

Technaxx[®] * User Manual

Car Power Inverter with 2 USB Ports TE23

**Do not use electric charge that need higher watts than maximum 3000W continuously !
This device is only suitable for vehicle with 12V electrical systems!**

You can find a detailed manual under www.technaxx.de/products

Before using the appliance for the first time, please read the instructions for use and safety information carefully.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, or by persons lacking in experience or knowledge, unless they are supervised or instructed on the use of this device by a person responsible for their safety. Children should be supervised to ensure they do not play with this device.

Keep this user manual for future reference or product sharing carefully. Do the same with the original accessories for this product. In case of warranty, please contact the dealer or the store where you bought this product.

Enjoy your product * Share your experience and opinion on one of the well-known internet portals.

Specifications are subject to change without notice - please be sure to use the latest manual available on the manufacturer's website.

Support

Service phone No. for technical support: **01805 012643*** (14 cent/minute from German fixed-line and 42 cent/minute from mobile networks). Free Email: **support@technaxx.de**

The support hotline is available Mon-Fri from 9am to 1pm & 2pm to 5pm

Care and maintenance

Clean the device only with a dry or slightly damp, lint-free cloth.

Do not use abrasive cleaners to clean the device.

This device is a high-precision optical instrument, so in order to avoid damage, please avoid the following practice:

- Use the device in ultra-high or ultra-low temperature.
- Keep it or use it in moist environment for long.
- Use it in rainfalls or in water.
- Deliver or use it in strongly shocking environment.

Warranty 2 years

Features

- Charges various electronic devices in a car (12V fixed connection needed)
- 2x USB port, 1 x USB-A Quick Charge 3.0, 1 x USB-C (max. 12V, max. 3A)
- 2x Schuko Plug with On/Off switch
- Converts 12V DC battery power into standard 230V AC (household) power, to run a variety of electronics, e.g. tablets, smartphones, laptop computers, game systems, small TVs, DVD/MP3 players, camping accessories, GPS units and much more
- Output power 3000W (max. continuous) and 6000W (peak)
- Automatic safety shutdown to secure the car battery (Alarm at ~10.5V)
- High/Low voltage & overload protection
- Overheating protection (built-in ventilation fan)

Technical specifications

Input voltage (DC)	12V (fixed connection) (10.2-15,8V)
Permanent current	265A
Input current Max	285A
Output power	3000W (maximum, continuously), 6000W (peak)
Output voltage USB (DC)	5V-12V
Output voltage Schuko (AC) / AC frequency	230V / 50Hz nominal
Output Waveform	Sine wave
Nominal load efficiency	85%

Low battery voltage shutdown and alarm	at ~10.2V
USB output ports (DC)	~30Watt (share)
AC output	2x Schuko port
Circuit protection (DC overload)	10x 40A internal car fuse
Weight / Dimensions	6kg / (L) 45,0 x (W) 26.0 x (H) 13cm
Package Contents	Car Power Inverter with 2 USB Ports TE23, 2x0.6m connection cable, User Manual

Normal use

The power inverter is intended to convert 12 V direct current voltage to

- alternating current voltage 230 V/50 Hz and/or
- direct current voltage of 12 V/max. 3000 mA (USB-A QC3.0)
- direct current voltage of 12 V/max. 3000mA (USB-C)

→The power inverter is only intended for permanent installation.

→This device is not intended for use by children or persons with limited mental capacity or lacking experience and/or lacking expertise. Children should be supervised to ensure they do not play with the device.

→This device is not intended for commercial use.

→Any other use or modification of the device is considered improper and involves significant risks. The manufacturer assumes no liability for damages due to improper use.

