

USER MANUAL





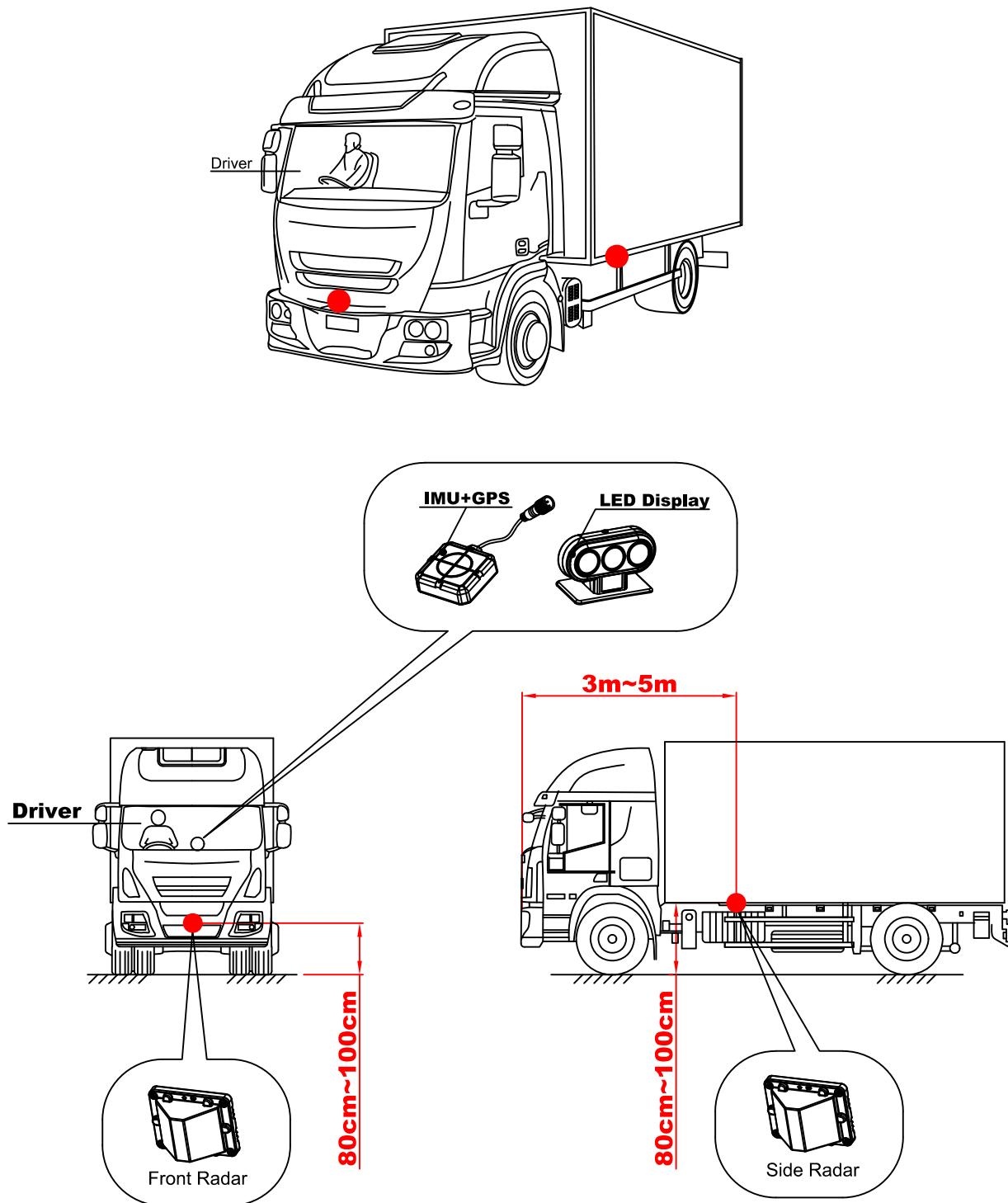
Q's system is well designed to provide a 360° on road protection and as a security guard in camping site.



CATALOGUE

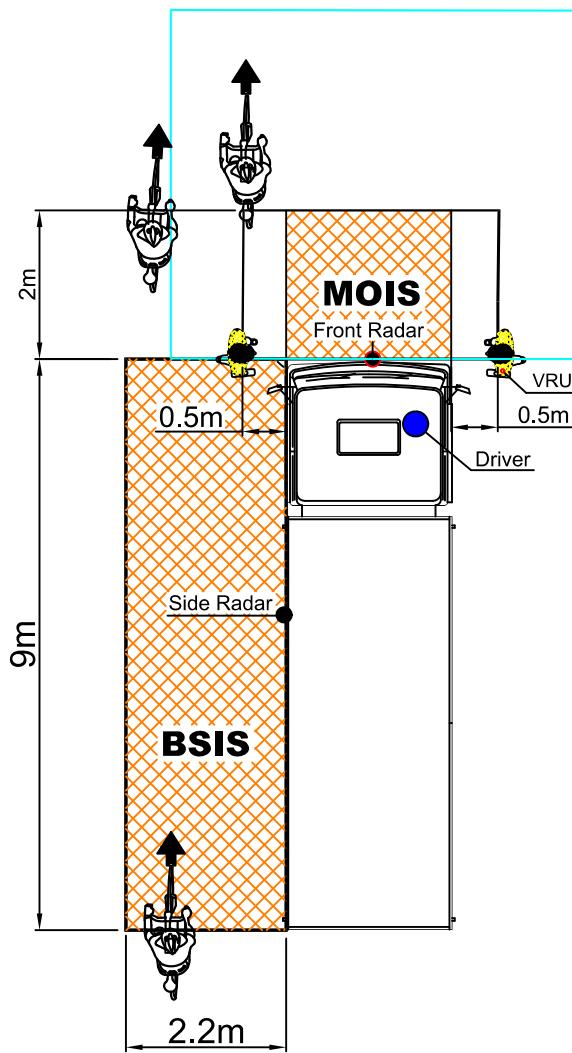
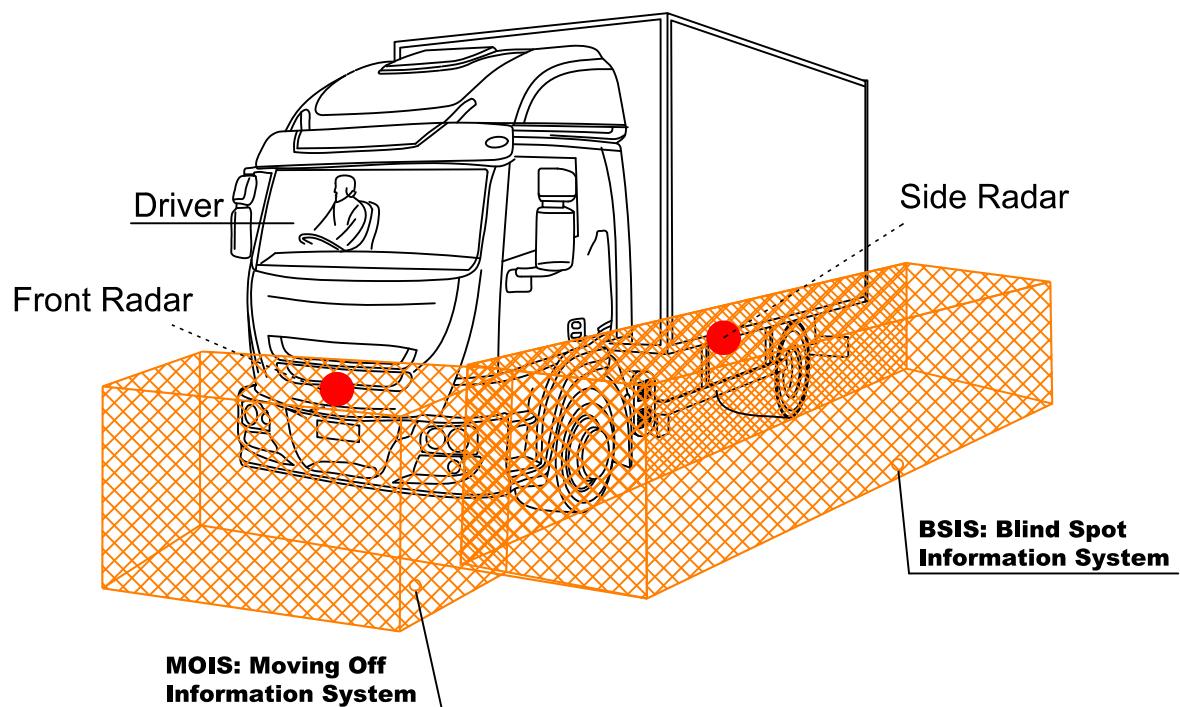
| | |
|--|-------|
| Front/Side RADAR Installion Hight and Location/Suggestion | 01 |
| Front/Side/RADAR Distances's Coverage | 02 |
| Moving Forward/Turning/With A Low Speed Less than 3MPH (5KmPH) for Front/Side RADAR's warning and coverage | 03-04 |
| Radar Sensors Installation | 05-07 |
| Installation of LED/IMU+GPS on Cabin's Desktop | 08-12 |
| Wiring Diagam Details | 13-16 |
| Parts and Accessaries | 17 |
| Malfunction Warning (Front/Side RADAR Sensors) | 18-20 |
| Moving/Stationary Range Coverage | 21-23 |
| FCC Warning | 24 |
| Product Parameter | 25 |
| RADAR Antenna Direction Testing / mmFMCW Module Calibration and End Of Line (EOL) Production Chamber | 26 |
| CATR (Compact Antenna Test Range) Anechoic Chambers | 27 |
| Beam Patterns (Horizontal) | 28 |
| Beam Patterns (Vertical) | 29 |
| Detection Distances of Large Truck / Car / Cyclist / Human Being | 30 |
| Contact Information | 31 |

FOR PSS

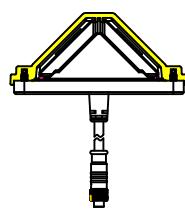
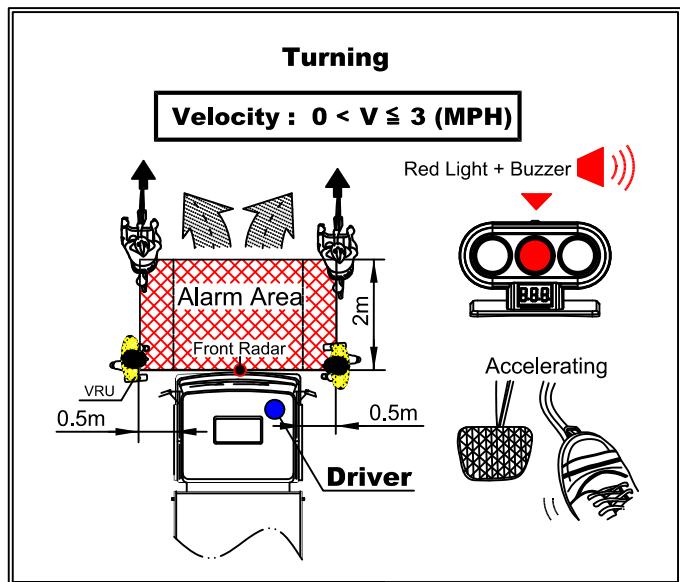
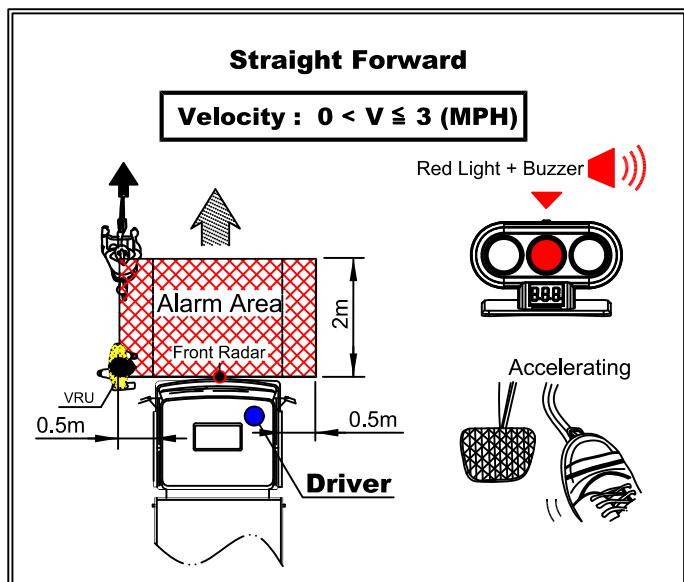


