



| Manual MB Cap Ultra Control Software

- | System components
- | Functional description
- | Installation

Publisher's Note

Manual for Backup Module Software
MB Cap Ultra 10/24 38s (Art. No. 85467)
MB Cap Ultra 20/24 16s (Art. No. 85468)

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1 General Notes

1.1 Warranty Entitlement

This instruction manual describes the setup and operation of the software for **MB Cap Ultra** control systems.



How to retain your warranty entitlement:

- ➔ *Read the instruction manual before setting up and operating the software and comply with the instructions.*

1.2 Abbreviations

Abbreviations	Description
IPC	Industry PC
PC	(Personal) Computer
USB	The serial Universal Serial Bus links a computer to external devices.
UPS	An uninterruptible power supply maintains the power supply to critical electrical devices if the power source fails.

1.3 Accessories



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2 Description

System advantages

- All power failures are easy to handle.
- After the complete system is switched off at the power switch, the **MB Cap Ultra** Control System assumes the complete internal shutdown of the system.
- The **MB Cap Ultra** Control System insures that no downtimes or damage can occur as the result of an uncontrolled process stop.

System components

- **MB Cap Ultra Backup Module**
MB Cap Ultra 10/24 38s (Art. No. 85467) **or**
MB Cap Ultra 20/24 16s (Art. No. 85468)
- Switch module to shut down the IPC
- Interface cable between USP and IPC:
 1. USB cable A to B, 2 m connector/connector (Art. No.4000-68000-9030054)
 2. USB cable A to B, 5 m connector/connector (Art. No.4000-68000-9030055)
- **MB Cap Ultra Control Software**
Free download from website www.murrelektronik.com

Software function

The **MB Cap Ultra** Control Software permanently monitors the power source and charge state of the USP system energy storage.

System function

Power failure

1. The IPC shuts down the system after a preset time.
2. USP and IPC are shut down in a controlled process.

Power restoration at end of shutdown process

1. The USP enables the output voltage.
2. The system restarts automatically.

Power restoration during shutdown process:

(shutdown timeout)

1. The IPC shuts down.
2. The USP cuts off the IPC power supply for a short while.
3. The IPC then restarts faultfree.

3 Setup

3.1 Requirements

Operating System	Windows 98, 2000/NT, XP, Vista, 7
.Net Framework	2.0
Interfaces	Serial or USB (FTI driver)

3.2 Setup

**NOTE**

Close all other programs on your computer before installing the software.

Start Setup

→ Click on the "setup.exe" file.

The setup program is a menu-guided application that installs the **MB Cap Ultra** Control Software on the IPC.

The application then installs the **MB Cap Ultra** Control Software on the IPC.

Request parameters

- In the Setup, select the language for the user interface.
- Select the destination folder.
(default C:\Program Files \MB Cap Ultra Control)
- Select the Start menu folder.
- Create a desktop symbol.

4 Operation

4.1 Main Menu

→ Start the **MB Cap Ultra** Control Software.
The Main menu opens.

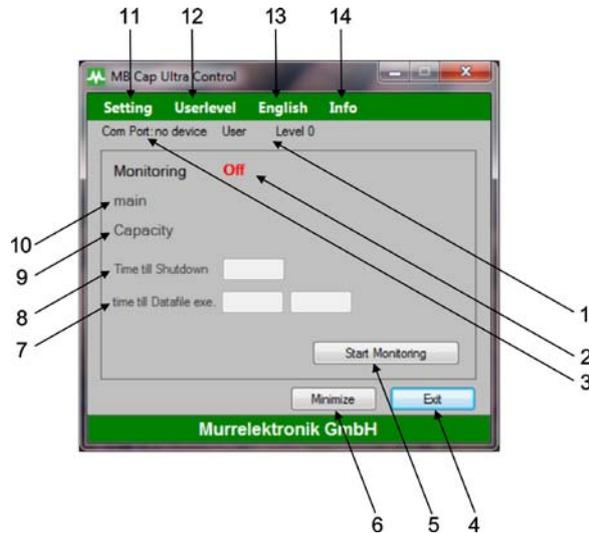


Fig. 1: Main menu

Legend

1	Current user level	2	Monitoring status
3	Current COM port	4	Exit application
5	Start monitoring	6	Minimize application
7	Time till execute file1	8	Time till shutdown1
9	Capacity status1	10	Main: Power source status1
11	View settings	12	Change user level
13	Change language	14	View software information

