TECHNICAL MANUAL

RIVERRFPLUS
Wireless concentrator with extended potentiality and interface for serial line

090060430

EL.MO. SPA

FOREWORD

FOR INSTALLERS

Please follow carefully the specifications about 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 read carefully the instructions provided in this document.

FOR USERS

Carefully check the system functionality at regular intervals 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.)

....

This device has been designed, 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:

Wireless concentrator with extended potentiality and interface for serial line for intrusion detection systems managed by compatible microprocessor control units

Any use other than the one mentioned above has not been forecasted and therefore it is not possible to guarantee the correct functioning of the device. Similarly, any other use of this technical manual other than the one it has been compiled for - that is: to illustrate the devices technical features and operating mode - is expressly prohibited.

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 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

Hereby, EL.MO. S.p.A. declares that the radio equipment RIVERRFPLUS is in compliance with Directive 2014/53/EU.The full text of the EU declaration of conformity is available at the following Internet address: elmospa.com – registration is quick and easy.

DISPOSAL INSTRUCTIONS - USER INFORMATIONS

According to Directive 2012/19/EU on the Waste of Electric and Electronic Equipment (WEEE), it is here specified that this Electrical-Electromechanic Device started to be commercialized after 13th August 2005, and it shall be disposed of separately from ordinary waste products.

IT08020000001624

1. GENERALS

The alarm control units identifiable in the models: ET4PLUS, NET series, ETR series, ETR G2 series, VIBASIC and VIDOMO of the Villeggio series, TITANIA and PREGIO, can control a great number of inputs, some connected directly to the base board, other to the several expansion modules indicated with the "CONCENTRATORS" word. RIVERRPLUS can be managed in the future also by other compatible devices.

RIVERRFPLUS is designed to expand the RIVERRF features in the systems where the compactness is the added value of the system. It can manage a greater number of wireless devices, in fact it incorporates **three internal wireless concentrators with 8 inputs** to receive signals from the accessories of Helios/Villeggio system.

Pay attention on the concentrator in relation to the specific control unit for the required programming and managed events.

2. FEATURES

Model:	**RIVERRFPLUS**
Performance level:	I°.
Power supply:	12 V ▄▄ (from 7,5 to 15V).
Power consumption:	30 mA idle status,
	45 mA max with alarm from all wireless detectors and no connected output.
Supported protocols:	Helios (H) - Villeggio (V).
Devices number:	**division into three consequential groups in relation to the mode set,**
	6 wireless devices in REDUCED MODE for ET4PLUS, NET4, NET432, ETR for groups,
	8 wireless devices in EXTENDED MODE for NET5, NET832, NET9, VIBASIC, VIDOMO, ETRG2, TITANIA, PREGIO for groups, 24 in total.
Outputs:	in relation to the set mode, 4 programmable outputs for diagnostic,
	4 outputs can be used only with ETR control units.
	8 outputs controlled by the control unit in **EXTENDED MODE** for NET5, NET832, NET9, VIBASIC, VIDOMO, ETRG2, TITANIA, PREGIO with reference to the first group.
	The outputs are open collector type with a maximum current of 100mA.
Outputs meaning:	according to the set mode, see specific chapter in the manual.
Output connector:	10-pin standard connector only for CP8/REL and UNIREL boards.
Selections:	selector for programming, setting of the operating mode, walk-test, attenuation of the wireless signal. The same selector when it is in programming allows to select the group for the ongoing programming.
	Selector to set the concentrator address.
	Jumpers for LED display enabling and Tamper Protection exclusion and board reset.
Function keys:	"SEL/SPEC" function key for programming and display.
Housing:	ABS plastic.
Housing protection:	microswitch against cover opening.
LED signalings:	LEDs for display of the eight wireless inputs with different meanings according to the operating status/programming of the concentrator.
	Indicator lights of the wireless signal intensity.
	Indicator lights of the transmitted data and activity with RS485 serial line, Tamper protection status.
Operating frequency:	the concentrator uses the band for LPD devices.
RF selection:	receiving circuit with high sensitivity equipped with helical antenna with horizontal polarization.
Wireless range:	80 meters in open field to receive the signals generated from the detectors or perimeter transmitters,
	50 meters in open field for transmissions from remote controls.
Range limitations:	range reductions may be due by particular environmental conditions.
Compatible devices:	detectors, perimeter transmitters and IV series remote controls of the Helios system.
Type of cable to use:	standard 2 x 0,75 mm^2 + 2 x 0,22 mm^2 (power supply + signal) shielded,
	for long distances using sections 2 x 1 mm^2 + 2 x 0,5 mm^2 or higher.
Serial line:	max lenght 1000 meters.
Part supplied:	technical manual, 680Ohm resistance, side fixing brackets (not assembled),
	2 screws to fix the board (2.9 × 6.5 mm).
Dimensions:	see attached image.
Operating temperature and humidity:	-10° / +55°C certified by the manufacturer - 93% U.R.
Weight:	100 g.

Note: for compliance with EN 50131-1 Standard, the supervision should be set to 30 minutes and must be used in wireless devices, accessories of the Helios/Villeggio system, indicated as IV - V series and higher.

Side bracket assembling (optional)

Slot each bracket into its designated area.
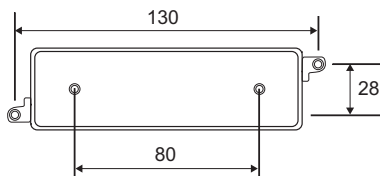
See picture below.
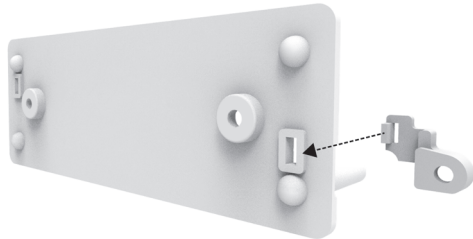
Cable feeding

Remove the plastic from one of the areas indicated below (on the inner side of the cover).

View of the housing

BOTTOM:

COVER:
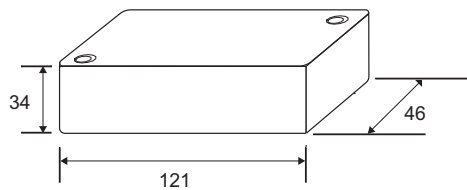
DIMENSIONS IN mm

Assembling operations
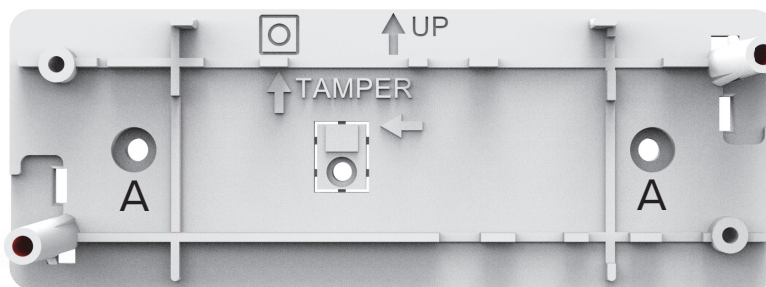
Fix the case base to the mounting surface with screws and plugs, using holes A.

Make sure the UP arrow is on the upper side.
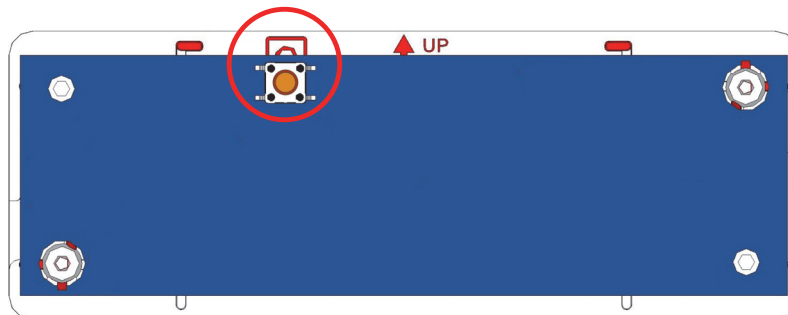
Insert the PCB on the plastic supports (the board in the picture is for reference only).

Make sure the tamper switch against opening (on board top) is on the upper side as indicated by the symbol reported on case base.
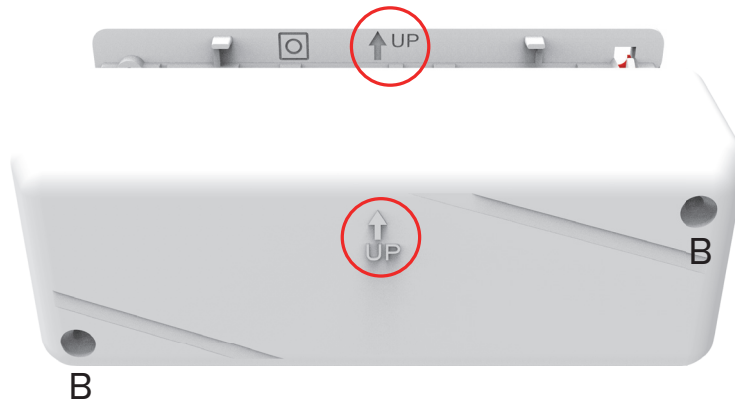
Position the cover on the base.

Make sure the arrow on the cover is on the upper side, like the one on the base.

Insert screws on B holes to close the cover. Make sure the spring for tamper protection fits properly.

3. ELECTRICAL CONNECTIONS

The installer must operate in charges free condition already from the housing opening, make sure that the electronic board of the concentrator can be damaged by electrostatic discharge. The precautions must be observed during the installation phase and during maintenance.

View of the electronic board:
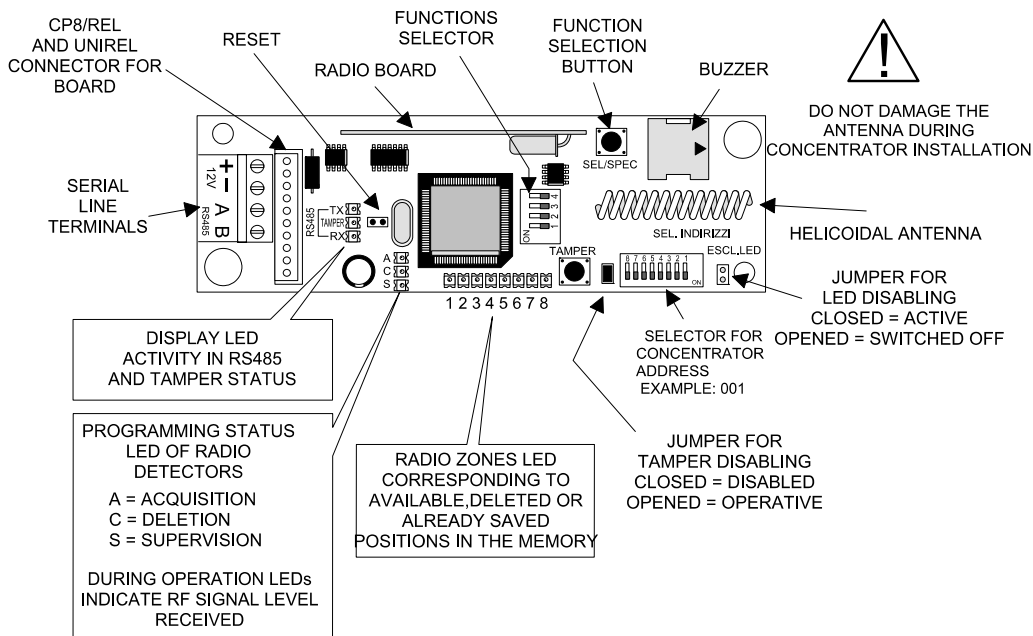
Concentrator connections, ETR serial line example:

SERIAL LINE COMING
FROM THE UNIT OR
FROM OTHER
CONCENTRATORS

LINK SHIELDING
OF TWO CABLES

12V
B A − +

RIVER-RF

SEL/SPEC

TX
TAMPER
RX
TAMPER

DISAB.LED

SERIAL LINE
TO OTHER
CONCENTRATORS
OR COMPATIBLE
DEVICES

VERSION FOR CONCENTRATOR
REMOTE POWER SUPPLY

12V
B A − +

CONCENTRATOR
POWER SUPPLY
FROM REMOTE BOX

12V +
−

NOTE: +12V IS NOT INDICATED AS
PROCEEDING FROM THE UNIT OR
FROM CONCENTRATOR AS EXAPLE
OF POWER SUPPLY FROM REMOTE
BOX

+ − A B
12V

Connection of the CP8/REL board and UNIREL relay board.

