



ROHDE & SCHWARZ

Geschäftsbereich
Meßtechnik

Servicehandbuch

**Signalgenerator
SME**

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ENGLISH SERVICE MANUAL FOLLOWS FIRST COLOURED DEVIDER

Band 2

Servicehandbuch besteht aus 4 Bänden

Printed in the Federal
Republic of Germany

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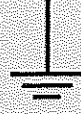
Sicherheitshinweise

Dieses Gerät ist gemäß beiliegender EU-Konformitätsbescheinigung gebaut und geprüft und hat das Werk in sicherheitstechnisch einwandfreiem Zustand verlassen.

Um diesen Zustand zu erhalten und einen gefahrlosen Betrieb sicherzustellen muß der Anwender alle Hinweise, und Warnvermerke beachten, die in dieser Bedienungsanleitung enthalten sind.

1. Das Gerät darf nur in den vom Hersteller angegebenen Betriebszuständen und Betriebslagen ohne Behinderung der Belüftung betrieben werden. Wenn nichts anderes vereinbart ist, gilt für R&S - Produkte folgendes:
Verschmutzungsgrad 2, Überspannungskategorie 2, IP - Schutzart 2X, Betrieb bis 2000 m.
Der Betrieb ist nur an Versorgungsnetzen gestattet, die mit höchstens 16 A abgesichert sind.
2. Bei Messungen in Stromkreisen mit Spannungen $U_{eff} > 30 \text{ V}$ ist mit geeigneten Maßnahmen Vorsorge zu treffen, daß jegliche Gefährdung ausgeschlossen wird.
(z.B. geeignete Meßmittel, Absicherung, Strombegrenzung, Schutztrennung, Isolierung usw.)
3. Wird ein Gerät ortsfest angeschlossen, ist die Verbindung zwischen dem Schutzleiteranschluß vor Ort und dem Geräteschutzleiter vor jeglicher anderer Verbindung herzustellen (Aufstellung und Anschluß darf nur durch eine Elektrofachkraft erfolgen).
4. Bei ortsfesten Geräten ohne eingebaute Sicherung, Selbstschalter oder ähnliche Schutzrichtung muß der Versorgungskreis so abgesichert sein, daß Geräte und Benutzer ausreichend geschützt sind.
5. Vor dem Einschalten des Gerätes ist sicherzustellen, daß die am Gerät eingestellte Nennspannung und die Netzennspannung des Versorgungsnetzes übereinstimmen.
Ist es erforderlich, die Spannungseinstellung zu ändern, so muß ggf. auch die dazugehörige Netzsicherung des Gerätes geändert werden.
6. Bei Geräten der Schutzklasse I mit beweglicher Netzzuleitung und Gerätesteckvorrichtung ist der Betrieb nur an Steckdosen mit Schutzkontakt und angeschlossenem Schutzleiter zulässig.
7. Jegliche absichtliche Unterbrechung des Schutzleiters sowohl in der Zuleitung als auch am Gerät selbst ist unzulässig und kann dazu führen, daß von dem Gerät eine Gefahr ausgeht.
Bei Verwendung von Verlängerungsleitungen oder Steckdosenleisten, ist sicherzustellen, daß diese regelmäßig auf ihren sicherheitstechnischen Zustand überprüft werden.
8. Ist das Gerät nicht mit einem Netzschalter zur Netztrennung ausgerüstet, so ist der Stecker des Anschlußkabels als Trennvorrichtung anzusehen. In diesen Fällen ist dafür zu sorgen, daß der Netzstecker jederzeit leicht erreichbar und gut zugänglich ist. (Länge des Anschlußkabels ca. 2 m) Funktionsschalter oder elektronische Schalter sind zur Netztrennung nicht geeignet.
Werden Geräte ohne Netzschalter in Gestelle oder Anlagen integriert, so ist die Trennvorrichtung auf Anlagenebene zu verlagern.
9. Bei allen Arbeiten sind die örtlichen, bzw. landesspezifischen Sicherheits- und Unfallverhütungsvorschriften zu beachten.
Vor Arbeiten am Gerät oder Öffnen des Gerätes ist dieses vom Versorgungsnetz zu trennen.
Abgleich, Auswechseln von Teilen, Wartung und Reparatur darf nur von R&S-autorisierten Elektrofachkräften ausgeführt werden.
Werden sicherheitsrelevante Teile (z.B. Netzschalter, Netztrafos oder Sicherungen) ausgewechselt, so dürfen diese nur durch Originalteile ersetzt werden. Nach jedem Austausch von sicherheitsrelevanten Teilen ist eine Sicherheitsprüfung durchzuführen
(Sichtprüfung, Schutzleitertest, Isolationswiderstand-, Ableitstrommessung, Funktionstest).
10. Zusätzliche Sicherheitshinweise in diesem Handbuch sind ebenfalls zu beachten.

