Ver 2.3

Sharp Vision FPV Ground Station

(7-inch high bright LED monitor with built-in 5.8G dual receiver and DVR)
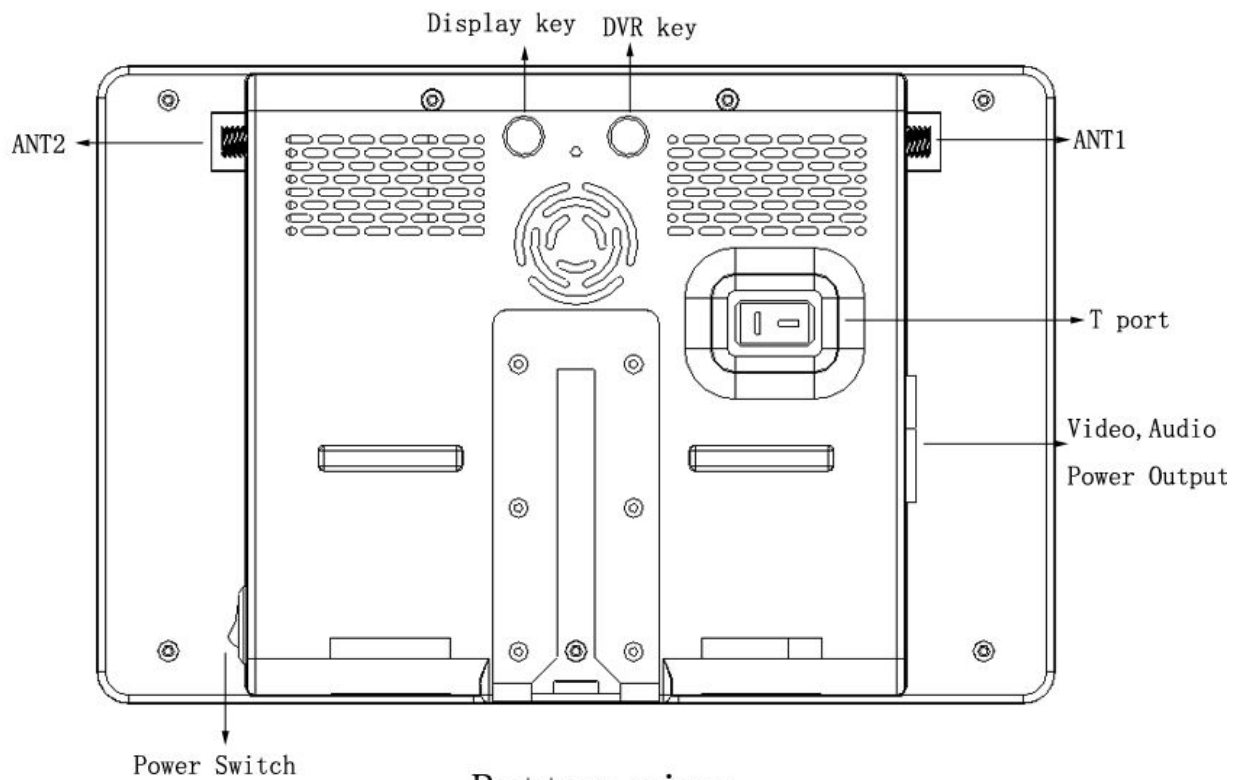
User Manual
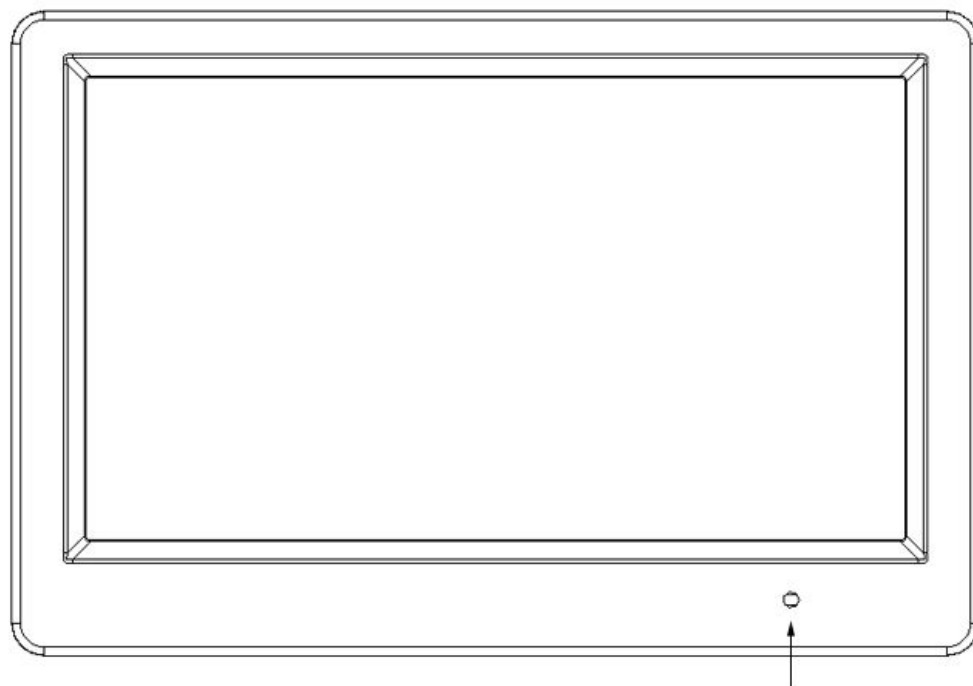
Specifications and Features:

Display key   DVR key

ANT2

ANT1

T port

Video,Audio
Power Output

Power Switch

Bottom view

State LED

Top View

4

単位:mm

LED Screen	Display resolution	800×480
	Backlight	LED
	Brightness	700 Lux
	Aspect ratio	16：9
	Response time	10ms
	Color system	PAL/NTSC
Power Supply	Working voltage	DC：2S-6S battery
	Current	850MA @ 12V
Input	Signal	Video（PAL/NTSC），Audio
Output	Signal	Video，Audio
	12V(input power >12V)	100mA
DVR	Resolution	D1/VGA/QVGA
	TF card supported	Max 32G
Specification	Packing size	205mm×130mm×106mm
	Monitor size	183mm×121mm×31mm
	Gross weight	0.66kg
	5.8G Sensitivity	-94dB
Matching antenna interface	interface	RP-SMA
5.8G	Sensitivity	-93db

Features:

Specially designed for aerial photography system, Sharp Vision all-in-one monitor has the following features:
- ✓ High brightness: 700 Lux.
- ✓ Dual receiver: built-in dual receivers.
- ✓ DVR black box background system: 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.

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 KEY

Monitor KEY
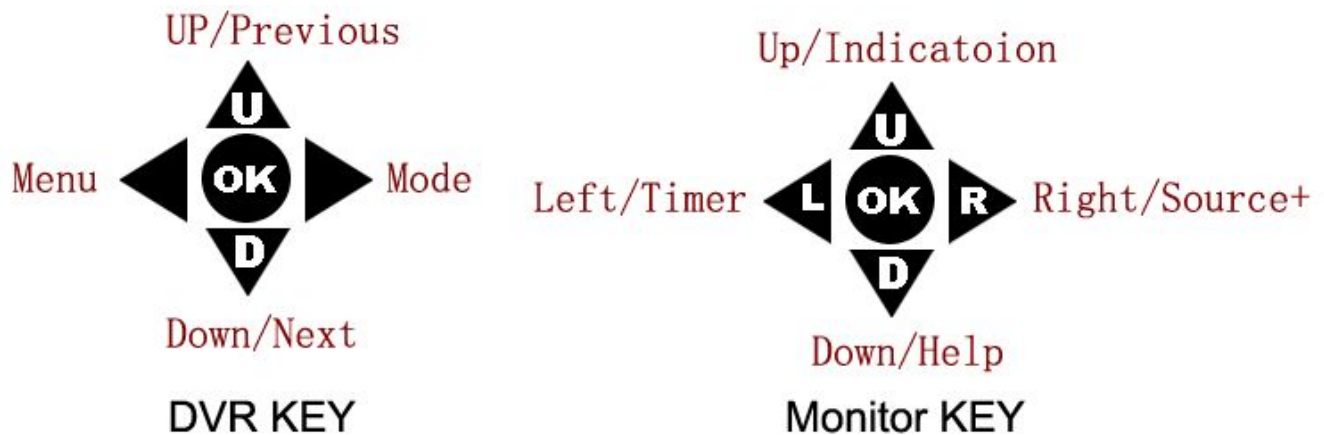
DVR Control Buttons:

	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	Quick Access to
UP	Move cursor up	Hiding indication windows
DOWN	Move cursor down	Popping up HELP menu
LEFT/ -	Adjustment key(-)	Popping up former interface/ pausing time/resetting time if long press
Right/+	Adjustment key(+)	Popping up next interface
OK	Po pup menu/confirm selections	-

Note: Three display resource types of this monitor are: **FPV interface**, **DVR interface** and **External video input 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 6.5V to 12.8V.

