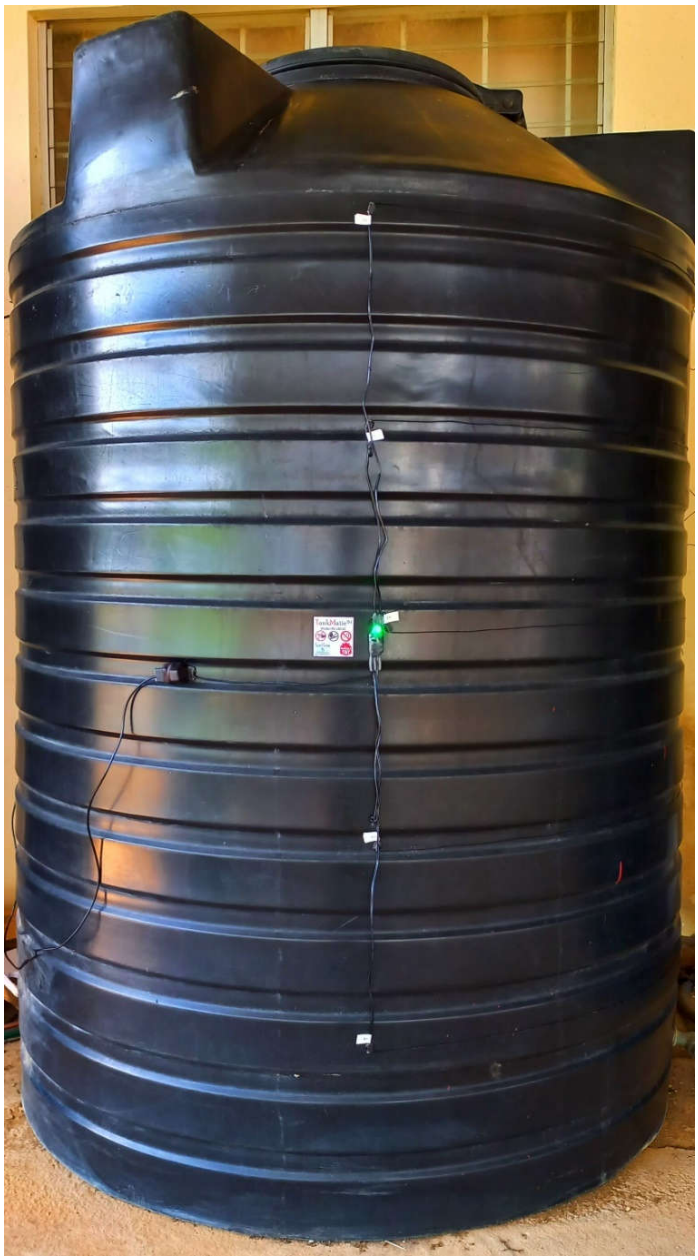
SuperMation
"Automation at your Fingertips"™

TankMatic™ L1

Installation and Operation Manual

5 Sensor Non-Intrusive Water Level Monitor



Date: 2 February 2026

Contents

List of Abbreviations

- IOM – Installation and Operation Manual.
- IP - Internet Protocol.
- SPin - SuperMation Products identification number.
- SPL - SuperMation Products Limited.
- UI - User Interface.
- URL - Uniform Resource Locator or website link.

Models Applicable:

- L1.

1 Comparison of Technologies

Technologies		
Item	TankMatic	Ultrasonic
Calibration setup	None (instant use).	Required for each tank dimension (base to top).
Calibration drift	None.	Requires temperature compensation.
Tank integrity for installation	No damage to tank.	Drilling/cutting a hole in the top of the tank is needed for the sensor.
Installation time	Approximately 10 minutes.	Approximately 30 minutes.
Reading resolution	6 levels (100%/80%/60%/40%/20%/Critical) = (Green/Flashing Green/Yellow/Flashing Yelow/Red/Flashing Red).	100% to 0% continuous reading.
Reading stability	Less affected by water slosh when tank is filling. Not affected by temperature. Rains will give false positive for water.	Significantly affected by water slosh and temperature. Not affected by rainfall.
Water contamination during installation	Not possible.	Contents of the tanks will be exposed during installation. Possibility of debris falling into the tank.
Service life	Long life due to electronics sealed and not exposed directly to the weather or tank water.	The sensor is continuously exposed to moisture inside the tank which may affect longevity.
Subscription fees and advertisements	None.	Depends on the app.

