



Saflec Systems (Pty) Ltd

SSR-201 Proximity Card Reader

Revision 1.0 - (September 29, 2009)

Quick Start Guide

Introduction

The SSR-201 is a proximity reader that connects using the RS-485 wiring standard.

It can read various transponder cards at the industry standard frequency of 125 kHz, including Hitag™ 1, Hitag™ 2 and HT4102.

It includes a tri-color LED for indication of the scanner status, and a Piezo buzzer to indicate a successful card read.

This unit comes with a splash-proof back cover and can be mounted in any orientation using the mounting screw holes.

This reader has been designed to be used with the following devices:

- SDC-550 controller board (Primary purpose).
- SDC-510 Single door controller.
- SEB-720 Remote IO board.



Figure 1

SSR-201 proximity card reader

Setup instructions

Connections - Reader to controller:

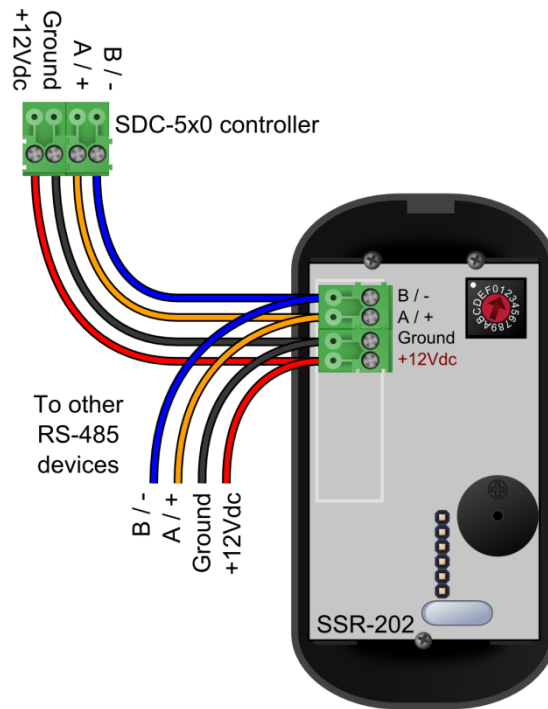


Figure 2

SSR-201 RS-485 wiring diagram showing connection to SDC-5x0 controller and power

Connections - Reader to reader:

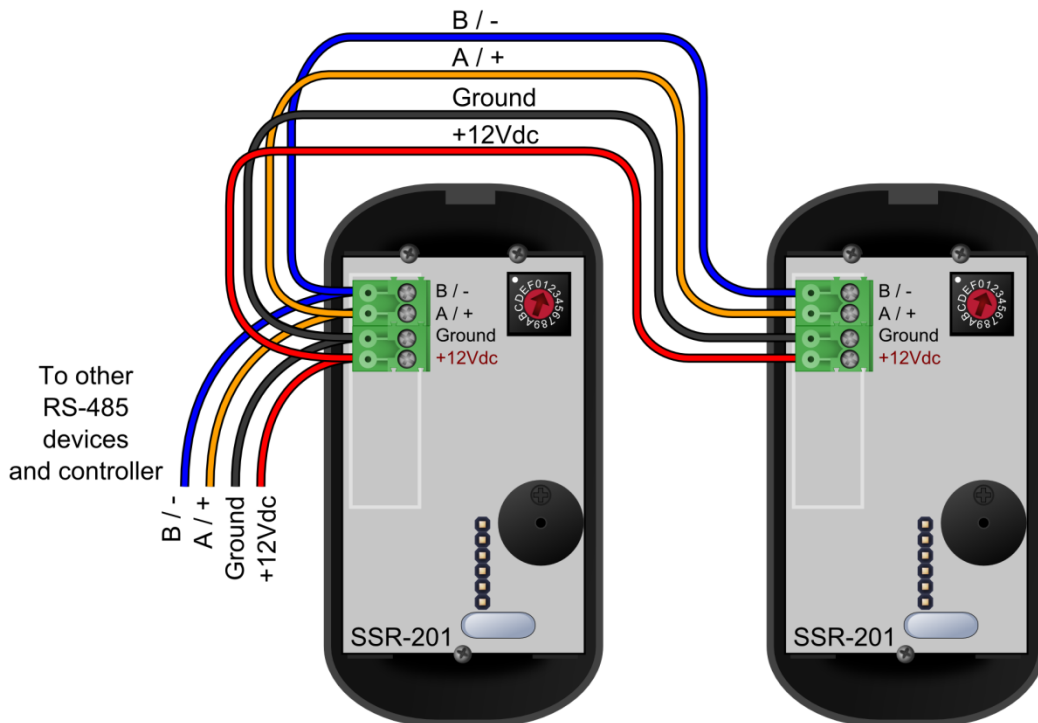


Figure 3

SSR-201 RS-485 wiring diagram showing connection to another SSR-201 reader

Step 1: Connect the reader network (See Fig 2 and Fig 3)

Connect the multi-drop RS-485 network to the SDC-550 controller board, SDC-510 single door controller or to the SEB-720 Remote IO board, and then to any other readers or RS-485 compatible devices on the line.

