



Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for PENTAX V-325N. You'll find the answers to all your questions on the PENTAX V-325N in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual PENTAX V-325N
User guide PENTAX V-325N
Operating instructions PENTAX V-325N
Instructions for use PENTAX V-325N
Instruction manual PENTAX V-325N

TOTAL STATION **V-300** SERIES

V-325 | V-325N | V-335N | V-323N

INSTRUCTION
MANUAL
V-300 SERIES
PowerTopoLite



PENTAX Industrial Instruments Co., Ltd.
2-36-9, Maeno-cho
Itabashi-ku, Tokyo 174-0063 Japan
Tel: +81 3 3960 0501
Fax: +81 3 3960 0509
E-mail: international@piic.pentax.co.jp
Website: www.pentaxsurveying.com

PENTAX



[You're reading an excerpt. Click here to read official PENTAX V-325N user guide](http://yourpdfguides.com/dref/1319366)
<http://yourpdfguides.com/dref/1319366>

Manual abstract:

, Ltd. is a sole proprietor of the PowerTopoLite software. @PENTAX Industrial Instruments Co., Ltd. makes no warranty, expressed or implied, including but not limited to any implied warranties or merchantability or fitness for a particular purpose, regarding these materials and makes such materials available. CONTENTS COPYRIGHT CONTENTS DISPLAY AND KEYBOARD OPERATION KEY FUNCTION KEY DISPLAY COMBINATION OF MODE A OR MODE B ALPHANUMERIC INPUT 1. INTRODUCTION 1.1 Introduction 1.2 Before using the PowerTopoLite manual ACCESSING

POWERTOPOLITE 2.1 How to access PowerTopoLite 2.

2 Allocation of each PowerTopoLite Function key 2.3 Typical Function keys of PowerTopoLite FILE MANAGER 3.1 Information of the remaining memory available 3.2 Creation of a new Job 3.3 Selection of a Job name 3.

3.1 Selection of a Job 3.3.2 Selection by a Job name input 3.4 Deletion of a Job name 3.

4.1 Deletion from a Job list 3.4.2 Deletion from a Job name search 3.5 All Clear MEASURE 4.1 Station setup [By Rectangular Coordinates] 4.1.1 Point name, PN, input 4.1.2 Coordinates, X, Y, Z, IH, and PC input 4.

2 Station Orientation 4.2.1 Station orientation 4.3 Measuring 4.4 Point Code 4.5 Remote, Offset, Station, and H. angle function 4.5.1 Remote 4.5.

2 Offset 4.5.3 Station 4.5.4 H.

angle 2 3 6 6 7 9 9 10 10 11 13 13 15 17 18 18 19 20 20 21 22 22 23 24 25 26 27 27 32 33 34 35 38 38 40 42 42 2. 3. 4. 3 4.6 Station setup [By Polar Coordinates] 4.

6.1 Point name, PN, input 4.6.2 IH, TEMP, PRESS, ppm and PC input 4.7 Station Orientation 4.8 Measuring 4.9 Offset 5. VIEW AND EDIT 5.1 Graphical View 5.2 Create the Rectangular Point 5.

3 Edit the Data FREE STATIONING 6.1 Stationing by more than 3 known points 6.2 Stationing by two known points STAKE OUT 7.1 Stake out 7.2 Point to line CALCULATIONS 8.1 COGO 8.1.1 Inverse 8.1.2 Point Coordinates 8.

1.2.1 Point Coordinates, Distance and H. angle 8.1.

2.2 Distance and H. angle 8.1.2.

3 H. @@@@ACCESSING POWERTOPOLITE" . Alphanumeric and +/- key Enter key Power supply key Function key Illumination key ESC key Laser key OPERATION KEY Key [POWER] [ESC] [ILLUMINATION] [ENT] [LASER] [Alphanumeric] Description ON/OFF of power supply Returns to previous screen or cancels an operation. Turns the illumination of the LCD display and telescope reticle on and off. Accepts the selected (highlighted) choice or the displayed screen value. ON/OFF of Laser Pointer At the numerical value screen, the numerical value and the sign "." displayed are input. The English characters printed right under numeric of each key are input. Pressing [ILLU]+[ESC] causes a help menu to appear in A MODE or B MODE or causes a help message to appear. [HELP] 6 FUNCTION KEY Display · MODE A [MEAS] F.

Key Description F1 [MEAS] F1 [TARGET] [0 SET] [DISP] F2 F3 F4 [MODE] · MODE B [S.FUNC] [ANG SET] F5 Pressing this key one time measures the distance in normal mode (another measurement type can be selected by Initial Setting 2.) Pressing this key twice measures the distance in coarse mode (another measurement type can be selected by Initial Setting 2.) Toggles the target type between SHEET/PRISM/REFLECTRLESS Resets the horizontal angle to 0° 0' 0" by pressing twice. only V-325N, V-335N, V-323N Switches the display composition in the order "H.angle / H.dst. / V.dst." "H. angle / V.angle / S.dst." and , "H.angle / V.

angle / H.dst. / S.dst. / V.

dst." Switches the screen between MODE A and MODE B. F1 F2 [HOLD] [CORR] F3 F4 [MODE] F5 PowerTopoLite Special Functions Brings up the angle setting screen for setting angle-related parameters (H.ANGLE / %GRADE, H.ANGLE INPUT and R/L REVERSE). Pressing this key twice retains (holds) the horizontal angle shown on the display. Brings up the screen for changing the target constant, temperature. Pressure setting. Toggles the screen between MODE A and MODE B. 7 · Other functions [] F1 [] F2 [] F1 [] F2 [] F3 [] F4 [RETICLE] F3 [LCD] [ILLU] [CLEAR] [SELECT] F4 F5 F5 F5 Moves the cursor to the left.

Moves the cursor to the right. Goes back five items on the screen. Goes forward five items on the screen. Moves the cursor up. Moves the cursor down.

Changing the reticle illumination when pressing illumination key. Changing the LCD contrast when pressing illumination key. Changing the LCD illumination when pressing illumination key. Clear the figure. Open the selection window.

· The Function keys of each PowerTopoLite function are described at "2. ACCESSING POWERTOPOLITE" and at the each function. 8 DISPLAY COMBINATION OF MODE A OR MODE B Function F1 F2 F3 F4 F5 MODE A MEAS TARGET 0 SET DISP MODE MODE B S.FUNC ANG SET HOLD CORR MODE · Mode A or Mode B is switched by pressing [F5] [MODE]. ALPHANUMERIC INPUT The point name etc.

is input by the alphanumeric keys as following. Key [0] [1] [2] [3] [4] [5] [6] [7] [8] [9] [.] [+/-] Letter under key PQRS TUV WXYZ GHI JKL MNO ABC DEF Letter & figure order to input [@[.][_][-][:][/]][0] [P][Q][R][S][p][q][r][s][1] [T][U][V][t][u][v][2] [W][X][Y][Z][w][x][y][z][3] [G][H][I][g][h][i][4] [J][K][L][j][k][l][5] [M][N][O][m][n][o][6] _ [] [?][!][_][] [][\][&][7] [A][B][C][a][b][c][8] [D][E][F][d][e][f][9] [.,][:][;][#][()][+][-][*][/] [%]=[<][>] 9 1.

INTRODUCTION 1.1 Introduction Thank you for your first looks at PowerTopoLite by reading this manual. The PowerTopoLite is a user friendly data collection and calculation program for the PENTAX total station V-300 series. PowerTopoLite is developed based on PowerTopo, which is known as versatile on-board software for PENTAX ATS total station series. The optimum combination of PowerTopoLite and V-300 hardware makes PowerTopoLite as an easy and useful fieldwork tool. The icon based main menu offers you the following possibilities. · FILE MANAGER · MEASURE · VIEW AND EDIT · FREE STATIONING · STAKE OUT · CALCULATIONS · VIRTUAL PLANE MEASUREMENT · REMOTE DISTANCE MEASUREMENT · TRAVERSE · TRANSFER · PREFERENCE 10 1.2 Before using the PowerTopoLite manual · Memories in the instrument The series instrument incorporates not only the PowerTopoLite surveying programs as the Special function but also File manager and Data transfer programs. The internal memory in the instrument can store the maximum 16000 point's data in V-325, 30000 point's data in V-325N, V-335N and V-323N. · Relations between the Memory and each Function Function Measure Stake Out Point to Line Free Stationing Traverse VPM Read from the stored data SP, BSP SP, BSP, SOP SP, BSP, KP1, KP2 Each KP SP, BSP SP, BSP, Each KP Write to the stored data SP, BSP, FP (SD) SP, BSP, SOP, OP SP, BSP, KP1, KP2, OP Each KP, SP (CD) SP, FP (SD) SP, BSP, Each KP, CP (CD) Station point: SP Foresight point: Known point: KP End point: Conversion point: CP Crossing point: FP EP CRP Backsight point: Observation point: Surveyed data: BSP OP SD Stakeout point: Conversion data: SOP CD 11 · IH and PH IH stands for "Instrument Height" and PH stands for "Prizm Height" .



