

MEITRACK iButton User Guide



Change History

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Document Update Record

Version	Date	Modifications
1.0	2015-08-13	Initial draft
1.1	2019-05-07	Second draft
1.2	2024-02-04	1. Change the applicable products 2. Inductive the connection of wires 3. Update the picture in the document 4. Add RFID bulk import and export 5. Modify iButton authorization/deletion/query/management
1.3	2025-03-06	Newly added ALB201 magnetic iButton and AIB101 magnetic cards
1.4	2025-06-18	Change the modified pictures and the iButton without magnetic attachment to the A74 model.

Precautions for use

Warning

1. The dangerous driving prompts issued by the equipment cannot replace the driver's driving decisions and operations;
2. The dangerous driving prompts issued by the device are developed based on computer vision and deep learning technology, and cannot guarantee 100% recognition accuracy. For example, the accuracy of algorithm recognition varies under different road and weather conditions.
3. The preparation aims to enhance users' understanding of driving conditions under correct usage. If used improperly, users may be distracted, leading to accidents, property damage or personal injury. During driving, do not attempt to view information stored on the device or change device settings. Only operate the device when your vehicle is stationary and parked in a safe place in accordance with local laws. Please always maintain awareness of the surrounding environment and avoid being distracted by the display screen or phone. Focusing on equipment may lead to driving hazards. The risk of using this device will be borne by the user.
4. When installing the device on a vehicle, please do not place it in a place that hinders the driver's ability to see the road or interferes with vehicle operation and control, such as the steering wheel, pedals, or transmission lever. Do not place it loosely on the vehicle dashboard. Do not place the device in front of or on top of any airbags.
5. Drivers are prohibited or restricted from playing videos on their devices in certain regions. Please comply with relevant laws in each region.

Maintenance precautions

1. Please keep the equipment dry. Do not let the equipment and cables stay in a damp environment, and do not operate the equipment with wet hands to avoid faults caused by short circuits, corrosion, or electric shock to personnel.
2. Equipment should be subjected to strong impacts or vibrations to avoid equipment failure.
3. Place the equipment and power supply at high or low temperatures, otherwise, it may cause equipment malfunction.
4. Please do not hit, throw, or puncture the equipment, and avoid dropping or squeezing the equipment.
5. Please do not use unofficially approved or provided power and data cables.
6. Please do not dismantle the equipment and accessories without authorization, otherwise the equipment and accessories will not be covered by the warranty.

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1 Specifications

Item	Description	
model	A74	AIB201
The size of the whole device	17.35mm×3.1mm~5.89mm	21mm×6mm
Material	304 stainless steel	Zinc alloy, electroplated silver color
Operating temperature	-40℃~85℃	-30℃~85℃
port	Red: 1-wire; Black: GND	White: 1-wire; Black: GND
wire length	3m	1m
magnetic	It's non-magnetic.	With magnetic attachment. It needs to be used in conjunction with magnetic buttons.
Communication Protocol	Single-bus interface protocol	

2 Main Device and Accessory



iButton reader



iButton key



Buzzer (optional)

	
A74 iButton reader (non-magnetic)	iButton key (non-magnetic)
	
AIB201 iButton reader (magnetic)	AIB101 iButton key (magnetic)
	
Buzzer (optional)	

3 iButton Functions

- Identify the driver ID and grant permission to start the vehicle.
- Through MS03 platform, drivers' attendance can be collected by driver I/O status history.
- After the authorized iButton key touches the iButton reader, the driver must start the engine within 1 minute. Otherwise, the device's "Output 1" will be triggered (engine cut-off), and thus the driver cannot start the vehicle. At the moment, if the driver wants to start the engine, need to swipe the iButton key again.

4 Installing the iButton Reader

4.1 Attaching the iButton Reader to Your Vehicle

Attach the iButton reader to your vehicle according to your needs.

4.2 Connecting the iButton Reader to the Device

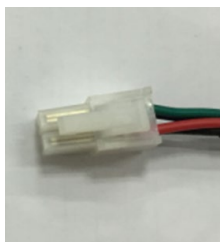
As long as the device has 1-wire cable, it can be connected to the iButton. Except for some special devices that do not have I/O cables, iButtons cannot be connected, such as in-line devices or container locks.

A74 iButton has two types of connectors: 3mm and 4mm. The connection method is different according to different

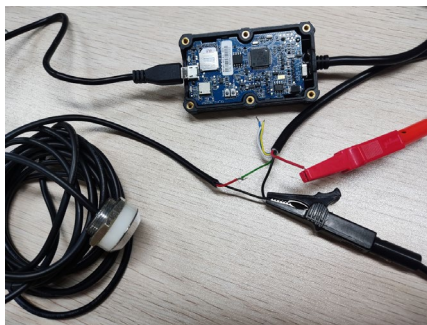
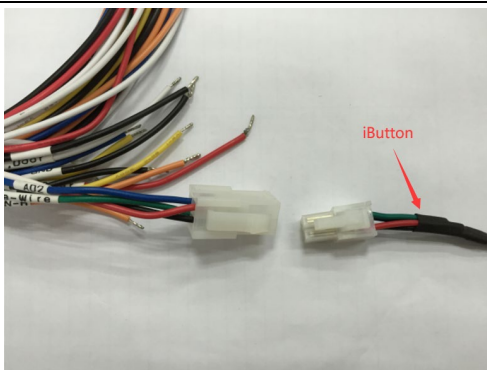
situations. iButtons can generally be connected in two ways: the 3mm connector is generally used for cutting wire connection, which is commonly used. The 4mm connector directly inserts to the device, which is not commonly used.



3 mm connector



4 mm connector

	Power supply	T399 Series/T711/MDVR Series (No connector)	A74 iButton(3mm connector)
Connection method	Cut-wire connection		
	Positive electrode	Power wire	/
	Negative electrode	Ground wire	Black wire
	/	1-wire cable	Red wire
Image example (Take T711L as example)			
	Power supply	T633L (with connector)	A74 iButton (4mm connector)
Connection method	The device has connector, needn't cut the wire, can directly inserts to the iButton connector		
Image example			

The detailed steps to connect A74\AIB201 iButton to T711L are as follows:

The T711L does not have a connector, so when connecting to iButton, need to cut the wire and remove the connector. Then connect as the following wire color.



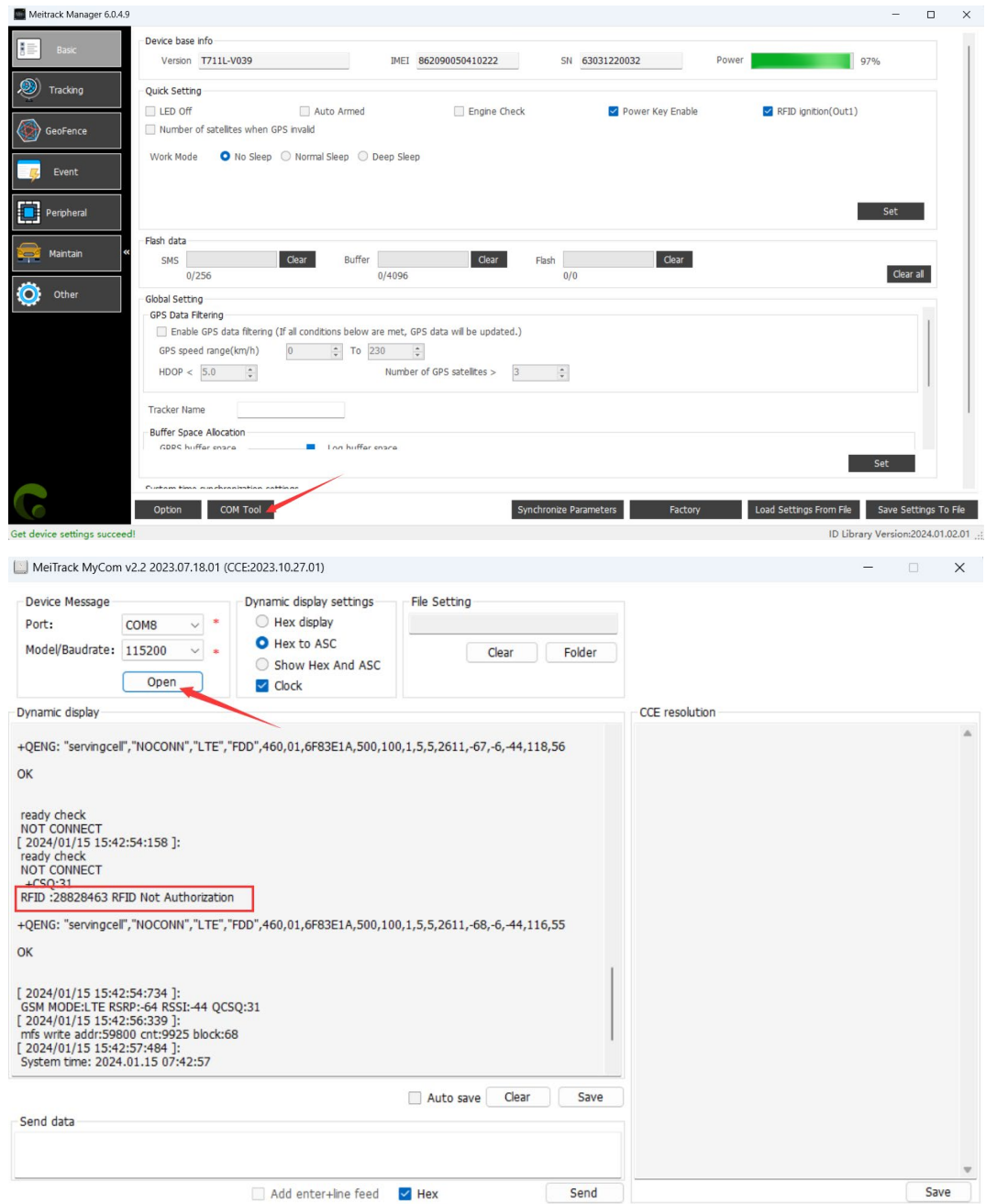
Power supply	Wire of T711L	A74 iButton	AIB201
Positive electrode	Red	/	/
Negative electrode	Black	Black	Black
/	Green (1-wire)	Red	White

After the iButton reader is connected to the device, once the iButton key touches the reader, the reader will be activated. If the tracker's output 2 is connected to a buzzer, a "beep" sound will be made.

