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# TC55 New Version



## INSTRUCTION MANUAL

01. Safety Instruction	-----	2
02. Introduction	-----	2
03. Operation	-----	3
04. Programming	-----	15
05. Wiring Definition	-----	26
06. Installation Size	-----	28

We draw your attention to the fact that there can be some changes in this instruction due to the product consistent technical improvement.

## 01

## Safety Instruction

There may be difference between real product and manual picture of TC55. The product or accessories are subjected to changes without prior notice. Please refer to the updated information.

Before installing and using the product, operate strictly according to the detailed description of product manual, to assure correct application.

Avoid dust and moisture. If there is any quality issue, the users can call our product service center, authorized offices, distributors or agencies to get corresponding product services.

Any information in such manual can not be duplicated, reprinted or used without our written permission, and the violators should take all responsibility for the caused loss. Any questions came up for this manual please contact [info@purelogic.ru](mailto:info@purelogic.ru).

## 02

## Introduction

The TC55 panel-type motion controller (CNC system) uses high-performance 32-bit CPU. The drive device adopts subdivision stepping motor or AC servo motor. It is equipped with LCD monitor and fully enclosed touch-type operating keyboard. The system has high reliability, high precision, low noise, it is easy to operate etc.

**Main Functions**

Automatically execute: Actual running, Dry running, Single-step execution, Terminate program, Start and Pause function.

Manual operation: Manual high speed, Manual low speed, Jog operation, Back to program zero, Back to machine zero.

Program management: absolute programming, Incremental programming, linear and circular interpolation, back to machine zero, sub-program call, register, delay, repeat, Output, PLC set, Pause.

Parameter settings: Set various control parameters of processing and operation, get the best status of processing effect.

Exterior Manual Operation: control motor clockwise and counter-clockwise spinning, Start, Pause, Alert and Emergency Stop.

USB Connection and upgrade

PLC Extension

I/O Extension

Isolated I/O port

Chinese/English panel display

**Technical Specifications**

Minimum data unit 0.001 mm

Maximum data size  $\pm 99999.999$  mm

Maximum Speed: 9000mm/min (pulse is 0.001 mm)

Maximum pulse output frequency 150KHz

Axis 1-4 (X,Y,Z,C)

X,Y,Z,C axis can conduct linear interpolation, X,Y can do circular interpolation.

Electric Gear: numerator :1-99999 denominator: 1-99999

System main functions are automatic, manual, program editing, system parameters, self-check, settings, etc.

### Size

Outside Size: 172×94×48 mm

Installing Size: 162×84 mm

Front Panel: 4 mm

## 03

## Operation



Keys	Interpretation	Notes
	Used for choosing correspondent keys; Blank Keys	Multi-functions
	Used for choosing correspondent keys; Blank Keys	Multi-functions
	In manual operation, it is the Z axis clockwise spinning key	Multi-functions
	In manual operation, it is the C axis clockwise spinning key	Multi-functions
	In manual operation, it is the Z axis counter clockwise spinning key	Multi-functions
	In manual operation, it is the C axis counter clockwise spinning key	Multi-functions
	In manual operation, press 0 for over 3 minutes, work will turn to 0	Multi-functions
	In program edition, press F over 3 seconds will empty the current program and create a new program without name. In manual operation, press F key, then use key 1-8 to control the on and out of 1-8 output ports	Multi-functions
	1. Increasing or decreasing speed during auto and manual operation (F) 2. Page up or page down	Multi-functions
	Confirm and Delete	
	Exit	
	1. X axis clockwise and counter-clockwise 2. In Back to zero mode, it will control X axis clockwise and counter-clockwise back to zero	Multi-functions

Keys	Interpretation	Notes
 	1.Y axis clockwise and counter-clockwise 2.In Back to zero mode, it will control Y axis clockwise and counter-clockwise back to zero	Multi-functions
 	Start: Work only in auto interface Pause: Work in all occasions	

### Boot Picture

Entering the main interface after power on(take TC5540 as example).

