

# AMBIC®

## FLASH'n'TEXT



**OPERATING INSTRUCTIONS**  
**MODE D'EMPLOI • ANLEITUNG**

*leading best practice in livestock health management*

Fig. 1 – SYSTEM LAYOUT – SHOWING FLOAT ASSEMBLY CONNECTIONS & CONTROLS

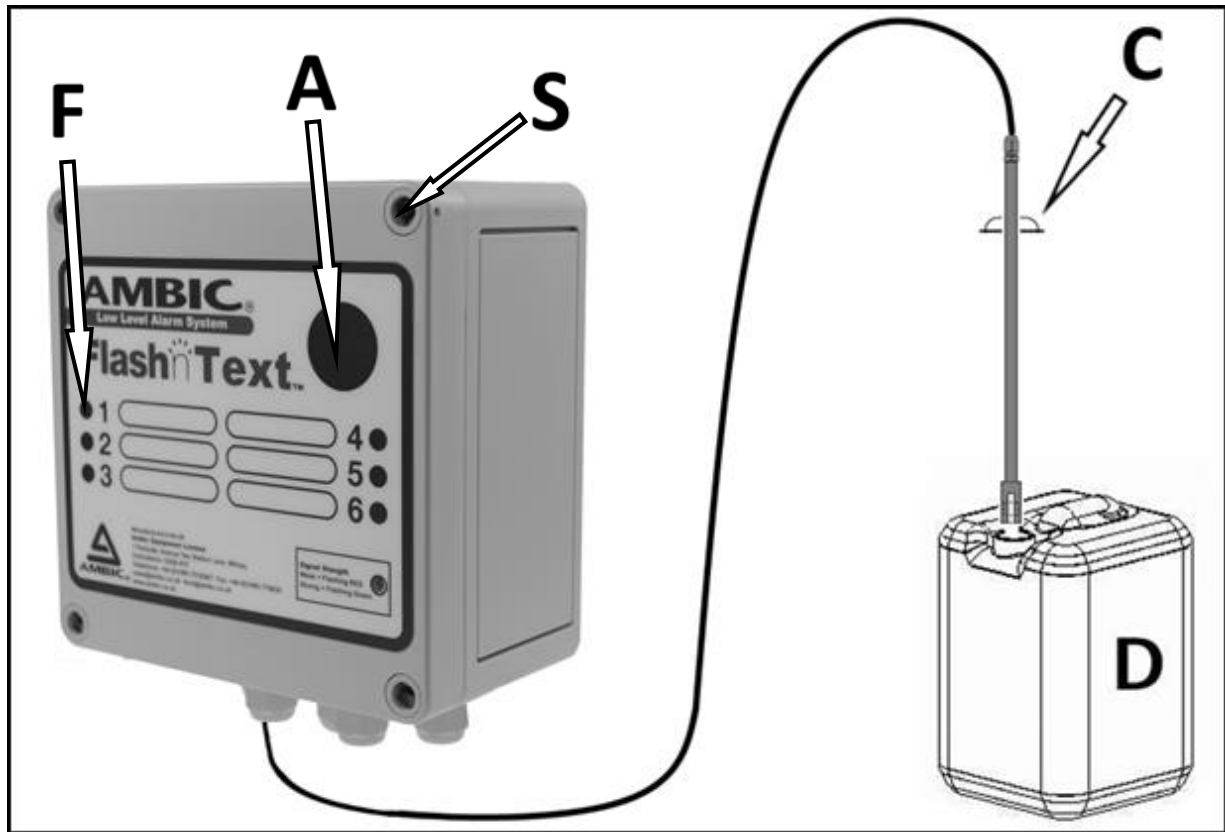
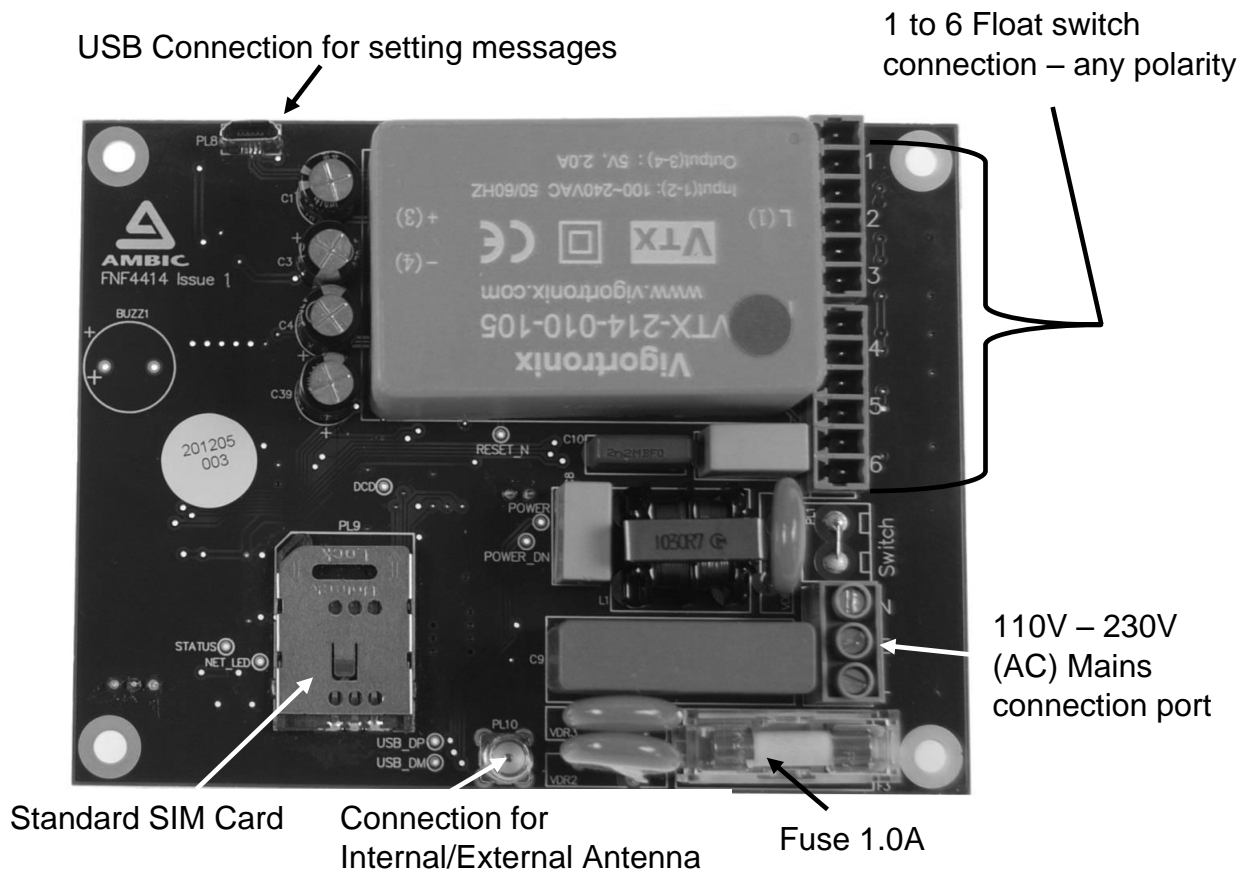


