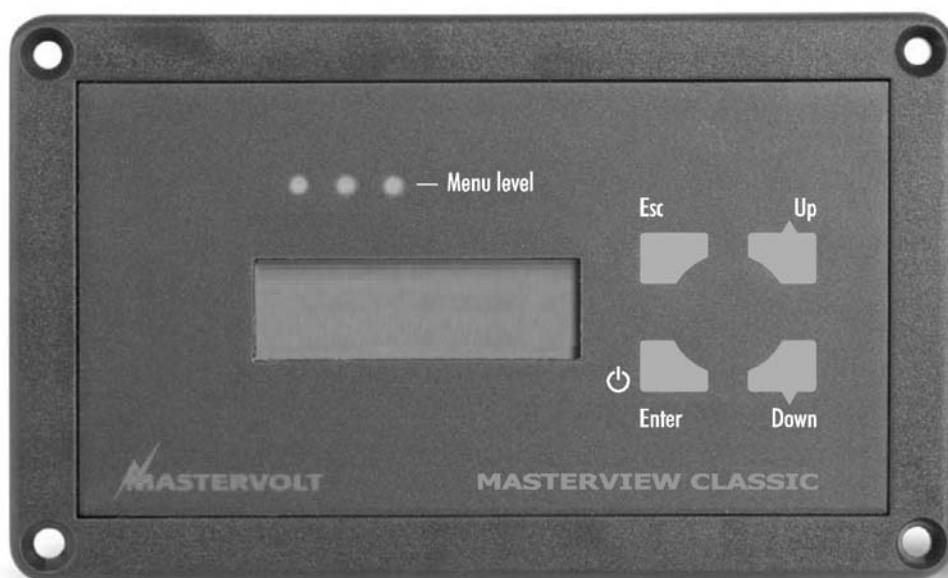




USERS MANUAL / GEBRUIKERSHANDLEIDING / BETRIEBSANLEITUNG
MANUEL D'UTILISATION / MANUAL DE UTILIZACION

MasterView Classic

Monitoring and control panel for the MasterBus network



MASTERVOLT
Snijdersbergweg 93,
1105 AN Amsterdam
The Netherlands
Tel.: +31-20-3422100
Fax.: +31-20-6971006
www.mastervolt.com



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1 GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The Mastervolt *MasterView Classic* is a central monitoring and control panel for devices that are connected to the MasterBus network. It shows status information of your electrical system by means of a LCD screen

1.2 USE OF THIS MANUAL

This manual serves as a guideline for the safe and effective operation, maintenance and possible correction of minor malfunctions of the *MasterView Classic*.

This manual is valid for the following models:

Description	Part number
MasterView Classic	77010100
Keep this manual at a secure place! The English version has 20 pages.	

1.3 GUARANTEE SPECIFICATIONS

Mastervolt guarantees that this product was built according to the legally applicable standards and stipulations. If you fail to act in accordance with the regulations, instructions and stipulations in this user's manual, damage can occur and/or the product will not fulfil the specifications. This may mean that the guarantee will become null and void.

IMPORTANT: Additional warranty agreements, like "Mastervolt system warranty" may contain restrictions which forbid resetting of historical data

1.4 LIABILITY

Mastervolt can accept no liability for:

- consequential damage due to use of the MasterView Classic;
- possible errors in the manuals and the results thereof.
- Use that is inconsistent with the purpose of the product

2 SAFETY

2.1 USE OF SYMBOLS

Safety instructions and warnings are marked in this manual by the following pictogram:



CAREFUL!

Special data, restrictions and rules with regard to preventing damage.

2.2 USE FOR INTENDED PURPOSE

- 1 The *MasterView Classic* is constructed as per the applicable safety-technical guidelines.
- 2 Use the *MasterView Classic* only:
 - in a technical correct condition;
 - observing the instructions in the users manual.
 - connected to the MasterBus network
- 3 Use of the *MasterView Classic* other than mentioned in point 2 is not considered to be consistent with the intended purpose. Mastervolt is not liable for any damage resulting from the above.

2.3 SAFETY REGULATIONS AND MEASURES

- 1 Do not work on electrical system if it is still connected to a current source. Only allow changes in your electrical system to be carried out by qualified electricians.
- 2 Connection and protection must be done in accordance with local standards.

3 MASTERBUS

3.1 WHAT IS MASTERBUS?



All devices that are suitable for MasterBus are marked by the MasterBus symbol.

MasterBus is a fully decentralized data network for communication between the different Mastervolt system devices. It is a CAN-bus based communication network which has proven itself as a reliable bus-system in automotive applications. MasterBus is used as power management system for all connected devices, such as the inverter, battery charger, generator and many more. This gives the possibility for communication between the connected devices, for instance to start the generator when the batteries are low.

MasterBus reduces complexity of electrical systems by using UTP patch cables. All system components are simply chained together. Therefore each device is equipped with two MasterBus data ports. When two or more devices are connected to each other through these data ports, they form a local data network, called the MasterBus. The results are a reduction of material costs as only a few electrical cables are needed and less installation time.

For central monitoring and control of the connected devices Mastervolt offers a wide range of panels which show full status information of your electrical

system at a glance and a push of a button. Four different panels are available, from the small Mastervision compatible 120 x 65mm LCD screen up to the full colour MasterView System panel. All monitoring panels can be used for monitoring, control and configuration of all connected MasterBus equipment.

New devices can be added to the existing network in a very easy way by just extending the network. This gives the MasterBus network a high degree of flexibility for extended system configuration, not only today, but in the future as well!

Mastervolt also offers several interfaces, making even non-MasterBus devices suitable to operate in the MasterBus network

3.2 EVENT-BASED COMMANDS

With MasterBus each device can be programmed to initiate an action at an other connected device. This is done by means of *event based commands*.

Example: if the shore power is almost in overload, the generator must be started.

