◩ TAMAYA

Digital
Balloon Theodolite

TD-4

TD-4 shows unprecedented cost performance with high accuracy and high resolving power (0.01° as smallest unit of display). With its built-in memory, a data collector is no longer necessary.

TD-4 is a digital balloon theodolite which traces a pilot balloon in the air, and through elevation and azimuth data informs the user the conditions in the upper atmosphere.

With a built-in memory function, the TD-4 can store up to 20,000 measurement data. The traditional data collector is no longer necessary, and the user can check stored data on the display of TD-4. Also, with the optional printer, the user can print out data real time. Or, the user can connect a computer to TD-4's RS-232C interface to analyze data from TD-4 with the computer.

Compact, lightweight (5.2kg), and with high accuracy (smallest unit of display is 0.01° for both azimuth and elevation), TD-4 is about half in weight and five times the accuracy compared to TD-3, our previous model.

DIGITAL BALLOON THEODOLITE

With the optional printer, data can be printed out at real time.


```
Chi II 16:28:46      2
IIC      0  A  0.01
             E  0.61
D     10  A  5.54
             E  0.61
D     20  A  5.53
             E  2.53
D     30  A  5.54
             E  7.64
D     40  A359.06
             E 11.24
D     50  A355.84
             E 17.06
E     60  A352.42
             E 18.31
```

TD-4's Data-processing Software

Using TD-4's data-processing software, the user can make graphs showing relationships between "altitude and wind direction" and "altitude and wind speed", as well as graphs showing the path of pilot balloon. The user can make such graphs based on azimuth and elevation data, taken at certain intervals, which are stored as Excel format.

SPECIFICATIONS

◆Main Telescope

Diameter	47mm
Magnification	18X
Image	Inverted
Field of view	2˚30´
Resolution	3.5˝

◆Sub Telescope

Diameter	16mm
Magnification	4X
Image	Inverted
Field of view	11˚
Resolution	12˝

◆Digital Angle Display

Azimuth	0˚–360˚
Elevation	0˚–360˚
Smallest unit	0.01˚(for both azimuth and elevation)
Display	LCD (16 digits, 2 lines)

◆Functions

Clock function	Built-in real-time clock Calendar function
Timer	1–99 seconds
Command and alarm	Buzzing
Input of measurement error	Push button
Azimuth set function	Key input (dialogue)
External input/output function	RS-232C
Operating time	Approx. 20 hours continuous

◆Level vial

Sensitivity	90˝/2mm

◆Dimensions / weight

Body	192(W)x240(D)x270(H)mm 5.2kg
Case	465(W)x220(D)x305(H)mm 4kg
Tripod(metal)	1700mm(when fully expanded) 1030mm(when fully contracted) 4kg

◆Power

Main power	Lithium ion battery (rechargeable)
Backup memory	Lithium battery

◆Accessories

Hood	1 piece
Eyepiece filters	1 piece (switch between colors by rotating)
Tubular compass	1 piece
Level vial adjusting pin	1 piece
Earphone for buzzer	1 piece
Tripod	1 piece
Battery charger (100-240V)	1 piece
Carrying case	1 piece
Instruction manual	1 piece

◆Optional items

Printer	Thermal head, 16 digits 80(W)x120(D)x60(H)mm 500g comes with a connection cable
Software for TD-4	
RS-232C cable	For PC
Chart paper	10 rolls per set

GO!

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