

# The Homeowner Guide

## Flood Professional:

### This document contains important instructions and your manufacturer's warranty.

Please read it carefully so that you are fully aware of what you need to do in the event of a flood. Keep it safe at hand as it will guide you through:

- The correct procedure to fit your flood mitigation products
- How to store products when they are not in use
- Appropriate maintenance for your products so they remain in premium condition

Personal pack prepared for:

Location:

There are two categories of products in the Flood Angel® range:

#### **P** PASSIVE SYSTEMS:

No manual intervention, activated by the power of the water. Periodic inspection is required.

#### **R** REACTIVE SYSTEMS:

Manual activation necessary. Correct storage and periodic inspection is required. (Temporary mitigation only)

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# PRODUCTS IN YOUR PROPERTY

A Deployment Box is provided with Anti-Flood Airbrick Covers, Barriers and Doors.

It is recommended this is retained with the Homeowner Guide safely.

The list overleaf shows the full range of Flood Angel® and Flood Angel® Approved products. Your installer will have ticked those that have been fitted to your property.

These products have been specified to the homeowner following a detailed survey of the property.

At the time of installation, you will have been advised on the location and quantity of fitted products. Please use this page to make a note of where each item is installed/should be installed in your property. Please always complete in biro to avoid issues if the Guide gets wet.

## KEY

**P** (Passive): No manual intervention, activated by the power of the water. Periodic inspection is required.

**R** (Reactive): Manual activation necessary. Correct storage and periodic inspection required.

(Temporary mitigation only).

PRODUCT INFORMATION	✓	PRODUCT LOCATION	QUANTITY
<b>DOOR DEFENCE</b>			
<b>P</b> Flood Angel® Flood Defender™ Door			
<b>P</b> Flood Angel® Flood Defender Composite Door			
<b>R</b> Flood Angel® Flood Defender™ Barrier: Single & Double FIXINGS:			
<b>R</b> TYPE A – Stand off/Wall mounted barrier			
<b>R</b> TYPE B – Nutsert into timber frame			
<b>R</b> TYPE C – Nutsert into UPVC frame			
<b>R</b> TYPE D – Barrier into rails/side rails			
<b>R</b> TYPE E – Barrier into U shaped frame			
<b>R</b> TYPE F – Nutsert into brick			
<b>R</b> TYPE G – Clip-on barrier			
<b>R</b> Flood Angel® Flood Defender Wall			
<b>BRICK DEFENCE</b>			
<b>P</b> Flood Angel® Anti-Flood Airbrick			
<b>R</b> Flood Angel® Anti-flood Airbrick Cover			
<b>P</b> Flood Angel® Anti-flood Weep Hole			
<b>P</b> Flood Angel® One-Way Weep Vent			
<b>SEWAGE DEFENCE</b>			
<b>P</b> Flood Angel® 160mm/110mm Non-Return Valve			
<b>P</b> Flood Angel® Approved 50mm Backwater Valve			
<b>P</b> Flood Angel® Approved Push-fit Valve			
<b>P</b> Flood Angel® Approved 15mm Non-Return Valve			
<b>P</b> Flood Angel® Approved Sump & Pump system			
<b>R</b> Flood Angel® Approved Toilet Bung			
<b>MISCELLANEOUS DEFENCE</b>			
<b>R</b> Flood Angel® Vent Covers: Tumble dryer Cat flap Boiler flue/exhaust/gas fire/AGA Ash pan Electric/gas meter box			
OTHER			

All products are either permanently in situ or reusable.

All Flood Angel products have been independently tested and where available a British Standards Institute Kitemark has been achieved.

If a Kitemark certification is not available, then appropriate testing and an equivalent certification has been achieved.

Flood Angel products have been in production since 2007 and have been installed in thousands of homes and are utilised in 'live' flood conditions on a regular basis.

# IMPORTANT INFORMATION

## FAILURE MECHANISM/ SAFETY PRECAUTIONS

Whilst it is not possible to completely prevent flooding, Flood Angel and Flood Angel Approved products have all been rigorously tested to ensure they minimise the risk of flood water entering a property.

It is essential however that occupiers take time to familiarise themselves with their flood defence products and deployment instructions on a regular basis.

If at any time you identify a potential fault (eg. missing bolt/Allen key), please notify the Flood Angel Customer Service Team.

Also make sure that your correct personal protective equipment is always easily accessible (eg. gloves, wellingtons).

## MAINTENANCE

When your Flood Angel flood defence products were installed it is likely they will have been wet tested. Flood Angel products are regularly 'wet tested' in simulated flood conditions by the installation contractor.

Once products have been wet tested, provided you maintain & store them in the appropriate way as highlighted in this Guide, they can minimise the risk of your property flooding for up to 15 years.

It is however recommended that at least every 6 months, you undertake a deployment 'test run' of your reactive flood defence products ensuring all components are in your Deployment Box & all seals/fixings are in full working order.

All Flood Angel products have been manufactured to accommodate for environmental considerations such as saline or contaminated water. All products have been tested to ensure they are resistant to hydrocarbons, solvents and other contaminants.

## MAINTAINING YOUR HOUSE BRICKWORK/STONEMASONRY

Flood water can penetrate the smallest of gaps/cracks and if high water levels remain for more than a few hours then standard bricks can allow seepage. It is recommended that remedial works such as pointing and sealing are carried out in conjunction with other flood mitigation measures.

## CLEANING UP AND POST FLOOD RESTORATION



**FLOOD WATER IS USUALLY CONTAMINATED. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) MUST BE WORN AT INSTALLATION, DEPLOYMENT AND DURING POST FLOOD REMOVAL. IT IS ALSO ADVISABLE THAT PPE IS WORN WHEN HANDLING ANY FLOOD CONTAMINATED AREA.**

To ensure effective cleaning in post-flood situations it is recommended that you use Flood Angel® Sanitiser, a powerful disinfectant concentrate which will clean and disinfect all flood affected surfaces.

## RECOMMENDED HANDLING OF BARRIERS AND PUMPS

Here are some simple things to do before and during the lifting/carrying of your barriers and/or pumps to ensure correct handling:

**Always refer to Health & Safety Executive for advice on manual handling [www.hse.gov.uk](http://www.hse.gov.uk)**

- Remove obstructions from the route
- For a long lift, plan to rest the load midway on a table or bench to change grip
- Keep the load close to the waist. The load should be kept close to the body for as long as possible while lifting
- Keep the heaviest side of the load next to the body
- Adopt a stable position and make sure your feet are apart, with one leg slightly forward to maintain balance

The manufacturer/supplier/installer cannot be liable/responsible for any damage or personal injury whilst handling the barrier/pumps.

Reactive flood products should only be deployed by able adults.

## MOVING HOUSE

The products listed in this Guide have been manufactured specifically for this property. If you vacate the property please leave this Guide along with your flood mitigation products in place.

Neither the manufacturer nor the installer can be held responsible should the previous property occupant fail to leave flood defence products in full working order or, if the new occupant fails to ensure they are fully trained on correct deployment/maintenance of flood defence products for their property.

(All product warranties are void unless the new occupant/owner undertakes deployment and maintenance training – contact your installer for details).

## PRODUCT DURABILITY

Your flood defence products have been purchased with the benefit of a 2 year Manufacturer's Warranty unless otherwise stated.

A service and maintenance package can be purchased on the following products up to 10 years of age:

- Defender Door
- Composite Door
- Defender Barrier
- Defender Wall
- Anti-Flood Airbrick
- Anti-Flood Airbrick Cover

Further information available in the Manufacturer's Warranty.

## CONTACT US

Should you require any further technical support with deploying or maintaining your products, require any replacement parts or have any questions regarding any other products or services, then please contact your installer. Any property visits or spares/replacements parts will be chargeable.

All domestic flood defence products that hold a Kitemark, regardless of manufacturer, have been tested to flood conditions for 48hrs.

In situations where flood conditions affect your property for more than 48 hours, we recommend you contact Flood Angel for advice.

