

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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- when it has to be **right**

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ANGULAR MEASUREMENT

| | | |
|-------------------|--|------------------------|
| Accuracy HZ and V | Absolute, continuous, diametrical ¹ <ul style="list-style-type: none"> ■ Display resolution: 0.1" (0.1 mgon) ■ Quadruple axis compensation ■ Compensator setting accuracy²: 0.5" / 1" / 1.5" / 2" ■ Compensator range: +/- 4' ■ Electronic level resolution: 2" ■ Circular level sensitivity: 6' / 2 mm | 1" / 2" / 3" / 5" / 7" |
|-------------------|--|------------------------|

DISTANCE MEASUREMENT

| | | |
|-----------------------------|---|---|
| Range | <ul style="list-style-type: none"> ■ Prism (GPR1, GPH1P): 1.5 m to 3,500 m ■ Prism GPR1 (Long Range mode) > 10,000 m ■ Non-Prism / Any surface ■ R500³ ■ R1000⁴ | ✓ |
| Accuracy / Measurement time | Single prism <ul style="list-style-type: none"> ■ 1 mm + 1.5 ppm (typical 1 - 2 s) Non-Prism / Any surface <ul style="list-style-type: none"> ■ 0 m - 500 m: 2 mm + 2 ppm (typical 3 - 6 s) ■ > 500 m: 4 mm + 2 ppm (typical 3 - 6 s) | ✓ |
| | Display resolution: 0.1 mm | ✓ |
| Laser dot size | <ul style="list-style-type: none"> ■ 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 | <ul style="list-style-type: none"> ■ Magnification: 30x ■ Resolving power: 3" ■ Focusing range: 1.55 m / 5.08 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 ^{5a} | |
| | 2 nd keyboard | • |
| | Key illumination | ✓ |
| Operation | <ul style="list-style-type: none"> ■ Endless drives for HZ & V ■ Trigger-Key: user definable with 2 functions | ✓ |
| Power management | Exchangeable Lithium-Ion battery⁶ <ul style="list-style-type: none"> ■ Operating time with GEB361 ■ Operating time with GEB331 | up to 30 h up to 15 h |
| | External supply voltage <ul style="list-style-type: none"> ■ Nominal voltage: 13.0 VDC & 16 W max | ✓ |
| Data storage | <ul style="list-style-type: none"> ■ Internal memory: 2 GB Flash ■ Memory card: SD card 1 GB or 8 GB ■ USB memory stick: 1 GB | ✓ |
| Processor | <ul style="list-style-type: none"> ■ TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™ ■ Operating system - Windows EC7 | ✓ |
| Interfaces | RS232 ⁷ , USB device Bluetooth® ⁸ , WLAN ⁹ | ✓ ✓ |
| | Mobile Data sidcover: LTE-Modem for internet access | • |
| Guide Light (EGL) | <ul style="list-style-type: none"> ■ 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 <ul style="list-style-type: none"> ■ 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 <ul style="list-style-type: none"> ■ Distance accuracy: 1.0 mm (1 Sigma) ■ Distance range: 0.7 m to 2.7 m | • |
| Weight | | 4.3 - 4.5 kg |
| Environmental specifications ¹⁰ | <ul style="list-style-type: none"> ■ 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 | ✓ • ✓ ✓ |

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. (a) Face I standard, (b) Face I standard, face II optional

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

✓ = Included • = Optional ✗ = Not available

Laser radiation, avoid direct eye exposure.

Class 3R laser product in accordance with IEC 60825-1:2014.

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