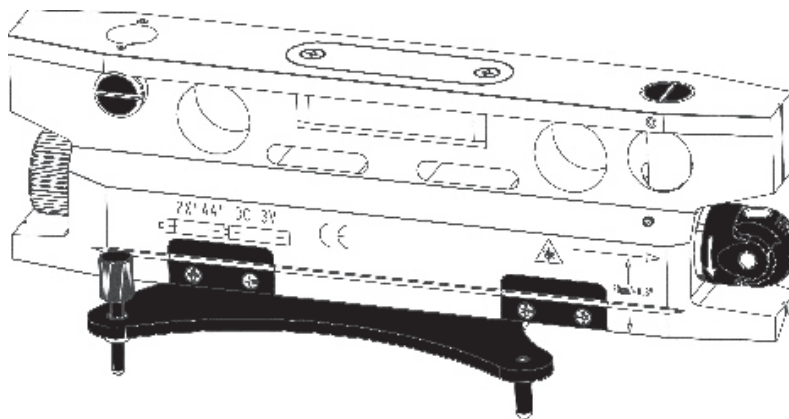# Laser Level (TL190HD)

Congratulations on your choice of this [DaveBell logo] laser level. For the purpose of long-term use of this instrument, we suggest you read this instruction manual carefully before using it.

1. Features and Functions
2. User Safety
3. Nomenclature
4. Operation Instruction
5. Application Methods
6. Application Demonstration
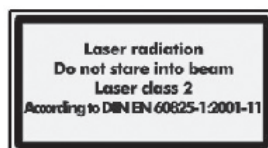7. Technical Specifications
8. Packing List
9. Maintenance

1. Features and functions

• Able to project horizontal laser points

• Able to project a horizontal laser line

• Able to project a vertical laser line

• Available for operation by being attached on metal

• 90,180 and transverse level vial are all adjustable

• The laser output mode is switchable between point and line

• Under line status mode, the output line is adjustable in angle

• Leveling bracket

2. User Safety

• Laser output mark is attached beside the output aperture

• Do not look straight at the laser beam.

• Do not disassemble the instrument or attempt to perform any internal servicing. Repairs and servicing are to be performed only by authorized service centers.

• This instrument accords with the safety classification standards of laser radiation.

Laser radiation
Do not stare into beam
Laser class 2
According to DIN EN 60825-1:2001-11

$p \le 1mW$
$\lambda = 635nm \sim 670nm$

3. Nomenclature

1. Transverse Bubble
2. 180^0 Bubble
3. 90^0 Bubble
4. Mode Conversion Head
5. Rotating Head
6. Leveling Screw
7. Leveling Bracket
8. Lock Bolt
9. Power Switch
10. Battery Door
11. 1/4 Thead Hole
12. Magnet
13. V-shape Base
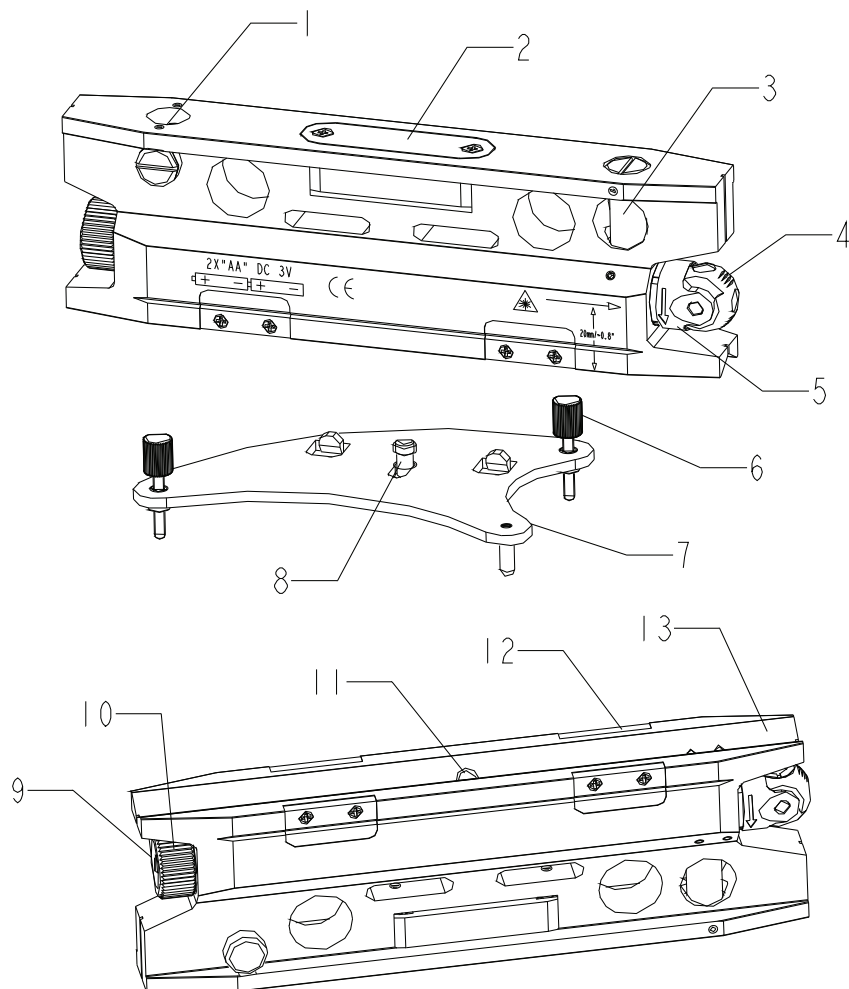
4.Operation Instruction

