# TABLE OF CONTENTS

01 INTRODUCTION  
01 SPECIFICATIONS  
02 GENERAL WARNINGS  
03 SAFETY PRECAUTIONS  
03 OVERVIEW  
04 SD CARD INSTALLATION  

**AERIAL IMAGING SYSTEM**  
04 INSTALLING THE CGO4 DAMPING PLATE  
05 ATTACHING CGO4 GIMBAL CAMERA TO MULTICOPTER  
05 CAMERA CONTROL ON MULTICOPTER  
06 CAMERA MODE INTRODUCTION  
07 ADJUSTING THE WHITE BALANCE  
07 SETTING THE LIGHT SENSITIVITY  
07 COMPENSATING THE EXPOSURE  
08 SPECIFYING THE APERTURE/ SHUTTER SPEED  
08 MENU SETTING INTRODUCTION  

**GROUND IMAGING SYSTEM**  
12 APP DOWNLOADING  
12 ATTACHING CGO4 GIMBAL CAMERA TO PROACTION  
12 BINDING CGO4 GIMBAL CAMERA TO APP  
13 GIMBAL CONTROL ON PROACTION  
14 CHARGING THE PROACTION  
15 APP INTERFACE  
15 PHOTO TAKING AND VIDEO RECORDING  
16 CAMERA MODE INTRODUCTION  
16 ADJUSTING THE WHITE BALANCE COMPENSATING THE EXPOSURE  
17 SETTING THE LIGHT SENSITIVITY  
17 SPECIFYING THE APERTURE/ SHUTTER SPEED  
18 ADJUSTING THE FOCAL LENGTH  
18 CONTROL MENU INTRODUCTION  
18 CAMERA-S  
18 MENU SETTING INTRODUCTION  
21 LED STATUS INDICATION  
22 DISCLAIMER  
24 FCC STATEMENT
INTRODUCTION

The TORNADO ProAction™ is a ground imaging system designed to extend your CGO4 with real-time imaging transmission. The system includes the ProAction™ ground handle and gimbal of your choice. The ProAction™ features pitch control, allowing for precise camera angle control. The CGO4, 3-axis self-stabilizing gimbal, enables you to capture smooth and fluent photographs and video footage.

The CGO4 is an independent high end professional all in one gimbal camera module, specially developed for professional users who require ultra-high aerial imaging quality and resolution. The dream of a flight adjustable, 3-axis stabilized, m 4/3 sensor and aerial capturing system is now a reality. CGO4 incorporates a true Panasonic GH4 camera with a 3x optical zoom lens and an integrated 5.8GHz video link module all housed in purpose designed casing. It can be installed on both the TORNADO H920 copter and the ProAction™ ground SteadyGrip system. All the regular Panasonic GH4 camera settings can be freely and remotely adjusted through Yuneec ST16 transmitter which totally transforms and reshapes the boundaries of aerial imaging creation. Through the user friendly control app interface in the ST16, the CGO4 becomes an incredible tool to realize the highest levels of aerial photographic and video graphic imagery.

SPECIFICATIONS

PROACTION™
DIMENSIONS: 14.17x10.04x14.57in (360x255x370mm)
WEIGHT (without battery: 52.91oz (1.5kg)
BATTERY WEIGHT: 7.72oz (219g)
INCLUDED BATTERY: 4S/14.4V 0.3C 2600mAh 37.44 Wh Lithium-Ion Battery
RUNTIME: 2.5 Hours
WORKING VOLTAGE: 13.5~16.8V
WORKING CURRENT: 0.68~1.0A
COMPATIBLE DEVICE: GB603 / CGO4

CGO4
DIMENSION: 6.5 x 8.6 x 7.7 in (165 x 219 x 196 mm)
WEIGHT: 1200 g
GIMBAL AXES: 3
CONTROL ANGLE ACCURACY: ±0.01°
MAXIMUM CONTROL RANGE:
Pitch [-90° to 0° (for H920) / - 90° to 30° (for ProAction™)] Yaw [360° limitless]
MECHANICAL RANGE: Pitch [-120° to 45°] Roll [-40° to 40°] Yaw [360° limitless]
MAXIMUM CONTROL SPEED: Pitch: 30° /s Yaw: 30° /s
INPUT/OPERATING VOLTAGE: 24V
CURRENT CONSUMPTION/OPERATING CURRENT: 1A
STORAGE TEMPERATURE: 10°C - 30°C
WORKING TEMPERATURE: -5°C - 45°C
IMAGE SENSOR: m 4/3 Live CMOS Sensor
EFFECTIVE PIXELS: 16Megapixels
MAX VIDEO RESOLUTION: 4K 30FPS, 100 Mbps
DIGITAL VIDEO DOWNLINK: Integrated
COMPATIBLE LENS: [ 3x Optical zoom 14-42mm (standard configuration)] [OLYMPUS M.ZUIKO DIGITAL ED 12mm f2.0 ] [OLYMPUS M.ZUIKO DIGITAL 45mm f1.8 ] [OLYMPUS M.ZUIKO DIGITAL ED 14-42mm F3.5-5.6 EZ ]
FOCUS MODE: AFS/MF
SHUTTER SPEED: 1/8000s to 60s
ISO RANGE: 100 to 25600
GENERAL WARNINGS

IMPORTANT NOTE: All safety precautions and warnings, instructions, warranties and other collateral information is subject to change at the sole discretion of Yuneec. For the most up-to-date information please visit the corresponding product page at www.Yuneec.com or contact the nearest Yuneec office or authorized distributor.

The following special language terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of property damage and/or little to no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of property damage and/or a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage and/or serious injury or create a high probability of superficial injury.

WARNING: Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, property and/or cause serious injury.

WARNING: This is a sophisticated consumer product. It must be operated with caution and common sense, and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in damage to the product, property and/or cause serious injury. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Yuneec. The instruction manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings prior to assembly, setup and/or use in order to operate the product correctly and avoid damage or serious injury.

WARNING: Failure to use this product in the intended manner as described in instruction manual can result in damage to the product, property and/or cause serious injury. This product is not a toy!

WARNING: As the user of this product you are solely and wholly responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.
SAFETY PRECAUTIONS

PROACTION
Do not touch or move the ProAction™ within about 12s until the initialization is completed.
Do not operate the ProAction™ in the rain!
Do not expose the ProAction™ to fire sources!
The ProAction™ can’t be operated after the second level low voltage battery warning!

CGO4
Do not expose the CGO4 gimbal camera to water, including rain and moisture.
Do not expose the lens of the CGO4 gimbal camera to excessive light sources.
Do not operate the CGO4 gimbal camera in environments with extremely high or low temperatures and high humidity.
Do not press the lens with excessive force.
Do not leave the camera with the lens facing the sun as rays of light from the sun may cause it to malfunction. Also, be careful when placing the camera outside or near a window.
Do not try to repair the CGO4 gimbal camera by yourself.
Do not attempt to operate CGO4 gimbal camera in areas with potential magnetic and/or radio interference including areas nearby broadcast towers, power transmission stations, high voltage power lines, etc.
Do not operate the Gimbal in the rain!
Do not expose the Gimbal to fire sources!
Do not touch or move the Gimbal until the initialization process has been completed.
In need of repair, send the CGO4 gimbal camera to an authorized service center.

OVERVIEW

01 Power/Mode Selection Switch
02 Battery Indicator
03 CGO4 Gimbal
04 Phone Holder
05 Control Status Indicator
06 Pitch Control Wheel
07 Function Switch Button
08 ProAction™ Hand Holder
09 Gimbal Control Stick
10 CGO4 Camera LED Indicator
11 T Card Upgrade Port
12 CGO4 Camera Lens
13 CGO4 5.8G Antenna
14 Fix Foam Pad (2 pieces)

IMPORTANT NOTE: Remove the fixed foam pad from the CGO4 gimbal camera before proceeding. Reinstall the fixed foam pad to the CGO4 gimbal camera after using.
SD CARD INSTALLATION

NOTICE: Before using the CGO4, a SD card should be installed into the camera. (A SD card is not included in the package.)

