



How To **Replace an Inflatable Boat Valve**

If you are unable to fit a like-for-like replacement inflation valve e.g. because your valve is no longer available, then the next most cost effective approach is to replace your valve (most make of valve can be replaced using this approach) with a modern C7 inflation valve (new C7 and other valves can be obtained at www.Ribstore.co.uk/shop combined with a fabric valve aperture reinforcing patch (a 'valve doubler') that is the same colour as your tube fabric.

Before you start the job you will need to establish the inflatable tube fabric that your boat is made from. The type of tube fabric determines the type of adhesive, solvent and the valve doubler patch that is required to undertake the job. If you are unsure as to which fabric your tubes are made from, then visit www.ribstore.co.uk/advice-and-information.php to help identify the fabric and to obtain the correct materials for the job. A low-cost complete valve replacement kit can be obtained from the Ribstore shop. The kit includes everything you need to replace your valve, i.e. 2-part adhesive, solvent primer/cleaner, latex gloves, sandpaper, application brush and comprehensive instructions.

Next, you will need to ensure that the environment in which you undertake the work is suitable; successful repairs of inflatable boat tubes, using contact adhesives, are dependant upon the environment in which the repair is carried out - ideal conditions are; relative humidity less than 60% (low cost humidity meters can be obtained from most good DIY stores), temperature between 18°C and 25°C, a dry, warm and shaded work area with good ventilation and no naked flames or other heat sources (the solvents/adhesive vapours are highly flammable . Once this is achieved then you can get to work on replacing the valve:

1. Deflate the tube.
2. Remove the existing valve you should carefully cut the fabric around the outer edge of the existing valve body using a sharp craft knife and remove the complete valve assembly from the tube.
3. Fit the new valve to the new valve doubler by unscrewing the valve body assembly and re-assembling with the valve doubler sandwiching the valve doubler.

4. Lay the assembled valve and valve doubler over the newly created the cut-out of the tube, ensure that the doubler is centered over the cut-out and then mark with a pencil/removable marker around the valve doubler, allowing an additional 5mm overlap around the cut-out.
5. Abrade the rear of the doubler and the marked area around the cut-out with abrasive paper to achieve a 'key' for the adhesive. Do not over-abrade as this could damage some fabrics, e.g. hypalon.
6. Clean/prime the rear of the patch and the marked area, using a clean dry cloth, by wiping with the correct solvent for the fabric of your tube i.e. Toluene solvent (for Hypalon) or MEK solvent or acetone (for PVC/PU fabrics). Wait until the solvent has evaporated. (N.B. with PVC fabrics, it is normal for the area to become 'tacky' when MEK/acetone solvent is applied).
7. Mask the outside of the marked area around the cut-out with removable masking tape to prevent unsightly adhesive 'overspill' when applying the adhesive.
8. Using 2-part adhesive, see www.ribstore.co.uk/shop mix the adhesive as per the instructions that were supplied with the adhesive (read the following steps before mixing the 2-part adhesive as 2-part adhesives generally have short curing times).
9. Using a brush applicator, apply an even, thin coat of adhesive to both the rear of the patch and the masked area, leave to dry for at least 20 minutes, apply a second and third coat, leaving each coat to dry for 2 minutes or until tacky, apply the assembled doubler and valve patch carefully to cut-out (N.B. as adhesives are 'contact' adhesives then it is important to position the doubler patch correctly as it will not be possible to re-position once in place). Smooth down the doubler fabric area around the valve using a seam roller or rounded object (e.g. wallpaper seam roller or screwdriver handle), working from the valve outwards to the edge of the doubler, in order to remove any air bubbles.
10. Remove the masking tape and clean-off any excess adhesive with the correct solvent [Toluene solvent (for Hypalon) or MEK/acetone solvent (for PVC/PU fabrics)].
11. Place some heavy weight on the fabric surrounding the valve and allow to 'cure' for 24 hours before re-inflating the tubes and/or re-launching the boat.

For all your RIB and inflatable boat needs visit www.ribstore.co.uk