

[]



2

2.1 (G)

ADDRESS G , BLOCK 가 가 .

G CODE 2 가 .

ONE SHOT G CODE : BLOCK G CODE가 .

MODAL G CODE : GROUP G CODE가 G CODE가 .

) G01, G00 MODAL G CODE

```
G01 X___;
Y___;    } G01
X___;
G00 Y___;
```

2.1 G CODE

Group	Code	
01	G00 *	
	G01 *	
	G02	CW
	G03	CCW
00	G04	DWELL
03	G17 **	XY
	G18	ZX
	G19	YZ
00	G28	
	G50	
	G51	
	G65	SUB
02	G90 *	ABSOLUTE
	G91 *	INCREMENTAL

- ** 가 G CODE G CODE .

* 가 G CODE RESET G CODE 가
 . (P22.0, P22.1 .)

- 00 GROUP G CODE MODAL BLOCK .

- G CODE G CODE ALARM .

- G CODE GROUP BLOCK .

2.2 G CODE

Group	Code		
01	G05		()
	G06		
	G07		
	G08		
00	G09		INPOSITION
	G10		BLOCK ()
	G11		BLOCK ()
	G12		가
	G13		가
	G14		(ON)
	G15		(ON)
	G16		(ON) (OFF)
	G20		DWELL ()
	G21		DWELL ()
	G22		Dwell (/)
	G24		(OFF)
	G25		(OFF)
	G26		(OFF) (ON)
	G27		
	G28		
	G29		
	G30		
01	G31		SKIP
	G32		
	G33		
	G34		
00	G35		()
	G36		()
00	G37		
00	G38		
00	G39		
04	G40		
	G41		()
	G42		()
	G44		
	G45		
	G46		
	G47		
	G48		
	G49		
00	G52		
	G53		
	G54		
	G55		
	G56		
	G57		
	G58		
	G59		
	G60		

	G61		
	G62		
	G63		
	G64		
	G65		
	G66		SUB
	G67		
	G68		
	G69		
00	G70		
00	G71		CLEAR
	G72		
	G73		
	G74		
	G75		
	G76		
	G77		
	G78		
	G79		
00	G80		' ON ' (X.M)
00	G81		' OFF (X.M)
00	G82		' ON - (X)
00	G83		' OF ' - (X)
	G84		
	G85		
	G86		
	G87		
	G88		
	G89		
	G90		
	G91		
	G92		
	G93		
	G94		
00	G95		
	G96		
	G97		
	G98		
	G99		

1)

(1) (G00)

G00 (G90) WORK ,

(G91) .

G00 IP__ or G00 P__

IP__ : X_Y_Z_U_V_W_A_B_C_ ADDRESS

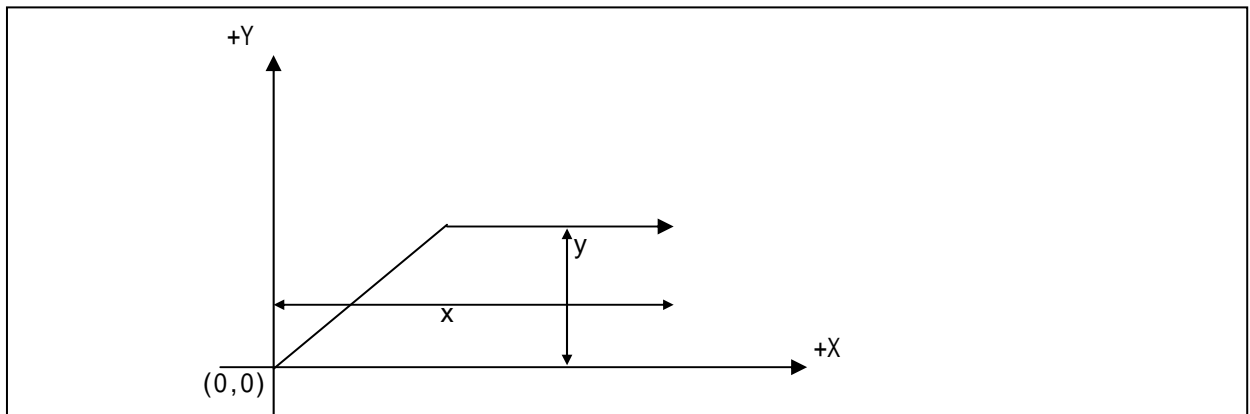
P__ : L L
가 .

1) G00 X10. Y20. Z30 ; ---	ADDRESS		
(X 10.0 mm /Y 20.00mm/Z 30.0 mm)			
2) X0; ---	G CODE가	G CODE	가 .
3) YL0; ---	L		
L '0'		L0	'12345'
, Y 12.345			
4)ZLL0; ---	L		
L '0'	L		L0
'12' L12			
5) G00 P0; --- L		(G CODE)	
L '0'	X , '1' Y , '2'가 Z		가
6) G00 PL0; --- L		(G CODE)	
L '0'	L		
L0 '12' , L12	X , L13		
Y , L14	Z	가	.

1)

/

2.1



A. G00

(P32)

.

G00

MODE

BLOCK

가

BLOCK

,

BLOCK

.

B. FF__;

.

L

L

가

.(

4

L

4

)

C. FV__;

(P32)

(0~100%)

. (: FV0 : 0 % , FV10 : 10%, FV100 : 100%)

G00 X10. Y20. Z30;	--	(P32)	.
X0 FF0;	---	L '0'	X , '1' Y , '2' Z 가
Z0 FV50 ;	---	(P32)	50% .

(2) (G01)

G01 IP__F__;

IP

G90/G91

WORK

F

F

. (Modal)

) 1.

(P33) '1'

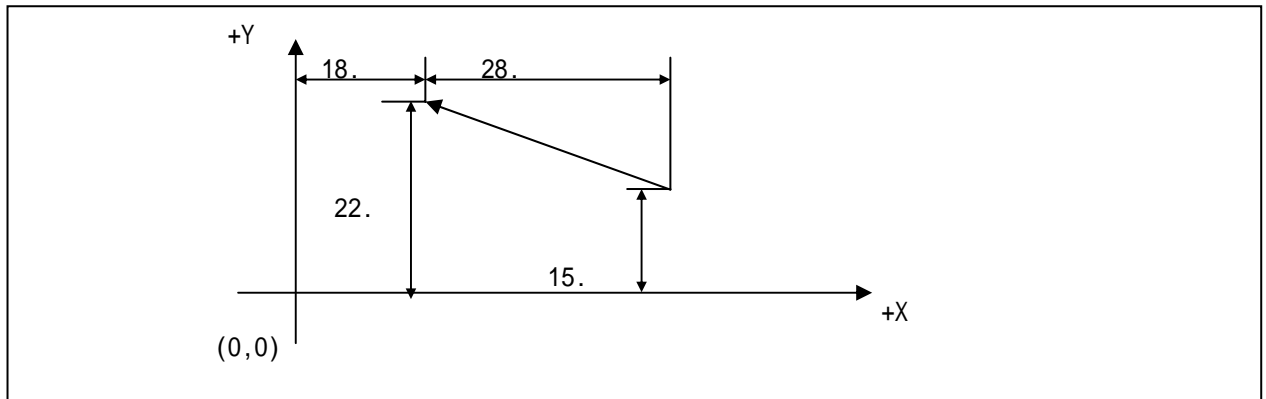
가

(P32)

Type

G01 X10. Y20. Z30 F1000; --	ADDRESS
X0 YL0 ZLL1; --G00 X '0', Y L '0', Z L '1' 가 L 가	
G01 P0; --L) L '0' X , '1' Y , '2' Z 가 .	G CODE
G01 PL0; --L) L '0' L L0 '12' , L12 X , L13 Y , L14 Z 가 .	G CODE

