CE

GLOBAL SECURITY SOLUTIONS

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Passage control module

mod. ETR-VARCO

TECHNICAL MANUAL

FOREWORD

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 performance 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 corect 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.).

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:

Passage control module

Any use other than the one mentioned above has not been forecasted and therefore it is not possible to guarantee its correct operativeness.

The manufacturing process is carefully controlled in order to prevent defaults and bad functioning. Nevertheless, an extremely low percentage of the components used is subjected to faults just as any other electronic or mechanic product. As this item is meant to protect both property and people, we invite the user to proportion the level of protection that the system offers to the actual risk (also taking into account the possibility that the system was operated in a degraded manner because of faults and the like), as well as reminding that there are precise laws for the design and assemblage of the systems destined to these kind of applications.

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.

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1. GENERALS

ETR-VARCO is an electronic designed for a sophisticated passage control system, in fact it allows to manage people passage through doors or ways considered sensitive and therefore to be kept under stict control.

ETR-VARCO is compatible with ETR128, ETR256 and ETR512 units, a special setup enables to manage passage activity and to save in log events actions made by users authorized to transit.

Each authorized user, in fact, can access the passage from two directions in various ways, if authorized, he/she can arm or disarm preset areas and partitions.

Passage system can be realized by wiring the module and inserting it in a proper housing or by installing it inside nearest RIVER2 or RIVER3 concentrator metal housing.

Module ID code setup is made by using internal selector, 127 addresses totally.

ETR-VARCO is managed by the unit as a control device, maximum number of ETR-VARCO which can be installed in a system managed by ETR units is 31.ETR-VARCO.
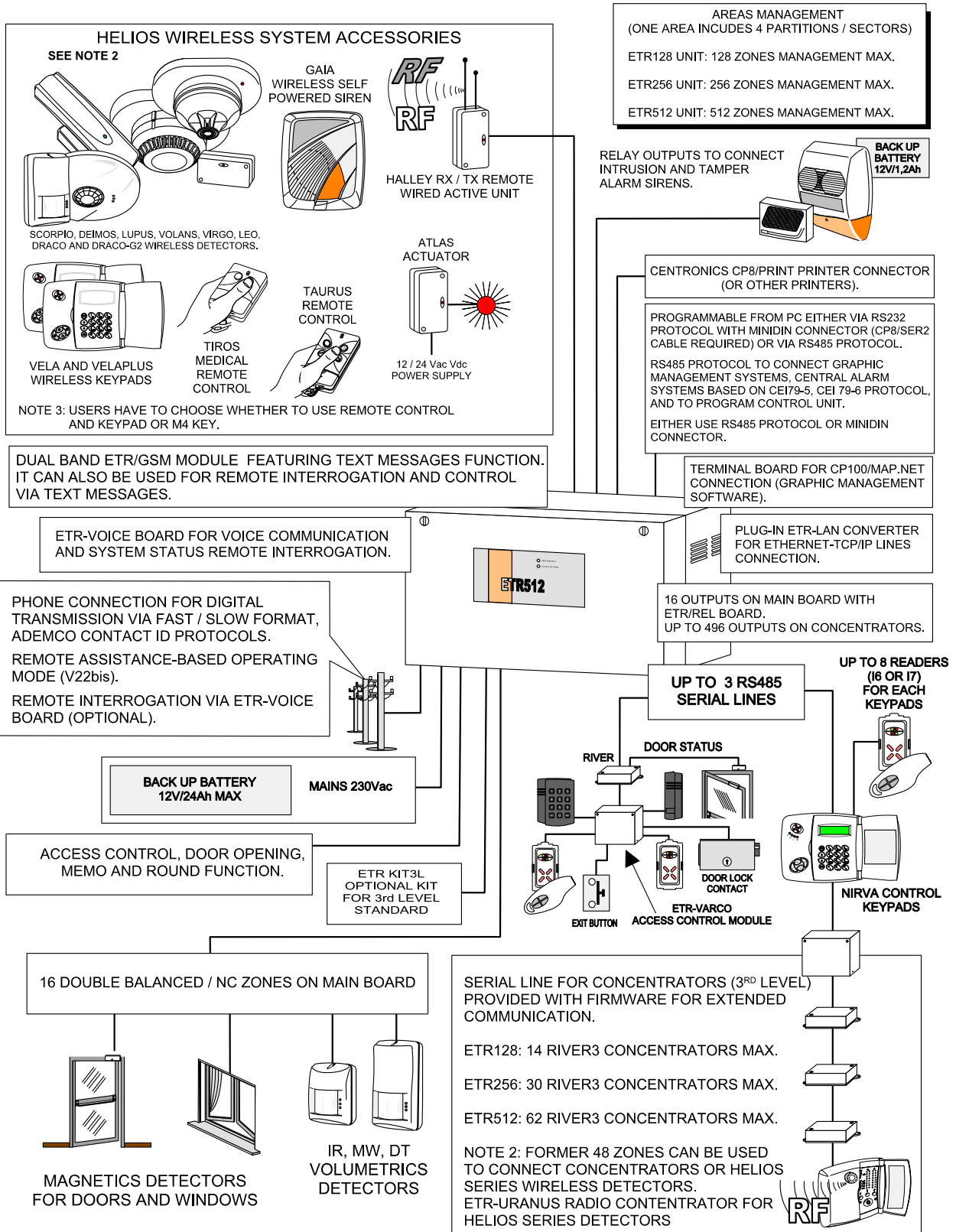
2. FEATURES

