

- Inventco door closers available in 12 popular door-matching colours
- Extra weights available (not typically required)
- Handle weights with great care if removed from tube

## Inventco Water Door Closer Model 3S—Installation Instructions

### Unpacking the door closer

- Remove the clear plastic sheath and lay the closer (A) down **horizontally (the weights must never be allowed to drop freely down the tube until tube is filled with water or damage may result)**.
- Remove all securing adhesive tapes but leave the white restraining cord in place.  Remove the black pulley box (B) from the tube and slide off its back cover. Then, noting how the nylon line (C) is fed over the foam wiper pad and the pulley wheel, slide the pulley box completely off the nylon line.
- Now pull on the nylon line until the top of the first weight (2 weights) is exposed. Small plastic parts will also be exposed. Remove these parts including the two square speed limiters and place them all aside. Then untie both ends of the restraining cord and discard.
- Rethread the nylon line through the pulley box ensuring that it sits properly over the pulley wheel and then slide the cover onto the back of the pulley box.
- Fill the tube close to the top with tap or rain water (**never** salted or chlorinated pool water) then, making sure the foam wiper pad is in place with the nylon line passing over it, reinsert the pulley box into the tube. Tilt the tube and fully lower the weights.

### Installation

- Mark and drill 3mm (1/8 inch) mounting holes on the face (not the end) of the trailing door stile (D) so that the top of the pulley box is within a few millimetres of the upper door track (E). Lift and turn it to face towards the latch (F) then screw the closer to the door.
- Locate an anchor point on the metal door jamb (or wall) such that the nylon line is close to horizontal but will not rub against the side of the exit hole in the pulley box. Ensure that the screw, once inserted, will not prevent the door from closing fully. Also ensure that there will be at least 5mm clearance around the head of the screw to fit the anchor lug (G). Drill and partially insert a screw.
- With the door fully closed hold the nylon line over the screw and pull on it sufficiently to lift the weight assembly 50 - 75mm off the bottom of the tube. Holding the line in place, open the door fully and test for closing speed, normally 4–8 sec. If considered too fast or too slow adjust by fitting a larger or smaller valve sleeve. Refer overleaf for the procedure for doing this.
- Gently** lower the weights to the bottom of the tube. Thread the nylon line firstly through the slot in the end of the anchor lug cap (G) then through the slotted post of the anchor lug (H) (see Fig 1). Pull on the nylon line to lift the weight assembly 50 - 75mm off the bottom of the tube. Holding the line in this position check that the door opens fully without the top of the weights impact-ing the pulley box. If necessary, fit a stop to the upper or lower door track to limit door travel.
- Now tie a **single** knot in the nylon line and tighten it by pulling it firmly against the post on the anchor lug. Hook the lug onto the screw and recheck that the door opens fully then snip off the excess nylon line. Finally, pressing firmly, clip the cap onto the anchor lug.

## FITTING INSTRUCTIONS — INVENTCO AUTOMATIC SLIDING DOOR CLOSER

The Inventco Automatic Sliding Door Closer incorporates one or more plastic covered steel weights operating in water (see Fig 1). A ball operated valve attached to the bottom weight limits door closing speed to reduce closing impact. Also the valve is fitted with an exchangeable outer sleeve of which there are three alternate sizes to enable closing speed to be increased or decreased. The mid-sized sleeve is fitted to the valve at the factory. The other two are located above the weights.

Note that if the door is sluggish, i.e. its sliding friction is relatively high, exchanging sleeves to increase closing speed may have little effect. Also note that although there is no change in actual closing force with change of valve sleeve, the change in speed may affect door latching. As delivered the door closer is fitted with two weights. For sluggish doors an extra weight can be purchased separately or one or two heavier weights (Red Weight - 30% heavier) purchased to replace the standard weights. Maximum recommended weight capacity is three standard weights or two Red weights. However, even for large aluminium security screen doors (up to 2.5m x 1.5m), a need for more than two weights means that the door is not rolling freely and that the tracks and/or rollers need attention.

### UNPACKING THE DOOR CLOSER

Cut and remove the clear plastic sheath enclosing the door closer. Lay the door closer down **horizontally**. Remove the adhesive tapes securing the nylon line and the pulley box to the door closer tube then withdraw the pulley box a short distance from the top of the door closer tube.

Pull on the nylon line until the top of the upper weight is exposed and further withdrawal is prevented by the weight restraining cord. (Also exposed will be the two alternate valve sleeves.) **Completely** remove and discard the weight restraining cord to free up the weights leaving the upper weight just protruding from the aluminium tube. **IMPORTANT** – the weights need only be removed from the tube to exchange valve sleeves and should not be removed without first reading Helpful Hint No. 2 below)

Now part the two alternate valve sleeves and remove the anchor lug and mounting screws held within them. Next, slide the weight hanger sideways out of engagement with the upper weight and then slide the two valve sleeves down over the weight hanger and place them to one side. Slide the weight hanger back onto the weight and then, holding the nylon line firmly, tilt the door closer tube and lower the weight assembly **slowly** down it to come to rest **gently** at the bottom. Fill the tube with water to within 50 - 100mm of the top and refit the pulley box ensuring that the foam plastic seal is in place to wipe water off the nylon line as the door is opened.

