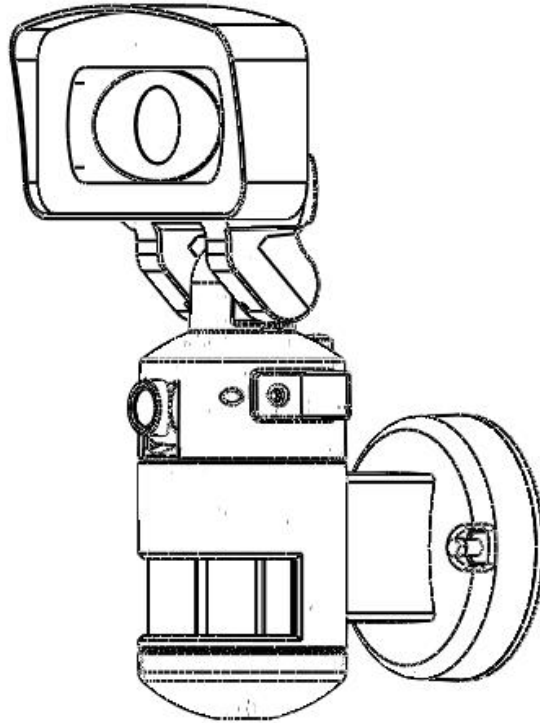# NW720 - USER GUIDE

MOTORIZED LED FLOOD LIGHT WITH HD CAMERA

CAN WE HELP?

Questions, problems, missing parts? Before returning to the store call
Nightwatcher Customer Service:

0845 900 6764

Or Email: support@nightwatcher.co.uk

Table of Contents

Safety Information

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2. 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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

   □ Reorient or relocate the receiving antenna.

   □ Increase the separation between the equipment and receiver.

   □ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

   □ Consult the dealer or an experienced radio/TV technician for help.

3. The installation of this light fixture must be done by a qualified electrician.

4. The motion sensor may not operate correctly if it is installed:

   □ Near the outlet of a central heating boiler.

   □ Near an air condition unit.

   □ Pointing directly at moving vehicles.

   □ Within sight of reflection from moving water.

   □ Where other lights could be pointed onto the sensor.

WARNING:
Changes or modification to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.
This Nightwatcher NW720is a precision electronic device. Do not attempt to service this camera yourself, as opening or removing covers may expose you to the danger of electric shock or other risks.

CAUTION:
Do not immerse the light fixture in the water.
Do not mount the light fixture against flammable surfaces.

IMPORTANT:
This light fixture must be grounded.

Warranty

12 MONTH WARRANTY

WHAT IS COVERED

12 month limited warranty from date of purchase. Please retain proof of purchase. The manufacturer reserves the right to replace or repair the faulty unit.

WHAT IS NOT COVERED

The warranty does not cover damage to the unit that may occur as a result of improper installation. This product is designed to illuminate, it will not prevent the perpetration of any act, legal or illegal. The manufacturer assumes no liability for any damage to property, injury to person, or death.

Pre-installation

PLANNING INSTALLATION

Never attempt to turn the light head by hand as this can damage the internal motor components.

> **NOTE:**
> Before attempting any installation or maintenance, ensure that the electrical supply is switched off and the circuit fuses removed or the circuit breaker is in the "OFF" position.
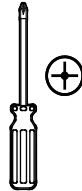
TOOLS REQUIRED

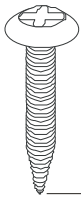Hammer   Safety goggles   Phillips screwdriver   Level

HARDWARE INCLUDED

> **NOTE:** Hardware not shown to actual size.