As the shore power is measured by the *Mass Systemswitch*, this device is considered as the *command source*. The generator is the device that should initiate an action (start the generator), and is therefore considered to be the *target*. This means that the *Mass Systemswitch* must be programmed as follows:

Event source:	Shore pre overload	Select from <i>list of events sources</i> (see manual of the <i>Mass Systemswitch</i>)
Event target:	Generator	Select from the <i>device list</i> (devices connected to the MasterBus)
Event command:	Status	Select event command from the <i>list of event commands</i> of the target (see manual of the of the <i>Generator</i>)
Event data:	On	Select event action from the <i>list of event commands</i> of the target (see manual of the of the <i>Generator</i>)

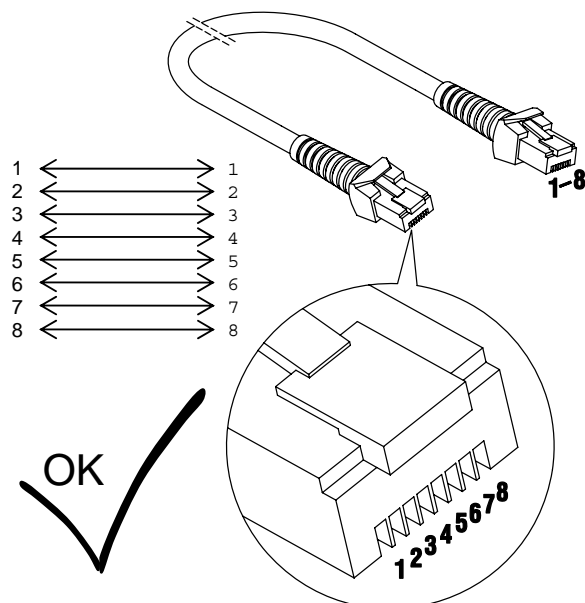
The list of *list of events sources* and the *list of event commands* of the *MasterView Classic* are stated in section 6.4.3 and 6.4.4 of this manual.

3.3 HOW TO SET UP A MASTERBUS NETWORK

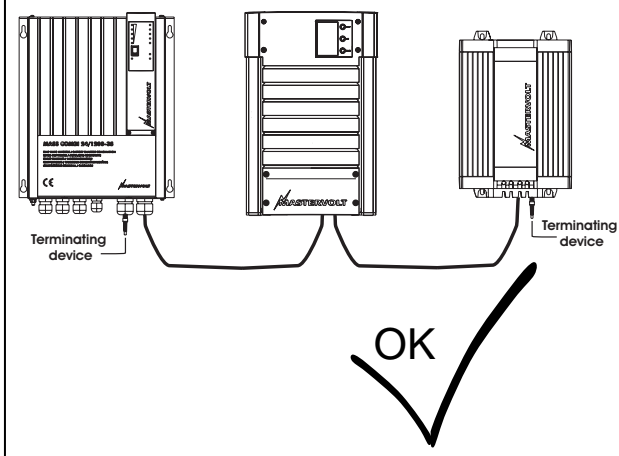
Each device that is suitable for the MasterBus network is equipped with two data ports. When two or more devices are connected to each other through these ports, they form a local data network, called the MasterBus.

Keep the following rules in mind:

Connections between the devices are made by standard straight UTP patch cables. Mastervolt can supply these cables. These cables are also commonly available at computer supply stores.



As with all high speed data networks, MasterBus needs a terminating device on both ends of the network

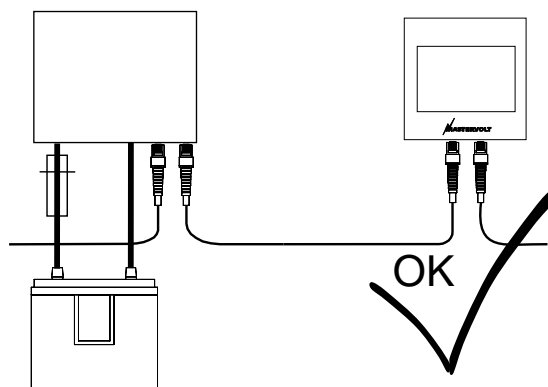


The electric power for the network comes from the connected devices.

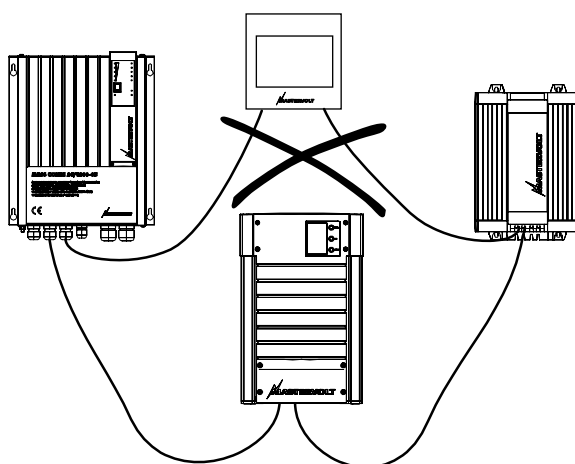
At least one device in the network should have powering capabilities (see specifications).

One powering device can power up to three non-powering devices.

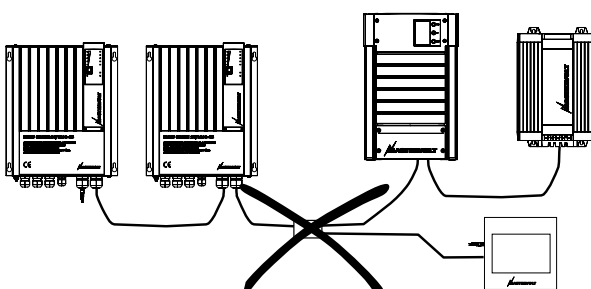
As all powering devices are galvanically isolated, multiple powering devices are allowed



Do not make ring networks



Do not make T-connections in the network



4 INSTALLATION



WARNING

During installation and commissioning of the *Mastervision Classic*, the Safety Guidelines and Measures are applicable at all times. See chapter 2 of this manual.

4.1 THINGS YOU NEED

Tools:

- ☐ A saw to make a cut-out in the instrument panel
- ☐ A cross-head screw driver

Materials:

- ☒ The *MasterView Classic* panel (included)
- ☒ Grey installation cover (included)
- ☒ MasterBus connection cable (UTP patch cable) (6 meter / 20ft included)
- ☒ MasterBus terminating devices (1 pc included)
- ☐ MasterBus connection cables (UTP patch cables)

4.2 INSTALLATION STEP BY STEP

1

Mounting of the panel

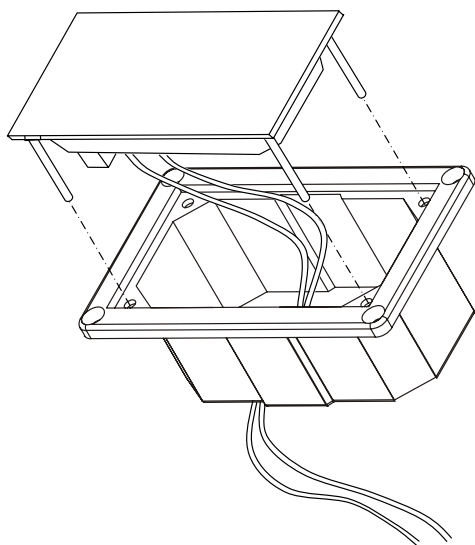
Make a cut out in the instrument panel using the outline drawings of chapter 9 or using the mounting template of the box in which the MasterView Classic was delivered. Do not use the grey installation cover if you want to integrate the MasterView Classic in your Mastervision panel. For good visibility avoid installing the panel in direct sunlight

