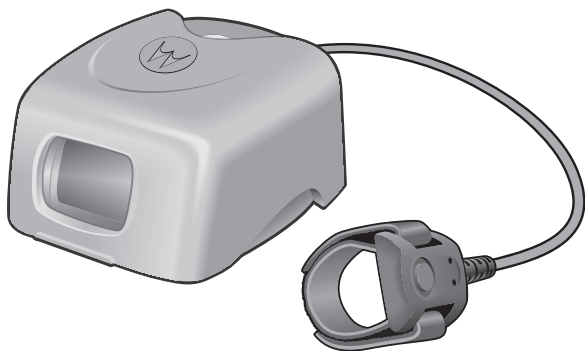




# RS309 Scanner

## Quick Reference Guide



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Motorola reserves the right to make changes to any product to improve reliability, function, or design.

Motorola does not assume any product liability arising out of, or in connection with, the application or use of any product, circuit, or application described herein.

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MOTOROLA, the Stylized M Logo and Symbol and the Symbol logo are registered trademarks of Motorola, Inc. Other product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Motorola, Inc.  
One Motorola Plaza  
Holtsville, N.Y. 11742-1300  
<http://www.symbol.com>

## Warranty

For the complete Motorola hardware product warranty statement, go to:  
<http://www.symbol.com/warranty>.

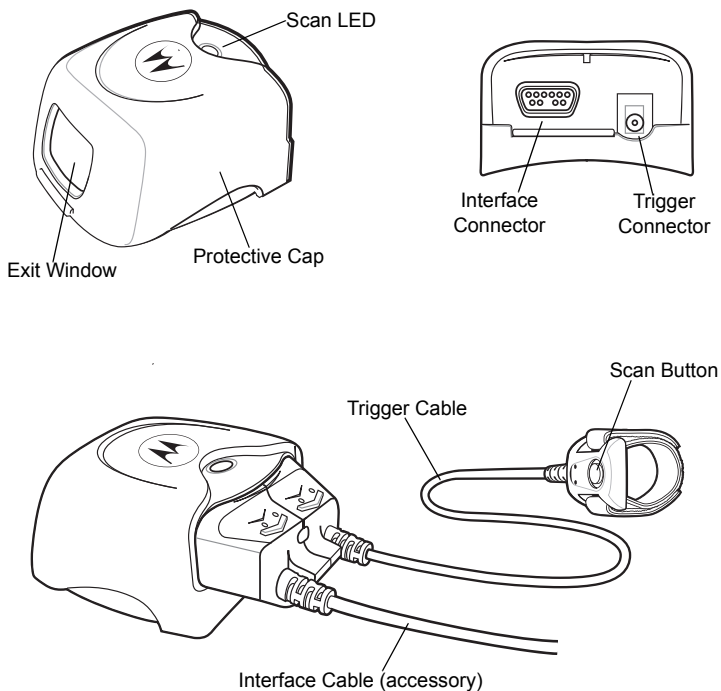
## Patents

This product is covered by one or more patents. For patent information go to:  
<http://www.symbol.com/patents>.

## Introduction

The RS309 is a modular, wearable laser scanner that provides the operator with unencumbered bar code scanning capability. The RS309 is used with the WT4070/90 wearable terminal.

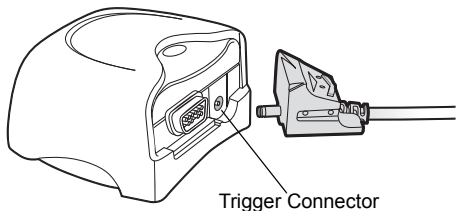
The operator wears the RS309 on the back of the hand and uses a thumb-activated trigger to operate the scanner. An interface cable connects the RS309 to the wearable terminal. Power for the RS309 is provided by the wearable terminal.



## Installation

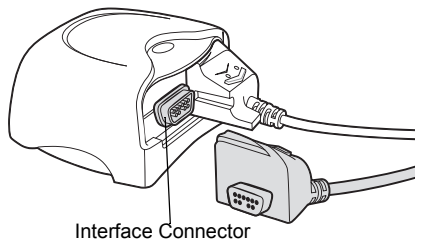
The RS309 connects to the wearable terminal and mounts on the back of the hand using the RS309 Glove.

