



# INSTALLATION GUIDE

## FORENSIC SPRAY SYSTEMS



Photographs taken under UV light.

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# INTRODUCTION

## WHAT IS THE SMARTWATER® FORENSIC SPRAY SYSTEM?

Installed standalone, integrated into an existing alarm or combined with Protect® fog cannon, SmartWater® forensic spray systems can be tailored to your requirements to deter theft, robbery or out-of-hours burglary while, at the same time, providing law enforcement agencies with the evidence they need to prosecute offenders.

Once activated, our spray systems cover the offender in a non-hazardous traceable liquid that irrefutably links them, and any stolen property that is marked, back to the scene of the crime, in effect date-stamping them to the incident for months.

Although virtually invisible to the naked eye, SmartWater® glows yellow/green under UV light and the police have used it to convict some of the most serious criminals.



SmartWater® glows bright yellow/green under UV light

### HOW IT WORKS:

- Sprays intruders with a unique, traceable SmartWater® forensic liquid.
- Invisible to the naked eye, but fluoresces the SmartWater trademark bright yellow/green under UV light - criminals cannot see it to attack it.
- Detectable on skin and hair for weeks, even with frequent washing and cleaning. Effectively permanent on clothing and footwear.
- We only need a trace the size of a speck of dust to be able to prove the guilt of a suspect.
- A powerful crime deterrent for 24/7, 365 days of the year. SmartWater is well known to criminals who acknowledge that it represents a serious threat to them. By placing Thieves Beware® deterrent signage around the premises, would-be criminals are sent a powerful warning: Keep out or be tagged!
- Leaves additional evidence at the scene, such as footprints and handprints, to help police identify the offender.
- Proven in the courts - responsible for hundreds of convictions in court with a 100% conviction rate.
- Not DNA - based - SmartWater's unique, chemical signature will withstand fire, humidity and sunlight - there is no more robust forensic liquid is available on the market.



Each spray is uniquely formulated to a location

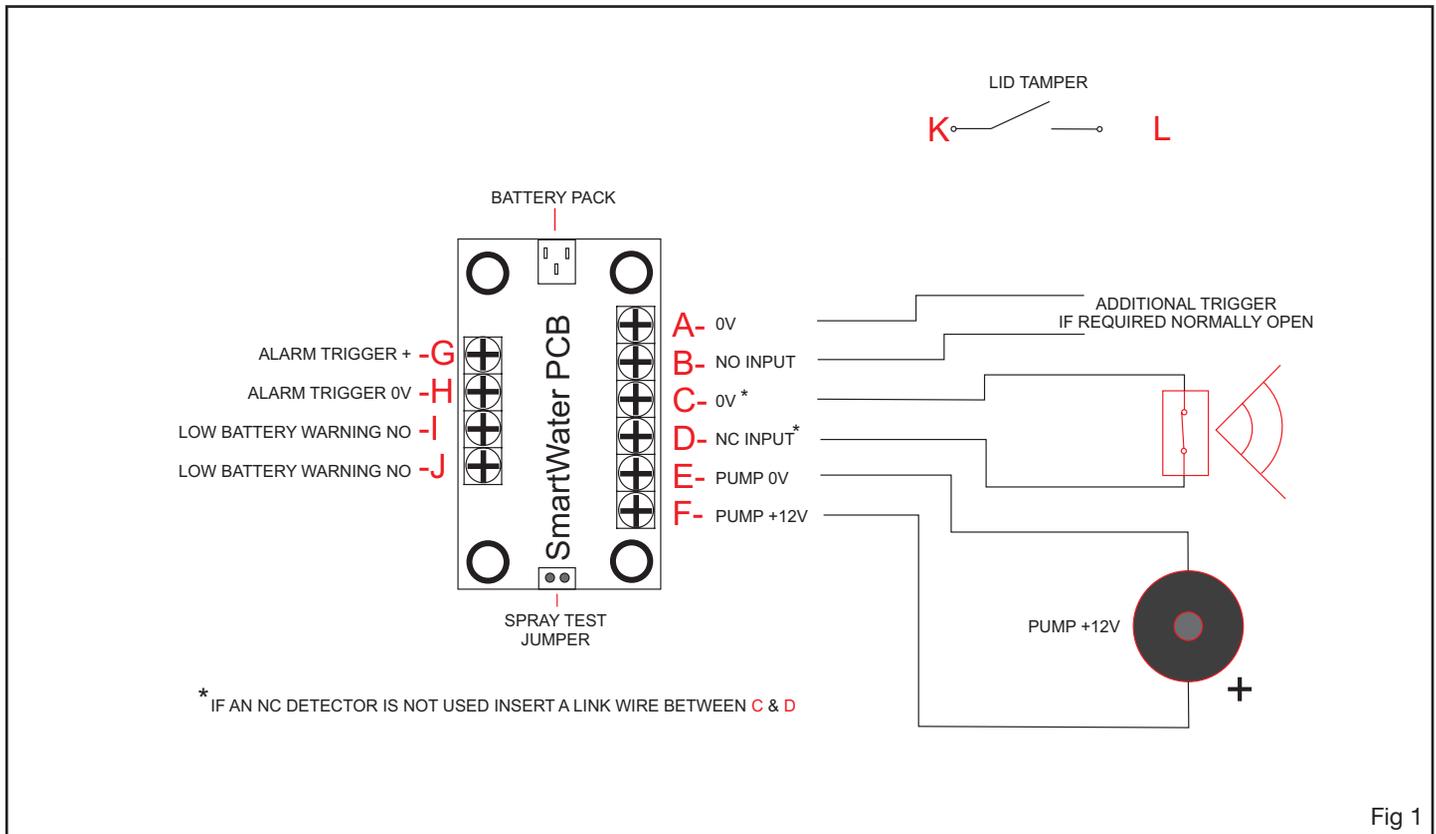


SmartWater® is the most robust system of its type

# INSTALLATION GUIDE

## SMARTWATER® FORENSIC SPRAY SYSTEM (Standalone)

### WIRING DIAGRAM AND EQUIPMENT ELEMENTS



Contents of the SmartWater® forensic spray system:

- 1 x Spray unit (A)
- 1 x Bottle of SmartWater® forensic liquid (B)
- 1 x Battery pack (C)
- 1 x Test bottle (D)
- 1 x Spray Nozzle Tube kit (E)
- 2 x A5 deterrent Thieves Beware® labels (F)

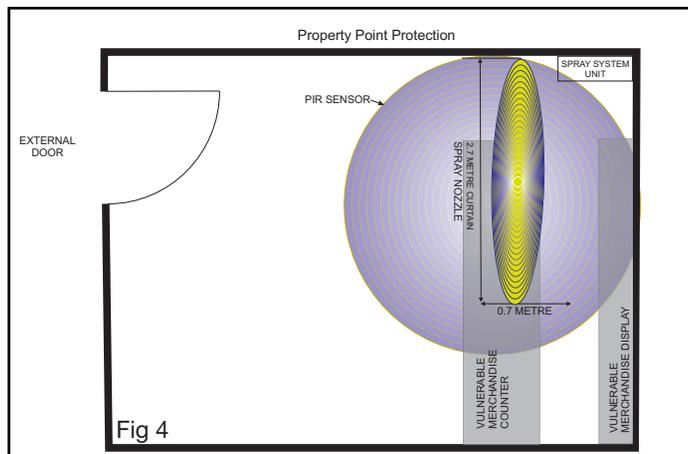
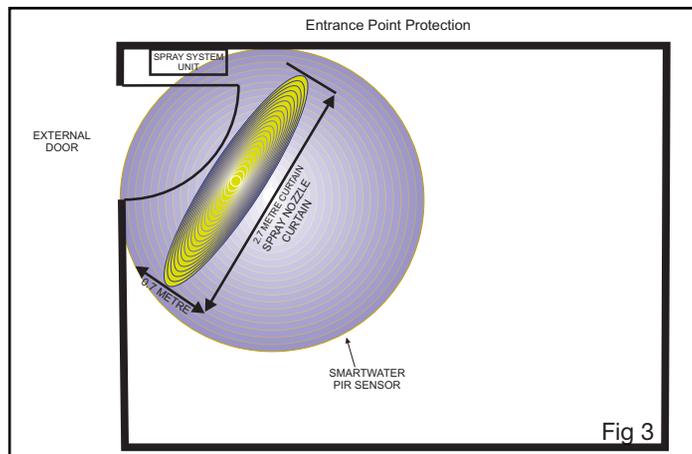
You will need:



# INSTALLATION GUIDE

## SMARTWATER® FORENSIC SPRAY SYSTEM (Standalone) *continued*

### POSITIONING



Each SmartWater® forensic spray system is supplied with a curtain nozzle that has a default spray pattern of approximately 2.7 metres in length x 0.7 metres in width (fig 3 and fig 4).

