

Step 6 : Option setup

IMPORTANT : Changes to settings can only take place when power has been disconnected for at least 5 seconds.

As seen in the drawing below, the control box is supplied with a 4-way DIP switch and 3 in-line ON/OFF switches.

The first 3 DIP switches sets the valve open time, once activated by the corresponding sensor. The 4th DIP switch selects if the valve can be closed before the run time is reached, by operating the sensor again.

The numbers on the switches i.e. 1,2,3 & 4 simply identify the switch number; actual time settings available are shown below.

There are also 3 in-line switches fitted to the right side of the DIP switches.

Settings:

Switch A, when set to ON selects ‘tap mode’, when set to OFF selects ‘shower mode’. The only difference between the 2 modes is the available valve open time is longer for the shower mode.

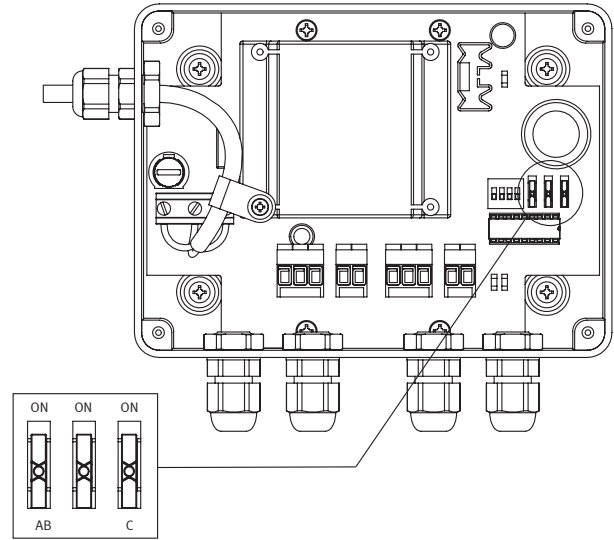
Switch B, Selects purging ON or OFF. When set to ON the valve opens for the set open time automatically if it has not been operated during the purge time. Each valve has independent purge operation, but the settings relate to both. The purge frequency is every 24 hours.

Switch C, Selects lockout on or off. In the ON position each valve can be opened 4 times in a 15-minute block. The after each 15 minute block, both valve counts are reset.

Purging Notes:

When a valve is operated, the purging timer for that valve is reset. The timer is reset from the time that the timer starts, so the purge frequency is as set minus the valve open time.

The frequency (time between purges):- 24Hrs



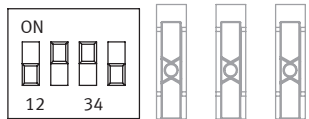
Step 7 : Time settings and basic operation

IMPORTANT : Changes to settings can only take place when power has been disconnected for at least 5 seconds.

Time settings: (First 3 DIP switches). Both the Tap mode and Shower mode have default time settings, i.e. if all of the first 3 DIP switches were set to off default settings would apply. The DIP switches add time to these default settings.

The default time for the shower mode is 30 seconds. The default time for the Tap mode is 6 seconds. This time can then be increased by using any combination of the DIP switches as shown, time in brackets is for the Tap mode.

- Switch 1 = Adds 30 Seconds (Adds 2 Seconds)
- Switch 2 = Adds 60 Seconds (Adds 4 Seconds)
- Switch 3 = Adds 60 Seconds (Adds 8 Seconds)



Any combination of switches can be set to on i.e. in the up position, the setting adds up so that the time range available is:-

Shower settings; 30 seconds (default) – 180 seconds or 3 minutes.

Tap settings; 6 seconds (default) – 20 seconds.

When all connections and settings are made and checked, replace lid and secure. After installation and setting of external equipment,

e.g. sensors, valves etc. the supply should be connected.

Wave-on / Wave-off settings

Switch 4 ON enables Wave-on / Wave-off operation which allows the valves to be waved off before the set time has finished. If not waved off manually the valves will close automatically at the set time as usual.

