



HELLA GmbH & Co. KGaA

Rixbecker Straße 75

59552 Lippstadt / Germany

FCC ID: NBGFS12PM

Model No : FS12PM

Product name: Radio Identification device

USER MANUAL STATEMENT LETTER

HELLA GmbH & Co. KGaA will supply the following information to the reseller/distributor (car manufacturer) dictating what must be included in the end user's manual for the commercial product:

1. Owner Manual USA

FCC ID: NBGFS12PM

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.

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

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

Modes of operation

The following chapters describe the modes of operation that can be carried out by the FS12PM devices.

Remote keyless Entry

The Remote Keyless Entry (RKE) functions enable the user to control the central locking system and other functions of a vehicle from a distance. It is always manually activated by pressing one of the buttons on the device. When activated, the device will transmit a sequence of RF messages. In RKE mode RF communication is processed in simplex mode. For some comfort functions which are activated by holding the buttons pressed continuously, the devices respond with RF transmission triggered by LF (125 KHz) message sent by the vehicle.

Keyless Entry / Keyless Go

Keyless Entry / Keyless Go functions allow the user control of the central locking system and engine start / stop without manual operation of the key. For these functions the devices can be woken up by a 125 KHz low frequency (LF) signal generated by the vehicle. For recognition of LF signals the devices contain a set of 3 orthogonal sensor coils (LF antenna array) and a detection circuit that is integrated in the main μ C. For Keyless Entry / Keyless Go functions RF communication takes place in half duplex mode.

Transponder mode

The transponder mode serves as a backup means for deactivation of the immobilizer system if the keyless go function is not available for any reason. In transponder mode, the device is supplied from the magnetic field generated by the immobilizer system of the vehicle and communicates with the vehicle using damping modulation. The nominal working frequency of the transponder system is 125 KHz. No RF communication is used in transponder mode. Therefore, the device does not generate or emit any RF energy in this mode.

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 interference, and
- (2) This device must accept any interference, 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.