



# **Low Level Warning Panel**

**RCALM1**  
**RCALM1L**  
**RCALM1Q**  
**RCALM1LQ**  
**RCALM1B**  
**RCALM1LB**  
**RCALM1QB**  
**RCALM1LQB**

## **Installation and Operation Manual**

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## Description Of Operation

The RCALM1 Display Panel provides a basic highly visible level warning display for water tanks.

The amber low level warning light alerts the user to a low tank level and is accompanied by a repeating buzzer and volt-free BMS output (both optional) for audible alert. Float switch wiring can be reversed if required to provide a high level warning instead.

## Models

RCALM1	Light, Buzzer, BMS, 230vac float switch
RCALM1L	Light, Buzzer, BMS, 24vdc float switch
RCALM1Q	Light, BMS, 230vac float switch
RCALM1LQ	Light, BMS, 24vdc float switch
RCALM1B	Light, Buzzer, 230vac float switch
RCALM1LB	Light, Buzzer, 24vdc float switch

RCALM1QB	Light, 230vac float switch
RCALM1LQB	Light, 24vdc float switch

## Installation

### Safety Precautions

Mains Voltage – There are exposed electrical conductors inside this appliance. This appliance must be installed and serviced by a competent electrical technician to the current requirements of BS7671 and IEEE recommendations. Before servicing this appliance, normal safe isolation procedures should be implemented.

Do not touch any connection terminals while energised.

Do not attempt to service this item when wet, or in a wet or high humidity environment.

If the housing of the control panel becomes damaged, you must shut down and securely isolate this appliance immediately.

We recommend that the product and it's installation should be fully tested after installation and be inspected and tested periodically thereafter.

### Included Components

RCALM1 Control Panel  
Attached mains cable  
Installation & Operation Manual

Float switch or level switch.

### Layout

The control panel cannot be mounted outside, it is not fully weather resistant, but can be installed in sheltered outdoor locations (barns, covered areas, etc).

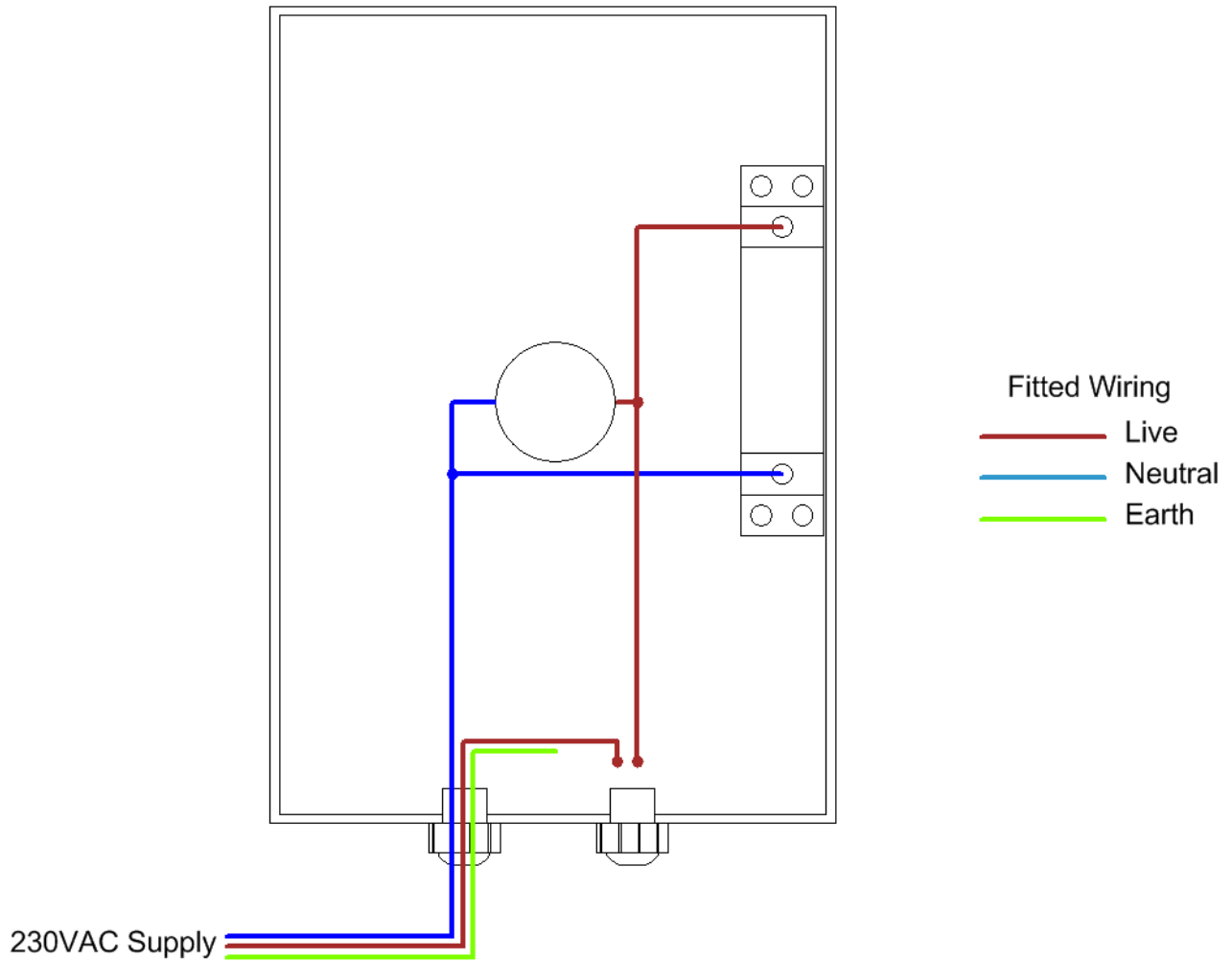
Suitable circuit protection must be installed and should include as a minimum a suitable earth, overcurrent protection, and residual current protection at 30mA, ideally on it's own circuit, but always in accordance with BS7671 and applicable regulations.

