



## INFLATABLE DRY DOCKS FOR BOATS WITH OUTBOARD OR STERN DRIVE(S) FOR BOATS 16' to 32' LENGTH

### INSTALLATION MANUAL



## MEASUREMENTS (IMPORTANT)

STOCK #	MODEL	VESSELS	VERSION	LENGTH o/a	BEAM o/a	WEIGHT
FD19	<b>FAB Dock 19</b>	16' - 22'	WIDE, O/BOARD(s)	7.8 m	3.0 m	115 kg
FD19X	[+ D, X, XD]		STERN DRIVE(s)	w 7.8 m	w 3.3 m	w 120 kg
FD21	<b>FAB Dock 21</b>	18' - 24'	WIDE, O/BOARD(s)	8.4 m	3.0 m	120 kg
FD21X	[+ D, X, XD]		STERN DRIVE(s)	w 8.4 m	w 3.3 m	w 125 kg
FD23	<b>FAB Dock 23</b>	20' - 26'	WIDE, O/BOARD(s)	9.0 m	3.3 m	125 kg
FD23X	[+ D, X, XD]		STERN DRIVE(s)	w 9.3 m	w 3.8 m	w 135 kg
FD25	<b>FAB Dock 25</b>	22' - 28'	WIDE, O/BOARD(s)	9.6 m	3.4 m	130 kg
FD25X	[+ D, DD, X, XD, XDD]		STERN DRIVE(s)	w 9.9 m	w 3.8 m	w 145 kg
FD27	<b>FAB Dock 27</b>	24' - 30'	WIDE, O/BOARD(s)	10.2 m	3.4 m	135 kg
FD27X	[+ D, DD, X, XD, XDD]		STERN DRIVE(s)	w 10.5 m	w 3.8 m	w 150 kg
FD29	<b>FAB Dock 29</b>	26' - 32'	WIDE, O/BOARD(s)	10.8 m	3.4 m	145 kg
FD29X	[+ D, DD, X, XD, XDD]		STERN DRIVE(s)	w 11.1 m	w 3.8 m	w 160 kg

**NOTE:** If this is a stern-drive (stern leg) model, your FABDock will have a floor pocket with weight and sleeve for each drive. For total weight add 7 kg per stern drive pocket. Outboard models do not have pockets.

VESSEL LENGTHS FROM TRANSOM (DRIVE-MOUNT) TO BOW ACCOMODATED BY MODEL DATUM: measured at 200mm (8") above water line		
	BOAT LENGTH at WL	BOAT BEAM at WL
<b>FAB Dock 19</b>	5.8m (19' 0")	2.30m (7' 7") w. 2.65m (8' 8")
<b>FAB Dock 21</b>	6.4m (21' 0")	2.30m (7' 7") w. 2.65m (8' 8")
<b>FAB Dock 23</b>	7.0m (23' 0")	2.65m (8' 8") w. 3.10m (10' 2")
<b>FAB Dock 25</b>	7.6m (25' 0")	2.75m (9' 0") w. 3.10m (10' 2")
<b>FAB Dock 27</b>	8.2m (27' 0")	2.75m (9' 0") w. 3.10m (10' 2")
<b>FAB Dock 29</b>	8.8m (29' 0")	2.75m (9' 0") w. 3.10m (10' 2")

**Note:** Boat manufacturer's lengths are measured over-all including swim platforms and bow overhangs. The fundamental sizing of a FAB-Dock relates to the boat length from transom to bow, and the beam, *each measured just off the water (200mm or 8")*. It can happen that a boat rated at 24' easily fits into a FAB Dock 21.

# FAB Dock - inflatable dry dock

Model No's     **FD19\*\* to FD29\*\*\***

## Supplied with

- 12v Dual Bilge Pump 4000 gph system
- Pump Controller
- Genovo battery-powered inflator 12v - 500L/m - dual pressure
- Bravo 1 manual foot bellows pump for installation
- Repair kit

## Specification:

- Length                      See chart
- Beam                        See chart
- Dock tube                 31cm diameter
- Gate swing                2.0 m
- Material:
  - Tube            Polyurethane alloy, 950 gsm, polyester reinforced
  - Floor           PU alloy, 950 and 1400 gsm, p/ester reinforced
- Dock weight (dry)    See chart
- Colour                      Blue



[Shown with single Leg pocket]

# INSTALLATION

## 1. Handling Out of the Box

The FAB Dock inflatable dry-dock materials are extremely robust when lubricated by water. However

- **Never** drag any inflatable when bundled. Dragging results in holes. The bundled dock may be lifted or rolled only, and carefully.
- Be careful in dragging draped material across sharp objects or snags - e.g bollards or weathered jetties - during deployment or recovery.
- Never haul a rope across the dock at any time, neither inflated nor bundled (results in friction burns).
- *Always* keep valves closed and caps fitted when not actively inflating or deflating.

