



USERS MANUAL / GEBRUIKERSHANDLEIDING
BETRIEBSANLEITUNG / MANUEL D'UTILISATION
MANUAL DE UTILIZACION / INSTRUZIONI PER L'USO

MasterView Easy

Monitoring and control panel for the MasterBus network



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1 GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The Mastervolt *MasterView Easy* is a panel to monitor, configure and operate all connected devices in the MasterBus network.

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 Easy*.

This manual is valid for the following models:

Description	Part number
MasterView Easy	77010300

Keep this manual at a secure place!
The English version has 16 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.

1.4 LIABILITY

Mastervolt can accept no liability for:

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

1.5 IDENTIFICATION LABEL

The identification label (see figure 1) is located at the back side of the MasterView Easy. Important technical information required for service, maintenance & secondary delivery of parts can be derived from the identification label.



Figure 1: Identification label

Never remove the identification label!

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.



A procedure, circumstance, etc which deserves extra attention.

2.2 USE FOR INTENDED PURPOSE

- 1 The *MasterView Easy* is constructed as per the applicable safety-technical guidelines.
- 2 Use the *MasterView Easy* only:
 - in a technical correct condition;
 - observing the instructions in the users manual.
 - connected to the MasterBus network

- 3 Use of the *MasterView Easy* 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

Do not work on an 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.

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. The communication network is based on CAN-bus which has proven 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 MasterBus 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.

For direct communication between the MasterBus network and a product which is not from Mastervolt, the Modbus interface is recommended.



CAUTION: Never connect a non-MasterBus device to the MasterBus network directly! This will void warranty of all MasterBus devices connected.

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, a 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 <i>Generator</i>)
Event data:	On	Select event action from the <i>list of event commands</i> of the target (see manual of the <i>Generator</i>)

See chapter 6 for the MasterView easy *list of event sources* and *list of event commands*.

3.3 HOW TO SET UP A MASTERBUS NETWORK

Every device that is suitable for the MasterBus network is equipped with two data ports. When two or more devices are connected using these ports, together they form a local data network, called the MasterBus.

Keep the following rules in mind:

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

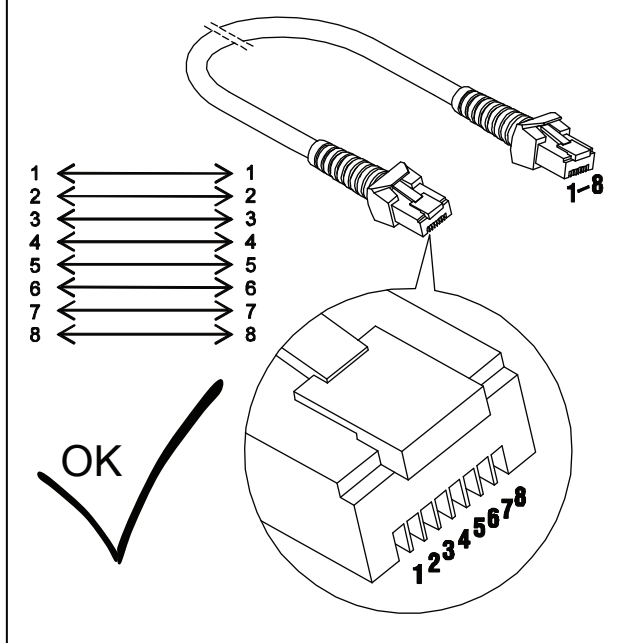


Figure 2

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

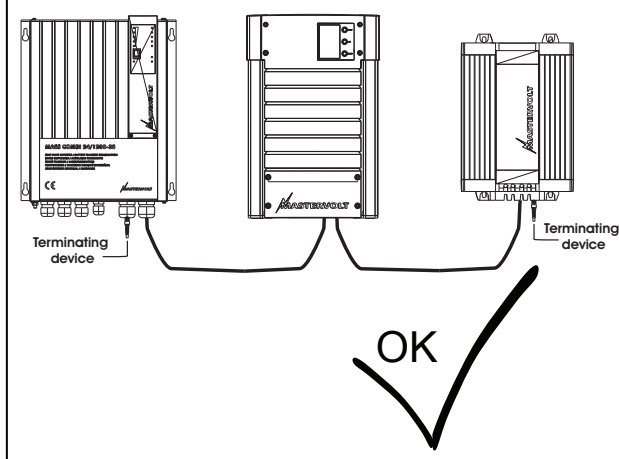


Figure 3

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.

