

PRISM

Bluetooth® Action Camera



SENA

www.sena.com

User's Guide

© 1998-2014 Sena Technologies, Inc. All rights reserved.

Sena Technologies, Inc reserves the right to make any changes and improvements to its product without providing prior notice.

Sena™ is a trademark of Sena Technologies, Inc. or its subsidiaries in the USA and other countries. PRISM™, SMH10™, SMH5™, SMH5-FM™, SPH10™, SPH10H™, SPH10H-FM™, SMH10R™, SPH10S™, SPH10H™, SR10™, SM10™, EXPAND™, Bluetooth Pack for GoPro®, and 20S™ are trademarks of Sena Technologies, Inc. or its subsidiaries. These trademarks may not be used without the express permission of Sena.

The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Sena is under license. iPhone, iPod touch are registered trademarks of Apple Inc. Zumo™ is a trademark of Garmin Ltd. or its subsidiaries. TomTom™ is the trademark or registered trademark owned by TomTom International B.V. Other trademarks and tradenames are those of their respective owners.

CONTENTS

1. PACKAGE CONTENTS	5
2. GETTING STARTED.....	7
2.1 Assembling	8
2.2 Charging	9
2.3 Powering On and Off.....	9
2.4 Voice Prompt.....	9
3. CAMERA MODES AND MENU SYSTEM.....	10
3.1 Button Operations	10
3.2 Camera Modes.....	10
4. VIDEO MODE	12
4.1 Video Mode Operations	12
4.2 Video Mode Settings.....	14
4.3 Video Recording Time.....	14
5. SINGLE SHOT MODE	16
5.1 Single Shot Mode Operations	16
5.2 Single Shot Mode Settings	17
6. BURST SHOT MODE	18
6.1 Burst Shot Mode Operations.....	18
6.2 Burst Shot Mode Settings.....	19
7. TIMELAPSE MODE	20
7.1 Timelapse Mode Operations.....	20
7.2 Timelapse Mode Settings.....	22
8. PLAYBACK	23
Videos and Photos (HDMI).....	23

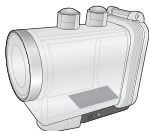
9. CAMERA SETTINGS	25
9.1 Camera Settings Operations.....	25
9.2 Video Settings	26
9.3 Audio Settings.....	27
9.4 Device Settings	30
9.5 SD Card Formatting	34
10. BLUETOOTH AUDIO RECORDING	35
10.1 Bluetooth Audio Recording with Sena Headsets	35
10.2 Bluetooth Audio Recording with Non-Sena Headsets	36
10.3 Settings of Bluetooth Audio Recording	37
11. Bluetooth Remote Control	38
11.1 Remote Control by Sena Headsets	38
11.2 Remote Control by Sena Snowtalk.....	39
11.3 Remote Control by Non-Sena Headsets	40
12. CAMERA CONNECTION	41
12.1 Connecting to a Windows PC	41
12.2 Connecting to a Mac.....	41
12.3 Connecting the Camera to a TV.....	42
13. CAMERA HOUSING	43
14. CAMERA MOUNTING	44
14.1 Helmet Mount.....	45
14.2 Motorcycle Mounting System.....	46
15. FAULT RESET	50
16. CAMERA SOFTWARE	51
Sena Device Manager.....	51
17. CAMERA SPECIFICATIONS	52

1. PACKAGE CONTENTS

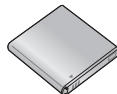
- **PRISM Camera**



- **Waterproof Housing (Skeleton Backdoor)**



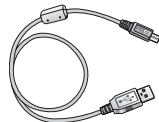
- **Li-Ion Rechargeable Battery**



- **Lens Cap***



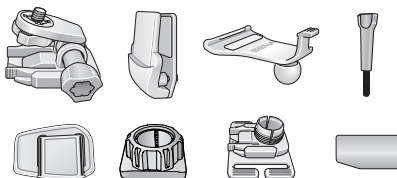
- **USB Power & Data Cable**



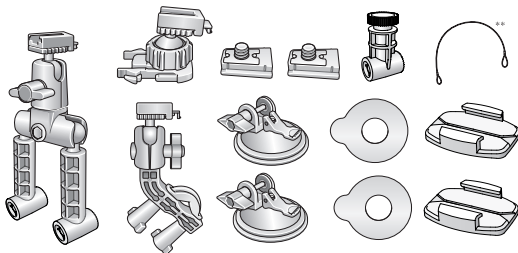
- **Allen Wrench**



• **Helmet Mounting Kit**



• **Motorcycles Mounting Kit, QRM System**



Note:

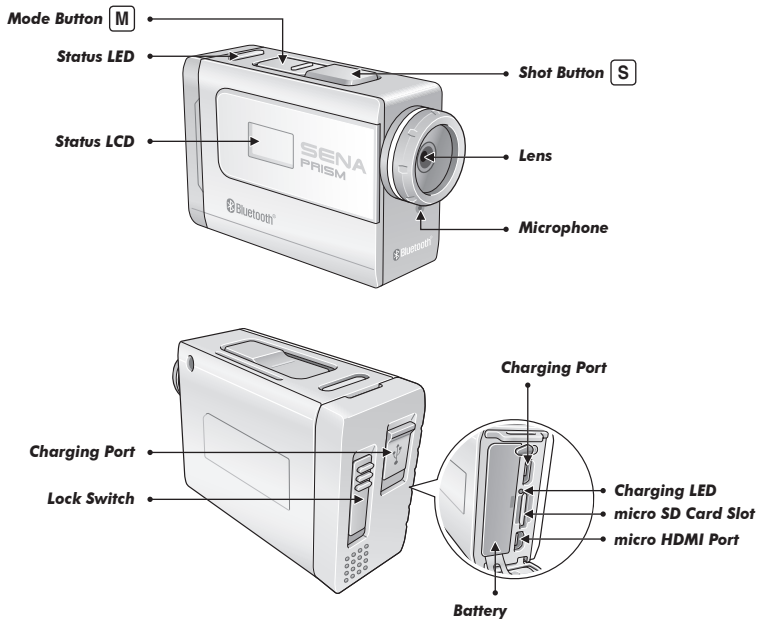
* When you are not using the camera, close the lens cap to protect your lens from any contamination.