AutoExec	X 00000.000 Y 00000.000
Man Op	Z 00000.000 C 00000.000 F00000 100% 00000
Prog Mgmt	
Para Set	File----n000

### Manual Operation

Man Hspd	X 00000.000 Y 00000.000
Jog Op	Z 00000.000 C 00000.000 F00000 100% 00000
BPZ	
BMZ	1236 clear coordinates

Man Op: Manually switch high speed and low speed. Positive display means low speed, and negative display means high speed. Define in Main Interface-Parameters-System-Speed.

Jog Op: Press one time, the system will go one step at a specified length.

BPZ: Back to Program Zero, press this key, Immediately go back to zero.

BMZ: Back to Mechanical Zero.

### AutoExec (Automatic Execution)

Actl Run	X 00000.000 Y 00000.000
	Z 00000.000 C 00000.000
	F00000 100%00000
SS Mo	
End Prog	File---n000

Actl Run[Actual Running] press this automatically operate programs opened last time.

SS Mo: Positive display means consecutive operation. Negative display means operate command by command. When it is negative display, press Actl Run once, one command will be executed.

End Prog[End Program]: Press this to end the program and go back to the first line of the command.

### Pro Magn (Program Management)

Pro Edit	X 00000.000 Y 00000.000
Read Pro	Z 00000.000 C 00000.000
	F00000 100%00000
Prog Del	
Save Pro	File---n000

Pro Edit: input or create new file(long press F yto create new file).

Read Pro: read the program.

Prog Del: Delete programs.

Save Program: After edition, press EXIT, then choose to save or save as.

### Screen Display Instruction

Pro Up	n001 Abs Moti File-----
Pro Down	Tab:0 X0.000
	F0 Y0.000
Add Row	C0.000 Z0.000
Eras Row	

n: Current command name.

Rel Moti: name of the current command.

File----: When it is ----, it means the file has not been named yet.

Tab: tab a certain file, used in loop or jump, defaulted value is 0. Do not need to fill it when you do not need to loop or jump.

F: Speed of the motion, used in Rel Moti, Abs Moti, clwise(clock wise) and coclwise(counter clockwise).

X,Y,Z,C coordinates or amount of increase.

### Key Instruction in Prog Edit

Pro Up: Program Up.

Pro Down: Program Down.

Add Row: Add one row.

Eras Row: Erase one row.

Pgup: go to last command that has already finished edition.

PgDn: go to last command that has already finished edition.

### Read Pro

Choose to read one of the 20 programs.

### Pro Del

Choose to delete one of the 20 programs.

### Save Pro

Save the program.

### Para Set (Parameters Setting)

SystPara	
SystInsp	
Set IO	
UserMgmt	

SystPara: System parameters, including Ctrl Para(Control Parameters), Sped Para(Speed Parameters).  
 SystInsp: System Inspection, including the self inspection of actual input and output.  
 Set IO: including system input and manual input.  
 UserMgmt: Into user management or factory management to do authority setting.  
 Note: Go into UserMgmt before setting parameters, code is 123456; use it to change the parameters.

## SystPara (System Parameters)

### 1) CtrlPara (Control Parameters)

CtrlPara	Language: English External IO: Proh External PLC:Proh
SpdPara	
FacVal	
SavePara	Inpu Para 01/18

Language: Choose English or Chinese.

External IO: the I/O port number can be extended using TC55-KA(not included in TC55 package) to 30/24.

External PLC: PLC TC4616(not included inTC55 package) can be extended.

X axis Reference Point: In manual operation, long press 1 to clear the coordinates and show this value; or in BMZ, after hit the switch, it will show this value.

X Axis Numerator (1-99999)

X Axis Denominator (1-99999)

Y axis Reference Point: In manual operation, long press 2 to clear the coordinates and show this value; or in BMZ, after hit the switch, it will show this value.

Y Axis Numerator (1-99999)

Y Axis Denominator (1-99999)

Z axis Reference Point: In manual operation, long press 3 to clear the coordinates and show this value; or in BMZ, after hit the switch, it will show this value.

