



Complete user manual

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Introduction

Emberpulse® and its Pulse® analytics platform is an energy management system that provides energy advice, energy monitoring and home control.

Save more money. The Pulse® analytics platform will continuously assess your home's unique energy profile to advise you how to maximise energy savings. Savings may include identifying a better energy plan, or pinpointing the best time to install a solar system or a home battery.

Enjoy real-time 24/7 monitoring. Emberpulse® constantly monitors the energy usage in your home, showing you how much you are consuming, how much you are generating (if you have solar power) and how much you are paying. You are guaranteed to be notified of a solar outage.

Emberpulse® also supports advanced home automation, enabling lights, air conditioning and other home appliances to be monitored and controlled conveniently whether you are at home or not.*

*home automation features may require additional equipment.

Minimum requirements

The installation of Emberpulse® requires:

1. An active Wi-Fi internet connection
2. The installation of an approved sub-meter (Embermeter™) inside your home's electrical fusebox
3. A smartphone with an Android or iOS operating system, or a Wi-Fi enabled computing device such as a computer with a web browser such as Google Chrome, Mozilla Firefox or Safari.

In your box

1. Emberpulse® unit
2. Emberpulse® unit stand
3. AC power adapter
4. User manual
5. Quick setup guide

Safety instructions

- Not to be used outside or in wet areas. Warning: Failure to comply with this warning may result in injury or death.
- Avoid impact or rough handling that will lead to damage.
- Do not disassemble. There are no user serviceable parts inside.
- To ensure safe exposure limits to radio frequency fields, the product should be placed not closer than 20 cm from body during operation.

Hardware



Number	Interface	Description
1	Pulse® light	The Pulse® light provides a simple visual reference to show the energy performance of your home. To view how to customise your Pulse® light, view the subsequent Pulse® Light Operation section.
2	Hand wave sensor	Wave your hand within 1 cm of this sensor to activate the Pulse® light for an instant status update.
3	Reset button	Used to reset your Emberpulse® unit.
4	Power jack	Connection for AC power adapter.

Initial setup

1. Plug in your Emberpulse® unit

Select a location for your Emberpulse® unit that you can view at a glance and that is within 20 metres of your home's Wi-Fi router and electrical fusebox.



2. Complete setup

Complete your online Emberpulse® setup using either:

 **Emberpulse® app**

Download the Emberpulse® app and login using your Emberpulse® account details. Follow the prompts to complete your setup.

 

Or

 **Emberpulse® online portal**

Using a computer connected ONLY to your home's Wi-Fi (no cabled connection), visit:
emberpulse.com.au/login
Login using your Emberpulse® account details and follow the prompts.

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If you require support, please call 08 7084 0054 or email support@emberpulse.com

Pulse® light operation

Your Emberpulse® unit uses a coloured pulsating light to communicate real-time information about energy use in your home and alert you to any network connection issues.

Energy goal indicators

You can use the Pulse® light to focus on an energy goal of your choice. Energy goals include; maximising your solar revenue, tracking your expected energy bill and being notified when energy is at its cheapest.

Upon selection, your Emberpulse® unit will Pulse® one of three colours to notify you how your home is performing against your energy goal. These energy goal indicator colours include:



Setting an energy goal

Select your energy goal via your Emberpulse® app (more > goals) or via the Emberpulse® online portal at emberpulse.com.au (Emberpulse > Emberpulse settings). Available energy goals include:

- Maximise my solar investment
- Show me when my electricity is cheap or expensive to use
- I want to spend less than my electricity budget
- I want to use less electricity than in my previous period
- I want to use less electricity than a similar home.

View the full details of each energy goal on the next pages.

Goal 1: Maximise my solar investment

Maximise your solar investment by selecting this goal. Your Emberpulse® unit will provide real-time notifications on how to maximise your energy savings and solar revenue. Emberpulse® will cross check your solar generation, energy consumption and tariff rates to give a real-time recommendation on when to use more power or less power.

You don't need to guess or constantly check graphs. Simply glance at your Emberpulse® unit's colour for power usage advice. Below are the Emberpulse® unit's colour notifications for solar systems with low feed in tariffs and high feed in tariffs.

a. Low feed in tariff

Colour notifications if you have a solar feed in tariff that is less than your electricity grid tariff.

