



## Installation and operating instructions for the Sanitary Waste Flushing and Dosing System (SWFDS)

It is the installer's responsibility to read, understand and comply with these instructions



Important notice related to the certification document WMTS-504:2013 to which these installation instructions are linked.

On 25 February 2013 management and administration of the WaterMark Certification Scheme transferred to the Australian Building Codes Board (ABCB). From this date all new technical specifications will be named WaterMark Technical Specifications (WMTS). Within two years all existing Australian Technical Specifications (ATS) will be renamed WMTS. During this initial period both terms may be used and accepted. All new and recertified Certificates of Conformity will reference WMTS. Certificates of Conformity that currently reference ATS will be re-issued referencing the equivalent WMTS during this initial period. The WaterMark Schedule of Specifications lists all current WMTS and, where appropriate, the former ATS name.

These installation instructions are also relevant to other regions outside Australia and New Zealand provided that local procedures leading to installation (if any) are adhered to.

The relevant Australian Standards are referenced in this document. For installations outside Australia either refer to the equivalent Standard for the region or in the absence of a relevant Standard then the Warranty will not be void if the Australian Standards are used provided that the relevant authority agrees.

**We would like to thank you for purchasing and installing the Azzurra Sewer Waste Flushing and Dosing System (SWFDS).**

The combination of the latest Azzurra toilet and Drainwave flushing technologies provides the answer for the ultimate water saving plumbing installation.

To match your commitment to saving water we have committed to ensuring that the system components are manufactured to the highest standards and Watermark certified to ensure their quality and reliability.

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# 1. System Explanation

A Sanitary Waste Flushing and Dosing System (SWFDS) is where all components together shall form an effective waste disposal system to transport sanitary waste in both private and reticulation sewers.

The Azzurra cistern delivers the flush volume to the Azzurra WC pan, which shall be capable of effectively delivering the waste to the Drainwave, where it will be captured and accumulated together for discharge.

The Drainwave **DOES NOT** require any external power source for operation.

For the purposes of these installation instructions Black and Grey Water are defined as;

- Black Water is water entering the drainage system via a WC pan,
- Grey water shall include all other sources of wastewater including kitchen sinks, taps and faucets, dishwashers, washing machines and urinals.

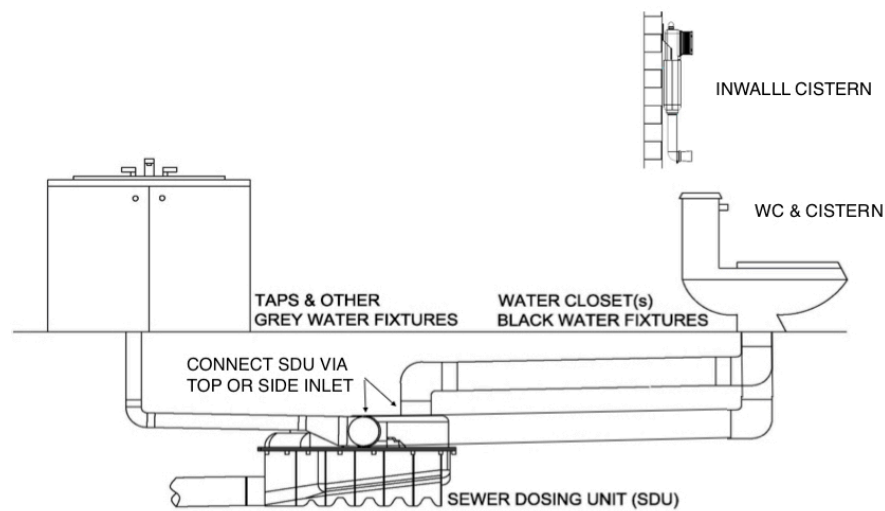


Figure 1- Typical Installation showing top and side entry inlet

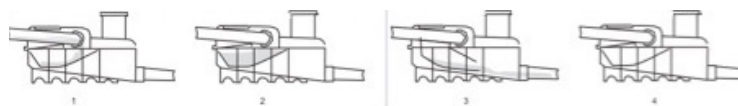


Figure 2 - Drainwave temporarily retains small amounts of water and when the collector is full the Drainwave tips by gravity and sends a pulse wave through the drainage pipes.

