Product Manual
WDC200 Electronic Control

For Basins/Baths, Showers and WCs

Revision 15

Wallgate®

ROBUST. INNOVATIVE. WASHROOMS

RCM Mark
Australia

AS 1172
Certificate No
23167

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2. Conventions

Certain conventions are used in this manual to make it easier to read and understand. They are given in the sections below.

2.1. Warning

A warning with red text on a white background is used to give information about hazards that can cause injury or death. Read and understand the warnings before you install and commission the WDC200. Failure to heed these warnings can have serious consequences.

WARNING! This is a warning!

2.2. Note

A note with amber text on a white background is used to draw your attention to important and useful information.

NOTE: This is a note.

2.3. Numbered procedures

Steps in procedures are numbered, starting from 1.
1. This is step 1.
2. This is step 2 etc.
2.4 Bullet lists

2.4. Bullet lists

- A bullet list is used to give information that is not sequential.

2.4.1. Tick Bullet lists

✓ A tick bullet list is used to imply a checklist of components or actions (not sequential).

2.5. Menu items

Menu items, submenu items and settings, where available, are given in bold.

3. Glossary

The glossary lists all words, abbreviations and technical terminology used in this manual, along with a short description of these terms.

Table 1. Glossary

Term	Description
Auto-run	The outputs to the water valves for basin, shower and WC can be set to automatically operate at a set time every day. The water valve will operate for the cycle set run time as per a user activation. The Auto-run feature can be used for maintaining hygiene standards similar to the Hygiene Purge function detailed below, note that only the Auto-run or Hygiene Purge would be utilized and not both together.
Building Management System BMS	A Building Management System is a computer-based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment such as ventilation, lighting, power systems, fire systems, and security systems.
WDCMS	The WDCMS Wallgate system is use for standalone networking of the WDC control units to a dedicated PC or laptop computer. You can manage the WDC units through the network. You can also adjust time cycle settings, lockout settings, remote water isolation on individual units or groups, RTC settings, etc. You can also view the unit status in real time and log data.
Data Logging	Activations of the Hygiene Purge function detailed below are logged in memory and then using additional software the logs can be downloaded from the WDC200 and imported into a spreadsheet report.
Dual Flush	This option is used when both full and half flush options must be provided, using either one or two inputs.
Exclusivity	This feature prevents more than one water outlet from being operated at a time.
Full Flush	This feature uses a 6 litre or 4.5 litre flush.
Reduced & Half Flush	The reduced flush is ⅔ of a full flush and the half flush ½ of a full flush.
Hygiene Purge	This feature operates services unused for a specified number of days. This avoids water stagnation when the services are unused for longer periods.
Latching	A latching switch is a switch that maintains its state after being activated.

Term	Description
Lockout	The term Lockout refers to regulating services by restricting the number of usage cycles.
Momentary	A momentary switch returns to its normal OFF position when released.
Piezo touch button	A piezoelectric touch button converts the force applied to the face of the touch button into an electrical signal.
Power Rating	The power rating of a device is a guideline set by the manufacturer as a maximum power to be used with that device.
Purge Cycle	This feature is used to assist in removing air trapped in the plumbing system.
Remote Lockouts	The term Remote Lockout refers to isolating water services from a remote location.
RJ45 connection	The RJ-45 connectors are used to connect the WDC unit to a PC or laptop.
RTC	Real Time Clock. This is a 24 hour 7 day clock used by the WDC200 for program features such as Time Slots and Hygiene Purge.
System Test	The System Test is a feature that allows you to operate switches and touch buttons and make sure that these operate the necessary outputs such as lights or valve solenoids.
Time Slots	Usage of services such as basins, showers and WC pans can be controlled using preset time slots. For example, this feature can be used to prevent all the showers in a facility being operated simultaneously during peak periods, straining the capacity of the water supply. The day is divided into 4 time slots, normally set at 00:00 to 06:00, 06:00 to 12:00, 12:00 to 18:00 and 18:00 to 00.00.
Toggle type switch	A toggle switch is a class of electrical switches that are actuated by a mechanical lever, handle, or rocking mechanism.
Water Lockouts	Water Lockout means regulating water services by restricting the number of usage cycles.

4. Product summary

The WDC200 electronic control units are designed to operate the water outlets to a wash basin* (x2) (Hot & Cold), a shower (x2) (premixed warm water) and the flush for toilet water closet pan (x2) (WC). The WDC200 therefore has the capacity to control two suites of products and can be located between two rooms.

*The WDC200 can be set to operate with a bath instead of a basin if required. This would entail the installer or client adjusting water run times to 180 seconds for hot and cold, or as preferred.

The WDCA200 model based upon the WDC200 is for 120v 60Hz electrical supply operation using an external power adapter (UL/CSA approved) to connect to the 12VDC input socket on the WDCA200 control unit.

The control unit comprises of a microprocessor that is programmed with a software program that has the following operational features:

- User friendly Software menu system with security controlled access.
- Independent control of multiple outlets.
- Fully programmable precise time control of water valve operation that is fully adjustable in situ by the installer / customer.
- "**LOCKOUT**" function to prevent product misuse that is fully adjustable for the number of user operations, operations period, lockout period, and the "**LOCKOUT**" function can be **ENABLED** or **DISABLED** to suit the individual requirements.
- Single or dual flush for WC control.
- Piezo touch button or infrared sensor capable inputs.
- Auxiliary inputs for remote operation of:
  - Remote lockouts (Room 1 / Room 2).
  - WC remote flush.
  - WC reduced flush using a second touch button.
  - Clear lockouts.
  - Purge function.
  - Not used
  - Flow sensor for hygiene purge data logging.
- Multiple outlet control feature (**COMMUNAL** mode setting), so that one unit can be used to operate up to eight water valves instead of default presets for basins and WC pans.
- Diagnostic test routine to assist with fault finding.
- Networking units to remotely control from a central PC desk position(s).
- Data logging of hygiene purges.

5. Installation and Commissioning

5.1. Package Contents

Before you begin the installation, make sure that you have the following items:

- ✓ 1 WDC200 Electronic control unit
- ✓ 1 Product manual.