CAUTION: Power off the camera before inserting or removing the card.

STEP 1: Remove the rubber SD card cover as shown in the illustration.
STEP 2: Slide the memory card into the card slot in accordance with the direction indicated by the sticker.
STEP 3: When fully inserted, the card clicks into place. To remove the card, place your fingernail against the edge of the memory card and lightly press it further into the camera. The card springs out far enough to be removed.

CAUTION: Keep the Memory Card out of the reach of children to prevent swallowing.

NOTICE: When recording 4K motion pictures, use a card rated as UHS Speed Class 3.

CAUTION: The use of adapter card is not allowed.

<table>
<thead>
<tr>
<th>REC FORMAT</th>
<th>BIT RATE IN [REC QUALITY]</th>
<th>SPEED CLASS</th>
<th>LABEL EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP4</td>
<td>100 Mbps</td>
<td>UHS Speed Class 3</td>
<td>⚫</td>
</tr>
<tr>
<td></td>
<td>28 Mbps or lower</td>
<td>Class 4 or higher</td>
<td>CLASS 4</td>
</tr>
<tr>
<td>[MP4(LPCM)]/[MOV]</td>
<td>100 Mbps or higher</td>
<td>UHS Speed Class 3</td>
<td>⚫</td>
</tr>
<tr>
<td></td>
<td>50 Mbps</td>
<td>UHS Speed Class 1 or higher</td>
<td>⚫</td>
</tr>
<tr>
<td></td>
<td>50 Mbps</td>
<td>Class 10</td>
<td>CLASS 10</td>
</tr>
</tbody>
</table>

AERIAL IMAGING SOLUTION

INSTALLING THE CGO4 DAMPING PLATE

STEP 1: Install the CGO4 rubber dampers (4 pcs) into the four outermost ends of the damping carbon plates.
STEP 2: Place the damping plate right below the damping carbon plate. Make sure the flat surface facing towards the damping carbon plate.
STEP 3: Install the four CGO4 rubber dampers (previously mentioned) into the damping plate.
STEP 4: Screw the four dowels on the corresponding rubber dampers to fix the entire damping device.

CAUTION: Make sure the damping plate is installed correctly, otherwise it might fall off from the aircraft.
ATTACHING CGO4 GIMBAL CAMERA TO MULTICOPTER

**NOTICE:** Remove the fixed foam pad from the CG04 gimbal camera before proceeding.

**STEP 1:** Insert the gimbal connection cord to the inner side of gimbal damping plate (relative to the direction of H920 power connection port).

**STEP 2:** Mount the gimbal thumb screws and lock washers (4 pcs) to the gimbal and rotate the screws until they’re secured into the gimbal damping plate.

**NOTICE:** The front of the gimbal should be installed in the direction of the nose of H920.

**NOTICE:** Use the dedicated lock washers when rotating the screws.

**STEP 3:** Connect the gimbal power cord to H920 power connection port.

CAMERA CONTROL ON MULTICOPTER

**CAUTION:** The gimbal can only be controlled through ST16 When being attached to H920.

**Gimbal Pitch Control**

There is a gimbal pitch mode switch on ST16---S1. When the switch is in up/middle position, the CGO4 gimbal camera is in Angle Mode. Use the slider on the left side of the ST24 to set the pitch/tilt position of the gimbal camera. When the S1 is in bottom position, the gimbal camera is in Velocity Mode. When the slider is in the middle position, it means the velocity rate is 0 for the CGO4 gimbal camera, and it will stop pitching up/down. When the slider is above the middle position, the CGO4 will start pitching up. When the slider is below the middle position, the CGO4 will start pitching down. The distance between the slider and the middle position decides the velocity rate, the further distance, the higher velocity it would be.

Button A = Take Still Photo  
Button B = Start/Stop Recording Video
ATTACHING CG04 Gimbal Camera to Multicopter

NOTICE:
Remove the fixed foam pad from the CG04 gimbal camera before proceeding.

STEP 1
Insert the gimbal connection cord to the inner side of gimbal damping plate (relative to the direction of H920 power connection port).

STEP 2
Mount the gimbal thumb screws and lock washers (4 pcs) to the gimbal and rotate the screws until they’re secured into the gimbal damping plate.

NOTICE:
The front of the gimbal should be installed in the direction of the nose of H920.

NOTICE:
Use the dedicated lock washers when rotating the screws.

STEP 3
Connect the gimbal power cord to H920 power connection port.

BINDING CGO4 Gimbal Camera to the ST24 (Single Mode)

NOTICE:
The build number of ST24 should be b94 or above. The user can view the build number in the 'About Device' column.

STEP 1:
Power on the ST24, press [ ] button to go to the main interface. Choose FPV, and enter Model Select.

STEP 2:
The default Model type is Multi-copter. Tap the "H920 CGO4" icon and press OK to enter the flight control interface.

NOTE:
The pre-set model in the "Model Select" interface cannot be deleted.

NOTE:
The pre-set model can only be bound to one multi-copter. If the user wants to bind to the other copters, press and hold the "H920 CGO4" icon, select "copy" on the pop-up menu. Wait for a few seconds and then tap the newly created icon. Press OK to enter the flight control interface.

STEP 3:
Switch on the TORNADO H920. Wait for a moment until the H920 Main LED indicator blinks blue, the CGO4 LED indicator blinks green and then start the binding procedures.

STEP 4:
Lean the H920 in the forward direction twice (45°), until the Main LED indicator blinks yellow.

STEP 5:
Tap 'System Settings' and then tap 'Bind' on the left side of the screen.

STEP 6:
Tap the Refresh icon, and the codes of the H920 and CGO4 will be shown on screen.

Gimbal Yaw Control

There is a gimbal yaw mode switch on ST24---S2. When the switch position is up and middle, the gimbal camera is in Follow Mode. The yaw control of the gimbal camera is now disabled. The gimbal camera will adjust its yaw direction according to the aircraft’s movements. When the switch position is down, the gimbal camera is in Global Mode. The Gimbal Yaw control knob (K1) is now activated.

When the user rotates the knob in the right direction, the gimbal camera will rotate to the right side, and vice versa.

CAMERA MODE INTRODUCTION

The CGO4 gimbal camera has eight camera modes in total, providing photographers with multiple choices for different shooting scenes.

INTELLIGENT AUTO MODE: The subjects are recorded using settings automatically selected by the camera.

NOTE: In this mode, the camera makes the optimal settings for the subject and scene, so we recommend it when you wish to leave the settings to the camera and record without thinking about them.

NOTICE: [IA] is set if none of the scene are applicable, and the standard settings are set.

INTELLIGENT AUTO PLUS MODE: Allows you to adjust the brightness and color hue when in Intelligent Auto Mode.

<table>
<thead>
<tr>
<th>Changing the brightness</th>
<th>IA+ (INTELLIGENT AUTO PLUS MODE)</th>
<th>IA (INTELLIGENT AUTO MODE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Changing the hue</td>
<td>Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

PROGRAM AE MODE: The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject.

You can take picture with greater freedom by changing various settings in the Menu Settings.

CAUTION: The Aperture and Shutter Speed cannot be adjusted separately under P mode; it can only be controlled through the Union Picker.

APERTURE-PRIORITY AE MODE: The shutter speed is automatically determined by the aperture value you set.

SHUTTER-PRIORITY AE MODE: The aperture value is automatically determined by the shutter speed you set.

MANUAL EXPOSURE MODE: The exposure is adjusted by the aperture value and the shutter speed which are manually adjusted.
The following two modes are under Creative Movie Mode:

**PROGRAM AE MODE:** Records at the aperture value and shutter speed set by the camera. The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject during video-recording. You can take picture with greater freedom by changing various settings in the Menu Settings.

