

***Star* RFL200C** ***iPASS* IP-RFL200C**

Proximity Access Controller



Table of Contents

1. Important Safety Instructions	3
2. General	3
3. Features	4
4. Identifying Supplied Parts	4
5. Specification	5
6. Installation	6
7. Color Coded & Wiring Table	7
8. Wire Connection to Controller.....	7
11. Operation	12
12. FCC Registration Information.....	14
13. Warranty and Service	15

1. Important Safety Instructions

When using **Proximity Access Controller**, basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons. In addition, the following safety guides should also be followed:

1. **Fully** read and understand all instructions and follow them completely.
2. **Follow** all warnings and instructions marked on the product.
3. **Do not** use liquid or aerosol cleaners. Use a damp cloth for cleaning. If necessary, use mild soap.
4. **Do not** use this product near water.
5. **Only** operate this product using the type of power source indicated. If you are not sure of the type of power supplied to your installation site, consult your dealer or local power company.
6. **Never** insert objects of any kind into the product or through the cabinet slots as they may touch voltage points and/or short circuit parts possibly resulting in fire or electric shock.
Never spill liquid of any kind on the product.
7. **Never** disassemble this product by yourself; take the unit to a qualified service center whenever service or repair is required. Opening or removing the covers may expose you to dangerous voltages or other risks. Also, incorrect reassembly can cause electric shock when the unit is subsequently used.
8. **Unplug** this product from the Direct Current (DC) power source and refer to qualified service personnel under these conditions:
 - a. When the power supply cord or plug is damaged or frayed.
 - b. If liquid has been spilled on the product.
 - c. If the product does not operate normally after following the operating instructions in this manual.
Adjust only those controls that are covered by the operating instructions in this manual. Improper adjustment of other controls that are not covered by this manual may damage the unit and will often require extensive work by a qualified technician to restore normal operation.
 - d. If the product exhibits a distinct change in performance.

2. General

The **Star RFL200C / iPASS IP-RFL200C** are an elegant looking and an attractive 4" read range proximity reader built-in **Proximity Single Door Access Controller** which can be mounted to metal door frame (mullion) or to any flat wall surface. The **Star RFL200C / iPASS IP-RFL200C** is epoxy potted that ensure you a successful operation even in harsh environments.

Two-color LED of green and red, inside Piezo buzzer sound will guarantee you an accurate and reliable Door Access Operations.

3. Features

- 125KHz Standalone Proximity Access Controller
- iPASS IP-RFL200C: ASK[EM] Format
Star RFL200C: PSK Modulation
- 512 Users including One Master Card
- Network Communication via RS485 (Max.255ch)
 - TCP/IP (External LAN Converter required, optional)
 - Wireless (e.g. Bluetooth module required, optional)
- 512 Users / 256 Event Buffers
- Direct Control of Door Lock
- Power Fail Safe or Power Fail Secure Locks Selectable
- Solid Epoxy Potted
- Waterproof
- Warranty: Life Time
- Compatible Software: STAR RFL200C

INTERFACE CONTROLLER

- Interface Controller for Communication
- Max 8,000 Event Buffers
- Network Communication via RS232 / RS422 / RS485 (Max. 255ch)
- Event Data Safe Mode Once Power Failure
- Required to Control More than 255 Units
- Control up to 255 Units of RFL200C / IP-RFL200C per each interface controller

4. Identifying Supplied Parts

Please unpack and check the contents of the box.



Reader Module

(1ea)



RFL200C / IP-RFL200C

Bezel

(1ea)



User's Manual

(1copy)


3.0*30 Screw
(2ea)

3.0*25 Screw
(2ea)

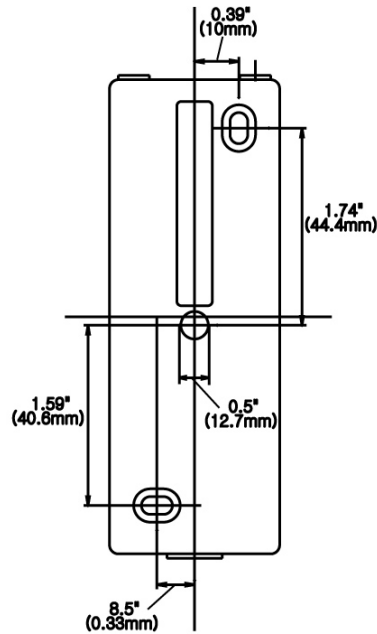
Anchor Bolt
(2ea)