Note: At this time, iButton has not been authorized, refer to [5.5.1](#) for the detailed authorization tutorial.



When touching the key to the reader, you can view the printing information from COM TOOL in Meitrack Manager. If you can view the RFID printing information, it proves that the iButton and the device are successfully connected. If the RFID information is not recognized, you need to check whether the wiring is correct, whether the wire contact is poor, or whether the iButton reader and the key are touched perfectly.

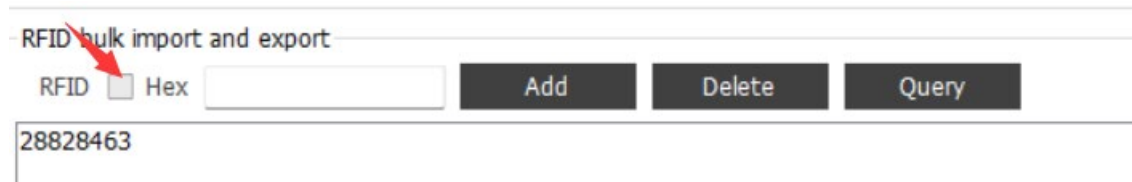
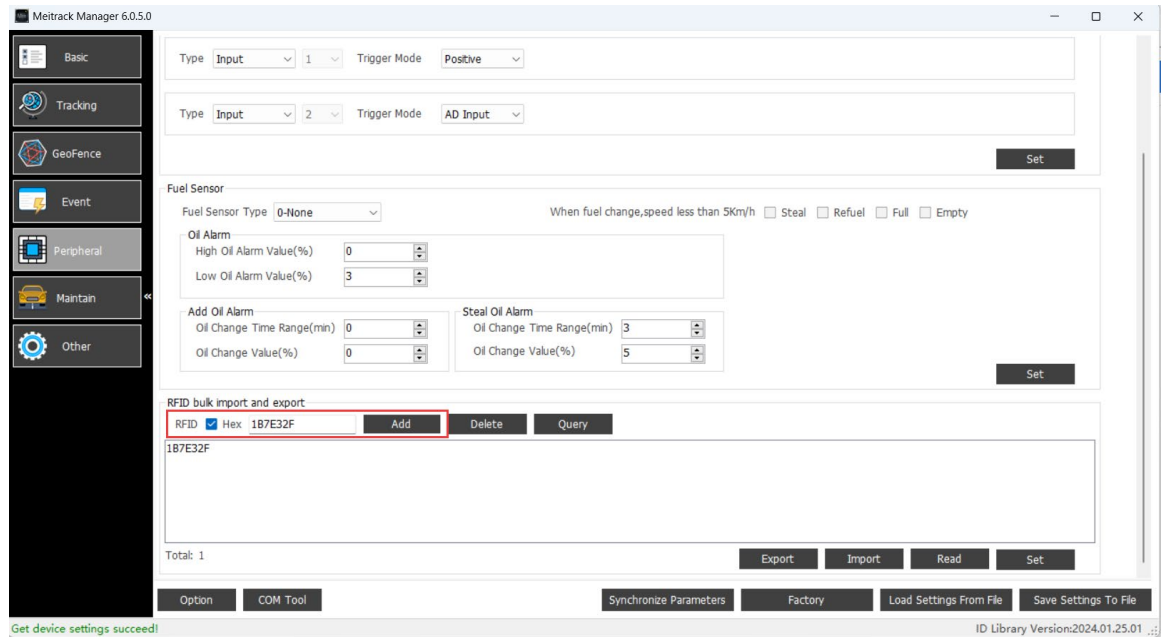


5 Using iButton

5.1 Obtaining iButton ID

The last 7 digits printed on the iButton key are the ID number, which is in hexadecimal format and cannot be directly recognized. You can use MM to add, insert the iButton ID number (hexadecimal) to be authorized, and convert it to decimal format.

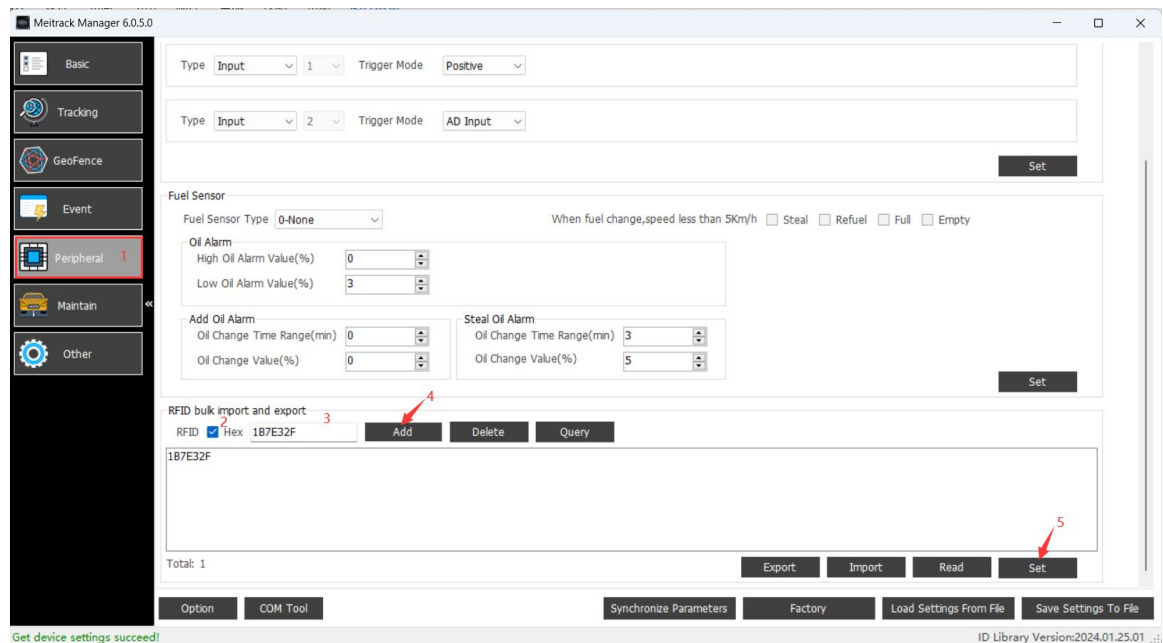
For example, if you get the iButton, take the last seven digits such as "1B7E32F", and check according to these steps: "Peripheral Settings→RFID bulk import and export→insert the hexadecimal ID number→Add→unselect Hex". Then you can check the decimal format is "28828463". Therefore, the ID number of the iButton is 28828463.



5.2 Using MM to Quickly Add/Delect/Query

iButton can be quickly added, deleted, and queried in MM, and the specific settings are as follows:

