

# R&S<sup>®</sup> ESCU-ZZA

## 19" 1HU Rackmount Kit

### Installation Instructions



5602996002

Version 02

**ROHDE & SCHWARZ**

Make ideas real



This document describes the following:

- R&S®ESCU-ZZA Bias Unit 19" 1HU Rackmount Kit (5602.9060.00)

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5602.9960.02 | Version 02 | R&S®ESCU-ZZA

Throughout this manual, products from Rohde & Schwarz are indicated without the ® symbol, e.g. R&S®ESCU-ZZA is indicated as R&S ESCU-ZZA.

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# 1 Safety information (multilingual)

This option or accessory is designed for a specific Rohde & Schwarz product. Multilingual safety information is delivered with the product. Follow the provided installation instructions.

Esta opción o este accesorio están diseñados para un producto Rohde & Schwarz concreto. El producto va acompañado de información de seguridad en varios idiomas. Siga las instrucciones de instalación puestas a disposición.

Diese Option oder dieses Zubehör ist für ein bestimmtes Rohde & Schwarz Produkt vorgesehen. Mit dem Produkt werden mehrsprachige Sicherheitsinformationen geliefert. Befolgen Sie die mitgelieferten Installationsanweisungen.

Cette option ou cet accessoire est conçu pour un produit Rohde & Schwarz spécifique. Des informations de sécurité multilingues sont fournies avec le produit. Suivez les instructions d'installation fournies.

Questa funzione opzionale o accessoria è progettata per un prodotto Rohde & Schwarz specifico. Con il prodotto sono fornite informazioni sulla sicurezza in formato multilingue. Seguire le istruzioni di installazione allegate.

Esta(e) opção ou acessório foi concebida(o) para um produto específico da Rohde & Schwarz. Serão fornecidas informações de segurança multilingues com o produto. Siga as instruções de instalação fornecidas.

Αυτή η προαιρετική επιλογή ή εξάρτημα έχει σχεδιαστεί για συγκεκριμένο προϊόν Rohde & Schwarz. Μαζί με το προϊόν παρέχονται πληροφορίες ασφαλείας σε πολλές γλώσσες. Ακολουθήστε τις παρεχόμενες οδηγίες εγκατάστασης.

Din l-għażla jew aċċessorju huma mfassla għal prodott Rohde & Schwarz speċifiku. L-informazzjoni multilingwi dwar is-sikurezza hija pprovduta mal-prodott. Segwi l-istruzzjonijiet ipprovduti għall-installazzjoni.

Deze optie of dit accessoire is ontwikkeld voor een specifiek product van Rohde & Schwarz. Het product wordt geleverd met veiligheidsinformatie in meerdere talen. Volg de meegeleverde installatie-instructies.

Denne mulighed eller tilbehørsdel er designet til et specifikt Rohde & Schwarz produkt. En flersproget sikkerhedsanvisning leveres sammen med produktet. Følg de medfølgende installationsanvisninger.

Detta tillval eller tillbehör är avsett för en särskild produkt från Rohde & Schwarz. Säkerhetsinformation på flera språk medföljer produkten. Följ de medföljande installationsanvisningarna.

Tämä vaihtoehto tai lisävaruste on suunniteltu tietyille Rohde & Schwarz -yrityksen tuotteelle. Tuotteen mukana on toimitettu monikieliset turvallisuusohjeet. Noudata annettuja asennusohjeita.

Dette alternativet eller ekstrautstyret er utformet for et spesifikt Rohde & Schwarz produkt. Flerspråklig sikkerhetsinformasjon leveres med produktet. Overhold installasjonsveiledningen som følger med.

See valik või lisaseade on mõeldud konkreetsele Rohde & Schwarz tootele. Tootegea on kaasas mitmekeelne ohutusteave. Järgige kaasasolevaid paigaldusjuhiseid.

Šī opcija vai piederums ir izstrādāts īpaši Rohde & Schwarz produktam. Produktam pievienota drošības informācija vairākās valodās. Ievērojiet sniegtos uzstādīšanas norādījumus.

Ši parinktis ar priedas skirti konkrečiam Rohde & Schwarz gaminiui. Su gaminiu pateikiama saugos informacijos keliomis kalbomis. Laikykitės pateikiamų montavimo nurodymų.

