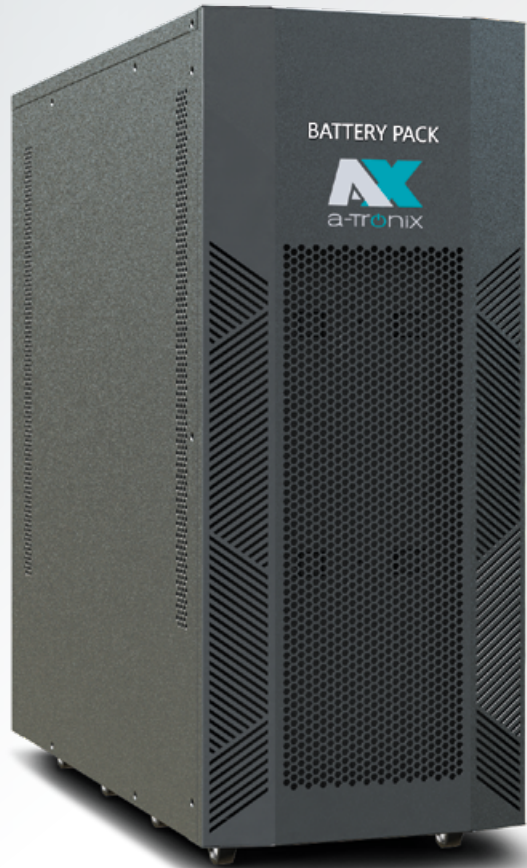




EXTENDED BATTERY PACK

User Manual

**6kVA, 10kVA
Tower UPS**



Model	Article number
a-TroniX Extended Battery Pack Pro	9885163

INTRODUCTION

The publication and copyright of this documentation remain with the company:

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Thank you very much,

for purchasing our a-TroniX series Extended Battery Pack (EBP).

It can be added to the a-TroniX series UPS to extend it to extremely high autonomy times.
Up to four battery cabinets can be installed.

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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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. AKKU SYS GmbH accepts no liability for errors in this operating manual and any consequences resulting therefrom.

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1. Important safety instructions

This manual contains important notes and instructions that you must observe when installing and maintaining your battery cabinet.

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

It must be read and understood by all persons and skilled personnel working with this appliance.

Observe the local safety instructions and laws during installation, operation and maintenance, otherwise personal injury or damage to the appliance 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:

- A UPS contains its own power source (batteries).
- The UPS output sockets may be live even if the UPS is not connected to an AC supply.



CAUTION:

- With batteries, there is a risk of electric shock or burns due to high short-circuit current. Observe the appropriate safety precautions.
- Maintenance work and repairs must be carried out by qualified service personnel who are familiar with batteries and the necessary precautions. Keep unauthorised personnel away from the batteries.
- Never dispose of batteries in a fire. Batteries can explode if exposed to flame.
- They must be disposed of properly. Follow local regulations for disposal.
- Do not open or destroy batteries. Released electrolyte is harmful to skin and eyes. It can be toxic.
- Do not transport or store the unit upside down.
- Do not dispose of waste electrical and electronic equipment (WEEE) in household waste. Observe the local regulations for disposal.



WARNING:

Batteries may present a risk of electric shock due to high short-circuit current. Observe the following safety precautions:

- 1) Take off watches, rings or other metal objects.
- 2) Use tools with insulated handles.
- 3) Do not place tools or metal parts on the batteries.
- 4) Wear rubber gloves and safety shoes.

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 AKKU SYS team.

For further information, please contact us on the hotline +49 4101/376760, at 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

3.1. Inspecting the Equipment



- If a unit was damaged during transport, keep the shipping cartons and packing material for a claim of transport damage. If you notice damage after acceptance, make a claim for concealed damage.



- Check the recharge date of the batteries on the label of the shipping box. If the date has expired and the batteries have never been charged, 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.