Power up

When all connections and settings are made and checked, replace the lid and secure.

After installation of external equipment, such as sensors and valves etc, the supply should be connected.

Operation

When the control box is powered any connected valves will be opened for 2 seconds, the valves will close and after a short period normal operation will begin.

The time period between the valves opening and normal operation will depend on the set time, therefore this could be up to 20 seconds.

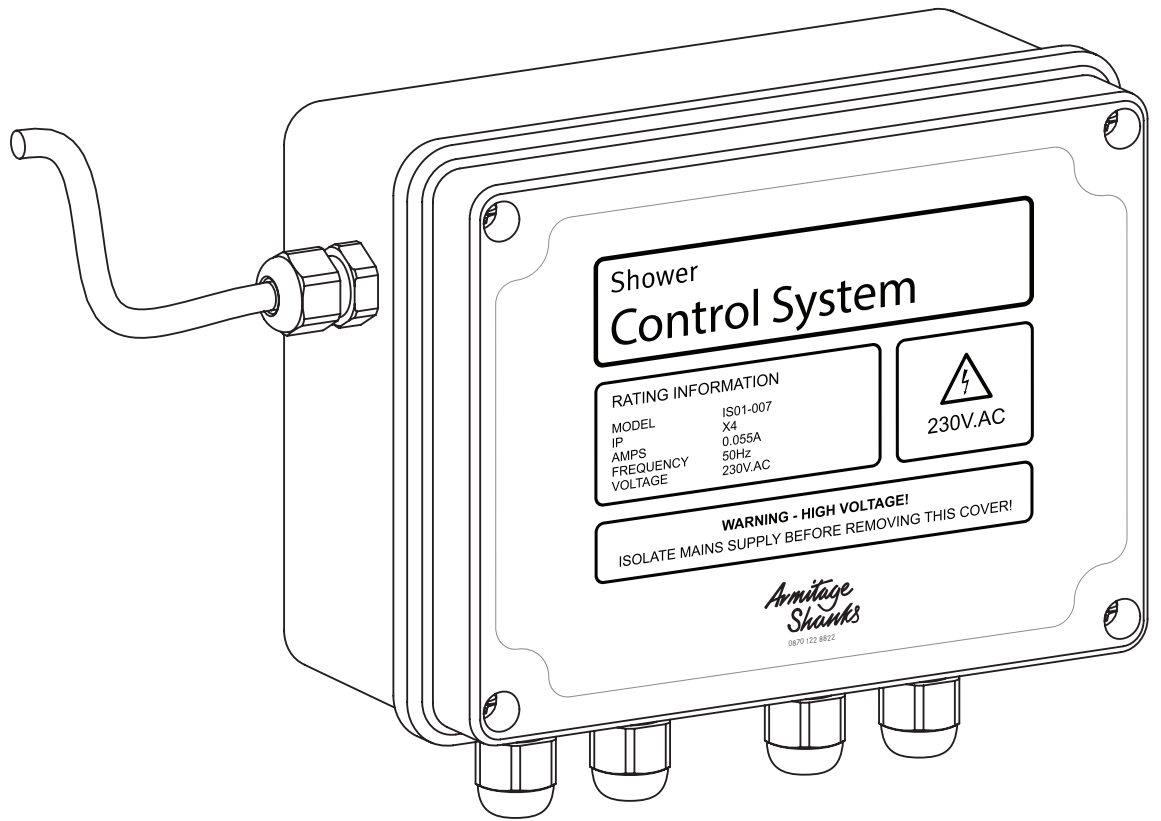
When a sensor is operated the corresponding valve will open for the set time, if DIP switch 4 has been set to on, the valve can be closed before the set time by operating the sensor a second time.

Each off the two channels operates independently, but both use the same settings.

