

Enjoy Birds More

Solar Wireless
Camera Nest Box
(B7)



User Guide

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1. Introduction

Thank you for purchasing one of the Enjoy Birds More family of products. We hope you will enjoy many years of viewing nesting birds with this nest box.

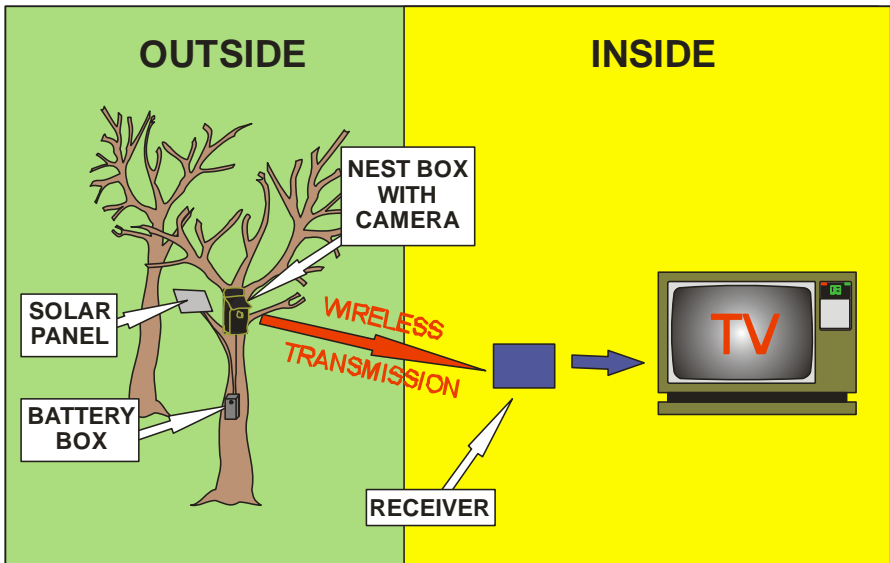
2. Setting Up Your Equipment and System

The Solar Wireless Camera Nest Box consists of 3 main components:

1. Nest Box with Camera
2. Electronic Battery Box
3. Solar Panel
4. Receiver

As well as this, it includes everything necessary to 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.



3. Unpack and Familiarise Yourself With Your Nest Box

As well as this User Guide, you should have the following parts:



Nest Box with Camera, including electronic control system and cable to connect to Battery Box, including cable tie to secure cable at the Battery Box end.



Electronic Battery Box, including mode switch and battery holders.



Mains power supply for Battery Box (Internal Use Only). This provides an optional alternative to running the system on batteries.



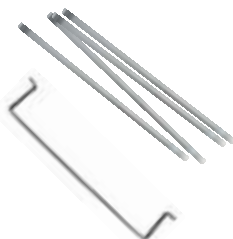
Receiver, with **Antenna**, **mains Power Supply** and **Video/Audio Lead** to connect between the Receiver and TV.



Set of Rechargeable Batteries and Mains Charger



Solar Panel with fixing kit



4. Setting Up Your Equipment for Operation

4.1 Charge the Batteries

Using the mains battery charger, which takes 4 batteries at a time, charge all 8 rechargeable batteries. These are high capacity batteries, and we suggest that the batteries are charged for at least 24 to 48 hours.

This is a general purpose battery charger, and is not designed to charge the batteries quickly. Most customers will only occasionally need to charge the batteries from the mains, but depending on how often you do this, you may find that a more advanced charger will charge them much faster.

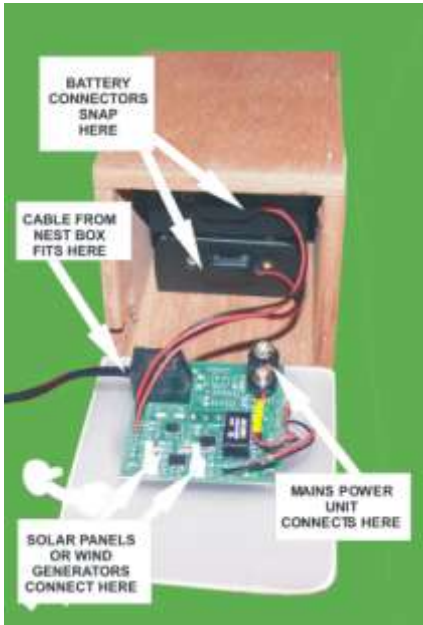
4.2 Connect up the Nest Box and Electronic Battery Box

Open the box by removing the peg from the roof, tilting out the top of the removable side panel, and then lifting the panel away.



