



JVA Solar Wi-Fi Fence Monitor Quick Start Guide

WA20M
PTE2701



Introduction

The PTE2701 JVA Wi-Fi Fence Monitor provides an integrated Wireless Cellular USB Dongle (Wingle) power supply with a solar battery charger and management system.

This product provides a Wi-Fi network wherever a 3G/4G signal is available*. The Wi-Fi can then be used to connect an IP device or Internet of Things (IoT) device to the Cloud (Internet).

The JVA Solar Wi-Fi Fence Monitor is paired with the Wingle at the factory, all you need to do is:

1. Register the SIM card
2. Add the Fence Monitor to the IP Energiser Controller app on your [iOS](#) or [Android](#) device

This quick-start guide explains how to connect your PTE2701 to a fence and turn it on.

*An external cellular antenna (included) may be connected to increase reception. An upgraded YAGI style antenna is available from sales@jva-fence.com.au

Specifications

Component	Information
Solar Panel	Nominal 12v Solar Panel (maximum open circuit voltage - 22v DC) Maximum Power 20W
Battery	Nominal 12.8v DC Minimum Battery size 18Ah A larger battery may be required if any additional 12v device is connected to the battery

Component	Information
Outputs(1)	12v DC SAE Connector Used for powering the IP Monitor
Outputs (2)	12v DC Battery Connector Alligator clips for battery connection
SIM	Full Size
Wi-Fi	2.4GHz b/g/n Up to 10 connections at a time
Network (Huawei E8372)	3G 850/2100MHz 4GX 700MHz + 4G B1/3/7/21
Antenna Connector	Female SMA Ensure antenna is mounted away from sources of interference such as AC or high voltage cables.

Troubleshooting

Fault	Likely Cause	Remedy
No lights are on	Power is not connected Power wires are re-versed	Check power connections Check battery polarity
Batt level flashing	Battery disconnected Bad battery	Check battery connections Check battery voltage
USB_5V LED off	USB device drawing too much current	Unplug USB device, check for damage/ seek manufacturer advice

Fault	Likely Cause	Remedy
Battery not charging	Solar wiring backwards Broken cables Solar panel broken	Check that the Solar + goes to the left-hand screw terminal Check that the battery cables are not damaged Check solar panel for physical damage (broken glass, bent frame etc.)
Cannot connect to Wi-Fi	Low signal from 3G/4G Out of Wi-Fi range (~10m) SIM card not inserted correctly	Check management page of Wingle Move closer to Wingle Re-insert SIM card

If the unit is still not working correctly, contact your nearest JVA distributor for technical support.

Troubleshooting the IP Monitor

Fault	Likely Cause	Remedy
Status LED off	Power failure	Check connections and battery level
Status LED green	Normal operation, connected to internet and ready to operate	No action necessary
1 Red flash	IP Monitor is not connected to Wi-Fi, this is factory default mode	Configure the IP Monitor to connect to the Wingle's Wi-Fi network

Fault	Likely Cause	Remedy
2 Red flashes	IP Monitor has received Wi-Fi configuration and is attempting to connect to Wi-Fi network	If persistent (more than 2 minutes) Factory default and try to configure again
3 Red flashes	IP Monitor is connected to Wi-Fi and is connected to the internet	This should not display for more than 20 seconds, after which it will turn green. No action necessary
4 Red flashes	Failed to connect to Wi-Fi, the unit will try again	If this persists, factory default and try to configure again. If more than 10m away from Wingle, move closer.
5 Red flashes	IP Monitor has incorrect password	Default the IP monitor and re-configure

If the unit is still not working correctly, contact your nearest JVA distributor for technical support.

