

# **RE40**

Development Kit



**ZEBRA**

**Quick Start Guide**

## Warranty

For the complete Zebra hardware product warranty statement, go to: [www.zebra.com/warranty](http://www.zebra.com/warranty).

## Service Information

If you have a problem using the equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Zebra Support at: [www.zebra.com/support](http://www.zebra.com/support).

## Software Support

Zebra wants to ensure that customers have the latest release of entitled software at the time of product purchase.

To confirm that your Zebra device shipped with the latest release of entitled software, go to: [www.zebra.com/support](http://www.zebra.com/support).

If your device does not have the latest entitled software release as of your product purchase date, please e-mail a request to Zebra at: [entitlementservices@zebra.com](mailto:entitlementservices@zebra.com).

You must include the following essential device information with your request:

- Model number
- Serial number
- Proof of purchase
- Title of the software download you are requesting.

If it is determined by Zebra that your device is entitled to the latest software release, you will receive an e-mail containing a link directing you to a Zebra web site to download the appropriate software.

## Related Information

The following documents and software provide more information about the RFID reader:

- RE40 RFID Module Integration Guide
- Carrier Board Integration Guide
- DKRE User Guide
- RFID Demo Application User Guide
- API Programmer's Guide

For the latest version of this guide and all guides, go to: [www.zebra.com/support](http://www.zebra.com/support).

## Introduction

The RE40 Development Kit Radio Engine (DKRE) Quick Start Guide describes how to start reading UHF RFID tags with the Zebra RE40 RFID Module Kit and 123RFID Desktop software tool in minutes.

For more information, refer to the RE40 DKRE User Guide.

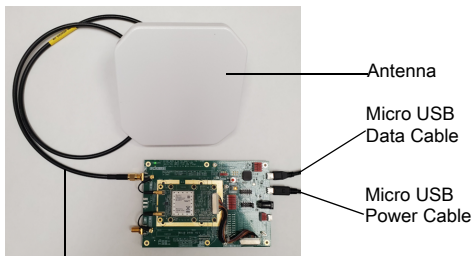
## Development Kit Contents

- RE40 Development Board
- 5V Power Supply
- Development Kit Quick Start Guide
- 3 Antennas: Medium Gain (US), Medium Gain (EU), Low Gain (Universal)
- RF Cable: SMA to SMA
- 2 Micro USB Cables
  - USB Power (6 ft)
  - USB Data (4.5 ft)
- RFID Tag Samples Kit

## Connecting the DKRE

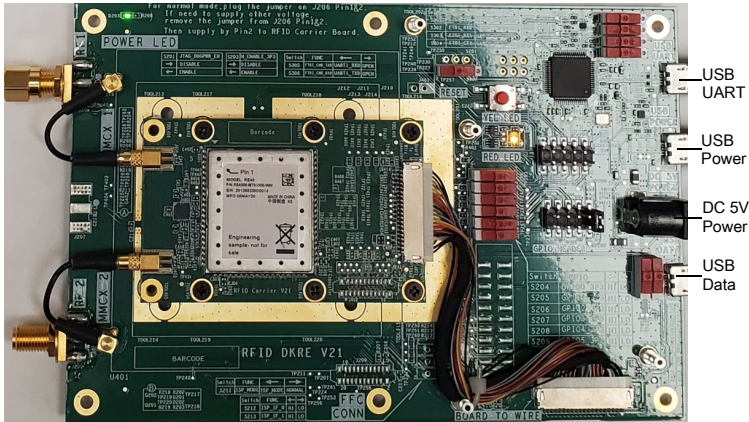
To configure the RE40 Development Kit:

1. Restore the default configuration if the connectors were reconfigured since opening the kit.



SMA RF Cable

- Connect the development board to your Windows PC using the micro USB data cable.
- Connect the 5V power supply to a power source and to the development board using the micro USB power cable.
- Observe the LED on the DKRE to indicate that the module is powered on.
- Based on the country of operation, select a US (902-928 MHz, p/n S9025PR), EU (865-870 MHz, p/n S8655PL), or universal antenna (860-960 MHz, p/n 9000984-XLPDNB) provided in the DKRE kit.
- Connect the appropriate antenna to one of the SMA antenna connectors (J201 or J204) using the SMA RF Cable.



## Installing 123RFID Software

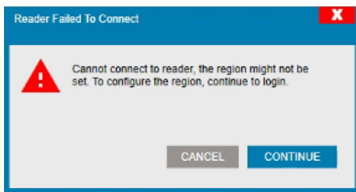
To install 123RFID Desktop software onto your PC:

1. Copy the **123RFID Desktop** file from the USB drive provided or download the software: [www.zebra.com/support](http://www.zebra.com/support).
2. Open the **123RFID Desktop** software by double-clicking on the **123RFID Desktop** icon on your desktop.

