

Service Information 7SA511

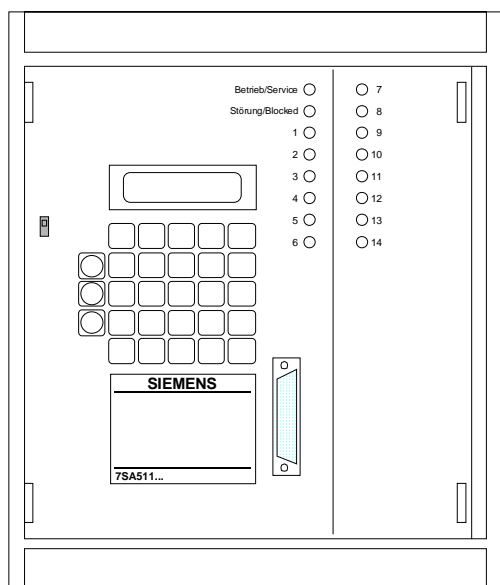
Firmware Update to V3.24B (EPROM Exchange)

Firmware versions **V3.24BD** (German), **V3.24BE** (English) and **V3.24BF** (French) for the distance protection relay **7SA511** are available now.

The update is only possible for devices of versions /GG...(KSP-2):

- Updates from V2.** to V3.22B* are only possible for devices which display the cipher "A5" at the 10th/11th position of the MLFB-code upon start-up: 7SA511***A5*****!
When ordering, please specify the required V3 operating language (cf. ordering data).
- Devices in which the MLFB of version V3 has already been implemented (at works), i.e. devices which clearly and unequivocally identify the operating language by the 10th/11th position of the MLFB-code (A6 = German ; A7 = English; B7 = French) in the displayed start-up message (!):
7SA511***A6*****, 7SA511***A7*****, or 7SA511***B7*****, must always be run with the corresponding V3 operating language (cf. ordering data)! The matching versions are:
 7SA511***A6*.**** --> Version **V3.24BD**
 7SA511***A7*.**** --> Version **V3.24BE**
 7SA511***B7*.**** --> Version **V3.24BF**

The service information describes the procedure for updates via EPROM exchange.



The update sets can be ordered at:

Siemens AG
 EV S PSL
 Wernerwerkdam 5
 13623 Berlin
 Germany

Order numbers of update sets for 7SA511:

Firmware	Language.	EPROM set
V3.24BD	German	C73207-A299-D321-5
V3.24BE	English	C73207-A299-D322-5
V3.24BF	French	C73207-A299-D323-5

Please specify in your order:


- Number of devices
- MLFB and serial number
- Previous firmware version
- Required firmware version (V3.24BD or V3.24BE or V3.24BF)

Orders via AGAVE, LABIV etc.
 Order forms to UMWB.

The firmware exchange may only be carried out by qualified persons.

Iss.	Type of notice	Date	Name	Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange	Page 1 / 8
1F	firmware	29.03.01	ZC	Name	Posselt		
1E	firmware	05.11.99	Po.	Tested			
1D	firmware	01.07.98	Rö	Stand.			
1C	firmware	01.07.98	Rö	(readme_GG.doc)			
1B	firmware	30.06.98	Rö	SIEMENS AG PTD P A D S I Power Transmission and Distribution			
1A	firmware	29.06.98	Rö				
1	first edition	02.06.97	Lz	C53000-A1000-X24-1F-7620			

We recommend observing the following procedure when updating the firmware.