[You're reading an excerpt. Click here to read official PENTAX
V-325N user guide](http://yourpdfguides.com/dref/1319366)
<http://yourpdfguides.com/dref/1319366>

· The PowerTopoLite manual mainly describes the V-300 special functions, and the basic operations are described in the (basic) V-300 manual. And, therefore, refer to the V-300 basic manual regarding the V-300 general instrument operations. The PowerTopoLite screens vary with the selections of the "Preference". The factory default settings of the Preference are shown there. It is also possible to select "Process type" that takes over the functionality of "PowerTopoLite" or "Structure type" that takes over the functionality of our past product in "Action Method Selection". · The V-300 series instrument has a Job name of "PENTAX" as its default setting. And, therefore, each data is stored in the "PENTAX" unless another new Job name is created. When another Job name is created, each data is stored in the new Job name. · The input range of the X, Y and Z Coordinate is "-99999999.998" - "99999999.998". · The input range of the Instrument and Prism height is "-9999.998" - "9999.998". · The PC, PointCodeList, is added to the PN, Coordinates X, Y, Z and IH (PH or HI) and you can input your desired attributes for the point.

If you have PointCodeList in the job named "PointCodeList" you can easily select one of the PointCode from the list or, edit one of them after pressing [ENT]. Please, note that Point Code, which is saved in the other job can not be referred as a list. · There are two Coordinates types of Rectangular and Polar. The RO,VO,DO,TO offset and the remote measurement are possible when you select the Rectangular Coordinates. The RO,DO offset is possible when you select the Polar Coordinates.

· When you measure in EDM SETTINGS of COARSE TRACKING, the V-300 displays a distance value to two decimal places. However, distance data of polar coordinates are displayed by EDIT function to three decimal places even, and sent to four decimal place. So, "0" or "00" is added to the distance data after the third decimal point in COARSE TRACKING mode. For example Displayed value: 123.45 Displayed by EDIT: 123.450 Sent polar data: 123.4500 · Rectangular coordinates is displayed, stored, and sent to three decimal place even if in COARSE TRACKING or FINE MEASURE mode. · You can change the distance measurement mode during measuring operation by pressing the EDM key at the MEASURE and VPM functions. · The same Point Name of the plural polar points can be saved. 12 2.

ACCESSING POWERTOPOLITE 2.1 How to access PowerTopoLite To access the V-300 Special Functions of the PowerTopoLite, perform the following procedures. a. Press the Power (ON/OFF) key to view the V-300 start-up screen. b. It turns to Mode A screen. MODE A H. angle H.dst V.dst 123° 45' 25" MEAS TARGET 0 SET DISP MODE c.

Press the [F5][MODE] to view Mode B screen. MODE B H. angle H.dst V.dst 123° 45' 25" S.

FUNC ANG SET HOLD CORR MODE 13 d. Press [F1][S.FUNC] to view Functions of PowerTopoLite screen. PowerTopoLite FILE MEAS VIEW FREE PAGE e. Press [F5][PAGE] to view another Function combination of PowerTopoLite screen.

PowerTopoLite STAK CALC VPM RDM PAGE f. Press [F1][PAGE] to view another Function combination of PowerTopoLite screen. PowerTopREATE 3. SELECT 4. DELETE 5. ALL CLEAR BS CLEAR TO 123 · If a new Job is created, the new data are stored in this new Job. 19 3.3 Selection of a Job name Select 3. SELECT by pressing the down arrow key. FILE MANAGEMENT 1.

INFORMATION 2. CREATE 3. SELECT 4. DELETE 5. ALL CLEAR Press [ENT] to view JOB SELECTION screen. JOB SELECTION 1. JOB LIST SEARCH 2. JOB NAME SEARCH 3.3.1 Selection of a Job Select 1.

JOB LIST SEARCH and press [ENT] to view its screen. JOB LIST is a list of all stored Jobs. JOB LIST SEARCH 1. PENTAX 2. NERIMA 3.

TOKYO Select your desired Job name and press [ENT] to select. 20 3.3.2 Selection by a Job name input Select 2. JOB NAME SEARCH by pressing the down arrow of PowerTopoLite, it is possible to display Angle and Distance by switching the [F3] key.

When Remote mode is selected, Angle and Distance are also calculated according to the coordinates of the aiming point on real time. When Offset mode is selected, Angle and Distance are also calculated according to the coordinates where offset value is added. 25 4.1 Station setup [By Rectangular Coordinates]

Press [F2][MEAS] of the PowerTopoLite screen to view the MEASURE METHOD SELECTION screen. MEASURE METHOD SELECTION 1. RECTANGULAR COORD. 2. POLAR COORD. Select 1. RECTANGULAR COORD.

and press [ENT] to view the STATION POINT SETUP screen. STATION POINT SETUP 1. 2. 3. 4. 5. SAVE PN: X: Y: Z: IH: + 00000000.000m + 00000000.000m + 00000000.000m 0000.

000m LIST ACCEPT The / mark is used to scroll up / down. 6. PC is viewed by scrolling down. STATION POINT SETUP 2. 3.

4. 5. 6. SAVE X: Y: Z: IH: PC: + 00000000.000m + 00000000.

000m + 00000000.000m 0000.000m LIST ACCEPT 26 4.1.1 Point name, PN, input Press [ENT] to view the PN screen. The [ENT] is used for both accepting the selected choice and opening the input screen of the Coordinates values etc. PN 1. 2. 3. 4.

5. PN: X: Y: Z: IH: + 00000000.000m + 00000000.000m + 00000000.000m 0000.000m BS CLEAR TO 123 Input your desired point name by pressing keys, and after all Characters are input, press [ENT]. Four character selection methods are available. (Refer to the "13.3 Input method selection") 4.1.

2 Coordinates, X,Y, Z, IH, and PC input It goes 2. X coordinate automatically. X 1. PN: POT1 2. X: + 00000000.

000m 3. Y: + 00000000.000m 4. Z: + 00000000.000m 5.

IH: 0010.000m SAVE LIST ACCEPT 27 Press [ENT] to view the X coordinate input screen. Input X, Y and Z coordinates, Instrument height and PC as follows. Input your desired X coordinate value by pressing each keys. X 1. PN: POT 1 2. X: + 00000000.000m 3. Y: + 00000000.000m 4.

Z: + 00000000.000m 5. IH: 0000.000m CLEAR Y coordinate: Press [ENT] to view the Y coordinate input screen. Input your desired Y coordinate value by pressing keys. Y 1. PN: 2. X: 3. Y: 4. Z: 5.

IH: POT 1 + 00000000.000m + 00000002.000m + 00000000.000m 0000.000m CLEAR Z coordinate: Press [ENT] to view the Z coordinate input screen. Input your desired Z coordinate value by pressing each keys. Z 1. PN: 2. X: 3. Y: 4.

Z: 5. IH: POT 1 + 00000000.000m + 00000000.000m + 00000000.000m 0000.000m CLEAR 28 IH value: Press [ENT] to view the IH, Instrument height, screen. Input your desired IH value by pressing each keys. IH 1. PN: POT 1 2. X: + 00000000.

000m 3. Y: + 00000000.000m 4. Z: + 00000000.000m 5. IH: +0001.500m CLEAR PC, Point Code: Press [ENT] to view and input the PC, Point code, screen. If PointCode exists, you can easily select them from the list. Then after pressing [ENT], you can edit Point Code data. For using Point Code List, please refer to "4.

[You're reading an excerpt. Click here to read official PENTAX V-325N user guide](#)



<http://yourpdfguides.com/dref/1319366>

4 Point Code" . PC 2. X: 3. Y: 4. Z: 5.

IH: 6. PC: + 00000100.000m + 00000200.000m + 00000010.000m 0010.

000m CLEAR POINT CODELIST 1. 2. 3. 4. 5. ABC DEF GHI JKL MNO 29 After pressing [ENT], you can edit Point Code data. PC 2. X: 3. Y: 4. Z: 5.

IH 6. PC: + 00000100.000m + 00000200.000m + 00000010.000m 0010.000m TEST POI BS CLEAR TO 123 Input your desired PC name by pressing keys, and press [ENT] to view next screen. If "PROCESS TYPE" is selected in "Action method selection" after input/confirm PC data, the inputted POT1 data will automatically be stored in the memory. Then the panel "STATION POINT H.ANGLE SETUP" will be displayed. But, if "STRUCTURE TYPE" is selected in "Action method selection" it is necessary to press, [ACCEPT] to proceed next panel.

30 · [LIST] key All stored points can be displayed, deleted and searched as follows by pressing [F2][LIST]. Press the [F2][LIST] to view POINT SELECTION FROM THE LIST screen. POINT SELECTION FROM THE LIST 1 / 15 POT1 + 00000100.000m - 00000200.000m + 00000010.

000m FIND PN PN: X: Y: Z: DELETE Press [F1][DELETE] to view POINT DELETION screen. Press [F2][FIND PN] to view PN screen. POINT DELETION POT1 Do you really want to delete it? Press [ENT] to confirm. Press [ESC] to abort. PN 1.

PN* 2. X: 3. Y: 4. Z: + 00000000.000 m + 00000000.000 m + 00000000.000 m BS CLEAR TO 123 [ENT] to view POINT SELECTION FROM the LIST screen. POINT SELECTION FROM THE LIST 2 / 15 PNx POT2 Xx + 00000300.000 m Yx - 00000600.000 m Zx + 00000010.

