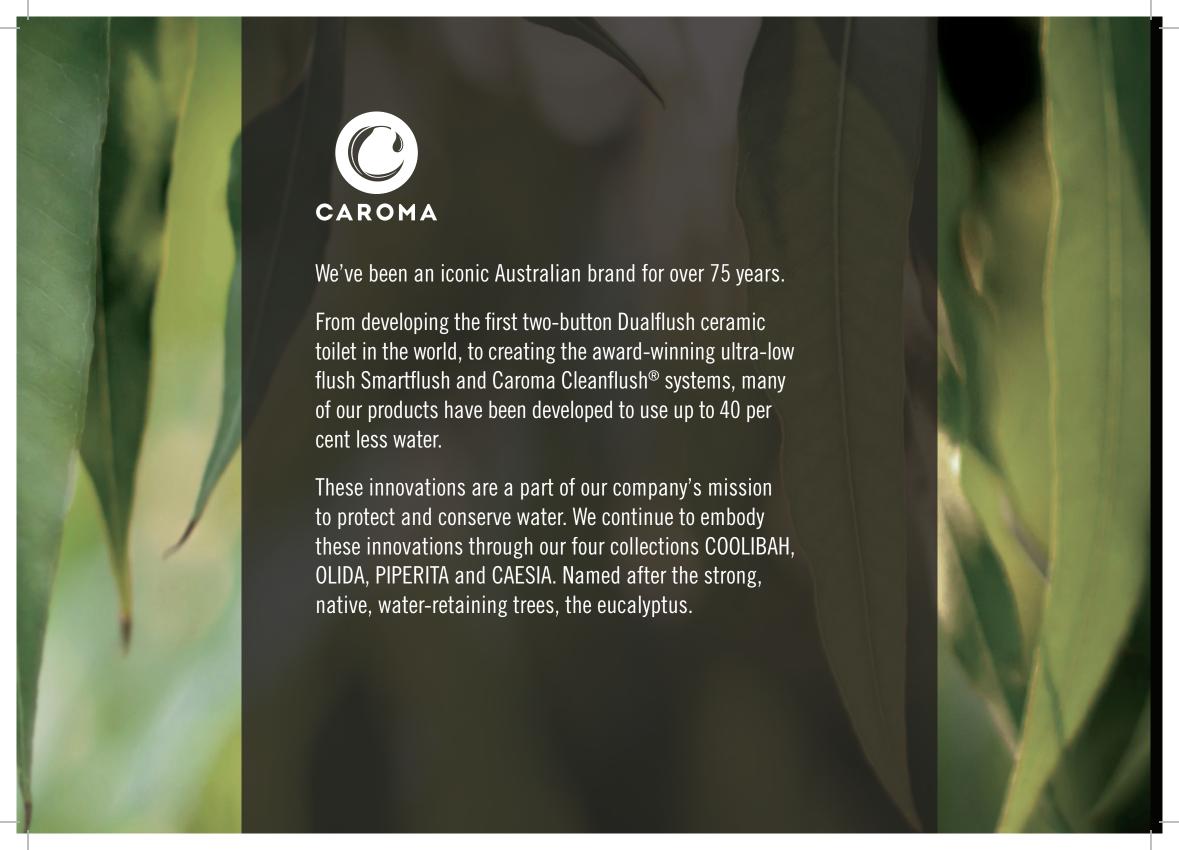


**INTELLIGENT BATHROOM SOLUTIONS** 

caroma.co.nz/specify



Caroma's Innovations Director, Dr Steve Cummings, has dedicated himself to developing products which use water more wisely.

Dr Steve Cummings has a strong empathy towards and an understanding across all key elements of product development, from design and installation to functionality and benefits.

Smart Command represents the next chapter for Caroma in providing innovative water-saving solutions which revolutionise the way in which we all use water.



# WHAT IS SMART COMMAND?

#### **Smarter water begins with Caroma Smart Command**

Smart Command is the missing link in measuring and monitoring a building's performance. Our aim is to make life easier for building owners and managers by creating superior, sustainable solutions for water, today and into the future.

