Daream

User Manual

Drivermate
(Fatigue, Distraction Detection)

Table of Contents

Components

Main Body

Stand

User Manual

USB Power Cable

Device Basics

1 Camera
2 IR Illuminator
3 LED Indicator

4 DC 12V
5 Micro-USB Port
6 Power On/Off

Operation Precautions

☞   Some specially coated corrective lens (inc. much thicker ones) and/or sunglasses can reduce the detection rate.

☞   When hair blots out the eye, the device may make the alarming as fatigue function.

☞   When the face does not in the detection scope, the device may not be at the working state (yellow light keeps on).

Installation - Left Handed Wheel

❶
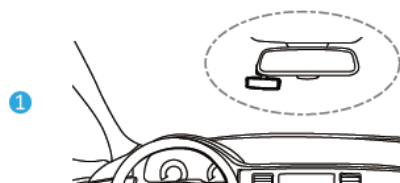
On the back of central rearview mirror (left end) or on the window shield next to the central rearview mirror.

❷

Make the red spot straight to your face (when you look at the device)

❸

Ready (green light on)

or

Warning:

The distance between eye and device MUST be more than 500 mm.

Installation - Right Handed Wheel

❶

On the back of central rearview mirror (right end) or on the window shield next to the central rearview mirror.
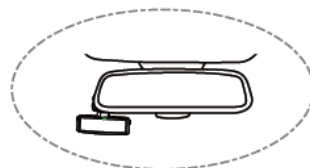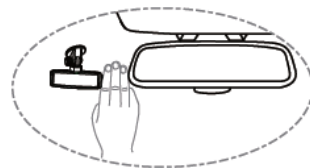
❷

Make the red spot straight to your face (when you look at the device)
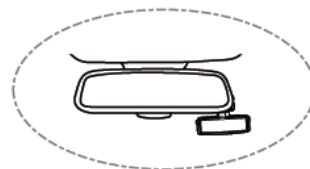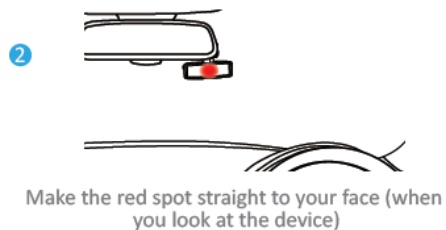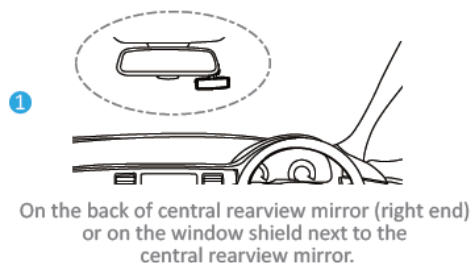
❸

Ready (green light on)

or
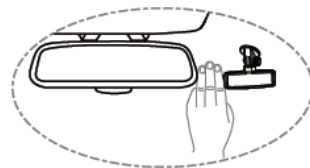
Warning:

The distance between eye and device MUST be more than 500 mm.

The Device Functions

1. Fatigue
The eyelid closure is detected during the driving and the alarming is made even though the gaze is at the so called safe zone – a zone with gaze on the road.

2. Distraction
The alarm will not be made when the gaze is at the safe zone shown in the following diagrams.
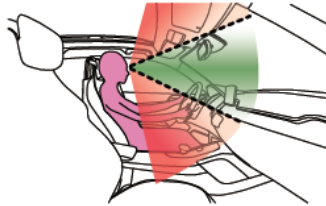
Gaze Zone (side view)
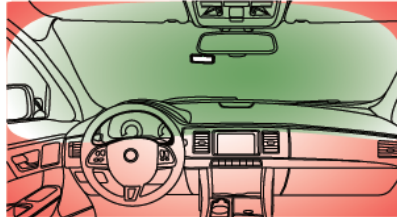
Gaze Zone (front view)

Notes:

1. Gaze zone: Safe - Green; Unsafe - Red.
2. If the gaze is at relatively stable off the green zone (e.g. reading cell phone), the device will alarm as DI-DI under the Fatigue function.

