

# AI-BSD Vehicle Blind Spot Warning System with Audible and Visual Alarm

*With Adjustable Detection Zone Function*



## Key Advantages

1. Compared with BSD monitor-based detection, the AI-BSD camera provides higher recognition accuracy and is less likely to experience lagging or system freezing during long-term operation.
2. The monitor can adjust AI alarm detection zones and configure pedestrian / vehicle detection functions.
3. Three-level warning zones are available.
4. Different alarm sounds can be set for side blind spot and rear blind spot warnings.
5. The system can be linked with an external audible and visual alarm and a U-shaped arc laser warning light.

## 1. Application

This system is widely used for engineering vehicles, agricultural machinery, tractors, forklifts, fire trucks, marine vessels and other types of vehicles or mobile equipment.

## 2. Main Functions

1. Patented product integrating AI-BSD algorithm, red / yellow / green zone warning lights, and audible alarm into one camera, helping reduce visual blind spots.
2. Designed for 12–24V vehicles, with wide voltage input of DC12–32V.
3. Supports pedestrian detection warning. It can identify vehicles and pedestrians, display warning boxes, and track moving targets.
4. With AI intelligent algorithm and red / yellow / green three-color stepped warning zones. When an object enters different zones, the built-in camera warning lights change accordingly. The built-in buzzer changes from intermittent beeping to continuous warning, improving safety.

5. The AHD monitor can intelligently adjust all functions of the AI-BSD camera, including blind spot scale warning zones.
6. The monitor can adjust warning zone size, normal / mirror image, and PAL / NTSC settings.
7. The monitor supports separate pedestrian / vehicle alarm settings, including simultaneous or separate alarms.
8. Multiple AI alarm sound options can be set through the monitor.
9. Supports up to two AI blind spot warning channels, such as side blind spot + rear view, or front blind spot + rear blind spot.
10. Reverse polarity protection design, with TVS protection circuit to prevent transient pulse damage.
11. Supports CVBS, 720P, 960P, and 1080P AHD HD camera signals. The system can automatically identify and display the input signal type, such as PAL / NTSC / 720P / 720N / 1080P / 1080N.
12. 7-inch AHD HD blind spot monitor with wide voltage input. The monitor can adjust all functions of the AI-BSD camera, including blind spot warning zones and built-in alarm sound settings.
13. Sunshade design provides better visibility under strong light. The monitor supports both U-bracket and overhead bracket installation.
14. Ergonomic right-side laser-etched translucent buttons provide better user experience.
15. Brightness and contrast can be adjusted from the monitor panel.
16. The AI-BSD vehicle camera uses an AI intelligent starlight full-color chip, providing higher AI recognition performance, lower false alarm rate, clear image quality, fast dynamic video response, no image trailing, and vivid colors.
17. Double-layer PCB design improves vibration resistance, with vibration strength up to 6.8G.
18. The whole system only requires one power input group, making installation simple and convenient.
19. External metal audible and visual alarm can remind pedestrians and vehicles entering the blind spot area to stay away. Optional.
20. U-shaped arc laser warning light shows red warning light under normal conditions and flashes red when triggered to remind people to stay away. Optional.

### 3. AHD HD Vehicle Intelligent Monitor

No.	Item	Specification
1	Display Device	TFT-LED
2	Screen Size	7 inch
3	External Terminal	S-terminal interface: AV1 video, AV2 video, AV1 audio, AV2 audio, power, ground, CAM2 power, CAM1 power, reverse trigger signal. Reverse image is locked on AV2. Built-in alarm sound.
4	Brightness	600 cd/m <sup>2</sup>
5	Resolution	1024(H) × 600(V)
6	Viewing Angle	Up: 85° / Down: 85° / Right: 85° / Left: 85°
7	Contrast Ratio	500:1
8	Image Mode	16:9
9	Auto Brightness Adjustment	CDS automatic brightness adjustment function, optional
10	Functions	Reverse guideline, reverse delay, independent mirror image
11	Video Input	2-channel CVBS / 720P / 1080P adaptive input with signal source display
12	Intelligent Control	The monitor can directly set all AI camera functions
13	Power Protection	Reverse polarity protection and TVS protection circuit
14	Anti-interference Design	Isolated anti-interference circuit, optional
15	Power Consumption	≤10W at 12V, including camera
16	Installation	U-bracket and overhead bracket dual-use design
17	Power Input	DC12-32V
18	Net Weight	Approx. 400g
19	Operating Temperature	-20°C to +70°C
20	Dimensions	193mm(W) × 112mm(H) × 25mm(T)

#### Monitor Adapter Cable Interface

- Red: DC12-32V power positive
- Black: Power ground
- Green: TRIG 2
- Blue: TRIG 1

- Black 4-pin aviation male connector: Side camera interface
- Black 4-pin aviation male connector: Rear view camera interface

## 4. AI-BSD AHD Starlight Vehicle Camera



No.	Item	Specification
1	Image Sensor	HD color AHD
2	TV System	PAL / NTSC
3	Pixels	1280 × 720, 1.0MP
4	3-in-1 Function	AI-BSD + three-color warning light + audible alarm
5	AI Intelligent Algorithm	Pedestrian and vehicle detection warning with moving target tracking
6	AI Intelligent Alarm	Three-color stepped warning zones with built-in beeping alarm
7	External AHD Monitor Setting	The AHD monitor can set AI camera parameters, warning zones and alarm modes, optional
8	Alarm Zone Adjustment	Adjustable scale warning zone size
9	Function Settings	Normal / mirror image, PAL / NTSC
10	Warning Objects	Pedestrian / vehicle alarm can be set separately, simultaneously or independently
11	Electronic Shutter / BLC / White Balance	Automatic, suitable for different lighting conditions
12	AGC Control	Automatic image brightness adaptation
13	Signal-to-noise Ratio	≤48dB, AGC on
14	Gamma	0.45
15	Video Output	1.0Vp-p, 75Ω, AHD
16	Minimum Illumination	0.01 Lux, starlight full color
17	Viewing Angle	Approx. 120°, 170° optional
18	Waterproof Rating	IP68
19	Power Supply	DC12V, 24V optional
20	Power Consumption	2W
21	Net Weight	200g
22	Operating Temperature	-20°C to +70°C, relative humidity <93%

## 5. Audible and Visual Alarm



### Product Features

1. Designed for large vehicles, with vibration resistance, anti-interference performance, modern appearance and fine workmanship.
2. Suitable for right-side blind spot and various large vehicle installation environments.
3. Integrated beeping sound and LED flashing alarm remind pedestrians that they have entered the blind spot area and should stay away.
4. Plastic housing with vibration resistance, drop resistance, light weight, good heat dissipation and premium appearance.
5. 4-pin aviation female connector with self-locking function and vibration resistance.

No.	Item	Specification
1	Function	Audible and visual linked alarm
2	Alarm Sound	Beeping sound
3	Installation	Outdoor wall-mounted installation
4	Housing Material	Plastic
5	Alarm Trigger	High-level active, 5V-12V
6	Waterproof Rating	IP67
7	Working Voltage	DC12V-24V
8	Interface	4-pin aviation female connector
9	Power Consumption	5W
10	Operating Temperature	-20°C to +70°C, relative humidity <93%