

DAVEY

DAVEY TankSense™

Tank Water Level Sensor

Model: DTSWLM

Installation and Operating Instructions



Please refer to davey.com.au/tanksense, or daveynz.co.nz/tanksense for any product information updates.

Please pass these instructions on to the operator of this equipment.

1. COMMON INSTALLATION INSTRUCTIONS

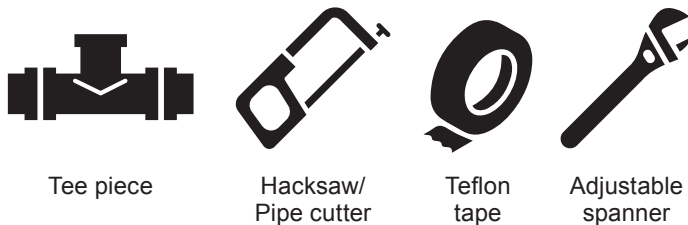
1.1 Tee piece installation

Davey recommends using a tee piece of appropriate size with a ¼” thread on the tee.

1.1.1 How do you connect TankSense?

- Locate a position for installation outside your water tank and at ground level
Note: For recommended locations refer to the installation instructions.
- Isolate water supply from the tank
- Measure position and if required, adjust pipe length to allow for tee piece
- Install tee piece
- Using Teflon tape, insert thread of TankSense and tighten down to seal
- Reconnect the water supply and check for any possible leaks
- Download the Davey TankSense app to get started!

1.1.2 Tools required



Tee piece

Hacksaw/
Pipe cutter

Teflon
tape

Adjustable
spanner

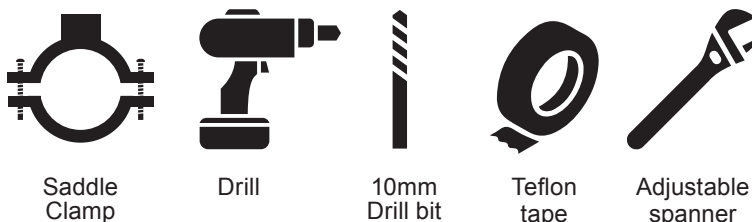
1.2 Saddle clamp installation

Davey recommends using a saddle clamp to suit the pipe dimension with a ¼” thread.

1.2.1 How do you connect TankSense?

- Locate a position for installation outside your water tank and at ground level
Note: For recommended locations refer to the installation instructions.
- Isolate water supply from the tank
- Mount clamp onto pipe in appropriate location, mark position of hole and remove clamp (ensure it is not too close to other fittings)
- Using a 10mm drill bit, drill into pipework to expose water channel, replace the clamp and fasten
- Using Teflon tape, insert thread of TankSense and tighten down to seal
- Reconnect the water supply and check for any possible leaks
- Download the Davey TankSense app to get started!

1.2.2 Tools required



Saddle
Clamp

Drill

10mm
Drill bit

Teflon
tape

Adjustable
spanner

2. DOWNLOAD THE APP

Search **Davey TankSense**



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Google Play and the Google Play logo are trademarks of Google LLC.

davey.com.au/tanksense | daveynz.co.nz/tanksense

3. TECHNICAL SPECIFICATIONS

- Manage and monitor tank water levels
- Customise to suit individual households water usage
- Provides real time data direct to mobile phone via an App
 - How many days of water left remaining
 - Tracks monthly water usage
 - Alerts when tank water levels are running low
 - Predicts rainfall events based on weather patterns and forecasts
- Designed for all above ground tank applications higher than 1m†
- App compatible with iOS and Android mobile phones
- BLE (Bluetooth®) connection – no subscription needed

| SPECIFICATIONS | |
|------------------------|-------------------|
| Pressure Accuracy | + / - 1% |
| Temperature Range | -40 to 85 Degrees |
| Enclosure Class | IP67 |
| Application Connection | 1/4Bsp (Male) |
| Material | Polycarbonate |
| Battery Life Span | 24 Months |
| BLE Range | 50-100 Metres* |
| BLE Connection Range | 20-30 Metres** |
| Compatible Devices | IOS or Android |
| Dimensions | 35mm D x 94mm H |

