## Let's Try Operation (Test Run)

It is an operation to perform forward and backward movement operations. (Refer to "STEP 4" and "STEP 5" during operation)

After setting the operating conditions (Velocity or AVD), it is available to check the actual operation.



No.	Operation	Window Display	
1	After STEP 4-1 or STEP 5-1, Press the Power / Display Switchover Button and press and hold the Up button . The window switches to Test Operation Mode.	Test op mode ▲LongPushStart "start"disables master command until"end" Test run VBwd Fwd▲ Current Pos. -9,999.99mm	
2	Press either; Forward : Up button Backward : Down button and ELECYLINDER should move forward or backward while a button is pressed. The ELECYLINDER starts moving!	Test run ▼Bwd Fwd▲ Current Pos. -9,999.99mm	
3	Press Power / Display Switchover Button several times to show Test Operation Mode End window shown in the right. Press and hold the Down button to terminate the Test Operation Mode.	Test op mode ▼LongPushEnd "end"enables master command	

For more detail, refer to the instruction manual.

### Let's Set up Positions

STEP

It is an operation to set up the forward end position and the backward end position. (Refer to "STEP 6" during operation)

No.	Operation	Window Display
1	After getting into the Test Operation Mode (STEP 6-1), press the Power / Display Switchover Button to move to the position setting window. (Note 1) Select either; Forward End: Right button , or Backward End: Left button , and then press .	Test run ▼Bwd Fwd▲ Current Pos. -9,999.99mm <sup>Current</sup> → -9,999.99mm
2	Define the position with; Right / Left buttons / D for [Digit Setting], and Up / Down buttons / for [Number Setting], and then press .	Pos.Set. ◀BEndFEnd► FEnd Pos. <sup>Setting</sup> Position → -9,999.89mm

\*1 ELECYLINDER will start moving if the Up or Down button S is accidentally pressed. A feature of read-in of a position moved with the jog operation or moved manually should also be available.

For more detail, refer to the instruction manual.



Please refer to the Instruction Manual [DIGITAL SPEED CONTROLLER Instruction manual (ME3818)] for details of handling.

# Let's Check before Installation and Operation

Digital speed controller (hereinafter described as "DS") is assumed to be operated in set-up change (1) at startup of equipment and (2) during equipment run, and work is assumed to be done in a safety fence.

Touching a moving part or transported object may cause injury to an operator.

#### Caution

STEP

1

- Grasp the operation of moving parts or transported objects to avoid touching them, and the work should only be conducted by an operator trained for safety training (special training specified in Ordinance on Industrial Safety and Health in case in Japan).
- If a teaching tool in high priority of communication is connected, a display "Tool Connected" should be shown in the DS display and operation of DS should be restricted.

When checking the display, grasp the operation range and take enough distance from it so any part of your body would not touch any moving part or transported object.

- Make sure to separate the DS operation part from any moving part or transported object and protect yourself with area sensors such as a light curtain before starting the work so you would not get your finger or hand pinched.
- In order for users to have a safe work, DS speed is set at 250mm/s or lower on delivery. When you set the speed above 250mm/s, increase it gradually considering safety for the work.
- Aside an operator of DS, have a surveillant, thus have two or more people to work. It is important that you build an appropriate safety circuit and have an emergency stop button and 3-position enabling switch equipped. A surveillant has to immediately stop the facility in an emergency to ensure the safety of the operator.
- Make sure to have a safety circuit constructed in order to avoid a startup only with the power getting supplied or recovery after power cutoff.
- ELECYLINDER equipped with DS should be installed in a position easy to operate and to see to protect an operator from awkward postures during operation. Failure to do so may hurt back, neck or wrist.
- Confirm that there is no error on the safety circuit or the DS itself before starting work. Take an appropriate counteraction in case an error is found before starting work.
- Create necessary "work standards" to ensure safety and conduct a training based on the standards, and allow only well educated ones (operators educated for work standards) for the work.
- When working inside the safety protection fence, make sure to set a display showing "Work in Progress in Safety Fence" to a place seeable from outside of the fence before starting work.
- Ensure safety with necessary safety gear such as helmet, protection gloves, protection glasses and safety shoes.
- Carry out a risk assessment so any possible risks can be lowered as much as possible.