**WARNING: DO NOT FILL WITH POOL OR SPA WATER. IT IS POTENTIALLY CORROSIVE TO THE ALUMINIUM TUBE.** Note: In very dry areas a dab of grease or soap on the pulley wheel axle may be necessary to silence squealing

### INSTALLATION

**Step 1.** Mark and drill 3mm (1/8 inch) mounting holes on the face (not the end) of the door stile remote from the latch (trailing stile) so that the closer is at its highest without fouling the upper door track. Turn the pulley box to face the correct direction and fit the closer to the door (see Fig 2).

**Step 2.** Locate an anchor point on the door jamb (or wall) such that the nylon line is close to horizontal and will not rub against the side of the exit hole in the pulley box, and such that the tip of the screw, where exposed, will not interfere with full closure of the door. Also ensure that there will be a minimum of 5mm clearance round the head of the screw to fit the anchor lug. Drill and partially insert a screw (see Fig 2).

**Step 3.** Hold the nylon line over the anchor screw and pull on it sufficiently to lift the weight assembly 50 - 75mm off the bottom of the tube. Still holding the line, open the door and test for closing speed. If too fast or too slow adjust by fitting a larger or smaller valve sleeve. Refer below for the procedure for doing this.

**Step 4.** Gently lower the weights to the bottom of the tube. Thread the nylon line through the slot in the end of the anchor lug cover and then through the slotted post of the anchor lug (see Fig 3). Pull on the nylon line to lift the weight assembly 50 - 75mm off the bottom of the tube. Holding the line in this position check that the door opens fully without the top of the weights impacting the pulley box. If necessary, fit a stop to the upper or lower door track to limit door travel. Now tie a **single** knot in the nylon line and tighten it by pulling it firmly against the anchor lug post. After re-checking that the door will open fully, snip off the excess line and, pressing firmly, clip the cap onto the anchor lug. Finally, hook the lug onto the anchor screw.

### HELPFUL HINTS

1. To keep the door open at any time simply unhook the anchor lug off the screw and, holding the nylon line, lower the weights gently to the bottom of the tube.
2. The door rollers should be of good quality and in good condition. If the door is still sluggish with two weights and with the fast (F) valve sleeve fitted check the rollers and also check that the roller groove is wider than the track rail so that the rollers do not pinch down onto the rail causing increased friction. The weight of the closer will worsen this condition. Check also for free movement in the top track.
3. Free movement of the weights can be checked independently of the door by pulling on the nylon line to lift the weight assembly and by observing the nylon line for smooth movement as the weights descend.

### SPEED ADJUSTMENT

To adjust the closing speed remove the closer from the door, then remove the pulley box. Lay the top of the closer against the edge of a table and draw the weight assembly out onto the table using both hands to hold the weights and taking care that they do not slip apart. If a weight should drop, the valve at the bottom of the lower weight may be damaged or the protective plastic covering on a weight may be chipped or split. Should the latter occur or should the plastic covering otherwise be accidentally cut or penetrated, the metal weight will subsequently corrode and impede free movement of the weights. **If a weight is damaged do not use it.** Purchase a replacement. Any handling damage to the weights or valve or any other component of the door closer is not covered by warranty nor is corrosion/rust resulting from damage to the protective plastic weight covering.

Now remove the valve from the lower weight by sliding it sideways. Remove the speed adjusting sleeve from the valve and replace it with the S sleeve to reduce closing speed or the F sleeve (see Fig 1) to increase speed. Reinsert the weights into the closer and re-test for speed. Should the S sleeve be fitted and the speed still be too high, a weight may be removed and the process repeated. However speed cannot be reduced below that obtained with the combination of just one weight and the S sleeve. If the F sleeve was fitted and the speed is still too slow or hesitant, the quality and condition of the rollers and tracks should first be checked before adding a weight. As mentioned in Helpful Hint No. 2 above, check also that there is no rubbing of the door against the sides of the top track and that the width of the groove in the rollers is greater than the width of the rail. The groove should be wider.