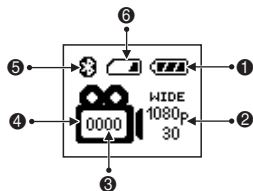
**To prevent your camera from falling accidentally, tie the QRM system to your bike with this QRM wire.

1. Micro SD card is not included in the package.

2. The camera is compatible with micro SD, SDHC or SDXC cards up to 32 GB. We recommend Class 10 cards for recording HD video and system stability.

2. GETTING STARTED





Camera LCD Menu Screen

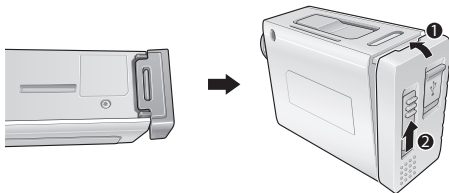
- 1** Battery life
- 2** Resolution / fps
- 3** Counter
- 4** Camera mode
- 5** Bluetooth
- 6** Memory

2.1 Assembling

Unlock and open the back door of the camera. Insert a micro SD card. Insert the battery. Then close and lock the back door of the camera.



Opening the Back Door



Closing the Back Door

2.2 Charging

You can charge the camera by connecting the supplied USB power & data cable to the charging port. If the back door of the camera is closed, uncover the charging port and use it. If the back door is open, you can see that the charging LED beside the charging port turns red while charging and blue when fully charged.

Note:

1. You can use all the functions of the camera while charging the battery.
2. It is recommended to fully charge the camera before the initial use.
3. When you receive a low battery warning from the camera, charge it using the micro-USB cable.

2.3 Powering On and Off

To power on the camera, press and hold the Mode Button **[M]** and the Shot Button **[S]** at the same time for about one second. To power off the camera, just press the Mode Button **[M]** and the Shot Button **[S]** at the same time.

2.4 Voice Prompt

If the camera is paired with a Bluetooth headset, the voice prompts will help you audibly understand which mode you are in and the operation you have performed. For more details on how to pair the camera with a Bluetooth headset, please refer to the section 9.4, "Device Settings".

3. CAMERA MODES AND MENU SYSTEM

3.1 Button Operations





Press the Mode Button **[M]** to change camera mode or move to the next menu item. Press and hold the Mode Button **[M]** to enter or exit Quick Settings*. Press the Shot Button **[S]** to record video, take photos or select a menu item. Press and hold the Shot Button **[S]** during video recording to take a still shot.



Note:

* Quick Settings is a quick and easy way to enter the settings menu for each mode that you are currently in.

3.2 Camera Modes

The camera has several modes. To cycle through the modes, press the Mode Button **[M]**.

Icon	Mode	Application	LED Color
 VIDEO	Video	Record video	Red
 SINGLE	Single Shot	Capture a single photo	Blue
 BURST	Burst Shot	Capture up to 10 photos in one second	Green
 TIME LAPSE	Timelapse	Capture series of photos or videos at timed intervals	Pink

Icon	Mode	Application	LED Color
	*Playback	Playback videos and photos.	-
 SET	Settings	Adjust camera settings	-

Note:

** Playback mode activates only if the camera is connected to a TV with a micro HDMI cable.*

4. VIDEO MODE

4.1 Video Mode Operations

Video Mode		
Start/Stop recording	Press S	
Take a still photo while recording	Press and hold S (720p 60fps and 480p 120fps are not supported.)	
Cycle to Single Shot Mode	Press M	
Video Quick Settings Menu	Press and hold M	
	- Press M to cycle through resolutions	Resolutions
		1080p 30fps
		720p 60fps
		720p 30fps
		480p 120fps
- Press S to select resolution	Exit to Quick Settings Menu	

Video Mode	
- Press M to cycle through Narrow or Wide field of view	Field of View
- Press S to select Narrow or Wide field of view	Wide
	Narrow
Exit to Video Mode	Exit to Quick Settings Menu

Note:

1. You cannot record videos without a micro SD card.
2. The camera gives a warning and automatically stops recording when the micro SD card is full or the battery runs out. Your video will be saved before the camera powers off.
3. If the camera becomes too hot, it gives a high temperature warning. Cool down your camera before further use.

4.2 Video Mode Settings

You can change the video resolution in the video mode settings, and each resolution has a fixed frame rate. When you select 480P (120fps) 720P (60fps), you cannot take still shots during video recording.

Resolution	1080p
	720p
	480p
Frame Rate	30fps (1080p, 720p)
	60fps (720p)
	120fps (480p)
Field of View	Wide (137°)
	Narrow (90°)

4.3 Video Recording Time

Below is a table of approximate video recording times to micro SD card size in specific resolutions and frame rates.

	1080p / 30fps	720p / 60fps	480p / 120fps
1GB	9 min	12 min	15 min
2GB	18 min	24 min	30 min
4GB	36 min	48 min	1 h
8GB	1 h 12 min	1 h 36 min	2 h
16GB	2 h 24 min	3 h 12 min	4 h
32GB	4 h 48 min	6 h 24 min	8 h

Note:

The maximum size per video is limited to 4GB. Therefore, when the video reaches the 4GB size limit during recording, it saves and creates a new video file to continue recording.

5. SINGLE SHOT MODE

5.1 Single Shot Mode Operations

Single Shot Mode		
Take a single photo shot	Press S	
Cycle to Burst Shot Mode	Press M	
Single Shot Quick Settings Menu	Press and hold M	
	- Press M to cycle through resolutions	Resolutions
	- Press S to select resolution	3.5MP (3:2)
		3.2MP (4:3)
		3.0MP (16:9)
		5.0MP (16:9)
	Exit to Quick Settings Menu	
Exit to Single Shot Mode		

5.2 Single Shot Mode Settings SINGLESET

You can change the photo resolution in the single shot settings, and each resolution has a fixed aspect ratio.

Resolution	Aspect Ratio
3.5MP	3:2
3.2MP	4:3
3.0MP	16:9
5.0MP	16:9

6. BURST SHOT MODE

6.1 Burst Shot Mode Operations

Burst Shot Mode		
Take a burst photo shot	Press S	
Cycle to Timelapse Mode	Press M	
Burst Shot Quick Settings Menu	Press and hold M	
	- Press M to cycle through number of shots	Number of shots
		10
		5
	- Press S to select number of shots	3
		Exit to Quick Settings Menu
	Exit to Burst Shot Mode	

6.2 Burst Shot Mode Settings

BURST SET

You can change the burst shot resolution in the single shot settings, and each resolution has a fixed aspect ratio. If the single shot resolution is set to 5M (16:9), burst shot will take shots in 3M (16:9). Burst shot does not support 5M (16:9).

