SIMATIC MV500 Migration from MV440 to MV500

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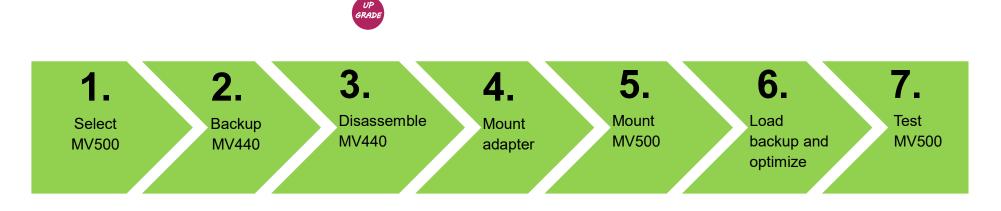
Migration at a Glance



The purpose of this document is to describe the replacement of an MV440 with an MV500.

As many components of the MV440 as possible should be reused.

Thanks to the innovations of the MV500, it is possible at the same time to improve the lighting and optics, for example. Whenever this is possible, it is indicated by the following symbol.



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Migration at a Glance



Terms Used

WBM: Web Based Management

Start WBM: Open a HTML5-capable web browser (Google Chrome; Microsoft Edge) and enter the IP address of the MV440 or MV500 (if CONNECT: 192.168.100.100)

ASM/CM: Interface Module / Communication Module is a device to operate the camera on PROFIBUS /

PROFINET. PROFINET is also possible with the integrated interface.

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Step 1: Select MV500

MV440 Action **MV500** MV440 SR (6GF3440-1CD10) Replace with* MV540 S (6GF3540-0CD10) Camera MV440 HR (6GF3440-1GE10) Replace with MV540 H (6GF3540-0GE10) MV440 UR (6GF3440-1LE10) Replace with MV560 U (6GF3560-0LE10) Use identically Optics C-mount lens 6, 12, 16, 25, 35, 50, 75mm C-mount lens E-focus 25mm (6GF3540-UP GRADE 8EA03-0LL0) Built-in ring light RED (6GF3440-8DA11) Use identically IR (6GF3440-8DA41) UP GRADE RED MULTI (6GF3540-8DA13) IR BASIC (6GF3540-8DA41) Lens protection Metal-glass (6GF3440-8AC11) Use identically tube Metal-glass (6GF3440-8AC11) UP GRADE (absolutely necessary with new ring light) Cable PROFINET Use identically Ethernet (6XV18070-8Axx) ASM If: ASM cable (6GT2891-0Fxx) ASM adapter cable (6GF3500-8BA11) In addition Power IO If: Power IO cable In addition Power adapter cable (6GF3500-8BA20)

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Step 2: Backup MV440

SIMATIC MV400 auf 19.	2.168.25.1 (V07.00.02_06, MAC 00:18:18:CF:F6:87)		- 🗆 X							
SIEMENS SIMATIC MV440 SR		PAT	Service ?							
Benutzer Service V	erwalten	SIEMENS	SIMATIC MV440 UR							
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1. Connect PC with MV440.

Note: Set IP address and subnet mask accordingly on the PC.

- 2. Start WBM, in other words start the web browser and enter the IP address of the MV440.
- 3. Navigate from the portal side to "Setup".
- 4. Select the menu item "Manage".
- 5. Click the "Save/Restore" button.
- Click the "Save parameters" button and save the "myBackup.xml" file on the PC.



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Step 3: Disassemble MV440

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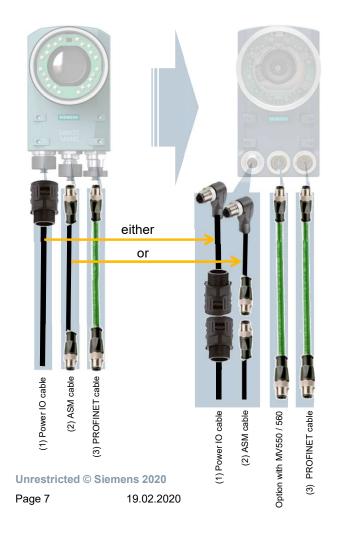
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- 1. Unscrew the MV440 from mounting bracket.
 - 2. Unscrew the MV440 protective lens barrel (5).
 - 3. Unscrew the MV440 lens (2). Note: Tighten the locking screws on the lens to ensure that the diaphragm and lens aperture rings do not move.
 - 4. Unscrew MV440 ring light (1).



