INSTRUCTION MANUAL

and

WARRANTY REGISTRATION CARD

TC48

Turbine Controller
25 AMP

For use with PVE1200 Grid Connect Inverter

LATRONICS®
A NEW WORLD POWER

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A NEW WORLD POWER

Please Affix Stamp Here

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MOFFAT BEACH QLD 4551
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WELCOME

Latronics products are all proudly designed, engineered and manufactured in Australia. As a specialist renewable energy company we produce this turbine controller for battery-less connection to the PVE1200 Grid Connected inverter.

In order to produce the most reliable products available, *Latronics* products have been designed to endure the most rugged terrain and the harshest conditions across the Australian continent.

All products are engineered using the latest high quality components and manufactured to stringent quality standards, thus ensuring *Latronics* customers all enjoy many years of trouble free operation.

It is important to us at *Latronics*, that our clients enjoy the maximum benefits from our Inverters in a safe and productive environment. So we strongly advise that you read through the next few pages of this manual, which explains all the modes of operation and relevant safety precautions for your new Turbine Controller.

Please remember to complete either your registration card OR complete the online registration to validate your warranty
Please retain your receipt as proof of purchase.

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IMPORTANT !

As an environmentally conscious customer you may choose to Register online at http://latronics.com.au . Once completed online there is no need to post this registration card.

Serial No..... Date card returned.....

REGISTRATION CARD

Your warranty is only valid if this card or online registration is completed within 3 months of the date of purchase.

Name:.....Post code:.....Serial No:.....

Date of Purchase:.....Supplier:.....

Email / Phone (optional):.....Comments:.....

* *Where is your Controller being used?* Residential ☐ Commercial ☐

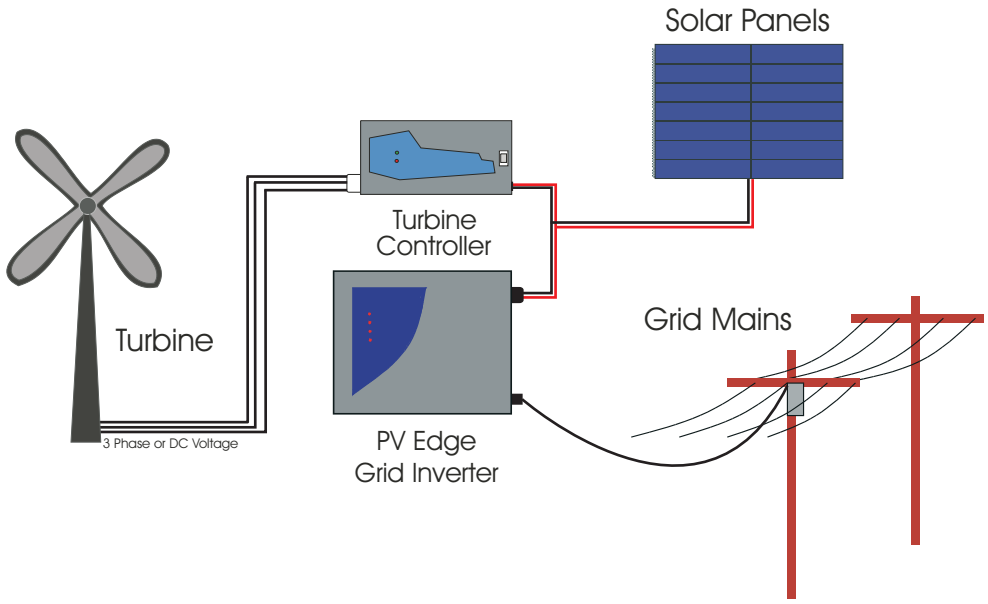
* *What Energy Source is connected to your controller?* Solar ☐ Batteries ☐ Wind ☐ Other ☐.....

