

# MOTOMAN-SIA20D/SIA20F SUPPLEMENTAL INSTRUCTIONS

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## TYPE

YR-SIA020D-A02 (ONE EXTERNAL AXIS SPEC. FOR DX100)

YR-SIA020D-A03 (ONE EXTERNAL AXIS DRIP-PROOF SPEC.  
FOR DX100)

YR-SIA020F-A02 (ONE EXTERNAL AXIS SPEC. FOR FS100)

YR-SIA020F-A03 (ONE EXTERNAL AXIS DRIP-PROOF SPEC.  
FOR FS100)

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Upon receipt of the product and prior to initial operation, read these instructions thoroughly, and retain for future reference.

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## MOTOMAN INSTRUCTIONS

### MOTOMAN-SIA20D / SIA20F INSTRUCTIONS

#### DX100 INSTRUCTIONS

DX100 OPERATOR'S MANUAL

DX100 MAINTENANCE MANUAL

#### FS100 INSTRUCTIONS

FS100 OPERATOR'S MANUAL

FS100 MAINTENANCE MANUAL

The DX100 operator's manual above corresponds to specific usage.  
Be sure to use the appropriate manual.

Part Number: 173675-1CD

Revision: 0

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## Introduction

Each of following supplementary instruction manuals are different from YR-SIA20D / SIA020F-A0\* with standard specifications (hereinafter referred to as YR-SIA20D / SIA20F-A0\*).

- YR-SIA020D-A02 ONE EXTERNAL AXIS SPEC. for DX100 (hereinafter referred to as SIA20D-A02)
- YR-SIA020D-A03 ONE EXTERNAL AXIS DRIP-PROOF SPEC. for DX100 (hereinafter referred to as SIA20D-A03)
- YR-SIA020F-A02 ONE EXTERNAL AXIS SPEC. for FS100 (hereinafter referred to as SIA20F-A02)
- YR-SIA020F-A03 ONE EXTERNAL AXIS DRIP-PROOF SPEC. for FS100 (hereinafter referred to as SIA20F-A03)

In case of using SIA20D-A02, A03 / SIA20F-A02, A03, read this supplementary instruction manual thoroughly together with the following instruction manual:

- "MOTOMAN-SIA20D / SIA20F INSTRUCTIONS" (156387-1CD).

## Point of Difference

SIA20D-A02, A03 / SIA20F-A02, A03 differ from SIA20D / SIA20F-A0\* in the following point:

- Cables built-in for one external axis

The difference from the above mentioned "MOTOMAN-SIA20D / SIA20F INSTRUCTIONS" are as follows:

1. SIA20D-A01 / SIA20F-A01 drip-proof specification for flange part (section 5.6)
2. Internal User I/O Wiring Harness and Air Line (section 7.1)
3. Internal Connections (section 8.1)
4. Recommended Spare Parts (chapter 10)

The differences are described based on "MOTOMAN-SIA20D / SIA20F INSTRUCTIONS" (156387-1CD). Read this manual thoroughly replacing the subject matters for changes with this supplementary instruction manual.

## 5 Basic Specifications

### 5.6 Drip-Proof Specification SIA20D-A01 / SIA20F-A01

(Page: 5-7)

#### 5.6.1 Flange Part

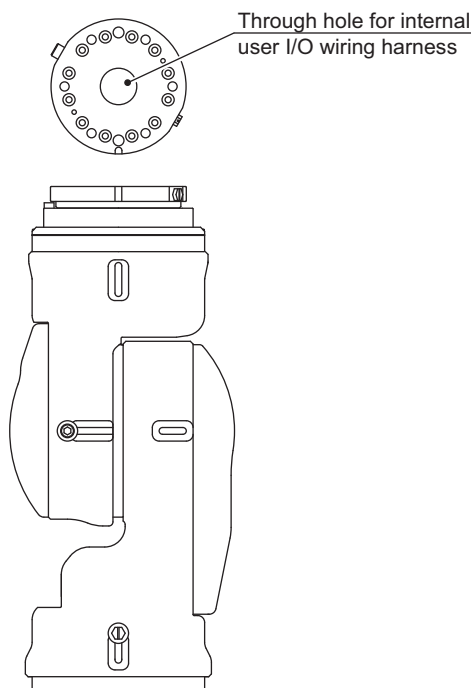
This applies to SIA20D-A03 / SIA20F-A03.

