



**Technical Description
and
User's Manual
of the
Passive Entry Keyfob**

Model: HUF2718



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1 General operation of the product

The User Identification Device (UID) is a user transported device that has various features such as the remote keyless entry (RKE) transmitter, passive keyless entry (PKE), passive keyless go (PKG) and Immo that serves for both security and transponder backup. The UID is integrated with a mechanical key blade.

Theory of Operation:

The RKE feature is most common operational mode that allows for remote locking and unlocking the car and other functions as assigned on each of the buttons on the keyfob. The user manually presses the buttons on the fobs to initiate these commands. Once a button press is detected, the UID wakes up from sleep mode and validates the button push after which it passes the encrypted data to the BCM through RFR. The BCM interprets the data and releases command to perform the required function after the UID ID is validated.

2 Operating frequencies of RF transferral

Inter-Component Communication Supported:

UHF to RFR	UID from PEPS LF and Immo LF
<ul style="list-style-type: none">• 434MHz carrier frequency• 3 channels (L, C, H)• PEPS => FSK @ 19.2Kbps• RKE => ASK @ 8.640Kbps	<ul style="list-style-type: none">• 3.9Kbps data rate• 125KHz carrier

The PEPS functionality- which is passive keyless entry (PKE) and passive keyless go (PKG) is activated by the user by either touching the door handle or pushing the Start/Stop button in the car. The BCM commands the PEPS LF drivers to transmit data through the LF Antennas at LF frequencies. A UID in proximity to these antennas receives and decodes the data. The UID then responds with both unencrypted and encrypted data to the BCM through RFR. The BCM interprets the data to invoke the required function after correct UID validation. PEPS uses 125KHz to locate the UID through LF antennas located both inside and outside the vehicle.

The LF Immobilization mode is intended communicate to the UID in a very secure way. The BCM communicates bi-directionally to the UID by way of the PEPS LF drivers and the LF Immo Antenna. The UID receives and transmits data to/from the BCM through the LF data link. Once the BCM validates the UID, it can allow a vehicle start operation. Individual transmission on the 434 MHz will never exceed the 500 ms.



3 Technical data

3.1 Electrical characteristics

Power supply: Battery CR2450
Type of Battery: CR2450 coin cell, 3V
Voltage range: V_{min} : 2.4 VDC / V_{nom} : 3 VDC / V_{max} : 3.3VDC
Temperature range: -20C to +70C

3.2 General RF specification

Operation frequency: 434MHz carrier frequency
Transmission power ERP: Peak radiated power -90dBuV/m
Type of modulation: ASK, FSK
Type of RF antenna: PCB Trace

3.3 Disposal

An old battery must be lodged at a collection point or the service.

4 Declaration of Conformity, product Label

4.1 Radio equipment authorization to FCC in USA

FCC ID: YGOG21TB2

According to 47 CFR 15.19 (labeling requirements) the car manufacturer will print the following text in the appropriate User's Manual of the car:

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.

Usually this is followed by the following FCC caution:
Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

4.2 Radio equipment authorization to RSS-210 in Canada

IC ID: 4008C-G21TB2

According to RSS-210 (labeling requirements) the car manufacturer will print the following text in the appropriate User's Manual of the car:

This device complies with Industry Canada licence-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.

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.

Usually this is followed by the following RSS caution:

Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

4.3 Location of product label

