

Guarantee

This product is guaranteed against faulty materials and workmanship for 1 year from date of purchase. For the guarantee to be valid, the unit must be installed by a competent person, in accordance with the instruction booklet.

Any part found to be defective during the guarantee period, will (at our option) be repaired or replaced, free of charge, provided the unit has been installed, and properly used in accordance with the instruction booklet.

This guarantee does not affect your statutory rights.

Service Policy (Available in UK and ROI only)

In the event of a product or component fault, firstly follow the fault finding procedure to ensure the difficulty can be resolved.

If the fault can not be identified using the procedure, call the installer to check installation is correct.

Failing this, please contact the Customer Service Department on telephone number below.

Have following information prepared, to help identify the product:

Model type, Date of purchase, unit serial number (if available).

The Customer Service Department will attempt to diagnose the cause of the fault and advise the necessary action to resolve the problem over the phone.

If the fault can not be resolved and a service call is required, a Site Visit Request form will be sent to you to complete and return.

Where applicable a fixed fee payment for parts and/or labour will be levied. The cost incurred and payment methods will be advised over the phone and on the Site Visit Request form.

A completed form, along with payment (if applicable) must be received before the Service Callout can be arranged.

If the problem is not product related or is a component not of our manufacture, a fixed fee will be made to cover Site Visit costs. Additional costs for parts used to rectify the non-product related problem may be imposed.

During the visit, yourself or a responsible person should be present at all times. Charges will be made if the Service Engineer or Agent can not gain site access at the prearranged time.

Ensure water and/or electricity supplies have adequate isolation to the unit. If the unit is concealed, serviceable access should be provided. If servicing difficulties arise from not making the provisions detailed, additional time related costs or a recall charge will be imposed.

Customer Care ☎ **0844 7016273**

Agent:

┌

└

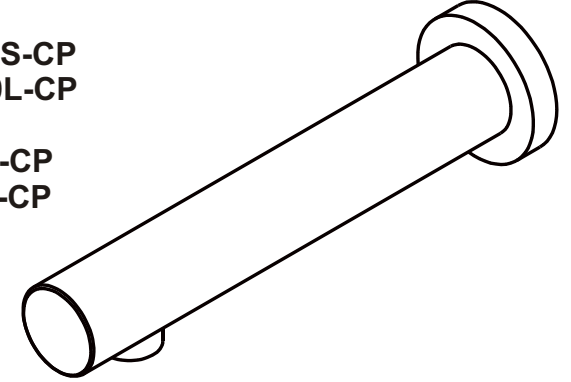
The company reserve the right to alter product specifications without prior notice.

BRISTAN

Pulse 8 Capacitance Installation, Operation And Maintenance Guide For Models :

Wall Spouts : AWS150S-CP
AWS200L-CP

Basin Spouts : ABS100-CP
ABS120-CP



Attention : Before installing this product , please ensure that :-

1. You have a good earth continuity connection point for the Pulse 8 Capacitance electronics to function correctly.
2. The factory fitted stainless steel filter in the inlet of the solenoid valve is used when installing Pulse 8 Capacitance electronics. Failure to do so will render this product inoperable and may invalidate the warranty.

Bristan Group Ltd
Birch Coppice Business Park
Dordon
Tamworth
Staffordshire
B78 1SG
T: 0844 7016274
E: customercare@bristan.com

IMPORTANT NOTE :

This product is supplied with a 6 litre flow limiter suitable for use with products that require BREEAM compliance

If compliance is not required the flow limiter may be removed prior to installation

INTRODUCTION

The Pulse8 automatic controls operate using non contact capacitive sensing technology. When a hand comes within the range of the spout the water is automatically switched on and provided it is moving (i.e. the hands during hand washing) the water will continue to flow. When the hands are moved outside the sensor range the control will automatically switch off after a preselected overrun period this will cleanse the basin or trough.

