

USER's MANUAL

SAR SR30

Philips Mifare™ Compatible Proximity Reader



www.idteck.com

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1. Important Safety Instructions

When using STAR SR30 Philips Mifare™ Compatible Proximity Reader, 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 of the User's Manual.
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.
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.
 - d. If the product exhibits a distinct change in performance.
9. Do not use this product under dusty or vibration circumstance.

2. Introduction

The **STAR SR30 Philips Mifare™ Compatible Proximity Reader** is an elegant looking 4" (10cm) read range proximity reader which can be mounted to any flat wall surface. The **SR30 Philips Mifare™ Compatible Reader** reads serial numbers from Philips Mifare™ Compatible cards and transmits the data to control panel with various output formats. Cyclic 6 red color LEDs and built-in buzzer sound guarantee you an accurate and a reliable system operations.

3. Features

- Philips Mifare™ Compatible Proximity Reader
- Maximum 4" (10cm) reading range
- External Buzzer control input
- Cyclic 6 red color LED Indicator and buzzer sound
- 34-bit / 26-bit Wiegand output format
- Optional RS232 communication port
- Operating voltage from 7V to 17VDC

4. Identifying Supplied Parts

Please unpack and check the contents of the box.



Reader Module



Top Cabinet



User's Manual

5. Specification

Read Range	: Up to 4" (10cm)
Read Format	: Philips Mifare™ Compatible Proximity Card Format
Operating Frequency	: 13.56MHz
Compatibility	: ISO14443A(Mifare A Type)
Power	: DC 7V ~ 17V, Max. 150mA (Linear type Power Supply is recommended)
Output Format	: 34 bit or 26 bit Wiegand, Optional RS232 communication port
External Buzzer control Input	: Low Active, DC 0 ~ 5V, Max. 50 mA
LED/Buzzer	: Cyclic 6 red Color LEDs / Piezo Buzzer
Color	: Black and Ivory
Operating Environment	: 5°F ~ 149°F (-15℃ ~ +65℃), 10~90% Humidity
Overall Size (WxHxD)	: 4.02" x 5.59" x 0.90" (102mm x 142mm x 23mm)
Weight	: 0.39lb(180g)

6. Installation

6-1. 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 install the reader to electric gang box then skip this step)

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

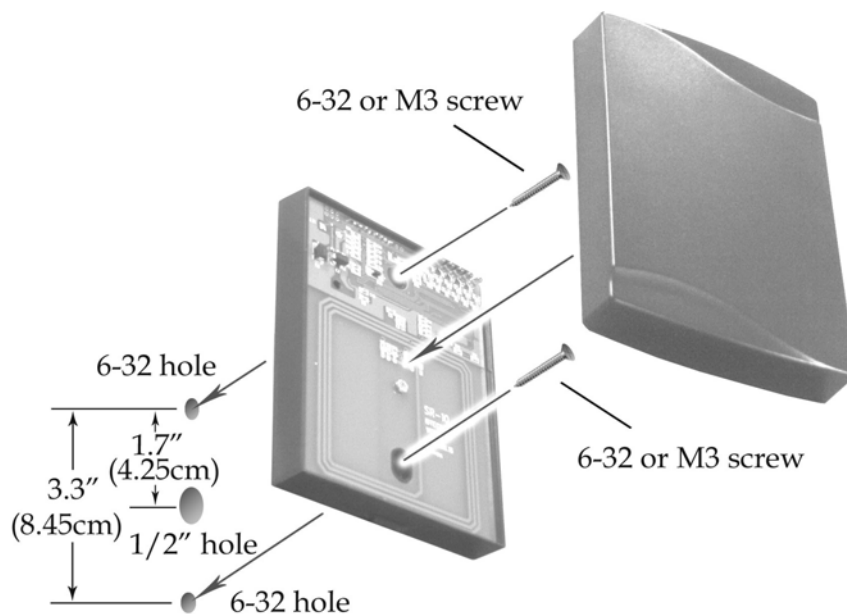
6-3. Put the top cabinet on the reader module then push it until you hear a locking sound.

