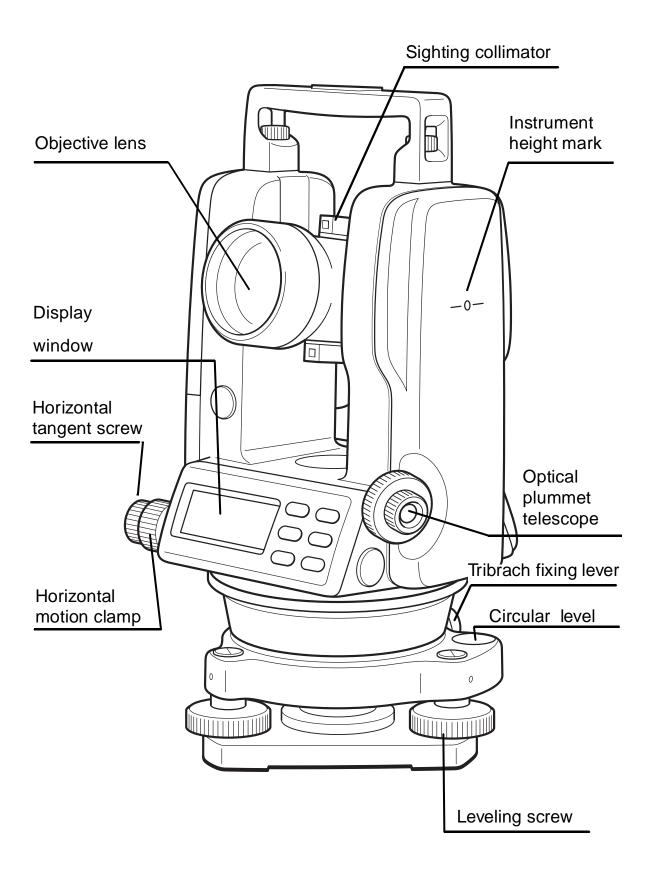
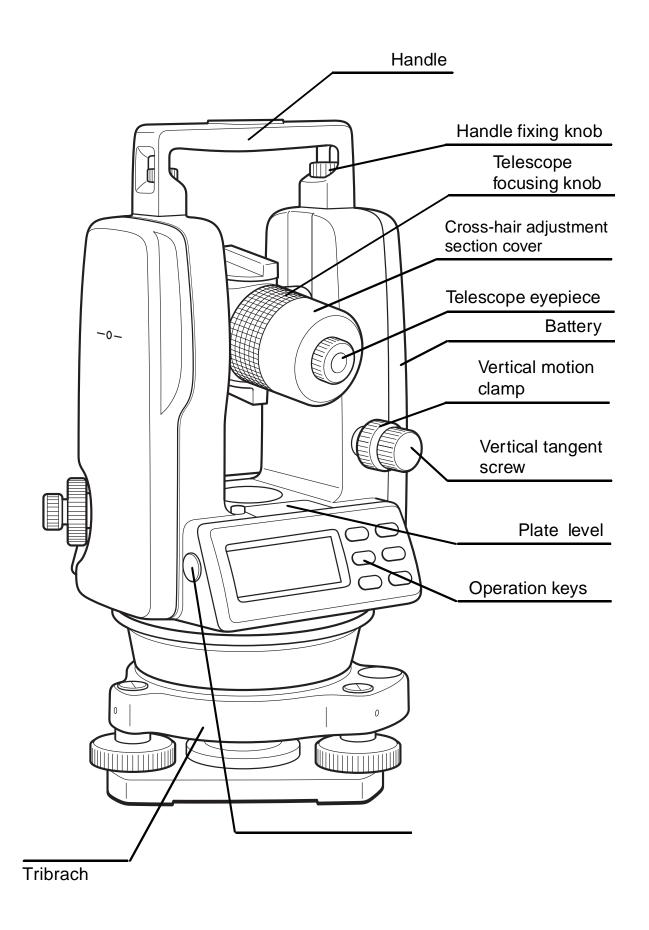
Parts of a Digital Theodolite