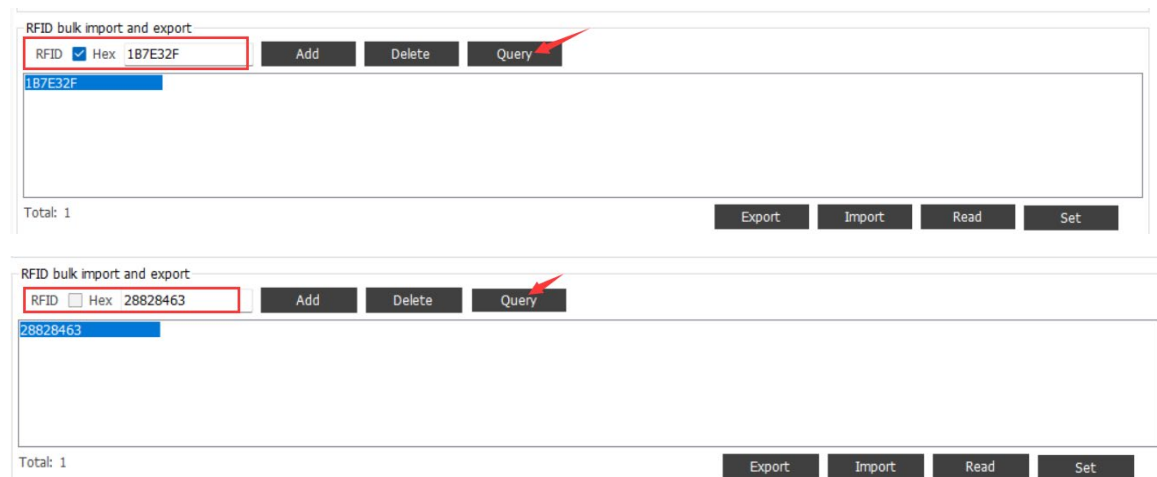
(1) Add



(2) Delete



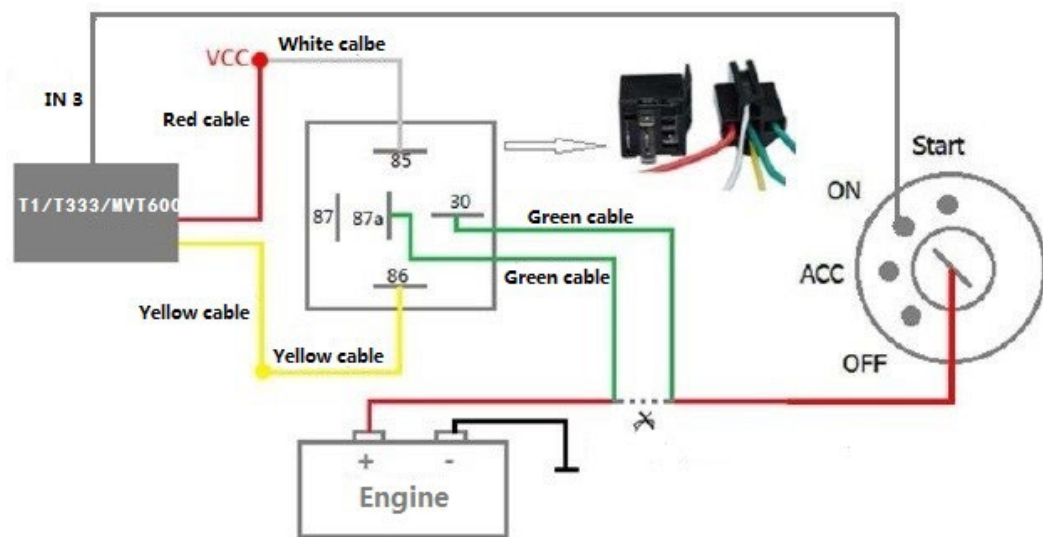
(3) Query (can enter hexadecimal or decimal system)



5.3 Starting the Engine by iButton

Before starting the engine, ensure that:

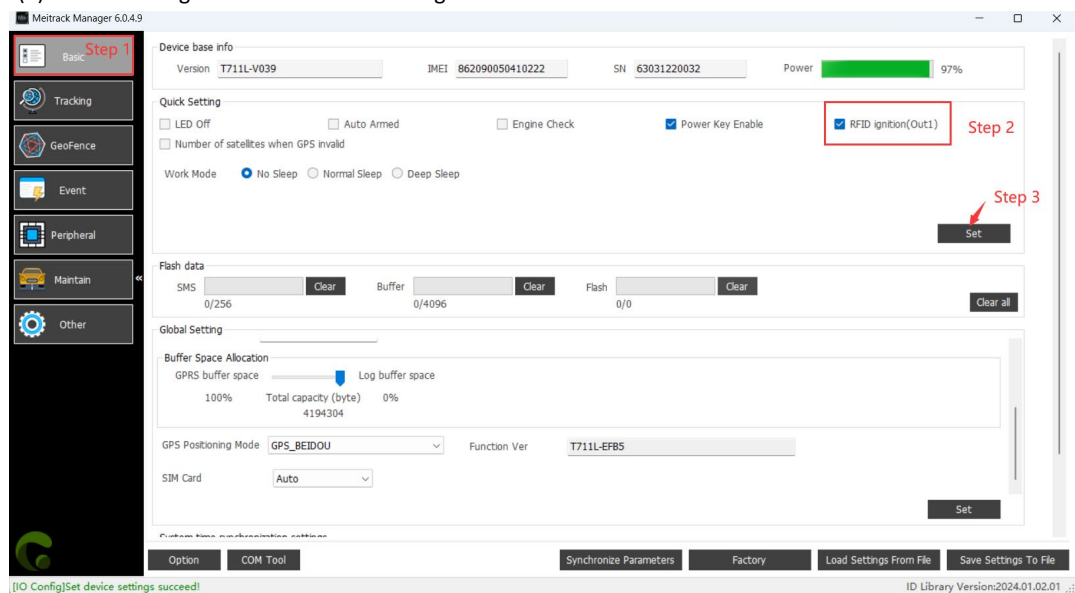
1. The device's input wire is connected to the engine detection cable;
2. iButton key needs to be authorized; (Noted: How to authorize iButton key refers to [5.5.1](#))
3. The device's "Output 1" is connected to the engine control cable through a relay, as shown in the following picture:



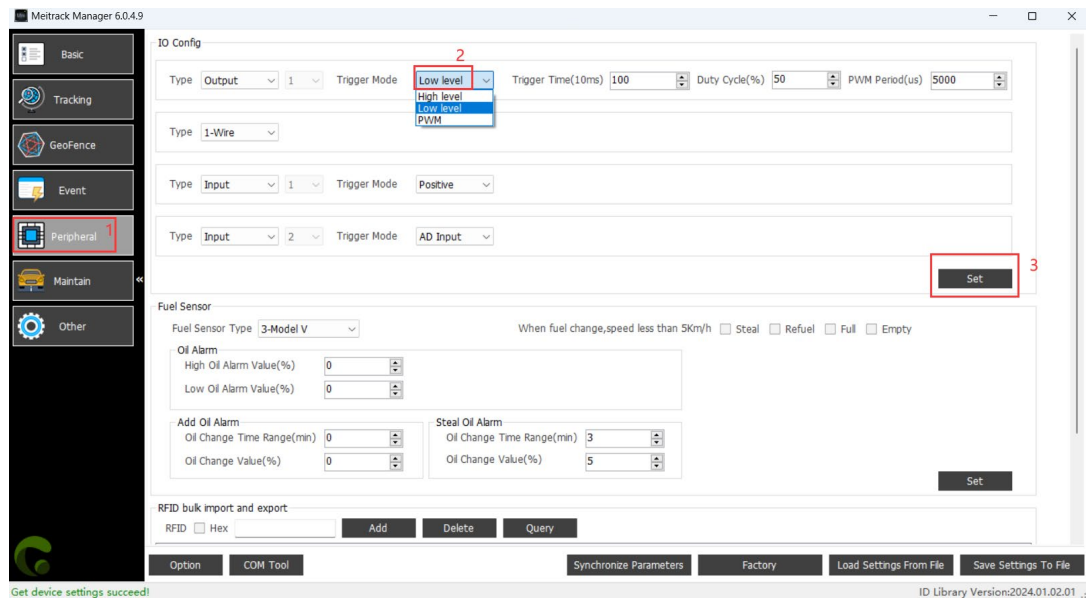
4. Turn on the "RFID ignition" through MM basic setting or the MS03 platform (only choose one method).

Method 1: Using MM to set

(1) Select "RFID ignition" in the basic setting.

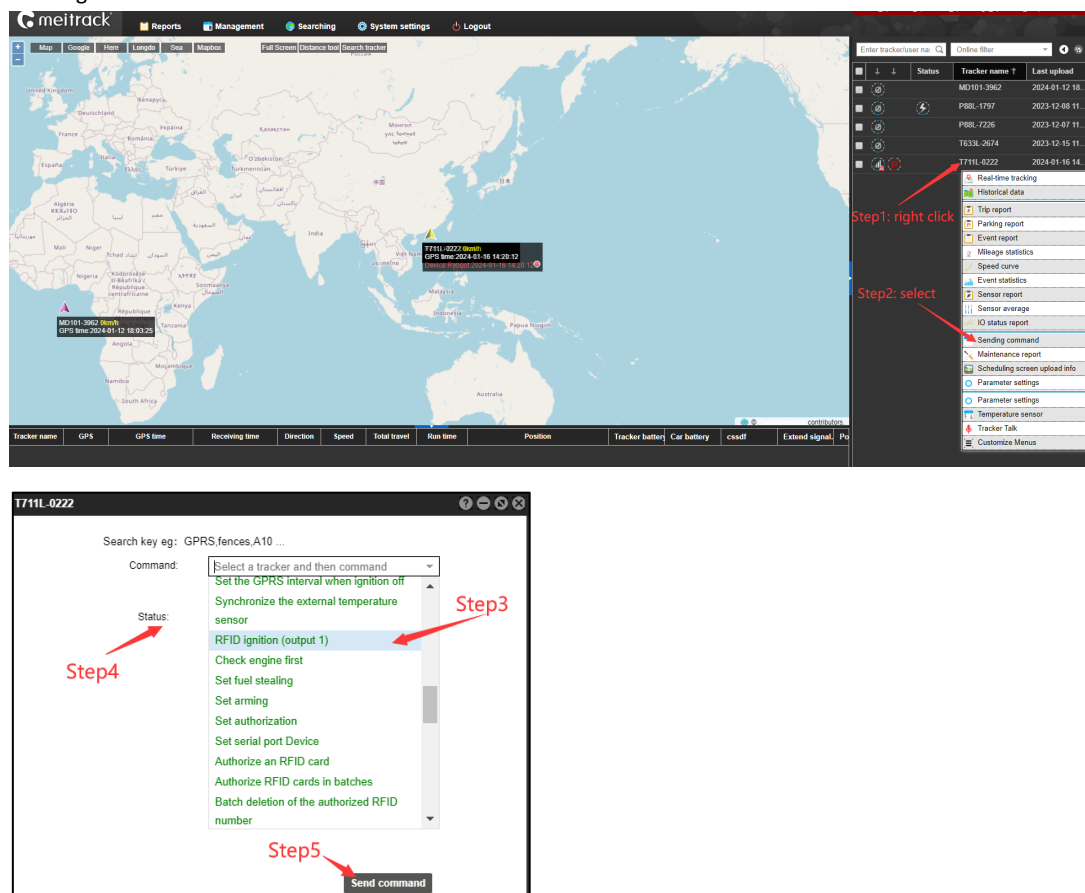


(2) Select the "Low level" trigger mode (default) in the peripheral setting.