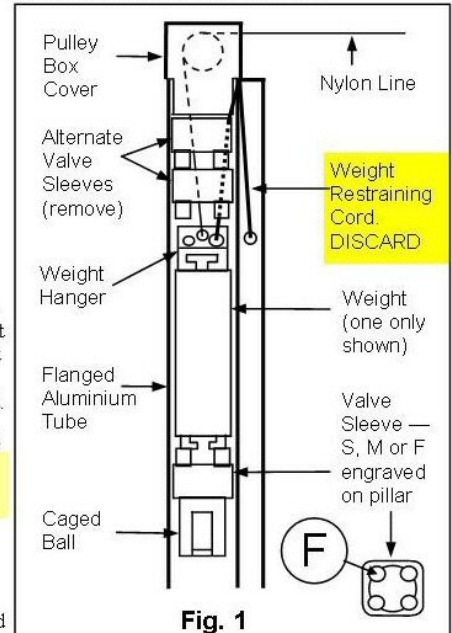


Fig. 1

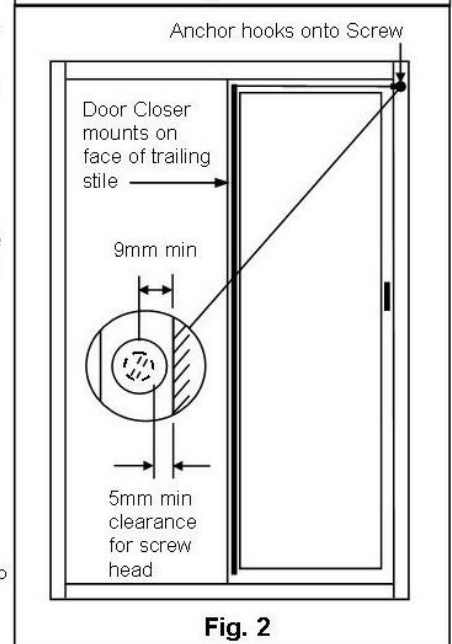


Fig. 2

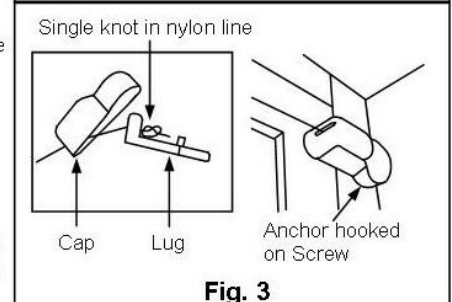


Fig. 3



# The Inventco 3S Water Door Closer

The strong silent type.

- 3 door closing speeds are now available WITHOUT LOSS OF CLOSING FORCE. Speed control valve is adjustable by means of 3 exchangeable sleeves, which give 3 different clearances between the valve and the door closer tube. Closer is shipped with mid-sized sleeve fitted
- Weight to weight slip-in connection (no more key-ring connectors); also 2 identical weights now fitted and extra weights available (Maximum of 3 installed weights recommended. Read more in important info below)
- A UV resistant plastic Anchor Lug with cover Cap makes for a neater anchor appearance
- Valve Ball is contained in a cage (impossible to lose the floating ball).
- The new (silent) pulley wheel and axle has been designed and accelerated tested for

**3 Yr Parts Warranty**

*Closer now less than a 10 min install*



Speed Control Sleeve



VALVE with CAGED BALL slips into a mating slot in the bottom of the weight. 3 Speed Control Sleeves are supplied. Mid size (M) sleeve is fitted at factory. To change sleeve disconnect valve from weight, remove sleeve and replace with slower (S) or faster (F) sleeve

ANCHOR CAP and ANCHOR LUG TIE OFF. (1) Thread line through slot in Cap. (2) Thread line through slot in Lug. (3) Adjust line length and tie a single knot as per illustration. (4) Tighten knot by pulling it firmly up against post and cut off excess line. (5) Press Cap on to Lug and hook Lug on to supplied Anchor Screw which is partially screwed into the door frame .



Batch Date Stamps  
For Quality Control and Warranty reference



Weight Hanger

Nylon line is tied to the middle hole. Other end to the Anchor Lug.



DC 3S Weight

PULLEY BOX with Rear Cover half opened and date stamped. Note also that the pulley wheel and axle is now a single item. Accelerated testing indicates in excess of 20 years trouble free service.

## Important Information

- The engine of the Inventco Door Closer is its weights. Uniquely, the grunt potential of the DC can NEVER vary. If a door has stopped closing or has drastically slowed, the first instinct is to blame the closer, when in fact 99% of the time it will be a door problem such as worn rollers, sticky or damaged bottom rail, rubbing in the top track, etc. To eliminate the DC as the problem if closing slows or ceases (where the door has previously been closing OK), unhook the anchor lug from the anchor screw and then, taking hold of the nylon line, pull the weight to the top of the closer and release the nylon line. If the weight drops smoothly towards the bottom of the DC tube then the closer is not the problem. Check door rollers, rails and upper track. Replace rollers as necessary. Our experience is that the Anthony KWIK Rollers with stainless ball bearings are smooth and long lasting.
- If the door is latching too strongly/loudly with the standard two weights, always try fitting the Slow valve sleeve (S) to achieve a softer close rather than removing one of the weights and reducing closing force.
- The weights are designed to slip apart so take extra care not to drop them when handling as the end connections can fracture. Such damage is not covered by Warranty, nor is corrosion of the steel weight resulting from damage to the plastic sheath.
- Guaranteed to close security screen doors in good condition up to 1.5 x 2.4m in size. Glass doors vary, and although the closer may close a standard glass door, pre-test, (see [www.inventco.com](http://www.inventco.com)) as we do not guarantee glass door closure.
- Installer Free-Call Help Desk. Ph. 1800 812 292



Patent Pending

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