

# Fire Fighting IR Camera

# **HRYXJ-A**

User's manual



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#### 1 Brief introduction

#### 1.1 Brief introduction -

HRYXJ-A was manufactured by SATIR Co., LTD. It is a smaller size, easier operating and stronger functioned infrared camera. HRYXJ-A combines the technologies of advanced detector, IR image processing and computer. It is one of the advanced portable IR cameras for industrial inspection.

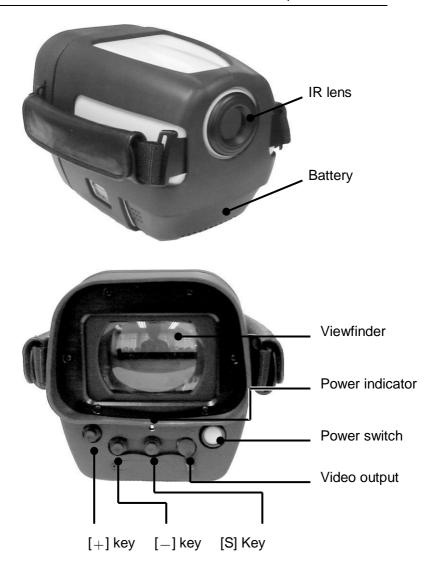
#### 1.2 Packing:

- HRYXJ-A camera body x 1
- Rechargeable battery x 1
- Battery charger x 1
- Video cable x 1
- Video cable plug x 1
- Strap x 1
- Handle x 1
- Operation manual x 1
- Packing list x 1
- Hard transport case x 1

#### Optional accessory:

Battery

## 2. Component guide



#### 3. Basic function



#### 3.1 How to operate

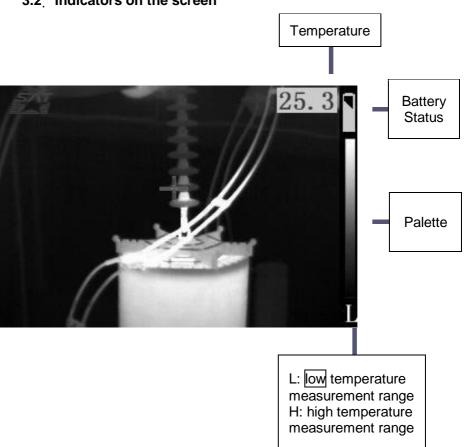
#### **3.1.1 Power on**

Press the power button to turn on the camera.

#### 3.1.2 Operation

- a. "+": manual adjust; (In alarm setting mode, increase the temperature).
- b. "-": change the temperature measurement range; (In alarm setting mode, decrease the temperature).
- c. "S": enter or exit "image only" mode.
- d. "+"&"-": change palette mode.
- e. "+"&"S": show or hide the analysis spot.
- f. "-"&"S": show or hide the max. temperature tracking spot.
- g. "+"&"-"&"S": enter the alarm setting mode; If you press these three keys as powering on, the camera will recovery to the factory default setting.

#### 3.2 Indicators on the screen



### 4 Battery pack and charger

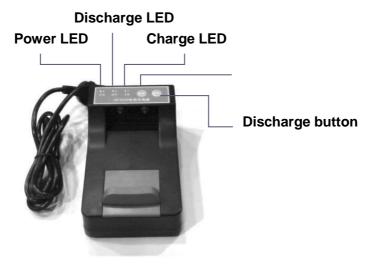
#### 4.1 Battert pack

This is a NiMH battery. It can be recharged at any time. However, since the maximum number of charge circle is approximately 500 (battery life), you are recommended to only charge the battery pack after having discharge it completely to prolong battery life.

For a new battery pack, the charging time will be no more than 2 hours. The camera shuts down automatically when the voltage of the battery is insufficient.

#### 4.2 Battery charger

- The battery charger adapters to a wide voltage range from 100 to 240.
- Attach the power cord to the battery charger and plug the other end into a power outlet.
- Slide the battery into the charger.
- Press and hold the discharge button for 2 or 3 seconds to discharge the battery if necessary.
- The charge LED lights while the battery pack is charging and goes off when charging is complete.
- Charging mode: Press the charging mode button for 2 or 3 seconds to change the charging mode. There are two charging modes: Fast mode and standard mode. In fast mode, the charge LED flickers in high frequency. In standard mode, the charge LED flickers in low frequency.
  - Component of the charger:



Charging mode button

#### 4.3 Appendix

- Heat will build up in the charging process.
- The charger shuts down when the battery is full. But it is recommended to remove the battery after charged.
- For a new NiMH battery, it will reach its maximum charge capacity after 3 circle of charge and discharge.
- This is a NiMH battery so there is no need to complete use of discharge it before recharging.
- Charging times will vary according to the surrounding humidity and battery pack charge state.

#### 4.4 Warnings

 Do not charge batteries other than the supplied battery with the supplied equipment. This may lead to overheating, distortion of the IR camera, fire, electrical shock or other hazards.