Slide out the circuit board and plug one end of the cable into the black socket on the circuit board. Slide the circuit board back in. Check that the camera is pointing towards the base of the nest box, and then replace the side panel, running the cable through the small gap at the top back corner of the panel.

Open the roof of the Electronic Battery Box and remove the 2 battery holders. Fit the 8 rechargeable batteries into the battery holders (observing the polarity marked on them), and carefully slide them into the battery box, with the PP3 style connectors on top. Connect the mating connectors from the unmarked leads attached to the circuit board to the battery holders. Do not use the connector marked with a yellow sleeve.



Connect the other end of the cable coming from the Nest Box to the socket on the underside of the circuit board.

If you choose at any time to power the system using the mains power supply, you should remove the batteries, and instead connect the PP3 connector on the mains power supply to the mating PP3 connector marked with a yellow sleeve.

Connect the white connector at the end of the cable coming from the solar panel to one of the two matching connectors on the underside of the circuit board. The second connector can be used for a second solar panel or a wind generator. The Battery Box is already equipped to use solar panels and/or wind generators, which

simply connect to the small white connectors in the Electronic Battery Box.

Fit the cables entering the Battery Box through the cable slot in the side of the box, and secure them using the small cable tie provided.

4.3 Set up the Receiver and Connect to TV

Screw the Antenna onto one end of the Receiver. Adjust the angle of the Antenna so that it is approximately vertical. The receiver can be mounted vertically using the screw holes provided, or rested in a horizontal position.



Fit the Receiver Mains Power Supply (it has a cylindrical plug) to the Receiver (DC 9-12V) and plug it into the Mains. Switch the power on. The red indicator light will show it is on.

Fit one end of the Receiver Video/Audio Lead to the Receiver, connecting yellow to "VIDEO OUT" and white or red to "AUDIO OUT".

Fit the other end of the Receiver Video/Audio Lead to the direct input video/audio of your TV. Connect yellow to video in, and white or red to an audio in socket.

As an alternative, you may prefer to fit this in to the Video/Audio connectors on a video recorder or VCR.

If you only have a SCART input socket for your TV, you can fit the cable through an appropriate adaptor (not supplied).

The cable (and the signal it carries) is not suitable for direct connection to your TV aerial or antenna socket.

Turn the TV on, and switch it to the direct video/audio input.



Move the switch on the Battery Box to the CONT position. Set the Channel Switch on the Receiver to the channel number indicated by the label on the back of the camera. You should see the base of the Nest Box on your TV screen, and hear through the TV if you tap the box. If you didn't notice which channel it was set to, simply move the switch in turn to each of the 4 channels until you see the picture.

Adjust the camera angle so that the picture is central on the base of the nest box.

Before leaving the factory, the camera focus has been adjusted to a little above the floor of the nest box. 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.

4.4 Fit Nest Box Outside

You are now ready to set up the nest box, battery box and solar panel in position outside.

First find a promising location.

Nest Boxes are normally fitted (with the lid uppermost) to a tree or wall, about 2 to 4 metres high from the ground. However, depending on the situa-

tion, it is generally OK to fit the box higher. For further advice on siting nest boxes, you may find it helpful to check with the Royal Society for the Protection of Birds or the British Trust for Ornithology.

It is generally best to place the box so it does not get sun all day or too much wind and rain. This means that you could face it to the North East or South East.

The Nest Box should be fitted in a position where it is close enough to the Receiver so that you get a good picture. Although the nominal range is 100 metres, the actual range depends on a number of factors, particularly including obstacles close to and in between the Nest Box and the Receiver, such as walls and trees. If you are in any doubt as to the position, it may be better to fix the Nest Box temporarily until you have checked the reception.



