



User Guide

Wireless Camera Kit (C3K11)

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1. Introduction

Thank you for purchasing one of the Nestbox Company's family of products. This is a versatile wireless camera kit which can be fitted inside a nesting box or used as part of another project.

2. Setting Up Your Equipment and System

The Wireless Camera Kit consists of 3 main components:

- Wireless Camera
- Receiver
- Battery Box

As well as this, the kit includes the items necessary to fit the camera in your project and connect the parts of the system together, to power sources, and to your computer or TV.



It is easy to put the system together by following these step by step instructions.

Unpack the Camera Kit. If your kit has been fitted by us, this section is just for your information.

As well as this User Guide, the kit consists of the following items:

Camera



Receiver



Antenna for Receiver



Battery Box (If you selected this option) with on/off switch, battery holder and hanger.



Battery Snap (If you selected No Battery Box)



Power Supply Unit (PSU) for Camera



Power Supply Unit for Receiver



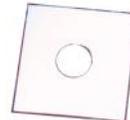
Video / Audio Lead



Black Baffle



White Diffuser



Screws for mounting Camera



Nest box Window



3. Fit the Camera

(If your kit has been fitted by us, this section is just for your information.)

The camera bracket can be mounted inside your nesting box or on your project using one or more screws, or by clipping or clamping it. There are 2 screws with wall plugs in the Kit, which can be used if convenient.

Whilst the camera is weatherproof, it is not waterproof. There are holes in its casing for the IR lights, microphone, light sensor, aerial and power input. We recommend that it is protected from the worst of the weather.

To get a good colour picture in daylight, you will need sufficient light inside the nest box. Depending on the size and design of your nest box, you may need to supplement the light coming in by putting a small window in the box. The Kit has a small piece of frosted plastic to use to cover the window if you need to. This can be screwed, nailed or stapled to the outside of your box.



Plug the connector at the end of the lead coming from the Battery Box into the mating connection at the end of the short lead from the Camera.

3.1 Using the Mains Power Supply Unit for the Camera

If you have selected the Battery Box Version:

To run the camera on mains power, remove the battery holder from inside the Battery Box, and disconnect the snap connector. In place of the battery holder, connect the mating connector from the Camera Power Supply Unit.

If you chose the “No Battery Box” Version:

Fit the Battery Snap to the Camera Power Supply Unit, and then plug the Battery Snap connector into the mating connector on the camera.

WARNING: DO NOT REVERSE THE POLARITY OF THE SUPPLY TO THE CAMERA AS THIS MAY CAUSE PERMANENT DAMAGE.

You can plug in the PSU and turn the power on. Check that the power is on the camera by covering over the light sensor. This should cause the IR lights to come on, and you will see a faint red glow.

WARNING: THE MAINS POWER SUPPLY UNIT IS FOR INTERNAL USE ONLY. IT MAY NOT BE SAFE TO USE IT OUTSIDE.

If the cables don't reach far enough, we have a range of extension cables available as accessories.

3.2 Running the Camera by Battery

If you are going to use batteries for the Camera, you will need to put 4 size "D" batteries with polarity as marked into the battery holder.

Run the cable/s out of the slots at the base of the Battery Box, and close using the 4 small screws provided. The Battery Box can then be hung in a convenient position (perhaps near the base of the tree), while the nest box is positioned up the tree.

If you wish to extend the battery life, or add dusk/dawn switching to its capabilities, the camera kit is compatible with the Daylight Sensing Battery Box which is available from our range of accessories.

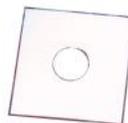
3.3 Adjustment of Camera Focus

You can adjust the Camera focus by turning the lens turret. The Camera is a very delicate part of the system so please do this gently, and be very careful not to touch a finger on the lens.

3.4 Camera Exposure

The Camera's electronics control the exposure of the picture. Because the camera is so sensitive to low light levels, it may be unable to fully adjust to the brightest light. In this case, you may need to adjust the light level or shading to ensure that you get good colours in bright daylight.

The light sensor in the camera is programmed to switch on the Infra Red Lights when the daylight becomes too dim for a good colour picture. When the IR lights are on, if the subject is close to the lens (which is often the case inside a small nest box) they may be too bright for the Camera and also cause overexposure. If this happens, you will notice a bright circular area in the middle of the picture. To deal with this, use the black Baffle and white Diffuser to reduce the intensity of the lights. Fit these by clipping them over the lens turret.



4. Set up the Receiver

Fit the Antenna onto the Receiver by screwing it on where marked. Adjust it to a vertical position.



Plug in the Mains Power Supply Unit and switch on.

The red light will indicate power is on.

Set the slider switch to the Camera's channel (This is shown on the back of the Camera)

Fit one end of the Receiver Video/Audio Lead to the Receiver, connecting one colour to "VIDEO OUT" and the other colour to "AUDIO OUT".

Fit the other end of the Receiver Video/Audio Lead to the direct input video and audio connectors of your TV. Connect the colour you connected to "VIDEO OUT" on the Receiver to Video In on the TV, and the colour you connected to "AUDIO OUT" on the Receiver to the Audio In socket on the TV.

Turn on your TV and set it to Video Input.

You should now be able to see the pictures from your Camera, and hear the sounds picked up from the microphone in the camera.