**SHUTTER-PRIORITY AE MODE:** When you set the shutter speed, the camera automatically optimizes the aperture value for the brightness of the subject during video-recording.

**ADJUSTING THE WHITE BALANCE**

In sunlight, under incandescent lights or in other such conditions where the color of white takes on a reddish or bluish tinge, this item adjusts to the color of white which is closest to what is seen by the eye in accordance with light source.

- **AWB:** Automatic Adjustment
- **Daylight:** When taking pictures outdoors under a clear sky
- **Cloudy:** When taking pictures under a cloudy sky
- **Shade:** When taking pictures outdoors in the shade
- **Halogon:** When taking pictures under the incandescent lights

**NOTICE:** It will operate as [AWB] during motion picture recording.

**SETTING THE LIGHT SENSITIVITY**

This allows the sensitivity to light (ISO sensitivity) to be set. Setting to a higher figure enables pictures to be taken even in dark places without the resulting pictures coming out.

- Auto / Intelligent ISO (i-ISO) /100 (Extended) /200/400 /800/1600/3200/6400/12800/25600(changeable to 1/3 EV STEP)(Up to ISO 6400 in motion picture recording)(ISO Auto in M mode)

**COMPENSATING THE EXPOSURE**

Exposure Value (EV) is a number that represents a combination of camera’s shutter speed and f-number. Use this function when you cannot achieve appropriate exposure due to the difference in brightness between the subject and the background.

<table>
<thead>
<tr>
<th>Exposure Compensation</th>
<th>1/3 EV STEP +/-5EV(+-3 EV for motion picture)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure Accuracy</td>
<td>+/- 1/3 EV</td>
</tr>
</tbody>
</table>
SPECIFYING THE APERTURE/ SHUTTER SPEED

NOTICE: The effect of the set aperture value and shutter speed will not be visible on the recording screen.

NOTE: If the photographer wants to highlight the background, set a relatively high aperture value; if the photographer wants a soft background, set a relatively low level.

<table>
<thead>
<tr>
<th>Maximum Aperture</th>
<th>F3.5(Wide)–F5.6(Tele)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Aperture</td>
<td>F22</td>
</tr>
</tbody>
</table>

- Aperture | Shutter Speed | Union |
- - - - - - | - - - - - - | - - - - - - |
- F3.5     | 1/10s         | - - - - - - |
- F4.0     | 1/13s         | - - - - - - |

Mechanical Shutter Speed | [Still image] Bulb(Max. 60minutes), 1/8000-60 [Motion picture]: 59.94Hz: 1/16,000-1/30; 50.00Hz: 1/16,000-1/25; 23.98Hz: 1/16,000-1/24 |
Shutter Life | Approx.200,000 images |
Burst speed | MECHANICAL SHUTTER: H: 12 frames/sec(AFS), 7 frames/sec(AFC) M: 7 frames/sec(Live View) L: 2 frames/sec(Live View) Electronic shutter: SH: 40 frames/sec |

NOTE: If the photographer wants to capture fast-moving subjects, set a relatively high shutter speed; if the photographer wants to track-shooting, set a relatively low shutter speed.

When CGO4 gimbal camera is in Aperture-Priority AE Mode, the camera automatically optimizes the shutter speed for the brightness of the subject.
When CGO4 gimbal camera is in shutter-priority AE Mode, the camera automatically optimizes the aperture value for the brightness of the subject.
When CGO4 gimbal camera is in Manual Exposure Mode: the photographer can determine the correct settings first, tap Mode button on the lower portion of the screen and a virtual mode dial will pop up on the screen and then set the mode dial to [M]. Slide the aperture value picker and shutter speed picker to set the appropriate aperture value and shutter speed.

MENU SETTING INTRODUCTION

VIDEO SYSTEM
This allows you to set different system frequency. In different system frequencies, the video qualities are different.

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>4K/100M/30P; FHD/28M/60P; FHD/20M/30P; HD/10M/30P; VGA/4M/30P</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTSC</td>
<td>4K/100M/25P; FHD/28M/50P; FHD/20M/25P; HD/10M/25P; VGA/4M/25P</td>
</tr>
<tr>
<td>PAL</td>
<td>C4K/100M/24P; 4K/100M/24P; FHD/ALL-intra/200M/24P; FHD/50M/24P</td>
</tr>
</tbody>
</table>

8
VIDEO ENCODING
This allows you to set different video formats.

<table>
<thead>
<tr>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP4</td>
<td>The MP4 data format is suitable for playback on a PC, etc.</td>
</tr>
<tr>
<td>MP4(LPCM)</td>
<td>The MP4 data format for image editing</td>
</tr>
<tr>
<td>MOV</td>
<td>Data format for image editing.</td>
</tr>
</tbody>
</table>

VIDEO QUALITY
This sets up the picture quality for motion pictures:
OPTIONS: MP4 30P 100Mbps 4K; MP4 24P 100Mbps 4K; MP4 60P 28Mbps 4K; MP4 30P 20M

IMAGE SIZE
This sets the number of pixels. The higher the numbers of pixels, the finer the detail of the pictures will appear even when they are printed onto large sheets. (16M/8M/4M)

IMAGE FORMAT
This sets the file format for the pictures you take.
(Fine / Standard / RAW+ fine / RAW+ / standard RAW)

PHOTO STYLE
This selects effects to match the type of image you wish to record and adjust the color and image quality of the effects.(Standard / Vivid / Natural / Monochrome / Scenery / Portrait)

ASPECT RATIO
This allows you to select the aspect ratio of the pictures to suit printing or the playback method.

<table>
<thead>
<tr>
<th>Aspect Ratio</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:3</td>
<td>Aspect Ratio of a 4:3 TV</td>
</tr>
<tr>
<td>3:2</td>
<td>Aspect Ratio of a 35mm film camera</td>
</tr>
<tr>
<td>16:9</td>
<td>Aspect Ratio of a high-definition TV, etc</td>
</tr>
<tr>
<td>1:1</td>
<td>Spare aspect ratio</td>
</tr>
</tbody>
</table>

ASPECT RATIO of a 4:3 TV: 4608x3456 (16M) ; 3264X2448 (8M);
ASPECT RATIO of a 35mm film camera: 4608X3072 (14M); 3264X2176 (7M); 2336X1560 (3.5M)
ASPECT RATIO of a high-definition TV, etc: 4608x2592; 3804x2156; 1920X1080
Spare aspect ratio: 3456X3456; 2448X2448; 1744X1744

NOTICE: The ends of the recorded pictures may be cut at printing so check before printing.

FOCUS MODE
By setting the optimum Focus Mode for the subject or recording condition, you can let the camera automatically adjust focus in various scenes.

<table>
<thead>
<tr>
<th>Focus Mode</th>
<th>Continuous AF</th>
<th>Description of settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFS</td>
<td>ON:</td>
<td>The camera automatically keeps focusing on subjects during recording.</td>
</tr>
<tr>
<td></td>
<td>OFF:</td>
<td>The camera maintains the focus position at the start of recording.</td>
</tr>
<tr>
<td>MF</td>
<td>ON / OFF:</td>
<td>You can focus manually. A focus bar will pop up on the left side of the screen for users to adjust the value.</td>
</tr>
</tbody>
</table>
MANUAL FOCUS MODE
Use this function when you want to fix the focus or when the distance between the lens and the subject is determined and you do not want to achieve Auto Focus.

<table>
<thead>
<tr>
<th>Angle of view</th>
<th>Wide(f=14mm:75°–Tele(f=42mm:29°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal Length</td>
<td>F=14mm-42mm</td>
</tr>
</tbody>
</table>

**NOTE:** The maximum/minimum/current value will be displayed on the upper right corner of the screen.

**AF MODE**
This allows the focusing method that suits the positions and number of the subjects to be selected.

- **1-Area:** The camera focuses on the subject in the AF area on the center of the screen. Position and Size of the AF area can be changed.
- **49 point:** Up to 49 AF areas can be focused. This is effective when a subject is not in the center of the screen. You can select areas to be in focus.