000 m DELETE FIND PN 31 Press [ENT] to view STATION POINT SETUP screen. STATION POINT SETUP 1. PN: 2. X: 3. Y: 4. Z: 5. IH: SAVE LIST POT2 + 00000300.000 m - 00000600.000 m + 00000010.000 m 0001.

200 m ACCEPT 4.2 Station Orientation Press the [F1][ACCEPT] to view the STATION POINT H. ANGLE SETUP screen. Please, note that the rotation of the "H.angle" depends on the rotation setting of "Coordinate axis definition".

STATION POINT H. ANGLE SETUP H. angle XXX°XX'XX" INPUT 0 SET HOLD BSP 32 4.2.1 Station orientation Input the H.

angle by pressing [F2][INPUT], [F3][0SET] and [F4] [HOLD] or Reference point Coordinates by pressing [F5][BSP]. Pressing [F2][INPUT] Pressing [F5][BSP] H. ANGLE BSP SETUP 1. PN: 2. X: 3. Y: 4. Z: 5. PC CLEAR SAVE LIST H. angle XXX°XX'XX" + 00000100.000m + 000000310.

000m + 00000110.000m ACCEPT Press [ENT] to view the input window. Press [ENT] after entering the Horizontal angle. The AIM AT THE REFERENCE POINT screen is viewed when "1. ON" of "7. REQUEST AIMING" of "Preference" is selected and not viewed when "2. OFF" is selected. In case of that BSP Coordinates are inputted, this message is always viewed on the screen. AIM AT THE REFERENCE POINT. Aim at the reference point.

Press [ENT] when ready. ESC ENT Coordinates display and Angle & Distance display. Press the [ENT] at the STATION POINT H. ANGLE SETUP screen to view the MEASURE screen. STATION POINT SETUP MEASURE PN PH X Y Z HOLD BPS MEAS SAVE H.

angle XXX°XX'XX" X.XXX m INPUT 0 SET ME/SAVE EDIT PAGE 33 Press the [MEAS] to measure the Distance and display the Coordinates. 1) Press [F5][PAGE] twice to view [F3][ANG & DIST]. 2) Press [F3][ANG & DIST] to view [F3][COORD.] and Angle and Distance values.

3) Press [F3][COORD.] to view [F3][ANG&DIST] and Coordinates. Stakeout can be selected by pressing [F4][STAKEOUT]. MEASURE PN PH X Y Z EDM ANG. & DIST. PN PH H.angle V.angle H.dst PAGE X.XXX m + X.

XXX m + X.XXX m + X.XXX m TARGET ANG&DIST STAKEOUT X.XXX m XXX° XX' XX" YY° YY' YY" X.XXX m COORD DISP 4.3 Measuring Aim at the reference point and press [ENT] to view the MEASURE screen. Then, aim at the Target point and press the [F1][MEAS] to measure it. MEASURE PN PH X Y Z MEAS POT3 1.200 m + 373.205 - 73.

205 + 71.149 SAVE ME/SAVE EDIT PAGE Press [F3][ME/SAVE] to measure and save the measured data. Press [F2][SAVE] to save the measured data.

Press [F4][EDIT] to edit the PN, Point Name, PH, Prism Height and PC, Point Code. Input your desired Point name, Prism height and Point code.

Press [F5][ACCEPT] if the current PN, PH and PC are acceptable. If PointCode exists, you can easily select them from the list or edit one of them after pressing the [ENT]. For using Point Code List, please refer to "4.4 Point Code". 34 MEASURE 1.

PN: 2. PH: 3. PC: POT5 000.000 m XXXX ACCEPT 4.4 Point Code The PC, PointCodeList can be used for adding your desired attributes to Rect. and Polar data. If point codes are stored under the job named "PointCodeList", you can easily select one of the PointCode from the list or edit one of them after pressing [ENT]. Please, note that Point Code, which is saved in the other job can not be referred as a list. "PointCodeList" can be created by either using "5.2 Create the Rectangular Point" function or Importing "PointCodeList" file.

Making "PointCodeList": Create / select "PointCodeList" job using "3. FILE MANAGER" Then input point data . according to "5.2 Create the Rectangular Point" Input any value into "PN" field and leave . the X, Y, and Z field "0" And input PointCode data into "PC" field. . Importing "PointCodeList" file: PointCodeList can be used after importing it from external devices (ex. PC). After importing, it is stored in the internal memory of the instrument. To store user defined "PointCodeList" please carry out following procedure.

, Preparing "PointCodeList" file: Make a "PointCodeList.csv" file with reference to a sample "PointCodeList.csv" file that is contained in the "V-300 Supplement Disk" for the format. Please, note that the newly entered PointCode on the instrument is not added to the PointCodeList that is stored in the memory. In this case, edit "PointCodeList.

csv" separately. Contents of "PointCodeList.csv": 1,,PointCodeList, 31,,1,ABC,, , 31,,2,DEF,, , 31,,3,GHI,, , 31,,4,JKL,, , 31,,5,MNO,, , 31,,6,PQR,, , 31,,7,STU,, , 31,,8,VW,, , 31,,9,XYZ,, , 35 Format of the "PointCodeList" file Field 1 Description Record Type Ex. Line 1 1, Job record Field 2 No. , Job No. : (NA) , Point No.: (NA) Field 3 Name PointCodeList, Job Name (Fixed for "PointCodeList") . 2, Point Name (Shoul not duplicated and Max. 15 Character.) Field 4 Description , Field 5 Field 6 Field 7 Ex. Line 2 31, Coord. data record DEF, Point Code (Max. 15 Character.) , , Setting the PROTOCOL: Press the [F3][I/O] of the PowerTopoLite screen to view the TRANSFER screen. To check the communication setting, select the "4.

COMMUNICATION SETUP" in the "TRANSFER" screen and press [ENT] to view "COMM. SETTING SELECTION" screen.



[You're reading an excerpt. Click here to read official PENTAX](#)

[V-325N user guide](#)

<http://yourpdfguides.com/dref/1319366>

Then select "1. RECEIVE RECT.DATA" and set "1. BAUD RATE" to "1200", "6. XON/XOFF" to "OFF" for using "DL-01" "ON" for using "HYPER, TERMINAL". "7. PROTOCOL" to "OFF" "8. RECORD DELIMITER" to "CR+LF" and press [ACCEPT].

(cf."12.3.1 Receiving data setting") TRANSFER 1. RECEIVE RECT.

DATA 2. SEND RECT. DATA 3. SEND POLASR DATA 4. COMMUNICATION SETUP 36 Receive rect.

Data: After setting the parameters, select the "1. RECEIVE RECT. DATA" in the "TRANSFER" screen and press [ENT] to view "FORMAT SELECTION" screen. In this screen select "3.ExtCSV" to send PointCodeList.(cf. "1 Input from the PC") FORMAT SELECTION 1. DC1 2. CSV 3. EXTCSV The maximum point which can be received at a time is 1000 points.

After complete data transfer, number of received points is displayed. Press [ENT]. RECEIVING COMPLETED XXPOINT RECEIVED! If the name of job in the PointCodeList file (ex."1. PointCodeList") is same as current job and you want to overwrite or append, select "1. OVERWRITE" or "2. APPEND". If the name of job in the PointCodeList file (ex."1. PointCodeList") is different from current job or if you don't want overwrite or append when jobs names are same, select "3.

SAVE". Received data will be written into the internal memory of the instrument. RECEIVED DATA SAVING METHOD 1. OVERWRITE 2. APPEND 3. SAVE 37 4.5 Remote, Offset, Station, and H. angle function 4.5.1 Remote Press [F5][PAGE] to view another MEASURE menu.

Press [F1][REMOTE] once and then quickly press this key again to measure your desired point Coordinates by moving the telescope. The displayed Coordinates automatically change according to your aiming point. The Remote is a function of, so to speak, "Real-time offset" If a reference point or offset point is measured, the Coordinates of your aiming point are calculated based on the reference plane. There are three calculation methods of Cylindrical face, Fixed plane and Rotated plane. They are selected by the "Preference" Refer to "13.5 Remote method selection" . . The calculations are performed on the virtual planes. MEASURE PN PH X Y Z MEAS MEASURE PN PH X Y Z PAGE REMOTE POT3 X.

XXX m POT3 X.XXX m SAVE ME/SAVE EDIT OFFSET STATION H.ANGL PAGE To quit the Remote measurement, press [F1][REMOTE] twice again. 3. ROTATED REMOTE REFERENCE P. 1. CYLINDER 2. FIXED STATION POINT 38 Three type menus can be used by pressing [F5][PAGE]. Another is following menu. The target type can be selected by pressing [F2][TARGET].

MEASURE PN PH X Y Z EDM POT3 X.XXX m TARGET ANG&DIST STAKEOUT PAGE EDM settings can be selected by pressing [F1][EDM]. For example, change 1.PRIM. MEAS KEY (MEAS) to TRACK SHOT or TRACK CONT if you want to use tracking measurement with primary MEAS key (MEAS). EDM SETTINGS 1. PRIM. MEAS KEY: 2. SEC. MEAS KEY: 3.