## 2. Component Contents and Unpacking Instructions

### Generally:

- Carefully remove all components from their packaging
- Utilise approved manual handling techniques during unpacking, lifting and installation of any component to avoid injury to person.
- Do not stack unpacked components
- Do not place heated elements, soldering irons, welding equipment, heated tools and the like on any components.
- Keep all components free of oil, grease, grit and the like.
- Prior to installation visually inspect the components to ensure it is free of defects or damage.

### WC and Cistern Contents

- WaterMark Certificate WMK 25840
- Pan
- Cistern (where applicable)
- Required fixings and valve mechanism

### Drainwave Contents

- WaterMark Certificate WMKA 22107.
- Identification marker, which is to be affixed to the 150 I/O lid, using approved solvent glue.
- Drainwave unit ready for installation.
- Drainwave advisory stickers for fixing to WC's, which form part of system.

## 3. Standards and Regulations

It is important that all relevant plumbing regulations are followed when installing the SWFDS including local sanitary plumbing and drainage requirements

In Australia the Plumbing code of Australia (PCA) and the Building Code of Australia (BCA) should be followed including all integral plumbing components to be watermarked. I.E. pipe work or fittings connected to the Drainwave in accordance with AS/NZS 3500.2.

For countries outside Australia the relevant plumbing regulations are to be followed.

In Australia and New Zealand, individual components installations shall further comply as follows:

- WC Pans and Pedestal installation is to be in accordance with AN/NZS 3500 as required by AS 1172.1, AS 1172.2 & WMTS-504.
- Drainwave installation is to be in accordance with ATS 5200.499, AS/NZS 3500.2, AS/NZS 3500.5 & WMTS-504.

## 4. Warnings

These warnings are written to protect the operation of the SWFDS. Failure to adhere to any of these warnings will void the warranty of the whole and individual components to the system.

- The entire SWFDS must be installed in accordance with these instructions.
- The entire SWFDS must be installed and/or removed by a suitably qualified and licensed person.
- The SWFDS has been designed and manufactured for continuous operation when subject to normal drain and sewer line waste, household detergents, cleaners and the like.

## 5. Do's and Don'ts

- Do – read and follow the detailed installation instructions of the relevant component and installation configuration.
- Do – provide the WaterMark documentation to the relevant authority.
- Don't – use and electric eel or other drainage “cut” cleaning equipment without being aware of where the SDU (Drainwave) sits in the drainage system.

## 6. Component Limitations

### WC and Cistern

- The maximum distance between any WC and SDU (Drainwave) is 6 meters with at a grade of 1.65% (1:60)

### Drainwave

- No WC is to be further than 6 meters from the Drainwave with at a grade of 1.65% (1:60)
- A Maximum of 6 WC's is allowable into a Drainwave unit.
- Black water shall not enter with more than 500 mm vertical fall height (if a solution is required, dissipate any vertical velocity in accordance with Clause 6.7 of AS 3500.2.)
- Where multiple WC's (up to 6) are connected to a Drainwave it is necessary that no more than 3 WC's enter via any inlet port. (Example if there are to be 4 WC's connected then 3 are admissible through 1 inlet port and the subsequent WC is to be connected through the second inlet port.)
- Grey water may enter via any inlet points with no limitation on number of fixtures or upstream distance.
- Installation in areas of pedestrian traffic only unless protected by a suitable cover or concrete slab compliant with AS 3996.