## 2. Description

This FAB Dock inflatable dry docks are designed to fit a range of boats from length 16' to 32' but fit depends on actual waterline size of the boat.

The FABdock has three inflatable air chambers forming a large ring tube. There is a bulkhead at the bow, and two bulkheads in the orange panels forming a hinge for the drop-down gate.

The gate is fitted with a perimeter weight beam made up of PVC pressure pipes which run through containing sleeves on the gate sponson (= the inflatable tube). When the dock is installed, four steel weights are enclosed in the perimeter pipe and then sealed with entrapped water.

When the gate is deflated, the weights pull it down to open the dock and flood it, and a vessel can then enter or exit.

When the gate is re-inflated it rises against the weights and the vessel is enclosed. A 12V electrical connection is made from the client boat to the dock bilge pumps and the dock is pumped dry and kept dry.

## 3. Preparation for Installation

### Site

For the purposes of this manual it is assumed that the FAB Dock will be installed at a marina berth alongside a floating concrete jetty wing pontoon which is about 0.5 m above water level. If your situation is different please modify the procedure accordingly, but DO observe the handling precautions so your dock is not holed before it gets in the water.

The FAB Dock takes a good couple of hours to install so choose a time which presents a minimum of inconvenience to other marina users.

### Gate considerations

This FABdock requires a water depth of 2.0m to fully open the gate.

Tidal currents greater than 1/4 knot will affect the opening and closing of the gate.

#### 3.1. Supplied

- A main dock package delivered in a cardboard box
- 5 sections of plastic weight pipe
- 4 steel weights
- 1 12v dual Johnson bilge pump unit
- 1 12v electrical controller kit
- 1 Genova-80D 12v inflator
- 1 Bravo-1 foot bellows inflator
- Repair kit
- User Manual

#### 3.2. Inflatable Tube Arrangement

**The main forward tube** is permanently inflated and is divided by a bulkhead into two separate air chambers so there will always be buoyancy in the event of a puncture. **The two valves for these are situated in the main tubes near the orange hinge panels.**

After initial installation, the forward air-chambers will be checked and the pressure self-maintained every time the gate is raised.

#### 3.3. Operation of 12v Inflator

Used to inflate the dock at installation, and to operate the dock gate on an as-required daily basis, the Genova 80D inflator has two motors which operate automatically depending on back pressure.



- On initial inflation, the Genova primary motor runs a turbo blower up to 3 kPa (0.5 psi) and 500 L/min. This enables fast inflation for the initial filling of the targeted air chamber.
- When 3 kPa pressure is reached, the first motor shuts down and the second motor cuts in, driving a 2-piston positive displacement pump. Note the change of tone.
- The cut-out pressure for the inflator is user-selectable and should be **preset to 24 kPa** on the digital face panel. The preset is retained even when powered off.
- The inflator is fitted with miniature ball bearings and thermal overload protection and is robust and reliable. It should be good for at least 15 minutes on a hot day. However if the pump does stop working because of overheating, allow to cool and then re-start.

#### 3.4. Valves

To lock the valves open for deflation, *press the internal stem down with a fingertip and twist 1/4 turn clockwise.*

To close the valves for inflation, *press stem down, twist 1/4 turn anti-clockwise, and release.*

**Always keep valves closed and caps fitted** when not actively inflating or deflating.



## 4. Installation

### 4.1. Out-Of-The-Box

- Park your boat away to vacate the berth.
- Remove your FABdock from its box (actually, lift the box off the FABdock). Port is marked on the box so it can be oriented on the jetty before unpacking. **Caution: take care in handling.**
- Roll the FABdock out along the jetty with the orange gate hinge panels in line with the berth.

