GHOST EYE™

600M PLUS WIRELESS VIDEO TRANSMISSION SYSTEM

MANUAL BOOK

■ Trademarks

Ghost-Eye Wireless Video Transmission SystemsTM are trademarks of Cine Gears Inc. Web Interface.

■ Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, Cine Gears Inc. reserves the right to make changes to the products described in this document without notice.
Cine Gears Inc. does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

■ FCC Compliance Notice: Radio Frequency Notice

The device has met the FCC 15.247 requirement. In order to comply with the FCC RF exposure requirement, the user must keep 20cm away from the antenna.
This device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

· Reorient or relocate the receiving antenna.
· Increase the separation between the equipment and 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.

■ Information to the user

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

Contents

■ Foreword

✦ Please read this manual carefully before you use this product retain it properly for future reference.

✦ If there is any doubt or difficulty in the process of product usage, please feel free to contact us or the dealer.

✦ The company reserves the authority to amend the specification.

■ Brief Introduction

As the widely use of live broadcasting, there is some problem existing in the process of cable wiring, such as the high cost and short-life usage of the cable. Also, the cable trod by the crowd under insufficient site protection is the major cause of cable performance, even lead to the live broadcast accident. We provide you with more convenient and safer solution for live broadcasting. The long distance transmission system applied with high-capacity Li-battery, plug-and-play setting, can fully meet requirement of outdoor and indoor shooting. Especially, no cable wiring will bring the safer and more professional experience to you!

■ Features

✦ Effective range up to 300M, suitable for film shooting, live broadcast, wedding and big conference use.

✦ Support 1080P/60Hz 4:2:2bit, uncompressed real time HD video transmitting.

✦ Support HDMI/HD-SDI/3G-SDI.

✦ Plug&Play - easy to install.

✦ Support channel switching and broadcasting mode for 1transmitter to multiple receivers.

✦ Compatible EDID 1.1, support HDMI 103 (1.4 3D, optional).

✦ AES128/256 Encryption.

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■ Specification

ITEM	Specification
Frequency	5.1-5.9(GHz)
Bandwidth	40MHz
Video Formats Supported	1080p 23.98/24/25/30/50/60 1080psf 23.98/24/25
Audio Formats Supported	PCM, DTS-HD, Dolby TrueHD
transmission range	300m(MAX)
Transmitter	
Antenna	External Antenna x 2 pcs
Transmission power	18dbm
Functional Interface	HDMI Input; SDI Input; SDI Loop Output; Mini USB; LEMO Power IN; Antenna RPSMA Socket; Power ON/OFF
Locating Structure	1/4" Hot-shoe connection
LCD Screen	Wireless Channel Info; SDI/HDMI Signal Info; Fan info
Working Voltage	9V-18V
Power Consumption	9W
Dimensions	142.5 x 76 x 24.3 mm
Temperature	-10~60℃(operating) 10%-90% humidity; -40~80℃(storage) 10%-90% humidity.
Receiver	
Antenna	Internal Antenna x 5pcs
Receiving sensitivity	-70dBm
Functional Interface	SDI Dual Output; HDMI Output; Mini USB; LEMO Power IN; Antenna RPSMA Socket; Power ON/OFF
Locating Structure	1/4" Hot-shoe connection; V-Mount
LCD Screen	Wireless Channel Info; SDI/HDMI Signal Info
Working Voltage	9V-18V
Power Consumption	7-8W
Dimensions	141 x 100 x 22.4 mm
Temperature	-10~60℃(operating) 10%-90% humidity; -40~80℃(storage) 10%-90% humidity.