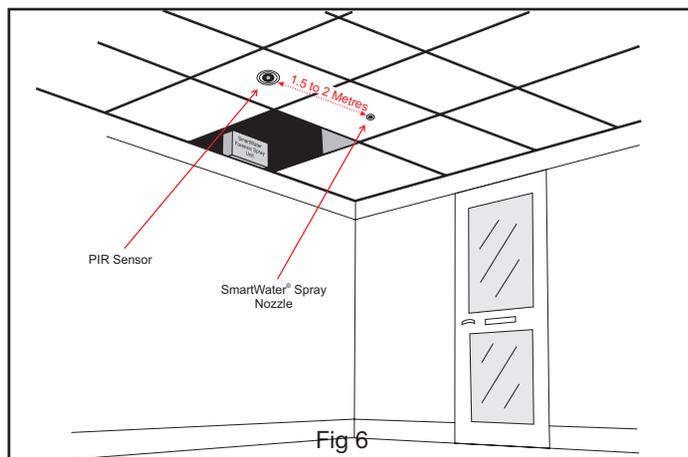
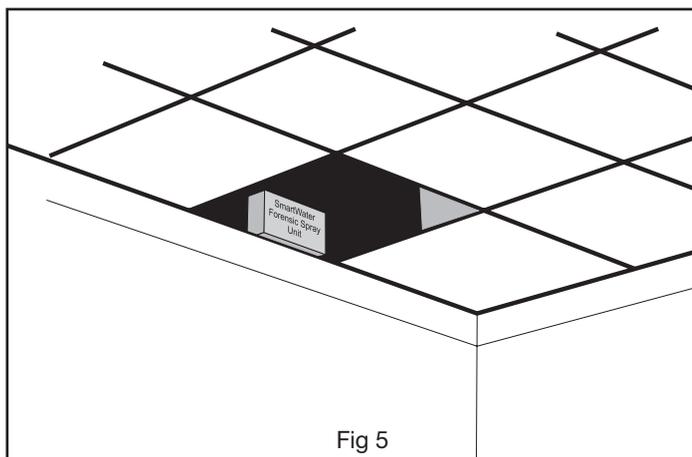
SmartWater® is a forensic liquid that will mark property, valuables, stock or any items that stand within the spray pattern area. This should be considered when siting the spray nozzle.

#### STEP 1 - Identify location

The site survey schematics (fig 3 & fig 4) are typical layout configurations for the installation of a SmartWater® forensic spray system. However, the SmartWater® forensic spray system can be used in other configurations, as required.

Please consider what devices are most suitable to trigger The SmartWater® forensic spray system. The unit will activate approximately 2 seconds after the detection device has been triggered. We recommend that the spray nozzle is installed above the target area with the spray nozzle within 1.5 to 2 metres from the trigger point (fig 6).

NB: To simplify this manual, we have focused on one of our most common install scenarios, fitting a spray system above a false ceiling.



#### STEP 2 - Fixing the Spray System in place

The SmartWater® forensic spray system should be positioned in accordance to the site survey schematic (fig 3 & fig 4), making sure that the unit is in an inconspicuous position (fig 5). The spray unit should be fixed securely with the bottle of forensic liquid inside, in an upright position. Install the spray nozzle and tube into the desired position using the provided mounting kit (fig 7 & fig 8 over leaf). The spray nozzle can be rotated through 180° to give a targeted spray pattern.

# INSTALLATION GUIDE

## SMARTWATER® FORENSIC SPRAY SYSTEM (Standalone) *continued*



Fig 7



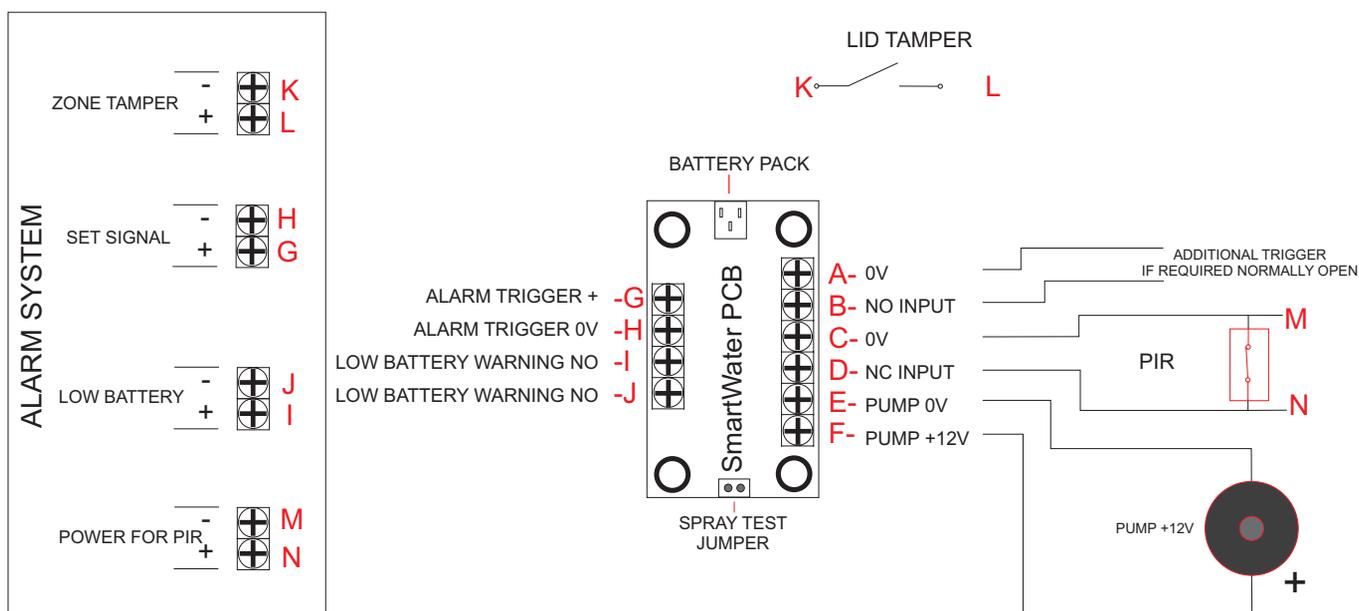
Fig 8

### STEP 3 - Positioning the PIR

If using a PIR trigger, position the PIR approximately 1.5 to 2 metres from the spray nozzle (see site survey schematics in step 1, fig 3 & fig 4) and consider the direction of travel of any potential offender(s). The unit will begin spraying approximately 2 seconds after detection.

Alternatively, the spray system can be triggered by an array of other mechanisms such as door contacts, pressure pads, CCTV outputs, suppression systems, by connecting to 'Normally Open' or 'Normally Closed' inputs on the SmartWater® PCB. The recommended location of said triggers could vary considerably. If unsure, please contact SmartWater® Technical Support Tel: 0333 320 7797. We recommend installing a detection device that has clean contacts.

## WIRING INSTRUCTIONS



NOTE: THE PIR IS TO BE EXTERNALLY POWERED BY THE ALARM SYSTEM

Fig 9

# INSTALLATION GUIDE

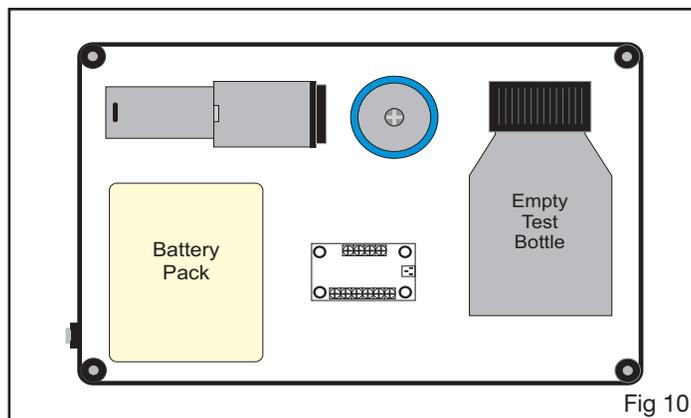
## SMARTWATER® FORENSIC SPRAY SYSTEM (Standalone) *continued*

### STEP 4 - Remove Battery and Test bottle

Remove battery pack and the empty test bottle from the spray unit before the wiring commences (Fig 10).

Power the PIR from the intruder panel. DO NOT power the PIR from the spray unit directly as this will affect the performance of the SmartWater® forensic spray system.

**Make sure the alarm system is in 'Normal Day Mode' before you make the connection to the SmartWater® PCB.**



We recommend that the 'LOW BATTERY WARNING' connections I and J are connected to the alarm panel. Should the battery then become faulty the panel will alert the customer.

### STEP 5 - Affix the Nozzle

Firmly insert the nozzle tube into the push fitment on the outside of the spray unit, making sure it is secure (Fig 11).



## TESTING THE FORENSIC SPRAY SYSTEM

1. Fill the test bottle provided with water and install into the spray unit.
2. Connect the battery pack to the spray unit (the red LED should stay on for 3-5 seconds, continuously. If the LED flashes refer to 'Troubleshooting' at the end of this section).
3. Invert alarm signal from the 'Intruder Panel' to arm the SmartWater® PCB.
4. Trigger the SmartWater® hold-off device (PIR, Door Contact etc).