5. Specification

Model		RFL200C	IP-RFL200C
CPU		Dual 8bit Microprocessor	
Memory	Program Memory	64KByte Flash ROM	
	Data Memory	4KByte EEPROM	
User		512 Users	
Event Buffer		256 Event Buffers	
Read Range	Passive Type	IDK50 / IMC125: Up to 2 inch (5cm) IDC80 / IDC170: Up to 4 inch (10cm)	IPK50: Up to 2 inch (5cm) IPC80 / IPC170: Up to 4 inch (10cm)
	Active Type	IDA150 / IDA200 Compatible	N/A
Reading Time (Card)		30ms	
Door Open Time		1~99sec.(Selectable)	
Power / Current		DC 12V / Max.150mA	
Communication		RS485 (Max.255ch)	
Input Port		3ea (Exit Button, Door Sensor, Aux#1)	
Output Port		2ea (TR Output / open collector output) Lock Output (Power Fail Safe / Power Fail Secure) Selectable	
LED Indicator / Beeper		9 Array LED Indicators (Red and Green) / Piezo Buzzer	
Operating Temperature	Controller	-35° to +60°C (-31° to +140°F)	
	RF Reader	-35° to +65°C (-31° to +149°F)	
Operating Humidity		10% to 90% relative humidity non-condensing	
Color		Dark Pearl Gray	
Material		Polycarbonate	
Dimension (W x H x T)		45mm x 124m x 19.64mm (1.8" x 4.9" x 0.8")	
Weight		80g (0.18 lbs)	
Warranty		Life Time	
Certification		FCC, CE, MIC	

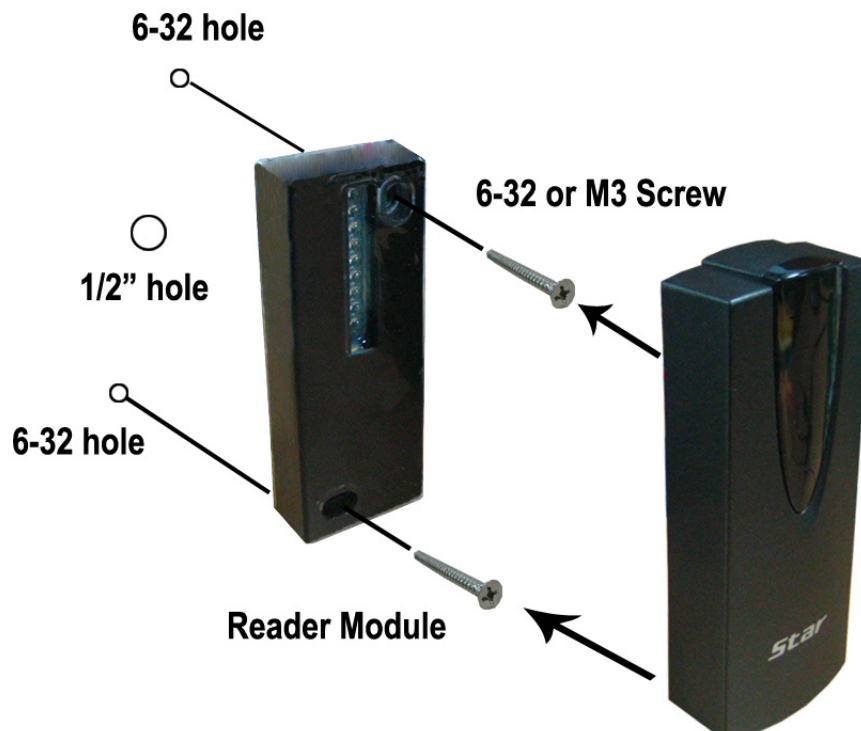
6. Installation

6-1. Drill one 0.5"(12.7mm) hole at the central of the RFL200C / IP-RFL200C on mullion or wall mount. Route the cable of reader module through the central hole.