- **Initial inflation**

Since the on-board boat electrics are not yet available, use the included foot bellows pump for the initial installation. Connect the hose to the pump **outlet** port which is the LH side with your foot on the pump - the rubber flap of that port is uppermost.



The Bravo-1 foot pump is good and robust. When the dock is installed, it can be kept on board your boat as a backup.

Check the three inflation valves are **closed** (yellow poppet stem is up).

*See section 3.4*

Attach the foot pump to the forward valve (nearest the nose) in each orange panel in turn and *half* inflate the two forward air chambers.



- **Launch the forward section** of the FABdock into the marina berth **taking care to lift** rather than drag the dock in the process and especially over hooks or rough edges. Leave the orange panels (and gate) up on the jetty.
- **Fully inflate** the two forward air chambers which are now on the water. Keep the gate section up on the jetty for fitting of the weight pipe and the bilge pumps.



Note the dock at this stage is oriented in reverse.

### 4.2. Weight Pipes

There are 6 or 7 weight pipes which are assembled in sequence. **Four of the pipes** will contain each a 4kg steel weight with hose spacers to keep them temporarily in position. These are installed into the sleeves fitted on the outside perimeter of the gate. The pipe is then filled with fresh water and sealed. In operation, the gate is deflated and the weights drag it down.

If your boat has a stern drive unit there will additionally be a small weight pipe which belongs in the corresponding FABdock floor pocket.

- **Thread Tape.** Before screwing the corner connections together, pre-wrap the threads with 8 layers of **ptfe thread tape** (supplied). If you wrap tightly in a clockwise direction the tape won't unravel when screwing the joints together.

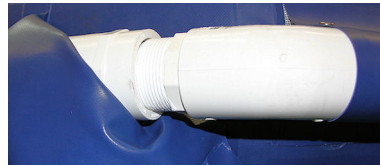


- **Semi-inflate** the gate. A small amount of inflation will aid in giving shape and support while fitting the weight pipes. Too much inflation will make the last pipe difficult.

- Insert **pipe #1** into the **starboard** gate sleeve, plugged end first.



- **Remove the black shipping plug** from **pipe #2**, fold back the cover flap and feed pipe through the second sleeve. Align the pipes carefully so the threads of the joint engage and gently screw together 1 - 2 turns. If the threads bind, back up and re-align.



- Once the threads are properly engaged, support the weight of the joint and screw it almost fully home from the remote end. The sleeve may grab during rotation of the pipe - supporting the weight and lifting upwards during rotation will help release it. Such grabbing is worst when the day is hot. Pre-spraying with plenty of water/ detergent solution will help. **If you need a tool for tightening, use a large pair of slip-joint pliers.**



- Repeat for all the pipes in sequence. **Pipe #6 (or #7)** will be pushed up hard into the **port** sleeve, plugged end first.

- **Corner covers.** Once all the weights and pipes are fitted, pull the covers over the joints and snap the black *Durable* fasteners together.



- **Stern-Drive Pocket Option.** Remove the large plug from the small remaining weight pipe containing steel chain and **fill it with fresh water.**

Wrap the plug with seal-tape before replacing it. It does not need to be wound down hard.

Insert the weight pipe into the leg pocket sleeve and secure it in place with a cable tie, pulled up snug and trimmed.

- **Flood the main weight pipes** with fresh water. To be assured that all air is displaced from the perimeter weight pipe there needs to be a steady incline from the end remaining plugged up to the filling point. Place a 150mm block (or box or whatever) under the second port joint and a 300mm block under the third joint. Remove the small plug from the starboard cap and holding it 500mm off the deck, fill it with fresh water until all air bubbles cease. Wrap the small plug with 6 layers of seal tape and screw it back in place. This plug needs to be screwed in not much more than hand-tight to get a seal.





### 4.3. Bilge Pumps Enclosure

- Draw the dock up onto the jetty so the gate and the bilge pump housing base are supported (there is a black reinforced area under the box with 4 webbing cleats holding it).

