

Zip HydroTap® G4

Filtered, Chilled and Sparkling drinking water for commercial kitchens and tea rooms.

CS & CSHA Commercial



**Affix Model Number Label
Here
804050**

Tap options

The HydroTap appliance series offers a range of interchangeable taps to suit the customer's needs (See options below). For ease of installation, it is recommended to fit the tap before installing the undersink unit. The installation procedure for each of the taps is detailed in a separate tap installation instruction book No. 803341, supplied with the tap.

For all operational features of the HydroTap, please refer to the CS User manual No.801981.



Classic Tap



Arc / Cube Tap



Elite Tap



Celsius Tap

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Installation checklist

Thank you for purchasing a Zip HydroTap. Please read and follow these instructions carefully to ensure safe and trouble free service. If service is required, please call 1800 638 633

Before Installation:

- A. Read the instructions and check if there is adequate space to mount all of the components.
- B. **Note:** Not all fittings are supplied with the appliance kit. Isolation valves and special tools are not supplied (See Technical Specifications for details).
- C. Check the mains water pressure is between 250 - 700kPa
- D. Check the water quality to determine if extra filtration will be required.
Note: This product must be fitted to a potable water supply.
- E. Check the appliance rating plate and ensure correct power is available for the appliance.
- F. Check the under counter cupboard supporting the appliance is adequate for the total weight of the appliance, when full of water.

Before Commissioning:

- 1. Check the unit has been installed correctly.
- 2. Flush the supply line before connecting to the undersink unit.
- 3. Check all plumbing fittings have been tightened.
- 4. Ensure the outlet and vent pipes are positioned to drain correctly.
- 5. Ensure there is adequate ventilation.
- 6. Check all tubes from the underbench unit to the tap, have a constant rise and there are no sags or kinks in the hoses.
- 7. Check all electrical connections are correct and there are no loose wires.

Commission: (See section 5)

- 8. Turn on the gas and water and check for leaks.
- 9. Turn on the power.
- 10. Purge the CO₂
- 11. Flush the filter.
- 12. Where applicable, programme the unit to suit the customer's requirements.

Important Safety Instructions

What is the Zip HydroTap ?

The Zip HydroTap CS taps are electronically controlled, filtered, Chilled and Sparkling water, drinking systems for kitchens and tea rooms. In addition, the Celsius tap is designed to dispense Chilled and Sparkling water as well as Ambient and Hot water, from external mains and hot water services respectively.

The HydroTap units are under bench drinking water appliances with a dispensing tap mounted on a sink or bench, which may be used for commercial applications. These units utilise a conventional refrigerant compressor to chill the water and utilise a CO₂ gas cylinder to carbonate the chilled water. The CS models will dispense chilled water (factory set to 3-5°C) These models are NOT designed to be used for sanitary fixtures.

In addition, there are various energy saving options accessible via the main menu. The 2.64kg CO₂ bottle is refillable and should be returned to your nearest HydroTap agency for exchange, whereas the water filter is a disposable item. Both will require periodic replacement and are covered by a limited OEM warranty.

It is important that the Installation be done safely, correctly and completely, in order to utilise all the benefits the HydroTap can provide. The Classic tap may be ordered with the Tap Head Assembly for Disabled use. The disabled levers are supplied with Braille caps for the visually impaired.

This manual contains important safety, Installation instructions for the Zip HydroTap G4.

Safety

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.



For products sold in Europe, this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Refrigerant

The Zip HydroTap unit contains R134A refrigerant under pressure. Maintenance of the refrigeration unit must be carried out by an accredited service provider or qualified refrigeration technician.

Qualifications

If the power cable is damaged it must be repaired only by a qualified technician. To avoid hazards, all Installation procedures must be carried out by a suitably qualified tradesperson. The power cable and power outlet must be in a safe visible position for connection.

Venting

Ensure the tap body is located so the tap outlet safely dispenses into the sink bowl area.

Lifting

Take care when lifting the Zip HydroTap unit. Some units may exceed safe lifting limits. If you feel this is beyond your personal capabilities, please seek assistance with the lift. The weights of the units are marked on the packaging. Do not lift the unit by the front cover or any connections at the top rear of the unit. Refer to the technical specifications for the weight of your product.

Airflow

The ambient operating temperatures, when installed in a cupboard, must be between 5°C - 35°C. The system will operate satisfactorily only if proper air ventilation is provided and only if the recommended air gaps of 50mm on each side are provided. See section 2 for correct ventilation details.

Important Safety Instructions

Positioning

It is important to ensure the underbench unit is positioned in an accessible area close to the floor level. The unit must have its base mounted in a horizontal position with all inlets and outlets facing up. The Tap must be located above the underbench unit. See section 4 for details.

WARNINGS

1. The Zip HydroTap unit must be earthed. The resistance of the earth connection from each exposed metal part must be less than 1 ohm.
2. All Installation and service work must be completed by trained and suitably qualified Tradespeople. Faulty operation due to unqualified persons working on this product, or any other Zip product may void warranty coverage.
3. All Plumbing must comply with AS/NZS3500.
4. All Electrical must comply with AS/NZS3000
5. All Plumbing and Electrical connections must be made in accordance with local regulations.
6. This HydroTap product is rated for 230V 50Hz AC operation.
7. Underbench units must never be located near, or cleaned with water jets.
8. Zip HydroTaps are not to be exposed to the elements of nature
9. Due to the process of continuous improvement, Zip Heaters reserves the right to change details mentioned in this manual, without notice.