Step 4: Mount Adapter



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 If connected with (1) POWER IO cable: Mount MV500 POWER IO adapter

or

- If connected with (2) ASM cable: Mount MV500 ASM adapter
- The (3) **PROFINET cable** can be replugged 1:1.



Step 5: Mount MV500

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- 1. Screw in MV440 lens.
- Use MV500 E-focus lens
- 2. Screw on MV440 ring light.
- Use MV500 ring light and SD card holder
- 3. Screw on MV440 lens protection tube.
- MV500 lens protective lens barrel (absolutely necessary with MV500 ring light)
- 4. Screw MV500 onto mounting bracket.
- 5. Establish communication: Plug in PROFINET cable
- Connect the power supply: Plug in ASM or Power IO cable

Step 6: Load Backup ...





Note:

Assign the IP address of the disassembled MV440 reader to the MV500 reader. Use one of the following tools: PRONETA, Primary Setup Tool (PST), STEP 7 or TIA Portal

- 2. Start WBM, in other words start the web browser and enter the IP address of the MV500.
- 3. Navigate from the portal side to "Home Page".
- 4. Select the menu item "System".
- 5. Under "Load" you enable the option "External data backup".
- Click "Select file" and on the PC you select the backup of the MV440 reader "myBackup.xls".
- 7. Enable "TCP/IP Settings" and "Set PROFINET".
- 8. Click the "Start Restore" button.

SIEMENS SIMATIC MV540 H SIMATIC MV540 H SIEMENIS 4. 5. 3. 1. Unrestricted © Siemens 2020 Page 9 19.02.2020

Step 6. ... and Optimize



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- 1. Select the menu item "Options > Built-in lamp > Lamp: Other".
- 2. Enter the parameters of the MV440 lamp (see Appendix 2). If you use an MV500 lamp, it is recognized automatically.
- 3. If you connect an ASM/CM, enable the option "Power via
- 🚙 PoE or CM".

Note: This limits the lamp wattage so as not to overload the power source.

- 4. In the menu item "Program" you select the current program. **Test: WBM shows a live image like the MV440 reader.**
- 5. If necessary change the ROI/exposure parameters in the program.

Test: Test shows correct reader result.

6. Set the reader to RUN.



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Step 7: Test MV500



- 1. With ASM: Restart the ASM and camera by switching the power off/on on the ASM.
- 2. Ensure correct initialization of FB45 / Ident Profile / Ident Blocks from the PLC. Note: Normally this can be checked on the visualization or in the PLC program.

Test: Check the PLC signal "Initialization successful" (Visualization / User program / Block parameters).

- 3. WBM: Monitor program (MV500 now waits for PLC/trigger).
- 4. Release trigger.

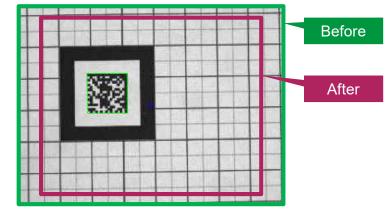
Test: Test shows correct reader result.



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Appendix 1 Note on Replacing MV440 SR with MV500 S





Effect: Code increases, field of view decreases

If you replace the MV440 SR with the MV500 S, the resolution in px/mm increases. At the same time, in this constellation the visible image section decreases by a factor of 0.81. This means that 81% of the height and width of the original field of view remain.

Check your application to see if you use the previous image field to >= 81%. If yes, then replace the MV440 SR with an MV500 H.

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Appendix 2 Parameters of the Built-in MV440 Lamps



Beleuchtung

Interne Lampe		^				
Versorgen über PoE oder CM: Lampe: Produktname:	Andere	T		MV440 built-in red ring light 6GF3440-8DA11	MV440 built-in white ring light 6GF3440-8DA21	MV440 built-in IF light 6GF3440
	Blitz Dauerlicht	a	Flash delay	20 us	20 us	20 us
Blitzverzögerung:	0	us	Max. flash duration	10,000 us	10,000 us	10,000 us
Max. Blitzdauer:	10000	us	Max. Hadir daradon	10,000 40	10,000 40	10,000 a
Max. Tastgrad:	8.0	96	Max. duty cycle	8%	8%	8%
Wellenlänge:	0	nm 🔸				
Farbe:		+	Wavelength	618 nm	0 nm	850 nm
			Color	RED	WHITE	IR

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