**LIFT** (avoid dragging)

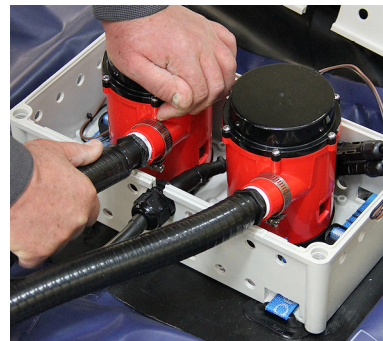
- **Cable clamp gland** Unscrew the gland back-nut and press the cable into the keyhole slot. Fit the clamp into position and tighten up the back nut firmly.



- Tuck the cabling neatly into the pump box behind and around the pumps.

- **Fit the hose clamps** loosely onto the pump outlets.

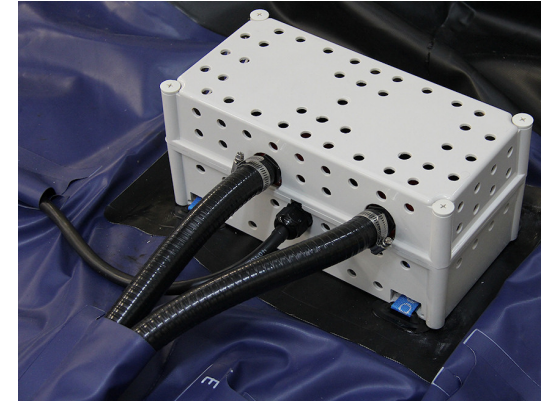
- Pressing hard down on the top of the pump to support it against the load, **push the hoses onto the pump** spigots. Use a little dish detergent smeared around the inside of the hose end to lubricate it in the process.
- Using a screwdriver, **tighten the hose clamps** onto the ends of the hoses.



- **Screw down** the box lid.

Note the plastic screws fit through keyed keeper slots in the lid and you will need to hold the lid up slightly to get the screws started.

**Do not over-tighten** the box screws (they jam).



- **Inflate the gate sponson** (semi firm) and **tie off the two bilge hoses** through the webbing hose loops on the rear corner of the gate. Make sure the ends of the hoses do not touch the water. They should extend down just past the weight sleeves. Use the black plastic snap clamps provided and pass around both hose and webbing. Snap together with slip-joint pliers.

## 4.4. Launching your FAB Dock

**Caution:** The pump enclosure is hard and heavy. To prevent cutting the FABDock bottom underneath the enclosure, do not allow it to drag across the jetty while launching.

- *Lift* the pump box over the edge of the jetty and into the water.



- Lift the rear section (the gate) with its weight pipes and launch the dock fully into the water.

While the gate pressure needs only be firm enough to give shape for getting the dock into the water and into position in the berth, it will subsequently need be firm enough to support someone moving around inside the dock to expel under-floor air. See section below. It does not necessarily need to be run fully up to service pressure at this stage. That can wait until your boat is in it's FAB Dock and the electrics are installed so you can use the electric inflator.

- At this stage the dock has no water in it and is easy to maneuver.

Secure a couple of lines to the FAB Dock rope beackets, push it out into the boat lane



and turn it round so it can be brought back into the berth oriented **bow first**. Watch for wind effects when you are doing this.

- **Position the dock** in the berth and tie off temporarily with the supplied lashings.

These will need adjustment fore and aft when you bring the boat in, depending on the bow over-reach of your boat and the causeway clearances required.



**Rope:** There is a length of 3/8" (10mm) mooring line supplied and a roll of electrical tape. If you bind the rope with the tape before you cut it, on both sides of the cut, it will not fray or unravel. There will not necessarily be sufficient rope depending on your judgement.



- **Entrained Air**

Now that your FAB Dock is floating in the water and tied up roughly in position, it is time to drop the rear gate and drive your boat into its new home. As you can imagine, the FAB Dock acts like a giant parachute as you lift it up and then drop it into the water.

To be able to drive your boat in to the FAB Dock, all this air trapped under the floor must be expelled. For this purpose you will need a long handled broom - ideally a **swimming pool broom with an extendable handle**.

If it is a nice day you can walk bare-foot or roll around inside the FAB Dock, pushing all the air out as you go. But be aware -

- Your legs can be encased in the loose floor membrane
- There should be enough air pressure in the sponsons to hold the floor tight
- Be sure there is someone nearby who can assist if needed.

