

***Star* RFK505**
***iPASS* IPK505**
***IDTECK* SRK505**

PIN & Proximity Card Reader



차례

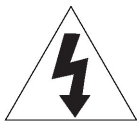
차례	ii
1 Safety Information	1
1 IMPORTANT SAFETY INSTRUCTIONS	3
2 General	4
3 Features	5
4 Specifications	6
5 Identifying Supplied Parts	8
6 Product Overview	9
1 Functions	9
2 Product Explanation	9
2.1 Front Panel Description	10
2.2 Back Panel Description	11
3 Wire Color Table	12
7 Installation Checkpoints & Tips	14
1 Check Point before Installation	14
1.1 Selection of Cable	14
1.2 Recommended Cable Type and Permissible Length Cable	15
2 Check Point during Installation	15
2.1 Termination Resistors	16
2.2 How to Connect Termination Resistors	16
Termination Resistors for 2 Wire RS485 Communication System	16
Termination Resistors for 4 Wire RS422 Communication System	17
2.3 Grounding System for Communication Cable	17

8	Installation	19
1	Installation of the Product	19
2	System Initialization	20
3	Wiring	21
3.1	Power	21
3.2	Wiegand Data Connection	21
4	Wire Connection to Access Controller	21
4.1	Reader Connections (External Reader)	22
	Compatible Readers(External Reader)	22
	RFK505/IPK505:	22
	SRK505	22
9	Communication	23
1	RS232 Communication Port Connection	23
2	RS422 Communication Port Connection	23
2.1	RS422 Connection (Single RFK505 Connection)	23
2.2	RS422 Connection (Multiple RFK505s Connections)	24
3	TCP/IP Communication Port Connection (Optional)	25
4	TCP/IP Converter (External Version)	26
10	Initial Setup	28
1	System Initialization	28
2	Entering Setup Mode	29
3	Time / Date Setting	29
11	Operation	30
1	Normal Operation	30
2	Default Setting	30
12	Setting Changes	31
1	SETUP MENU F1	32
1.1	Time Setting	33
1.2	Communication Address	33
1.3	BAUD RATE	33
1.4	Reader 1 (Internal Reader) Mode	34
1.5	Reader 2 (External Reader) Mode	34
1.6	Master ID Registration or Change	35
1.7	System Initialization	36
2	SETUP MENU F2	36

2.1 LCD 표시 형태 설정	37
2.2 Buzzer Status	37
2.3 Output Mode	38
2.4 LED Buzzer Control	38
2.5 RF PIN Input	39
2.6 Key Output Type Setting	39
3 Setup Menu F3	39
4 NOT USE	40
4.1 Firmware Version	40
4.2 Memory Test	41
4.3 Output Test	41
4.4 LCD Test	42
4.5 키 패드 테스트	42
4.6 Reader Test	43
4.7 Input / DIP Switch Test	43
4.8 Communication Test	44
13 Appendix	45
1 Default Values for Parameters	45
14 FCC REGISTRATION INFORMATION	46
15 RMA Request	47

Safety Information

1



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.



This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

WARNING

1. Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product.
2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.

3. Do not connect multiple controllers to a single adapter. Exceeding the capacity may cause abnormal heat generation or fire.
4. Securely plug the power cord into the power receptacle. Insecure connection may cause fire.
5. When installing the controller, fasten it securely and firmly. The fall of controller may cause personal injury.
6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers filled with water on top of the controller. Doing so may cause personal injury due to fire, electric shock, or falling objects.
7. Do not install the unit in humid, dusty, or sooty locations. Doing so may cause fire or electric shock.
8. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
9. If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (SAMSUNG is not liable for problems caused by unauthorized modifications or attempted repair.)
10. When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

CAUTION

1. Do not drop objects on the product or apply strong blows to it. Keep away from a location subject to excessive vibration or magnetic interference.
2. Do not install in a location subject to high temperature (over 50°C), low temperature (below -30°C), or high humidity. Doing so may cause fire or electric shock.
3. If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
4. Remove the power plug from the outlet when there is a lightning storm. Neglecting to do so may cause fire or damage to the product.
5. Keep out of direct sunlight and heat radiation sources. It may cause fire.
6. Install it in a place with good ventilation.
7. Avoid aiming the controller directly towards extremely bright objects such as sun.
8. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
9. The Mains plug is used as a disconnect device and shall stay readily operable at any time.

1 IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The Star RFK505 (iPASS IPK505, IDTECK SRK505) is an elegant looking and built in an 10cm (4") read range PIN & Proximity Card Reader with keypad and LCD display.

The Star RFK505 displays current time on the LCD and has back lighting on the keypad that ensures you successful operation. The Star RFK505 allows you to access door with proximity card and personal PIN numbers. Three LEDs (in the front panel) of green, yellow and red, inside Piezo Buzzer sound and LCD will guarantee you accurate and reliable system operation.

Features

3

- 125KHz Proximity / PIN Reader
- PSK Modulation
- Read Range: Up to 4 inch (10cm)
- Network Communication via RS232 / RS422 / TCP/IP (Optional Internal TCP/IP Module Required)
- 26bit Wiegand, 4/8bit Burst for PIN Output Format
- 16 Numeric Keypads with Back Lighting
- Current Time Display on the LCD
- Dual Tamper Switches
- Reverse Polarity Protection
- Compatible Controller:
 - (26bit Wiegand) iMDC, iCON100, iTDC, Third Party Controller, Standalone Controller
 - (34bit Wiegand) iMDC, iCON100SR, iTDCSR, Third Party Controller, Standalone Controller

RFK505	Built-in 125KHz (4") Proximity Reader
IPK505	ASK[EM] Format Built-in 125KHz (4") Proximity Reader
SRK505	Built-in 13.56MHz (4") Contactless Smart Card Reader

Specifications

4

Model	RFK505 / IPK505 / SRK505	
Read Range	RFK505	IDK50 / IMC125: Up to 2 inch (5cm) IDC80 / IDC170: Up to 4 inch (10cm)
	IPK505	IPK50: Up to 2 inch (5cm) IPC80 / IPC170: Up to 4 inch (10cm)
	SRK505	ISK50 / IHC80 / IMC135: Up to 2 inch (5cm) SDC80: Up to 4 inch (10cm)
Time (Card)	30ms	
Power / Current	DC 12V / Max.150mA	
Communication	RS232 / RS422 / TCP/IP (Optional Internal TCP/IP Module Required)	
Baud Rate	9,600bps (default)/ 4,800bps/ 19,200bps 38,400bps/ 57,600bps/ 115200bps (Selectable)	
Output Format	RFK505/IPK505	26bit Wiegand, 4/8bit Burst for PIN
	SRK505	34bit Wiegand, 4/8bit Burst for PIN
LCD	Character LCD (2Lines x 16Char) / 2.62" x 0.55" (65.6mm x 13.8mm) Screen	
Keypad	16 Key Numeric Keypad with Back Lighting	
LED Indicator	7 Array LED Indicators (Red, Green and Yellow on the front and back panel)	
Beeper	Piezo Buzzer	
Operating Temperature	LCD	0 to +50C (+32 to +122F)
	RF Reader	-35 to +65C (-31F to +149F)
Operating Humidity	10% to 90% Relative Humidity Non-Condensing	

Color / Material	Dark Pearl Gray / Polycarbonate
Dimension (W x H x T)	161.5mm x 134mm x 48.5mm (6.36" x 5.28" x 1.9")
Weight	547g (1.21lbs)

Identifying Supplied Parts

5

Please unpack and check the contents of the box. If any of these parts are missing, please contact your distributor or service center. (Optional accessories, if purchased, may be included in the Gift Box)



Main Unit
(1 ea)



Wall Mount
(1 ea)



O-ring
(5 ea)



User's Manual
(1 copy)



Screws
(4ea)



Cable & Diode
Cable(5ea),
Diode(2ea)

1 Functions

Current Time Display on the LCD

The Star RFK505 (iPASS IPK505 / IDTECK SRK505) displays card reading status, card number and current time on the LCD.

