

AquaClose Water Door Closer Upgrade Kit – Installation Steps

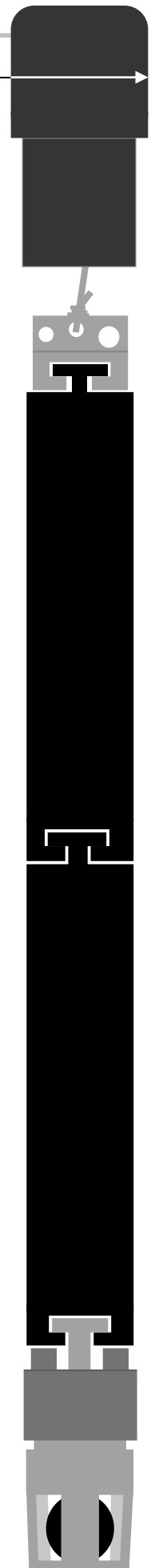
To fit the Upgrade Kit proceed as follows:

1. Unhook the anchor lug from its anchor screw and unscrew the closer from the door.
2. Lay the closer down on a flat surface – water will issue through the black pulley box.
3. Withdraw the pulley box from the top of the closer – the remaining water will empty out.
4. There may be some white powdery discolourisation of the water caused by inert residue remaining from some electrolytic corrosion activity between the old lead weights and the aluminium tube.
5. With the closer remaining horizontal, pull slowly on the nylon cord and remove the weight assembly from within the tube.
6. Tip the tube to empty out the valve ball – unlike the current closer the ball was not restrained within a cage in earlier models.
7. Flush the tube to remove any white sludge.
8. Fill the empty tube with tap or rain water (never pool water – it is corrosive).
9. After checking that the valve is complete with its caged ball and after fitting the Medium speed-control sleeve (the one marked M), connect the valve to the lower weight.
10. Then connect the weight hanger that is on the end of the nylon cord to the upper weight.
11. Holding the nylon cord, tilt the tube and allow the weight assembly to descend slowly to the bottom of the tube – do not let the cord abrade against the top edge of the tube.
12. After removing any mounting screws that may be nested within the pulley box, feed the nylon cord through the pulley box and out through the exit hole, ensuring that it passes over, not under, the foam wiper pad that is contained within the stem of the pulley box .
13. Insert the pulley box into the tube so that the exit hole will face the door latch.
14. The closer is now ready to be mounted back onto the door using the three 10 gauge mounting screws.
15. For the earlier door closers there will usually be only two mounting screws, which are likely to be 8 gauge screws and which are better replaced by the three 10 gauge screws.
16. For the third screw drill a 5mm clearance hole in the flange midway between the two existing holes.
17. Then fit the closer onto the door via the top and bottom screws and drill a 3.5mm hole in the door at the location of the middle hole, and insert the third screw.
18. Holding the anchor lug and cap adjacent to each other, but so positioned that the cap will clip over the lug, thread the nylon cord through the slot in the cap then through the slotted post of the lug. Then slide both parts down the cord out of the way.
19. Pull the nylon cord taut across to, and over the anchor screw, just sufficient to lift the weight assembly approximately 50mm off the bottom of the tube.
20. Lower the weight assembly back down the tube then tie a single knot in the cord at the point in the cord where it passed over the screw.
21. Slide the anchor lug back along the cord to the knot and tighten the knot by drawing it firmly against the post on the anchor lug.
22. Without lifting the weight assembly, pull the cord across towards the anchor screw — the anchor lug should reach to within approximately 50mm of the screw.
23. Then, pulling further on the cord to lift the weight assembly, hook the anchor lug onto the screw and test that the door closes and latches satisfactorily. With the 50mm bottom clearance there will be sufficient vertical weight travel available to enable a 1200mm wide door to be fully opened.
24. If the door closes too quickly or too slowly the Medium speed-control sleeve can be replaced with the Slow or Fast sleeve respectively.
25. Finally, when satisfied with the entire installation, trim the nylon cord and, pressing firmly, snap the cap





Slide the rear cover of the pulley box half way down to reveal the pulley wheel then thread the nylon cord over the foam pad, up behind the cover, over the pulley wheel and out through the exit hole.



Speed Adjustment

- Remove the door closer from the door, then remove the pulley box.
- Lay the top of the closer against the edge of a bench or table. At even a shallow angle little or no water will run out.
- Draw the weight assembly out onto the table top using both hands to support the weights so that they remain aligned with each other throughout their removal. **Do not let them fall.** Also be careful that they are not damaged, e.g. that the plastic casing is cracked or chipped allowing water penetration into the steel weight, or that the connecting parts are damaged.
- Pressing sideways, remove the valve from the lower weight.
- Remove the valve sleeve from the valve. The medium speed sleeve is fitted at the factory. It is marked with an **M** on one of the posts (see Fig 1) and it may have become tight.
- Fit the **S** sleeve to reduce the closing speed, or the **F** sleeve to increase the speed.
- Replace the valve onto the weight.
- Ensuring that they are properly aligned so as not to rub against the sides of the tube during operation, reinsert the weights into the closer.
- Re-test for speed. Should the **S** sleeve have been fitted and the speed is still too high, a weight may be removed and the process repeated, with or without a change of sleeve. However, speed cannot be reduced below that obtained with just one weight and the **S** sleeve.
- If the **F** sleeve has been fitted and the speed is still too slow or is hesitant, the quality and condition of the rollers and tracks should first be checked before adding a third weight. With the door already requiring more effort to open than for a free rolling door, adding a further weight will require even further effort to open the door and will also reduce the available door travel.
- Check that there is no **rubbing** of the door against the sides of the top track and that the **width** of the groove in the bottom rollers is **not less than** the width of the rail. The latter results in the rollers wedging down onto the rail and can add significantly to the rolling resistance.
- Importantly, check that there is vertical clearance between the door and the top track **throughout** the door's travel so that there is no binding and a free rolling action is preserved. The roller adjustment should be such that a small clearance of only 1 or 2 millimetres exists. Note that excess clearance can enable the door to be lifted off the bottom roller rail, an unsatisfactory situation if it is a security door.
- Finally, check also that the door has not become warped thus causing lateral forces against the sides of the rollers and resultant extra friction.