Ārēssi auka- eða fylgibúnaður er hannaður fyrir tiltekna Rohde & Schwarz vöru. Öryggisupplýsingar á mörgum tungumálum fylgja með vörunni. Fylgið meðfylgjandi uppsetningarleiðbeiningum.

Tá an rogha nó an oiriúint seo ceaptha le haghaidh táirge Rohde & Schwarz sonrach. Cuirtear eolas sábháilteachta ilteangach ar fáil leis an táirge. Lean na treoracha suiteála a thugtar.

Эта опция или принадлежность предназначена для конкретного продукта Rohde & Schwarz. В комплект поставки продукта входят инструкции по технике безопасности на нескольких языках. Соблюдайте прилагаемые инструкции по установке.

Ця опція або приладдя призначені для конкретного виробу Rohde & Schwarz. Інструкції з техніки безпеки кількома мовами постачаються разом із виробом. Дотримуйтеся наданих інструкцій зі встановлення.

Ta opcja lub akcesorium jest przeznaczona do określonego produktu Rohde & Schwarz. Dostarczany produkt zawiera informacje w wielu językach dotyczące bezpieczeństwa. Należy postępować zgodnie z dostarczonymi instrukcjami instalacji.

Tato varianta nebo příslušenství je určeno pro konkrétní produkt Rohde & Schwarz. S produktem jsou dodávány vícejazyčné bezpečnostní informace. Řiďte se příloženými pokyny k instalaci.

Táto verzia alebo príslušenstvo je navrhnutá pre špecifický výrobok Rohde & Schwarz. S výrobkom sa dodávajú viacjazyčné bezpečnostné pokyny. Riadte sa dodanými pokynmi na inštaláciu.

Ta možnost ali dodatek je zasnovan za določen izdelek podjetja Rohde & Schwarz. Izdelku so priložena varnostna navodila v več jezikih. Upoštevajte priložena navodila za namestitvev.

Ezt a beállítást vagy tartozékot egy adott Rohde & Schwarz termékhez tervezték. A termékhez többnyelvű biztonsági információkat mellékelünk. Kövesse a mellékelt szerelési utasításokat.

Тази опция или аксесоар са проектирани за специфичен продукт на Rohde & Schwarz. Многоезикова информация за безопасност се доставя с продукта. Следвайте предоставените инструкции за монтаж.

Ova opcija ili oprema namijenjena je za određeni proizvod tvrtke Rohde & Schwarz. Uz proizvod su dostavljene sigurnosne napomene na više jezika. Pratite isporučene upute za ugradnju.

Ova opcija ili pribor je dizajniran za određeni Rohde & Schwarz proizvod. Proizvodu su priložene sigurnosne informacije na više jezika. Slijedite priložena uputstva za instalaciju.

Ova opcija ili dodatni pribor je projektovan za određeni Rohde & Schwarz proizvod. Bezbednosne informacije na više jezika se isporučuju uz proizvod. Sledite dostavljena uputstva za instalaciju.

Această opțiune sau acest accesoriu a fost conceput pentru un produs specific Rohde & Schwarz. Informațiile multilingve privind siguranța sunt livrate împreună cu produsul. Urmați instrucțiunile de instalare furnizate.

Ky opsion ose aksesori është krijuar për një produkt specifik Rohde & Schwarz. Bashkë me produktin jepen edhe informacionet e sigurisë në shumë gjuhë. Ndiqni udhëzimet e dhëna të instalimit.

Оваа опција или додаток се наменети за одреден производ на Rohde & Schwarz. Со производот се испорачани повеќејазични безбедносни упатства. Следете ги дадените упатства за инсталација.

Bu opsiyon veya aksesuar, belirli bir Rohde & Schwarz ürünü için tasarlanmıştır. Çok dilli güvenlik uyarıları ürünle birlikte teslim edilir. Size sağlanan kurulum talimatlarına uyun.

Şu opsiya ýa-da esbap Rohde & Schwarz anyk önüm üçin niýetlenilen. Dürli dil-däki howpsuzlyk barada maglumat önüm bilen bile üpjün edilyär. Üpjün edilen gurnama ugrukdymalaryny ýerine ýetiriň.