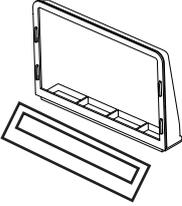
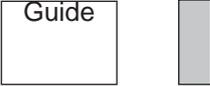


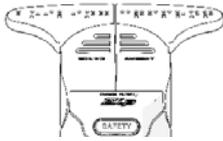
2.64 Kg CO₂ Cylinder Warnings:

- Pressurised container.
- Protect from sunlight.
- Contains gas under pressure, may explode if heated.
- Do not expose to temperatures exceeding 50°C.
- Do not pierce or burn, even after use.
- Do not expose to naked flame or any incandescent material.
- Keep out of reach of children.
- High concentration of gas may cause asphyxiation.
- Use only in ventilated areas.
- Store in a location with a volume of no less than 50 cubic meters for each 2.64 Kg bottle.
- Use only in an upright position.
- This bottle must be used with the approved pressure regulator.
- Avoid shock.
- Use according to MSDS. (Material Safety Data Sheet).



Major components and accessories

Parts supplied	Description
	1 off 4 HydroTap Taps with hoses (Classic tap shown)
	1 off HydroTap Underbench Unit with air and water filters
	1 off Mains water connection hose
	Duct kit 1 x Air Duct 1 x Mounting plate
	Vent Kit 1 x Kickboard louvre 1 x Door vent louvre 1 x Front vent grill
	1 x Tee piece for Celsius model
	1 x User guide and 1 x Quick start guide
	1 off CO ₂ gas cylinder & regulator assy

Accessories	Description
	Font Kit for Celsius; Arc & Cube Models
	Font Kit for Classic & Elite Models
	Replacement Filter
	Disabled lever Kit for Classic Tap

Technical Specifications

Model	Glasses of Chilled Water per Hour
CS	175

Commercial Models:

- CS = Chilled Sparkling, Filtered
- CSHA = Celsius Chilled Sparkling, Hot & Ambient
- D = Disabled lever controls, (Order as an option)

NOTE: chilled water will continue to be dispensed after the rated capacity has been used, although this may be at slightly higher temperature.

Note: the Glass measurement = 200ml

Product covered by these instructions:

	Capacity Boiling (cups)	Capacity Chilled (glasses)	Boost (10A)	GPO's Required	Power Rating (kW)	Boost Rating (kW)	Unit Dimensions W x D x H (mm)	**Dry Weight (Kg)
Chilled Sparkling - Classic; Elite; Arc/Cube								
CS175	NA	175	no	1x10A	0.450	NA	336 x 476 x 335	26
Chilled Sparkling, Hot & Ambient - Celsius								
CSHA175	NA	175	no	1x10A	0.450	NA	336 x 476 x 335	26

** Add an extra 4-5 kg when full of water

Special Tools Required:

In addition to normal tools, the following will be required:

- 35mm diameter sheet metal hole punch for sink tops. (Not supplied)
- 35mm diameter hole saw for timber bench tops. (Not supplied)
- Nut runner tube spanner (supplied) for fixing Classic & Elite tap assemblies.
- 42mmAF Tube spanner or wrench (Not supplied) for fixing the Celsius & Arc/Cube Tap assemblies

Before Installation



Before installing ensure that the following have been provided at the Installation site:

- Review all the technical specifications.
- Ensure the underbench can support the product weight when full of water, (allow an extra 4-5kg when full.)
- Sufficient space in the cupboard to install all of the undersink units in accordance with these Installation Instructions. Refer to technical specifications and section 4, for Installation instructions.
- For Zip HydroTap CS & CSHA models, a 220-240Vac, 10A GPO will be required.



 **Note: Check all cable and hose lengths against inlet /outlet positions before proceeding .**

- A potable water supply connection with isolating valve inside the cupboard within reach of the braided hoses and positioned so that the connection point and the stop cock will not be obstructed when the undersink units are installed.
- For the Celsius tap, an external Hot and Cold water supply will be required.
- A cold water supply with a minimum working pressure of 250kPa and a maximum working pressure of 700kPa connected via an isolation valve.
- The fitting of an air flow duct, attached to the side of the unit, requires a rectangular cut size of 284mm x 45mm, to provide adequate warm air displacement. See section 2.
- The appliance must be placed with it's base in a horizontal position.

IMPORTANT! Do not proceed with the Installation if these requirements are not met.

Section1 Tap Installation

Fit the Tap to the benchtop or sink before installing the undersink unit.
Refer to the tap installation book 803341

Section 2

Ventilation

When installing air flow ducts, the following tools will be required:

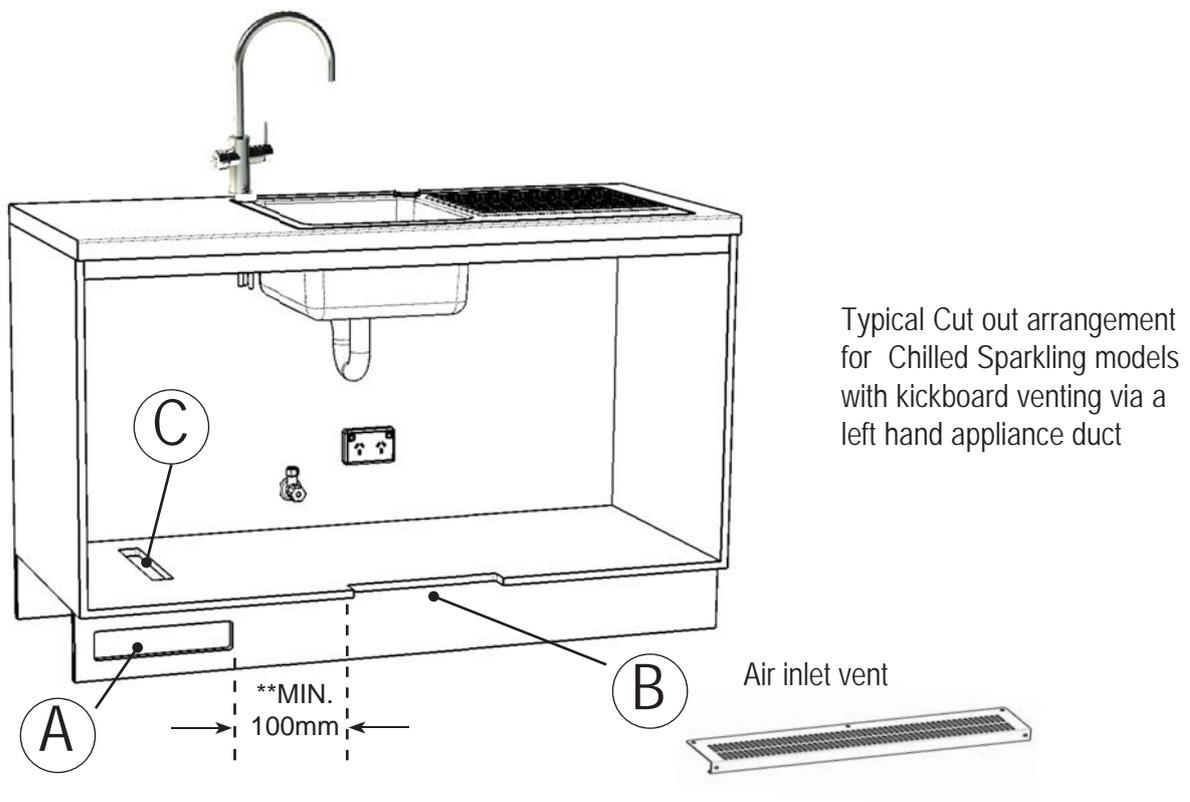
- Jigsaw and 12mm drill
- Keyhole or Wall Board saw.

2.1 Ventilation for All Models

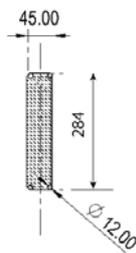
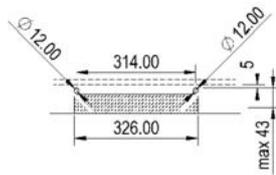
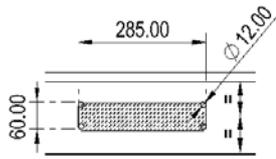
Proper air circulation must be provided for all Chilled Sparkling models. The system will operate correctly only if the recommended air gaps are achieved during Installation. It is recommended to install vent duct and louvre panels for under floor and /or door vent systems.

****Note:** Inlet and outlet vents should be separated by a Min 100mm, to avoid hot air recirculation.

2.2 Standard ventilation for Chilled Sparkling models. (CS & CSHA)



Ventilation



A - Kickboard cutout

1. Drill 4 pilot holes 12mm dia in corners
2. Finish cutout using a Jigsaw and Keyhole or Wall board saw

B - Cabinet floor cutout

1. Drill two pilot holes 12mm dia.
2. Finish cutout using a Jigsaw

C - Cabinet floor cutout

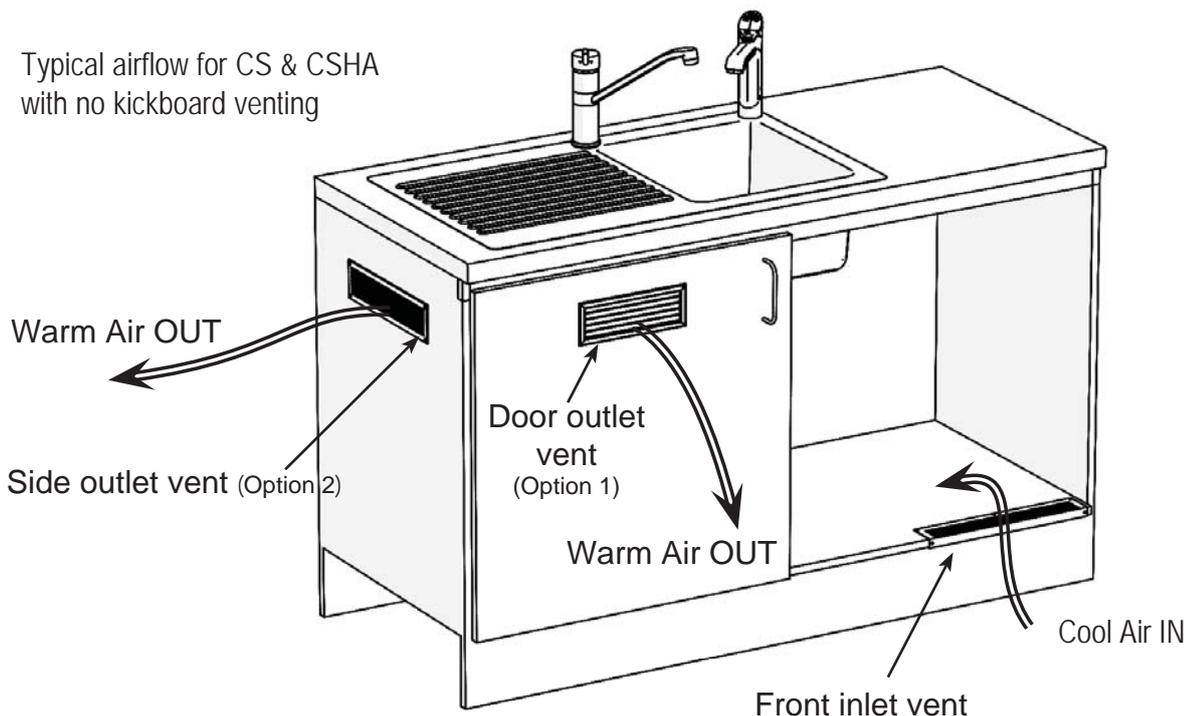
1. Drill 4 pilot holes 12mm dia in corners
2. Finish cutout using a Jigsaw and Keyhole or Wall board saw

