



# EXTENDED BATTERY PACK

User Manual

**1kVA bis 3kVA Tower UPS**



Model	Article number
a-TroniX Extended battery Pack 24V	9885152
a-TroniX Extended battery Pack 48V	9885154
a-TroniX Extended battery Pack 72V	9885155

# INTRODUCTION

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AKKU SYS Akkumulator- und Batterietechnik Nord GmbH  
 Verbindungsweg 23 · 25469 Halstenbek / Hamburg · GERMANY  
 Telefon +49 4101 | 3 76 76-0 / Fax +49 4101 | 3 76 76-66  
 info@akkusys.de / www.akkusys.de

## Thank you very much,

for purchasing our a-TroniX series extended battery pack (EBP).


It can be added to the UPS a-TroniX series to extend the available battery time (**see Table 0**).

Up to four EBPs can be installed with the UPS.

**Table 0**

**Approximate Battery Runtimes (in Minutes) at 100% Load (Tower Models):**

Model		Battery type	Internal battery quantity	Internal battery runtimes	+ 1 BS	+ 2 BS	+ 3 BS*	+ 4 BS*
1 kVA	24 VDC	12V/9Ah	2	3	15	30	45	65
	36 VDC		3	5	25	45	65	85
2 kVA	48 VDC		4	3	15	30	46	65
	72 VDC		6	5	25	45	65	85
	96 VDC		8	7	35	65	85	120
3 kVA	72 VDC		6	3	15	30	46	65
	96 VDC		8	5	18	40	65	85



Note: Battery times are approximate and vary depending on the load configuration and battery charge.

\* (options)

## Read carefully before use!

Read this manual carefully before installation.

It contains important regulations and instructions for the use of this product and provides technical support for the operator of the unit.

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AKKU SYS Akkumulator- und Batterietechnik Nord GmbH cannot be held responsible for any inaccuracies or inappropriate information in this instruction manual. The information in this document is subject to change without notice, but there is no obligation to update it on an ongoing basis.

We reserve the right to make design and equipment changes to improve the production process or the product.

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## 1. Important Safety Warning

This manual contains important notes and instructions that you have to follow during installation and maintenance your extended battery pack (EBP).

Be sure to observe all warnings and instructions in this manual before operating the unit and keep this manual for future reference.

It has to be read and understood by all persons and specialists who work with this unit.

Observe the local safety instructions and the corresponding laws during installation, operation and maintenance, otherwise personal injury or damage to the equipment may occur. The safety instructions in this manual serve as a supplement to the local safety instructions. Our company accepts no liability for damage caused by failure to observe the safety instructions.

### **WARNING!**



This UPS contains its own energy source(batteries).

The UPS output receptacles may carry live voltage even when the UPS is not connected to an AC supply.

### **CAUTION!**



- Batteries can present a risk of electrical shock or burn from high short-circuit current. Observe proper precautions.

- Servicing has to be performed by service personnel knowledgeable of batteries and required precautions. Keep unauthorized personnel away from batteries.



- Never dispose of batteries in a fire. Batteries may explode when exposed to flame.

## 2. Symbols and abbreviations used in this guide

Accumulators are usually used as an energy storage for a **UPS** system (**U**ninterruptible **P**ower **S**upply). These are also colloquially referred to as **accumulators** or **batteries**. Battery cabinets are abbreviated as **EBPs**.

The following are the examples of symbols used on the UPS or accessories to alert you to critical information:



**WARNING:**

Warning of dangerous electrical voltage



**CAUTION:**

General warning of danger points



**NOTE:**

This symbol indicates texts, notes or tips. Failure to take precautionary measures may result in damage to the product and/or its functions or to an object in its vicinity.



**ENVIRONMENT:**

Indicates assemblies or parts that must be disposed of properly.

Do not dispose of them in the household waste. Take advantage of the certified and professional recycling service offered by our AkkuSys team.

For further information, please contact us on the hotline +49 4101/376760, at [info@akkusys.de](mailto:info@akkusys.de) or use the QR-code:



Indicates recycling information.

The packaging is recyclable. After unpacking, please keep it for reuse or dispose of it properly.



## 3. Installation

### Inspecting the Equipment



- If any equipment has been damaged during shipment, keep the shipping cartons and packing materials for the carrier or place of purchase and a claim for shipping damage. If you discover damage after acceptance, file a claim for concealed damage.



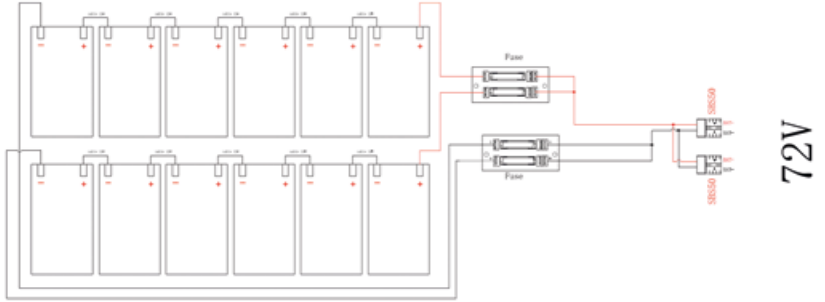
- Check the battery recharge date on the shipping carton label. If the date has passed and the batteries were never recharged, do not use the EBP. Contact your supplier.



