



 AUTO TRACKING TOTAL STATION

GTS-800A series



 SERVO TOTAL STATION

GTS-800 series



The New Standard in Total Station's TOPCON GTS-800A/800 SERIES



The evolution of total stations continues with the integration of the servo motor/auto tracking into the classic high end Topcon instruments. In addition TOPCON continues to offer field proven radio technology to allow one person field operation to further enhance productivity. Another choice for data communication is Topcon's innovative RC-I optical remote controller. With this system one person can operate the instrument from the prism without the use of radio modems.

FEATURES

HIGH SPEED-HIGH EFFICIENCY

● High Speed Rotation 50°/sec

High speed servo motors enable the GTS-800A/800 series to rotate at 50°/sec.

This ensures a smooth and quick rotation of both horizontal and vertical targeting. Also with the GTS-800A, high speed auto-tracking of 5°/sec is possible.

● New Jog/ Shuttle Mechanism

A new Jog/Shuttle mechanism replaces the clamp/tangent screw for high speed rotation and accurate target sighting.



FLEXIBLE DATA MANAGEMENT

● Huge Data Storage

2Mb data memory is provided as standard for GTS-800A/800 series. Coupled with the use of PCMCIA/ATA flash cards, it offers almost limitless memory storage capacity for your survey jobs. Also 2Mb program memory is provided for large application programs.



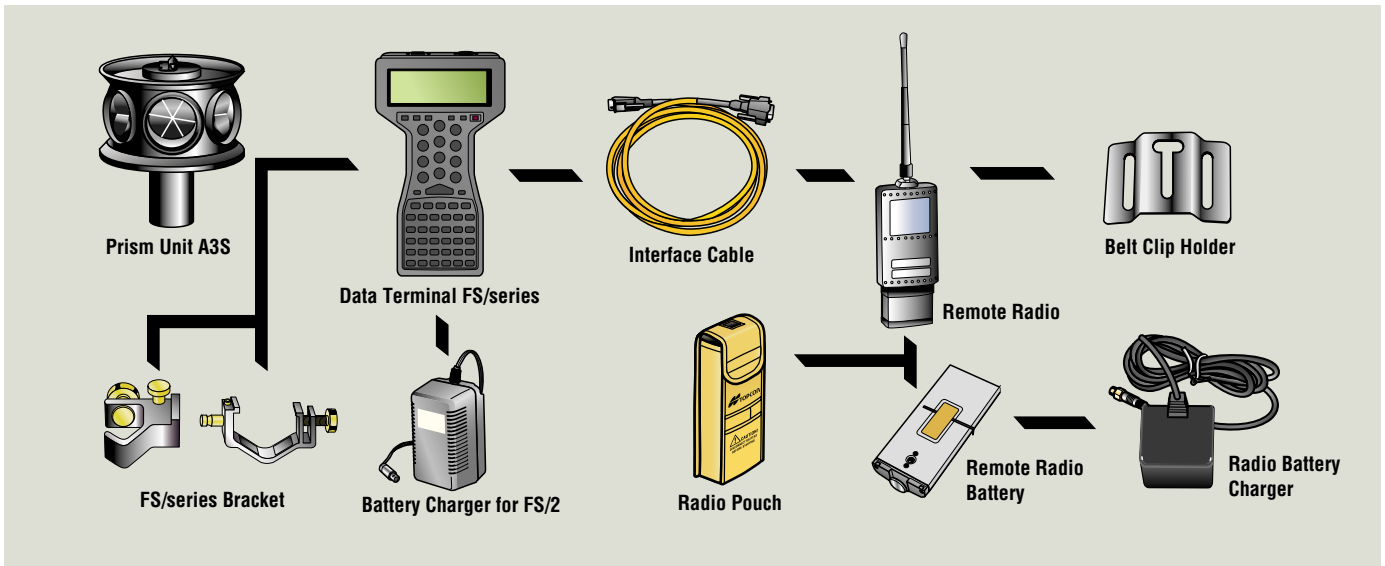
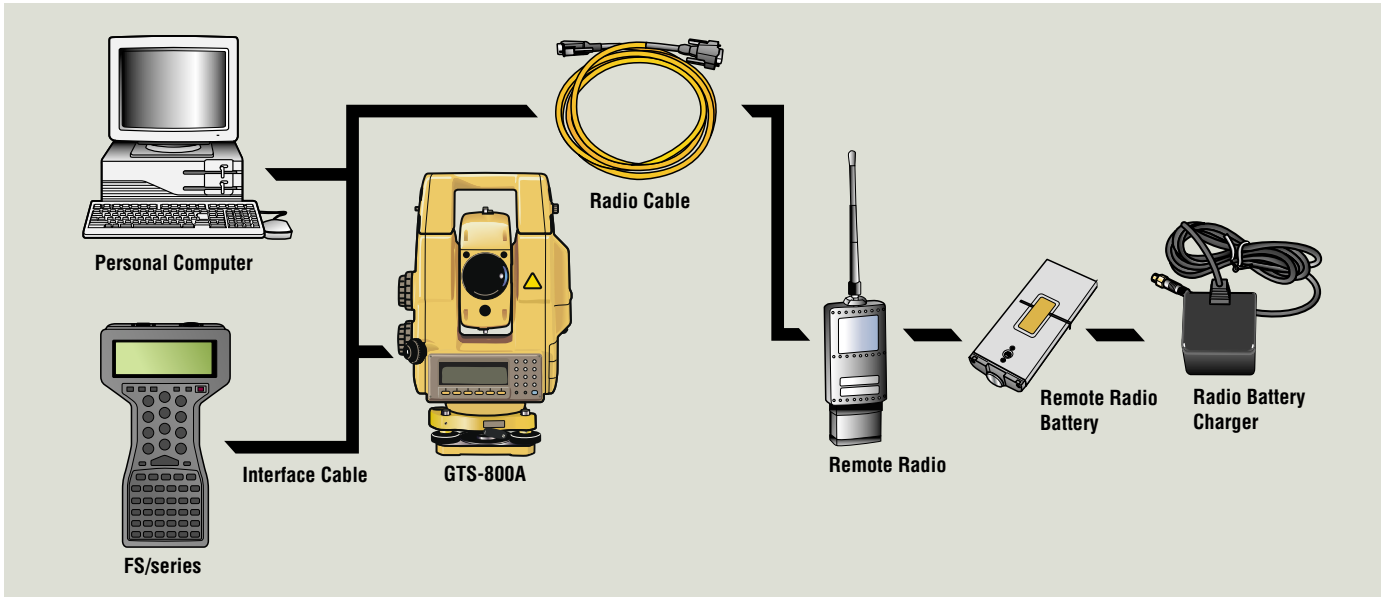
● PCMCIA/ATA Flash Card System