Armitage
Shanks

Sentry21 Shower Control System
Installation & Operating Instructions

S331001
S331101
S331201
S331301



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Step 1 : Safety First

These instructions relate to the use of the Shower Control System only, any external or 'add-on' parts will be supplied with separate instructions.

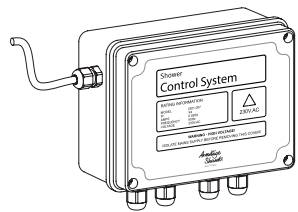
It is recommended that the electrical part of the installation be carried out by a qualified electrician in accordance with the latest electrical regulations. It is also recommended that any plumbing is carried out by a qualified plumber.

IMPORTANT : Please read these instructions carefully and follow each stage in order!

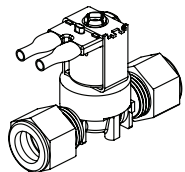


Step 2 : Kit Contents

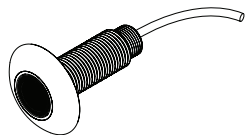
Your kit will include the following parts*:



Control box



Solenoid valve (x1 or x2)



Sensor (x1 or x2)

*Not to scale

Step 3 : Typical installation

The control box should be located in a dry location and not exposed to dirt, dust or damp. The unit should be accessible when required, but not within easy reach of unauthorised persons.

It will be necessary to make adjustments and service the control box after installation, and in the future. Secure access areas and duct spaces are recommended.

The control box is not designed for direct surface mounting into washroom areas. Never open the cover with the supply live.

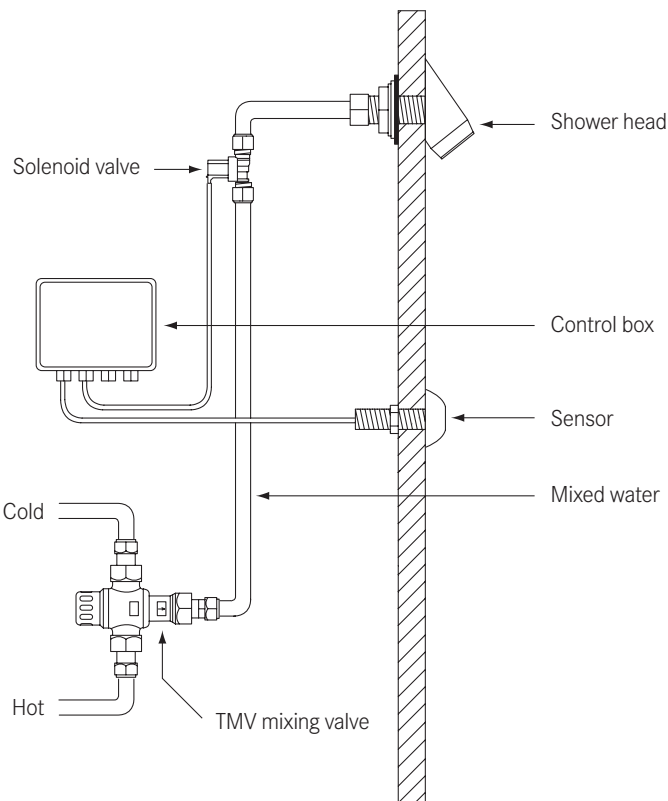
The routes that cables will take when connecting external equipment to the control box should also be planned at this stage.

The shower control system is typically used with a high security shower head.

Important: Thermostatic mixing valve

It is recommended that hot water is supplied through an approved TMV3 thermostatic mixing valve to prevent scalding (sold separately).

