

# SmartBB User Manual

Version 1.0



Thank you for purchasing a car drive recorder from I-tech korea, Ltd..  
I-techkorea, Ltd. always strives to listen to our customers and deliver the best customer service.  
This manual contains the descriptions and operating methods for the black box car drive recorder.

Please, read this manual carefully before using our product.

This manual is based on the SmartBB 200+ and there may be technical or editorial errors or omissions in the contents. The performance of this product is subject to change without notice.

## **01. Product Guide**

- Before reading the guide
- Precautions
- Directions for the use
- Component
- Name of each parts
- Basic operation
- Installation
- Cable pin arrangement

## 1-1 Before reading the Guide

Thank you for purchasing our product.

The SmartBB is a car drive recorder that records front and rear Video and Voice. There is a 5" LCD on the mirror that enables immediate playback as needed due to accidents or any events.

- Please, follow the manual
- The company is not responsible for any malfunctions due to disassembly or improper use of the product.
- The PC Viewer program only runs with Window XP / Vista / Window 7
- The performance of the product and manual is subject to change without notice.

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## 1-2 Directions for the use

Failure to handle the product properly as below may result in injury or death. I-techkorea, Ltd.. is not liable for any accidents resulting from improper usage..

Do not disassemble or remodel

- May cause electric shock, automobile failure, or loss of data
- Ask an indent or A/S center about inspection or repair

Do not operate the black box while driving

- May cause a car accident due to reckless driving. Do not operate the device until after the car is stopped.

Turn off the power before separating the SD card

- May cause malfunction and loss of data

Consult an expert to install the sequence power

- There may be alternate methods of installation. I-tech korea, Ltd.. is not responsible for failure or malfunctions that result from improper installation.

Turn off the power to save battery during the summer when the black box is in direct sunlight and also during the winter when the black box is subject to extreme cold temperature

- There's a danger of discharge depending on the condition of the car's battery

Possible to be late receiving GPS

- GPS signal reception may take more time depending on the weather and other conditions, please allow extra time for signal reception after turning on the car engine.

Do not use with the other products that generate electromagnetic waves

Do not use other products which use GPS or electromagnetic technology as it may interfere with GPS signal reception and cause product malfunction.

Excessive tinting on the windshield may influence recording video quality.

Be caution if the product is left in the for extended periods of time during the summer and winter

- Product may malfunction if subjected to extreme temperature. Please see the recommended operating temperatures and conditions.

The LCD monitor screen can cause glare in the dark, so be cautious when entering tunnels during the day. Severe backlighting during the night can degrade image/video quality.

Remove the vinyl on the lens and keep it clean

- The vinyl and other foreign objects may change the balance of the video
- Avoid installing the product in direct sunlight or near other sources of heat (May cause fire)

- The risk of electric shock or cosmetic product variants may cause a malfunction.

Only use this product within the rated voltage

- Failure to do so may result in explosion, fire or product failure

Do not spray water or wax directly onto this product when cleaning the inside of your vehicle