 <p>“Use more power”</p> <p>Pulsing green You are currently generating more energy than you are using. Now is a good time to use power. The faster your green Pulse® speed, the more solar power you have available for use.</p> <p>Solid green Excellent. You are currently maximising your solar usage.</p>	 <p>“Use less power”</p> <p>Pulsing red You are using all your solar generation and using grid power. The faster your red Pulse® speed, the more grid power you are consuming compared to your solar power generation.</p>	 <p>“No solar generation”</p> <p>No pulsing Your solar panels are currently not generating power.</p>
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b. High feed in tariff

Colour notifications if you have a solar feed in tariff that is more than your electricity grid tariff.

 <p>“You're maximising earnings”</p> <p>Pulsing green Excellent. You are currently exporting the majority of your solar power generation, maximising your solar revenue. The slower your green Pulse® speed, the more solar revenue you are earning.</p>	 <p>“Use less power”</p> <p>Pulsing red You are currently exporting only some of your solar power. To maximise your solar revenue, turn off unessential appliances. The slower your red Pulse® speed, the more solar power revenue you are earning.</p>	 <p>“No solar generation”</p> <p>No pulsing Your solar panels are currently not generating power.</p>
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Goal 2: Show me when my electricity is cheap or expensive to use

Energy prices can fluctuate at different times of the day and at different consumption levels. Select this energy goal to be notified when your home's electricity is cheap or expensive to use. Save money by using more electricity at cheaper times.

The pulsing speed of your Emberpulse® unit indicates how much power your home is currently consuming. A slow Pulse® speed shows that your home is consuming less power. A faster pulsing speed shows that your home is consuming a large amount of power.

 <p>“Your electricity price is cheap”</p> <p>Pulsing green</p> <p>Your electricity is currently being supplied at a low tariff rate.</p>	 <p>“Your electricity price is mid range”</p> <p>Pulsing orange</p> <p>Your electricity is currently being supplied at a mid range tariff rate.</p> <p>An orange Pulse® colour is also shown if your electricity plan has only one tariff rate.</p>	 <p>“Your electricity price is expensive”</p> <p>Pulsing red</p> <p>Your electricity is currently being supplied at a high tariff rate.</p>
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Goal 3: I want to spend less than my electricity budget

Select this goal to eliminate electricity bill shock. After setting an electricity budget, Emberpulse® will track and forecast your energy usage over your electricity bill cycle. Simply glance at your Emberpulse® unit's colour to check your electricity bill forecast.

The pulsing speed of your Emberpulse® unit indicates how much power your home is currently consuming. A slow Pulse® speed shows that your home is consuming less power. A faster pulsing speed shows that your home is consuming a large amount of power.

 <p>“You are within budget”</p> <p>Pulsing green</p> <p>Your electricity consumption is currently on track to achieve or spend less than your electricity budget.</p>	 <p>“You are marginally over budget”</p> <p>Pulsing orange</p> <p>Your electricity consumption is currently marginally more than your electricity budget.</p>	 <p>“You are significantly over budget”</p> <p>Pulsing red</p> <p>Your electricity consumption is currently significantly more than your electricity budget.</p>
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Goal 4: I want to use less electricity than in my previous period

Are you getting better at saving energy? Select this goal to compare your electricity usage to your previous period. This previous period can be defined as last week, last month or last electricity billing cycle.

The pulsing speed of your Emberpulse® unit indicates how much power your home is currently consuming. A slow Pulse® speed shows that your home is consuming less power. A faster pulsing speed shows that your home is consuming a large amount of power.

 <p>“You are using less power than previously”</p> <p>Pulsing green</p> <p>Your home is currently using less electricity, than your previous week, month or billing cycle.</p>	 <p>“You are using marginally more power than previously”</p> <p>Pulsing orange</p> <p>Your home is currently using marginally more electricity, than your previous week, month or billing cycle.</p>	 <p>“You are using much more power than previously”</p> <p>Pulsing red</p> <p>Your home is currently using significantly more electricity, than your previous week, month or billing cycle.</p>
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Goal 5: I want to use less electricity than a similar home

Do you use less electricity than a similar home? Select this goal and compare your electricity use to a home of a similar size and location. The comparison period can be defined as last week, last month or last electricity billing cycle.