2

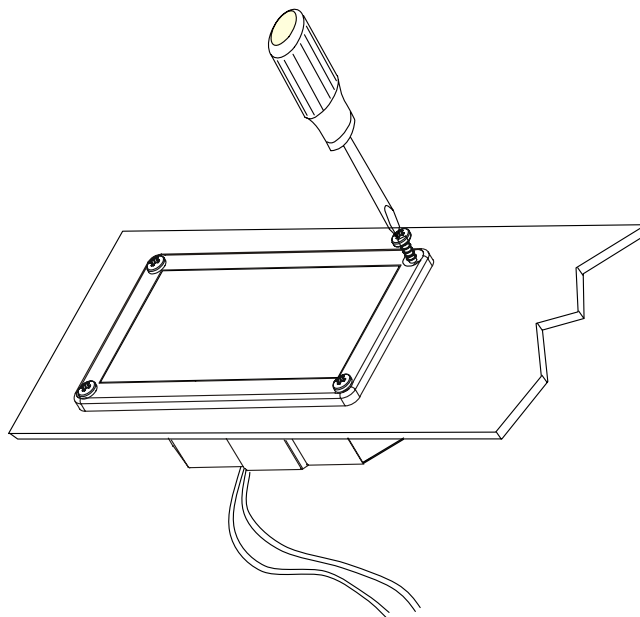
- Feed the MasterBus connection cables through the hole in the back of the grey installation cover.
- Insert the MasterBus connection cables into the MasterBus data ports

3

Mount the panel into the grey installation cover



Mount this assembly into the instrumentation panel

**4**

Commissioning

The *MasterView Classic* is immediately ready for use.

See section 5 for general operation instructions

See section 6 for monitoring and programming functions.

5 OPERATION

The **MasterView Classic** is a monitoring and control panel for the MasterBus network

These **LED's** show at which menu level you are at this moment

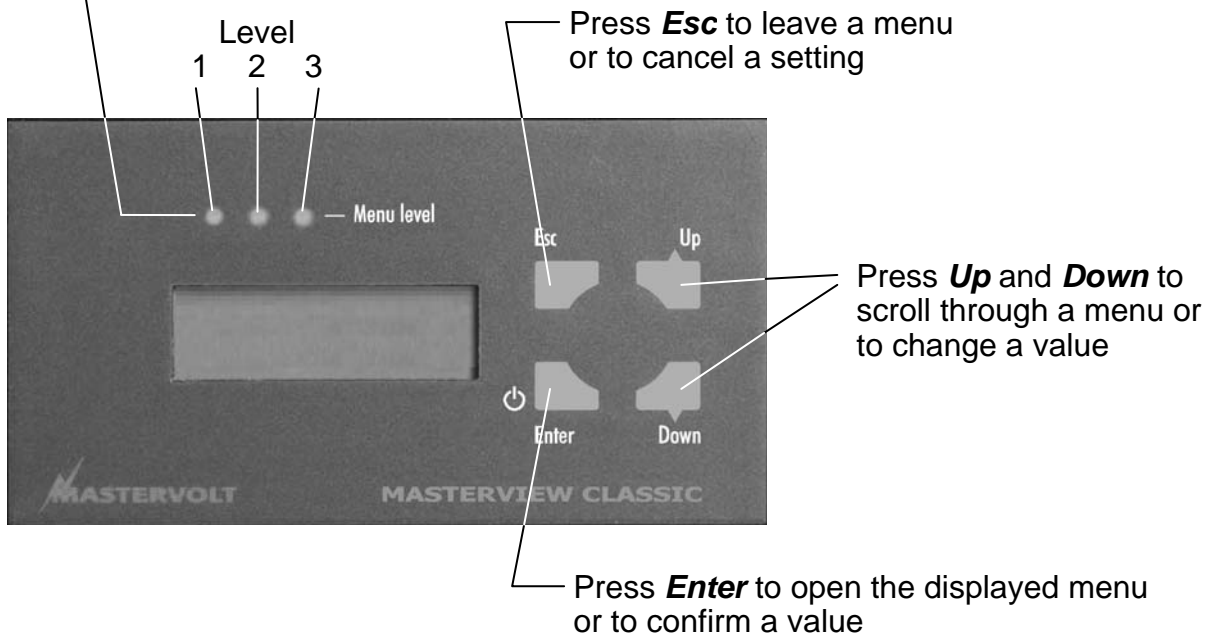


Figure 1: operation of the MasterView Classic

5.1 GENERAL

The Mastervolt *MasterView Classic* is a central monitoring and control panel for devices that are connected to the MasterBus network. It shows status information of your electrical system by means of a LCD screen.



NOTE: As every configuration of the MasterBus network differs from the other, this user's manual can not give any specific instructions for any particular connected device, except for the *MasterView Classic* itself. Refer to the user's manual of the connected device for an overview of all available readouts and settings

5.2 SWITCHING ON AND OFF

5.2.1 Switching on

Press *Enter* shortly to switch on the *MasterView Classic*. The panel starts searching the MasterBus for connected devices. After the welcome message is shown, the first screen of menu level 1 is shown. From here all found devices can be selected by pressing *Up* and *Down*. See section 6.2.



NOTE: If after start-up the *MasterView Classic* has found only one single device, menu level 1 will not be shown. Instead the first screen of menu level 2 will be shown. See section 6.3

5.2.2 Switching off

Press and hold *Enter* until the display turns off



NOTE! When no button is touched during a longer period (default: one day), the *MasterView Classic* will switch off automatically. See section 6.4.2 for settings.



CAREFUL!

Switching off the *MasterView Classic* does not affect the operation of the connected devices.

5.3 NAVIGATION

Monitoring and control of the *MasterView Classic* can be done at three different levels. Navigation through these levels and the adjustment of parameters is done by means of four buttons:

- Press **Up** and **Down** to scroll through a menu level or to change a value
- Press **Enter** to go to displayed menu level or to confirm a value
- Press **Esc** to leave a menu level or to cancel a setting.

Every time you enter a menu level by pressing *Enter*, it is displayed by one of the three LED's which show the actual menu level.

5.4 ADJUSTMENT OF SETTINGS

The factory settings are optimal for most installations. In some applications however, it is desirable to change settings. Refer to the user's manual of the connected device for an overview of all available settings.

If a value is highlighted between brackets, the displayed value can be changed. See example below (figure 2)

- 1 Press *Enter*. The displayed value starts blinking
- 2 Adjust the displayed value by pressing *Up* and *Down*
- 3 Confirm the new value by pressing *Enter*.
- 4 Or leave the value unchanged by pressing *Esc*.