- May result in product failure or electric shock

Plug in the power cable firmly to prevent it from moving

- Incorrect contact may cause fire or loss the data



smartBB



Rear Camera



4G micro SD card



Velcro



Rear Cable



Simple manual



Power Cable



Viewer & Guide

#### Option



GPS



USB Cable



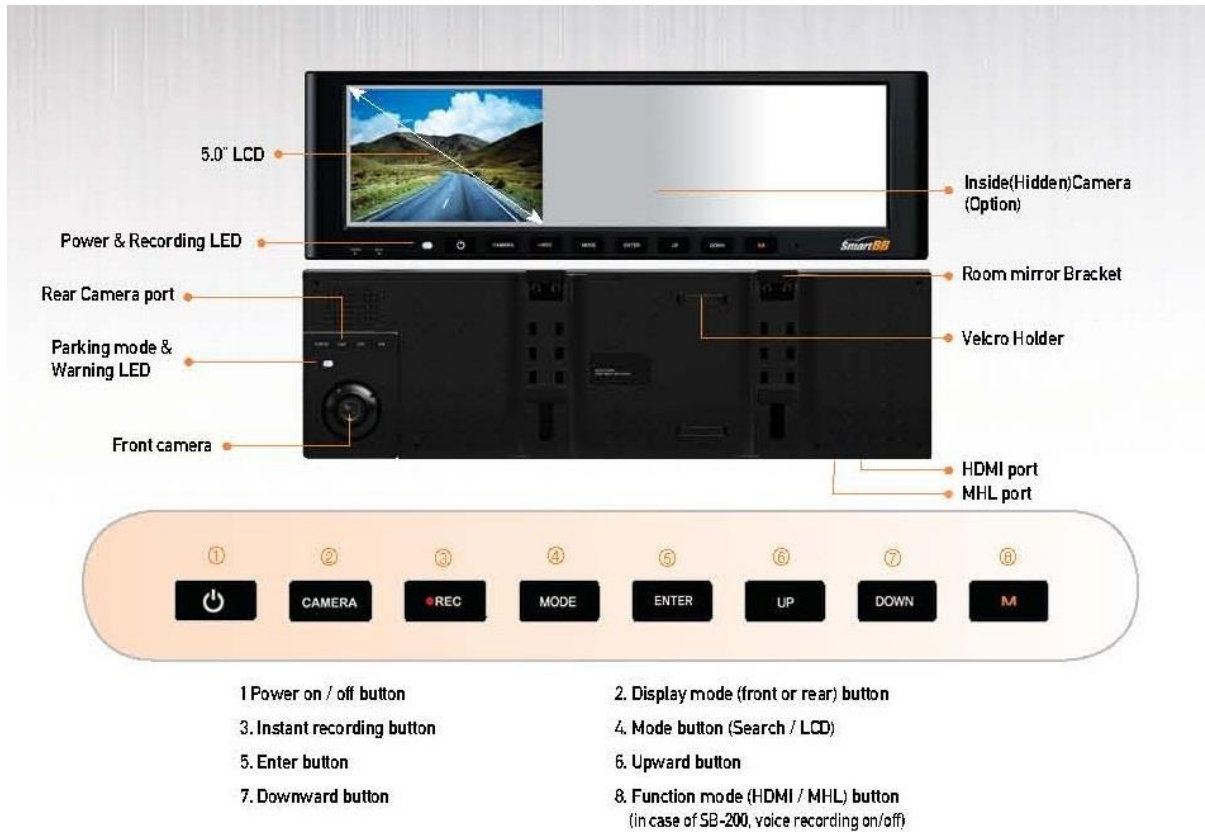
Cigar Jack



HDMI(Micro to Micro)


There may be a gap with real products and be able to change for improvement

## 1-4 Basic Feature of smartBB



## 1-5 Button Feature

## smartBB button actions

Button	Function	Condition	Motion	Note
	LCD ON / OFF	Shortly 1 time	LCD on / off	
	POWER OFF	Long Pushing	Stop all the recording	Be able to remove the SD memory card
	SWITCH TO CAMERA	Shortly 1 time	Switching to Front / Rear	
	SWITCH TO RECORDING MODE	Shortly 1 time	Recording mode – switch to the compulsion recording mode  Playing mode – switch to the recording mode	
	SWITCH TO MENU	Shortly 1 time	Running the menu	No record
	CHOICE	Shortly 1 time	Choose menu or file in menu mode	
	LCD BRIGHTNESS CONTROL	Shortly 1 time	LCD will be more bright at recording mode	Go to the top in Menu mode
	VOLUME CONTROL	Lengthy 3 time	Volume up	
	LCD BRIGHTNESS CONTROL	Shortly 1 time	LCD will be more dark at recording mode	Go to the bottom in Menu mode
	VOLUME CONTROL	Lengthy 3 time	Volume down	
	SWITCH TO HDMI(MHL) (ONLY FOR SB-200 PLUS)	Shortly 1 time	Switches to HDMI(MHL) mode	Motion after connecting Smartphone
	MIC ON / OFF	Lengthy 3 time	on/off	2 Beeps when it's off / 1 beep when it's on
	SD FORMAT	Lengthy over 10 seconds	Format the SD Memory card	Removes all the recorded file

**1-6 Install the smartBB**





- ① Put the SD memory card into the SmartBB



- ② Put the Velcro into the holder



- ③ Lift it up after Putting the lower stand of SmartBB on the rear-view mirror



- ④ Fix the SmartBB on the Car's rear-view mirror



- ⑤ Tighten the rear-view mirror and SmartBB on the Stand with Velcro.



- ⑥ Before attaching the rear camera, remove the tape and film, and then Clean the area that the camera will be Attached to.