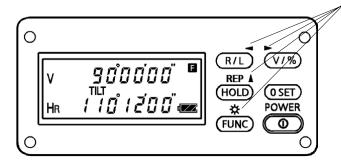
Display



Display marks

Display	Contents
V	Vertical angle
HR	Horizontal angle right
HL	Horizontal angle left
Ht	Repetition angle measurement

Operating keys



Function mode

Key	Function
①	Power switch
R/L	Selection for horizontal angle right / left measurement
V/%	Vertical angle display Selection for vertical angle / percent display
HOLD	Holding the horizontal angle
0 SET	Horizontal angle 0° set
FUNC	Upper function selection

Setting Instrument Up for Measurement

Setting up the Tripod

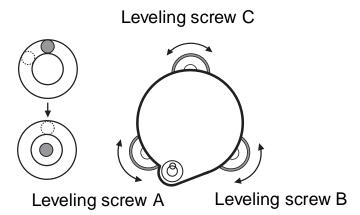
First, extend the extension legs to suitable lengths and tighten the screws on their midsections.

Attaching the Instrument on the Tripod Head

Place the instrument carefully on the tripod head and slide the instrument by loosening the tripod screw. If the plumb bob is positioned right over the center of the point, slightly tighten the tripod screw.

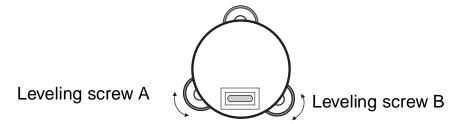
Roughly Leveling the Instrument by Using the Circular Level

- 1) Turn the leveling screws A and B to move the bubble in the circular level. The bubble is now located on a line perpendicular to a line running through the centers of the two leveling screws being adjusted.
- 2) Turn the leveling screw C to bring the bubble to the center of the circular level.

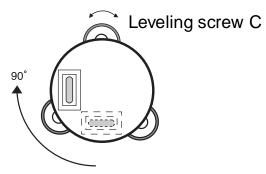


Centering by Using the Plate Level

1) Rotate the instrument horizontally by using the Horizontal motion/clamp screw and place the plate level parallel with the line connecting leveling screws A and B, and then bring the bubble to the center of the plate level by turning leveling screws A and B.



2) Rotate the instrument 90° (100g) around its vertical axis and turn the remaining leveling screw or C to center the bubble once more.



3) Repeat the procedures 1 and 2 for each 90° (100g) rotation of the instrument and check whether the bubble is correctly centered for all four points.

Centering by Using the Optical Plummet Telescope

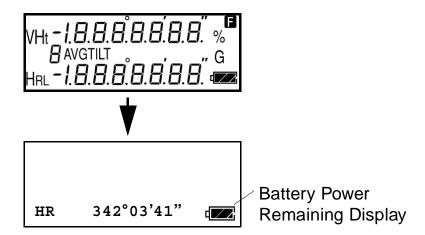
Adjust the eyepiece of the optical plummet telescope to your eyesight. Slide the instrument by loosening the tripod screw, place the point on the center mark, and then tighten the tripod screw. Sliding the instrument carefully not to rotate that allows you to get the least dislocation of the bubble

Completely Leveling the Instrument

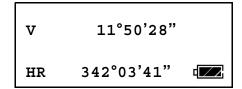
Leveling the instrument precisely in a similar way to 4. Rotate the instrument and check to see that the bubble is in the center of the plate level regardless of telescope direction, then tighten the tripod screw hard.

Power Switch Key ON

- 1 Confirm the instrument is leveled.
- **2** Turn the power switch ON. Every segment turns on for about 1 second.

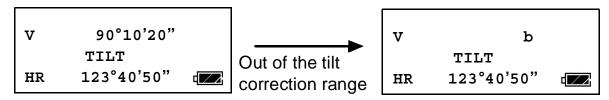


3 Press the [V/%] key. The vertical angle is displayed.



TILT CORRECTION

When the tilt sensor is activated, automatic correction of vertical angle for mislevelment is displayed. To ensure a precise angle measurement, tilt sensors must be turned on. If the "b" display appears the instrument is out of automatic compensation range and must be leveled manually.



VIDEO LINK:

https://youtu.be/QUX9_1fRnlo

Note: Ignore the part from 2:08 to 2:40