

Osmio Whole House Water Filter System Installation Guide

This installation guide covers the complete Osmio Whole House Filter System range



Contact us on email : sales@reverseosmosisworld.co.uk

READ THIS BEFORE INSTALLATION

It is very important that the following must be considered before you install this product.

Incoming water pressure must be tested before the installation. You can do this by using a pressure gauge (available online or at plumbers merchants, an example shown FIG1). Please note that your standing water pressure can increase up to an additional 1-4 bar at night time and there is a known "hammer effect" when water supplies are turned off and back on again. We highly recommend protecting your entire property with a Pressure Reducing Valve (PRV - see FIG2) which can protect all appliances and plumbing from any increases or spikes in water pressure that can and do happen, which causes filter systems and other plumbing to leak.



FIG1: WATER PRESSURE GAUGE

The system must not receive more than 6.3 bar. Fit a PRV on your incoming mains to control the pressure.



FIG2: PRESSURE REDUCING VALVE WITH GAUGE

TOOLS & MATERIALS

The system can be installed on copper or plastic pipe up to 1" BSP, which includes 28mm, 22mm, 15mm copper pipe, 15mm speedfit plastic pipe or using hoses and nipples (e.g. 1" male to 3/4" male nipples). So choice of fitting is up to you and what is easiest or most appropriate. You will need the following parts:

- Silicone Grease (Plumber's Grease), PTFE tape
- Spanner & Plumbers Wrench
- Philips head screwdriver & Flat edge screwdriver
- Electric drill
- Spirit level
- Marker pen
- Appropriate screws to mount the filter to the vertical surface (e.g. wood screws)
- Plus any other tools used for the basic plumbing e.g. pipe cutter, elbows, copper pipe, hoses etc.

REFER TO YOUR SYSTEM BELOW FOR FILTER ORDER



Osmio Active Ceramic Small Whole House Filter System

Suitable for 1 bathroom households with 15mm pipe and peak flow rates lower than 17 LPM.

Maximum pressure 4.5 Bar
In/Out Connections: 1/2" BSPP Brass Female

Filter Info:

Osmio 2.5 x 10 Inch Active Ceramics Filter
Filter Life: 1-2 years (or 100,000 litres).



Osmio Whole House Sediment Water Filter System 4.5" x 10" Pleated 5 Micron

Suitable for sediment filtration up to 5 micron useful for reduction of rust, sand, silt, etc. to 45 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Info:

Osmio 4.5 x 10 inch Pleated Cartridge 5 Micron
Filter Life: 6 months to 2 years.



Osmio 4.5 x 10 Inch Carbon Block Whole House Filter System

Suitable for sediment and chlorine, taste and odour filtration up to 5 micron useful to 30 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Info:

Osmio 4.5 x 10 Inch Carbon Block 5 Micron
Filter Life: 37000 litres, recommended filter change every 6-12 months.



OsmioPro 4.5x10 Inch Dual Whole House Filter System

Suitable for sediment and chlorine, taste and odour filtration up to 5 micron useful to 30 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Order:

Filter 1: Osmio 4.5 x 10 inch Pleated Cartridge 5 Micron
Filter 1 Life: 6 months to 2 years. litres, recommended filter change every 6-12 months.

Filter 2: Osmio 4.5 x 10 Inch Carbon Block 5 Micron
Filter 2 Life: 37000 litres, recommended filter change every 6-12 months.



Osmio Active Ceramic Large Whole House Filter System

Suitable for 2-3 bathroom households with 15mm-28mm pipe and peak flow rates lower than 30 LPM.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Info:

Osmio 4.5 x 10 Inch Active Ceramics Filter
Filter Life: 1-3 year life or 300,000 litre capacity. Life of filter may vary depending on water hardness and local water quality.



Osmio Chlorplus Whole House System

Suitable for chloramine, chlorine reduction and sediment filtration up to 0.5 micron useful for reduction of rust, sand, silt, etc. to 30 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Order:

Filter 1: Osmio 4.5 x 10 inch Pleated Cartridge 5 Micron
Filter 1 Life: 6 months to 2 years.

