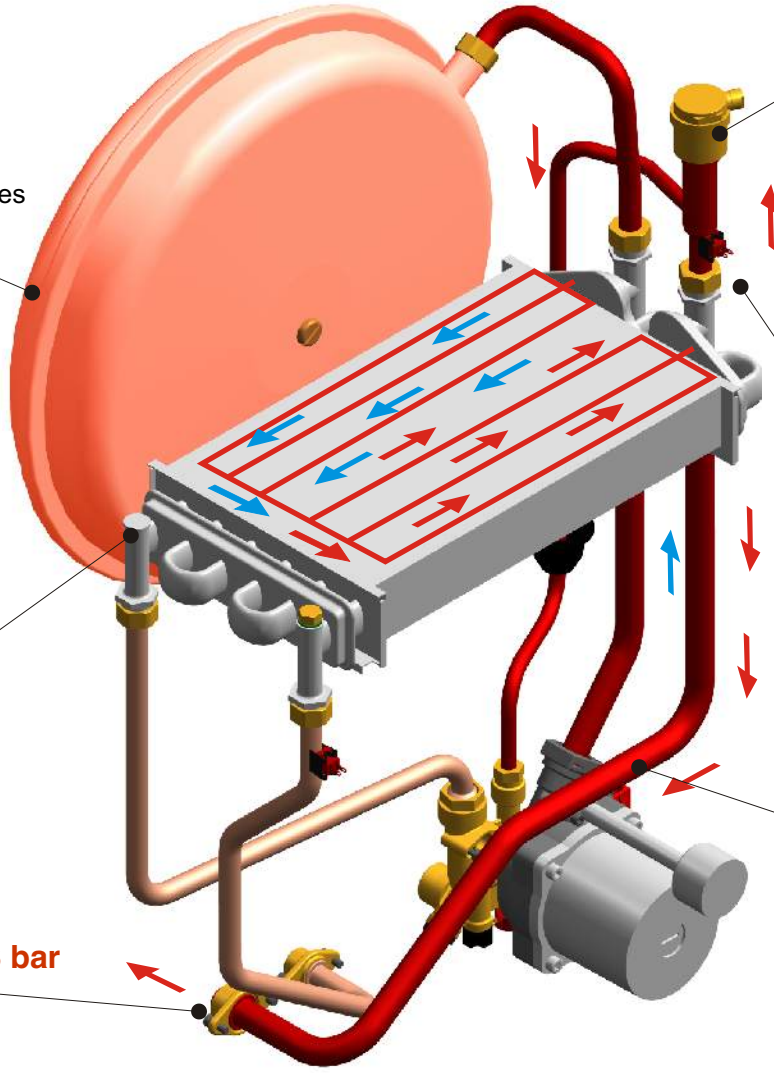
Expansion Vessel
Fill pressure: 10.88PSI/0.75 bar
Butyl diaphragm and nitrogen charge
Total/useful Capacity: 2.11gal/1.2 gal - 8 litres/4.5 litres

Heat Exchanger
6 steps in Heating:
3 for flow and 3
for return
Primary capacity: 0.08 gal/300 cm³
Secondary capacity: 0.71 gal/270 cm³

To radiators
Maximum Operating Pressure: 43.5 PSI/3 bar



Air vent Kit

CH Sensor

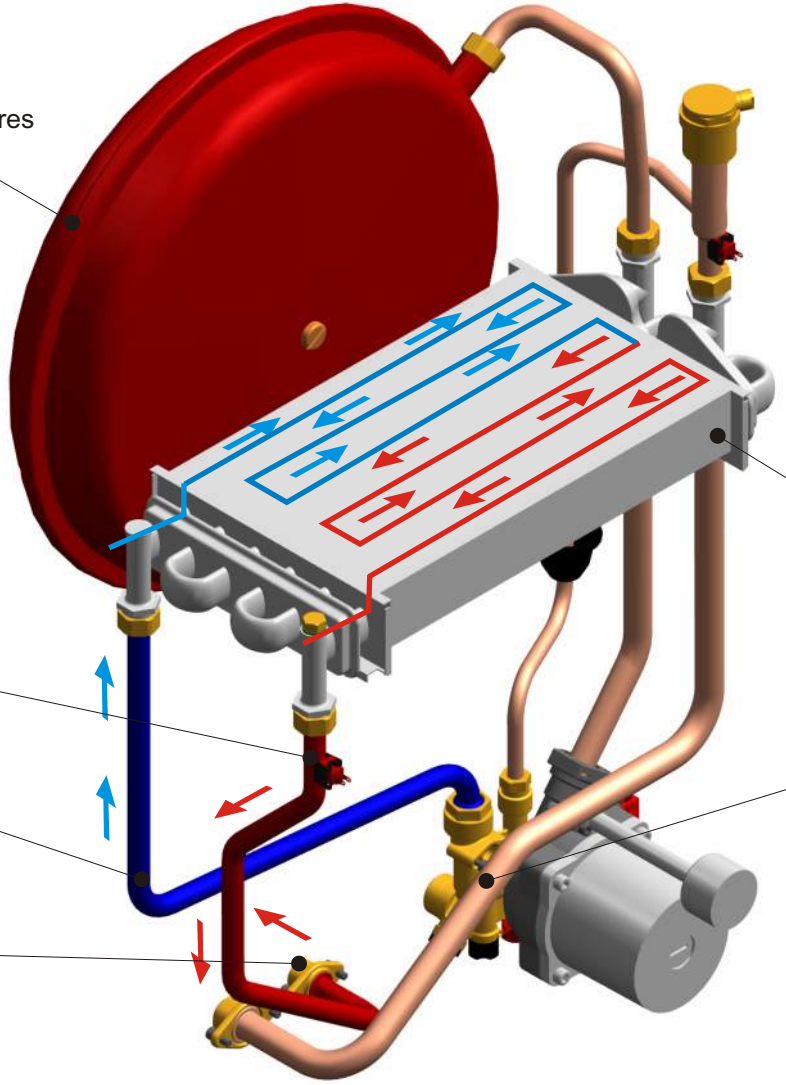
Temp.	Res. k
104°F/40°C	5.330
122°F/50°C	3.605
140°F/60°C	2.490
158°F/70°C	1.753
176°F/80°C	1.256
194°F/90°C	0.915

CH Flow Pipe
Ø OD 0.71"/18 mm

Central Heating mode operation

Maximum operating pressure: 7 bar

Expansion Vessel
Fill pressure: 10.88PSI/0.75 bar
Butyl diaphragm and nitrogen charge
Total/useful Capacity: 2.11gal/1.2 gal - 8 litres/4.5 litres



Heat Exchanger
6 Steps in DHW
Primary capacity: 0.08 gal/300 cm³
Secondary capacity: 0.71 gal/270 cm³