The GTS-800A/800 series are compatible with type II PC card of the PCMCIA world standard.

From Topcon the 256/512Kb or 1mb memory cards are available. ATA flash card can also be read.



SYSTEM DIAGRAM GTS-800AR



USER FRIENDLY OPERATION

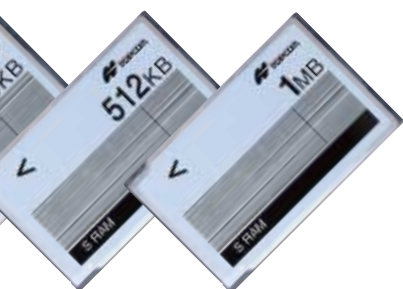
● Large Graphic Display

Instructions are clearly visible and easy to read on the large graphic display. Operating the instrument is simple using the soft-keys and Alphanumeric keyboard.

● Built-in MS-DOS Operating system

● Compact and Light Weight

● Water Resistance : IPX-4



High Productivity with Optional TDS Survey Pro Program

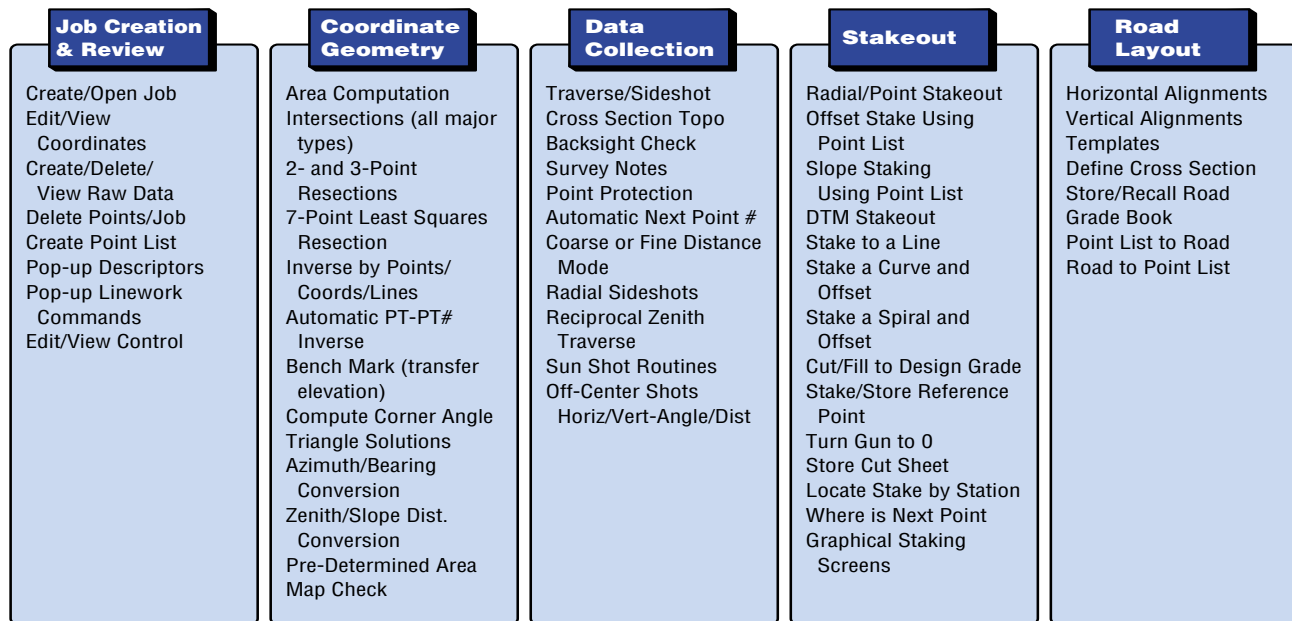
The Topcon GTS-800A/800 series has an optional application program "TDS Survey Pro" with similar functionality to that of other Topcon Total Stations and hand held data collectors.

TDS Survey Pro Application Software

The on-board application software in the GTS-800A/800 series is the TDS Survey Pro.

The GTS-800A/800 combine with the Survey Pro software allows the user to store jobs on-board for data collection and stake out.

Menu Structure Diagram



STANDARD COMPONENTS



GTS-800A/800 series	1 each	Silicon cloth.....	1 each
Battery BT-47Q.....	2 each	Plastic rain cover.....	1 each
Battery charger BC-27BR (120V or BC-27CR (230V).....	1 each	Plumb bob set	1 each
Tool kit with case	1 set	Lens cap.....	1 each
Plastic carrying case	1 each	Instruction manual.....	1 each

OPTIONAL ACCESSORIES

RC-1



Prism A3S



Solar filter-6



Solar reticle-6



Topcon's Newest Solution for One-Man Survey System

The auto tracking GTS-800A, used in conjunction with a radio communication link, innovative track beam and powerful TDS Survey Pro application software produces a unique surveying system that enables field surveying tasks such as stake out to be carried out by one person working on their own.

Upgradability for Your Future Needs

With this new series, it is possible to upgrade your servo driven GTS-800 to an auto tracking GTS-800A and even to a one-person survey system with the addition of radio link or RC-1 optical communication system.



