

**XR400**  
 RFID Reader  
 Quick Reference Guide

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**Patents**

This product is covered by one or more of the patents listed on the website:  
<http://www.symbol.com/patents>

**Service Information**

Before using the unit, it must be configured to operate in the facility's network and run your applications. If you have a problem running your unit or using your equipment, they will contact the Symbol Support Center. Systems Support. If there is a problem with the equipment, they will contact the Symbol Technical or

**Introduction**

This *Quick Reference Guide* provides general information for the XR400 RFID Reader, including LED definitions, port descriptions, and mounting information. For more details, and instructions on updating the reader's firmware, refer to the *XR400 Integrator Guide*.

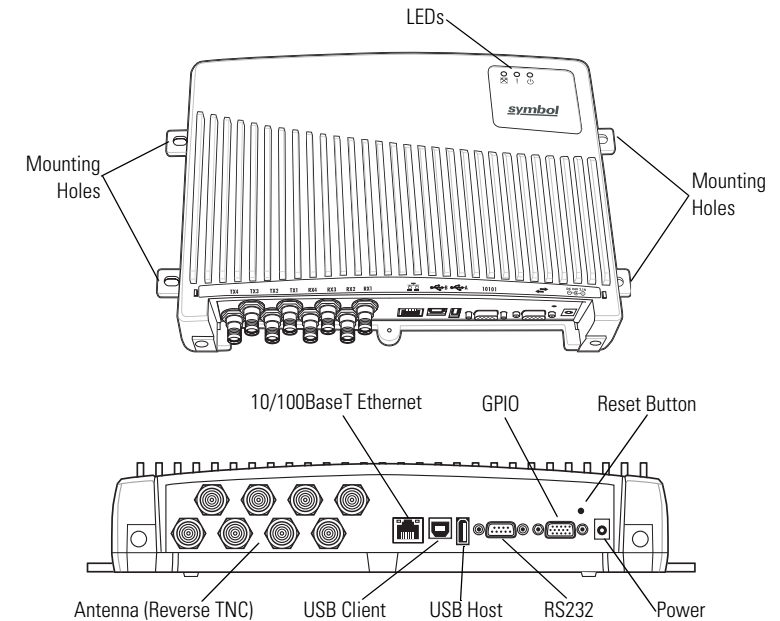
**Product Description**

The Symbol XR400 is an intelligent, multi-protocol UHF RFID reader with industry leading RFID performance that provides real-time, seamless tag processing for all EPC-compliant tags.

The XR400 features:

- Multi-protocol operation - Class 0 and 1 ready, upgradeable to Gen 2 via firmware
- Intel XScale® processor with Windows® CE and Linux® OS options
- Support for custom or third-party applications
- Versatile host and device connectivity options
- Rich feature set for event and tag management.

**XR400 Physical Connections**



**Warranty**

(A) **Warranty** Symbol Technologies (hereafter "Seller") hardware Products are warranted against defects in workmanship and materials for a period of twelve (12) months from the date of shipment, provided the Product remains unmodified and is operated under normal and proper conditions. Warranty periods and durations on software, integrated installed systems, Product modified or designed to meet specific customer specifications ("Custom Products"), remanufactured products, and reconditioned or upgraded products, shall be as provided in the applicable product specification or in the accompanying software license.

(B) **Spare Parts** Spare parts (i.e. parts, components, or subassemblies sold by Seller for use in the service and maintenance of Products) are warranted against defects in workmanship and materials for a period of thirty (30) days from the date of shipment. Spare parts may be new or originate from returned units under the conditions set forth in subsection D below.

(C) **Repair of Symbol-branded hardware** For repairs on Symbol-branded hardware Products under this Agreement, including repairs covered by warranty, the repair services provided against defects in workmanship and materials on the repaired component of the Product for a period of thirty (30) days from the shipment date of the repaired Product, or until the end of the original warranty period, whichever is longer. (D) **Product Service** Products may be serviced or manufactured with parts, components, or subassemblies that originate from returned products and that have been tested as meeting applicable specifications for equivalent new material and Products. The sole obligation of Seller for defective hardware Products is limited to repair or replacement (at Seller's option) on a "return to service depot" basis with prior Seller authorization. Customer is responsible for shipment to the Seller and assumes all costs and risks associated with this transportation, return shipment to the Customer will be at Seller's expense. Customer shall be responsible for return shipment charges for product returned where Seller determines there is no defect ("No Defect Found"), or for product returned that Seller determines is not eligible for warranty repair. No charge will be made to Buyer for replacement parts for warranty repairs. Seller is not responsible for any damage to or loss of any software programs, data or removable data storage media, or the restoration or reinstallation of any software programs or data other than the software, if any, installed by Seller during manufacture of the Product.