Setting Changes

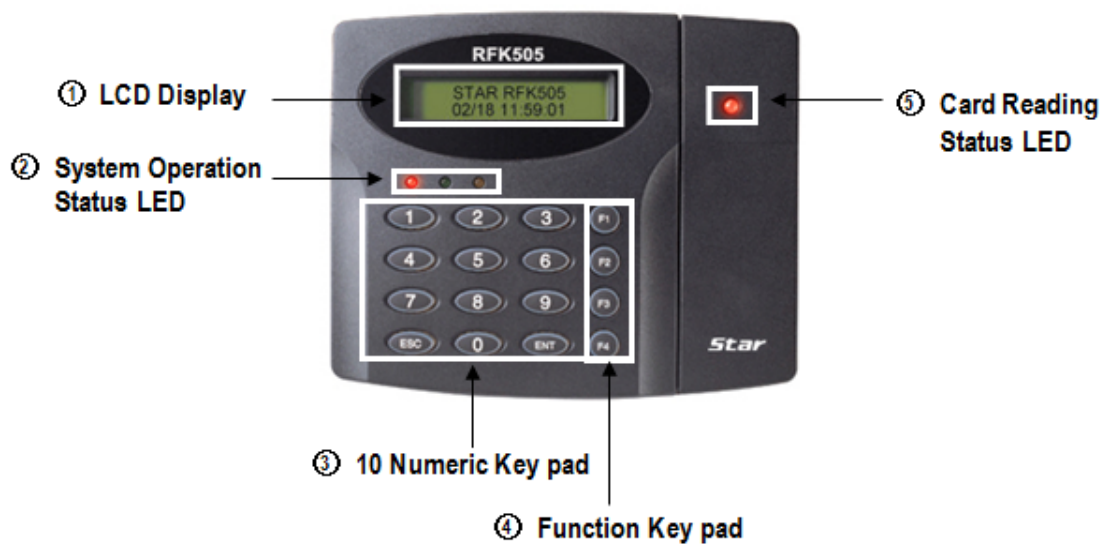
The Star RFK505 manages output mode setting, external buzzer control and external LED control.

Keypad

If the Star RFK505 is not connected to a host PC, the integrated keypad and LCD display module can be used for the entire programming process.

2 Product Explanation

2.1 Front Panel Description



1 LCD Display:

LCD module displays Star RFK505 status.

2 System Operation Status LED:

When the power is applied to the unit, the red LED is turned on.

During the reader transmits card data to the controller, the green LED is turned on.

When temper switch is operated, yellow LED is turned on.

3 10 Numeric Key pad:

You can operate the unit manually by using the key pad.

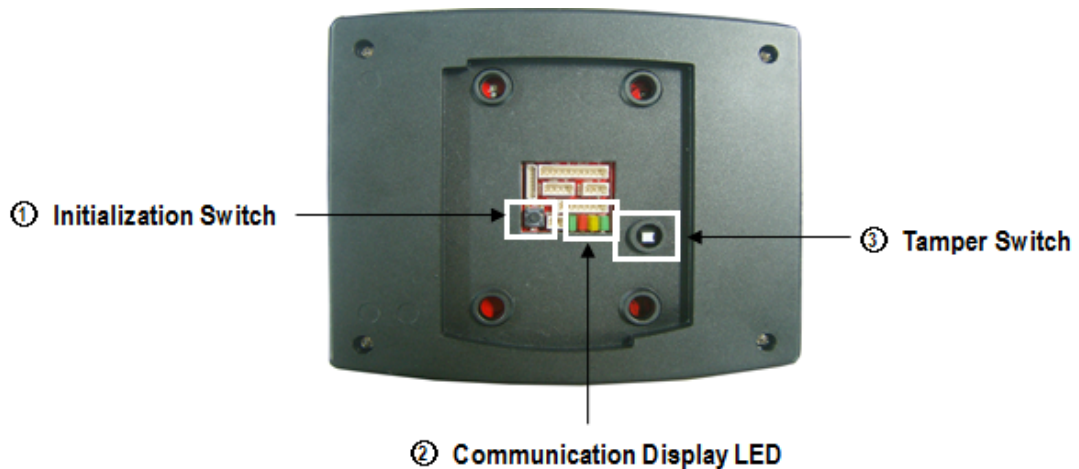
4 Function Key pad:

The unit has four Function keys ([F1], [F2], [F3], [F4]).

5 Card Reading Status LED:

When a card is read, the card reading status LED turns on green.

2.2 Back Panel Description



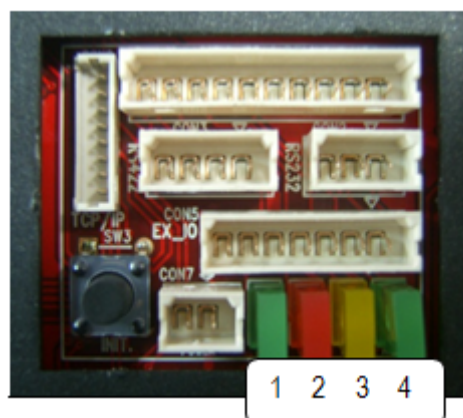
1 Initialization Switch

This switch is used to initialize Star RFK505. For initialization, press down this switch and then keep it for more than 2 seconds. Refer to '8.2 System Initialization' for more details.

2 Communication Display LED

3, 4(yellow, green) LED will twinkle during RS232, RS422 and TCP/IP communication.

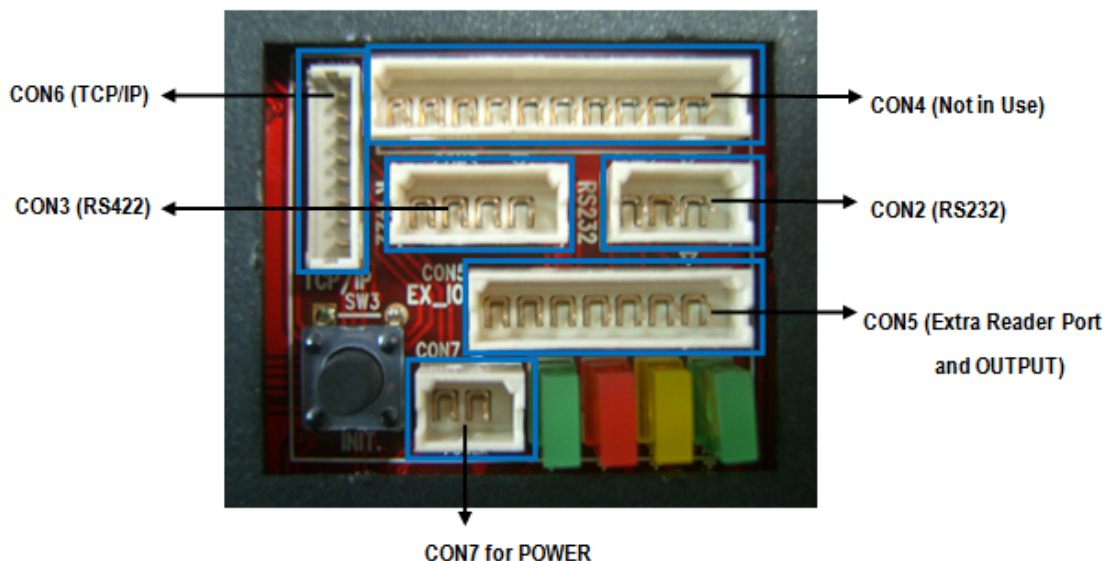
If the LAN is connected normally during TCP/IP communication, green LED will turn on. But in the collision status, the #2 LED (red) turns on.



3 Tamper Switch

If someone takes off installed Star RFK505 on the wall by force, the tamper switch is activated then buzzer makes sound.

3 Wire Color Table



IO PORT NAME	SIGNAL NAME	COLOR CODED
POWER	(CON7)	
Main Power(+12V)	DC +12V	Red
Power Ground	GND	Black
OUTPUT/INPUT	(CON4) (Not use)	
EXTRA READER PORT	(CON5)	
Wiegand Data0(IN)	DATA0	Pink
Wiegand Data1 (IN)	DATA0	Cyan
OUTPUT	(CON5)	
TTL Output1	DATA0 Output	Orange with White Stripe
TTL Output2	DATA1 Output	Brown with White Stripe
OK Signal Out	Not use	Green with Red Stripe
Error Signal Out	Not use	Blue with Red Stripe
Tamper Switch Out	Tamper Switch Out	Yellow with White Stripe
RS232 INTERFACE	(CON2)	
RS232-TX	TXD	Black with White Stripe
RS232-RX	RXD	Read with White Stripe
Ground	GND	Black
RS422 INTERFACE	(CON3)	

IO PORT NAME	SIGNAL NAME	COLOR CODED
RS422-TX(-)	TX(-)	Yellow
RS422-TX(+)	TX(+)	Gray
RS422-RX(-)	RX(-)	Blue
RS422-RX(+)	RX(+)	Brown
TCP/IP Communication	(CON6)	
	TCP/IP Communication	8PIN Connector Module

Installation Checkpoints & Tips

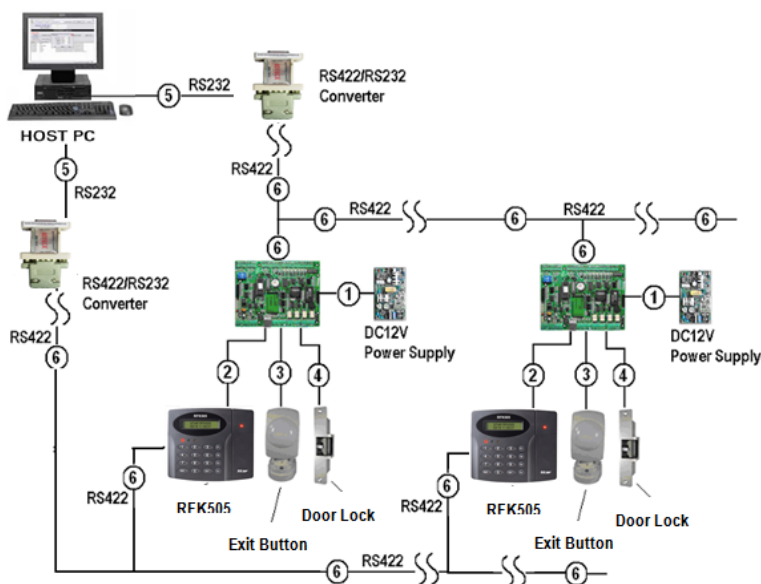
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Installing the Star RFK505 (iPASS IPK505, IDTECK SRK505) is an easy task. It can be installed with common hand tools and readily available communications wires. This section provides information about wiring, wire runs and other information to make the installation quick and easy.