DHW Sensor

Temp.	Res. k
104°F/40°C	5.330
122°F/50°C	3.605
140°F/60°C	2.490

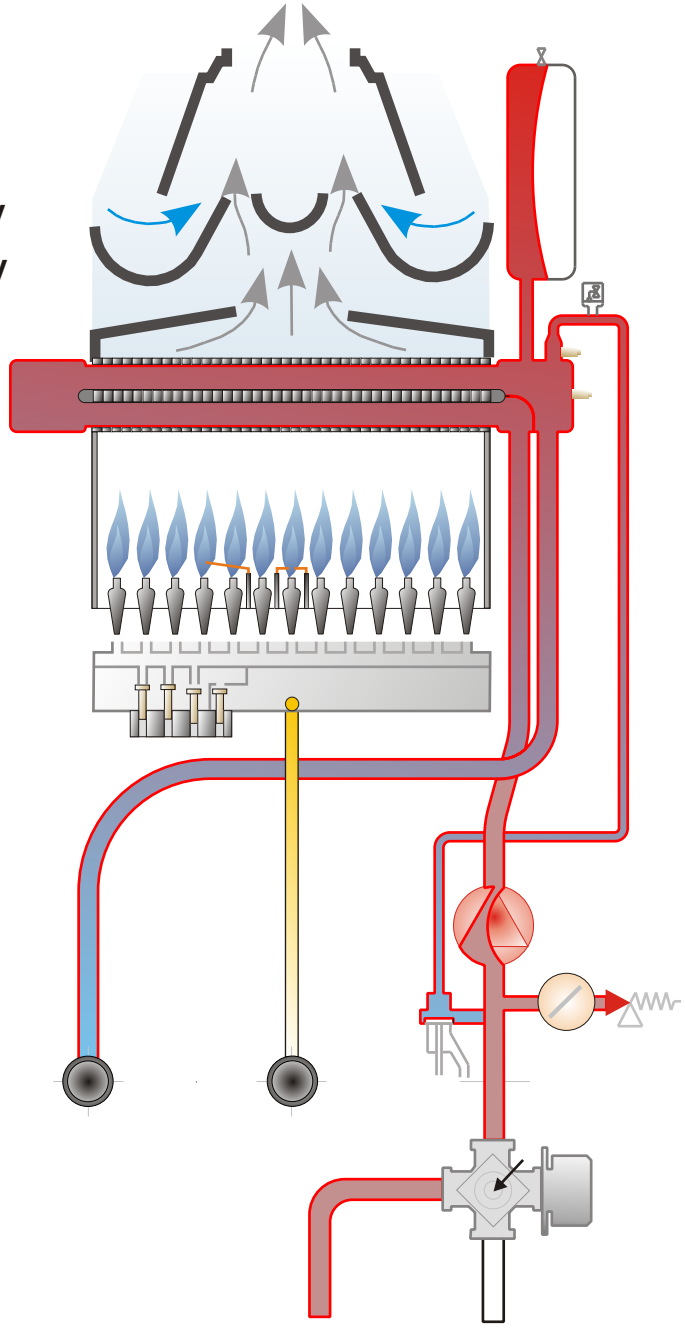
Mains Water Inlet Pipe
OD 0.55"/14 mm

Mains Water Inlet

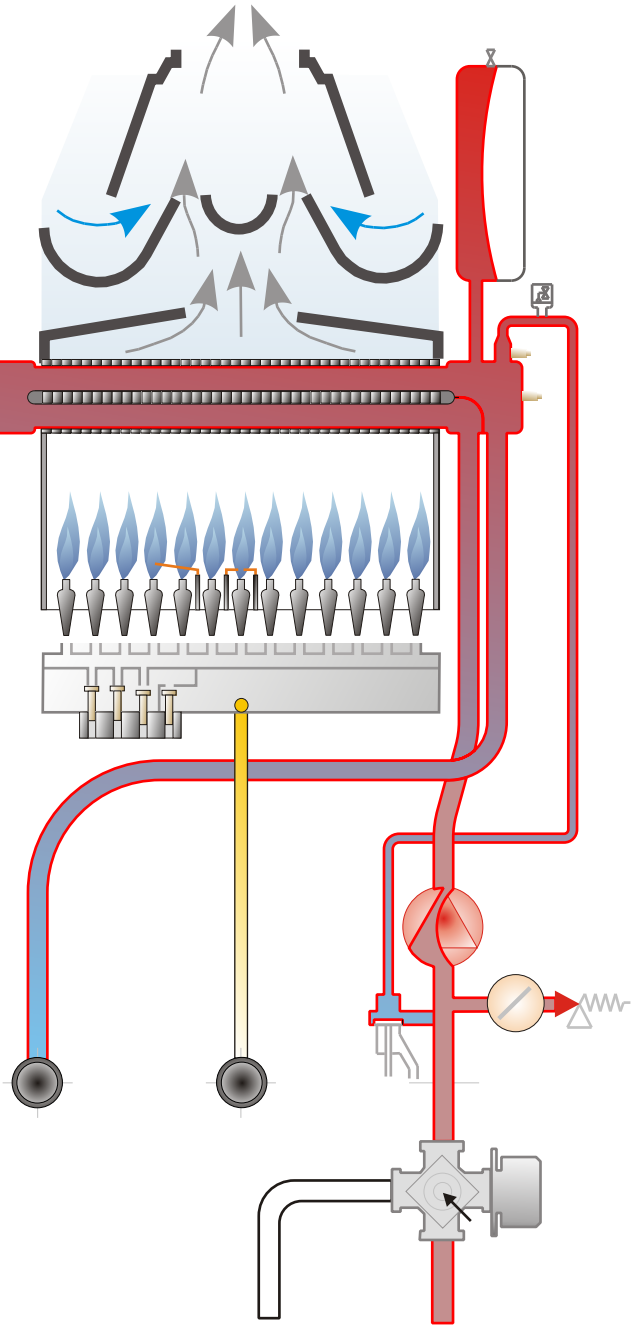
Outlet to draw-off points
OD 0.55"/14 mm

DHW mode operation

Sanitary way



Heating Way

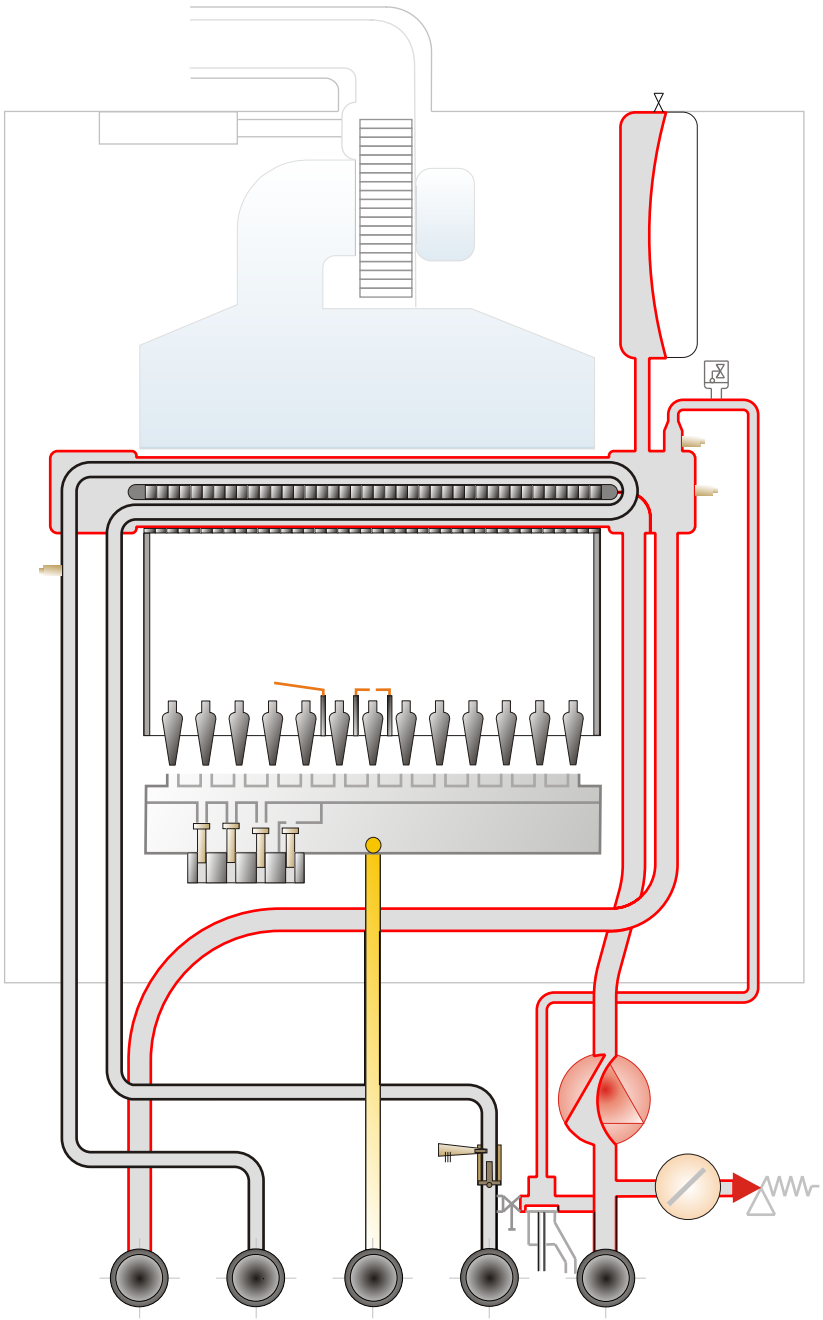


3-way valve

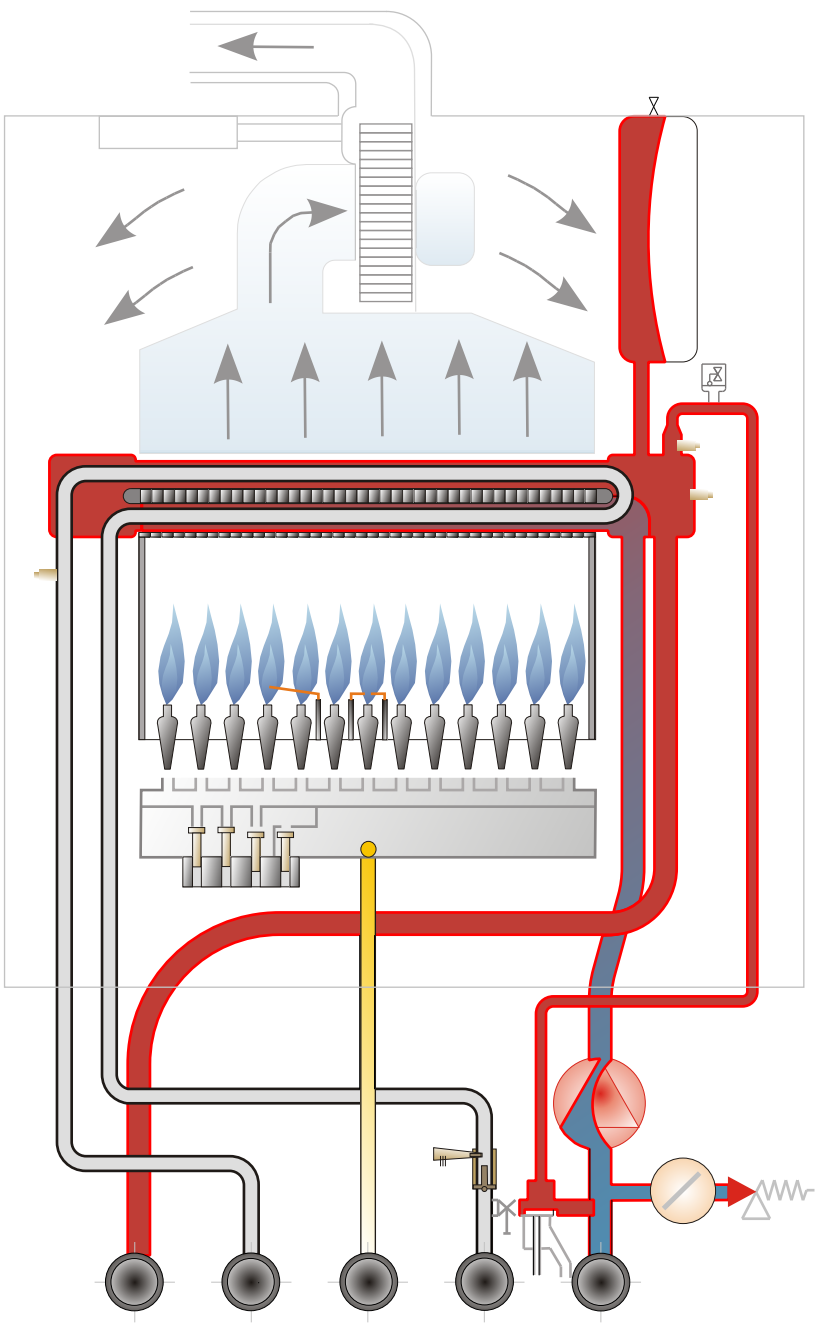
Victoria wall-hung waterheaters
Heating training centres

