



POWERGORILLA USER GUIDE

powertraveller
without boundaries™

WELCOME TO OUR WORLD

From the Antarctic to the Sahara, from Everest to the Amazon, our products have been used in some of the most remote and hostile environments on the planet. They are relied on by adventure travellers and explorers alike to deliver power to essential electronic equipment time after time. By packing a Powertraveller portable charger, you can give yourself the power to rise to your next challenge.

POWERGORILLA FEATURES

- **Small & compact**
Weighing only 700g the **powergorilla** is light and portable with no need to carry extra batteries.
- **Convenience**
Power up whenever, wherever. The **powergorilla** will give you an extra 2–6 hours' power, depending on your laptop/notebook/netbook specification, and over 20 hours on various other electronic devices. For example, if you connect via the USB port you can recharge a standard mobile/cell phone fully up to 20 times.
- **Compatibility**
The **powergorilla** is compatible with many portable electronic devices making it a truly universal power solution.
- **Variable voltage**
With one-touch button operation the **powergorilla** is compatible with many devices and laptops/notebooks/netbooks.
- **Compact & stylish design**
Sleek aluminium casing with shock resistant rubber protection strips.
- **Safety**
The **powergorilla's** many safety features include output auto-lock; voltage limitation protection; current limitation protection; short circuit protection; anti-discharge protection; over charging protection and over heat protection.
- **Advanced Features**
The **powergorilla** features an enhanced solar charging option and a permanent 'USB ON' option.

INDEX

• Technical terms	4
• Product contents	6
• powergorilla product compatibility	7
• Using powergorilla	8
Set up – charging the powergorilla	
Turning On/Off	
How to power your laptop/notebook/ netbook/camcorder/radio receiver	
Charging 5v digital devices via USB	9
Permanent USB ON	9
Checking the charge levels	10
Recharging the powergorilla	10
• powergorilla tips	12
Tip pack 1 and Tip pack 2	
• Compatibility chart	13
How do I connect the connection tip to the power cable?	
• Specifications	14
• Approval certifications	15
• Product disposal instructions	15
• Troubleshooting	16
• Important general information	18
• Important safety precautions	19

TECHNICAL TERMS

powergorilla	5v to 24v charger
HD Lithium Polymer Rechargeable battery	The high energy rechargeable battery inside the powergorilla
gorilla nuts – Tip pack 1	Powertraveller’s brand name for the connector tips for laptops/notebooks/netbooks/tablets
Monkey Nuts – Tip pack 2	Powertraveller’s brand name for the connector tips for all 5v devices and tablets
DC IN	Direct current when charging the powergorilla
DC OUT	Direct current when the powergorilla is charging a device
mAh	A milliampere hour is a unit of electrical charge per hour
v/volt	Measurement of power needed to power a device i.e. 5 volts, 8.4 volts, 9.5 volts, 12 volts, 16 volts, 19 volts or 24 volts
USB	Universal Serial Bus. For many devices the USB has become the standard connection method. USB uses standard 5 volts output
Apple MagSafe Airline Adaptor	Apple’s magnetic tip connector specifically designed/used for the MacBook/MacBook Pro/MacBook Air. Please note the MagSafe adaptor is not supplied in the powergorilla pack and can be purchased from www.powertraveller.com or www.apple.com. To run the powergorilla with a Mac, simply plug the MagSafe adaptor into the 12v in-car socket which comes with the powergorilla. Select 16v on the powergorilla – if the LCD screen flickers on the powergorilla, please switch off and reselect 19v.

Output	Term denoting power leaving a device
Input	Term denoting power entering a device
MP3/MP4 player	Device used for storing digital audio (MP3) and digital video (MP4)
Current limitation protection	To prevent a large discharge of current damaging the internal battery of the powergorilla
Short circuit protection	If earth/leakage is detected and a possible short is detected the powergorilla will auto shut down
Anti-discharging protection	When the powergorilla is connected to a device it will not allow the device to discharge power in a reverse direction
Voltage limitation protection	A design to automatically maintain a constant voltage level
Transformer	A transformer is a device that transfers AC electrical energy from one circuit to another through inductively coupled electrical conductors with a DC output (please refer to the 2nd image on page 9)

PRODUCT CONTENTS

Listed below are the contents of the **powergorilla** pack. Please check and familiarise yourself with these and the corresponding list and diagrams before using the **powergorilla**.

