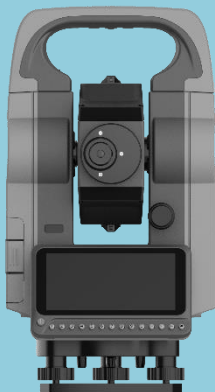


SLT12



Preface






Thank you very much for purchasing SLT12 series total station.
The following account is suitable for the SLT12 series total station.
For detailed operating instructions, please refer to the CD-ROM or USB disk




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Operating steps for common instrument settings

EDM mode: press the key    on the top of ST-Surv interface to set EDM mode, Including single, multiple, Repeat, tracking

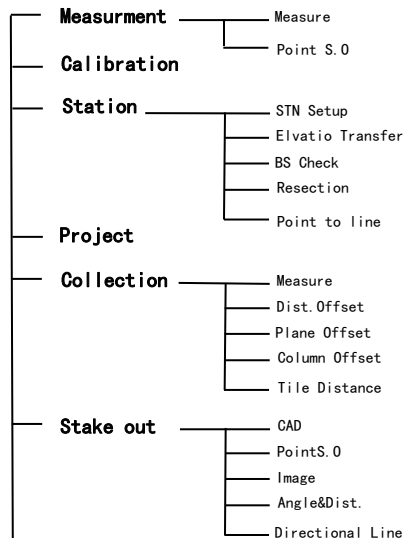
Compensator: press the key    on the top of ST-Surv interface to set compensator mode , Including XY dual-axis , X single-axis , off.

Laser plummet : In the main interface of the ST-Surv, open the shortcut menu bar on the left→ **【Laser plummet】** or enter **【titl compensation】** → **【Laser plummet】** to turn off or turn on the laser plummet.

Reflector switching: press the key    on the top of ST-Surv interface to switch reflector, There are three modes to choose from: prism, sheet, and non-prism.


Prism constant setting: In the main interface of the ST-Surv, When prism is selected as the reflector, open the shortcut menu bar on the left → **[Prism Constant]** to set the value of the prism constant.

Menu tree



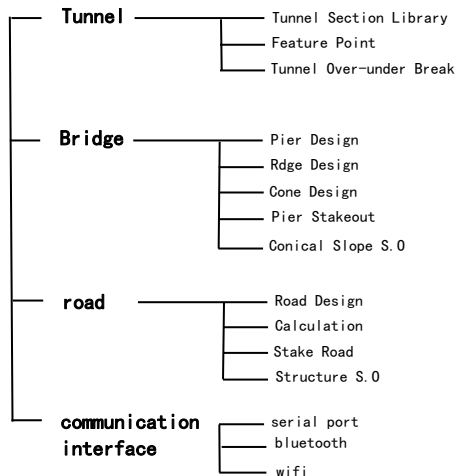
Operating steps for common instrument settings

Temperature and air pressure setting: In the main interface of ST-Surv, open the shortcut menu bar on the left → [PPM] to set the temperature, air pressure and correction coefficient.

laser pointing: press the key  on the top of ST-Surv interface, Pointing laser can be turned on/off.



Dual screen single display function switching: In the main interface of ST-Surv, click [Configuration] → [Setting] → [Screen Display] to set the screen display "Single screen"/"Dual screen", among which In the single screen mode, only the screen on the clicked side is on, and in the dual screen mode, the main and secondary screens are always on.

Menu tree










Introduction of keyboard



Key	Name	Function
	Shortcut Measurement Key	Trigger a measurement when clicked. Configurable meas.&store/meas. Mode
	Power Key	Power ON/ Power OFF.
0~9	Number Key	Enter the number 0~9.
· -	Symbol Key	Enter the symbol, decimal point, plus or minus sign.
←	Delete Key	Delete the previous character of the insertion character.
↵	Return Key	Return to the previous level.