The wrist flange of SIA20D-A03 / SIA20F-A03 with one external axis drip-proof specification has a cable through hole as well as the standard specification.

When mounting equipment such as an attachment, apply drip-proof treatment on the flange face. Waterproof flange is available as an option.

The connectors for internal user I/O wiring harness are not drip-proof type; if the manipulator is installed at a location where some water is splashed on the manipulator, apply drip-proof treatment on those connectors when connection is completed. (Example: use of silicon tape, or connection within a connection box.)

*Fig. 5-6: Details of Flange*



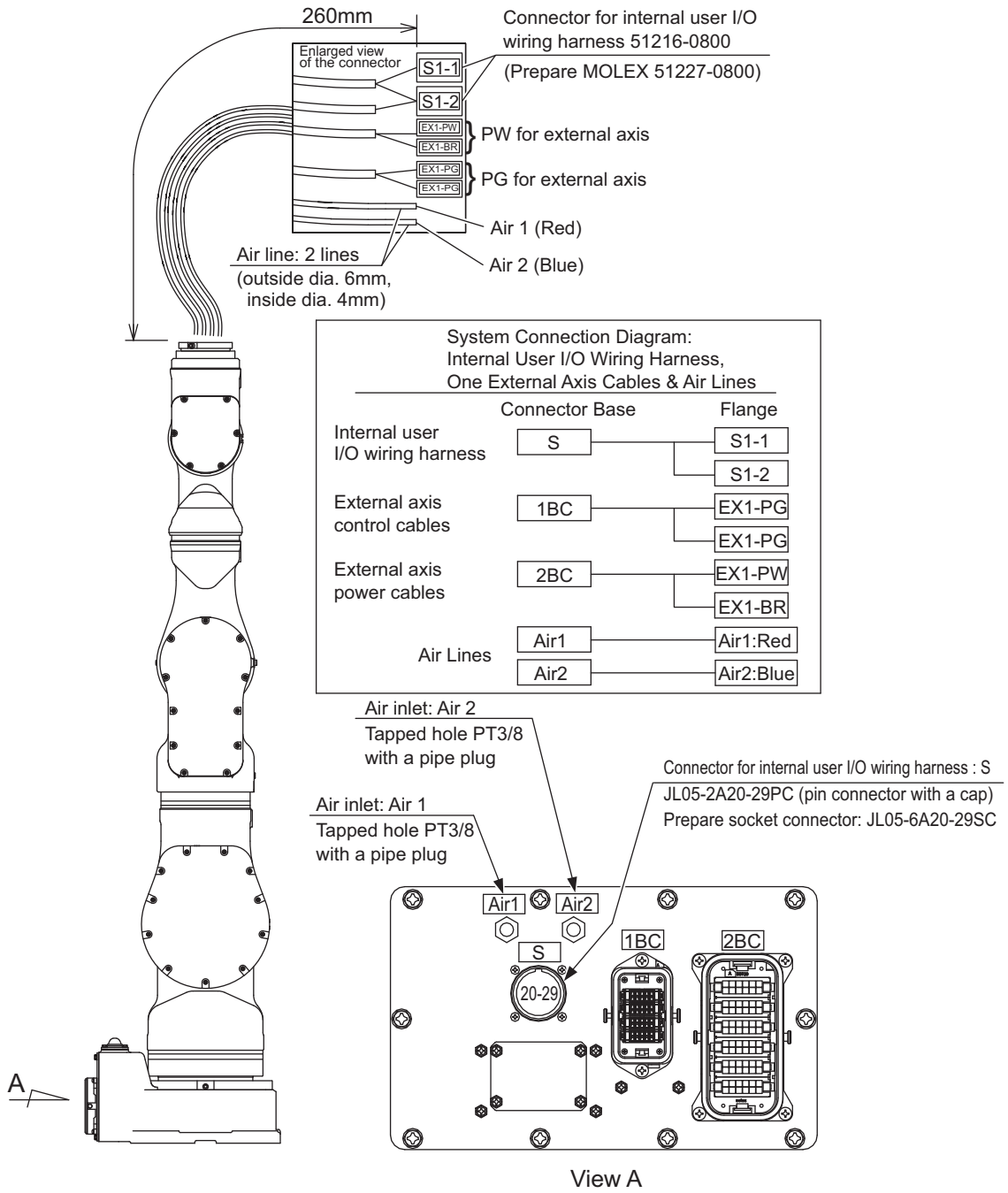
## 7 System Application

### 7.1 Internal User I/O Wiring Harness and Air Line

(Pages 7-2 to 7-3)

