ROSSLARE
SECURITY PRODUCTS

AC-215U

Single and Double Door Access Control Unit Hardware Installation Guide

December 2006

Copyright and Version Number

Information in this document, including URL and other Internet Web site references, is subject to change without notice. Unless otherwise noted, the example companies, organizations, products, people and events depicted herein are fictitious and no association with any real company, organization, product, person or event is intended or should be inferred.

© Copyright 2003 Rosslare. All rights reserved.

Rosslare, the Rosslare logo, and the Rosslare products referred to herein are either the trademarks or registered to the trademarks of Rosslare, All other trademarks are the property of their respective owners.

Software License Agreement.

ROSSLARE IS WILLING TO LICENSE THE ENCLOSED SOFTWARE ONLY ON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS LICENCE AGREEMENT. This is a legal agreement between you (either the individual or the end-user or an entity) and Rosslare. By opening this software package, you are agreeing to be bound by the terms and conditions of this Agreement. If you do not agree to the terms of this Agreement, promptly return the software package and other items that are part of this product in their original package with your payment receipt to your point of purchase for a full refund. Grant of License. Rosslare and its suppliers grant you a nonexclusive license to use one copy of the enclosed software program (”Software”) on one computer with the Rosslare product you have purchased. No other rights are granted. The software is in use if it is loaded on the computer’s permanent or temporary memory. For backup purposes only you may make one copy of the Software. You must include on the backup copy all copyright and other notices included on the Software as supplied by Rosslare. Installation on a Network server for the sole purpose of your internal distribution of the Software is permitted only if you have purchased an individual software package for each networked computer to which the software is distributed. Restrictions. Rosslare and its suppliers retain ownership of the Software. You may not decompile, disassemble, reverse engineer, or modify the Software in any way. You may not transmit the software over a network (except as expressly permitted above), by telephone, or electrically using any means. You may not transfer the Software except upon a permanent transfer of the enclosed Rosslare product provided that all software updates are included in the transfer, you do not retain a copy of the Software, and the transferee agrees to be bound by the terms and conditions of this license. Upon any violation of any of the provisions of this Agreement, rights to use the Software shall automatically terminate and the Software must be returned to Rosslare or all copies of the Software destroyed. Limited Product Warranty. Rosslare warrants that any hardware products accompanying this documentation shall be free from significant defects in material and workmanship for a period of one year from the date of purchase. Rosslare also warrants that the Software accompanying this documentation will perform substantially in accordance with the documentation for a period of 90 days from purchase. Rosslare’s hardware and software warranty is nontransferable and is limited to the original purchaser. Product Remedies. Rosslare’s entire liability and the licensees exclusive remedy for any breech of warranty, shall be, at Rosslare’s sole option, either a) return the price paid or b) repair or replacement of hardware or software, provided that the hardware is returned to the point of purchase, with a copy of the sales receipt. Any replacement hardware and software will be warranted for the remainder of the original warrantee period or 30 days for the hardware and 30 days for the software, whichever is longer. The remedies are void if failure of the software or hardware has resulted from abuse, accident or misapplication.

Limitation of Liability

THE WARRANTIES SET FORTH IN THIS AGREEMENT REPLACE ALL OTHER WARRANTIES. ROSSLARE EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS WITH RESPECT TO THE DOCUMENTATION, SOFTWARE, AND HARDWARE. NO ROSSLARE DEALER, AGENT, OR EMPLOYEE IS AUTHORISED TO MAKE ANY MODIFICATION, EXTENSION, OR ADDITION TO THIS WARRANTY. IN NO EVENT WILL ROSSLARE OR IT"S SUPPLIERS BE LIABLE FOR ANY COSTS OF PROCUREMENT OF SUBSTITUTE PRODUCTS OR SERVICES, LOST PROFITS, LOSS OF INFORMATION OR DATA, OR ANY OTHER SPECIAL DIRECT OR INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ARISING IN ANYWAY OUT OF THE SALE, OF, USE OF, OR INABILITY TO USE ANY ROSSLARE PRODUCT OR SERVICE, EVEN IF ROSSLARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO CASE SHALL ROSSLARE'S LIABILITY EXCEED THE ACTUAL MONEY PAID FOR THE PRODUCTS AT ISSUE. Because some jurisdictions do not allow the implementation of limited warranties or liability for incidental, consequential, special, or indirect damages, the above limitation may not always apply. The above limitations will not apply in case of personal injury where and to the extent that applicable law requires such liability.

U.S. Government Restricted Rights

The software is provided to the U.S. Government only with restricted rights and limited rights of use, duplication or disclosure by the U.S. Government is subject to restrictions set forth in 48 C.F.R 2.101 (Oct 1995) consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation" as such terms are used in 48 C.F.R. 12.212 (September 1995), and in FAR Sections 52-227-14 and 52-227-19 or DFARS Section 52.227-7013 (C) (ii), or their successors, as applicable. Consistent with 48. C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7204-1 (June 1995), or any successor regulations, this software is provided to the terms and conditions herein. Contractor/ Manufacturer Rosslare Enterprises Ltd. 12 Wang Tai Road, Hong Kong

Table of Contents

About this manual

This manual is intended for anybody installing and or commissioning the AC-215U access control system.

We recommend that this manual be read in full before the Veritrax AS-215 software and AC-215U Access Control System installed.

Introduction to AC-215U ACU

The AC-215U, access control system, and the Veritrax AS-215 PC software are combination that gives full control over the entrances of your premises. Veritrax AS-215 software supports control for both single and double door entrances where up to 255 AC-215U Access Control Units (ACU) can be monitored.

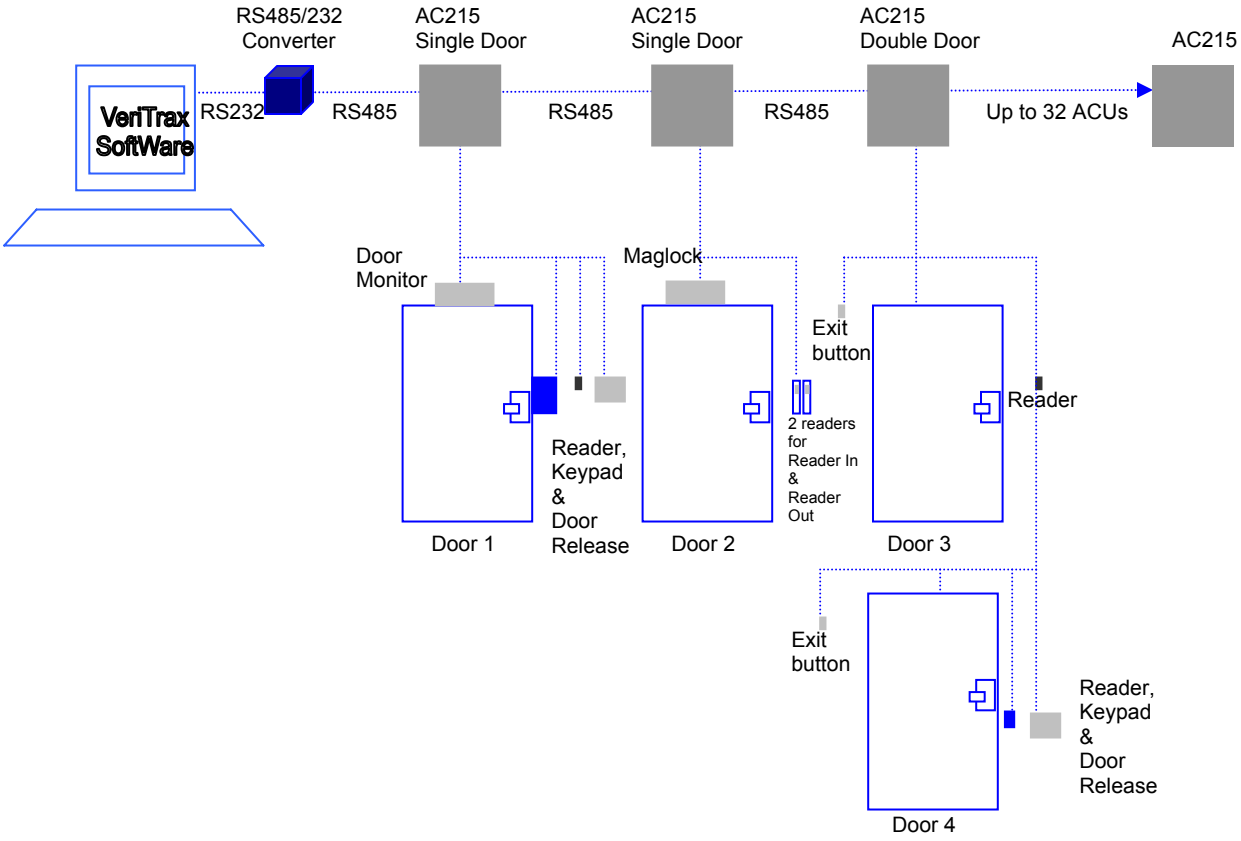
AC-215U employs the latest technology to meet the requirements of the market. Up to 510 doors and 5000 users can be supported using the Veritrax AS-215 software. The product's flash memory enables easy firmware upgrades.

Veritrax AS-215 software, which is user friendly and intuitive, defines settings and event logs. A single server, communicating to and from the ACU, can serve unlimited network clients. The system's database is saved in the server. The database can be set to backup and can import/export previous configurations. Clients are able to modify the database, for example, define new employees and/or their access permissions.

Veritrax AS-215 can be run on Windows 98, 2000, NT and XP.

The following diagram is an example of how the Veritrax AS-215 and AC-215U system can be set up.

The Veritrax AS-215 software and associated computer monitoring equipment has not been evaluated by UL.



System Components

The AC-215U consists of the following components:

- AC-215 controller board
- The Enclosure
- PS-14 power supply

Main Features

AC-215U

- Two IN/OUT readers
- Four Inputs
- Four Outputs
- Optional secure mode that requires card and PIN entry
- Antipassback real and time with forgive feature
- Up to 4 different site codes
- Automatic operation by time zone for every output
- Optional first person delay before automatic door unlocking
- Optional expanded lock operation time
- Activated auxiliary output by reader transactions or authorized users
- Door and panel Alarms - door forced , door held open, door held open alert and tamper alarm
- Programmable relock when opening/closing doors
- Man trap door in double door configuration
- Built in sounder generator for chime, bell and siren signals

System

- Up to 255 ACU
- Up to 8 networks
- Up to 32 ACU in every network (64 doors in every network)
- 5000 users
- 5000 log events
- 64 holidays (copied from MS Outlook – option)
- 32 time zones
- 128 access groups

AC-215U Single and Double Door Access

The access to an entrance is first set as either single or double door in the Veritrax AS-215 software, this definition is then downloaded to the panel.