- **The Radar sensor/s can be installed within a height of 80cm to 100cm without calibration.**
- **Any height beyond this range should be further calibrated. The manufacturer shall provide a proper calibration program to the installer.**

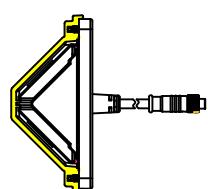
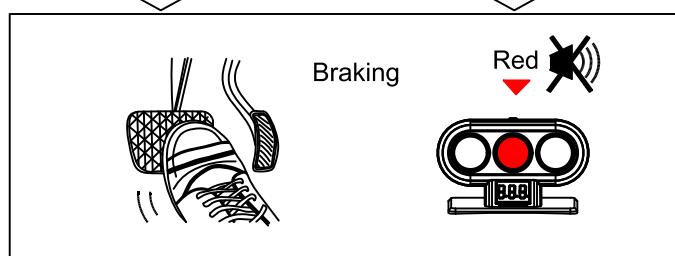
FRONT/SIDE COVERAGE



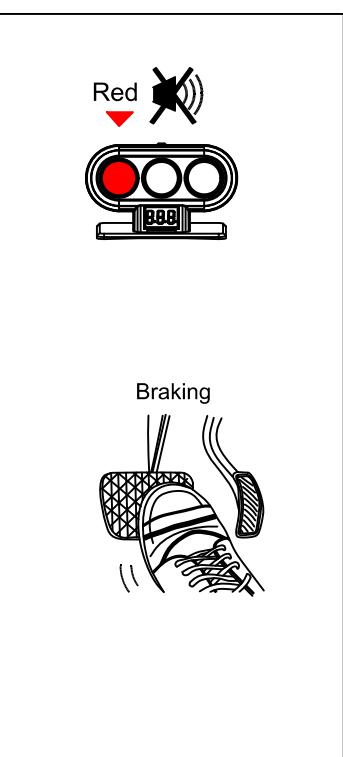
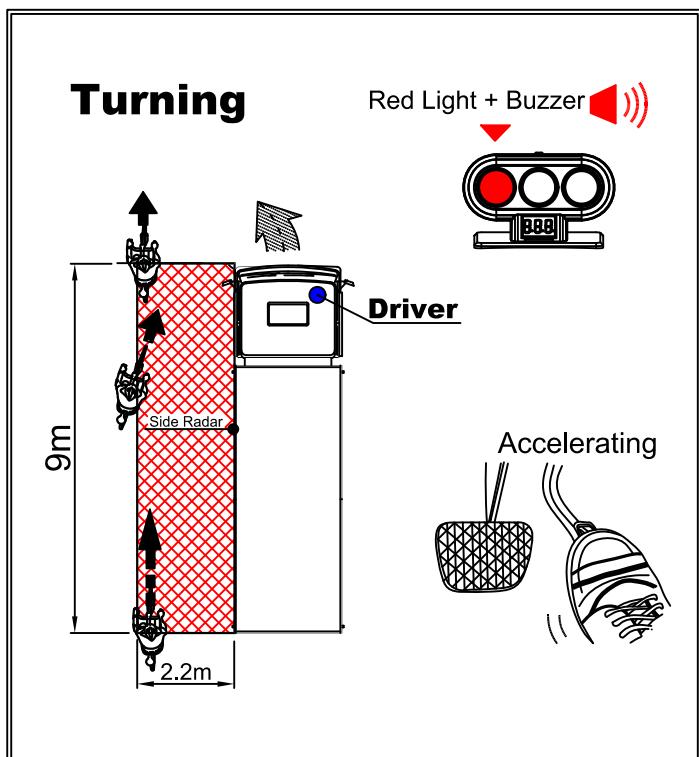
MOVING



FRONT RADAR

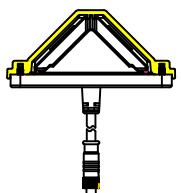


SIDE RADAR

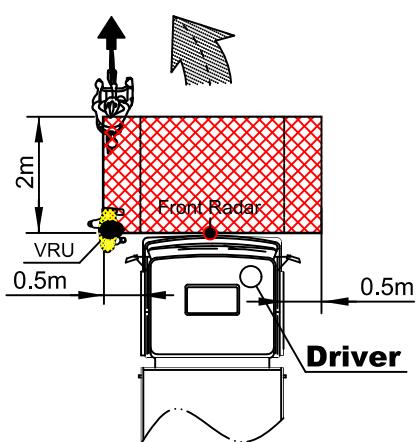


Turning

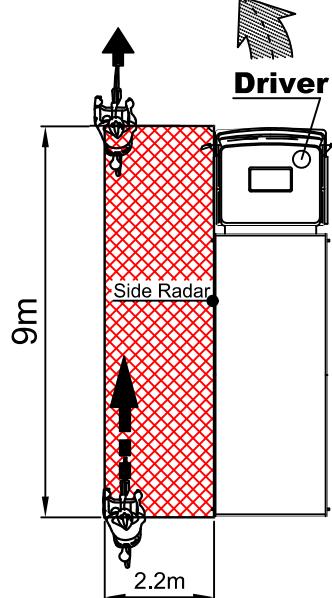
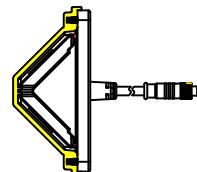
FRONT SENSOR



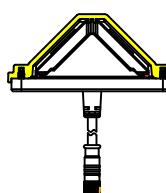
Turning Left



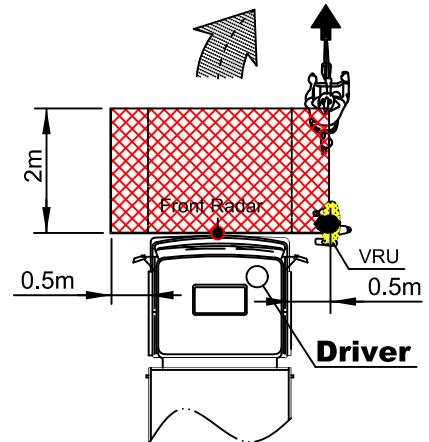
SIDE SENSOR



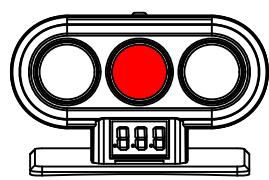
FRONT SENSOR



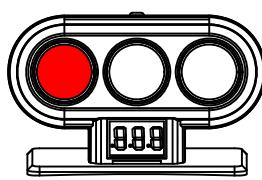
Turning Right



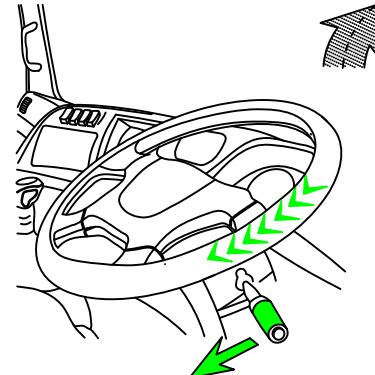
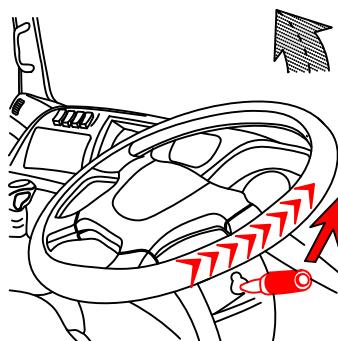
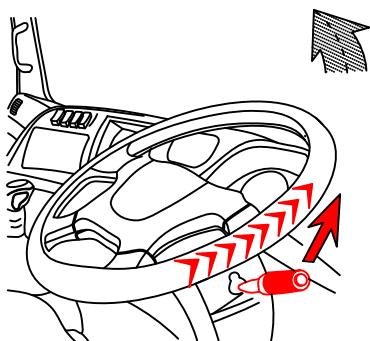
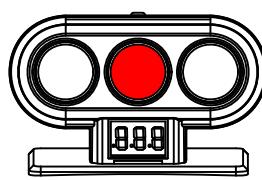
Red  