GTS-800AR

- Remote Control
- Two Way Communication
- Search/Turn Functions

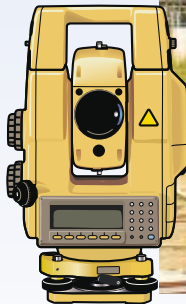


GTS-800A

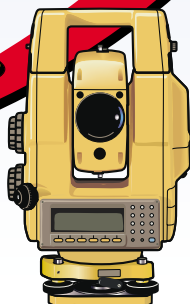
- High Speed Auto Tracking of 5°/sec
- Wide Track Beam



(with optional A3S prism)



Servo



GTS-800

- High Speed servo driven rotation of 50°/sec
- Automatic Direct/Reverse
- On-board or external data collection

SPECIFICATIONS

Model Name	GTS-800A/800	GTS-802A/802	Model Name	GTS-800A/800	GTS-802A/802
Angle measurement			Keyboard		
Max. trackable speed/100m			31.5km/h		
Method			Absolute encoder		
Search range			user definable		
Accuracy (DIN18723)			Positioning accuracy/100m		
H: 1" V: 1" (H: 0.3mgon V: 0.3mgon)			H: 3" V: 3" (H: 1.0mgon V: 1.0mgon)		
Repeatability by Auto Tracking			±4mm		
Minimum reading			3" (1.5mm/100m)*		
0.5"/1.0" (0.1mgon/0.5mgon)			1"/5" (0.2mgon/1mgon)		
Auto tracking range			up to 2,300 ft (700m)		
Distance measurement			Other function		
Condition 1			Position		
1 Prism			2 side		
3 Prisms			Point guide		
9 Prisms			OS		
2,000m (6,500ft)			Internal data memory		
2,600m (8,500ft)			2MB		
3,400m (11,100ft)			Data memory card		
Condition 2			PCMCIA card (Type II) / ATA Flash card		
1 Prism			Calendar clock		
3 Prisms			Average distance measurement		
9 Prisms			Stake out		
2,300m (7,500ft)			Revised angle equipment		
3,000m (9,900ft)			Resume function		
3,900m (12,800ft)			Operating temperature		
Condition 1: Slight haze with visibility about 20km (12.5 miles) moderate sunlight with light heat shimmer.			-20°C~+50°C		
Condition 2: No haze with visibility about 40km (25 miles), overcast with no heat shimmer.			Water protection		
Measuring accuracy			IPX 4		
±(2mm+2ppm-D)m.s.e.			Dimension		
Continuously 2.0 sec (Fine 1mm)			325 (H) × 229 (W) × 211 (D)mm		
Measuring time			Weight		
Minimum reading			7.9 kg (GTS-800A) 7.8 kg (GTS-800)		
0.2/1mm (Fine), 1/10mm (Coarse)			Power source		
Telescope			On-board Battery BT-47Q		
Focusing speed			Type: Ni-MH		
2 speed			Output: 7.2V Capacity: 3.8Ah		
1 speed			Battery life: 4.5h (GTS-800A) 6h (GTS-800) (Distance and Angle at 20°C)		
Objective lens diameter			Battery Charger		
50mm			Recharging time: 2 ~ 2.5 hours (+20°C)		
Resolving power			BC-27CR (230V)/BR (120V) (W/Discharging Function)		
3"			Operating temp.: +10 ~ +40°C		
Field of view			RC-1 (Optional for GTS-800A)		
1°30'			Range (w/prism 2)		
Magnification			Weight		
30×			1.5kg (inc. battery)		
Display			Dimensions		
Display unit			Power source		
2 side Graphic LCD, Max. 40chr × 10 lines			148 (H) × 226 (W) × 186 (D)mm		
Back light			AAA dry battery × 6 : 9V		
Yes			battery life: 40h (Alkaline)		
Contrast adjustment			Display		
Yes			Interface		
Heater function			Laser safety		
Yes			Y2K compliant		
Servo mechanism			Yes		
Driving mechanism					
Servo control with slow down function					
Driving range					
All range rotating					
Coarse movement					
Shuttle control Outside: 7 speed change					
Fine movement					
Jog control Min. 1 sec					
Max. rotating speed					
50°/sec					
Auto Tracking (GTS-800A series only)					
Max. auto tracking speed					
5°/sec					

* The standard deviation in the condition of stable air.

• Designs and specifications herein are subject to change without notice.

Important In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.



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