TIANYU

天宇光电

操作手册

OPERATION MANUAL



1

↓ ŋ ĺ □ ĺ Ũ w

ǎ̈ w w ↳ غ

↓ ŋ w ↳ ا

غ ... Ḃ

⇔ w

Ḃ

شه غ

ŋ ضٍ ا ĭ ṗ

v ... v Ḃ

شه أ ضٍ

ĺ Ẓ

شه w

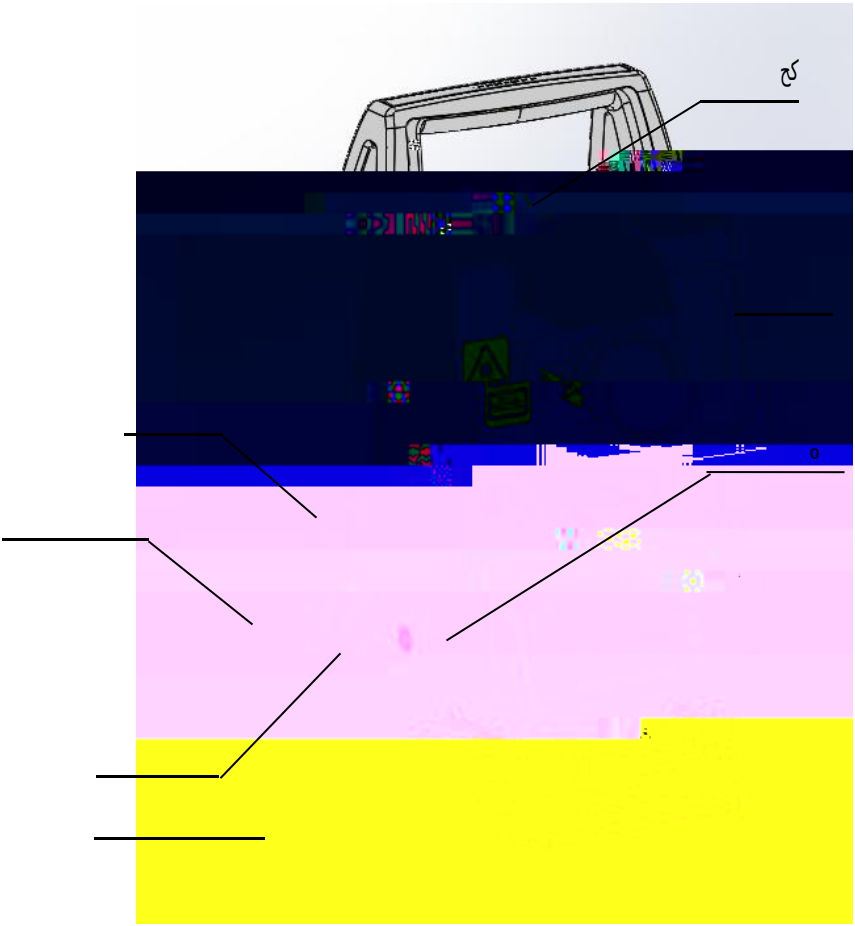
↳

ع ا

↓ ∏ . ﷺ

Ḃ ﻩ .

ﷺ ﻩ



ضر ‡ Ǔ كح

‰ كح

1 كح

ضي كح غ Ḡ

نهـ

ضر ضر نهـ

كح ∫

ضي ∫ ضر كح

كح ∫ ‰ U

≠ تصـ ‰ كح كح

∫ ‰ كح تصـ

‰ كح تصـ

≠ ‰ كح كح

‰ كح ـ كح ـ

‰ كح 'P

ك 'P ع

‰ ك

'P 0 ضم

ا Ḡ

أ ضرضي

نهـ

غ ك

ك ا ﺒ

ك ٧ "E أ ع نهـ

ﺒ ك ﺒ ك ‰ ت

ضرضي نهـشخ ŋ

ﺒ ك ‰ ت

≠ تم ‰ ك ك

ŋ تم ‰

ضرضي

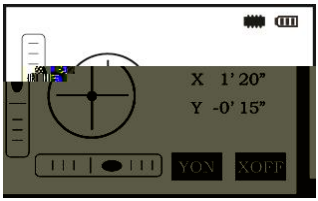
نهشخ ضرضي

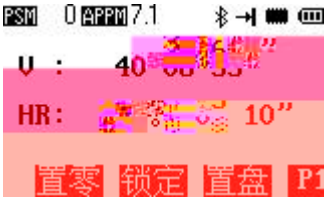
‰ ∪

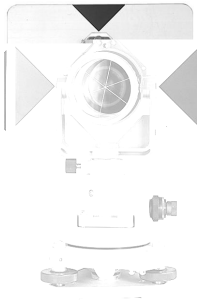
‰ ∪

‰ ∪

-

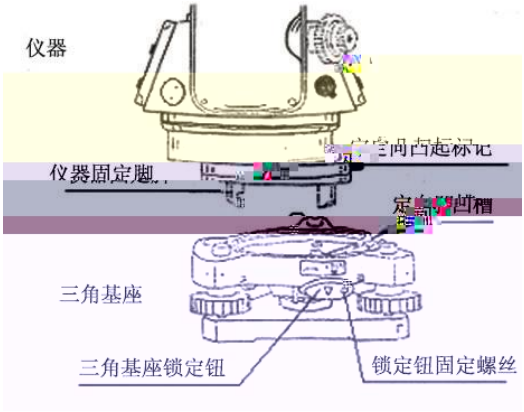

X 1’20”
Y -0’15”
YON
XOFF


PSM
APPM
HR:
10”
置零
锁定
置盘








仪器
仪器固定脚
三角基座
三角基座锁定钮
锁定钮固定螺丝

~ ~ U غ

D

~ ▲ ▼ ⌐

输入测站点

▼ → ⌐ ⌡

输入测站点

F1 ~ ~ ا

1 ~ “ ”

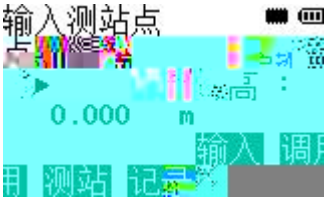
. ~ “ ”

5 ~ “ ” ﻍ

~ ﻙ

~

D ~ “ ”



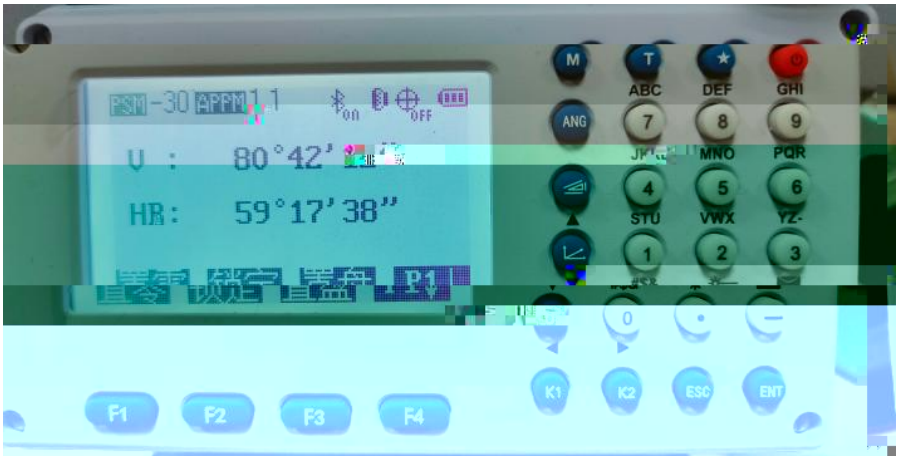
▲][▼]
, [~



F1] ~ ~ Y



3 7] , “A”
7] , “B”
7] , “C”
8] , “D”
8] , “E”
~


PSM -30 APPM 1.1
V : 80°42'
HR: 59°17'38"
M
T
ABC
DEF
GHI
ANG
7
8
9
MNO
PQR
4
5
6
STU
VWX
YZ-
1
2
3
0
K1
K2
ESC
ENT
F1
F2
F3
F4

