



 **SolarSwitch**
4x PoE Smart MPPT Charger
Model: SM-SW-40

QUICK START GUIDE

Introduction

Thank you for purchasing the Ubiquiti® SolarSwitch™ MPPT Charger. This Quick Start Guide is designed to guide you through installation and includes the warranty terms.

Package Contents



SolarSwitch



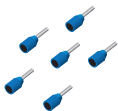
NTC Thermistor



H4 Connector
Removal Tool



1U Bracket

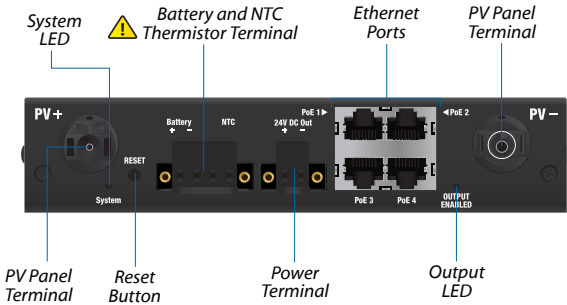


Ferrules
(Qty. 6)

Installation Requirements

- Flathead screwdriver
- Ferrule crimper or pliers
- 18-14 AWG wires for battery connectors
- 24V or 2x12V SLA, AGM, or Gel lead battery
- Solar panel with H4 connectors (10 - 60V open circuit voltage)
- Shielded Category 5 (or above) cabling should be used for all wired Ethernet connections.
- We recommend that you protect your networks from harmful outdoor environments and destructive ESD events with industrial-grade, shielded Ethernet cable from Ubiquiti Networks. For more details, visit: ui.com/toughcable

Hardware Overview



⚠ Note: NTC Thermistor must be connected in order for the battery to charge.

Interface	Description
System LED	Steady on when system is powered on; Red when battery polarity is reversed.
Reset Button	Press and hold the Reset button for 10 seconds to restore factory default settings. Press and hold the Reset button for 16 seconds if: <ul style="list-style-type: none"> The device does not respond to a factory reset. The web interface is unreachable. There doesn't appear to be any other noticeable activity.
Battery and NTC Thermistor Terminal	Terminal block for NTC Thermistor and battery. (NTC Thermistor must be connected in order for the battery to charge.)
Power Terminal	Two-pin terminal block for power (24VDC out)
PV Panel Terminals	H4 connectors for solar panel Maximum open circuit voltage 60V
Ethernet Ports	Supports 10/100 Fast Ethernet connections and passive 24V, 2-pair PoE output.
Output LED	Steady on when output power is enabled.

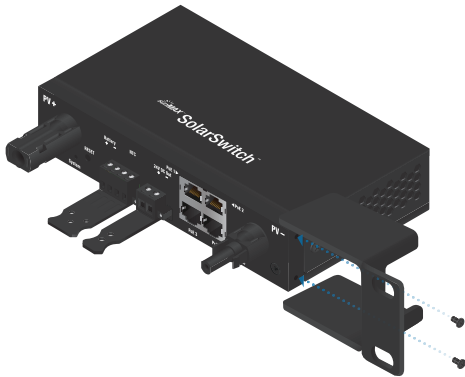
Hardware Installation



Note: Prior to use, it is recommended to write down the factory default password for this device. The password can be found on the sticker located underneath the SolarSwitch.

Rack Mounting

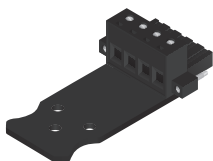
1. Attach the 1U rackmount bracket (included) to either side of the SolarSwitch.



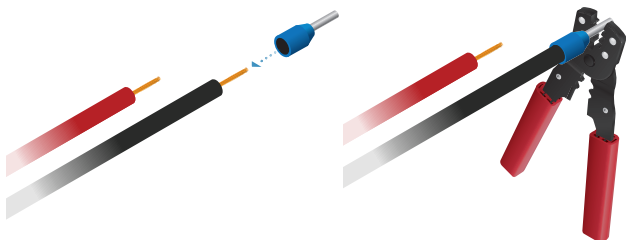
2. Mount the SolarSwitch to one of the side rails in your rack.



