

DCC-1 Digital Compass/Clinometer

The DCC-1 is the smallest, lightest and most accurate instrument for measuring of horizontal and vertical Angles. The DCC-1 is small enough to fit in your pocket, and packed with the latest digital technology.

- Extremely low power consumption
- Rugged ABS plastic housing
- Durable and reliable
- Lightweight - only 1 oz. (1.5 oz. w/batteries)
- Single-handed operation
- Adjustable declination
- Built-in ±10° horizontal compensation
- Backlit display
- Easy one-button operation.

Sighting Using The DCC-1

Hold the DCC-1 with the button facing upward for all readings. Both eyes should be used and kept open when sighting, using the right eye to read the display, and the left to sight the target. While this method may feel awkward in the beginning, it becomes comfortable with practice.

Functions

Choose operating functions by pressing the button the required number of times according to the chart:

Press Button	Display	Operation	Menu/Function
1X	C°	Compass (0 - 359°)	Compass Mode
2X	Ang	Angle Measuring (-90.0 - +90.0) Note: You can also enter Angle mode directly from Compass mode by pressing and holding the button for 2 seconds	Angle Mode
3X	SEt	Settings (Declination Adjustment)	Settings
4X	CAL	Calibration (Compass)	Calibration

Battery (BA_t)



The DCC-1 instrument uses one (1) standard 1.5V AA battery. A battery test is performed each time the instrument is activated. If the battery is low, the **BA_t** message appears for a moment, indicating that the battery should be replaced.

Calibration (CAL)

▲ IMPORTANT! ▲

All compasses use and are affected by the Earth's magnetic fields and are sensitive to magnetic disturbances and deviations that can be caused by a number of sources, such as the presence of heavy

metals, household appliances, computers, high voltage power lines, etc. Even metal framed glasses can cause disturbances in the compass function. If you wear metal framed glasses, calibrate the DCC 1 with your glasses on.

The DCC-1 must be calibrated before it is used, and after each time the battery is removed or replaced. Compass calibration is performed using the **CAL** function.

Compass Calibration (CAL)



Press the button four (4) times to activate the Calibration (**CAL**) function. During the following 10-20 seconds, the instrument should be rotated at least one or two times, preferably on a flat surface free from magnetic disturbances.

Alternatively, you can hold and aim the instrument while turning 360° one or two times. This method is preferred if the operator is wearing metal framed glasses. Maintain a steady, horizontal position while calibrating to ensure the compass will display correct values.



While calibrating, the instrument will display the elapsed time since initiating the calibration operation, up to a maximum of 60 seconds.

Exit the Calibration function by

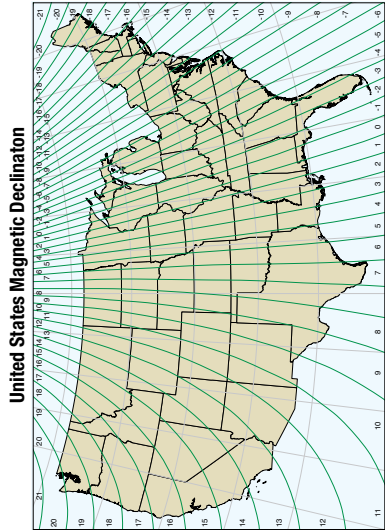
pressing the button once. The unit will beep to confirm that the **CAL** function has closed. Always test the compass function in at least four (4) directions after calibration!

Declination Adjustment (SE_t)



Declination is the difference between true (geographic) north and magnetic north. The DCC-1 will automatically adjust the measured compass bearing for the correct magnetic declination of your position using the **SE_t** function. If no magnetic declination adjustment is made, the compass will read magnetic north.

To adjust for true north, you must first know the declination for your local area (see map on next page). Use the **SE_t** function to enter the declination of your current position.



▲ NOTE! ▲

Declination changes over time, even at the same location. To correctly compensate for magnetic changes, it is important to consider your position when measuring. A Declination Map can be used as a guide, or there are a number of calculators available on the internet to determine the correct declination for your location.

