Drive Recorder SZ-1000

User's Manual
Version 1.001

For help with installation, call 360-260-CORK (2675)

- TABLE OF CONTENTS -

• What's in the Box

※ Before getting started, please check to see that your X-Corder package includes the following items.

- X-Corder Unit
- SD Card
- 12 Volt Vehicle Power Cable
- Adhesive Tape
- Mount Clip
- User's Manual

If you are missing any parts, please contact your dealer immediately.

X-Corder Unit	SD Card (2GB)	12V Vehicle Power Cable
Mount Clip	Adhesive Tape	User's Manual

• Description & Function
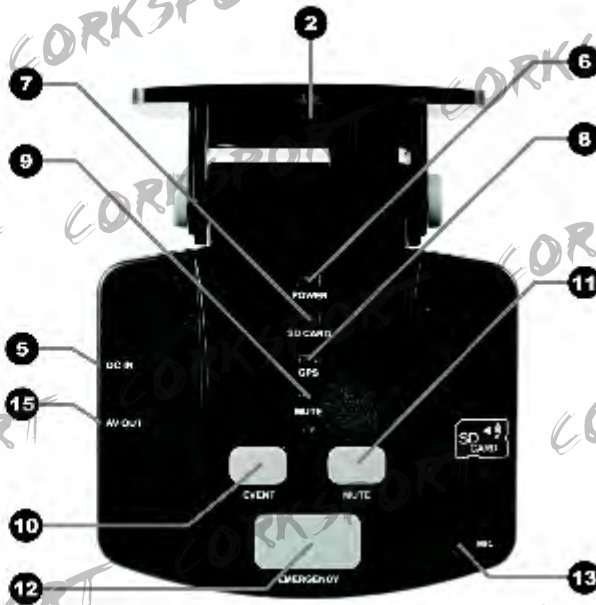
1) Camera Lens: Capture video image.
   Note: Please clean the camera lens before using to avoid foreign materials blocking the lens.

2) GPS Receiver: Built in GPS receiver receives real-time GPS satellite data.

3) Hinge button: Control viewing angle of the unit.

4) SD Memory Card Slot: Insert SD memory card into the slot before power on.

5) Power connector: Connect to vehicle 12V power source or other power source.

6) Power LED Indicator: Power on/off indicator.

7) SD Card LED Indicator: SD Card LED will blink while recording data.

8) GPS LED Indicator: GPS LED will light up when receiving GPS satellite data.

9) MUTE LED Indicator: sound recording on/off indicator.

10) Event Recording button: Toggle between full time recording and event recording by pressing the button.

11) MUTE button: Selectable sound recording on/off.

12) Emergency button: Time lapse image recording. By holding the emergency button, it will convert into Parking Surveillance Mode on/off.

13) Microphone: Record voice and sound inside and around vehicle.

14) Adhesive plate: Attach the plate to the windshield of vehicle

15) AV-Out: Video output connector to other display device (i.e. in-dash screen or navigation unit).

• Key Features

※ Recording accident video image
When an accident occurs while driving, the device detects the shock automatically by way of a 3-axis accelerometer, and records the video 15 seconds before and 15 seconds after the event took place.

※ Manually recording video image
When the user press Emergency button, it records video image manually.

※ Recording location information
Record & Save the location information, time, and speed by GPS sensor when an accident occurs.

※ Recording driving condition information
Built-in 3-axis accelerometer detects and records the severity of a crash as well as acceleration, braking and cornering gravitational forces.

※ Digital Image Tachometer (DIT) Function
Save route, time and speed data together with images while driving. DIT data stored to SD Card automatically. You can analyze the data on your computer by using the viewer software supplied with the device.

※ Data analysis & Playback of an accident or event
Playback an accident video image, which can show information on the speed, coordinates, gravity, acceleration and sensor value at the time of the accident happened. Data can be collected from the viewer program.

• Installation Precautions

※ Please read the following content thoroughly before installation.

1. Be sure that all components were included in the packaging.

2. Make sure to power off the vehicle before proceeding with installation.

3. Do not break or damage power cable.

4. Do not install the device in an area that will affect the driver's eyesight.

5. Make sure installation does not interfere with any other vehicle device or component.

6. Thoroughly clean area where device is to be installed to ensure the device adheres securely.

7. Please use enclosed SD card, power cable and accessories only. We do not guarantee the compatibility of third party components.