2.2



G90 G01 X18. Y22. F200; G91 G01 X-28. Y7. F200;

F

F

(P34)

가

가

2

.2)

Dwell

.(2)

”

G01 Xa Yb Ff; ----- Xa , Yb :

- X $F_x = a/L * f$
- Z $F_z = b/L * f$
- $L = \text{SQRT}(a*a + b*b)$

(3) (G02,G03)

XY

G17 { G02 } X__Y__ { R__ } F__;
 { G03 } { I__J__ }

ZX

G18 { G02 } X__Z__ { R__ } F__;
 { G03 } { I__K__ }

YZ

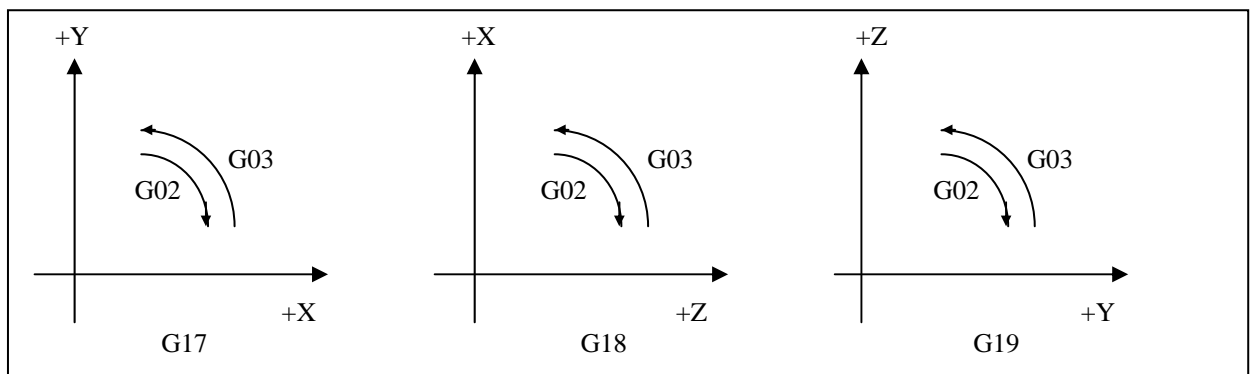
G19 { G02 } Y__Z__ { R__ } F__;
 { G03 } { J__K__ }

X: X ((P04))
 Y: Y ((P04))
 Z: Z ((P04))

DATA				
1			G17	X Y
			G18	Z X
			G19	Y Z
2			G02	(CW)
			G03	(CCW)
3		G90 MODE	X, Y, Z 2	WORK
		G91 MODE	X, Y, Z 2	
4			I, J, K 2	
			R	
5			F	

, XY (ZX , YZ) Z
 (Y ,X)

2.3



ADDRESS X,Y Z G90 G91

X,Y,Z

ADDRESS I,J,K

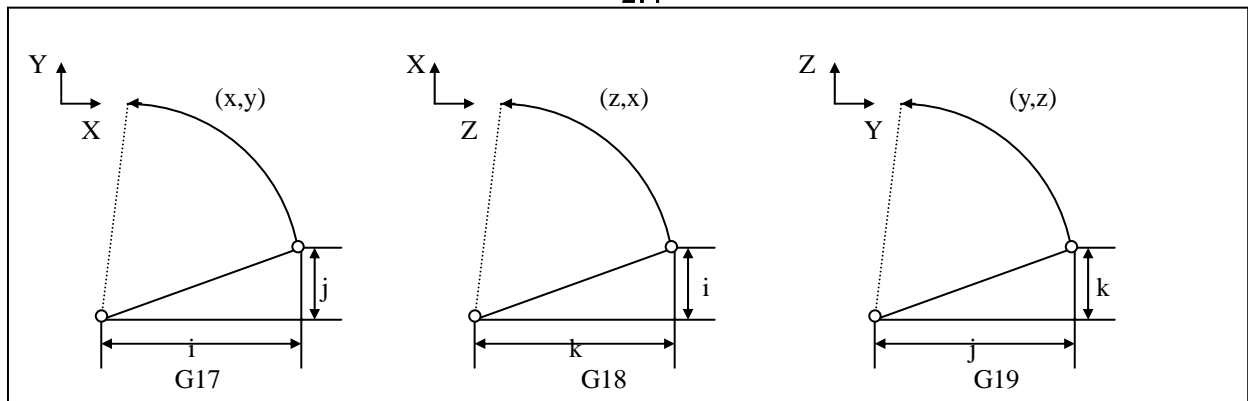
. , I,J,K

VECTOR

G90,G91

.

2.4



G00 X0. Y0. Z0;									
G17;	--		XY						
G02 X100 Y100 Z50 R100 F1000;	--	(0,0)	(100,100)	'100'					
		CW()	(1/4)	Z	'0'			
		'50.000'							
G00 X0. Y0. Z0;									
G03 X100 Y100 I0 J100 F1000;	--	(0,0)	(100,100)	'100'					
		CCW()	(1/4)					
G17 U0;	--		UY	(U	X				
)						
G00 U0. Y0. Z0;									
G02 U100 Y100 R100 F1000;	--	(0,0)	(100,100)	'100'					
		CW()	(1/4)					
G00 U0. Y0. Z0;									
G03 U0 Y0 I100. J0 F1000;	--	(0,0)	(0,0)	'100'					
		CCW()						

I,J,K

. I,J,K

R

G02 } X__ Z__ R__;
G03 }

2

,

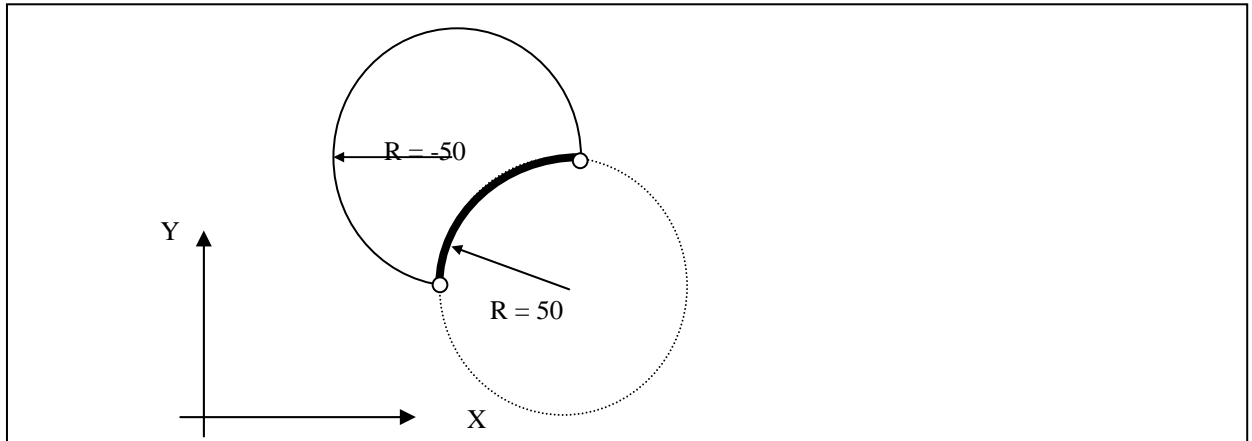
180

180

180

(-)

2.5



F CODE

()

가

.

10., J0. K0

.

360

I, J, K

.

) (X, Y, Z가 .)

G02 I__;

R

0

.

G02 R__; ()

) 1.

ALARM

.

2. X, Y

X

U

ALARM

.

3. I, J, K R

R

I, J, K

.