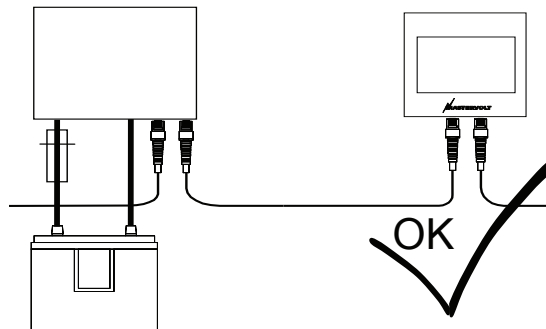


Figure 4

Do not make ring networks.

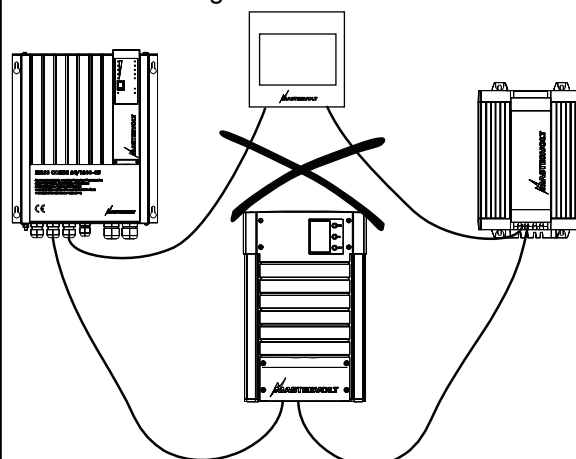


Figure 5

Do not make T-connections in the network.

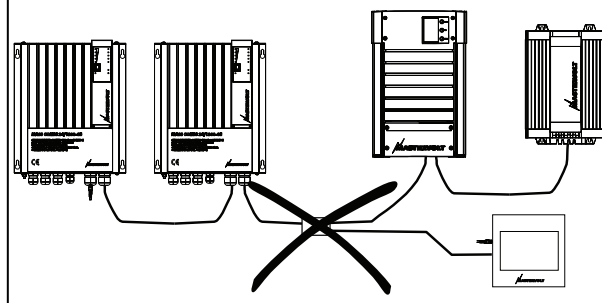


Figure 6

4 INSTALLATION



WARNING

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

4.1 FLUSH MOUNTING AND PANEL MOUNTING

The Masterview Easy can be flush mounted or panel mounted on a wall or board. For flush mounting the outer housing can be removed easily. The connections are at the back of the panel and space for the two MasterBus connectors is provided when for panel mounting is opted.

4.2 THINGS YOU NEED

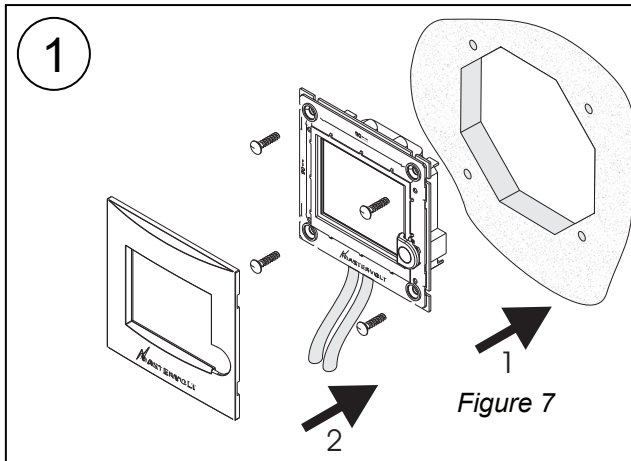
Tools:

- ☐ A drill for the mounting holes
- ☐ A saw to make a cut-out for flush mounting the panel
- ☐ A cross-head screw driver

Materials:

- ☒ The *MasterView Easy* panel (included)
- ☒ 4 screws for mounting (included)
- ☒ MasterBus connection cable (MasterBus cable) (6 meter / 20ft included)
- ☒ MasterBus terminating devices (1 pc included)

4.3 INSTALLATION STEP BY STEP



Flush mounting the MasterView Display.