1. Connect the RS309 trigger cable to the back of the RS309.



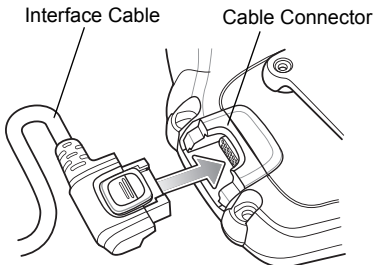
- ✓ **NOTE** There are two interface cables available. The standard interface cable connects the RS309 to a wearable terminal mounted on the arm. The extended length interface cable connect the RS309 to a wearable terminal mounted on the hip.

2. Connect the RS309 interface cable to the back of the RS309.

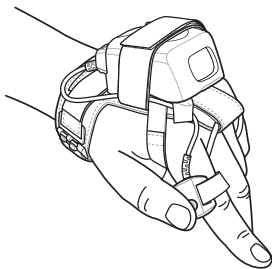


3. On the wearable terminal, remove the connector cap covering the cable connector.

4. Connect the other end of the RS309 interface cable to the wearable terminal cable connector. If the wearable terminal is mounted on the arm, connect the cable to the cable connector closest to the wrist.



5. Mount the RS309 on the RS309 Glove. Refer to the *RS309 Glove Installation Guide* for information on mounting the RS309.
6. Slide the trigger strap on the index finger, with the button positioned next to the thumb, and adjust the strap.



7. Warm boot the wearable terminal.

## Using the Scanner

To scan bar codes:

1. Turn on the wearable terminal.
2. Launch a scanning application.
3. Press the scan trigger and aim the RS309 at a bar code. The LED turns red to indicate the RS309 is on.
4. Adjust the aim so that the thin, red laser beam covers the entire length of the bar code.



5. If the decode is successful the LED turns green. The terminal beeps if programmed accordingly.

## Scanning Tips

- For larger bar codes, hold the RS309 farther away from the bar code.
- For bar codes with bars that are closer together, hold the RS309 closer to the bar code.
- The optimal scanning distance varies with bar code density, but 10 to 25 cm (4 to 10 inches) generally works. Practice to determine what distances to work within.
- Position the scanner at an angle to the bar code. If the scanner is perpendicular to the bar code being scanned, light can bounce back into the scanner's exit window and prevent a successful decode.

## RS309 Freezer Version

- ✓ **NOTE** The RS309 Freezer version is shipped with desiccant packs in a sealed plastic bag. Be sure to insert the packs provided before using the scanner.

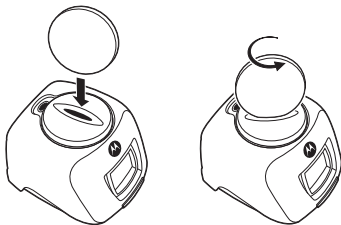
The RS309 Freezer version provides unencumbered bar code scanning capability in cold environments. Two desiccant packs must be inserted inside the scanner to prevent condensation in the exit window.

These packs require replacement; how frequently depends on your environment. Additional packs can be ordered from Motorola.

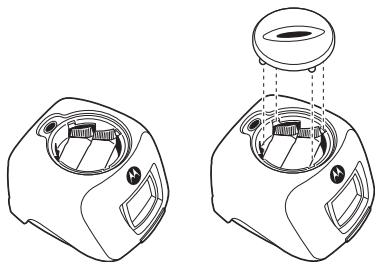
### Inserting the Desiccant Packs

To insert or replace the desiccant packs:

1. Insert a coin into the slit on the round access cover, and turn the coin counter-clockwise 45°.



2. Remove the cover.
3. If there are existing desiccant packs inside, carefully remove them and discard properly.
4. Remove the new desiccant packs from the sealed plastic bag.
5. Insert the new packs into the scanner.

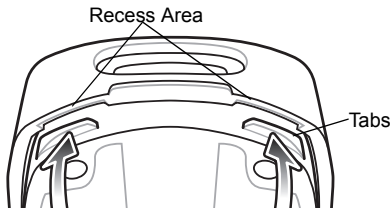


6. To replace the access cover, align the knobs on the cover with the notches inside the desiccant well, and turn the cover clockwise 45° using the coin.

## Replacing the Protective Cap

To replace the protective cap that covers the RS309:

1. Remove all cables connected to the RS309 and remove the RS309 from any mounting equipment.
2. Push up on the recesses between the protective cap and the scanner (located underneath the exit window) until the tabs on the scanner pop out.



3. Lift the protective cap off the RS309.
4. Slide the RS309 into the back of the new protective cap so the connectors appear through the back opening of the protective cap.
5. Push the front of the RS309 into the protective cap until it snaps into place.



