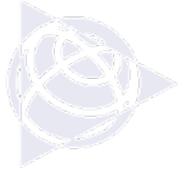




DiNi 12 Training



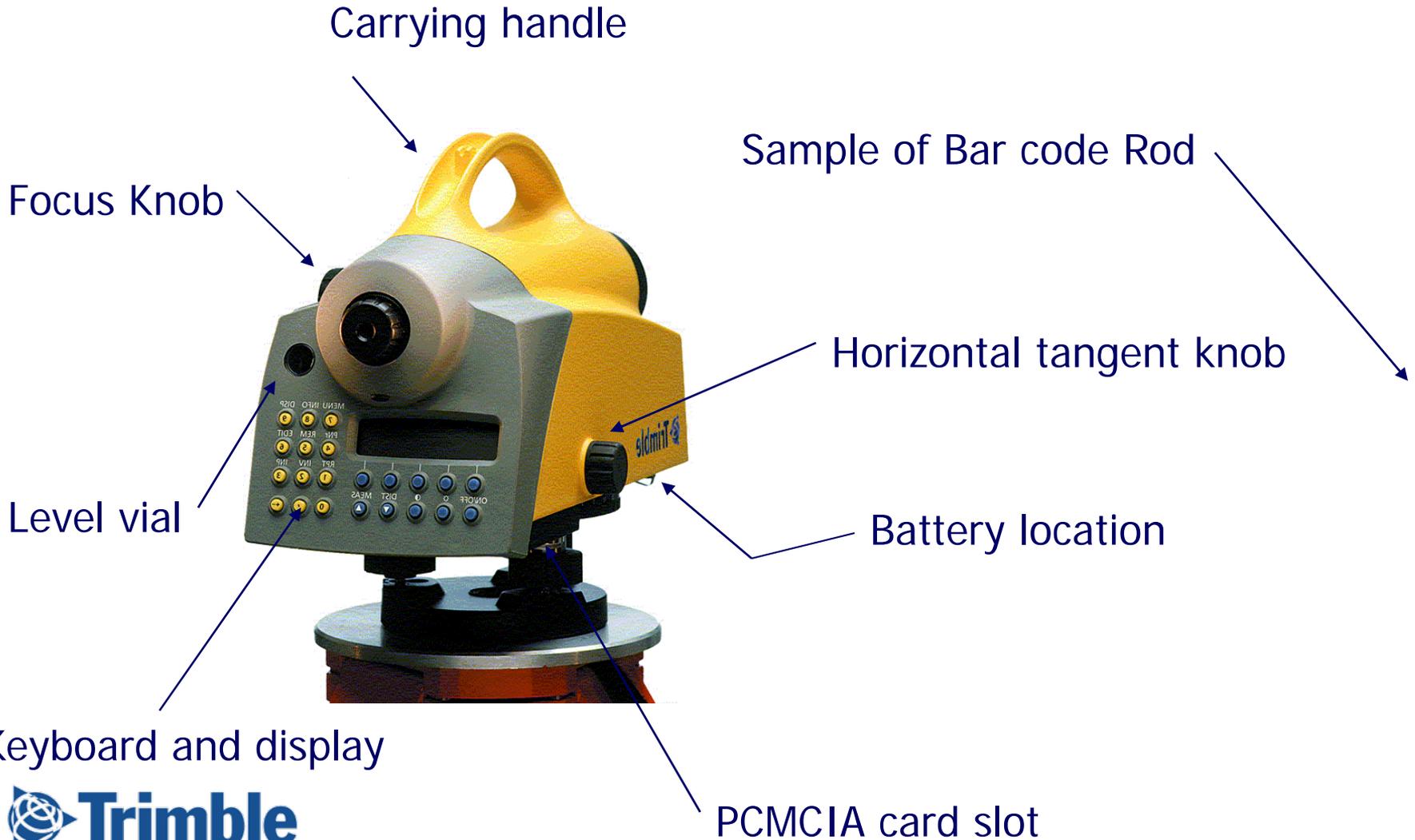
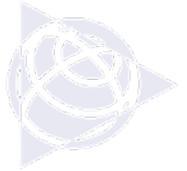


How does a Digital Level Work?

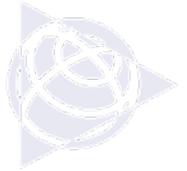
A digital level is really no different from an optical level in a lot of ways. A lot of the principals and methods used with optical levels still need to be used and applied with a digital level. Basically what

a digital level is; is a digital “camera” that is aligned with the crosshairs of the instrument. When a measurement is needed the user focuses on the rod and then presses measure which then tells the instrument to “snap” a picture of the rod and compares that image with the same rod pattern stored in memory. A rod reading is then calculated and is stored in memory.