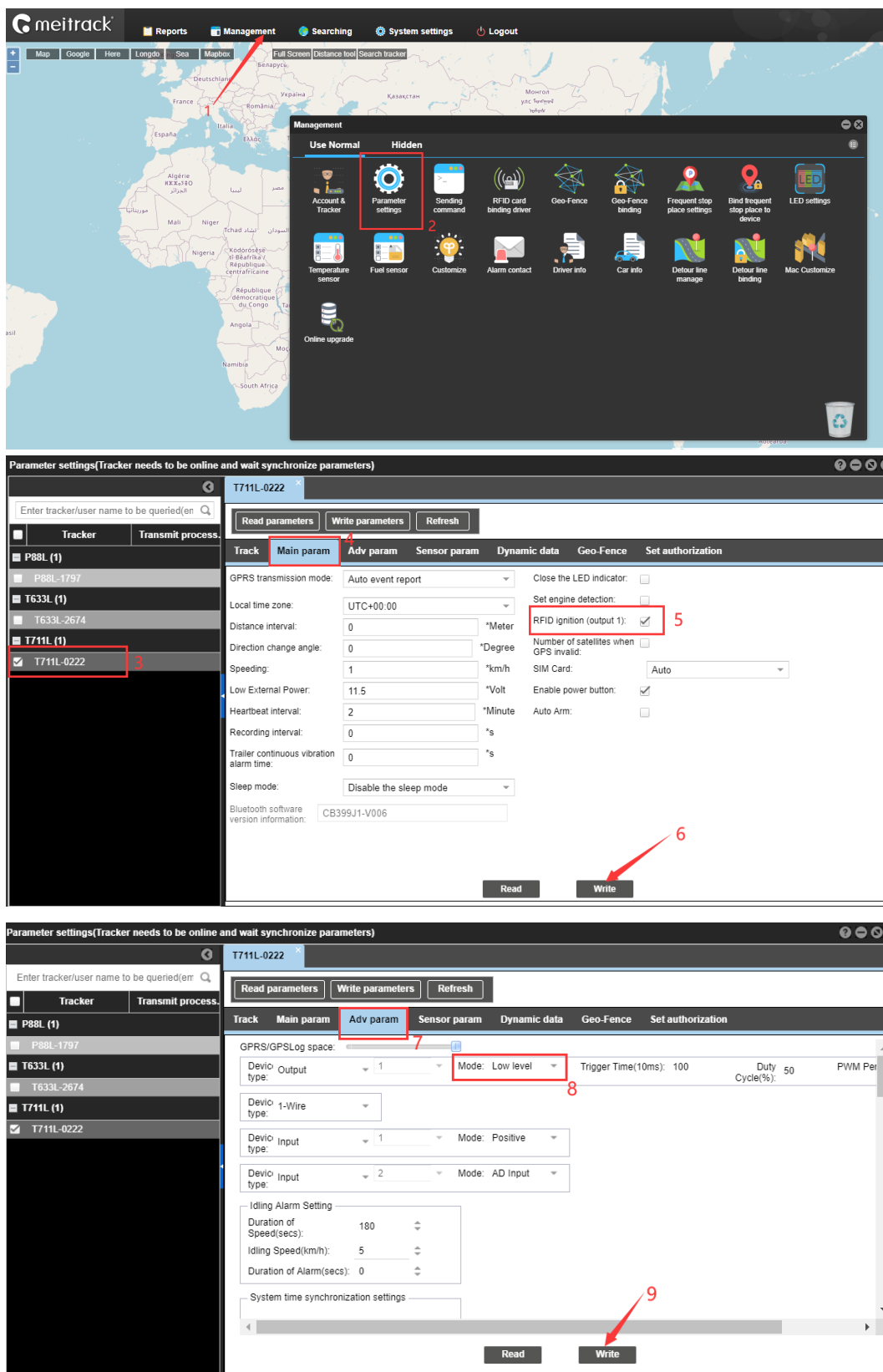


Method 2: Set up through the MS03 platform (Only need to choose one of the following methods)

(1) Sending command



(2) Selecting through Management→Parameter Settings, and finishing the setting



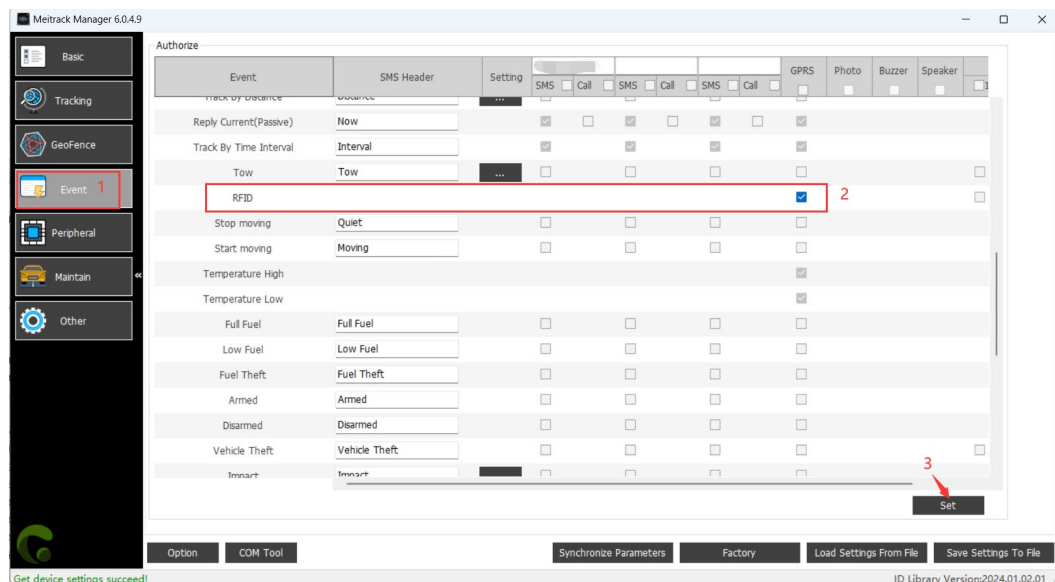
The screenshot displays the Meitrack web application interface. The top navigation bar includes 'Reports', 'Management', 'Searching', 'System settings', and 'Logout'. The 'Management' section is active, showing a map and a 'Management' panel with various settings icons. Red arrows and numbers 1 through 9 highlight specific steps in the parameter settings process:

- Click on the 'Management' tab.
- Click on the 'Parameter settings' icon.
- Select the tracker 'T711L-0222' from the list.
- Click on the 'Main param' tab.
- Check the 'RFID ignition (output 1)' checkbox.
- Click on the 'Write' button.
- Click on the 'Adv param' tab.
- Click on the 'Mode' dropdown menu.
- Select 'Low level' from the mode options.
- Click on the 'Write' button.

Note: For the device, you must make sure the RFID event has been enabled. Otherwise, the function will be unavailable.
(Refer to [5.4](#))

5.4 Setting RFID Event

RFID event can be set in MM, just tick the GPRS column corresponding to the event code "RFID". The default RFID event is on. (Note: If this RFID event is not selected, the event will not be able to upload the report to the MS03 platform after the swiping the RFID card)



5.5 Setting on MS03 Platform

iButton also has these functions on the MS03 platform, such as authorization, deletion, management, and query. The specific function commands are shown in the following table:

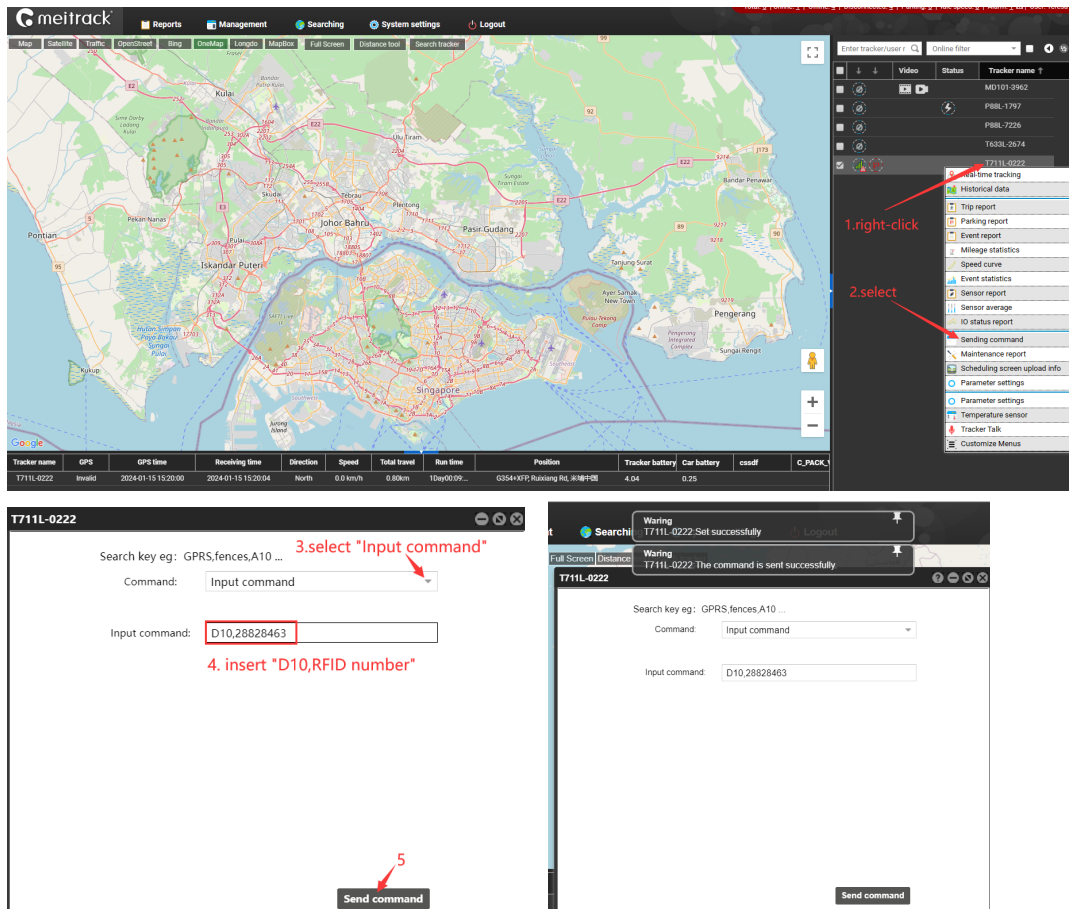
Function	Command Description	Instruction Code
iButton Authorization	Authorize an RFID card	D10
	Authorize RFID cards in batches	D11
iButton deletion	Batch deletion of the authorized RFID number	D15
iButton Management	In the "Management" of the platform, set "Driver Info" and "RFID card binding driver"	/
iButton query	Check whether existing RFID numbers are authorized	D12

5.5.1 iButton Authorization

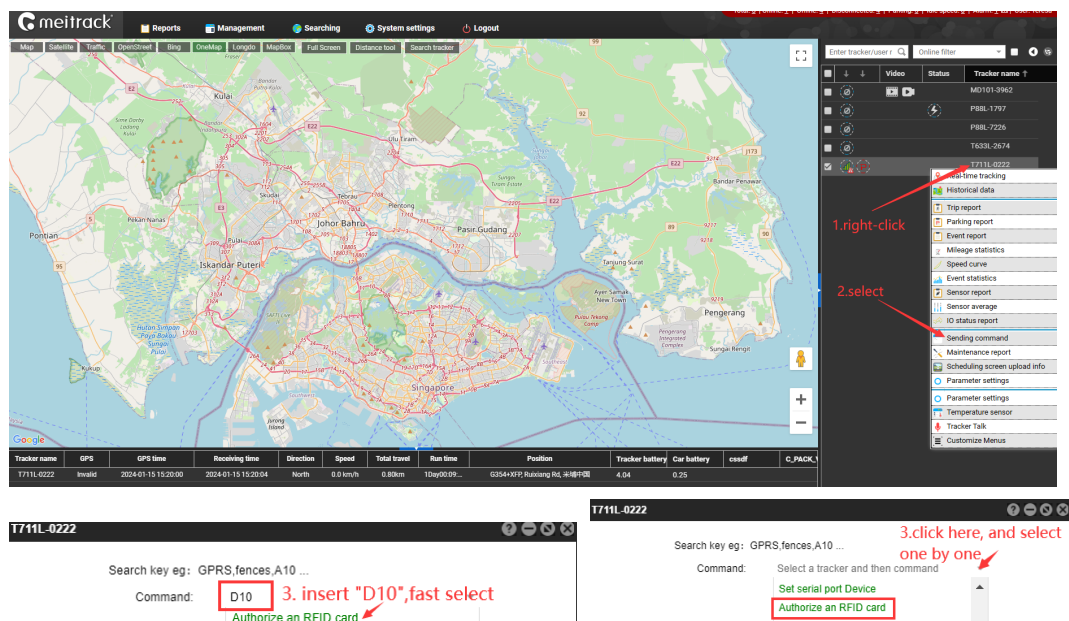
Note that if use tracker, the MS03 platform uses this website: <https://ms03.trackingmate.com>. To use the special command "Input command", you need to switch to project mode (use the shortcut key "Ctrl+Shift+K").

1. Authorize an RFID card (Choose one of the following methods)

(1) In project mode, select the "Input command" and insert "D10, RFID card number" to complete one card authorization.



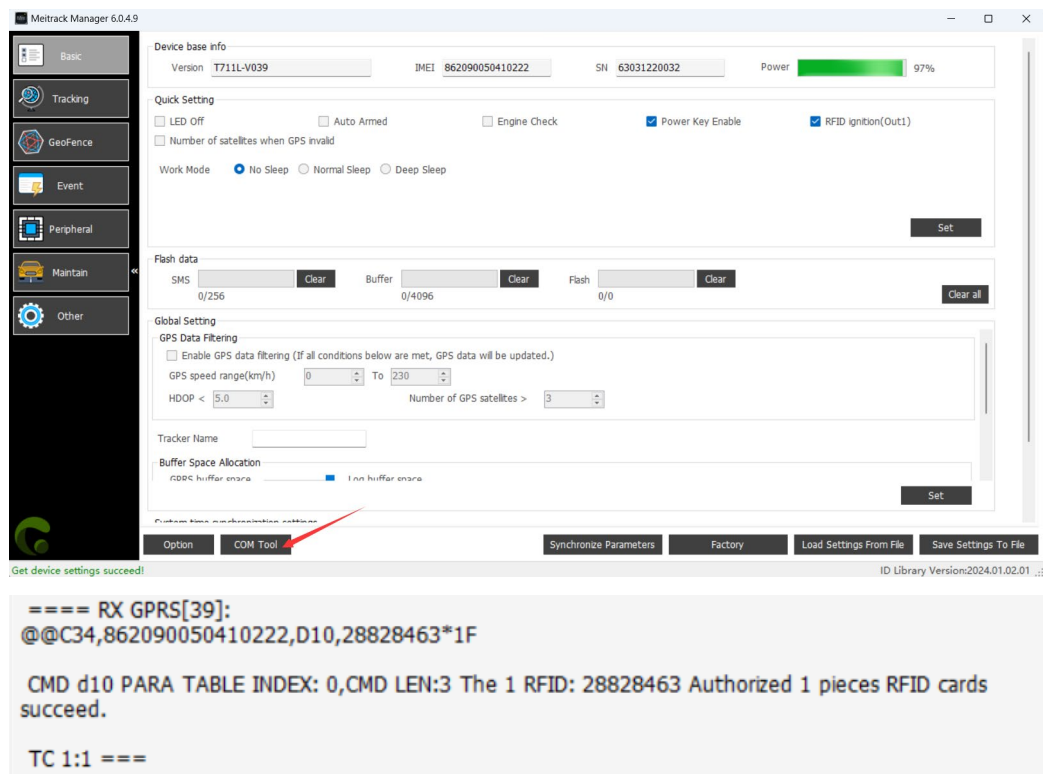
(2) Insert D10 in the command bar to quickly find the command “Authorize an RFID card”, or drop down and select one by one, then you can finish authorizing one card. (Note: To use this command, you need to fill in the driver's information first, and then bind the driver with the RFID card. Please refer to [5.5.3](#))





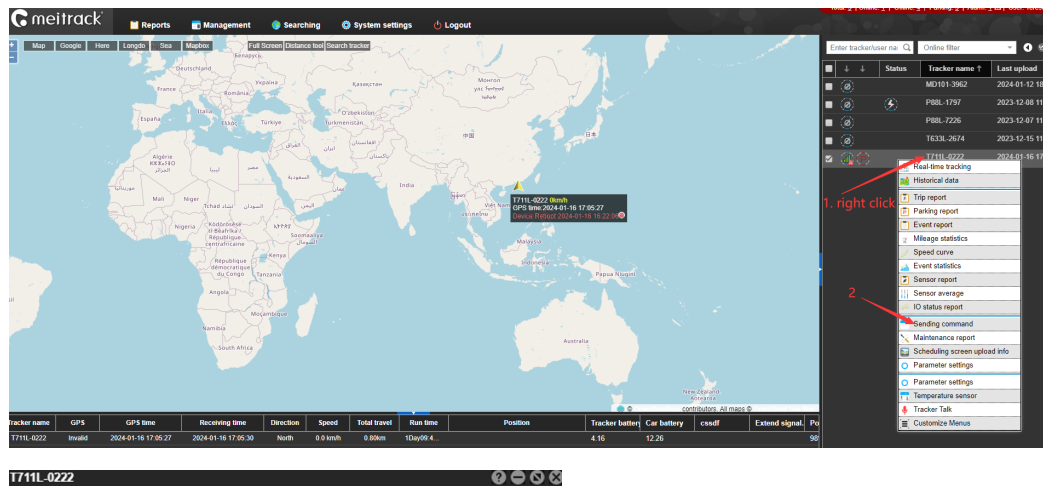
(3) Confirm that the authorization is successful

Touch the iButton key to the reader, and open the MM COM Tool, you can view the printing information, that prove the RFID card has been successfully authorized.