2.3 The following instructions are critical if the vent kit, as supplied, is not fitted:

If the kick board vent kit cannot be used then it is important to fit a standard HydroTap vent kit, which ensures heat dissipation through natural convection via installed vents. For high use applications, where the cupboard space temperature is near 35°C, or higher, an auxiliary ventilation kit must be fitted. (Contact your local service centre for availability).

Note: The vent kit has to be installed in a way that allows air to be drawn in from the bottom of the cupboard and expelled through the top of the cupboard. Therefore placement of the outlet vent should be towards the top of the door (Option 1) or on the side of the cupboard (Option 2).

Typical airflow for CS & CSHA
with no kickboard venting



Section 3

2.640 KG - CO₂ Cylinder



STORAGE WARNING:

This cylinder must be installed in an open plan area or in an enclosed room, with a volume no less than 50m³. If more than 1 gas cylinder containing CO₂ is present within the same location, the recommended ventilated area should be in proportion to the number of gas cylinders stored in that location.

A ventilated area is a non-enclosed area which could include the kitchen, living room etc.

See gas bottle and MSDS sheet for a complete list of warnings. (See: www.zipwater.com)

3.1 Secure the cylinder cradle

After removing all packing material, mark out the cradle location, and fit it on a suitable wall, within 1 metre of the unit. Make sure the gas bottle, regulator and cradle assembly can comfortably fit, with sufficient clearances, before securing the cradle inside the cupboard. Due to regulatory requirements the gas bottle must be stored securely and in an upright position. Secure the bottle with the hook-and-loopstraps provided.

3.2 Connect the regulator:

After removing all packing material, fit the regulator to the gas bottle, as shown in the diagrams. Ensure the plastic seal is fitted securely inside the large chrome nut, before attaching to the gas bottle. If the plastic seal is not an easy fit over the spigot, soak it in hot water, before re-applying. Do not force the seal to fit.

Turn the regulator OFF by rotating the regulator knob, all the way out, in an anti-clockwise direction.



NOTE: Two plastic seals are supplied with a new regulator. Only one is required, the other is supplied as a spare part.

3.3 Connect the gas hose:

Connect the braided gas hose to the threaded end to the regulator (Do not lose the small sealing olive).

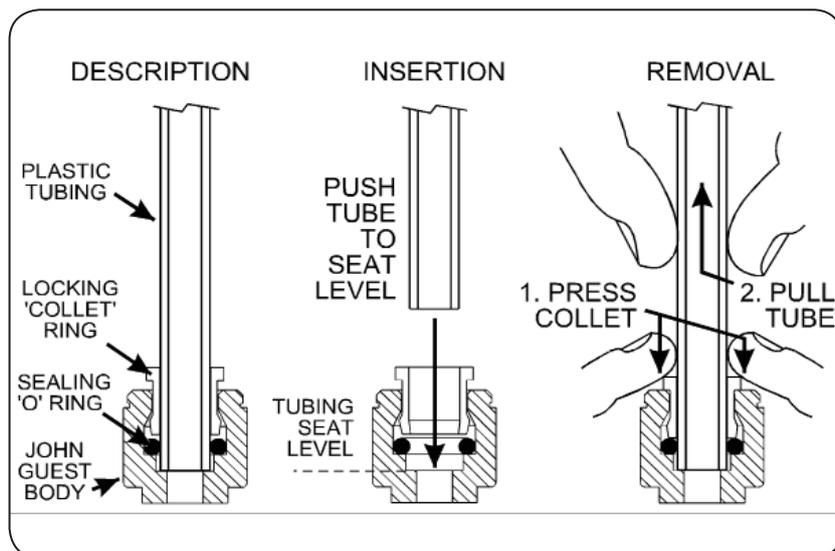
Section 4

Underbench Unit Installation

John Guest fittings (Insertion and removal)

Be careful when cutting the poly tube so that there are no rough edges and that the tube is not distorted.

1. Use a sharp knife to ensure the tube has a clean, straight edge. Do not cut at an angle.
2. Remove any swarf or unwanted material.
3. Push the tube into the John Guest fitting making sure all connections to the John Guest fittings are pushed in past the "O"ring to full depth, at least 15-16mm.
4. Check for a good joint by pulling back on the tube. If the tube comes out, of the fitting, repeat the above step.
5. To remove the tube, press the collet into the fitting and at the same time pull back on the tube.



Installation

4.1 Hose and tube fitting

- Remove all caps from the top of the undersink unit.
- Fit the foam insulation to the Blue and to the White tubes after trimming them to length.
- Flush the supply line before fitting to the undersink unit.
- Install the mains water braided hoses to the undersink unit before locating the unit in place.

