

For Field use

CALIBRATION AND SETTINGS PROCEDURE FOR PCS-225 and PCS-215

NOTE: The instrument must **NOT** be in direct sun light (cloud cover or under umbrella is OK).
Atmospheric conditions must be very good (no heat waves etc.)

WARNING:: The following mechanical adjustments must be checked (and corrected if necessary) prior to Offset Adjust.

Vial Adjustment

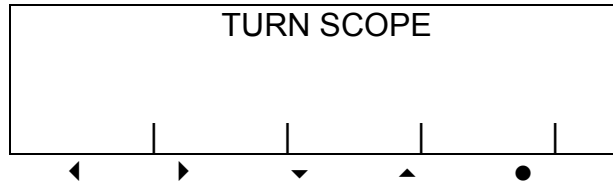
1. Setup PCS on tripod
(These procedures should not be performed in direct sunlight – shaded setup area is preferred.)
2. Level using the circular vial and plate vial.
3. Check (and adjust if necessary) the vials
(See “Plate Vials” on page 73 of the PCS-200 Series Instruction Manual)
and
(See “Circular Vial” on page 74 of the PCS-200 Series Instruction Manual)

Adjust Reticle

1. Adjust the reticle, left or right, by flopping between target A and B.
(See “Perpendicularity of Line of Sight to Horizontal Axis” on page 76 of the PCS-200 Series instruction manual).

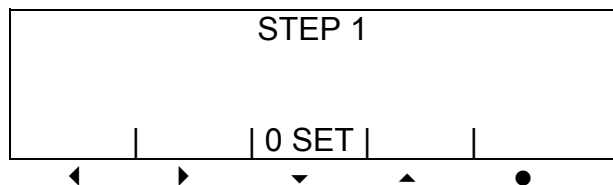
Adjust Vertical 0 Point Error

1. Press and hold [◀] and [▶] key, press and release [ON] key, release [◀] and [▶] keys when TURN SCOPE appears on the display.



Note: There will not be any other information on the display
If the Horizontal Angle is displayed on the second line then try again – it may take several attempts to get into this adjustment mode.

2. Move telescope eyepiece from down to up.

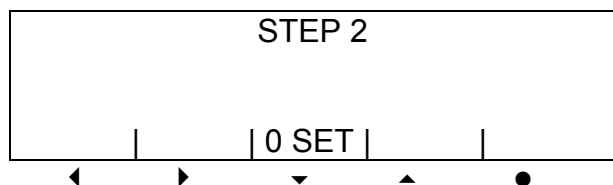


3. Align the reticle on a precisely definable target with the telescope in the normal position.

NOTE: Target must be within 10° , plus or minus, of level.

NOTE: Reticle alignment must be precise.

Press the [▼] 0 SET key.

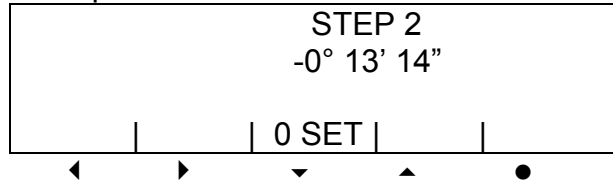


- Release the horizontal tangent assembly and rotate the alidade 180° . Release the vertical tangent assembly and rotate the telescope 180° . Align the reticle on the horizontal reticle of the collimator with the telescope in the reverse position.

Press the [▼] 0 SET key.

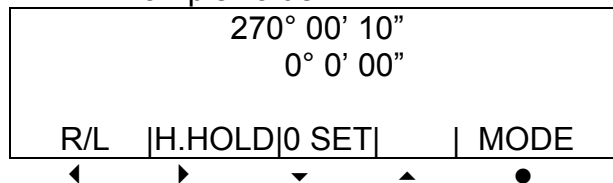
Offset value will display briefly and the new value will be stored.

Example value -



- Display will change to the normal angle display mode.

