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Instructions on programming the AF emulator Chip

Thank you for purchasing our new revolutionary AF emulator chip for Canon!

2 major difference from ordinary AF confirm chip:

- 1) It is now defaulted to AF mode (equivlalent to setting the AF/MF switch on EF lenses). All ordinary AF confirm chip (older versions) are defaulted to MF mode. Benefits are:
- a) locking of shutter release until you get the confirmation signal. If you hold the shutter release (fully depressed), the shot will be taken immediately when you turn the lens focusing ring and get the AF confirmation signal. This allows taking fast-moving subjects.
- b) Improves focusing accuracy, with much more sensitive focusing sensor
- c) Enables user to calibrate AF emulator chip for different kinds of lenses
- d) AF confirmation beep is now available to all cameras
- 2) EXIF data is programmable using any EOS cameras

Summary of programmable parameters:

- 1) Aperture value
- 2) Focal Length
- 3) Calibration for front and back focus
- 4) Switch between AF and MF mode
- 5) Time delay option into entering progam mode

This instructions organized into 4 main parts, namely:

- (A) Pre-requisite setting
- (B) Entering into programming mode
- (C) Changing the 5 programmable parameters
- (D) Troubleshooting Tips

Part (A) and (B) are mandatory in order to program the chip. Part (C) is the detail of changing each of the parameter. It is recommended to read part (A) or (B) thoroughly before proceeding to part (C).

(A) Pre-requisite settings

- 1) Switch on the camera
- 2) Set the mode to M
- 3) Set shutter speed to 13 seconds
- 4) Set EV STEP (exposure value step) to 1/3 EV

(B) Entering into programming mode

- 1) Point and focus the camera to any subject and get the AF confirmation light
- 2) Turn the adapter ring on the bayonet joint to detach AF emulator chip from the camera (the camera will display aperture "0.0"). **Do not** move the lens focus ring.
- 3) Hold onto the shutter release button (half press) and at the same time turn the adapter back to make the AF emulator chip contact to the camera (the camera will display aperture "F1.4"). **Do not** move the lens focus ring.
- 4) Within 3 seconds (from the moment the camera shows F1.4), press the shutter release button completely (with shutter speed set to 13 seconds). This has to be performed when the AF confirmation light is turned on simultaneously. That is the camera has to be pointing at the focused subject in step (1) above. If there's no AF confirmation light, the shutter cannot be triggered. Mount the camera onto a tripod to manage this step more easily.
- 5) Set the camera to AV mode. Turn the control dial, the aperture should change from 3.5 to 11. This shows that you've successfully enter into the programming mode.

6) Depending on individuals, it might require some practice to get into programming mode successfully. Refer to the trouble shooting guide right below of this manual if you can't get it after several tries.

(C) Changing the programmable parameters

(1) Changing the Aperture Value

Changing the aperture value is mainly for information purpose only when the picture is viewed in computers. It does have a small effect on the sensitivity of AF confirmation sensor. Setting the chip's aperture value does not need to coincide with the physical aperture value of the lens. The 2 apertures are independent and does not affect the camera characteristics during shooting in any way. The allowable aperture value range from F1.0 to F64.

- 1) Enter into programming mode
- 2) Assign Command change the aperture to F4.0 by turning the control dial. Depress shutter release button once.
- 3) Assign the desired aperture value Turn the control dial to the desired aperture value and depress shutter release button (or DOF preview button) once.

For example, if you wish to change the aperture value of the chip to F5.6.

- a) In programming mode, turn the control dial to F4.0, and depress shutter release button.
- b) turn the control dial until you see 5.6
- c) Depress shutter release (or DOF preview button) button.
- d) Now the camera will save the aperture value, and quit programming mode automatically after step (b)

Note:

- You cannot choose or program any intermediate apertures, such as F1.7
- If you set the aperture beyond F7.1, getting the AF confirmation beep might be difficult. Therefore you might face problem getting into programming mode. We recommended not to set aperture beyond F7.1 for general use.

(2) Changing the Focal Length

Changing the focal length is solely for information purpose only when the picture is viewed in computers. It does not affect the camera characteristics during shooting in any way.

The allowable focal length is from 1mm to 65535mm.

- 1) Enter into programming mode
- 2) Assign Command set the aperture to F5.6 by turning the control dial. Depress shutter release button once.
- 3) Assign the desired 5 digit focal length. The 5 digit is associated to the camera aperture value as shown in the table below. If the focal length consists of less than 5 digit, substitute it with '0'. i.e. enter 00250 for 250mm

Aperture	4.0	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10	11
Associated digit	0	1	2	3	4	5	6	7	8	9

For example, if you wish to change the focal length of the chip to 250mm.

