

6ES5941-7UB11

S5 CPU Module

PRODUCT AND SYSTEM TECHNICAL REFERENCE

It executes the STEP 5 control program for an S5-115U system and provides two kilobytes of internal user RAM.

- Executes the S5-115U control program
- Controls the S5 backplane bus
- Provides two kilobytes of internal RAM
- Supports documented PID control functions

VERIFIED IDENTITY

Article number	6ES5941-7UB11
Processor designation	CPU 941
Controller system	SIMATIC S5-115U
Internal user memory	2 KB RAM
Program execution	STEP 5 control program
Optional memory submodule	Up to 32 KB documented for the CPU family

Official source: Siemens SIMATIC S5-115U Programmable Controller Manual and exact Industry Mall article record
Publication: EWA 4NEB 811 6130-02b; 6ES5941-7UB11

APPLICATION SNAPSHOT

Legacy machine sequence control	Executes established machine logic on the S5 backplane.
S5-115U process automation	Coordinates analog and digital modules in legacy process equipment.
STEP 5 controller restoration	Restores an approved STEP 5 application and retentive data set.
CPU 941 replacement	Renews the exact two-kilobyte CPU position.



TECHNICAL SPECIFICATIONS

Article number	6ES5941-7UB11
Processor designation	CPU 941
Controller system	SIMATIC S5-115U
Internal user memory	2 KB RAM
Program execution	STEP 5 control program
Optional memory submodule	Up to 32 KB documented for the CPU family
Integrated functions	Interrupt and substitution operations; S5 bus control
PID support	Integral PID algorithms in CPU 941 to CPU 944 operating systems
PID sampling reference	From 100 ms
PID loop reference	Up to eight loops
Lifecycle	Discontinued; deleted without replacement
Lifecycle effective date	1 October 2022
Siemens catalog identifier	ST9-E5

MATCHED COMPONENTS

- SIMATIC S5-115U rack and power supply
- approved STEP 5 project and memory arrangement
- S5 input and output modules
- backup battery and retentive-data plan

TECHNICAL ACCEPTANCE CRITERIA

Exact identity	Complete 6ES5941-7UB11 marking matches the controlled record
System match	Installed position belongs to the SIMATIC S5-115U programmable controller
Companion hardware	All required rack, connector, field and project items are reconciled
Electrical limits	Supply, ranges and signal values remain within the named Siemens data
Diagnostics	Module, rack, network and host indications are understood and accepted
Controlled response	The step 5 program execution and s5 backplane control function is proven and recorded

Back up the STEP 5 project and retentive data, record processor mode and memory hardware, and maintain battery support when required by the installed power-supply procedure.

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6ES5941-7UB11 | PAGE 2



6ES5941-7UB11

SYSTEM INTEGRATION & FAQ

DOCUMENTED APPLICATIONS

Legacy machine sequence control	Executes established machine logic on the S5 backplane.
S5-115U process automation	Coordinates analog and digital modules in legacy process equipment.
STEP 5 controller restoration	Restores an approved STEP 5 application and retentive data set.
CPU 941 replacement	Renews the exact two-kilobyte CPU position.

PRODUCT PRECAUTIONS

- Verify the complete 6ES5941-7UB11 marking and the assigned SIMATIC S5-115U programmable controller position before work.
- Isolate all applicable power and step 5 program execution and s5 backplane control field energy before disconnection.
- Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- Restore power in a controlled sequence and review module, rack and host diagnostics.
- Place the connected legacy machine sequence control process in the approved maintenance state.
- Record every connector, conductor, address, jumper and project identity before removal.
- Confirm the installed SIMATIC S5-115U rack and power supply and approved STEP 5 project and memory arrangement against the approved system record.
- Prove the intended s5-115u process automation function and retain the final acceptance result.

ENGINEER FAQ — PART 1

1	What controller role does Siemens 6ES5941-7UB11 perform?	It is the CPU 941 central processor for a SIMATIC S5-115U programmable controller.
2	How much internal user memory is available in 6ES5941-7UB11?	The exact article is documented with 2 KB of internal RAM for the control program.
3	What program must be secured before replacing 6ES5941-7UB11?	Back up the approved STEP 5 program, data blocks, retentive flags, timers, counters and the as-found operating mode.
4	How is retained data protected around a 6ES5941-7UB11 exchange?	Follow the S5-115U power-supply and battery procedure so program memory and retentive data are not unintentionally lost.

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6ES5941-7UB11 | PAGE 3



6ES5941-7UB11

ENGINEER FAQ & RELATED PRODUCTS

1	Which backplane duties are handled by 6ES5941-7UB11?	The CPU executes the control program, manages interrupts and substitution operations, and controls data exchange on the S5 bus.
2	Can 6ES5941-7UB11 be used for PID control?	The S5-115U manual documents integral PID algorithms for CPU 941 to CPU 944, with sampling from 100 ms and up to eight loops when engineered.
3	Why is a different S5 CPU not an automatic substitute for 6ES5941-7UB11?	Memory capacity, execution behavior, interfaces and project compatibility differ; compare the complete hardware and software configuration.
4	What acceptance sequence should follow a 6ES5941-7UB11 installation?	Restore the approved project, confirm CPU and battery diagnostics, verify all I/O, and run the machine sequence under controlled conditions.

RELATED PRODUCTS ON APTER POWER

01	Bently Nevada 330102 00 20 10 02 00	Related industrial automation product
02	Bently Nevada 330101 00 60 10 02 05	Related industrial automation product
03	Bently Nevada 330101 00 40 10 02 05	Related industrial automation product
04	Bently Nevada 330101 00 40 10 02 00	Related industrial automation product
05	Bently Nevada 330101 00 40 05 02 00	Related industrial automation product
06	Bently Nevada 330101 00 30 10 02 05	Related industrial automation product
07	Bently Nevada 330101 00 30 10 02 00	Related industrial automation product
08	Bently Nevada 330101 00 20 05 02 00	Related industrial automation product

Manufacturer source	Siemens SIMATIC S5-115U Programmable Controller Manual and exact Industry Mall article record
Publication	EWA 4NEB 811 6130-02b; 6ES5941-7UB11
Technical boundary	Values are limited to this exact-model source record
Acceptance evidence	Retain the as-left identity, diagnostics and controlled test result

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6ES5941-7UB11 | PAGE 4



6ES5941-7UB11