

MASTER VISION MODULAR SWITCHBOARDS



CAUTION

1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. The coating on these bars is for identification only and should not be relied on as a insulator. Additional safety enclosures may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. Use a resistance meter to verify ground to all modules.

panel code

S-2-P2

part number

07-08-02030

SPECIFICATIONS

<i>description:</i>	AC selector switch 2 pos.
<i>switch type:</i>	Kraus & Naimer 25A
<i>no. of poles:</i>	2 pole
<i>panel voltage:</i>	230 V AC
<i>backlight input voltage:</i>	12 or 24 V DC
<i>dimensions panel (wxh):</i>	120 x 130 mm
<i>panel depth:</i>	80 mm

INSTALLATION INSTRUCTIONS

Install the panel

To install an individual module into a frame or bulkhead, secure the module in place using the M4 screws and O-rings supplied. Individual modules can be assembled into a single larger electrical panel using connector blocks (see drawing on the back of this sheet). Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.

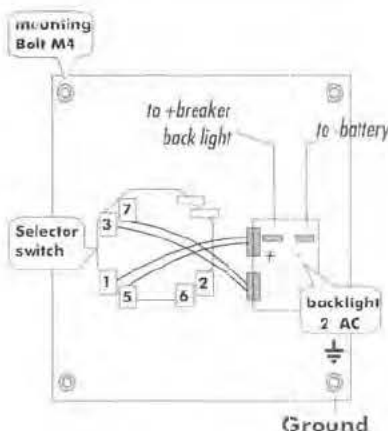
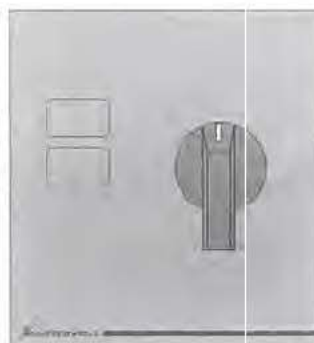
Connect the backlight

The backlight module requires a 12 or 24 Volt power supply. The installation instructions are on the back of this sheet.

Fix the labels

The backlight module has to be removed to fix the labels. The labels are supplied on sheets of 143 labels. The labels are available in english, german, french and dutch. Follow the installation instructions on the back of this sheet.

Shore
Inverter
or
Genset



Positions:

L - N	
1 - 5	from shore
2 - 6	to ship
3 - 7	from inverter or genset

Connecting diagram:



SWITCH SPECIFICATIONS

<i>Type:</i>	Kraus & Naimer CA20-A221
<i>Max. Current:</i>	25 A
<i>Part no.:</i>	07-08-07222
<i>Max. Voltage:</i>	380V
<i>Protection:</i>	IP 65
<i>Bracket:</i>	48 x 25 mm

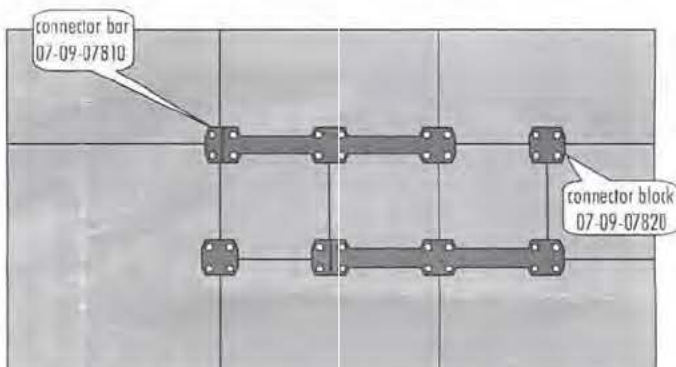
These products fully comply to the latest CE norms in force from January 1st 1996 and are produced to ISO 9001 standards.

ISO 9001 

Use the conversion table on page 4 to determine the right cable size

HOW TO ASSEMBLE A MASTERVISION PANEL

1. For best results, use Mastervision installation parts
2. Use connector bar 07-09-07810 and connector block 07-09-07820 to assemble the panel
3. The mounting bolts used are M4x25
4. Secure the bolts with the M4 nuts and O-rings supplied.
5. To position the electrical panel within its frame or bulkhead use the stencil supplied to cut the panelhole.
6. Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.



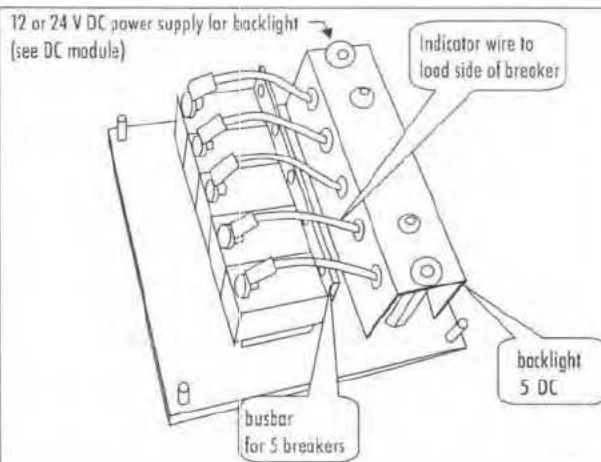
HOW TO INSTALL THE BACKLIGHTING SYSTEM:

The Mastervision panels have a two-state backlight system for label illumination. The first state is a low intensity green light that illuminates the labels on the panel to enable label viewing in low light conditions, any time the circuit is switched ON or OFF. The second state is a higher intensity yellow DC LED (or orange neon lamp for AC) to indicate when a circuit is switched ON.