6-2. Drill one 0.39"(10mm) in right horizontal and 1.74"(44.4mm) in upper vertical through the central hole. And drill the other 0.33"(8.5mm) in left horizontal and 1.59"(40.6mm) in under vertical through the central hole.

6-3. Push reader module on mullion or wall mount then install the main unit using two 6-32 or M3 screws.

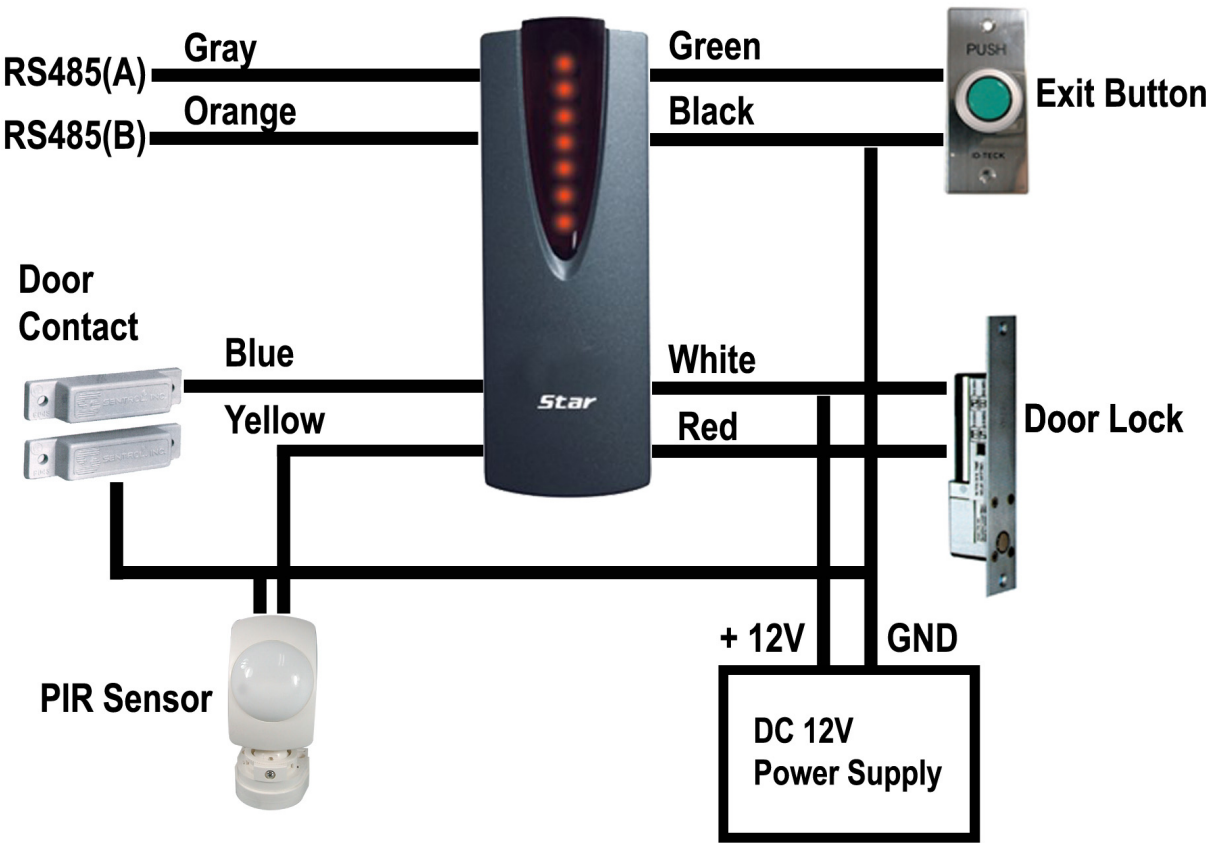


7. Color Coded & Wiring Table

SIGNAL	COLOR
Main Power (+12V)	Red
Power Ground (GND)	Black
Aux In 1	Yellow
Door Contact In	Blue
Exit Button In	Green
Alarm Out	Purple
Door Lock Out	White
RS485 (A)	Gray
RS485 (B)	Orange
Not Connect	Brown

*** Please cut out tail connector before installation.**

8. Wire Connection to Controller



8-1. Connecting a power supply

- Connect +12V of power supply to Red wire.
- Connect GND of power supply to Black wire.