## Cleaning

Wipe the exit window periodically with a lens tissue or other material suitable for cleaning optical material, such as eyeglasses.



**CAUTION** Do not pour, spray, or spill any liquid on the scanner.

## Troubleshooting

Symptom	Probable Cause	Action
Laser beam does not display when pressing the trigger.	Interface cable is not secure.	Verify that the interface cable connections are connected properly.
	Power is not applied to RS309.	Power for the RS309 is provided by the wearable terminal. Verify that the wearable terminal is on and that it has a charged battery installed.
	Scan enabled application on the wearable terminal is not running.	Launch scanning application on the wearable terminal.
	Wearable terminal does not recognize the RS309 scanner.	On the wearable terminal, perform a warm boot.
RS309 does not decode a bar code.	Bar code is unreadable.	Verify that the bar code is not defective.
	Exit window is dirty.	Clean exit window with a lens tissue. Tissues for eyeglasses work well. Do not use tissues coated with lotion.
	Symbology is not enabled.	See your system administrator.

## 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 adequate clearance
- Provide a suitable working environment
- Improve work procedures.

## Regulatory Information

This device is approved under the Symbol Technologies brand; Symbol Technologies, Inc., is the Enterprise Mobility business of Motorola, Inc. (“Motorola”).

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

Regulatory Information is available in French, Italian, German, Spanish (Spain), Portuguese, Japanese, Korean, Russian and Simplified Chinese. Please see the following website: <http://www.symbol.com/manuals/> and look for your specific product.

Any changes or modifications to Symbol Technologies equipment, not expressly approved by Symbol Technologies, could void the user’s authority to operate the equipment.



**CAUTION** Only use Symbol approved and UL Listed terminals.



### Laser Devices

Complies with 21CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001, and with EN60825-1:1994+A1:2002+A2:2001 and IEC60825-1:1993+A1:1997+A2:2001.

The laser classification is marked on one of the labels on the device.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

Caution: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

## Scanner Labeling



**N410**

**CAUTION**

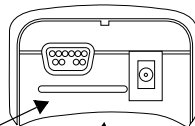
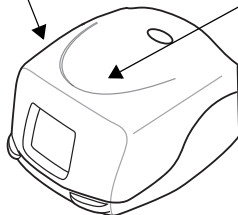


LASER LIGHT-DO NOT STARE INTO BEAM  
630-680nm LASER 1.0 MILLIWATT MAX OUTPUT  
CLASS II LASER PRODUCT

LASERLICHT - NICHT IN DEN STRAHL BLICKEN LASER KLASSE 2  
LUMIÈRE LASER NE PAS REGARDER DANS LE FAISCEAU  
APPAREIL À LASER DE CLASSE 2 CAUTION-LASER LIGHT, DO NOT  
STARE (TO BEAM) IEC CLASS 2 LASER PRODUCT 630-680nm, 1.0 mW LASER



AVOID EXPOSURE - LASER LIGHT IS EMITTED  
FROM THIS APERTURE - ÉVITER TOUTE  
EXPOSITION - LUMIÈRE LASER  
ÉMIS PAR CETTE  
OUVERTURE



ATTENTION-LUMIÈRE LASER EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE  
AU FAISCEAU VORSICHT!

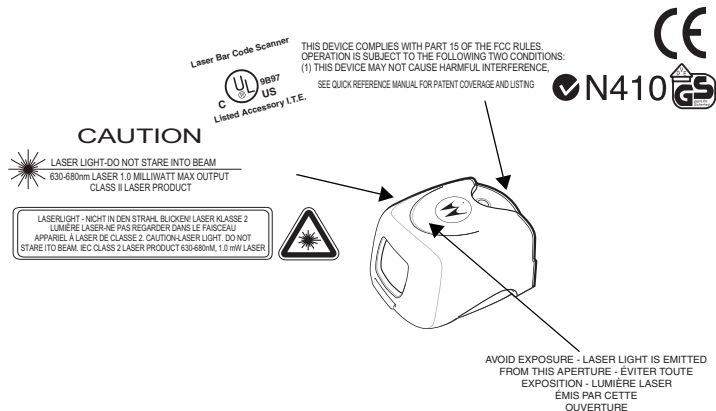
LASERTRÄHLUNG TRIRR AUS, WENN DECKEL (ODER KLAPPE)  
GEOEFFNET IST! NICHT IN DEN STRAHL BLICKEN

DANGER - LASER LIGHT WHEN OPEN. AVIOD DIRECT EYE EXPOSURE

COMPLIES WITH 21CFR1040.10 AND 1040.11 IEC 825-1:1993/EN60825-1:1994

AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION. THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS. CET APPAREIL NUMÉRIQUE DE LA CLASSE A RESPECTE TOUTES LES EXIGENCES DU RÉGLEMENT SUR LE MATÉRIEL BROUILLEUR DU CANADA.