The Nest Box is designed to be fitted in most situations with just 1 screw or nail, using the concealed keyhole in the back of the box. Fit the screw into the tree or wall first, and then offer up the box onto the screw so that the screw head goes through the lower part of the keyhole. Then slide the box down so that the box is securely fitted. The keyhole is positioned opposite the entrance hole into the box

so that it is easy to see through for fitting, and the screw can be tightened once the box is fitted. If you wish to secure the box with a second nail or screw, a hole in the base/back of the box has also been provided, although in most situations this will not be needed.



Thin rope, cord, string or wire can also be used to fit the box. To do so, pass a loop of string etc through the keyhole, and attach it to a small twig, nail etc. Position this horizontally at the top of the keyhole. Tie the cord round the tree.

Position the box away from other trees, bushes, branches etc which may make it easier for predators. Try to provide a clear flight path into the entrance hole. It is recommended that you do not place it near to a bird table or other place where you feed the birds, because the constant traffic of birds will deter nesting.

Run the cable down the tree or wall, to the Battery Box, which should be fitted in a convenient location for changing batteries and reaching the control switch.

Fit the solar panel in the sunniest location you can, angled to face the sun as far as possible. You don't require direct sunlight to charge the batteries but it helps. For fixing the panel, you will either have been supplied with metal brackets, or large re-usable cable ties to go through the holes drilled in the sides of the panel.

5. Miscellaneous

5.1 Use of the Mode Control Switch

The switch on the top of the Battery Box has 3 positions:

“STD” Standard

We recommend you normally run the box on this setting. In this mode, the movement detection system monitors the inside of the nest box for movement of the birds. If movement is not detected for a prolonged period, the nest box electronics will be partially shut down to save battery power. When movement is detected again, the system will switch back on and transmit pictures and sound to the receiver.

Whilst partially shut down, neither video nor audio is transmitted from the box. Your TV will either show a still picture or “snow”, depending on which TV you have and the precise instant when the shut down occurred. You will lose sound, so may wish to press “mute” when this occurs.

Please remember that because the electronics are designed to work with live birds, the detection system is not 100% accurate. The movement sensor system may sometimes be triggered by insects or air movement, and sometimes will not trigger when there is movement. To avoid “jitter”, it is designed to wait a few seconds each time it switches before it will switch again.

This setting is designed to give a long battery life, depending on how much movement there is in the box.

Central Position, “OFF”

This position provides power to the electronics, but switches off the lighting, microphone, camera and transmitter. It hardly takes any power, so the batteries should last a very long time in this position.

“CONT”, Continuous

This setting puts all the systems within the box on continuously, and will take the most power out of the batteries.

This is suitable when you want to be sure that your picture is not interrupted when there is no movement, perhaps because you are recording a video.

Naturally, this setting will require more power from the batteries, and is more

likely to take more power out of the batteries than the solar panel is putting in. If the batteries run out, simply take them out of the battery box and charge them separately using the mains charger. You can also run the nestbox using the mains or single use batteries.

5.2 Adjustment of Lighting System and Focus

Before leaving the factory, the camera focus has been adjusted to a little above the floor of the nest box. 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.

The lighting system has 3 “states” or modes of operation, and whenever it is switched on, it will always be operating in one of these 3 states.

State 1: High level: when bright external or natural light reaches the camera, the internal lights are switched off.

State 2: Daylight: whenever the lighting system is switched on, and the camera needs some additional light to provide a good picture, and the external light is bright enough to indicate it is daytime, a supplementary white light is switched on.

State 3: Night time: whenever the lighting system is switched on, and the external light is dim enough to indicate it is night time, a supplementary infra red light is switched on. This is invisible to human and bird eyes, so does not disturb the birds’ natural rhythms. Although the camera continues to give a colour picture, this form of illumination means that the TV picture looks as if it consists of shades of grey.

The point at which the lighting system switches from state 2 to 3 has been factory set to correspond to an average dawn/dusk. However, if your box is in a particularly open, or shady location, or for some other reason if you wish you can change this setting as follows:

1. Choose a time when the light level outside is the level at which you want the system to switch.
2. Start with the system in the “OFF” state.
3. Turn it to “CONT”, and then immediately back to “OFF”.
4. The system should now be in “set” mode and the white light inside the box should flash on and off 6 times to show it is waiting for you to set the switching point. If you don’t get 6 flashes, try from step 2 again.
5. Wait until after the 6 flashes, check that the light level is the level at which

you want it to switch every morning and evening, and then switch back to “CONT”.

