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1. Scope of this document:

This User Guide describes HMC Holding's Bluetooth Low Energy KeyFob, also known here within alternately as "device" Series model number **FWR301**.

Caution! Any changes or modifications to this KeyFob/device not approved by HMC Holdings LLC could void the authority to operate this KeyFob/device.

2. Basic operation of the KeyFob:

The KeyFob /device is a compact battery-operated miniature handheld device that generates data packets to Bluetooth Low energy devices. The KeyFob/device remains in a complete sleep mode until one of four soft buttons are pressed (off to on condition). Releasing and pressing any button will initiate transmission and the timer function as mentioned previously.

This KeyFob/device is designed to work / connect exclusively with other Firstwatch devices such as Electronics Safe, Door Lock, Gateway using Bluetooth Low Energy protocol. The data packets that are transmitted over the 37 hopping channels is/are exclusive to other paired FirstWatch devices. See website www.homakmfg.com for other listed devices and /or modules.

Pairing details are detailed in the FirstWatch phone application.

3. Electric specifications:

Power to the KeyFob/device is provided by a commercially available single cell “coin” type of Lithium Ion battery. 3.0 Volts nominal. The battery is non rechargeable type. It is serviced by prying the front and back halves of the KeyFob/device case apart. Push the battery out and insert new. (observe polarity).









CAUTION: contains ESD sensitive circuit board. Precautions should be used when handling the internal circuit board in order to prevent permanent damage.

Battery Specification :

Part: IEC Name ANSI Name	CR2032 Battery 5004LC
Typical Capacity	225 mAh
Nominal voltage	3.0 volts
Usable temp. range	-20 ... 70 degrees C

4. LED Indications:

LED indicators are provided to indicate various connection and power conditions of the KeyFob.

BLE Keyfob LED Indications		
SR#	LED Indication	Events
1	 RED LED Steady	Key is not configured for any device
2	 BLUE LED Blinking	Keyfob Advertisement is On / Scanning is On
3	 BLUE LED Steady	Keyfob is connected to Phone or Device on BLE
4	 GREEN LED Steady	Operation is performed successfully
5	 RED LED Steady	Operation is Failed
6	 RED LED Blinking for 2 Seconds	Operation is Failed due to communication timeout
7	 PINK (RED + BLUE) LED Blinking for 2 Seconds	Operation is Failed due to BLE DB Discovery Error
8	 CYAN (GREEN + BLUE) LED Blinking	Keyfob is in DFU Advertising Mode

5. RF specifications:

The RADIO contains a 2.4 GHz radio receiver and a 2.4 GHz radio transmitter that is compatible with RF chip manufacturer's proprietary 1 Mbps and 2 Mbps and 250kHz radio modes in addition to 1 Mbps Bluetooth® low energy mode.

Specification :

Parameters	Values
Operating Frequency (MHz)	2402-2480 Hz
TX current @ +4dBm	16.6mA
RX current @ 2Msps	12.9mA
Maximum Tx Power	4 dBm
Maximum Rx Signal Strength	0 dBm
RSSI Range	-90 to -20 dBm

6. Mechanical Layout:

Specification :

No.	Item	Dimension	Tolerance
1.	Length	49.33 mm	+/- 0.80
2.	Width	28.55 mm	+/- 0.80
3.	Height	14.00 mm	+/- 0.80
4.	Weight	0.05 lbs.	+/- 0.02 lbs



Figure 1 Top side of BLEFOB



Figure 2 Bottom side of BLEFOB

Do not remove the “Product Information” label shown on back of BLEFOB. It contains important information regarding FCC

7. FCC Compliance Statements

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FCC STATEMENT

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
This device may not cause harmful interference, and
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.

NOTE: This equipment has been tested and found to comply with the limits for a
Class B digital, 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 the
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.

8. Industrial Canada Compliance Statements

Industry Canada Notice

This device complies with Industry Canada licence-exempt RSS standard(s).

1. 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."

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

Avis d'Industrie Canada

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. Cet appareil numérique ne dépasse pas les Règlements sur l'interférence radio par un appareil numérique de classe B stipulés dans les Règlement sur l'interférence radio d'industrie Canada.

9. User Manual status

- This data sheet contains the final specification (RELEASE).
- HMC Holdings reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
- Supplementary data is available upon request.
- Information supplied here is the most recent at the time of publication.
- Consult the most recently issued data sheet before initiating or completing a design.
- Contact HMC Holdings customer service to secure the latest version of this data sheet: www.homakmfg.com
- HMC Holdings assumes no responsibility for improper use of this product. Do not attempt to “overclock” or apply voltages other than what is detailed in this users’ guide.
- All rights reserved. Design of these products shown here have U.S and foreign patents pending.

Revision History:

Revision	Date	Author	Modification/Remarks
01.01.01	08/26/2019	Jatin Bhatt	First Release