2. Authorize RFID cards in batches

(1) Set up on the MS03 platform. Insert D11 command, or select the "Authorize RFID cards in batches ", then fill in the starting RFID card number, and authorization quantity. If only one iButton key needs to be authorized, set Quantity to 1.



Search key eg: GPRS,fences,A10 ...

Command:

From the RFID number:
Quantity:

(2) Set “RFID bulk import and export” in MM peripherals.

The imported RFID card number must be in the form of the below table. Steps: Set “RFID bulk import and export” in MM peripherals, enter an RFID card number to be authorized(For example, 28828463)→Click “Export” and create the excel sheet→Pull down to generate additional card numbers to authorize→Save the sheet→Click "Import" to import the entire sheet in “RFID bulk import and export” in MM peripherals →Set. Then you can finish authorizing RFID cards in batches.

	A	B	C	D
1	RFID List			
2	NO.	RFID		
3	1	28828463		
4	2	28828464		
5	3	28828465		
6	4	28828466		
7	5	28828467		
8	6	28828468		
9	7	28828469		
10	8	28828470		
11	9	28828471		
12	10	28828472		
13	11	28828473		
14	12	28828474		
15	13	28828475		
16	14	28828476		
17	15	28828477		

RFID bulk import and export

RFID ☐ Hex 28828463

28828463	28828471
28828464	28828472
28828465	28828473
28828466	28828474
28828467	
28828468	
28828469	
28828470	

Total: 12

(3) Confirm that the authorization is successful.

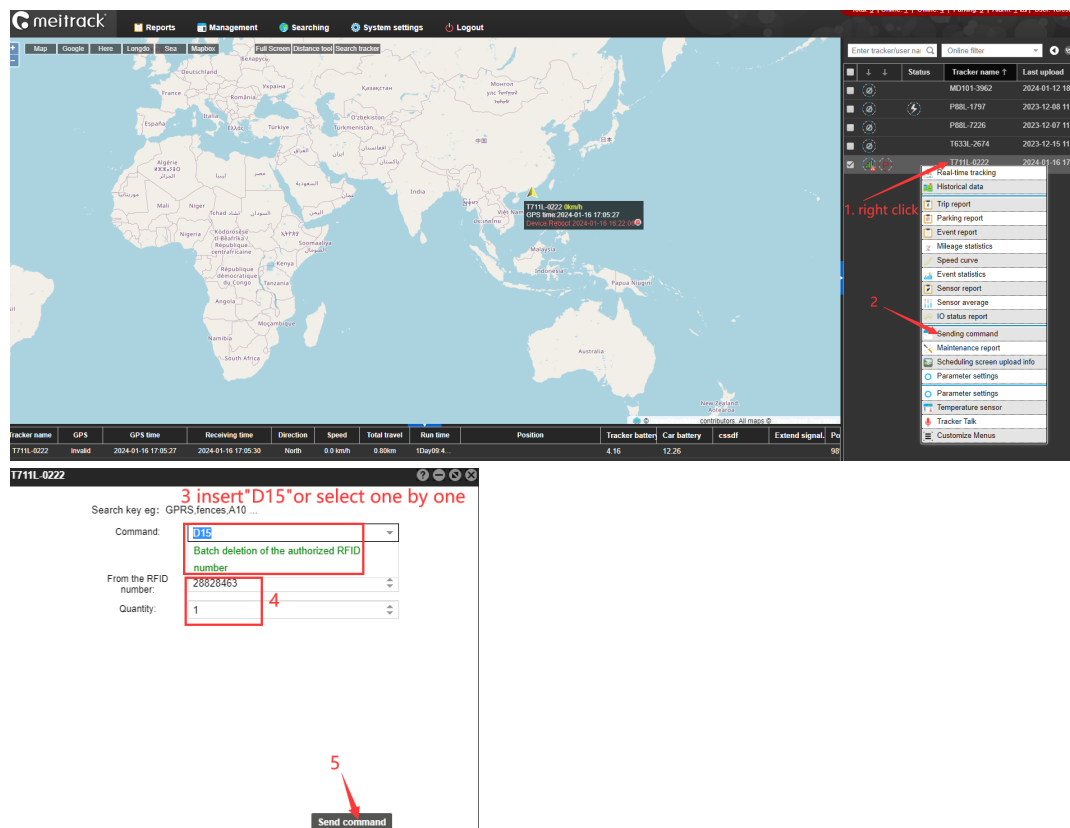
```
##SOCKET[0] REC:41.
##GPRS LEN:41.
==== RX GPRS[41]:
@@K36,862090050410222,D11,28828463,1*87

CMD d11 PARA TABLE INDEX: 0,CMD LEN:3 Soon authorized RFID pieces : 1 === 28828463 to 28828463
Authorized 1 pieces RFID cards succeed.

TC 0:1 ===
```

5.5.2 iButton Deletion

(1) Insert D15 command, or select the "Batch deletion the authorized RFID number", fill in the starting RFID card number, and fill in the quantity to be deleted, then you can delete the iButton in batches. If only one authorized iButton key needs to be deleted, set Quantity to 1.



1. right click

2

3 insert "D15" or select one by one

4

5

Send command

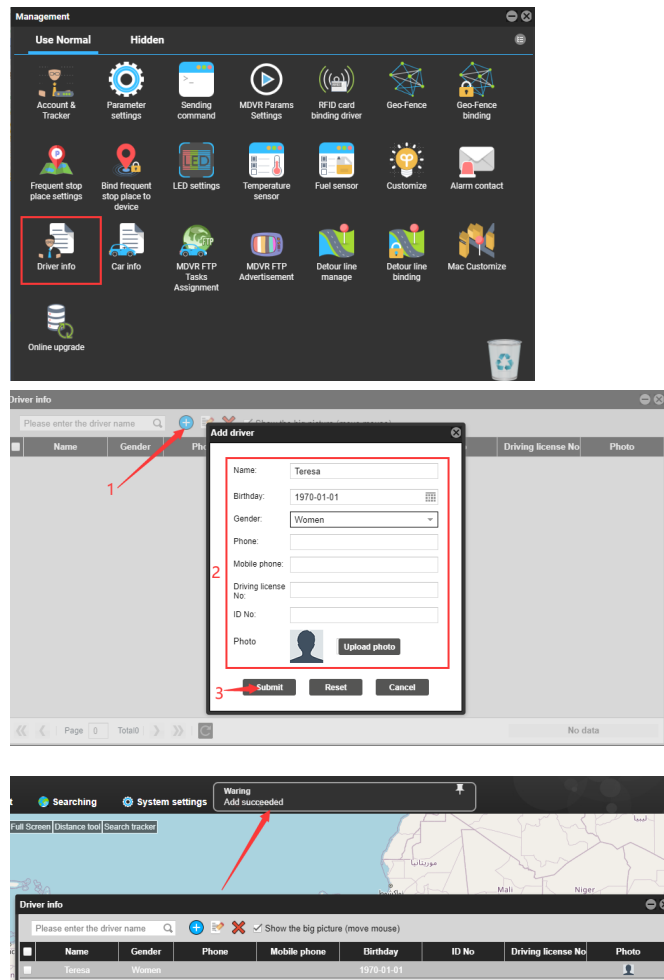
(2) View the COM Tool information in MM, and the following message is displayed to prove that the iButton is deleted.

```
CMD d15 PARA TABLE INDEX: 0,CMD LEN:3 Soon delete RFID pieces : 1 === 28828463 to 28828463
The RFID card 28828463 have been authorized.
[ 2024/01/17 11:00:17:156 ]:
Deleted successfully: 1
```

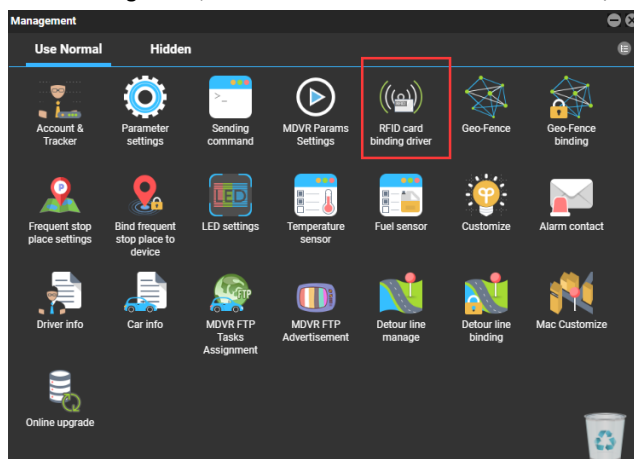
5.5.3 iButton Management

If want to use the iButton report to manage the driver's driving record, you must add the driver's information in advance. Then you can manage iButton and bind the iButton number added here. After the binding is successful, you can query the driver's mileage, parking duration, driving or parking time and location through the "Driver RFID I/O status report".

(1) In the "Management-Driver Info", you can add the basic information of the driver to better manage the vehicle.



(3) In the "Management-RFID card binding driver", you can register the iButton card number, bind the iButton card number and driver management, and realize the function of "Driver RFID I/O status report".