(4)

(G05)

가 가 가 .

XY

G17 G05 X__Y__ X__Y__Z__F__;

G17 G05 P__P__F__;

ZX

G18 G05 Z__X__ Z__X__Y__F__;

G18 G05 P__P__F__;

YZ

G19 G05 Y__Z__ Y__Z__X__F__;

G19 G05 P__P__F__;

G00 X0. Y0. Z0;									
G17;	--		XY	.					
G05 X20 Y70 X100 Y100 Z50 F1000;	--	(0,0)		(20,70,0)				(100,100,50)	
				Z					.
G00 X0. Y0. Z0;									
G19;	--		YZ	.					
G05 Y20 Z70 Y100 Z100 X50 F1000;	--	(0,0,0)		(0,20,70)					
		(50,100,100)					X	'0'	
		'50.000'		.(
									.)
G00 X0. Y0. Z0;									
G17;	--		XY	.					
G05 P0 P5 F1000;	--	(0,0,0)		(L0,L1,L2)				(L5,L6,L7)	
				,			L	'0'	
				가			L	'5'	
				가					.
G00 X0. Y0. Z0;									
G17;	--		XY	.					
G05 PL0 PL1 F1000;	-- L	'0'		'10', L	'1'			'20'	
		(0,0,0)		(L10,L11,L12)					
		L20,L21,L22)							.
			L	'10'				가	
			L	'20'				가	.

(5)

(G10,G11)

G10 X__ ; (0%~99%)

BLOCK

BLOCK

‘0’

G11 X__ ;

BLOCK

BLOCK

‘0’

)

G01,G02,G03,G05

G00

G00 X0. Y0. Z0;				
G10 X10; --			(: 10%)	
G01 X200 F1000; --	10%	180		.
Y100; --	10%	90		.
X0; --	10%	20		.
Y0; --			가	.
G10 X0; --				.
G11 X15; --			(: 15mm)	
G01 X200 F1000; --	15mm	185		.
Y100; --	15mm	85		.
X0; --	15mm	15		.
Y0; --			가	.
.				
G11 X0; --				.

(6) 가 (G12,G13)

G12; BLOCK BLOCK 가 .

G12 X__; (, msec) BLOCK .

G13; .

G00 X0. Y0. Z0;									
G12;	가							(: 0msec)
G01 X200 F1000;	X							.	
Y100;	Y	가							
	가		X		Y	가	,	가	
G12 X5;				5msec				.	
X0;	X	가						, 5msec	
Y0;			가		가			.	
G13;								.	

(7) SKIP (G31)

G31 G01 가

BLOCK .

G31 X__(M__); . (X: , M:)

G01 IP__ F__;

G00 X0. Y0. Z0;									
G31 X0.3;	SKIP								
G01 X200 F1000;	X	'0'	'200'		X0.3	'ON'			
					X0.3	'ON'		'200'	
Y100;									

(8) (G40,G41,G42)

G41 X__(Y,Z,U,V,W); :

G42 X__(Y,Z,U,V,W); :

G40; :

G17;				XY					.
G00 X0. Y0. Z0 U0;									
G41 U0;					U				
G01 X100 F1000;	X		'0'		'100'				X
		U		'-90'		X		.	
Y100;	Y		'0'		'100'				Y
		U		'0'		Y		.	
X0;	X		'100'		'0'				X
		U		'90'		X		.	
Y0;	Y		'100'		'0'				Y
		U		'180'		Y		.	
G40;									.

* "P114 5" 4 .

0 : 360000

2 : 3600

1 : 36000

3 : 360

(9) (G70,G71)

G70 L__ L__;

L	+ 0: 1st	POINT
L	+ 1: 2nd	POINT
L	+ 2: 3rd	POINT
L	+ 3: 1st	POINT
L	+ 4: 2nd	POINT
L	+ 5: 3rd	POINT
L	+ 6:	(0 : Y0.0 ~ 55 : Y3.7)
L	+ 8:	
	(0: , 1: , 2:)	
L	+ 0 ~ 2: 1st	
L	+ 3 ~ 5: 2nd	
L	+ 6 ~ 8: 3rd	
L	+ 9 ~ 11: 4th	

G71 L__; POINT CLEAR

G70 L POINT '1' .

L10	4 (1st POINT)
L11	3 (2nd POINT)
L12	1 (3rd POINT)
L13	1 (1st POINT)
L14	1 (2nd POINT)
L15	1 (3rd POINT)
L16	2 ((Y0.2))
L17	0
L18	1((Y0.2))

L20	0 (X 1st)
L21	0 (Y 1st)
L22	0 (Z 1st)
L23	300000 (X 2nd)
L24	0 (Y 2nd)
L25	0 (Z 2nd)
L26	0 (X 3rd)
L27	150000 (Y 3rd)
L28	0 (Z 3rd)
L29	0 (X 4th)
L30	0 (Y 4th)
L31	0 (Z 4th)

G00 X0. Y0. Z0;			
G71 L10; POINT , L13, L14, L15 '1' .			
G70 L10 L20 F1000; 1 POINT(0,0,0) .			
G00 X-100 Y-100;			
G70 L10 L20 F1000; 2 POINT(100,0,0) .			
G00 X-100 Y-100;			
G70 L10 L20 F1000; 3 POINT(200,0,0) .			
G00 X-100 Y-100;			

```

G00 X0. Y0. Z0;
G71 L10;                POINT    ,    L13, L14, L15    '1'    .

N1;

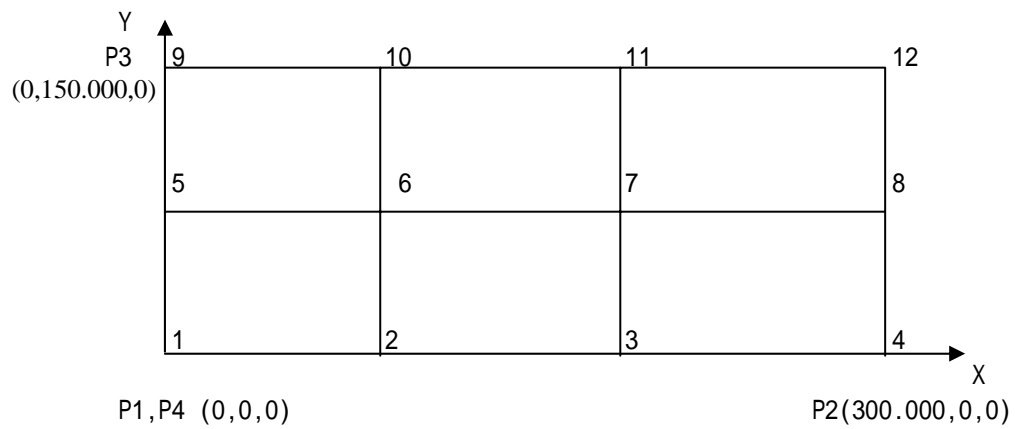
G70 L10 L20 F1000;      (1 ~12 ) POINT    .

G00 X-100 Y-100;

IF Q200.0 = 0 N1;      가      N1      Jump
                      . Q      200.0  PLC      M0.0      .

<PLC      >
LOAD YO.2
OUT MO.0

```



(10)

(G14,G15,G16,G24,G25,G26)

G14(G15,G16,G24,G25,G26);

BLOCK

G14(G15,G16,G24,G25,G26);

BLOCK

“P114

5”

(1)

(2)

G14	1,2	ON			
G15		1,2	ON		
G16	1,2	ON		1,2	OFF
G24	1,2	OFF			
G25		1,2	OFF		
G26	1,2	OFF		1,2	ON
A		1		1	ON OFF
C		2		2	ON OFF
B		1		1	ON OFF
D		2		2	ON OFF
P		1,2		1,2	ON OFF

10.1) G14 A__C__ ; (: μm)

A,C 가 : BLOCK 1 (ON), 2 (ON) ,

A : 1 (ON)

C : 2 (ON)

10.2) G14 P__ ; (: msec)

1 (ON), 2 (ON) ,

10.3) G15 B__D__ ; (: μm)

B,D 가 : BLOCK 1 (ON), 2 (ON)

B : 1 (ON)

D : 2 (ON)

10.4) G16 A__B__C__D__ ; (: μm)A,B,C,D 가 : BLOCK 1 (ON), 2 (ON) ,
1 (OFF), 2 (OFF) .