1 Check Point before Installation

1.1 Selection of Cable

System installation cabling will be configured as follow:



1.2 Recommended Cable Type and Permissible Length Cable

Reference	Description	Cable Specification	Maximum Distance
①	Controller Power (DC12V) DC Power → Controller	Belden #9409, 18 AWG 2 conductor, unshielded	30m
② ¹	Reader (Power and Data) RFK505 → Controller	Belden #9512, 22 AWG 4 conductor, shielded Belden #9514, 22 AWG 8 conductor, shielded	150m
③	Door Contact Exit Button Sensor Input Input → Controller	Belden #9512, 22 AWG 4 conductor, shielded Belden #9514, 22 AWG 8 conductor, shielded	300m
④	Door Lock, Alarm Device Lock (Alarm) → Controller	Belden #9409, 18AWG 2 conductor, unshielded	300m
⑤	RS232 Cable Converter → Host P.C.	Belden #9829, 24 AWG 2-twisted pair, shielded	15m
⑥	RS485 Cable Controller → Converter Controller → Controller Controller → RFK505 RFK505 → RFK505 RFK505 → Converter RS422 Cable Controller → Converter Controller → Controller Controller → RFK505 RFK505 → RFK505 RFK505 → Converter	Belden #9829, 24 AWG 2-twisted pair, shielded Belden #9830, 24 AWG 3-twisted pair, shielded	1,200m

2 Check Point during Installation

¹ Requires thicker wire if you connect the reader with high current consumption.

2.1 Termination Resistors

Termination resistors are used to match impedance of the network to the impedance of the transmission line being used. When impedance is mismatched, the transmitted signal is not completely absorbed by the receiver and a portion of signal is reflected back into the transmission line.

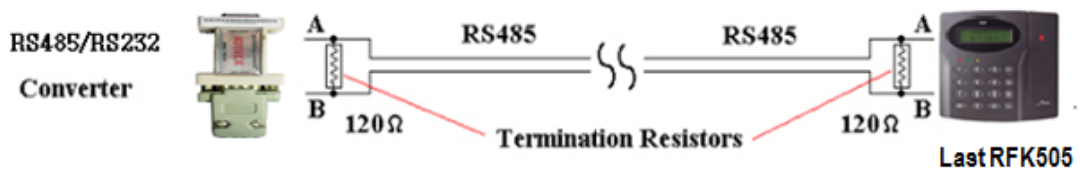
The decision whether or not to use termination resistors should be based on the cable length and data rate used by the communication system.

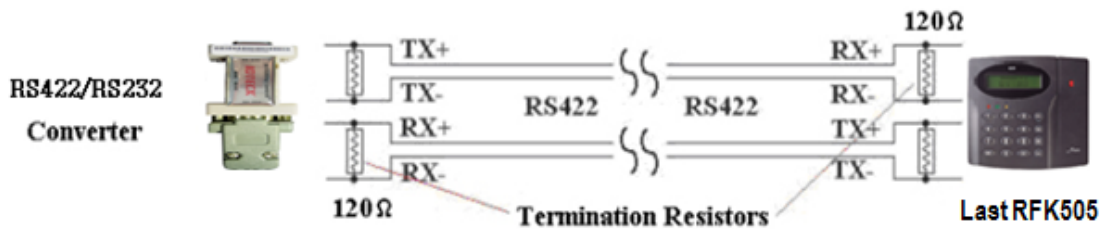
For example, if you use 9,600 baud rate and 1,200m length of cable, the propagation velocity of cable is 0.66 x speed of light (This value is specified by the cable manufacturer), if we assume the reflections will damp out in three round trip up and down the cable length, the transmitted signal will stabilize 18.6us after the leading edge of a bit. Since the data bit is captured in the middle of the bit which is approximately 52us after the leading edge of a bit. The reflection stabilizing time 18.6us is much before the center of the bit therefore the termination resistors are not required.

However, if you install the cable to maximum length, the impedance of cable and network is mismatched and the transmitted signal is overlapped by the reflected signal. In this case, it is recommended to add termination resistors to the end of the receiver lines. A 120Ω resistor can be used for termination resistor in parallel between the receiver lines “A” and “B” for 2 wires RS485 system or “RX+” and “RX-” for 4 wires RS422 system. A termination resistor of less than 90Ω should not be used and no more than 2 terminations should be used in one networking system.

2.2 How to Connect Termination Resistors

Termination Resistors for 2 Wire RS485 Communication System





2.3 Grounding System for Communication Cable

We recommend to using proper grounding system on the communication cable.

The best method for grounding system is to put the shield wire of the communication cable to the 1st class earth grounding; however it is not so easy to bring the earth ground to the communication cable and also the installation cost is raised.

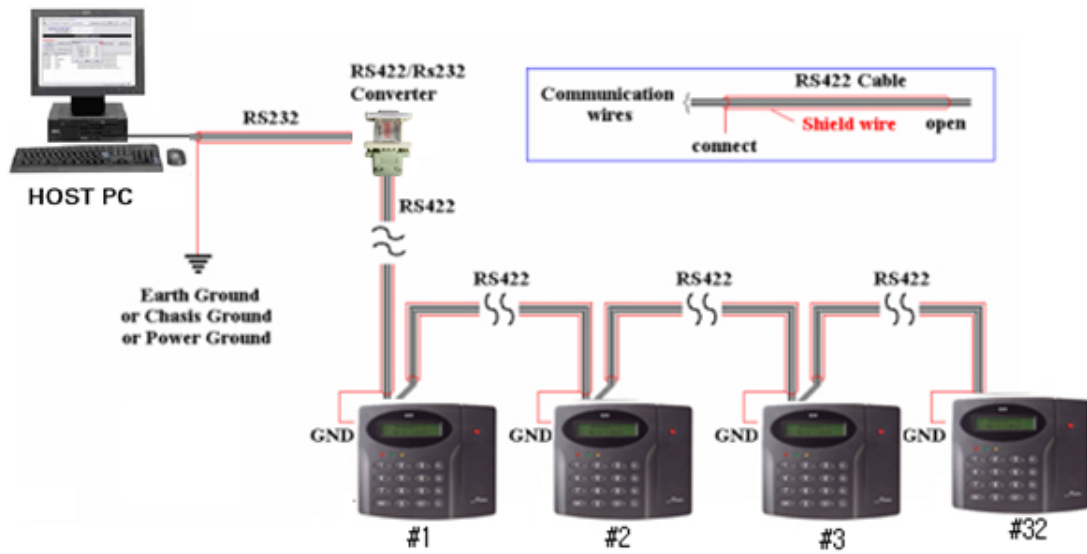
There will be three grounding point where you can find during installation;

1. Earth Ground
2. Chassis Ground
3. Power Ground

The most important point for grounding system is not to connect both ends of shield wires to the grounding system; in this case there will be a current flow through the shield wire when the voltage level of both ends of shield wire is not equal and this current flow will create noise and interfere to communications.

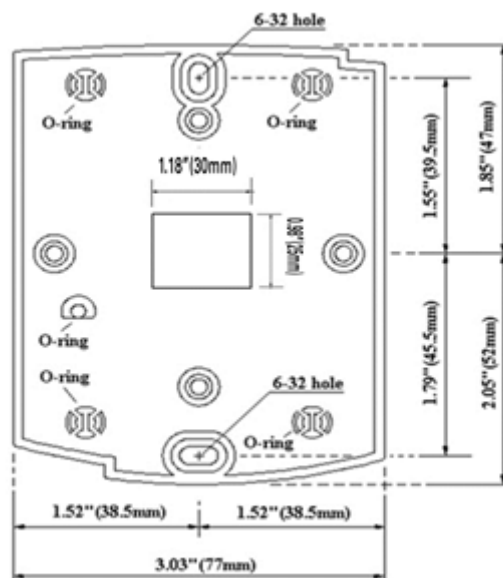
For the good grounding, we recommend to connecting ONLY one end of shield wire of communication cable to grounding system; If you find earth ground nearby, then connect one end of shield wire to earth ground; If you do not have earth ground nearby, then find chassis ground and connect one end of shield wire to chassis ground; If you do not find both earth ground and chassis ground, then connect one end of shield wire to power ground. (GND of Star RFK505 (iPASS IPK505, IDTECK SRK505))

Note that if the chassis ground is not properly connected to the earth and floated from the ground level, then grounding to the chassis ground will give the worst communication; in this case we recommend to using power ground instead of chassis ground.