Battery Installation

1. Screw off battery door, and put in two AAA batteries according to the illustrated polarity requirements, and snap the battery door back:
2. Press power switch to project laser line or point;
3. Press power switch again to shut off laser output.
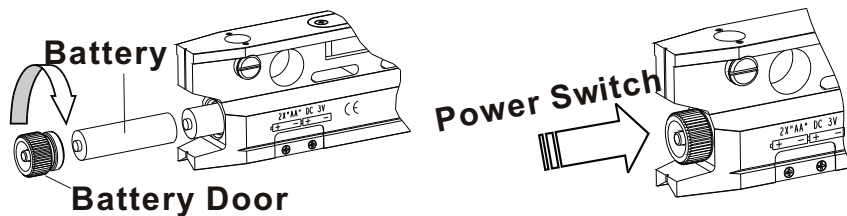
Leveling Bracket Usage

Put the instrument on leveling bracket, screw the lock bolt into 1/4 thread hole at the bottom of the instrument, and make it fixed. Then level the instrument by rotating two adjusting bolts
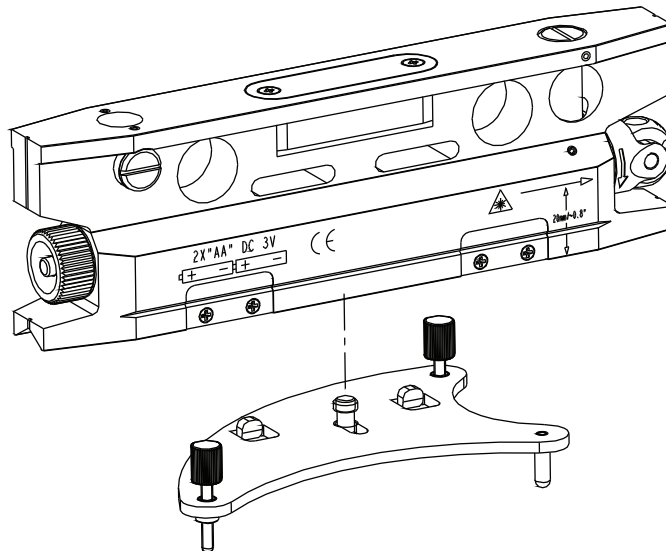
5. Application Methods

Switch between laser point and laser line

1. Turn the mode conversion knob to switch between laser line and laser point. When the wedge lens shields the output laser point, the instrument will project laser line. Contrariwise, the removal of the wedge lens will result in the return to point output status.

2. Under laser line output mode, the turning of the rotating head can change the output angle of laser line.

Note: The rotating head can be turned only in the direction indicated by arrowhead sign.
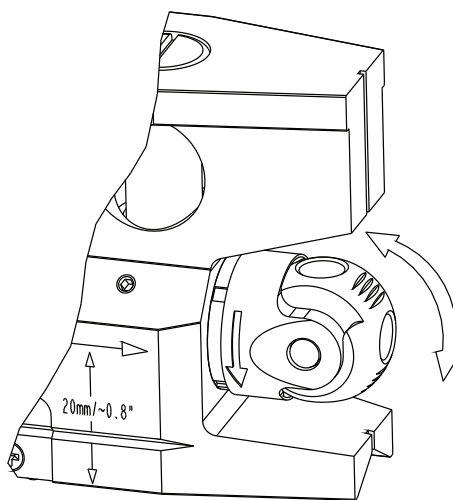
Switch between point and line
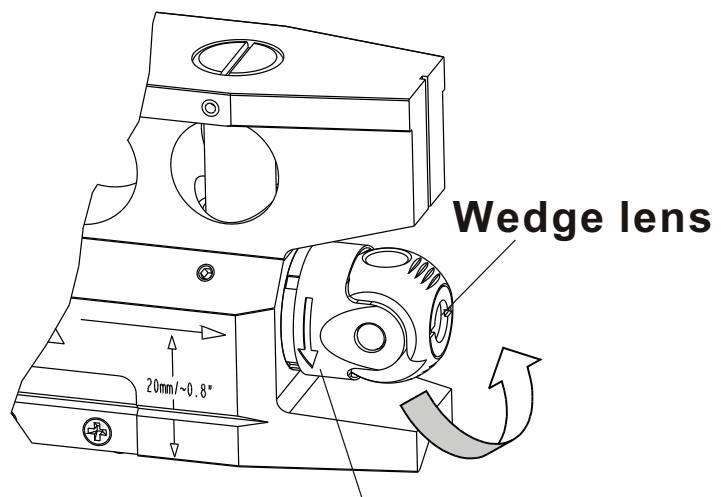
Rotating Direction Indication Rotatable line status

Wedge lens

6. Application Demonstration

Provide one horizontal laser point

Project one honizontal line

Project one vertical line

On the metal or pipeline

7. Technical Specification

- Laser Wavelength: 650nm
- Laser Classification: Class 2
- Accuracy: 1mm/5m (In the horizontal direction of laser point)
- Working Distance: 30m
- Power: 2 X AA Batteries
- Size: 57 188 25.4mm
- Working temperature: 0^0~+40^0
- Center Screw Thread: 1/4"

8. Packing List

No.	Description	QTY
1	Laser Level	1
2	Special Leveling Bracket	1
3	AA Alkaline Battery	2
4	Instruction Manual	1
5	Carry Bag	1

Q．C．

Date：_____/_____/_____

9. Maintenance

• The instrument should be carefully operated and properly preserved, and any violent shock or falling will possibly result in the damage of instrument.

• Before moving or transporting the instrument, please keep it in the locked situation to avoid effecting the accuracy.

• Do not attempt to disassemble the instrument, and the unprofessional disassembly will result in the damage of instrument.

• Keep the cleanness of instrument, especially the laser output window, and remove dust by the gentle operation of soft clean cloth.

• Take the batteries out when the instrument is not in use for a long time, and keep the instrument in the carrying case when it is unused.