8-2. Connecting a door lock

- Connect (+) wire of door lock to +12V wire of power supply.
- Connect (-) wire of door lock to white wire of reader module.

8-3. Connecting an exit button

- Connect Green wire of exit button input to one wire between wires of exit button.
- Connect GND wire of power supply to the other wire.

8-4. Connecting a door sensor

- Connect COM terminal of door sensor to Blue wire of door sensor input.
- Connect NO terminal of door sensor to GND of power supply.

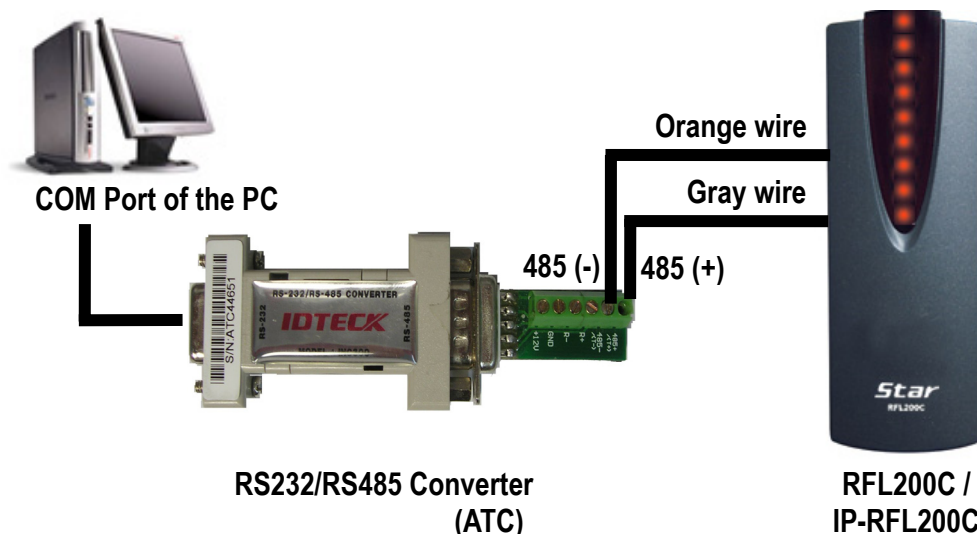
8-5. Connecting a door lock type

- In a power fail safe, connect GND wire of power supply to Yellow wire of door lock type input.
- In a power fail secure, put a floating state on Yellow wire of door lock type input.

8-6. RS485 Communication port connection

The INC300 for RS485/RS232 converter is required to connect a product to the PC.

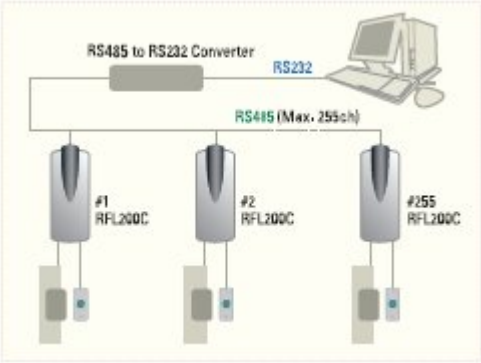
- Connect gray wire for RS485(A) to 485(+) terminal of converter.
- Connect orange wire for RS485(B) to 485(-) terminal of converter.
- Plug 9-pin connector of converter into COM Port of the PC.
- Install the application software and then run.



