



토탈스테이션

DTM-500

사용자 매뉴얼



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△ 경 고

■

■

△ 주 의

■

가 , , , , .

■

■

■

BC-80

Q-75U / E

(

BC-80

Q-7U/E

Q-7C

.)

■

Q-75U/E

■

BC-80

가 가

■

BC-80

, 가

■

BC-80

Breaker가

■

가

■

■

■

가
가

■

30℃

가
가

■

■

가

■

■

■

1.

BC-80

/

(Finder)

가 (Limi-Guide)

/

DC 7.2 ~ 1V

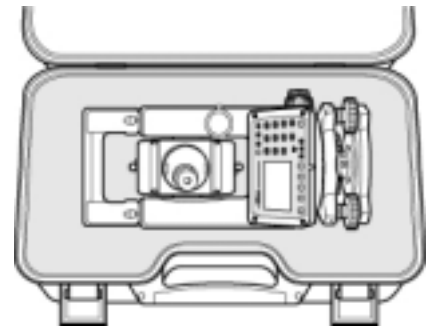
2.

2-1.



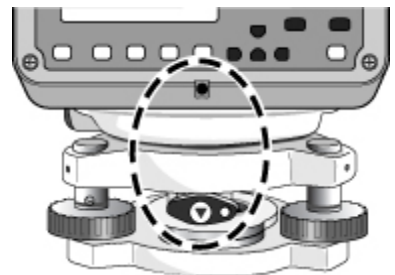
가

가


$$\left(\begin{array}{c} \bullet \\ \nabla \end{array} \right)$$

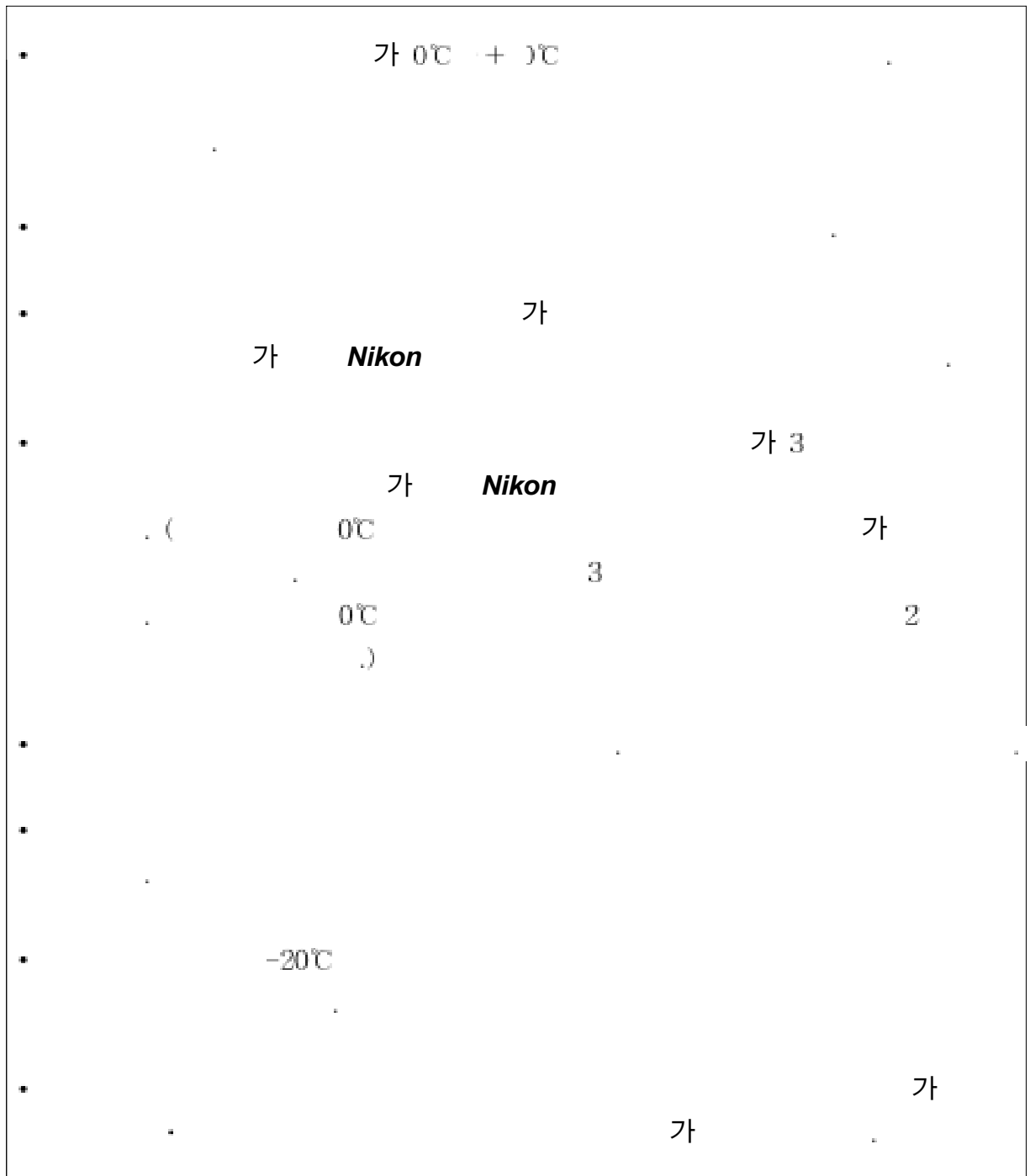
가

가



⚠ 주 의

- Q-75U/E
 .
 .
 (BC-80 Q-7U/E Q-7C .)
- Q-75U/E
 .
- BC-80
 ,
 ,
 가 가
- BC-80
 , 가
 ,
 .
- (BC-80) 가
 .
- LOCK
 가
 .
 LOCK



(1) AC AC 100V / 220V

(2) BC-80

(3) 가

(4) 가



(1) AC 100V / 220V

(2)

(3)


가

(4) 가
가

가

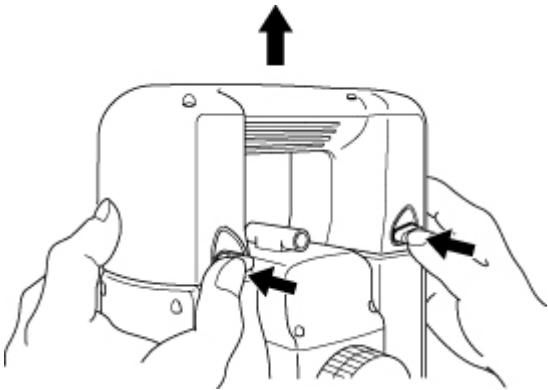


BC-80

	▪ BC-80	OFF
	▪ BC-80	

(1) 2

(2)



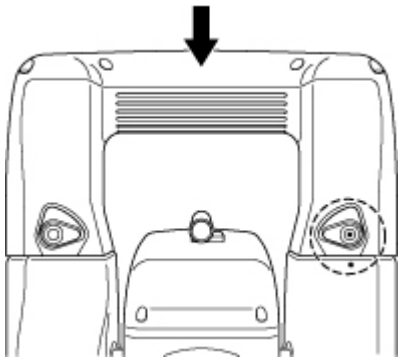
(BC-80)

(1)

()

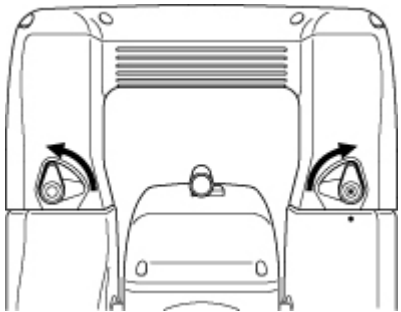
(2)


(▪)
(▪)



(3)

가



	▪ IM-500	()
		(B4E) BC-80

2-3.

⚠ 주 의

■

1) 3

2)

3)

4) 3



■

■

5)

6)



■

■

2-4.

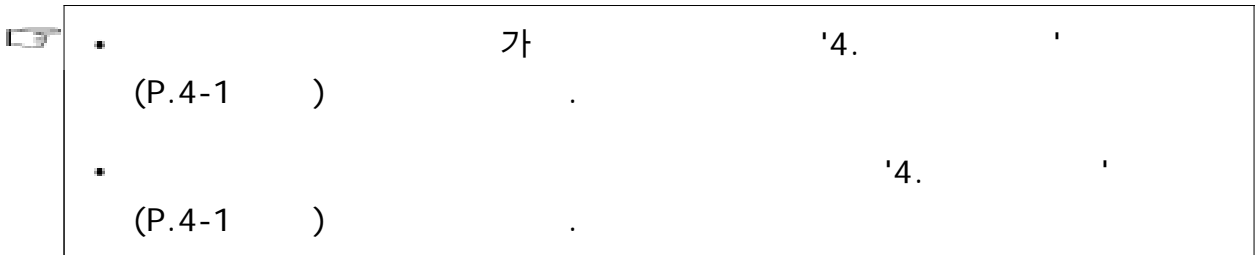
가 () .

(1)

(2)

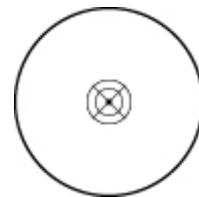
(3)

(.)



(1)

(2)



(3)

(4) . ('2-5. 'P.2-8)

(5) 

가 (2)

2-5.

1)

2

B, C

2)

B, C

3)

90°

A

4) 1) ()

1, 2

5)

2

180°

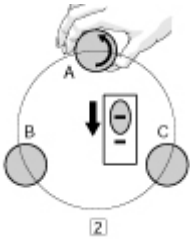
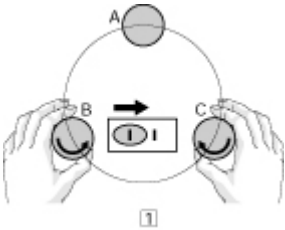
가

6)

가

'4.

'(P.4-1)



2-6.

⚠ 주 의

■



▪ **opter**

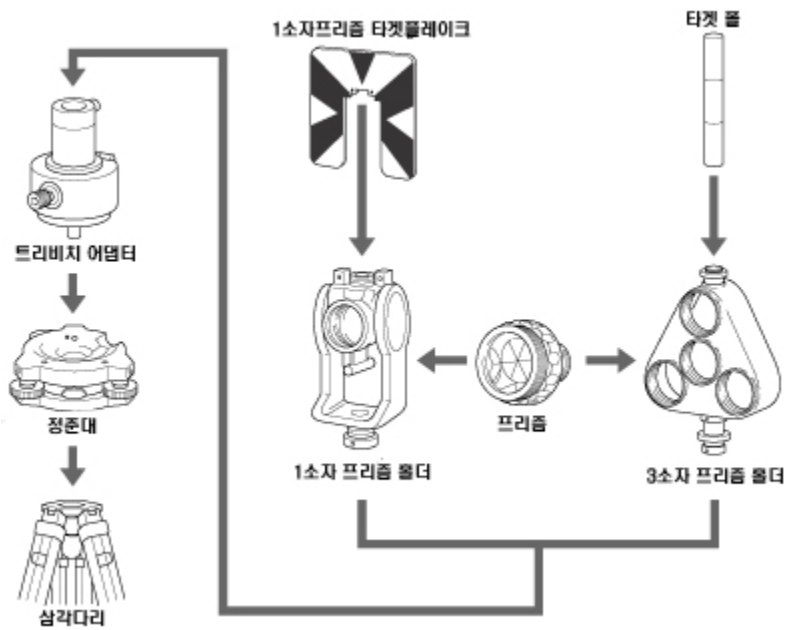
▪

()

가

(가)

2-7.



14

가 2
DTM-500



()

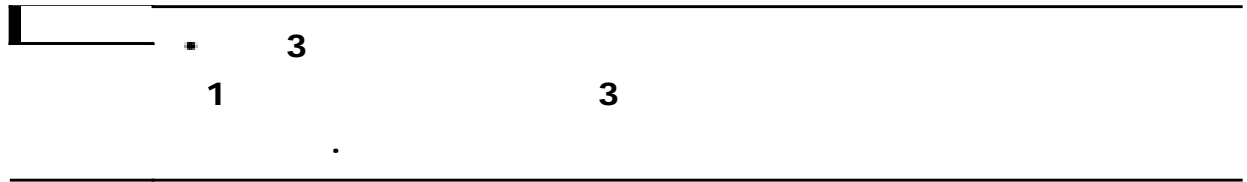


DTM-500

. ()



Nikon 1 3 '0' '30' .

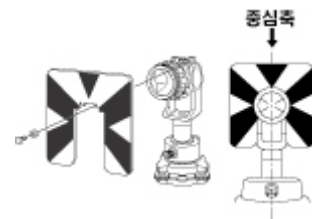


1

1

1

2 1



2-8. •

正 :

反 :



•

가



•

(:)

정 • ĩ

가

정 • ĩ

,

3. _____

3-1

ON / OFF .

가 .