	<p>ACHTUNG Nur geschultes Personal darf die Verpackung öffnen Elektrostatisch gefährdete Bauelemente (EGB)</p> <p>ATTENTION Observe Precautions for Handling Electrostatic Sensitive Devices</p>	<p>WARNING When carrying out modifications locally, it is absolutely necessary to observe the guidelines for handling electrostatic sensitive devices (ESD).</p>
---	--	---

1. After the firmware exchange the device will revert to the original factory settings.
2. Observe the relevant ESD (Electrostatic Sensitive Devices) precautions.
3. Remove the front cover of the device.
4. Before exchanging the firmware, read out or write down the settings and marshallings of the protection device by using an operator panel/display, 7XR50 or laptop/PC with DIGSI.
5. Switch off the device (e.g. at the front-side slide-switch).
6. Withdraw the compact assembly unit (full width module with frontside membrane keyboard) from the housing by using the releasing levers provided at the top and bottom of the module.
7. Place the compact unit onto an ESD-mat.
8. The KSP p.-c. board on which the new EPROMs are to be inserted is the rightmost p.-c. board of the compact unit (when seen from the front).
9. Remove the five cross-slotted screws and the isolating strip from the back of the p.-c. board (see fig. 1 on page 6).
10. Lift up the p.-c. board slightly and remove all plugs of the cable joints from the p.-c. board.
11. Carefully remove the EPROMs (previous firmware version) with the enclosed PLCC - extraction tool out of the IC-locations D7 and D8 (see fig. 2 on page 7) by levering out of its IC base.

				Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange	
1F	firmware	29.03.01	ZC	Name	Posselt		
1E	firmware	05.11.99	Po.	Tested			
1D	firmware	01.07.98	Rö	Stand.			
1C	firmware	01.07.98	Rö	(readme_GG.doc)			
1B	firmware	30.06.98	Rö	SIEMENS AG		C53000-A1000-X24-1F-7620	Page 2 / 8
1A	firmware	29.06.98	Rö	PTD P A D S I			
1	first edition	02.06.97	Lz	Power Transmission and Distribution			
Iss.	Type of notice	Date	Name				

WARNING!

Improper handling of the PLCC-extraction tool or false EPROM-placing causes injury.

12. Carefully insert the new EPROMs **P73509-B1-A171-5** a. **P73509-B1-A172-5** (German) or **P73509-B1-A173-5** a. **P73509-B1-A174-5** (English) or **P73509-B1-A175-5** a. **P73509-B1-A176-5** (French) into bases D7 a. D8 on the KSP processor board (see fig. 2 on page 7).
Make sure that the IC identifier corresponds to the base identifier and that no terminal pins of the EPROMs suffer injury (bending) during insertion.
13. To indicate that the firmware has been updated, a label should be attached to the rear side of the KSP processor board. Use the supplied label and fix it on a suitable location (e.g. covering the former label).
14. Replace all plug-in connectors carefully and make sure, that no pins suffer injury (bending) during insertion.
15. Fix the p.-c. board with the five screws and the isolating strip on the compact unit (see fig. 1 on page 6).
16. Firmly push in the compact unit into the housing using the two releasing levers.
17. The update should now also be indicated externally by the appropriate label on the housing. Use the supplied new label to replace the previous, invalidated label (located at the rear side of the housing for panel flush mounting or at the bottom side of the housing for panel surface mounting).
18. If the firmware is updated from V2.** to version V3.** the MLFB code on the nameplate (underneath the operator panel) should be modified. Correct the 11th position of the MLFB code in accordance with the newly installed version V3 (using a water-resistant pen):
 - Version V3.** BD (German) ---> 10th/11th MLFB position = A6: 7SA511* - **A6* - * * * *
 - Version V3.** BE (English) ---> 10th/11th MLFB position = A7: 7SA511* - **A7* - * * * *
 - Version V3.** BE (French) ---> 10th/11th MLFB position = B7: 7SA511* - **B7* - * * * *
19. Switch on the device.

				Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange	
1F	firmware	29.03.01	ZC	Name	Posselt		
1E	firmware	05.11.99	Po.	Tested			
1D	firmware	01.07.98	Rö	Stand.			
1C	firmware	01.07.98	Rö	(readme_GG.doc)			
1B	firmware	30.06.98	Rö	SIEMENS AG			
1A	firmware	29.06.98	Rö	PTD PA D SI			
1	first edition	02.06.97	Lz	Power Transmission and Distribution		C53000-A1000-X24-1F-7620	Page 3 / 8
Iss.	Type of notice	Date	Name				

20. **Possibility 1:** Device defaults to monitor operation.

