

H04 / SCAMAX® 515

User Manual Supplement

SCAMAX® - Document Scanner
Version 04 / 2006



Model SCAMAX® 515

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Introduction

Dear User,

this manual provides additional information needed for the proper operation of the high-speed document scanner SCAMAX[®] 515 (incl. microfilm module).

Please take the time to read this manual thoroughly prior to using the SCAMAX[®]-Scanner to prevent any possible operator errors.

This manual is purely a supplement covering the operational parts of the microfilm module for the SCAMAX[®] 515. It must be viewed and referenced in conjunction with the user manual for the SCAMAX[®] 510.

to 3. Scanning / Filming

The SCAMAX[®] 515 incorporates a microfilm module that simultaneously creates an analogue image of the scanned document. Microfilming is onto 16 mm roll film during the passage of the document through the scanner. The microfilm function can be switched on or off and configured via the TSCP (chapter 7.A). Two reduction ratios (24x/48x) are available and all commonly available 16 mm microfilm lengths can be accommodated.



The SCAMAX[®] 515's microfilm module has its own optical parts, mirrors and illumination system.

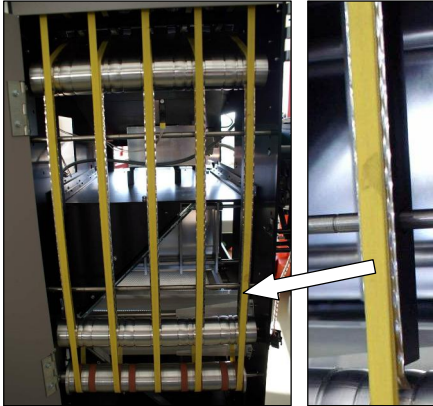
The microfilm module's components are located in the back and left hand side of the scanner. Visually this is clearly apparent by the bulge on the left hand side-cover of the scanner.



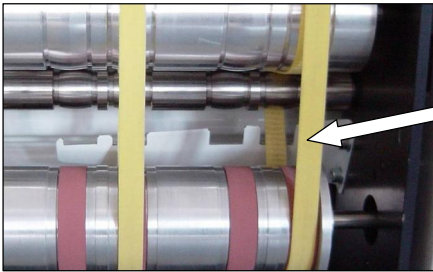
Opening the left side cover (chapter 4.2 – User Manual SCAMAX[®] 510) provides easy access to the microfilm module. You can see directly the following components:

- Film Cassette
- Remaining Film Indicator
- Lens Changer Switch
- Mirror Box

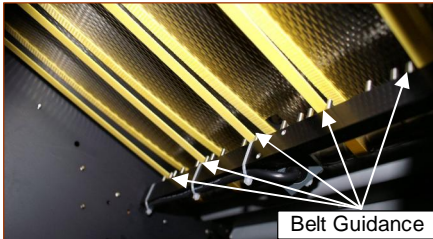
to 3.6 Scanning small Documents



In contrast to the model 510 the paper guide plate in the 515 is made up of five small strips (1 strip for each transport belt). When repositioning the belts it must be ensured that these strips are moved concurrent with the belts. Failing to do so will jeopardize correct transportation of the documents.



Furthermore, when shifting the two belts on the right hand side it must be ensured that the belts are running through the notches in the rear lamp baffle without touching it.



Also in contrast to the SCAMAX® 510, the transport belts consist of two groups containing five belts each. The lower belts (illustration left) can only be accessed via the bottom service opening (chapter 4.3 – User Manual SCAMAX® 510). They must be moved separately. To do so, they must be lifted over the belt guidances.

Hint

Switch off the scanner prior to moving the belts. When the scanner is powered on, the transport rollers cannot be moved by hand.

! WARNING !

Do not use the ,Transport' key when moving the belts! This could lead to injuries due to the high transport speed.