The sensitivity and overrun times can both be adjusted for optimum performance in any situation using the switches housed under the connection cover. The overrun time can be set to give three durations, two seconds, twenty seconds and one minute.

The unit senses and compensates for changes in its immediate environment. Should an attempt be made to vandalise the unit by spraying it with paint, wrapping it up or resting objects against it, it will switch on, then turn off and not work until the spout is cleaned.

In the event of power loss the unit will automatically turn the water off if it is running and will not work again till the power is restored

The unit can be supplied from the two dedicated units which we make, a hard wired mains powered unit or a battery box.

Important Notes

The installation, commissioning and future maintenance of this product must be carried out by a competent person in accordance with these instructions and it must comply with current:-

- 1) I.E.E wiring regulations
- 2) Building regulations
- 3) Local and national water bylaws

Specification

Supply Conditions

Minimum maintained working pressure	0.5 Bar
Maximum working pressure	5.0 Bar
Maximum static pressure	10.0 Bar
Maximum supply temperature	50°C
Ambient working temperature	5°C to 50°C

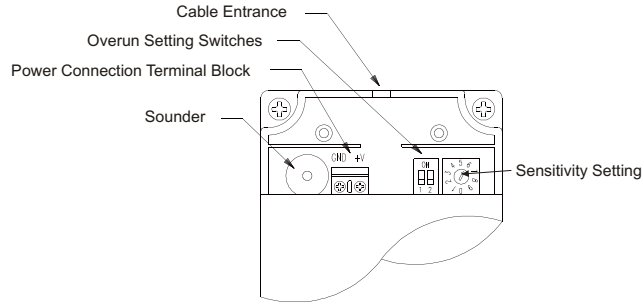
The tap is supplied with a flow restrictor which controls the flow of water to 6 Litres per minute irrespective of the supply pressure, and must be fitted for correct operation and longevity of the unit.

- 2) Turn the water on; at this time water may flow, this is not necessarily a fault
- 3) Apply power to the unit, by inserting the batteries or turning the power on, the unit should bleep and the water should turn off if it is running after a further 20 seconds the unit should give a double bleep it is then set and ready to use.
- 4) Bringing a hand or hands towards the spout should turn on the water which should continue to run as long as the hands in the water stream are moving i.e. the hands are being washed.
- 5) The sensitivity of the sensing system can be adjusted by means of a rotary switch on the right of the connection box, this allows the range (distance from the spout the hands are when the water switches on) to be altered, for non touch operation this should ideally be thirty to forty millimetres. The higher the number the switch is set to the longer the range.
- 6) If the application requires the sensor to be touched and for it to time out rather than being used as a proximity sensor the rotary switch should be set to position 1 and the time set to twenty seconds or one minute
- 7) If either the time or sensitivity are altered the electronics should be powered down and re energised so the electronics can reset to the new setting
- 8) When a change occurs in the environment around the sensor (somebody sprays the spout to vandalise it for example) the unit will switch on, turn off until the spout is Cleaned.

Fault Finder

Fault	Cause	Solution
Unit does not go into reset mode i.e. does not bleep once then twice after 20 seconds	No power to unit	Check electrical connections to the electronics enclosure, make sure batteries are fitted correctly If used or that power is on
Unit will not operate i.e. no water flow	Sensor lead not fitted correctly	Check fitting of sensor lead
	Water not turned on	Make sure isolating valve is open
	Water pressure too low	Supply pressure should be 0.5bar minimum
	Solenoid valve fitted backwards	Refit solenoid valve water flow in direction of arrow
	Battery power output reduced by > 2 volts	Check and change battery's
	Pipe work or spout blocked	Investigate and clear blockage
Tap runs continually after first activation	Isolating spacers or plastic elbow not fitted	Refit sensor correctly with necessary parts used
	Solenoid or control electronics faulty	Fit new electronic enclosure
	Sensitivity set too high	Re-adjust sensitivity
	Solenoid valve fitted incorrectly	Reverse solenoid valve and re-fit
	Isolation spacers or plastic elbow not fitted	Re-fit sensor correctly with necessary parts used
Tap runs randomly without a user present	Earth bonding is not good enough	Re-fit earth point
	Sensitivity set too high	Re-adjust sensitivity
	Isolation spacers or plastic elbow not fitted	Re-fit sensor correctly with necessary parts used
Tap has to be touched to operate, when proximity sensing required	Sensitivity set too low	Re-adjust sensitivity
	Earth bonding is not good enough	Re-fit earth point
	Isolation spacers or plastic elbow not fitted	Re-fit sensor correctly with necessary parts used

