

# S-4000 Pro Power



# STROMTANK

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AUDIO POWER

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OWNER'S MANUAL



## Time to make the best of what you already own.

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Congratulations! You are about to install and use a device from the Stromtank range. You have chosen a high-tech device that will play a central role to hear the excellent quality of your audio components. Stromtank has been designed to separate your hifi-system completely from the grid to supply clean, undisturbed grid power to achieve the next level of music quality with your hifi-system.

## PRECAUTIONS

Important safety instructions. Read carefully and keep for future reference!



When the Stromtank is running, it generates voltage that can be potentially lethal. Work on or close to the installation must only be carried out by thoroughly trained and qualified personnel. Do not attempt to carry out on-going maintenance of this product yourself. There are NO USER SERVICEABLE PARTS INSIDE the unit. Do not open the chassis or remove any of its screws. In case of any service needs contact your Stromtank dealer.

When working on the electrical installation, it is important to be certain that the source of DC voltage coming from the battery as well as the source of AC voltage coming from a generator or electric circuit have been disconnected from the electrical installation.

Even when the Stromtank has been disconnected from the supply sources (AC and DC), a dangerous voltage may remain at the outputs. To eliminate this risk you must switch the Stromtank OFF using the ON/OFF button. After 10 seconds the electronics are discharged and intervention may take place without any danger. All elements connected to the Stromtank must comply with the applicable laws and regulations.



The weight of Stromtank can be up to 300 lbs / 135 kg depending upon the model. Use an appropriate lifting method as well as help from a third party when installing the equipment.

Persons not holding written authorisation from manufacturer are not permitted to proceed with any change, modification or repairs that may be required. Only original parts may be used for authorised modifications or replacements.

The Stromtank is only designed for indoor use and must under no circumstances be subjected to rain, snow or other humid or dusty conditions. The maximum specifications of the device shown on the type plate must be adhered to.

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## UNPACKING

**ATTENTION:** The weight of the Stromtank can be up to 300 lbs /135 kg depending upon the model. Use an appropriate lifting method as well as help from a third party when installing the equipment.

While the Stromtank is still in its case, please move it to a location near the place where it will be installed. Remove all jewelry including watches, rings and belts from your person to avoid damage to the exterior of the Stromtank during removal and installation.

At first remove the cardboard box. Then carefully unscrew the upper screws (Torx size T25) on the wooden case [Fig.1] and remove the top board [Fig.2].

When unpacking, check that the equipment has not been damaged during transportation and all items listed below are present. If anything is missing it has to be indicated immediately to your dealer. Check the packaging and the Stromtank carefully. Package contents:

- |                    |                          |
|--------------------|--------------------------|
| ✓ 1 Stromtank unit | ✓ 1 pair non-slip gloves |
| ✓ 1 locking key    | ✓ 1 warranty card        |
| ✓ 1 AC power cord  | ✓ 1 microfibre cloth     |
| ✓ 1 owner manual   |                          |

After checking unscrew the screws (Torx size T25) on the front board to open it [Fig. 3].

**ATTENTION: Do not hold the Stromtank unit on its front and do not lift it!**

Push the unit from the rear side out of the case [Fig 4].

The finish of the Stromtank is extremely delicate. We suggest wearing the supplied gloves when handling the Stromtank to avoid abrasion or fingerprints caused by oils from the skin, etc.

Place the Stromtank on a level surface with an adequate ventilation. Make sure the surface that will support this component can safely hold its weight up to 300 lbs. There should be at least 3 inches of clearance space on each side and 3 inches of clearance at the top as well as above the unit.

Remove the cloth that covers the Stromtank to protect its finish. Save the cloth in the box to use it again if you ever need to ship the Stromtank.



## FRONT VIEW



adjustment of  
blue/green mode  
(ON-grid / OFF-grid)

brightness adjustment of  
green mode illumination

## REAR VIEW



connecting plate

lock / unlock  
for transport safety



## REAR PANEL – Hubbel duplex



- |   |                                      |
|---|--------------------------------------|
| ① thermal magnetic fuse                   | ⑦ power indicator                    |
| ② converter port                          | ⑧ AC input                           |
| ③ BMS port                                | ⑨ main switch ON / OFF               |
| ④ emergency charge input                  | ⑩ lock / unlock for transport safety |
| ⑤ AC outlets                              | ⑪ ground terminal                    |
| ⑥ fuse (10A - 230V/16A-120V slow blowing) |                                      |

## REAR PANEL – SCHUKO SOCKETS



- |   |                                      |
|---|--------------------------------------|
| ① AC outlets                              | ⑦ power indicator                    |
| ② thermal magnetic fuse                   | ⑧ AC input                           |
| ③ converter port                          | ⑨ main switch ON / OFF               |
| ④ BMS port                                | ⑩ lock / unlock for transport safety |
| ⑤ emergency charge input                  | ⑪ ground terminal                    |
| ⑥ fuse (10A - 230V/16A-120V slow blowing) |                                      |

## INSTALLATION / OPERATION

Before you start with the installation take care that no audio parts are connected with the Stromtank and the unit is not connected with the electric circuit.

