FEATURES

Survey Anywhere With GPT-6000C Series
Non-prism Total stations are highly effective when measuring to points where it is dangerous, or difficult, to place prisms directly, and when job efficiency is the first priority.

Other Applications
- Mortgage/Cadastre-Real Estate
- Topo survey
- Stake-out
- Structural Deformation Monitoring

Plane Offset Program
Topcon’s exclusive “Plane Offset Program” is standard for all GPT products, and when any ambiguity with just measuring three (3) common points on a wall or plate to establish a reference plane. Then sight the unknown point on the wall or plate, and the GPT calculates coordinates and distance value of the desired plane.

With the "Plane Offset Program," you can measure to the edge or to the center of buildings and structures precisely.

CompactFlash™ Card System
The Topcon GPT-6000C series is compatible with 16MB/32MB CompactFlash™ Memory Card. The 16MB/32MB CompactFlash™ cards are available for the memory storage exceeding the instrument’s internal memory capacity of 320KB.

Data Communication System
The combination between MB-D5 system and the CompactFlash™ Memory Card helps with the compatibility when any PC is fitted with a PC Card slot, or external data card reader.

Toughest durability against the environment
dustproof/waterproof IP54
The Topcon GPT-6000C series will stand up any test weather or dusty job site condition that can occur in the field, giving the benefit of not experiencing down time due to inclement weather. The dustproof/waterproof protection (IP54) of the Topcon GPT-6000C series allows the instrument to be used in most all conditions.

SPECIFICATIONS

Accuracies

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Accuracy</th>
<th>Accuracy (Standard deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (mm)</td>
<td>±(3mm+2ppm)</td>
<td>±(3mm+2ppm)</td>
</tr>
<tr>
<td>Angle (″)</td>
<td>±(3″+0.008″)</td>
<td>±(3″+0.008″)</td>
</tr>
<tr>
<td>Plate Level (″)</td>
<td>±30″</td>
<td>±30″</td>
</tr>
<tr>
<td>Circular Level ′</td>
<td>±10′</td>
<td>±10′</td>
</tr>
<tr>
<td>Prism Mode</td>
<td>±(3mm+2ppm)</td>
<td>±(3mm+2ppm)</td>
</tr>
<tr>
<td>Non-prism mode</td>
<td>±(10mm)</td>
<td>±(10mm)</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>3 to 25m (9.8 to 82 ft)</td>
<td>±(10mm) m.s.e.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.5m to infinity</td>
<td>±(10mm) m.s.e.</td>
</tr>
<tr>
<td>Vertical Deviation</td>
<td>±0.1″</td>
<td>±0.1″</td>
</tr>
<tr>
<td>Min. Focus Distance</td>
<td>4.29 ft (1.3m)</td>
<td>4.29 ft (1.3m)</td>
</tr>
<tr>
<td>Min. Focus Distance</td>
<td>0.005 ft (1mm)</td>
<td>0.005 ft (1mm)</td>
</tr>
<tr>
<td>Fine measurement</td>
<td>0.005 ft (1mm)</td>
<td>0.001 ft (0.2mm)</td>
</tr>
<tr>
<td>Tracking measurement</td>
<td>0.02 ft (10mm)</td>
<td>0.02 ft (10mm)</td>
</tr>
<tr>
<td>Fine measurement</td>
<td>0.005 ft (1mm)/0.001 ft (0.2mm)</td>
<td>0.005 ft (1mm)/0.001 ft (0.2mm)</td>
</tr>
<tr>
<td>Tracking measurement</td>
<td>0.02 ft (10mm)</td>
<td>0.02 ft (10mm)</td>
</tr>
<tr>
<td>Prism Mode</td>
<td>±(3mm+2ppm)</td>
<td>±(3mm+2ppm)</td>
</tr>
<tr>
<td>Non-prism mode (Diffusing Surface)</td>
<td>±(10mm) m.s.e.</td>
<td>±(10mm) m.s.e.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.5m to infinity</td>
<td>±(10mm) m.s.e.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>14 hours</td>
<td>14 hours</td>
</tr>
<tr>
<td>Measuring Time</td>
<td>2.7 hours</td>
<td>2.7 hours</td>
</tr>
<tr>
<td>Measuring Time</td>
<td>1.8 hours</td>
<td>1.8 hours</td>
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<tr>
<td>Measuring Range</td>
<td>13.3 lbs. (6.0kg)</td>
<td>13.3 lbs. (6.0kg)</td>
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<tr>
<td>Measuring Range</td>
<td>8.2 lbs. (3.7kg)</td>
<td>8.2 lbs. (3.7kg)</td>
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<tr>
<td>Measuring Range</td>
<td>6.0 lbs. (2.7kg)</td>
<td>6.0 lbs. (2.7kg)</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>11″</td>
<td>11″</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>3.0 sec.</td>
<td>3.0 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>1.2 sec.</td>
<td>1.2 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>3.0 sec.</td>
<td>3.0 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.3 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.3 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>1.0 sec.</td>
<td>1.0 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.5 sec.</td>
<td>0.5 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.3 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.3 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.3 sec.</td>
<td>0.3 sec.</td>
</tr>
<tr>
<td>Measuring Range</td>
<td>0.3 sec.</td>
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<td>Measuring Range</td>
<td>0.3 sec.</td>
<td>0.3 sec.</td>
</tr>
</tbody>
</table>