AA   BB   CC
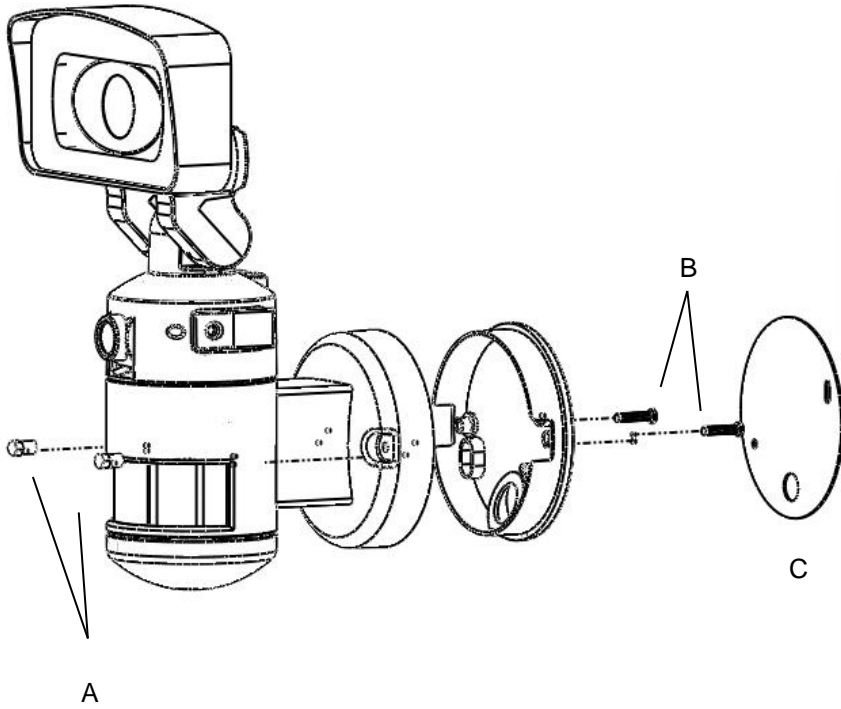
Part	Description	Quantity
AA	Drywall screw	2
BB	Plastic masonry plug	2
CC	Allen Key	1

Pre-installation (continued)

PACKAGE CONTENTS

Part	Description	Quantity
A	Screw nut	2
B	Backplate screw	2
C	EVA Gasket	1
D	Micro SD card and SD adaptor	1
E	User manual	1

SPECIFICATIONS

Detection Method	Passive infrared sensor (with continuous detection function)
Sensor Range	Minimum of 10m x 220°
Power Source	AC240V
Light Source	1PC AC 11W LED
Time Adjustment	Fixed at 3 minutes approx..
IP rating	IP55 (Weather-Proof) Suitable for outdoors permanent use

- Records 20 second video events at 10fps. 1280x720 pixels (VGA)
- Built in Micro SD card slot for Micro SD memory card
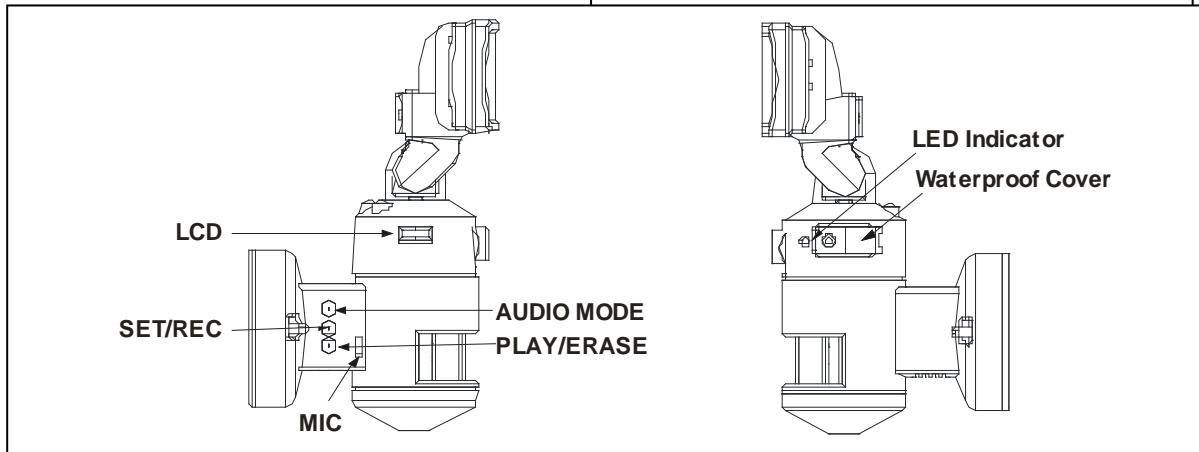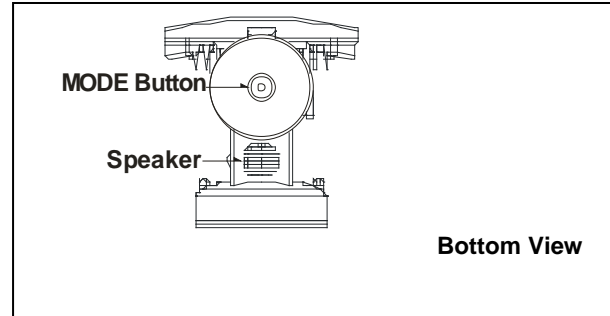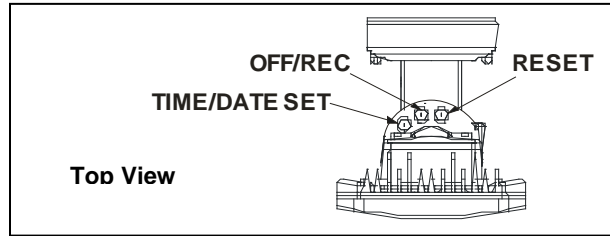- Micro SD card slot for additional storage, max memory size up to 32GB (SDHC)
- Micro SD card video file format: FAT or FAT16 (SD)、 FAT32 (SDHC)
- Automatic exposure control, white balance and sharpness
- Effective viewing angle: 40 deg
- Effective viewing distance: 8 metres