A : 1 (ON)

C : 2 (ON)

B : 1 (OFF)

D : 2 (OFF)

10.5) G16 P__; (: msec) 1 (ON), 2 (ON),

10.6) G24 A__C__; (: μm)

A,C,가 : BLOCK 1 (OFF), 2 (OFF),

A : 1 (OFF)

C : 2 (OFF)

10.7) G24 P__; (: msec) 1 (OFF), 2 (OFF),

10.8) G25 B__D__; (: μm)

B,D가 : BLOCK 1 (OFF), 2 (OFF)

B : 1 (OFF)

D : 2 (OFF)

10.9) G26 A__B__C__D__; (: μm)

A,B,C,D가 : BLOCK 1 (OFF), 2 (OFF),
1 (ON), 2 (ON)

A : 1 (OFF)

C : 2 (OFF)

B : 1 (ON)

D : 2 (ON)

10.10) G26 P__; (: msec) 1 (OFF), 2 (OFF),

2) Dwell

(1)

(G00)

(P32)

가

Rapid Override :

0, 25, 50, 100%

OVERRIDE

.(P23.2)

(2)

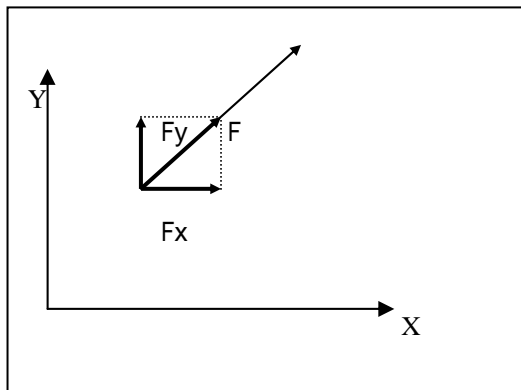
(G01),

(G02,G03)

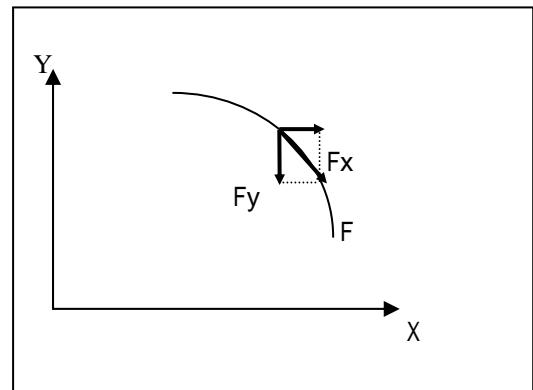
가 F

가

2.6



2.7



F :
Fx : X
Fy : Y

G01 Xa Yb Ff; ----- Xa , Yb :

- X $F_x = a/L * f$
- Z $F_z = b/L * f$
- $L = \text{SQRT}(a*a + b*b)$

CLAMP

1. (P33) .
2. (OVERRIDE 100%)가
(P33) 가 CLAMP CLAMP mm/min .
3. (P33)가 '1' 가
(P32) .

SETTING

1. 가 가
(P34) .
MC (F CODE) 가 . (Modal)
2. 0 (P34)
- 0 (P34)
- , (P34) 가 MC
- 가
- , (P34) RESET F CODE CLEAR .

(3) OVERRIDE

OVERRIDE (Feed Override)

OVERRIDE . (0%~150%)

- P23.1 / Q1.8 ~ Q1.F(OV1.OV2,OV4,OV8)

OVERRIDE (Rapid Override)

0, 25, 50, 100% OVERRIDE .

- Q1.D(R02),Q1.C(R01) / Q1.E(RT) , P23.2/P35

(4) 가

가 / 가 가 .

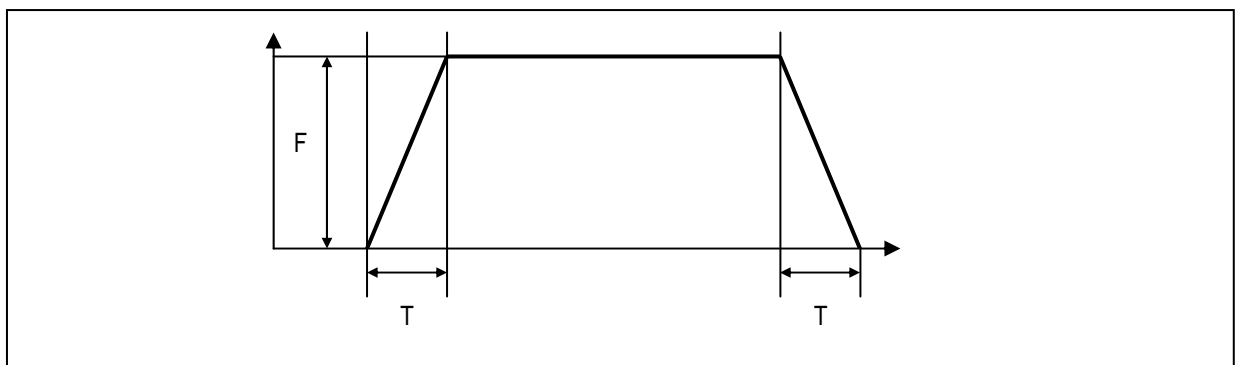
가 가

.

, 가 .

가 / 가 (P41,P42) .

2.8



(5) DWELL(G04)

G04 BLOCK 가 DWELL .

BLOCK .

:

G04 X__; : DWELL sec (0.000~9999.999 sec)

G04 P__; : DWELL msec (0~9999999 msec)

(6) DWELL(G20,)

G20 BLOCK (MPG Port)

:

G01 IP__;

G20 X100; ---- BLOCK 100 가

G01 IP__;

G20 X200; ---- BLOCK 200 가

G00 X0. Y0. Z0;			
G20 X100;	BLOCK(0,0,0)		100 가
G01 X100 Y100;			
G20 X100;	BLOCK(100,100,0)		100 가
	BLOCK		
G01 X200 Y200;			

(7) DWELL(G21,)

G21 BLOCK (MPG Port)

가

:

G01 IP__;

G21 X100; ---- 가 100

G01 IP__;

G21 X200; ---- 가 200

G00 X0. Y0. Z0;		'0'	
G21 X100;		가 100	가
G01 X100 Y100;			
G21 X200;		가 200	가
G01 X200 Y200			

(1) G09 [INPOSITION]

)

) G09 X1.5

--

1.5mm

1.5mm

) MCS-80P

(2) G10 [XYZ ()]

) BLOCK

X,Y,Z

‘ 0 ’