ROCA

Stopped way

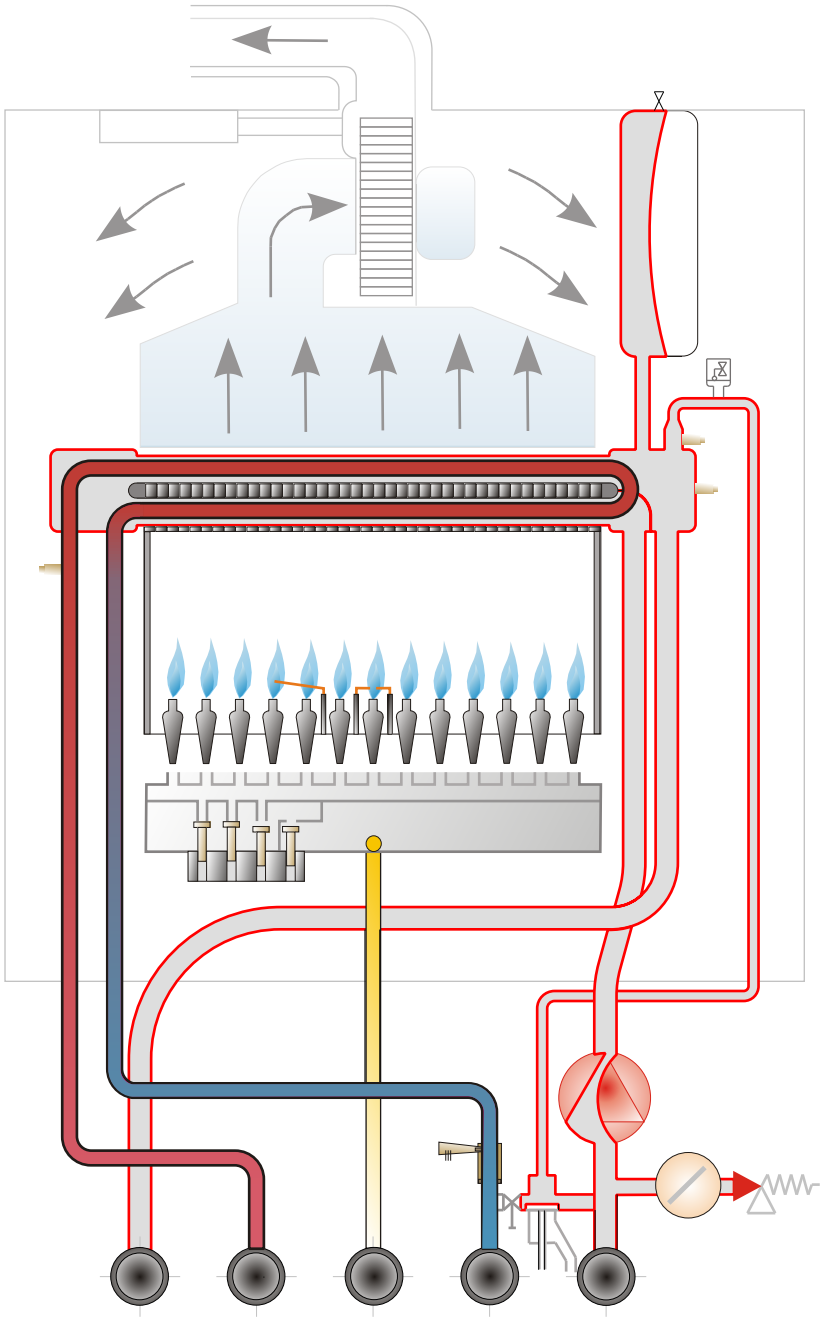


Heating Way



Outlines hydraulic Victoria 20/20 F

Sanitary way



Outlines hydraulic Victoria 20/20 F

Call for DHW from cylinder

Thermostat closes

Energized relay. Signal to PCB and pump stops (1 minute)

3-way valve. Shuts off CH and opens cylinder return (35 seconds)

Pump starts up

Burner ignition

End of call for DHW from cylinder

Thermostat opens

De-energized relay End of signal to PCB and pump stop (1 minute)

3-way valve Shuts off cylinder return and opens CH return (35 seconds)

No Heating
Pump start-up (2 minutes)

Heating Yes
Permanent pump start-up

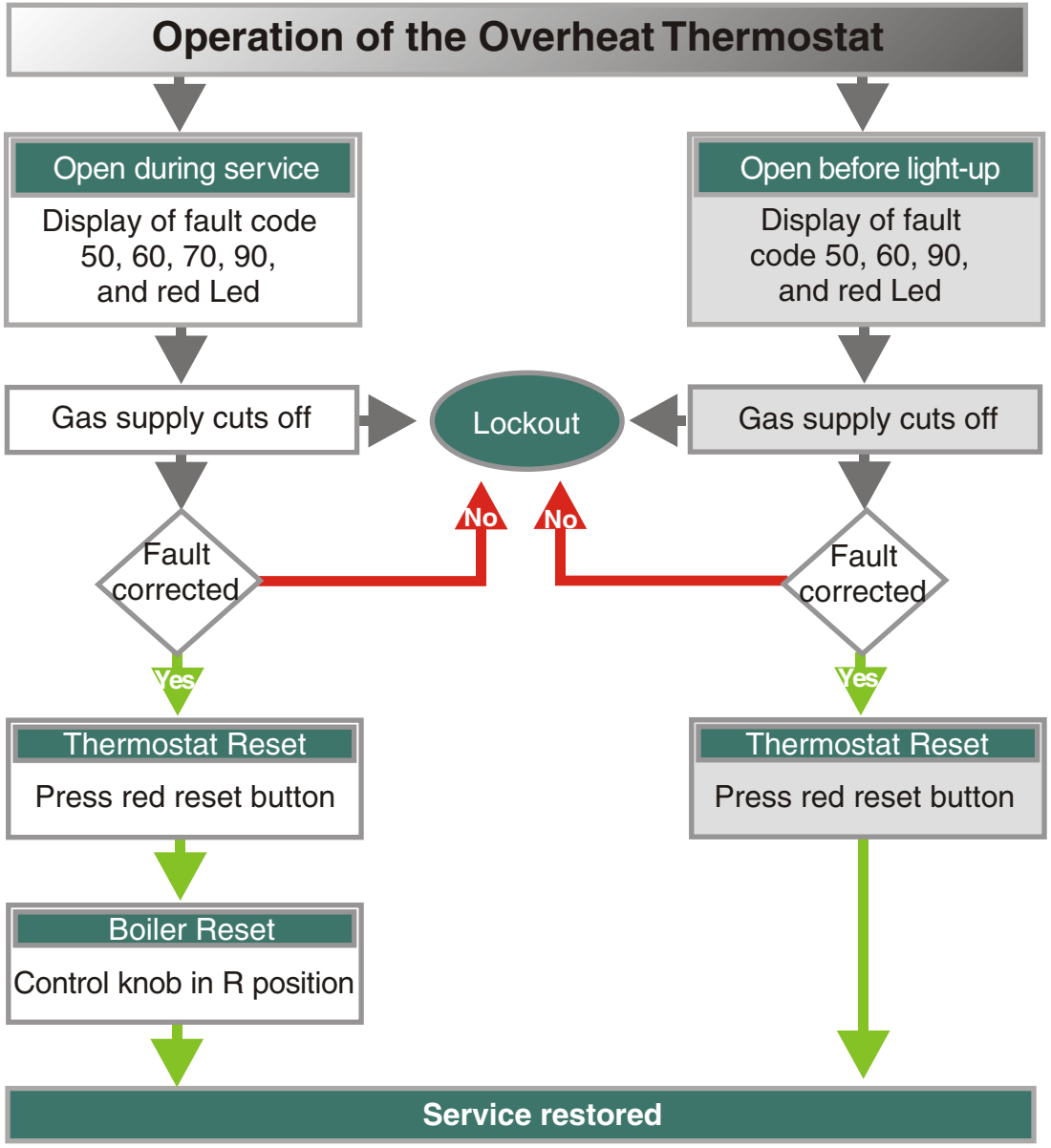
Pump shutdown

Burner ignition

Stored DHW service

Victoria wall-hung waterheaters
Heating training centres

ROCA



Overheat Thermostat

Victoria wall-hung waterheaters
Heating training centres

ROCA

Call for service (Light-up)

Spark ignition Ignition electrodes

Sadety solenoid valve opens (gas inlet)

1st solenoid valve opens (7 Th)

Attempt to light up

Lights up in less than 2 secs.

No

2nd solenoid valve opens (12 Th)

Yes

Light-up

- End of spark ignition
- Service available

Light up in less than 4 secs

Yes

No

1st solenoid valve opens (7 Th)

Light up in less than 1 sec

No

Yes

Lockout

- End of spark ignition
- Safety solenoid valve closes
- Display of fault code 60, 70, 90, and red Led

