

Firmware Update

for

IS1+ CPU 9442

Firmware Update IS1+ CPU 9442

IMPORTANT NOTES

Do not switch off IS1+ CPU or disconnect the Ethernet cable between PC and IS1+ CPU during a firmware update.

*Read the information about the new features of the firmware carefully.
A new firmware may have different behaviour.*

An interruption of the firmware update can lead to a loss of function of the IS1+ CPU.

If you have any questions or problems with the firmware update, please contact your local R. STAHL representative or our support team. You will find the contact details at the end of this document.

Power Modules (PM) may be updated after CPU update has been completed and CPU has rebooted. Interrupting PM update process may lead to a system failure.

Preparation

Make sure the CPU is running, connected via Ethernet to your PC and accessible by a web browser.

A CPU which is active and in DataExchange can not be updated.

Both CPU must be updated to the same firmware version before going to DataExchange again.

- firmware version V01.00.24 or lower, V01.01.03 or higher must be used.
- firmware version V01.00.25 or lower, redundant CPU must be updated separately.
- firmware version V01.01.00 or higher, redundant CPU can be updated one after the other without removing CPU.

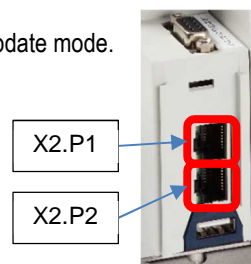
It is not recommended to update the backup CPU while the active CPU is in DataExchange.

Important: Connect Ethernet cable to the upper port **X2.P1** of the IS1+ CPU. The port X2.P2 is not available in update mode.

Devices connected to X2.P2 (daisy chain) can not be accessed during download.

Before entering update mode, make sure you have access to the correct software update file ".swu".

If correct SWU file can not be found on the download page, please contact R. STAHL support team.



Actual IP address of the CPU can be found using *IS1+Detect* (free download from www.r-stahl.com)

IS1+ Detect - Ethernet search and configuration tool for R. STAHL IS1+ remote I/O system

No.	CPU serial number	MAC-AS address	Device name	IP-SB address	Subnet mask	Default gateway	DHCP	Protocol	IP-AS address	SB / RS485 address	Slot	Type	Firmware version	Hardware revision	Socket serial number
5.2	10003449221	98-10-F762-7C-10	julianstahl	172.24.46.174	255.255.252.0	0.0.0.0	Disabled	PROFIBUS DP PNO	172.24.46.174	7	2	9442/35-10-00	V01.01.06-0000	Rev A	123456789012
6	00000000081	98-10-F762-7C-09	teststahl	172.24.46.211	255.255.252.0	0.0.0.0	Disabled	Modbus TCP	172.24.46.212	5	1	9442/35-10-00	V01.01.06-0000	Rev A	123456789012
7	10000821137	98-10-F762-7C-F5	teststahl	172.24.41.11	255.255.252.0	0.0.0.0	Disabled	PROFIBUS DP PNO	172.24.41.12	1	1	9442/35-10-00	V01.01.06-0000	Rev A	100000000001
8	10003449729	98-10-F762-7C-06	teststahl	172.24.47.15	255.255.252.0	0.0.0.0	Disabled	PROFINET	172.24.47.16	2	1	9442/32-10-00	V01.01.06-0000	Rev A	100000000001
9	10000821136	98-10-F762-7C-F0	teststahl	172.24.41.101	255.255.252.0	0.0.0.0	Disabled	PROFINET	172.24.41.102	3	1	9442/35-10-00	V01.01.06-0000	Rev A	100000000001

installed firmware version

Scan network

IS1+ settings

Export to CSV

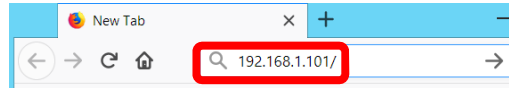
About

If the IS1+Detect tool shows multiple CPUs with the same IP address, the address of the CPU to be updated must be set to a unique IP address before starting the update. See CPU user manual for more information about setting the IP address.