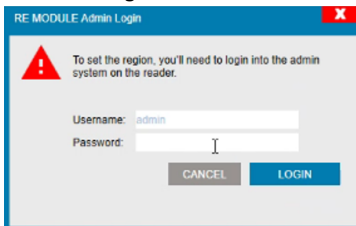
## Region Configuration

For initial use only, you must configure the region of operation.

1. After selecting **Find Readers** for the first time (see [Connecting to 123RFID](#)), click **Connect**. The Reader Failed to Connect window displays to indicate that the region must be configured.



2. Select **Continue**. The **RE Module Admin Login** window displays.
3. Enter a **Username** and **Password** of your choosing.
4. Select **Login**.

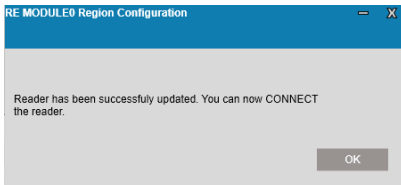


5. Click on the **Region of Operation** drop-down menu and select your region of operation.
6. Click on the **Communication Standard** drop-down menu and select the standard for your region if applicable.

- Click on the **I understand implications of setting an illegal region** checkbox.



- Select **Set**.
- A successful update message window displays. Select **OK**.



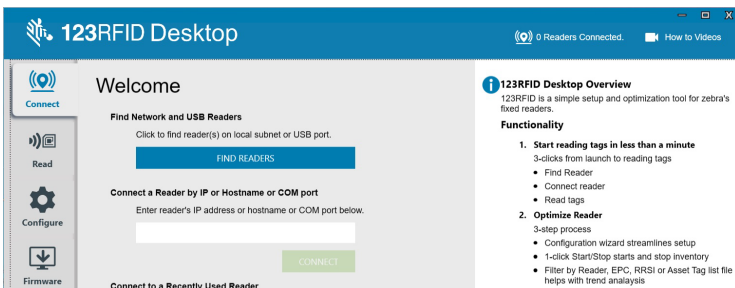
## Connecting to 123RFID

To Locate a reader on the local subnet or USB port using Reader Discovery:

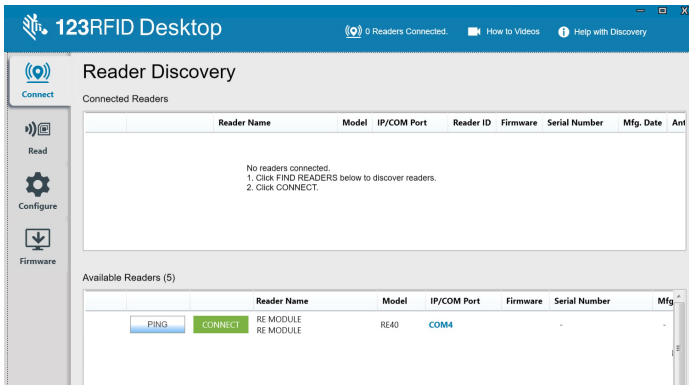
- Select the **Find Readers** button on the **Welcome** screen



**NOTE:** For initial use only, the region must be configured before connecting to the reader, see [Region Configuration](#) for instructions.



- Once Reader Discovery is complete, readers display under Available Readers.

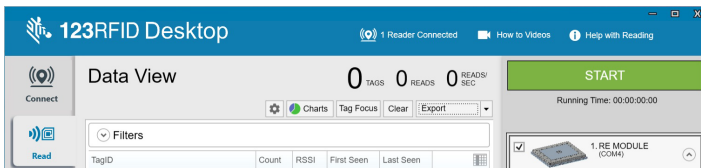


3. Select **Connect** next to the desired reader to connect. Once connected, the reader displays under **Connected Readers**.

## Reading Tags

Once the device is connected, begin reading RFID tags as follows:

1. Select the **Read** tab to display the **Data View** screen.
2. Place the tags within a few inches of the read field view of the antenna.
3. Select **Start** to begin reading tags.



For latest software, antenna specifications, and related product information, visit [www.zebra.com/support](http://www.zebra.com/support).

## Regulatory Information

This device is approved under Zebra Technologies Corporation.

This guide applies to Model Number RE40.

All Zebra devices are designed to be compliant with the rules and regulations in the locations they are sold and will be labeled as required.

Local language translations are available at the following website:  
[www.zebra.com/support](http://www.zebra.com/support).