Card System
CompactFlash™ Card (Type 1) (up to 32MB)
Card System
CompactFlash™ Card (Type 1) (up to 32MB)

Display
- 40 characters Graphics LCD
- Backlight

Measurement Display
11 digits: max. display 9999999.9999

Interface
- Serial I/F For computer: RS-232C (6 pin)
- Parallel I/F For printer: Centronics Standard (12 pin)

Coarse measurement mode
Approx. 0.5 sec. (Initial 2.5 sec.) Tracking measurement mode
Approx. 0.3 sec. (Initial 2.5 sec.) Fine measurement mode
1mm: Approx. 1.2 sec. (Initial 3.0 sec.)
2′ (600mm): Approx. 2.4 sec. (Initial 6.0 sec.)
3′ (900mm): Approx. 3.6 sec. (Initial 9.0 sec.)

Accurate to centimeter
in 120° reference
in 360° reference
in 360° reference

Topcon’s exclusive “Plane Offset Program” is standard for all GPT products, and when any ambiguity with just measuring three (3) common points on a wall or plate to establish a reference plane. Then sight the unknown point on the wall or plate, and the GPT calculates coordinates and distance value of the desired plane.

With the "Plane Offset Program," you can measure to the edge or to the center of buildings and structures precisely.

CompactFlash™ is a trademark of SanDisk Corporation.

* D: measuring distance (mm)
** Standard deviation based on DIN18723.
**FEATURES**

Long Range of 492 ft. (150 m) In Non-Prism Mode and 22,900 ft. (7,000 m) with Single Prism
Topcon’s unique pulse laser technology has made it possible for GPT-6000C Series to measure a long range of 492 ft. (150 m) in reflectorless mode (target: white surface), and 22,900 ft. (7,000 m) with a single prism.

High Speed Non-Prism Measurement of 0.3 seconds
Due to the specialties of pulse laser technology, measurement is virtually instantaneous (0.3 sec. in tracking mode and 1.2 sec. in fine mode.) Since a Class 1 invisible laser is used, the operation is completely safe for operation in public areas.

Simple Operation for Dual Measurement Types
Topcon adds a non-prism measurement function to Total Station GPT-6000C Series. Depending upon the field application you can change from prism to non-prism measurement mode easily with a simple

---

**New Standard for Pulse Total Station**

GPT-6000C series

Topcon, the leader in the surveying instruments field, now offers the most advanced technology that provides significant measuring performance and built-in MS-DOS® operating system in Reflectorless Total Station that makes use of state of the art laser pulse technology.

Distances can be measured without the use of prisms and long distance measurements can be achieved when using a reflector.