F1A FUSIBLE

OUTPUT 7   OUTPUT 6   OUTPUT 1   OUTPUT 2

SIGNALS
CONNECTOR

OUTPUT 8   OUTPUT 5   OUTPUT 4   OUTPUT 3

SEL/SPEC

RS485
TX
TAMPER
RX

ADDRESSES SELECTION

TAMPER   LED DISAB.

A
C
S

NOTE: CP8/REL GROUP AND EIGHT UNIREL BOARDS
CANNOT BE REPLACED BY ETR/REL BOARD.
BUT IT MUST BE INSERTED IN AN APPROPRIATE BOX WITH
TAMPER PROTECTION
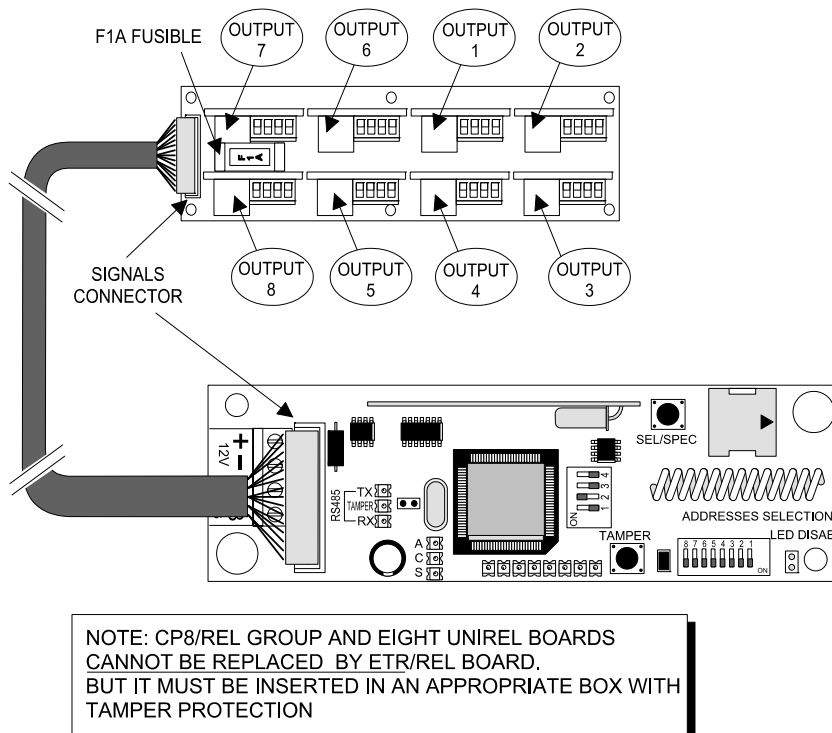
The number of UNIREL board to insert and their meaning in operation depends on the use settings of the concentrator, for details see "ELECTRONIC OUTPUTS" on page 27.

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4. SELECTIONS

4.1 Termination of the serial line

For the correct termination of the serial line is necessary to connect the 680 Ohm resistance supplied with the concentrator as shown in the following diagram as example of connection with VIBASIC and VIDOMO control unit.
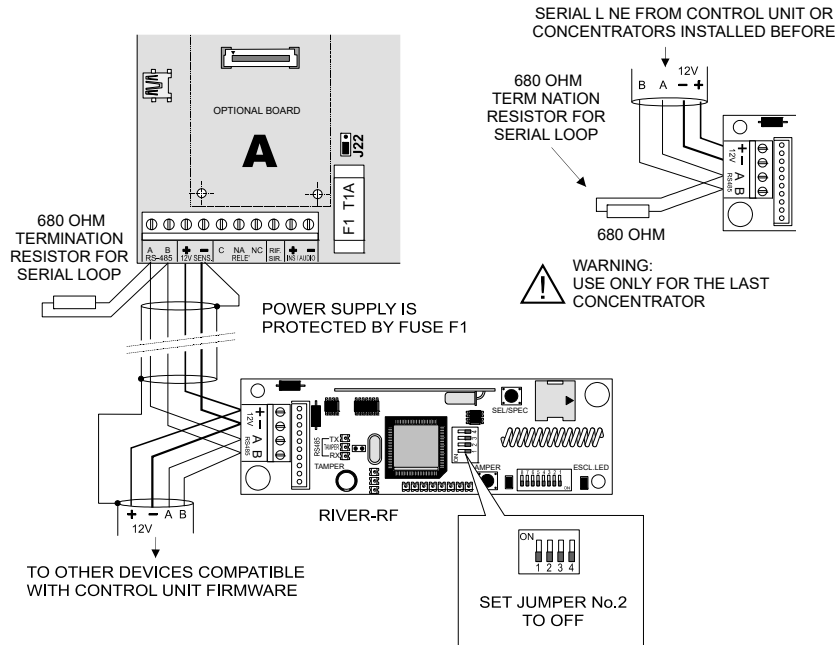
4.2 Addresses selector

General note: the concentrator ID number with its 24 inputs changes according to the connected control unit potentiality. Dip-switch arrangement of the addresses selector for the proper management of the concentrator wireless inputs.

For VIDOMO, VIDOMO2K control units.
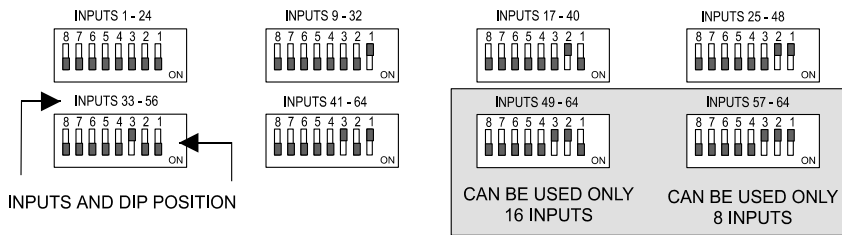
ATTENTION: NOT SET THE IDENTIFICATION CODES CORRESPONDING TO THE INPUTS NOT SUPPORTED BY THE CONTROL UNIT

For PREGIO control units.
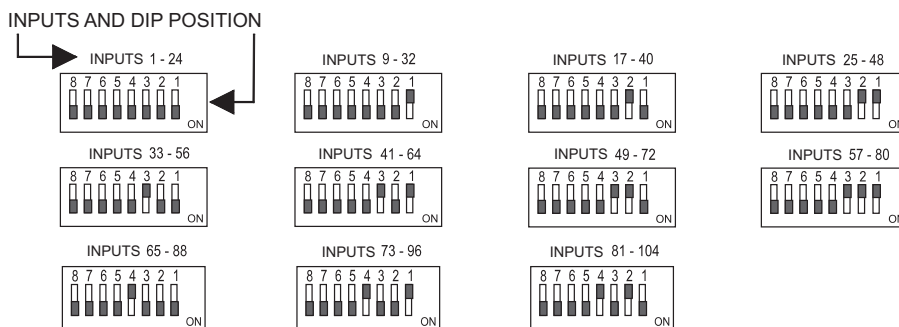
For **NET432**, **NET5**, **NET832 (Fw. from 3.x)**, **NET9 (Fw. from 2.x)**, **ETR100** series control units.
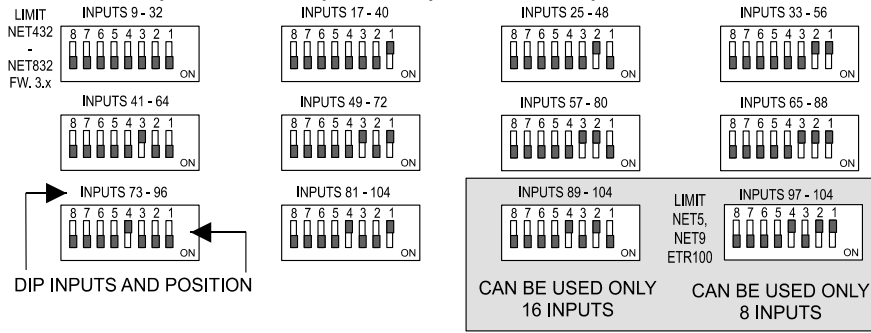
ATTENTION: NOT SET IDENTIFICATION CODES CORRESPONDING TO THE INPUTS NOT SUPPORTED BY THE CONTROL UNIT

Note: It is not recommended the RIVERRFPLUS with ET4PLUS, NET4 control units because they manage up to 8 wireless devices.

For **ETR48M and Q versions**, **ETR128**, **ETR256**, **ETR512, NET832 and Q versions (Fw up to 2.x)**, **NET9 (Fw up to 1.x) and Q versions** series control units.

ATTENTION: NOT SET THE IDENTIFICATION CODES ACCORDING TO THE INPUTS NOT SUPPORTED BY THE CONTROL UNIT

4.3 Functions selector

View selector functions and meanings of the dip-switch.

DEFAULT

RF 3 dB ATTENUATION (THE FUNCTION IS SIGNALED WITH THREE BEEP EVERY VALID RECEIVING)	NORMAL OPERATION
WALK TEST (THE FUNCTION IS SIGNALED WITH THREE BITONAL BEEP EVERY VALID RECEIVING)	NORMAL OPERATION

