

# USER'S MANUAL

## **Star** RF30

Proximity Reader

Rev.2.0.1



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## 1. Important Safety Instructions

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

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. **Do not** use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. If necessary, use mild soap.
4. **Do not** use this product near water, such as bath-tub, wash bowl, kitchen sink, laundry tub, in a wet basement, or swimming pool.
5. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your installation site, consult your dealer or local power company.
6. **Never** push objects of any kind into this product or through the cabinet slots as they may touch voltage points or short out parts that could result in fire or electric shock. Never spill liquid of any kind on the product.
7. To reduce the risk of electric shock, do not disassemble this product by yourself, but take it to qualified service 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 RF30** is an elegant looking and attractive 12"(30cm) read range proximity reader which can be mounted on any flat wall surface. The **STAR RF30** uses the electronics module in epoxy potting that ensures successful operations even in harsh environments.

The two-color LED of green and red and the inside Piezo buzzer sound will guarantee you accurate and reliable system operations.

### 3. Features

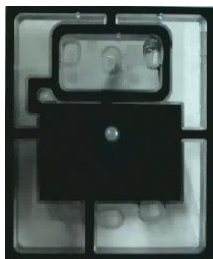
- Up to 12" (30cm) Read Range
- User format available
- 26Bit Wiegand Output, RS232(Optional), ABA Track II Magnetic Stripe(Optional)
- PSK modulation
- Solid Epoxy potted
- 100% Weatherproof
- Supervisory signal(Optional)

### 4. Specification

	<b>IDK50</b>	6"(15cm)
	<b>IMC125</b>	6"(15cm)
<b>Read Range</b>	<b>IDC170</b>	12"(30cm)
	<b>IDC80</b>	12"(30cm)
	<b>IDA150</b>	Up to 3.3feet (1m)
	<b>IDA200</b>	Up to 4feet (1.2m)
<b>Reading Time</b>		30ms
<b>Power/Current</b>		DC 7V ~ 17V / Max. 350mA
<b>Output Format</b>		26 bit Wiegand, Magstripe ABA Track II
<b>External Beeper Control Input</b>		Low Active, DC 0 ~ 12V, Max. 50mA
<b>External LED Control Input</b>		Low Active, DC 0 ~ 12V, Max. 50mA
<b>LED/Beeper</b>		2-Color LED(Red and Green) / Piezo Buzzer
<b>Operating Temperature</b>		-31°F ~ 149°F (-35°C ~ +65°C)
<b>Operating Humidity</b>		10~90% relative humidity non-condensing
<b>Color</b>		Dark Gray
<b>Dimensions (WxHxD)</b>		5.2"x 6.2"x0.8"(130x154x20.5mm)
<b>Weight</b>		370g (0.81lbs)

### 5. Identifying Supplied Parts

Please unpack and check the contents of the box.



**Reader Module**



**RF30 Bezel**



**User's Manual**

## 6. Installation

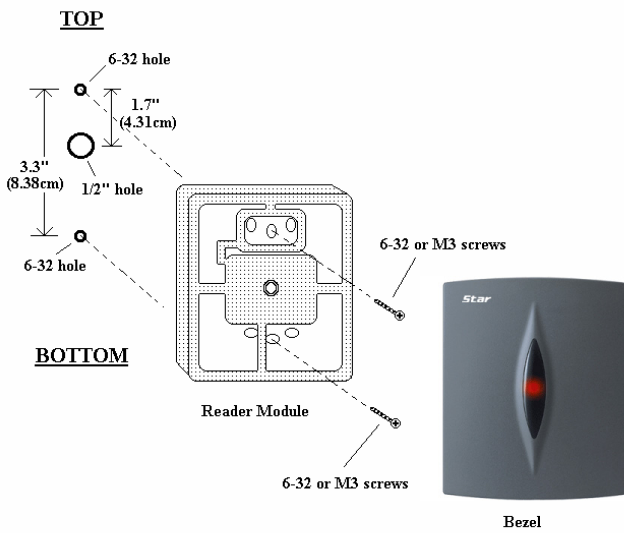
### 6-1. Wall Mount

Drill two 6-32 or M3 holes 3.3"(8.38cm) apart in vertical and drill one 1/2" hole for the reader cable 1.7"(4.31cm) apart from the top hole.

