Installation Manual

GMDSS Radio battery Distribution and Alarmpanel MK2

Models:
GMDSS A1 12-12-15 Mk2, 24-12-15 Mk2, 24-24-15 Mk2
GMDSS A2 24-24-25 Mk2

Produsent:

EL-EXPERTEN

Distributør:

ProNav

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Description	Sign	Dato	Revisjon
English transelation	PS	19.09.2024	Rev.1

Introduction

Description

The radio battery distribution is constructed in order to do a approved GMDSS installation as easy as possible. The system meets the required functionality to comply with GMDSS regulations. The system is designed for GMDSS A1 and GMDSS A2.

A1 consisting of: VHF w/DSC, GPS, Navtex and emergency lights.
A2 consisting of: VHF w/DSC, GPS, Navtex, emergency lights and MFHF.

The installation manual covers the following models:
- GMDSS A1 24-24-15 Mk2
- GMDSS A1 24-12-15 Mk2
- GMDSS A1 12-12-15 Mk2
- GMDSS A2 24-24-25 Mk2

Model description:
GMDSS XX aa-bb-cc Mkd
XX= A1 or A2 area
aa= Power input to GMDSS Distribution. 24VDC or 12VDC
bb= Power on connected GMDSS equipment. 24VDC or 12VDC.
cc= Maximum continuous consumption. 15A or 25A
d= Mark

Highlights

- Compact design
- Quick connect terminals
- Alert when lost charging input
- Alert on low battery voltage (adjustable).
- Automatic switch between regular power source and radio battery.
- Battery indicator with Ampere, Ampere hours, Volt (Main/Aux), SOC%.
- No maintenance.
- Distribution is IP20, can be installed in bridge console or technical room.
- Alarm panel is IP65

Area of use

The system is constructed for use on small workboats and fishing vessels.

Installation

- ## Included

- GMDSS distribution
- Indication panel
- 5 meters of 10x0,25mm²
- Screwdriver
- Mounting bracket
- Spare fuses
- Documentation

Optional accessories:

Junction boxes for external mounting.

Alfatronix DC Battery charger

ICi24-12VDC 12A

Alfatronix DC-DC AC/DC galvanic isolated

PV12i 24-12V 12/18A

Note:

-Only equipment mentioned in this manual should be installed. 1 pcs of equipment pr.terminal.

- All equipment to be installed by certified personnel only.

Battery distribution

Following terminals are available:
- Radio battery 12/24V
- Charger input 24/12V
- Charger input 24/12V
- Regular power source 24/12V
- 4 (5) Output terminals
- Connection for status display

Connection Terminals			
Terminal	**0,75-16mm2**	**0,75-6mm2**	**0,14-0,5mm2**
Battery	**X**		
Charger input		**X**	
Regular power		**X**	
MF/HF radio	**X**		
VHF Radio		**X**	
GPS Navigator		**X**	
Navtex		**X**	
Em.lights		**X**	
Alarmpanel			**X**

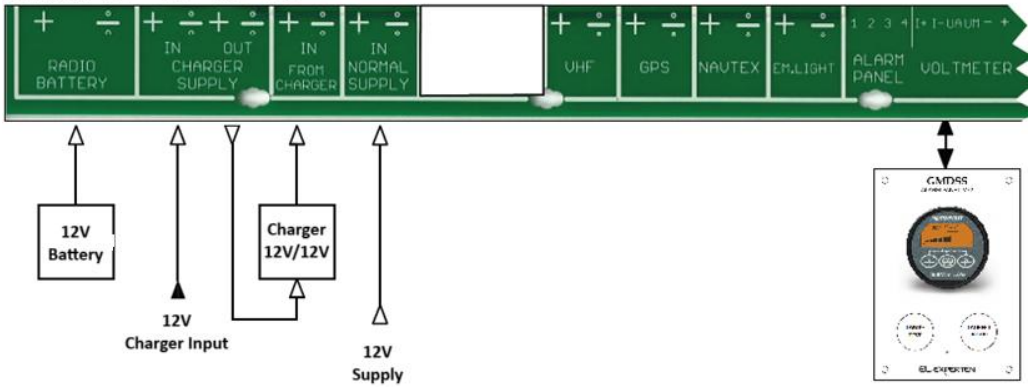
Fuses									
Fuse	**Terminal**	**Model**							
		A1 12-12-15 Mk2 **A1 24-12-15 Mk2** **A1 24-24-15 Mk2**				**A2 24-24-25 Mk2**			
		15A	**10A**	**4A**	**2A**	**25A**	**20A**	**10A**	**4A**	**2A**
F1	Battery	**X**				**X**				
F2	Charger input	**X**					**X**			
F3	Regular power input	**X**					**X**			
F4	MF/HF radio						**X**			
F5	VHF Radio		**X**					**X**		
F6	GPS Navigator			**X**					**X**	
F7	Navtex			**X**					**X**	
F8	Em.light			**X**					**X**	
F9	Alarmpanel				**X**					**X**