FUNCTIONS SELECTOR

TAMPER

REDUCED MODE SEE MANUAL — EXTENDED MODE

PROGRAMMING — NORMAL OPERATION

GROUP 1

GROUP 2

GROUP 3

NOT USED

PROGRAMMING

PROGRAMMING

4.4 Selection jumpers

The concentrator is equipped by some service jumpers:
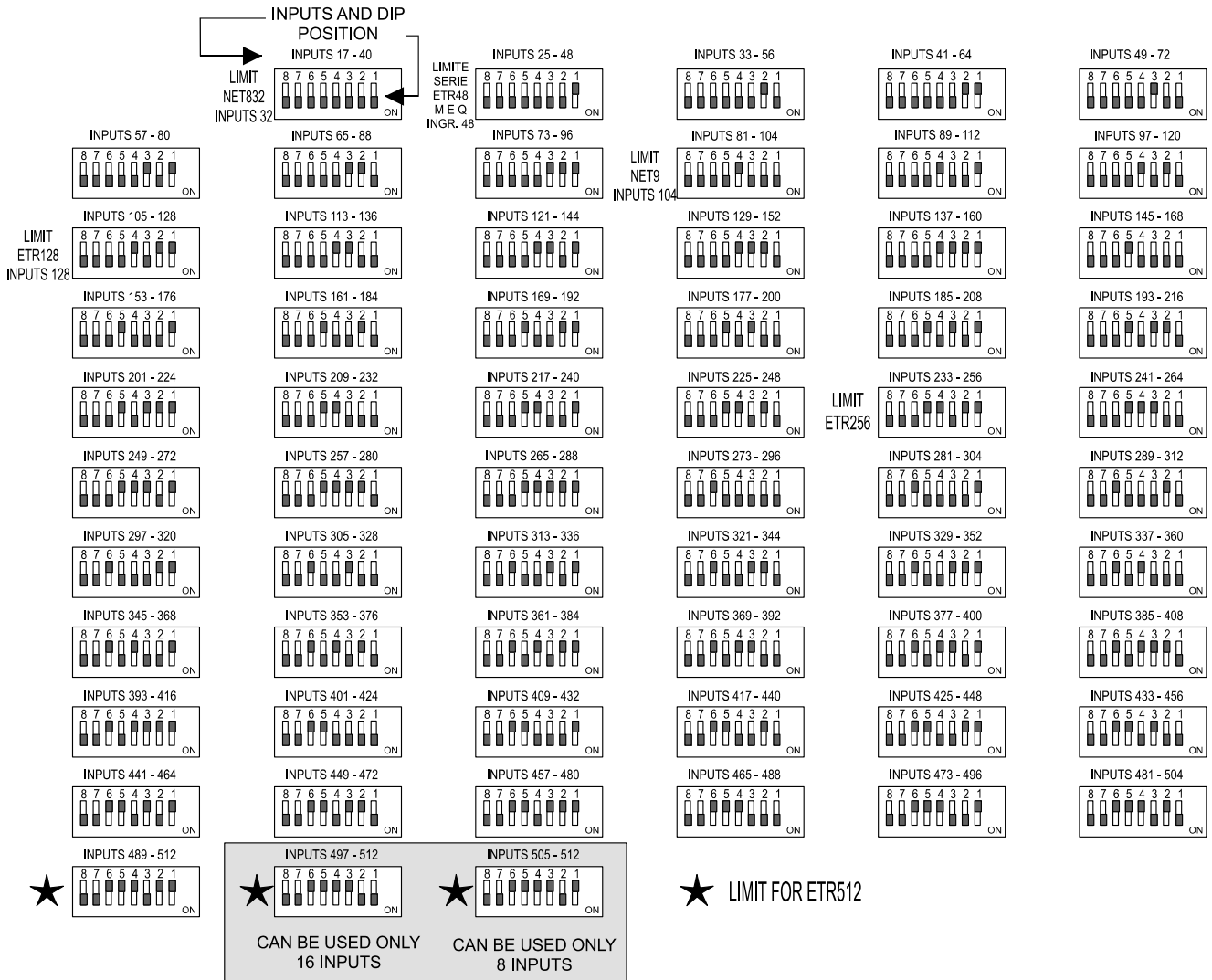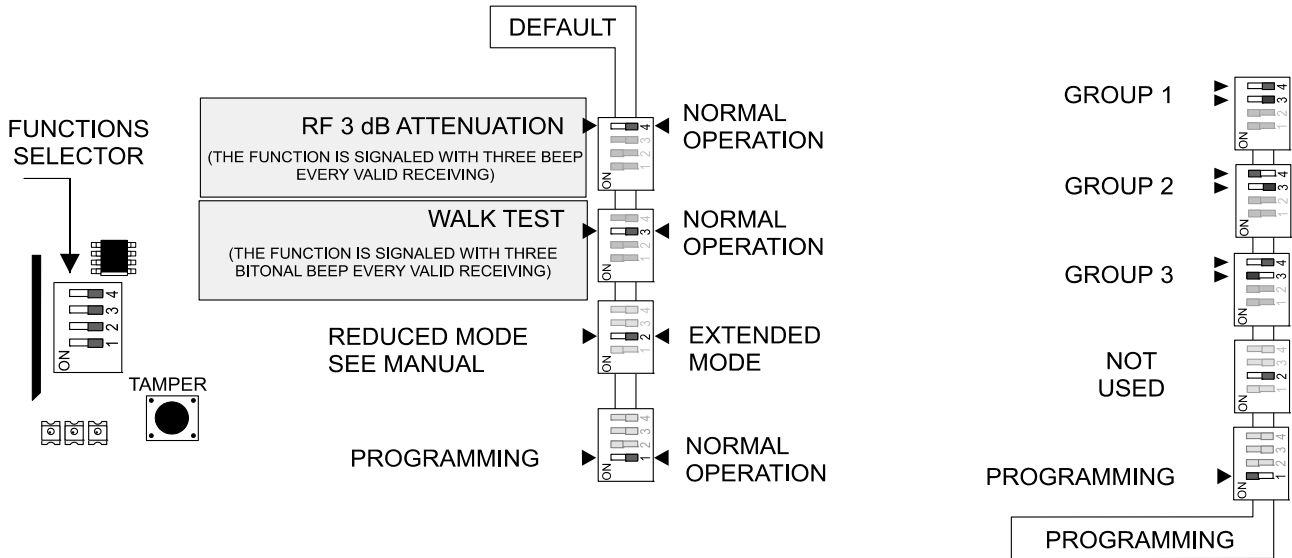
Led exclusion =   to disable the LED indicators of the concentrator and to reduce consumption

Tamper exclusions =   jumper to be used only in the planning stage, the exclusion of Tamper protection against the cover removal is not allowed by the rules

Reset =   jumper to be closed momentarily to reset operations of the concentrator, see spe cific chapter

5. INSTALLATION

The concentrator installation, as all wireless devices, must comply with some rules to prevent performance falls due to positioning errors.

It is important to define with the utmost care the operational area of the receiving system in which each wireless device is properly managed; must be considered the installation place in relation to the nature of the materials used in the building construction and the real coverage of the detectors to control. The following image show the correct and wrong positions installation, the objects that can attenuate the RF signal and the attenuation of some building materials.

Installation situations.

OK
FIX THE CONCENTRATORS IN CENTRAL POSITION

WRONG
TRANSMITTER IN THE OPPOSITE SIDE OF THE HOUSE MAY BE TOO FAR

WIRELESS CONCENTRATOR

BASEMENT

OK
FIX THE CONCENTRATORS IN THE HIGHEST POSITION COMPARED TO THE GROUND LEVEL

WIRELESS CONCENTRATOR

BASEMENT

WRONG
BY FIXING THE CONCENTRATORS UNDER THE GROUND LEVEL, THE SIGNAL IS ATTENUATED

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Attenuation of the wireless signal by some typical construction materials.

WITH PLYWOOD, PLASTERBOARD OR VENEERED WOOD WALLS

WITH SOLID BRICK OR AIR BRICK WALLS

WITH REINFORCED CONCRETE OR PLATE AND PLASTER WALLS

POWER
from 100% to 90%
OF FULL POWER

POWER
from 95% to 65%
OF FULL POWER

POWER
from 0 to 70%
OF FULL POWER
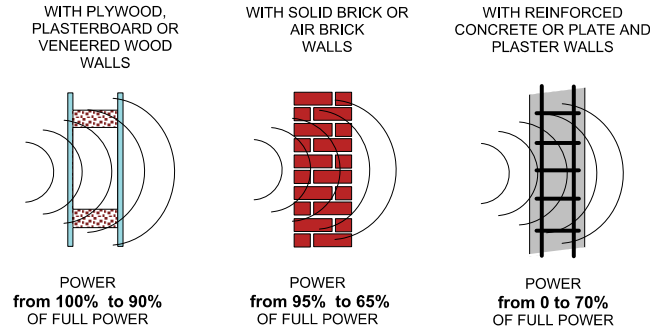
Details and objects which may limit the operating range.

iVTH SERIES IR DETECTOR

MAGNETIC CONTACT TRANSMITTERS, FOR ROLL-UP SHUTTER DETECTORS AND FOR IVTH SERIES IMPACT INERTIALS

RADIO CONCENTRATOR

IVTH SERIES CONTROL KEYPAD

METAL GRID (EX. MARLINE SPIKE) AND REINFORCED CONCRETE WALLS

METAL MAIN DOOR

IVTH SERIES TRANSMITTER WITH BUILT-IN MAGNETIC CONTACT

IVTH SERIES REMOTE CONTROL

MIRRORS
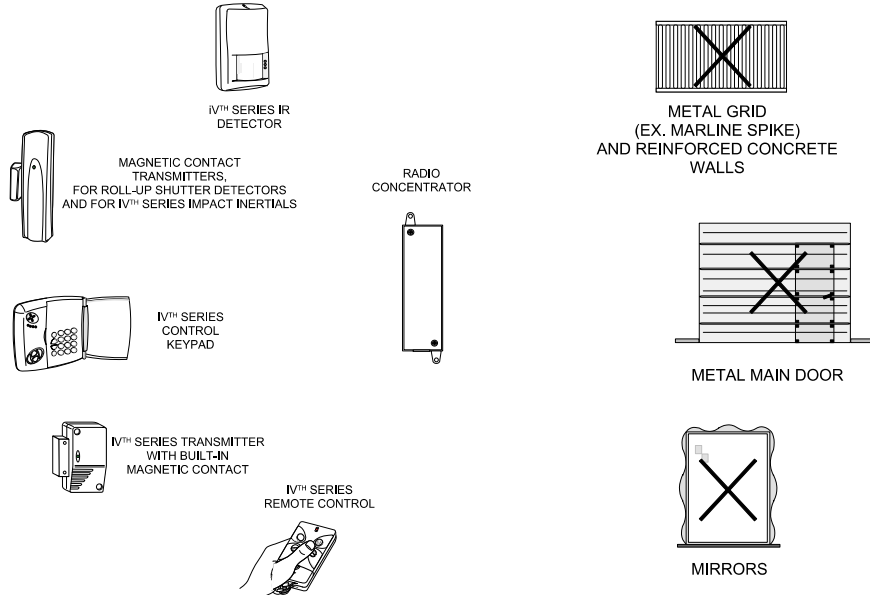
Correct positioning of the concentrator.

IVTH SERIES IR DETECTOR

ANTENNA

FIXING POSITIONS
TO OBTAIN MAXIMUM INTENSITY OF
RADIO SIGNAL

ANTENNA

MAGNETIC CONTACT TRANSMITTERS FOR ROLL-UP SHUTTER DETECTORS, AND FOR IVTH SERIES IMPACT INERTIALS

RF SIGNAL VERTICAL POLARIZATION

ANTENNA

IVTH SERIES TRANSMITTER WITH BUILT-IN MAGNETIC CONTACT

WIRES HOLES

RADIO CONCENTRATOR
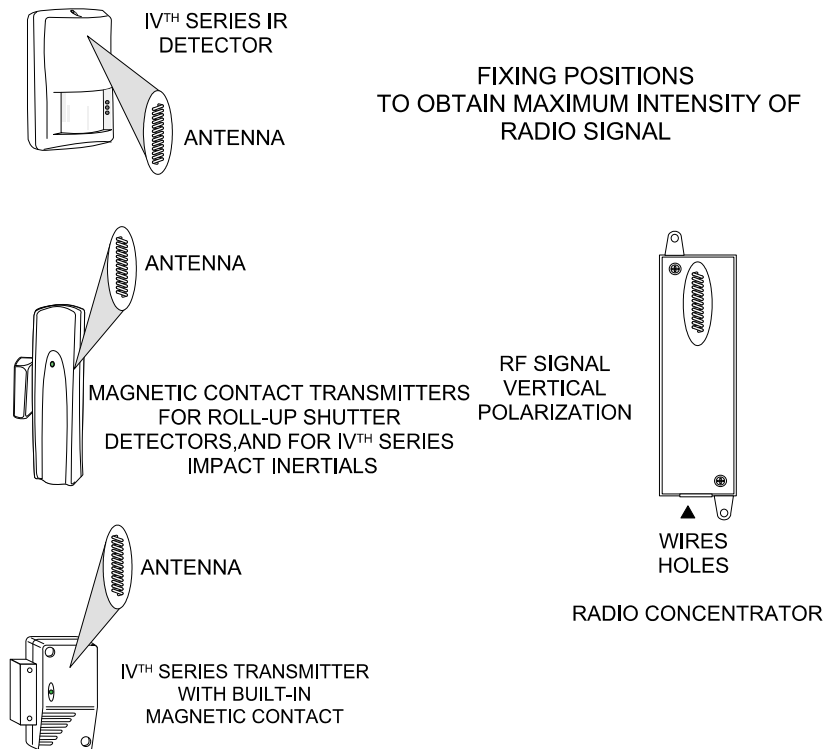
Positioning by two or more RIVERRFPLUS concentrator with ETR control unit.

