

# SMARTER STANDPIPE CONTROLLER

For use with Water Utility  
supply lines or tanks

The Smarter Control  
standpipe controller from  
Industrial Automation  
provides secure access  
and data logging for  
invoice purposes

# Smarter Control Standpipe Controller

The standpipe controller has been designed to prevent water theft by individuals and/or organisations as a result of not entering the water consumption correctly or not at all. The controller can be used on the Water Utility distribution network or using water tanks. The controller can also be used to charge different rates between types of users (say commercial users one rate and residents another rate)

The design is based on a standard swipe card design similar to that used in accessing buildings or via the standpipe app.

Each control system consists of five components:

- A stainless-steel enclosure with a processor, an indicator light and two push buttons enclosed with a free-standing frame
- A wireless router with antenna
- A solar panel with regulator and batteries (or mains powered)
- A water meter with pulse output
- A motorised valve

The water meter and motorised valve are installed within the yellow frame in the standpipe supply line after the existing water meter. The solar panel is installed higher up on the standpipe support structure complete with rotation options. Depending on the signal reception level, we either supply the antenna on the side of the frame or on top of the solar panel frame.

The controller is as standard, provided with two flanged fittings at the bottom of the frame for linking the water supply line and the standpipe (or camlock fittings).

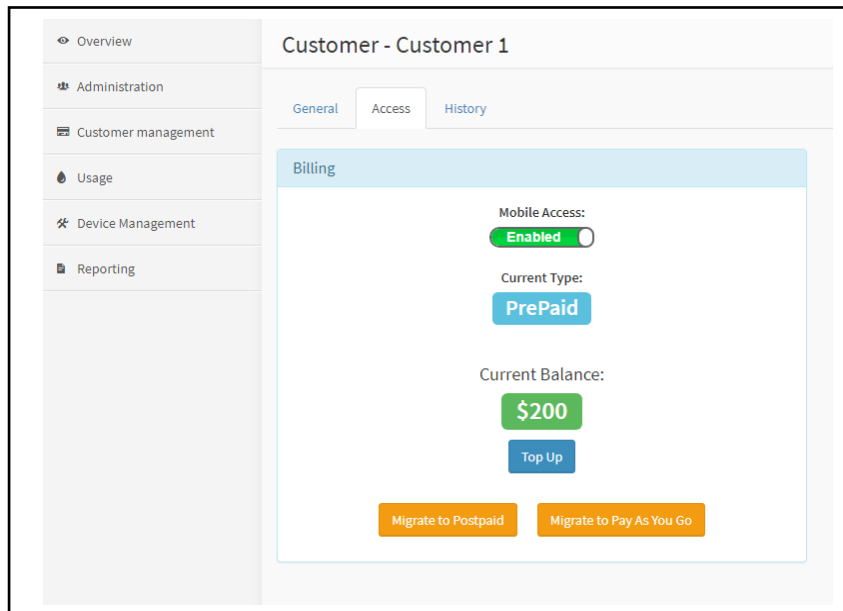
It is also possible to provide the frame with camlock fittings on the front in which case the outlet flange is deleted.

Swipe cards are to be issued by the council to individuals and organisations who wish to use the standpipes within the council boundaries. Swipe cards will carry the council's logo and are available in lots of 100 from Industrial Automation. In addition, when using a smart phone, access can be provided via a recorded email address.

## Payments

Various payment methods are available to provide access to the controller.

- Post payment will allow the provider to issue an invoice based on the recorded use of the water. This is available as a excel compatible file
- Pre-payment allows the system to allocate funds to individual accounts which are then reduced when water is used. Payment can be via credit card directly to the provider or via PayPal
- Pay as you go. This option allows for the supply of water based on a set amount of water and associated cost. This does not require a recorded email address. Payment is via Paypal
- At all times information of the status of the account for provider as well as user is available via the app on mobile or PC



### Operation is as follows:

- The user swipes his/her card across the indicator light that doubles as a swipe card access point or use the standpipe app or use his/her smart phone to get access.
- The indicator light flashes slowly indicating acceptance
- The user presses the start button and the motorised valve opens. The indicator light now flashes rapidly indicating that a recording is in progress
- At this time the card user has been logged as well as the start time of the operation.
- During filling, the water meter sends pulses to the processor
- On completion of the fill, the user presses the stop button which stops the flow and the light goes off. The total water consumption has now been logged, as has the finish time.

### Gathering of data

The usage data will be stored in the controller and on the cloud server for extraction by council personnel and end users. Access to this data is available via unique email addresses and passwords and is device independent, which means it can be seen on PCs as well as mobiles.

As part of the data being transmitted to the cloud server, it is now possible to provide pre-paid cards to end users which substantially reduces admin cost.

The linking of card numbers to users is done using master access to the software.

Users can be deactivated by a simple tick against their name.