MEAS MIN DISP. : 4. SHOT COUNT: 5. SHOT INPUT: MEAS. SHOT TRACK CONT COARSE 1 TIME 01 TIMES ACCEPT Coordinates display and Angle & Distance display 1) Press [F5][PAGE] twice to view [F3][ANG & DIST]. 2) Press [F3][ANG & DIST] to view [F3][COORD.] and Angle and Distance values. 3) Press [F3][COORD.] to view [F3][ANG&DIST] and Coordinates. MEASURE PN PH X Y Z EDM MEASURE PN PH H.

angle V.angle H.dst PAGE X.XXX m + X.XXX m + X.XXX m + X.XXX m TARGET ANG&DIST STAKEOUT X.XXX m XXX° XX' XX" YY° YY' YY" X.XXX m COORD DISP 39 4.5.

2 Offset Press the [F2][OFFSET] to view the OFFSETS screen. Offset enables you to work with Offsets. The following offsets are available. OFFSETS 1. RO:

2.

VO: 3. DO: 4. TO: 0000.000 m 0000.000 m 0000.

000 m 0000.000 m ACCEPT Press [ENT] to view the offset input window. Input the RO offset value by pressing keys. VO, DO and TO values are inputted in the same manner. RO 1. RO: 2. VO: 3. DO: 4. TO: +0000.000 m +0000.

000 m +0000.000 m +0000.000 m CLEAR After input "TO" value, press [ENT] to view the MEASURE screen. (Or press [ESC] then press [ACCEPT].) The offset values are added to X,Y and Z values. OFFSETS PN PH X Y Z REMOTE POT3 m + offset.....

. + offset....

.. + offset...

... OFFSET STATION H.ANGL PAGE The input value of offset is cleared when you save the surveying point and step forward to the next surveying point. 40 RO: Radial Offset (RO: On the horizontal plane. Offset P: Along the line of measurement, thus along the slope) Offset P: Offset Point Z Offset P P SP RO X.Y VO: Vertical Offset (Along the third axis) Z Offset P VO P SP X.Y DO: Distance Offset (Along the line of measurement, thus along the slope) Z DO P Offset P SP X.Y TO: Tangential offset (TO: On the horizontal plane, perpendicular to the horizontal line between Station and Point.

Offset P: Along the slope) X P TO SP Offset P Y 41 4.5.3 Station Press [F3][STATION] to return to STATION POINT SETUP screen. STATION POINT SETUP 1. PN: 2. X: 3. Y: 4. Z: 5. IH: SAVE + 00000000.000 m + 00000000.

000 m + 00000000.000 m 0000.0 m LIST ACCEPT 4.5.4 H.

angle Press [F4][H.ANGL] to return to STATION POINT H. ANGLE SETUP screen. STATION POINT H. ANGLE SETUP H.

angle xxx° xx' xx" INPUT 0 SET HOLD INVERS Press [ENT] to view the MEASURE screen. 42 4.6 Station setup [By Polar Coordinates] The same Point Name of the plural polar points can be saved. Press [F2][MEAS] of the PowerTopoLite screen to view the MEASURE METHOD SELECTION screen.

MEASURE METHOD SELECTION 1. RECTANGULAR COORD. 2. POLAR COORD. Select 2. POLAR COORD.

and press [ENT] to view the STATION POINT SETUP screen. STATION POINT SETUP 1. PN: 2. IH: 3. PC: 4. TEMP: 5. PRESS: SAVE 0000.000 m 27° C 994 hpa ACCEPT The / mark is used to scroll up / down. 6. PC is viewed by .

STATION POINT SETUP 2. IH: 3. PC: 4. TEMP: 5. PRESS: 6.

ppm* SAVE 0000.000 m 27° C 994 hpa ACCEPT 43 4.6.1 Point name, PN, input Press [ENT] to view the PN screen. PN 1.

PN: 2. IH: 3. PC: 4. TEMP: 5. PRESS: POT1 0000.000 m 27° C 994 hpa BS CLEAR TO 123 4.6.2 IH, TEMP, PRESS, ppm and PC input Input IH value. Press [ENT]. IH 1.

PN: 2. IH: 3. PC: 4. TEMP: 5. PRESS: 0000.000 m 27° C 994 hpa CLEAR Input the PC. Press [ENT] to view and input the PC, Point code, screen. If PointCode exists, you can easily select them from the list or edit one of them after pressing the [ENT]. For using Point Code List, please refer to "4.4 Point Code".

PC 1. PN: 2. IH: 3. PC: 4. TEMP: 5.

PRESS: 0000.000 m 27° C 994 hpa BS CLEAR TO 123 44 If "PROCESS TYPE" is selected in "Action method selection" the inputted point data will , be

stored in the memory with [SAVE]. Then the panel "STATION POINT H.ANGLE SETUP" will be displayed without pressing [ACCEPT]. But, if "STRUCTURE TYPE" is selected in "Action method selection" it is necessary to press , [ACCEPT] to proceed next panel.



[You're reading an excerpt. Click here to read official PENTAX
V-325N user guide](http://yourpdfguides.com/dref/1319366)

<http://yourpdfguides.com/dref/1319366>

TEMP Input the TEMP value. 1. PN: 2. IH: 3. PC: 4. TEMP: 5. PRESS: POT1 0001.200 m 27 °C 994 hpa CLEAR Press [ENT]. PRESS Input the PRESS value. 1.

PN: 2. IH: 3. PC: 4. TEM: 5. PRESS: POT1 0001.200 m 27 °C 994 hpa CLEAR Press [ENT]. ppm Input ppm value. 1. PN: 2. IH: 3. PC: 4. ppm: POT1 0000.000 m 16 ppm CLEAR TEMP, PRESS and ppm input depend on the "Initial setting 1" (ATM INPUT, ppm INPUT, NIL). 45 4.7 Station Orientation Press the [F5][ACCEPT] to view the STATION POINT H.

ANGLE SETUP screen. Input your desired H.angle. Please, note that the rotation of the "H.angle" depend on the rotation setting of "Coordinate axis definition".

STATION POINT H. ANGLE SETUP H. angle xxx° xx' xx" INPUT 0 SET HOLD INVERS · [INVERS] key If you want to calculate direction angle, Press [F5][INVERS] to jump to INVERSE function. Input SP as station point, EP as back sight point. INVERSE 1. SP 2. EP Result angle is set here automatically by pressing [ENT] at RESULT OF INVERSE screen. RESULT OF INVERSE H.dst V.dst S.

dst H.angle 0.0000m 0.0000m 0.0000m xx° xx' xx" ESC ENT 46 Press [ENT] after aiming back sight point. Aim at the reference point and press [ENT] to view the MEASURE screen. MEASURE PN PH H.angle V.angle S.dst MEAS POT3 1.

200 m xxx° xx' xx" xx° xx' xx" SAVE ME/SAVE EDIT PAGE 4.8 Measuring Then, aim at the Target point and press the [F1][MEAS] to measure the distance. MEASURE PN PH H.angle V.angle S.

dst MEAS POT3 1.200 m xxx° xx' xx" xxx° xx' xx" xx.xxx m SAVE ME/SAVE EDIT PAGE Press [F3][ME/SAVE] to measure and save the measured data. Press [F2][SAVE] to save the measured data. Press [F4][EDIT] to edit the PN, Point Name, PH, Prism Height and PC, Point Code.

Press [ENT] to view each input window by pressing up or down arrow key, and input your desired point name or prism height or point code. Press [F5][ACCEPT] if the current PN, PH and PC are acceptable. MEASURE 1. PN: 2. PH: 3. PC: POT5 000.000 m ACCEPT 47 PC, Point Code: Press [ENT] to view and input the PC, Point code, screen. If PointCode exists, you can easily select them from the list or edit one of them after pressing the [ENT]. For using Point Code List, please refer to "4.4 Point Code".

Press [F5][PAGE] to view another menu. MEASURE PN PH H.angle V.angle S.dst POT3 1.200 m xxx° xx' xx" xxx° xx' xx" xx.xxx m OFFSET STATION DISP PAGE MEASURE PN PH H.angle V.angle S.dst EDM POT3 1.

200 m xxx° xx' xx" xxx° xx' xx" xx.xxx m TARGET PAGE Station point setup can be changed by pressing [F3][STATION]. STATION POINT SETUP 1. PN: 2. IH: 0000.

000 m 3. PC: 4. TEMP* 27° C 5. PRESS* 994 hpa SAVE ACCEPT 48 EDM settings can be selected by pressing [F1][EDM]. For example, change 1. PRIM. MEAS KEY (MEAS) to TRACK SHOT or TRACK CONT if you want to use tracking measurement with primary MEAS key (MEAS). EDM SETTINGS 1. PRIM. MEAS KEY: 2. SEC. MEAS KEY: 3. MEAS MIN DISP. : 4. SHOT COUNT: 5.