Z Axis Numerator (1-99999)

Z Axis Denominator (1-99999)

C axis Reference Point: In manual operation, long press 6 to clear the coordinates and show this value; or in BMZ, after hit the switch, it will show this value.

C Axis Numerator (1-99999)

C Axis Denominator (1-99999)

Spd+Time(ms): time use for motor to reach F speed.

Jog+No.(um): in manual operation, increment for jogging.

X Open(um): X axis adjusting gap(to make it more precise)

Y Open(um): Y axis adjusting gap(to make it more precise)

Z Open(um): Z axis adjusting gap(to make it more precise)

C Open(um): C axis adjusting gap(to make it more precise)

X ZeroStart: Choose Prohibition or Effect to choose whether the system will first go back to mechanical zero after booting.

Y ZeroStart: Choose Prohibition or Effect to choose whether the system will first go back to mechanical zero after booting.

Z ZeroStart: Choose Prohibition or Effect to choose whether the system will first go back to mechanical zero after booting.

C ZeroStart: Choose Prohibition or Effect to choose whether the system will first go back to mechanical zero after booting.

Press enter to choose Proh or Effe.

### The following function can only be used when Sell Code logged in

- Pro Edit: choose hide will make user unable to edit program.
- ProShow: choose hide will make user unable to see programs.
- TimeLock: after sell code logged in, Para Set-UserMgmt-Sys Veri to set 8digit code to lock the system.

### Setting of Electronic Gear Ratio

Setting the electronic gear is to set different data unit for different machines. Different axis of the same machine can be set based on different unit. For example, axis A can be set as mm, axis B can be set as angle, and axis C can be set as round.

How to set the numerator and denominator of electronic gear ratio:

Pulse needed for the motor to turn one round to the same direction.

Distance moved when the motor turn one round to the same direction ( $\mu\text{m}$ ).

Numerator and denominator both should be integer between 1 and 99999.

Ex. 1 Screw Transmission

Stepper motor stepping is 5000, or servo motor 5000 pulse/round, screw pitch is 6mm, reduction ratio is 1:1, then,  
 $5000 \rightarrow 5$

$6*1000*1.0 \rightarrow 6$

Ex. 2 Rack and Pinion

Stepper motor stepping is 6000, or servo motor 6000 pulse/round, gear teeth number is 20,  $m=p/n=2$ , then

$6000 \rightarrow 1 \rightarrow 107 \rightarrow 107$

$1000*20*2*3.14159265 \rightarrow 20.943951 \rightarrow 2241.00276 \rightarrow 2241$

Ex. 3 Rotary Angle

Stepper motor stepping is 5000, or servo motor 5000 pulse/round, reduction ratio is 1:30, then,

5000\*30 → 5  
360\*1000 → 12

## 2) SpdPara (Speed Parameters)

CtrlPara	X Hsped(mm/min): 1000
SpdPara	Y Hsped(mm/min): 1000
FacVal	Z Hsped(mm/min): 1000
SavePara	Customer unlogged 01/07

Hsped-X: The highest speed of x axis motor. When the system is operating, speed will not exceed this number no matter what F you set.

Hsped-Y: The highest speed of Y axis motor. When the system is operating, speed will not exceed this number no matter what F you set.

Hsped-Z: The highest speed of Z axis motor. When the system is operating, speed will not exceed this number no matter what F you set.

Hsped-C: The highest speed of C axis motor. When the system is operating, speed will not exceed this number no matter what F you set.

StartSpd(mm/min)Speed during Spd+Time.

Man Hspd: Manual high speed.

Man Lspd: Manual low speed.

Jog Spd: Jog speed.

BZHSpd: Go to machine zero at high speed.

BZLSpd: Go back to machine zero first at high speed, through zero switch and move back at low speed. Finally slider will stop on the switch.

BZMode: two modes to go back to machine zero, trough switch or not. Through switch: slider will stop on switch. Not trough switch: Slider will stop before the switch.

X+ Coor:X axis positive limit coordinates.

X-Coor:X axis negative limit coordinates.

Y+ Coor:Y axis positive limit coordinates.

Y-Coor:Y axis negative limit coordinates.

