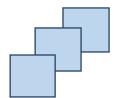
Fi

FIFOTRACK RFID READER USER GUIDE





Model: RFID Reader

Version: V1.3

www.fifotrack.com



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Document History

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V1.3	Nov 15, 2016	Vito Hu	Add auto control
V1.2	Aug 10, 2016	Vito Hu	Add RFID Report
V1.1	July 21, 2016	Vito Hu	Initial Version

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1 Instructions of Safety

This chapter contains information on how to operate RFID reader and device safely. By following these requirements and recommendations, you will avoid dangerous situations. Please read these instructions fully and follow them strictly before operating the tracker!

Before using, please make sure the tracker has been configured well and LED lights are visible in working status.

2 Applied Model

RFID reader (hereinafter to be referred as "reader") is connected to tracker via RS232 port, it is applied for:

A300

3 Basic Description & Specification

⊙ Size: 80*43*13 mm

O Port: RS232

• Working temperature: -20°C~80°C

Working frequency: 125KHz

• Cable length: 3m

Protection rank: IP65

4 Installation

4.1 Connect to A300

- Plug reader's connector into "RS232 | MIC | SPK" socket of A300, connection will be finished.
- Power on tracker with external supply, reader "BI" once, and then works normally.





5 Operation

5.1 Setting on tracker

On tracker side, reader's operation includes below ones. NOTE: the SMS command described in the following chapter uses default SMS password.

5.1.1 Authorizing RFID Tag(s)

Maximally, tracker supports 20 authorized tags. Using the following SMS command to do this operation:

SMS command: 000000,B42,<rfid_num1>,<rfid_num2>...<rfid_numN>

Reply: B42,OK

While <u>rfid_num[1,N]</u> are the RFID tags' number to be authorized. Tag's number can be read from laser code as below:



To authorize RFID/iButton tags in batches, use the following SMS command:

SMS command: 000000,B42

Reply: B42,OK

After receiving the command, tracker will regard all read RFID tags as authorized ones in 3 minutes. During these 3 minutes, tracker will not generate "Login", "Log out" or "Illegal Login" alarm when tag(s) read, and tag's number will not be uploaded to server. It is suitable for official

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operation.

5.1.2 Delete Authorized RFID Tag(s)

To delete authorized RFID tag(s), using the following SMS command:

SMS command: B43,<rfid_num1>,<rfid_num2>...<rfid_numN>

Reply: B43,OK

While *rfid num*[1,N] are the RFID tags' number to be deleted.

To delete all RFID tags, using the following SMS command:

SMS command: 000000,B43,ALL

Reply: B43,OK

NOTE: "ALL" should be in upper case

To delete tags in batches, using the following SMS command:

SMS command: 000000,B43

Reply: B43,OK

After receiving the command, tracker will delete tags, which are read in 3 minutes. During these 3 minutes, tracker will not generate "Login", "Log out" or "Illegal Login" alarm when tag(s) read, and tag's number will not be uploaded to server.

5.1.3 Retrieve RFID Tag(s) Authorization Status

To retrieve tag's authorization status, using the following SMS command:

SMS command: B44,<rfid_num1>,<rfid_num2>...<rfid_numN>

Reply: B44,<rfid_num1>:<aut1>,<rfid_num2>:<aut2>,....<rfid_numN>:<autN>

rfid_num[1,N]: RFID tag number to be retrieved

aut[1,N]: Authorization status, 0~unauthorized, 1~ authorized

5.1.4 Tag Operation Logic

After swiping tag, tracker generates "Login", "Log out" or "Illegal Login" alarm, the logic as below:

- If none tag is authorized, all tags are regarded as authorized ones.
- If current tag number recorded in tracker is empty, swiping authorized tag-A, tracker generates "Login" alarm with tag-A number, and then, tracker uploads position package with tag-A's number.
- If current tag number recorded in tracker is empty, swiping unauthorized tag, tracker does nothing to this tag's number.
- If current tag number recorded in tracker is not empty, swiping the same tag, tracker generates "Log out" alarm, and then, uploads position package with empty tag number.
- If current tag number recorded in tracker is not empty (assumed as <u>id0</u>), swiping authorized tag-A whose number is <u>id1</u> (<u>id1</u>!= <u>id0</u>), tracker generates "Log out" with <u>id0</u>, and generates "Login" with <u>id1</u>. After that, tracker uploads position package with <u>id1</u>.

If current tag number recorded in tracker is not empty (assumed as $\underline{id0}$), swiping unauthorized tag-A whose number is $\underline{id1}$ ($\underline{id1}$!= $\underline{id0}$), tracker generates "Illegal Login" with $\underline{id1}$. After that, tracker uploads position package with $\underline{id0}$.

5.1.5 Control

In actual usage, user can use fingerprint and "Login", "Log out" alarm to control vehicle, usually, control engine with external relay. As a result, when the resisted driver swipes finger, tracker will unlock engine, otherwise, lock the engine. Setting B23 command to achieve vehicle control:

SMS command: 000000,B23,<alm-code>,<GPRS><SMS><two-way><monitor><photo><AN-idx>

SMS reply : B23,OK

- alm-code: alarm code, for "Login" alarm, <u>alm-code</u> is 37, while for "Log out" alarm, <u>alm-code</u> is 38, and for "Illegal Login", <u>alm-code</u> is 39;
- GPRS: GPRS: Disable/enable GPRS uploading;
- SMS: Disable/enable SMS to SOS number(s);
- two-way: Disable/enable SOS number(s) dialing under two-way conversation;
- monitor: Disable/enable SOS number dialing under monitor mode;
- photo: Disable/enable photographing; The option is invalid when fingerprint in using;
- AN-idx: Complicated action;

<u>Under default setting</u>, tracker will lock engine via OUTPUT1 when setting <u>AN-idx</u> to 1 in B23 command, and unlock engine via OUTPUT1 when setting <u>AN-idx</u> to 2 in B23 command; Set the other options according to actual using.