Resolution	Aspect Ratio
3.5MP	3:2
3.2MP	4:3
3.0MP	16:9
Number of shots	
	10
	5
	3

7. TIMELAPSE MODE TIME LAPSE

7.1 Timelapse Mode Operations

Timelapse Mode		
Start/Stop recording	Press S	
Cycle to Playback Mode	Press M	
Timelapse Quick Settings Menu	Press and hold M	
	- Press M to cycle through types	Type
	- Press S to select recording type	Video
		Photo
		Exit to Quick Settings Menu
	- Press M to cycle through video resolution	Video resolution
	- Press S to select resolution.	1080p 30fps
		720p 30fps
		Exit to Quick Settings Menu

Timelapse Mode		
	- Press M to cycle through time Interval	Interval
	- Press S to select time interval	1 sec
		3 sec
		5 sec
		10 sec
		30 sec
		60 sec
		Exit to Quick Settings Menu
Exit to Timelapse Mode		

7.2 Timelapse Mode Settings

Timelapse mode takes a shot at 1, 3, 5, 10, 30 or 60 second intervals. If the type is set to video, all shots taken are stored as a single video. If the type is set to photo, all shots are stored as individual photos. Timelapse video resolutions are 1080p 30fps and 720p 30fps. Timelapse photo resolutions can be changed in the single shot settings. Each resolution has a fixed aspect ratio. If the single shot resolution is set to 5M (16:9), timelapse photo will take shots in 3M (16:9). Timelapse photo does not support 5M (16:9).

Type	Resolution
Video	1080p/30fps
	720p/30fps
Photo	3.5MP (3:2)
	3.2MP (4:3)
	3.0MP (16:9)
Sequence Interval	
	1 sec
	3 sec
	5 sec
	10 sec
	30 sec
	60 sec

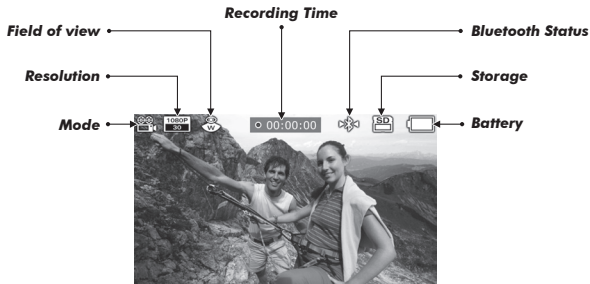
8. PLAYBACK

Playback videos and photos by connecting the camera to a TV (requires micro HDMI sold separately).

Videos and Photos (HDMI)

To browse videos and photos:

1. Plug the camera into a TV/HDTV with a micro HDMI cable.
2. On your camera, use the Mode Button **M** to navigate to Playback mode. Press the Shot Button **S** to enter.
3. The camera shows thumbnail previews of videos and photos on the micro SD card.



- Use ◀ and ▶ to navigate backward and forward to cycle through the files on your micro SD card. Use ▶ to view the file.
- Depending on whether you are viewing videos or photos, different control options will appear. Use the Mode Button **M** and the Shot Button **S** to navigate.

Playback Mode	
Move Control Icon	Press M
Select Control Icon	Press S
Control Menu	Play
	Stop
	Navigate forward
	Navigate backward
	Trash
	Exit Playback

Note:

You can choose to view all videos and pictures, only videos, or only photos by pressing and holding the Shot Button.

9. CAMERA SETTINGS SET

9.1 Camera Settings Operations

Settings		
Cycle through [Settings]	Press M	
Select [Settings]	Press S	
	Video Settings	
	Audio Settings	
	Device Settings	
	SD Card Format	Confirm Format (S) (M to Cancel)
	Exit Settings	

9.2 Video Settings

Video, single shot, burst shot and timelapse settings inside video settings are the same as the quick settings at each mode.

Settings - Video Settings		
Cycle through [Settings]	Press M	
Select [Settings]	Press S	
	Upside Down	On
		Off
	Date Caption	On
		Off
Exit Video Settings		

9.2.1. Upside Down

If you need to mount the camera upside down and still wish the files to appear upright, then set this option to 'on'. This setting eliminates the need to flip your video or photos during editing.

Factory Default	Off
Off	Camera right side up
On	Camera upside down
Enable / Disable	Press S

9.2.2. Date Caption DATE CAPTION ON

You can record or hide date caption during video recording.

Factory Default	Off
Off	Hide date caption
On	Record date caption
Enable / Disable	Press S

Note:

Timelapse video by default does not record date captions.

9.3 Audio Settings

You can connect Bluetooth headsets with the camera to overlay Bluetooth audio with video. You can use both the camera's internal microphone and the headset's bluetooth microphone to record versatile sounds.

Settings-Audio Settings		
Cycle through [Settings]	Press M	
Select [Settings]	Press S	
	Internal Microphone Gain	Off
		Low
		High

Settings-Audio Settings		
	Bluetooth Audio	On
		Off
	Ultra HD Audio Mode	On
		Off
	Internal Microphone Auto Mute	On
		Off
	Exit Audio Settings	

9.3.1. Internal Microphone Gain INTERNAL MIC GAIN HIGH

You can adjust the internal microphone gain of the camera to either Off, Low, or High. The default gain is High. Set the gain to Off to turn off internal microphone. Set the gain to Low if you want to record less ambient sound such as wind noise and exhaust sound.

Factory Default	High
Level Adjustment	Press M (Off / Low / High)
Application	Press S

9.3.2. Bluetooth Audio BLUETOOTH AUDIO ON

Once the camera is paired with a Bluetooth headset, you can use its microphone to record audio via Bluetooth. You may choose to turn the Bluetooth microphone on or off.

Factory Default	On
On/Off	Press S

9.3.3. Ultra HD Audio Mode UHD AUDIO MODE ON

Ultra HD Audio Mode enables you to record your voice in CD-quality with live ambient sound. It is available only when a single Sena headset is connected with the camera. You can switch to Normal Audio Recording mode by turning off Ultra HD Audio mode. If you choose to do so, you can select whether you want to enable or disable Advanced Noise Control from your Sena headset. Non-Sena Bluetooth headsets can only record in Normal Audio Recording mode.