#### **SMART COMMAND - THE MISSING LINK**

Smart Command is an ecosystem of intelligent products that enable building managers to monitor water use in real-time and make smarter decisions that reduce maintenance costs, while improving hygiene and up time.

An innovative range of tapware, urinals and invisi toilets have been developed to seamlessly integrate with Caroma's Smart Command technology. These intuitive products incorporate the latest in touch-free technology for optimal hygiene for a more efficient bathroom design which requires less cleaning and maintenance.

#### A REVOLUTIONARY TECHNOLOGY

Smart Command enabled bathrooms allow building managers to precisely track every detail and collect data in real time, from water usage, to the number of activations. This data can be accessed locally from a mobile app or integrated to an existing Building Management System (BMS) or on cloud platforms. This information empowers the building or facility manager to make informed decisions and monitor the impact in real time, driving efficiencies such as cleaning and maintenance resourcing.



#### **SMART COMMAND DATA**

### **HOW IT CONNECTS**

#### **CONNECTIVITY VIA APP**

#### **App integration allows:**

- Water consumption control adjust the amount of water used per actuation
- Water pressure control
- Usage statistics (per fixture or per bathroom) - ie. number of actuations, duration of usage, total water consumption, operational hours, operating hours since hygienic flush and number of uses
- Hygiene monitoring and control

   tracks and records fixture
   maintenance and provides
   historical data





#### **CONNECTIVITY VIA BMS**

Smart Command products interface with all BACnet protocol systems. BACnet is the common language used which means Smart Command will seamlessly integrate with existing BMS platforms at no extra hardware cost to the building. For the first time a facility manager can make changes to a bathroom via the BMS, saving time and expensive plumber call out fees.

#### Intelligent insights

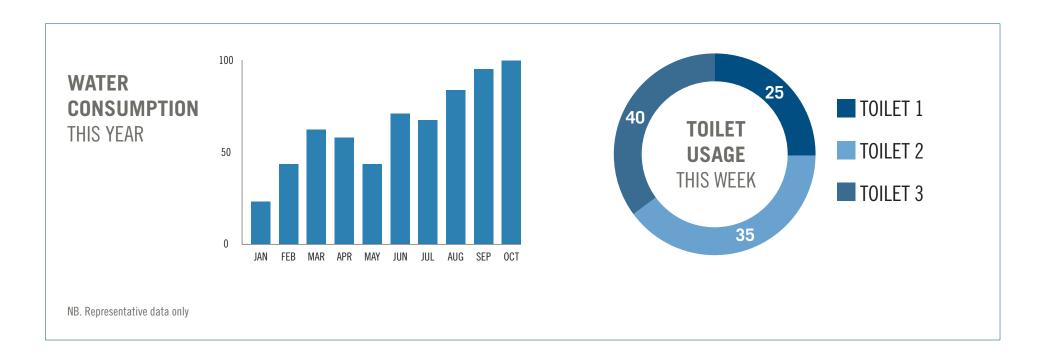
- Water volume consumption per fixture including toilets, urinals and taps on a daily/weekly/monthly/annual basis
- Total water volume consumption of the bathroom on a daily/weekly/monthly/ annual basis
- Usage statistics per fixture based on their location within the bathroom
- Usage statistics per fixture based on their relative position to other fixtures within the bathroom E.g. Tap closest to urinal
- Hygiene habits E.g. Number of tap activations in comparison to toilets and urinals
- Minutes spent on maintenance per fixture and/or total bathroom enables future planning for more efficient maintenance and subsequently reduced downtime
- Data availability and historical data tracking allow comparisons to be made for more proactive facility management



# THE MISSING LINK

#### **HOW WATER USAGE IS CALCULATED**

- Toilets and urinals: Water is calculated by the number of actuations (eg. flushes) x stated flush volume on toilets or urinals
- Taps: Water usage is calculated by the number of actuations x flow duration x flow rate (Note: Flow duration can be adjusted)
- These calculations give building managers the ability to meter bathrooms based on real time data