Power must be fed to all modules with backlight capability. This is achieved by linking all the modules together by their backlight connectors (see drawing). Verify the backlight AC or DC voltage on each module.

Note:

The power supply voltages are the same on all backlight modules, indicator voltages depend on the type of panel.



HOW TO LABEL A BACKLIGHT

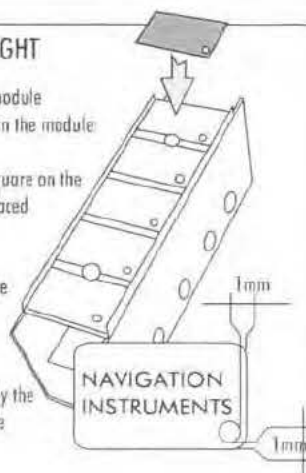
To fix the labels on the backlight module remove the mounting bolts and turn the module around.

Place the label on the embossed square on the lens. Make sure that the label is placed correctly and the indicator led is uncovered.

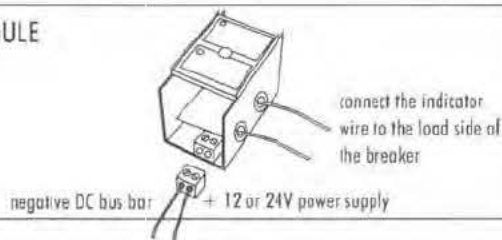
Replace the backlight module in the original position.

Warning:

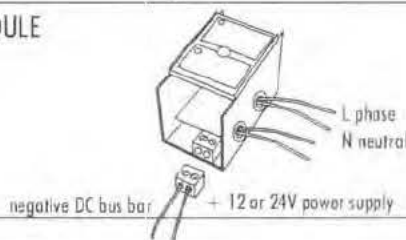
When the module is placed correctly the indicator led is 1mm away from the transparent front lens.



DC MODULE



AC MODULE



CAUTION



1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. Additional safety enclosures as the AC protection shield (part no. 07-09-04601-2-3) may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. Use a resistance meter to verify ground to all modules.

GENERAL

1. Verify the modules you purchased are configured for the source voltage aboard your vessel / vehicle. Refer to the backlight specification.
2. Installation of Mastervision panels should be completed by a person with a thorough knowledge of marine / mobile electrical systems.
3. Wiring to and from each module should conform to the local applicable standards and taking into consideration the safety guidelines and measures.

Mastervolt can accept no liability for damage due to the use of the panel or due to possible errors in the manual and the possible thereof.

MASTER VISION MODULAR SWITCHBOARDS

CAUTION

1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. The coating on these bars is for identification only and should not be relied on as an insulator. Additional safety enclosures may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. Use a resistance meter to verify ground to all modules.

panel code

B-0-AA2

part number

07-03-00010

SPECIFICATIONS

description:

distribution panel

breaker type:

without breaker

panel voltage:

230 VAC

backlight input voltage:

12 V or 24 V DC

dimensions panel (w x h):

120 x 260 mm

panel depth:

80 mm

INSTALLATION INSTRUCTIONS

Install the panel

To install an individual module into a frame or bulkhead, secure the module in place using the M4 screws and O-rings supplied. Individual modules can be assembled into a single larger electrical panel using connector blocks (see drawing on the back of this sheet). Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.

Connect the backlight

The backlight module requires a 12 or 24 Volt power supply. The installation instructions are on the back of this sheet.

Fix the labels

The backlight module has to be removed to fix the labels. The labels are supplied on sheets of 143 labels. The labels are available in english, german, french and dutch. Follow the installation instructions on the back of this sheet.

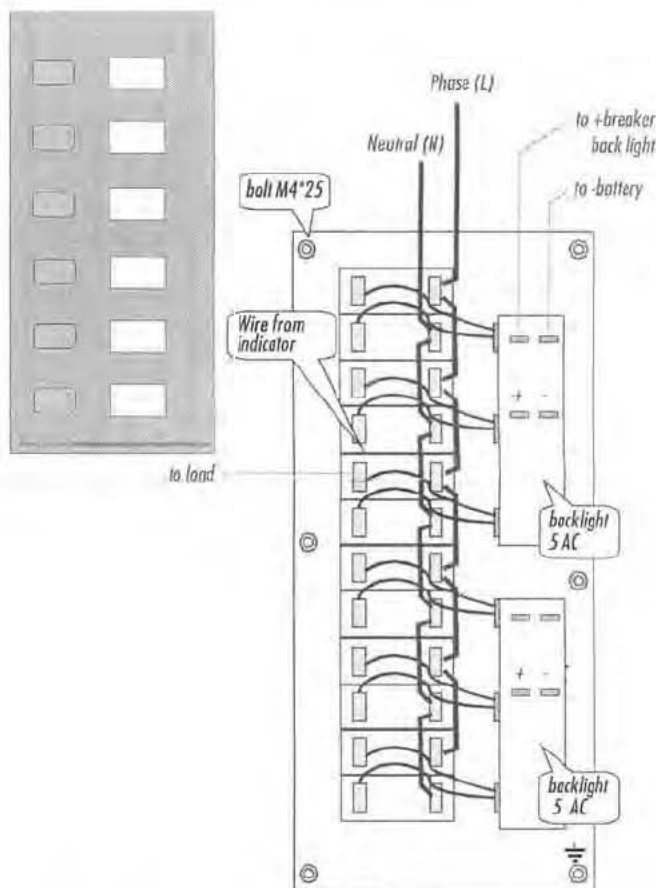
Breakers

The Carlingswitch breakers are among the best quality breakers available in the world. For this panel AD2 series breaker with 'visi red' rockers supplied. Check the current rating which is required. Connect the busbar to the positive source. Connect the indicator wire to the load side of the circuit breaker. (see the drawing shown above).

