

# Fringer Contax 645 – Fujifilm GFX50s

## Smart adapter user's manual

(v2.0)

**Important!** Please read this manual carefully before using the adapter. Be noted: The activation process is **NOT required anymore**. You can use the adapter on your camera directly. Thus, G.CAP (the device for activation) is no longer provided with the adapter.

### 1. General descriptions

This adapter is compatible with Contax 645 and Fujifilm G mount protocols. It can control lens' aperture electronically, auto focus (some of C645 lenses only) and support Exif recording.

All C645 lenses are supported. See the table below.

Contax 645 lenses	AF supported (Firmware v2.0)
Distagon T* 3,5/35	Y
Distagon T* 2,8/45	Y
Distagon T* 3,5/55	N
Planar T* 2/80	Y
Apo-Makro-Planar T* 4/120	N/A
Sonnar T* 2,8/140	Y
Sonnar T* 4/210	N
Tele-Apotessar T* 4/350	N
Vario-Sonnar T* 4,5/45-90	N
Sonnar T* 2,8/140 + Mutar 1,4x T*	Y
Sonnar T* 4/210 + Mutar 1,4x T*	N
Tele-Apotessar T* 4/350 + Mutar 1,4x T*	N

The adapter has been tested on GFX50s camera body. Theoretically it may support future G mount bodies.

Please be noted that so far AF is an experimental feature. On one hand, not all lenses support AF. On the other, even for those lenses supporting AF, the performance may not be good enough for you. If the AF speed or accuracy can't satisfy you, please change to MF mode. All lenses can work under MF mode.

### 2. Installation and activation

I suggest connecting the lens with the adapter first. After that, install the adapter onto the body. If you need to separate the lens from the adapter while the adapter is connected with the body, you must turn off power first.

Although Fujifilm G mount is not an open design, we tried our best to make C645 lenses

work like native GF lenses. The earlier firmware versions required an avatar lens to make the camera body accept the adapter. That led to many problems. A GF63 was needed to activate the adapter. Aperture was not displayed and recorded correctly. And all Contax lenses were recognized as GF63/2.8. Now, with the latest firmware, all the above issues do not exist anymore. You don't need to find a GF63 and activate the adapter. Lens model, aperture and focal length are all displayed and recorded correctly (except the focal length of 45-90. See the next sector for details.)

### 3. Aperture control and Exif recording

There is a built-in aperture ring on Contax 645 lenses similar to GF lenses. However, there is no 'A' and 'C' on that ring. We use the **smallest stop** on C645 lens' aperture ring to **simulate** the **C stop** of GF lenses. For example, for C645 140/2.8 lens there are F2.8, F4.0, ..., F32, i.e. totally 8 stops, on its aperture ring. When you turn that ring to F32, the aperture is controlled by the command dial of the camera body. When you turn the ring to other stops, the position of the ring decides the aperture directly.

In contrast to the previous versions of firmware, now the aperture and focal length information are all displayed and recorded correctly. See the following table for details.

Contax 645 lenses	Max aperture	Correct aperture on LCD/EVF and in EXIF	Recorded focal length	Correct focal length in EXIF
Distagon T* 3,5/35	F3.5	Y	35mm	Y
Distagon T* 2,8/45	F2.8	Y	45mm	Y
Distagon T* 3,5/55	F3.5	Y	55mm	Y
Planar T* 2/80	F2.0	Y	80mm	Y
Apo-Makro-Planar T* 4/120	F4.0	Y	120mm	Y
Sonnar T* 2,8/140	F2.8	Y	140mm	Y
2,8/140 + Mutar1.4x	F4.0	Y	196mm	Y
Sonnar T* 4/210	F4.0	Y	210mm	Y
4/210 + Mutar1.4x	F5.6	Y	294mm	Y
Tele-Apottessar T* 4/350	F4.0	Y	350mm	Y
4/350 + Mutar1.4x	F5.6	Y	490mm	Y
Vario-Sonnar T* 4,5/45-90	F4.5	Y	45mm	<b>N<sup>(1)</sup></b>

(1): So far the real focal length of zoom lens 45-90 is not recorded correctly. It always be 45mm. This issue may be solved in the future version of the firmware.

### 4. AF/MF selection and aperture priority

There are two working modes, i.e. AF and MF.