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Please contact 0845 900 6764 for further assistance.

Nightwatcher NW720 Overview

LED

Camera

3 motion sensors

Mode LED Indicator
(hidden inside)

Front View

OFF/REC   RESET

TIME/DATE SET

Top View

MODE Button

Speaker

Bottom View

LED Indicator

Waterproof Cover

LCD

SET/REC

AUDIO MODE

PLAY/ERASE

MIC

Side View

Left 70°

Right 70°

$0°$

$25°$
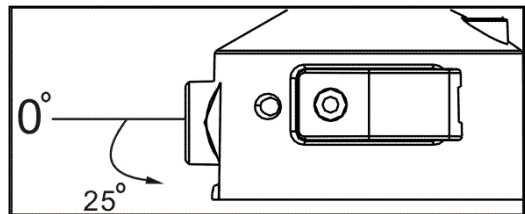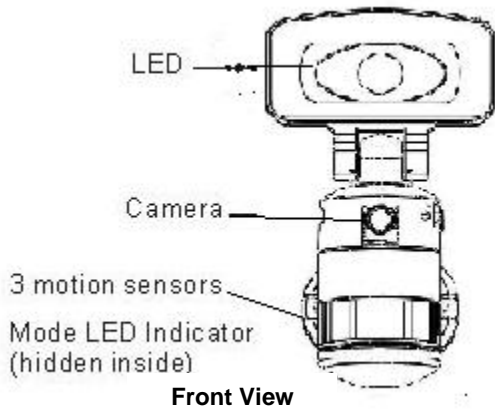
Camera angle adjustable downward by 25 degrees
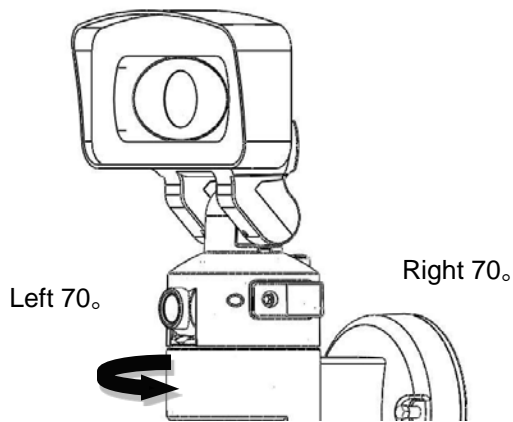
Installation

1 Mounting and wiring the light fixture

⚠ **DANGER:**
Incorrect voltage may cause electric shock. If you are not sure, please contact your retailer.

⚠ **CAUTION:**
Do not remove the tape until you finish the installation. If the tape comes off the light, please replace it or hold the light head to avoid swiveling and damage to the product.
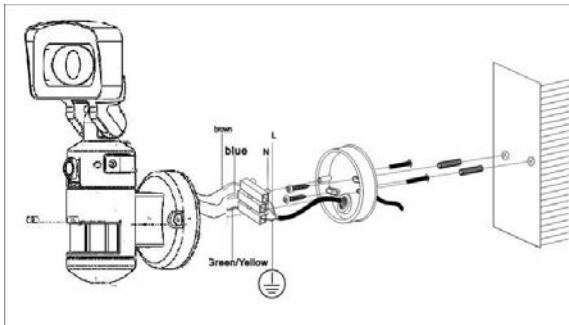
⚠ **CAUTION:**
LED lamps are extremely bright. Under no circumstances should you stare into an LED beam since this may cause irreparable damage to the eye.