- **Single Door Controller**

This access type has two readers, IN or OUT

Outputs: Door lock strike

Auxiliary output

Alarm output

General purpose output

Inputs: Release to exit

Door monitor input

Tamper input

General purpose input

- **Double Door Controller**

This access type has two readers, IN or OUT

Outputs: Door 1 lock strike

Door 1 alarm output

Door 2 lock strike

Door 2 alarm output

Inputs: Release to exit door1

Door 1 monitor input

Release to exit door 2

Door 2 monitor input

Software

Veritrax AS-215 software is user friendly and intuitive. Its graphic interface is used to define settings, which are downloaded to the ACU and event logs which are uploaded to the PC to generate reports. A single server, which communicates to and from the ACU, can serve unlimited network clients.

The system's database is saved in the server. The database can be set to backup and can input/export previous configurations. Clients are able to modify the database, for example, define new employees and their access permissions.

The software enables features to be added as and when they are required. The modular software enables the user interface to be as powerful and strong as required and yet remains simple to use. The software can be set for automatic backup on a periodic basis.

Veritrax AS-215 can be run on Windows 98, 2000, NT and XP.

Technical Specifications

Electrical Characteristics	
Operating Voltage	12V DC 0.5A from PS-14
Maximum Input Current	Standby: 125mA Maximum: 325mA (Not including attached devices)
General Inputs	4 supervised high impedance inputs. Maximum voltage: 5V DC
Relay Outputs	4 Relay outputs 5A Relay N.O. and N.C. options
Reader Ports	2 Reader ports Output voltage: 12V DC Max. Current: 300mA LED control output D0/D1, tamper input
Visual Indicators	8 LEDs
Audio	Built in sounder (Bell, Chime and Siren)
Communication Characteristics	
R232	
RS485	
Termination Resistor	130 Ohm
Speed	9600/19200/38400/57200 bits per second
Reader	2 reader ports Output voltage 12

Environmental Characteristics	
Operating Temp. Range	32°F - 120°F (0°C - 49°C)
Operating Humidity	0 - 85% (Non-condensing)
Dimensions	
Height x Width x Depth	10.4” (264mm) 13.2” (334mm) 3.4” (84.5mm)
Weight	8.31 lbs (3.77 kg)
Transformer	
Environmental Characteristics	
AC Transformer (Such as Universal Power Group part no. UB1640W)	120V AC/16.5V AC 2.42A (40VA) Class 2 (not included)
Power Supply Specifications	
Input Voltage	16.5V AC/2.42A
From Transformer - Output Voltage 1	13.8V/300mA
From Transformer - Backup Battery Charger	12VDC Lead Acid battery up to 7A/H For UL installations, use a 7Ah battery for 4 hours minimum backup time.
From Transformer - Output Voltage 2	12VDC/0.5A
ACU - Output Voltage 3	12VDC/1.5A
Power Supply Indication	
Tamper Output (open collector)	Indicates faulty power
Power LEDs	
Power in (AC) Green LED1	Main power
Power out (DC) Red LED2	Low voltage
Charger (BAT) Red LED3	Back up battery low voltage

Inputs and Outputs

This chapter discusses the AC-215U ACU input and output requirements.

Inputs

Release to Exit Button (REX)

REX enables quick exit from a premises. The following should be defined:

Single door controller:	Door 1 - IN1
Double door controller:	Door 1 - IN 1
	Door 2 - IN 2

Usually the REX input is connected to a push button that is located inside the premises. The push button opens a door without reading a proximity card or PIN code.
Generally, the REX is located in a convenient position, for example, near Reception, and is always set as enabled in the Veritrax AS-215 software.

Door Monitor

The Door Monitor connects to a door's micro switch for door status monitoring. The following should be defined:

Single door controller:	Door 1 - IN1A
Double door controller:	Door 1 - IN 1A
	Door 2 - IN 2A

Two alarm states can be generated:

- Forced alarm- When the door is forcibily opened by unauthorized persons
- Door held open alarm- When the door is open for a period exceeding the lock strike programmed open time

A Door held open alert can be generated by activating chime on speaker to remind that the door should be close.

After the ACU enables access, the lock is activated according to its programmed time until one of the following occurs:

- The ACU stops lock activation immediately after the door opens
- The ACU waits for the door to close. (This can help to reduce tailgating)

When the door open time period expires the ACU ends lock activation.

Tamper

The internal tamper switch must be connected to a UL Listed burglary unit.

Refer to the selected UL Listed burglary unit for connection instructions.

General

The General input connects to any general-purpose dry contact input.

Single door controller: Door 1 – IN2A

This function can be used when activating the general-purpose output connections (for example, alarm sensors, monitoring power supply failure, etc.). The ACU reports activation if this input changes status.

The system has four output relays. Their contacts are voltage free and rated 5A at 12V AC or DC. This indicates that output is very versatile and can operate virtually any electrical equipment including Fail Open and Fail Close locks, electric gates and so on.

Outputs

We recommend using a suppression diode for all outputs.

Door Lock

There are two types of door locking devices:

- Fail open (fail secure)
- Fail close (fail safe)

The user can select either normally open or normally closed output contacts.

The following should be defined:

Single door controller: Door 1 – OUT1

Double door controller: Door 1 – OUT1
Door 2 – OUT2

The output can sink current from any power supply (see page 8). In a time zone door locking is activated in the following modes:

- Grant Access
- Automatic Relock

The output can provide 12 VDC power up to 1.5A for external door locks. For higher rated door locks an external UL 294 Listed power supply must be used to provide power to the door lock.

For UL installations, the installer must configure the system as fail-safe to comply with NFPA (National Fire Protection Association) regulations.

Door Alarm

This output is activated when either an alarm occurs in the system, or automatically by a time zone. The following should be defined:

Single door controller:	Door 1 – OUT1A
Double door controller:	Door 1 – OUT1A
	Door 2 – OUT2A

The output can be activated for a specified time and closes when the timer ends

Auxiliary

This output is activated when a transaction occurs in the readers that are either associated with auxiliary, or automatically by a time zone. The following should be defined:

Single door controller:	Door 1 – OUT2

The output has two activations modes:

- Time – active for a specified time and closes when the timer ends.
- Toggle – active for every change in the output trigger. The trigger changes state.

General

This output is usually related to the general input or automatically by a time zone. The following should be defined:

Single door controller:	Door 1 – OUT2A

The output has three activation modes:

- Follow input – output follows the input state
- Toggle – active for every change in the output trigger. The trigger changes state
- Time – active for a specified time and closes when the timer ends

Card Readers

Two card readers can be connected to the ACU. The following should be defined:

Single door controller:	Door 1 – Reader 1 IN/OUT/auxiliary
	Reader 2 IN/OUT/auxiliary
Double door controller:	Door 1 – Reader 1 IN/OUT
	Door 2 – Reader 2 IN/OUT

The readers can be assigned to a single or double door controller's door as an IN or OUT reader and can activate the auxiliary output in a single door configuration.

The reader's tamper connects to the ACU and can generate an alarm. The reader's green LED input is activated by the ACU when in the Card and PIN secure mode to inform the user to enter his personal PIN number after entering his card.

Keypad

Two keypads can be alternatively connected to the ACU on Reader1 and Reader2 terminals. The following should be defined:

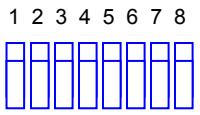
Single door controller:	Door 1 Keypad - Reader 1 IN/OUT
	Keypad - Reader 2 IN/OUT
Double door controller:	Door 1 Keypad - Reader 1 IN/OUT
	Door 2 Keypad - Reader 2 IN/OUT

The keypad type must be a Rosslare format keypad.

A keypad has to be connected for any reader mode that requires PIN code entries, such as Card or PIN, PIN only or Card and PIN (Secured mode).

Dipswitch Settings Configuration

The ACU Dipswitch controls a number of operating parameters including the device address and baud rates for serial communication.



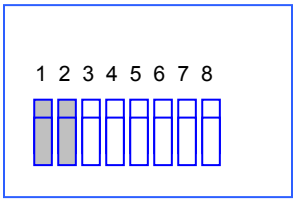
Power down the ACU before making changes in the dipswitch settings. Restart the ACU after modifications are made. The new settings are automatically defined after power up.

The following is a list of dipswitch numbers and their functions:

Dipswitch	Function
1-2	Set ACU baud rate
3	Sets ACU type (single door or double door controller)
4-8	Set ACU address

ACU Baud Rate

The ACU serial port baud rate, set in dipswitches one and two, defines the communication speed for connecting with a PC in a network connection.



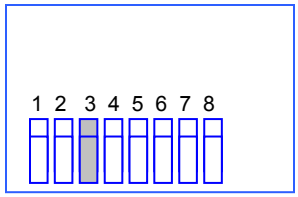
The following lists switch 1 and 2 status and baud rate:

Switch 1	Switch 2	Baud Rate
Off	Off	9600
Off	On	19200
On	Off	38400
On	On	57600

The ACU baud rate must be identical to the host PC's serial port baud rate

ACU Type

The ACU type is defined using the third dipswitch. Both the single and double can be set.



- **Off** - defines single door controls
- **On** - defines a double door controls

Single Door Controller

This access type has two readers, IN and OUT, as follows:

Outputs:	Door lock strike
	Auxiliary output
	Alarm output
	General purpose output
Inputs:	Release to exit
	Door monitor input
	Tamper input
	General purpose input

For more information refer to the Input Output chapter, page 9.

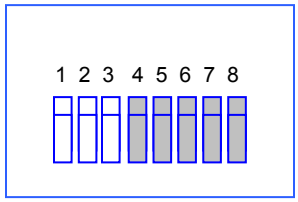
Double Door Controller

This access type has two readers, IN and OUT, as follows:

Outputs:	Door 1 lock strike
	Door 1 alarm output
	Door 2 lock strike
	Door 2 alarm output
Inputs:	Release to exit door1
	Door 1 monitor input
	Release to exit door 2
	Door 2 monitor input

ACU Addressing

The dipswitch is used to select the binary coded ACU address.



The ACU address is defined in the Veritrax AS-215 software. For successful communications, the dipswitch must be defined with the same address.

The following table gives all the 32 dipswitch settings available.

