

## **BS Controller for AC SERVO PRESS Instruction Manual Volume Absolute Encoder System**

### **Introduction**

Thank you very much for purchasing our Servo press.

This manual describes the hardware scheme, installation procedures, connections, running, operations, communication, status display and daily inspections.

Make sure to thoroughly understand the contents and use the product properly.

### **Request**

We have taken all possible measures to ensure the contents of this instruction manual, however, please contact us if you have any questions or find any errors.

The product names, etc. are generally registered trademarks of various companies.

\* To secure safety and quality, never fail to refer to this manual.

Table of contents

<b>1. SETUP .....</b>	<b>3</b>
1.1. TOOL TYPE NAME.....	3
1.2. SETUP OF MR-J3A .....	3
<b>2. STARTUP.....</b>	<b>4</b>
2.1. WEARING OF BACKUP BATTERY .....	4
2.2. RESTRICTIONS OF POWER SUPPLY INJECTION PROCEDURE.....	4
2.3. ABSOLUTE POSITION DISAPPEARANCE.....	4
<b>3. MAINTENANCE .....</b>	<b>4</b>
3.1. BATTERY LIFE .....	4
3.2. BATTERY VOLTAGE DESCENT WARNING .....	4
3.3. MODEL NAME OF BATTERY.....	4
3.4. EXCHANGE OF BATTERY .....	4

## **1. Setup**

### **1.1. Tool Type Name**

It is the tool of absolute encoder system which has "A" in a tool type name.

An example: BS100-200BA

Please open the tool proofreading screen from the tool setup screen of BS Configurator, and check the tool type name. When tool type is not absolute specification, even if MR-J3A is set as absolute specification, a system does not function as absolute specification.

### **1.2. Setup of MR-J3A**

About the tool shipped as absolute specification, MR-J3A is also set as absolute specification. Therefore, a customer does not need to set up MR-J3A.

## **2. Startup**

Please refer to BS CTRL for SP Instruction Manual about connection or a setup. Here, only the operation method and a problem peculiar to absolute specification are explained.

### **2.1. Wearing of Backup Battery**

Please equip CN4 of MR-J3A with the backup battery of exclusive use.

### **2.2. Restrictions of Power Supply Injection Procedure**

If you switch on the control power supply of MR-J3A, please be sure to switch on the power supply of BS-M3A-1A. When AL.25 absolute position disappearance occurs in MR-J3A, unless the power supply of BS-M3A-1A is on, BS-M3A-1A cannot acquire the alarm information. If BS system is normally started after performing such operation, there is a risk of causing a serious trouble. It is because position information is inaccurate.

In order to avoid such a trouble, please be sure to observe restrictions of the above-mentioned power supply injection procedure.

### **2.3. Absolute Position Disappearance**

In the following cases, alarm 34 absolute position disappearance occurs.

1. The encoder cable is detached.
2. The battery of MR-J3A is empty.

This alarm is not resettable unless a power supply is re-switched on. Moreover, origin operation is needed after a power supply re-injection.

If a program is started, alarm 18 the abnormalities in origin will occur, without performing origin operation after a power supply re-injection.

An alarm code can be read by PLC, when equipped with AnyBus of an option. Please refer to BS CTRL for SP Instruction Manual Volume AnyBus for details.

## **3. Maintenance**

### **3.1. Battery life**

The life (backup time) of the backup battery of MR-J3A is about 10000 hours.

### **3.2. Battery Voltage Descent Warning**

In this system, voltage descent warning of a backup battery is undetectable. Please exchange batteries periodically.

### **3.3. Model Name of Battery**

MR-J3BAT

### **3.4. Exchange of Battery**

Please do not turn off the control power supply of MR-J3A at the time of exchange of a battery. Moreover, please turn off a power supply. Position data will be

disappeared, if a control power supply is turned OFF and battery is exchanged.  
In addition, please refer to the manual of Mitsubishi Electric MR-J3A about battery exchange.