### **GM-100 Series**



SPECIFICATIONS						
Model		GM-101	GM-102	GM-103	GM-105	
Telescope				•		
Magnification / Resolving power		30x / 2.5"				
Others		Length: 171mm (6.7in.), Objective aperture: 45mm (1.8in.) (48mm (1.9in.) for				
		EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.)				
		Reticle illumination: 5 brightness levels				
Angle measurement			Redicte manimation. 5 brightness levels			
Minimum Display		0.5"/1" 1"/5"				
Timmani Bispiay		(0.0001 / 0.0002gon,	(0.000	2 / 0.001gon, 0.005 / (	0.02mil)	
			0.002 / 0.005mil)			
Accuracy (ISO 17123-3:2001)		1"	2"	3"	5"	
Dual-axis compensator /		Dual-axis liquid tilt sensor, working range: ±6'				
Collimation compensation		On/Off (selectable)				
Distance measurement		Oll/Oll (Selectable)				
Laser output*1	Reflectorless mode : Class 3R / Prism/sheet mode : Class 1					
Measuring range Reflectorless*3		0.3 to 800m (2,620ft.) / Under good conditions*4 : 1,000m (3,280ft.)				
	ective sheet*5*6	RS90N-K: 1.3 to 500m (4.3 to 1,640ft.), RS50N-K: 1.3 to 300m (4.3 to 980ft.),				
tions*2)	ective sneet	RS10N-K: 1.3 to 100m (4.3 to 300ft.)				
	prism	1.3 to 500m (4.3 to 1,640ft.)				
	prism	1.3 to 5,000m (4.3 to 16,400ft) / Under good conditions*4 : 6,000m (19,680ft.)				
Minimum Display	prisili	Fine: 0.0001m (0.001ft. / 1/16in.) / 0.001m (0.005ft. / 1/8in.) (selectable)				
I I I I I I I I I I I I I I I I I I I		Coarse: 0.001m (0.005ft. / 1/8in.) / 0.01m (0.02ft. / 1/2in.) (selectable)				
Accuracy*2 Reflectorless*3		Tracking / Road : 0.01m (0.02ft. / 1/2in.)				
(ISO 17123-4:2001) Reflective sheet*5*6		(2 + 2ppm x D) mm*8 (2 + 2ppm x D) mm				
(D=measuring distance in mm) Prism Measuring time*4*9 Fine		(1.5 + 2ppm x D) mm				
Coar		0.9s (initial 1.5s) 0.6s (initial 1.3s)				
Traci		0.6s (initial 1.3s) 0.4s (initial 1.3s)				
OS, Interface and Data management		0.45 (IIIIIai 1.55)				
Os, interface and Data management   Linux						
Display / Keyboard		Graphic LCD, 192 x 80 dots, backlight, contrast adjustment / Alphanumeric keyboard / 28 keys with backlight				
Control panel location		On both faces				
Trigger key		Yes (right side)				
	nal memory	Approx. 50,000 points				
	-in memory device	USB flash memory (max. 32GB)				
Interface		Serial RS-232C, USB2.0 (Type A for USB flash memory)				
	ooth modem (option)*10	Bluetooth Class 1.5, Operating range: up to 10m *11				
General						
Guide light*12		Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)				
Laser-pointer*12				r using EDM beam		
Levels Grap	hic			er Circle)		
Circu	lar level (on tribrach)		10',	2mm		
Plummet Option				0.5m (19.7in.) from trib		
	r (option)	Red laser diode (635nm±10nm), Beam accuracy: <=1.0mm@1.3m, Class 2 laser product				
Dust and water protection / Operating temperature		IP66 (IEC 60529:2001) / -20 to +60°C (-4 to +140°F)				
Size with handle		183(W)x 181(D)x 348(H)mm				
Instrument height		192.5mm from tribrach mounting surface				
Weight with battery & tribrach		Approx. 5.3kg (11.7lb)				
Power supply						
Battery		Li-ion rechargeable battery BDC70				
Operating time (20°C)*13		BDC70: Approx. 28hours*14				
Application program						
On board		•REM Measurement •3D Coordinate Measurement •Resection •Stake Out				
		•Topography Observation •Offset Measurement •Missing Line Measurement				
		<ul> <li>Surface Area Calculation •Route Surveying •Point to Line</li> </ul>				

\*1 IEC60825-1:Ed.3.0:2014/ FDA CDRH 21CFR Pert1040.10 AND1040.11 \*2 Average conditions: Slight haze, visibility about 20km (12 miles), sumy periods, weak scintillation.
\*3 With Kodak Gray Card White Side (90% reflective). When brightness on measured surface is 30,000 k. or less. Reflectorles range/accuracy may vary according to measuring objects, observation situations and environmental conditions. \*\*4 Good conditions: No haze, visibility about 40km (25miles), overcast, no scintillation. \*5 When the measuring beam's incidence angle is within 30° in relation to the reflective sheet target. \*\*6 Measuring range in temperatures of 50 to 60°C (122 to 140°F): RS90N-k: 1.3 to 500M (4.3 to 190th.) \*\*7 Face the prism toward the instrument during the measurement with the distance at 10 m or less.
\*\*8 Measuring range: 0.3 to 200m \*\*9 Fastest time under good conditions, no compensation, EDM ALC at appropriate setting, slope distance. \*\*10 Usage approval of Bluetooth wire-less technology varies according to country. Please consult your local office or representative in advance. \*\*11 No devices or sources of racide emissions/interference in the near vicinity of the instrument, on orin. \*\*12 The laser pointer and the guide light do not work simultaneously. \*\*15 Rigues will change depensing on the operating environment including temperatures and observation conditions. \*\*14 h use of ECO mode. Fine single measurement every 30sec.

#### **Standard Package Components**

- Main unit Battery (BDC70) Battery charger (CDC68A) Power Cable Lens cap Lens hood Tool pouch Precision Screwdriver Lens brush
- Hexagonal wrench (1.3 mm/2.5 mm)×2 Cleaning cloth Quick Manual CD-ROM (Operation manual) Laser caution sign-board Carrying case Carrying strap



#### TOPCON CORPORATION

75-1 Hasunuma-cho Itabashi-ku Tokyo 174-8580 Japan Phone: (+81)3-3558-2993 Fax: (+81)3-3960-4214

- Specifications may vary by region and are subject to change without notice.
- Bluetooth®word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Topcon is under license. - Other trademarks and trade names are those of their respective owner

#### Your local Authorized Dealer is:

## **GM-100 Series**



# **GM-100** Series

**Geodetic Measurement Station** 





## **Evolving Entry-Level Total Station**

- Construction and Survey Application Software On Board
- Best-in-Class Measuring Distance Feature
- Reliable Large Volume Internal Memory
- Long-Hour Battery Operation
- Strong Environmental Specification against Tough Sites