

**Product Introduction**

The ThirdEYE is a safety alert radar system made by INNOVV aimed at providing riding safeguard, the system utilizes a MMW with frequency from 77 ~ 79 GHz, which is able to detect targets from the rear and sidelines. Combining the detected information with a software algorithm, the radar system will alert the rider by transferring the detected result to the display with light and audio. Multi-antenna design maintains a larger detecting range with higher precision. The small and fashionable case makes the system quite easy to install.

**Product Features**

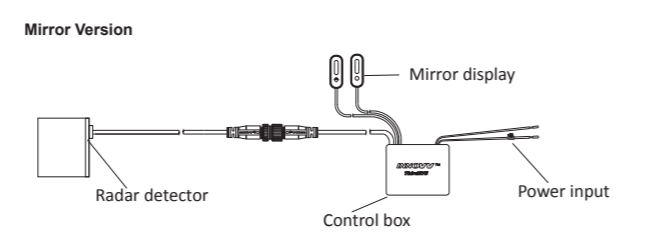
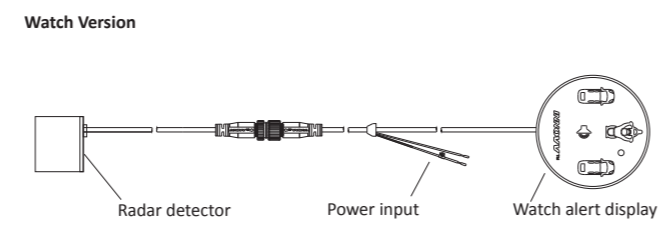
- Up to 50m detecting distance.
- 150° detecting angle enables good performance on a wide road.
- The system can detect up to 64 targets at the same time which ensures higher precision in the detection.
- Aluminum alloy case brings good heat dissipation, which makes the system rugged and durable.
- Small and fashionable case makes the system quite easy to install.
- IP67 waterproof.

**\*Disclaimer**

- The installation and operation must be strictly in accordance with this user guide. INNOVV will not assume legal liability for any property damage or personal injury which were caused by improper installing or misuse.
- In case of any accident caused by the rider's reason or the third parties, INNOVV will not assume legal liability for any property damage or personal injury caused by a false alert.
- The product is an auxiliary riding & warning alert system for rider's safety. Some factors such as vehicle interference or weather factors may cause false alert during riding, and the system is for alert only, so please make the right reaction based on your personal judgment according to the actual situation.

**Product Instruction**

**1. Product Diagram**

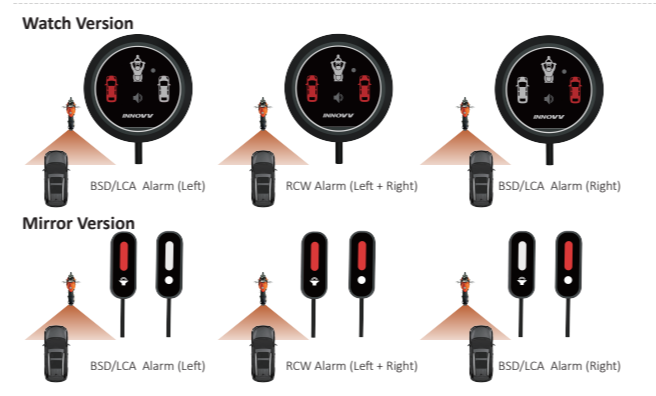
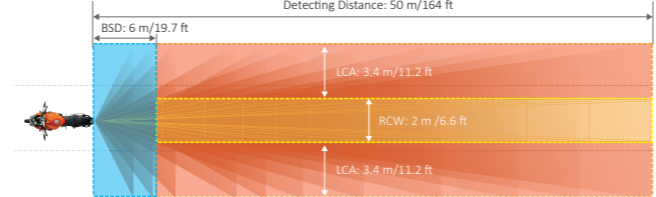


**2. Product Function**

**BSD (Blind Spot Detection System):** the detecting range of the BSD mode is from 0.2 m to 6 m.

**LCA (Lane Change Assistance System):** mode will detect targets in a range from 0.2 m to 50 m from left and right side when TTC (Time to collision) is less than or equal to 3 seconds.