Firmware Update IS1+ CPU 9442

The following steps are required to update the firmware:

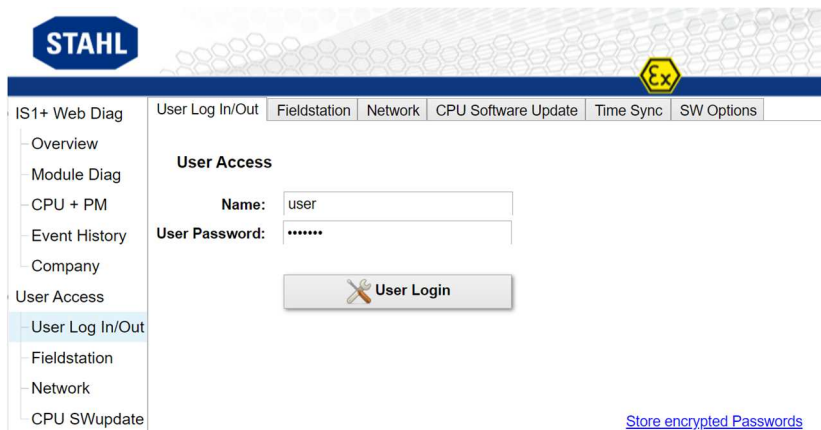
1. Unzip Firmware-Update ZIP-file (e.g. "IS1+9442CPU FW V01.01.07-0001.ZIP") into a local folder on your PC. Firmware file for download has the same name as the ZIP file "IS1+9442CPU FW V01.01.07-0001.swu" with suffix "swu".
2. Start web browser (Firefox recommended), enter IP-SB address of CPU in web browser and press "return"



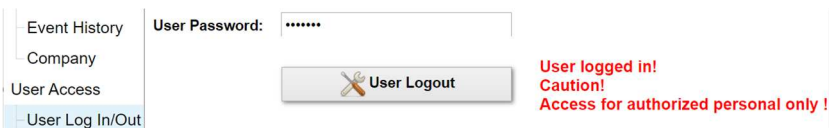
3. The main page of the CPU's webserver appears



4. Click on "User Log In/Out"
 - Enter "Name" and "User Password". Factory default password is: "R.STAHL" (without blanks).
 - If password is unknown, please refer to the user manual or contact R. STAHL support team.
5. Click on "User Login"



6. Log In successful



Firmware Update IS1+ CPU 9442

- Click on **"CPU Software Update"**

- Enter **"Name"** and **"User Password"** again and click on **"Reboot System and enter Software Update Mode"**. The CPU will reboot and start in update mode. Normal operation is not possible in update mode. To leave update mode the firmware update must be finished or the download must be aborted, see end of document. Acknowledge message window with **"OK"** and refresh / reload webpage in browser after CPU has rebooted.
- Click **"Choose File..."**


- Select the firmware file (e.g. **IS1+9442CPU FW V01.01.07-0001.swu**) and press **"Open"**.
Update will start. Webpage shows progress during firmware update.
- Wait for the update to finish. This can take up to 5 minutes. Do not interrupt the firmware update!
If the update is not finished after 10 minutes, please contact our support.
- Firmware update is finished if following information is shown:

- CPU will reboot automatically after successful firmware update (not required to use **"Reboot Device"** button). Depending on the selected protocol the CPU may reboot twice. This is normal startup behaviour.
- Refresh / reload webpage in the browser to display the main page of the IS1+ web server again.

Firmware Update IS1+ CPU 9442

15. Power Modules (PM) may be updated after CPU update has been completed and CPU has rebooted. The update starts approx. 30 seconds after CPU has rebooted. Update of a PM can take up to 1 minute per PM. During the update process the M/S and PWR OUT LEDs of the PM will flash simultaneously. Interrupting PM update process may lead to a system failure. The PM update is done only once after a CPU update. If PM does not start due to an interrupted update, contact support team.
16. Starting with SWU 01.01.07 the IS1+ CPU flashes PWR, ERR and M/S simultaneously on startup until all PM are updated and ready to operate. Webserver shows a warning.