Example value -



Angle should be within $10''$ of $270^\circ 00' 00''$

Examples: $269^\circ 59' 50''$
 $270^\circ 00' 00''$
 $270^\circ 00' 10''$

- Turn OFF

Default Settings for USA

1. Press and hold [◀] key, press and release [ON] key, release [◀] key when INIT. SET A appears on the display.

**Note: There will not be any other information on the display
If TURN SCOPE is displayed then try again – it may take
several attempts to get into this settings mode.**

Change, or verify, the settings to:

1. PRSM CONST : -30mm
2. PPM CORR. : ENTER
3. PRES. CORR. : "Hg (inch Mercury)
4. REF. COEFF : 0.14

Press [◀] or [▶] to select a value

Press [▼] to move to the next display

Press [●] store the new value(s) and exit the SETTINGS A mode

Press the OFF key.

2. Press and hold [▶] key, press and release [ON] key, release [▶] key when INIT. SET B appears on the display.

**Note: There will not be any other information on the display
If TURN SCOPE is displayed then try again – it may take
several attempts to get into this settings mode.**

Change, or verify, the settings to:

1. ANG DISPLAY : FINE
2. TR. DISPLAY : 10mm
3. V ANG. MODE : Z
4. ANG. UNIT : Deg
5. DIST. UNIT : ft

Press [◀] or [▶] to select a value

Press [▼] to move to the next display

Press [●] store the new value(s) and exit the SETTINGS B mode

Press the OFF key.

Example: To change "DISTANCE UNIT"

a. Press [▼] 4 times

b. Press [◀] or [▶] to move the cursor to your selection

c. Press OK [●]

3. Press and hold [▼] key, press and release [ON] key, release [▼] key when INIT. SET C appears on the display.

**Note: There will not be any other information on the display
If TURN SCOPE is displayed then try again – it may take
several attempts to get into this settings mode.**

Change, or verify, the settings to:

- | | |
|----------------|----------|
| 1. MEASURE | : SHOT |
| 2. QUICK SHOT | : ON |
| 3. SHOT COUNT | : 1 |
| 4. AUTO MEAS. | : AUTO |
| 5. TRACKING | : SERIES |
| 6. INIT. MEAS. | : DIST |
| 7. SLOPE ANG. | : VER |
| 8. HOR ANG. | : HOR |
| 9. VER ANG. | : % |
| 10.SLOPE REDUC | : HSV |

Press [◀] or [▶] to select a value

Press [▼] to move to the next display

Press [●] store the new value(s) and exit the SETTINGS C mode

Press the OFF key.

4. Press and hold [▲] key, press and release [ON] key, release [▲] key when INIT. SET D appears on the display.

**Note: There will not be any other information on the display
If TURN SCOPE is displayed then try again – it may take
several attempts to get into this settings mode.**

Change, or verify, the settings to:

- | | |
|-----------------|---------------------------|
| 1. LCD DENSITY | : “Set for best contrast” |
| 2. ILLUMINATION | : “Set intensity” |
| 3. EDM BUZZER | : ON |
| 4. QUAD. BUZZER | : ON |
| 5. H ANGLE SAVE | : ON |
| 6. ILLUM. OFF | : ON |
| 7. POWER OFF | : ON |

Press [◀] or [▶] to select a value

Press [▼] to move to the next display

Press [●] store the new value(s) and exit the SETTINGS D mode

Press the OFF key.

5. Press and hold [●] key, press and release [ON] key, release [●] key when INIT. SET E appears on the display.

**Note: There will not be any other information on the display
If TURN SCOPE is displayed then try again – it may take
several attempts to get into this settings mode.**

Change, or verify, the settings to:

1. BAUD RATE : 12
2. DATA BITS : 8
3. PARITY : NON
4. STOP BITS : 1

Press [◀] or [▶] to select a value

Press [▼] to move to the next display

Press [●] to store the new value(s) and exit the SETTINGS E mode

Press the OFF key.

Adjust Optical Plummet Reticle

1. Adjust Optical Plummet Reticle
(see page 78 in the PCS-200 Series Instruction Manual)