1 Installation of the Product

1. the provided template (on the back of this manual) to drill two 6-32 holes and one 1/2" hole on the proper location of the wall to mount the Wall Mount bracket as shown below.
(Skip this step if the gang box is already installed on the wall)



2. Using 2 screws, install wall mount to the wall.



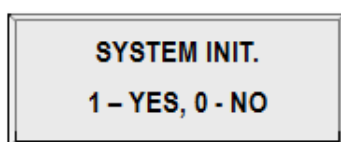
Before mounting the main unit to the Wall Mount bracket, operational test of the unit should be completed, as the locking pins will lock the unit to the Wall Mount. Removing the unit from the Wall Mount bracket after they have been installed together may cause damages to the bracket and render its effectiveness.

3. Insert 5 O-rings to the wall mount as indicated, then route the cable of the main unit through the center hole and push the main unit to wall mount to lock the main unit and then make sure that the main unit is locked with wall mount.

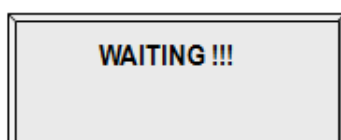
2 System Initialization

You have to initialize the Star RFK505 prior to installation.

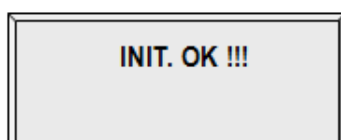
After power is supplied to the Star RFK505, press the Initialization Switch on the back of the RFK505 unit and then keep it for more than 2 second. Then you can see the display below. If you want initialization, press key <1>, otherwise press key <0>. Follow steps below.



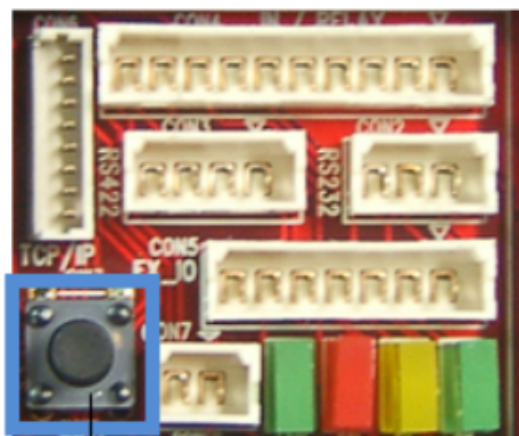
①



②



③



Initialization Switch

- ① Press the key <1> if you want initialization.
- ② Initialization is processing

- 3 System is rebooted automatically after Initialization

3 Wiring

3.1 Power

- Connect the (+) wire of DC 12V power to the +12V (Red wire).
- Connect the GND (-) wire of DC 12V power to the GND (Black wire).

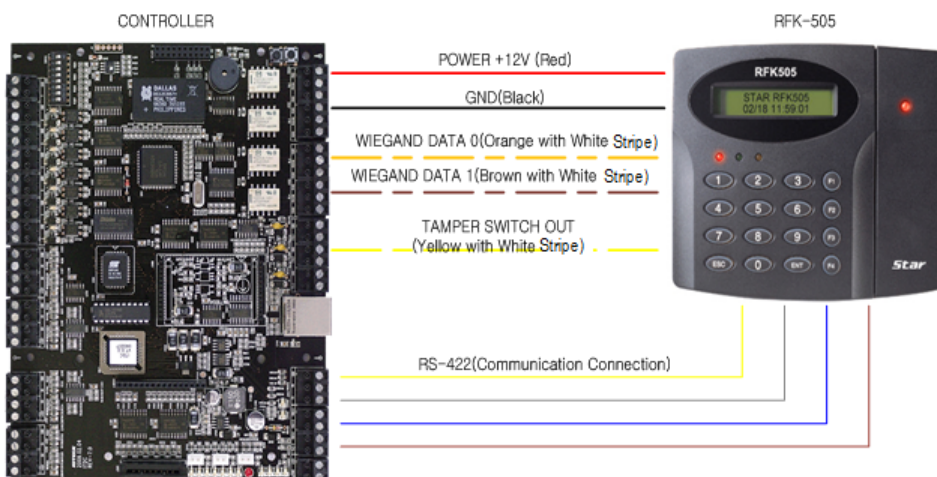
3.2 Wiegand Data Connection

- Connect DATA0 IN wire of the controller to WEIGAND DATA 0 wire of RFK505 (Orange with White stripe).
- Connect DATA1 IN wire of the controller to WEIGAND DATA 1 wire of RFK505 (Brown with White stripe).



If the controller and RFK505 use separate power sources, you must connect the GND between the controller and RFK505.

4 Wire Connection to Access Controller



4.1 Reader Connections (External Reader)

Proximity Reader Connection

- Connect (+) wire of the RFK505 to +12V (Red wire).
- Connect (-) wire of the RFK505 to GND (Black wire).
- Connect DATA0 wire of the RFK505 to DATA0 (Pink wire).
- Connect DATA1 wire of the RFK505 to DATA1 (Cyan wire).



If the controller and the external reader use separate power sources, you must connect the GND between the controller and the external reader.

Compatible Readers(External Reader)

RFK505/IPK505:

- Standard 26BIT Wiegand Format Proximity Readers
- Standard 26BIT Wiegand + 8BIT Burst Format Proximity and Keypad Reader
- RF-TINY, RF10, RF20, RF30, RF70, RF500, RFK101
- FGR006, FGR006EX, iP10, iP20, IP30, iPK101

SRK505

- Standard 34BIT Wiegand Format Proximity Reader
- Standard 34BIT Wiegand + 8BIT Burst Format Proximity and Keypad Reader
- SR10, SR20, SR30, SRK101, FGR006SR, FGR006SRB

1 RS232 Communication Port Connection

9-pin connector (Serial communication connector, female) is required to connect the RFK505 to a host computer via RS232 communication. Please follow the instruction below;

- Connect RS232-TX port of RFK505 to the pin 2 of the 9-pin connector.
- Connect RS232-RX port of RFK505 to the pin 3 of the 9-pin connector.
- Connect RS232-GND of RFK505 to the pin 5 of the 9-pin connector.
- Plug in the 9-pin connector to COM1 or COM2 port of the host PC.
- Install and run application software.

2 RS422 Communication Port Connection

2.1 RS422 Connection (Single RFK505 Connection)

RS422/RS232 converter (INC400) is required to use RS422 communication between the RFK505 and a host computer. Please follow the instruction below:

- Connect RS422-TX(+) of the RFK505 to RS422-RX(+) port of the converter.
- Connect RS422-TX(-) of the RFK505 to RS422-RX(-) port of the converter.
- Connect RS422-RX(+) of the RFK505 to RS422-TX(+) port of the converter.

- Connect RS422-RX(-) of the RFK505 to RS422-TX(-) port of the converter.
- Plug in the RS232 9pin connector of the converter to the COM1 or COM2 port of the P C.
- Install and run application software.