Touch the eye to be in focus: touch the eye in the yellow frame. If you touch any other location, the AF area setting screen will be displayed.

**IMAGE FORMAT**
**CAUTION:** If you delete a RAW file from the camera, the corresponding JPEG image will also be deleted.

**NOTICE:** It is fixed to maximum recordable pixels [L] for each image aspect ratio.

**PHOTO STYLE**
You can select effects to match the type of image you wish to record. You can adjust the color and image quality of the effects.

- **STANDARD / VIVID / NATURAL / MONOCHROME / SCENERY / PORTRAIT**

**DRIVE MODE**
Slide the menu and select Drive Mode. A menu will pop up with two menu items: Normal, Burst for the photographer to select with.

<table>
<thead>
<tr>
<th>NORMAL</th>
<th>When the shutter button is pressed, only one picture is recorded.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BURST</td>
<td>Recordings are made in succession while the shutter button is pressed</td>
</tr>
</tbody>
</table>

**Taking pictures using Burst Mode**
Pictures taken with a burst speed of [SH] will be recorded as a single burst group.

Slide the Menu and Select Driving Mode. Focus on the subject and take a picture.

**Changing the burst speed**
Pictures taken with a burst speed of [SH] will be recorded as a single burst group.

Slide the Menu and Select Driving Mode. Focus on the subject and take a picture.

<table>
<thead>
<tr>
<th>BURST SPEED(PICTURES/SECOND)</th>
<th>[H] (High Spe)</th>
<th>[M] (M le Speed)</th>
<th>[L] (Low Spe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIVE VIEW DURING BURST MODE</td>
<td>12(AFS) 7(AFC)</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>Available</td>
<td>Available</td>
</tr>
</tbody>
</table>
LIGHT METERING
The photographer can set the light metering method for still for measuring brightness.

[Multiple] This is the method in which the camera measures the most suitable exposure by judging the allocation of brightness on the whole screen automatically. Usually, we recommend using this method.

[Center Weighted] This is the method used to focus on the subject on the center of the screen and measure the whole screen evenly.

[Spot] This is the method to measure the subject in the spot metering target.

ZOOM IN / OUT
The photographer can zoom in/out through the following two methods:

Method 1: The [ZOOM] icon located on the lower portion of the screen is in charge of zooming in/out the camera, tap it and a zoom picker will pop up on the screen, tap ‘T’ to zoom in and ‘W’ to zoom out.

CAUTION: Once the [ZOOM] icon is activated, K6 is disabled.

Method 2: When the CGO4 is attached to the TORNADO H920, the control knob (K6) is activated. Users can zoom in by rotating the knob (K6) in the clockwise direction (the movement speed of the CGO4 gimbal camera in pitch and yaw directions will become slow in the velocity mode), and vice versa (the movement speed of the CGO4 gimbal camera in pitch and yaw directions will become fast in the velocity mode).

CAUTION: Each time the K6 is pushed to a certain position, it should be pushed back to the middle position to confirm the setting. Otherwise, the gimbal camera will continue to zoom in/out until it achieves the maximum/minimum value.
GROUND IMAGING SOLUTION

APP DOWNLOADING

Download the free APP named CGO4 to smart device at the APP Store or Google Play Store. Install the APP to your 5.8GHz Wi-Fi capable device. Make a note of the network name and password located on the top of the gimbal assembly.

CGO4 APP COMPATIBLE DEVICES:
APPLE IOS: IOS 7.0 or above
ANDROID: Android 4.2 or above

ATTACHING CGO4 GIMBAL CAMERA TO PROACTION

STEP 1: Securely attach CGO4 gimbal camera to ProAction™ with Gimbal Thumb Screws, then withdraw the Gimbal Cord from the left side.

STEP 2: Insert the Gimbal Cord into the center carrying handle socket.

STEP 3: Install the ProAction™ Battery and engage the connector properly.

STEP 4: Erect the phone holder and install the mobile phone into it, and then you can make Wi-Fi connection between CGO4 and mobile device by joining the CGO4 network in your phone's Wi-Fi setting.

BINDING CGO4 GIMBAL CAMERA TO APP

The APP seamlessly integrates control of CGO4 gimbal camera so that you can see exactly what your camera sees with a live HD video feed right on your mobile device. It makes you feel as though the camera is right in your hands.

CAUTION: If the user wants to take photos or videos with the ProAction™, the CGO4 APP should be downloaded beforehand.

STEP 1: Make Wi-Fi connection between your mobile device: Select the correct Wi-Fi SSID and enter the password: “1234567890”

STEP 2: Tap the CGO4 icon on your mobile device and enter the APP interface.

GiMBAL CONTROL ON PROACTION™

There are two modes to control the Gimbal through ProAction™: Follow Mode and Global Mode.

Switch on the ProAction™ on a flat and stable surface. Do not move, sway or shake the ProAction™ during initialization. After initialization, the gimbal will boot up normally in either Follow or Global Mode, depending on user settings on the left-hand switch of the ProAction™. Once the gimbal is on, it begins an automatic self-check by rotating about the yaw axis. At this time, the power indicator will be on as well. At the same time the control status LED will blink green and blue alternately.
When the self-check (start-up) process is complete, the Control Status LED will grow solid blue. The user can switch freely between Follow Mode and Global Mode without powering off the gimbal.

**FOLLOW MODE**

In Follow Mode, the camera lens moves in the direction of ProAction™. The user can only manipulate the pitch direction through Gimbal Control Stick on the right. If the Gimbal Control Stick moves upward, the camera lens will trim itself up. If the Gimbal Control Stick moves downward, the camera lens will trim itself down.

**NOTICE:** In Follow Mode, the camera lens will move in the direction of the Gimbal. At this time, the Gimbal will take control of itself in the Yaw direction and the user can only control the Gimbal in the Pitch direction.

**NOTICE:** The Yaw Axis inside the Gimbal will rotate in the direction of ProAction™ Frame. Any manipulation in the Yaw direction is invalid, in other words, the user can only control the Pitch direction.

**GLOBAL MODE**

In Global Mode, the camera lens sticks to a fixed direction instead of following the movement of the ProAction™ Frame. The user can control the Yaw and Pitch Direction through Gimbal Control Stick. If the Gimbal Control Stick moves upward, the camera lens will trim itself up. If the Gimbal Control Stick moves downward, the camera lens will trim itself down. If the Gimbal Control Stick turns right, the camera lens will trim itself to the right. If the Gimbal Control Stick turns left, the camera lens will trim itself to the left.

**DOUBLE HANDS OPERATING:**

Grip the left and right handles of the ProAction™ with both hands. The Power and Mode Selection Switch is on the left side, while the Gimbal Control Stick is on the right side.

**NOTICE:** Once the ProAction™ is started up, no matter which mode it is in, the default mode is Double Hands Operating. The Control Status Indicator on center carrying handle will be solid red. The user can ONLY take control of the gimbal through Gimbal Control Stick on the right side.

**Double Hands Operating Method**

In the Follow Mode, the camera lens track the ProAction™ in Yaw axis. The user can only control the pitch direction through Gimbal Control Stick on the right.

Move the Gimbal Control Stick upward to trim the camera lens up. Move the Gimbal Control Stick downward to trim the camera lens down.

In the Global Mode, the camera lens does not move in the direction of the ProAction™ Frame but sticks to a fixed direction. The user can control both the Yaw and Pitch directions through Gimbal Control Stick.

Move the Gimbal Control Stick upward/downward to trim the camera lens up/down. Move the Gimbal Control Stick to the left/right to trim the camera lens left/right.