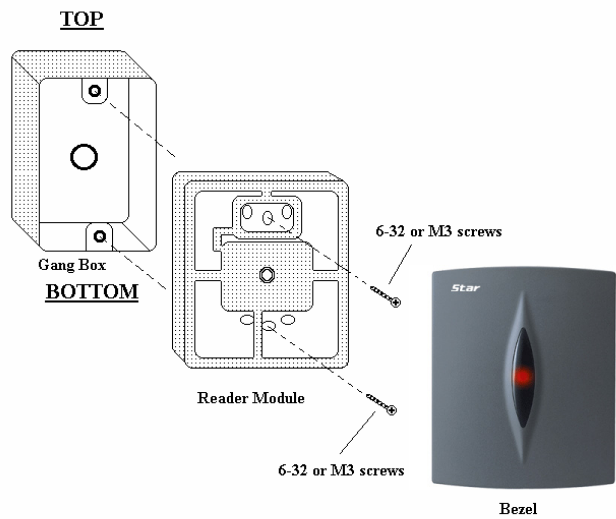
(If you have installed an electric gang box then skip this step and go to step 4.2.)

6-2. Put reader cable into the center hole and install the reader module by using two 6-32 or M3 screws (Not included).

6-3. Put bezel on to the reader module then push bezel until you hear the locking sound.



Wall Mount



Electric Gangbox Mount

**7. Wire Color Table of the Reader**

**POWER**

Power(DC +7V~+17V)	DC(+)	Red wire
Power(DC Ground) DC(-)	(GND)	Black wire

**INPUT**

Beeper control input	BEEP	Blue wire
LED control input	LED	Yellow wire

**OUTPUT(Wiegand Format)**

Wiegand Data-0	Data-0	Green wire
Wiegand Data-1	Data-1	White wire

**OUTPUT(ABA Track II Format)**

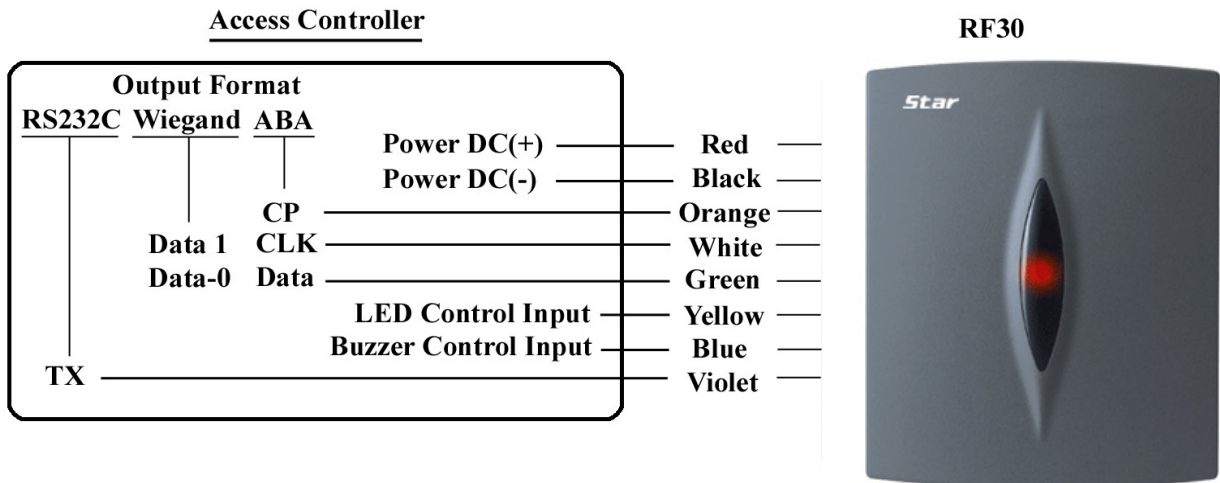
ABA(Card Present)	CP	Orange wire
ABA(Clock)	CLK	White wire
ABA(Data)	Data	Green wire

Note: All ABA Track II outputs are open collector output.

**OUTPUT(RS232 Format)**

RS232(TX)	TX	Violet wire
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**8. Wire Connection to Controller**



**Wire Connection to Controller**

## 9. Operation

- 9-1. Once power is applied, you should hear three beeping sounds and LED changes color to red-green-red indicating that the reader is in standby mode after a successful initialization and diagnostics.
- 9-2. Present proximity card to the reader until you hear the beeping sound and see the LED changes color to Green. The reader will send the RF card data to the controller then the LED will change color to Red again for the next reading.
- 9-3. LED Control:  
To change the LED colors, you may connect the LED Control Input (Yellow wire) to ground and the Green LED will turn on indicating that the reader is in standby mode. Present proximity card and the LED will change color to Red then Green again for the next reading.
- 9-4. Beeper Control:  
In normal operation, the reader generates one beep when it reads a proximity card, however additional beeps can be generated to improve indication for access status (granted or denied) by forcing the beeper control input (Blue wire) to system ground level. The beeper will remain on as long as the Blue wire is connected to system ground.

