

Leica FlexLine TS07 Manual Total Station



FlexLine



LEICA FLEXLINE TS07 MANUAL TOTAL STATION

- **Work faster:** measure more points per day due to faster measurement and stakeout procedures (endless drives, trigger key, drives on both sides, pinpoint EDM and more), supported by our comprehensive and user-friendly Leica FlexField software.
- **Use it trouble-free:** increase productivity and minimise downtime by relying on instruments that simply work and come with a global service and support network.
- **Choose products that are built to last:** FlexLine operates with the same high level of quality even after years of use under harsh conditions (like mud, dust, blowing rain, extreme heat and cold).
- **Control your investment:** reliability, speed and accuracy ensure a lower investment over the product lifetime and a higher resell value.
- **Save time with AutoHeight:** measure, read and set the instrument height automatically with this revolutionary feature (optional). Errors are minimised and the setup process onsite is faster.

The Leica FlexLine TS07 high-quality, manual total station is based on a proven product concept that has been revolutionising the world of measurement and survey for nearly 200 years. The instrument is equipped with a comprehensive application-based software package - Leica FlexField software - that enables most survey and stakeout tasks to be carried out easily and efficiently. The new FlexLine manual total stations work reliably and deliver accurate results even in harsh environments.

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ANGULAR MEASUREMENT

Accuracy Hz and V	Absolute, continuous, diametrical ¹	1" / 2" / 3" / 5" / 7"
	■ Display resolution: 0.1" (0.1 mgon) ■ Quadruple dual axis compensation with Hz collimation and V index correction ■ Compensator setting accuracy²: 0.5" / 1" / 1.5" / 2" ■ Compensator range: +/- 4' ■ Electronic level resolution: 2" ■ Circular level sensitivity: 6" / 2 mm	✓

DISTANCE MEASUREMENT

Range	■ Prism (GPR1, GPH1P): 0.9 m to 3,500 m ■ Prism GPR1 (Long Range mode) > 10,000 m	✓
	Non-Prism / Any surface	✓
	■ R500³ ■ R1000⁴	•
Accuracy / Measurement time	Single prism	✓
	■ 1 mm + 1.5 ppm (typical 1 - 2 s)	✓
	Non-Prism / Any surface	✓
	■ 0 m - 500 m: 2 mm + 2 ppm (typical 2.4 s⁵) ■ > 500 m: 4 mm + 2 ppm	✓
	Display resolution: 0.1 mm	✓
Laser dot size	■ At 30 m: 7 mm x 10 mm ■ At 50 m: 8 mm x 20 mm ■ At 100 m: 16 mm x 25 mm	✓
Telescope	■ Magnification: 30x ■ Resolving power: 3" ■ Focusing range: 1.5 m / 4.92 ft to infinity ■ Field of view: 1°30' / 1.66 gon / 2.7 m at 100 m	✓

GENERAL

Display and keyboard	3.5" (inch), 320 x 240 px QVGA, colour, touch, 28 keys ⁶	
	2 nd keyboard	•
	Key illumination	✓
Operation	■ Endless drives for HZ & V ■ Trigger-Key: user definable with 2 functions	✓
Power management	Exchangeable Lithium-Ion battery ⁷	
	■ Operating time with GEB361 ■ Operating time with GEB331	up to 30 h up to 15 h
	External supply voltage	✓
	■ Nominal voltage 13.0 V DC & 16 W max	✓
Data storage	■ Internal memory: 2 GB Flash / 4 GB ■ Memory card: SD card 1 GB or 8 GB ■ USB memory stick: 1 GB	✓ / • ✓ ✓
Processor	■ TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™ ■ Operating system – Windows EC7	✓
Interfaces	RS232 ⁸ , USB device	✓
	Bluetooth® ⁹ , WLAN ¹⁰	✓
	Mobile Data sidecover: LTE-Modem for internet access	•
Guide Light (EGL)	■ Working range: 5 m to 150 m ■ Position accuracy: 5 cm at 100 m ■ Wavelength red /orange: 617 nm / 593 nm	✓ (R1000)
Laser plummet (Laserclass 2)	Accuracy	✓
	■ Plumb line deviation: 1.5 mm at 1.5 m instrument height ■ Diameter of laser point: 2.5 mm at 1.5 m instrument height	✓
AutoHeight module for automatic instrument height measurement (Laserclass 2)	Accuracy	•
	■ Distance accuracy: 1.0 mm (1 Sigma) ■ Distance range: 0.7 m to 2.7 m	•
Weight		4.3 - 4.5 kg
Environmental specifications ¹¹	■ Working temperature range: -20°C to +50°C ■ Arctic version: -35°C to +50°C ■ Dust / Water (IEC 60529) / Humidity: IP66 / 95%, non-condensing ■ Military Standard 810G, Method 506.5	✓ • ✓ ✓
LOC8	Tracking and theft deterrence device	•

Legend:

1. 1" (0.3 mgon), 2" (0.6 mgon), 3" (1 mgon), 5" (1.5 mgon), 7" (2 mgon)
2. Angular accuracy / Compensator setting accuracy: 1" / 0.5" (0.2 mgon), 2" / 0.5" (0.2 mgon), 3" / 1.0" (0.3 mgon), 5" / 1.5" (0.5 mgon), 7" / 2.0" (0.7 mgon)
3. R500: Kodak gray 90% reflective (1.5 m to >500 m), Kodak gray 18% reflective (1.5 m to >200 m)
4. R1000: Kodak gray 90% reflective (1.5 m to >1000 m), Kodak gray 18% reflective (1.5 m to >500 m)
5. Up to 50 m, max. measurement time 15 s
6. Face I standard, face II optional

7. Distance/angle measurement every 30 seconds
8. 5 PIN Lemo-0 for power, communication and data transfer
9. For communication and data transfer
10. For internet access, communication and data transfer, WLAN range up to 200 m
11. Storage temperature: -40°C to +70°C

✓ = Included • = Optional



Laser radiation, avoid direct eye exposure.
Class 3R laser product in accordance with IEC 60825-1:2014.

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