These products fully comply to the latest CE norms in force from Januari 1st 1996 and are produced to ISO 9001 standards.

ISO 9001 CE

MV/L&M 20-04-00

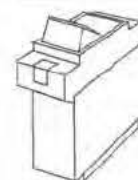


ASSEMBLING THE BREAKERS INTO THE PANEL

Take off the assembly bars and place the breakers in the right order into the panel. The visi red side of the breaker should be pointed to the backlight side. Replace the mounting bar and connect the connector bars with the hexagonal screws into the breakers. Please the panel into place and wire the loads on the individual breakers.

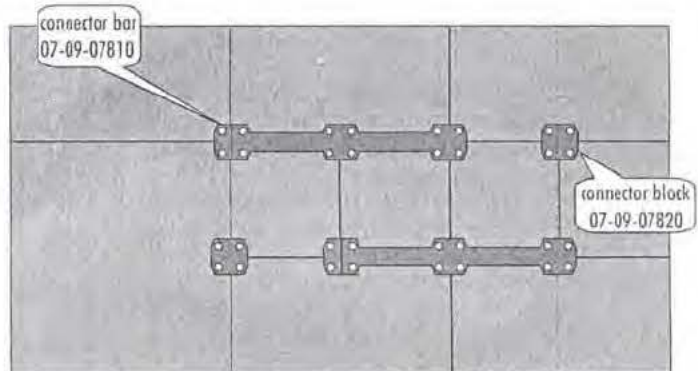
BREAKER SPECIFICATIONS

Type: AD2 circuit breaker
 Rocker with visi red actuator
 Part no.: 07-09-051xx
 Approval: UL recognized, CSA certified
 Max. Voltage: 277 VAC, 50/60Hz, 80VDC
 Delay: medium
 Terminals: hexagonal screws 10/32



HOW TO ASSEMBLE A MASTERVISION PANEL

1. For best results, use Mastervision installation parts
2. Use connector bar 07-09-07810 and connector block 07-09-07820 to assemble the panel.
3. The mounting bolts used are M4x25
4. Secure the bolts with the M4 nuts and O-rings supplied.
5. To position the electrical panel within its frame or bulkhead use the stencil supplied to cut the panelhole.
6. Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.



HOW TO INSTALL THE BACKLIGHTING SYSTEM:

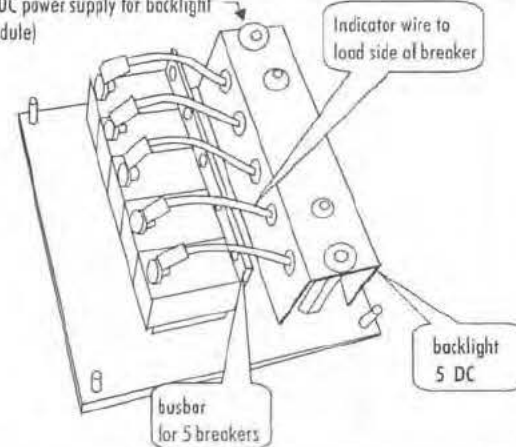
The Mastervision panels have a two-state backlight system for label illumination. The first state is a low intensity green light that illuminates the labels on the panel to enable label viewing in low light conditions, any time the circuit is switched ON or OFF. The second state is a higher intensity yellow DC LED (or orange neon lamp for AC) to indicate when a circuit is switched ON.

Power must be fed to all modules with backlight capability. This is achieved by linking all the modules together by their backlight connectors (see drawing). Verify the backlight AC or DC voltage on each module.

Note:

The power supply voltages are the same on all backlight modules, indicator voltages depend on the type of panel.

12 or 24 V DC power supply for backlight
(see DC module)



HOW TO LABEL A BACKLIGHT

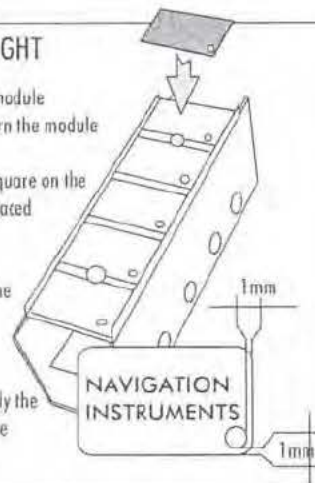
To fix the labels on the backlight module remove the mounting bolts and turn the module around.

Place the label on the embossed square on the lens. Make sure that the label is placed correctly and the indicator led is uncovered.