The spray system should trigger, dispensing water from the spray nozzle. The spray system will dispense for approximately 30 seconds. We recommend you place some sort of receptacle directly beneath the nozzle to catch any water and prevent a slip hazard.

## ARMING THE FORENSIC SPRAY SYSTEM

Reset the control equipment

1. Reset the alarm signal to 'Normal Day Mode'.
2. Reset the spray system PCB (this is completed when the battery is disconnected from and then reconnected to the PCB). *As previously described in the above section 'Testing the spray system'.*
3. **REGISTER THE SMARTWATER FORENSIC LIQUID BOTTLE\***
4. Remove the test bottle and install 1x 150ml SmartWater® forensic liquid into the spray system.
5. Secure the spray system lid with screws provided.

The SmartWater® forensic spray system is now live.

**\*REMEMBER TO REGISTER THE SMARTWATER FORENSIC LIQUID BOTTLE. TURN TO PAGE 21 FOR INSTRUCTIONS HOW TO DO IT**

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# INSTALLATION GUIDE

## SMARTWATER® FORENSIC SPRAY SYSTEM (Standalone) *continued*

### TROUBLESHOOTING

Problem: spray system pump will not activate:

1. Has a signal been received from the intruder panel? If **Yes**, move to point 2, if **No**, meter the connections G & H on the PCB to see if 12 volts are present.  
If **No**, check intruder panel has the correct signal voltage.
2. Has the PIR been powered from a separate power source? If **Yes**, move to point 3, if **No**, meter the PIR and check for 12 volts.
3. Has the PIR been activated with the signal present from the intruder panel? If **Yes**, move to point 4. If **No**, make sure the PIR is operating correctly remove the cables from the connections C & D and check for the PIR opening and closing.
4. Is the tubing without kinks, bends and otherwise unobstructed?  
If **Yes**, move to point 5. If **No**, attempt to straighten out the tubing, removing any bends that might obstruct the flow of the SmartWater® forensic liquid.
5. Check the battery voltage. If less than 11.2 volts, replace batteries. Otherwise please contact SmartWater® Technical Support - Tel. 0333 320 7797

Problem: LED on the PCB flashes:

1. 1 Flash = Low battery (less than approximately 11.2V)
2. 2 Flashes = 'Normally Closed' input (PIR) is open circuit.
3. 3 Flashes = 'Normally Open' input (pressure mat) is closed circuit.
4. 4 Flashes = Alarm trigger input is active.

Problem: SmartWater not firing from the nozzle:

1. Is the pump running when triggered?  
If **Yes**, move to point 2. If **No**, refer to trouble shooting section above
2. Look inside the SmartWater device. Is the fluid running from the bottle into the safety valve and out towards the nozzle?  
If **Yes**, move to point 3, If **No**, please contact the SmartWater® Technical Support - Tel. 0333 320 7797
3. Is the tube to the pump free from kinks and bends and otherwise unobstructed?  
If **Yes**, replace the tubing. If **No**, attempt to straighten out the tubing, removing any bends that might obstruct the flow of the SmartWater® forensic liquid.
4. Is the nozzle free from blockages?  
If **Yes**, please contact the SmartWater® Technical support - Tel. 0333 320 7797.

### SmartWater Technical Support\*

Tel: 0333 320 7797 – Open 09:00 – 17:00 – Mon to Friday

Email: [enquiry@smartwater.com](mailto:enquiry@smartwater.com)

If out of working hours, email or leave a voice message and we will get back to you the next working day.

SmartWater® Technology Ltd

PO Box 136

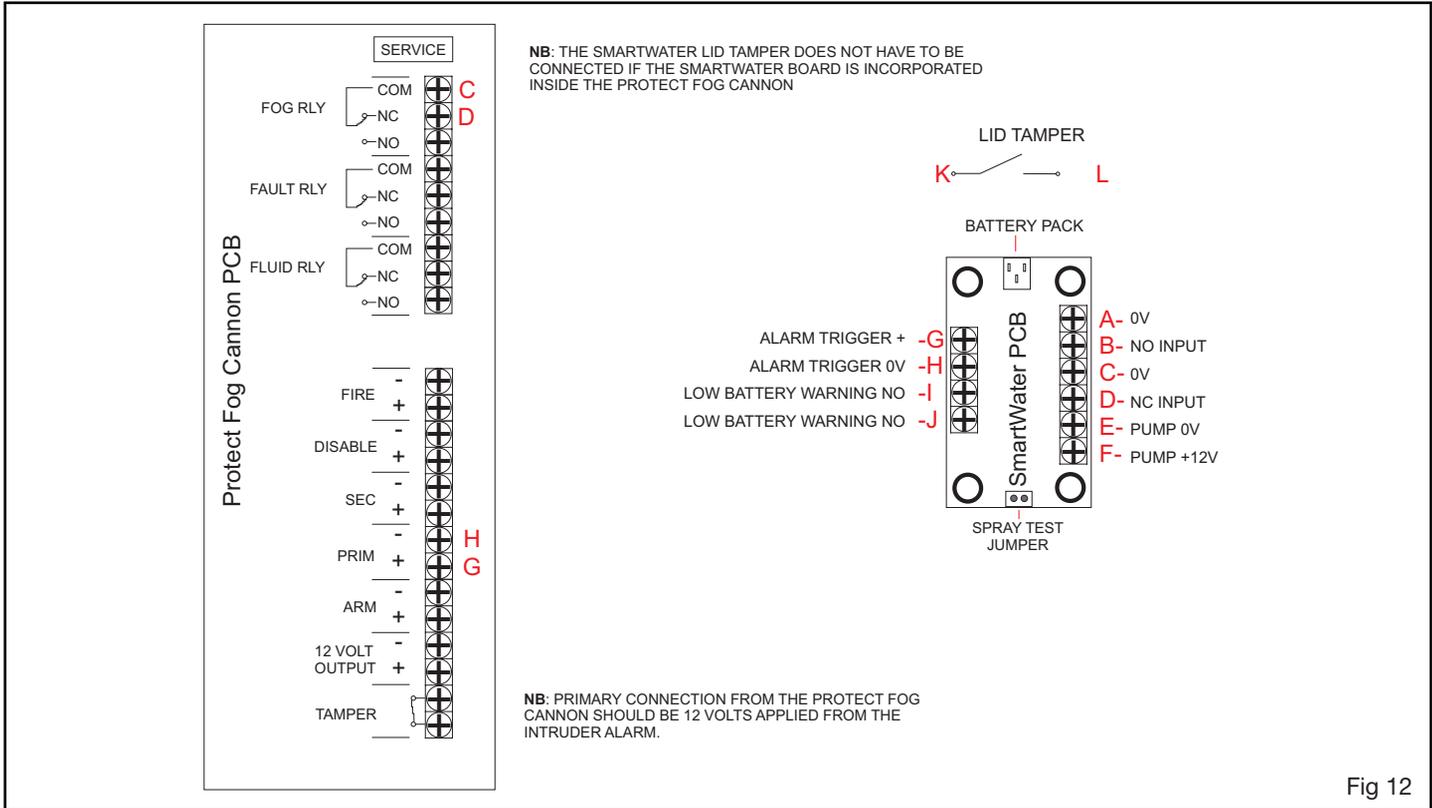
Telford

TF3 3WY

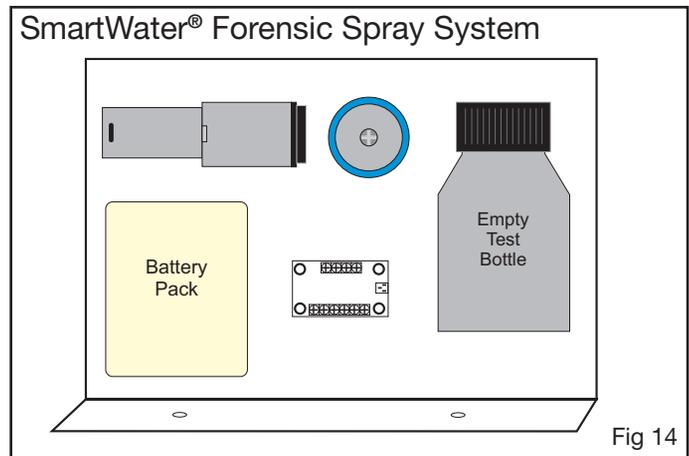
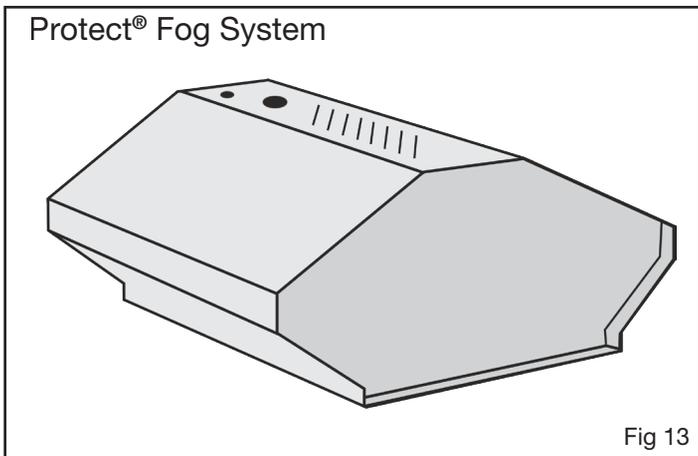
# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Integrated)

### WIRING DIAGRAM AND EQUIPMENT ELEMENTS



If the SmartWater® forensic spray system is incorporated within the fog cannon, the triggering device will utilise the Protect® fog cannon PIR. If the units are installed independently a PIR to trigger the SmartWater® will be required.