G01, G02, G03,G05

G00

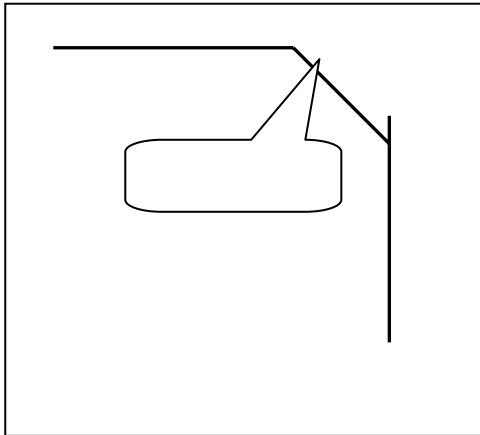
) G10 D_ G10 X_

[G10 X_ ; G10 D_]	
G00 X0 Y0 Z0 A100	
G10 X10;	(: 10%)
G10 D10;	
	10% 180
G01 X200 F1000;	
Y100	10% 90
;	
X0;	X,Y,Z
A100;	
X100;	
Y200	10% 90
G10 X0;	
G10 D0;	

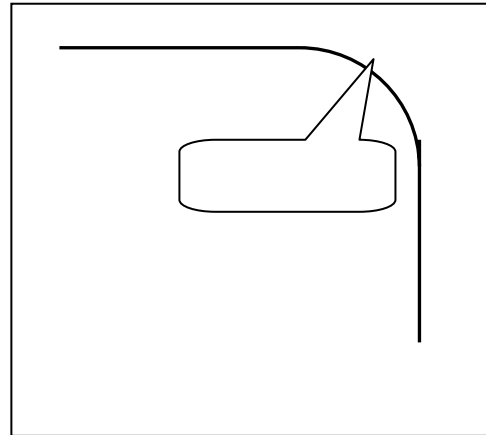
G10 X10. G10 D10.

가 .

G10 X10



G10 D10



(3) G11 [XYZ ()]

) BLOCK , .

X,Y,Z

‘ 0 ’

G01, G02, G03,G05

G00

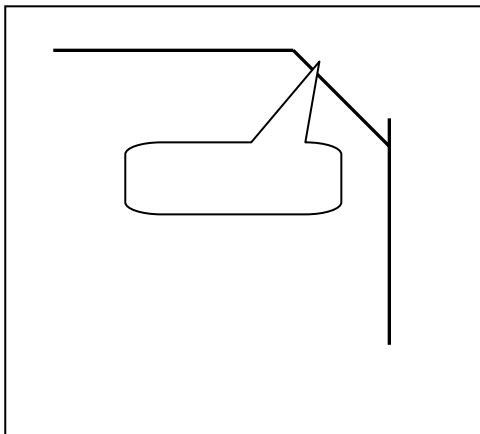
) G11 D_ G11 X_

[G11 X_ ; G11 D_]	
G00 X0 Y0 Z0 A100	(: 15mm)
G11 X15;	15mm 185
G11 D15;	
G01 X200 F1000;	15mm 85
Y100;	
X0;	X,Y,Z
A100;	
X100;	
Y200	15mm 85
G11 X0; G11	
D0;	

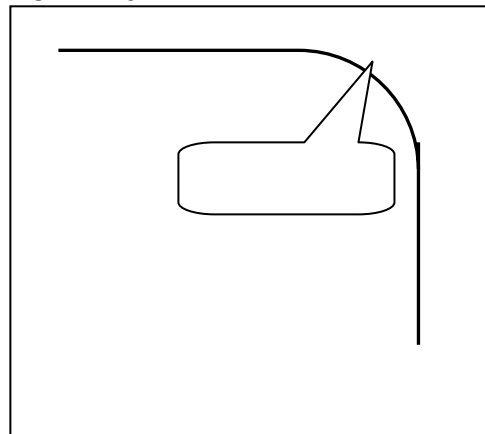
G11 X15. G11 D15.

가

G11 X10



G11 D10



(4) G35 [()]

) BLOCK , .

‘ 0 ’ .

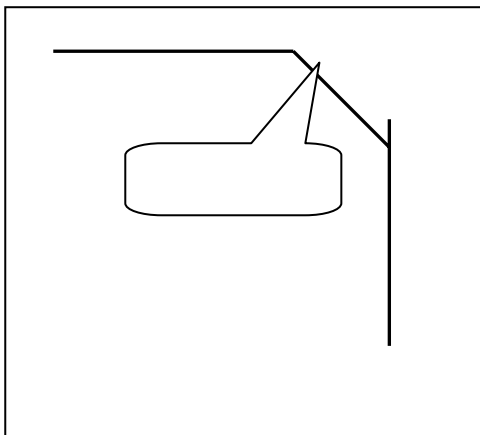
) G01, G02, G03, G05 G00 .

) G35 D_ G35 X_

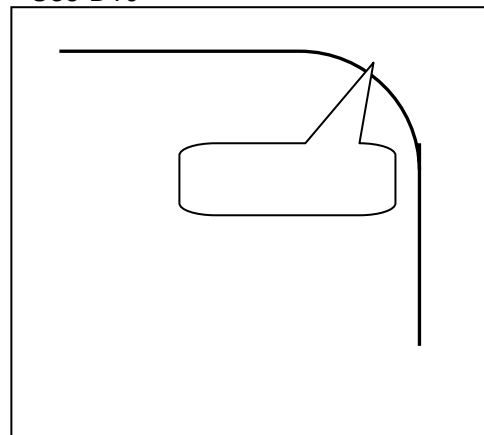
[G35 X_ ; G35 D_]		
G00 X0 W0 V0 A100		
G35 X10;	(: 10%)	
G35 D10;		
G01 X200 F1000;	10%	180
W100;	10%	90
X0;	10%	20
A100;	10%	90
X100;	10%	90
V200;		
G35 X0;		
G35 D0;		

G35 X10. G35 D10. 가 .

G35 X10



G35 D10



(5) G36 [()]

) BLOCK ,

‘ 0 ’

) G01, G02, G03, G05 G00

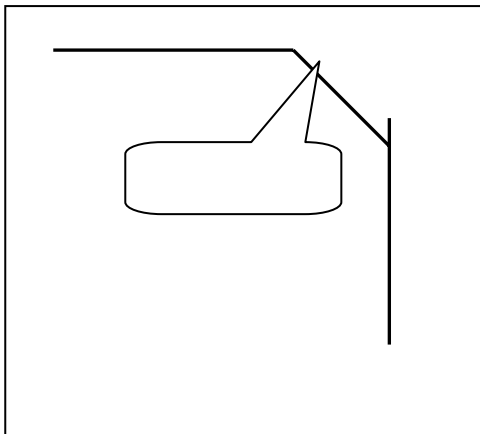
) G36 D_ G36 X_

[G36 X_ ; G36 D_]		
G00 X0 W0 V0 A100		
G36 X15;	(: 15mm)	
G36 D15.		
G01 X200 F1000;	15mm	185
W100;	15mm	85
X0;	15mm	15
A100;	15mm	85
X100;	15mm	85
V200		
G36 X0 G36		
D0		

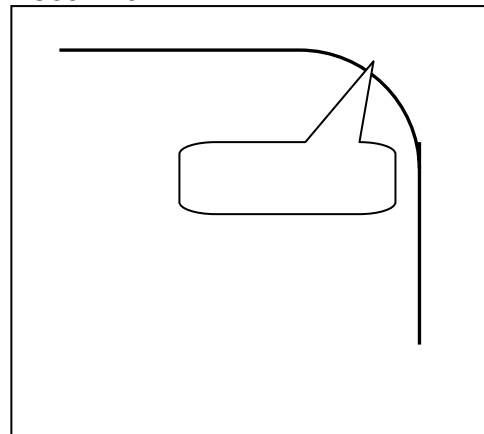
G36 X10. G36 D10.

가

G36 X10



G36 D10



```
) G22 A[Port] P[Pulse];
```

Port	0 : MPG , 1 ~ 8 : Axis Encoder	Axis 1 ~ Axis 8
Pulse		

1) G22 A0 P100;

MPG 100 pulse가 .