As an alternative to using Video and Audio In sockets, you can use a SCART socket on the TV. For this you need a small SCART adaptor, such as the one (Code A51) in our accessory range.

5. Miscellaneous

5.1 Audio Volume

The audio system is fitted with an Automatic Gain Control (AGC) which increases the amplification when the microphone is picking up little sound, and decreases it when it picks up more noise. In quiet situations, this results in high gain, and can lead to the pick up of some hum.

We suggest you set the volume on your TV to a level where, in quiet conditions, any background noise or hum is barely audible, and is not intrusive. When the microphone starts to hear the sounds from the wildlife, the AGC will eadjust to ensure that you hear their sounds above the level of the background noise.

5.2 Transmission Range

The Transmitter and Receiver have a nominal range of 100 metres.

The actual distance achieved will vary depending on atmospheric conditions, the position and type of nearby obstacles (such as walls, trees, or metal objects) and the state of the battery (if running on battery).

Moving the Receiver a few centimetres can sometimes make a big difference to the strength of the signal. To obtain the best reception, we suggest you move the Receiver around to find the best location by trial and error.

5.3 Pictures at Night

At night, or when completely dark, the only source of light for the Camera will be the Infra Red lights fitted on the camera. Under such conditions, the camera will give an image which consists of shades of grey, just like a black and white picture. This is perfectly normal. We use infra red lights at night so that you can continue to see a picture, but, because birds cannot see infra red, their natural sense and rhythms of day and night are not affected.

Because some TVs have different sensitivity to black and white, you may need to adjust the brightness of the picture at night to get a better picture.

6. Specifications, Warranty etc

The specifications of the product described and the contents of this User Guide are subject to change without notice, as part of our continuous improvement process.

Whilst every care has been taken in the preparation of this document, we realise that it will always be possible to improve it. If you find any errors, omissions or points which are not clear, or have any suggestions for improving it, please email us at mail@nestbox.co.uk. We will endeavour to deal with the problem to your satisfaction, and learn from it for future versions.

The contents of this document may not be reproduced in whole or in part except for your personal use.

The Nestbox Company Limited warrants all its products against defects in materials and manufacture for 6 months from the date of purchase. If a defect is discovered, The Nestbox Company will repair or replace the product (at its option) free of charge, provided it is returned to the address in this User Guide at the customer's expense.

The Nestbox Company Limited is not able to accept any responsibility for any loss, damage, or loss of data suffered by any customer or third party as a result of use, misuse or malfunction of the product or this User Guide. In particular, whilst the product has been extensively tested, we are unable to warrant that is free of defects.

If you have any further technical or user questions relating to the product, please email it to us at mail.nestbox.co.uk.

From time to time, we provide customers with product updates. Please check the web site for details.

7. Care for the Environment

As you might expect, The Nestbox Company cares deeply about the Environment. We have adopted an Environmental Policy designed to demonstrate our commitment to operating our business in harmony with the natural and man made environments. If you wish to see the full policy, it is available to read on our web site.

The wood used in all our products comes from responsibly managed forests, as part of our commitment to the Forest Stewardship Council®. We are certified with the FSC under number SW-COC-005535 EK

Our products are developed to be economical with natural resources, both in manufacture and use. We comply with the relevant laws and regulations, including those relating to the Restriction of Hazardous Substances (known as RoHS) and Waste Electronic and Electrical Equipment (WEEE).

When you have finished using this product, please dispose of it responsibly. It should not be disposed of with your household waste, but taken to a local collection point for recycling, or returned to us. This will help to conserve the world's natural resources and protect the environment.



If you have purchased this product to replace another similar product which you no longer need, and send the previous one to us, we will be happy to recycle it for you at no cost.

We have worked hard to reduce the environmental impact of our packaging. This has involved reducing the amount of packaging we use, sourcing the packaging materials we buy from sustainable sources and increasing the proportion which can be recycled after use. Please re-use the packaging if you can. If you cannot re-use it, please recycle it. All our packaging can be recycled by composting, so whether you compost it yourself or send it off for composting, you can rest assured that it is environmentally positive.

All the paper we use for our User Guides, leaflets and other printed material is recycled.

8. Accessories for your Product

Our comprehensive range of accessories is designed to enable customers to make the best use of their purchase of a camera kit. Why not accessorise your equipment to extend its capabilities and make it do exactly what you want?

The following accessories are suitable for your Wireless Camera Kit:

Daylight Sensing Battery Box

Add this to your kit to give it very long battery life, dusk/dawn switching, and allow you to use rechargeable batteries. Wooden Battery Box with translucent lid.

Battery to Camera Extension Cable

Move your battery box further away from the Camera.

Mains to Battery Extension Cable

Want to use mains power, but need a longer cable from the mains power unit to your battery box? This is what you need.

Connection to PC/Laptop

This small converter allows you to feed pictures of your nest or wildlife straight into your computer. No need to install any hardware inside the computer.

Rechargeable High Capacity Battery Set

8 high capacity rechargeable batteries. Last for longer between charges.

Network Server

This neat device enables you to connect your camera straight to a computer network. Use it to view the pictures from any of the computers on your network, or, if you set your firewall to allow it, from computers all round the world connected to the Internet. It even has the capacity to take up to 3 additional cameras!

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Battery Producer Registration Number BPRN03345