

Battery model

Installation instructions

Hot water supply must be **mains pressure**, or equal to the cold water pressure.

Flat wall surface must extend at least 40mm above the centre of the shower outlet.

The solenoid valve will cut off the water at the completion of the shower cycle. Many users will therefore not turn the taps off. This will result in the riser pipe between the taps and shower outlet being under pressure for the first time and for long periods.

The integrity of that plumbing should have been checked on installation and it is unlikely to be a problem. However, we accept no responsibility for leaking joints hidden in the wall.

To install the timer you will need 6 Alkaline AA batteries, a hacksaw, a file and a roll of white Teflon thread sealing tape (available at any hardware or plumbing store).

Also a drill and 6.5 mm masonry bit if anchoring is required.

Preparation

- Remove the existing shower and the domed flange plate behind it. A little 'panel beating' to restore the convex surface of the dome may be in order!
- Carefully clean out the thread including old sealing tape, mortar, grout, etc. right back to the finished wall surface or even further if possible. Thread must be clean and in good condition. A wire brush is handy for this purpose.
- Water and electronics are not compatible so it is important that the control box is firmly against a flat wall surface on all sides. In some bathrooms, where the wall is tiled, the tiled surface is less than **80 mm above the centre of the shower water outlet pipe**. You must ensure that area is flat for the top of the box to seal.

An off-cut of tile with a dob or two of silicon adhesive will suffice and the box will hold it in place. There are drain holes in the bottom and breather holes in the top of the box. They prevent condensation within the box and they should not be sealed.

• In order for the box to be firm against the wall, the shower outlet pipe must not extend more than 10 mm from the finished wall surface (tiles?). In most cases you will need to cut and de-burr that pipe using a hacksaw and file.

To assist in cutting the pipe square and avoid cutting it too short, we suggest that you cut a round hole about 25 mm in diameter in a flat board which is 10 mm thick. Place the hole over the outlet pipe and then cut anti-clockwise around the pipe. File the end flat and slightly bevel the outer edge. Remove any loose brass inside the pipe then turn on the water to flush it out.

To install solenoid valve

- Without thread sealing tape, screw the valve fully on by hand and note the position of the "coil" (black plastic) part of the valve. About **five full turns** should put the coil at the **6 o'clock position**. The end of the valve must be flush with the wall surface or deeper or the box will not touch that surface.
- Trial fit the box over the solenoid valve and check that it is firmly against the wall on all sides. Ensure that wires are not caught under the mounting lugs. If the box is not against the wall, try for another full turn on the valve but do not use a spanner. More than hand tight will risk breaking the valve. If that fails, the pipe must be more than 10 mm from the finished wall surface.
- Unscrew the valve, counting the number of turns until it comes off the pipe.
- Apply thread sealing tape clockwise tightly around the outlet pipe. 6 turns of white teflon tape is not too much.
- Screw the valve on, counting the same number of turns achieved in the trial fitting. Do not go past the 6 O'Clock position or the box cannot be fitted vertically. You should be able to turn the valve by hand most of the way. If it is too firm, you risk breaking the valve.

YOU WILL CRACK THE VALVE IF IT IS NOT INSTALLED CORRECTLY. PLEASE READ THE MESSAGE AT THE BOITTOM OF THE LAST PAGE.

To finish the installation

- Turn on the cold tap and inspect around the valve for any sign of a leak. To be sure, leave the tap turned on and check for moisture later.
- Now is the time to mark the wall for the screw to secure the box if that is intended. It is not essential but be aware that, if the box is not screwed to the wall, the settings can easily be changed by removing the shower. Drill a **3 mm** hole in the wall for the screw or if the wall is masonry or tile, use a **6.5 mm masonry bit for the** green star plug.

Do not use percussion when drilling a tile or it will crack. Beware of water pipes when drilling into the wall. It is unlikely there will be a pipe in this location because the pipe comes from the taps to the shower. However, if in doubt, do not drill.

After installation it is necessary to remove the shower in order to re-program the timer so please consider the options carefully and program before installation.

Refer to the table of settings below and apply the desired settings to the 'dipswitches' on the right side of the electronic circuit board. (See below)

Note the ON position marked on the dipswitch and the numbers 1 to 8.