The DiNi 12



Main Measuring Screen



Displays measured info here

Displays info about the point you are about to measure

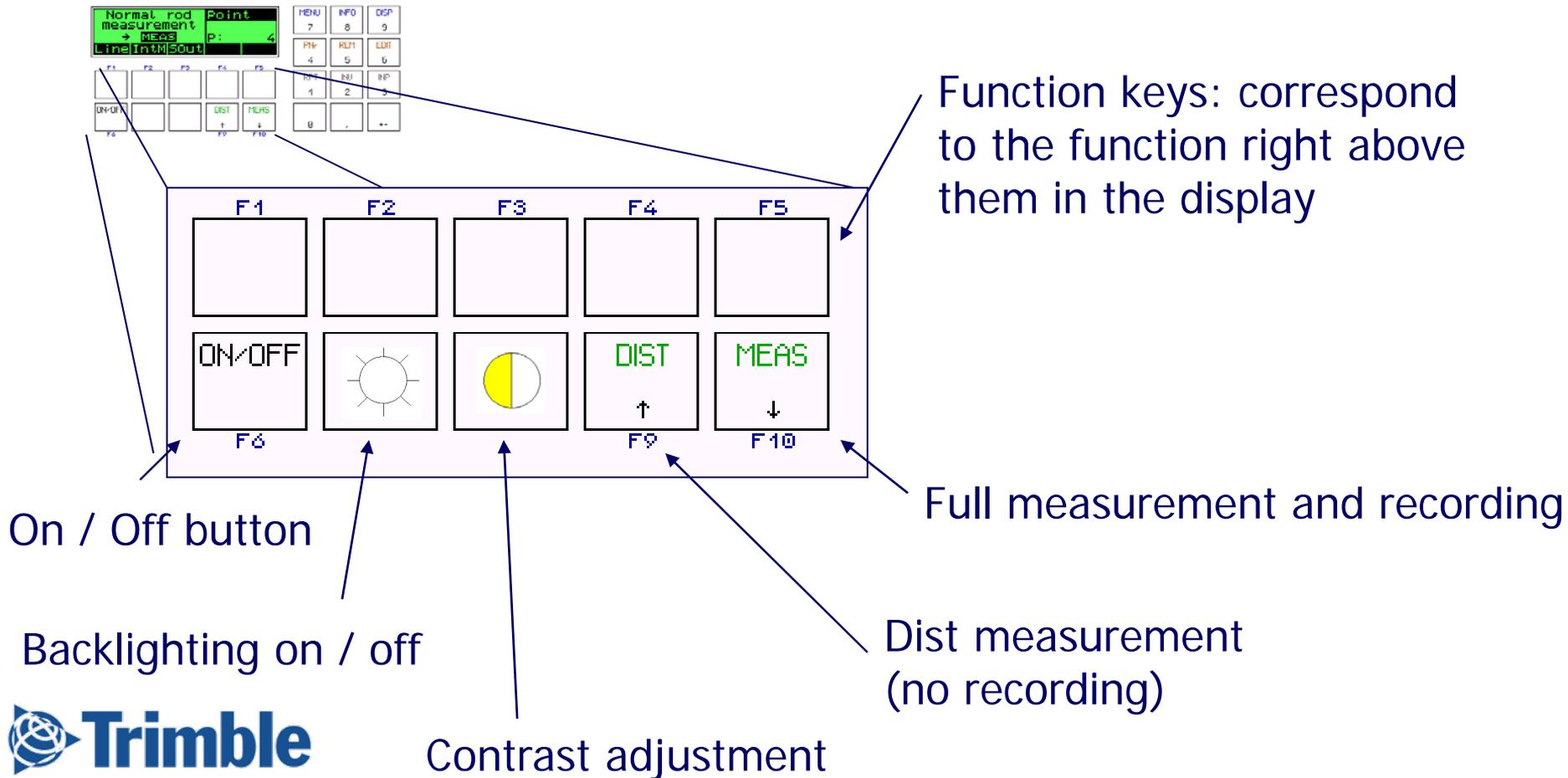
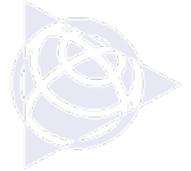
Normal rod measurement			Point	
→ MEAS			P: 4	
Line	IntM	SOut		

Line: Starts a level loop

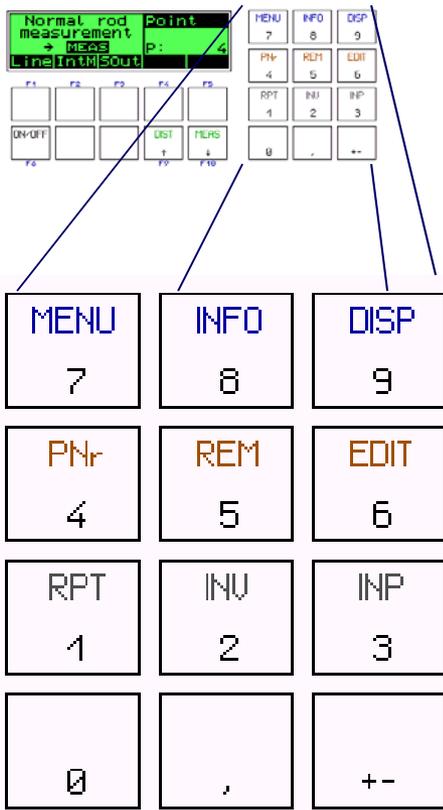
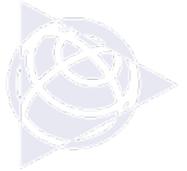
SOut: Starts a stakeout mode

IntM: Starts a sideshot mode

Keyboard and key layout



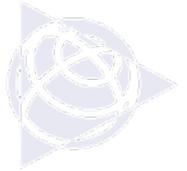
Keyboard and key layout



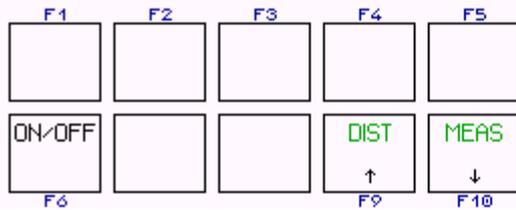
When in the main measuring Screen the number keys have the following functionality:

- 1) RPT - Repetition mode
- 2) INV - Inverted rod setting
- 3) INP - Manual input of rod reading
- 4) PNr - Input of point number
- 5) REM - Input of remark
- 6) EDIT - Editor function
- 7) Menu – Instrument settings etc.
- 8) INFO - General information
- 9) DISP - Toggles what is displayed

Keyboard – RPT key



```
1 number of meas. 1
↓ 2 max StdDev 0.00000
ESC |   | ↓ |   | MOD
```

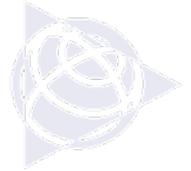


RPT (#1 key):

- 1) Sets the number of measurements to be taken when the Meas button is pressed.
- 2) Sets the maximum standard deviation allowed for those number of measurements.

If the std dev is met in a majority of measurements the DiNi will discontinue the measurement sequence.

Keyboard – INV key



Notice the display after setting to inv mode or normal mode !

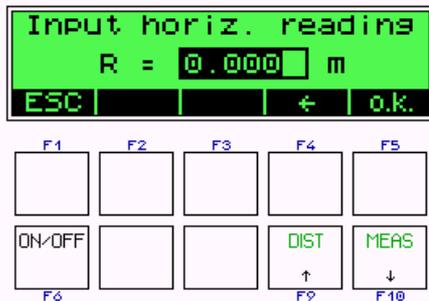
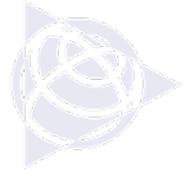


INV (#2 key):

Sets the instrument so the rod person can turn the rod upside down and get a Z value for the "top" of the rod.



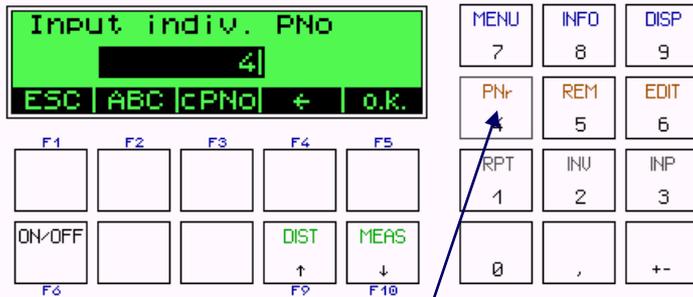
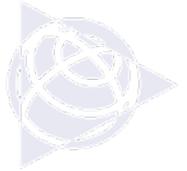
Keyboard – INP key



INP (#3 key):

Allows for manual input of data.
the rod-person turns the rod around
and the instrument person takes a manual reading;
inputs the values they read on the rod, estimates a distance,
and then the instrument records that info to the memory like a
normal measurement with a “manual input” note attached.