**RCW (Rear Collision Warning System):** mode will detect targets in a range from 0.2 m to 50 m in the direct rear side when TTC (Time to collision) is less than or equal to 3 seconds.



**\*Velocity Difference VS Warning Distance Chart**

Velocity Difference (km/h)	Velocity Difference (m/s)	Warning Distance (m)	Warning Mode
5	1.39	6.00	BSD
10	2.78	8.34	LCA/RCW
20	5.56	16.67	LCA/RCW
30	8.33	25.00	LCA/RCW
40	11.11	33.33	LCA/RCW
50	13.89	41.67	LCA/RCW
60	16.67	50.00	LCA/RCW
70	19.44	50.00	LCA/RCW

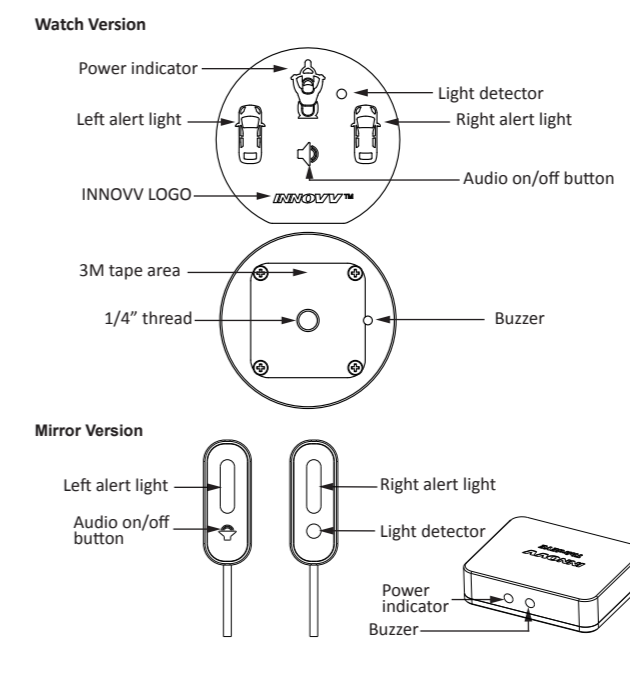
TTC: Time To Collision  
 TTC = 3 Seconds  
 Warning Distance = TTC \* Velocity Difference  
 For example:  
 Velocity Difference = 10 km/h, Warning Distance = 10000/3600 \* 3 = 2.78 \* 3 = 8.34 m

Alert Type	Detecting Target	Alert Status
BSD Mode	Left Side When targets appear in a detected area from 0.2 m to 6 m (TTC ≤ 3 seconds)	Audio alert on/ Left alert light on
	Right Side When targets appear in a detected area from 0.2 m to 6 m (TTC ≤ 3 seconds)	Audio alert on/ Right alert light on
LCA Mode	Left Side When targets appear in a detected area from 0.2 m to 50 m (TTC ≤ 3 seconds)	Audio alert on/ Left alert light on
	Right Side When targets appear in a detected area from 0.2 m to 50 m (TTC ≤ 3 seconds)	Audio alert on/ Right alert light on
RCW Mode	In the Middle When targets appear in a detected area from 0.2 m to 50 m (TTC ≤ 3 seconds)	Audio alert on/ Both alert lights on

**Notice:**

- The light indicators will be automatically on together with a long buzz when the ignition turns on, after that, the light indicators will blink twice with a warning tone.
- Turn on/off the audio warning alert by pressing the button.