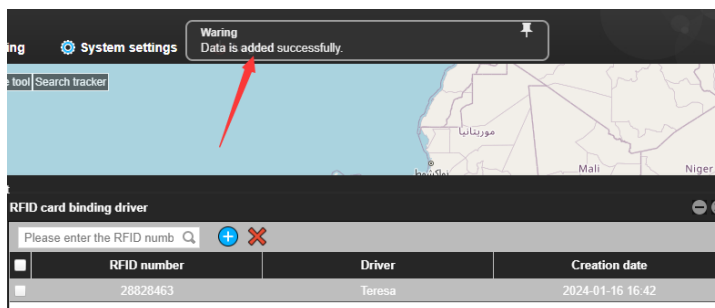


RFID card binding driver

Please enter the RFID num + ×

RFID number	Driver	Creation date
Add an RFID RFID number: 28828463 Added number: 1 Driver: Teresa Add driver Submit Reset Cancel		

Page 0 Total0 No data



5.5.4 iButton Query

Method 1: Use the MS03 platform to query

- (1) Insert D12 command, or select "Check whether existing RFID numbers are authorized", then insert the RFID card number you want to query in the text box.

meitrack

Reports Management Searching System settings Logout

Map Satellite Traffic OpenStreet Bing OneMap Longdo MapBox Full Screen Distance tool Search tracker

Enter tracker/user Online filter

Tracker name Status Tracker name

MD101-3962

P88L-1797

P88L-7226

T633L-2674

1.right-click

2.select

Real-time tracking

Historical data

Trip report

Parking report

Event report

Mileage statistics

Speed curve

Event statistics

Sensor report

Sensor average

IO status report

Sending command

Maintenance report

Scheduling screen upload info

Parameter settings

Parameter settings

Temperature sensor

Tracker Talk

Customize Menus

Tracker name	GPS	GPS time	Receiving time	Direction	Speed	Total travel	Run time	Position	Tracker battery	Car battery	csdof	C_PACK
7711L-6222	Invalid	2024-01-15 15:20:00	2024-01-15 15:20:04	North	0.0 km/h	0.00km	10day00:09...	0354+KPR Ruziling Rd, 柬埔寨	4.04	0.25		



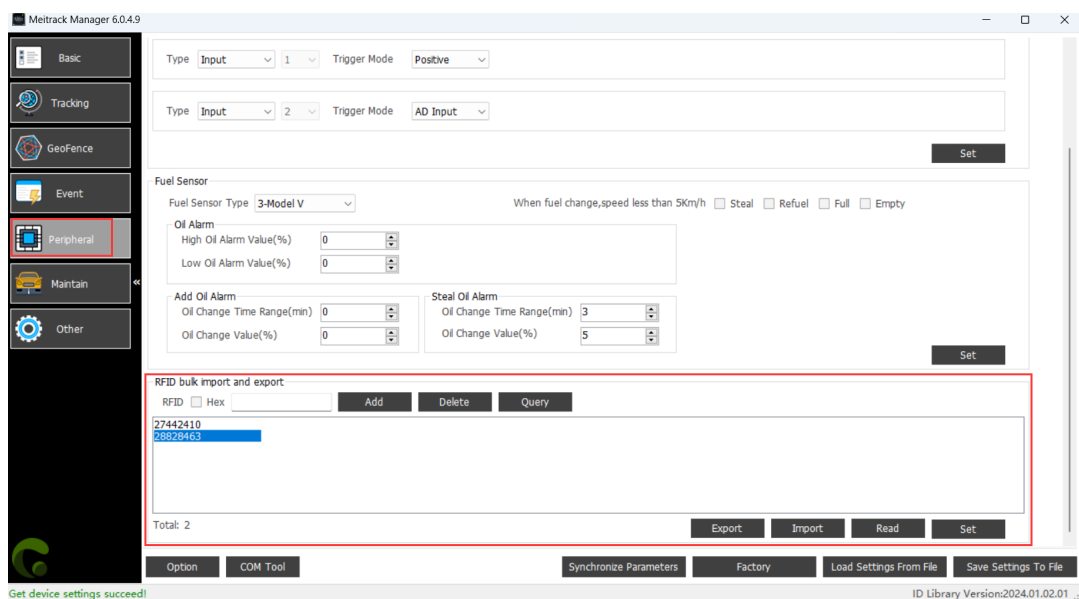
(2) Open the COM Tool in MM. If see the following information, you can query the iButton authorization.

```
GSM MODE:LTE RSRP:-71 RSSI:-47 QCSQ:31
[ 2024/01/17 15:18:25:675 ]:
##SOCKET[0] REC:39.
##GPRS LEN:39.
==== RX GPRS[39]:
@@` 34,862090050410222,D12,28828463*3E

CMD d12 PARA TABLE INDEX: 0,CMD LEN:3
The RFID card 28828463 have been authorized.
TA 0:1
```

Method 2: Use Meitrack Manager to query

In the Peripheral-RFID bulk import and export, you can see the authorized iButton card number.

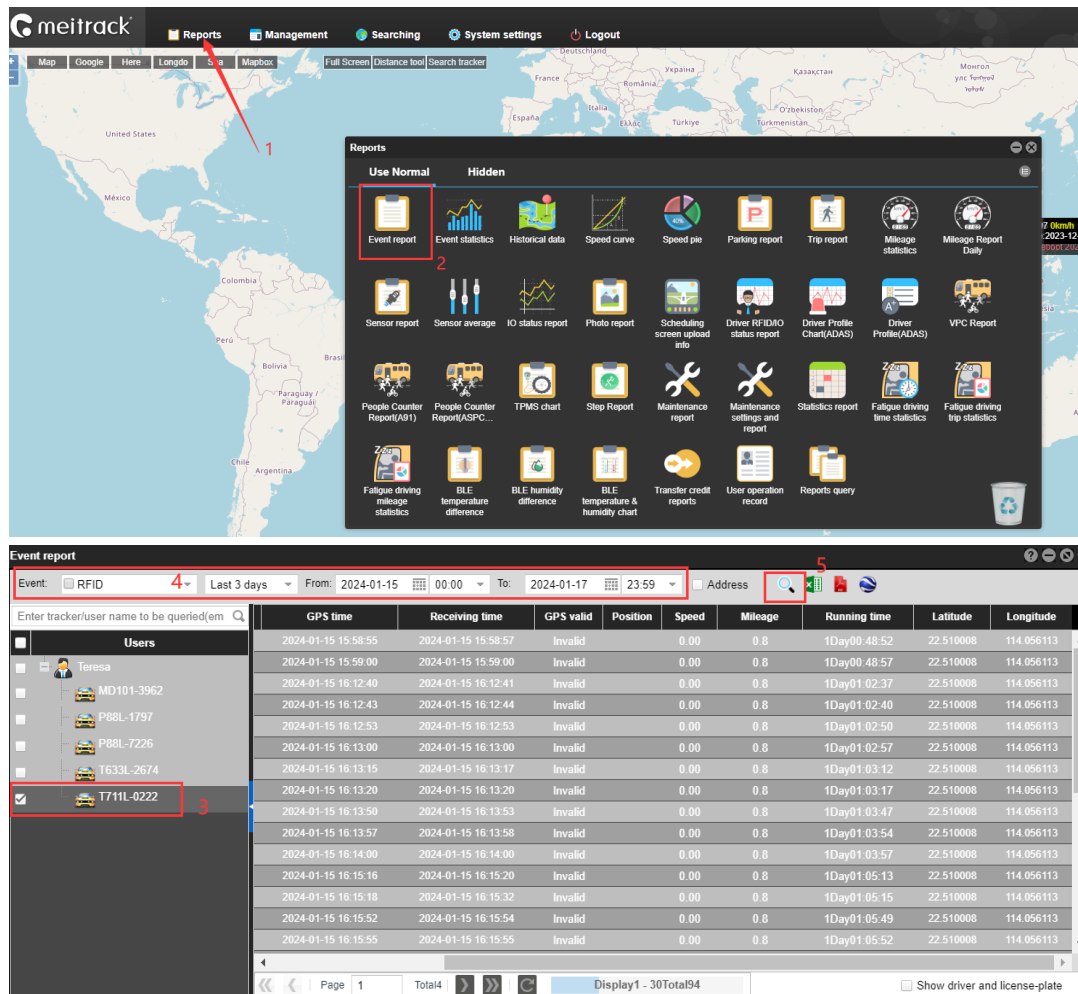


6 Querying Reports on MS03

On MS03, iButton alert event reports can be obtained from the RFID alert event reports.

6.1 Event Report

Click "Reports→Event report→Select device name→Event type select "RFID"→Select date→Query", then you can check the status of the iButton card reader within a certain time range.