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6-4. To detach the top cabinet, hold both sides of the top cabinet and pull down the cabinet (force to down direction) then pull the down part of cabinet toward.

6-5. The maximum Wiegand cable length is 100 meter on a condition described below.

- Controller : ICON100 V4.0 or greater
- Cable : AWG #24 twisted pair



7. Wire Color Table of the SR30

POWER

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

INPUT

Buzzer control	Buzzer	Brown wire
3byte-4byte selection	Wiegand_select	Yellow wire

OUTPUT (Wiegand Format)

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

OUTPUT(RS-232C, Optional)

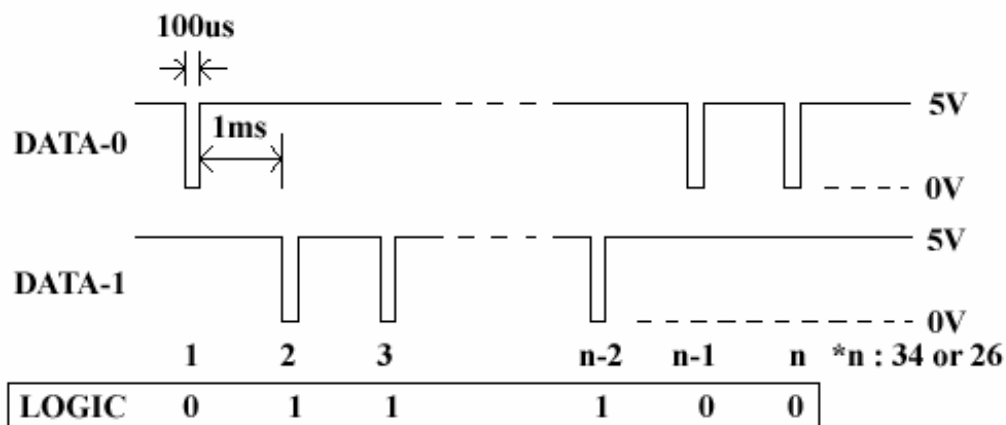
TxD	Tx	Blue wire
RxD	Rx	Orange wire

8. Output Format

8.1 Wiegand Data format (34-bit/ 26-bit)

Bit 1 / Bit 1 : Even parity from Bit 2 to Bit 17/ Bit 2 to Bit 13
 Bit 2 to Bit33 / Bit 2 to Bit25 : 4-byte ID number / 3-byte ID number
 Bit 34 / Bit 26 : Odd parity from Bit 18 to Bit 33/ Bit 14 to Bit 25

