

CE



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GLOBAL SECURITY SOLUTIONS

**CP-ET8/4x in ETR serial bus adapter
board**

mod. ETR-BUSCNV

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 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:

CP-ET8/4x in ETR serial bus adapter board

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 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).

YOUR DEALER:

1. GENERALS

ETR-BUSCVN allows to connect CP8/TR series transponders to the serial bus of ETR control unit.


The use of ETR-BUSCVN allows:

- The extension of intrusion detection systems managed by CP80, CP90, CP100 and ET8/48xx series control units which otherwise could not be extended when the above mentioned control units are working.
- The restore of the system when the control unit is to be substituted due to fault.

By installing an ETR control unit, and choosing the model according to the operating needs of NIRVA keyboards and ETR-BUSCVN board, it will be possible to:

- recover all the existing serial buses already wired with the transponders,
- restore the system quickly,
- save labour and reduce the apparatuses to be installed,
- guarantee a great operating flexibility
- guarantee excellent extension conditions.

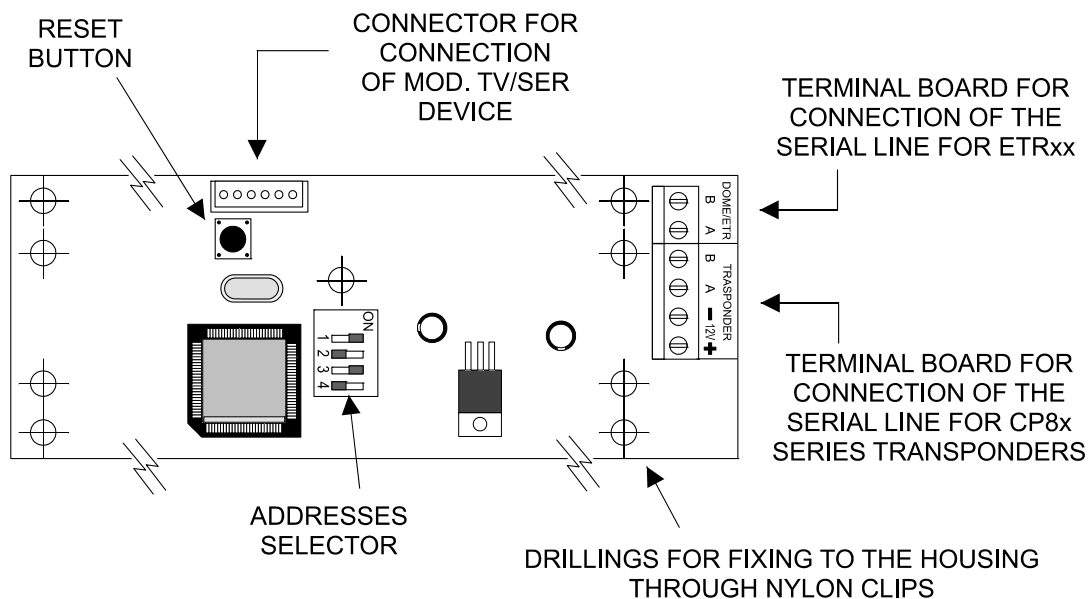
2. FEATURES

Model:	ETR-BUSCVN
Power supply:	12V  from the control unit or from remote power box.
Power consumption:	23mA.
Wirings:	terminals for ETR bus, terminals for CP8/xx and ET8/48x bus.
Selections:	internal dipswitch for the selection of addresses for CP8/xx and ET8/48x bus.
Connections:	connector for the control through TV/SER of CP8/xx and ET8/48x bus.
Operating temperature:	from -20°C to +50°C - 93% H.R.
Dimensions:	W50 x H192 x D17 mm.
Weight:	46g.
Parts supplied:	2 680 Ohm balance resistances, 4 Nylon clips, technical manual.

ETR-BUSCVN board is an optional accessory of ETR control units and compatible ones, and has passed tests provided for CE conformity marking.