Settings are stored in the memory of the selected device. This means that switching off or disconnecting of the *MasterView Classic* will not affect the settings of the connected devices.

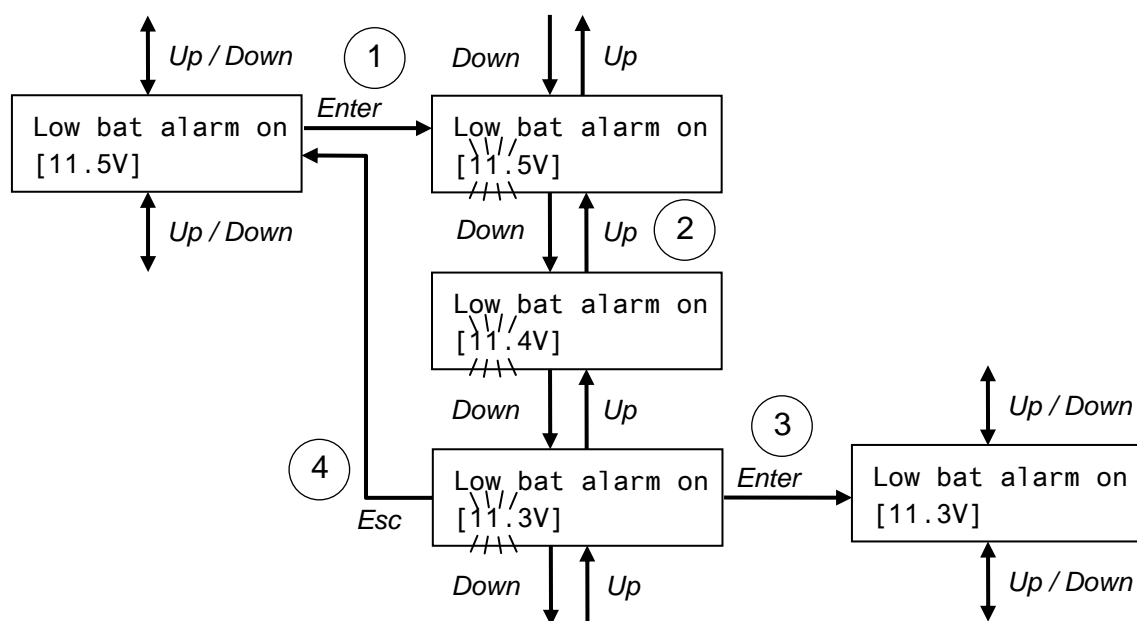


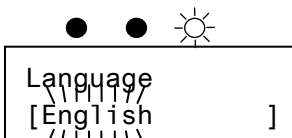
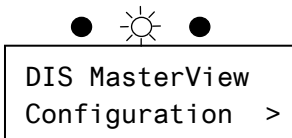
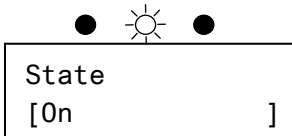
Figure 2: Adjustment of settings

6 MONITORING AND PROGRAMMING

6.1 LANGUAGE SETTING OF THE MASTERVIEW CLASSIC

Take the steps below to select the desired language. Example: language = CASTELLANO (Spanish)

- 1 Make sure the LED Level 1 is illuminated. If necessary press *Esc* once or twice.
 - 2 Press *Up* or *Down* repeatedly until "DIS MasterView" is shown
 - 3 Press *Enter*. LED Level 2 will illuminate
 - 4 Press *Up* or *Down* repeatedly until "DIS MasterView Configuration" is shown
 - 5 Press *Enter*. LED Level 3 will illuminate
 - 6 Press *Up* or *Down* repeatedly until "Language" is shown
Factory setting: ENGLISH.
 - 7 Press *Enter*. "[English]" will blink
 - 8 Press *Up* or *Down* repeatedly to choose the desired language.
 - 9 Press *Enter* to confirm the selected language.
 - 10 Press *Esc* twice to return to level 1
- Now the language is adjusted.



6.2 MENU LEVEL 1: OVERVIEW OF CONNECTED DEVICES

At menu level 1 all connected devices and their actual status are listed, including the *MasterView Classic* itself. Use the *Up* and *Down* buttons to scroll through this list of devices. From the shown device press *Enter* to get access to menu level 2, showing detailed information about the selected device.

At menu levels 2 and 3 the *MasterView Classic* can be used for:

- Monitoring and Programming of the connected devices; see section 6.3
- Monitoring and Programming of the *MasterView Classic* itself; see section 6.4



NOTE: With your application the displayed data may differ from the illustration below.