WIRELESS ACCESSORIES OF THE HELIOS/VILLEGGIO SYSTEM

DETECTORS MOD. SCORPIO, LUPUS, VOLANS, VIRGO, LEO, DRACO E DRACO G2, DEIMOS

KEYBOARD MOD. VELA AND MOD. VELAPLUS

MEDICAL REMOTE CONTROL

REMOTE CONTROL MOD. ATLANTE4

FOR EACH USER THE REMOTE CONTROL AND THE WIRELESS KEYBOARD USING IS AN ALTERNATIVITY TO THE PROXIMITY KEY.

TO OTHER RIVER RF

RIVERRFPLUS WIRELESS CONCENTRATOR

CAN BE INSTALLED DIFFERENT CONCENTRATORS EACH WITH THE POSSIBILITY TO STORE UP TO 18 WIRELESS DEVICES IN REDUCED MODE

ETR CONTROL UNIT

CONNECTION WITH SHIELDED CABLE
2 x 0,75 + 4 x 0,22 mm²

Note: the image on the left contains tips for multiple installations of RIVERRFPLUS concentrators in confined spaces.

LEGEND

RECEIVER INSIDE THE WIRELESS CONCENTRATOR

CABLES INPUT

3 cm

OK

NO

3 cm

> **ATTENTION: do not insert the RIVERRFPLUS in metallic housings.**

Note: the indicated connection is compliance to the EN50131-3 Standard Grade 1. In case of RIVERRFPLUS concentrators, the ETRxxx G2 control unit is compatible with EN50131 Standard with the following programming setting:
- Set the supervision time = 30 min.
- All the RF detectors must be supervised
- Use strictly RF IVth series or higher devices
- RF interference control = YES.
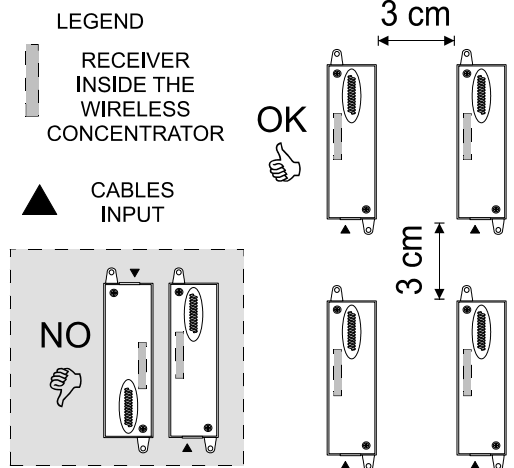
The ETRG2 control unit with fw. 1.x DO NOT allow the **extended** management of the RIVERRFPLUS concentrators. The concentrator provides timely indications of low battery, failure, supervision failure summarized by prepared outputs. The wireless 24h detectors and the remote controls required a special programming in control unit. The informations of low battery, supervision failure and fault are displayed on the keyboard with a yellow LED flashing for fault; the detail of this informations is available by pressing the Up arrow.

They can be used at the same time the detectors stored in the control unit through the Halley wireless head.

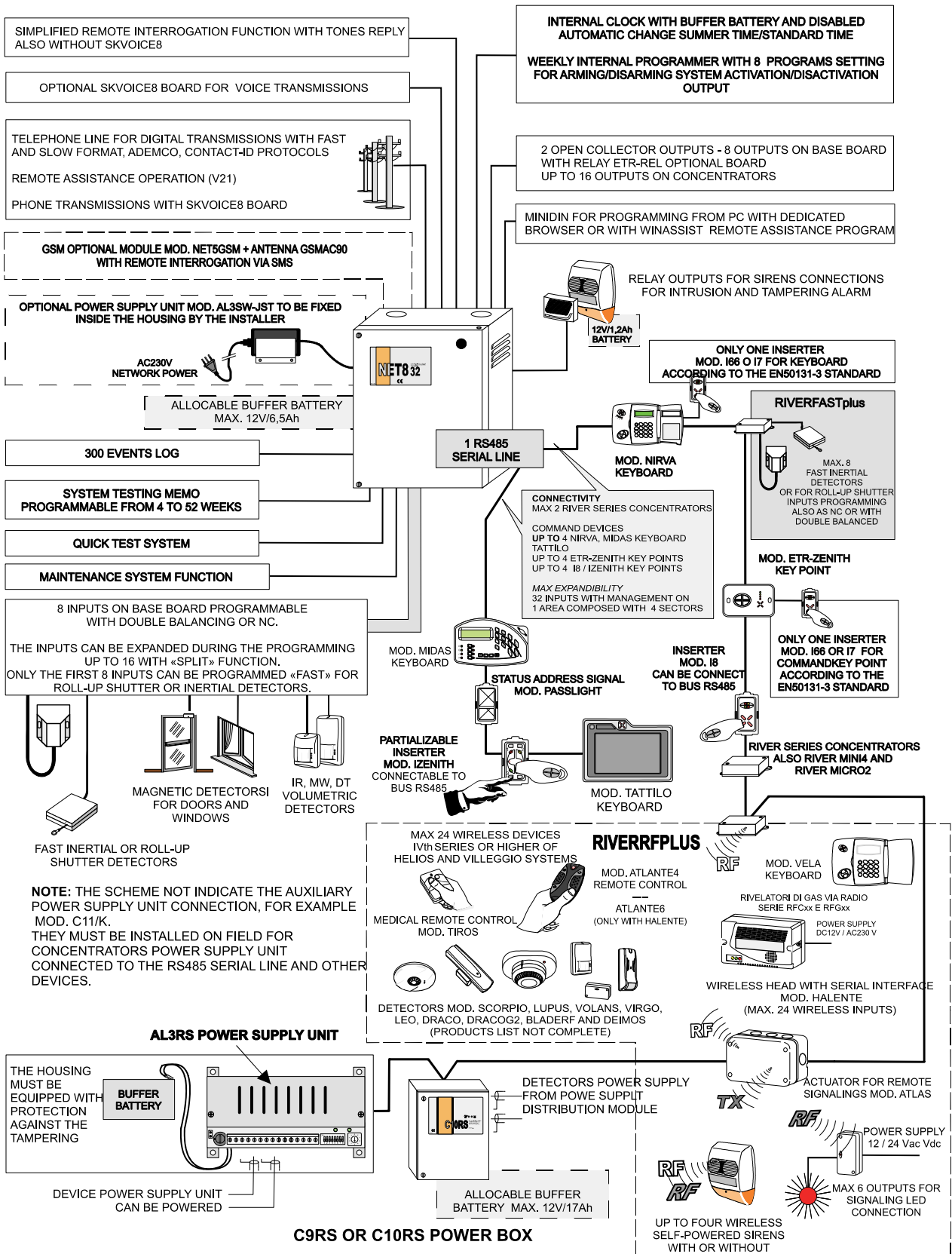This detectors have priority over those on River concentrators (RF or normal).

Example: if in the 17, 18 and 19 inputs are stored the wireless detectors learned in the control unit through the Halley wireless head, it is possible to connect a RIVERRFPLUS with address (from 17 to 40), but this can use the inputs from 20 to 24.

6. CONNECTION EXAMPLE

Note: the following schemes are just for example and may not contain all the accessories of the current production.
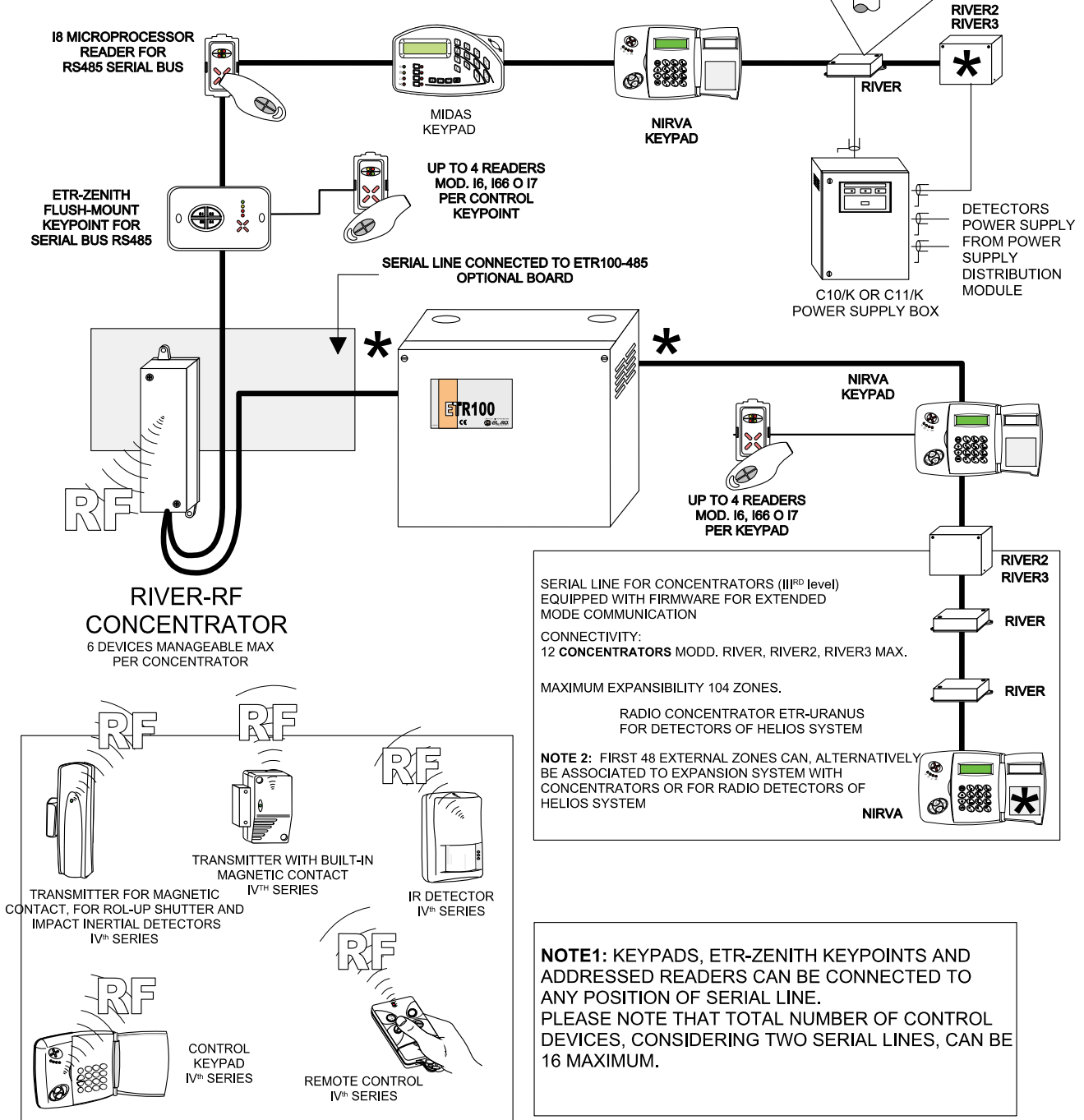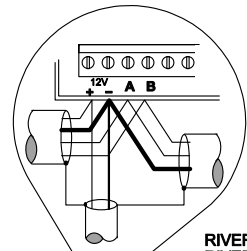
General diagram of NET832 series control unit.

