

Kayak Drain Plugs: How To Replace, What They Are For, How To Use

w/ Bilge Water Information by Tom Holtey

A border-line insane amount of detail on this important kayak safety device

By reading this web page you will be able to determine the correct replacement drain plug for your kayak. It is best to take a good close look at your kayak first. Inspect the drain plug, or the hole it fits into carefully. Take note of the kayak's brand, model name and year made. You might remember the details of your lost plug. You may have a replacement part number from the manufacture of your kayak, but their part number for a generic plug used on many brands will not likely match. A comprehensive database of replacement parts for all, or even most, kayaks does not exist.

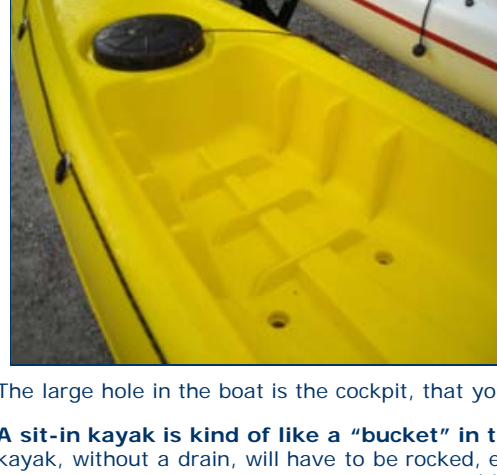
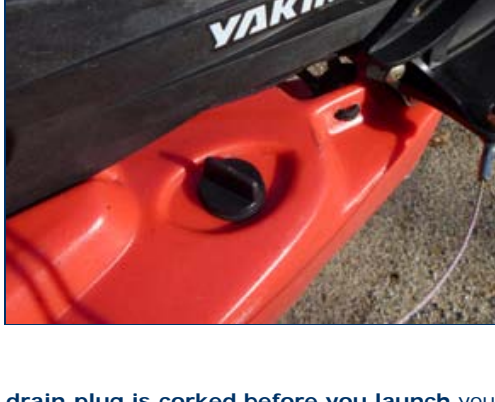
SKIP TO DRAIN PLUG LOOKUP TOOL- coming soon



Many kayaks have a drain plug to let water out of the inside of the kayak. This water is called bilge water. Almost all sit-on-top kayaks are outfitted with a drain plug. It is not as common for a sit-in-side kayak to be outfitted with a drain.

Small recreational sit in kayaks are more likely to be fitted with a drain plug than long touring kayaks. The drain plug will be most often located stern or bow (front or back) and on the deck, usually well above the water line. Occasionally, particularly on sit-in rec kayaks, the drain will be on the side of the kayak, located more to the center.

Drain plugs are not to be confused with scupper plugs. Scuppers are the drains that let water out of a sit-on-top cockpit. Sit-in-side kayakers do not have scuppers and are not self-bailing.



Always check to make sure the drain plug is corked before you launch your kayak into the water. Make absolutely sure that it is corked before you launch out onto the water, each and every time. Failure to do so could lead to flooding of your kayak.

All kayaks leak. Yes, even the space shuttle and a submarine will leak. This is why your kayak may be outfitted with a drain. It is not uncommon for a kayak to have some water inside after an outing. The drain will let you get that water out.

A drain plug should only be opened when you have returned to shore. Turn the kayak over and tilt to let out any bilge water. It is best to re-cork the drain plug during storage to prevent loss.

A sit-on kayak has a sealed hull. Because a **sit-on-top kayak is like a "bubble" in the shape of a boat** they are more likely to have a drain cork.

Sit-in kayakers have an open hull. The large hole in the boat is the cockpit, that you sit in.

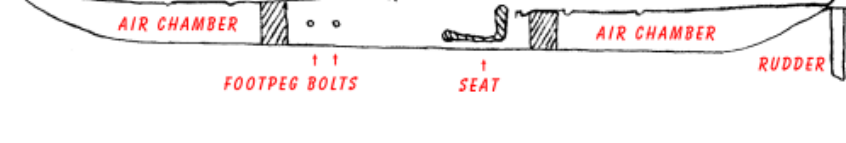


A sit-in kayak is kind of like a "bucket" in the shape of a boat. A sit-in kayak, without a drain, will have to be rocked, end-to-end, upside down, to let out the water of the cockpit and/or hatch opening(s).