Timing diagram

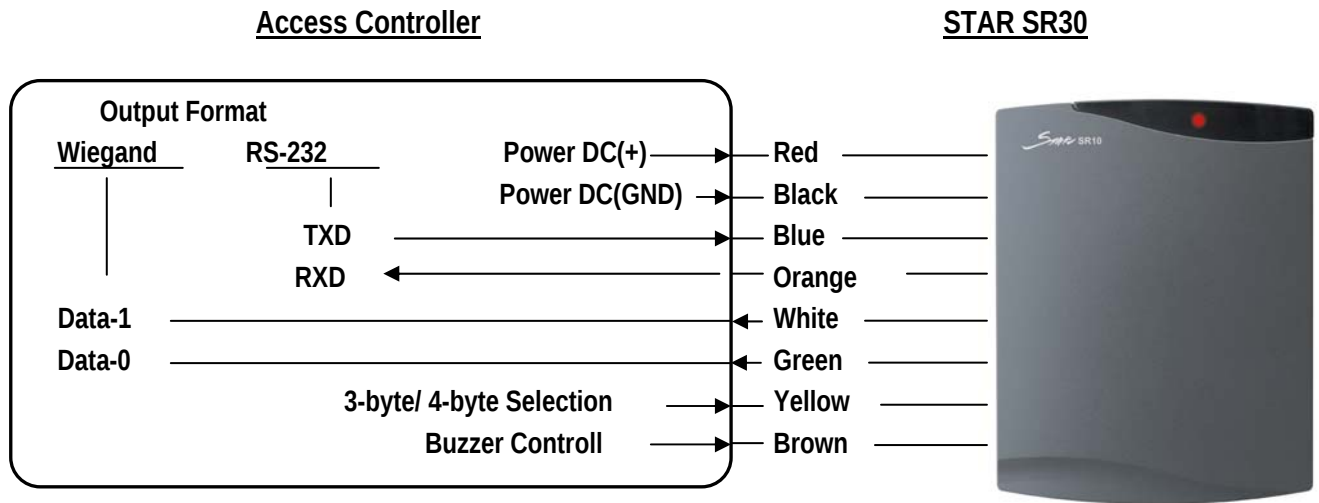


8.2 RS-232C(Optional) Data format

START(0x02H)	DATA(10 or 8 char's)	END(0x03H)	LRC
--------------	----------------------	------------	-----

Baud rate : 9600
 DATA : 10 characters for 4-byte output, 8 characters for 3-byte.
 LRC : The value made from XORing every byte from 'START' through 'END'.

9. Wire Connection to Controller



10. Operation

10-1. Once power is applied, you should hear two beeping sounds and one red LED is turned on indicating that the reader is in standby mode after a successful initialization and diagnostics.

10-2. Present proximity card to the reader until you hear a beeping sound and 6 red LEDs will turn on cyclic from left to right simultaneously. The reader will send the ID number of proximity card to the controller then the one red LED will turn on only for the next reading.

10-3. 3-byte/ 4-byte selection:

The reader outputs the serial number of a card which is a 4-byte number. It is, however, possible to make the reader send only 3 bytes of it with the most significant byte trimmed off. It is useful when there are controllers which deal with 3-byte data only as most of existing controllers are.

For 3-byte outputs, connect the 3-byte/4-byte selection input(Yellow wire) to Ground.

Caution : It is unavoidable that some card numbers are duplicated in 3-byte output.

10-4. Buzzer Control:

In normal operation, the reader generates only 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 buzzer control input (Brown wire) to Ground.

The buzzer will remain on as long as the input is connected to Ground.

11. FCC REGISTRATION INFORMATION

FCC REQUIREMENTS PART 15

Caution: Any changes or modifications in construction of this device which are not expressly approved by the manufacturer 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 distance 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.

12. 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

3026 Scott Blvd.,

SANTA CLARA, CA95054

Tel.: (408) 980-0001

Fax.: (408) 980-8060

E-mail: rflogics@rflogics.com

Web-site: www.rflogics.com

OUTSIDE OF THE UNITED STATES

ID TECK CO., LTD. Service Center

5F Ace Techno Tower Bldg.,

684-1 Deungchon-dong, Gangsuh-gu,

SEOUL 157-030, KOREA

Tel.: +82 (2) 2659-0055

Fax.: +82 (2) 2659-0086

E-mail: webmaster@idteck.com

Web-site: www.idteck.com

Technical Support(in korea)

E-mail : techsupport@idteck.com

Hotline

+82-19-264-7550 (Customer support)

+82-17-340-4170(R&D)

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.

13. RMA Request Form & A/S Request Form

• RMA REQUEST FORM : ORIGINAL



5F, Ace Techno Tower B/D, 684-1, Deungchon-Dong, Gangsuh-Gu, Seoul, 157-030, Korea
TEL : +82-2-2659-0055, FAX ; +82-2-2659-0086, www.idteck.com

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

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• RMA REQUEST FORM : SAMPLE



5F, Ace Techno Tower B/D, 684-1, Deungchon-Dong, Gangsuh-Gu, Seoul, 157-030, Korea
TEL : +82-2-2659-0055, FAX ; +82-2-2659-0086, www.idteck.com