# DATA EXTRACTED AND IMPLICATIONS



Simple to shut down the bathroom for maintenance



Real time data enables more efficient resource allocation for bathroom maintenance according to which fixtures are used more frequently



Allocation of water costs is based on real time information and feedback



Alerts if any components have failed, reducing downtime and improving maintenance efficiency

# SMART COMMAND



This data has the potential to impact on the future design of efficient bathrooms



Two-way communication system provides the ability to reconfigure assets remotely to meet usage standards and requirements Ability to fine tune bathroom fixtures and improve overall building sustainability, which may result in a positive impact on the building's efficiency ratings





Data provides hygiene habits and insights within the bathroom through relative consumption between fixtures

# SMART COMMAND

## **SMART COMMAND PRODUCTS**



Smart Command Hob Mounted Tap - Kit 98461C6A

- Responsive infrared sensing electronic basin tap designed for commercial applications
- Reassurance LED upon activation. Configurable to three separate colour modes (Cold/Warm/Hot)
- Enhanced self-configuring features which assist the sensors to understand the surrounding surfaces
- Hob mounted with easy access to serviceable components
- Touch free activation for improved hygiene, ideal for high-traffic and commercial settings
- Bluetooth enabled for direct access from a smart device and also communication to Gateway\*
- Caroma Smart Command mobile app enables faster commissioning and maintenance
- Includes Bluetooth adaptor which allows the user to configure the operating parameters, view fixture status and review usage data through a BMS system or Smartphone application
- Bluetooth capability enables data to be sent to either a cloud database or BMS where users can
  utilise service offers including usage, water data and micro services such as service alerts at a
  fixture, bathroom or building level
- Designed with retrofit capability
- Hard wearing, low maintenance and solid brass construction
- Kit includes outlet and control box and power supply. Control box can be installed remotely up to 2m distance from outlet.
- \* Bluetooth signal strength is subject to surrounding surfaces such as masonry and other substrates in the bathroom area



Smart Command Wall Mounted Tap - Kit 98462C6A

- Responsive infrared sensing electronic wall tap designed for commercial applications
- Reassurance LED upon activation. Configurable to three separate colour modes (Cold/Warm/Hot)
- Enhanced self-configuring features which assist the sensors to understand the surrounding surfaces.
- Wall- mounted design with easy access to serviceable components
- Touch free activation for improved hygiene, ideal for high-traffic and commercial settings
- Bluetooth enabled for direct access from a smart device and also communication to Gateway\*
- Includes Bluetooth adaptor which allows the user to configure the operating parameters, test fixture status and review usage data through a BMS system or Smartphone application
- Bluetooth capability enables data to be sent to either a cloud database or BMS where users can
  utilise service offers including usage, water data and micro services such as service alerts at a
  fixture, bathroom or building level
- Caroma Smart Command mobile app enables faster commissioning and maintenance
- Hard wearing, low maintenance and solid brass construction
- Kit includes outlet, control box and ower supply
- \* Bluetooth signal strength is subject to surrounding surfaces such as masonry and other substrates in the bathroom area



#### **Smart Command Gateway** 410100

- The Gateway is a Bluetooth transceiver which relays data sent by all intelligent fixtures within 8m range\*
- Connects to the BMS via Concentrator through building cabling infrastructure (Ethernet)
- Can be installed to the wall, ceiling or within the roof cavity
- Built-in firmware, web based configuration of Gateway
- Hosts up to 30 devices
- More than one gateway may be required for larger bathrooms
- Complete with power supply and 1m patch lead (Cat 5)
- \* Bluetooth signal strength is subject to surrounding surfaces such as masonry and other substrates in the bathroom area



#### **Smart Command Concentrator** 410101

- The Concentrator is a BACnet interface for third party BMS systems
- One Concentrator per BMS system is required to connect with all linked fixtures and gateways
- Built in firmware, web based configuration of Concentrator
- Mounting hardware provided



