



Installation / Wiring / Operation Instructions for “High / Low Level Alarm” and float switch, With following Wallace Sewage / Wastewater pump models W-750SK, W-750SV, W-400, JX-400S, JX-180.

PLEASE READ ALL INSTRUCTIONS PRIOR TO PROCEEDING WITH ANY WORK

A permit may be required. Check with the plumbing and drainage and the electrical inspectors before installation. Local regulations may stipulate additional installation requirements.

AFTER INSTALLATION, THE INSTALLER MUST HAND THIS MANUAL TO THE OWNER FOR THE PROPER OPERATION AND MAINTENANCE OF THE UNIT. Failure to do so will result in the installer being liable under current legislation for future claims resulting from incorrect operation or servicing or any damages including third party.



WARNING
 Observe Local
 Authority Requirements
 For installation Restrictions

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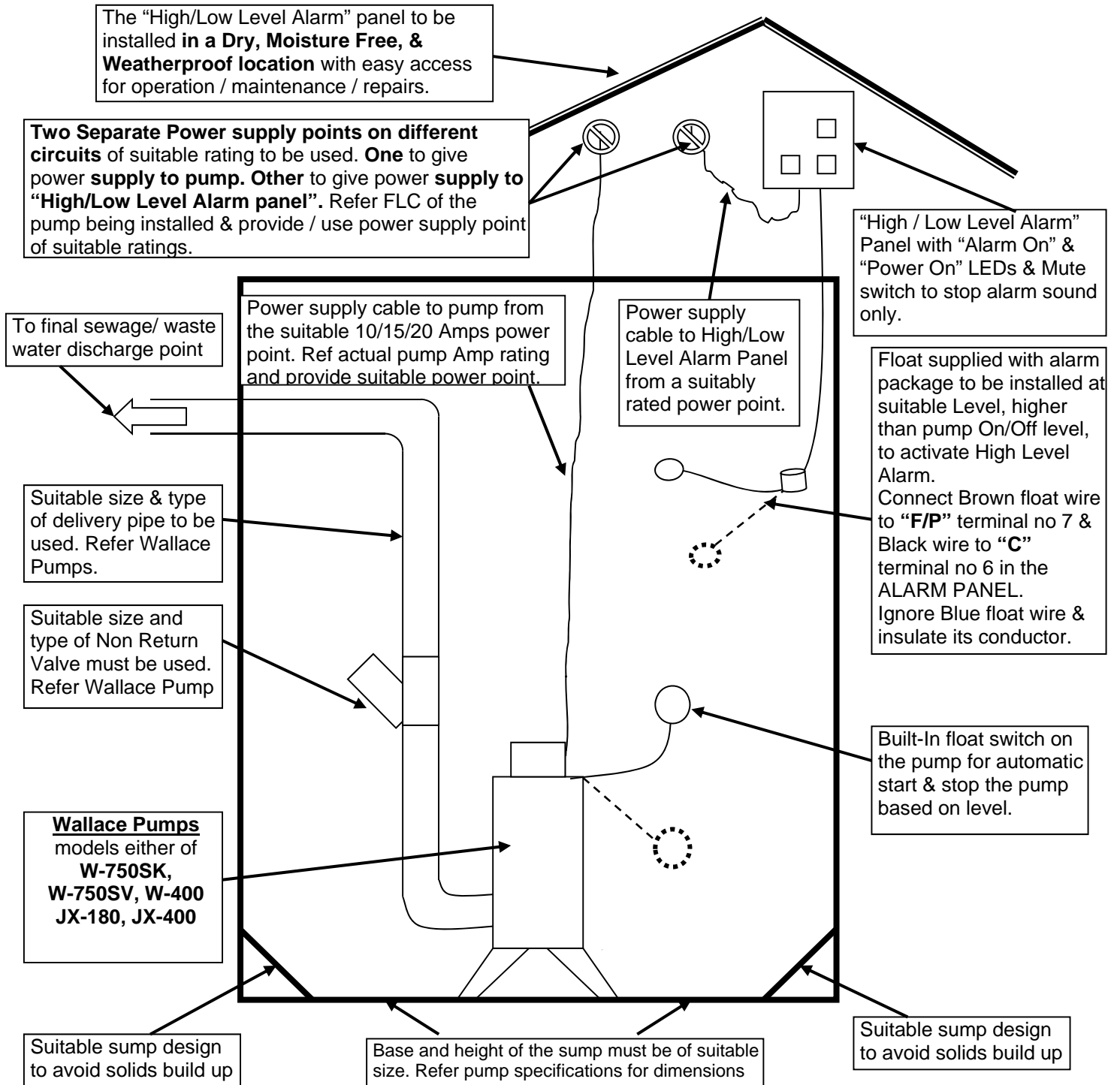
Limitations: We reserve the right to change these instructions and improve the product without prior notice.