5.2. Site Preparation

5.2.1. Advice on attaching the unit

- Attached the unit to a vertical surface that is able to support the weight of the unit.
- Attach the unit in dry surroundings above pipes carrying water, away from any possible plumbing leaks.
- Attach the electronic control unit where there is easy access. Attach the unit so that the keypad and display on the unit are readily visible and accessible.

WARNING! Do not mount the unit upside down

The control box has four feet with holes for attaching the unit to the wall using four round head screws, No 8 x 30mm (1.25 inch). For the location of the mounting feet, refer to Figure 1 on page 10.

5.2.2. Electrical connections

- All cables must be connected to the unit using the sockets at the bottom of the unit enclosure.
- The power cable must be connected to the unit through the cable gland.
- The control unit requires an electrical supply of 115-230V AC (Fuse 2 Amp) 50Hz 60 Watts.
- The mains supply cable from the unit must be terminated into a double pole fused spur connection unit with a contact separation of at least 3mm. Use a 2 Amp fuse in the connection unit.
- Place the connection unit near the controller unit.
- Position all electrical fittings such that water cannot drip on the electrical fittings if a leak occurs, or a pipe bursts.

WARNING! The controller unit must be earthed using the earth lead in the power cable.

5.3.   Attach the Controller Unit

To attach the control unit to the wall, do the following:

1   Mark the attachment points for the control unit on the wall. Make sure the cables from the solenoid valves and Piezo touch buttons are of sufficient length to reach the control unit. Refer to figure 1 for the location of the mounting feet.

2   Drill four mounting holes using a suitable drill bit.

3   Use suitable wall plugs if necessary.

4   Attach the unit to the wall using four round head screws.

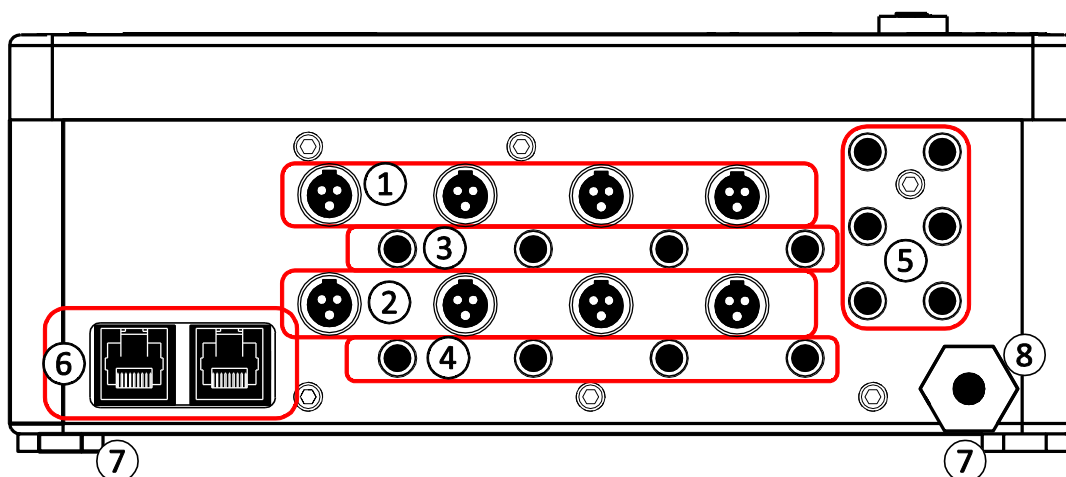**NOTE: When mounting the unit, make sure the cable sockets at the bottom of the unit point downwards.**

Figure 1.WDC200 Lower Panel

Table 2. Legend for Figure 1

Item number	Description	Function
1	Water Valve Cable Sockets Room 1	Output to washbasin, WC and shower valves in Room 1
2	Water Valve Cable Sockets Room 2	Output to washbasin, WC and shower valves in Room 2
3	Input Device Sockets Room 1	Input from Piezo touch button or infrared sensors Room 1
4	Input Device sockets Room 2	Input from Piezo touch button or infrared sensors Room 2
5	Auxiliary Inputs	Inputs for optional remote controls
6	Network Link Sockets	Input and output sockets for Ethernet connection
7	Mounting feet	Use the feet to mount the control unit to the wall
8	Power cable	Electrical power supply cable 1 metre in length

5.4. Connect the Input and Output Cables

The control unit has input and output sockets in the lower panel of the unit. Refer to Figure 2 for the illustration of the lower panel.
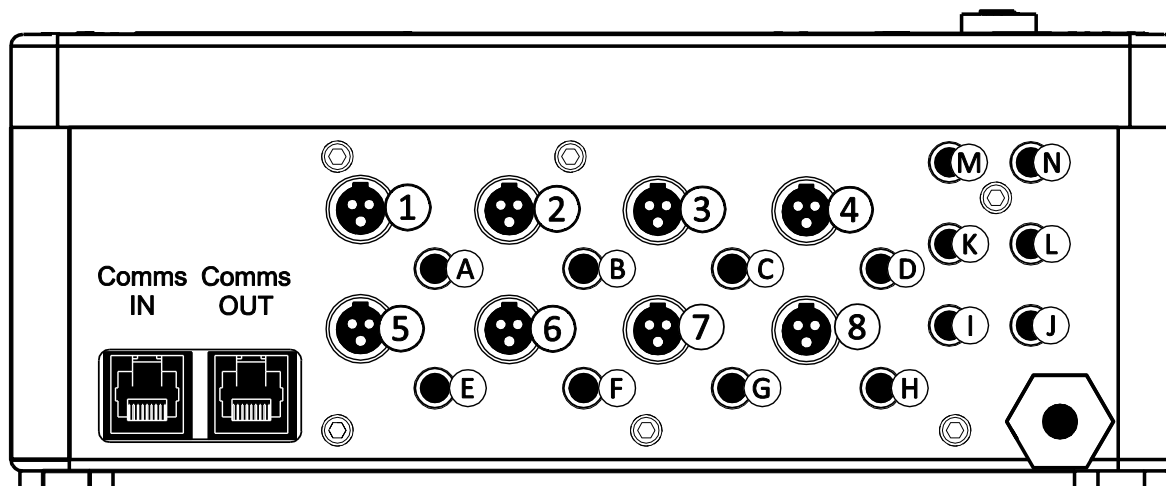