CO₂ Regulator

This gauge shows the pressure in the bottle and indicates when the bottle is empty. Initial bottle pressure will be 35-40 bar.

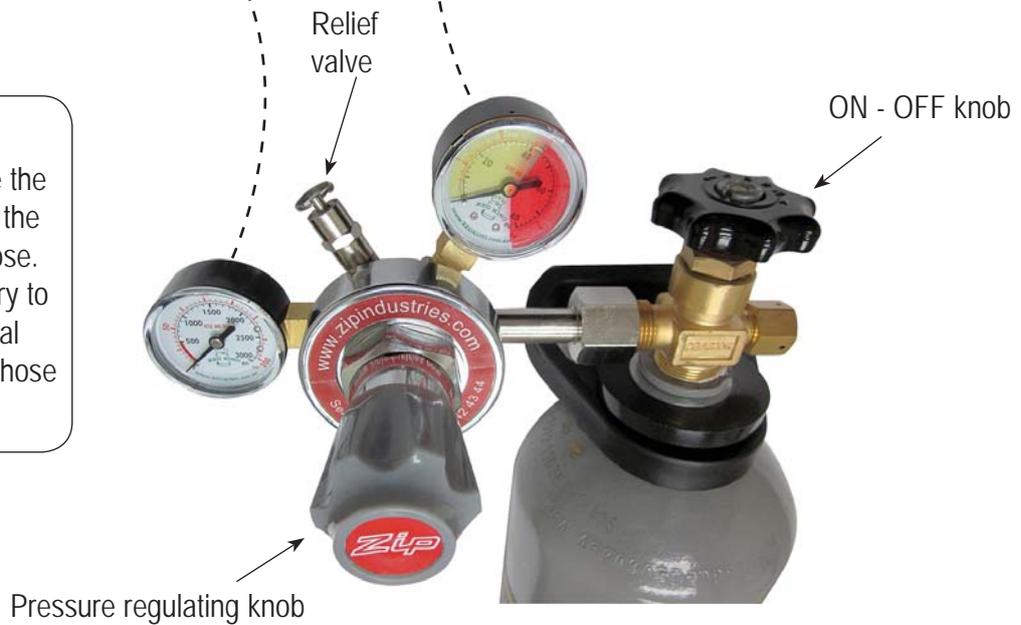


This gauge shows the adjustable limit (2.7- 3.0 bar) required for the HydroTap to function correctly



NOTE:

Be careful not to lose the small sealing olive in the end of the braided hose. This olive is necessary to ensure a gas tight seal between the braided hose and the regulator.



CO₂ Regulator

4.2 Connect the gas hose:

Connect the braided gas hose to the top of the underbench unit via the John Guest fitting marked 'Gas IN' . When commissioning, turn the gas ON by rotating the valve on top of the cylinder, anti-clockwise. Then adjust the outlet pressure, by rotating the regulator knob in a clockwise direction, to between 2.7- 3.0 bar (green zone)

 **NOTE:** The arrow should sit in the green zone of the regulator gauge; it should not fall in the red or yellow sections.

4.3 Test for gas leaks:

When commissioning, use soapy water to perform a leak test. Apply the soapy water to the two gas connections using a sponge or brush. If any bubbles appear and grow, there is a gas leak at the connection. Clean away the soapy residue and tighten or refit the leaking connection. Make sure the gas is turned off when tightening or refitting the leaking connection.

Fit the gas bottle into the cradle and secure with the Hook-and-loopstrap. Ensure the bottle is in an upright position.

 **NOTE:** Care must be taken when working with high pressure carbon dioxide, and in no cases should the normal operating pressure of between 2.7- 3.0bar be exceeded.

Leak Test

After replacing a bottle or after making a gas connection, perform a Leak Test:

Stage1:

1. Turn the gas OFF
2. Using soapy water applied with a sponge, or with a brush, cover all of the gas joints with a liberal amount of suds.

Stage 2:

1. Turn ON the gas
2. Adjust the pressure to between 2.7- 3.0 bar
3. Inspect the joint for leaks
4. If any bubbles appear, the joint will need to be resealed.