- 11) Remove the terminal box cover and connect power to the control electronics by using a supply:-



- a) **From, the dedicated mains power supply**, The wire with the lettering on it should be connected to the ground terminal and the wire with the white stripe on it should be connected to the +V terminal.
- b) **From the Battery box**, The black wire should be connected to the ground terminal and the wire with the white stripe on it should be connected to the +V terminal

Before replacing the terminal cover the commissioning procedure following should be carried out.

Commissioning

- 1) The overrun time should be set before any power or water is turned on this is achieved by setting the small switches under the connection cover to the positions shown in the table below

Overrun	Application	Switch Setting
4 - 8 Seconds	Washing contamination from trough or sink to leave it clean for the next person	Switch 1 OFF Switch 2 OFF
20 Seconds	Washing contamination from trough or sink if a longer cleansing period is required or if the sensitivity is turned down to make the spout touch activated this can be used for hand washing .	Switch 1 ON Switch 2 OFF
1 Minute	This setting to be mainly used for general Showering applications	Switch 1 OFF Switch 2 ON
2 Minutes	This setting to be mainly used for extended Showering applications	Switch 1 ON Switch 2 ON

Electrical Supply To The Electronic Enclosure

The electronics are designed to work with a DC supply between 6Volts and 12Volts which has a maximum ripple voltage of $\pm 5\%$ capable of supplying 5 Watts instantaneous peak.

This voltage can be obtained in the following manner:-

- 1) From the dedicated mains powered hard wired power supply.
- 2) From the hard wired battery box.

Power supply

Input: - voltage 100Volts to 240Volts 50/60 Hertz 0.3Amps
Output: - 12 Volts DC 1.0 amps maximum

Battery Box

Uses 4 C type cells (not supplied) in a dedicated plastic enclosure to generate a 6 Volt supply. **NOTE: If the condition of battery output falls by more than 2 volts the correct operation of the electronic enclosure will be impacted.**

Earthing

It is important that a separate dedicated earth is connected to the electronic enclosure.

Plumbing connections

Solenoid Valve both inlet and outlet are compression fittings for 15mm pipe

Spout The inlet is 15mm push fit via a plastic tap connector (supplied) which is required to isolate the spout from the supply pipe work

Mounting requirements

The recommended hole sizes required to mount the spouts are:-

Non metallic none conducting surfaces 23mm approximately

Metallic or conducting surfaces 30mm approximately insulating plastic washers must be used