*Since the product's improving process, all the performance, design and specifications of our products are subject to minor change without prior notice.
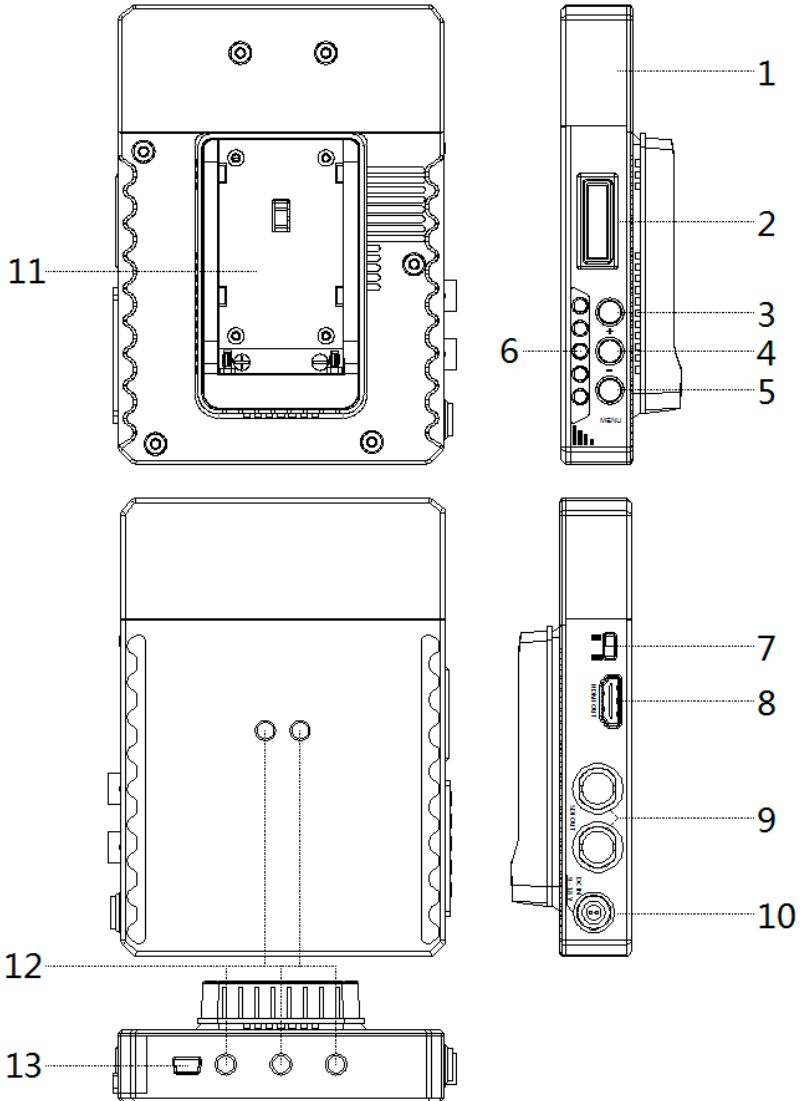
■ **Structure & Interface**

Transmitter 600MP

TX
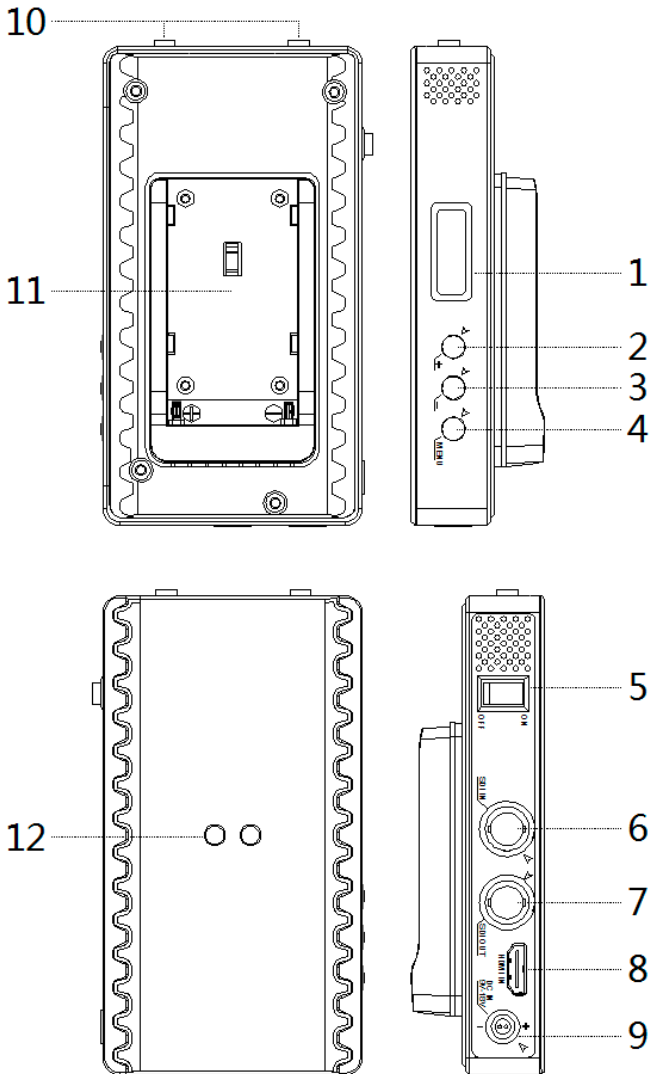
Structure	
1	LCD Screen
	Display the information about the Channel, signal input, capacity, temperature.
2	UP
	Select the correct Channel.
3	DOWN
	Select the correct Channel.
4	MENU
	Unlock the screen and confirm the selection.
5	Power ON/OFF
	Power ON/OFF
6	SDI IN
	Connect the HD camcorder which support 3G-SDI, HD-SDI
7	SDI OUT (Loop)
	Connect to the HD digital monitor which support 3G-SDI, HD-SDI
8	HDMI IN
	Connect to the HD digital camcorder with HDMI OUT
9	Power supply In (Lemo)
	Support connecting to the power supply of the camera, or power adaptor.
10	Antenna Socket
	SMA socket to connect the antenna.
11	Battery Clip
	Support SONY F970/F550 battery to power supply.
12	1/4" Hot-shoe Connection
	Support to connect with more methods.