Pay particular attention to the deep propeller pocket(s) if your model FAB Dock has one. These have a habit of popping up like a balloon and it is necessary that water be got into these when you first lower the gate so they will stay down. This can be done by using the broom to push the (deflated) gate tube under water long enough to get water into those pockets.

This task is a perfect opportunity for any kids who have been wanting to help!

Lifting the inflated tube just off the water at bow or at the gate hinge will allow air trapped under the floor in that area to escape.

- **Opening the Gate**

Once you think that you have most of the air out from under your FAB Dock, it is time to release the rear sponson air valve. This is the one on the end of the air hose in the foam casing. Remove the cap, push down on the yellow spring loaded poppet and twist it clockwise to lock open.

The first time a FAB Dock gate drops it takes a very long time as there is still residual air under the floor and in the sleeves. You can give it a helping hand. Once the water gets over the top of the rear tube it will start to sink quickly. Use your broom to help push any remaining air out from under the floor. It is easiest to push that air forward and when you see the air bubble at the front, lift up the front of the FAB Dock briefly to let that last bit of air out.

- **Entering the Dock**

You are now ready to drive your boat in. At this point, your FAB Dock is still not tied properly, or in its correct position, so take it very quietly on first entry.

Once you have berthed your boat in the FAB Dock, straighten your stern drives (legs) or outboards and raise them up. You are then

ready to raise the rear gate on your FAB Dock and enclose your boat.

- **Secure independent mooring lines** to the contained boat.
- **Tie your boat** lightly in the position that you wish your boat remain relative to the jetty.
- **Secure your FAB Dock** into optimum position around your boat using the mooring ropes to your berth. Tie off to as many of the blue webbing beackets **forward of the orange panel** as you have bollards for. The dock needs to be secured so that it can not move either forward or backwards.
- **Fit and adjust the Bow Catcher** (see next section). Once this is done, you know that your boat will always stop in the exact same spot every time, barring some catastrophic berthing mishap.
- **Close, cap and clip the valve** in place when the gate is down and before walking away. Water inside the air chambers can be a disaster.
- Read the owner's "**Operating Manual**".



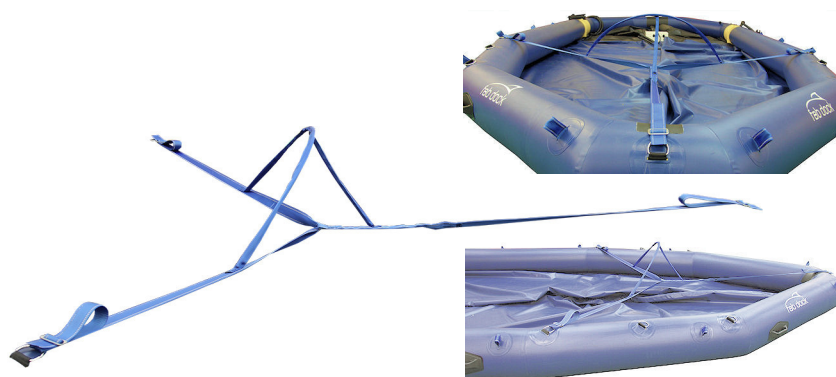
## 4.5. Bow Catcher

The Bow-Catcher is there to position your boat so that the **transom** (or more accurately **the drive unit mounting** - usually the same point - is in line with the **rear / aft edge of the orange hinge panel of the gate**.

It is important the transom is not located ahead of / beyond the **rear** of the orange panel so

- the bilge pump box remains functionally in its optimum position and
- to prevent possible damage caused by the pump box catching behind the transom.

**If your boat is a good fit in the dock then the bow catcher will not be needed.** That applies if there is not more than **300 mm (12")** clearance ahead of the boat bow to the forward tube of the FAB Dock when the transom is level with the rear of the orange panels.



The hooped part of the Bow-Catcher is designed to prevent it from sliding beneath the boat by hooking the usual winching eye mounted in the bow on trailered boats.

- Park the boat and tie it off in the FAB Dock in the correct position (first paragraph above).
- Choose the D-ring fixings which are 900 — 1200 mm aft of the bow catching point at water level.