Device Work Flow

1. Setup

Power on

→ Face not in the Scope — Installation ok?

N → Adjustment ← Yellow light

Y

2. Ready

Green

3. Working

Eyes close — Fatigue

Distraction — Head pose

→ @ over 1s — DI-DI ---- Red light ---- DONG-DONG — → @ over 3s

Apps

→ Vibration
→ SMS
→ Email
→ Online check

→ Keeps on, +1.5s — DI-DI-DI-DI — → Keeps on, +2s

ok

4. Standby

Face out the scope → DI-DI-DI-DI/10 times
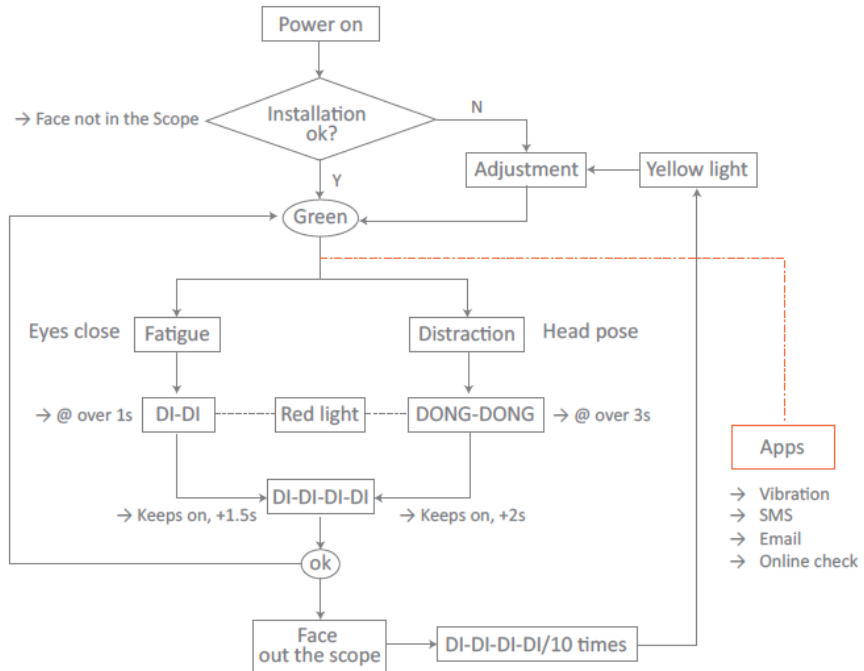
Specifications & Standards

Detection Scope	Face, Eye, Head Pose
Face Type	All + Glasses
Working Condition	Day & Night
Working Distance	500 ~ 800 mm (20" ~ 32")
Rate on Fatigue	99.2% @Naked eyes, 97.4% @Glasses: 1.5s ~
Rate on Distraction	98.2 @All: 3s ~
Alarm Type	Ringing, Vibration @Apps
Working Temperature	−20℃ ~ +70℃
Apps Device	iOS, Android
Dimension	82 × 44 × 29 mm
Weight	59g

Note:

The device is in compliance with CE, FCC, and RoHS.

CE FC ✔RoHS 🗑

Individual Data Management - Apps

1. Working with Other Devices
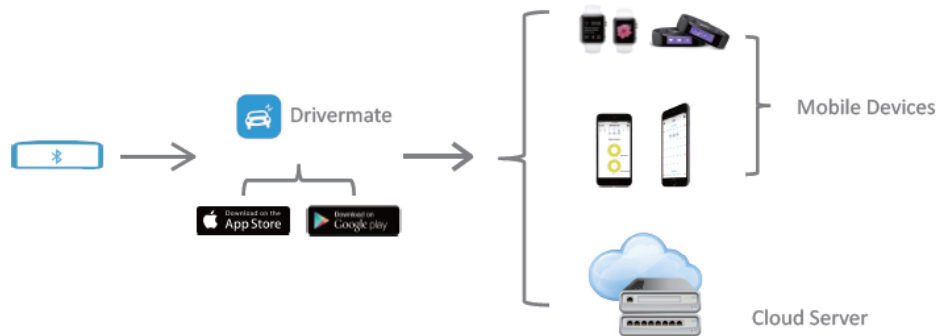
The Drivermate, except working independently, also can pair with other devices via blue-tooth by downloading and installation of the Apps from the following stores:

- Android (phone, watch, and bands)
- iOS (iPhone, Apple watch)

The Drivermate, after paired with smart phone, through our Apps, you can manage your driving behavior data much easy.

