

VS-R20D User Guide

Version Eng-1.00



UNION
COMMUNITY

<Revision History>

Version	Date	Description	Firmware Version
1.00	2012-08-22	Initial Release	10.01.01-000.00

< Glossary >

- Authentication Method
 - RF (Card) Authentication


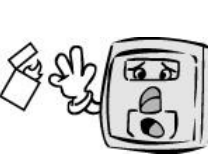


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1. Before use





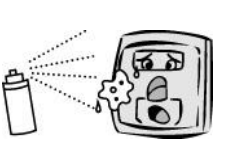
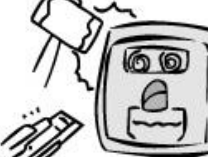
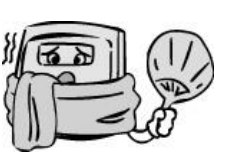
1.1. Safety precautions

● Warning

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

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

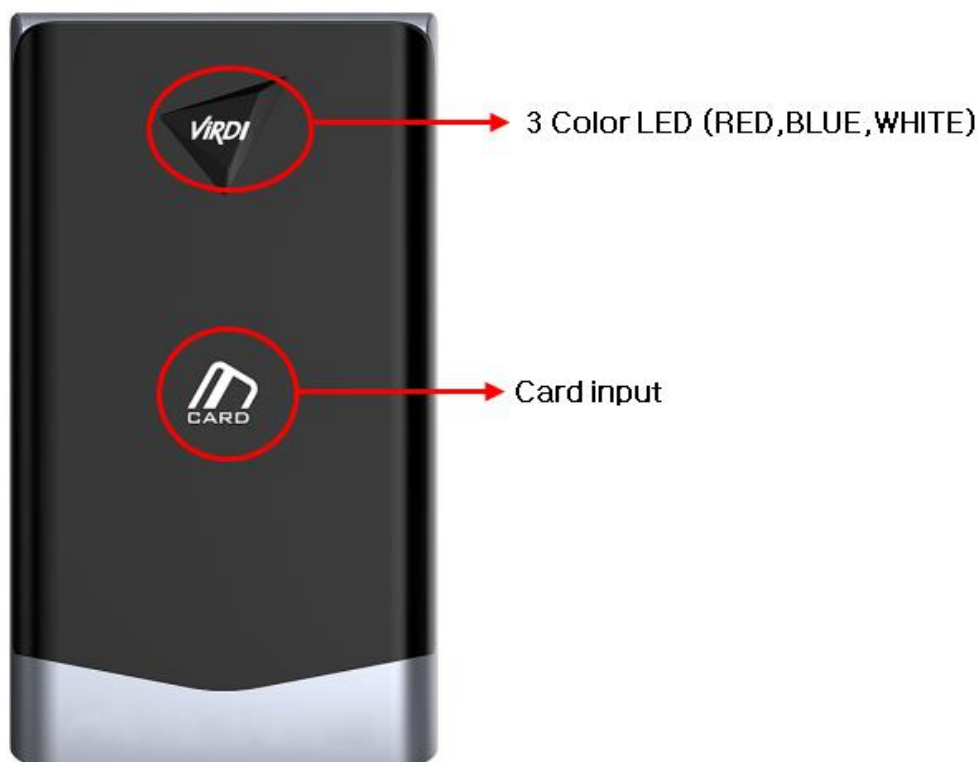
● Cautions

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





- 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. Device Description



1.3. LED Signal during operation

	Abnormal	Red	ON : When authentication is failed Flickering : <u>Emergency Alarm, Disconnection of RS485</u> (when connect controller)
	Success	BLUE	ON: When authentication is successful
	Enrollment	Red / BLUE	<u>ON: User registration mode (when connect controller)</u> <u>Flickering : Indicating for RS485 ID</u>
	State	White	<u>ON: Standby mode (Normal state)</u>

