

# BL-240D-256-SD

## Quick Start Guide



Please refer to <https://brigade-electronics.com/product-support-area/> for more information and technical documents

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## Overview

**Prior to attempting the system setup, please ensure this guide is thoroughly read and understood. Brigade will not be responsible for any failures due to incorrect installation or operation.**

**This manual will be updated from time to time without prior notice.**

## Cautions

### Installation Environment

To extend equipment life, please install the equipment in locations with little vibration.

To ensure normal heat dissipation, do not install the device in a poorly ventilated area, make sure the device has good air flow and is kept approximately 15 cm away from other objects on the same level.

The device must be installed horizontally and protected against water, humidity, and lightning. In addition, keep the vehicle stationary during installation to prevent damage to the device due to falling off.

To ensure safe operation, keep the device, camera, cables, and other accessories out of reach of passengers and driver.

Please ensure the MDR power is not connected to the same loom or shared power source of another Telematics device. If the installation requires that the cable is run down the 'A'-pillar, please make sure this is done down the opposite side to where an existing Telematics device is situated.

Ensure the GPS antenna is not obstructed, installed on top of the unit, in the roof lining or near another GPS antenna.

## Avoid electric shock and fire

The machine uses 9V-36V DC power supply, be aware of the polarity when wiring to avoid short circuits, take note of the wiring diagram as shown in this document.

Please power off the device when connecting ancillaries.

Do not touch the power and the device with wet hands.

Do not spray liquid on the device to prevent internal short circuit or fire.

Do not place any other equipment on top of device.

Do not disassemble the housing to avoid damage or electric shock, as this will void the warranty.

## Transport and operation

Please use original packaging when transporting to avoid damaging the product.

Please turn the power off when moving the device or replacing components.

## Product introduction

The 4CH MDR supports 4 channels analogue, audio, video recording and playback.

The product adopts ARM DSP fast dual-core processor running on the Linux embedded OS and integrates the most advanced H.264/H.265 video encoding/decoding in IT industry, 3G/4G network, GPS, as well as power-failure protection, SD shock absorption, wide voltage features.

## Main Features:

Supports 4ch Analogue/ AHD 720P/ 1080P cameras

Industry leading CPU with powerful processing ability

Supports SD CARD for recording. Max. 512GB, Class 10 Industrial

Robust design: Cast aluminium enclosure. Patented design

Selected industrial power chipsets, support 9-36V wide range power input, adapt to harsh environment

Support UPS (uninterruptible power source)

Support low/high temperature environment

Dual streams for local recording and network transmission

Support 3G/4G, GPS modules.

Built-in G-sensor for harsh acceleration/deceleration detection/ Driver Behaviour

Data self-protection, save data when shut down abnormally

The unit houses one Secure Digital (SD) card, the SD card is set to overwrite the oldest data first when full. Please note this will need periodic maintenance, which will include being formatted to maintain the health and life span of the SD card; Brigade recommend the SD card is formatted every 30 days.



Do not place upside  
down



Do not tilt and cover  
with other objects



Do not place over  
MDR

Power input	DC: +9V ~ +36V	9V~36V, Check the supply voltage of the vehicle battery before use; If it is supplied with more than 36V for a prolonged period, the device may be damaged.
Power output	+12V@1A, +5V@1.5A	
ACC detection	≤4V	Power off
	≥5V	Power on
Video input impedance	75Ω	Each video input impedance: 75Ω
Video output voltage	2Vp-p	2VP-P video output analog signal which should be adapted by 75Ω of input impedance from the display unit.
I/O interface	<1V	Low level alarm
	>5V	High level alarm
Operating temperature	-20°C~70°C	In a well-ventilated environment

## Kit Contents


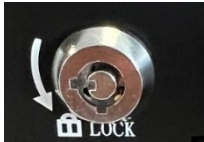

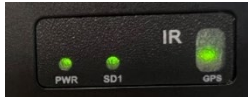


<b>1</b>	<b>Alarm/IO Cable</b>
<b>2</b>	<b>Power Cable</b>
<b>3</b>	<b>GPS Antenna</b>
<b>4</b>	<b>Keys</b>
<b>5</b>	<b>3G-4G Antenna</b>
<b>6</b>	<b>IR Remote</b>
<b>7</b>	<b>Female to Female cable for monitor connection</b>
<b>8</b>	<b>BL-240D</b>