Technologies		
Item	TankMatic	Ultrasonic
Visual indicators on the tank	Yes.	Typically none.
UI, remote access.	Local UI within 15 feet of the product. No remote access.	Yes, dependent on the app.
Standalone capability without the internet.	Yes.	Depends on the app.
Additional sensors	Multiple products can be installed on a tank.	Not required as the single sensor provides a readings from full to empty at high resolution.

2 Prerequisites

Safety is crucial so please ensure proper safety rules and use of tools are followed. The details of these are outside the scope of this document. SPL is not liable for any injuries or damages incurred due to incorrect installation.

2.1 Tools

Before installation, ensure the following tools are available:

1. Hot glue gun (minimum 60Watt) for full size (11mm / 0.43inch) sticks.
2. Extension cord (length depends on the location of the target tank and nearest power receptacle).
3. Ladder or scaffolding for tanks installed at significant height.
4. Clean, lint-free, cloth and rubbing alcohol in a spray bottle.
5. Measuring tape.

2.2 Site resources

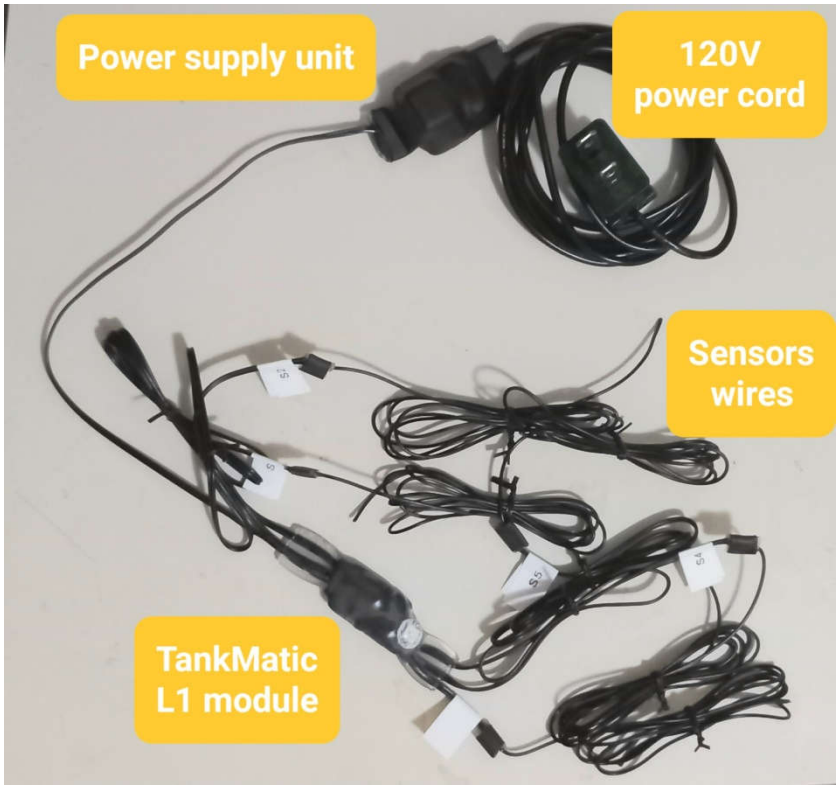
The following are needed for the installation at the tank:

1. One available 120VAC power receptacle.
2. The tank outer surface must be dry with no trace of moisture. Please do not install in drizzle/rain.

2.3 Kit contents

The kit contains all that is needed for a full installation as listed below:

1. One TankMatic L1 unit.
2. One power cord 6 foot long.
3. One hot glue stick 11mm x 270mm.
4. One nameplate sticker.


Power supply unit
120V
power cord
Sensors
wires
TankMatic
L1 module

3 Installation onto the Tank

The product is designed for plastic (polypropylene) water storage tanks. Ceramic, concrete, metal and silicone tank walls are not compatible with the product. It is strongly recommended to install onto a full tank.

