Product Manual

WHB-200 and WHB-200-IR Washbasin with Integral Tap

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Wallgate®
ROBUST. INNOVATIVE. WASHROOMS

AS 3498
Certificate No
23167

Table of Contents

1. Disclaimer

The specifications of Wallgate products can change without notice because of developments in design and manufacturing.

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

WARNING! This is a warning!

2.2 Note

A note with black text on a yellow 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

- A bullet list is used to give information that is 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.

Term	Description
Anti-Ligature	Recently we have become aware that there is some inconsistency in the market as to the exact meaning of "anti-ligature". Where we use this phrase in connection with our products it means that we have designed and tested the product in order to reduce any risk of that product being used as a ligature attachment point.
Piezo electric touch button	A piezo electric touch button converts the force applied to the face of the touch button into an electrical signal. Piezo electric touch buttons are used in the WHB-200 to operate the hot and cold water taps.
IR Sensor	The infrared (IR) sensor detects infrared radiation from your hand, this creates an electrical signal. IR sensors are used in the WHB-200_IR to operate the hot and cold water taps. Operate the sensor switch by holding your hand within 50mm of the sensor.
BSP	The British Standard Pipe (BSP) thread is a family of standard screw thread types that has been adopted internationally for interconnecting and sealing pipe ends by mating an external (male) with an internal (female) thread.[1]
Push fit	Push fit type fittings are a plumbing pipe connector that pushes onto the copper tube and has an integral rubber seal to ensure a water tight connection. The basin utilizes individual push fit components and fittings cast into the solid surface material.

[1] Description sourced from Wikipedia at http://en.wikipedia.org/wiki/British_standard_pipe_thread

4. Overview

The WHB-200 is a molded washbasin with hot and cold water taps that are operated by piezo electric touch buttons.

The WHB-200-IR is a molded washbasin with hot and cold water taps that are operated by infrared sensors.

The only difference between the two models is the type of control for operating the hot and cold water taps.

The washbasin and most of the fittings are identical in both models.

5. Installation and Commissioning

5.1 Package Contents

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

- ✓ 1 Product manual
- ✓ 1 WHB-200 or WHB-200-IR Wash basin with integral push fit connectors
- ✓ 2 ø15mm copper water pipes
- ✓ 2 Piezo Touch buttons or 2 Infrared sensor assemblies with aluminum extension tubes and 2 flange nuts
- ✓ 1 Wall plate with rubber grommets.
- ✓ 1 Waste pipe
- ✓ 4 M10 Wall Fixing studs, nuts and washers
- ✓ 1 Rubber basin waste plug.

NOTE: An electronic control unit & solenoid water valves with cables are supplied separately as an option. Various control options are available, contact the Wallgate sales desk for more information.

5.2. Site Preparation

5.2.1 Mounting Guidelines

- The washbasin must be attached to a vertical surface that can support the weight of the washbasin. See Table 1 on page 15 for the weight. Refer to Figure 12 on page 9 for a typical installation of the WHB-200 or WHB-200_IR.
- Hot and cold water supplies are necessary. See Table 1 on page 15 for the specifications of the water supplies.
- You must drill holes in the wall for the fixing studs, water pipes, piezoelectric touch button or IR sensor assemblies, and waste pipe as given in drawing, Figure 3.

NOTE: A 1:1 scale template for drilling the holes is available on request.

- An electrical supply of 230V 50Hz with a 2 Amp rating is required for the optional electronic control units.