**NOTICE:** When in the Follow Mode, the Gimbal Control Stick can't control the CGO4 in Yaw axis. When in the Global Mode, the Gimbal Control Stick can control the CGO4 in Pitch and Yaw axes.
**SINGLE HAND OPERATING:**

Lift the center carrying handle with one hand. When holding the ProAction™ with single hand, press and hold the Function Switch Button in the rear of the Pitch Control Wheel. The Control Status Indicator will glow solid blue when successfully switched.

The control has been switched to the Pitch Control Wheel on the center carrying handle. The Gimbal Control Stick on the right side of the ProAction™ is disabled in Pitch direction.

**NOTICE:** When the user holds the ProAction™ with single hand in the Global Mode, the user can control the camera in the Yaw direction through the Gimbal Control Stick.

**Single Hand Operating Method**

Roll the Pitch Control Wheel forward to move the camera pitch/angle downward, and roll the Pitch Control Wheel backward to move the camera pitch/angle upward.

**ANGLE LIMITS**

When operating the ProAction™, it is suggested to hold it horizontally for better photography experience, or at least to make sure the roll angle is less than 40 degree.

**CHARGING THE PROACTION:**

Charging the PROACTION requires you to remove the battery from the grip and disconnect the red connector. Included with the PROACTION is a battery charging lead that will plug in directly to your A10 charger. A secondary battery balance lead has also been included. Connect the leads to your chargers main ports and the balance lead into the appropriate slot on the balance board. Select the proper battery type, and charge current listed below.

<table>
<thead>
<tr>
<th>Battery Type:</th>
<th>Li-Ion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cells:</td>
<td>4</td>
</tr>
<tr>
<td>mAh:</td>
<td>2600mAh</td>
</tr>
<tr>
<td>Charge Current:</td>
<td>2.6 amps</td>
</tr>
</tbody>
</table>
When the self-check (start-up) process is complete, the Control Status LED will grow solid blue. The user can switch freely between Follow Mode and Global Mode without powering off the gimbal.

**FOLLOW MODE**
In Follow Mode, the camera lens moves in the direction of ProAction™. The user can only manipulate the pitch direction through Gimbal Control Stick on the right.

If the Gimbal Control Stick moves upward, the camera lens will trim itself up. If the Gimbal Control Stick moves downward, the camera lens will trim itself down.

**NOTICE:**
In Follow Mode, the camera lens will move in the direction of the Gimbal. At this time, the Gimbal will take control of itself in the Yaw direction and the user can only control the Gimbal in the Pitch direction.

**NOTICE:**
The Yaw Axis inside the Gimbal will rotate in the direction of ProAction™ Frame. Any manipulation in the Yaw direction is invalid, in other words, the user can only control the Pitch direction.

**GLOBAL MODE**
In Global Mode, the camera lens sticks to a fixed direction instead of following the movement of the ProAction™ Frame. The user can control the Yaw and Pitch Direction through Gimbal Control Stick.

If the Gimbal Control Stick moves upward, the camera lens will trim itself up. If the Gimbal Control Stick moves downward, the camera lens will trim itself down. If the Gimbal Control Stick turns right, the camera lens will trim itself to the right. If the Gimbal Control Stick turns left, the camera lens will trim itself to the left.

**DOUBLE HANDS OPERATING:**
Grip the left and right handles of the ProAction™ with both hands. The Power and Mode Selection Switch is on the left side, while the Gimbal Control Stick is on the right side.

**NOTICE:**
Once the ProAction™ is started up, no matter which mode it is in, the default mode is Double Hands Operating. The Control Status Indicator on center carrying handle will be solid red. The user can ONLY take control of the gimbal through Gimbal Control Stick on the right side.

**Double Hands Operating Method**
In the Follow Mode, the camera lens tracks the ProAction™ in Yaw axis. The user can only control the pitch direction through Gimbal Control Stick on the right.

Move the Gimbal Control Stick upward to trim the camera lens up. Move the Gimbal Control Stick downward to trim the camera lens down.

In the Global Mode, the camera lens does not move in the direction of the ProAction™ Frame but sticks to a fixed direction. The user can control both the Yaw and Pitch directions through Gimbal Control Stick.

Move the Gimbal Control Stick upward/downward to trim the camera lens up/down. Move the Gimbal Control Stick to the left/right to trim the camera lens left/right.

**NOTICE:**
When in the Follow Mode, the Gimbal Control Stick can’t control the CGO4 in Yaw axis. When in the Global Mode, the Gimbal Control Stick can control the CGO4 in Pitch and Yaw axes.

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**APP INTERFACE**

01. WHITE BALANCE   02. EXPOSURE VALUE/ISO SENSITIVITY   03. APERTURE/SHUTTER SPEED
04. FULL SCREEN DISPLAY 05. FOCAL LENGTH 06. CONTROL MENU 07. VIDEO-RECORDING
08. BUTTON PHOTO-TAKING BUTTON 09. LEFT STORAGE 10. SETTING MENU

**WARNING:** Turn off the camera through APP before powering off the CGO4 camera, in case that the camera lens won’t return back to the original position and can’t be packaged into the aluminum case.

**PHOTO TAKING AND VIDEO RECORDING**

**TO TAKE PHOTOS**

**STEP 1:** Before you start to use the APP, you should make sure that the Wi-Fi connection has been successfully made. Go to your Wi-Fi settings and select the CGO4 network.

**STEP 2:** Tap the APP icon on your mobile device and you’ll come to the Camera Control Interface.

**STEP 2:** Press “Camera” and CGO4 gimbal camera will be ready to work.

**STEP 3:** Press the [ ] button and you can start to take photos.

**NOTICE:** If you have successfully entered photo-taking, an audible ‘shutter’ sound will be heard and a notice will pop up on the screen, reading “picture of success”

**CAUTION:** You cannot take photos while recording video. You must stop recording video in order to take still photos.

**TO START/STOP VIDEO RECORDING**

Press [ ] button and you can start to record the video.

If you have successfully entered video-recording, the button will turn red and a video recording timer will appear on the top right corner of the screen.

**CAUTION:** If the video is being recorded, repress the video recording button to end the process before powering off the gimbal, or the video is unable to be saved.
CAMERA MODE INTRODUCTION

The CGO4 gimbal camera has eight camera modes in total, providing photographers with multiple choices for different shooting scenes.

**INTELLIGENT AUTO MODE:** The subjects are recorded using settings automatically selected by the camera.

**NOTE:** In this mode, the camera makes the optimal settings for the subject and scene, so we recommend it when you wish to leave the settings to the camera and record without thinking about them.

**NOTICE:** [IA] is set if none of the scene are applicable, and the standard settings are set.

**INTELLIGENT AUTO PLUS MODE:** Allows you to adjust the brightness and color hue when in Intelligent Auto Mode.

<table>
<thead>
<tr>
<th></th>
<th>IA+ (INTELLIGENT AUTO PLUS MODE)</th>
<th>IA (INTELLIGENT AUTO MODE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing the brightness</td>
<td>Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Changing the hue</td>
<td>Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

**PROGRAM AE MODE:** Records at the aperture value and shutter speed set by the camera.

The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject.

You can take picture with greater freedom by changing various settings in the Menu Settings.

**CAUTION:** The Aperture and Shutter Speed cannot be adjusted separately under P mode; it can only be controlled through the Union Picker.

**APERTURE-PRIORITY AE MODE:** The shutter speed is automatically determined by the aperture value you set.

**SHUTTER-PRIORITY AE MODE:** When you set the shutter speed, the camera automatically optimizes the aperture value for the brightness of the subject.

**MANUAL EXPOSURE MODE:** The exposure is adjusted by the aperture value and the shutter speed which are manually adjusted.

The following two modes are under Creative Movie Mode:

**PROGRAM AE MODE:** Records at the aperture value and shutter speed set by the camera. The camera automatically sets the shutter speed and the aperture value according to the brightness of the subject during video-recording.