**Warning Alert Display Instruction**

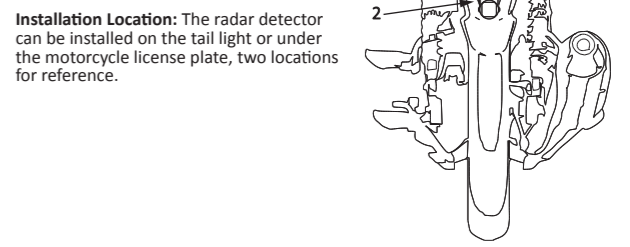


**Basic Specification**

Basic Parameters		Radar Specification	
Working Voltage	9 ~ 16V DC	Working Frequency	77 ~ 79 GHz
Power Consumption	<3.5 W	Horizontal Angle	150°
Display Size	Watch Display: 450 mm × 13 mm Mirror Display: 35 mm × 14 mm (each piece)	Pitch Angel	±25°
Weight of Display	Watch Display: 130 g Mirror Display: 100 g	Detecting Range	0.2 m ~ 50 m
Radar Detector Size	φ36 mm × 26 mm	Accuracy of Detecting Range	0.11 m
Weight of Radar Detector	90 g	Detecting Velocity Range	~210 km/h ~ 210 km/h
Storage Temperature	-40 °C ~ +85 °C	Data Updating Frequency	Every 50 ms
Working Temperature	-40 °C ~ +80 °C	Maximum Detecting Targets	64
Protection Degree	IP67		

**Installation Instruction**

**Radar Detector Installation**



**Troubleshooting**

No	Problems	Solutions
1	No lights come on after turning on the ignition, even though the wires are well connected.	1. Please check if the fuse is burned. 2. Please check that the wires are connected correctly and firmly. Make sure the input voltage is between 9V and 16V with 0.5A. The red wires must connect to the ACC, while the black wire connects to the negative pole of the battery.
2	Only power indicator is on, the alert light is off.	<b>Watch Version:</b> Please confirm that the watch alert display's circular connector is securely connected to the radar detector's circular connector. <b>Mirror Version:</b> Please check that the connection between the control box and the radar detector is stable.
3	Only one alert light is on.	<b>Watch Version:</b> Check that the radar cable connector is securely connected. Please confirm that the watch alert display's circular connector is securely connected to the radar detector's circular connector. <b>Mirror Version:</b> Please check that the connection between the control box and the radar detector is stable. Please also check that the connecting cable is in good condition.
4	No warning alert sound.	<b>Watch Version:</b> Please confirm the buzzer (on the back of display) is not blocked by anything. <b>Mirror Version:</b> Please confirm that the buzzer is not blocked on the control box.
5	The power indicator stays on after the ignition is turned off.	Please check that the red cable is connected correctly. The power must be off when the key is locked.
6	The blue light stays on after the ignition is turned off.	Please check that the red wire is connected to the ACC properly.

**Warranty Terms**

- The radar detector and the watch/Mirror display are with 1-year warranty from the purchase date, please contact the local distributors or INNOVV directly for customer support if needed.
- Any man-made damages such as disassemble the product or cut the cables are not covered under the warranty.

\*The instruction manual was made in June 2023. Due to product upgrades, INNOVV reserves the right to make final revisions to the instruction manual without further notice.

