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

MOTOMAN INSTRUCTIONS

MOTOMAN-MS80W INSTRUCTIONS
DX100 INSTRUCTIONS
DX100 OPERATOR'S MANUAL
DX100 MAINTENACE MANUAL

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

This supplementary instruction manual describes how YR-MS0080W-A23 (hereinafter referred to as MS0080W-A23) is different from the YR-MS0080W-A00 (hereinafter referred to as MS0080W-A00).

When using MS0080W-A23, read this supplementary instruction manual thoroughly with: “MOTOMAN-MS80W INSTRUCTIONS” (Manual No. 159328-1CD).

Differences

The MS0080W-A23 differ from the MS0080W-A00 in the following points:

1. Axis Name, Axis Direction

   (1) Axis Name, Axis Direction

   • Axes are differently named as follows.

<table>
<thead>
<tr>
<th>S-axis</th>
<th>JT1-axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-axis</td>
<td>JT2-axis</td>
</tr>
<tr>
<td>U-axis</td>
<td>JT3-axis</td>
</tr>
<tr>
<td>R-axis</td>
<td>JT4-axis</td>
</tr>
<tr>
<td>B-axis</td>
<td>JT5-axis</td>
</tr>
<tr>
<td>T-axis</td>
<td>JT6-axis</td>
</tr>
</tbody>
</table>

   • Also, following axes have different rotating directions.

   | JT1 (S) |
   | JT4 (R) |
   | JT6 (T) |

   (2) Dimension

   • With Servo ON Lamp

2. Internal Cable

   • The system connection of the cooling water hose changes in the third system from the second system.

The differences are described based on "MOTOMAN-MS80W INSTRUCTIONS" (Manual No. 159328-1CD). Read this manual thoroughly replacing the subject matters for changes with this supplementary instruction manual.
5.4 Dimensions and P-Point Maximum Envelope (5-3)

Fig. 5-3: Dimensions and P-Point Maximum Envelope
7 System Application

7.1 Peripheral Equipment Mounts (7-1 page)

The peripheral equipment mounts are provided on the U-axis (upper arm) as shown in Fig. 7-1 “Installing Peripheral Equipment” for easier installation of the user's system applications. The following conditions shall be observed to attach or install peripheral equipment.

**Fig. 7-1: Installing Peripheral Equipment**

<table>
<thead>
<tr>
<th>Section</th>
<th>Application</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cable processing</td>
<td>Up to 80 kg for attaching load mass including wrist load.</td>
</tr>
<tr>
<td>B</td>
<td>Cable processing and valve, etc mounting</td>
<td>Up to 10 kg, 49 N•m (5 kgf•m) max. for increased moment amount of upper arm</td>
</tr>
</tbody>
</table>
7.2 Internal User I/O Wiring Harness and Air Lines for User’s System Applications (7-2 page)

Internal user I/O wiring harness, encoder or power cables for external axis, cables for primary source for welding power, thermostat transformer cables and hoses for air or cooling are incorporated in the manipulator for the drive of peripheral devices mounted on the upper arm as shown in fig. 7-2 “Connectors for Internal User I/O Wiring Harness and Air Lines for User’s applications” and fig. 7-2 “Connectors for Internal User I/O Wiring Harness and Air Lines for User’s applications”

| Table 7-2: Internal User I/O Wiring Harness and Air Lines for Use’s Applications |
|---|---|---|
| Item | Specification | Conditions |
| Internal user I/O wiring harness | 0.5 mm² × 23 wires | For the pin allocation, refer to fig. 7-3 “Details of the Connector Pin Numbers” at page 7-4. |
| Encoder cable for external axis | 0.2 mm² × 6 cables | 5.8 A or less per a wire. The total current value must be 36 A or less. |
| Power cable for external axis | 2 mm² × 4 cables 0.75 mm² × 2 cables | 3.9 A or less per a wire. The total current value must be 12.8 A or less. |
| Cable for primary source for welding | 21 mm² × 2 cables 10 mm² × 1 cable 1) | 2 mm²: 16.1 A or less per a wire 0.75 mm²: 9.0 A or less per a wire The total current value must be 51.4 A or less. |
| Cable for thermostat transformer | 0.75 mm² × 3 cables | 21 mm²: 150 A or less per a wire The total current value must be 255 A or less. |
| Air hose | Inside dia. 8.0 mm × 1 hose | 7.7 A or less per a wire The total current value must be 29.2 A or less. |
| Hose for cooling | Inside dia. 6.5 mm × 6 hoses | 490 kPa (5 kgf/cm²) or less |

1) For ground wires
7.2 Internal User I/O Wiring Harness and Air Lines for User's System Applications (7-2 page)

Fig. 7-2: Connectors for Internal User I/O Wiring Harness and Air Lines for User's applications

Connector for the external axis power cable:
JL05-2A20-29SC
(socket connector with a cap)
Prepare pin connector JL05-6A20-29P

Connector for the internal I/O wiring harness:
JL05-2A24-28SC
(socket connector with a cap)
Prepare pin connector JL05-6A24-28P

Connector for the primary source for welding and for the cables of external damage detector
MS3100A36-35 (with a cap)
Prepare pin connector MS3106B36-3P

Connector for the thermostat transformer:
MS3100A14S-1S
(socket connector with a cap)
Prepare pin connector MS3106B14S-1P

Dimensions vary depending on the external cable specifications.

For the following cables, terminal blocks are prepared in the box:
-Cables for the primary source for welding power
-Cables for the thermostat transformer

View A

View B
MOTOMAN-MS80W
INSTRUCTIONS
SUPPLEMENTARY FOR TYPE: YR-MS0080W-A23

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