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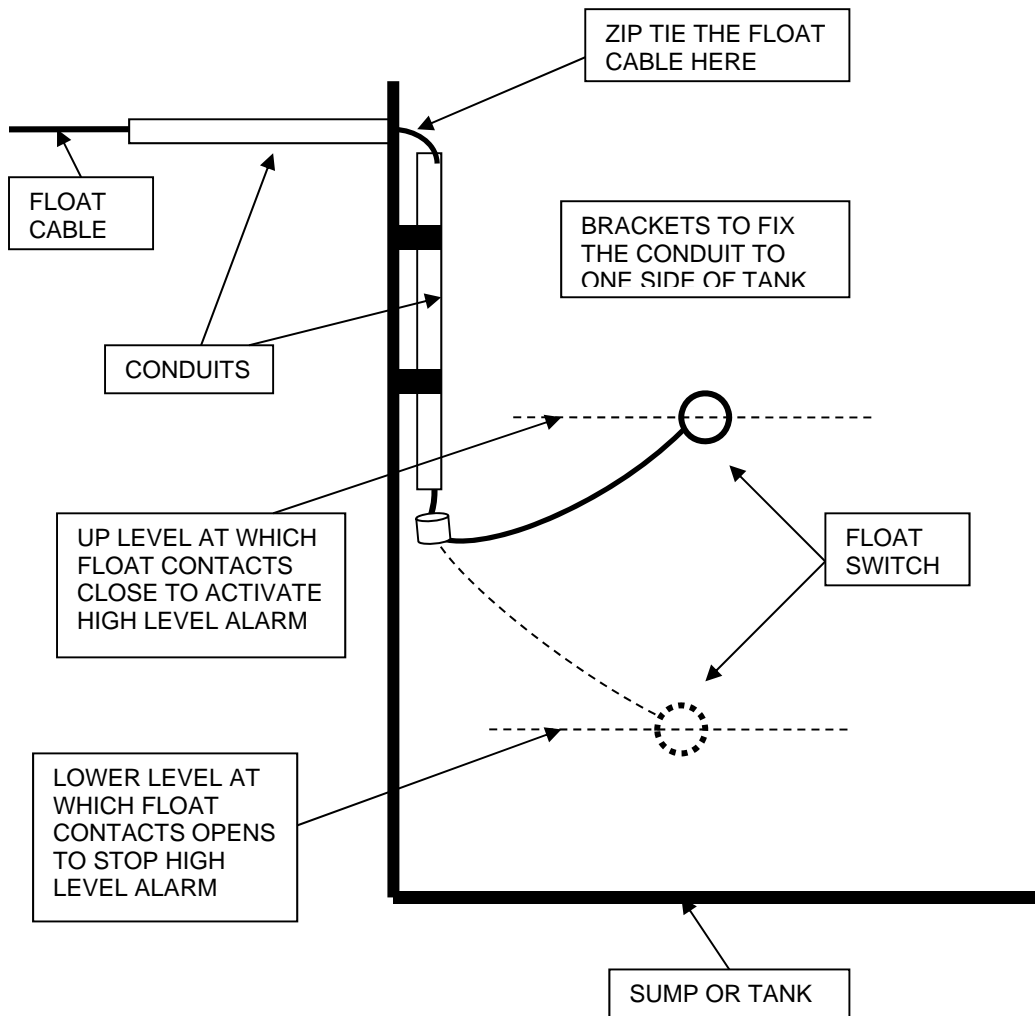
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1) Schematic Diagram of Typical System Installation Layout of High Level Alarm system with submersible pump:



Typical System Installation Layout of High Level Alarm system with submersible pump

2) Schematic Diagram of Float switch installation:



a) Above diagram gives basic schematic details of the recommended installation details of the float switch in the sump to activate the High Level Alarm.

3) Items supplied by Wallace:

- a) 1 off "High / Low Level Alarm" panel
- b) 1 off float switch with 10 m long float cable.