Flood Angel products have a life expectancy of 15 years. If your products have become damaged at any time and need to be disposed of, please contact Flood Angel who will advise on the most appropriate method of disposal.

If during a flood incident your Flood Angel products have not performed to the specified standard, DO NOT DISPOSE OF THEM. Please store them as they will need to be examined as part of any insurance investigation.



## ACTIVATION INSTRUCTIONS

### SINGLE DOORS

#### LOCKING

1. Push the door firmly into the frame until you hear the latch engage.
2. Insert the key into the locking cylinder.
3. Crank the door handle smoothly upwards as far as it will travel.
4. Turn the key towards the outer frame to lock the door.
5. Release the handle  
(After locking, the handle will return to the horizontal position. Test the door by pushing the door handle down. If the handle does not move, the door is locked).

#### UNLOCKING

1. Insert the key into the locking cylinder.
2. Turn the key away from the outer door frame to unlock.
3. Push the handle down.

### DOUBLE DOORS

#### LOCKING

1. Pull the slave door (the side of the door that opens last) until the door is tightly in the frame and lift the handle until you hear the latch engage.
2. Insert the slave door key into the locking cylinder.
3. Crank the door handle smoothly upwards as far as it will travel.
4. Turn the key towards the master door to lock the door.
5. Pull the door master (the side of the door that opens first) gently into the frame until you hear the latch engage.
6. Insert the master door key into the locking cylinder.
7. Crank the door handle smoothly upwards as far as it will travel.
8. Turn the key towards the slave door to lock the door.
9. Release the handle  
(After locking, the handle will return to the horizontal position. Test the door by pushing the door handle down. If the handle does not move, the door is locked).

#### UNLOCKING

1. Insert both keys into their respective locking cylinders.
2. Turn the keys away from the opposite door to unlock the doors.
3. Push both handles down.

## MAINTENANCE INSTRUCTIONS

### Cleaning Instructions

1. Your door can be cleaned with a soft lint free cloth and mild soapy water
2. DO NOT use solvent, bleach based or abrasive cleaning products which could cause your door to discolour. The use of such cleaning products will be viewed as 'inadequate maintenance' and invalidate your Manufacturer's Warranty.
3. If the lustre of the exterior surface is reduced due to weathering /atmospheric pollution, waxing should revive the gloss.
4. Wax polishes formulated for use in bathrooms or the motor trade can be used to revive the doors lustre.

## Monthly

1. Clean the sealing rubber gaskets and the locking points using warm water and dry with a soft lint free cloth.
2. Grease the clean rubber gaskets with Petroleum jelly.
3. Grease the locking points with Petroleum jelly.

## WARNINGS

### Usage

The Flood Angel® Flood Defender™ Door is a functional flood protection product, which should not be slammed shut, kicked or forced open.

## MAINTENANCE

If used and maintained in accordance with the manufacturer's instructions, the Flood Angel® Flood Defender™ Door should remain water resistant. It's the occupant/owner's responsibility to ensure that the flood locking mechanism is fully activated (i.e. handle in engaged position) during flood and non-flood conditions.

The Flood Angel® Flood Defender™ Door is sold with the benefit of a manufacturer's warranty covering the following items for the following periods:

- UPVC outer frames, door sash - 2 years
- Door panels - 2 years
- Locking mechanism, gaskets, locks – 2 years
- Glazing – 1 year
- Letter plates, knockers, numerals – 1 year



**PLEASE NOTE: TERMS DIFFER TO STANDARD FLOOD ANGEL® WARRANTY TERMS. REFER TO THE BACK OF THE GUIDE FOR FULL DETAILS.**

## TROUBLESHOOTING

I.	Unable to close/lock door	<ul style="list-style-type: none"><li>• Open the door and check for any obstructions between the door and frame, remove obstruction, if any, and resume normal procedure for locking/unlocking the door.</li><li>• Open the door and check to see if any of the screws on the lock housing are loose or missing (this can occur if the door has been slammed shut, forced or kicked.) In the event that screws are loose or missing call the Flood Angel Customer Services Team for advice or to arrange an inspection.*</li><li>• Open the door and check to see if the sealing gasket between the door and the frame has been pulled out of its housing. If so, call the Flood Angel Customer Services Team to arrange a home visit to rectify the fault.* (*Call out charges may apply).</li></ul>
IV.	Maintenance	<ul style="list-style-type: none"><li>• The threshold contains a rubber seal which is an important part of the flood protection components of the door. Riding heavy loads over the threshold can damage the door and/or the sealing gasket, rendering the door inoperable.</li><li>• It is important to carry out the maintenance according to the manufacturer's instructions and report any defects immediately.</li><li>• The door should not be misused, as this may lead to compromised effectiveness.</li></ul>



**IMPORTANT: IF EITHER OF THE ANTI-FLOOD WEEPHOLES LOCATED AT THE BOTTOM OF THE DOOR BECOME DISLODGED PLEASE CONTACT YOUR INSTALLER IMMEDIATELY. FAILURE TO DO SO MAY RESULT IN FLOOD WATER ENTERING INTO THE PROPERTY.**



# COMPOSITE FLOOD DEFENDER DOOR



Specially designed flood seals

Vertical & horizontal locking system developed with Yale

Extended handle for easy locking

Unique integrated one-way anti flood weephole



**IMPORTANT- WHILST CATEGORISED AS A PASSIVE PRODUCT, THE DOOR HANDLE MUST BE ENGAGED (LIFT HANDLE TO ENGAGE & LOCK WITH KEY) IN ORDER FOR THE DOOR TO OPERATE AS A FLOOD DOOR.**

The Flood Angel Composite Flood Defender Door is the first of its kind in the UK.

Its unique monocoque, single slab, high strength structure; state of the art locks and superior quality seals give it unrivalled flood protection qualities.

Occupant/owners must strictly follow the activation instructions for the locking device, to ensure optimum protection. The process for locking and securing the flood defence seals is quick and simple via the lifting of the handle and the turn of the key.

After installation, the occupant/owner will have been given a demonstration on the correct way to activate the door.

It is the occupant/owner's responsibility to ensure they or another designated person is able to operate the locking mechanism. If a call out is made and the fault is found to be as a result of incorrect operation, a charge will be applicable.

In the event of operational difficulties, please contact your installer in the first instance who can advise accordingly.



**IMPORTANT: DURING FLOOD EVENTS FLOOD ANGEL DEFENDER DOORS MUST REMAIN LOCKED.**

## ACTIVATION INSTRUCTIONS

### LOCKING

1. Push the door firmly into the frame until you hear the latch engage.
2. Insert the key into the locking cylinder.
3. Crank the door handle smoothly upwards as far as it will travel.
4. Turn the key towards the outer frame to lock the door.
5. Release the handle (After locking, the handle will return to the horizontal position. Test the door by pushing the door handle down. If the handle does not move, the door is locked).

### UNLOCKING

1. Insert the key into the locking cylinder.
2. Turn the key away from the outer door frame to unlock.
3. Push the handle down.

## MAINTENANCE INSTRUCTIONS

### Cleaning Instructions

1. Your door can be cleaned with a soft lint free cloth and mild soapy water
2. DO NOT use solvent, bleach based or abrasive cleaning products which could cause your door to discolour. The use of such cleaning products will be viewed as 'inadequate maintenance' and invalidate your Manufacturer's Warranty.
3. If the lustre of the exterior surface is reduced due to weathering /atmospheric pollution, waxing should revive the gloss.
4. Wax polishes formulated for use in bathrooms or the motor trade can be used to revive the doors lustre.

### Monthly

1. Clean the sealing rubber gaskets and the locking points using warm water and dry with a soft lint free cloth.
2. Grease the clean rubber gaskets with Petroleum jelly.
3. Grease the locking points with Petroleum jelly.

The doors must be serviced 12 months after installation by a qualified and certified installer to maintain the warranty. The warranty will be void if Flood Defender™ Doors are adjusted/tampered with in anyway by anyone other than a qualified and certified installer.