Figure 2. Connectors in the WDC200 control unit

Table 3. Legend for Figure 2

Item number	Description	Function
1	Output to WC Flush Valve	Opens WC Flush Valve in Room 1
2	Output to Shower Valve	Opens Shower Valve in Cell 1
3	Output to Basin Valve Cold	Opens Basin Valve Cold in Room 1
4	Output to Basin Valve Hot	Opens Basin Valve Hot in Room 1
5	Output to WC Flush Valve	Opens WC Flush Valve in Room 2
6	Output to Shower Valve	Opens Shower Valve in Room 2
7	Output to Basin Valve Cold	Opens Basin Valve Cold in Room 2
8	Output to Basin Valve Hot	Opens Basin Valve Hot in Room 2
A	Input from WC Flush Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for WC Flush Room 1
B	Input from Shower Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for Shower Room 1
C	Input from Basin Cold Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for Basin Cold Room 1
D	Input from Basin Hot Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for Basin Hot Room 1
E	Input from WC Flush Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for WC Flush Room 2
F	Input from Shower Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for Shower Room 2
G	Input from Basin Cold Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for Basin Cold Room 2
H	Input from Basin Hot Piezo touch button / sensor	User input (Piezo touch button or IR sensor) for Basin Hot Room 2
I	Remote Lockout 1 (default)	Auxiliary input
J	Remote Lockout 2 (default)	Auxiliary input
K	WC Remote Flush 1(default)	Auxiliary input
L	WC Remote Flush 2 (default)	Auxiliary input
M	WC Half Flush1 (default)	Auxiliary input
N	WC Half Flush 2 (default)	Auxiliary input
IN	Left RJ45 Socket	Ethernet Input

Item number	Description	Function
OUT	Right RJ45 Socket	Ethernet Output
Optional Inputs, I, J, K, L, M, and N are used when it is necessary to: - Lockout or disable the basin shower and WC from a remote switch. - Remotely flush the WC pans. - Provide the half flush option. - Clear room lockouts - Purge all outlets - Connect a hygiene purge water flow sensor.		

There are four types of sockets in the control unit:

- Eight 3 pin female sockets, to connect the unit to the solenoid valves. These sockets are used to connect the water valve solenoids, 2 sockets for the WC flush valves, 4 for the wash basin control valves and 2 for the shower control valves.

- Eight 3.5 mm female sockets, to connect the unit to the Piezo touch buttons.

- Six 3.5 mm female sockets, to connect the unit to optional remote controls.

- Two RJ45 connectors are provided to connect the control unit to an Ethernet network.

The socket assignments are given on the front of the unit. Refer to the label on the front of the unit. Also see Figure 2 on page 11 and Table 3 for the socket assignment.

5.4.1. Connect the 3 pin output connector

To connect the 3 pin type connector to the socket in the unit, carry out these steps:

1   The cable plug has a raised key that must be aligned with the slot in the socket, for it to fit correctly. Push the connector fully into the socket and pull it back out slightly to check the latch on the front of the plug has engaged the socket. To remove the plug, the press the latch button down firmly with your thumb and pull out the plug.

2   All 3pin outputs are 12vdc.

5.4.2. Connect the 3.5mm input connector

To connect the 3.5 mm type connector to the socket in the unit, carry out these steps:

1   Push the plug firmly into the socket until the black plastic casing of the plug firmly contacts the unit. Make sure the plug is fully inserted into the socket.

2   All inputs are volt free normally open contacts. Close input to activate the function.

   a.   +12v is available to power the infrared sensors on the middle (ring) contact.

3   Input switch cables with fitted 3.5mm stereo jack plugs are available from Wallgate, please contact sales if required

5.5.   Connect the Electrical Supply

To make the electrical connections to the control unit:

WARNING! The electrical connections must be made by a qualified electrical engineer in accordance with the present nationally approved IEE Regulations.

1   Terminate the supply cable from the control unit into the spur connection outlet and fit a 2 amp fuse.

2   Connect an earth conductor to the water supply pipes on the basin and shower nozzles. The other end of the earth conductor must be connected to an approved earth facility.

NOTE: The water pipes connected to the basin taps and shower nozzles must be bonded to earth.

3   Make sure that the input leads from the basin tap, shower and WC are plugged into the correct sockets on the base of the control unit. Refer to section 5.4 or the label on the front of the unit.

4   Complete electrical testing of the installation.

5.6. Commission the Unit

All the switches and the menu display is located on the front panel of the WDC200 control unit.