Fig. 2 – PCB LAYOUT – SHOWING TERMINAL CONNECTIONS



## Introduction

The Ambic **Flash'n'Text™** is used to detect low levels in various chemical containers and give an early visual warning to the user and an sms text to a programmed mobile number. Chemicals can then be replenished before containers become empty, to ensure consistent and reliable dispensing. As many as 6 different chemical containers can be monitored simultaneously - each using its own Lance (Float) Assembly. Up to six mobile numbers can be programmed to receive a message when the drum is becoming empty.

## Safety

**Flash'n'Text™** is designed exclusively for use in milking installations. Any application outside of the use described in this operating manual will be taken to be not in accordance with the intended purpose. The manufacturer/supplier will not be held responsible for any losses arising as a result of such use. The user will take full responsibility for use. **USE IN ACCORDANCE WITH THE INTENDED PURPOSE ALSO INCLUDES COMPLYING WITH THE OPERATING MANUAL AND THE CONDITIONS FOR INSPECTION AND MAINTENANCE.**



**CAUTION:** *Always wear protective clothing and protective eyewear when handling or dispensing chemicals or any other materials. Observe the safety handling instructions (MSDS) of the chemical manufacturers.*

## Installation (refer to Fig. 1 & 2)

**Electrical Installation** - should ideally be carried out by a Qualified Electrician – EXCEPT where a suitable waterproof plug outlet is available. **THIS ELECTRICAL SUPPLY SHOULD BE PROTECTED BY AN APPROPRIATE EARTH LEAKAGE CIRCUIT BREAKER.**

The enclosure is rated at IP55 (IEC 60529) and should be positioned outside of the range of direct water jets and close to a 110 –230V AC power outlet. The 3-core power supply cord **MUST** remain accessible when the unit has been installed and **MUST** be connected to Earth.



**CAUTION:** *To avoid severe or fatal shock, always disconnect Mains Power before servicing the unit.*

The **Flash'n'Text™** enclosure should be positioned at a convenient height (no more than 2 metres vertically above the floor) and no more than 10 metres distant from the chemical container(s) being monitored. Unscrew the 4 lid fixing screws, and allow the lid to be supported by the mains input lead.

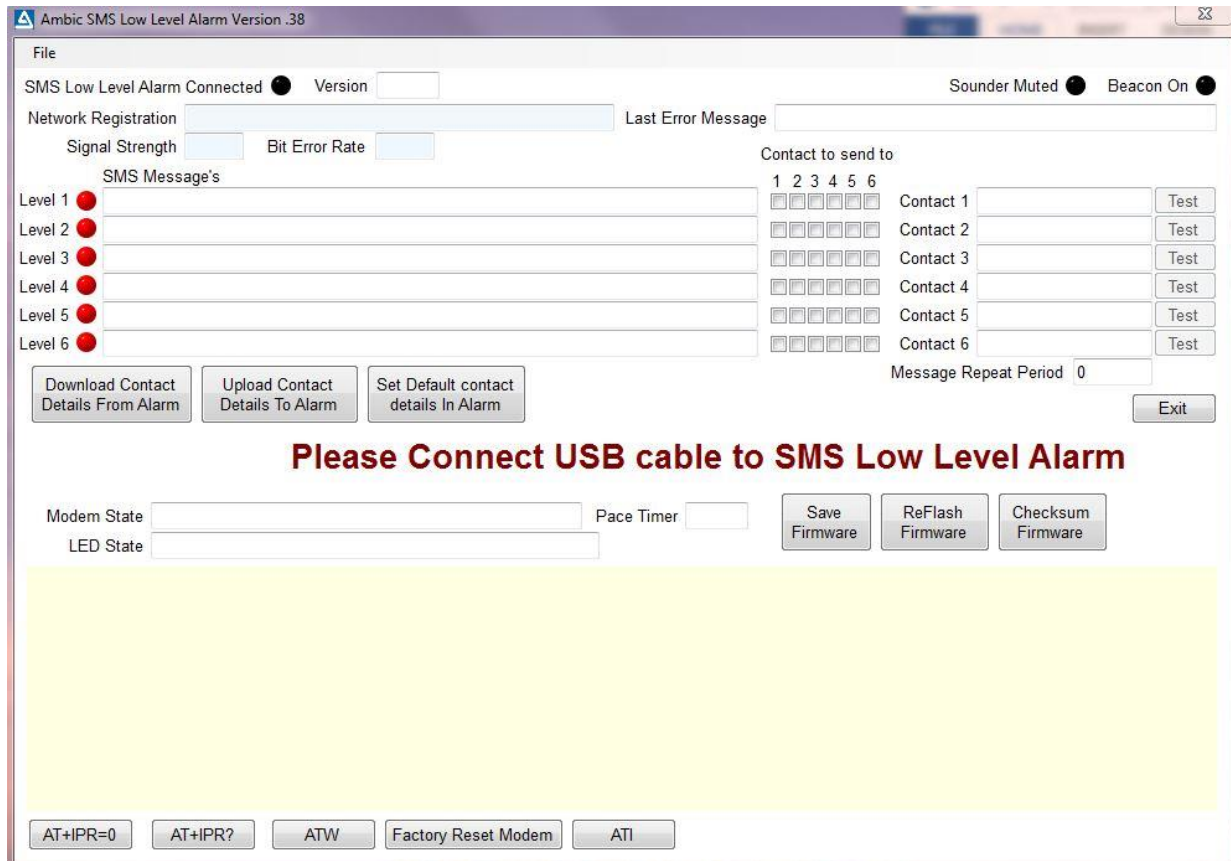
Use the drilling template (Page 11) to mark out screw positions and fix the enclosure to a suitable flat vertical wall, using the 2 screws and plastic plugs supplied.