Erklärung der verwendeten Symbole:

						
Bedienungs- anleitung beachten	Angabe des Gerätege- wichtes bei Geräten mit einer Masse > 18 kg	Schutzlei- teranschluß	Massean- schlußpunkte	Achtung, berührungs- gefährliche Spannung	Achtung, hohe Tempe- ratur Achtung, heiße Ober- flächen	Erde

1. Introduction

The purpose of this document is to provide a comprehensive overview of the project's objectives and scope. It details the key components and the methodology used to achieve the desired outcomes.

The project is designed to address the current challenges in the industry and to provide a sustainable solution for the future. It involves a multi-phase approach, starting with research and analysis, followed by implementation and evaluation.

The primary goal is to enhance the efficiency and effectiveness of the existing processes. This is achieved through the integration of advanced technologies and the adoption of best practices from leading organizations in the field.

The project team consists of experts from various disciplines, including engineering, management, and data science. Their collective expertise ensures a holistic and innovative approach to the project's challenges.

The project is supported by a robust infrastructure and a dedicated team of resources. Regular communication and collaboration are essential for the successful completion of the project.

The project's success is measured by the achievement of its key performance indicators (KPIs). These include cost reduction, time-to-market, and customer satisfaction.

The project is subject to regular monitoring and reporting. This ensures that any deviations from the plan are identified and addressed promptly.

The project is expected to have a significant impact on the organization's performance and competitive advantage. It is a key strategic initiative for the company.

The project is a testament to the organization's commitment to innovation and excellence. It is a source of pride and a model for future projects.

The project is a collaborative effort involving all stakeholders. Their input and support are crucial for the project's success.

The project is a dynamic and evolving process. It is open to feedback and continuous improvement.

The project is a journey of discovery and learning. It offers valuable insights into the complexities of modern business operations.

The project is a testament to the power of teamwork and innovation. It is a source of inspiration and a catalyst for change.

2. Objectives

The project aims to achieve the following objectives: to reduce operational costs by 15%, to improve customer satisfaction scores by 20%, and to streamline the production process to reduce lead times by 30%.

The project is designed to be scalable and adaptable to future changes in the market and technology. It is a long-term investment in the organization's future.

The project is a key component of the organization's strategic plan. It is a critical path item for the company's growth and success.