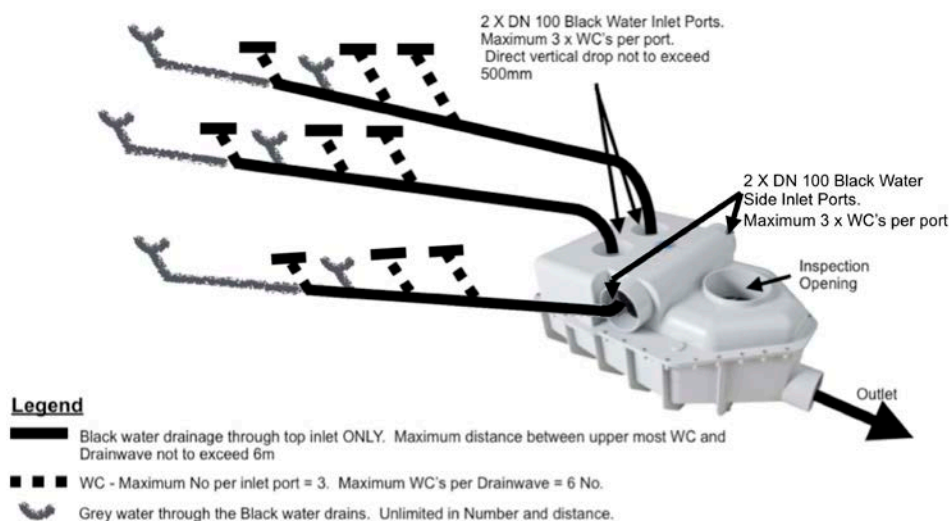


Figure 3 - Drainwave Limitations Summary Diagram

## 7. Installation and Connection Requirements

### Placement and instructions for Installation of the Components

Fittings are to be thoroughly cleaned and fixed with approved solvent weld in accordance with AS 2032.

### WC and Cistern

Refer Appendix A for specific WC model installation instruction and:

- As per standard installation as provided in AS 3500.
- WC Outlet – Connection to DN 100 network via an approved pan connector.
- Cistern Supply – minimum 15 mm.

## Drainwave

Refer Appendix C for specific Drainwave installation instructions

- DN 100 Inlet
- DN 100 Outlet
- DN 150 Inspection Opening

## Additional Venting Requirements

No change to AS/NZS 3500 venting provisions is required however, should venting be via an Air Admittance Valve (AAV), the minimum airflow capacity shall be no less than 32 L/s. In circumstance where the Drainwave unit is installed with no direct upstream or downstream vent it is recommended to vent the unit, venting can be to atmosphere or by an Air Admittance Valve (AAV) with minimum airflow capacity of 32 L/s.

# 8. Finalising the Installation

## WC and Cistern

- Check fixture operation
- Check for leaks
- Check fixings

## Drainwave

- Refer to Appendix B for installation instructions and ensure the prior to back filling check that the bucket is activating by test filling with sufficient water for bucket to activate.

# 9. Operating Maintenance Instructions

## WC and Cistern

- As per normal

## Drainwave

- The Drainwave is an automated device, which requires no external power.
- Should solid waste matter be present within the device, a careful pressure clean should be undertaken. (Maximum pressure 110 Bar).
- Should the SWFDS be installed in a building which may be unoccupied for extended periods of time, then the owner/occupier should be advised the following;
  - To include a 10 litre dose of the drainline prior to leaving the facility unoccupied. This will ensure the drain line and the Drainwave are clear of waste. This can be done by activating the full flush 3 times or running the tap on an upstream fixture.

# 10. Trouble Shooting

Should an operational failure of any component within the system be suspected or experienced, immediately contact a registered plumber to inspect and/or repair.

Inspection of the individual components should include but not limited the following;

## WC and Cistern

- Check flushing mechanism and operations
- Check for foreign objects lodge within pan and cistern
- Check for leaks
- Check water supply

**Drainwave**

- Open the 150 mm inspection opening and visually inspected the device to ensure it is free from foreign and waste matter, clean out if required,
- Check tipping action of bucket by having sufficient water flow into the device to fill the bucket and activate the tipping action,
- Replace device if damaged beyond cleaning.

## 11. Warranty Terms and Conditions

**WC and Cistern**

- See product for details
- Refer Azzurra website  
<http://www.azzurra.com.au>

**Drainwave**

- Refer Drainwave website  
<http://www.drainwave.com>

## 12. Parts List

**WC and Cistern**

- Refer Azzurra website  
<http://www.azzurra.com.au>

**Drainwave**

- Refer Drainwave website & Appendix B  
<http://www.drainwave.com>

## 13. Warranty Procedure

**General**

In the event that there is a problem with any component please contact the component retailer. This contact will initiate a service call, which will require you to sign your consent to the following;

- A service call by the local service agent will be made on site.
- If it is determined that the reason for failure is due to incorrect installation, mistreatment of the affected component or failure to adhere to minimum maintenance requirements then the cost of the service and any repair or replacement of the component will be borne by the customer.
- If it is determined that the reason for failure is not due to incorrect installation or mistreatment of the affected component it will be returned for replacement under the terms of the component warranty.

