



# User Guide

## Information

**Please retain these instructions for future reference.**

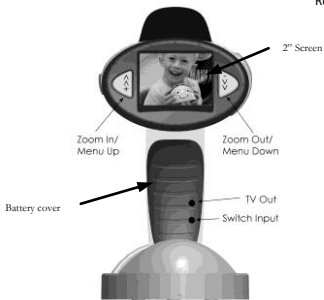
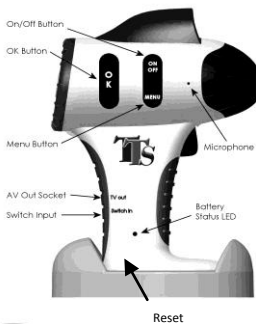
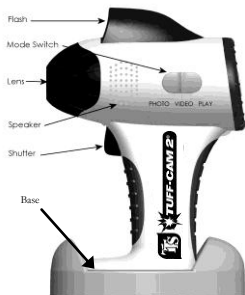
- Rechargeable batteries are only to be charged by an adult
- Tuff-Cam 2 contains a replaceable, rechargeable battery.
- Do not mix different types of battery or new and used batteries.
- Batteries are to be inserted with the correct polarity
- Do not short-circuit the battery terminals
- Only batteries of the same or equivalent type as recommended are to be used.

## Installing batteries in your Tuff-Cam 2

- Ensure the product is switched off.
- Use a tool to loosen the battery compartment.
- Insert three new batteries with '+' and '-' signs as shown in the pictures.
- Close the battery compartment door and tighten with a tool.



## Know Your Tuff-Cam 2



### **Switching ON and OFF**

- To switch ON, press the On/Off button briefly.
- To switch OFF, press and hold the On/Off button for 3 seconds.

### **Taking a Photo**

- Slide the Mode switch to PHOTO.
- Turn ON the camera, by pressing the On/Off switch briefly.
- Point the camera at the subject. Look at the subject using the screen.
- Press the trigger button to take the photo.
- Pressing the OK button will cycle through the flash modes: Auto, Forced ON, Forced OFF.
- Press the << or >> to zoom in to or out of the subject.

### **Taking a Video**

- Slide the Mode switch to VIDEO.
- Turn ON the camera, by pressing the On/Off switch briefly.
- Point the camera at the subject.
- Press the trigger button briefly to start the video.
- Press << or >> to zoom in or out.
- Press the shutter button again to end the recording.
- NB. Alternatively you can also press and hold the trigger button and Tuff-Cam 2 will take a video for the whole time that the button is pressed (memory permitting).

### **Displaying the Photos & Videos**

- Slide the Mode switch to PLAY.
- Turn ON the camera, by pressing the On/Off switch briefly.

- The most recent Photo or Video taken will be displayed on the screen.
- Use the << and >> buttons to move between images.
- Press the OK button to play and pause videos.

### **SD Card**

- The SD card can be replaced, or upgraded to a larger capacity if necessary.
- The SD card can also be removed and inserted into the relevant reader on some PCs and laptops.
- The SD card can be accessed by unscrewing the security screw and removing the battery cover. This should be done by an adult.

### **TV Out**

- By connecting an AV lead (included) an analogue video signal can be sent to a TV input.
- The TV out will not provide an audio signal.

### **Switch Input**

- By connecting an AV lead (included) to the switch output an external device or switch can be used instead of the image capture.

### **Using the Menu System**

- There are different Menu options available for the different positions of the Mode switch: PHOTO, VIDEO, PLAY.
- Press the Menu button briefly to enter the appropriate Menu options for the selected Mode.

- Press the Menu button once more to move to the Setup options, which are available in all Modes.
- Use the << and >> buttons to move around the Menus
- Use the OK button to select a Menu item.
- Some menus have multiple pages. If you use the << or >> buttons to move off the top or bottom of a page, the previous or next page is shown.
- Press the Menu button once more to exit the Menu system.

### **PHOTO Menu Options**

- Size/Resolution: VGA up to 12 Mega pixel
- Quality: Economy, Standard, Fine
- Scene mode: Auto, Sport, Night, Portrait, Landscape, Backlight
- EV/Exposure correction: -2.0 to +2.0
- White balance: Auto, Daylight, Cloudy, Tungsten, Fluorescent
- ISO: Auto, 100, 200
- Colour: Standard, Vivid, Sepia, Monochrome
- Saturation: Normal, High, Low
- Sharpness: Normal, Hard, Soft
- Preview: On, Off
- Time stamp: Off, Date only, Date & Time
- Burst: On, Off

### **SETUP Menu Options**

- Format: Yes, No
- Beep: On, Off
- Language: English, French, German, Italian, Spanish, Portuguese
- Auto off: 1 min, 3 min, 5 min, Never
- System Reset: Yes, No
- Light frequency: 50Hz, 60Hz

- TV Out: NTSC, PAL
- Date Input: Date setting menu

### **VIDEO Menu Options**

- Size/Resolution: VGA, QVGA
- EV/Exposure correction: -2.0 to +2.0
- White balance: Auto, Daylight, Cloudy, Tungsten, Fluorescent