- Remove the outer housing and remove the front from the panel.
- Make a cut out in the mounting wall and drill the holes using the saw template in the box or using the dimensions on the panel.
- Insert the MasterBus connection cables into the MasterBus data ports.
- Mount the MasterView Easy onto the panel (1) and then reattach the front (2), see figure 7.

2 Panel mounting the MasterView Easy Display

- Remove the outer housing and remove the front.
- Drill the holes using the dimensions inside the outer housing and fasten the outer housing (1).
- Insert the MasterBus connection cables into the MasterBus data ports and click the panel into the outer housing (2).
- Reattach the front (3), see figure 8.

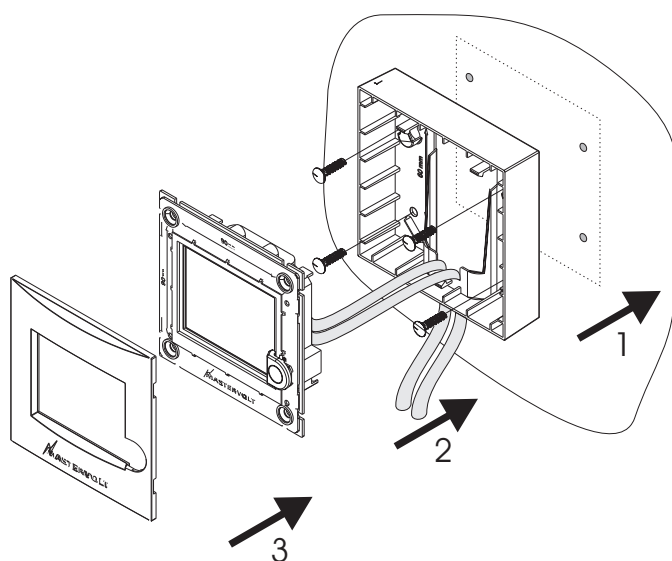


Figure 8

5 OPERATION

5.1 GENERAL

The Mastervolt *MasterView Easy* 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 touch screen.

5.2 BUTTON CONTROL

5.2.1 Switching on and off

Press the button shortly to switch on the *MasterView Easy panel*. See figure 10. After a short time the first screen is shown, for device selection. Pressing the button shortly again results in switching off the Easy panel.

5.2.2 Locking

Pressing the button for more than two seconds when the Easy panel is switched on, results in locking the panel, see figure 10. In this mode the panel will not react on pressing the screen. The “locked” key is shown in the left lower corner, see figure 10.

Unlocking is accomplished by pressing the button for more than two seconds again.



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

5.3 NAVIGATION

Monitoring and control of the *MasterView Easy* can be done by scrolling through the menus.

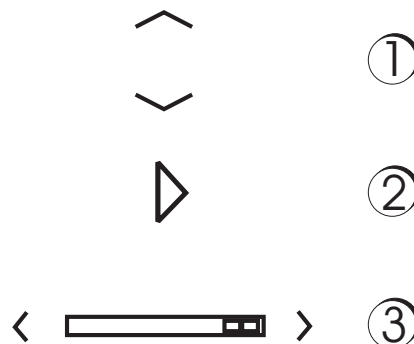


Figure 9 navigation buttons

- Press the Up and Down arrow to scroll through a menu vertically (see figure 9, number 1)
- Press the Up and Down arrow to increase resp. decrease a value or (see figure 9, number 1)
- Press the closed arrow to show a group (see figure 9, number 2)
- Press the Right or Left arrow to scroll through a menu horizontally, through the groups (see figure 9, number 3)
- Press X to leave a menu or to cancel a setting (see figure 11). You will then return to the main menu.

5.4 CONTROL

The **MasterView Easy** is a monitoring and control panel for the MasterBus network. The display guides you through the different menus, starting with the selection of device you wish to monitor. See the example on these two pages.



NOTE: The screens shown may differ from the screens on your own MasterView Easy.

