

Template:Magnetic Card Functionality

□

Contents

- [1 Magnetic card functionality](#)
 - [1.1 Vehicle type](#)
 - [1.2 Vehicle use type](#)
 - [1.3 Buzzer Control](#)
- [2 Authorization for immobilizer scenario](#)
 - [2.1 Type of card parameter](#)
- [3 Driver State Logic](#)

Magnetic card functionality

Magnetic Card Functionality

Vehicle type

None	Special Airconditioned Bus
Airconditioned Bus	Non Airconditioned Bus
Double Deck Bus	Special Public Bus
Public Van	Dump Truck
Box Truck	Liquid Truck
Hazardous Truck	Special Truck
Container Truck	Other

Other vehicle type ID

Vehicle use type

None	Private
Fix Route / Non-Fix Route	

Vehicle additional information

None	Less than 20 passengers
More than 20 passengers	Weight less than 3500 Kg
Weight more than 3500 Kg	

Buzzer control

Disabled	DOUT1
DOUT2	Integrated
Reader	

Buzzer timeout (s)

Figure 1 Magnetic card functionality

parameters in configurator

Vehicle type

Magnetic card functionality parameter appearance is shown in *Figure 1*. The Other vehicle type ID is displayed only if **Vehicle type** is selected as **Other**. This field allows configuring custom vehicle types see chapter [Custom Vehicle Types](#).

Vehicle use type

On initial configuration, the parameters **Vehicle type** and **Vehicle use type** are set to **None**. This allows the vehicle to be started via immobilizer scenario with any license type (if the immobilizer is enabled) enabled). If any other options are used for **Vehicle type** and **Vehicle use type**, *Table 1* is used to lookup authorization with regards to driver's license type.

Buzzer Control

Different buzzers can be controlled when unauthorized cards are swiped see chapter Driver state the logic for a specific or infinite amount of time:

- DOUT1 or DOUT2 are simply turned on for the amount of time configured
- Integrated uses built-in buzzer in tracking device
- Reader uses built-in buzzer in the magnetic card reader (if supports buzzer control command)

Authorization for immobilizer scenario

Type of card parameter

Introduced from firmware version **FMB.Ver.03.27.01.Rev.163+**.

This parameter determines if the vehicle can be started based on card type. If the card type matches the configured parameter and the vehicle can be started based on user configuration, then the scenario allows entering the registered state. Also, if the vehicle is authorized to start (the device is in a registered state), then the card which is not allowed will cause deregistration if swiped.

Based on parameters **Vehicle type**, **Vehicle use type**, **Vehicle additional information**, *Table 1* data that is shown below and the license type obtained from the magnetic card via reader, the functionality decides whether or not the vehicle can be started (immobilizer scenario) The immobilizer must have priority to be set and output control configured in order for it to function.

Table 1 Authorization to start vehicle depending on license and vehicle type

Vehicle type		B.1	B.2	B.3	B.4	T.1	T.2	T.3	T.4
Special Airconditioned Bus	Private	Yellow	Green	Green	Green	Yellow	Green	Green	Green
	Fix Route/Non-Fix Route					Yellow	Green	Green	Green
Airconditioned Bus	Private	Yellow	Green	Green	Green	Yellow	Green	Green	Green
	Fix Route/Non-Fix Route					Yellow	Green	Green	Green
Non Airconditioned Bus	Private	Yellow	Green	Green	Green	Yellow	Green	Green	Green
	Fix Route/Non-Fix Route					Yellow	Green	Green	Green
Double Deck Bus	Private		Green	Green	Green		Green	Green	Green
	Fix Route/Non-Fix Route						Green	Green	Green
Special Public Bus	Private	Yellow	Green	Green	Green	Yellow	Green	Green	Green
	Fix Route/Non-Fix Route					Yellow	Green	Green	Green

Public Van	Private	■	■	■	■	■	■	■	■			
	Fix Route/Non-Fix Route					■	■	■	■			
Dump Truck	Private	■	■	■	■	■	■	■	■			
	Fix Route/Non-Fix Route					■	■	■	■			
Box Truck	Private	■	■	■	■	■	■	■	■			
	Fix Route/Non-Fix Route					■	■	■	■			
Liquid Truck	Private		■	■	■		■	■	■			
	Fix Route/Non-Fix Route						■	■	■			
Hazardous Truck	Private				■				■			
	Fix Route/Non-Fix Route								■			
Special Truck	Private		■	■	■		■	■	■			
	Fix Route/Non-Fix Route						■	■	■			
Container Truck	Private			■	■		■	■	■			
	Fix Route/Non-Fix Route							■	■			
Less than 20 passenger vehicle can be started <table border="1" style="float: right;"> <tr><td>■</td></tr> <tr><td>■</td></tr> <tr><td>■</td></tr> </table>										■	■	■
■												
■												
■												
Vehicle weighing less than 3500 kg can be started <table border="1" style="float: right;"> <tr><td>■</td></tr> <tr><td>■</td></tr> <tr><td>■</td></tr> </table>										■	■	■
■												
■												
■												
Vehicle can be started <table border="1" style="float: right;"> <tr><td>■</td></tr> <tr><td>■</td></tr> <tr><td>■</td></tr> </table>										■	■	■
■												
■												
■												
Vehicle can't be started <table border="1" style="float: right;"> <tr><td>■</td></tr> <tr><td>■</td></tr> <tr><td>■</td></tr> </table>										■	■	■
■												
■												
■												

If the **Vehicle type** is configured as **Other**, then the decision of whether the vehicle can be started or not is made by using the table located in [Custom Vehicle Types](#) tab.

Driver State Logic



Figure 2 Driver State Logic

The main driver registration, deregistration and swapping logic is shown in **Figure 2**.

Once deregistration event is generated, the start of the car is disallowed immediately (ignition off timer is not taken into consideration).