1.4. Buzzer sound during operation

“ppig”	reading a card	<u>When a card is being read</u>
“ppibig”	Failed	Authentication failed
“ppiiiick”	Successful	Authentication successful
“ppirick”(short)	Alarm / Emergency	Alarm / Emergency
“ppirick~”(long)	Dismantling Terminal	In case of open tamper(when terminal dismantle)

2. Introduction

2.1. Features

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

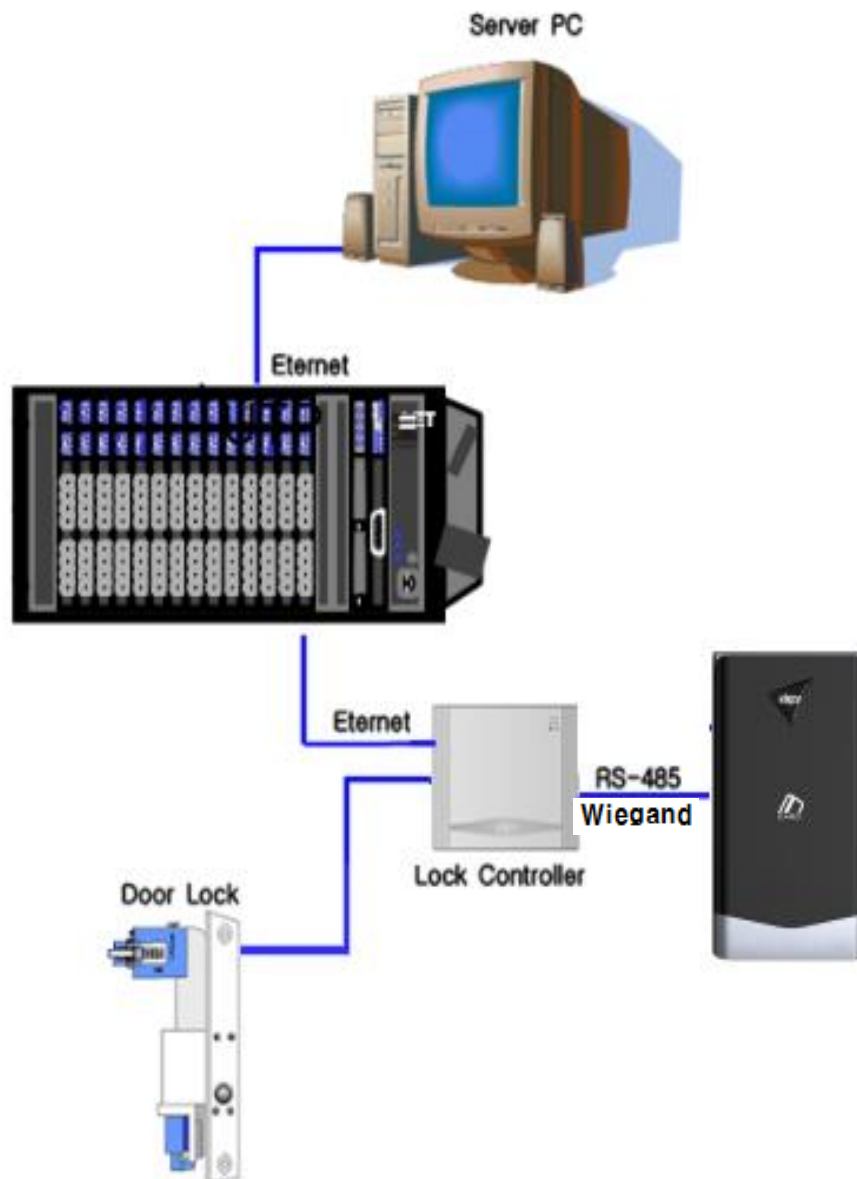
- Card authentication method provided
 - 125Khz card and 13.56Mhz card supported per product

- 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 swiping the card is sufficient.