Mazda Performance Brand
www.CorkSport.com

• Installation Procedure

※ The basic mounting location of the product is top or bottom of front windshield of vehicle.
Attach the product on the position where safe driving is not obstructed.

1. Locate the area in which you choose to install the device.
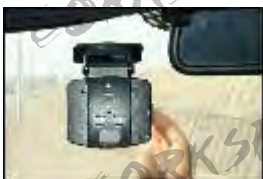Remove one side of the tape and stick to device.

2. Remove the other side of the adhesive and attach device base to windshield.

Note: Be sure to attach X-Corder to windshield firmly.

3. Adjust hinge button so the camera angle is to plumb in the surface of earth.

Note: You may want to adjust the angle based upon personal preference as well.

4. Insert SD Memory CARD into the device.

5. Connect power cable to power connector of the device.

6. After routing cable in desired location, connect power cable to 12V power supply.

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• Installation Warnings

※ Please read the following carefully to ensure proper installation and use.

• Do not disassemble, repair or alter the device. This will void the warranty.

• When cleaning the inside of a vehicle, do not spray water directly onto the device. It may cause damage, fire or electric shock.

• Keep away from chemicals or detergents as they may change the surface of the device or ruin the interior of the device.

• Avoid excessive impact and do not insert any foreign objects into the device. Severe impact, shock or foreign materials may cause damage the device.

• When foreign materials block the lens, normal operation is impossible, so always clean the lens before use. Also, when other objects are placed around camera they may reflect on the window and may be included in the image, so please do not leave unnecessary objects around the device.

• Excessive road bumps and vibrations may cause the device to become misaligned.   Simply correct the angle to the desired position.

• Do not stare at or operate the device while driving.

• Keep the device away from excessive impact, humidity and salt.

• Be aware that the data from an accident under certain impact or acceleration may not be recorded in this device. (Please refer to the function of black box) In this case, it is possible to record image manually with Emergency button.

• Be aware that the image and additional data from the device may not be valid in the court of law.

• The time is set by using GPS satellite information.

• This device is designed to connect to an automobile 12 volt source only (DC12V ~24V).

• This device records real time video images onto an SD Card.   If your SD card fails, a replacement SD card may be used.

• This device meets requirements for EMI limits of Europe and USA. However, it may cause harmful interference to other devices, so please try and locate the device away from other electronic devices as well as antennas.

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• LED Indicator & Button

1. LED Indicator Content

LED	Status	Description
POWER	OFF	Power off or failure
	ON	Working by power supply or battery
	Blink slowly	Indicates Parking Surveillance Mode, synchronized with SD CARD LED
SD CARD	OFF	Empty SD Card or recognition error
	Blink slowly	Indicates Parking Surveillance Mode, synchronized with POWER LED
	Blink	Data recording
	ON	Working properly
GPS	OFF	GPS reception error
	Blink	Waiting to receive GPS information
	ON	Receiving GPS information (valid data)
MUTE	OFF	Mute Off. (Recording sound data)
	ON	Mute On. (Not recording sound data)
ALL	Blink	System error

2. Beep Sound & LED indicator according to operation

Button	Operation	Status	Beep sound	LED Indicator
-	Power on	Booting	Beep-Beep-Beep	After all LEDs turn on for 2 sec. and convert to current situation mode.
-	Upgrade	Upgrade the device through SD Card	Starting Beep~ Finishing Beep~	All LEDs turn on and turn off sequentially
Event Recording button	Press once from OFF mode	Full Time Recording ON (Start full time recording)	Beep-Beep when event situation occurs. Beep once after recording	Blinking SD CARD LED
	Press once from ON mode	Full Time Recording OFF (switch to Event mode)	Beep-Beep when event situation occurs. Beep once after recording	SD CARD LED ON Blinking when event occurs
EMERGENCY button	Press EMERGENCY button	Record video image manually	Beep-Beep when starting record. Beep after finishing record	Blinking SD CARD LED during recording data
	Press EMERGENCY button for 2sec. from parking surveillance OFF mode	Convert to Parking Surveillance Mode	Beep-Beep (short 2 times)	Blinking POWER LED & SD CARD LED slowly
	Press EMERGENCY button for 2sec. from packing surveillance ON mode	Convert to previous mode	Beep-Beep (short 2 times)	Indicate LED according to previous mode
MUTE button	Press once in MUTE OFF	Convert to MUTE ON	Beep (shortly once)	Turn On MUTE LED
	Press once in MUTE ON	Convert to MUTE OFF	Beep (shortly once)	Turn off MUTE LED
	Press MUTE button for 2sec.	Convert to Buzzer Sound OFF	Beep-Beep	-
	Press MUTE button for 2sec.	Convert to Buzzer Sound ON	Beep-Beep	-

• Product Upgrade

※ The product may be changed or improved for content without obligation to notify any person or organization of such changes or improvements.