### Control Panel Mounting

Open the cover of the control panel. There are 4 recesses, one on each corner of the panel. Drill through at these locations and attach to the wall or a suitable support, taking care not to damage cabling inside the panel. Fixings are not included and should be selected to suit the material to which the panel will be mounted.

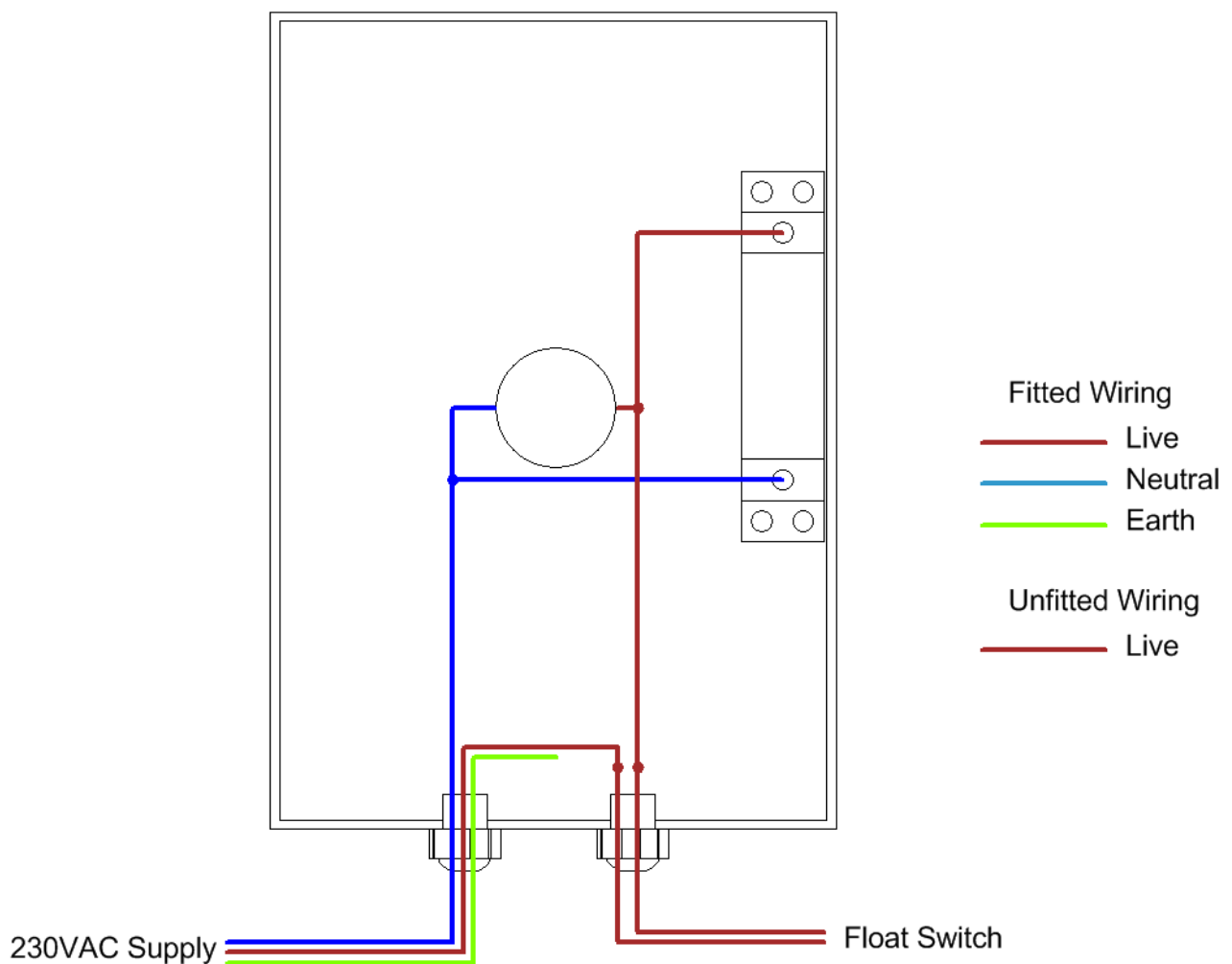


## RCALM1/RCALM1Q



The control panel is supplied with wiring installed in the drawing shown above. The float or level switch needs to be fitted as shown in the next diagram.

