

BOBACH

Installation Guide for the  
**135 Full Frame Mask Set – Pro Kit**

Fujifilm Frontier SP3000 – NC 100AY Autocarrier



This guide explains how to use the „135 Full Frame Mask Set“ with your Fujifilm Frontier SP 3000.

### What are Full-Frame Scans?

Full-frame scans refer to a scan that captures the entire negative, including the border of the frame. The Frontier SP 3000 was not originally designed to perform this type of scan. To avoid clipping and automate the process as much as possible, scans with a scanner in the original configuration are heavily cropped. Fuji's original masks have a very small cutout, making it impossible to scan the entire frame. However, this is possible with the BOBACH 135 Full Frame Mask Set.

Scans are cropped by 6-7% with the original masks, which also results in an increase in the focal length used to take the Picture (crop factor). For example, a 50mm lens will appear as a 54mm lens in regular frontier scans.

### IMPORTANT

It is NOT necessary to remove the newly installed masks from the carrier at any time; the masks completely replace the original Fujifilm ones. It doesn't matter whether regular scans or full-frame scans are performed with them. Also, it is not necessary to use the original masks to start and/or calibrate the scanner, as this can lead to image errors during the scan. Ideally, pack and store the original masks in a safe place and leave them there.



Full-Frame scan with BOBACH mask



Regular Scan

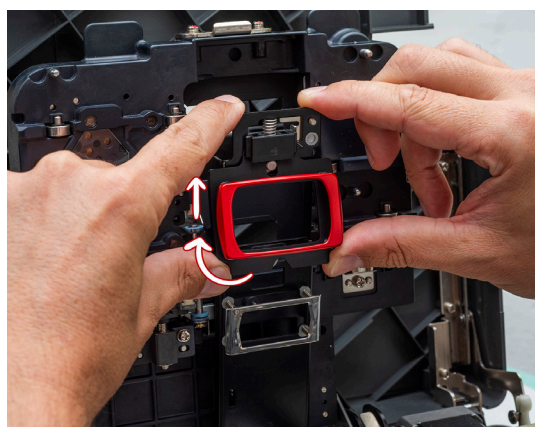


## Installation Guide for the 135 Full Frame Mask Set - Pro Kit

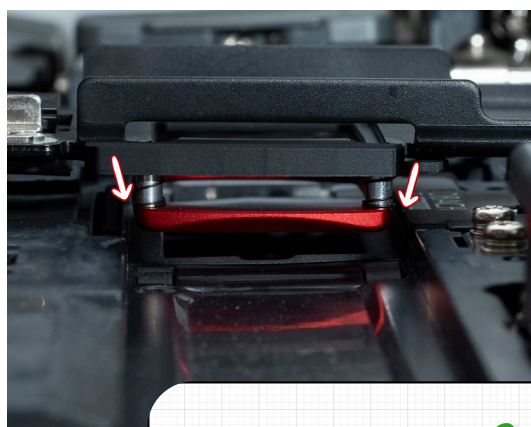
1. Turn off your Fujifilm Frontier SP 3000.
2. Remove the NC 100AY Auto Carrier from your Fujifilm Frontier SP 3000 scanner.

Open the two covers and remove the upper and lower masks from the carrier. Carefully clean the carrier with compressed air or a soft brush.

The lower mask is simply placed in the carrier and held in position by a magnet. The upper mask is pushed up against the small part with the spring and then hooked in.



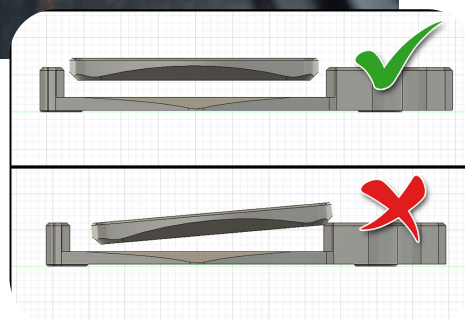
1



2



3



When both masks are installed, check the correct alignment of the masks with each other by carefully moving down the arm with the upper mask (pic 2). The mask should move freely without touching the side guides of the lower mask. The masks must be centered over each other. If this is not the case, the arm to which the upper mask is attached must be adjusted. Details on this can be found in the scanner manual under the following section:

(These pages are also attached at the end of this guide.)

11.1 Auto Film Carrier NC100AY (Pressure Cover Section)

► 11.1.15 Pressure Mask Replacement

After installing the masks, close the carrier and insert it into the SP 3000.