Most recreational sit-in kayakers do not have separate chambers and the bilge water can be poured out of the cockpit only.

Touring sit-in kayakers will often have bulkheads, usually one behind the seat, and sometimes a 2nd bulkhead in front of the feet, dividing the kayak into watertight compartments.

Touring sit-in-side kayakers rarely have drain plugs. A sponge can be used to remove bilge water.

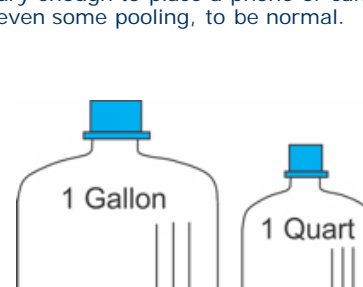


If your kayak is feeling very slow and sluggish on the water it could indicate you have considerable bilge water. When you come ashore after an outing you may notice a significant amount of water is inside of the kayak. You may see some sloshing around inside the storage compartment when you unload your cargo. You may have some water in a sit-in kayak's cockpit.



Some sit-on kayakers do not have inside access so it might be hard to see if water is inside. The kayak may be heavy with water making it hard to portage or car top. If so, it is time to open the drain cork and let out the water. The best time to do this is right at the shore with the kayak on a slope, drained from the lowest end. Open it up and let it flow. It is best to close the cork as soon as it is done.

While all kayakers do leak, they should not leak that much. Your kayak will never be dry enough to place a phone or camera inside unprotected. Expect some moisture, even some pooling, to be normal.



How much bilge water is too much?

Sit-on-Tops: About a gallon of water, give or take a quart, after a typical outing could indicate a problem.

Sit-In touring kayakers and recreational kayakers with bulkheads: More than a quart of water in a sealed section of the hull could indicate a problem. Ignore water in the cockpit.

A typical outing is loosely defined here. One can assume that an outing would be several or many hours. Very short outings may not be sufficient to accumulate bilge water. Longer amounts of time could lead to more bilge water. Some paddlers might be on very calm water, acquiring less bilge water. Other paddlers on very rough waters would be accumulating more bilge water.



Some kayakers have inherently more options for leaks, others less. Neither sit-on, nor sit-in kayak types are more or less vulnerable to leaks. While quality of construction can be a concern, it is not usually the case. A greater number of cargo hatches and/or deck fittings can contribute to leaking.

Water can easily get into the cockpit of a sit-in-side kayak. Sometimes this water can pass from the cockpit, through gaps in the bulkhead and into the sealed cargo space. Older kayakers, damaged kayakers and defective kayakers all can be suspect for leaks. Prevention and repair of leaks will not be addressed in this article.



Coarse Thread Plugs (left) have somewhat squarish threads. These may be screwed into a base plate (also with squareish threads). Often they are screwed directly into a simple hole cut into the deck of the kayak.

Sometimes a coarse thread plug fits into a hole with molded coarse threads.

All Coarse Thread Plugs are the same

Fine Thread Plugs (right) have pointed threads. These may be screwed into a base plate (also with fine threads). Or they may be screwed into a hole molded directly into the hole.

All Fine Thread Plugs are the same.

If your kayak is outfitted with a drain plug base plate it is best replaced a lost cork by purchasing it with a base plate.

The base is your ace in the hole. The new cork can be removed from the new base, and fitted into the old base. If the threads do not match you can simply re-install with the new base.



All drain plug bases have the same shape, hole and screw pattern.

A drain plug base is easy to re-place.

Unscrew the old screws (save for re-use), or drill out the rivets. Pry off the old base. Scrape out the old sealant. Re-seal with silicone. Fasten with new rivets or screws new, or saved. Let silicone fully dry. Screw in cork.

Most threaded screw-in drain corks have a retention clip that is fitted into the hole first. The retention clip is somewhat fragile and may break with rough handling.

Drain plugs have a grip that can often accept a string. It is often best to tie a length of string to the plug grip and then secure it to a nearby handle or deck fitting.

Some kayakers have a screw-in drain cork that is screwed into a simple hole drilled into the deck. This hole is typically about 5/8 of an inch. Cobra kayakers is one of the brands known for this simple approach.

Ocean kayak also drilled a simple hole in the deck and regularly used #3 rubber stoppers during the 1st part of the 1990s. Some other kayak brands may be outfitted with a rubber stopper as the drain plug too. The **rubber stopper** will fit tightly into a simple hole drilled in the deck. It may or may not be outfitted with a retention string. Older Ocean Kayak brand boats will have a strap eye on the kayak as a brand retainer.