Keyboard – PNr key



Notice that you can enter alphanumeric point numbers



PNr (#4 key):

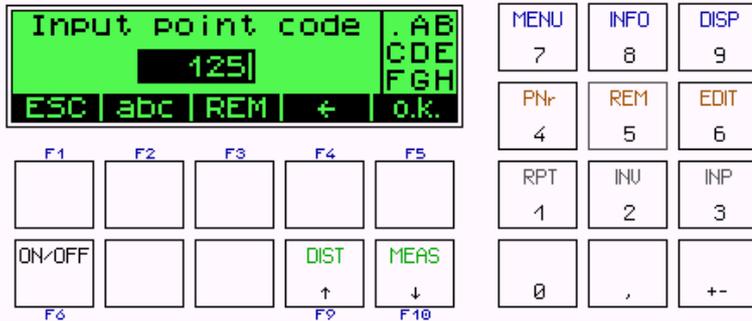
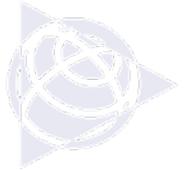
Allows for input of point numbers.

There are 2 kinds; cPNo & iPNo.

cPNo: Current point number sets the point number and will increment from there.

iPNo: Sets the point number for the individual measurement and goes back to the old incrementing sequence.

Keyboard REM key



You can enter alphanumeric codes



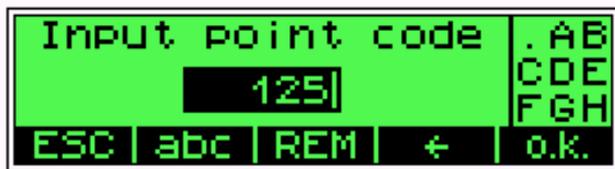
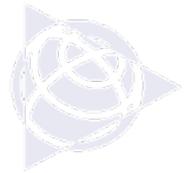
You can also enter a longer remark or comment

REM (#5 key):

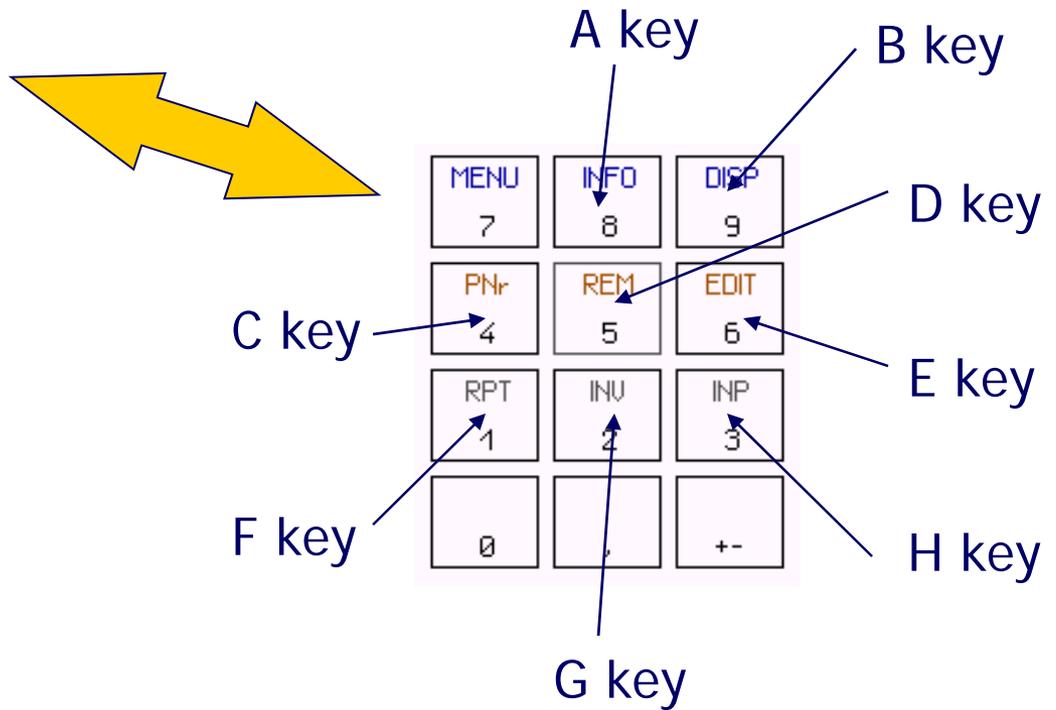
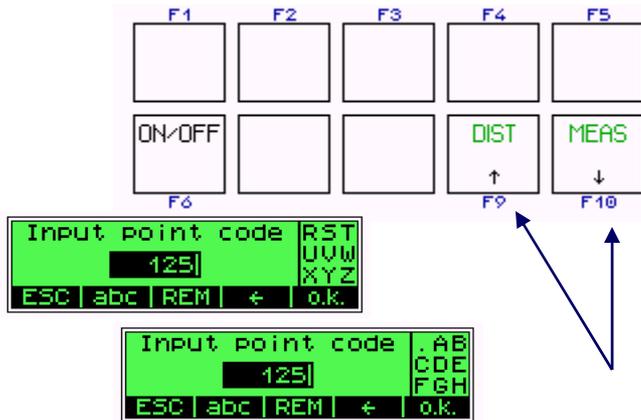
Allows the user to input a code associated with the point being measured.

Remember: Once a code is entered it stays until taken out !!!!

Alphanumeric Input

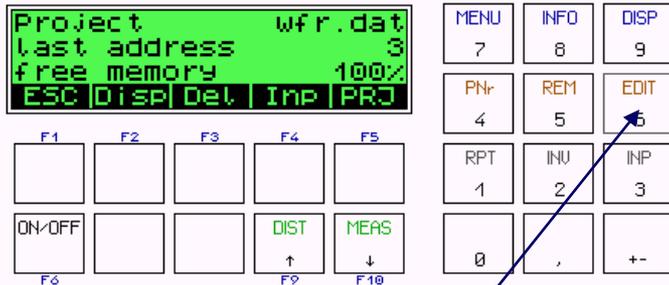
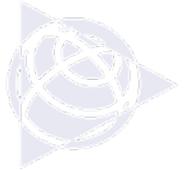


Toggles between letters and numbers



Scrolls through the different letters and symbols

Keyboard – EDIT key



EDIT (#6 key):

A simple editor function.

