

FMS-HF1

User' Manual

2018. 02. 07

| Prepared(작성) | Reviewed(검토) | Approved(승인) |
|--------------|--------------|--------------|
| Bae wonsik | | |

Revision History

| Rev. | date | history | the person in charge |
|------|------------|-----------------|----------------------|
| 1.0 | 2017.11.21 | First Release | Bae wonsik |
| 2.0 | 2018.02.07 | Change the list | Bae wonsik |
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– Contents –

Revision History

1. Synopsis

2. Product Size

3. Specification

4. Postal address

Appendix. Operating method

1. Synopsis

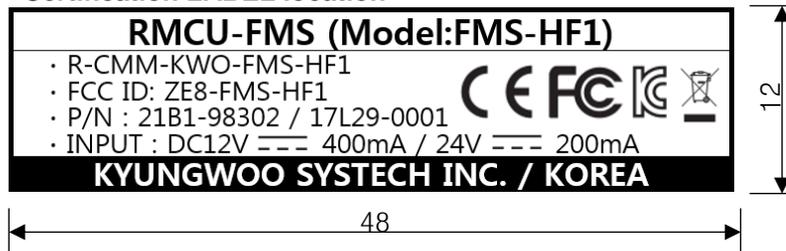
- It is installed inside the forklift and it manages the information such as vehicle information, driving record, vehicle condition, workload, driver information from the central server, and on the contrary, Supports mobile communication network (WCDMA, GSM) and WIFI network for group unit management system

- Additional functions include GPS for preventing theft of equipment, RF reader for reading driver information, and electrostatic touch-type LCD for password input

2. Product Size

| | | |
|--------|------------|--------------------------|
| Weight | | 450g |
| Size | Horizontal | 130.7mm |
| | Vertical | 132.3mm (Except antenna) |
| | Thickness | 53.5mm |

3) Certification LABEL location



3. Specification

3.1. General Specification

- 1) Rated Voltage: 12/24Vdc
- 2) Operating Voltage: 9 ~ 32Vdc
- 3) Operating Temperature: -20°C ~ +65°C
- 4) Storage Temperature: -40°C ~ +85°C
- 5) Power Consumption: Max. 5W

3.2. 3G Modem(UBLOX / LISA-U200): This device is not supported the voice function.

- 1) WCDMA
 - RMC mode only
 - Band 2 & Band 5
- 2) GSM
 - GPRS mode only
 - GPRS 850 & 1900

3.3. WIFI

- 1) TYPE: IEEE 802.11 b/g/n
- 2) Frequency range: 2 412 MHz ~ 2 472 MHz
- 3) MODULE: WIS3000XXSR

3.4. GPS

- 1) TYPE: SMART MODULE
- 2) GPS receiver With Patch Antenna

3.5. RFID

- 1) 13.56 MHz [Mifare], ISO 14443 Type A
- 2) Antenna type: Loop antenna type

3.6. Material of Device: ABS+PC

| Substance | Flame Class | Manufacturer | UL File no. |
|--------------------|-------------|--------------|-------------|
| LUPOY GN-5001RF(T) | V-0 | LG CHEMICAL | E67171 |

3.7. PCB Material

| PCB Division | Manufacturer/ Trademark | Layer /Thickness | Flame Class | Standard | Mark | UL File no. |
|--------------|-------------------------|------------------|-------------|----------|---|-------------|
| MAIN B/D | JM ELECTRONICS CO LTD | 6layer / 1.6T | V-0 | UL 796 |  | E117655 |
| POWER B/D | | 2layer / 1.6T | | | | |
| RFID B/D | | 2layer / 0.4T | | | | |

3.8. Product label Explanation of graphic symbols used

| Symbol | Description |
|---|--|
|  | Communaute Europeenne Marking |
|  | Federal Communication Commision Marking |
|  | Electrical waste and electronics equipment |
|  | Direct current |

4. Postal address

Kyungwoo Systech, Inc. Office: +82-2-985-8085
 #401, Daeryung Post Tower 5, 68, Digital-ro 9, Geumcheon-gu, Seoul, South Korea
 E-mail: Webmaster@kyungwoo.com

FCC Compliance Statement

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

To comply with RF exposure compliance requirements, the antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device comply with part15 of FCC rules.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device & its accessories must accept any interference received, including interference that may cause undesired operation.

WARNING: *This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.*

This equipment should be installed and operated with minimum 30 cm between the radiator and your body.