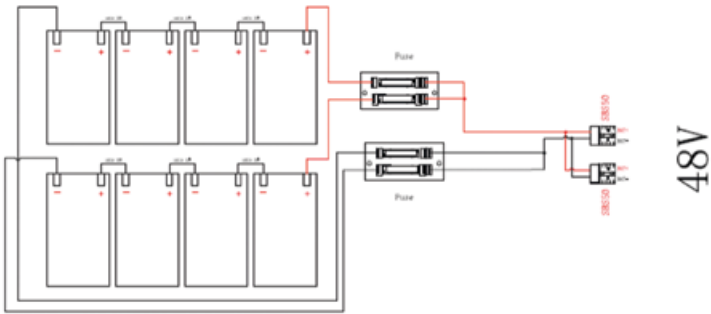
- The packaging is recyclable. After unpacking, please keep it for reuse or dispose of it properly
- Check the accessories against the packing list and contact the dealer if any parts are missing. Accessories includes:  
a-TroniX battery cabinet, operating instructions, mains cable, battery cabinet connection cable and battery connector.

## Battery installation

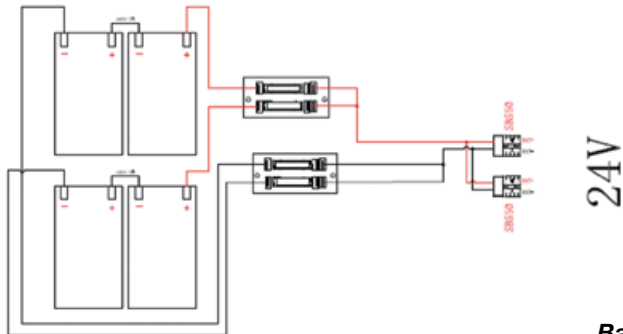
Connect the batteries in their battery cabinet according to the following **Figure 1**:



**for a-TroniX Extended Battery Pack 72V**



**for a-TroniX Extended Battery Pack 48V**



**for a-TroniX Extended Battery Pack 24V**

**Figure 1**  
**Battery installation**

## To install the optional EBP(s) for a UPS

1. On the rear of the UPS, remove the cable retention clip covering the battery connector. Retain the clip. See **Figure 2**.
2. Installations with one EBP only:  
Remove the cable retention clip covering the right or upper battery connector. Retain the clip.
3. Installations with more than one EBP:  
For all EBPs except the last EBP, remove the cable retention clips covering both battery connectors. Do not remove the clip from the second battery connector on the last EBP. Retain the clips.

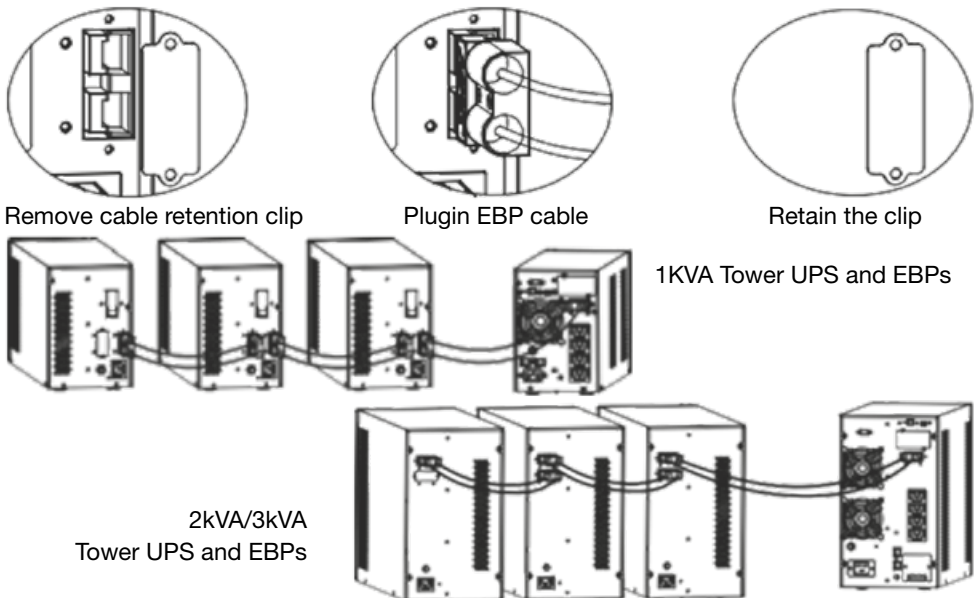


### CAUTION:

A small amount of arcing may occur when connecting an EBP to the UPS. This is normal and will not harm personnel. Insert the EBP cable into the UPS battery connector quickly and firmly.