⓪ **IMPORTANT:**
Please make sure the voltage and polarity are correct before connection.

📋 **NOTE:**
To ensure correct operation of the sensor, mount the light fixture so that the traffic passes across the detector.


Recommended mounting height for optimum coverage and installation area selection.

For optimum performance the recommended mounting height of the unit has to be between 2m (6.6ft) and 3m (10ft) –with 2,5m (8ft) the best performance height - Do not mount the unit higher than 3 meters (10ft) as this will affect the detection functions of the unit.

When selecting your installation area its import to be aware of positioning the NightWatcher fixture sight line due to possible factors that could cause false triggering ; such as direct sunlight, window refection, air condition units, swimming pool reflection, direct street lighting or large vegetation in the installation area. To prolong the lifespan of the Night Watcher

2 Mounting and wiring the light fixture (Continued)
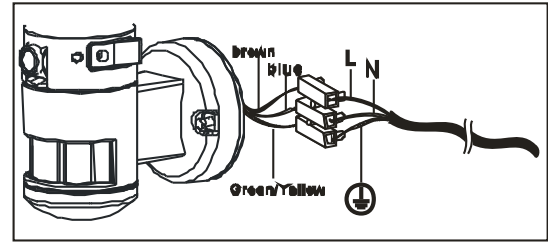
Installing your NightWatcher NW720 on a wall or building surface

□ Place plastic masonry plugs (CC) into desired surface aligning holes as shown below.

□ Feed the cable through the back mounting box, using caution to avoid abrasion to the cable.

□ Wire the unit (A) as follows: (Ensure all wires are connected securely and that no loose strands are exposed)

□ Make sure the polarity is correct. Double check the connections after wiring. Errors may damage the motion sensor or cause a fire hazard.

□ Using a screwdriver, fasten the unit (A) directly to surface using drywall screws (BB).
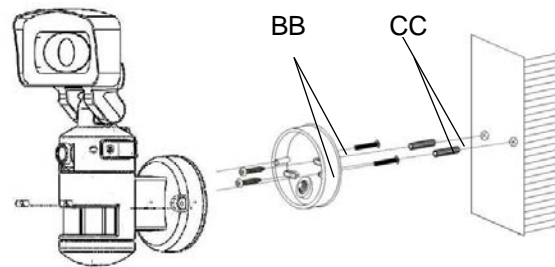
⚠ **CAUTION:**
Please allow 1 minute warm-up time after switching on.
Do not touch NW720 during warm-up time to avoid interruption of start-up sequence. Push the RESET button after switching on.

⓪ **IMPORTANT:**
Remove plastic lens cover from camera and the tape after installation.

Installation

fixture it is advised to install the unit in a selected area that is not directly exposed to extreme weather conditions and only if possible under an eave based on the recommended mounting height.
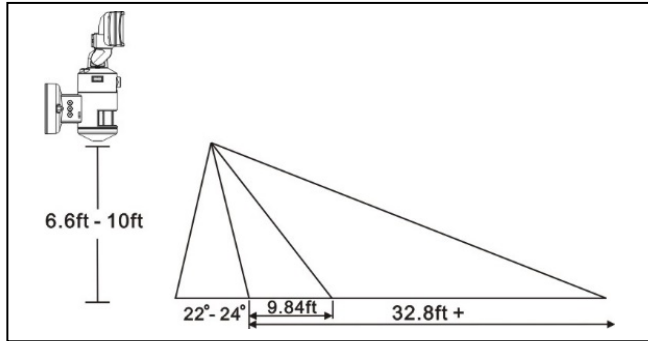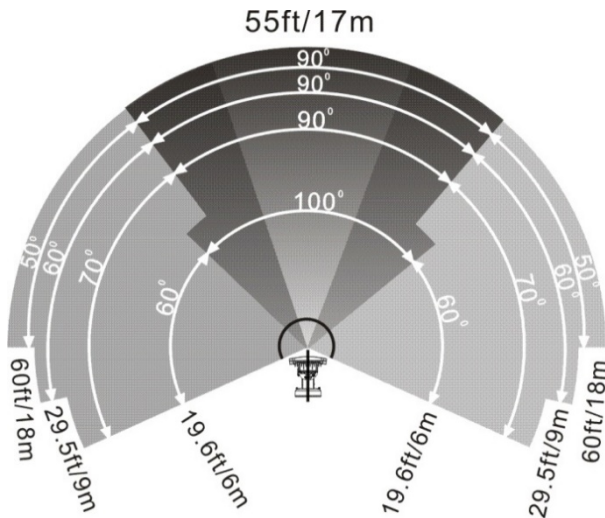

Recommended installation

Operation

1 Detection range

☐ This light is equipped with three motion sensors: zone 1 covers 60 degrees, zone 2 100 degrees and zone 3 60 degrees; a total 220 degree maximum. The distance range will vary from a minimum of 10 metres, depending on outdoor temperature;


Ensuring correct operation

☐ To ensure correct operation of the sensor, mount the light fixture so that the traffic passes across the motion sensor.