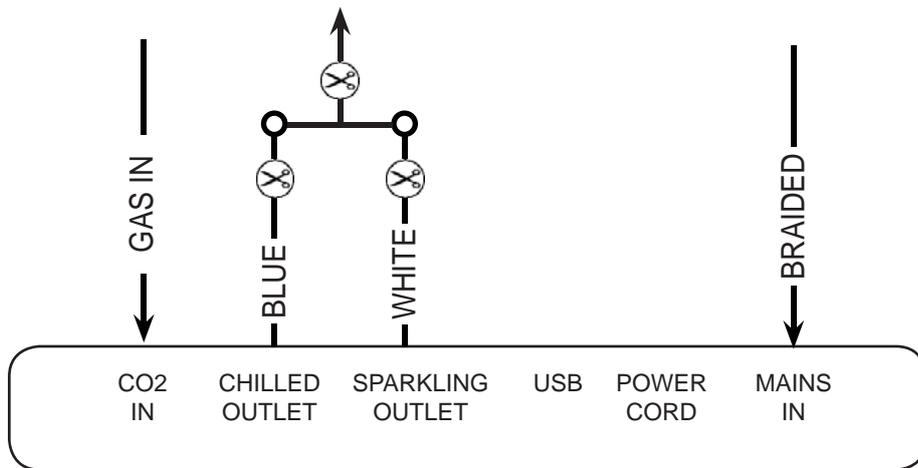
Installation and connection

4.4 Installation and connection

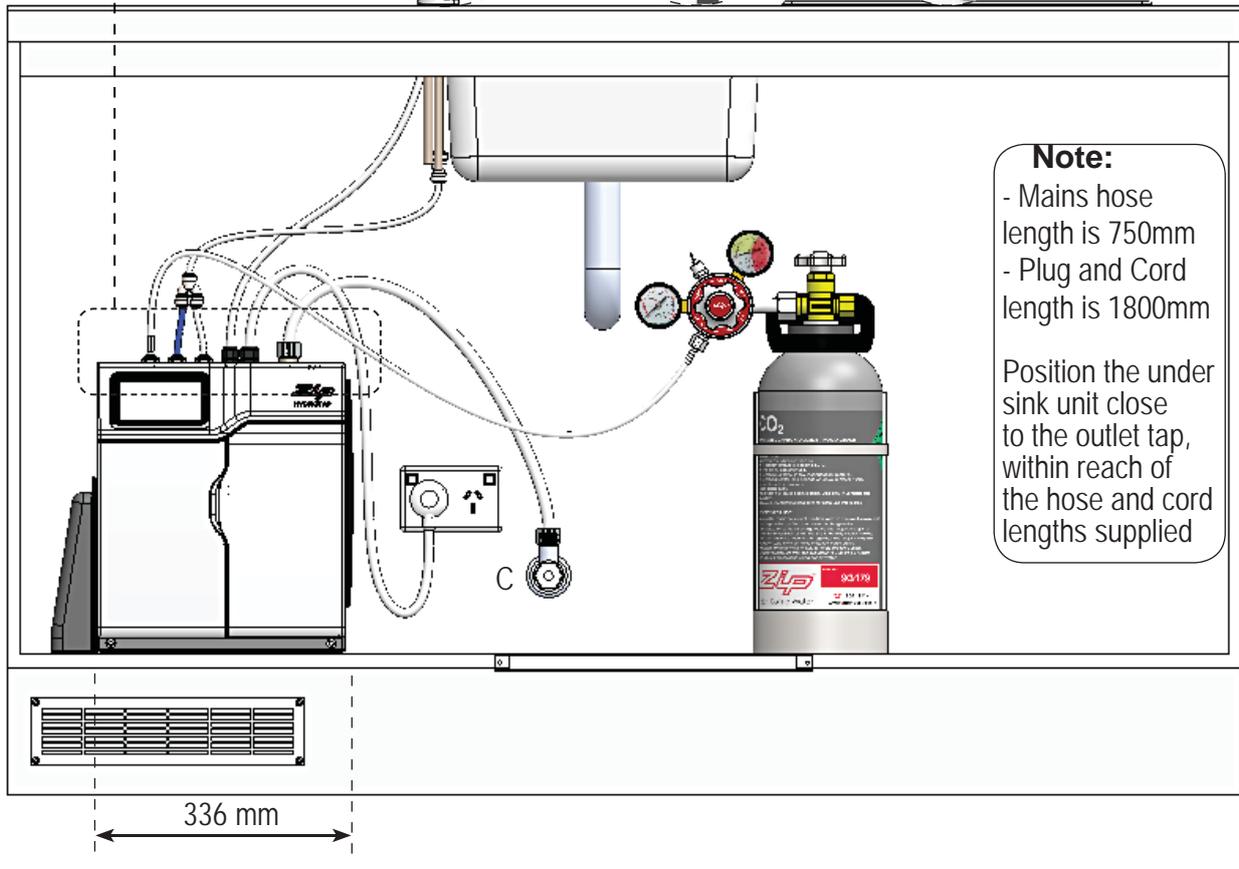
- Install the undersink unit with the connections shown below

Installation Instructions

4.5 Chilled Sparkling Model - CS 175



Note: All silicon tubes must be cut to size. They must have a constant fall back to the unit.



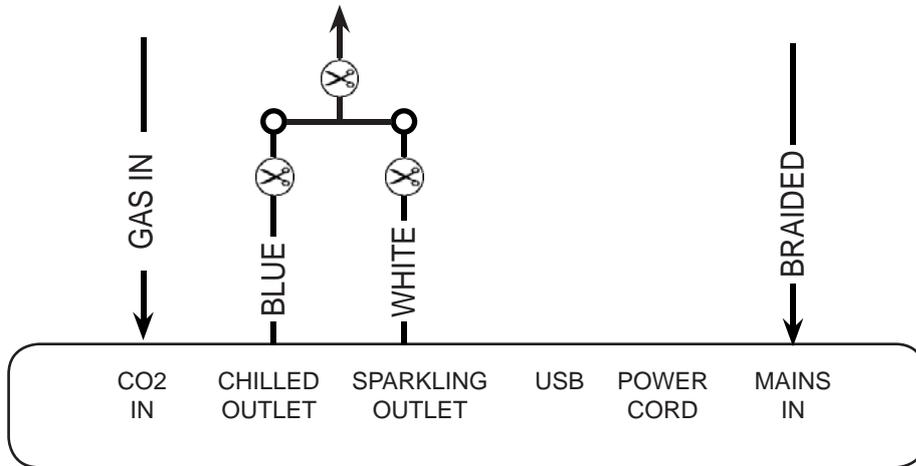
Note:
 - Mains hose length is 750mm
 - Plug and Cord length is 1800mm
 Position the under sink unit close to the outlet tap, within reach of the hose and cord lengths supplied