To install the Stromtank and connect it with your audio equipment please follow the steps in order.

1. Make sure that the position of the main switch at the rear is in OFF position.
2. Connect the AC input with a power cord to the next available grid outlet.  
**ATTENTION: Never connect Stromtank's AC input with its AC outlets. This will cause damage to the unit!**
3. Insert the supplied key into the key switch, turn it into a horizontal position and remove the key from the switch.
4. Push the main switch at the rear in ON position. The green LED above must light up now. After a few seconds the ampere meter at the front is illuminated by a blue light.
5. Plug your audio AC cords into the AC outlets. It is important to make certain that all audio units are in OFF position. For best sound results we recommend a cable length of AC-out power connection between STROMTANK and hifi equipment of max. 5 meters.
6. Switch on the fuse switch next to the AC outlets.
7. Turn on your connected audio equipment. **ATTENTION: One after the other!**
8. To select pure power OFF-grid mode and enjoy best music with stable AC amplitude, pure sinewave and crystal controlled frequency push the left button at the front and the light of the meter will change to a green illumination. Or go to grid mode (switch left button again) for charging and on-grid music listening.

Turn on your audio system. To hear the best quality of your audio components it is recommended to start with ON-grid mode. This allows Stromtank to warm-up and shakedown the system.

**ATTENTION: Stromtank must always be connected with the ground of the power cord.**

## DISPLAY OPERATION

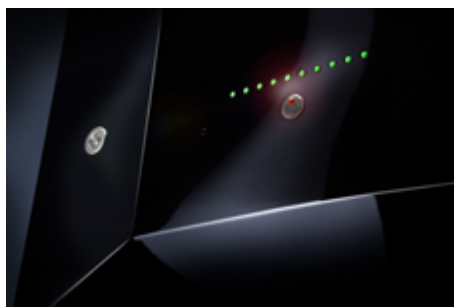
The illuminated bargraph display at the front of the Stromtank indicates the state of charging in 10 steps from 10 % up to 100 %. When all 10 indicators are illuminated the unit is fully charged (100 %). If only one indicator is shown the unit is nearly empty (state of charging: 10 %).

If Stromtank is in off-grid mode and reaches a rest capacity of 10 % it automatically switches back to electric circuit for recharging (the light at the ampere meter changes to blue illumination). As soon as the LED pointer in blue mode disappears at bargraph it is possible to switch back to off-grid mode.

This security function ensures that the battery cannot totally be discharged, e.g. if you forget to switch the unit to on-grid mode (charging) after a music session.

**ATTENTION: Do not forget to switch back to ON-grid mode for recharging the batteries.**

If red LED lights up at front panel check that the AC-in power cord for charging the Stromtank is connected properly to the electric circuit. The red LED also indicates that the AC-in fuse can be blown.



## ADVANCED FEATURES

### Stromtank - Inverter

The Stromtank is equipped with a high-performance inverter, which supplies a perfect and very precise sine wave. Any unit designed for the 230V -50 Hz / 115V - 60 Hz electric circuit can be connected to it without any problem, up to the rated power out of the Stromtank. The Stromtank is protected against overloads and short-circuits.

Thanks to the largely over-dimensioned performance level, loads up to three times higher than the Stromtank's rated power can be faultlessly supplied for short periods (3 sec) of use, thus allowing the load to be started up without any problem.

### Automatic Load Detection (Load Search)

In order to save battery energy, the Stromtank stops and automatically goes into load search mode when the detected load is lower than the sensitivity (2,5 W). It automatically goes back into operation when a power consumer greater than this value demands it.

In load search mode (standby), the system will thus consume minimal power from the battery.

### Blue / Hybride Mode

In this mode the current taken on AC-Input is a sinusoid in phase with voltage. That means only active power is taken from the generator. The Stromtank compensates harmonics and reactive current from the source.

This function also avoids fast speed change on the generator due to loads jump.

