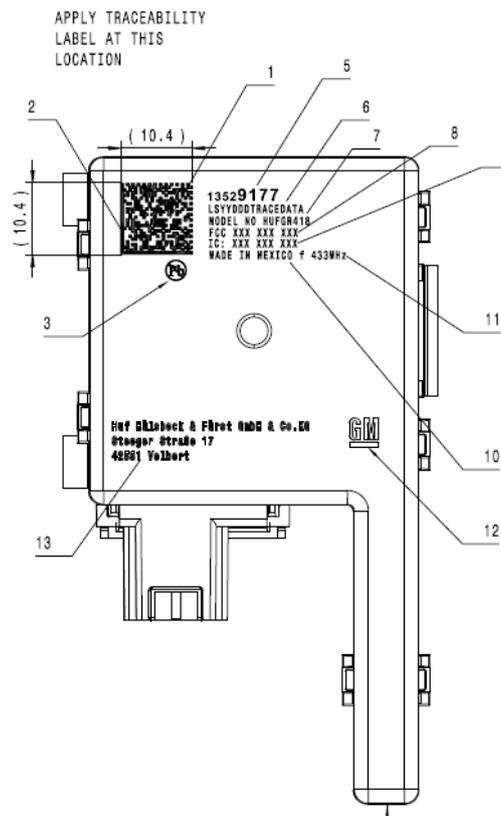




Technical Description and User's Manual of the GM MY20 RF Receiver Model: HUFGM7190





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1 General operation of the product

The RF Receiver is a vehicle-mounted electronic module capable of receiving and transmitting distinct coded messages via radio frequency transmission. The RFA subsystem uses an RF link adhering to government regulations in the country of sale

Theory of Operation:

The RF Receiver (RFR) shall provide the interface between the User Identification Device (UID) Transmitter and the BCM. The RFR shall also provide the interface between the Tire Pressure Monitoring Sensors and the BCM. The RFR shall interface directly with the Global B BCM via a dedicated GMLIN Bus.

The RF Receiver shall provide the following functions:

1. UID Secure RF Link: The RF Receiver shall provide for a secure RF data down link with the customer-carried UIDs. This link shall be uniquely keyed to individual physical UID units. A minimum of eight distinct UID units shall be accommodated.
2. TPM Secure RF Link: The RF Receiver shall provide provisions for a secure RF data link with the Tire Pressure Monitor (TPM) Sensors. A minimum of five distinct tire pressure sensor units shall be accommodated.
3. Vehicle Communications: The RF Receiver shall provide the capability of transmitting information to other components of the vehicle over a LIN communications link to the BCM.
4. Development Modes: The RF Receiver shall provide development modes of operation which are intended to aid in RF range, Tire Pressure Monitoring, security evaluation and bench or warranty parts return diagnostics.
5. RSSI: The RF Receiver shall provide the capability of determining the relative signal strength of received RF content and provide this information via LIN to the BCM.

2 Operating frequencies of RF transferral

Receiver frequency variants shall be supplied to operate at:

Globally: 433.92 MHz
Japan: 314.90 MHz

3 Block diagram

Refer to Block Diagram document

4 Technical data

4.1 Electrical characteristics

Voltage range: V_{min} : 6 VDC / V_{nom} : 14 VDC / V_{max} : 18 VDC
Temperature range: -40C to +85C



4.2 General RF specification

Operation frequency: 434MHz carrier frequency / 315MHz carrier frequency

Type of modulation: ASK, FSK

Type of RF antenna: Folded Stamped Antenna

4.3 Disposal

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

5 Declaration of Conformity, product Label

5.1 Radio equipment authorization to FCC in USA

FCC ID: YGOG20R01

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.

5.2 Radio equipment authorization to RSS-210 in Canada

IC ID: 4008C-G20R01

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.



5.3 Location of product label



1352**9177**
LSYYDDDTTRACEDATA
MODEL NO **HUFGM7190**
FCC ID **YG0G20R01**
IC-ID **4008C-G20R01**
MADE IN MEXICO f 433MHz

Physical Model Sample