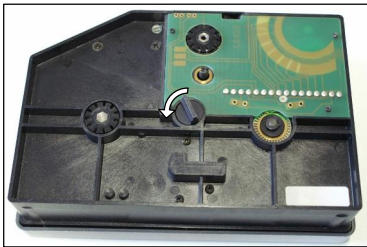
3.8 Inserting Film

3.8.1 Removing the Film Cassette



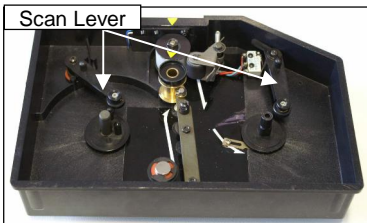
The 16mm roll film is being exposed in a film cassette. The cassette receptacle is above the mirror box. A knob at the front of the cassette is used to lock/unlock the cassette from the receptacle. To unlock the cassette turn the knob counter-clockwise to the OPEN position.

3.8.2 Opening the Film Cassette



Turn to the rear of the cassette. In the middle you see locker. To open the cassette turn this knob counter-clockwise about 90°. Turn the cassette around and remove the white cover from the bottom plate.

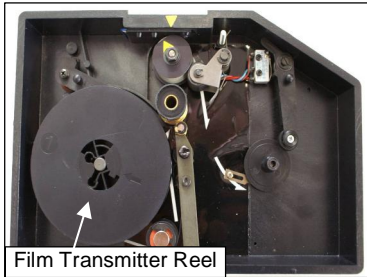
3.8.3 Inserting the Film



Undeveloped films are highly light sensitive!

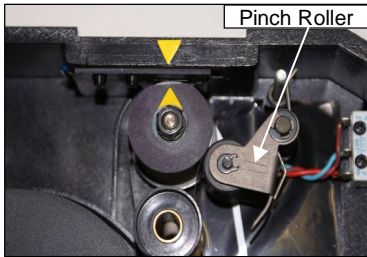
Insertion and removal of film should be performed in a dark environment (dark-room).

The film path and direction are shown by white arrow markers on the bottom plate.



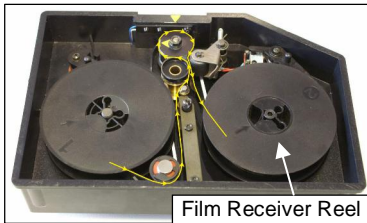
Film Transmitter Reel

Pull the left hand scan lever upwards and insert the full film transmitter reel, making sure the arrester pins are properly located in the reel. Ensure that the film unwinds counter-clockwise. Thread the film along the path indicated and around the rollers.



Pinch Roller

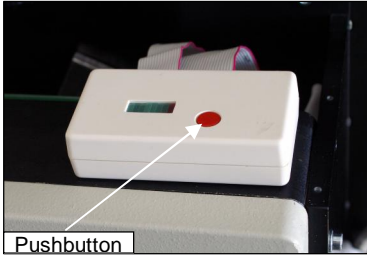
On the aperture and the roller below you see yellow arrow markers. The film is easier to thread, if the two yellow arrows point to each other. Also the pinch roller must be lifted. Fixate the film leader in the axle of an empty film receiver reel and insert the reel in the cassette by pulling the right hand scan lever upwards. Ensure that film take-up is counter-clockwise. Check for proper seating of reel and film and fit the cassette lid. Lock the lid in place by turning the knob on the bottom of the cassette clockwise. The film is now protected against daylight again.



Film Receiver Reel

The roller with the yellow arrow marker in the standard cassette is for the processing of 16mm microfilm with 100 feet length. For processing the thinner archive microfilm with 215 feet length, this roller must be changed.

3.9 Remaining Film Indicator

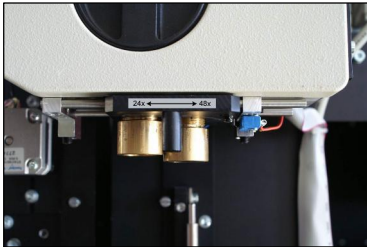


The remaining film indicator is positioned on the top of the film cassette receptacle. The row of LED's displays the amount of film remaining when the cassette is inserted. Filming can proceed as long as at least one green LED is on. Just before switching from green to red display a humming sound is emitted to indicate the end of the film is near. Once the sound

stops and the red LED illuminates, the end of the film has been nearly reached. The TSCP (chapter 10.3) will display an appropriate message for the operator. Depending on the length of the film trailer, some additional exposures may be possible. A relating message will be displayed on the TSCP and operator confirmation is necessary for execution.