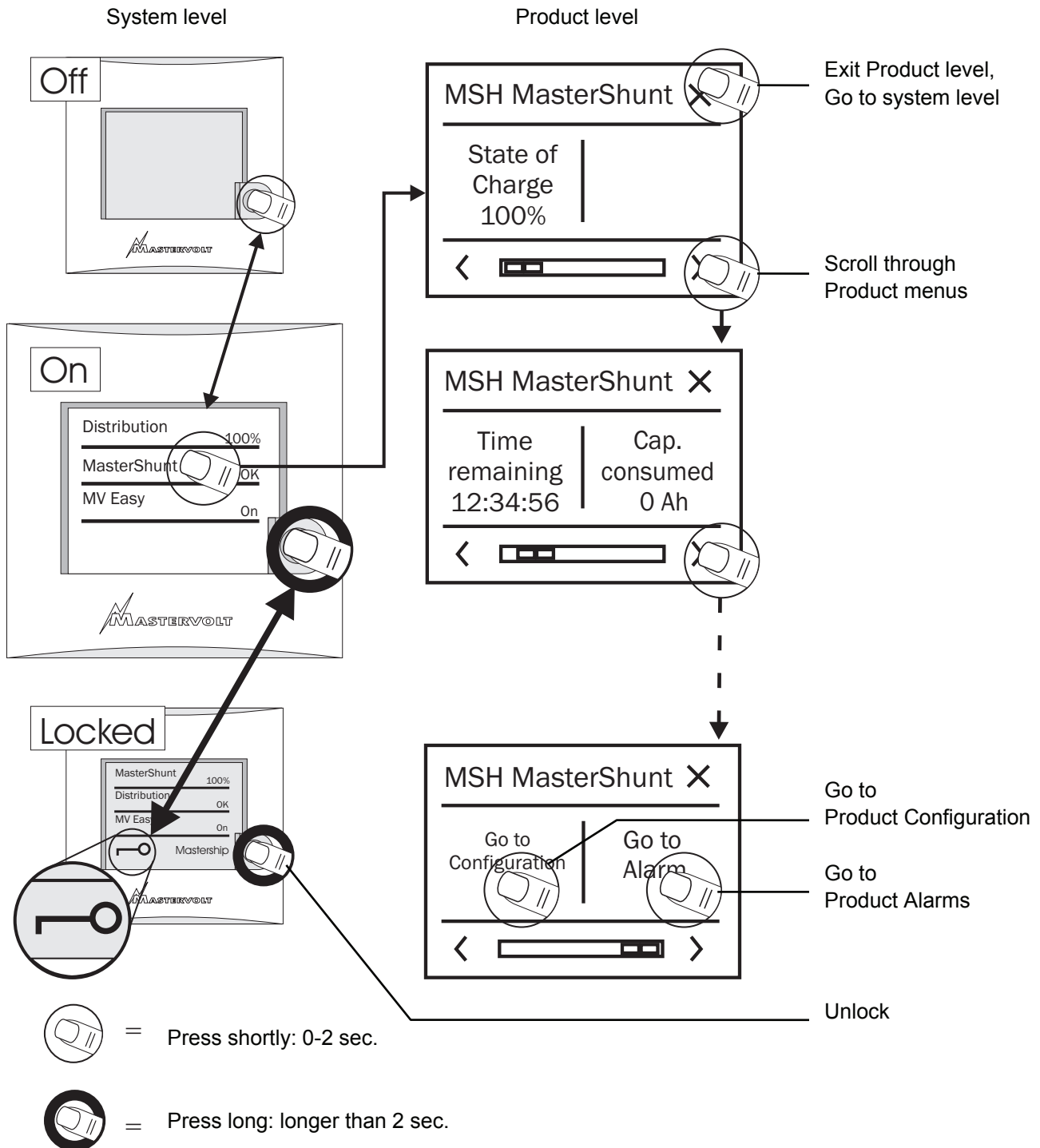


Figure 10: Operation of the MasterView Easy, opening screens

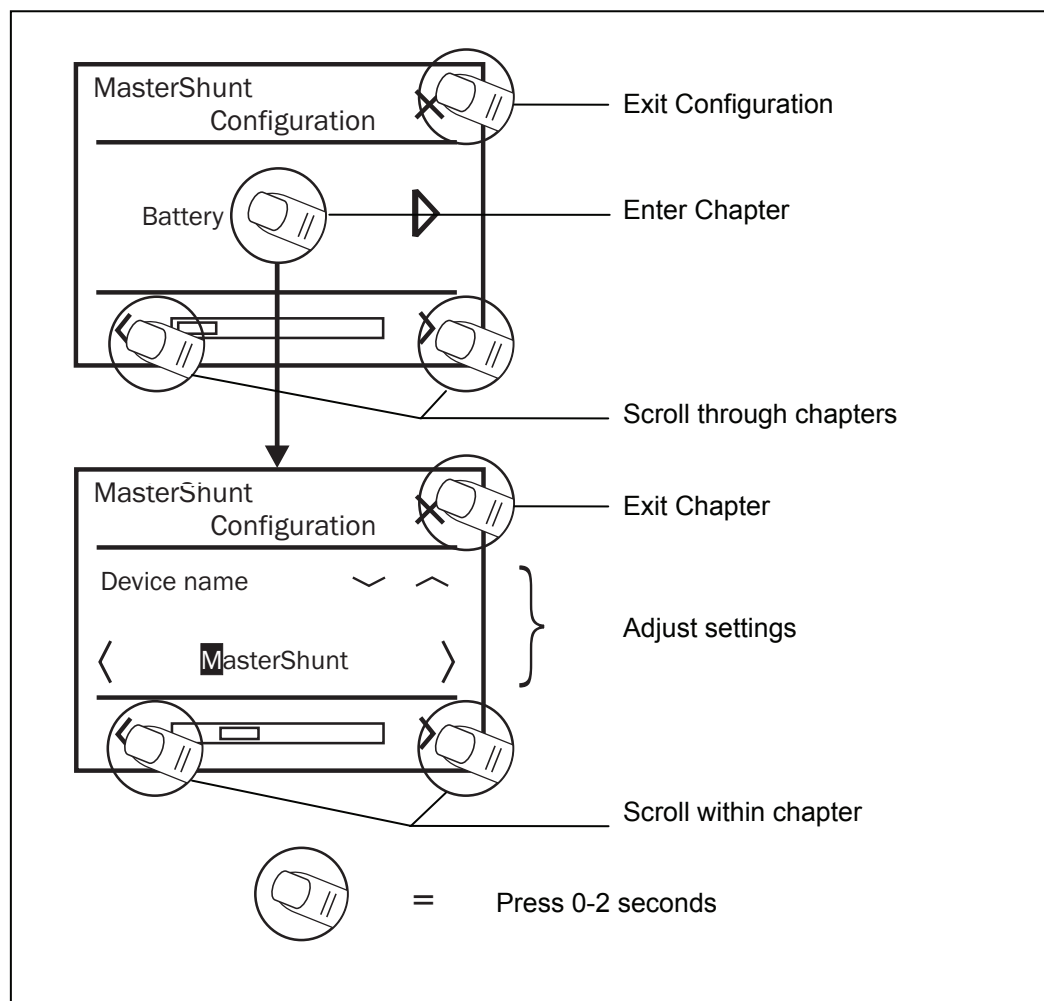


Figure 11: Operation of the MasterView Easy, example Configuration

5.5 MAINTENANCE

If you need to clean the touch screen without controlling function, use Keyboard Lock.

Press button long to lock keyboard, see figure 10.

Clean touch screen with a soft cloth. Do NOT use acids or scourers!

Press button long again to unlock keyboard.

6 MONITORING AND CONFIGURATION OF THE MASTERVIEW EASY

6.1 MONITORING

The MasterView Easy start screen shows the Device List, see also figure 11. By selecting the Easy display itself, you will enter the *MasterView Easy* monitoring menu, see the tables below.

The settings are stored in the internal memory of the selected device. As a result of this, switching off the *MasterView Easy* will not influence the settings.

Variable	Meaning	Default	Adjustable. range
Language	Displayed language of the <i>MasterView Easy</i> . This display enables changing the language of all connected MasterBus devices in one go.	English	English, Nederlands, Deutsch, Francais, Castellano, Italiano, Norsk, Svenska, Suomi, Dansk
State	Operation status of the Masterview Easy.	On	On/Off
Backlight	Illumination of the display's backlight.	Auto	Auto/On/Off
Go to configuration	Press <i>Enter</i> to continue with the configuration menu.		

Table: *MasterView Easy* monitoring

6.2 MASTERVIEW EASY CONFIGURATION

To change settings of the MasterView Easy display, press Go To Configuration. The MasterView Easy configuration menu is used for read out and adjustment of settings like backlight illumination, displayed language and number of devices.