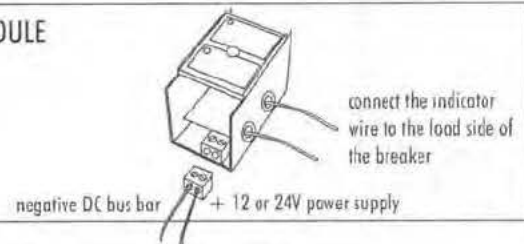
Replace the backlight module in the original position.

Warning:

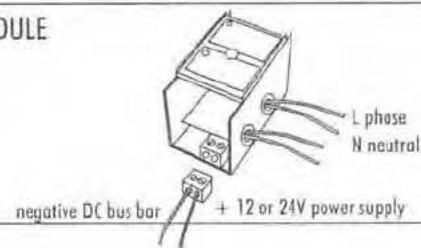
When the module is placed correctly the indicator led is 1mm away from the transparent front lens.



DC MODULE



AC MODULE



CAUTION



1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. Additional safety enclosures as the AC protection shield (part no. 07-09-04601-2-3) may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. The resistance must be verified to all modules.

GENERAL

1. Verify the modules you purchased are configured for the source voltage aboard your vessel / vehicle. Refer to the backlight specification.
2. Installation of Mastervision panels should be completed by a person with a thorough knowledge of marine / mobile electrical systems.
3. Wiring to and from each module should conform to the local applicable standards and taking into consideration the safety guidelines and measures.

Mastervolt can accept no liability for damage due to the use of the panel or its components, even when the panel and its components are used in accordance with the instructions.

MASTER VISION MODULAR SWITCHBOARDS

CAUTION

1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. The coating on these bars is for identification only and should not be relied on as an insulator. Additional safety enclosures may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. Use a resistance meter to verify ground to all modules.

INSTALLATION INSTRUCTIONS

Install the panel

To install an individual module into a frame or bulkhead, secure the module in place using the M4 screws and O-rings supplied. Individual modules can be assembled into a single larger electrical panel using connector blocks (see drawing on the back of this sheet). Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.

Connect the backlight

The backlight module requires a 12 or 24 Volt power supply. The installation instructions are on the back of this sheet.

Fix the labels

The backlight module has to be removed to fix the labels. The labels are supplied on sheets of 143 labels. The labels are available in english, german, french and dutch. Follow the installation instructions on the back of this sheet.

Breakers

The Carlingswitch breakers are among the best quality breakers available in the world. For this panel AD1 series breaker with 'visi red' rockers supplied. Check the current rating which is required. Connect the busbar to the positive source. Connect the indicator wire to the load side of the circuit breaker. (see the drawing shown above).

These products fully comply to the latest CE norms in force from Januari 1st 1996 and are produced to ISO 9001 standards.

ISO 9001 

panel code

B-1-AD

part number

07-03-01500

SPECIFICATIONS

description:

distribution panel

breaker type:

without breaker

panel voltage:

12/24 V DC

backlight input voltage:

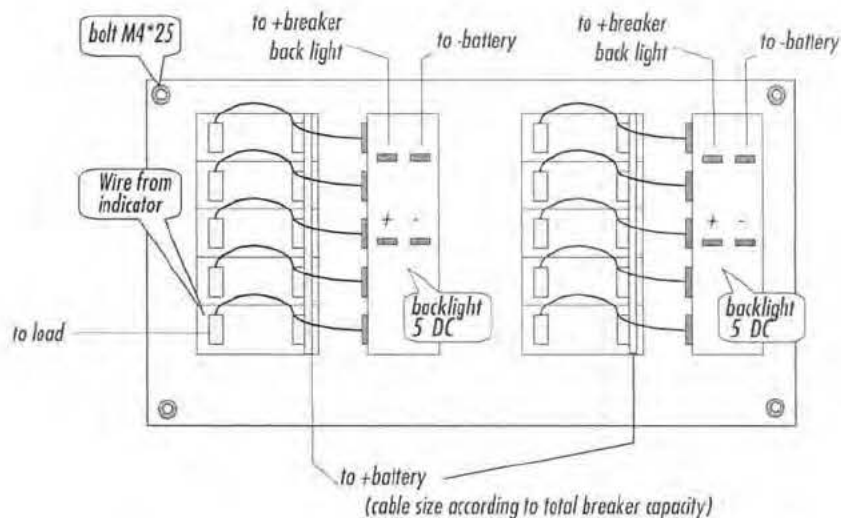
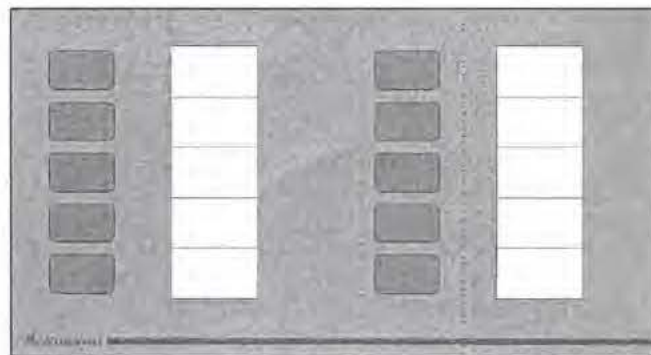
12/24 V DC

dimensions panel (wxh):

240 x 130 mm

panel depth:

80 mm



BREAKER SPECIFICATIONS

Type:

AD1 circuit breaker

Part no.:

Rocker with visi red actuator
07-09-050xx

Approval:

UL recognized, CSA certified

Max. Voltage:

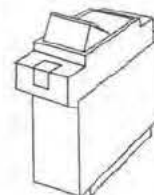
277 VAC, 50/60Hz, 80VDC

Delay:

medium

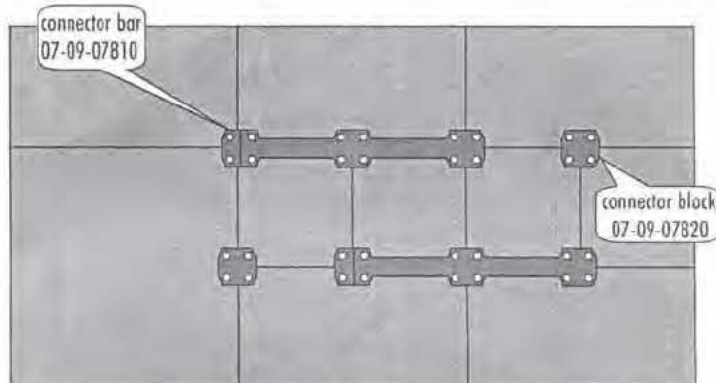
Terminals:

hexagonal screws 10/32



HOW TO ASSEMBLE A MASTERVISION PANEL

1. For best results, use Mastervision installation parts
2. Use connector bar 07-09-07810 and connector block 07-09-07820 to assemble the panel.
3. The mounting bolts used are M4x25
4. Secure the bolts with the M4 nuts and O-rings supplied.
5. To position the electrical panel within its frame or bulkhead use the stencil supplied to cut the panelhole.
6. Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.



HOW TO INSTALL THE BACKLIGHTING SYSTEM:

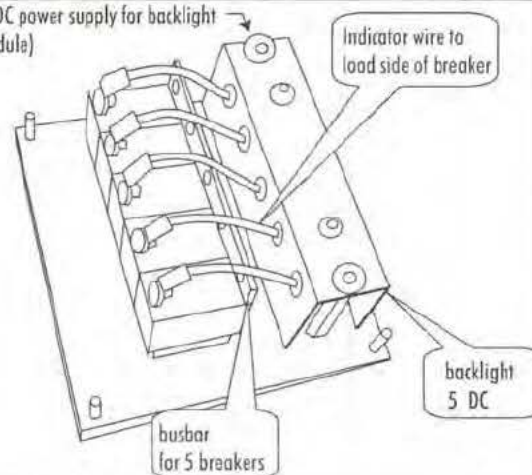
The Mastervision panels have a two-state backlight system for label illumination. The first state is a low intensity green light that illuminates the labels on the panel to enable label viewing in low light conditions, any time the circuit is switched ON or OFF. The second state is a higher intensity yellow DC LED (or orange neon lamp for AC) to indicate when a circuit is switched ON.

Power must be fed to all modules with backlight capability. This is achieved by linking all the modules together by their backlight connectors (see drawing). Verify the backlight AC or DC voltage on each module.

Note:

The power supply voltages are the same on all backlight modules, indicator voltages depend on the type of panel.

12 or 24 V DC power supply for backlight
(see DC module)



HOW TO LABEL A BACKLIGHT

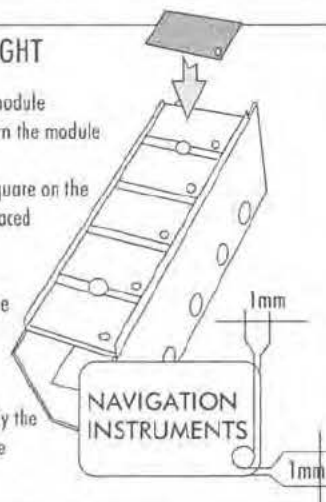
To fix the labels on the backlight module remove the mounting bolts and turn the module around.

Place the label on the embossed square on the lens. Make sure that the label is placed correctly and the indicator led is uncovered.

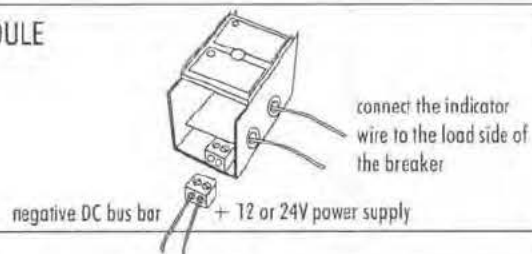
Replace the backlight module in the original position.

Warning:

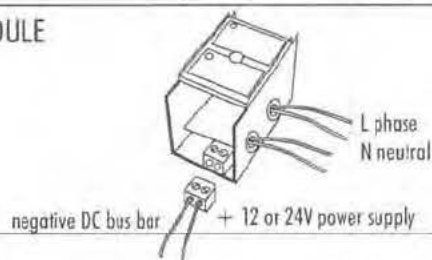
When the module is placed correctly the indicator led is 1mm away from the transparent front lens.



DC MODULE



AC MODULE



CAUTION



1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. Additional safety enclosures as the AC protection shield (part no. 07-09-04601-2-3) may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When

GENERAL

1. Verify the modules you purchased are configured for the source voltage aboard your vessel / vehicle. Refer to the backlight specification.
2. Installation of Mastervision panels should be completed by a person with a thorough knowledge of marine / mobile electrical systems.
3. Wiring to and from each module should conform to the local applicable standards and taking into consideration the safety guidelines and measures.

