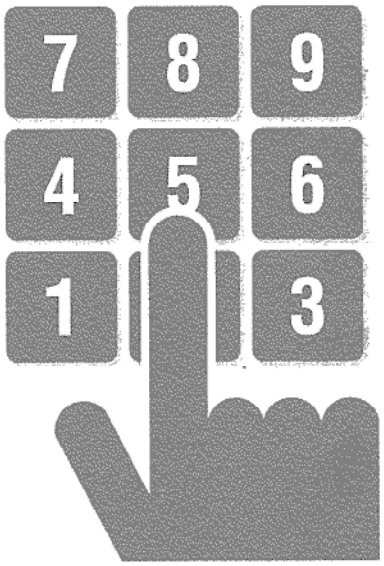
OPERATION MANUAL



CL
SL-154
SL-204
SL1000
SL2500

MORI SEIKI
THE MACHINE TOOL COMPANY

OM-CLFMSG803

OPERATION MANUAL

Applicable Model

CL-153	CL-153M
CL-203	CL-203M
CL-253	
CL1500	CL2000
SL-154	SL-154S
SL-154MC	SL-154MS
SL-154Y	SL-154SY
SL-204	SL-204S
SL-204MC	SL-204SMC
SL1000	SL2500
SL2500MC	SL2500Y

Applicable NC Unit

MSG-803
MSG-805

Before starting operation, maintenance, or programming, carefully read the manuals supplied by Mori Seiki, the NC unit manufacturer, and equipment manufacturers so that you fully understand the information they contain.

Keep the manuals carefully so that they will not be lost.

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OM-CLFMSG803-D1E

CONTENTS

DOOR INTERLOCK FUNCTION

The door interlock function is provided to ensure the operator's safety while operating the machine.

This chapter deals with the purpose and specifications of the door interlock function.

Before operating the machine, read this chapter carefully.

The door interlock function serves only to ensure the safety of the machine operator by inhibiting manual operations (spindle rotation, axis feed, etc.) and all automatic operations when and while the door is open with the interlock ON; it will not afford protection against hazards that could occur as the result of erroneous operation.

If the door interlock function is released, single block operation, MDI operation and all manual mode operations are permitted even when the door is open, and if the door interlock function is released after setting the single block function ON, the door can be opened even if the machine is operating.

The customer must understand the specifications of the door interlock function, recognize potential hazards, and operate the machine with safety always in mind and without relying on the door interlock function too much.

To ensure safety in operation, the customer is requested to promote safety and not rely solely on the interlocks provided by the door interlock function, e.g. by giving appropriate safety training to operators and maintenance technicians, etc.

CONTENTS

DOOR INTERLOCK FUNCTION

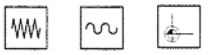
CHAPTER A
OPERATION PANELS

Switches used to turn on/off the power supply, the functions and operational procedure of the switches and keys on the operation panel are explained.

The operation mode in which the switch or operation is valid is indicated by illustration of the MODE selection switch.

See the example below.

<Example>

5-9 Axis Feed Switches [AXIS DIRECTION] 

Valid mode

1. Please note that accessories and functions of the machine given in the explanation in this manual are not always available with your machine according to its delivery.
   Also please note that some of these accessories and functions cannot be installed after the installation of the machine. For details, please contact Mori Seiki.
2. Although illustrations of the machine, those of keys, switches, buttons and indicators, and those of the screen display are drawn to actual machines and controls, they could differ from the actual ones due to specification changes or improvements of the machine.
   If illustrations and screen display used in the explanation differ from your machine, making it difficult to understand the explanation, please contact Mori Seiki.

CONTENTS

A : OPERATION PANELS

CHAPTER B
MANUAL OPERATION

The procedure used to turn on/off the power supply, and to stop the machine in emergency cases are described.

This chapter also provides the procedure to feed the axes or to start/stop the spindle manually.

Before using a switch, button, or key, check visually that it is the one you intend to use, and then press or set it decisively. Pressing the wrong switch, button, or key by mistake can cause accidents involving serious injuries or damage to the machine.

CONTENTS

B : MANUAL OPERATION

CHAPTER C
CHUCKING

When a workpiece can be clamped in the chuck stably, the most important step of workpiece setup is considered to be cleared.

This chapter describes the cautions for chucking a workpiece and the soft jaw shaping procedure.

Since the workpiece material, shape, and machining methods differ largely among the customers, this manual cannot cover all kinds of workpieces.

Since the procedure and the numerical values explained in this chapter may not be the most proper for customer's specific workpiece, take the explanation in this chapter for the reference and find the more proper method for your specific work.

CONTENTS

C : CHUCKING

CHAPTER D
PROGRAM EDITING

This chapter describes the following procedure:

1. Storing a program to the NC memory
2. Editing a program stored in the NC memory
3. Inputting/outputting a program to or from the NC memory using an external I/O device

CONTENTS

D : PROGRAM EDITING

CHAPTER E
SETTING OF COORDINATE SYSTEM

This chapter explains the coordinate system used in creating programs and machining workpieces.

There are three kinds of coordinate system settings as follows:

- The coordinate system set using the tool geometry offset function (G00 T_;)
- The coordinate system set using the coordinate system setting function (G50 X_ Z_;)
- The work coordinate system (G54 to G59)

The procedures for setting the above coordinate systems are explained.

The operation procecure of the manual in-machine tool presetter is also explained.

CONTENTS

E : SETTING OF COORDINATE SYSTEM