4) Items to be arranged by owner / installer:

- a) Desired length and size of electrical cables / wires / pipes / fittings / fixtures or any other items required to carry out the correct installation as per local authorities rules & regulations / relevant approve standards.
- b) All the tools and tackles to carry out the correct installation.

5) General installation Instructions:

a) The "High / Low Level Alarm" panel must be installed and connected by a registered electrician and / or an authorised person as per local regulations. It is the responsibility of the installer / owner to obtain the necessary permits if required and ensure full compliance with all applicable local regulations.

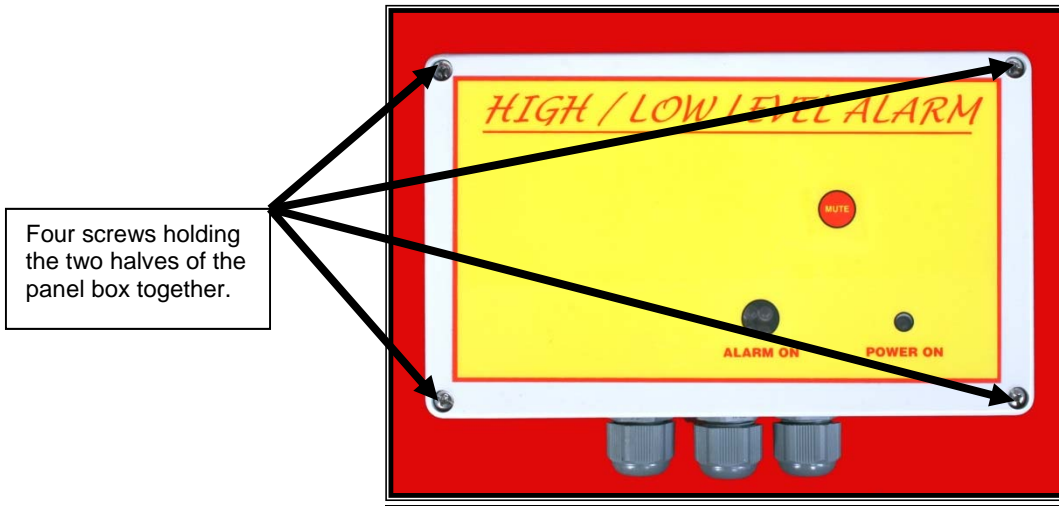
b) We strongly recommend that the unit to be installed in a clean, dry, moisture free non-floodable position, protected from UV. It must be easily accessible for operation, maintenance and servicing. The unit must be properly secured in its position and must be restricted from use by unauthorised person.

6) Step by step instructions for mounting and wiring the alarm panel:

Step 1:

Refer picture below. Open the four screws holding the two halves of the Alarm panel box together. Remove the top half on the side carefully.

Care must be taken so that the wires / connections from bottom half to the top half should not get stretched or dislocated.

