## "UnDutchables 0.1.0 firmware" for the Canon Digital Rebel (300D) Released February, 2005
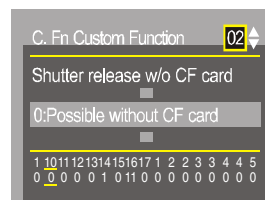
All enhancements over Canon 1.1.1

- Custom function menu found on the last page in the menu
- Ability to define how the SET button behaves (same menu found on the 10D - refer to the 10D manual for full explanation of these new enhancements)
- Exposure level increments either 1/2 or 1/3-stop
- Option to enable 1/200th flash speed sync in AV mode
- Ability to change the JPG size when shooting in RAW mode
- Shutter release with or without CF card
- FEC adjustment via the JUMP button, use the dial to adjust as shown on the LCD, only in Creative Modes
- ISO3200 now available, and is represented by an "H" in the LCD - same as how the 10D shows this
- Mirror lockup available via enabling the option in the custom function, works by pressing the shutter button which flips the mirror up, then the shutter opens after the timeout defined in C.Fn17 after MLU - note that this is different than how it is implemented on the 10D where you press once to flip the mirror and press again to open the shutter
- Mirror lockup delay adjustable via C.Fn17 – possible delay includes 1.5 sec, 3 sec, 4.5 sec, 6 sec, 7.5 sec, and 10 sec
- Immediately pressing the ERASE button after taking a photo, you can delete the photo by pressing the SET button again instead of selecting Ok previously, to not delete the photo press any other key
- In Creative modes, left button changes the focus mode and is displayed on the LCD as follows:
    - AF OF Lens set to manual focus
    - AF OS One shot
    - AF SE AI-Servo (selectable but cannot take a photo - one workaround, hold the shutter button all the way down then switch the lens to manual focus)
    - AF AI AI-Focus (first takes one shot then the camera may switch to AI-servo depending on what you are focussing on)
- Continues Drive in Basic Mode
- White balance selection in Basic modes
- Custom Function 1 available in basic modes enabling:
    - Quality Select via SET button
    - Parameter select via SET buttons
    - Menu via SET button
    - Image Replay via SET button
- White balance bracketing is working is basic modes, but has to be set in creative modes.
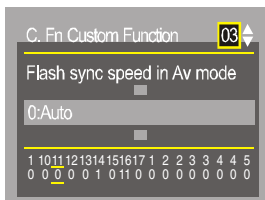
Custom Function Menu

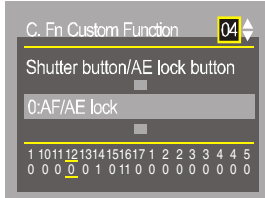All images show the default value. ✓ designates working function.
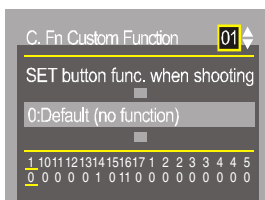
CF1 ✓
0 Default (no function)
1 Change quality
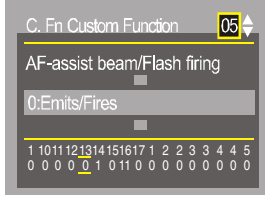2 Change parameters
3 Menu display
4 Image replay

CF2 ✓
0 Possible without CF card
1 Not possible

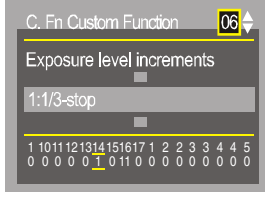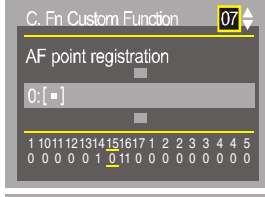**CF3** ✔
| 0 | Auto |
| 1 | 1/200sec (fixed) |

C. Fn Custom Function `03`
Flash sync speed in Av mode
`0:Auto`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF4 ✘
0	AF/AE lock
1	AE Lock/AF
2	AF/AF lock, no AE lock
3	AE/AF, no lock

C. Fn Custom Function `04`
Shutter button/AE lock button
`0:AF/AE lock`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF5 ✘
0	Emits/Fires
1	Does not emit/Fires
2	Only ext. flash emits/Fires
3	Emits/does not fire

C. Fn Custom Function `05`
AF-assist beam/Flash firing
`0:Emits/Fires`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF6 ✔
| 0 | 1/2-stop |
| 1 | 1/3 stop |

C. Fn Custom Function `06`
Exposure level increments
`1:1/3-stop`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF7 ✘
0	[▪]	4	[▪▪▪]
1	[-]	5	[▪]
2	[▪]	6	[▪]
3	[▪]	7	[-]

C. Fn Custom Function `07`
AF point registration
`0:[ ▪ ]`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`
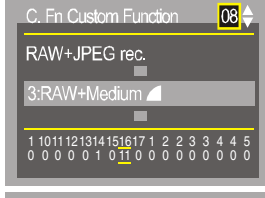
CF8 ✔
0	RAW+Small Normal
1	RAW+Small Fine
2	RAW+Medium Normal
3	RAW+Medium Fine
4	RAW+Large Normal
5	RAW+Large Fine

C. Fn Custom Function `08`
RAW+JPEG rec.
`3:RAW+Medium ◢`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`
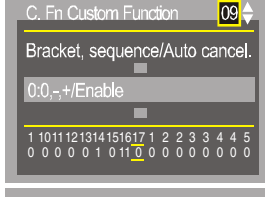
CF9 ✘
0	0,-,+/enable (300D default)
1	0,-,+/disable
2	-,0,+/enable
3	-,0,+/disable