Contents for the combined system are as follows:  
 1 x Protect® fog cannon  
 1 x SmartWater® spray unit (without case)  
 1 x Spray nozzle (2 metre curtain)  
 Heat-resistant tubing

1 x Bottle of SmartWater® forensic liquid  
 1 x Battery pack  
 1 x Test bottle  
 2 x A5 deterrent Thieves Beware® labels

The SmartWater® forensic spray system can be installed into an existing Protect® fog cannon installation or as part of a new installation, in either case the wiring for the SmartWater® forensic spray system will be the same.

# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Integrated) *continued*

### INSTALLATION OF SMARTWATER SPRAY SYSTEM INTO PROTECT FOG CANNON

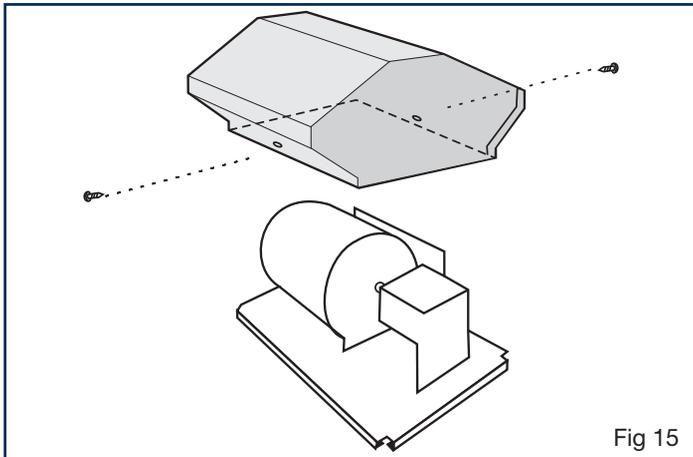


Fig 15

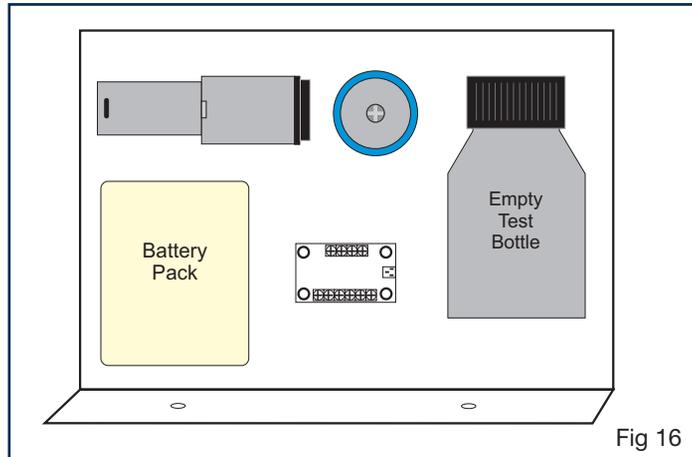


Fig 16

#### STEP 1 - Prepare the Spray Unit for installation

Remove the cover from the Protect® fog cannon (fig 15), take the SmartWater® forensic spray system and check the contents (fig 16).

To avoid unintentional fog emission remove the fluid container from the Protect® fog cannon during installation.

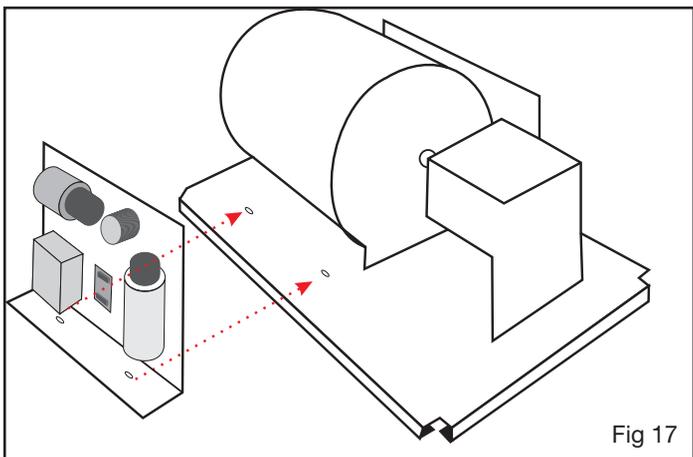


Fig 17

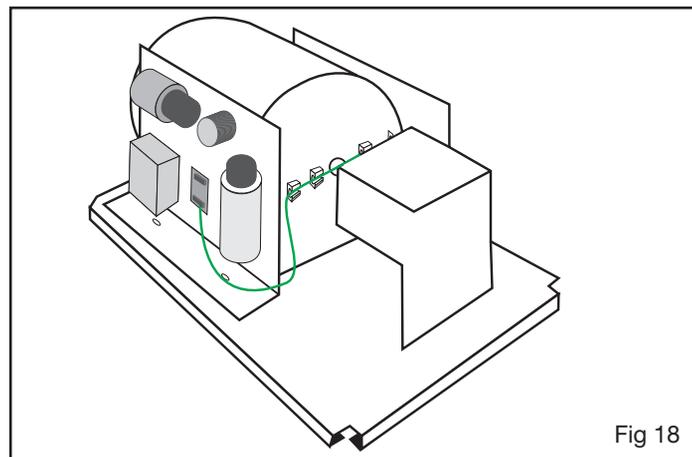


Fig 18

#### STEP 2 - Install the Spray Unit

With the back plate of the SmartWater® forensic spray system facing the Protect® fog cannon heating element, proceed to align the board with the fixing holes and then fix securely to the Protect® fog cannon base (fig 17). Re-attach the battery pack and install test bottle (fig 18).

# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Integrated) *continued*

### WIRING OF SMARTWATER SPRAY SYSTEM INTO PROTECT FOG CANNON

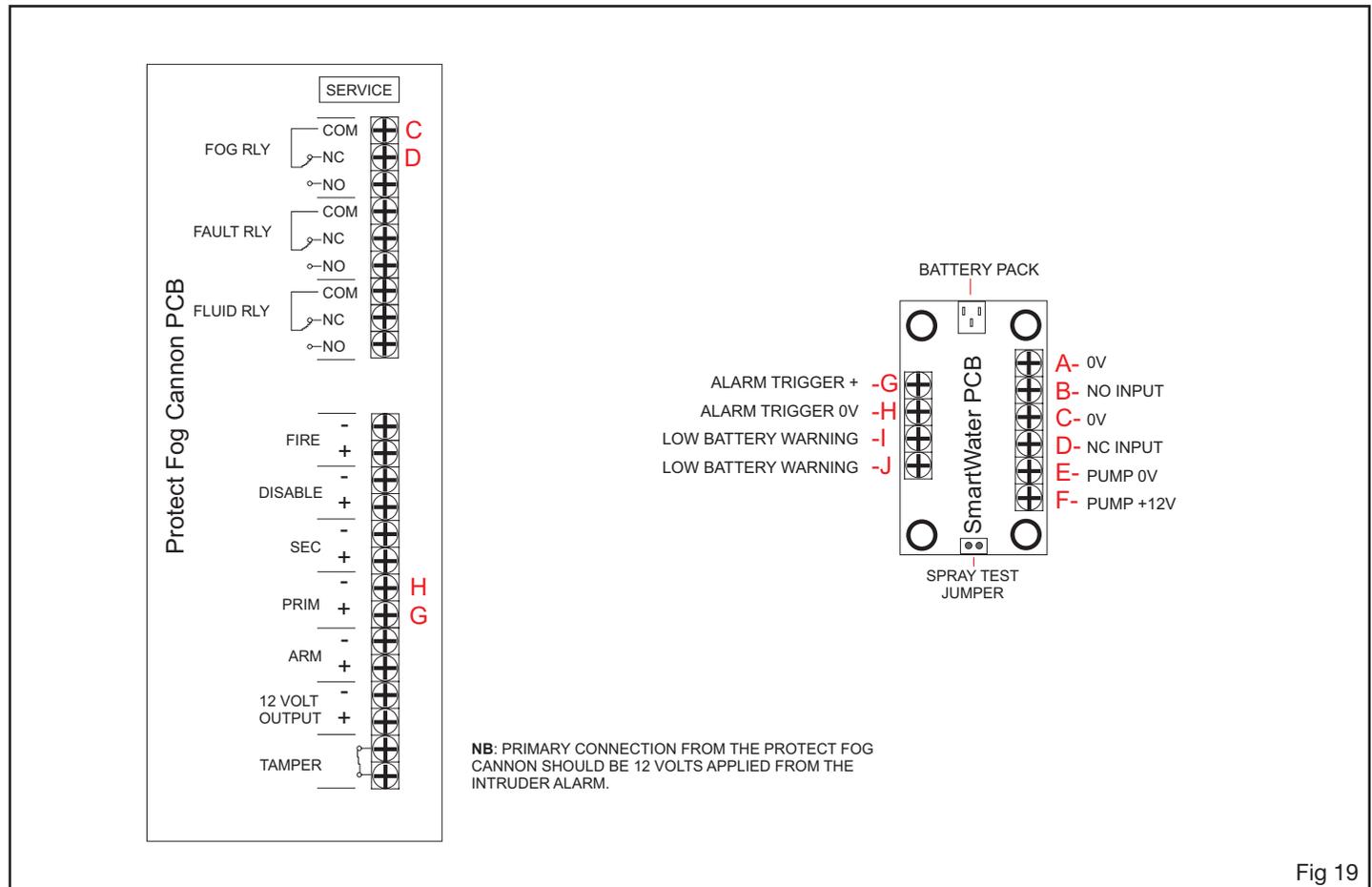


Fig 19

### STEP 3 - Connect the PCBs

Dress the 8-core cable between the SmartWater® PCB to the Protect® fog cannon PCB (fig 19), using the clips positioned around the edge of the Protect® fog cannon assembly, to ensure adequate clearance of the heating element (fig18).

We recommend that the 'LOW BATTERY WARNING' connections I and J are connected to the alarm panel. Should the battery then become faulty the panel will alert the customer.

### TESTING THE INTEGRATED SYSTEM

Please refer to the Protect® fog cannon instruction manual ([Click here](#)) to put the fog cannon into test mode.

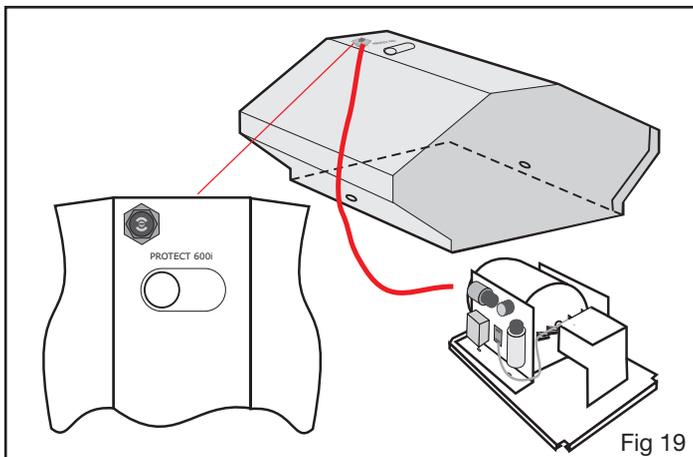
Before testing the system, connect the battery pack into the SmartWater® PCB. The PCB LED should light up continuously for 3-5 seconds. If the LED flashes refer to 'Troubleshooting' at the end of this section.

When the Protect® Fog Cannon is activated this will arm the SmartWater® forensic spray system, this will in turn enable the trigger device for the SmartWater® forensic spray system and Protect fog cannon. When the trigger device is activated, the SmartWater® test liquid will be dispersed for approximately 30 seconds.

# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Integrated) *continued*

### INSTALLATION OF SMARTWATER SPRAY SYSTEM INTO PROTECT FOG CANNON



#### STEP 4 - Attaching the Nozzle

Secure the spray nozzle into the pre-drilled hole of the outer casing of the Protect® fog cannon (fig 19). The spray nozzle can be rotated through 180° to give a targeted spray pattern. Connect the tube provided to the nozzle by inserting securely into the nozzle's push fitment.

Cut a piece of the heat resistant sheath to the same length as the nozzle tube and insert the nozzle tube. Ensure that the sheath reaches the nozzle.

### ARMING THE FORENSIC SPRAY SYSTEM

Reset the control equipment

1. Reset the alarm signal to 'Normal Day Mode'.
2. Reset the spray system PCB (this is completed when the battery is disconnected from and then reconnected to the PCB). *As previously described in the above section 'Testing the Integrated system'.*
3. **REGISTER THE SMARTWATER FORENSIC LIQUID BOTTLE\***
4. Remove the test bottle and install 1x 150ml SmartWater® forensic liquid into the spray system.
5. Replace the fluid container back into the Protect® fog cannon.
6. Connecting the nozzle tube to the SmartWater® pump & replace the lid of the Protect fog cannon.

The SmartWater® Protect® systems are now live.

**\*REMEMBER TO REGISTER THE SMARTWATER FORENSIC LIQUID BOTTLE. TURN TO PAGE 21 FOR INSTRUCTIONS HOW TO DO IT**

### TROUBLESHOOTING

Please refer to the Protect® fog cannon instruction manual to put the fog cannon into test mode before testing the SmartWater® forensic spray system.

Problem: spray system pump not running

1. Has a signal been received from the Protect fog unit? Meter between connections G & H on the SmartWater PCB, 12 volts should be received.  
If **Yes** move to point 2, If 12 volts is not present make sure a signal is being sent from the intruder panel?
2. Has the PIR from the Protect fog unit been powered.  
If **Yes**, move to 3. If **No**, make sure 12 volts is present at the PIR.
3. Has the PIR been activated?  
If **Yes**, move to 4. If **No** activate the PIR and check connections C & D on the SmartWater® PCB.
4. Check the battery voltage. If less than 11.2 volts, replace batteries. Otherwise please contact SmartWater® Technical Support - Tel. 0333 320 7797
5. If the pump is still not running please contact SmartWater® Technical Support - Tel. 0333 320 7797.

# INSTALLATION GUIDE

SMARTWATER® PROTECT® FOG CANNON (Integrated) *continued*

## INSTALLATION OF SMARTWATER SPRAY SYSTEM INTO PROTECT FOG CANNON

### TROUBLESHOOTING

Problem: LED on the PCB flashes

1. 1 Flash = Low battery (less than approximately 11.2V)
2. 2 Flashes = 'Normally Closed' input (PIR) is open circuit.
3. 3 Flashes = 'Normally Open' input (pressure mat) is closed circuit.
4. 4 Flashes = Alarm trigger input is active.

Problem: Spray pattern is not correct

1. Is the nozzle blocked?  
If **Yes**, change the Nozzle. If **No**, move to **2**.
2. Replace the bottle of SmartWater® forensic liquid with test bottle, proceed to fire the system and check for correct spray pattern.
3. If **OK**, proceed to reinstall the bottle of SmartWater® forensic liquid.
4. If issue persists, please contact SmartWater® Technical Support - Tel. 0333 320 7797.

Tel: 0333 320 7797 – Open 09:00 – 17:00 – Mon to Friday

Email: [enquiry@smartwater.com](mailto:enquiry@smartwater.com)

If out of working hours, email or leave a voice message and we will get back to you the next working day.

SmartWater® Technology Ltd  
PO Box 136  
Telford  
TF3 3WY

For issues with the Protect® fog cannon - please refer to the Protect® support materials.

# INSTALLATION GUIDE

SMARTWATER® PROTECT® FOG CANNON (Linked)

