BLACK BOX VIDEO

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The THRIFTY PACKAGE

CAUTION
READ INSTRUCTIONS BEFORE USE

DESCRIPTION AND INSTRUCTIONS

The Thrifty Package is ready-made and all-inclusive. Without any fuss or needing to do anything, you can just switch it on and start filming. And yet it comes at a very reasonable price.

The Thirfty Package incorporates the DataVideo 7" Wide Screen LCD Colour Monitor (16 x 9, but switchable to 4 x 3), our STAMP Miniature Video Transmitter with our Mk 2 standard Receiver (5 Channel), a KATA Carry Bag, an NP1 powering shoe (or V-Lock Plate) and all the relevant custom-made leads. The bag is nice and roomy and allows space for an NP1/V-Lock battery. (Note that we do not include the battery as part of the Thrifty Package, but we can supply it if you wish).

The Monitor itself comes with several accessories, inclusive.

Our Video Sender is designed to transmit high quality pictures and sound from a camera to a monitor using a legal, licence free 2.4 GHz microwave link.

The STAMP,
MINIATURE TRANSMITTER

The Stamp is an incredibly small and lightweight Video Sender Transmitter, literally the size of a post-age stamp and weighing only eight grams! Ideal for situations where the monitor will be close to the camera, but you need to work without a cable. So small and light it is practical to use it even with DV Cams.

Mk 2 5 Channel RECEIVER

The new Mk 2 Receiver - much smaller (about 45%) than the Mk 1 unit! - is designed to receive microwave signals from the Transmitter and display high quality pictures and sound on any monitor of your choice, as before. It is compact and light in its new, robust die-cast case, and the efficient omni-directional aerial with right angled SMA connector comes as standard.

You can expect up to 300 metres range outdoors (line of sight) or up to 30 metres indoors. If, however, you are using the Receiver with The STAMP, the ranges you can expect are 50 or 15 metres respectively

INSTRUCTIONS FOR USE

The STAMP, Miniature Transmitter

Plug the right angled BNC into the camera's video out socket and the Hirose into the camera's power socket, velcro The Stamp to the camera – and that's it!

The Stamp **will not** blow the fuse on early Digibetas - current consumption is only 70mA.

If you don't have a Hirose socket on your camera, The Stamp can be powered from a PP3 type 9 volt battery by using our PP3 Clip Adapter. We can also make adapter leads to almost any plug and power source if needed. The Stamp will run on any voltage from 6 – 15 volts, it has an internal voltage regulator.

Experiment to find the best place for The Stamp. Usually the highest point on the camera is best, on top or on the back of the battery often works well.

We can supply The Stamp to transmit on any of the 5 channels our standard Video Sender Receiver works on or custom frequencies to order. The coloured dot on the top of the unit indicates the channel.

Receiver

The Receiver is housed in a robust die-cast case and has a rigid screw-on right-angled aerial with SMA connector. The Receiver can be powered from any nominal 12 volt source capable of supplying 130 mA. The actual voltage range is from 8 to 16 volts and is applied via the 4 pin Hirose socket on the end of the unit.

Video is output via the BNC socket and sound via the 3.5mm stereo jack socket.

Make sure the rotary selector switch is set to the same channel as the Transmitter.

Switch on using the toggle power switch on the end of the unit and check the red light comes on.

We can supply suitable batteries, mains power pack and cables if required.

Make sure the aerial is vertical and clear of any surrounding metalwork or obstructions.

This Mk 2 version is much smaller than the previous Receiver - in fact, if is 45% smaller!

INSTRUCTIONS FOR ASSEMBLING "THE THRIFTY PACKAGE"

Assembly

1 Unzip bottom flap of bag and place the DataVideo Monitor face down in bag with controls on bottom edge and secure with Velcro straps provided.
2 Plug R/A power lead into 12 v socket on bottom left of monitor.
3 Plug R/A BNC into video RX BNC socket and the other BNC end into the Monitor BNC socket
4 Plug HRS4M plug into video RX HRS4F socket.
5 Plug NP1 shoe adaptor into 2.1 mm socket on power lead.
6 Attach R/A aerial to SMA socket on video RX so that aerial rests down side of bag.
7 Attach NP1 battery to shoe and switch on RX, red LED should light. Zip up bag and turn over.

