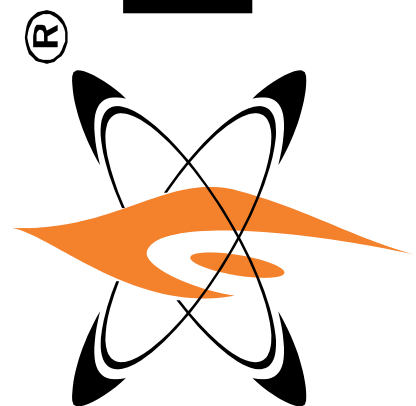


CE



S.P.A.

ELMO

**Microprocessor power module for
Villeggio control unit**

mod. MDPOWER

TECHNICAL MANUAL

090050702

WARNING

FOR THE INSTALLER:

Please follow carefully the specifications relative to electric and security systems realization further to the manufacturer's prescriptions indicated in the manual provided.

Provide the user the necessary indication for use and system's limitations, specifying that there exist precise specifications and different safety performances levels that should be proportioned to the user needs. Have the user view the directions indicated in this document.

FOR THE USER:

Periodically check carefully the system functionality making sure all enabling and disabling operations were made correctly.

Have skilled personnel make the periodic system's maintenance. Contact the installer to verify correct system operation in case its conditions have changed (e.g.: variations in the areas to protect due to extension, change of the access modes, etc...)

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This device has been projected, assembled and tested with the maximum care, adopting control procedures in accordance with the laws in force. The full correspondence to the functional characteristics is given exclusively when it is used for the purpose it was projected for, which is as follows:

Microprocessor power module for Villeggio control unit

Any use outside of this area is not provided and it is not possible to guarantee its proper operation, and therefore it is expressly forbidden to the holder of this manual to use it for other reasons than those indicated.

The manufacturing process is carefully controlled to prevent defects and malfunctions; nevertheless the components used is subjected to faults extremely low percentage, as indeed it does for every other electronic or mechanical.

Given the target of this article (property and persons protection) invite the user to proportion the protection level offered by the system to the actual risk (considering the possibility that the system it is operating in degraded mode due to faults or other), reminding that there are clear rules for the design and construction of equipment to this type of application.

The system's operator is hereby advised to see regularly to the periodic maintenance of the system, at least in accordance with the provisions of current legislation, as well as to carry out checks on the correct running of said system on as regular a basis as the risk involved requires, with particular reference to the control unit, sensors, sounders, dialler(s) and any other device connected. The user must let the installer know how well the system seems to be operating, based on the results of periodic checks, without delay.

Design, installation and servicing of systems which include this product, should be made by skilled staff with the necessary knowledge to operate in safe conditions in order to prevent accidents. These systems' installation must be made in accordance with the laws in force. Some equipment's inner parts are connected to electric main and therefore electrocution may occur if servicing was made before switching off the main and emergency power. Some products incorporate rechargeable or non rechargeable batteries as emergency power supply. Their wrong connection may damage the product, properties and the operator's safety (burst and fire).

EU DECLARATION OF CONFORMITY

The product complies with current European EMC and LVD directives. The full text of the EU declaration of conformity is available at the following Internet address: elmospa.com – registration is quick and easy.



1. GENERALS

The MDPOWER module is designed for VILLEGGIO control unit and other devices admittedly compatible. Incorporates a low profile AC / DC converter module with microprocessor management.

Following the general features:

- **Network supply AC 230 V**
- **1A total maximum current.**
- **Supervised microprocessor management.**
- **Algorithm for packs battery charging NiMH 12V 2100 mAh standard and long-life**
- **Exclusive use with VIPACK1 and VIPACK2 batteries.**
- **Siren battery charging terminal.**
- **Connector for base board power.**
- **Low consumption.**
- **Battery disconnection function.**
- **Indications LED operation.**

2. FEATURES

Model:	MDPOWER
Power supply:	AC230V +/- 10% 50Hz.
Power consumption:	150mA @ AC230V.
Output voltage:	see specifications in Electrical Connections chapter.
Maximum current supplied:	1A.
Current subdivision:	250mA for NiMH battery charged. 250mA for siren battery charged. 500mA for control unit and devices. or 750mA for control unit and devices. <u>but without self-powered siren.</u>
Consumption without network:	1mA
Connections:	terminal for power input with cable clamp protection cap. terminal for self-powered siren battery charged. connector for the battery pack attaching. cable with connector for board connection to the control unit
Viewings:	LED on board with different flashing for the various operating states.
Dimensions:	W 60 x H 85 x D 32 mm.
Weight:	123 g.
Parts supplied:	cable clamp protective cap, fixing screws, technical manual.