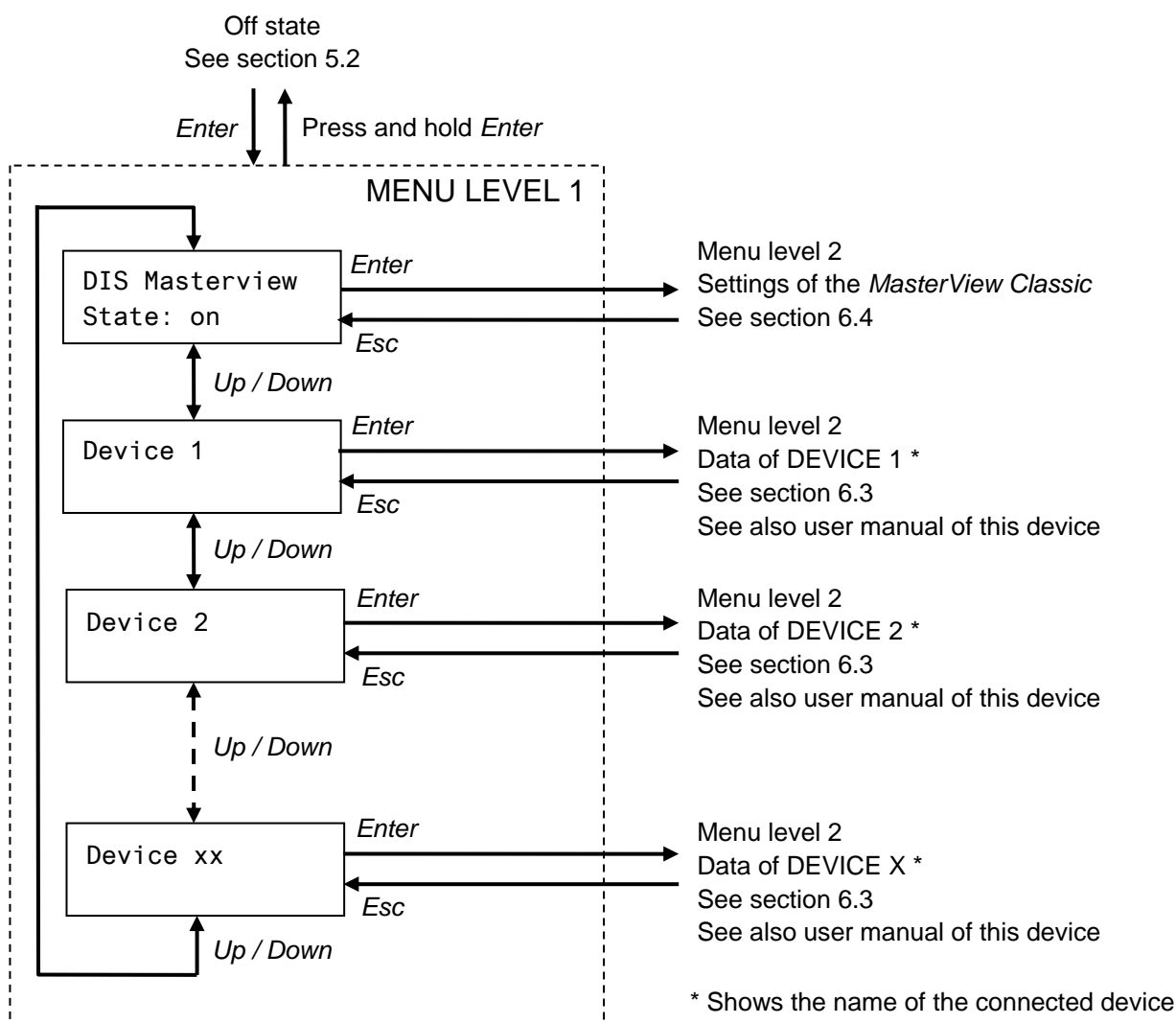


Figure 3: Navigation at menu level 1

6.3 MONITORING AND PROGRAMMING OF THE CONNECTED DEVICES

6.3.1 Menu level 2: Actual data of selected device

At menu level 2 actual data of the selected device is shown. Use the *Up* and *Down* buttons to scroll through these data. If a value is highlighted between brackets, the displayed value can be changed by pressing *Enter*.

A list of available data at menu level 2 can be found in the manual of the selected device

From menu level 2 several advanced submenus of menu level 3 are accessible as well. Only functions that are supported by the connected device are shown. This may include historical data, configuration and settings of the alarm function. See figure 4.

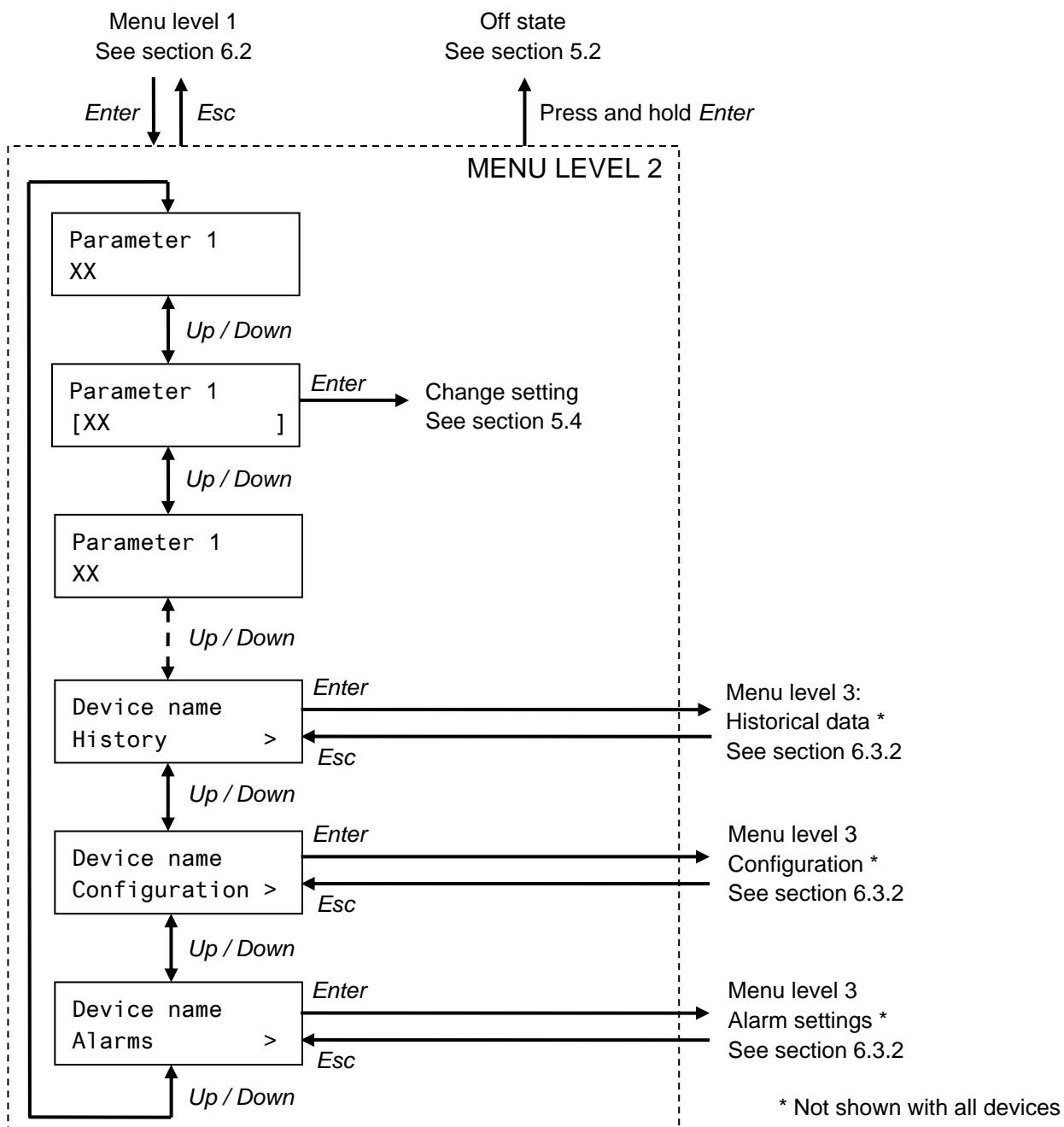


Figure 4: Navigation at menu level 2

6.3.2 Menu level 3: Advanced programming

At menu level 3 advanced information and programming functions are accessible such as historical data, configuration and settings of the alarm function (availability depends on the connected device). Use the *Up* and *Down* buttons to scroll through these data. A list of available data at menu level 3 can be found in the manual of the selected device. If a value is highlighted between brackets, the displayed value can be changed by pressing *Enter* (see section 5.4).