Refer to figure 3 below for an illustration of the WDC200 front panel.
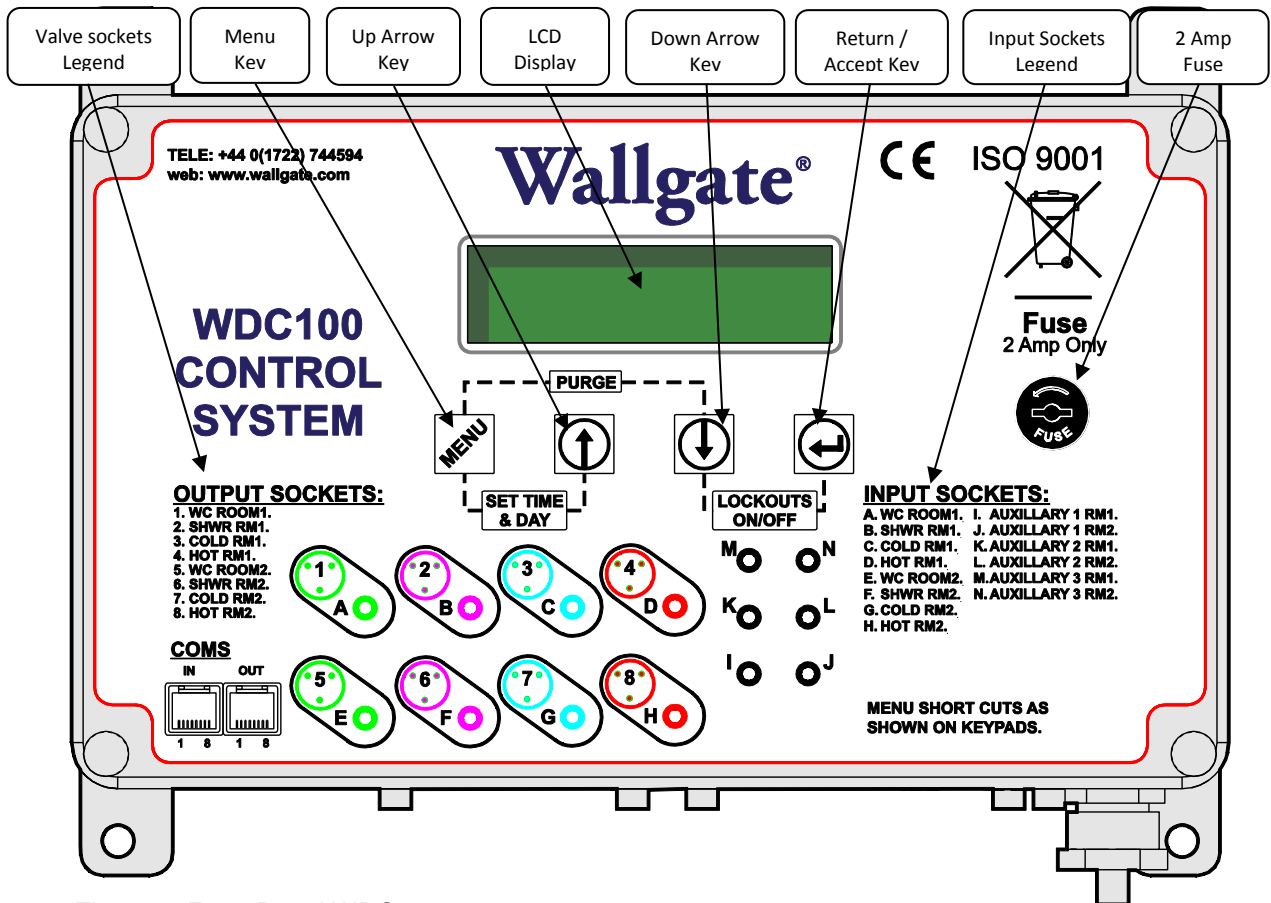
Figure 3. Front Panel WDC200

5.6.1. Purge Cycle function

The control unit has a **Purge Cycle** function you can use when commissioning the installation of the basins, showers and WC sanitary ware.

The **Purge Cycle** function opens all water valves for the basins, showers and WC pans in an automatic sequence. This can help release any air trapped in the plumbing system.

The **Purge Cycle** sequence does the following:

- Runs the basin hot and cold water for 1 minute.
- Runs the showers for 1 minute.
- Flushes the WC pan in Room 1 twice (2 x Full flush with cistern refill time of 30 seconds between each flush).

- Flushes the WC pan in Room 2 twice (2 x Full flush with cistern refill time of 30 seconds between each flush).

To start the **Purge Cycle** function:

1 Fully open the isolating taps to the water supply.

2 Carefully check the system for leaks.

3 Switch ON the electrical supply.

4 Start the Purge Cycle by pressing and holding down the [MENU] and [⬇] keys simultaneously for five seconds. Refer to figure 3 on page 16 for a picture of the front panel.

The words **Chlorine Purge** are displayed along with the countdown clock.

5 Make sure that water flows freely from each basin, shower and WC cistern.

To stop the cycle, switch off the electrical supply to the electronic control unit. Correct any problems such as blockages before you run the purge cycle again.

The control unit has various function settings that can be enabled or disabled.

The settings are given in section 7, WDC200 Menu Settings.

5.6.2. Lockout function

The **Lockout** function restricts the number of usages for the basin/bath, shower and WC. *The Lockout feature is disabled by default*.

The default **Lockout** settings are as follows; these can be reconfigured as required:
- 10 cycles for the basin/bath.
- 4 cycles for the shower.
- 4 cycles for the WC.

When the set permitted usage is exceeded, the item is locked from use for a period of time. The lockout time starts from the first illegal attempt to activate a function but if it is preferred that the time should start from the expiry of the last legal operation, then this can be adjusted by amending the Lockout Mode setting from 1 to 2, see section 7 for menu list.

Default settings are as follows. These can be reconfigured as required.
- 1 hour for basin/bath and shower.
- 15 minutes for the WC pan.

To cancel the **Lockout** function when it has been activated due to excessive operations and allow the unit to operate normally again, carry out the following steps:

1   Switch off the power to the control unit for 5 seconds.

2   Switch on the power to the control unit.

–or–

3   Activate the 'clear lockout' function via an auxiliary input.

4   Check that the basin, showers and WC are operating correctly.

5.6.3. Piezo touch button and infrared sensor controls

Piezo touch buttons and infrared sensors can be connected to the control unit to operate the basins, showers and WCs. You can connect either Piezo touch buttons or infrared sensors to the control unit.

The control unit is set for use with Piezo touch buttons by default.

If you connect infrared sensors to the control unit, you must modify the applicable setting. For instructions on how to do this, refer to Table 6 on page 25. You do not have to modify this setting if the control unit is factory set for operation with infrared sensors.

The Piezo touch buttons do not have any moving parts.

To operate the Piezo touch button:

1   Press the centre of the button to start the operation.

2   Press the centre of the button to stop the operation (for basin hot and cold only).

To operate the infrared sensor:

1   Hold your hand within 50mm of the infrared sensor.

NOTE: Infrared sensors cannot stop or interrupt an operation until the operation is complete. Piezo pushbuttons can interrupt or stop an operation. For example, you can interrupt a basin operation by pressing the piezo button again. You cannot interrupt a basin operation by operating the infrared sensor again.

To test the operation of the piezo and infrared sensors:

1   Operate each touch button or sensor and observe that they work correctly.

The hot and cold basin valves are set to open for 10 seconds each.

The shower valves are set to open for 60 seconds each.

The WC flush valve is set to deliver a 6 litres flush. The default cistern refill time is 30 seconds, after which the WC is ready to flush again. The WC control can be set for dual flush, refer to section 6.1 for instructions.