## 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 B 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 and Service

The following warranty and service information applies only to the United States of America and Republic of Korea. For the 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.

### **IN THE UNITED STATES**

**RF LOGICS Inc. Service Center**  
370 Amapola Ave, #106  
Torrance, CA 90501  
Phone: (310) 782-8383  
Fax: (310) 782-8298  
E-mail: [rflogics@rflogics.com](mailto:rflogics@rflogics.com)  
Web-site: [www.rflogics.com](http://www.rflogics.com)

### **OUTSIDE OF THE UNITED STATES**

**ID TECK CO., LTD. Service Center**  
5F Ace Techno Tower Bldg.,  
684-1 Deungchon-dong, Gangseo-gu,  
SEOUL 157-030, KOREA  
Tel.: +82 (2) 659-0055  
Fax.: +82 (2) 659-0086  
E-mail: [webmaster@idteck.com](mailto:webmaster@idteck.com)  
Web-site: [www.idteck.com](http://www.idteck.com)

Please use the original container, or pack the unit(s) in a sturdy carton with sufficient packing to prevent damage, 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 contact.
6. Reason for return and description of the problem.

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

12. RMA Request Form

- RMA REQUEST FORM : ORIGINAL



**IDTECK Co., Ltd.**



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, www.idteck.com

RMA REQUEST FORM					
<b>Send to:</b> RMA Customer Service 5F, Ace Techno Tower B/D 684-1, Deungchon-Dong, Gangseo-Gu Seoul, 157-030, Korea			<b>RMA No. &amp; Date :</b> <b>Original Invoice No. &amp; Date :</b>		
Sales Person In Charge			<b>Requested from :</b>		
<b>Shipping Port :</b>		<b>Departure Date :</b>			
<b>Air / Vessel :</b>					
NO	Model	Serial Number	Error Check Box by shipper		
1	Engineer Comment		RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
			Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
2	Engineer Comment		RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
			Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
3	Engineer Comment		RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
			Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
4	Engineer Comment		RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
			Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
5	Engineer Comment		RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
			Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
<b>Manufacture's Verification</b>					
Product Defective :			Installation Error :		
User's Misuse :			Connection Error :		
Communication Error :			Others :		
<b>Packing Details</b>					
Dimension(L:W:H) :			No. of Units:		
Net & Gross Weight :			No. of Boxes:		
<b>Requested by:</b>			<b>Received by:</b>		
_____ Signature of Buyer			_____ Signature of IDTECK		

• **RMA REQUEST FORM : SAMPLE**



**IDTECK Co., Ltd.**



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 TEL : +82-2-2659-0055, FAX ; +82-2-2659-0086, www.idteck.com

RMA REQUEST FORM					
<b>Send to:</b> RMA Customer Service 5F, Ace Techno Tower B/D 684-1, Deungchon-Dong, Gangseo-Gu Seoul, 157-030, Korea			<b>RMA No. &amp; Date :</b> We will send this No. , if needed. <b>Original Invoice No. &amp; Date :</b> 00-00-0-000 / 2005.10.01		
Sales Person in Charge: Karina Kwak			<b>Requested from :</b> Mr. XXXX YYYY ABC Company Address: Country:		
<b>Shipping Port :</b>		Narita	<b>Departure Date :</b>		2005, 10. 15
<b>Air / Vessel :</b>		Air			
NO	Model	Serial Number	Error Check Box by Shipper		
1	SR 10	XXXXXXXXXXXXXX	RS 232 Com. <input type="checkbox"/>	Power <input checked="" type="checkbox"/>	Card Reading <input checked="" type="checkbox"/>
	Engineer Comment	Write problem (must be detailed).	Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
2	others		RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
	Engineer Comment		Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
3			RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
	Engineer Comment		Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
4			RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
	Engineer Comment		Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
5			RS 232 Com. <input type="checkbox"/>	Power <input type="checkbox"/>	Card Reading <input type="checkbox"/>
	Engineer Comment		Input/Output <input type="checkbox"/>	Keypad <input type="checkbox"/>	RS 422 Com <input type="checkbox"/>
			Others <input type="checkbox"/> :		
Manufacturer's Verification					
Product Defective :			Installation Error :		
User's Misuse :			Connection Error :		
Communication Error :			Others :		
Packing Details					
Dimension(L:W:H) :		30 * 25 * 80	No. of Units:		20
Net & Gross Weight :		150g	No. of Boxes:		2
<b>Requested by:</b> XXXX YYYY Signature of Buyer			<b>Received by:</b> _____ Signature of IDTECK		



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

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E-mail : [webmaster@idteck.com](mailto:webmaster@idteck.com)