Any changes or modifications to Zebra equipment not expressly approved by Zebra could void the user's authority to operate the equipment.

Declared maximum operating temperature: 60°C.



## Health and Safety Recommendations

### Ergonomic Recommendations



Caution: In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

### Wireless Devices Country Approvals

Regulatory markings subject to certification are applied to the device signifying the radio(s) is/are approved for use in the following countries and continents: United States, Canada, Japan, and Europe.

Please refer to the Declaration of Conformity (DoC) for details of other country markings. This is available at: [www.zebra.com/doc](http://www.zebra.com/doc).



## RF Exposure Guidelines

### Safety Information

#### Reducing RF Exposure - Use Properly

Only operate the device in accordance with the instructions supplied.

#### International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on 'International' human exposure to electromagnetic fields, refer to the Zebra Declaration of Conformity (DoC) [www.zebra.com/doc](http://www.zebra.com/doc).

For further information on the safety of RF energy from wireless devices, see [www.zebra.com/responsibility](http://www.zebra.com/responsibility) located under Corporate Responsibility.

#### Europe

##### Remote and Standalone Antenna Configurations

To comply with EU RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop or similar configurations must operate with a minimum separation distance of 20 cm from all persons.

#### US and Canada

##### Statement of Compliance

The full text of the US/Canada Declaration of Conformity is available at the following Internet address: [www.zebra.com/doc](http://www.zebra.com/doc).

##### Remote and Standalone Antenna Configurations

To comply with FCC RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop or similar configurations must operate with a minimum separation distance of 25 cm from all persons.

## Radio Frequency Interference Requirements - FCC



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Radio Transmitters (Part 15)

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.

## Radio Frequency Interference Requirements - Canada

Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-3 (B)/NMB-3(B)

## Radio Transmitters

This device complies with Industry Canada's license-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi même si le brouillage est susceptible d'en compromettre le fonctionnement.

## **Marking and European Economic Area (EEA) Statement of Compliance**

Zebra hereby declares that this device is in compliance with all applicable Directives, 2014/30/EU, 2014/35/EU and 2011/65/EU.

The full text of the EU Declaration of Conformity is available at the following Internet address: [www.zebra.com/doc](http://www.zebra.com/doc).

### **China**


通过访问以下网址可下载当地语言支持的产品说明书

Local language translations are available at the following website:

[www.zebra.com/support](http://www.zebra.com/support)



## China RoHS

部件名称 (Parts)	有害物质 					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件 (Metal Parts)	X	0	0	0	0	0
电路模块 (Circuit Modules)	X	0	0	0	0	0
电缆及电缆组件 (Cables and Cable Assemblies)	X	0	0	0	0	0
塑料和聚合物部件 (Plastic and Polymeric Parts)	0	0	0	0	0	0
光学和光学组件 (Optics and Optical Components)	0	0	0	0	0	0
电池 (Batteries)	0	0	0	0	0	0

本表格依据SJ/T 11364 的规定编制。

0: 表示该有害物质在该部件所有均质材料中的含量均在 SJ/T 11364-2014 规定的限量要求以下。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11364-2014 规定的限量要求。(企业可在此处, 根据实际情况对上表中打“x”的技术原因进行进一步说明。)

This table was created to comply with China RoHS requirements.

## Taiwan RoHS

設備名稱：RFID閱讀器 Equipment name		型號（型式）：RE40 Type designation (Type)				
單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr <sup>+6</sup> )	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
印刷電路板及電子組件	-	○	○	○	○	○
金屬零件	-	○	○	○	○	○
電纜及電纜組件	-	○	○	○	○	○
塑料和聚合物零件	○	○	○	○	○	○
光學與光學元件	○	○	○	○	○	○
電池	○	○	○	○	○	○

備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。

Note 1: “Exceeding 0.1 wt%” and “exceeding 0.01 wt%” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。

Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

備考3. “-”係指該項限用物質為排除項目。

Note 3: The “-” indicates that the restricted substance corresponds to the exemption.

## Ukraine

Дане обладнання відповідає вимогам технічного регламенту № 1057, 2008 на обмеження щодо використання деяких небезпечних речовин в електричних та електронних пристроях.

## Turkish WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur.

## Waste Electrical and Electronic Equipment (WEEE)



**English:** For EU Customers: All products at the end of their life must be returned to Zebra for recycling. For information on how to return product, please go to: [zebra.com/weee](http://zebra.com/weee).

**Français:** Clients de l'Union Européenne: Tous les produits en fin de cycle de vie doivent être retournés à Zebra pour recyclage. Pour de plus amples informations sur le retour de produits, consultez : [zebra.com/weee](http://zebra.com/weee).

