

BCs

➔ The centerpiece of your rig, the BC holds the tank, and secures hoses and accessories. Most supply an integrated-weight-ditch system and roomy cargo pockets while maintaining a streamlined profile. It enables you to safely control ascents and descents, and provides flotation on the surface.

BLADDER This is the part of the BC that holds the air allowing for buoyancy control at depth. Most modern BC bladders are single layer. Some back-buoyancy BCs and back-plate wings use a double-bladder design with an airtight inner bag protected by an outer nylon shell built to resist tears and punctures.

EXHAUST VALVES

These valves vent air from the BC bladder. The main exhaust/overpressure relief valve is activated by pulling on the corrugated hose. Remote exhaust valves normally work with pull cords. The more exhaust valves a BC has, the more options you have for venting air while in various positions.

POCKETS BC pockets are typically fitted with either zipper or Velcro closures. Jacket-style BCs often have at least two pockets; back-buoyancy BCs often have expandable or fold-down pockets.

POWER INFLATOR

Connected to the end of the corrugated hose and tied into the tank's air supply via a low-pressure hose, this unit includes both inflate and deflate buttons for filling or venting air from the bladder.

INTEGRATED-WEIGHT SYSTEM

Available on virtually all BCs, these systems eliminate the need for a weight belt by loading ballast into specially designed pouches, which can be ditched in an emergency.



Out of the Box

1 Adjust the internal ends of the cummerbund so the outer ends overlap between 3 and 6 inches when secured over your stomach. If the sternum strap offers more than a single position, find the most comfortable height that doesn't interfere with other gear.

2 Thread tank strap(s) through their buckles, if needed, and then slip the BC over your tank to make sure tank buckles are centered, and tank pads and Velcro patches are positioned where they can best be utilized.

3 Check exhaust valves for tightness. Turn on the air in your tank, and inflate the BC to test for leaks and proper power-inflator function. Pull all valve cords to make sure the exhaust valves are working.



ILLUSTRATIONS: BRUCE MORSE

HOW TO CARE FOR A BC

► **ALWAYS START** the cleaning process with a hearty washdown using a freshwater hose. This will knock off any big chunks of sand and dirt, as well as residual salt.

► **FILL A TUB** with fresh water, dunk the BC repeatedly, and then leave it to soak for about five minutes. Pull out the integrated-weight pockets, and soak them separately. Afterward, remove the BC from the tub, and give it another quick hose rinse.

► **DIRECT A LOW-PRESSURE WATER STREAM** into the power inflator with the deflate button depressed so the bladder fills with fresh water. Rotate the BC, enabling the water to slosh around inside the bladder. Then drain the bladder using each exhaust valve so their internal parts get a decent flush.

► **INSPECT THE BC'S CORRUGATED HOSE** and hardware for cracks and signs of wear, check valve caps to make sure they're tight, and check the integrated-weight system for tears, broken zippers or cracks in the buckles.

► **MAKE SURE EVERYTHING** is in working order by reinserting the weight pouches (store the weights separately) and locking them in place, fully inflating the bladder and checking for leaks, and then pulling the

corrugated hose dump and remote exhaust-valve cords to make sure they work (sand and grit lodged here can create havoc). Partially inflate the bladder to give it some shape, and hang-dry the BC out of direct sunlight.



What You Need to Know About BCs

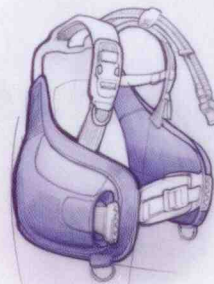
Jacket-style BCs offer a sense of security by wrapping around you like a comfortable coat. Bladders are positioned under your arms, on your waist and, to a lesser degree, behind you. These BCs tend to be stable and are less dependent on trim weights to ensure a good swimming attitude. They also float you on the surface in a more comfortable position. However, jacket-style BCs are bulky when compared with back-buoyancy BCs, and some styles can cause body squeeze when fully inflated.

Back-buoyancy BCs are more streamlined, with all inflation behind you. With back-buoyancy BCs, you'll never suffer from body squeeze, and the separation of air cell from harness on some

models allows you to mix and match. However, the positioning of ballast and trim weights is critical for maintaining stability and a good swimming attitude. Get it wrong, and you'll be constantly fighting a tendency to roll or pitch. Float comfortably on the surface by minimizing rather than maximizing inflation.

Hybrid BCs usually feature a rear air bladder balanced by some additional buoyancy around the waist. Hybrids do have a bit more bulk in the waist area than a back-buoyancy BC, but they're good for divers who like rear inflation but find that back-buoyancy BCs tend to pitch them forward.

Jacket-style



Back-buoyancy



Hybrid