Installation Requirements

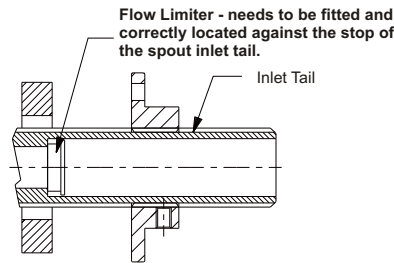
- 1) Ensure the installation complies with the requirements listed in the specification section.
- 2) The earth wire from the electronics must be bonded to an effective earth, if the supply pipe work is used then an earth strap to BS 951 should be used and all paint and coatings must be removed from the pipe and the pipework should then be examined to ensure earth continuity.
- 3) All ancillary metal items close to the sensor such as sinks and splash backs must be earthed, failure to do so may cause the unit to malfunction
- 4) The plastic tap connector supplied with the spouts must be used to isolate the spouts from the supply pipe work, if the spouts are to be fixed to a conducting surface the male and female isolating spacers must be used.
- 5) **The sensor lead must not be shortened, extended or modified in any way**, this is an integral part of the control electronics, altering it may cause the unit to malfunction.
- 6) The water supply pipe work must be thoroughly flushed to remove any debris this is particularly important for new or extensively modified installations.
- 7) A full flow isolating valve must be fitted prior to the control electronics in an easily accessible position in order that the controls may be serviced.
- 8) If installed in a situation where vandalism is possible then the control electronics should be fitted in a location with access restricted to designated personnel only.
- 9) The spouts should not be fitted in a position where drip residue from a soap dispenser may contaminate them.

Fitting or Removing the Flow Limiter

IMPORTANT NOTE :

This product is supplied with a 6 litre flow limiter suitable for use with products that require BREEAM compliance

If compliance is not required the flow limiter may be removed prior to installation



The Unit comes supplied with a 6 Litre flow limiter for use with BREEAM compliance. When installing the limiter, please ensure Correct orientation during assembly.

If BREEAM compliance is not required then the limiter may be omitted thus giving the following flow rates :-

Supply Pressure(bar)	0.5	1	2	3	4	5
Flow Rate (Litres/Min)	12	18	25	31	36	40

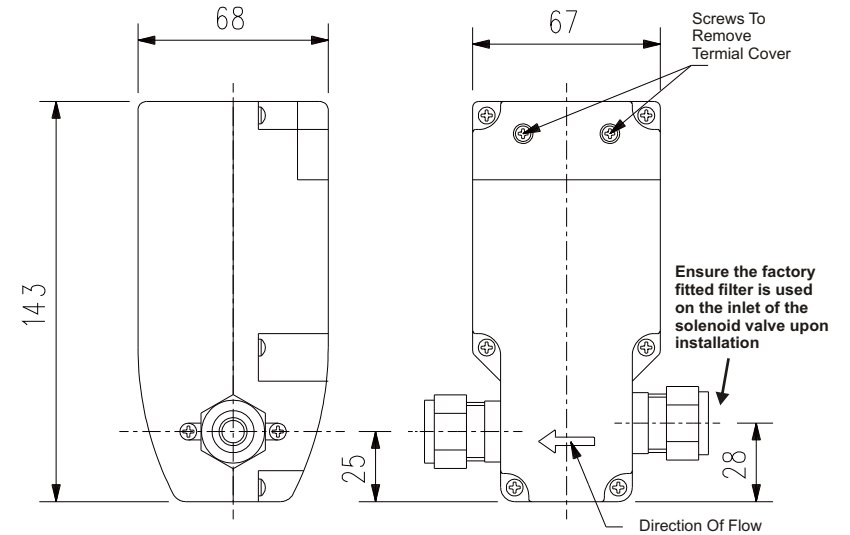
Careful consideration should be given to the application of use and removal of the 6 Litre flow limiter prior to installation

Installation Guide

Ensure that the supply pipe work is thoroughly flushed and free of all debris before connecting the electronic tap.

- 1) Determine the position of the control and the layout of the pipe work taking into account the requirement listed above.
- 2) In order to facilitate future maintenance install an isolating valve to the supply.
- 3) Fit the control electronics enclosure in position it can be mounted in any orientation, but the arrow on the side must point in direction of flow.