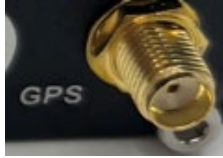




## BL-240D-256-SD Ports and Cable label definition



### Front Panel

Interface	Name	Description
	SIM Card/SIM Card Slot	SIM card slot. SD Card slot.
	Lock & Open	Open and lock the door for SD card/SIM card slot; On/off switch for device power
	USB (Behind sliding panel)	For USB mouse, USB flash drive, etc.
	LED	LED Indicators. Green is on status. SD/HDD LED blinking means it's recording.

## Rear Panel

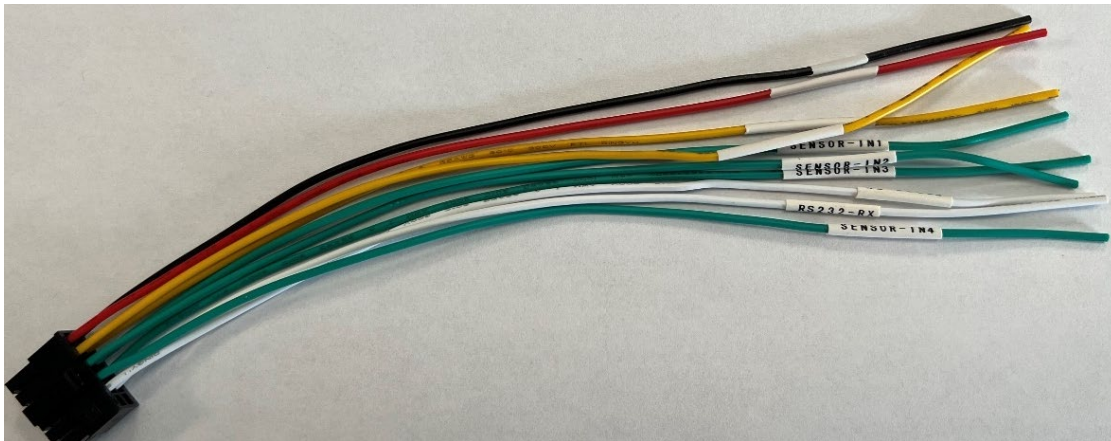
Interface	Name	Description
	GPS	Connect with GPS antenna
	3G/4G Connection	Connection for 3G/4G antenna
	Power	Connect with power adapter/battery
 <p><b>*This AV Output carries power. This means it can power the monitor without the monitor requiring separate power.</b></p>	AV OUT	Inset Female to Female cable here
	AV1 – AV4	Insert camera input cables here
	I/O & Serial	For IO cables; Including sensor input, sensor output, DC power output, RS232, RS485, sensor



1	2	3	4	5	6
N/A	RS232-TX	SENSOR-IN4	SENSOR-IN2	SENSOR-OUT1	12V
7	8	9	10	11	12
N/A	RS232-RX	SENSOR-IN3	SENSOR-IN1	SENSOR-OUT2	GND



## Harness Wires



RED	12V out
BLACK	GD
WHITE	TX (Not Required)
WHITE	RX (Not Required)
YELLOW	SENSOR OUT 1
YELLOW	SENSOR OUT 2
GREEN	SENSOR IN 1
GREEN	SENSOR IN 2
GREEN	SENSOR IN 3
GREEN	SENSOR IN 4



Contains Standard 5A fuse.

### MDR Power Connection



## LED Status Diagram



LED	On	Off	Flashing
PWR	Power	No Power	N/A
GPS	Connected	GPS module not detected	Searching for satellites
SD	Detected	Not detected	Recording

## Default screen layout and Alarm input connections

Channel 1 - Left

Channel 2 - Right

Channel 3 – Reverse

Channel 4 – Front

Alarm 1 = Channel 1 (Left)

Alarm 2 = Channel 2 (Right)

Alarm 3 = Channel 3 (Reverse)

Alarm 4 = Channel 4 (Front)

## Install process

Once you have received your BL-240D with a SD card and SIM card fitted or separately, if they are in the delivery box, please fit them as shown below.

