Walktrough

Installation of the system is described on this page. Poor or incorrect installation is the main cause of malfunction of alarm systems. Plan your installation and ensure that installation is carried out properly, paying special attention to the tips and warnings in this manual.

Step of installation — Check when done

5 ☐

+ B Symbols in black boxes refer to connection terminals on the central unit

Cable

SENSORS
Use Cat. 5 twisted pair or standard alarm cable.

RELAIS and IMMOBILISERS
For current drain over 7A, use 2,5mm solid cable. Stranded cable over 1,5mm must not be used. Max. 10A / contact.

POWER SUPPLY (12V IN)
Use 1,5mm stranded or solid cable.
Always use a 5AT fuse from battery positive.

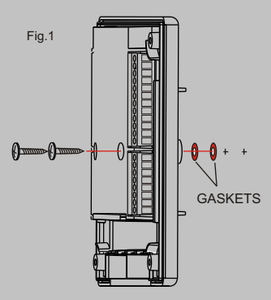
Installation

1 ☐ Place the central unit, the command panel and the handset at appropriate locations. Use the template on the back of this page to mark off screws for the command panel. Mounting holes on the central unit are located under the top cover. Use gaskets between the unit and wall. ▶

ALWAYS:
- install the units indoors.
- place the command panel in ZONE1. Zone1 trig is time delayed.
- ensure the central unit`s cable entry faces downward.
- make use of the rubber cable inlets.

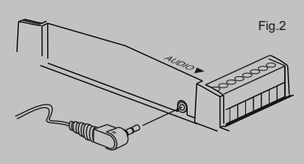
NEVER:
- mount the units to wall/surface which vibrates a lot and/or secures poorly.
- place the units in a vessels keel or similar humid locations.

Fig.1



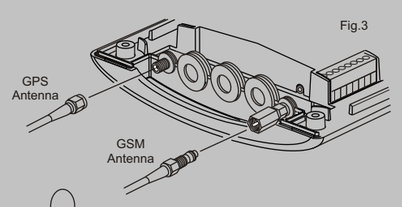
2 ☐ Connect the command panel to **DISPLAY UNIT** terminals.
A connect to the command panel`s **ORANGE/WHITE** lead
B connect to **ORANGE** lead
+ connect to **BLUE** lead
- connect to **BLUE/WHITE** lead

Fig.2



3 ☐ In order to be able to call out and receive ordinary calls (speech), the handset should be connected to the contact marked AUDIO. See fig. 2. ▶

Fig.3



4 ☐ Place the antennas in appropriate locations. Check that conditions are adequate for the perfect reception of both GPS and GSM signals. The GPS antenna is mounted horizontally and the GSM antenna is mounted vertically.

Fig.4

The GPS-antenna is to be mounted horizontally, preferably on top of the roof. The antenna may also be installed in ceilings not made of metal. Keep away from strong electromagnetic fields, such as radars.

Fig.5

The GSM antenna is mounted vertically, preferably on a glass surface. Keep away from large metal objects.

Alarm Zones

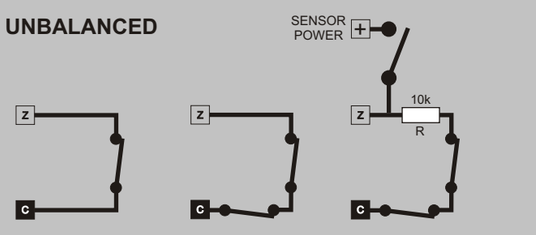
5 ☐ Each zone may be turned on or off individually. Refer to users manual for information on how to do this.
ZONE1. This input has a 30 second time delay before alarm is triggered. The command panel must be located in this zone for normal alarm arming/disarming!
C Z connect as shown below

CAUTION
- Decide if balanced or unbalanced sensor connections are to be used prior to installation. Balanced connection facilitates loop monitoring and triggers sabotage alarm. See description and diagram below.

NOTE
- 12V power for sensors is available at the **SENSOR POWER** terminals. Total current drain 1A max. (ALL sensors).

6 ☐ **ZONE2-4**. These inputs trigger alarm immediately if a sensor detects intrusion.
C Z connect as shown below

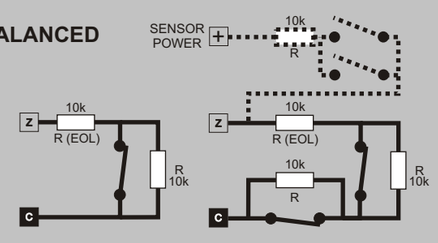
UNBALANCED



1 NC SENSOR — 2 NC SENSORS — 2 NC+ 1 NO SENSORS

UNUSED INPUTS ARE NOT CONNECTED

BALANCED



1 NC SENSOR — 2 NC+ 2 NO SENSORS

UNUSED INPUTS ARE TO BE TERMINATED WITH 10k RESISTOR (see diagram)

7 ☐ Connect the equipment that is to be secured to **EQU** terminals. This is accomplished by connecting the units in a loop. Equipment such as echo sounder, sonar, VHF, lights etc. may be attached.
C Z connect as shown in schematics

CAUTION
- Ensure that loop connected to **EQU** is arranged in such a way, that loop is broken if attached equipment is removed. This is best done by connecting equipment at two places with conducting material/metal in between e.g. chassis of echo sounder. **EQU**-loop is battery negative.