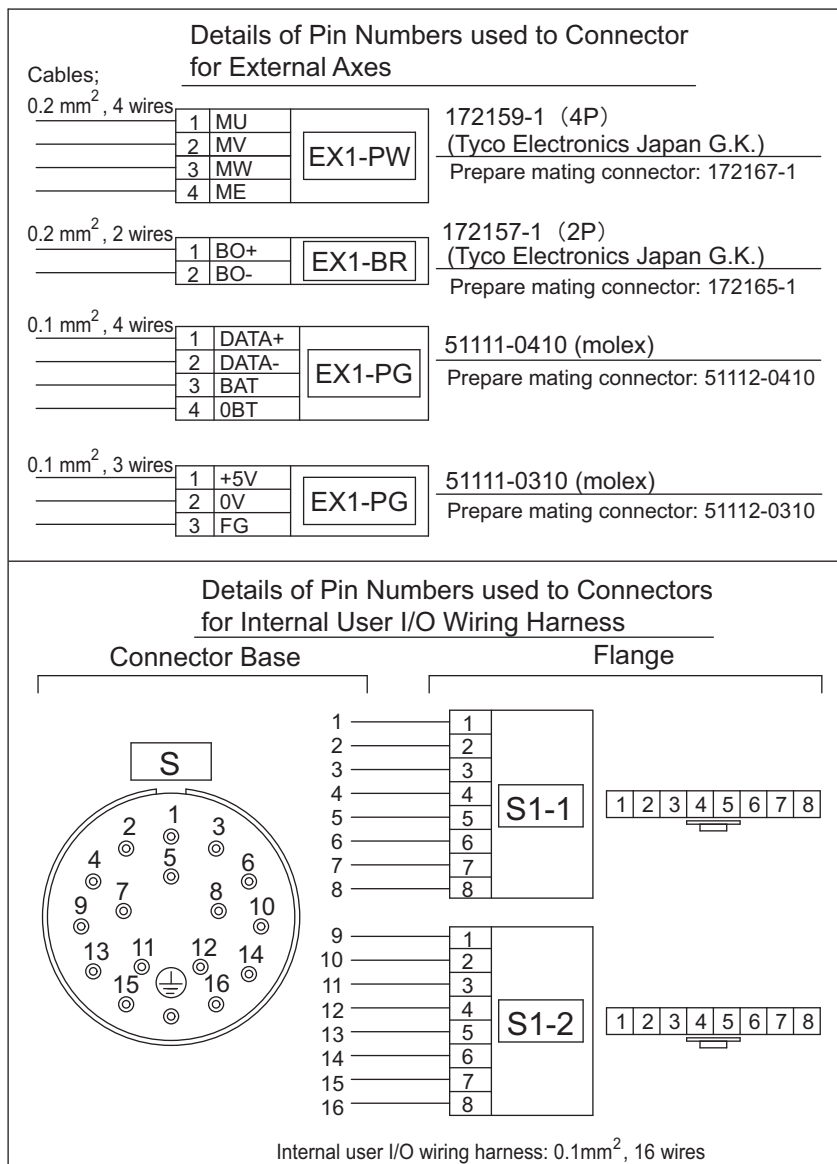
The cables of one external axis are added to SIA20D-A02, A03 / SIA20F-A02, A03 in comparison with SIA20D / SIA20F-A0\*.

Fig. 7-1: Internal User I/O Wiring Harness, External Axis Cables and Air Lines



7 System Application  
 7.1 Internal User I/O Wiring Harness and Air Line

Fig. 7-2: Internal User I/O Wiring Harness and External Axis Cable Connector (Pin Details)



## **8 Electrical Equipment Specification**

### **8.1 Internal Connections (Pages: 8-2 to 8-3)**

Since the cables of one external axis are added to SIA20D-A02, A03 / SIA20F-A02, A03 in comparison with SIA20D / SIA20F-A0\*, *fig. 8-1(a) "Internal Connection Diagram"* and *fig. 8-1(b) "Internal Connection Diagram"* are changed.