5.6.4. System Test function

The control unit includes a **System Test** function to test the inputs (Piezo touch buttons or infrared sensors) and the outputs (water valves). This is useful for fault finding if any of the valves fail to operate. You can also use this function to make sure that the Piezo touch buttons and valves have been connected to the correct sockets on the control unit.

To start the **System Test** function:

1   Press and hold down the and keys for five seconds.

The firmware version appears.

2   Press the key once.

The **System Settings Management** menu item appears.

3   Press the key once.

The words **System Test Disabled** appear in the display.

4   Press the key once.

5   Press the key once to choose Enable.

6   Press the key once to save the setting.

The words **System Test** appear in the display.

7   Operate each touch button or sensor connected to the control unit, one at a time.

The display in the control unit momentarily displays the letter assigned to the input. For a list of letters assigned to the inputs, refer to the front panel of the control unit. The applicable valve connected to the related output also opens momentarily.

When the input letter appears, make sure that the correct valve opens.

8   To stop the **System Test**, switch off the control unit.

-OR-

9   Press and hold down the [MENU] and [⏎] keys for 5 seconds.

The firmware version appears.

10 Press the [MENU] key once.

NOTE: The control unit cannot set the water temperature for pre mixed supplies or showers. For these applications, seek advice from the plumbing contractor or architect. TMV3 thermostatic valves are usually used in these applications.

5.6.5. Product Time Slots

The control unit has the ability to assign up to 4 configurable periods of the day when outputs are allowed to operate. The default setting allows full operation of all outputs over a 24-hour period (assuming no lockouts are active). Each output (WC, Shower and basins) can be assigned to a configurable timeslot and when activated the assigned output will only become active if within the allowed 'time slot'. This function can be used to manage when sanitary ware is allowed to operate, for instance the showers may become inactive during night time periods. See pages 28-29 for Time Slot setting information.

5.6.6. Hygiene Purge

The control unit has the ability to purge an output following preset periods of inactivity, this is a hygiene function that can be used to reduce the possibility of water stagnating in the pipe work and the associated risks, it will also reduce the possibility of waste traps drying / evaporating following periods of inactivity. The inactivity period, duration of purge and time of day when the purge takes place are all configurable for each output. See page 30 for Hygiene Purge setting information.

5.6.7. Data Logging

Data logging records the events of the hygiene purge operations. The data log records can then be downloaded from the WDC200 to a PC or laptop. The download data is in the form of a csv file. Additional software is required from Wallgate to perform the download and also create data log reports. For additional information and assistance with data logging, contact the Wallgate sales office.

5.6.8. Auto-Run

The Auto-Run function allows any output to automatically open at a set time every day. There are 48 half hourly time activations settings available for each output. Refer to section 7 to view the available time settings. When an output operates at the set time, it is ON for the preset cycle run time as set in "Cell Water Settings" of the WDC200 menu.

5.7.　　Technical Specifications

Table 4. Technical specifications

Power supply	115-230V AC (Fuse 2 Amp), 50Hz Single phase, (UK, Europe, Australasia) Maximum Rating 60 Watts. (Refer to model WDCA200 for North America).
Enclosure IP Rating	IP55
Weight	1.7 Kg.
Dimensions	W200 x H120 x 90mm depth.

6. User and Maintenance Instructions

The electronic control unit has been designed and manufactured from good quality materials. If these instructions are followed, the unit will give reliable, efficient service. If you need any further information or advice, please contact Wallgate customer services.

6.1.   Operation

Use the main isolation switch provided by the installer to switch the unit on or off. The main isolation switch is located near to the electronic control box. If unit is faulty, switch off the control unit until the fault is repaired by a qualified engineer.

WARNING! Risk of electric shock, serious injury and death. Only trained and qualified personnel should remove the cover of the electronic control box.

The basin, shower and WC are fitted with either Piezo type stainless steel touch buttons or infrared sensors.

Press the button face to operate a Piezo touch button. Once an operation cycle starts, it will continue for a fixed period and stop unless the touch button is pressed again, which will cancel the operation. The shower and WC cycles, however, cannot be interrupted in this way.

Hold your hand within 50mm of the infrared sensor to operate an infrared sensor. The operation cannot be interrupted or stopped when infrared sensors are fitted.

- The hot and cold basin valves are opened for 10 seconds each.
- The hot, warm and cold shower valves are opened for 60 seconds each.
- The WC flush valve is opened to deliver a 6 litre flush. The cistern refill time is 30 seconds, after which the WC is ready to flush again.

If the WC is not a cistern type flush, but is flushed directly from the water mains or a central tank system, the flush time may have been set with a different cycle time to suit the system flow performance.

- A dual flush option is available, either using one touch button or sensor, or using two independent buttons or sensors. One of the two buttons or sensors is used to operate a full flush the other for a half flush.
  Figure 2 on page 11 gives the location of the half flush input sockets. Refer to Table 6 on page 25 for instructions on setting a dual flush using one Piezo touch button or sensor connected to sockets A and E.

The controller has various function settings that are described in Table 6 on page 25.

A few important settings and their default states are given in Table 5.

Table 5. Important settings

Setting Name	Default State	Description
Exclusivity	Disabled	This prevents more than one outlet being operated at a time.
Water Lockouts	Disabled	See Table 6 on page 25 for more information on this setting.
IR sensor Inputs	Disabled, unless factory set to Enabled	See Table 6 on page 25 for more information on this setting.
Dual Flush (Double Press)	Disabled	See Table 6 on page 25 for more information on this setting.
Date & Time (RTC)		The current date and time must be set for some unit functions to operate correctly. The unit will default on power up to a specific date and time, however, this date must be modified. The blinking message Set Date and Time appears on a new unit during first power up or whenever the correct date and time is lost because of a power failure. The default date and time is then applied. The unit has a minimum backup supply of 48 hours to avoid immediate loss of the date and time settings. See Table 6 on page 25 for instructions on setting the date and time.
Time Slots	All	Default setting is All, which does not restrict product usage. Refer to Table 6 on pages 28-29.
Hygiene Purge	Off	Refer to Table 6 on page 30.
Remote (AUX) Input set up	I & J - Remote Lockout K & L - Remote Flush M & N - Half flush	The six Remote inputs can be assigned to operate any of the remote functions.

