

## ITS TAKEN US A YEAR...

- ✓ Focus Performance
- ✓ Colour Balance
- ✓ Anti-shake
- ✓ Flash Power
- ✓ Exposure
- ✓ Close-up Mode
- ✓ Brightness
- ✓ Contrast
- ✓ Saturation
- ✓ Image Review

### PRAISE FOR TOUGHPIX DIGITHERM V33

Huge improvement, image capture is almost instant with colour balance. High power flash allows wide area shots in completely dark locations.

**EXPLORE >>**

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## THE STORY SO FAR...

2017

NOVEMBER						
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2018

JANUARY						
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MARCH						
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JULY						
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NOVEMBER						
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DECEMBER						
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2019

JANUARY						
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30	31					

● Significant update    
 ● Incremental update    
 ● Major update

Launch with **V17**

**The big one, V32**     Current **V33**

14 updates in 15 months

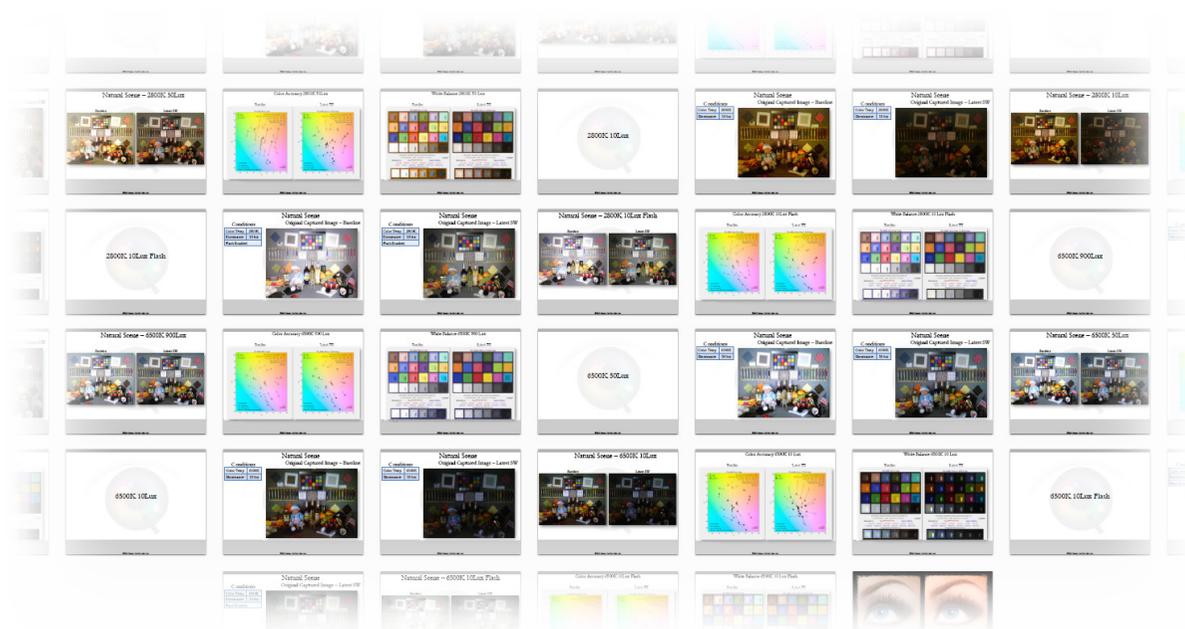
## THIRD PARTY IMAGE TESTING

OK so in V31 we nailed the flash control, but we knew we still had an image problem, time to call in the experts.

*Images took using firmware V31 - December 2018*



**FIRMWARE V31**  
BASELINE TESTING



### Baseline Report Conclusions

1. Images consistently over exposed.
2. Colour balance is inconsistent at various LUX levels
3. Image capture delay caused blurring
4. Preview/capture image differences

## CONCLUSIONS

Colour balance and exposure control was tested in controlled environments and logged.