---

**High Productivity with Standard Survey Program**

The GPT-6000C series has a standard pre-installed basic application program “Standard Survey 600” which takes advantage of the large memory and enhanced graphic display.

**Standard Survey Software Features**

- The measured coordinates can be displayed in the measurement screen when recording.
- When setting out, points can be displayed in graphics on the display.
- Code library is improved. A layer table is created and each code is managed in its specified layer.

**STANDARD COMPONENTS**

- GPT-6000C series.................. 1 each
- Battery BT-50Q ................... 2 each
- Battery charger BC-27BR (120V) or BC-27CR (230V)...................... 1 each
- Tool kit with case.................. 1 each
- Plastic rain cover.................. 1 each
- Sun shade.......................... 1 each
- Lens cap.......................... 1 each
- Instruction manual................ 1 each

**OPTIONAL ACCESSORIES**

- Trough compass-6
- Diagonal eyepiece-10
- Solar filter-6
- Solar reticle-6
FEATURES

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STANDARD COMPONENTS

- GPT-6000C Series ................................ 1 each
- Battery BT-50Q .................................. 2 each
- Battery charger BC-27BR (120V) or BC-27CR (230V) ......... 1 each
- Tool kit with case ................. 1 set
- Lens cap ........................................... 1 each
- Plastic carrying case .............. 1 each
- Sun shade ....................................... 1 each
- Instruction manual ............... 1 each

OPTIONAL ACCESSORIES

- Diagonal eyepiece-10
- Solar filter-6
- Solar reticle-6
- Through compass-6
- Tape Dimension
- Tape Dimension
**New Standard for Pulse Total Station**

**GPT-6000C series**

**FEATURES**

- **Long Range of 492 ft. (150 m) In Non-Prism Mode and 22,900 ft. (7,000 m) with Single Prism**
  
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  Due to the specialties of pulse laser technology, measurement is virtually instantaneous (0.3 sec. in tracking mode and 1.2 sec. in fine mode.) Since a Class 1 invisible laser is used, the operation is completely safe for operation in public areas.

- **Simple Operation for Dual Measurement Types**
  
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**MENU STRUCTURE DIAGRAM**

**STANDARD COMPONENTS**

- GPT-6000C series ............ 1 each
- Battery BT-50Q ............... 2 each
- Battery charger BC-27BR (120V) or BC-27CR (230V) ............ 1 each
- Tool kit with case ............ 1 set
- Plastic rain cover ............ 1 each
- Lens cap ...................... 1 each
- Instruction manual ............ 1 each

**OPTIONAL ACCESSORIES**

- Trough compass ............... 1 each
- Diagonal eyepiece ............ 1 each
- Solar filter .................. 1 each
- Solar reticle ............... 1 each

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**FEATUERS**

**Survey Anywhere With GPT-6000C Series**

Non-Prism Total stations are highly effective when measuring to points where it is dangerous, or difficult to place prisms directly, and when job efficiency is the first priority.

**Other Applications**

- Mortgage/Real Estate
- Topo survey
- Stake-out
- Structural deformation monitoring

**Plane Offset Program**

Topcon’s exclusive “Plane Offset Program” is standard for all GPT products and enables any ambiguity with just measuring three (3) random points on a wall or plane to establish a known plane. Then sights the unknown point on the plane and the GPT calculates coordinates and distance value of the desired point. With the “TOPCON Plane Offset Program”, you can measure to the edge or to the corner of buildings and structures precisely.

**CompactFlash™ Card System**

The CompactFlash™ Memory Card helps with file compatibility whenever any PC is fitted with a PC Card Slot, or external data card reader.

**Data Communication System**

The combination between MS-DOS® system and the CompactFlash™ Memory Card and solves any ambiguity with just measuring three (3) random points on a wall or plane to establish a known plane. Then sights the unknown point on the plane and the GPT calculates coordinates and distance value of the desired point. With the “TOPCON Plane Offset Program”, you can measure to the edge or to the corner of buildings and structures precisely.