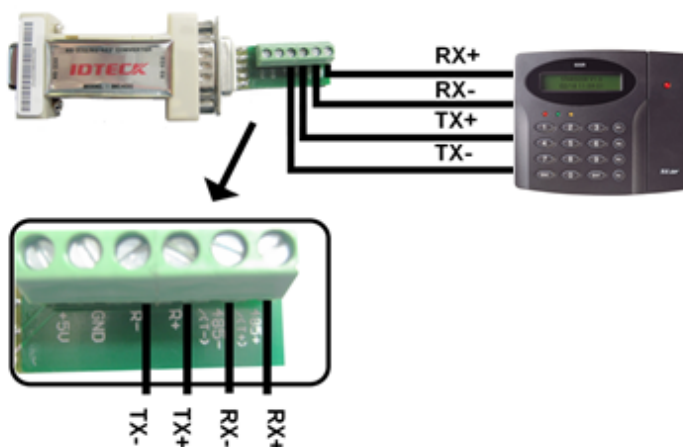
< A Type >

INC400	Unit(RS422)
WHITE	RX+
RED	RX-
BLUE	TX+
BLACK	TX-



< B Type >

INC400	Unit(RS422)
485-(T-)	RX+
485+/(T+)	RX-
R+	TX+
R-	TX-

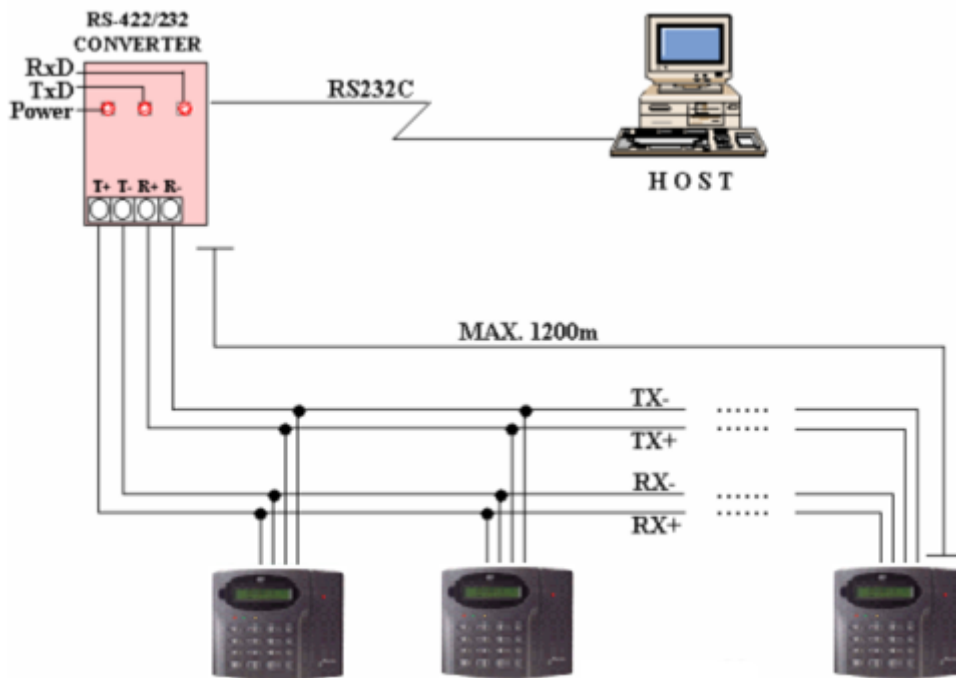


2.2 RS422 Connection (Multiple RFK505s Connections)

RS422/RS232 converter is required to use RS422 communication between multiple RFK505s and a host computer. Please follow instruction below;

1. First, you have to connect all RS422 port of all RFK505s in parallel.
 - I. Connect RS422-TX(+) of one RFK505 to RS422-TX(+) of another RFK505.
 - II. Connect RS422-TX(-) of one RFK505 to RS422-TX(-) of another RFK505.
 - III. Connect RS422-RX(+) of one RFK505 to RS422-RX(+) of another RFK505.
 - IV. Connect RS422-RX(-) of one RFK505 to RS422-RX(-) of another RFK505.
2. Second, you have to connect one of RS422 port of RFK505 to RS422/RS232 converter.

- I. Connect RS422-TX(+) of the one RFK505 to RX(+) port of the converter.
- II. Connect RS422-TX(-) of the one RFK505 to RX(-) port of the converter.
- III. Connect RS422-RX(+) of the one RFK505 to TX(+) port of the converter.
- IV. Connect RS422-RX(-) of the one RFK505 to TX(-) port of the converter.
- V. Plug in the RS232 9pin connector of the converter to the COM1 or COM2 port of the PC.
- VI. Install and run application software.



3 TCP/IP Communication Port Connection (Optional)

Optional TCP/IP module is required to use TCP/IP communication between multiple RFK505 and the PC. Please follow the instruction below;

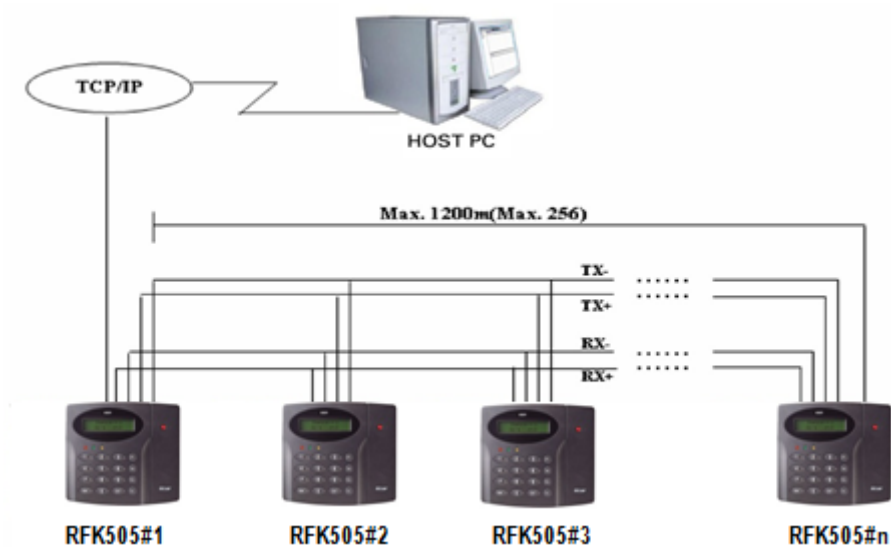
1. Connect the LAN cable of the network system to the RJ45 jack of the RFK505.
2. If you install multiple RFK505 units and only one TCP/IP port is available, you may connect one RFK505 to TCP/IP network and then connect all the RFK505 units using the RS422 multiple communication as shown in the diagram below.

For RS422 connection between the RFK505 with a built-in TCP/IP module and the rest of th

e RFK505 units without TCP/IP modules, connect the yellow RS422 wire of the RFK505 with a built-in TCP/IP module to the Blue wire of a RFK505 without a module.

RFK505 with TCP/IP Module	RFK505 without TCP/IP Module
Yellow	Blue
Gray	Brown
Blue	Yellow
Brown	Gray

3. Set a unique Communication Address for each RFK505.
4. Install and run the applications software.



4 TCP/IP Converter (External Version)

When you use the TCP/IP converter, choose either RS232 converter or RS422 converter.



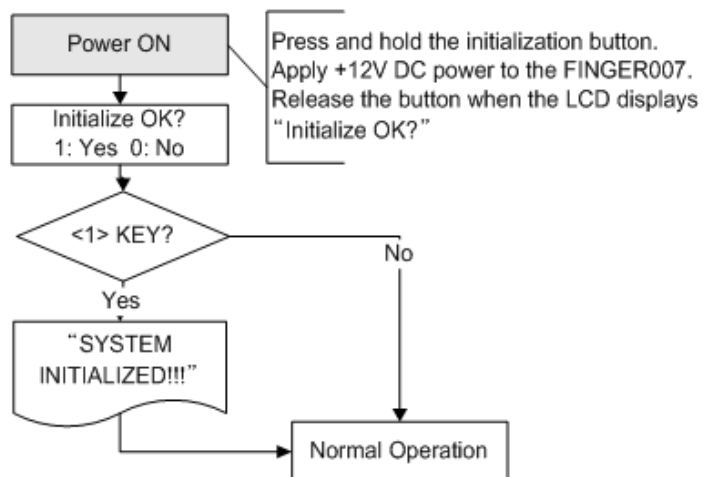
INTERFACE	RFK505	ILAN422	LINE COLOR
RS232	TX (CON2)	RX (RS232 DSUB9)	BLACK+WHITE
	RX (CON2)	TX (RS232 DSUB9)	RED + WHITE
	GND(CON2)	GND	BLACK
RS422	TX+ (CON3)	RX+ (RS422 CONNECTOR)	GRAY
	TX- (CON3)	RX- (RS422 CONNECTOR)	YELLOW
	RX+ (CON3)	TX+ (RS422 CONNECTOR)	BROWN
	RX- (CON3)	TX- (RS422 CONNECTOR)	BLUE

1 System Initialization

For system initialization, press and hold the initialization button over 1 second. (The initialization button can be found on the back of the RFK505.) Then, the LCD will first display “Initialize OK? 1: Yes 0: No”. Press <1> key if you want to initialize the system or <0> to cancel the initialization procedure. After all the initialization process is completed, the system will be operating in the normal mode and the LCD will display “RFK505 [F1], MM/DD hh : mm : ss”.



If initialization is completed, all of the data in the device will be deleted.



2 Entering Setup Mode

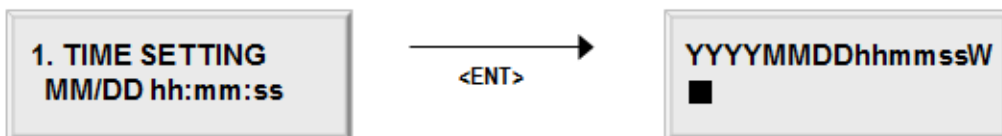
To setup or change the RFK505 settings, you have to enter the Setup Mode first. To do so, enter the Master ID (default=00000000)* and press the <ENT> key. There are 4 main Setup menus and you automatically get into “SETUP MENU F1” first. You can move to other Setup menus by pressing the <F1> key for “SETUP MENU F1”, <F2> key for “SETUP MENU F2”, <F3> key for “SETUP MENU F3” and <F4> key for “SETUP MENU F4”. There are setting items in the main Setup Menu and you can scroll up or down the menu by pressing the <4> or <6> key. If you press the <ESC> key then the RFK505 will exit the Setup Mode and return to normal operation in Reader Mode.



The default Master ID for the SR505 is 0000000000 (Press the <0> key 10 times)

3 Time / Date Setting

After you enter the Setup Mode, you will see the following screen with the current date and time. To adjust the time / date setting, press <ENT>, then enter 15 Digits in YYYYMMDDhhmmssW format, and then press <ENT> again to confirm.