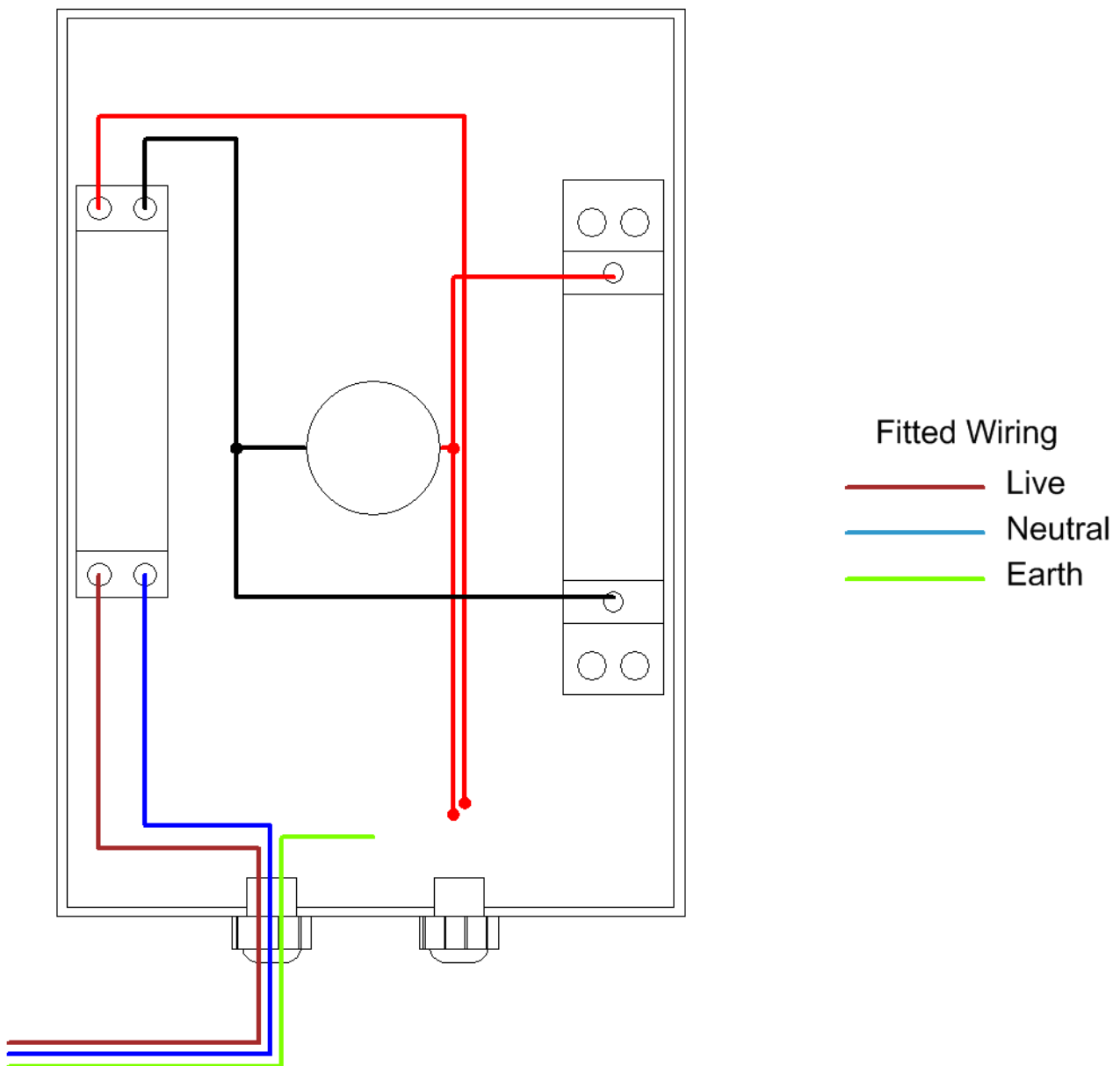
## Connections



*Note that both wires to the float switch or level switch are live.*

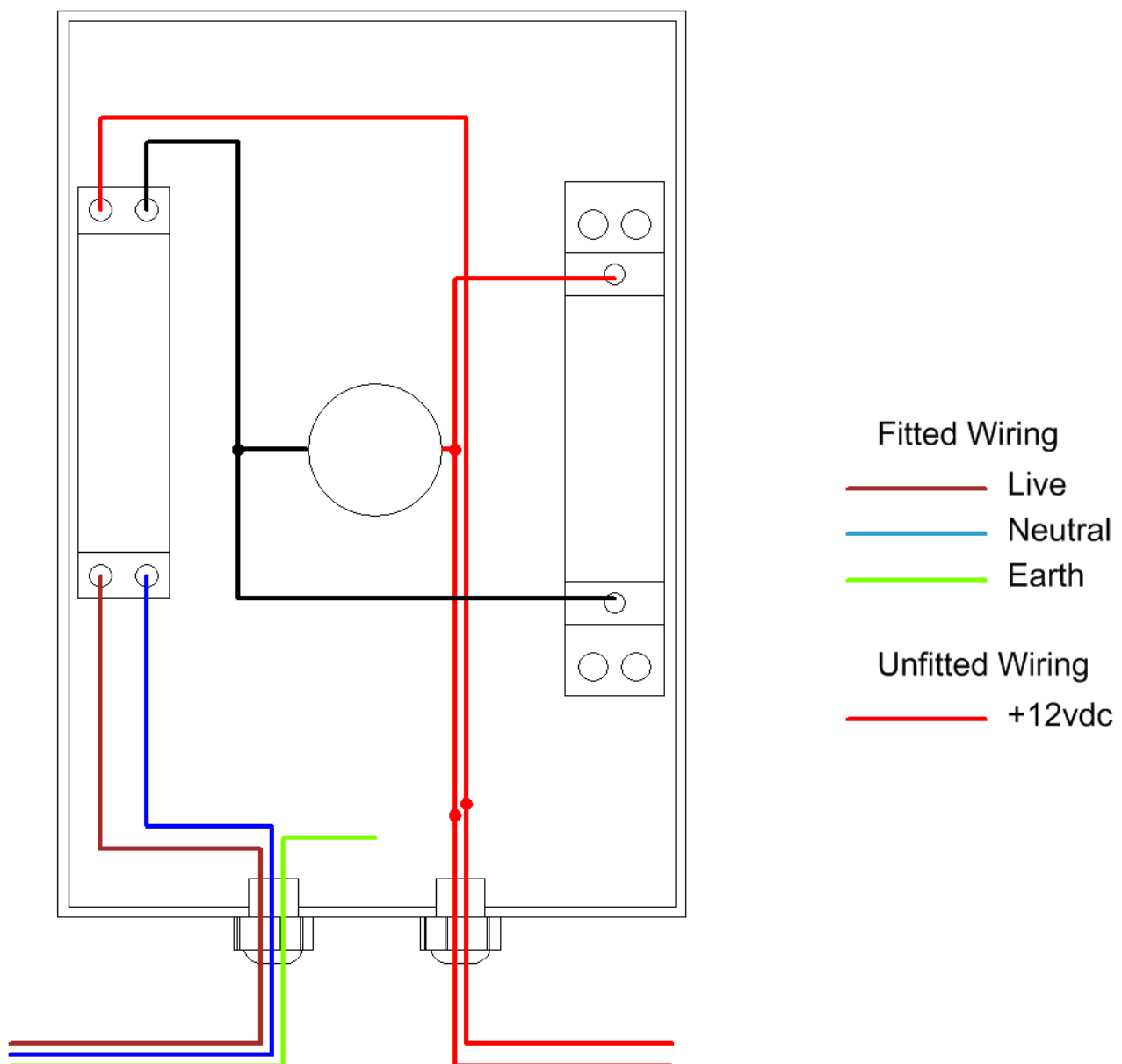
*Note the green/yellow earth connection is provided for circuit protection to the appliance and has no function within the display panel which is Class 2 rated.*

## RCALM1L/RCALM1LQ



The control panel is supplied with wiring installed in the drawing shown above. The float or level switch needs to be fitted as shown in the next diagram.

