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PRODUCT WARNING

IF YOU CANNOT ACCEPT THE FOLLOWING LIMITATIONS DO NOT BUY THIS PRODUCT OR RETURN UNUSED IMMEDIATELY:

THE RCV922AE 2.4GHZ HEADSET WILL ACCEPT INTERFERENCE FROM OTHER 2.4 GHZ DEVICES. THIS IS NOT A DEFECT; THIS IS AN FCC REQUIREMENT (PART 15) OF LICENCE FREE DEVICES. THIS PRODUCT SHARES THE SAME BANDWIDTH OF A MULTITUDE OF 2.4 GHZ PRODUCTS AND THE RCV922 OPERATING ABILITY WILL BE AFFECTED BY THE PRESENCE OF OTHER 2.4 GHZ DEVICES.

THE RCV922AE 5.8GHZ HEADSET WILL ACCEPT INTERFERENCE FROM OTHER 5.8 GHZ DEVICES. THIS IS NOT A DEFECT; THIS IS AN FCC REQUIREMENT (PART 15) OF LICENCE FREE DEVICES. THIS DEVICE WILL BE AFFECTED BY THE PRESENCE OF OTHER 5.8 GHZ DEVICES.

PRODUCT CANNOT BE DEEMED DEFECTIVE DUE TO INTERFERENCE WITH OTHER DEVICES. THIS IS BEYOND THE CONTROL OF THE MANUFACTURER.

DO NOT LEAVE HEADSET EXPOSED TO DIRECT SUNLIGHT. SUNLIGHT WILL MAGNIFY THROUGH THE OPTICS AND BURN HOLES IN THE LCD SCREEN.

THIS WILL NOT BE COVERED BY WARRANTY.

KEEP GOGGLES IN PROTECTIVE BAG WHEN NOT IN USE

RCV922 Wireless Video Glasses



Please read before operating this device

Congratulations on purchasing the Fat Shark RCV922 Aviator Edition wireless video glasses. To ensure your continued enjoyment, please take the time to read through this operating manual before using.

Safety Precautions:

1. Used the enclosed charger for charging the batteries. It is specially designed to charge Lithium Polymer batteries.
2. When wearing the glasses you don't have any visual reference and you may experience vertigo. Best to use when sitting down or leaning up against something.

Charging Instructions

This unit comes with a 7.4V, 900mAh lithium polymer battery. This will power the video headset for approximately 1.5hr in wireless mode and approximately 3 hrs in direct connect mode (receiver off). The 1A charger will charge the battery in under an hour.

When the charger is plugged in with no battery attached, the LED will be GREEN. When you connect the 7.4V LiPo battery the LED will turn RED (charging). When fully charged, the LED will turn back to GREEN

Battery and Charger

Battery

- 7.4V 900mAh Lithium Polymer
- Internal PCB for charge and discharge monitoring and safety circuit.

Charger

- 8.4V 1.0A Li-Ion charger
- AC 100-240V
- 50-60Hz
- Plug prong style dependent on country purchased from.



Notes and advice from experienced video pilots:

- Always perform a range test before flying. This includes AV and RC controls. Some RC RXs can be affected by the proximity of other electronic devices.
- Best to space components away from each other.
- Do not listen to anyone who says you can use 2.4Ghz AV with 2.4Ghz RC controllers. 2.4Ghz AV + 2.4Ghz RC = crash.
- Your 2.4Ghz TX will not affect the RC control of other RC users (however, their controllers will affect your AV reception).
- Until experienced, practice flying in a familiar area to avoid becoming disorientated.
- Due to antenna characteristics, there is a "null" directly above the antenna. You may notice excessive video breakup when flying overhead (can tilt your head to regain solid signal).
- If using 2.4Ghz, be aware of other 2.4Ghz RC users. If they turn their RC radio on while next to you, they may knock out your image.
- 5.8Ghz signal strength drops off very fast (2.4Ghz is more gradual). If using 5.8Ghz, stay safely within solid AV range.

2.4Ghz 10mW Transmitter

- Transmitting power: 10mW
- Current consumption: 50mA
- Supply Voltage: 6-12V DC
- Transmit distance: 300m line of sight (no interference)
- Channels: 4, synchronization of stereo audio and video
- Transmitting frequency: 2.4Ghz,
- FM Audio/Video Modulation
- CH1: 2414Mhz, CH2: 2432Mhz, CH3: 2450Mhz, CH4: 2468Mhz



5.8Ghz 100mW TX

- Transmitting power: 100mW
- Current consumption: 250mA
- Supply voltage: 6-12V DC
- Transmit distance: 300m line of sight (no interference)
- Channels: 7, synchronization of stereo audio and video
- Transmitting frequency: 5.8Ghz,
- FM Audio/Video Modulation
- CH1: 5740Mhz, CH2: 5760Mhz, CH3: 5780Mhz, CH4: 5800Mhz, CH5: 5820Mhz, CH6: 5840Mhz, CH7: 5860Mhz



The charger will automatically stop charging when the battery is fully charged. Do not leave plugged in while unattended.