1. Backlight ()	2. Reticle ()
3. Lumi-Guide (가)	4. Sound ()

1. Backlight () 2. Reticle ()

3. Lumi-Guide (가) 4. Sound ()

5 . (P.3-6)

(가)

PT() CD()
Lumi-Guide 가 . (P.3-18)

Lumi-Guide 가 . (P.3-18)

5 . (P.3-6)

	ON / OFF . (P.15)
	<p>ON / OFF .</p> <p>1 가 .</p> <p>1: , 2: , 3: 가 , 4: ON/OFF. (P. 3-17)</p>
	<p>:</p> <p>1: JOB, 2: COGO, 3: Sett, 4: Data, 5: Comms, 6: Time, 7: Calib (P. 3-52)</p>
	<p>1. PT() CD() .</p> <p>2. .</p> <p>3. List-type Add / DEL . (P. 3-12)</p>
	<p>. (P. 3-49)</p> <p>- " +, - .</p>
	<p>- .</p>
	<p>[MSR]</p> <p>. (P. 3-8)</p> <p>"1" .</p> <p>- A, B, C, 1 .</p>
	<p>가</p> <p>. (P. 3-11)</p> <p>"2" .</p> <p>- D, E, F, 2 .</p>
	<p>. (P. 3-8)</p> <p>"3" .</p> <p>- G, H, I, 3 .</p>
	<p>. (P. 3-23)</p> <p>"4" .</p> <p>- J, K, L, 4 .</p>

	<p>"5" . (P. 3-14)</p> <p>- M, N, O, 5 .</p>
	<p>. (P. 3-27)</p> <p>"6" .</p> <p>- P, Q, R, 6 .</p>
	<p>. "7" .</p> <p>- S, T, U, 7 .</p>
	<p>. () (P.3-30)</p> <p>"8" .</p> <p>- V, W, X, 8 .</p>
	<p>Stake-out . (P.3-42)</p> <p>"9" .</p> <p>- Y, Z, (), 9 .</p>
	<p>Lumi-Guide (가) ON / OFF . (P. 3-18)</p> <p>"0" .</p> <p>- *, /, =, 0 .</p>
	<p>- 가 COM .</p>

(BMS)

HA :	1	2	3	°	4	5	#	5	0	#		
VA :		9	0	°	1	5	#	5	0	#		
SDx		1	2	3	1	.	0	0	1	8	m	
DSP	1	/	4									

1)

: 4 (Full)

: 3

: 2

: 1

!	B	a	t	t	e	r	y	D	o	w	n	
P	r	e	s	s	E	N	T	k	e	t		
C	h	a	n	g	e	B	a	t	t	e	r	y

:

2)

: OFF

: ()

()

: Dizzy ()

: 1 ()

: 2

: 3

: 4 ()

3-2

()

() 12
(PT) 가

"1" 가

가

JOB

()

(P.8-2)

1)

(PT)

[ENT]

COGO

PT

[ENT]

I n p u t				1 s t P o i n t			
P T :	■						1
H T :		1	.	5	0	0	m
C D :							

Stakeout


PT

, CD()

R(: Stakeout)

(p.3-41)

PT

 가 가 가 .

I n p u t				1 s t P o i n t			
P T :	1	2	0	5			1
H T :		1	.	5	0	0	m
C D :							

2)

()

$$(X, Y, Z)$$
 (X, Y)

(Z)

JOB

(Z) [ENT]

[illegible]

3)

가

I n p u t	1 s t	P o i n t
P T : 5 5		1
H T :	1 . 5 0 0 m	
C D :		

▼ [ENT]

P	T	:	5	5								
X	:				-	5	2	.	2	3	1	
Y	:			2	8	4	4	.	3	6	0	
Z	:				1	3	5	.	3	2	5	

▼ []

Input 1st Point									
PT:	55								1
HT:	1.500	m							
CD:	CP1								

4)

(*)

PT

CD

(*)

I	n	p	u	t		1	s	t		P	o	i	n	t	
P	T	:													A
H	T	:				1	.	5	0	0		m			
C	D	:	F	E	N	C	E	*	■						

/

[ENT]

▼ [ENT]

	M	P	,		1	2	,	F	E	N	C	E		3	
	U	P	,		2	3	,	F	E	N	C	E		6	
>	M	P	,		3	9	,	F	E	N	C	E		5	1

4

" ↓

가

/

▼ [ENT]

. (P.3-10)

P	T	:	3	9											
X	:					-	5	2	.	2	3	1			
Y	:					2	8	4	4	.	3	6	0		
Z	:					1	3	5	.	3	2	5			

가

CD:

가

1)

[MODE]

(A)

(1)

P	T	:	1	0	0	0	6								
H	T	:			1	.	5	0	0	m				1	
C	D	:	C	U	R	B	8	7	■						

2) (Stack)

[Stk]

()가
20

P	T	:	1	0	0	0	6								
H	T	:			1	.	5	0	0	m				1	
C	D	:	C	U	R	B									
L	s	t	O	/	S		Q	c	d		S	t	k		

▼ [Stk]

	C	U	R	B											
>	T	R	A	I	L										
	H	E	D	G	E										
	B	U	I	L	D	I	N	G							↓

▼

CD

[ENT]

P	T	:	1	0	0	0	6								
H	:				1	.	5	0	0	m					
Y	:	B	U	I	L	D	I	N	G						
L	s	t	O	/	S		Q	c	d		S	t	k		



3)

[Lst]

가

[MENU]→ 4:Data]→ 3:Edit List]

. (P.3-78)

"→ 가

"SURFACE→

[ENT]

SURFACE

가

CD:

. CD:

가

가

[Lst]

P	T	:	1	0	0	5	3	-	A	1	0			
H	T	:				1	.	6	0	5	0	m	1	
C	D	:	C	U	R	B								
L	s	t		O	/	S		Q	c	d		S	t	k

▼ [Lst]

S	T	R	U	C	T	U	R	E						
>	S	U	R	F	A	C	E	→						
S	U	R	V	E	Y	→								
V	E	G	E	T	A	T	I	O	N					↓

▼

>	C	M	P											
M	B	→												
R	C	P												
S	P	R												

▼

P	T	:	1	0	0	5	3	-	A	1	0			
H	T	:				1	.	6	0	5	0	m		
C	D	:	C	M	P									
L	s	t		O	/	S		Q	c	d		S	t	k

4) Qcode ()

10가

0

. (P.3-14, 3-49)

(MENU/4:Data),
(HOT/5:Qedit), (MENU/1:JOB)

가

">"

>	U	P	,	5	0	2											
	U	P	,	5	0	3											
	U	P	,	5	0	4	,	C	E								
	U	P	,	5	0	5											↓

"↑

"↓

가

/

/

[ENT]

가 [MODE] 가

JOB

DTM-500

JOB

JOB
"CONTROL JOB"

JOB

가

JOB

JOB

1	:	J	o	b		5	:	C	o	m	m	s	
2	:	C	o	g	o	6	:	T	i	m	e		
3	:	S	e	t	t	7	:	C	a	l	i	b	
4	:	D	a	t	a								

▼ [1]

>	*	S	E	O	U	L	1	0					
		T	E	S	T	-	A	5	5				
		N	E	W	Y	O	R	K	3	@			
		T	E	S	T	-	A	5	6				↓

JOB

가

*
@

JOB

JOB

5,000

JOB

DTM-500

JOB

(CONTROL) JOB

(CONTROL) JOB

JOB

. (P.3-55)

ON

[PWR]

- 가
- [ENT]
10

T	I	L	T	T	E	L	E	S	C	O	P	E	
>	T	e	m	p				2	0	°	C		
	P	r	e	s	s		1	0	1	3	h	P	a
	P	r	i	s	m			0			m	m	

가

		0	6	-	1	5	-	1	9	9	9		
								1	0	:	0	9	



OFF

[Rst]

가

JOB

H A I N I T I A L I Z E D													
>Temp				20 °C									
Press				1013 hPa									
Prism				0 mm									

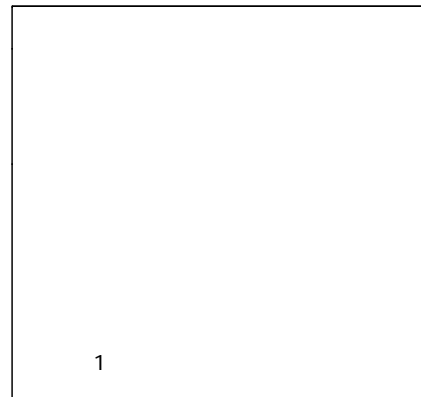


1)

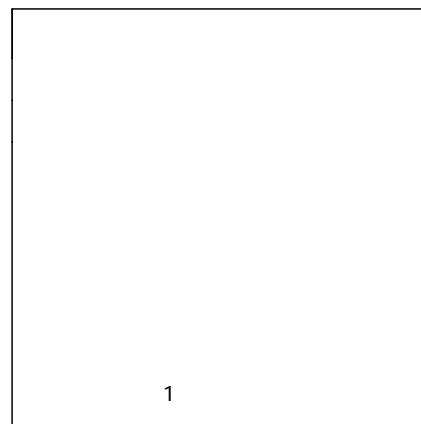


.

.



1



1



P. 2-10

.

2)

[TRK]

[MSR]

H	A	:	1	2	3	°	4	5	'	5	0	"	
V	A	:	9	0	°	1	5	'	5	0	"		
S	D	x	1	2	3	1	.	0	0	1	8	m	
D	S	P	1	/	4								

[ESC]

[MSR]

[TRK]

가 "0"

[MSR] / [TRK]


[ESC]

가

가 1~99

"SD:"가 "SDx"

(P. 3-4)



- , . ,

[HOT]

(P. 3-19)

- T-P , , C&R , Job

Job

. (P. 3-52)

-

[MENU]

1	:	H	T			5	:	Q	e	d	i	t	
2	:	T	-	P		6	:	Q	m	o	d	e	
3	:	P	r	i	s	m							
4	:	L	e	v	e	l							

3)

[MSR] [TRK]

/


/

>	M	S	R				:	P	r	e	c		|
	R	e	s	o			:	H	i	g	h		
	A	V	E				:	3					
	T	a	r	g	e	t	:	P	r	i	s	m	

MSR / TRK Precise(Prec:) Normal()
 [Resolution(Reso)] High Low
 0 99

-- -- --"() "))) "

(Sheet)

	"Target"
--	----------

[DSP]

1/4

HA :	9	0	°	1	5	#	5	0	#	|
VA :	1	2	3	°	4	5	#	5	0	#
SD :		2	8	4	.	5	6	3	m	
DSP	1	/	4							

[DSP]

DSP 1/4

DSP 4/4



2/4

HA :	9	0	°	1	5	#	5	0	#	|
VD :		1	5	.	6	3	5		m	
HD :		2	6	6	.	3	4	7	m	
DSP	2	/	4							

가



3/4

HL :	2	6	9	°	4	4	#	1	0	#
V% :		1	5	.	2	8			%	
HD :		2	6	6	.	3	4	7	m	
DSP	3	/	4							

SS

[REC]

"Store data"(
RAW

)

RAW



4/4

X :			-	4	4	3	5	.	2	5	6	|
Y :				2	8	8	.	9	5	3		
Z :				1	5	.	3	2	5			
DSP	4	/	4									



RDM(), Stakeout(),

Mode []

[Mode] 가
[Mode] 가

1) PT / CD

가 PT()
[Mode] ,
(A) (1)
가 가
가 CD()
(A), (1), (Lst, Stk, ...)
가

1 :
A : -

Input Point									
P T :	1								1
C D :	F E N C E	2							

▼ [Mode]

Input Point									
P T :	1								A
C D :	F E N C E	2							

▼ [Mode]

Input Point									
P T :	1								
C D :	F E N C E	2							
L s t	O / S			Q c d				S t k	

Offset Qcode									

2)

[Mode]
Quick() Code
(P.3-48)

H A :	3	1	6	°	5	0	°	4	0
V A :	9	1	°	2	5	°	3	5	
S D :		1	5	0	.	6	8	7	7m
D S P	1	/	4						

▼ [Mode]




H A :	3	1	6	°	5	0	°	4	0
V A :	9	1	°	2	5	°	3	5	
S D :		1	5	0	.	6	8	7	7m
P T :	1	0	0	5	3	-	A	1	0

>	1	C	T	■							
	2	F	E	N	C	E					A
	3	B	U	S	H						■
	4	M	A	N	H	O	L	E			

Confirm : "Yes"
P7
"No"

Q	c	o	d	e	M	o	d	e	s			
>	C	o	n	f	i	r	m	:	Y	e	s	
M	e	a	s		m	o	d	e	:	M	S	R

Lumi-Guide ON / OFF

HA :	1	2	3	°	4	5	#	5	0	FF	
VA :		9	0	°	1	5	#	5	0	FF	
SDx	1	2	3	1	.	0	0	1	8	m	
DSP	1	/	4								

[LG] Lumi-Guide ON / OFF .

Lumi-Guide가
Lumi-Guide

Lumi-Guide

```
: LG OFF
: LG ON( )
```



A) : Zenith 0°/ Horizontal 0°

B) : 0.5 1 0.1mG / 0.2mG, 0.005MIL / 0.02MIL
C) : 2 (Dual axis) / 1 (Single axis) / OFF

[ANG]

HA	:	1	2	0	°	1	5	°	5	0		
1	:	0	-	S	e	t	3	:	H	o	I	d
2	:	I	n	p	u	t	4	:	R	e	p	t.
A	N	G										

1) 0-Set

0

[1]

(0)

(0)

HA :	0	°	00	′	00	″	
VA :	90	°	45	′	50	″	
SD :	284	.	563		m		
DSP	1	/	4				

2) Input

[2]

[ENT]

HA :	■						
							1
ANG							

	)	123°45	′)	″		
"123.4550"							.