6. Leave the system in this state for at least 30 seconds.
7. It will now have saved this setting until you set it again.
8. You can now switch off or on as normal.

The point at which the lighting system switches from state 1 to 2 has also been factory set to correspond to the correct light level for the camera. If your box is in a particularly bright situation, you can change this setting as follows:

1. Choose a time when the light level outside is the level at which you want the system to switch.
2. Start with the system in the “OFF” state.
3. Turn it to “STD”, and then immediately back to “OFF”.
4. The system should now be in “set” mode and the white light inside the box should flash on and off 3 times to show it is waiting for you to set the switching point. If you don’t get 3 flashes, try from step 2 again.
5. Wait until after the 3 flashes, check that the light level is the level at which you want it to switch, and then switch back to “STD”.
6. Leave the system in this state for at least 30 seconds.
7. It will now have saved this setting until you set it again.
8. You can now switch off or on as normal.

If you accidentally switch the system into “Set” mode, and at any point you get either 3 or 6 flashes, disconnect the nest box from the battery box by pulling the plug out of the socket in the Battery Box. This will avoid resetting the switching points.

5.3 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 result in what sounds like a loud hum.

We suggest you set the volume on your TV or PC to a level where in quiet conditions, any background noise or hum is barely audible, and is not intrusive. When the birds take up residence, and start making a noise, the AGC will ensure that you hear their sounds well above the level of the background noise.

5.4 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 batteries.

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

5.5 Cleaning the Nest Box

Once a year, after the nesting season has finished and all the birds have left the nest, we recommend that you clean out the Nest Box and dispose of all nesting material and unhatched eggs etc. Under UK legislation, you can only remove unhatched eggs between August and January, and then must dispose of them.

To do this, remove the circuit board and carefully clean it with a soft cloth or brush, being especially careful with the camera lens and electronics.

Take out any nesting material and throw it away, and wash out the box with boiling water. With the lid propped open, leave it for a day or two to dry out, before refitting the shelf, and putting the Box back in position.

The Battery Box will also benefit from an annual clean, and it will be worth removing any insects and debris from the box, electronics and battery holders.

5.6 Mains Power Supply for Nest Box

The system is designed to be used on battery power, but if it is convenient, you may prefer to use mains power.

The mains power supply which is included is designed for interior use only. It is intended to be connected to an internal socket on a fused 13A electricity supply. **IT IS DANGEROUS TO FIT IT OUTSIDE OR IN A DAMP ATMOSPHERE.** The cable (which operates at low voltage) is safe to use outside. If you need to extend this cable, this can be done with the “Mains to Battery Extension Cable”, product A35.

To use mains power instead of batteries, disconnect and remove the battery holders. Fit the connector on the mains power supply to the mating connector on the circuit board.

The nest box can also be operated on alkaline batteries or other one-use size D batteries. Simply replace the rechargeable batteries with them.

The battery box has a connector for fitting a second solar panel or a wind generator, either of which will increase the energy collected and reduce the chance of the rechargeable batteries running down.

These are available from our comprehensive range of accessories.

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 may still be possible to improve it. If you find any errors, omissions or points which are not clear, please let us know by email at user.guide@enjoybirdsmore.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.

Enjoy Birds More Limited warrants all its products against defects in materials and manufacture for 6 months from the date of purchase. If a defect is discovered, Enjoy Birds More 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.

Enjoy Birds More 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 error free.

If you have any further technical or user questions relating to the product, please first check the Frequently Asked Questions section of our Web Site, www.enjoybirdsmore.co.uk. If that does not enable you to resolve your query, please email it to us on customer.service@enjoybirdsmore.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, Enjoy Birds More 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.

Our products are developed to be economical with natural resources, both in manufacture and use. We of course 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). We are registered with the UK Environment Agency for WEEE under Producer Registration Number WEE/HB0002ZR, and as a battery producer under battery Producer Registration Number BPRN00576.

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 SA-COC-005535EK.

When you have finished using this product, please dispose of it responsibly. We would suggest using your local household recycling and waste treatment facility, particularly for the electronic parts of the product. The product is marked with the following symbol:



This denotes that it requires to be disposed of at the end of its useful life by the local waste treatment facility, and not with ordinary household waste. Please follow this instruction.