2.1 Electric features

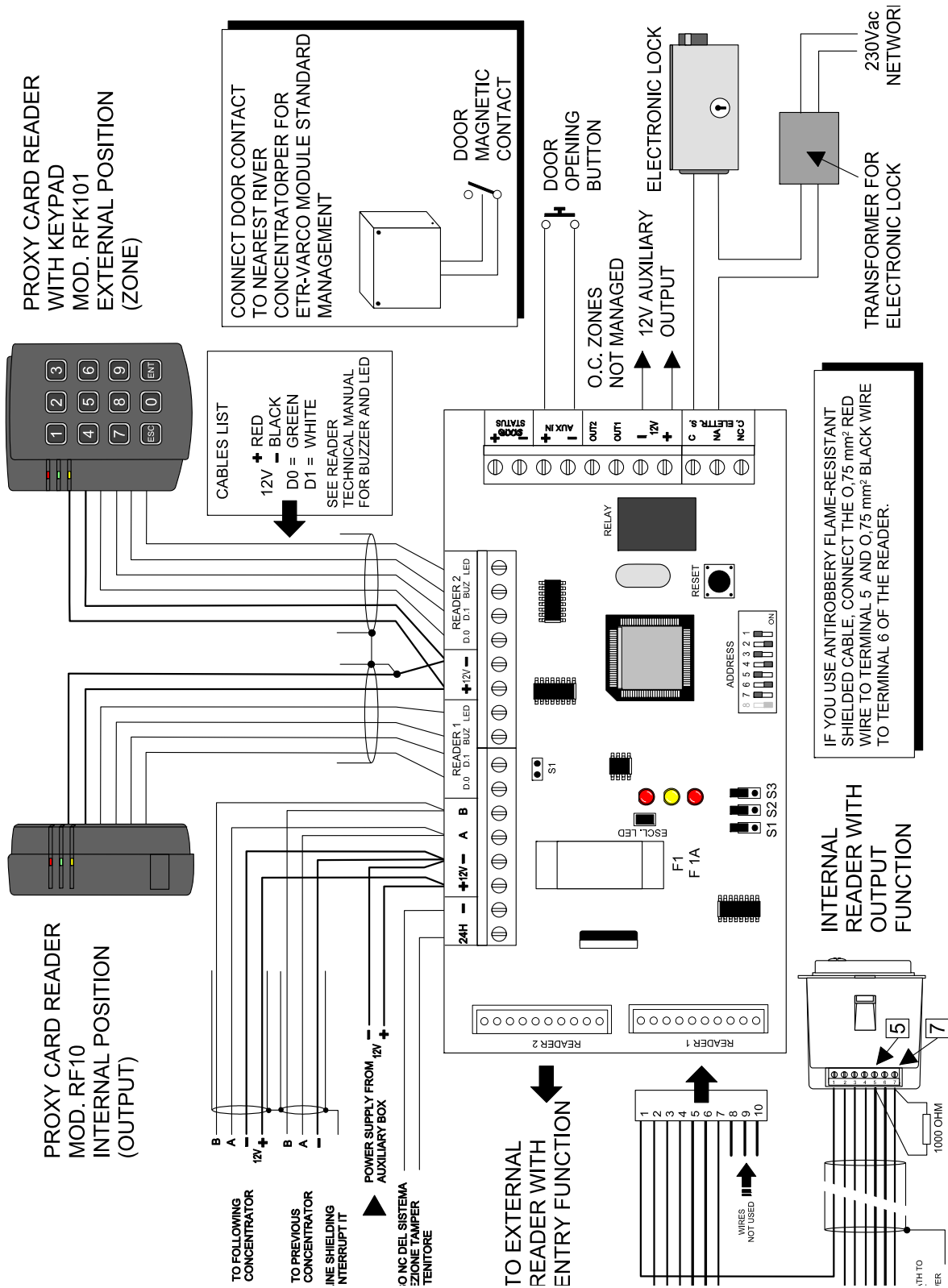|	
Model:	ETR-VARCO
External aspect:	Electronic board.
Power supply:	13.8V ▬▬ supplied by ETRxx unit or remote box.
Power consumption @ 13,8V:	35 mA , max 50 mA referred to the module only.
Function:	Proximity or PROXI keys reader.
Protocol:	**Wiegand** on 26 bit.
Reading devices :	RF type, for example RF10, RFK101 or similar.
Code programme:	8 pin dipswitch, 127 addresses totally.
Wirings:	2 terminal boards and 2 connectors for 2 readers mod. I6 or I7.
Zones:	Zone terminals for door opening button, tamper, opening control.
Outputs:	Passage relay for door opening with C - NA - NC contacts for control of electronic lock for door opening.
Auxiliary outputs:	2 Open Collector outputs controlled by the unit (for future applications).
Serial line:	RS485 (of ETR units) and serial line termination option with jumper on the board.
Function Options:	Selection jumpers of security level HIGH / NORMAL.
Functioning temperature:	-10 / +45 °C guaranteed by the maufacturer, 93% UR.
Dimensions:	H 68 x L 127 x P 25 mm.
Weight:	80g
Equipment:	Electronic board, 4 nylon spacer, 2 connectors with cable for reader connection.