Filter 2: Osmio Chloramine Reduction 0.5 Micron Carbon Block 4.5" x 10"
Filter 2 Life: 15,000 Litres or 6 months



Osmio PRO-II-A- Advanced Whole House Filter System

Suitable for sediment and chlorine, taste and odour filtration up to 5 micron useful to 30 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Order:

Filter 1: Osmio 4.5 x 10 Inch Active Ceramics Filter
Filter 1 Life: 1-3 year life or 300,000 litre capacity. Life of filter may vary depending on water hardness and local water quality.

Filter 2: Osmio 4.5 x 10 Inch Carbon Block 5 Micron
Filter 2 Life: 37000 litres, recommended filter change every 6-12 months.



Osmio PRO-III Ultimate Whole House Filter System

Suitable for sediment and chlorine, taste and odour filtration up to 5 micron useful to 30 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Order:

Filter 1: Osmio 4.5 x 10 Inch Active Ceramics Filter
Filter 1 Life: 1-3 year life or 300,000 litre capacity. Life of filter may vary depending on water hardness and local water quality.

Filter 2: Osmio 4.5 x 10 Inch Carbon Block 5 Micron
Filter 2 Life: 37000 litres, recommended filter change every 6-12 months.

Filter 3: Osmio 4.5 x 10 Inch KDF and GAC Filter
Filter 3 Life: Approximately 12-18 months or 200,000 litres depending on usage and local water quality. Replace no later than 24 months after installation date.



Osmio PRO-II_XL Advanced Whole House Filter System

Suitable for sediment and chlorine, taste and odour filtration up to 5 micron useful to 40 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Order:

Filter 1: Osmio 4.5 x 20 Inch Active Ceramics Filter
Filter 1 Life: 1-3 year life or 300,000 litre capacity. Life of filter may vary depending on water hardness and local water quality.

Filter 2: Osmio 4.5 x 20 Inch Carbon Block 5 Micron
Filter 2 Life: 48000 litres, recommended filter change every 6-12 months.



Osmio PRO-III-XL Ultimate Whole House Filter System

Suitable for sediment and chlorine, taste and odour filtration up to 5 micron useful to 40 LPM flow rate.

Maximum pressure 6.3 Bar
In/Out Connections: 1" BSPP Brass Female

Filter Order:

Filter 1: Osmio 4.5 x 20 Inch Active Ceramics Filter
Filter 1 Life: 1-3 year life or 300,000 litre capacity. Life of filter may vary depending on water hardness and local water quality.

Filter 2: Osmio 4.5 x 20 Inch Carbon Block 5 Micron
Filter 2 Life: 48000 litres, recommended filter change every 6-12 months.

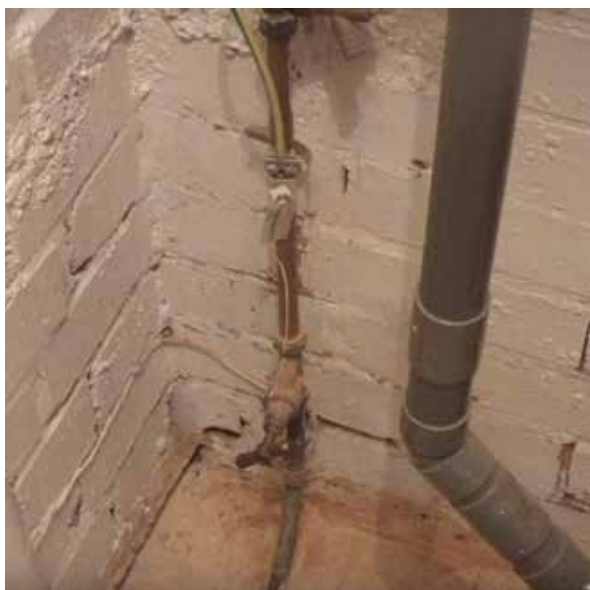
Filter 3: Osmio 4.5 x 10 Inch KDF and GAC Filter
Filter 3 Life: Approximately 12-18 months or 200,000 litres depending on usage and local water quality. Replace no later than 24 months after installation date.



