Star RFL200
iPASS IP-RFL200

Proximity Access Controller

IDTECK

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1. Important Safety Instructions

The description below is to keep user's safety and prevent any product damage. Please fully read these instruction and use the product properly.

Danger: This symbol indicates that incorrect handling of the product may result in serious injury or death.

Warning: This symbol indicates that incorrect handling of the product may result in injury or property damage.

Cautions about power

- Only use the standard voltage (DC +12V/ 350mA).
- If the product emits smoke or smells, stop using the product. Unplug the product from DC power source and contact nearest service center.

Cautions about installation

- Do not install the product in humid, dust (metallic dust) and sooty place.
- Do not install the product in a place subject to high temperature, low temperature or high humidity
- Do not install the product with tools such as driver in hand when power has been supplied.

Cautions about usage

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- Do not drop liquid like water and give a shock severely.
- Do not place magnetic objects near the product.
- Do not replace the wiring cables installed by experts.
- Do not use the product near direct sunlight and heating apparatus.
- If you want to relocate the installed product, turn power off and then move and reinstall it.
- Do not use the product near flammable spray or objects.
- Do not disassemble, repair or modify the product by yourself. If the product needs service or repair, contact nearest service center.
- If liquid has been spilled on the product, unplug it and contact nearest service center.

Cautions about cleaning

- Do not clean the product with water. Clean gently with dry cloth or tower.
- Do not use chemicals such as benzene, thinner or acetone for cleaning.

2. General

The Star RFL200 / iPASS IP-RFL200 is an elegant looking and an attractive 4" read range proximity reader built-in Proximity Single Door Access Controller which can be mounted to a metal door frame (mullion) or to any flat wall surface. The Star RFL200 / iPASS RFL200 is epoxy potted that ensure you a successful operation even in harsh environments. Using 512 key tag, not only controlling door but also convenient registration or deletion.

When loosing a key tag, it is easy to reset. Therefore it is the safest controlling door device.

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

3. Features

- 125KHz Standalone Proximity Access Controller
- Star RFL200: PSK Modulation

  iPASS IP-RFL200: ASK[EM] Format
- 512 Users including One Master Card
- Standalone (No need application software)
- Direct Control of Door Lock
- Power Fail Safe or Power Fail Secure Locks selectable
- Solid Epoxy Potted
- Waterproof
- Warranty: Life Time

4. Identifying Supplied Parts

Please unpack and check the contents of the box.

Main Module

(1 Unit)

RFL200 (IP-RFL200) Bezel

(1 PC)

IDK50 (RFL200)
IPK50 (IP-RFL200)
(5 Key Tags + 1 Master Card)

User's Manual

(1 Copy)

3.0*30 Screw
(2 PCS)

3.0*25 Screw
(2 PCS)

Anchor Bolt
(2 PCS)

5. Specification

Model		RFL200	IP-RFL200
CPU		Dual 8bit Microprocessor	
Memory	Program Memory	64KByte Flash ROM	
	Data Memory	4KByte EEPROM	
User		512 Users (Including 1 Master Card)	
Read Range	Passive Type	IDK50 / IMC125: Up to 2 inches (5cm) IDC80 / IDC170: Up to 4 inches (10cm)	IPK50: Up to 2 inches (5cm) IPC80 / IPC170: Up to 4 inches (10cm)
	Active Type	IDA150 / IDA200 Compatible	N/A
Reading Time (Card)		30ms	
Door Open Time		5 sec (fixed)	
Power / Current		DC 12V / Max.150mA	
Input Port		3 Ports (Exit Button, Door Sensor, Lock Type Select (Power Fail Safe / Power Fail Secure)	
Output Port		2 Ports (TR Output / Open Collector Output	

		Rating Max 300mA Alarm Output, 1A Lock Output
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 / Material		Dark Pearl Gray / Polycarbonate
Dimension (W x H x T) / Weight		1.8" x 4.9" x 0.8" (45mm x 124m x 19.64mm) / 80g (0.18 lbs)
Warranty		Life Time
Certification		FCC, CE, KCC(MIC)

Note: Reading of key fob-type tags may not work properly at temperatures below 0°C or 32°F

6. Installation

6-1. Drill one 0.5"(12.7mm) hole at the central of the RFL200 / IP-RFL200 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.

6-4. Put the bezel on the reader module and then pushes it to fix up.