Z+Coor:Z axis positive limit coordinates.

Z-Coor:Z axis negative limit coordinates.

C+Coor:C axis positive limit coordinates.

C-Coor:C axis negative limit coordinates.

## SystInsp (System Inspection)

Self inspection the input and output port

### 1) Actl Inp (Actual Inspection)

Actl Inp	01off 02off 03off
Set Inp	04off 05off 06off 07off 08off 09off
Actl Oup	
	Test actual input 01/02

This is used to detect whether the 14 input port is working functionally.

### 2) Actl Oup (Actual Output)

Actl Inp	01off 02off 03off
Set Inp	04off 05off 06off 07off 08off
Actl Oup	
	Enter-on/off 01/01

This is used to detect whether the 14 input port is working functionally.

### IO Set

**Please do not change parameters of this part without proper reasons.**

Entering IO Set, defaulted interface is the systInpu(System Input)

SystInpu	X lim+: Proh N.O. Pt0
Man Inpu	X lim-: Proh N.O. Pt0
FacVal	Y lim+: Proh N.O. Pt0
Save	Customer unlogged 01/09

This is used to detect whether the 14 input port is working functionally.

## System Input Port Function List

Functions	Interpretation	Methods
X Axis Lim+	X axis Positive limit setting	External Big switch is needed to finish external control. External switch is connected in the way of normal open. Press Enter to change off into on, and choose N.O.(Normal Open). Then choose the IO Port number. Note: For safety consideration, limit and emergency stop input is usually set as N.C. (Normal Close).
X Axis Lim-	X axis Negative limit setting	
Y Axis Lim+	Y axis Positive limit setting	
Y Axis Lim-	Y axis Negative limit setting	
Z Axis Lim+	Z axis Positive limit setting	
Z Axis Lim-	Z axis Negative limit setting	
C Axis Lim+	C axis Positive limit setting	
C Axis Lim-	C axis Negative limit setting	
AlerInpu	Alert Input	
EmStInpu	Emergency Stop Input	
X 0	X axis zero switch setting	
Y 0	Y axis zero switch setting	
Z 0	Z axis zero switch setting	
C 0	C axis zero switch setting	
OutStart	Outside (External) Start Switch Setting	

Out EmSt	Outside (External) Emergency Stop Setting	
Spd+Inpu	Speed Increase Outside Switch	
Spd-Inpu	Speed Decrease Outside Switch	
OutPt 1-8	External input port control output port	

### Man Inpu (Manual Input)

SystInpu	Man X+: Prob N.O. Pt 0 Man X-: Prob N.O. Pt 0 X HSup Pro N.O. Pt 0
Man Inpu	
Fac Val	
Save	Customer unlogged 01/04

Functions	Interpretation	Methods
Man X+	X axis clockwise spinning outside manual switch	Choose on or off Choose N (Negative) or P (Positive)
Man X-	X axis counter clockwise spinning outside manual switch	
X HSup	X axis high speed up	
X HSdown	X axis high speed down	
X LSup	X axis low speed up	
X LSdown	X axis low speed down	
Man Y+	Y axis clockwise spinning outside manual switch	

Man Y-	Y axis counter clockwise spinning outside manual switch
Y HSup	Y axis high speed up
Y HSdown	Y axis high speed down
Y LSup	Y axis low speed up
Y LSdown	Y axis low speed down
Man Z+	Z axis clockwise spinning outside manual switch
Man Z-	Z axis counter clockwise spinning outside manual switch
Z HSup	Z axis high speed up
Z HSdown	Z axis high speed down
Z LSup	Z axis low speed up
Z LSdown	Z axis low speed down
Man C+	C axis clockwise spinning outside manual switch
Man C-	C axis counter clockwise spinning outside manual switch
C HSup	C axis high speed up
C HSdown	C axis high speed down
C LSup	C axis low speed up
C LSdown	C axis low speed down

Choose on or off  
Choose N (Negative) or P (Positive)

X ZeroSt	X axis Machine zero external manual switch
Y ZeroSt	Y axis Machine zero external manual switch
Z ZeroSt	Z axis Machine zero external manual switch
C ZeroSt	C axis Machine zero external manual switch
Auto UI	Auto operation UI
Manual UI	Manual operation UI
Prog Zero	All axis go back to Program zero

Choose on or off  
Choose N (Negative) or P (Positive)

# 04

## Programming

### Programming Instruction

1. F: Feeding Rate
2. Program and Command: each motion of the CNC processing is controlled by a command, a program is consisted by several commands.
3. Line and tab: tab is the name of the line of command.