* Range may be affected by items in line of sight

** Phone with App needs to be within the BLE Connection Range regularly to ensure greater accuracy of the TankSense data

† Tank height maximum 10 metres

4. TROUBLE SHOOTING GUIDE

4.1 Symptom

TankSense fails to connect to mobile device. Prompts user that “sensor not in range” (refer Figure 4.1)

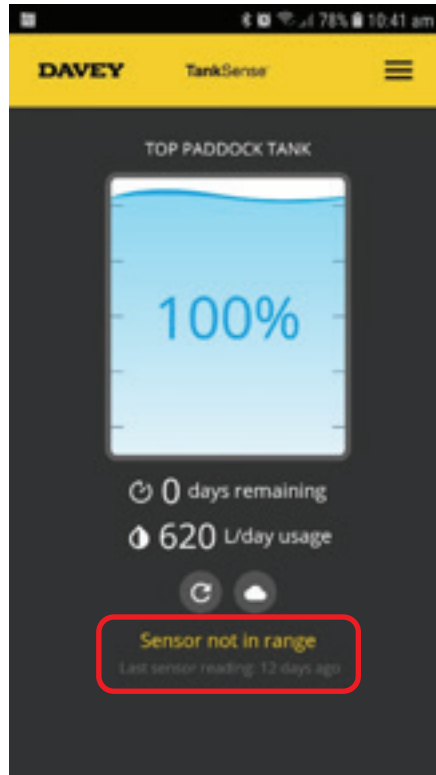


Figure 4.1

4.1.1 Possible reason

- TankSense not within BlueTooth range.
 - COURSE OF ACTION – Move closer to TankSense.
- Flat battery (Battery expected to last 2 years +)
 - If TankSense less than 6 months old possible moisture ingress to PCB board causes failure of a capacitor.
 - Customer test method: Customer has replaced battery and it has failed shortly thereafter.
 - COURSE OF ACTION – Refer to Davey service
- Battery installed back-to-front
 - Due to the battery holder displaying the + symbol on the rear of the holder it is easy for it to be placed in backwards (refer Figure 4.2);



Figure 4.2



Figure 4.3

- When battery fitted correctly, a green LED flashes on the back of the PCB for a split second (refer Figure 4.4).

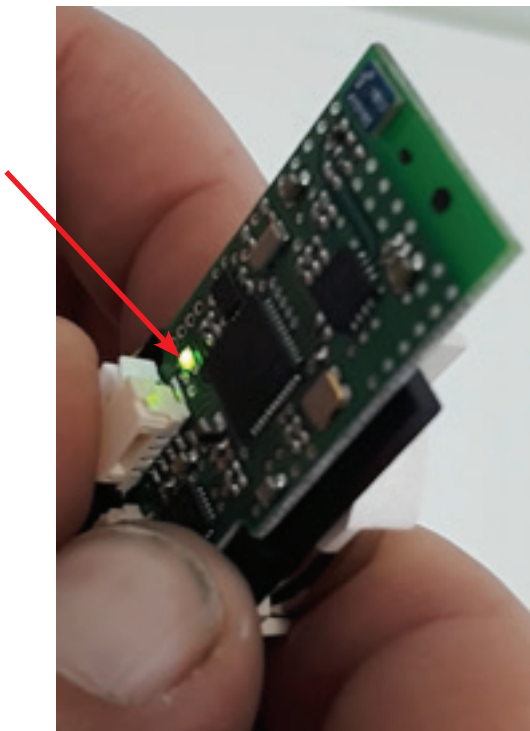


Figure 4.4

4.2 Symptom

Fluctuating level readings – Client experiences varied non-sensical readings.