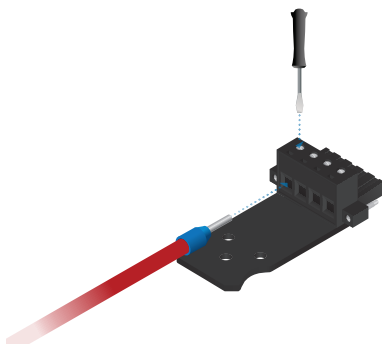
3. Remove the four-pin connector from the battery terminal block.



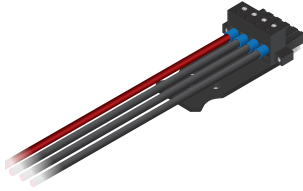
4. Crimp a ferrule on one end of the wire.



5. Insert the crimped wire into the appropriate slot on the four-pin connector. Using a flathead screwdriver, secure the wire to the connector by tightening the screw until it stops.



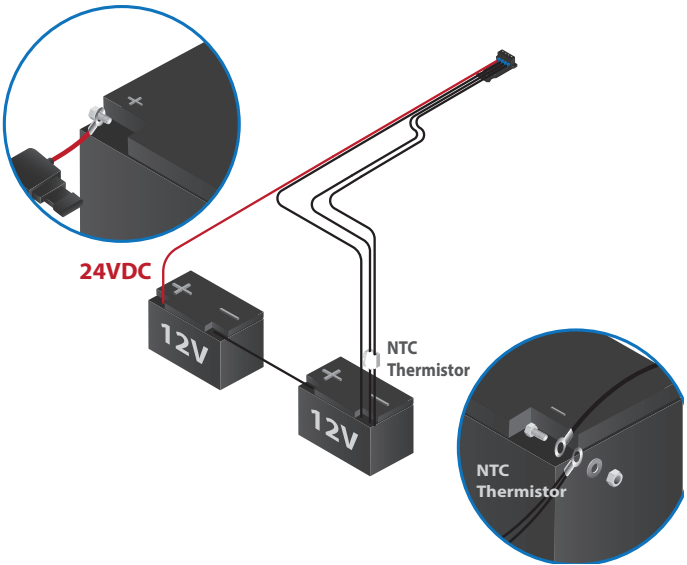
6. Repeat steps four and five until the connector is fully occupied with all four wires.



7. Connect wires and NTC Thermistor to batteries.



Note: The battery will not be charged without connecting the NTC Thermistor.



Note: Use SLA, AGM or Gel Lead batteries.

8. Attach the NTC and battery cable using the four-pin connector.



9. Attach the PV panel cables.



Connecting Ethernet

1. Connect Ethernet cable(s) to the Ethernet port(s).



Note: PoE is disabled by default and can be enabled using the configuration interface.



Configuration

Connect to your LAN via Ethernet or Wi-Fi.

Ethernet

If connected to the LAN via Ethernet, the SolarSwitch will attempt to obtain an IP address automatically from a DHCP server. Use the Ubiquiti Device Discovery Tool to determine its IP address.

If there is no DHCP server on the LAN, the SolarSwitch will fall back to the following IP address: **192.168.1.20**

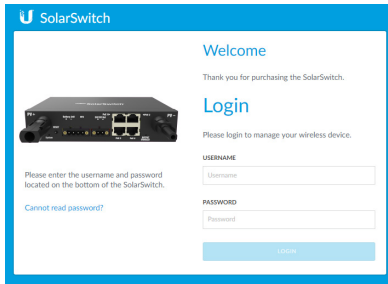
Wi-Fi

Connect your notebook, tablet, or smartphone to the SolarSwitch SSID named SolarSwitch-XYZ, where XYZ represents the last three characters in the MAC address of the SolarSwitch.

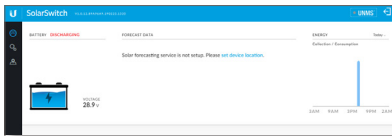
Once connected to your wireless network, the SolarSwitch will use the following IP address: **192.168.153.1**

User Interface

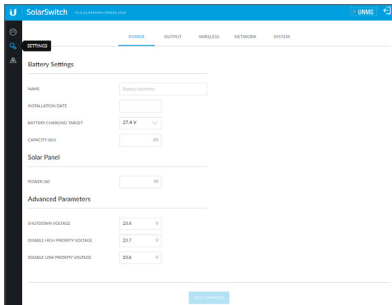
1. Launch a web browser and enter the IP address of the SolarSwitch. Press **Enter** (PC) or **Return** (Mac).
2. Enter **ubnt** in the *Username* field.
3. Enter the password in the *Password* field (the password can be found on the sticker located under the port cover.)



