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PCU-5TC

Operation manual

Congratulations to your new electronic **Power Control Unit** PCU-5TC with **5** steps and **Temperature Compensation**. This is a premium product with outstanding reliability and unique features. Please read this instructions carefully before any attempt of installation.

If there are any questions left, contact us. We're happy to help.

Field of application

The electronic power control unit PCU-5TC is electric motorcycle accessory.

It's intended to control the power level of (our own) grip heating systems, hot grips, electrically heated clothing, heated seats, etc.

Use only at vehicles with 12V negative ground electrical system. Use this product also for other powersports vehicles like ATVs, snow scooters and trikes.

Technical data

Operating voltage:	10-15V DC
Power rating:	120W @ 12V respectively 173W @ 14,4V
Principle of operation:	Pulse width modulation
Operating temperature:	-40°C – 65°C / -40°F - 149°F

Technical features

5-step power control + Off

10-step automatic compensation of air temperature change

Memory-Function: Device saves setting from last ride

Pre-heating mode: Variable from 0-15min

Single button control, push button waterproof according to IP67

Bargraph display, waterproof according to IP67

Electrical connection

The device doesn't feature an own fuse. You may only connect it to a properly fused circuit (15A max.). To avoid unintentional discharge of the motorcycle's battery, supply has to be taken from a circuit that's hot when ignition is on. The horn's circuit is usually a good current source.

Always consider the additional current that's drawn by your warming equipment when selecting the current rating of the fuse.

For applications with high electrical load, e.g. grip heating + heated seat or heated jacket + heated pants, we recommend to connect the power control unit via an electrical relay directly to the vehicle's battery. This requires a fuse (15A), too.

Wire allocation:

Red wire (no connector):	+12V supply
Black wire (no connector):	Negative ground
Red wire (single pole connector):	Positive terminal of load
Black wire (single pole connector):	Negative terminal of load
6-pole receptable:	Bargraph display
3-pole receptable:	Push button resp. touch sensor (optional)

Installation

Use 2 of the self-adhesive pads to attach the **electronics box** to a clean surface. Clean surfaces with solvent before attaching adhesive pads. You may also use cable ties as an alternative. Please obey that the max. ambient temperature is not exceeded, even with engine in operation. Don't stress the cables during installation + operation with pull force, sharp bending or squeezing.

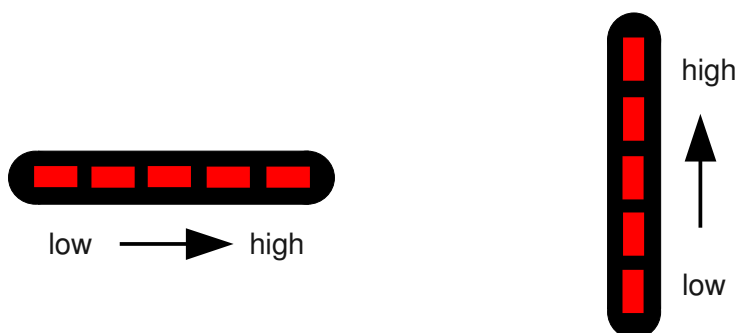
The **push button** is intended to be built-in into the motorcycle's fairing, cockpit or a holder made from sheet metal.

Bore size = 12mm

Place the sealer ring above the mounting surface, washer + hex nut below.

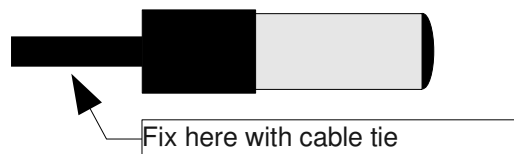
Attach the **bargraph display** to the cockpit, upper fork bridge or another appropriate location within the riders sight. Fixation is done by an adhesive pad. Check for proper orientation and clean surfaces before putting things together!

Recommended orientation:



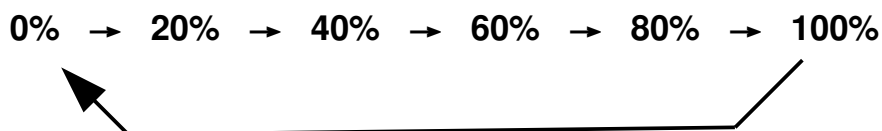
The **temperature sensor** is positioned in a way that it is exposed to the airstream. Avoid locations where the sensor is irritated by waste heat from engine, headlight or exhaust. This would lead to an undesired decrease of heating power during your ride. It is proven to mount the temperature sensor at the lower fork bridge. Avoid direct contact of the sensor to metal parts, cause this would lead to a very slow response.

The image shows the recommended fixation:



Control

If ignition is on, push the button once to set the power control unit PCU-5TC in operation. The device is now in pre-heating mode. This is indicated by fast flashing of all LEDs. The power level during pre-heating mode is 100%. A further push on the button stops the pre-heating mode at any time, the device now recalls the setting from your last ride. Every further push increases power level by 20%. Keep the button pressed for a little while (appr. 0,1s) to ensure the push is recognized as intentional. To switch your connected warmth device off, press the button repetitively until 0%-stage is reached or simply by shutting off the ignition.



The temperature compensation feature responds to changing air temperatures. This ensures a constant warmth comfort during e.g. pass rides. When air temperature drops, power level increases automatically. If the temperature rises again, power level decreases accordingly. You can monitor this automatic behavior via the bargraph display. However, you still need to select the basic power level that matches your need. The electronic can't know how quickly you start freezing or if you wear thin or well insulated gloves. But it compensates temperature changes during your ride and doing so reduces the need for manual control of the power level greatly. The automatic temperature compensation adjusts the power level in 10 steps.

Warranty

You have a full **5 year** warranty on this product and all its components. Damages which result from overload or disregard of the herein given advise are excluded.

Disposal

If you need to dispose off this equipment one day, please note that no electronic device may be put into household waste.



Put the device if possible to a recycling station. Your local authorities may inform you accordingly.

EC-Conformity

This product complies with the regulations of valid, european and national directives. Conformity has been proved, the respective declarations and documents are deposited at the manufacturer of this product.