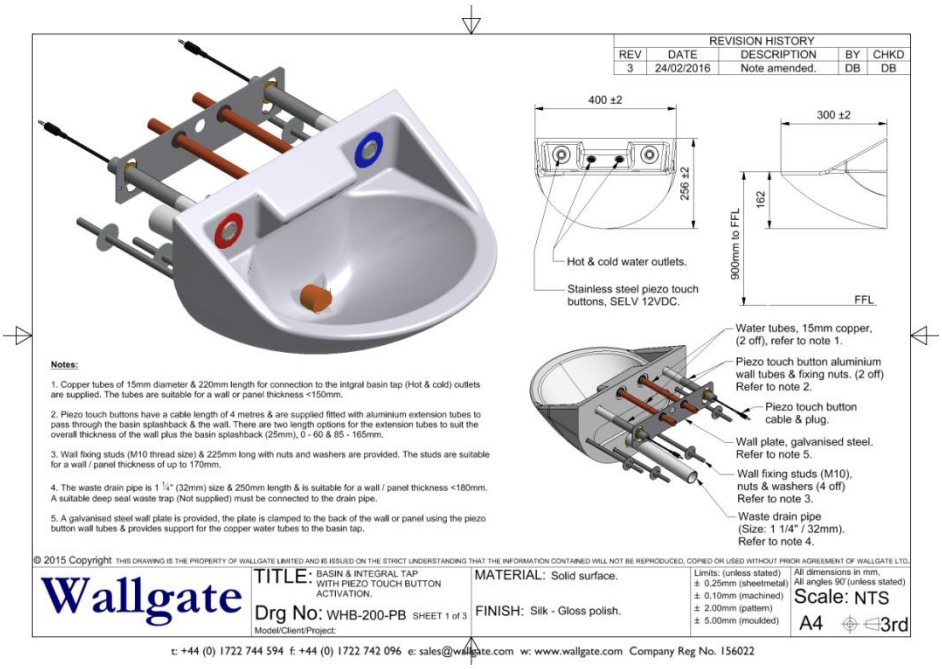

Figure 1 WHB-200 Basin Details

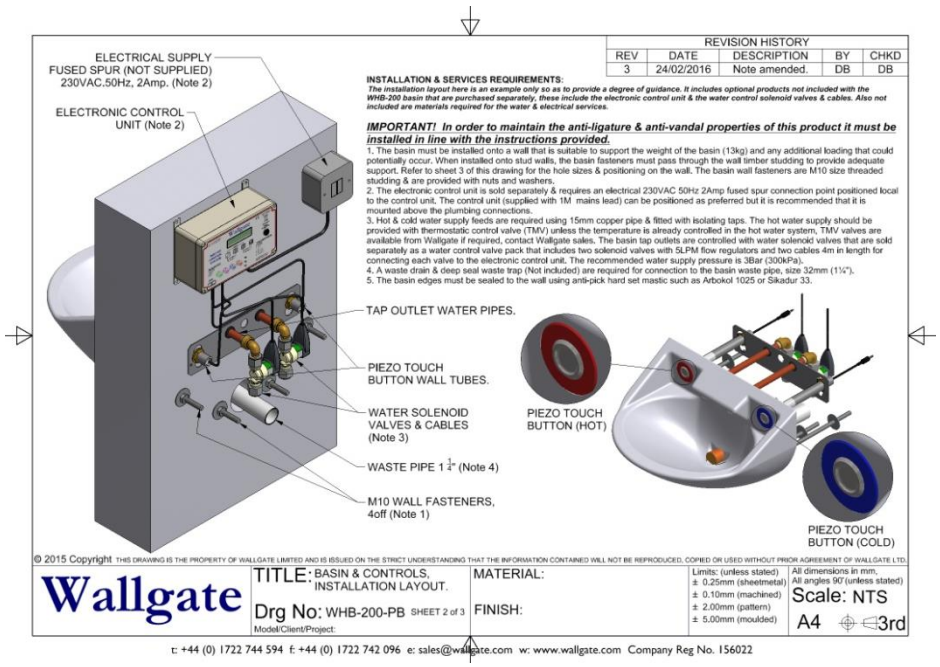

Figure 2 Basin & controls installation layout.