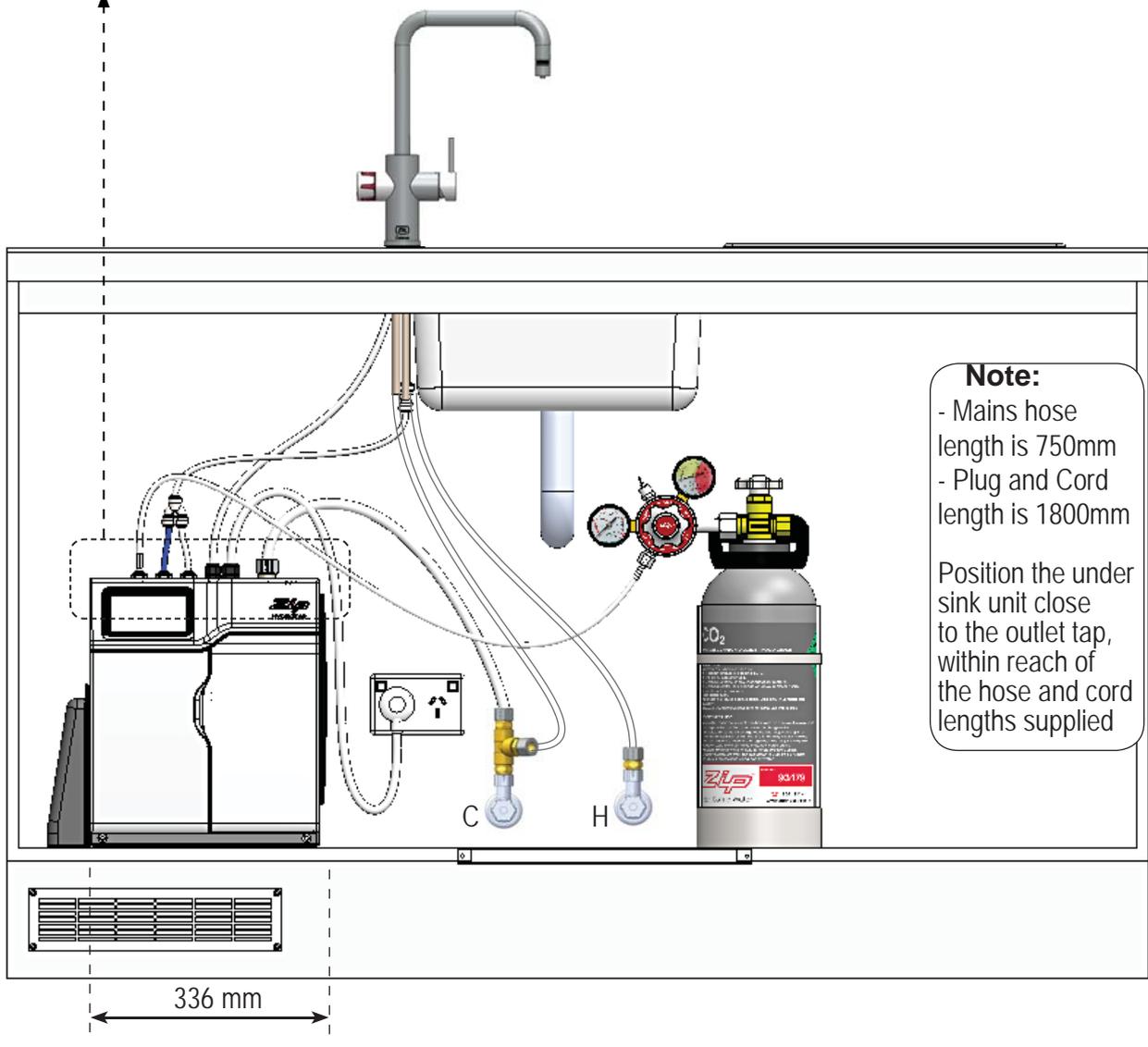
Note: The tube lengths are matched to the pumps performance and therefore CANNOT be lengthened. Take time to consider hose lengths when determining the mounting positions for the options

Installation Instructions

4.6 Celsius Chilled Sparkling Model - CSHA 175



Note: All silicon tubes must be cut to size. They must have a constant fall back to the unit.



Note:
 - Mains hose length is 750mm
 - Plug and Cord length is 1800mm
 Position the under sink unit close to the outlet tap, within reach of the hose and cord lengths supplied



Section 5

Commissioning

The HydroTap is now ready to be commissioned.

- Turn ON the water and gas and check for any leaks. (See section 4.2 - 4.3)
- Turn the power ON at the GPO
- Familiarise yourself with the operation of the Tap, in preparation for use (See User Guide)
- Follow the instructions below (and review Section C of the User Guide).
- Initially you will be prompted to select a language
- After commissioning, the system may be customised by selecting further options in Section G - Settings, within the User Guide.