RMA REQUEST FORM					
Send To RMA Control Center 5F, Ace Techno Tower B/D 684-1, Deungchon-Dong, Gangsuh-Gu Seoul, 157-030, Korea			RMA No. & Date : We send this No. , when you want. Original Invoice No. & Date : 00-00-0-000 / 1990.01.01		
			Requested From : Mr. Luis Castro ABC Company,... address.... Tokyo, Japan		
Sales Person In Charge Karina Kwak					
Shipping Port :		Narita	Departure Date :		2003, 11. 25
Air / Vessel :		Air			
NO	Model	Serial Number	Error Check Box by shipper		
1	SR30	XXXXXXXXXXXXXX	RS 232 Com. ☐	Power ☒	Card Reading ☒
	Engineer Comment	Write problem to be detailed.	Input/Output ☐	Keypad ☐	RS 422 Com ☐
			Others ☐ :		
2	others		RS 232 Com. ☐	Power ☐	Card Reading ☐
	Engineer Comment		Input/Output ☐	Keypad ☐	RS 422 Com ☐
			Others ☐ :		
3			RS 232 Com. ☐	Power ☐	Card Reading ☐
	Engineer Comment		Input/Output ☐	Keypad ☐	RS 422 Com ☐
			Others ☐ :		
4			RS 232 Com. ☐	Power ☐	Card Reading ☐
	Engineer Comment		Input/Output ☐	Keypad ☐	RS 422 Com ☐
			Others ☐ :		
5			RS 232 Com. ☐	Power ☐	Card Reading ☐
	Engineer Comment		Input/Output ☐	Keypad ☐	RS 422 Com ☐
			Others ☐ :		
Manufacture's Verification					
Product Defective :			Installation Error :		
User's Misuse :			Connection Error :		
Communication Error :			Others :		
Packing Details					
Dimension(L:W:H) :		102 * 142 * 23	No. of Units		20
Net & Gross Weight :		180g	No. of Boxes		2
Requested By			Received By		
Luis Castro Buyer's Signature			IDTECK's Signature		

- A/S REQUEST FORM : ORIGINAL



A/S Request Form

1. Model:	2. RMA No:
3. Original Invoice No:	4. Serial No:
5. Distributor:	6. Date:

User's Check List

☐ Card Reading	☐ Power	☐ Keypad
☐ Communication	☐ Relay	☐ LCD
☐ LED & Buzzer	☐ Registration	
Others :		

How to return...

1. Require 'RMA Request Form' to your contact point before sending the units.
2. Send back the 'RMA Request Form' filled and get RMA No. from RMA Control Center.
3. Return the defective goods with this Form filled and packed as it was.
4. If out of warranty, repairing invoice will be issued.

IDTECK RMA CONTROL CENTER
5F Ace Techno Tower B/D, 684-1, Deungchon-Dong, Gangsuh-Gu, Seoul
Korea 157-030. Online RMA service : www.idteck.com
Hotline : +82-19-264-7550(Customer support), +82-17-340-4170(R&D)

- A/S REQUEST FORM : SAMPLE

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A/S Request Form

1. Model: XXXXX V X.XX	2. RMA No: XXXXXXXX
3. Original Invoice No: XXXXXXXXXX	4. Serial No: XXXXXXXXXXXXXXXXXX
5. Distributor: XXXXXXX	6. Date: 2003.XX.XX

User's Check List

☒ Card Reading	☐ Power	☐ Keypad
☒ Communication	☐ Relay	☒ LCD
☐ LED & Buzzer	☐ Registration	
Others : Write problem!		

How to return...

1. Require 'RMA Request Form' to your contact point before sending the units.
2. Send back the 'RMA Request Form' filled and get RMA No. from RMA Control Center.
3. Return the defective goods with this Form filled and packed as it was.
4. If out of warranty, repairing invoice will be issued.

IDTECK RMA CONTROL CENTER
 5F Ace Techno Tower B/D, 684-1, Deungchon-Dong, Gangsuh-Gu, Seoul
 Korea 157-030. Online RMA service : www.idteck.com
 Hotline : +82-19-264-7550(Customer support), +82-17-340-4170(R&D)

MEMO

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MEMO

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PROXIMITY READER



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,
Gangsuh-Gu, Seoul, 157-030, Korea

Tel : (82) 2 2659-0055

Fax : (82) 2 2659-0086

E-mail : webmaster@idteck.com

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