

Chapter 1 Cautions

Before using the product, please read the instruction manual carefully and fully understand correct procedures to operate the system safely.

Please do not use the product in a manner that is not described in the instruction manual.

1-1. Safety Related Information

Throughout this manual, important operational information is indicated as follows:
Please understand the full meaning and the context of the messages, and keep them in mind while performing any related operation.



DANGER There is an urgent risk for serious bodily injury or a death if the system is handled without taking proper safety precaution.



WARNING It may cause serious bodily injury or a death if the system is handled without taking proper safety precaution.



CAUTION It may cause bodily injury, system damage, or property damage if the system is handled without taking proper safety precaution.



MEMO Important information in order to use the system safely, although there is no direct danger.

1-2. Important Safety Instructions

- This product is the communications product which used the 13.56MHz electric wave which is the ISM band which can be used general. Therefore, interference may occur depending on the use and place to be used. In order to lessen the likelihood of influence by interference, check mutually before the introduction. Moreover, there is also a possibility of affecting electric wave astronomy, medical apparatus, etc., and be careful about especially use in such situation.

 **WARNING** **Don't touch a board (antenna) directly during operation of this product. There is danger of an electric shock.**

 **CAUTION** **Because this product is using the electric wave, it has a possibility of affecting a human body. Please do not approach more than for 1 minute continuously less than 30cm from an antenna.**

1-3. Cautions for Pacemaker User

- This product is Reader / Writer using an electric wave of RFID apparatus. Therefore, implanted medical equipment may be affected depending on the use and place to be used. In order to lessen the likelihood of influence, when using this product , the following should always be followed.

 **WARNING** **The person who had implanted medical equipment is not bringing to the antenna part of RFID apparatus close to less than 22cm from the part of implanted medical equipment.**

1-4. Cautions in Handling

- Don't force and deform to this product.
- Don't give too much shock, such as making it fall etc.
- Please do not put to the place where a temperature change is large, the place with many particulates, and the place which a strong magnetic field generates for a long time.
- Avoid ingress of water,oil etc.
- Avoid the medicine of a solvent and others.
- Avoid static electricity.

1-5. Instructions for Proper Use

- Making a modification to these is forbidden by the Radio Law. Moreover, we can not repair the product which made modifications.
- To use antennas and cables other than for this product is forbidden.
- Detach the distance as much as possible between an antenna and the metals and attach.
- When using two or more this products for a short range, in order to avoid interference of an electric wave, it recommends that the diameter (diameter of the maximum) of an antenna detaches the distance between the antennas used simultaneously 4 or more times.

Chapter 2 Overview

2-1. Product Overview

RFID unit "RF008-1" is RF tag Reader/ Writer unit designed for FA equipment. ISO15693-compliant RF tags, such as "Tag-it HF-I" from Texas Instruments, "I-CODE SLI" from NXP Semiconductors and "MB89R118" from Fujitsu Semiconductor Limited, are supported. RF tag can be read and write by command control from the external equipment which used the RS-232C interface. Transmitting power is approx. 10 mW.

2-2. Features of Product

- External apparatus can control this product by the RS-232C interface.
- Reading / Writing access is possible to "Tag-it HF-I", "I-CODE SLI" and "MB89R118" of conformity with ISO15693.

3-4. Compatible Standard

This product receives and sends radio wave in between the equipments. In the countries in below mentioned, user does not have to apply the procedure the usage of it in the Radio Law. Because in these countries the procedure is complete or it is not necessary.

In the countries other than these, user must obey the Radio Law. Please inquire to us the details.



CAUTION If user has used this product with any modifications or without permission on the Radio Law, the punishment is received on the Law.

3-4-8. USA

Information about FCC certification:

FCC ID: PU8RF008-1
Equipment Class: Part 15 Low Power Communication Device Transmitter

FCC CAUTION

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

FCC NOTICE

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.

Chapter 5 Warranty

5-1. Warranty Period

Yamaha Fine Technologies Co., Ltd. (Yamaha) shall repair defects, free of charge, which occur under normal use for the period of 12 months after delivery.

This warranty period will be voided when a section of the product whose dismantling is prohibited in the instruction manual is disassembled without Yamaha's approval.

5-2. Warranty Range

Although Yamaha fully assures the reliability of the product, Yamaha's warranty obligation will be limited to repair of the product. Yamaha shall not be responsible for damages or defects on other machines, their products and the like caused by the product.

5-3. Limitation of Responsibility

In the following cases, these defects shall be out of warranty range and Yamaha shall not be responsible for them.

1. Defects or damage caused by user's improper operation or misuse.
2. Defects or damage caused by natural disasters including, but not limited to, earthquakes, floods and lightening strikes.
3. Defects or damage caused by accidents unrelated to the product.
4. Defects or damage caused by maintenance performed by persons other than Yamaha engineers. This does not include maintenance performed according to the instruction manual and Yamaha engineers' instructions.
5. Defects or damage caused by disassembling a section of the product which is prohibited to dismantle in the instruction manual.
6. Defects or damage caused by user's remodeling or modification.
7. Defects or damage caused by lack of regular inspection or improper maintenance.
8. Defects or damage caused by usage other than the one specified in the instruction manual.