

January 21, 2021
B.Ref.: BQN-S32870-71-211908 *

Dear Customers:

Inverter FR-D700, FR-F700 PJ Series Storage Element IC (EEPROM) Product Quality Issue – STOP SALE NOTICE - Immediate Attention Needed

Thank you for your continuous support for our products.

We have determined that a series of general-purpose inverters manufactured by our company between June 1, 2020 and December 28, 2020 have a potential quality issue in non-volatile memory IC (hereinafter referred to as EEPROM) that stores various parameter setting values, etc. Also, it was found that the parameter set value may change due to aging, caused by this EEPROM issue, and the inverter may not operate at the customer's originally set value.

We are writing to inform you of the current status of this issue and we kindly ask that you immediately remove these products from your inventory for sale or usage and contact us as soon as possible to arrange for replacements.

We are deeply sorry for any inconvenience this may cause.

1.Target INV Model & Manufacturing periods

[Table 1.Target Product & Manufacturing period]

Target Product	Manufacturing period (Production in Japan)	Manufacturing period (Production in China MDI)
FR-D700 Series (total capacity)	Manufactured between Jun. 1, 2020 to Dec. 28, 2020	Manufactured between Sep. 1, 2020 to Dec. 28, 2020 (*)
FR-D700 - G Series (total capacity) FR-D700 EX Series (total capacity) FR-F700 PJ Series (total capacity) FR-FS2 Series (total capacity)	Manufactured between Jun. 1, 2020 to Dec. 28, 2020	Not applicable for non- production models

*Some MDI products manufactured in Sep. 1, 2020 to Dec. 28, 2020 are excluded, as mentioned later.

2.Summary of Issue

The EEPROM used in inverters manufactured between Jun. 1, 2020 and December 28, 2020 have a deficiency in the process of forming an oxide film that suppresses discharge of electric charge, which has the effect of decreasing the ability of the EEPROM to retain electric charge.

3.Description of Product Quality Issue

In order to retain data in EEPROM, it is necessary to maintain the internal charge within the EEPROM. As part of our normal quality testing, we determined that the process used by one of our suppliers in forming the oxide film necessary to maintain a charge within the EEPROM is flawed and may cause loss or changes in the data stored in the EEPROM. Because the EEPROM stores various parameters that control the inverter, the inverter may not operate as set by the customer or factory. Attention that since the data operates with the state where the charge is maintained as 0 and the state where the charge is discharged as 1, various unspecified parameter values increase.

Example 1: When Pr.7 (parameter that determines acceleration time) is set to 5 seconds, 0101 is recorded in EEPROM in binary number. However, if this data changes to 1101 (4th bit changes from 0 to 1), the acceleration time will change to 13 seconds. The FR-D700 will then operate with this incorrect parameter setting.

Example 2: Each parameter has a defined value range. If the EEPROM data changes to an invalid value that is outside this defined range, such as when the upper limit is exceeded, the FR-D700 will then operate using the factory default value. Therefore, the FR-D700 may not operate as expected.

4. Potential Safety Issue

At this time, it is unknown whether there is a safety issue potentially raised by this quality issue. Each customer should review their utilization of the affected products and determine whether the loss of data by the EEPROM, which would result in the inverter returning to its non-programmable setting that could cause a potential safety issue for the product that is being used with the affected inverter. If such a safety issue is determined, please contact us immediately at the information provided below.

5. Remedial Measures

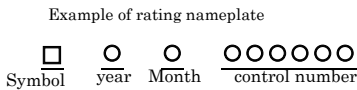
All customers must immediately stop selling or using the affected products as identified further below. Mitsubishi Electric will replace all units returned to the company as soon as possible. This issue has been corrected for all products manufactured since January 4, 2021 with products acquired from a different supplier that do not have this issue. *Please contact your local supplier or Mitsubishi Electric sales representative to arrange for replacement of nonconforming products that you may currently have in inventory.*

With regard to affected products that may already be installed or utilized in the field or in other products, we will provide a further update as soon as possible on a process for replacing those products at no cost to you or your customers pursuant to our product warranties.

6. How to Identify Affected Products

Affected Products can be identified by the serial number printed on the rated name plate of the main unit or the packing name plate of the packing box.

[Reading SERIAL (serial number)]



SERIAL consists of one character, two characters for the year and month of manufacture, and six characters for the control number. The year of manufacture is represented by the last 1 digit of the solar calendar year, and the month of manufacture is represented by 1 to 9 (month), X (October), Y (November), Z (December).

[Target Serial Number]

- 06 ○○○○○○: Made in Jun. 2020 to
- 0Z ○○○○○○: Made in Dec. 2020

- *1: The product with the identification shown in the photograph below are NOT applicable to defects because they have countermeasured EEPROM.
- *2: There is no additional identification for products manufactured after Jan 2021.

Some MDI products manufactured in Sep. 2020 and Dec. 2020 are not affected because they do not have EEPROM of the affected lot. The identification method in this case can be identified by the control number listed after the 4th digit of the serial number (Alphabetical order of the month of manufacture). The symbols vary depending on the model and capacity, so please contact us for the details.

【How to identify products which are NOT applicable to defects】

A spot for identification will be added to the main body name plate and packing name plate. (Please refer to Photo 1 to 3 for the Nagoya Works products. Photo 4 to 6 for the MDI products.)



Photo (1) Japan INV
Body Rated Label 3.7 kW or Less
(laser impression machine)



Photo (2) Japan INV
Body Rated Label 5.5 kW or More
(nameplate label model)

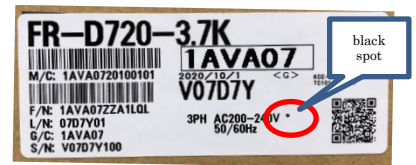


Photo (3) Japan INV
Packing Label



Photo (4) MDI INV
Body Rated Label 3.7 kW or Less
(laser impression machine)



Photo (5) MDI INV
Body Rated Label 5.5 kW or More
(nameplate label model)



Photo (6) MDI INV
Packing label

At last, We are deeply sorry for any inconvenience this has caused. In order to improve product quality, we will fully cooperate with parts manufacturers to prevent recurrence. Your understanding and cooperation is highly appreciated.

Contact Information:

Mitsubishi Electric Automation, Inc.
500 Corporate Woods Parkway
Vernon Hills, Illinois 60061
Main & Support: 847-478-2100

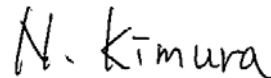
Official use only:

Destination:

Branch office () /

System service (-)

Yours very truly,



Nobuyoshi Kimura

Senior Manager

Quality Assurance Section

Inverter System Department

TY / Hayashizaki

Enclosure