### Abbreviation

- tab — Another name enable the command to be used in other command
- X — X axis increase or absolute coordinates
- Y — Y axis increase or absolute coordinates
- Z — Z axis increase or absolute coordinates
- C — C axis increase or absolute coordinates
- F — Feeding speed
- R — Radius,  $\leq 180^\circ$  R is positive,  $180^\circ$   $360^\circ$  R is negative
- Time — Time delayed in the command Delay
- Cond — It is used to set the condition of the input port, whether it is on or off

TargTab — Target Tab

Dir — Direction to go back to zero, + or -

BZAxis — Axis to go back to zero, used in BMZ

Sub-proN — name of the sub program

InpuPort — Input Port

ValueSet — Used in Work Load,number set for the starting number of work piece

CounDir — Used in Count, direction of counting, + or -

TargeLine

### Command

Use command up and command down to choose the command.

### End

When the commands can not be read, it will be considered as "End".

Pro Up	n005 End File-----
Pro Down	Tab:
Add Row	
Eras Row	

### FastMoti

This command is similar with G-code G0, it accomplish fast positioning. The speed is influenced by G0 speed and speed magnifying times.

Pro Up	n001 FastMoti File-----
Pro Down	Tab: 0 X0.000
Add Row	Y0.000
Eras Row	C0.000 Z0.000

X [X axis absolute coordinates], Y [Y axis absolute coordinates], Z [Z axis absolute coordinates].

### Rel Moti

Linear interpolation: Axis moves by relative coordinates. For example: if you input X:200, X axis moves by 200. The speed is influenced by speed magnifying times and F.

Pro Up	n001 FastMoti File-----
Pro Down	Tab: 0 X0.000
Add Row	F0 Y0.000
Eras Row	C0.000 Z0.000

Parameters: X (X axis moving amount), Y (Y axis moving amount), Z (Z axis moving amount) F (speed).

### Abs Moti

Linear interpolation:axis moves by relative coordinates. For example: if you input X:200, X axis moves to 200. The speed is influenced by speed magnifying times and F.

Pro Up	n001 Abs Moti File-----
Pro Down	Tab: 0 X0.000
Add Row	F0 Y0.000
Eras Row	C0.000 Z0.000

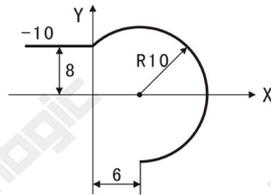
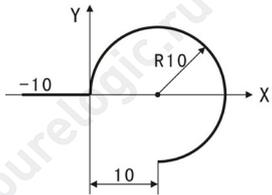
Parameters: X (X axis absolute coordinates), Y (Y axis absolute coordinates), Z (Z axis absolute coordinates) F (speed).

### CLWise

Clockwise interpolation, the speed is influenced by speed magnifying times and F.

Pro Up	n001 ClWise File-----
Pro Down	Tab: 0
Add Row	X0.000 Y0.000
Eras Row	R0.000 F0

X [X axis moving amount], Y [Y axis moving amount],  $\leq 180^\circ R$  is positive,  $>180^\circ <360^\circ R$  is negative.



Left: Rel Moti X 10.000 Y 0  
CLWise X 10.000 Y-10.000 R-10

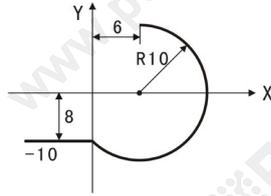
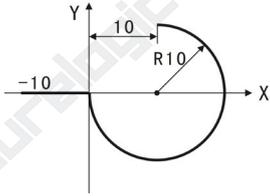
Right: Rel Moti X 10.000 Y 0  
CLWise X 6.000 Y-18.000 R-10

### CoClwise

Counter-Clockwise interpolation, the speed is influenced by speed magnifying times and F.