3) Hold

[3]

[4: Set]

[ENT]

HA :	65	°	10	′	00	″	
-	HA	Hold	-				
A b r t						S e t	

[1: Abort]

[ESC]

[FSC]

$$HA = BSAz + HRx \quad ()$$

[MSR] [TRK]

$$VA(\quad) \quad SDy(\quad)$$

\begin{array}{cc} \backslash & \text{가} \\ \text{가} & \end{array}

HPV

[REC] [ENT]

<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>“HA”</div> <div>가 “N=”</div> </div>	<div> <div>“:”</div> <div></div> </div>	<div> <div>“Σ”가</div> <div>.</div> </div>
<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>1999°59</div> <div> <div></div> <div></div> </div> </div>	<div> <div></div> <div></div> </div>	<div> <div>.</div> <div>.</div> </div>
<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>가</div> <div>RAW</div> </div>	<div> <div>(CP</div> <div>)</div> </div>	<div> <div>.</div> <div>.</div> </div>
<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>/</div> <div>RAW / XYZ</div> </div>	<div> <div>가</div> <div></div> </div>	<div> <div>.</div> <div>.</div> </div>
<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>.</div> <div>.</div> </div>
<div> <div></div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>HRx가</div> <div></div> </div>	<div> <div></div> <div></div> </div>	<div> <div>.</div> <div>.</div> </div>

1 1

•

•

•

1

•

10

10

(rHD/rVD) : 1

1

[REM]

(HT)

HT :	1 . 2 5 0							m	
Vh :								m 1	
RE M									

[MSR]

[TRK]

HT :				1 . 2 5 0				m	
Vh :								m 1	
P r e s s				MSR	o r			T R K	
RE M									

가

HT :				1 . 2 5 0				m	
Vh :				- 1 . 2 3 6				m 1	
				HT	R e c o r d i n g				
RE M									



[REC]

[STN]

S t a t i o n S e t u p									
1	:	K	n	o	w	n	4	:	D
2	:	2	-	P			5	:	R
3	:	3	-	P			6	:	B
									S
									C
									h
									k

1:Known

[1]

()

[ENT]

S	T	:	■																
H	I	:					0	.	0	0	0		m					1	
C	D	:																	

()가

[ENT]

(HI)

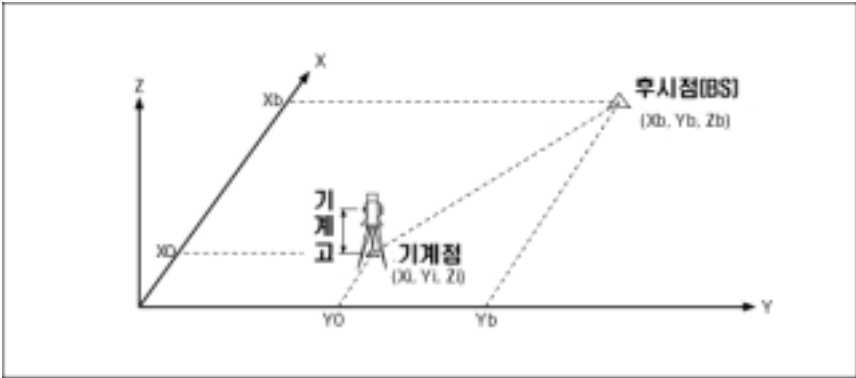
[ENT]

CD:

S	T	:	1	0	6	2													
H	I	:	1	.	0	0	0		m									1	
C	D	:	P	O	T														

B a c k s i g h t									
1	:	C	o	o	r	d	.		
2	:	A	n	g	l	e			

1:Known → 1:Coord
(BS)



[1]
()
.
()
[ENT]
.

I	n	p	u	t	B	S	P	o	i	n	t	
P	T	:	■									1
C	D	:										


)

CD()

.

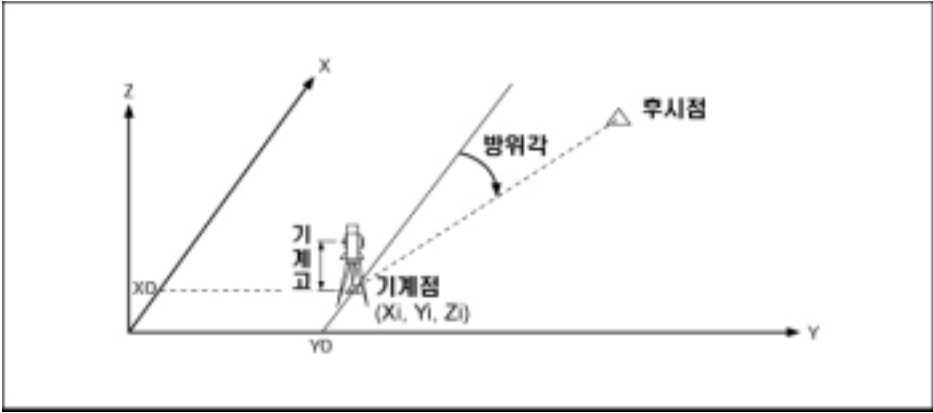
(BS) [ENT]

.
가

HA :

S	i	g	h	t	B	S					
H	A	:	1	2	3	°	4	5	'	5	0
			P	r	e	s	E	N	T		

1:Known → 2:Angle
(BS)



[2]
()
[ENT]
[ENT]

I	n	p	u	t	B	S	P	o	i	n	t	
P	T	:	■									1
C	D	:										

[ENT]

I	n	p	u	t	B	S	A	n	g	l	e	
H	A	:	■									1

)

123°45'

)

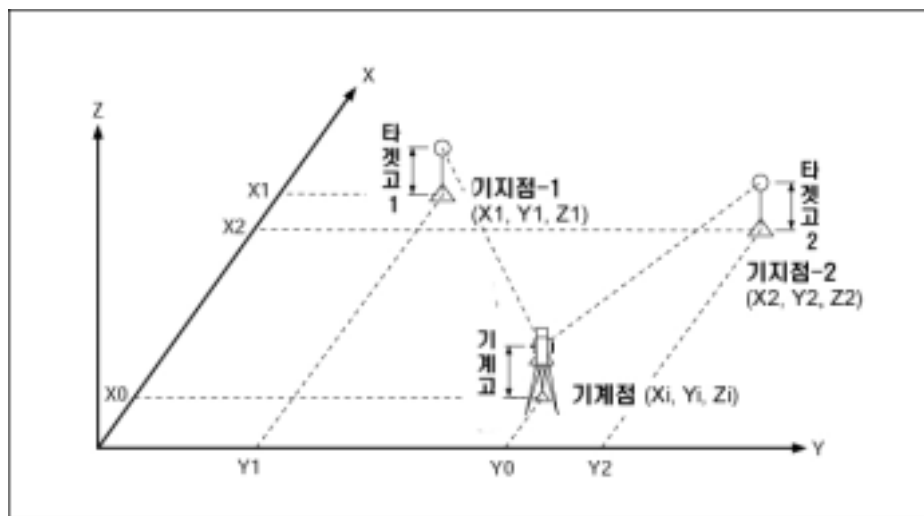
"123.4550"

(BS) [ENT]
가

S	i	g	h	t	B	S						
H	A	:	1	2	3	°	4	5	'	5	0	"
P	r	e	s	E	N	T						

HA :

2:2-Point Resection ()



-1

-2

()가

[2]
-1 ()
가

Input 1st Point											
PT:	■										1
HT:			1	.	5	0	0	m			
CD:											

[ENT]
CD:

Input 1st Point											
PT:	5	5									1
HT:	1	.	5	0	0	m					
CD:	C	P	1								

-1 [MSR] [TRK]

S	i	g	h	t	1	s	t	P	o	i	n	t	
P	r	e	s	s	M	S	R	o	r	T	R	K	

-1 -2

-2 () ,
[ENT]

I	n	p	u	t	2	n	d	P	o	i	n	t	
P	T	:											1
H	T	:		1	.	5	0	0	m				
C	D	:											

-2가 가

[1:Redo] [ESC]

d	H	D	:				0	.	0	0	5	m	
d	Z	:					0	.	0	3	0	m	
R	e	d	o									O	K

[4:OK] [ENT]

dHD :

dZ : -1 -2

[ENT]

X :				-	1	5	4	.	2	3	1	
Y :				2	3	4	5	.	3	6	2	1
Z :				1	3	5	.	3	2	5		
H I :	0	.	0	0	0					m		

Z : .

. "ST"
"1" 가(+1)

S T :	2	5	0									
H I :				0	.	0	0	0		m	1	
C D :												
L s t										S	t	k

"ST"

HI()



가

"1" 가 .


3 : 3-Point Resection ()

[3]
 -1 ()
 가
 .
 [ENT]
 -1 [ENT]
 .
 -1 , -2
 -1 -2
 [ENT]
 .

I	n	p	u	t	1	s	t	P	o	i	n	t	
P	T	:	■										1
H	T	:		1	.	5	0	0	m				
C	D	:											

S	i	g	h	t	1	s	t	P	o	i	n	t	
													1
			P	r	e	s	s	E	N	T			

I	n	p	u	t	2	n	d	P	o	i	n	t	
P	T	:	■										1
H	T	:		1	.	5	0	0	m				
C	D	:											


 -1
 가 .

-2 [ENT]
 .

S	i	g	h	t	2	n	d	P	o	i	n	t	
													1
			P	r	e	s	s	E	N	T			

-2 , -3
 -1 -2
 [ENT]
 .

I	n	p	u	t	3	r	d	P	o	i	n	t	
P	T	:	■										1
H	T	:		1	.	5	0	0	m				
C	D	:											

 -1 2
 가 .

4: (Def.)

[4]
가

S	T	:	1	0	0	0	0								
H	I	:				1	.	6	0	0		m	1		
B	S	:	9	0	0	0									

ST : (+ 1)
HI :
BS : ()

가
가

(BS) [ENT]

 ST 가
가 . (P.8-2)

5: (RBM.)

(BM) [ENT]

HT()

I	n	p	u	t		B	M		P	o	i	n	t	
P	T	:	■											1
H	T	:				1	.	5	0	0		m		
C	D	:												

[MSR] [TRK]


S	i	g	h	t		B	M		P	o	i	n	t	
P	r	e	s	s		M	S	R	o	r	T	R	K	


HI() 가

X	:					-	1	5	4	.	2	3	1	
Y						2	3	4	5	.	3	6	2	1
Z						1	3	5	.	3	2	5		
H	I	:				1	.	5	0	0		m		

Z :

[ESC] 가 , [ENT]

 ■ || () Z

 STN() 가

6: (BSChk)

[6]

HA :	1	0	3	.	5	0	#	3	4	#		
BS :	1	0	3	.	5	0	#	3	0	#		
A b r t											OK	

[ENT]


[4]

[ESC]

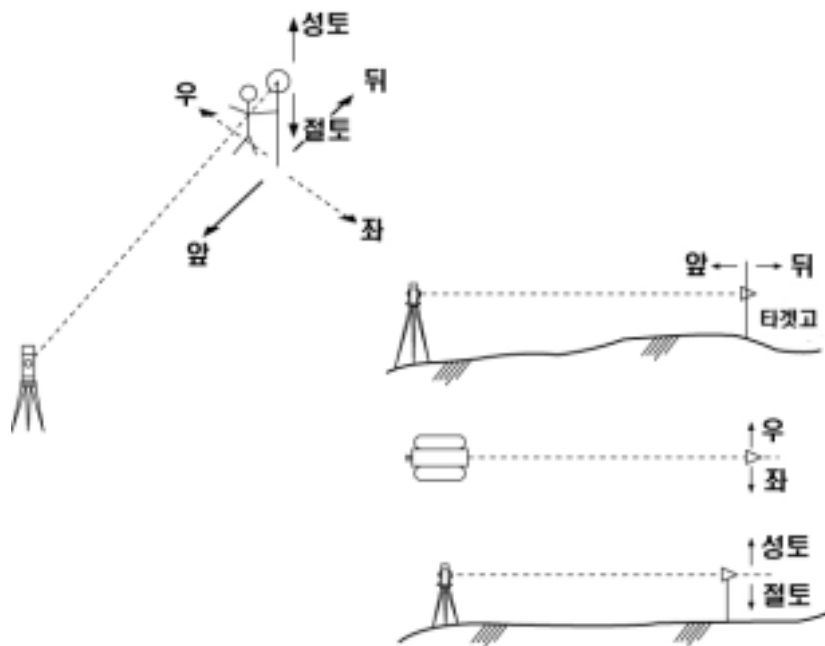
[1]

HA :

BS :

	STN()
가	.

(S-O)



[S-O]

[illegible]

= Lumi-Guide

$$=$$

[MENU]/[3: Sett]/[7: S-O]

"LG Dist"

가

Stakeout

"LG Dist"

1:Ang-Dist

[1]

[ENT]

HD :	2	5	.	3	5	6			m
d VD :				3	.	5	2	3	m 1
HA :		1	2	3	.	4	5	5	6
S - O									

HD :
dVD :
HA :

 HA

[ENT]

dHA 가 0°00')"


[MSR] [TRK]

d HA →	3	5	.	1	2	'	3	0	"
HD :		2	5	.	3	5	6		m 1
P r e s s		M	S	R	o	r	T	R	K
S - O									

가

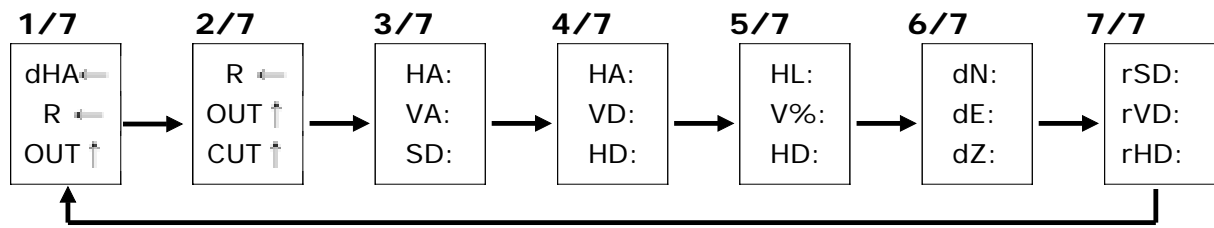
d HA →		0	°	0	0	'	0	5	"
R ←				0	.	0	0	1	m
O U T ↑				0	.	0	0	2	m
S - O	1	/	7						

dHA :
R/L : /
IN/OUT : /

 "LG Dist" 가
Lumi-Guide
가
가

>Add Pt :	1	0	0	0		
LG Dist :	0	.	1	0		1

[DSP]



[ESC]

[REC]

X :				1	2	6	.	1	5	2	
Y :				1	2	.	3	2	4		
Z :				2	.	4	1	5			
S - O											

[REC]

[ENT]

PT

가

I n p u t	S - O	P o i n t	
P T : 1 5			
C D : ■			
L s t			S t k

(CD)

가

[MODE]

[ENT]

[REC]

		-	REC	RAW	-						
J o b :	I T A L Y	2 0 5									

[ESC]

HD/dVD/HA

[HOT]

HT(), T-P(,),

1 : HT	5 : Qe d i t	
2 : T - P	6 : Qmode	
3 : P r i s m		
4 : L e v e l		

2:XYZ

[2]

(R)

가

/

[ENT]

dHA

가

가 0°00')

[MSR]

[TRK]

dHA :

HD :

I	n	p	u	t	S	-	O	P	o	i	n	t	
P	T	:	5	0	*								1
C	D	:											
R	:	5	0	■							m		