485 Converter	RFL200C / IP-RFL200C
485(-)	Orange wire
485(+)	Gray wire

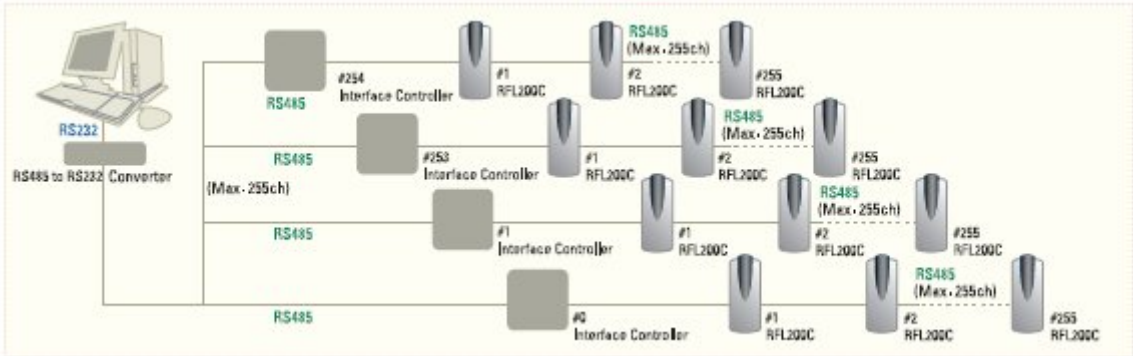
9. Network connection to the access controller

- 9-1 Up to 255 Units of RFL200C / IP-RFL200C
- Max. 255 units (Board ID : 1~255) can be installed in a loop.
 - Able to connect directly via RS485 or RS232 converter.



9-2 Over 255 Units of RFL200C / IP-RFL200C (Interface Controller (Max.255ch) required):
Control 255 Units (RFL200C / IP-RFL200C) per each Interface Controller

- The interface controller is required.
- [The function of the interface controller] :
- ① The controller between PC and RFL200C / IP-RFL200C
 - ② Upload event data from RFL200C / IP-RFL200C to PC
 - ③ Able to control max. 255 units of RFL200C / IP-RFL200C per each interface controller

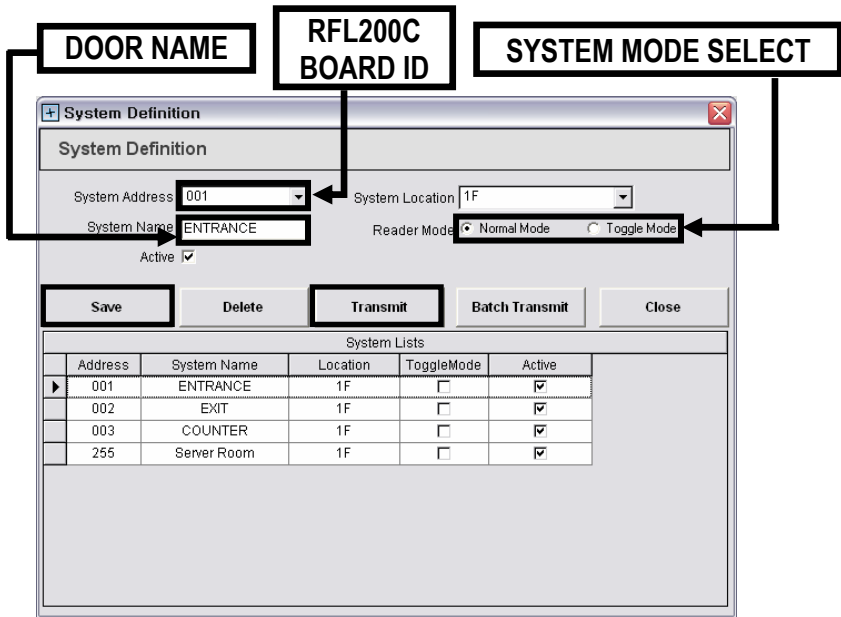


10. Set up Hardware

All parameters of Star RFL200C / iPASS IP-RFL200C are set by the application software.