NOTE: Module must be used combined with a RIVER concentrator from which it uses a zone to be connected to door status magnetic contact.
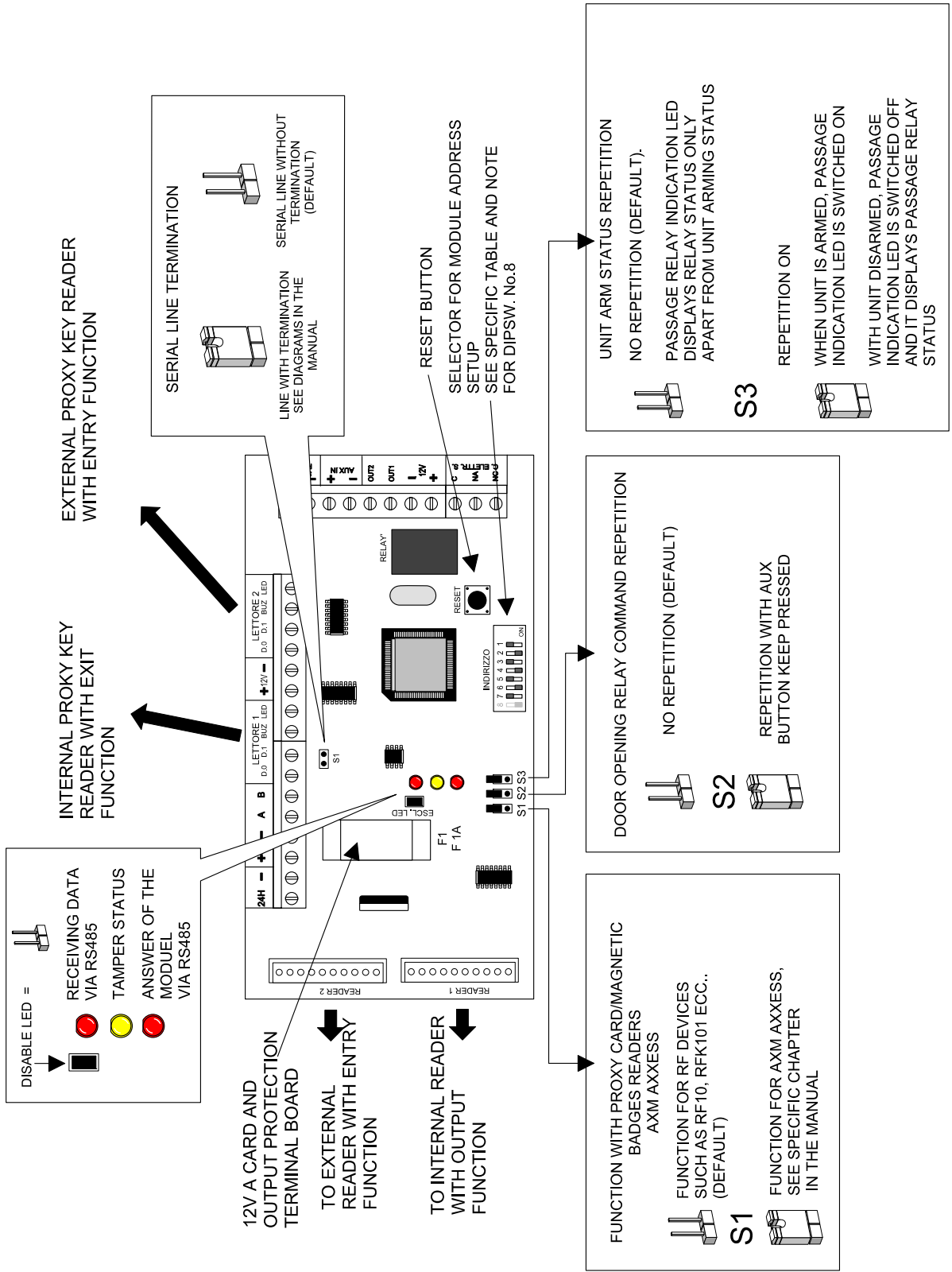
HELIOS WIRELESS SYSTEM ACCESSORIES

