

BRAVO Quick Guide

! Please read below introduction carefully before using.

1. Please check any defects on the product before installation. We are not responsible for any cost or expense incurred, as a result of the failure to check before installation.
2. If the constant power discharge protection function is set 'ON', motion detection will work as parking REC mode. If the vehicle battery voltage becomes lower than setting value of cut off voltage, a recording will stop even parking REC mode.
3. Please format a Micro SD card every other week, as it may cause recording error, storing video file error and playback error.
4. Below table is Recordable Time by "SD card Folder Capacity Adjustment" and "Video Quality" based on the default setting.

CH	Image Quality	Camera	16GB			32GB		
			Normal(50%)	Event(30%)	Motion(20%)	Normal(50%)	Event(30%)	Motion(20%)
1CH	Super High	Front	130	78	51	266	158	105
	High	Front	174	105	69	353	212	141
	Normal	Front	262	157	104	531	318	212
2CH	Super High	Front/Rear	141	83	55	285	168	111
	High	Front/Rear	176	104	69	356	211	140
	Normal	Front/Rear	265	161	107	535	325	216

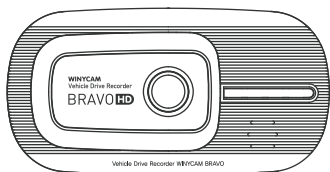
(Unit : Minute)



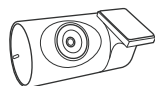
By time: When the memory is full, the oldest file will be automatically deleted.
By mode: Total record files are stored by your setting rate on "SD card Folder Capacity Adjustment".
When memory is full on a particular recording mode, the oldest file will be automatically deleted on particular recording mode. Stored file may also be deleted.

5. The Micro SD card is a consumable goods. Aged SD card may cause error. Please replace the periodically. (In general, the warranty period for a Micro SD card for car recorder is 6 months.)
6. When an accident occurred, please power off the product, remove the Micro SD card and save the accident file on your PC. If long time passed after accident and the file will be deleted, we are not responsible for missing the file.

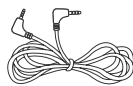
Package



BRAVO



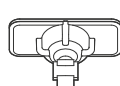
Rear Camera



Rear Camera Video Cable



Cigar Lighter



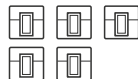
Bracket



Micro SD Card



SD card Adaptor



Cable Clip

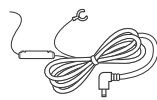


Extra 3M tape

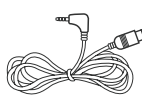
Option Accessories



GPS Module (Option)



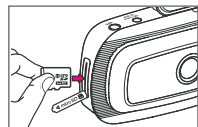
Null Cable (Option)



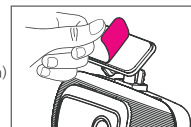
AV - OUT Cable (Option)

How to use

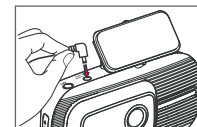
Front Camera Installation



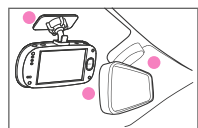
1. Insert the Micro SD Card to BRAVO card slot. (Check the direction)



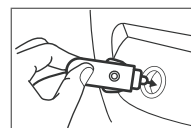
2. Remove the protect sticker.



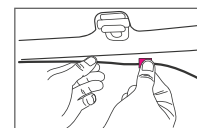
3. Connect Cigar lighter cable to Power connection of product.



4. Attach the BRAVO in place on the top of front windshield or middle of left and right of the mirror.



5. Connect the Cigar Lighter to Cigar Socket

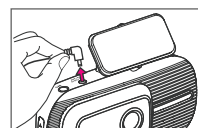


6. Arrange a power cable.

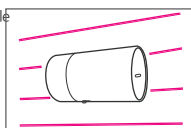


When use the Null cable, please check the fuse is normally. (Some Fuses are different depend of the type of vehicle.)

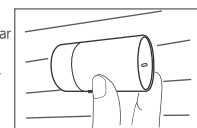
Rear Camera Installation



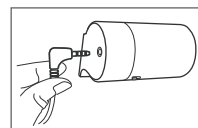
1. Shutdown a vehicle battery and power off BRAVO first before installing a rear camera. (Disconnect the power connection)



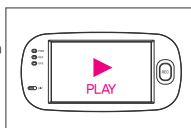
2. Remove a protect sticker and attach a rear camera in proper location in windshield.



