

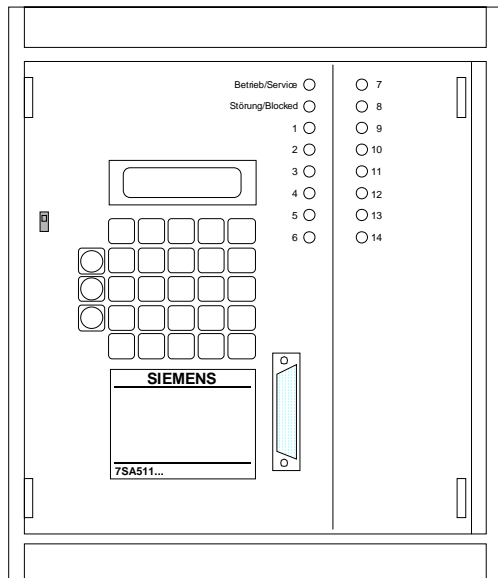
Service Information 7SA511 Firmware Update to V3.24A (EPROM Exchange)

Firmware versions **V3.24AD** (German) and **V3.24AE** (English) for the distance protection relay **7SA511** are now available.

The update is only possible for devices of versions **/DD ... /GF** (KSP-1):

- Updates from V2.** to V3.24A* are only possible for devices that 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 is already been implemented (factory), i.e. devices which clearly and unequivocally identify the operating language by the 10 th/11th position of the MLFB-code (A6 = German, A7 = English) in the displayed start-up message (!): 7SA511***A6***** or 7SA511***A7***** , must always be run with the corresponding V3 operating language (cf. ordering data)! The matching versions are: 7SA511*-*A6*-**** --> Version **V3.24AD**
7SA511*-*A7*-**** --> Version **V3.24AE**

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



The update sets can be ordered at:

Siemens AG
EV S PSL
Wernerwerkdam 5
13623 Berlin
Germany

Order numbers for update sets:

Firmware	Language	EPROM set
V3.24AD	German	C73207-A299-D311-5
V3.24AE	English	C73207-A299-D312-5

Please specify in your order:


- Number of devices
- MLFB and serial number
- Previous firmware version
- Required firmware version (V3.24AD or V3.24AE)

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

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

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				05.11.1999	Posselt	Service-Information 7SA511 /DD.../GF V2/V3.**A* --> V3.24A* Firmware update via EPROM exchange
1H	firmware	29.03.01	ZC	Tested		
1D	firmware	05.11.99	Po.	Stand.		
1C	firmware	22.07.98	Rö	(readme_DD_GF.doc)		
1B	firmware	22.07.98	Rö			
1A	firmware	22.07.98	Rö			C53000-A1000-X17-1H-7620
1	first edition	02.06.97	Lz			
				SIEMENS AG PTD PA D SI Power Transmission and Distribution		

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</p> <p>When carrying out modifications locally, it is absolutely necessary to observe the guidelines for handling electrostatic sensitive devices (ESD).</p>
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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 EPROM is 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 EPROM with the previous firmware version (IC location D35, see fig. 2 on page 7) by levering it out of its IC base.

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12. Carefully insert the new EPROM **P73509-B1-A168-5** (German) or **P73509-B1-A169-5** (English) into base D35 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 EPROM 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 10th/11th position of the MLFB code in accordance with the newly installed version V3 (using a water-resistant pen):
- Version V3.** AD (German) ---> 10th/11th MLFB position = A6: 7SA511*-***A6***-*****
- Version V3.** AE (English) ---> 10th/11th MLFB position = A7: 7SA511*-***A7***-*****
19. Switch on the device.
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

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1A	firmware	22.07.98	Rö	PTD P A D SI			
1	first edition	02.06.97	Lz	Power Transmission and Distribution			
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```

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

```

changes after approx. 1 min. to

```

Display:      URANLAUF              ORIGINAL START
                ENDE                  END

```

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