#### 4.1 Lenses with AF support

To enter AF mode, turn aperture ring to any position other than the smallest stop while camera is off or in playback mode. Then, power on the camera or turn back to the shooting mode. Meanwhile, make sure the AF/MF switch on the camera is at AF-S position. To enter MF mode, just turn the aperture ring to the smallest stop and make sure the AF/MF switch on the camera is

at MF position. If the aperture ring is not set to the smallest stop, AF/MF switch turned to MF will work for some cases. However, the AF motor may still be instructed to do small movements by the camera body. That may disturb the MF process and make the experience worse. Turning the aperture ring to the smallest stop tells the adapter to ignore any AF movement instruction. Thus, we suggest using command dial of the camera body to control aperture while MF is required.

Be noted that, if you switch to AF while the camera is on and under the shooting mode, or you have adjusted focus ring's position manually under AF mode, AF malfunction may occur. If that happens, just play back your last captured photo and switch back to the shooting mode again. The adapter and the lens will be reset and the problem will be solved.

#### 4.2 Lenses without AF support

For lenses which do not support AF, yet, just put the AF/MF switch of the camera to MF position. There is no limitation on the aperture ring's position.

If you put AF/MF switch to AF positions, the camera may not work properly.

#### 4.3 About aperture priority mode

In field tests, we find that when GFX50s is using adapted lens and set to aperture priority mode (shutter speed dial on 'A'), during view finding, the aperture blades may move frequently with a lot of noise and lead to flashing of LCD or EVF. It only occurs when both AF and aperture priority are enabled. To help you better understand it, let's look at GFX50s' aperture control strategy.

- 1) Under MF mode (AM/MF switch on MF), the aperture blades are always wide open during view finding, metering and focusing until the shutter release button is pressed.
- 2) Under AF mode with aperture priority disabled (shutter speed dial on positions other than 'A'), aperture blades move at once when you change aperture setting. During AF process, the aperture blades may temporarily open to a certain position for focusing.
- 3) Under AF mode with aperture priority enabled, the camera body controls aperture blades' position in real time according to the brightness of environment lights during view finding.

Due to the slow response speed of Contax lens' aperture motor, situation of **3)** may bring you a bad user experience. However, if you are willing to accept that experience, the function will be OK.

According to the feedbacks of some user who were using the adapter in studio shooting, the same issue may occur even shutter speed is set manually under AF mode. When using studio flashlight, the user set the exposure preview to off to avoid the very dark viewfinder. Under that condition, the issue may occur. If you don't want that, please use MF instead.

Be noted that all of above logics are decided by the camera and have nothing to do with the adapter.



### 5. About auto focus

GFX50s can only do CDAF (contrast detection AF). However, Contax 645 lenses are solely designed for PDAF (phase detection AF) cameras. They lack some key features when working on CDAF bodies. Thus, before future G mount cameras introduce PDAF, it is extremely difficult (if not impossible) to make Contax 645 lenses AF on G mount and get acceptable performance.

Thus, so far AF is an experimental feature. Not all Contax 645 lenses support AF (See the table in part 1. Note: The list of lenses supporting AF may expand after future firmware upgrades). The speed and accuracy of AF may not satisfy you. If you can't accept it, please use MF instead.

Currently only AF-S is supported. If you set the camera to AF-C mode, the lens may keep hunting and fail to focus.

If possible, half press the shutter release button and let the lens focus for several times may help improving AF accuracy. And remember, at any time when you feel AF is not working properly, you may reset the adapter and the lens by playing back a photo and then setting the camera back to the shooting mode again.

## 6. Firmware upgrading

Please follow these steps to upgrade your adapter.

- 1) Download firmware file from Fringer's website (see README.EN.pdf on adapter's root directory for the URL). For example, C6GF\_200.BIN means Contax645-GFX adapter V2.00.
- 2) Get the adapter off the camera. Do not connect G.CAP (if provided), either. Make sure **not to connect the adapter with the computer while it is installed on a camera body**.
- 3) Plug the Micro USB cable to the port inside the tripod mount of the adapter. Be careful! Mind the **direction** and **do not push too hard**. Or you **may damage the Micro USB port** of the adapter!
- 4) Connect the other end of the cable to a USB port of your PC or MAC. Then a mobile drive named 'FRINGER' emerges. Open 'VERSION.TXT' on that drive and check current firmware version (the line begins with 'Version:').
- 5) If upgrading is needed, copy the downloaded firmware file to the drive named 'FRINGER'. Then eject the drive. Ejection is a mandatory step for Macs and an optional step for PCs. Ignore any error messages about the drive. Wait for more than 10 seconds. Then disconnect the adapter with the computer.
- 6) Reconnect your adapter with the computer. Check VERSION.TXT again and make sure its firmware version has changed to the new one.

Note: Do not copy files other than firmware provided by Fringer's official website to the adapter.