

AMBIC®

FlashⁿFill™



OPERATING INSTRUCTIONS

leading best practice in livestock health management

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

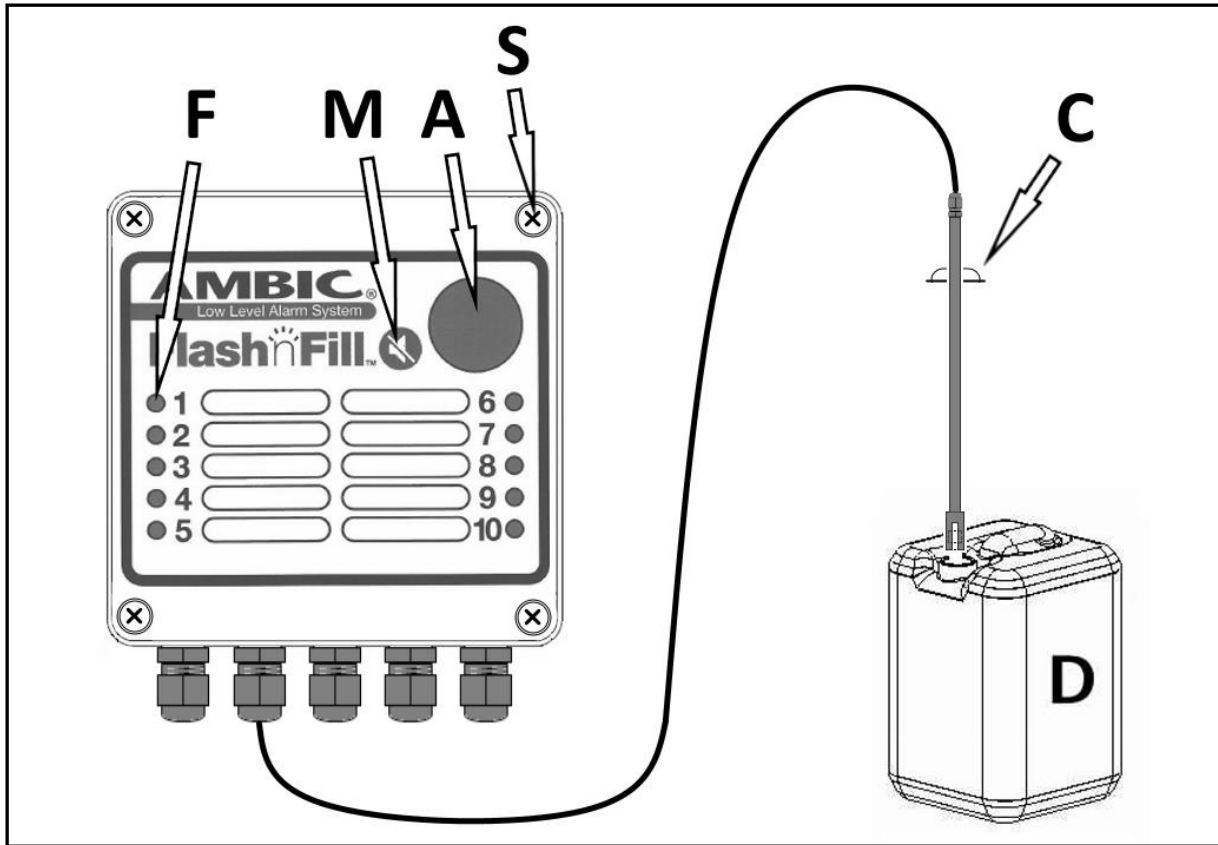
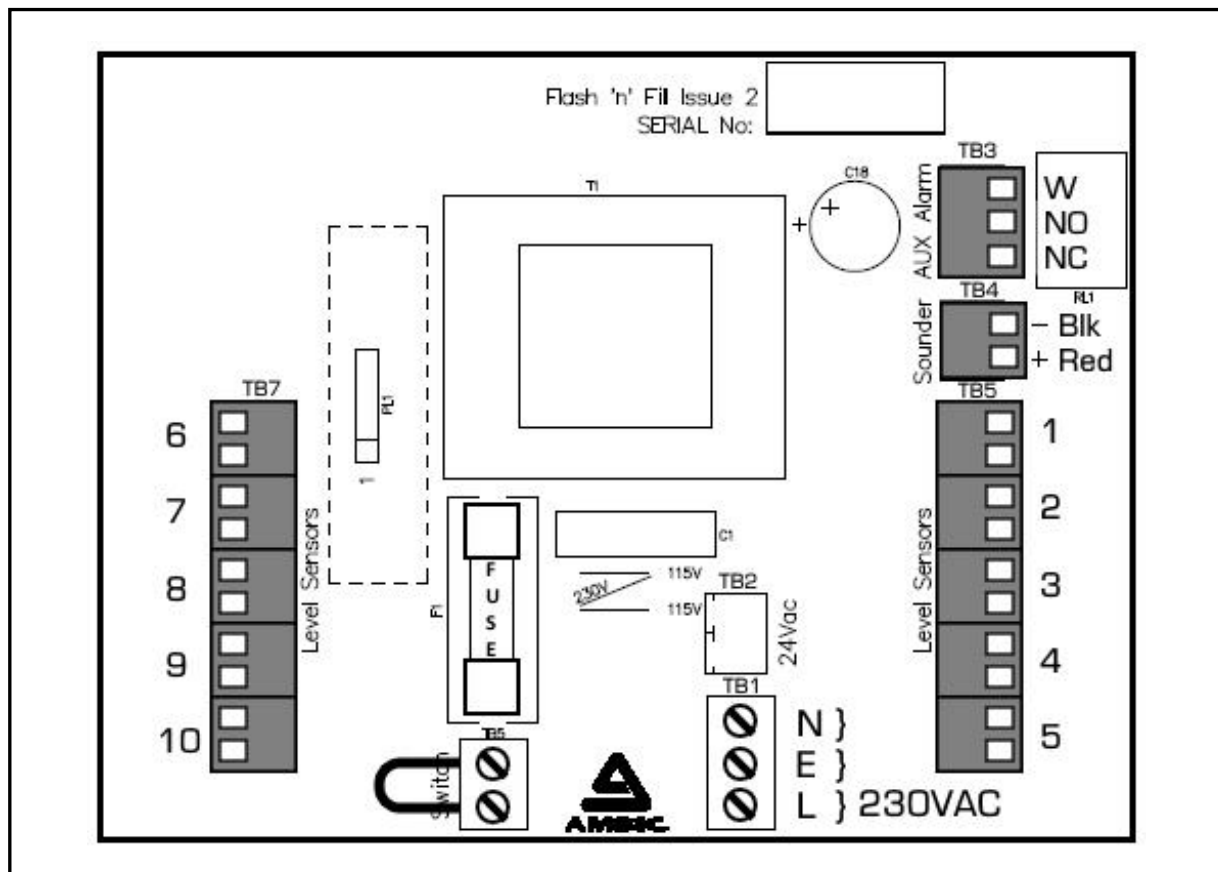