- Use only the recommended power accessories. Use of power source not expressly recommended for this camera may lead to overheating, distortion of the camera, fire, electrical shock or other hazards.
- Before you discard a battery, cover the terminal with tape or other insulators to prevent direct contact with other objects. Contact with the metallic components of other materials in waste containers may lead to fire or explosions. Discard the batteries in specialized waste facilities if available in your area.

#### 4.5 Active battery

If un-using battery for a long time, the voltage will be down to 0. It will cause un-charging battery. So the battery needs to be active.



Slide the battery into the charger.

- Press and hold the Active key about 10 seconds. Then the battery will be active and the Charger LED flashes.
- When press and hold the Active key longer than 30 seconds, and the Charger LED doesn't flash. It is possible that the battery is broken. Please contact the dealer or the After Sale Service to repair the battery.

#### 5 Care and maintenance

#### 5.1 Care and maintenance

#### 5.1.1 Lens

First use a lens blower brush to remove dust and dirt, then remove any remaining dirt by wiping the lens lightly with soft cloth or eyeglass lens wiper.

#### 5.1.2 Viewfinder

Use a lens blower to remove dust and dirt. If necessary, gently wipe the viewfinder with soft cloth or eyeglass lens wiper to remove stubborn dirt.

#### 5.1.3 Camera body

Avoid dropping the camera. Wipe the body clean with soft cloth or eyeglass lens wiper.

# **6 Trouble shooting**

|                               | o mouble shooting   |  |  |  |  |
|-------------------------------|---|--|--|--|--|
| Problem                       | Cause   | Solution   |  |  |  |
| Camera will not operate       | Power is not turned on  | Turn on the camera.  |  |  |  |
|                               | Insufficient battery voltage  | Fully charge the battery.  |  |  |  |
|                               | Poor contact between camera and battery terminals   | Wipe the terminals with a clean, dry cloth.  |  |  |  |
| Battery pack consumed quickly | Battery pack capacity reduced because of disuse for one year or more after being fully charged. | Replace the battery<br>pack with a new one.  |  |  |  |
|                               | Battery life exceeded   | Replace the battery<br>pack with a new one   |  |  |  |
| Battery pack will not charge  | Poor contact between battery pack and battery charger.  | <ul> <li>Clean the battery terminals with clean cloth.</li> <li>Connect the power cord to the battery charger and insert its plug firmly into the power outlet.</li> </ul> |  |  |  |
|                               | Battery life exceeded   | <ul> <li>Replace the battery pack with a new one.</li> </ul>   |  |  |  |

# 7 Specification

| Image performance          |  |  |  |  |
|----------------------------|--|--|--|--|
| Thermal                    |  |  |  |  |
| FOV/ min. focus distance   | 56°×42°  |  |  |  |
| Spatial resolution         | 2.5mrad  |  |  |  |
| NETD @ 50/60 Hz            | 100mK  |  |  |  |
| Detector type              | Focal Plane Array (FPA), uncooled microbolometer |  |  |  |
| Resolution                 | 384×288  |  |  |  |
| Spectral range             | 8∼14um   |  |  |  |
| Image presentation         |  |  |  |  |
| Viewfinder                 | High resolution viewfinder                       |  |  |  |
| Video output               | PAL or NTSC composite video                      |  |  |  |
| Battery system             |  |  |  |  |
| Battery type               | Rechargeable NiMH battery                        |  |  |  |
| Battery life               | 2.5 hours  |  |  |  |
| Recharging cycles          | >500   |  |  |  |
| Battery charger            | NiMH battery charger                             |  |  |  |
| Recharging time            | 2 hours  |  |  |  |
| Environment Characteristic |  |  |  |  |

| Encapsulation           | IP67                 |        |  |  |
|-------------------------|----------------------|--------|--|--|
| Shock                   | 30g                  |        |  |  |
| Vibration               | 3g                   |        |  |  |
| Water resistance        | 1.0m, 30 minutes     |        |  |  |
| Drop                    | 1.8m                 |        |  |  |
| Burning arrestment      | UL94-V0              |        |  |  |
| Operating temperature   | 80°C                 | 30mins |  |  |
|                         | 120°C                | 10mins |  |  |
|                         | 260°C                | 5mins  |  |  |
| Physical characteristic |                      |        |  |  |
| Weight (inc. battery)   | 1250g                |        |  |  |
| Size (L*W*H)            | 175 mm ×119mm ×125mm |        |  |  |

#### **Statement**

Thank you for using HRYXJ-A IR camera. We are so grateful for your support and trust.

#### 1. Product Warranty:

This product is manufactured by SATIR CO., LTD..(SATIR) We guarantee that each HRYXJ-A IR camera complies with the corporate standards of SATIR. We provide one-year warranty calculating from the date of delivery for any materials or process defects under proper storage, operation and service. We will charge for our maintenance of the damages due to improper use, negligence, accidental or abnormal operations.

#### 2. Statement

SATIR CO., LTD (SATIR) adheres to the policy of sustainable development. Therefore, we reserve all the rights to modify and develop the hardware and software for the camera as well as the contents of the above Operation Instructions. Any modification is not subject to prior notice.

#### Manufacturer Information

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