Fault corrected

Yes

No

Boiler Reset

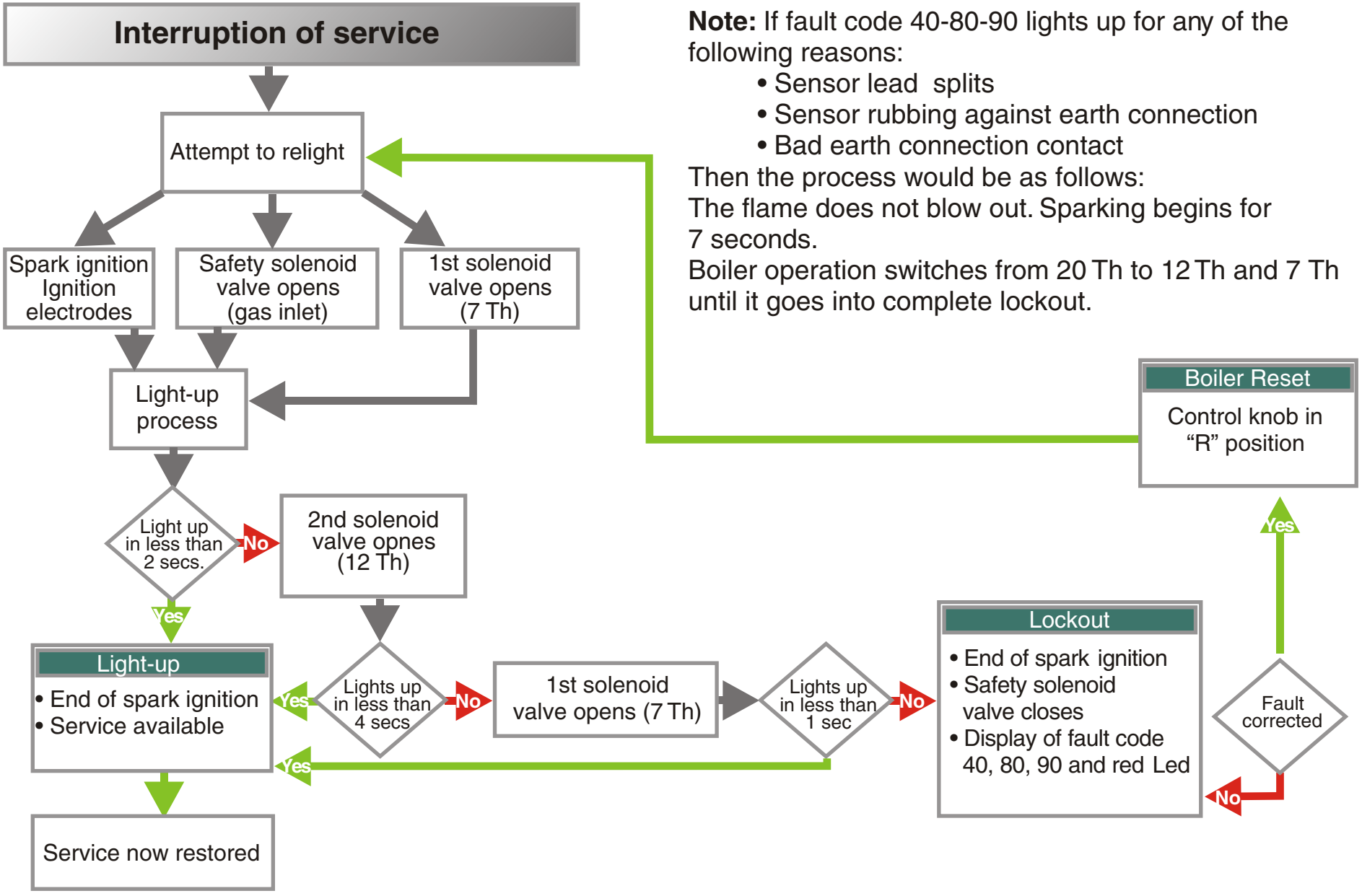
Control knob in "R" position

Service now restored

Flame safeguard rectification system (I)

Victoria wall-hung waterheaters
Heating training centres

ROCA



Note: If fault code 40-80-90 lights up for any of the following reasons:

- Sensor lead splits
- Sensor rubbing against earth connection
- Bad earth connection contact

Then the process would be as follows:
The flame does not blow out. Sparking begins for 7 seconds.
Boiler operation switches from 20 Th to 12 Th and 7 Th until it goes into complete lockout.

Flame safeguard rectification system (II)

Interruption of flue gas removal (insufficient chimney “pull”)

Pressure in flue pipe lower than (1)

(1) 12 mbar in VICTORIA 20/20 T
17 mbar in VICTORIA 20/20 F
(2) 15 mbar in VICTORIA 20/20 T
19,5 mbar in VICTORIA 20/20F

Lockout
Display of fault code 40,50,80,90 and red Led

No

Automatic pressure switch resetting

Fault corrected in less than 3 minutes

No

Locked out again
Display of fault code 60, 80, 90 and red Led

No

Fault corrected

Yes

Pre-purge
Exhaust fanwill run for 30 seconds

Exhaust fan stops for 1 second

Boiler DIP switch checking whether the pressure switch is open (pressure in flue pipe < (1)

Pressure switch open

Yes

Exhaust fan starts
Boiler DIP switch checking whether the pressure switch is closed (pressure in flue pipe > (2)

Pressure switch closed

Yes

Pressure in flue pipe is higher than (2)

Call service

No

Stop
Waiting for service call

Yes

Light-up
Service now restored

Chimney “pull” safety 20/20 F

Victoria wall-hung waterheaters

Heating training centres

ROCA

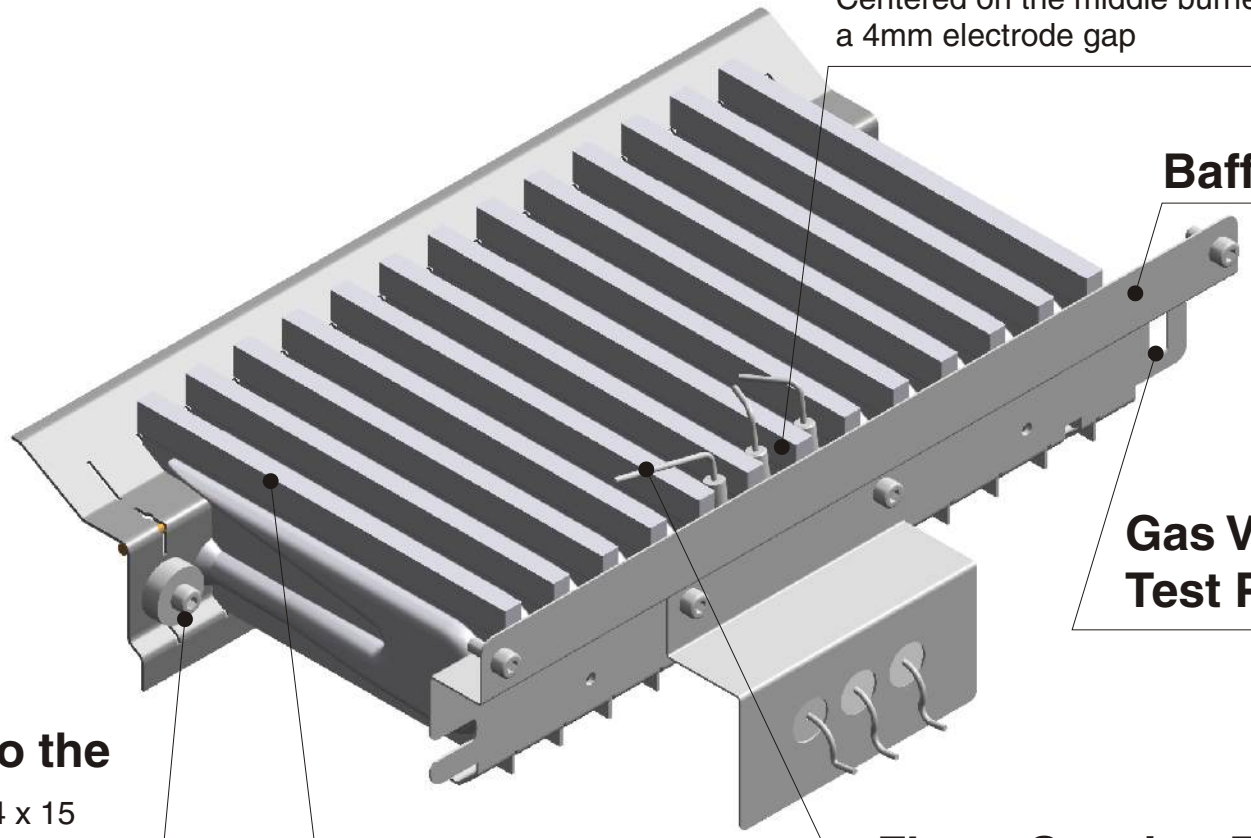
Ignition Sequence:

2 seconds at 7 Th.
4 seconds at 12 Th.
1 seconds at 7 Th

Ignition Electrodes

Centered on the middle burner 5mm higher and a 4mm electrode gap

Baffle plate



Gas Valve Pressure Test Point Bracket

Burner Fixing to the Gas Valve. Allen 4 x 15

13 becks

Material: Stainless Steel

Flame Sensing Rod

Average current: Mín: 3µA, Med: 3,6 µA, Máx: 4,1µA

Do not start the waterheater until the insulation panels have been properly assembled.
For optimum operation it is essential that these insulation panels be in good condition.

Side Insulation Panels. Material: Ceramic Fibre

Front Insulation Panels.
Material: Ceramic Fibre

Side Tabs. Fold them after fitting
Side Insulation Panels

Compact Combustion Chamber

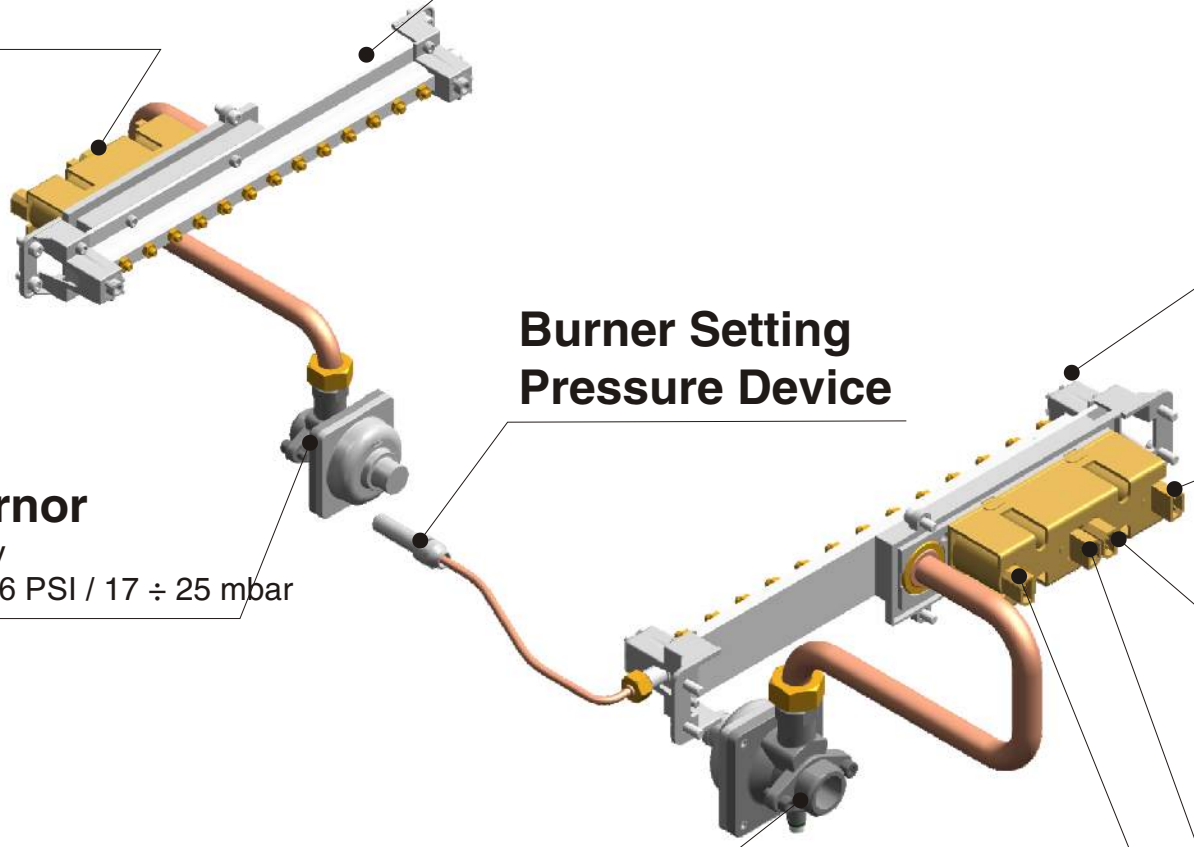
Threaded Rods for Chassis Fixing
8.58"/218 mm long x Ø 0.24"/6mm

M5 Set Nuts
For fixing the burner baffle plate

Combustion chamber

Aluminum Profile for Burner Injector Holder

Solenoid Valve Assembly



Chassis Fixing Bracket.