Factory Default	On
Off	Normal Audio Recording
On	Ultra HD Audio Mode
Enable / Disable	Press S

Note:

Compared to Normal Audio Recording, Ultra HD Audio Mode has shorter connection distance between the PRISM and the headset.

9.3.4. Internal Mic. Auto Mute INTERNAL MIC. ON AUTO MUTE

If you turn on Internal Microphone Auto Mute, the internal microphone turns off whenever a Bluetooth headset or microphone is connected to the camera. If you turn off Internal Microphone Auto Mute, Bluetooth connections do not affect the internal microphone setting.

Factory Default	On
On/Off	Press S

9.4 Device Settings DEVICE SET

Settings-Device Settings		
Cycle through [Settings]	Press M	
Select [Settings]	Press S	
	Turning On/Off Bluetooth	On
		Off
	Bluetooth Headset Pairing	S to enter into pairing mode
	Bluetooth Smartphone Pairing	
	Delete All Pairing List	S to confirm
	Sidetone	On
		Off

Settings-Device Settings			
	Auto Power Off	None	
		5 mins	
	Beep	On	
		Off	
	LED	On	
		Off	
	Time Set	Year	- S to select Year and cycle through digits for year
		Month	
		Day	
		Hour	- M to cycle through numbers (1,2,3...)
		Minute	
		Exit to Device Settings	
	Device Info.		
	Factory Reset	S to confirm	
	Exit Device Settings		

9.4.1. Turning On/Off Bluetooth BLUETOOTH ON

You can choose to turn the Bluetooth on or off.

Factory Default	On
On/Off	Press S

9.4.2. Bluetooth Headset Pairing HEADSET PAIRING

1. To pair the camera with a Bluetooth headset, enter the Bluetooth Headset Pairing in the Bluetooth settings.
2. Use intercom pairing with Sena headsets or use phone pairing with non-Sena headsets.
3. To cancel pairing, press the Shot Button. Then press any button to return to Device Settings.

9.4.3. Bluetooth Smartphone Pairing SMARTPHONE PAIRING

1. To pair the camera with a smartphone, enter the Bluetooth Smartphone Pairing in the Bluetooth settings.
2. Pair the camera with your smartphone.
3. To cancel pairing, press the Shot Button. Then press any button to return to Device Settings.

9.4.4. Delete Pairing List DELETE ALL PAIRING LIST

You may delete the Bluetooth pairing list of the camera. You will lose all your pairing information.

9.4.5. Sidetone SIDE TONE ON

When using a Sena headset, sidetone is supported. If this feature is enabled, you can hear what you are speaking during video recording.

Factory Default	On
On/Off	Press S

9.4.6. Auto power off

The camera can be configured to automatically power off after five minutes of inactivity (when no videos or photos are being taken and no buttons have been pressed). This feature does not work while charging the camera.

Factory Default	None
Idle Time	5 min
Application	Press S

9.4.7. Beep

You can turn off or on the beep sound of the camera during operations.

Factory Default	On
On / Off	Press S

9.4.8. LED

You can turn off or on the status LED.

Factory Default	On
On / Off	Press S

9.4.9. Time Set

Set the camera clock to ensure video and photo files are saved with the correct date and time. Time can be set by Year, Month, Hour, and Minute.

9.4.10. Device info ^{FW VER.}

You can see the current firmware version on your camera.

9.4.11. Factory Reset ^{FACTORY RESET}

It will clear all the settings to factory default.

9.5 SD Card Formatting

Formatting will remove all files from a micro SD card. When you use a new card for the first time, always format it before using the camera.

10. BLUETOOTH AUDIO RECORDING

With the use of Bluetooth headsets, the camera allows users to add their voice to the video on-the-fly using the Bluetooth Audio Recording™ feature. Being able to narrate the video during recording not only provides users a whole new experience but also reduces the need for follow-up audio editing providing real-time audio experiences. To make the recording sound as clear as possible, you have to keep the space between the camera and the Bluetooth headset clear of obstacles.

To record your voice to the camera with a Bluetooth headset, you should pair the camera with a Bluetooth headset (or microphone). After the initial Bluetooth pairing, the camera will remain paired with the headset and automatically reconnect with it when within the connection range.

10.1 Bluetooth Audio Recording with Sena Headsets

Camera	Settings → Bluetooth Settings → Bluetooth Headset Pairing
Sena Headset	Intercom Pairing (Jog Dial 5 sec or Center Button 5 sec)
Status LED	Camera: LED flashes red and blue.
	Headset: LED flashes red.

1. Perform Bluetooth pairing from the camera from the menu operation of Settings → Device Settings → Bluetooth Headset Pairing.
2. Place the headset into intercom pairing mode. Then the headset will be paired automatically with the camera. You do not need to press any buttons for pairing. For details on intercom pairing, refer to the user's guide of the Sena headset.

3. The pairing is completed when the headset's LED flashes blue. You will hear the voice prompt say “**PRISM connected**” from the connected Sena headset.
4. You can start recording your voice using your Sena headset once it is paired and connected with the camera. When you are in an intercom conversation with another Sena headset, you can record their conversations.

10.2 Bluetooth Audio Recording with Non-Sena Headsets

Camera	Settings → Device Settings → Bluetooth Headset Pairing
Non-Sena Headset	Phone Pairing

1. Perform Bluetooth pairing from the camera from the menu operation of Settings → Device Settings → Bluetooth Headset Pairing.
2. Enter into the handsfree pairing mode of the non-Sena headset. For details on handsfree pairing, refer to the user's guide of the corresponding headset.
3. If the pairing is completed, you will hear the voice prompt say “**PRISM connected**” from the connected corresponding headset.
4. You can start recording your voice using the headset once it is paired and connected with the camera.

Note:

1. If you cannot pair the non-Sena Bluetooth headset, delete the pairing list and pair the non-Sena Bluetooth headset again.
2. You can open or close the audio channel between the camera and the headset by making a phone call on the headset. Please refer to the headset user's guide for more information.

10.3 Settings of Bluetooth Audio Recording

You can record your voice in either Ultra HD Audio Mode or Normal Audio Recording mode. Ultra HD Audio Mode enables you to record your voice in CD-quality with live ambient sound. It is available only when a single Sena headset is connected to the camera. It is not supported in multi-way intercom or for non-Sena headsets. Normal Audio Recording mode has the option of Advanced Noise Control only for Sena headsets.