For example:

SMS command: 000000,B23,37,100002

SMS reply : B23,OK

After the command sent, when resisted finger swiped, tracker generates "Login" alarm, sends GPRS data to platform, and unlocks engine.

SMS command: 000000,B23,38,100001

SMS reply : B23,OK

After the command sent, when resisted swiped again, tracker generates "Log out" alarm, sends GPRS data to platform, locks engine.

5.2 Setting on FIMS

Setting on FIMS includes:

Add global driver information
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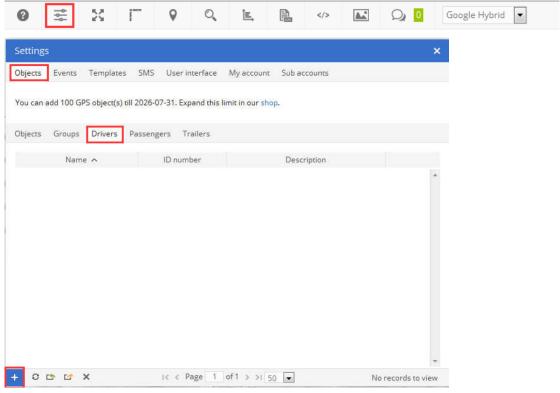




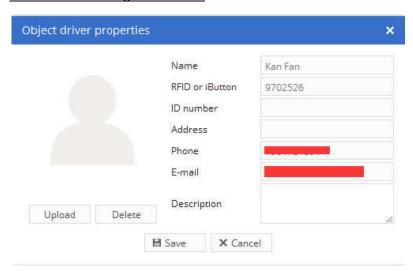
Assign driver to tracker

5.2.1 Adding Global Driver Information

Select "Setting"→"Objects"→"Drivers", click "Add" button.



In "Object driver Properties" web-page, add driver's information, such as "Name", "Address", "Phone Number", etc.. Also, driver's photo can be uploaded in this page. NOTE, "RFID or iButton" can be read from tag's laser code.



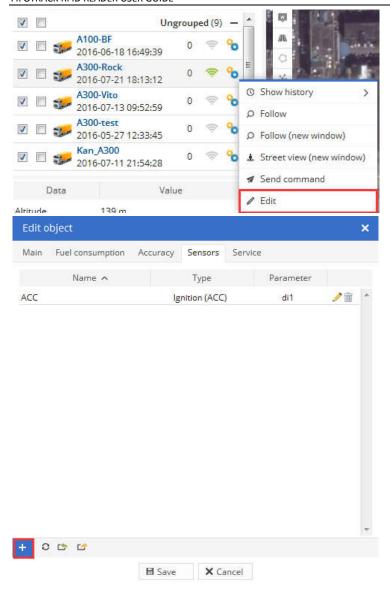
Click "Save" button, then one driver's information has been added.

5.2.2 Assign Driver to Tracker

select target tracker→"Edit"→"Sensors"→"Add"

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At "Sensor Properties" dialog, set parameters as below:

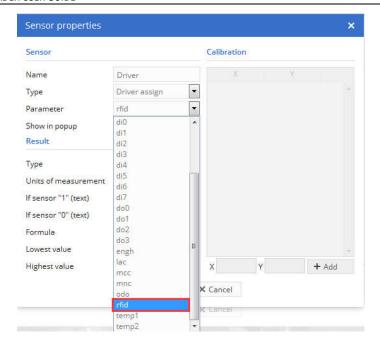
<u>Sensor</u>

• Name: Input self-define string

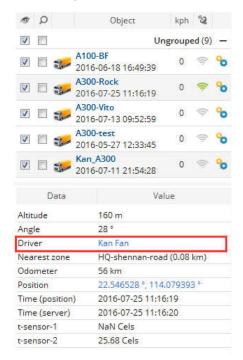
• Type: Select "Driver assign"

Parameters: Select "rfid"





Click "Save", real-time driver information will be display at "Object page", as below:



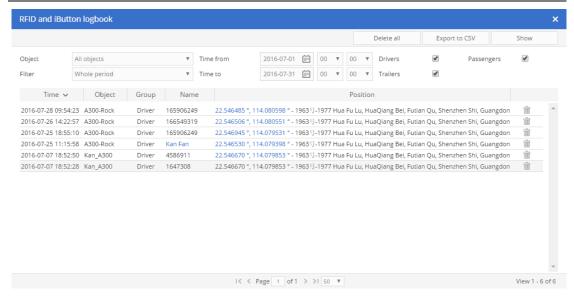
5.2.3 RFID Logbook

FIMS supports RFID logbook, which shows the information of driver, click "RFID and ibutton logbook" button to start logbook, as below:



Log detail is shown:





6 NOTE

- RFID reader works only when external power on.
- After swiping authorized tag, tracker's power LED will flash for 2s.

Please e-mail us at info@fifotrack.com if any question or feedback.