- a) turn the control dial until you see 4.0, depress shutter release button (or DOF preview button) this represents '0'
- b) depress shutter release button (or DOF preview button) 1 more time this represent '0'
- c) turn the control dial until you see 5.0, depress shutter release button (or DOF preview button) this represents '2'
- d) turn the control until you see 7.1, depress shutter release button (or DOF preview button) this represents '5'
- e) turn the control until you see 4.0, depress shutter release button (or DOF preview button) this represents '0'
- 4) If the command (step 2) and five digits (step 3) are entered correctly, the camera will save the focal length information into the chip, and quit programming mode automatically.

(3) Changing other parameters

After some practice with part (1) and (2), i.e. aperture value and focal length value, you should now be familiar with how the programming works.

This section describe all other parameters which you can program the chip. The step are similar, i.e. assign command + assign data. The data assignment uses the same data table as in part (1) and (2).

Aperture	4.0	4.5	5.0	5.6	6.3	7.1	8.0	9.0	10	11
Associated digit	0	1	2	3	4	5	6	7	8	9

The various programmable functions are are as follows:

1) Calibration of front and back focus

Command F8.0 + 2 digits from 01 to 17 - correction of focus confirmation point or calibration function. You may move the focus point a little forward or backward, to manually calibrate the right focus for your lens. By default the chip is set to the center, i.e. 09.

2) Switching of focus mode between AF and MF

Command F9 - This option is the same as MF/AF switch on an autofocus lens. Please note in the MF mode, accuracy of focus confirmation depends on the direction in which the focus ring is turned. Besides, some cameras may not have an AF confirmation beep (check the viewfinder in this case).

3) Time delay before entering the program mode

Command F11 + 2 digits - delay before entering into program mode. This is set at 10 seconds by default. You can change it to 01 to 99 seconds. A short delay helps activate the program mode quicker. A longer delay avoids the possibility of accidental activation.

Note that if you set the delay timing to 15 to 99 seconds, you will have to set the shutter speed to 16-100 seconds to enter the program mode. i.e. shutter speed needs to be 1 second longer. Use the bulb mode with a shutter release cord where necessary.

(D) Troubleshooting Tips

Question: I can't get into programming mode

Answer: Follow these steps exactly:

- 1) Mount your camera onto a tripod. So it will be easier to manage.
- 2) With the adapter and lens fix on the camera, set your camera to AI Servo focusing mode. (At AI servo mode, you do not need to get the lens focused in order to release the shutter)
- 3) Set the camera to manual exposure, set shutter speed to 13 seconds. Use bulb and shutter release cord if necessary
- 4) Twist and disconnect the adapter from the camera. Your camera will show "00" now
- 5) Turn off the camera power
- 6) Turn on the camera power on again
- 7) Half press and hold the shutter release button (lock exposure), twist the lens/adapter clockwise to engage the adapter to the camera.
- 8) Once you see F1.4 on the camera, within 3 seconds, depress the shutter release button (from half depress to full depress) completely.
- 9) After 13 seconds when the shutters close, turn the mode dial to AV mode.
- 10) Turn the control dial, if the aperture moves from F3.5 to F11, you've successfully entered into programming mode. Continue with the rest according to the programming guide.
- 11) Should it be unsuccessful, set shutter speed to 105 seconds in step (3). After you get into programming mode, set delay (command F11) to 10 seconds immediately.

Question: The chip isn't working, my camera shows F00 **Answer:**

- 1) The aperture value on your camera should display F1.4 with the adapter mounted onto the camera. Should your camera show F00, it means there's no connection between the chip and the camera
- 2) Check the chip alignment again by fixing the alignment tool onto the adapter
- 3) Should your camera aperture value shows F00, make sure that the adapter is properly mounted onto the camera.
- a) Fit your lens to the adapter
- b) Align the red dot on the adapter to the red dot of the camera lens opening, push the adapter in, turn clockwise (about 45 degrees) until you feel the 'click', i.e. the lens locking pin on the camera locks the adapter. Switch on the camera, half press shutter release button and lookout for the aperture value.

- 4) Should aperture value still shows F00, remove camera battery, wait for 5 seconds and re-install battery. Repeat (2) again.
- 5) There could be glue residue on the chip metal contact sometime not visible, sand the contact using a sand paper. Sand thoroughly

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