The pushbutton next to the LED display is used to advance the film. Film is advanced as long as the button is depressed.

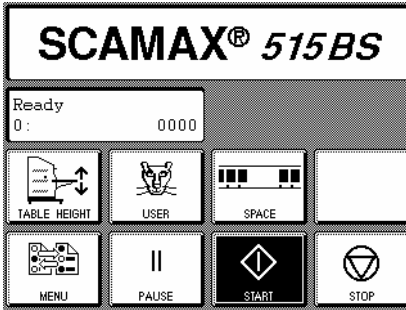
3.10 Changing Lenses



The lens changer switch is located below the film cassette receptacle. Moving the slider to the left stop, selects the 24x lens. Moving it to the right stop, selects the 48x lens. Please make sure that the setting in the microfilm menu (chapter 7.A6) is set to the appropriate reduction ratio at the same time. Otherwise an appropriate message will be displayed on the TSCP (chapter 10.3)

Please note that when selecting 24x reduction only simplex mode (single sided) filming can be accomplished. If duplex (double sided) filming is desired, the 48x reduction ratio must be selected. At 48x front and back of a document fit across the width of the film

to 5. TouchScreenCommunicationPanel (TSCP)



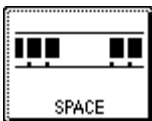
With the SCAMAX® 515 (with integrated microfilm module) an additional **SPACE** key is available in the display. With standard settings, this key is located in menu level four.

to 5.9 Test Run / Filming Only



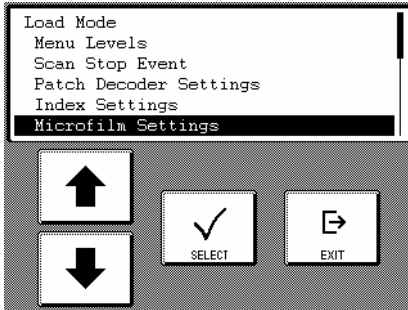
Selecting **TEST RUN** on the model 515, with filming activated (chapter 7.A.1), and choosing „with filming“ at the next question starts the filming mode. The status field of the display will then show „Filming“ instead of the usual “*Test Run*”. The SCAMAX® 515 can now be used as a very fast microfilm camera.

5.18 Space



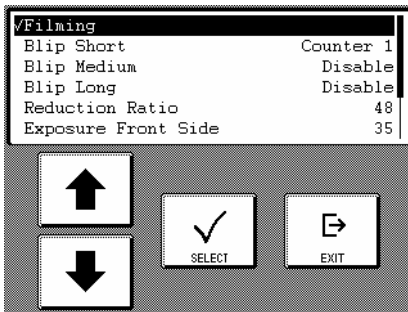
The **SPACE** key is only available on the model 515. The key has a double function. A single touch advances the film for a pre-defined distance of 250 mm, creating a so called „Space“. If the film has been newly inserted into the cassette (chapter 3.8), the required film leader (blank piece of film) will be generated. Touching the key for more than two seconds advances the film until the key is touched again or until all film has been transferred to the take-up reel, whichever comes first.

to 7. Configuration



The configuration menu for the SCAMAX® 515 has one additional item added to the scan modus.

7.A Microfilm Settings



To control and configure the integrated microfilm unit in the SCAMAX® 515, the item 'Microfilm Settings' has been added to the scan mode.

When selected, the menu shown on the left will be opened.

7.A.1 Filming

The soft switch 'Filming' controls the microfilm module. If selected, the microfilm unit will be activated and if film is present in the cassette, all documents scanned will be recorded on the film simultaneously. Additionally, by using the **TEST RUN** key (chapter 5.9) microfilming only can be selected.

If 'Filming' is not checked, the SCAMAX® 515 operates just like the model 510, i.e. the microfilm unit is switched off.