Display: MONITOR-EINSTIEG MONITOR-START
URANLAUF NÖTIG ORIG. START NEC.

Proceed with No. 22

21. **Possibility 2:** Start-up of device.

Press: CW CW
Display: CODEWORTEINGABE: ENTER CODEWORD:
Press: 333333 333333
Display: @@@@ @@@@
Press: E E
Display: CW AKZEPTIERT CW ACCEPTED
Press: DA DA
Display: DIREKTE ADRESSE DIRECT ADDRESS
Press: 9802 9802
E E
Display: 9802 MONITOR 9802 MONITOR
START ? START ?
Press: J/Y J/Y

The following display will appear:

Display: MONITOR EINSTIEG MONITOR-START
BEDIENUNG INTEGR. OPERAT.

22. When the device is in „monitor operation“, make sure to press down the keys slowly and firmly, keeping them pressed, if necessary.

Press: CW CW
Display: CODEWORTEINGABE: ENTER CODEWORD:
Press: 000000 000000
Display: @@@@ @@@@
Press: E E
Display: CW AKZEPTIERT CW ACCEPTED
Press: E E
Display: MONITOR V3.1 MONITOR V3.1
FUNKTIONSAUSWAHL FUNCT. CHOICE
Press: ↑ ↑

several times, until

Display: FUNKTIONSAUSWAHL FUNCT. CHOICE
URANLAUF ORIGINAL START

appears.

Drücken: E E
Display: CODEWORTEINGABE: ENTER CODEWORD:
Drücken: 333333 333333
Display: @@@@ @@@@
Drücken: E E
Display: CW AKZEPTIERT CW ACCEPTED
Drücken: E E
Display: URANLAUF ORIGINAL START
START BEGIN

				Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange	Page 4 / 8
1F	firmware	29.03.01	ZC	Name	Posselt		
1E	firmware	05.11.99	Po.	Tested			
1D	firmware	01.07.98	Rö	Stand.			
1C	firmware	01.07.98	Rö	(readme_GG.doc)			
1B	firmware	30.06.98	Rö	SIEMENS AG PTD PA D SI			
1A	firmware	29.06.98	Rö				
1	first edition	02.06.97	Lz	Power Transmission and Distribution		C53000-A1000-X24-1F-7620	
Iss.	Type of notice	Date	Name				

changes after approx. 1 min. to

Display: URANLAUF
 ENDE

ORIGINAL START
 END

device starts up after approx. 10sec. returning the following start-up display:

Display: 0 7SA511 V3.24B 0 7SA511 V3.24B
 7SA511***** 7SA511*****

The start-up display shows the newly installed firmware version (i.e. V3.**B) and the MLFB code *) which corresponds to the device.

*) Please note: The display shows the (unchanged) original MLFB such as it had been configured for ex-works delivery of the device (this concerns in particular the 10th/11th position of the MLFB code for updates from V2.** ---> V3.**).

23. After successful start, the green LED is illuminating to indicated readiness of service. The display shows the MLFB code of the device indicating the newly installed firmware version. The firmware update is thus completed.
After original start, the device assumes the original MWB factory settings.
24. The device is now ready for normal commissioning (input of the user-specific parameters etc.).
25. The replaced EPROM must be properly disposed of.
26. For internal statistics, Siemens should be informed about the changing of the firmware.
Please provide MLFB and serial number to the following address:

SIEMENS AG
PTD PA PSL
Wernerwerkdammm 5
13623 Berlin
Germany

In written inquiries, please always specify the serial number and the complete MLFB code of the device/component in question.

				Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange	
1F	firmware	29.03.01	ZC	Name	Posselt		
1E	firmware	05.11.99	Po.	Tested			
1D	firmware	01.07.98	Rö	Stand.			
1C	firmware	01.07.98	Rö	(readme_GG.doc)			
1B	firmware	30.06.98	Rö	SIEMENS AG PTD PA D SI Power Transmission and Distribution		Page	
1A	firmware	29.06.98	Rö				
1	first edition	02.06.97	Lz				
Iss.	Type of notice	Date	Name			C53000-A1000-X24-1F-7620	5 / 8

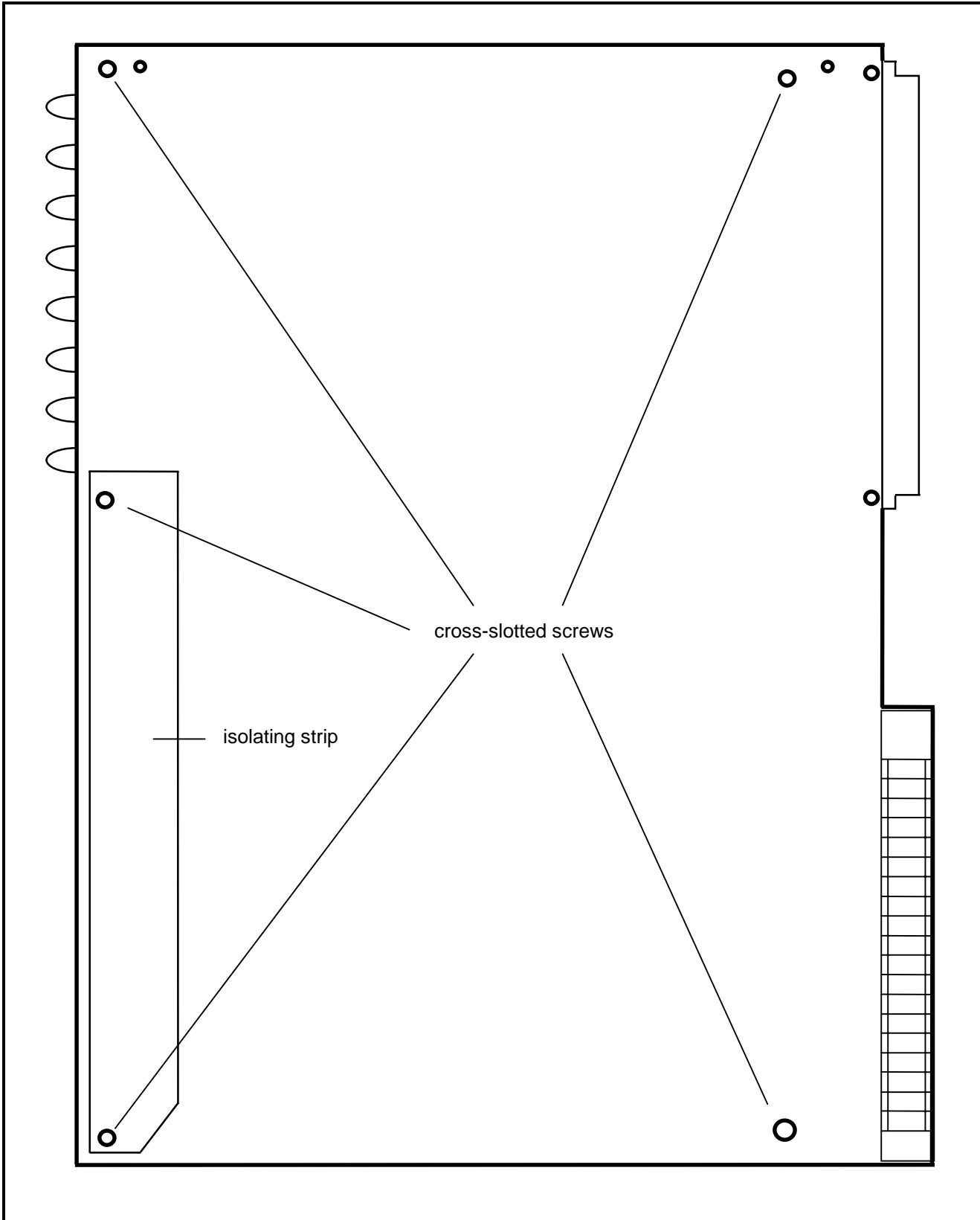


Fig. 1: KSP2 - p.-c. board, back with fixing screws

				Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange
1F	firmware	29.03.01	ZC	Name	Posselt	
1E	firmware	05.11.99	Po.	Tested		
1D	firmware	01.07.98	Rö	Stand.		
1C	firmware	01.07.98	Rö	(readme_GG.doc)		
1B	firmware	30.06.98	Rö	SIEMENS AG PTD PA D SI Power Transmission and Distribution		
1A	firmware	29.06.98	Rö			
1	first edition	02.06.97	Lz			
Iss.	Type of notice	Date	Name	C53000-A1000-X24-1F-7620		Page 6 / 8