**WC and Cistern**

- Refer Azzurra website  
110 Links Avenue South  
Eagle Farm Qld 4009  
Ph: (07)3630 1122  
Fax: (07) 3530 1166  
<http://www.azzurra.com.au>

**Drainwave**

- Refer Drainwave website & Appendix B



13 Willowdene Ave  
Sandy Bay TAS 7005  
Ph: 0437529100  
Fax: (03) 62250618  
<http://www.drainwave.com>

## 14. Technical Specification Sheets and Component List

### WC and Cistern

- Refer Appendix A for WC model specifications

### Drainwave

- Refer Appendix B for Drainwave specifications

# Appendix A – Azzurra WC Installation Instructions and Technical Specification Sheets

## INSTALLATION INSTRUCTIONS

### PEDESTAL & WALL HUNG SERIES TOILETS

#### FOREWORD

**NB: These installation instructions are to be used in conjunction with the installation instructions as per the in-wall cistern/flush valve manufacturer.**

- Please ensure these installation instructions are current and for the product they are intended for.
- These instructions are a guide only and all products must be installed and maintained by a trade qualified plumber.
- Ensure that the correct tools are used in each step of these procedures.
- For further information and or product support contact Azzurra Imports Pty Ltd.

#### Pan Installation

1. Draw a horizontal line from the wall through the centerline of the waste outlet to the front of the pan position.
2. Place the pan in position and indicate the location of the fixing holes beside the pan. Remove the pan and draw a line between these marks ensuring that they are at right angles to the centerline. Position the fixing brackets supplied 45mm inside these marks and mark the site of the holes in the floor.
3. Ensure the floor area is clean.
4. Drill 2 holes and fix the brackets with the screw and plug supplied. Push pan onto flush pipe outlet connections of in-wall cistern.
5. Apply an approved silicone sealant around the pan base, and position the pan whilst checking that it is level and a good seal is maintained with the inlet & outlet connectors. Insert the fixing screw provided through the hole in the pan foot and into the bracket. Check the pan for alignment and tighten.
6. Fit chrome cover caps over screw heads.
7. Remove any excess sealant from around base.

#### Soft Closing Seat Fixing

1. Fix the hinge base to the pan, and rotate to suit the holes in the seat hinge.
2. Fit the chrome plated cover over the hinge base fix the seat into it.
3. Confirm the position and remove the seat.
4. Fix the hinge base securely.

#### BACK TO WALL BACK INLET TOP FIX SERIES TOILET

Installation is to be in accordance with AS/NZS3500 as required by AS1172.1, AS1172.2 & WMTS-504

VERSION 3.0 2013

## FOREWORD

- Please ensure these installation instructions are current and for the product they are intended for.
- These instructions are a guide only and all Azzurra products must be installed and maintained by a trade qualified plumber.
- Ensure that the correct tools are used in each step of these procedures.
- Some back inlet cistern models also allow right or left hand bottom inlet.
- Wall faced pan is universal for both 'S' & 'P' trap installations.
- For further information or product support contact Azzurra.

## Outlet Orientation (all models)

**N.B: For 'P' trap installation it is recommended not to use an offset pan collar. For 'S' trap installations no pan collar is required. Refer to the setout table for each model at [www.azzurra.com.au](http://www.azzurra.com.au)**

Determine the orientation and set out of the existing waste pipe.

- 'P' trap fixed setout (pan connector supplied not required)
- 'S' trap variable setout available on all models (use pan connector supplied)

## 'S' Trap Connector Fixing Procedure

1. Insert connector bend into existing waste pipe and measure the correct set out and height (check your measurement) and cut to length.
2. Remove burr from cut edge of pan connector and fit pan rubber seal and cover.
3. Determine the correct length of the support bracket and secure in place using the fixing plate supplied.

## Back Inlet Pan & Cistern Installation

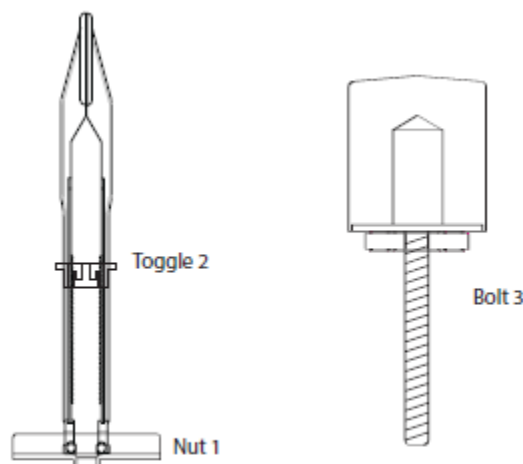
**N.B: It is not necessary to fit the cistern prior to pan installation. All cistern valves are pre-tensioned and positioned correctly, no adjustment is required. Check water level and adjust as needed. Note: Over tightening of cistern valves could cause damage and void warranty.**

