



## CONTROLLER INFORMATION

### Introduction

The Controller is an advance micro processor based unit. It powers a pump and blower. The current draw from the pump and blower are measured independently. There is also a high level float input that the controller monitors.

In case of an alarm state, the alarm light will flash and the buzzer will sound until muted.

The Controller has an ON/OFF switch mounted on the side of the enclosure to power down the controller for servicing.

### Features

The main features of the controller are:

- Integra branding on the controller.
- Clear alarm indication with illuminated LEDs.
- Monitoring of current draw to the pump and blower.
- Automatic holiday mode





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### Blower Operation

The controller has an automatic holiday mode. If the irrigation pump has not discharged for 48 hours, the controller will automatically enter a holiday mode. In Holiday mode power is supplied to the blower for a cycle of 1hr on and 1hr off.

If the irrigation pump has not discharged for 168 hours, the controller will automatically enter a sleep mode. In sleep mode power is supplied to the blower for a cycle of 1hr on and 3hrs off.

The holiday and sleep mode is automatically disengaged once the irrigation pump starts again.

### Pump Operation

The pump outlet is powered at all times. If there is a Pump Fault, the power to the pump is stopped.

### Alarms

- |              |   |
|--------------|---|
| High Level   | If the high level alarm is activated, the High Level alarm LED is illuminated on the controller, the buzzer sounds, and alarm light flashes.  |
| Pump Fault   | If the pump draws more than the high current alarm (>8A) for 30 seconds, the Pump Fault alarm is activated. When the Pump Fault alarm is active the <i>Pump Fault</i> LED is illuminated, the buzzer sounds, and alarm light flashes. If the Pump Fault alarm is raised, the power to the pump is cut.  |
| Blower Fault | The blower will run continuously. If the blower's current sensors reads a near zero (<0.1A) reading for greater than 30 seconds, a Blower Fault is raised. When the Blower Fault alarm is active the corresponding <i>Blower Fault</i> LED is illuminated, the buzzer sounds, and alarm light flashes. Power is applied to the blower even in Blower Fault condition. |



Controller By





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### **Alarms cont.**

For all faults, their respective red LED is illuminated on the controller, the main alarm light will flash, and the buzzer will sound until the mute button is pushed. When the Mute is pushed it will disengage the mute feature after 24hours OR if a new alarm condition occurs.

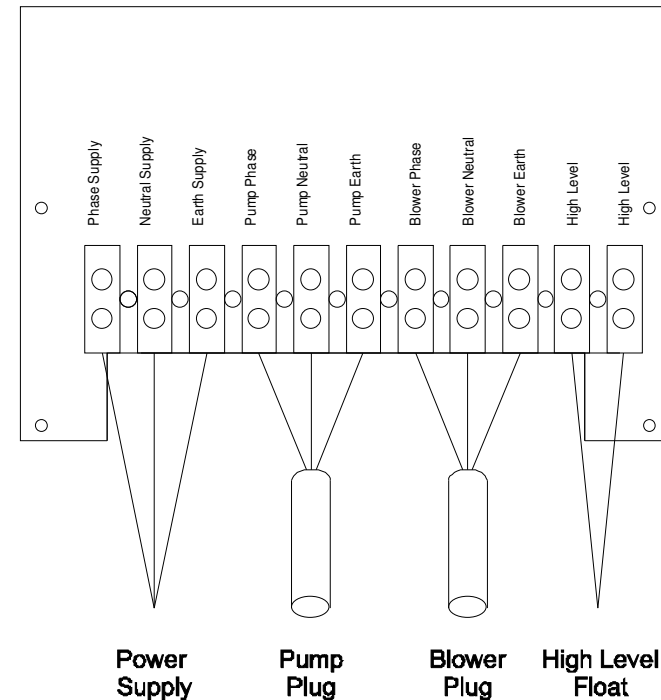
To reset any active Alarm, press and hold the Mute button for 5s.

## CONTROLLER INFORMATION

Refer to attached wiring diagram when installing the controller. All electrical work must be carried out as per NZS 3000:2007 and NZECP2:1993. The controller is to be earthed at the distribution board and the supply to the controller should be protected by a suitable MCB or RCBO as deemed necessary by installing electrician. This controller is rated to 10A at 230V. Any questions during installation please contact N2P Controls on 09 570 1919.

1. Remove the lid of the controller. The printed circuit board is attached to the lid. Take care to ensure no moisture or damage occurs to the printed circuit board while the lid is open.
2. Run the power supply cable through the cable gland to inside the controller. Connect the phase, neutral and earth supply to the labelled terminals within the controller. Reattached the lid onto the controller.
3. Connect the pump and blower cables to each of their respective terminals as labelled within the controller.
4. Connect the high level alarm float to the cable supplied. Ensure the float is installed so that there is a closed circuit when the float is up. Ensure the connection is watertight. This circuit is extra low voltage.

NOTE: The ON/OFF switch on the side of the controller is to turn power on and off to the pump, blower and printed circuit board only.





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9. Once installed commission by:
- Supply power to controller once safe to do so. On power up all LEDs and buzzer will shine/sound for approximately 0.5s. Once this test is completed the Green Power LED light should illuminate on front of controller.
  - The Blower should run continuously.
  - Test pump by lifting the float attached to the pump.
  - Test high level alarm by lifting high level alarm float. The red *High Level* LED should illuminate, the buzzer sound and alarm light flash.
  - Press the mute button and the buzzer should stop.
  - Unplug the blower. After 30s the red *Blower Fault* LED should illuminate, buzzer sound and alarm light flash.
  - To reset any alarm, press and hold the mute button for 5s.



Any questions during the installation, please contact N2P Controls.



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The table below refers to the possible alarms shown on the main controller at the wastewater tank and/or on the remote alarm panel . The table is broken down to show the respective alarms, their likely cause and their likely solution.

Alarm LED	Cause	Solution
High Level	The fluid level in the irrigation tank is high	Check irrigation filter is clean
		Check that the pump is running and pumping freely
	The float is caught in the high level position	Check float position and move to stop it being caught
Pump Fault	The pump is blocked	Check the base of the pump and ensure it is free of debris and spinning freely
	A non standard pump has been installed	Ensure the current draw of the pump is less than 6 Amps
	The pump has failed	Test the pump for an electrical short to earth



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Alarm LED	Cause	Solution
Blower Fault	The blower's diaphragms have failed	Replace diaphragms
	Blower is not plugged in	Check blower plug and attach
None but blower isn't running	System is in Holiday Mode	Manually start the irrigation pump. This will start the Blower immediately.