**Packing Information**

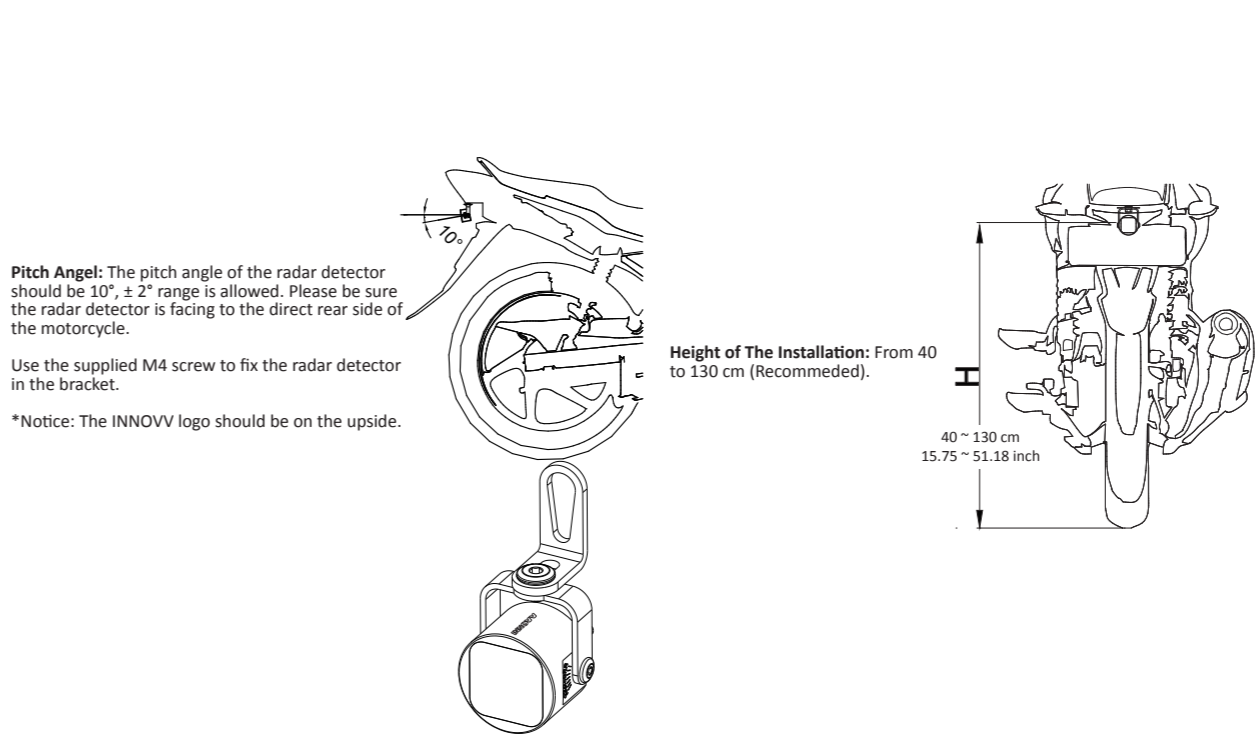
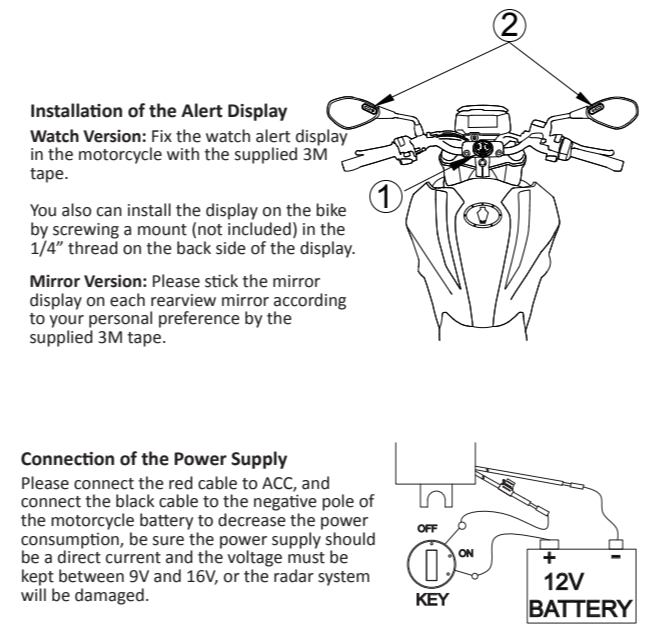
Watch Version Packing List		
No	Item	Quantity
1	Radar Detector	1 pcs
2	Watch Alert Display	1 set
3	Manual	1 pcs
4	Brackets Package	1 set

Mirror Version Packing List		
No	Item	Quantity
1	Radar Detector	1 pcs
2	Mirror Alert Display With Control Box	1 set
3	Manual	1 pcs
4	Brackets Package	1 set

**Notice**

- Please keep the radar detector clean and tidy, otherwise the radar will not work properly. We highly recommend you to clean the detector with a clean and wet cloth.
- The radar may be interfered by rain & other factors and signal wrong alarm on rainy or foggy days. The rider should react according to his/her own judgment.
- Please note that the radar is designed to detect moving vehicles and motors, so pedestrians and other small targets are not 100% in detection.



Stay aware, Safe ride!  
Your guardian on the road!

**INNOVV ThirdEYE**  
Instruction Manual

Watch Version/Mirror Version

www.innovv.com  
www.innovv-powersports.com