Intended sites

The power inverter is intended for installation in

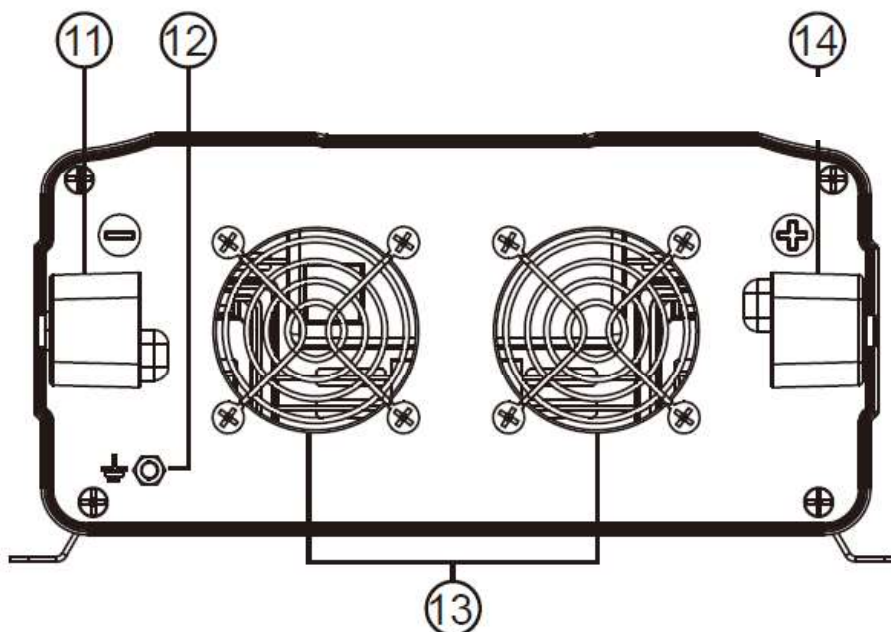
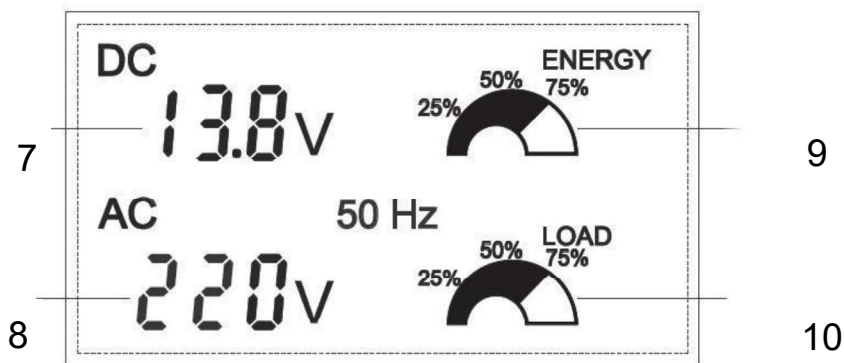
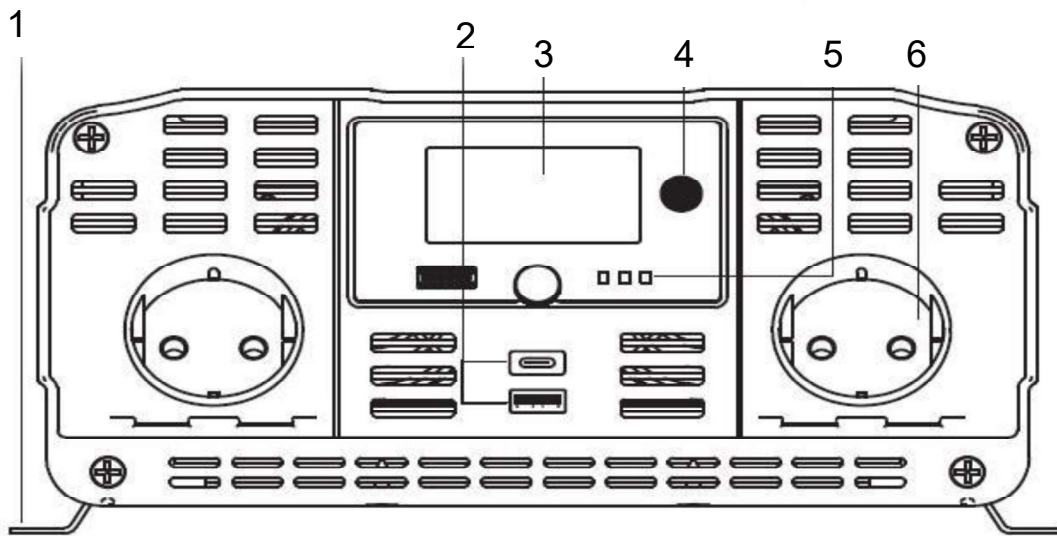
- Automobiles (and lorries)
- Caravans
- Boats

with 12V batteries.

Do not place the power inverter:

- near heat sources (radiators, direct sunlight), flammable materials, battery compartment or starter battery,
- moist locations or locations exposed to dripping or splashing water,
- in environments with explosion hazards

Product Overview



1	Metal holder	8	Output Voltage
2	Two USB ports	9	Percentage of Battery load
3	LCD Digital Display	10	Percentage of output load
4	Power Button	11	Negative Power Input Terminal
5	LED indication (Red- Power on, Yellow-Fault, Green-Normal work)	12	Ground Terminal
6	Schuko port	13	Cooling Fan
7	Input Voltage	14	Positive Power Input Terminal

(2) Both USB ports share the max. of 6000mA

(4) Turns the inverter ON and OFF (Press Button for 3 secs)

(5) LED green: Inverter is working, LED Yellow: Low Voltage Alarm or Overload protection, LED Red: connected with Battery

(13) High speed cooling fan. When the temperature inside the inverter exceeds a preset limit, the cooling fan automatically turns on to cool the inverter. When the temperature reduces, the fan turns off.