Address	Switch 4	Switch 5	Switch 6	Switch 7	Switch 8
1	Off	Off	Off	Off	Off
2	Off	Off	Off	Off	On
3	Off	Off	Off	On	Off
4	Off	Off	Off	On	On
5	Off	Off	On	Off	Off
6	Off	Off	On	Off	On
7	Off	Off	On	On	Off
8	Off	On	On	On	On
9	Off	On	Off	Off	Off
10	Off	On	Off	Off	On
11	Off	On	Off	On	Off
12	Off	On	Off	On	On
13	Off	On	On	Off	Off
14	Off	On	On	Off	On
15	Off	On	On	On	Off
16	On	On	On	On	On
17	On	Off	Off	Off	Off
18	On	Off	Off	Off	On
19	On	Off	Off	On	Off
20	On	Off	Off	On	On
21	On	Off	On	Off	Off
22	On	Off	On	Off	On
23	On	Off	On	On	Off
24	On	Off	On	On	On
25	On	On	Off	Off	Off
26	On	On	Off	Off	On
27	On	On	Off	On	Off
28	On	On	Off	On	On
29	On	On	On	Off	Off
30	On	On	On	Off	On
31	On	On	On	On	Off
32	On	On	On	On	On

Communications

Communication lines are used to upload and download information between the ACU and the Veritrax AS-215 software. Communication between the ACU and PC is displayed by the system's two LEDs.

- The RX LED flashes when the controller receives data
- The TX LED flashes when the controller transmits data

The ACU address is defined in the Veritrax s AS-215 software. For successful communications, the dipswitch must be defined with the same address.

There are three connection modes:

- Serial
  - RS232
  - RS485
- Modem
- LAN

Serial Connection

The PC Serial Port controlling the ACU is assigned in the Network Properties in the Veritrax AS-215 software. By default the default is set to 9600 for direct connection to the PC using the standard RS232 interface.

RS232 Connection

ACU	DB9 Connector	DB25 Connector
GND	Pin 5	Pin 7
Tx	Pin 2	Pin 3
Rx	Pin 3	Pin 2

The RS232 connection can only be used for one ACU. The distance between the PC and ACU can be no more than 150 feet (50 meters). If the baud rate is increased to 57600 the distance can be up to 30 feet (10 meters). J1 must be in the right position to select the RS232 communication.

RS485 Connection to the PC

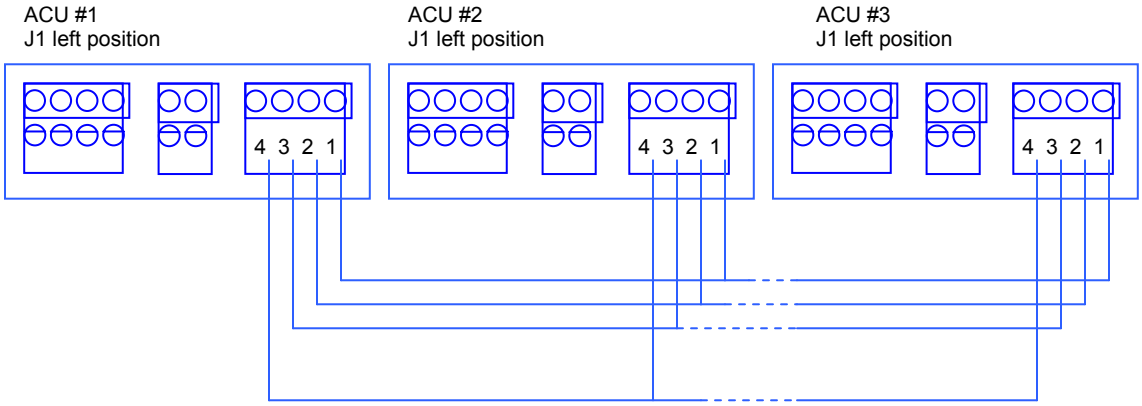
Up to 32 ACU's can be linked together and connected to a single communication port on the PC.

The RS485 interface must be used when multiple controllers are connected. The serial port used to control the ACU is assigned in the Veritrax AS-215 software Network Properties dialog box.

ACU supports the two-wire RS485 interface. RS485 interface enables the distance between the ACU and PC to be extended up to 4000 feet (1300) meters. The data line wiring must be in daisy chain formatting with one control unit following another. The first ACU connecting to the PC must use the MD14 RS485 to RS232 adaptor.

✦ Daisy Chain

Communication lines must be wired in daisy chain format with one ACU following another.



J1 must be in the left position.

✦ Termination Resistors

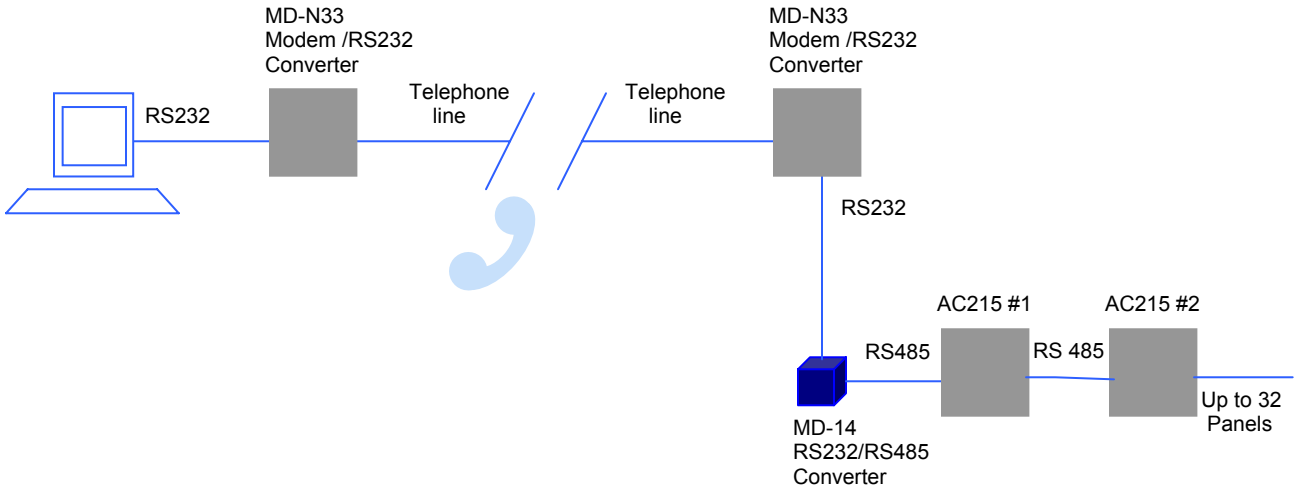
At each end of the data line a termination resistor of 130 ohm is required across the L1 and L2 connections.

Modem

The PC modem connection, used to control the ACU, is assigned in the Veritrax AS-215 software's Network Properties dialog box.

The modem is used when the distance between the ACU and the PC is greater than the recommended serial connection distance or in an application where an alternative RS232/RS485 network is unavailable.

The following diagram illustrates remote site modem configuration with AC215.



For more information refer to Appendix B

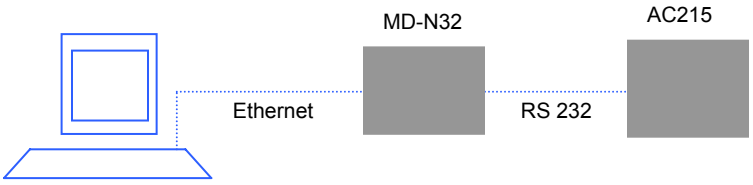
Communication through the Local Area Network (LAN)

The TCP/IP connection, used to control the ACU, is assigned in the Veritrax AS-215 software's Network Properties dialog box.

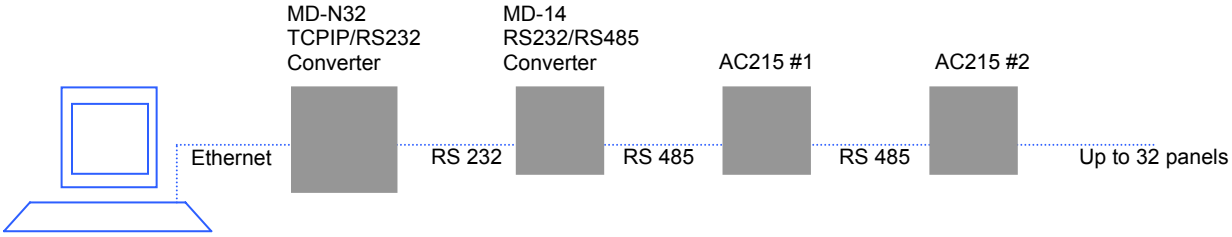
The PC running the Veritrax AS-215 software can communicate with the ACU through the LAN card inside the PC. The ACU connects to the LAN using Rosslare MD-N32 TCP/IP to RS232 gateway converter. MD-N32 can be connected in any legal network address in the Local Area Network.

The following type of connection is used when a LAN network already exists and therefore the long RS485 network is not required. This schematic illustrates the connection of a single AC215 to the PC using the LAN network.

MD-N32 must be first configured by Rosslare's Netconfig software. The setting is stored in a non volatile memory in the MD-N32.



Multiple ACUs can be connected by adding an RS485 converter (MD-14) between the RS485 ACUs network and MD-N32 converter.