### **PLAY Menu Options**

- Delete: Single, All, Selection
- Copy to (SD) Card: Single, All, Selection
- Slide show: 3 sec, 5 sec, 10 sec
- Protect: Single, All, Selection
- Volume: 1 to 8

### **Connecting to a PC or Apple Mac**

- There are two modes in which the Tuff-Cam 2 can connect to a PC: MSDC or PC-CAM.
- In MSDC mode, the PC or Mac will recognise the device as a USB mass storage device and it will appear as a removable drive in the file explorer window.
- PC-CAM mode is not available for MAC computers.
- In PC-Cam mode, only MS Windows based computers are supported and the drivers (see below) must be installed first.
- To select MSDC mode, move the slide switch to PLAY before connecting to the PC.
- To select PC-Cam mode, move the slide switch to PHOTO or VIDEO before connecting to the PC.

### **Charging the Battery**

- Tuff-Cam 2 is supplied with a partially charged battery and can be used immediately without charging first.

- The battery can be charged by placing the camera on the base and connecting it to any active USB port. This will take between 2 and 4 hours depending on the state of the battery.
- While the battery is charging, the Battery Status LED will flash red.
- When Tuff-Cam 2 is fully charged, the Battery Status LED will change to solid red.
- To charge your Tuff-Cam 2, place the camera on the base, so that the USB is plugged in.
- Then plug the USB cable from the base into a USB port on your PC or into a USB charging adaptor (not included).

## Installing the Software

The CD provided contains:

- Drivers for Microsoft Windows PCs (Win98 – Win7), which are required in order to use Tuff-Cam 2 as a PC camera.
- ULead Photo Explorer version 8.6 photo and video editing software.
- Drivers for Windows 98(SE) to add USB removable disk type. This is required only for Windows 98 systems and allows the system to download data files directly from the Tuff-Cam 2.

If you use Tuff-Cam 2 as a PC-Cam (web cam) or use the ULead Photo Explorer software, then you need to install the software from the CD.

NB: Install the drivers before connecting the Tuff-Cam 2 to the PC. Do not attempt to install the drivers automatically.

Insert the CD into a PC and the installation program should automatically begin. If it doesn't start automatically, then run the program **AUTORUN.EXE** found on the root of the CD.

If running a Windows 98(SE) computer, then first install the Windows 98(SE) MSDC Driver.



To operate the Tuff-Cam 2 as a PC-Cam (web cam), select “Install PC-Cam Driver”

To install the ULead Photo Explorer 8.6 photo and video editing software, select “Install ULead Photo Explorer”

When all required software has been installed, press “Exit” to finish the installation.

Following installation of the drivers, connecting the Tuff-Cam 2 to the PC (in PC-Cam mode) will automatically start a mini-application “Image Download Utility”. You can use this to download images and videos to the PC, even if you are in PC-Cam mode.

### **Specifications**

- Sensor: 5 MP CMOS
- Display: 2 inch, 640 x 240 TFT
- Internal storage: 32 Mb
- Additional storage: SD Card slot supports up to 2GB
- Built-in Li-Ion battery: 3.7V, 2200mAh
- Battery life: 9 hours continuous video or over 2 years in standby
- Still resolution up to 12 MP by interpolation
- Video: 640x480 at 19 frames/sec
- 8 x digital zoom on photo and video
- Audio and video playback
- TV-Out (PAL or NTSC) with AV cable provided
- Switch input (standard 3.5mm mono jack socket)
- USB 2.0 high-speed interface
- Date & Time stamping (selectable)

### **Troubleshooting**

- Tuff-Cam 2 is designed to work reliably and predictably in normal conditions. However, it is possible that problems may

occur. Please check the following before contacting technical support:

<b>Problem</b>	<b>Static discharge causes the unit to malfunction</b>
Solution	Press the reset button near LED for 5 secs
<b>Problem</b>	<b>Unit freezes during use</b>
Solution	Press the reset button near LED for 5 secs
<b>Problem</b>	<b>Files corrupt or buttons don't work</b>
Solution	Format the drive in Windows (use the FAT format, not FAT32)
<b>Problem</b>	<b>LCD screen is blank</b>
Solution	Battery is discharged, plug into USB port to recharge
<b>Problem</b>	<b>Tuff-Cam 2 fails to store images</b>
Solution	Memory is full. Delete some files to free up memory or use a new SD card
<b>Problem</b>	<b>LED light goes out in docking station</b>
Solution	This indicates that the battery is fully charged

### Warranty & Support

This product is provided with a one year warranty for problems found during normal usage. Mistreating the Tuff-Cam 2 or opening the unit will invalidate this warranty. Any data stored on the unit and any consequential loss is not covered by this warranty. The battery is not user replaceable.

All out of warranty repairs will be subject to a replacement fee.

## Technical Support

Please visit **[www.tts-group.co.uk](http://www.tts-group.co.uk)** for latest product information.

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WARNING! Not suitable for children under 36 months due to small parts – choking hazard.

WARNING: Do not dispose of this product in household waste. Hand it over to a collection point for recycling electronic appliances.