INSTALLATION STEPS

STEP 1: PLANNING THE INSTALLATION

Locate the rising main. If you don't already know where it is, this could be anywhere in the house, there will always be an outside one, but we are looking for an inside one, which is the point where the water comes into the house and before it branches off around the house - it could be in a basement, garage, utility room, under stairs, under the kitchen sink or somewhere else). The mains incoming stopcock usually has a yellow and green earthing cable attached to it. Make sure you know where the mains stop tap is in the street and have mains stop tap key if needed). In rare cases, there are more than one entry point and some apartments have communal hot water, providing a cold water and a hot water entry point. If this applies please contact us.



Once you have located where your external and internal stopcock is and where the cold pipe goes before it branches off around the property, then you can now plan your installation.

Please note installation can occur at any suitable point, so long as you can run the pipe from the internal stopcock (before the pipe branches off) to the filter system and then back.

This could mean that an external installation is possible (see FIG 3). If this is the desired option, please note that you must build a box and weatherproof it by lagging pipes and using some loft insulation to protect from harsh weather and freezing.



When planning the installation, if you are measuring over 5 bar incoming pressure we suggest fitting a PRV right after the internal stopcock.

It is important at this stage to note that there must be at least 2 inches of clearance from the bottom of the housing to the floor to allow for space for the housing to drop down when taking it on and off.

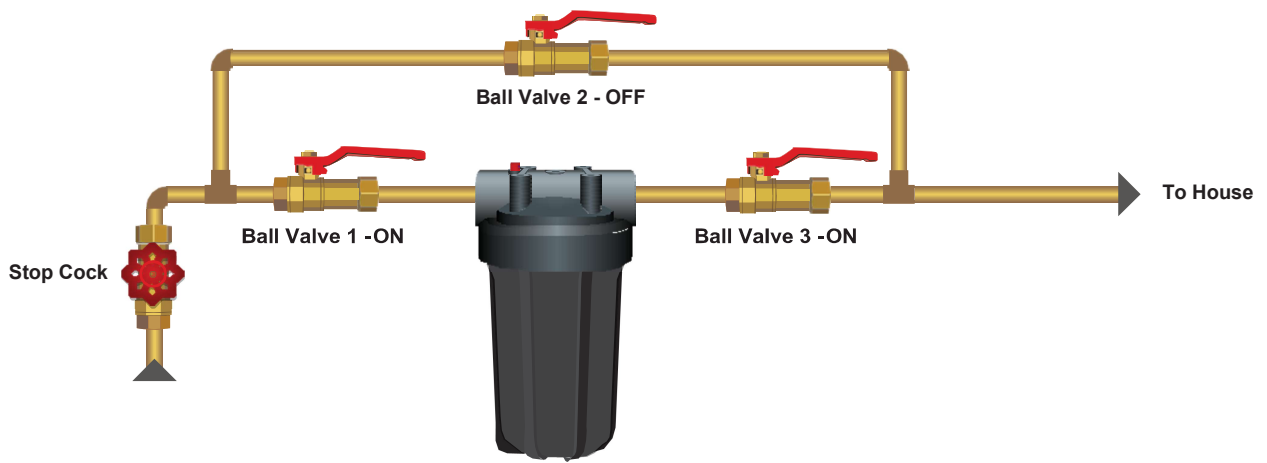
Consider bypassing the garden tap if appropriate.

FIG 3: An example external installation before weatherproofing

INSTALLING A BYPASS

Installation of a bypass is recommended. This might not always be possible if there is constricted space for example under a sink, but a bypass enables you to continue service if you ever encounter a problem or while you are changing filters.