1. Remove the cistern and pan from their cartons and inspect for any transport damage.
2. Insert the cistern nut 1 (2 supplied) through the cistern hole located on the pan, now clip both paddles together and fit toggle 2 and secure in place. Trim the plastic paddles above toggle 2, repeat for the remaining cistern bolt hole. The pan is now ready to take the cistern (Top Fix Cistern bolts can be fitted at any time during the installation).
3. Ensure the floor area is clean.
4. Place the pan into position and indicate the location of the fixing holes beside the pan. Remove the pan and draw a line between these marks ensuring they are at right angles to the center line. Position the pan fixing brackets supplied 45mm inside these marks, drill 2 holes and fix the brackets with the screw and plug supplied.

5. Apply an approved silicone sealant around the pan base, and position the pan whilst checking that it is level and a good seal is maintained with the pan collar. Insert the fixing screw provided through the hole in the pan and into the bracket. Check the pan for alignment and then tighten. Fit cover caps over screw heads. Remove any excess sealant from around base.

6. Fit the black foam seal securely around the tail nut of the outlet valve on the underside of the cistern. (No silicone is needed)

7. Place the cistern onto the cistern landing area of the pan. Using bolt 3, from inside the cistern securely and evenly tension the cistern to the pan (do not over tighten).



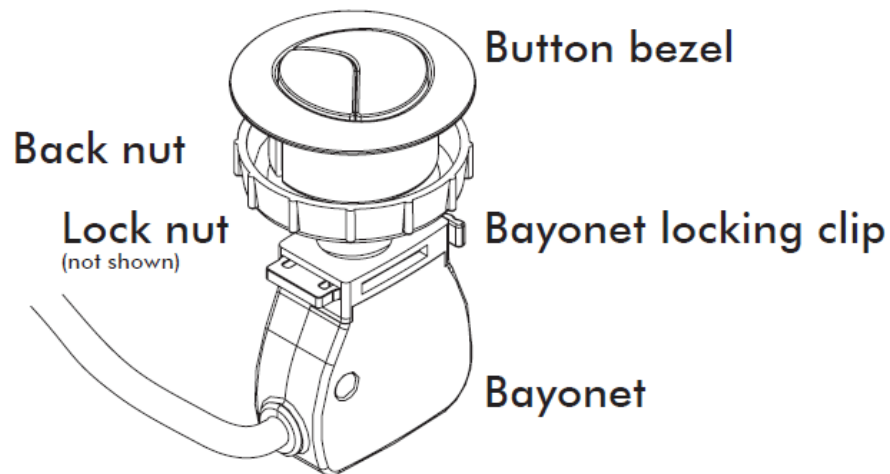
### Bottom Inlet Pan & Cistern Installation

1. Remove the cistern from the carton and inspect for any transport damage.
2. The bottom inlet can be changed right or left by interchanging with the bung in the base of the cistern, outlet valve may also need to be changed so the overflow tube is on the opposite side.
3. Fit the water service to the inlet valve with an approved flexible hose (not included) prior to fitting the cistern to the pan.
4. Follow steps 2 - 7 above (back inlet).

**N.B: Ensure the flexible connection is located through the hole in the side of the pan for water connection if required. The supply line must be adequately flushed to remove any debris prior to connection.**

### Button Assembly & Installation (all models)

1. Fit button and bezel to cistern lid and tighten in place using the back nut then secure the back nut with the lock nut.
2. Whilst holding the cistern lid adjacent to the cistern tank the buttons can be fitted. Fitting the buttons use the cable with the bayonet fitting attached to the outlet valve, press the bayonet locking clip and push onto button tail and release to secure, test its operation.
4. Before connecting the water service to the cistern it is important to flush the lines to remove any foreign matter or debris.



### Soft Close Seat Fixing (all models)


1. Fit the top fix seat hinge to the seat holes on the pan (do not remove protective cover).
2. Tension using a screw driver to allow the hinge to slightly move for adjustment.
3. Fit the seat to the hinge and align evenly with the pan edge.
4. While the seat is still attached tension the hinge securely (you might need to lift the seat and cover).
5. Check for alignment and adjust if necessary.
6. Remove the seat and fit hinge covers then re fit the seat.
7. Check seat alignment and operation.