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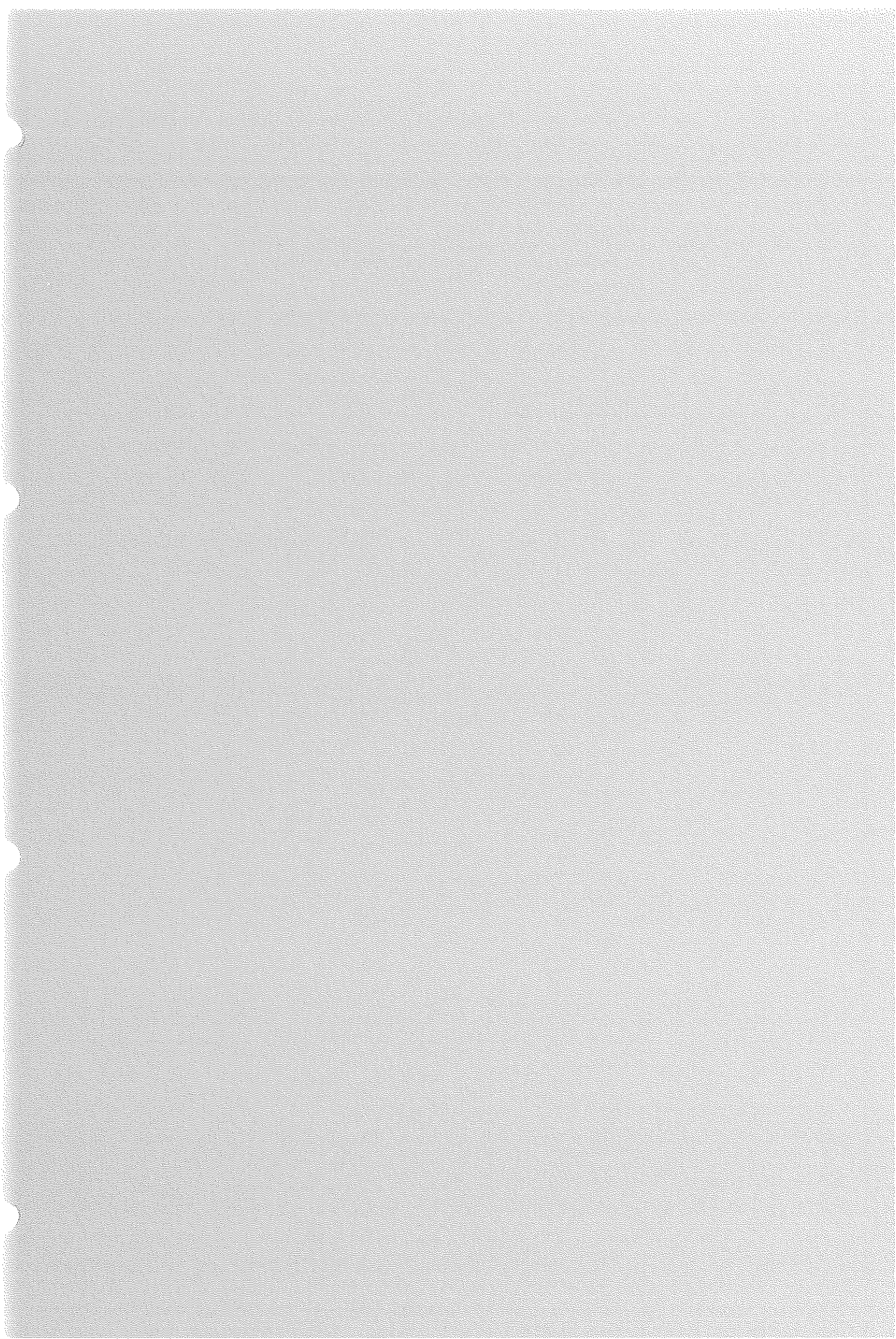
7 Prüfen und Instandsetzen der Baugruppen