\*Make sure unit is powered off

Use key to unlock front of the BL-240D, slide cover to reveal SD card and SIM slot.

Insert SD Card as shown, you will hear a click once this is pushed in fully.





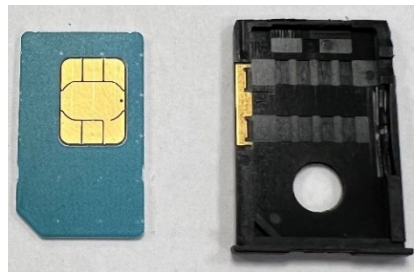
Remove the SIM card holder, to do this push the small button at the top right of the SIM card slot.

Insert SIM card as shown (Face up into SIM holder).

Please make a note of the Sim card number as it is needed for the commissioning process'

Wire the relevant alarm triggers.

Once the above has been installed and powered the BL-240D, connect the camera inputs.



Check that the green record LED is showing that the SD card is recording, refer to the LED status diagram. If this is not working, please check the SD card is not locked before inserting into the device. If this is still not working, a manual format of the SD card may be required; to do this follow the below steps.

## Format

Menu > System Management > Format

Disk	Size (GB)	STD Size	StdPart (GB)	Block (MB)	Action
DISK1	7	2.0	0.5	Default	FORMAT
DISK2	119	0.8	2.0	Default	FORMAT

Enter time to estimate record Space (H)

**SAVE**

Press the arrow keys to select **DISK1 / DISK2 / USB** (if you had plugged the USB drive).

It will display the whole available disks. Size/Std size/Block setting.

**Encryption:** Here the user can set a password (KEY) for the dedicated channels. When played via the player, it will ask the user to Input the password.

**STD size:** The area for saving Alarm pictures, debug Logs, system file, Alarm videos. For example, if more space is required for saving alarm videos and upload to FTP server, should change it. Just input a new value in **StdPart (GB)** and **SAVE** it, then format.

**Block (MB):** All videos are saving by block read & write technology. It's not recording by time length. Therefore, if a long time-period video needs to be saved, change a bigger value for it.

**Format:** If there is some error with the disk, format it. It will take about some minutes.

## Login

The default password for admin is **111111**; user is **666666**

**NOTE:** To change settings the user will need to enter the Admin password.

DEV ID: 800812

PASSWORD:

**Main Menu > System > Format**

Press the arrow keys to select DISK1/USB (if you had plugged the USB drive).

It will display the whole available disks. Size/Std size/StdPart (GB)/Block setting.

**Encryption:** Here the user can set a password (KEY) for the dedicated channels. When played via the player, it will ask the user to Input the password.

**STD Size:** The area for saving Alarm pictures, debug logs, system file, alarm videos. E.G – If you need more space for saving alarm videos, uploading to FTP Server will free up space. Input a new value in **StdPart (GB)** and SAVE it, then format.

**Block (MB):** All videos are saving by block read & write technology. It's not recording by time length. So, if a long time- period video needs to be saved, change a bigger value for it.

**Format:** If there is an error with the disk, ensure format is selected



Disk space can also be evaluated for recording

For custom Config on USB, follow the below steps

**Main Menu > System > Config**, Select Import config

GPS Install location:

The GPS antenna needs to have an unimpeded view to the sky. The antenna positioning and orientation is critical to ensure effective operation. Horizontally mounted on a metal plate is optimum.

Please ensure the GPS antenna is not near another Telematics device, if a cable is required to run down the 'A' pillar this is done down the opposite side to where an existing Telematics device is situated.



## Calibration Process

The G-Sensor will need to be calibrated on initial install only.

This must be done when the vehicle is stationary and on a flat surface. **Main Menu > Alarm > G Sensor.**

Name	Enable	Limit	Wait	Record	Linkage	Delay
X	OFF	0.20	0.5	OFF	OutPut1	1
Y	OFF	0.30	0.5	ON	OutPut1	1
Z	OFF	0.20	0.5	ON	OutPut1	1
Impact	OFF	0.30	0.5	ON	OutPut1	1
Tilt	OFF	10.0	0.5	ON	OutPut1	1

Impact: 0.04g Tilt: 0.0°  
X axis: +0.00g Y : +0.00g Z : -0.04g

**ADJUST** **SAVE**

Click on **ADJUST** to zero the calibration and **SAVE** to confirm the settings.