SEE NOTE 2

GAIA WIRELESS SELF POWERED SIREN

RF
RF

HALLEY RX / TX REMOTE WIRED ACTIVE UNIT

SCORPIO, DEIMOS, LUPUS, VOLANS, VIRGO, LEO, DRACO AND DRACO-G2 WIRELESS DETECTORS.

ATLAS ACTUATOR

TAURUS REMOTE CONTROL

VELA AND VELAPLUS WIRELESS KEYPADS

TIROS MEDICAL REMOTE CONTROL

12 / 24 Vac Vdc POWER SUPPLY

NOTE 3: USERS HAVE TO CHOOSE WHETHER TO USE REMOTE CONTROL AND KEYPAD OR M4 KEY.

AREAS MANAGEMENT
(ONE AREA INCUDES 4 PARTITIONS / SECTORS)

ETR128 UNIT: 128 ZONES MANAGEMENT MAX.

ETR256 UNIT: 256 ZONES MANAGEMENT MAX.

ETR512 UNIT: 512 ZONES MANAGEMENT MAX.

RELAY OUTPUTS TO CONNECT INTRUSION AND TAMPER ALARM SIRENS.

BACK UP BATTERY 12V/1,2Ah

CENTRONICS CP8/PRINT PRINTER CONNECTOR (OR OTHER PRINTERS).

PROGRAMMABLE FROM PC EITHER VIA RS232 PROTOCOL WITH MINIDIN CONNECTOR (CP8/SER2 CABLE REQUIRED) OR VIA RS485 PROTOCOL.

RS485 PROTOCOL TO CONNECT GRAPHIC MANAGEMENT SYSTEMS, CENTRAL ALARM SYSTEMS BASED ON CEI79-5, CEI 79-6 PROTOCOL, AND TO PROGRAM CONTROL UNIT.

EITHER USE RS485 PROTOCOL OR MINIDIN CONNECTOR.

TERMINAL BOARD FOR CP100/MAP.NET CONNECTION (GRAPHIC MANAGEMENT SOFTWARE).

DUAL BAND ETR/GSM MODULE FEATURING TEXT MESSAGES FUNCTION. IT CAN ALSO BE USED FOR REMOTE INTERROGATION AND CONTROL VIA TEXT MESSAGES.

ETR-VOICE BOARD FOR VOICE COMMUNICATION AND SYSTEM STATUS REMOTE INTERROGATION.

PLUG-IN ETR-LAN CONVERTER FOR ETHERNET-TCP/IP LINES CONNECTION.

ETR512

16 OUTPUTS ON MAIN BOARD WITH ETR/REL BOARD. UP TO 496 OUTPUTS ON CONCENTRATORS.

PHONE CONNECTION FOR DIGITAL TRANSMISSION VIA FAST / SLOW FORMAT, ADEMCO CONTACT ID PROTOCOLS.

REMOTE ASSISTANCE-BASED OPERATING MODE (V22bis).

REMOTE INTERROGATION VIA ETR-VOICE BOARD (OPTIONAL).

UP TO 8 READERS (I6 OR I7) FOR EACH KEYPADS

UP TO 3 RS485 SERIAL LINES

DOOR STATUS

RIVER

BACK UP BATTERY 12V/24Ah MAX

MAINS 230Vac

ACCESS CONTROL, DOOR OPENING, MEMO AND ROUND FUNCTION.

ETR KIT3L OPTIONAL KIT FOR 3rd LEVEL STANDARD

DOOR LOCK CONTACT

ETR-VARCO ACCESS CONTROL MODULE

EXIT BUTTON

NIRVA CONTROL KEYPADS

16 DOUBLE BALANCED / NC ZONES ON MAIN BOARD

SERIAL LINE FOR CONCENTRATORS (3RD LEVEL) PROVIDED WITH FIRMWARE FOR EXTENDED COMMUNICATION.

ETR128: 14 RIVER3 CONCENTRATORS MAX.

ETR256: 30 RIVER3 CONCENTRATORS MAX.

ETR512: 62 RIVER3 CONCENTRATORS MAX.