Inputs

8 ☐ **INPUTS 1**, **2** and **3** are digital inputs. These may be connected to NC-sensors connected to battery negative. Input is triggered when battery negative is disconnected (NC contact breaks). Connect smoke/gas detectors, water level switch or other sensors/detectors as needed. INPUT1 sounds the siren and sends a SMS message and may therefore be used to alert of a fire or gas leak. INPUT2 and 3 sends SMS messages only.

CAUTION MAX 15V
- Connect only sensors of good quality and which function in the specific environment. Consult your dealer for guidance.
- Only use sensors that are NC (normally closed).
- These inputs are always active.

9 ☐ A mains supply output may be monitored by connecting a 9V AC mains adapter to the **AC** terminals.
~ connect one to each lead from the transformer. These inputs are polarity insensitive

CAUTION MAX 11V
- ALWAYS use a transformer with galvanic isolation when connecting mains to the **AC**-terminals, or the central unit will suffer severe damage!

10 ☐ **LOG INPUTS L1** and **L2** are digital inputs that log the ON-time of the attached appliance(s). Counts as long as input is +12V. May be used to monitor bilge pumps, air condition or other appliances/machinery.

NOTE
- Logs are reset each time alarm is armed.

11 ☐ Connect the temperature sensors (mosaic AV-79) to terminals marked **TEMP SENSOR**.
Up to 3 temperature sensors may be connected.
+ - S refer to sensors schematics

NOTE
- To activate the attached temperature sensors, it is necessary to perform the "Installing temperature sensors" procedure as described in the system setup.

Immobilisers

12 ☐ **IMMOB 1**
Cut the lead from the ignition to the starter/start switch close by the ignition switch.
C connect to end coming from the ignition switch
NO connect to end coming from the starter/start switch

13 ☐ **IMMOB 2**
Connect this immobiliser in such a way that it cuts the power supply to the electric fuel pump or the ignition system.

CAUTION MAX 10 A
- Immobilisers interfere with the motor functions. Improper or wrong installation may have severe consequences. Installation must therefore be performed by qualified personnell only.
- Always solder immobiliser connections! Use of crimp terminals may cause malfunction.
- **NO** - terminals have tamper circuitry. These terminals must therefore be powerless when the alarm is armed.

Relais

14 ☐ Equipment to be (remote) controlled, is connected to terminals **RELAY A** and **B**. See also *SMS Control of relays.*
C NO connects as shown in the diagram

CAUTION MAX 10 A
- Each set of relay contacts must be connected to the battery`s positive pole via a 10AT fuse.
- 12V devices only must be connected to the relay contacts.

Other Outputs

15 ☐ Connect siren, lights etc. to **ALERT** terminal.
Contact to battery negative when alarm is triggered.

MAX 0,2 A
- ALERT output has internal automatic fuse. Resets automatically when overload is removed.

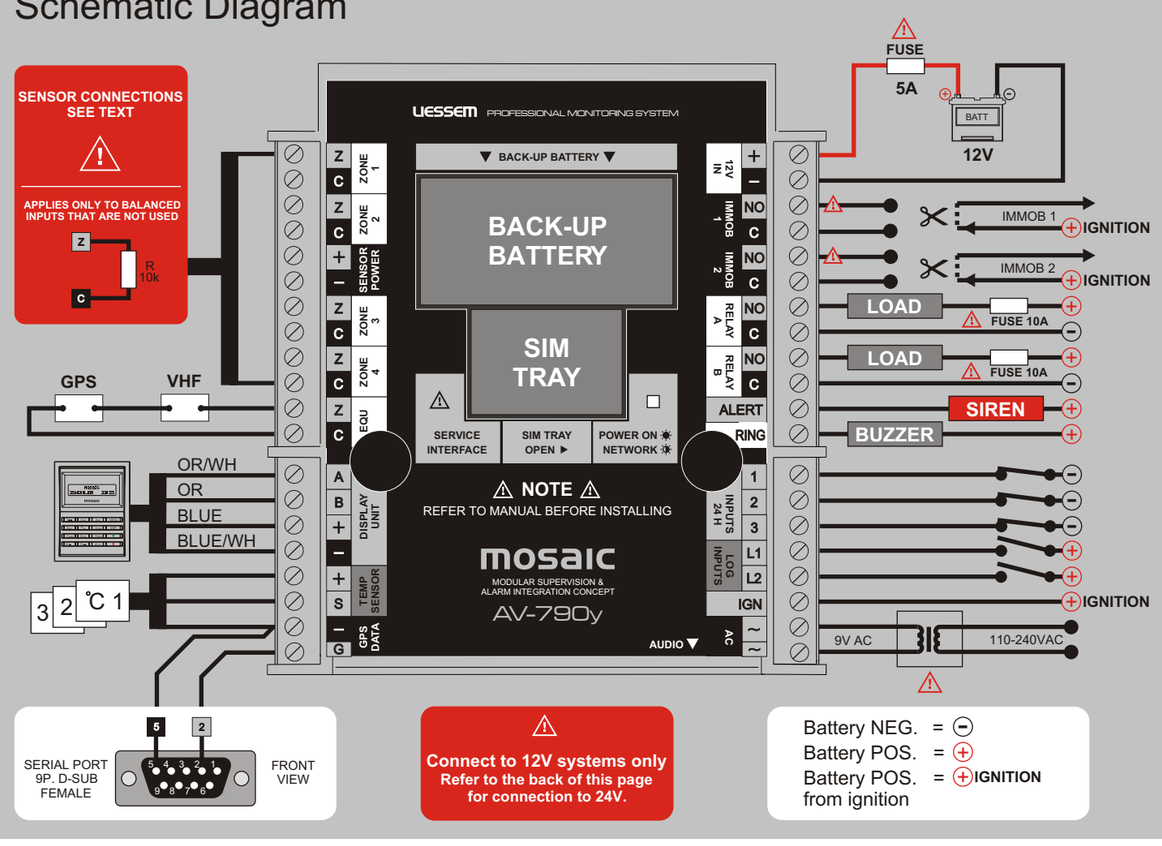
16 ☐ Connect ringer/buzzer to **RING** terminal.
Contact to battery negative by incoming call.

