

**SOKKIA**

# B20 · B21

## AUTOMATIC LEVEL

B20 32x Telescope	B21 30x Telescope	B20 1.0mm S.D. for 1km	B21 1.5mm S.D. for 1km	IP X4
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# Precision Levels for Every Use— Accurate, Sturdy, Compact and Weatherproof

# B20 · B21

AUTOMATIC LEVEL



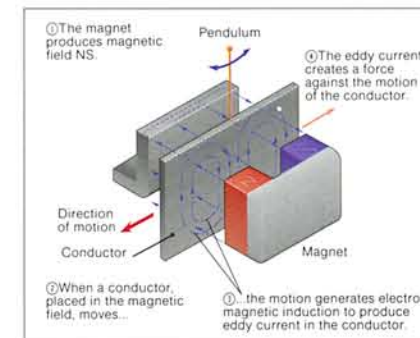
The SOKKIA B20/B21 offers the best of our famed leveling technology in a more compact, easy-to-use design. Tougher, smaller and more tightly sealed against humidity and dust—for superior performance whatever the conditions. What is more, the B20/B21 is quick and easy to set up, simple to sight, and immune to vibration and shock.

Fully resistant to rain and splashing water from any direction, it won't fog even with sudden temperature changes—leaving you free to concentrate on the job at hand. The B20/B21 conforms to IEC standard IPX4 for water-resistance.



## Rapid, Easy Setup

Using a spherical-head tripod, setting up the level is fast and easy even on angled, uneven surfaces. Set the level onto the tripod head, center the circular bubble, and away you go. It also fits flat-head tripods.



## Reliable Automatic Compensator

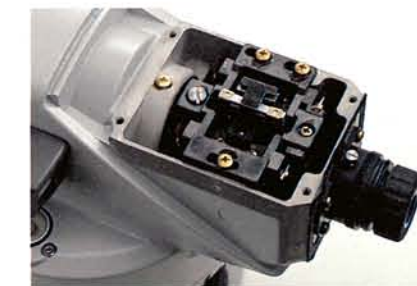
Four suspension wires and magnetic damping action ensure stability, even when exposed to changing atmospheric conditions, vibrations, or shock. The compensator range is as wide as  $\pm 15$  minutes.

## Precise Collimation

This model incorporates an endless horizontal motion drive with two knobs for fast and easy aiming,



operable with the right or left hand. Simply turn the instrument, then use the fine motion to precisely aim the level at the target. Two-speed focus knob switches between coarse and fine focussing for even faster operation. The telescope's optics are bright and clear. The 30cm (1ft.) minimum focus distance (from the center of the instrument) makes it easy to use in confined locations.



## Convenient Horizontal Angle Measurement

This model is equipped with an easy-to-use horizontal circle for



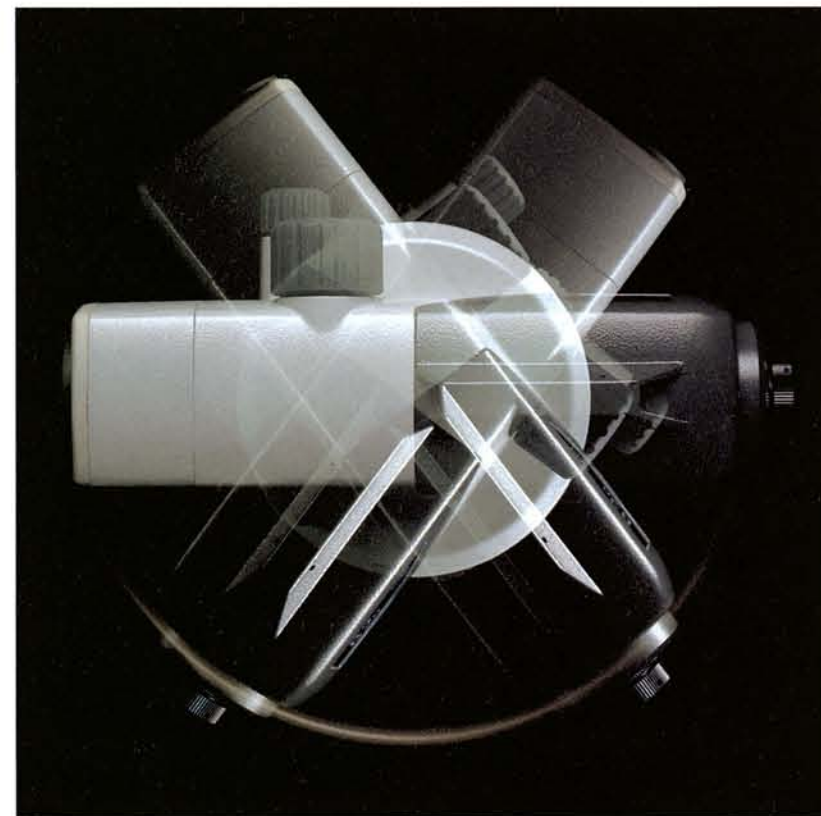
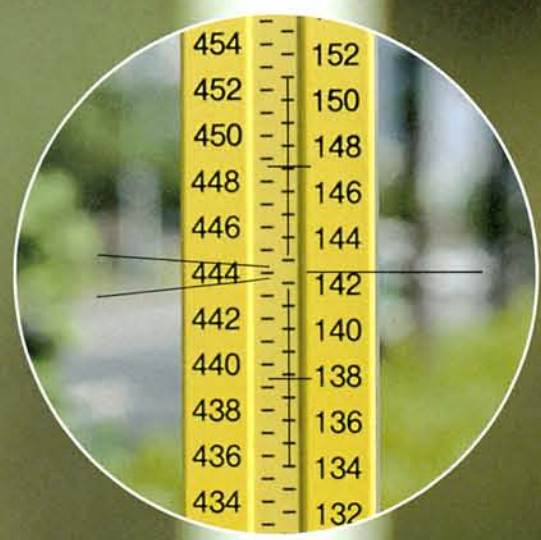
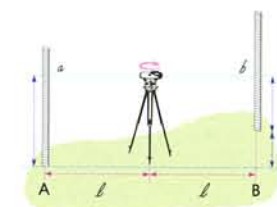
laying off and measuring angles (direct reading to  $1^\circ$  or  $1\text{gon}$ ). The readout window is conveniently located on the instrument base—directly below the eyepiece.