**N.B: Check operation and ensure water levels are correct.**

Azzurra Imports Pty Ltd - Product Warranty can be found on the Website at [www.azzurra.com.au](http://www.azzurra.com.au)

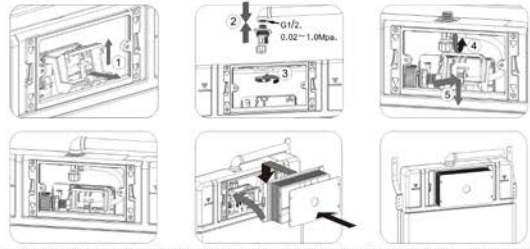
For product support please call 1300 765 768

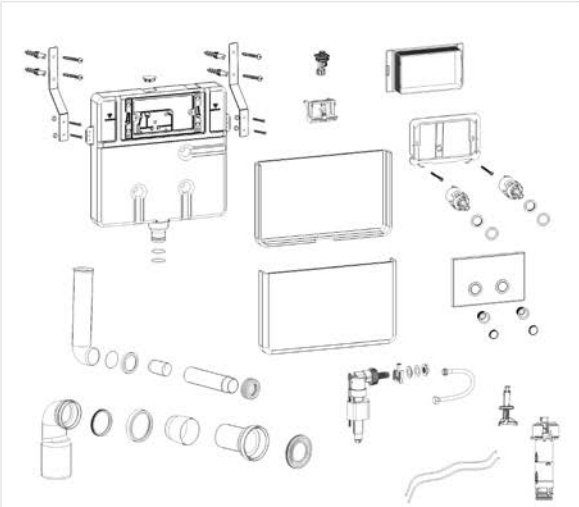
## Inwall Cistern and Button Installation Instructions



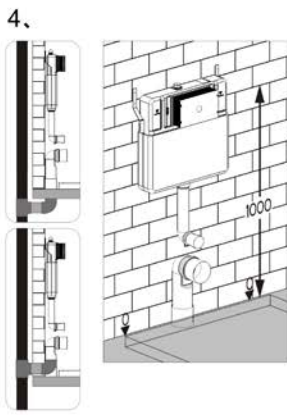
Installation Manual

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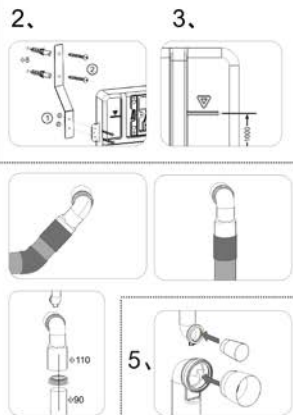


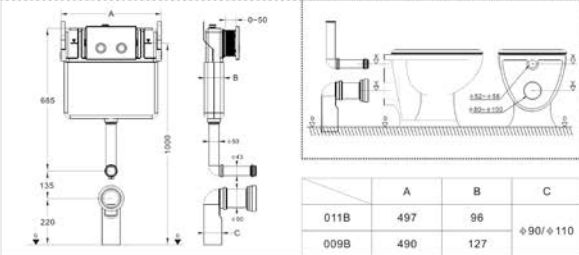


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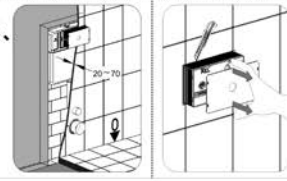
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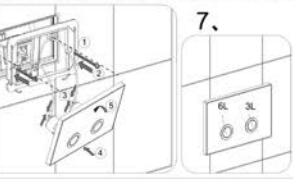


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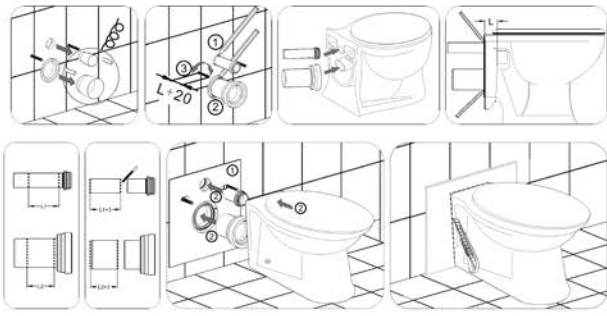
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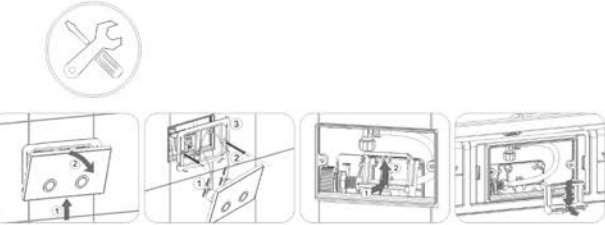


