

# Shower Shortener Operating Instructions Version 1.1

Congratulations on your purchase! To ensure your Shower Shortener performs correctly please read the following information carefully.

The Shower Shortener is simple to use. It was specifically designed to fit in with normal showering practice. That is, turn on taps, wait for the water to heat up, enter the shower and shower normally, and finally turn off the taps and exit the shower. The only additional step involves pressing one button. In fact you don't have to do anything assuming you are happy to have a 3 minute shower as the unit will default to a 3 minute shower if no user selection is made. The step by step instructions below will provide the user with a clear and concise operation of this simple to use innovative product.

1. Turn on the taps to begin your shower as you normally would.
2. The Shower Shortener will automatically 'wake up' once the shower water temperature trigger threshold is achieved. *(the Shower Shortener relies on the flow of hot water to know that the shower is running - Note that the Shower Shortener can be activated for cold or warm water showers. Please see below for instructions on how to achieve this).* When the unit wakes up it will provide an audible alert (a constant beep for several seconds). You will then be prompted to enter the desired shower period. The screen will display "Set shower time" (Picture 1). If no selection is made in 15 seconds, the unit will default to a 3 minute shower.



3. The shower Shortener will now begin to countdown from the number of minutes elected, displaying the remaining time for the shower. (Picture 2) Continue to shower as you normally would.



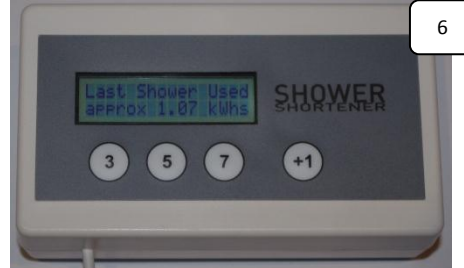
4. With about 1 minute remaining an audible alert will sound (a constant beep for several seconds) notifying the user that an additional 1 minute extension to the shower time is available if desired. The display will also show "+60 seconds???" (Picture 3). This will remain on the display (and available) as a prompt until there is 10 seconds remaining. After this point pressing the +1 button will have no effect. If the +1 button is pressed a short beep will sound, acknowledging the shower has been extended. The display will then have a further minute added to the timer. Please also note that you can add a further minute ONCE ONLY during the shower.



5. When the countdown timer has 10 seconds remaining, the unit will beep on each second as it counts down from 10 to zero seconds. When timed out the Shower Shortener will reduce the shower flow to a trickle. The user will be prompted to turn off the taps with a display asking "Please turn off the taps" (Picture 4) and a rapid beeping for several seconds. At this stage the user should turn off the taps and exit the shower (as you normally would). The Shower Shortener will then be in a lock out mode and turning the taps back on will only provide a trickle. Once 3 minutes has transpired, the unit will switch back and if the taps are turned on again, full flow will once again be available.



- At the end of the shower, the Shower Shortener will provide some approximate statistics (Picture 5 and 6) including water used (based on time in the shower multiplied by the average flow of 9 litres/min). Approximate energy used to heat the hot water will also be briefly displayed. This approximate calculation is based on the approximate hot water used (assumes 60% hot water multiplied by a factor representing KWh/Litre to heat the water)



## Other User Information

### Cold Water Shower Activation

The Shower Shortener is designed to automatically function with hot water showers, however it can also be manually activated for cold or warm water showers if so desired. Holding any of the 3, 5 or 7 buttons down for approximately 8 seconds will activate the unit for that selected time period. All normal functions of the Shower Shortener will then be enabled and the unit will count down and switch to a trickle at the completing of the shower period.

### What happens if I turn the taps off before the counter expires?

This is not a problem. As the Shower Shortener does not affect the way you would normally shower should you choose to turn off the taps and exit the shower before the Shower Shortener has timed down, then the timer will just continue through its cycle. Please be aware that the lock out period will still be activated at the end of the cycle, so it may take a little longer than expected if a further shower is required soon after.

### What if the unit does not turn on?

There may be certain situations where the Shower Shortener will not activate automatically. If this occurs and you wish to limit your shower time, simply hold down the 3, 5 or 7 button for approximately 8 seconds to manually activate the unit for that selected time period.

### Low Battery

The Shower Shortener continuously monitors the battery voltage. Should the voltage drop below a pre-set value the unit will begin to chirp (similar to a smoke detector) once every 10 minutes and displays "battery voltage low Replace battery" until the batteries are removed and replaced with fresh cells.

### Battery Life and Replacements

The expected battery life is approximately 6 to 9 months and is dependent on shower use. The estimate provided is based on 2 showers per day. The batteries provided are AA Lithium 2700mAh cells supplied by Jaycar Electronics (Part Number SB2367 AA 1.5V Eclipse PK4). When replacing the batteries please use the same high power lithium batteries and ensure that the expired batteries are disposed of correctly. This will deliver the longest battery life. If high power batteries are not available the unit will function perfectly with any AA batteries, but the battery life will be dependent on the battery power rating.

### Trouble Shooting

The Shower Shortener is a microprocessor based unit which should provide years of reliable service. If you ever see unusual behaviour from the unit, remove the batteries, wait 5 seconds and replace the batteries. This should clear any

problem. The unit has several levels of diagnostics built in and can be remotely diagnosed. If you suspect faulty operation please contact us on [www.showershortener.com.au](http://www.showershortener.com.au)

Before making contact please check the following:

- Batteries are charged and correctly orientated
- The connecting cable is intact and connected to the solenoid assembly connector correctly

### **Warranty**

Davinda Innovations Pty Ltd undertakes to repair or at its option to replace any goods which are defective through faulty workmanship or materials within twelve (12) months of purchase of goods.

Defects caused by improper use, improper installation, surface damage caused during installation and installation not in accordance with manufacturer's instructions will not be covered.

No warranty claims will be considered without documentary proof of date of purchase for said product.

### **Patented Design**

The Shower Shortener has been designed and built in Brisbane, Australia. The unit has an Australian Standard Patent No 2010100099. Patents are pending with New Zealand, United States, China and India.

### **Return on Investment**

Every household is different, however it is not uncommon for children and teenagers to have excessively long showers. Household showering is one of the top (if not the top) consumer of water in your home. Therefore, reducing shower times can save a significant amount of water each year (not to mention the reduction in frustration when children are running late for school in the morning because of long showers) The below example provides an indication of the savings in Water Charges only that may be achievable when limiting shower time using the Shower Shortener.

Reducing shower time by 10 minutes with 2 showers per day using 12 litres per minute equates to saving 240 litres per day or 87.6 Kilolitres per year. Using the QLD Urban Utilities domestic water charges - the State Bulk Water charge and the Local Government District – retailer price, water is charged at \$2.43 per Kilolitre. Applying this charge to the example represents a saving of \$213 per annum. With a list price of \$220 plus replacement batteries (approx. \$12), will deliver a payback period of around 13 months.

For further information please visit [www.showershortener.com.au](http://www.showershortener.com.au)