4.2.1 Possible reason

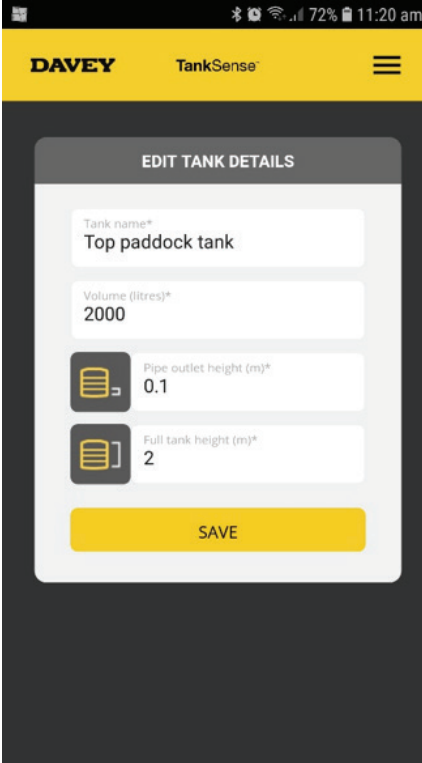
- Moisture ingress to PCB
- COURSE OF ACTION – Refer to Davey service.

4.3 Symptom

Stable, but consistently incorrect readings – Client consistently experiences either no volume, or 100% volume when it should be in between the two points.

4.3.1 Possible reason

- Incorrect data entered during TankSense set-up; Look to “EDIT TANK” menu in app (refer Figure 4.5)



The screenshot shows the 'EDIT TANK DETAILS' screen in the Davey TankSense app. The interface is dark-themed with yellow accents. At the top, there's a yellow header with the 'DAVEY' logo and 'TankSense' text. Below the header, the screen displays four input fields for tank configuration: 'Tank name*' (Top paddock tank), 'Volume (litres)*' (2000), 'Pipe outlet height (m)*' (0.1), and 'Full tank height (m)*' (2). Each field has a small icon to its left. A yellow 'SAVE' button is positioned at the bottom of the form.

Figure 4.5

- Ensure tank height is in meters (at present will not compensate for other measurement formats);
- **Customer Test Method:** Have them check the data is correct. Typically, problem arises when millimetres is used for unit of measurement, rather than metres (compare values entered in Figure 4.5 above, compared to Figure 4.6 next page).

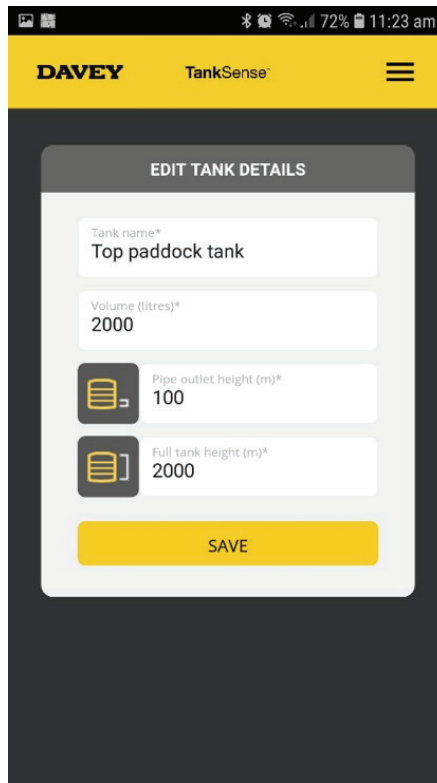


Figure 4.6

- COURSE OF ACTION – Refer to Davey service.

4.4 Symptom

Cannot reset the password – password reset button won't highlight when client enters a login email (refer Figure 4.7).

4.4.1 Possible reason

- • Backend has encountered problems.
- COURSE OF ACTION – Refer to Davey service.

