Hawkeye Litle Pilot Sharp Vision 2

7 inch 1000LUX FPV Monitor, DVR, HDMI
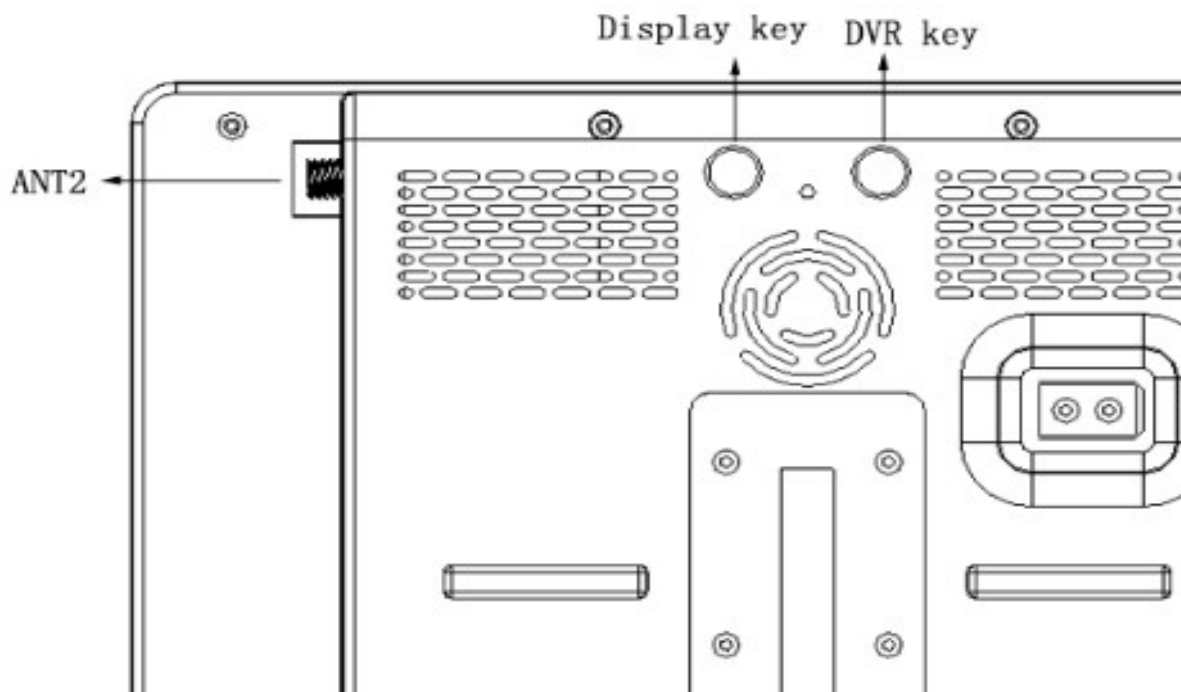
User Manual

Specifications and Features:

	Display resolution	1024×600
	Backlight	LED
LED Screen	Brightness	1000 Lux
	Aspect ratio	4：3
	Response time	10ms
	Color system	PAL/NTSC
Power Supply	Working voltage	DC：3S-6S battery
	Current	820MA @3S；410MA @6S
Input	Signal	Video（PAL/NTSC），HDMI
Output	Signal	Video
DVR	Resolution	D1/VGA/QVGA
	TF card supported	Max 64G
Specification	Packing size	205mm×130mm×105mm
	Monitor size	183mm×122mm×30mm
	Gross weight	0.58kg
	5.8G Sensitivity	-99dB
Matching antenna interface	interface	SMA

Features:

Specially designed for aerial photography system, Sharp Vision Ⅱ all-in-one monitor has the following features:
- ✓ **High brightness**: 1000 Lux.
- ✓ **Dual receiver**: built-in dual receivers.
- ✓ **DVR** : integrated DVR black box can run in the background for recording.
- ✓ **No delay/anti blue screen/anti black screen**: the built-in DVR system won't cause any delay in receiving signal; blue screen or black screen will definitely not occur.
- ✓ **Auto/manual channel scan:** no need for DIP switch.
- ✓ **HDMI input.**

Button Functions:

At the back of the monitor, there are 2 groups of buttons, one for DVR control and the other for display control.
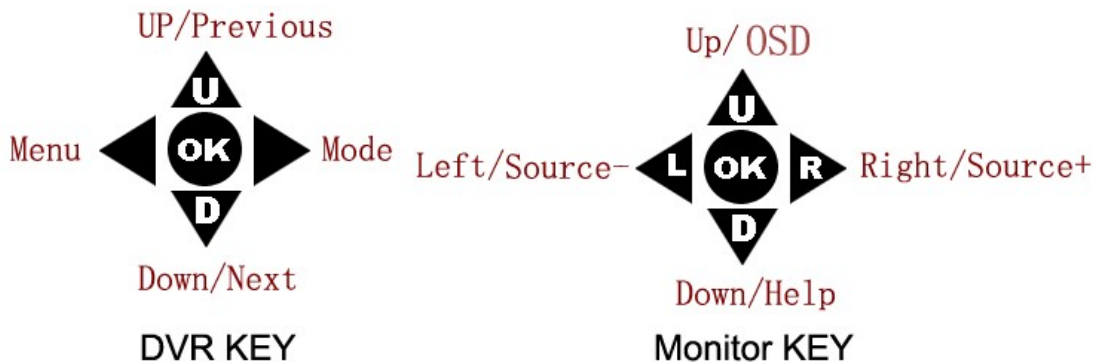
DVR Control Buttons:

	Functions
	Functions
UP	Move cursor up
DOWN	Move cursor down
MENU (left button)	Po pup/exit menu/sub menu
MODE (right button)	Enter/exit video playback mode
OK	Confirm selection /play/stop

Display Control Buttons:

	Functions	Shortcut key
UP	Move cursor up	Hiding OSD/ Press 2 seconds for Auto channel search in FPV
DOWN	Move cursor down	Popping up HELP menu
LEFT/ -	Adjustment key(-)	Popping up former interface
Right/+	Adjustment key(+)	Popping up next interface
OK	Po pup menu/confirm selections	

Note: Four display resource types of this monitor are: **FPV interface, DVR interface ,
External video input interface and HDMI interface.Use LETF key(shortcut key)
to switch the interface.**

FPV Interface Descriptions

FPV interface is the default boot interface.

Voltage   Time   RSSI/Channel in use

11.5	00:30	25	20	1
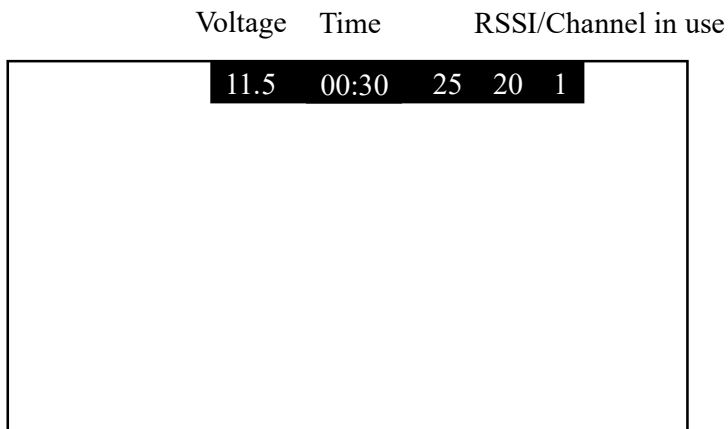
Voltage indicator: input voltage value is displayed; Display from 10V to 26 V. When
the battery is low, the menu turns red and starts flashing. When the battery is too low,
the blue light flashes faster and faster in the lower left corner and the buzzer alarms.
Please replace the battery immediately to avoid damage to the battery.
Recording indicator: a red "R" flashes when DVR is working in the background.
Time indicator: monitor running time is displayed.
Signal strength indicator: the strength of both the signals received by ANT1 and
ANT2 is displayed.

DVR Interface :

11.5	00:30	DVR

External video input Interface:

```
11.5    00:30      AV3
```

HDMI   Interface:

```
11.5    00:30      HDMI
```

HDMI input :480i/p, 576i/p, 720p, 1080i/p.

Display Interface Setting:

Press OK button to po pup menu setting:

```
FRQA         SCAN
FRQB     A1   5645
FRQADJ       OFF
FORMAT     AUTO
BRI          20
CON          20
SAT          20
SHARP        07
GAMA         C0
SPEAKER      ON
LIGHT        20
ZOOM        16:9
VOLADJ     +0.0V
LAN          EN
RESET
EXIT
```

Frequency Group Selection:

1.1 You can manually select the desired frequency from 12 groups: A, B, E,F,R ,L,J,X,U,I,K and Z or select SCAN option to start auto search.

