



Eco Friendly Discharge Companion: Oily water separators
Installation and operations manual for Eco Friendly I, II and III units
(updated December 2019)

The Eco Friendly Discharge Companion is a coalesce-type oily water separator that's designed to work in conjunction with the Arid Bilge Systems Series 2, 4, and 9 dry bilge vacuum systems. It cannot be connected to a standard bilge pump because the standard bilge pump would exceed the allowable flow rate and overflow the separator box. The Eco Friendly Discharge Companion has not been tested with the Arid Bilge Series 1 dry bilge vacuum system.

Basic installation . . .

The Eco Friendly must be mounted on a sturdy, level shelf. It's very light when shipped, but in operation the minimum water level is controlled by the height of the treated discharge fitting, so the box will have a minimum of between 6 and 9 inches of water inside at all times, which adds considerable weight to the box. The Eco Friendly I & III are built of $\frac{1}{4}$ " thick plastic, so the shelf must be level and flat, or the weight of the water could cause a failure if it's not properly supported. The Eco Friendly needs to be mounted in a highly visible location, so that you can easily monitor the oil/fuel levels that it has captured.

There is no pump to propel the water out of the separator, so if you are connecting directly to a thru hull fitting, make sure that the Eco Friendly is elevated well above the point of discharge. It needs to be a straight run downward from the treated discharge port to the thru hull, no ups and downs. If you can't meet these requirements, then a Rule Shower Sump box needs to be installed below, or an existing one utilized to pump the treated discharge overboard. There are six holes in the mounting flanges on the lower right and left sides of the box, which are used to secure the box to the shelf. You also need to leave enough space above the box to allow room to raise the hinged lid on the Eco Friendly I or II, or to insert a suction tool into the Eco Friendly III to remove any accumulated hydrocarbons.

If you ordered your Eco Friendly Discharge Companion with either the Hydrocarbon Notifier (simple version) or the Eco Friendly Alarm & Arid Bilge Shutdown (enhanced version) then you would also need to connect power to the alarm. They are marked 12 or 24 volt DC and have a 16/2 power cord, same as your Series 2 or 4 unit.

Operation . . .

All of the Eco Friendly boxes have a viewing window, where you will often see a surface layer of oil or Diesel fuel, and then an emulsified layer underneath. If you have a single source leak, then it becomes easy to see the color, then look at your intake tubes on your Arid Bilge System to identify where the leak is originating from. Then look for that bilge pickup and simply follow the trail to the source. The Eco Friendly Alarm has a shutdown feature where, if properly wired it, can have both a remote display on the dash, as well as an auto shutdown of the Arid Bilge System. Therefore, if the vessel is unattended and has a significant amount of oil in the separator, it should not overflow and send oil out into the surrounding waters. The Hydrocarbon Notifier will simply alarm when oil, fuel or air touches the Water Witch probe located inside the Eco Friendly Discharge Companion. You can adjust the trigger level point of the probe, as there are two screws at the top of the sensor mounting rail to remove the rail, and then there are several threaded holes that allow the probe to be elevated for greater sensitivity, or lowered for those of us that are managing leaks. Raise the probe too high and it may false trigger where the vessel is rolling and air touches the probe, setting off the alarm. The Hydrocarbon Notifier has no dampening feature and could be in a situation where it goes off for a second or two on every roll of the vessel if the sensor is mounted too high. The Eco Friendly Alarm has a dampener feature where the probe needs to be in the alarm mode for 20 seconds before it alarms.

Winterizing . . .

If a hard freeze is expected, then it's probably best to drain the Eco Friendly Discharge Companion of water.

Shipping the unit . . .

Should it become necessary re-box and to ship the unit back to us, please follow these guidelines. Drain and clean the Eco Friendly Discharge Companion completely before return shipping.

Questions or comments please visit the "Owners' Central" section of our website to find resources: <https://aridbilgesystems.com/owners-central/>