



**Techsys**  
Pump Control Systems



# ***LevelMASTER FLOAT***

## ***Instruction Manual***

Version 1.3  
3/4/15

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## INTRODUCTION

### LevelMASTER Pump Controller

The LEVELMASTER pump control system is a fully integrated pump controller for single or dual pump stations required to maintain a level between two set points.

LEVELMASTER is suitable for up to 2 pumps of any type. The unique electronic - hydraulic control allows each pump to operate at the maximum performance level.

LEVELMASTER also offers a full complement of telemetry outputs for simple integration into central control applications.

The LEVELMASTER Pump Control system is part of the Techsys Pump Control range. Pump Controllers are available in a range of options to suit particular applications and user requirements.

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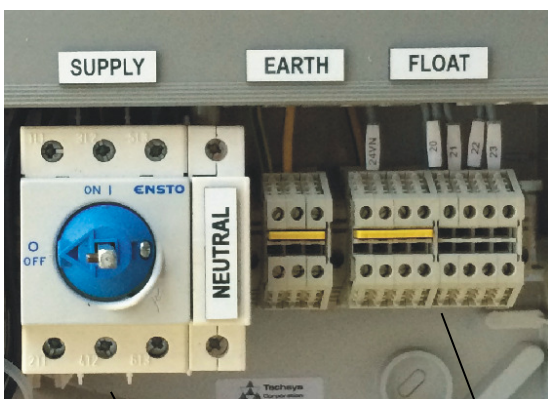
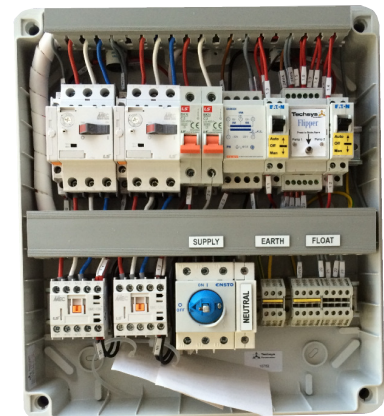
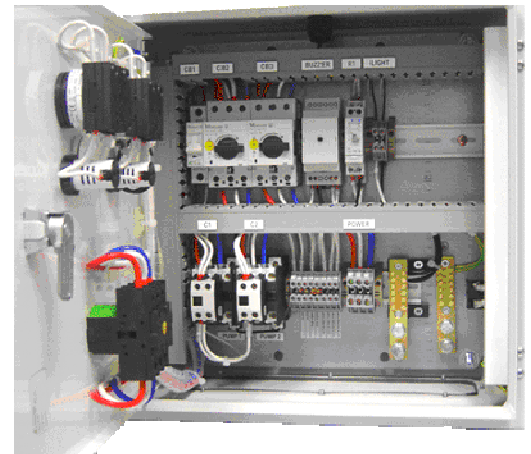
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# QUICKSTART

**Only Qualified Personnel should be allowed to complete this procedure as there is High Voltage wiring within the switchboard.**

Connect power to the Mains power connection terminals

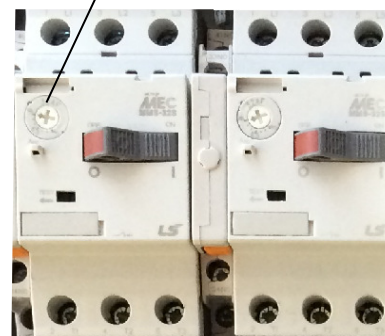
1. Connect the float switch cabling to the relevant connection terminals
2. Power each pump in manual and check rotation of each pump. If unsure swap the main power supply cable and re-check for Rotation.
3. Set the thermal overloads for each pump to suit the site requirements. Techsys Corporation recommends that the thermal overload should be set to the Motor Nameplate current + 10% to accommodate for main voltage fluctuations.
4. Start pump 1 in Auto mode and check that the system starts and stops on the relevant levels.
5. Repeat for pump 2
6. System is ready for operation



Float Connections

Power Supply Connections

Motor Thermal Overload Adjustment



# LAYOUT

The LevelMASTER comes in a number of options:

## Standard LevelMASTER Float operation.



### 1 or 2 Pump Operation

- Cut In Pump 1 & 2
- Cut Out Pump 1 & 2
- High Level Alarm light
- Main isolator
- AS3000 Wiring
- Plastic enclosure IP55

(Dual Pump Shown)

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## LevelMASTER Pilbara Float.



