

## DET-2 Applications

- Establishing 90 degree reference lines
- Checking angles, alignment, and plumb
- Anchor bolt alignment
- Gravity flow pipe laser setup
- Steel column placement
- Alignment of forms, tilt-up walls, and curtain walls
- Basic grade work
- Short range leveling

## Spectra Precision DET-2 Electronic Theodolite



### Full Featured Angle Measuring Digital Electronic Theodolite

The Spectra Precision® DET-2 is a rugged, cost-effective theodolite designed to give accurate angle measurements in general construction applications. The affordable, versatile, easy to use instrument and accessories will increase your productivity when turning angles and setting elevations and lines.

The DET-2 has a large liquid crystal display on both sides of the instrument with big, easy to read characters. A built-in reticle illuminator and LCD back-lighting can be turned on if needed in low light conditions with a single press of a button. A six button keypad provides easy access to the most common functions. An optical plummet allows quick setup over a control point. Simple intuitive operation will have your crew in the field being productive without any special training.

A 2" accuracy specification along with vertical axis compensation ensures the DET-2 will be accurate enough for your most demanding job requirements. High quality optics and a 30x magnification telescope with a short minimum focus distance provides for clear, sharp viewing at both long and very short distances.

Various display modes ensure the operator has the most efficient settings for the job at hand. Angle display readings of 1" or 5" are selectable to meet any operator's preferences for fast readings. The horizontal angle hold and clockwise or counterclockwise angle measurement can be selected with one touch of a button. Setting the horizontal angle to "0" is also a simple, single press of a button. The vertical angle can be instantly converted to percent of grade.

A setup mode allows user customization of the unit. The options include turning the audible tones on or off for right angle notification, units of angle measurement of degree, gon, or mil, and selection of the vertical angle zero position.

Basic distance measurement can be easily calculated using the stadia hairs on the telescope.

The DET-2 comes equipped with both a NiMH rechargeable battery pack and charger and an alkaline battery pack that utilizes 4 standard AA sized batteries. The rechargeable batteries are efficient and lower operating costs, but the alkaline backup is the perfect solution when there is not enough charge to finish a project. The battery packs have a positive action locking knob for confident, secure fitting on the instrument. Battery strength is indicated on the LCD's for efficient planning. An automatic shut-off can be selected for higher battery efficiency.

The DET-2 has an IP54 environmental rating and is designed to withstand the harsh conditions of the construction jobsite.

Each DET-2 comes equipped with a plumb bob, NiMH rechargeable battery pack and charger, alkaline battery pack, adjustment tools, rain hood, multi-language user guide, and a hard-shell carrying case.



Extra Large Characters and Simple Control Panel



# Spectra Precision DET-2 Theodolite

Accurate, Affordable, and Easy To Use



## DET-2 Features and Benefits

- 2" angular accuracy - accurate enough for any construction job, yet the display resolution can be tailored to any operator's preferences for fast readings
- Vertical axis compensation - tilt sensor provides the highest level of accuracy and can be turned on or off depending on job requirements
- Dual LCD with large characters - easy to see angle readings eliminate errors and reduces eye fatigue
- Back-lit LCD and telescope reticle - allows work in low light conditions including indoors and extended hours near dawn and dusk
- Simple six button keypad - quick setups and simple operation with low operator learning curve
- Large suite of programmable settings - provide multiple options for various users and job requirements including zero position of vertical angle
- Measurement units in degrees, gon, or mils
- 90 degree angle audible notification - for quick turning and set out of right angles
- Instant conversion of vertical angles to percent of grade - convenient for slope work and when used in conjunction with DialGrade® pipe work.
- NiMH rechargeable battery pack and charger - lower operating cost with reusable batteries
- Alkaline battery pack standard - provides backup and eliminates downtime if the charge is lost in the middle of a job
- Battery status indicator - no power surprises and allows for better planning
- Automatic shutoff - conserves battery life when not in use - can be disabled if desired
- IP54 environmental rating - dust and water resistance withstands the tough conditions of the construction environment

## DET-2 Specifications

**Telescope**  
Image ..... Erect  
Magnification ..... 30x  
Aperture ..... 45 mm (1.7 in)  
Focus Distance ..... 1.35 m to  $\infty$  (4.43 ft) to  $\infty$   
Field of View ..... 1° 30'  
Stadia Ratio / Constant ..... 100 / 0

**Optical Plummet**  
Image ..... Erect  
Magnification ..... 3X  
Angle of view ..... 5°  
Focusing range ..... 0.5 m  $\sim$   $\infty$  (1.6 ft  $\sim$   $\infty$ )  
Reticle type ..... Crosshair

**Angle Measuring System**  
Minimum Reading ..... 1" or 5"  
Precision ..... 2"  
Units ..... Deg / mil / gon / V %  
Display ..... Dual, Large Character, Backlit LCD

**Tilt Sensor**  
Automatic Compensation .....  $\pm 3'$  Range  
User set On/Off

**Vials**  
Tubular ..... 30"/2 mm  
Circular ..... 8'/2 mm

**One Touch Button Functions**  
ON / OFF ..... Power  
☀ ..... Backlight / Illumination On / Off  
HOLD ..... Angle Hold  
R/L ..... Clockwise/Counterclockwise Measurement  
OSET ..... Zero Reset of Horizontal Angle  
V% ..... Convert Vertical Degrees to Percent

Dust/Water ..... IP-54  
Operating Temperature ..... -20°C to +50°C  
(-4°F to 122°F)

Size - Instrument ..... 164 x 154 x 340 mm  
(6.4 x 6.1 x 13.4 in)

Weight - Instrument ..... 4.5 kg (9.9 lb)

Warranty ..... 1 Year



Each DET-2 comes equipped with a plumb bob, NiMH rechargeable battery pack and charger, alkaline battery pack, adjustment tools, rain hood, multi-language user guide, and hard-shell, compact, o-ring sealed, carrying case