## Software configuration

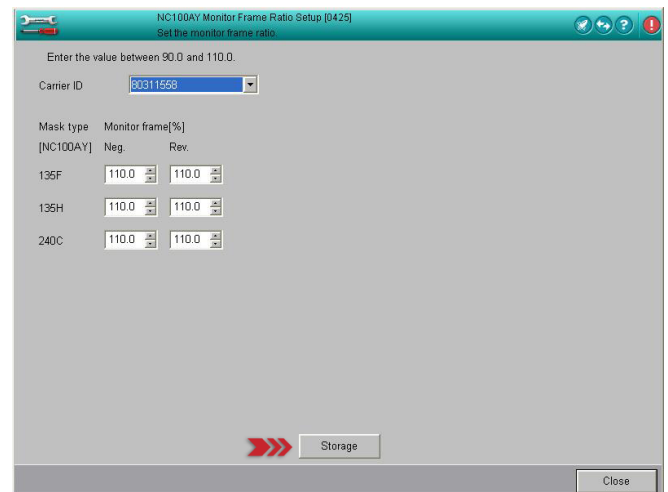
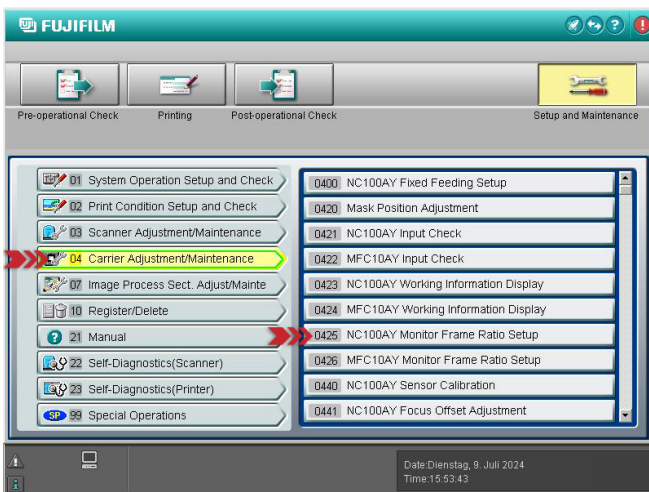
Once the masks are correctly installed, please start the SP 3000 and open the „Setup and Maintenance“ menu. The default password for this menu is 7777.

The following settings need to be made only once during installation.

### STEP 01 Monitor Frame Ratio Setup

Open the menu „04 Carrier Adjustment/Maintenance“ -> „0425 NC100AY Monitor Frame Ratio Setup.“

If you are working with multiple carriers, select the appropriate carrier in the drop-down menu „Carrier ID.“ Enter the value 110 in all six fields and click „Storage“ then „Close“

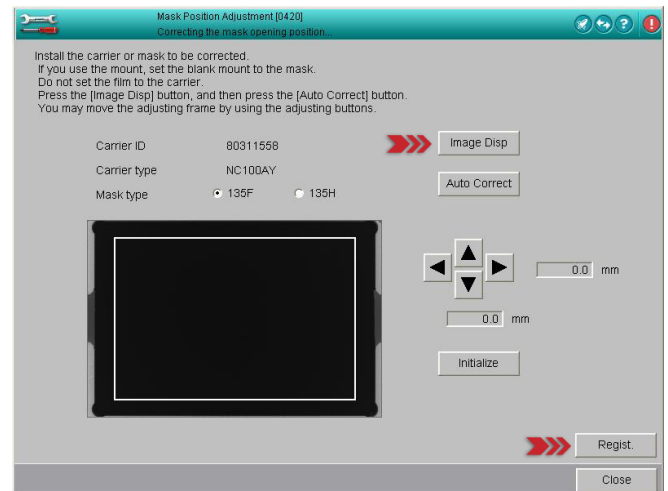


### STEP 02 Mask Position Adjustment

Open the menu „04 Carrier Adjustment/Maintenance“ -> „0420 Mask Position Adjustment.“

Click on „Image Disp“ and position the white frame exactly in the center of the mask using the four arrow keys, then click „Regist.“ and „Close“.

It is recommended to adjust the position based on some test scans.

