VS-R20D(SC & RF) User Guide

Version Eng-1.00

UNION COMMUNITY

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<Revison History>

Version	Date	Description	Firmware Version
1.00	2012-08-22	Initial Release	10.51.00-000.00

< Glossary >

- Authentication Method
  - RF (Card) Authentication

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1. Before use

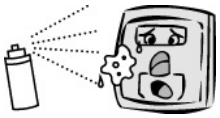
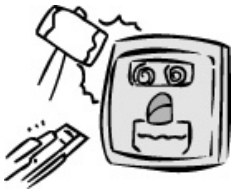
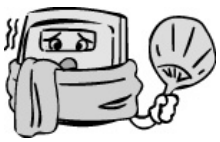
1.1. Safety precautions

● Warning

Handling with wet hands or allowing liquid to flow into it is not advised. -> It may cause an electric shock or damage		Do not place a fire source near the unit. -> It may cause a fire.	
Do not disassemble, repair, or modify the unit. -> It may cause an electric shock, fire or damage.		Keep out of reach of children. ➔ It may cause an accident or damage.	

- If the above warnings are ignored, it may result in death or serious injury.

● Cautions

Keep away from direct sunlight ➔ It may cause deformation or color change.		Avoid high humidity or dust ->The unit may be damaged.	
Avoid using water, benzene, thinner, or alcohol for cleaning -> It may cause an electric shock or fire.		Do not place a magnet close to the unit. -> The unit may break down or malfunction.	
Keep the fingerprint area clean. ➔ It cannot read fingerprints correctly.		Avoid using insecticides or flammable sprays near the unit. ➔ It may result in deformation or color change.	
Avoid impacts or using sharp objects on the unit. ➔ The unit may be damaged and broken.		Avoid severe temperature changes ➔ The unit may be broken.	

-- If the above cautions are ignored, it may result in property loss or human injury.

※ Under no circumstances will Union Community be responsible for accidents or damages caused by inappropriate use of the product caused by not referring to the user manual.

1.2. Terminal Description

1.3. LED Signal during operation

●	Abnormal	Red	ON: When authentication is failed
●	Success	Green	ON: When authentication is successful
○	State	White	Flickering: Waiting for a card to input ON: If is set as “LED is always ON” in terminal settings

1.4. Buzzer sound during operation

“ppig”	Pressing a key or a reading a card	When a button is pressed or a card is being read When fingerprint input is completed, allowing the user to remove his fingerprint
“ppibig”	Failed	Authentication failed or wrong user input
“ppiiiick”	Successful	Authentication successful or settings for the current user are completed.

2. Introduction

2.1. Feataures

- Quick and convenient authentication function
  - Simple and quick authentication with only using a card

- Card authentication method provided
  - 125khz card and 13.56Mhz card supported per product

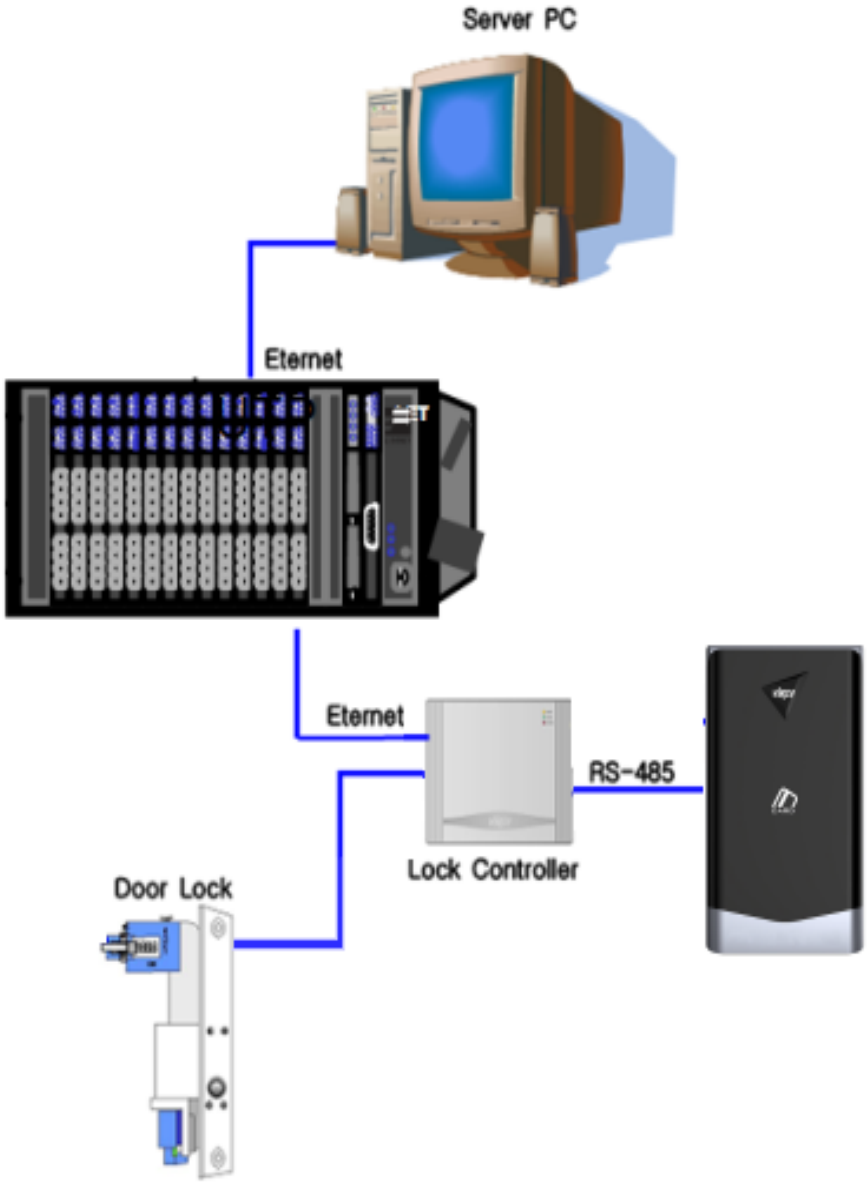
- IP65 Outdoor Rating – Die Cast Casing : The terminal can be installed outdoor.