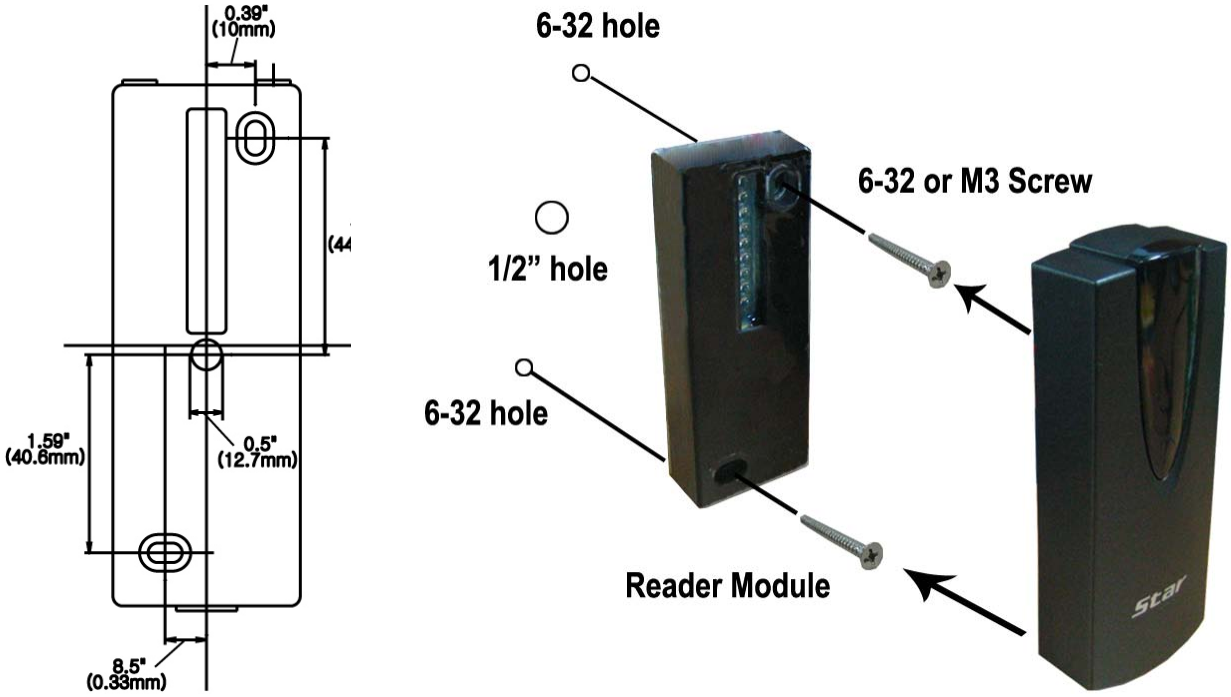
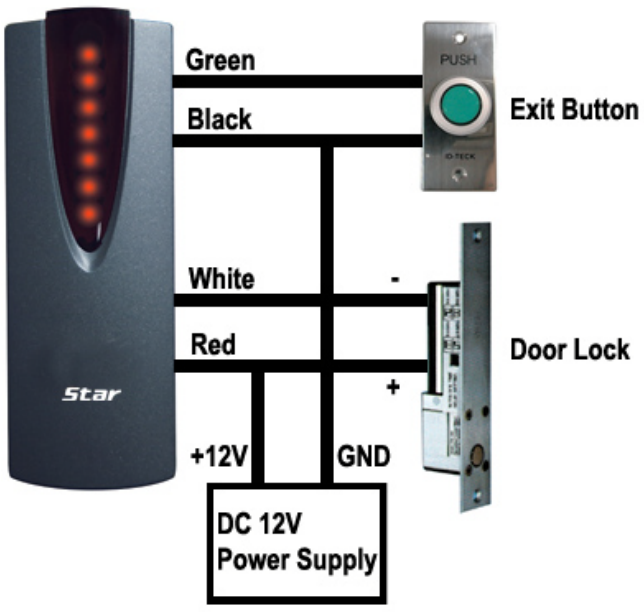


Figure: Installation Layout

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
Not Connect	Gray
Not Connect	Orange
Not Connect	Brown
* Please cut out tail connector before installation.	

8. Wire Connection to Controller



Caution

Select lock type as shown below.

- Power Fail Safe Mode (Always open at power off)
  : Connect lock type of Yellow with Black wire.
- Power Fail Secure Mode (Always close at power off)
  : Disconnect lock type of Yellow wire.

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 depending on the 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.

9. Operation

9-1. When power is supplied

(1) All LEDs display red or green. Then they repeat on/off twice and become off.
(2) As LED off, red LED turns on from the under to the top in order. And all LEDs turn red.
(3) RFL200 / IP-RFL200's buzzer sounds one time

9-2. When registered key tag is read on RFL200 / IP-RFL200 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 on, 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) RFL200 / IP-RFL200's buzzer sounds one time.

9-3. When unregistered key tag is read on RFL200 / IP-RFL200

(1) All LEDs turn red. Then they repeat on/off twice and become on.
(2) RFL200 / IP-RFL200's buzzer sounds twice.

9-4. If key tag is approached by RFL200 / IP-RFL200 when the door is opened.

(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 (refer to 9.2 and 9.3).

9-5. When a key tag is deleted or registered

(1) If master card nears the product, buzzer sounds one time and the upper of 3 LEDs turn green.

(2) If a key tag that wish to register new is read by the product, buzzer sounds one time.
And the rests except the upper of 3 LEDs turn green. From the top to the under, they are off in order. When all LEDs are off, LEDs turn red again. At this time, a key tag is registered.

(3) If a key tag is already registered, buzzer sounds twice.
The rests except the upper of 3 LEDs turn red. They repeat on/off twice and become on.
At this time, a key tag is deleted.

(4) After finishing to register or delete a key tag, if reading a master card again, the upper of 3 LEDs turn red with beeping one time. And all LEDs turn red.