## WIRING OF SMARTWATER SPRAY SYSTEM TO THE PROTECT FOG CANNON

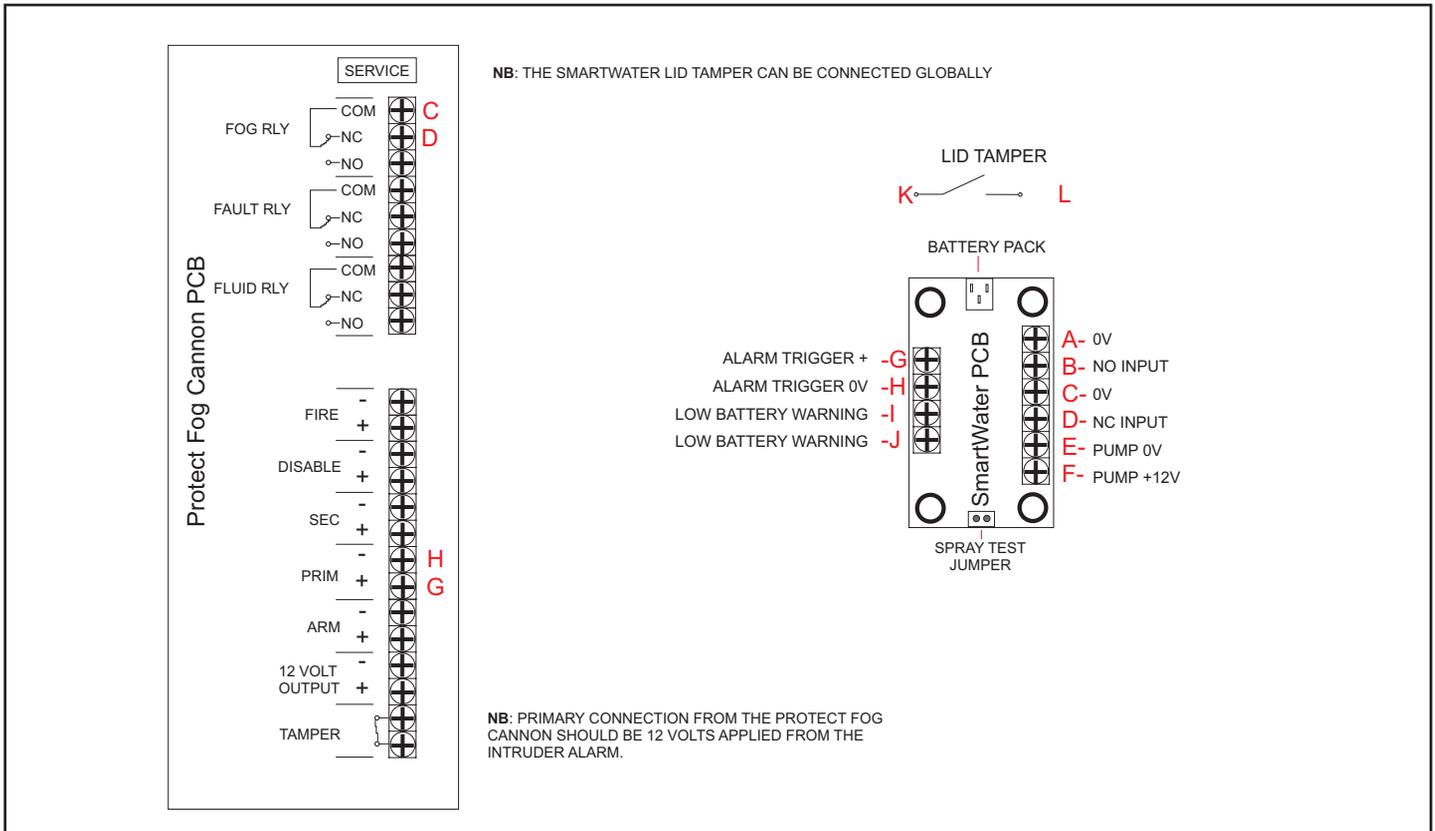


Fig 20



Contents of the SmartWater® forensic spray system: (fig 21)

- 1 x Spray unit (A)
- 1 x Bottle of SmartWater® forensic liquid (B)
- 1 x Battery pack (C)
- 1 x Test bottle (D)
- 1 x Spray nozzle tube kit (E)
- 2 x A5 deterrent Thieves Beware® labels (F)

You will need:



# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Linked) *continued*

### INSTALLATION OF THE SMARTWATER® SPRAY UNIT

- A = Protect® fog cannon
- B = SmartWater® forensic spray system
- C = SmartWater® spray system nozzle
- D = Protect® fog cannon PIR
- E = SmartWater® PIR

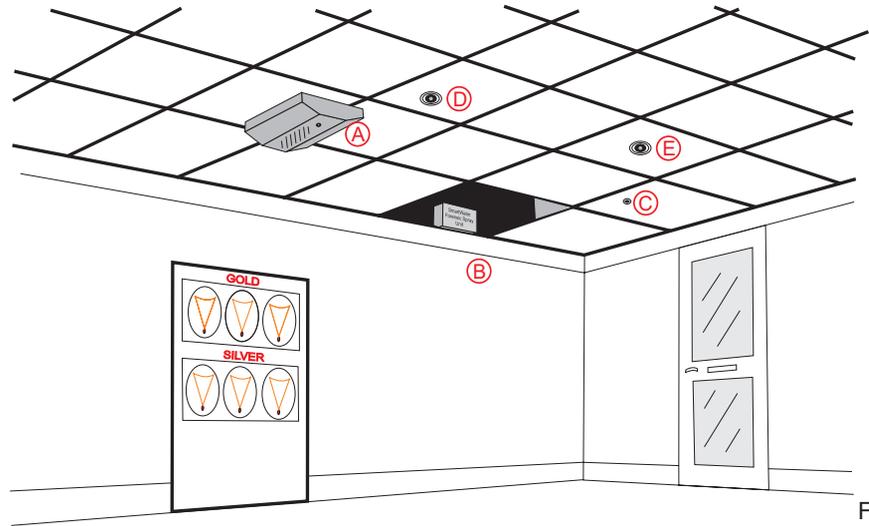


Fig 22

#### STEP 1 - Identify location

The diagram above (fig 22) is a typical layout configuration for the installation of a SmartWater® forensic spray system. However, the SmartWater forensic spray system can be used in other configurations, as required.

Please consider what devices are most suitable to trigger The SmartWater® forensic spray system. The unit will activate approximately 2 seconds after the detection device has been triggered. We recommend that the spray nozzle is installed above the target area with the spray nozzle within 1.5 to 2 metres from the trigger point.