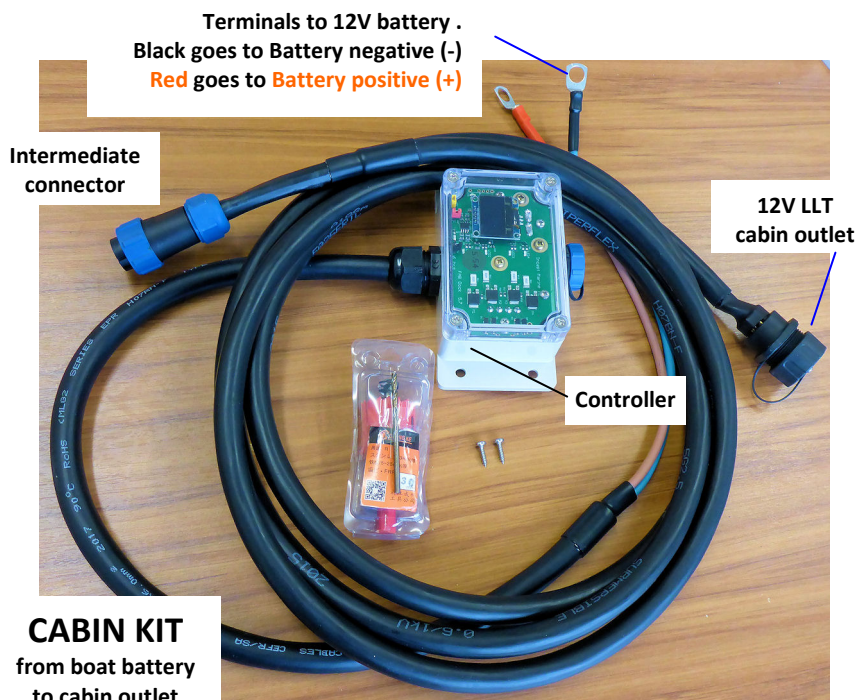
- Follow the buckle fixing shown in the photos and adjust so the two side legs are taut.
- There are marker threads sewn into the webbing on the side legs to help you get the hoop centred.
- Attach the forward leg of the Bow-Catcher harness to the D-ring on the front of the FAB Dock. Adjust up tight so the stretch is taken up on the elasticized section.



## 4.6. Bilge Pump Controller

FAB Dock 's Bilge Pump Controller is a proprietary development solving the inevitable failures of immersed switch gear. It is an intelligent device which works by testing the load condition of the pumps when they are operating and switches them off when they have gained air, and it lives on board your boat usually in the engine compartment. It is not warranted as waterproof and must be protected from full weather exposure.

The wiring loom is directly connected to the boat battery (if there is more than one battery choose the one which drives the on-board accessories) and runs to a sheltered location in the cabin adjacent to the drydock connection point.

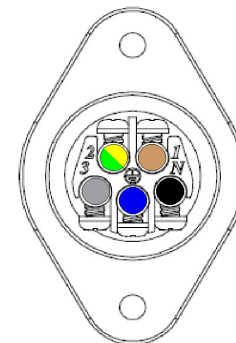


- **Panel Outlet**

- Choose a discrete location in your cabin for the FABDock connection outlet. This will ideally be a wall with a cavity leading down to the engine (or battery) compartment. In an

open boat without cabin, find a situation which protects the wiring behind the outlet socket.

- Using the 30mm hole-saw provided drill a hole for the LLT panel connector.
- Pass the blue intermediate connector (the one without a cap) down through the hole from above and connect it to it's matching connector on the controller.
- Using the LLT pre-wired panel connector as a template, drill the two fixing-screw holes using the 3.2mm drill bit provided. The holes should be vertically above and below the 30mm hole already drilled.
- Fit the panel connector back into its hole and secure with the two stainless screws.