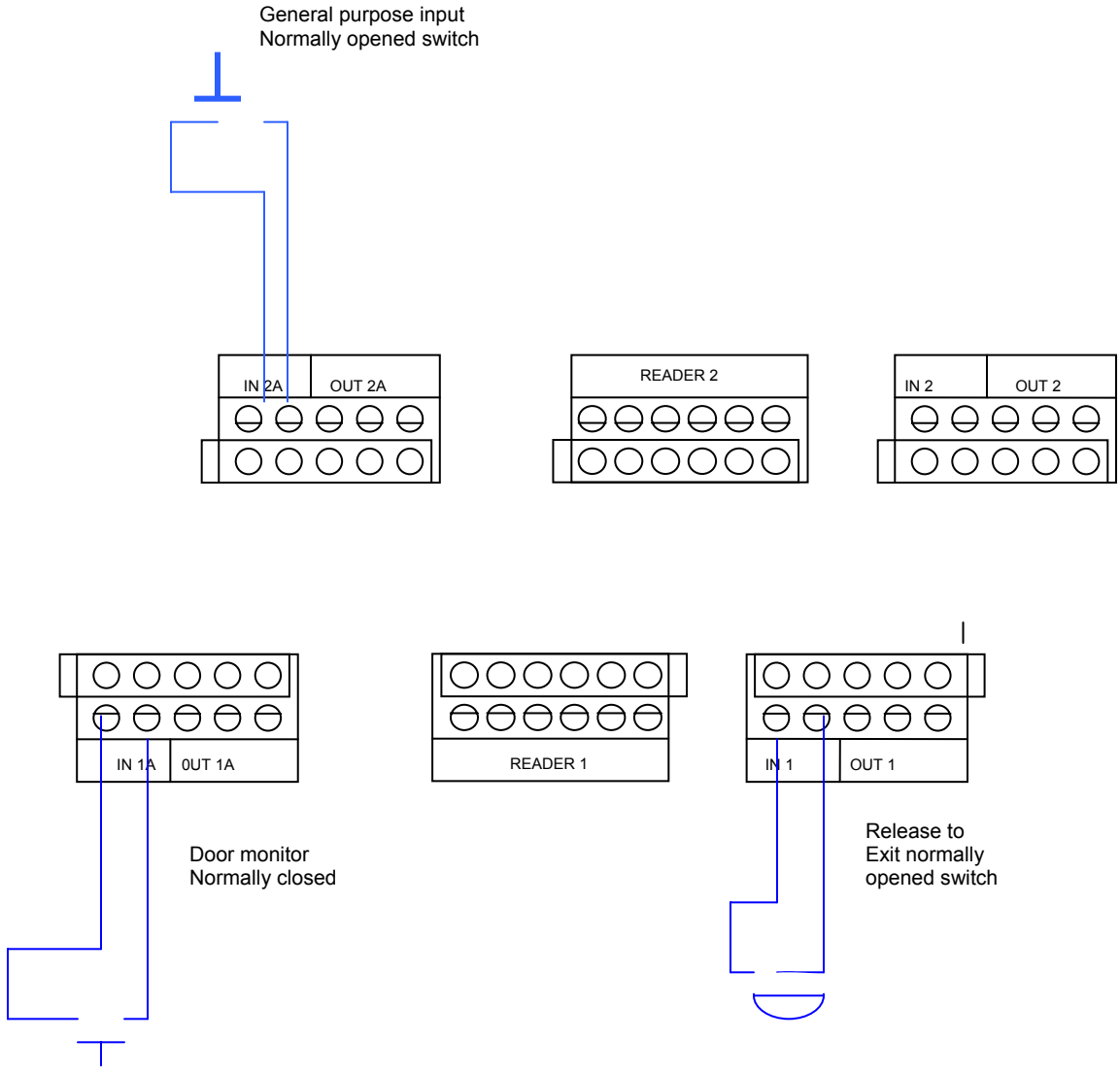


For more information refer to Appendix A

Wiring

Inputs

The following diagrams illustrate wiring for four AC215 inputs. For further details refer to the Inputs and Outputs chapter page 9..



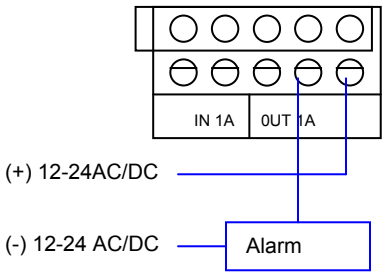
Outputs

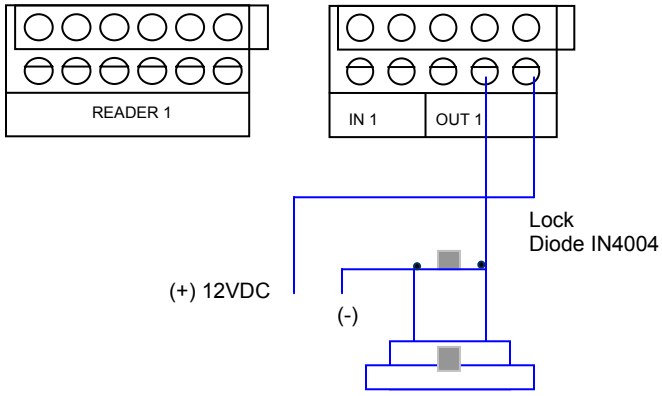
The following diagrams illustrate wiring for two main types of 12VDC electric release mechanisms. Other electrical devices can be switched using the voltage free relay contacts. .

The output can provide 12 VDC power up to 1.5 A for external door locks. For higher rated door locks an external UL 294 Listed power supply must be used to provide power to the door lock.

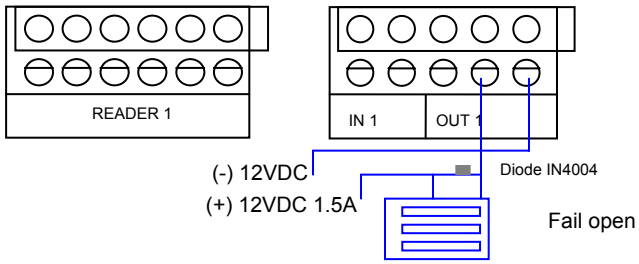
For UL installations, the installer must configure the system as fail-safe to comply with NFPA (National Fire Protection Association) regulations.

Door Lock – Fail Closed





Door Lock – Fail Open

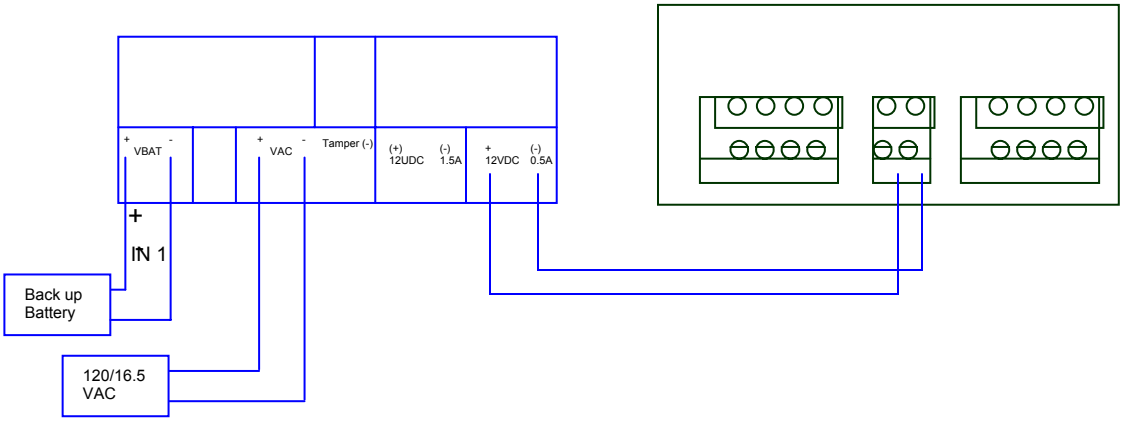


Power Supply

The following diagram illustrates wiring between the PS-14 power supply and the AC215. It is recommended to add a 12VDC lead acid backup battery to backup power if the main fails.

If the main output is 12VDC wire it to the (PS-14), otherwise support your power supply according to output requirements.

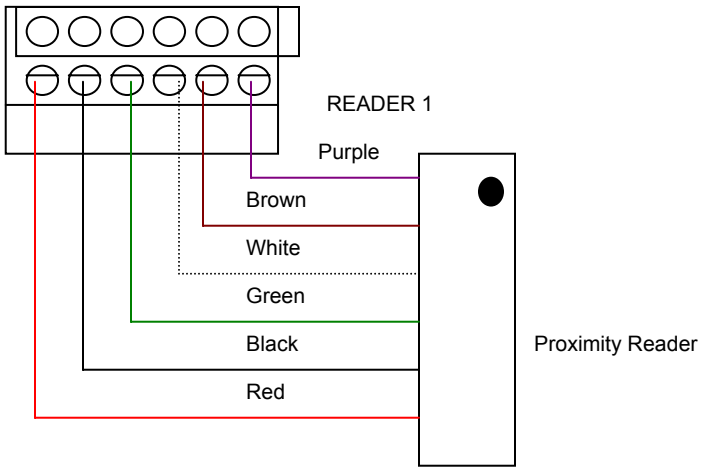
For further information refer to the Output requirements page 9..



Reader

Proximity and keypad readers are supplied with a limited cable. The color of the cable covering represents the cable's function. .

When extending cable distance be careful with the color of the cable cover. The distance is limited by the Wiegand standard.



Key

+V	Red
(-)	Black
D0	Green
D1	White
G.LED	Brown
Tamper	Purple

Accessories

Proximity Readers

AY-X12 Series Prox Readers

✦ **AY-H12 / AY-J12 / AY-K12 / AY-L12 / AY-M12**

- Reading distance: 7 to 12cm
- RF modulation: ASK at 125 kHz
- For outdoor use
- Slim stylish design (UK or USA gang box, Mullion)
- Bi-color light indicator
- Includes LED control input
- Audible buzzer indicator
- Built in tamper output

Appendix A

Connecting between MD-N32 (TCP/IP to serial gateway) and AC-215U

This manual is written as step by step instruction. It is very important to Follow the right order.

Hardware Requirements

- Standard LAN cable - RJ45 plugs in both sides.
- Rosslare's MD-14 (RS323 to RS485 converter).
- Rosslare's MD-N32 (TCP/IP to serial gateway).
- Rosslare's AC-215 panel.

Topics

1. Before setting – ask your network administrator for one, free IP Address and subnet mask, which has to be used here.

2. The IP Addresses shown at the examples below are for **illustration purpose** only.

Connections-PC side

1. Connect the PC using the internal network card (Mostly in the rear side of the PC) to the LAN network with regular network cable.
   (Actually if the PC is already identify and known in the local network, it's already connects and you **don't need any farther installation**).

Connections-AC215 panel side

1. Connect a 9VDC adapter to the MD-N32.
   Make sure that the power LED (Red) is on.

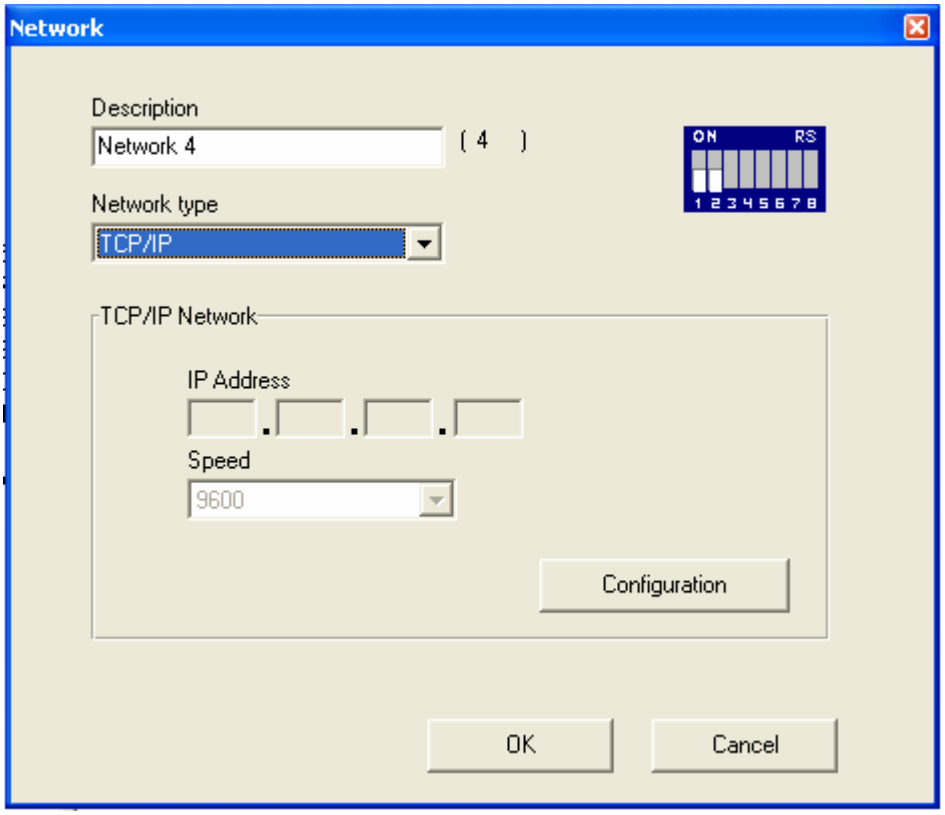
2. Connect the MD-N32 to the LAN by using a regular network cable through the MD-N32's RJ-45 connector.
   Make sure that the link LED (Green) is on.