The pulsing speed of your Emberpulse® unit indicates how much power your home is currently consuming. A slow Pulse® speed shows that your home is consuming less power. A faster pulsing speed shows that your home is consuming a large amount of power.

 <p>“You are using less power than a similar home”</p> <p>Pulsing green</p> <p>Your home is currently using less electricity than a similar home.</p>	 <p>“You are using marginally more power than a similar home”</p> <p>Pulsing orange</p> <p>Your home is currently using marginally more electricity than a similar home.</p>	 <p>“You are using much more power than a similar home”</p> <p>Pulsing red</p> <p>Your home is currently using significantly more electricity than a similar home.</p>
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System indicator

Your Emberpulse® unit will Pulse® a magenta colour to notify you of a connection or system difficulty. View the meaning of each system indicator below.



Magenta

Pulse® Behaviour	Description
Solid magenta	Your Emberpulse® unit has just been powered on or it has no internet connection. Expect a change after 60-90 seconds of powering up, when your Emberpulse® unit has completed the booting process. If no change after this time, check your internet connection.
Pulsing fast magenta	Your Emberpulse® unit has a network connection but cannot contact the Emberpulse® cloud.
Pulsing magenta occasionally	Your Emberpulse® unit has a network connection but cannot contact the Emberpulse® cloud. It has been trying to contact the Emberpulse® cloud for some time without success. It will continue to try to contact the Emberpulse® cloud.

No Pulse® light

If your home's power usage remains unchanged, your Emberpulse® unit will temporarily stop pulsing. Your Emberpulse® unit will restart pulsing once it detects a moderate power change in your home's energy consumption.

You can wake your Emberpulse® unit by waving your hand above its top sensor. Your Emberpulse® unit will then restart pulsing.



No Pulse® light

Note: If you have an active solar energy goal (see Pulse® light operation section), no Pulse® light indicates that your solar system is not currently generating.

You also have the option of dimming or disabling the Pulse® light. Visit the online portal at emberpulse.com.au and navigate to Emberpulse > Emberpulse settings.

Initiating a factory reset

In the unlikely event that your Emberpulse® unit becomes unresponsive for an extended period of time, it may be necessary to perform a factory reset.

Initiating a reset will also reset your connected meters and devices, requiring each to be re-connected to Emberpulse®. Resetting your Emberpulse® unit will not delete your energy history from the Emberpulse® cloud.

Please review the FAQ before proceeding with a factory reset: emberpulse.com.au/faq

To initiate a full factory reset, ensure your Emberpulse® unit is powered on, then press in and hold the reset pin until the unit starts flashing red and green before releasing.

Energy advice

Emberpulse® and its Pulse® analytics platform has an array of advanced energy advice features designed to save you money.

Real time energy recommendations

If your home has solar power, Emberpulse® can help maximise your solar investment by recommending when to use more or less power. To activate this solar investment goal, refer to the Pulse® light operation section of this user manual.

Best energy plan

Stop getting ripped off by energy companies. The Pulse® analytics platform compares your home's unique energy usage profile, to hundreds of available electricity plan offers.

If savings are available – you will be alerted.

And because energy plans are constantly changing, the Pulse® analytics platform will continually search a wide panel of energy providers to ensure you are always on the best energy plan for your needs. Whenever there is a better energy plan that will save you money, we will notify you.

Battery storage suitability

Unsure if you should consider adding battery storage to your home? Emberpulse® and its Pulse® analytics platform ensures that you don't get ripped off. Emberpulse® and its Pulse® analytics platform will match your power usage profile with the perfect battery storage solution for your needs.

Selecting a battery storage solution that is not tailored to your needs may cost you thousands of dollars over the life of your investment.

Let the Pulse® analytics platform pinpoint the perfect time for you to invest in battery storage.

Smart home control

Emberpulse® supports a broad range of smart home control options. Some control options require additional hardware. This additional hardware is available for purchase at emberpulse.com.

Air conditioning control (Emberair®)

Remotely control your home's air conditioning from your couch, from work or while on holiday. Use the Emberpulse® app to adjust your home's temperature before leaving work – and arrive home to a comfortable home.

Emberair® is an air conditioner controller that pairs your air conditioning unit to your Emberpulse®. Purchase Emberair® at emberpulse.com.