*Images took using firmware V31 - December 2018*



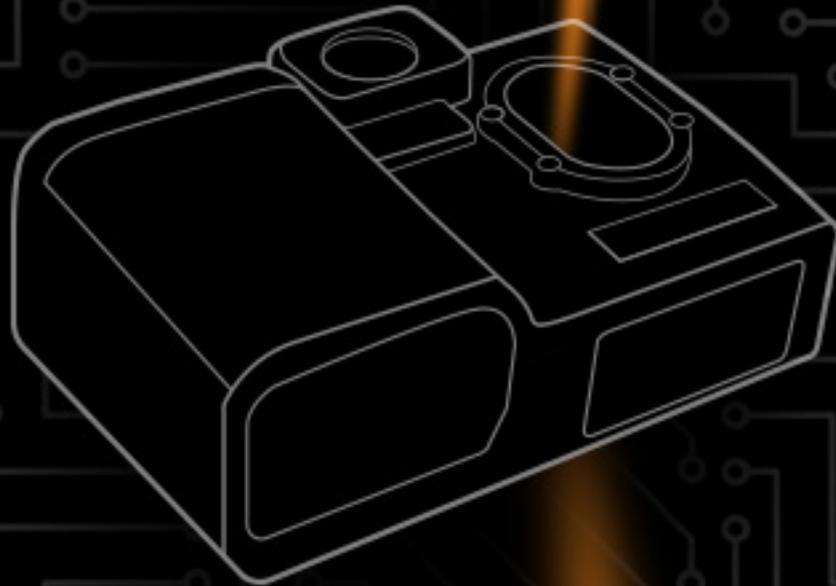
**FIRMWARE V31**  
BASELINE TESTING



IMAGES SEEM OVER-EXPOSED IN ALL CONDITIONS



THE COLOUR BALANCE WAS INCONSISTENT ACROSS  
THE BASELINE IMAGES



THE CHANGES WERE SUBTLE...  
***BUT THE DIFFERENCE IS STAGGERING***

## DIRECT COMPARISONS

Using the third party image data, CorDEX engineers tweaked the software with outstanding results. Optimised V33 was born.

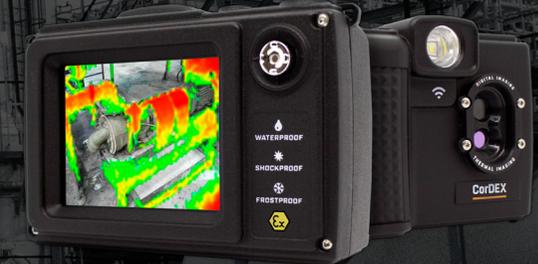


FIRMWARE V31 VS  
**OPTIMISED V33**

OPTIMISED V33									
	V31								
		6500K	900LUX	6500K	50LUX	6500K	10LUX	6500K	10LUX
		FLASH DISABLED		FLASH ENABLED		FLASH DISABLED		FLASH ENABLED	

## WHAT DO YOU GET WITH VERSION 33

Optimised V33 encompasses all previous version revisions in one simple, field deployable update, which include...



- ✓ Add close-up mode area indication
- ✓ Correction to general over-exposure
- ✓ **Improved focus performance in all light conditions**
  - Non-flash: intermittent close range focus problem corrected
  - Low-power flash: autofocus improvements for low light conditions
  - Full-power Flash: only used for distant scenes (typically >6m) where the lens defaults to long range
- ✓ Flash icon only displays if flash is active (ie enable or auto)
- ✓ **NEW** close-up mode: central region exposure weighting used intended for label and rating plate images
- ✓ Capture speed enhancements
- ✓ Exposure updates improve colour balance and detail in the darker areas of images
- ✓ Full power flash synchronisation improvements
- ✓ Operation of lower power torch flash also improved for lower light scenes
- ✓ Correction of lens vignetting



## HOW DOES THE TOUGHPIX DIGITHERM FLASH WORK?

Your camera is supplied with three user selectable flash modes; **OFF, ENABLE and AUTO**

FLASH MODE	ACTION	AUTOMATIC OPTIONS	→	LOW LIGHT	ADEQUATE LIGHT
<b>OFF</b>	Never flashes	N/A	N/A	N/A	N/A
<b>ENABLE</b>	Always flashes	Torch/Full flash	Torch, evaluates reflected light level	Full flash, relaxes lens to far field and fires	Single focus based on poor initial light level
<b>AUTO</b>	Considers light level before led fires. If exposure in the auto-exposure range, no LED	Torch/Full flash	If below acceptable exposure level for sensor, torch switched on to evaluate reflected light levels	Full flash, relaxes lens to far field and fires	Single focus based on poor initial level



## FLASH MODES

Recommended TOUGHPIX DIGITHERM flash mode selections for various lighting conditions

### FLASH MODE: OFF



#### ENTIRE SCENE >50LUX

Use for scenes that have good ambient light with the target falling within the lit area.