Burner Setting Pressure Device

27,778 Btu/7,000 kcal/h Solenoid Valve.

Gas Governor

Natural Gas only

Control Range: 0.25 ÷ 0.36 PSI / 17 ÷ 25 mbar

47,620 Btu/12,000 kcal/h Solenoid Valve.

27,778 Btu/20,000 kcal/h Solenoid Valve.

Gas Supply Pressure Test Point

G20(GN): 0.29 PSI/20 mbar. G30(GB): 0.41÷ 0.44PSI/28 ÷ 30 mbar. G31(GP): 0.54PSI/37 mbar

Safety Solenoid Valve.

Kit valve G20 and G25

Victoria wall-hung waterheaters

Heating training centres

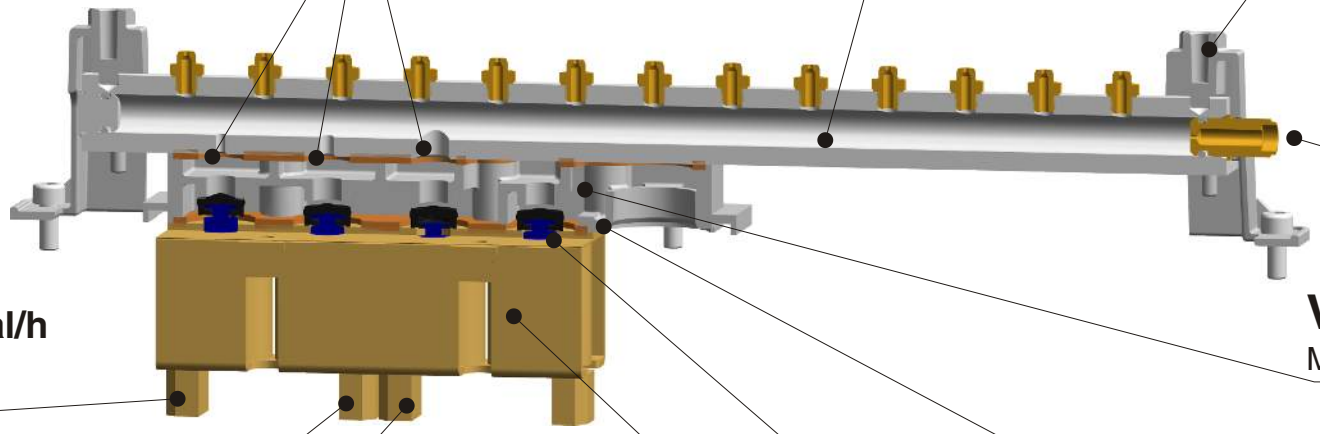
ROCA

Aluminum Profile for Burner Injector Holder

Stages of Output Bore Size

Burner Fixing.

To Pressure Test Point



27,778 Btu/7,000 kcal/h
Solenoid Valve.

Valve Gasket
Material: Cork + Nitrile

47,620 Btu/12,000 kcal/h
Solenoid Valve.

Gas Valve Body
Material: Aluminium

Solenoid Assembly Gasket
Material: Cork + Nitrile

79,366 Btu/20,000 kcal/h
Solenoid Valve.

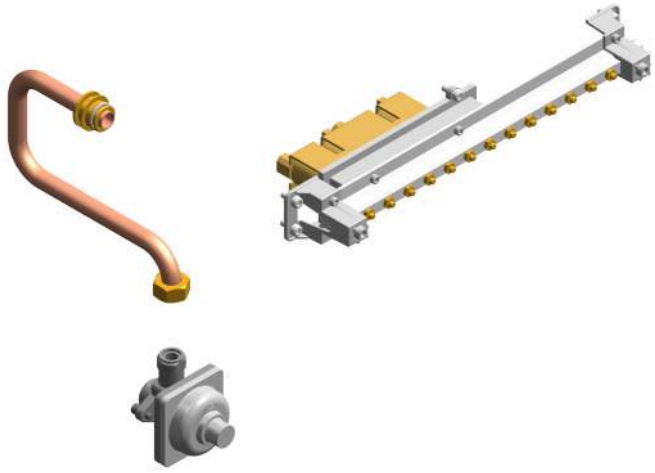
Solenoid Valve Assembly

Cross-section of gas valve

Any adjustments and/or settings must be carried out by a qualified technician

Natural Gas Kit

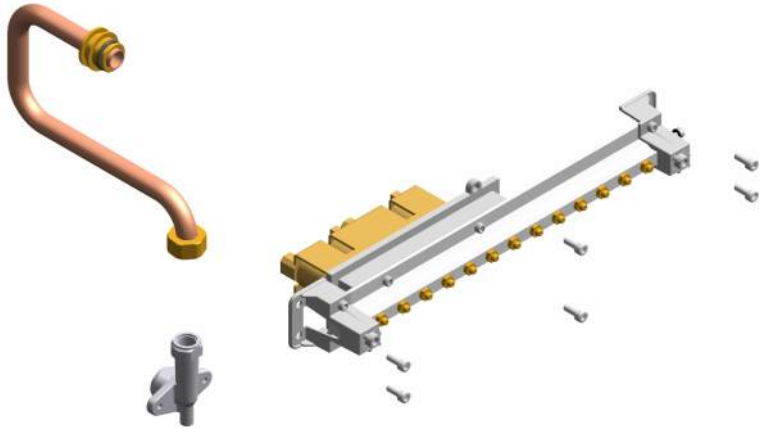
(To convert a Propane/Butane Gas waterheater into Natural Gas)



Kit G20 / G25

Propane/Butane Gas Kit

(To convert a Natural Gas waterheater into Propane/Butane Gas)



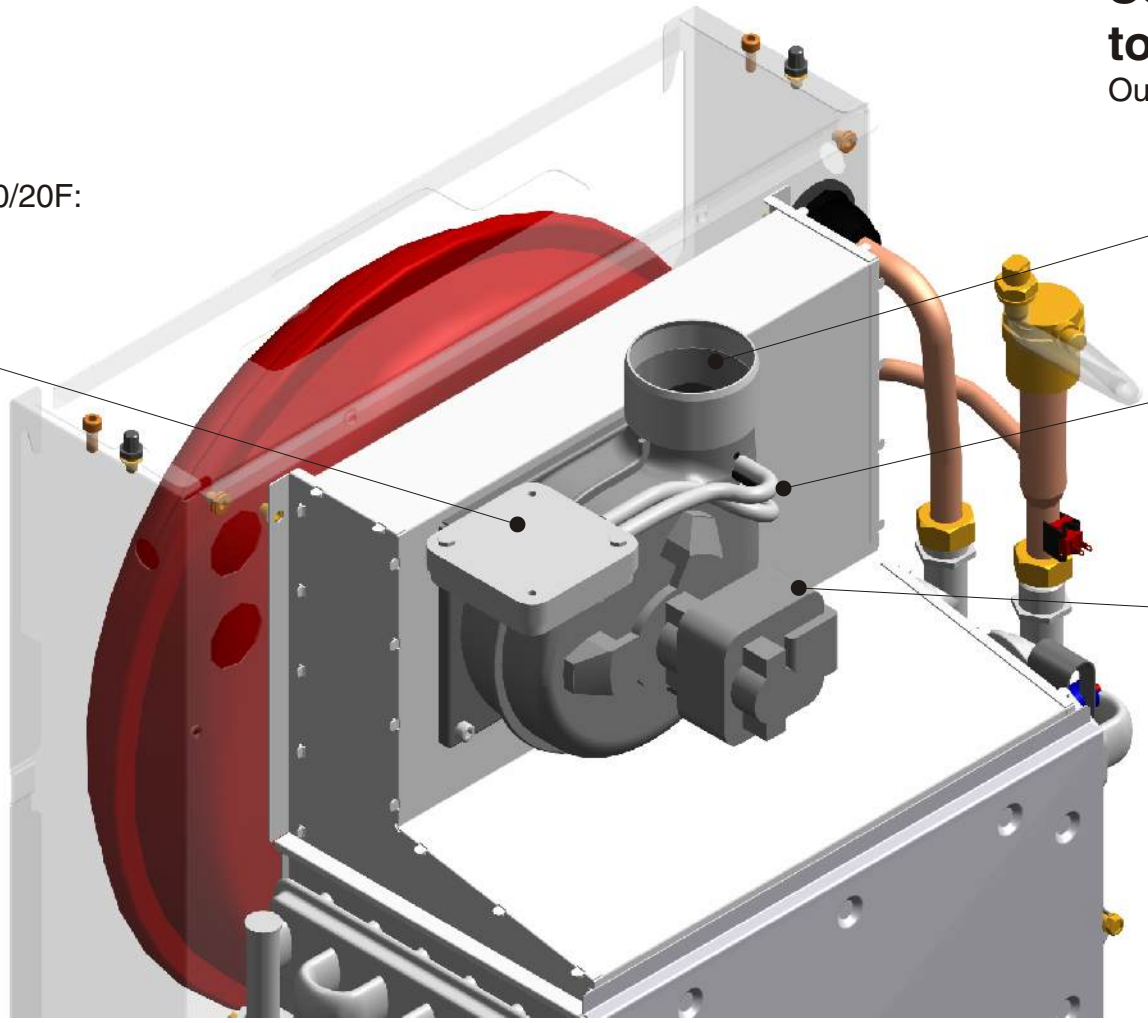
Kit G30 / G31

Socket for connection to specific flue duct

Outlet Ø 2.36"/60mm

Pressure Switch

Setting Range for VICTORIA 20/20F:
17 ÷ 19.5 mm.w.g.