Fig. 2 – PCB LAYOUT – SHOWING TERMINAL CONNECTIONS



Ambic Equipment Ltd – Flash'n'Fill™ Operating Notes

Introduction

The **Flash'n'Fill™** Low Level Alarm system is used to detect low levels in various chemical containers and give an early audio and visual warning to the user. Chemicals can then be replenished before containers become empty, to ensure consistent and reliable dispensing. As many as 10 different chemical containers (depending on model) can be monitored simultaneously - each using its own Lance (Float) Assembly.

Safety

The **Flash'n'Fill™** Low Level Alarm system is designed exclusively for use in milking installations. Any application outside 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.**

WARNING – ALWAYS wear protective clothing and eyewear when handling chemicals. Observe the safety handling instructions (MSDS) of the chemical manufacturers.

Installation (refer to Fig. 1 & 2 opposite)

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 220–240V AC power outlet (Power consumed: < 5W). The 3-core power supply cord MUST remain accessible when the unit has been installed and MUST be connected to Earth.

WARNING – ALWAYS DISCONNECT unit from Mains Power before opening enclosure lid.

The **Flash'n'Fill™ 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, unplug the Alarm Sounder lead from the PCB and allow the lid to be supported by the mains input lead.

Use the drilling template (Page 6) to mark out screw positions and fix the enclosure to a suitable flat vertical wall, using the 2 screws and plastic plugs supplied.

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 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'Fill™ 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 of the appropriate terminal block (TB5 & TB7 - **1** through **10** – see Fig. 2 opposite) – blocks may be pulled off PCB for ease of connection.
- Reconnect Alarm Sounder terminal block and 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 - 10** in Fig. 1).

Ambic Equipment Ltd – Flash'n'Fill™ Operating Notes

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 10 Float Assembly LEDs (**F 1 - 10**) 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 - 10**) will illuminate.
 - Sounder will operate continuously.
 - The whole area of the Large LED display (**A**) will illuminate and Flash once per second.
- Once the Float is immersed in chemical to above the minimum level, the Sounder will stop and LEDs extinguish (except for the Power ON LED).
- **To Mute Sounder** whilst replenishing chemical, PRESS Button (**M**) to left of Large LED display (**A**).
- If more than 1 monitored chemical containers become “empty” then each will be indicated by their respective LEDs (**F 1 - 10**) being illuminated.

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 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 Authorization number, and found to be defective upon factory authorized 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'Fill™ with Alternative Float Switches

The **Flash'n'Fill™ enclosure** can be used with alternative Float Assemblies which use magnetic type low voltage switches. If, during the testing/set up the **Flash'n'Fill™** appears to operate “in reverse” (i.e. the alarm sounds with the Float Assembly in a full chemical container, but shuts off when assembly lifted out) then reverse the magnetic float (or, where 3 wires are present, reverse the float switch connections).