You can take picture with greater freedom by changing various settings in the Menu Settings.

**SHUTTER-PRIORITY AE MODE:** When you set the shutter speed, the camera automatically optimizes the aperture value for the brightness of the subject during video-recording.

ADJUSTING THE WHITE BALANCE

In sunlight, under incandescent lights or in other such conditions where the color of white takes on a reddish or bluish tinge, this item adjusts to the color of white which is closest to what is seen by the eye in accordance with light source.
**AWB**: Automatic Adjustment

**Daylight**: When taking pictures outdoors under a clear sky

**Cloudy**: When taking pictures under a cloudy sky

**Shade**: When taking pictures outdoors in the shade

**Halogon**: When taking pictures under the incandescent lights

**NOTICE**: It will operate as [AWB] during motion picture recording.

### SETTING THE LIGHT SENSITIVITY

This allows the sensitivity to light (ISO sensitivity) to be set. Setting to a higher figure enables pictures to be taken even in dark places without the resulting pictures coming out.

Auto / Intelligent ISO (i-ISO) /100 (Extended) /200/400 /800/1600/3200/6400/12800/25600(changeable to 1/3 EV STEP)(Up to ISO 6400 in motion picture recording)(ISO Auto in M mode)

### COMPENSATING THE EXPOSURE

Exposure Value (EV) is a number that represents a combination of camera’s shutter speed and f-number. Use this function when you cannot achieve appropriate exposure due to the difference in brightness between the subject and the background.

<table>
<thead>
<tr>
<th>Exposure Compensation</th>
<th>1/3 EV STEP +/-5EV(+/-3 EV for ion picture)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure Accuracy</td>
<td></td>
</tr>
</tbody>
</table>

### SPECIFYING THE APERTURE/ SHUTTER SPEED

**NOTICE**: The effect of the set aperture value and shutter speed will not be visible on the recording screen.

**NOTE**: If the photographer wants to highlight the background, set a relatively high aperture value; if the photographer wants a soft background, set a relatively low level.

<table>
<thead>
<tr>
<th>Maximum Aperture</th>
<th>F3.5(Wide)–F5.6(Tele)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Aperture</td>
<td>F22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical Shutter Speed</th>
<th>[Still image] Bulb(Max. 60minutes),1/8000-60 [Motion picture]: 59.94Hz: 1/16,000-1/30; 50.00Hz: 1/16,000-1/25; 23.98Hz: 1/16,000-1/24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shutter Life</td>
<td>Approx.200,000 images</td>
</tr>
<tr>
<td>Burst speed</td>
<td>MECHANICAL SHUTTER: H: 12 frames/sec(AFS), 7 frames/sec(AFC) M: 7 frames/sec(Live View) L: 2 frames/sec(Live View) Electronic shutter: SH: 40 frames/sec</td>
</tr>
</tbody>
</table>

**NOTE**: If the photographer wants to capture fast-move subjects, set a relatively high shutter speed; if the photographer wants to track-shooting, set a relatively low shutter speed.

When CG04 gimbal camera is in Aperture-Priority AE Mode, the camera automatically optimizes the shutter speed for the brightness of the subject.

When CG04 gimbal camera is in shutter-priority AE Mode, the camera automatically optimizes the aperture value for the brightness of the subject.
CONTROL MENU INTRODUCTION

FIXING THE FOCUS AND THE EXPOSURE (AF/AE LOCK)
This is useful when you want to take a picture of a subject outside the AF area or the contrast is too strong and you cannot achieve appropriate exposure.

[AE LOCK] Only the exposure is locked. When the exposure is set, [AEL], the aperture value, the shutter speed are displayed.

[AF LOCK] Only the focus is locked. When the subject is focused, [AFL], the focus indication, the aperture value and the shutter speed are displayed.

[AF/AE LOCK] Both focus and exposure are locked. [AFL], [AEL], the focus indication, aperture value and shutter speed are displayed when the focus and the exposure are optimized.

[AF-ON] Auto Focus is performed.

CAMERA-S
This allows you to switch on/off the camera when operating CGO4 on ProAction™.
STEP 1: Tap [ ] icon on the right-hand column and tap “Camera-S”
STEP 2: A camera setting bar will pop up on the screen.
STEP 3: Slide the Camera ON/OFF switch to the right to turn on the camera.
STEP 4: Slide the Camera ON/OFF switch to the left to turn off the camera.

GUIDELINESS:
When there are obstacles, the position judgment of the photographer may be biased. The guidelines function can help to correct their judgment in the horizontal and vertical direction and to create a better photo composition.
STEP 1: Tap [ ] icon on the right-hand column and tap “Guidelines”.
STEP 2: A guideline status menu will pop up on the screen.
STEP 3: Slide the guideline switch to the right to turn on the camera.
STEP 4: Slide the guideline switch to the left to turn off the camera.

MENU SETTING INTRODUCTION
VIDEO SYSTEM
This allows you to set different system frequency. In different system frequencies, the video qualities are different.

<table>
<thead>
<tr>
<th>NTSC</th>
<th>4K/100M/30P; FHD/28M/60P; FHD/20M/30P; HD/10M/30P; VGA/4M/30P</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAL</td>
<td>4K/100M/25P; FHD/28M/50P; FHD/20M/25P; HD/10M/25P; VGA/4M/25P</td>
</tr>
<tr>
<td>CINEMA</td>
<td>C4K/100M/24P; 4K/100M/24P; FHD/ALL-intra/200M/24P; FHD/50M/24P</td>
</tr>
</tbody>
</table>
NOTE: If the photographer wants to capture fast-move subjects, set a relatively high shutter speed; if the photographer wants to track-shooting, set a relatively low shutter speed.

When CGO4 gimbal camera is in Aperture-Priority AE Mode, the camera automatically optimizes the shutter speed for the brightness of the subject.

When CG04 gimbal camera is in shutter-priority AE Mode, the camera automatically optimizes the aperture value for the brightness of the subject.

When CGO4 gimbal camera is in Manual Exposure Mode: the photographer can determine the settings.

First, tap Mode button on the lower portion of the screen and a virtual mode dial will pop up on the screen and then set the mode dial to [M]. Slide the aperture value picker and shutter speed picker to set the appropriate aperture value and shutter speed.

VIDEO QUALITY
This sets up the picture quality for motion pictures:
OPTIONS: MP4 30P 100Mbps 4K; MP4 24P 100Mbps 4K; MP4 60P 28Mbps 4K; MP4 30P 20M

IMAGE SIZE
This sets the number of pixels. The higher the numbers of pixels, the finer the detail of the pictures will appear even when they are printed onto large sheets. (16M/8M/4M)

IMAGE FORMAT
This sets the file format for the pictures you take.
(Fine / Standard / RAW+ fine / RAW+ / standard RAW)

PHOTO STYLE
This selects effects to match the type of image you wish to record and adjust the color and image quality of the effects.(Standard / Vivid / Natural / Monochrome / Scenery / Portrait)

ASPECT RATIO
This allows you to select the aspect ratio of the pictures to suit printing or the playback method.

4:3 [Aspect Ratio] of a 4:3 TV 4608x3456 (16M) ; 3264X2448 (8M);
3:2 [Aspect Ratio] of a 35mm film camera 4608X3072 (14M); 3264X2176 (7M); 2336X1560 (3.5M)
16:9 [Aspect Ratio] of a high-definition TV, etc 4608x2592; 3804x2156; 1920X1080
1:1 Spare aspect ratio 3456X3456; 2448X2448; 1744X1744

NOTICE: The ends of the recorded pictures may be cut at printing so check before printing.

FOCUS MODE
By setting the optimum Focus Mode for the subject or recording condition, you can let the camera automatically adjust focus in various scenes.