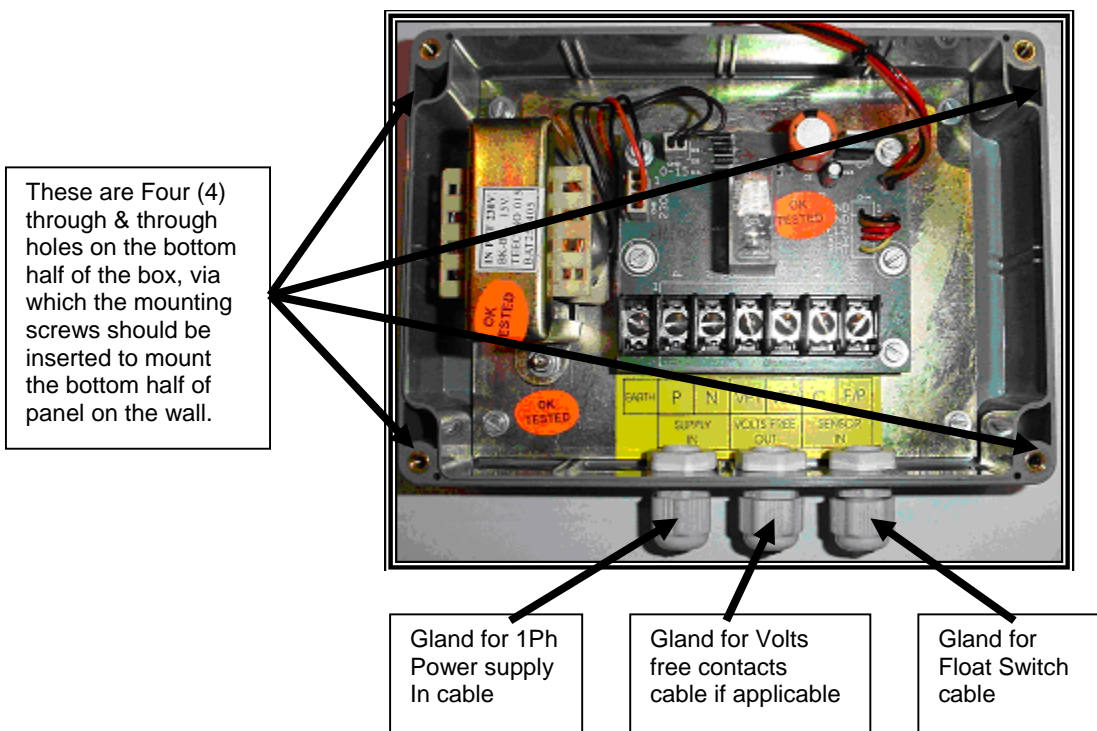


Step 2:

Refer picture below. There are Four (4) through and through holes on the bottom half of the box. As shown by arrows, these are next to the screwed positions for the bolts which hold the two halves together.

Insert the screws or bolts (of appropriate sizes & lengths) via these holes which are being used for fixing the bottom half of the box to the wall. Tighten these screws so that the bottom half of the box is now fixed to the wall.

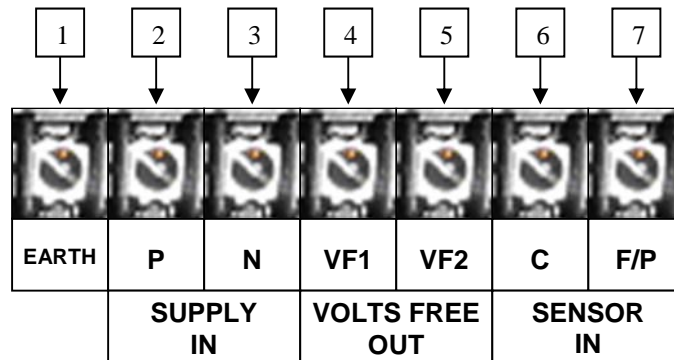
While fixing the bottom half of the box to the wall, please ensure that the top half (which was unscrewed earlier from the bottom half & is loose now) is being held properly so that the wires / connections from bottom half to the top half should not get stretched or dislocated.



Step 3:

Insert the main **Single Phase Power Supply cable**, **Float switch cable** and the **Volts free contact cable** if applicable via the glands provided.

Refer the terminal details below and carry out the wiring as per following instructions.



A) No power should be supplied to the unit unless the installation and wiring is fully completed.

B) Single phase power supply to the “High / Low Level Alarm” panel must be given from a separate dedicated power supply point of suitable rating. This power supply point to be on a different circuit than the power supply point giving power to the submersible pump. This ensures that in case the power supply to pump is tripped then also the power to alarm panel will be on as it is from different circuit. In case of high level in the sump the High Level Alarm will activate thereby giving the warning of the high level situation. Thus the flooding can be avoided.

C) For connection of power supply to High / Low Level Alarm panel

- 1) Connect “Phase” connection from power supply point to terminal number (2) “P” of “Supply In” of the High/Low Level Alarm Panel.
- 2) Connect “Neutral” connection from power supply point to terminal number (3) “N” of “Supply In” of the High/Low Level Alarm Panel.
- 3) Connect “Earth” connection from power supply point to terminal number (1) “Earth” of the High/Low Level Alarm Panel.

D) For connection of Float Switch cable to High / Low Level Alarm panel

Install the float switch strictly as shown in the “Schematic diagram of float installation”.

Adjust the float cable length in the tank to suit your requirement and zip tie the cable so that it will not move from its adjusted position. Please ensure that the float and its cable is free to move up and down and do not foul with the tank sides or any other thing in the tank.

The float switch supplied has **Brown**, **Blue** and **Black** wires.

Since system can be used as **either “HIGH” or “LOW”** Level alarm system, please connect the float switch wires for your desired system as explained below.

1) To activate the “**HIGH LEVEL ALARM**” when level rises to the predetermined high level:

Connect **Black** colour wire from float switch to terminal number (6) “C” of “Sensor In” of the High / Low Level Alarm Panel.