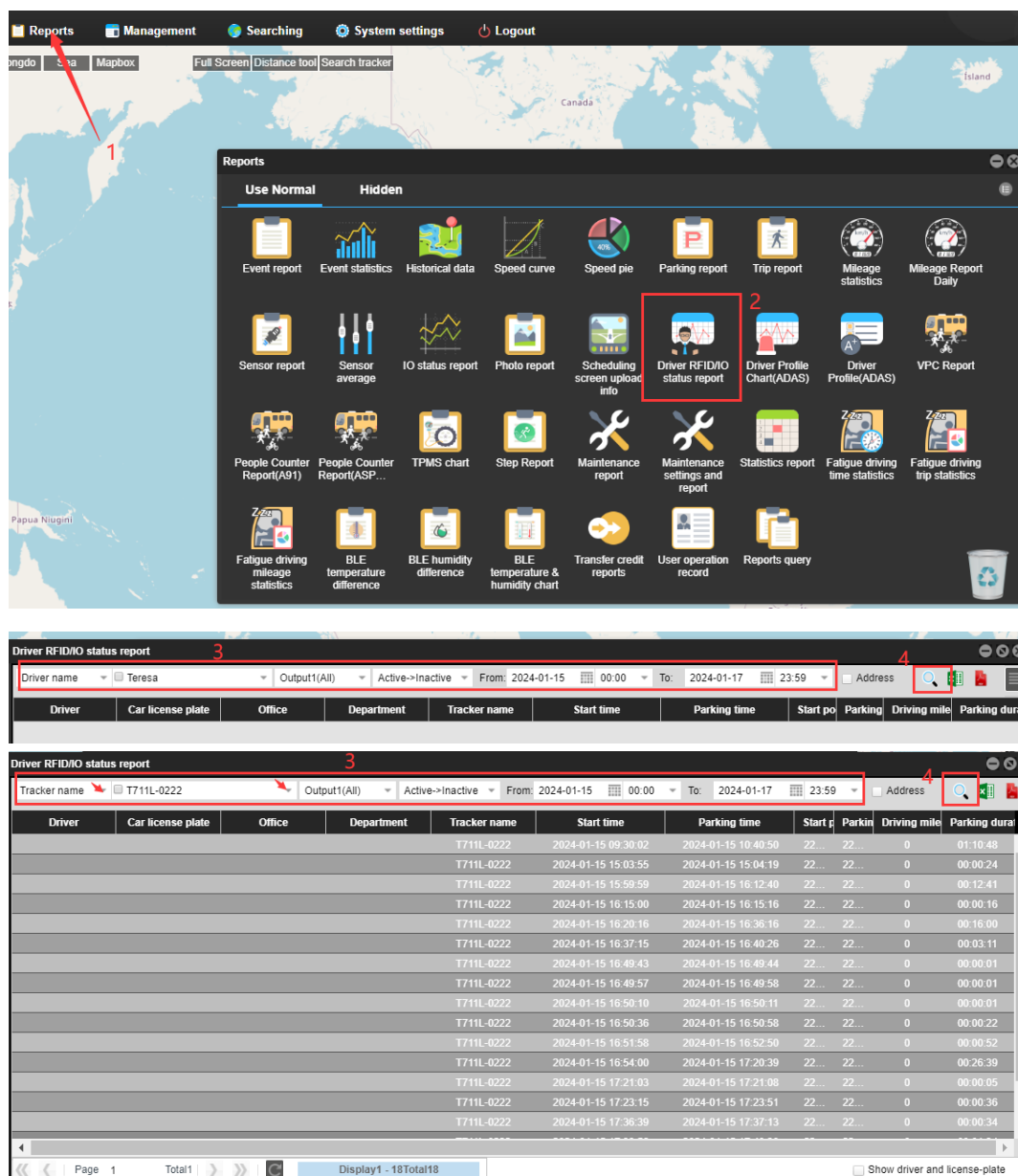


The screenshot displays the Meitrack web application interface. At the top, the navigation bar includes 'Reports', 'Management', 'Searching', 'System settings', and 'Logout'. The 'Reports' menu is open, showing a grid of report categories under 'Use Normal' and 'Hidden'. The 'Event report' is highlighted. Below the menu, the 'Event report' section shows a search bar with 'RFID' selected, a date range from '2024-01-15' to '2024-01-17', and a search button. The table below lists tracking events with columns for GPS time, Receiving time, GPS valid, Position, Speed, Mileage, Running time, Latitude, and Longitude. The device 'T711L-0222' is selected in the left sidebar.

GPS time	Receiving time	GPS valid	Position	Speed	Mileage	Running time	Latitude	Longitude
2024-01-15 15:58:55	2024-01-15 15:58:57	Invalid		0.00	0.8	1Day00:48:52	22.510008	114.056113
2024-01-15 15:59:00	2024-01-15 15:59:00	Invalid		0.00	0.8	1Day00:48:57	22.510008	114.056113
2024-01-15 16:12:40	2024-01-15 16:12:41	Invalid		0.00	0.8	1Day01:02:37	22.510008	114.056113
2024-01-15 16:12:43	2024-01-15 16:12:44	Invalid		0.00	0.8	1Day01:02:40	22.510008	114.056113
2024-01-15 16:12:53	2024-01-15 16:12:53	Invalid		0.00	0.8	1Day01:02:50	22.510008	114.056113
2024-01-15 16:13:00	2024-01-15 16:13:00	Invalid		0.00	0.8	1Day01:02:57	22.510008	114.056113
2024-01-15 16:13:15	2024-01-15 16:13:17	Invalid		0.00	0.8	1Day01:03:12	22.510008	114.056113
2024-01-15 16:13:20	2024-01-15 16:13:20	Invalid		0.00	0.8	1Day01:03:17	22.510008	114.056113
2024-01-15 16:13:50	2024-01-15 16:13:53	Invalid		0.00	0.8	1Day01:03:47	22.510008	114.056113
2024-01-15 16:13:57	2024-01-15 16:13:58	Invalid		0.00	0.8	1Day01:03:54	22.510008	114.056113
2024-01-15 16:14:00	2024-01-15 16:14:00	Invalid		0.00	0.8	1Day01:03:57	22.510008	114.056113
2024-01-15 16:15:16	2024-01-15 16:15:20	Invalid		0.00	0.8	1Day01:05:13	22.510008	114.056113
2024-01-15 16:15:18	2024-01-15 16:15:32	Invalid		0.00	0.8	1Day01:05:15	22.510008	114.056113
2024-01-15 16:15:52	2024-01-15 16:15:54	Invalid		0.00	0.8	1Day01:05:49	22.510008	114.056113
2024-01-15 16:15:55	2024-01-15 16:15:55	Invalid		0.00	0.8	1Day01:05:52	22.510008	114.056113

6.2 Driver RFID I/O Status Report

Click the "Reports→Driver RFID/IO status report→Select the device name or driver name→Select the corresponding IO port status→Select the query time→Query", then you can check the driving record of the terminal device or driver within a certain period of time. This report is used to count the driver's driving time, mileage and parking time.



The screenshot displays the Meitrack web application interface. The top navigation bar includes 'Reports', 'Management', 'Searching', 'System settings', and 'Logout'. A red arrow labeled '1' points to the 'Reports' menu. The 'Reports' panel is open, showing a grid of report icons. A red box labeled '2' highlights the 'Driver RFID/O status report' icon. Below this, the 'Driver RFID/O status report' form is shown. A red box labeled '3' highlights the 'Driver name' dropdown menu, which is set to 'Teresa'. Another red box labeled '4' highlights the 'Address' field. The report table below shows columns for Driver, Car license plate, Office, Department, Tracker name, Start time, Parking time, Start p, Parkin, Driving mile, and Parking dura. The table contains 18 rows of data for the driver 'Teresa' and tracker 'T711L-0222'.

Driver	Car license plate	Office	Department	Tracker name	Start time	Parking time	Start p	Parkin	Driving mile	Parking dura
T711L-0222				T711L-0222	2024-01-15 09:30:02	2024-01-15 10:40:50	22...	22...	0	01:10:48
T711L-0222				T711L-0222	2024-01-15 15:03:55	2024-01-15 15:04:19	22...	22...	0	00:00:24
T711L-0222				T711L-0222	2024-01-15 15:59:59	2024-01-15 16:12:40	22...	22...	0	00:12:41
T711L-0222				T711L-0222	2024-01-15 16:15:00	2024-01-15 16:15:16	22...	22...	0	00:00:16
T711L-0222				T711L-0222	2024-01-15 16:20:16	2024-01-15 16:36:16	22...	22...	0	00:16:00
T711L-0222				T711L-0222	2024-01-15 16:37:15	2024-01-15 16:40:26	22...	22...	0	00:03:11
T711L-0222				T711L-0222	2024-01-15 16:49:43	2024-01-15 16:49:44	22...	22...	0	00:00:01
T711L-0222				T711L-0222	2024-01-15 16:49:57	2024-01-15 16:49:58	22...	22...	0	00:00:01
T711L-0222				T711L-0222	2024-01-15 16:50:10	2024-01-15 16:50:11	22...	22...	0	00:00:01
T711L-0222				T711L-0222	2024-01-15 16:50:36	2024-01-15 16:50:58	22...	22...	0	00:00:22
T711L-0222				T711L-0222	2024-01-15 16:51:58	2024-01-15 16:52:50	22...	22...	0	00:00:52
T711L-0222				T711L-0222	2024-01-15 16:54:00	2024-01-15 17:20:39	22...	22...	0	00:26:39
T711L-0222				T711L-0222	2024-01-15 17:21:03	2024-01-15 17:21:08	22...	22...	0	00:00:05
T711L-0222				T711L-0222	2024-01-15 17:23:15	2024-01-15 17:23:51	22...	22...	0	00:00:36
T711L-0222				T711L-0222	2024-01-15 17:36:39	2024-01-15 17:37:13	22...	22...	0	00:00:34

Note: The device must be connected to the engine detection cable, so the report is valid.

If you have any other questions, please send an email to our email address info@meitrack.com We will wholeheartedly serve you.