



PANTHER EASY RIDER POWER SUPPLY



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POWER SUPPLY

USER MANUAL



BATTERY

GENERAL INFORMATION

With proper use and charging at 20-30° C the battery lifetime is about 2-3 years. Batteries are wear products and therefore not covered by the guarantee or warranty.

Absorbent Glass Mat (AGM) batteries for cyclic use can easily withstand more than 600 cycles at at least 50% discharge before max.capacity falls below 80%.



302577
Slide-In Battery

24V, 9 Ah

AGM Battery: 24V

- Charging time: approx. 5-7 hours
80-90% = full
27-28,5V = full

- Charge only with suitable 24V charger. We recommend the Panther Charging Station (313165).

Important:

24V = empty

50% = empty

Recharge after use! Do not short Circuit!

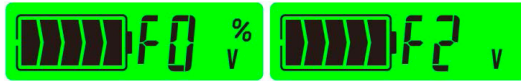
Charge this battery during storage at least once a month in order to guarantee a long lifetime!

CAPACITY TESTER

USAGE

Functions

The Tester has two functions : F0 and F2. Use the “K+” key on the back to select F0 and F2. Then press the “OK”key on the front, the selected function will run. The default function is F2.



F0: Backlight on

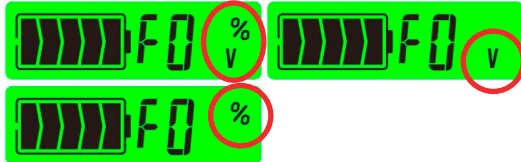
Tester run all the time, LCD and backlight always on.

F2: Dormancy

Tester enter a dormancy state (<15uA) after display 10s, LCD and backlight turn off. Press the “OK”key, LCD and backlight turn on 10s.

Display Mode

The Tester has three kinds of display mode. Press the “K-”key on the back to enter display setting. Use the “K-”key on the back to change the display mode. Then press the “OK”key on the front, the selected mode will run.



V + % = Voltage and percentage display

The Tester can display the current voltage or the current percentage of capacity. Press the “OK”key on the front can change the display content.

V = Voltage display

The Tester only displays the current voltage.

% = Percentage display

Tester only displays the current percentage of capacity.



The Tester cannot be exposed in the sun for a long time or in the environment with large amounts of ultraviolet radiation when using or storing, particular in winter (-20°C) and summer (>60°C), otherwise it will shorten the life of the LCD display.

CHARGING

CHARGING STATION

Charge smart: with the Charging Station (313165) you can charge up to 2 „Slide-In“ Batteries or 2 „Snap-On“ Batteries simultaneously.



Snap-On Battery



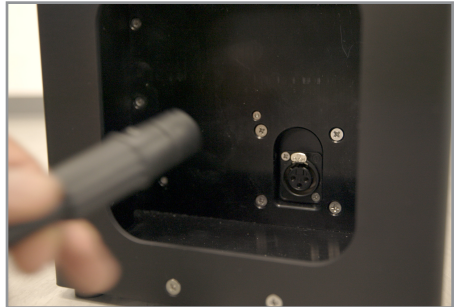
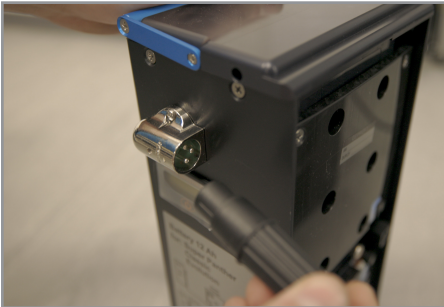
Slide-In Battery



Charging Station

Charging: Snap-On Battery

Plug in the 1-Way Charge Cable (134643) into the Snap-On battery and into the Charging Station.



Charging: Slide-In Battery

Slide in the Slide-In Battery on the top side of the Charging Station.



Charger for AGM batteries

Built-in 3 stage programmable charging curve

Fanless design, cooling by free air convection

Protection: Short circuit / Over voltage / Over temperature

/ Battery under voltage / Battery over voltage / Battery

reverse polarity protection



Output	Boost Charge Voltage (Vboost) (default)	28.8V
	Float Charge Voltage (Vfloat) (default)	27.6V
	Charge voltage range	18 ~ 30V
	Output current (default)	4A
	Rated Power	115.2W

Input	Voltage Range	90 ~ 264VAC
	Frequency Range	47 ~ 63Hz

Environment	Working Temp.	-30 ~ +70°C
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Front Panel LED Indicators

● Green	Float
● Orange	Charging
None	Abnormal status

SAFETY

Safety Guidelines

- Do not use in wet or humid conditions
- The cables between charger and battery should be kept as short as possible to prevent excessive voltage drop (suggested cable length: 50cm - 100cm). Too much voltage drop will lead to longer charging period.
- Temperature raising on case during charging is a normal behavior.
- Dismantling or changing components of the charger is forbidden.
- Charger should be in the OFF mode before making battery connection or disconnection.

The charger provides a DIP switch behind the panel used to switch different factory charging parameters. Please refer to the table below for corresponding curves on different positions of the DIP switch.

DIP SW position		24V model		
1	2	Description	Vboost	Vfloat
Off	Off	Program mode, AGM battery	29.0	27.0

General Operation

At the beginning stage of operation, the charger provides the largest current with 28.8V dc of output voltage to charge batteries, the LED indicator will flash in orange. After a period of time (probably a couple of hours) the charging current will decrease gradually. After reducing to 10% of its maximum value, the charger will go into „float charge“ stage. Output voltage will drop to 27.6V and the LED indicator can flash in green.

Troubleshooting

Failure state	Possible Cause	Suggested Solutions
Unable to charge the battery	Power switch is in the OFF position	Switch to the ON position
	Input AC voltage is too low	Make sure the input source is between 90~264VAC
LED indicator does not turn Green after a long charging period	Battery is old or damaged	Replace with a new battery
	Output cables are too thin	Replace with an appropriate wire gauge