## Connections

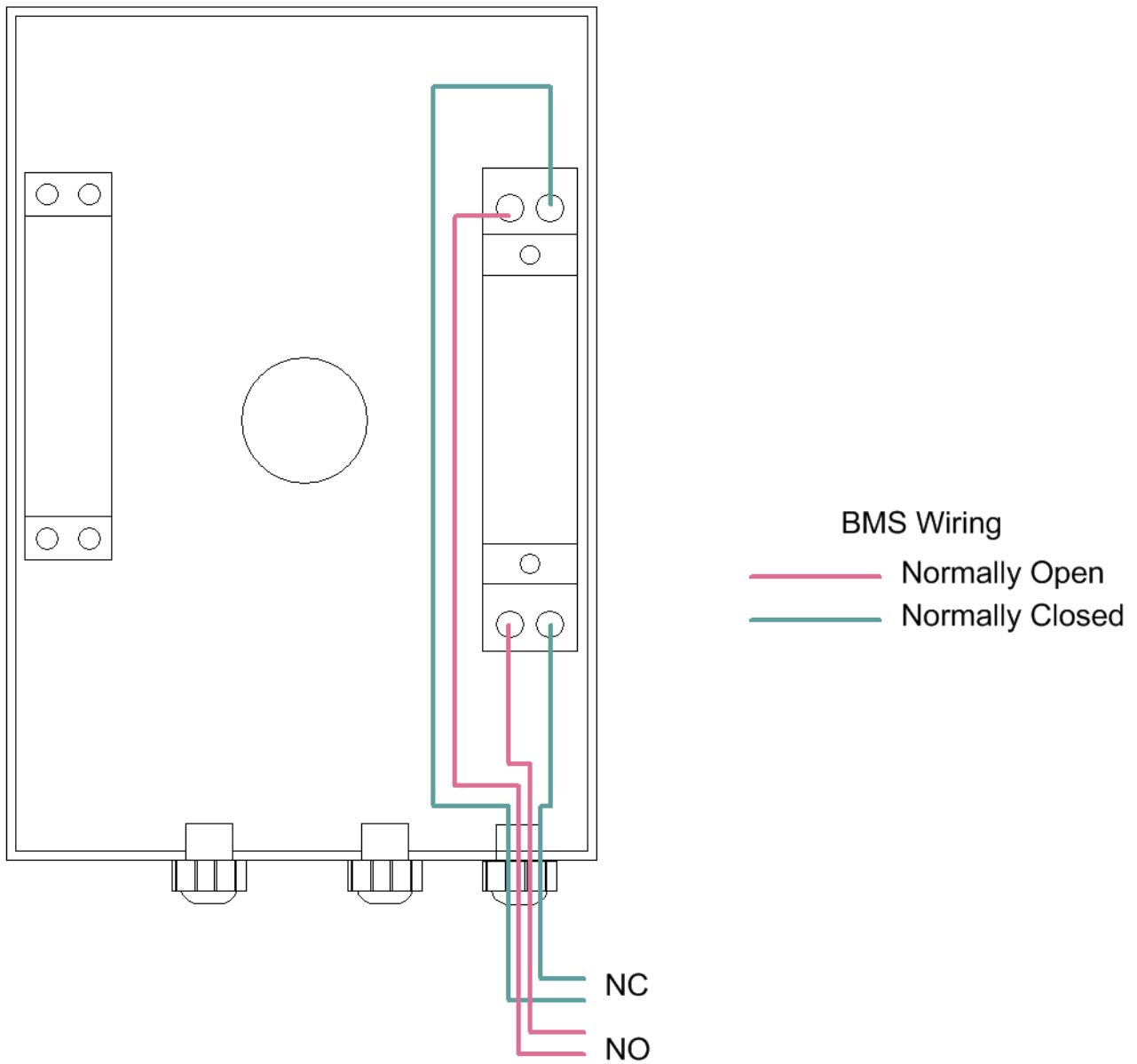


*Note that both wires to the float switch or level switch are live.*

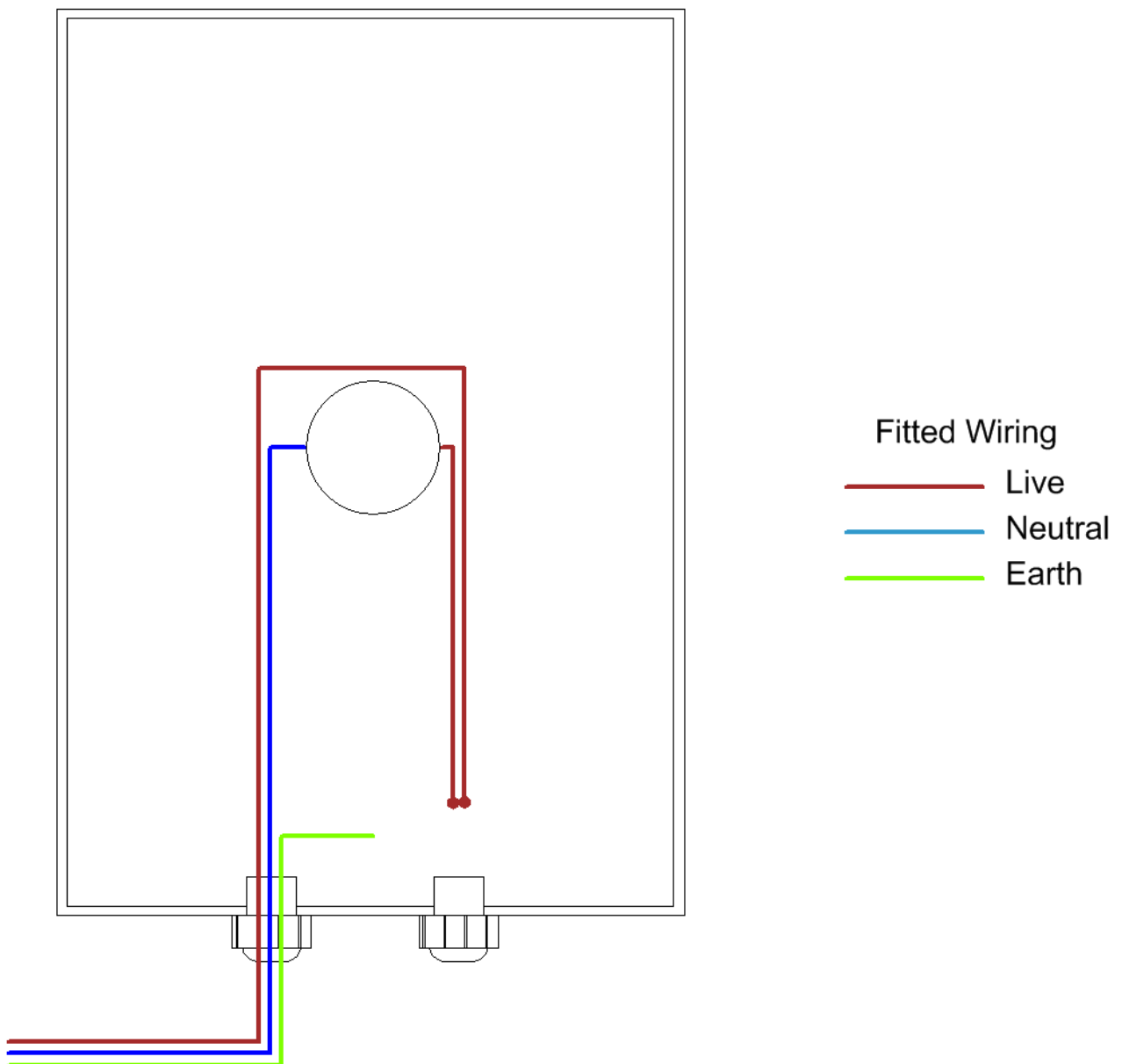
*Note the green/yellow earth connection is provided for circuit protection to the appliance and has no function within the display panel which is Class 2 rated.*