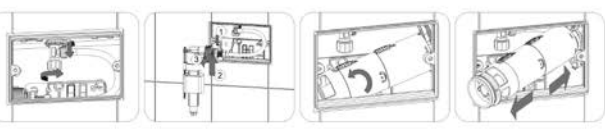
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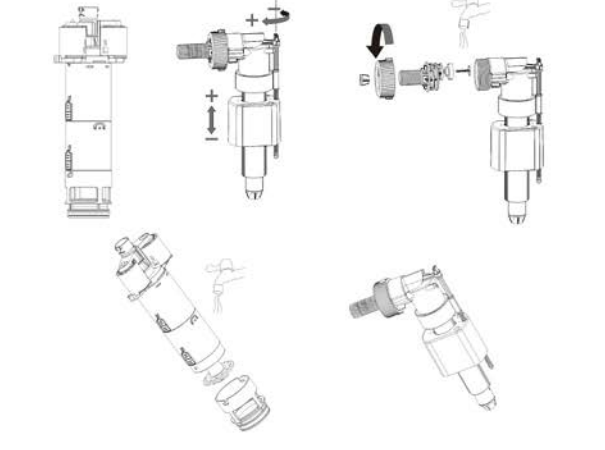


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## Appendix B – Drainwave Installation Instructions Technical Specification Sheets

### Drainwave

The following procedure should be used for the installation of a Drainwave.

- Drainwave is not to be installed in direct sunlight
- Connect black and grey water while ensuring compliance with Section 6 of these instructions.
- Upper inlet ports require the installer to cut out the base of the port to allow entry to the Drainwave. Ensure the cut edges are free from burrs.
- Connect inlet and outlet pipes by applying a correct amount of solvent weld glue and pushing pipes 50mm into port sockets.
- Ideally no 90 degree bend is to be closer than 2 meters downstream of Drainwave.
- Install DN 150 inspection opening cover and screw cap. Fix "Drainwave Below" label to I/O cap.



Figure A: Glue Fix "Drainwave below" to I/O cap

- Product information labels are to be fixed to all cisterns and/or WC pans connected to the SWFDS.
- Any unused inlet ports shall be sealed off with approved plumbing fittings.
- If the unit is being placed on ground prepare a level base with bearing capacity of at least 80kPa by either compacting 75 mm min of FCR into the trench base or for wet and clay soils by preparing a minimum 75 mm base of bedding mortar
- If the unit is being suspended ensure adequate suspension points are available. Suspend with standard DN 100 pipe suspension system.
- Ensure the base and Drainwave is level in both directions using the bulls eye level.
- Backfill as per normal (if required)

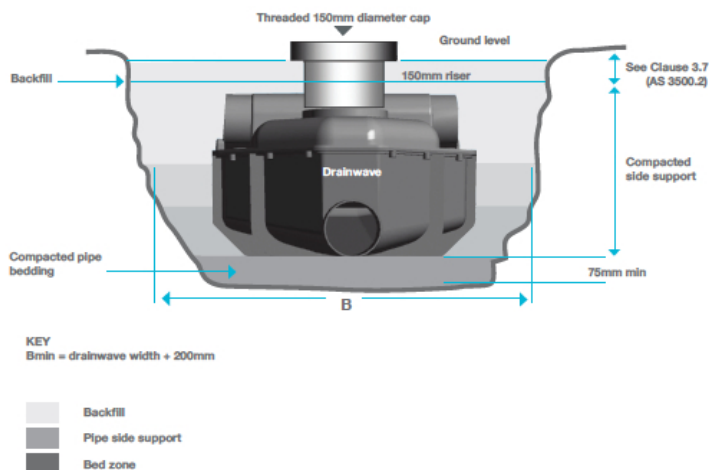


Figure B: Riser and backfill configuration if Drainwave is placed in the ground

