GC200 Series – Installation & User Manual

The New Generation of Wireless Access Control Systems

Installation & User Manual GC200 with firmware Ver. 0.39 and above HW revision 03
For modules with serial numbers from 0011009

MVC-Data

AccessZone® System - *A Key to a Safer Future*

This is the installation and user manual for the AccessZone GC200 series. It is a Bluetooth long range tag and can be detected 100 meter away.

It can be used instead of a mobile phone, PDA or GPS with Bluetooth and where additional distance is required. It is ideal for use with cars, trucks and wheelchairs etc. and give a simple and fast access to the secured area.

It covers the following AccessZone® GC200 series:

- GC201 – 100 meter long range Bluetooth tag, 12V

The GC200 Tag can be visible (active) for 5 seconds from last activation or always depending on installation configuration.

AccessZone® GC200 with
1 input
Form factor 127 x 47 x 8 mm

Get easy and seamless accesses to the secured area with your mobile phone working as a secure access key from a distance from 0.1 up to 10 meters.

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2   System Overview

This section presents a system overview:

Input 1 (IN1)
Activate tag "Visible"
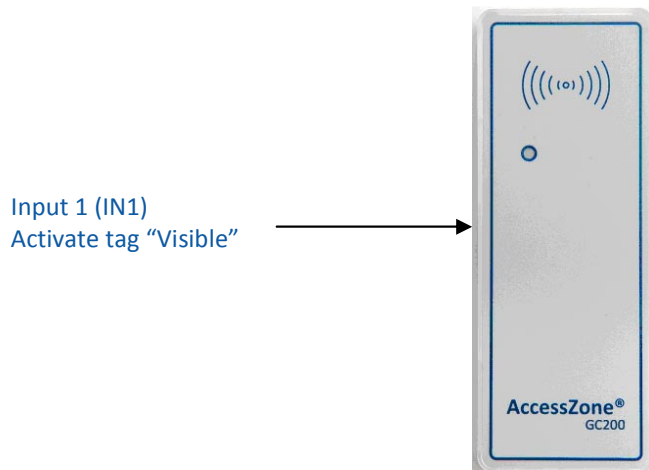
3   Specification

Description:

- Dimensions   127 x 47 x 8 mm (H x W x D)
- Weight   100g
- IP   67
- Operation temp.   -30°C - +80°C
- Humidity   100%

Electrical:

- Supply   12V DC, max. 60mA [1]
- Power   max. 1W
- Outputs   0 outputs
- Inputs   1 input [2]

[1] A 200mA low noise power supply or accumulator with spike filtering (cut off high voltages above 15V) of high quality must be used

[2] Please refer to section 8 How to Activate the Tag

4   Wiring

The GC200 series are equipped with a simple wiring scheme with a 2.5 meter, 8 cores wire:

Core Color	Signal name	Description
Black	0 V (GND)	Power Supply
Red	12 V DC	
Brown	Activate Tag (IN1)	Makes the Bluetooth Tag active "visible" when pulled to GND (black core). Refer to the section 8
Green	Firmware (IN2)	Firmware update. Must be pulled to GND (black wire) during power up to activate built-in bootloader
Orange	NC	Not connected
Blue	NC	Not connected
Yellow	NC	Not connected
White	NC	Not connected

And

Red$_{short}$	UART RX -> PC TX	Firmware upgrade from PC.
Black$_{short}$	UART TX -> PC RX	Refer to AccessZone® Firmware Update User Manual for details

Caution!
Be careful not to short the **Red$_{short}$** *and* **Black$_{short}$** *wire. It will prevent normal operation (application is not started). Several beeps indicate error.*

5   Mounting

The GC200 system can be mounted on any none metallic [1] plane surfaces indoor and outside. The radio waves can penetrate most none metallic walls.

A typical installation is on the front of cars, trucks[2] and on wheelchairs. It is possible to make a hidden installation under none metallic surfaces due to the use of radio waves[3]. It is recommended to install all GC200 tags in the same way on all cars, trucks and wheelchairs to ensure a similar signal radiation.

The transmit power and detection range may need adjust to compensate for the chosen installation. This is done in the AccessZone Access Control System.

Make sure that the GC200 system is firmly secured to the installation surface. Use appropriate screws and do not expose the unit to heat.

Caution!
[1] Metallic surfaces will reflect/prevent radiation of the radio waves used with Bluetooth. Keep a good distance to metallic surfaces.
[2] Requires a 24V to 12V DC converter with good filtering
[3] Status LED's are not visible

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6   Front LEDs

The GC200 series have 1 internally controlled blue LED for system indications.

The blue LED flashes when it is active. I.e. it can be detected from the AccessZone Access Control System.

The blue LED flashes twice as fast as long as the brown wire is held to GND. This means that it is possible to see if it is running on a timer (slow flashing) and when it is held to GND (fast flashing)

7   Factory Reset

It should never be necessary to perform a factory reset.

8   How to Activate the Tag

The brown wire (IN1) must be held to GND (black wire) to make the Bluetooth Tag active "visible" for the AccessZone Access Control System.

This can be done by pulling the brown wire to GND through a button or switch. When the brown wire is removed from GND again it will stay visible for 5 s and then become invisible.

The brown wire can also be connected to GND (black wire) to allow it to be visible al the time it is powered. E.g. this could be used on cars, trucks and wheelchairs. The Tag is then first powered when ignition is ON.

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