## BMS Connection

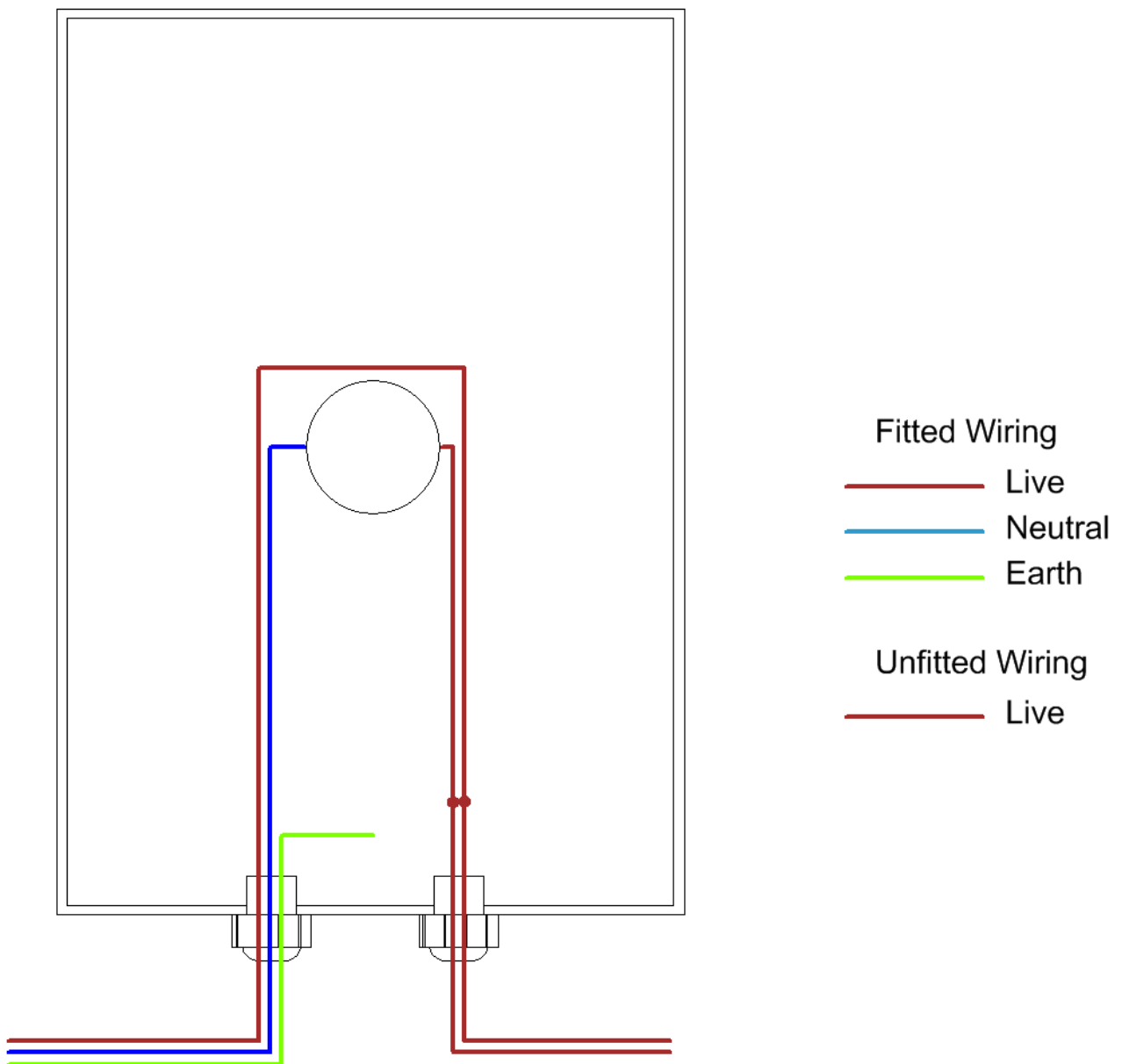


## RCALM1B/RCALM1QB



The control panel is supplied with wiring installed in the drawing shown above. The float or level switch needs to be fitted as shown in the next diagram.