Not highlighted once email is filled out

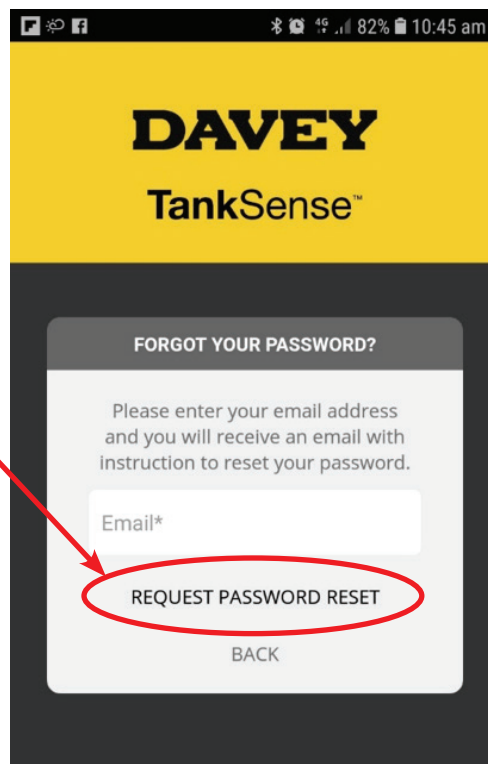


Figure 4.7

5. Davey Warranty

Davey Water Products Pty Ltd (Davey) warrants all products sold will be (under normal use and service) free of defects in material and workmanship for a minimum period of one (1) year from the date of original purchase by the customer as marked on the invoice, for specific warranty periods for all Davey products visit daveywater.com.

This warranty does not cover normal wear and tear or apply to a product that has:

- been subject to misuse, neglect, negligence, damage or accident
- been used, operated or maintained other than in accordance with Davey's instructions
- not been installed in accordance with the Installation Instructions or by suitably qualified personnel
- been modified or altered from original specifications or in any way not approved by Davey
- had repairs attempted or made by other than Davey or its authorised dealers
- been subject to abnormal conditions such as incorrect voltage supply, lightning or high voltage spikes, or damages from electrolytic action, cavitation, sand, corrosive, saline or abrasive liquids,

The Davey warranty does not cover replacement of any product consumables or defects in products and components that have been supplied to Davey by third parties (however Davey will provide reasonable assistance to obtain the benefit of any third-party warranty).

To make a warranty claim:

- If the product is suspected of being defective, stop using it and contact the original place of purchase. Alternatively, phone Davey Customer Service or send a letter to Davey as per the contact details below
- Provide evidence or proof of date of original purchase
- If requested, return the product and/or provide further information with respect to the claim. Returning the product to the place of purchase is at your cost and is your responsibility.
- The warranty claim will be assessed by Davey on the basis of their product knowledge and reasonable judgement and will be accepted if:
 - o a relevant defect is found
 - o the warranty claim is made during the relevant warranty period; and
 - o none of the excluded conditions listed above apply
- The customer will be notified of the warranty decision in writing and if found to be invalid the customer must organise collection of the product at their expense or authorise its disposal.

If the claim is found to be valid Davey will, at its option, repair or replace the product free of charge.

The Davey warranty is in addition to rights provided by local consumer law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

For any internet connected products the consumer is responsible for ensuring a stable internet connection. In the event of a network failure the consumer will need to address the concern with the service provider. Use of an App is not a substitute for the User's own vigilance in ensuring the product is working to expectation. Use of a Smart Product App is at the User's own risk. To the fullest extent permitted by law Davey disclaims any warranties regarding the accuracy, completeness or reliability of App data. Davey is not responsible for any direct or indirect loss, damage or costs to the User arising from its reliance on internet connectivity. The User indemnifies Davey against any claims or legal actions from them or others relying on internet connectivity or App data may bring in this regard.

Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the products. The repair of your products may result in the loss of any user-generated data. Please ensure that you have made a copy of any data saved on your products.

To the fullest extent permitted by law or statute, Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer guarantee applicable to your Davey product under local laws and does not affect any rights or remedies that may be available to you under local laws.

For a complete list of Davey Dealers visit our website (daveywater.com) or call:

DAVEY

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DWP1913

* **Installation and operating instructions are included with the product when purchased new. They may also be found on our website.**