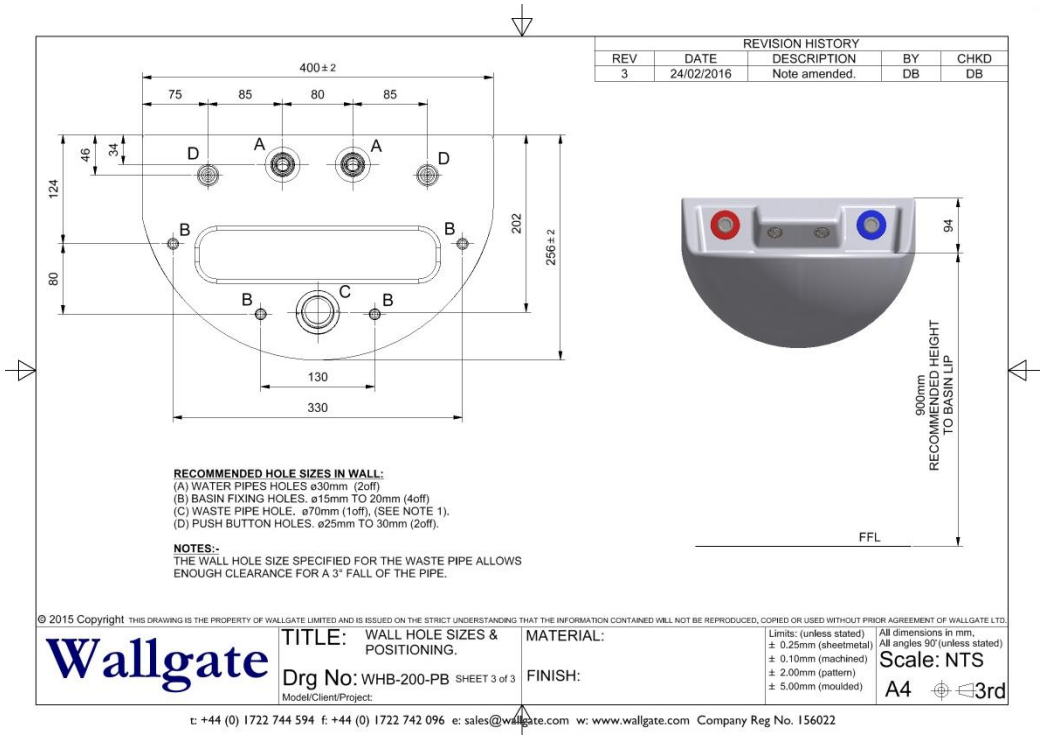

Figure 3 Wall hole sizes & positioning.

5.3 Preparing the Washbasin

The washbasin must be prepared before attaching it to the wall. To prepare the washbasin refer to figure 4 & follow the instructions below:

1. Remove the protective paper covers from the two push fit connectors on the water inlets of the basin.
2. Assemble the copper water pipes (Item 7) into the integral push fit connectors by pushing the pipe in & fully home (23.5mm insertion depth).

NOTE: The copper water pipes supplied with the basin can be shortened if required. Ensure the tube is cut with a suitable rotary pipe cutter, to ensure it is burr free and the tube end is slightly chamfered to avoid damage to the rubber seal on the push fit connectors.

3. Fit the three threaded studs (Item 3) into the threaded holes at the rear of the washbasin. The holes are labeled B in Figure 3.

4. From the front of the washbasin, insert the 2 touch button or IR sensor assemblies (Item 8) through the 2 holes on the basin, the holes are labeled D in Figure 3. Make sure that the red and blue flange washers for the switches or sensors fit correctly into the grooves in the washbasin.

NOTE: Insert the button or sensor assembly for cold water, with the blue flange washer, into the right hand hole on the basin.

5. Push the waste pipe (Item 10) into the brass socket at the rear of the basin. The brass socket has a groove which is fitted with a rubber O ring seal. The socket is labeled C in Figure 3.

NOTE: Lubricate the end of the waste pipe with soap or water to ease the fit and avoid damage to the O ring seal.

