



Installation Guide

IOIO Box for use with

SmartMove Go tablet version

Version 2.1 – June 2021

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Overview

The IOIO (pronounced “yo-yo”) Box is designed to interface the Android Tablet version of the SmartMove Go vehicle software with various devices in a taxi. The interface box can:



- Turn on (supplies power to) the Cabcharge Fareway meter when the driver logs into SmartMove.
- Turn off (cuts power to) the Cabcharge Fareway meter when the driver logs out of SmartMove.
- Detect the engaged/vacant states of an existing meter and reads the total fare at the end of the job of compatible meters via serial connection.
- Trigger the dome light on/off when the Cabcharge Fareway meter/SmartMove softmeter is engaged/disengaged.
- Receive a signal from the physical duress alarm and trigger the panic functionality in SmartMove (e.g. make a silent call to the base so the base can hear what is going on inside the car).
- Charge the tablet (USB cable used for data/power).
- Send fares directly to a CabCharge EFTPOS machine (when using the built-in Soft Meter).




Important Note:

1. The IOIO Box is incompatible with the Samsung **Knox** lockdown system.
2. We have tested and can recommend **Fully Kiosk** by Fully Factory Kiosk Solutions or **Surelock** by 42Gears if you require a lockdown solution.
3. For fares to be transferred to SmartMove Go at the end of the trip, the Cabcharge Fareway meter must be updated to communicate with SmartMove. Please request all your meters to be updated by contacting Cabcharge on **(02)93329246**.

