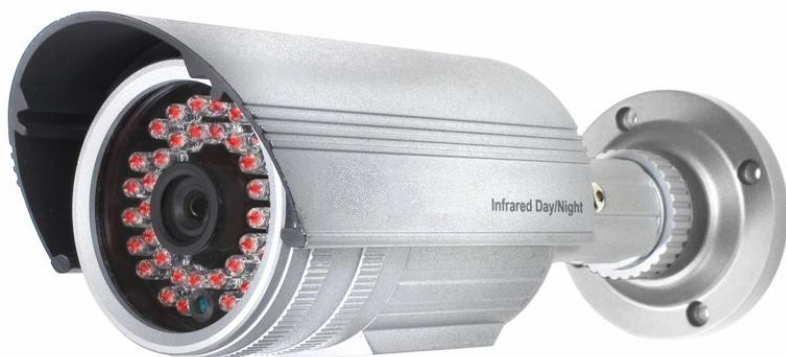


# SECO-LARM

## 36 IR LED Day/Night Bullet Camera

### Manual



**EV-1146-N6SQ**

480 TV Lines

**EV-1646-N6SQ**

600 TV Lines

- 1/3" Sony Color CCD
- 6mm lens
- 53° viewing angle
- Up to 100' (30m) range
- Weatherproof (IP66) construction
- Concealed wiring for added security
- Split glass design eliminates IR reflection.



Note: Model numbers that end with "Q" or that have a round green "Q" sticker signify RoHS-compliant products.

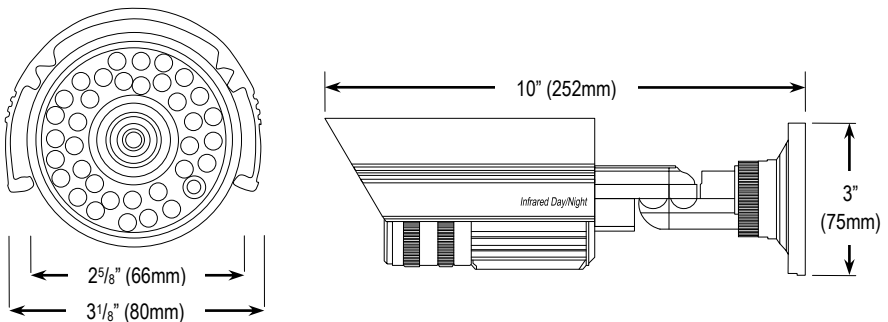
**Specifications:**

|                       | EV-1146-N6SQ                                | EV-1646-N6SQ             |
|-----------------------|---|--------------------------|
| Type                  | IR bullet camera                            |                          |
| CCD                   | 1/3" Sony Super HAD                         |                          |
| Resolution            | 480 TV lines                                | 600 TV lines             |
| Pickup elements       | 510x492 pixels                              | 768x494 pixels           |
| Sync                  | Internal                                    |                          |
| Video output          | 1.0Vp-p composite video, 75Ω                |                          |
| Video output format   | NTSC  |                          |
| Lens size             | 6mm   |                          |
| Viewing angle         | 53°   |                          |
| Minimum illumination  | 0.05-lux (with LEDs off)                    | 0.02-lux (with LEDs off) |
|                       | 0-lux (with LEDs on)                        | 0-lux (with LEDs on)     |
| Gamma correction      | 0.45  |                          |
| S/N ratio             | >48dB                                       |                          |
| Shutter control       | Auto Electric Shutter (AES)                 |                          |
| Gain control          | Auto  |                          |
| IP rating             | IP66  |                          |
| # of infrared LEDs    | 36 (850nm)                                  |                          |
| LED range             | Up to 100' (30m)                            |                          |
| Operating voltage     | 12VDC ±10%                                  |                          |
| Current draw          | 70mA (LEDs off)                             | 90mA (LEDs off)          |
|                       | 300mA (LEDs on)                             | 300mA (LEDs on)          |
| Operating temperature | -4°~122° F (-20°~50° C)                     |                          |
| Dimensions            | 10"x3 1/8"x3" (252x80x75 mm) with sunshield |                          |
| Weight                | 17-oz (480g)                                |                          |