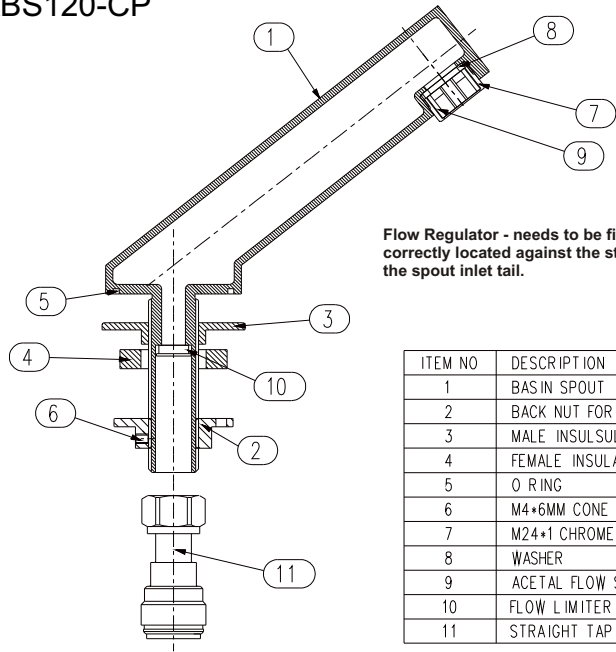
Electronic enclosure



- 4) Fit the spout in position using the male and female insulating washers if the mounting surface is metallic, tighten the back nut.
- 5) If the spout is required to have an anti rotation feature then the wall should be drilled through the hole in the round part of the flange and a suitable plug and screw be used to secure it, the grub screw in the back nut should be tightened to secure the spout to the back nut and lock the complete assembly
- 6) It is recommended that the flow restrictor be pushed into the tail of the spout both for water economy and to stop water splashing due to excessive flow
- 7) Fit the push fit plastic tap connector to the tail of the spout. This must be used to electrically isolate the spout from the earthed pipe work
- 8) Connect the sensor wire to the back nut by pushing the bullet connector into the hole in the back of the hexagonal flange Do not modify the sensor lead.
- 9) Connect the earth bonding cable from the control electronics enclosure to a suitable Separate Dedicated Earth. **DO NOT connect the earth to a secondary switch fused outlet.**
- 10) Ensure that the inlet pipe connections are thoroughly tested and water tight prior to commissioning. **DO NOT use jointing compounds.**

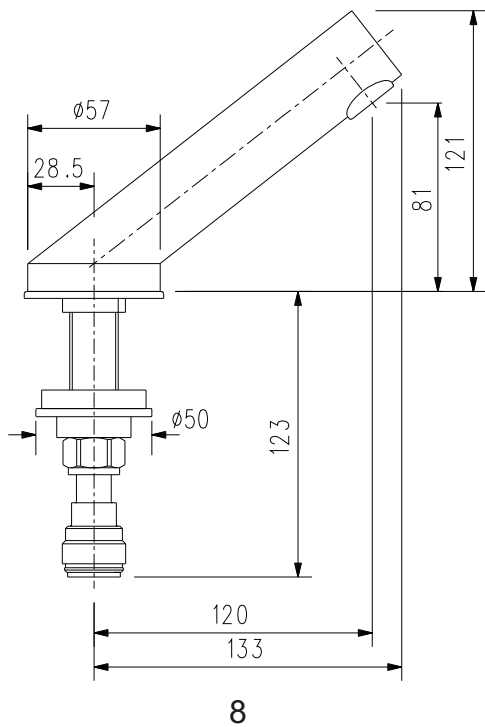
Basin spout components and dimensions for models :-

