Monitored VTL™ Quick Start Guide

Thank you for purchasing Reign's Monitored VTL! Your sites now not only have a 24/7 Visual presence and control of all your monitored equipment.

In the Box

- Monitored VTL Controller – With Power Supply
- The Controller Includes Both a ReignMaker for Monitor & Control and the VTL for Tank Level and LED Control
- LED Interface Cable (for LED Bars)
- Base LED Bar (5ft Bar with 3 ft LEDs)
- LED Bars per Order (5ft Bars with 5ft LEDs)
- 2 Installed Rare Earth Extra Strong Magnets for easy Installation

Note: Please follow all site safety guidelines before installing the equipment at your location.

Optional

- Sensor with Connector and Cable
  - The sensor will come with cable and connector ready to plug into the SENSOR port on your VTL
  - Should you wish to order your own sensors you will need to order the SP21 Male Connectors (Figure 2) for plugging into the VTL controller.
  - See VTL User Guide for the Wiring Diagram

Figure 2 Male Sensor Connector

Caution: DO NOT remove the tape covering on the power supply, possible shock point.

Sensor Installation

- ***Ensure all site safety guidelines are followed before installing the equipment.***
- Connect the 6-pin sensor connector to the VTL's 6-pin bulkhead connector.
- Install the sensor into the tank to initiate monitoring.

LED Light Bar Installation

- Connect the 3-pin connector of the LED interface cable to the VTL.
- Attach the other end of the interface cable to the base LED bar (5 ft bar with 3 ft LEDs).
- Secure the base LED bar to your tank, then connect the additional LED bars to the tank by linking each section to the previous one using the LED connectors. Ensure all connectors are properly aligned and securely attached.

Tank & LED Configuration Using Web Application

- To communicate with the VTL and properly configure it, connect to the VTL via WiFi using a phone or computer.
- Once connected open your browser and type *vtl.local*.
- Note: While connected to the VTL via WiFi, you will temporarily lose internet connectivity until you disconnect from the VTL.
- If *vtl.local* does not work, you can alternatively connect by entering *192.168.4.1* in your browser.

The VTL-1500 web app enables you to configure the basic functions of the VTL, and Light Bars. Use the provided code to view a live web application installation or click the link to access the page directly. click this link

Figure 4 - Live Installation

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ReignMaker Connections

Power Connection:

- 24-volts DC on **P2**
- The front panel LED will light Blue when power is applied

Sensor Connections:

- Power for the +24 volt sensors can be obtained from **+VA** terminals **(1,5,7,12)** on **P1**
- Ground or common return on **CO** connections **(3,9)**

Analog Sensor Connections:

- Connect sensors to **AN1 (2), AN2 (4), AN3 (6) and AIN4 (8)** terminals on the **P1** connector.
- If the sensor is 4-20mA current output, like**(1) ON for AN1, (2) ON for AN2, (3) ON for AN3 and (4) ON for AIN4**. 4-20 mA sensors are normally connected between the VA source voltage and the ANx input.

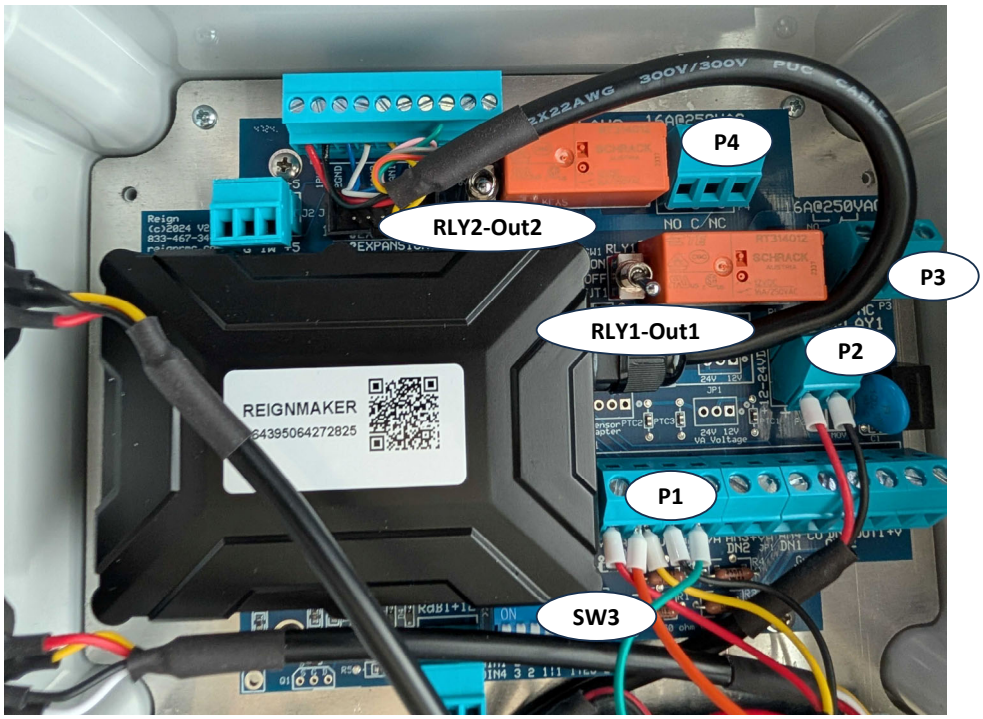

Figure 4- ReignMaker Board Connections

- If the sensor is an analog voltage output (0 to 5V or 0-10V), then the corresponding switch on **SW3** would be set to OFF not ON.

Digital Sensor Connections:

- Connect sensors to **DN1 (8), DN2 (6), DN3 (4), DN4 (2) and DN5 (10)** terminals on the **P1** connector
- Turn OFF the appropriate switch on **SW3 DN1 (4), DN2, (3), DN3 (2), DN4 (1)**
- For **DN5**, turn switch **7 ON and 8 OFF**

Relay Connections:

- Both Relays provide a form C connection rated at 16A @ 250 VAC, with maximum switching voltage 400VAC
- **RLY1** connection is at **P3** and is controlled by **OUT1** Set **SW3 (5) OFF** and **SW3 (6) ON** to use **RLY1**
- **OUT1** is also available at the **P1 (11)** To use this connection, set **SW3 (5) ON and SW3 (6) OFF**
- **RLY2** connection is at **P4** and is controlled by **OUT2** Set **SW3 (7) OFF SW3 (8) ON** to use **RLY2**
- **OUT2** is also available at the **P1 (10)** To use this connection, set **SW3 (7) ON and SW3 (8) OFF**
- ***Digital input IN4 and OUT2 share the same wire and cannot be used simultaneously***
- **RLY1** and **RLY2** have a control switch with three positions:
  - **UP** will force the Relay ON This forces the relay to activate, and it is like the control tab on some Relays
  - **MIDDLE** will disable and open the Relay this locks out the Relay from operating
  - **DOWN** will have the relay controlled by the Reign system this is the default position for delivery
- ***The Front panel LED will light Red when either Relay is ON***

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