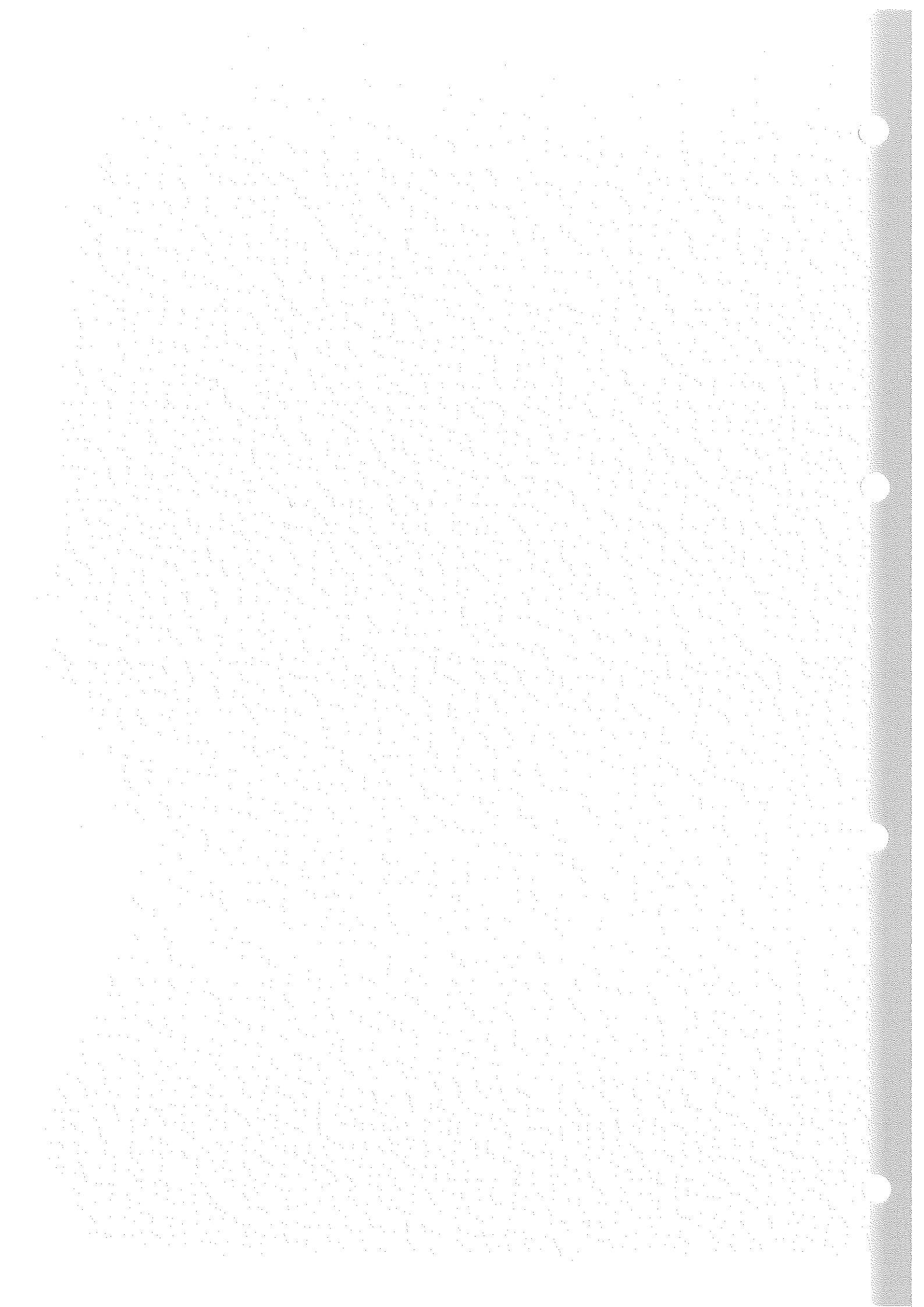
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ROHDE & SCHWARZ

Test and Measurement
Division

Service Manual

SIGNAL GENERATOR

SME

1038.6002.02/03/13/06/42/53

Volume 2
Service manual consists of 4 volumes

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The first part of the document discusses the importance of maintaining accurate records of all transactions. This includes not only sales and purchases but also any other financial activities that may occur. It is essential to ensure that all entries are properly documented and supported by appropriate evidence.

In addition, the document emphasizes the need for regular reconciliation of accounts. This process involves comparing the company's internal records with external statements, such as bank statements, to identify any discrepancies. By doing so, the company can ensure that its financial data is accurate and up-to-date.

Finally, the document highlights the importance of maintaining a clear and organized system for storing financial records. This can be achieved through the use of a reliable accounting software system or a well-structured filing system. By keeping records in an organized manner, the company can easily access and review its financial information when needed.