We have worked hard to reduce the amount of packaging we use to a minimum, consistent with fully protecting our products on their way to the customer. Much of the packaging we use is recycled. All of the packaging on our products can be composted, and most of it can also be re-used. This User Guide is printed on recycled paper.

8. Accessories for your Nest Box

Our comprehensive range of accessories is designed to enable customers to make the best use of their purchase of a nest box. Why not accessorise your equipment to extend its capabilities and make it do exactly what you want? The following accessories are suitable for your Garden Nest Box:

Control/Battery Extension Cable (A34)

Move your battery box further away from the Nest Box.

Mains to Battery Extension Cable (A35)

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

Enjoy Birds More by PC (A36)

Our very own software package for users of camera nest boxes and wildlife cameras - view, take and archive your pictures, videos and timelapse sequences.

Video to USB Converter (A37)

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.

PC Video Viewer (A38)

All the hardware and software you need to feed your nest and wildlife pictures into a PC or laptop.

Solar Panel (A41)

A second solar panel will increase the charging effect and reduce the chance of running out of battery power.

Wind Generator (A42)

Free energy to supplement solar charging for your nest box. Good looking and discreet generator.

25mm Metal Hole Plate (P25)

Reduce the size of the entrance hole to limit use to smallest birds, and protect from squirrels and other predators.

28mm Metal Hole Plate (P28)

Reduce the size of the entrance hole to limit use to smaller birds, and protect from squirrels and other predators.

32mm Metal Hole Plate (P32)

Protect residents from squirrels and other predators.

25mm Wooden Hole Plate (A43)

Small plywood plate to fit on front of nest box, to reduce the size of the entrance hole, and limit the box to smallest bird species.

28mm Wooden Hole Plate (A44)

Small plywood plate to fit on front of nest box, to reduce the size of the entrance hole, and limit the box to smaller bird species.

Garden Box (A48)

Another nest box to match your Garden Nest Box, but with no camera. Use it to increase your chances of attracting birds to nest. Swap the camera from one box to another in seconds to follow the birds.

Network Server (A50)

This neat device enables you to connect your nest box 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 round the world connected to the Internet. It even has the capacity to take up to 3 additional cameras!

THE NESTBOX COMPANY LTD



Our sister company, **The Nestbox Company Ltd** is the UK's leading producer of nest boxes for birds and small mammals, as well as feeders and insect houses. All these products are made using advanced manufacturing techniques, and finished by craftsmen working in the company's rural workshop.

The Nestbox Company has a wide range of products to suit many common as well as less common birds and animals. Most of their boxes can be fitted with cameras - Just ask us (or them) if you are interested.

These include:

Bird Nest Boxes for small birds, Robins, Sparrows, Large birds, Woodpeckers, Treecreepers, Swifts etc



Owl Nest Boxes for Barn Owls, Little Owls and Tawny Owls



Boxes for Wild and Domesticated Ducks



Boxes for small mammals including Hedgehogs, Bats, Red Squirrels, and Dormice



Insect Boxes



And Feeders



Visit the Nestbox Company Limited at: www.nestbox.co.uk

Or telephone them at +44 (0) 1675 442299

Enjoy Birds More Limited



Did you know we produce a Variety of Wireless Camera Nest Boxes, and Wildlife Cameras and Accessories? Some of our products:

Eco Nest Box (B1)

A full function Wireless Camera Nest Box, but with simpler electronics. Translucent roof gives colour pictures in daylight , while infra red lights give pictures at night.

Wildlife Camera (C10)

Watch birds and animals day or night with this high resolution colour camera, including infra red lights for night/dark viewing and sophisticated battery box. View on a TV , PC or laptop

Eco Camera Kit (K1)

A kit for turning your nest box into a wireless camera nest box.

Specialist Boxes:

Other specialised boxes and special requirements made to individual order.

To order, or for more details of all our products:

Visit us at www.enjoybirdsmore.co.uk,

Email us at mail@enjoybirdsmore.co.uk

Or telephone us at +44 (0) 1675 442544

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All our products are tested
for compliance with the
relevant directives, and carry
the CE Mark

WEEE Producer Registration Number WEE/HB0002ZR

Battery Producer Registration Number BPRN00576