SIMPLIFIED REMOTE INTERROGATION FUNCTION WITH TONES REPLY ALSO WITHOUT SKVOICE8

OPTIONAL SKVOICE8 BOARD FOR VOICE TRANSMISSIONS

TELEPHONE LINE FOR DIGITAL TRANSMISSIONS WITH FAST AND SLOW FORMAT, ADEMCO, CONTACT-ID PROTOCOLS

REMOTE ASSISTANCE OPERATION (V21)

PHONE TRANSMISSIONS WITH SKVOICE8 BOARD

GSM OPTIONAL MODULE MOD. NET5GSM + ANTENNA GSMAC90 WITH REMOTE INTERROGATION VIA SMS

OPTIONAL POWER SUPPLY UNIT MOD. AL3SW-JST TO BE FIXED INSIDE THE HOUSING BY THE INSTALLER

AC230V NETWORK POWER

ALLOCABLE BUFFER BATTERY MAX. 12V/6,5Ah

300 EVENTS LOG

SYSTEM TESTING MEMO PROGRAMMABLE FROM 4 TO 52 WEEKS

QUICK TEST SYSTEM

MAINTENANCE SYSTEM FUNCTION

8 INPUTS ON BASE BOARD PROGRAMMABLE WITH DOUBLE BALANCING OR NC.

THE INPUTS CAN BE EXPANDED DURING THE PROGRAMMING UP TO 16 WITH «SPLIT» FUNCTION.
ONLY THE FIRST 8 INPUTS CAN BE PROGRAMMED «FAST» FOR ROLL-UP SHUTTER OR INERTIAL DETECTORS.

MAGNETIC DETECTORSI FOR DOORS AND WINDOWS

IR, MW, DT VOLUMETRIC DETECTORS

FAST INERTIAL OR ROLL-UP SHUTTER DETECTORS

NOTE: THE SCHEME NOT INDICATE THE AUXILIARY POWER SUPPLY UNIT CONNECTION, FOR EXAMPLE MOD. C11/K.
THEY MUST BE INSTALLED ON FIELD FOR CONCENTRATORS POWER SUPPLY UNIT CONNECTED TO THE RS485 SERIAL LINE AND OTHER DEVICES.

AL3RS POWER SUPPLY UNIT

THE HOUSING MUST BE EQUIPPED WITH PROTECTION AGAINST THE TAMPERING

BUFFER BATTERY

DEVICE POWER SUPPLY UNIT CAN BE POWERED

C9RS OR C10RS POWER BOX

ALLOCABLE BUFFER BATTERY MAX. 12V/17Ah

INTERNAL CLOCK WITH BUFFER BATTERY AND DISABLED AUTOMATIC CHANGE SUMMER TIME/STANDARD TIME

WEEKLY INTERNAL PROGRAMMER WITH 8 PROGRAMS SETTING FOR ARMING/DISARMING SYSTEM ACTIVATION/DISACTIVATION OUTPUT

2 OPEN COLLECTOR OUTPUTS - 8 OUTPUTS ON BASE BOARD WITH RELAY ETR-REL OPTIONAL BOARD UP TO 16 OUTPUTS ON CONCENTRATORS

MINIDIN FOR PROGRAMMING FROM PC WITH DEDICATED BROWSER OR WITH WINASSIST REMOTE ASSISTANCE PROGRAM

RELAY OUTPUTS FOR SIRENS CONNECTIONS FOR INTRUSION AND TAMPERING ALARM

12V/1,2Ah BATTERY

ONLY ONE INSERTER MOD. I66 O I7 FOR KEYBOARD ACCORDING TO THE EN50131-3 STANDARD

RIVERFASTplus

MAX. 8 FAST INERTIAL DETECTORS OR FOR ROLL-UP SHUTTER INPUTS PROGRAMMING ALSO AS NC OR WITH DOUBLE BALANCED

NET8 32

1 RS485 SERIAL LINE

MOD. NIRVA KEYBOARD

MOD. ETR-ZENITH KEY POINT

CONNECTIVITY
MAX 2 RIVER SERIES CONCENTRATORS
COMMAND DEVICES
UP TO 4 NIRVA, MIDAS KEYBOARD TATTILO
UP TO 4 ETR-ZENITH KEY POINTS
UP TO 4 I8 / IZENITH KEY POINTS

MAX EXPANDIBILITY
32 INPUTS WITH MANAGEMENT ON 1 AREA COMPOSED WITH 4 SECTORS

ONLY ONE INSERTER MOD. I66 OR I7 FOR COMMANDKEY POINT ACCORDING TO THE EN50131-3 STANDARD

MOD. MIDAS KEYBOARD

STATUS ADDRESS SIGNAL MOD. PASSLIGHT

INSERTER MOD. I8 CAN BE CONNECT TO BUS RS485

PARTIALIZABLE INSERTER MOD. IZENITH CONNECTABLE TO BUS RS485

MOD. TATTILO KEYBOARD

RIVER SERIES CONCENTRATORS ALSO RIVER MINI4 AND RIVER MICRO2

MAX 24 WIRELESS DEVICES IVth SERIES OR HIGHER OF HELIOS AND VILLEGGIO SYSTEMS

RIVERRFPLUS

MOD. ATLANTE4 REMOTE CONTROL
—
ATLANTE6 (ONLY WITH HALENTE)

MEDICAL REMOTE CONTROL MOD. TIROS

DETECTORS MOD. SCORPIO, LUPUS, VOLANS, VIRGO, LEO, DRACO, DRACOG2, BLADERF AND DEIMOS (PRODUCTS LIST NOT COMPLETE)

MOD. VELA KEYBOARD

RIVELATORI DI GAS VIA RADIO SERIE RFCxx E RFGxx

POWER SUPPLY DC12V / AC230 V

WIRELESS HEAD WITH SERIAL INTERFACE MOD. HALENTE (MAX. 24 WIRELESS INPUTS)

DETECTORS POWER SUPPLY FROM POWE SUPPLIT DISTRIBUTION MODULE

ACTUATOR FOR REMOTE SIGNALINGS MOD. ATLAS

TX

POWER SUPPLY 12 / 24 Vac Vdc

MAX 6 OUTPUTS FOR SIGNALING LED CONNECTION

UP TO FOUR WIRELESS SELF-POWERED SIRENS WITH OR WITHOUT SUPERVISION

General scheme of ETR control units serial line, example with ETR100.

IMPORTANT:
THIS SCHEME INDICATES GENERIC
AUXILIARY POWER SUPPLY CABLES
WIRING, FOR INSTANCE MOD.C11/K.
THEY MUST ALWAYS BE INSTALLED
ON SITE FOR CONCENTRATORS POWER
SUPPLY CONNECTED TO SERIAL LINE
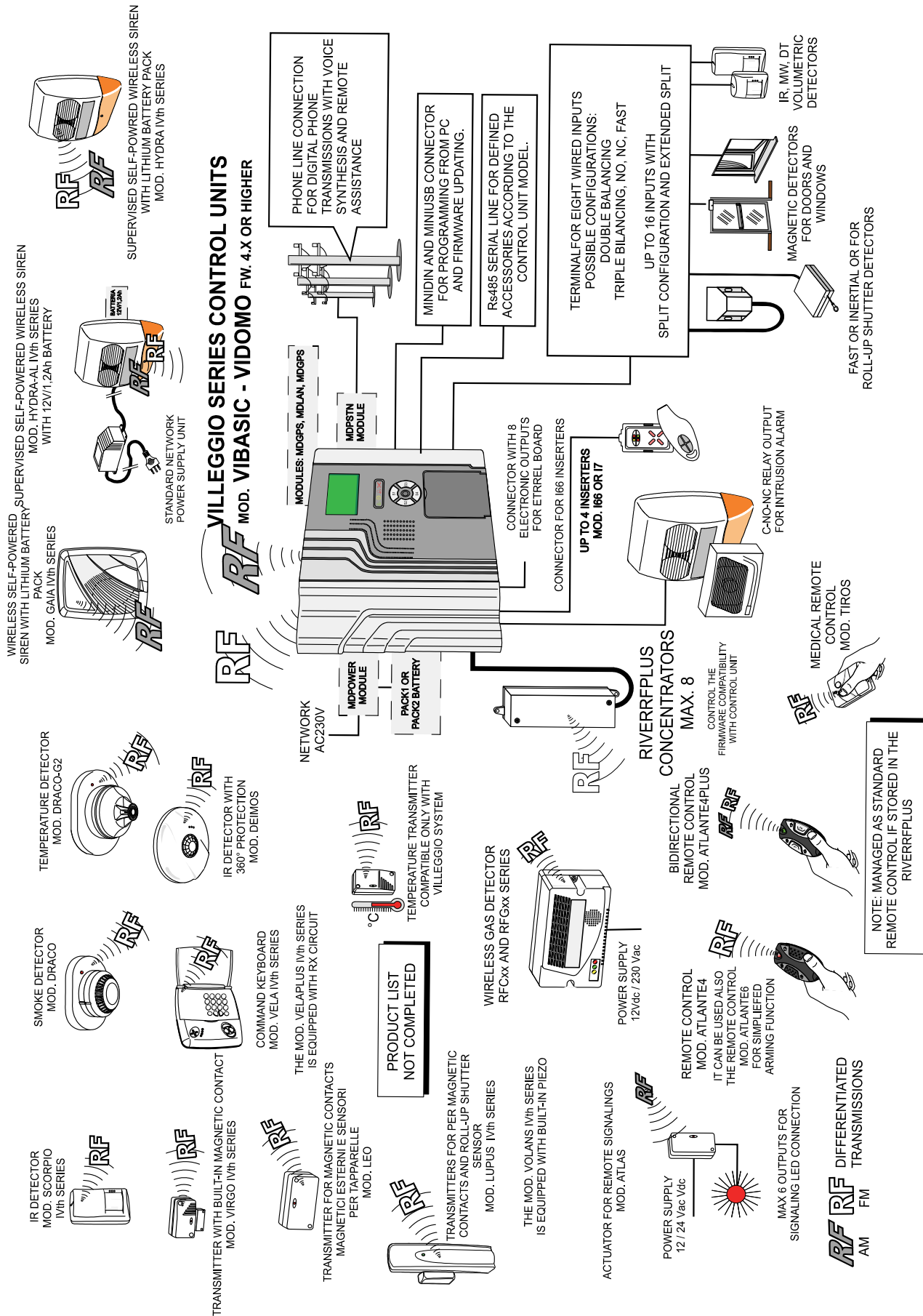RS485 AND OTHER POWERABLE DEVICES

TOTAL LENGTH OF EACH SERIAL LINE
CAN BE 1000 METRES; CABLES SECTION
WILL HAVE TO BE APPROPRIATE, USE
ANTIROBBERY CABLE WITH
2 X 1 + 2 X 0,50 mm^2 SECTION. FOR SHORT
DISTANCES USE 2 X 0,75+ 2 X 0,22 mm^2
CABLE

RIVER2
RIVER3

12V   A B

RIVER

I8 MICROPROCESSOR
READER FOR
RS485 SERIAL BUS

MIDAS
KEYPAD

NIRVA
KEYPAD

ETR-ZENITH
FLUSH-MOUNT
KEYPOINT FOR
SERIAL BUS RS485

UP TO 4 READERS
MOD. I6, I66 O I7
PER CONTROL
KEYPOINT

DETECTORS
POWER SUPPLY
FROM POWER
SUPPLY
DISTRIBUTION
MODULE

C10/K OR C11/K
POWER SUPPLY BOX

SERIAL LINE CONNECTED TO ETR100-485
OPTIONAL BOARD

ETR100

RIVER-RF
CONCENTRATOR
6 DEVICES MANAGEABLE MAX
PER CONCENTRATOR

NIRVA
KEYPAD

UP TO 4 READERS
MOD. I6, I66 O I7
PER KEYPAD

SERIAL LINE FOR CONCENTRATORS (IIIRD level)
EQUIPPED WITH FIRMWARE FOR EXTENDED
MODE COMMUNICATION

CONNECTIVITY:
12 **CONCENTRATORS** MODD. RIVER, RIVER2, RIVER3 MAX.

MAXIMUM EXPANSIBILITY 104 ZONES.