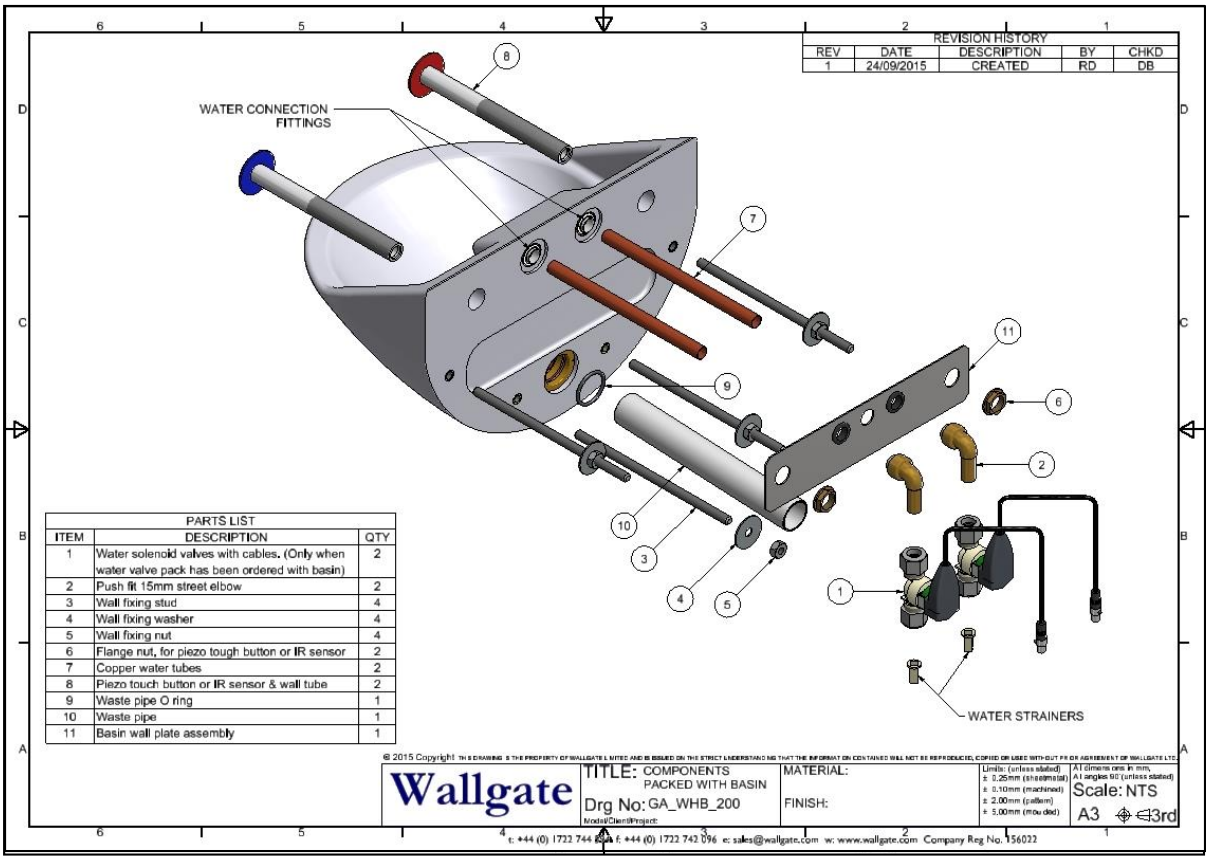

Figure 3 Components of WHB-200 or WHB-200_IR

5.4 Mounting the Washbasin

WARNING! In order to maintain the anti-ligature & anti-vandal properties of this product it must be installed in line with the following points.

1. **Ensure product fixings are correctly fitted as detailed in the following instructions.**

2. **Ensure all fixings are tightened to the recommended torque as detailed in the following instructions.**

3. **Seal the edges of the product to the wall using anti-pick hard set mastic, examples of recommended types are:**

Arbokol 1025, manufactured by Adshead Ratcliffe & Co Ltd (www.arbo.co.uk).

Sikadur 33 manufactured by SIKA Ltd (www.sika.co.uk)

To mount the washbasin to the wall:

1. Lift the washbasin into position and insert the cables, waste pipe, tubes, water pipes and wall fixing studs into the correct holes in the wall. Make sure the basin seats flush against the wall.