Dual 5.8G receivers cover 96 channels:

	Conventional 常规						Extended 扩展					
	A	**B**	**E**	**F**	**R**	**L**	**J**	**X**	**U**	**I**	**K**	**Z**
1	5645	5740	5725	5733	5658	5362	4867	4990	5325	5333	5960	6002
2	5665	5760	5745	5752	5695	5399	4884	5020	5348	5373	5980	6028
3	5865	5780	5765	5771	5732	5436	4921	5050	5366	5413	6000	6054
4	5705	5800	5785	5790	5769	5473	4958	5080	5384	5453	6020	6080
5	5885	5820	5805	5809	5806	5510	4995	5110	5402	5493	6040	6106
6	5905	5840	5825	5828	5843	5547	5032	5140	5420	5533	6060	6132
7	5925	5860	5845	5847	5880	5584	5069	5170	5438	5573	6080	6158
8	5945	5880	5865	5866	5917	5621	5099	5200	5456	5613	6100	6184

（**Note: Currently, only data between 4.867G and 6.10 0G is supported**）

1.2 You can manually input the frequency, The specific operation steps are as follows:

```
FRQA        INPUT
FRQB        5645            BETWEEN  4867  AND  6100
FRQADJ       OFF
FORMAT      AUTO
BRI         20
CON         20
SAT         20
SHARP       07
GAMA        C0
SPEAKER     20
LIGHT       20
ZOOM        16:9
VOLADJ      +0.0V
LAN         EN
RESET
EXIT
```

Firstly, select " INPUT " in the FRQA option, then select the FRQB option, and confirm with "OK" to enter the frequency point input mode.

if the current displayed frequency is 5645 and you are preparing to change it to 5665, you can use the buttons "OK", "UP", and "DOWM" to select the desired frequency. Press "OK" to select the frequency position, and press "UP" and "DOWM" to select the desired value. After all inputs are completed, press "OK" to confirm.

Note: Currently, only frequencies between 4.867G and 6.100G are supported. If not within this range, the prompt bar will turn red and the setting will not be successful. Please re-enter.

Frequency fine-tuning:

FRQ	RSSI
5635	03
5637	03
5639	03
5641	03
5643	03
5645	90
5647	95
5649	03
5651	50
5653	30
5655	03

Control buttons: LEFT (-), RIGHT (+).Range，At this time, the frequency points that are similar to the current frequency are displayed. According to the signal strength, you can use the up and down keys to select, and the menu key to confirm the selection.

FORMAT:
Press LEFT or RIGHT button to enter system setting, 3 options are provided: AUTO/ PAL/NTSC. If AUTO selected, the input video system will be automatically identified. System setting will cause display failure.

Brightness:
Control buttons: LEFT (-), RIGHT (+).Range: 1-40.
Contrast:
Control buttons: LEFT (-), RIGHT (+).Range: 1-40.
Saturation:
Control buttons: LEFT (-), RIGHT (+).Range: 1-40.
Sharp:
Control buttons: LEFT (-), RIGHT (+).Range: 1-15.
Latitude:
Control buttons: LEFT (-), RIGHT (+).Range: C1-C3.
SPEAKER:
Adjust the SPEAKER, ON/ OFF.
Black light:
Adjust LED light brightness, Auto, High, Low.

ZOOM:

Press LEFT or RIGHT button to enter system setting, 16:9 / 4:3

VOLADJ:

Control buttons: LEFT (-), RIGHT (+).Range: -0.5 to +0.5

LED:

Adjust the power indicator light, ON/ OFF.

Language:

Control buttons: LEFT (-), RIGHT (+).Options: Chinese/English.

Reset:

Reset values to default.

DVR Interface Descriptions:

Note：Please back up your data in TF card; when the TF card is used for the first time, it will be auto formated .

Pressing RIGHT button can switch FPV interface to DVR interface and pressing

LEFT button can switch back to FPV interface.

Video Playback

First, switch to the DVR interface, pressing MODE (RIGHT) button can start video playback. Press UP or DOWN button to select a desired file, then press OK button to start playing it.

	Functions
UP	Move cursor up
DOWN	Move cursor down
MENU (LEFT)	Po pup/exit menu/sub menu
MODE (RIGHT)	Enter/exit video playback mode
OK	Confirm selection /play/stop

DVR can run front-end or back-end. In any interface except DVR setting and video playback mode, pressing OK button (middle one of DVR control group) can start recording in the background, without affecting FPV use.