Red  

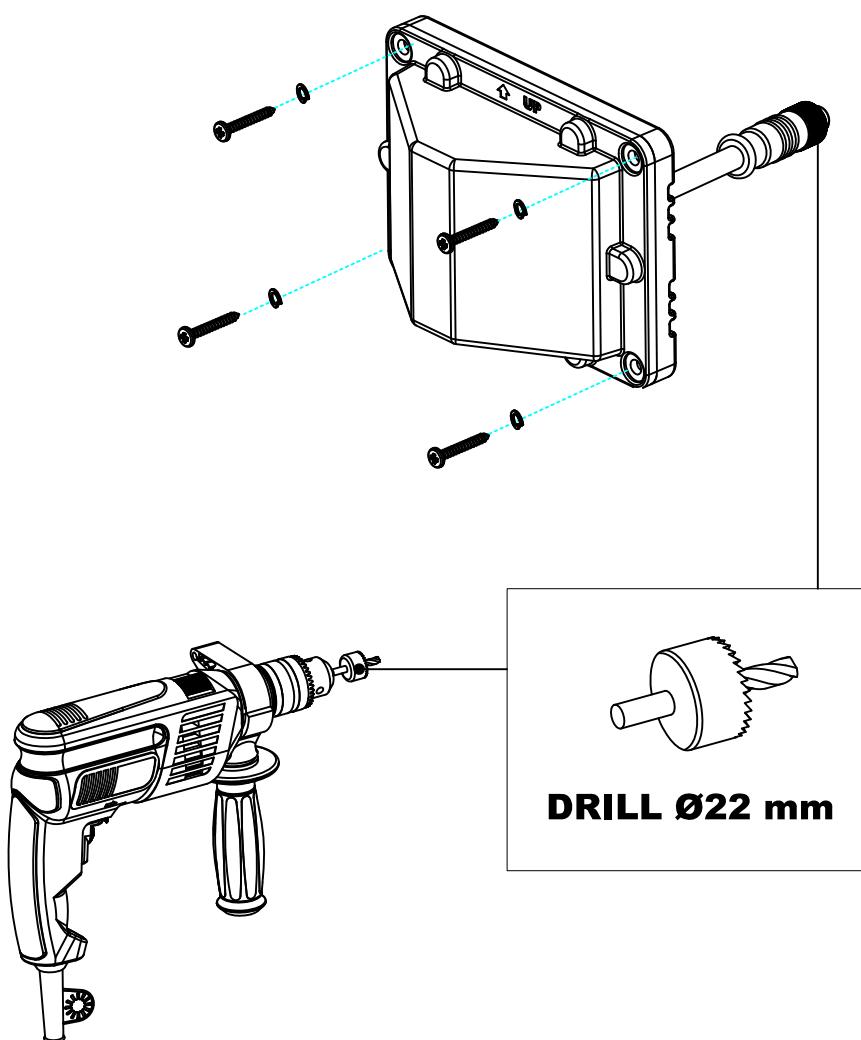


Red  

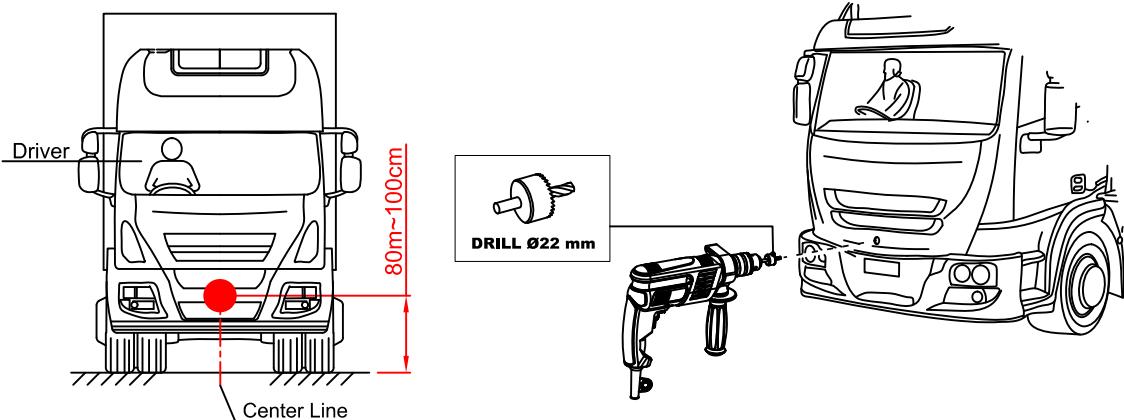


RADAR SENSORS

INSTALLATION

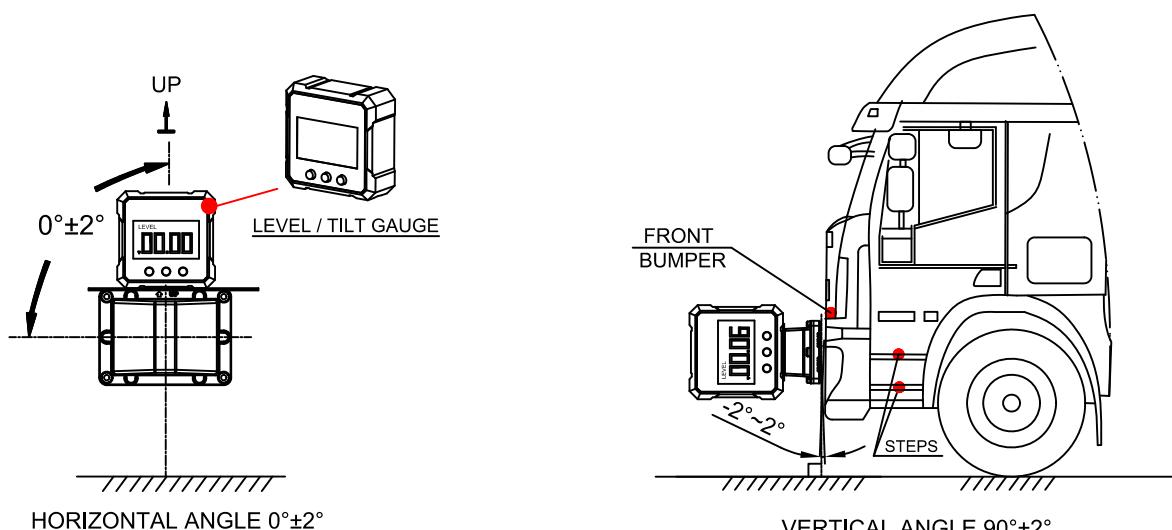
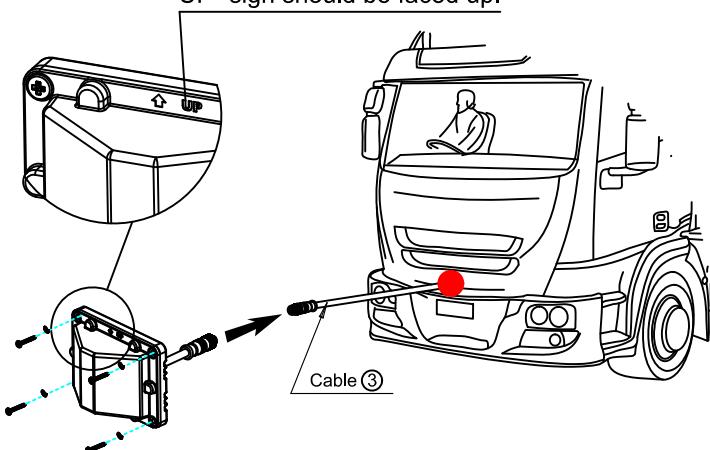


Front Radar



- The Radar sensor/s can be installed within a height of 80cm to 100cm without calibration.**
- Any height beyond this range should be further calibrated. The manufacturer shall provide a proper calibration program to the installer.**

- "UP" sign should be faced up.**

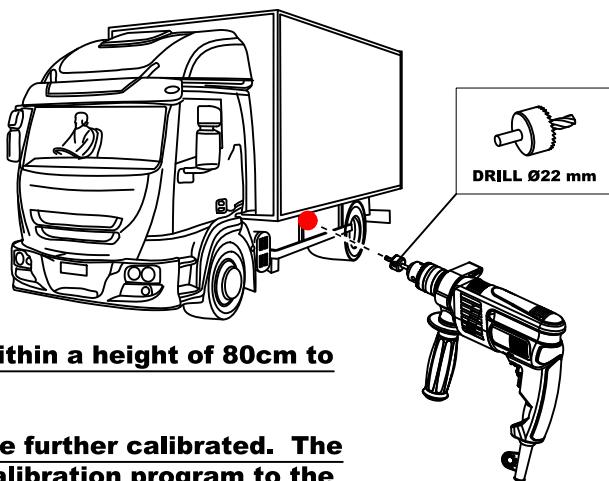
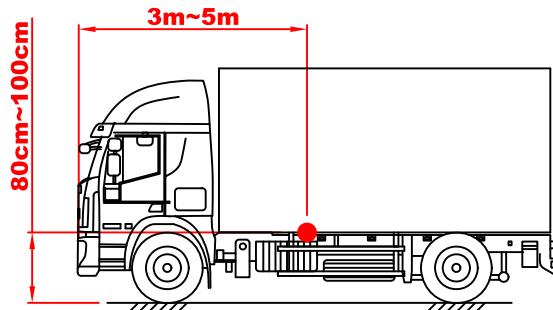


- Horizontal ± 2 degree tolerance is acceptable.

- Vertical ± 2 degree tolerance is acceptable.

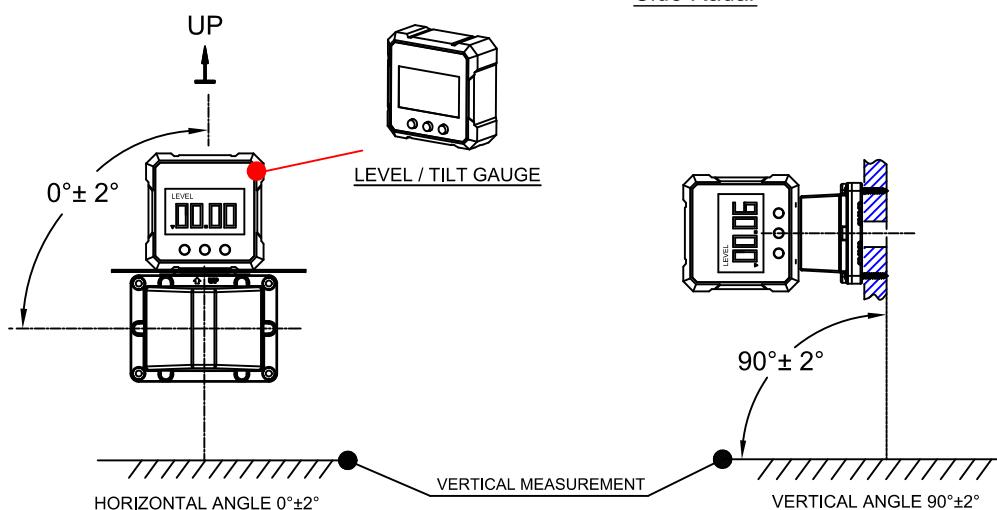
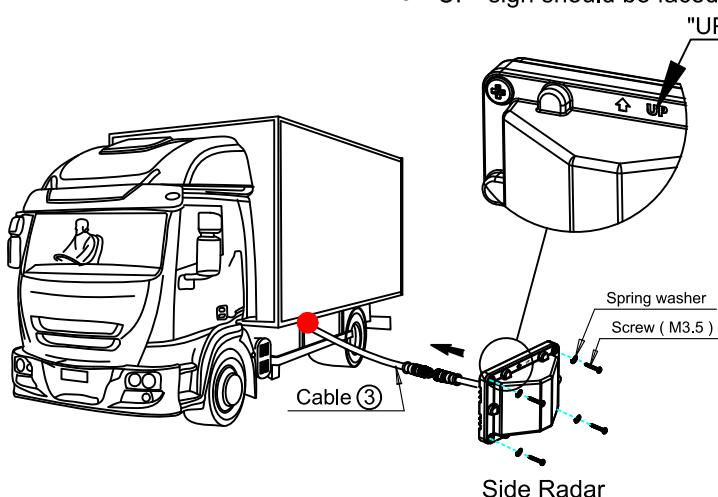
! While installation, Make sure there's no obstacles around.

Side Radar



- The Radar sensor/s can be installed within a height of 80cm to 100cm without calibration.**
- Any height beyond this range should be further calibrated. The manufacturer shall provide a proper calibration program to the installer.**

- "UP" sign should be faced up.**

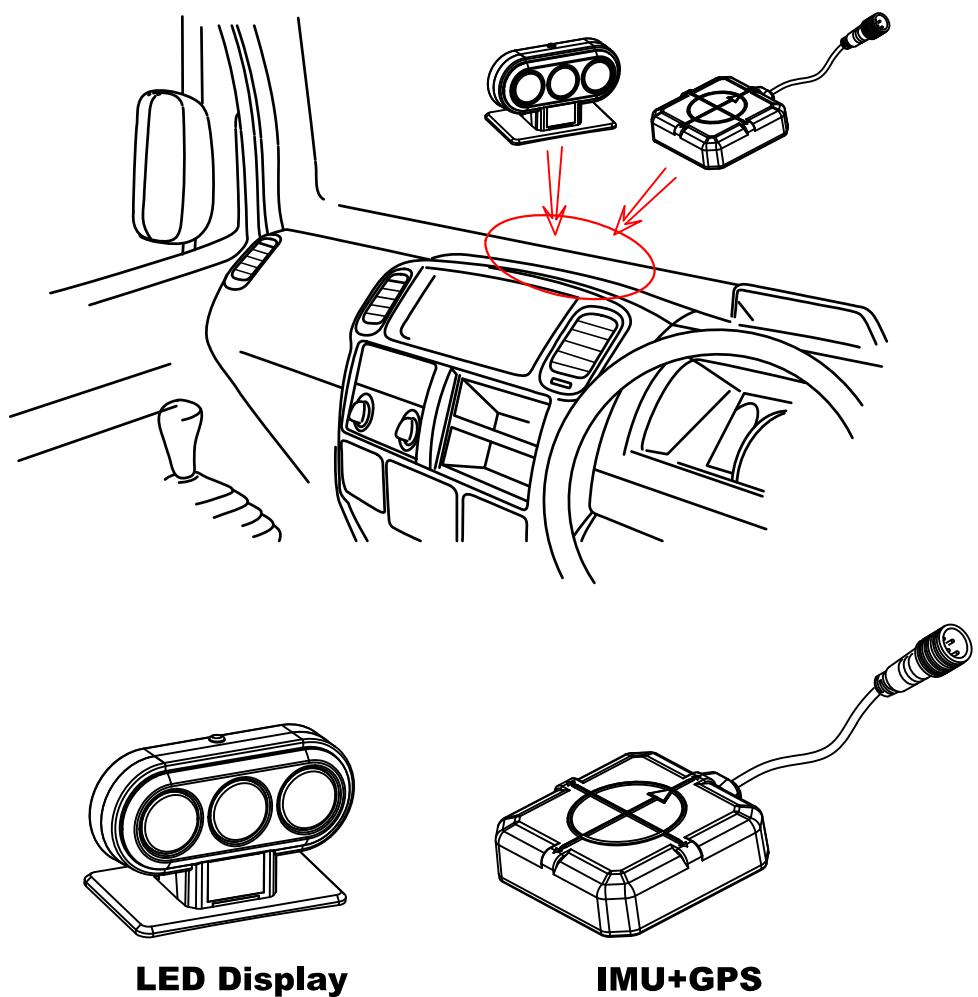


- Horizontal ± 2 degree tolerance is acceptable.
- Vertical ± 2 degree tolerance is acceptable.