*The below scenario details the lockout function using its **default** settings:*

The **Lockout** function is used to prevent misuse of the sanitary facilities. The function is used to limit the number of operations of any valve within a specified time period.

When the **Lockout** function is enabled, the hot and cold basin outlet can be operated for a maximum of 10 times over a 1-hour period, the shower 4 times over a 1-hour period and the WC 4 times over a 15-minute period.

When the maximum permitted number of operations for any valve is exceeded the valve is locked out (inoperable) for one hour in case of the basin and showers and 15 minutes for the WC flush valve. The settings for the **Lockout** feature can be adjusted. The **Lockout** feature can also be enabled or disabled. The **Lockout** feature is factory set to **Disabled**. Refer to Table 6 on page 25 for more information on the **Lockout** function.

You can adjust the period of operation for each function such as the basin, shower and WC. The electronic control unit cannot control the water temperature for example on a basin or shower.

6.2. 　　　Maintenance

Wallgate offers a comprehensive service package, details of which can be obtained from our customer service department. A spare parts service is also available.

The electronic control unit does not have any user serviceable parts. In the event of a fault, switch off the electrical supply and contact an authorised electrician to replace the unit.

Any service or repair work must be carried out by a qualified engineer. During the warranty period, the service or repair must only be done by a Wallgate engineer or appointed service agent. Refer to the Wallgate terms and conditions for warranty information.

7. WDC200 Menu Settings

1 Press and hold downhold down the [MENU] and [⏎] keys for 5 seconds to display the Main menu, the firmware version appears.

2 Press the [⬇] or [⬆] keys to navigate the menu and submenus. You can also use these keys to change the values of settings.

3 Press the [⏎] key to select a menu item, or to modify a setting.

4 Press the [MENU] key to navigate up the menu tree by one level.

Table 6. WDC200 Menu Settings

Main Menu Item	Sub Menu 1	Sub Menu 2	Available Options	Default Value
Firmware version number appears. Use ↓ key to view the main menu.				
System Settings Management				
Start the System Test	System Test		Enabled or Disabled	Disabled
Enable or disable Exclusivity	Exclusivity	Basin Excl.	Enabled or Disabled	Disabled
		Shower Excl.		
		W.C. Excl.		
Enable or disable Water Lockouts	Water Lockouts		Enabled or Disabled	Disabled
Select the operating mode and defaults	Mode & Defaults		Cell or Communal	Cell
Enable or disable Cistern Sharing	Cistern Sharing		Enabled or Disabled	Disabled
Enable or disable the High Voltage Flush	High Volt Flush		Enabled or Disabled	Disabled
Enable or disable Double Press Flush	Double Press Flush		Enabled or Disabled	Disabled
Enable or disable the Shower and Basin infrared sensor inputs	I.R. INPUTS	Basin IR Input	Enabled or Disabled	Disabled
		Shower IR Input	Enabled or Disabled	Disabled
Specify the Time and Date	Set Date & Time	Set Time	HH:MM	
		Set Date	DD/MM/YY	
Assign the Remote Inputs	Remote Input Setup	I	Remote Lockout, Remote Flush, Half Flush, Not Used, Purge, clear lockouts, flow sensor.	Remote Lockout
		J		Remote Lockout
		K		Remote Flush
		L		Remote Flush
		M		Half Flush
		N		Half Flush
Reset the WDC200 settings to Factory Defaults.	Load Factory Settings			
Refer to the WDCMS setup procedure.	Network Address		1 to 30	1
Lockout Mode	Mode		1 or 2	1

Main Menu Item		Sub Menu 1	Sub Menu 2	Available Options	Default Value
Cell 1 Water Settings					
Basin cold outlet run time	→	Basin Cold Cycle Time		1 to 999 Seconds	10 Seconds
Basin hot outlet run time	→	Basin Hot Cycle Time		1 to 999 Seconds	10 Seconds
Permitted number of basin activations	→	Basin Cycle Activations		1 to 100 Activations	10 Activations
Time period of a basin activation cycle	→	Basin Cycle Period		15 to 1440 Minutes	60 Minutes
Basin lockout time	→	Basin Lockout Time		15 to 1440 Minutes	60 Minutes
Shower outlet run time	→	Shower Cycle Time		1 to 999 Seconds	60 Seconds
Permitted number of shower activations	→	Shower Cycle Activations		1 to 100 Activations	4 Activations
Time period of a shower activation cycle	→	Shower Cycle Period		15 to 1440 Minutes	60 Minutes
Shower lockout time	→	Shower Lockout Time		15 to 1440 Minutes	60 Minutes
WC outlet run time	→	W.C. Cycle Time		1 to 999 Seconds	2.0 Seconds
WC outlet reduced time	→	W.C. Reduced Time		1 to 999 Seconds	0.5 Seconds
Oli Travel (see below)	→	Oli Travel		1 to 100 or OFF	100 This must not be set below the default value of 100.
Permitted number of WC activations	→	W.C. Cycle Activations		1 to 100 Activations	4 Activations
Time period of a WC activation cycle	→	W.C. Cycle Period		15 to 1440 Minutes	15 Minutes
WC lockout time	→	W.C. Lockout Time		15 to 1440 Minutes	15 Minutes
WC cistern refill time	→	W.C. Refill Time		1 to 999 Seconds	30 Seconds
Copy the water settings from Cell 1 to Cell 2	→	Copy Settings Cell 1 to Cell 2			
Copy the water settings from Cell 2 to Cell 1	→	Copy Settings Cell 2 to Cell 1			

Oli Travel

The default setting must be adjusted when a direct flush valve (Model DFKIT03) is used to flush the WC instead of a cistern tank with integral flush valve
(i.e.; model CIST19-ELEC).

For operation of the direct flush valve model DFKIT03 the Oli travel setting must be set to "OFF" and the "WC full flush cycle time" shall need to be adjusted from 2 seconds to the required time for the DFKIT03 valve to be open to deliver a 6 litre per full flush.