The oldest Ocean Kayak boats will have a plastic ring as a retainer, secured to a cord run through the **rubber stopper**.

Ocean Kayak has since now used a fine thread plug fitted into a threaded hole molded in the deck.

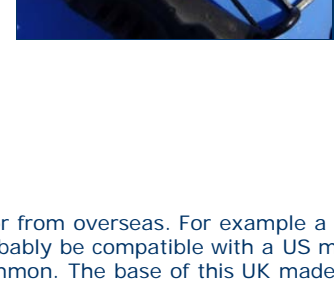
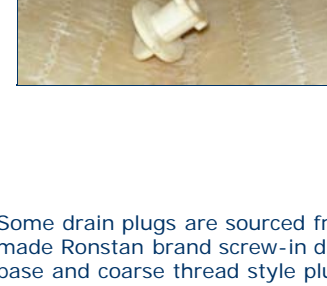
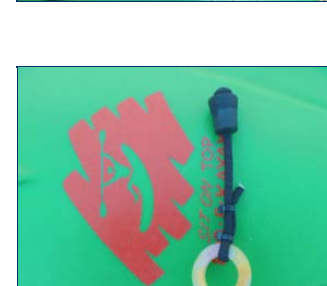
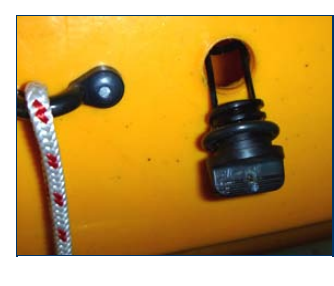
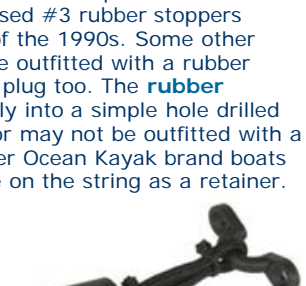
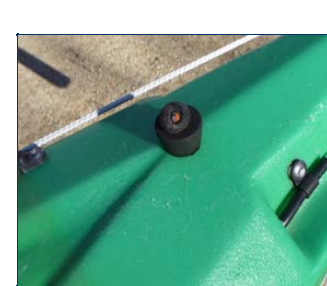
You can replace rubber corks if worn or cracked. Take note of any markings, most rubber stoppers have a number on the top. They also have a hole for the string (sometimes two). The string is fits very tightly in the hole and will not leak. Select a replacement with the same size number and be sure to get a string to tie it off with. If you have lost your rubber cork take note of the hole diameter in the deck and select a cork of the appropriate size. Tie the new cork to the grab handle or nearest deck fitting.

Modern Johnson brand kayakers of the 21st century (Old Town, Necky, and Ocean Kayak) are going to take a fine threaded drain plug. Modern Confluence brand kayakers, circa 2006 to date (Perception Sport, Dagger, Wilderness Systems, and Mad River) are going to take a coarse drain plug.

Heritage composite sit-on-top kayakers, circa 2000, have drain plugs in the bulkheads, inside the kayak.

Bic Sport brand kayakers will take a fine thread plug. Some of the Bic sit-on-top kayakers, such as the Tobago, will utilize the same fine thread drain plug as a scupper stopper.

The **Prijon Drain Plug** is unique. Note the 3 screw base and the key-hole opening. The base plate and plug are molded as one, with a fragile retainer. Tie the plug with an alternative retainer cord using the tiny hole on the plug grip.



Some drain plugs are sourced from sailing supply companies. Such plugs may be US made, or from overseas. For example a UK made Ronstan brand screw-in drain plug would likely be outfitted with a metal base, and commonly be compatible with a US made base and coarse thread style plug. The RWO bayonet drain plug, aka bung, could also be common. The base of this UK made plug does match a USA made base, but it is close. It might be difficult re-install with a US made base. It is possible that a rubber stopper could be inserted into the rough hole after the original base has been removed and the screw holes are sealed.