Customize your audio to record the desired sound. The internal microphone is more focused on ambient sound while the Bluetooth microphone is more focused on your voice. You may choose to turn them on or off. You may set the internal microphone gain to Low or High. You may choose between Ultra HD Audio Mode or Normal Audio Recording mode for the Bluetooth microphone.

Parameter		Value	Menu
Internal Microphone Gain	Amount of audio from camera microphone	Off-Low-High	Settings → Audio Settings → Internal Microphone Gain
Bluetooth Audio Recording Mode	Audio recording mode of camera	Ultra HD Audio Mode- Normal Audio Recording (Advanced Noise Control*)	Settings → Audio Settings → Ultra HD Audio Mode

Note:

If you have a Bluetooth headset connected to your camera, it is recommended to turn off the internal microphone (please refer to section 9.3, "Audio Settings"). Bluetooth microphone records your voice and the ambient sounds with a good balance. At high speeds, the internal microphone may record excessive wind noise.

11. Bluetooth Remote Control

The camera can be operated hands-free by using the remote control capability from Bluetooth headsets. The wireless remote control helps to use less energy and allows for more versatile control through the audio/video remote control profile (AVRCP) of Sena's Bluetooth products.

11.1 Remote Control by Sena Headsets

Camera Button	Camera Function	Headset Function	Sena Jog Dial Type	Sena 3-button Type
M	Menu Move	Track Back / forward	Rotate Jog Dial While pressing	Press and hold (+)/(-) Button for 1 sec
S	Execute	Play / Pause	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec

Camera Function	Jog Dial Type	Three Button Type
Video Start	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec
Video Stop	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec
Single Shot	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec
Burst Shot	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec
Timelapse Start	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec
Timelapse Stop	Press and hold Jog Dial for 1 sec	Press and hold Center Button for 1 sec
Awake*	Triple tap the Phone Button	Press and hold the (-) Button for 3 sec

Camera Function	Jog Dial Type	Three Button Type
Deep Sleep*	Triple tap the Phone Button	Press and hold the (-) Button for 3 sec
Reconnect	Triple tap the Phone Button	Tap the (+) Button and (-) Button
Still Shot While Recording	Tap the Phone Button	Press and hold the (+) Button for 1 sec

Note:

* If you powered off the camera using camera button control, you cannot power on the camera using the Bluetooth Remote Control. Use the camera buttons to power it back on.

11.2 Remote Control by Sena Snowtalk

Camera Button	Camera Function	Headset Function	Snowtalk Button
M	Menu Move	Track Forward	Press and hold (R) Button for 2 sec
S	Execute	Track Back	Press and hold (L) Button for 2 sec

Camera Function	Snowtalk Button
Video Start	Press and hold (L) Button for 2 sec
Video Stop	Press and hold (L) Button for 2 sec
Single Shot	Press and hold (L) Button for 2 sec
Burst Shot	Press and hold (L) Button for 2 sec
Timelapse Start	Press and hold (L) Button for 2 sec

Camera Function	Snowtalk Button
Timelapse Stop	Press and hold (L) Button for 2 sec

11.3 Remote Control by Non-Sena Headsets

Camera Button	Camera Function	Non-Sena Headsets
M	Menu Move	-
S	Execute	Dial (or Redial) / Ending a call

Type	Operation
Video Start	Dial (or redial)
Video Stop	Ending a call
Single Shot	Dial (or redial)
Burst Shot	Dial (or redial)
Timelapse Start	Dial (or redial)
Timelapse Stop	Ending a call

12. CAMERA CONNECTION

Recorded video and photos can be copied to a computer using the micro-USB cable provided or—if your computer has an appropriate card reader—directly from the micro SD card.

12.1 Connecting to a Windows PC

1. Connect the camera to your PC using the USB cable. The camera LCD will display a USB logo.
2. Your PC's operating system may install and open new devices automatically, if not, open My Computer.
3. Your PC should recognize the camera as a removable device—look for PRISM card in the list of all devices and open.
4. Open the DCIM folder. Inside, you will find the 100MEDIA folder, which contains all the files saved on the micro SD card by the camera. If there is a large number of files, there will be multiple folders (100MEDIA, 101MEDIA, etc).
5. Copy the desired files to your PC.

12.2 Connecting to a Mac

1. Connect the camera to your Mac using the USB cable. The camera LCD will display a USB logo.
2. Your Mac's operating system may install and open new devices automatically, if not, open a new Finder window.
3. Your Mac should recognize the camera as a removable device—look for PRISM card in the list of devices and open.

4. Open the DCIM folder—inside, you will find the 100MEDIA folder which contains all the files saved on the micro SD card by the camera. If there are a large numbers of files, there will be multiple folders (100MEDIA, 101MEDIA, etc).
5. Copy the desired files to your Mac.

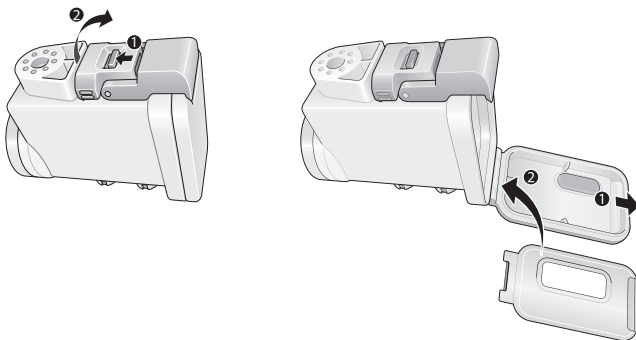
12.3 Connecting the Camera to a TV

Connect it to your TV using a micro HDMI type combo cable (not included in the basic package).

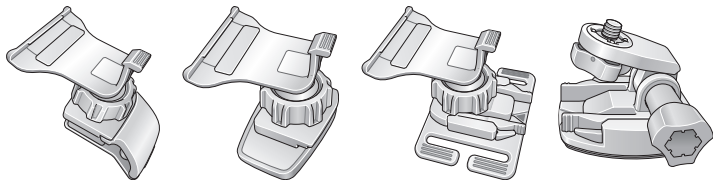
13. CAMERA HOUSING

The waterproof housing provided can protect the camera up to 40m underwater. It can be used in rainy conditions as well. Follow the direction below to open the unit. Make sure the housing is clean from any dirt. Insert the camera and close the back door. Check that the unit is firmly locked.