You can install a bypass using 3 stopcocks (Ball Valves). Ball Valve 1 goes before the system and will be on during normal service. Ball Valve 2, goes around the system and is in the off position when the system is in service. Ball Valve 3 goes after the system and is in the on position during normal service.



INSTALLING PRESSURE GAUGES

Installation of pressure gauges inline on the pipe are a great idea, as they can help indicate if there are blockages in the filters and provide a visual way to read this without needing to open the housing and inspect the filter.



STEP 2: BUYING THE PLUMBING PARTS

Once you have tested your pressure and planned your installation, the next step will be to source the necessary plumbing parts that will be needed.

Whether you use plastic or copper pipe, take measurements of the necessary length of pipe work you will need to run a bypass. You will also need elbows, stopcocks and any other compression or nipple type fitting to connect with the existing plumbing. You may have also wisely chosen to install a Pressure Reducing Valve and pressure gauges. All of the above you can source from good online or bricks and mortar plumbers merchants.

For high quality plumbing parts, pressure reducing valves and so on we recommend you shop at Screwfix.

STEP 3: INSTALLING THE FILTERS

Remove the packing of the filter and insert them into the housing bowl. Please see the "Osmio Whole House Systems - Key Info" section to note which order the filters go in.

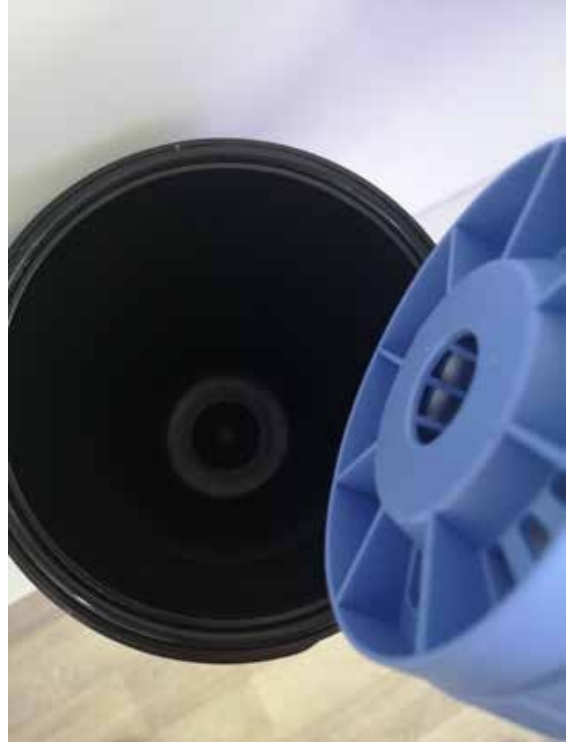


The Osmio Carbon Filter can be installed either way around, as it is the same both ends. If your system uses the Refillable type which has blue caps on the top and bottom end, then you must install it the correct way around.

Please ensure that the blue screw caps are securely hand tightened before putting them into the housing bowl.

The Housing has a male knob at the inside bottom which fits inside the hole at the bottom of the filter.

If the filter has been placed in correctly you will feel it sit in its hole and it will look like the pictures below.