## WARNINGS

### Usage

The Flood Angel® Composite Flood Defender Door is a functional flood protection product, which should not be slammed shut, kicked or forced open.

## MAINTENANCE

If used and maintained in accordance with the manufacturer's instructions, the Flood Angel Composite Flood Defender Door should remain water resistant. It's the occupant/owner's responsibility to ensure that the flood locking mechanism is fully activated (i.e. handle in engaged position) during flood and non-flood conditions.

The Flood Angel Composite Flood Defender Door is sold with the benefit of a manufacturer's warranty covering the following items for the following periods:

- UPVC outer frames, Monocoque Composite Door Slab - 2 years
- Door panels/Side panels - 2 years
- Locking mechanism, gaskets, locks - 2 years
- Glazing - 1 year
- Letter plates, knockers, numerals - 1 year



**PLEASE NOTE: TERMS DIFFER TO STANDARD FLOOD ANGEL® WARRANTY TERMS. REFER TO THE BACK OF THE GUIDE FOR FULL DETAILS.**

## TROUBLESHOOTING

I.	Unable to close/lock door	<ul style="list-style-type: none"> <li>• Open the door and check for any obstructions between the door and frame, remove obstruction, if any, and resume normal procedure for locking/unlocking the door.</li> <li>• Open the door and check to see if any of the screws on the lock housing are loose or missing (this can occur if the door has been slammed shut, forced or kicked.) In the event that screws are loose or missing call the Flood Angel Customer Services Team for advice or to arrange an inspection.*</li> <li>• Open the door and check to see if the sealing gasket between the door and the frame has been pulled out of its housing. If so, call the Flood Angel Customer Services Team to arrange a home visit to rectify the fault.* (*Call out charges may apply).</li> </ul>
IV.	Maintenance	<ul style="list-style-type: none"> <li>• The threshold contains a rubber seal which is an important part of the flood protection components of the door. Riding heavy loads over the threshold can damage the door and/or the sealing gasket, rendering the door inoperable.</li> <li>• It is important to carry out the maintenance according to the manufacturer's instructions and report any defects immediately.</li> <li>• The door should not be misused, as this may lead to compromised effectiveness.</li> </ul>



**IMPORTANT: IF EITHER OF THE ANTI-FLOOD WEEPHOLES LOCATED AT THE BOTTOM OF THE DOOR BECOME DISLODGED PLEASE CONTACT YOUR INSTALLER IMMEDIATELY. FAILURE TO DO SO MAY RESULT IN FLOOD WATER ENTERING INTO THE PROPERTY.**

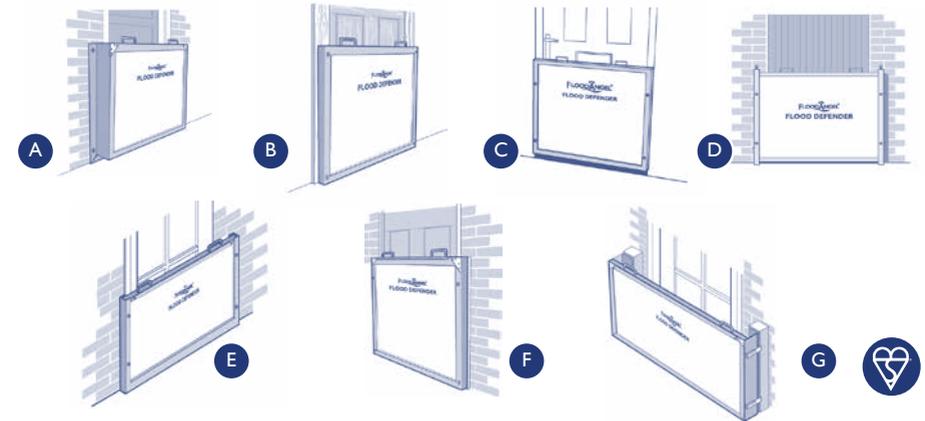
## REACTIVE PROTECTION

## DOOR DEFENCE

FLOODANGEL®



# FLOOD DEFENDER™ BARRIER



There are seven different barrier fixing types, A-G, as listed right. It is possible that you may have a combination of different fixing systems at your property. Please make sure that you are clear about which types of fixings are in use at your property and follow the appropriate instructions:

TYPE A	Wall mounted/stand-off
TYPE B	Nutsert into wood frame
TYPE C	Nutsert into UPVC frame
TYPE D	Barrier into vertical rails
TYPE E	Barrier into U shaped frame
TYPE F	Nutsert into brick
TYPE G	Clip-on barrier

## STORAGE INSTRUCTIONS

It is advisable not to throw away any of the original packing material including the blue storage strips which protect the sides and base of the barrier from accidental damage. Store all barriers away from direct sunlight, sources of extreme temperatures and potential rodent damage. Barriers should be stored in such a way as to avoid accidental damage.

## PREPARATION

1. Locate your Deployment Box .
2. All bolts should be sprayed with WD40 (supplied in your Deployment Box ) prior to deployment.
3. Each barrier has a label identifying its location within the property. Match the label to the correct opening.
4. Before fixing, remove the plastic caps from the door/window frame (if applicable) and store safely.
5. Check that the door/window frame and aperture are clean and free from obstructions.
6. Check that the all barrier seals (back/bottom/continuous seal on rear) are clean and free from dirt/debris.

#### INSTRUCTIONS FOR FITTING:TYPE A | Deployment Time: One person, approx 10 minutes

1. Centralise the barrier panel to the aperture, ensuring the continuous seal meets the solid surround to the wall/frame, and is facing the aperture.
2. Taking each handwheel in turn, ensure there is a stainless steel washer followed by a rubber washer on each thread.
3. Align the bolt holes on the barrier to the receiving nut in the wall.
4. Start at the top right corner of the barrier and thread the stem of the handwheel through the hole in the side plate of the barrier. Align the stem with the receiving nut in the wall. Rotate the handwheel clockwise to tighten securely. Being consistent with the number of turns on each (to avoid uneven tightening).
5. Repeat for each remaining bolt hole in the barrier.



**THERE SHOULD BE NO GAP VISABLE BETWEEN THE WALL OR FRAME AND BARRIER SEALS. ENSURE THAT BOLTS ARE NOT OVER-TIGHTENED.**

**For longer barriers, there may be bolt holes within the bottom frame of the barriers which will also require tightening.**

#### INSTRUCTIONS FOR FITTING: TYPES B & F | Deployment Time: One person, approx 10 minutes

1. Centralise the barrier panel to the aperture, ensuring the vertical seal is facing the aperture and thick horizontal seal is on the bottom.
2. Apply steady downward pressure to the top of the barrier and align all bolt holes. Use the fixings on the downward pressure bracket to hold the barrier in place whilst inserting the main bolts.
3. Using the T grip handle/Allen key supplied, tighten the bolts in the following sequence; being consistent with the number of turns on each (to avoid uneven tightening).
  - i. Bottom left corner
  - ii. Bottom right corner
  - iii. Top right corner
  - iv. Top left corner
4. Give a final tighten to the bolt on the downward fixing bracket to ensure that a tight seal on the bottom of the barrier is maintained.
5. If your barrier has additional bolts (compression bracket), tighten these securely at the end of the sequence.



**THERE SHOULD BE NO GAP VISABLE BETWEEN THE WALL OR FRAME AND BARRIER SEALS. ENSURE THAT BOLTS ARE NOT OVER-TIGHTENED.**

**For longer barriers, there may be bolt holes within the bottom frame of the barriers which will also require tightening.**

#### INSTRUCTIONS FOR FITTING: TYPE C | Deployment Time: One person, approx 10 minutes

1. Centralise the barrier panel to the aperture, ensuring the vertical seal is facing the aperture and thick horizontal seal is on the bottom.
2. Apply steady downward pressure to the top of the barrier and align all bolt holes. Begin to insert the bolts.
3. Using the T grip handle/Allen key supplied, tighten the bolts in the following sequence; being consistent with the number of turns on each (to avoid uneven tightening).
  - i. Bottom left corner
  - ii. Bottom right corner
  - iii. Top right corner
  - iv. Top left corner
4. If your barrier has additional bolts (compression bracket), tighten these securely at the end of the sequence.