2) G22 A4 P50;

Axis 4 Encoder 50 pulse가

(7) G38 [], G39 []

) G38

) G38 [Sync Axis] A[Port] D[Distance/Rev] P[Pulse/Rev];

Sync Axis	
Port	0 : MPG , 1 ~ 8 : Axis Encoder Axis 1 ~ Axis 8
Distance/Rev	1
Pulse/Rev	1

1) G38 X0 A0 D100. P1000;

MPG 1000 pulse가 X 100mm . , 1pulse

0.1mm . G39 .

2) G38 Y0 A4 D100. P4000;

Axis 4 Encoder	4000 pulse가	Y	100mm	.
----------------	-------------	---	-------	---

, 1pulse 0.025mm .

G39

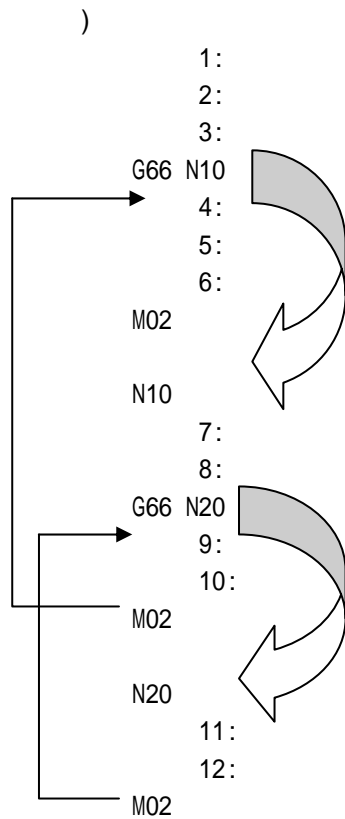
) MCS-80P P115[Inposition] " 12345 " .

(8) G66 [SUB]

) N M02 , .

) G66 Nxx ; Nxx .

Nxx;
M02; M02 G66 .



1 → 2 → 3 → 7 → 8 → 11 → 12 → 9 → 10 → 4 → 5 → 6

(9) G80 [' ON ']

) ' ON '

) G80 X0.1 G80 M0.0

X0.1 M0.0 ' ON ' .

) 가 X() M() .

(10) G81 [' OFF ']

) ' OFF '

) G81 X0.1 G80 M0.0

X0.1 M0.0 ' OFF ' .

) 가 X() M() .

(11) G82 [' ON ' -]

) ' ON '

) G82 X0.1

X0.1 ' ON ' .

) 가 X() .

(12) G83 [' OFF ' -]

) ' OFF '

) G83 X0.1

X0.1 ' OFF ' .

) 가 X() .

(13) G95 []

) G01

가

“ RPM ”

1) G95 X1 ---- mm/min

2) G95 X2 --- RPM

3) G95 X0 ---

1)

G00 X0 Y0 Z0

G95 X1 --- mm/min

G01 X100. Y10. Z50 F1000	---	X	가 100.0mm
		X	1000 mm/M
		Y	100 mm/M
		Z	50 mm/M

G01 X90 Y210 Z0	---	Y	가 200.0mm
		X	5 mm/M
		Y	1000 mm/M
		Z	250 mm/M

G95 X0 ---

2)

G00 X0 Y0 Z0

G95 X1 --- RPM

G01 X100. Y10. Z50 F1000	---	X	가 100.0mm
		X	1000 RPM
		Y	100 RPM
		Z	50 RPM

G01 X90 Y210 Z0	---	Y	가 200.0mm
		X	5 RPM
		Y	1000 RPM
		Z	250 RPM

G95 X0 ---

2.2

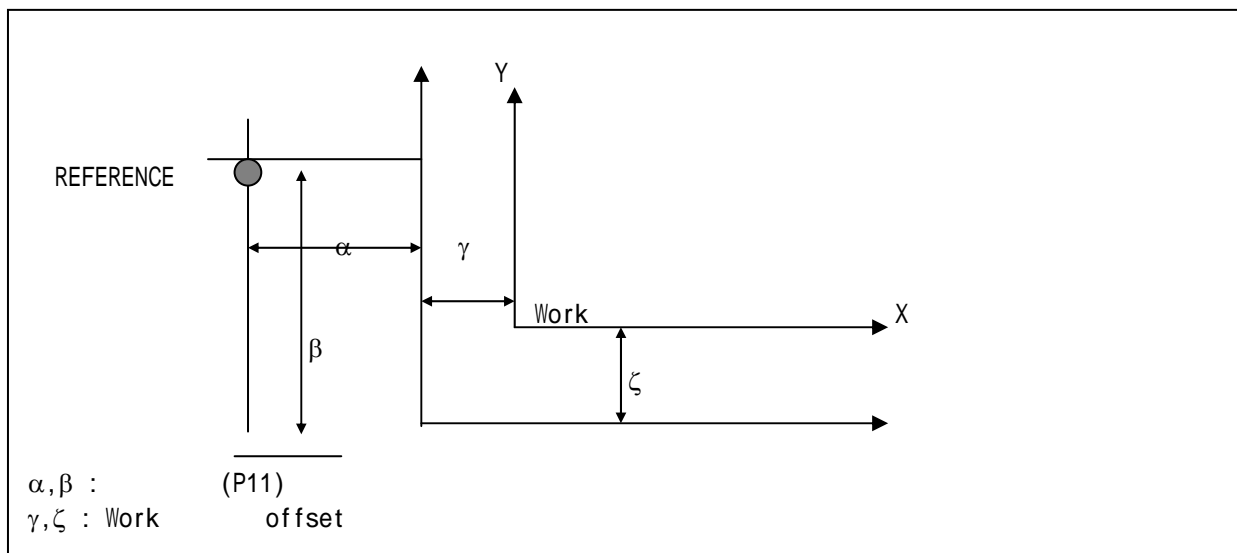
1)

REFERENCE

REFERENCE

(P11)

2.9



(1) REFERENCE (G28)

: G28 IP__;

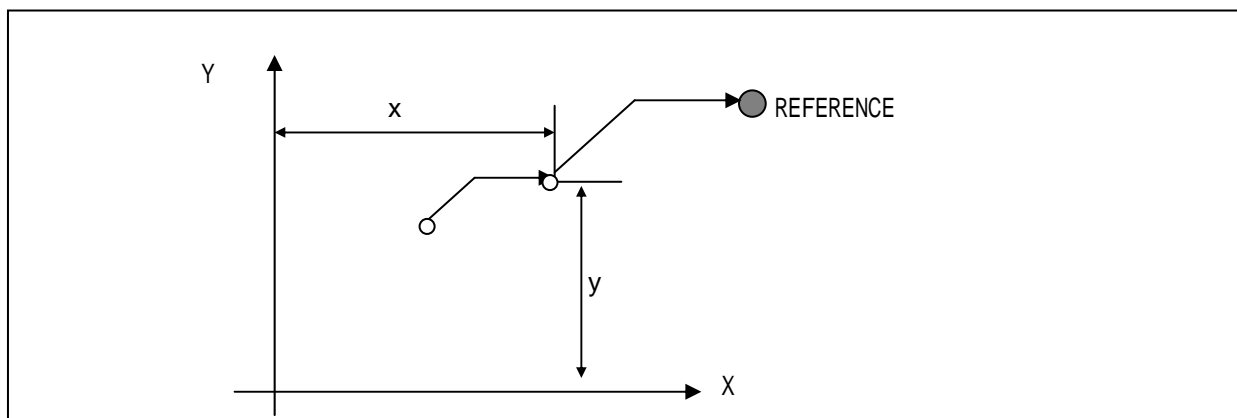
REFERENCE

IP__ REFERENCE

G28 BLOCK

REFERENCE

2.10



(2)

(G29)

: G29 IP__;

2)

, WORK 2 가

PROGRAM

PROGRAM X, Y, Z 3 X__Y__Z__

PROGRAM ,

(1)

가

REFERENCE

가

OFF

RESET, WORK

,

가

STORED STROKE LIMIT(P12,P13)

(P11)

가

G51 .

