

FoamCuttingCNC.com

STAND ALONE CONTROLLER'S MAIN MENU:

1: Division	2: Degree
3: Continuous	4: Jog
5: MovebyMM	6: PgmRun
7: PgmEdit	9: Setup

This is the Home Screen. All options are available from here. You can return here from anywhere by repeatedly pressing the [Esc] key.

Press the number relating to the Mode you want to use.

- 1: Division**
- 2: Degree**
- 3: Continuous**
- 4: Jog**
- 5: MovebyMM**
- 6: PgmRun**
- 7: PgmEdit**
- 9: Setup**

1: Division Mode Menu

Divided By: 0008	Dir: CW	Status: 0000
Key/Pulse: Next Move		
OK:Edit		Esc:Exit

When the Division Mode option is selected from the MAIN MENU, the above screen will appear.

This Mode is used to divide a circle.

Divided by: This parameter is used to divide a circle by the number of equal spaces shown. The range for divisions is 0002 to 9999.

Dir: This parameter is used for setting direction (CW-clockwise and CCW-anticlockwise).

Status: Current division number is shown here during operation; it cannot be set by user.

Key/Pulse: Next Move: This shows the next Division move, and can be initiated by "Pressing Any Key" (Except OK and Esc).

OK: By pressing the "OK" key, the user can enter Edit Mode to change the parameters on this screen.

Esc: This key is used to Exit from current menu and takes user back to Main Menu.

2: Degree Mode Menu

Move Deg:	Dir:	Status:
360.0	CW	000.0
Key/Pulse: Next Move		
OK:Edit		Esc:Exit

When Degree Mode option is selected from MAIN MENU, the above screen will appear.

This Mode is used whenever the movement is required in Degrees. By "Pressing Any Key" (Except OK and Esc) the Table or Indexer will move by the desired degrees you entered. For example... if your entered degree value is 090.0, then the Table or Indexer will move 90 degrees each time you "Press Any Key" (Except OK and Esc).

Move Deg: This parameter is used for setting the desired value to move in degrees; it can be set from 0.1 to 999.9 degrees.

Dir: This parameter is used for setting direction (CW-clockwise and CCW-anticlockwise).

Status: Current division number is shown here during operation; this cannot be set by user.

Key/Pulse or Next Move: This shows that next division move that can be initiated by "Pressing Any Key" (Except OK and Esc).

OK: By Pressing "OK" key, user can enter Edit Mode to change the parameters on this screen.

Esc: This key is used to Exit from current menu and takes user back to Main Menu.

3: Continuous Mode menu

Speed: RPM	Dir:	Action:
1200	CW	St/Stop
Key/Pulse: Start / Stop		
OK: Edit		Esc: Exit

When the Continuous Mode option is selected from MAIN MENU, the above screen will appear and shows the value set for Speed, Direction and Action. "Pressing Any Key" (Except OK and Esc) will start or stop the Table or Indexer. This Mode is used whenever the continuous movement is required.

Speed: This parameter is used to set the Max Velocity the Table or Indexer will achieve. The range for Max Velocity is (1 to 1200).

Dir: This parameter is used to set direction (CW-clockwise and CCW-anticlockwise).

Action: "Pressing Any Key" (Except OK and Esc) will toggle the Table or Indexer to Start or Stop.

OK: By Pressing "OK" key user can enter edit Mode to change the parameters on this screen.

Esc: This key is used to Exit from current menu and takes user back to Main Menu.

4: Jog Mode menu

Cont.jog:		Right/Left
Cont.Speed:10		Up/Down
1: +0.1	2: +1	3: +10
6: -0.1	7: -1	4: -10

When the Jog Mode option is selected from MAIN MENU, the above screen will appear.

Jog Mode is primarily used to set your work start position.

Keys:



These keys are used for continuous movement of table.



These keys are used to set the speed for continuous movement.

[1], [6] Move the table CCW / CW by 0.1 degree for each press.

[2], [7] Move the table CCW / CW by 1 degree for each press.

[3], [8] Move the table CCW / CW by 10 degree for each press.

Press [Esc]: To return to the MAIN MENU.

5: MovebyMM Mode menu

MovebyMM	Dir
001.0	CW
Key/Pulse: Next Move	
OK: Edit	Esc: Exit

When “Move by mm” Mode option is selected from MAIN MENU, above screen will appear and shows the set value for Move by MM and DIR. “Pressing Any Key” (Except OK and Esc) will move the Table or Indexer by MM.

The linear MM Move Distance is determined by calculating the circumference of a circle (contact diameter of pulley, etc...) in MM, and altering the appropriate parameter (listed below) to reflect the calculated circumference distance to a linear MM Move distance. This Mode is used whenever a linear movement is required.