**THERE SHOULD BE NO GAP VISABLE BETWEEN THE WALL OR FRAME AND BARRIER SEALS. ENSURE THAT BOLTS ARE NOT OVER-TIGHTENED.**

**For longer barriers, there may be bolt holes within the bottom frame of the barriers which will also require tightening.**

#### INSTRUCTIONS FOR FITTING: TYPES D & E | Deployment Time: One person, approx 10 minutes

1. Centralise the barrier panel to the aperture, ensuring the vertical seal is facing the aperture and thick horizontal seal is on the bottom.
2. Carefully lower the barrier into position, between the guide rails.
3. Apply gentle downward pressure to the top of the barrier and insert the top plates into the top of the rails (if applicable).
4. Using the T grip handle/Allen key supplied, insert the bolts provided through the holes in the rails/frame in the following sequence; being consistent with the number of turns on each (to avoid uneven tightening).
  - i. Bottom left corner
  - ii. Bottom right corner
  - iii. Top right corner
  - iv. Top left corner
5. Repeat for each remaining bolt hole in the barrier.
6. If your barrier has additional bolts (compression bracket), tighten these securely at the end of the sequence.



**THERE SHOULD BE NO GAP VISABLE BETWEEN THE WALL OR FRAME AND BARRIER SEALS. ENSURE THAT BOLTS ARE NOT OVER-TIGHTENED.**

**For longer barriers, there may be bolt holes within the bottom frame of the barriers which will also require tightening.**

#### INSTRUCTIONS FOR FITTING: TYPE G | Deployment Time: One person, approx 10 minutes

1. Centralise the barrier panel to the aperture, ensuring the continuous seal meets the solid surround to the door, and is facing the aperture.
2. Position the barrier at an approximate angle of 45 degrees away from the aperture (towards you).
3. Carefully lower the barrier into position and insert the tabs on the barrier into the corresponding slots on the frame.
4. Once the tabs are inserted begin to raise the barrier back to the vertical position, applying gentle pressure as the bottom seal starts to compress.
5. When the barrier is approximately 50mm (2") from meeting the frame (still in the vertical position) position the "eye" of the clip-on system over the "hook" on both sides.
6. Starting on the left, lock the clip-on system into place.
7. Repeat on the opposite side.



**THERE SHOULD BE NO GAP VISABLE BETWEEN THE WALL OR FRAME AND BARRIER SEALS. ENSURE THAT BOLTS ARE NOT OVER-TIGHTENED.**

**For longer barriers, there may be bolt holes within the bottom frame of the barriers which will also require tightening.**

#### POST FLOOD

##### Removal instructions

Removal of the barrier requires simple step by step reversal of the deployment instructions.

#### GENERAL MAINTENANCE – RECOMMENDED QUARTERLY

- Check all of the rubber seals for signs of decay or damage, ensuring that the seals are fastened securely to the barrier
- Ensure that all barrier components are present (to be found in your Deployment Box)
- Post flood, when it is safe to remove the barrier, wash it down gently with cool soapy water; check that the seals are intact and store away once dry
- Post flood, all bolts should be sprayed with WD40 and stored away in your Deployment Box for future use



**BARRIERS SHOULD ONLY BE USED IN THE EVENT OF A FLOOD AND ARE NOT DESIGNED TO BE LEFT PERMANENTLY IN SITU.**

#### TROUBLESHOOTING

I.	Nutserts correctly tightened	<ul style="list-style-type: none"> <li>Once the barrier has been deployed, if you can see daylight at the side aperture edges of the barrier, it is possible that the locking nutserts have not been tightened sufficiently. Ensure that they are hand tightened sufficiently and not over-tightened.</li> <li>Once the barrier has been deployed, if you can see daylight under the bottom seal then it is possible that either the doorsill/ground is uneven or grit and debris is preventing a smooth sealing surface from being achieved. Ensure that the sealing surface is smooth prior to deploying the barrier.</li> </ul>
II.	Holes not aligned	<p>If you have problems aligning the barrier to the preset holes in the frame, apply a little downward pressure on the top of the barrier so that the holes in the barrier and the frame align with each other.</p>
III.	Not sealing correctly	<p>Correct storage of the barrier is essential. It should be stored in its upright position so to cause minimal impact on the sealing surface.</p>
IV.	Maintenance	<ul style="list-style-type: none"> <li>It is advisable to avoid storing the barrier outside, as UV will have an adverse effect on the lifespan of the seals.</li> <li>Barrier should not be misused, as this may lead to compromised effectiveness.</li> <li>Protective wall caps are an important part of the ongoing maintenance of a barrier. If left unprotected small insects such as wasps and bees could enter and nest. A build-up of insect matter may make it difficult to securely fix the barrier into place when required.</li> </ul>



## FLOOD DEFENDER WALL



Defender Wall (fully installed)



Ground Socket (A)



Demountable Post (B)



Pin (C)



Defender Panel (D)



L Compression Bracket (E)

## DEPLOYMENT & STORAGE INSTRUCTIONS

It is advisable not to throw away any of the original packing material including the blue storage strips which protect the sides and base of the barrier from accidental damage. Store all barriers away from direct sunlight and sources of extreme temperatures.

## PREPARATION

1. Ensure all components are readily available including the panels, demountable posts, brackets and fixings.
2. Check the area where the barrier is to be positioned is free from obstructions.
3. Check that the back seals and bottom seal on each of the Flood Defender Wall panels are clean and free from obstructions, dirt and sand.
4. Ensure that the hinge plates on ground socket (A) are brushed free from dust, sand, dirt and debris before opening, as this will prevent the dirt from entering.

## FITTING | Deployment Time: approx 10 minutes

1. Open hinge plates on ground sockets (A) and insert the demountable post(s) (B). Ensure posts are pushed down firmly into the ground socket(s).
2. The post(s) should be orientated with the channels having the holes facing the flood prone side. Do NOT tighten the demountable post locking pin(s) (C) at this stage.
3. Insert the Flood Defender Wall panels (D) into the slots on the posts and push down. Ensure each panel is inserted with the thick horizontal seal running along the bottom edge, and the vertical seals facing the posts.
4. Insert all panels in the same manner allowing panels to drop down on to their seals and double check the post(s) is pushed down fully into its socket(s).
5. Insert the L compression bracket (E) into the corresponding slot in the guide rail, ensuring it is pressed in tightly. Align the two holes on the compression bracket (top & side) with those in the guide rail and insert the bolts; tightening by hand.
6. Now tighten the demountable post locking pin(s), ensuring that you do not over tighten.
7. Using the bolt(s) located in the compression bracket(s), apply gentle downward pressure to the top of the barrier.
8. Using T grip handle supplied, tighten the face bolts sufficiently so that no gap is visible between vertical seal and barrier frame face in the following sequence, being consistent with the number of turns on each (to avoid uneven tightening).
  - i. Bottom left corner
  - ii. Bottom right corner
  - iii. Top right corner
  - iv. Top left corner
9. Apply further downward pressure by continuing to tighten the post locking pin(s) and the compression bolt(s) on the reveal channels.



**THERE SHOULD BE NO GAP VISIBLE BETWEEN THE WALL OR FRAME AND BARRIER SEALS. ENSURE THAT BOLTS ARE NOT OVER-TIGHTENED.**

## POST FLOOD

### Removal instructions

Removal of the barrier requires simple step by step reversal of the deployment instructions.