- ⑦ Connect the Rear Camera and Rear Extension cable





- ⑧ Put the power, GPS(option) and Rear camera behind the SmartBB



- ⑨ Please see image for correct wiring installation from Cigar Jack to SmartBB.  
(Please consult an expert for sequence power installation)

## 1-7 cable Pin Arrangement

Pin arrangement for each ports

Port	Port image	Pin arrangement
Power port (DJ Jack)		① GND ② ACC ③ BAT
Exterior camera port (3.5pi)		① VCC ② Detect ③ CAM ④ GND
GPS port (2.5pi)		① VCC ② Rx ③ GND ④ Tx
		① VCC ② Rx ③ GND

## 02. Using smartBB

- Features of smartBB
- Motions of smartBB
- Date of SD memory card
- Quantity of saved files in parking mode
- Upgrade
- Specification
- Consumer injury compensation policy

## **2-1 Features of smartBB**

Car Drive Recorder as rear-view mirror

Designed as rear-view mirror type for easy installation

#### 5" LCD Monitor

View real time video with the 5" LCD monitor

#### Recording

Changes all channels to continuous recording

#### Event Recording

Under recording mode, video of occurred events will automatically save to the event folder.

#### Compulsion Recording

When you push the REC button while driving, the video saves in Event folder

#### HDMI/USB

Connect to smart phone using HDMI / USB, enables viewing of smart phone display

#### ECM Room mirror Effect

Prevent dazzling in the night by high quality reflection half mirror

#### Design & Installation

Designed as a rear-view mirror attachment for easy installation

#### Parking Recording

Save all video as a result of motion sense triggered by external shock while in parking mode.  
(Need to connection the sequence power)

#### SD Memory Format

Possible to directly format the SD card in the product

#### Front / Rear 2ch Monitoring

See real time front / rear video with 2ch black box. Uses rear camera display to assist with parking.

#### Save back up

Saves the last video file even when the power is turned off

#### Supply PC viewer

Access the shock, speed and location of recorded video in computer through the viewer (Need GPS)

#### Supply Smart phone Viewer

View video files on smart phone by connecting to the SmartBB through a USB cable.

#### Saving the Drive report

Record date / time / distance while driving and review the traveled route through the PC software

#### Battery discharge block device

The SmartBB will automatically switch to sequence power to conserve the built-in SmartBB battery

#### Automatic SD card control

If memory on the SD card is insufficient, the SmartBB will automatically delete oldest files to make room for new files

#### LCD brightness control

Be able to control the LCD brightness while driving at night.

## 2-2 Motion of smartBB

#### Recording mode

Motion	Condition	LED	Beep	Note
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Power on	When you push the power button	RED LED while boot	1 beep after booting	LCD off after 15 second from booting
Recording mode	After Booting, Before recording (Surveillance)	RED LED on	1 beep when switch	Saves file in Normal folder every minute
Event Recording mode	When shock is sensed by G-Sensor	RED LED off quickly	3 beeps when switch	Saves file in Event folder every minute
Compulsion Recording mode	When User Chooses the Compulsion Recording mode	RED LED off quickly	3 beeps when switch	Saves file in Event folder every minute
Parking Surveillance mode	Stop driving at ordinary mode	Front LED off Rear LED off	1 beep when switch	LCD Power off
	Motion while the parking surveillance mode or Sense the shock	Rear LED off quickly	1 beep when switch	Save 30 sec file in parking folder
	No SD Memory card	RED and GREEN blink alternately	10 beeps quickly	Warning!

- When GPS is connected, the RED LED will change to GREEN

## 2-3 Date of SD memory card

- ① Black box folder : - sequence saving – folder. SmartBB will make a new folder every hour, and make a new file every minute.

- Example of Making folder ) mdr\_20111010\_1400 : saving after Oct.10<sup>th</sup> 2011 14:00
  - Example of Making file ) Drl\_20111010\_140100 : a file that saved at Oct.10<sup>th</sup> 2011 14:01
- ② Event folder : Save event files as shock, surveillance. SmartBB will make a new folder every hour, and make a new file every minute.
- SD 4GB will save 100 unique files, after 100 files the product will begin deleting files starting from the oldest file
- ③ Parking folder : Saving parking recording file. After motion sensor is triggered, SmartBB will automatically save 15 seconds of video before the event and 15 seconds after the event, totaling 30 seconds of video
- ④ Setup folder : User setup folder