Visit website or call the service center of dealer or manufacturer for current updates and supplemental information concerning the use and operation of this device.

※ How to upgrade.
1. Connect SD Card to PC.
2. Download update files to SD Card from website of dealer or manufacturer.
3. Insert SD Card to the device and turn on, it will then be automatically upgraded with LED indicator blinking sequentially.

• PC Viewer Setup

※ Follow these instructions to install PC Viewer program

1. Insert SD Card into the SD Card slot of the device.　(The PC Viewer Program and Manual will be copied to SD Card.)

2. Connect SD Card to computer by SD Card reader.

3. Open the program folder located on the SD Card.

4. Double-click "SZ1000.exe" in the program folder.

5. Click the "Next" button. The installation program will then begin.

6. Choose the folder in which to install Viewer program and then, Click "Install".
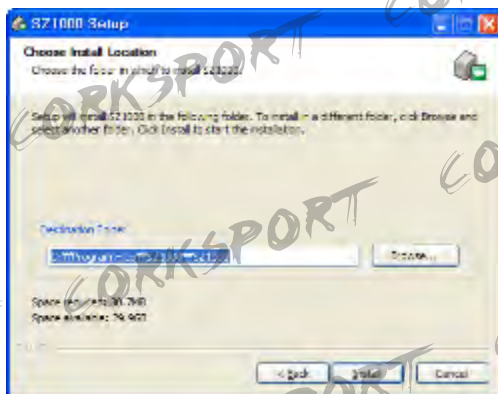
7. Click "Finish" to complete setup program.
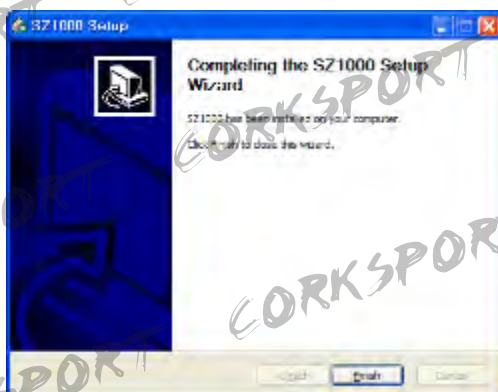
• PC Viewer Screen

1. Main screen: Displays video playback.
2. Speed & Acceleration: Displays speed and acceleration information.
3. Map: Displays the location of current playback video image.
4. GPS Information: Displays location information by text.
5. File list screen: Displays the file list being played back.

• PC Viewer Information

1. Click "Information" (🔲) button.
2. You can see the PC Viewer Information.

SZ1000 Version 2.05

SZ1000 Version 2.05

Warning: This computer program is protected by copyright and national convention.
The copy and reproduction of this program not allowed can be arraigned by a civil and criminal case.

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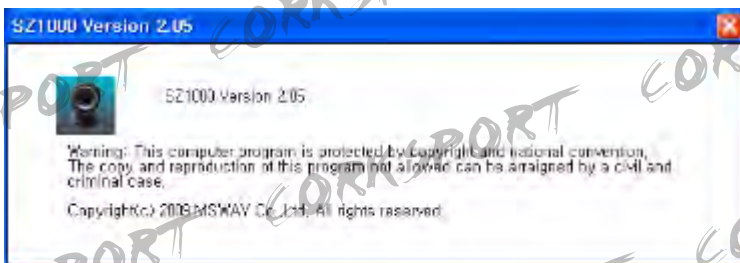
• PC Viewer: Add File List