## GENERAL MAINTENANCE – RECOMMENDED QUARTERLY

- Check all of the rubber seals for signs of decay or damage, ensuring that the seals are fastened securely to each barrier panel
- Ensure that all barrier components are present (to be found in your deployment box)
- Post flood, when it is safe to remove the barriers and demountable posts, wash them down gently with cool soapy water, check that the seals on the panels are intact, check for any damage to the demountable posts and store away once dry
- Post flood, all bolts should be sprayed with WD40 and stored away in your deployment box for future use



**BARRIERS SHOULD ONLY BE USED IN THE EVENT OF A FLOOD AND ARE NOT DESIGNED TO BE LEFT PERMANENTLY IN SITU.**

## TROUBLESHOOTING

i.	Deployment	The Defender Wall has been designed so that one person can easily deploy when required. For instructions on deployment go to the 'Fitting' section.
ii.	Maintenance	<ul style="list-style-type: none"><li>• Barrier and post should not be misused, as this may lead to compromised effectiveness.</li><li>• It is important as part of the ongoing maintenance of the Defender Wall and its components that the ground socket is unscrewed and lid lifted every month. If left for a long period debris can collect around the ground socket making it difficult to open.</li></ul>



# ANTI-FLOOD AIRBRICK



## MAINTENANCE INSTRUCTIONS

The Flood Angel® Anti-Flood Airbrick will provide ongoing protection against rising flood water, debris and insect penetration. In addition to post-flood maintenance instructions below, it is recommended that regular maintenance takes place quarterly, again as per instructions below.

## POST FLOOD

A simple maintenance check is recommended when flood waters have receded to ensure no silt has entered the airbrick.

1. Remove the screw front face (Part A) with a suitable screwdriver. Insert a slotted screwdriver into one of the square holes on the front face and gently pull the face out taking care not to damage or dislodge the insect and debris mesh.
2. If there is any sign of debris or silt inside the Flood Angel® Anti-Flood Airbrick, wash this out gently with cool soapy water.
3. Move the flood gate (within the airbrick) up and down to check that nothing has obstructed the mechanism, making sure that the flood gate has not been detached from the holding lugs. If it has become detached, clip the flood gate gently back into the holding lugs.
4. The grey silicone pads must face upwards so that the gate rests at a 45 degree angle.
5. Secure the screw on the front face with a suitable screwdriver.

## IMPORTANT

**If any vent directly feeds to a gas boiler in an enclosed cupboard, a vent cover will need to be fitted and NOT an airbrick replacement. The vent cover should only be deployed in a flood situation and not permanently left on for any period of time due to the threat from carbon monoxide poisoning.**

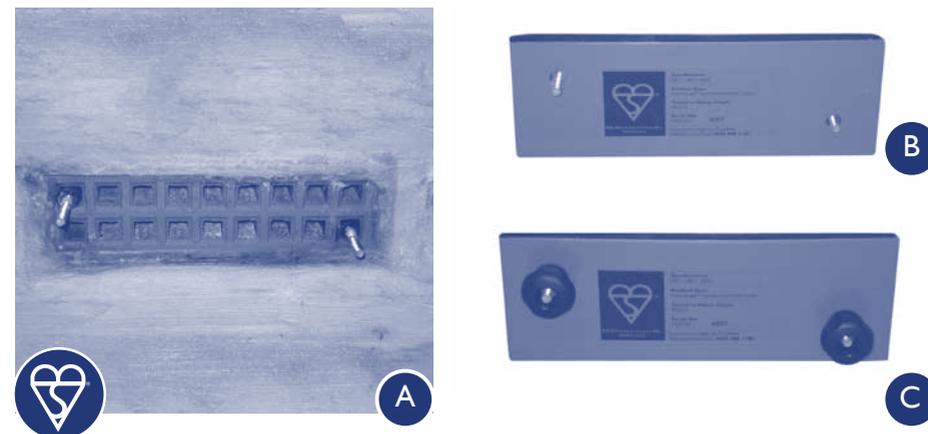
**The manufacturer/supplier/installer cannot be held responsible for mis-use.**

## TROUBLESHOOTING

i.	Detached components	Before installation remove the front cover of the airbrick to ensure that the internal gate valve has not detached in transit; if in the unlikely event it has become detached, clip firmly back in place with the grey silicone pads facing inside the brick and replace front cover.
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# ANTI-FLOOD AIRBRICK COVER



## PRE FLOOD DEPLOYMENT INSTRUCTIONS | Deployment Time: approx 10 minutes

1. Remove the two threaded bars from the face of the airbrick cover and insert into the anchor bolts (which have been preinstalled into your airbricks) by turning in a clockwise direction. This will fix the threaded bars into the anchor bolts (A).
2. Align the foam side of the Anti-Flood Airbrick Cover with the threaded bars and push the cover (hard surface facing forward) into place against the surface of the airbrick (B).
3. A small amount of threaded bar will protrude. Place a rubber washer, followed by a stainless steel washer on each bar.
4. Now screw a handwheel onto each of the threaded bars and turn in a clockwise direction to tighten. Repeat on both sides (C).

## IMPORTANT

This product must be removed once the threat of flood has subsided to allow normal, free airflow.

## POST FLOOD

1. The anchor bolts will remain in the airbrick for future use.
2. Ensure that all components – handwheels, threaded bolts and washers are stored away together, having ensured they are washed and dry.
3. Wash and dry the Anti-Flood Airbrick Cover and store for future use.

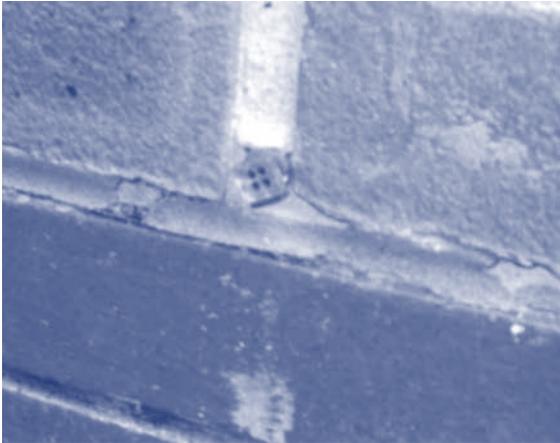
**The manufacturer/supplier/installer cannot be held responsible for mis-use.**

## TROUBLESHOOTING

i.	Suitability	The Anti-Flood Airbrick Cover is only suitable for standard clay/terracotta airbricks. Do not attempt to use with plastic or non standard airbricks.
ii.	Anchor bolts	<ul style="list-style-type: none"> <li>• Be careful not to hammer the anchor bolt too far into the airbrick.</li> <li>• If you can see daylight between the airbrick and the back of the EDPM foam, then tighten the handwheel until it forms a sufficiently tight seal with the airbrick.</li> </ul>



## ANTI-FLOOD WEEP HOLE / ONE-WAY WEEP VENT

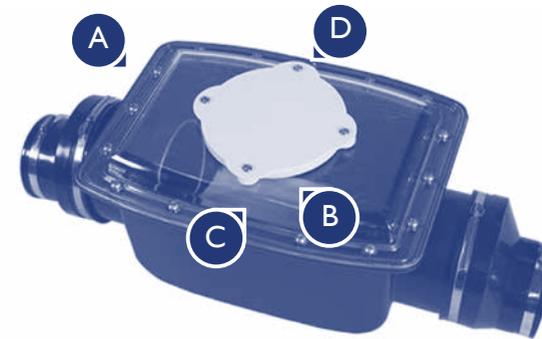


### PERIODIC MAINTENANCE INSTRUCTIONS

The Flood Angel® Anti-Flood Weep Hole/One-way Weep Vent has been designed to be as free from maintenance as possible. However, as with any device, it is advisable to make periodic visual inspections. Visually check that the front holes are free from obstructions and clean where necessary.



## 160MM/110MM NON-RETURN VALVE



**DO NOT FLUSH OR RUN WATER WHEN THIS PRODUCT IS IN USE UNDER FLOOD CONDITIONS**



**FLOOD WATER IS USUALLY CONTAMINATED. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) MUST BE WORN AT INSTALLATION. IT IS ALSO ADVISABLE THAT PPE IS WORN WHEN HANDLING ANY FLOOD CONTAMINATED AREA.**

The 'normally open' design of the Non-Return Valve allows unrestricted sewage flow.