NOTE 2: FORMER 48 ZONES CAN BE USED TO CONNECT CONCENTRATORS OR HELIOS SERIES WIRELESS DETECTORS. ETR-URANUS RADIO CONTENTRATOR FOR HELIOS SERIES DETECTORS

RF

MAGNETICS DETECTORS FOR DOORS AND WINDOWS

IR, MW, DT VOLUMETRICS DETECTORS

NOTE 1: DIAGRAM ABOVE DOES NOT SHOW CONNECTION OF ADDITIONAL EXTERNAL POWER SUPPLY UNITS (e.g. C11/K UNIT). THESE DEVICES ARE TO BE CONNECTED ON-SITE TO POWER CONCENTRATORS CONNECTED TO RS485 LINE AND TO OTHER DEVICES.

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Wiring to terminal board diagram.

Presettings and selections.

SERIAL LINE TERMINATION

LINE WITH TERMINATION
SEE DIAGRAMS IN THE
MANUAL

SERIAL LINE WITHOUT
TERMINATION
(DEFAULT)

EXTERNAL PROXY KEY READER
WITH ENTRY FUNCTION

INTERNAL PROKY KEY
READER WITH EXIT
FUNCTION

RESET BUTTON

SELECTOR FOR MODULE ADDRESS
SETUP
SEE SPECIFIC TABLE AND NOTE
FOR DIPSW. No.8

UNIT ARM STATUS REPETITION

NO REPETITION (DEFAULT).

PASSAGE RELAY INDICATION LED
DISPLAYS RELAY STATUS ONLY
APART FROM UNIT ARMING STATUS

S3

REPETITION ON

WHEN UNIT IS ARMED, PASSAGE
INDICATION LED IS SWITCHED ON

WITH UNIT DISARMED, PASSAGE
INDICATION LED IS SWITCHED OFF
AND IT DISPLAYS PASSAGE RELAY
STATUS

DOOR OPENING RELAY COMMAND REPETITION

NO REPETITION (DEFAULT)

S2

REPETITION WITH AUX
BUTTON KEEP PRESSED

FUNCTION WITH PROXY CARD/MAGNETIC
BADGES READERS
AXM AXXESS

FUNCTION FOR RF DEVICES
SUCH AS RF10, RFK101 ECC..
(DEFAULT)

S1

FUNCTION FOR AXM AXXESS,
SEE SPECIFIC CHAPTER
IN THE MANUAL

DISABLE LED =

RECEIVING DATA
VIA RS485

TAMPER STATUS

ANSWER OF THE
MODUEL
VIA RS485

12V A CARD AND
OUTPUT PROTECTION
TERMINAL BOARD

TO EXTERNAL
READER WITH ENTRY
FUNCTION

TO INTERNAL READER
WITH OUTPUT
FUNCTION

RELAY

RESET

INDIRIZZO

ON

7 6 5 4 3 2 1

LETTORE 2
D.0 D.1 BUZ LED

LETTORE 1
D.0 D.1 BUZ LED +12V −

+12V −

A B

24H − +

ESCL. LED

F1
F 1A

S1

S1 S2 S3

READER 2

READER 1

AUX IN
OUT2
OUT1
12V
C
N.O.
ELETTR. S.

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4.1 Proximity readers/AXM Axxess magnetic badge wiring

To enable AXM Axxess magnetic badge readers function, follow these instructions:

1. Connect AXM Axxess magnetic badge readers.
2. Close **S1**.
3. Reset the device.

Strating from this stage on, device functioning is similar to functioning with proximity cards readers. Internal codes communication to the board is made always on "High security".