RADIO CONCENTRATOR ETR-URANUS
FOR DETECTORS OF HELIOS SYSTEM

NOTE 2: FIRST 48 EXTERNAL ZONES CAN, ALTERNATIVELY
BE ASSOCIATED TO EXPANSION SYSTEM WITH
CONCENTRATORS OR FOR RADIO DETECTORS OF
HELIOS SYSTEM

NIRVA

RIVER2
RIVER3

RIVER

RIVER

TRANSMITTER FOR MAGNETIC
CONTACT, FOR ROL-UP SHUTTER AND
IMPACT INERTIAL DETECTORS
IVTH SERIES

TRANSMITTER WITH BUILT-IN
MAGNETIC CONTACT
IVTH SERIES

IR DETECTOR
IVth SERIES

CONTROL
KEYPAD
IVTH SERIES

REMOTE CONTROL
IVth SERIES

NOTE1: KEYPADS, ETR-ZENITH KEYPOINTS AND
ADDRESSED READERS CAN BE CONNECTED TO
ANY POSITION OF SERIAL LINE.
PLEASE NOTE THAT TOTAL NUMBER OF CONTROL
DEVICES, CONSIDERING TWO SERIAL LINES, CAN BE
16 MAXIMUM.

* MARKED DEVICES WILL HAVE TO BE EQUIPPED WITH SERIAL LINE END

WARNING: the RIVERRFPLUS concentrators must be installed at least 2 meters away from each other.

EL.MO. SPA

Scheme of the concentrator using in the wireless section with VIBASIC or VIDOMO control unit.

SUPERVISED SELF-POWRED WIRELESS SIREN WITH LITHIUM BATTERY PACK MOD. HYDRA IVth SERIES

SUPERVISED SELF-POWERED WIRELESS SIREN MOD. HYDRA-AL IVth SERIES WITH 12V/1,2Ah BATTERY

STANDARD NETWORK POWER SUPPLY UNIT

WIRELESS SELF-POWERED SIREN WITH LITHIUM BATTERY PACK MOD. GAIA IVth SERIES

PHONE LINE CONNECTION FOR DIGITAL PHONE TRANSMISSIONS WITH VOICE SYNTHESIS AND REMOTE ASSISTANCE

MINIDIN AND MINIUSB CONNECTOR FOR PROGRAMMING FROM PC AND FIRMWARE UPDATING.

Rs485 SERIAL LINE FOR DEFINED ACCESSORIES ACCORDING TO THE CONTROL UNIT MODEL.

TERMINALFOR EIGHT WIRED INPUTS POSSIBLE CONFIGURATIONS: DOUBLE BALANCING TRIPLE BILANCING, NO, NC, FAST

UP TO 16 INPUTS WITH SPLIT CONFIGURATION AND EXTENDED SPLIT

IR, MW, DT VOLUMETRIC DETECTORS

MAGNETIC DETECTORS FOR DOORS AND WINDOWS

FAST OR INERTIAL OR FOR ROLL-UP SHUTTER DETECTORS

VILLEGGIO SERIES CONTROL UNITS
MOD. VIBASIC - VIDOMO FW. 4.X OR HIGHER

MODULES: MDGPS, MDLAN, MDGPS

MDPSTN MODULE

CONNECTOR WITH 8 ELECTRONIC OUTPUTS FOR ETRREL BOARD

CONNECTOR FOR I66 INSERTERS

UP TO 4 INSERTERS MOD. I66 OR I7

C-NO-NC RELAY OUTPUT FOR INTRUSION ALARM

NETWORK AC230V

MDPOWER MODULE

PACK1 OR PACK2 BATTERY

MEDICAL REMOTE CONTROL MOD. TIROS

RIVERRFPLUS CONCENTRATORS MAX. 8

CONTROL THE FIRMWARE COMPATIBILITY WITH CONTROL UNIT

BIDIRECTIONAL REMOTE CONTROL MOD. ATLANTE4PLUS

NOTE: MANAGED AS STANDARD REMOTE CONTROL IF STORED IN THE RIVERRFPLUS

TEMPERATURE DETECTOR MOD. DRACO-G2

IR DETECTOR WITH 360° PROTECTION MOD. DEIMOS

TEMPERATURE TRANSMITTER COMPATIBLE ONLY WITH VILLEGGIO SYSTEM

SMOKE DETECTOR MOD. DRACO

COMMAND KEYBOARD MOD. VELA IVth SERIES

THE MOD. VELAPLUS IVth SERIES IS EQUIPPED WITH RX CIRCUIT

WIRELESS GAS DETECTOR RFCxx AND RFGxx SERIES

POWER SUPPLY 12Vdc / 230 Vac

REMOTE CONTROL MOD. ATLANTE4

IT CAN BE USED ALSO THE REMOTE CONTROL MOD. ATLANTE6 FOR SIMPLIEFED ARMING FUNCTION

PRODUCT LIST NOT COMPLETED

IR DETECTOR MOD. SCORPIO IVth SERIES

TRANSMITTER WITH BUILT-IN MAGNETIC CONTACT MOD. VIRGO IVth SERIES

TRANSMITTER FOR MAGNETIC CONTACTS MAGNETICI ESTERNI E SENSORI PER TAPPARELLE MOD. LEO

THE MOD. LUPUS IVth SERIES

TRANSMITTERS FOR PER MAGNETIC CONTACTS AND ROLL-UP SHUTTER SENSOR MOD. LUPUS IVth SERIES

THE MOD. VOLANS IVth SERIES IS EQUIPPED WITH BUILT-IN PIEZO

ACTUATOR FOR REMOTE SIGNALINGS MOD. ATLAS

POWER SUPPLY 12 / 24 Vac Vdc

MAX 6 OUTPUTS FOR SIGNALING LED CONNECTION

DIFFERENTIATED TRANSMISSIONS

AM   FM

EL.MO. SPA

7. PROGRAMMING

The RIVERRFPLUS concentrator can be used as wireless receiver with serial interface **ONLY** with ET4PLUS, NET series, ETR series, ETR G3 series, Villeggio series and following versions control units.
Depending on control unit series carried out during the programming, RIVERRFPLUS will manage a number of detectors and provide differently informations, must then be programmed in the correct operation mode.

> **ATTENTION:** it is advisable that the wireless devices are IVth SERIES, check the EC label. This for compliance with EN50131 Standard.

> **ATTENTION:** given the particular features of the key lines (associated sectors status switching in the event of idle/alarm/idle) the changing stats will occur at the release of the remote control button.
> For the proper management of the IR detector tampering, the information of the restore tampering must be managed by the detector so it is recommended to use SCORPIO IVth series or higher.
> **In the case of SCORPIO IInd series, the updating of tampering restore will be at the first supervision or first useful alarm sending.**

7.1 Programming operations

The RIVERRFPLUS concentrator with **ET4PLUS, NET4, NET432, and ETR series control units** must be programmed in **REDUCED MODE.**

REDUCED MODE ► ◄ EXTENDED MODE
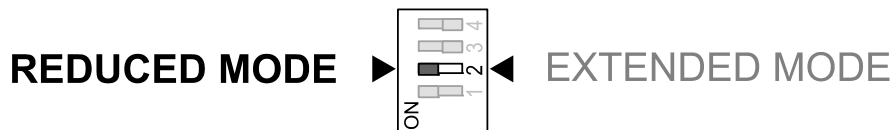
The concentrator performs as follows:
- **6 wireless devices** for group (max. 18) between the remote controls and detectors with single management of alarm/tampering informations.
- The low battery and supervision failure information are generic and correspond to alarm input 7 and alarm input 8 (all on the 485 serial).
- In control unit must be programmed the input 7 with Low Battery event, 24Hrs active and the input 8 with the Supervision Failure event, 24Hrs active.
- **4 fixed outputs** not controlled for diagnostics (RF interference, unknown remote controls, unknown detector, fault).
- **4 commands** executable by the other 4 outputs (only from compatible ETR control units) for: faults cancellation, RF faults cancellation, remote controls block, 3 dB attenuation.
- The commands of RF device/RF device cancellation/supervision times setting/detector selection to be monitored and all the status viewing/events are available through on board LED.

In reduced mode, the RIVERRFPLUS is recognized by the control unit as a concentrator with 8 inputs, the events of all RF devices are converted to intrusion or tampering alarms therefore:

Total insert	**PULSED INTRUSION ALARM**
Partial insert 1	
Partial insert 2	
Disarmed by remote control	
Panic alarm generated by remote control	**PULSED TAMPERING ALARM**
Tampering alarm from single detector (IR)	**TAMPERING ALARM STATUS**
Blinding alarm from single detector (IR)	
Blinding alarm from duble detector	
Flooding detector from 24H detector	**INTRUSION ALARM STATUS**
Toxic gas alarm from 24H detector	
Explosive gas alarm from 24H detector	
Fire alarm from 24H detector	
Alarm	**ACTIVATION** **(ON SIGNALS CONNECTOR)**
Duble detector fault	
24H detector fault	
Single detector fault	
Low battery from duble detector	**INTRUSION ALARM STATUS FROM INPUT 7**
Low battery from 24H detector	
Low battery from single detector	
Low battery from remote control	
Supervision failure duble detector	**INTRUSION ALARM STATUS FROM INPUT 8**
Supervision failure 24H detector	
Supervision failure single detector	

The outputs are managed as specified in the following table:

Output 1	Wireless interference
Output 2	Unknown remote control code
Output 3	Unknown detector code
Output 4	Faults
Output 5	COMMAND 3dB sensitivity reduction
Output 6	Cancellation COMMAND supervision failure MEM and MEM cancellation. Low battery.
Output 7	RF failure cancellation COMMAND.
Output 8	Block/Unlock remote control codes receiving COMMAND.

ATTENTION: with **REDUCED MODE** operation, all alarm events are traced to intrusion or tampering alarms and it is task of the control unit to manage them in the appropriate manner.

ATTENTION: in case of **REDUCED MODE** operation, the remote controls are interpreted after a proper selection in control unit, declaring the corresponding KEY INPUTS lines, **in which case any remote control button will be interpreted as sectors arm or disarming. the partitions are not manageable by remote control.**

The RIVERRFPLUS concentrator with **NET5, NET832 (Fw. 2.x), NET9, VIBASIC and VIDOMO** control units must be programmed in **EXTENDED MODE.**

REDUCED MODE ► ◄ **EXTENDED MODE**
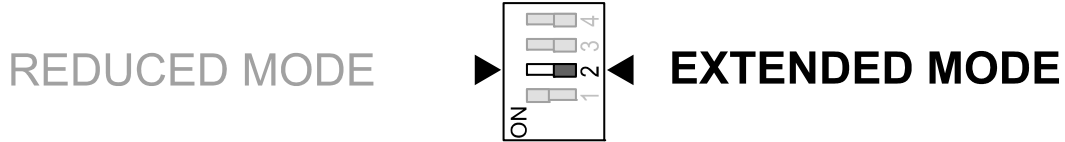
The concentrator performs as follows:

- **8 wireless devices** for group (max. 24) among remote controls and detectors through compatible control units with all the specific events (via serial 485)
- **8 on board outputs** of the concentrator (Signals + CP8/REL and UNIREL) controlled by the control unit.
- Complete management via 485 serial of the RF faults (unknown detector code, unknown remote controls codes, RF interference).
- Complete management via 485 serial of the commands (RF device acquisition \ RF device cancellation \ alarms and tampering cancellation \ failures cancellation \ RF failures cancellation \ remote controls block \ 3 dB attenuation).
- Complete management via 485 serial of the supervision settings (times and detectors to be supervised).
- Complete management of every single event.
- Complete management of the partializations from remote control.

Note: at each insertion of associated areas to at least one of the inputs in supervision failure of a RIVERRFPLUS, are reset fault memories of RIVERRFPLUS; This erases any fault and low battery status.