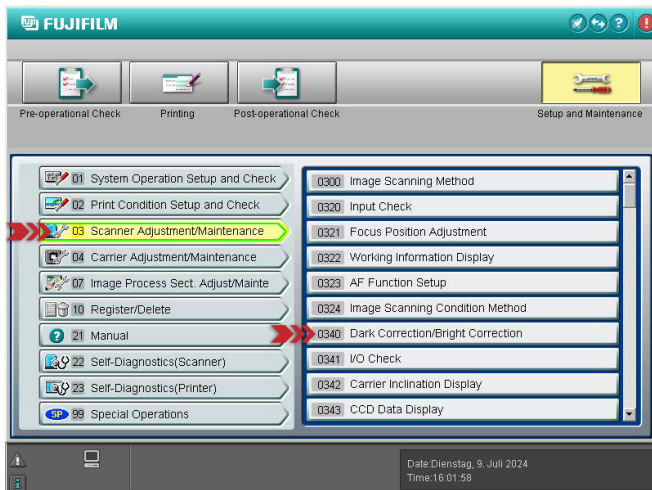




# Installation Guide for the 135 Full Frame Mask Set - Pro Kit

## STEP 03 Dark Correction

Open the menu „03 Scanner Adjustment/Maintenance“ -> „0340 Dark Correction/Bright Correction.“  
Click „Dark corr.“ wait until calibration is complete, and then click „Close“

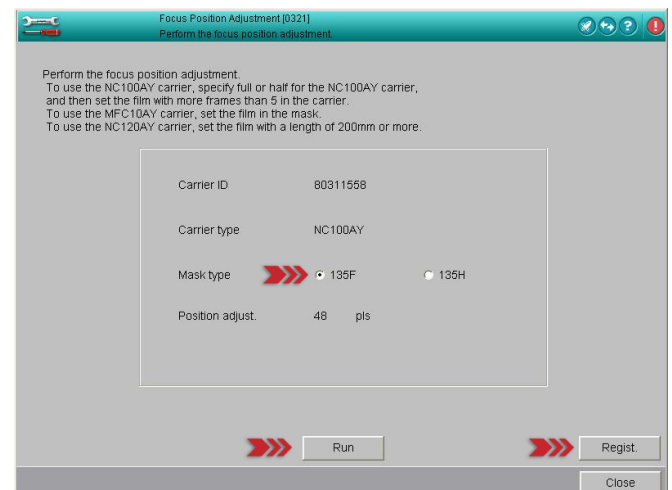
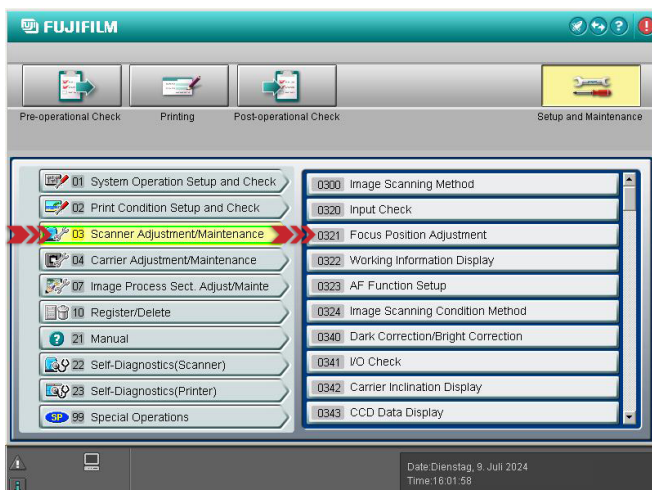


## STEP 04 Focus Position Adjustment

Open the menu „03 Scanner Adjustment/Maintenance“ -> „0321 Focus Position Adjustment.“

Select the format „135F“ and click „Run.“

You will now be prompted to insert a film strip; insert a strip (color negative) with at least 6 frames. Make sure the emulsion side is facing down (the labeling must be correctly readable from above). The film strip should be properly exposed and undamaged. Then click „Regist.“ and „Close.“



## STEP 06 Magnification (only for Full-Frame Scans):

Open the menu „02 Print Condition Setup and Check“ -> „0241 Fine Adjustment of the Print Mag. Setting.“

Here, the value „Magnification“ is set, which determines how much border is visible around the scan.