O w

~

~

	w	Ḥ
		~ غ
—	ـ	~ ـ Ω w
	ـ	Ω ـ ۠ h w ~

ـ	ṗ
	ممم
	ممم نمج
	ـ
	. h شم
	h شم
	ضي
	ا
	ا
	ỵ Ω ا ـ ẽ w ĩ ا ẽ w ↓

١

٣ ~

- [ ]
- [ ]
- [ ] ~
- [ ] ٣
- [ ] ٣ ٣ ٢ ↕ ٣
- [ ]
- [ ] ٨ نع ٣٥٣

١

			٣
			٥
			١
			١
			٣
		Z	Z ~
			١
			٣

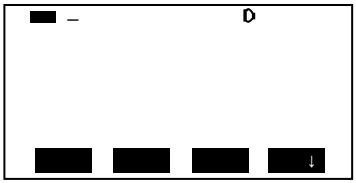
شم ١

			۳
			۱
			۱
			۳
			۵
			۳
			۳
			۱
			۳

U ₹

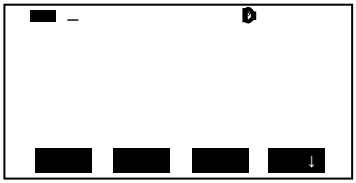
▲ @

í ẁ ẽ





Ⓟ

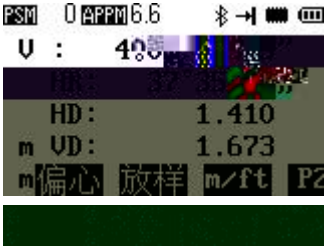


o

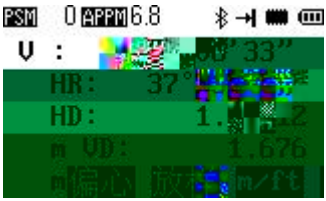
PSM
0
APPM
6.7
HR:
41°07’45”
HD:
1.412
m VD:
1.676
m測量
模式
S/A
P1

ѽ ↓ ɳ ..









1 ض F4 P1
↓ ~ 2 w
2 F2 ₹

3 F2-F4

4 F2: (HD) F3
(VD) F4 (SD)
ᴅ ~ 350m

‰
₹
⌟
0m

~ ǎ “ ~ ”
ᵡ ⌠ ˜ Ⓟ ⌠ ỉ

Ẓ

Ƶ

Ƶ

تم Ƶ

لم ٧ № ضي

٧ غ كح ▯ ضي كح

U Ƶ ٧ˆ ⌡ شم

ضر شم كح

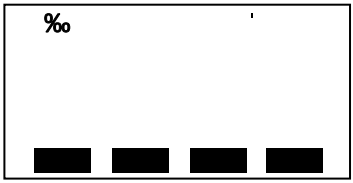
مم

شم ٧ كح Å ò ˜‡ P 18$`P,P

ضي Ƶ ⊩ كح غ شم

شم ˆ ă

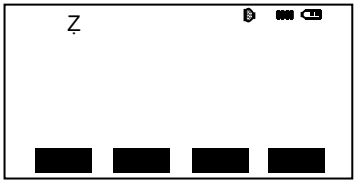




شم ă شم







1 ضي F4 P1 ↓

~ 2 w

2 F1(Ẓ)

F2 Ẓ , ~

Ẓ ~ h Ẓ

ENT ئ

~ h ╠ Ẓ ENT ئ

‰ P F1

U ₹ v Ẓ

U

A_0 شم

□ ئ

▭ ئ ώ ╠ ~ ╠ U Ẓ ă “ Ẓ ”

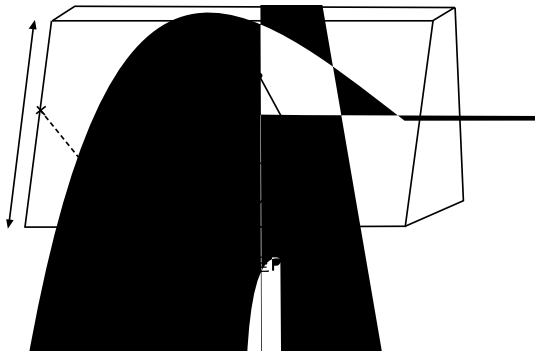
w

شم

ﺽ ﺽ

‰ U ‰

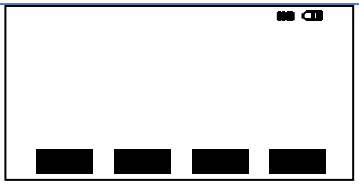
ﺵ ﻍ

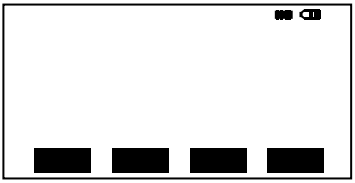


ﺵ ﺵ “ ”