The Non-Return Valve can be rodded using the rodding eye at the top of the valve (D).

### IMPORTANT

The Non-Return Valve should always be inspected post-flood.

### GENERAL MAINTENANCE – RECOMMENDED QUARTERLY

The Flood Angel® Non-Return Valve has been designed to be as free from maintenance as possible. However, as with any mechanical device situated in a sewage environment, it is advisable to make periodic inspections. It is the occupant/owner's responsibility to perform the following regular checks:

1. Lift the lid on the access chamber and un-screw the clean-out cover (D).
2. Take a torch and check for build-up of any debris on, or underneath the gate or on the walls of the valve (C).
3. Flush clean any deposits.
4. Inspect rubber O-ring and replace if necessary (A).
5. Check both gate floats are still in position (B).
6. Ensure gate can pivot with ease (C).
7. Re-install clean-out cover (D).
8. Re-install the access chamber lid.

TROUBLESHOOTING	
i. Product specification	<ul style="list-style-type: none"> <li>The NRV has been designed with a clear inspection lid for the homeowner to make checks as necessary. If the NRV is empty and the bright green flap is flat on the bottom of the NRV, it has not been activated – if it is in the vertical position and the NRV contains sewage, it has been activated. In such circumstances you should avoid flushing the toilet or using any other water source that feeds into the foul waste pipe. When the sewage backflow subsides the flap should return to the horizontal position and you can resume flushing the toilet and any other waste sources – if this doesn't happen, refer to the next question.</li> <li>Due to its design, it is unlikely your NRV will become blocked, however if the flap is prevented from returning to the horizontal position it is relatively simple to unblock. First, check there is no backflow of sewage into the NRV – it should be empty in normal operation. If it is empty but a build-up of solid waste is preventing the flap from dropping to the horizontal position, it can be flushed out with a garden hose by removing the 4 screws in the round lid. This should normally be undertaken by a plumber or competent tradesperson. Do not remove the whole clear plastic lid of the NRV.</li> </ul>
ii. Maintenance	<p>The valve has been designed with a clear inspection lid for homeowners to check for blockages. If a blockage is visible unscrew the green lid and remove the blockage so that the gate inside can move freely.</p>

## PASSIVE PROTECTION

## SEWAGE DEFENCE

FLOODANGEL® APPROVED



# 50MM BACKWATER VALVE



Open



Closed



**DO NOT FLUSH OR RUN WATER WHEN THIS PRODUCT IS IN USE UNDER FLOOD CONDITIONS**

The valve is most commonly located in the following places to prevent the backflow of waste water; washing machines, dishwashers, sinks & shower waste.

### GENERAL MAINTENANCE – RECOMMENDED QUARTERLY

#### PRE-FLOOD

In order to ensure the backwater valve continues to function correctly we recommend quarterly inspections, particularly following periods of heavy rainfall.

1. Switch the backflow cut-off lever several times from the OPEN to CLOSED position.
2. The lever should move smoothly between these two positions.
3. If it is difficult to move or when it cannot be set to a closed position, then a full maintenance check needs to be carried out. Refer to your installer.
4. LEAVE THE CUTOFF LEVER IN THE OPEN POSITION AFTER A CHECK.

#### POST FLOOD

- Make sure the backflow cut-off lever is in the OPEN position
- Unscrew the 4 mounting bolts and remove the cover
- Clean all parts with warm soapy water
- Check the condition of the gaskets, on the flap and under the cover
- Replace them if they are worn, refer to your installer
- Grease the gaskets with petroleum jelly
- Re-install the cover and tighten the bolts
- LEAVE THE CUTOFF LEVER IN THE OPEN POSITION AFTER A CHECK

#### IMPORTANT



**NEVER POUR GREASE AND/OR FAT DOWN THE SINK.**

TROUBLESHOOTING	
IV. Product specification	<ul style="list-style-type: none"> <li>• 40mm reducers are available for the valve to be installed on different sized pipes if necessary.</li> <li>• The first you are likely to know the Backwater Valve has been activated is when your sink or appliance fails to drain. The Backwater Valve is operated by water pressure from sewage backflow – as soon as the backflow subsides, the valve will be allowed to open and any waste stored in the pipe will drain away. <b>NOTE:</b> If your sink or appliance does fail to drain you should stop using it immediately until you can see the water is able to drain away.</li> <li>• The valve has been designed with a lever which can be lifted to lock the valve in the closed position. The flap inside the Backwater Valve will open when the lever is returned to the normal position.</li> <li>• The Backwater Valve is held in place by push fit seals, or in some cases by 'reducers'. Its simple design and mechanism means it is very unlikely to become blocked, unless a foreign object or fat is allowed down the pipe from the sink or appliance. If there is any possibility that the valve may be holding back sewage backflow from passing up the pipe you <b>MUST NOT</b> remove it. If, however, you are confident there is no backflow the valve can simply be rotated and pulled away from the pipe for inspection and removal of the blockage (if fitted with reducers, they will need to be loosened with a screwdriver before pulling away from the pipe). If in doubt, please consult a plumber.</li> </ul>



## PUSH FIT VALVE



Push-fit valve



Installed to drains

### IMPORTANT

The Push-fit Valve should always be inspected post-flood

### GENERAL MAINTENANCE – RECOMMENDED QUARTERLY

The Push-fit Valve has been designed to be as free from maintenance as possible. However, as with any device situated in a sewage environment, it is advisable to make periodic inspections. It is the occupant/owner's responsibility to perform the following regular checks:

1. Lift the lid on the access chamber.
2. If required to enter the access chamber ensure all other entry points are blocked off.
3. Secure the locking lever on the Push-fit Valve by pushing into place.
4. Ensure any dirt or debris is cleaned away.
5. Release the locking lever on the Push-fit Valve.
6. Ensure the flap is moving freely.
7. When leaving the chamber ensure all entry points are clear, except the pipe with the Push-fit Valve fitted.

### TROUBLESHOOTING

I. Activation	<p>Unless you lift the inspection cover to check if there is a back-up of sewage in the drain, the first you will know the Push-fit Valve has been activated is when your toilet fills up upon flushing. This is unlikely to happen for several flushes after the Push-fit Valve has been activated, because the waste from the toilet will simply be stored in the pipe leading to the drain. The Push-fit Valve is operated by water pressure from sewage or waste water backflow – as soon as the backflow subsides, the valve will be allowed to open and any waste stored in the pipe will drain away. <b>NOTE:</b> If your toilet does fill up you should stop using it immediately until the water returns to the normal level.</p>
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## 15MM NON-RETURN VALVE



**DO NOT FLUSH OR RUN WATER WHEN THIS PRODUCT IS IN USE UNDER FLOOD CONDITIONS**

This is an automatic valve which works with the power of the water. Once it is installed no maintenance is required. This valve is usually fitted to an overflow pipe. A visual inspection is recommended to ensure that nothing blocks the front of the valve.



## SUMP & PUMP SYSTEMS\*



Puddle sucker



Sump & Pump system



The above images are of typical Sump & Pump units and are for guidance only. The specification of your sump and/or pump product has been developed to suit your property requirements. Please refer to the instructions below for units installed at your property.

**RESIDUE WATER DRAINAGE PUMP (PUDDLE SUCKER):** Flow rate 175 litres per min at Head 1m:

A manual lightweight Puddle-Sucker Pump designed for use with clean water to drain domestic applications, empty flooded rooms, basements, draw water from wells, basins or cisterns.