DO NOT LEAVE BATTERY ATTACHED TO CHARGER WHEN CHARGER IS NOT PLUGGED IN.

Headset battery fits into strap. There is a pocket sewn into the strap on the right side (next to power in). Stretch the strap and battery will be held in place by the elastic properties of the strap.

Choosing the Best Channel

For best performance, select a channel that has the least amount of interference.

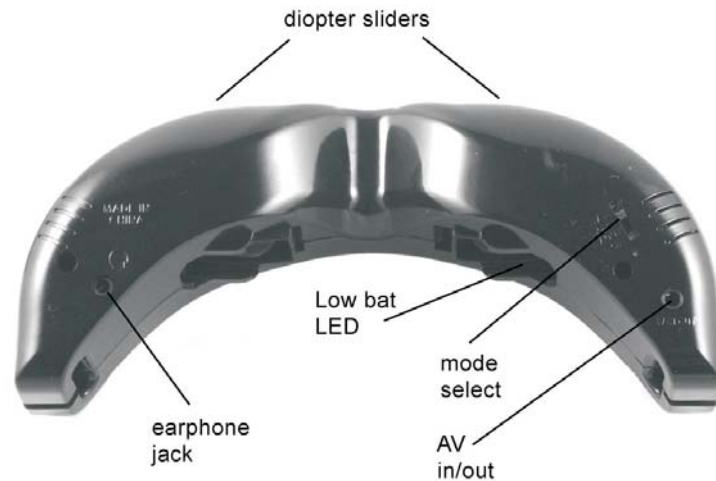
While the transmitter is turned OFF, Turn on the video headset and look at the screen as you check each channel. Clear channels will have a consistent static background. Channels with interference will have horizontal static lines.

Once you have chosen the clearest channel on the headset, set the transmitter to the same channel.

Contents Checklist:

- RCV922 Video Headset
- Fat Shark headset storage bag
- Transmitter
- TX cable (2p Molex power, 5p Molex camera)
- 7.4V 900mAh LiPo battery pack
- 8.4V LiPo battery charger
- 3dBi headset antenna
- Earphones with adjustable volume control
- Operator manual
- 120 cm AV cable male RCA
- Extra fitting foam

Headset Controls:



4 Position Mode Switch:

Position 1: Off

Position 2: AV out. Wireless operation. LCD will display transmitted image. AV cable can simultaneously be attached for recording.

Position 3: NORM. Wireless operation. LCD will display transmitted image. AV port can also output LCD image (if problems with splitting video image - try position 2)

Position 4: AV in. Direct connect operation. Receiver is off and video can be fed to the LCD via AV cables.

Earphone Jack: Connect earphones. Volume adjustment on cable.

AV in/out Jack: Connect AV cables

Power Jack (right side of headset): Connect battery pack.

IPD sliders: Interpupillary optical spacing adjustment.

RCV922 Headset



Optics:

- FOV 46 degrees diagonal
- Interpupillary (IPD) distance: 58r
- Image size: 80" @ 7'
- Optional diopter lens inserts available in -2, -4, -6 dpt

Audio:

- Stereo (volume adjustment on earphone cable)

User Controls:

- channel selection
- Contrast/brightness
- IPD adjustment

Electrical:

- Power supply, 7-9V
- Power consumption: 230/450mA (direct/wireless)

System: NTSC/PAL auto select

Mechanical:

- Ergonomic molded shape. Foam seal for comfort and ambient light reduction.
- Weight: 125g (without battery)
- Adjustable headband

Display

- Two full color micro LCD's
- Color arrangement: RGB stripe
- Resolution 922,000 pixels per eye
- 640 X 480 lines

Receiver

- 2.4 Ghz, 4ch/ 5.8Ghz 7ch (model dependant)

Interface

- Wireless
- Direct (AV in port)
- Input signal -85dBm (+/- 10dBm)