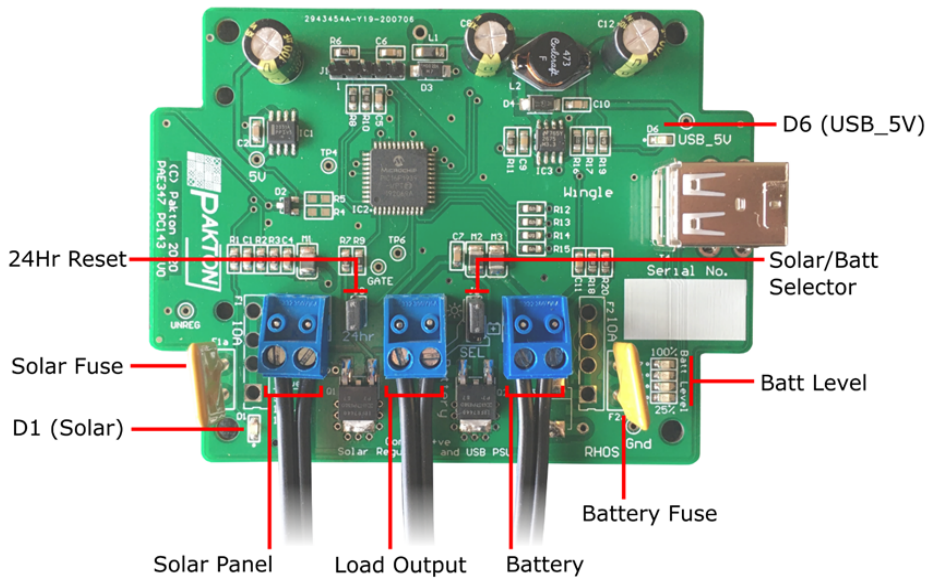
Before you start

Activate the SIM card

Activate your SIM card and test it in a mobile phone. The Wi-Fi network allows a data-only connection, the number of devices connected to the module will determine how much data will be used.

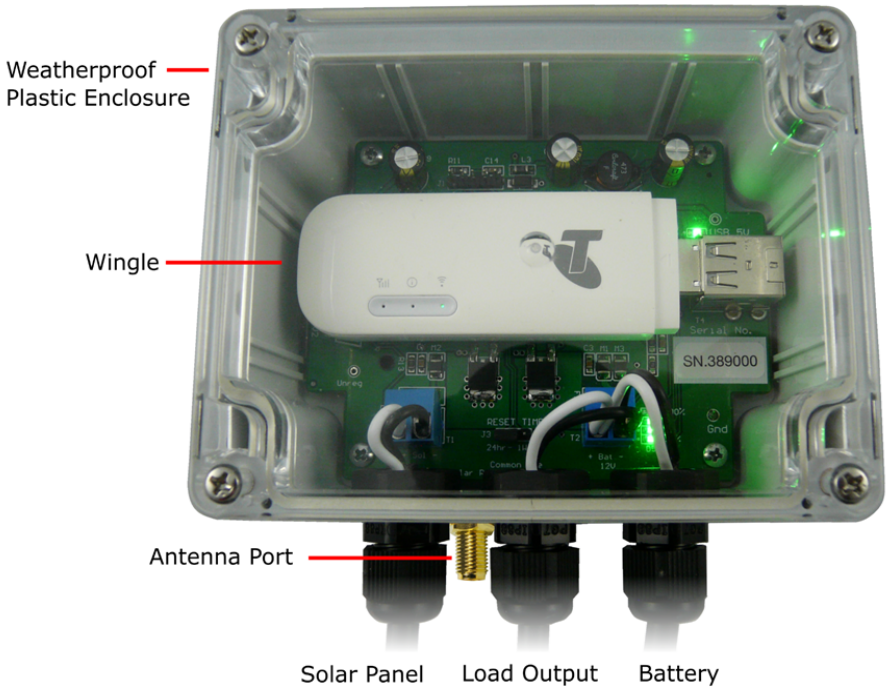
As a guide, a single IP Energiser or IP Monitor will use less than 1MB per day, so for connecting a single IP Energiser, an upper limit of 500MB per year is an option with a lot of headroom.

Overview



LED Indicators

D1 (Solar)	Solid on when solar panel in sunlight Blinking when solar panel in low power conditions Off when no solar power detected
D6 (USB_5V)	Solid on when USB Power is turned on
Batt Level	Bottom LED flashes if no battery is disconnected or bad Shows battery level from bottom to top: 25% to 100%



Configure IP energiser Controller App

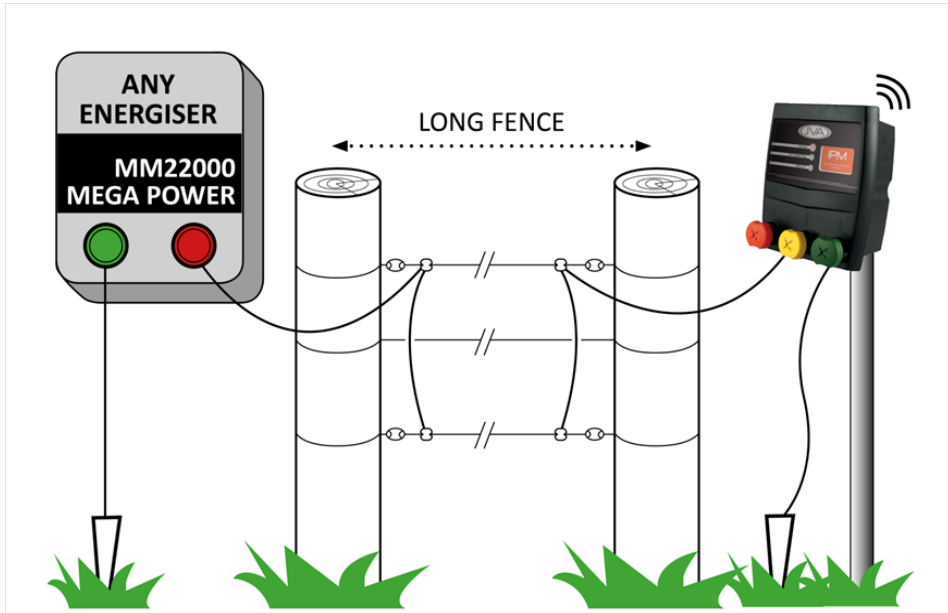
Download the IP Energiser Controller application (IPEC) from the [app store](#) or [google play](#).