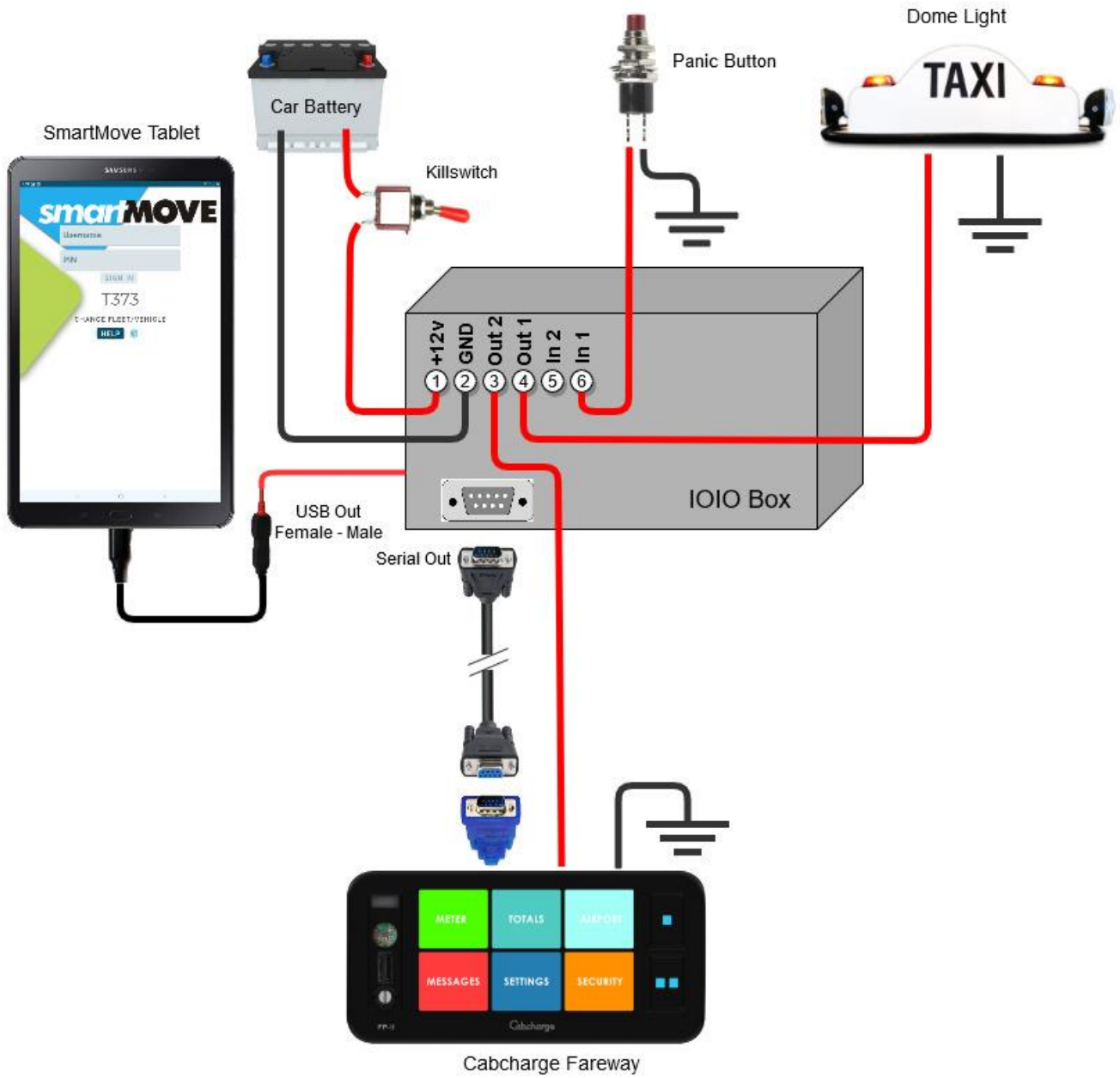
Equipment Checklist

The IOIO Box requires the following parts, some supplied by SmartMove.

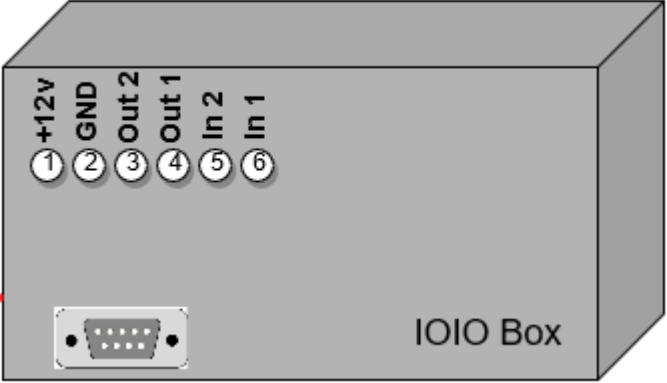
Components:	
<p>1 x IOIO Box (SmartMove supplied)</p>	
<p>1x Panic Switch (SmartMove supplied)</p> <p>If previous equipment is installed, it is possible to wire the old button to the IOIO.</p>	
<p>1 x USB data/charging cable (Usually comes with the tablet or phone to be used)</p>	
<p>1 x Kill switch (Not supplied)</p> <p>See notes on pg. 6.</p>	
<p>1x Male to Female null modem cable (SmartMove supplied if required)</p> <p>For use with the CabCharge Fareway meter.</p> <p>(Note: if the supplied cable is not long enough, a “normal” RS232 extender cable is required. Recommended part: https://www.startech.com/en-au/where-to-buy/mxt1003mbk)</p>	

<p>1x Bluetooth Adaptor (SmartMove supplied)</p> <p>(Note: the model we supply has been tested to work. Other models may not work, so we do not recommend sourcing these yourself.)</p>	
<p>1 x ~25mm diameter Heatshrink (Optional)</p>	
<p>1x Serial-RJ45 adaptor + RJ12 cable (Optional) (SmartMove supplied if required)</p> <p>For use with the CabCharge EFTPOS machine.</p>	

Wiring Diagram



Installation

<p>There are 6 screw connectors on the side of the IOIO Box.</p> <p>From left to right:</p> <ol style="list-style-type: none"> 1. Power, positive 2. Power, negative / Ground 3. Meter power 4. Dome Light 5. Digital Meter input 6. Panic Button 	 <p>Serial Out: Meter communication</p>
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Notes:

If your dome light is controlled by the Meter, then wiring it into the IOIO Box (4) is optional. The benefit of wiring the dome light is to allow control from the built in soft meter.

Powering the meter with the IOIO Box (3) is also optional. The benefit of powering the meter directly allows the meter to be powered on only when logged into SmartMove. A delay can be configured after the driver logs out to allow them time to print the End of Shift report, etc.

The **panic button** and **dome light** should have their grounds (negative connection) wired to the car, or some other earth.