Determine Battery Capacity

Battery type and battery size strongly affect the performance. Therefore, you need to identify the type of loads your inverter will be powering and how much you will be using them between charges. Once you know how much power you will be using, you can determine how much battery capacity you need. Technaxx recommends that you purchase as much battery capacity as possible.

CAUTION: Risk of inverter damage.

● The inverter must only be connected to a battery that has a nominal output of 12V. ● **Not operate** if connected to a 6/24V battery

Voltage converter installation

Install the power inverter with suitable screws (not included):

- in sturdy and even locations,
- on clean, dry and non-flammable surfaces,
- in well ventilated areas.

Please be sure not to cover the vents.

Connecting the inverter

This Inverter has two DC cable connections, one positive and one negative. The order of steps in the following procedure minimizes the danger of sparking near the battery bank.

- Prepare all cable set ends with ring terminals at the battery ends
- Select the OFF position on the inverter
- Remove the red positive(+) screw connector cap
- Slide the red positive(+) cable lead onto the red positive(+) screw connector stud. Tighten the screw connector cap securely
- Remove the Black negative(-) screw connector cap
- Slide the Black negative(-) cable lead onto the Black negative(-) screw connector stud. Tighten the screw connector cap securely
- Securely connect the red positive (+) cable lead to the positive (+) terminal of the battery or power source
- Securely connect the black negative (-) cable lead to the negative (-) terminal of the battery or power source
- Connect a 2.00mm² wire or larger insulated wire between the chassis ground connector on the Inverter and a clean electrical grounding point on the vehicle. This will minimize possible electrical noise interference when using TVs or radios.

Note: Sparking is normal for first connection.

Operation

Before using the power inverter determine your equipment's total watts!

- Do not connect more watt than the Output Power (maximum continuous watt) of the device (→ see technical specifications).
- **Determine Total Wattage Required**, Watt ratings are usually listed in equipment manuals or on nameplates. If your equipment is rated in Amp, multiply that number times AC utility voltage to determine watts.
(mathematic example: a drill requires 1.5A → 1.5A x 230Volt = 345Watt. → No problem to use the drill.)
- Remember the vehicle's battery will be discharged when the vehicle is not running.
- To **Determine DC Battery Amps Required**, divide the total wattage required (from above) by the nominal battery voltage to determine the DC amps required. 345Watt / 12V = 28.75A DC

● To **Estimate Battery Amp-Hours Required** Multiply the DC amps required (from above) by the number of hours you estimate you will operate your equipment exclusively from battery power before you have to recharge your batteries with utility- or generator-supplied AC power. Compensate for inefficiency by multiplying this number by 1.2. This will give you a rough estimate of how many amp-hours of battery power (from one or several batteries) you should connect to your Inverter/Charger.

$28.75\text{A DC} \times 0.5\text{h runtime} \times 1.2 \text{ inefficiency rating} = 17.25 \text{ amp-hours}$

● To **Estimate Battery Recharge Required**, Given Your Application You must allow your batteries to recharge long enough to replace the charge lost during inverter operation or else you will eventually run down your batteries. To estimate the minimum amount of time you need to recharge your batteries given your application, divide your required battery amp-hours (from above) by your Inverter/Charger's rated charging amps (depending on the ON/OFF settings).

$17.25 \text{ amp-hours} / 40\text{A inverter/charger rating} = 0.43\text{h recharge}$

Operation

Turn ON the inverter: Hold ON/OFF Button on the front panel for 3 seconds. The GREEN LED indicator light will light verifying the inverter is receiving power

Turn OFF the inverter: Hold ON/OFF Button on the front panel for 3 seconds
When you have confirmed that the appliance to be operated is turned off, plug an appliance cord into one of the 230V AC outlets on the front panel of the inverter

● Turn Inverter, hold the ON/OFF Button for 3 seconds

● Turn the appliance ON.

To disconnect, reverse the above procedure

Note: If you are going to operate several loads from the inverter, turn them on separately after you have turned the inverter on. This will ensure that the inverter does not have to deliver the starting current for all the loads at once.

Using the Inverter to Operate a TV or Audio Device

The inverter is shielded and filtered to minimize signal interference. Despite this, some interference may occur with your television picture, especially with weak signals. Below are some suggestions to try and improve reception.

Make sure the television antenna produces a clear signal under normal

operating conditions (i.e. at home plugged into a standard 230 volt AC wall outlet). Also, ensure that the antenna cable is adequately shielded and of good quality.