Esc: Takes you out of this screen

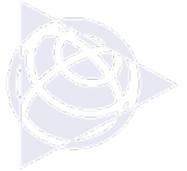
Disp: Will display what information is in an address line.

Del: Deletes information from the memory

Inp: Allows for input into the memory

PRJ: The project key (see next page)

PRJ – Project setup



```
1 SELECT PROJECT
↑ 2 NEW PROJECT
3 DATA FROM 0. PRJ.
ESC | ↑ | ↓ | | YES
```

1) Use arrows to highlight new project

2) You can either input a project name

```
...EISS\DINI\SIMULA*1
INPUT PROJECTNAME
CREATE DIRECTORY
ESC | ↑ | ↓ | CD | YES
```

3) Create a directory and then input a project name

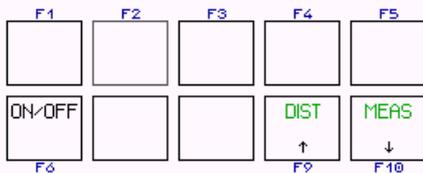
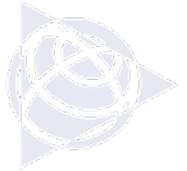
OR

Options in the Project menu:

```
1 SELECT PROJECT
↑ 2 NEW PROJECT
3 DATA FROM 0. PRJ.
ESC | ↑ | ↓ | | YES
```

```
3 DATA FROM 0. PRJ.
↑ 4 RENAME PROJECT
5 DELETE PROJECT
ESC | ↑ | ↓ | | YES
```

Keyboard – MENU key



To get around in a menu:

Press the number key associated with the menu item you wish to access.

MENU (#7 key):

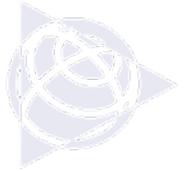
Instrument settings and functions. See the next set of pages for detailed explanation of the menu items.



OR

Use the arrow keys to scroll and highlight the feature you want and then press the Yes key

Menu Items - Input



1) Max dist: Sets a QC measure that will alert the user when the specified distance is exceeded.

2) Min sight: Sets the lowest point on the rod that will be accepted for meas.

3) Max diff: Sets the max difference allowed between measurement sets when running a BFFB mode in the line function.

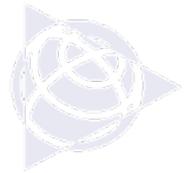
4) Refr coeff: Allows the user to set a value in for the refraction coefficient.

5) Vt offset: Allows the user to put in a value that the instrument will correct the rod reading by

6) Date: Set the date

7) Time: Set the Time





Menu Items - Adjustment

The adjustment menu item allows the user to run a "peg test" on the instrument. Various methods are available and the instrument determines a correction value (c_) that will be applied to all measurements. there is no need for mechanical adjustment of the line of sight. The software inside the instrument takes care of the correction for you !

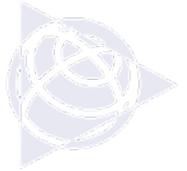
Current "C" value



Adjustment	c_ : 0.0"
2000.07.31	14:54:14
CURV: OFF	REFR: OFF
ESC	O.K.

PLEASE REFER TO THE MANUAL (P. 7-1) FOR PROPER RUNNING OF THE ADJUSTMENT PROGRAM.

Menu Items – Data Transfer



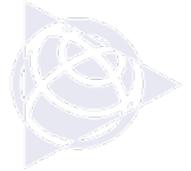
Under data transfer you have the option of setting data transfer to 2 different interfaces. This allows the user to set all of the communication parameters up for each and then picking which one to download to without resetting the comm parameters every time.



- 1) Interface 1: picks the 1st interface (maybe a PC)
- 2) Interface 2: picks the 2nd interface (maybe a printer)
- 3) PC Demo: Allows what is going on in the display of the instrument to be seen on a computer screen.
- 4) Update / service: This is for the service center to connect and service the instrument.



Menu Items – Recording



1) Recording of data

2) Parameter settings: Communication settings that effect the update / service routine. (baud rate, parity etc.)

1) Remote Control: Set-up to record to an external PC.

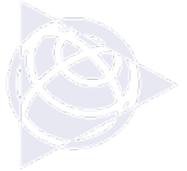
2) Record: Where or if your recording data

3) Rod Readings: What to record, Measured (RM) Data, or Measured and Computed (RMC) data.

4) Pno Increment: What to increment by

5) Time: Turn the time stamp on or off

Menu Items – Inst. Settings



```
1 HEIGHT UNIT          m
↓ 2 INPUT UNIT         m
3 DISPLAY R @.00001m
ESC | ↑ | ↓ |         | MOD
```

```
4 SHUT OFF            10 min
↑ 5 SOUND              ON
6 LANGUAGE             E__330
ESC | ↑ | ↓ |         | MOD
```

Remember the MOD key allows you to change what is highlighted.

- 1) Height Unit: the units of height to be measured and recorded into memory.
- 2) Input Unit: Units for the manual input of data.
- 3) Display resolution: How many decimal places you would like to record out to.
- 4) Shut Off: Instrument will automatically shut off if not used after 10 minutes.
- 5) Sound: Turn the sound on or off.
- 6) Language: Set the language.
- 7) Date: Set your date format
- 8) Time: Set your time format

Menu Items – Line Adj.



```
6 LINE ADJUSTMENT
↓ 1 INPUT
  2 ADJUSTMENT
ESC | ↑ | ↓ | YES
```

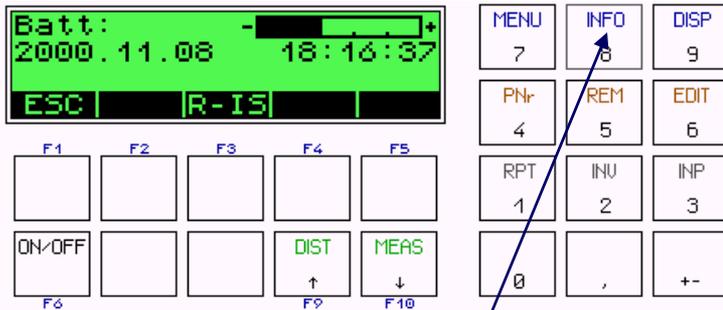
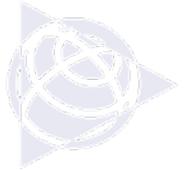
```
Search for
Start-Line
ESC | ?PNo | ?Cod | ?Adr | ?LNo
```

Line Adjustment will do a very simple adjustment or balance of your elevations when there is misclosure of a level loop.