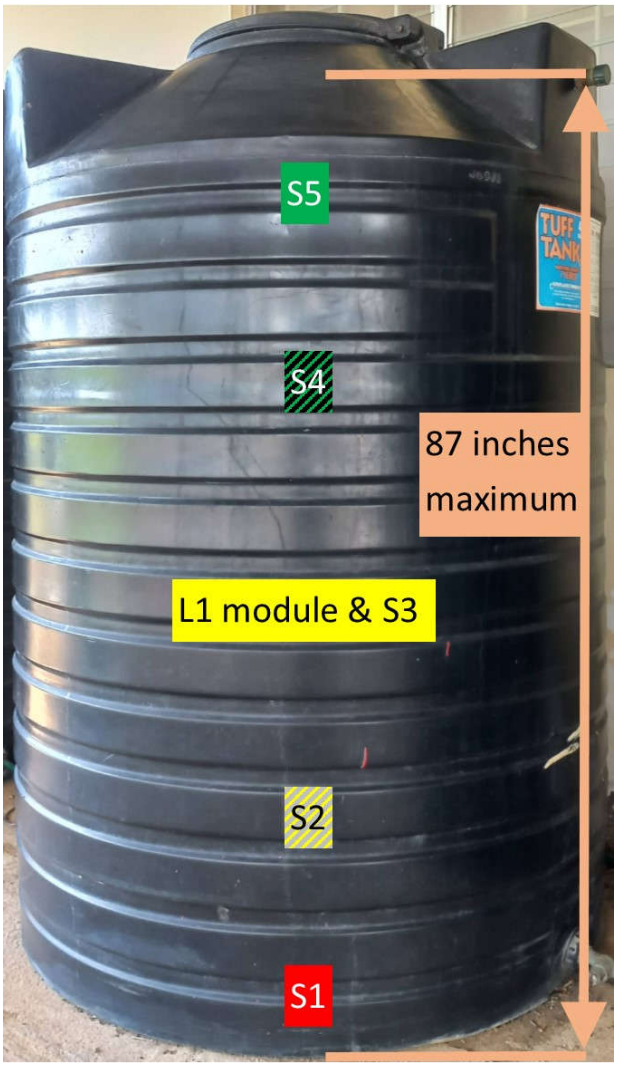
3.1 Powering and Testing

The 120VAC plug needs to be inserted into a nearby receptacle and ensure the LED is active. You can use hot glue to secure the wire to the tank surface, pipes and concrete walls for example.

The LED will flash Red once per second. This indicates an empty tank since it is not yet installed. To test the unit, hold firmly the loop of sensor wire labeled S1 and the LED will go solid Red. Repeat for the other sensor wire loops and the color will change as per the table in subsection 3.3.

3.2 Mark and clean the external wall

Identify the installation locations then use rubbing alcohol to clean those surfaces.



All components should to be placed equally apart as shown in the example above.

3.3 Install the components

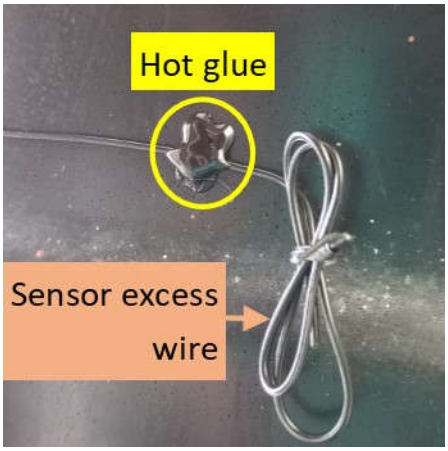
Ensure your hot glue gun is hot enough that some glue dribbles from the nozzle. Starting with the L1 module, apply glue directly behind the LED and press onto the tank (midway along the height of the tank). Next glue the power supply unit to the tank.

To ensure reliability in reading to water level, the length of sensor wire should be as in the table below.

Capacity (Gallons)	Diameter (cm)	Sensor wire horizontal length (cm)
400 to 600	118 to 143	82
800	160	185
1000	167	250