The MasterView Easy Configuration Lock disables configuration of all connected devices. After selection of *Configuration Disabled* the Configuration Lock symbol appears. Only the first configuration group (at Easy panel: General) remains enabled.

Variable	Meaning	Default	Adjustable. range
General			
Name yacht	Name of the boat on which the panel is installed.	Yacht name	All names with maximum 16 characters
Device name	Name of this device. This name will be recognized by all connected devices.	MV Easy	All names with maximum 16 characters
Selected devices	Number of devices that can be assigned to be displayed by the MasterView Easy. Multiple devices means up to three devices.		Single device, Multiple devices, All devices
Buzzer	Switching of the buzzer.	On	On, Off
Auto Lock after	Time after which to lock the panel.	Off	Off, 2, 5, 10 minutes
Backlight	The backlight can be selected white, red or Off. In alarm the backlight turns red. If you choose a red backlight, it will not change colour in case of an alarm.	White	White, Red, Off
Power save			
Backlight time	Time the display backlight stays illuminated since the last button was touched.	2 minutes	always off, 2 minutes, 5 minutes, 10 minutes, always on
Auto off	Time after which the <i>MasterView Easy</i> will be switched off since the last button touch.	1 day	1 day, 2 days, always on
Backlight	Percentage of illuminance	50%	0-100%, in 10% steps

Variable	Meaning	Default	Adjustable. range
Events			
Event 1 source	Choose an event to serve as Event 1 See section 6.3	Disabled	Disabled, Device Off, Backlight changes
Event 1 target	Selection of the MasterBus connected device that should take action due to Event 1	Choose...	System dependent
Event 1 command	<i>Event-based command</i> (see section 6.4) Action to be taken by the Event 1 target.	Choose...	System dependent
Event 1 data	Event 1 data controls the Event 1 command, see section 6.4 for explanation.	Off	Off, On, Copy, Copy Invert, Toggle
Event 2 source	Appears when Event 1 is enabled. See Event 1 for explanation.	Disabled	Disabled, State, Backlight

Table: MasterView Easy Configuration

6.3 LIST OF EVENT SOURCES

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

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

Table: MasterView Easy Event Sources

6.4 LIST OF EVENT COMMANDS AND DATA

Below is shown the list of event commands and event data of the *MasterView Easy*. Other devices

connected to the MasterBus can be programmed to initiate these commands and actions at the *MasterView Easy*.

Event command	Event data	Description
State	Off	<i>MasterView Easy</i> will switch off.
	Copy Invert	<i>MasterView Easy</i> will switch to opposite status as source.
	Copy	<i>MasterView Easy</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.

Table: MasterView Easy Event Commands

6.5 CONFIGURING OTHER DEVICES

Monitoring and configuring other devices is possible by selecting a device in the device list, see section 6.1. Refer to the user's manual of the connected device for an overview of all available settings. Settings are stored in the memory of the selected

device. This means that switching off or disconnecting of the *MasterView Easy* will not affect the settings of the connected devices.

See section 6.2 for the Configuration Lock of all connected devices.

7 ADDITIONAL INFORMATION

7.1 MASTERADJUST SOFTWARE

Settings can be changed as well 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.

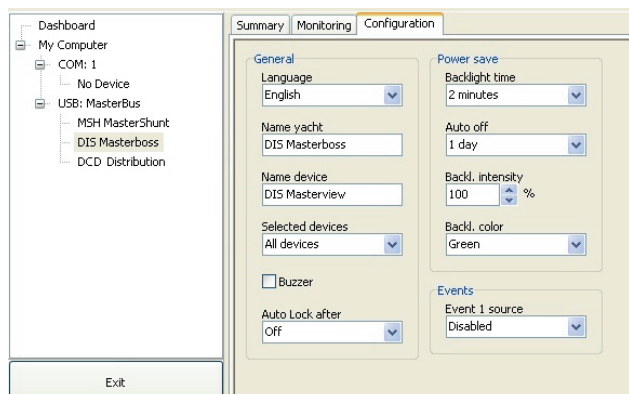


Figure 12: MasterAdjust software

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 6.4);
- System Monitor: complete actual overview of your entire electrical installation;
- System logger: data logging instrument to retrieve historical data of your electrical installation.