¹ Only displayed in monitoring mode

4.2 Minimize / Maximize



NOTE

The **MB Cap Ultra** Control Software starts

- always at User Level 0.

AND

- in the last state in which it ended.

Meaning: It starts minimized and in monitoring mode.

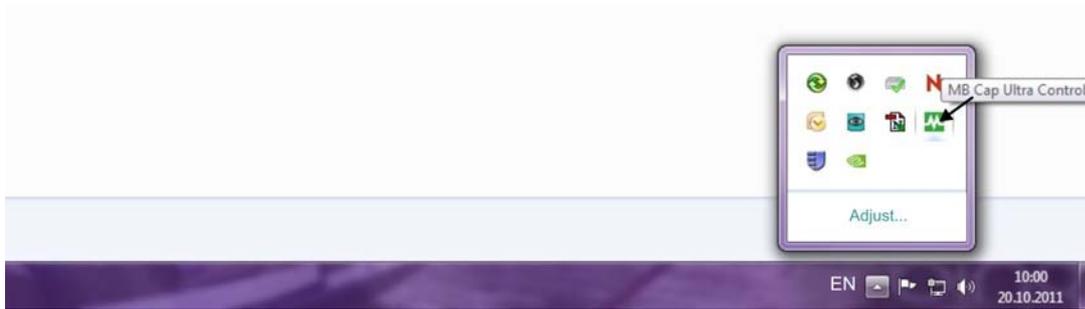


Fig. 2: "Minimize" mode

- Minimize** → Click on **Minimize** in the **Main** menu.
- Maximize** → Right-click on the **MB Cap Ultra** control icon (see figure above).
→ Select **Open**.

4.3 User Level

Change the **User Level** to execute certain actions and open menus. There are two levels available. A password is requested for Level 1.

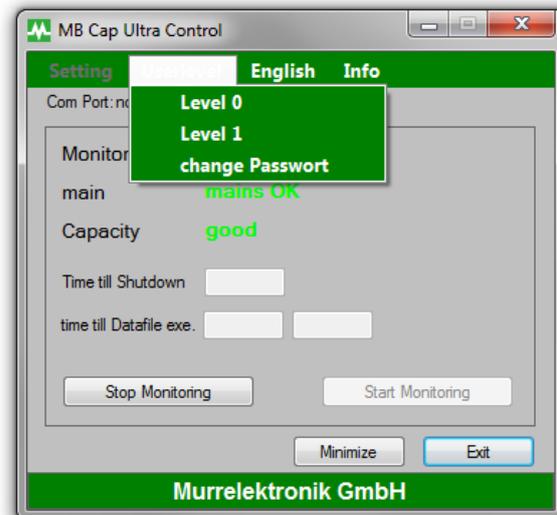


Fig. 3: **User Level** menu

4.3.1 User Level 0

These actions and settings are possible in **Level 0** without password:

- Change language** Languages available: English, German, French.
→ Set the user interface to your language.
- View software information** → Click on **Info** to view the software version, for example.

Start/stop monitoring

The possible action is active.

- Start monitoring if ...
- Stop monitoring if ...

Minimize application

- Click on **Minimize** to run the **MB Cap Ultra** Control Software in the background.

Exit application

- Click on **Exit** to end the **MB Cap Ultra** Control Software.

4.3.2 User Level 1

The user-defined settings below are possible:

- Open **Settings** menu.
- Change **Software Configuration**.
- Change **Device Parameters**.

4.3.3 Password

To activate User Level 1, enter a password. The password comprises four digits; factory setting **0000**.