Systems supported

Emberpulse® supports split system air conditioning control for a wide range of reputable brands. Supported systems include:

- Daikin
- Daitsu
- Fujitsu
- LG
- Mitsubishi
- Panasonic
- Samsung
- Sanyo
- Toshiba

Plug load control

Control your home's appliances remotely when you want, to increase your energy savings and security.

Emberiq® is a smart plug controller. It plugs into a standard wall outlet. You can control and monitor any home appliance that you plug into your Emberiq®. Purchase Emberiq® at emberpulse.com.

Emberiq® usage suggestions

- Connect to an appliance to view how much power and money it is costing you
- Connect to a portable heater/fan to remotely control heating/cooling of a specific room
- Connect to a TV to remotely control a child's viewing time
- Connect to a slow cooker to cook your dinner before you get home
- Connect to your kettle, so it can boil before you leave your chair
- Connect to a lamp to remotely light your home while you're out

To pair an Emberiq® to Emberpulse®, simply connect the Emberiq® to a power outlet and switch the outlet on. Navigate to the control panel within your Emberpulse® app or via the Emberpulse® online portal (emberpulse.com.au) and select add device. Emberpulse® will detect the Emberiq® and add it to your controllable devices.

Lighting control

Improve your home's comfort and security by using the lighting control built into Emberpulse®.

To pair a general light bulb to Emberpulse®, simply connect the compatible light bulb to your light socket and switch it on. Navigate to the control panel within your Emberpulse® app or via the Emberpulse® online portal (emberpulse.com.au) and select add device.

Compatible general light bulbs must be Zigbee enabled. Supported lights include:

Compatible general light bulbs must be Zigbee enabled. Supported lights include:

- | | |
|--|--|
| <ul style="list-style-type: none">• Belkin WeMo Smart LED• Cree Connected• GE Link• OSRAM Lightify Flex Strip• OSRAM Lightify GU10 downlight | <ul style="list-style-type: none">• OSRAM Lightify RGB• OSRAM Lightify Tunable White• Philips Hue• Philips Hue Lux• Sylvania |
|--|--|

Note: Currently Emberpulse® can remotely turn lights on and off. Dimming and other control features will be released in subsequent Emberpulse® updates.

Physical switch control (Emberlux®)

Sometimes having a physical switch makes control easier.

Emberlux® is an elegant switch panel, similar to a sleek light switch. Purchase Emberlux® at emberpulse.com.

Your Emberlux® acts as a physical switch control hub. You can pair a collection of lights or Emberiq® devices to the Emberlux®. Pressing the Emberlux® will allow you to easily turn the lights and appliances on and off.

FAQs

Q: What do I need to start using Emberpulse®?

A: To use Emberpulse®, an approved electrician must install an Embermeter™ or compatible sub-meter inside your fuse box. You will also need a Wi-Fi internet connection and a power socket.

Q: Is there an Emberpulse® mobile app?

A: Yes, you can download the free Emberpulse® mobile app with a smart phone or tablet.



Emberpulse® can also be used without a mobile app, by accessing emberpulse.com.au

Q: Do I need to follow the installation and setup process every time I want to check my home's power usage?

A: No, the installation and setup process only needs to be completed once. After installation, simply login to your account (emberpulse.com.au) or open your Emberpulse® app to access your energy management system.

Q: How close must my Emberpulse® unit be to my electricity meter?

A: It depends on many factors, such as the amount and type of material between your Emberpulse® unit and electricity meter. It is recommended that you minimise the number of walls and other objects in a direct line between your Emberpulse® unit and your meter. Emberpulse® has been successfully tested with connections over 50 metres apart (160 feet).

Q: What should I do if my Emberpulse® unit can't find my home Wi-Fi network?

A: Check the following:

- Check that your Wi-Fi router is on and you can connect to it successfully from another device like a smartphone, tablet or notebook computer.
- Check that you have entered the correct details for your Wi-Fi network during the connection procedure.
- Check the frequency that your Wi-Fi network runs on. Most networks use 2.4 GHz and your Emberpulse® unit supports this. Some networks use 5 GHz and your Emberpulse® unit cannot use those networks. Usually if your router has a 5 GHz network it can also use 2.4 GHz, so try configuring your router to support a 2.4 GHz network.