SHOT INPUT: MEAS. SHOT TRACK CONT COARSE 1 TIME 01 TIMES ACCEPT 4.9 Offset RO: Radial Offset (RO: On the horizontal plane. Offset P: Along the line of measurement, thus along the slope) Offset P: Offset Point Z Offset P P SP RO X.Y DO: Distance Offset (Along the line of measurement, thus along the slope) Z DO Offset P P SP X.Y 49 Press the [F2][OFFSET] to view the OFFSET screen. Offset enables you to work with Offset. The following offset are available. OFFSETS 1. RO: 2.

DO: +0000.000 m +0000.000 m ACCEPT Press [ENT] to view the offset input window. Input the RO offset value by pressing each keys. DO values are inputted in the same manner.

RO 1. RO: 2. DO: +0000.000 m +0000.000 m CLEAR Press [ENT] and then [ACCEPT] to view the MEASURE screen.

The S.dst (slope distance) is adjusted by inputted offset value. OFFSET PN PH H.angle V.angle S.dst POT3 1.200 m xxx° xx' xx" xxx° xx' xx" OFFSET...

.. m OFFSET STATION DISP PAGE The input value of offset is cleared when you save the surveying point and step forward to the next surveying point. 50 5.

VIEW AND EDIT Stored data are displayed graphically, and the edit of the stored data is possible by this Function. The Z Coordinate (the height) of the point is ignored in the graphical display of the point data. Four menu items are available: · Graphical view · CREATE THE RECT. POINT · EDIT THE RECT.

DATA · EDIT THE POLAR DATA 5.1 Graphical View From the PowerTopoLite screen, press [F3][VIEW] to view its screen.

VIEW & EDIT 1. GRAPHICAL VIEW 2. CREATE THE RECT. POINT 3. EDIT THE RECT.

DATA 4. EDIT THE POLAR DATA Press [ENT] to view the GRAPHICAL VIEW screen. Points, Point names and their Graphics are displayed. The graphic is moved by pressing the arrow keys. The Graphics are not displayed when points are not stored.

Two or more points are needed. PAGE 51 Press the [F5][PAGE] to view another menu. 005BB 07AA DISP ZOOM ALL ZOOM IN ZOOM OUT PAGE [DISP]: Each Graphic is displayed as following order by pressing this key. Full Points Points + Line Points + Points names [ZOOM ALL]: Return to the ordinary Graphics size [ZOOM IN]: Enlarge the Graphics size. [ZOOM OUT]: Reduce the Graphics size. 5.2 Create the Rectangular Point VIEW & EDIT 1. GRAPHICAL VIEW 2. CREATE THE RECT. POINT 3.

EDIT THE RECT. DATA 4. EDIT THE POLAR DATA Select 2. CREATE THE RECT. POINT and press [ENT] to view the RECT. DATA EDIT screen. RECT. DATA EDIT 1. PN: 2. X 3.

Y 4. Z 5. PC: SAVE : + 00000000.000 m : + 00000000.000 m : + 00000000.

000 m LIST 52 Input the PN, X, Y, Z and PC. Press [ENT] to save them. RECT. DATA EDIT 1. PN: 2.

X: 3. Y: 4. Z: 5. PC: SAVE XXXXX + 000000XX.000 m + 000000XX.000 m + 000000XX.000 m XXXX LIST Press [F2][LIST] to view the saved points. POINT SELECTION FROM THE LIST 4 / 15 PN X Y Z DELETE x XXXXX x+ 000000XX.000 m x+ 000000XX.000 m x + 000000XX.

000 m FIND PN The first line of the screen shows now displayed point and the total number of points. Press [F1][DELETE] to delete your desired point. Press [F2][FIND PN] to find your desired point by the PN input. 53 5.3 Edit the Data VIEW & EDIT 1. GRAPHICAL VIEW 2. CREATE THE RECT. POINT 3. EDIT THE RECT. DATA 4.

EDIT THE POLAR DATA SAVE LIST [RECT. DATA] Select "3. EDIT THE RECT. DATA" and press [ENT] to view the RECT. DATA EDIT screen. RECT. DATA EDIT 4 / 15 PN x XXXXX Xx + 000000XX.000 m Yx + 000000XX.000 m Zx + 000000XX.000 m DELETE FIND PN Your desired points are deleted and found as described above.

After selecting desired point with arrow key, press [ENT] to view the RECT. DATA EDIT screen to edit. RECT. DATA EDIT 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE XXXXX + 000000XX.000 m + 000000XX.

000 m + 000000XX.000 m XXXX LIST 54 [POLAR DATA] Select 4. EDIT THE POLAR DATA and press [ENT] to view the POLAR.



[You're reading an excerpt. Click here to read official PENTAX V-325N user guide](http://yourpdfguides.com/dref/1319366)
<http://yourpdfguides.com/dref/1319366>

DATA EDIT screen. POLAR DATA EDIT 4 / 15 PN x TEMP x PRESS x ppm x XXXXX 25°C 1000hpa 13ppm FIND PN Your desired points are deleted and found as described above. After selecting desired point with arrow key, press [ENT] to view the POLAR DATA EDIT screen to edit. POLAR DATA EDIT 1.PN: 2.IH: 3.TEMPx 4.

PRESSx 5.ppmx SAVE XXXX XXXX.XXX m 25°C 1000hpa 13ppm LIST You can edit data and save it. 55 6. FREE STATIONING Point 2 coordinates Point 1 coordinates Point 3 coordinates IH SP coordinates Point 4 coordinates The Station point Coordinates is calculated from the plural known points. To gain the Coordinates, at least two H. angles and one distance or three H. angles are required. If not so, the error message of "Not enough data to Calculate!" 2 angles and 1 distance, 3 angles are required" appears. First, input the height of the IH, Instrument height.

56 6.1 Stationing by more than 3 known points 4 known points stationing (For example) Press [F4][FREE] of the PowerTopoLite screen to view the IH input screen. Input the IH value. IH 0001.500m CLEAR Aim at Point 1. Press [ENT] to view the KNOWN POINT COORD. SETUP screen. KNOWN POINT COORD. SETUP 1.PN: 2.

X: 3. Y: 4. Z: 5. PH: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT Press [ENT] to open the PN, X, Y, Z, IH and PC input window and input each. Then, press [ENT] and [ACCEPT] to view the MEASURE screen. MEASURE 1 PH H.

ANGLE V.ANGLE H.DST MEAS TARGET PNI EDIT DISP 57 Press [ENT] to view the ADD/CALC. SELECTION MENU screen. (Measuring is not needed. Just press [ENT].) ADD/CALC. SELECTION MENU Do you want to add more points ? Press [ADD] to add more point. Press [CAL] to calculate. ADD CALC Press the [F1][ADD] to view the KNOWN POINT COORD.

SETUP screen. Aim at Point 2, 3 and 4. In the same manner, input the values of Point 2, 3 and 4. KNOWN POINT COORD. SETUP 1.PN : 2. X: 3. Y: 4. Z: 5. PH: SAVE PN2 + 00000000.

000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT KNOWN POINT COORD. SETUP 1.PN : 2. X: 3. Y: 4. Z: 5. PH: SAVE PN3 + 00000000.

000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT KNOWN POINT COORD. SETUP 1.

PN : 2. X: 3. Y: 4. Z: 5. PH: SAVE PN4 + 00000000.

000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT 58 After entering values of PN4, press [ENT] twice to view the MEASURE and ADD/CALC SELECTION MENU. ADD/CALC. SELECTION MENU Do you want to add more points ? Press [ADD] to add more point. Press [CAL] to calculate. ADD CALC Press the [F5][CALC] to view the RESULT COORD. OF STATIONING screen. The Station Coordinates is displayed.

Result coordinates of free stationing can be saved for Station setup after pressing [ACCEPT]. Horizontal angle of the result coordinates will be affected to the Station point for measuring. RESULT COORD. OF STATIONING PN HA X Y Z NEXT 0° 00' 05" COMPARE ACCEPT Press [F1][NEXT] to view KNOWN POINT COORD. SETUP screen. KNOWN POINT COORD. SETUP 1.PN : 2. X: 3. Y: 4.

Z: 5. PH: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.

000 m LIST ACCEPT 59 DEVIATIONS OF THE POINT: Four points or more points are needed to view this. Press [ENT] to view the DEVIATIONS OF THE POINT screen. The deviations of X, Y and Z coordinate of each point are displayed. For each point, you can decide if you want to accept or reject the point. DEVIATIONS OF THE POINT PN: Current point number dX: Deviation on the X value dY: Deviation on the Y value dZ: Deviation on the Z value PN d HA dX dY dZ REJECT POT4 0° 00' 05" + 0.

000 m + 0.000 m + 0.000 m COMPARE ACCEPT 6.2 Stationing by two known points (One point must be measured at least to gain the Station Coordinates.) Press [F4][FREE] of the PowerTopoLite screen to view the IH input screen. Input the IH value. IH 0001.500m CLEAR Aim at the Point 1. Press [ENT] to open the PN, X, Y, Z, PH and PC input window and input each value. KNOWN POINT COORD.

SETUP 1. PN : 2. X: 3. Y: 4. Z: 5. PH: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT 60 Then, press [ENT] to view the MEASURE screen.

MEASURE 1 PH H.angle V.angle H.dst MEAS POT1 TARGET EDIT DISP Press [ENT] to view the ADD/CALC. SELECTION MENU screen.