**Toughest durability against the environment-proof/waterproof IPX4**

The Topcon GPT-6000C series will stand up any wet weather or dusty job sites condition that may occur in the field, giving the benefit of not experiencing down time due to inclement weather. The dust-proof/waterproof protection (IPX4) of the Topcon GPT-6000C series allows the instrument to be used in most conditions.

**Degree of protection against water for the Topcon's GPT-6000C series is based on the IEC60529 standard.**

**SPECIFICATIONS**

**Dimensions**

- **L** × **W** × **H**
  - GPT-6001C: 178mm(L) × 230mm(W) × 32mm(H)
  - GPT-6002C: 178mm(L) × 230mm(W) × 32mm(H)
  - GPT-6003C: 178mm(L) × 230mm(W) × 32mm(H)
  - GPT-6005C: 178mm(L) × 230mm(W) × 32mm(H)

**Measurement Display**

- 11 digits: max. display 9999999.9999

**Least Count in Measurement**

- Fine measurement mode: 1mm: Approx. 1.2 sec. (Initial 3.0 sec.)
- Fine measurement mode: 0.005 ft. (1mm)/0.001 ft. (0.2mm)

**Prism Constant Correction Range**

- –99.9mm to +99.9mm, in 0.1mm increments

**Prism mode**

- Prism Type: Dual axis
- Method: Liquid type
- Compensating Range: ±4″

**System memory**

- FEEPROM: 512KB
- Main memory: RAM 640KB
- Data memory: RAM 320KB
- Program memory: FEEPROM 2MB

**Accuracy**

- **D:** measuring distance (mm)

**Output Voltage**

- 7.2 V

**Capacity**

- 2.7 Ah (Ni-MH)

**Prism reflection range**

- 0.2mm: Approx. 3.0 sec. (Initial 4.0 sec.)

**Prism reflection range**

- 0.005 ft. (1mm)/0.001 ft. (0.2mm)

**Accurate measurement**

- ±2mm (2σ)

**Measuring Time**

- Fine measurement mode: 1mm: Approx. 1.2 sec. (Initial 3.0 sec.)

**Recharging time**

- (at +68°F/+20°C) 1.8 hours

**Prism mode**

- Compensating Range: ±4″

**Measurement**

- Measurement Display: 11 digits: max. display 9999999.9999

**Focusing Range**

- 0.5m to infinity

**Magnification**

- Optical Plummet: 3×

**Diameter of circle**

- 71mm (0.3mgon) (0.6mgon) (1.0mgon) (1.5mgon)

**Image**

- Image: Erect

**Product Code**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Instrument (with battery)</th>
<th>1 prism (Condition 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPT-6001C</td>
<td>32MB</td>
<td>Condition 1: Sight haze with visibility about 20km (12.5 miles) moderate</td>
</tr>
</tbody>
</table>

**Output Interface**

- Serial I/F: For computer: RS-232C (6 pin)

**Data memory**

- 32MB/64MB CompactFlash™ Memory Card

**Peripheral Memory**

- 32MB/64MB CompactFlash™ Memory Card is available for the memory storage exceeding the instrument’s internal memory capacity of 320KB.
# FEATURES

**Survey Anywhere**  
With GPT-6000C Series  
Non-prism Total stations are highly effective when measuring to points where it is dangerous, or difficult to place prisms directly, and when job efficiency is the first priority.

**Other Applications**  
- Mortgage/Cadastre-Real Estate  
- Topo survey  
- Stake out  
- Structural Deformation Monitoring

**CompactFlash™ Card System**  
The Topcon GPT-6000C series is compatible with 16MB/32MB CompactFlash™ Memory Card. The 16MB/32MB CompactFlash™ cards available for the memory storage exceeding the instrument's internal memory capacity of 320KB.

**Data Communication System**  
The combination between M6-60C system and the CompactFlash™ Memory Card helps with the compatibility when any PC is linked with a PC Card/Hit, or external data card reader.