>	U	P	,	5	0	2							
	U	P	,	5	0	3							
	U	P	,	5	0	4	,	C	E				
	U	P	,	5	0	5							↓

P	T	:	6	8									
X	:												1
Y	:												
Z	:												

d	H	A	←	1	4	6	°	1	9	'	2	5	"
	H	D	:					2	3	.	4	6	8
											m		
P	r	e	s	s		M	S	R	o	r	T	R	K
S	-	O											

[HOT]

HT(), T-P(,

),

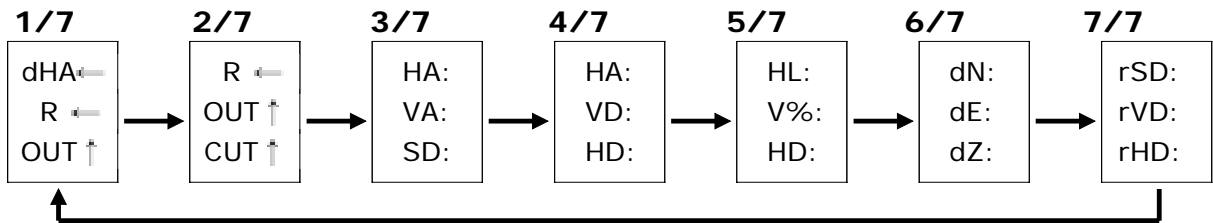
1	:	H	T			5	:	Q	e	d	i	t	
2	:	T	-	P		6	:	Q	m	o	d	e	
3	:	P	r	i	s	m							
4	:	L	e	v	e	l							

[ESC]

d H A	←	0 °	00	05	
R	←		0 . 00	1	m
O U T	↑		0 . 00	2	m
S - O 1 / 7					

dHA :
R/L : /
IN/OUT : /

[DSP]



The diagram shows a horizontal flow from left to right. On the left, there is a hand icon pointing right. The text "“LG Dist”" is positioned above "Lumi-Guide". Below "Lumi-Guide" is the text "가". To the right of "가" is a dot ".". Below the dot is the text "가". On the far right, there is a table with 10 columns and 4 rows. The first row contains the text "> Add Pt : 1000". The second row contains the text "LG Dist : 0.10". The third row is empty. The fourth row is empty. The table has a black header row and a black footer row. The number "1" is written in the second column of the third row.

[REC]

[illegible]

[REC] [ENT]

PT

"Add Pt"

가


I	n	p	u	t	S	-	O	P	o	i	n	t		
P	T	:	1	0	6	8								
C	D	:	■										■	
L	s	t										S	t	k

(CD)

가

[MODE]

[ENT]

 MENU/3:Sett/7:S-O "Add Pt" 1000
(P.3-62)
가 "3"
가 "1003"

[REC]

d	H	A	→	-	0	°	00	'	10	"			
L	→				0	.	00	4	m				
I	N	↓			0	.	00	5	m				■
S	-	O	1	/	7								

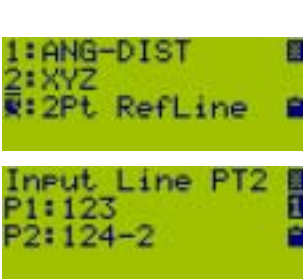
[ESC]

M	P	,	1	2	5	,	F	E	N	C	E	1	
>	M	P	,	1	2	8	,	F	E	N	C	E	2
M	P	,	1	5	3	,	F	E	N	C	E		■
M	P	,	2	0	6	,	F	E	N	C	E	1	↓

2:2-Pt Reference Line

stakeout Offset
 [3] 2-pt Reference line

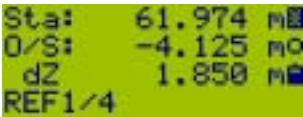
*



[*]
up/down

[MSR] [TRK]

가



DSP 1/4	DSP 2/4	DSP 3/4	DSP 4/4
Sta	N	HA	HA
O/S	E	VA	VA
dZ	Z	SD	HD

Sta:
O/S: offset
dZ: offset
[DSP] 1/4 2/4
[DSP] 2/4 3/4
offset [REC] [ENT]

" Store data"가 " Both" " XYZ" 가
" Store data"가 "Both" "XYZ" " Sta,O/S,dZ"

SS & HD/VD/SD

가

(REC)

1)

[REC]

PT/HT/CD

가

(Lst)

(Stk)

P	T	:	1	0	0	0	5								
H	T	:				1	.	5	0	0		m			
C	D	:	M	A	N	H	O	L	E						
L	s	t		O	/	S		Q	c	d		S	t	k	

CD: [ENT]

MENU/3: Sett/8: Others

"Store DB"




"RAW

data", "Coordinate only", "Both"

가

(P.3-62)

		-		R	E	C		R	A	W		-			
J	o	b	:	N	I	K	O	N	5						

		OFFSET	[REC]
		HA/VA	
[REC]		가	
		[REC]	
		"-REC ANG-"가	
SD		0.000m	

2) (Qcode)

[MODE]

HA :	3	1	6	°	5	0	'	4	0	"		
VA :		9	1	°	2	5	'	3	5	"		
SD :			1	5	0	.	6	8	7	7	m	
DSP	1	/	4									

▼ [MODE]

가

HA :	3	1	6	°	5	0	'	4	0	"		
VA :		9	1	°	2	5	'	3	5	"		
SD :			1	5	0	.	6	8	7	7	m	
PT :	1	0	0	5	3	-	A	1	0			

▼ [1] ~)]

HOT/6:Qmode
Yes"

"Confirm:

PT :	1	0	0	5	3	-	A	1	0			
HT :	1	.	6	0	0		m					
CD :	C	M	P									
L s t	O / S						Q c d		S t k			

. ()
CD

PT/HT/CD

[ENT]

PT 1 가

[MODE]

HA :	3	1	6	°	5	0	'	4	0	"		
VA :		9	1	°	2	5	'	3	5	"		
SD :											m	
PT :	1	0	0	5	3	-	A	1	1			



[HOT]/5:Qedit

(P.3-20)

[MODE]

P	T	:	1	0	0	5	3	-	A	1	0			
H	T	:				1	.	6	0	0	m			
C	D	:	C	U	R	B								

▼ [MODE]

[MODE]
가

P	T	:	1	0	0	5	3	-	A	1	0			
H	T	:				1	.	6	0	0	m			
C	D	:	C	U	R	B								
L	s	t	O	/	S		Q	c	d		S	t	k	

▼ [Qcd]

[3:Qcd]

			A	S	S	I	G	N		Q	c	d	e	
S	e	l	e	c	t		a		K	e	y			
f	r	o	m		1		t	o		0				
			E	S	C		t	o		C	a	n	c	e


▼ [6]

가

A	s	s	i	g	n	i	n	g		Q	c	d	e	
K	e	y	6											
=	C	U	R	B										

[ENT]

P	T	:	1	0	0	5	3	-	A	1	0			
H	T	:				1	.	6	0	0	m			
C	D	:	C	U	R	B								
L	s	t	O	/	S		Q	c	d		S	t	k	



[HOT]/[5:Qedit] 가

(P.3-22)

3) OFFSET (O/S)

[REC] [2:O/S] OFFSET

P	T	:	1	0	0	5	3	-	A	1	0			
H	T	:				1	.	6	0	5	0	m		
C	D	:	C	U	R	B								
L	s	t	O	/	S			Q	c	d		S	t	k

OFFSET

+	/	-	T	a	p	e	O	f	f	s	e	t		
R	/	L	:		0	.	0	0	0			m	1	
O	/	I	:									m		
U	/	D	:									m		

[1:R/L] = (+) / (-)
[2:O/I] = (+) / (-)
[3:U/D] = (+) / (-)

가 OFFSET

+	/	-	T	a	p	e	O	f	f	s	e	t		
R	/	L	:			1	.	5	0	0		m	1	
O	/	I	:			1	.	7	0	0		m		
U	/	D	:	1	.	2	0	0				m		

OFFSET
U/D
[ENT]

가

“Store data”
SS

		-	R	E	C	R	A	W		-				
J	o	b	:	S	E	O	U	L	2	3				

가

([MENU])

[MENU]

1)

(Job)

[1]

Job

가

1	:	J	o	b		5	:	C	o	m	m	s	
2	:	C	o	g	o	6	:	T	i	m	e		
3	:	S	e	t	t	7	:	C	a	l	i	b	
4	:	D	a	t	a								

1-1)

Job

Job

Job

"*"

가

,

Job

Job

"@"

가

>	*	S	E	O	U	L	1	0					
		T	E	S	T	-	A	5	5				
		N	E	W	Y	O	R	K	3	@			
		T	E	S	T	-	A	5	6				↓

/

Job

[ENT]

		Job	Job
	Job	Job	

1-2) Job (Job)
 Job [MENU]
 가 가

1	C	r	e	a	t	e									
2	D	E	L												
3	C	o	n	t	r	o	l								

[1] [ENT] "Input JOB
 Name"
 8 JOB
 [ENT]

I	n	p	u	t		J	O	B		n	a	m	e		
														A	
N	I	K	O	N	1	0	5								
(	M	A	X		8		c	h	a	r	s)			

JOB
 JOB

C	r	e	a	t	e		J	O	B	?					
							N	I	K	O	N	1	0	5	
N	o		S	e	t									Y	e
														s	

JOB [2]

[4] [ENT]

JOB
 JOB JOB
 JOB

Scale() : 0.9996 ~ .0004
T-P(/) : ON/OFF
Sea Lvl() : ON/OFF
C&R(/) : ON/OFF

>	S	c	a	l	e	:	1	.	0	0	0	0			
	T	-	P			:	O	N					1		
	S	e	a		L	v	l	:	O	N					
	C	&	R			:	0	.	1	3	2				



Angle() : DEG/GON/MIL
Dist() : Metre/Ft-US/Ft-Int
Temp() : degC/degF
Press() : hPa/mmHg/inHg

>	A	n	g	l	e		:	D	E	G					
	D	i	s	t		:	M	e	t	r	e				
	T	e	m	p		:	d	e	g	C					
	P	r	e	s	s	:	h	P	a						




**VA zero(0) : ↑ (Zenith)/
→ (Horizon)**
Az zero(0) : North/South
Coord() : NEZ/ENZ

▼

>	V	A	z	e	r	o	:	↑	0						
	A	z	z	e	r	o	:	N	o	r	t	h			
	C	o	o	r	d		:	N	E	Z					

[ENT] [↓
()

(Coord) [ENT] JOB



JOB

JOB

JOB

JOB

[SET]

JOB

JOB

[ENT]

[4:Yes]

1-3) Job

Job

JOB

[MENU]
가

가

> *	S	E	O	U	L	1	0								
	T	E	S	T	-	A	5	5							
	N	E	W	Y	O	R	K	3	@						
	T	E	S	T	-	A	5	6							↓

[2]

[2:DEL]
[ENT]


1	C	r	e	a	t	e									
2	D	E	L												
3	C	o	n	t	r	o	l								

[ENT]
JOB

[4]

[ESC] [1]

D	e	l	e	t	e		J	O	B	?					
	S	E	O	U	L	1	0							1	
	A	r	e		y	o	u		s	u	r	e	?		
N	o												Y	e	s

	J	O	B											J	O	B
---	---	---	---	--	--	--	--	--	--	--	--	--	--	---	---	---

JOB

JOB

	-		D	E	L	E	T	I	N	G		-		1	

1-4) (Control) JOB

JOB

JOB

JOB

DTM-500

가

JOB

JOB

JOB

JOB

JOB

JOB

가

JOB

Job

JOB

JOB

[MENU]

가

가

[3]

[3:Control]

[ENT]

JOB

JOB

[ENT]

[4]

JOB

JOB

[ESC]

[1]

* S E O U L 1 0									
A M S - B 8									
N E W Y O R K 3	@								
> P U S A N									↓

1	C	r	e	a	t	e			
2	D	E	L						
3	C	o	n	t	r	o	l		

A	s	s	i	g	n				
P	U	S	A	N					1
a	s	C	o	n	t	r	o	l	J
N	o								Y
									e

- JOB JOB JOB
- JOB JOB
- JOB JOB

[MENU]/[3]

T	e	r	m	i	n	a	t	e	
P	U	S	A	N					
a	s	C	o	n	t	r	o	l	J
N	o								Y
									e

[ESC]/[1:NO] = JOB

[ENT]/[4:Yes] = JOB

Cogo [2]

[illegible]

2-1) PT-PT

Cogo [1]
()
PT()
[ENT] .

Input	1st Point
PT: ■	1
C O G O	

Diagram illustrating a 3D coordinate system with axes labeled PT, [ENT], and XYZ. A point is marked with a dot in the 3D space.

[ENT] () .