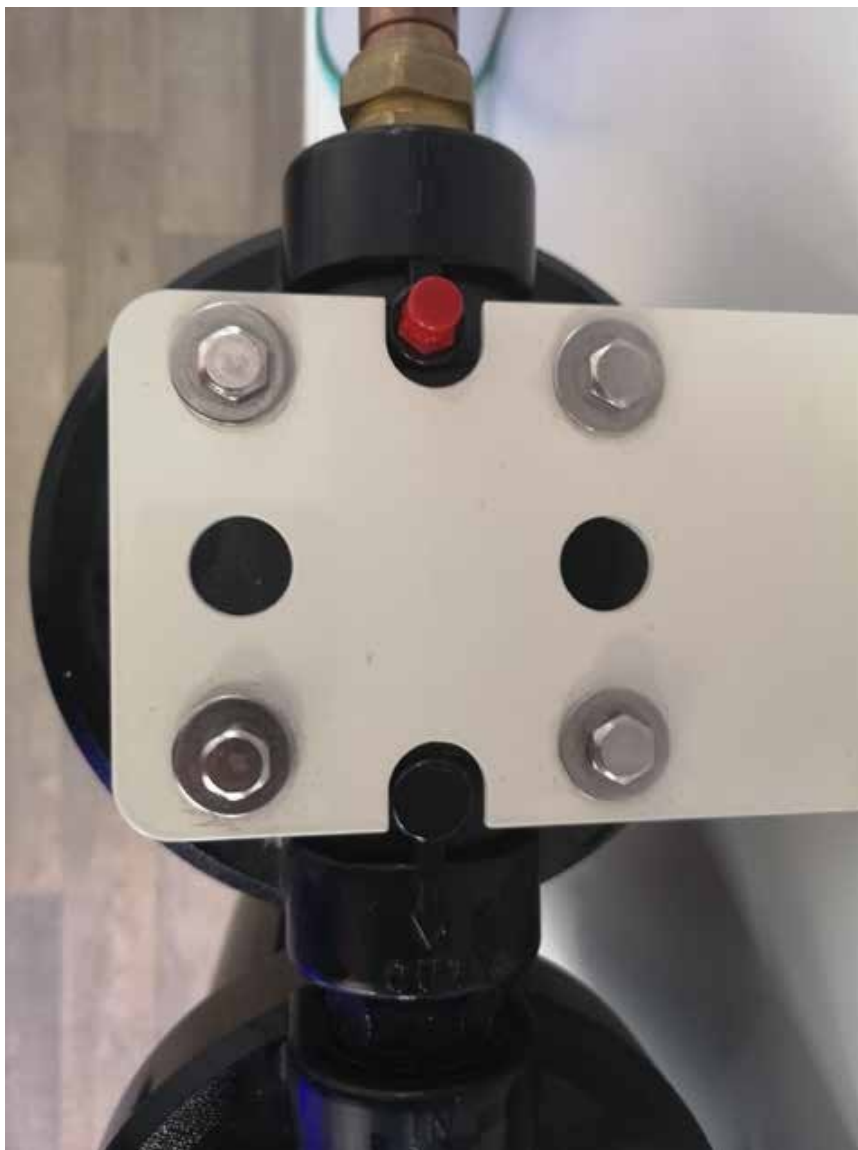
STEP 4: GREASING THE O-RINGS

The o rings must be greased thoroughly with silicone grease (plumbers grease). This will ensure the o ring will slip as the housing bowl is screwed onto the head and make a water tight connection.

First clean your hands and then apply the grease to the ring generously and run your finger around the ring as shown.



STEP 5: MOUNTING THE FILTER HEAD AND THE BRACKET



Use the screws provided with your filter housing to mount the bracket to the head of the filter unit. The screws are self-tapping and will thread themselves into the sockets of the housing head. Use a spanner or socket spanner for this.

Please note the direction of the inlet and outlet of the filter housing on the in and outlet ports. You can choose to mount the bracket either way around depending on how you are doing the pipework.

STEP 6: MOUNTING THE BRACKET AND HEAD TO THE WALL



If your system has more than one filter, we supply a 1" male nipple if you are connecting the bowls side by side. We supply two of the 1" male connecting nipples for triple filtration systems.

If you are connecting the housings side by side, you can fit the bowls together using this nipple. Wrap the threads in PTFE tape and screw the heads together.

Using your marker pen and spirit level, you may now mark out where you want to mount the bracket to the vertical surface. Allow at least 2 inches from floor level in order to unfasten the bowl when changing filters.



You must use your own appropriate screws and fixings depending on the surface you are mounting to. You must take into consideration the total weight of the system with the filters and being full off water.

For example with the largest individual filter the Osmio 20" housing and heaviest filter the KDF and GAC filter, your fixings and surface need to hold up to 20kg to be secure. If you are not sure, seek professional advice online or at your hardware store.