※ Adding file list by open file

1. Execute "PC Viewer" after connecting SD Card to computer.

2. Click file open button (🖼) and Select files to playback from the SD Card
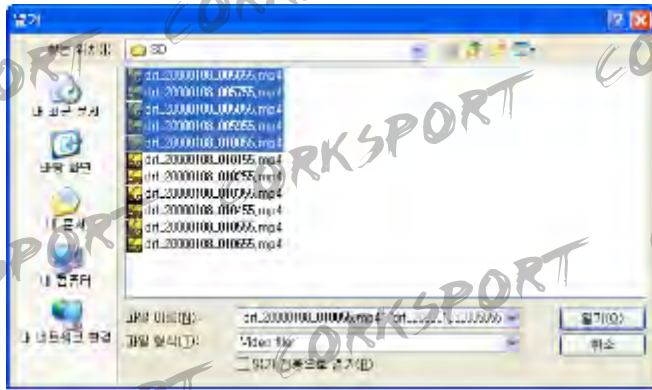
3. The selected files are listed in the file list screen

4. Double click the file to playback and the video image is shown in the main screen

5. Playback will occur one after the other for all selected files.

※ Adding file list by file searching
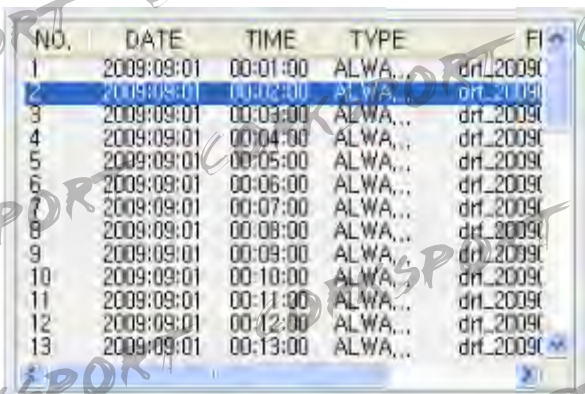
1. Execute "PC Viewer" after connecting SD Card to computer.

2. Click file search button (🖼) and open the file search screen.
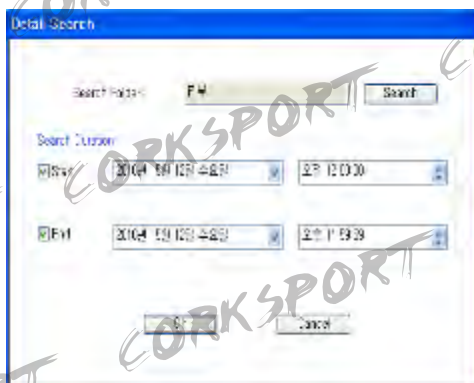
3. Select folder or file to search.

4. The searched file will be listed in the file list screen.

5. Find the desired file and Click "OK".

6. Double click the file to playback and the video image will be shown in the main screen.

7. Files will play back one after another until the selected files have all played.

• PC Viewer: Delete File List

1. Execute "PC Viewer" after connecting SD Card to computer.

2. Select the file to delete and Click the delete (🖼) button.

3. To delete all file lists, Click the delete all (🖼) button.

• PC Viewer: Data and File Download

1. Download the data or file stored in SD Memory Card to computer.

2. Connect SD Card to computer and click the download button, the following dialogue screen will be opened.

3. Select the file or data that you want to download and click the "Download" button in the dialogue screen. Then the selected file will be downloaded to the designated folder.

• PC Viewer: Playback Video Image

1. Double click the file to playback or Click the "Play"(▶) button after selecting file
2. Click PAUSE (▮) button for pause
3. Click STOP (■) button to end playback
4. Click the scroll bar to playback specific time.
5. Click SPEED UP/DOWN(▭▭▭▭) button for playback speed
6. Click Volume UP/DOWN(▭▭▭) button for volume control
7. To secure captured image from video image, Click image capture (■) button.
   The captured image is saved in a designated folder.
8. Click the print screen (■) button to print image

• PC Viewer: Speed & Acceleration Information
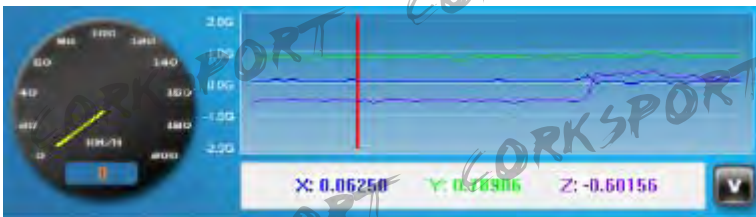
9. Displays vehicle speed.
10. When clicking the speed(■) button, the speed graph is displayed and the icon changes to the acceleration(■) icon.