Add a site to your IPEC app:

1. Press the menu hamburger at the top left
2. Press "Add Site"
3. Name the Site anything appropriate e.g. "North East 6km"
4. Fill in the Unit Serial Number with the serial number of the IP Monitor. This can be found on the bottom at the back of the IP Monitor.
5. Fill in the Unit Password with the same Serial Number used just before. The default password set by factory is the serial number of the IP Monitor.
6. 6. Select the "Device Type" as "IP Monitor"
7. Set alarm thresholds for voltage and current accordingly. The IPEC app will notify you if the IP Monitor hits or exceeds these thresholds.
8. Press "OK"

Connect IP Monitor

Option 1 - Monitor the end of a fence



Turn off Energiser before starting

Green Terminal to Fence Ground (Earth)

Yellow Terminal to Fence Live

Red Terminal (nothing connected)

Advantages:

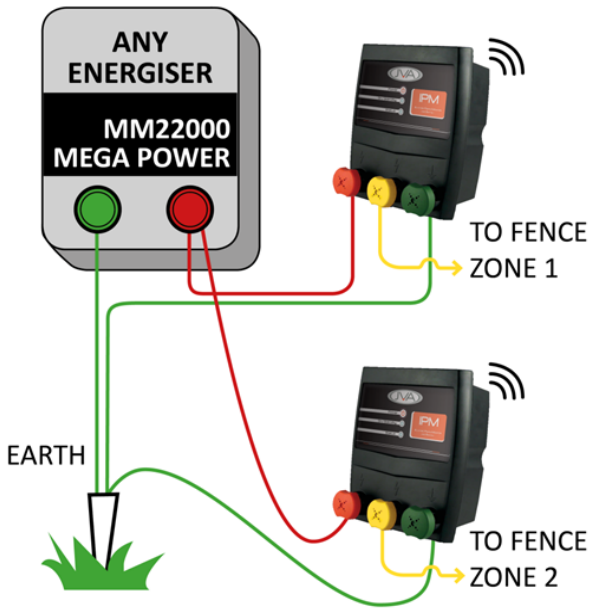
- End of Fence Voltage Monitoring
- Cut detection
- Fence Load detection

Limitations:

- No Current monitoring
- No fence armed state control¹

1. Relay function not available on IPM variant (PTE2606) - requires IPM-R

Option 2 - Monitor from the start of the fence(s)



Turn off Energiser before starting

Green Terminal to Fence Ground (Earth)

Yellow Terminal to Fence Live

Red Terminal to Energiser Output (high voltage)

Advantages:

- Current Monitoring
- Voltage Monitoring
- Ability to control the fence armed state¹

Limitations:

- No cut detection

1. Relay function not available on IPM variant (PTE2606) - requires IPM-R

Battery Connection and First Power On

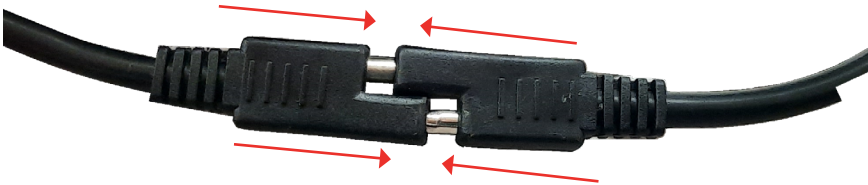
Connect the battery to the PTE2701 by the included battery connection cables. Ensure that the positive is connected to the red connector, and the negative to the black connector.

Once connected, the Batt Level indicator lights will show the approximate voltage level of the battery.



IP Monitor Connection

Plug the SAE connector from the IP monitor to the load output terminal of the Wi-Fi device. The IP Monitor will now have a **Green** status light. This will now be available and online in the IP Energiser Controller application.



JVA Distributors

If you have questions or need further assistance, please email us at sales@jva-fence.com.au or call

Region	Number
Australia	0731 030 582
South Africa	0861 782 349
World Wide	+61 731 030 582

For more information on our complete range of electric fencing products please see the JVA website at <https://www.jva-fence.com.au>

Tel : +61 (0)499 000 455 Email : sales@jva-fence.com.au

www.jva-fence.com