Connect **Brown** colour wire from float switch to terminal number (7) “F/P” of “Sensor In” of the High / Low Level Alarm Panel.

Do not use the **Blue** wire and leave it with terminal properly covered by insulation tape.

2) To activate the “**LOW LEVEL ALARM**” when level drops to the predetermined low level:

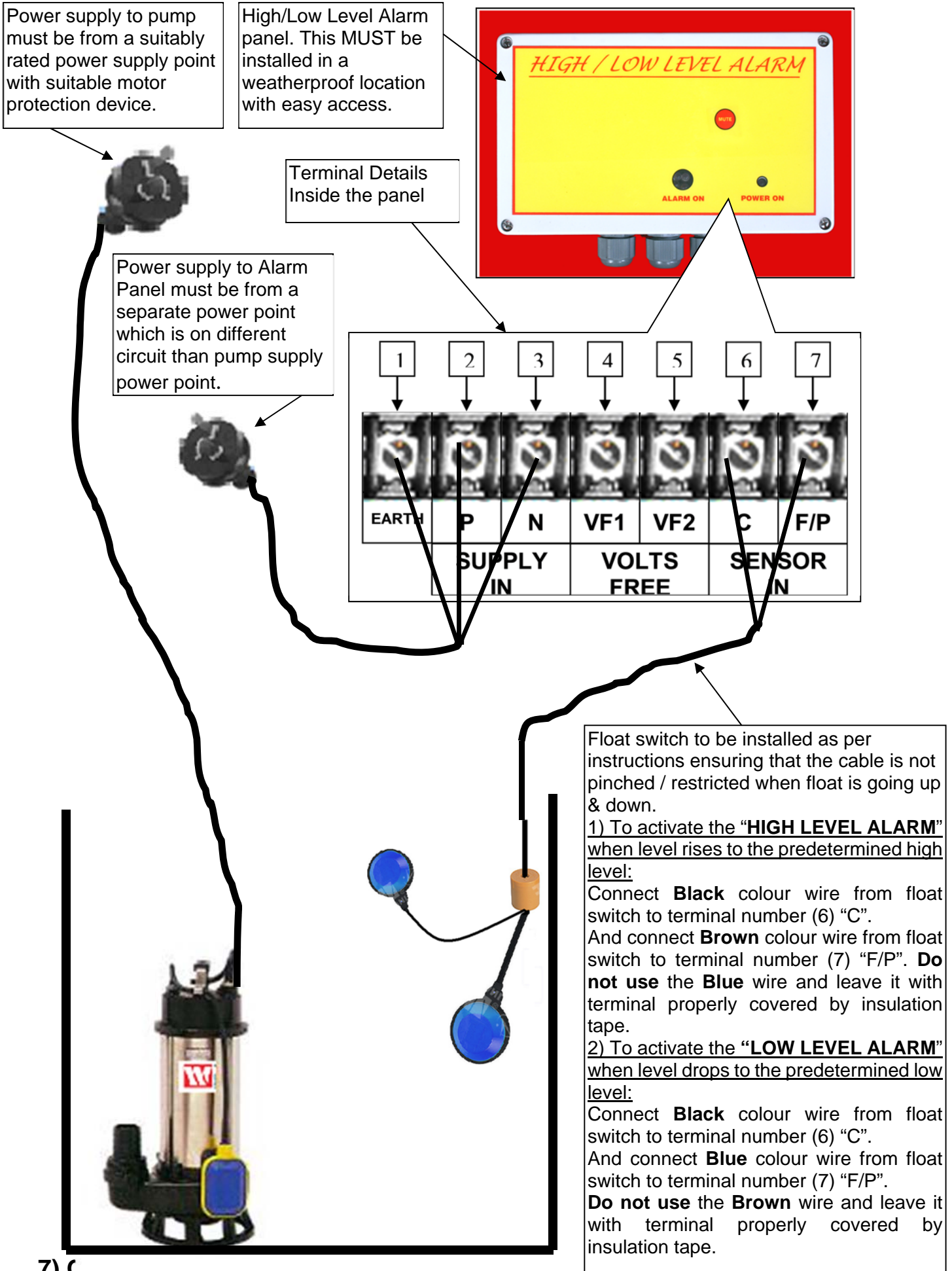
Connect **Black** colour wire from float switch to terminal number (6) “C” of “Sensor In” of the High / Low Level Alarm Panel.