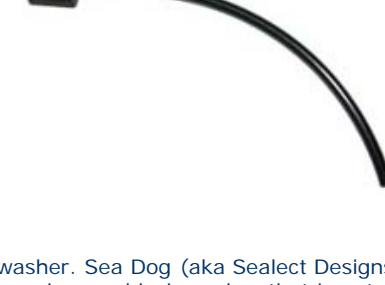
The **No. 2 Rubber Stopper** will fit most threaded drain holes regardless of fine or coarse threads. A drain hole in a kayak, threaded or not, with base or not, approximately 5/8 of an inch will take a number 2 rubber stopper. You must push the stopper very firmly into the hole. A small gap may still result.

A coarse thread drain plug can sometimes fit into a fine thread hole. A fine thread plug will rarely fit into a coarse thread hole.

Some kayakers may have been fitted with off brand, aftermarket, custom or very odd plugs. This could make identification and replacement difficult. A rubber stopper might be recommended, or a re-installation using a plug with a base.

Some kayak manufactures may not consistently use the same type of plug over time, or even in the same season.

Uniquely drain plugs that are brand specific can often be corked with an appropriately sized rubber stopper. A rubber stopper will not properly fill a Key-Hole shaped drain hole. A rubber stopper may still leave a tiny gap.



Surf Skis and one-man outrigger canoes are often outfitted with a drain plug that is vented. The vent is most often a simple plastic tube. A rubber stopper is common as a surf ski drain plug. A tube is inserted into the hole in the stopper. Some surf skis will be outfitted with a standard screw-in drain cork that has been modified. The vent is inserted into a drilled hole through the top of the cork. Vents might be long or short. A longer vent is considered to be more water tight.

Surf skis are vented in this fashion to reduce the strain on the hull. When a ski is removed from a hot sand beach and placed in the cool water the air inside the kayak shrinks rapidly. A completely sealed hull will pucker and collapse. Any small leak in the hull will rapidly take on bilge water. For this reason the hull is vented. Yes, the vent is a possible avenue for leakage, but the risk is very small.

A screw-in drain plug will likely need a washer. Sea Dog (aka Sealect Designs) have a red washer, easy to see. Other plugs may have a black washer that is not as easy to see. A coarse thread plug will typically have a rubber flat washer, very similar to those used on your garden hose. (I have reports that they can be a substitute.) Fine thread plugs will have an O-Ring (common in hardware store). These washers and O-Rings can break down over time. They can even fall apart and get lost. Inspect your plug and replace as needed.



Do your best to verify a match using the information above. **When in doubt select both a fine and coarse plug**, finalize the fit when you have both at your kayak. Keep the other plug as a spare for another kayaker who may need one. In fact is a good idea to have a spare on hand to match your kayak and possibly several types in a group repair kit.

Drain Plug ID Flow Chart

Use this Q&A cart below. It is as easy as ABC.

Does your kayak have a drain plug base plate?

YES

NO



Does the Base Plate have:

Is the hole molded in the deck with visible threads?

Coarse threads?

Fine threads?

Coarse threads?

Fine threads?



Get **Coarse Thread Plugs** or **Coarse Thread Plug with base** to be sure **and be prepared to re-install.**

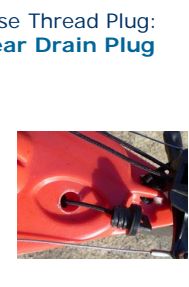
Get **Fine Thread Plugs** or **Fine Thread Plug with base** to be sure **and be prepared to re-install.**

Get **Coarse Thread Plugs** or **Coarse Thread Plug with base** to be sure **and be prepared to re-install.**

Get **Fine Thread Plugs** or... **Fine Thread Plug with base** to be sure **and be prepared to re-install.**

NO - Your kayak has a simple drilled hole on the deck, NO visible threads.

?? ---Is the hole about 5/8 of an inch or close to 3/4 of an inch---??



3/4 inch hole: **No. 3 Rubber Stopper.**

5/8 inch hole: **Coarse Thread Plug:** Possibly the **OT Rear Drain Plug**

Other: Select appropriate **rubber stopper** size.

Still cannot figure it out? Get an assortment of options, coarse, fine and rubber. One of them has got to fit. If you kayak a lot you are likely to encounter other kayakers that will need your extras.

Some other ways to look at it:

- **Screw-in drain plugs** with base plates are common.
- **Coarse Thread Plugs** are most common.
- **Fine Thread Plugs** are not so common.
- **Rubber stoppers** are not at all common on modern kayakers of the 21st century, but somewhat more common on kayakers of the 1990s.

Resources

See also The TopKayaker Shop for **Drain Plugs**