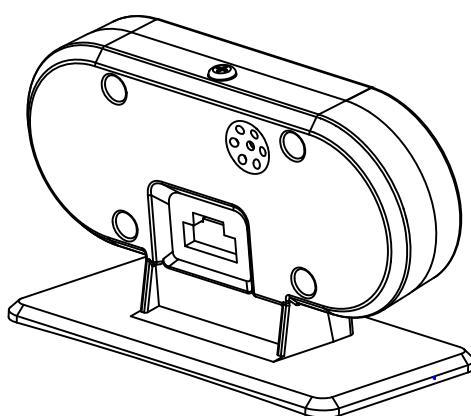
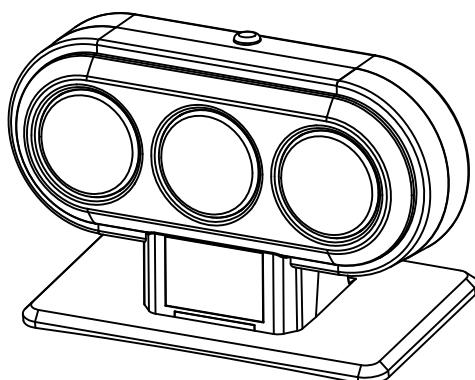
While installation, Make sure there's no obstacles around.

INSTALLATION OF LED/IMU+GPS ON CABIN's DESKTOP

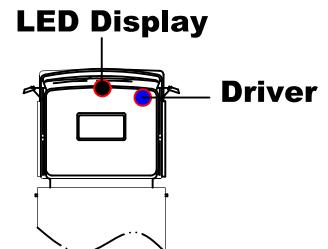
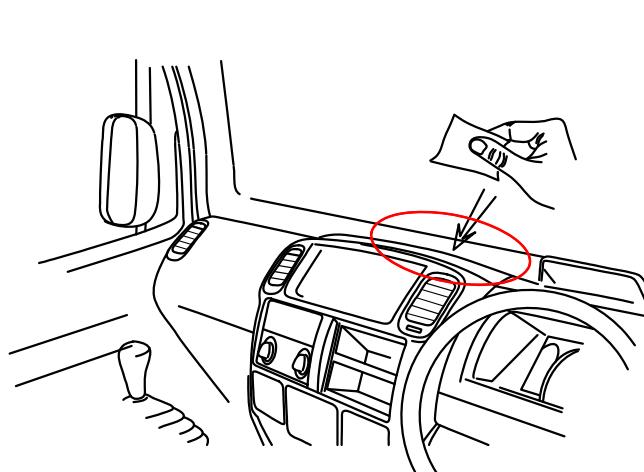


LED DISPLAY

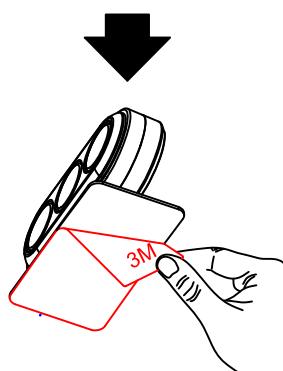
INSTALLATION INSTRUCTION



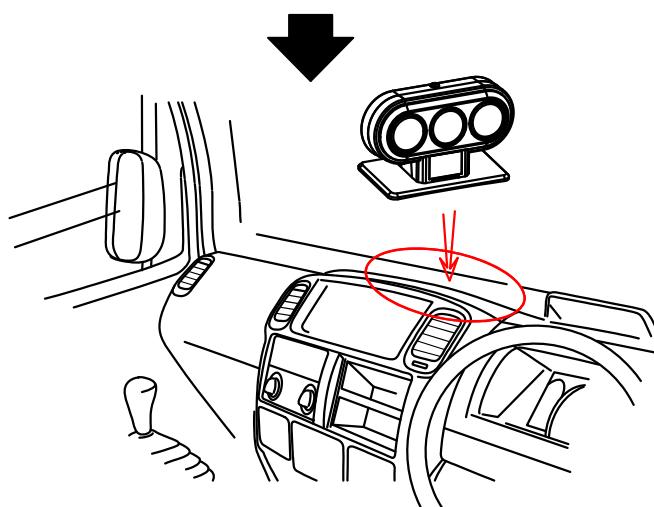
LED Display Installation Procedure



1. Wipe and clean up the mounting position with alcohol swab.



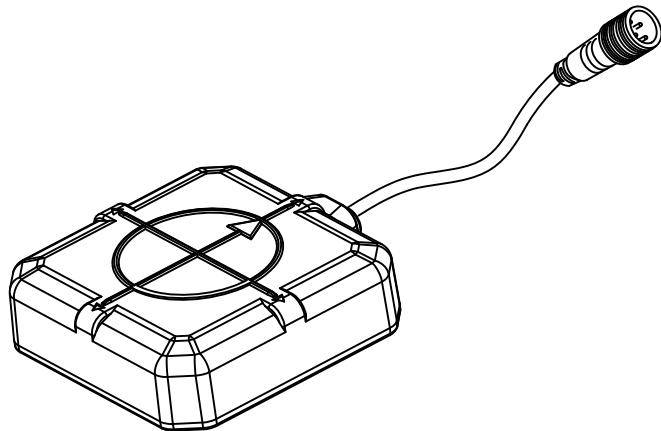
2. Tear off the release film on the bottom of LED Display.



3. Stick the LED Display onto the recommended area.

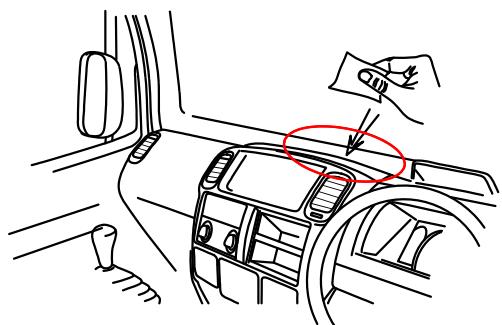
IMU + GPS UNIT

INSTALLATION INSTRUCTION

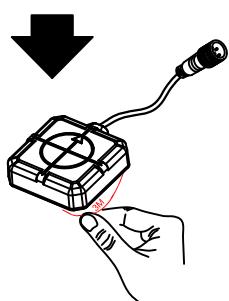


IMU (Inertial Measurement Unit)
GPS (Global Position System)

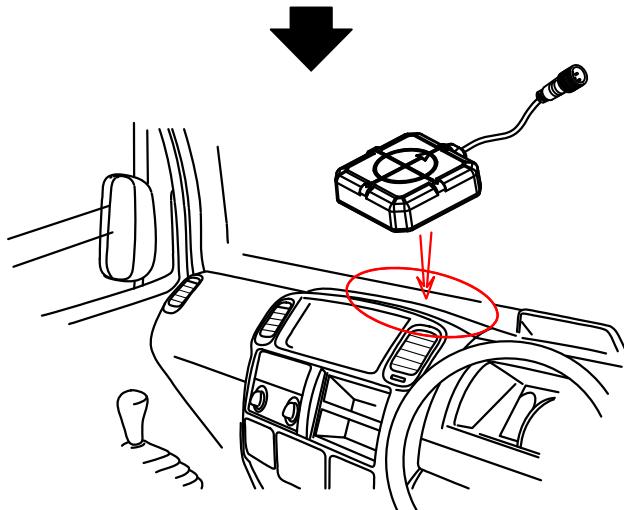
Installation procedure (IMU+GPS)



1. Wipe and clean up the mounting position with alcohol swab.
(It is recommended to mount on a nearly horizontal table)

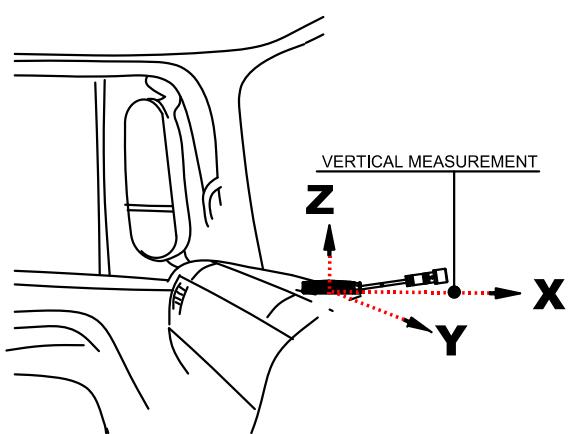
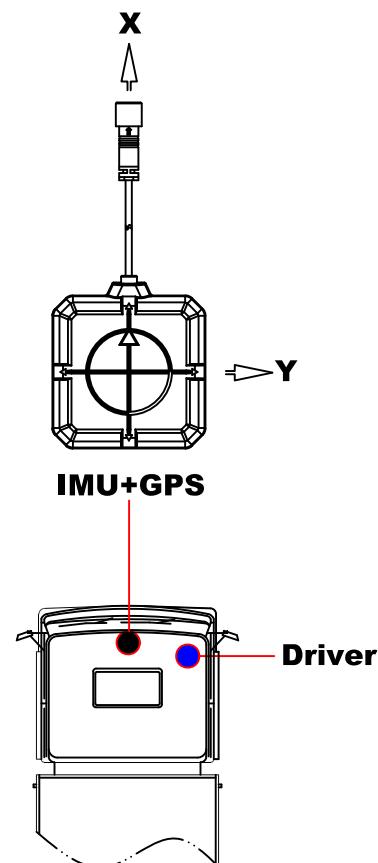


2. Tear off the release film on the bottom of IMU+GPS

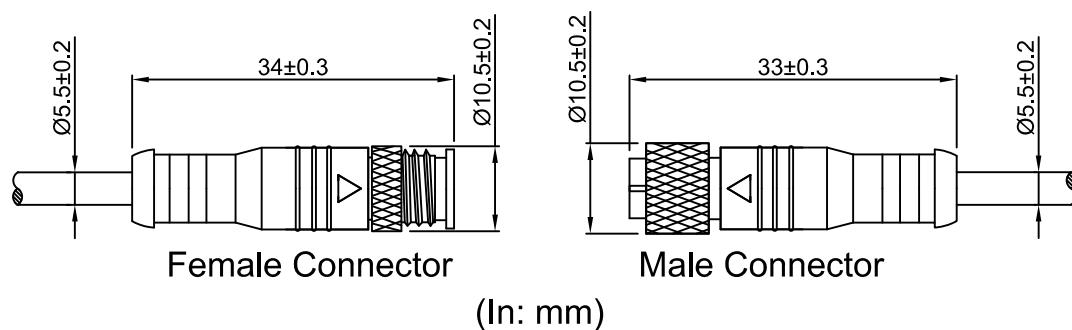
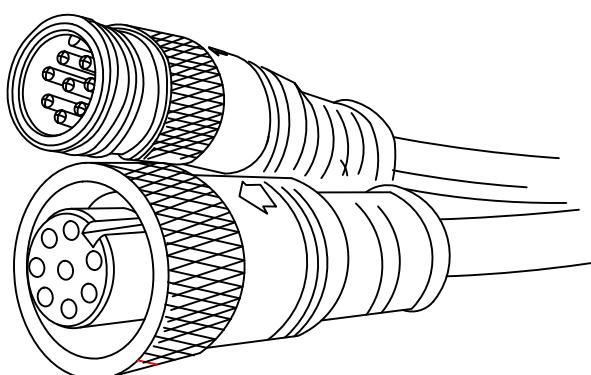


