

***Star* RF10** ***Star* RF20**

Proximity Card Reader



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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 instructions 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 a place subject to humidity, dust (metallic dust) or splashing water (raindrops).
- Do not install the product in a place not meeting the operating humidity and temperature specified in the specification.
- Do not install the product with tools such as driver in hand when power is being supplied.



CAUTIONS ABOUT USAGE

- Do not drop liquid onto the product such as water and give the product a severe shock.
- Do not place magnetic objects near the product.
- Do not replace the wiring cables installed by experts.
- Do not use the product under direct sunlight or in a heat-producing place such as a place near a heating apparatuses.
- If you want to relocate the installed product, turn power off and then move and reinstall it.
- Do not use flammable sprays or objects near the product.
- Do not let anyone but the manger touch the product except using it for normal purpose.
- If liquid has been spilled on the product, unplug it first.



CAUTIONS ABOUT CLEANING

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

2. General

The **Star RF10/20** is an elegant looking proximity reader. It can be easily mounted on door frame (mullion) or flat wall surface. The **Star RF10/20** is a credible product with epoxy potting that enables you to install it outside.

3. Features

- 125KHz Proximity Card Reader
- PSK Modulation (IDTECK Format)
- Read Range: Up to 4 inches (10cm) (In case of IDC170)
- User Format Available
- Output Format: 26bit Wiegand (default) / RS232 (Optional, Simultaneous output of 26bit Wiegand and RS232)
- Easy to Install on Metal Door Frame or Mullion or Wall Mount
- LED Control Port and Buzzer Control Port
- Solid Epoxy Potted
- Waterproof & Dustproof (IP65 / IP66)
- Lifetime warranty
- Reverse Polarity Protection
- Compatible Controller: iCON100, iTDC, iMDC, IDTECK Standalone Controller, Third Party Controller (Using 26bit Wiegand)

4. Specification

Model	RF10	RF20
CPU	8bit Microprocessor	
Read Range	IDK50 / IMC125: Up to 2 inches (5cm)	
	IDC80: Up to 2.8 inches (7cm)	
	IDC170: Up to 4 inches (10cm)	
Reading Time (Card)	30ms	
Power / Current	DC 12V / Max.150mA	
Input Port	2ea (External LED Control, External Buzzer Control)	
Output Format	26bit Wiegand (Default), RS232 (Optional)	
LED Indicator / Beeper	2 Color LED (Red and Green) / Piezo Buzzer	
Operating Temperature	-35° to +65°C (-31° to +149°F)	
Operating Humidity	10% to 90% relative humidity non-condensing	
Color / Material	Dark Pearl Gray / Polycarbonate	
Weight / Dimension (W x H x T)	133.5g (0.296lbs) / 45.5mm x 124mm x 24mm (1.79" x 4.76" x 0.91")	143g (0.32lbs) / 75.5mm x 124mm x 24mm (2.97" x 4.88" x 0.94")
Waterproof & Dustproof	IP65 / IP66	
Certification	FCC, CE, KCC(MIC)	

5. Identifying Supplied Parts

Please unpack and check the contents of the box.



Reader Module
(1ea)



RF10 or RF20 Bezel
(1ea)



User's Manual
(1ea)



3.5*40 Screw
(2ea)



3.5*25 Screw
(2ea)



6.0*30 Anchor Bolt
(2ea)