7.2 Input during programming

You enter the programming by moving the selector dip-switch shown below:

PROGRAMMING ► ◄ STANDARD FUNCTIONING
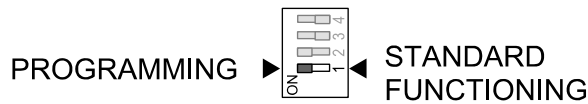
The status properly acquired is signalled with a beep of the internal buzzer of the concentrator and with the signalings of the corresponding LEDs to the detectors already in memory (previously acquired)

RADIO DETECTORS
PROGRAMMING STATUS LED

FUNCTIONS SELECTOR

SEL/SPEC

ACQUISITION = A
DELETION = C
SUPERVISION = S

TAMPER

1 2 3 4 5 6 7 8

RADIO ZONES LED CORRESPONDING TO AVAILABLE, DELETED OR ALREADY SAVED MEMORY POSITIONS

LEGEND

LED OFF ○   LED WITH SLOW BLINKING

LED ON ●   LED WITH FAST BLINKING
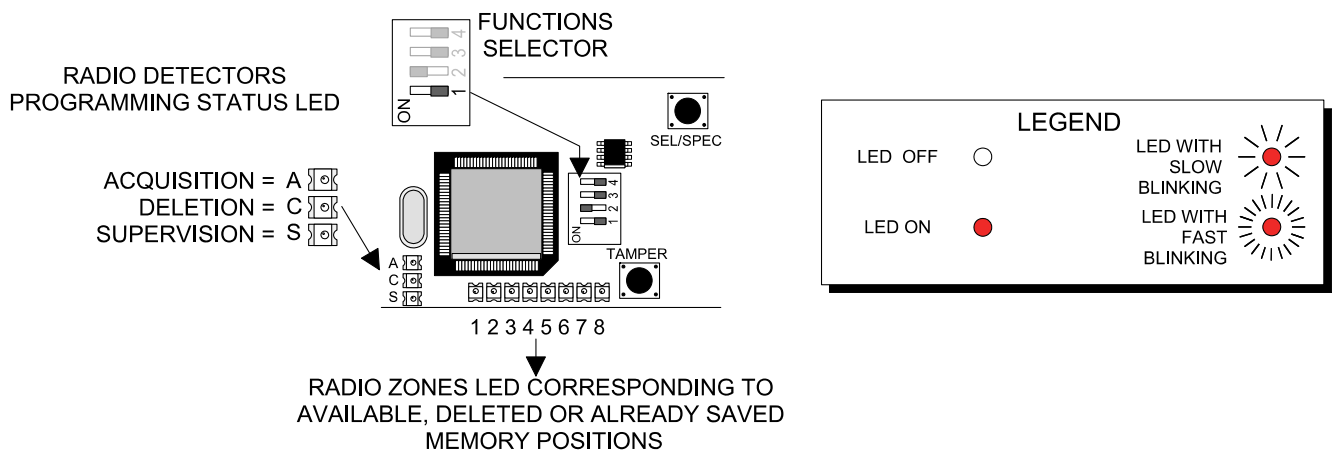
At each press of the **"SEL"** button will activate a specific programming mode that, for convenience, is shown in the following figure.
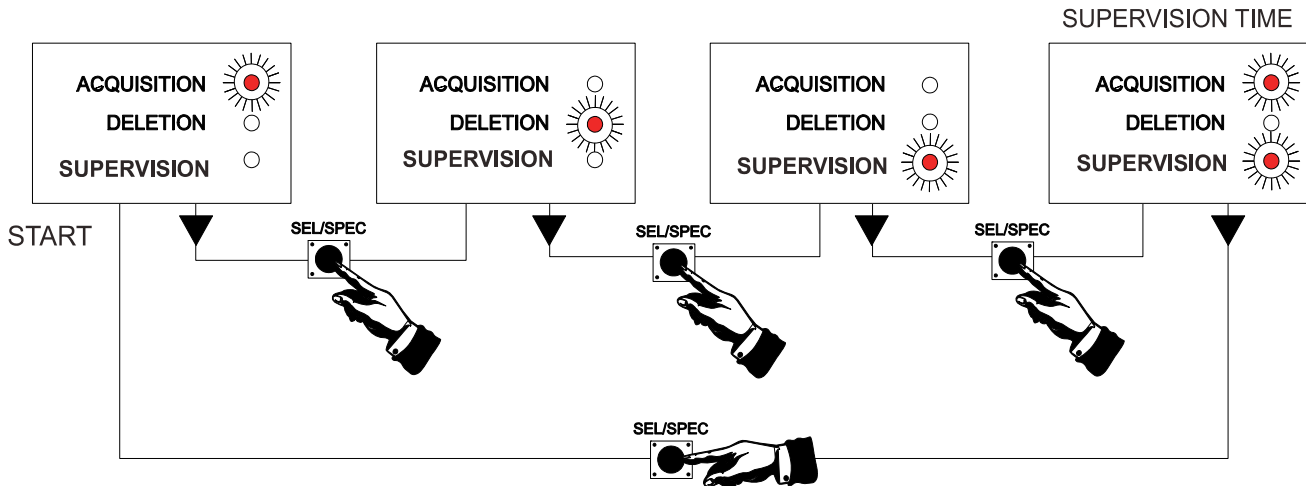
Note: the GROUP SELECTION written indicates the choosing possibility of the number of RIVERRF emulated by the concentrator, for example 1 or 2 or 3. **Default:** 3 RIVERRF.

During the different steps of acquisition/cancellation/supervision/setting of the supervision time/group selection, the LEDs of the wireless inputs (from 1 to 8) will assume the precise meanings as indicated in the following table:

Low flashing	Fast flashing	OFF LED	Fixed ON LED
If the cursor is in free position	If the cursor is in an occupied position	Free position not in the cursor presence	Occupied position not in the cursor presence

> **ATTENTION:** the positions of the 7 and 8 LEDs are not available if the concentrator is set for **REDUCED MODE** operation.

7.3 Detector/remote control acquisition

The first programming phase is displayed as follows.
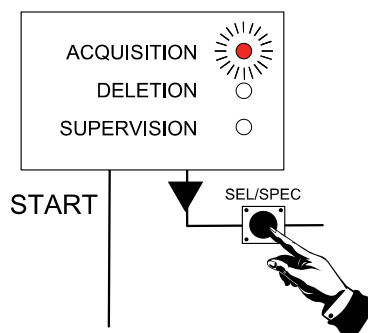
To enable the wireless detector or remote control acquisition is necessary to hold down the "SEL" button for about 2 s.:
   - The concentrator emits a beep
   - The LED Acquisition **(A)** starts to flash slowly

- Pressing again the "SEL" button, it is possible to choose which position of the wireless inputs associate the storing of the in progress code.
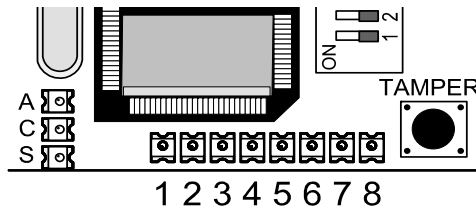
If there is a free position, the buzzer emits an error beep.

To move the cursor, you must press the "SEL" button.

If there are one or more free positions:

- Press the "SEL" button to reach the position where you want to store the new detector.
- Press and hold the "SEL" button for at least 2s
- The buzzer emits a beep and the LED of the wireless input (previously chosen) flashes quickly to indicate the waiting status for a transmission from the detector.
- As soon as a valid code is received the buzzer emits a confirmation beep.
- To exit this programming phase and continue press repeatedly the "SEL" button until the flashing described in the following paragraph.

7.4 Detector/remote control deletion previously stored

The second phase of programming is displayed as follows.
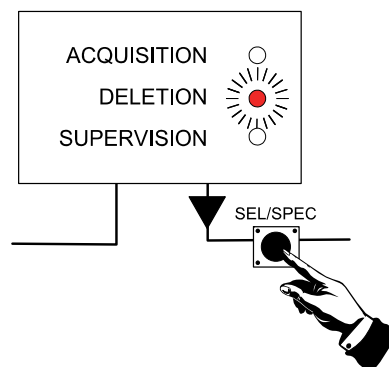
For this feature, it is necessary to press twice the "SEL" button at the start programming.

If there is not occupied position the buzzer beeps an error.

If there is one or more occupied positions:

- Reach by the "SEL" button the corresponding position to the detector or remote control to be deleted
- Press and hold the "SEL" button for at least 2s.
- The buzzer will beep and the LED of the wireless input flashes slowly to indicate that the detector code was deleted and that the position is now free for a new storage.
- To exit this programming phase and continue repeatedly press the "SEL" button until to obtain the flashing described in the following paragraph.

7.5 Definition of the supervision detectors

The third phase of programming is displayed as follows.
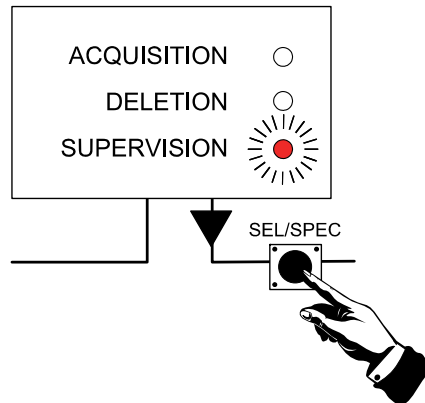
For this function is necessary to press three times the "SEL" button at the start programming.
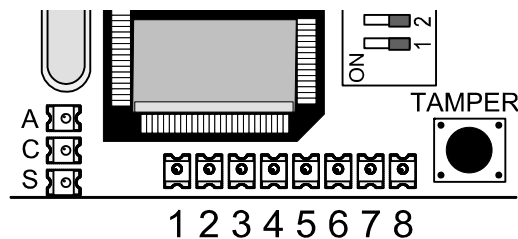
With reference to the wireless inputs indications in the previous image, the supervision status is the following:
- Every ON LED indicates that the corresponding detector can be supervised (SI).
- Each ON LED indicates that the corresponding detector can be supervised (SI).
- Each OFF LED indicates that the corresponding detector can not be supervised (NO).
- To change the YES/NO supervision status press and hold the "SEL" button for at least 2 seconds to change the detector status that can be supervised or not and viceversa.
- Press the "SEL" button to reach the position in which you want to define the control in supervision mode of the corresponding detector.
- To exit this programming phase and continue repeatedly press the "SEL" button until the flashing described in the following paragraph.

7.6 Definition of the supervision time

The fourth phase of programming is displayed as follows.
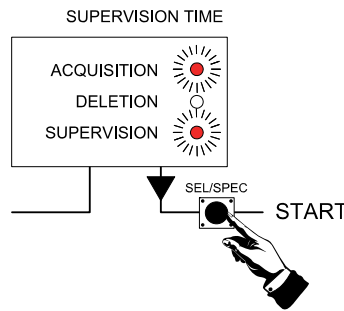
To get to this function you need to press four times the "SEL" button at the start programming.
Through the LEDs of the wireless inputs are shown factory default five times which can be chosen according to operational needs.
Press the "SEL" button until to reach the corresponding position to the desired timing.

1 2 3 4 5 6 7 8	MEANINGS
○○○○○○○○	NO SUPERVISION.
●○○○○○○○	30 minutes (to be set for conformity with EN50131). This program allows to use **only** the detectors and IVth series remote controls.
●●○○○○○○	90 minutes (to be set for conformity with CEI 79-16).
●●●○○○○○	3 HOURS.
●●●●○○○○	12 HOURS.

To save the choice and exit the menu, it is necessary to press for 2s the "SEL" button.
The supervision lack event is generated after passing a double time respects to programming.
The supervision timer restarts at each transmission for correctly received supervision.
The supervision timer is automatically reset at each cancellation of the memory or reset the supervision time.