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 (IF Have):

11.5	00:30	25 20 1

External video input Interface (IF Have):

11.5	00:30	AV3

Display Interface Setting:

Press OK button to po pup menu setting:

```
FRQA        SCAN
FRQB        A 5760
FORMAT      AUTO
VOL         20
GAMA        C0
BRI         20
CON         20
SAT         20
BURST       P0
LAN         CN
LIGHT       AUTO
RESET
EXIT
```

Frequency Group Selection:

You can manually select the desired frequency from 4 groups: A, B, C and D, or select SCAN option to start auto search.

```
SCAN
YES   NO
```

Press LEFT, RIGHT or OK button to stop searching.

Dual 5.8G receivers cover 32channels:

A1: 5.645G	B1: 5.740G	C1: 5.725G	D1: 5.733G
A2: 5.665G	B2: 5.760G	C2: 5.745G	D2: 5.752G
A3: 5.865G	B3: 5.780G	C3: 5.765G	D3: 5.771G
A4: 5.705G	B4: 5.800G	C4: 5.785G	D4: 5.790G
A5: 5.885G	B5: 5.820G	C5: 5.805G	D5: 5.809G
A6: 5.905G	B6: 5.840G	C6: 5.825G	D6: 5.828G
A7: 5.925G	B7: 5.860G	C7: 5.845G	D7: 5.847G
A8: 5.945G	B8: 5.860G	C8: 5.865G	D8: 5.866G

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.

Volume:

Control buttons: LEFT (-), RIGHT (+).Range: 1 to 40.

Latitude:

Control buttons: LEFT (-), RIGHT (+).Range: C1-C3.

Brightness:

Control buttons: LEFT (-), RIGHT (+).Range: 1-40.

Contrast:

Control buttons: LEFT (-), RIGHT (+).Range: 1-40.

Saturation:

Control buttons: LEFT (-), RIGHT (+).Range: 1-40.

Burst:

Adjust Color Burst to get colorful image. Control buttons: LEFT (-), RIGHT (+).Range: P0-P7.

Black light:

Adjust LED light brightness, Auto, High, Low.

Reset:

Reset values to default.

Language:

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

DVR Interface Descriptions(IF Have):

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:
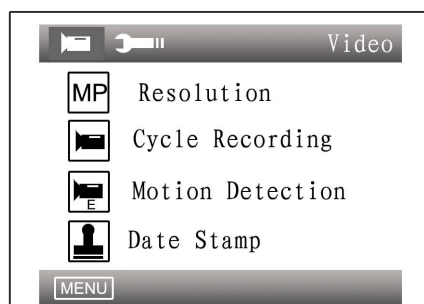
Resolution:

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.

```
┌─────────────────────────────┐
│ ▭ ⚲▬▮      Video            │
│  ┌───────────────────────┐  │
│  │   ╭─────────────╮     │  │
│  │   │    OFF      │     │  │
│  │   ╰─────────────╯     │  │
│  │       ON            │  │
│  │                     │  │
│  └───────────────────────┘  │
│  ▭MENU▭                     │
└─────────────────────────────┘
```

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.
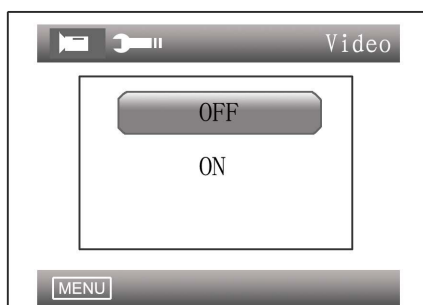
Audio Acquisition:

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

```
┌─────────────────────────────────┐
│ ▣ ⚲▮                     Video   │
│                                 │
│        ┌──────────────┐         │
│        │    Best      │         │
│        └──────────────┘         │
│            Good                 │
│          Standard               │
│                                 │
│ ┌──────┐                        │
│ │ MENU │                        │
│ └──────┘                        │
└─────────────────────────────────┘
```
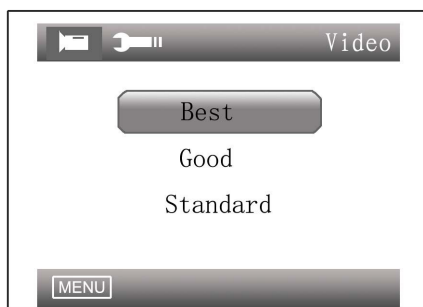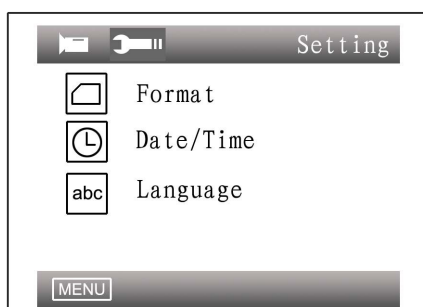
Auto power up recording:

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

Advanced Settings:

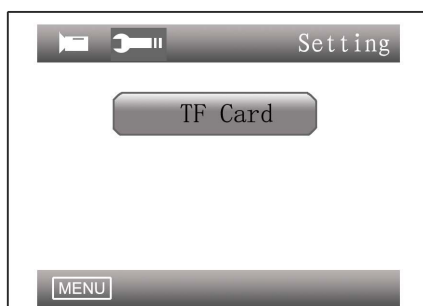Press the MENU button twice will pop up the Advanced Setting options including Format, Date/Time and Language.

```
┌─────────────────────────────────┐
│ ▣ ⚲▮                   Setting   │
│  ┌──┐                            │
│  │▢ │   Format                   │
│  └──┘                            │
│  ┌──┐                            │
│  │🕐│   Date/Time                │
│  └──┘                            │
│  ┌──┐                            │
│  │abc│  Language                 │
│  └──┘                            │
│ ┌──────┐                        │
│ │ MENU │                        │
│ └──────┘                        │
└─────────────────────────────────┘
```
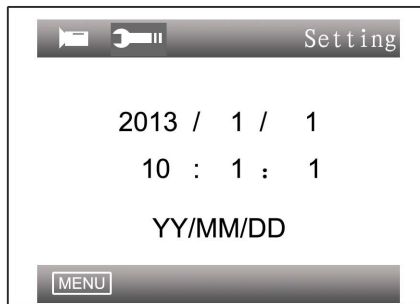
Format:

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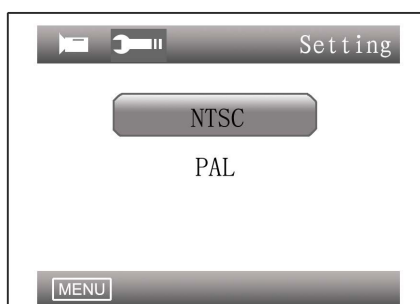
Enter Advanced Settings → select Date/Time option → press UP/DOWN button to select a desired date/time → press MENU button to exit.

```
┌─────────────────────────────┐
│ ▶  ▣━ll          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.

```
┌─────────────────────────────┐
│ ▶  ▣━ll          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)

```
┌─────────────────────────────┐
│ ▶  ▣━ll          Setting    │
│                             │
│         NTSC                │
│         PAL                 │
│                             │
│                             │
│ MENU                        │
└─────────────────────────────┘
```

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 button can switch between FPV, DVR and external video interfaces.

Timer Stop/Start:

In the FPV or external video interface, pressing LEFT button (of the display control group) once can stop the timer, and pressing LEFT again can restart it.

Reset Timer:

In the FPV or external video interface, long pressing LEFT button (of the display control group) can reset the timer. The time displayed will restart from zero.

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.

Packing and Accessories:

Size and Weight:

	Packing size	205mm×130mm×106mm
Specification	Gross weight (dual receiver + DVR)	0.66kg

Accessories:

Accessories	Light blocking drape	1
	Velcro cable tie	1
	Female T-plug to male XT60 plug connector cable	1
	Female to female T-plug connector extension cable	1
	AV input/output cable	1
	Power supply output cable	1
Interface descriptions	Yellow	Video input
	Red	Audio input
	Black	Video output
	White	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)
- If it normally displays in full color in the DVR interface, users can adjust the "BURST"in menu from P0 to P7.

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. If a 2S battery is being used, try a 3S battery for testing.
- Check whether it is caused by poor contact of the T-plug and battery cable.
- Check whether the power source is correctly connected to positive and negative poles.
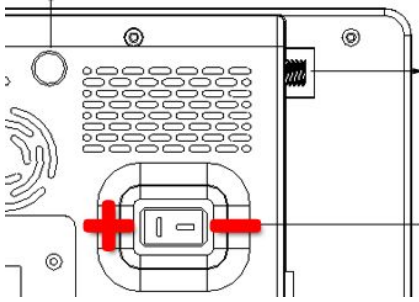
No channel can be received:

- 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.

Volume is too low:

- Turn it to full volume.
- Check whether the microphone of the transmitter works well.