**FOR SAFE OPERATION:**

**Always refer to Health & Safety Executive for advice on manual handling [www.hse.gov.uk](http://www.hse.gov.uk)**

- Use the pump handle to carry the unit - never lift or carry the pump by the power cable
- Disconnect power when moving the pump
- The pump must not be left to run dry; this will damage the seal and reduce the life of the pump
- As a safety precaution, it is advisable that this appliance is used together with a RCD circuit breaker (not supplied)
- Ensure the plug and cable is in good condition before switching power on

**INSTRUCTIONS FOR USE:**

1. The pump should be placed on a solid flat surface at the lowest possible point where flood waters start to pool.
2. If not fully submerged on initial set up, the pump should be primed to ensure all air is expelled from the pump chamber. This will prevent the pump from air locking out (motor runs, but water not pumped).
3. To expel air from the pump chamber, slowly fill the pump via the hose outlet connection with clean water until it overflows without bubbling.
4. Thread the hose tail (step adaptor) onto the pump. The adaptor offers the option of three hose diameter sizes, 1", 3/4", 1/2", and should be cut to suit the hose used.
5. The tail of the adaptor is then inserted into the hose and held in position by clamping the hose with the aid of a jubilee clip. NB: A leaky connection will impair the performance of the pump, as will any leaks in the hose run to the point of delivery.
6. The pump is powered via a 10mtr electrical cable with a three pin plug fitted. As a safety precaution, it is advisable that this appliance is used together with a RCD circuit breaker (not supplied).
7. Ensure the plug and cable is in good condition before switching power on.

## POST FLOOD:

When not in use, disconnect from the power supply and drain pump and hoses.

Store in a clean dry environment, in the upright position.

NOTE: Always use the pump handle to carry the unit.

## SUMP AND PUMP SYSTEMS: Flow rate 195 or 525 litres per min at Head 1m

The Sump and Pump system sits below the ground floor to pump out water which enters through the ground. The pump removes water at a faster rate than it can enter.

To ensure the system operates safely and efficiently, items such as grit, stones and abrasive debris should be prevented from discharging through the drainage system.

## FOR SAFE OPERATION:

- Other items such as grit, stones, and abrasive debris should be prevented from discharging through the drainage system

## POST FLOOD:

- Routine maintenance of a pump station is essential for reliable operation of your system.
- Occasionally the station will need emptying completely with a vacuum tanker if the solids and/or silt build up becomes too much for the pumps to deal with. Again this varies from site to site and on some it never occurs.

## GENERAL MAINTENANCE – RECOMMENDED 6 MONTHLY; \*12 month warranty applies.

Before servicing a pump, always shut off the main power breaker and then unplug the pump making sure you are wearing insulated protective sole shoes and not standing in water.

Under flooded conditions, contact your local electricity company or a qualified licensed electrician for advice on disconnecting electrical service prior to pump removal.



**WARNING: SUBMERSIBLE PUMPS CONTAIN OILS WHICH BECOMES PRESSURIZED AND HOT UNDER OPERATING CONDITIONS – ALLOW 2 HOURS AFTER DISCONNECTING BEFORE ATTEMPTING SERVICE.**

## TROUBLESHOOTING

I.	Pump will not start or run	Check fuse, low voltage, overload open, open or incorrect wiring, open switch, impeller or seal bound mechanically, defective capacitor or relay when used, motor or wiring shorted. Float assembly held down. Switch defective, damaged, or out of adjustment.
II.	Motor overheats and trips overload or blows fuse	Incorrect voltage, negative head (discharge open lower than normal) impeller or seal bound mechanically, defective capacitor or relay, motor shorted.
III.	Pump starts and stops too often	Float tight on rod, check valve stuck or none installed in long distance line, overload open, level switch(s) defective, sump pit too small.
IV.	Pump will not shut off	Debris under float assembly, float or float rod bound by pit sides or other, switch defective, damaged or out of adjustment.
V.	Pump operates but delivers little or no water	Check strainer housing, discharge pipe, or if check valve is used vent hole must be clear. Discharge head exceeds pump capacity. Low or incorrect voltage. Incorrect motor rotation. Capacitor defective. Incoming water containing air or causing air to enter pumping chamber.
VI.	Drop in head and/or capacity after a period of use	Increased pipe friction, clogged line or check valve. Abrasive material and adverse chemicals could possibly deteriorate impeller and pump housing.

## REACTIVE PRODUCT

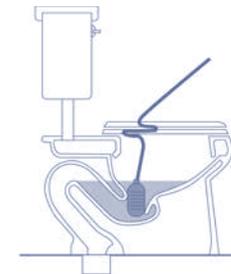
## SEWAGE DEFENCE

FLOODANGEL® APPROVED\*



# TOILET BUNG

\*manufactured by Horobin



The U bend Toilet Bung is a simple inflatable device that can be used to minimise the risk of sewage backflow through the toilet under flood conditions.

Designed as a general purpose pipe stopper, when fitted in a toilet U bend, this product has been proven to reduce the risk of sewage backflow significantly.

Essentially the product is a strong rubber bag, attached to a hose with a Schrader valve on the end. A hand pump has been supplied.

## PRE-FLOOD | Deployment Time: approx 5 minutes

1. Gently push the deflated bag down into the toilet U bend below the water level.
2. Remove the protective cap from the end of the hose.
3. Prepare the hand pump by removing the flexible connector and fasten to end of the hand pump.
4. Connect the hose to the other end of the flexible connector and commence pumping.
5. Inflate the bung but be careful not to over-inflate it.
6. Remove the pump from the hose and replace the protective cap to the hose to maintain inflation.
7. It is advisable not to use the toilet whilst the bung is in place.
8. For maintenance purposes, fully inflate the bung and leave for 24hrs. It is advised to undertake maintenance every 3 months.

## POST-FLOOD

- Once the threat of sewage backflow has subsided, remove the protective cap from the hose and release air from the bung by depressing the pin in the valve of the hose
- Remove the bung and hose from the toilet
- Ensure all parts are thoroughly cleaned before allowing to dry and store away. Please refer to previous PPE information for insertion and removal of this device

**WARNING:** Take care not to over inflate your toilet bung as this may cause it to rupture. Ensure the pump is removed after the bung has been inflated.

## TROUBLESHOOTING

I.	Product specification	Over inflation of the device can cause it to rupture which will necessitate your purchase of a new bung.
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# VENT COVERS

If you have a vent cover located in your property, it will have been specially manufactured for your property. You will need to be aware of all the locations where your vents require protection and ensure that each vent cover is marked so that they can be quickly deployed.

All vent covers are simply screwed into place and post-flood removed in the same way.

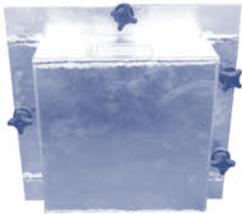
## IMPORTANT

If you have a vent cover for a boiler flue or boiler exhaust or a tumble dryer, it is essential that these products are NOT USED when the vent cover is deployed to avoid any build up of carbon monoxide.

The manufacturer/supplier/installer cannot be held responsible for mis-use.

## GENERAL MAINTENANCE – RECOMMENDED QUARTERLY

Flood Angel® Vent Covers have been designed to be as free from maintenance as possible. However, it is advisable to make periodic inspections. It is the occupant/owner's responsibility to perform the following regular checks:



PRE FLOOD DEPLOYMENT INSTRUCTIONS | Deployment Time: approx 5 minutes

## VENT COVER - FULLY SEALED

1. Unscrew thumb turns and remove the Vent Cover.
2. Ensure any dirt or debris is cleaned away.

# Manufacturer's Warranty (excluding Flood Angel® Flood Defender™ Doors)

## FLOOD ANGEL LTD

Your flood defence products have been purchased with the benefit of a 2 year Manufacturer's Warranty (unless otherwise stated). The details are set out below. The term "Customer" means the person who purchased the Flood Angel or Flood Angel approved product new, from us or via one of our approved installers or authorised distributors.

Find our more at [www.floodangel.com](http://www.floodangel.com)

1 The terms and conditions, warranties and other provisions contained within this warranty document shall only apply if:

- 1.1 the products which accompanied this warranty ("Products") were purchased from Flood Angel Ltd ("Manufacturer") directly or one of their approved installers ("Installer") or one of their authorised distributors ("Distributor"); and
- 1.2 the registration form accompanying this document has been completed in full and returned to the Manufacturer as directed on the registration form.