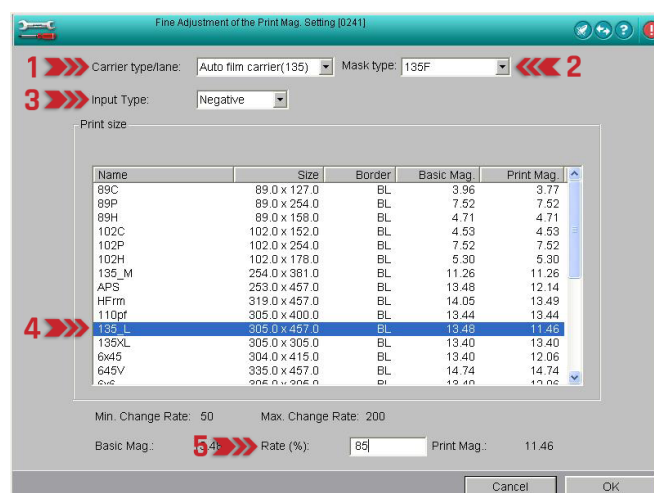
A lower value creates more border, a higher value crops the image.

A good starting point is 90%, but test scans should be done to find the appropriate value.

## IMPORTANT

Please ensure the settings are made in the correct order.

1. Carrier type/lane: Auto film carrier (135)
2. Mask type: 135F
3. Input Type
4. Print size
5. Rate (%)

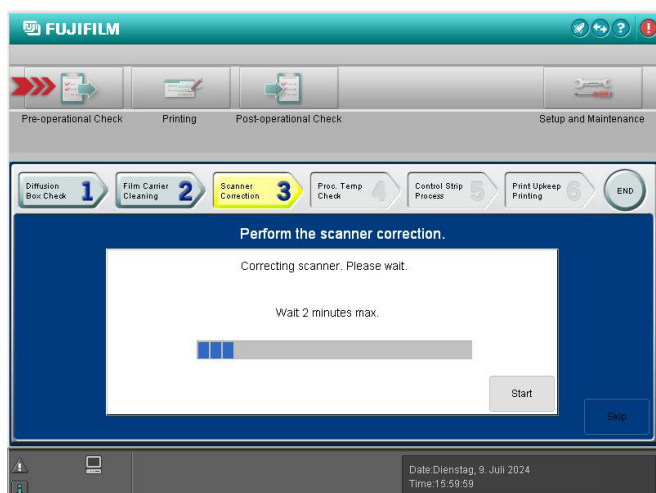


## IMPORTANT

Reducing the magnification and making the film edges visible reveals the inconsistent film transport of the carrier. Not every frame is transported by exactly the same amount, meaning the position of the frames can vary slightly from image to image. This has nothing to do with the mask and can only be corrected to a limited extent through settings. However, it is possible to adjust the position during the scan using the arrow keys (bottom row on the Frontier keyboard).

### STEP 07 Scanner Correction

Click the „Pre-operational Check“ button in the top left, and follow the on-screen instructions. Once this step is complete, the mask is correctly installed and ready for use.



The following two pages contain an original excerpt from the Fujifilm Frontier SP 3000 manual.

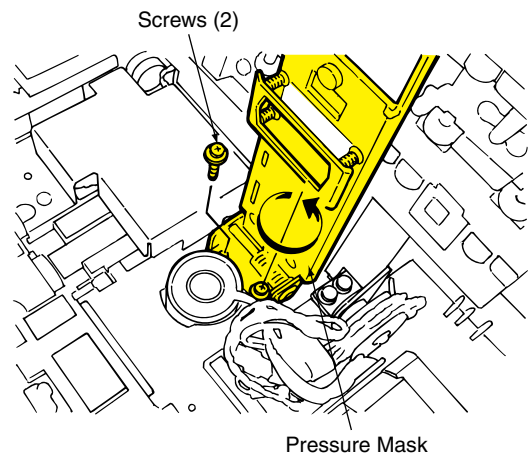
Copyright by the FUJIFILM Corporation. (FUJIFILM).

## 11.1 Auto Film Carrier NC100AY (Pressure Cover Section)

### 11.1.15 Pressure Mask Replacement

#### Removal

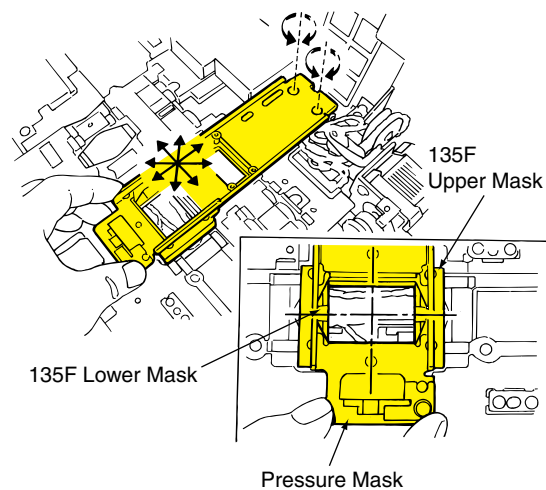
1. Remove the 135F upper mask.
2. Remove the two screws and then the pressure mask.