Top

Good Sensitivity

Less Sensitivity
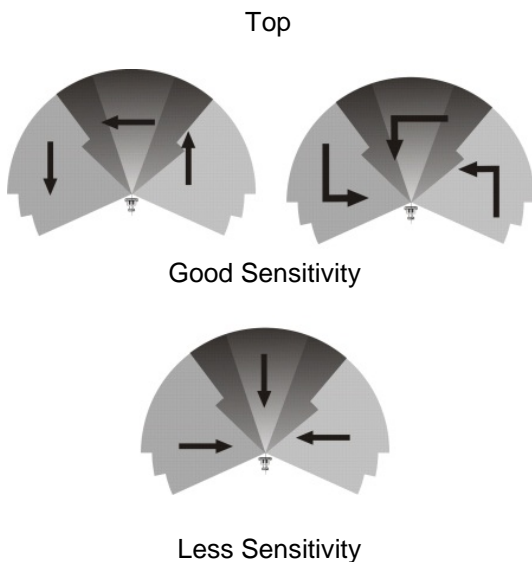
2 Adjusting the settings

☐ **Selecting working mode**: The Mode LED Indicator hidden inside the lens will display different LED lights when switching to different modes. The LED light will turn off after 30 seconds.
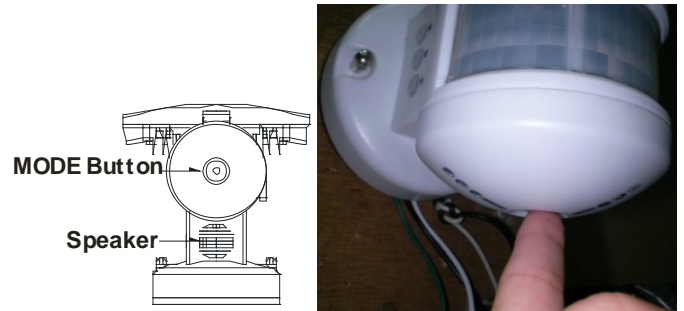
☐ **Mode 1: RED** (default setting)
  - Camera will follow motion and record during the day and night
  - Light will illuminate at night only
  - Speaker will operate at night only

☐ **Mode 2: ORANGE**
  - Camera will follow motion and record during the day and night
  - Light illuminates during the day and night
  - Speaker operates during the day and night

☐ **Mode 3: GREEN**
  - Camera will follow motion and record during the day and night
  - Light will illuminate at night only
  - Speaker will operate during the day only

NOTE:
For above 3 modes, after the audio is triggered, no audio will be triggered for the following 30 seconds.

	Mode LED indicator (Hidden inside the lens)	Symbol
Mode 1 (Default)	**RED**	
Mode 2	**ORANGE**	
Mode 3	**GREEN**	

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Please contact 0845 900 6764 for further assistance.

Operation (continued)

3 LED indicator

Camera LED indicator

□ Indicates the function status of the unit by different color LED lights.
   - **Red:** Micro SD card is not inserted into the Micro SD slot or the system is malfunctioning.
   - **Green:** The unit is recording.
   - **LED Off:** Standby mode; the unit is ready to record.

Camera LED light   Micro SD card slot

> **NOTE:**
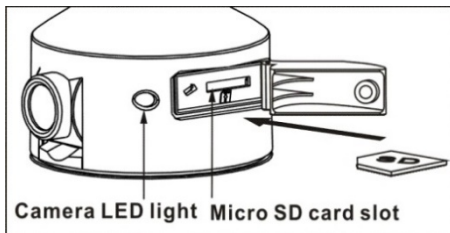> Before removing Micro SD card from the slot, please press and hold the mode button on the bottom of the Nightwatcher NW720 for 3 seconds to stop the light turning – the LED will flash orange. To resume working, press the mode button once.