### FLASH MODE: ENABLED



#### ENTIRE SCENE >50LUX TARGET <50LUX

Use for scenes that may have good ambient light, but the target is in shadow. The superficial areas will show as over exposed due to the flash but the target in shadow will be illuminated. The camera will automatically select high or low power flash based on an evaluation of the reflected light.

### FLASH MODE: AUTO



#### ENTIRE SCENE >50LUX

Use for scenes that may have low ambient light. Camera will automatically select the correct flash power based on an evaluation of the reflected light.

### Focus operation in flash mode

If reflected light is measured as below the optimal sensor level, lens relaxes, assumes wide area/long distance target, fires full power flash and captures. If reflected light is measured as within the optimal sensor level, torch mode retained, repeated auto-focus and capture.



**NEW**

## CLOSE-UP MODE

With optimised V33 firmware, your camera is loaded with features and technology to give you the image capture capability you deserve. Lets make sure we help you understand the two capture modes supported and help you make the correct selection for your scene.



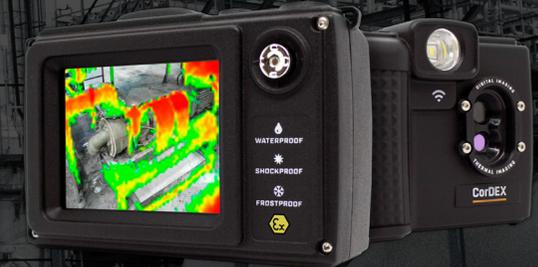
### Close-up mode

This unique feature is aimed predominately at users who are documenting Ex rating plates, but can be used in any circumstance when the camera exposure metering needs to be narrowed to a specific portion of the image rather than that of the whole scene.

In close-up mode, TOUGHPIX DIGITHERM displays a rectangular box on the preview screen. Rather than using the entire scene to calculate the exposure - and if necessary the relevant flash power setting - the camera now focuses on optimising the scene within the box. This is important if the target is in a location of significantly different light level than the wider scene, in which case, without close-up mode the target could become under exposed or suffer from a lack of flash.

## UPDATING YOUR FIRMWARE

How to download and install your TOUGHPIX DIGITHERM firmware update



### Downloading your update

Please visit [www.cord-ex.com/toughpix-digitherm-firmware-update](http://www.cord-ex.com/toughpix-digitherm-firmware-update) and enter your details in the form. Once you've submitted your information, you will then receive a link to download the latest firmware file available.

### Installing your new update

1. Remove the CorDEX Memory Card from your camera.
2. Insert CorDEX Memory Card into supplied CorDEX USB Memory Card Reader.
3. Insert the CorDEX USB Memory Card Reader into your PC/laptop USB port.
4. Find your newly downloaded firmware file named 'tp3r.aes' and copy the file to the root of the CorDEX Memory Card.
5. Safely eject the CorDEX Memory Card from your PC and insert it back into the camera.
6. Turn on your camera and navigate to the  Firmware & Alignment.
7. Go down to 'Update Firmware' and select 'Now'. Your camera will then show an 'updating firmware...' notice and reboot with your new firmware applied.

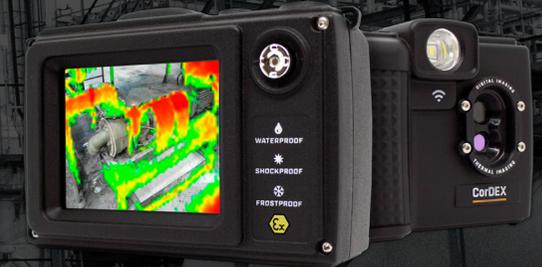


### HOW TO CHECK YOUR CURRENT FIRMWARE VERSION?

Check your current firmware version of your TOUGHPIX DIGITHERM by turning on the camera, go to the Firmware & Alignment section and your Firmware Version Number (0.0.0.XX) will be indicated at the bottom.

## WE'RE TREATING OUR TOUGHPIX DIGITHERM CUSTOMERS

A little something to say thanks...



We'd like to send our TOUGHPIX DIGITHERM customers an easy-to-carry soft case that shields your camera from dust and scratches.



Before we can send you your free gift, we need to confirm where to send it. Please make sure the address we have for you is correct by clicking the link below.

[Check my delivery address](#)



*Terms & Conditions Apply. One case supplied per confirmed camera serial number, while stocks last*

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