### Battery Undervoltage Protection

Stromtank switches off the AC-output group automatically in case the batteries reach undervoltage level. Before it will be switch off there will be an acoustic alarm signal for approx. 1 minute. If the red LED on the top is lighting check if Stromtank is connected by AC-in power cord to the electric circuit. When the red LED on the top disappears the charging mode started (front meter shows charge current). If the connection works and the red LED is still on check the AC-input fuse.

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## MAINTENANCE

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The Stromtank requires no user maintenance other than to keep it clean. Like a piece of furniture the Stromtank has a fine, highly polished finish that can be easily damaged. Do not rub or polish the finish and do not allow objects to come in contact with it.

To clean the Stromtank first unplug the unit from the electric circuit. To wipe off fingerprints and other grease spots spray a small amount of mild detergent dissolved in water onto the supplied microfiber cloth and gently wipe the surface with the cloth.

Caution! The cloth must never be dripping wet! If water or other fluids enter the cabinet, you risk damaging the unit. Do not spray any liquid directly onto the Stromtank.

Never use scouring pads, steel wool, scouring powders or harsh chemical agents, alcohol, thinners, benzine, insecticide or other volatile substances, as these can permanently scratch and destroy the surface.

If you need to transport or ship the Stromtank, make sure to use the original packing material. Allow the unit to cool down for at least one hour before you wrap or package it.

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## STORAGE

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The equipment must be stored in a dry environment at an ambient temperature of between 10° C (50° F) and 45° C (113° F).





STROMTANK



PRO

## SPECIFICATIONS

### Input AC parameters on grid

Input voltage range	100 – 120 Vac / 200 – 240 Vac
Input frequency	45 to 65 Hz (auto sensing)
Input current	8 Aac

### Output AC parameters off grid

Output voltage	100 – 130 Vac / 210 – 245 Vac (pure sine wave +/- 2 %)
Output frequency	50 Hz/ 60 Hz +/- 0.05% (crystal controlled)
Harmonic distortion	< 2%
Continues power @ 25° C	950 VA
Power 3 sec. @ 25° C	3,700 VA

### Battery power unit

Battery type	LFP - Lithium Iron Phosphate (LiFePO4)
Nominal battery voltage	24 Vdc
Nominal capacity	100 Ah

### Terminal area

AC output receptacles	4x Furutech high performance schuko sockets 3x Hubbel duplex, Hospital spec. grade
AC output fuse	thermal-magnetic circuit breaker
AC input connection	ICE 320 - C14 (fuse 10AT / 16 AT*)
Interface	converter, BMS*, emergency charger*

\* only for use with Stromtank software and charger

Design and specifications are subject to change without notice.

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## QUALITY AND WARRANTY

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During the production and assembly of the Stromtank, each unit undergoes several professional checks and tests. These are carried out with strict adherence to the established procedures. Each Stromtank owns a serial number allowing complete follow-up on the checks, according to the particular data for each device. For this reason it is very important never to remove the type plate which shows the serial number. The manufacture, assembly and tests for each Stromtank are carried out in their entirety by its factory in Germany. The warranty for this equipment depends upon the strict application of the instructions appearing in this manual.

### Exclusion of warranty

No warranty claims will be accepted for damage resulting from handling, usage or processing that does not explicitly appear in this manual. Cases of damage arising from the following causes are notably excluded from the warranty:

- Surge voltage on the battery input
- Incorrect polarity of the battery
- The accidental ingress of liquids into the device or oxidation resulting from condensation
- Damage resulting from physical or mechanical shocks
- Modifications carried out without the explicit authorisation of manufacturer
- Nuts or screws that have not been tightened sufficiently during the installation or maintenance
- Damage due to atmospheric surge voltage (lightning)
- Damage due to inappropriate transportation or packaging
- Disappearance of original marking elements

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### Exclusion of liability

The placement, commissioning, use, maintenance and servicing of the Stromtank cannot be the subject of monitoring by manufacturer. Therefore, we assume no responsibility and liability for damage, costs or losses resulting from an installation that does not conform to the instructions, defective functioning or deficient maintenance. The use of a Stromtank is the responsibility of the customer in all cases.

Manufacturer shall in no event be liable for consequential, incidental, contingent or special damages, even if having been advised of the probability of such damages. This equipment is neither designed nor guaranteed to supply installations used for vital medical care nor any other critical installation carrying significant potential damage risks to people or the environment.

Manufacturer assumes no responsibility for the infringement of patent rights or other rights of third parties that result from using the Stromtank.

Manufacturer reserves the right to make any modifications to the product without prior notification.



Made in Germany