CAREFUL!

Invalid settings at menu level 3 may lead to disturbed operation of your electrical installation. Therefore changes at menu level 3 may only be carried out by qualified installers.



NOTE: With your application the displayed data may differ from the illustration below.

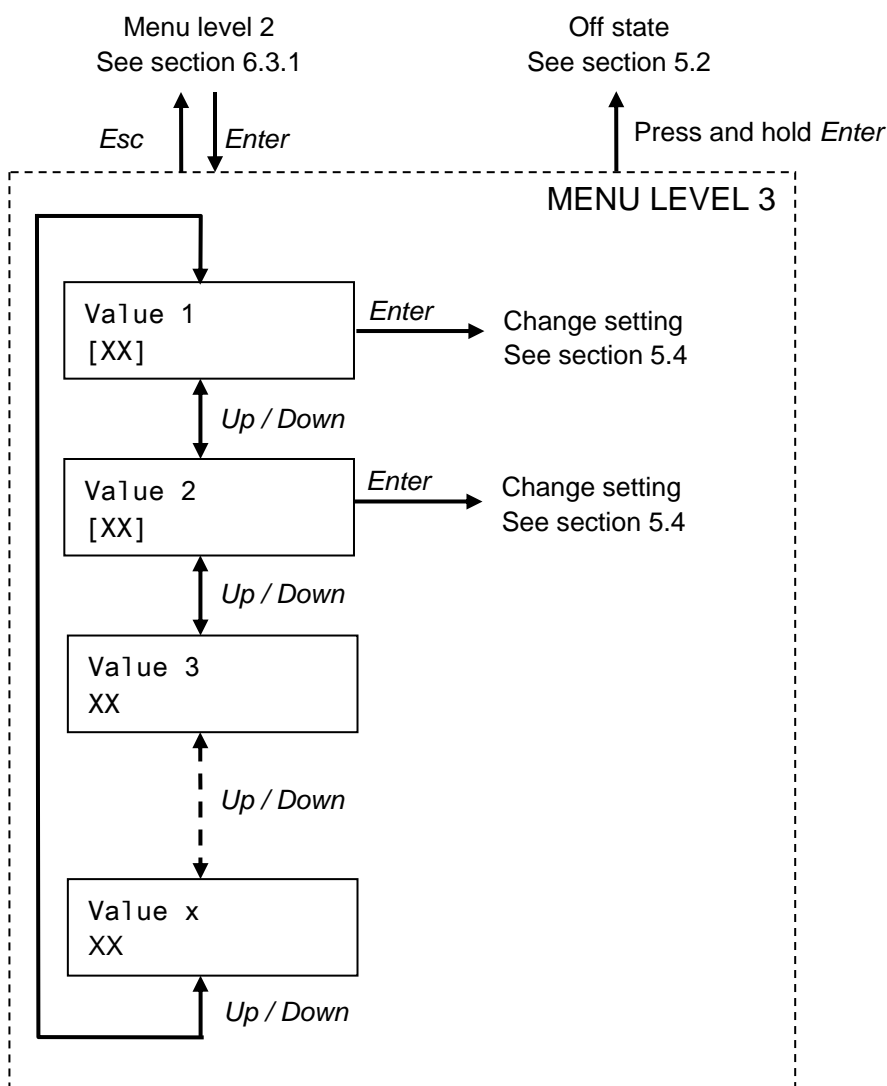


Figure 5: Navigation at menu level 3

6.4 MONITORING AND PROGRAMMING OF THE MASTERVIEW CLASSIC

6.4.1 Menu level 2: Monitoring of the Masterview Classic

After turning off the *MasterView Classic* all settings at menu level 2 will return to their default setting

Value	Meaning	Default	Adjustable. range
<i>Display state</i>			
State	Operation status of the Masterview Classic	On	On/Off
Backlight	Illumination of the display's backlight	Auto (see menu level 3 for settings)	Auto/On/Off
Configuration	Press <i>Enter</i> to go to menu level 3		

6.4.2 Menu level 3: Configuration of the Masterview Classic

The configuration menu at menu level 3 of the *MasterView Classic* is used for adjustment of settings like backlight illumination, displayed language and number of devices. It also allows you to program *event based commands* (see section 3.2) for the *MasterView Classic*

Switching off the *MasterView Classic* does not affect the settings at menu level 3

Value	Meaning	Factory setting	Adjustable. range
<i>Regular</i>			
Backlight time	The time that the backlight of the display stays illuminated since the last button was touched		1 minute, 2 minutes, 5 minutes, 10 minutes, always on, never on
Auto off	The time after which the <i>MasterView Classic</i> will be switched off since the last button was touched	1 day	1 day 2 days always on
Language	Displayed language of the <i>MasterView Classic</i>	English	English, Nederlands,
Name	Name of this device. This name will be recognized by all connected devices	MasterView	
Device list	Shows the names of connected devices		(read only)
<i>Mode settings</i>			
Devices	Limitation of number of devices that can be assigned to be displayed by the MasterView Classic.		Single device (1) All devices (unlimited)
Single device	(Only displayed if "Devices" is set to "Single device"). Device which is assigned to be displayed by the MasterView Classic		(See Device list)
<i>Events</i>			
Event x source	<i>Event-based command</i> (see section 3.2) Event by the MasterView Classic that should result in an action by one of the other devices on the MasterBus network		(See List of event sources, section 6.4.3)
Event x target	<i>Event-based command</i> (see section 3.2) Selection of device on the MasterBus network that should take action due to an event. by the MasterView Classic		(See Device list)
Event x command	<i>Event-based command</i> (see section 3.2) Action to be taken by the selected device.		(See List of event commands in the manual of the selected device,)
Event x data	<i>Event-based command</i> (see section 3.2) Value of the action to be taken by the selected device.		(See List of event commands in the manual of the selected device,)
Art. nr Ser. nr	Shows the article number and the serial number of the <i>MasterView Classic</i>		(read only)

6.4.3 List of event sources

Below the list of event sources of the *MasterView Classic* is shown. These event sources can be used to initiate an event command and an event action at an other device that is connected to the MasterBus

Event source	Description
Backlight change	Backlight of the LCD display switches on or off
Device off	The <i>MasterView Classic</i> switches off
Disabled	(no event programmed)

6.4.4 List of event commands and data

Below the list of event commands and data of the *MasterView Classic* is shown. Other devices connected to the MasterBus can be programmed to initiate these commands and actions at the *MasterView Classic*.