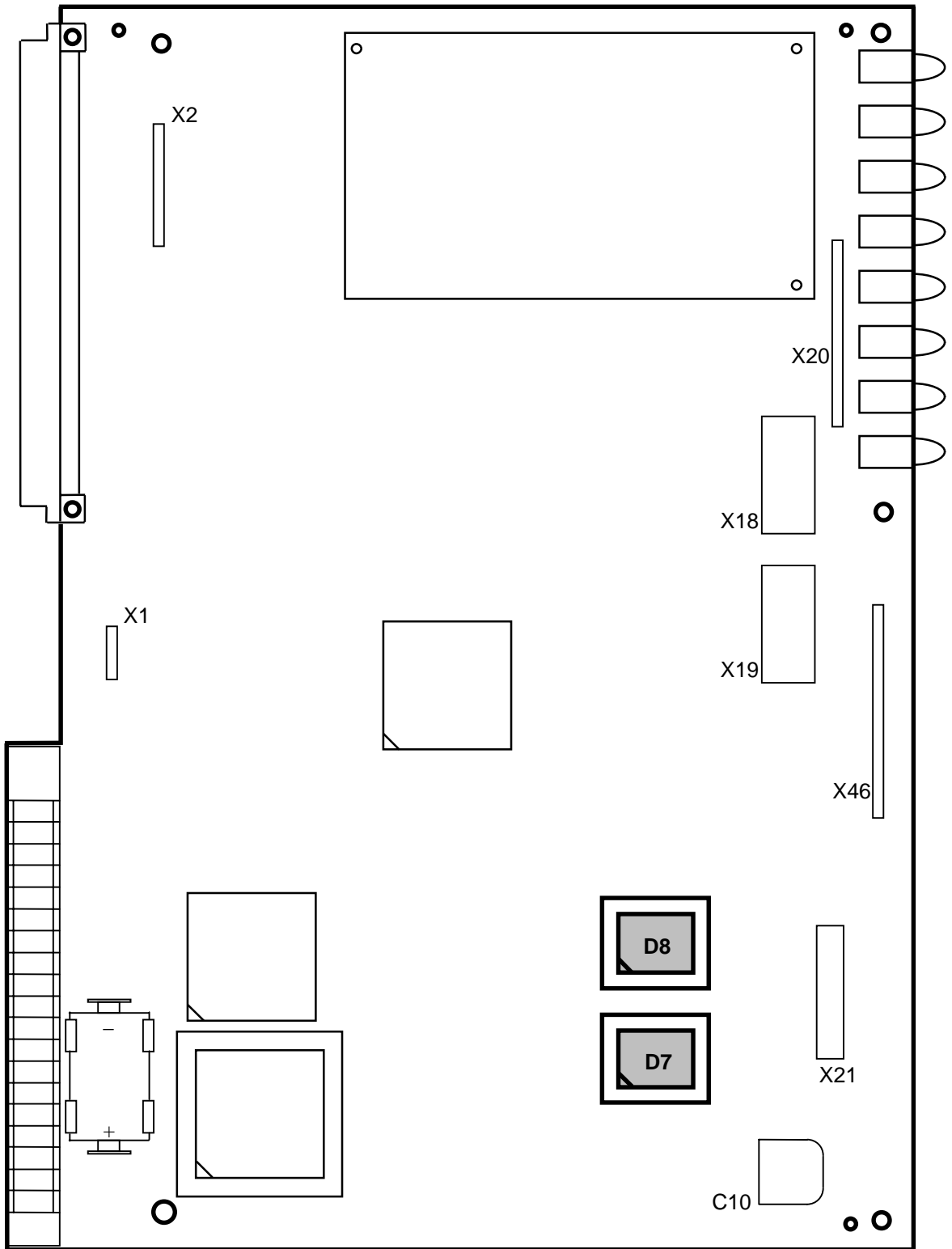


Fig.2: KSP2 - p.c. board, component-side and positions of EPROMS D7 a. D8

Iss.	Type of notice	Date	Name	Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange	Page 7 / 8
1F	firmware	29.03.01	ZC	Name	Posselt		
1E	firmware	05.11.99	Po.	Tested			
1D	firmware	01.07.98	Rö	Stand.			
1C	firmware	01.07.98	Rö	(readme_GG.doc)			
1B	firmware	30.06.98	Rö	SIEMENS AG			
1A	firmware	29.06.98	Rö	PTD PA D SI			
1	first edition	02.06.97	Lz	Power Transmission and Distribution			
C53000-A1000-X24-1F-7620							



WARNING

Dangerous voltages may occur in devices and modules during operation depending on the design and application. Incorrect use of these devices can therefore result in severe personal injury or substantial damage to property.

Only suitably qualified staff should work on this device.

Correct and safe operation of this device is dependent on proper handling, installation, operation and maintenance.

Should you require further information, or should particular problems occur which are not handled in sufficient depth in the Instructions, help can be requested through your local Siemens Office or representative.

QUALIFIED PERSON

A "qualified person" is one who is familiar with the installation, construction and operation of the device and who has the appropriate qualifications, e.g.

- is trained and authorized to operate and maintain devices/systems in accordance with established safety practices for devices with electrical circuits.
- is trained in the proper care and use of protective equipment in accordance with established safety practices.
- is trained in first aid.



WARNUNG