If a dual flush option is applicable, then the WC Reduced cycle time" shall also require adjustment for the DFKIT03 direct flush valve. As a guide, typical cycle times for the direct flush valve DFKIT03 are 4 seconds for full flush and 2.5 seconds for the reduced flush, but this is dependent on the flow characteristics on the plumbing system design, including pipe size.

Main Menu Item		Sub Menu 1	Sub Menu 2	Available Options	Default Value
Cell 2 Water Settings					
Basin cold outlet run time	→	Basin Cold Cycle Time		1 to 999 Seconds	10 Seconds
Basin hot outlet run time	→	Basin Hot Cycle Time		1 to 999 Seconds	10 Seconds
Permitted number of basin activations	→	Basin Cycle Activations		1 to 100 Activations	10 Activations
Time period of a basin activation cycle	→	Basin Cycle Period		15 to 1440 Minutes	60 Minutes
Basin lockout time	→	Basin Lockout Time		15 to 1440 Minutes	60 Minutes
Shower outlet run time	→	Shower Cycle Time		1 to 999 Seconds	60 Seconds
Permitted number of shower activations	→	Shower Cycle Activations		1 to 100 Activations	4 Activations
Time period of a shower activation cycle	→	Shower Cycle Period		15 to 1440 Minutes	60 Minutes
Shower lockout time	→	Shower Lockout Time		15 to 1440 Minutes	60 Minutes
WC outlet run time	→	W.C. Cycle Time		1 to 999 Seconds	2.0 Seconds
WC outlet reduced time	→	W.C. Reduced Time		1 to 999 Seconds	0.5 Seconds
Oli Travel (see page 27)	→	Oli Travel		1 to 100 or OFF	100 This must not be set below the default value of 100.
Permitted number of WC activations	→	W.C. Cycle Activations		1 to 100 Activations	4 Activations
Time period of a WC activation cycle	→	W.C. Cycle Period		15 to 1440 Minutes	15 Minutes
WC lockout time	→	W.C. Lockout Time		15 to 1440 Minutes	15 Minutes
WC cistern refill time	→	W.C. Refill Time		1 to 999 Seconds	30 Seconds
Copy the water settings from Cell 1 to Cell 2	→	Copy Settings Cell 1 to Cell 2			
Copy the water settings from Cell 2 to Cell 1	→	Copy Settings Cell 2 to Cell 1			

Main Menu Item	Sub Menu 1	Sub Menu 2	Available Options	Default Value
Cell 1 Time Slots				
Specify the timings for 4 Basin 1 Time Slots. Reset the Time Slots. Select All, None or a specified number of Time Slots.	Basin 1 Time Slots	Time Slot 1 Start	00:00 to 23:00	00:00
		Time Slot 1 End	00:00 to 23:00	06:00
		Time Slot 2 Start	00:00 to 23:00	06:00
		Time Slot 2 End	00:00 to 23:00	12:00
		Time Slot 3 Start	00:00 to 23:00	12:00
		Time Slot 3 End	00:00 to 23:00	18:00
		Time Slot 4 Start	00:00 to 23:00	18:00
		Time Slot 4 End	00:00 to 23:00	00:00
		Reset Item Time Slots		
		Select Time Slot	All, None, 2&4, 1&3, 4, 3, 2, 1	All
Specify the timings for 4 Shower 1 Time Slots. Reset the Time Slots. Select All, None or a specified number of Time Slots.	Shower 1 Time Slots	Time Slot 1 Start	00:00 to 23:00	00:00
		Time Slot 1 End	00:00 to 23:00	06:00
		Time Slot 2 Start	00:00 to 23:00	06:00
		Time Slot 2 End	00:00 to 23:00	12:00
		Time Slot 3 Start	00:00 to 23:00	12:00
		Time Slot 3 End	00:00 to 23:00	18:00
		Time Slot 4 Start	00:00 to 23:00	18:00
		Time Slot 4 End	00:00 to 23:00	00:00
		Reset Item Time Slots		
		Select Time Slot	All, None, 2&4, 1&3, 4, 3, 2, 1	All
Specify the timings for 4 W.C.1 Time Slots. Reset the Time Slots. Select All, None or a specified number of Time Slots.	W.C. 1 Time Slots	Time Slot 1 Start	00:00 to 23:00	00:00
		Time Slot 1 End	00:00 to 23:00	06:00
		Time Slot 2 Start	00:00 to 23:00	06:00
		Time Slot 2 End	00:00 to 23:00	12:00
		Time Slot 3 Start	00:00 to 23:00	12:00
		Time Slot 3 End	00:00 to 23:00	18:00
		Time Slot 4 Start	00:00 to 23:00	18:00
		Time Slot 4 End	00:00 to 23:00	00:00
		Reset Item Time Slots		
		Select Time Slot	All, None, 2&4, 1&3, 4, 3, 2, 1	All
Specify the time to start the hygiene purge in the 23 hour format.	Hygiene Purge Start		00:00 to 23:00	12:00
Specify the time to end the hygiene purge in the 24 hour format.	Hygiene Purge End		00:00 to 23:00	13:00