G51 IP__

(,)가 .

G52 .

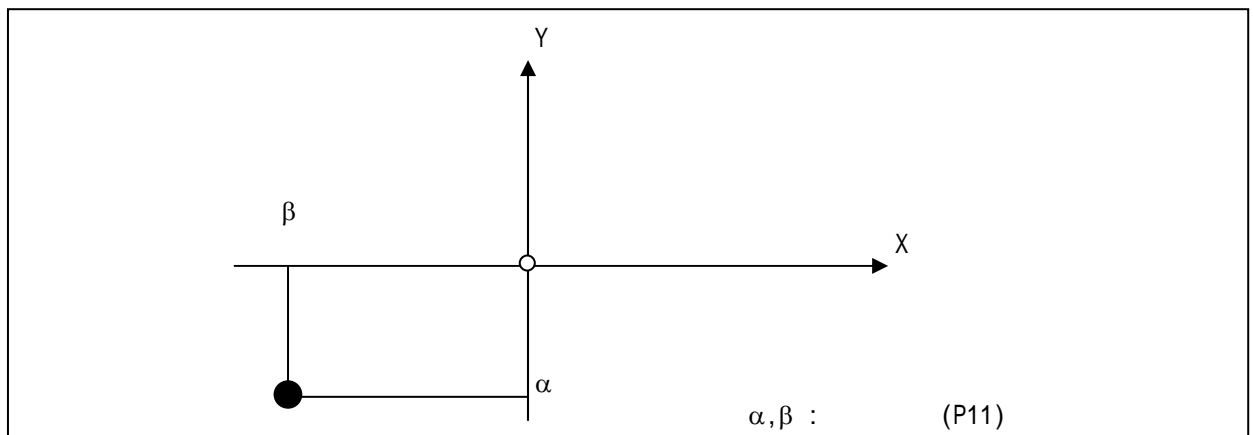
G52 IP__

(,)가 .

80A G51 OFFSET 가 G52

G52 가 가 .

2.11



(2) WORK

WORK

WORK G50

:G50 IP__

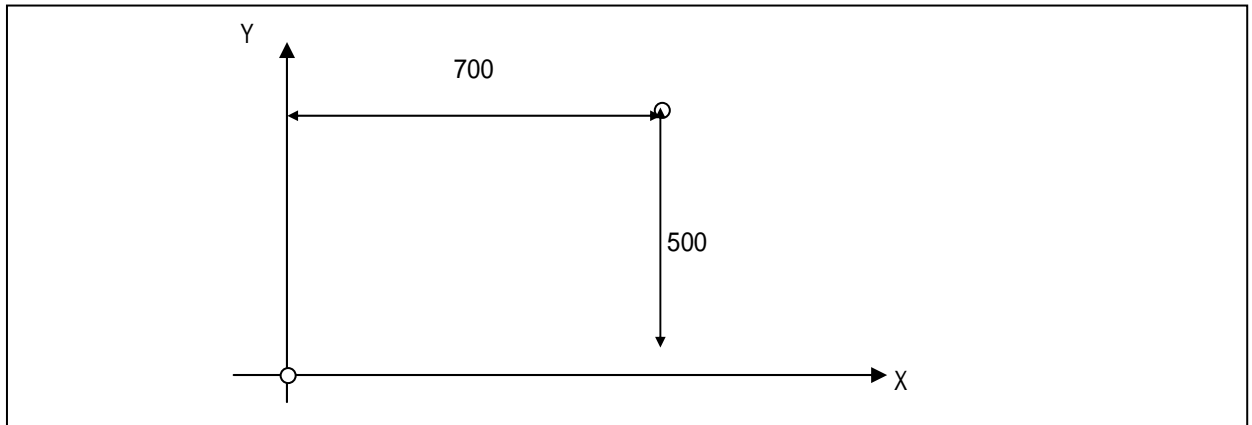
, 가 (IP)가 WORK 가

가 WORK 가

G50 OFFSET VECTOR CANCEL WORK

가

2.12 (G50 X700. Y500.; ())



G00 X0 Y0;	(0.0,0.0)	(0.0,0.0)	
G01 X100 Y-100;	(100.0,-100.0)	(100.0,-100.0)	
G50 X0 Y0;	(0.0,0.0)	(100.0,-100.0)	G50 OFFSET (100,-100)
G01 X50 Y50;	(50.0,50.0)	(150.0,-50.0)	OFFSET 가
G29 X50 Y50;	(-50.0,150.0)	(50.0,50.0)	G29 OFFSET
G01 X50 Y50;	(50.0,50.0)	(150.0,-50.0)	OFFSET 가
G51 X0 Y0;	(0.0,0.0)	(0.0,0.0)	G51 OFFSET

(3) (G17,G18,G19)

G CODE .

G17-----→ XY

G18-----→ ZX

G19-----→ YZ

X	X	,
Y	Y	,
Z	Z	

가	가	G17, G18,G19 가	BLOCK	ADDRESS
---	---	----------------	-------	---------

) X U, Y V, Z W 가

G17 X__Y__; → XY

G17 U__Y__; → UY

G18 X__W__; → XW

G18 U__W__; → UW

G19 Y__Z__; → YZ

G19 V__Z__; → VZ

G17, G18, G19 가 BLOCK .

) G18 X__Z__; → ZX

G01 X__Y__; → .(ZX)

G17, G18, G19 가	BLOCK	ADDRESS 가	3	ADDRESS가
-----------------	-------	-----------	---	----------

) G17; → XY

G17 X__; → XY

G17 Y__; → XY

G17 U__; → UY

G17 V__; → XV

G18; → ZX

G18 W__; → WX

- 가 X,Y,Z 가 (P04) .

-

G17 Z__;	Z	XY	XY
Z	Z		

- RESET G17(XY) .

3)

(1) (ABSOLUTE) (INCREMENTAL) : (G90,G91)

ABSOLUTE INCREMENTAL 2가 .

ABSOLUTE PROGRAM .

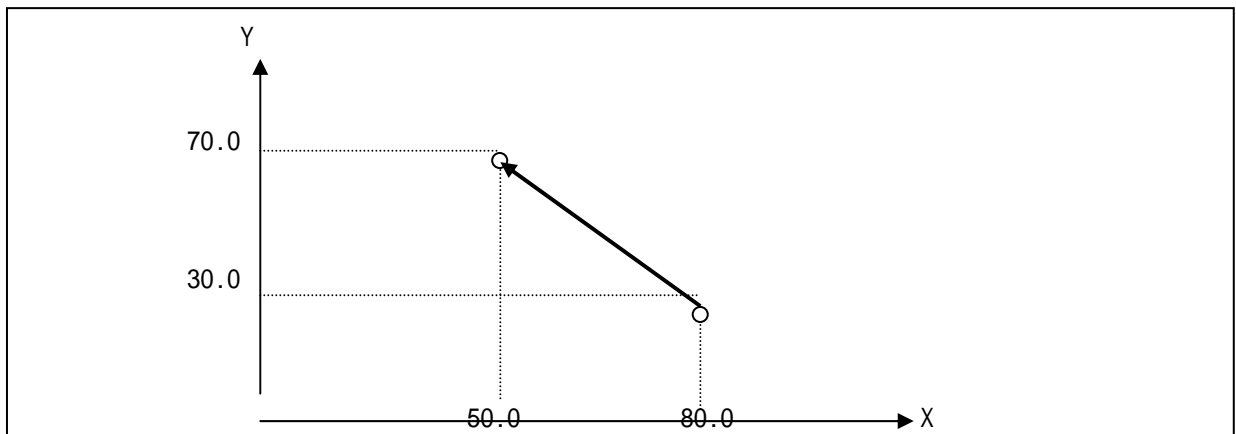
INCREMENTAL PROGRAM . ABSOLUTE

INCREMENTAL G90 G91 .

