# UNIVERSITY OF MICHIGAN COLLEGE OF ENGINEERING THE RADIATION LABORATORY DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE



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Re: Certification for Motorola LHJ011 Transmitter

Model: LHJ011 FCC ID: LHJ011

CANADA: to be provided by IC

#### USER'S MANUAL INFORMATION

#### (PRELIMINARY)

The User's Manual is in preparation. The following material will be contained in the manual:

FCC ID: LHJ011 CANADA: to be provided by IC

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. 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.

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

## Keyless Entry System (If Equipped)

If your vehicle has this feature, you can lock and unlock your doors from about 3 feet (1 m) up to 30 feet (9 m) away using the remote keyless entry transmitter supplied with your vehicle.

Your keyless entry system operates on a radio frequency subject to Federal Communications Commission (FCC) Rules and with Industry Canada.

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.

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Changes or modifications to this system by other than an authorized service facility could void authorization to use this equipment.

At times you may notice a decrease in range. This is normal for any remote keyless entry system. If the transmitter does not work or if you have to stand closer to your vehicle for the transmitter to work, try this:

- Check the distance. You may be too far from your vehicle. You may need to stand closer during rainy or snowy weather.
- Check the location. Other vehicles or objects may be blocking the signal. Take a few steps to the left or right, hold the transmitter higher, and try again.
- Check to determine if battery replacement is necessary. See the instructions that follow.
- If you're still having trouble, see your dealer or a qualified technician for service.

#### Operation

UNLOCK: Pressing this button once will unlock the driver's door. The parking lamps will flash and the interior lights will come on. The ground illumination lamps will come on. Pressing UNLOCK again within three seconds will cause the remaining doors to unlock. The parking lamps will flash and the interior lights will come on.

LOCK: Pressing this button once will lock all of the doors. Wait one second, then press LOCK again and the horn will chirp.

Operating the keyless entry transmitter may interact with the theft-deterrent system. See "Content-Theft Deterrent" in the Index.

#### Remote Panic Alarm

When the panic button with the horn symbol on the keyless entry transmitter is pressed, the horn will sound and the headlamps and taillamps will flash for up to 30 seconds. This can be turned off by pressing the panic button again, waiting for 30 seconds, or starting the vehicle.

#### Matching Transmitter(s) to Your Vehicle

Each remote keyless entry transmitter is coded to prevent another transmitter from unlocking your vehicle. If a transmitter is lost or stolen, a replacement can be purchased through your dealer. Remember to bring any remaining transmitters with you when you go to your dealer. When the dealer matches the replacement transmitter to your vehicle, any remaining transmitters must also be matched. Once your dealer has coded the new transmitter, the lost transmitter will not unlock your vehicle. Each vehicle can have a maximum of four transmitters matched to it.

### **Battery Replacement**

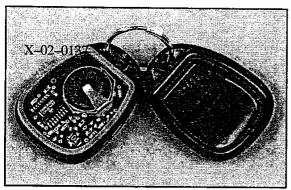
Under normal use, the battery in your remote keyless entry transmitter should last about two years.

You can tell the battery is weak if the transmitter won't work at the normal range in any location. If you have to get close to your vehicle before the transmitter works, it's probably time to change the battery.



When replacing the battery, use care not to touch any of the circuitry. Static from your body transferred to these surfaces may damage the transmitter.

To replace the battery in the keyless entry transmitter do the following:



1. Insert a dime, or similar object, in the slot between the covers of the transmitter housing near the key ring hole. Remove the bottom by twisting the dime.

- 2. Remove and replace the battery with a three-volt CR2032 or equivalent battery, positive (+) side up.
- 3. Align the covers and snap them together.
- 4. Resynchronize the transmitter.
- 5. Check the operation of the transmitter.

#### Resynchronization

Resynchronization may be necessary due to the security method used by this system. The transmitter does not send the same signal twice to the receiver. The receiver will not respond to a signal that has been sent previously. This prevents anyone from recording and playing back the signal from the transmitter.

To resynchronize your transmitter, stand close to your vehicle and press and hold the LOCK and UNLOCK buttons on the transmitter at the same time for seven seconds. The door locks should cycle to confirm synchronization. If the locks do not cycle, see your dealer for service.