### 1 or 2 Pump Operation

- **Low Level Output**
- Cut In Pump 1 & 2
- Cut Out Pump 1 & 2
- High Level Alarm light
- Main isolator
- AS3000 Wiring
- Pilbara enclosure –700x500x350

# OPERATION DESCRIPTION

The LevelMASTER Float Controller will start and stop pumps based on the inputs from a set of float switches. These float switches detect the level in a sump or tank and tell pumps to start and stop.

The LevelMASTER Float System Autorotates the pumps after each shutdown which allows the pumps to wear evenly.

There are a number of options available for these systems however detailed below are the generally used float switch wiring configurations.

The two main uses of the LevelMASTER are for SUMP APPLICATIONS or for TANK FILLING.

## SUMP APPLICATIONS

When the contents of a Sump require emptying:

- Stormwater
- Sewerage
- Level control

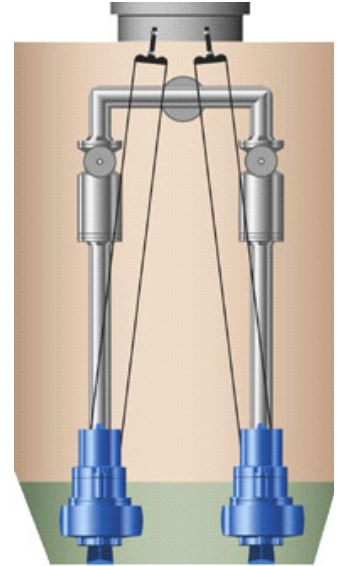
System starts pumps at High Level and Stops at Low Level

## TANK FILLING

When the contents of a Tank require filling:

- Town Water Supply
- Multi-story buildings
- General industrial applications

System starts pumps at Low Level and Stops at High Level



# FLOAT SWITCH CONNECTIONS

Techsys Corporation can supply float switches for LevelMASTER Float panels; Not supplied as standard and need to be ordered separately.

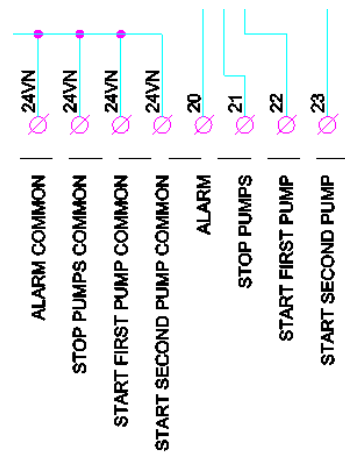
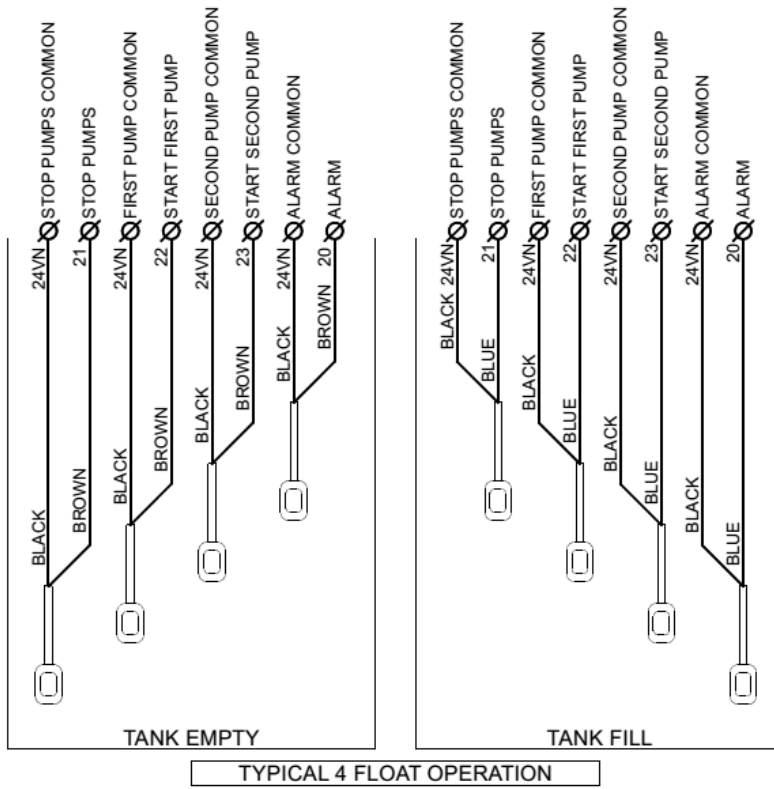