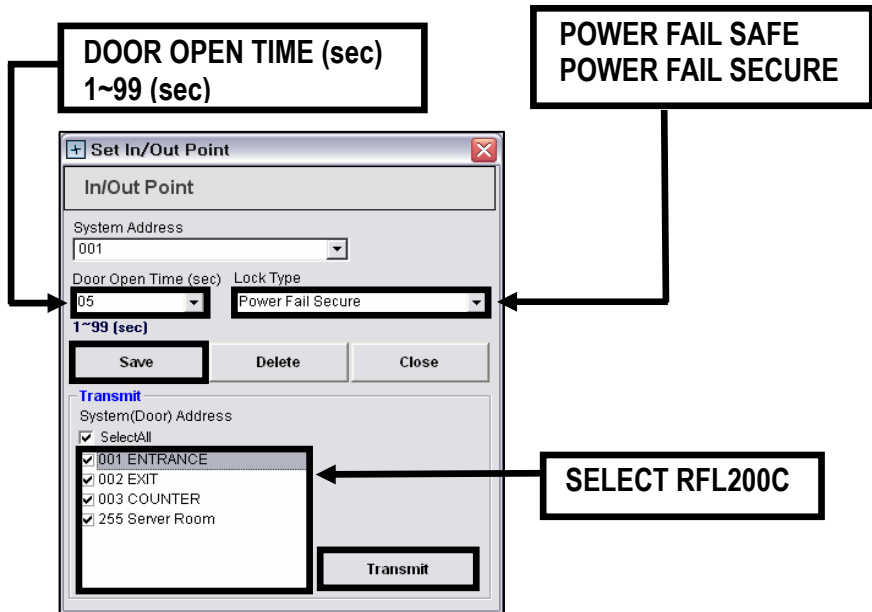
10-1 Set up “System Address” and “Normal” or “Toggle Mode”.

- ① Choose “System Name” and “System Address” on drop down list.
- ② Click “Normal Mode” or “Toggle Mode”.
- ③ Click “Save” and then “Transmit” button if finishing to step①~②.



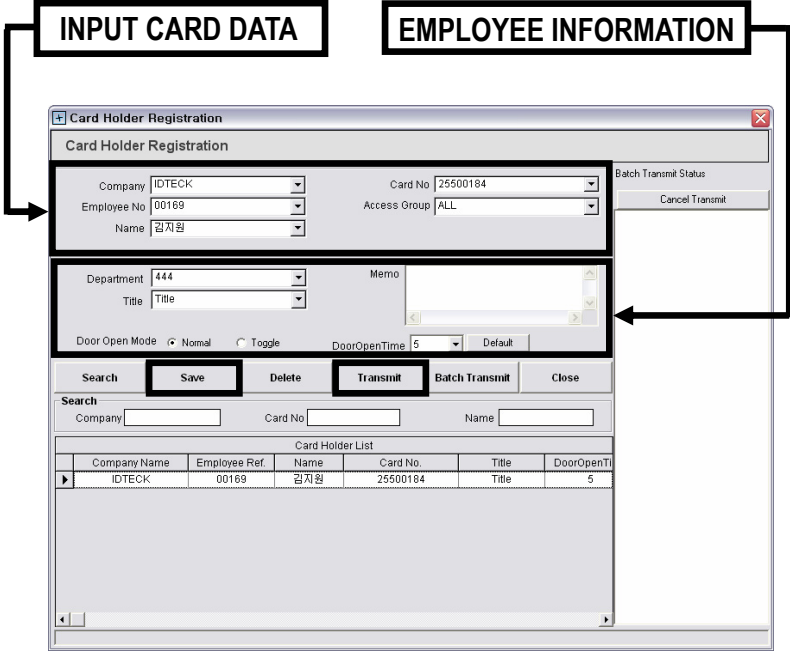
10-2 Set “In / Out Point”

- ① Choose “Door Open Time (sec)” of 1 to 99sec.
- ② Choose “Lock Type” one whether Power Fail Safe or Power Fail Secure.
- ③ If clicking “Save” button, one door among “System (Door) Address” is checked.
- ④ Click “Transmit” button.



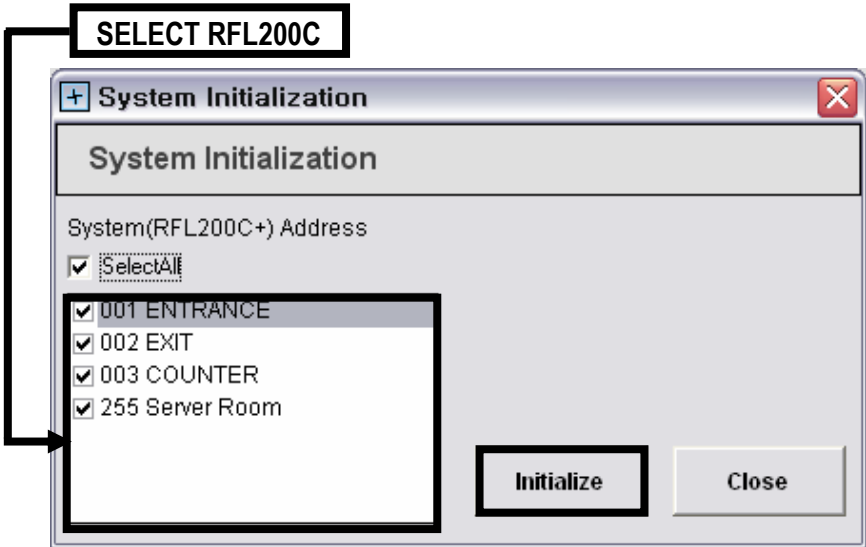
10-3 Card Holder Registration or Deletion