> **NOTE:**
> : When OFF/REC button is pressed, remove Micro SD card within 30 seconds (now the LED will turn red after Micro SD card is removed from the slot).

PIR LED indicator

□ If the LED flashes an orange light continuously this indicates that the motor of Nightwatcher NW720 is now in an abnormal state and requires a simple reset. The light may stop turning automatically in this state. Please simply switch off /on the main power to reboot the device.

□ - **External force**: In most cases, the light head is blocked by objects or is blown by strong wind and is unable to turn properly. The hidden LED indicator will flash in orange to signal users the abnormal situation.

4 Removing and formatting the SD card

□ If you want to remove the Micro SD card to view recorded files, press and hold the mode button on the bottom of the Nightwatcher NW720 for 3 seconds to stop the light turning, then press OFF/REC button and take out the SD card within 30 seconds.

□ To remove Micro SD card, open the compartment using the provided Allen key and push in Micro SD card to eject then pull out.

Formatting the SD card

□ Format the SD card each time it is removed and files are viewed on your PC, after saving to your PC. Please follow these steps for formatting;
   - Place Micro SD card into the SD adaptor supplied
   - Place the adaptor in a spare SD slot on your PC
   - Right click on the SD card location
   - Select Format
   - Ensure the correct file system is selected FAT16 (or FAT) for SD and FAT32 for SDHC
   - Select quick format

Camera LED light   Micro SD card slot
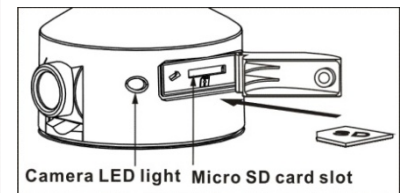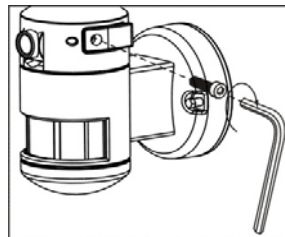
Operation (continued)
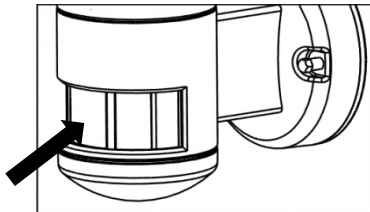
5 On-board controls

> **NOTE:**
> Before removing Micro SD card from the slot, please press and hold the mode button on the bottom of the Nightwatcher NW720 for 3 seconds to stop the light turning – the LED will flash orange. To resume working, press the mode button once.

□ **Reset button:** restore functions to default settings
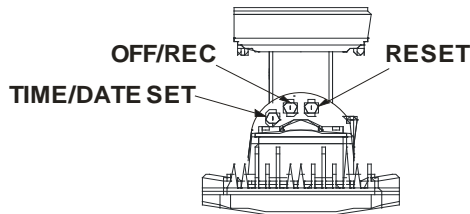- Press RESET button once each time you turn on unit.
- In case of system malfunction, please press once.
OFF/REC: Please press OFF/REC button to remove Micro SD card. Please remove card within 30 seconds of pressing the OFF/REC button to avoid loss of data.

□ **Audio mode:** for selecting which audio message will play when motion sensor detects movement.
- Pre-set default is "silent mode"
- Push once for "doorbell chime"
- Push again for "dog barking"
- Push once more for the message you recorded (Message 1)
- Push again for additional message you recorded (Message 2- you can record up to 2 messages at a time)
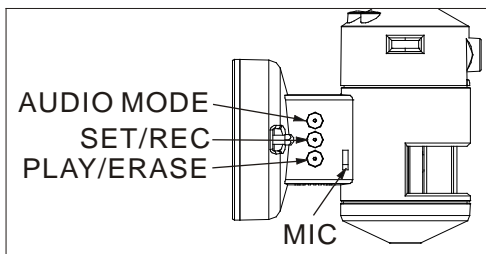
6 Recording audio message

□ **Recording:**
1. Press the SET/REC button for 3 seconds, and you will hear a single beep. After the beep, start recording your message by talking into the microphone (see fig. 9). Push the button again to stop recording, and you will hear a series of 2 beeps, meaning the recording is finished. If you do not push the button again after you have recorded the message, the recording will stop automatically after 10 seconds.
2. Nightwatcher NW720 can hold 2 self-recorded messages. If you have recorded one message, repeat above step for message 2.
3. If you hear a series of 3 beeps when you want to record your message by pressing the SET/REC button for 3 seconds, this means the self-recorded messages are full, please erase previous messages.