*Since the product's improving process, all the performance, design and specifications of our products are subject to minor change without prior notice.

■ **Structure & Interface**

Receiver 600MP

RX

Structure	
	Structure
1	Antenna
	Built-in Antennas.
2	LCD Screen
	Display the information about Channels, signal input, capacity, temperature.
3	UP
	Select the correct Channel.
4	DOWN
	Select the correct Channel.
5	MENU
	Unlock the screen and confirm the selection.
6	RSSI Status Display
	Signal Strength
7	Power ON/OFF
	Power ON/OFF
8	HDMI OUT
	Connect to the TV/Monitor via the HDMI cable.
9	SDI OUT
	Connect to the TV/Monitor via the HDMI cable.
10	Power supply In (Lemo)
	Support connecting to the power supply of the camera, or power adaptor.
11	Battery Clip
	Support SONY F970/F550 battery to power supply.
12	1/4 Hot-shoe Connection
	Support to connect with more methods.

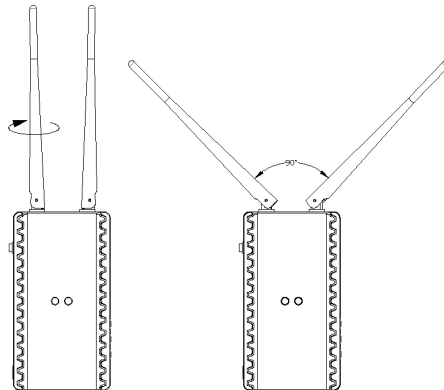| 13	Mini USB
	For firmware upgrade use.

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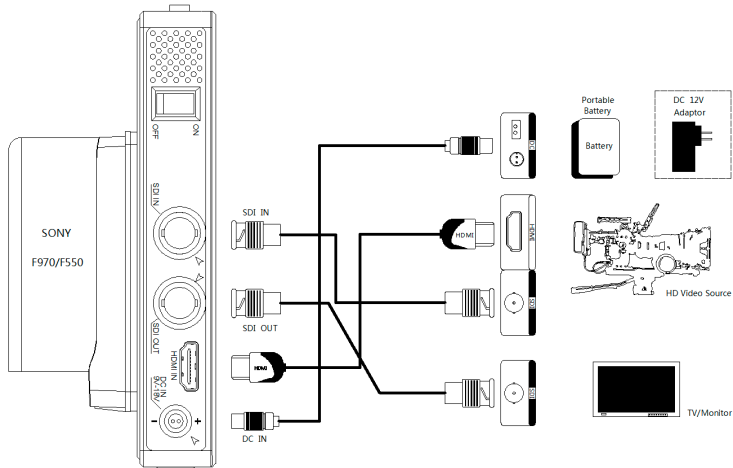
■ Installation