- Card Holder Registration or Deletion is performed by the application software.
- ① Choose "INPUT CARD DATA" and "EMPLOYEE INFORMATION".
- ② Click "Save" and then "Transmit" button.



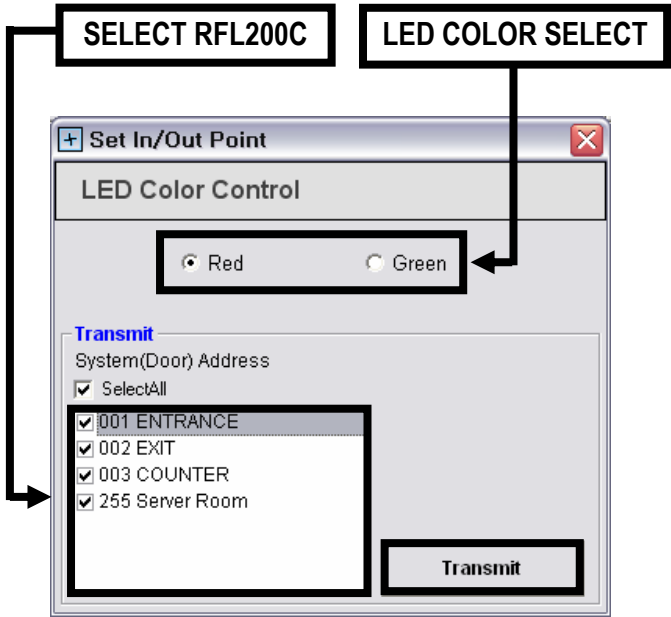
10-4 System Initialization

StarRFL200C / iPASS IP-RFL200C is initialized by the software.



10-5 LED Color Control

The Star RFL200C / iPASS IP-RFL200C can change its LED color to red or green by the application software.



※ See “STAR RFL200C” software manual to set up hardware.

11. Operation

11-1. When power is supplied

- (1) All LEDs display red or green. Then they repeat on/off twice and become off.
- (2) As power off, red LED turns on from the under to the top in order. And all LEDs turn red.
- (3) RFL200C / IP-RFL200C’s buzzer sounds one time

11-2. Whether registered key tag is read on RFL200C / IP-RFL200C or an exit button is pressed

- (1) All LEDs turn from red to green. From the top to the under, they are off and on in order.
When all LEDs are off, they turn red.
- (2) At this time, the door is opened by definite time.
And the upper of two LEDs turn green. This means that open the door
- (3) RFL200C / IP-RFL200C’s buzzer sounds one time.

11-3. When unregistered key tag is read on RFL200C / IP-RFL200C

- (1) All LEDs turn red. Then they repeat on/off twice and become on.
- (2) RFL200C / IP-RFL200C’s buzzer sounds twice.

11-4. When door is opened and read user card on RFL200C / IP-RFL200C

- (1) The upper of two LEDs still display green color. It means that open the door.
With the rest of LEDs, they indicate whether authentication or not.

11-5. When you don’t know “Board ID”

- ① As power off, purple and blue wire are close.