After a line adjustment has been done on a level loop that is stored in the memory, the information that is in the file is now adjusted data. Remember to download your raw data before performing a line adjustment.

It is recommended that all adjustments of data be performed by qualified personnel and done in the office

Keyboard – INFO key

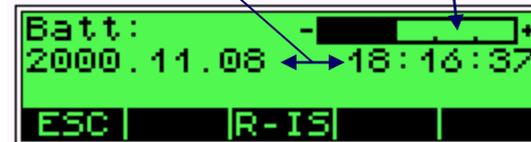


INFO (#8 key):

Some general information in regards to the level.

Battery level indicator

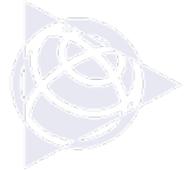
Date and Time



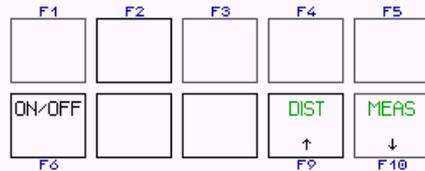
Records the current instrument settings to the memory. It is recommended to do this at the start of every project so you have a record of how the instrument is set-up.

TIP: When running a level loop, check here to see if your foresights and backsights are balanced. It keeps a running tally.

Keyboard – DISP key



```
Zi 100.71094 Fore ↓ 1
Rb -1.50000 Tp: 1
HD 30.000 Cp 1
LEnd|IntM|SOut|Rpt|
```



DISP (#9 key):

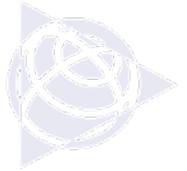
When there is more information than can be displayed in the screen at one time the display key toggles between the different pieces of information.

```
Zi 100.71094 Fore ↓ 1
Rb -1.50000 Tp: 1
HD 30.000 Cp 1
LEnd|IntM|SOut|Rpt|
```



```
sR 0.00095 Fore ↓ 1
Rb -1.50105 Tp: 1
HD 30.000 Cp 1
LEnd|IntM|SOut|Rpt|
```

DiNi Functionality

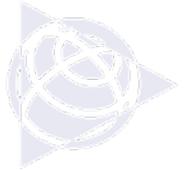


Normal rod measurement → MEAS	Point P: 4
Line IntM SOut	

There are 3 main functions of the DiNi digital level:

- 1) Line – Running a level loop. Keeps track of all of your information and even gives you misclosure at the end of the run if running between 2 known Benchmarks.
- 2) IntM – Intermediate mode or sideshots. Useful for topo, monitoring or when running a level loop to get a side elevation.
- 3) SOut – Stakeout of design elevations. Elevations can be entered in when needed or can be recalled from memory.

Running a Line



```
Inverted rod Point↓
measurement
→ MEAS P: 4
Line|IntM|Sout|
```



```
cont. line of Project
continue line
new line
ESC
```



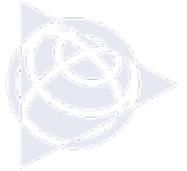
```
Input line number
  2
ESC|ABC| ←|o.k.
```

To start a line:

- 1) Press the key below Line in the screen
- 2) Press the key below new line
- 3) Input a line number

A line number is a way to identify a certain level loop within the project. You may have various lines within a project.

Running a Line



```
Sequence of measurem.
  BF      BF..BF
MOD |    | ↑↓ |    | o.k.
```



```
Inp benchmark height
Z = 102.21094 m
ESC | PRJ |    | ? | o.k.
```



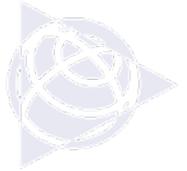
```
Inp point number
      4
ESC | ABC |    | ← | o.k.
```



```
Input point code IJK
                  LMN
                  OPQ
ESC | abc |    | ← | o.k.
```

- 4) Pick the sequence of measurement (BF,BFFB,BBFF,BFBF)
- 5) Input the Benchmark height. if you want differences input "0"
- 6) Assign a point number for the BM
- 7) Assign a code if you wish.

Running a Line



You are now ready to start measuring

Starting BM elevation

Z	102.21094	Back	↓ 1
		TP:	1
		P:	4
LEnd			

Press the Measure button
(remember the one on the side of the instrument)

Rb – rod reading of
The backsight

HD – Distance for the
measurement

Results of the measurement

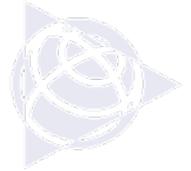
Backsight	1	Fore	↓ 1
Rb	-1.85600	TP:	1
HD	38.500	Cp	1
LEnd	IntM	SOut	Rpt

What are we going to
measure next?
Back=Backsight
Fore=Foresight

Tp – turning point we are on

Cp – Control point or backsight
we are turning off of

Running & Ending a Line

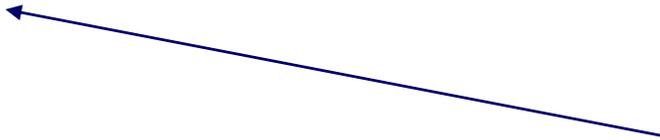


```
Batt: -  
2000.11.08 19:48:12  
Db 38.50 Df 40.00  
ESC | R-IS |
```



An example of the display key in
The middle of a level loop

```
Foresight 1 Back ↓ 1  
Rf -1.23400 TP: 2  
HD 40.000 Cp 1  
LEnd|IntM|SOut| Rpt |
```



```
End of line end with  
closing benchmark ?  
NO | | | YES
```

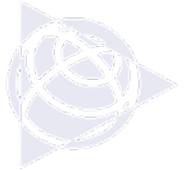


After your foresight is taken
you are now ready to move up.
you can turn the level off and when
you move up and turn it on, you will
be right where you left off. Continue
on through the level loop.

When you are done and have measured
the closing BM, you can press the key
below "LEnd" (line end). You need to end
a line after measuring your final shot.

 Do you know the elevation of the BM you closed on?

Ending a Line



```
Inp benchmark height
Z = 102.21094 m
ESC | PRJ | ? | o.k.
```



```
Inp point number
4
ESC | ABC | ← | o.k.
```



```
Input point code IJK
LMN
OPQ
ESC | abc | ← | o.k.
```



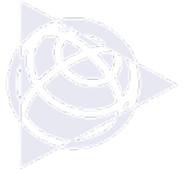
```
Sh -0.62200
dz 0.53406
Db 38.50 Df 40.00
ESC | | | |
```

By answering yes you will get prompted for the following info on the closing BM:

Known Elevation
Point Number
Point Code

We than get some results !