3. Connect MD-N32's DB9 male jack to MD-14's DB9 female jack with **cross serial cable**.
   Connect the AC-215U's RS-485 outlet to MD-14 4 wires cable.

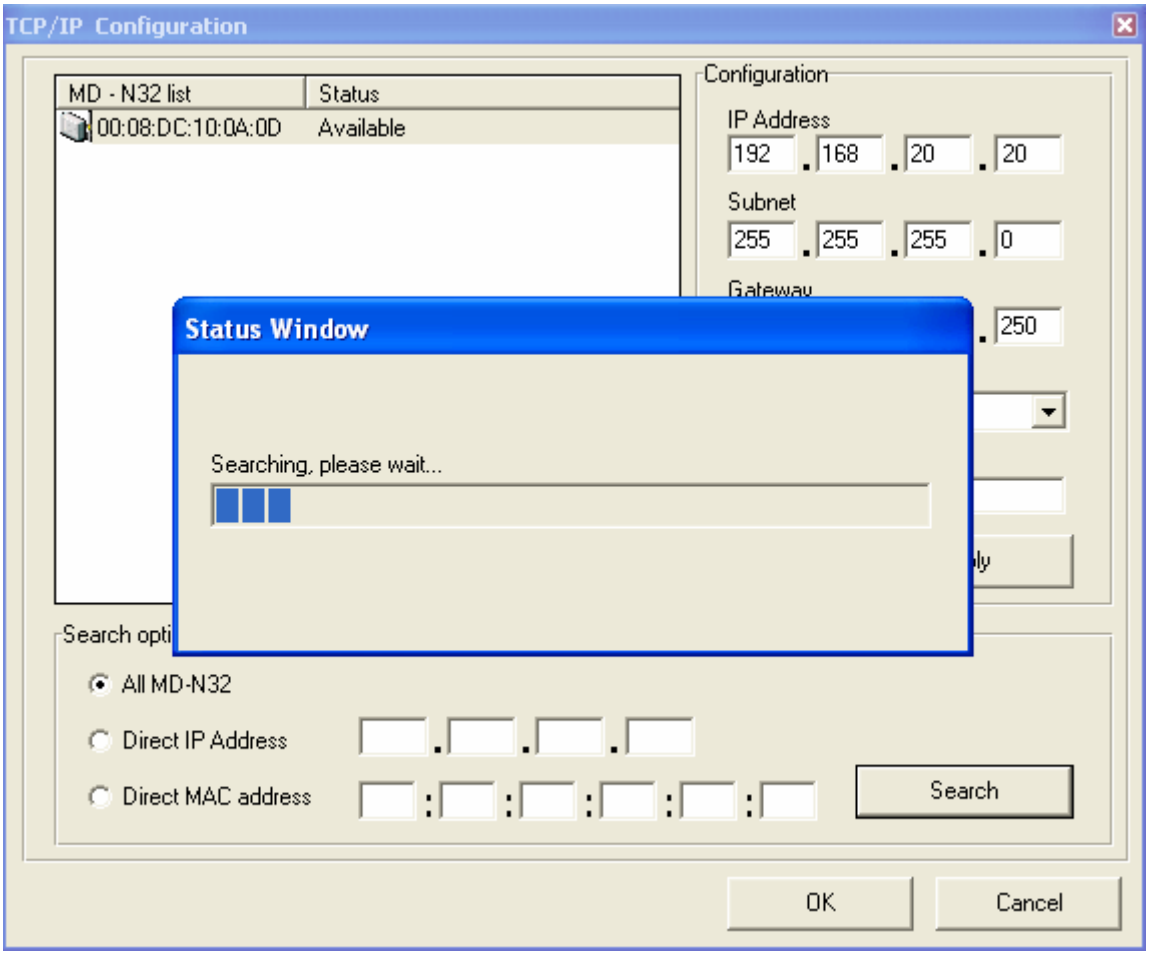
Make sure that J1 (on the AC-215) is set to RS485 Mode.
If the jumper was not set properly, make the change, turn the power of AC215 off, wait few seconds and turn it on.

MD-N32 Configuring in Veritrax AS-215

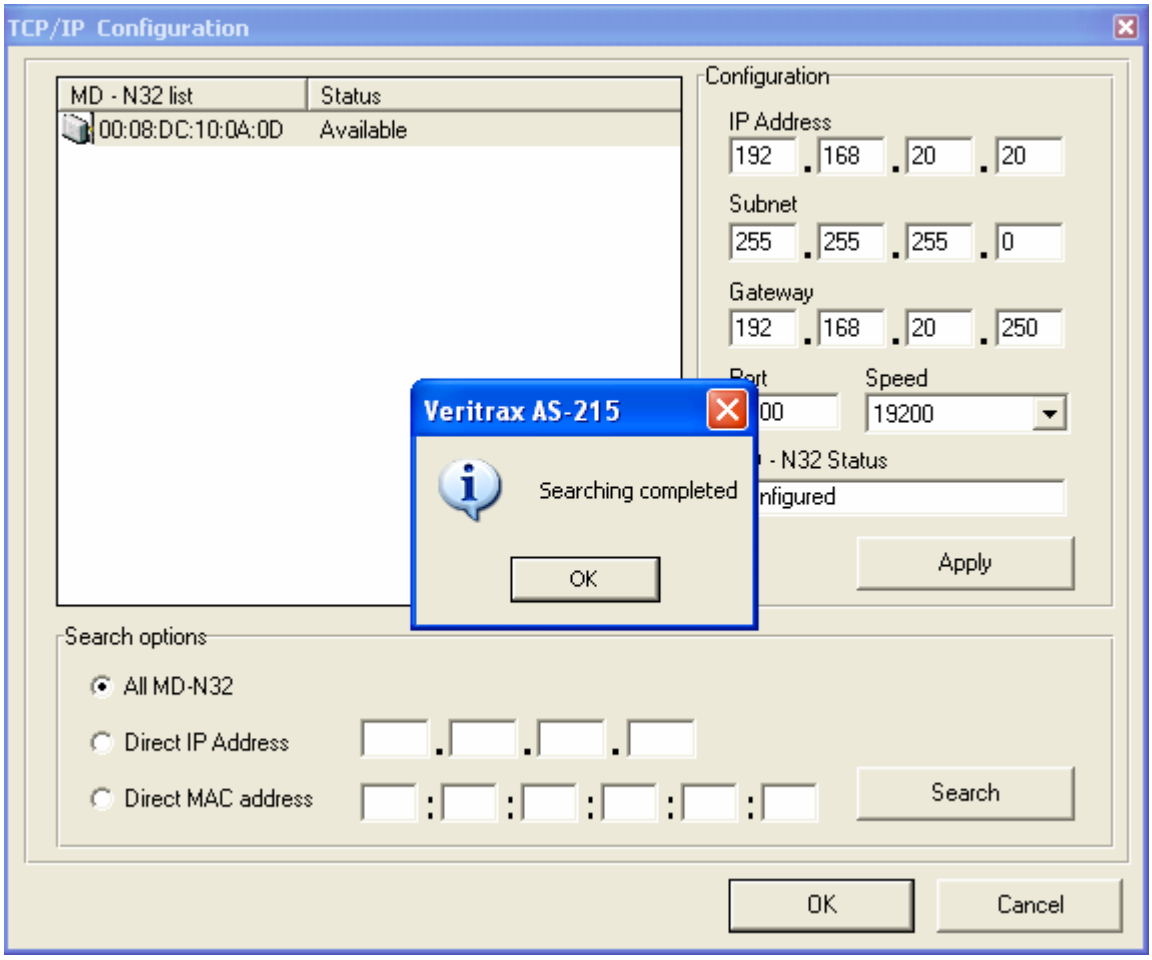
1. Add a new network in Veritrax AS-215 software. (For more details see Veritrax user Manuals)
   The network type should be selected as TCP/IP.



2. Click the configuration tab and wait until "searching" complete.



3.Click OK.