<table>
<thead>
<tr>
<th>Focus Mode</th>
<th>Continuous AF</th>
<th>Description of settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFS</td>
<td>ON:</td>
<td>The camera automatically keeps focusing on subjects during recording.</td>
</tr>
<tr>
<td></td>
<td>OFF:</td>
<td>The camera maintains the focus position at the start of recording.</td>
</tr>
<tr>
<td>MF</td>
<td>ON / OFF:</td>
<td>You can focus manually. A focus bar will pop up on the left side of the screen for users to adjust the value.</td>
</tr>
</tbody>
</table>

MANUAL FOCUS MODE
Use this function when you want to fix the focus or when the distance between the lens and the subject is determined and you do not want to achieve Auto Focus.

<table>
<thead>
<tr>
<th>Angle of view</th>
<th>Wide(f=14mm):75°~Tele(f=42mm):29°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal Length</td>
<td>F=14mm-42mm</td>
</tr>
</tbody>
</table>

NOTE: The maximum/minimum/current value will be displayed on the up right corner of the screen.
**AF MODE**

This allows the focusing method that suits the positions and number of the subjects to be selected. Focus and exposure will keep on following the subject even if it moves.

**1-Area:** The camera focuses on the subject in the AF area on the center of the screen. Position and size of the AF area can be changed.

**49 point:** Up to 49 AF areas can be focused. This is effective when a subject is not in the center of the screen. You can select areas to be in focus.

Touch the eye to be in focus: touch the eye in the yellow frame. If you touch any other location, the AF area setting screen will be displayed.

**IMAGE FORMAT**

**CAUTION:** If you delete a RAW file from the camera, the corresponding JPEG image will also be deleted.

**NOTICE:** It is fixed to maximum recordable pixels [L] for each image aspect ratio.

**PHOTO STYLE**

You can select effects to match the type of image you wish to record. You can adjust the color and image quality of the effects.

| STANDARD / VIVID / NATURAL / MONOCHROME / SCENERY / PORTRAIT |

**DRIVE MODE**

Slide the menu and select Light Metering. A menu will pop up with three menu items: Multiple, Center Weighted, Spot for the photographer to select with.

| NORMAL | When the shutter button is pressed, only one picture is recorded. |
| BURST | Recordings are made in succession while the shutter button is pressed |

**Taking pictures using Burst Mode**

Pictures taken with a burst speed of [SH] will be recorded as a single burst group. Slide the Menu and Select Driving Mode. Focus on the subject and take a picture.

**Changing the burst speed**

Pictures taken with a burst speed of [SH] will be recorded as a single burst group. Slide the Menu and Select Driving Mode. Focus on the subject and take a picture.

<table>
<thead>
<tr>
<th>BURST SPEED (PICTURES/SECOND)</th>
<th>[H] (High Spe)</th>
<th>[M] (M le Speed)</th>
<th>[L] (Low Spe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIVE VIEW DURING BURST MODE</td>
<td>None</td>
<td>Available</td>
<td>Available</td>
</tr>
</tbody>
</table>

**LIGHT METERING**

The photographer can set the light metering method for still for measuring brightness.

**[Multiple]** This is the method in which the camera measures the most suitable exposure by judging the allocation of brightness on the whole screen automatically. Usually, we recommend using this method.

**[Center Weighted]** This is the method used to focus on the subject on the center of the screen and measure the whole screen evenly.

**[Spot]** This is the method to measure the subject in the spot metering target.
NOTE:
If the photographer wants to capture fast-move subjects, set a relatively high shutter speed; if the photographer wants to track-shooting, set a relatively low shutter speed. When CGO4 gimbal camera is in Aperture-Priority AE Mode, the camera automatically optimizes the shutter speed for the brightness of the subject. When CGO4 gimbal camera is in shutter-priority AE Mode, the camera automatically optimizes the aperture value for the brightness of the subject.

LED STATUS INDICATION

PROACTION™ (Control Status Indication)
- Boot Self-inspection: LED blinking red and blue alternately
- Double Hands Operating: LED solid red
- Single Hand Gimbal Gripping: LED solid blue

PROACTION™ (Power Status Indication)
- First Level Low Voltage Battery Warning: LED blinking green slowly
- Second Level Low Voltage Battery Warning: LED blinking green quickly

CGO4 (CAMERA)
- ST24 and gimbal camera not connected: LED blinking green.
- ST24 and mobile device connected: LED blinking blue
- CGO4 Wi-Fi malfunction: LED blinking red

CGO4 (GIMBAL)
- Firmware update in progress: LED blinking blue
- Firmware update succeeds: LED blinking green
- Firmware update Fails: LED blinking red
- Powering On: LED solid blue for 7 seconds
- Initializing: LED blinking blue and green alternately
- Connecting Between the Gimbal and Aircraft Fails:
  - In the Follow Mode: LED blinking green
  - In the Global Mode: LED blinking blue
  - NOTICE: We suggest that the user restart H920/ProAction™ in such conditions.
- Connecting Between the Gimbal and Aircraft Succeeds:
  - In the Follow Mode: LED solid green
  - In the Global Mode: LED solid blue

CGO4 (RECEIVER)
- Receiver and ST24 connected: LED blinking orange (2 times per second)
- Receiver binding to ST24: LED solid orange
- Signal loss: LED blinking orange (1 flash per second)
**NOTE:**

If the photographer wants to capture fast-move subjects, set a relatively high shutter speed; if the photographer wants to track-shooting, set a relatively low shutter speed. When CGO4 gimbal camera is in Aperture-Priority AE Mode, the camera automatically optimizes the shutter speed for the brightness of the subject. When CGO4 gimbal camera is in shutter-priority AE Mode, the camera automatically optimizes the aperture value for the brightness of the subject. When CGO4 gimbal camera is in Manual Exposure Mode: the photographer can determine aperture and shutter speed settings. First, tap Mode button on the lower portion of the screen and a virtual mode dial will pop up on the screen and then set the mode dial to [M]. Slide the aperture value picker and shutter speed picker to set the appropriate aperture value and shutter speed.

**DISCLAIMER**

Yuneec Electric Aviation cannot be held liable for any damage, injury or for use of the product in violation with legal regulations, especially in the following circumstances:

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- Damage and/or injury as well violation of legal regulations brought about by the influence of alcohol, drugs, medication or other narcotics which may impact on the concentration of the user. The same applies to illnesses effecting the concentration of the user (dizziness, tiredness, nausea etc.) or other factors compromising mental and physical capabilities.

Intentionally caused damage, injury or violation of legal regulations.

Any request for compensation caused by an accident resulting from use of the product.

Damage and/or injury as well as violation of legal regulations caused by use of the product in a no-fly zone, e.g. next to an airfield, above a motorway or a natural conservation area.

Malfunction of the product caused by retrofitting or replacement with components which did not come from Yuneec Electric Aviation.

Damage and/or injury caused by the use of replica parts (non-original parts).

Damage and/or injury as well as violation of legal regulations caused by incorrect operation or misjudgement.

Damage and/or injury caused by damaged spare parts or not using original Yuneec Electric Aviation spare parts.

Damage and/or injury as well as violation of legal regulations caused by ignoring the low voltage battery warning.

Damage and/or injury caused by knowingly and negligibly flying with a damaged model or one which is unfit to fly, e.g. due to dirt, water penetration, coarse particles, oil or a model which has not been correctly or completely assembled or if the main components exhibit visible damage, defects or missing parts.

Damage and/or injury as well as violation of legal regulations caused by operating the model in a magnetic field (e.g. high voltage lines, electricity/transformer stations, radio towers, mobile phone masts etc.), a strong wireless signal environment, no-fly zones, poor visibility and in the event of vision impairments or other impacts on the pilot which are left unchecked etc...

Damage and/or injury brought about through a violation of the legal regulations for operating the model, in unsuitable weather conditions, e.g. rain, wind, snow, hail, storms, hurricanes etc.