Ending a Line



Sh	-0.62200			
Dz	0.53406			
Db	38.50	Df	40.00	
ESC				

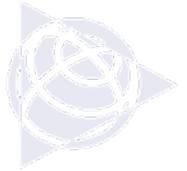
Sh: The starting and ending elevation difference. If you started on a BM with an elevation of 635 and ended with an elevation of 634, your Sh would be -1.00 .

Dz: How well did you close the loop. This compares the measured values for the closing shot compared with the values you entered for the closing BM elevation.

Db: Total distances for backsights

Df: Total distances for Foresights

INTM - Sideshots



```
Inverted rod measurement
→ MEAS P: 4
Line|IntM|Sout
```

```
Inp benchmark height
Z = 0.00000 m
ESC|PRJ| ? |o.k.
```

```
Z 100.00000 Back ↓
P: 4
ESC
```

```
R -1.50000 Back ↓
HD 22.000 P: 4
ESC | o.k.
```

```
Inverted rod measurement
→ MEAS P: 1
ESC
```

- 1) Start by pressing the key below IntM
- 2) Input a BM height
- 3) Measure the backsight
- 4) Ok or confirm the measurement is Ok.
- 5) Start Measuring !

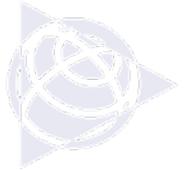
Elev of shot just taken

Point number for next shot

```
Z 99.00400 IntM
h -0.99600
HD 31.450 P: 2
ESC | Rpt
```

When measuring in IntM, this is the screen you will see after you have taken a shot. Everything is recorded to memory. notice in the upper right hand corner it shows you what mode you are using the DiNi in.

SOut - Stakeout



```
Inverted rod measurement
→ MEAS P: 4
Line|IntM|SOut
```

1) Start by pressing the key below SOut

```
Inp benchmark height
Z = 0.00000 m
ESC | PRJ | ? | o.k.
```

2) Input a BM height

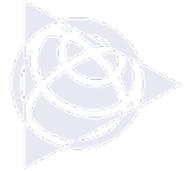
```
Z 100.00000 Back ↓
P: 4
ESC | | | |
```

3) Measure the backsight

```
R -1.50000 Back ↓
HD 22.000 P: 4
ESC | | | | o.k.
```

4) Confirm the measurement is Ok by pressing the key below Ok

SOut - Stakeout



```
Input nominal elev.
Z = 102.12300 m
ESC | PRJ | ? | o.k.
```

```
Z 102.12300 SOut
-1.1230
P: 1
ESC | | | |
```

5) The instrument will then ask you for a nominal elevation. This is the design grade for the point you are measuring.

6) Measure the point

7) You now get results !

dz

Cut or fill to design or nominal elevation.
A positive number is a fill and a negative number is a cut

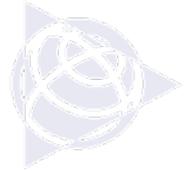
Measured elevation of the point

Mode we are in along with info about the elevation we are setting



```
Z 98.64900 SOut
dz 3.47400 -0.6230
HD 33.000 P: 1
ESC | | | | o.k.
```

Downloading – PCMCIA



The screenshot shows the Windows Help application window. The title bar reads "Windows Help". The menu bar includes "Hide", "Back", "Forward", "Options", and "Web Help". The left pane has tabs for "Contents", "Index", and "Search". Under "Search", there is a text box containing "sram" and a "List Topics" button. Below that, it says "Select Topic to display:" and lists one topic: "To install PC Card support for an SRAM". The right pane displays the content for this topic, starting with "To install PC Card support for an SRAM memory PC Card" and followed by three numbered steps. Step 1 involves clicking a link to start the wizard. Step 2 involves editing the Config.sys file with specific lines for device drivers. Step 3 is to save changes and restart the computer.

To install PC Card support for an SRAM memory PC Card

1. [Click here](#) to start the PC Card (PCMCIA) wizard. When you are prompted to restart your computer after finishing the wizard, click **No**.
If you see properties for your PC Card slot instead of the PC Card wizard, click **Cancel**, and then continue to the next step.
2. Use a text editor such as Notepad to edit your Config.sys file, and add the following lines in this order to the end of the file:

`device=c:\windows\system\csmapper.sys`

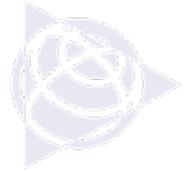
`device=c:\windows\system\carddrv.exe /slot=n`

For the value of n, type the number of PC Card slots on your computer. Also, make sure the Csmapper.sys and Carddrv.exe files are in your Windows\System folder.
3. Save your changes, and then restart your computer.