The STAMP Miniature Transmitter

Attach The STAMP Transmitter to camera, plug BNC into video out and plug HRS4 power lead into power socket on camera.

The STAMP Transmitter should be positioned on the camera as high up as possible with the aerial above the top of the camera in free space without touching any metalwork or wires. If no power from the camera is available it can be run off a PP3 type battery using our PP3 clip adaptor or PP3 battery box. A good quality battery should last several hours.

Operation

Turn Monitor on by pressing power switch on bottom right of unit. Picture should now be displayed on Monitor.

WARNING!

A mains power supply is provided by DataVideo for the Monitor. **ONLY** use this for powering the Monitor directly – ie plugged directly into the Monitor itself.

If you are using NP1 batteries for power: DO NOT ever plug the mains power supply into the Package power lead as this is wired centre pin negative (PAG standard) for the NP1 shoe adaptor. The Monitor is wired centre pin positive and will be damaged if you try to power the Thrifty Package in this way!

This is not applicable if you are powering with V-Lock batteries, as these are wired centre pin positive and therefore not a problem.

Batteries

To improve battery life, switch off Monitor when not in use.

It is not worth switching off the Video Sender Receiver in day to day use as the NP1 battery would power it for about 20 hours.

However, at the end of the days shoot, remove the battery or unplug the NP1 shoe from the power lead socket or the battery will run down during the night and eventually will be damaged.

You should charge the battery at the end of the day anyway for next day's use.

If powering using V-Lock batteries you need to check this with the manufacturer, dependent on the size of battery in use.

UPGRADES

Some amount of picture break-up has to be expected when movement between the TX and RX occurs. Careful positioning of TX and Package can help minimise this.

By it's nature, The THRIFTY Package is built to a price but you can improve range and picture break-up by upgrading to a Box Aerial on the Receiver (as used in our premium Package).

You can also upgrade the Transmitter to a standard or high power model and keep The STAMP for short range situations.

As standard, The STAMP Transmitter is supplied tuned to channel 1, so the Video Sender Receiver also needs to be set to channel 1. To special order we can supply or retune The STAMP to any of the five Black Box Video standard channels.

PROBLEM SOLVING

Don't forget that the Receiver must be on the same channel as the Transmitter ! By default The STAMP is supplied on channel 1, unless you have specified a different channel. (Note that only channels 1 - 5 on the channel selector on the Receiver are valid).

The Transmitter has an omni-directional aerial which radiates in all directions. It is very important that the aerial tip is in free space with no objects or wires near it.

When using the Sender indoors reflections from girders, wiring, etc, will cause occasional flashes on the received picture when cancellation occurs. This will only happen when the Transmitter or Receiver is moving relative to each other or when objects are moved between the Transmitter or Receiver.

When using The STAMP outside, line of sight, these problems largely don't arise and the signal is much more stable. The maximum range outdoors is about 50 metres. Indoors a range of around 15 metres should generally be expected.

SPECIFICATIONS

The STAMP, Miniature Transmitter Specification

Supply voltage	6.5 – 16 volts
Supply current	65 mA
Hirose socket wiring	Pin 1 = -ve, Pin 4 = +ve
Video in (BNC socket)	Composite video 1 volt p-p
Power output	10 mW
Frequency, MHz	**Channel 1 (blue dot) 2415.5 MHz** Channel 2 (red dot) 2428.5 MHz Channel 3 (orange dot) 2442.5 Mhz Channel 4 (yellow dot) 2456.5 MHz Channel 5 (green dot) 2470.5 Mhz
Weight	8 grms
Dimensions	H = 15mm, L = 32mm, W = 25mm

Mk 2 Receiver Specification

Supply voltage	8 - 16 volts
Supply current	130 mA
Hirose socket wiring	Pin 1 = -ve, Pin 4 = +ve
Video out	1 volt p-p
Sound out	Line level
Dimensions (excluding aerial)	H 30mm x L 110mm x W 60 mm 196 grms

PRICE:

The THRIFTY Package **Guide Price £995**

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