Input	2nd	Point
PT: ■		1
C O G O		

가
Cogo

r	HA :	1	2	3	°	2	4		1	0	β^*	
d	HD :			1	2	3	.	4	5	6		m 1
d	VD :				1	3	.	1	4	5		m
C	OGO	1	/	2								

[DSP]

Gd : (HD/VD)
V% : (100/GD)

G d :	6 . 2 0 : 1
V% :	1 0 . 5 0 0 % 1
r S D :	1 4 4 . 6 7 2 m
C O G O 2 / 2	

Cogo [2]
()
PT()
[ENT]

[ENT]

가

[ENT]

가 [1] [ESC]

"Input Point"

PT
1 가 가
[ENT]

2-3) (Area)

Cogo [3]

()
PT()
[ENT]

X Y

가
가

[↓]

가
Cogo

I	n	p	u	t	P	o	i	n	t	0	1	
P	T	:	1	0	0	5	■					1
P	r	e	s	s	↓	t	o	C	a	l	c	

X	:				5	5	0	8	.	2	1	1	
Y	:	1	7	6	1	.	5	4	0				1
Z	:												
C	D	:											

A	r	e	a	:									
					2	6	5	4	.	5	8	8	m ²
P	e	r	i	m	:								
					5	3	4	6	.	0	0	8	m

			99	/	.
---	---	---	----	---	---

3) (Sett)

[3]
가

1	:	A	n	g	l	e	5	:	U	n	i	t	
2	:	D	i	s	t		6	:	C	o	m	m	
3	:	C	o	o	r	d.	7	:	S	-	O		
4	:	P	o	w	e	r	8	:	O	t	h	e	r

1:Angle ()	<div style="border: 1px solid black; padding: 5px;"> <p>>VA zero : ↑0</p> <p>ANG Reso : High</p> <p>Tilt adj : Dual</p> </div>	<p><VA zero> : 0</p> <p>↑ : Zenith ()</p> <p>→ : Horizon ()</p> <p><ANG Reso> :</p> <p>High / Low</p> <p><Tilt adj> :</p> <p>Dual / Single / OFF</p>
	<p>'1 '</p> <p>(±3 °)</p> <p>V%, X, Y, Z)가</p> <p>가</p> <p>"#"</p>	<p>'2 '</p> <p>(VA, VD, HD,</p> <p>(±3 °</p> <p>"OFF"</p> <p>(VA, VD, HD, V%, X, Y, Z)</p> <p>가 .</p>

2:Dist. ()	<table><tr><td colspan="10">>Scale: 1. 0000</td></tr><tr><td colspan="2">T - P</td><td colspan="6">: ON</td><td colspan="2">1</td></tr><tr><td colspan="2">Sea Lvl</td><td colspan="6">: ON</td><td colspan="2"></td></tr><tr><td colspan="2">C&R</td><td colspan="6">: 0. 132</td><td colspan="2"></td></tr></table>	>Scale: 1. 0000										T - P		: ON						1		Sea Lvl		: ON								C&R		: 0. 132								<p><Scale> : 0.9996 ~ .0004</p> <p><T-P> : / ON/OFF</p> <p><Sea Lvl> : ON/OFF</p> <p><C&R> : / OFF : C&R OFF 0.132 : C&R ON(:0.132) 0.200 : C&R ON(:0.200)</p>
	>Scale: 1. 0000																																									
T - P		: ON						1																																		
Sea Lvl		: ON																																								
C&R		: 0. 132																																								
	<p>가</p> <p>" "</p> <p>가 " "</p> <p>(VD Z)</p>																																									
3:Coord ()	<table><tr><td colspan="10">>Coord : NEZ</td></tr><tr><td colspan="2">Label</td><td colspan="6">: XYZ</td><td colspan="2"></td></tr><tr><td colspan="2">Az zero</td><td colspan="6">: North</td><td colspan="2"></td></tr><tr><td colspan="10"></td></tr></table>	>Coord : NEZ										Label		: XYZ								Az zero		: North																		<p><Coord> : NEZ / ENZ</p> <p><Label> : XYZ / YXZ / NEZ(ENZ)</p> <p><Az zero> : 0 North / South</p>
>Coord : NEZ																																										
Label		: XYZ																																								
Az zero		: North																																								

4:Power ()	<div> <div> >Main : OFF EDM : XYZ Sleep : 1min </div> </div>	<Main> : OFF/5min/10min/30min <EDM> : EDM OFF/At Once/0.1min/0.5min /3min/10min <Sleep> : OFF/1min/3min/5min
5:Unit ()	<div> <div> >Angle : DEG Dist : Metre Temp : degC Press : hPa </div> </div>	<Angle> : DEG / GON / MIL <Dist> : Metre / Ft-US / Ft-Int <Temp> : degC() / degF() <Press> : hPa / mmHg / inHg
6:Comm. ()	<div> <div> >Ext. Comm: NIKON Baud : 4800 Length : 8 Parity : NONE </div> <div> >Stop bit: 1 </div> </div>	<Ext. Comm> : NIKON / SET <Baud> : 1200/2400/4800/9600 /19200/38400bps <Length> : 7 / 8 <Parity> : EVEN / ODD / NONE <Stop bit> : 1 / 2

7:S-O ()	<table><tr><td>>Add</td><td>Pt</td><td>:</td><td>1000</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>LG</td><td>Dist</td><td>:</td><td>0.10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	>Add	Pt	:	1000															LG	Dist	:	0.10													1																																																																																																	<p><Add Pt> : 가 S-O()</p> <p>(1 ~ 99,999)</p> <p><LG Dist>* : Lumi-Guide 가</p> <p>0 ~ .99m</p>		
	>Add	Pt	:	1000																																																																																																																																			
LG	Dist	:	0.10													1																																																																																																																							
	<p>* "LG Dist" Stakeout()</p> <p>Lumi-Guide 가</p>																																																																																																																																						
8:Other ()	<table><tr><td>>Store</td><td>DB</td><td>:</td><td>Both</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Rec</td><td>LG</td><td>:</td><td>ON</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Sig</td><td>Beep</td><td>:</td><td>OFF</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	>Store	DB	:	Both																Rec	LG	:	ON															Sig	Beep	:	OFF																																																																																												<p><Store DB> : RAW : RAW</p> <p>XYZ :</p> <p>Both : SS/CP/SO RAW XYZ</p> <p><Rec LG> : LG ON : 가 가 2</p> <p><Sig Beep> : ON / OFF</p>	
	>Store	DB	:	Both																																																																																																																																			
Rec	LG	:	ON																																																																																																																																				
Sig	Beep	:	OFF																																																																																																																																				

4) (Data)

()

(Download Data)

[4]

View/Edit

View/Edit									
1	:	R	A	W	d	a	t	a	
2	:	X	Y	Z	d	a	t	a	
3	:	C	o	d	e	L	i	s	t

4-1)

4-1-1) RAW

View/Edit

[1]

RAW

S	S	,	1	0	,	F	E	N	C	E	.
S	S	,	1	1	,	C	U	R	B		
S	S	,	1	2	,	M	A	N	H	O	L
>	S	S	,	1	3	,	P	t	1		

RAW

JOB

4

가

/

▼ [ENT]

[ENT]

가

[ESC]

P	T	:	1	3							
H	A	:	3	0	1	5	0	3	0		
V	A	:	8	9	1	2	2	5			
S	D	:		1	4	2	.	8	4	5	0m

SS/SO/CP/F1/F2

"PT", "HT", "CD", "HA/VA/SD"

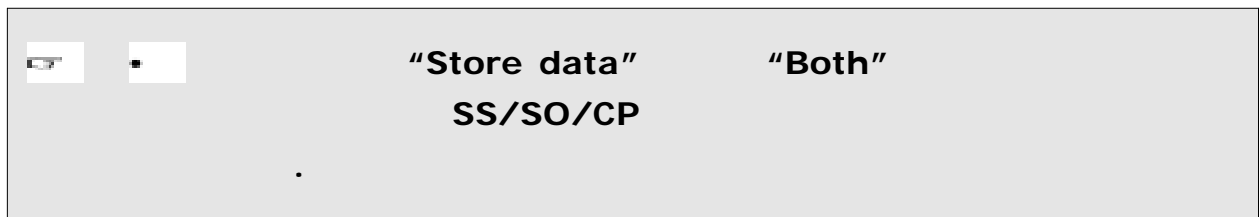
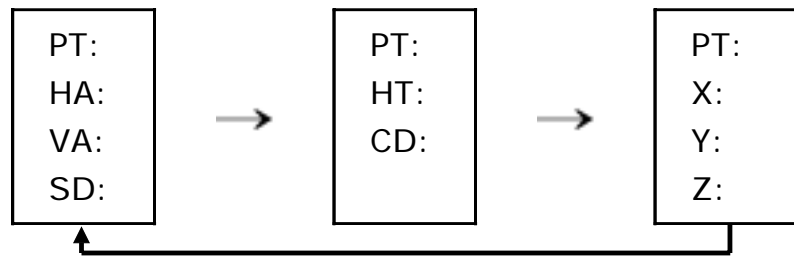
SS : Topo ,

SO : Stakeout , "Stakeout"

CP :

F1/F2 : Face1/Face2

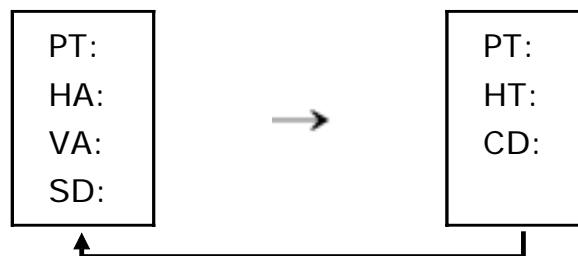
[DSP]



ST _____

"PT", "HI", "BS", "BS Az"

[DSP]




CO _____ JOB _____ 가 _____ .
_____, Remote Bench Mark(_____) Stn-Z(_____)
(_____) BS Check(_____)
_____, _____ 가 _____ .

Remote Bench Mark
(CO) _____ .

C	O	,	R	e	m	o	t	e	B	M	C	a	
I	c	.	Z	=	5	0	1	,	1	9	3	-	S
t	n	P	o	i	n	t	U	p	d	a	t	e	
d													

C	O	,	T	e	m	p	e	r	a	t	u	r	e	:
9	5	F	a	h	r	e	n	h	e	i	t			
P	r	e	s	s	u	r	e	:	2	9	.	9		
i	n	H	g	P	r	i	s	m	:	3	0			

 **RAW** _____ 가 _____ .

				N	o		D	a	t	a			
		P	r	e	s	s	a	n	y	k	e	y	

4-1-2)

View/Edit [2]

U	P	,	5	3	6	,											
U	P	,	5	3	7	,	C	U	R	B							
M	P	,	1	,													
>	M	P	,	2	,	S	T	N									



JOB
4 가 .
/

▼ [ENT]

[ENT] 가

[ESC]

P	T	:	2														
X	:	1	5	0	3	0	2	4	.	5	5	9	6				
Y	:	-	8	9	2	4	5	1	2	.	2	5	4	4			
Z	:																



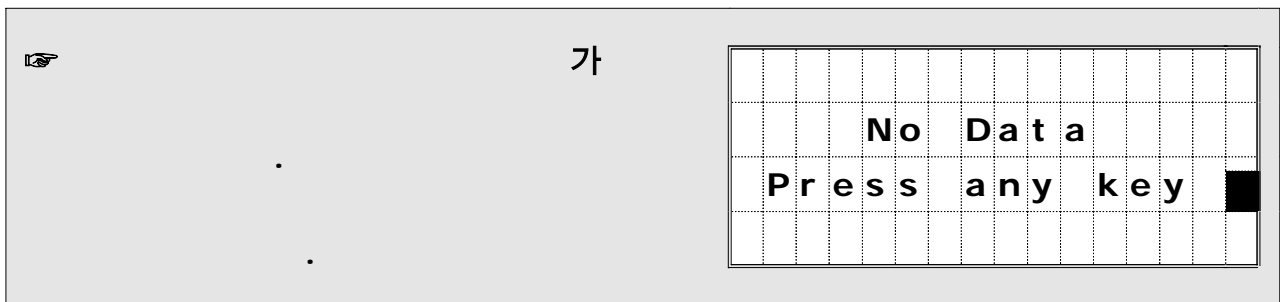
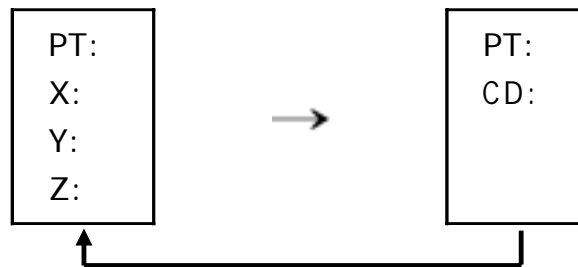
(XYZ, YXZ, NEZ, ENZ)
. (MENU / 3:Sett / 3:Coord)

UP/MP/CC/RE

[DSP] "PT", "CD", "X/Y/Z"
PT/X/Y/Z PT/CD

UP :
MP :
CC : . "Cogo"
RE : . "Resection()"

"Store data" "Both" "XYZ"
SS, Stakeout SO,
CP



4-2)

[2:XYZ data]

		View/Edit			
1	: RAW	data			
2	: XYZ	data			
3	: Code	List			

XYZ

[MENU]

가

가

[illegible]

▼ [MENU]

[1]

[ENT]

"Add"

[illegible]

PT
1 가(+1)
PT
 PT
PT CD [ENT]

I	n	p	u	t	P	o	i	n	t						
P	T	:	1	0	0	5	0	2							
C	D	:	T	R	E	E									
L	s	t											S	t	k

[2:XYZ data]


[ENT]
[↓

P	T	:	1	0	0	5	0	2							
X	:													1	
Y	:														
Z	:														

Z [ENT]
MP

 , PT 1
가

				-	R	E	C		X	Y	Z	-			
J	o	b	:	A	M	S	-	B	6	7					



- Y, XYZ, Z
- Lst] [Stk] CD() 가

가

4-3-1) RAW

•

101

1

1



- 가

[ENT]

10

가

[4]

[1]

1

-

가

•

1

1

[2:XYZ data]

[2:XYZ data]

		View/Edit		
1	: RAW	data		
2	: XYZ	data		
3	: Code	List		

[MENU]

	UP, 536,								
>	UP, 537, CURB								
	MP, 1,								
	MP, 2, STN								

▼ [MENU]

XYZ - 가
[2] [↓ / [ENT]
(DEL) .

1	:	A d d
2	:	D E L
3	:	S e a r c h
4	:	E d i t

가
[ENT] [4]
[ESC] [1][illegible]

The diagram illustrates a user interface for a menu system. A hand icon points to a screen displaying the text '가' and '[MENU]'. To the right of the screen is a table with numerical data.

P T :	5	1	4	3								
X :					2	6	1	5	.	4	6	2
Y :					1	3	0	5	.	1	0	0
Z :						6	6	.	3	8	1	

4-4) ()
(),
.