Recording Settings:

Press MENU button to select sub menu:

```
 ┌──────────────────────────┐
 │ ▭ ⚒▪▪          Video     │
 ├──────────────────────────┤
 │ MP    Resolution         │
 │ ▭     Cycle Recording    │
 │ ▭     Motion Detection   │
 │ E                        │
 │ ♟     Date Stamp         │
 │ MENU                     │
 └──────────────────────────┘
```
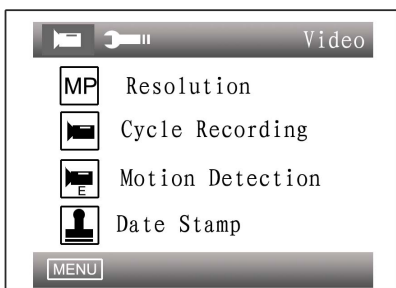
Resolution:

D1(720×576（PAL）），720×480（NTSC）),VGA(640×480) QVGA（320×240）.

```
 ┌──────────────────────────┐
 │ ▭ ⚒▪▪          Video     │
 ├──────────────────────────┤
 │      ┌──────────────┐     │
 │      │      D1      │     │
 │      └──────────────┘     │
 │            VGA            │
 │            QVGA           │
 │                          │
 │ MENU                     │
 └──────────────────────────┘
```
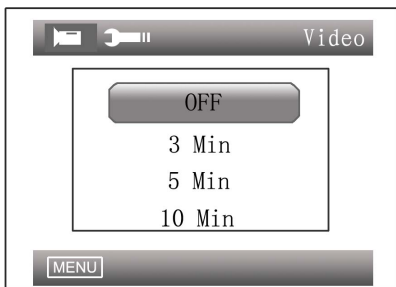
Cycle Recording:

If Cycle Recording is selected, the latest videos recorded will cover the earliest ones when the TF card is full.

"OFF": if Cycle Recording function is closed, video files will not be cut into small segments;

If you select 3 min to 10 min, Cycle Recording function is open then; the length of each video segment is corresponding to the selected value.

```
 ┌──────────────────────────┐
 │ ▭ ⚒▪▪          Video     │
 ├──────────────────────────┤
 │      ┌──────────────┐     │
 │      │     OFF      │     │
 │      └──────────────┘     │
 │           3 Min           │
 │           5 Min           │
 │          10 Min           │
 │ MENU                     │
 └──────────────────────────┘
```

Motion Detection:

If Motion Detection is selected, the DVR will automatically start recording according to its internal algorithm when any motion is detected.
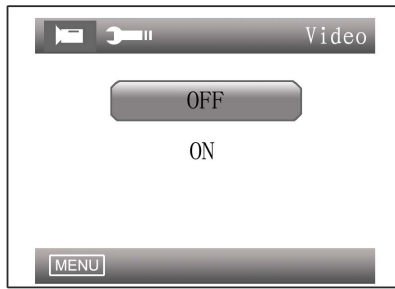
Motion Detection Sensitivity:

Motion Detection Sensitivity can be adjusted by 3 levels: High/Medium/Low; the higher level is selected, the more easily the DVR is triggered to record.

Date Stamp:

Select ON/OFF to decide whether date and time will be showed at the bottom of the video images.

Audio Acquisition:

Select ON/Off to decide whether sounds can be recorded real-time into video files.
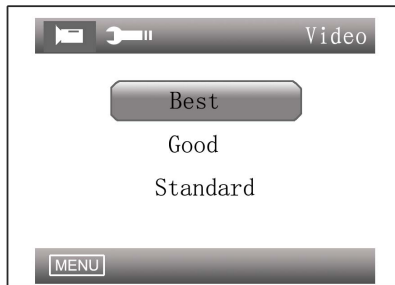
Image Quality:

Image definition and video file size can be adjusted by 3 levels. Higher image quality results in higher image definition and larger video file;

When resolution D1(720×576（PAL）) is selected, the file sizes of videos recorded at different Image Quality options are as follows:

Best: 1.7G/h

Good: 1.2G/h

Standard: 800M/h

Auto power up recording:

Select YES/ON to decide whether videos need to be auto recorded when power up.