Pro Up	n001 CoClWise File-----
Pro Down	Tab: 0
Add Row	X0.000 Y0.000
Eras Row	R0.000 F0

X [X axis moving amount], Y [Y axis moving amount],  $\leq 180^\circ R$  is positive,  $>180^\circ <360^\circ R$  is negative.



Left: Rel Moti X 10.000 Y 0  
CocLWise X 10.000 Y 10.000 R-10

Right: Rel Moti X 10.000 Y 0  
CocLWise X 6.000 Y 18.000 R-10

### Set Coor

Set the current position as new coordinates.

Pro Up	n001 Set Coor File----- Tab: 0 X0.000 Y0.000 C0.000 Z0.000
Pro Down	
Add Row	
Eras Row	

X [X axis coordinates], Y [Y axis coordinates], Z [Z axis coordinates].

### Delay

Pro Up	n001 Delay File----- Tab: 0 DelayTime: 0.000
Pro Down	
Add Row	
Eras Row	

Delay time: 0.001 minimum.

### Abs Jump

When this command is executed, the controller will jump to the command whose tab is the same with the target tab of this command.

Pro Up	n001 Abs Jump File----- Tab: 0 TargTab: 0
Pro Down	
Add Row	
Eras Row	

TargTab (Target Tab):which command you need to jump to.

### JudgJump

When this command is executed, the controller will judge whether the input port condition fits what we set, if it fits, the controller will next execute a certain command's tab is the same with the target tab. If it does not fit, next command will be executed.

Pro Up	n001 JudgJump File----- Tab: 0 Inp Pt:0 Cond: off TargTab: 0
Pro Down	
Add Row	
Eras Row	

Inp Pt(Input port): It is used to test the input port from 1-14).

Cond (Condition): It is used to set the condition of the input port, whether it is on or off.

TargeTab: Target Tab

### Repe

Go to the command whose tab is the same with this target tab, repeat n-1 times.

Pro Up	n001 Loop File----- Tab: 0 Loop No.: 0 TargTab: 0
Pro Down	
Add Row	
Eras Row	

**Oup (Output)**

Pro Up	n001 Oup File----- Tab: 0 Oup Pt: 0 Stas: off
Pro Down	
Add Row	
Eras Row	

Output Port: 1-8

**BMZ Back to Mechanical Zero**

Pro Up	n001 BMZ File----- Tab: 0 BZAxis: X BZDir: N
Pro Down	
Add Row	
Eras Row	

BZAxis: Axis to go back to zero.  
BZDir: Direction to go back to zero.

**USub-pro (Use Sub-program)**

Sub-program need to be placed at the end of the main program, separated by the command END.

Pro Up	n001 USub-pro File----- Tab: 0 Sub-proN: 0
Pro Down	
Add Row	
Eras Row	

Sub-proN (Sub-program Name): fill the name of the sub program you want to use.

### Sub-proB (Sub-program Begin)

This means the beginning of the sub-programs.

Pro Up	n001 Sub-proB File-----
Pro Down	Tab: 0
Add Row	Sub-proN: 0
Eras Row	

Sub-proN (Sub-program Name) define your name of the sub program to enable the main program to ask it.

### Sub-proE (Sub-program End)

Put this command at the end of the sub-program to end this sub-program series.

Pro Up	n001 Sub-proE File-----
Pro Down	Tab: 0
Add Row	
Eras Row	

Sub-proN and Sub-proE has to exist for create sub-programs.

#### **Note: Example to use sub-program**

N001 Main Program  
 N002 Main Program  
 N003 USub-pro (Name: 123)  
 N004 End  
 N005 Sub-programB (Name: 123)  
 N006 Sub-program  
 N007 Sub-program  
 N008 Sub-programE  
 N009 End

This design is used when a series of programs need to be used repeatedly. In order to simplify the programming, you can put this part at the end ready to be used!