इस विकल्प या एक्सेसरी को एक विशेष Rohde & Schwarz उत्पाद के लिए डिज़ाइन किया गया है. उत्पाद के साथ बहुभाषी सुरक्षा जानकारी दी जाती है. प्रदान किए गए इंस्टालेशन अनुदेशों का पालन करें.

本选件或附件专门设计用于特定的 Rohde & Schwarz 产品。产品随附多种语言版本的安全资讯。谨遵文件中的安装说明。

本オプションアクセサリは、特定の Rohde & Schwarz 製品向けに設計されています。多言語で記載された安全情報が製品に付属します。付属のインストール手順に従ってください。

이 옵션 또는 액세서리는 특정 Rohde & Schwarz 제품용으로 설계되었습니다. 제품과 함께 다국어로 작성된 안전 정보가 제공됩니다. 함께 제공된 설치 지침을 따르십시오.

本選配或配件專門設計用於特定的 Rohde & Schwarz 產品。產品隨附多種語言版本的安全資訊。遵守文件中的安裝說明。

Tùy chọn hoặc phụ kiện này dành riêng cho một sản phẩm Rohde & Schwarz cụ thể. Thông tin an toàn đa ngôn ngữ được cung cấp kèm theo sản phẩm. Thực hiện theo hướng dẫn lắp đặt kèm theo.

ตัวเลือกหรืออุปกรณ์เสริมนี้ออกแบบมาสำหรับผลิตภัณฑ์ Rohde & Schwarz โดยเฉพาะ โดยจะมีการจัดส่งข้อมูลด้านความปลอดภัยหลายภาษามาให้พร้อมกับผลิตภัณฑ์ ปฏิบัติตามคำแนะนำในการติดตั้งที่ให้ไว้

Pilihan atau aksesori ini direka bentuk untuk produk Rohde & Schwarz yang tertentu. Maklumat keselamatan berbilang bahasa disertakan bersama produk. Ikut arahan pemasangan yang diberikan.

Opsi atau aksesori ini dirancang untuk produk Rohde & Schwarz tertentu. Informasi keamanan dalam beberapa bahasa juga disertakan bersama produk. Ikuti petunjuk pemasangan yang disediakan.

Esta opción o este accesorio están diseñados para un producto Rohde & Schwarz en concreto. El producto va acompañado de información de seguridad en varios idiomas. Siga las instrucciones de instalación proporcionadas con el producto.



Esta opção ou acessório foi desenvolvido para um produto Rohde & Schwarz específico. Informações de segurança em vários idiomas acompanham o produto. Siga as instruções de instalação disponibilizadas.

אפשרות זו או האביזר מיועדים למוצר ספציפי של Rohde & Schwarz. מידע רב-לשוני בנושא בטיחות מצורף למוצר. יש לפעול בהתאם להנחיות ההתקנה המצורפות.

تم تصميم هذا الخيار أو الملحق لمنتج معين من منتجات Rohde & Schwarz. يتم تزويد معلومات السلامة متعددة اللغات مع المنتج. اتبع تعليمات التركيب الموضحة.

این قابلیت یا وسیله جانبی منحصراً برای محصول به خصوص Rohde & Schwarz طراحی شده است. اطلاعات ایمنی چندزبانه همراه این دستگاه ارائه شده است. دستور العمل‌های نصب ارائه شده را دنبال کنید.

اس اختیار یا حصے کو مخصوص Rohde & Schwarz پروڈکٹ کے لئے تیار کیا گیا ہے۔ پروڈکٹ کے ساتھ کثیر السانی زبانوں میں تحفظ کی معلومات فراہم کی جاتی ہیں۔ فراہم کردہ تنصیب کی ہدایات پر عمل کریں۔

## 2 Documentation overview

The following documents are relevant when using the R&S ESCU-ZZA. Unless specified otherwise, you find the documents at:

[www.rohde-schwarz.com/manual/escu](http://www.rohde-schwarz.com/manual/escu)

### 2.1 This document

Describes the steps from delivery to installation of the accessory. A printed version is delivered with the R&S ESCU-ZZA.

Further information is provided in the user documentation of R&S ESCU preamplifiers and R&S ESCU-Z01.