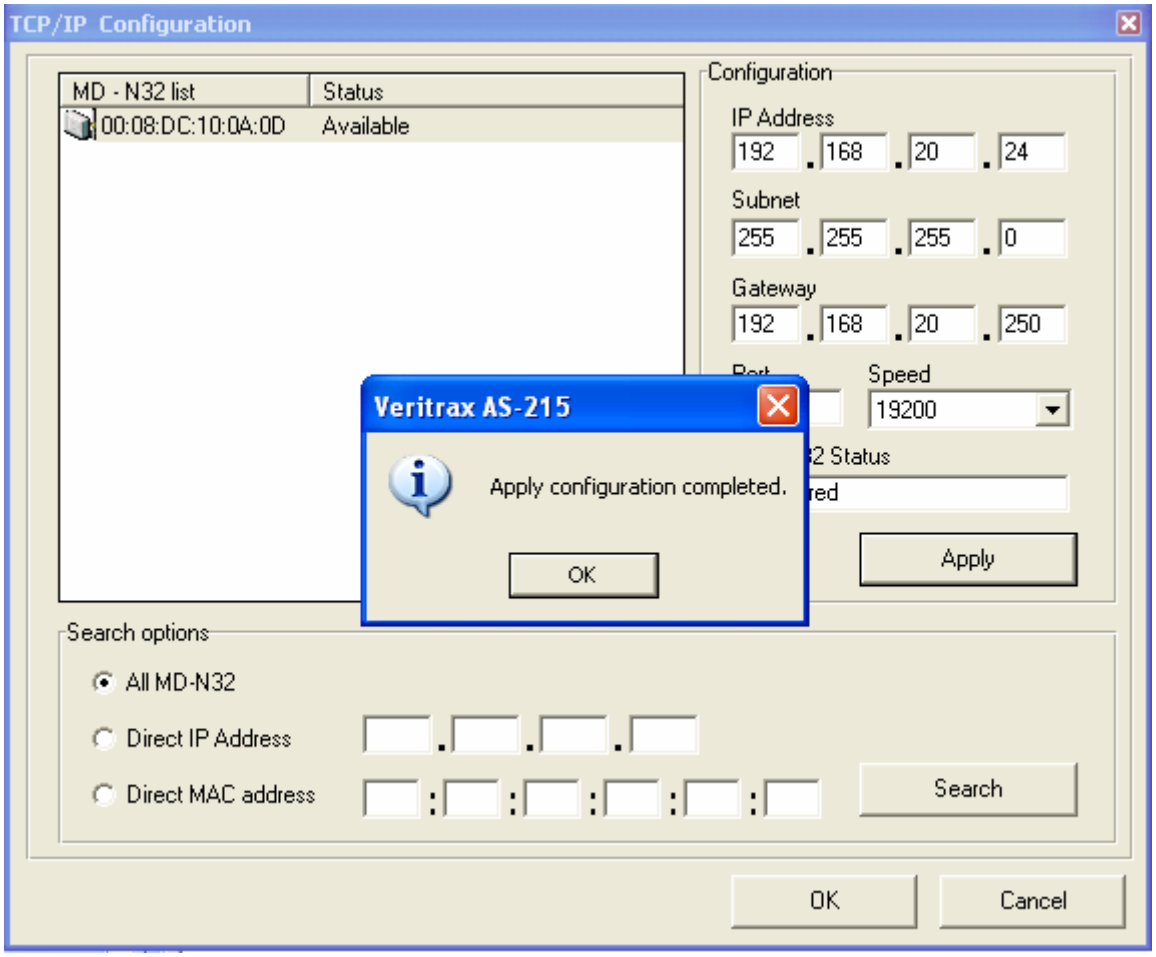


4. Select the suitable MAC address from the MD-N32 list (The MD-N32's MAC address should be labeled on the MD-N32's box).
   At the **"Configuration"** area, type the IP Address and Subnet which the network administrator supplied you.

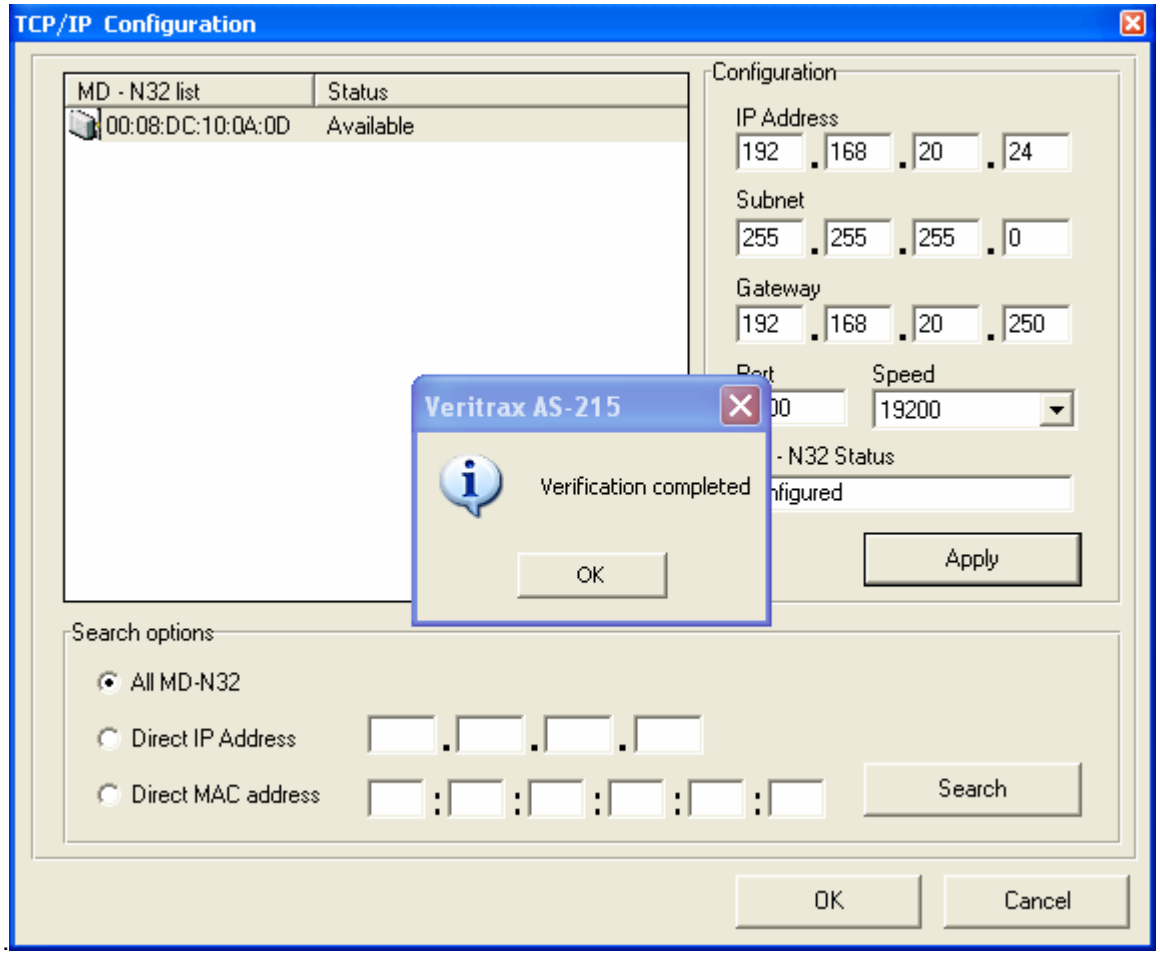
   At the "**Port**" field type 1000.

   At the **"Speed"** area select the speed of your serial connection (9600 / 19200 / 38400 / 57600).

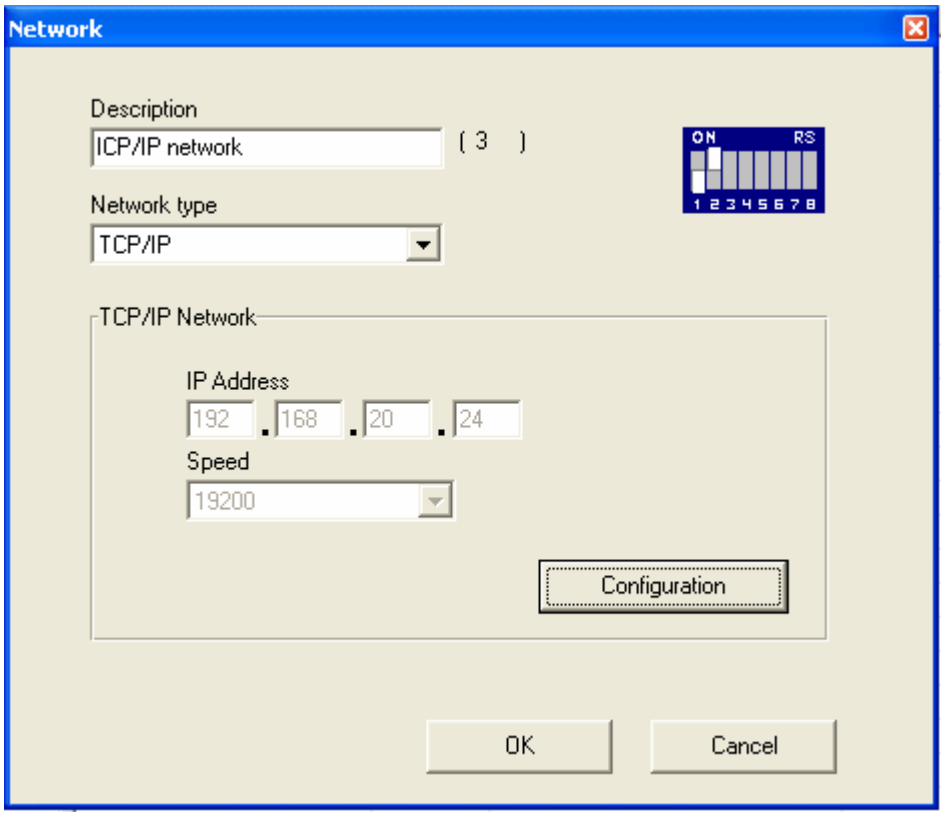
Click the **"Apply**" key to send the configuration to the unit and wait for following massage:



5. Click **OK** to start verification process and wait for following massage:



6. Click OK twice and verify that the configuration was accepted by the Veritrax AS-215 software .



The MD-N32 and Veritrax AS-215 software are now configured ready for testing. (From this stage, you can continue working per the Veritrax AS-215 adding new panel procedure).

Appendix B

Connecting between MD-N33 (Modem to serial gateway) and AC-215U

This manual is written as step by step instruction. It is very important to follow the right order.

Hardware Requirements

- 2 Standard Telephone cables – RJ11 plugs in both sides.
- Standard Serial cable D-type 9 pin (Female connectors at both sides)
- Rosslare's MD-14 (RS232 to RS485 converter).
- 2 Rosslare's MD-N33 (Modem to serial gateway).
- Rosslare's AC-215 panel.

Topics

1. The Telephone numbers shown at the examples below are for **illustration purpose** only.
2. Before permanent modem installations the modem that has to be connected to the panel has to initialize at PC running the Veritrax AS-215 software.

Connections-PC side

1. Connect a 9VDC adapter to the first MD-N33 .
   Make sure that the power LED (Red) is on.
2. Connect the PC, using a free COM port, to the MD-N33 with **cross serial cable**.
3. Connect the MD-N33's RJ11 jack to telephone line using the Telephone cable.