Pressure Switch Connecting Pipes

Exhaust Fan

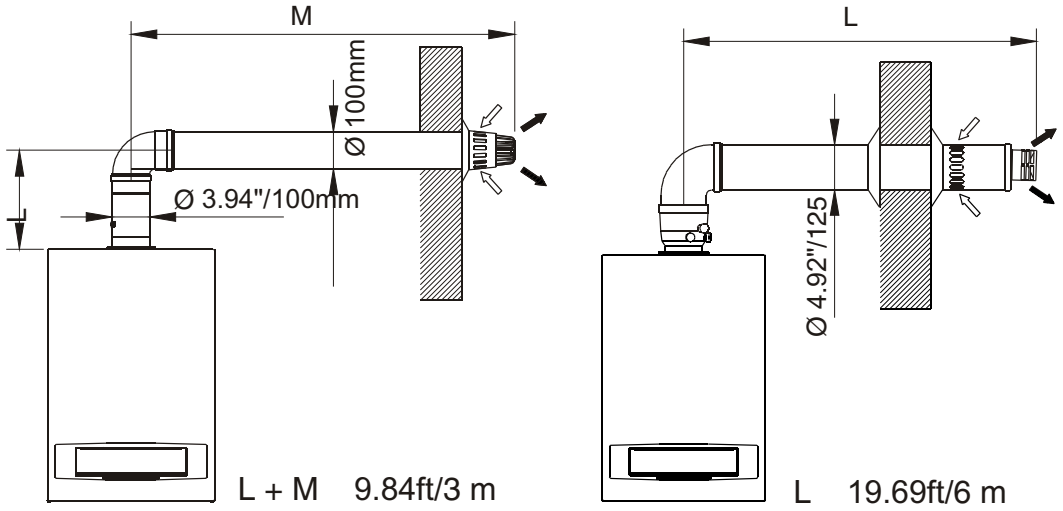
r.p.m.: 2720
Average current : 0.41A

Components of the waterheaters F

Kit 140040030-03 for F waterheaters (supplied as standard)

Flue duct kit (I)

Victoria 20/20 F (C - 12)



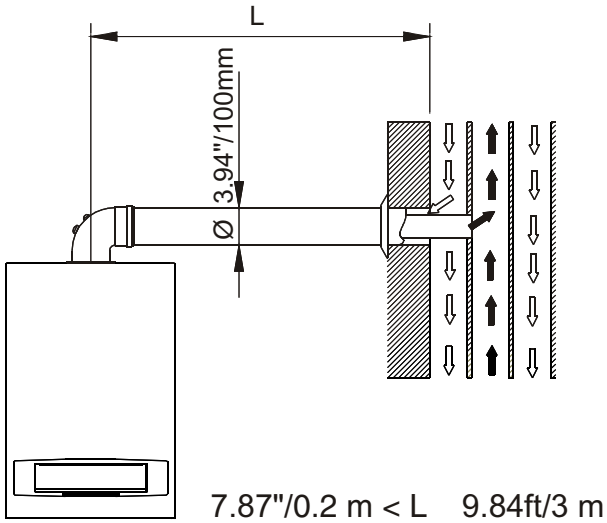
Configuration C12: Room-sealed waterheater. Horizontal concentric flue pipe. Flue gases discharged directly into the atmosphere. Exhaust fan located above the combustion chamber.

Flue duct kit (II)

Victoria wall-hung waterheaters
Heating training centres

ROCA

Victoria 20/20 F (C - 42)

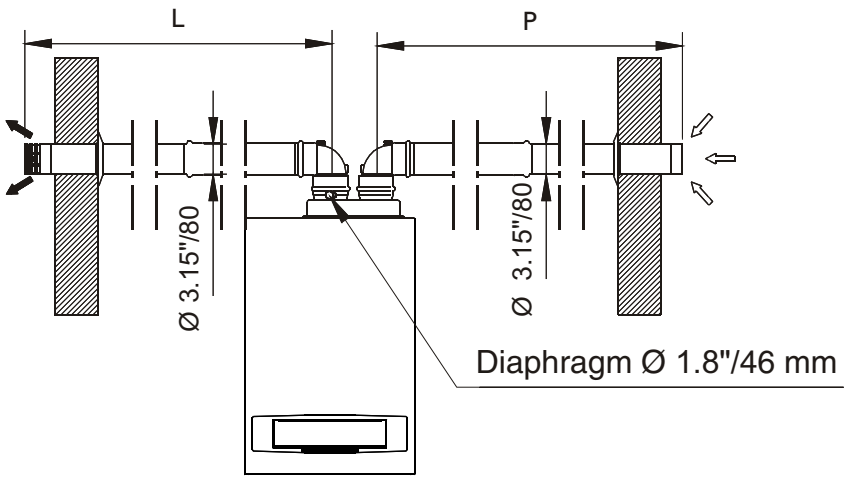


Configuration C42: Room-sealed waterheater. Horizontal concentric flue pipe connected to a twin common shunt or stack. Exhaust fan located above the combustion chamber.

140040030-03 Configurations C12 / C42: Directional, concentric horizontal flue pipe kit with Ø 60/100 damper. Quick connect coupling. 1m horizontal flue length. SUPPLIED AS STANDARD.
140040061-01 Configurations C12 / C42: Directional, concentric horizontal flue pipe kit with Ø 60/100 damper. Quick connect coupling. 1m horizontal flue length and 0.2m vertical flue length.
140040084-00 Configurations C12 / C42: Directional, concentric horizontal flue pipe kit with Ø 80/125 damper. Quick connect coupling. 1m horizontal flue length.

Flue duct kit (III)

Victoria 20/20 F (C - 82)

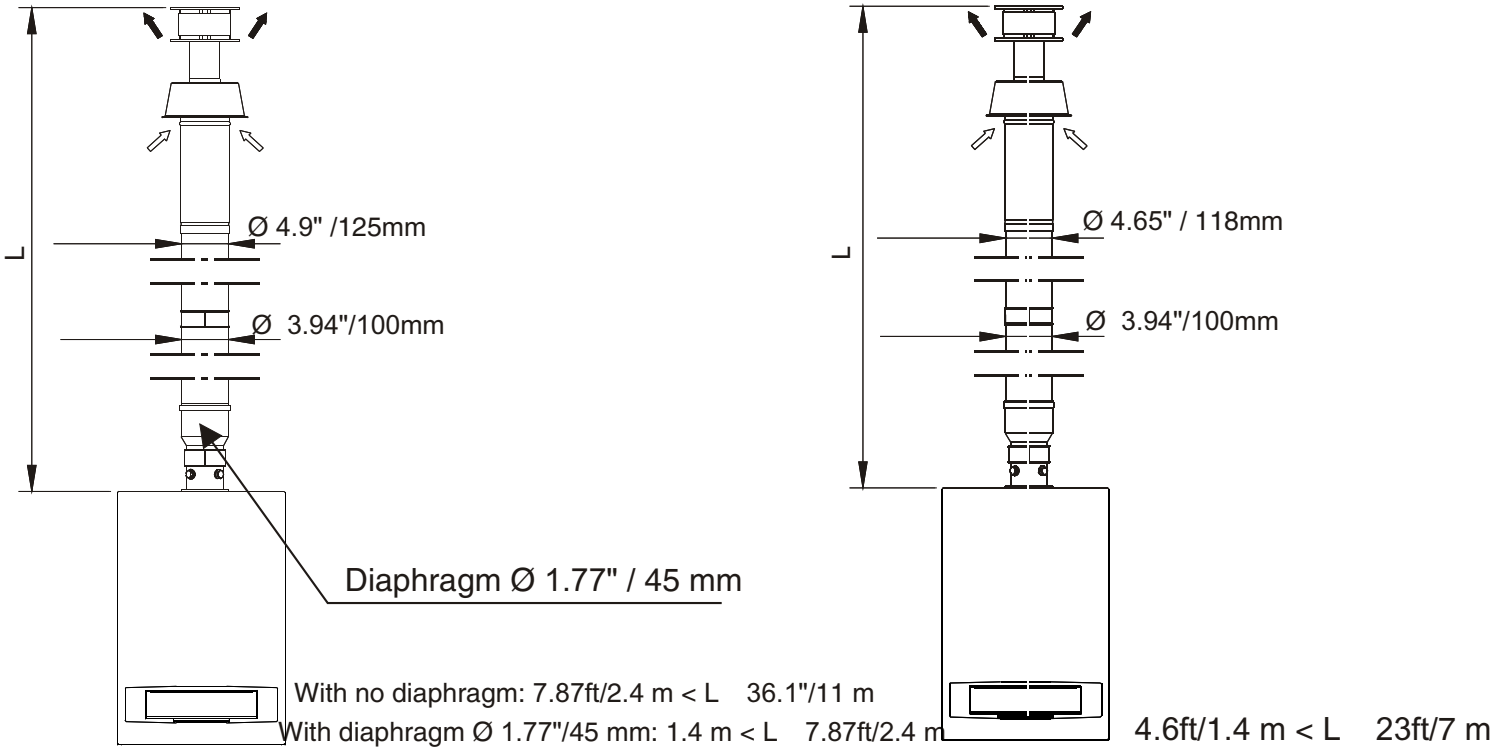


With no diaphragm: 13.12 ft/4 m < L + P 32.8 ft/10 m
With diaphragm Ø 1.8"/46 mm: L + P 13.12 ft/4 m

Configuration C82: Room-sealed waterheater. Single, horizontal flue pipes. Fresh air intake. Flue gas outlet to a standard common shunt. Exhaust fan located above the combustion chamber.

