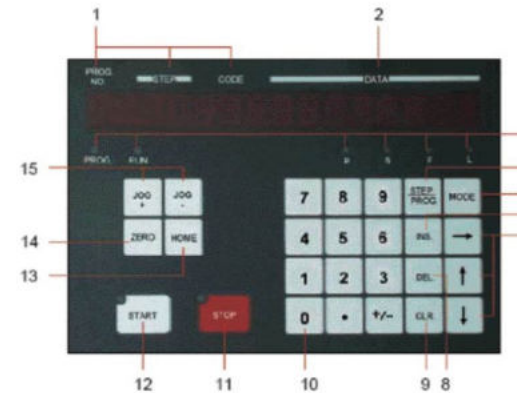# CONTROLLER
M-MATE
AC

CONTROLLER

◆ User friendly and compact for saving space

◆ Connect a CNC Rotary Table to M/C for index machining.

◆ The best solution for conventional M/C which couldn't install 4th axis.

ITEM	SPECIFICATION
Min. Increment	0.001°
Programmable Angle	0-+/-359.999°
Max. Equal Dividing	0-+/-359.999°
Emergency Stop	Whole system Stop
Input System	Key board or RS232C
Zero Return	Can be compensated by hardware/software
Feedrate	1~ 999.9deg/sec
Program Capacity	10 Programs, 99 steps for each program
Jump Function	Jump to sub-program
Loop Count	Up to 999 times per step
Key-Lock Function	Set parameter #07 to (0)
Mode Selection After Power On	Program mode/ run mode
Backlash Adjustment	Parameter number #10
Previous Step Display Function	Pushing " ↑ " key
Next Step Display Function	Pushing " ↓ " key
Standard Parameter	Parameter PA01---26,PA50---66 can be set easily
Outside Econder Connection Function	Parameter PA48＝2

Model No.	M-Mate S	M-Mate A	M-Mate B	M-Mate C	Model No.	M-Mate D	M-Mate E
Torque	2.386 Nm	4.782Nm	9.545Nm	14.327Nm	Torque	28.4Nm	48.0Nm
Rotation Speed	3000 min	2000min	2000min	2000min	Rotation Speed	1500min	1500~3000min
TECO	TSB-0875IC	TSB13102B	TSB13202B	TSB13302B	YASKAWA	SGMGH-44A□A	SGMGH-75A□A

Model No.	Table Size
M-Mate S	750W	120mm
M-Mate A	1KW	170mm~250mm
M-Mate B	2KW	250mm~320mm
M-Mate C	3KW	320mm~500mm
M-Mate D	4.4KW	630mm~800mm
M-Mate E	7.5KW	Above 1000mm

NO.	SPECIFCATION
1	Program step display : Present the step number
2	Data display :To show either position, step angle, feedrate or count
3	Led Indicator: There are 8 LED indicators on the control panel.
4	"STEP/PROG." KEY : This key is used to set up program no. and set up no. and system parameter.
5	"MODE" KEY : This key toggles the control between run and program mode.
6	"INS" KEY (INSERT) Insert a program step into memory in program mode.
7	"→" RIGHT ARROW KEY : This key has the following functions: a. In both run and program mode it changes the control display from " P" - "S" - "F" -"L" - "P" - "S" ....Entries. b. In program mode for parameter entry it scrolls display through parameter settings. c. Scrolling or directing programmer through program or parameter access.
8	" ↑ " THE UP ARROW KEY : Scrolls the program up through steps or up through parameters.
9	" ↓ " THE DOWN ARROW KEY. Scrolls the program down through steps or down through parameters.

NO.	SPECIFCATION
10	NUMERIC KEYS (0 to 9) : Data entered has the numeric or mathematical face value of key pressed. "+/-" KEY (PLUS/MINUS) :This key has 2 functions: a. Sets the motor running direction in program mode for an incremental move. b. Selects the alpha "Op Code" (a through d) during program mode. During op code selection press the "+/-" key scrolls the program from op code A to op code D.
11	"STOP" KEY : Press this key stops program execution or motor running. During motor running press the "STOP" key once - motor stops and the stop "LED" lights. Press the "Start" key to continue the remaining unexecuted portion of this step. But, if another key is pressed or the "STOP" key is pressed again the unexecuted portion of the step is lost. Press the "Start" key now executes the current full-programmed step again.
12	"START" KEY : This key is functional only in the "RUN" mode. When this key is pressed the current step shown on display will be executed. For the duration of the motor running or program executing the "LED" above the "Start" key is illuminated. This "Start" key and the "Remote Start" signal perform the same function-that is initiating a motor moving.
13	"HOME" KEY : The home functions are defined in parameters PA11, PA12 and PA13. (See the parameter section). Parameter 04 establishes the "ZERO" or "HOME" speed and parameter 01 establishes the home acceleration or deceleration values.
14	"ZERO" KEY : Pressing this key returns the motor to the absolute zero position. Parameter 04 establishes the "ZERO" or "HOME" speed and parameter 01 establishes the "ZERO" acceleration or deceleration values.
15	"+JOG" AND "-JOG" KEYS : Holding either of these 2 keys down causes the motor rotate in the corresponding direction. Parameter 03 establishes the jog speed and parameter 02 establishes the jog acceleration or deceleration values.

NO.	SPECIFCATION
1	Motor Connection : The motor connector is 14 pin MS type with part no MS3-102A-20-27S.
2	Encoder Connection : The motor connector is 10 pin MS type with part no MS3-102A-18-1P.
3	Interface Signal : The interface connector is 17 pin MS type with part no MS-3102A-20-29P.
4	Hand Wheel Connection : Please also see PA24 for further detail about the hand wheel control.
5	RS232C Connections : The RS232C connector is a 9 pin D type connector. pin 2 and pin 3 / pin 7 and pin 8 are exchanged inside the controller. So, please use a one to one connection cable for this connector.
6	Faceplate Encoder Connection : The faceplate encoder is an option only for those models, which have dual feedback feature.
7	Brake Solenoid(DC24V)
8	AC Power Input : Please supply 110/220 VAC with minimum 10 Amp to this power socket.
9	Fuse 10A/15A : Please use a 10A/15 Amps rating current / 3 cm / slow blow main fuse for this controller.
10	FG