User Manual

of the

Continental

Radio Frequency Bidirectional Key Fob

Type

Acura Bidir Fob MY13.5
A2C37924100

GENERAL DESCRIPTION OF THE RF TRANSMITTER

The Acura Bidir Fob is a bidirectional RF key designed to provide remote engine start with feedback, remote keyless entry, passive entry, passive engine start, and immobilization functionality.

The Acura Bidir Fob has a housing, which may have variants in the pictogram "Trunk", alternatively "Power-Tail-Gate"(PTG):

Feedback on Bidir Fob

There exist 3 LEDs for all feedback, at the top of the fob, out of the way of the hand that is holding it.

LEFT LED   Color : AMBER
Function: To show RF communication, or that 2-way communication is taking place.

Example: LEFT/AMBER LED flashes 1x in response to a button being pressed when the RF command is sent, and/or it can flash while communicating with the vehicle, or waiting for response (example: while engine is cranking) . Also this LED will blink in response to SMART entry authentication.
For other cases, generally the Amber LED should operate in a manner that is respective of the "Base SMART key".

CENTER LED   Color: GREEN.
Function: Used to show positive feedback for a given command.
Example: CENTER/GREEN LED is on for 1 second, to provide status feedback for a given operation. It means: Doors were locked, or engine was started, or engine is ON.

RIGHT LED   Color: RED.
Function: Used to show negative feedback for a given command.
There are 2 modes.
1.   Out of range. In this case the red LED blinks distinctly 3 times,
     Example: 3 times in 1 second. It means the fob could not get acknowledgement from the car for 2-way communication, or the vehicle battery is dead and cannot respond.
2.   Cannot Lock or Engine not running. In this case the red LED is on for 1 second.

POWER MANAGEMENT

The Power Supply comprises a coin cell battery CR2032, filter capacitors, diodes, and FETs, that provides power to the microcontroller, the power-management with charger and the RF circuit. A rechargeable battery (accu) of the type LiFePO$_4$ is included to supply higher currents in case of long range transmission.

The accu type LiFePO$_4$ is of the class Li-Ion cell, but with a safe chemistry. There exists a certificate, that it is not dangerous / harmfull in the sense of UN3480 and "Transportation without Class 9 is allowed".

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.

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.
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NOTE:
Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

6. TESTMODE FUNCTION

The testmode function is only available by EEPROM settings, which could provided only in specially programmed samples for measuring purpose.

Button functions		red LED	green LED	amber LED
	Button description			
ENG.START	no function			
LOCK	TX CW Modes	X	X	
UNLOCK	TX Modulated Modes	X		X
TRUNK	RX Modes	X	X	X
PANIC	another inner function	X	X	X

By pressing the specified button, the previously defined channels are revolving.