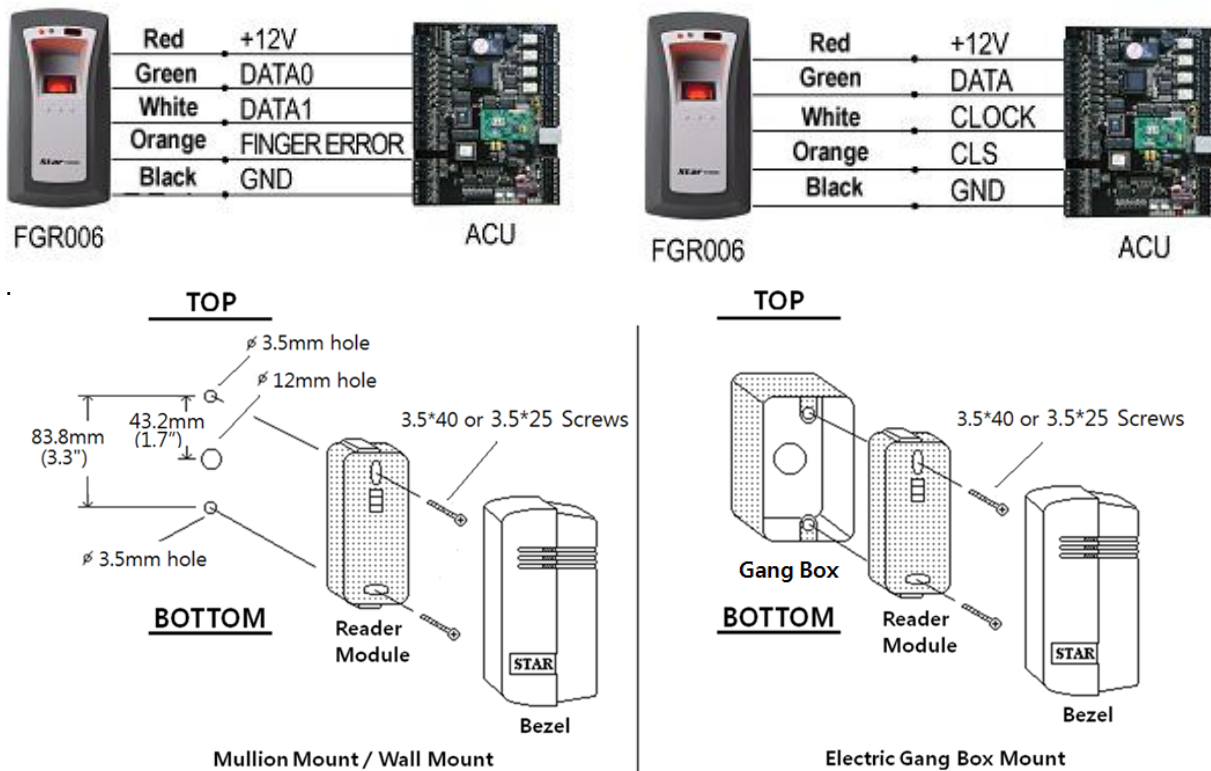
6. Installation

6-1. Mullion/Wall Mount

Drill two 3.5*40 or 3.5*25 screw holes in the designated location of the wall 83.8mm(3.3") apart vertically and drill one 12mm(0.47") hole for the controller cable in the center of the two holes.

6-2. Pass the reader cable through the center hole and install the reader module by using two 3.5*40 or 3.5*25 screws.

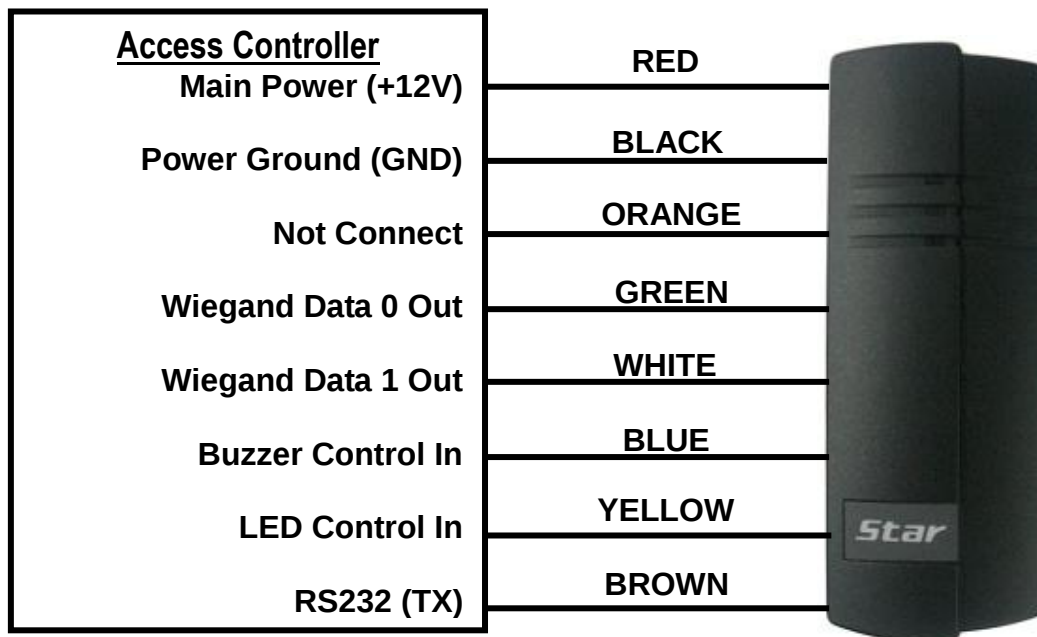
6-3. Put bezel on the reader module and push bezel



7. Wire Color Table of the RF 10 / RF 20

SIGNAL	COLOR
Main Power (+12V)	Red
Power Ground (GND)	Black
Not Connect	Orange
Wiegand Data 0 Out	Green
Wiegand Data 1 Out	White
Buzzer Control In	Blue
LED Control In	Yellow
RS232 (TX)	Brown
* Please cut out tail connector before installation.	

8. Wire Connection to Controller



9. Operation

9-1. If power is supplied to the RF10/20, red light is turned on and the reader goes into standby.

9-2. Present a RF card close to the product until you hear beep sound. The LED of RF10/20 turns into green simultaneously and the reader sends card data to the controller. And then, LED turns into red and the reader goes into standby again for next reading.

9-3. LED Control

You can change LED color setting oppositely by connecting LED Control Input wire (Yellow wire) to Power GND. In this case, Green light is turned on when the reader is on standby and once you present RF card, the LED of RF10/20 turns into red simultaneously. And then, it turns into green again for next reading.

9-4. Buzzer Control

If Buzzer Control Input wire (Blue wire) is connected to Power GND, buzzer generates sound continuously. Cards cannot be read during the buzzer is operating.

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 RMA authorization 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. After registering the product, 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. Enclose the product along with the RMA 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 contact information below. Friendly representatives at IDTECK are always standing by to provide the best after sales services.

IDTECK Headquarter

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

IDTECK Production Facility and RMA Center

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Website: www.idteck.com

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

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

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