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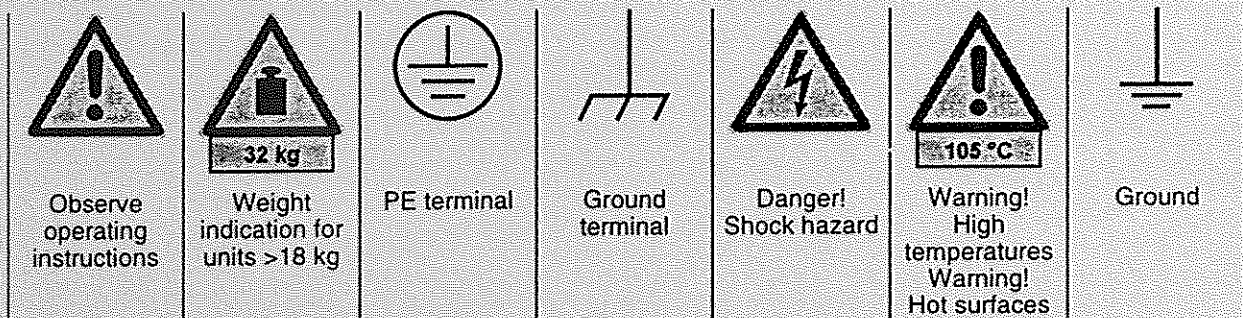
Safety Instructions

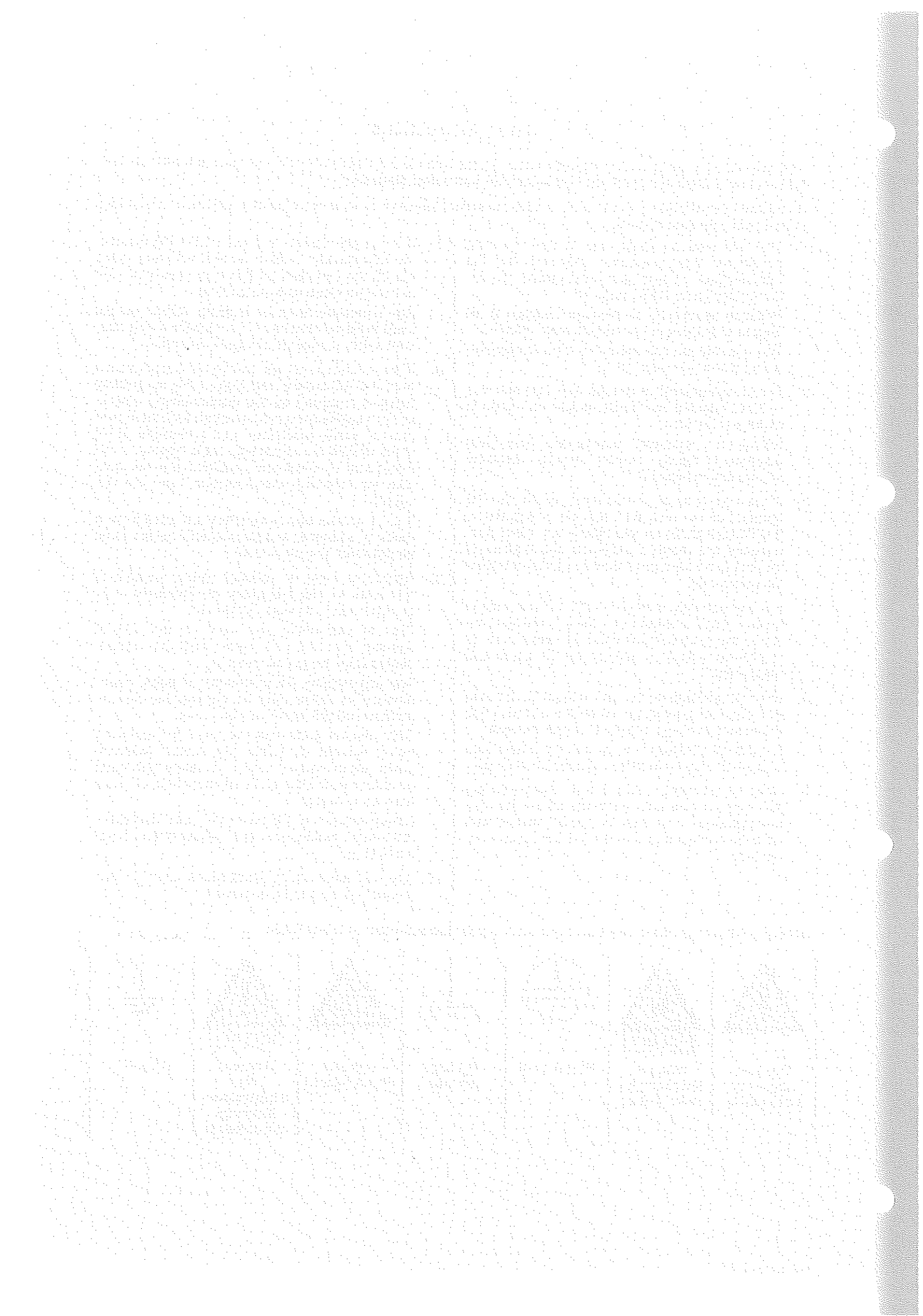
This unit has been designed and tested in accordance with the EC Certificate of Conformity and has left the manufacturer's plant in a condition fully complying with safety standards.