ABS120-CP

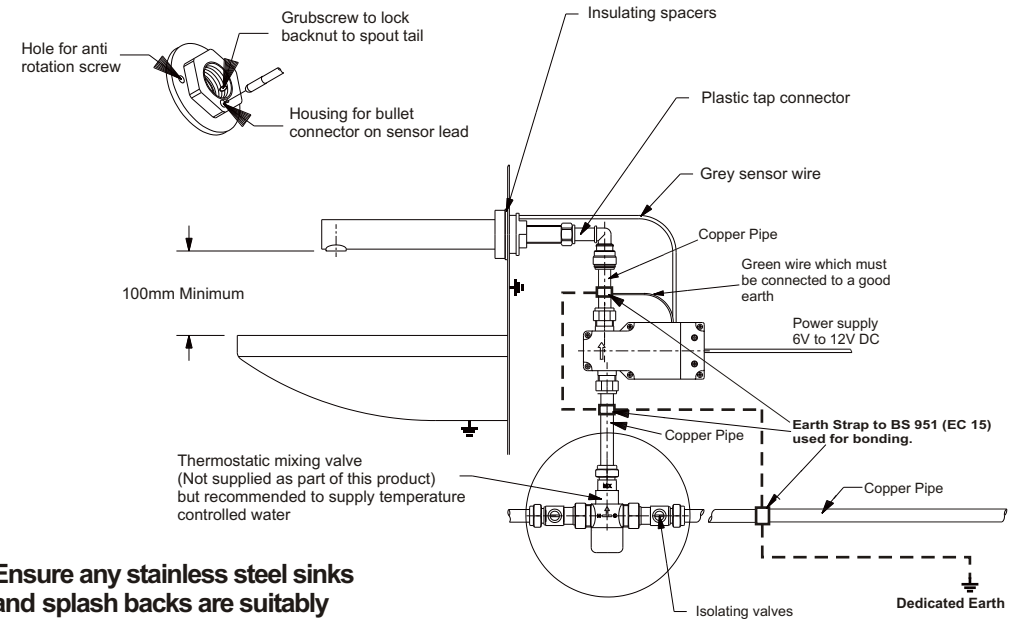


Flow Regulator - needs to be fitted and correctly located against the stop of the spout inlet tail.

ITEM NO	DESCRIPTION	NO OFF
1	BASIN SPOUT	1
2	BACK NUT FOR SPOUT	1
3	MALE INSULATING SPACER	1
4	FEMALE INSULATING SPACER	1
5	O RING	1
6	M4*6MM CONE POINT STAINLESS STEEL GRUB SCREW	1
7	M24*1 CHROME PLATED FLOW STRAIGHTENER CASE	1
8	WASHER	1
9	ACETAL FLOW STRAIGHTENER CASSET	1
10	FLOW LIMITER	1
11	STRAIGHT TAP CONNECTOR PEM STC 1514	1