MASTER VISION MODULAR SWITCHBOARDS

panel code	B-2-AD
part number	07-03-02035

CAUTION

1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. The coating on these bars is for identification only and should not be relied on as an insulator. Additional safety enclosures may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. Use a resistance meter to verify ground to all modules.

SPECIFICATIONS

description:	distribution panel
breaker type:	without breaker
panel voltage:	12 V or 24 V DC
backlight input voltage:	12 V or 24 V DC
dimensions panel (wxh):	120 x 130 mm
panel depth:	80 mm

INSTALLATION INSTRUCTIONS

Install the panel

To install an individual module into a frame or bulkhead, secure the module in place using the M4 screws and O-rings supplied. Individual modules can be assembled into a single larger electrical panel using connector blocks (see drawing on the back of this sheet). Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.

Connect the backlight

The backlight module requires a 12 or 24 Volt power supply. The installation instructions are on the back of this sheet.

Fix the labels

The backlight module has to be removed to fix the labels. The labels are supplied on sheets of 143 labels. The labels are available in english, german, french and dutch. Follow the installation instructions on the back of this sheet.

Breakers

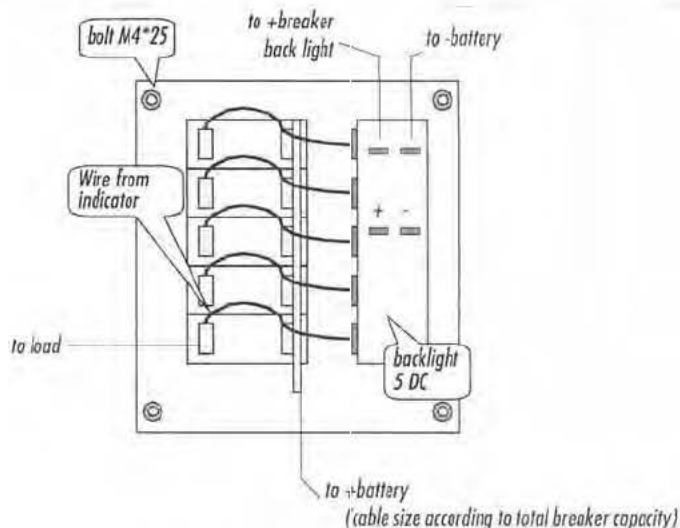
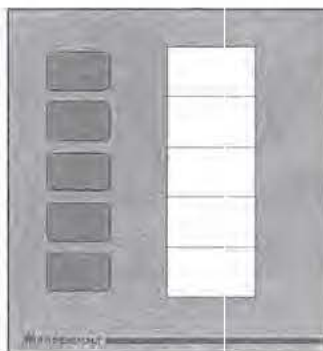
The Carlingswitch breakers are among the best quality breakers available in the world. For this panel AD1 series breaker with 'visi red' rockers supplied.

Check the current rating which is required. Connect the busbar to the positive source. Connect the indicator wire to the load side of the circuit breaker. (see the drawing shown above).

These products fully comply to the latest CE norms in force from Januari 1st 1996 and are produced to ISO 9001 standards.

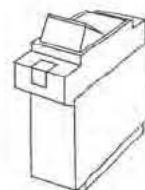
ISO 9001 

FRONTSIDE



BREAKER SPECIFICATIONS

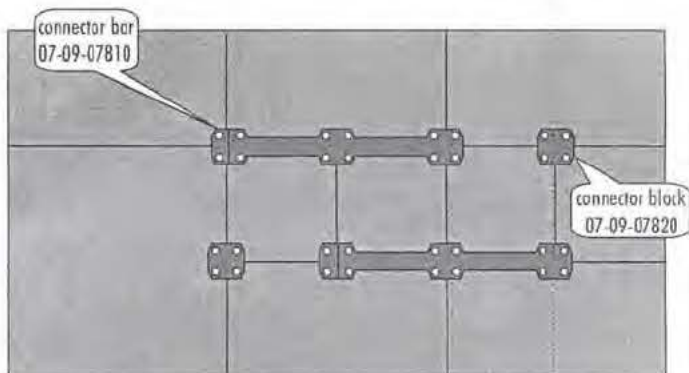
Type:	AD1 circuit breaker
Part no.:	Rocker with visi red actuator
Approval:	07-09-050xx
Max. Voltage:	UL recognized, CSA certified
Delay:	27.7 VAC, 50/60Hz, 80VDC
Terminals:	medium
	hexagonal screws 10/32



Use the conversion tabel on page 4 to determine the right cable size

HOW TO ASSEMBLE A MASTERVISION PANEL

1. For best results, use Mastervision installation parts
2. Use connector bar 07-09-07810 and connector block 07-09-07820 to assemble the panel.
3. The mounting bolts used are M4x25
4. Secure the bolts with the M4 nuts and O-rings supplied.
5. To position the electrical panel within its frame or bulkhead use the stencil supplied to cut the panelhole.
6. Do not use connector blocks at the outside top or bottom edge. This is where the complete panel will be fastened to its frame or bulkhead.