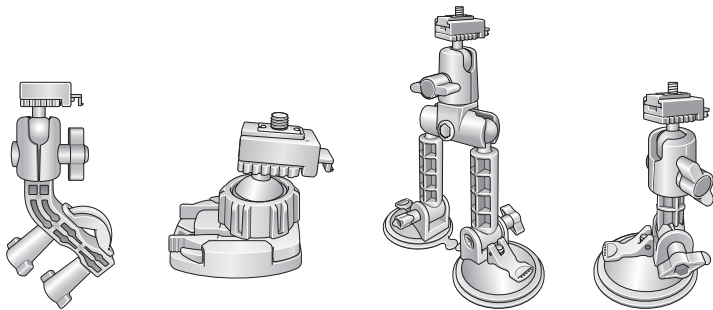
The skeleton backdoor has an open area for the charging port. After opening the housing, gently pull out the back door and replace it with the skeleton backdoor. You can use it when you need to charge the camera in rainy conditions.



14. CAMERA MOUNTING



Helmet Mount

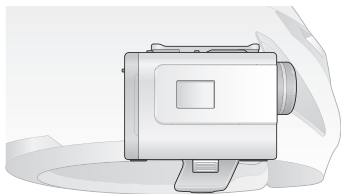
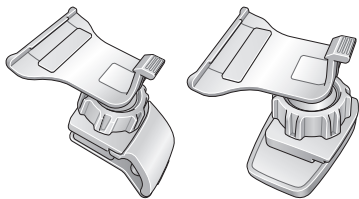


Motorcycling Mounting System

14.1 Helmet Mount

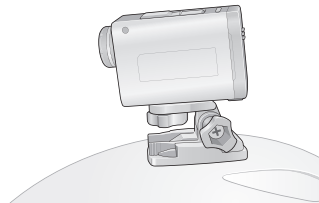
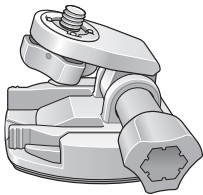
14.1.1. Helmet Clamp Mount

The Helmet Clamp Mount enables you to mount the camera at the side of your helmet. You can adjust the camera angle by rotating the joint. When you are not using the camera, you can take the camera out from the support plate.



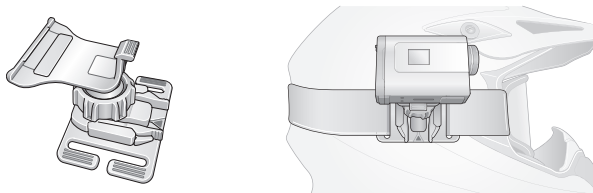
14.1.2. Helmet Surface Mount

Helmet Surface Mount enables you to mount the camera on any surface of the helmet. You can adjust the camera angle by rotating the joints. When you are not using the camera, unscrew the camera from the pivot.



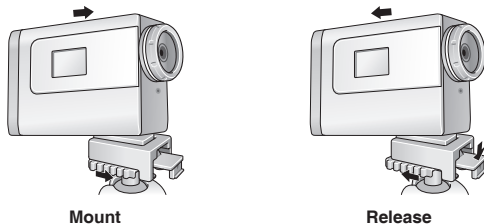
14.1.3 Goggle Mount

The Goggle Mount enables you to mount the camera on the goggle band. This is useful when you wear a helmet and a goggle separately.



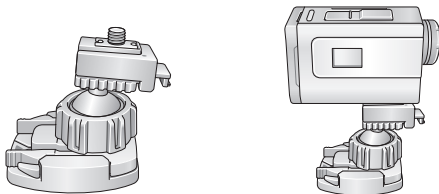
14.2 Motorcycle Mounting System

The Quick Release Mount™ System provides fast and secure ways to switch the camera mount system on the motorcycle. There are three different QRM types: Handlebar Mount, Top Surface Mount, and Dual or Single Suction Cup Mount. Once you set up the system at a desired angle, you can then mount and release the camera without using any screws or bolts or changing the camera angle. You can lock QRM head to QRM body by using QRM body lock.



14.2.1. Top Surface Mount

The QRM Top Surface Mount enables you to mount your camera on a flat or curved surface such as windshield, gas tank and a helmet. You can adjust the camera angle by rotating the ball joint on the QRM body. When you are not using the camera, you can simply separate the camera-attached QRM head from the QRM body.



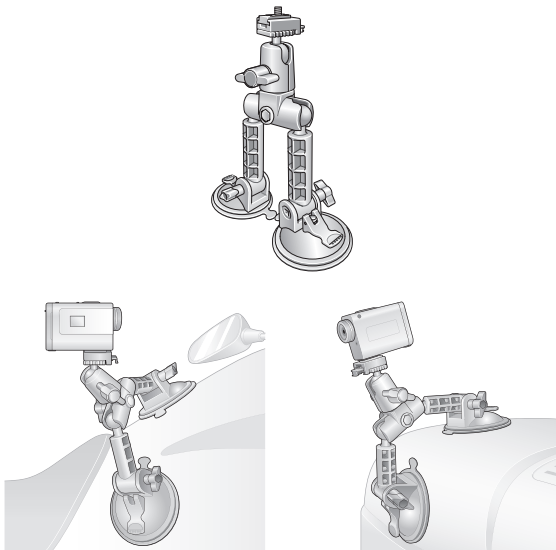
14.2.2. Handlebar Mount

The QRM Handlebar Mount enables you to mount the camera on your motorcycle's handlebar (between 7/8" and 1 1/2" diameter). You can choose the directions of the mounting arm and the U-bolt to best fit the mount on your handlebar. When you are not using the camera, you can take out the camera-attached QRM head from the QRM body.



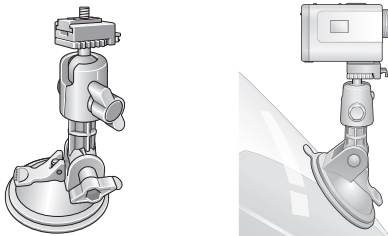
14.2.3. Suction Cup Mount

The QRM Dual Suction Cup Mount enables you to mount the camera on surfaces that require some height for recording such as windshield, gas tank, and trunk. You can adjust the camera angle by rotating the wheel joints or the ball joints on the legs. When you are not using the camera, you can simply take out the camera-attached QRM head from the QRM body.