- **Engine Compartment**

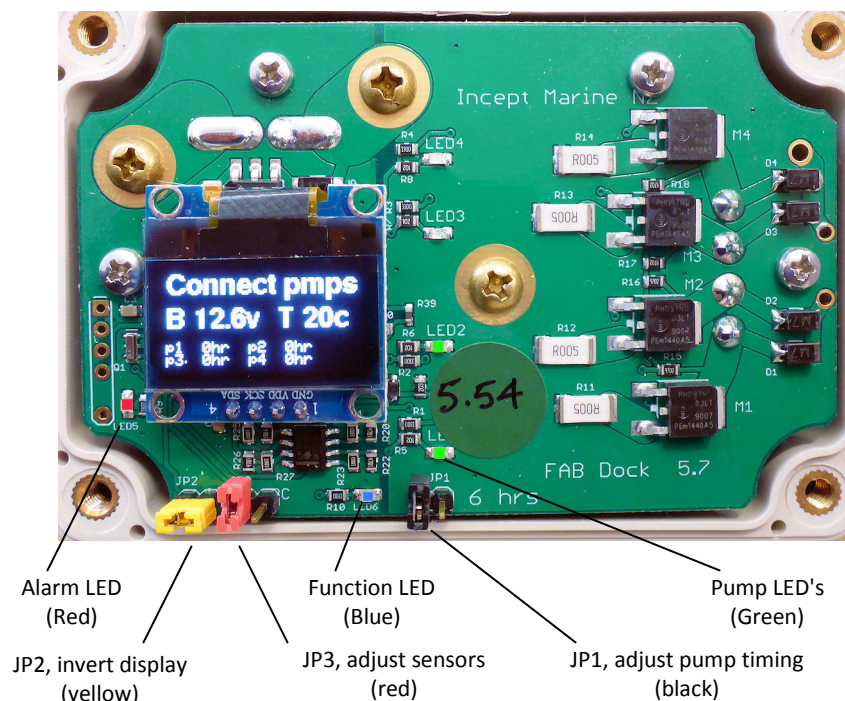
- Run the cable back to the battery on a tidy line and fasten the 2 terminals directly to the battery. Generally this will mean doubling up with the boat battery terminals already fitted.

- The **Black terminal** connects to the **Negative (-)** side of the battery.

- The **Red terminal** connects to the **Positive (+)** side of the battery.

**CAUTION.** Reverse connection of the controller to battery will result in instantaneous damage to the controller which is remedied only by replacement.

- Arrange so that the cover of the controller is visible.
- Retain the cable neatly with cable ties and trim the tails.
- Excess cable should be coiled neatly in an out-of-the way position (e.g the cabin wall cavity).
- **Power\_On** occurs when the battery cable is connected and is followed by the controller *fabdock* screen, then 3 flashes of a **blue** LED indicating successful **boot** (or reset).



#### CONTROLLER FUNCTIONS:

- Pumps are monitored and run in separate channels. Green lights indicate pumps running.
- Pumps run momentarily every 2 hours to check if water is present. JP1 selector can change the testing period to every 6 hours ("6").
- If there has been wave wash or a rain shower the pumps will run as needed. If one pump stops the other will continue until all water is gone.
- Each time the dock cable is unplugged the controller resets (reboots). When the cable is re-connected the controller runs an initialisation to find which pumps are present. Depending on internal configuration, the controller can monitor up to 4 pumps and can run a lesser number of pumps on any combination of the 4 channels. At the end of the initialisation the blue Function LED flashes 3x.

#### • Signal Indications (Red LED):

Flash once every 5 seconds	Battery has dropped below 12.3V (if pumps are off) or 11.8V (if pumps are on). Requires voltage to increase (recharge) to 12.6V before pumps will restart, and then only after present pump time sequence has elapsed (5 min, 15 min, or 2 hrs).
Flashes 6x every 5 seconds	Battery system is 24V. Will not run.

#### • Signal Indications (Blue LED):

Flashes 1 - 7x after pumps stop, and does not repeat	Indicates pump sequence. When cables are first connected, pumps run again after: <ul style="list-style-type: none"> <li>1 5 minutes</li> <li>2 5 minutes</li> <li>3 5 minutes</li> <li>4 15 minutes</li> <li>5 15 minutes</li> <li>6 15 minutes</li> <li>7 2 hours</li> </ul>
Flashes 1x every 5 seconds	Pump 1 has over-current fault
Flashes 2x every 5 seconds	Pump 2 has over-current fault
Flashes 3x every 5 seconds	Both pumps have over-current fault. This may signal reversed polarity in the cable connectors.



## 5. Operating Your FAB Dock

See FAB Dock [Operating Manual](#).

