

Document:

**User Manual**

Product:

Radio Frequency Transmitter-Receiver

Model:

**HFM401**

# 1 SYSTEM OVERVIEW

## 1.1 Scope of Document

The aim of this document is to provide a short overview on the HFM Hand free system HFM (Hand Free Module) model HFM401.

## 1.2 Short Description of the complete system including HFM

The HFM401 is a radio frequency transmitter-receiver used in vehicle access systems.

The vehicle access system includes:

- ✓ Key fob, which is a remote device

It includes a 433.92 MHz transmitter, a 125 kHz LF receiver and a 125 kHz transponder

- ✓ LF Antennae

- ✓ Hand Free Module (HFM):

It includes a 125 kHz LF long range and transponder transmitters. The HFM drives 6 external dedicated antennae for the 125 kHz transmission. Two are located in the doors trims, one in the Bumper, two within the vehicle cockpit and one in the trunk depending of the vehicles applications.

It includes also an integrated RF receiver for 433.92 MHz.

The system interacts with other modules such as:

- ✓ Push Engine Start
- ✓ Body Control Module
- ✓ ESCL (Electronic Steering Lock Control)
- ✓ USM

The main functions performed by the system are:

- ✓ RKE functions (key less features)
- ✓ Hand Free functions for vehicle access and engine start
- ✓ Immobilizer
- ✓ LF antennae management

## 5 Label Information

### 5.1 EC



### 5.2 USA/Canada

Continental  
Model: HFM401  
FCC ID:KR5HFM401  
IC:7812D-HFM401

## 6 Owner Manual Statements

### 6.1 Owner manual Canada

IC:7812D–HFM401

This device complies with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**There is no minimum separation distance required, which the user has to keep as safety distance between the body of the user and each of the 125 kHz low frequency antenna, as named (in chapter 1.2), the LF Antennae.**

## **6.2 Owner manual USA**

FCC ID: KR5HFM401

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

No changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment.

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