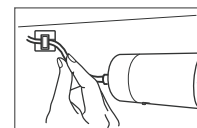
3. After attached a rear camera, adjust an angle. Adjust angle is a right angle to lens face or little downward facing.



4. Connect a rear camera jack (smaller side) to a rear camera and a another jack (bigger side) to R-CAM connection.



5. After connecting a power/video cable, Please check the recorded image that is stored in Micro SD card if BRAVO can record properly.

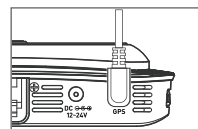


6. After checking recording operation, well arrange a cable. If you embed cable to vehicle wall, please check cable connection. Also after embedded double-check if BRAVO can record properly

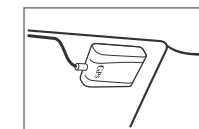
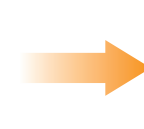


During recording, the product may be affected by wireless devices such as radio frequency, DMB signal, remote start device, remote controller etc. Install as far away from the antenna and antenna cable as possible; and when cabling or tidying up cables, please avoiding the cables to be duplicated.

External GPS Module Installation



Connect External GPS to GPS connection on BRAVO body.

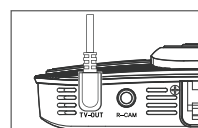


Attach GPS module at well visual place and tidy up a cable.

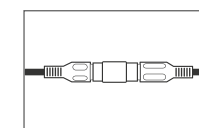
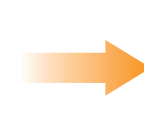


GPS module may be affected by main body or by other electronic devices if it is too close each other. Keep a distance as much as possible. The receiving signal may become poor depending on the climate, satellite status and geography in the neighborhood. The receiving signal may become poor if the windshield is heavy sun-coated or fixed with metallic materials.

TV-Out Cable Installation



Connect a TV-Out cable to the TV-Out jack on a BRAVO body.

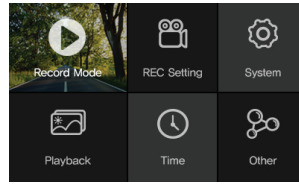


Connect a TV-Out cable to AV-IN jack your vehicle navigation.



When connecting to your vehicle Navigation, you need an applied vehicle Navigation video cable. With a specific Vehicle Navigation, installation may be restricted, and/or extra service charge may be incurred.

Configuration



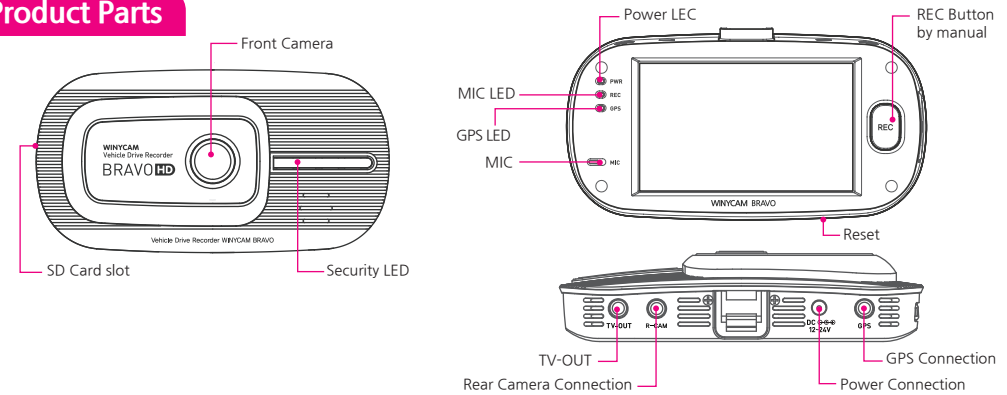
Menu	Function	Menu	Function
Record Mode	Start the recording on setting	Breaking Voltage	Set Breaking Voltage
Playback	Display REC list	Front Camera Setting	Set front camera sensor
		LCD Screen Saver	Set LCD Screen Save Time
		TV-Out	Set TV output
		LCD Setting	Set Video output on LCD
		OSD Setting	Set OSD output on LCD
		Front LED Setting	Set Security LED
		Shutdown by Temp	Set High Temperature Shutdown Function
		Time setting	Set Time
		Standard Time	Set Standard Time
		Summer Time	Set Summer Time
		FW Update	FW Upgrade Function
		SD Card format	SD Card Format Function
		Touch Calibration	LCD Touch Screen Calibration
		Configuration Initialization	Initialize Configuration
		System Information	Display System Information
REC Setting			
REC Mode Setting	Set REC Mode		
Video Quality	REC Video Quality		
REC Time	Set Normal REC Time		
REC CH	Set REC Channel		
Motion Sensitivity	Set Motion Sensitivity		
G-Sensor Sensitivity	Set 3D Sensor Sensitivity		
Voice Guide Volume	Set Voice Guide Volume Level		
REC Volume	Set REC Volume		
SD Card Adjustment	Set SD Car Capacity Rate by mode		
Parking Mode Change	Set Auto Change to Parking mode		

