

CANON DIGITAL LEARNING CENTER



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QuickGuide to EOS 7D Autofocus Modes



This QuickGuide provides the information you will need to take full advantage of the Canon EOS 7D's versatile 19-point autofocus system, five AF-point selection modes, and three AF shooting modes. The EOS 7D is adaptable to practically any shooting style and subject while providing you with full control and continuous feedback. The more familiar you are with its capabilities, the better your ability to apply them to your needs and subject matter.

These instructions assume you are familiar with the location of basic controls such as the **Main Dial** on the front of the camera, immediately behind the shutter button, and the **Quick Control Dial**, **Set Button** (in the center of the Quick Control Dial) and **Multi-controller** on the back. We

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also assume you will be using a Canon EF-compatible lens with the AF/MF switch set to AF. The additional AF-specific controls you will also need to be familiar with include the:

- 1 Multi-function (M-Fn) Button
- 2 AF-Drive Button
- 3 AF Point Selection Button

AF SHOOTING MODE OPTIONS

One Shot AF

In this mode the AF system is set to focus on a stationary object. Once the system has confirmed sharp focus, a half-press on the shutter button will lock focus. You can then re-compose (if you wish) before you release the shutter.

AI Servo AF

In this mode the AF system is set to detect a moving subject, focus on it, and maintain focus as you release the shutter. This mode is ideal for subjects moving in three-dimensional space; that is, toward or away from the camera.

AI Focus AF

The AF system will automatically choose between One Shot AF or AI Servo AF based on whether it perceives the subject to be still or in motion. Keep in mind, however, that because AI Focus may not always be able to discriminate between subject and camera motion, you will have more predictable results if you choose One Shot AF for stationary subjects or AI Servo AF for subjects in motion.

Also note that automatic AF point selection and the viewfinder display will function differently depending on whether the EOS 7D is set to One Shot or AI Servo AF. We will highlight these differences throughout this QuickGuide.

AF Mode Selection

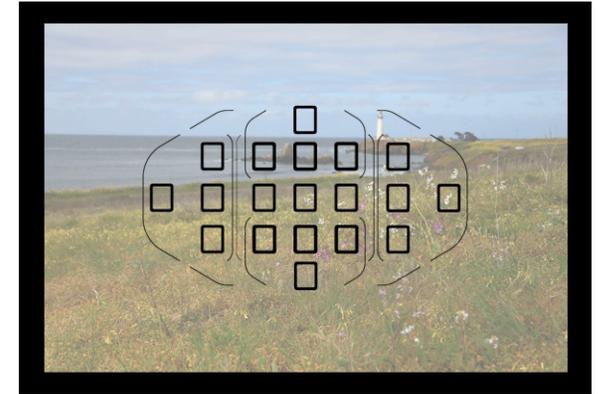
To select an AF mode, press the **AF-Drive Button**, then turn the **Main Dial** until the mode of your choice appears on the LCD panel on top of the camera.

AF POINT SELECTION OPTIONS

Automatic AF Point Selection (Default Mode)

In this mode all 19 AF points are active. You'll see a thin border around the entire AF point area, which indicates that Automatic AF point selection is active. In **One-Shot AF Mode**, the 7D will focus on the closest subject with adequate detail. The point(s) being used will appear on-screen.

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If you are in **AI Servo AF Mode** you can pre-select any of the 19 AF points to use as the starting point to begin tracking your subject. If the subject moves away from that point, the camera will automatically select new points and continue to maintain focus. The new points will appear in the finder so you always know what the camera is doing.

To pick a starting AF point in Servo AF Mode, first press the rear **AF Point Selection Button**, then use either the **Main Dial**, **Quick Control Dial** or **Multi-controller** to move the red highlight in the viewfinder to the starting point of your choice.

Best for: Candid and other non-moving subjects where you want to quickly focus on whatever is closest to the camera, or single moving subjects that you expect will move across the composition as you continue to shoot.

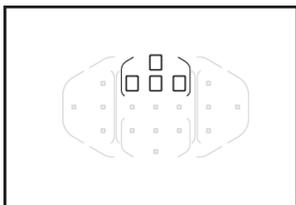
Not recommended for: Situations where you need precise control over the point of focus.

Zone AF Point Selection

Zone AF works the same way as Automatic AF point selection except that it restricts the AF points to a small cluster (zone) you have pre-selected. Within this zone the system will focus on the closest subject with adequate detail, even if you're in **Servo AF Mode**.

