# **Template: Magnetic Card Functionality**

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# Magnetic card functionality

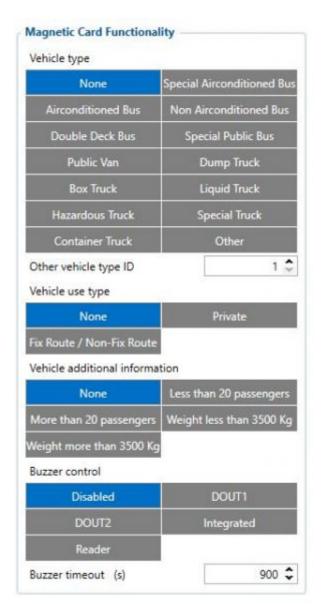


Figure 1 Magnetic card functionality

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 <u>Custom Vehicle Types</u>.

#### 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.

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

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

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	
		Vehicle weighing less than 3500 kg can be started	
		Vehicle can be started	
		Vehicle can't be started	

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 immediatelly (ignition off timer is not taken into consideration).