A kill switch (or relay) **MUST** be wired up to the power cable connecting the battery to the IOIO Box, so the IOIO Box can be turned off easily to facilitate easy power cycling for troubleshooting.

Also, the default state of the dome light is “on” when everything is connected, and this is a convenient way to turn it off.

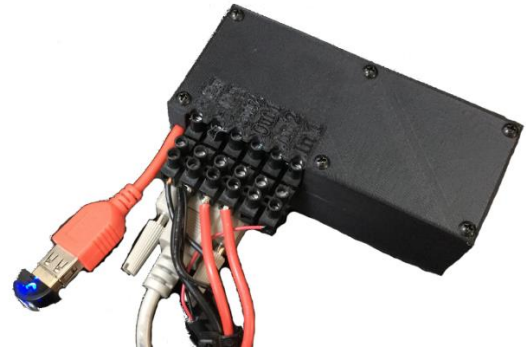
Due to concerns about insufficient charging current, we also provide an option to connect the IOIO box to the tablet with a Bluetooth adaptor instead. This requires a USB power source from elsewhere.

Bluetooth Setup

Plug the Bluetooth adaptor into the USB out of the IOIO Box. It should have a flashing

1. blue light.

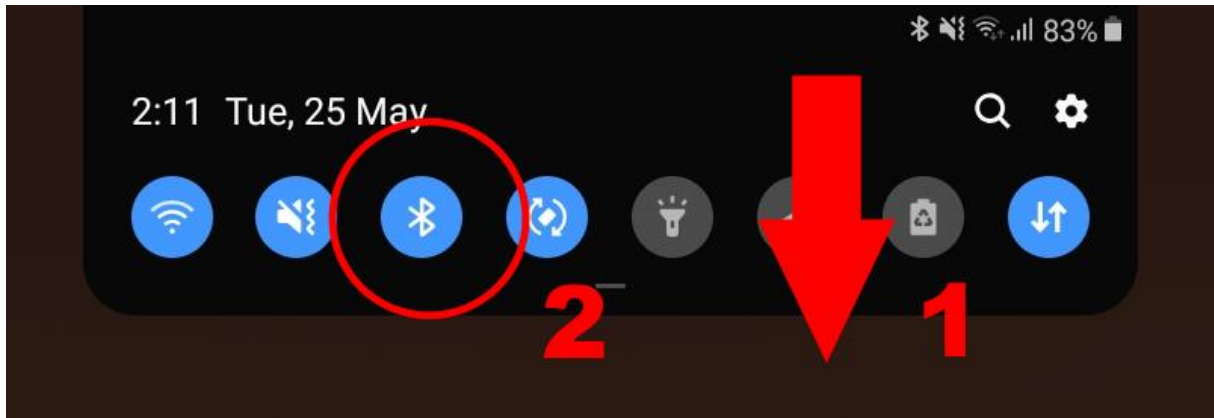
If it doesn't, power cycle the IOIO.



Connect the tablet Bluetooth to the IOIO box.