↕

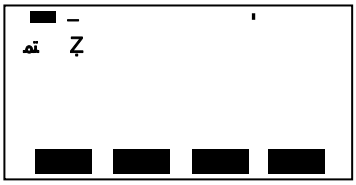
Ḥ

Ẓ ╠

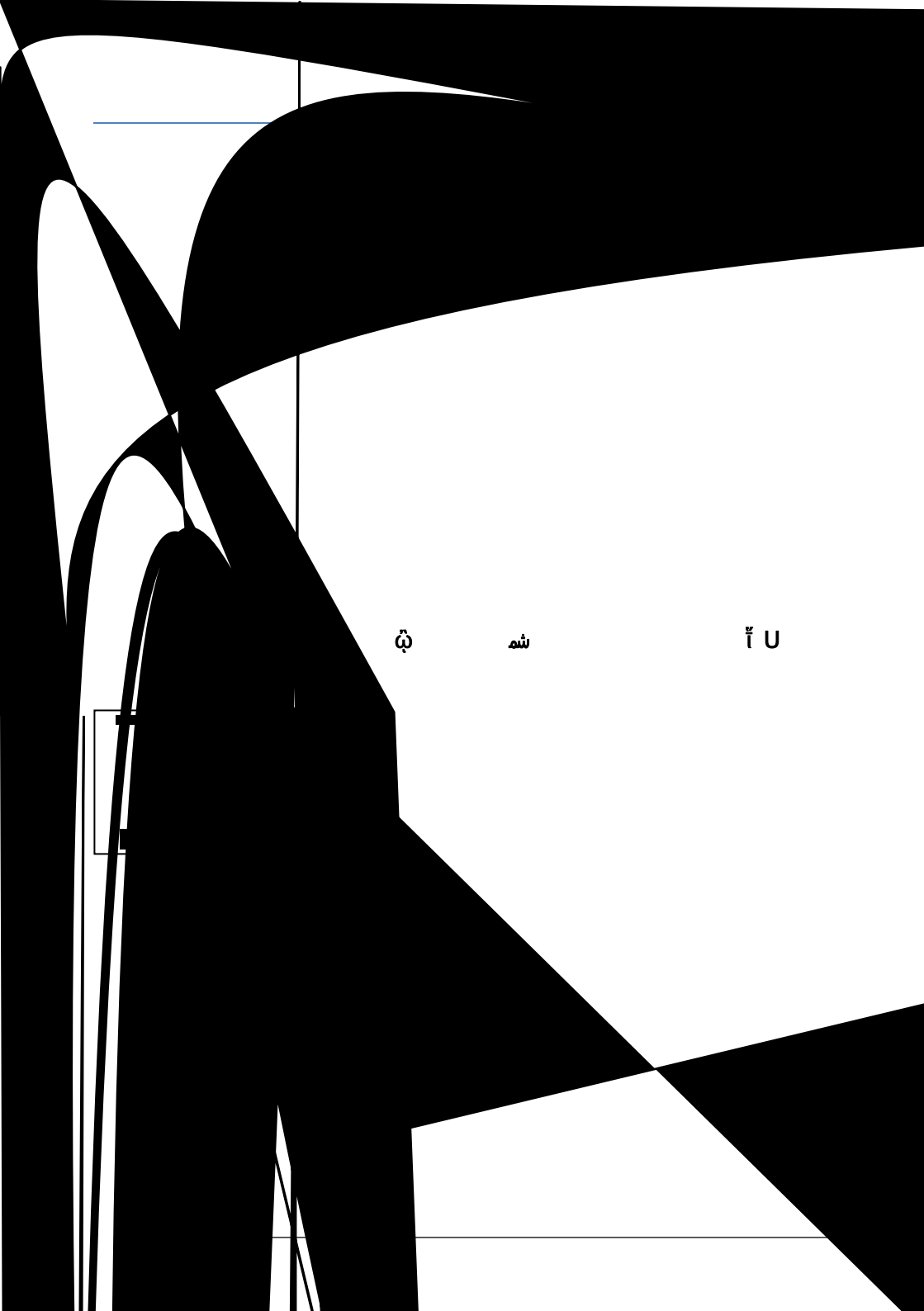
‰ h Ṛ


PSM
APPM
V :
HD:
1.410
VD:
1.673
偏心
放样
m/ft


PSM
APPM
中心
HD:
测量
镜高



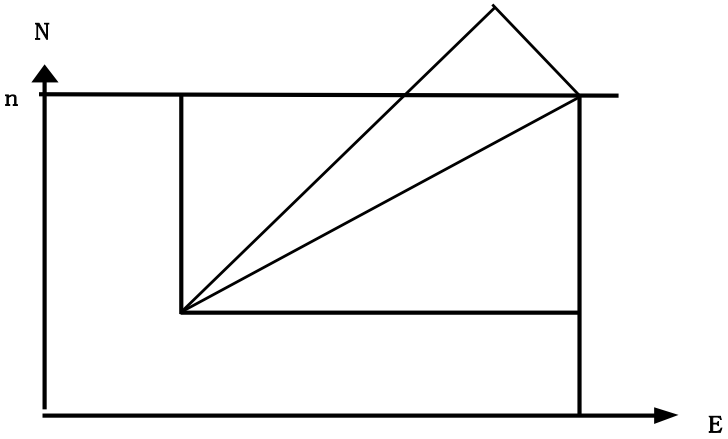
□ ~ ~ ESC ~ ~ ~

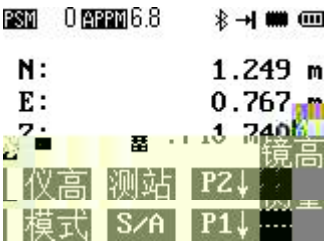


غ ـ ـكح شم ا شم كح

شم ضي شم

شم Ḡ U ـ





ﺷﻫ ~ ǎ “ ~ ”

~ ﻣﺦ

≤ ≤

ˀ U ˜ Ḡ ﻕ

ﻕ ~ ǎ “ ~

~ ă̈ ~ ”

~ ض — ≤ ≤

□ ح ~ ا □ ã ~ ∫

ا

ض ٦ ∫

U

~

ا

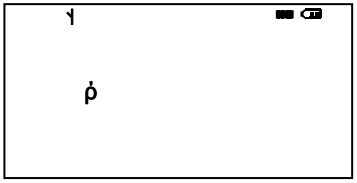
ṗ


PSM 0 APPM 8.4
悬高测量-1
<第
HD:
m
测量 镜高

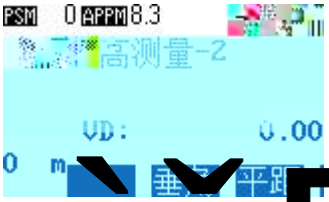
‰ F1


PSM 0 APPM 8.3
高测量-1
VD: 0.00
0 m

~




PSM 0 APPM 8.3
高测量-2
<第二步>
V : 40°06'35"


PSM 0 APPM 8.3
高测量-2
VD: 0.00
0 m

'O ŽĐ•

عج عم عج

عج

غ شم ~ شم

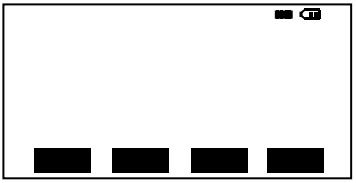
.....

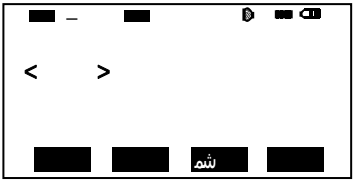
.....

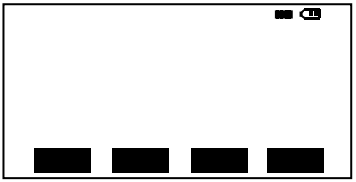
D

⊂ ■■









F4 ,

B

7 ‰ B F1

B HD

F4 , A

B HR dHD

dVD dSD

A-C F4

‰

F4 , A

C HR dHD

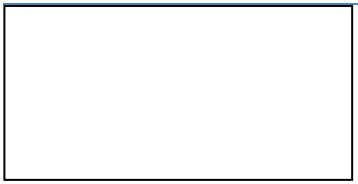
dVD dSD

12

1 F3

2 F4

3 ENT( )



أ ≠ شم ~ ~

شم غ شم شم شم

ا

شم

D شم

ا

ض

FN: 1

N 102.258

E 76.329

Z 1.032

OK? [ن] [ ]

~ ا

2 F2 ~

3 F4 Z شم ~

O U ENT

F2 ‰

5 ~ O U ENT

شم

F4

~ ا ك ~

7 ~ ك ENT عج

شم Z ا عج

شم

D شم

ا

ض

~ ا

2 F2 ~

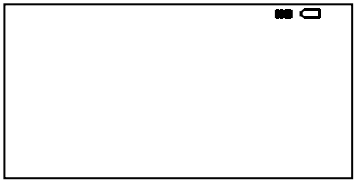
3 F3 Z شم ~

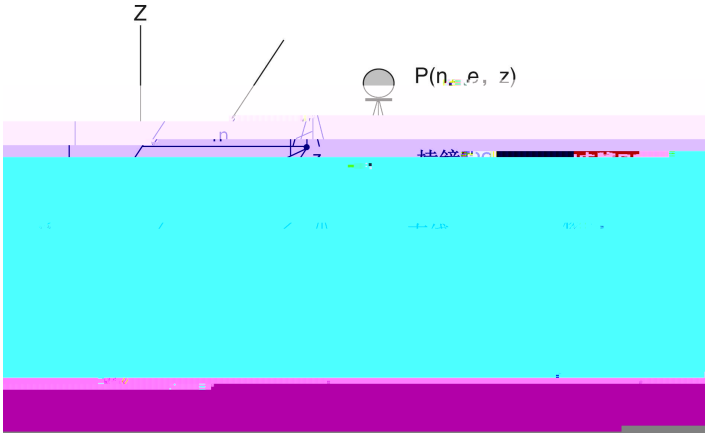
O U ENT

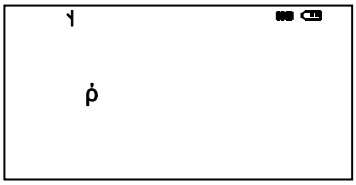
F2 ‰

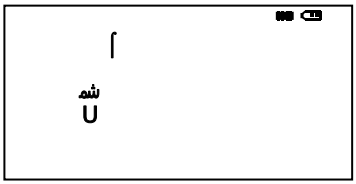
5 ~ شم

O U ENT




Z
P(n，e，z)