Try altering the position of the inverter, antenna cables, and television power cord. Add an extension cord from the inverter to the TV so as to isolate its power cord and antenna cables from the 12 volt power source.

Try coiling the television power cord and the input cables running from the 12 volt power source to the inverter.

Affix one or several "Ferrite Data Line Filters" to the television power cord. Ferrite Data Line Filters can be purchased at most electronic supply stores.

Try grounding the inverter with a minimum (0.75mm²) wire, using as short a length as possible.

Protective Features

Low Voltage Alarm (Yellow LED on Inverter) – This state is not harmful to the Inverter, but could damage the power source. The Inverter shuts off when the input voltage drops to 10.5 volts and an audible alarm sounds same time.

Over-Voltage Protection (Yellow LED on Inverter) - The Inverter will automatically shut down when the input voltage exceeds 15.8±0.5V volts DC

Overload Protection (Yellow LED on Inverter) The Inverter will automatically shut down if the continuous draw exceeds its maximum wattage rating. When the Inverter is at or near maximum output, an alarm will sound. When the alarm sounds you need to disconnect the device(s) to bring the Inverter output down to an acceptable level. If you continue to use the Inverter at or near the maximum output, it will eventually overheat and shut down. If you exceed the maximum Inverter output, the alarm will sound and the Inverter will automatically shut down. The yellow fault indicator will light and the alarm will continue to sound. The Inverter must be reset after an overload condition.

Temperature Protection

The Inverter is equipped with a cooling fan. Depending upon the load output and the temperature of the Inverter, the cooling fan will turn on and off as required to cool the Inverter if needed. If the temperature reaches approximately 80°C the Inverter will shut down automatically. Turn off the Inverter and allow it to cool for a minimum of 15 minutes. Before starting up again, verify the total wattage of the devices being powered.

To Reset the Inverter

1. Turn off the Inverter using the ON/OFF switch on the Inverter, depending upon how the Inverter was controlled.
2. Unplug all devices.
3. Turn the Inverter back on using the ON/OFF switch on the Inverter. Before devices are reconnected, verify the total wattage of the devices to ensure they are less than the rating of the Inverter.

TROUBLESHOOTING


Problem	Situation	Action
No Power on	Fault connection	Turn the Inverter power switch off; Verify cable are tightly connected to the Inverter and the power Source
	Battery voltage below 10 Voltage	Recharge or replace battery
	Equipment being operated draws too much power	Allow Inverter to cool down. Ensure there's adequate ventilation around the Inverter. Ensure that load is no more than it's maximum rating for continuous operation
Low Voltage alarm turns on immediately	The input voltage at input of the Inverter needs to be raised	Recharge/Replace battery or add additional batteries. Run the vehicle engine when using a 12V DC plug
Low voltage alarm is on all the time	Power battery condition with voltage drops	Replace battery
	Inadequate power or voltage drops	Check condition of battery cables and cable leads. Clean or replace as necessary
Low power output	Battery condition may be poor	Recharge or replace a battery

	Fault connection	Make sure the battery and Inverter terminal are clean
Inverter does not work after connecting the cables in reverse	The internal protection has disabled the inverter	Contact vendor company for help

Warnings & Caution

- Use of the device in life support applications where failure of the device can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended.
- Do not use the device in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide, and also not near flammable materials, fumes or gases.
- Since the device requires adequate ventilation during operation, do not block fan or cooling vents and do not cover the device. Do not operate near car heating vents or in direct sunlight.
- Keep the device dry at all times and disconnect when not in use.
- Turn OFF connected equipment before (!) starting your engine. DO NOT plug a surge protector, line conditioner or UPS system into the device. If you attach AC extension cords, use the heaviest practical gauge.
- Before connecting a battery charger or adapter, check its manual to make sure that the technical specifications of the device fall within the recommendations of the external battery charger or adapter.

Declaration of Conformity

 The EU Declaration of Conformity can be requested at the following address: www.technaxx.de/ (in the lower bar "Declaration of Conformity").

Disposal



Disposal of the packaging. Sort packaging materials by type upon disposal.

Dispose of cardboard and paperboard in the waste paper. Foils should be submitted for recyclables collection.



Disposing of old equipment (Applies in the European Union and other European countries with separate



collection (collection of recyclable materials) Old equipment must not be disposed of with household waste! Every consumer is required by law to dispose of old devices that can no longer be used separately from household waste, e.g. at a collection point in his or her municipality or district. This ensures that the old devices are properly recycled and that negative effects on the environment are avoided. For this reason, electrical devices are marked with the symbol shown here.

Made in China

Distributed by:

Technaxx Deutschland GmbH & Co. KG
Konrad-Zuse-Ring 16-18,
61137 Schöneck, Germany