Beim Betrieb können in Geräten und Baugruppen je nach Ausführung und Anwendung gefährliche elektrische Spannungen auftreten. Unsachgemäßer Umgang mit diesen Geräten kann deshalb zu schweren Körperverletzungen oder erheblichen Sachschäden führen.

Nur entsprechend qualifiziertes Personal sollte an diesem Gerät arbeiten.

Der einwandfreie und sichere Betrieb dieses Gerätes setzt sachgemäßen Transport, fachgerechte Lagerung, Aufstellung und Montage sowie sorgfältige Bedienung und Instandhaltung voraus.

Sollten Sie weitere Informationen wünschen, oder sollten besondere Probleme auftreten, die in der Anleitung nicht ausführlich genug behandelt werden, können Sie die erforderliche Auskunft über die örtliche Siemens-Niederlassung anfordern.

QUALIFIZIERTES PERSONAL

sind Personen, die mit Aufstellung, Montage, Inbetriebsetzung und Betrieb des Produktes vertraut sind und über entsprechende Qualifikationen verfügen, wie z.B.:

- Ausbildung oder Unterweisung bzw. Berechtigung Geräte/Systeme gemäß den Standards der Sicherheitstechnik für elektrische Stromkreise zu betreiben und zu warten.
- Ausbildung oder Unterweisung gemäß den Standards der Sicherheitstechnik in Pflege und Gebrauch angemessener Sicherheitsausrüstung
- Schulung in Erster Hilfe

Subject to change without prior notice !

				Date	05.11.1999	Service-Information 7SA511 /GG... V3.**B* --> V3.24B* Firmware update via EPROM exchange
1F	firmware	29.03.01	ZC	Name	Posselt	
1E	firmware	05.11.99	Po.	Tested		
1D	firmware	01.07.98	Rö	Stand.		
1C	firmware	01.07.98	Rö	(readme_GG.doc)		
1B	firmware	30.06.98	Rö	SIEMENS AG PTD P A D SI Power Transmission and Distribution		Page
1A	firmware	29.06.98	Rö			C53000-A1000-X24-1F-7620
1	first edition	02.06.97	Lz			
Iss.	Type of notice	Date	Name			