C. Fn Custom Function `09`
Bracket, sequence/Auto cancel.
`0:0,-,+/Enable`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF10 ✘
| 0 | On |
| 1 | Off |

C. Fn Custom Function `10`
Superimposed display
`0:On`
`1 1011121314151617 1 2 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`
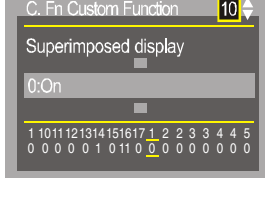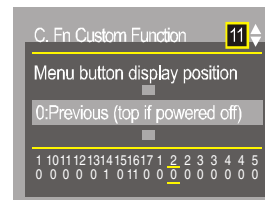
CF11 ✘
0	previous(top if powered off)
1	previous
2	top

C. Fn Custom Function `11`
Menu button display position
`0:Previous (top if powered off)`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF12 ✔
| 0 | disable |
| 1 | enable |

C. Fn Custom Function `12`
Mirror lockup
`0:Disable`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF13 ✘
| 0 | enable |
| 1 | disable |

C. Fn Custom Function `13`
Assist button function
`0:Normal`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF14 ✘
| 0 | enable |
| 1 | disable |

C. Fn Custom Function `14`
Auto reduction of fill flash
`0:Enable`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF15 ✘
| 0 | 1st-curtain sync |
| 1 | 2nd-curtain sync |

C. Fn Custom Function `15`
Shutter curtain sync
`0:1st-curtain sync`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

CF16 ✘
| 0 | Disable |
| 1 | Enable |

C. Fn Custom Function `16`
Safety shift in Av or Tv
`0:Disable`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`
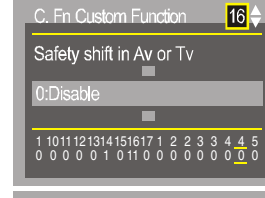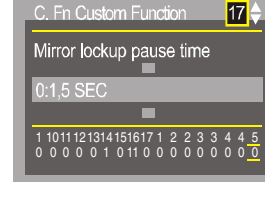
CF17 ✔
0	1.5 sec
1	3 sec
2	4.5 sec
3	6 sec
4	7.5 sec
5	10 sec

C. Fn Custom Function `17`
Mirror lockup pause time
`0:1,5 SEC`
`1 1011121314151617 1 2 2 3 3 4 4 5`
`0 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0`

Note: this is replaced in this firmware to allow for the user to adjust the MLU delay vs the 10D menu

For further explanations on these custom functions please refer to the 10D manual.

Watchouts

- Camera may lock up if you attempt to change the language, maybe possible to change the language but must be done on the original Canon 300D 1.1.1 firmware
- Some features may not work correctly if you are using another language - use English as a workaround
- If you upgrade and some of the things don't seem to work properly, set the settings in the Custom Function back to the original values (see below) and install the original 1.1.1 firmware, then upgrade to the new firmware
- Change the SET button to something other than FEC before upgrading to this version
- If MLU does not work, ensure that the camera is in single drive mode
- When using a flash with the MLU enabled, the flash will fire when the mirror lifts and again with the shutter opens
- Menu items for the MLU timeout will show a few arrows – ignore the arrows
- The quick erase may have altered something with the code used for monitoring the battery, and the low battery icon may appear earlier than expected
- Numbering of the custom functions are incorrect but the functions themselves are correct
- Changing Quality from RAW in Basic mode via the menu may crash the camera. Nothing serious just turn the camera off and on again, if necessary by removing the battery. Changes must be made in a Creative mode or via the SET button + Custom Function-1 (see 10D manual page 166).
- If the AF drive is set to AI-Servo the AF confirmation Light and Beep are turned off (as done in the 10D) but now it is turned off for *all* modes. Please change to AI-Focus or One-Shot if AF confirmation Light and Beep is desired.

Issues resolved from previous version

- When using MLU and the countdown timer, the 10 second countdown now behaves normally, then followed by the MLU
- Right button mapping has been removed as it didn't do anything before.
- Raw, white balance and continuous now available in basic modes.

Reverting back to the original version

- Reset all the Custom Function values to the original 300D settings. Note, you cannot use the Reset option in the menu, it does not affect these values. Below is a list of default binary values from left to right (the bottom numbers in the CF menu):
  0,0,0,0,0,1,0,11,0,0,0,0,0,0,0,0,0
- Flash back to 1.1.1.

Web Resources

- *Yahoo group*
  http://groups.yahoo.com/group/canondigicamhacking
- *DPreview Canon 300D forum*
  http://forums.dpreview.com/forums/forum.asp?forum=1031
- *Canon EOS 300D Digital Rebel Tips and Tricks*
  http://www.bahneman.com/liem/photos/tricks/digital-rebel-tricks.html
- *Canon 300D Firmware 1.1.1*
  http://web.canon.jp/Imaging/eosdigital/E3kr_firmware-e.html
- *Canon10D manual (PDF)*
  http://www.powershot.com/powershot2/customer/pdf/EOS_10D_E.pdf
- *Canon 300D manual (PDF)*
  http://www.canoneos.com/digitalrebel/download/manual.pdf
- *300D Firmware Hacking Forums*
  http://www.syeager.org/300d