The screenshot displays the 'System Diagnostic' page of the STAHL IS1+ Web Diagnostics interface. The page is divided into four columns representing different modules: CPU 9442 - Left, CPU 9442 - Right, PM 9445, and PM 9445. The CPU modules show 'not plugged' status, while the PM modules show 'Firmware update PM' with a warning icon. A red box highlights the 'Firmware update PM' message for the second PM module.

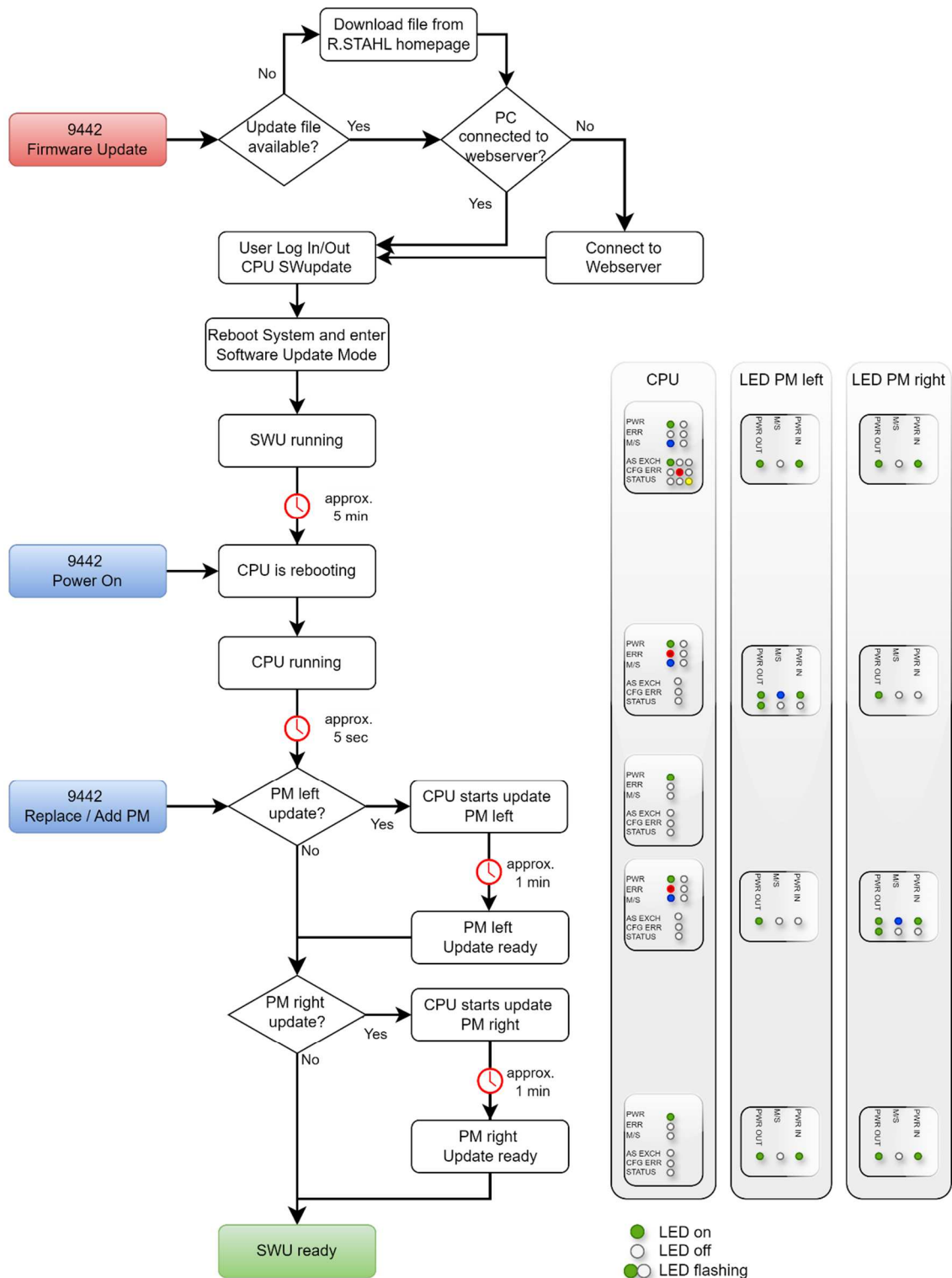
System Diagnostic	AS Protocol	CPU Parameter	Licenses	PM
CPU 9442 - Left Socket Slot S0 primary No Data Exchange Status OK <input checked="" type="checkbox"/> Temp. 45 °C <input checked="" type="checkbox"/> FW: V01.01.07-0001 HW: A	CPU 9442 - Right Socket Slot - not plugged <input type="checkbox"/> Temp. - °C <input type="checkbox"/> FW: HW:	PM 9445 Socket Slot S2 - Firmware update PM  <input type="checkbox"/> Temp. 0.0 °C <input checked="" type="checkbox"/> Input 0.0 V <input checked="" type="checkbox"/> HW: A	PM 9445 Socket Slot - - Temp. - °C <input type="checkbox"/> Input - V <input type="checkbox"/> HW: -	

