

USER MANUAL

**TOUGHPIX II
TRIDENT EDITION**
EXPLOSION
PROOF DIGITAL
CAMERA



Congratulations – You are the owner of the second generation of **ToughPIX digital camera** designed and certified specifically for use in **hazardous (explosive) atmospheres**.



ToughPIX II is certified ATEX/IECEx as follows:

- Ex d IIB+H2 T6 Gb / II2G Gb T6



Please ensure that the certification matches or exceeds the hazardous area characteristics that will be clearly displayed on site.



Whilst in a hazardous area, do not attempt to change batteries or download images, these tasks should only be undertaken after returning to a safe area.

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OVERVIEW

The SLR style ToughPIX II incorporates a high resolution sensor with 16GB memory and video capability. Close up and wide area photography is simple with crisp and clear images using the built-in macro feature, anti-shake technology, 3x optical and 4x digital zoom.



PACKAGE CONTENTS

Check the contents of your ToughPIX II. The shipping case should include the following items:

- Explosion proof digital camera
- USB Communication & Charging Cables
- Smart Charging Station
- CorDEX CONNECT™ Software
- Removable / Rechargeable Battery
- Neck Strap
- Hard Carry Case
- Manual Pack



REGISTER YOUR PRODUCT.

Register your product now
at www.cordexsupport.com
and receive a 12 month
extended warranty.

Terms & Conditions apply.

GETTING TO KNOW YOUR TOUGHPIX II TRIDENT EDITION



1 _____
Shutter Button

2 _____
Power Button

3 _____
Flash

4 _____
Lens



1
LCD Screen

2
OK/Function

3
Playback

4
Scene/Macro

5
Menu

6
Self Timer/Delete

7
Display

8
Flash

9
W/T (Zoom in/Zoom out)

SMART CHARGING STATION



1

Charge Power (Green LED)

Indicates the charger has operational power.

2

Battery Health (Amber LED)

Battery recommended for replacement.

3

Pack Temperature (Red LED)

Battery pack charging temperature outside 0 – 45°C range.

4

Battery Damaged (Red LED)

Indicates if the battery pack is damaged.

5

Battery Fuse (Red LED)

Shows that the Charging Station is processing information.

6

ToughPIX II Battery Pack

Indicates that the on board battery pack fuse has blown.

7

Battery Charge PCBs

Three LEDs will give an indication of battery charge status.

8

Processor Working Light

Shows that the Charging Station is processing information.

9

Mains Charging Socket

Only use CorDEX Approved Mains Adaptors. Failure to do so will invalidate your warranty.

What is EOP compatible?

Your battery packs are the latest generation of high capacity packs designed for use in ToughPIX II Ex digital cameras and are compatible with the Energy Optimisation Pack (EOP) installed into every ToughPIX II displaying the EOP logo.



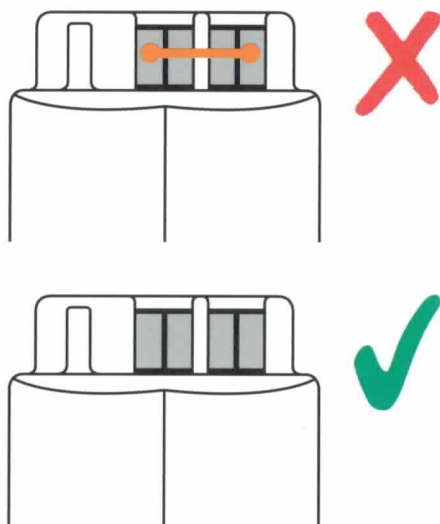
The advanced EOP circuitry within ToughPIX II EOP cameras dynamically matches the digital cameras instantaneous energy demand with the energy available at the battery to ensure maximum camera runtime. EOP also extends the life of previous ToughPIX II batteries which do not hold the EOP compatible logo.

For more information on the ToughPIX II EOP programme, please visit www.cord-ex.com or email sales@cord-ex.com.

ATTENTION:

Care must be taken not to cause an electrical short across battery pads.

Doing so will cause permanent damage to the battery pack which is not covered by Warranty.



Your ToughPIX II battery pack must only be changed in the safe area and is not be transported into the hazardous area unless within a properly secured ToughPIX II camera.

BATTERY CHARGING WITH SMART CHARGING STATION

ToughPIX II TRIDENT EDITION is also supplied with a smart, diagnostic charging station. Not only does this device charge the battery pack, but it provides valuable battery status and health information enabling you to get the most from both your battery packs and camera.

2.1 Charging a battery pack

1

Insert the CorDEX Instruments NiMH wall charger into the Charging Station, the green power on light will be displayed on the Charging Station.

2

Insert a ToughPIX II battery pack into the Charging Station.

3

The Charging Station will perform a series of checks on the battery pack, the results of which are displayed via LEDs on the left hand side.

4

Once the checks are complete, charging will commence and is indicated by a series of LEDs on the right hand side of the Charging Station. These LEDs will cascade in sequence as the battery charges. Once the charge cycle is complete, all LEDs will be solid green, the battery can remain in the Charging Station until needed.