TX

For Transmitter

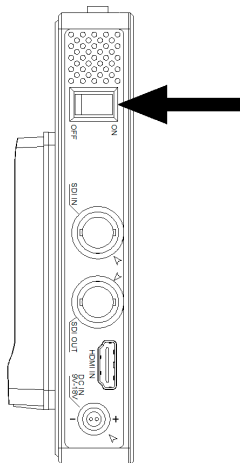1. Fix the antennas to the transmitter, and arrange them to be right angle as figured below.

2.Connect the transmitter to the power supply via the certail power cable or SONY F970/F550 battery. Connect the SDI/HDMI cable to the HD video source.
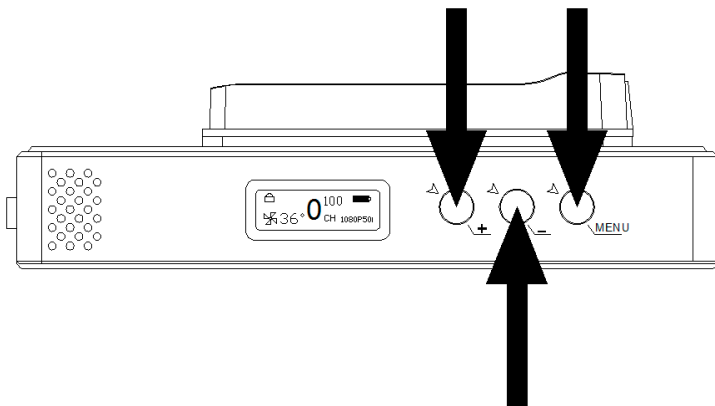

3.Turn ON the power supply and make sure the transmitter strat to work.

4.Long press the "MENU" button to unlock the screen and then press "+" or "-" button to select the wireless channel that corresponding to the Receiver, then press the "MENU" button to comfirm.
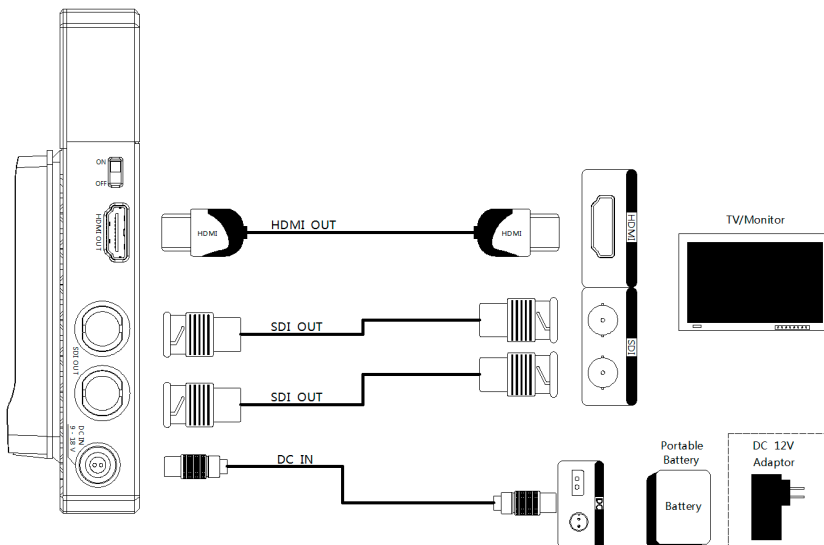
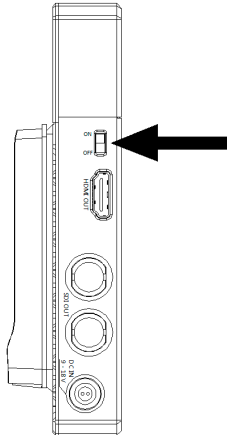When the video signal is normally transferred, the LCD screen will display "video".

RX

For Receiver

1.Connect the Receiver to the power supply via the certain power cable or battery. Conect the SDI/HDMI cable to the TV/Monitor.