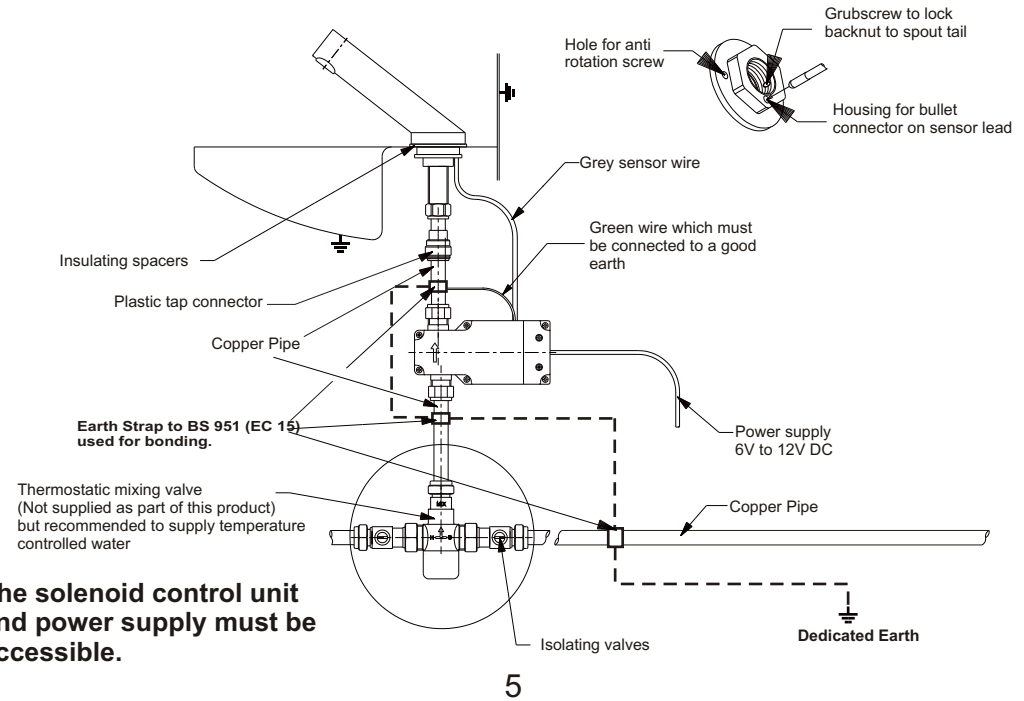


Typical Layout For Pulse 8 Capacitance Wall Mounted Spouts



Ensure any stainless steel sinks and splash backs are suitably bonded and earthed.

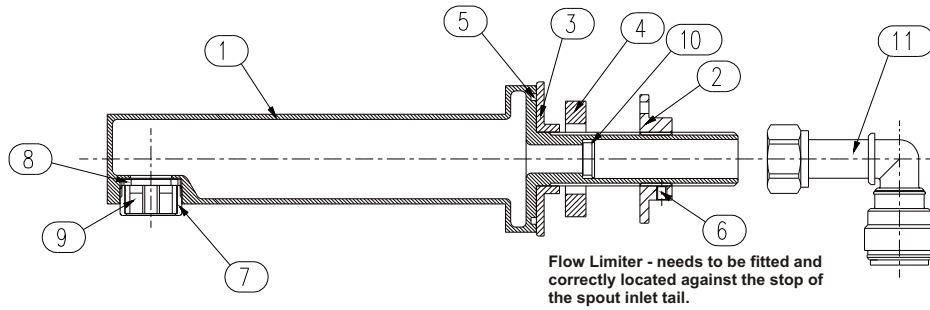
Typical Layout For Pulse 8 Capacitance Basin Mounted Spouts



The solenoid control unit and power supply must be accessible.

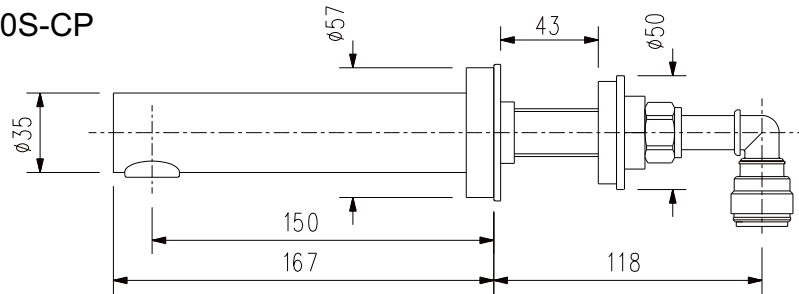
Wall spout components and dimensions for models :-