Z II 291

#### Installation

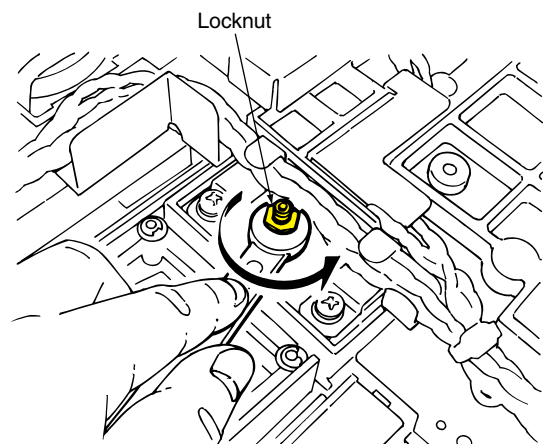
1. Temporarily install the pressure mask using the two screws.
2. Reinstall the 135 F upper mask.
3. Align the 135 F upper mask with the lower mask and tighten the two screws securely.
4. Perform the pressure mask height adjustment described below.



Z II 292

#### <Pressure Mask Height Adjustment>

1. Remove the pressure upper cover  
(see Subsection 11.1.1).
2. Close the pressure cover and loosen the locknut.



Z II 303



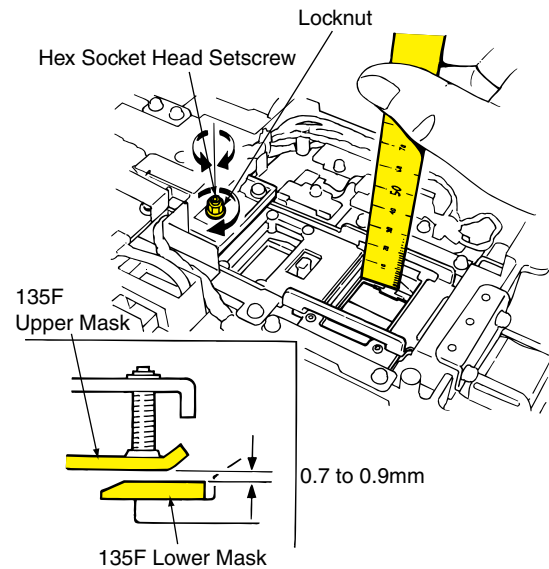
## 11.1 Auto Film Carrier NC100AY (Pressure Cover Section)

3. Turn the hex. socket head setscrew with the 1.5mm hex wrench so that the clearance between the 135F upper mask and the lower mask is specified value.

Specified Clearance: 0.7 to 0.9 mm

4. Apply thread locking agent to the setscrew and tighten the locknut.

Thread Locking Agent: LOCTITE 425 or equivalent



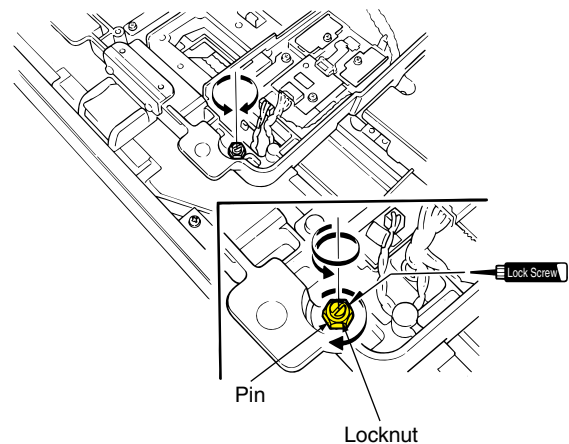
Z II 304

### 11.1.16 Pressure Cover Open/Close Detecting Pin Position Adjustment

1. Remove the pressure upper cover (see Subsection 11.1.1).
2. Connect the Auto Film Carrier NC100AY to the plug-in connector of the scanner using a carrier extension cable.
3. Open the Menu 0421 "NC100AY Input Check" screen.
4. Loosen the locknut.
5. Close the pressure cover and turn the pin to find a point that "D128" just turns "Open" and "Close".
6. Screw in the pin 1.25 turns.
7. Apply thread locking agent to the threads of the pin and tighten the locknut securely.

Thread Locking Agent: LOCTITE 425 or equivalent

8. Disconnect the carrier extension cable and reinstall the pressure upper cover.



Z II 268