Remote On/Off Control of Flash'n'Fill™

The **Flash'n'Fill™ enclosure** can be powered On/Off remotely. If the link connecting the 2 screw terminals - located on the PCB directly below the Fuse (labelled “Switch” TB6 in Fig. 2) - is removed then it can be replaced with a switch (or relay terminals) rated at Mains Voltage (230V AC) to control when the unit is operational.

Ambic Equipment Ltd – Flash'n'Fill™ Operating Notes

Specifications

Power Source (24V AC, or 110V AC possible)	• 220-240V AC 50Hz Max. 5W
– Fuse (size 20mm x 5mm)	• T 100mA
Maximum No. of Monitored Float Applicators per Unit	• 6 or 10 (depends on Model)
Maximum Length of Cable to Float Assembly *(as supplied - but can be extended)	• 10 Metres *
Operating Temperature	• 5 – 40 °C

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.



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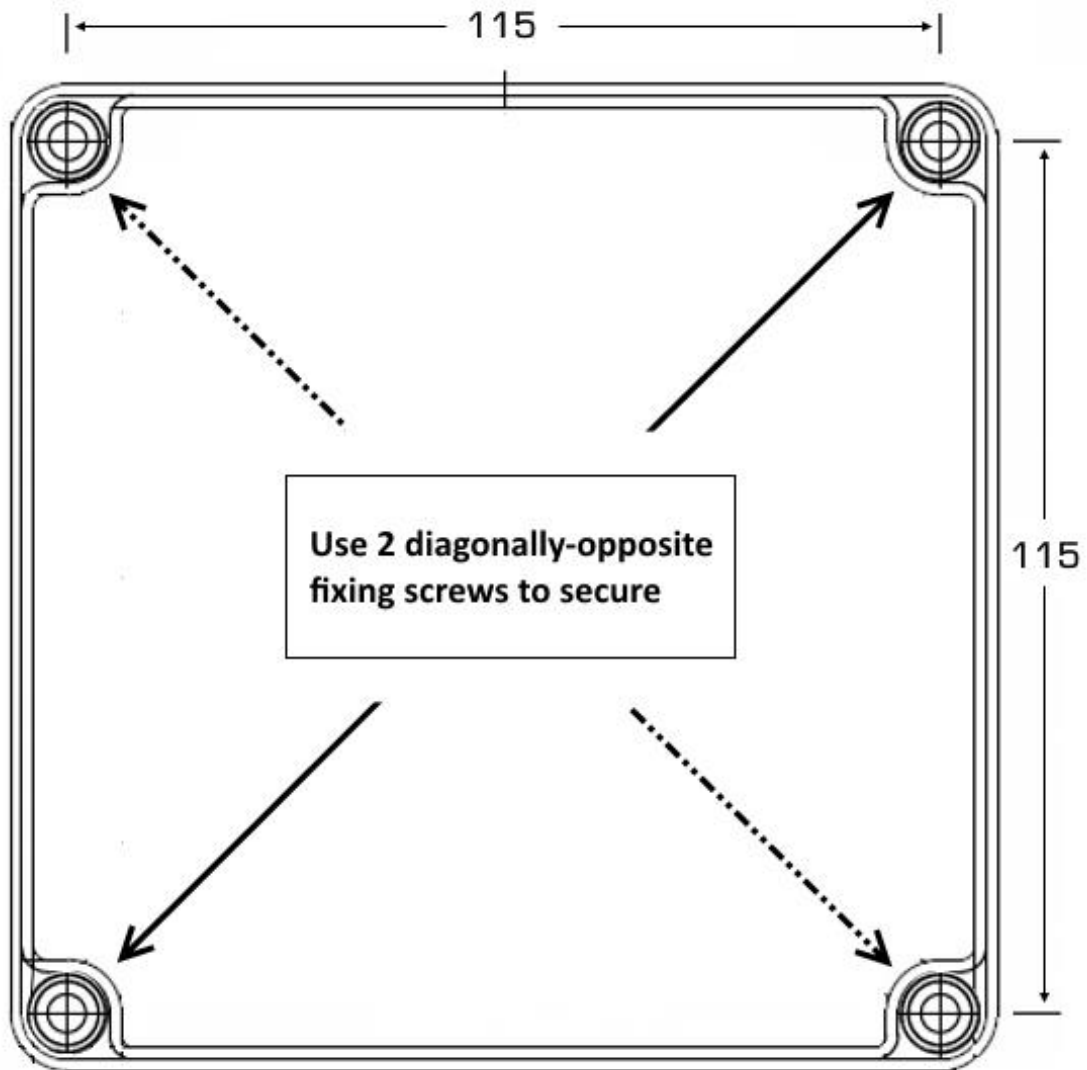
1 Parkside, Avenue Two, Station Lane,
Witney, Oxfordshire, OX28 4YF. England
Tel: +44 (0)1993 776555 Fax: +44 (0)1993 779039

www.ambic.co.uk

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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.