To select the shower time and the waiting time between showers, push ON the appropriate white switches as indicated below. Set all others to OFF.

To program the timer

The 2 'DIP' switches allows the Shower timer to be programmed the way you need.

The photo below shows settings for a 5 minute shower and 1 minute wait time.

Shower Time

DIP switch # >	1	2	3	4
1 minute	ON	off	off	off
2 minute	off	ON	off	off
3 minute	ON	ON	off	off
4 minute	off	off	ON	off
5 minute	ON	off	ON	off
6 minute	off	ON	ON	off
7 minute	ON	ON	ON	off
8 minute	off	off	off	ON
9 minute	ON	off	off	ON
10 minute	off	ON	off	ON
11 minute	ON	ON	off	ON
12 minute	off	off	ON	ON
13 minute	ON	off	ON	ON
14 minute	off	ON	ON	ON
15 minute	ON	ON	ON	ON

Wait Time

DIP switch # >	1	2	3
0 seconds	off	off	off
15 secs	ON	off	off
30 secs	off	ON	off
1 minute	ON	ON	off
2 minute	off	off	ON
5 minute	ON	off	ON
10 minute	off	ON	ON
30 minute	ON	ON	ON

DIP Switch 4 on this side turns the Beeper ON and OFF.



Install the Box

• First fit the 6 AA Alkaline cells to the battery holder ensuring that the flat end of each cell is against the spring. The middle cells should be fitted last.

We highly recommend that good quality Alkaline batteries be used (e.g., Duracell). Lithium batteries are not suitable due to inability to provide the required current pulse.

- Double check that there is no sign of water weeping from the valve inlet. The interior of the box <u>must</u> be dry. Turn taps off.
- Plug the two wire leads firmly onto the solenoid valve. Match the white wire to the lug with the white dot.
- Slip the box over the output nipple of the solenoid valve.

Ensure that the wiring is not obstructed within the box. It must be between the mounting pegs but not between the flutes.

- The solenoid valve will locate the box vertically. Press the box against the wall.
- Before securing the box, press the Start button and with a tap open water should come out of the valve. Turn taps off but allow the timer to run through the cycle, observe the light colour changes, hear the beeper, check the shower time and waiting time.
- When you are satisfied, secure the box and fit the shower.
- Screw the box to the wall but do not fit that cap until you are satisfied that everything is working correctly and the settings are satisfactory. Perhaps leave it for a week or so?

Fit the Shower Timer

- Fit the "domed" flange. Screw the shower on without sealing tape until it just touches the domed flange. Count the number of turns when you remove the shower.
- Tape the output nipple abundantly and screw the shower on again the same number of turns. Keep turning until the shower is in the correct position but do not fully flatten the flange. Just a little warning here. <u>Too tight and you will break the valve</u>.

If the shower is too loose, remove and fit more sealing tape.

• Hold the box firmly to keep it vertical while screwing the shower on and off.

CAUTIONS

As we all know, electronics and water are not compatible!

Do not allow any water to splash, drip, drop or come in contact with the printed circuit board. While it may survive the occasional drop, continual contact with water will destroy the electronics and will not be covered by our warranty.

The flat finished surface of the wall must extend at least 40mm above the centre of the water outlet. That may require a few extra tiles.

Note that the holes on the top and bottom are vents, included to allow air flow. They prevent excess condensation and do help keep the electronics dry. Do not block these vents.

More on the solenoid.

Please do read the installation instructions carefully. The solenoid valve is manufactured from glass reinforced nylon. It is not as strong as brass and should be treated with care.

When screwing the shower outlet on, do not flatten the domed flange.

A trial fit without thread tape will indicate the number of turns required to put the shower in the "vertical" position with only slight pressure against the domed flange. Plenty of thread tape will then ensure the shower is firmly located, without the need to over tighten.

If you try for that extra turn to tighten the shower, YOU WILL BREAK THE SOLENOID VALVE.

A broken solenoid valve is not covered by our warranty.

A replacement valve is available (\$50 in Australia, delivered) but we'd much rather you not need one. Reading the instructions carefully and a bit of patience will lead to success.