

General description of the RF transmitter PL2 ID

The RF remote control system consists of a RF transmitter and a RF receiver mounted within the control unit. The RF transmitter is mechanically integrated in the head of the key. This transmitter is used to transmit an information for locking or unlocking the vehicle by an unidirectional RF transmission line for normal remote operation by pressing a button.

In general the following functions are provided:

- Lock the car
- Unlock the car
- Unlock the trunk of the car

Power supply

The transmitter is provided with 1 Lithium battery (CR 2032) that gives a power supply of +3V.

Buttons

There are three buttons which enable to lock and unlock the doors and to unlock the trunk.

During activation, the button is forced to the ground via a "pull-up" within the microcontroller.

Typical usage pattern (for Europe only)

10 lock/unlock operations in 24 hours with typical transmission duration of 2 seconds
→ 0,42 lock/unlock operations with one hour

Transmitter ON 0.84 seconds / hour

Transmitter OFF 3599.16 seconds / hour

Duty Cycle: $T_{ON} / T_{(ON+OFF)} \times 100\% = 0.84 / 3,600 \times 100\% = \underline{0.02\%}$