## Protective Housing (Cap) Labeling



## 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 Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Marking and European Economic Area (EEA)

### Statement of Compliance

Symbol Technologies, Inc., hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directives 1999/5/EC, 89/336/EEC and 73/23/EEC. Declaration of Conformities may be obtained from <http://www2.symbol.com/doc/>.

## Waste Electrical and Electronic Equipment (WEEE)

**English:** For EU Customers: All products at the end of their life must be returned to Motorola for recycling. For information on how to return product, please go to: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Bulgarian:** За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Motorola за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: <http://www.symbol.com/weeelink>.

**Čeština:** Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Motorola k recyklaci. Informace o způsobu vrácení produktu najdete na webové stránce: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Dansk:** Til kunder i EU: Alle produkter skal returneres til Motorola til recirkulering, når de er udtjent. Læs oplysningerne om returnering af produkter på: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Deutsch:** Für Kunden innerhalb der EU: Alle Produkte müssen am Ende ihrer Lebensdauer zum Recycling an Motorola zurückgesandt werden. Informationen zur Rücksendung von Produkten finden Sie unter [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Eesti:** EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Motorola'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

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

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

**Français :** Clients de l'Union Européenne : Tous les produits en fin de cycle de vie doivent être retournés à Motorola pour recyclage. Pour de plus amples informations sur le retour de produits, consultez : [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Italiano:** per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Motorola al fine di consentirne il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Latviešu:** ES klientiem: visi produkti pēc to kalpošanas mūža beigām ir jānogādā atpakaļ Symbol otrreizējai pārstrādei. Lai iegūtu informāciju par produktu nogādāšanu Motorola, lūdz, skatiet: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Lietuvių:** ES vartotojams: visi gaminiai, pasibaigus jų eksploatacijos laikui, turi būti gražinti utilizuoti į kompaniją „Motorola“. Daugiau informacijos, kaip gražinti gaminį, rasite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Magyar:** Az EU-ban vásárlóknak: Minden tönkrement termékét a Motorola vállalatához kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalóként látogasson el a [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance) weboldalra.

**Malti:** Għal klijenti fl-UE: il-prodotti kollha li jkunu waslu fl-aħħar tal-ħajja ta' l-użu tagħhom, iridu jiġu rritornati għand Motorola għar-riċiklaġġ. Għal aktar taġħrif dwar kif għandek tiritorna l-prodott, jekk jogħġbok żur: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Nederlands:** Voor klanten in de EU: alle producten dienen aan het einde van hun levensduur naar Motorola te worden teruggezonden voor recycling. Raadpleeg [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance) voor meer informatie over het terugzenden van producten.

**Polski:** Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrócić do firmy Motorola w celu ich utylizacji. Informacje na temat zwrotu produktów znajdują się na stronie internetowej [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Português:** Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Motorola para reciclagem. Para obter informações sobre como devolver o produto, visite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Românesc:** Pentru clienții din UE: Toate produsele, la sfârșitul duratei lor de funcționare, trebuie returnate la Motorola pentru reciclare. Pentru informații despre returnarea produsului, accesați: <http://www.symbol.com/weeelink>.

**Slovenski:** Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Motorola za reciklažo. Za informacije o vračilu izdelka obiščite: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Slovenčina:** Pre zákazníkov z krajín EU: Všetky výrobky musia byť po uplynutí doby ich životnosti vrátené spoločnosti Motorola na recykláciu. Bližšie informácie o vrátení výrobkov nájdete na: [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Suomi:** Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Motorola-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

**Svenska:** För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Motorola för återvinning. Information om hur du returnerar produkten finns på [http://www.symbol.com/environmental\\_compliance](http://www.symbol.com/environmental_compliance).

## 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 Motorola Enterprise Mobility Support at: <http://www.symbol.com/contactsupport>.

For the latest version of this guide go to: <http://www.symbol.com/manuals>.



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72-86011-02 Revision A - October 2007