Metabones Smart Adapter™ / Speed Booster™
Operation Manual

Green & Advanced Mode

Your Metabones EF-E Speed Booster / EF-E Smart Adapter II / EF-E Smart Adapter III/ EF-E Smart Adapter IV has two different operation modes. Each mode supports a different set of features. You select the operation mode when you mount the lens. The following tables summarize the differences between the two operation modes.

If you use a camera in camcorder form-factor, such as the FS series and the VG series,

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If you use a camera in still-camera form-factor, such as NEX-7, NEX-5 series and NEX-3 series,

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IMPORTANT: do not use Advanced Manual Focus Mode if your NEX-7 has camera firmware 1.01.

In Green Mode, battery power is conserved by reduced aperture diaphragm movements and image stabilization (if the lens is so equipped) operation. The aperture diaphragm will not stop down until the shutter release is fully depressed or the movie capture button is depressed. In Green Mode, image stabilization is not activated until the shutter release button is half-pressed or movie capture begins.

Green mode is activated by default for Smart Adapter II equipped with firmware version 14 or above. Advanced Mode is the default for previous firmware versions. Green mode is also the default for EF-E Speed Booster and Smart Adapter III/IV.

Choose the other operation mode by first turning on the power of your Sony NEX camera and either
1. attach the Metabones Smart Adapter onto the Sony NEX camera body first, and then while depressing the Wide-Open button of the Smart Adapter, attach the Canon EF mount lens onto the Smart Adapter, or
2. attach the Canon EF mount lens onto the Metabones Smart Adapter first, and then while depressing the Wide-Open button of the Smart Adapter, attach the Smart Adapter onto the Sony NEX camera body.

Note that the following functions are not available in Green Mode.

- Auto-Magnify MF Assist while turning the focusing ring (MF Assist can still be actuated manually).
- Wide-Open button (however this button is still supported on a NEX camera body in camcorder form factor, such as NEX-VG series camcorders).
- Distance and zoom position displays on a NEX camera body in camcorder form factor.

The operation mode is reset to default when either the Smart Adapter or the Canon EF mount lens is detached.

Green Mode may be unavailable on early NEX camera bodies (NEX-5, NEX-3, NEX-VG10, NEX-C3).

Green Mode is not available on a first-generation Metabones Smart Adapter, which can be identified as having a small rectangular opening in the middle. A second-generation (Mark II) Metabones Smart Adapter with Green Mode has a round opening in the middle. A third generation (Mark III) Metabones Smart adapter is also equipped with Green Mode. It has a rectangular opening of the same size as "full-frame". A fourth generation (Mark IV) Metabones Smart adapter is also equipped with Green Mode. It has a bigger rectangular opening than MARK III.

**Wide Open Button**

The lens' aperture is set to wide open for ease of focusing while the Wide-Open (WO) button of the Metabones Speed Booster / Smart Adapter is depressed. Release the button and the lens will return to the aperture set on the camera.

This wide-open function is automatically shut off when you actually take a picture and during movie capture. On some camera bodies, this wide-open function is unavailable when the Metabones Smart Adapter is in Green Mode.

**Auto-Magnify/MF Assist**

When you turn the focusing ring of a Canon EF mount lens, the viewfinder automatically enlarges for ease of manual focusing.

This feature requires the AF/MF switch of the Canon EF mount lens to be set to the MF position and also requires a Canon EF mount lens that supports distance information. Virtually all Canon lenses introduced in the last 20 years support distance information, but a number of notable lenses, such as EF 35/2, EF 50/1.0L and EF 50/1.4, do NOT support distance information and do NOT support auto-magnify MF assist on a Sony NEX camera body.

Auto-Magnify MF Assist is disabled when the Smart Adapter is in Green Mode.
NEX camera bodies in camcorder form factor do NOT support Auto-Magnify MF Assist.

MF Assist can still be actuated manually when using lenses with no distance information support or when the Smart Adapter is in Green mode, or on a NEX camera body in camcorder form factor. Consult your camera body's owner manual for details.

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**Lens Registration Required for non-Canon branded lenses**

Lens registration may be required before the use of a Sigma, Tamron or Tokina zoom lens (EF mount).

Follow these simple steps and the correct maximum aperture of your zoom lens will be stored in the Metabones EF lens to E mount Speed Booster / Smart Adapter's non-volatile memory.

1. Turn on your NEX camera.
2. Attach your zoom lens to your NEX camera using the Metabones Speed Booster / Smart Adapter.
3. Zoom your lens to the longest zoom position.
4. Zoom your lens to the widest zoom position.
5. Turn off the camera.
6. Wait at least 5 seconds. You will hear a "tick" sound from the lens when it parks at minimum aperture. Your zoom lens' correct maximum aperture is now stored in the non-volatile memory of your Metabones Smart Adapter.
7. Remove your zoom lens from the camera.

Note:

- The lens registration procedure above is NOT required for fixed-focal length lenses.
- The lens registration procedure above is NOT required for most Canon lenses and some third party lenses because maximum aperture data may have already been preloaded into the Metabones Speed Booster / Smart Adapter.

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**Camera Body Settings**

**Checking Firmware Version of Smart Adapter**

To check the adapter firmware version of your adapter, attach any Canon EF lens to the adapter and put it on a Sony NEX camera body. Press the 'MENU' button and choose the 'Setup' icon. Find the 'Version' function in the list.

On FS series video cameras, press MENU > OTHERS > VERSION DISPLAY.

Metabones Smart Adapter firmware upgrade is a factory service procedure. No user-installable update is available. Please ship your Smart Adapter to Metabones if you require a firmware upgrade. There may be a nominal shipping and handling charge for firmware upgrades.