□ **Play/Erase:** allows you to listen to and erase messages
1. If you have only recorded 1 message, push the button one time to listen to recorded Message 1. If you wish to erase it, press the PLAY/ERASE button and hold it for 3 seconds. You will hear a series of 2 beeps, indicating the message has been erased.
2. If you have recorded 2 messages, push the button one time to listen to the first message, and push it again to listen to the second message. If you want to erase a message, select that message, and after listening to it, push the PLAY/ERASE button and hold it for 3 seconds to erase it.
3. If message 1 is erased, message 2 will automatically become message 1. The next message you record will then become the new message 2.

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Please contact 0845 900 6764 for further assistance.

Operation (continued)

7 Setting the time and date

> **NOTE:**
> Time and Date must be set on the unit or it will not record.

☐ This will allow the security video taken by Nightwatcher NW720 to display the correct date and time it was taken.

1. Push **TIME/DATE SET** button for 3 seconds. The LCD screen will flash 3 times indicating you have entered Time/Date setting mode.

2. **"YEAR" setting:** "Y" and "10" are displayed on the screen. Push the TIME/DATE SET button to set year from "10-99". Holding this button for 3 seconds will enable rapid scrolling through numbers. If the button has not been pressed for 3 seconds, it will automatically save the year and advance to allow you to set the month.

3. Repeat this same procedure for the TIME.

4. "VIDEO/PHOTO" setting: when entering this mode, these two icons 📷 🎥 and "V" appear on the screen. Push the button to choose "V" (Video) or "P" (Photo). If you have not pushed any buttons for 3 seconds, "OK" will appear on the screen, indicating it has automatically saved the current settings. The LCD screen will shut off automatically 10 seconds

8 Setting the time and date

5. On the "P" (photo) setting, Nightwatcher NW720 will take a series of digital photographs at a rate of 1-3 photos every second when the motion sensor is triggered

①	Start	②		YEAR Setting
③	MONTH Setting	④		DATE Setting
⑤	HOUR Setting	⑥		MINUTE Setting
⑦	VIDEO/ PHOTO Setting	⑧		Finish

> **NOTE:**
> In the event of a power outage please check that the time and date have been retained

> **NOTE:**
> The NW720 comes supplied with a 3 day standby battery for the Time and Date. (This should be sufficient in most cases)
> NB: for video/photo setting, it will resume to the default setting, VIDEO after a power outage

Operation (continued)

3 Viewing recorded videos

Viewing image by computer through an SD card reader.

□ Press the push button on the bottom of the unit for 3 seconds to disable the unit.

□ Open the waterproofed cover on the NW720.

□ Press OFF/REC button and take it out the Micro SD card within 30 seconds.

□ To remove Micro SD card, push in Micro SD card to eject then pull out.

□ Press the push button on the bottom of the unit to set to normal operational mode.

□ If your computer has an SD card slot you may insert the SD card directly into the computer. Otherwise you will need to use either the micro SD card adaptor (included) or USB SD card adaptor (not supplied)

□ Once your computer is powered on, insert the SD adapter into your computer. Regardless of whether you are using Windows or MAC OS, your SD card should be recognized by your computer after a few seconds.

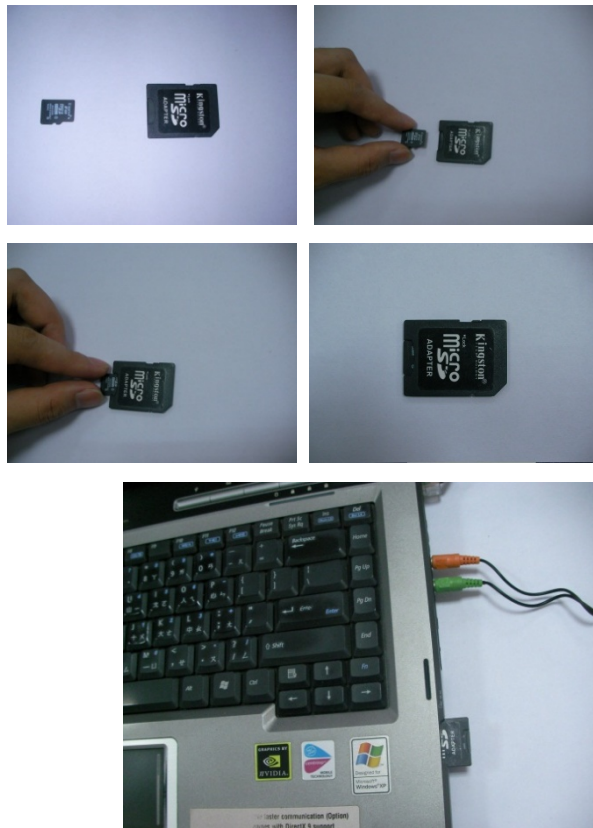□ Follow the instructions of your computer to view the contents of the removable storage device (SD card). Each recorded event will be listed in order by date. Simply click on the filename to view the file.

