

# JOG DIAL

## JD-100

### User's Manual



#### CONTENTS

For Your Safety:	3
I . Before You Begin	
1-1. Overview:	5
1-2. Connecting Method:	5
II . Notes on Use	
2-1. Parts of the JD-100:	6
2-2. Operating method:	7
III . Specifications	
3-1. Specifications:	8
3-2. Exterior Dimensions:	8

## Notes regarding these materials

- These materials are intended as a reference to assist our customers in the use of the SIGMAKOKI CO., LTD. Product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to SIGMAKOKI CO., LTD. or a third party.
- SIGMAKOKI CO., LTD. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagram, charts, programs, or algorithms contained in these materials.
- All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by SIGMAKOKI CO.,LTD. without notice due to product improvements or other reasons.
- When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithm, please be sure to evaluate all information and products. SIGMAKOKI CO., LTD. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.
- SIGMAKOKI CO., LTD. products are not designed or manufactured for use in equipment or system that is used under circumstances in which human life is potentially at stake. SIGMAKOKI CO., LTD. products cannot be used for any specific purposes, such as apparatus or systems for transportation, vehicular, medical, aerospace, nuclear, or undersea repeater use.
- The prior written approval of SIGMAKOKI CO., LTD. is necessary to reprint or reproduce in whole or in part these materials.
- If these products or technologies are subject to the Japanese export control restrictions, they must be exported under a license Japanese government and cannot be imported into a country other than the approved destination.  
Any diversion or reexport contrary to the export control laws and regulations of Japan and/ or the country of destination is prohibited.

## For Your Safety

- Before using this product, read this manual and all warnings or cautions in the documentation provided.
- Only Factory Authorized Personnel should be changes and/or adjust the parts of controller.

### The Symbols Used in This Manual

 <b>WARNING</b>	 <b>CAUTION</b>
<p>This symbol marks warnings that should be read and used to prevent serious injury or death.</p>	<p>This symbol indicates where caution should be used to avoid possible injury to yourself or others, or damage to property.</p>

The above indications are used together with the following symbols to indicate the exact nature of the warning or caution.

<b>Examples of Symbols Accompanying Warnings and Cautions</b>	
	<p>△Symbols enclosed in a triangle indicate warnings and cautions. The exact nature of the warning or caution is indicated by the symbol inside (the symbol at left indicates risk of electrocution).</p>
	<p>○Symbols enclosed in a circle mark indicate prohibitions(actions that must not be performed).The exact nature of the prohibition is indicates by the symbol inside or next to the circle mark (the symbol at left indicates that the product must not be disassembled).</p>
	<p>●Symbols inside a black circle mark actions that must be performed to ensure safety. The exact nature of the action that must be performed is indicated by the symbol inside (the symbol at left is used in cases in which the AC adapter must be unplugged to ensure safety).</p>

## Symbols on the product

The symbol mark on the product calls your attention. Please refer to the manual, in the case that you operate the part of the symbol mark on the product.

	<p style="text-align: center;">This symbol labeled on the portion calls your attention.</p>
---	---

## Disclaimer of Liability

- ① SIGMAKOKI CO., LTD. does not accept liability for damages resulting from the use of this product or the inability to use this product.
- ② SIGMAKOKI CO., LTD. does not accept liability for damages resulting from the use of this product that deviates from that described in the manual.
- ③ SIGMAKOKI CO., LTD. does not accept liability for damages resulting from the use of this product in extraordinary conditions, including fire, earthquakes, and other acts of God, action by any third party, other accidents, and deliberate or accidental misuse.
- ④ If the equipment is used in a manner not specified by the SIGMAKOKI CO., LTD., the protection provided by the equipment may be impaired.



- Do not use this product in the presence of flammable gas, explosives, or corrosive substances, in areas exposed to high levels of moisture or humidity, in poorly ventilated areas, or near flammable materials.
- Do not connect or check the product while the power is on.
- Installation and connection should be performed only by a qualified technician.
- Do not bend, pull, damage, or modify the power or connecting cables.
- Do not touch the products internal parts.
- Connect the earth terminal to ground.
- Should the product overheat, or should you notice an unusual smell, heat, or unusual noises coming from the product, turn off the power immediately.
- Do not turn on the power in the event that it has received a strong physical shock as the result of a fall or other accident.
- Do not touch the stage while operation.
- Use dry clothes only for cleaning the equipment.

## Chapter 1: Before You Begin

### 1-1. Overview

The JD-100 is a JOG-Dial controller.

It can be connected to our stage controller, SHOT-30\* series and SHOT-702 and PGC-04.

The JOG-Dial, connected to the controller via a cable, provides remote operation. This means that the JOG-Dial allows you to work near the motorized stage while checking its behavior even if the controller and the motorized stage are away from each other.

### 1-2. Connecting method

The JOG-Dial (JD-100) is connected to the controller with MDR14-CA cable.

- ① Connect a standard cable (MDR14-CA-\*) to the connector on the rear panel of the JD-100.
- ② Connect the cable from the JD-100 to the “JOYSTICK” connector on the front panel of the SHOT-30X series and SHOT-702 and PGC-04 controller. (In the case of SHOT-702, it becomes the rear panel part.)
- ③ Turn power switch of the controller on.