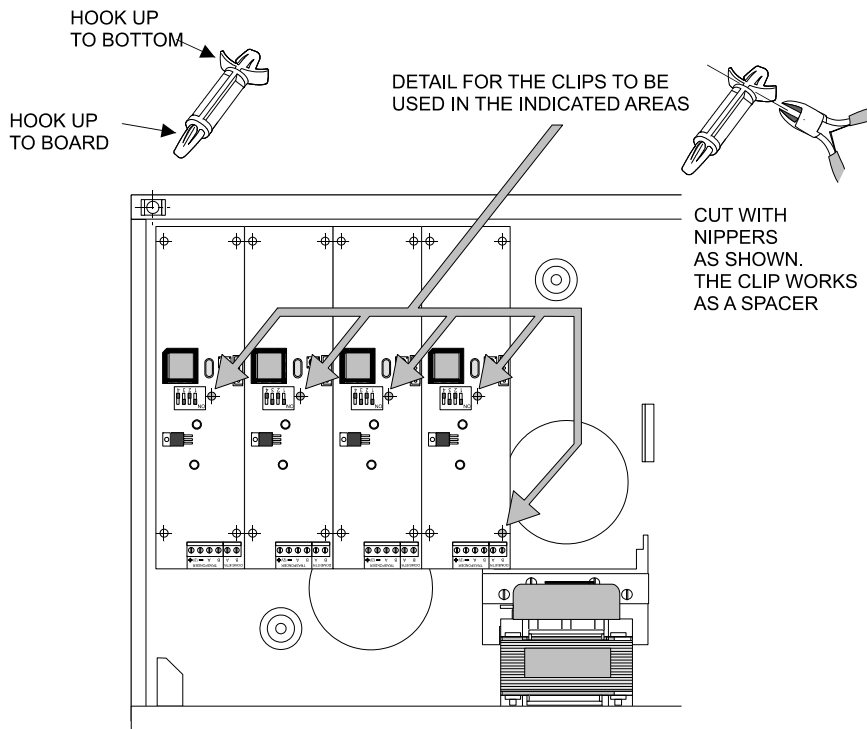
3. INSTALLATION

View of the board.

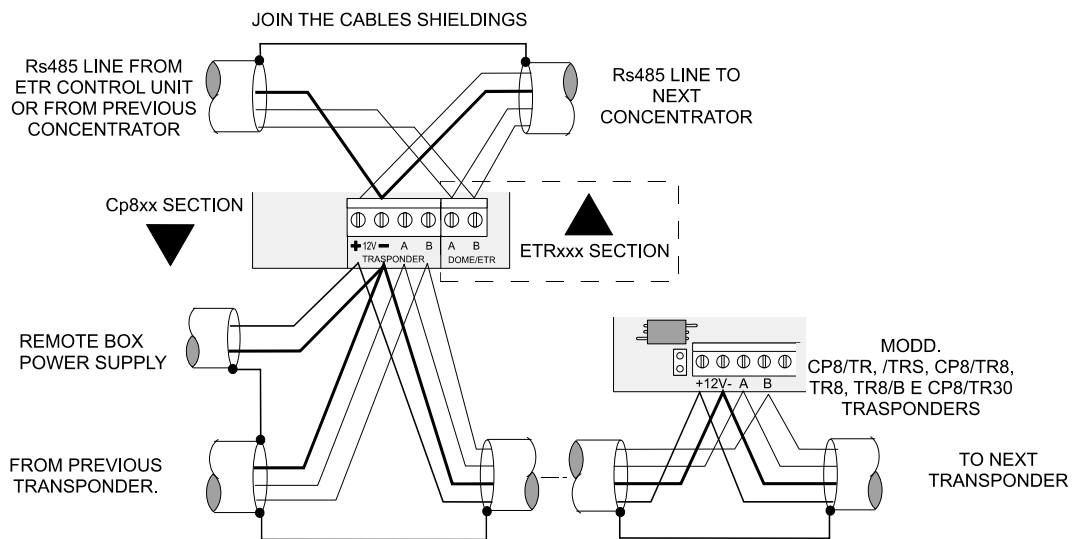


Mounting in the housing of ETR control unit, example with the maximum of installable boards for substitution of a CP100 control unit.