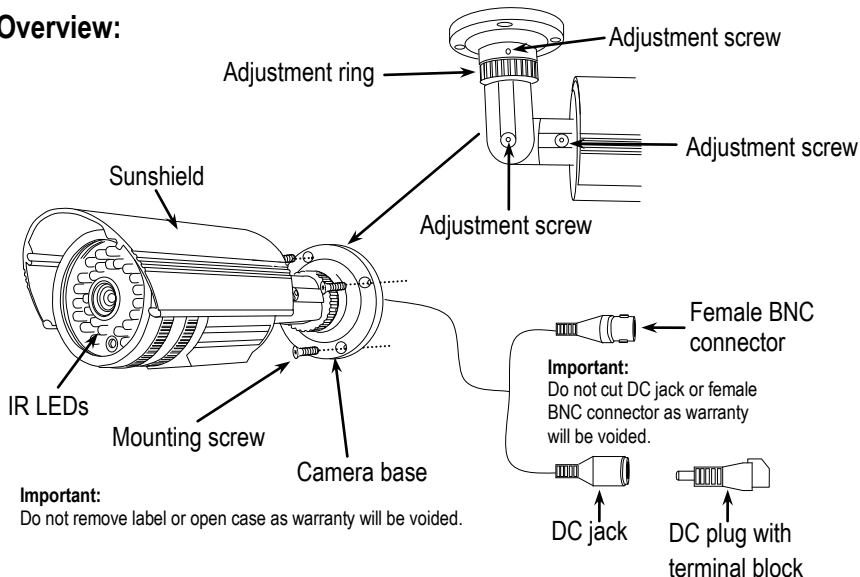
**Parts List:**

- 1 x Manual      1 x Sunshield      1 x 2mm Allen wrench      4 x Screw anchors
- 1 x IR camera      4 x Mounting screws      1 x 3mm Allen wrench      1 x DC plug with terminal block

**Dimensions:**



**Overview:**



**Before Starting:**

1. Please read this manual carefully and keep it for future reference.
  2. Use the camera within given temperature and electrical limits.
  3. Do not aim the LED light directly at the eyes when the LEDs are on.
  4. Do not point the camera at the sun. Heat could damage the camera, even when not in use.
  5. Do not mount the camera in areas exposed to radiation, strong magnetic fields, or strong electrical signals.\*
  6. Do not open or disassemble the camera. There are no user-serviceable parts inside.
  7. Do not drop the camera or subject it to strong vibrations.
- \* **Note:** Many video monitors produce strong electromagnetic fields close to the display CRT, especially when the monitor is turned on or during de-gaussing, which occurs automatically with many monitors when the monitor is turned on.

**Installation:**

1. Run a 12VDC power-supply wire and a video cable with a male BNC connector through the wall to where the camera will be mounted (if necessary).
2. Connect the camera to the 12VDC power supply. **Do not cut the DC jack or female BNC connector as the warranty will be voided. If needed, use the included SECO-LARM DC plug with terminal block.**
3. Connect the camera's female BNC connector to the video cable's male BNC connector. While watching the monitor, hold the camera base against the wall where it is to be mounted, then twist the camera until it is certain that this mounting location is correct. Use a pencil to mark the location screw holes in the base.
5. Mount the camera by using the four included mounting screws to secure the camera base to the wall. If the wall is made of drywall, brick, or similar material, it may be necessary to use the four included screw anchors.
6. Turn the monitor on and make sure the camera is sending the proper video signal.
7. The camera has 3-axis angle adjustment. Use the included allen wrenches to loosen the adjustment screws as needed. To adjust the horizontal axis, the adjustment ring must also be loosened. After all angle adjustments are made, re-tighten the adjustment ring and the adjustment screws.
8. Re-tighten the adjustment knob and screws.
9. Do a final test of the video camera and monitor.

## Troubleshooting:

The screen is blank.

- Check that the camera is powered up.
- Check that the power supply's polarity is correct.
- Check that the monitor is powered up.
- Check that the video cable connecting the camera to the monitor is connected properly.

The screen image is dim

- Clean the lens using a soft, clean cloth.
- Check that the light source is adequate.

The screen image has poor contrast.

- Adjust the monitor's contrast knob.
- Change the position of the camera.

The screen image flickers.

- Change the position of the camera.

The screen image is distorted.

- Change the position of the camera.

The camera case is hot.

- Check that the correct power supply is in use.

IR LEDs do not turn on.

- Check that the correct power supply is in use.

### IMPORTANT

Users and installers of this product are responsible for ensuring this product complies with all national, state, and local laws and statutes related to monitoring and recording audio and video signals. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or statutes.

### WARNING

Stop using the camera if you see a malfunction such as smoke or unusual heat, as it could cause fire or electric shock. Do not open the case of this device, as there are no user-serviceable components inside.

### FCC COMPLIANCE STATEMENT

Information to the user: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for a period of one (1) year from the date of sale to the original consumer customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM.

This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship.

The sole obligation of SECO-LARM, and the purchaser's exclusive remedy, shall be limited to replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damages of any kind to the purchaser or anyone else.

### NOTICE

The information and specifications printed in this manual are current at the time of publication. However, the SECO-LARM policy is one of continual development and improvement. For this reason, SECO-LARM reserves the right to change specifications without notice. SECO-LARM is also not responsible for misprints or typographical errors.

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