3. DISPOSAL INSTRUCTIONS

Dispose of MDPOWER in compliance with current city regulations and by leaving the device in a dumping ground which is authorized for the disposal of electronic products; if required, please contact the appropriate city office for additional information.

The material used for this product is very harmful and polluting if dispersed in the environment.



4. INSTALLATION

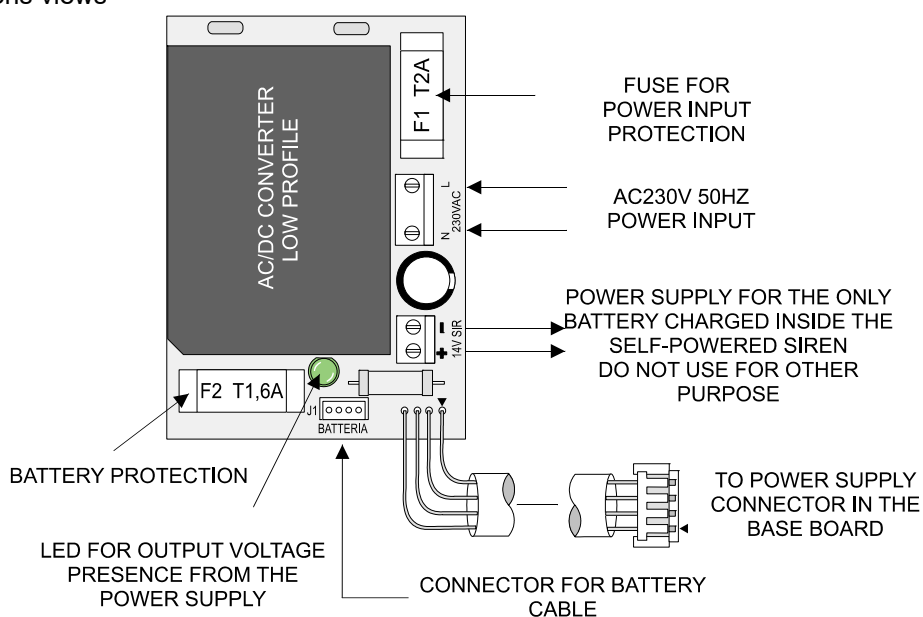
To install the module, follow the instructions and warnings contained in the VILLEGGIO or compatible control unit manual.

ATTENTION:

- MDPOWER was not designed and should not be used as a power supply module for generic use.
- To be connected exclusively with VIPACK1 or VIPACK2 batteries.
- DO NOT USE OTHER BATTERIES TYPES, DAMAGE AND / OR FIRE RISK.
- Apply mains voltage only after module installation, secured with the screw, making the connections, and finally fixed the protective cap.

5. ELECTRICAL CONNECTIONS

Connections views



Conditions of the module LED flashing.

First powered or MDPOWER reset:	flashing at 100ms for 2s.	Power failure:	0.1s on 4s off.
Charging battery:	flashing at 300ms.	Non-rechargeable battery for temperature, overvoltage or undervoltage:	flashing at 2s.
Charged battery:	fixed ON.		
No battery:	flashing at 1s.		

Note: when MDPOWER is connected to the Villeggio control unit, the 12V SENS output of the control unit has the following characteristics:

- Maximum voltage: 14.7V with power presence, with no applied load.
- Typical voltage: 14.3V with power presence, with no applied load.
- Typical voltage: 12.3V with power presence, charged battery, without applied load.
- Minimum voltage: 10.2V with power absence, at low battery threshold, 750 mA load.

The 14V SIR output of the MDPOWER module has the following features:

- Maximum voltage: 14.6V without charged load.
- Typical voltage: 14.3V without charged load.
- Minimum voltage: 14.0V without applied load.

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The information and product features herein are not binding and may be changed without prior notice.