```

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

```

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

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*) 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 indicate 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
 Wernerwerkdam 5
 13623 Berlin
 Germany

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

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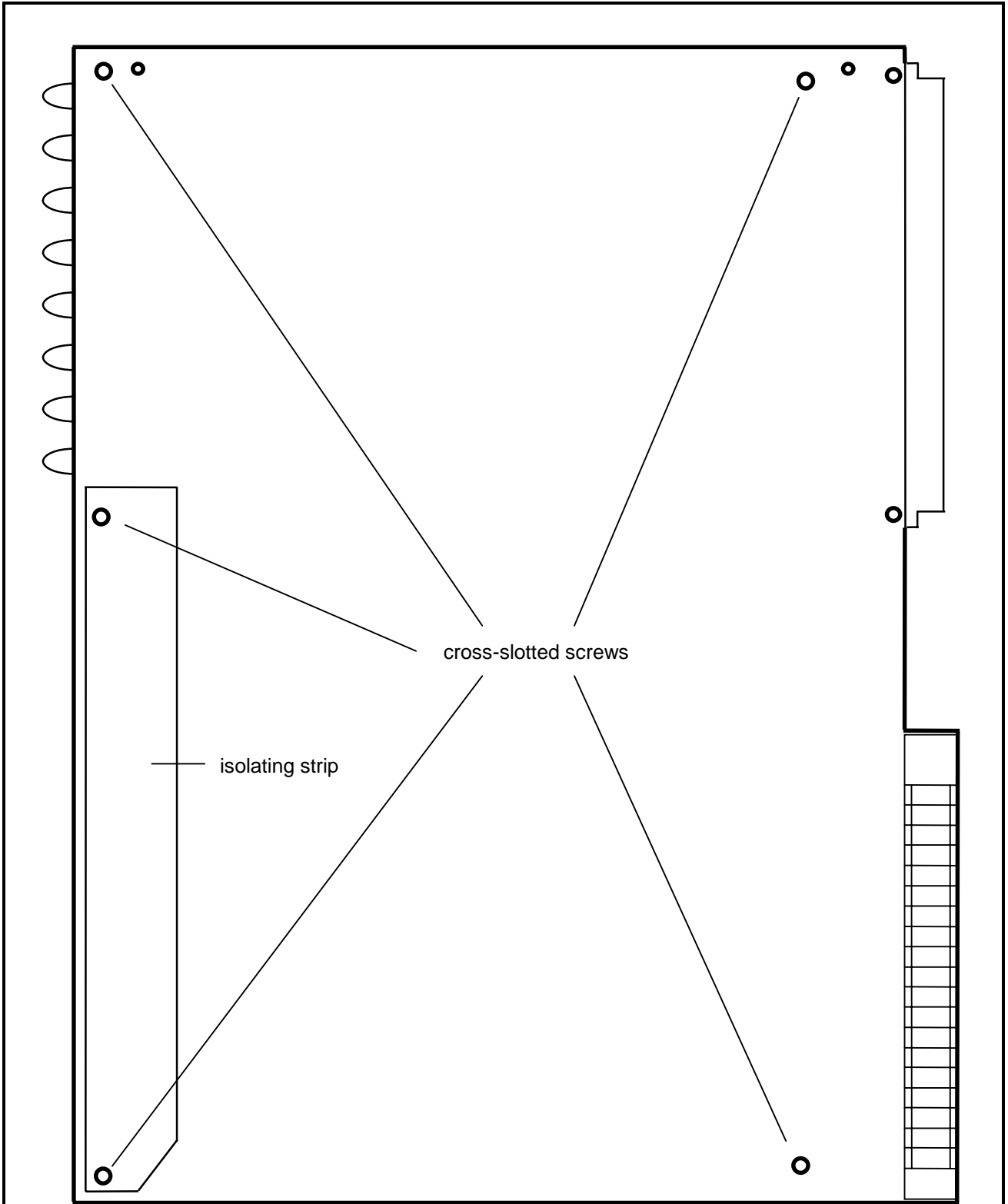


Fig. 1: KSP1-p-c board, back with fixing screws

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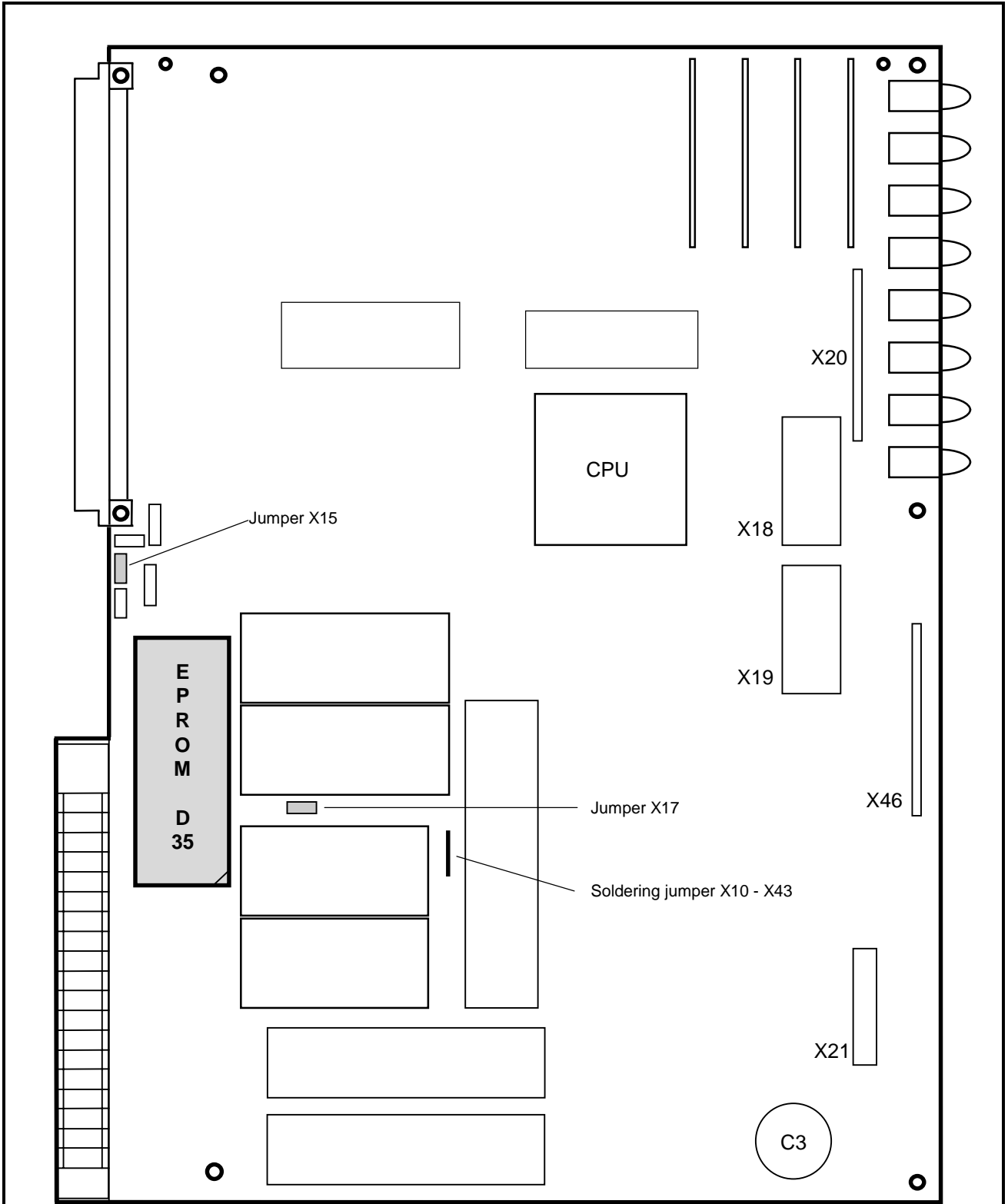


Fig. 2: KSP1 - p-c. board, component side and position of EPROM D35

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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 !

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