140040039-02 Configuration C82. Directional, twin-pipe horizontal flue kit with Ø 80 damper. Quick connect coupling. 1m horizontal flue length for both runs.

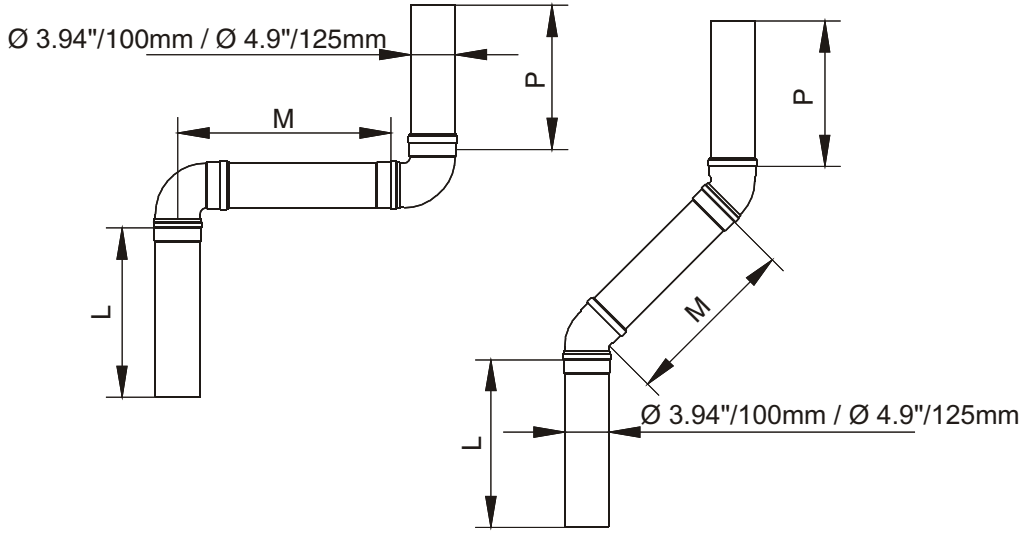
Victoria 20/20 F (C - 32)



Configuration C32: Room-sealed waterheater. Vertical concentric flue pipe. Flue gases discharged directly into the atmosphere. Exhaust fan located above the combustion chamber.

140040034-03 Configuration C32. Directional, concentric vertical flue pipe kit with Ø 60/100 damper. Quick connect coupling. 1m vertical flue length.
140040059-00 Optional vertical concentric accessory in the C32 configuration for vertical outlet to the roof.

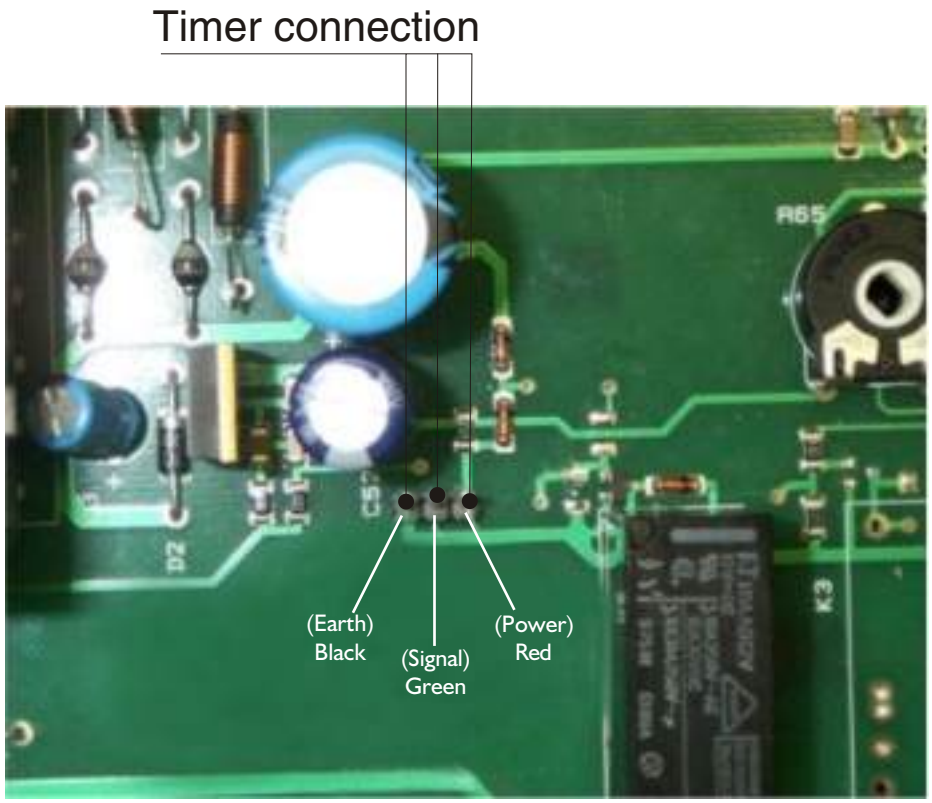
Flue duct kit (V)



Each 90° concentric elbow Ø 100 reduces allowed length 2.3ft/0.7m
Each single 90° elbow Ø 80 reduces allowed length 1.64ft/0.5m
The first waterheater outlet elbow should not be taken into account.
No reduction is necessary when using 45° elbows.

Flue duct kit (VII)

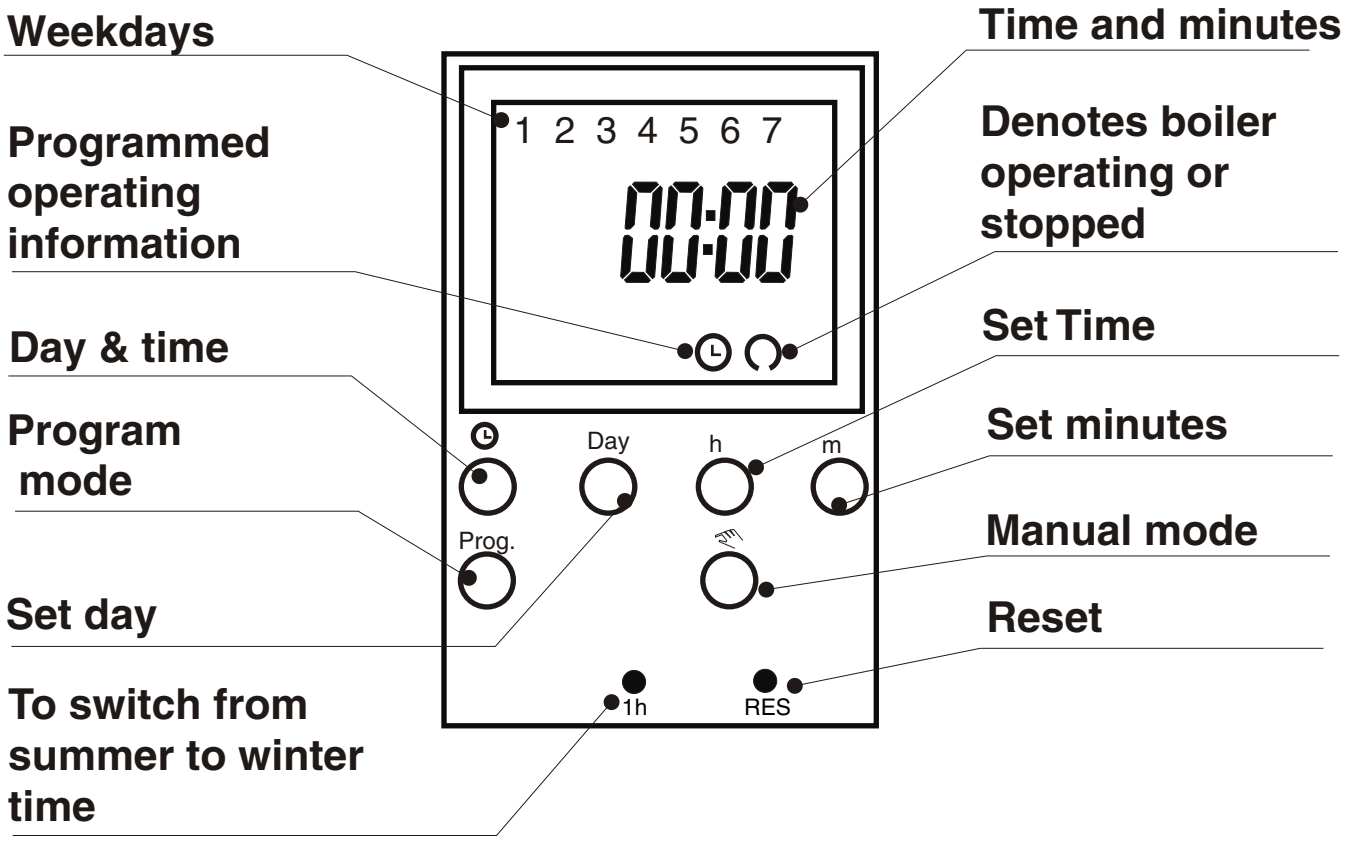
Location of the timer connection on the electronic PCB.



Timer connections

Victoria wall-hung waterheaters
Heating training centres

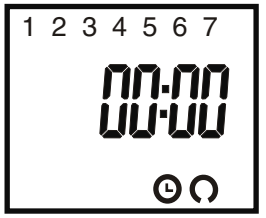
ROCA



Start-up

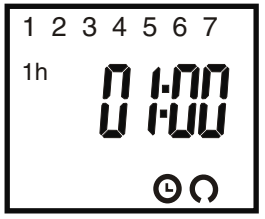
First of all, delete all stored data. To do that, press the "**RES**" key for 3 seconds. Release key and the following display will appear:

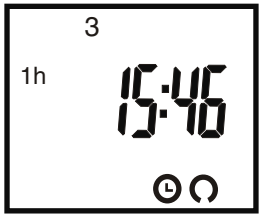
The days of the week are flashing



Setting the time

Finally, release the "🕒" key. The colon will be flashing.