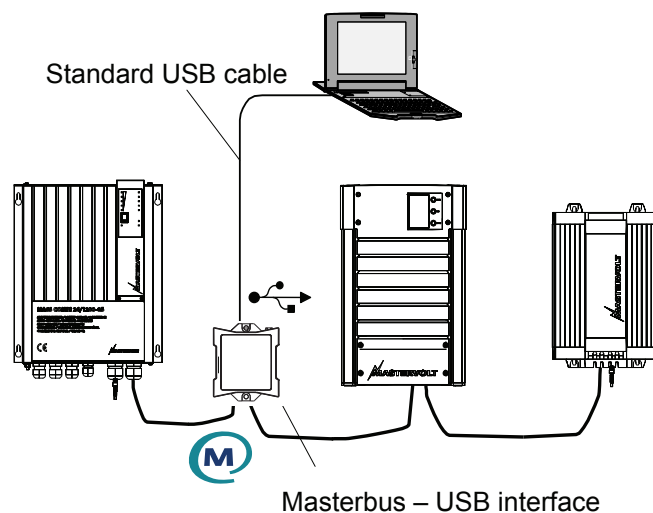


Figure 13: MasterBus-USB interface

7.2 ORDERING INFORMATION

Part number	Description
77040000	MasterBus terminating device*
77040020	MasterBus cable, 0,2m
77040050	MasterBus cable, 0,5m
77040100	MasterBus cable, 1,0m
77040300	MasterBus cable, 3,0m
77040600	MasterBus cable, 6,0m*
77041000	MasterBus cable, 10m
77041500	MasterBus cable, 15m
77042500	MasterBus cable, 25m
77050100	100m / 330ft MasterBus cable (UTP cable)
77050200	50 pcs. modular jacks
77050000	Complete set to assemble MasterBus 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.

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

Mastervolt can offer a wide range of products for your electrical installation, including an extended program of components for your MasterBus network. Our website www.mastervolt.com shows an overview of all our products and free downloadable software.

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 MasterBus cables.
	No powering device available on the MasterBus.	The <i>MasterView Easy</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).
Display shows ALARM.	A MasterBus device connected indicates an alarm situation.	Check the alarm source shown on the display and press STOP to stop the alarm or SNOOZE to let the alarm repeat every 9 minutes.
Backlight suddenly changes colour from white to red.	An alarm situation triggers the backlight to turn red. See also section 6.2.	Check the alarm source shown on the display and press STOP to stop the alarm or SNOOZE to let the alarm repeat every 9 minutes.
Back light does not switch on after touching the screen.	Back light has been set to switch off.	Check MasterView Configuration. See section 6.1, 6.2.
Back light does not switch off.	Back light settings need to be changed.	Check MasterView Configuration. See section 6.1, 6.2.
No backlight.	Backlight switches off after default 2 minutes.	Press one of the buttons or refer to section 6.2 to adjust the settings of the backlight.
Slow or no communication.	Error in the MasterBus wiring.	Check the MasterBus cables.
	No terminating device placed at the ends of the network.	MasterBus needs a terminating device on both ends of the network. Check if connected (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).
Touch screen does not react.	T-connections in the MasterBus network.	Check if T-connections are made in the network. T-connections are not allowed (see section 3.3).
	Keyboard Lock has been activated.	Press button long to unlock keyboard, see figure 10.
	A touch screen reacts at every touch.	Press button long to lock keyboard, see figure 10. Clean touch screen with a soft cloth. Do NOT use acids or scourers! Press button long again to unlock keyboard.
One of the connected devices can not be found.	Settings error: maximum number of devices is 20.	If you want to monitor more than twenty devices, you need to have a second MasterView Easy panel.
	The display is in "Single device" mode with another device selected.	Change the setting to "All devices".
	Error in the wiring.	Check the MasterBus cables.
	Device not suitable for MasterBus.	Check whether the device is suitable for MasterBus. Maybe the MasterBus cable is connected to a non-MasterBus connector.
<i>MasterView Easy</i> is switched off after some time.	The <i>MasterView Easy</i> is set up to switch off automatically, when no button is touched for 1 day.	See section 6.2 for settings (Auto off).
The device name is not correct.	Device name has not yet been set.	Adjust device name, see section 6.2.