For the days of the week (W), 1 : Sun, 2 : Mon, 3 : Tue, 4 : Wed, 5 : Thu, 6 : Fri, 7 : Sat.

e.g. To input August 24, 2009, 13:30:15, Monday, enter 200908241330152.

1 Normal Operation

Power On

When the power is applied to RFK505, the “RED LED” is turned on.

Registered Card Reading

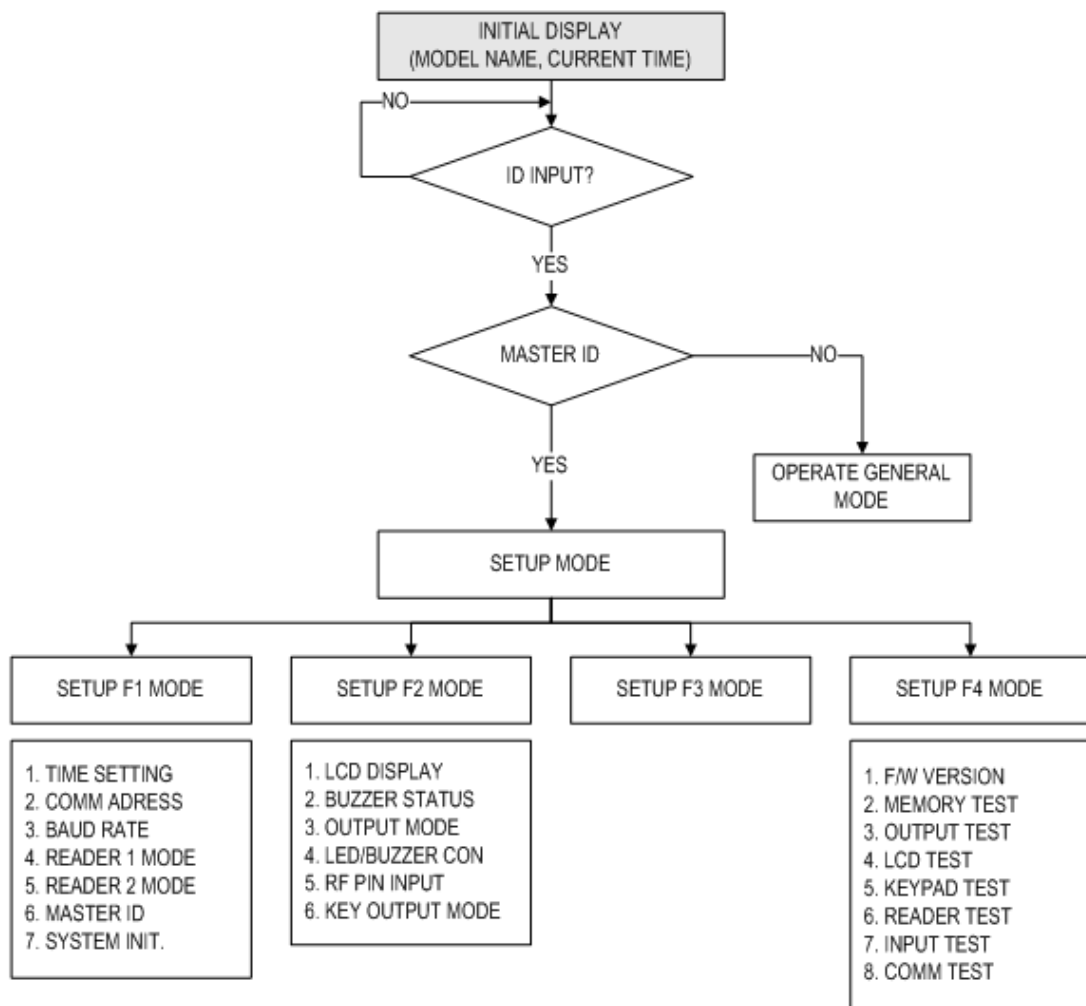
When a registered card (or PIN) is read, the door (Relay1) will open for 3 seconds (Defaults) with the “GREEN LED” on.

Alarms by Temper Switch

After RFK505 is installed on the wall, if someone take the RFK505 off from the wall then “YELLOW LED” is on and buzzer is activated continuously.

2 Default Setting

When you operate the RFK505 first time or you initialize the RFK505, the controller will set up all values to defaults (Factory Settings). You can change the settings for desired application. Please refer to the “APPENDIX” section at the back of this manual for the default setting values.



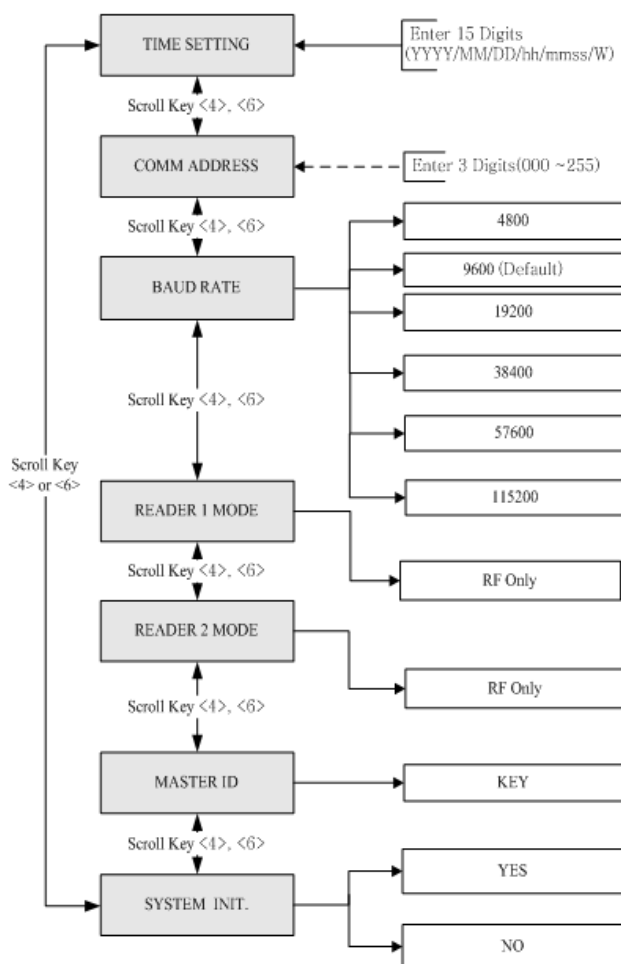
To setup or to change the RFK505 / IPK505 settings, the user has to enter the SETUP MENU first. To do so, input Master ID (Default setting “00000000” and the user can get into SETUP

MENU. There are 4 main SETUP MENUs and the user first gets into [SETUP MENU F1]. The user can move to other SETUP MENU by pressing <F1> key for [SETUP MENU F1], <F2> key for [SETUP MENU F2], <F3> key for [SETUP MENU F3] and <F4> key for [SETUP MENU F4]. There are several SUB MENUs in the main SETUP MENU and the user can scroll up and down the SUB MENU by pressing <4> and <6> key in the main SETUP MENU. If the user pressed <ESC> key, RFK505 / IPK505 will be out of the SETUP MENU and returned to normal operation. The Master ID for SRK505 is 10 times <0> key (Default setting).



The RFK505 / IPK505 / SRK505 don't use SETUP MENU F3.

1 SETUP MENU F1



1.1 Time Setting



The LCD displays the current time. To change the time, press <ENT>, enter 15 Digits in a “YY YYMMDDhhmmssW” format, and then enter <ENT> again to confirm.

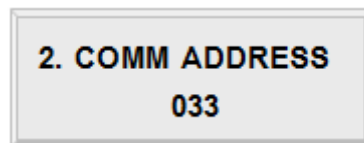


For the days of the week (W),

1: Sun, 2: Mon, 3: Tue, 4: Wed, 5: Thu, 6: Fri, 7: Sat.

e.g. To input August 24, 2009, 13:30:15, Monday, enter 200908241330152.

1.2 Communication Address



A communication address is a unique number assigned to each device for communication. The default address is 033.

For proper communication with the PC, it is important that the value you set here should match the value you set on the application software. It is also important to make sure each device on a loop has a unique address.

To change the communication address of the RFK505, press <ENT>, enter the desired 3-Digit address in the 000-255 ranges, and then press <ENT> again to confirm.

1.3 BAUD RATE



Baud Rate is the measure of speed in serial communication. As with the communication add

ress, the baud rate you set here should match the value you set on the software.

Baud Rates of 4800bps, 9600bps, 19200bps, 38400bps, 57600bps and 115200bps are supported, and 9600bps is default.

To change the Baud Rate, press <ENT>, select the desired baud rate by pressing <4> or <6>, and then press <ENT> again to confirm.



If a TCP/IP module is being used, the Baud Rate setting must be set the same as the TCP/IP module setting.



If communication has problem;

1. Check the status of COMM Address Registration (It has to be same as Application Software.)
2. Check the matching Communication Speed (Baud rate) (It has to be same as Application Software.)
3. Check the matching port between PC communication port and Application Software port.
4. Check the setting for communication environment of Application Software.