Event command	Event data	Description
State	Off	<i>MasterView Classic</i> will switch off
	Copy Invert	<i>MasterView Classic</i> will switch to opposite status as source
	Copy	<i>MasterView Classic</i> will switch to same status as source
Backlight	On	Backlight of the LCD display switches on
	Off	Backlight of the LCD display switches off
	Toggle	Backlight of the LCD display switches off if backlight was on/ Backlight of the LCD display switches on if backlight was off
	Copy Invert	Backlight of the LCD display switches to opposite status as source
	Copy	Backlight of the LCD display switches to same status as source

7 ADDITIONAL INFORMATION

7.1 MASTERADJUST SOFTWARE

Not all settings (e.g. the name of the device) can be changed by means of the *MasterView Classic*. Some settings can only be changed by means of MasterAdjust software.

Use of a *MasterBus-USB interface* for communication between your PC and the MasterBus is required. See ordering information. See the user manual of the *MasterBus-USB interface* for detailed information.

Mastervolt MasterAdjust software is available as free to download software on the Mastervolt website (www.mastervolt.com). Features:

- System configuration: to adjust the entire MasterBus network and all connected devices in accordance with your personal preferences, including programming of *Event-based commands* (see section 3.2)
- System Monitor: complete actual overview of your entire electrical installation
- System logger: data logging instrument to retrieve historical data of your electrical installation

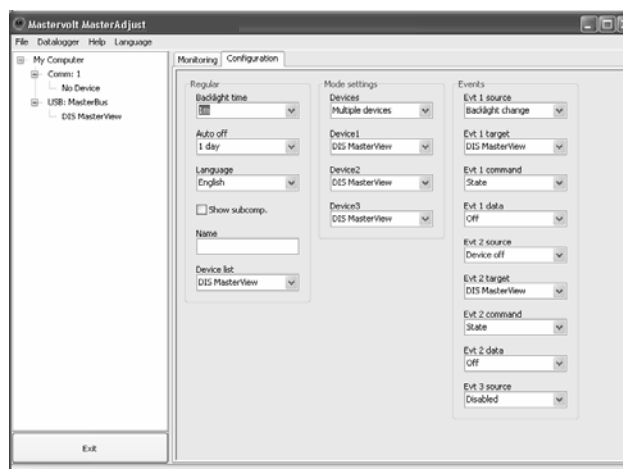


Figure 6: MasterAdjust software

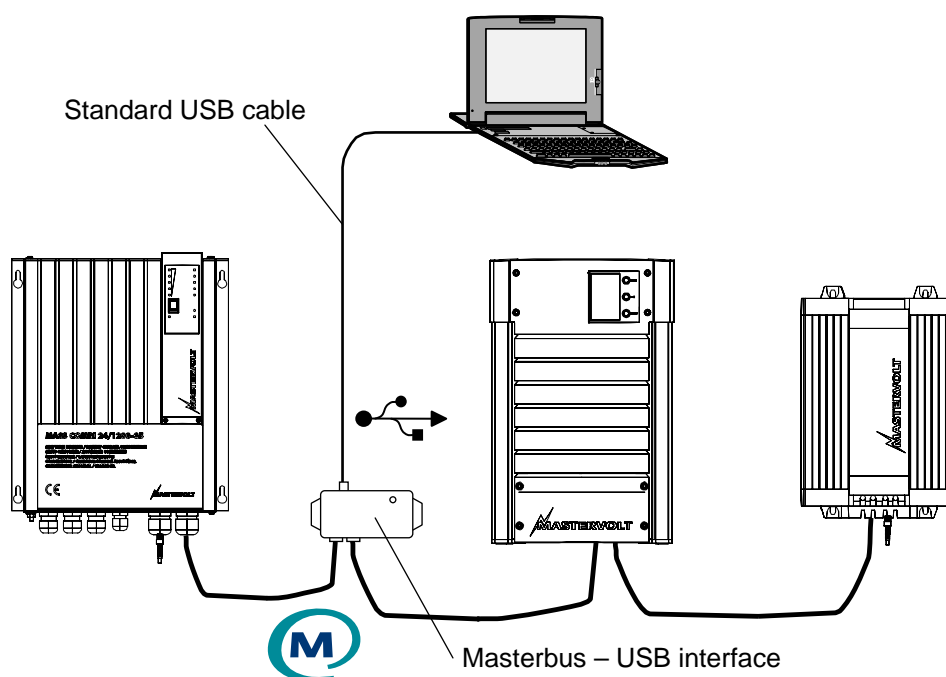


Figure 7: Connection of the MasterBus-USB interface

7.2 ORDERING INFORMATION

Part number	Description
77040000	MasterBus terminating device*
77040020	UTP patch cable, 0,2m
77040050	UTP patch cable, 0,5m
77040100	UTP patch cable, 1,0m
77040300	UTP patch cable, 3,0m
77040600	UTP patch cable, 6,0m*
77041000	UTP patch cable, 10m
77041500	UTP patch cable, 15m
77042500	UTP patch cable, 25m
77050000	100 meter UTP cable
77050000	50 pcs. modular jacks
77050000	Complete set to assemble UTP patch cables. Delivery includes: 100 meter UTP cable, 50 pcs. modular jacks and crimping tool
77030100	MasterBus-USB interface, required as interface between your PC and the MasterBus when using MasterAdjust software.
70904610	Grey installation cover*

* These parts are standard included with the delivery of the *MasterView Classic*

Mastervolt can offer a wide range of products for your electrical installation, including an extended program of components for your MasterBus network or MasterVision switchboard.

See our website www.mastervolt.com for a complete overview of all our products

7.3 EC DECLARATION OF CONFIRMITY

Manufacturer Mastervolt
Address Snijdersbergweg 93
1105 AN Amsterdam
The Netherlands



Herewith declares that:

Product:
77010100 MasterView Classic

Is in conformity with the provision of the EC EMC directive 89/336/EEC and amendments 92/31/EEC, 93/68/EEC.

The following harmonised standards have been applied:

Generic emission standard: EN 50081-1:1992

Generic Immunity standard: EN 50082-1:1997

Safety directive 73/23/EEC and amendment 93/68/EEC, with the following standard:

Low voltage standard: EN 60950: 2000

Amsterdam,



R.J. ter Heide,
General Manager MASTERVOLT

8 TROUBLE SHOOTING

Contact your local Mastervolt Service Centre if you cannot correct a problem with the aid of the malfunction table below. See www.mastervolt.com for an extended list of Mastervolt Service Centres.