### Fire mode

In case of a fire, it is important to take away the need for swipe cards and as such we have provided a fire mode. This allows the Shire to bypass the swipe card requirements and lock the controller to fire mode. During this period, all water used will be allocated to a designated account. Access to the fire mode is via the standpipe app using the Shire's access code.



## Ease of installation

Industrial Automation has been installing Standpipe controllers since 2010 and of course, over the years new developments have taken place that has made the Smarter Control standpipe controller the controller of choice for many WA councils. More than 180 units are currently in use with the latest design making it easier than ever to install a standpipe controller.

The new design is fully fitted with all the required equipment and can be installed by your local plumber while a small concrete pad can no doubt be installed by the Shire itself. Each controller can be fitted with 50, 80 or 100 mm pipework and can either be solar powered or mains powered.

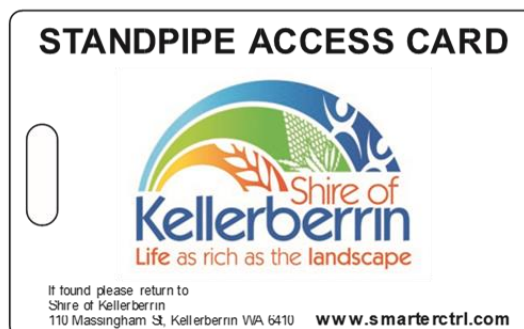
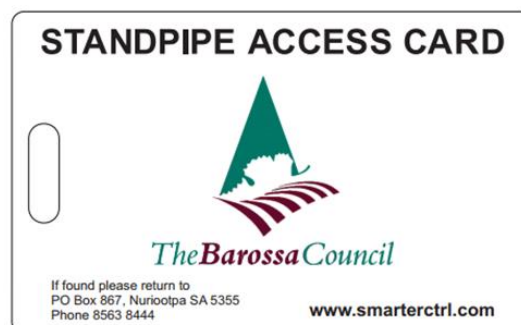
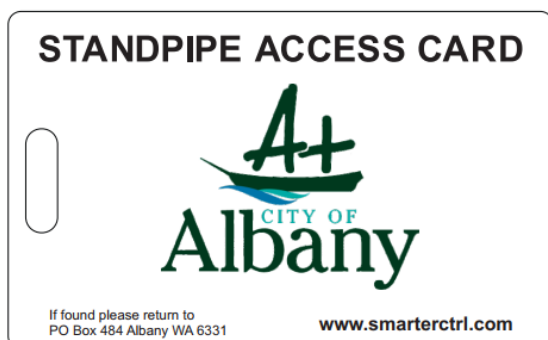
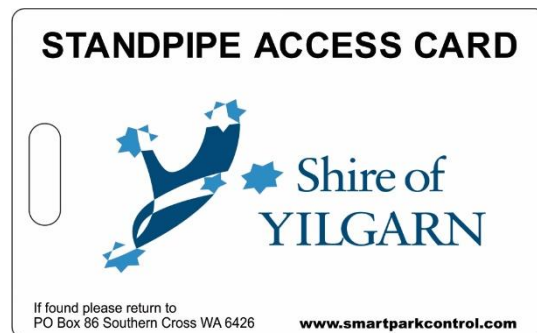
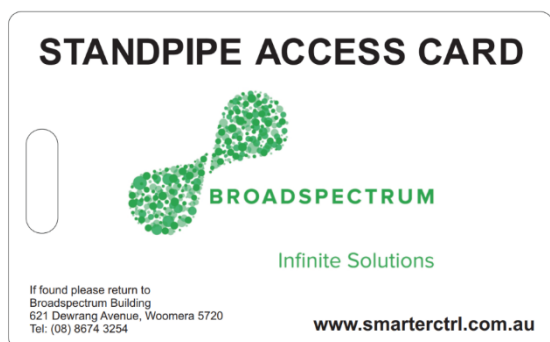
The installation procedure is as follows:

- Once the detailed order is received, the unit is manufactured in our Joondalup workshop and fully tested prior to transport. This includes the wireless connection so that once on-site we can remotely activate the controller
- During manufacture, the swipe cards are produced and sent to the Shire complete with video based operating instructions
- The Shire constructs a 1m x 1m x 150 mm concrete pad at the required location
- The controller is packed in two crates (one for the controller and one for the solar panel) and sent to the Shire
- The local plumber bolts the frame to the concrete pad and bolts the solar panel frame to the top of the standpipe frame using the multi directional flanges to aim the solar panel north. The extra low voltage cable (12 V) between the solar panel and the batteries can be connected without the need for an electrical license.
- The existing link between the standpipe overhead connection (or camlock outlets) is cut and rerouted to the two flange connections at the bottom of the frame.
- Once installed, the plumber connects our office to activate the controller and do the operational test
- Our office contacts the Shire to provide telephone-based training of the new installation



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