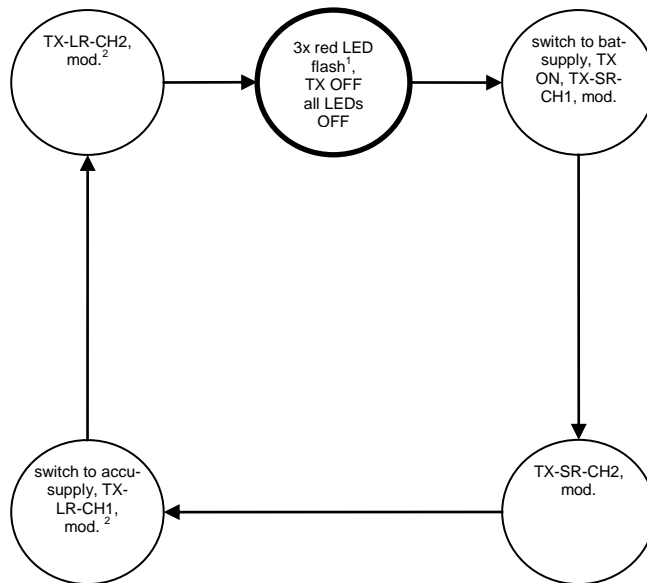The Lock button revolves the 8 Channels CW-mode till TX-off
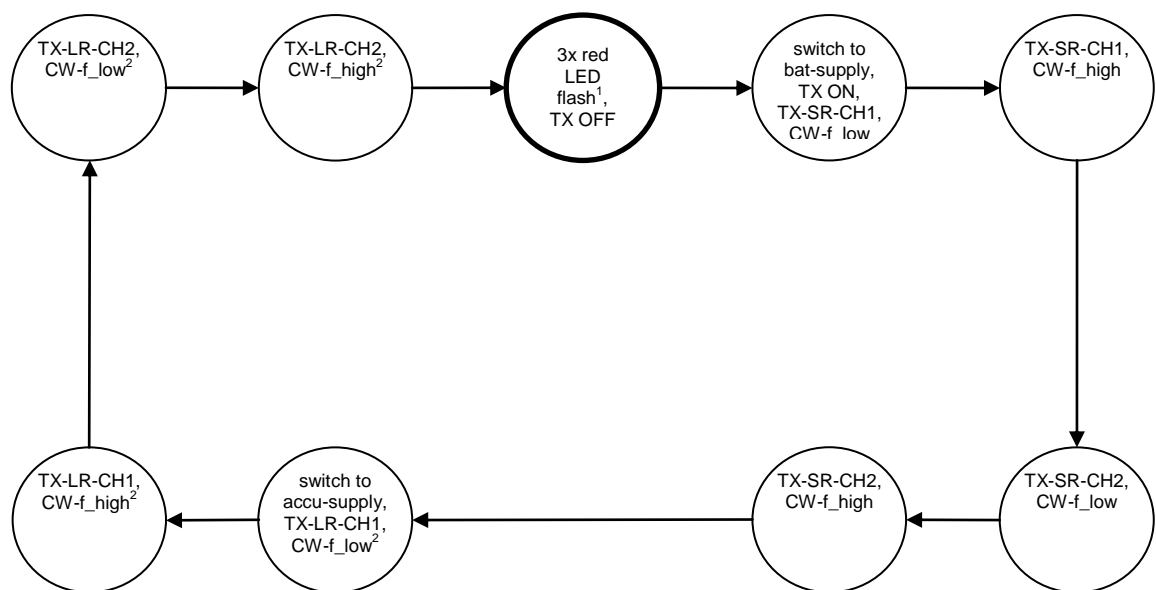
Notes:
[1]: 3x red flash: 200ms on, 200ms off, 200ms on, 200ms off, 200ms on, off
[2]: ATIC134 Lite option only

The Unock button revolves the 4 modulated channels till TX-off

```
  TX-LR-CH2,          3x red LED            switch to bat-
  mod.²               flash¹,               supply, TX
                      TX OFF                ON, TX-SR-
                      all LEDs              CH1, mod.
                      OFF

  switch to accu-                           TX-SR-CH2,
  supply, TX-                               mod.
  LR-CH1,
  mod. ²
```
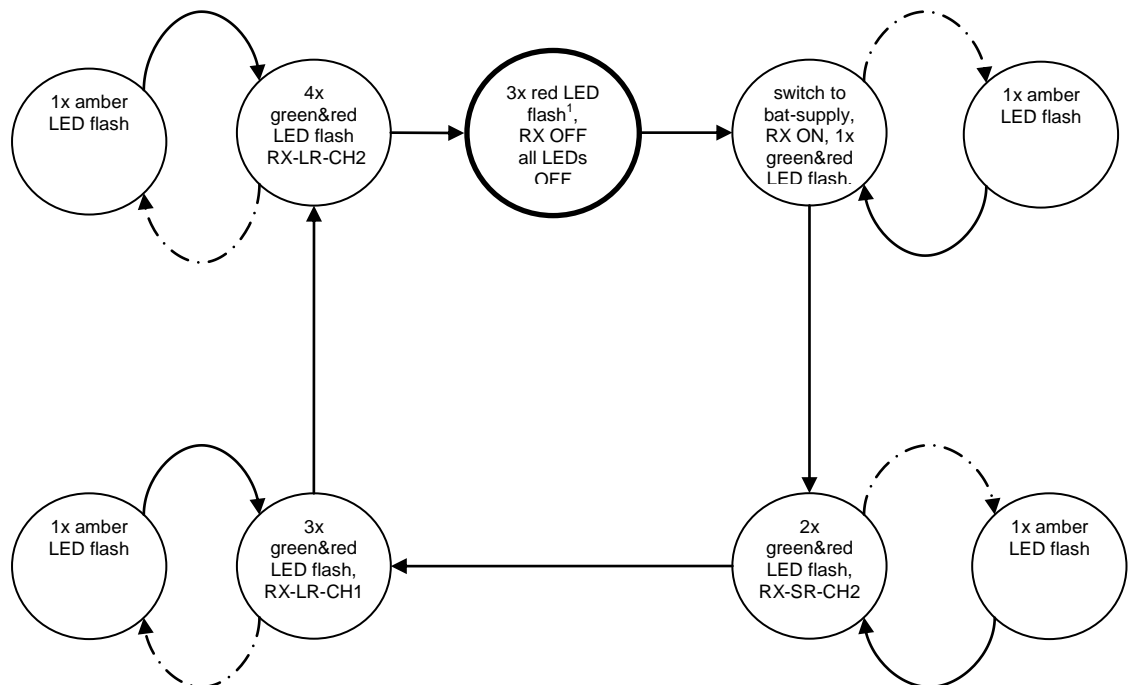
Notes:
¹: 3x red flash: 200ms on, 200ms off, 200ms on, 200ms off, 200ms on, off
²: ATIC134 Lite, test signal data content: zeros