## OPERATION

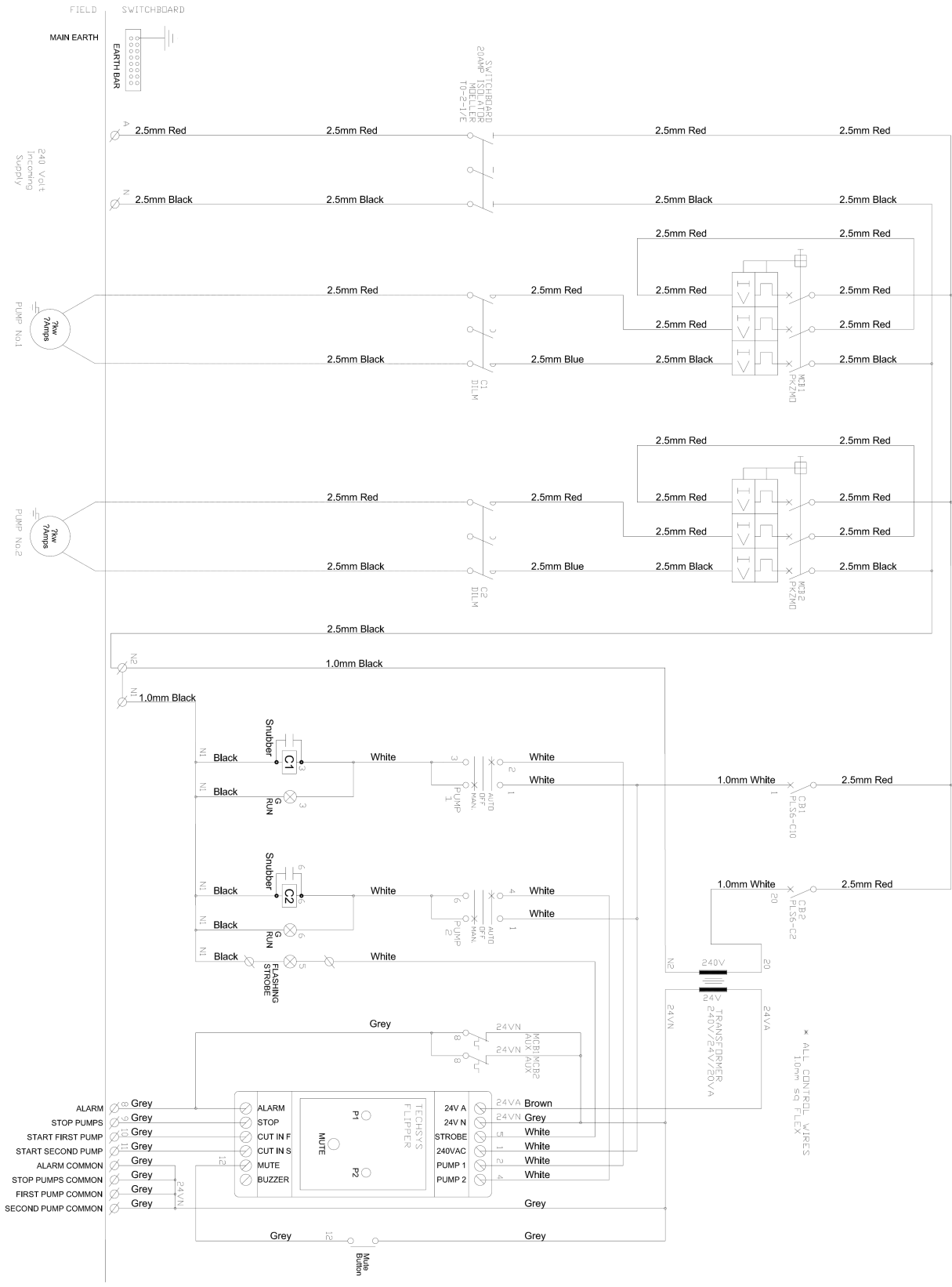


- Black and blue closed contact when float is vertical down
- Black and brown closed contact when float is vertical up