**Note**

Select your own password to avoid unauthorized access to the software by third parties.

Change password

- Enter the old password.
- Enter the new password.
- Click on **Confirm**.

The new password is saved.

4.4 Settings

The **Settings** menu comprises the **Software Configuration** and **Device Parameters**.

4.4.1 Software Configuration Menu

Software Configuration

The **Software Configuration** is divided into three main sections:

- Choose interface
- Mains failure
- Low capacity

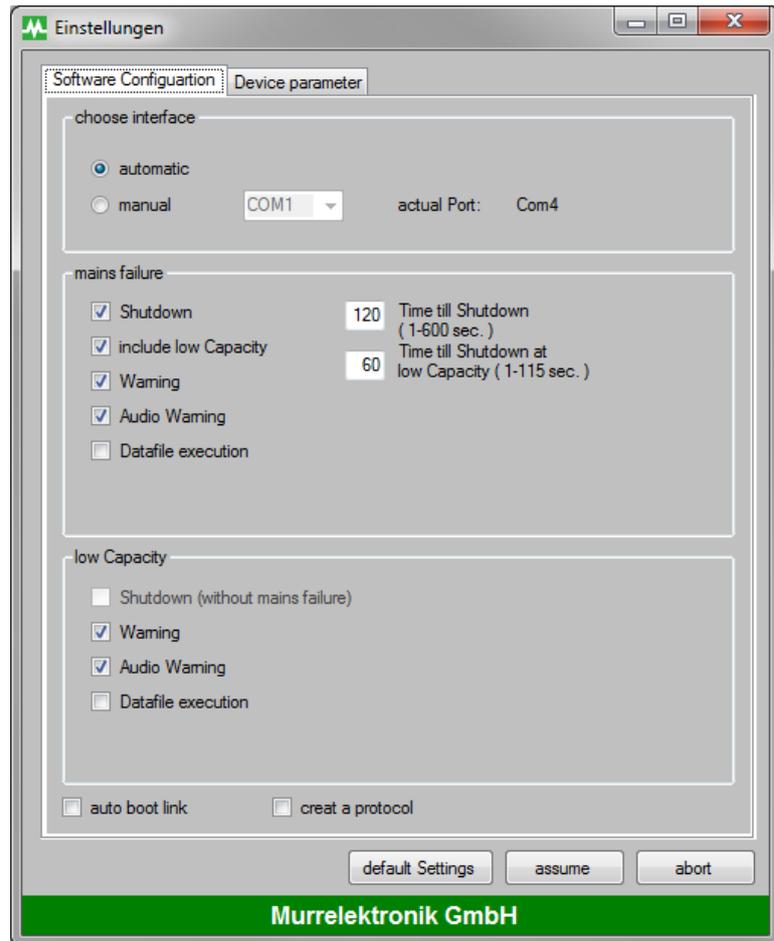


Fig. 4: **Software Configuration** menu

4.4.1.1 Choose Interface Section

Choose Interface

Here you can select the interface to which the USP is connected. The current port is also displayed.

Automatic selection

→ Select the **Automatic** option if you want the program to find the interface automatically.

After opening the **Main** menu, all the interfaces known to the system are searched for a connected USP. When a UPS is found, it is scanned cyclically until monitoring is started.

Manual selection

→ Select the **Manual** option to set the interface to which the USP is connected.

Actual port

The actual port is displayed; in this figure: **COM1**.

4.4.1.2 Mains Failure Section

Mains failure	The following options refer to the Mains failure section:
Shutdown	After a selectable time setting, a system shutdown is executed. → Enter the time in seconds. (Possible inputs: 1 - 600 s)
Include low capacity (see Section 4.4.1.4)	Set the shutdown time to respond to shortened backup times. It acts under the two conditions below: <ul style="list-style-type: none"> • During a power failure, a capacity fault is reported. • The current time is greater than the set time. → Enter the time in seconds. (Possible inputs: 1 - 115 s)
Warning	→ An additional message window opens if you select this box.
Audio warning	→ An audio warning sounds if you select this box.
Datafile execution	A file is started after a set time. → Enter the time in seconds. (Possible inputs: 1 ... 115 s)
Select file	→ Select the file you want to start with Datafile execution .

