

6ES5941-7UB11

S5 CPU Module

INSTALLATION AND COMMISSIONING GUIDE

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.

01 PRE-INSTALLATION PLAN

Step 1	Verify the complete 6ES5941-7UB11 marking and the assigned SIMATIC S5-115U programmable controller position before work.
Step 2	Place the connected legacy machine sequence control process in the approved maintenance state.
Step 3	Isolate all applicable power and step 5 program execution and s5 backplane control field energy before disconnection.
Step 4	Record every connector, conductor, address, jumper and project identity before removal.
Step 5	Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
Step 6	Confirm the installed SIMATIC S5-115U rack and power supply and approved STEP 5 project and memory arrangement against the approved system record.
Step 7	Restore power in a controlled sequence and review module, rack and host diagnostics.
Step 8	Prove the intended s5-115u process automation function and retain the final acceptance result.

MATCHED HARDWARE

- 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

02 WIRING & INTERFACE CHECKS

Exact model	6ES5941-7UB11
Installed system	SIMATIC S5-115U programmable controller
Controlled signal	STEP 5 program execution and S5 backplane control
Connector record	Capture terminal, plug, jumper and cable identities before removal
Shield and reference	Restore only the documented as-found termination arrangement
Supply isolation	Verify all module, field and stored-energy sources are safe
Configuration record	Save addresses, ranges, parameters, software and project revision
Pre-energization gate	Complete continuity, polarity, supply and protective-device checks



03 COMMISSIONING & RETURN TO SERVICE

1 — Identity	Reconfirm 6ES5941-7UB11 and the assigned system position
2 — Mechanical	Verify seating, retaining hardware, airflow and connector protection
3 — Electrical	Verify supply, polarity, references, shields and field protection
4 — Configuration	Restore only the approved addresses, parameters and project
5 — Controlled power	Energize with the connected process in the maintenance state
6 — Diagnostics	Review module, rack, network and host diagnostic indications
7 — Function	Exercise the documented legacy machine sequence control function
8 — Acceptance	Record the final response and release authorization

APPLICATION-SPECIFIC TESTS

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.

RETURN-TO-SERVICE RECORD

Identification accepted	Complete model and installed marking verified
Connections accepted	All conductors, connectors, shields and jumpers reconciled
Configuration accepted	Addressing, parameters and project revision confirmed
Diagnostics accepted	No unexplained module, rack, network or host faults
Function accepted	Documented controlled response proved
Record retained	As-left evidence and approval stored with the maintenance record



MODEL-SPECIFIC FAQ & RELATED PRODUCTS

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.
5	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.
6	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.
7	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.
8	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 330101 00 16 10 02 00	Related industrial automation product
02	Bently Nevada 330101 00 12 10 02 00	Related industrial automation product
03	Bently Nevada 330101 00 08 10 02 05	Related industrial automation product
04	Bently Nevada 330101 00 08 10 02 00	Related industrial automation product
05	ABB 3BHE022293R0101 PCD232A	Related industrial automation product
06	Bently Nevada 330101 00 08 05 02 00	Related industrial automation product
07	Siemens 6SE7090 0XX87 4AH0	Related industrial automation product

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08	Siemens C98043 A7109 L100	Related industrial automation product
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