- **powergorilla** 5v to 24v charger (1)
- Black neoprene zip case with internal cable storage pocket (2)
- AC/mains transformer 16v (3)
- Fig 8 power lead (connection cable) (4) with 1 x UK, 1 x EU, 1 x US and 1 x AU interchangeable country specific connector heads (5)
- ‘Tip pack 1’ for laptops/notebooks/netbooks/tablets – also called ‘gorilla nuts’ (6) Includes 15 tips: eight tips for connecting to different laptops/notebooks (male straight connectors) and seven tips for connecting the AC/mains charger to the **powergorilla** (female right angled connectors) and a 80cm connection cable. Each tip is marked
- ‘Tip pack 2’ for mobile/cell phones – also called ‘monkey nuts’ (7) Includes nine different tips each suitable for different mobile/cell phones and other digital devices and a retractable extension USB cable. Each tip is labelled on the pack

- 12v car charger socket (8)
- User Manual
- Warranty Card



‘Tip pack 1’

‘Tip pack 2’

POWERGORILLA PRODUCT COMPATIBILITY

- The following devices are all compatible with the **powergorilla**:

Laptops/notebooks/netbooks/tablets

MacBook/MacBook Pro/MacBook Air
(via Apple MagSafe Airline Adaptor cable not supplied in the **powergorilla** pack)

Apple iPads/iPhones/iPods (using the white sync/charge cable supplied with your Apple device)

Some digital cameras/camcorders

Sat-Navs/GPS/radio receivers

Hand-held gaming devices

MP3/MP4 players

Mobiles/cell phones/smart phones

Portable DVD players

NOTE: Two devices can be charged and used simultaneously. For example you can charge the **powergorilla**, (ONLY using your laptop’s own AC/mains) and have it connected into a laptop/notebook while charging your mobile/cell phone via the USB port at the same time.

- If you use the **powergorilla** with other devices not mentioned above – please tell us! We welcome your feedback on further compatibility.



iPad, iPhone and iPod are trademarks of Apple Inc., registered in the U.S. and other countries.

USING POWERGORILLA

Please read the following before using the **powergorilla**

Set-up – Charging the powergorilla

- Unpack all contents of box and familiarise yourself with each item. Please refer to the contents section (page 6).
- Connect the 16v AC/mains adaptor (1) and Fig 8 lead (2) together, choosing the correct interchangeable mains head (3) for the appropriate AC/mains socket i.e. UK head for UK AC/mains socket.



- Connect the cable from the transformer into the DC IN socket on the top left of the **powergorilla**.
- Plug into the AC/mains socket and turn power on.
- The **powergorilla** will turn on and the blue LCD illuminates briefly. The backlight will switch off to conserve power.
- LCD screen shows the voltage input at 16v when using the **powergorilla's** 16v own AC/mains. It also shows the charge left in the **powergorilla** by the vertical bar on the right. This could be between three to four bars as the **powergorilla** is pre-charged to approximately 60%. It will provide you instant power.
- The vertical bars scroll left to right as the charging commences. It is advisable to recharge the **powergorilla** until all six bars become static which shows it is fully charged. The **powergorilla** turns itself off the instant the AC/mains charger is disconnected. However, the **powergorilla** remains on while it is still connected.
- You can also recharge the **powergorilla** with your laptop's own supplied AC/mains transformer. Please see page 11 – Recharging the **powergorilla**.

- Turn the **powergorilla** on – see Turning On/Off
- When the **powergorilla** does not turn on, connect it to the AC/mains charger to reset it.

NOTE: the **powergorilla** can be recharged via the AC/mains transformer supplied with your laptop/netbook – please see page 11 – Recharging the **powergorilla**.

Turning On/Off

- Press the black On/Off button on the **powergorilla** for 3 seconds to activate.
- Once activated the blue LCD screen will illuminate and after a short time the backlight will switch off to conserve power.
- To re-activate the backlight tap the black On/Off button.
- If not in use, after approximately 1 minute, the **powergorilla** will automatically turn itself off.
- Hold the On/Off button to re-activate.
- To turn the **powergorilla** off, press the On/Off button for 3 seconds.
- When the **powergorilla** does not turn on, connect it to the AC/mains charger to reset it.