4-4-1) RAW

[1:RAW data]

View/Edit															
1	:	R	A	W		d	a	t	a						
2	:	X	Y	Z		d	a	t	a						
3	:	C	o	d	e		L	i	s	t					

[MENU]

>	S	T	,	1	0	0	,								
	F	1	,			1	.	5	0	0					
	S	S	,	2	0	0	1	,	F	E	N	C	E		
	S	S	,	2	0	0	2	,	F	E	N	C	E		↓

▼ [MENU]

RAW - 가

[2] [ENT]

"2: Search"

1	:	D	E	L											
2	:	S	e	a	r	c	h								
3	:	E	d	i	t										

/

"Type"

(Type) ALL/ST/SS/SO/F1/
F2/CP/CO/SY

S	e	a	r	c	h		R	A	W						
T	y	p	e	:	<	A	L	L	>						
P	T	:													
C	D	:													

"Type" <ALL>

"PT"

[ENT]

PT, CD

PT CD (*)

S	e	a	r	c	h		R	A	W						
T	y	p	e	:	S	O									
P	T	:	3	0	*										
C	D	:													

, PT "30*"

Pt: 300, 301, 302, 3000A2, 3010,...

[2:XYZ data]

[MENU]
가

```
[3]      [ENT]
"3:Search"
```

"Type" (Type) ALL/MP/UP/CC/RE

"Type"	<ALL>
"PT"	
[ENT]	.

PT, CD .
PT CD (*)
.
, PT
CD "TREE*"
CD: TREE, TREE1, TREE3C, ...

	View/Edit		
1	: RAW	data	
2	: XYZ	data	
3	: Code	List	

	UP , 5 3 6 ,					
	UP , 5 3 7 , C U R B					
	MP , 1 ,					
>	MP , 2 , S T N					↑

▼ [MENU]

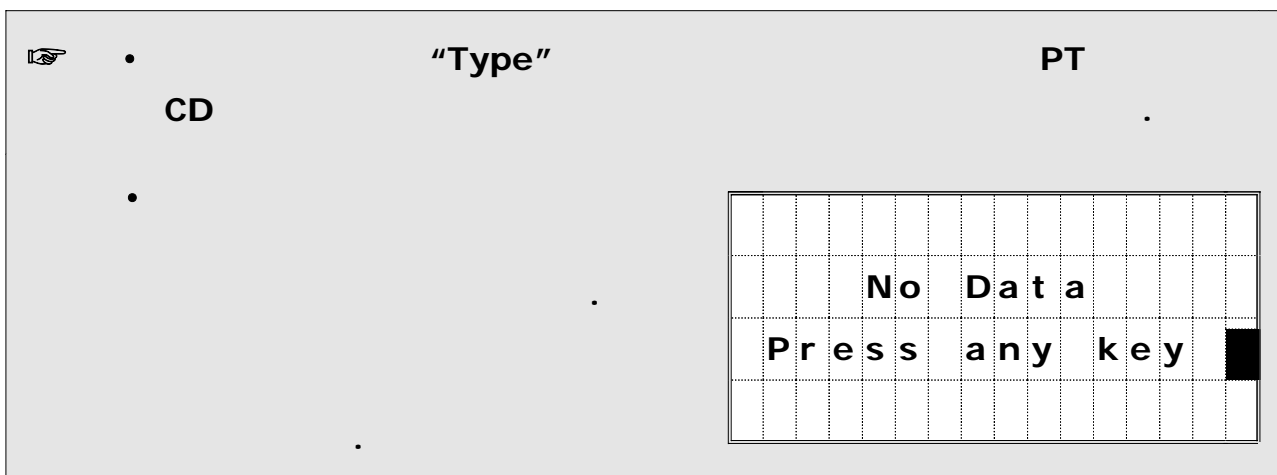
1	:	A d d
2	:	D E L
3	:	S e a r c h
4	:	E d i t

[illegible][illegible]

[illegible]

P T : 4 7									
X :			1 0 0 5 . 2 3 8						
Y :			2 0 6 4 . 5 1 0						
Z :			8 5 . 6 8 2						

. (P.3-70)



4-5)

()

(HT),

(HI),

(BS),

(Az)

DTM-500

4-5-1) RAW

[1:RAW data]

View/Edit															
1	:	RAW	data												
2	:	XYZ	data												
3	:	Code	List												

[MENU]

ST	,	100													
F1	,		1.500												
SS	,	2001	,	FENCE											
>SS	,	124	,	MANHOLE											

▼ [MENU]

RAW

- 가

[3]

[ENT]

(Edit)

1	:	DEL													
2	:	Search													
3	:	Edit													

/

PT	:	124													
HT	:		1.650		m										
CD	:	MANHOLE													



• SO/F1/F2

CD

• ST

• SS/SO/CP/F1/F2
HA/VA/SD

<ST >

ST	:	100													
HI	:		1.650		m									1	
BS	:														
AZ	:		45°	00'	00"										

[ENT]

S	a	v	e	C	h	a	n	g	e	s	?			
P	T	:	1	2	4									
C	D	:	M	A	N	H	O	L	E	1				
N	o											Y	e	s

[4] [ENT]

가 [1] [ESC]

-	U	p	d	a	t	e	R	A	W	-		

4-5-2)

[1:XYZ data]

		V	i	e	w	/	E	d	i	t		
1	:	R	A	W		d	a	t	a			
2	:	X	Y	Z		d	a	t	a			
3	:	C	o	d	e		L	i	s	t		

[MENU]

>	U	P	,	5	0	2					
	U	P	,	5	0	3					
	U	P	,	5	0	4	,	C	E		
	U	P	,	5	0	5					↓

▼ [MENU]

[4] [ENT] - 가 (Edit)

1	:	A	d	d							
2	:	D	E	L							
3	:	S	e	a	r	c	h				
4	:	E	d	i	t						

/

P	T	:	5	0	2								
X	:					3	6	5	.	1	3	5	0
Y	:			-	1	2	5	4	.	3	2	5	0
Z	:												

[DSP]
()

P	T	:	1	2	4														
C	D	:	M	A	N	H	O	L	E										

[ENT]

S	a	v	e		C	h	a	n	g	e	s	?							
P	T	:	1	2	4														
C	D	:	M	A	N	H	O	L	E	1									
N	o																Y	e	s

[4] [ENT]

가 [1] [ESC]

-																			

"View/Edit"
[3: Code List]

	View/Edit			.
1	: RAW	data		
2	: XYZ	data		
3	: Code	List		

가

[MENU]


4

>	S	T	R	U	C	T	U	R	E										
	S	U	R	F	A	C	E												
	S	U	R	V	E	Y	→												
	V	E	G	E	T	A	T	I	O	N									



254가


12

가


가

가

[illegible]

[1:Add Code] :

[2:DEL] : 가

[3:Add Layer] :

가

4-6-1)

가

[1] [ENT] [1:Add
Code]

가

1	:	A	d	d	C	o	d	e											
2	:	D	E	L															
3	:	A	d	d	L	a	y	e	r										

[MODE]

[ENT]

I	n	p	u	t	C	o	d	e											
C	D	:	A	T	/	B	M												

가

>	A	T	/	B	M														
	S	T	R	U	C	T	U	R	E										
	S	U	R	F	A	C	E												
	S	U	R	V	E	Y													



•

254

가

가

가

		L	i	s	t	F	U	L	L										
	P	r	e	s	s	a	n	y	k	e	y								

4-6-2) /

[MENU]

>	B	U	I	L	D	I	N	G							
	S	T	R	U	C	T	U	R	E						
	S	U	R	F	A	C	E								
	S	U	R	V	E	Y	→								↓

가

가

[2]

[ENT]

(DEL)

1	:	A	d	d	C	o	d	e							
2	:	D	E	L											
3	:	A	d	d	L	a	y	e	r						

[ENT]

[4]

가

[1]

[ESC]

	D	E	L	E	T	E	C	O	D	E	?				
	B	U	I	L	D	I	N	G							
	A	r	e	y	o	u	s	u	r	e	?				
N	o											Y	e	s	



		L	i	s	t	F	U	L	L						
	P	r	e	s	s	a	n	y	k	e	y				

4-6-3) 가

[MENU]

가

가

[3]

[ENT]

가(Add Layer)

[MODE]


[ENT]

가

[illegible][illegible]

Input Layer									

[illegible]

 • 254 가

가

가

.

5) (Communication)
5-1) (Download Data)

[MENU]

[5]

1 : J O B	5 : Comm.
2 : C o g o	6 : T i m e
3 : S e t t	7 : C a l i b
4 : D a t a	

:
1:
2:
3:

C o m m u n i c a t i o n
1 : D o w n l o a d
2 : U p l o a d D a t a
3 : U p l o a d L i s t

[1]

Format: NIKON/SDR2x/SDR33
Data: RAW/Coordination.

S e l e c t F o r m a t
> F o r m a t : N I K O N
D a t a : R A W

"Data" [ENT]
가

[ENT]

P l e a s e c o n n e c t
R S 2 3 2 C c a b l e
P r e s s E N T
S e n d P o i n t : 1 2 2

JOB
가

J o b = S E O U L 1 5
- S E N D I N G -
R e c o r d : 1 0 0

JOB

C o m p l e t e
D e l e t e J o b ?
N o Yes

[4] [ENT] JOB
[1] [ESC]
JOB

D e l e t e J O B
S E O U L 1 5
A r e y o u s u r e ?
N o Yes

5-2) (Upload Data)

ASCII

JOB

[2]

C	o	m	m	u	n	i	c	a	t	i	o	n		
1	:	D	o	w	n	l	o	a	d					
2	:	U	p	l	o	a	d	D	a	t	a			
3	:	U	p	l	o	a	d	L	i	s	t			

RS-232C


P	l	e	a	s	e		c	o	n	n	e	c	t	
		R	S	2	3	2	C		c	a	b	l	e	
		P	r	e	s	s		E	N	T				
S	e	n	d		P	o	i	n	t	:	3	1	2	

(가 SEND TEXT)

[ENT]

가

J	o	b	=	S	E	O	U	L	1	5				
-		R	E	C	E	I	V	I	N	G		-		
		R	e	c	o	r	d	:	1	5				




가


[ESC]

[ESC]

UP



가 12



가

5-3)

(Upload List)

[3]

C	o	m	m	u	n	i	c	a	t	i	o	n		
1	:	D	o	w	n	l	o	a	d					
2	:	U	p	l	o	a	d		D	a	t	a		
3	:	U	p	l	o	a	d		L	i	s	t		

RS-232C

가

[4]

[ENT]

P	l	e	a	s	e		c	o	n	n	e	c	t	
		R	S	2	3	2	C		c	a	b	l	e	
		R	e	p	l	a	c	e		L	i	s	t	?
N	o											Y	e	s



가

가

254

-	R	E	C	E	I	V	I	N	G	-				
		C	o	d	e	:	1							



가 12



가

(P.8-1)

6) (Data & Time)

[6: Time]

1 : J O B	5 : C o m m.
2 : C o g o	6 : T i m e
3 : S e t t	7 : C a l i b
4 : D a t a	

" - - "
 1999 7 24
 1999 [ENT] 7 [ENT] 24 [ENT]

D a t e : 1 9 9 9 - 0 7 - 1 7 1
T i m e : 0 8 : 1 2

가 Date
 [ENT]

24

Time (分) [ENT]

[ESC]

D a t e : 1 9 9 9 - 0 7 - 1 7 1
T i m e : 0 8 : 1 2

7) (Calibration)

[7: Calib.]

(P.4-3)

1 : J O B	5 : C o m m.
2 : C o g o	6 : T i m e
3 : S e t t	7 : C a l i b
4 : D a t a	

4. _____

4-1

(_____ .)

1)

(1) _____ "2-5. _____ " (P.2-1 _____)

(2) _____ 180° _____ 가 _____ .

(3) _____ .

2)

(1) _____ 1/2 _____ .

(2) _____ 1/2 _____ .

(3) _____ .



4-2

1)

가 _____ .

3 _____ .



4-3

()

1)

(1)

(2) X

(3)

X



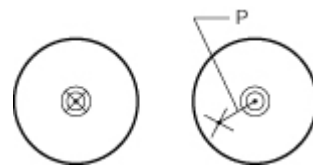
()

(4)

(180°)

(5) X 가 ●

..



2)

(1)

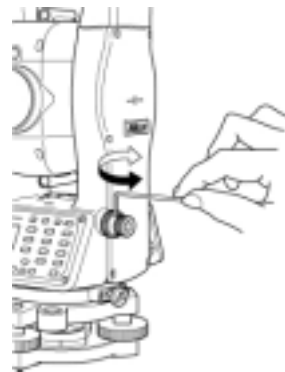
X

(5)

P

(2)

< 1) (3) ~ 5) >



4-4

1)

- (1) 0.18
- (2) ±10° P
- (3) 180° P (i)
- (4) 0° r + i = 360°,
0° r + i = 180°(540°),
r + i = 0°

(180°, 540°)

(2 =)

(e) 2

2)

[MENU] [7]

1	:	J	O	B		5	:	C	o	m	m	.	
2	:	C	o	g	o	6	:	T	i	m	e		
3	:	S	e	t	t	7	:	C	a	l	i	b	
4	:	D	a	t	a								

[ENT]

X	r	:		3	8	°	Y	r	:		5	1	°
V	r	:		9	0	°	0	0	°	4	0	°	
H	r	:		0	°	0	0	°	5	0	°		
S	i	g	h	t	&	P	r	e	s	s	E	N	T

Vr :
Hr :
Xr : X
Yr : X

[ENT]
[ESC]

X I :	38	°	Y I :	51	°
V I :	90	°	00	40	°
H I :	0	°	00	50	°
S i g h t & P r e s s E N T					

VI :
HI :
XI : X
YI : X

X :	15	°	Y :	-27	°
A C V :	0	°	01	15	°
A C H :	0	°	00	50	°
R e d o O K					

ACV : $V_r + V_l - 180^\circ$
 $ACV > 80^\circ$, $ACV = V_r + V_l - 360^\circ$.
 ACH : $(H_l - H_r) > 0$, $(H_l - H_r - 180^\circ)/2$.
 $(H_l - H_r) < 0$, $(H_l - H_r + 180^\circ)/2$.
 Xrl : $X_r + X_l$
 Yrl : $Y_r + Y_l$



• ACV, Xrl, Yrl $\pm 6^\circ$

• ACV, Xrl, Yrl

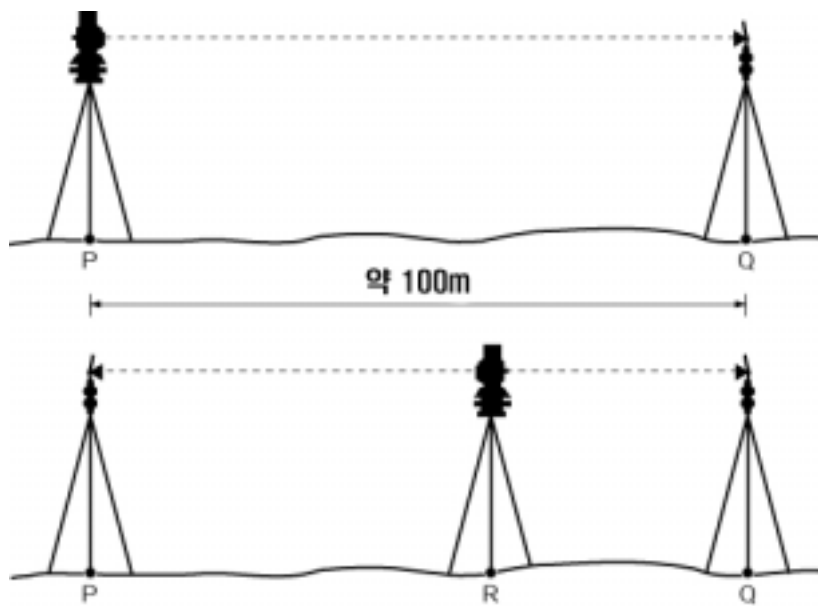
$\pm 6^\circ$

가

"OVER"

X :	90	°	Y :	-11	°
A C V :				OVER	
A C H :	0	°	00	40	°
P r e s s a n y k e y					

4-5



(1) 가 P Q () PQ 100m

(2) PQ R P

(3) PQ() PR+ R (1)

(4) (3)

(5) (1) ~ 3) 가 3mm 가 Nikon

4-5

5.