You can select from one of five zones: the nine-point cluster in the center of the viewfinder or a four-point triangular cluster to the left, right, above, or below the center. Whichever zone you select, its size and location are fixed. Within the zone you select, the camera will function just as it would if all 19 points were active.

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Zone AF (cont'd)

Best for: Situations where you want to concentrate focus on the area of the viewfinder where you expect to place your primary subject.

Not recommended for: Situations where you need more precise control over the point of focus; specifically, where multiple focus points may cause the camera to focus closer than you wish.



Manual AF Point

Manual AF point selection allows you to pick any **one** of the 19 AF points to be active, with the rest inactive. This forces the camera to focus upon a small and precise part

of a subject or scene. A single AF point, visible in black (or illuminated red) clearly indicates where the camera is looking to focus.

Best for: Selective focus on a small area such as a subject's eye or a subject that has a foreground object such as a fence or archway in front of it.

Not recommended for: Situations where subject or camera movement will make it difficult to maintain a specific point of focus. In these situations AF Point Expansion may be a better option.



AF Point Expansion

AF Point Expansion allows you to manually select one AF point to be the primary point you want to use. As long as there is adequate detail, the system will concentrate focus on the one point you have selected.

If for any reason the system point loses sight of the subject or can't find sufficient detail, it will automatically activate

the surrounding AF points. The number and location of surrounding AF points will vary depending upon which AF point you manually selected. There is no way to add or subtract the surrounding AF points. The viewfinder will, however, display the expanded points: During selection and shooting your primary AF point will appear as a standard AF box. The expanded points will have the standard AF box and a smaller spot AF box within it.

AF Point Expansion will work the same way whether you're shooting a stationary subject in **One-Shot AF Mode** or tracking a moving subject in **AI Servo AF**.

Best for: Situations where you want to limit focus to a specific point but also allow the AF system to automatically expand that point if it's unable to achieve focus. This mode is particularly useful for sports photography and other moving subjects, especially if you're concerned that the single AF point you selected may pick up plain, solid areas of a player's uniform, a blank wall, open sky, and so on.



Spot AF Point

As with Manual AF Point Selection, you select any one of the 19 AF points to be the active point of focus. The difference is that the AF point is

smaller and more concentrated. This allows you to read an even smaller area of the subject and focus even more precisely on one particular element in a scene. When Spot AF is active, a small secondary box appears inside of your manually-selected AF point. You will see a "box within a box" in the viewfinder.

Keep in mind that although the AF point size is reduced as compared to ordinary Manual AF point selection, the actual area is larger than the inner box. Allow for this fact when composing and shooting.

Best for: Pin-point focus upon a tiny area of a scene, particularly when neither the camera nor the subject are in motion. Spot AF is particularly useful for macro photography of three-dimensional subjects, where depth-of-field can be extremely shallow.

Not recommended for: Moving subjects where it may be difficult to keep the AF point placed on an area of adequate contrast and detail.

Enabling or Disabling AF Selection Mode Options

The factory default setting is to have AF Point Expansion mode and Spot AF mode disabled and not selectable. To enable or disable any of the AF point selection modes:

1. Navigate to Custom Function III-6 ("Select AF area selec. mode") on your EOS 7D.
2. Press the Set Button to move the orange highlighting from the number "6" at the top right corner down to the Disable-Enable-Register row.
3. Turn the Quick Control Dial to highlight "Register." Press the Set Button to select Register.
4. Turn the Quick Control Dial to scroll through the options. If an option is un-checked, press the Set Button to display a checkmark. If an option has a checkmark, pressing the Set Button will uncheck it.
5. Scroll to the word "Apply." When Apply is highlighted in orange, press the Set Button.
6. The highlighting will immediately move to the word "Enable." Press the Set Button one last time to lock-in your choices.

How to activate the AF point selection mode of your choice using the viewfinder:

1. Press the rear **AF Point Selection Button**. The available focus points will illuminate.
2. Tap the **M.Fn Button** to cycle through the available modes. They will appear in green at the bottom of the viewfinder. You will see only the modes you have previously enabled via Custom Function III-6.
3. When you see the mode of your choice, tap the **Shutter Button** to select it.

How to choose the AF point or zone of your choice using the viewfinder:

1. Press the AF Point Selection Button. The available focus points will illuminate.
2. Using either the **Main Dial** on the front or the **Quick Controller** or **Multi-controller** on the rear, move the AF point (or zone) to where you want it.
3. Tap the shutter button half-way to register the point or zone you've chosen.

