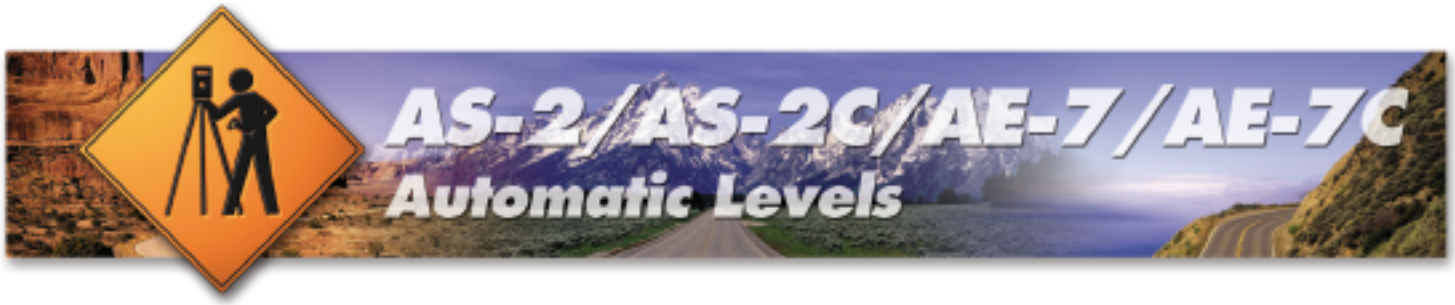



# Rugged and waterproof, plus high-power telescope with superior Nikon optics

The Nikon® AS-2/AE-7 Series automatic levels from Tripod Data Systems™ (TDS) deliver performance, ruggedness and accuracy to help you get the job done right. Airtight and filled with dry nitrogen gas, they provide reliability in driving rain and high humidity. Nikon's world-renowned optics give you brighter, clearer images and an improved minimum focusing distance for working in close quarters. Plus it offers rugged construction and a unique wire-suspended compensator with air damper that automatically levels the line of sight and absorbs fine vibrations.

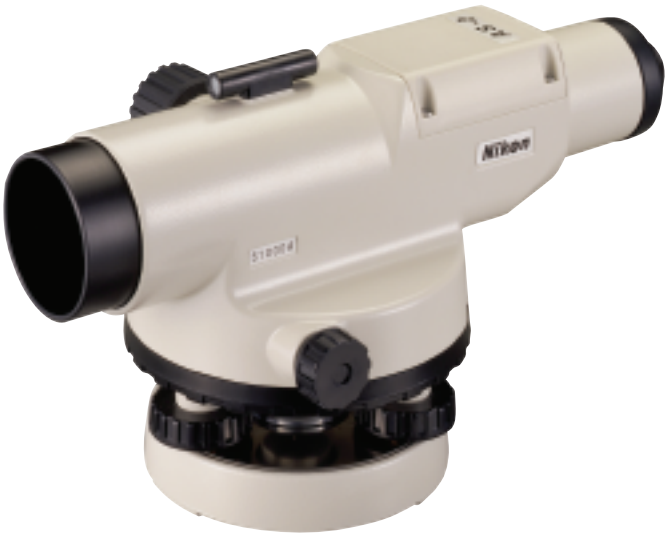
## Gas-filled telescope, automatic compensator ensure reliability

Every telescope in the AS-2/AE-7 Series is airtight and filled with dry nitrogen gas to provide waterproof, fogproof reliability in the most humid or wet environment. Rugged construction makes them highly shock resistant, plus Nikon's unique automatic compensator uses a wire-suspended pendulum and air damper to prevent magnetic interference. The AS-2 and AS-2C offer a compensation range of ±12'; the AE-7 and AE-7C range is ±16'. All offer highly accurate 1-km double-run leveling (AS-2 and AS-2C is ±0.8 mm, AE-7 and AE-7C is ±1.0 mm).

## See brighter, sharper images with improved minimum focusing

You'll see the difference when you look through a Nikon automatic level. Nikon's legendary optics effectively let in more light. The result is brighter, sharper images, especially in low-visibility conditions. You'll see much more detail and much less distortion. Better optics help you aim more precisely, and they're much easier on your eyes—something you'll really appreciate on long workdays.

The AS-2 and AS-2C feature a 34x high-magnification telescope with optional 22x low-power and 43x high-power eyepiece lenses. The AE-7 and AS-7C feature a



The waterproof telescope for the AS-2/AE-7 Series automatic levels is also airtight and filled with dry nitrogen gas to eliminate fogging in wet or humid environments.

30x telescope with optional 19x low-power and 37x high-power eyepiece lenses. An improved minimum focusing distance gives you better performance in tight spots. The AS-2 and AS-2C offer minimum focusing down to 3.28 ft (1 m); the minimum focusing distance for the AE-7 and AE-7C is 0.98 ft (0.3 m).