Q: I configured Emberpulse® successfully, but now my internet is not working. What should I check?

A: When you configured Emberpulse®, you were instructed to connect your phone, tablet or computer to the "hello-emberpulse" network. Now that you are connected you need to reconnect your phone, tablet or computer to your normal home network. Use the network settings on your device to select your home network.

Q: What should I do if my Emberpulse® unit continually connects and disconnects from my Wi-Fi network?

A: This is likely due to a weak signal between your Emberpulse® unit and the Wi-Fi router. Try moving your Emberpulse® unit closer to your Wi-Fi router or install a Wi-Fi range extender device.

**Q: Emberpulse® is continually disconnecting and reconnecting with my electricity meter.
What should I do?**

A: The signal between Emberpulse® and your electricity meter is being interrupted.
Try the following:

- Move your Emberpulse® unit closer to your electricity meter.
- To improve signal strength, plug in an Emberiq® into a power outlet at equal distance between your Emberpulse® unit and your electrical fusebox.
- Check that there are no large metal objects between your Emberpulse® unit and your electricity meter.
- Check that a microwave oven is not between your Emberpulse® unit and your electricity meter.

Emberpulse® support

A full list of support topics is available at: emberpulse.com.au/faq

For additional support, call **08 7084 0054** or email support@emberpulse.com

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- BEATBOX®
- ECOPULSE®
- EMBERAIR®
- EMBERIQ®
- EMBERLUX®
- EMBERPULSE®
- IPULSE®
- PULSE®
- THE PULSE®
- UTILITY PULSE®



Electrical specifications

Model	
Model Numbers:	BBSE-AU-BE-01
Warranty:	3 years
Physical	
Dimensions:	87 mm W x 87 mm H x 37 mm D (3.4 in W x 3.4 in H x 1.5 in D)
Weight:	180 g (0.4 lb)
Colour:	Black front face, silver back
Package Contents:	Emberpulse® unit, stand, AC power adapter, user manual
Environmental	
Temperature (operating):	0 °C to +40 °C (32 °F to +104 °F)
Temperature (storage):	-20 °C to +70 °C (-4 °F to +158 °F)
Humidity:	< 85% RH at +40 °C (+104 °F)
Electrical	
Operating Voltage:	5V DC via supplied AC power adapter
Communications Interfaces	
Wired:	None
Wireless:	Wi-Fi 802.11a/b/g/n @ 2.4 GHz Zigbee Home Automation Profile @ 2.4 GHz
Security	
Wi-Fi communications:	WEP WPA WPA2 TKIP
Emberpulse® system data transfer and messaging:	TLS1.2 RSA-2048 key + SHA1 signature

Due to continual improvement in design or otherwise, the product you purchase may differ slightly from the products shown in this information sheet.

Specifications

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Any changes or modifications not expressly approved by 369Labs Pty Ltd could void the user's authority to operate this equipment.

Warranty

Except as limited here, this product warranty covers any defect in material or workmanship with the 369Labs Emberpulse® unit. If the initial purchase is by a utility or other entity that will not itself be using the device, this warranty is transferable to any customer of such entity who subsequently owns the device who will then be the End User. Otherwise, this warranty is not transferable.

This warranty runs for three years from the date of installation of the 369Labs Emberpulse® unit.

This Emberpulse® Warranty does not limit or restrict any other rights or remedies that the purchaser may have under law including the guarantees under the Australian Consumer Law relating to the appliance.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for 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.

This Warranty is valid only in the country of purchase, but other statutory rights or remedies may still apply.

This Warranty does not apply to any defect, deterioration, loss, injury or damage occasioned by, or as a result of, misuse or abuse, negligent handling or if the product has been used other than in accordance with the instructions.

This Warranty is void if there is evidence of the product being tampered with by unauthorized persons. Products may be replaced by refurbished goods of the same type.

Subject to your statutory rights, in the event of 369Labs choosing to replace the product, the 369Labs Emberpulse® unit Warranty will expire at the original date, being three years from the original date of purchase.

To request service under this warranty for your 369Labs Emberpulse® unit, contact our customer service team by calling **08 7084 0054** or by email at support@emberpulse.com and provide us with a brief description of the problem.

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