HOW TO INSTALL THE BACKLIGHTING SYSTEM:

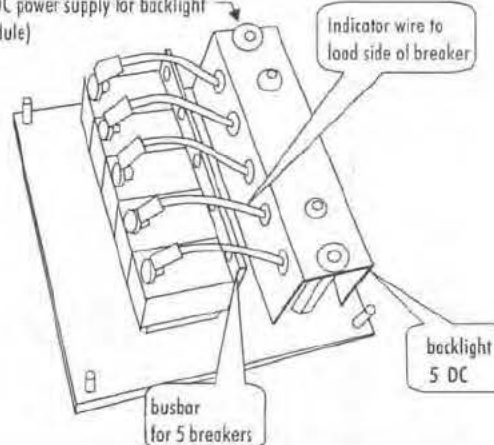
The Mastervision panels have a two-state backlight system for label illumination. The first state is a low intensity green light that illuminates the labels on the panel to enable label viewing in low light conditions, any time the circuit is switched ON or OFF. The second state is a higher intensity yellow DC LED (or orange neon lamp for AC) to indicate when a circuit is switched ON.

Power must be fed to all modules with backlight capability. This is achieved by linking all the modules together by their backlight connectors (see drawing). Verify the backlight AC or DC voltage on each module.

Note:

The power supply voltages are the same on all backlight modules, indicator voltages depend on the type of panel.

12 or 24 V DC power supply for backlight
(see DC module)



HOW TO LABEL A BACKLIGHT

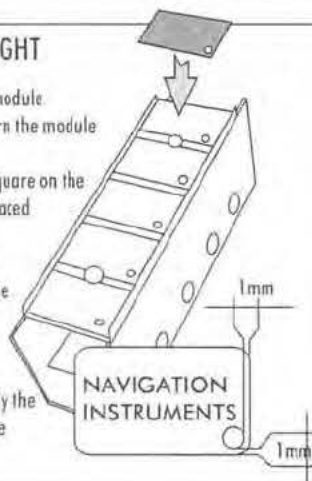
To fix the labels on the backlight module, remove the mounting bolts and turn the module around.

Place the label on the embossed square on the lens. Make sure that the label is placed correctly and the indicator led is uncovered.

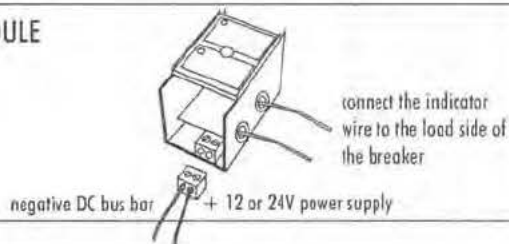
Replace the backlight module in the original position.

Warning:

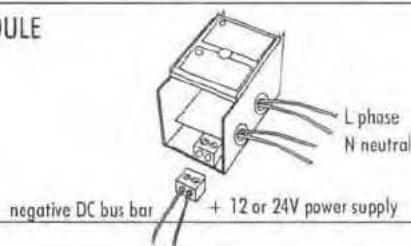
When the module is placed correctly the indicator led is 1mm away from the transparent front lens.



DC MODULE



AC MODULE



CAUTION



1. Lethal voltages exist on your vessel. Make sure all shore power, onboard generating sources and batteries are disconnected before beginning installation of your electrical panel.
2. AC modules will have lethal voltages on the bus bars and terminals. Additional safety enclosures as the AC protection shield (part no. 07-09-04601-2-3) may be required in some installations.
3. Make sure all AC modules are bonded to the ship's AC ground bus. When grouping modules together to form your panel, a single ground may be used. Use a resistance meter to verify ground to all modules.