Individual Data Management - Apps

2. APPs Use

Pair Device

Data Management

SMS/email

Vibration

Alarm Off (<40km/h)
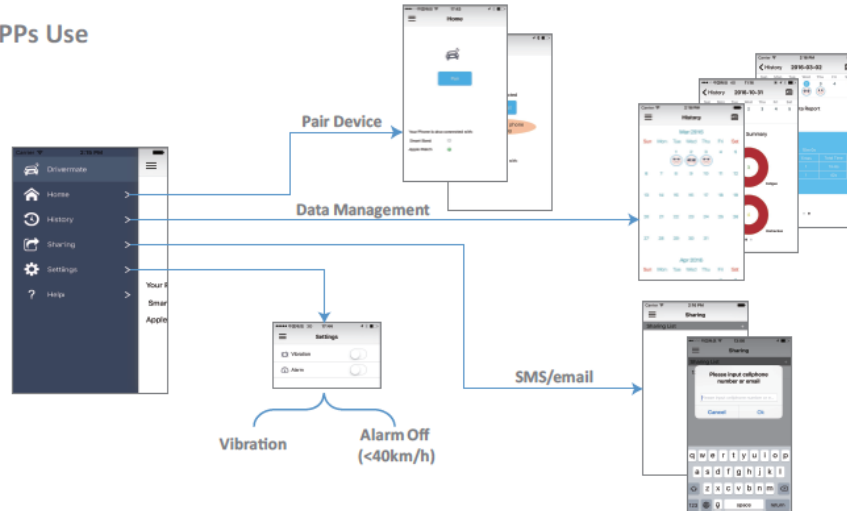
Notes:

1). Once paired with other device, the product automatically, as default, shuts down the Alarm, when the driving speed is less 40km/h,

2). The Apps also can be used for the small business (SME) on the driving data management.

Group Data Management - UART

Client Device

Warning Data

UART

Blue-tooth

Raw Data

Client System

4G/Wi-Fi

firewall

Client Cloud Server

Report
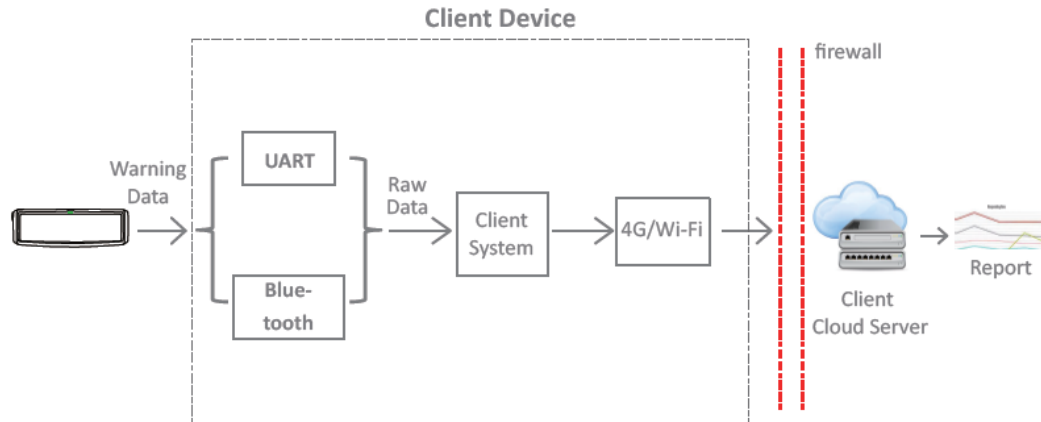
Notes:

1). For UART connection, the specified cable wiring/adaptor will be provided upon the client requirements.

