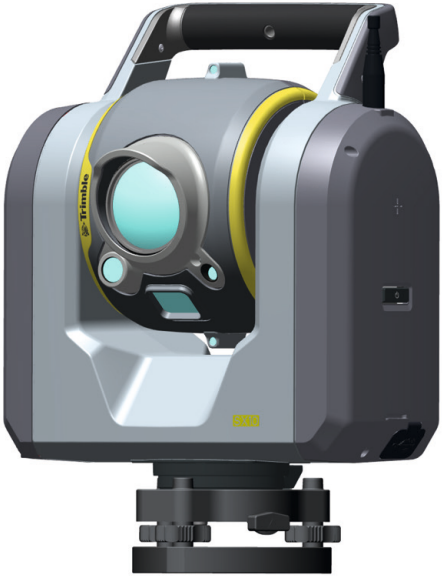
Trimble SX10

SCANNING TOTAL STATION



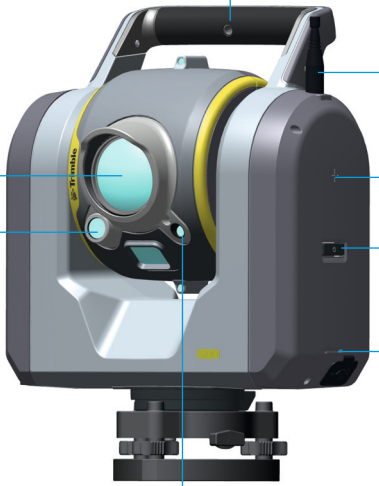
This Quick Start Guide applies to the Trimble® SX10 Scanning Total Station. This instrument is intended to be used for surveying and scanning measurements.

IN THE CASE

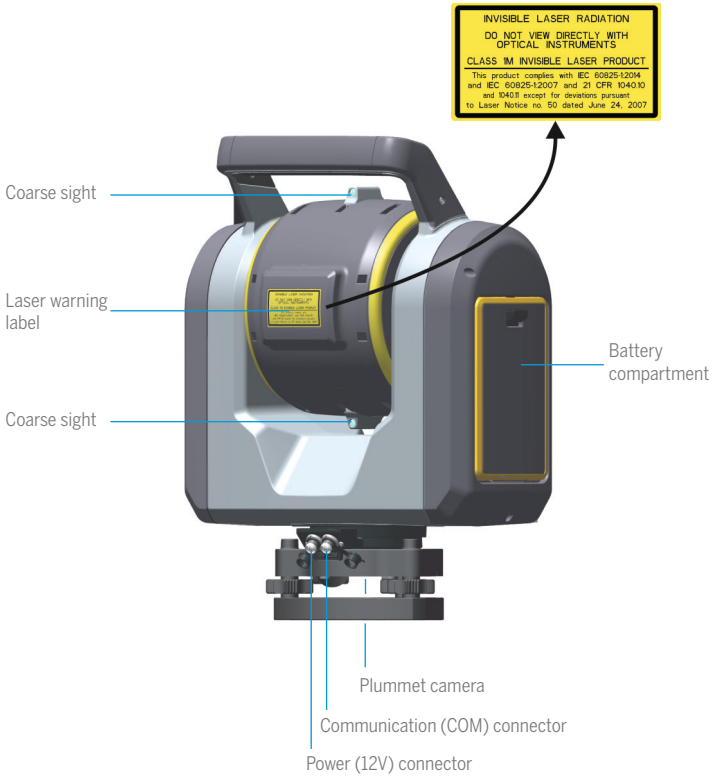
Item	Description	Item	Description
1	Trimble SX10 Scanning Total Station	8	Instrument test certificate, China RoHS table and Declaration of conformity
2	Tribrach	9	Quick Start Guide (this document)
3	Allen key	10	Regulatory Information Document
4	Instrument case	11	Warranty activation card
5	Instrument case keys	12	Extended warranty card
6	Rain cover	13	Cable 2.5m/8.2ft Hirose 6P-PC to USB2.0
7	Cleaning cloths		

Note – The lithium-ion battery is not provided with the SX10 Scanning Total Station and must be ordered separately (P/N 99511-30).

FEATURES


Carrying handle
Long Range Radio (LRR)/ WiFi antenna
Optics for distance measurement, tracker and tele camera
True Height mark
Optics for over-view camera
On/Off key and status indicator
Bottom Notch height mark
Optics for primary camera

FEATURES


INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
CLASS IM INVISIBLE LASER PRODUCT
This product complies with IEC 60825-1:2014 and IEC 60825-12:2007 and 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice no. 50 dated June 24, 2007
Coarse sight
Laser warning label
Coarse sight
Battery compartment
Plummet camera
Communication (COM) connector
Power (12V) connector

SPECIFICATION

Power rating	
Power input	12 V DC, 40W

Environmental specification	
IP classification / dust and water proofing	IP 55
Operating temperature range	-20°C to +50°C (-4°F to +122°F)
Humidity	100%, condensing

For further technical specifications please refer to the Trimble SX10 Scanning Total Station data sheet available from www.trimble.com.