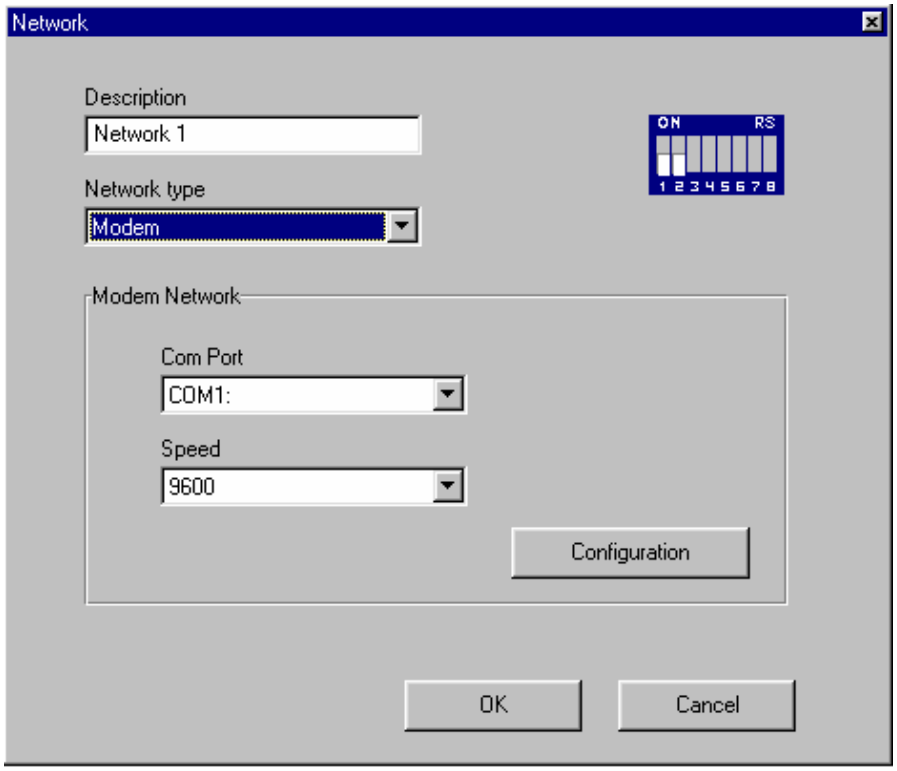
Connections-AC215 panel side

4. connect a 9VDC adapter to the second MD-N33.
   Make sure that the power LED (Red) is on.
5. Connect the MD-N33's DB11 jack to telephone wall mount using the Telephone cable.
6. Connect MD-N33's DB9 female jack to MD-14's DB9 female jack.
   Connect the AC-215U's RS-485 outlet to MD-14 4 wires cable.

Make sure that J1 (on the AC-215) is set to RS485 Mode.
If the jumper was not set properly, make the change, turn the power of AC215 off, wait few seconds and turn it on.

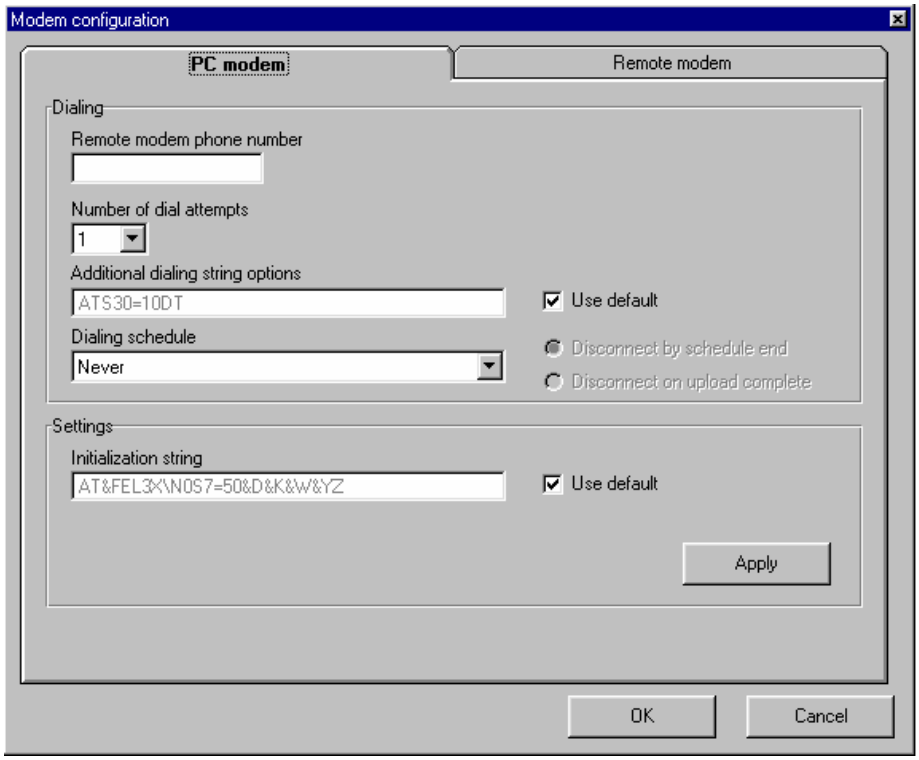
MD-N33 configuration in Veritrax AS-215

1. Add a new network in Veritrax AS-215 software. (For more details see Veritrax user Manuals)
   The network type should be selected as Modem.



PC modem – configuration and initialization

1. Click the configuration tab to get the Modem configuration screen.



2. Dialing section:
   Type in the "Remote modem phone number" tab the destination telephone number to call.

3. Click to change the "number of dial attempts" (if needed).

4. For most applications, the default dialing string of AS-215 is enough.
   The dialing string is displayed in the window.
   Adding or editing dialing string is allowed by uncheck "Use default"
   and type the AT command in the " dialing string" window.

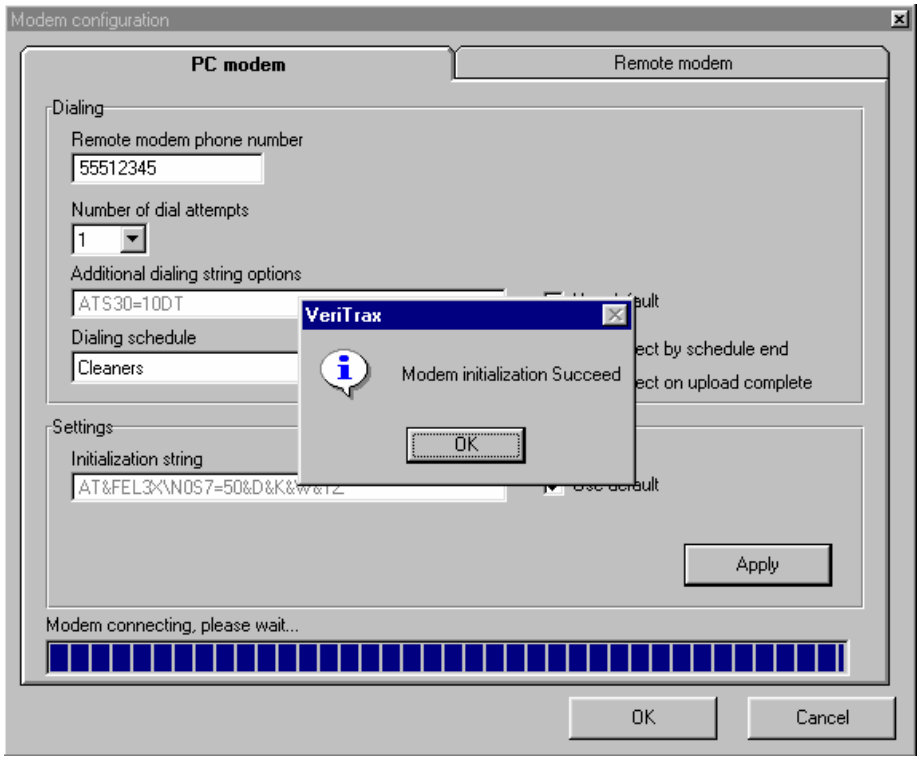
5. Select the proper timezone from the "Dialing schedule" list.

6. The disconnecting condition can be chosen: "Disconnect by schedule end" or "Disconnect on upload complete".
   (It's allowed when the selected timezone is different from the default timezones (Always & Never).

7. Settings section:
   For most applications, the default initialization string of AS-215 is enough.
   The initialization string is displayed in the window.
   Adding or editing initialization string is allowed by uncheck "Use default"
   and type the AT command in the "Initialization string" window.

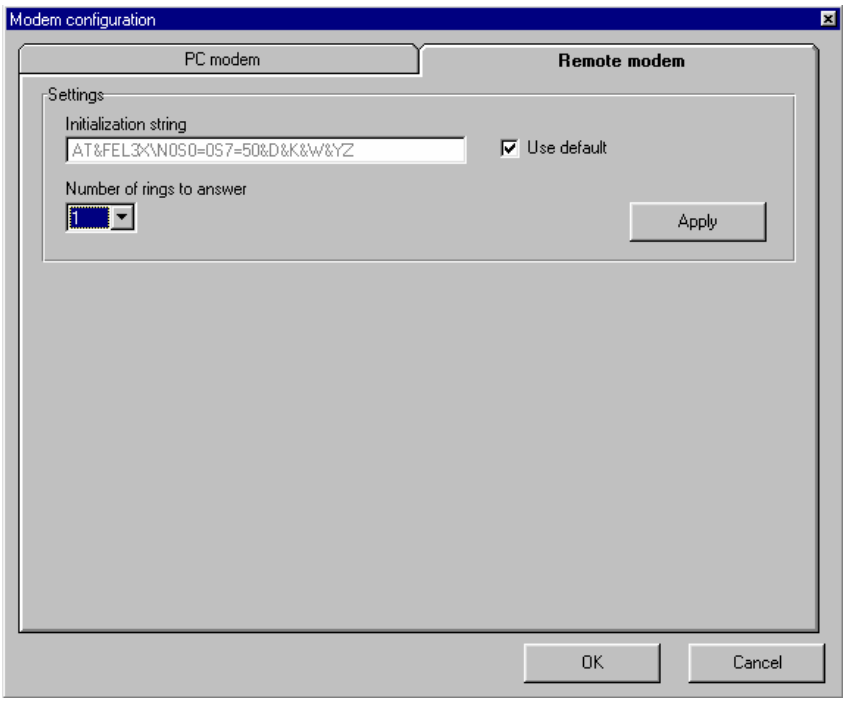
8. Connect the PC modem to the PC via the selected com port and click "Apply" to initialize the PC modem.

9. Click "OK" for the successful initialization.
   If a failure message appeared, check the modem connections and repeat the last steps.