Failure	Possible cause	What to do
No display function	Display is switched off	Press <i>Enter</i>
	Error in the wiring	Check the UTP patch cables
	No powering device available on the MasterBus	The <i>MasterView Classic</i> must be powered by the network. This means that at least one device in the network should have powering capabilities (see section 3.3)
Slow or no communication	Error in the wiring	Check the UTP patch cables
	No terminating device placed at the ends of the network	MasterBus needs a terminating device on both ends of the network. Check if available (see section 3.3)
	MasterBus network is configured as a ring network	Ring networks are not allowed. Check the connections of the network (see section 3.3)
	T-connections in the MasterBus network	Check if T-connections are made in the network. T-connections are not allowed (see section 3.3)
One of the connected devices can not be found	Settings error: maximum number of devices is limited	See section 6.4.2 (Devices) to change this settings to "All devices"
	Error in the wiring	Check the UTP patch cables
	Device not suitable for MasterBus	Check whether the device is suitable for MasterBus. Maybe the UTP patch cable is connected to a non-MasterBus connector
<i>MasterView Classic</i> is switched off after some time.	When no button is touched for a longer period, the <i>MasterView Classic</i> is set-up to switch off automatically.	See section 6.4.2 for settings (Auto off)
Impossible to change the device name	Adjustment of device name is not possible with the <i>MasterView Classic</i>	Device names can be changed by means of other display panels or MasterAdjust software. See section 7.1.
Wrong language is displayed	Wrong setting of the language at the <i>MasterView Classic</i>	See section 6.4.2 for adjustment of the language.
	Wrong setting of the language at one of the connected devices	Each separate connected device can have its own language setting. See user's manual of the connected device
No backlight	Backlight and LEDs switch off after 60 seconds	Press one of the buttons or refer to section 6.4.2 to adjust the settings of the backlight
MasterAdjust software shows error "no devices found"	Error in the wiring	Check the UTP patch cables and terminating devices (see section 3.3)
	No MasterBus-USB interface connected	Check user's manual of the MasterBus-USB interface

9 SPECIFICATIONS

9.1 DIMENSIONS

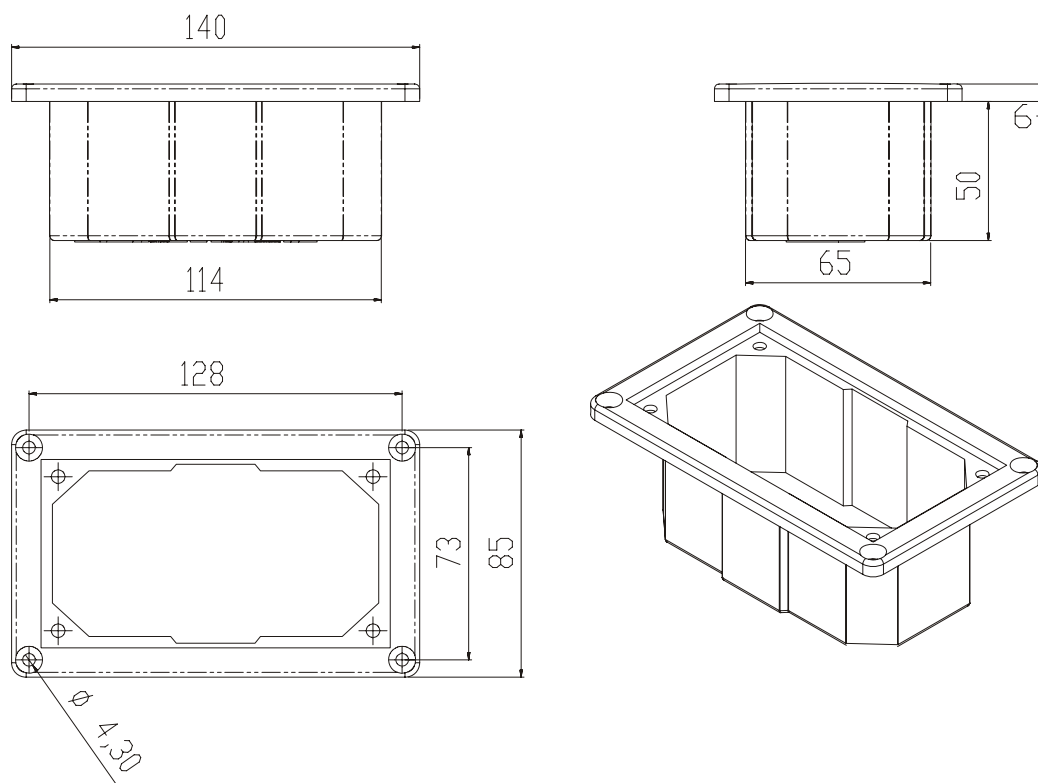


Fig. 8: Dimensions of the grey installation cover. All dimensions are in mm

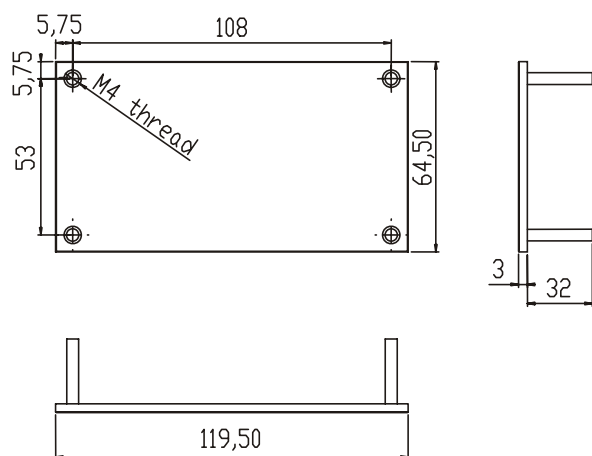


Fig. 9: Dimensions of the MasterView Classic panel. All dimensions are in mm

9.2 TECHNICAL SPECIFICATIONS

Model:	MasterView Classic
Article number:	77010100
Delivery includes:	Panel, grey installation cover, MasterBus terminating device, MasterBus connection cable (6m/20ft), user's manual
Function of instrument:	Monitoring and configuration of devices that are connected to the MasterBus network
Manufacturer:	Mastervolt Amsterdam the Netherlands
Readout:	By means of 2x16 character LCD display and LED's
Available languages:	ENGLISH, NEDERLANDS, DEUTSCH, FRANCAIS.
Powering capabilities:	No, needs to be powered via the MasterBus (at least one of the connected devices should have powering capabilities)
MasterVision compatible:	Yes, panel size 3.
Power consumption:	Off: <1mA On: <10mA (backlight off); <50mA (backlight on)
Dimensions:	120 x 65 x 30 mm; see section 9.1
Required depth	65 mm minimum
Weight	250 gr
Protection degree:	IP 21



Snijdersbergweg 93, 1105 AN Amsterdam, The Netherlands
Tel : + 31-20-3422100
Fax : + 31-20-6971006
Email : info@mastervolt.com