4.4.1.3 Low Capacity Section

Low capacity	The following options refer to the Low capacity section:
Shutdown (without mains failure) (see NOTE below)	Irrespective of the power status, a system shutdown is executed if the capacity is low.
Warning	→ An additional message window opens if you select this box.
Audio warning	→ An audio warning sounds if you select this box.
Datafile execution	A file is started after a set time. → Enter the time in seconds. (Possible inputs: 1 - 55 s)
Select file	→ Select the file you want to start with Datafile execution .

4.4.1.4 Limited Selection



Note

Power failure: Include lower capacity

or

Low capacity: Shutdown (without power failure).

The time limits are recalculated when you enter a longer time.

Times that are too long are corrected automatically.

4.4.1.5 Other Settings

Auto boot link

- Start the program as Administrator.
- Check **Auto boot link**.

The program creates a link to Autoboot. It starts automatically the next time the system is booted.

Create a protocol

- Check **Create a protocol**.

The program creates a log file in .csv format. This file records all events occurring during monitoring with date and time. The file-name consists of the date and time when the monitoring routine starts. The program saves the file to "Program folder/logs".

Default settings

- Click on **Default settings**.

The program resets all parameters to the default settings (factory settings).

Assume

- Click on **Assume**.

The program saves all current settings.
The program exits the menu.

Abort

- Click on **Abort**.

The program rejects all changed settings.
The program exits the menu.

4.4.2 Device Parameters Menu

Device parameters

The **Device parameters** menu changes the **power-off delay after USB Shutdown signal** in the device. The time specifies the period at the end of which the UPS switches off the output after a shutdown.

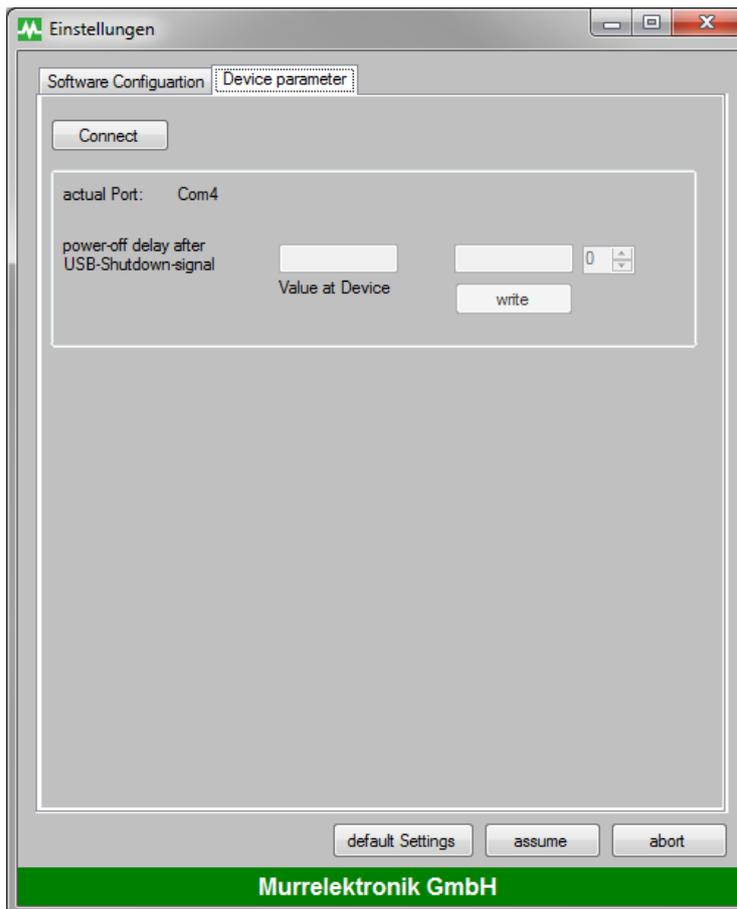
Connect button

Fig. 5: Device Parameters menu

Change power-off delay

→ Click on **Connect**.