• PC Viewer: GPS Information

1. Displays time information(⏱)
2. Displays maximum impulse information(🚗)
3. Displays Latitude(🌐) & Longitude information(🌐)

• PC Viewer: Driving History Mode

1. Click Driving History Mode button ( ), then the main screen shows you the driving history.

2. Click the open file button ( ) and select the driving history file (*.dat)

3. To see driving route, select the specific area that you want to see, and click the "driving route" ( ) button.   You will then be able to see the driving route on the separate pop-up screen.

• PC Viewer: MAP Information

1. Displays the location of current playback video image

2. Click the "+" & "-" buttons to Zoom In or Zoom Out. You can also click the mouse to move to a specific location on the map.

3. Click the map capture ( ) button to secure map image. The captured map image is saved in the designated folder (C:\Capture Data).
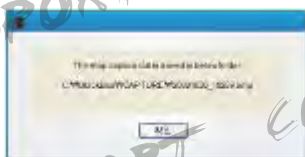
• PC Viewer: Password Setup and Release

1. Click the password setup ( ) button to create a password to protect from unauthorized use.

2. Select a folder on the SD Card to setup a password.

3. Type in your password and retype in the Confirm Password box.   Click Save.

4. Click user setting( )button

5. Select "use" on the file password setting and click the "Save" button.

6.To release the password, select file and Click the password release ( ) button.

• PC Viewer Setting

1. Click the Setting (🔳) button.
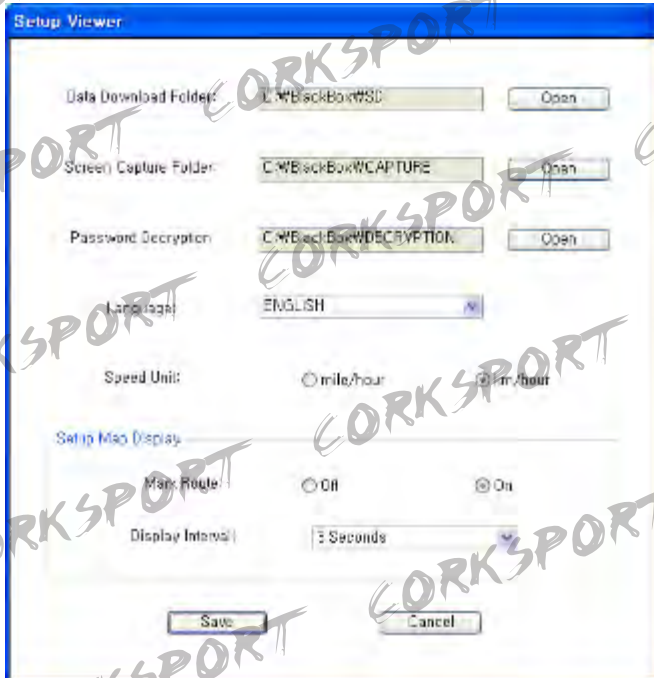
2. Select the folder to download the SD Card Data.
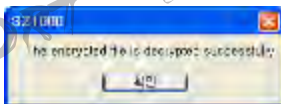3. Select the folder to capture screen image.
4. Select the folder to save decrypted video image.
5. Select desired language (Korean / English / Japanese)
6. Select speed display options (mile/hour or km/hour)
7. Setup Mark Route and Display Interval in the Map Display Setup
8. Click "Save" to save current setting.

• PC Viewer: Setup User's Information & Option

1. Click the settings (🔲) button.

2. Type in the driver name
3. Enter the license plate number
4. Setup the impulse level with quick setting or manual setting.
5. Setup the frame rate of video image to be saved.

   ★ Remarks: it can be changed to optimum frame rate according to circumstances when the video image is being saved.

6. Setup File Encryption "On" & "Off".
7. Setup Buzzer Sound "On" & "Off"
8. Setup Time Zone.
9. Click the "Save" button to save current setting.