2.Turn ON the power supply and make sure the receiver start to work.

3. Long press the "MENU" button to unlock the screen and then press "+" or " - " button to select the wireless channel that corresponding to the Transmitter, then press the "MENU" button for confirm.
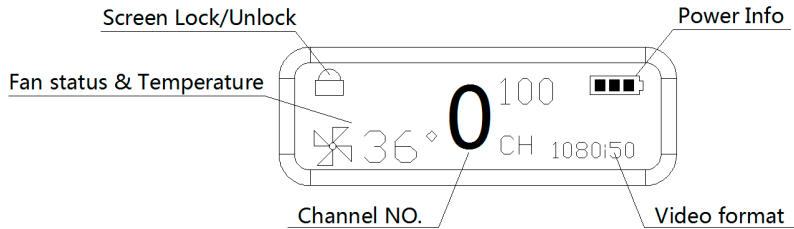When the networking is normally connected, the RSSI lights will display signal strength.
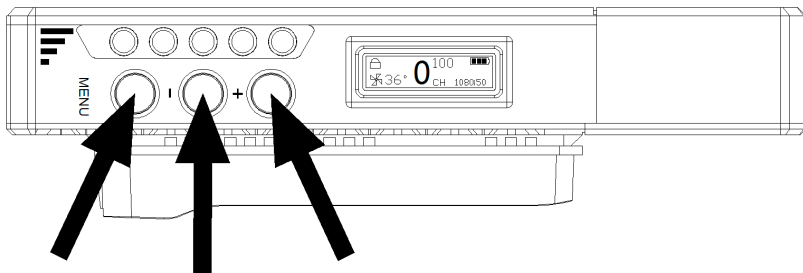
■ **LCD Screen**

600MP Transmitter LCD Screen

Screen Lock/Unlock

Power Info

Fan status & Temperature

0 100

36° CH 1080i50

Channel NO.

Video format

Screen Lock/Unlock : The screen will be always locked unless long press the MENU button to unlock.

Power Info : Display the current power supply status.

Channel NO. : Display the current Channel NO. of device.

Video format : Display the video source format.

Fan status & Temperature : Display the ventilation fan running status and inside temperature.

600MP Receiver LCD Screen

Screen Lock/Unlock : The screen will be always locked unless long press the MENU button to unlock.
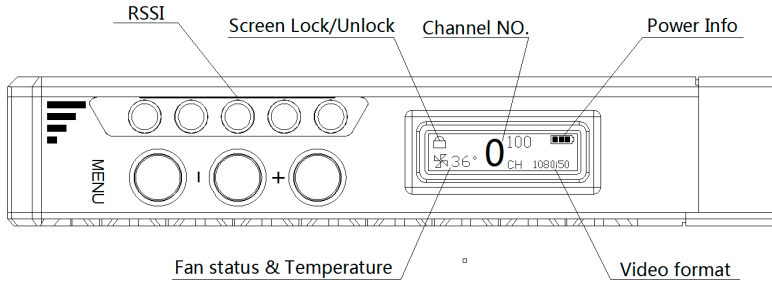
Power Info : Display the current power supply status.

Channel NO. : Display the current Channel NO. of device.

Video format : Display the video source format.

Fan status & Temperature : Display the ventilation fan running status and inside temperature.

RSSI : Received signal strengh indication.

25PFS in = 25PFS out	23.98P in = 23.98P out
29.97PSF in = 29.97PSF out	24P in = 24P out
30PSF in = 30PSF out	25P in = 25P out
	29.97P in = 29.97P out
	30P in = 30P out
50i in = 50i out	
59.94i in = 59.94i out	
60i in = 60i out	