PSM 0 APPM 7.0
点到直线
HD: 1.408
测量 镜高





~ B P2 ENT

9 ‰ B P2 F1

*1 F4

شم h

F1 شم ٱ

*2

‰ F4 ,

٧ F4( ) عج

⌡ 10 شم *3

شم ٧ *4

ك

□

ك

□ ≠ عج ⌡

ضر ١ ـ تم غ

ǎ غ ـ غ Ż

غ شم

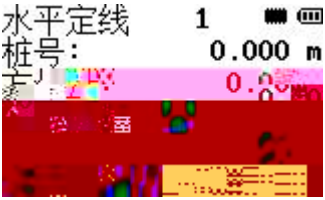
ض ╠ ĭ U

´ ℴ ̈H تم غ

ĭ ـ ٧ ـ

ѽ ~ , ـ شم


起始点


水平定线
1
桩号:
0.000 m
0.0

路测量
:道路设计
:道路放样

线数据

起始点

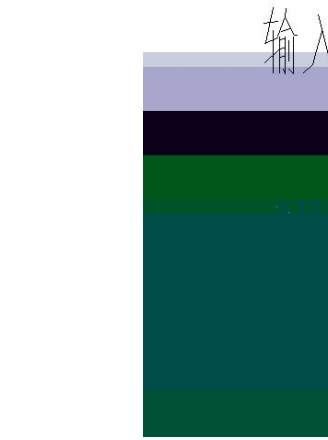


ENT O ~

4 F1

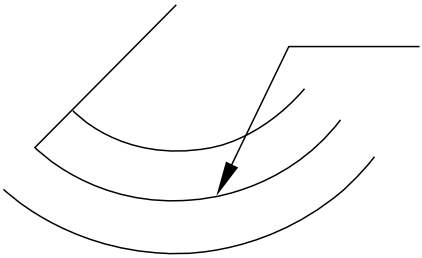
5 F1 ~





直线
长度:

回退



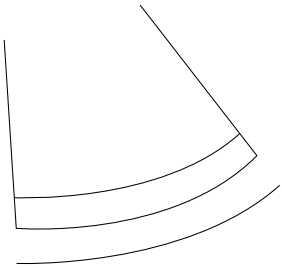
圆

غ

ض Ḃ غ غ

~ غ ă ١ ١ ~ ١

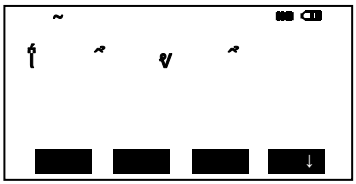
Ḃ ~ ٧ ~ ١ ١



ẏ غ ă

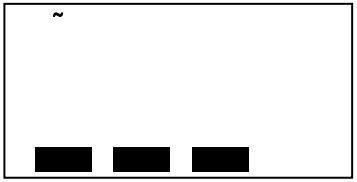
غ ă ╠ h h

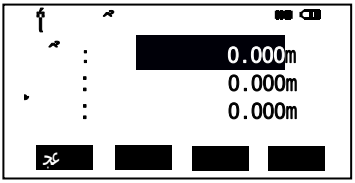
ẏ h ẏ



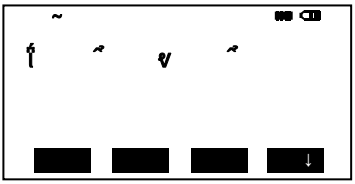


ضي



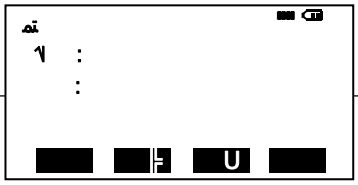


ENT





ENT



w

╠ w Ḃ ⱷ ⌠

U w Ḃ ⱷ ⌠ U U

╠

~

w Ḃ ~ ḱ U

Ḃ Ữ ḱ

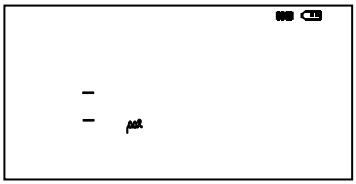
ˆ ╠

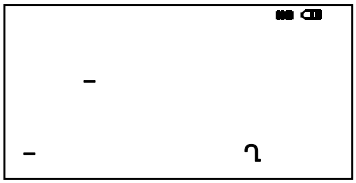
1 Ḡ ض U ⌠ ṗ

ă̈

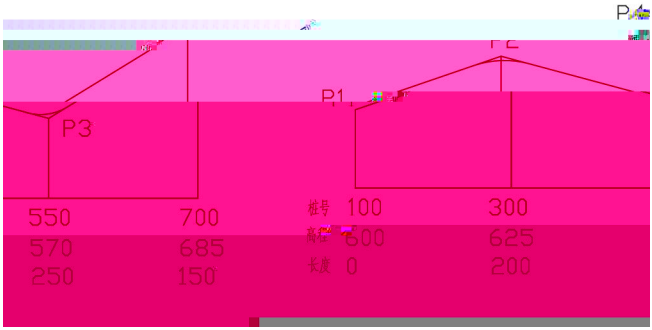
ˆ		ă̈
		ˆ شم شم
		غ غ ă̈ ٦ ٦
		٦ تم تم
		أ ˆ •

D



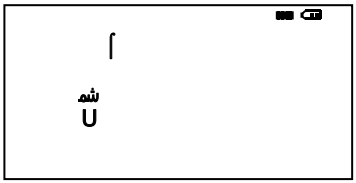


F2 F4

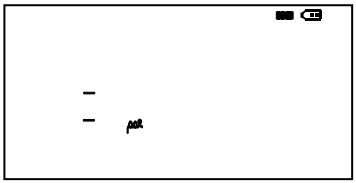

P3
P1
550
700
570
685
250
150
100
300
600
625
0
200

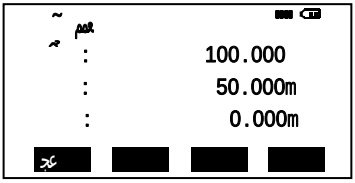
U [ ] Ḃ Ũ ~ ~ [ ]

Ũ

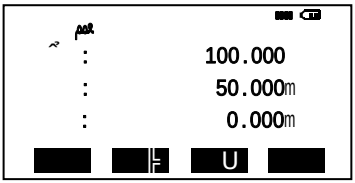


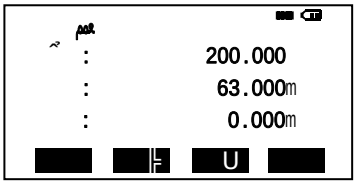
$ ° ò’ òÐÿ°




:
100.000
:
50.000m
:
0.000m

*1



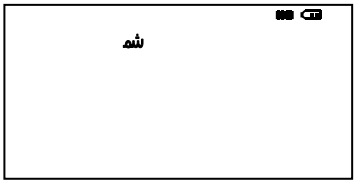


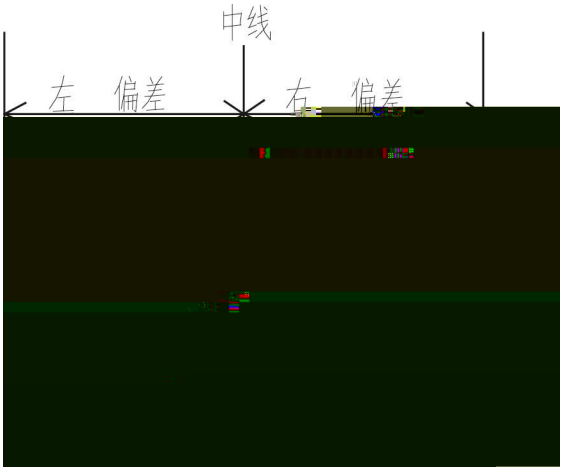
*1 F4( )