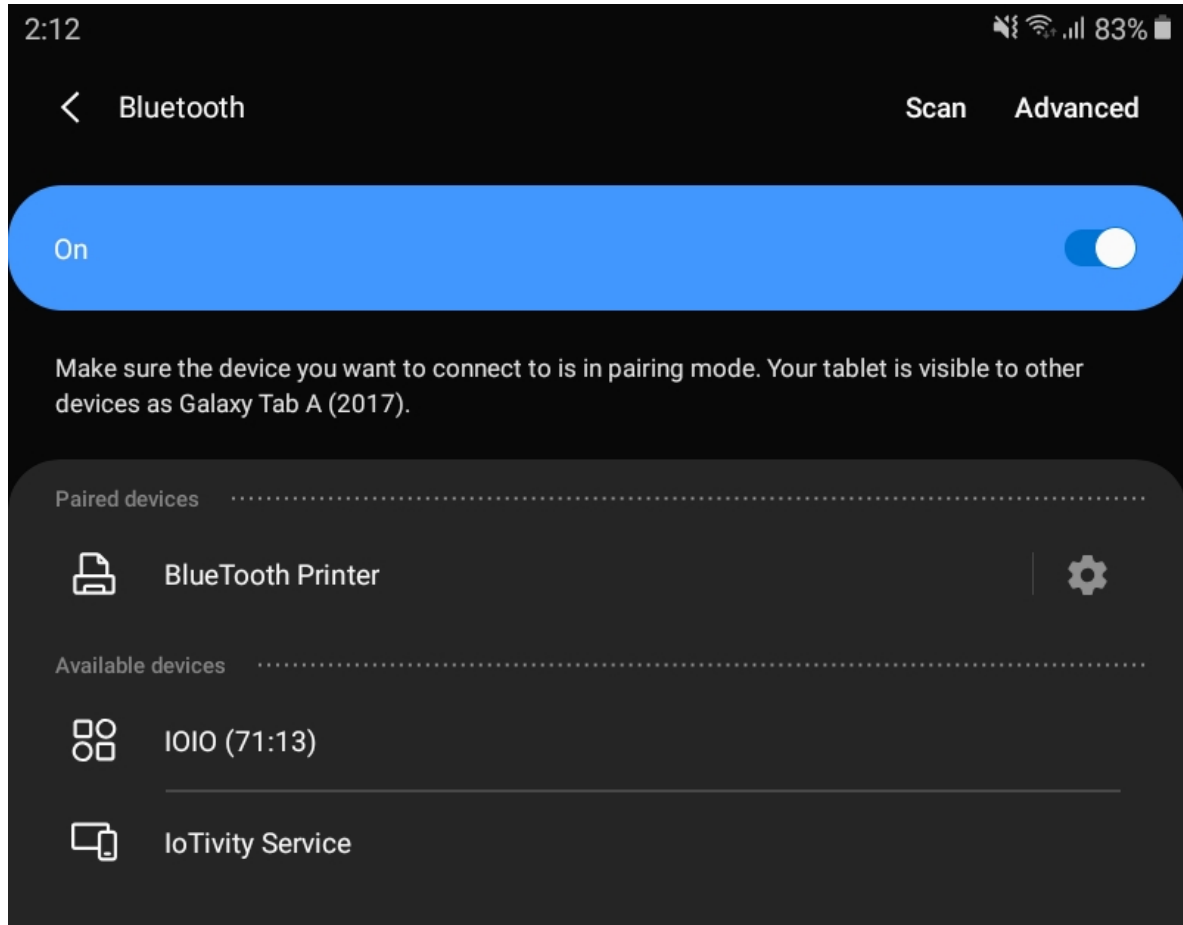
Swipe down from the top of the screen to bring up the status bar, then hold down on the Bluetooth icon to bring up the settings.

- 2.



Find the IOIO on the list (it will probably take a few seconds to resolve the name), tap it, and enter the PIN: **4545**.

3.



4. Run the SmartMove Go app. The relay in the IOIO should click, and if wired up, the dome light will turn on. If it's too noisy, or the dome light isn't wired into the IOIO box, alternate ways to test the connection include running the meter, or engaging the duress alarm.

5. Plug the USB charging cable into a point in the car such as a cigarette lighter adaptor or built-in USB plug that is able to provide sufficient current to keep the tablet fully charged.

Wired Setup

1. Slide the heatshrink over the USB cable from the IOIO Box.



2. Connect the USB cables together and slide the heatshrink up to the junction. Use a heat gun or hair dryer to cover the connection.



3. The result should look similar to the supplied picture (right). Application of the heatshrink should ensure the longevity of the cables.



Plug the other end of the USB cable directly into the tablet's USB port.