## Initial PC Software Installation

The PC Software supplied, “Ambic SMS Low Level Alarm Version .\*\* ”, must be installed on either a Laptop or Desktop PC to enable programming of the mobile telephone numbers and warning “SMS Messages”.

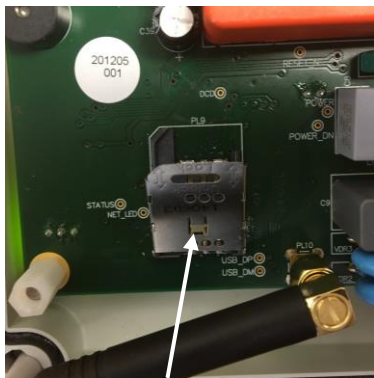
Open the PC Software on your PC; the screen will look similar to screen 1 below:

Screen 1



## SIM Card Fitting

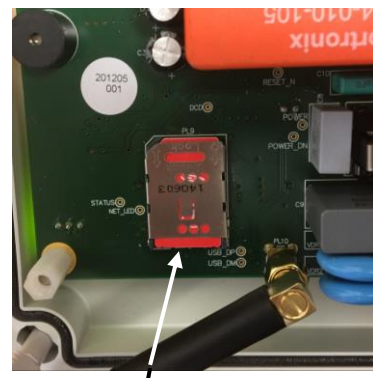
To fit the local Standard SIM card:



Open the SIM Card holder



Place the SIM card face down



Close the SIM Card holder

## Ambic Equipment Ltd – Flash'n'Text™ - Operating Notes

### USB Connection

Connect the USB cable from your PC to **Flash'n'Text™** unit. DO NOT CONNECT THE MAINS POWER AT THIS POINT.



Open the Ambic SMS Low Level PC Software installed and screen 2 (below) will be displayed:



### Screen 2

Ambic SMS Low Level Alarm Version .38

File

SMS Low Level Alarm Connected ● Version 0.35

Network Registration 0:Not registered on Network, Not searching Last Error Message

Signal Strength 99 Bit Error Rate 99

SMS Message's

Level	Message	1	2	3	4	5	6
Level 1	Low Level 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level 2	Low Level 2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level 3	Low Level 3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level 4	Low Level 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level 5	Low Level 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Level 6	Low Level 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Download Contact Details From Alarm Upload Contact Details To Alarm Set Default contact details In Alarm

Sounder Muted ● Beacon On ●

Contact to send to

Contact	1	2	3	4	5	6
Contact 1	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contact 2	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contact 3	0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contact 4	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contact 5	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Contact 6	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Message Repeat Period 60

Exit

Modem State 16:MODEM\_CHECK\_REGISTRATION Pace Timer 0

LED State 3:LED\_ON\_NETWORK\_NO\_SIGNAL\_STRENGTH

Save Firmware ReFlash Firmware Checksum Firmware

AT+IPR=0 AT+IPR? ATW Factory Reset Modem AT

### Programming the Mobile Numbers.

When screen 2 is displayed it is safe to start programming the numbers, and warning messages, chosen for the contact number selected. The same message can be sent to up to five numbers (1 to 5). The sixth contact number is reserved for information only, i.e. the Farmer – he will not be able to change any of the settings. Any of the mobile numbers can be changed at a later date.

Where the contacts 1 to 5 can send any one or all of the messages below, the action or reply from the unit (to the mobile) is in italic bold.

The message can be up to sixty characters long giving details of the chemical and site information where the chemical is required. The tick box “Contact to send to” is to whom the message should be sent and can be more than one person. This could be direct to a chemical supplier, or the purchasing department that orders new chemical, etc.