Each device in the network will have a positive (A) and a negative (B) connector which connect to the corresponding line on the reader network. RS-485 connections are always made this way, so all readers on the line will be wired in the same way.

Step 2: Connect the power (See Fig 2 and Fig 3)

Connect the reader to the power supply.

Note: The power supply must be a +12 Volt DC power supply, capable of supplying 125mA. The reader can be powered from the master controller if the controller's supply can deliver sufficient power (125mA per SSR-201) and the cable distance does not exceed 100 meters per CAT5 pair per reader.

When power is supplied to the reader the Piezo buzzer will sound and the LED will begin flashing yellow until connection is established at which point it will begin to flash blue.

Step 3: Set Bit masking using the address switch (Optional) (See Fig 4)

In some instances it is necessary to limit the length of the data received from the tag to 24bit or 32bit. To set the bit length required turn the dial on the rotary dipswitch to the required setting (See below) and wait for the reader to beep.

C: 24bit masking (Numbers range from 0 to 16777215)

D: 32bit masking (Numbers range from 0 to 4294967295)

E: Bit masking disabled – read entire tag number.

Step 4: Set the address using the address switch (See Fig 4)

Each device on the RS-485 network requires a unique address for communications and identification. Duplicate addresses will cause communication problems.

The address of this reader can be a number from 0 to 9. This setting can be adjusted using the rotary dipswitch on the back of the reader.

Turn the dial until the arrow points to the address that you wish to assign to the reader.

Note: This address will be the same address as used in the SACS software; the additional settings A to F are reserved for other purposes and cannot be used to address the reader.



Figure 4

Address switch with address 1 selected

PRODUCT SPECIFICATIONS	
Power requirements	
Operating Voltage (DC)	10 to 14 Vdc
Maximum Current	125 mA
Power cabling length guideline	100 meters per CAT5 pair per reader
Environmental characteristics	
Operating Temperature	0°C to +70°C
Storage Temperature	-10°C to +80°C
Enclosure Rating	IP54
RS-485 characteristics	
Max Voltage on terminal	-7 to +12V referenced to ground
Max Load	40ma

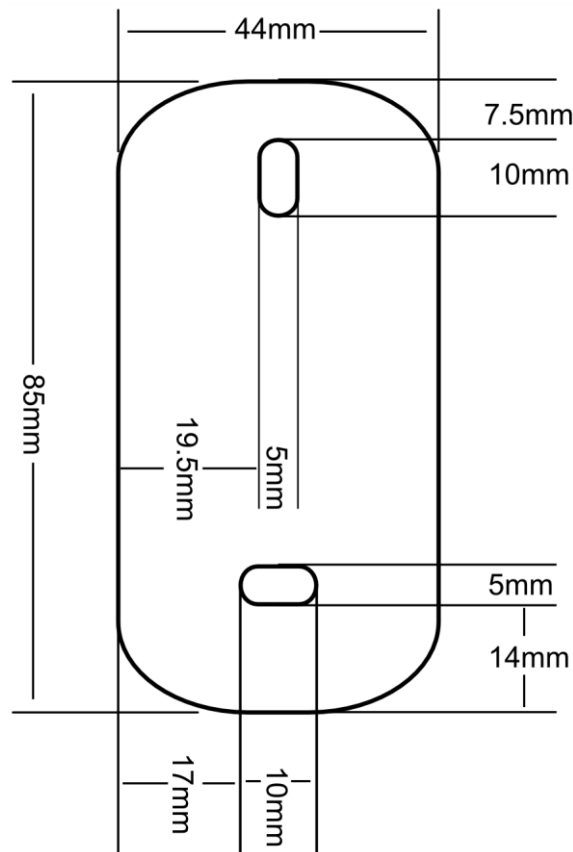


Figure 7

Locations of the drill holes on the SSR-201 back plate.