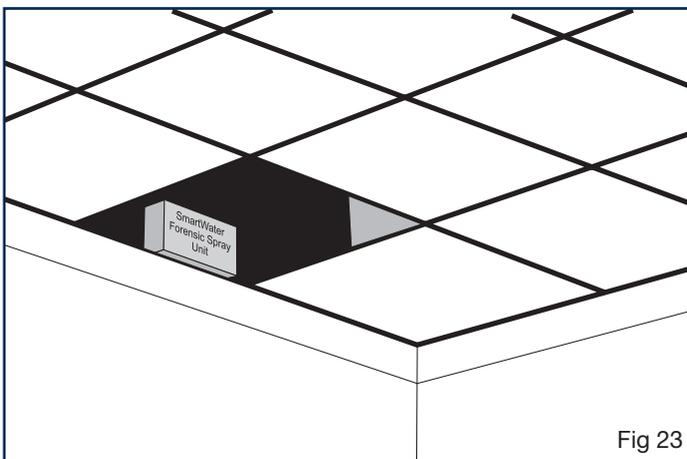


Fig 23

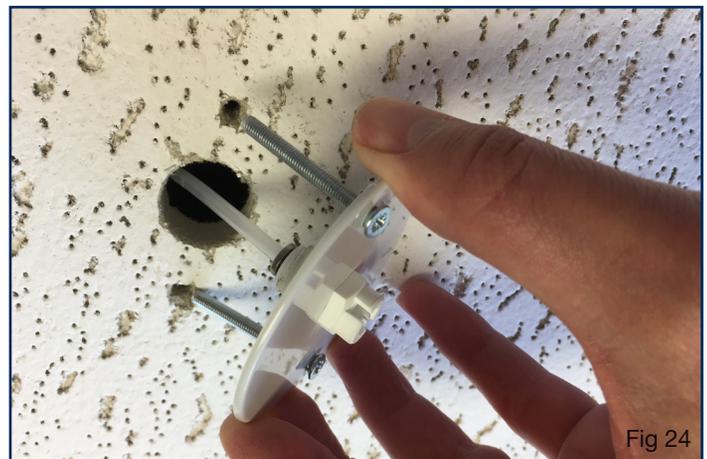


Fig 24

#### STEP 2 - Fixing the SmartWater Spray Unit in place

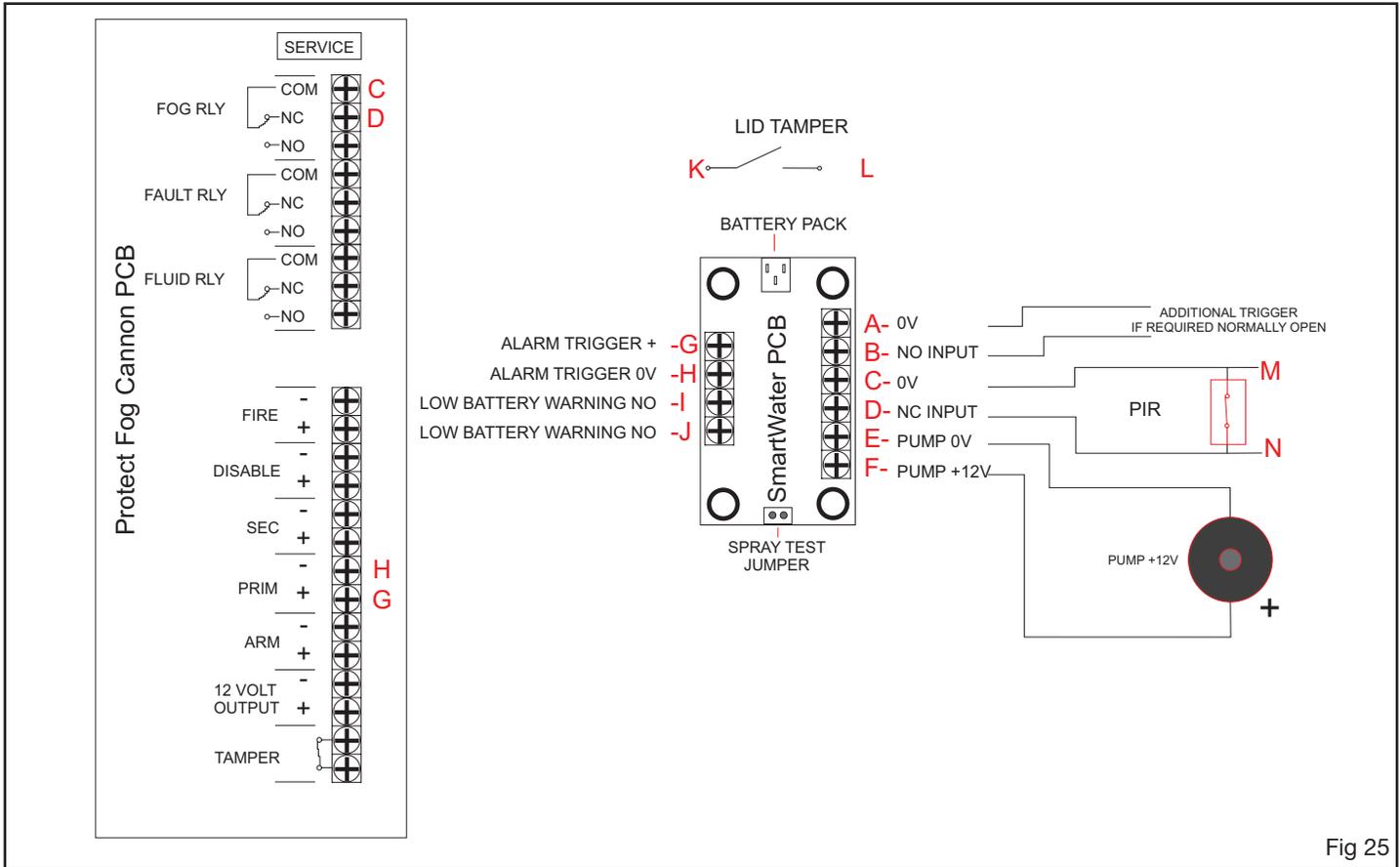
The SmartWater® forensic spray system should be positioned in accordance to the site survey schematic (fig 22), making sure that the unit is in an inconspicuous position. The unit should be fixed securely with the bottle of forensic liquid inside, in an upright position. Install the spray nozzle and tube into the desired position using the provided mounting kit (fig 24). The spray nozzle can be rotated through 180° to give a targeted spray pattern.

NB: To simplify this manual, we have focused on one of our most common install scenarios, fitting a spray system above a false ceiling.

# INSTALLATION GUIDE

SMARTWATER® PROTECT® FOG CANNON (Linked) *continued*

## INSTALLATION OF THE SMARTWATER SPRAY SYSTEM



**STEP 3 - Connect the PCBs**

To avoid unintentional fog emission remove the fluid container from the Protect® fog cannon during installation.

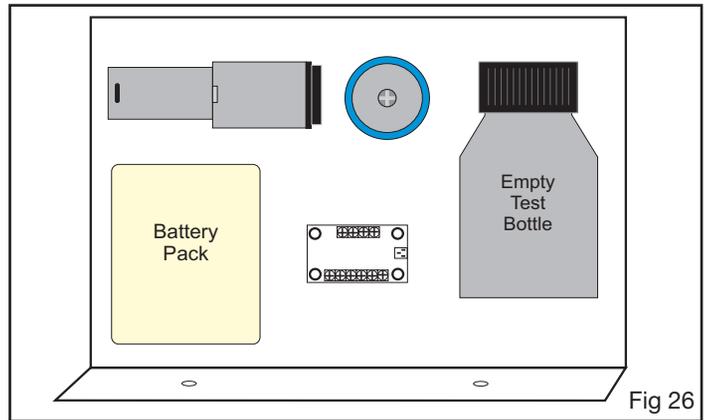
Dress the 8-core cable between the SmartWater® PCB to the Protect® fog cannon PCB (fig 18), using the clips positioned around the edge of the Protect® fog cannon assembly, to ensure adequate clearance of the heating element.

**STEP 4 - Remove Battery and Test bottle**

Remove battery pack and the empty test bottle from the spray unit before the wiring commences (fig 26).

Power the PIR from the intruder panel. **DO NOT** power the PIR from the spray unit directly as this will affect the performance of the SmartWater® forensic spray system.

Make sure the alarm system is in 'Normal Day Mode' before you make the connection to the SmartWater® PCB.



# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Linked) *continued*

### INSTALLATION OF THE SMARTWATER SPRAY UNIT

#### STEP 5 - Affix the Nozzle

Firmly insert the nozzle tube into the push fitment on the outside of the spray unit, making sure it is secure (fig 27).



### TESTING THE SMARTWATER SPRAY SYSTEM

Please refer to the Protect® fog cannon instruction manual to put the fog cannon into test mode during testing.

When the Protect® fog cannon is activated this will arm the SmartWater® forensic spray system. This in turn will make the trigger devices for the SmartWater® forensic spray system and Protect® fog cannon 'Live'. When the individual trigger devices are tripped the SmartWater® forensic liquid will be dispersed from the spray system and keep dispersing for approximately 30 seconds. The Protect® fog cannon will disperse a small amount residue fog.

Before testing the system, insert the battery pack into the SmartWater® PCB. The PCB LED should light up continuously for 3-5 seconds. If the LED flashes refer to 'Troubleshooting' below.

### ARMING THE FORENSIC SPRAY SYSTEM

Reset the control equipment

1. Reset the alarm signal to 'Normal Day Mode'.
2. Reset the spray system PCB (this is completed when the battery is disconnected from and then reconnected to the PCB). *As previously described in the above section 'Testing the SmartWater spray system'.*
3. **REGISTER THE SMARTWATER FORENSIC LIQUID BOTTLE\***
4. Remove the test bottle and install 1x 150ml SmartWater® forensic liquid into the spray system.
5. Secure the spray system lid with screws provided.
6. Replace the fluid container back in the Protect® fog Cannon.
7. Replace the lid of the Protect® fog cannon.

The SmartWater® forensic spray system and Protect fog cannon are now live.

**\*REMEMBER TO REGISTER THE SMARTWATER FORENSIC LIQUID BOTTLE. TURN TO PAGE 21 FOR INSTRUCTIONS HOW TO DO IT**

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# INSTALLATION GUIDE

## SMARTWATER® PROTECT® FOG CANNON (Linked) *continued*

### TROUBLESHOOTING

Please refer to the Protect® fog cannon instruction manual to put the fog cannon into test mode before testing the SmartWater® forensic spray system.

Problem: spray unit pump NOT running:

1. Has a signal been received from the Protect® fog unit? Meter between connections G & H on the SmartWater® PCB, 12 volts should be received.  
If **Yes** move to point **2**, If 12 volts is not present make sure a signal is being sent from the intruder panel?
2. Has the SmartWater® PIR from the Protect® fog unit been powered.  
If **Yes**, move to point **3**. If **No**, make sure 12 volts is present at the PIR.
3. Has the PIR been activated?  
If **Yes**, move to point **4**. If **No**, activate the PIR and check connections C & D on the SmartWater PCB.
4. Check the battery voltage. If less than 11.2 volts replace batteries. Otherwise please contact SmartWater® Technical Support - Tel. 0333 320 7797
5. Is the tubing without kinks, bends and otherwise unobstructed?  
If **Yes**, move to **6**. If **No**, attempt to straighten out the tubing, removing any bends that might obstruct the flow.
6. If the pump is still not running please contact SmartWater® Technical Support - Tel. 0333 320 7797.

Problem: LED on the PCB flashes

1. 1 Flash = Low battery (less than approximately 11.2V)
2. 2 Flashes = 'Normally Closed' input (PIR) is open circuit.
3. 3 Flashes = 'Normally Open' input (pressure mat) is closed circuit.
4. 4 Flashes = Alarm trigger input is active.

Problem: SmartWater not firing from the nozzle:

1. Is the pump running when triggered?  
If **Yes**, move to point **2**. If **No**, refer to trouble shooting section above
2. Look inside the SmartWater device. Is the fluid running from the bottle into the safety valve and out towards the nozzle?  
If **Yes**, move to point **3**, If **No**, please contact the SmartWater® Technical Support - Tel. 0333 320 7797
3. Is the tube to the pump free from kinks and bends and otherwise unobstructed?  
If **Yes**, replace the tubing. If **No**, attempt to straighten out the tubing, removing any bends that might obstruct the flow of the SmartWater® forensic liquid.
4. Is the nozzle free from blockages?  
If **Yes**, please contact the SmartWater® Technical support - Tel. 0333 320 7797.

#### SmartWater Technical Support\*

Tel: 0333 320 7797 – Open 09:00 – 17:00 – Mon to Friday  
Email: enquiry@smartwater.com

If out of working hours, email or leave a voice message and we will get back to you the next working day.

SmartWater® Technology Ltd  
PO Box 136  
Telford  
TF3 3WY

For issues with the Protect® fog cannon - please refer to Protect's support materials.