Smart Command Urinal Rough in Kit 678809

- The rough-in kit provides the electronic functionality for the Urinal
- Urinal rough in kit to integrate with Cube 0.8L and Leda electronic urinals
- Bluetooth enabled for direct access from a smart device and also communication to Gateway\*
- Includes Bluetooth adaptor which allows the user to configure the operating parameters, view fixture status and review usage data through a BMS system or Smartphone application
- Bluetooth capability enables data to be sent to either a cloud database or BMS where users can utilise service offers including usage, water data and micro services such as service alerts at a fixture, bathroom or building level
- Smart device application enables faster commissioning and maintenance
- Complete with power supply
- \* Bluetooth signal strength is subject to surrounding surfaces such as masonry and other substrates in the bathroom area

#### SUPPORTED PRODUCTS



Cube O.8L Electronic Urinal Fit Out Kit 678800W

WELS 6 star rated, 0.8L



**Leda Electronic Urinal** 678900W

WELS 3 star rated, 1.8L



## **SMART COMMAND PRODUCTS**









Smart Command Dual Flush Invisi II Glass Panel - Black 238010B Smart Command Dual Flush Invisi II Glass Panel - White 238010W Smart Command Dual Flush Invisi II Metal Panel - Chrome 238000C Smart Command Dual Flush Invisi II Metal Panel - Brushed Nickel 238000BN

- Responsive infrared sensing electronic flush panel, designed for commercial applications
- Electronic flush panel integrated into existing pneumatic cistern with a simple modification (parts included)
- Bluetooth enabled for direct access from a smart device and also communication to Gateway\*
- Complete with Invisi cistern electronic parts and power supply
- Fitted with a Bluetooth sensor which allows the user to configure the operating parameters, view fixture status and review usage data through a BMS system or mobile application
- Smart device application enables faster commissioning and maintenance
- Integrated battery backup system in case of power outages

- Bluetooth capability enables data to be sent to either a cloud database or BMS where
  users can utilise service offers including usage, water data and micro services such as
  service alerts at a fixture, bathroom or building level
- Fully concealed fixing
- Provides complete service access to the invisi cistern
- Panel available in glass (black or white) or metal (chrome or brushed nickel)
- \* Bluetooth signal strength is subject to surrounding surfaces such as masonry and other substrates in the bathroom area

#### **SUPPORTED PRODUCTS**

#### **Wall Faced**



Liano Cleanflush® Easy Height Invisi Series II® Easy Height Wall Faced Suite

#### 766350W

WELS 4 star rated 4.5/3L (3.5L avg/flush)



Luna Cleanflush® Invisi Series II® Wall Faced Toilet Suite

#### 844910W

WELS 4 star rated 4.5/3L (3.5L avg/flush)



Urbane Cleanflush® Wall Faced Invisi Series II® Toilet Suite

#### 746110W

WELS 4 star rated 4.5/3L (3.5L avg/flush)

#### **Wall Faced Care**



Care 800 Cleanflush® Wall Faced Invisi Series II® Toilet Suite

#### 718340W

WELS 4 star rated 4.5/3L (3.5L avg/flush)

#### **Wall Hung**



Liano Cleanflush® Wall Hung Invisi Series II® Toilet Suite

#### 766910W

WELS 4 star rated 4.5/3L (3.5L avg/flush)

#### **Junior Suite**



Liano Junior Cleanflush® Invisi Series II® Wall Faced Toilet Suite

#### 766640W

WELS 4 star rated 4.5/3L (3.5L avg/flush)



# HOW CAN SMART COMMAND IMPACT ON BUILDING SUSTAINABILITY RATINGS?

Smart Command technology provides building managers with the potential to improve their building sustainability ratings with Caroma's intelligent bathroom solution.

Smart Command enables building managers to precisely monitor and control water consumption in real time, down to the level of each individual fixture. The provision of data allows building and facility managers to optimise cleaning and maintenance efficiencies for more effective resource management. Environmentally-conscious bathroom design may be based on historical data and feedback, delivering premium-end buildings which exceed the needs of tenants and investors.

Caroma toilets, urinals and taps are regulated under the WELS scheme and are designed to maximise water efficiency.











caroma.co.nz/specify

#### Call Caroma to speak with one of our Smart Command specialists

Phone: 0800 CAROMA

Email: projects.nz@gwagroup.co.nz

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