• PC Viewer: Event Log

1. Click the Event Log ( ) button
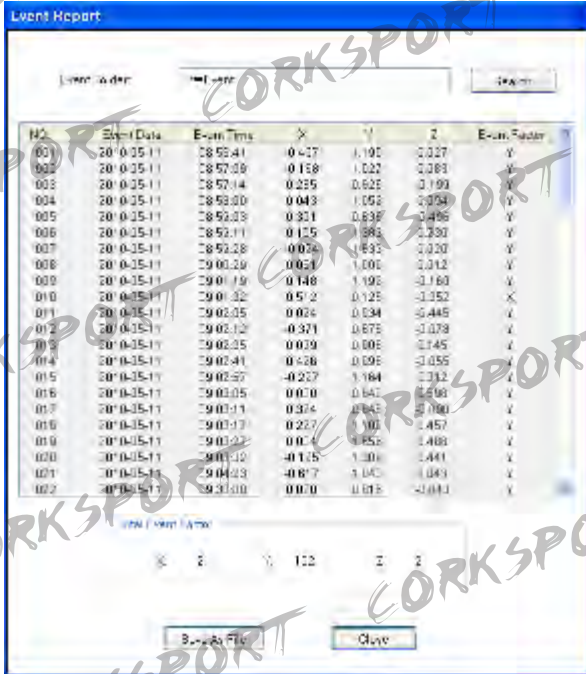
2. Click the "Search" button and Select the folder where the event file is stored.

3. Veiw the event log.

4. To save event log, click "Save File As" button, then it will be saved as a text file in the designated folder.

• **Product Specification**

- Camera: Color CMOS Digital Camera
- Pixel: 320K pixel
- Video resolutions: 640x480 (VGA)
- GPS: Internal GPS Module
- G-Sensor: Internal 3D G-Sensor (Collision, Q-brake, Q-acceleration)
- Data Storage: SD Memory Card (Min. 512MB, Max. SDHC 16GB)
- Audio: Built in Mic. & Buzzer
- Size: 87mm X 90mm X 30mm
- Weight: 115g
- Power supply: 12V ~ 24V (Cigar-jack)
- Power Consumption: below 2W
- Working Temp: -20°C ~ 70°C
- Storage Temp: -40°C ~ 85°C

- COMPUTER SYSTEM REQUIREMENTS
    - Windows XP/VISTA/7
    - CPU : more than Pentinum4 1.5Ghz (Recommend)
    - Min. RAM : 256MB
    - Recommend RAM : 512MB
    - Min. Hard Disk Drive: 10GB

• Troubleshooting

※ Please look at the following points when the device is not working properly.

1. Please check the vehicle power cable if you do not see the POWER LED turned on.

2. Please make sure the provided SD Card in loaded in the device.

3. Make sure the SD Card is not in the "locked" position (not all cards have this feature).

4. The data from an accident under certain light impacts may not be recorded based upon the sensitivity of the accelerometer.   In this case, it is possible to record video image manually by pressing the Emergency button.

5. Make sure that no objects emitting light are reflecting off of the windshield and into the lens of the device.   This will cause the image to be distorted, especially at night.

6. GPS data will not transmit in some areas such as: underground parking lots, tunnels, tall buildings, valleys and large trees.   This is normal.

7. If image quality has degraded, please check lens and clean if necessary using a clean cloth.

8. If the image recorded is not at the right angle, please adjust the angle of the device until the desired image is achieved.

• Limited Warranty

1. The company will repair or replace any defective part or parts which prove to be defective in workmanship and/or materials and not due to abnormal or improper usage, at its sole discretion within the warranty period (one (1) year from the date of original purchase).

2. THIS LIMITED WARRANTY SHALL NOT APPLY IF THE DEFECT WAS CAUSED THROUGH ANY OF THE FOLLOWING:
   1) The defect and damages arise from improper installation, misuse, abuse, alternation or modification, and unauthorized repair by undesignated third parties.
   2) The defect or damage arising from transportation, moving or dropping the device.
   3) The defect or damage resulting from fire, earthquake, flood, pollution, incorrect voltage or frequency and by natural disaster.

3. This Limited Warranty is only valid and enforceable in countries where the Product is sold.

※ Regards to Warranty and after service

1. The warranty period will remain valid within one (1) year from the date of purchase.

2. Before returning any unit for service and requesting repair, please check the power cable and malfunctions in operation first. After that, if there is still a problem or malfunction, please request repair at the dealer purchased or designated service center.

For help with installation, call 360-260-CORK (2675)

23