4. Plug the EBP cable(s) into the battery connector(s) as shown in **Figure 2**. Up to four EBPs may be connected to the UPS.
5. Verify that the EBP connections are tight and adequate bend radius and strain relief exist for each cable.

**Figure 2 – Connecting the EBPs:**




## 4. Operation

### Configuring Battery Settings

- Set the UPS for the number of EBPs installed.
- To ensure maximum battery runtime configure the UPS for the correct number of EBPs refer to Figure 3 for the appropriate setting of battery numbers and type. Use the up and down buttons to select the number of battery strings according to your UPS configuration:

**Figure 3 – Battery number configuration**

All UPS and EBP Cabinets	Number of Battery Strings
UPS only (internal batteries)	1 (default)
USV + 1 Extended Battery Pack	3
USV + 2 Extended Battery Packs	5
USV + 3 Extended Battery Packs	7
USV + 4 Extended Battery Packs	9

 **NOTE:**  
The UPS contains one battery string; each EBP contains two battery strings.



## 5. Maintenance

### Replacing Batteries



**NOTE:**

DO NOT DISCONNECT the batteries while the UPS is in battery mode.

THE EBP can be replaced when the UPS is ON, but be aware that if the utility fails at that time, the load of the UPS may NOT be protected.

If you prefer to remove input power to change the batteries, see „UPS start up and turn off“ in the user manual of UPS.

**WARNING:**



■ Servicing has to be performed by qualified service personnel knowledgeable of batteries and required precautions. Keep unauthorized personnel away from batteries.



■ Batteries can present a risk of electrical shock or burn from high short circuit current. Observe the following precautions:

- 1) Remove watches, rings or other metal objects;
- 2) Use tools with insulated handles;
- 3) Do not lay tools or metal parts on top of batteries,
- 4) Wear rubber gloves and boots



■ When replacing batteries, replace with the same type and number of batteries or battery packs. Proper disposal of batteries is required. Use the service of our AkkuSys team to order new batteries. The batteries must be disposed of properly.

For more information, contact us on the hotline +49 4101/376760, at [info@akkusys.de](mailto:info@akkusys.de) or use the QR-code:

Refer to your local codes for disposal requirements.



### Replacing Tower EBPs



**CAUTION:**

The EBP is heavy.

Lifting the cabinet requires a minimum of two people.

Replace the EBPs:



- Unplug the EBP cable from the UPS. If additional EBPs are installed, unplug the EBP cable from the battery connector on each EBP.
- Replace the EBP(s). See „Recycling the used battery or UPS for proper disposal.“

## Testing New Batteries

- Plug the UPS into a power outlet for 48 hours to charge the batteries.
- Start up the UPS by pressing the start-up combination button.
- Press the battery test combination button to activate the battery test. The UPS starts a battery test if the batteries are fully charged the UPS in normal mode with no active alarms and the bypass voltage is acceptable.

During the battery test, the UPS transfers to Battery mode and discharges the batteries for 10 seconds. The LED indicators of the front panel stop cycling when the test is completed.

## Recycling used battery



- Do not dispose of batteries in a fire. Batteries may explode. Proper disposal of batteries is required. Refer to your local codes for disposal requirements.
- Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.
- Do not discard waste electrical or electronic equipment (WEEE) in the trash. Do not discard the UPS or the UPS batteries in the trash. This product contains sealed, lead-acid batteries and must be disposed of properly.

For more information, contact us on the hotline +49 4101/376760, at [info@akkusys.de](mailto:info@akkusys.de) or use the QR-code:

Refer to your local codes for disposal requirements.



## 6. Specification

MODEL		1kVA-EBP	2kVA-EBP	3kVA-EBP
INPUT	Voltage	208/220/230/240 VAC		
	Frequency	50/60 Hz		
	Input Protection	Resettable Circuit Breaker		
CHARGER OUTPUT	DC Voltage	27.7/41.25 ± 0.5V	55/82.5/110 ± 0.5V	82.5/110 ± 0.5V
	DC Current	1.4 A		
	Output Protection	Fuse		
BATTERY	Battery Type	sealed, maintenance free, valve regulated		
	Battery Type (EBP)	2 strings of (2) 12V 9 Ah / 24V	2 strings of (4) 12V 9Ah / 48V	2 strings of (6) 12V 9Ah / 72V
		2 strings of (3) 12V 9Ah /36V	2 strings of (6) 12V 9Ah / 72V 2 strings of (8) 12V 9Ah / 96V	2 strings of (8) 12V 9Ah / 96V
	Recharge Time		8 hours to 90%	

**ACCESSORY** User Manual, AC input cord,cabinet installation bracket

# Other manufacturers and product ranges you will find in our AKKU SYS complete catalogue:

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**AKKU SYS Akkumulator- und Batterietechnik Nord GmbH**

Verbindungsweg 23 · 25469 Halstenbek / Hamburg · GERMANY

Tel. +49 4101 | 3 76 76-0 / Fax +49 4101 | 3 76 76-66 / info@akkusys.de / www.akkusys.de