- Understated Design
  - Simple and understated design with minimum interface reflected without LCD
  - Pursuit of convenience and luxury from simplicity

- Convenient Auto Sensing function
  - Simple authentication process without any key input; simple fingerprint touching is sufficient.

- Various and flexible access management provided
  - Perfect control function provided by giving the right of access per user group

2.2. Configuration



2.3. Specifications

Item	Spec	Description
CPU	32bit RISC 72MHz	ST Micro
LED	3 LED (Red, White, Blue),	
Flash	Internal 256k Byte	Nor Flash
Buzzer Sound	Possible to control volume	
Card Module	125KHz RF 13.56MHz Smart (1 Sam Card Socket Support) 125KHz HID Card	
Authentication Method	Card	
I/O	4 Dip Switch (485 ID Setting : 3pole, Changing 485<->Wiegand In/Out	
Lock Control	- If POE is supported, separate lock Controller is used - If POE is supported, EM, Strike, Motor Lock are possible to use	
RS-485	1 Port	Interworking with 485 Controller
Wiegand-Out	1 Port	Display Wiegand signal output or success/fail
RS-232	3 Port	Debug
Power	12 VDC	

3. How to use a terminal

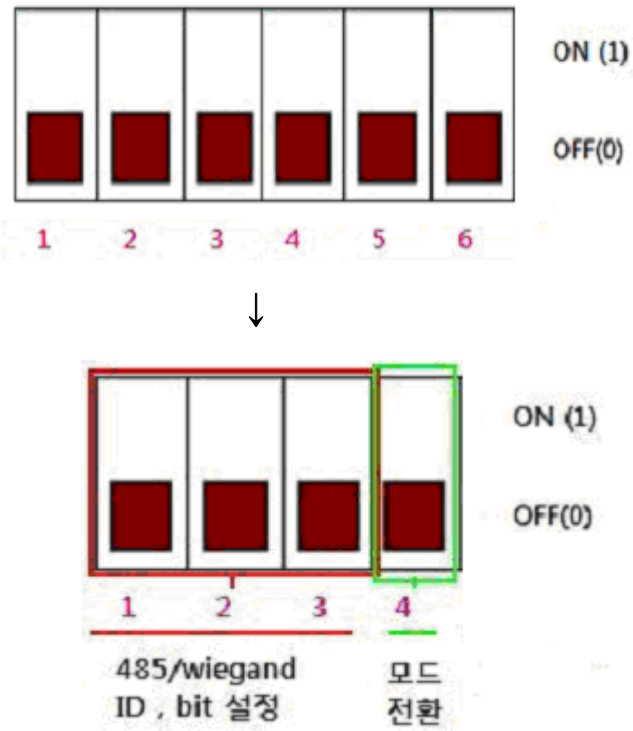
3.1. Authentication

3.2.1. . Card Authentication

- Swipe a card on the card input area.

3.2. Dip Switch Setting

- It has 4 switches, and they are divided in 485 ID Setting (3pole) and changing 485 <-> Wiegand (1pole)



	1	2	3	4	5	6
Function	485 ID Setting and Wiegand bit Setting			485 <-> Wiegand changing	Not using	

- 485 ID Setting (No.1,2 and 3 Switch)

	1	2	3	ID Value
Function	0	0	0	0
	0	0	1	1
	0	1	0	2
	0	1	1	3
	1	0	0	4
	1	0	1	5
	1	1	0	6
	1	1	1	7

- Wiegand Setting (No.1,2 and 3 Switch)

	1	2	3	Bits
Function	0	0	0	26bit
	1	1	1	34bit

- Changing 485 <-> Wiegand (No.4 Switch)

	4	Mode
Function	1	Wiegand
	0	RS485

INFORMATION TO THE USER (15.105(a))

For Class A digital device

INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

* NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.