How to power your laptop/notebook/netbook/camcorder/radio receiver

Ensure the AC/mains is disconnected from the **powergorilla** and that the **powergorilla** remains switched-off while you follow these steps.

- Remove the 80cm connection cable from 'Tip pack 1' and select the correct straight tip that is compatible with your laptop/netbook (please refer to the compatibility chart on page 13).
- Connect the connection cable to the appropriate tip and insert into your device.
- Connect the other end of the cable into the DC OUT of the **powergorilla**.
- Check the voltage your laptop/netbook requires, this can be found on the transformer of the AC/mains adaptor or the user guide supplied with your equipment.



Look for O/P: DC 16v – voltage required is 16v

- Lightly press the On/Off button to cycle through the voltage options to match your device's requirements.
- The choices are 8.4v, 9.5v, 12v, 16v, 19v. and 24v. '88' features enhanced solar charging and permanent USB ON option.
- The **powergorilla** will auto-save your last voltage setting for your convenience, however, you must always disconnect the **powergorilla** from your device before turning the **powergorilla** back on and ensure the correct voltage is still selected.
- When charging your 8.4v device via the DC out port, you may experience the **powergorilla** turning off prematurely. This happens when the device is not drawing enough power from the **powergorilla** and the **powergorilla** is not able to detect the device is still attached so it shuts itself off. Disconnect the cable from the DC OUT socket. Press button to select DC output voltage until '88' (see Permanent USB ON) is displayed on the LCD screen, this will lock into permanent ON. Connect your device to the DC OUT. The **powergorilla** main DC out port will only output 8.4v while this feature is enabled. You can now charge your device.
- When you finish charging/powering, turn off the **powergorilla** by holding down on the On/Off button for a few seconds and disconnect the cable. Or the **powergorilla** will turn itself off when the device is fully charged.

Charging 5v digital devices via USB

The **powergorilla** will also power your iPad, iPhone, iPod, PDS, MP3/MP4's, hand-held gaming devices, sat-nav's/GPS, smart phones, mobile/cell phones and many other devices using the 5v USB port.

- Turn unit on via the On/Off black button.
- Select the retractable USB cable tip from 'Tip pack 2' and connect the appropriate tip for your device.
- Insert the USB into the USB port of the **powergorilla**.
- The **powergorilla** will stop charging the device when the device is fully charged.
- The USB port does not have a switchable voltage – therefore you do not need to select the correct voltage as the **powergorilla** will automatically recognise the standard USB 5 volts.
- The **powergorilla** may turn itself off when charging a device via the USB. Disconnect the cable from the USB port. Press the button until '88' is displayed on the LCD screen, this will lock USB into permanent ON. Connect your device to the USB port.

Permanent USB ON

- Disconnect all cables from the USB and DC out socket.
- Press On/Off button repeatedly until the logo below is displayed on the LCD screen.



'88' will appear on the LCD Screen

- The backlight will remain on while this feature is enabled, you can simply press the On/Off button again to disable this feature.
- You may now connect your device to the USB port or your 8.4v device to the main DC out port.
- The **powergorilla** main DC out port will only output 8.4v while this feature is enabled.
- To lock the voltage to prevent selecting the wrong voltage, please leave the selected voltage for 30 seconds. The LCD screen on the **powergorilla** will flash and voltage can only be changed by turning the **powergorilla** off and on. The **powergorilla** may also auto-detect when a device is connected and lock the voltage.
- You can charge your device via the USB and DC OUT at the same time. The DC will output 8.4v when the USB permanent on feature is activated.

Checking the charge levels



- When the battery symbol in the middle (1) flashes, this indicates that there is less than 10% power left in the **powergorilla**. The battery symbol does not represent the amount of power left.

- The level of charge remaining in your **powergorilla** is shown by the vertical bars in the bottom right hand corner of the blue LCD screen (2). A fully charged **powergorilla** will be denoted by six solid vertical bars. As the six bar decreases, available power decreases.
- The USB symbol (3) is permanently shown allowing simultaneous charging of a laptop/notebook/netbook and your USB 5v device.
- The true battery level of the **powergorilla** will be displayed when the **powergorilla** is being recharged. When charging a device such as a laptop from the **powergorilla**, the battery level indicator will display the true amount of power available for that device. If you connect an alternative device with a lower power requirement, the level of available power may increase.