Damage and/or injury as well as violation of legal regulations caused by force majeure, e.g. collision, fire, explosion, flooding, tsunami, landslide, avalanche, earthquake or other forces of nature.

Damage and/or injury as well as violation of legal regulations caused by the illegal or immoral use of the model, e.g. capturing videos or recording data which infringes upon/harms the privacy of other people.

Damage and/or injury as well as violation of legal regulations caused by incorrect use of the batteries, protection systems, chargers or aircraft.

Consequential damage caused by the incorrect operation of any kind of system components and accessory parts, especially memory cards, whereby image or video material from the camera can become defect.

Any non-compliance with legal obligations, personal injury, material damage and environmental damage caused by use and a failure to comply with the local laws and regulations.

Damage and/or injury as well as violation of legal regulations caused by hazardous use without sufficient practical experience.

Damage and/or injury as well as violation of legal regulations caused by flying in legally defined no-fly zones.
DISCLAIMER

Yuneec Electric Aviation cannot be held liable for any damage, injury or for use of the product in violation with legal regulations, especially in the following circumstances:

Damage and/or injury as well violation of legal regulations resulting from a failure to comply with the operating instructions or the instructions at www.yuneec.com, product information, user manual and other legally binding information.

Damage and/or injury as well violation of legal regulations brought about by the influence of alcohol, drugs, medication or other narcotics which may impact on the concentration of the user. The same applies to illnesses effecting the concentration of the user (dizziness, tiredness, nausea etc.) or other factors compromising mental and physical capabilities.

Intentionally caused damage, injury or violation of legal regulations.

Any request for compensation caused by an accident resulting from use of the product.

Damage and/or injury as well as violation of legal regulations caused by use of the product in a no-fly zone, e.g. next to an airfield, above a motorway or a natural conservation area. Malfunction of the product caused by retrofitting or replacement with components which did not come from Yuneec Electric Aviation.

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Damage and/or injury as well as violation of legal regulations caused by hazardous use without sufficient practical experience.

Damage and/or injury as well as violation of legal regulations caused by flying in legally defined no-fly zones.
Further losses which do not fall within the scope of use defined by Yuneec Electric Aviation as improper.
This product is designed for both professional use and personal, private use. The national and international laws and regulations in force as the time of taking off must be adhered to.

**FCC STATEMENT:**

This equipment has been tested and found to comply with the limits for 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 to an outlet on a circuit different from that to which the receiver is connected.

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

NOTE: 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:

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**RF EXPOSURE WARNING**

- This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

**IC RADIATION EXPOSURE STATEMENT FOR CANADA**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause
Further losses which do not fall within the scope of use defined by Yuneec Electric Aviation as improper.

This product is designed for both professional use and personal, private use. The national and international laws and regulations in force as the time of taking off must be adhered to.

FCC STATEMENT:

This equipment has been tested and found to comply with the limits for 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 to an outlet on a circuit different from that to which the receiver is connected.

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.

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— 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.

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

RF EXPOSURE WARNING

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC RADIATION EXPOSURE STATEMENT FOR CANADA

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment.
Yuneec Electric Aviation cannot be held liable for any damage, injury or for use of the product in violation with legal regulations, especially in the following circumstances:

Damage and/or injury as well violation of legal regulations resulting from a failure to comply with the operating instructions or the instructions at www.yuneec.com, product information, user manual and other legally binding information.

Damage and/or injury as well violation of legal regulations brought about by the influence of alcohol, drugs, medication or other narcotics which may impact on the concentration of the user. The same applies to illnesses effecting the concentration of the user (dizziness, tiredness, nausea etc.) or other factors compromising mental and physical capabilities.

Intentionally caused damage, injury or violation of legal regulations.

Any request for compensation caused by an accident resulting from use of the product.

Damage and/or injury as well as violation of legal regulations caused by use of the product in a no-fly zone, e.g. next to an airfield, above a motorway or a natural conservation area.

Malfunction of the product caused by retrofitting or replacement with components which did not come from Yuneec Electric Aviation.

Damage and/or injury caused by the use of replica parts (non-original parts).

Damage and/or injury as well as violation of legal regulations caused by incorrect operation or misjudgement.

Damage and/or injury caused by damaged spare parts or not using original Yuneec Electric Aviation spare parts.

Damage and/or injury as well as violation of legal regulations caused by ignoring the low voltage battery warning.

Damage and/or injury caused by knowingly and negligibly flying with a damaged model or one which is unfit to fly, e.g. due to dirt, water penetration, coarse particles, oil or a model which has not been correctly or completely assembled or if the main components exhibit visible damage, defects or missing parts.

Damage and/or injury caused by operating the model in a magnetic field (e.g. high voltage lines, electricity/transformer stations, radio towers, mobile phone masts etc.), a strong wireless signal environment, no-fly zones, poor visibility and in the event of vision impairments or other impacts on the pilot which are left unchecked etc.

Damage and/or injury brought about through a violation of the legal regulations for operating the model, in unsuitable weather conditions, e.g. rain, wind, snow, hail, storms, hurricanes etc.

Damage and/or injury as well as violation of legal regulations caused by force majeure, e.g. collision, fire, explosion, flooding, tsunami, landslide, avalanche, earthquake or other forces of nature.

Damage and/or injury as well as violation of legal regulations caused by the illegal or immoral use of the model, e.g. capturing videos or recording data which infringes upon/harms the privacy of other people.

Damage and/or injury as well as violation of legal regulations caused by incorrect use of the batteries, protection systems, chargers or aircraft.

Consequential damage caused by the incorrect operation of any kind of system components and accessory parts, especially memory cards, whereby image or video material from the camera can become defect.

Any non-compliance with legal obligations, personal injury, material damage and environmental damage caused by use and a failure to comply with the local laws and regulations.

Damage and/or injury as well as violation of legal regulations caused by hazardous use without sufficient practical experience.

Damage and/or injury as well as violation of legal regulations caused by flying in legally defined no-fly zones.

Undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment.
Damage and/or injury as well as violation of legal regulations caused by flying in legally defined no-fly zones.

Any non-compliance with legal obligations, personal injury, material damage and environmental consequences can become defect.

Consequential damage caused by the incorrect operation of any kind of system components and accessory parts, especially memory cards, whereby image or video material from the camera can become defect.

Malfunction of the product caused by retrofitting or replacement with components which did not comply with the operating instructions or the instructions at www.yuneec.com, product information, and in the event of vision impairments or other impacts on the pilot which are left unchecked etc...

Further losses which do not fall within the scope of use defined by Yuneec Electric Aviation cannot be held liable for any damage, injury or for use of the product in violation with legal regulations, especially in the following circumstances:

- Intentionally caused damage, injury or violation of legal regulations.
- Damage and/or injury caused by damaged spare parts or not using original Yuneec Electric parts.
- Damageand/or injury as well as violation of legal regulations caused by incorrect operation.
- Damage caused by the use of replica parts (non-original parts).
- Damage and/or injury caused by the illegal or immoral use of the model, e.g. capturing videos or recording data which infringes upon/harms the privacy of other people.
- Collision, fire, explosion, flooding, tsunami, landslide, avalanche, earthquake or other forces of nature.
- Damage and/or injury as well as violation of legal regulations caused by force majeure, e.g. mobile phone masts etc., a strong wireless signal environment, no-fly zones, poor visibility in a magnetic field (e.g. high voltage lines, electricity/transformer stations, radio towers, and accessory parts, especially memory cards, whereby image or video material from the camera can become defect.

Any request for compensation caused by an accident resulting from use of the product.

Intentionally caused damage, injury or violation of legal regulations.

Damage and/or injury as well violation of legal regulations resulting from a failure to comply with the operating instructions, product information, and in the event of vision impairments or other impacts on the pilot which are left unchecked etc...

Visible damage, defects or missing parts.