■ Trouble Shooting

TROUBLES&POSSIBLE REASONS:	SOLUTON:
Displaying "Waiting for connection…" for a long time	
Transmitter is not powered up.	Power on the transmitter.
Transmitter or receiver is not placed correctly.	Place the TX or RX correctly.
The transmitter and receiver are too far away.	Move the receiver closer to the transmitter.
Several solid wall partition on TX and RX.	Reduce the number of solid walls between TX and RX.
There are so many obstacles between TX and RX.	Move the receiver closer to the transmitter.
Other transmitter is working on the same or adjacent channel.	Turn off other transmitter, or change channel.
No Video Signal received	
Transmitter and video source are not connected.	Connect the transmitter to video source by SDI/HDMI cable.
The video source is turned OFF	Power ON the video source.
Bad contact of cable of transmitter.	Remove and then re-plug the transmitter
Abnormal working of transmitter	Reboot the transmitter
Problem with cable between TX and video source	Change the SDI/HDMI cable
Player NOT support the output resolution format.	Switch the output video resolution to other modes.
The TV/Monitor NOT support HDCP authentication	Replaced with HDCP-certified TV/Monitor.
No signal input to Receiver or TV/Monitor	
Receiver is turned OFF	Power on receiver.
Receiver and TV are not connected.	Connect receiver and TV/Monitor via SDI/HDMI input.
TV/Monitor NOT switched to SDI/HDMI input.	Switch TV/Monitor to SDI/HDMI input.
Bad contact of the cable of receiver or TV/Monitor.	Remove then re-plug the SDI/HDMI cable.
TV/Monitor turn into standby mode.	Switch the TV/Monitor to normal operation mode.
Abnormal working of receiver.	Reboot the receiver.
No image appear on TV/Monitor	
Bad contact of receiver or cable.	Re-plug the cable of the receiver or TV/Monitor.
Abnormal working of receiver.	Reboot the receiver.
Receiver failure.	Please contact your retailer.
Abnormal color on TV screen	
Bad contact of cable of receiver or TV/Monitor.	Unplug and then plug the HDMI cable of the receiver or TV.
Bad contact of cable of transmitter or video source.	Unplug and then plug the HDMI cable of the TX and player.
Abnormal working of transmitter or receiver.	Reboot the transmitter and receiver.

OSD Information on TV / Image

Disclaimers

■ FCC Statement

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 off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
Increase the separation between the equipment and 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.
To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

Cautions

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

Disclaimers

■ Terms and Conditions

Congratulations on purchasing your new CINEGEARS product. Please read this manual carefully before using the product. By using this product, you hereby agree to this disclaimer and signify that you have read it in full. You agree that you are responsible for your own conduct and any content created while using CINEGEARS products, and for any consequence thereof. You agree to use this product only for purposes that are proper and in accordance with local regulations, terms and any applicable polices and guidelines.

By reading this disclaimer, you also agree:

1. Any part of this disclaimer is subject to change without prior notice. Refer to WWW.CINEGEARS.COM for the latest version.

2. CINEGEARS reserves the right of final interpretation of this disclaimer.

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About Cinegears

Cine Gears Inc. is an industry leading company that designs and manufactures digital wireless follow focus systems, lens control systems, camera motion control systems and accessories for film and broadcast industry. As a big believer in the power of creativity and ideas, we designed the Pegasus cablecam, the wireless motor drive that integrated a built in wireless transmitter, and the wireless finger wheel controller. The Cine Gears Inc. wireless lens control system has the international CE certification on all its equipment. Cine Gears lens control system can achieve the finest minutia of focus pulling, with extreme accuracy and control. This very same technology is what drives the Pegasus for ultra-smooth, highly controlled, programmed movement.

We have been working from Vancouver, B.C. for five years and our equipment has been used on hundreds of movies. Filmmakers of all experience levels will benefit greatly from a simple, professional, and well rounded follow focus system. The Single Axis and Multi Axis models provide greater ease, with less crew, and less wires. You can achieve professional film quality scenes on a shoestring budget. Camera operators, assistant camera operators, and jib operators can use the wireless follow focus to attain that perfect shot.

Customer Support

If you encounter any issues with any of our products please contact us directly via the details provided below. DO NOT CONTACT THE RETAIL STORE.

CINE GEARS INC. (USA)
47 East South Street, Suite 401
Frederick, Maryland 21701, USA
Tel: 1 206 462 2858
Toll Free: 1 800 693 8883

CINE GEARS INC. (Canada)
2nd floor 2010-9111 Beckwith Road
Richmond, BC V6X 1V7, Canada
Tel: 1 604 243 9995