## DUPLEX 4 FLOAT OPERATION

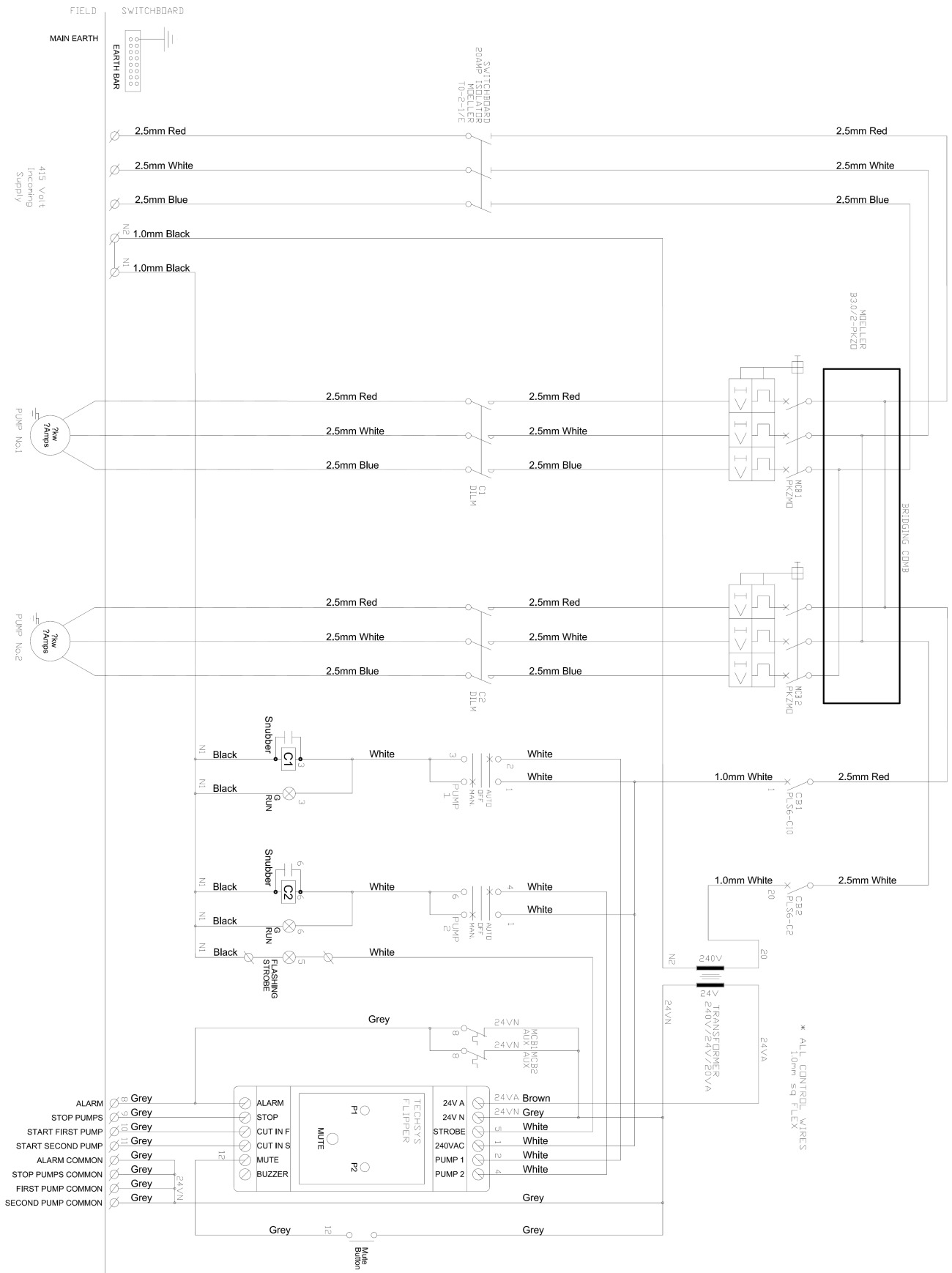


# Single Phase Dual Pump Wiring Diagram



Date 3/04/15  
Revision 1.3

# Three Phase Dual Pump Wiring Diagram



Date 3/04/15  
Revision 1.3



NOTES

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