3.2. Battery installation



NOTE:

The unit and the batteries are heavy.
Always use lifting techniques appropriate to the weight.

Up to 40 pcs 12V/9A h batteries can be installed in the a-TroniX Battery Pack Pro. The output voltage can be 96V, 108V or 120V through the battery connection.

For operation, two battery strings are connected in parallel which consist of BAT+, N and BAT-.



figure 1

Figure 1 on the right shows the overall chassis:

Remove the cover of the battery cabinet to be able to install the batteries and connect the battery cables (see **figure 2**):



figure 2

3.3. Installing and connecting the batteries

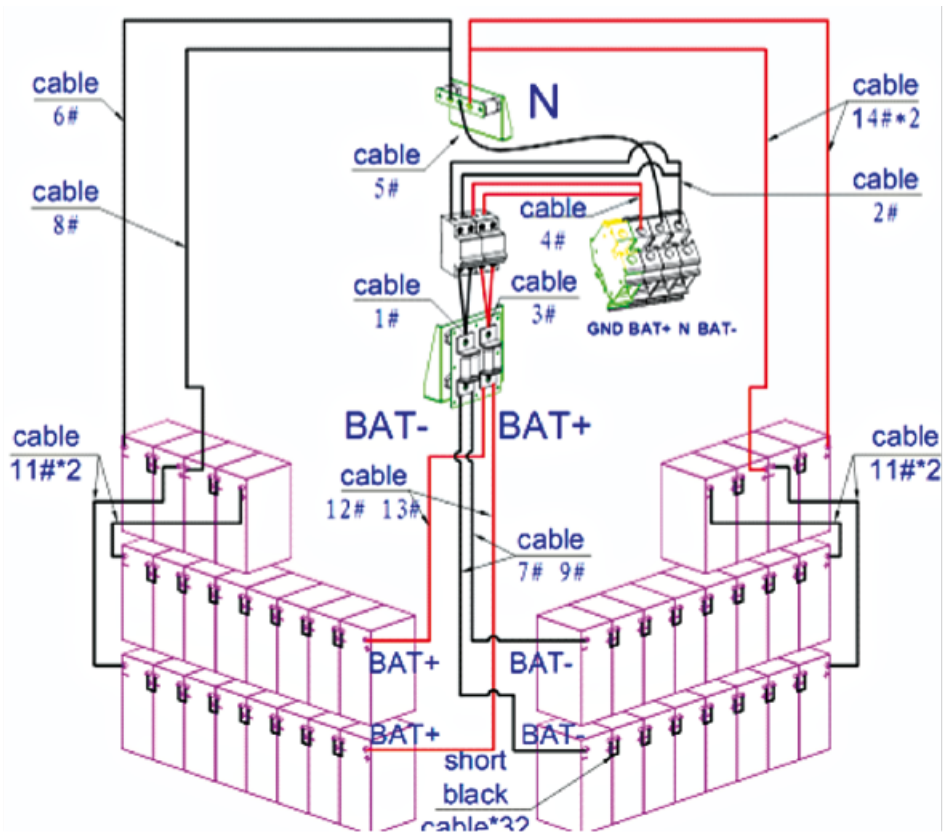
40/36/32 pieces of batteries can be selected to divide them into two strings that are connected in parallel for operation.

Each string has 20/18/16 batteries in series (BAT+ N BAT -).

The installations of the three voltage types are described as follows:

Instructions for installing and connecting **40 pieces of batteries**:

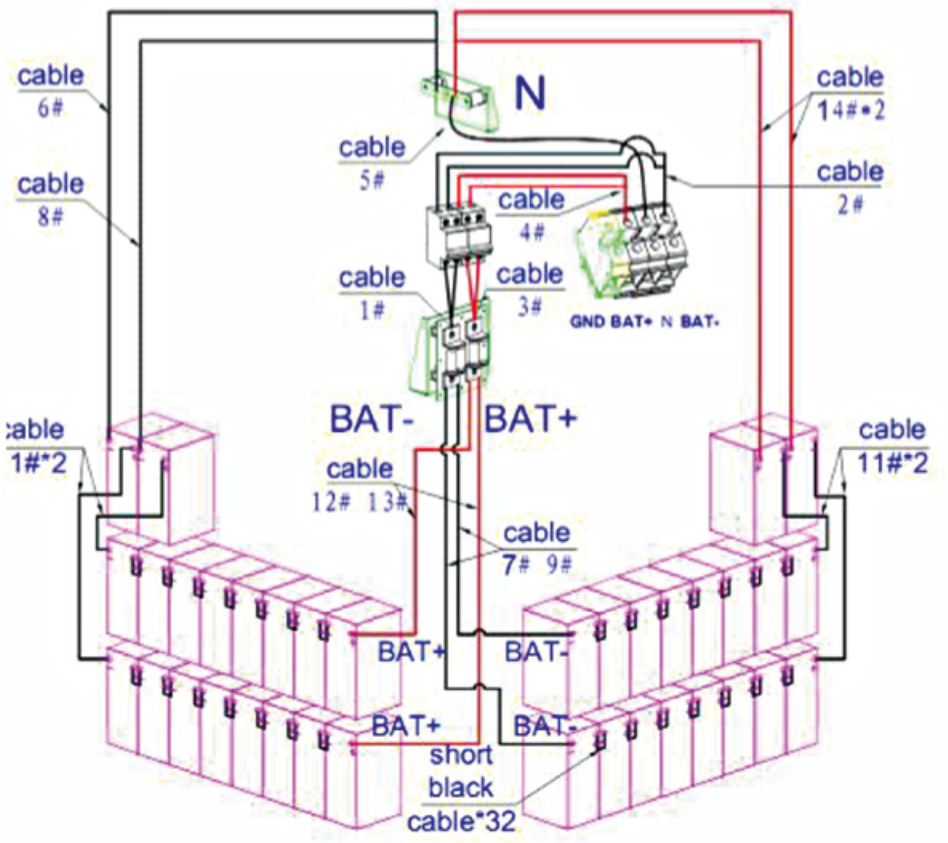
Insert the batteries one after the other from bottom to top and then connect the battery cables according to the following wiring diagram.



Wiring diagram for the installation of 40 batteries

Instructions for installing and connecting 36 pieces of batteries:

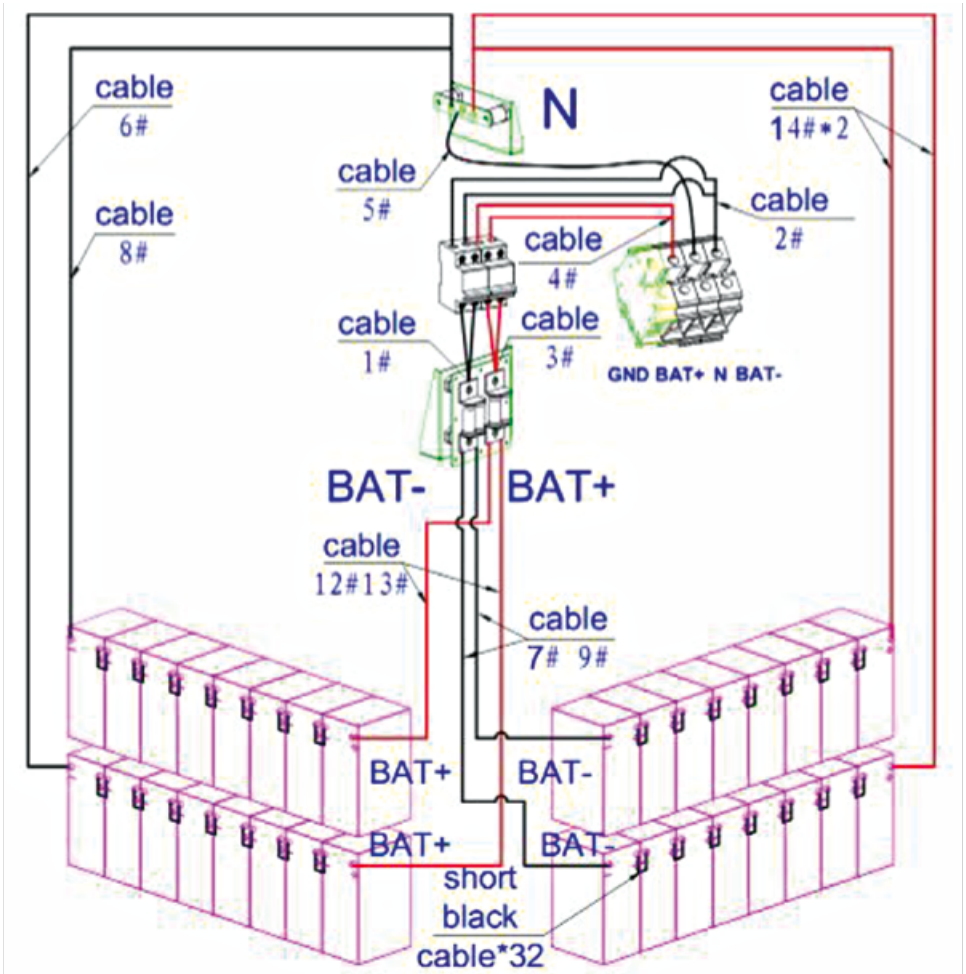
Insert the batteries one after the other from bottom to top and then connect the battery cables according to the following wiring diagram.



Wiring diagram for the installation of 36 batteries

Instructions for installing and connecting 32 pieces of batteries:

Insert the batteries one after the other from bottom to top and then connect the battery cables according to the following wiring diagram.



Wiring diagram for the installation of 32 batteries

When the installation and connection of the batteries is complete, use a multimeter or other approved tester to check that the voltages between BAT+ and N, N and BAT- are correct. When the batteries have been connected correctly, close the housing cover.

3.4. Installing the optional battery cabinet

1. **Figure 3** shows the connection between the UPS and the battery cabinet.

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.

2. 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.
3. Verify that the EBP connections are tight and adequate bend radius and strain relief exist for each cable.

Figure 3

Connecting the EBPs:

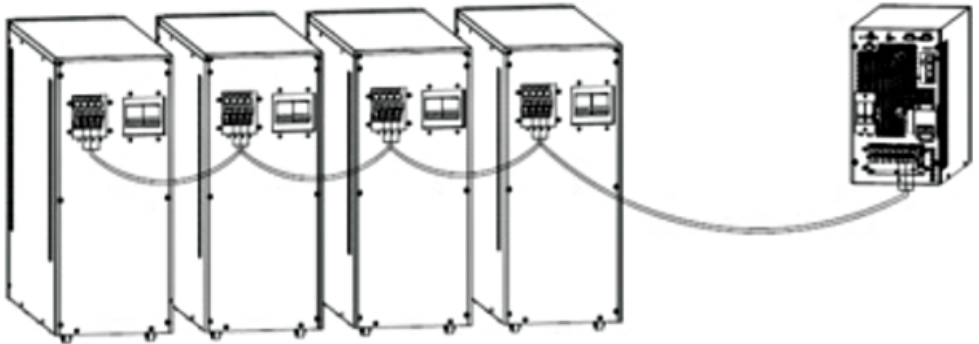


figure 3

Set the UPS for the number of battery packs installed.

4. Maintenance

4.1. Replacing the batteries



NOTE:

DO NOT disconnect the battery 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 or use the QR code.
Refer to your local codes for disposal requirements.



4.2. Replacing Tower Extended Battery Packs



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.

4.3. Testing New Batteries

To test 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.

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Go to our catalogue:



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