Necessary wiring for readers are indicated in following image:
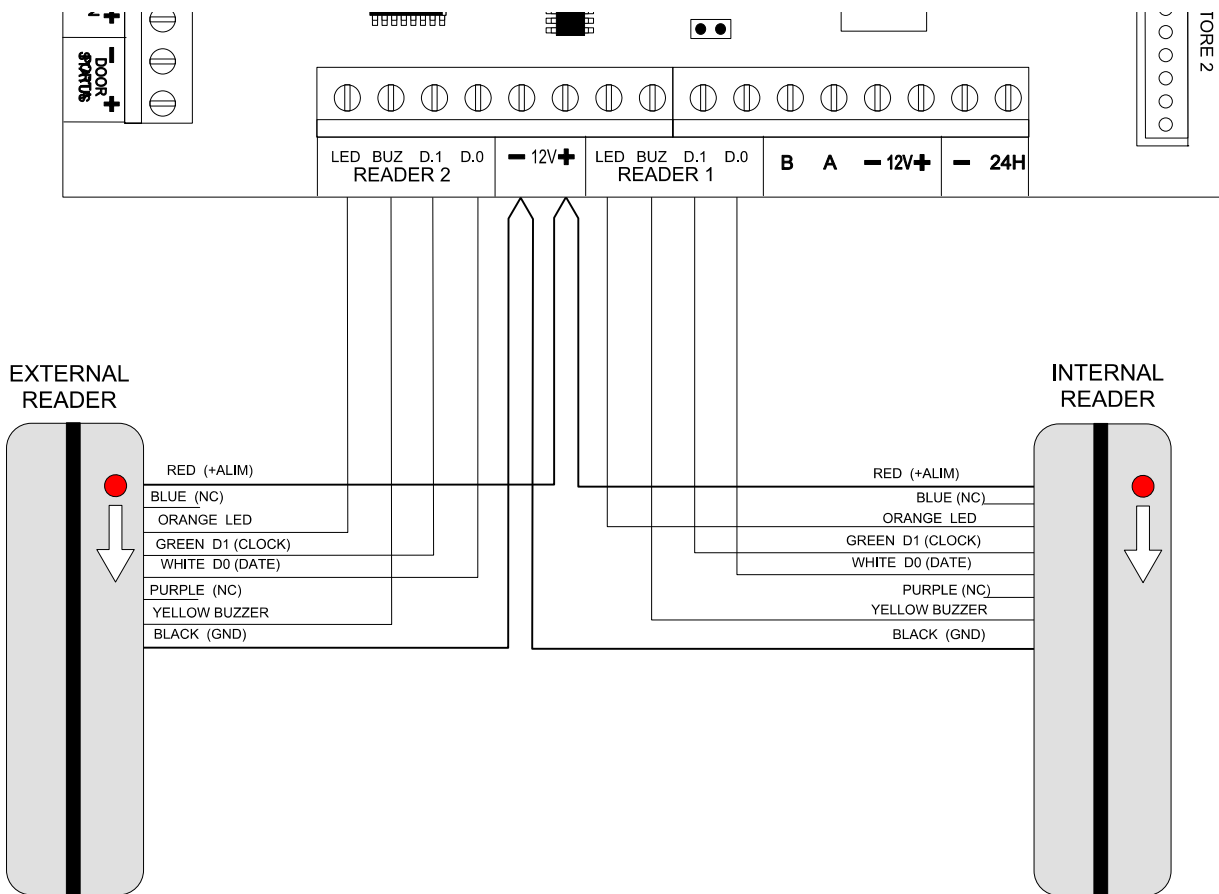
External led and buzzer wiring:
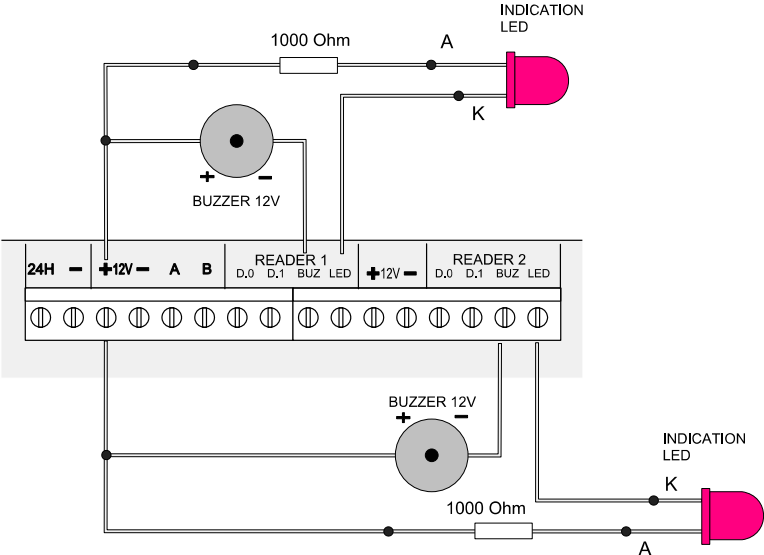
Note: Outputs are Opern Collector type, suitabel for 30 mA power.
External buzzer can be used also with PROXY key readers.

The table shows ID numbers 001 through 127, each with a corresponding DIP switch position diagram (8 7 6 5 4 3 2 1, ON).

IMPORTANT: DIPSWITCH N° 8 MEANINGS

ON = LED DISPLAY ON READERS WITH INVERTED SYSTEM.
    IT IS SWITCHED OFF WHEN RELAY SWITCHES OVER OR WITH S3
    CLOSED AND UNIT ARMED.
OFF =NORMAL DISPLAY OF LEDs ON THE READERS.
    IT IS SWITCHED ON WHEN RELAY SWITCHES OVER OR WITH S3
    CLOSED AND CONTROL UNIT ARMED.

ETR-VARCO can read proximity cards or PROXI keys, at this end you have to connect to ETR-VARCO proximity cards readers series RF modd. RFK101, RF10 or compatible with WIEGAND standard on 26 bit; for M4 proxi keys it is possible to connect readers I6 or I7, depending on what specified in electric diagrams.