The following functions are available for contacts 1 to 5, from their mobile phone. Once the mobile numbers and messages are programmed click on “Upload Contact Details to Alarm”. This will load all the new information onto the unit being programmed.

If for any reason the settings need to be checked/changed click on “Download Contact Details from Alarm”. Change any details as necessary (i.e. mobile number or message) and save the updated information by clicking on “Upload Contact Details to Alarm”.

### Functions available from a Mobile phone.

1. Repeat=xxx

The default value is 60 minutes.

*Delay of xxx minutes before the next message. Text received back is “Repeat Time set to xxx minutes”*

2. Status

Will text back with the following list:

**SMS Low Level Alarm**

**Version 0.38**

**Signal Strength in %**

*If in alarm state then will advise which drum empty (e.g. “Drum 1 empty”) or will state “All Clear” no alarm*

**Repeat time xxx minutes**

3. Stop

*Only stops the repeat alarm.*

4. Mute

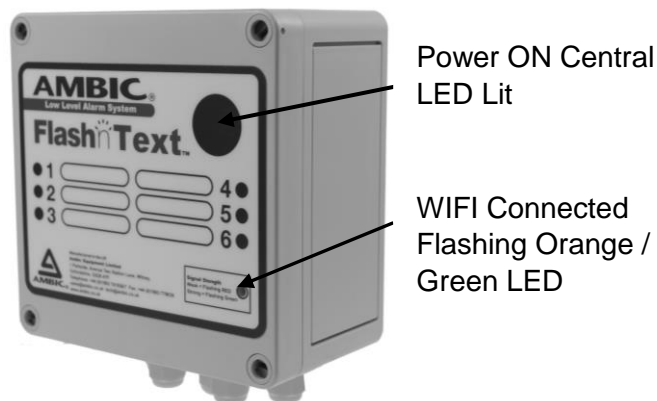
*If Sounder fitted then it can be muted remotely. Text back with “Sounder has been muted”*

**Float Assembly Installation** – Lance Assemblies (of various lengths) all use low voltage magnetic float switches and should be fitted through the lid/cap (**C**) of the chemical container BEFORE connection to the PCB.

- Remove the lid/cap (**C**) completely from the chemical container (**D**) and rinse and dry thoroughly.
- Drill a 16mm diameter (minimum) hole in the centre of the lid/cap (**C**) and remove any drilling swarf. Remove any collar fitted to the lance, and then thread the Float Assembly lead through the lid/cap from the INNER SIDE until the cable gland appears through the top (Outside).
- Drop the large end of the float assembly into the container (**D**), until it rests on the base, then replace and tighten the cap. Replace any collar over the lead to be fitted on the Lance Assembly.
- Route the Float assembly electrical lead to the **Flash’n’Text™** enclosure and secure it in one of the cable glands (leaving sufficient spare wire inside to attach to PCB).
- Connect the two float leads to the pair of terminals on the appropriate terminal block (**1 to 6**) – see Fig. 2) – 2 blocks of 6 are supplied and should be pulled off the PCB for ease of connection.
- Re-fit lid ensuring 4 screws are not overtightened.
- Label each Float Assembly with its chemical name, using an indelible pen, in the space beside the appropriate numbered LED (**F 1 – 6** in Fig. 1).

### Connecting the Power

Connect the Mains Power to the unit and switch ON. The centre LED on the beacon will be lit “RED” indicating that the power to the unit is ON. The Signal strength LED on the unit will be off; it will start flashing RED and when the WiFi connection is made it will flash red or orange indicating average signal strength, or flash green for excellent signal strength. This process could take up to ten minutes.



If after approximately 10 minutes from switch ON the Signal Strength LED not changed to Flashing Amber or Green, this indicated weak signal, and therefore, it may be necessary to change the Internal Antenna to an External Antenna.

To do this, switch the unit off and remove the internal Antenna. Take the external Antenna and fit it through the large cable gland by moving the mains power to the other gland and connecting it to the Antenna port.