WARNING! The washbasin weighs 18Kg. Always use safe lifting procedures when lifting heavy loads. Make sure the washbasin is correctly secured to the wall or correctly supported before working in the vicinity.

NOTE! Make sure you do not abrade or damage the cables, copper water tubes & waste pipe when you insert them through the wall.

From the other side of the wall:

2. Place a washer (Item 4 on fig 4) on each of the threaded studs, and thread a nut (Item 5) onto each stud.

3. Thread the nuts until 15mm of thread is behind the nuts.

4. Place the wall plate (Item 11 on fig 4) such that the copper water pipes and aluminium button/sensor tubes protrude through the 4 holes in the plate.

5. Thread a flange nut (Item 6) onto each of the touch button/IR sensor tubes (Item 8). Do not tighten the flange nuts.

6. Adjust the position of the basin so that:

- The basin weight is not supporting on the copper water tubes which may damage the water seal on the push fit connectors.
- The basin is level both horizontally & vertically.
- Partially tighten the nuts on the basin wall fixing studs in a circular sequence, making sure that the washbasin is still correct, before finally tightening them to a maximum torque is 15Nm.

NOTE! Check that the copper water tubes are not misaligned through the wall prior to tightening basin wall fixings & piezo button/ IR sensor flange nuts.

7. Tighten the flange nuts on the piezo/sensor tubes, to a torque of 17Nm.
8. Apply anti-pick hard set mastic to basin edges against the wall, (i.e. Arbokol 1025 or Sikadur 33).

5.5 Water and Waste Connections

NOTE! Before you carry out the following steps, flush the water supply pipes to remove any debris and trapped air.

NOTE: Fit a Y strainer in the water supply feed pipes before connection to the washbasin, especially on older installations where loose particles from ageing water pipes can cause a blockage and/or damage to the solenoid valves.

NOTE: Fit a service isolating tap on the water supply feed to each water solenoid valve. This allows for ease of maintenance when required. The isolating tap is not supplied by Wallgate, and should be purchased separately.

NOTE: Use of any pipe sealing compound should be avoided to prevent blockages & damage to the basin faucet & water solenoid valves.

1. The basin water valve pack includes water solenoid valves (item 1 on fig 4), push fit elbow connectors (Item 2) & electric connection cables for the hot and cold connections to the basin faucet copper water tubes (item 7). Assemble each push fit elbow to the copper water tubes. Ensure the ends of the copper tubes are not

damaged or have any sharp burrs that may cause failure of the seal within the push fit elbow. Carefully push each elbow fitting onto the copper tubes. (Insertion depth is 23.5mm).

2. Assemble the solenoid valves to the push fit elbows, ensuring the correct position for hot & cold outlets. The solenoid valve for the cold supply should be fitted to the elbow & tube that feeds nozzle outlet on the right hand side (looking at basin front from the user's point of view). Ensure the outlet of each valve is connected to the push fit elbows. Tighten the solenoid valve compression nuts to a torque of 4Nm.

3. Connect the water supply pipes to the 15mm compression inlet connection on the water solenoid valves, ensuring that the water strainer (Shown on item 1 fig 4) on each valve is fitted into the end of the supply pipe tubes. Tighten the solenoid valve compression nuts to a torque of 4Nm.

4. Installation of the electronic control unit must be completed prior to proceeding to:

- Plug the piezo touch button or IR sensor cables into the electronic control unit input sockets. Refer to the product manual of the control unit to identify the correct input sockets for the basin before you make the connections.

- Plug the water solenoid valve cables into the electronic control unit input sockets. Refer to the product manual of the control unit to identify the correct input sockets for the basin before you make the connections.

5. Connect the waste pipe to a deep seal waste trap of 1 ¼" (32mm) size.

NOTE! The trap must be fitted at a lower height than the basin waste pipe for correct drainage. Fit an elbow connector to the waste pipe first before dropping down to the trap inlet connection.