POWER SUPPLY

⚠ **CAUTION –** The optional power supply for the Trimble SX10 Scanning Total Station is intended for indoor use only and shall not be exposed to moisture or liquids.

Note – Use only the approved power supply (P/N 58056032) with the Trimble SX10 Scanning Total Station. Older model power supplies used for the S Series instruments are insufficient for this instrument.

BATTERY

⚠ **WARNING –** Before charging or using the Trimble SX10 Scanning Total Station battery it is important that you read and understand the battery safety and environmental information. The battery safety and environmental information is available in the *Trimble SX10 Scanning Total Station Regulatory Information document.*

Note – The lithium-ion battery is not provided with the SX10 Scanning Total Station and must be ordered separately (P/N 99511-30).

Note – Use only batteries with P/N 99511-30.

Note – The performance of the battery will be lower at temperatures below 0°C (32°F). The performance of a cold battery might not be enough to start the instrument. For best battery performance, keep the battery at a temperature as close to 20°C (68°F) as possible before it is put to use in the instrument.

The Trimble SX10 Scanning Total Station battery has battery charge status indicator LEDs. Push the button on the battery to check the battery charge status.

Charge battery

When the rechargeable Lithium-ion battery is delivered, it is partially charged. Before using the battery for the first time, charge it completely using a Trimble battery charger (not included) specified for the purpose.

Refer to the Trimble SX10 Scanning Total Station user guide and the Battery charger user guide for more information.

Connect internal battery

1. Press the battery compartment lock downwards to unlock.
2. Open the battery compartment.
3. Slide the battery into the battery compartment.
4. Close the battery compartment.

Power On/Off instrument

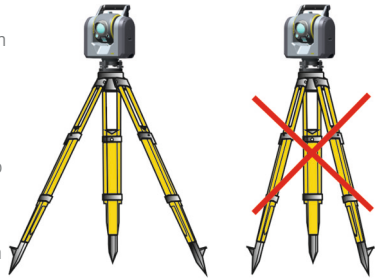
Power on the instrument with a short press on the On/Off key. To power off the instrument press and hold the On/Off key until the On/Off key LED starts to flash with a high frequency. The On/Off key LED will continue to flash with a high frequency until the instrument powers off.

On/Off key LED

Instrument status	On/Off key LED	Description
Off	Off	
Solid, yellow	On	Connected to controller and instrument is in RUN status.
Long flash, yellow	Search for controller with LRR	The instrument searches for controller with LRR (Long Range Radio). Change to WiFi with a short press on the On/Off key.
Short flash, yellow	Search for controller with WiFi	The instrument searches for controller with WiFi. Change to LRR with a short press on the On/Off key.
High frequency flash, yellow	Changing status	The instrument is changing status.

Set up

A stable setup is critical for high precision measurements. Set the tripod legs wide apart as shown in figure.



Take into account that the instrument requires sufficient time to adjust to the ambient temperature. The rule-of-thumb for a high precision measurement is:

- Celsius: Temperature difference in degrees Celsius (°C) x 2 = duration in minutes required for the instrument to adjust to the new ambient temperature.
- Farenheit: Temperature difference in degrees Farenheit (°F) = duration in minutes required for the instrument to adjust to the new ambient temperature.

Operation

The instrument is operated from a controller using field software such as Trimble Access™. Connect the controller using a cable or wirelessly with LRR (Long Range Radio) or WiFi radio.

Note – Use only the 2.5m/8.2ft Hirose 6P-PC to USB2.0 cable P/N 53099032 for cable communication between the instrument and the controller.

Care and maintenance

Like all precision instruments, the Trimble SX10 Scanning Total Station requires care and maintenance. To get the best results from the instrument:

- Do not subject the equipment to rough jolts or careless treatment.
- Keep the lenses and reflectors clean. Be very careful when cleaning the instrument, especially when removing sand or dust from lenses and reflectors. Never use coarse or dirty cloth or hard paper. Trimble recommends using anti-static lens paper, a cotton wad, or a lens brush.

Note – Never use strong detergents such as benzine or thinners on the instrument or the instrument case.

- Keep the instrument protected and in an upright position, preferably in the instrument case.
- Do not carry the instrument while the instrument is mounted on a tripod. Doing so can damage the tribrach screws.
- Carry the instrument by the handle.
- When you need extremely precise measurements, make sure that the instrument has adapted to the surrounding temperature. Significant variations in instrument temperature can affect precision.

- If the instrument is moved from (extreme) cold to warm temperature, leave the instrument in the closed instrument case for at least 15 minutes to avoid internal condensation. Then open and leave the instrument case open until all moisture has dried.
- If the instrument has been used in damp weather, take the instrument indoors and remove the instrument from the instrument case. Leave the instrument to dry naturally. If condensation forms on the lenses, allow the moisture to evaporate naturally. Leave the instrument case open until all moisture has dried.
- Always transport the instrument in a locked instrument case. For longer trips, transport the instrument in the instrument case and inside the original shipping container.

Additional information

The original document is written in English. All documents in other languages are translations from the original English document. For more information and information in other languages, go to www.trimble.com.

⚠ **CAUTION –** For laser safety and regulatory information, refer to the Regulatory Information document delivered with the product.

For Trimble support, go to www.trimble.com/support.

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