Firmware updates for Digital Single Lens Reflex Cameras (DSLR)

1.0 Introduction

1.1 The control of all of the functions of DSLRs is loaded as coded written instructions into special memory chips at the time of manufacture. The combination of these program instructions and the memory chip holding them is called firmware. Firmware controls everything that happens inside the camera, from pressing buttons, turning knobs, the range of options existing in menus and how the final image is optimized.

1.2 During the production life of each camera model, experience of use by the global community often reveals unintended operational problems, malfunctions or areas of optimization which can be improved. These can be obscure items, of limited significance or extensive real problems which are very significant. The performance of the DSLR in certain conditions may also be capable of improvement. For instance, instructions which limit the shutter speed range available when flash is used may be capable of extension.

1.3 The performance and correction of malfunctions for any particular camera model, is achieved by the manufacturer issuing firmware updates, available as free downloads from their web site.

2.0 Do I need a Firmware update ?

2.1 The handbook for the camera, which may be downloaded if not to hand, shows how to search the menu to find the current version number for the installed firmware.

2.2 Visiting the manufacturer's website, generally under support/downloads and inputting the camera model number (sometimes the serial number is required) will show a list of down loads for the particular camera. Finding the firmware section will show the latest version available, together with a list of functional problems which the up-date will correct and performance improvements provided. If the current version is confirmed to be the latest version, clearly no up-date is necessary.

2.3 If the latest version is not resident, generally the list of improvements will readily convince most users that a firmware update to the latest version is highly desirable. Clearly updates are not issued without very good reasons and once installed the camera will become the equivalent of the same model newly purchased.

2.4 There may be isolated cases where an up-date is not preferred, because the improvement does not match personal preferences. For instance a processing change may be included to make images taken in low light conditions with high ISO settings less noisy (grainy in old parlance). If the user has a preference for moody noisy black and white images, it would not be attractive to up-date. Generally however, up-dating is the option of choice, because many other benefits may accrue.

3.0 Risks and Warnings

3.1 As explained above the firmware is the central nervous system of a DSLR and the up-date process must be safely completed without interruption, in strict accordance with the detailed instructions supplied with the new firmware download.

3.2 If the up-date process is interrupted prior to completion, the DSLR would simply cease to operate and returning to the manufacturer's service department would probably be the only avenue to retrieve the situation.
3.3 Before starting the camera battery should be in a fully charged state to ensure that it does not go flat during the process, thus causing the process to stall.
3.4 Subject to applying common sense during the process like not turning the power off or removing the battery, no problems are encountered.
3.5 **The up-date process is very easy, not to be feared and is completed in about thirty seconds or so.**

4.0 The Firmware Up-date Process.

4.1 As mentioned detailed manufacturer's instructions are obtained for the particular DSLR model. It is wise to print them off and read through them a couple of times prior to starting to ensure full understanding.
4.2 Heed the warnings and follow the instructions implicitly!
4.3 The process varies by manufacturer and by model number, but generally follows the following pattern.
4.4 A memory card is newly formatted by the camera (any capacity will do, but make sure it does not hold any images which have not been saved elsewhere).
4.5 A file or two files are down loaded and transferred to the newly formatted card either by using a PC with the newly formatted card inserted into a connected card reader or by connecting the camera to the PC with a USB cable to download direct to the card whilst in the DSLR.
4.6 The downloaded executable file stored on the memory card within the DSLR is activated using the cameras menu in the way indicated in the instructions. An on-screen display identifies the firmware up-date process and pressing the OK button shows a progress bar with completion showing a short time later.
4.7 Some cameras have a sequential two stage up-date process for two downloaded executable files and for some models it is necessary to switch off, remove and re-insert the battery after the completion indication has been present for a few moments, in order to complete the up-date.
4.8 END.