**Using Focus Peaking Without Auto-Magnify on Speed Booster / Smart Adapter II / Smart Adapter III / Smart Adapter IV**
Note: your camera body may not support Focus Peaking, or the menu items may differ from what is described below. Consult your camera's manual for information specific to your camera model.

Find “Peaking Level” in your camera body’s Setup menu and choose the desired level of focus peaking. To use focus peaking, set either the lens’ AF/MF switch to MF or set the camera body to MF.

You may want to use Focus Peaking alone but turn-off Auto-Magnify MF Assist, without turning off the capability to manually activate MF Assist. If your lens does not support distance information, then there is no Auto-Magnify to begin with. Otherwise, putting the adapter in Green Mode would turn Auto-Magnify off.

### Turning Off Auto-Magnify on Original Smart Adapter (Mark I)

If you have the original Smart Adapter (Mark I), there is no Green Mode. If your lens support FTM (full-time manual focus), turn on focus peaking in the camera's Setup menu as usual and configure the camera to MF (with the Camera menu on most NEX models – consult your camera's owner's manual for details). Set the lens' AF/MF switch to AF. Now focus peaking is available with manual focusing but MF Assist is no longer automatic. You may still manually activate MF Assist by assigning it to one of the Custom Keys in the Setup menu.

If your lens support distance information but not full-time manual focus, you will not be able to turn off Auto-Magnify with the above procedure. However, you may still turn off Auto-Magnify by configuring the Metabones Smart Adapter in Green Power-Save mode. Focus peaking is available and MF Assist is activated by an assigned Custom Key.

### Settings Effect On/Off

On some NEX camera bodies, there is a “Live View Display” item in the Setup menu. If it is set to “Settings Effect On”, aperture changes immediately take effect in Live View mode. What you see in the viewfinder always reflects the depth-of-field of the final image.

When set to “Settings Effect Off”, the camera sets the aperture automatically in Live View mode but the viewfinder does not display the depth-of-field of the final image. Under most low-light conditions such as indoors, the aperture is usually wide open until the shutter release button is half-pressed. When the shutter release button is half-pressed, the lens stops down to the chosen aperture and the viewfinder reflects the depth-of-field of the final image.

When the Metabones Speed Booster / Smart Adapter II / Smart Adapter III/ Smart Adapter IV is configured to be in Green Mode, the Live View aperture is always wide open. The lens is not stopped down until the shutter release button is fully depressed, or when movie capture commences.

### Front Shutter Curtain

For NEX-7, we recommend turning front shutter curtain OFF. You may find this setting in the Setup menu.

### Common Issues & Resolutions

**When I open up the iris the footage becomes very bright momentarily before going back to normal. Is there a problem?**
This is as designed. To resolve this problem, use the Advanced mode instead.

The Metabones "Green" mode emulates a LA-EA1 adapter and the Metabones "Advanced" mode emulates a native E-mount lens. Sony's own LA-EA1 exhibits the exact same "flicker" behaviour when opening up the iris. Whenever the camera opens the iris it always go all the way to wide open first, and then stop down to the selected aperture, for both Sony LA-EA1 and Metabones in Green mode.

**Auto-Magnify works only with some of my lenses**

Note that auto-magnify requires a lens which transmits distance information to work.

**I cannot turn-off Auto-Magnify!**

Problem: I want to use Focus Peaking alone without Auto-Magnify getting in my way. If MF Assist is turned off using the camera's Setup menu, it cannot be activated altogether. What I want is to activate MF Assist only when I manually press a button.

Resolution: see “Focus Peaking” section in the Metabones Smart Adapter/Speed Booster Operation Manual. In a nutshell, there are 2 possible solutions.

1. MF Assist and Focus Peaking are turned on in Setup Menu, camera body set to MF in Camera menu, and AF/MF switch of lens set to AF (only possible with lenses supporting full-time manual focus), or
2. configure the Metabones Smart Adapter in Green Mode.

**Image Stabilization remains activated even when I am just browsing the camera's Setup menu.**

Resolution: put the Metabones Smart Adapter in Green Mode.

**Incorrect Maximum Aperture is displayed on the camera**

Resolution: some third-party zoom lenses require registration with the Metabones Smart Adapter before their maximum aperture will be displayed correctly. See “Lens Registration” section in the Metabones Smart Adapter/Speed Booster Operation Manual.

**Infinity Adjustment (Speed Booster™ only)**

Your Speed Booster™ is meticulously fine-tuned with specialized test equipment at the factory to be able to focus to infinity for every combination of lens and camera body, and also to ensure optimal optical quality with CRC or floating-element lenses. No adjustments are necessary. Some older lenses which are out of tune due to age and some lower quality optics may not be able to focus to infinity with Speed Booster™. It is possible to adjust Speed Booster™ to allow for infinity focus for these lenses. Remember, however, that "if it ain't broke, don't fix it." Do not attempt adjustment unless you are not able to attain infinity focus with your lens.

1. Mark the original position of the glass elements so that you could revert if needed.
2. Loosen the stop screw from the side of the lens mount, underneath one of the bayonets.
3. Rotate the glass elements counterclockwise.
4. Tighten the stop screw.
5. Test. When focused on an object that is very far away, the distance scale should point at the infinity mark. Caution: always tighten the stop screw before testing.

6. Repeat adjustment as needed.

Notice that some autofocus zoom lenses are not true zooms but varifocals. The distance scale may not align exactly with the infinity mark at every zoom position. If that is the case, adjust the lens when zoomed to the middle of its zoom range first and then verify infinity focus at the wide and tele zoom positions.