## Easy to Adjust

Reticle adjustment is made with one screw. Circular level vial is adjusted with two screws. Both adjustments are simple and fast with provided tools.

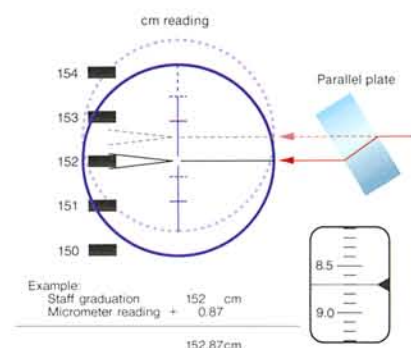
## Stadia

The stadia lines on the reticle allow easy calculations of distance. Simply multiply the distance between the top and bottom stadia lines on the staff by 100.



## Precise Leveling

The reticle can be fitted with the optional parallel plate micrometer for precise measurement in increments of 0.1mm (estimation 0.01mm).



## B20 • B21 Specifications

	B20	B21
<b>Telescope</b>		
Length	215 mm (8.5 in)	
Objective aperture	42 mm (1.7 in)	
Magnification	32x	30x
Image	Erect	
Resolving power	3"	
Field of view (at 100m)	1°20' (2.3 m)	
Minimum focussing distance	0.3 m (1.0 ft)	
Reticle	Wedge shape	
Stadia multiplication constant	100	
Stadia additive constant (cm)	0	
Reticle illumination	by LA8 (optional)	
Two-speed focus	Standard	
Sunshade	Standard	
<b>Compensator, Automatic Level Mechanism</b>		
Damping system	Magnetic	
Working range	±15'	
Setting accuracy	0.3"	
<b>Parallel Plate Micrometer</b>		
Device	OM5 (Metric, optional) OM5F (Imperial, optional)	
Range	10 mm (0.01 ft)	
Division	0.1 mm (0.001 ft)	
Estimation	0.01 mm (0.0001 ft)	
<b>Leveling Accuracy</b>		
Standard deviation for 1km double-run leveling		
Without micrometer	1.0 mm (0.04 in)	1.5 mm (0.06 in)
With micrometer	0.8 mm (0.03 in)	1.2 mm (0.05 in)
<b>Horizontal Circle</b>		
Aluminium, clockwise		
Diameter	103 mm (4.1 in)	
Graduation	1° (1 gon)	
Estimation	0.1° (0.1 gon)	
<b>Water Resistance</b>		
Complies with International Electrotechnical Commission Standard IPX4 (IEC60529).		
<b>General</b>		
Sensitivity of circular level	10/2 mm	
Mirror for circular level	Pentaprism	
Horizontal fine motion	Double-sided endless drive	
Size (W x D x H)	130 x 215 x 135 mm (5.1 x 8.5 x 5.3 in)	
Weight (instrument)	1.85 kg (4.1 lbs)	
Base	Concave and flat	
Base screw	ø5/8"	

Specifications are subject to change without notice.

## Options

### Diagonal Eyepieces: DE16 (for B20), DE22 (for B21)

A diagonal eyepiece facilitates work in tight spots with little space behind the instrument.

### LA8 Reticle Illumination Unit (B20, B21)

Illumination unit makes it possible to keep working under low-light conditions. A light-emitting diode illuminates the crosshairs.

### OM5 Parallel Plate Micrometer (B20, B21)

For precise measurement. Available in metric or imperial models.

### ACE1 Auto-Collimation Eyepiece (B20)

The ACE1, designed specifically for installation and measurement of industrial machinery, produces a horizontal center line using an AC power source.

### EL5 40x Removable Eyepiece (B20)

Increases the standard 32x image to 40x.



DE16



OM5



DE22



ACE1



LA8



EL5

## Standard Equipment

Instrument, lens cap, plumb bob, vinyl cover, tool kit, operation manual, and carrying case.



Sokkia is a sponsor of the International Federation of Surveyors

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