FOR THE FIXING OF BOARDS TO BE USED WITH SUPPLIED CLIPS



4. ELECTRICAL CONNECTIONS



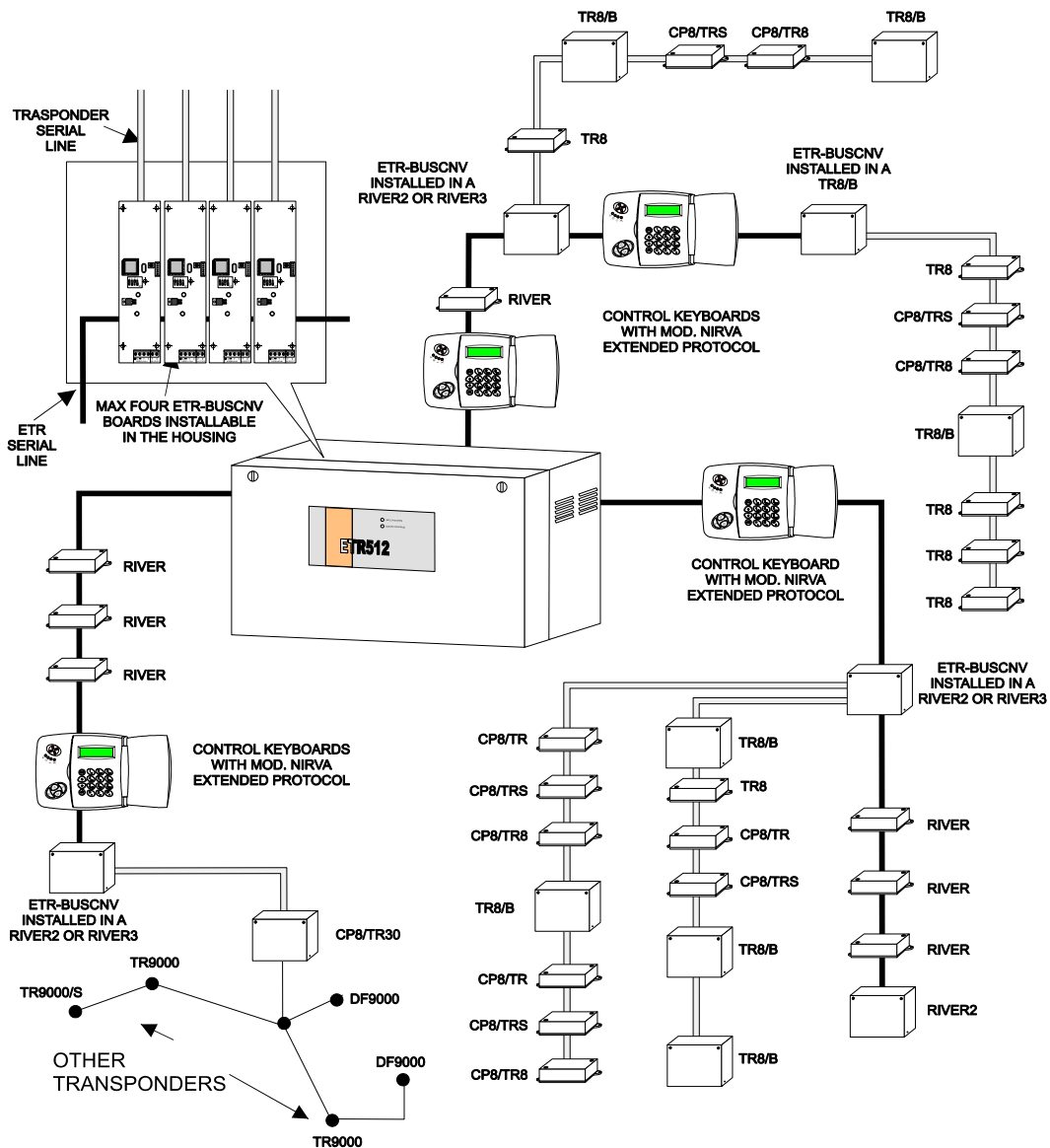
NOTE: +12V DOES NOT BELONG TO THE PREVIOUS DEVICE. THE IMAGE IS AN EXAMPLE OF REMOTE BOX POWER SUPPLY