3. Stick IMU+GPS on the recommended area

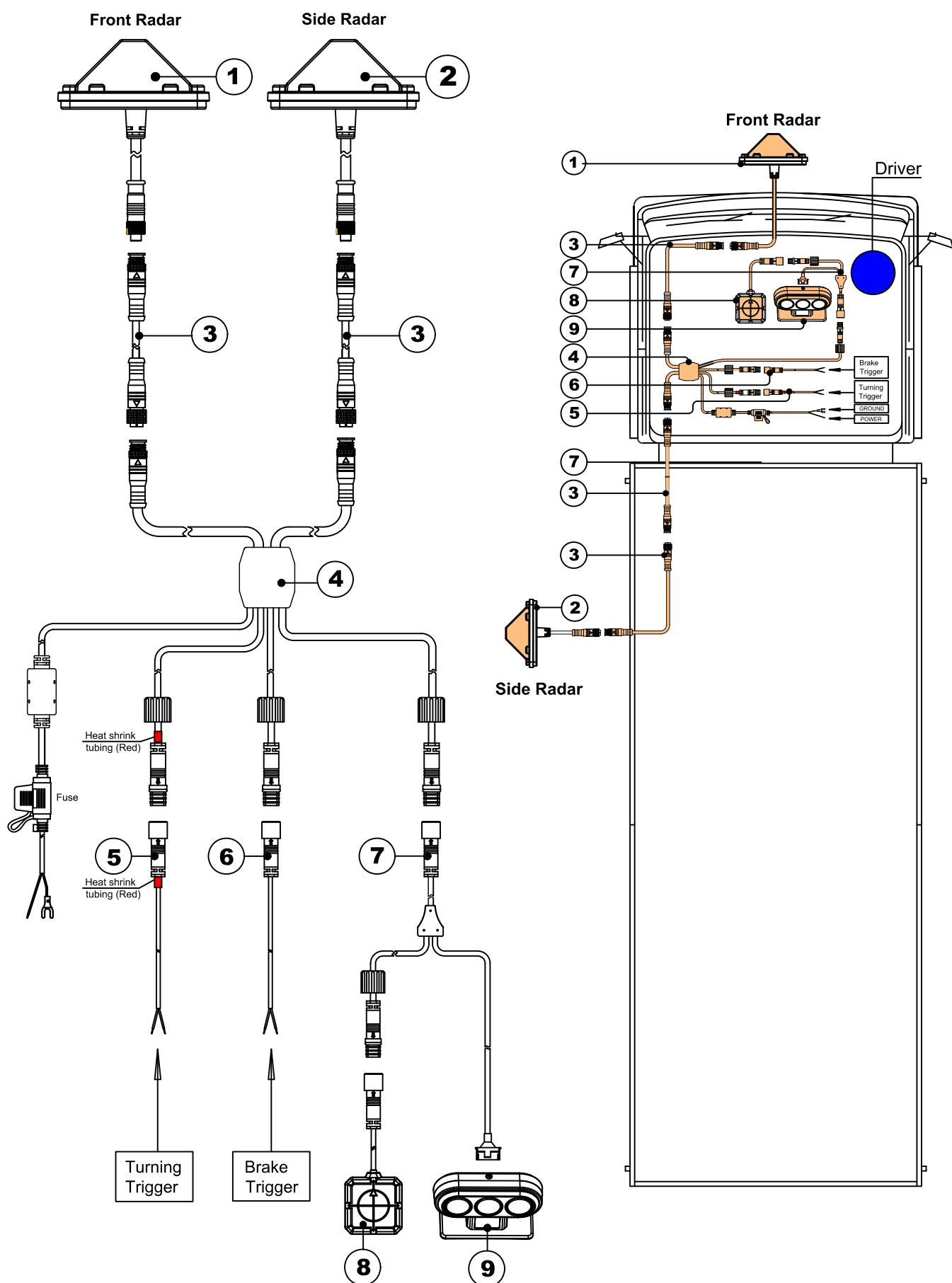
Recommendation



WIRING DIAGRAM

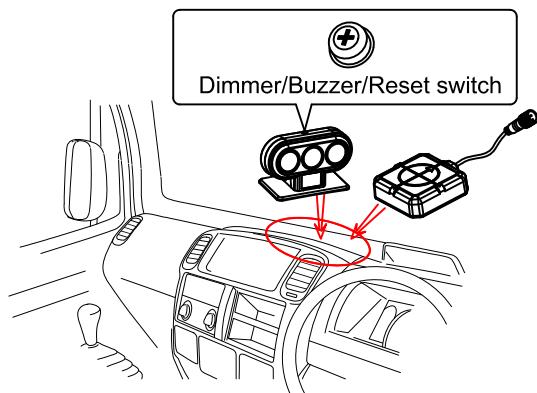


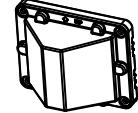
System Wiring Diagram



There is a (+) button on the top of LED display .
The button has three (3) functions:

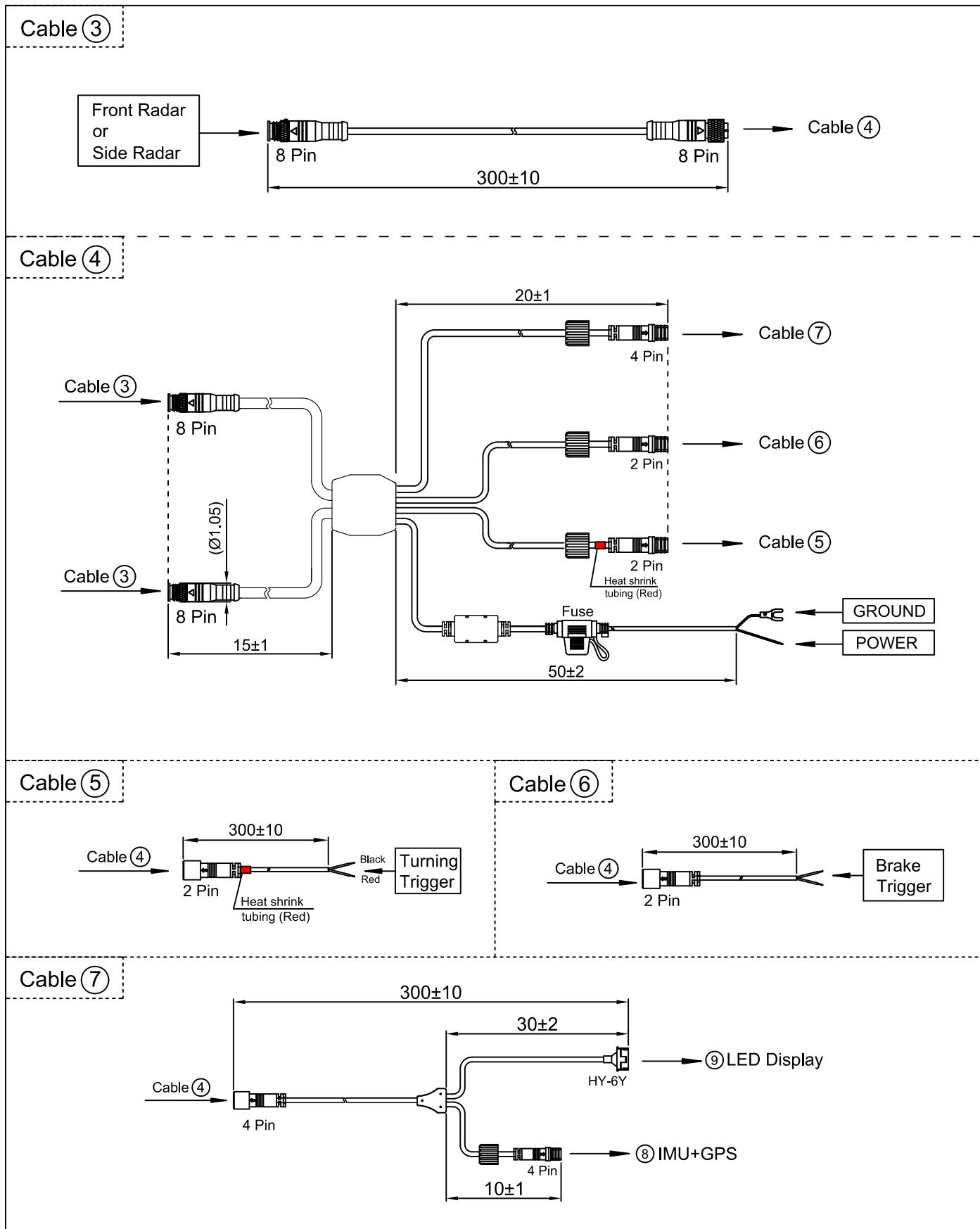
1. **LEDS dimmer control:**
- Press the (+) button < 1 second for dimmer control.
2. **Buzzer control:**
- Press 1-2 seconds for speaker on / off.
3. **Long press button for 6 seconds to reset LED Display.**



| | | | |
|---|--------------------------------|--|---|
| ① | Front radar |  | 1 |
| ② | Side radar |  | 1 |
| ③ | Radar extension cable 3m |  | 3 |
| ④ | System Cable |  | 1 |
| ⑤ | Turning trigger cable 3m |  | 1 |
| ⑥ | Brake trigger cable 3m |  | 1 |
| ⑦ | LED Display & IMU+GPS cable 3m |  | 1 |
| ⑧ | IMU+GPS |  | 1 |
| ⑨ | LED Display |  | 1 |

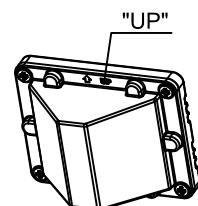
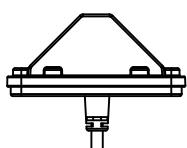
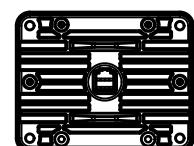
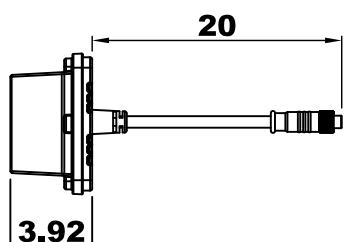
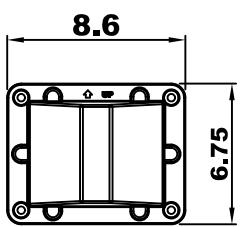
SYSTEM WIRING DIAGRAM

(Basic size : cm)

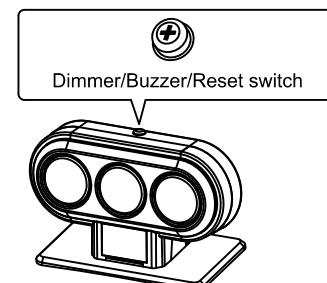
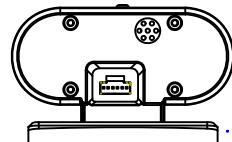
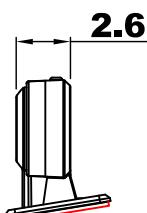
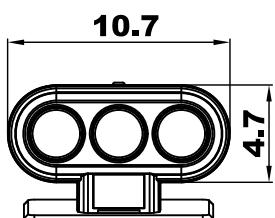


PARTS AND ACCESSORIES

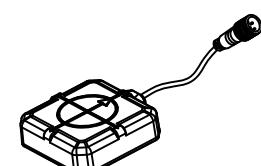
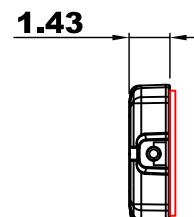
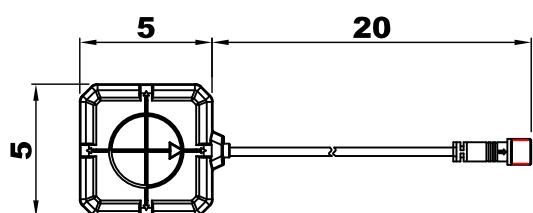
Front / Side radar
(Basic size : cm)



LED Display
(Basic size : cm)



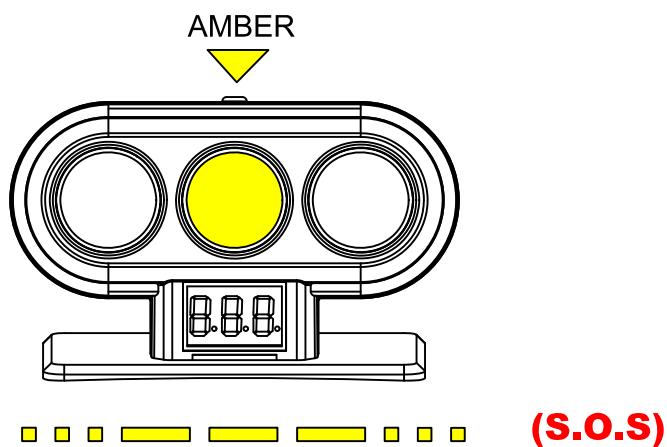
IMU+GPS
(Basic size : cm)