## 2-4 Quantity of saving files in parking mode

Capacity	Sequence (50%)	Event (25%)	Parking (25%)
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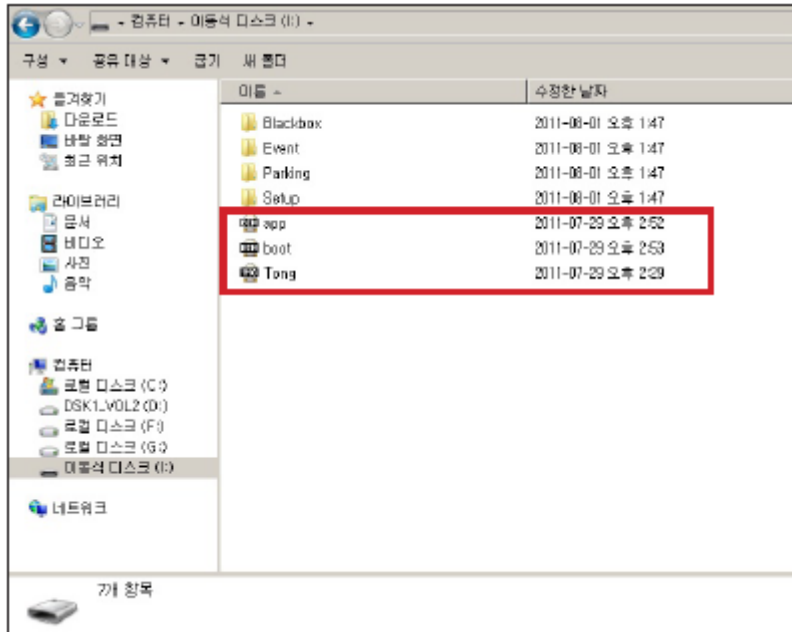
of memory (2CH/15fps)	Numbers of file (Front / Rear)	Time of saving (min.) (Front / Rear)	Capacity (Front / Rear)	Number of file (Front / Rear)	Time of saving (min.) (Front / Rear)	Capacity (Front / Rear)	Number of file (Front / Rear)	Time of saving (min.) (Front / Rear)	Capacity (Front / Rear)
2GB	100	100	1GB	50	50	500MB	100	50	500MB
4GB	200	200	2GB	100	100	1GB	200	100	1GB
8GB	400	400	4GB	200	200	2GB	400	200	2GB
16GB	800	800	8GB	400	400	4GB	800	400	4GB
32GB	1600	1600	16GB	800	800	8GB	1600	800	8GB

- We recommend using the SD memory card Micro SDHC Card, and we do not provide warranty to non-certified memory. Please be cautious!

## 2-5 Upgrade

- ① Copy the firmware file that you will upgrade to the MICRO SD CARD. The name of file is app.bin and must be put it in the root folder.
- ② Put the MICRO SD CARD into the black box after power is off

- ③ Turn on the Black box. Upgrade will apply automatically. After 2 beeps, the upgrade will start and there will be alternating RED and BLUE LED lights flashing. After short beep twice, the upgrade will end and the RED and BLUE LED lights will stay on
- ④ The Software will re-boot if you push REC button or turn the power on then off after the upgrade



## 2-6 Specification

MODEL		SB-200	SB-200 PLUS
CAMERA	CHANNEL	2 Channel (Front/Rear)	2 Channel (Front/Rear)
	PIXEL	1,300,000 pixel	1,300,000 pixel
	ANGLE	110 degrees	110 degrees
LCD	SIZE	5"	5"
	RESOLUTION	480(RGB)X272	800(RGB)X480
RECORD	RESOLUTION	VGA(640X480)	VGA(640X480)
	VIDEO CODEC	H.264	H.264
	FRAME RATE	10/16/24/30 FPS	10/16/24/30 FPS
	REC MODE	Normal/event/parking	Normal/event/parking
	RECTIME	Normal / Event : 1min Parking : 30sec	Normal / Event : 1min Parking : 30sec
STORAGE	BASIC MEMORY	SDHC 4GB	SDHC 4GB
	MAX.	32GB	32GB
VIEWER		2CH PC Vwver S/W Smart phone viewer (Android)	2CH PC Vwver S/W Smart phone viewer (Android)
	POWER	DC 12V~DC 24V, power consumption : 4W	DC 12V~DC 24V, power consumption : 4W
REAR CAMERA		AUTOMATIC DISPLAY IN R GEAR (OPTION)	AUTOMATIC DISPLAY IN R GEAR (OPTION)
GPS	INTERFACE	9600BPS/TTL/STEREO JACK	9600BPS/TTL/STEREO JACK
HDMI / MHL	RECEIVER	-	Micro HDMI / Micro USB
ETC.	RTC	Rechargeable built-in battery	Rechargeable built-in battery
	FIRMWARE	Upgrade through SD card	Upgrade through SD card