7.7 Group selection

The fifth phase of programming is displayed as follows:
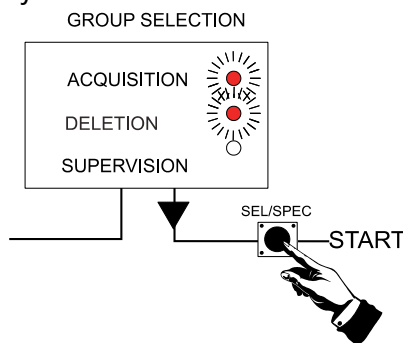
For this function is necessary to press four times the "SEL" button at the start programming
Through the LEDs of the wireless inputs are shown the number of RIVERRF concentrators will be active.

Press the "SEL" button to reach the position corresponding to the desired programming.

1 2 3 4 5 6 7 8	MEANINGS
● ○ ○ ○ ○ ○ ○ ○	Selecting the first cylinder bank, e.g. RIVERRF (8 inputs extended mode, 6 inputs reduced mode).
● ● ○ ○ ○ ○ ○ ○	Selecting the second group, e.g. two RIVERRF (16 inputs extended mode, 12 inputs reduced mode).
● ● ● ○ ○ ○ ○ ○	Selecting third bank, e.g. three RIVERRF (24 inputs extended mode, 18 inputs reduced mode). **Default.**

To save your choice and exit the menu, it is necessary to press for 2s the "SEL" button.

7.8 Exit from programming

To exit from the programming status, **it is necessary to move** the dip-switch in "OFF", NORMAL OPERATION.

PROGRAMMING ▶ ◀ STANDARD FUNCTIONING
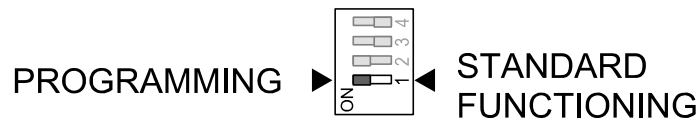
8. OPERATION

It comes into operation by moving the dipswitch of the selector in "OFF", NORMAL OPERATION as shown in the image:

PROGRAMMING ▶ ◀ STANDARD FUNCTIONING
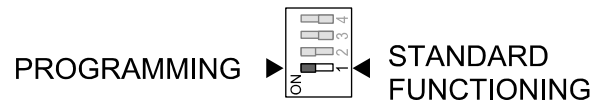
8.1 Viewings

8.1.1 Intensity of the received wireless signal

The LEDs that are used during programming to save/delete/supervision have, in operation, the display function of the intensity of the received RF signal; are normally off and are displayed with the following meaning:

A
C
S

Green LED = passed
Yellow LED = good
Red LED = excellent
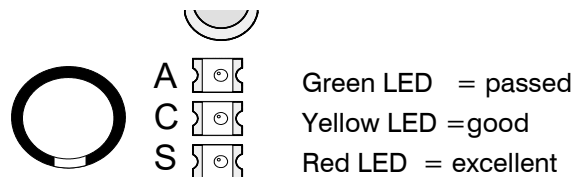
8.1.2 Unknown codes

When received a code of a unknown detector or remote control (namely not previously stored in the concentrator) the yellow LEDs of the RF signal flashing rapidly for 1s.

A
C
S

Yellow LED = fast flashing for 1s. for unknown code
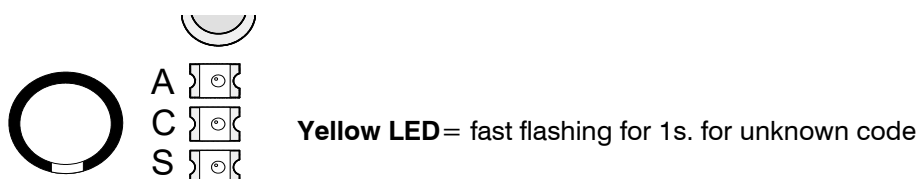
8.1.3 Detectors/remote controls status
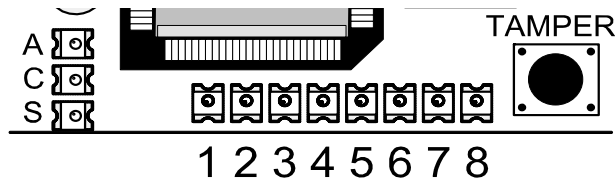
The LED detectors indicate the following conditions:
- **led off** = normal
- **led fixed on** = alarm if the detector or send command if remote control
- **led fast flashing** = tampering if detector or panic sending if remote control
- **led slow flashing** = failure (detector or remote control low battery, detectors supervision or fault).

IMPORTANT: RIVERRFPLUS incorporates 3 wireless concentrators, the 8 LEDs display a cumulative status of the devices stored in 3 concentrators with the specific priorities. The tampering status has the highest priority, the alarm status has normal priority, the fault status has low priority.

Operating example:

Concentrator input status No.1	Concentrator input status No. 2	Concentrator input status No. 3	Viewed status
ALARM	TAMPERING	FAULT	Fast Flashing
ALARM	FAULT	IDLE	On LED
IDLE	IDLE	FAULT	Slow flashing
IDLE	IDLE	IDLE	OFF Led

Note: the table is indicative. The columns of inputs status may be in a different order except the viewed status that depends on the management priority of each events.

Note: meanings of the 7 and 8 LEDs only in the housing configuration set for **REDUCED MODE** operation.

- **led 7 off** = normal   **fixed on** = low battery of at least a detector or remote control.
- **led 8 off** = normal   **fixed on** = supervision failure of at least a detector.

The displays are made in sequence of importance: tampering - alarm - anomaly.

Note: it is necessary to use the browser to know the specific input that generated the event displayed by the LED.

8.1.4 Specific events

Pressing the "SEL" button during the operation, it is possible to enter in a specific display mode so the LEDs RF signal indicate:

<table>
<tr>
<td rowspan="3"></td>
<td>**Green LED slow flashing** = concentrator status and the presence of RF interference.

In this case the LED sensors:

have the following meaning:
1 on = RF interference.
2 on = unknown detector code.
3 on = attempts remote controls unknown codes.
4 on = activated 3 dB attenuation.
5, 6, 7, 8 = reserved for future use.</td>
</tr>
<tr>
<td>**Yellow LED slow flashing** = batteries status of detectors\remote controls
Each detector LEDs displays the respective battery status:
on = low battery</td>
</tr>
<tr>
<td>**Red LED slow flashing** = receiving failure status of supervision transmissions by detectors.
Each LED detector displays the respective supervision status:
on = supervision failure</td>
</tr>
<tr>
<td></td>
<td>green + red LED slow flashing = detectors fault status
Each LED detector displays the corresponding fault status, on = detector fault</td>
</tr>
</table>

Note: for each event viewing there is a security time-out of 30s

8.1.5 Events cancellation

During the event viewing, it is possible to delete them by holding down the "SEL" button.

Note: the attenuation status is resettable only by moving the dip-switch 4 in NORMAL OPERATION as shown in the following image.
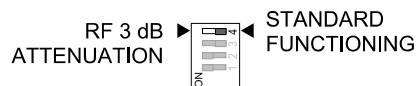
Using the concentrator with **EXTENDED MODE,** the attenuation function can be activated by a specific command sent in RS485 serial line.

8.2 <u>Outputs event</u>

8.2.1 Output event for unknown code detector

At the receiving of an unknown detector code, not previously stored, the concentrator:
- It activates the "unknown detector code" output if the concentrator is configured in **REDUCED MODE**, the output is pulsed with 4s duration.
- It generates a "unknown detector code" event if the concentrator is configured in **EXTENDED MODE.**

8.2.2 Output event for unknown remote control code

In the case of transmissions received from remote controls not previously stored, the concentrator starts to count them, to reach 10 unknown transmissions remote control type made within a time of 10 minutes, the concentrator generates:
- the activation of the output 1 on "unknown remote control code" if the concentrator is configured in REDUCED MODE, the output is stored (status). The output can be reset only by activating the exit 7 "RF interference cancellation".
- the "unknown remote control code" event if the concentrator is configured in **EXTENDED MODE.**
- This condition can only be reset by a specific command sent in RS485 serial line.

8.2.3 Output event for RF interference

In case of RF interference transmission, the concentrator generates:
- activation of the "RF interference" if the concentrator is configured in MODE LOW, the output is stored (state). The output can be reset only by activating the exit 7 "RF interference cancellation".
- the "RF interference" event if the concentrator is configured in EXTENDED MODE. This condition can be reset only by a specific command sent in RS485 serial line.

8.2.4 Output event for fault

In case of failure of at least one sensor, the concentrator generates:
- the activation of the "fault" if the concentrator is configured in **REDUCED MODE**, the output is stored (state). The output can be reset only by activating the exit 6.
- the "detector x fault" event if the concentrator is configured in **EXTENDED MODE**. This condition can be reset only by a specific command sent in RS485 serial line.

Note: the activation of the output 6 clears also the faults of LOW BATTERY and SUPERVISION LACK.

8.3 <u>Commands</u>

8.3.1 Remote controls block

It is possible to temporarily block all remote controls for 90s in the following ways:
- activating the output 8 "remote controls block" if the concentrator is configured in **REDUCED MODE.**
- by special command sent in RS485 serial line if the concentrator is configured in **EXTENDED MODE.**

8.3.2 Remote control unlock

During the block time of the remote controls, it is possible to unlock them immediately in the following way:
- disabling the output 8 if the concentrator is configured in **REDUCED MODE**
- It is possible to instantly unlock the remote controls by a specific serial command if the concentrator is configured in **EXTENDED MODE**

8.3.3 3 dB reduced sensitivity

To test the wireless range is possible to desensitize of 3dB the receiver sensitivity integrated in the housing, so as to simulate a negative RF condition.
If the concentrator is configured in **REDUCED MODE,** it is possible to obtain the purpose operating in one of the following ways:
- activating the exit 5 "attenuation 3 dB"
- moving the dip-switch 4 in ON

If the concentrator is configured in **EXTENDED MODE** it is possible to obtain the purpose operating in one of the following ways:
- by special command sent in RS485 serial line
- moving the dip-switch 4 in ON

9. ELECTRONIC OUTPUTS

If the concentrator is configured in **LOW MODE**, the electronic outputs assume functions for diagnostics and the control of the same concentrator.
The correspondences of the outputs are:

No. output	MEANING	
1	RF interferance	The first 4 are outputs for fixed local events, diagnostic, they can not be controlled in **REDUCED MODE.**
2	Unknown remote control code	
3	Unknown detector code	
4	Fault	
5	3dB sensibility reduction	The 4 commands can only be made with the ETR series (not ET4PLUS) activating the corresponding output
6	Fault cancellation (supervisions, low battery, faults)	
7	RF interference cancellation (RF interference, remote control or unknown detector)	
8	Remote controls blocks	

> **IMPORTANT: the activations of the 4 outputs corresponding to 4 commands activate only the commands but not the physical outputs.**

Note: in case of use of the concentrator in **EXTENDED MODE**, the 8 on board electronic outputs of the RIVER-RFPLUS can be freely controlled as a classic RIVER concentrator.

10. CONCENTRATOR RESET

10.1 Normal reset

Closure for few second of the Reset jumper and subsequent reopening. Effects:
- RIVERRFPLUS status will be reset.
- the outputs status will be reset and it is task of control unit to restore them.
- Setup settings (codes, time supervision and be supervised sensors) are retained in non-volatile memory.

Note: are maintained all the detectors status before reset but not remote controls.

Reset command sent via RS485 (e.g. when the control unit is reset). Effects:
- the RIVERRFPLUS status are reproduced as they were immediately before itself reset.
- the outputs status will be reset and it is the task of the control unit to restore them.
- Setup settings (codes, supervision times and supervised detectors) are retained in non-volatile memory.

Note: are maintained all the detectors status before reset but not remote controls.

10.2 Special reset

Press the SEL button and hold during the powered of the concentrator or with closed Reset jumper during the concentrator powered. Effects:
- the RIVERRFPLUS status will be reset.
- the outputs status will be reset and it is task of the control unit to restore them.
- Setup settings (codes, supervision time and supervised detectors) are reset.

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