Recharging the powergorilla

You can recharge the **powergorilla** via the AC/mains transformer supplied, or the AC/mains transformer supplied with your laptop/netbook.

Supplied 16v AC/mains charger

- Connect the AC/mains transformer to the **powergorilla** into the DC IN socket on the top left of the **powergorilla**.
- The blue LCD screen will illuminate and the vertical bars on the bottom right increases as it is being charged.
- When the last sixth vertical bar is no longer flickering, this means the **powergorilla** is fully charged.
- The **powergorilla** charges fully in approximately 5 hours. The **powergorilla** will have a deeper cycle charge if left connected longer (6-8 hours).
- Always disconnect AC/mains charger when the **powergorilla** is fully charged or not in use.

Your own laptop/netbook's AC/mains adaptor

When charging the **powergorilla** from a third party AC/mains charger, please ensure it is rated at 15v to 30v – any AC/mains charger outside of this range will not be compatible and may invalidate your warranty. The **powergorilla** will auto-detect the voltage input from the mains charger used and display the nearest voltage on the LCD screen (rounded up or down to the nearest available voltage option: 16v, 19v, or 24v).

- Select the right angle tip from Tip pack 1 and connect it to your laptop/netbook's AC/mains adaptor.
- Insert the tip into the DC IN socket on the top left of the **powergorilla**.
- Plug into the AC/mains socket and turn power on. Charging will commence. Please see page 8 – Set-up – Charging the **powergorilla** for further details.
- You can charge your **powergorilla**, and have it connected to your laptop/notebook and also charging your mobile via the USB port all at the same time. BUT you can only charge the **powergorilla** with your laptop's own AC/mains charger in order for this to work.

When the **powergorilla** is connected to the mains by the supplied 16v AC/mains charger, and is also charging a notebook simultaneously, the output voltage will be pre-determined by the input voltage (e.g. In this case, if a 16v charger is used, the **powergorilla** will only output 16v).

If your device requires lower voltage, disconnect from the mains and continue charging the device with the **powergorilla**. If your device requires higher voltage, you will need to use your laptop's AC/mains charger to charge the **powergorilla** and your device at the same time. The **powergorilla** can also be charged from the optional **solargorilla** solar panel and the 16v in-car charger (both not included).

Solar Power

- The **powergorilla** can be charged via the sun using the **solargorilla** solar panel (not included).
- The **powergorilla** is equipped with Maximum Power Point Tracking (MPPT) technology. This maximises the solar panels efficiency for any given weather condition and protects the battery from over-charging or excessive discharging. In low light conditions, this technology improves efficiency by up to 60%.
- The **powergorilla** will automatically detect when the **solargorilla** solar charger is connected and the symbol below will be displayed. This will disable the DC OUT port and USB on the **powergorilla**. The internal circuits will also turn off to improve charging efficiency and reduce charge times from solar.



- Select the L52D tip and connect it to the 2m charging cable both supplied with the **solargorilla** and insert the tip into the DC IN of the **powergorilla**. Place the **solargorilla** panel in the sun.
- For further information on the **solargorilla** please visit www.powertraveller.com



solargorilla charging powergorilla

POWERGORILLA TIPS



'Tip pack 1' 'Tip pack 2'

- The **powergorilla** connector tips are connectors to make different devices compatible with the **powergorilla**.
- There are two packs included with the **powergorilla**: 'Tip pack 1' and 'Tip pack 2'.
- You need to select the correct connector tip for the appropriate device.
- All connector tips are clearly marked.

Tip pack 1 ('gorilla nuts')

- Selected tips for laptops/notebooks/netbooks are in 'Tip pack 1' and are clearly marked on the tip itself. This pack includes 15 tips: tips for connecting to laptops/notebooks/netbooks (eight male straight connectors) and tips for connecting your notebook's AC/mains charger to the **powergorilla** (seven female right angled connectors). Also includes a 80cm connecting cable.
- The straight tips are attached to the extension cable which is then connected to the laptop/notebook and the **powergorilla** DC OUT socket (1).
- The right angled tips are only used for charging the **powergorilla** when using your laptop/notebook manufacturer's AC/mains adaptor and should be inserted into the DC IN socket of the **powergorilla** (2).