Example

The magnetic declination for Seattle is 19°. Without compensating for this deviation, the compass will show 0° to magnetic north. Since the declination is 19° to true (geographical) north, this value (19°) should be entered in the Settings menu (SE_t). The compass will display the correct 19°.



Activate the **SE_t** function by pressing the button three (3) times. Enter the declination by holding the button down and tilting the instrument up or down until the correct value is displayed. Release the button when the correct value is displayed. If the

Angle is insufficient to obtain the correct desired value, simply release the button and start over. By repeating the operation, any declination between -45° and +45° can be set.

Exit the **SE_t** function by pressing the button once. The DCC-1 will maintain the declination values from the last input, even after changing or removing the battery.

USING the DCC 1

Compass Function (C°)



Instrument in
Compass mode (C°)



Current bearing
displayed

Press the button one (1) time. The display reads **C°** to identify the current function, and the compass aim (0 - 359°) is shown in the display. Use the two horizontal lines

in the display to guide your aim, trying to maintain a horizontal position while sighting.

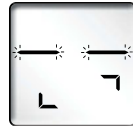


Tilt indicator directs to
point instrument UP to
obtain level.



Tilt indicator directs
to point instrument
DOWN to obtain level.

The DCC-1 will compensate the compass angle if tilted in any direction up to ±10°, however, the steadier the instrument is held, the better the function.



Adjust instrument
CLOCKWISE to obtain
level.



Adjust instrument
COUNTERCLOCKWISE
to obtain level.

When adjusting
CLOCKWISE
or COUNTER
CLOCKWISE,
gently rotate the
instrument along
an imaginary axis
through the sight.

Exit the Compass (**C°**) function by pressing the button once, or jump directly to the Angle mode by pressing and holding the button for 2 seconds until the Angle function (**Ang**) is displayed.

Angle Measuring Function (Ang)



Press the button two (2) times. The display reads **Ang** to identify the Angle function, and the current vertical Angle (-90.0° to 90.0°) is shown in the display.



Use the two horizontal lines in the display to guide your aim to the desired target. Exit the Angle function by pressing the button once.

DCC-1 Technical Specifications

- Vertical Angles -90.0° to 90.0°
- Resolution 0.1°
- Accuracy 0.2°
- Horizontal Angles 0 to 359° (0° = North)
- Resolution 1°
- Accuracy 2.5°
- Battery One 1.5V AA

Warranty and Service Information

Peco Sales, Inc. warrants that this product shall be free from defects in materials and workmanship, under normal intended use, for a period of one (1) year from the date of purchase. The warranty excludes batteries, accessories and any written or downloadable materials. The warranty does not apply if the product has been improperly installed, activated, calibrated or operated in a manner not in accordance with the User Guide. Warranty is also automatically expired if the product has been exposed to external force and warranty is not applicable for cosmetic defects.

The limited warranty time covers obvious fabrication defects. Defects in the electronic components that are impossible for the manufacturer to detect prior to assembling and shipping of the product may occur. Peco Sales, Inc. assumes no liability for problems of this nature and claims no liability for any loss of business, profits, savings, consequential damages or other damages resulting from use of the products described. Signs of misuse, negligence, cosmetic

damage or accidents automatically withdraw the warranty. Warranty is valid in the country of purchase. A product covered by warranty will be subject to exchange, service and repair or according to special agreement between seller and buyer, within the frames of the limited warranty. Peco Sales, Inc. reserves the right to determine which option will be most suitable for each separate case after having examined and evaluated the product.

Proof of Warranty

For a valid warranty, a copy of invoice or dated receipt of your purchase must be presented. The serial number of the returned product must be clearly stated upon return. Call 800-752-8460 or visit <http://www.pecosales.com/home/terms.asp> for return information.

Return freight charges are the responsibility of the customer, except on instruments covered under warranty. If warranty has expired or is deemed null and void, all freight charges are the responsibility of the customer.

Peco Sales, Inc. will perform repair and service of products where warranty has expired when possible. Cost estimates will be provided upon examination and evaluation of the returned product for cost approval.

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North American User Guide