Parity Bit: NONE

Data Bit: 8bit

Stop Bit: 1bit

1.4 Reader 1 (Internal Reader) Mode

4. READER 1 MODE
RF ONLY

READER 1 MODE
-> RF ONLY

This is reader # 1 status.

You cannot change this mode

1.5 Reader 2 (External Reader) Mode

5. READER 2 MODE
RF ONLY

READER 2 MODE
-> RF ONLY

This is reader #2 status.

You cannot change this mode

1.6 Master ID Registration or Change



Master ID is the number/card that you use to enter the Setup Mode. For security reasons, it is advisable that you change the default Master ID immediately and keep the new Master ID / card confidential. (Default is "00000000")



Beware that if you forget the Master ID, you cannot access the Setup Mode.

To change the Master ID, press <ENT>, and then either enter the desired 8Digit Master ID or present a card to the reader.



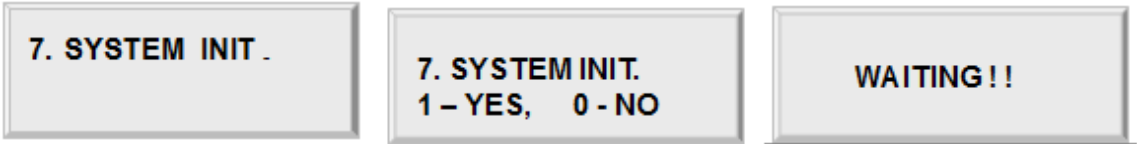
For the SRK505, the Master ID is 10Digits long in the range of 0000000000 to 4294967295.

When the Master ID/card registration is successfully completed, the LCD displays the "REGISTRATION OK" message.

PW

if you present card to register, password is checked for entering Master mode (Range of Password: 0000-9999)

1.7 System Initialization



System initialization allows you to initialize the RFK505. Initialization clears all the user-defined data stored in the device such as card data, input/output setting, Time Schedules, etc.

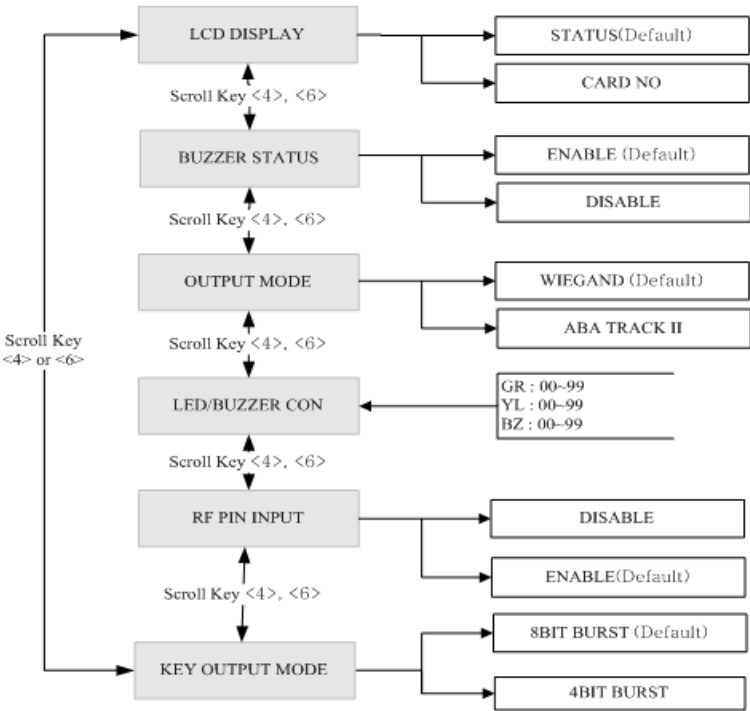


Before you initialize the system, make sure you do not need the data stored in the device.

To initialize the RFK505, press <ENT>, and then press <1> to confirm. If you wish to cancel and exit without initialization, press <0> instead.

Device address and communication speed is maintained.

2 SETUP MENU F2



2.1 LCD 표시 형태 설정



LCD DISPLAY allows you to decide whether to display the card number or the status message on the LCD when access is granted or denied.

STATUS

The LCD will display the text message indicating the status, i.e. "ACCESS GRANTED" or "ACCESS DENIED"

CARD NO

Display the number of the card.

To change the setting, press <ENT> and press <4> or <6> to select "STATUS" or "CARD NO" and then press <ENT> to confirm.

2.2 Buzzer Status



The buzzer generates a beep when a button on the keypad is pressed, when a card is read, when an error occurs, etc.

To enable or disable the buzzer sound, press <ENT> and press <4> or <6> to select "ENABLE" or "DISABLE" and press <ENT> to confirm.



The buzzer beeps regardless of this setting, when you exit the Setup Mode, when a memory alarm is activated, or when buzzer output is defined in "In/Output Define".

2.3 Output Mode



You can select the output format between WIEGAND or ABA TRACK.

WIEGAND:

Outputs ID data through Wiegand output line.

ABA TRACK II:

Outputs ID data through ABA track output line. (Open collector)

2.4 LED Buzzer Control



This function controls the LED and Buzzer of the reader.

GL (Green LED)

controls the card reading status.

YL (Yellow LED)

controls the error indication in case a user card isn't authorized.

BZ (Buzzer)

It controls the buzzer sound.



e.g.) GL03 YL03 BZ01 : When card is presented to the unit, green LED indicator is lit for 3sec. If a user card isn't authorized, the yellow LED indicator is lit and the buzzer beeps for 1sec.

2.5 RF PIN Input



RF Pin Input allows you to decide whether to enable or disable PIN (or RF card number) Input via the keypad. By default, PIN Input is enabled.



If you choose "Disable", you cannot gain access via password input when using RF +PW mode.

2.6 Key Output Type Setting



You can change the Output Mode with pressing function keys.

4BIT BURST

4bit burst will be output when you press function keys

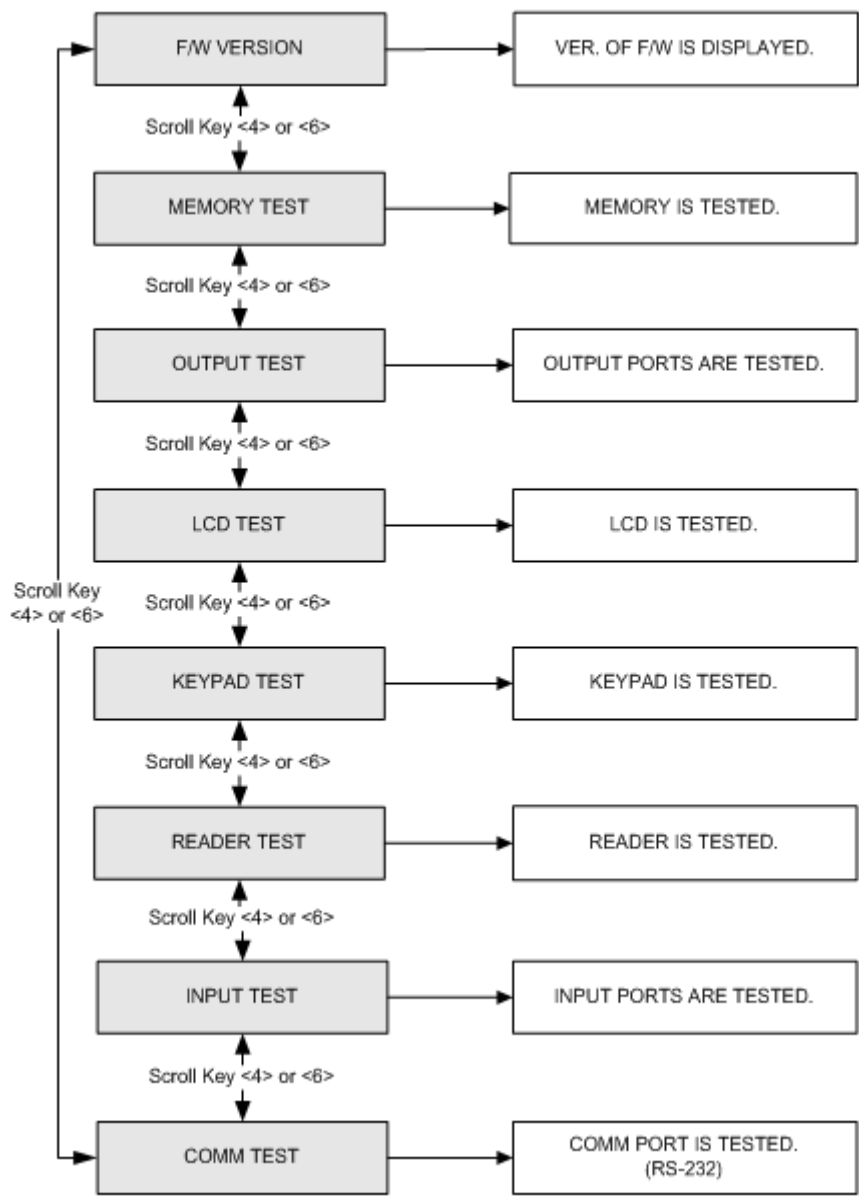
8BIT BURST

8bit burst will be output when you press function keys.