### Sped Mod

Sped Mod(Speed mode) this mode will allow each axis to move at a certain speed without a certain destination. Using on and off of the input port to decide whether to stop or execute the next command.

Pro Up	n001 Sped Mod File----- Tab: 0 X0 Y0 Z0 C0 Inp Pt 0 StpCon off
Pro Down	
Add Row	
Eras Row	

X (X axis Speed), Y (Y axis Speed), Z (Z axis Speed), Input Port (1-14).

Cond (Condition): It is used to set the condition of the input port, whether it is on or off.

### Work Load

When this command is executed, the number on main interface and manual interface will be set to this number.

Pro Up	n001 Workload File----- Tab: 0 ValueSet: 0
Pro Down	
Add Row	
Eras Row	

Value Set: Number you set.

### Coun (Count)

When this command is executed, the number on main interface and manual interface will increase by 1 or decrease by 1.

Pro Up	n001 Coun File-----
Pro Down	Tab: 0
Add Row	CounDir: 0
Eras Row	

CounDir: Plus or Minus.

### Pause (Paus)

When the controller execute this command, it pause and judge if the input port condition fits what we set before. Sometimes Pause and Judge Jump can be used in the same situation. If the condition of the input port does not fit, it will jump to the command whose command is the same with the target tab. If the tab is 0, it will automatically go to the next command.

Pro Up	n001 Paus File-----
Pro Down	Tab: 0
Add Row	Inp Pt: 0 Cond: off
Eras Row	TargLine: 0

Inp Pt (Input port): It is used to test the input port from 1-14).

Cond (Condition): It is used to set the condition of the input port, whether it is on or off.

TargeTab: Target tab.

### PLC Set

Setting the register address of PLC.

Pro Up	n001 PLC Set File-----
Pro Down	Tab: 0
Add Row	RegisAdr: 0
Eras Row	Val: 0

RegisAdr: Register address

Val: value

### PLC cmpa (PLC compare)

Pro Up	n001 PLCcmpa File-----
Pro Down	Tab:0 Cond:
Add Row	RegisAdr: 0
Eras Row	Val: 0 TargLine:

This command is used together with PLC.

Cond: Condition.

TargLine: Target Line.

### CoorCmpa (Coordinate Compare)

This command is similar with JudgJump, when certain condition of coordinates is met, it will jump to target line.

Pro Up	n001 Coorcmpa File-----
Pro Down	Tab:0 Cond:
Add Row	AX: Val:
Eras Row	TargLine:

AX: axis.

### Programming Example:

X axis motor first run 10mm, 500mm/min, then output port 1 is connected, then wait for the signal of input port 1, when the signal of input port 1 is detected, output port 1 is off.

### Main Interface

Choose "ProgMgmt"  
Then choose "Pro Edit"  
Press Key F for 3 seconds, then a new file is created, with interface showing "n001 End File----"  
Tab: 0  
Press "Pro Up" to find "Rel Moti"

**Then the interface will be**

N001 Rel Moti File----  
Tab:0 X:0.000 F:0  
Move the up and down arrow, to take the cursor go to X, and input 10, then go to F, input 500  
Press "PgDn" to create 002 command,  
After finishing all the programming it should be like this  
n001 Rel Moti File----  
Tab:0 X:10 F:500  
n002 Oup File----  
Tab: 0 Oup Pt:1 Cond: On (switch by "ENT")  
n003 Paus File----  
Tab:0 Inp Pt:1 Cond:off TargTab: 0  
n004 Oup File-----  
Tab: 0 Oup Pt: 1 Cond:off  
n005 End File----

Press "PgUp" or "PgDn" to examine if it is right, then press "Esc", then press "Save Pro" Key.