NOTE: if the power is turned off at the socket, or there is no power when the battery is inserted, the Charging Station will still function in a basic diagnostic only mode.

2.2 Charging a battery pack

A bank of three LEDs will give an indication of battery charge status.

- Two green/yellow and one green to mimic the battery gauge bar graph on the camera battery indicator.
- The battery is evaluated under load.

The battery charge LEDs will operate as follows:

| Battery Charge |  Green LED 1 |  Green/Yellow LED 2 |  Green/Yellow LED 3 |
|----------------|---|--|--|
| > 90% | GREEN | GREEN | GREEN |
| 90% to 50% | Flashing GREEN | GREEN | GREEN |
| 50% to 35% | OFF | YELLOW | YELLOW |
| 35% to 25% | OFF | Flashing YELLOW | YELLOW |
| < 25% | OFF | OFF | YELLOW |

Table 2.2 Battery charge LED operation table

During charging the display will pulse from all OFF to all ON to indicate charging in progress.

When the charge cycle is complete the battery charge LEDs will remain ON at the final charge state.

If the charger is not connected (ie charging is not taking place or is complete) the charge LEDs will be static.






2.3 Diagnostics

The ToughPIX II Charging Station is also designed to function as a battery diagnostic tool providing important battery health and status information. This information is obtained automatically by the Charging Station when a battery is initially inserted and takes approximately 5-8 seconds to complete and should not be interrupted.

1

Insert a ToughPIX II battery pack into the Charging Station and wait for the "Busy" LED to stop flashing which indicates the battery status information has been completed.

Battery Status information will now be displayed on the left hand side LED bank and is defined as follows:





| | | |
|---|-----------------------------------|---|
|  | Charger Power (Green LED) | <p>Charger Power</p> <p>Indicates the charger has operational power.</p> <p>Either a powered NiMH Charger is plugged in OR a TPii battery pack is powering the unit.</p> <p>If this LED is not ON then the charger is not powered.</p> |
|  | Battery Health (Amber LED) | <p>Battery recommended for replacement</p> <p>Battery aging, expect reduced runtime.</p> |
|  | Pack temperature (Red LED) | <p>Battery pack temperature outside parameters. This LED will illuminate if the battery pack temperature is outside the defined charging range and charging is disabled. To rectify bring battery and charger within 0-45°C charge temperature range.</p> |
|  | Battery damaged (Red LED) | <p>Indicated if the battery pack is damaged. Battery should be replaced.</p> |
|  | Battery fuse (Red LED) | <p>Indicates that the on board battery pack fuse has blown. No charging will take place. No additional diagnostic data available. Battery must be replaced.</p> |

GETTING STARTED

Turning the Power On/Off

Use the power button on the top of the camera to turn the camera on and off. If there is insufficient battery power a red icon will appear on the display and the camera will automatically power off after a few seconds. Press the shutter button to take a photo.

Mode Selection

ToughPIX II has three operating modes, Camera  Video  and Playback.  Camera mode is the default from Power On and pressing the **MODE** button will toggle between Camera and Video mode. Press the Playback button  to review photos and videos.

Focus

Your TPII digital camera is equipped with two macro features; (1) Software macro, (2) Macro lens.

For best results always ensure your image is in focus.

Motorised Focus

Your TPII digital camera is equipped with an automatic focus capability. Failure to properly use this feature will result in blurred images.

To focus an image, point the camera at the target of interest. Depress the shoot button 50% and hold whilst the camera focuses, a green box will appear. If your target is within the green focus box continue and depress the shoot button fully and hold while camera takes the shot.

Macro Focus

The software macro is generally used if an target is seen and the Macro lens is not available. To enter software Macro Mode see Page 11.

For high resolution, close up images, the supplied macro lens is recommended. To use the lens, ensure software macro mode is not enabled and screw the lens onto the camera. Position the camera manually and use the optical zoom to obtain high quality close up shots.

TAKING PICTURES

Optical Zoom

You can magnify your subject up to 3 times using the optical zoom by pressing the **T** and **W** buttons to zoom in and out.

Digital Zoom

You can magnify your subject up to 4 times further using the digital zoom by pressing the **T** and **W** buttons to zoom in and out. An icon in the display will show whether you are using optical or digital zoom.

Flash

In low light conditions it is recommended to use the built-in flash. Use the **flash/right** button to toggle through the four flash modes:



Force flash

AUTO Auto



Red eye reduction



No flash

Scene

Scene is selected using the **left** button and toggles through several setting options: Auto, Night Portrait, Night Scenery, Portrait, Scenery, Beach, Sport, High Sensitivity.

Self-timer

Self timer is selected using the **down** button to toggle through 4 self-timer options: 2 sec, 5 sec, 10 sec or Off.

Delete

Press the up button to delete the last photo or video captured. A "Delete This Image" confirmation message will appear in the display, use the **left/right** buttons to choose yes to delete the image or no to cancel the delete.