# STEP

### Let's Check Available Operations

Item	Mode	Operation	
1	Initial Menu	Simple Velocity Setting	
2	Initial Menu	Detailed Velocity Setting (AVD Setting) A: Acceleration V: Velocity D: Deceleration	
3	Initial Menu	Cycle Time Display	
4	Test Operation Mode	Test Run: Forward Movement, Backward Movement, Current Position Display	
5	Test Operation Mode	Position Setting: Direct Numerical Input of Forward End, Backward End Positions and Pressing Start Position	
6	Test Operation Mode	Pressing Operation, Pressing Force Setup (when Pressing Setting Only)	
7	Test Operation Mode	Jog Operation	
8	Test Operation Mode	Brake Release: Motor Power ON / OFF	
9	Test Operation Mode	Current Position Reading	
10	Setting Mode	Language Setting / Brightness Setting	
11	Setting Mode	Operation Volume Tuning / Fixing Connecting Axis (for Remote Digital Speed Controller Only)	
12	Setting Mode	Password Setting	
13	While Error being Occurred	Error Display	
14	While Error being Occurred	Alarm Reset	

STEP

### Let's Check Display Area and Operation Buttons



No.	Name	Function	
(1) Display Area		OEL Display Area Settings of AVD and positions should be displayed. * A: Acceleration V: Velocity D: Deceleration	
(2)	Power / Display Switchover Button*1	Switch of window display (Next Page), Power ON / OFF of panel display (Long press)	
(3) Up button Mo		Mode switch, Number up, Axis operation (forward end)	
(4) Left button M		Moving cursor, Item select	
(5) Down button		Mode switch, Number down, Axis operation (backward end)	
(6)	Right button	Moving cursor, Item select	
(7) Enter button Enter, Input confirm		Enter, Input confirm	

### 4 Let's Establish Velocity Setting in 10 Levels (Simple Velocity Setting)

It is an operation to set up the operating conditions (Velocity) of ELECYLINDER.

The velocity setting is available in ten levels from 1 to 10. It can be established in 10 steps from Velocity 1 for 10% to Velocity 10 for 100%.

No.	Operation	Window Display	
1	After the power is turned on, press the Up button and select <b>1.SimplYelSett</b> . Press the Enter button and the window for the simple velocity setting should open.	Initial Menu 1.SimplVelSett 2.DetailVelSet (AVD Set)	
2	Press the Up button or the Down button to move the highlight (in yellow).	SimplSet Level Velocity Forward FORWARD 8 Backward SACKWARD 8	
3	Press the Enter button and the number blinks and becomes available for change. In order to change the number, press; Up button : Number up, or Down button : Number down	SimplSet Level Veldbity Forward — 10— Backward — 8	
4	Press the Enter button 🔂 to have the set number changed. Blinking stops and gets highlighted.	SimplSet Level Velocity FORWARD 10 BACKWARD 8	

A feature of display of cycle time should also be available. For more detail, refer to the instruction manual.

### **Let's Set up Operation Conditions (AVD)** 5 (Detailed Velocity Setting)

It is an operation to set up the operating conditions (AVD) of ELECYLINDER.

	A: Acceleration (%) V: Velocity (%) D: Deceleration (%)	Set the accel Set the speed Set the decel	eration between 1 and d between 1 and 100% eration between 1 and	100%. 100%.
No.	Operation		Wii	ndow Display
1	After the power is turned on, press the Down button and select 2.DetailVelSet. Press the Enter button and the window for the detail velocity setting (AVD Setting) should open.		Initial Menu 1.SimplVelSett <mark>2.DetailVelSet</mark> (AVD Set)	AVD Set. ▓ A   V   D F  <u>30  70  20</u> B  80 100  50
2	Press the Right butto Left button to mor highlight in the AVD s columns. Press the Enter butto make a change to the	on <b>()</b> or the ve the setting on <b>(-)</b> to e value.	AVD % Forward ➡ F Backward ➡ B	) Set. A   V   D <mark>30</mark> 70 20 8011001 50

A feature of display of cycle time should also be available. For more detail, refer to the instruction manual.

\*1: Press 🥐 + 🚺 to go back to the previous window.