STEP 7: SCREWING ON THE FILTER BOWLS

Hand-tighten the housing bowl onto the head using both hands turning anticlockwise.

Always ensure the black O-ring in the housing bowl is in good condition and seated correctly in the housing bowl before screwing the bowl onto the head.

Then use the housing spanner to tighten it up a bit more. It is not necessary to over tighten the bowl using the spanner provided as this can damage the black o-rings. **DO NOT OVERTIGHTEN!!!**



STEP 8: FITTING AND PLUMBING



The next step is to make your bypass assembly and do all the necessary pipework to run pipes to the inlet and outlet of your system.

In the photo on the left we have used 15mm compression stopcocks to build the bypass. Of course you can do this really quickly and with less expense by using 15mm plastic speedfit.

Our housings use brass threads so we suggest using Loctite 55 type of sealant as this is most suitable for brass on brass connections instead of using PTFE tape, which gets cut through the brass on brass.



Examples of installations

STEP 9: COMMISSIONING

Once all the plumbing is done, you can then start commissioning. Take the following steps.

- 1) Open the nearest cold tap to the filter system. Then GENTLY AND SLOWLY open the mains stopcock to start allowing water to fill up.
- 2) If you have installed a bypass, ensure the bypass is closed to allow water the flow through the filter system.
- 3) The first water to come out the tap may run black at first and soon after start running clear.
- 4) Allow the nearest cold tap to tap on at full flow rate for 5 minutes to allow the filters to properly flush.
- 5) Turn off the tap and then let the standing pressure build.
- 6) Check the whole installation carefully with a torch for any leaks. After 10 minutes, press the red pressure release button to release any built up air pressure until water comes through. If you are using Osmio Small Active Ceramics it has a screw not a button so ensure it is screwed.
- 7) Water may appear cloudy at first and then quickly becomes clear. This can happen for up to a few days after the installation. This is air priming out of the system and filters and is nothing to be concerned about.
- 8) Make a note of when you installed the filters and refer to the KEY FACTS section to check when your filters should be changed. Put some stickers on the housing bowls with the installation date, date of filter change and the contact details of the installer.

Contact Osmio Water or your dealer for any further help.



Leave a tube of silicone grease and the spanner next to the filter system. You will need it later!

ESSENTIAL MAINTENANCE

How to change filters:

- 1) Turn off water supply and depress pressure relief button. Open the nearest cold tap.
- 2) Unscrew the housing bowl turn it clockwise and use the housing spanner (push the spanner as far up the housing bowl as possible). If you are having trouble getting it off (it could be because it was done up too tight or filters left inside too long) then you can use a second spanner for more leverage. Contact us if you need help.



- 3) When changing filters remember the bowl will be full of water which may be heavy for some so its best that two people do it together in this case.
- 4) You can now empty the housing bowl of water and the used filter. You may wish to remove the o-ring of the housing bowl and give the bowl a clean with washing up liquid and warm (but not hot) water. You can then put the o-ring back in and ensure it is well greased with silicone grease.
- 5) Insert the new filter and follow steps 3, 4 and step 9 of this document.

IMPORTANT INFORMATION

Maintaining a healthy system means keeping it clean and doing filter changes on time. It is vital to re-grease the O-ring on your housing bowl every time you do a filter change. This will make it nice and easy to take the bowl off next time and help prevent leaks. O-rings can be the cause of leaks when they get dried or cracked or stretched. We suggest that you check the system o-rings and fittings for any leaks every 6 months. If you have installed a PRV, then there is little chance of any issues due to pressure but o-rings can get damaged with limescale and sediments. Contact us if you need spare o-rings. .

WHAT IF I HAVE A FAULT OR DAMAGE?

If you are experiencing any problem WITH DAMAGED, MISSING OR FAULTY PARTS, please contact our technical support team. We may ask for pictures so please be prepared to take pictures which you can email to sales@reverseosmosisworld.co.uk