ADD/CALC. SELECTION MENU Do you want to add more points ? Press [ADD] to add more points. Press [CAL] to calculate. ADD CALC Press [F1][ADD] to view the KNOWN POINT COORD. SETUP screen.

In the same manner, aim at the Point 2. Press [ENT] to open the PN, X, Y, Z, PH and PC input window and input each value. KNOWN POINT COORD. SETUP 1. PN : 2. X: 3. Y: 4. Z: 5. PH: SAVE + 00000000.000 m + 00000000.

000 m + 00000000.000 m 0000.000 m LIST ACCEPT 61 Then, press [ENT] and [ACCEPT] to view the MEASURE screen. MEASURE 1 HI H.angle V.angle H.dst MEAS POT1 TARGET EDIT DISP Press the [F1][MEAS] to measure the distance. Press [ENT] to view the ADD/CALC. SELECTION MENU screen. ADD/CALC.

SELECTION MENU Do you want to add more points ? Press [ADD] to add more points. Press [CAL] to calculate. ADD CALC Press [ENT] to view the RESULT COORD. OF STATIONING. The Station Coordinates is displayed.

Result coordinates of free stationing can be saved for Station setup after pressing [ACCEPT]. Horizontal angle of the result coordinates will be affected to the Station point for measuring. RESULT COORD. OF STATIONING PN HA X Y Z NEXT RESULT COORD. OF STATIONING PN HA dS XXX° XX' XX" XXXX.

XXX m XXXX.XXX m XXXX.XXX m COMPARE ACCEPT XX° XX' XX" X.XXX m NEXT Press [COMPARE] to view the DEVIATIONS OF THE POINT screen. The dS field shows the difference in distance RDM and calculated distance. 62 NOTE: P3 P1 S1 90° P4 New point Fig. 1 P6 P5 New point Fig. 2 P2 S2 P1 P2 P3 As illustrated Fig. 1, It is optimal to chooses the known points P1 and P3. The angle of two known points should set up a instrument so that it may become 90 degrees.

Please install a instrument in a position where distance s1 and s2 becomes as same the length as possible. The accuracy of a calculation result falls as follows, 1) When P1 and P2 are chosen for a known point. (The interior angle between known points is extremely small) 2) When P4 and P6 are chosen for a known point. (The interior angle between known points is extremely large) 3) When the distance from a new point to a known point is extremely short or extremely long. 4) When a new point (station point) and three or more known points are arranged on the same circumference. (Refer to Fig. 2) When searching for a new point by a FREESTATION and surveying by installing a instrument in the point, accuracy may not be stabilized compared with the case where a instrument is installed on a known point. In the work which needs a high-precision survey, we cannot recommend you. 63 7. STAKE OUT Stored da From the known Station point and Direction angle, the Coordinates for the Stakeout are obtained.



[You're reading an excerpt. Click here to read official PENTAX
V-325N user guide](http://yourpdfguides.com/dref/1319366)
<http://yourpdfguides.com/dref/1319366>

7.1 Stake out BSP Stake out Point Station Point Press [F1][STAK] to view the STAKEOUT METHOD SELECTION screen. STAKEOUT METHOD SELECTION 1. STAKE OUT 2. POINT TO LINE 64 Select 1.

STAKE OUT and press [ENT] to view the STATION POINT SETUP screen. STATION POINT SETUP 1. PN: 2. X: 3. Y: 4.

Z: 5. IH: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT Open the PN, X, Y, Z, IH and PC input window and input each. Save the data by pressing [F1][SAVE]. Press [ENT] to view STATION POINT H ANGLE SETUP screen. STATION POINT H. ANGLE SETUP H.

angle 123° 45' 25" INPUT 0 SET HOLD BSP Input the H. angle by pressing [F2][INPUT], [F3][0SET] and [F4] [HOLD] or Backsight Coordinates by pressing [F5][BSP]. Pressing [F2][INPUT] Pressing [F5][BSP] H. ANGLE BSP SETUP 1. PN: 2. X: 3. Y: 4. Z: 5. PC CLEAR SAVE LIST H. angle XXX°XX'XX" + 00000000.

000m + 00000000.000m + 00000000.000m ACCEPT 65 Press [ENT] to view the STAKEOUT COORD. SETUP screen. Open the PN, X, Y, Z, PH and PC input window and input each.

STAKEOUT COORD. SETUP 1.PN : 2. X: 3. Y: 4.

Z: 5. PH: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT Save the data by pressing [F1][SAVE]. Press [ENT] or [ACCEPT] to view the STAKEOUT screen. STAKEOUT PN PH D H.angle D V.angle D H.

dst DX DY DZ MEAS TARGET POT4 X. XXX m XXX° XX' XX" XX° XX' XX" NEXT PAGE Aim at the Stake out point and press the [F1][MEAS] to begin the Stake Out. Deviation of each value is displayed. Form of the screen to display deviation of the Stake Out can be changed by the selections of the "I3.6 Compare method selection" in "PREFERENCE" setting. To display all information at once, select "ALL IN ONE INFO." To display information with larger character, select "LARGE CHARACTER" . STAKEOUT PN PH D H.angle D V.angle D H.

dst DX DY DZ MEAS TARGET STAKEOUT POT4 X. XXX m XXX° XX' XX" XX° XX' XX" -X.XXX m +X. XXX m -X. XXX m +X.

XXX m NEXT PAGE PN PH D H.angle D V.angle D H. dist. POT4 X.

XXX m XXX° XX' XX" - X° XX' XX" -X.XXX m MEAS TARGET SCROLL NEXT PAGE 66 Press [F5][PAGE] to view another screen. STAKEOUT PN PH D H.angle D V.angle D H.dst DX DY DZ RECT. M STATION STAKEOUT POT4 X. XXX m XXX° XX' XX" XX° XX' XX" -X.XXX m +X. XXX m -X.

XXX m +X. XXX m H. ANGLE PAGE PN PH D H.angle D V.angle D H. dist. POT4 X. XXX m XXX° XX' XX" - X° XX' XX" -X.XXX m RECT.M STATION H. ANGLE PAGE If you select "LARGE CHARACTER" the information is shown with two screens and these , screens and the Graphics screen can be switched by [ENT]. STAKEOUT PN PH DX DY DZ MEAS POT4 X. XXX m +X. XXX m - X. XXX m +X.

XXX m TARGET SCROLL NEXT PAGE 67 Press the [F4][NEXT] to carry out staking out for the next point. STAKEOUT COORD. SETUP 1. PN: 2. X: 3. Y: 4. Z: 5. PH: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT Press the [F1][RECT.M] to view the MEASURE screen. MEASURE PN PH X Y Z MEAS SAVE ME/SAVE EDIT PAGE 68 Refer to the "4.5 Remote, Offset, Station, and H.

angle" function. Press the [F5][PAGE] to view the other MEASURE menu. MEASURE PN PH X Y Z REMOTE OFFSET STATION H. ANGLE PAGE 7.2 Point to line A Int. P B P Stake out Point: P Station Point You have to select the point A and B. The distance between the two points A and B has to be at least 1 m. The two points A and B define a line and during Stake out, PTL shows the deviations from the Stake out point, P, to the line A-B. (At above STAKEOUT screen) Select 2. POINT TO LINE and press [ENT] to view STATION POINT SETUP screen.

69 Open the PN, X, Y, Z, IH and PC input window and input each. Press [ENT] to view the STATION POINT H. ANGLE SETUP screen. STATION POINT SETUP 1. PN 2.

X: 3. Y: 4. Z: 5. IH: SAVE PO1 + 00000000.000 m + 00000000.

000 m + 00000000.000 m 000.000 m LIST ACCEPT Input the H. angle. STATION POINT H ANGLE SETUP H. angle 123° 45' 25" INPUT 0 SET HOLD BSP Aim at the reference point and press [ENT] to view POINT A COORD.SETUP screen. POINT A COORD. SETUP 1. PN 2.

X: 3. Y: 4. Z: 5. PH: SAVE PO2 + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT 70 Open the PN, X, Y, Z, PH and PC input window and input each of the Point A and press [ENT]. Open the PN, X, Y, Z, PH and PC input window and input each of the Point B. POINT B COORD.

SETUP 1. PN 2. X: 3. Y: 4. Z: 5.

PH: SAVE PO3 + 00000000.000 m + 00000000.000 m + 00000000.000 m 0000.000 m LIST ACCEPT Press [ENT] to view the POINT TO LINE screen.

POINT TO LINE A -> B SOP Int.P Int.P +0.000 m -> A-B ->A ->B MEAS TARGET NEXT PAGE Press [F1][MEAS] to measure. Each distance is displayed. POINT TO LINE A->B SOP Int.P Int.P -> A-B ->A ->B MEAS TARGET NEXT PAGE 71 A P B A-B Distance between Point A and B. This is always positive. Distance between Int.

P and P. This is positive or negative as shown below. Int.P: Intersection point P: SOP, Stake Out Point A Int. P - B P + Int. P A Distance between Int. P and A. This is positive or negative. + A Int. P B P Int.

P B Distance between Int. P and B. This is positive or negative. A Int. P B + P 72 The arrow direction is positive.