Dual Suction Cup Mount

QRM Single Suction Cup Mount can be installed on relatively flat surface on motorcycle. You can simply adjust the angle to make the view that you want.



Single Suction Cup Mount

Note:

Make sure you clean the surface before attaching the suction cups so that the suction is firm and tight. Also, use the QRM wire to tie the QRM system to the motorcycle to protect it from any accidental falling.

15. FAULT RESET

When the camera is not working properly or is in faulty status for any reason, you may reset by taking the battery out and putting it back in. Power the system back on and try again. This will not restore the camera to factory default settings.

16. CAMERA SOFTWARE

Sena Device Manager

The Sena Device Manager allows you to upgrade the firmware and configure settings directly from your PC. It is available for both Windows and Mac. For more information and to download the Sena Device Manager, please visit www.sena.com.

Note:

The Sena Device Manager will not recognize the PRISM if it does not have a micro SD card inside.

17. CAMERA SPECIFICATIONS

General
<ul style="list-style-type: none">• Record time: 2 hours• Operating temperature: -10°C ~ 55°C (14°F ~ 131°F)• Water resistant• Dimensions (main module): 63.0 mm x 44.0 mm x 23.0 mm (2.5 in x 1.7 in x 0.8 in)• Camera weight: 100g (3.54 oz)• Battery weight: 25g (0.88 oz)
Bluetooth
<ul style="list-style-type: none">• Profile: Headset Profile, Hands-Free Profile (HFP)• Bluetooth 4.0
Audio
<ul style="list-style-type: none">• Internal microphone
Optical
<ul style="list-style-type: none">• Field of view: 137 degrees• 3.5M pixel CMOS• Aperture f/2.0
Video mode
<ul style="list-style-type: none">• Resolution<ul style="list-style-type: none">- 1080p 30fps- 720p 30 / 60fps- 480p 120fps

Photo mode

- Resolution
 - 3.5MP (3:2)
 - 3.2MP (4:3)
 - 3.0MP (16:9)
 - 5.0MP (16:9)
- Burst shot
 - 10 / 5 / 3 pic

Time lapse mode

- Photo & Video
 - Single pic per 1 / 3 / 5 / 10 / 30 / 60 sec

TV-out

- Micro HDMI

Battery

- Charging time: 3.5 hours
- 1100mAh
- Type: Lithium ion battery

Certificates

- CE, FCC, IC

CERTIFICATION AND SAFETY APPROVALS

FCC Compliance Statement

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.

This equipment 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antennae
- Increase the separation between the equipment and the receiver
- Connect the equipment 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.

FCC RF Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. The antenna used for this transmitter must not transmit simultaneously with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

FCC Caution

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

CE Declaration of Conformity

This product is CE marked according to the provisions of the R&TTE Directive (99/5/EC). Hereby, Sena declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For further information, please consult www.sena.com. Please note that this product uses radio frequency bands not harmonized within EU. Within the EU this product is intended to be used in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden, United Kingdom and within EFTA in Iceland, Norway and Switzerland.

Industry Canada Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.

- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Bluetooth License

The Bluetooth[®] word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Sena is under license. Other trademarks and trade names are those of their respective owners.

The product is compliant with and adopts the Bluetooth[®] Specification 3.0 and has successfully passed all interoperability tests that are specified in the Bluetooth[®] specification. However, interoperability between the device and other Bluetooth[®]-enabled products is not guaranteed.

WEEE (Waste Electrical and Electronic Equipment)



The crossed-out wheel bin symbol on the product, literature, or packaging reminds you that all electrical and electronic products, batteries, and accumulators must be taken to separate collection at the end of their working life. This requirement applies to the European Union and other locations where separate collection systems are available. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please do not dispose of these products as unsorted municipal waste, but hand it in at an official collection point for recycling.

SAFETY INFORMATION

Please ensure that the product is properly used by observing the warnings and cautions below to prevent any risk and/or damage to property.

Product Storage and Management

- Keep the product free of dust. It may damage mechanical and electronic parts of the product.
- Do not store the product in high temperatures as this may reduce the life span of electronic devices, damage the battery, and/or melt plastic parts of the product.
- Do not store the product in cold temperatures. Abrupt changes in temperatures may cause condensation and damage electronic circuits. Do not clean the product with cleaning solvents, toxic chemicals, or strong detergents as this may damage the product.
- Do not paint the product. Paint may obstruct moving parts or interfere with the normal operation of the product.
- Do not drop or otherwise shock the product. It may damage the product or its internal electronic circuits.
- Do not disassemble, repair or modify the product as this may damage the product and invalidate the product warranty.

Product Use

- In some regions, it is prohibited by law to ride motorcycles or bicycles while wearing headsets. Therefore be certain to comply with all relevant laws in the region before using the product.
- Use of the product at a high volume for a long period of time may damage your eardrums or hearing ability. Keep the volume at a modest level.
- Do not cause impact to the product or touch it with sharp tools as this may damage the product.

- Do not use the product in high-temperatures or apply heat to the product as this may cause damage, explosion, or fire.
- Keep product away from pets or small children. It may damage the product or cause accidents.
- Do not use the product near a microwave oven or a wireless LAN device as this may cause malfunction or interference with the product.
- In any place where wireless communication is prohibited, such as hospitals or airplanes, turn off the power and refrain from using the product. In a place where wireless communication is prohibited, electromagnetic waves may cause hazards or accidents.
- Do not use the product near hazardous explosives. When there are near any explosion hazards, turn off the power and heed any regulations, instructions, and signs in the area.
- When using the product, drive at a low speed (slower than 35km/h) for safety. In addition, be certain to conform to laws regarding the use of communications devices while driving.
- Do not put the product where it may hamper the driver's vision or manipulate it while driving. This may cause traffic accidents.
- Before driving, fasten the product to the helmet, and double-check that it is fastened. Separation of the product while driving may cause damage to the product or accidents.
- If the product is damaged, stop using it immediately. It may cause damage, explosion, or fire.

