

## SPECIFICATIONS

### Telescope

|                                 |  |
|---------------------------------|--|
| Image                           | Erect  |
| Magnification                   | 26×  |
| Field of view                   | 1°10' (2mm diameter/100m)  |
| Effective diameter of objective | 30mm   |
| Diameter of eyepiece            | 1.15mm   |
| Relative brightness             | 1.32   |
| Resolving power                 | 3"   |
| Minimum focus                   | Zero distance from the front surface of the objective lens.            |
| Eyepiece adjustment range       | ±5 diopters  |
| Recommended working distance    | Up to 100 m (longer distances are possible with suitable size targets) |

### Automatic Levelling System

|                    |                 |
|--------------------|-----------------|
| Compensation range | ±15 min. of arc |
|--------------------|-----------------|

### Circular Level

|             |                    |
|-------------|--------------------|
| Sensitivity | 10 min. of arc/2mm |
|-------------|--------------------|

### Centering Device

|                |                    |
|----------------|--------------------|
| Movement range | 16mm diameter area |
|----------------|--------------------|

### Tripod Screw

35mm diameter; 2mm pitch

### Levelling Base

Detachable; three levelling screws; center aperture.

## EQUIPMENT

### Dimensions

|                             |                                      |
|-----------------------------|--------------------------------------|
| Auto-V-Site, Model VS-A1    | 144 mm (W) × 236 mm (L) × 215 mm (H) |
| Metal carrying case         | 230 mm (W) × 290 mm (L) × 260 mm (H) |
| Type C fixed-length tripod  | 1.5 m long                           |
| Type C extension leg tripod | 0.9 to 1.5 m long                    |
| Setting plate               | 150mm × 150mm × 20mm                 |
| Targets                     | 150mm × 150mm × 2mm                  |
| Adjustment target           |                                      |

### Weights

|                             |          |
|-----------------------------|----------|
| Auto-V-Site, Model VS-A1    | 5.4 kgs. |
| Metal carrying case         | 4.2 kgs. |
| Type C fixed-length tripod  | 4.7 kgs. |
| Type C extension leg tripod | 4.9 kgs. |
| Setting plate               | 550 gs.  |

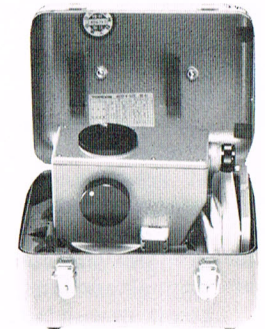
### Contents of Metal Carrying Case

|                          |           |
|--------------------------|-----------|
| Auto-V-Site, Model VS-A1 | 1 each    |
| Setting plate            | 1 each    |
| Targets                  | (up to 3) |
| Adjusting pin            | 1 each    |
| Cleaning brush           | 1 each    |
| Silicon cloth            | 1 each    |

### Remarks

The Auto-V-Site, Model VS-A1, is supplied with the adjusting pin, cleaning brush, silicon cloth and metal carrying case only.

The tripods, setting plate, targets and adjustment target are optional accessories which are only available against special orders.



## TOPCON Auto-V-Site, Model VS-A1

Congratulations on your choice of the TOPCON Auto-V-Site, Model VS-A1, which we are sure will serve you well and give you full satisfaction for years to come.

The TOPCON Auto-V-Site, Model VS-A1, is an easy-to-use optical instrument for establishing and checking vertical lines of sight and has been specially developed as a modern tool for establishing verticals, without the uncertainty or the delays of the plumb line or the complexity of the theodolite. The instrument meets requirements for a precision tool capable of the high standards required in present high rise constructions, with a degree of accuracy never before within reach of construction engineers. It is also the world's first instrument for establishing and checking vertical lines of sight, both up and down, through the same eyepiece, with a knob switching the line of sight up or down, as required.

Operations are extremely fast and simple because precision levelling is not required, with an Automatic Compensation System (Patent No. USP 3838927) automatically insuring a vertical line of sight even through the instrument may be tilted up to 15 minutes of the arc. Centering the instrument on the vertical line of sight of the ground-mark or reference point (both above and below) is also very fast because of the built-in Centering Device which can speedily position the vertical axis of the instrument by shifting the instrument horizontally within a 16mm circular area, without disturbing the circular level bubble.

Vertical lines of sight are speedily and simply established by making two sightings on the same overhead target, with the second sighting made after rotating the instrument 90° on its base.

The true vertical line is established by positioning the

target until it is located at the intersection of the two planes defined by the horizontal-line of the reticule seen through the instrument's eyepiece.

The TOPCON Auto-V-Site is three times more accurate than the plumb line, while working speed is 1/30th that required for establishing verticals with the plumb line. Furthermore, the instrument can be used in all types of weather, which, of course, is not the case with the plumb line.

This manual has been prepared to acquaint you with some of the finer points of the instrument, its operation and construction, as well as adjustments, in order that you may be able to use the instrument with maximum efficiency at all times and thus obtain optimum performance from it, as well as being able to extend the service-life of the Auto-V-Site, Model VS-A1.