Max fuse size is indicated on each terminal.

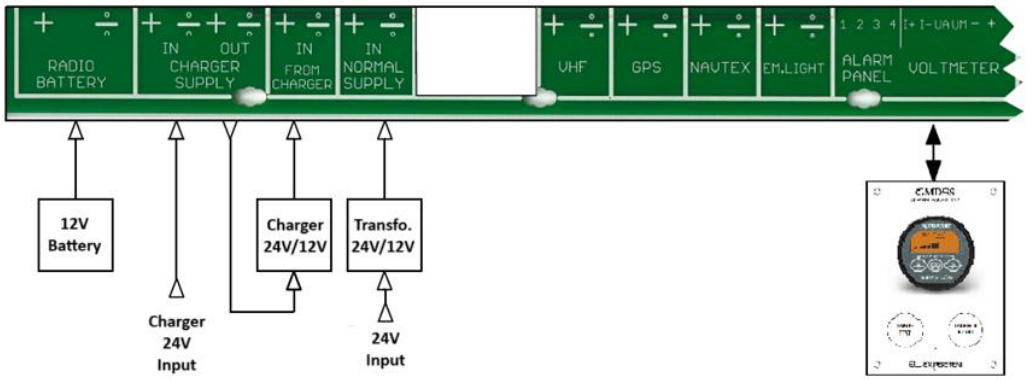
Never use larger fuses as it may damage the equipment.