AWS150S-CP
AWS200L-CP

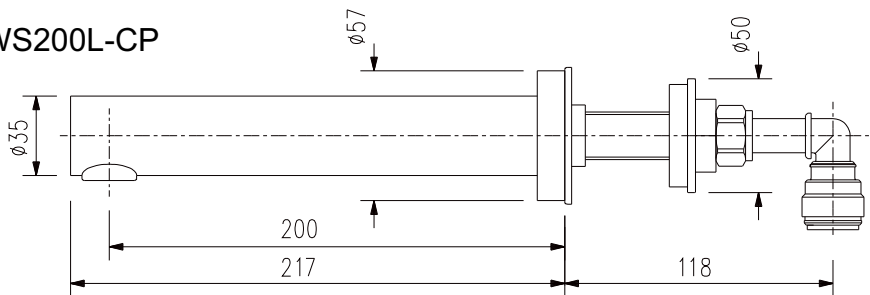


ITEM NO	DESCRIPTION	NO OFF
1	WALL SPOUT	1
2	BACK NUT FOR SPOUT	1
3	MALE INSULSULATING SPACER	1
4	FEMALE INSULATING SPACER	1
5	O RING	1
6	M4*6MM CONE POINT STAINLESS STEEL GRUB SCREW	1
7	M24*1 CHROME PLATED FLOW STRAIGHTENER CASE	1
8	WASHER	1
9	ACETAL FLOW STRAIGHTENER CASSETTE	1
10	FLOW LIMITER	1
11	BENT TAP CONNECTOR PEM BTC 1514	1

AWS150S-CP



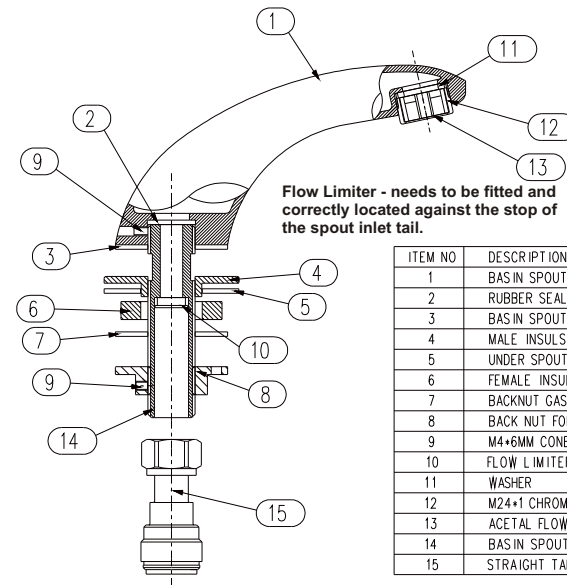
AWS200L-CP



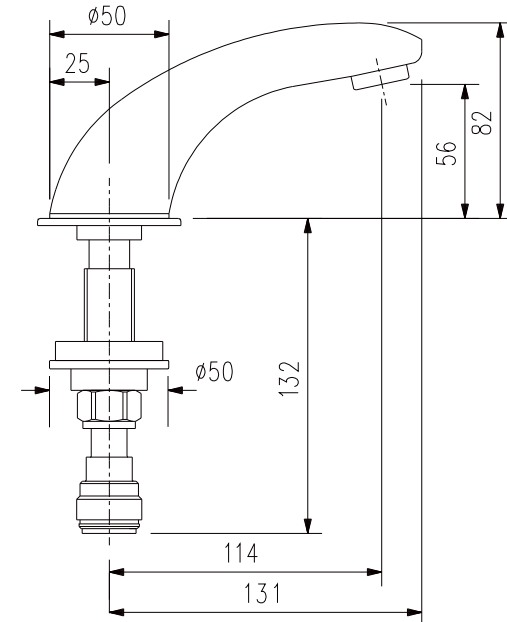
6

Basin spout components and dimensions for models :-

ABS100-CP



ITEM NO	DESCRIPTION	NO OFF
1	BASIN SPOUT	1
2	RUBBER SEAL	1
3	BASIN SPOUT GASKET	1
4	MALE INSULSULATING SPACER	1
5	UNDER SPOUT GASKET	1
6	FEMALE INSULATING SPACER	1
7	BACKNUT GASKET	1
8	BACK NUT FOR SPOUT	1
9	M4*6MM CONE POINT STAINLESS STEEL GRUB SCREW	2
10	FLOW LIMITER	1
11	WASHER	1
12	M24*1 CHROME PLATED FLOW STRAIGHTENER CASE	1
13	ACETAL FLOW STRAIGHTENER CASSET	1
14	BASIN SPOUT TAIL	1
15	STRAIGHT TAP CONNECTOR PEM STC 1514	1



7