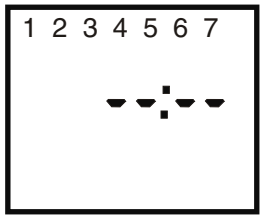


Programming instructions (I)

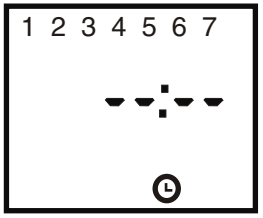
Victoria wall-hung waterheaters
Heating training centres

ROCA

Press the "Prog" key and the following screen will be displayed.

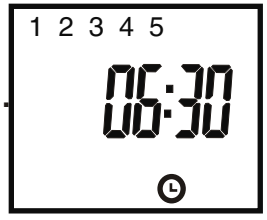


Enter the status of the day's first command by pressing "☝" and taking into account that this symbol indicates that the "Waterheater is operating". With no centre black dot, it means that the waterheater is OFF.



Enter the day's first switching command. To do that, press the "h+" "m+" keys.

Enter the required switching day(s) by pressing the "Day" key. See "Possible Day Combinations" table. The screen displayed will be similar to the one in this figure.



Possible Day Combinations are:

1 2 3 4 5 6 7 = Mo, Tu, We, Th, Fr, Sa, Su
1 2 3 4 5 6 = Mo, Tu, We, Th, Fr, Sa,
1 2 3 4 5 = Mo, Tu, We, Th, Fr,
6 7 = Sa, Su

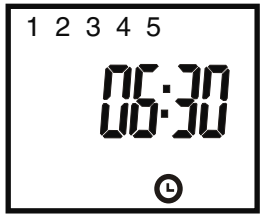
Or each individual day of the week.

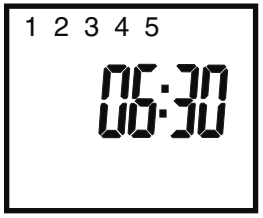
To continue programming, press the "Prog" key and repeat steps **2** to **4** as many times as necessary to complete the whole week.

Finally, after entering the last switching status required, close the programming mode by pressing the "🕒" key.
The standard screen in the operating mode will be similar to the one shown here.

Manual Operation

Press the "☝" key. The screen will be similar to the one shown in this figure.





Programming instructions (II)

Victoria wall-hung waterheaters
Heating training centres

ROCA

In the manual mode, stored data will not be altered. In addition, there are specific functions to this operating mode, which are as follows:

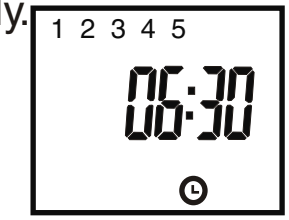
The following switching output status are possible:
○ = Advance OFF (if current switching status is ◉ =ON
◉ = Advance ON (if current switching status is ○ =OFF
Above two manually altered switching commands will be cancelled by the next automatic switching time.

[○] =Permanently OFF
[◉] =Permanently ON

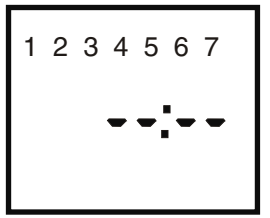
Return automatic mode is only possible by pressing the " " key.

Switching Times Display

Press the "Prog" key repeatedly. The stored switching times will be displayed in sequence. To exit the display mode, press the " " key.



Once all programmed status have been displayed, the following screen will appear again.



After the last occupied memory block, the number of free memory blocks are displayed on the screen
Fr 00 = indicates that all memory blocks are occupied.

Changing:

Press the "Prog" key several times until reaching the program to be changed. Alter the settings by following steps 2 to 6 in the "Programming" section.

Deleting:

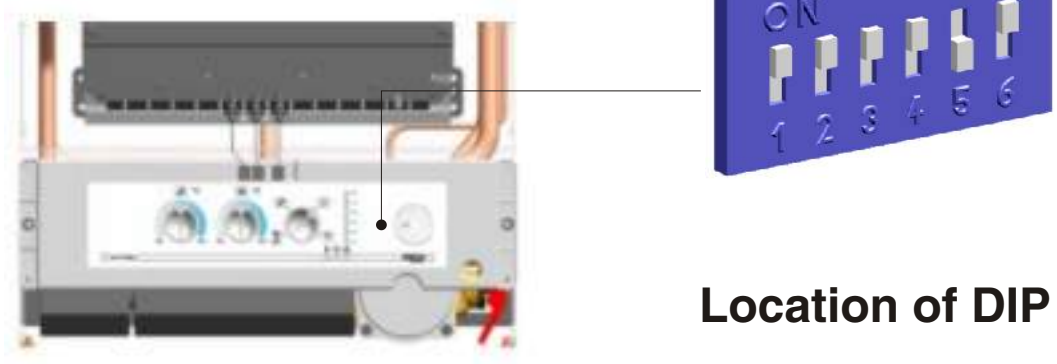
Press the"Prog" key several times until reaching the program to be deleted. Press the "h+" "m+" keys until the "--" symbol is displayed on the screen.
Keep the "Prog" key pressed for 3 seconds. This will delete all stored data. Press the " " key to exit the deleting mode.

Programming instructions (III)

The factory-set configuration is shown in red.

Access to DIP Switches

Remove the control panel fascia



Location of DIP switches on the electronic board.

Output Adjustment	SW1	SW2
79,366 Btu/20,000 kcal/h	**ON**	**ON**
47,620 Btu/12.000 kcal/h	ON	OFF
27,778 Btu/7,000 kcal/h	OFF	OFF

DIP SWITCHES 1 & 2: Central Heating Output Adjustment
DIP SWITCH 3: CH pump operation
DIP SWITCH 4: Time-delay between ON and OFF
DIP SWITCHES 5 & 6: Hysteresis Selection

Hysteresis	SW5	SW6
71.6°F/22°C	OFF	OFF
62.6°F/17°C	**OFF**	**ON**
53.6°F/12°C	ON	OFF
46.4°F/8°C	ON	ON

Circulating Pump Operation	SW3
Continuous operation	OFF
30 seconds after Room Thermostat stops	**ON**

Time-delay	SW4
Enabled (6 minutes running)	OFF
Disabled	**ON**

Control DIP switches

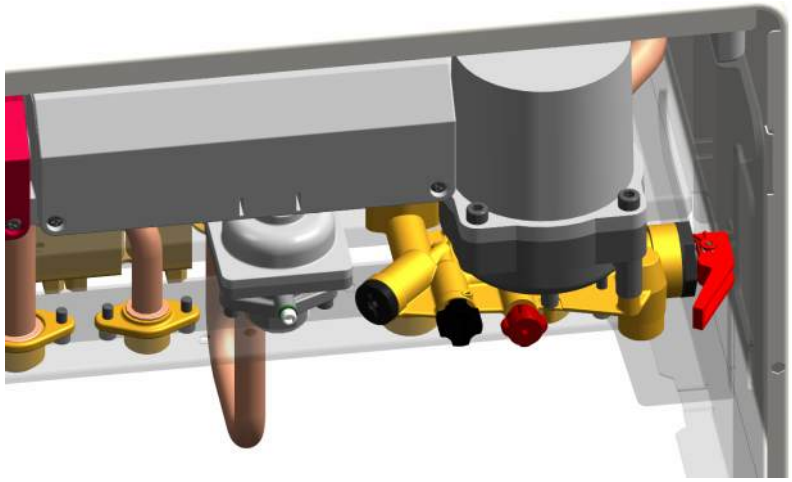
Victoria wall-hung waterheaters
Heating training centres

ROCA

Carry out the following maintenance operations at least once a year, and preferably at the beginning of the Heating season:

DHW

Clean the cold water filter
Check the DHW temperature

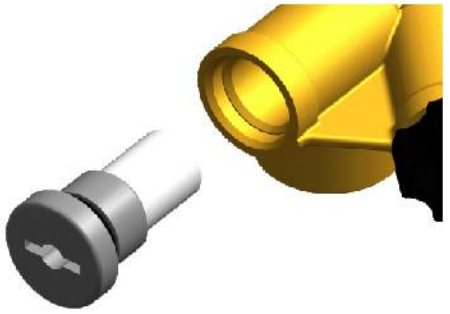


Heating

Check the system pressure
Check the waterheater water temperature
Check the pump operation
Bleed the air in the radiators and boiler
Check the room thermostat
Check the safety valve

Gas

Check the burner setting pressure
Check the input rate
Check the circuit for gas tightness
Clean the burner Venturis



Combustion and Ventilation

Check the flue duct tightness
Check the effectiveness of ventilation and air renewal system. Ensure there are no obstructions.
Conduct a flue gas analysis.

The following parameters are factory-set as shown:

Feature	Victoria 20/20 F
Output to Central Heating	79,366 Btu/20,000 kcal/h SW1 (ON) SW2 (ON)
Output to Domestic Hot Water System	79,366 Btu/20,000 kcal/h
Pump Speed Position	2ª
Pump Operation Time (*)	30 secs following stoppage of Room Stat SW3 (ON)
6-minute Time Delay	De-energized SW4 (ON)
CH Hysteresis	62.6°F/17°C SW5 (OFF) SW6 (ON)

(*) It is governed by the Room Thermostat. If no Room Thermostat has been installed, it will operate continuously.

Factory settings

DHW Sensor interrupted	40-90
CH Sensor interrupted	50-90
Faulty Flame Relay: Stuck	60-90
Faulty Safety Circuit (*)	40-60-90
Overheat Thermostat open during ignition	50-60-90
Flue Spillage Limit Thermostat open before ignition	40-50-60-90
Faulty Safety Relay (energized)	40-70-90
Faulty Safety Relay (will not close following demand) (*)	50-70-90
Burner off. Ignition time-delay too short	40-50-70-90
Burner off for lack of gas at lighting up (*)	60-70-90
Safety Relay. Ignition Time-delay too long	40-60-70-90
Overheat Thermostat open during operation (*)	50-60-70-90
Flue Gas Spillage during operation (*)	40-50-60-70-90
Safety Fuse open during operation (*)	40-80-90
Faulty Safety Relay. Lack of gas or electrical fault (*)	40-50-80-90
Pressure Switch Opening Time-delay	60-80-90

(*)Whenever these fault codes appear, reset the waterheater by turning the selector knob to the "R" position. For other codes, the waterheater will reset automatically once the fault is cleared.