



What Are the Benefits of This Upgrade?

A TDS monitor, like the HM Digital® DM-1 TDS Monitor, will take the guesswork out of knowing how your RO/DI system is performing.

Measuring the feed in pressure that your RO/DI system is receiving is simple with a built-in pressure gauge. It can monitor the operating pressure of the system in real time and alert you when the system is not operating at the right pressure.

What Do I Need?

This kit includes everything that you will need to successfully upgrade your Reef Pure RO Systems Essentials system to an Essentials+ system.

Please ensure that you have received all of the following parts:

1 x HM Digital® DM-1: In-Line Dual TDS Monitor
2 x 1/4" T-Fittings (For Connecting the TDS Monitor)

1 x Pressure Gauge

Useful Tools

- RO Tube Cutters or a Utility Knife



Before You Get Started!



Your HM Digital® TDS Monitor has 2 sensors and is capable of monitoring TDS at 2 separate stages of your RO/DI system. Since your sediment filter and carbon filters do not remove TDS from your tap water, we recommend installing the 1st sensor just after the RO membrane/s. That way, you will be able to monitor the TDS directly out of your RO membrane/s and be alerted once they have begun to fail and need to be replaced.

We recommend the 2nd sensory be installed after your DI resin stage, as this will monitor the quality of RO/DI water being produced by the system, ready for reef aquarium use.

Installation Instructions

This installation will be completed in 2 parts. We will first install the HM Digital® DM-1: In-Line Dual TDS Monitor and then finish up by installing the Pressure Gauge.

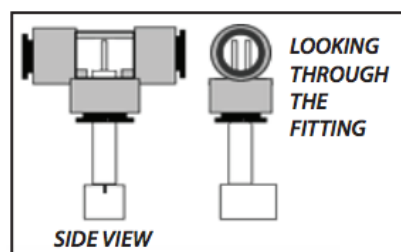
HM Digital® DM-1: In-Line Dual TDS Monitor

1. To prepare your RO/DI system for the upgrade, please ensure that the feed in water has been turned off before disconnecting any plumbing on your system. It is best to complete this work in an area prepared to contain any water which may drain from your system.



2. Prepare the HM Digital® DM-1: In-Line Dual TDS Monitor by inserting the white sensors fully into the bottom of the supplied T-Fittings.

Position the sensor pins so that they are perpendicular to the direction of the T. The water should flow over both pins equally. You should be able to see both pins if you look through the fitting, as per the image provided.



3. Now locate the yellow or blue tubing connected to your RO membrane. If you have dual RO membranes, please ensure that you locate the tubing that joins both product water lines from each of your RO membranes. This is where we need to install the "IN" sensor of your TDS monitor.
4. Make a cut in the yellow or blue tubing, approximately 10 cm after the RO membrane housing outlet or after the tube splitter/joiner if you have dual membranes.
5. Insert each end of the tube that you just cut to either end of the sensor T-Fittings.
6. Now locate the yellow or blue tube connected to the outlet of your DI resin stage/s. This is where we need to install the "OUT" sensor of your TDS monitor.
7. Make a cut in the yellow or blue tubing, approximately 10 cm after the outlet of your DI Resin canister and insert each end of the tube that you just cut to either end of the sensor T-Fittings.

Pressure Gauge

1. The pressure gauge is used to monitor pressure being fed into the RO membrane and therefore this is the best location for it to be installed. Begin by removing the tubing the connects to the cap end of the RO membrane housing.
2. Now unscrew the 90° elbow from the RO membrane housing cap and screw in the pressure gauge.



IMPORTANT: Do not over tighten the pressure gauge into the RO membrane housing cap. It needs to be firm but not overtightened. Over tightening will cause the fitting to crack and this cannot be repaired.

3. Replace the tubing that you disconnected from the RO membrane housing cap into the other end of the pressure gauge.

Before Turning the System Back On...

Be sure to take note of the operating pressure of the system. This will help you to understand what a normal operating pressure is for your system on your home's tap water pressure. When you notice a decrease in this pressure, it is likely that your pre-filters have become clogged and need to be replaced.

You will also be able to monitor TDS in real time with your HM Digital® DM-1: In-Line Dual TDS Monitor. Monitoring the "IN" reading will alert you to when your RO membrane has failed and needs to be replaced. Whilst the "OUT" reading will monitor the quality of water your RO/DI system is producing. Anything higher than 0 TDS means that your DI resin needs to be replaced.

Need Help?

We are always here to help! Please get in touch with us...



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