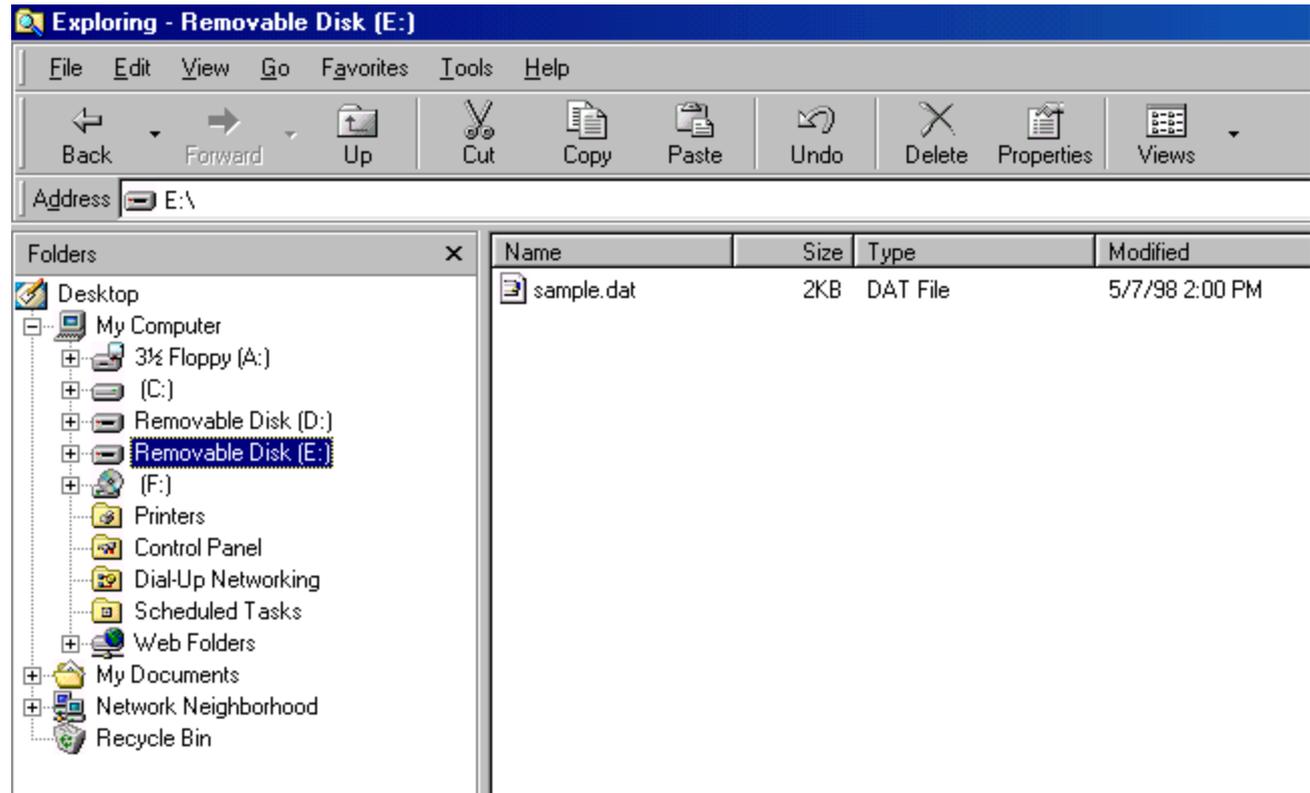


Under Windows Explorer, in the HELP menu, you can find instructions for setting the drivers for SRAM PCMCIA card support. By doing this the card slots in your laptop become the next available drive letters.

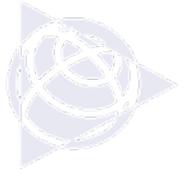
Downloading – PCMCIA



After your computer is set-up for PCMCIA card support, you can now go into Windows Explorer and “click and drag” your file to the proper directory.



Downloading – RS232

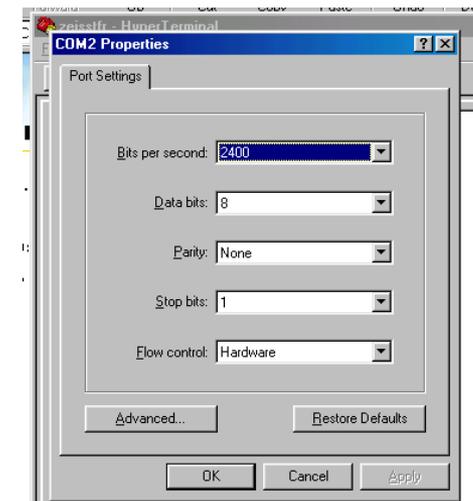
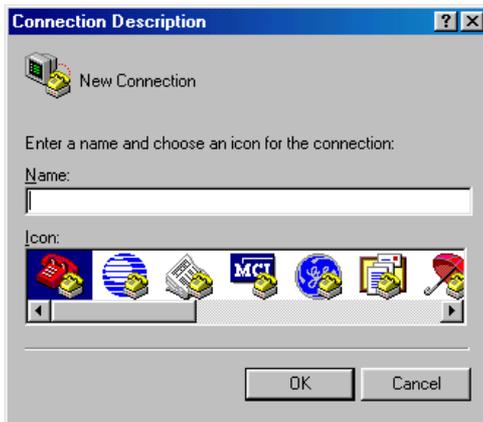


DiNi – HyperTerminal Download Set-up and Procedures:

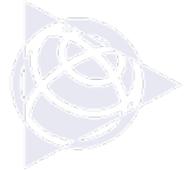
HyperTerminal Settings:

1. Connect using: Com1 (Or whatever COM port you are connecting to via cable)
2. Baud Rate: 9600
3. Data bits: 8
4. Parity: None
5. Stop bits: 1
6. Flow control: Xon-Xoff

Suggestion: It is easiest after you set-up the transfer parameters to create a short cut in your desktop for this process. We also suggest creating a DiNi data directory and transfer always to and from this directory.



Downloading – RS232



DiNi transfer parameters and procedures:

On the PC:

1. Click on the HyperTerminal or Shortcut icon.
2. To download data select capture text under the transfer menu bar item.
3. Give the file a name with a directory.
4. You are now ready to receive data.



On the Digital Level:

1. Press the Menu key (7)
2. Pick data transfer
3. Pick interface 2 (Interface 1 might be a printer and Interface 2 might be a computer)
4. Pick Dini - Periphery to download to the computer.

NOTE: Communication parameters can be set and changed in this screen by picking Set Parameters.

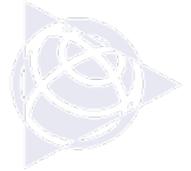
Your parameters should be:

Format - REC_E
Protoc - Xon/Xoff
Baud - 9600
Parity - none
StopBit - 1
Timeout - 10s
Linefeed - Yes



5. Select the data you wish to transfer (ie: all)
6. Select yes to start transfer.

Data File



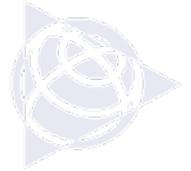
The file that is recorded in the DiNi is a Text file that can be looked at and edited in any text editor program. There is no need to convert the file format.

There are 2 different File formats for the DiNi digital level; Rec_E (M5) and Rec500.

```
sample - Microsoft Word
File Edit View Insert Format Tools Table Window Help
88% Plain Text Courier New 10 B I U
2 Adjustment c_ -0.00010
3 Curva OFF/Refract OFF
4 Value inputted rk 0.130
5 Value inputted Df 0.00000
6 Start-Line BF TEST
7 1 EM TEST Z 100.0000
8 1 EM 2TEST Rb 1.7928 HD 19.70
9 2 EM 2TEST Rf 1.8737 HD 29.08
10 2 EM TEST Z 99.9191
11 2 EM 2TEST Rb 1.7859 HD 28.75
12 3 EM 2TEST Rf 1.7089 HD 20.39
13 3 EM TEST Z 99.9961
14 3 EM TEST dz 0.0039 Z 100.0000
15 3 EM 2 TEST Db 48.45 Df 49.47 Z 99.9961
16 End-Line TEST
17 Start-Line BF 1
18 1041 EM 1 Z 298.2866
19 1041 EM 21 Rb 1.3319 HD 41.89
20 1 EM 21 Rf 1.9213 HD 50.21
21 1 EM 1 Z 297.6972
22 1 TP 21 Rb 1.0578 HD 53.09
23 2 TP 21 Rf 2.6886 HD 45.59
24 2 TP 1 Z 296.0664
25 21041A 21 Rb 1.3492 HD 69.18
26 31041A 21 Rf 2.4327 HD 61.46
27 31041A 1 Z 294.9829
28 3 670A 21 Rb 2.4041 HD 61.65
29 4 670A 21 Rf 1.3206 HD 68.83
30 4 670A 1 Z 296.0664
31 41041A 21 Rb 2.7912 HD 55.75
32 51041A 21 Rf 1.1617 HD 43.06
33 51041A 1 Z 297.6959
34 5TP 31 Rb 1.9274 HD 49.94
35 6TP 21 Rf 1.3378 HD 41.88
36 6TP 1 Z 298.2855
37 1041TP 1 dz 0.0011 Z 298.2866
38 1041TP 6 1 Db 331.50 Df 311.03 Z 298.2855
Page 1 Sec 1 1/1 At 1" Ln 1 Col 1 REC TRK EXT OVR
Start Microsoft PowerPoint - [Di... Exploring - Dini sample - Microsoft W... 11:22 PM
```