## The Trunk button revolves the 2 Receive-Channels till RX-off

```
  1x amber        4x              3x red LED         switch to          1x amber
  LED flash       green&red       flash¹,            bat-supply,        LED flash
                  LED flash       RX OFF             RX ON, 1x
                  RX-LR-CH2       all LEDs           green&red
                                  OFF                LED flash.

  1x amber        3x                                 2x                 1x amber
  LED flash       green&red                          green&red          LED flash
                  LED flash,                         LED flash,
                  RX-LR-CH1                          RX-SR-CH2
```

Notes:
¹: 3x red flash: 200ms on, 200ms off, 200ms on, 200ms off, 200ms on, off
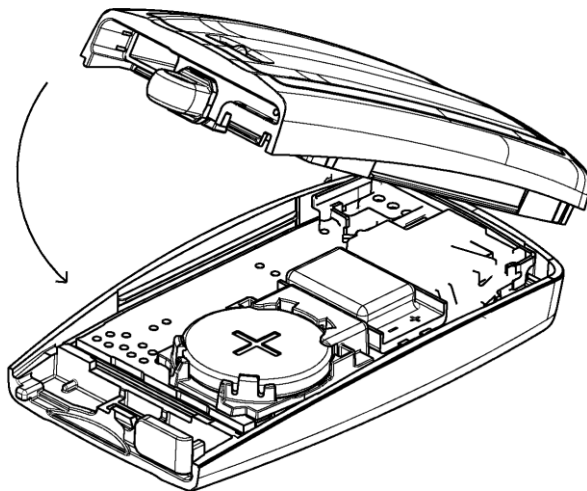
7. LABEL DESIGN
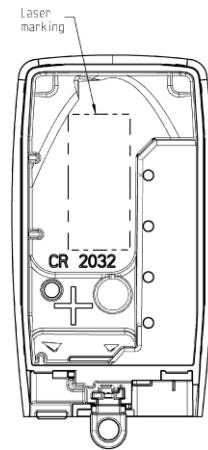
CANADA
IC:7812D-37924100

USA
FCC ID:KR537924100

The print is visible after opening the
Fob like for battery change.

How to open the Bidir Fob for Battery Change

Take a coin (best fit: 2€, or a Quarter Dollar), press it into the groove and turn
it against the metallic eyelet counterclockwise.

For closing follow the instruction:

```
1. Upper housing and lower housing should be snapped.
2. Final Mounting: At first snap in at front side, then snap at key backside.
NO MOUNTING WITH PRESSURE BETWEEN 2 PARALLEL SURFACES ALLOWED
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