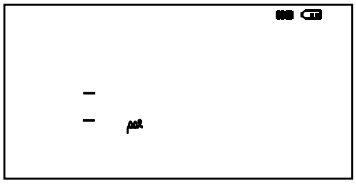
Ḡ ضي U ⌠ ṗ

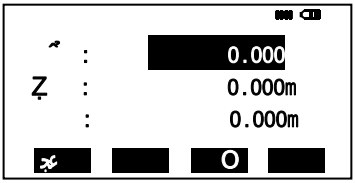
ǎ̈

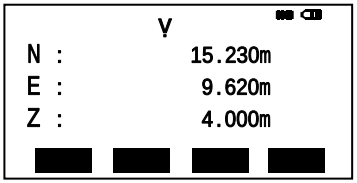
D




中线
左 偏差
右 偏差







2/2 ا ضي

( ) F2 ,

U ~ ا

~ ا

F1

U ضي

, ~ Ẓ

*1 *2 غ

*3 ENT عج , كج

شه ـ

( ) F4

ا عج ا

” Ẓ “ ↕ ل

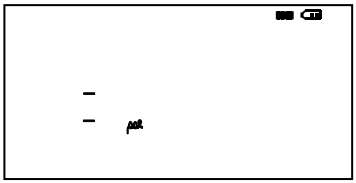
*1 ~ Ẓ Ḡ ضي

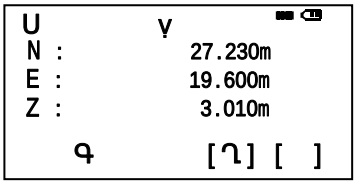
*2 F3(O) Ẓ غ ~ أ

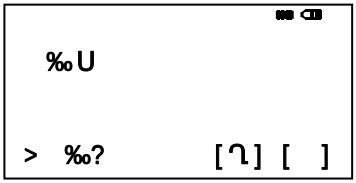
9.2.3

*3 Ẓ Ẓ

U







1 ضي ا 2/2
F2( ) ,
U ~ ⌡
2 ~ ⌡
3 F2 U
ضي U
, ~ Ẓ
U *1 *2 *3 ENT
عج , ﻛ ـ
شم
5 F4( ) U
ﻛ ـ U

‰U F4( )
U ﻛ
ـ

*1 ~ Ḡ ضي Ϩ ↕ “ ”
*2 F3(O) غ ~ U ĵ
9.2.4
*3 Ẓ Ẓ

Ž

F2( ) ,

U ~ ∫

~ ∫

F3

F2 ~ Ž

~ ‰

ENT( )

)



~ ٧

ﻧﻤﺠ ~ غ ~ ﻧﻤﺠ ~ ﻧﻤﺠ

ﻧﻤﺠ

ﺿﻲ

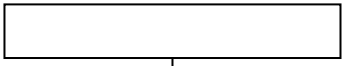
↕ ﻧﻤﺠ ↕ ∩ ﻧﻤﺠ

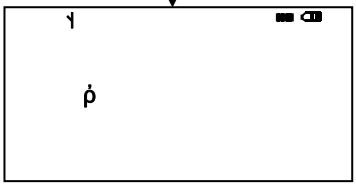
غ شه ~ كح ضي

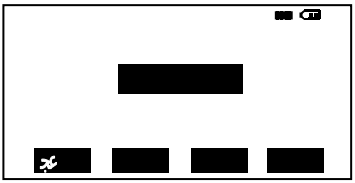
شه

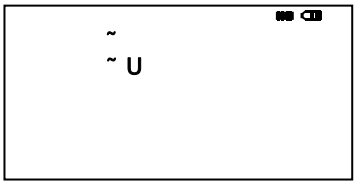
U أ

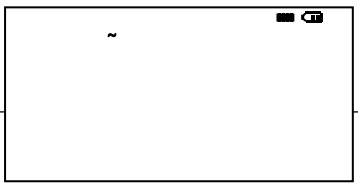
١

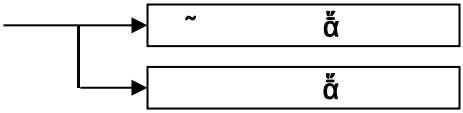











~
ă
ă

▲

| | | |

ﷺ ضِ ۝ U ﴿ ﴾

ضِ

شم شم U شم ↕ ﭭ

١ شم

h ض غ شم

ˆ ض ~ ĺ غ h ỵ

ˆ شم

≠ ṗ شم

~

U h ˆ

≠ ṗ شم

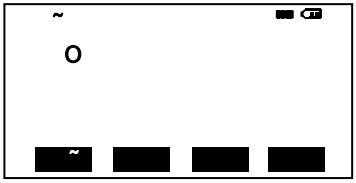
~ U شم

~ h

شم ~ ṗ ˆ ă̋ ~ شم غ

ם

≠ ṗ شم



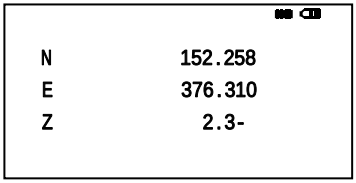
1 ١ (1/2) F1

~) , ١ ١

2 F3( )

3 ~ O*1) Aî ENT عج

F4( )

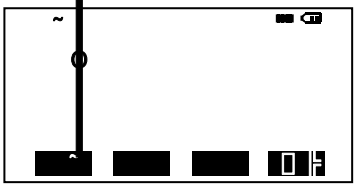

N
152.258
E
376.310
Z
2.3-

*1 1.8 “ ~ ”

*2 ~ ~ ṗ

F2

ṗ ∫ ↕ “ O ”



~ ~

ضي

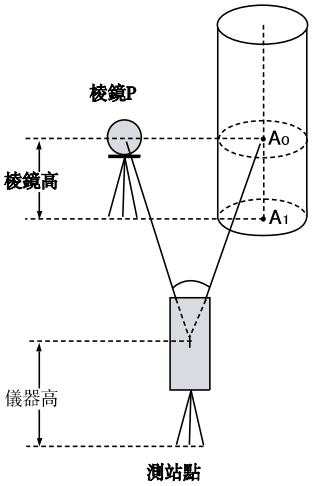
Ẓ

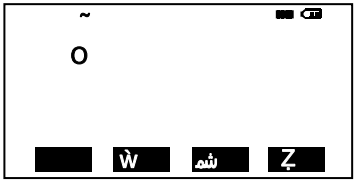
تم Ẓ

ضي كح ⌡ 3

ضر شم ~ كح

شم 7 ~ كح



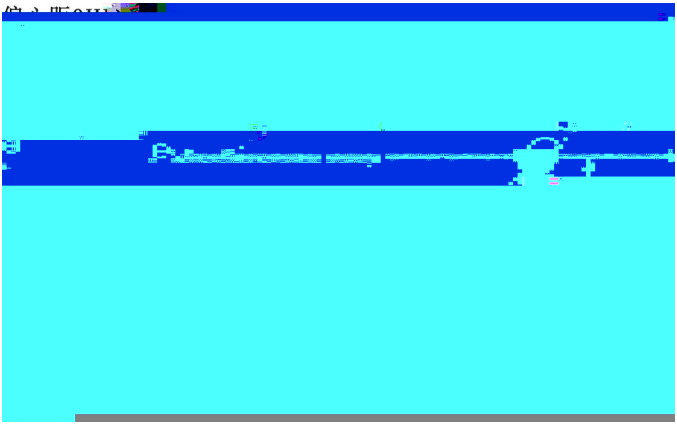


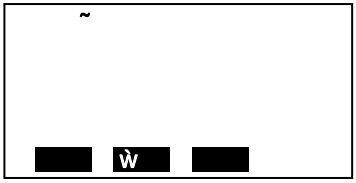
ضي

F3

F4 Ẓ

‰



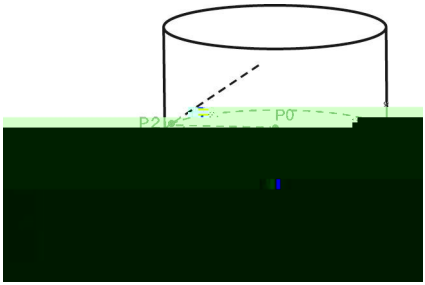


ﷺ تم U تم

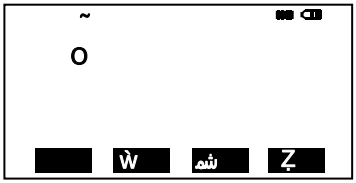
غ h ﴿ ﷺ تم h

شم غ

تم h تم غ h ﷺ



شم ﷺ ǎ “ شم ”