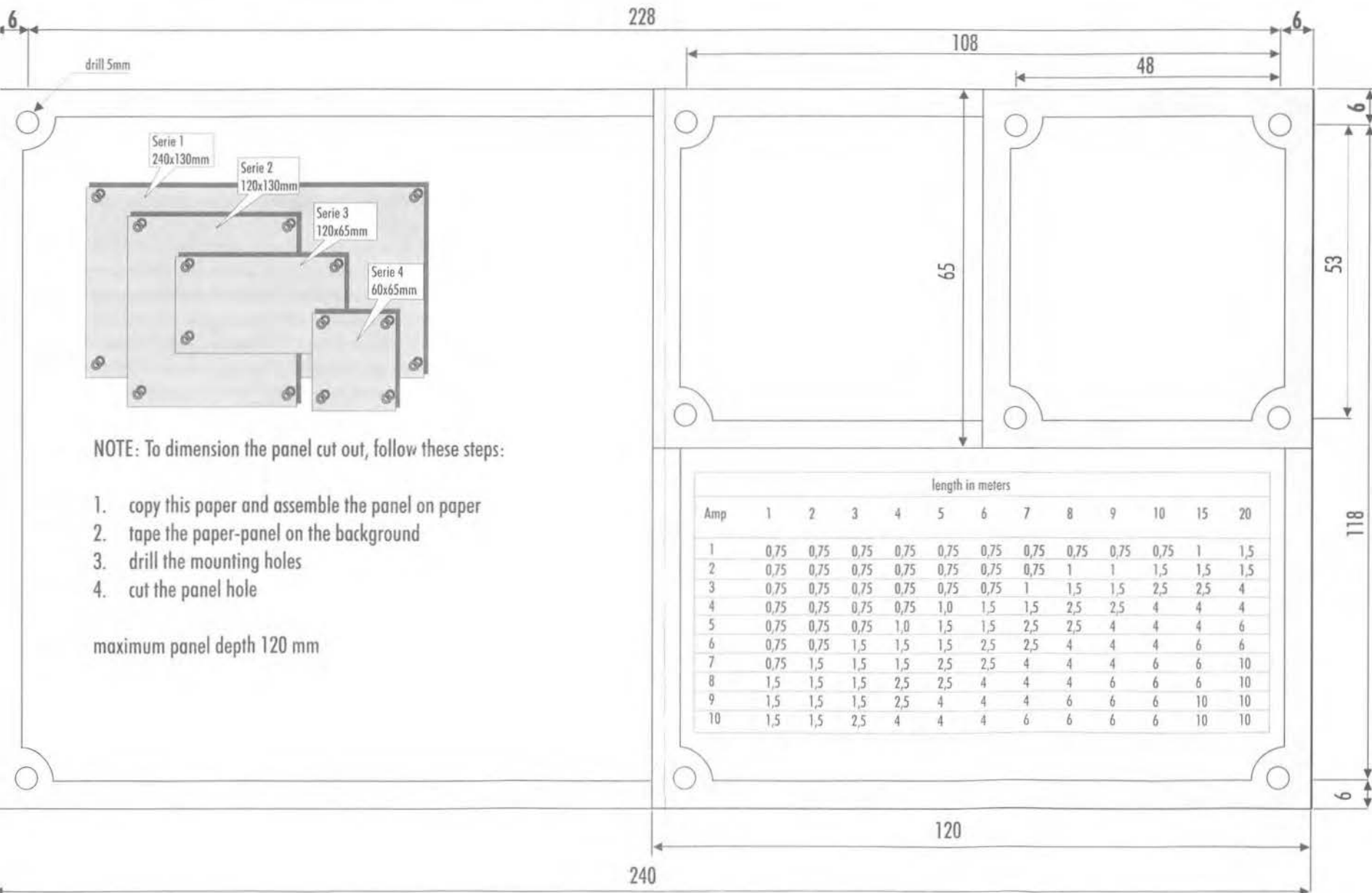
GENERAL

1. Verify the modules you purchased are configured for the source voltage aboard your vessel / vehicle. Refer to the backlight specification.
2. Installation of Mastervision panels should be completed by a person with a thorough knowledge of marine / mobile electrical systems.
3. Wiring to and from each module should conform to the local applicable standards and taking into consideration the safety guidelines and measures.

Mastervolt can accept no liability for damage due to the use of the panel or due to possible errors in the manual and the results thereof.

PANEL CUT OUT SIZING (dimensions in mm)

Mastervolt/ 22-04-00



INSTALLATION ACCESSORIES

BACKLIGHT MODULES

- 07-09-04310 backlight module 5 labels 12/24V DC
- 07-09-04312 backlight module 2 labels 12/24V DC
- 07-09-04320 backlight module 5 labels 230V AC
- 07-09-04322 backlight module 2 labels 230V AC
- 07-09-04400 LED 12/24V 3mm flathead yellow (prewired) 10 each
- 07-09-04402 LED 12/24V 3mm flathead green (prewired) 10 each
- 07-09-04404 LED 12/24V 3mm flathead red (prewired) 10 each
- 07-09-04406 LED 12/24V 3mm flathead (4 x yellow/ 4 x green/ 2 x red)
- 07-09-04500 neon lamp 230V 6mm orange (prewired) 10 each

CIRCUIT BREAKERS CARLINGSWITCH

- 07-09-050xx circuit breaker type rocker AD 1 pole max 50A red
- 07-09-051xx circuit breaker type rocker AD 2 pole max 50A red
- 07-09-05091 circuit breaker type rocker AD 1 pole max 50A red with fingerguard
- 07-09-05093 circuit breaker type rocker AD 1 pole max 50A red push to reset
- 07-09-052xx circuit breaker type rocker CD 1 pole max 100A red
- 07-09-053xx circuit breaker type rocker CD 2 pole max 100A red
- 07-09-05301 circuit breaker type rocker CD 1 pole max 190A red (B-3-BS)
- 07-09-052xx circuit breaker type rocker MD 1 pole max 25A red
- 07-09-05600 panel hole plug A series rocker
- 07-09-05610 panel hole plug M series rocker

xx

= breaker current value

PANEL SWITCHES

- 07-09-07610 rockerswitch on-off 8A black
- 07-09-07620 rockerswitch on-off-on 8A black

INSTALLATION COMPONENTS

- 07-09-07810 connector bar 145x20mm to connect 3 panels
- 07-09-07820 connector block 25x20mm to connect 2 panels
- 07-09-07840 bus bar to connect 2 breakers
- 07-09-07830 bus bar to connect 5 breakers

- 07-09-05700 terminal screws - hex. 10/32 -for breakers AD series
- 07-09-05710 terminal screws - hex. 8/32 - for breakers MD series

LABELSHEETS

- 07-09-07910 labelsheet 1 with 143 labels english
- 07-09-07920 labelsheet 2 with 143 labels dutch
- 07-09-07930 labelsheet 3 with 143 labels french
- 07-09-07940 labelsheet 4 with 143 labels german

AC PROTECTION SETS

- 07-09-04601 AC protectionshield for panel 1
- 07-09-04602 AC protectionshield for panel 2
- 07-09-04603 AC protectionshield for panel 3