Meaning of symbol



Vz	Zenith Mode	HR	Horizontal angle (right angle). dHR means the angle difference	m	In meters
Vo	Vertical angle is display as 0 when the telescope is horizontal at the Face 1	HL	Horizontal angle (left angle)	ft	In feet
Vh	Vertical angle Mode (it is 0° 00' 00" when the telescope is level. The angle of elevation is positive and the angle of depression is negative)	HD	Horizontal distance. dHD is to stake out differences in horizontal distance	fi	In feet and inches
V%	Slope Mode	VD	Elevation difference. dVD is to stake out differences in elevation	   	tilt compensation ON/OFF
PPM	Atmospheric correction	SD	Slope distance. dSD is to stake out differences between slope distances	  	Reflector mode

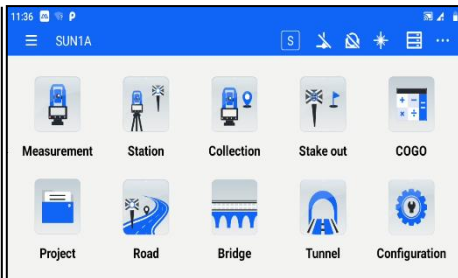
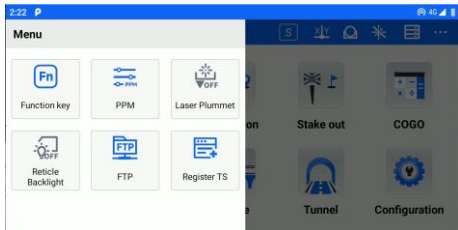
Common soft key



[Set HA]	The horizontal angle can be set to the desired angle.
[Meas&Store]	Start the distance measurement in the coordinate and distance measurement mode to get the measurement value; save the measurement result of this time, and automatically add 1 to the point name. The compensator is out of range and cannot be measured.
[Meas.]	Start the distance measurement in the coordinate and distance measurement mode to get the measured value; the result of this measurement will not be saved. The compensator is out of range and cannot be measured.
[store]	Save the currently measured coordinate points to the point library.
[STN Setup]	Enter the station setting interface to set the station point and backsight point.
[configuration]	Enter the EDM parameter configuration, total station configuration, measurement auxiliary configuration, unit/display configuration, total station calibration interface.
[Project]	Create a new project or open a historical project.
[Stake out]	Can enter CAD stakeout, coordinate stakeout, image assisted stakeout, angular distance stakeout, direction line stakeout and other functions.
[measurement]	Can enter the coordinate measurement and coordinate stakeout function interface.
[Collection]	Can enter the coordinate measurement, single distance offset, Planar Offset, Cylindrical Offset, REM function interface.
[COGO]	can perform orientation correction of unknown points, free orientation correction, coordinate forward calculation, coordinate inverse calculation, area and perimeter calculation

Original settings

- ① Open ST-Surv, enter main interface (as shown on the right).
- ② Click the marked (as the figure below) to enter the tilt compensation setting interface and you can set the mode: XY-axis, X-axis, and turn off.



- ③ Click the marked (as figure below), can select reflectors mode: prism, sheet, non-prism.

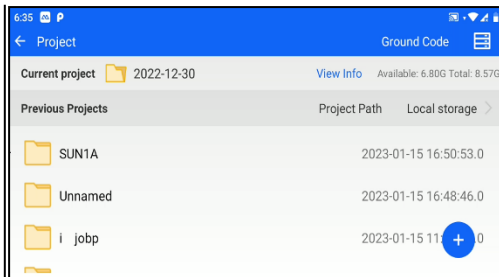


- ④ Select the prism, and slide to open [Menu] → [Prism Constant] to set the prism constant. Slide to open [Menu] → [PPM] set temperature, air pressure, and correction coefficient (as shown on the left).

Set the working files and STN

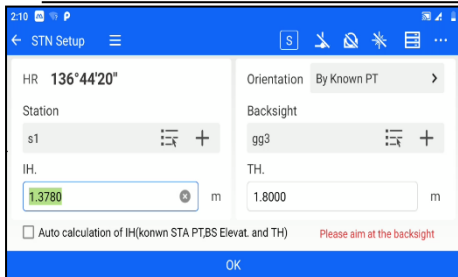
① Click [Project] → the blue floating "+" button displayed on the interface to enter the interface for creating a project. (as shown on the right)

② Enter the project name, operator, remarks and other information, select the required legend template, and click OK to complete the new project.