JOIN THE CABLES SHIELDINGS

EACH SERIAL LINE CAN BE 1000 METERS LONG ON THE WHOLE
 CABLES SECTION MUST BE ADEQUATE, USE INTRUSION DETECTION CABLE WITH 2 X 1 + 2 X 0,50 mm² SECTION FOR SHORT DISTANCES
 USE 2 X 0,75+ 2 X 0,22 mm² SECTION CABLE
 IN CASE THE SERIAL LINE STARTS FROM ETR-BUSCNV BOARD IT IS NECESSARY TO CONNECT TO A AND B TERMINALS A 680 Ohm TERMINATION RESISTANCE; THE SAME RESISTANCE HAS TO BE INSERTED ALSO IN THE LAST TRANSPONDER.
 IN CASE THE SERIAL LINE IS "T" CONNECTED IT IS NECESSARY TO INSERT THE TERMINATION RESISTANCES IN THE TWO TRANSPONDERS PLACED AT THE TWO ENDS OF THE LINE.

5. USE BLOCK DIAGRAM

The maximum management capacity of a ETR512 control unit is of 8 ETR-BUSCNV boards of which 4 can be installed as shown in the mounting figure and 4 can be installed on field; these may be installed, for example, inside the metal housing of a RIVER2 or RIVER3 concentrator or of TR8/B as shown in the following image.



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

WARNING

The scheme does not indicate the connection of auxiliary power supply units, for example mod. C11/K. They always have to be installed on the power supply field of concentrators connected to RS485 serial line and to other suppliable devices.

ETR-BUSCNV can communicate with CP8-TR30 only if these are supplied with EPROM v.1.1, previous memory versions are not compatible. EPROM v.1.1 for CP8-TR30 is not a free upgrading.

6. PROGRAMMING

Conventions: The *transponders* indicate the peripheral devices managed in RS485 serial line from CP80, CP90, CP100 and ET8/48xx series control units for the control of the sensors connected to their inputs. The *concentrators* indicate the peripheral devices managed in RS485 serial line from ETRxxx series control units for the control of sensors connected to their inputs.

6.1 Generals

ETR-BUSCVN works as Master towards CP8/TR, CP8/TR8, TR8, TR8/B and TR9000x series transponders connected to CP8/TR30 board.

It behaves towards them as the originary control unit by collecting all the information sent in serial line both as the typical control of inputs, cutting, short-circuit, alarm, and as outputs control.

The collected information are memorized and sent to ETR control unit during the periodic interrogation phase (polling) of the peripherals.

On the other hand the communication part towards ETR control unit is operated in Slave mode by emulating a concentrators group. **To do so ETR-BUSCVN shifts of 16 units the numbering existing in the peripheral transponders of CP80, CP90, CP100 and ET8/48xx series.**

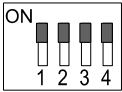
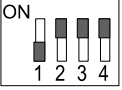
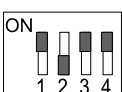

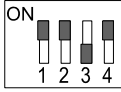
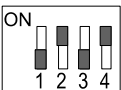
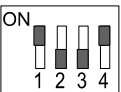
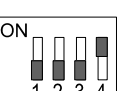
6.2 Addresses setting

Every ETR-BUSCVN board may be connected to several transponders for a maximum of 64 inputs.