Remote modem – configuration and initialization

1. Click the Remote modem tab to configure the remote modem.

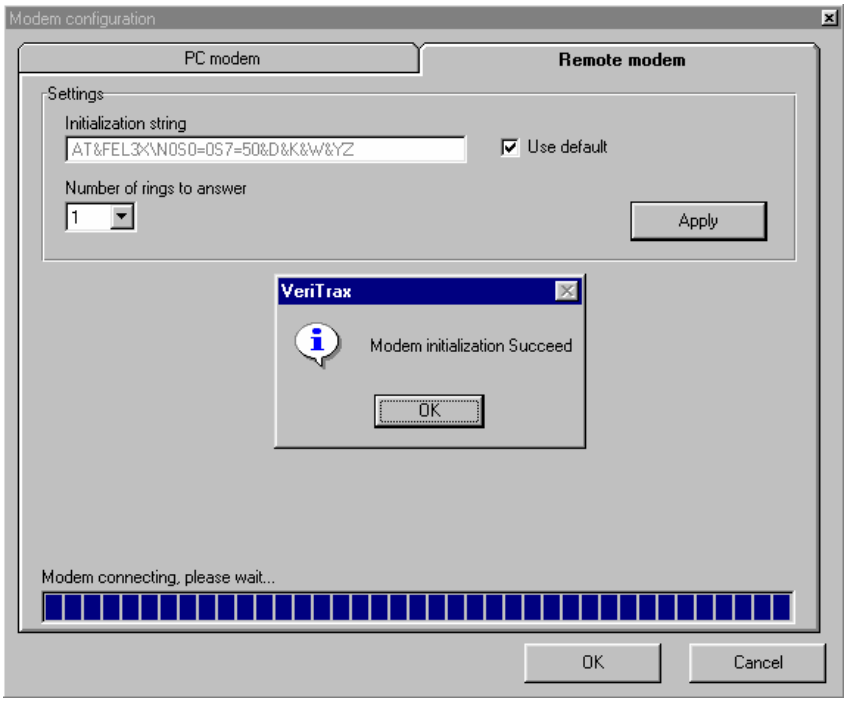


2. Settings section:
   For most applications, the default initialization string of AS-215 is enough.
   The initialization string is displayed in the window.
   Adding or editing initialization string is allowed by uncheck "Use default"
   and type the AT command in the "Initialization string" window.

3. Set the number of rings before the PC modems will answer.

4. Connect the remote modem to the PC via the selected com port and click "Apply" to initialize the PC modem.

5. Click "OK" for the successful initialization.
   If a failure message appeared, check the modem connections and repeat the last steps.

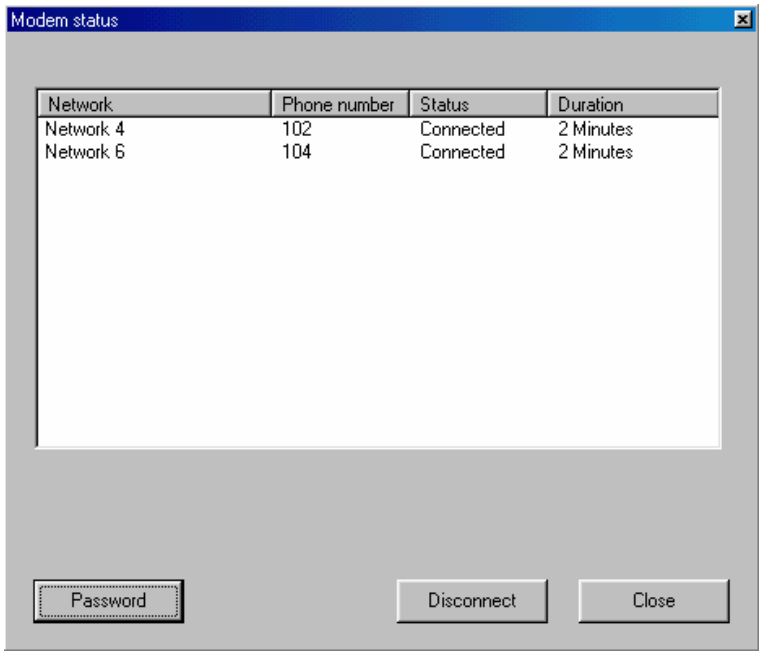


The MD-N33 and Veritrax AS-215 software are now configured ready for testing.
(From this stage, you can continue working per the Veritrax AS-215 adding new panel procedure).

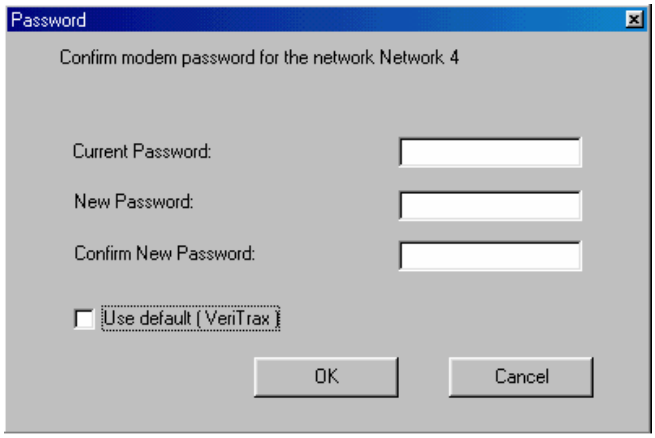
Remote modem status

1. When panel is setting in a modem network, you can see the status of the modem by clicking the phone icon in the tools bar.

2. There is a manually option to dial or disconnect the modem.



3. In order to prevent access to Veritrax AS-215 data from non authorities users, the AC-215U contain a password that can be changed only when the modem is connect and there is a link with AC-215U.
   The default password is VeriTrax.
   You may ask to enter the password during first data configuration like adding a new panel or downloading a new firmware.



Restoring factory default configuration

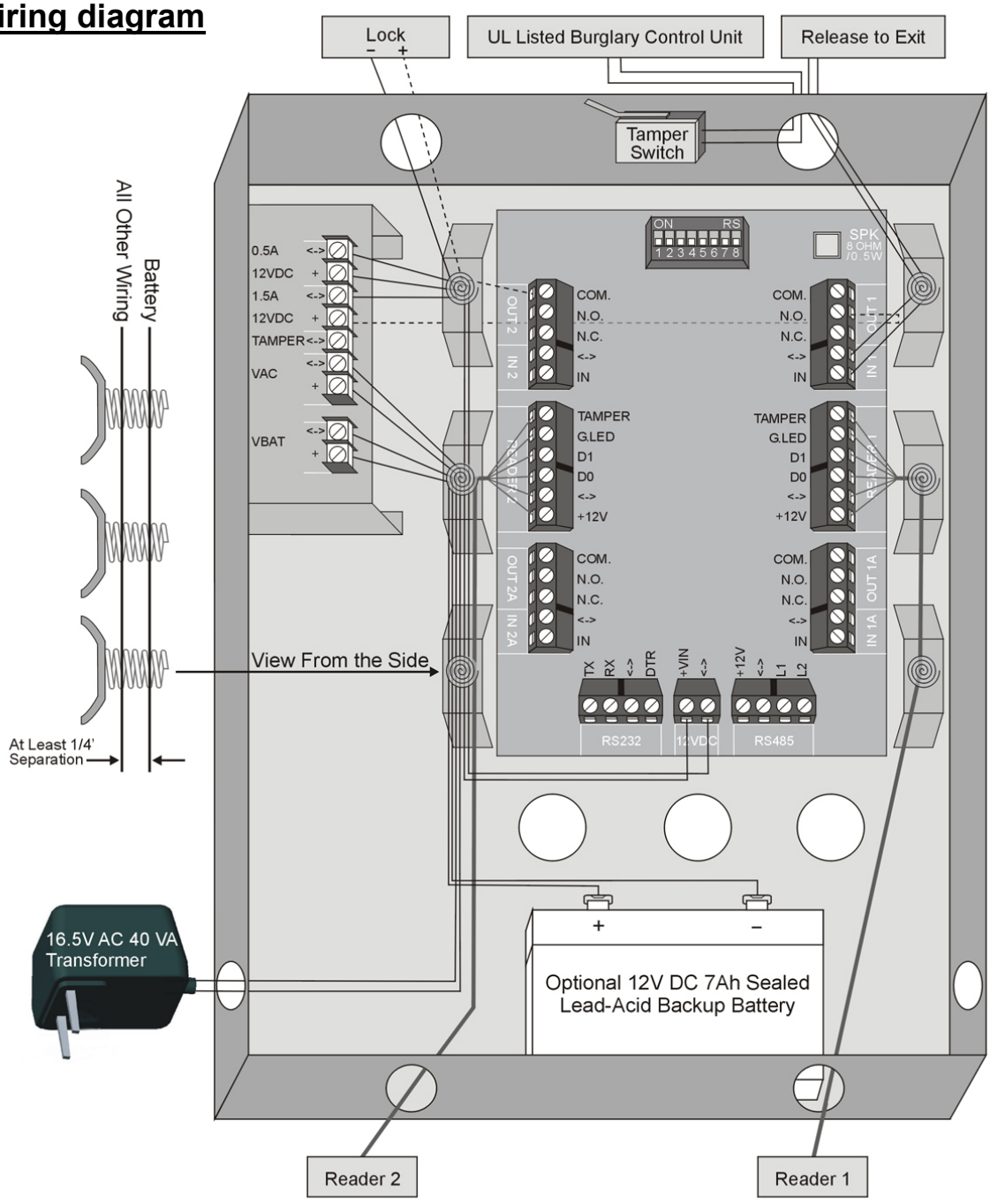
If you forgot the existing password, there is an option to return AC-215U to factory default (with password: VeriTrax).

Caution: *Returning to factory default will change also all the doors and readers configuration to Factory default and clears all the users' properties.*

Return to default:
1. Turn off the supply power.
2. It is recommended to disconnect the doors and readers wiring.
3. Connect Data 0, Data 1 and Tamper inputs to GND (-) in both reader 1 and 2 (totally 6 wires!)
4. Power up the supply power for few seconds. Wait for the control LEDs to flash.
5. Turn off the supply power.
6. Connect the doors and readers wiring again.
7. Delete the panel by uncheck the "Enable panel" in the panel screen and click "OK"
8. Check the "Enable panel" in the panel screen and click "OK". This action will cause a full setting of the AC-215U with the pervious configuration.
9. Dial to the proper AC-215U ACU and click on "password" in the modem status screen. You may enter the "current password" as VeriTrax and change the password to a new one.

Appendix C

wiring diagram



- *For UL installations, the following signal lines are not allowed to be run outside of the protected area:*
  - *12 VDC 1.5A + and (-)*
  - *12 VDC 0.5A + and (-)*
  - *Relay contacts OUT1: COM., N.O., and N.C.*

Technical Support

Asia Pacific, Middle East

Rosslare Security Products Headquarters
905-912 Wing Fat Industrial Bldg,
12 Wang Tai Road,
Kowloon Bay Hong Kong
Tel: +852 2795-5630
Fax: +852 2795-1508
E-mail: support.apac@rosslaresecurity.com

United States and Canada

1600 Hart Court, Suite 103
Southlake, TX, USA 76092
Tool Free:+1-866-632-1101
Local:+1-817-305-0006
Fax: +1-817-305-0069
E-mail: support.na@rosslaresecurity.com

Europe, Africa

Global Technical Support & Training Center
HaMelecha 22
Rosh HaAyin, Israel 48091
Tel: +972 3 938-6838
Fax: +972 3 938-6830
E-mail: support.eu@rosslaresecurity.com

South America

Pringles 868, 1640 Martinez
Buenos Aires
Argentina
Tel: +54 11 4798-0095
Fax: +54 11 4798-2228
E-mail: support.la@rosslaresecurity.com

Web Site: www.rosslaresecurity.com