Main Menu Item		Sub Menu 1	Sub Menu 2	Available Options	Default Value
Cell 2 Time Slots					
Specify the timings for 4 Basin 2 Time Slots. Reset the Time Slots. Select All, None or a specified number of Time Slots.		Basin 2 Time Slots	Time Slot 1 Start	00:00 to 23:00	00:00
			Time Slot 1 End	00:00 to 23:00	06:00
			Time Slot 2 Start	00:00 to 23:00	06:00
			Time Slot 2 End	00:00 to 23:00	12:00
			Time Slot 3 Start	00:00 to 23:00	12:00
			Time Slot 3 End	00:00 to 23:00	18:00
			Time Slot 4 Start	00:00 to 23:00	18:00
			Time Slot 4 End	00:00 to 23:00	00:00
			Reset Item Time Slots		
			Select Time Slot	All, None, 2&4, 1&3, 4, 3, 2, 1	All
Specify the timings for 4 Shower 2 Time Slots. Reset the Time Slots. Select All, None or a specified number of Time Slots.		Shower 2 Time Slots	Time Slot 1 Start	00:00 to 23:00	00:00
			Time Slot 1 End	00:00 to 23:00	06:00
			Time Slot 2 Start	00:00 to 23:00	06:00
			Time Slot 2 End	00:00 to 23:00	12:00
			Time Slot 3 Start	00:00 to 23:00	12:00
			Time Slot 3 End	00:00 to 23:00	18:00
			Time Slot 4 Start	00:00 to 23:00	18:00
			Time Slot 4 End	00:00 to 23:00	00:00
			Reset Item Time Slots		
			Select Time Slot	All, None, 2&4, 1&3, 4, 3, 2, 1	All
Specify the timings for 4 W.C.2 Time Slots. Reset the Time Slots. Select All, None or a specified number of Time Slots.		W.C. 2 Time Slots	Time Slot 1 Start	00:00 to 23:00	00:00
			Time Slot 1 End	00:00 to 23:00	06:00
			Time Slot 2 Start	00:00 to 23:00	06:00
			Time Slot 2 End	00:00 to 23:00	12:00
			Time Slot 3 Start	00:00 to 23:00	12:00
			Time Slot 3 End	00:00 to 23:00	18:00
			Time Slot 4 Start	00:00 to 23:00	18:00
			Time Slot 4 End	00:00 to 23:00	00:00
			Reset Item Time Slots		
			Select Time Slot	All, None, 2&4, 1&3, 4, 3, 2, 1	All
Specify the time to start the hygiene purge in the 24 hour format.		Hygiene Purge Start		00:00 to 23:00	12:00
Specify the time to end the hygiene purge in the 24 hour format.		Hygiene Purge End		00:00 to 23:00	13:00

Main Menu Item	Sub Menu 1	Sub Menu 2	Available Options	Default Value
Cell 1 Hygiene Settings				
Specify the period for basin inactivity.	Basin Inactivity Period		Off or 1 to 100 Days	Off
Specify the period for purging the basin.	Basin Purge Time		1 to 999 Seconds	60 Seconds
Specify the period for shower inactivity.	Shower Inactivity Period		Off or 1 to 100 Days	Off
Specify the period for purging the basin.	Shower Purge Time		1 to 999 Seconds	60 Seconds
Specify the period for WC inactivity.	W.C. Inactivity Period		Off or 1 to 100 Days	Off
Cell 2 Hygiene Settings				
Specify the period for Basin Inactivity.	Basin Inactivity Period		Off or 1 to 100 Days	Off
Specify the period for purging the basin.	Basin Purge Time		1 to 999 Seconds	60 Seconds
Specify the period for shower inactivity.	Shower Inactivity Period		Off or 1 to 100 Days	Off
Specify the period for purging the basin.	Shower Purge Time		1 to 999 Seconds	60 Seconds
Specify the period for WC inactivity.	W.C. Inactivity Period		Off or 1 to 100 Days	Off

Auto Run default settings:

Main Menu Item: Auto-Run Cycle							
Water Outlets							
	Room 1				**Room 2**		
TIME	**1 - WC**	**2 - SHWR**	**3 – BASIN (Cold)**	**4 – BASIN (Hot)**	**5 - WC**	**6 - SHWR**	**7 – BASIN (Cold)**	**8 - BASIN (Hot)**
06:00	N	N	N	N	N	N	N	N
06:30	N	N	N	N	N	N	N	N
07:00	N	N	N	N	N	N	N	N
07:30	N	N	N	N	N	N	N	N
08:00	N	N	N	N	N	N	N	N
08:30	N	N	N	N	N	N	N	N
09:00	N	N	N	N	N	N	N	N
09:30	N	N	N	N	N	N	N	N
10:00	N	N	N	N	N	N	N	N
10:30	N	N	N	N	N	N	N	N
11:00	N	N	N	N	N	N	N	N
11:30	N	N	N	N	N	N	N	N
12:00	N	N	N	N	N	N	N	N
12:30	N	N	N	N	N	N	N	N
13:00	N	N	N	N	N	N	N	N
13:30	N	N	N	N	N	N	N	N
14:00	N	N	N	N	N	N	N	N
14:30	N	N	N	N	N	N	N	N
15:00	N	N	N	N	N	N	N	N
15:30	N	N	N	N	N	N	N	N
16:00	N	N	N	N	N	N	N	N
16:30	N	N	N	N	N	N	N	N
17:00	N	N	N	N	N	N	N	N
17:30	N	N	N	N	N	N	N	N
18:00	N	N	N	N	N	N	N	N
18:30	N	N	N	N	N	N	N	N
19:00	N	N	N	N	N	N	N	N
19:30	N	N	N	N	N	N	N	N
20:00	N	N	N	N	N	N	N	N
20:30	N	N	N	N	N	N	N	N

Main Menu Item: Auto-Run Cycle

	Water Outlets							
	Room 1				Room 2			
TIME	1 - WC	2 - SHWR	3 – BASIN (Cold)	4 – BASIN (Hot)	5 - WC	6 - SHWR	7 – BASIN (Cold)	8 - BASIN (Hot)
21:00	N	N	N	N	N	N	N	N
21:30	N	N	N	N	N	N	N	N
22:00	N	N	N	N	N	N	N	N
22:30	N	N	N	N	N	N	N	N
23:00	N	N	N	N	N	N	N	N
23:30	N	N	N	N	N	N	N	N
00:00	N	N	N	N	N	N	N	N
00:30	N	N	N	N	N	N	N	N
01:00	N	N	N	N	N	N	N	N
01:30	N	N	N	N	N	N	N	N
02:00	N	N	N	N	N	N	N	N
02:30	N	N	N	N	N	N	N	N
03:00	N	N	N	N	N	N	N	N
03:30	N	N	N	N	N	N	N	N
04:00	N	N	N	N	N	N	N	N
04:30	N	N	N	N	N	N	N	N
05:00	N	N	N	N	N	N	N	N
05:30	N	N	N	N	N	N	N	N

The default setting for the auto-run function is N = OFF on all outlets for all time settings.
Changing the default to Y will set that outlet to switch ON at that time setting.

8. Related Documentation

- Product Manual for WDCMS optional software for networking WDC units to a PC or laptop.

- Product Manual for Data Logging optional software for downloading hygiene purge activation logs from the WDC control units and creating log reports.

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