2 Subject to the following provisions, the Manufacturer warrants to the Customer that the Products will correspond with their specification at the time of delivery and will be free from defects in material and workmanship for a period of 24 months (unless otherwise specified) from the date of purchase of the Products.

3 The above warranty is given by the Manufacturer subject to the following conditions:

- 3.1 the Manufacturer shall have no liability (whether to the Customer or any third party) in respect of any defect arising from fair wear and tear, wilful damage, negligence, abnormal working conditions, failure to follow the Manufacturer's instructions (whether oral or in writing), misuse or alteration or repair of the Products without the Manufacturer's approval, failure to store the Products properly, failure to deploy and/ or incorrect deployment of the Products;
- 3.2 the Manufacturer shall have no liability under the above warranty (or any other warranty, condition or guarantee) if and for so long as the total price for the Products has not been paid in full;
- 3.3 the above warranty does not extend to parts, materials or equipment not produced by the Manufacturer. The Customer shall only be entitled to the benefit of any such warranty or guarantee if and to the extent that it has been given by the manufacturer of the said part, material or equipment to the Manufacturer and is capable of being assigned by the Manufacturer to the Customer.

4 Subject as expressly provided in this warranty, and except where the Products are sold to a person dealing as a consumer (within the meaning of the Unfair Contract Terms Act 1977), all warranties, conditions or other terms implied by statute or common law are excluded to the fullest extent permitted by law. Where the Products are sold to a person dealing as a consumer, his or her legal rights are not affected by the provisions of this document.

5 A claim by the Customer which is based on any defect in the quality or condition of the Products or their failure to correspond with specification shall (whether or not delivery is refused by the Customer), in the case of defects that were apparent or should reasonably have been apparent at the time of delivery, be notified to the Manufacturer via the Installer or Distributor (as the case may be) within seven days from the date of delivery and in the case of latent defects, within a reasonable time of discovery of the defect (but always within the warranty period described in clause 1.2 above). Following such notification the Customer shall, at its own expense, return such Products to the Manufacturer for examination. If, upon examination, the Products shall be defective or shall fail to correspond with their specification then the Manufacturer shall (in addition to the other provisions of this warranty) refund the reasonable costs of such carriage to the Customer. If the Customer does not notify the Installer or Distributor (as the case may be) accordingly, the Customer shall not be entitled to reject the Products and the Manufacturer shall have no liability for such defect or failure.



# Manufacturer's Warranty

## FLOOD ANGEL® Flood Defender Door Range (UPVC and Composite)

The Flood Angel Flood Defender Door range is sold with the benefit of a manufacturer's warranty covering the following items for the following periods:

- UPVC outer frames, door sash/Monocoque Composite door slab – 2 years
- Door panels/Side Panel – 2 years
- Locking mechanism, gaskets, locks – 2 years (subject to a service inspection 12 months after installation)
- Glazing – 1 year
- Letter plates, knockers, numerals – 1 year

To maintain the 2 year warranty on locking mechanisms and gaskets, the door must be serviced 12 months after installation at the occupants/owner's expense by a qualified and certified installer.

### The manufacturer's warranty is subject to the following terms and conditions:

1. The Flood Defender Door range is intended for domestic use only, and must be installed and maintained in accordance with manufacturer's fitting and care instructions. White doors are guaranteed not to discolour within the tolerances of 3-4 of the Grey Scale Rating for 2 years. Foiled doors (woodgrain on brown) are covered for 2 years and will not crack, bend or bubble under normal weather conditions.

2. Letter plates, knockers and numerals are subject to third party guarantee of 1 year (excluding surface finish). A gradual reduction in operating performance in these items can be expected due to normal wear and tear commensurate with age. All glass designs or door furniture containing lead, brass or gold effects will weather naturally.

### 3. Exclusions

Flood Angel Ltd does not accept liability for any loss of profit or for any indirect, special or consequential loss or damage, costs, expenses or other claims for compensation whatsoever (whether caused by its negligence or otherwise) which arise out of or in connection with the supply or use of the Flood Defender Door range including any costs incurred for refitting by an installer or any third parties whatsoever. The liability of Flood Angel Ltd under this warranty will be limited as set out in clause 6 below.

This warranty will be void (and Flood Angel Ltd shall have no liability under it) if any elements of the Flood Defender Door range have been altered in any way from the original order including (but not limited to) the addition of door furniture, the painting and cutting of the panel or door, and the cutting or damaging of gaskets.

This warranty excludes damage from neglect, misuse or impact (wilful or otherwise), wear and tear, use as a commercial entrance, any damage or fault caused by incorrect installation, inadequate maintenance, negligence, abnormal working conditions, abnormal weather/thermal conditions, failure due to building subsidence, modifications or alterations made, and acts of God.

### 4. Limitations

This warranty is limited to the replacement of door (and/or components) sent to the original installer in accordance with the manufacturer's standard terms & conditions. Flood Angel Ltd reserves the right to offer similar replacements if product lines have been discontinued or redeveloped. Replacement parts will only be warranted for the remainder of the original warranty period.

5. Flood Angel Ltd does not make any other representations or guarantees, whether under this guarantee or otherwise. Claims under this warranty will only be met when accompanied by satisfactory proof of purchase.

6. In addition to the foregoing, Flood Angel Ltd's standard terms of business shall apply. This guarantee shall be construed and interpreted in accordance with English law and shall be subject to the jurisdiction of English courts only. This guarantee does not affect the statutory rights of consumers.

# Flood Risk Assessment

Prior to the commencement of any flood mitigation activity, a comprehensive Flood Risk Survey reinforced with a product suitability survey must be undertaken by a qualified specialist flood professional.

## Sources of advice

Environment Agency Floodline: 0345 988 1188

National Flood Forum: 01299 403 055

Scottish Flood Forum: 01698 839021

## Overview of Mitigation Products & Types of Flooding

A complete listing of all flood defence products manufactured/installed at your property is included at the front of this Homeowner Guide.

They are designed to mitigate against all types of flooding up to a maximum height of 600mm on Flood Angel Defender Doors and 900mm on Flood Angel Defender Barriers. (Flood waters deeper than this may cause structural damage).

There are a number of different sources of flooding including:

### Surface water (pluvial):

Flooding from surface water happens when the local drainage system & surrounding terrain cannot cope with the rainfall. It is extremely difficult to predict precisely where surface water flooding will happen as it is dependent on ground water levels, intensity and duration of rainfall, and the local drainage network.

### River (fluvial):

River flooding occurs when there is too much water for the ground to absorb, and the surface runoff overflows the normal river channel.

### Groundwater:

Groundwater flooding occurs when water levels in the ground rise above surface levels. It is most likely to occur in areas underlain by permeable rocks, called aquifers. These areas can be extensive, regional aquifers such as chalk or sandstone, or they may be more local sand or river gravels in valley bottoms underlain by less permeable rocks.

### Tidal:

Coastal flooding that results from a combination of high tides and stormy conditions. If low atmospheric pressure coincides with a high tide, a tidal surge may happen which can cause serious flooding.

### Runoff water:

Surface runoff is the water flow that occurs when soil is infiltrated to full capacity and excess water from rain, melt water, or other sources flows over the land.

### Sewer flooding:

Sewer flooding occurs when sewers are overwhelmed by heavy rainfall or when they become blocked. The likelihood of flooding depends on the capacity of the local sewerage system. As a result, land and property can be flooded with water contaminated with raw sewage and rivers can become polluted by sewer overflows.

### Advance Warning of Flood

The Environment Agency operates a 24hr telephone Floodline where you can obtain up to the minute information on the flooding situation in your area.

### Floodline – 0345 988 1188

You can also register for the Environment Agency's Floodline Warnings Direct Service. You will automatically be sent either by phone, text or post the latest information on flooding in your area.







# The Homeowner Guide

A copy of this Homeowner Guide is available to download via:  
[www.floodangel.com/about-us](http://www.floodangel.com/about-us)