To maintain this condition and to ensure safe operation, the user must observe all instructions and warnings given in this operating manual.

1. The unit may be used only in the operating conditions and positions specified by the manufacturer. Unless otherwise agreed, the following applies to R&S products:
Pollution severity 2, overvoltage category 2, IP degree of protection 2X, altitude max. 2000 m.
The unit may be operated only from supply networks fused with max. 16 A.
2. For measurements in circuits with voltages $V_{rms} > 30\text{ V}$, suitable measures should be taken to avoid any hazards.
(using, for example, appropriate measuring equipment, fusing, current limiting, electrical separation, insulation).
3. If the unit is to be permanently wired, the PE terminal of the unit must first be connected to the PE conductor on site before any other connections are made (installation and cabling of the unit to be performed only by qualified technical personnel).
4. For permanently installed units without built-in fuses, circuit breakers or similar protective devices, the supply circuit must be fused such as to provide suitable protection for the users and equipment.
5. Prior to switching on the unit, it must be ensured that the nominal voltage set on the unit matches the nominal voltage of the AC supply network.
If a different voltage is to be set, the power fuse of the unit may have to be changed accordingly.
6. Units of protection class I with disconnectible AC supply cable and appliance connector may be operated only from a power socket with earthing contact and with the PE conductor connected.
7. It is not permissible to interrupt the PE conductor intentionally, neither in the incoming cable nor on the unit itself as this may cause the unit to become electrically hazardous.
Any extension lines or multiple socket outlets used must be checked for compliance with relevant safety standards at regular intervals.
8. If the unit has no power switch for disconnection from the AC supply, the plug of the connecting cable is regarded as the disconnecting device. In such cases it must be ensured that the power plug is easily reachable and accessible at all times (length of connecting cable approx. 2 m). Functional or electronic switches are not suitable for providing disconnection from the AC supply.
If units without power switches are integrated in racks or systems, a disconnecting device must be provided at system level.
9. Applicable local or national safety regulations and rules for the prevention of accidents must be observed in all work performed.
Prior to performing any work on the unit or opening the unit, the latter must be disconnected from the supply network.
Any adjustments, replacements of parts, maintenance or repair may be carried out only by authorized R&S technical personnel.
Only original parts may be used for replacing parts relevant to safety (eg power switches, power transformers, fuses). A safety test must be performed after each replacement of parts relevant to safety.
(visual inspection, PE conductor test, insulation-resistance, leakage-current measurement, functional test).
10. Any additional safety instructions given in this manual are also to be observed.

Safety-related symbols used on equipment and documentation from R&S:





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