## Initial Setting Up & Operation (refer to Fig. 1)

Once all Float assemblies are installed in their containers and connected, test the operation of the system as follows (it is assumed that ALL chemical containers are full above the minimum level):

- Plug the Mains power lead into a suitable socket and switch ON the power. The central part of the Large LED display (**A**) will illuminate and stay illuminated to indicate Power ON. All 6 Float Assembly LEDs (**F 1 – 6**) will illuminate for about 1 second then go OFF.
- After this start-up phase ONLY the central part of the Large LED display (**A**) will illuminate and stay illuminated to indicate Power ON, unless a Float switch indicates a low chemical.
- **Test each float switch** by lifting it clear of the chemical to simulate Low Level. **Immediately a Low Chemical Level is detected** the system will act as follows:-
  - The appropriate numbered LED (**F 1 - 6**) will illuminate.
  - The sounder will sound (if fitted).
  - The whole area of the Large LED display (**A**) will illuminate and flash once per second.
  - A text message will be sent if the Alarm continues for 10 minutes, and will continue to send text messages at intervals set by “**Repeat=xxx**” until “**Stop**” message received.
- Once the Float is immersed in chemical to above the minimum level, the LEDs extinguish (except for the Power ON LED).
- If more than 1 monitored chemical container becomes “empty” then each will be indicated by illumination of their respective LED (**F 1 – 6**) and the appropriate text messages being sent.

**NOTE:** In order to better select the advance low chemical warning given on larger containers, the longest Lance Assembly (for 200L, or IBC containers) has a collar on the Lance which can be adjusted to lift the float higher off the base of the container, thereby leaving more chemical in the container.

## Chemical Suitability & Warranty

The immersible components of the Float Assembly are composed of PVC and Polypropylene and are resistant to attack by most chemicals commonly found in Milking Installations. However, the manufacturer does not accept responsibility for failure of the Float Assembly due to mishandling, misuse, or chemical damage **Before using the Float Assembly with a new/unfamiliar chemical please contact the chemical manufacturer in advance to ensure suitability.**

All Ambic Equipment products are warranted against defects in material and workmanship for a period of ONE year. All electronic control boards have a TWO year warranty. Warranty applies only to the replacement or repair of such parts when returned to factory with an Ambic Return Authorisation number, and found to be defective upon factory authorised inspection. Warranty does not cover liability resulting from performance of this equipment nor the labour to replace this equipment. Product abuse or misuse voids warranty.

## Use of Flash’n’Text™ with Alternative Float Switches

The **Flash’n’Text™** unit can be used with alternative Float Assemblies which use magnetic type low voltage switches. If, during testing/set up, the **Flash’n’Text™** appears to operate “in reverse” (i.e. the beacon is flashing with the Float Assembly in a full chemical container, but shuts off when the assembly is lifted out) then reverse the magnetic float.



### **Conditions for Inspection & Maintenance.**

Regularly check the condition of the Float Assemblies and wires.

Ensure that the SIM has enough credit to send messages.

Ensure that the unit has not been damaged in any way.

### **Specifications**

<b>Power Source</b>	(230V or 110V AC)	•	<b>120-240V AC 50Hz</b>
	<b>– Fuse (size 20mm x 5mm)</b>	•	<b>T 1A</b>
<b>Maximum No. of Monitored Float Applicators per Unit</b>		•	<b>6</b>
<b>Maximum Length of Cable to Float Assembly</b>		•	<b>10 Metres *</b>
*(as supplied - but can be extended)			
<b>Operating Temperature</b>		•	<b>5 – 40 °C</b>

### **Parts Listing**

Float Switch Assemblies are available to suit 5-10L, 20-25L, 50-60L, 200L or IBC containers:-

- AFF/200-35-10 – Flash’n’Fill™ Lance for 5-10 Litre Container.
- AFF/200-50-10 – Flash’n’Fill™ Lance for 20-25 Litre Container.
- AFF/200-75-10 – Flash’n’Fill™ Lance for 50-60 Litre Container.
- AFF/200-110-10 – Flash’n’Fill™ Lance for 200 Litre Container or IBC.
- AFF/410 – GSM External Antenna.