Connect **Blue** colour wire from float switch to terminal number (7) “F/P” of “Sensor In” of the High / Low Level Alarm Panel.

Do not use the **Brown** wire and leave it with terminal properly covered by insulation tape.

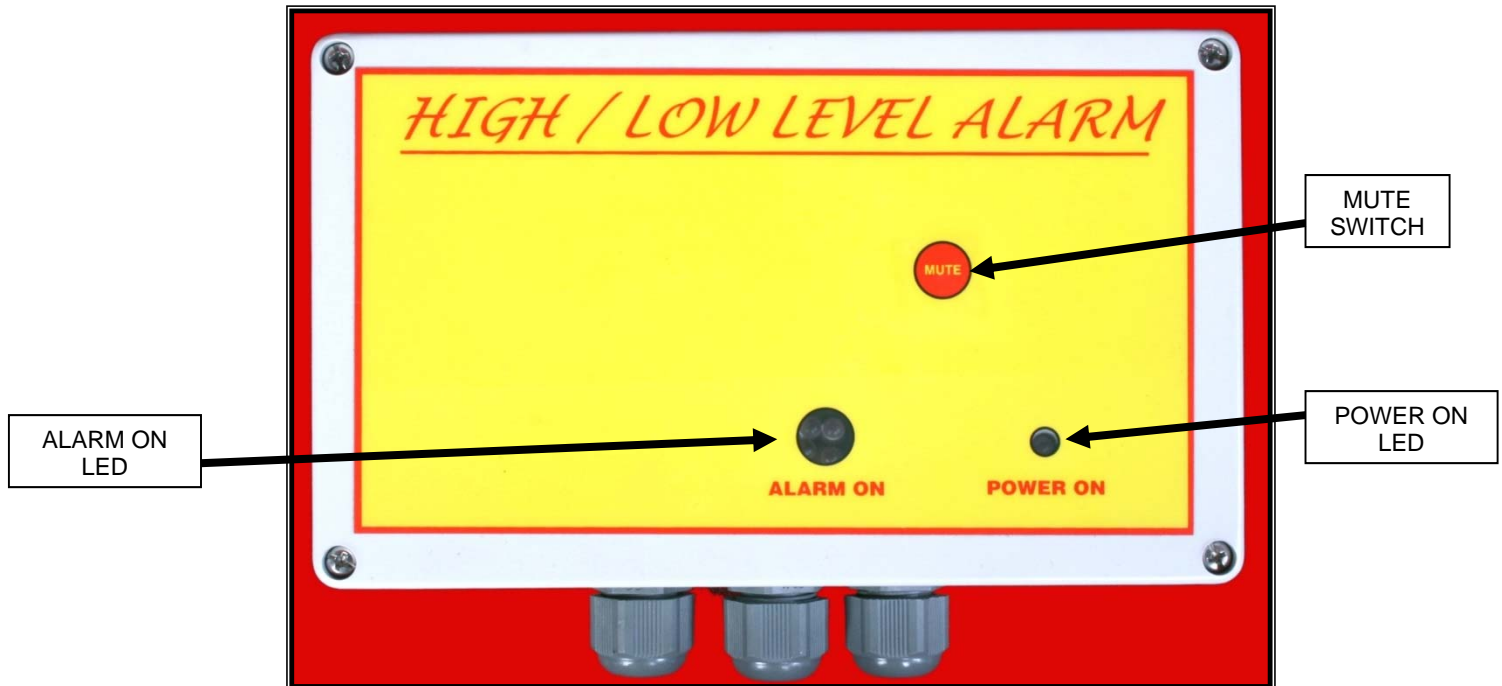
E) To pass the signal of “High or Low Level Alarm” situation to BMS or any other system, connect the “Volts free contacts” terminal number (4) and (5) to the respective system.

Typical Wiring Diagram for High Level Alarm Panel with float switch



A) Ensure that all the wiring connections are properly secured to each terminal. Install the top half of the box to the bottom half. Secure the two halves with the screws removed earlier.

The front of the High / Low Alarm Panel will now look as shown in the picture below.



B) Switch On the power supply to the High / Low Level Alarm panel.

The “POWER ON” LED will glow indicating that the power is being supplied to the unit.

C) The “HIGH / LOW LEVEL ALARM” is now ready to operate automatically as explained below.