Battery

This product has an replaceable rechargeable battery inside. Therefore, when using the product, make sure to adhere to the following:

- The battery performance may be reduced over time with usage.
- In recharging the battery, make sure to use an approved charger provided by the manufacturer. Use of a non-approved charger may cause fire, explosion, leakage, and other hazards may also reduce the life time or performance of the battery.
- Store the battery at temperatures of 15°C~25°C (59°F~77°F). Higher or lower temperatures may reduce the capacity and life of the battery, or may cause temporary non-operation. Do not use the product in sub-zero temperature, because it may cause serious reduction of the battery performance.
- If you apply heat to the battery or throw it into fire, it may explode.
- Do not use the product with a damaged battery. It may explode and/or cause accidents.
- Never use a damaged charger. It may explode and/or cause accidents.
- Battery life may vary depending on conditions, environmental factors, functions of the product in use, and devices used with it.

PRODUCT WARRANTY AND DISCLAIMER

Limited Warranty

Limited Warranty

Sena Technologies, Inc. ("Sena") guarantees the product quality based on the technical specification stated in the product manual, and data regarding product warranty. Here, product warranty extends to the product only. Sena will not be liable for any loss, damage of human life, or loss of property which may result from using the product beyond defective parts or flaws that occur due to problems in manufacture.

Warranty Period

Sena guarantees free-of-charge replacements of defective parts of the product or flaws that may have occurred due to problems in manufacture for a period of 2 years from the date of initial purchase.

Termination

Quality warranty of the product becomes effective on the date of initial purchase. In addition, the quality warranty of the product expires when the warranty period expires. However, in the following cases, the warranty will be terminated prematurely.

- In the event the product has been sold or transferred to a third party.
- In the event the manufacturer's name, serial number, product label, or other markings have been modified or removed.
- In the event any unauthorized person has tried to disassemble, repair, or modify the product.

Notice and Waiver

By buying and using this product, you relinquish considerable

legal rights including any claim for compensation for damages. Therefore, be certain to read and understand the following terms and conditions before using the product. Use of this product will constitute consent to this agreement, and forfeiture of rights to all claims. If you do not consent to all the terms and conditions of this agreement, return the product for a refund. (Refer to the section "Return for Full Refund".)

1. You agree that you, your descendants, legal proxies, successors, or transferees will not raise permanent volitional request for any suit, claim, implementation, redemption or similar action from Sena with regard to any occasion such as difficulty, pain, suffering, inconvenience, loss, injury, or death which may occur to you or a third party during the use of this product.
2. You must completely understand and accept all risks (including those occurring due to any careless behavior of yours or others) which may occur during the use of this product.
3. You are responsible for ensuring that your medical condition permits usage of the product and that you are in sufficient physical condition for using any device which can be used with it. In addition, you must ensure that the product does not limit your abilities and that you are able to use it safely.
4. You must be an adult who can take responsibilities for using the product.
5. You must read and understand the following warnings and alerts:
 - Sena; together with employees, managers, partners, subsidiaries, representatives, agents, supporting firms and suppliers, sole sellers of Sena (collectively referred to as "the company") recommend that, before using the product and similar devices of any brands including its derivative models, you collect any relevant information in advance and be entirely prepared in terms of weather,

traffic situation, and road conditions.

- When you use the product while you operating any vehicle or equipment such as motorcycles, scooters, mopeds, ATVs, or quad-bikes (hereinafter called as "transportation means"), you must take complete caution regardless of the location of such operation.
 - Use of the product on the road may cause such risks as fracture, serious disability, or death.
 - Risk factors, which may occur when you use the product, may be due to errors of the manufacturer, its agents, or third parties which are involved in the manufacturing.
 - Risk factors, which may occur when you use the product, may be unforeseeable. Therefore, you must take full responsibility for any damage or loss caused by all risk factors which may occur when using the product.
 - When you use the product, use good judgment; never use it under the influence of alcohol.
6. You must read and completely understand all terms and conditions of legal rights and warnings that are involved in using the product. In addition, usage of the product constitutes acceptance of all terms and conditions regarding waiver of rights.

Warranty Exclusions

Reasons for Limited Liabilities

If you do not return the product after purchasing it, you relinquish all rights to liabilities, loss, claims, and claims for reimbursement of expenses (including attorney's fees). Therefore, Sena will not be liable for physical injury, death, or any loss or damage of transportation means, possessions, or assets which belong to you or third parties that may have occurred while you use the product. Further, Sena will not be liable for any substantial damage not related to the, condition,

environment, or malfunction of the product. All risks related with the operation of the product depend entirely on the user regardless of its use by the initial purchaser of a third party.

Use of this product may violate local or national laws. In addition, be aware once again that correct and safe use of the product is entirely your responsibility.

Limitation of Liability

TO THE FULL EXTENT ALLOWED BY LAW, SENA EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF ITS PRODUCTS, EVEN IF SENA OR ITS AUTHORIZED RESELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT SENA'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE. IN ANY CASE, THE TOTAL COMPENSATION LIABILITIES OF SENA OR ITS SALES AGENTS SHALL NOT EXCEED THE PRICE PAID FOR THE PRODUCT BY THE PURCHASER.

Liabilities Disclaimer

In addition to damages which may occur due to the use of the product, Sena will not be liable for damages of the product which occur due to the following events.

- In the event the product is misused or used for purposes other than its intended purposes.

- In the event the product is damaged because the user does not follow the content of the product manual.
- In the event the product is damaged because it has been left unattended or has undergone any other accident.
- In the event the product is damaged because the user has used any parts or software which are not provided by the manufacturer.
- In the event the product is damaged because the user has disassembled, repaired, or modified it in such way as is not explained in the product manual.
- In the event the product is damaged by a third party.
- In the event the product is damaged due to Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster).
- In the event the surface of the product is damaged by use.

Warranty Service

To obtain product warranty service, send the defective product, at your expense, to the manufacturer or the seller along with proof of purchase (a receipt that shows the purchase date, a product registration certificate of the Website, and other relevant information). Take necessary measures to protect the product. In order to get a refund or replacement, you must include the whole package as it was purchased.

Free-of-charge Service

Sena will provide free-of-charge repair or replacement service for the product when product defects occur within the scope of the product warranty during the warranty period.

Return for Full Refund

Should you not agree to the terms and conditions explained above, you may return the product for a full refund. To get a refund, within 14 days from the purchase date you must return the product to the seller in such a condition as it was purchased.

Unless you return the product within 14 days from the purchase date, you will have read and agreed to all the terms and conditions explained above, and Sena will not be liable for any claim for damages related with the product.