5.6 Commissioning for Use

To commission the WHB-200 or WHB-200-IR:

1. Fully open the water supply isolating taps. Check the system for leaks.

2. Operate the hot and cold water by pressing the piezo touch buttons or for IR sensors place your hand within 50mm of the sensor. Operate the water on both hot & cold several times to make sure all air has been purged from the system and also to ensure that the flow rate is correct.

3. If a thermostatic mixer valve (TMV3) (Not supplied by Wallgate Ltd) is fitted to the plumbing system for the basin hot outlet, you may have to adjust the valve to set the correct hot water temperature. If so, you should do so in accordance with the instructions supplied by manufacturer of the thermostatic mixer valve.

5.7 Technical Specifications

Table 1. Technical specifications

Weight	13 Kg
Dimensions	400mm (W) x 260mm (H) x 300mm (D)
Water Supply	Minimum pressure 3 Bar (Static) Maximum rating 10 Bar Flow rate 5LPM Supply pipe size 15mm copper
Waste connection	32mm (1 ¼" pipe)
Optional Control Unit Specifications	
Power supply	230V AC 50/60Hz 2 Amp single phase ***USA / CANADA:*** 120V AC 2Amp, 60Hz for models WDCA100 and WDCA200.
Power rating	Maximum power rating 60 W
Weight	1.0 Kg
Dimensions	200mm (W) x 150mm (H) x 80mm (D)
Enclosure IP Rating	IP53
Regulatory compliance	Complies with RoHS, LVD 2006/95/EC and EMC 2004/108/EC directives.

6. User and Maintenance Instructions

The WHB-200 and WHB-200-IR basin and tap are well designed and manufactured from high quality materials. If you install, operate and maintain them according to the instructions given in this manual, the unit will give reliable, efficient service. If you need any further information or advice, please contact Wallgate customer services.

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

Any service or repair work must be done 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.

6.1 Operation

1. The unit is switched ON and OFF using the main isolation switch provided by the installer, located in the maintenance duct near the electronic control unit.

NOTE! If a fault occurs with the unit you must set the isolator to the OFF position 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.

2. Operate the cold and hot water nozzles by pressing the piezo touch buttons, or if IR sensors are fitted, by bringing your hand to within 50 mm of the IR sensors.

The piezo touch buttons and IR sensors do not have any moving parts and are operated by either lightly pressing them with your finger tip or by bringing your hand to within 50mm of the IR sensors. Once either water cycle is operated, it runs for ten seconds (Default factory setting) and stops, or stops when you press the button again.

If the time cycle of 10 seconds must be changed, refer to the product manual for the electronic control unit to make adjustments to the cycle time settings. For more information, contact the Wallgate after sales service.

Refer to the correct product manual for the control unit for more information on the control functions and settings.

The control unit cannot control the temperature of the hot water, this is usually controlled by a thermostatic mixer valve.

6.2 Maintenance

General wear mainly affects the components in contact with water. If the unit is installed in a hard water area, lime scale removers must be used on the basin and water nozzle components. The water nozzle can be dismantled using a special key and the inserts can either be replaced or immersed in a lime scale remover solution for cleaning. Details of the key and components are given in the spares list table below.

The integral push fit water connections (Tectite type) can be dismantled using a Tectite DC/405 disconnecting clip 15mm. This can be purchased from suppliers such as Wolseley Plumb Centre (Pt No 529095).

Table 2 Spare Parts List

Part Number	Description.
WN4001	Water nozzle plastic insert
RW9602	Rubber seal for WN4001
WF4002	Locking ring for WN4001
DL7523	Key to remove nozzle ring (FLAT TYPE KEY)
DL7539	Key to remove nozzle ring (CIRCULAR TYPE KEY)
RW9611	Waste pipe O ring seal

7. Related Documentation

The WHB-200 and WHB-200-IR can be used with any of the following control units:

- WDC100. For more information on this control unit, refer to the WDC100 product manual.
- WDC200. For more information on this control unit, refer to the WDC200 product manual.
- WDC400. For more information on this control unit, refer to the WDC400 product manual.

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