2). Please refer to the UART Interface Instruction, you can view or download at www.daream.com/support.

Group Data Management - SDK, API Solution

Client Device

firewall

Warning Data

UART

Blue-tooth

SDK

API

Client System

4G/Wi-Fi

Client Cloud Server

Report
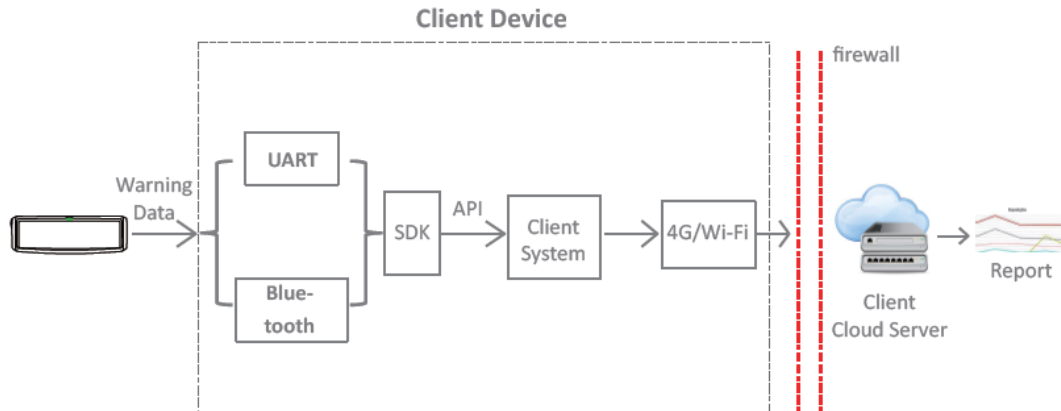
Notes:

1). Daream SDK/API will support either Android or Linux OS, upon the client system

FAQ

Q1: What is the major function of Drivermate?
A: Drivermate is a device to detect the driving behaviour simultaneously and alarming if the driver is in fatigue or distraction state, to prevent car accident and save driver's life.

Q2: How does Drivermate work?
A: Drivermate can capture the eyelid closure for the fatigue judgement or detect the head pose (up/down, left/right off the road) state for the distraction, make the alarm to the driver for the prevention of driving accident.

Q3: Is it easy to install?
A: Yes, just a 3 steps: 1). Stick to the back of central reaview mirror, or window shield, next to the central rearview mirror, 2). Plug in the power, and 3). Make your face straight to the device for setup, and the green light displays, then here you go! You can refer to the Chapter 4 Installation for more detailed information.

Q4: Is it easy to use?
A: Yes, just power on and setup, then all go!

Q5: Can Drivermate work at night?
A: Yes, it works round-the-clock environment, including at extreme sunlight or darkest outside.

Q6: Can it work under eye glasses or sunglasses?

A: Yes, our world-class algorithm embedded can work well under most kinds glasses. But for some very thick lens. It may effect the detection rate.

Q7: Can it be connected with other devices?

A: Yes, our device can be connected to your Apple Watch/iPhone, Android devices or bands. They are blue-tooth connection. But you need to download our APPs (Driversmate) through the App Store/Google Play. While for group user (e.g. fleet company), the product supports the UART interface and provide SDK/API solutions.

Q8: Does it fit for various vehicles?

A: Yes, we have two (2) models which can support left hand side wheel vehicles, and right hand side ones. The working distance between the eyes and device is at 500 ~ 800 mm range.

Q9: Is it annoying?

A: Up to you, the device keeps silence if you are in good drving (eyes on the road); And it will alert you, if you are in fatigue or distraction state. To make the alarm off, you can make the change in the Apps Settings on your blue-tooth cell phone, but this "no warning alarm" is only applied for the driving speed at less 40km/hrs, and only when the device is paired with your cell phone or band.

Q10: Is there any privacy issue for the Drivermate use?

A: No, Drivermate is NOT a CCTV system, footage is NEVER recorded during the driving.

⚠ 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

NOTE:
This device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device 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 device and receiver.
- Connect the device 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.

To maintain compliance with FCC's RF Exposure guidelines, This device should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

driving more safe