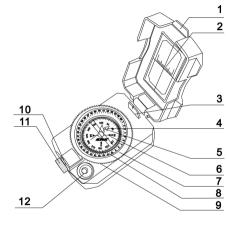
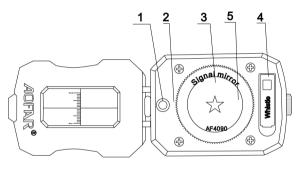


1.STRUCTURE

- 1. Cover
- 2. Distance-measuring notches
- 3. Sighting bead
- 4. Pointing arrow
- 5. Magnetic North Arrow
- 6. Dail
- 7. Azimuth adjustment dial
- 8. Luminous circle
- 9. Case
- 10. Notch of rear sight
- 11. Lens
- 12. Level bubble





1.Tripod Connection 2.Base 3. Signal Mirror 4. Whistle 5. Hook fishing line

2 .Product specification

| 1. | Model | AF-4090 | |
|----|-------|------------|--|
| 2. | Color | Camouflage | |

3. Size 90x63X35mm

4. Dial diameter 53mm

5. Weight 148g

6. Material Aluminum Alloy7. Waterproof Yes

8. Luminous Yes

It is a liquid-filled Precision compass and pitching angle measurement in one compact aluminum housing that is easy to use and rugged enough to protect against impact, water and corrosion. This top-quality precision instrument combines precision accuracy with fast and easy one-hand operation. The compass dial is in degree (0-360°), graduated in 1°increments. The pitching angle dial is in degree (-90~+90°), graduated in 1°increments. The bearing compass is designed to combine extreme accuracy with ease and speed of operation. Dial is Supported by a jewel bearing and it is immersed in a dampening fluid, and can rotate without vibration.

3 .Adjusting Optics

The optics can be adjusted by turning the eyepiece with you fingers. Adjusting the eyepiece so that both the Hair line and the readings are sharp.

4.Pointing Function

Put the instrument on a horizontal place.The "N" on the dial points at North and the "S" on the dial points at South when the dial is in a horizontal and static status.

5.Azimuth Measurement

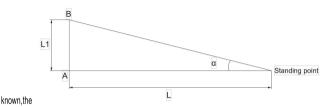
Unfold the compass and make the cover perpendicular to the case in a horizontal status. Aim at the target Through sight bead from notch of rear sight. Then the azimuth can be read from lens.

6.Deviation Angle Measurement

Measure the azimuth angle of two targets separately and the difference value between two readings is the deviation angle.

7.Distance Measurement via Deviation Angle

As shown in Fig.3, when L1 between target A and B is known , both azimuth angles of A and B can be Measured by the instrument. The difference between two readings is deviation angle $\alpha.L=L1*\cot(\alpha)$ Conversely, when L is



deviation angle α of A and B can be measured by the instrument. L1=L/cot($\!\alpha\!)$

8.Map Orientation

Put the instrument on the map,open the cover,align the compass side with meridian,rotate the azimuth Adjustment dial,make the pointing arrow points at the red line.Rotate the map with the compass until the pointing arrow aligns with the magnetic North arrow.Then the map is oriented,which means the orientation of the map is in accordance with actual orientation.

9.Define the Target Direction on the Map

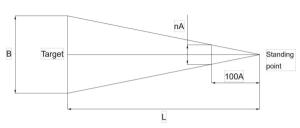
After aligning the map with the North pole,draw a lino on the map between your position and the destination.

Open the case and put the instrument side align with the above line.Rotate the azimuth adjustment dial and make the pointing arrow aligns with the magnetic North arrow.

Hold the instrument in front of your body and face to the lens. Turn your body until the pointing arrow aligns With the magnetic North arrow. The target direction is where the instrument points at.

Distance Measurement via Distance -measuring Notches

Open the case and make the cover perpendicular to the case. When measuring, make the target align with The horizontal line of the distance-measuring notches. The relationship of distance - measuring notches, rear Sight notch and target is as shown in Fig. 4.



A is the distance between closing two distance -measuring notches.100A is the distance between rear Sight and distance -measuring notches.

B is the width of target

L is the distance between the observer and the target. L=Bn×100 For example, the width of the target is 5m, and the target covers 10 notches.

L= ×100=50m

Lifesaving function

Bottom with signal mirror, whistle, hook fishing line.

10. Calibration

The bubble level can be used in calibration and make the instrument in the horizontal status, so that to improve accuracy of readings

(COTANGENT TABLE)

| 360° COTANGENTS | | | | |
|-----------------|-----------|-----------|--|--|
| 1°-57.29 | 16°-3.487 | 31°-1.664 | | |
| 2°-28.64 | 17°-3.271 | 32°-1.600 | | |
| 3°-19.08 | 18°-3.078 | 33°-1.540 | | |
| 4°-14.30 | 19°-2.904 | 34°-1.483 | | |
| 5°-11.43 | 20°-2.747 | 35°-1.428 | | |
| 6°-9.514 | 21°-2.605 | 36°-1.376 | | |
| 7°-8.144 | 22°-2.475 | 37°-1.327 | | |
| 8°-7.115 | 23°-2.356 | 38°-1.280 | | |
| 9°-6.314 | 24°-2.246 | 39°-1.235 | | |
| 10°-5.671 | 25°-2.145 | 40°-1.192 | | |
| 11°-5.145 | 26°-2.050 | 41°-1.150 | | |
| 12°-4.705 | 27°-1.963 | 42°-1.111 | | |
| 13°-4.331 | 28°-1.881 | 43°-1.072 | | |
| 14°-4.011 | 29°-1.804 | 44°-1.036 | | |
| 15°-3.732 | 30°-1.732 | 45°-1.000 | | |

11. Use in the Darkness

After getting enough light in advance, the luminous circle can help you read even in the darkness.

12.Attention

- 1. Keep horizontal when storing and using, so that the magnetic needle can rotate freely.
- Avoid contact with corrosive liquids;
- 3. Keep away from magnetic fields or metals.
- 4. Protect against collisions.5. Avoid exposure to the sun;
- Avoid exposure to the sun,
 It should be cleaned after use.
- 7. Whistle: Pay attention to the advanced sound of the whistle when loading
- 8. Signal mirror: Open through the groove

13.Contact Us

