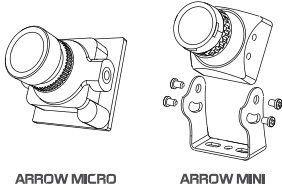




ARROW FPV CAMERA

Instruction Manual



ARROW MICRO

ARROW MINI

⚠ Attention: Camera is under preset mode, can not setup parameters, if you want to setup yours, long press top button to access the OSD menu, and change "MODE" to USR1 or USR2.

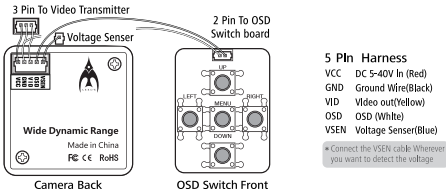
WARNING: Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

⚠ Age Recommendation:
Not for children under 14 years. This is not a toy.

NOTICE: This product is only intended for use with unmanned, hobby-grade, remote-controlled vehicles and aircraft. FOXEER disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

SUPPORT: Visit www.foxeer.com/ to get more information.

CAMERA-OSD SWITCH CONNECTION



CAUTION: If you are using ESC's with active braking, we recommend powering the camera system through a BEC or voltage regulator.

CAMERA-VIDEO TRANSMITTER CONNECTION

To connect the camera directly to the video transmitter, plug the 4 pin wiring harness from the video transmitter into the camera leaving the OSD pin open.

OSD MENU

MENU: Push MENU (center button) to go to the main menu.

UP/DOWN: Move up and down through the menu.

Left/Right: Modify the menu parameters.

FPV OSD Setup

1. Long press left button to move user name position.
2. Long press right button to move time position.
3. Long press bottom button to move voltage position.

4. Press top button for 5s, you can access OSD menu.

- (1) **FOXEER:** Click center button to setup your name.
- (2) **RATIO:** This is used to adjust the OSD voltage, if you found the input voltage is different with OSD voltage, you can adjust it, default value is 100, range is from 50~200, that means the voltage range can be half or 2 times of the current voltage.
- (3) **MODE:** DEF, VIVID, SUNNY, CLOUDY, USR1, USR2. If in DEF, VIVID, SUNNY and CLOUDY mode, you can not setup the camera, because we already did it, if you want to use your own setup, you can turn to USR1 and USR2 ,then setup .
- (4) **FONT:** S0, S1, S2. S0 is the smallest font.
- (5) **Name:** ON/OFF
- (6) **TIME:** ON/OFF
- (7) **POWER:** ON/ONL/OFF. ONL is low voltage alarm mode, you can setup the alarm boundary, click ONL, the value show the single battery alarm bountry, you can change it according to your requirements .

FOXEER	
RATIO	100
MODE	DEF
FONT	S0
NAME	ON
TIME	ON
POWER	ON
DEFAULT	↓
EXIT	

FOXEER										
0	1	2	3	4	5	6	7	8	9	
A	B	C	D	E	F	G	H	I	J	K
L	M	N	O	P	Q	R	T	U	V	
W	X	Y	Z	()	. < > /					
PRV	:									NEXT
DEL	:									EXIT

(4) FONT: S0, S1, S2. S0 is the smallest font.

(5) Name: ON/OFF

(6) TIME: ON/OFF

(7) **POWER:** ON/ONL/OFF. ONL is low voltage alarm mode, you can setup the alarm boundary, click ONL, the value show the single battery alarm bountry, you can change it according to your requirements .

POWER		ONL
BAT LOW	:	3.30V

(8) DEFAULT

(9) EXIT

1. Lens

This function is used to adjust the brightness of the screen.

1. **MANUAL:** For use with a manual iris lens.
2. **DC:** For use with a DC drive auto iris lens.
3. **VIDEO:** For use with a video drive auto iris lens.

SETUP		MANUAL
LENS		
EXPOSURE		↓
WHITE BAL		ATW1
BACKLIGHT		AUTO
DAY/NIGHT		AUTO
SPECIAL		↓
DPC		↓
RESET		↓
EXIT		

2. EXPOSURE

1.SHUTTER- Condition and speed control

- **Auto:** Shutter speed is controlled automatically according to the brightness of the scene.
- **FIXED:** Select shutter speeds from 1/50 to 1/100000.
- **FLK:** Select when flickering occurs due to imbalance between illumination and frequency. PAL Mode: 1/100, NTSC Mode: 1/120.

SETUP		MANUAL
LENS		
EXPOSURE		↓
WHITE BAL		ATW1
BACKLIGHT		OFF
DAY/NIGHT		AUTO
SPECIAL		↓
DPC		↓
RESET		↓
EXIT		

2. **BRIGHTNESS-** Adjust brightness from 0-255

3. **AGC-** Depending on lightness of surroundings select HIGH, MID, LOW or OFF.

EXPOSURE		AUTO
SHUTTER		
BRIGHTNESS		050
AGC		----
DWDR		OFF
RETURN		RET.J

4. **DWDR-** Depending on lightness of surroundings turn OFF or ON (Adjust brightness from 0-63).