MovebyMM: This parameter is used for setting value to move in MM, it can be set from 1 MM to 999.9 MM.

Dir: This parameter is used for setting direction (CW-clockwise and CCW-anticlockwise).

OK: By Pressing “OK”, key user can enter edit Mode to change the parameters on this screen.

Esc: This key is used to Exit from current menu and takes user back to Main Menu.

6: PgmRun Mode menu

```
Run:  
Speed:          Position:  
0000           00000  
----- Status -----
```

In program run Mode, this screen is displayed. It shows current Speed and Position. Next line to be executed will be displayed in place of ----- Status -----

7: PgmEdit Mode menu

LIST OF COMMANDS

CCW

When this command is set, the motion will take place in Anti-clockwise direction.

CW

When this command is set, the motion will take place in Clockwise direction.

JOG

This command is used for initial setting of table position using jog Mode.

WAIT_ANY_KEY

When this command is used, next command will take place after ANY_KEY is pressed.

CONT_START

This command is used for continuous motion at set SPEED.

CONT_STOP

This command is used to stop continuous motion.

SPEED (value) range is 0001 to 1200

This command is used to set the maximum speed (velocity), which motor will achieve while operations.

ACCL (value) range is 0001 to 0020

This command is used to set acceleration.

MOVETODEG (value) range is 000.0 to 999.9

This command is used when movement is required in absolute degree.

MOVEBYDEG (value) range is 000.0 to 999.9

This command is used when movement is required in relative degree.

SETDIV (value) range is 000.0 to 999.9

This command is used to set division.

MOVETODIV (value) range is 000.0 to 999.9

This command is used when movement is required in absolute division.

MOVEBYDIV (value) range is 000.0 to 999.9

This command is used when movement is required in relative division.

WAIT_mSEC (value) range is 0001 to 9999

This command is used to generate delay between two commands, 1000 is 1 second.

LOOPFOR (value) range is 0001 to 9999

This command is used for looping and must be end with LOOPEND.

LOOPFOREVER

This command is used for infinite loop.

LOOPEND

This command is used to end loop instruction and every loop (LOOPFOR or LOOPFOREVER) must be end with LOOPEND.

NOP

This command is used for no operation. It can be used to temporarily remove an instruction by replacing it with a NOP.

END

This command is used to end program and every program must have END command at last.

>01 CCW	
02 SPEED	0001
03 END	
OK: Save	Esc: Exit

8: Editing the Program

Editing the Program

Allows the user to enter a program or edit an existing one.

The screen shows a window of 4 lines on the program along with a cursor (>).

Lines begin with the current line number followed by the command and its value.

With an empty program the screen looks like this.

```
>01 -----  
02 -----  
03 -----  
OK: Save      Esc: Exit
```

The cursor shows current position and next to cursor, current line is displayed. In above figure cursor is currently on line one so command can be enter by pressing   and  values can be entered by num key[0] - [9]. And line current line can be changed using up  down  button.

9: Setup Mode menu

Gear Ratio:	001.0
Steps/Rev:	2000
Steps/mm:	2000
OK: Save	Esc: Exit

When setup option is selected from MAIN MENU above screen will appear.

With the help of Navigation keys (UP, DOWN, RIGHT, LEFT) and other keys, the parameter can be changed. The changed parameter can be saved with OK or discard by Esc.

Gear Ratio: This parameter is used for setting gearing ratio. And the range for gear ratio is (001.0 to 999.9).

Step/Rev: This parameter is used for setting Steps required for single revolution. And the range for step/rev is (200 to 9999).

Step/MM: This parameter is used for setting Steps required for 1MM of linear motion. And the range for step/rev is (1 to 9999).

Acceleration: This parameter is used for setting Acceleration range for acceleration is (01 to 20).

Speed: This parameter is used for setting Max Speed (this is the maximum speed motor will achieve) . The range for Max Speed is (1 to 1200).

Direction: This parameter is used for setting direction (CW-clockwise and CCW-anticlockwise).

Boot Mode: This parameter is used for setting the Boot up Mode for the controller. It can be set to any Mode (listed in the MAIN MENU). For example if (as shown above) it is set to "PrgRun" Mode, the controller will bypass the Main Menu screen and directly start in RUN Mode and start executing Program stored in Memory.

Splash Screen: This parameter is used to turn off/on initial splash screen. Turning off the splash screen can result in faster boot time.

Factory Reset: This parameter is used for resetting all parameters to Factory Defaults. It can be used if you want to start over, and it also loads a SAMPLE program erasing any user program in on volatile memory.

Keys:



These keys are used for moving cursor to next parameter.



These keys are used for moving cursor to next parameter.

[0] - [9] To enter the number.

[OK] Save and return to MAIN MENU.

[Esc] Cancel and return to MAIN MENU.