Connection diagram

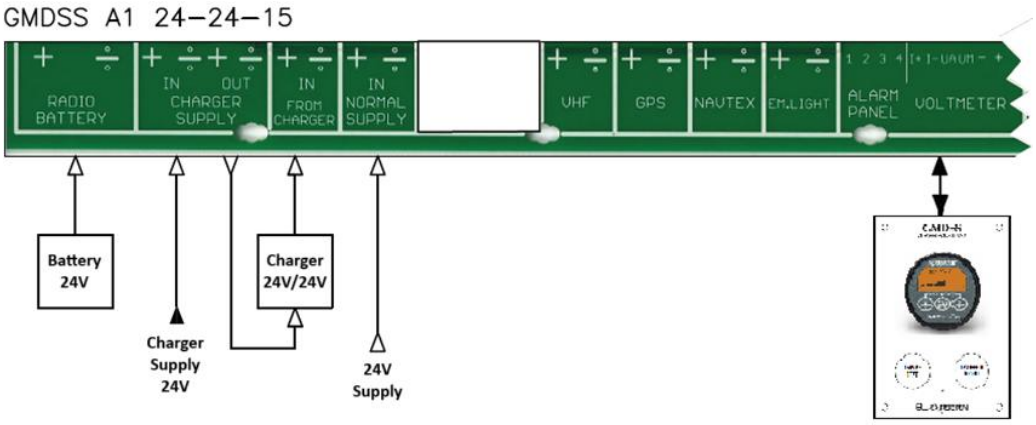
GMDSS A1 12–12–15



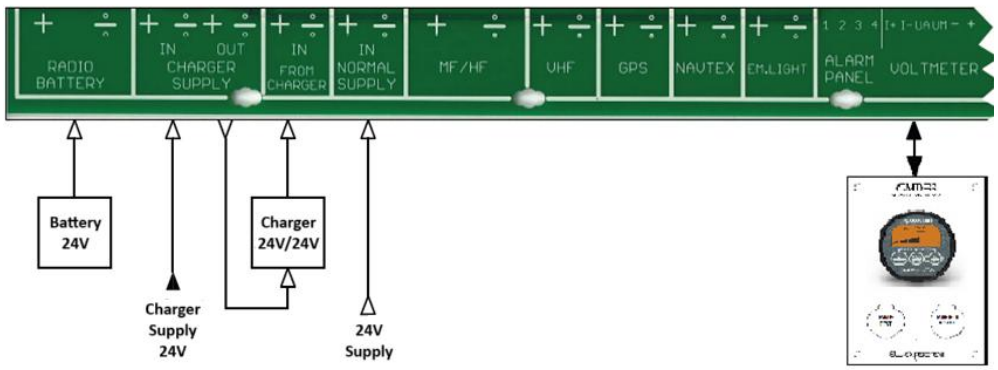
GMDSS A1 24–12–15



GMDSS A1 24–24–15



GMDSS A2 24–24–25



Alarm Panel

Consisting of:
- Battery monitor
- Lamp test, blank
- Charge fault indicator / mute buzzer indicator.
- Buzzer (hidden)

Fig.1

Configuring of Battman Lite monitor

Required input

- F01 Battery size (Ah)
- F02 Charger flow (V) *«factory setting 13.2V / 26.5V)»
- F05 Low current alert. Should be as high as possible. High level gives early alert when charger stops charing.
*«Factory setting 13V on 12V systems, and 26V on 24V systems.»
- F08 Shunt seize (A). Calibrated from factory. Only necessary to adjust if the cable between distribution and alarm panel is long.

Fig.2

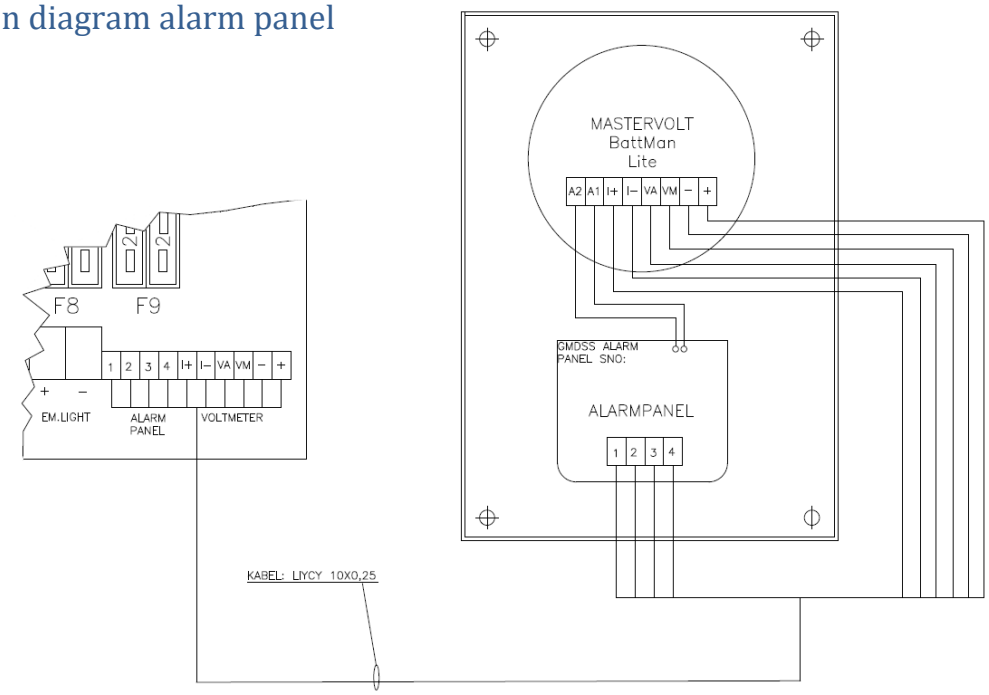
Menu

- Press and hold [Setup] 3 sec.
- Use < and > to make selections.
- To select press [setup] button.