4. Click **Set Device Location** to set the location for your solar system installation.



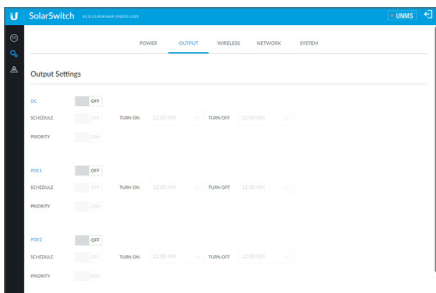
5. Click **Power** on the *Settings* screen and fill out the battery and solar panel information.



Enabling PoE

To enable PoE on the SolarSwitch:

1. Click **Output** on the *Settings* screen.
2. Click the toggle button from **OFF** to **ON**, for each port you want to enable.

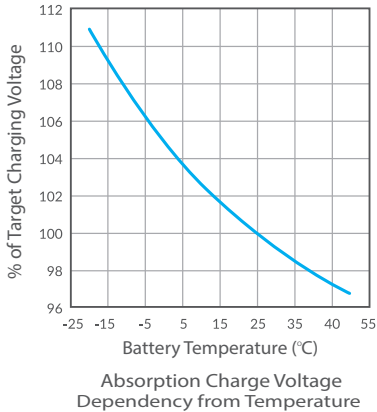
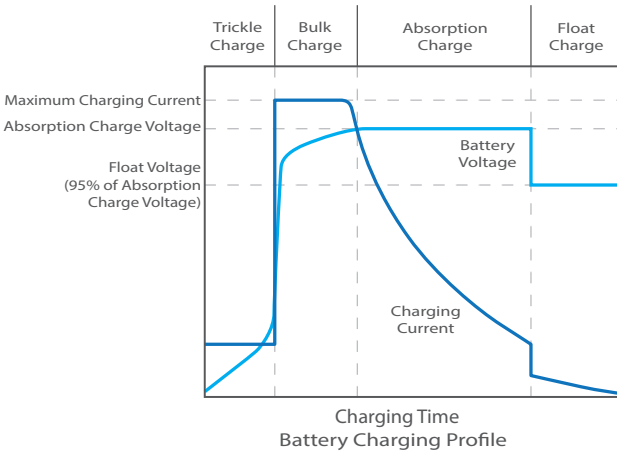


Specifications

SM-SW-40	
Dimensions	168 x 136 x 36 mm (6.14 x 5.35 x 1.42")
Weight	543 g (1.2 lb)
Enclosure Characteristics	Steel, Indoor Use
Max. Power Consumption	2W
Networking Interface	(4) 10/100 Fast Ethernet Ports
Management Interface	Ethernet + Wi-Fi (2.4 GHz)
Button	Reset
LEDs	System, Output
Power Source	PV Panel (H4 connectors)
PV Input Voltage Range	10-60V (Reverse Protection, Surge Protection) Maximum Open Circuit Voltage 60V
PV Maximum Current	10A
PV Power Control	MPPT
Output Interfaces	24VDC Passive PoE (Pins 4, 5+; 7, 8-) 24VDC Terminal Block
Output Voltage	Battery Voltage Limited to 24V (Surge Protection)
Maximum Power Output	PoE: 17W, DC OUT: 24W, Max 40W Total
Battery Type	24V SLA, AGM, Gel Lead Battery
Absorption Voltage Steps	27.4V, 28.2V, 29.1V, 30V
Float Charge Voltage	95% of Absorption Voltage
Max. Charge Current	7A
Under Voltage Protection	22 – 23.6V Software Configurable 22V Hardware Protection 2 Priority Levels for Output Disable
Operating Temperature*	-20 to 50° C (-4 to 122° F)
Certifications	FCC/IC/CE

*Stops charging when limit exceeded and restarts charging with 5° C (9° F) hysteresis.

Battery Charging Profile



Note: Maximum charging current is limited by the power available from the solar panel and is not to exceed 7A.

Safety Notices

1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Only use attachments/accessories specified by the manufacturer.



WARNING: Do not use this product in location that can be submerged by water.



WARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.

Limited Warranty

ui.com/support/warranty

The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

Compliance

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. This radio transmitter (FCC ID: SWX-SMSPW) has been approved by FCC.

