

# PENTAX®

## Auto Focus Level

FIRST  
IN THE WORLD



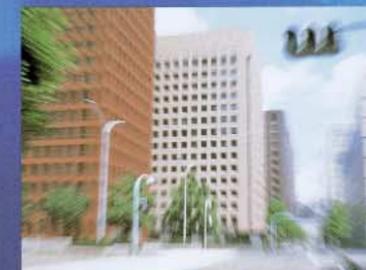
***AFL-320***  
***AFL-280***  
***AFL-240***  
***AFL-240R***

# AUTO FOCUS LEVEL



*First in the world!  
The birth of the Autofocus Level!*

A new participant was born into the Surveying field where precise operations and skilled techniques are always required. The AFL series uses autofocus techniques originally developed by PENTAX to automate the troublesome focusing procedure. These new type Auto Levels are the first, in the world, to use Autofocus and represent the only major technology advance since the first auto level 25 years ago. Pushing the AF key will focus the target in an instant to dramatically improve the operational efficiency. Our Autofocus function uses the Phase Contrast Method, which has a long-established reputation, for high performance and accuracy. Automatic/Manual modes are easily changeable so that the 2 modes can be selected freely. The automatic compensator uses our special



alloy ribbons so that stable measurement accuracy is obtained even under adverse conditions such as heavy vibration. In addition, the Telescope of water-proof construction (JIS protection class 6), the Endless Knob which controls the tangent movement and the Base designed for both flat head and domed head tripods reflect the design concept of "having priority of thorough function considering every situation at the site". PENTAX Autofocus AF Level series: they set the new standard for Auto Levels.



**High resolution Telescope**

Optics having a bright image and high resolving power enable you to see the target very clearly.

**Short focus distance : 60cm**

The focus distance of 60cm is very short, allowing usage in confined spaces.

**Outstanding body color**

A combination body color for high visibility, in both evening and daytime, is used to help prevent accidents.

**AF key**

Only a soft key touch is needed to focus the target and hear a confirming beep.

**AF/MF switch dial**

There are 2 positions of Auto-focus and Manual-focus on the dial for selection according to your desire.

**Knobs for endless tangent movement**

The endless tangent movement can be operated by, easy to handle, knobs on either side so you can sight the object precisely.

**Battery box**

A durable Lithium battery is used for the Auto-focus system which gives approx. 6000 operations.



**AF/MF switch control**

There are 2 positions, Auto-focus and Manual-focus, on the focus dial, At MF position, the focusing knob projects to enable normal manual operation.



**Reliable Automatic compensator**

Special alloy ribbons are used, having a long-established reputation, for a wire-suspension automatic compensator which provides extremely stable survey results even under unfavorable conditions such as heavy vibration.



**Water-proof sealed telescope**

The telescope housing is constructed for full resistance to rain and accidental water spray and meets the JIS protection class 6 for water-proofing.

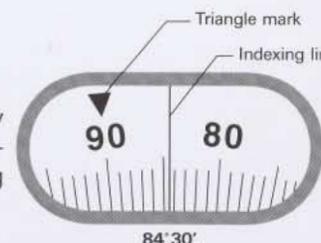


**Speedy set-up on domed head tripod**

All standard base models can be mounted on a flat or domed head tripod. Fast set-up is possible on the domed head tripod even when setting up on a slope.

**Angle reading**

Circle marks at every 90 degrees are convenient for setting right angles.



Operational efficiency is dramatically increased by the use of Auto-focus!  
World leading design in a high performance Level!  
**PENTAX AFL series**



**Electric illumination device: EP**

The EP electric illumination device attaches to the front of the telescope to illuminate the reticule for night work or work in dark places such as a tunnel.



**Parallel plate micrometer: SM5**

The SM5 parallel plate micrometer attaches to the front of the telescope for leveling and civil engineering work requiring high accuracy. It provides reading down to 0.1mm.



**Diagonal eyepiece: SBL2**

The SBL2 diagonal eyepiece is to be used when space is limited or when the instrument is low and it is hard to look into the telescope eyepiece.



**AFL-280**



**AFL-240**



**AFL-320**

## Specifications

	AFL-320	AFL-280	AFL-240	AFL-240R
<b>Telescope</b>				
Image	Erect			
Magnification	32X	28X		24X
Objective aperture	45mm			
Resolving power	2.5"	3"		3.5"
Field of view	1°20'/2.3%			
Minimum focus distance	0.6m/24 inches			
Stadia ratio	1			
Stadia constant	0			
<b>Auto focus mechanism</b>				
Detection method	Phase Contrast method			
Power source	6 V Li battery [2CR5] 1 pcs			
Auto focus operation	Approx. 6000 times			
<b>Automatic Compensation</b>				
Compensation range	±12'			
Setting accuracy	±0.3"		±0.5"	
Standard deviation*	±0.8mm	±1.5mm	±2.0mm	
(1 Km double run)**	±0.4mm			
<b>Circular vial</b>				
Sensitivity	8/2mm			
<b>Horizontal circle</b>				
	Metal circle			
Diameter	96mm			
Graduation	1"			
Reading method	Index			
Estimation	0.1"			
<b>Leveling base</b>				
Method	Screws		Spherical	
<b>Tripod screw</b>				
	JIS B type			
Thread size	5/8"×11			
<b>Dimensions and weight</b>				
Instrument	247mm(L)×153mm(W)×149mm(H)/2.1kg			
Carrying Case	364mm(L)×200mm(W)×180mm(H)/1.5kg			

\* Normal

\*\*With parallel plate micrometer

■ AFL is an abbreviation of Auto Focus Level.

■ Designs and specifications are subject to change without prior notice.

## Standard equipment

- Instrument w/Lithium 6v battery
- Objective cap
- Plumb bob
- Hexagonal wrench
- Lens brush
- Rain cover
- Silicon cloth
- Instruction manual
- Carrying case



# PENTAX® CERTIFIED ISO 9001 & 14001

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