Troubleshooting

1. **The LED Light head does not move.**

    This may occur when an event causes the head to move out of alignment or obstructs the movement of the light head.
    Remedy: Turn the mains power off for about 10 seconds and then turn back on. The light should go through its set up routine and adjust the head for proper operation.

2. **The Night Watcher has stopped recording to the SD Card**

    Remedy: The date needs to be set correctly for the Night Watcher to record. If there has been a prolonged power outage, the date may need to be reset. Check the LED beside the camera lens. It should be GREEN when it is recording. If it is RED press the reset button on top of the unit. If it remains RED check that the SD card is installed correctly.

3. **There are no recorded files on the SD card**

    The SD card may have been removed incorrectly and the files may be corrupted, or the SD card may be in the wrong format. Remedy: Format the SD card (FAT format for SD and FAT32 format for SDHC).

4. **The computer is unable to open the files on the micro SD card**

    You may need to update your computer's drivers for your card reader, or use a USB card reader.

5. **The camera LED indicator is flashing red or staying red.**

This may occur when a power failure occurs during recording. This may be caused by either of 3 issues:

A. Hidden files which will occupy the space of SD card;   B. Bad sector;   C. SD card is damaged

Remedy: Re-format SD card for A and B situation. (Please check page 8 "To format the SD Card" for details.) If the SD card can't be formatted or can't be read because it is damaged, please purchase a replacement SD card.

Care and Cleaning

□   The Nightwatcher NW720 is designed to be weather resistant. Never attempt to immerse the unit in water or any other liquid. This will damage the unit and void the warranty.

□   Use a soft lens cloth for cleaning camera lens. Avoid touching lens with fingers.

□   Remove dirt or stains with a soft cloth dampened with water or neutral detergent.

F.A.Q. (Frequently Asked Questions) Section

Q: Powering up the unit the first time
A: Make sure date and time is setup correctly.
- Check if the card is properly locked in the unit.
- Make sure the SD card is pushed to lock (you will hear the click) when you insert the card into the card slot in the unit.
- To test the SD card, put into a computer, and check if you can copy the file into the SD card without any problem
- Check the format method, the SD card is supplied in FAT format, so always select FAT, not FAT32.

Q. How many videos does the SD card hold?
A: The Micro SD card supplied will hold approximately 1,000 video events of 20 seconds each. Higher capacity Micro SD cards may also be used for added storage, up to a maximum storage capacity of 32GB. Please note that in order to work properly the full capacity of the micro SD card used in this unit cannot be used entirely for recordings. 1-2GB micro SD card will reserve 100MB and 4GB-32GB(SDHC) micro SD card will reserve 500MB.

Q: What happens when the card is full?
A: It automatically over writes the oldest file with the latest pictures or video – this means you do not have to remove the SD card unless you wish to review or save the video files

Q: Can I view a live image?
A: No, the NW720 records only.

Q: Can I change the "light illumination time"?
A: No, it has been programmed to illuminate for 3 minutes per motion detection. If movement continues in the area, the light will continue to illuminate.

Q. Can I transfer pictures from the camera via cable?
A: No you can't. You will need to remove the SD card and use the micro SD adaptor or USB micro SD card adaptor (included). Please see Step 4: Viewing video in the programming instructions.

Q: Can the Lux setting be changed?
A: No this is fixed for optimum performance

Q: Why does the camera LED indicator stay red light when the micro SD card is already installed?
A: The micro SD card is not properly locked in the unit; please remove and install it again. If it still stays red light, please check by placing the micro SD card in a spare SD slot on your PC/laptop. If your PC/laptop can't read or find the micro SD card, the micro SD card may be damaged.

For further advice please visit the FAQ section on our website, www.nightwatchersecurity.eu

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