Data File – Rec_E



Loop1 - WordPad

File Edit View Insert Format Help

For M5 Adr	1 T0	LOOP1.DAT							
For M5 Adr	2 T0	Start-Line	BBFF	1					
For M5 Adr	3 KD1	BM5812		1				Z	100.0000 ft
For M5 Adr	4 KD1	BM5812	11:23:522	1 Rb	5.0098 ft	HD	47.96 ft		
For M5 Adr	5 KD1	BM5812	11:24:062	1 Rb	5.0099 ft	HD	47.95 ft		
For M5 Adr	6 KD1	1	11:25:392	1 Rf	4.5889 ft	HD	45.51 ft		
For M5 Adr	7 KD1	1	11:25:522	1 Rf	4.5892 ft	HD	45.50 ft		
For M5 Adr	8 KD1	1	11:25:52	1				Z	100.4208 ft
For M5 Adr	9 KD1	1	11:28:442	1 Rb	4.3972 ft	HD	52.74 ft		
For M5 Adr	10 KD1	1	11:28:542	1 Rb	4.3968 ft	HD	52.77 ft		
For M5 Adr	11 KD1	SM1	11:32:132	1 Rf	4.3515 ft	HD	54.02 ft		
For M5 Adr	12 KD1	SM1	11:33:342	1 Rf	4.3516 ft	HD	53.98 ft		
For M5 Adr	13 KD1	SM1	11:33:34	1				Z	100.4663 ft
For M5 Adr	14 KD1	SM1	11:36:332	1 Rb	4.0619 ft	HD	59.12 ft		
For M5 Adr	15 KD1	SM1	11:36:462	1 Rb	4.0620 ft	HD	59.12 ft		
For M5 Adr	16 KD1	SM2	11:40:102	1 Rf	4.8313 ft	HD	60.26 ft		
For M5 Adr	17 KD1	SM2	11:40:192	1 Rf	4.8313 ft	HD	60.25 ft		
For M5 Adr	18 KD1	SM2	11:40:20	1				Z	99.6969 ft
For M5 Adr	19 KD1	SM2	11:44:332	1 Rb	4.6748 ft	HD	52.59 ft		
For M5 Adr	20 KD1	SM2	11:44:432	1 Rb	4.6747 ft	HD	52.60 ft		
For M5 Adr	21 KD1	BM5612	11:45:442	1 Rf	4.3699 ft	HD	52.53 ft		
For M5 Adr	22 KD1	BM5612	11:45:532	1 Rf	4.3698 ft	HD	52.55 ft		
For M5 Adr	23 KD1	BM5612	11:45:53	1				Z	100.0018 ft
For M5 Adr	24 KD1	BM5612		1			-0.0018 ft	Z	100.0000 ft
For M5 Adr	25 KD2	BM5612	4	1 Db	212.42 ft	Df	212.29 ft	Z	100.0018 ft
For M5 Adr	26 T0	End-Line		1					

For Help, press F1

Data File – Rec500



sample - Microsoft Word

File Edit View Insert Format Tools Table Window Help

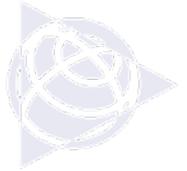
88% Plain Text Courier New 10 B I U

```
2 Adjustment c_ -0.00010
3 Curva OFF/Refract OFF
4 Value inputted rk 0.130
5 Value inputted Of 0.00000
6 Start-Line BF TEST
7 1 BM TEST
8 1 BM 2TEST Rb 1.7928 HD 19.70 Z 100.0000
9 2 BM 2TEST Rf 1.8737 HD 29.08
10 2 BM TEST Z 99.9191
11 2 BM 2TEST Rb 1.7859 HD 28.75
12 3 BM 2TEST Rf 1.7089 HD 20.39
13 3 BM TEST Z 99.9961
14 3 BM TEST dz 0.0039 Z 100.0000
15 3 BM 2 TEST Db 48.45 Df 49.47 Z 99.9961
16 End-Line TEST
17 Start-Line BF 1
18 1041 BM 1 Z 298.2866
19 1041 BM 21 Rb 1.3319 HD 41.89
20 1 BM 21 Rf 1.9213 HD 50.21
21 1 BM 1 Z 297.6972
22 1 TP 21 Rb 1.0578 HD 53.09
23 2 TP 21 Rf 2.6886 HD 45.59
24 2 TP 1 Z 296.0664
25 21041A 21 Rb 1.3492 HD 69.18
26 31041A 21 Rf 2.4327 HD 61.46
27 31041A 1 Z 294.9829
28 3 670A 21 Rb 2.4041 HD 61.65
29 4 670A 21 Rf 1.3206 HD 68.83
30 4 670A 1 Z 296.0664
31 41041A 21 Rb 2.7912 HD 55.75
32 51041A 21 Rf 1.1617 HD 43.06
33 51041A 1 Z 297.6959
34 5TP 31 Rb 1.9274 HD 49.94
35 6TP 21 Rf 1.3378 HD 41.88
36 6TP 1 Z 298.2855
37 1041TP 1 dz 0.0011 Z 298.2866
38 1041TP 6 1 Db 331.50 Df 311.03 Z 298.2855
```

Page 1 Sec 1 1/1 At 1" Ln 1 Col 1 REC TRK EXT OVR

Start Microsoft PowerPoint - [Di... Exploring - Dini sample - Microsoft W... 11:22 PM

General Info



The DiNi needs approx. 30cm of the rod to measure, about 15cm above and below the center crosshair. Remember the rod needs to be in focus and the crosshairs on the surface of the rod.

The battery is NiMh. It will last about 3 working days and recharges in about 1.5 hrs.

The DiNi is a precision instrument and needs to be cared for as such. Routine servicing and calibrating is recommended.

Field calibration of the circular level vial is recommended on a regular basis.