ض

F3

F4(Z)

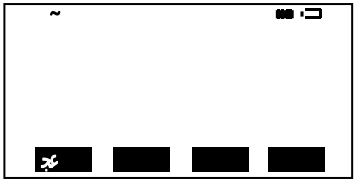
3 F4(تم Z)

4 ‰ تم P1

F1

U

P2



ضي 3

شم U آ شم ~ شم

FN : [redacted]

[redacted]

~

١

شم ṗ

شم ~

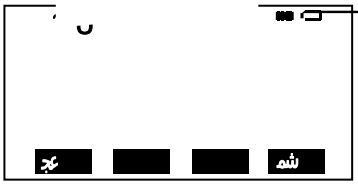
شم Ḡ ضي

D شم Ṯ

~

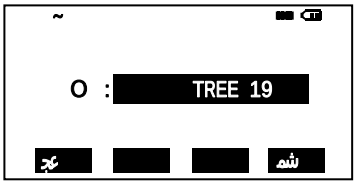
[redacted] شم

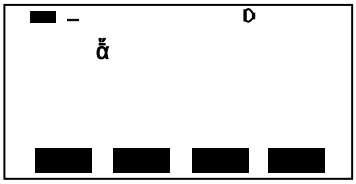
D ≠ Ũ شم ~ U

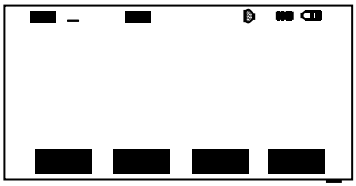


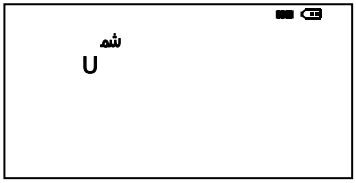
L

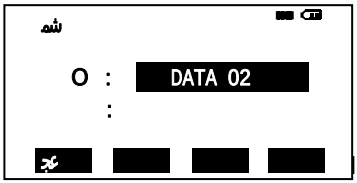
D

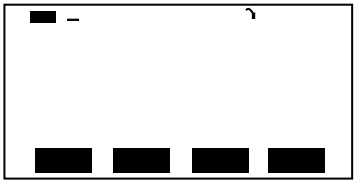


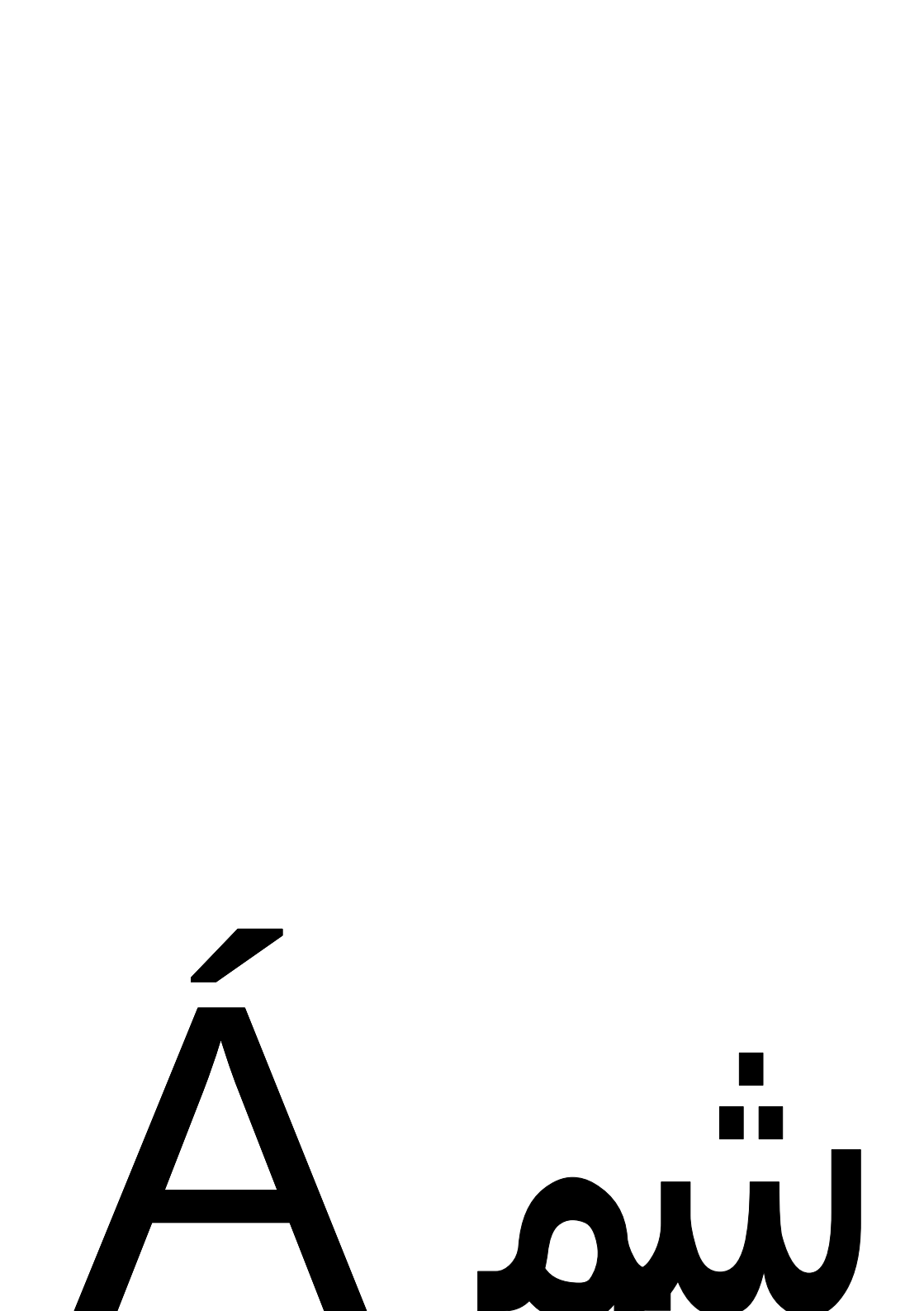


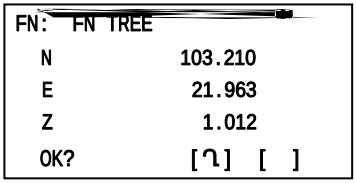


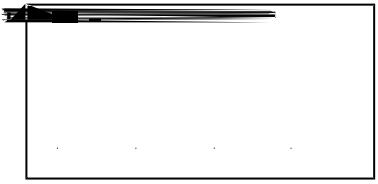


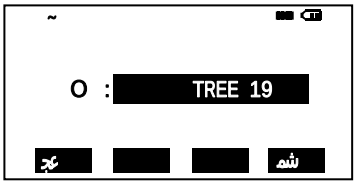

O :
DATA 02
:

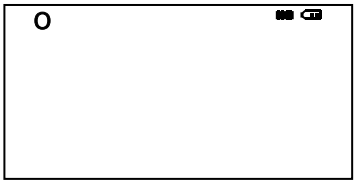


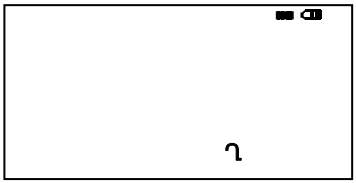

Á
شم


FN: FN TREE
N 103.210
E 21.963
Z 1.012
OK? [↵] [ ]









1 F3 1/2 F2

2 h

h

3 F1

[▲] [▼]

h

4 ESC

5 ENT F4( )

ض ̃ ↓ ṗ

Ũ ╠ Ũ

ṗ Ũ ▼ ṗ

– O

~ شم شم ~ ~ شم

– شم – شم شم

~ ~ ~

Ũ شم شم

ă

غ

Δ . ṗ Δ .