③ Set up the total station at known point A and aim at known point B.

④ Press 【Station】 → 【STN Setup】, select “By Known PT” for the orientation mode, input the coordinates of A for the station point, input the coordinates of B for the backsight point, and input the instrument height and target height correctly to complete the station setup operation. (as shown on the left)

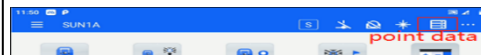


Coordinate surveying and data transmission

- ① Click [Measurement] - [Measure] or [Collection] - [Measure] to enter the Coordinate Measurement interface (As shown on the right)
- ② The total station aims at the target point, enter the point name, code, target height, click [Meas.] → [store], or directly click [Meas&store] to measure and save the coordinates of the target point to the coordinate library.

P	Z	Code	Description
All Point			
Meas. Point	7.9179	station	station
Stake Point	9.1596	backsight-By Known PT	backsight-By Known PT
Control Point			

- ③ Click the top icon, go to [Point Data] - [point library], you can view the station point, backsight point, prism point and other kinds of total station points.



- ④ Click the blue floating button at the bottom right of the interface → [Export] to enter the export interface, select the data export format, enter the file name, and click "OK" to export the data to the internal storage of the host. (as shown on the left)

Coordinate input and stakeout

- ① Enter [Point S.0], click "Select Stake PT " to jump to the interface of "Select Stake Point", you can select the stakeout points by manual input ,list select ,name search and neighboring point select
- ② After select the stakeout point, click OK, return to stakeout interface, click last and next button to switch the point data in the stakeout point library for stakeout.
- ③ After set the stakeout point information, the radar on the upper right of the interface the position of the stakeout point. The red dot is the direction of the stakeout point, and the arrow points to the aiming direction. The position of the stakeout point can be judged from the radar.

3:40 Select Stake Point

Pt Name

N 0.0000 m

E 0.0000 m

Z 0.0000 m ☐ Save to Stake Pts Lib

Cancel OK

5:37 Point S.0

Stake Point Select Stake PT

Target HR:

Target H 0.0000 m

N: m

E: m

Z: m

Target HD: m

ΔHA:

Left/Right: m

Forward/Backward: m

Up/Down: m

Meas&Store Meas. Store STN Setup

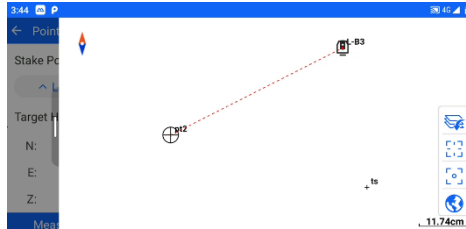
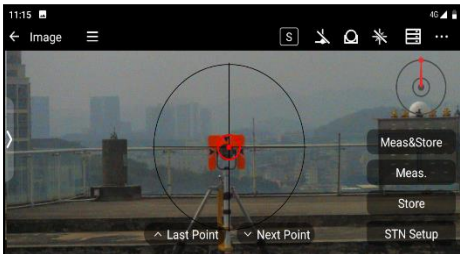
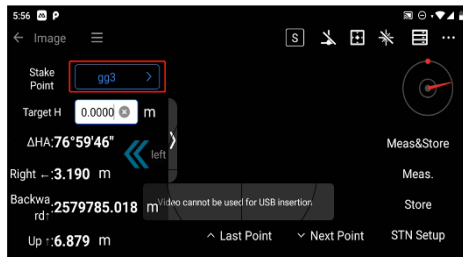


Image Assisted Stakeout (Image)

- ① Enter the ST-Surv main interface, click [Stake out] → [Image] to enter the Image Assisted Stakeout interface
- ② Click "Stake point", manually input or select the stake out point in the point library, after selecting the stake out point, rotate the total station until the LCD display interface can display the red dot mark of the stake out point.



- ③ Adjust the collimation crosshair on the liquid crystal display interface to align with the red dot mark of the stakeout point (as shown in the figure below), and then adjust the eyepiece focusing screw until the stakeout point can be clearly seen, then fine-tune the vertical handwheel and horizontal handwheel to aim accurately.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

