SONATA Series Operating Reference Manual

Stand-alone Motor Control System

A	M	S	H	STA 1
V	R	J	0	STA 2
P	STOP	RE-SET	CLR	STA 3
MODE	SLEW ←	SLEW →	—	STA 4

1	2	3
4	5	6
7	8	9
*	0	ENTR

Keypad Lay-out

A

Setting Acceleration

Pressing the **A** key allows the user to enter the acceleration values for each motor.

1) Press **A** .
2) The controller displays "Select Axis:1 thru 3".
3) Press **1** for X axis, **2** for Y axis and **3** for Z axis.
4) The controller displays "Enter Value"
5) Using the numeric keypad enter the acceleration value for the selected axis, then press **ENTR** .
6) To cancel the operation, press **CLR** .

V

Setting Velocity

Pressing the **V** key allows the user to enter the velocity values for each motor.

1) Press **V** .
2) The controller displays "Select Axis:1 thru 3".
3) Press **1** for X axis, **2** for Y axis and **3** for Z axis.
4) The controller displays "Enter Value"
5) Using the numeric keypad enter the velocity value for the selected axis, then press **ENTR** .
6) To cancel the operation, press **CLR** .

P

Setting Position

Pressing the **P** key allows the user to enter the position values for each motor.

1) Press **P**.
2) The controller displays "Select Axis:1 thru 3".
3) Press **1** for X axis, **2** for Y axis and **3** for Z axis.
4) The controller displays "Enter Value"
5) Using the numeric keypad enter the position value for the selected axis, then press **ENTR**.
6) To cancel the operation, press **CLR**.

MODE

Mode Selection

Pressing this key enables the second function of each other key.

M

Coordinated Move

Pressing the M key moves all motors to the last entered / selected position. The default setting is zero.

When this key is pressed the controller displays "Coordinated Move".

R

Relative Move

Pressing the R key moves the motor by last value of the enter position.

When this key is pressed the controller displays "Relative Move".

STOP

Stop All Axes

Pressing this key initiates all motors to stop.

When this key is pressed the controller displays "Stopping All Axes".

SLEW ←

Jog in Negative Direction

Pressing this key jogs the selected motor in the negative direction.

Pressing **1** then **SLEW ←** will jog the X-axis motor in the negative direction.

Pressing **2** then **SLEW ←** will jog the Y-axis motor in the negative direction.

Pressing **3** then **SLEW ←** will jog the Z-axis motor in the negative direction.

When this key is pressed the controller displays "Jogging Neg. Dir *'axis-name'*".

axis-name = X, Y, Z

S

Spare – 1

For the future use.

J

Joystick Enable

The joystick operation is disabled when the keypad is used to make a motor to move. The J key should be pressed in order to enable the joystick operation.

When this key is pressed the controller displays "Joystick Is On".

RE-
SET

Reset Position Counters to Zero

Pressing the RE-SET key resets the value of all position counters to zero.

When this key is pressed the controller displays "Position Counters = 0".

SLEW →

Jog in Positive Direction

Pressing this key jogs the selected motor in the negative direction.

Pressing 1 then **SLEW** → will jog the X-axis motor in the positive direction.

Pressing 2 then **SLEW** → will jog the Y-axis motor in the positive direction.

Pressing 3 then **SLEW** → will jog the Z-axis motor in the positive direction.

When this key is pressed the controller displays "Jogging Pos. Dir '*axis-name*'".

axis-name = X, Y, Z

H

Home all Axes

Pressing the **H** key initiates a homing sequence for the selected axis.

1. Press **H** .
2. The controller displays "Select Axis:1 thru 3.
3. Press 1 for X axis, 2 for Y axis and 3 for Z axis.
4. The controller displays "Homing-'axis'"

axis = X, Y, Z

Please consult the hardware reference manual for switch wiring and specifications.

0

Go to Position Zero

Pressing the 0 key moves all motors to position zero.

When this key is pressed the controller displays "Go to Position Zero".

CLR

Cancel Data Entry Operation

Pressing the **CLR** key cancels the last data entry operation.

STA-1

Reserved

STA-2

Reserved

STA
3

STA-3

Reserved

STA-4

Reserved

Axis Selection and Data Entry Keypad

Pressing **1**, **2** and **3** selects the desired axis, when not in data entry mode. The default setting is the X-axis.

When the **1** key is pressed the controller displays "X-axis Selected".

When the **2** key is pressed the controller displays "Y-axis Selected".

When the **3** key is pressed the controller displays "Z-axis Selected".

Pressing **1** then **SLEW ←** will jog the X-axis motor in the negative direction.

Pressing **2** then **SLEW ←** will jog the Y-axis motor in the negative direction.

Pressing **3** then **SLEW ←** will jog the Z-axis motor in the negative direction.

Pressing **1** then **SLEW →** will jog the X-axis motor in the positive direction.

Pressing **2** then **SLEW →** will jog the Y-axis motor in the positive direction.

Pressing **3** then **SLEW →** will jog the Z-axis motor in the positive direction.

Data Entry Keypad

These keys are used for data entry.

✳

This key is used to enter the decimal point.