Advanced Settings:

Press the MENU button twice will pop up the Advanced Setting options including Format, Date/Time and Language.
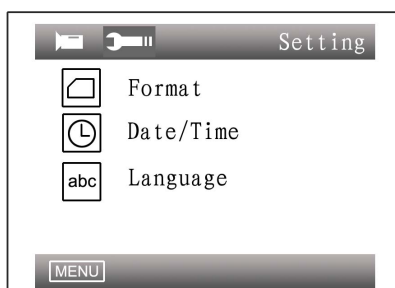
Format:

Enter Advanced Settings, and select Format option to format the TF card. In order to optimize the file system ,DVR will format the TF card, if it's used for the first time; **Please back up your data in TF Card.**

Note: all files stored in the TF card will be deleted after the card is formatted.

```
┌─────────────────────────────┐
│ ▭  ⚉▥        Setting         │
│                             │
│     ┌─────────────┐         │
│     │   TF Card   │         │
│     └─────────────┘         │
│                             │
│                             │
│ ┌──────┐                    │
│ │ MENU │                    │
│ └──────┘                    │
└─────────────────────────────┘
```
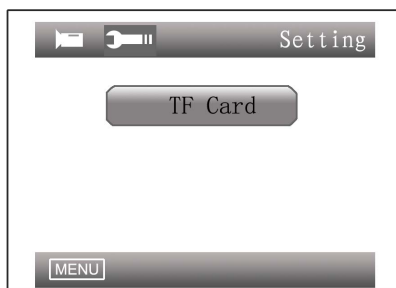
Date/Time:

Enter Advanced Settings → select Date/Time option → press UP/DOWN button to select a desired date/time → press MENU button to exit.

```
┌─────────────────────────────┐
│ ▭  ⚉▥        Setting         │
│                             │
│      2013 /  1  /   1        │
│                             │
│       10  :  1  :   1        │
│                             │
│       YY/MM/DD              │
│ ┌──────┐                    │
│ │ MENU │                    │
│ └──────┘                    │
└─────────────────────────────┘
```

Language:

Enter Advanced Settings → select Language option → press UP/DOWN button to select a desired language from 8 languages provided → press MENU button to exit.
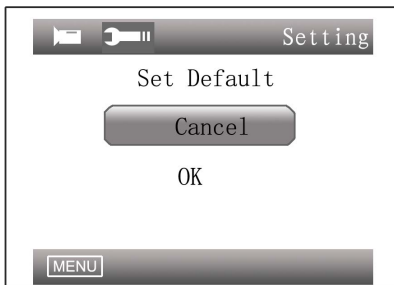
```
┌─────────────────────────────┐
│ ▭  ⚉▥        Setting         │
│                             │
│     ┌─────────────┐         │
│     │   English   │         │
│     └─────────────┘         │
│        简体中文              │
│        繁體中文              │
│        Portuges             │
│ ┌──────┐                    │
│ │ MENU │                    │
│ └──────┘                    │
└─────────────────────────────┘
```

TV Mode:

Video output system can be selected and video input system will be automatically identified. Select the system according to which country you are in.（Keep it in PAL, do not change）

Default Settings:

This option leads back to factory default settings.

Quick Access Descriptions:

In any mode except menu setting, Monitor keys can be used as shortcuts described as follows:

Interface Switch:

Pressing RIGHT/LEFT button can switch between FPV, DVR, external video interfaces and HDMI interfaces.

Show/Hide Indication Windows:

In any interface, pressing UP button (of the display control group) once can hide the indication windows, and pressing UP again can show them again.

Show Help Menu:

In any interface, pressing DOWN button (of the display control group) can show Help menu, pressing DOWN again can make it disappear.

The power indicator light:

When the system starts, if the power indicator is on, it indicates that the power is on.

In any of the FPV, DVR and external video interfaces ，When recording, the LED will flash.

When the battery is too low and the system alarms, the LED will flash.

Packing and Accessories：

Size and Weight:

Specification	Packing size	205mm×130mm×105mm
	Gross weight（dual receiver + DVR）	0.58kg

Accessories:

Accessories	3.5mm connector cable	1
	5.8G antenna	2
	Bandage	2

3.5mm cable Interface descriptions	Yellow	Video output
	White	Video input
	Red	Audio output

FAQ:

Not able to search channels automatically:
- Auto channel scan only functions in the FPV interface. In the DVR interface, users should search channels manually.

The video displayed is black-and-white:
- Check whether the camera output is black-and-white (some cameras might automatically shift to black-and-white in low-light conditions)

Can not start after connected to power:
- First fully charge the battery, and make sure its discharge current at least reaches 1.4A. Check whether the battery power is enough.
- Check whether the power source is correctly connected to positive

No channel can be received:
- Install antennas, and move the monitor close to the 5.8 GHz transmitter.
- Connect video signal to the transmitter.
- Check whether the channel provided by the transmitter is one of those listed in the channels-able-to-be-received-table; check with other channels.

<u>NOTE:</u>

Check on www.CNfpv.com for new firmware/Manual updates.

For more information please check our

**Youtube/Facebook/Instagram** channel:

 **HawkeyeFPV**

**Youtube**   _**Facebook**_

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