Press [ENT] to display the Graphics. Graphics are moved by each arrow key. B S P PAGE Press the [F5][PAGE] to change the menu. Refer to the Graphical view of the "5. VIEW AND EDIT" function concerning each key function.

DISP ZOOM ZOOM IN ZOOM OUT PAGE 73 8. CALCULATIONS The following calculations are available: · COGO · 2D SURFACE · 3D SURFACE & VOLUME · REM 8.1 COGO The following COGO functions are available: · Inverse · Points Coordinates · Circle Radius · Line-Arc Intersection · Line-Line Intersection · Arc-Arc Intersection · Distance Offset · Point Distance Offset · Arc Distance Offset 8.1.1 Inverse EP: End Point SP: Start Point From the given two points Coordinates, the Direction angle and distance are calculated. Input: Coordinates of two points Output: Horizontal distance, Vertical distance between the points and Direction of the line defined by the two points 74 From the PowerTopoLite screen, press [F2][CALC] to view CALCULATION screen. CALCULATION 1. COGO 2. 2D SURFACE 3. 3D SURFACE & VOLUME 4.

@@INVERSE 2. POINT COORDINATES 3. CIRCLE RADIUS 4. LINE-ARC INTERSECTION 5. LINE-LINE INTERSECTION Select the 1. INVERSE and press [ENT] to view INVERSE screen. INVERSE 1. SP 2. EP 75 A. Start point input (Input the PN, Coordinates and PC of the Start point.) Select 1. SP and press [ENT] to view SP screen. SP 1.

[You're reading an excerpt. Click here to read official PENTAX](#)



[V-325N user guide](#)

<http://yourpdfguides.com/dref/1319366>

PN: 2. X: 3.

Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.

000 m LIST ACCEPT · [LIST] key All stored points can be displayed as follows by pressing [F2][LIST]. Press [F2][LIST] to view POINT SELECTION FROM THE LIST screen. POINT SELECTION FROM THE LIST 1 / 15 POT1 + 00000000.000 m + 00000000.000 m + 00000000.000 m FIND PN 1. PN: 2. X: 3. Y: 4. Z: DELETE Press [ENT] to open the SP input screen.

SP 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT 76 Input your desired point name by pressing each keys, and press [ENT] to view START PT 1 screen. Press [ENT] to open the X coordinate input screen.

X 1. PN: 2. X: 3. Y: 4. Z: 5.

PC: POT1 + 00000000.000 m + 00000000.000 m + 00000000.000 m CLEAR Input your desired value by pressing each keys and press [ENT] to go Y coordinate. SP 1.

PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT Press [ENT] to open the Y coordinate input screen and input. Y 1. PN: 2.

X: 3. Y: 4. Z: 5. PC: POT1 + 00000000.000 m + 00000000.000 m + 00000000.000 m CLEAR 77 Press [ENT] to open the Z coordinate input screen and input. Z 1. PN: 2. X: 3.

Y: 4. Z: 5. @@PN: 2. X: 3. Y: 4.

Z: 5. @@@@PN: 2. X: 3. Y: 4. Z: 5.

@@PN: 2. X: 3. Y: 4. Z: 5. @@@@SP 2. EP 79 EP 1. PN: 2. X: 3. Y: 4. Z: 5.

@@@@COGO 2. 2D SURFACE 3. 3D SURFACE & VOLUME 4. @@INVERSE 2. POINT COORDINATES 3. CIRCLE RADIUS 4. LINE-ARC INTERSECTION 5. LINE-LINE INTERSECTION 8.1.2.

1 Point Coordinates, Distance and H. angle Select the 2. @@CO 2. DI 3. BE 81 Select 1.

CO and press [ENT] to view CO screen. CO 1. PN: 2. X: 3. Y: 4.

Z: 5. @@PN: 2. X: 3. Y: 4. Z: 5. PC: + 00000000.000 m + 00000000.000 m + 00000000.000 m BS CLEAR TO 123 Input your desired point name by pressing keys and press [ENT] to view X screen. CO 1.

PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT 82 Press [ENT] to open the X coordinate input screen. X 1. PN: 2.

X: 3. Y: 4. Z: 5. @@PN: 2. X: 3.

Y: 4. Z: 5. @@PN: 2. X: 3. Y: 4.

Z: 5. @@PN: 2. X: 3. Y: 4. Z: 5. @@PN: 2. X: 3. Y: 4. Z: 5. @@ANGLE input window.

H. @@@@CALCULATE screen. @@@@CALCULATE 1. PN: 2. X: 3. Y: 4. Z: 5. @@@@angle In the same manner, the values of Distance and H. @@CO 2. DI 3.

BE Select 2. @@@@ANGLE input window. H. @@@@CALCULATE screen. @@@@CALCULATE 1.

PN: 2. X: 3. Y: 4. Z: 5. @@If all items are OK, press [F5][ACCEPT] to save them.

8.1.2.3 H. angle input In the same manner, only the value of H. @@CO 2. DI 3. BE 87 Select 3. BE and press [ENT] to view H. ANGLE screen.

Input H. angle and press [ENT] to view the RESULT OF COORD. CALCULATE screen. H. ANGLE 000°00'00" CLEAR @@@@CALCULATE 1. PN: 2. X: 3. Y: 4. Z: 5. @@@@You can store calculated center point.

@@@@COGO 2. 2D SURFACE 3. 3D SURFACE & VOLUME 4. @@INVERSE 2. POINT COORDINATES 3.

CIRCLE RADIUS 4. LINE-ARC INTERSECTION 5. LINE-LINE INTERSECTION 89 Select the 3. CIRCLE RADIUS and press [ENT] to view CIRCLE RADIUS screen. CIRCLE RADIUS 1.

P1 2. P2 3. P3 Select 1. P1 and press [ENT] to view P1 screen. P1 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.

000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT Input PN (Point Name), X, Y, Z, and PC (Point Code) of P1 point or import from the memory of rectangular coordinate as P1 by [F2][LIST]. If you finish the input of P1 value, press [F5][ACCEPT]. Then you go to P2 input screen. P2 1. PN: 2. X: 3. Y: 4. Z: 5.

PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT 90 Input P2 data like input of P1. If you finish the input of P2, press [F5][ACCEPT].

Then you go to P3 input screen. P3 1. PN: 2. X: 3. Y: 4.

Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT If you finish the input of P3, press [F5][ACCEPT]. Then you go to RESULT OF CIRCLE RADIUS screen. You can see the coordinates of center point of the arc and the radius of the arc. RESULT OF CIRCLE RADIUS X Y Z RADIUS +0.000m +0.000m +0.

000m +0.000m ESC ENT Press [F5][ENT] to save the coordinates of center point. RESULT OF COORD. CALCULATE 1. PN: 2. X: 3. Y: 4. Z: 5. PC: + XXXXXXXX.XXX m + XXXXXXXX.

XXX m + XXXXXXXX.XXX m ACCEPT The PN, X, Y, Z and PC are viewed and can be edited. If all items are OK, press [F5][ACCEPT] to save them. 91 8.1.4 Line-Arc intersection Point1 Point 2 SP EP Center P Radius Two intersection points of one line and circle are calculated by this function. The line is drawn by SP and EP. The circle is drawn by center point and radius. You can store two possible intersection points. Input: Line: start point and end point Arc: center point and radius Output: Two possible intersection points From the PowerTopoLite screen, press [F2][CALC] to view the CALCULATION screen.

CALCULATION 1. COGO 2. 2D SURFACE 3. 3D SURFACE & VOLUME 4. REM 92 Select 1. COGO and press [ENT] to view the COGO screen. COGO 1.

INVERSE 2. POINT COORDINATES 3. CIRCLE RADIUS 4.

LINE-ARC INTERSECTION 5. LINE-LINE INTERSECTION Select the 4. LINE-ARC INTERSECTION and press [ENT] to view LINE-ARC INTERSECTION screen. LINE-ARC INTERSECTION 1. SP 2. EP 3. CP 4. R Select 1. SP and press [ENT] to view SP screen. SP 1.

PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.

000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT Input PN (Point Name), X, Y, Z, and PC (Point Code) of SP point or import from the memory of rectangular coordinate as SP by [F2][LIST]. 93 If you finish the input of SP value, press [F5][ACCEPT]. Then you go to EP input screen.

EP 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT Input EP value like an input of SP. If you finish an input of P2, press [F5][ACCEPT].

Then you go to CP input screen. CP 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT If you finish the input of CP value, press [F5][ACCEPT].

Then you go to RADIUS input screen. RADIUS 0000.000m CLEAR If you finish the input of RADIUS, press [ENT]. Then you go to RESULT OF LINE-ARC INTERSECTION screen. 94 You can see the coordinates of one of intersection point.

You can switch to one more intersection point by pressing [F3][ONE MORE]. RESULT OF LINE-ARC INTERSECT. X Y Z +0.000m +0.000m +0.000m ESC ONE MORE ENT Press [F5][ENT] to save an intersection point. RESULT OF COORD. CALCULATE 1. PN: 2. X: 3. Y: 4. Z: 5. PC: +XXXXXXXX.XXX m + XXXXXXXX.XXX m + XXXXXXXX.