- Only the 'gorilla nuts' are to be used with the 80cm connection cable. Please refer to the compatibility chart on page 13 to choose the corresponding connector tip.



'Tip pack 2' ('monkey nuts')

- The tips for all other devices such as mobile/smart phones, and other 5v digital devices are in 'Tip pack 2' and clearly labelled on the pack.
- 'monkey nuts' are to be used with the USB retractable cable.

COMPATIBILITY CHART

Tip pack 1 – for laptop/notebook/netbook only

Notebook brands	Connector code
 ASUS, Compaq, Trigem	L01D 4.75 x 1.7 mm
 Acer, Winbook	L51D 5.5 x 1.7 mm
 Acer, ASUS, Compaq, DELL, E-Machine, Epson, Fujitsu, Gateway, Hitachi, HP, IBM, NEC, Panasonic, Sharp, Toshiba, Twinhead, Viewsonic, Winbook	L53D 5.5 x 2.5 mm
 Panasonic, Sony	L54D 6.5 x 4.5 mm
 DELL, HP	L61D 7.4 x 0.65 mm
 IBM, Lenovo Thinkpad	L71D 7.9x5.5mm
 Samsung, Sony	L73D 5.5 x 3.3 mm
 Acer, ASUS	L82D 2.315x1.0mm
 NOT INCLUDED Apple MacBook Pro & MacBook Air Via 12V car socket	Go to www.powertraveller.com or www.Apple.com for Magsafe details

How do I connect the connection tip to the power cable?

- Connect the correct connection tip to the universal power adaptor output cable, as shown in the image below.

NOTE: The most popular connector tips are included in the **powergorilla** pack. Due to limited space we cannot include all tips.

IMPORTANT: Please confirm voltage selection by referring to your laptop/notebook/netbook user manual.



Tip pack 2 – for all other USB 5v digital devices

- Nokia & Mini Nokia, Samsung G600, LG Chocolate and Sony Ericsson wide connectors
- Mini USB for Motorola V series, BlackBerrys, GPS systems and Bluetooth headsets
- Micro USB for latest smart phones
- DC4.0 connector for original Sony PSP
- Connector tip for Nintendo DS Lite

To purchase more connector tips for digital devices or for help finding the right tips – please refer to www.powertraveller.com

SPECIFICATIONS

Parameters	Description
Weight	700g
Material	Aluminium housing with shock resistant rubber protection strips
Dimensions	215 x 130 x 17mm
Output	8.4v, 9.5v, 12v, 16v, 19v, 24v & USB 5v
Input	15-30v
Operating temperatures	Between 0°C and 40°C
Colour	Graphite grey
Protections	Voltage limitation, current limitation, short circuit, anti-discharge, over charging, over heat
Charging options	16v AC/mains (included) or solargorilla or 16v in-car charger (both not included)
Capacity:	21000mAh

APPROVAL CERTIFICATIONS

powergorilla:
CE FCC RoHS ✓

AC transformer:
CE FCC cUL US PS LISTED

Compliance with :
BS5733
BS1363-1
IEC60799,
IEC60844-1
EN50075
AS/NZS 3112
AS/NZS 60321.1



iPad, iPhone and iPod are trademarks of Apple Inc., registered in the U.S. and other countries.

“Made for iPod,” “Made for iPhone,” and “Made for iPad” mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.

PRODUCT DISPOSAL INSTRUCTIONS



The symbol shown here and on the product means that the product is classed as Electrical or Electronic Equipment and should not be disposed with other household or commercial waste at the end of its working life.

The Waste of Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) has been put in place to recycle products using best available recovery and recycling techniques to minimise the impact on the environment, treat any hazardous substances and avoid the increasing landfill.

Product disposal instructions for residential users
When you have no further use for it, please remove any batteries and dispose of them and the product as per your local authority’s recycling processes. For more information, please contact your local authority or the retailer where the product was purchased.