**Español:** Para clientes en la Unión Europea: todos los productos deberán entregarse a Zebra al final de su ciclo de vida para que sean reciclados. Si desea más información sobre cómo devolver un producto, visite: [zebra.com/weee](http://zebra.com/weee).

**Bulgarian:** За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Zebra за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: [zebra.com/weee](http://zebra.com/weee).

**Deutsch:** Für Kunden innerhalb der EU: Alle Produkte müssen am Ende ihrer Lebensdauer zum Recycling an Zebra zurückgesandt werden. Informationen zur Rücksendung von Produkten finden Sie unter [zebra.com/weee](http://zebra.com/weee).

**Italiano:** per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Zebra al fine di consentire il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: [zebra.com/weee](http://zebra.com/weee).

**Português:** Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Zebra para reciclagem. Para obter informações sobre como devolver o produto, visite: [zebra.com/weee](http://zebra.com/weee).

**Nederlands:** Voor klanten in de EU: alle producten dienen aan het einde van hun levensduur naar Zebra te worden teruggezonden voor recycling. Raadpleeg [zebra.com/weee](http://zebra.com/weee) voor meer informatie over het terugzenden van producten.

**Polski:** Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrócić do firmy Zebra w celu ich utylizacji. Informacje na temat zwrotu produktów

**Čeština:** Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Zebra k recyklaci. Informace o způsobu vrácení produktu najdete na webové stránce: [zebra.com/weee](http://zebra.com/weee).

**Eesti:** EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Zebra'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: [zebra.com/weee](http://zebra.com/weee).

**Magyar:** Az EU-ban vásárlóknak: Minden tönkrement termékét a Zebra vállalathoz kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalókért látogasson el a [zebra.com/weee](http://zebra.com/weee) weboldalra.

**Svenska:** För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Zebra för återvinning. Information om hur du returnerar produkten finns på [zebra.com/weee](http://zebra.com/weee).

**Suomi:** Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Zebra-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa [zebra.com/weee](http://zebra.com/weee).

**Dansk:** Til kunder i EU: Alle produkter skal returneres til Zebra til recirkulering, når de er udtjent. Læs oplysningerne om returnering af produkter på: [zebra.com/weee](http://zebra.com/weee).

**Ελληνικά:** Για πελάτες στην Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Zebra για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση [zebra.com/weee](http://zebra.com/weee) στο Διαδίκτυο.

**Malti:** Għal klijenti fl-UE: il-prodotti kollha li jkunu waslu fl-aħħar tal-hajja ta' l-użu tagħhom, iridu jġu rritornati għand Zebra għar-riċiklaġġ. Għal aktar tagħrif dwar kif għandek tirritorna l-prodott, jekk jogħġbok żur: [zebra.com/weee](http://zebra.com/weee).

**Românesc:** Pentru clienții din UE: Toate produsele, la sfârșitul duratei lor de funcționare, trebuie returnate la Zebra pentru reciclare. Pentru informații despre returnarea produsului, accesați: [zebra.com/weee](http://zebra.com/weee).

**Slovenski:** Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Zebra za reciklažo. Za informacije o vračilu izdelka obiščite: [zebra.com/weee](http://zebra.com/weee).

**Slovenčina:** Pre zákazníkov z krajín EU: Všetky výrobky musia byť po uplynutí doby ich životnosti vrátené spoločnosti Zebra na recykláciu. Bližšie informácie o vrátení výrobkov nájdete na: [zebra.com/weee](http://zebra.com/weee).

**Lietuvių:** ES vartotojams: visi gaminiai, pasibaigus jų eksploatacijos laikui, turi būti gražinti utilizuoti į kompaniją „Zebra“. Daugiau informacijos, kaip gražinti gaminį, rasite: [zebra.com/weee](http://zebra.com/weee).

**Latviešu:** ES klientiem: visi produkti pēc to kalpošanas mūža beigām ir jānogādā atpakaļ Zebra otrreizējai pārstrādei. Lai iegūtu informāciju par produktu nogādāšanu Zebra, lūdzu, skatiet: [zebra.com/weee](http://zebra.com/weee).

**Türkçe:** AB Müşterileri için: Kullanım süresi dolan tüm ürünler geri dönüştürme için Zebra'ya iade edilmelidir. Ürünlerin nasıl iade edileceği hakkında bilgi için lütfen şu adresi ziyaret edin: [zebra.com/weee](http://zebra.com/weee).



[www.zebra.com](http://www.zebra.com)

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