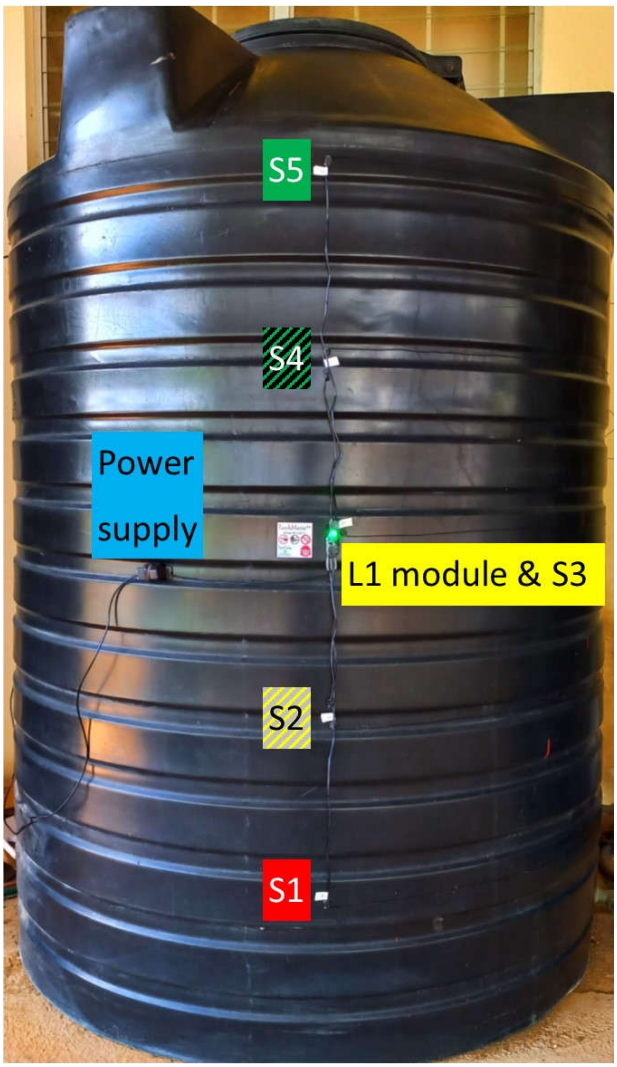
To determine the precise wire length for your tank, glue the start of the S5 sensor wire at a level where water exists (the other sensor wires needs to be bundled to reduce their sensitivity). Use masking tape to stick a length (example 50cm) of wire horizontally and snug onto the circumference of the tank while keeping the excess wire bundled. Remember to remove your hands from the wire and step back 2m from the tank. If the LED flashes red, it is not sensitive enough to detect the water. Keep sticking additional length of wire from the bundled excess until the LED turns green (always remove your hands and step away). Make a measurement of this wire length and install all sensor wires using this length.

The sensor wires are labeled S1, S2, S3, S4 and S5. The 5 sensor wires should be installed horizontally using hot glue. The wires need to be snug on the tank, always making contact with the surface. Any excess sensor wire should be tied in a loop and glued to the tank (this limits the sensitivity to allow detection when the water level drops).



If running the entire wire horizontally is not practical, a Z pattern can be used as shown below.

If the installation was incorrectly done, spray the cooled glue with rubbing alcohol and let soak for 2 minutes. Pull off the component and peel off traces of the glue. Repeat the installation properly.



The above picture shows a typical installation of the product.

4 General Use

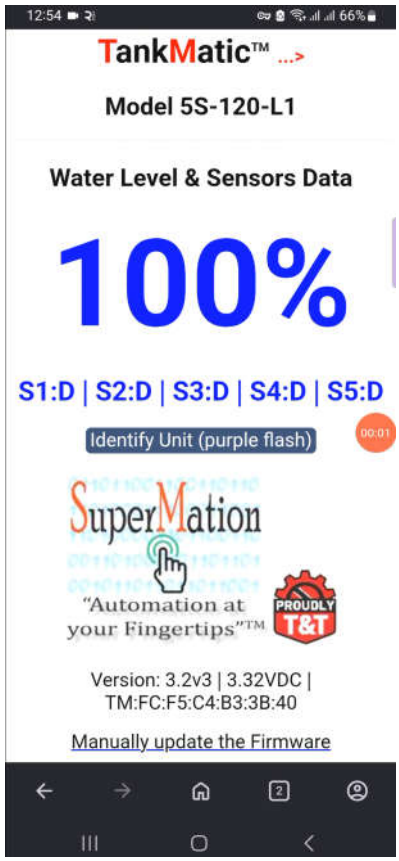
4.1 Use

The product provides 6 levels of sensing and LED colors to indicate.

Level (%)	Sensor	Colour
100	S5	Green
80	S4	Flashing Green
60	S3	Yellow
40	S2	Flashing Yellow
20	S1	Red
Critical	NONE	Flashing Red

The L model can also be accessed via its UI on your phone browser app. Connect to its open WiFi network (for example TM:**:**:**:**:**:**). In your browser app address bar enter the follow local address: 192.168.4.1 or scan the below QR code.

The UI will load as shown below for a full tank.



The individual sensor data is shown: D for detected and – for no detection. If a sensor wire becomes loose or damaged, it will be easily identified as – if the above sensor shows D.

The LED colour will depend on the level of water within the tank.

4.2 Troubleshooting

Rainfall will cause a false indication of water when tank's water is below the sensor(s). When the tank outer surface dries, the product will properly detect the internal level.

Touching of the sensor wires will cause a false positive for detection.

Standing within 2m of the product may give a false positive for detection. It will detect the volume of water in the human body. Large pets may also cause incorrect readings.