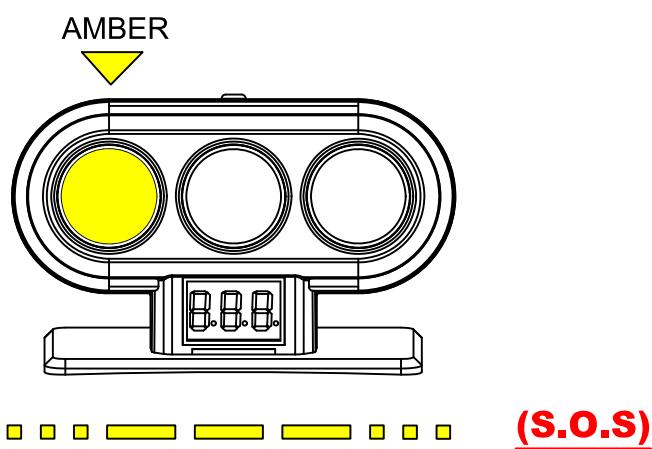
MALFUNCTION

WARNING

FRONT SENSOR



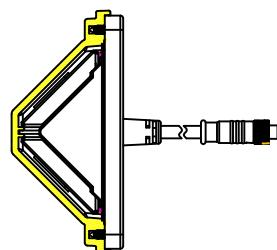
SIDE SENSOR



MALFUNCTION WARNING

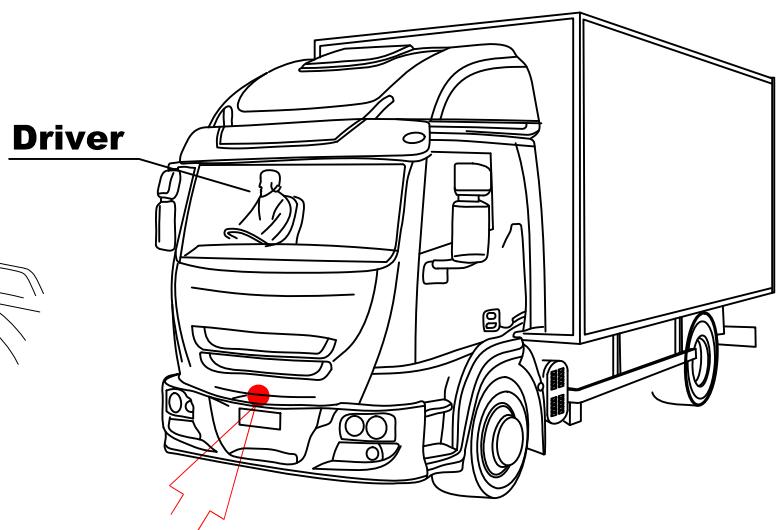
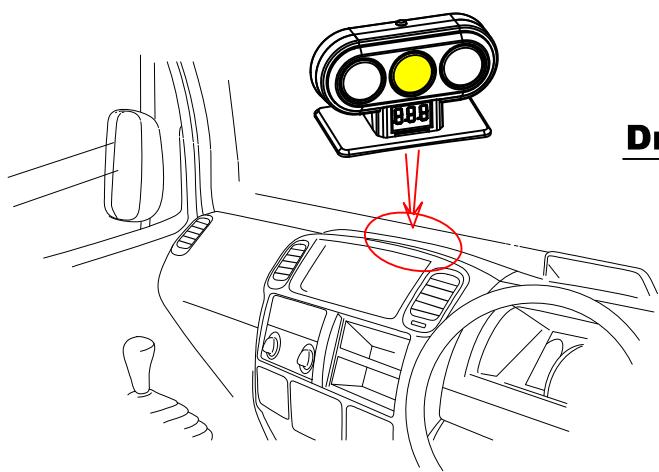
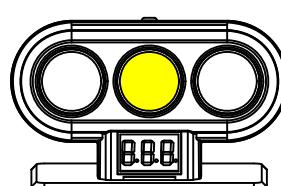
FRONT SENSOR

MALFUNCTION



(S.O.S)

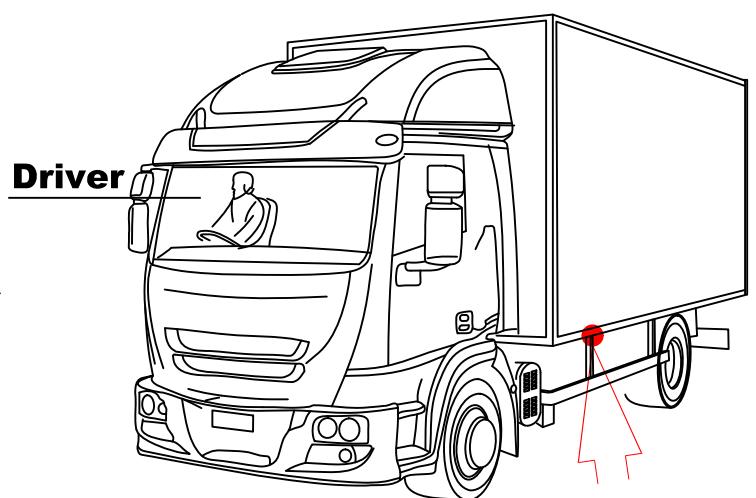
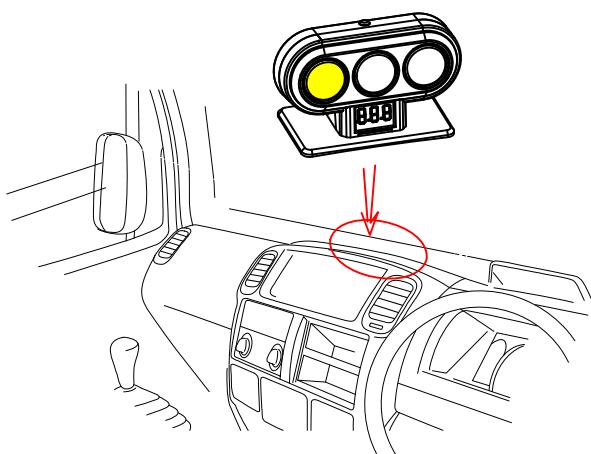
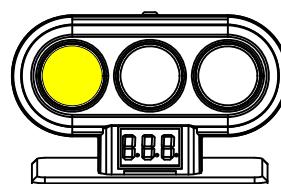
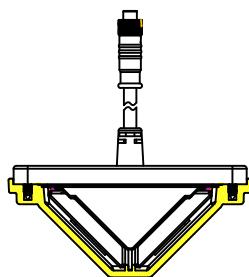
AMBER



MALFUNCTION WARNING

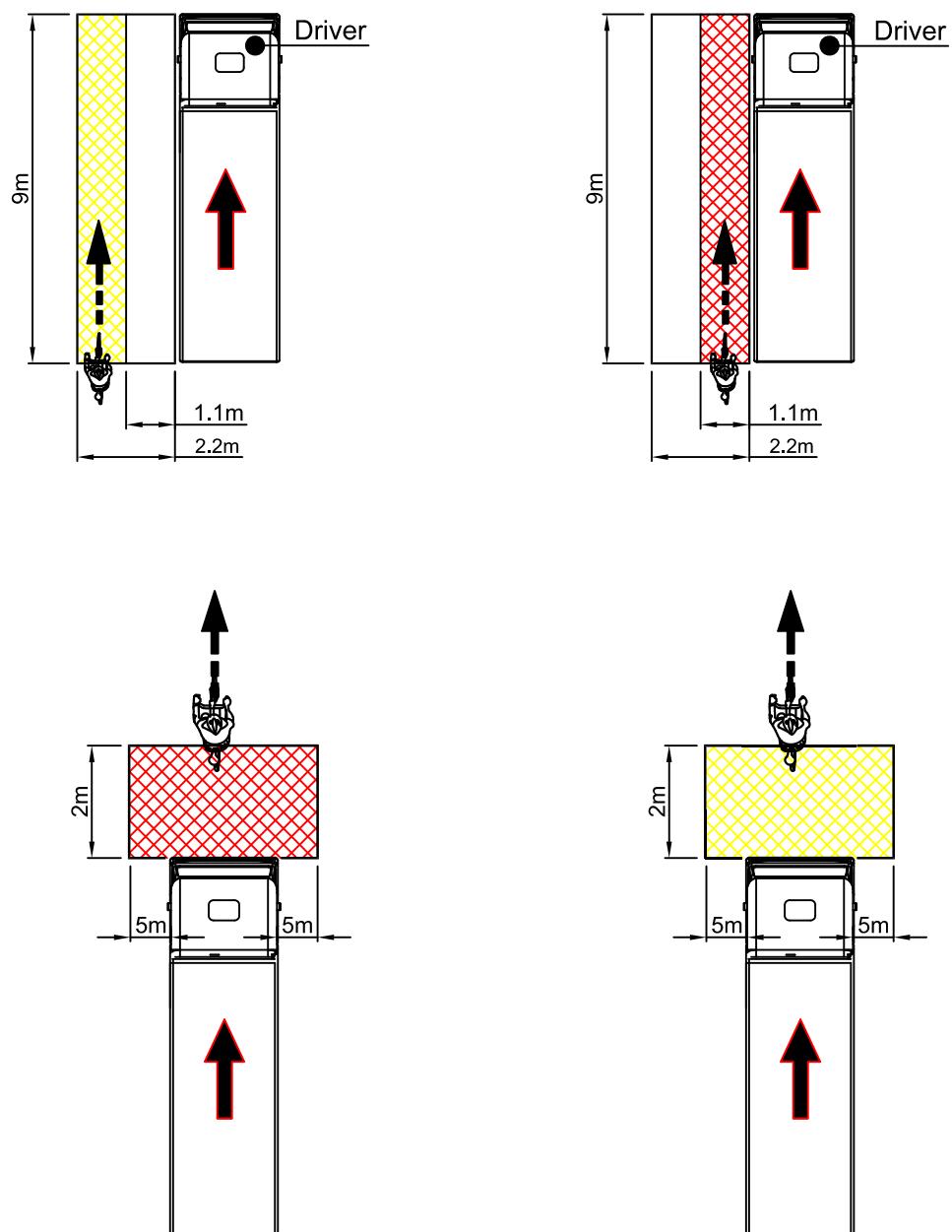
SIDE SENSOR

MALFUNCTION

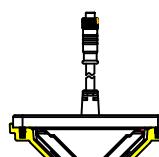
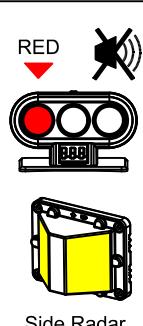
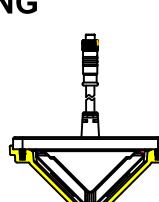


MOVING AND STATIONARY

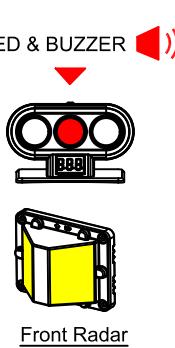
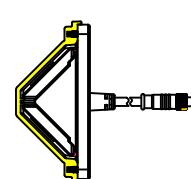
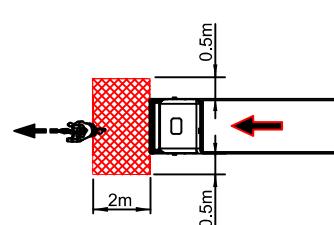
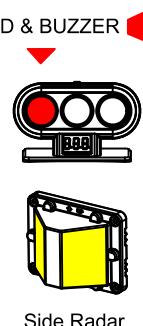
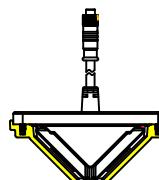
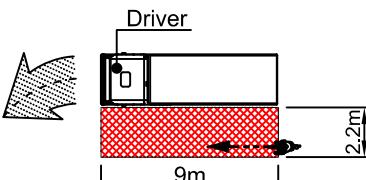
RANGE COVERAGE