**05**

**Wiring Definition**

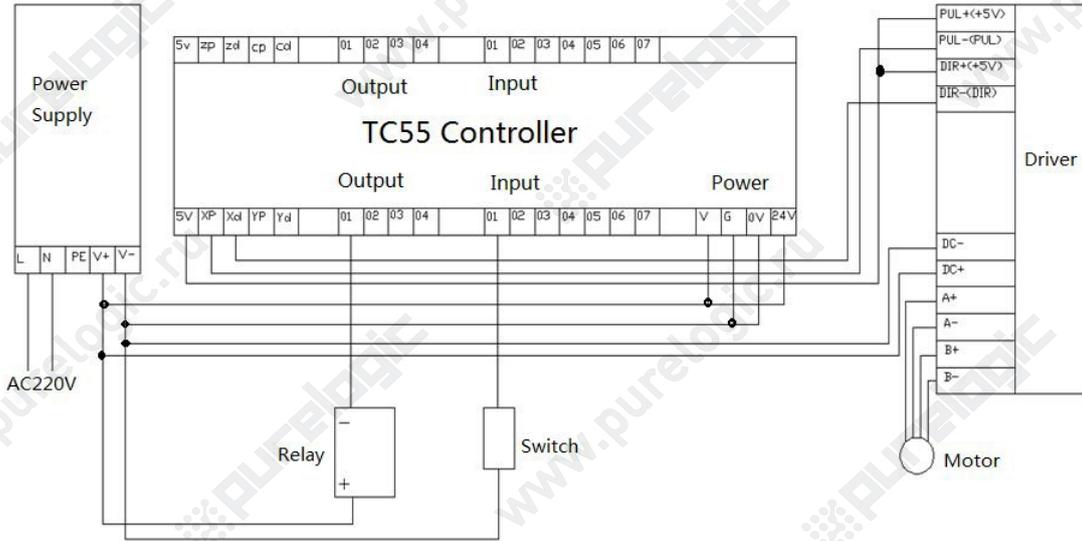
**Section I**

- 5V — System pulse or direction 5V output
- Xp — System x axis pulse negative output
- Xd — System x axis direction output
- Yp — System Y axis pulse negative output
- Yd — System Y axis direction output
- O1 [Output] — Output 1, Connect to power 24V+ through Relay or solenoid valve

02 (Output) — Output 2, Connect to power 24V+ through Relay or solenoid valve  
03 (Output) — Output 3, Connect to power 24V+ through Relay or solenoid valve  
04 (Output) — Output 4, Connect to power 24V+ through Relay or solenoid valve  
01 (Input) — Input 1, Connect to power 24V- through machine or switch  
02 (Input) — Input 2, Connect to power 24V- through machine or switch  
03 (Input) — Input 3, Connect to power 24V- through machine or switch  
04 (Input) — Input 4, Connect to power 24V- through machine or switch  
05 (Input) — Input 5, Connect to power 24V- through machine or switch  
06 (Input) — Input 6, Connect to power 24V- through machine or switch  
07 (Input) — Input 7, Connect to power 24V- through machine or switch  
V — • IO power supply, used to connect 24V+ , not necessary connected  
G — • IO power supply, used to connect 24V-, not necessary connected  
0V — • 24V-  
24V — • 24V+

## Section II

5V — System pulse or direction 5V output  
Zp — System Z axis pulse negative output  
Zd — System Z axis direction output  
Cp — System C axis pulse negative output  
Cd — System C axis direction output  
05 (Output) — Output 5, Connect to power 24V+ through Relay or solenoid valve  
06 (Output) — Output 6, Connect to power 24V+ through Relay or solenoid valve  
07 (Output) — Output 7, Connect to power 24V+ through Relay or solenoid valve  
08 (Output) — Output 8, Connect to power 24V+ through Relay or solenoid valve  
08 (Input) — Input 8, Connect to power 24V- through machine or switch  
09 (Input) — Input 9, Connect to power 24V- through machine or switch  
10 (Input) — Input 10, Connect to power 24V- through machine or switch  
11 (Input) — Input 11, Connect to power 24V- through machine or switch  
12 (Input) — Input 12, Connect to power 24V- through machine or switch  
13 (Input) — Input 13, Connect to power 24V- through machine or switch  
14 (Input) — Input 14, Connect to power 24V- through machine or switch



06

Installation Size