2.2. Configuration



2.3. Specifications

Item	Spec	Description
CPU	32bit RISC 36MHz	ST Micro
LED	3 LED (Red, White, Blue),	
Flash	Internal 64k Byte	NOR Flash
Buzzer Sound	Five buzzer sounds	
Card Module	125KHz RF 13.56MHz Smart (1 Sam Card Socket Support)	
Authentication Method	Card	
I/O	6 Dip Switch (485 ID Setting : 3pole, Changing 485<->Wiegand : 1pole, Administrator Setting : 1pole, Reserve : 1pole)	
Tamper	Case Open Detection	
RS-485	1 Port	Interworking with 485 Controller
Wiegand-Out	1 Port	Wiegand signal output
RS-232	3 Port	Debug Samcard RS485 port
Power	12 VDC	

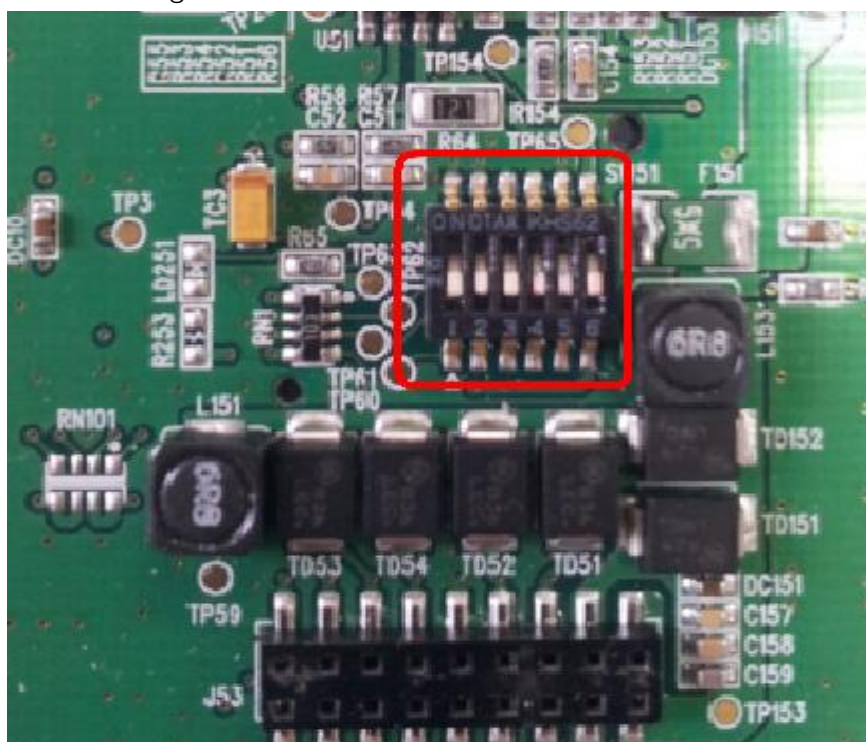
3. How to use a terminal

3.1. Authentication

3.2.1. . Card Authentication

- Swipe a card on the card input area.
- In case of SC card, it supports max 5cm,
In case of RF card, it supports max 4cm (It depends on Card Type)

3.2. Dip Switch Setting



- It has 6 switches, and they are divided in 485 ID Setting (3pole) and changing 485 <-> Wiegand (1pole), Administrator Setting : (1pole)



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

- 485 ID Setting (Switch Number : 1~3)

	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

▷ If the device is set to RS485, red/blue LED will flash based on ID number when power on.

- Wiegand Setting (Switch Number : 1~3)

	1	2	3	Bits	Output Format (ex)0500916DD8
Function	0	0	0	26bit	<u>145,28120 (35 Decimal)</u>
	0	0	1	42bit (Only RF Ver)	<u>0500916DD8 (Hexa Full byte)</u>
	1	1	1	34bit	<u>00916DD8 (Hexa 4byte)</u>

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

	4	Mode
Function	1	Wiegand
	0	RS485

- Administrator Setting

	4	Mode
Function	1	Administrator
	0	General User

4. Cable Pin Out

4.1. Main Cable