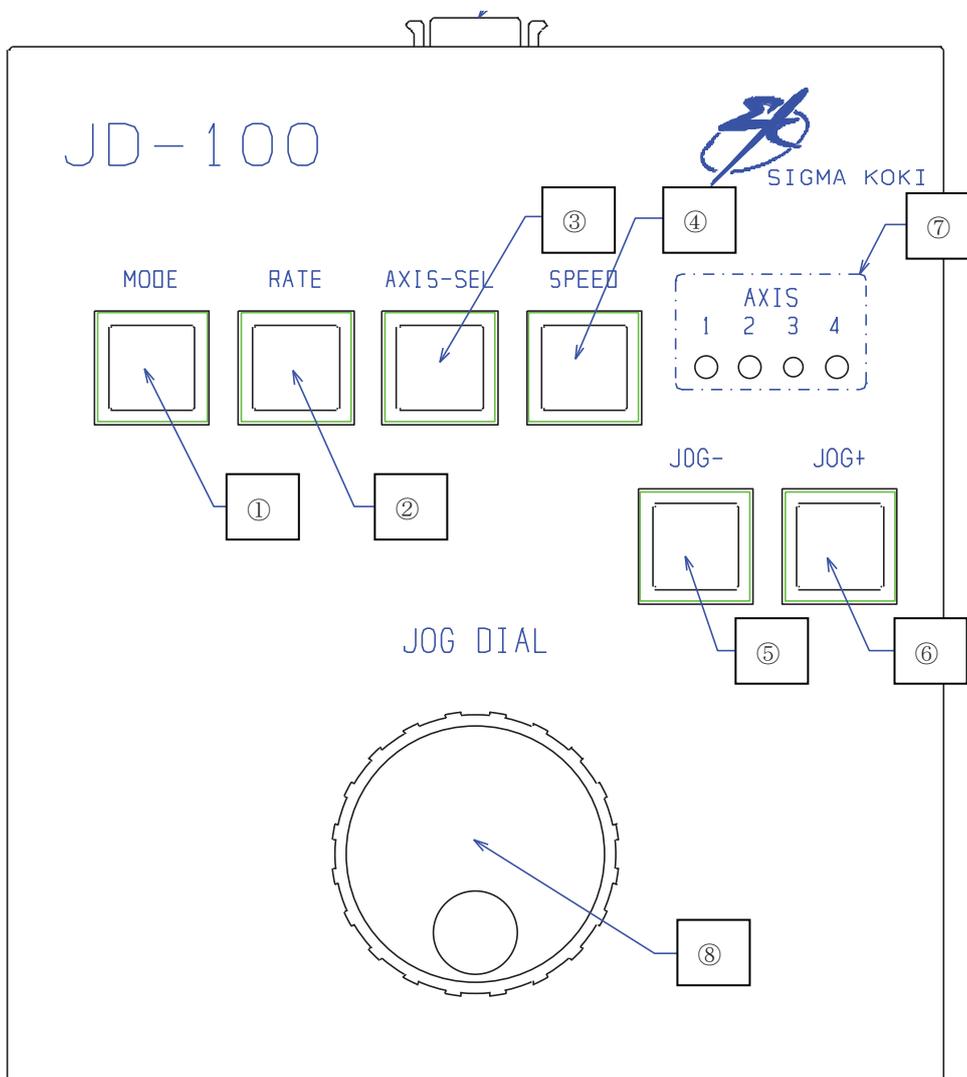
Among the LED of “AXIS”, the LED of “1” will light green.



Be sure the controller is off when you connect the JOG-Dial. You may not be able to use the buttons on JOG-Dial if you connect or disconnect either device while the controller is on.

## Chapter 2: Notes on Use

### 2-1. Parts of the JD-100



## 2-2. Operating method

### ①MODE button

Change an operation mode of the controller.

HOST→MANUAL . . .

Refer to a User's Manual of SHOT-302GS/SHOT-304GS for various modes.

NOTE) IN SHOT-702/ PGC-04, the MODE change is invalid.

### ②RATE button

Switch the amount of movement of the stage for the dial operation.

The LED indicator lights up : 5pulse/ 1click for JOG-dial. (High-RATE)

The LED indicator lights down: 1pulse/ 1click for JOG-dial. (Normal-RATE)

### ③AXIS-SEL button

Selects the axis operated by JOG-Dial.

Change the number of lightning of LED indicator by the AXIS-SEL button every time pushing the button. (1→2→3→4→1 . . .)

### ④SPEED button

Cycle through "SPEED 1/2/3/4" settings stored in controller's memory switches (1→2→3→4→1 . . .).

### ⑤,⑥JOG-/ JOG+ button

Enables operation of selects-axis. Pressing of this button continuously moves the stage continuously. Releasing this button stops the stage.

### ⑦AXIS LED

Change the number of lightning of LED indicator by the AXIS-SEL button every time pushing the button. (1→2→3→4→1 . . .)

### ⑧JOG-dial

The JOG-dial for operating the stage.

Left rotation : - direction

Right rotation : + direction

## Chapter 3: Specifications

### 3-1. Specifications

Power source	DC5V ±10% ( from controller)
Operating temperature	5~40°C
Storage temperature	-20~60°C
Ambient humidity	20~80%RH (no condensation)
External dimensions	130W×145D×36H (excluding projections)
Weight	560g
Indoor use only	
Altitude	Up to 2000m
Installation category	II
Pollution degree	2

### 3-2. Exterior Dimensions