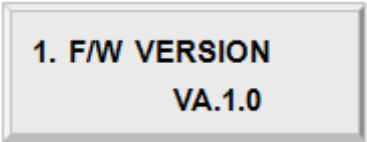
3 Setup Menu F3

사용되지 않습니다.

4 NOT USE



4.1 Firmware Version



The version of the firmware installed in the RFK505 is displayed on the LCD.

4.2 Memory Test

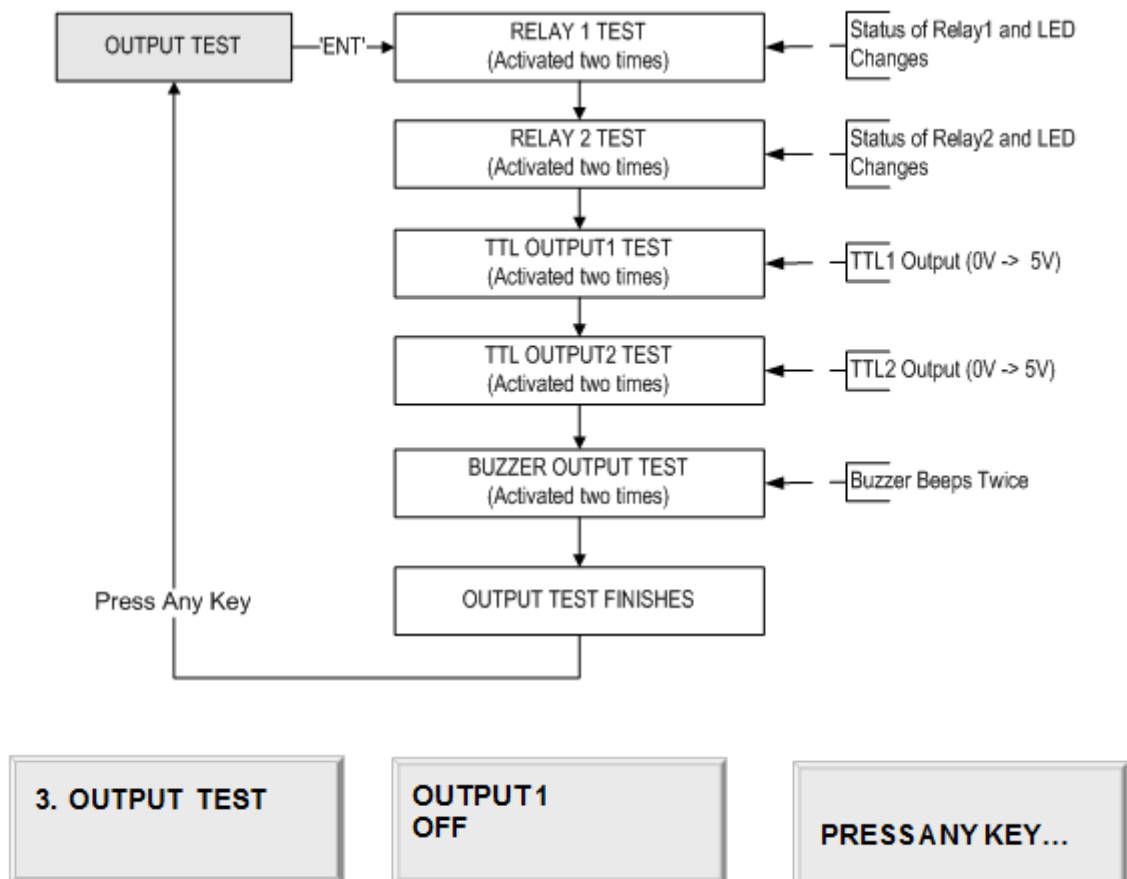
2. MEMORY TEST

Memory Test allows you to test the memory of the RFK505. To begin the test, press <ENT>.

If the test is successful, the LCD will display the “TEST PASSED” message. Press any key to finish the test. If the test is unsuccessful, the LCD will display the “TEST FAILED” message.

Press any key to finish the test and try again. If the problem persists, please contact your local IDECK dealer for assistance or service.

4.3 Output Test



Output Test allows you to test the output ports of the RFK505. To begin the test, press <ENT>. First, output port 1 and 2 will be tested. During the test, relay outputs are activated and you will hear Tick-Tack sounds with the green LED blinking twice. Second, output ports 3 and 4 will be tested. During the test, TTL outputs are activated and the yellow LED blinks twice. You can check the voltage level of the TTL outputs with appropriate test equipment. Lastly, output port 5 will be tested. During the test, you will hear 2 beeps. After all the tests are over, press any key to exit.

4.4 LCD Test



LCD Test allows you to test the LCD of the RFK505. To begin the test, press <ENT>. Once the test begins, the LCD will display a series of different screens.

Ensure that all the screens on the LCD are properly displayed. The test ends with the display of the firmware update date (YYYY/MM/DD). After the test is finished, press any key to exit.

4.5 키패드 테스트

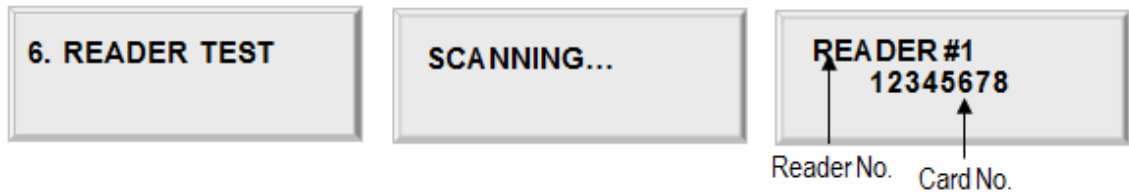


Keypad Test allows you to test the keys on the keypad. To begin the test, press <ENT>. Press each key on the keypad, then the number or letter that corresponds to the key pressed will disappear from the screen. After all the keys are pressed, the LCD displays the “TEST PASSED” message.



Letter A corresponds to <ESC>, B to <ENT>, C to <F1>, D to <F2>, E to <F3>, and F to <F4>.

4.6 Reader Test



Reader Test allows you to test the reader(s). To begin the test, press <ENT>. While the LCD displays “SCANNING”, present a card to the reader you would like to test, and the LCD will display the reader number and the card number. After the test is finished, press <ESC> to exit.



Reader#1 refers to the built-in reader of the RFK505, and Reader #2 refers to an external reader.



You can also use Reader Test to check the number of a card. Master number of SR 505 is in the range of 10digits.

4.7 Input / DIP Switch Test



Input Test allows you to check the status of Input Ports and DIP switches (Communication Address Setting Switches). To begin the test, press <ESC>.

DIP Switch

1=ON, 2=OFF (It shows how the DIP switch on the back of the RFK505 is set.)

Input 1-4

0=OFF (Disabled)

1=ON (Enabled)

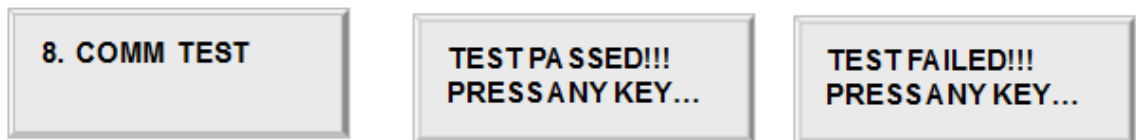
2=Input Disconnected

Input 5

The status of the tamper switch inside the RFK505 (0=OFF (Disabled), 1=ON (Enabled))

In case of RFK505, it's possible to test only tamper switch in INPUT #5.

4.8 Communication Test



COMM Test allows you to test communication. Prior to the test, connect the RS232-RX wire (Black wire with White stripe) and the RS232-TX wire (Red wire with Black stripe) together. To begin the test, press <ENT>. If the test is successful, the LCD will display the "TEST PASSED" message. Press any key to finish the test. If the test is unsuccessful, the LCD will display the "TEST FAILED" message. Press any key to finish the test and try again after powering the RF K505 off and back on.

1 Default Values for Parameters

No	Parameters	INITIAL SETTING VALUE
1	READER #1 Operation Mode	ID ONLY
2	READER #2 Operation Mode	ID ONLY
3	READER #1 Keypad Input Limit	USE

FCC Requirements Part 15

***Caution:** Any changes or modifications in construction of this device which are not expressly approved by the responsible for compliance could void the user's authority to operate the equipment.*

***NOTE:** This device complies with **Part 15 of the FCC rules**.*

Operation is subject to the following two conditions:

1. This device may not cause harmful interface, and
2. This device must accept any interference received, including interference that may cause undesired operation.

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 this equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on another circuit.
4. Consult the dealer or an experienced radio/TV technician for help.

If you have any questions or problems regarding the RMA services, please contact us using the contact information below. Friendly representatives at IDTECK are always standing by to provide the best after sales services.

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The specifications contained in this manual are subject to change without notice at any time.