The software connects to the USP via the specified port.

→ Set the time from 0 to 124.8 s.

→ Click on **write**.

The value is scanned, immediately read out and displayed for you to check.

Connection successful

The software reads out the **Value at device**.

You can write a new value in the device.

→ If required, enter a new value in seconds.
(Possible inputs: 1 - 55 s)

→ Click on **write**.

Connection failed

The program generates a fault message if no USB device is connected to the specified port.

→ Connect a USB device.

→ Change the **power-off delay after USB shutdown signal** again.

4.5 Monitoring

Start requirements

- All settings are correct.
- You selected the correct interface.
- The screen displays the **Main** menu.

Start monitoring

→ Click on **Start monitoring**.



Note

You can only change the settings if you stop the monitoring function.

4.5.1 Monitoring Status

Monitoring faultfree



Fig. 6: Monitoring faultfree

Monitoring fault



Fig. 7: Monitoring fault

4.5.2 Action in case of faults

Fault immediately after start

If the USP reports a fault immediately after start of monitoring, you have 10 seconds to stop the shutdown process.

→ Within 10 s, click on **Stop Monitoring**.

The **MB Cap Ultra** Control Software then only responds to faults if the USP is faultfree in the meantime.

Before expiry of shutdown time

If power is restored before the shutdown time expires, the **MB Cap Ultra** Control Software does not shut the system down.

Repeated power failure

The time starts again. The time for file execute responds in the same way.

After execute file

If power is restored after a file is executed, the system shuts down.

Stop shutdown process

You can stop the shutdown process at any time.

→ Click on **Stop Monitoring**.

4.5.3 Disconnect Connection

Disconnect serial connection If the connection to the USP is disconnected during monitoring, the **MB Cap Ultra** Control Software displays the fault ***Mains failure*** and ***Low capacity***.

Disconnect USB connection If the connection to the USP is disconnected during monitoring, the **MB Cap Ultra** Control Software reports loss of connection.
The system does not shut down.
The last known interface is scanned cyclically to check whether USP availability is restored.



Note

If the USB device is disconnected during monitoring and connected to a different port. This is only detected when the monitoring function is rebooted.

Change USB connection

- Click on ***Stop monitoring***.
- Select the new interface as manual or automatic, depending on the setting (see Section 4.4.1.1 Select Interface Section)
- Click on ***Start monitoring***.

4.5.4 Troubleshooting

Fault	Cause	Rectification
Program fails to start automatically although Autostart is activated.	Autostart was not activated in Administrator mode.	<ul style="list-style-type: none"> ➔ Exit the program. ➔ Start the program as Administrator. ➔ Deactivate Autostart. ➔ Activate Autostart.
Monitoring reports loss of connection although USB connector is plugged in.	USB connector was plugged into a port which the program does not recognize.	<ul style="list-style-type: none"> ➔ Plug the USB connector in the correct port. OR ➔ Click on Connect in the menu Software configuration/Choose interface.
Software is unable to connect to a USN device to change the Device Parameters although an automatic search is set.	An automatic search only takes place in the Main menu .	<ul style="list-style-type: none"> ➔ Change the device parameters. ➔ Select Automatic search. ➔ Click on assume or abort in the Settings menu. <p>You are returned to the Main menu. The program starts the search.</p>
The Settings menu fails to open.	Monitoring is running.	<ul style="list-style-type: none"> ➔ Stop the monitoring function. ➔ Change the settings. ➔ Start the monitoring function.
The automatic search fails to find a device although the device is plugged in to the PC.	Windows failed to install the driver for the USB device.	<ul style="list-style-type: none"> ➔ Check in the Device Manager whether the device is installed. ➔ Start the Windows driver setup routine. OR ➔ Install the driver manually if Windows fails to find the driver.

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