ف ١

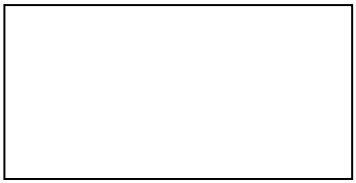
ج ~ ١

ف ف ١

ㅑ ㅓ

ㅓ

D O

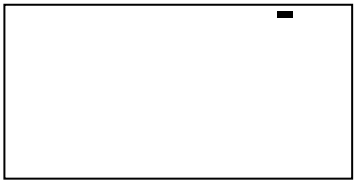


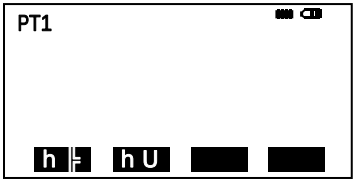
ă ~

□ ˆ

□ – ˆ –

W ˆ شم ك شم ₹

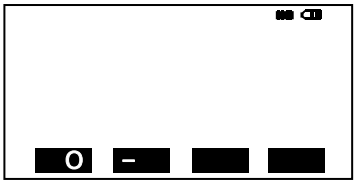


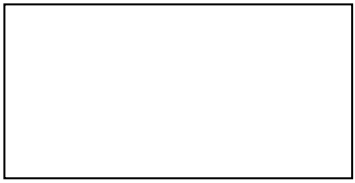


ضي

O

ṗ O





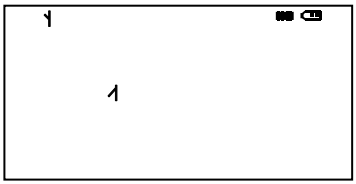
w ِ ِ ُ غ

Δ . ُ ِ ّ كج ↓ فهم Δ .
ﻥ شهغ

غ

ﺩ Δ . غ

~ ١ ₹ ك



~ F1 1/2 ض

١ ⌡

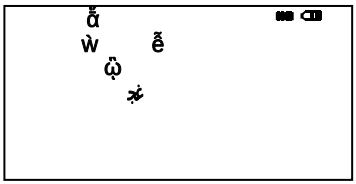
F1-F4 ≠№

١

~ ١ ĭ ă

		ف	ف ١
١			١
	١	١	١ ١
			١

~ ٣ ă



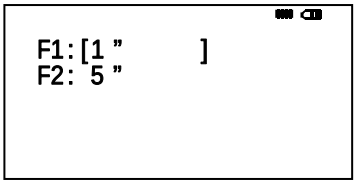
~ F2 1/2 ض

⌡ ă

€0

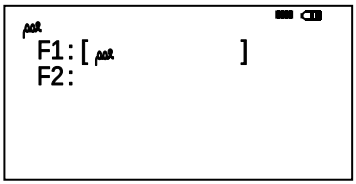
	ف L	

[ם]

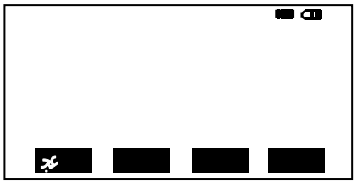


ضي ‍ّα
F4 ~ ⌡ عجـ
” U
عجـ ⌡ ‍ّα

ـمم ~ ~ ـمم
ם

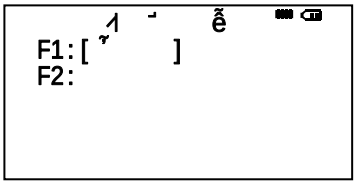


ضي ‍ّα 2/2
F1 ~ ـمم
“ ”
U عجـ ⌡ ‍ّα

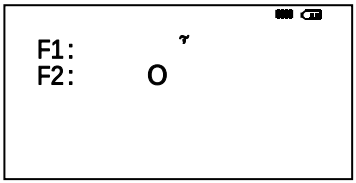


D



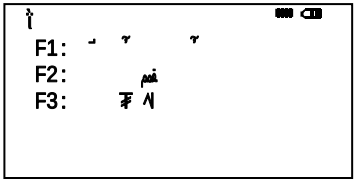

F1:[ ]
F2:

ضي O



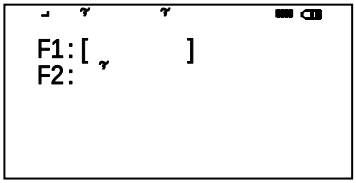
1 F1
2 F2 O

ضي ٨ ∓ غمم



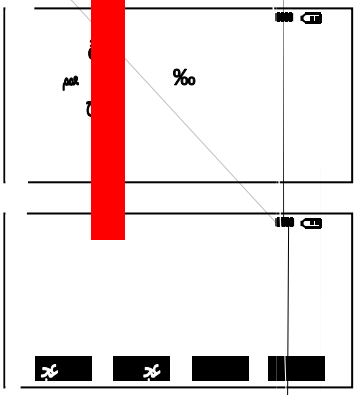
1 ضي 2/2 F1

60 № ṗ ضي ↕ ← ←



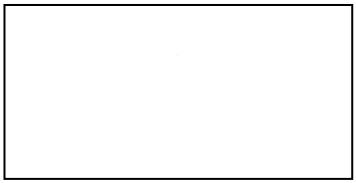
ضي F1

U



[redacted]

[redacted]