D) If the level in the sump / tank rises above the high level setting of the float switch (when wired up to use as High Level Alarm) or drops below the low level settings of the float switch (when wired up to use Low Level Alarm), the “Alarm Panel” will start sounding an audio alarm sound. The “ALARM ON LED” will start flashing.

When High / Low Level Alarm is activated at the same time the “Volts free contacts” number (4) and (5) will close automatically. These contacts can be used to convey the High / Low level situation signal to the BMS or any remote system.

E) If desired, the alarm sound only can be muted by pressing the “MUTE” switch on the front panel.

This will only stop the alarm sound. The “ALARM ON” LED will keep on flashing and the “Volts free Contacts” will still remain closed.

F) Attained and sort out the reason/s of high or low level in the tank.

G) Once the level in the sump / tank reaches the normal level, the float switch will come back to normal position. At this point following things will happen automatically.

The ALARM BUZZER will STOP.

The FLASHING ALARM ON LED will STOP

The Volts Free Contacts will OPEN.

The alarm panel will come back to its original set conditions ready to operate for the next cycle.

8) Care and Servicing:

A) Ensure all electrical ratings of the power supply, contacts, cables, wires and / or any pump or electrical equipment connected to the unit, are within the Control panel's limitations.

B) Do not try to modify or add or change any of the factory made and set circuitry inside the unit. These will permanently damage the unit. Any such modification or removal / damage of any component will make the warranties and / or guaranteed null and void.

C) The "High / Low Level Alarm" panel is an electronic appliance with various electrical circuits. Therefore it is subject to damage / malfunction like any other electronic / electrical equipment due to its components being exposed to water or excessive moisture, frosty or freezing conditions, variation in the power supply or any other reason which affects the electronic / electrical circuitry.

To ensure safe operation, ensure that the power supply is earthed and protected by a fuse or ELCB protection of an appropriate rating.

D) Ensure isolation and disconnection of the power supply to the unit before and whilst carrying out any wiring / connection work on the unit.

E) The unit does not have any user serviceable components. So please contact Wallace Pump's authorised service agent only for servicing of your unit.

F) Wallace Pumps does not warrant for any damage to the unit or any other property caused by any unauthorised modifications/repairs in contravention with the Company's instructions or by use of materials or fittings not supplied by Wallace Pumps. Where a claim arises, we suggest you contact the installer for rectification.

9) Trouble shooting / Fault finding chart:

ALWAYS ensure isolation and disconnection of the power supply to the unit before and whilst carrying out any servicing work on the unit.

Sr No	<u>OCCURRENCE</u>	<u>POSSIBLE CAUSE</u>	<u>REMEDY</u>
1.	"POWER ON" LED not glowing.	No main power supply.	Check main power supply.
2.	ALARM BUZZER not sounding on High / Low level.	a) Float switch faulty or float wires loose so not giving High / Low signals to the panel. b) Mute switch was pressed.	a) Check connections / replace float. b) Once Mute is pressed the buzzer will start in the next cycle only.
3.	"ALARM ON" LED not glowing on High / Low level.	a) Float switch faulty or float wires loose so not giving High / Low signals to the panel.	a) Check connections / replace float.
4.	Alarm constantly on	a) Wires connected incorrectly. b) Float caught in ON position. c) Induced current from adjacent power cabling.	a) See Sep 3, D. b) Correct orientation of float in tank. c) Separate power supply cable or shield.

10) Warranty and Limitations:

In the warranty period, any work not described in this manual must be carried out by Wallace Pumps Service Agents otherwise your warranty and the product's durability period will be invalidated.

The purchaser and / or installer must ensure full compliance with all applicable regulations.

Wallace Pumps does not warrant for any damage to the unit or any other property caused by poor quality installation, workmanship or installations in contravention with the Company's instructions, or by failure of materials or fittings not supplied by the Company. The Company does not accept any liability resulting from flooding or from safety breaches; the user must take the necessary steps to guard against such occurrences.

Subject to the above and where the unit has been installed, operated and maintained in accordance with local plumbing and electrical regulations and this instruction manual, Wallace Pumps warrants the unit for a period of 1 year from the date of purchase, against defects in materials and workmanship on the basis of return to our distributor's or service agent's premises, freight paid. Contact Wallace Pumps for a list of names and addresses.

If you require further assistance, call a sales engineer at any of our offices or distributing representative.

We thank you for your custom.

Wallace pumps