Power Consumption FS: W ☒
 Temperature Socket: 43 °C ☒

System is ready for operation. If the system had a valid configuration, the configuration data will be loaded automatically.

Firmware Update IS1+ CPU 9442

Firmware Update Sequence



Firmware Update IS1+ CPU 9442

Exit firmware update

To exit the update mode use IS1+ Detect Tool.
Scan for available CPU and select CPU in update mode
Select "IS1+ settings"

IS1+ Detect - Ethernet search and configuration tool for R. STAHL IS1+ remote I/O system

No.	CPU serial number	MAC-AS address	Device name	IP-SB address	Subnet mask	Default gateway	DHCP	Protocol	IP-AS address	SB / RS485 address	Slot	Type	Firmware version	Hardware revision	Socket serial number
1	100010000004	08:00:00:00:00:04	SW-Update running	192.168.1.90	255.255.252.0	0.0.0.0	Disabled	unknown (0)		0	0	9442/32-10-00		Rev A	
2	100010000005	08:00:00:00:00:05	Master	192.168.1.122	255.255.252.0	0.0.0.0	Disabled	PROFIBUS DP PNO		5	1	9442/35-10-00	V01.01.07-0000	Rev A	10000000000001
3	100010000006	08:00:00:00:00:06	Slave 1	192.168.1.123	255.255.252.0	0.0.0.0	Disabled	Modbus TCP	192.168.1.118	5	1	9442/35-10-00	V01.01.04-0001	Rev A	10000000000002
4	100010000007	08:00:00:00:00:07	Slave 2	192.168.1.161	255.255.252.0	0.0.0.0	Disabled	Modbus TCP	192.168.1.162	5	1	9442/35-10-00	V01.01.07-0000	Rev A	10000000000003
5	100010000008	08:00:00:00:00:08	Slave 3	192.168.1.199	255.255.252.0	0.0.0.0	Disabled	PROFINET	192.168.1.200	99	1	9442/35-10-40	V01.01.07-0000	Rev A	10000000000004

Buttons on the right: Scan network, IS1+ settings, Export to CSV, About

Select "Stop SW-Update". CPU reboots and starts with the previous firmware.

Selected IS1+: SW-Update running

General | IP-SB address

Device name: SW-Update running

Reboot CPU

Get Firmware version

Open Webserver

Stop SW-Update

The firmware update can only be aborted if the update was not yet started by selecting the SWU file.
An already started firmware update must be finished.

Support address

R. STAHL Schaltgeraete GmbH

Business Unit Automation Interface and Solutions

eMail:

support.automation@r-stahl.com

Support information:

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