U ⊥ U ǔ ˉ ẽ ẁ ỵ ġ

‰ U ǔ ˉ ẽ ẁ ỵ ġ

Ė ẁ ќ Ẓ ỵ

h Ẓ

h Ẓ

Ẓ ỵ ض ± ṗ ↕ ϥ ↕

ض ỵ ۰

‰ ⊥ Ũ

ġ ỵ ǂ ġ h ۱ ỵ ġ ỵ

ض ϥ ỵ ṗ مخ ض ỵ ġ ỵ ضيشخ

ṗ مخ ỵ ⌡ عج ۱

ǂ مخ ϥ ϥ ϥ ڈ ڤ ڍ

ضي ṗ

↕ ↕ ⌠

ڃ ڤ ڊ

ضي U ڃ №⅞ Ⅵ

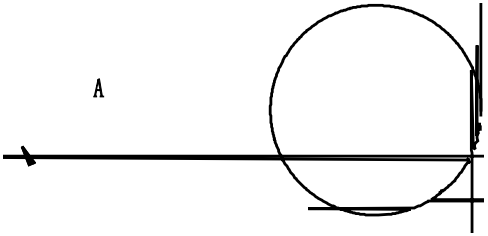
L‑ غ ‰

ـ ـ ـ ـ

Ⅵ ـ ـ ضي ṗ ↕ Ⅵ

Ẁ

ڊ Ẓ ↕ Ⅵ Ẁ №⅞



كح □ كح

ضي ‰ ﷺ

D

ﷺ ﷺ ـ ‰ ‰ □

‰ ﷺ ﷺ ـ ﷺ

D

十字丝纹

ـا

U ـا ك ╠

h ẏ

h ـ ـا تم •

ẘ ك Ḥ ẽ ₣ ⌡ ẏ̈

ا h ٱ مذ ك ẽ ₣

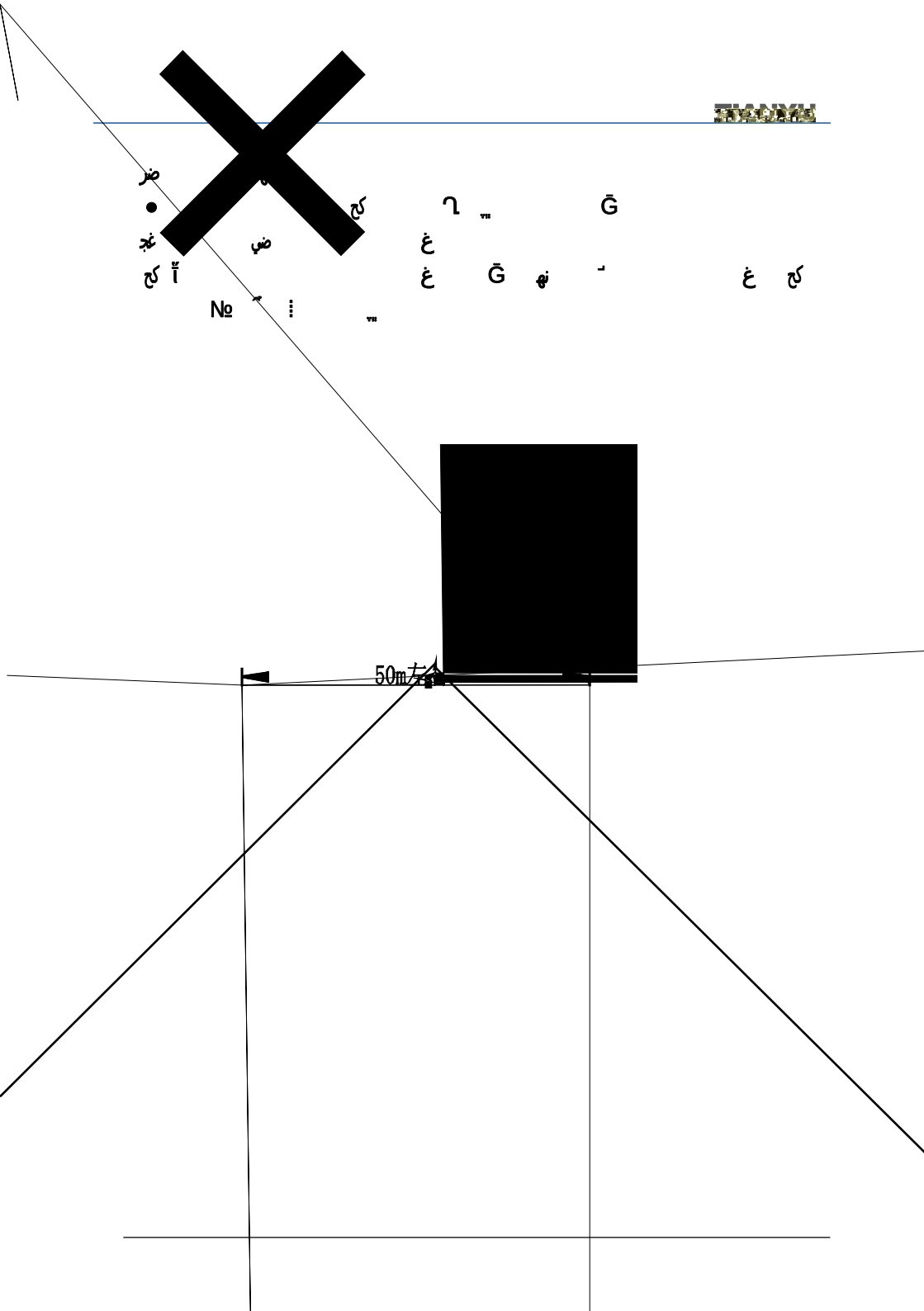
ك ّآ ض

شي أ ٧ ـ U ك ثْ

ـ ك ٧ أ ...

غه أ ٧ ° ‰

ضي أ ا ضي ا ك
ك ض
ب ك ـ ا أ ب
ـ ـ أ ا ب ك
ـ أ ا ب ك ‰
ـ أ ا ب ك ب ‰
↕ ↕ ٦


50m左右

PROBLÉMY

ⓚ B3

غمم	A
″E	″E
Ô	
№	
شي	

Ò	
مخ	
±شي	±

كج ڤّ	
A	غمم
2 ڤّ ~	ڤّ
كج ṗ	
≤ Ẓ مم كج ضي	
≤ كج ضي	

كج	
A	غمم
يح	غمم

~	
A	غمم
	غمم

A	غمم

Ũ	
A	غمم

	A
	˜ ˜H
۱	

	A

Ï	
	A

	A
۞	
۱	˜
	˜

ă :
: ▯ ă , ă U
:
a. 5 È ۞

b. 20 `E ِّ c. 40 `E d. ٧ e. 90% ّ f. 18% ّ g. Δ h. i.					
فهم				A	
١				m/ft	
				70-150MHz	
ِّ ض غ				~ ّ ـ , K=0.14/0.2	
ّ				~ ّ ـ	
				1mm	
				~ / ـ	
			a	١ 2000m/ 2600m	
			b	١ 3500m/ 4500m	
			c	١ 4000m/ 4500m	
	ّ		a	700m	
			b	1000m	
			c	1200m	
	ّ	e	a	(*50m)	
			b	(*80m)	
			c	(*100m)	
		f	a	(*25m)	
			b	(*40m)	
			c	(*50m)	

	g	1.2s
	h	0.5s
	i	0.25s
ï	g	1.0s
	h	0.5s
	i	0.25s
	g	0.5-3s ï
	h	∨ ↕ ∨ 10s
™	i	0.25-3s ï
		∨ ↕ ∨ 10s
		±

ذ	أ	ﺒ ﺒ ﺽ أ ـ ‰ ﺯ
	ـ	ﺒ ﺒ ـ ﺒ ﺽ أ ‰ ﺯ

: NTS-332

	$R^n(X)$
	A
‰	A
ẽ ☹	A
☹	A
( )	
☹	A
( )	
☹	A
~	A
	A
Ũ	A

[illegible] [illegible]

[illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

ﻫ

ﻥ ﻭ

ﺽ ﺝ ﺳ ﺎ ـ “ ﻭ ﺝ ”

ﺝ ﻭ ﺝ ↓ ‰:

ﻭ ﺝ ﻥ

ﺝ ﻭ ﺝ ↓ ‰:

ﺟ ã ﺎ ↕

ﻭ ﺝ ﻭ ﻭ ﻭ

ﺽ ∫ ﻭ ﺽ Ò ﺭ

ﻫ

ﻭ

ﻭ ﻭ h≠ ﺍ ﻭ

ﺝ

ﻫ

ﻭ ﺽ

ﺍ ﻭ ﺃ ﻝ

ﻭ ﺍ ﺽ ﺽ ﻭ

ﺽ ﻭ ﻭ ﻥ

ﻩ

ﻭ ﻝ

ﻭ ® Ạ ﻥ ﺿ
ﻕ ﻝ ﺭ ﯼ ‰ Ạ ﺍ

ﺀ ‰ №

ﻭ ﺝ ﺽ ﻍ ﺽ
ﺯ ﺀ ﻍ ﻍ ﻭ

ﺽ ﻟ ﺥ ﺭ ﻭ ﻩ
ﻭ ﻭ ﺡ ﻭ
ﻭ ﺽ ﻭ ﺽ
ﻭ ﻟ ﻟ * ـ ﻭ
ﻭ ﺽ
ﻭ ﺝ ﺽ ، Ḡ
ﻭ ≠
ﻙ
ﻭ ﻭ ⋮ ⌡

ﻭ ﺡ ﺭ ﺝ
ﺽ ﻭ ⋮ ⌡ ﻭ

ج ‰

ŋ

ŋ فمم

ج L

L

فمم ‰

Ũ ώ ẽ كج

ج

كج `Ẽ

خي ضر