## Exporting Video Data

Insert the USB stick into the front slot

Alternatively you can remove the SD card and connect to your PC.

Navigate to the **Menu > Search > Record** select the required date and time and click on Export.

Video Search

2021-10

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Date: 2021/10/16

Start Time: 00:00:00

End Time : 23:59:59

Video Type: REC-ALL

Disk Type : MAIN

**SHOW** **SEARCH**

**Date:** Press number keys on remote to select the date, it defaults for the current day.

**Start time:** Press number keys to input the time, it defaults for 00:00

**End time:** Press number keys to input the time, it defaults for 23:59

**Video Type:** press **OK** to select.



**REC - ALL** (all type of videos)

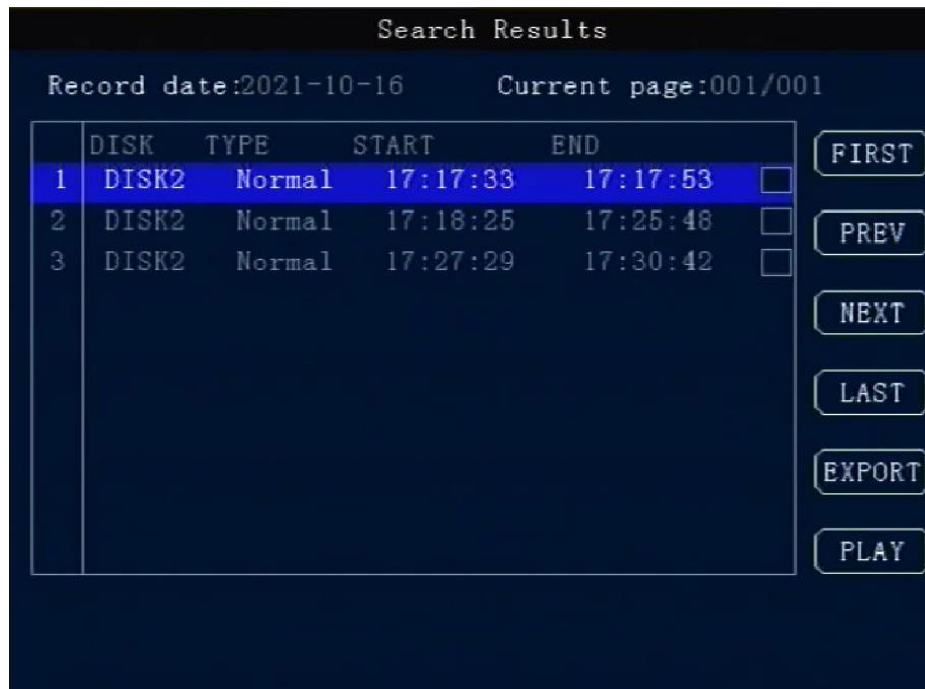
**REC - ALM** (alarm videos) contains

**IO** - (I/O recording), **G sensor**, **Speed**, **Move**, **Fatigue**, **OCC** type. Alarm menu must be set for these to be picked up first.

**Disk Type** - press the **OK** button on the remote to select.

**Search** - Move to the "Search" button, press the **OK** button on the remote then enter the search results interface.





The interface contains **record date**, the **current page** number, **menu for browsing**, search contents. In the search contents, it contains: **DISK** (the file's location), **Type** (which is selected), start and **end** time.

Press the **Arrow** keys to select the information required to view, press OK button on the remote or click

**PLAY** to start playing the video, press the Exit button to return the previous level.

Select the video file required to view and press Ok button to check the video to be backed up.

Press the **Arrow** keys to select "**First**", "**Previous**", "**Next**", "**Last**", "**Play**", press the OK button to display the information page.

**Export:** Press the **OK** button the selected videos will be exported to an external USB storage device.

**Note:** If the selected period shows no video file, the following interface prompt will be shown:  
**"! This day has no video file"**