## Easy to set up and use

The AS-2/AE-7 Series helps you get to work quickly. All four models can attach to both flat- and spherical-head tripods. Their endless horizontal fine drive ensures smooth, precise pointing and angular measurement. The new friction brake eliminates the need for horizontal alignment clamps, allowing for rapid rotation. The standard optical sight lens helps you find your target quickly, easily and accurately. In addition, a mirror with a pentaprism lets you view the circular bubble as an erect image during setup and sighting.

TDS™
THE WAY TO GO
TRIPOD DATA SYSTEMS
A TRIMBLE COMPANY

# Automatic Levels

## AS-2/AS-2C/AE-7/AE-7C Specifications

### Add accessories for specific survey applications

The AS-2/AE-7 Series models include a carrying case with shoulder strap, adjusting pins, lens cap and a plumb bob on the AS-2C and AE-7C. You can also choose from several optional accessories to help you work more productively in some of the most challenging survey environments. Choose the accessories you need to get the most out of your automatic level.

Plane parallel micrometer-3—Recommended for high-precision leveling applications such as machinery installation, the plane parallel micrometer attaches to the front of the telescope. When the parallel glass plane is tilted, it displaces the line of sight parallel to itself to measure the fractions of graduation interval on a leveling rod. The measurement range is 0.4 in (10 mm) with the smallest unit of measurement 0.004 in (0.1 mm).

Illuminator-3—For working in tunnels or in other extremely low-light conditions, the compact, one-piece illuminator attaches to the front of the telescope to provide light to the built-in reticle. You can adjust the brightness using a rotary switch. The illuminator is powered by two AA (R6) batteries.

Diagonal eyepiece prism—The diagonal eyepiece prism is useful for steep sighting, plumbing and other applications where you're using the automatic level in a confined space.

High- and low-power eyepiece lenses—Low-power eyepiece lenses offer a very bright field when viewing in low-light conditions, and they also offset heat shimmer. High-power eyepieces provide a sharp, high magnification for fine measurements.

| | AS-2/2C | AE-7/7C |
|---|---|---|
| **TELESCOPE** | | |
| Tube length: | 10.2 in (259 mm) | 8.7 in (220 mm) |
| Image: | erect | erect |
| Effective aperture of objective: | 1.77 in (45 mm) | 1.57 in (40 mm) |
| Magnification: | 34x | 30x |
| Resolution power: | 2.5" | 3" |
| Field of view: | 1°20' (2.3 ft @ 100 ft) | 1°30' (2.6 ft @ 100 ft) |
| Minimum focusing distance: | 3.28 ft (1.0 m) | 0.98 ft (0.3 m) |
| Stadia ratio: | 1:100 | 1:100 |
| Stadia additive constant: | 0 | 0 |
| **LEVEL VIAL SENSITIVITY** | | |
| Circular level: | 10'/2 mm | 10'/2 mm |
| **STANDARD DEVIATION in 1-km double-run leveling** | | |
| Without micrometer: | ±0.8 mm | ±1.0 mm |
| With micrometer: | ±0.4 mm | ±0.45 mm |
| **AUTOMATIC COMPENSATOR** | | |
| Type: | wire-hung, air damper | wire-hung, air damper |
| Compensation range: | ±12' | ±16' |
| Setting accuracy: | ±0.3" | ±0.35" |
| **HORIZONTAL CIRCLE (AS-2C/AE-7C only)** | | |
| Diameter of circle: | 3.2 in (80 mm) | 4.6 in (118 mm) |
| Minimum increment: | 1°/1 g | 1°/1 g |
| Scale reading (direct): | 10'/10 cg | 1°/1 g |
| Reading by estimation: | 1'/1 cg | 0.1°/0.1 g |
| **DIMENSIONS** | | |
| Instrument (L x W x H): | 10.2 x 5.4 x 5.6 in (259 x 136 x 142 mm) | 8.7 x 5.4 x 5.6 in (220 x 136 x 142 mm) |
| Carrying case (L x W x H): | 14.9 x 7.7 x 7.8 in (379 x 195 x 197 mm) | 14.9 x 7.7 x 7.8 in (379 x 195 x 197 mm) |
| **WEIGHT** | | |
| Instrument: | AS-2: 4.0 lbs (1.8 kg)<br>AS-2C: 4.2 lbs (1.9 kg) | 3.7 lbs (1.7 kg) |
| Carrying case: | AS-2: 4.0 lbs (1.8 kg)<br>AS-2C: 4.2 lbs (1.9 kg) | AE-7: 4.0 lbs (1.8 kg)<br>AE-7C: 4.2 lbs (1.9 kg) |

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