Codes stored in ETR-VARCO and recognised during the transit are sent to to ETR unit; module communicates with it in RS485 serial line, ETR-VARCO recognizes transit meaning and allows control of an electronic lock, of the unit or of the area, depending on activities allowed to the single user. All transits are saved in the event log.

To leave the protected building user will have to lean the card to the reader placed near to the exit. With this operation he will be able to open the door and/or turn antirobbery alarm on. He will also have to lean the card to the external reader to be recognized and proceed with entry operation which may be door opening and/or antirobbery system disarming.

Operations are signalled by rhythmic sounds of internal buzzers and by card readers lightening signs, if necessary it is possible to connect some external buzzers and more lightened signs.

A button can be used for simple door opening, as an alternative to exit readers.

6.1 Function Mode

If passage uses readers I6-I66/I7 and simple proximity cards readers, the user has at his disposal *normal mode* of the passage only.

If readers with keypads RFK101 are used, 2 functions are possible, function is defined by a setting through selection jumper on ETR-VARCO board:

6.1.1 "Normal" Mode

On this mode code sent can proceed from a card or a proximity key or from the keypad.

Proximity card or M4 key use

When a card is leant to a reader, ETR-VARCO decode the code and communicate to ETR unit that a card has been recognised.

Code from keypad

Alternatively to proximity card, you can log-in a code from numerical keypad (RFK101).

Code can be set as 4-digit minimum to 6-digit maximum, all further digits are ignored.

To confirm (and send) a code, press ENT key. If the key is not pressed within 10 sec since last numerical key has been pressed, an error will be produced and operation will be automatically refused.

By pressing ESC key you cancel ongoing operation.

6.1.2 Unit arming with code from keypad

1. Code on keypad.
2. Press ENT 3 times.

6.1.3 Unit disarming with code from keypad

1. Code on keypad.
2. Press ENT.

6.1.4 "High security" mode, generals

On this mode, sent code is composed by union of a code dialled in the keypad and a card code. This mode is activated automatically whenever a code is dialled in the keypad and **ENT** key is not pressed and a proximity card is leant. Keypad code is decoded and united to code dialled in the keypad and automatically sent (without pressing any other key) to the quering device (unit).

The operation is carried out as follows:

1. Press one or more numerical key (from 4 to 6 figures).
2. Bring a card nearer. A "card recognised" sound is generated.

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If a card is not brought nearer within 5 seconds since last key has been pressed, an error sound is generated.

To carry out the operation it is necessary to:
1. **Save a user with code "High security" (Code+Card).**
2. **Enable the user to arming/disarming operations.**

6.1.5 Unit arming on HIGH SECURITY

1. Dial the code on the keypad.
2. Bring the keypad closer.
3. When acoustic confirmation is received, bring the card closer twice again and wait for acoustic confirmation.
4. At the end of 3rd acoustic confirmation, arming procedure starts.

6.1.6 Unit disarming on HIGH SECURITY

1. Dial the code on the keypad.
2. Bring the card closer.
The unit will disarm when it receives acoustic confirmation.

6.2 Passage control and Arm/Disarm

A user defined aspassage control, see browser image, can access any passage for which he is allowed to, so that contact on the door does not give alarm signal.
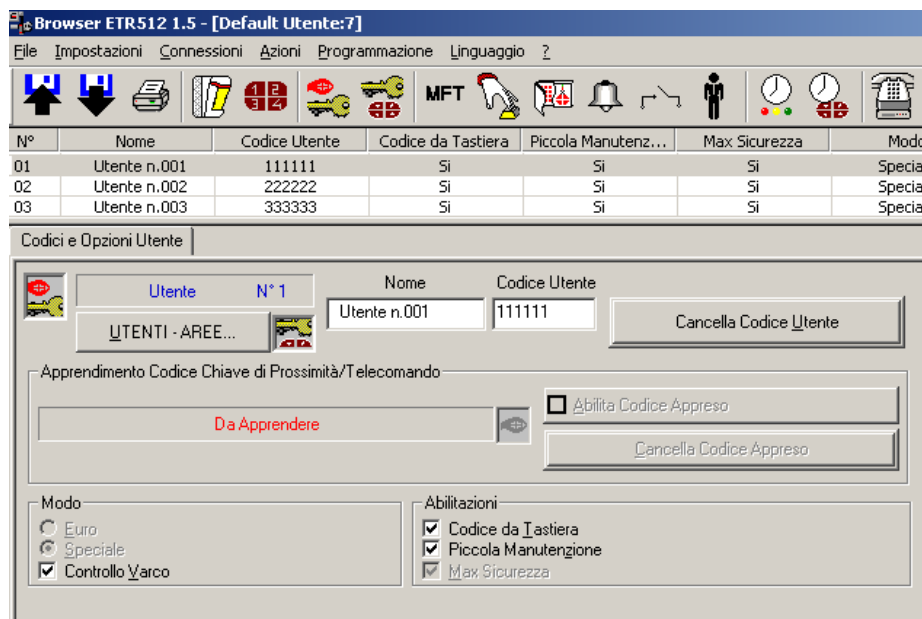
For him zone number and user and time information are saved in log event.