7.A.2 Blip

A blip is a mark on the edge of the microfilm below the actual images (blip track) – see illustration. It is used for indexing purposes and is available in three different sizes (short, medium, long). Each blip level is usually used to indicate a hierarchical order (i.e. batch, folder, document). The blip track:

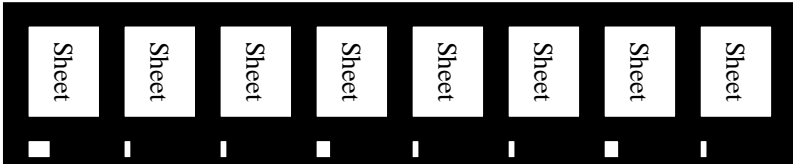
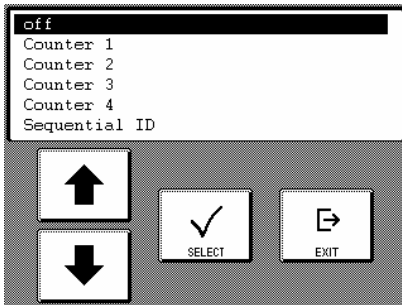


Illustration: Microfilm with blips

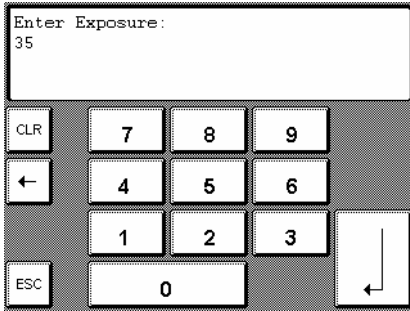


Each blip level can be linked to one of the four counters available, or it can be linked to the sequential ID. This means that as soon as a counter with which a blip has been linked is incremented (chapter 7.8.1 – User Manual SCAMAX® 510) the appropriate blip level is placed under the image on the microfilm.

7.A.3 Reduction Ratios

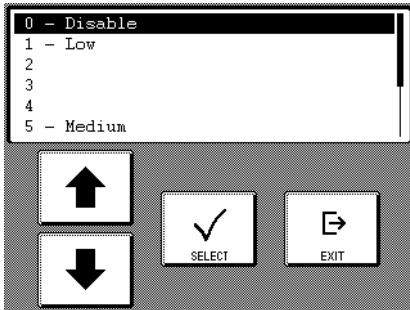
Two reduction ratios are available for manual selection - 24x or 48x. Please note that the appropriate lens must also be manually selected on the microfilm module (chapter 3.10). If the reduction ratio selection in the menu does not correspond to the lens ratio selected, an appropriate warning will be displayed on the TSCP when the scanning/filming operation is started (chapter 10.3).

7.A.4 Exposure



The exposure value has a range of zero (0) to one hundred (100). It is entered via a numeric keypad (view illustration on the left). It refers to the output of the lamps in the microfilm unit and directly determines the optical density (chapter 7.A.6) on the microfilm. When using 48x reduction, the exposure value for front and back of the document is entered separately.

7.A.5 Auto Correction



Auto correction is a form of auto exposure. It is used to adjust the exposure for varying coloured documents. The selection range available is zero (0) - inactive to nine (9) – maximum correction. When using 48x reduction, auto correction must be defined separately for the front and back. When auto correction is active, exposure is increased for dark documents, the amount of

increase being dependent on the value selected. The aim of this feature is to keep the optical density on the microfilm (chapter 7.A.6) reasonably even, regardless of the document colour.

7.A.6 Optical Density

Optical density defines the degree of blackness in the images on the microfilm. According to accepted standards, the measured optical density should be in the range of 0.8 to 1.2. Light intensity, length of exposure, film sensitivity and of course the developing process used has an influence on optical density

Film type and developing process used very often are fixed factors. Should this be the case, a trained engineer may modify the SCAMAX® 515 exposure intensity by adjusting the aperture.