# REPLACING THE BOTTLE OF SMARTWATER®

## DURING ANNUAL MAINTENANCE

### STEP 1

Place the alarm on test with ARC (if required) and panel into Engineer Mode.

### STEP 2

Remove the outer cover of the SmartWater® forensic spray unit or Protect® fog cannon.

### STEP 3

Remove the out of date bottle of forensic liquid from the SmartWater® spray unit and replace with test bottle (please use the lid from the test bottle to secure old solution ready for return) If testing the integral or linked systems make sure the fog is disconnected to avoid false activation.

### STEP 4

Remove the battery from the SmartWater® spray unit and re-connect after 10 seconds. The LED indicator will stay **RED** for approximately 5 seconds and then turn off.

Invert the intruder signal from the alarm panel, so that there is voltage on connections G and H on the SmartWater PCB. The LED indicator on the SmartWater® PCB will illuminate **RED**.

### STEP 5

Trigger the hold-off device for the SmartWater® forensic spray system, the pump will start to run and flush the system with test solution for a period of approximately 30 seconds.

### FINAL STEP

Remove the battery from the SmartWater® PCB and revert the intruder signal back to its original state.

Remove the empty SmartWater® test bottle and insert the new bottle of SmartWater® forensic liquid (supplied by SmartWater® Technology) into the system. Reconnect the battery to the SmartWater® PCB as in step 4. If testing the integral or linked systems make sure the fog is reconnected to avoid false activation.

Replace the outer cover of the SmartWater® spray unit and return the alarm system back to normal operation (out of Engineer Mode) and inform the ARC (if required) that the system is now live again.

**REMEMBER TO \*REGISTER THE NEW FORENSIC LIQUID WITH SMARTWATER AND RETURN THE OLD FORENSIC LIQUID TO:**

### UK

SmartWater® Technology Ltd  
Telford Technology Park  
Nedge Hill  
Telford  
TF3 3AH

**\*Details of how to register the new forensic liquid can be found on page 21**

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# REPLACING THE BOTTLE OF SMARTWATER®

## AFTER AN ACTIVATION

### STEP 1

Place the alarm on test with ARC (if required) and panel into Engineer Mode.

### STEP 2

Remove the outer cover of the SmartWater® spray unit.

### STEP 3

Remove the used bottle of forensic liquid from the SmartWater® spray system and replace with test bottle.

### STEP 4

Remove the battery from the SmartWater® spray unit and close the test pins with a jumper. Insert and reconnect the battery after 10 seconds.

### STEP 5

The SmartWater® forensic spray system will activate and run for 10 seconds, in effect, flushing the system out.

### STEP 6

If the SmartWater® forensic spray system is not spraying correctly, then change the nozzle and tube then repeat from **STEP 3**.

### FINAL STEP

Remove the battery from the SmartWater® PCB and remove the jumper from the test pins.

Remove the empty SmartWater® test bottle and insert the new bottle of SmartWater® forensic liquid (supplied by SmartWater® Technology) into the system. Reconnect the battery to the SmartWater® PCB as in step 4.

Replace the outer cover of the SmartWater® spray Unit and return the alarm system back to normal operation (out of Engineer Mode) and inform the ARC (if required) that the system is now live again.

**REMEMBER TO \*REGISTER THE NEW FORENSIC LIQUID WITH SMARTWATER AND RETURN THE OLD FORENSIC LIQUID TO:**

### UK

SmartWater® Technology Ltd  
Telford Technology Park  
Nedge Hill  
Telford  
TF3 3AH

**\*Details of how to register the new forensic liquid can be found on page 21**

# HOW TO REGISTER SMARTWATER®

## NEW INSTALLATIONS AND REPLACEMENT BOTTLES (Mobile App)



### STEP 1 - Download the App

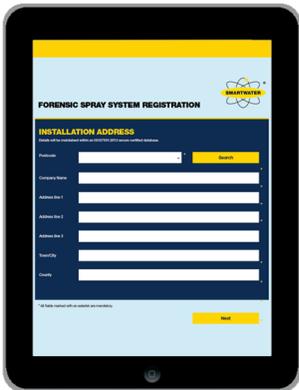
You will first need to visit the Installer Training section of our website (link in **STEP 2**) and create an account. You will then be prompted to complete at least 1 of the 3 available online video courses. Upon completion, you will then be provided with a link to an Installer Resources page, where you will find links to download the App.



### STEP 2 - Login

Once you have downloaded and opened the App, you will need to login, using the details used to access our Installer Training section.

LINK: [www.smartwater.com/course-register](http://www.smartwater.com/course-register)



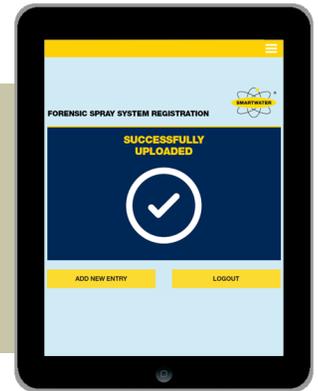
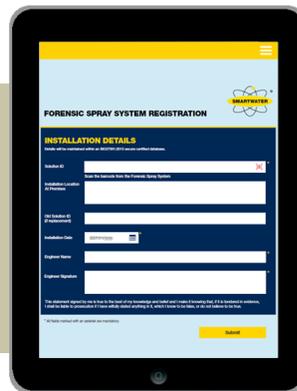
### STEP 3 - Installation Address

Enter the address details of the location / premises where the SmartWater® Forensic Spray System has been installed.

### STEP 4 & 5 - Bottle Details & Submission

Now you will need to enter details of the bottle. First press the Barcode Scanner button to open the camera\* and scan the barcode on the bottle. Then proceed to complete the remaining fields - please note that you will need to provide a signature here. Press Submit and the Upload Successful screen should appear.

\*You may need to enable camera permissions on your device first



To register Online go to: [www.smartwater.com/registration](http://www.smartwater.com/registration)

# THE POWER OF THE SMARTWATER DETERRENT

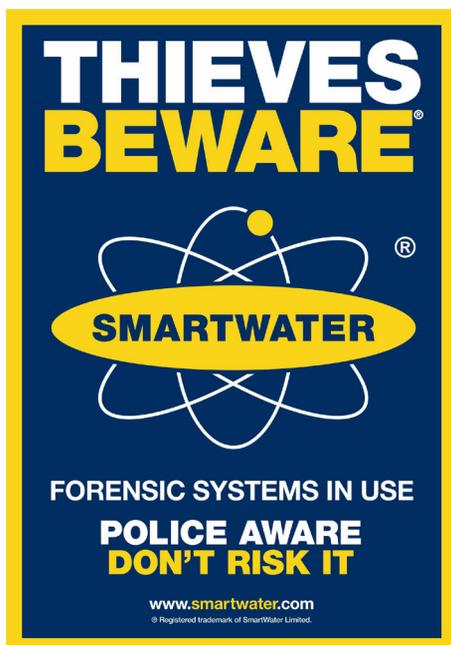
## APPLICATION OF SMARTWATER® DETERRENT SIGNAGE

**9 out of 10 of our clients suffering no further attacks, following the install of a SmartWater® forensic security system.\***

\*Based on installations carried out between November 2005 - January 2018

SmartWater Thieves Beware® deterrent signs are best displayed in areas visible prior to entry of the location, such as a shop display window or entrance doors, deterring criminals before they gain entry to the site.

Additionally, placement of signage in high-risk areas such as cash offices or displays of high-value stock is also recommended.



Thieves Beware® labels for Standalone system.



Thieves Beware® labels for integrated and linked systems.

Each SmartWater® forensic spray system includes a supply of Thieves Beware® deterrent signage.

Displaying this signage proves that the customer is actively protecting and deterring criminals from theft, robbery or out-of-hours burglary.

**IT IS THE RESPONSIBILITY OF THE SERVICE ENGINEER TO PLACE THE SMARTWATER SIGNAGE CORRECTLY OR TO CHECK THAT EXISTING SIGNAGE IS IN PLACE, CORRECTLY POSITIONED AND NOT DAMAGED.**

Please call 0333 320 7797 to order additional or replacement signage.

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## HEALTH & SAFETY

Please keep out of the reach of children.

Please clean up spillages immediately – they are likely to be slippery underfoot

If you do spill SmartWater® forensic liquid, please notify SmartWater® of the forensic liquid ID.

SmartWater® forensic liquid is non-hazardous but will tend to stick to surfaces, gloves and eye protection are recommended during installation.

If SmartWater® forensic liquid comes into contact with your eyes during installation, rinse with plenty of water for at least 15 minutes.

If SmartWater® forensic liquid comes into contact with your skin during installation, immediately wash the area with soap and water.

If you swallow SmartWater® forensic liquid during installation, wash out your mouth with water and consult your doctor if any symptoms develop.



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If you require our assistance please contact us on  
**0333 320 7797** or email [enquiry@smartwater.com](mailto:enquiry@smartwater.com)

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[www.smartwater.com](http://www.smartwater.com)