Failure	Possible cause	What to do
Wrong language is displayed.	Wrong setting of the language at the MasterView Easy.	See section 6.2 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 devices.
Wrong boat name is displayed.	Wrong setting of the yacht name at the MasterView Easy.	See section 6.2 for setting "Name yacht".
A set value shown in the display is not correct.	Value has not been set yet or it can not be set.	Go to Configuration and change the value using arrows. If the value is not adjustable, no arrows are shown.
MasterAdjust software shows error "no devices found".	Error in the wiring.	Check the MasterBus cables and terminating devices (see section 3.3).
	No MasterBus-USB interface connected.	Check user's manual of the MasterBus-USB interface.
You don't have the slightest idea where in the menu structure you have ended up.	You just discovered some unexpected screens.	Click the X repeatedly to enter the device list. This is the MasterView Easy starting screen.

9 SPECIFICATIONS

9.1 TECHNICAL SPECIFICATIONS

Model:	MasterView Easy
Article number:	77010300
Delivery includes:	Panel, outer casing, 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 an LCD touch screen
Available languages:	English, Nederlands, Deutsch, Francais, Castellano, Italiano, Norsk, Svenska, Suomi, Dansk.
Powering capabilities:	No, needs to be powered via the MasterBus (at least one of the connected devices should have powering capabilities)
MasterVision compatible:	No
Power consumption:	Off: 16 mW On: 160 mW (backlight off); 900mW (backlight on)
Dimensions:	See section 9.2
Required depth	38 mm minimum
Weight	230 g (0.50 lb)
Protection degree:	IP 21

9.2 DIMENSIONS

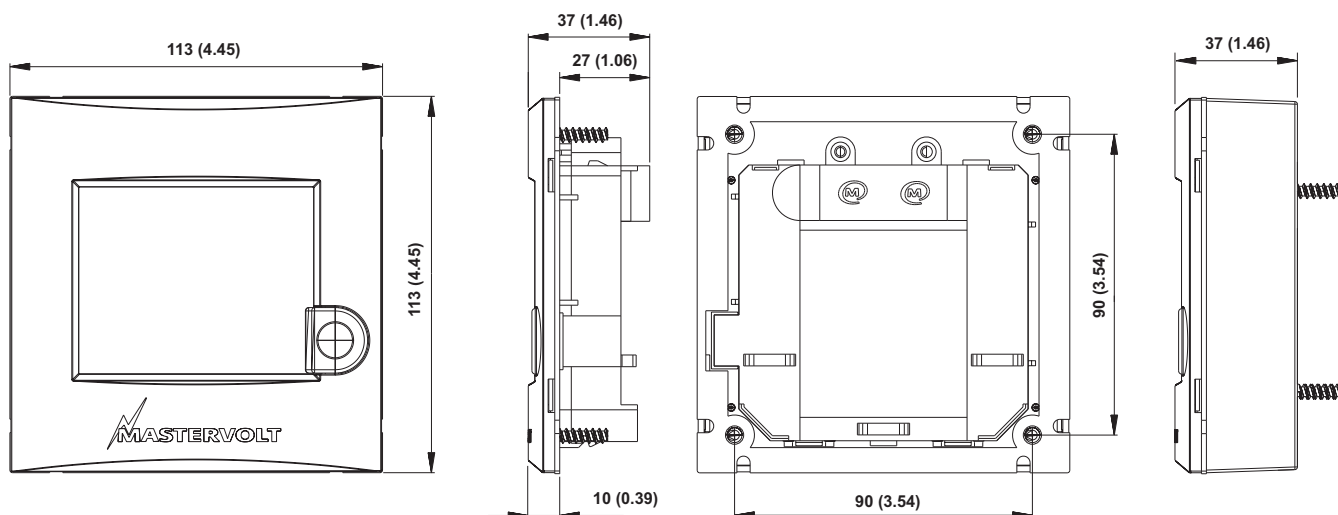


Fig. 14: Dimensions in mm (inch) of the panel without and with outer casing.

10 CE DECLARATION OF CONFORMITY

Manufacturer Mastervolt
Address Snijdersbergweg 93
1105 AN Amsterdam
The Netherlands



Herewith declares that:

Product:
77010300 MasterView Easy

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

Low voltage directive: 2006/95/EC

Amsterdam,

P. F. Kenninck,
C.E.O. MASTERVOLT



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