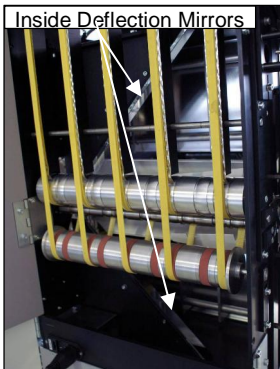
To ensure optimum performance of the 'Auto Correction' feature (Chapter 7.A.5), the a. m. components should be fine tuned to deliver an optical density of approximately 1 with 'Auto Correction' set to off and using a white sheet of paper, new lamps and an 'Exposure' value (Chapter 7.A.4) of 40-50%.

to 8. Cleaning

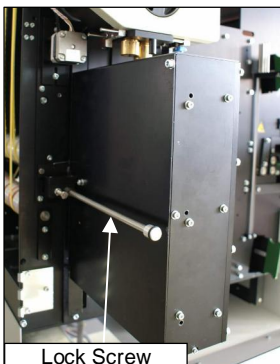
Just like the scanner itself, the microfilm unit must be kept free of dust and dirt to ensure optimum quality and prevent premature wear of parts. We recommend that the lint free clothes and the dust brush out of the cleaning kit supplied with the unit be used for these tasks (chapter 11.6 – User Manual SCAMAX[®] 510). Should any residue adhere that can't be removed with the cloth use the supplied SCAMAX[®] Lens Cleaner to remove it.

Special attention should be paid to the deflection mirrors and the glass paper guide in the imaging area.

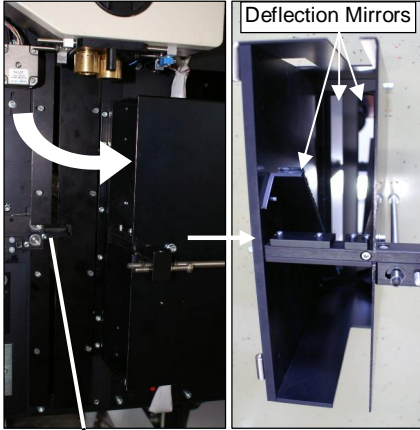
8.2.6 Cleaning the Deflection Mirrors and Paper Guide



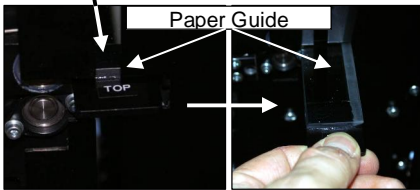
The inside deflection mirrors are accessed via the back cover (chapter 4.4 – User Manual SCAMAX[®] 510). For easier access to the mirrors, you can move the paper guide plates to one side prior to cleaning. Remember to their previous position once cleaning has been done.



Opening the left side cover (chapter 4.3 – User Manual SCAMAX[®] 510) provides access to the mirror box of the microfilm unit. The box is locked into place by a lock screw on the left hand side.



After loosening the lock screw, the whole mirror box can be pivoted to the right. You will now see the holder for the glass paper guide behind the box. The outer deflection mirrors located inside the mirror box are now also accessible. Make sure that they are free of dust and dirt. For better access to these mirrors, lift the mirror box out of their hinges.



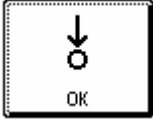
The glass paper guide has a protruding metal grip with TOP printed on it. Lift the grip slightly and pull the guide out in a straight fashion. Once removed, clean all four surfaces of the guide.



Once the guide has been cleaned re-insert it straight and level into the slot from which it was removed. Make sure the far end of the guide (metal edge) is sitting properly in its receptacle. When the guide has been inserted correctly the grip will protrude from the receptacle and the marking TOP will be clearly visible on top. The guide is inserted properly when all glass parts of the guide are inside the machine (nothing protruding).

To finish, pivot the mirror box to the left and fasten the lock screw, then close the left side cover.

to 10.3 Error Messages



Error messages shown below are displayed on the TSCP only when the microfilm module is activated and the respective error occurs. The **OK** key is only displayed in conjunction with error messages. Once the error has been fixed touch the **OK** key.

Error Message displayed	Remedy
1. No Film Cassette Please insert Cassette.....	insert film cassette
2. End of Film or Cassette empty Please check Film.....	insert / change film
3. Wrong Lens Please change Lens.....	change lens / reduction ratio
4. Shutter not working Notify Administrator	Notify Administrator
5. No Film Transport Notify Administrator	Notify Administrator

Notes