A user who has NOT been defined as "Passage Control" on the unit, besides being able to carry out abovementioned operations, he is allowed to arm and disarm partitions used for user permissions definition and passage relevance.

To disarm, just bring proximity device nearer to external reader; to arm you just need to bring Proxi key nearer and to keep it in that position until you hear 3 acoustic confirmations. For proximity cards you just need to bing them nearer 3 times consecutively, you will hear 3 acoustic confirmations.

Exit time acoustic signal is found also in ETR-VARCO.

Note: A user with attribute "Passage control" cannot arm and disarm the system or the area.

6.3 System status signals

System status signals are not given by readers RF10 or RFK101, optical signals are given only by readers I66/I7.
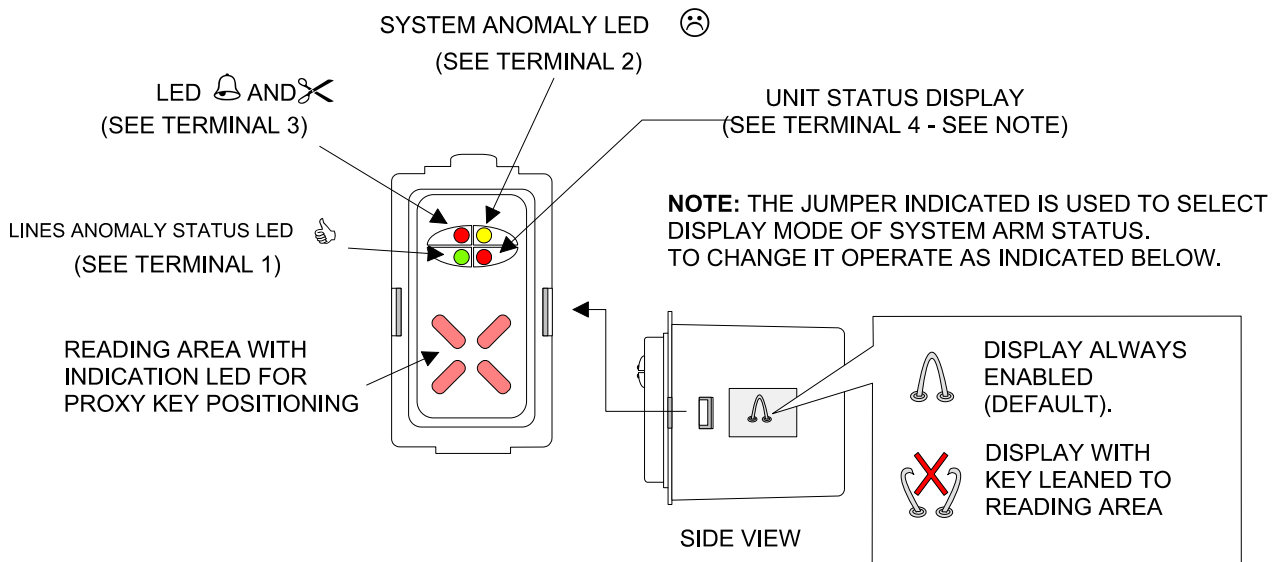
Alarme/Tamper information and corresponding memories, System anomaly and corresponding memories, and arming status refer to single passage relevant area.

For what arming status is concerned, this one refers exclusively to passage relevant sectors. If only one sector is armed, it switches on the led.

7. USE COMBINATIONS OPTIONS

Here below are some use combinations options of ETR-VARCO:

ZONE	OUTPUT
RF10	RF10
RF10	Manual button for door opening only
RF10	I66/I7 with M4
I66/I7 with M4	I66/I7 with M4
I66/I7 with M4	Manual button for door opening only

ZONE	OUTPUT
RFK101	RFK101
RFK101	RF10
RFK101	I66/I7 with M4
RFK101	Manual button for door opening only

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8.1 ID code setting via internal selector

Use table in this manual to set ETR-VARCO ID code, dip shifting operations can be made also with powered module.

8.2 ETR-VARCO and relevant zones setupETR-VARCO

8.3 Proxy cards storage

To store proxy cards use menu for Proxy cards recognition and when "Lean proxy" message appears, just bring the card nearer or dial the code on RFK101 terminal keypad as described in **"normal"** mode section, or bring the card nearer and dial the code, if you are on **"High security"** mode.

9. NOTES

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10. DISPOSAL INSTRUCTIONS

Dispose of ETR-VARCO concentrator 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.

11. CONTENTS