5-1

		DTM-550	DTM-530	DTM-520
■				
	:	158 mm		
	:	33		
	:	45 mm		
	:			
	:	1°20′		
	:	2.5″		
	:	1.3 m ~ ∞		
	:	Anallactic		
	:	3		
■				
	:	Photoelectric		
	:	()		
	:	88 mm		
	:	0.5 / 1	1 / 5	
	:	1	2	3
■				
	:	Liquid-electric detection		
	:	±3″		
	:	±1″		
■ DM				
()				
1	:	2,700 m	2,500 m	2,300 m
3	:	3,600 m	3,300 m	3,000 m
9	:	4,400 m	4,200 m	4,000 m
()				
1	:	2,400 m	2,200 m	2,000 m
3	:	3,100 m	2,900 m	2,700 m
9	:	3,700 m	3,600 m	3,500 m
■				
MSR		±(2 + ppm×D)mm		
TRK		±(4 + ppm×D)mm		

	DTM-550	DTM-530	DTM-520
--	---------	---------	---------



MSR : 1.2 (2.5)
 TRK : 0.5 (1.5)

:
 MSR : 0.1 mm
 TRK : 1.0 mm
 : -40℃ ~ +55℃

(hPa) 533 ~ 1,332 hPa
 (mmHg) 400 ~ 999 mmHg
 (in.Hg) 15.8 ~ 39.8 (0.1in.Hg)
 -999 ~ +999 mm



가 (LG)

: High Luminescence LED
 : 100 m
 : 100 m 6 cm
 : 1.5° (100 m 2.6 m)



/ 2 Speed
 : ±5°



(Tribrach)

:



: 20^{μm} 2 mm 30^{μm} 2 mm
 : 10^{μm} 2 mm



:
 : 3
 : 5°
 : 0.5 m ~ ∞



/
 : 16 × 4 Dot Matrix LCD



: RS-232C, 9,600. ASYNC



: DC 7.2 V ~ 11 V



BC-80

: DC 7.2V, 가
: 10.5 (/)
24 ()



: -20℃ ~ +50℃

: -25℃ ~ +60℃



: 166(W)×156(D)×365(H) mm

: 488×282×261 mm



: 4.9 kg

BC-80 : 0.6 Kg

Q-75U/E: 0.45 Kg

: 4.0 Kg

5-2.

DTM-500	:	1
BC-80	:	1
Q-75U / E	:	1
	:	1
	:	1
	:	1
	:	1
	:	1
	:	1
	:	1

5-3.

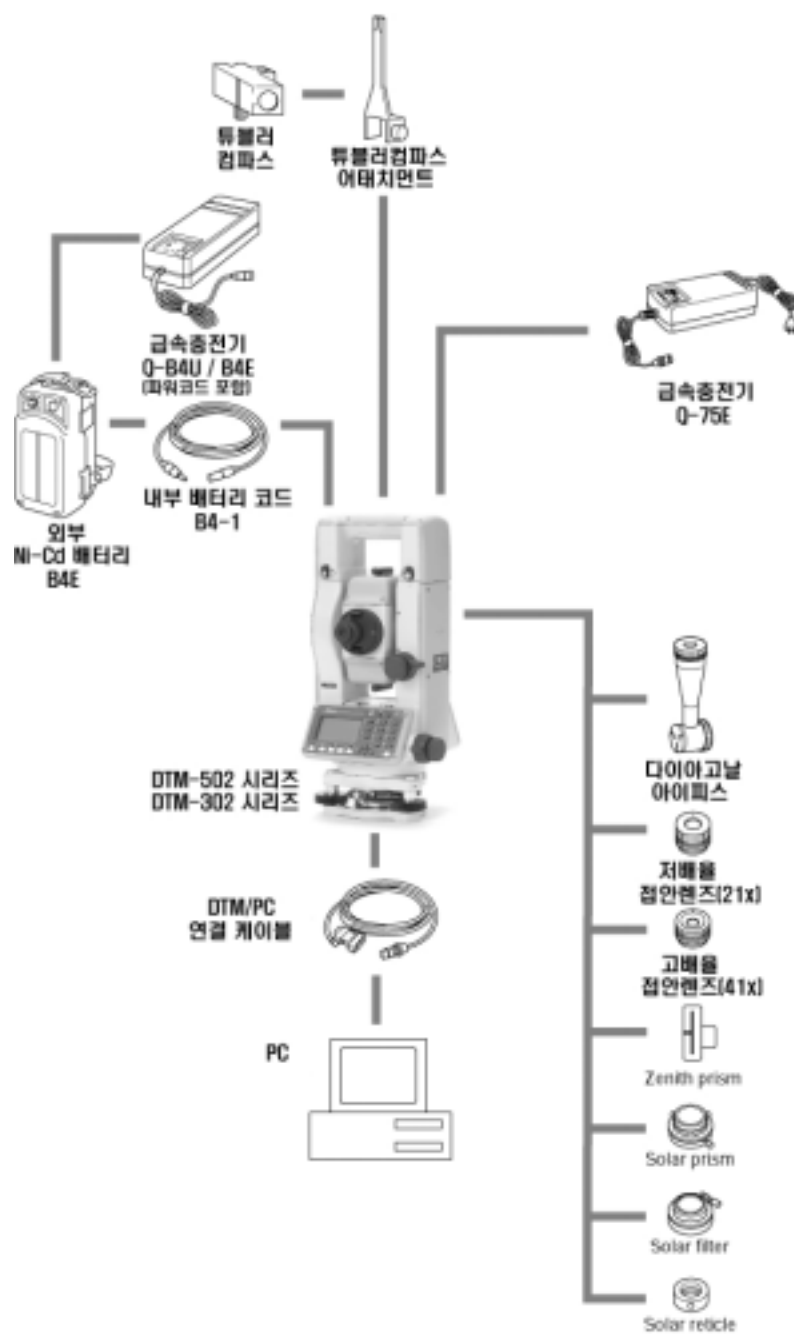
:	DC 7.2V ~ 11V
:	RS-232C, Asynchronous()
(Signal Level) :	±9 V
:	9,600 bps
:	Hirose HR10A-7P-6P
	Hirose HR10-7P-6P

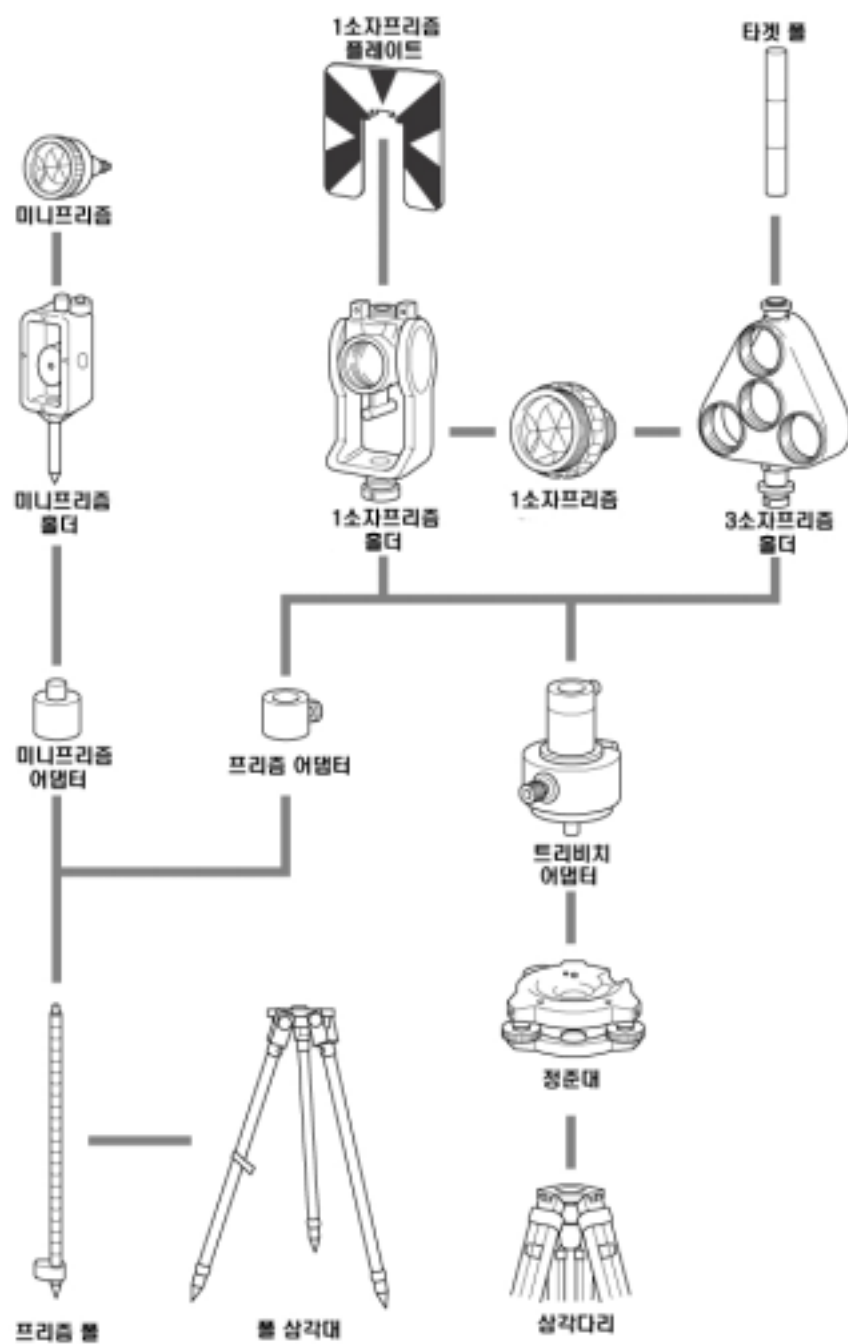
Hirose HR10A-7R-6S



- ① RxD : (Input)
- ② TxD : (Output)
- ③ : +
- ⑤ : -,
- ④ ⑥ :

6.





7.

7-1

1)

[MENU]/[3: Sett]/[6: Cmm.]

(P.3-68)

>	E	x	t	.	C	o	m	m	:	N	I	K	O	N	
	B	a	u	d					:	4	8	0	0		
	L	e	n	g	t	h			:	8					
	P	a	r	i	t	y			:	N	O	N	E		↓

>	S	t	o	p		b	i	t	:	1					

2)

PT	,	X	,	Y	,	Z	,	Code
----	---	---	---	---	---	---	---	------

PT		X		Y		Z		Code
----	--	---	--	---	--	---	--	------

PT	,	X	,	Y	,	Z	
----	---	---	---	---	---	---	--

PT		X		Y		Z	
----	--	---	--	---	--	---	--

PT	,	X	,	Y	,		Code
----	---	---	---	---	---	--	------

PT		X		Y		Code	
----	--	---	--	---	--	------	--

PT	,	X	,	Y	,		
----	---	---	---	---	---	--	--

PT	,	X	,	Y	,	
----	---	---	---	---	---	--

PT	,			Z	,	Code	
----	---	--	--	---	---	------	--

PT	,			Z		
----	---	--	--	---	--	--

PT : (12)

X : X

Y : Y

Z : Z

Code : (12)

3)

20100,6606.165,1639.383,30.762,RKBSS
20104,1165611.6800,116401.4200,00032.8080
20105 5967.677 1102.343 34.353 MANHOLE
20106 4567.889 2340.665 33.444 PT1
20107 5967.677 1102.343 34.353
20109,4657.778,2335.667,,PT2
20111,4657.778,2335.667
20113 4657.778 2335.667
20115,,,34.353,MANHOLE
20117,,,33.444