After adjustments are done. Press and hold [setup] for 3 seconds. This will save the current configuration to memory.
The panel will exit menus after 90 seconds if not operated.

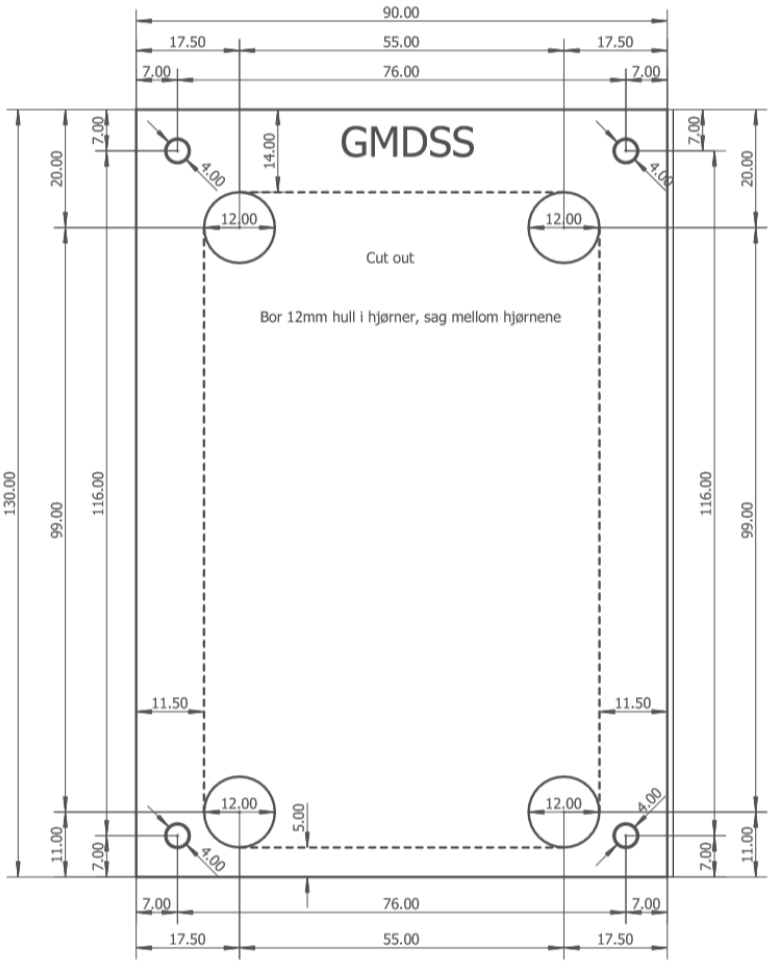
[Main] is voltage on the radio battery.
If the radio battery and consumer battery have same negative potential, “AUX” will be the voltage on the consumer battery.

Connection diagram alarm panel



From the panel there is 1 cable. A 5m cable is supplied with the equipment. Each core as different colors and should be terminated “equal” in each end.

Cut-out Alarm panel



User instructions

Alarmpanel

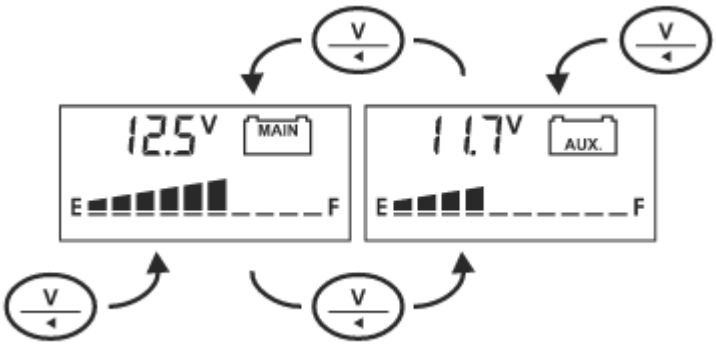
Functions:

- **SYSTEM POWER** should be active as long as the system is in use.
- **LAMPE TEST** To test the alarm panel. All indicators should light up and the buzzer should sound.
- **LADEFEIL «mute»** will be activated on two situations
    1. Lost power supply to charger
    2. Low battery voltage (13V on 12V systems and 26V on 24V systems)

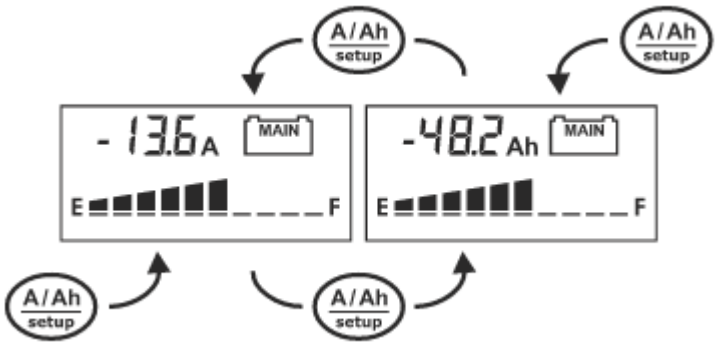
Mute to silence the alert. The indicator will be active until all faults are corrected.
Once corrected the indicator lamp return to neutral.

Batterymonitor **Matervolt Battman Lite**

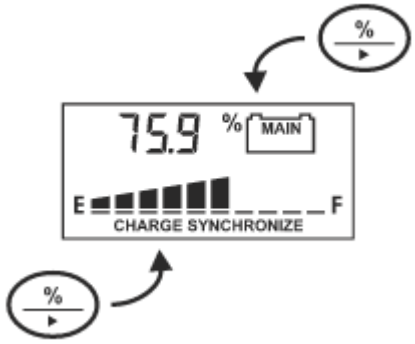
- Press [V] to show Voltage on Radio battery (main) and consumer battery (aux)



- By pressing [A/Ah] Amps is indicated to\from radio battery. If the value shows a – sign its an indication that the radio battery is draining. If there is no symbol in front of the value it indicates that the battery is being charged. If [A/Ah] is pressed down twice it will indicate used Ah.



-By pressing [%] the display will indicate the charge status in percentage.



-If the monitor gives the message "SYNCHRONIZE", it wants to know if the battery is charged. If battery is charged, hold < and > for 3 seconds to manually sync.

Service and maintenance

Point of contact

End-users should always contact the company in charge of installing the equipment.

For spare parts or warranty claims

ProNav AS
Hovlandsveien 52
4374 Egersund

+47 51 46 43 00
service@pronav.no

Fuse replacement

Make sure the system is without power input. Remove the defective fuse and replace it with same size\type.

Never use fuses with higher load capacity then instructed.

Technical specifications

Voltage	9-30VDC
Max load on A1 distribution	15A
Max load on A2 distribution	25A
Power consumption in standby or alarm state	10mA/50mA
Temperature	-25° til +55°C
Distribution IP grade	IP20
Alarmpanel IP grade	IP65
IP grade Junction boxes (when relevant)	IP65
Magnetic safety distance.	>0.30M
Dimensjon distribution	233x143x105mm
Dimensjon alarmpanel	90x130x80mm
Dimensjon junctionbox for alarmpanel	280x190x180mm
Dimension junction box for distribution panel	280x190x130mm
Weight	Ca. 1.5kg

Declaration of conformity:

Manufactured by:	El-Experten AS
Adress:	Gamle Sokndalsveien 38 4372 Egersund Norway

Declare that the following products:

Produkt type :	GMDSS distrib/alarmpanel
Model :	A1 12-12-15 Mk2 A1 24-12-15 Mk2 A1 24-24-15 Mk2 A2 24-24-25 Mk2

Fulfils the requirements in the following EU directives

EMC Directive 2004/108/EC
EMC Directive 2014/30/EU
RoHS Directive 2002/95/EC

Above products are in accordance with the following standards

EN61000-6-3: 2001	EMC – Generic Emissions Standard
EN61000-6-2: 2005	EMC – Generic Immunity Standard

CE