3. BACKLIGHT

1. BLC (Backlight Compensation)

Use when there is a strong backlight behind the object, clear images of the background as well as the object can still be obtained.

SETUP		
LENS	SETUP	MANUAL
EXPOSURE		↓
WHITE BAL		ATW1
▶ BACKLIGHT		OFF
DAY&NIGHT		AUTO
SPECIAL		↓
DPC		↓
RESET		↓
EXIT		↓

2. HLC

Adjust level from 0~255. There are two options: night only, all day.

4 WHITE BAL (WHITE BALANCE)

1. ATW (Auto Tracking White Balance)-Ideal for color temps from 1800°K ~10500°K (fluorescent light, outdoor, sodium vapor lamp, etc.)

2. MANUAL- Select ATW and change to Manual mode.

- Red 0~255
- Blue 0~255

Select RETURN when finished.

SETUP		
LENS	SETUP	MANUAL
EXPOSURE		↓
▶ WHITE BAL		ATW1
BACKLIGHT		OFF
DAY&NIGHT		AUTO
SPECIAL		↓
DPC		↓
RESET		↓
EXIT		↓

5.Day & Night

Day & Night switch is specially designed for different occasions. There are four kinds of modes.

- Auto mode
- Color mode
- B/W mode
- External switch

1. Color to B/W

When in External Control this can't be adjusted. This is color to B/W accumulated light intensity, when it reach "alternating light" state, camera could be damaged by frequent switch. It might cause to not correct judgment of image and reduction of span life of the device.

2. B/W TO COLOR

When in External Control this can't be adjusted. This is B/W to color accumulated light intensity, when it reach "alternating light" state, camera could be damaged by frequent switch. It might cause to not correct judgment of image and reduction of span life of the device.

SETUP		
LENS	SETUP	MANUAL
EXPOSURE		↓
WHITE BAL		ATW1
BACKLIGHT		OFF
▶ DAY&NIGHT		AUTO
SPECIAL		↓
DPC		↓
RESET		↓
EXIT		↓

3. DELAY TIME

Delay before color state begins to alternate.

6. SPECIAL

1. CAM Title - Set the title background

2. MOITON - Motion detection

Choose the area and press ENTER to confirm. The color of the chosen area will change. Repeat to choose other areas. After 1 second of inactivity it will move to the next menu item.

SETUP		
LENS	SETUP	MANUAL
EXPOSURE		↓
WHITE BAL		ATW1
BACKLIGHT		OFF
DAY&NIGHT		AUTO
▶ SPECIAL		↓
DPC		↓
RESET		↓
EXIT		↓

3. PRIVACY - Conceal the areas(OFF/ON)

Conceal the areas where you don't wish to appear on the screen.

- (1) AREA SEL: Set 4 privacy areas.
- (2) AREA STATE: Select AREA STATE ON to conceal AREA selected. OFF to disable Privacy.
- (3) LEFT/RIGHT/TOP/BOTTOM: Set the dimension of each privacy area by slider.
- (4) COLOR: Select the color of each privacy area by slider.
- (5) RETRUN: Return to previous menu.

4. PARK LINE - OFF/ON

5. IMAGE ADJ

- (1) Lens sharp: OFF/ON, adjust from 0~255
- (2) 2DNR: OFF/ON
- (3) Mirror: OFF/ON
- (4) FONT COLOR: Adjusted from 0 to 51
- (5) CONTRASR: Adjusted from 0 to 255
- (6) SHARPNESS: Adjusted from 0 to 255
- (7) DISPLAY CRT/LCD
- (8) NEG IMAGE: OFF/ON

6. COMM ADJ

- (1) CAM ID: Set camera ID from 0~255
- (2) BAUD RATE: Set camera communication speed from 2400 to 38400
- (3) PROTOCOL
- (4) DISPLAY ID: OFF/ON
- (5) ID POS

COMM ADJ			
▶ CAM ID			001
BAUD RATE			4800
PROTOCOL			PELCO-D
DISPLAY ID			OFF
ID POS			↓
RETURN			RET ↓

7. LANGUAGE

ENGLISH/CHINESE

8. VERSION

9.RETURN

7. DPC

Set the black point and white point as auto-completion-point numbers.

SETUP		
LENS	SETUP	MANUAL
EXPOSURE		↓
WHITE BAL		ATW1
BACKLIGHT		OFF
DAY&NIGHT		AUTO
SPECIAL		↓
▶ DPC		↓
RESET		↓
EXIT		↓

8. RESET

1. FACTORY

Return to camera's initial setting.

2. RETURN

SETUP		
LENS	SETUP	MANUAL
EXPOSURE		↓
WHITE BAL		ATW1
BACKLIGHT		OFF
DAY&NIGHT		AUTO
SPECIAL		↓
DPC		↓
▶ RESET		↓
EXIT		↓

9. EXIT

Save all settings and exit to Main Menu.