Product disposal instructions for business users
Business users should contact their suppliers and check the terms and conditions of the purchase contract and ensure that this product is not mixed with other commercial waste for disposal.

TROUBLESHOOTING (QUESTIONS AND ANSWERS)

Q. Can I use the **powergorilla** straight away without charging?

A. Yes, the **powergorilla** comes 60% pre-charged and is ready to use straight out of the box.

Q. What are connector tips?

A. Connector tips are attachments to make the **powergorilla** compatible with various devices.

Q. What if I can't find the right tip?

A. Please refer to www.powertraveller.com – Tips/Adapters. Lists are updated on a regular basis.

Q. Why does the **powergorilla** auto shut down?

A. This can be for various reasons:

1. Device is fully charged.
2. The **powergorilla** has run out of power and needs recharging.
3. A safety feature has been activated.
4. Your device is not drawing enough power from the **powergorilla**.

Q. How do I reset my **powergorilla**?

A: Connect to the AC/mains and switch on. The blue LCD screen will reactivate.

Q. I have a Mac laptop/notebook. Is it compatible with the **powergorilla**?

A: Yes, providing you have a MagSafe connector and use with the in-car socket which comes with the **powergorilla**.

Q. Where can I buy a MagSafe?

A. www.powertraveller.com or www.apple.com

Q. Can I use my device while charging the **powergorilla**?

A. Yes, you can simultaneously charge and use a device at the same time.

Q. How much extra time will the **powergorilla** give me on my laptop?

A. Between 2 and 5 hours depending on the device's specification.

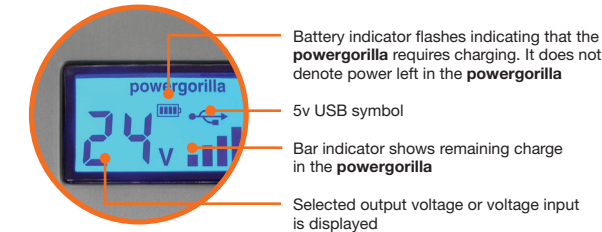
Q. How long does it take to charge the **powergorilla**?

A. Between 3–5 hours.

Q. Can I charge the **powergorilla** via the USB?

A. No, the USB uses a standard 5v which is not sufficient to power or charge the **powergorilla**.

Q. What do the symbols on the LCD screen mean?



Q. Does the **powergorilla** automatically recognise the voltage my device requires?

A. No, you have to select the correct voltage before connecting and turning your laptop/notebook on.

Q. How do I know what voltage my device requires to make it compatible with the **powergorilla**?

A. Check the output voltage specification on your AC/mains transformer and the user manual provided with your device.

Q. What happens if I select the incorrect voltage?

A. The **powergorilla** will not work to its optimum performance.

Q. Which voltage should I use to charge my mobile/smart phone?

A. The USB 5v, via the USB port and retractable cable (please refer to page 9).

Q. How do I charge my iPad/iPhone/iPod/iPod touch?

A. Connect the white sync cable supplied with your Apple device into the USB port of the **powergorilla**.

Q. I have heard of the **solargorilla**. What is the **solargorilla**?

A. The **solargorilla** is a powerful solar panel capable of charging the **powergorilla** and other devices. Perfect for life on the go! For further information and to purchase, please refer to www.powertraveller.com

Q. Why is my laptop LCD screen flickering while the **powergorilla** is connected?

A. This is because the power rating for the **powergorilla** is lower than the laptop. You may need to change the brightness settings on your laptop or turn the laptop off. This will enable the **powergorilla** to charge the laptop.

Q. How do I charge the powergorilla with my laptop's AC/mains charger?

A. Please see page 10 – Recharging the **powergorilla**.

If you have any further queries that are not covered in this manual, please email us at support@powertraveller.com

IMPORTANT GENERAL INFORMATION

WARNINGS: This user guide contains important safety and operating instructions for the **powergorilla**. Please read this section carefully to reduce the risk of personal injury and pay attention to the following:

1. Please follow the procedures from the user manual when setting up the device.
2. The **powergorilla** is suitable for laptop/notebook/tablet PCs, iPad/iPhone/iPod, some digital cameras, MP3/MP4's, hand-held gaming devices, smart phones, mobile/cell phones, PDA's, Sat-Nav/GPS and other digital devices. Please refer to www.powergorilla.com for updated added devices.
3. Only use the **powergorilla** authentic tips provided in the pack. Using other manufacturer's accessories may result in the risk of fire or damage to the unit or associated products invalidating the user warranty.