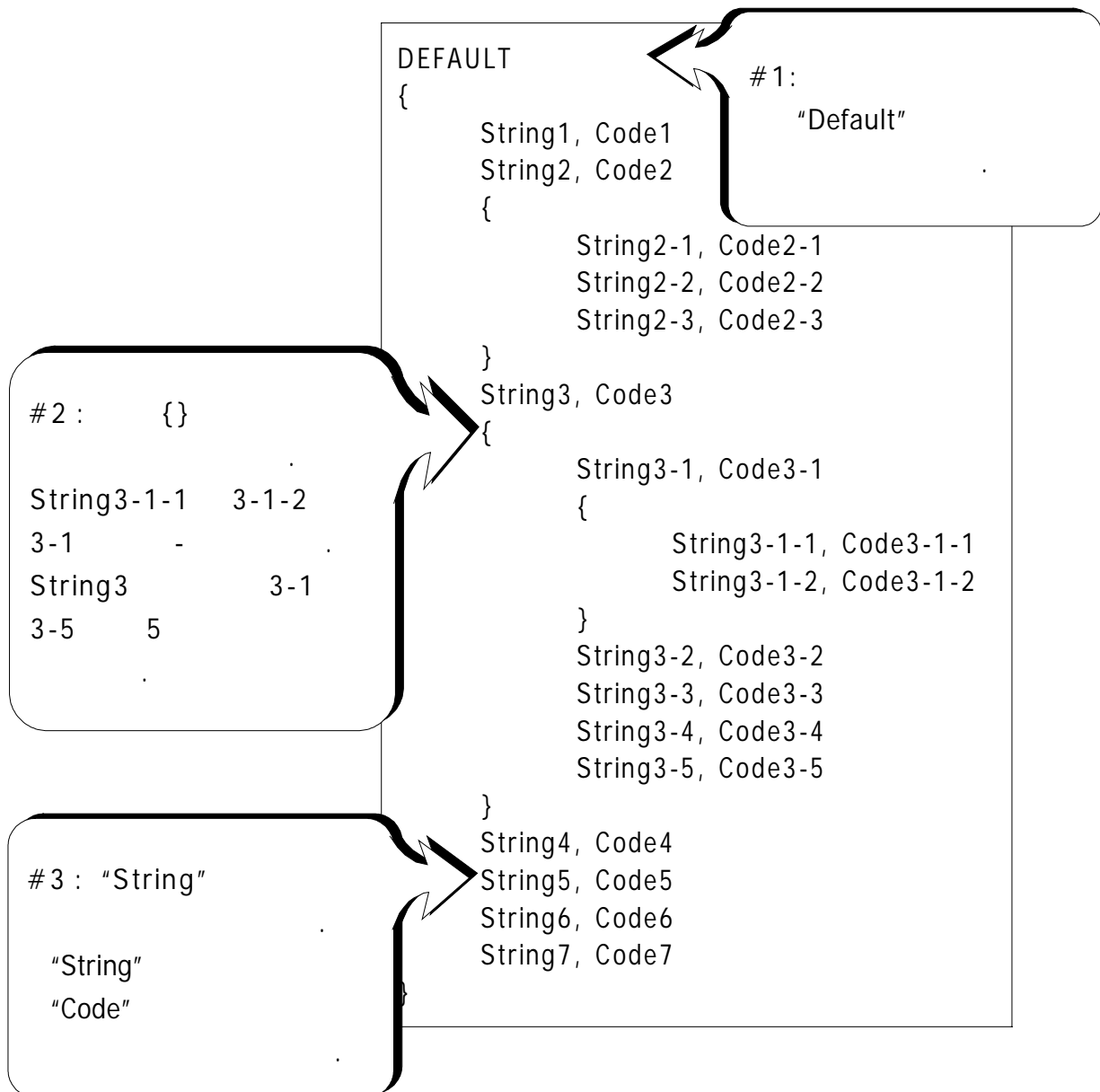
7-2

1)

[MENU]/[3: Sett]/[6: Cmm.]

(P.3-68)

2)



3)

```
DEFAULT
{
  "STRUCTURES"
  {
    "TREE", "S0001"
    "FENCE", "S0002"
    "MAIL BOX", "S0003"
    "FLOWER BED", "S0004"
  }
  "ROADS"
  {
    "MANHOLE", "R0001"
    "CENTER LINE"
    {
      "WRITE", "R002-W"
      "YELLOW", "R002-Y"
    }
    "SIDEWALK", "R0003"
    "CROSSING", "R0004"
    "BRIDGE", "R0005"
    "SIGNAL", "R0006"
    "HIGHWAY STAR", "R0007"
  }
  "RAILWAY"
  {
    "CROSSING", "RW001"
    "STATION", "RW002"
    "SIGNAL", "RW003"
    "BRIDGE", "RW004"
    "TUNNEL", "RW005"
  }
}
```

7-3

1)

[MENU]/[3: Sett]/[6: Comm.]

2)

	,		,	()	,	X	,	Y	,	Z	,	
--	---	--	---	---	---	---	---	---	---	---	---	---	--

= 가 .

- UP ()
- MP ()
- CC ()
- RE (Resection)

ST	,		,	()	,		,	()	,		,		,	
----	---	--	---	---	---	---	--	---	---	---	---	--	---	--	---	--

CP	,		,	()	,		,	(SD)	,	(HA)	,	(VA)	,		,	
----	---	--	---	---	---	---	--	---	------	---	------	---	------	---	--	---	--

SS	,		,		,	(SD)	,	(HA)	,	(VA)	,		,	`
----	---	--	---	--	---	------	---	------	---	------	---	--	---	---

Stakeout

SO	,		,		,		,	(SD)	,	(HA)	,	(VA)	,		,
----	---	--	---	--	---	--	---	------	---	------	---	------	---	--	---

F1/F2

F1	F2	,		,		,	(SD)	,	(HA)	,	(VA)	,	
----	----	---	--	---	--	---	------	---	------	---	------	---	--

/ Note

CO	,	
----	---	--

3)

Nikon RAW

```
CO , Nikon RAW data format V2.00
CO , B:\EXAMPLE5
CO , Description: SAMPLE OF DOWNLOADED
CO , Client: NIKON
CO , Comments: MANUAL EXAMPLE
CO , Downloaded: 18-Jan-99 18:54:10
CO , Software: Pre-Installed version: 1.00
CO , Instrument: Nikon DTM550
CO , Dist Units: Meters
CO , Angle Units: DDDMMSS
CO , Zero azimuth: North
CO , Zero VA: Zenith
CO , Coord Order: XYZ
CO , HA Raw data: Azimuth
CO , Tilt Correction: VA:ON HA:ON
CO , EXAMPLE5 <JOB> Created 18-Jan-99 08:14:21
CO , Prism constant: 0
MC , 1 , , 100.000 , 200.000 , 10.000 ,
CO , Temperature: 8 Centigrade Pressure: 770 mmHg
ST , 1 , , , 1.400 , 55.4500 , 55.4500
FI , , , , 0.0000 , 90.0000 , 16:45:58
SS , 3 , 1.200 , 330.706 , 326.027 , 20.320 , 16:47:46 , SIGN
SS , 4 , 1.250 , 379.193 , 300.847 , 29.084 , 16:48:24 , TREE
SS , 5 , 1.218 , 363.344 , 328.032 , 30.105 , 16:48:57 , TREE R
SO , 1003 , 3 , 1.240 , 331.220 , 326.783 , 19.998 , 16:52:42 ,
```

Nikon

```
1,100.0000,200.0000,10.0000,
2,200.0000,300.0000,20.0000,
3,116.9239,216.9148,11.8425,TRAIN PLATFORM
4,126.6967,206.2596,11.2539,RAMP
11,100.0045,199.9958,10.0000,
13,116.9203,216.9113,11.7157,
14,126.6955,206.3572,10.9908,
21,100.0123,199.3233,10.0000,
31,100.0013,200.3493,10.0000,
41,100.0224,200.0331,9.9000,
43,116.9321,216.9673,11.0873,CURB
45,116.3422,216.9363,11.8032,DITCH
46,126.2344,206.5432,10.3344,CP POINT
```

1)

가 .

:

가

JOB . [MENU]→

[4:Data] [MENU]→ 1:JOB].

JOB

: [1:Abtrt]/[ESC] =

[4:Job]/[ENT] =

JOB

: [4:STN]/[ENT] =

[1:Abrt]/[ESC] =

가 13

() JOB
 :

2)

[illegible]

Stakeout **PT/CD** , , .

3)

!	N	o	C	o	d	e	L	i	s	t		
P	r	e	s	s	M	o	d	e	t	o		
C	r	e	a	t	e	L	i	s	t			

가

[Lst] .

: [MENU] (가

/) [MENU]→

[5:Comm]

4)

[illegible]

[STN]/[1:Known]

[2:2-Pt] [3:3-Pt]

[3:3-Pt]

		D	a	t	a	F	U	L	L				
C	a	n	'	t		r	e	c	o	r	d	S	T
A	b	r	t									O	K

: [ESC]/[1:Abrt] =
[MENU]→ 4:Data]

JOB

[ENT]/[4:OK] = 가

!	I	n	s	u	f	f	i	c	i	e	n	t	
							R	e	c	o	r	d	
P	r	e	s	s		a	n	y		k	e	y	

가 X, Y

(BM)
Z

	S	T		i	s		k	n	o	w	n		
P	r	e	s	s		a	n	y		k	e	y	

ST

5)

!	C	a	n	'	t		C	r	e	a	t	e		
			M	A	X		5		J	o	b	s		
		P	r	e	s	s		a	n	y		k	e	y

	!	E	x	i	s	t	i	n	g		N	a	m	e
	O	p	e	n		t	h	i	s		j	o	b	?
N	o											Y	e	s

!	C	a	n	'	t		A	s	s	i	g	n		
	S	e	l	e	c	t								
	d	i	f	f	e	r	e	n	t		J	O	B	
	P	r	e	s	s		a	n	y		k	e	y	

6) Cogo

	!	E	q	u	a	l		C	o	o	r	d	.	
	P	r	e	s	s		a	n	y		k	e	y	

	!	N	o		R	e	s	u	l	t				
	P	r	e	s	s		a	n	y		k	e	y	

7)

!	W	a	r	n	i	n	g							
S	e	t	t	i	n	g		c	h	a	n	g	e	d
R	e	q	u	e	s	t		n	e	w		J	O	B
A	b	r	t								C	h	n	g

JOB

: [4:Chng]/[ENT] = JOB

[1:Abrt]/[ESC] =
JOB

	JOB	JOB
---	-----	-----


8)

	!	N	o		J	o	b		O	p	e	n	e	d
E	N	T		t	o		O	p	e	n		J	o	b
A	b	r	t									J	o	b

JOB

: [1:Abrt]/[ESC] =

[4:Job]/[ENT] =

	JOB	"Input JOB name"
---	-----	------------------

	!	C	a	n	'	t		D	e	l	e	t	e	
S	T		c	a	n	n	o	t		b	e			
r	e	m	o	v	e	d								
	P	r	e	s	s		a	n	y		k	e	y	

ST

[1:RAW data]→ MENU]→

[1:Del]

:

	!	C	a	n	'	t		D	e	l	e	t	e	
S	T	/	B	S		r	e	f	e	r	s		t	o
t	h	i	s		p	o	i	n	t	.				
	P	r	e	s	s		a	n	y		k	e	y	

[2:XYZ data]→ MENU]→ 2:Del]

:

	!	C	a	n	'	t	E	d	i	t		
S	T	/	B	S		r	e	f	e	r	s	t
t	h	i	s		p	o	i	n	t	.		
P	r	e	s	s		a	n	y		k	e	y

[2:XYZ data]→ VMENU]→ 4:Edit]

:

!	C	h	a	n	g	e		N	a	m	e	
B	M	5	7									
a	l	r	e	a	d	y		e	x	i	s	t
P	r	e	s	s		a	n	y		k	e	y

[3:Edit List]→ VMENU]→ 1:Add]

[3:Edit List]→ VMENU]→ 1:Add Layer]

/

:

/

	!	C	a	n	'	t	E	d	i	t		
C	o	o	r	d	i	n	a	t	e		f	r
m	e	a	s	u	r	e		P	o	i	n	t
P	r	e	s	s		a	n	y		k	e	y

[MENU]/[4:Edit]

SO/SS/CP

:

9)

	!	U	P	L	O	A	D		E	R	R	O
P	T		M	a	x		1	2	d	i	g	i
		R	e	c	o	r	d	:	6	5	8	

PT ()가 12

:

	!	U	P	L	O	A	D		E	R	R	O
X	Y	Z		O	v	e	r		R	a	n	g
		R	e	c	o	r	d	:	1	0	2	4

가 13

:

	!	U	P	L	O	A	D		E	R	R	O	R	
			T	i	m	e			O	u	t			
		R	e	c	o	r	d	:	9	0	1			


1

:

	!	D	u	p	l	i	c	a	t	e		P	T	
P	T	:	1	5	2	3	3	0	0	A	-	1	5	
	P	r	e	s	s		a	n	y		k	e	y	

ST/BS 가

:



UP/CC/MP

가

	!	U	P	L	O	A	D		E	R	R	O	R	
C	h	e	c	k		y	o	u	r		d	a	t	a
		L	i	n	e	:	1	2						

가
가

:

DTM-500

1. 2-Pt Reference Line

Offset
stakeout [3] 2-pt Reference line

1:ANG-DIST
2:XYZ
3:2Pt RefLine

[*]

Input Line PT2
P1:123
P2:124-2

up/down

[MSR]

[TRK]

Sta: 61.974
O/S: -4.125
dZ 1.850
REF1/4

가

DSP 1/4	DSP 2/4	DSP 3/4	DSP 4/4
Sta	N	HA	HA
O/S	E	VA	VA
dZ	Z	SD	HD

Sta:
O/S: offset
dZ: offset
[DSP] 1/4 2/4
[DSP] 2/4 3/4
offset [REC] [ENT]

"Store data"가 "Both" "XYZ" 가
"Store data"가 "Both" "XYZ" "Sta,O/S,dZ"
SS &
HD/VD/SD
가

Station setup [4] "Quick station setup"



ST: (+1 가)

HI:

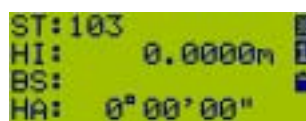
BS:

HA: (' 0 ')

(ST) (0,0,0)

[Known]

" 0 "



[ENT]

3.

' MENU/3:Sett/8:0ther', 2nd

Unit

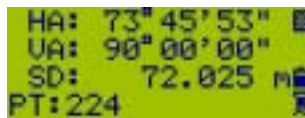
가

4.Quick code

'Quick code'

[Mode]

' Q'



*

가

, [HOT]

1

' HOT'

5.Code list



'T'

' T'

T

가

6.Displaying Job Information

Job

[MENU]

[4]

Job

가