ISED Canada

CAN ICES-3(A)/NMB-3(A)

This device complies with ISED Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

This radio transmitter (IC: 6545A-SMSPW) has been approved by ISED Canada.

CAN ICES-3(A)/NMB-3(A)

Le présent appareil est conforme aux CNR d'ISDE Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage;
2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Le présent émetteur radio (IC : 6545A-SMSPW) a été approuvé par ISDE Canada.

IMPORTANT NOTE:

Radiation Exposure Statement:

- This equipment complies with radiation exposure limits set forth for an uncontrolled environment.
- This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

AVIS IMPORTANT :

Déclaration sur l'exposition aux rayonnements:

Cet équipement est conforme aux limites prévues pour l'exposition aux rayonnements dans un environnement non contrôlé.

Lors de l'installation et de la mise en fonctionnement de l'équipement, assurez-vous qu'il y ait une distance minimale de 20 cm entre l'élément rayonnant et vous.

Cet émetteur ne doit être installé à proximité d'aucune autre antenne ni d'aucun autre émetteur, et ne doit être utilisé conjointement à aucun autre de ces appareils.

Australia and New Zealand



Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.

CE

RoHS/WEEE Compliance Statement



English

European Directive 2012/19/EU requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

Deutsch

Die Europäische Richtlinie 2012/19/EU verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltsmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung Ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

Español

La Directiva 2012/19/UE exige que los equipos que lleven este símbolo en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.

Français

La directive européenne 2012/19/UE exige que l'équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez acheté le produit.

Italiano

La direttiva europea 2012/19/UE richiede che le apparecchiature contrassegnate con questo simbolo sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

Declaration of Conformity

български [Bulgarian] С настоящото UBIQUITI декларира, че това устройство SM-SW-40 е в съответствие със съществените изисквания и други приложими разпоредби на Директиви 2014/53/ЕС, 2014/30/ЕС, 2014/35/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: **ui.com/compliance**

Hrvatski [Croatian] UBIQUITI ovim putem izjavljuje da je ovaj uređaj SM-SW-40 sukladan osnovnim zahtjevima i ostalim bitnim odredbama Direktiva 2014/53/EU, 2014/30/EU, 2014/35/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: **ui.com/compliance**

Čeština [Czech] UBIQUITI tímto prohlašuje, že toto SM-SW-40 zařízení, je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnic 2014/53/EU, 2014/30/EU, 2014/35/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: **ui.com/compliance**

Dansk [Danish] Hermed, UBIQUITI, erklærer at denne SM-SW-40 enhed, er i overensstemmelse med de væsentlige krav og øvrige relevante krav i direktiver 2014/53/EU, 2014/30/EU, 2014/35/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: **ui.com/compliance**

Nederlands [Dutch] Hierbij verklaart UBIQUITI, dat deze SM-SW-40 apparaat, in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijnen 2014/53/EU, 2014/30/EU, 2014/35/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: **ui.com/compliance**

English Hereby, UBIQUITI, declares that this SM-SW-40 device, is in compliance with the essential requirements and other relevant provisions of Directives 2014/53/EU, 2014/30/EU, 2014/35/EU. The full text of the EU declaration of conformity is available at the following internet address: **ui.com/compliance**

Eesti keel [Estonian] Käesolevaga UBIQUITI kinnitab, et antud SM-SW-40 seade, on vastavus olulistele nõuetele ja teistele asjakohastele sätetele direktiivide 2014/53/EL, 2014/30/EL, 2014/35/EL. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: **ui.com/compliance**

Suomi [Finnish] Täten UBIQUITI vakuuttaa, että tämä SM-SW-40 laite, on yhdenmukainen olennaisten vaatimusten ja muiden sitä koskevien direktiivien 2014/53/EU, 2014/30/EU, 2014/35/EU. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: **ui.com/compliance**

Français [French] Par la présente UBIQUITI déclare que l'appareil SM-SW-40, est conforme aux exigences essentielles et aux autres dispositions pertinentes des directives 2014/53/UE, 2014/30/UE, 2014/35/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: **ui.com/compliance**

Deutsch [German] Hiermit erklärt UBIQUITI, dass sich dieses SM-SW-40 Gerät, in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinien 2014/53/EU, 2014/30/EU, 2014/35/EU befindet. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: **ui.com/compliance**