## 6. Reminders





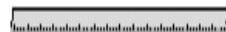


- 6.1. **Never** drag any inflatable when deflated and bundled. Dragging results in holes on material creases and hard spots. The bundled dock may be lifted or rolled only, and carefully.
- 6.2. **Never** allow open valves to drop below water level.
- 6.3. **Always close and cap valves** when not actively inflating or deflating.

## 7. Repairs

(The detailed version.)

### 7.1. TOOLS AND MATERIALS

Check that the following tools and materials are ready before starting the repair:

- Glue 
- Glue brush 
- Material / patches
- Roller or something similar which can be used to apply pressure to the patch
- Solvent, MEK (Methyl Ethyl Ketone) 
- Rags
- Pen or pencil 
- Measure 
- Scissors 
- Heat gun or hair dryer 

### 7.2. DOCK REPAIR PROCEDURE

Follow these steps carefully to get a permanent and professional repair.

- Cut patches allowing 30mm all round bigger than the hole in the dock. A tube tear longer than 100mm will need two patches, one inside and one outside of the tube.
- If you need to mix glue (parts A and B) use 5% activator and thoroughly mix enough for the repair in a small cup. See note below.
- Using MEK solvent, wipe clean the surfaces of both the dock and the patch(es) which are to be glued.

#### 7.2.1. Inside Patches in Tube (see hints)

- Mark a line along the centre of the patch to match the length of the hole in the dock. Use this line to position the patch inside the tube.
- Spread glue on to the dock and on to the patch. Allow the glue to dry 10 15 minutes.
- Place patch through the hole in dock, position on a flat surface to the marked line, heat and roll down hard using plenty of pressure.
- Allow to cool, inflate tube and check for leaks with a little soapy water. Do not inflate hard at this time while the glue is uncured. Release the air from the tube immediately.

#### 7.2.2. Outside Patches

- Mark the outline of the patch on to the dock by drawing around it with a pen.
- Spread glue on to the dock and on to the patch. Allow the glue to dry 10 15 minutes.
- Lay patch on dock, heat and roll using plenty of pressure. If needed, use the end of a blunt screwdriver to work down edges, bumps and creases.
- Let the glue cure until the next day before putting full air pressure in dock.

#### 7.3. HINTS

- **IMPORTANT:** Dock tube materials typically wick air along the reinforcing base-cloth between the inside and outside coatings. The heavier the material, the greater the wicking leakage. If a puncture is patched only on the outside then air from the air-chamber will leak away through the exposed cut edges of the puncture and the base-cloth.
- Incept strongly recommends that heavier materials be patched internally.
- Corners of patches should be rounded to minimize lifting or catching on things, and for professional appearance.

- It helps when laying out the patch to put index marks on both the patch and the dock.
- Wipe the surfaces thoroughly with MEK. To do this, make sure that the rag you are using is well dampened with solvent, but not dripping.
- Allow 15 - 30 minutes for the glue to dry, although it may be more in cold or damp conditions and less in hot and dry conditions. Glue is dry when the glued surface is dry and warm to the touch and not tacky. More time of drying is better.
- Put patch on dock and gently heat using a hot air gun. Heat activates the glue, providing an instant and permanent bond. Apply roller pressure to work down the patch while it is still warm. The need for heat will depend on the climate and the type of glue being used. Glue supplied by Incept is a special formulation which requires less heat to activate.

#### 7.4. BEFORE STARTING REPAIRS

There are several basic points to observe before starting any repair job:

- Do not use old, expired glue or damaged glue. Old or once frozen adhesive will only fail once it is put under any great stress.
- Do not attempt to glue under cold or wet conditions.
- Best conditions are indoors, warm and dry , minimum 65°F / 18°C. Everything needs to be dry. Water or moisture inside the dock tube will cause problems!
- Large tears or holes need to have a patch on the inside as well as the outside. The inside patch should be airtight before the outside patch goes on.
- Have all your tools and materials ready before starting the job.

- Dock repair glues are Contact Adhesives. These require application to both surfaces, need time to dry before assembly, and need warmth and pressure when the pieces are put together.
- Dock adhesives come in two parts - Base Adhesive (A) and Activator (B). Part (A) can work well on its own, but if the repair will get hot in the sun, Part (B) is essential. Part (B) has a short shelf life and must be kept cold and dry.

For more information go to <http://www.incept.co.nz/content/repairs>.





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