### 2.2 Related manuals

The R&S ESCU-ZZA is used in a shielded chamber to install R&S ESCU-Z01. Refer also to the user documentation delivered with R&S ESCU-Z01, which is found in the R&S ESCU user manual. This user documentation includes the safety instructions for the product, along with information on troubleshooting, maintenance tasks, transport and disposal.

It is available for download at:

[www.rohde-schwarz.com/manual/escu](http://www.rohde-schwarz.com/manual/escu)

### 2.3 Data sheets and brochures

The specifications document, also called data sheet, and brochure contain an overview of the R&S ESCU preamplifiers and its technical specifications.

See [www.rohde-schwarz.com/brochure-datasheet/escu](http://www.rohde-schwarz.com/brochure-datasheet/escu).

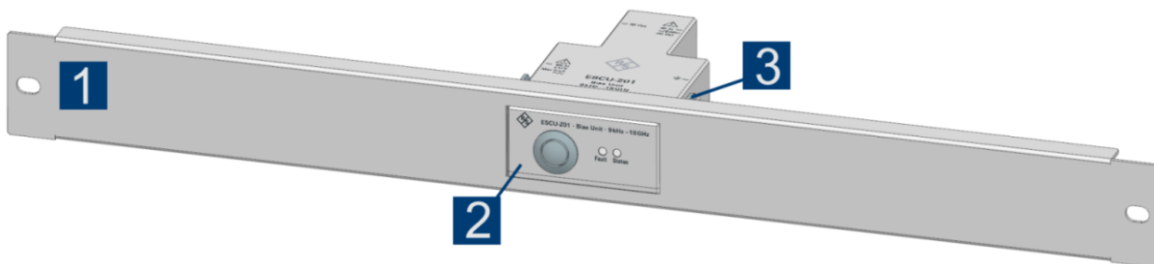
## 3 Installing the rackmount kit

This chapter describes the details for installing the R&S ESCU Bias Unit 19" 1HU rackmount kit.

### 3.1 Characteristics

The R&S ESCU Bias Unit 19" 1HU rackmount kit includes the components listed in the [Table 3-1](#).

It is used to house the R&S ESCU-Z01 Bias Unit, which is not included in R&S ESCU. See [Table 3-2](#).



**Figure 3-1: Front view of the R&S ESCU rackmount kit with a R&S ESCU-Z01 (to be ordered separately)**

- 1 = Bias-T rackmount stud front
- 2 = R&S ESCU-Z01 Bias Unit, see [Table 3-2](#)
- 3 = Bias-T rackmount stud rear

Designation components	Type	Order No.
Bias Unit 19" 1HU Rackmount Kit	R&S ESCU	5602.9060.00

## Preparing for rackmount configuration

Table 3-1: R&amp;S ESCU Bias Unit 19" 1HU rackmount kit parts list


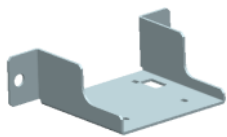

Reference	Parts	Quantity
 (See also <a href="#">Figure 3-1</a> )	Bias-T rackmount stud front with: <ul style="list-style-type: none"> <li>• M5 HEX nut</li> <li>• M5 screw stud press fitted on 1U panel</li> </ul>	1 piece <ul style="list-style-type: none"> <li>• 2 pieces</li> <li>• 2 pieces</li> </ul>
 (See also <a href="#">Figure 3-1</a> )	Bias-T rackmount stud rear	1 piece

Table 3-2: Other parts list (to be ordered separately)

Reference No.	Parts	Quantity
 (See also <a href="#">Figure 3-1</a> )	R&S ESCU-Z01 Bias Unit with: <ul style="list-style-type: none"> <li>• M3x6 screws</li> </ul>	1 piece <ul style="list-style-type: none"> <li>• 4 pieces</li> </ul>

## 3.2 Assembly

To avoid damaging the equipment, use the appropriate tools listed below:

- Phillips screwdriver for M3x6 screws
- Hex screwdriver for M5 Hex screws and nuts