Ελληνικά [Greek] Δια του παρόντος, UBIQUITI, δηλώνει ότι αυτή η συσκευή SM-SW-40, είναι σε συμμόρφωση με τις βασικές απαιτήσεις και τις λοιπές σχετικές διατάξεις των οδηγιών 2014/53/ΕΕ, 2014/30/ΕΕ, 2014/35/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: **ui.com/compliance**

Magyar [Hungarian] Ezennel UBIQUITI kijelenti, hogy ez a SM-SW-40 készülék megfelel az alapvető követelményeknek és más vonatkozó 2014/53/EU, 2014/30/EU, 2014/35/EU irányelvek rendelkezéseit. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: **ui.com/compliance**

Íslenska [Icelandic] Hér, UBIQUITI, því yfir að þetta SM-SW-40 tæki er í samræmi við grunnkröfur og önnur viðeigandi ákvæði tilskipana 2014/53/ESB, 2014/30/ESB, 2014/35/ESB. Fullur texti ESB samræmisýfirlýsing er að finna á eftirfarandi netfangi: **ui.com/compliance**

Italiano [Italian] Con la presente, UBIQUITI, dichiara che questo dispositivo SM-SW-40, è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti delle direttive 2014/53/UE, 2014/30/UE, 2014/35/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: **ui.com/compliance**

Latviešu valoda [Latvian] Ar šo, UBIQUITI, deklarē, ka SM-SW-40 ierīce, ir saskaņā ar būtiskajām prasībām un citiem attiecīgiem noteikumiem Direktīvās 2014/53/ES, 2014/30/ES, 2014/35/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: **ui.com/compliance**

Lietuvių kalba [Lithuanian] UBIQUITI deklaruoja, kad šis SM-SW-40 įrenginys atitinka esminius reikalavimus ir kitas 2014/53/ES, 2014/30/ES, 2014/35/ES Direktyvų nuostatas. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: **ui.com/compliance**

Malti [Maltese] Hawnhekk, UBIQUITI, tiddikjara li dan il-mezz SM-SW-40 huwa konformi mar-rekwiżiti essenzjali u dispożizzjonijiet rilevanti oħrajn ta' Direttivi 2014/53/UE, 2014/30/UE, 2014/35/UE. Id-dikjarazzjoni tal-konformità tista' tigi kkonsultata minn **ui.com/compliance**

Norsk [Norwegian] Herved UBIQUITI, erklærer at denne SM-SW-40 enheten, er i samsvar med de grunnleggende kravene og andre relevante bestemmelser i direktivene 2014/53/EU, 2014/30/EU, 2014/35/EU. Den fulle teksten til EU-samsvarserklæringen er tilgjengelig på følgende internetadresse: **ui.com/compliance**

Polski [Polish] Niniejszym, UBIQUITI, oświadczam, że urządzenie SM-SW-40, jest zgodny z zasadniczymi wymaganiami oraz pozostałymi stosowanymi postanowieniami Dyrektyw 2014/53/UE, 2014/30/UE, 2014/35/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: **ui.com/compliance**

Português [Portuguese] UBIQUITI declara que este dispositivo SM-SW-40, está conforme com os requisitos essenciais e outras disposições das Directivas 2014/53/UE, 2014/30/UE, 2014/35/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: **ui.com/compliance**

Română [Romanian] Prin prezenta, UBIQUITI declară că acest dispozitiv SM-SW-40 este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivelor 2014/53/UE, 2014/30/UE, 2014/35/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: **ui.com/compliance**

Slovenčina [Slovak] Týmto UBIQUITI, prehlasuje, že toto SM-SW-40 zariadenie, je v súlade so základnými požiadavkami a ďalšími relevantnými ustanoveniami smernice 2014/53/EÚ, 2014/30/EÚ, 2014/35/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: **ui.com/compliance**

Slovenščina [Slovenian] Družba UBIQUITI izjavlja, da je naprava SM-SW-40 v skladu z obveznimi zahtevami in drugimi ustreznimi določbami direktiv 2014/53/EU, 2014/30/EU in 2014/35/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: **ui.com/compliance**

Español [Spanish] Por medio de la presente UBIQUITI declara que este dispositivo SM-SW-40, cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de las Directivas 2014/53/UE, 2014/30/UE, 2014/35/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: **ui.com/compliance**

Svenska [Swedish] Härmed UBIQUITI, intygar att denna SM-SW-40 enhet är i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiven 2014/53/EU, 2014/30/EU, 2014/35/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: **ui.com/compliance**



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