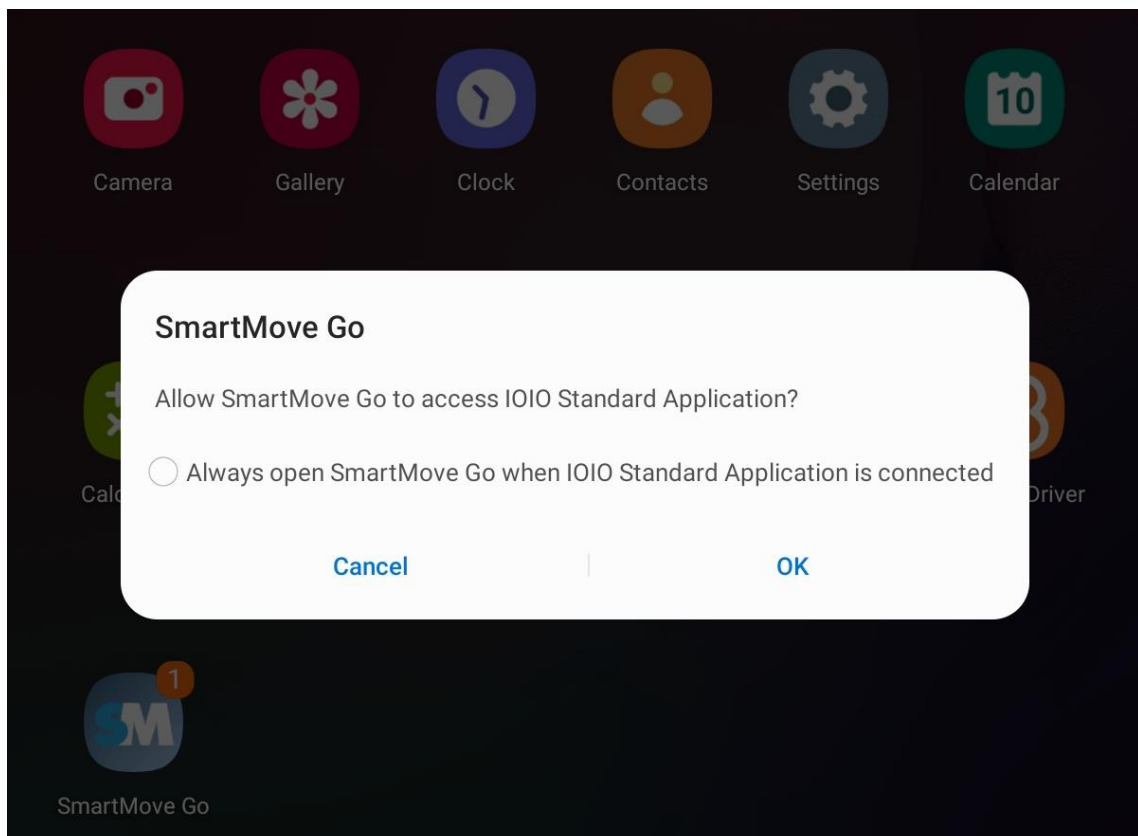
4. **NOTE:** The IOIO Box also charges your tablet so there is no need to remove for charging purposes.



Tablet Setup

PLEASE NOTE: To ensure the correct functioning of the IOIO, it is critical that these steps are followed closely, in order.

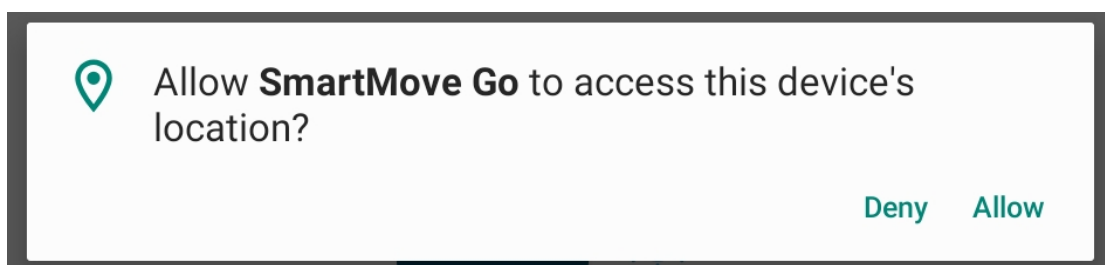
1. In the Google Play Store, search for “SmartMove Go” (published by SmartMove Systems Pty Ltd). Download and install the app, but **do not** run it just yet.
2. **(Wired option)** Connect everything to the IOIO box, supply power to it and connect the USB to the tablet being used. This popup should appear on the tablet:



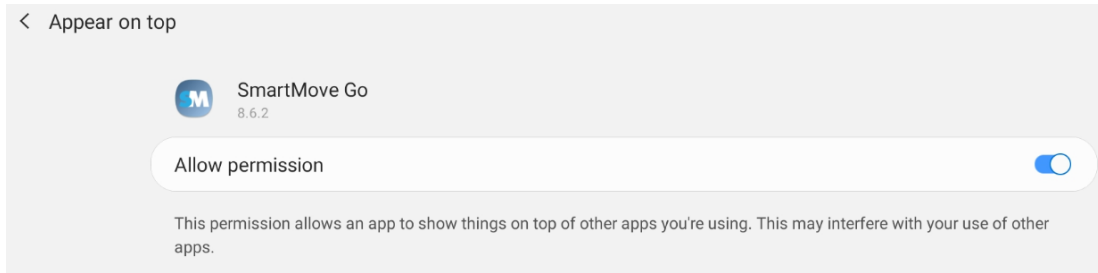
Select the “always open” option, then press OK.

Sometimes the Android operating system will skip past this checkbox as it appears, but it is imperative that it gets selected and confirmed, otherwise the IOIO box will be unable to communicate with the SmartMove Go app.

3. The SmartMove Go app will automatically open (**Wired option**) at this point. It will ask for several permissions; choose “Allow” for each.



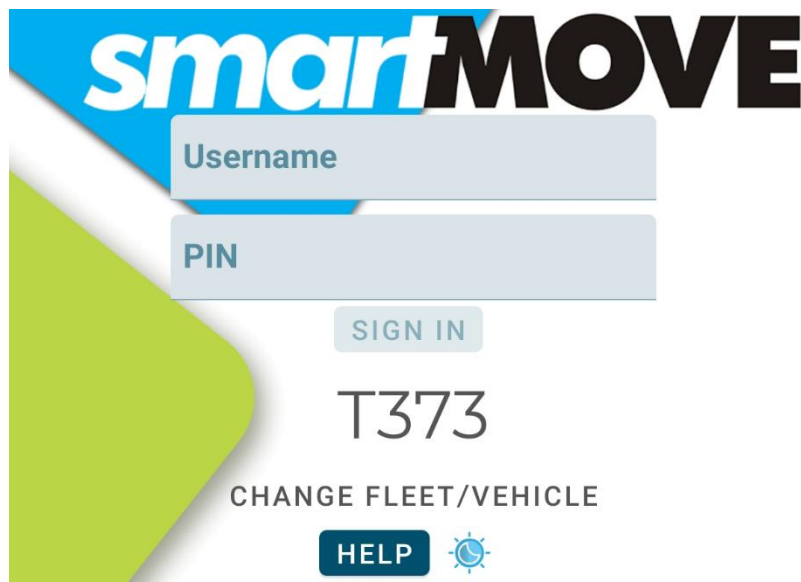
Additionally, it is strongly recommended to allow the “Appear on top” permission in the device settings:



4. Navigate back to the SmartMove Go app, and enter the fleet key*.

*Fleet keys are issued individually per vehicle and can be obtained on the SmartMove Fleets website under “SmartMove Go Keys”. If you don’t have access to this, contact your Network or SmartMove Support.

- 5.



Login with the supplied Username and PIN.

6. Once the SmartMove Go is logged in, and the Cabcharge meter has booted up, engage the meter, let it tick a couple of times, then end the fare to check that it’s being correctly passed to SmartMove.

*To help diagnose this, go to the Admin menu (key icon) > Settings > scroll to the bottom and choose “External Meter Test” if something isn’t working correctly.

7. If you have access to the Dispatch Client, test the panic button is working and sending an alert to the base.

Troubleshooting

Sometimes the connection between the tablet and the IOIO does not establish.

We build and test every box here to a high standard, so it's unlikely a problem is with the hardware itself.

Possible steps:

- Power cycle the IOIO box.
- Disconnect and reconnect the USB.
- **Force stop** the app and re-start it. (Hold down on the app icon, tap "App info" and then "Force Stop" on the page that appears.)
- If the "Allow SmartMove Go to access IOIO Standard Application" Dialogue (on page 10) disappeared before it was selectable, it may appear on disconnecting the reconnecting the USB.
- In rare cases, the Bluetooth adaptor may be faulty out of the packet. If it won't light up after several power cycles, try another one.
- Ensure **USB Debugging**, under Developer Options settings, is turned off.