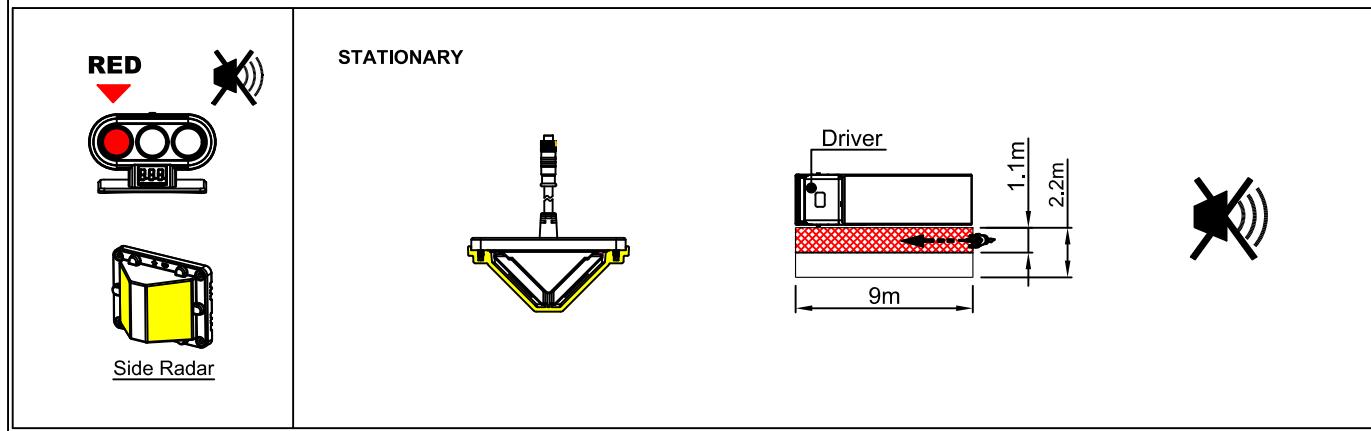
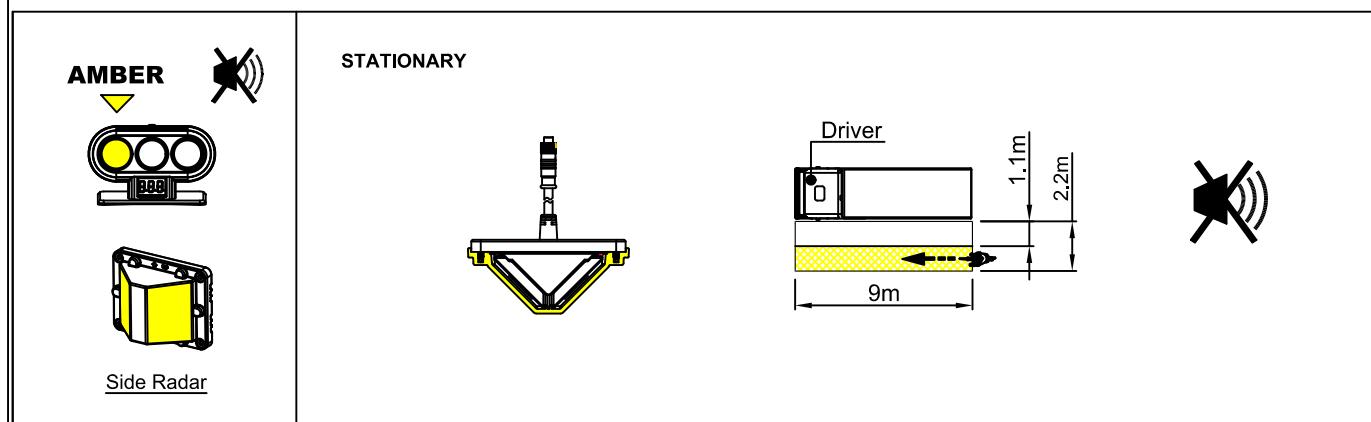
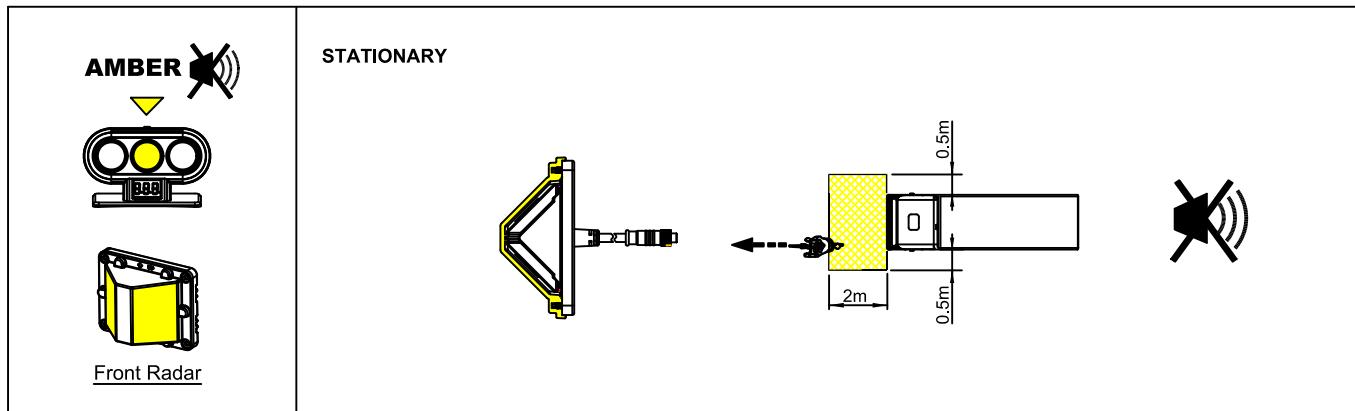
SPEED: 18±2 MPH

| | |
|--|--|
|  <p>AMBER</p> <p>Side Radar</p> | <p>MOVING</p>   <p>Driver</p> <p>1.1m</p> <p>2.2m</p> <p>9m</p> |
|  <p>RED</p> <p>Side Radar</p> | <p>MOVING</p>   <p>Driver</p> <p>1.1m</p> <p>2.2m</p> <p>9m</p> |

SPEED : 0 < V ≤ 3 (MPH)

| | |
|--|---|
|  <p>RED & BUZZER</p> <p>Front Radar</p> | <p>MOVING</p>   <p>0.5m</p> <p>2m</p> <p>0.5m</p> <p>Driver</p> <p>0.5m</p> <p>2.2m</p> |
|  <p>RED & BUZZER</p> <p>Side Radar</p> | <p>TURNING</p>   <p>Driver</p> <p>2.2m</p> <p>9m</p> <p>Driver</p> <p>2.2m</p> |

SPEED : 0 (MPH)



FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.**
- Increase the separation between the equipment and receiver.**
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- Consult the dealer or an experienced radio/TV technician for help.**

FCC Radiation Exposure Statement This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co - located or operating in conjunction with any other antenna or transmitter.

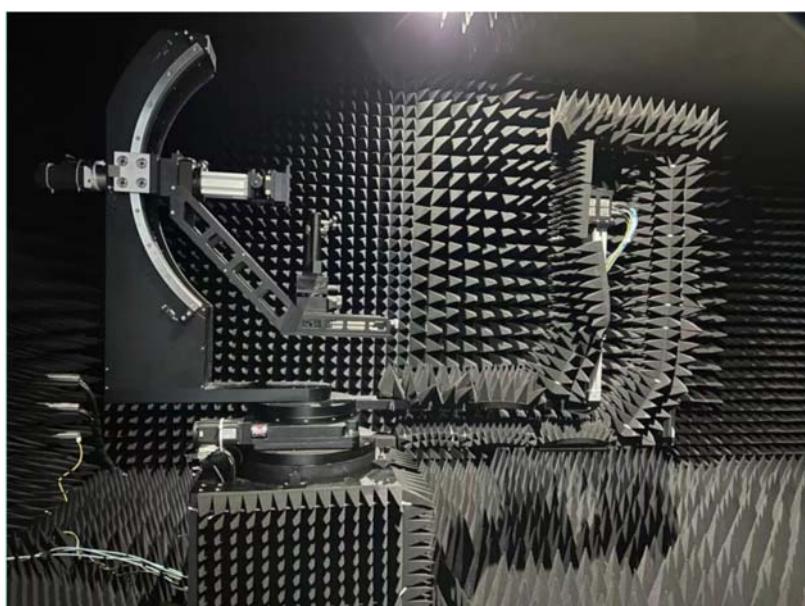
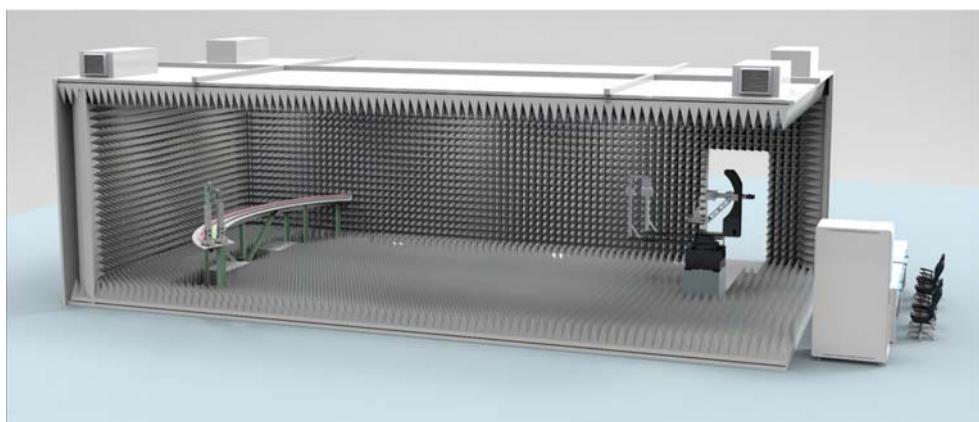
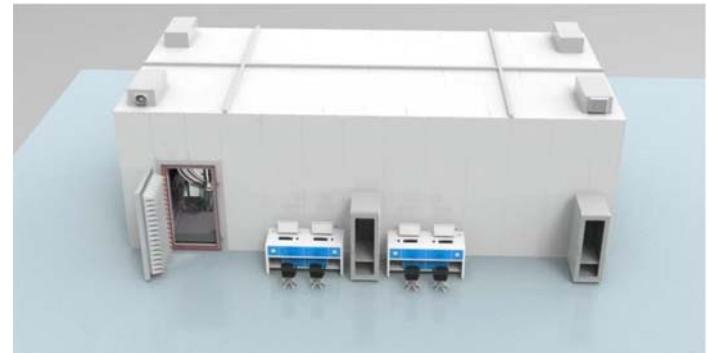
This equipment should be installed and operated with minimum distance 25cm between the radiator& your body.

PRODUCT PARAMETER

| NO | Characteristics | |
|----|-------------------------------------|------------------|
| 1 | Modulation Mode | FMCW |
| 2 | Frequency band | 77-81GHz |
| 3 | Output Power of Eu | 38.59dBm |
| 4 | Horizontal angle coverage | 180° |
| 5 | Pitch angle coverage | ±25 |
| 6 | Detect range | 40m |
| 7 | Distance resolution | 0.250 |
| 8 | Detect accuracy | 0.301 |
| 9 | Speed range | -100MPH~ +100MPH |
| 10 | Velocity resolution | 0.17m/s |
| 11 | Speed measurement accuracy | 0.33m/s |
| 12 | Data update rate | 50Hz |
| 13 | Maximum number of detection objects | 64 |

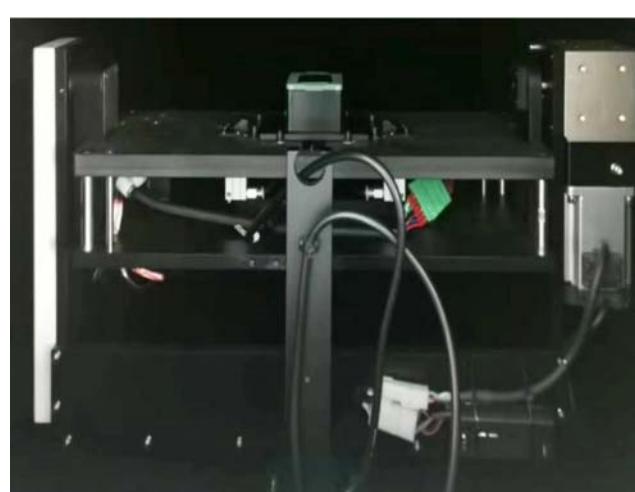
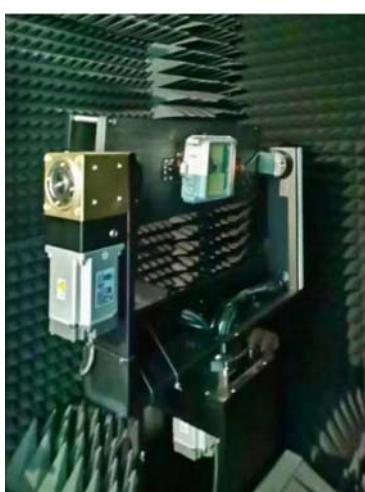
| NO | Basic parameters | |
|----|-----------------------|---|
| 1 | Working voltage | 12/24V works normally, the light flashes. |
| 2 | Power dissipation | ≤5W |
| 3 | Unit size | 8.6*6.75*3.92 cm |
| 4 | Weight | 150g |
| 5 | Storage temperature | -40°C ~ 85°C |
| 6 | Operation temperature | -40°C ~ 85°C |
| 7 | Protection grade | IP67 |