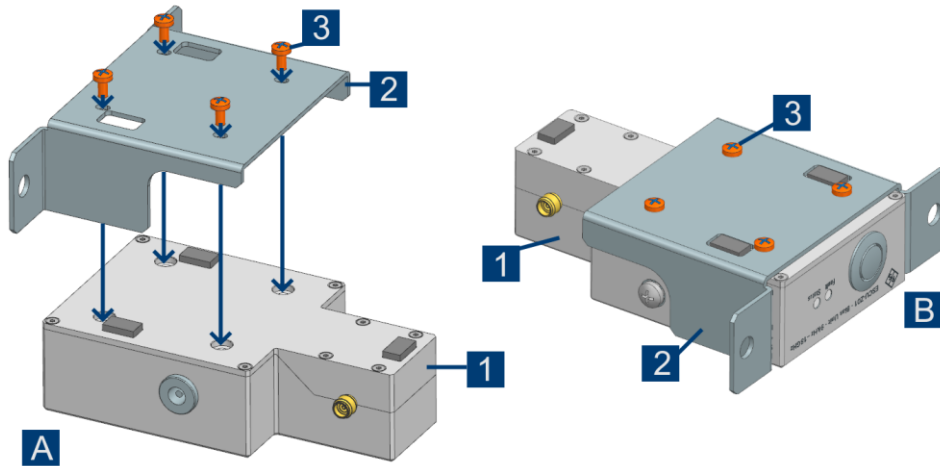
## 3.3 Preparing for rackmount configuration

### To install the R&S ESCU 19" 1HU rackmount kit with a Bias Unit

1. **NOTICE!** Excessive tightening of the screws can damage the equipment. Too weak tightening can cause the device to drop from height.  
To avoid damaging or dropping the device, ensure that you fix the device properly.

## Preparing for rackmount configuration

Using the supplied M3x6 screws, secure the R&S ESCU-Z01 Bias Unit (to be purchased separately) onto the Bias-T rackmount stud rear. Ensure that all the screws are tightened.



**Figure 3-2: Fixing a R&S ESCU-Z01 Bias Unit to the Bias-T rackmount stud rear**

A = Details to fix a R&S ESCU-Z01 to the Bias-T rackmount stud rear

B = Bias-T rackmount stud rear fixed with a R&S ESCU-Z01

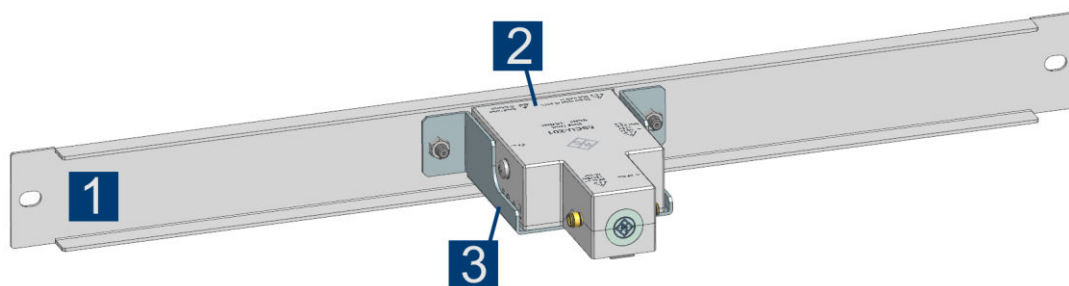
1 = R&S ESCU-Z01 Bias Unit (to be purchased separately)

2 = Bias-T rackmount stud rear

3 = M3x6 screws (comes with R&S ESCU-Z01 Bias Unit)

- Using the M5 HEX nuts and screw studs, fix the Bias-T rackmount stud rear with a R&S ESCU-Z01 Bias Unit (Figure 3-2) onto the Bias-T rackmount stud front.

Ensure that all the screws and nuts are tightened.



**Figure 3-3: Rear view of the R&S ESCU rackmount kit with a R&S ESCU-Z01 (to be ordered separately)**

1 = Bias-T rackmount stud front

2 = R&S ESCU-Z01 Bias Unit, see [Table 3-2](#)

3 = Bias-T rackmount stud rear

## 4 Contacting customer support

### Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

### Contact information

Contact our customer support center at [www.rohde-schwarz.com/support](http://www.rohde-schwarz.com/support), or follow this QR code:



*Figure 4-1: QR code to the Rohde & Schwarz support page*

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