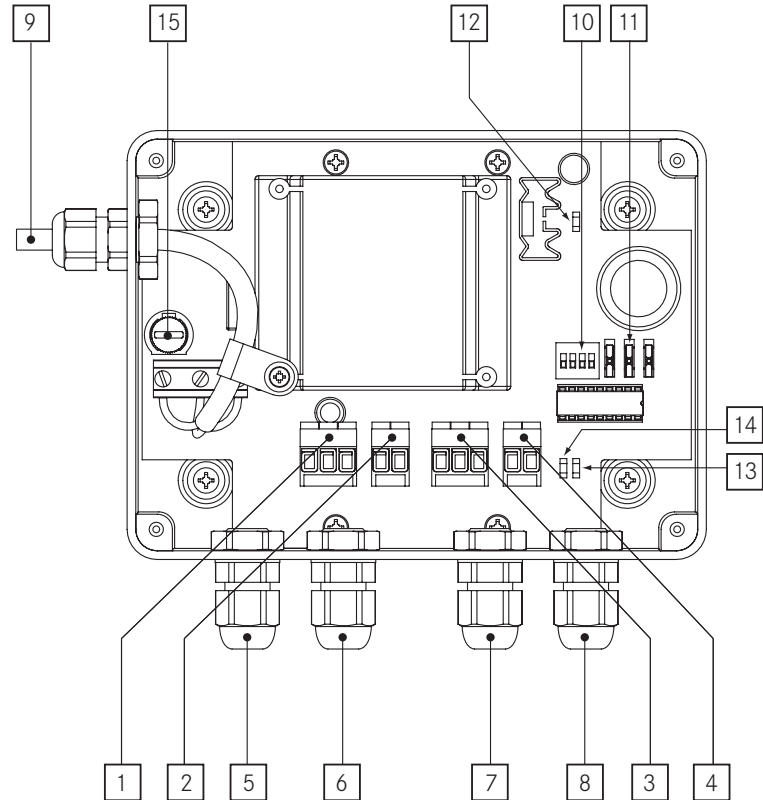
IMPORTANT : It is recommended that hot water is supplied through an approved TMV3 thermostatic mixing valve (sold separately), in order to prevent scalding.



Step 4 : Board layout

- 1 Input connection - Sensor 1
- 2 Output connection - Valve 1
- 3 Input connection - Sensor 2
- 4 Output connection - Valve 2
- 5 Cable entry - Sensor 1
- 6 Cable entry - Valve 1
- 7 Cable entry - Sensor 2
- 8 Cable entry - Valve 2
- 9 Mains supply
- 10 Time setting switches
- 11 Option switches
- 12 LED 1 - For engineers / testing only
- 13 LED 2 - For engineers / testing only
- 14 LED 3 - For engineers / testing only
- 15 Fuse (replace with exact same type)

DO NOT extend cables
DO NOT leave badly fitted cables
DO NOT interfere with the mains flex
DO check all cables and connections
DO ask for advice if / when necessary



Step 5 : Fixing & wiring

The box should be securely fixed in a suitable location in a horizontal orientation, so that the front label is read correctly.

Remove lid to expose four fixing locations around the edge of the enclosure (see Fig. 3). These areas allow the fastening of the unit without removing the printed circuit board.

Drill through these marked areas away from the wall to avoid dust entering the control box, then hold control box in position against the wall and mark holes with a pencil. Remove box, drill and plug marked areas and fix the control unit with suitable fixings.

Connect the mains supply lead to a 230V ac supply via a fused spur, the fuse rating should be 3 Amps. The mains supply should NOT be initiated until all external equipment has been installed and wired.

Always read instructions supplied with external components and ensure that only the supplied equipment is connected to the control box.

Cables should enter the enclosure through the cable glands. Keep all connections tidy and do not allow cable to finish or hang in the transformer area. .

It is recommended that each cable is fed through the relative cable gland into the enclosure; the cable can then be pulled out towards the fitter to allow the connector plugs to be fitted.

The connector plugs can be disconnected from the mating sockets when wiring external equipment, double check positions with the plug orientations as they only fit one way!

When each plug has been wired the cables can be pulled back through the cable glands, and the plug re-connected to the corresponding socket. Cables should not be left to torte or slack.

When all connections are made and checked, replace the lid and secure.