RADAR Antenna Direction Testing / mmFMCW Module Calibration and End Of Line (EOL) Production Chamber

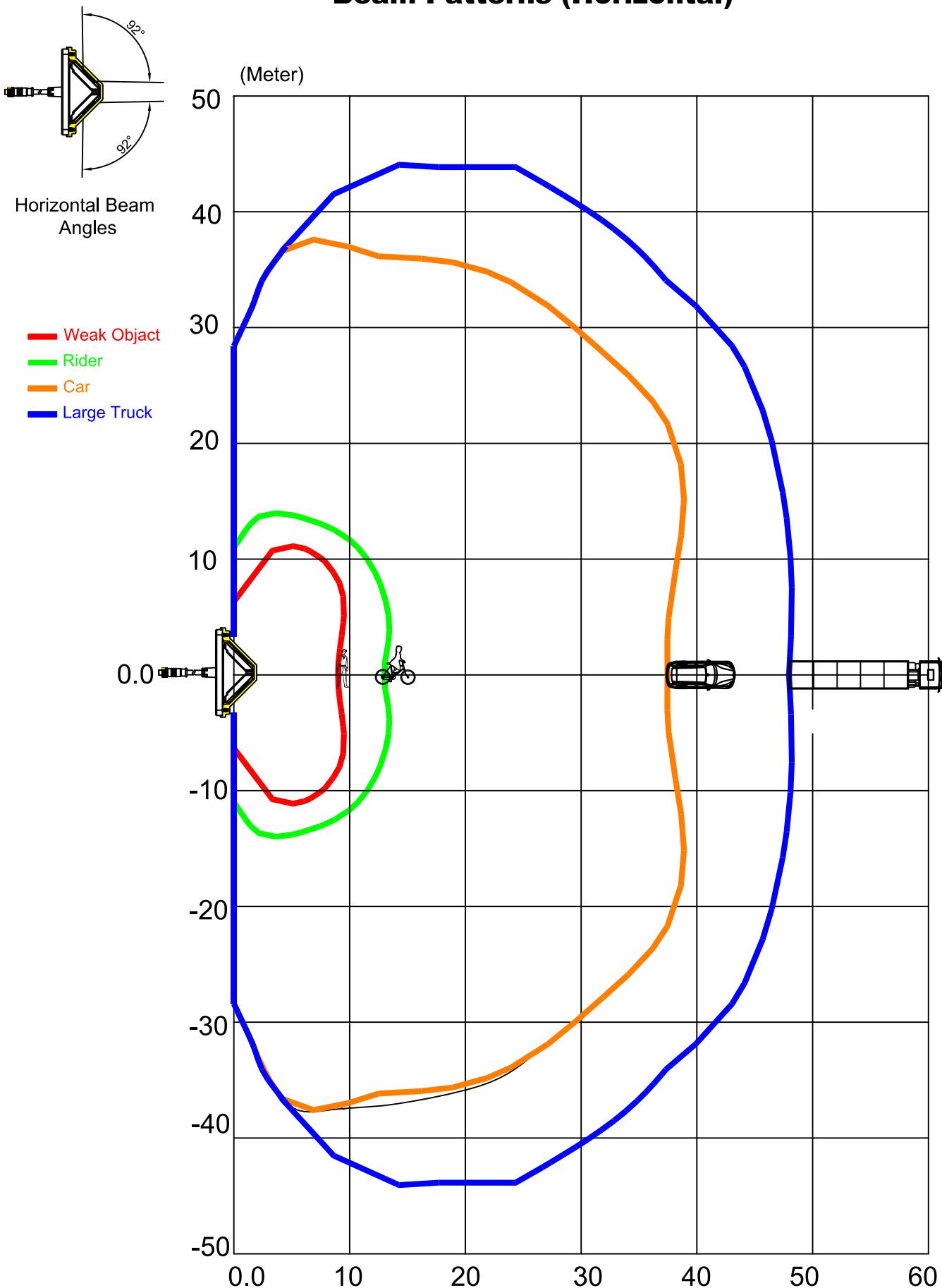


CATR (Compact Antenna Test Range) Anechoic Chambers

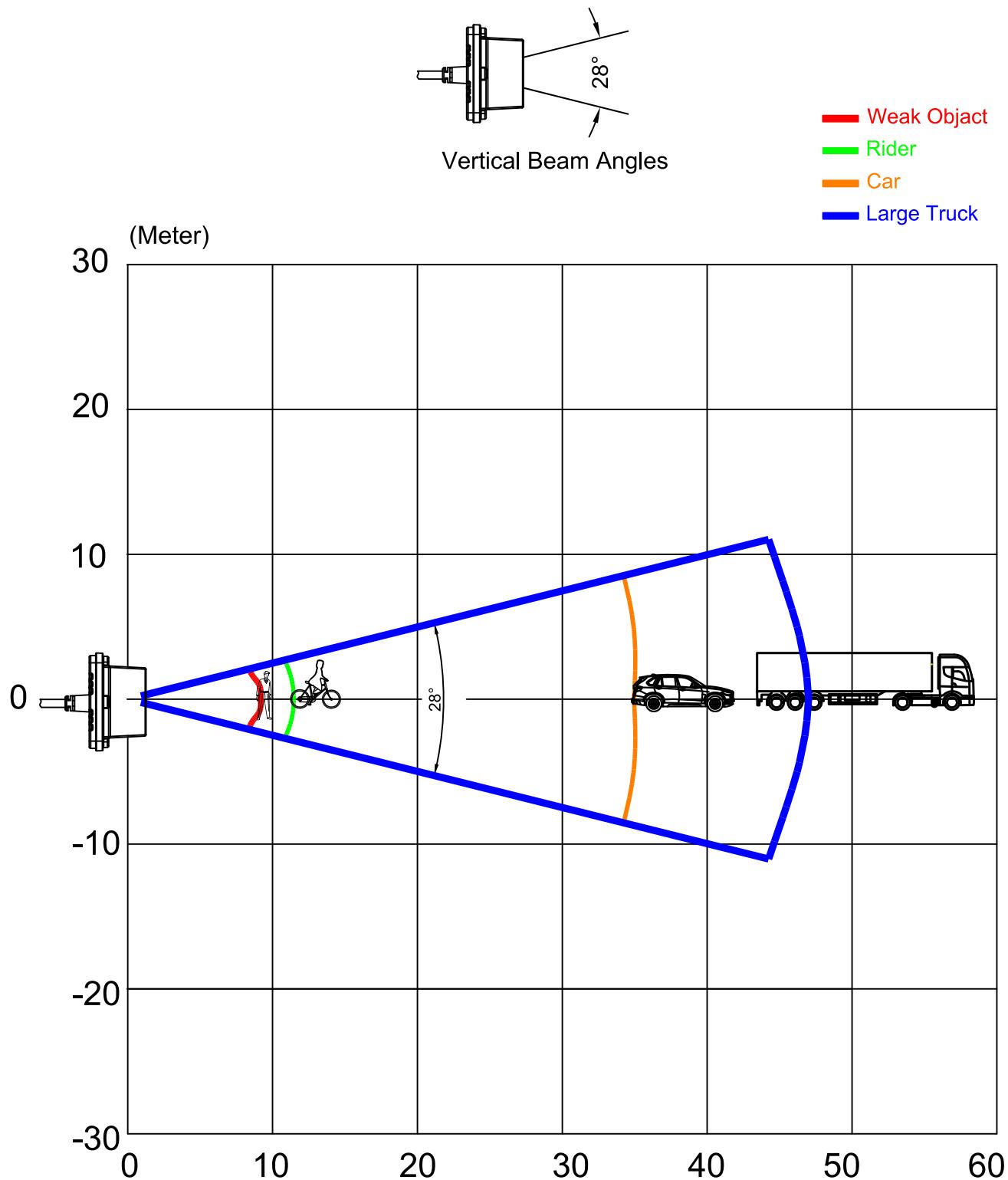
A Compact Antenna Test Range (CATR) allows electrically large antennas to be measured at a significantly shorter distance than would be necessary in a traditional far-field test range.



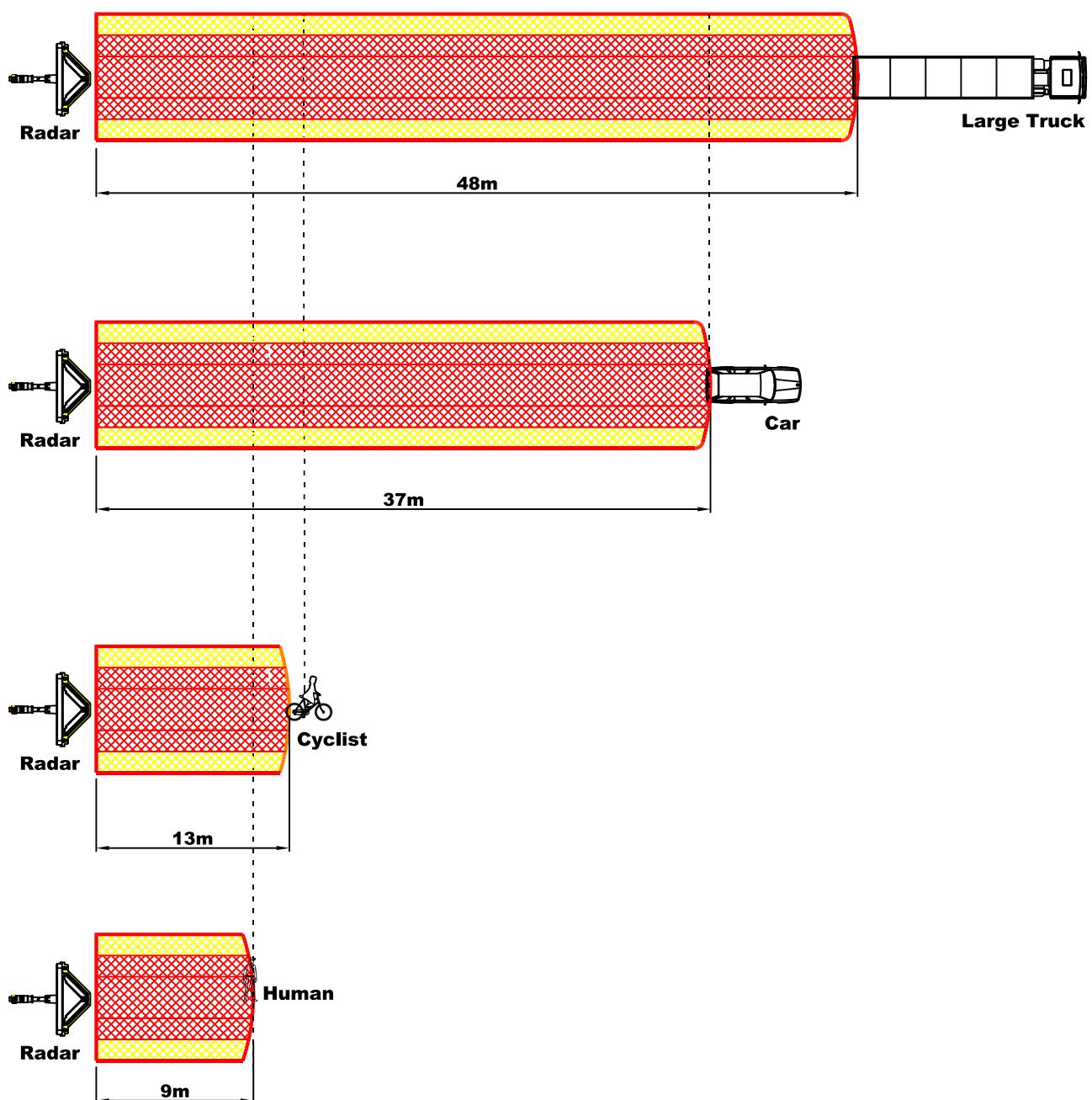
Beam Patterns (Horizontal)



Beam Patterns (Vertical)



Detection Distances of Large Truck / Car / Cyclist / Human being



Please contact us for more information:

Yuki Lueng
Sales Manager

Mobile: 86 15813321451
Tel: 86 - 592 5790339 5790369
Email: yuki@qglobal.com.cn

Q Global Solutions (Xiamen) Electronics Corp.



WhatsApp



WeChat