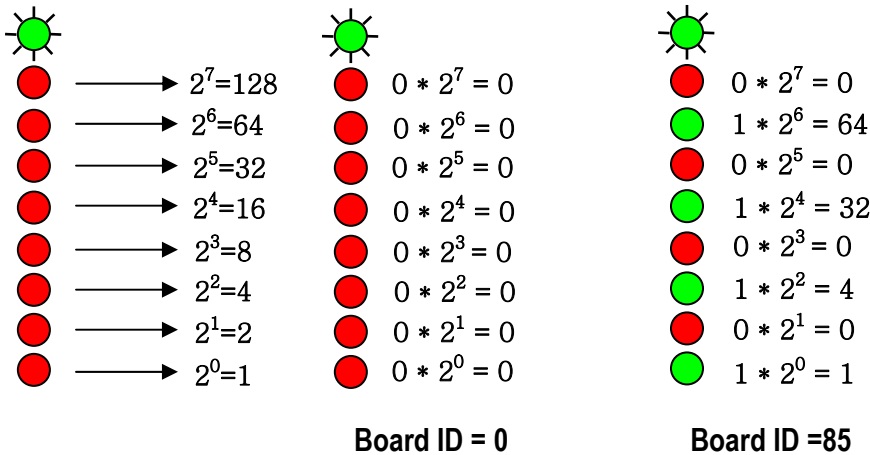
- ② If a power is supplied, the top of LED displays red or green and repeats on/off.
The rest LEDs indicate "Board ID".
- ③ After finishing to make sure of "Board ID", connect again purple and blue wire as power off.
- ④ As power on, RFL200C / IP-RFL200C operates normally.

Example

 **Green and red LED flickers**

 **Green LED ON (1)**

 **Red LED ON (0)**



11.6 When initializing an RFL200C / IP-RFL200C

- ① As power off, white, green and yellow wire are close.
- ② As power on, all LEDs display red or green color.
After repeating on/off twice, LEDs are off.
- ③ As power off, green LED turns on from the under to the top in order.
All LEDs display green color.
- ④ The RFL200C / IP-RFL200C's beeper sounds four times that is finished to initialize.
- ⑤ After finishing the initialization, connect white, green and yellow wire to basically connected the main unit as power off.
- ⑥ As power on, the RFL200C / IP-RFL200C operates normally.
At this time, RF card that read on RFL200C / IP-RFL200C first is registered as master card.

11.7 Except the above, user can register or delete a card number using the STAR RFL200C software. In addition, it can change "Normal Mode" / "Toggle Mode", "Door Open Time" and "LED Color Control".

※ See "STAR RFL200C" software manual to set up hardware.

12. FCC Registration Information

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.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the radio or television off and on, the user is encouraged to try to correct interference by one or more of the following measures.

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.

13. Warranty and Service

The following warranty and service information applies only to the United States of America and the Republic of Korea. For information in other countries, please contact your local distributor. To obtain in or out of warranty service, please prepay shipment and return the unit to the appropriate facility listed below.

Headquarters: IDTECK Co., Ltd.

5F Ace Techno Tower B/D,
684-1 Deungchon-Dong, Gangseo-Gu,
SEOUL, KOREA 157-030

Tel: +82-2-2659-0055

Fax: +82-2-2659-0086

E-mail: webmaster@idteck.com

Website: www.idteck.com

U.S Branch: RF Logics Inc.

370 Amapola Ave, #106

Torrance, CA 90501

Tel: 310-782-8383

Fax: 310-782-8298

E-mail: rflogics@rflogics.com

Website: www.rflogics.com

Hong Kong Branch: IDTECK Hong Kong

12/F, B2B Centre, No.36 Connaught Road West, Hong Kong

Tel: 852-2581-9580

Fax: 852-2234-5150

E-mail: alchu@qala.com.hk

Website: www.ristarhk.com

Please use the original container, or pack the unit(s) in a sturdy carton with sufficient packing to prevent damage and include the following information:

1. A proof-of-purchase indicating model number and date of purchase.
2. Bill-to Address.
3. Ship-to Address.
4. Number and description of units shipped.
5. Name and telephone number of person to be contacted.
6. Reason for return and description of the problem (Should be as detailed as possible!)

NOTE: Damage occurring during shipment is deemed the responsibility of the carrier, and claims should be made directly to the carrier.



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

5F, Ace Techno Tower B/D, 684-1, Deungchon-Dong,
Gangseo-Gu, Seoul, 157-030, Korea
Tel : +82-2-2659-0055
Fax : +82-2-2659-0086
E-mail : webmaster@idteck.com