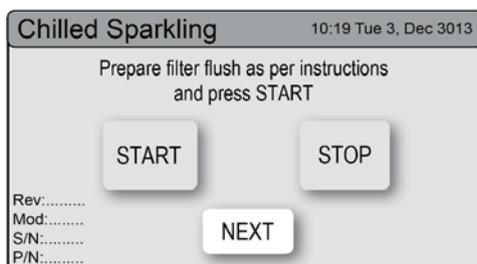
5.1 - CO₂ Purge



1. Press the [START] button to commence the purging process.
2. Purge for 10 seconds and ensure all water has stopped flowing through the tap. (You will hear the CO₂ gas escaping from the tap).
3. Press the [Stop] button.
4. Press [Next] for the filter flush screen

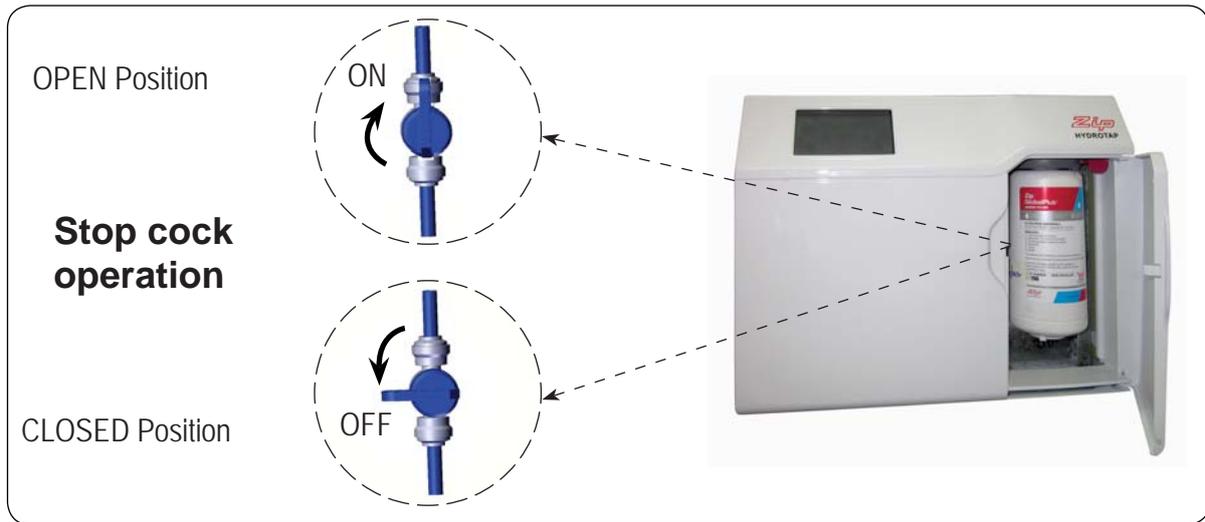
5.2 - Filter Flush

Have a 10L bucket or similar container (not supplied) at the ready to hold a quantity of water that will be ejected while the Filter Flush Mode is in operation. Open the filter access door on the front of the HydroTap and the filter cartridge will be exposed. Located to the rear RHS of the cartridge is a flush line, approx 600mm long and the flush line stop cock. Place the valve end of the flush line into the 10L bucket or container.



1. **Note:** You will need to Press the [Start] [Stop] buttons to start and stop the filter flush.
2. Turn the flush line stop cock ON (See diagram).
3. Press [Start] and allow at least 10 litres of water to flush through the filter.
4. The product details will be displayed in the screen.
5. Once the filter flush is finished, Turn the stop cock OFF then press [Stop] to end filter flush mode.

Commissioning



NOTE: For any subsequent filter changes or any operational procedures, please refer to the HydroTap user guide, located inside the filter housing access door.

Trouble Shooting

System Fault Message	Possible Cause	Solutions
Power board fault	Electrical disruption	Check power supply and all fuses
Interface fault	Internal fault	Call Zip Service
Level board fault	Internal fault	Call Zip Service
Condenser screen blocked	Blocked Air filter	Remove blockage / Clean filter / check user guide
Water leak, Isolate mains	Water leak	Turn off mains water supply / Call for service
Compressor over-run	Compressor too Hot	Check ventilation
Water supply failed	No water	Check water supply is turned ON
Cold sensor Open	Internal fault	Call Zip Service
Cold sensor Closed	Internal fault	Call Zip Service
Flood sensor Open	Internal fault	Call Zip Service
Condenser sensor Closed	Internal fault	Check Ventilation / Call Zip Service
Condenser sensor Open	Internal fault	Check ventilation / Call Zip service
Compressor driver fault	No chilled water	Call Zip Service
Condenser overtemp.	Blocked air filter	Remove blockage / Clean filter / check user guide
A DC Pump is faulty	Internal fault	Call Zip Service
Comp Fuse/Driver Fault	Internal fault	Call Zip Service
Flash Mem corrupted	Internal fault	Call Zip Service
Flow Sensor Fault	Internal fault	Call Zip Service

Call an electrician, a plumber, or Zip for a free call in Australia on 1800-638-633 for assistance, service, spare parts or enquiries.

End of Life Disposal

In order to help preserve our environment we ask that you dispose of this product correctly. Please contact your local city council for collection centre details.

Contact Details

Head Office

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Condell Park NSW 2200
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Bankstown 1885 Australia

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Telephone: (02) 9796 3100
Free Call: 1 800 638 633

As Zip policy is one of continuous product improvement, changes to specifications may be made without prior notice. Images in this booklet have been modified and may not be true representations of the finished goods.

The standard cup referred to in this publication is 167 ml (6 fl oz).

The standard glass is 200 ml (7 fl oz).

The terms "Zip" and "HydroTap" are registered trade marks of Zip Heaters (Aust) Pty Ltd.

Zip products described in this publication are manufactured under one or more of the following patents: AU675601, AU637412, AU635979, GB0422305, GB2065848, US4354049, US5103859, US5099825 and SA2006/08043. Other patents are in force and patent applications are pending.