※ Note: On the master mode, if user card isn't read within 7 sec., the unit is automatically on general mode.

9-6. When a master card is deleted or registered again

e.g.) the lost or the change of a master card.

(1) As power off, they make purple and blue wire close.

(2) As power on, all LEDs turn red color with beeping twice.
Then they repeat twice and become on. At this time, a master card is deleted.

(3) Upon deletion of Master Card, you will hear beep sound once and all LED indicators toggle between green and red twice and then turning off. In this condition; they turn red from bottom up in sequence.

(4) After finishing deleting a master card, turn off the power.
Connect again purple and blue wire to a device which has been connected basically.

(5) As power on, RFL200 / IP-RFL200 operates normally.
At this time, a card which had been first read on RFL200 / IP-RFL200 is registered as a master card. If you make already registered user card read, it will be deleted and then registered as master card.

※ Note: After registering a master card, the unit is automatically on master mode.

9-7. When a product is initialized by using a master card

(1) If master card is read on the unit, buzzer sounds one time, upper three LEDs change green.

(2) On master mode, if you make master card read again, upper green three LEDs flicker.
That means on initialization mode of product.

(3) On initialization mode, if you make master card read again, the buzzer sounds four times and all

LEDs are changed to red and then Initialization starts.

(4) If you make power on, RFL200 / IP-RFL200 operates normally.

At this time, registered card earlier on the RFL200 / IP-RFL200 is registered as master card.

※ Note:

- ✓ If user card is read on initialization mode of product, the unit is general mode. User card isn't registered or deleted.
- ✓ After registering a master card, the unit is automatically master mode.

9-8. When a product is initialized by wiring the cable

(1) As power off, make white, green and yellow wire are close.

(2) As power on, all LEDs turn red or green color. After repeating on/off twice, they become off.

(3) As the LED off, only green LED turn on from the under to the top. All LEDs become green.

(4) RFL200 / IP-RFL200's buzzer sounds four times. It indicates to complete initialization.

(5) After finishing to initialize, connect again white, green and yellow wire to a device which had been basically connected as power off.

(6) If turn on power, RFL200 / IP-RFL200 operates normally.

At this time, a card which had been first read on RFL200 / IP-RFL200 is registered as a master card.

※ Note: After registering a master card, the unit is automatically master mode.

10. 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.

11. Warranty Policy and Limitation of Liability

IDTECK warrants this product against defects in material and workmanship for the period specified below from the date of purchase under normal customer use. This Warranty doesn't apply: 1) to any product which has been dismantled without authorization of IDTECK or/and has a damaged or detached QC label on its back side; 2) to any losses, defects, or damages caused by improper testing, operation, installation, maintenance, modification, alteration, or adjustment; 3) to any product with a damaged or faded serial number on it; or 4) to any losses, defects, or damages caused by lightning or other electrical discharge, natural disaster, misuse, accident or neglect.

This Limited Warranty is in lieu of all other warranties, obligations, or liabilities on the part of IDTECK, and IDTECK DISCLAIMS ANY AND ALL WARRANTY, WHETHER EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.IDTECK does not, and cannot, know who is present, what property is located, where this product will be used; it would be extremely difficult to determine the actual damages that may result from a failure of the product to perform as anticipated; and the low price of this product is based upon the nature of the product provided and the limited liability that IDTECK assumes. IDTECK IS NOT RESPONSIBLE FOR ANY PERSONAL INJURY, PROPERTY DAMAGE OR LOSS, DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR OTHER LOSS, AND IDTECK'S MAXIMUM LIABILITY SHALL NOT IN ANY CASE EXCEED THE PURCHASE PRICE OF THE PRODUCT.

To obtain repair or replacement under the terms of this warranty, visit IDTECK's Website (http://www.idteck.com) and place an online RMA request. After an RMA code is issued, return the product along with the authorization RMA code.

>> Warranty Period

	Product Category	Warranty Period
1	RF CARDS (ACTIVE TYPE)	1 year
	FINGERPRINT MODULE / SENSOR	
2	RF READERS (WITHOUT EPOXY POTTING)	2 years
3	STANDALONE CONTROLLERS	
4	CONTROL PANELS	
5	FINGERPRINT READERS	
6	RF READERS (WITH EPOXY POTTING)	Lifetime
7	RF CARDS (PASSIVE TYPE)	

12. How to Make RMA Request (After Sales Service)

To make the RMA request, the product must be initially registered on IDTECK webpage. Please attach the RMA request form on the product and send it to IDTECK RMA Center.
Please follow the instructions below:

1. Please register the RMA request via IDTECK webpage.
   : www.idteck.com → "Support & Download" → "Online RMA" → "RMA REQUEST"
   (Please refer to the IDTECK webpage for more details.)
2. RMA Code will be issued after the RMA Center reviews the RMA request form.
3. Fill out the A/S request form (included in the product package) and attach it to the product using the aluminum string.
4. Enclose the product along with the RAM Code and send it to IDTECK RMA Center.
   (Product without RMA Code is not accepted.)

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

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E-Training Center: http://www.idtecktraining.com

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

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