XXX m ACCEPT The PN, X, Y, Z and PC are viewed and can be edited. If all items are OK, press [F5][ACCEPT] to save them. 95 8.1.5 Line-Line intersection Intersection P S2 E1 S1 E2 The intersection point of two lines drawn by given two points is calculated by this Function. First line: Start point and End point Second line: Start point and End point Output: Intersection point between the two lines From the PowerTopoLite screen, press the [F2][CALC] to view the CALCULATION screen. Input: CALCULATION 1. COGO 2.



[You're reading an excerpt. Click here to read official PENTAX](#)

[V-325N user guide](#)

<http://yourpdfguides.com/dref/1319366>

2D SURFACE 3. 3D SURFACE & VOLUME 4.

REM Press 1. COGO to view the COGO screen. COGO 1. INVERSE 2. POINT COORDINATES 3.

CIRCLE RADIUS 4. LINE-ARC INTERSECTION 5. LINE-LINE INTERSECTION 96 Select 5. LINE-LINE Intersection and press [ENT] to view its screen
LINE-LINE INTERSECTION 1. S1 2.

E1 3. S2 4. E2 Select 1. S1 and press [ENT] to view its screen. S1 1. PN: 2. X: 3. Y: 4. Z: 5. @@PN: 2.

X: 3. Y: 4. Z: 5. @@PN: 2. X: 3. Y: 4. Z: 5. @@PN: POI1 2. X: + 00000000.000 m 3.

Y: + 00000000.000 m 4. Z: + 00000000.000 m 5. @@PN: 2.

X: 3. Y: 4. Z: 5. @@PN: POT1 2. X: + 00000000.

000 m 3. Y: + 00000000.000 m 4. Z: + 00000000.000 m 5. @@PN: POT1 2. X: + 00000000.000 m 3. Y: + 00000000.000 m 4.

Z: + 00000000.000 m 5. @@PN: POT1 2. X: + 00000000.000 m 3. Y: + 00000000.000 m 4. Z: + 00000000.000 m 5. @@@@PN: 2.

X: 3. Y: 4. Z: 5. @@CALCULATE 1. PN: 2.

X: 3. Y: 4. Z: 5. @@@@You can store two possible intersection points. @@COGO 2.

2D SURFACE 3. 3D SURFACE & VOLUME 4 .REM Select 1. COGO and press [ENT] to view the COGO screen. COGO 5. LINE-LINE INTERSECTION 6.
ARC-ARC INTERSECTION 7. DISTANCE OFFSET 8. POINT DISTANCE OFFSET 9. ARC DISTANCE OFFSET Select the 6.

ARC-ARC INTERSECTION and press [ENT] to view ARC-ARC INTERSECTION screen. ARC-ARC INTERSECTION 1. C1 2. R1 3. C2 4. R2 101 Select 1. C1
and press [ENT] to view C1 screen. C1 1. PN: 2. X: 3.

Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.

000 m LIST ACCEPT C1 (Center 1) point is center point of Arc 1. Input PN (Point Name), X, Y, Z, and PC (Point Code) of C1 point or import from the
memory of rectangular coordinate as C1 by [F2][LIST]. If you finish the input of C1 value, press [F5][ACCEPT]. Then you go to R1 input screen. R1 000.
000m CLEAR Input the radius of Arc1 as R1 value. If you finish the input of R1, press [F5][ACCEPT]. Then you go to C2 input screen. C2 1. PN: 2. X: 3. Y:

4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.

000 m + 00000000.000 m LIST ACCEPT 102 C2 (Center 2) point is center point of Arc 2. Input PN (Point Name), X, Y, Z, and PC (Point Code) of C2 point or
import from the memory of rectangular coordinate as C2 by [F2][LIST]. If you finish the input of C2 value, press [F5][ACCEPT]. Then you go to R2 input
screen. R2 000.000m CLEAR Input the radius of Arc 2 as R2 value. If you finish the input of R2, press [ENT]. Then you go to RESULT OF ARC-ARC
INTERSECTION screen. You can see the coordinates of one of intersection point.

You can switch to one more intersection point by pressing [F3][ONE MORE]. RESULT OF ARC-ARC INTERSECT. X Y Z +0.000m +0.000m +0.

000m ESC ONE MORE ENT Press [F5][ENT] to save one of intersection point. 103 RESULT OF COORD. CALCULATE 1. PN: 2. X: 3.

Y: 4. Z: 5. PC: + XXXXXXXX.XXX m + XXXXXXXX.XXX m + XXXXXXXX.XXX m ACCEPT The PN, X, Y, Z and PC are viewed and can be edited. If all
items are OK, press [F5][ACCEPT] to save them. 8.1.7 Distance offset Offset P Offset EP (-) new Point SP (+) Distance Offset P Offset distance of new point
to the line and distance of start point to new point are displayed.

Also new Point on the line is calculated by point of start, end, and offset. You can store the new point. Input: line: start point (SP) and end point (EP) offset
point (OP) Output: new point offset of new point from the line (moving in the direction from start point to end point, right is positive, left is negative) distance
of new point from start point 104 From the PowerTopoLite screen, press [F2][CALC] to view the CALCULATION screen. CALCULATION 1. COGO 2. 2D
SURFACE 3. 3D SURFACE & VOLUME 4 .REM Select 1. COGO and press [ENT] to view the COGO screen. COGO 5.

LINE-LINE INTERSECTION 6. ARC-ARC INTERSECTION 7. DISTANCE OFFSET 8. POINT DISTANCE OFFSET 9. ARC DISTANCE OFFSET Select the
7.

DISTANCE OFFSET and press [ENT] to view DISTANCE OFFSET screen. DISTANCE OFFSET 1. SP 2. EP 3. OP 105 Select 1.

SP and press [ENT] to view SP screen. SP 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT
Input PN (Point Name), X, Y, Z, and PC (Point Code) of SP point or import from the memory of rectangular coordinate as SP by [F2][LIST].

If you finish the input of SP value, press [F5][ACCEPT]. Then you go to EP input screen. EP 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m +
00000000.000 m + 00000000.

000 m LIST ACCEPT Input EP data like input of SP. If you finish the input of EP, press [F5][ACCEPT]. Then you go to OP input screen. OP 1. PN: 2.

X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.000 m + 00000000.

000 m + 00000000.000 m LIST ACCEPT 106 If you finish the input of OP, press [F5][ACCEPT]. Then you go to RESULT OF DISTANCE OFFSET screen.

You can see the coordinates of new point on the line, offset distance of new point to the line and distance of new point to start point. RESULT OF DISTANCE
OFFSET X Y Z DISTANCE OFFSET ESC +0.000m +0.000m +0.000m +0.000m +0.000m ENT Press [F5][ENT] to save the coordinates of new point.

RESULT OF COORD. CALCULATE 1. PN: 2. X: 3. Y: 4. Z: 5. PC: + XXXXXXXX.XXX m + XXXXXXXX.XXX m + XXXXXXXX.XXX m ACCEPT The PN, X,
Y, Z and PC are viewed and can be edited.

If all items are OK, press [F5][ACCEPT] to save them. 107 8.1.8 Point distance offset New Offset Point OD (-) EP SP (+) New Offset Point DI New offset
point is calculated by inputting distance from start point and offset from line. Input: line: start point and end point distance from start point (DI) offset from
the line (OD) (moving in the direction from start point to end point, right is positive, left is negative) Output: new point From the PowerTopoLite screen, press
[F2][CALC] to view the CALCULATION screen.

CALCULATION 1. COGO 2. 2D SURFACE 3. 3D SURFACE & VOLUME 4. REM 108 Select 1.

COGO and press [ENT] to view the COGO screen. COGO 5. LINE-LINE INTERSECTION 6. ARC-ARC INTERSECTION 7. DISTANCE OFFSET 8. POINT
DISTANCE OFFSET 9. ARC DISTANCE OFFSET Select the 8. POINT DISTANCE OFFSET and press [ENT] to view POINT DISTANCE OFFSET screen.
POINT DISTANCE OFFSET 1. SP 2.

EP 3. DI 4. OD Select 1. SP and press [ENT] to view SP screen. SP 1. PN: 2. X: 3. Y: 4. Z: 5. PC: SAVE + 00000000.

000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT Input PN (Point Name), X, Y, Z, and PC (Point Code) of SP point or import from the memory of
rectangular coordinate as SP by [F2][LIST]. 109 If you finish the input of SP value, press [F5][ACCEPT]. Then you go to EP input screen.

EP 1. PN: 2. X: 3. Y: 4. Z: 5.

PC: SAVE + 00000000.000 m + 00000000.000 m + 00000000.000 m LIST ACCEPT Input EP data like input of SP. If you finish the input of EP, press [F5][ACCEPT]. Then you go to DISTANCE input screen. DISTANCE 0000.000m CLEAR Input DI (Distance from SP to point on the line). If you finish the input of DI, press [F5][ACCEPT]. Then you go to OFFSET input screen.

OFFSET 0000.000m CLEAR 110 Input OD (Offset distance from the line to offset point). If you finish the input of OD, press [F5][ACCEPT].



[You're reading an excerpt. Click here to read official PENTAX](#)

[V-325N user guide](#)

<http://yourpdfguides.com/dref/1319366>