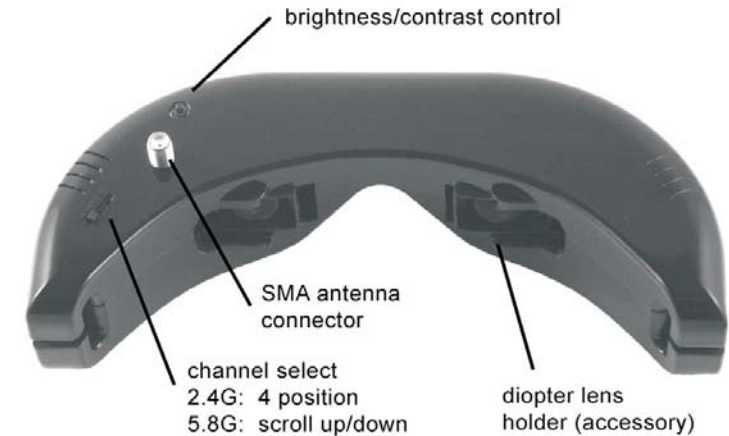
Trouble shooting

Symptom	Cause	Solution
Picture not clear	Channel selection on TX not same as on headset. Another 2.4GHz device is operating nearby Objects or people are between you and the TX	Ensure both TX and headset are on the same channel Change your location or change channel Ensure a clear line of sight between TX and headset
White static lines	Interference from other 2.4Ghz equipment.	Change channel Change location
Image is fuzzy	User is near sighted (optics is set for focusing at 2m distance) Interpupillary distance not suitable to your face	Adjust IPD sliders
Lens fogs up	Temperature difference between your face and the headset lenses causes condensation. Wear contact lenses.	-Use anti-fog solution on lenses -Wear goggles on head during setup to allow lens to warm up

Warranty

The system can be exchanged for a new unit within 7 days for any manufacturing defects if returned in new condition. The video headset will be warranted for repair for 2 years if no signs of excessive use. Buyer will be responsible for shipping costs. If beyond the warranty period we will provide repair services.

Headset Controls (cont.):



Channel Select Switch: RF Channel position.
2.4Ghz: 4 position channel select
5.8Ghz: 7 channel up/down scroll control

SMA connector: Antenna attachment

Display controls: adjust brightness/contrast
Brightness: left/right (dark/bright)
Contrast: away/towards (more contrast/ less contrast)

Diopter Lens holder: Slide optional diopter lens into slots
Optional lens available in -2, -4 and -6 dpt



Transmitter Controls:

2.4Ghz 10mW/ 100mW

4 Channel switch: Note TX shown in Ch1

AV in: Connect to 5p camera Molex connector

Power out: 5V Power output as shown on TX label to power camera

Voltage in: 6.0 - 12V:

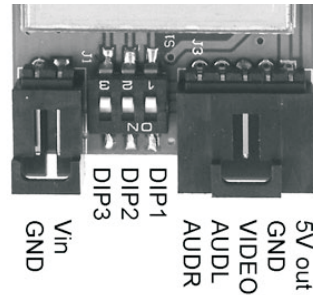
CAUTION: IF USING TO POWER A CCD CAMERA, GROUND TEST FOR 1HR BEFORE USING, SOME CCD USE HIGH POWER AND MAY CAUSE TX TO OVERHEAT AND SHUTDOWN



5.8Ghz 100mW

7 Channel 3p DIP switch

DIP 3	DIP 2	DIP 1		
0	0	0	CH1	5740MHz
0	0	1	CH2	5760MHz
0	1	0	CH3	5780MHz
0	1	1	CH4	5800MHz
1	0	0	CH5	5820MHz
1	0	1	CH6	5840MHz
1	1	0	CH7	5860MHz



AV in: Connect to 5p camera Molex connector

Power out: 5V Power output as shown on TX label to power camera

Voltage in: 6.0 - 9V direct, 7-16V through inline switching regulator (included):

CAUTION: IF USING TO POWER CCD or HD CAMERA be sure to use the included inline switching regulator..

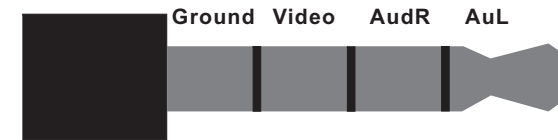
For maximum distance it is very important that a clear line of sight exists between the transmitter and the video headset. 2 of the worst causes of interference are human bodies and reinforced concrete.

The headset receiver may become warm to touch during use (particularly in the antenna region and top middle). This is normal.

Although you don't require any license to operate this device, you are still legally responsible for operating in a responsible manner. If someone has told you that your transmitter is interfering with their 2.4 Ghz system you are legally responsible to remedy the situation by either changing to a different channel, moving locations or cease using. Please be a responsible user of this device.

AV IN/OUT PORT

AV Cable Pin Out



Yellow: Video

White: Audio Left

Red: Audio Right

Recording Video

Connect RCV922 AV cable to AV out port on underside of headset. Connect recording device to cables and set up as per manufacturer directions.

Note: Cables pins are not all the same (see above chart), be sure to connect to RCV headset using the included cables.