LED Operating Guide

Item	CH	Front LED	PWR LED	MIC LED	GPS LED		
Booting	-	ON	Red lighting ON				
FW update	-	OFF	Orange lighting ON				
Normal, Event, REC Stanby	1CH	Lighting ON / OFF interval at 1 sec	Red lighting ON / OFF interval at 1.5 sec	Red lighting ON/OFF based on audio REC setting	GPS NOT Receiving OFF Receiving ON		
	2CH		Green lighting ON / OFF interval at 1.5 sec				
In detect a shock (Event REC)	1CH	Lighting ON / OFF interval at 0.5 sec	Red lighting ON / OFF interval at 0.5 sec				
	2CH		Green lighting ON / OFF interval at 0.5 sec				
Parking REC Stanby	1CH	Cross flashing 3LEDs rightleft interval at 0.5 sec (1, 2, 3, 3, 2, 1, ...)	Red/Green flashing interval at 1.5 sec				
	2CH						
Parking REC (Motion, Event)	1CH	Lighting ON / OFF interval at 0.25 sec	Red/Green flashing interval at 0.5 sec				
	2CH						
Menu	1CH	OFF	Red lighting ON				
	2CH		Green lighting ON				
No SD Card (Including other error)	-	OFF	Red flashing interval at 0.5 sec				
High temperature Cut off	-	OFF	Red/Green flashing interval at 0.5 sec				

※ Even though GPS signal dose not connect depends on GPS situation and location, GPS LED turn on Red lighting.

Product Parts



To set vehicle constant power discharge protection function

This device has the built-in vehicle constant power discharge protection function, and therefore does not require an extra device to cut off constant power. With the configuration on LCD or PC Viewer program, you can set the Cut Off Voltage for the constant-power-off function.

1) Configuration

Menu > System > Cut off voltage

2) PC Viewer Program

Configuration > Breaking Voltage

There are some differences depend on a type of vehicle and vehicle age.

(Breaking Voltage : 11.8V, 11.9V, 12.0V, 12.1V, 12.2V, OFF)

Micro SD Card Format

1. On PC

Connect a SD card to your PC, and click on 'My Computer'



Right-click 'Removable Disc' and select on 'Format' from the menu.



Set Allocated value as 32KB and press "Start" to format.



User manual and viewer program are stored on packaged Micro SD card, please note all data will be deleted if you format a Micro SD card. Please backup user manual and viewer program on your computer before you format a Micro SD Card. Please set FAT32 for file system when you format a Micro SD Card. If you format as NTFS or another format, Micro SD card will not be recognized and product can not work correctly. We recommend allocated value 32KB when you format a Micro SD Card.

2. Format on BRAVO

Format a Micro SD Card on a device. (Menu > Others > SD Card Format)

Firmware Upgrade

Auto Firmware Upgrade

- 1) Remove a Micro SD card from the device while Power is off.
- 2) Connect it to PC to back up the stored REC files onto PC.
- 3) Format a Micro SD card.
- 4) Go to the web site (<http://www.wincam-eng.com>) and download a new firmware onto the memory card.
- 5) Insert a Micro SD memory card into the device, turn on a power and a automatic upgrade will begin.
- 6) During the upgrade, the upgrade status will be shown on a LCD and voice guidance will be announced.
- 7) Once upgrade completed, the device will be initialized and voice guidance will be announced.

Customer Service

Manufacture : 303-305, Bucheon Technopark, #365, Samjeong-dong, Ojeong-gu, Bucheon-si, Gyeonggi-do, Korea 421-741

Please download the user manual, program from below website
<http://www.wincam-eng.com>

Winy Technology Co., Ltd