The maximum management capacity of ETR control units is:

- 2 ETR-BUSCVN boards in case of ETR128,
from input 17 to 80,
from input 81 to 128, inputs from 129 to 144 are not managed
- 4 ETR-BUSCVN boards in case of ETR256,
from input 17 to 80,
from input 81 to 144,
from input 145 to 208,
from input 209 to 256, inputs from 257 to 272 are not managed.
- 8 ETR-BUSCVN boards in case of ETR512,
from input 17 to 80,
from input 81 to 144,
from input 145 to 208,
from input 209 to 272,
from input 273 to 336,
from input 337 to 400,
from input 401 to 464,
from input 465 to 512, inputs from 513 to 528 are not managed.

To program the inputs addresses correctly it is necessary to comply with the following chart:

ETR INPUTS	DIP POSITION
From input 17 to 80	
From input 81 to 144	
From input 145 to 208	
From input 209 to 272	
From input 273 to 336	
From input 337 to 400	
From input 401 to 464	
From input 465 to 528	

6.3 Practical example

A CP90 has to be substituted with two serial lines complete with all transponders, a line from address 1 to 64 managed by a CP8/PS, a line with address from 65 to 128 managed by another CP8/PS.

The first serial line must be connected to the first ETR-BUSCNV with the four dipswitch on ON, the existing transponders with address from 1 to 64 will be considered by ETRxxx as devices having addresses from 17 to 80.

The second line must be connected to the second ETR-BUSCNV with dipswitch n°1 on OFF and the other dipswitches (2, 3, 4) on ON, the existing transponders with addresses from 65 to 128 will be considered by ETRxxx as devices having addresses from 81 to 144.

6.4 Observations

In case of uncomplete use of the addresses of a transponder line it is possible to use the free addresses again by wiring the concentrators on the serial line of ETR control unit.

6.4.1 Connection of ETR-BUSCNV with Cp8/Tr30 and Cp8/Tr

When a Cp8/Tr30 is connected it takes up 30 inputs. The following 2 inputs, if not taken up by a Cp8/Tr, will take the cutting status.

After the self-learning of the peripherals it is convenient to program them as NOT CONNECTED in the control unit through the use of the browser.

The same is valid for a bus in which some Cp8/Tr are present and the bus is not full. After the peripherals self-learning some inputs, which do not have a corresponding transponder, may be connected: these ones have to be disconnected from the browser.

6.4.2 Transponder tamper event on Cp8/Tr

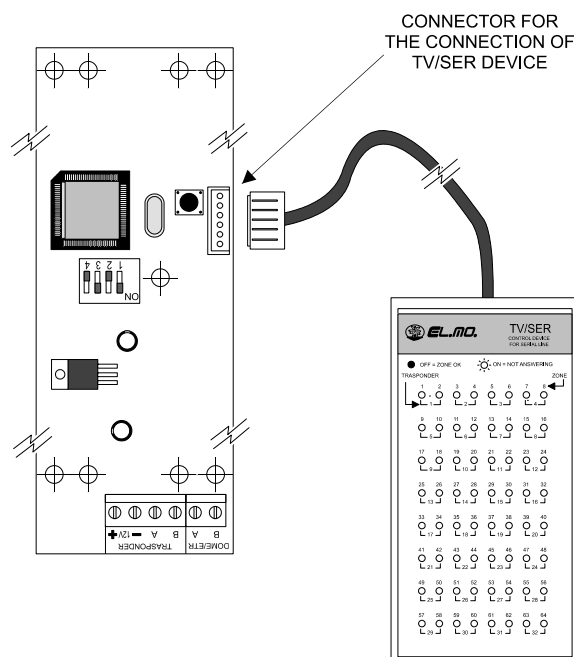
When the anti-opening protection of a Cp8/Tr is enabled, the control unit signals the transponder tamper of 8 inputs; between those there are 2 inputs which are actually tampered.

7. CHECKS

The use of ETR-BUSCNV allows the connection of TV/SER device for the check of the serial transponders line of CP80, CP90, CP100 and ET8/48xx series, with the aim of detecting any addresses collisions or serial line malfunctionings.

The display refers to the 64 inputs which are manageable with the single serial line.

The device will have to be connected to the connector shown in the following image.



8. DISPOSAL INSTRUCTIONS

Dispose of ETR-BUSCNV 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.

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