To purchase or replace connector tips, please visit www.powertraveller.com
4. The tips are uniquely designed. If a tip does not fit in the appropriate socket, then this indicates that a mismatch has occurred. Please refer to the user manual. Do not force the tip into the device as it may damage both the power adaptor and the device.
5. If the LCD screen flashes constantly, the **powergorilla** has entered a 'safe protection' mode. The **powergorilla** enters this mode when your laptop requires a higher voltage input than the specified voltage on the **powergorilla**. The **powergorilla** will not charge your laptop whilst in the safe protection mode. If this occurs, switch the

powergorilla off and disconnect it from the laptop. Turn the **powergorilla** back on, select a lower voltage than your laptop normally requires (e.g. if your laptop requires 24v, select 19v) and reconnect to your laptop. Charging will then commence at the lower voltage. You should note that charging at a lower voltage will take longer.

6. How the **powergorilla** IPMS works: What is IPMS? IPMS stands for Intelligent Power Management System. This system regulates the power output drawn from the **powergorilla**.

How does IPMS work? The **powergorilla**'s maximum output power is 65 watts. Some laptops have power outputs of up to 90 watts so the **powergorilla** would not be able to provide enough wattage to recharge the laptop. The **powergorilla** works at optimum performance when the wattage being drawn from it matches the power requirement of the laptop. This is where IPMS comes in.

When the **powergorilla** is connected to the laptop, IPMS automatically detects the output current the laptop requires and adjusts it in accordance with the **powergorilla**'s power output. Charging will then commence at the lower voltage. You should note that charging at a lower voltage will increase charging times slightly.

7. If you encounter a problem whilst charging your laptop with the **powergorilla**, this may be due to the wattage requirement of your laptop. If your laptop requires over 60 watts, it is advisable to remove the internal battery of the laptop, re-connect the **powergorilla**, switch it on and then start your laptop in the normal way. The **powergorilla** will work as an external battery giving prolonged use whilst you're away from a mains socket. Please refer to the instructions on page 8 – 'using **powergorilla**'.

IMPORTANT SAFETY PRECAUTIONS

Although the product incorporates a multiple-protection circuit, to be absolutely certain of its safe use, please note the following:

1. Avoid placing product in direct sunlight. Avoid operating in an environment exceeding +40°C to prevent activation of the temperature shut down over heat protection circuit.
2. Avoid operating in temperatures below 0°C to ensure optimum performance. However the **powergorilla** can still be used in sub-zero conditions but to a lesser efficiency.
3. Avoid operating in wet/high moisture conditions.
4. The **powergorilla** has been designed with rubber mounts to lift the underbody 1mm from the surface. For optimal temperature regulation and for personal safety do not cover or smother the **powergorilla**.
5. Fully remove from the neoprene zip case before using.
6. Do not operate this power adaptor with damaged input or output cables or connectors.

7. Do not open the device or make any attempt to disassemble or modify the device as this will invalidate the warranty/guarantee. This may also result in the risk of fire, personal injury or damage to personal property. Please refer to the user guide for full operating instructions.
8. The warranty/guarantee will be invalidated if the product is damaged due to water/liquid, fire or impact.
9. Keep out of the reach of children at all times. Small parts can cause choking if swallowed.
10. The information contained in this user manual is, to the best of our knowledge, true and accurate at the time of publication and is provided for information purposes only. Powertraveller accepts no liability for any loss or damage arising as a result of use or reliance on this information.
11. This does not affect your statutory rights.

All brand names and photography remain the property of Powertraveller and must not be used or reproduced without express permission of the organisation.

POWERGORILLA

POWERTRAVELLER LIMITED

Ceratech House, Omega Park,
Wilsom Road, Alton, Hampshire
GU34 2QE, UK

t: +44 (0) 1420 542980

support@powertraveller.com

info@powertraveller.com

www.powertraveller.com



THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION 2009
INTERNATIONAL TRADE 2012

powertraveller
without boundaries™