**Toughest durability against the environment**  
The Topcon GPT-6000C series will stand up any wet weather or dusty jobsite condition that may occur in the field, giving the benefit of not experiencing down time due to inclement weather. The dustproof/waterproof protection (IP54) of the Topcon GPT-6000C series allows the instrument to be used in most all conditions!!

## SPECIFICATIONS

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
<th>GPT-6000Cseries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Voltage</strong></td>
<td>AC 120V (BC-27BR), AC 230V (BC-27CR)</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>50/60Hz</td>
</tr>
<tr>
<td><strong>BATTERY CHARGER</strong></td>
<td>BC-27BR/BC-27CR</td>
</tr>
<tr>
<td><strong>Angle measurement</strong></td>
<td>14 hours</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>0.7 lbs. (0.3kg)</td>
</tr>
<tr>
<td><strong>Parallel I/F</strong></td>
<td>For printer: Centronics Standard (12 pin)</td>
</tr>
<tr>
<td><strong>Serial I/F</strong></td>
<td>For computer: RS-232C (6 pin)</td>
</tr>
<tr>
<td><strong>Measurement Range</strong></td>
<td>3 to 25m (9.8 to 82 ft) ±(10mm) m.s.e.</td>
</tr>
<tr>
<td><strong>Non-prism mode</strong></td>
<td>Non-prism mode (Target: White wall)</td>
</tr>
<tr>
<td><strong>Non-prism Total Stations</strong></td>
<td>Non-prism mode (Diffusing Surface)</td>
</tr>
<tr>
<td><strong>Distances</strong></td>
<td>Min. Focus Distance 4.29 ft. (1.3m)</td>
</tr>
<tr>
<td><strong>Magnification</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Length 150mm, Width 60mm, Height 175mm</td>
</tr>
<tr>
<td><strong>Plastic carrying case</strong></td>
<td>8.2 lbs.(3.7kg)</td>
</tr>
<tr>
<td><strong>Fine measurement mode</strong></td>
<td>0.005 ft. (1mm)/0.001 ft. (0.2mm)</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>Type Dual axis, Method: Liquid type, Compensating Range ±0.3 mgon (0.6 mgon) (1.0 mgon) (1.5 mgon)</td>
</tr>
<tr>
<td><strong>Least Count in Measurement</strong></td>
<td>0.1mgon</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td>Instrument (with battery)</td>
</tr>
<tr>
<td><strong>Output Voltage</strong></td>
<td>7.2 V</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td>2.7 Ah (Ni-MH)</td>
</tr>
<tr>
<td><strong>Prism Constant Correction Range</strong></td>
<td>–99.9mm to +99.9mm, in 0.1mm increments</td>
</tr>
<tr>
<td><strong>Prism Constant Correction Range</strong></td>
<td>–999.9ppm to +999.9ppm, in 0.1ppm increments</td>
</tr>
<tr>
<td><strong>Prism mode</strong></td>
<td>Setting out coordinate</td>
</tr>
<tr>
<td><strong>Prism mode</strong></td>
<td>Without sun glare on target</td>
</tr>
<tr>
<td><strong>Prism mode</strong></td>
<td>Measurement range for other objects depends on surface texture</td>
</tr>
<tr>
<td><strong>Laser Plummet Option</strong></td>
<td>Point Guide Provided</td>
</tr>
<tr>
<td><strong>Optical Plummet</strong></td>
<td>Magnification 3</td>
</tr>
<tr>
<td><strong>Plate Level</strong></td>
<td>30</td>
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<tr>
<td><strong>Measurement Display</strong></td>
<td>11 digits: max. display 9999999.9999</td>
</tr>
<tr>
<td><strong>Measuring Time</strong></td>
<td>Approx. 1.2 sec. (Initial 3.0 sec.)</td>
</tr>
<tr>
<td><strong>Pulse Total Station</strong></td>
<td>GPT-6000Cseries</td>
</tr>
<tr>
<td><strong>Crystal Oscillator</strong></td>
<td>Centronics Standard</td>
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