Fig. 8-1(a): Internal Connection Diagram

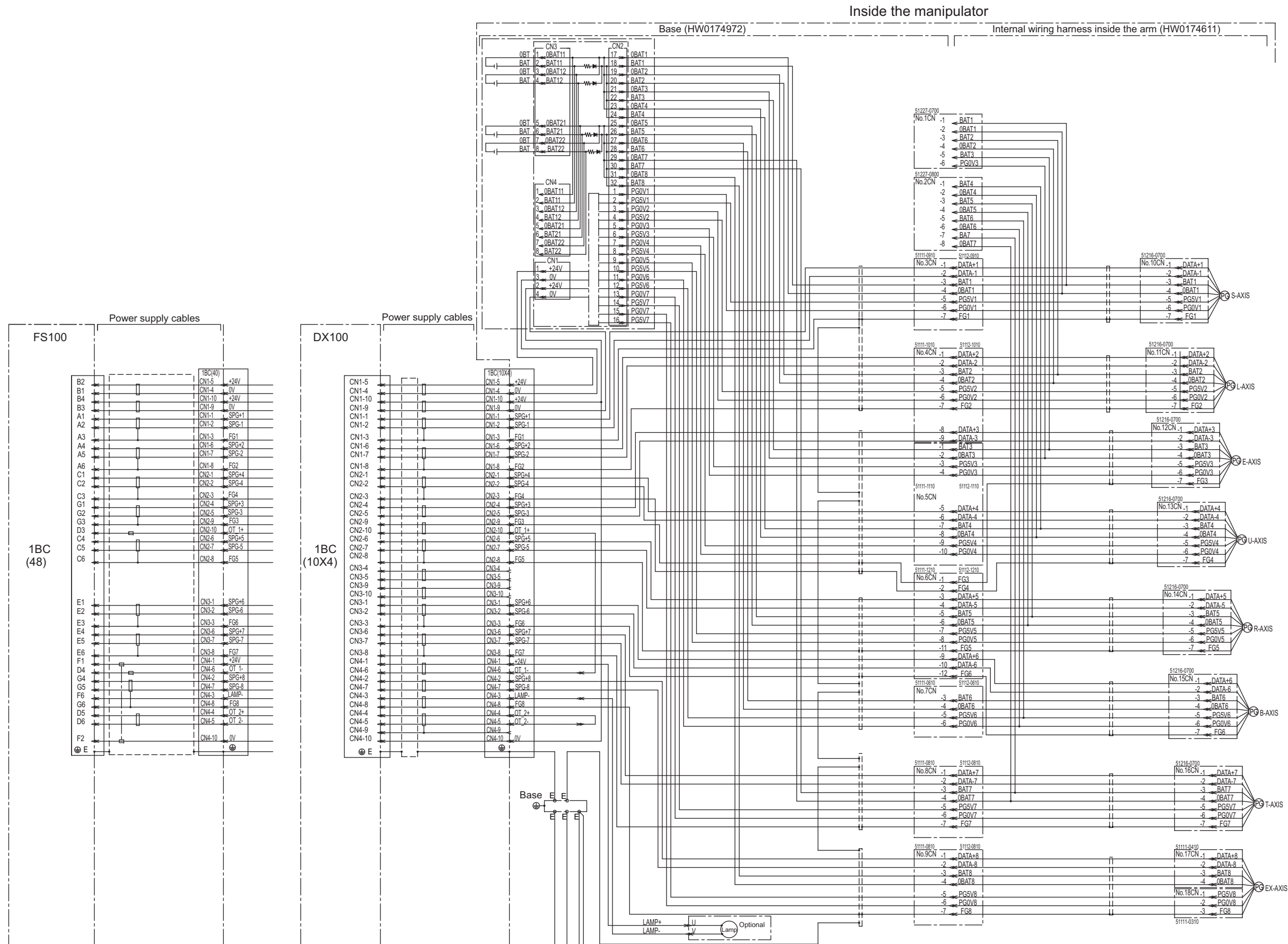
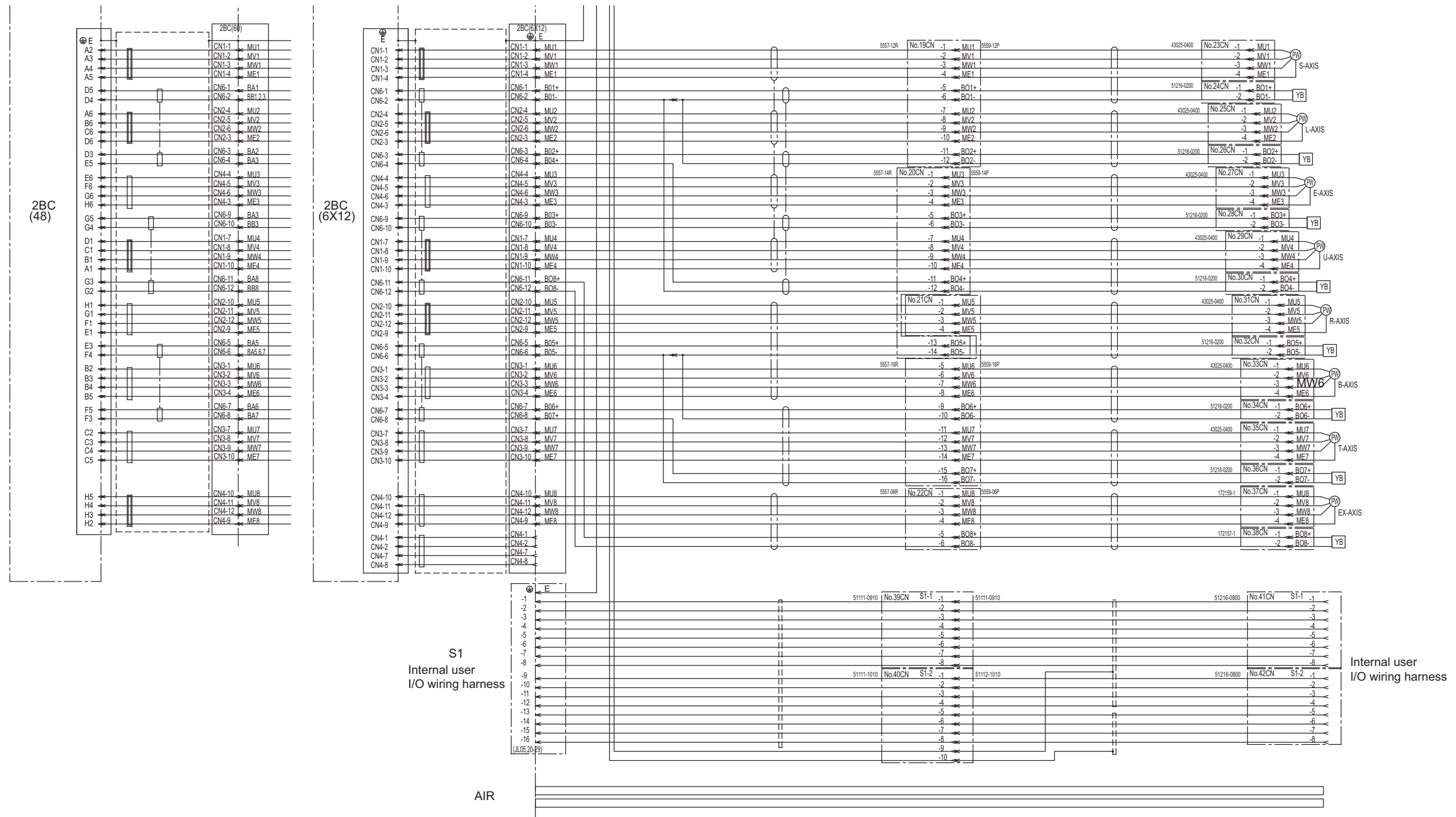




Fig. 8-1(b): Internal Connection Diagram



## 10 Recommended Spare Parts (Page: 10-1)

Since the cables of one external axis are added to SIA20D-A02, A03 / SIA20F-A02, A03 in comparison with SIA20D / SIA20F-A0\*, "Wire Harness in Manipulator" in Table 10-1 is replaced with the following one.

Table 10-1: Spare Parts for SIA20D-A02, A03 / SIA20F-A02, A03 (Difference)

Rank	Parts No.	Name	Type	Manufacturer	Qty	Qty per Unit	Remarks
B	6	Wire Harness in Manipulator	HW0174611-A	Yaskawa Electric Corporation	1	1	Arm component (Difference)

# MOTOMAN-SIA20D/SIA20F

## SUPPLEMENTAL INSTRUCTIONS

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Specifications are subject to change without notice  
for ongoing product modifications and improvements.