



Goodwinch Limited

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Winch Manufacturers and Worldwide Superwinch Distributors

How to make Your TDS Winch fully submersible

Although the sealed solenoids are pretty waterproof anyway (like the Allbright units) its not a bad idea to remotely locate them higher up under the bonnet in a sealed plastic enclosure. Not so much as keeping water out of them, but stopping condensation forming inside the solenoid casing. This is why it is good to use a plastic box to put them in and seal around the cables with RTV sealant.

Now for that finishing touch to make our TDS-Goldfish winches submersible which you can easily do yourself before fitting.

After removing the solenoid pack from the motor housing, prise out the plastic bung in the centre of the end of the motor. Unscrew the two long bolts holding the motor against the sealed motor drum support. Holding the body of the motor against the support, wobble off the motor cap. If it doesn't come off fairly easily, insert a 6mm setscrew into the threaded hole, where the plastic bung came from, and screw it in to push the motor end cap off the main body.

Using 4 small cable ties, secure the brushes back into their holders to ensure the springs located behind them do not fly out, should the armature stick into the winch when you pull back the body of the motor for applying a good bead of RTV sealant between the body of the motor and the drum support.

Before applying the sealant, it is a good idea to carefully check the tightness of the four screws securing the brush wire terminals. DO NOT OVERTIGHTEN!

Having done this, push the motor back into place, remove the cable ties, replace the motor end cap and the two long bolts, but before fully tightening them, leave a gap of 2 or 3 mm between the cap end and the body. Apply RTV sealant in this gap and finish putting the end cap back on, ensuring it is fitted squarely.

Wipe off the surplus sealant, filling in over all the various screw heads.

You could also apply some more sealant in the gap between and over the top of where the motor sits into the drum support and again, wipe off the surplus.

Finish off by applying some sealant over the heads of the two long bolts, put the centre bung back and seal that over too.

At the other end of the winch, unscrew the brake cover, apply a bead of sealant on the cap mating surface and refit it, wiping off the surplus.

If you wish, you could unscrew one end of the tie bars in order to remove the drum to apply an extra amount of general purpose grease in and around the drum bearings and 'V' ring seals for good measure. You could also brush up some grease under the freespool rotating lever.

So, there you are, you now have a well prepared winch to give you excellent reliability.

TDS – Goldfish, 'T' – Tough 'D' – Dependable 'S' – Submersible (with your additional preparation)
'Goldfish' - I expect you have worked that one out already!

Remember to always use the supplied pulley block to halve the load when the going gets tough. Using the pulley block allows the motor to turn more freely, by doubling the gearing and reducing the amps draw.

"Enjoy your winch."



The TDS-9.5 **'Goldfish'** in action in its Fish Tank



The right hand image shows the modified drum support, exclusive to Goodwinch