* *Was your decision made because of?*
Features ☐ Value for Money ☐ Appearance ☐ Recommendation ☐ Warranty ☐ Australian Made ☐

* *How do you rate the service from your supplier?* Fair ☐ Good ☐ Very Good ☐ Excellent ☐

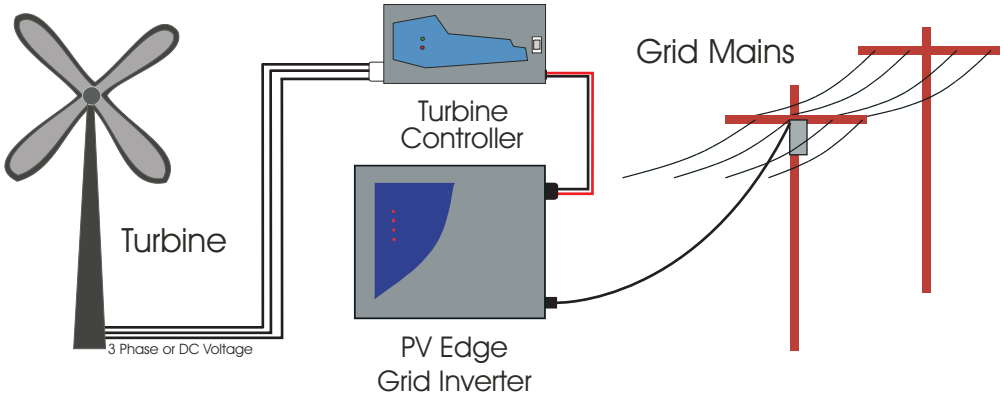
* *Did your new Controller meet your expectations?* Above Expectations ☐ Yes ☐ No ☐

Wind and Solar Configuration



TC48 Specifications	
Voltage	48V
Voltage Type Input	3 Phase AC or DC
Current	25A
Brake System	Electronic PWM Brake
Brake Voltage	75V
Weight	2kg
Connections	Screw Terminal Junction Box
Chassis	Powder Coated 2mm Aluminium
Dimensions	260mm x 160mm x 100mm
Warranty	2 years
Ratings	Specifications @ 25ºC

SYSTEM DIAGRAM



The Latronics Turbine Controller utilises the latest in micro-controller design to deliver a stable and safe supply of power to the grid connect inverter. Designed specifically to integrate with the Latronics PVE1200 Grid Connect Inverter, it allows battery-less grid connection of DC or 3 phase AC wind and water turbines.

Electronic Smart Brake: The electronic braking system progressively increases the braking until the turbine comes to a complete stop. This will extend bearing life and prevent damage to both the PV Edge and Turbine during extreme conditions.

Multiple Input Types: The Latronics turbine controllers come standard with a voltage rectifier. This means 3 phase AC or DC Voltage can be fed in to the Turbine controller.

Versatile and Reliable: Suitable for use with wind generators, micro-hydro and other renewable turbine sources. Over 25 years of experience and continuous adherence to stringent quality standards ensures optimum reliability backed with a full 2 year parts and labour warranty

Indicators

Green LED Flashing: Indicates there is power but insufficient levels to begin feeding
Green LED On: Indicates there is sufficient power to feed the grid.
Red LED On: Indicates the turbine is over-spinning and the electronic Smart Braking system is functional

On Switch

32A DC breaker to safely turn on and off the Turbine Controller and protect from over current

Input Junction Box

To connect either 3 phase AC or DC voltage from turbine

Output Leads

To connect to PV-Edge Using Anderson Connector supplied with PVE1200

Ventilation Holes

For Cool, Fan-less operation

Important Notes Before Installation

- The unit must be placed in a well ventilated and protected area, not exposed to the open environment, and free from contaminates (i.e. Exhaust gases, sea air, dust etc.)
- The Turbine Controller is designed for indoor installation in a suitable location where ambient temperature will not exceed rated values.
- As the Turbine Controller has a wall mountable enclosure, ensure proper air circulation for cooling.
- When attaching the turbine to the Turbine Controller, polarity and or wire sequence does not matter due to the internal rectifier.
- Due to dangerous voltages, do not disconnect any wiring until the unit has completely powered down with no lights flashing and the turbine has stopped or been disconnected.

WARNING!
PV-Edge Grid-connect Inverter must be in battery mode
(See PV Edge Manual)

Turbine Requirements

When using wind turbine

- Use only a 48V Wind turbine.
- Make sure the turbine does not already have a controller. Please remove if this is the case.

When using water turbine

- Use only a 48V water turbine
- Makes sure the turbine does not already have a controller. Please remove if this is the case.
- Check hydro turbine can be braked to a complete stop, if not an external load dump will be required. Contact the factory - Special modification is required.

It is important that all wiring in the installation complies with the relevant standards (AS4777 / AS3100)
Any work carried out is to be performed by Qualified and Licensed