Image Size




To set the image size, press **MENU** and use the **right/left** button to select the **MP** icon. The image size menu will appear in the display and the **up/down** buttons will select the required image size.

TAKING VIDEOS

Anti-Shake



This function prevents blurring of the photo as a result of hand shake. It is accessed through the **MENU** button and using the **right/left** button to select the Hand icon.

Macro

The macro or close-up function enables clear photos to be taken within a distance of 15cm to 45cm from the subject. Press the **MENU** button and use the **right/left** button to select the macro icon . The macro menu will appear in the display and the **up/down** button will toggle the macro  and distance  function on and off.

Setup

You can adjust the many camera setup options by pressing the **MENU** button and using the **right/left** button to select the **TOOL** icon. The setup menu on the display enables adjustment of: Exposure, ISO, White Balance, Sharpness, Quality, Digital Zoom, Date, Beep Sound, Auto Power Off, Language, Frequency, Format, Default Setting.

Press the **MODE** button to select video mode . Press and release the shutter button to start recording. The elapsed time will appear on the top right of the display and the recording icon will flash. Press the shutter button again to stop the recording and save the file in AVI format. Use the playback mode  to view your recording.

DOWNLOADING FILES

There are two options available for downloading images from ToughPIX II TRIDENT; (1) USB dongle, (2) Wifi. Data download is only to be performed in the safe area.

1.1 USB Dongle

ToughPIX II Trident is supplied complete with a USB download dongle which completely replaces the original TPII docking station (which is incompatible with ToughPIX II Trident Edition).

To download images;

1

Remove the USB plug from the base of the camera.

2

Remove the ExPower battery pack.

3

Insert the USB dongle into the bay ensuring the orientation is correct by rotating the dongle until it seats correctly.

4

Insert the USB cable supplied into the dongle and PC.

5

Turn the camera on, if this is an initial installation Windows may wish to download drivers for the camera in order to communicate.

6

Your camera will now appear as a drive on the PC.

1.2 Wifi

ToughPIX II Trident is equipped with a Toshiba Flashair 16Gb wifi SD card onboard. This card enables users to wirelessly download images from the camera without the need to use the USB dongle.

To download images;

1

Ensure the camera auto power off feature is disabled, if the camera powers down with wifi active, go to section 1.3.

2

Turn on the camera.

3

Press the Play (▶) key to enter the preview mode.

4

Using the right scroll key, scroll through the images until you see this screen.



5

Press the Menu Button, highlight "Unprotect All" and press Enter, wifi is now enabled.

6

The camera SSID is set to match the serial number which prevents conflicts. Download the Toshiba Flashair app for your device and connect to your camera using password 12345678.

7

Using the Toshiba Flashair app, download the images to your device and disable wifi. Do not navigate away from the wifi enable screen on the camera. The wifi will remain active if you come out of the wifi screen and if you take an image or video while connected, it transfers it straight to the device connected.

To disable wifi

1

Once you have completed downloading images the wifi must be disabled. If the camera is powered down without disabling wifi, go to section 1.3.

2

Press the Menu Key, highlight Protect All and press select.

3

Wifi is now disabled and the camera can be used within the hazardous area.

1.3 Recovering from a wifi enabled power down

If for whatever reason, ToughPIX II Trident is powered down without following the disable wifi process, the Toshiba Flashair card has to be reinitialised manually. This will not result in lost data, but failure to do so will prevent wireless communication.

1

Ensure the camera auto power off feature is disabled, if the camera powers down with wifi active, go to section 1.3.

2

Turn on the camera.

3

Press the Play [▶] key to enter the preview mode.

4

Using the right scroll key, scroll through the images until you see this screen.



5

Press the Menu Button, highlight "Protect All" and press Enter, wifi is now correctly disabled and the camera can be used as normal.

TECHNICAL INFORMATION

Certificate Information

| | |
|-------------------------------|--------------------------------------|
| ATEX / IECEx Certificate No | TRAC13ATEX0046X / IECEx TRC 13.0016x |
| ATEX / IECEx Certificate Type | Ex d IIB+H2 T6 Gb / II2G Gb T6 |
| Ambient temperature | Tamb -20C to +50C |

General Information

| | |
|-----------------------------------|---|
| Image download | High Speed USB (safe area only) |
| Image storage | 16GB |
| Standard image capture resolution | 16 Megapixel |
| Zoom | 3 x optical, 4 x digital zoom |
| Screen size | 2.7 inches |
| Additional features | Anti shake, auto focus, macro, face recognition |
| Tripod mount | ¼ inch 20 TPI |

Detailed information

| | |
|---------------------|--|
| Body material | Anodised aluminium with anti-static over mould |
| Lens & LCD material | Armoured Glass |
| Weight | 900g |
| IP | 54 |

Electrical information

| | |
|--------------|--------------------------|
| Battery type | Removable & Rechargeable |
| Capacity | 1100mAh |
| Cell type | NIMH |

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and receive a 12 month
extended warranty.

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