G90 : ABSOLUTE

G91 : INCREMENTAL

2.13



, INCREMENTAL PROGRAM G91 X-30.0 Y40.0;

ABSOLUTE G90 X50.0 Y70.0; .

(2)

. , ,
ADDRESS . mm, sec .

) Z15.0 → Z15mm
 G04 X1.0 → 1 DWELL
 X1000 → 1000mm
 X1000. → 1000mm
 X0.500 → 0.5 mm 500um
 XL100 (L100 200) → 0.2 mm 200um

2.3 (M)

M .

1) (M)

Address M CODE STROBE 가 . ON/OFF

M CODE 1 BLOCK 1 2 M CODE .

M CODE .

M02 : END OF PROGRAM

PROGRAM

PROGRAM .

M98 : PROGRAM

PROGRAM .

M99 : END OF SUBPROGRAM

PROGRAM

M99

PROGRAM .

) M98, M99 CODE STROBE 가 .

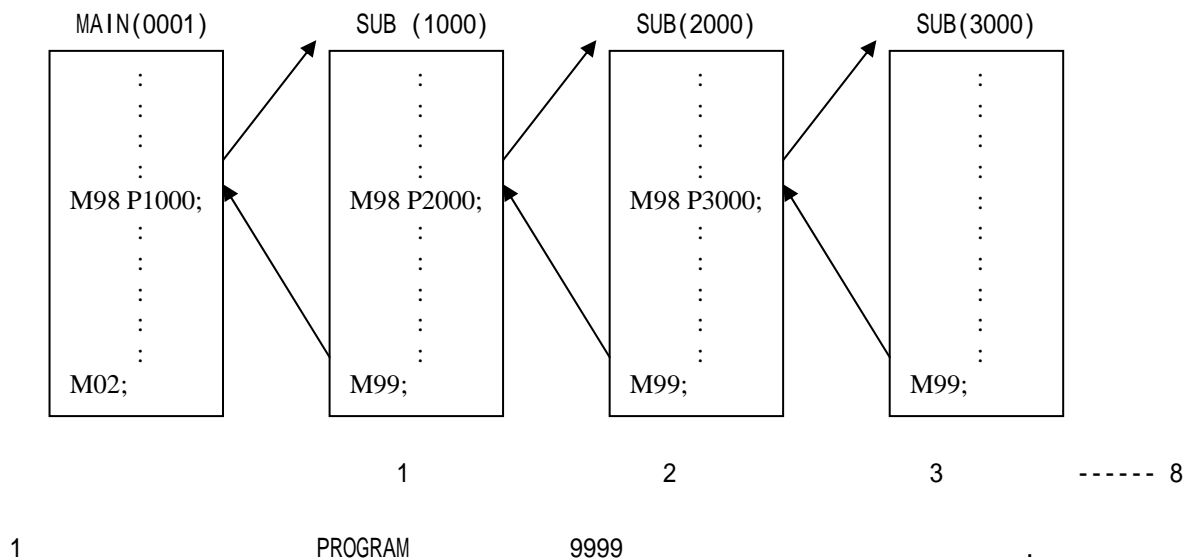
2.4 MAIN PROGRAM SUB PROGRAM

1) MAIN PROGRAM

PROGRAM PROGRAM PROGRAM . PROGRAM
 PROGRAM PROGRAM , PROGRAM PROGRAM
 PROGRAM .

2) SUB PROGRAM

PROGRAM SEQUENCE PATTERN PROGRAM MEMORY
 PROGRAM . PROGRAM PROGRAM
 . PROGRAM PROGRAM 1 , 8 가 .



(1) PROGRAM

1 PROGRAM .
 ;
 ;
 ;
 M99;
 PROGRAM M99 .

(2) PROGRAM

PROGRAM PROGRAM PROGRAM .

PROGRAM .

M98 P__L__;

P__ : PROGRAM

L__ : , 1 .

) M98 P1002 L5;

PROGRAM 1002 5 .

PROGRAM PROGRAM PROGRAM PROGRAM

) 1. M98, M99 .

2. ADDRESS P PROGRAM 가 ALARM .

3. M98 P__; M99; BLOCK SINGLE BLOCK .

(3) G Code PROGRAM

G65 P__L__;

P__ : PROGRAM

L__ : , 1 .

M98 .

2.5

1) L (32Bit) / : 0 ~ 7999 (8000)

: L00 ~ L7999

: +, -, =, (,), *, /, SIN, COS, TAN, ASIN, ACOS, ATAN, ABS, SQRT

: L00 ~ L7999 : MEMORY , .()

()		
L100 = 100. * SIN(30);	---	L .
G01 X100 YL100;	---	L Y .

()		
L0=0;	-- L0	Clear .
N1 G00 X0 Y0;		
G01 X100. Y100.		
L0=L0+1;	-- L0	Count Up
IF L0 .LT 11 N1;	-- L	가 11 N1 Jump
	.	10 Loop .

()		
G00 X0 Y0 Z0;		
G01 P0;	-- L	' 0 ' . L0 100000, L1: -50000, L2:
	10000	X,Y,Z (100., -50.,10.) .

2) Q () : 0.0~ 299.F (4800)

: Q000.0 ~ Q299.F

: AND, OR, =, (,)

Q000.0 ~ Q099.F : MC PLC I00.0 ~ I99.F .

Q100.0 ~ Q199.F : MC READ 가 WRITE 가 Q00.0 ~ Q99.F

READ .

Q200.0 ~ Q299.F : MC PLC M00.0 ~ M99.F

READ

MC	PLC			
Q000.0 ~ Q099.F	I00.0 ~ I99.F	MC ->PLC	READ/WRITE	
Q100.0 ~ Q199.F	Q00.0 ~ Q99.F	PLC->MC	READ	
Q200.0 ~ Q299.F	M00.0 ~ M99.F		READ/WRITE	

Q200.0=1;	-- M0.0	' ON '		.
N1;				
IF Q210.0=1 N2;	-- M10.0	' ON '	N2	Jump .
G4 X0;				
GOTO N1;	-- M10.0	' ON '	N1	Jump M10.0 ' ON '
N2 G00 X0 Y0;				

3) (IF, GOTO)

(1) IF

: =, .EQ, .LE, .LT, .GE, .GT

= , .EQ	=	
.LE	<=	
.LT	<	
.GE	>=	
.GT	>	

) IF L5 .LT 12.3 N100;

-- L5가 12.3

SEQUENCE 100 SEARCH

N100 JUMP

ALARM .

L5가 12.3

BLOCK .

(2) GOTO

GOTO N___;

SEQUENCE ____ SEARCH ____ JUMP

ALARM .

4) :

1	+		8	ASIN	Arc Sin
2	-		9	ACOS	Arc Cos
3	*		10	ATAN	Arc Tan
4	/		11	ABS	
5	SIN	Sin	12	SQRT	$\sqrt{\quad}$
6	COS	Cos	13	(,)	
7	TAN	Tan	14	=	

2.6

S__ ; RPM

Coupler가 ON Driver가 가 . 2

.(Servo Driver , Line Drive)