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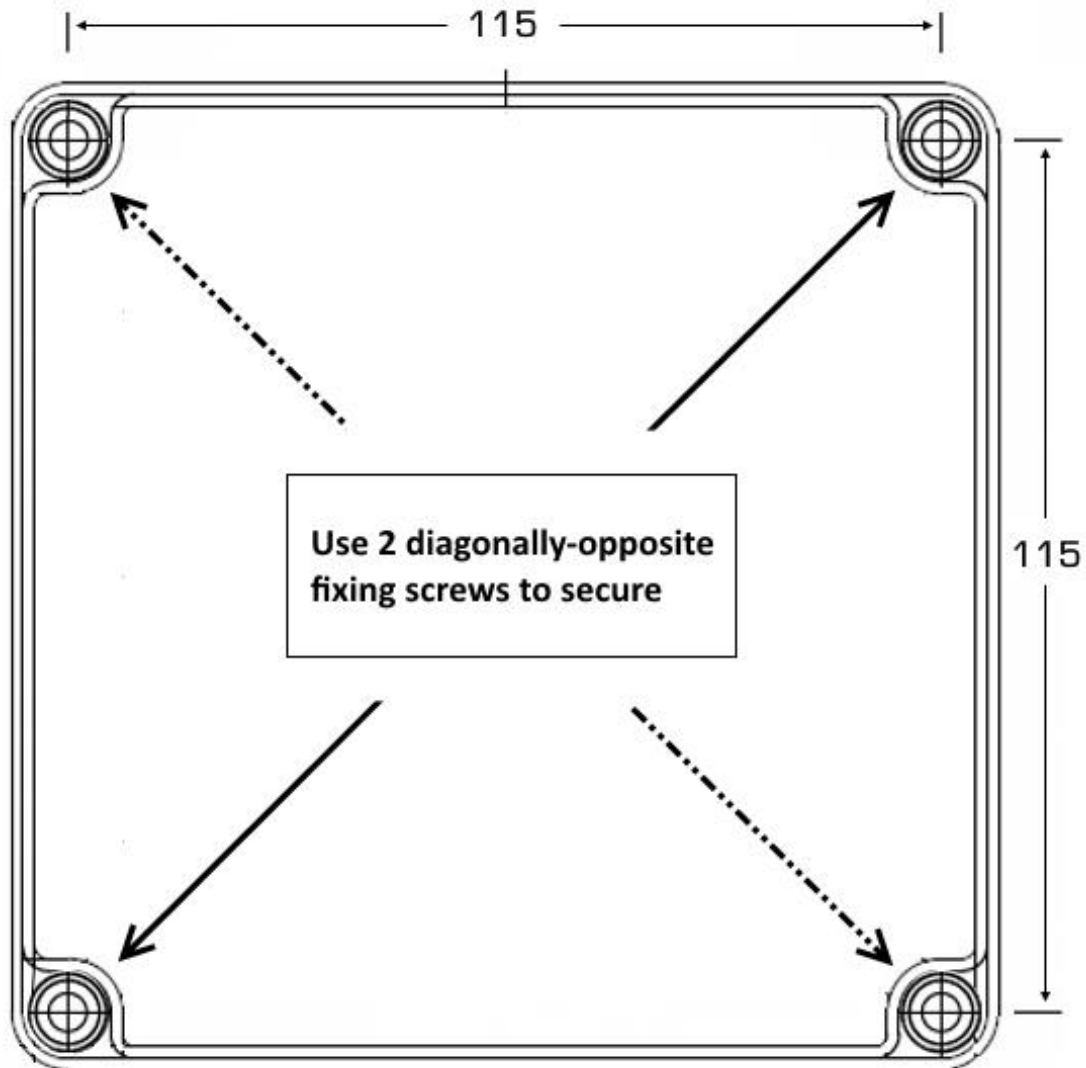


## DRILLING TEMPLATE / MODÈLE DE PERÇAGE / BOHRSCABLONE

GB - Use the template below to mark out fixing holes for the enclosure.

F - Se servir du modèle ci-après pour disposer les points de fixation du coffret.

D - Anhand der Bohrschablone hinunter.



## FOOTNOTE

The information and specifications included in this publication were in effect at the time of approval for printing. Ambic Equipment reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatsoever.



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