MAX 0,2 A
- RING output has internal automatic fuse. Resets automatically when overload is removed.

17 ☐ Positioning data available at the **GPS DATA** pins may be connected to a PC running a GIS program.
G - is connected as shown in the diagram

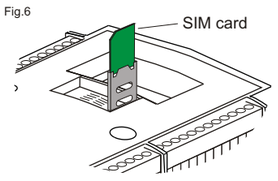
NOTE
- This output supplies the following data: NMEA RMC, 9600 baud, 8N1
- Connects to standard serial port (RS-232)

Schematic Diagram



18 ☐ Place the SIM card in the tray on the upper side of the unit. The tray is opened by pushing the tray to the right and tilting it to a vertical position. Place the SIM card in the cardholder. Ensure that the contacts are on the underneath of the SIM card. ▶

Fig.6



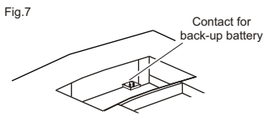
19 ☐ Connect 12V system power to terminals **12V IN**.
+ connect to battery positive ⊕
- connect to battery negative ⊖

CAUTION
- Must only be connected to 12V. If the installation is 24V then the operating voltage must be taken from the first battery in the series connection. A 24V to 12V converter may also be used.
- Connection to the positive pole on the battery must ALWAYS pass through a 5A time-lag fuse.

20 ☐ **IGN** connect to ignition. **NOTE!** Must also be 12V when starter runs.

21 ☐ Attach the supplied battery cable to the back-up battery and connect to contact as shown in the illustration. ▶
SMS message alerts when the battery must be replaced.
NOTE! If the power supply to the system is disconnected, this battery should be removed as well.

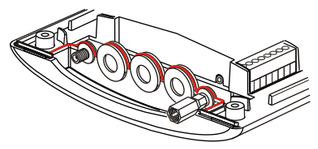
Fig.7



22 ☐ Apply silicone grease to all contact terminals on both sides of the central unit to avoid corrosion.

23 ☐ In order to achieve the best possible seal and protection against moisture, the application of an acid free silicone around the cable inlets, as shown in the illustration, may be appropriate. ▶

Fig.8



Programming

24 ☐ Execute **"Installing temperature sensors"** in system setup.

25 ☐ Execute **"Zone Setup"** in alarm setup. The inputs are preset to "Balanced" by factory.

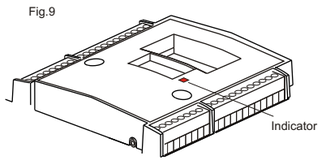
26 ☐ Name the system and all inputs by executing **"Name System"**, **"Name Zones"**, **"Name Relay A/B"**, **"Name Log 1/2"** and **"Name Inputs"**.

27 ☐ Program alarm number(s) and program master code. Refer to users manual for procedure information.

28 ☐ After completed installation, check that the unit is in contact with the GSM network (indicator flashes). ▶

CAUTION
- After completed installation, test the system by arming the alarm and checking that all attached sensors function as intended.
- Check that cable extensions are sealed and that no leads are exposed to tension or sharp edges.

Fig.9



NOTE! IF POWER SUPPLY (12V IN) OR IGNITION IS CONNECTED BEFORE SIM CARD IS INSERTED, PRESS ANY KEY TO RESET THE SYSTEM.

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NOTE Use only the supplied antennas. Unauthorized antennas, modifications or attachments could damage the system and may contravene local RF emission regulations or invalidate type approval.

CE

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Installation / Installasjon

Professional Monitoring System
AV-790y