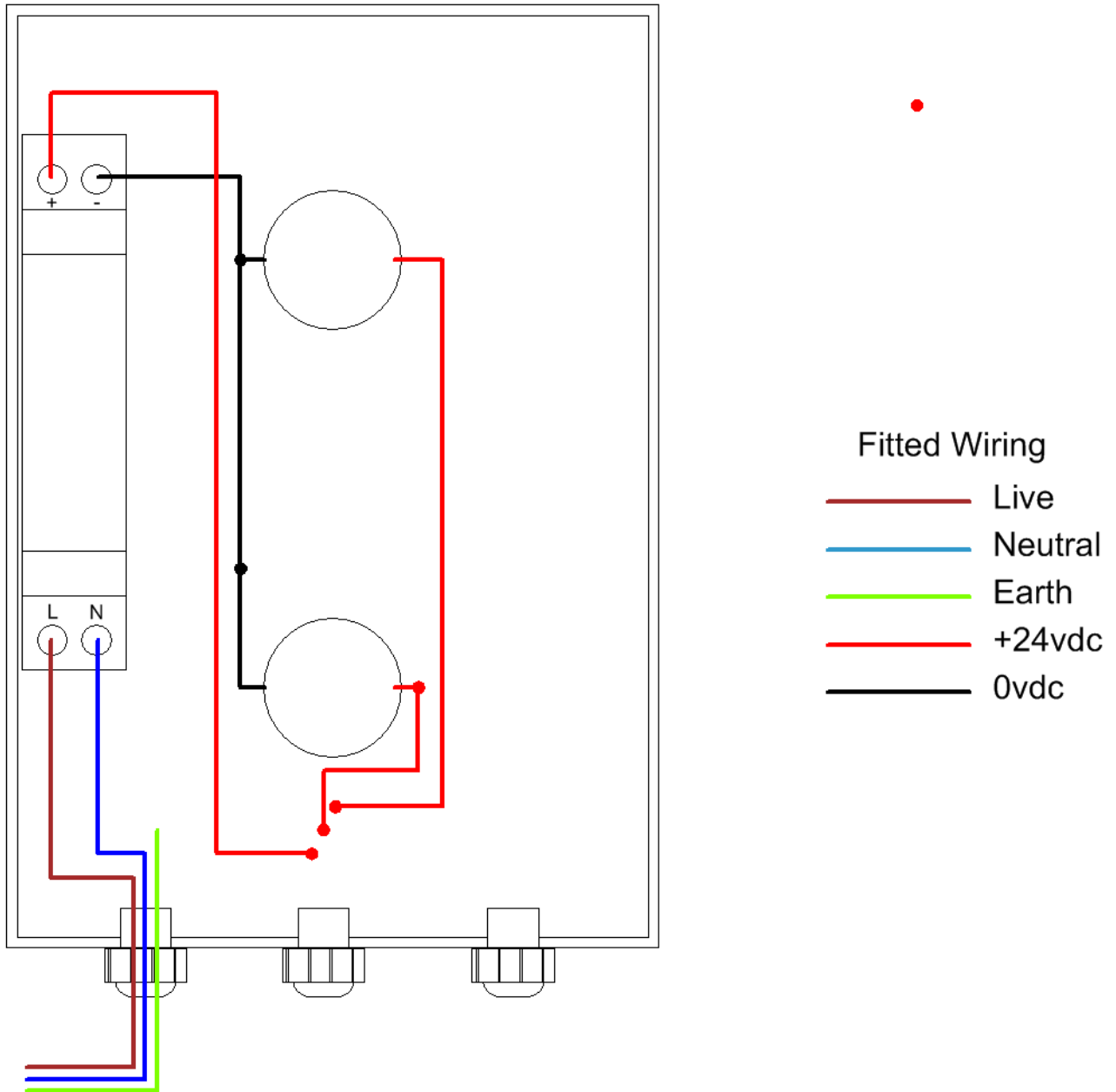
## Connections



*Note that both wires to the float switch or level switch are live.*

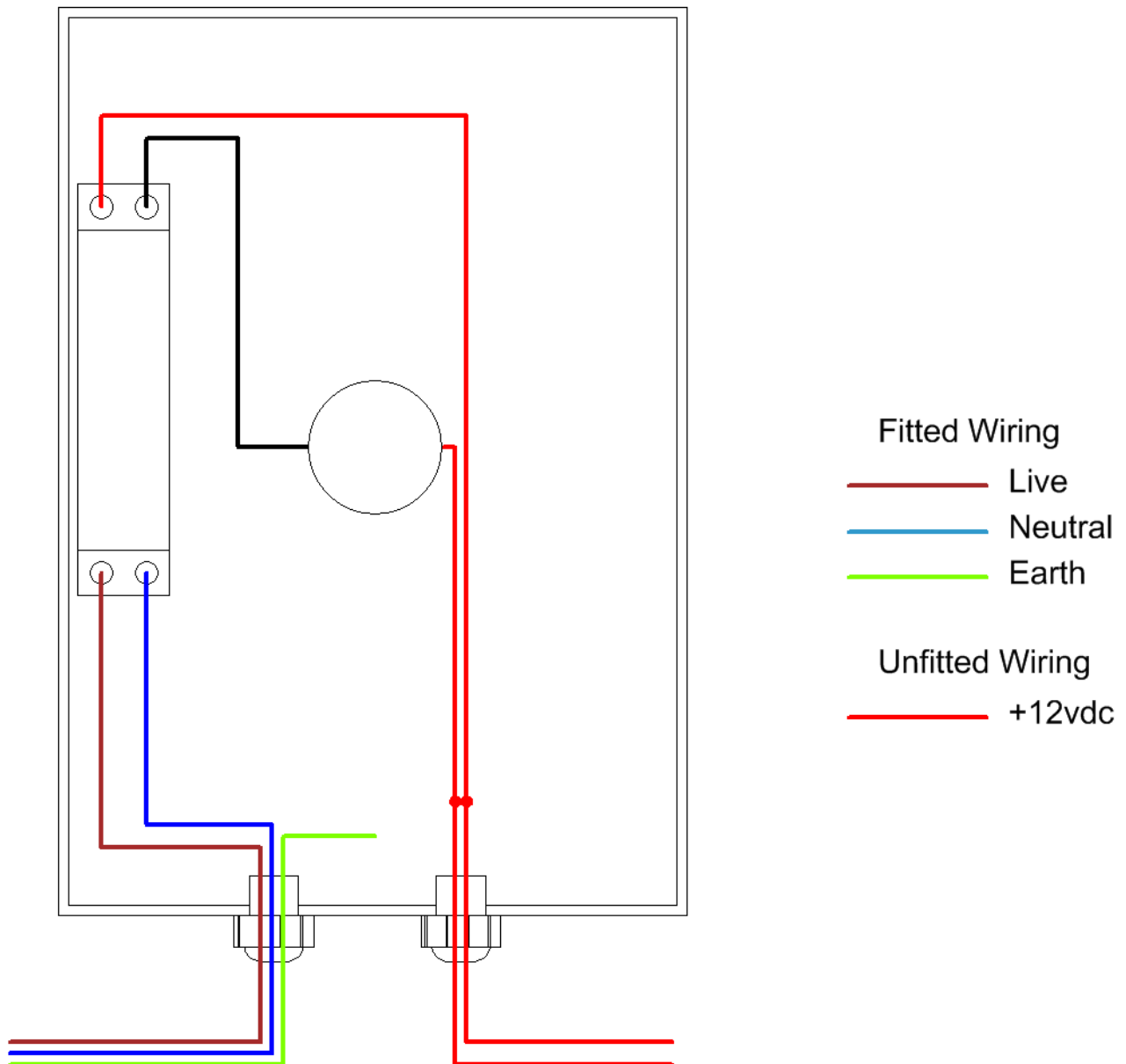
*Note the green/yellow earth connection is provided for circuit protection to the appliance and has no function within the display panel which is Class 2 rated.*

## RCALM1LB/RCALM1LQB



The control panel is supplied with wiring installed in the drawing shown above. The float or level switch needs to be fitted as shown in the next diagram.

## Connections



*Note that both wires to the float switch or level switch are live.*

*Note the green/yellow earth connection is provided for circuit protection to the appliance and has no function within the display panel which is Class 2 rated.*

## Operation

### Safety Precautions

Mains Voltage – There are exposed electrical conductors inside this appliance. Before servicing this appliance, normal safe isolation procedures should be implemented.

Do not attempt to operate this item when wet, or in a wet or high humidity environment.

If the housing of the control panel or attached wiring becomes damaged, you must shut down and securely isolate this appliance immediately.

### Usage

The amber light shows that the tank is at a low level, as indicated by the installed position of the float switch or level switch.

## Warranty

All products are covered by a 12 month limited RTB (Return To Base) warranty against materials and manufacturing defects from the date of purchase. The warranty does not cover malfunctioning due to a failure to properly install and / or commission the product in accordance with the installation instructions. The warranty does not cover modification, physical damage or misuse, or operation outside of the products electrical or environmental limits. The warranty is limited to the repair, replacement or cost of replacement of the product at the discretion of 3P Technik UK Limited and does not cover inconvenience or consequential losses. We do not guarantee continuity of operation of any product under any circumstances. For full details see 3P Technik UK Limited terms and conditions.

## Specifications

Dimensions	180mm x 110mm x 90mm
Enclosure Material	Polystyrene
Ingress Protection	IP66
Electrical Protection	Class 2
Voltage	230VAC 1~