(E) **Original Warranty Period** Except for the warranty applying solely to the repaired component arising from a repair service as provided in Section C above, the aforementioned provisions do not extend the original warranty period of any Product that had either been repaired or replaced by Seller. (F) **Warranty Provisions** The above warranty provisions shall not apply to any Product (i) which has been repaired, tampered with, altered or modified, except by Seller's authorized service personnel; (ii) in which the defects or damage to the Product result from normal wear and tear, misuse, negligence, improper storage, water or other liquids, battery leakage, use of parts or accessories not approved or supplied by Symbol, or failure to perform operation, handling and scheduled maintenance instructions supplied by Seller; (iii) which has been subjected to unusual physical or electrical stress, abuse, or accident, or forces or exposures beyond normal use within the specified operational and environmental parameters set forth in the applicable Product specification; nor shall the above warranty provisions apply to any expendable or consumable items, such as batteries, supplied with the Product. EXCEPT FOR THE WARRANTIES STATED ABOVE, SELLER DISCLAIMS ALL WARRANTIES ON PRODUCTS FURNISHED HEREUNDER INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED IN DURATION TO THE LIMITED WARRANTY PERIOD, SOME STATES OR COUNTRIES DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS. IN SUCH STATES OR COUNTRIES, FOR SUCH PRODUCTS, SOME EXCLUSIONS OR LIMITATIONS OF THIS LIMITED WARRANTY MAY NOT APPLY.

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For the latest version of this guide and other supporting documentation, go to:  
<http://www.symbol.com/manuals>

United States	1-800-653-5350	Canada	Inside Canada	1-866-416-8545	Outside Canada	905-629-7226
United Kingdom	0800 328 2424	Asia/Pacific		+65-6796-9600		
Australia	1-800-672-906	Austria/Österreich		1-505-5794-0		
Denmark/Danmark	7020-1718	Finland/Suomi		9 5407 580		
France	01-40-96-56-21	Germany/Deutschland		6074-49020		
Italy/Italia	2-48444	Mexico/México		5-520-1835		
Netherlands/Nederland	315-271700	Norway/Norge		+47 2232 4375		
South Africa	11-8095311	Spain/España		91 324 40 00		
Sweden/Sverige	84452900	Inside Spain		+34 91 324 40 00		
Outside Spain						
Latin America	1-800-347-0178	Inside US		+1-954-255-2610		
Outside US						
Europe/Mid-East	Contact local distributor or call					
Sales Support						
Distributor Operations	+44 118 945 7360					

## LED Definitions

LEDs indicate reader status as described in the following table.

LED	Indication
Green	Reader is powered on.
Red	Error condition or non-operational mode, e.g., boot-up.
Yellow	Successful tag read.

## XR400 Ports

The following table lists the ports available on the XR400.

Port	Description
Antenna (Reverse TNC)	Connect up to eight antennas (four transmit, four receive).
10/100BaseT Ethernet	Insert a standard RJ45 Ethernet cable for connection to an Ethernet network. Insert a cross-connect Ethernet cable for connection to a local PC.
USB Client	Insert a USB cable for USB client connection to a host device.
USB Host	Insert a USB cable for USB host connection to a client device.
RS232	Insert an RS232 cable with a DB9 connector for serial communications to a host.
GPIO	Insert a DB15 serial cable for connection to an external device.
Power	Connect a 24 V 1.2 A power supply. The power supply's DC connector connects to an AC adapter that varies depending on the country.

## Mounting the XR400

1. Position the XR400 on the wall or shelf, ensuring five inches of clearance on all sides of the XR400.
2. Using the pre-drilled holes at the corners of the XR400 as a guide, drill four holes in the wall or shelf for mounting the reader. Distance between the two sets of mounting holes are:  
4.75" (12.05 cm)  
12.73" (32.30 cm)
3. Secure the XR400 to the wall or shelf using four 1-inch long #10 screws.

## Regulatory Information

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, Spanish (Spain) and Portuguese. Please see following website: <http://www.symbol.com/services/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.

Antennas: Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations.

### Country Approvals

Regulatory markings are applied to the device signifying the radio(s) are approved for use in the following countries: United States and Canada<sup>1</sup>.

Please refer to the Symbol Declaration of Conformity (DoC) for details of other country markings. This is available at <http://www2.symbol.com/doc/>.

**Note**<sup>1</sup>: The use of RFID has varying restrictions of use; please refer to the Symbol Declaration of Conformity (DoC) for details.



Operation of the device without regulatory approval is illegal.

## Health and Safety Recommendations



### Warnings for Use of Wireless Devices

Please observe all warning notices with regard to the usage of wireless devices.

### Potentially Hazardous Atmospheres

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders) and any other area where you would normally be advised to turn off your vehicle engine.



### Safety in Hospitals

Wireless devices transmit radio frequency energy and may affect medical electrical equipment.

When installed adjacent to other equipment, it is advised to verify that the adjacent equipment is not adversely affected.

### Other Medical Devices

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.



### FCC/EU RF Exposure Guidelines

### Safety Information

The device complies with Internationally recognised standards covering Specific Absorption Rate (SAR) related to human exposure to electromagnetic fields from radio devices.

### Reducing RF Exposure - Use Properly

It is advisable to use the device only in the normal operating position.

### 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 of similar configurations must operate with a minimum separation distance of 23 cm from all persons.

### Power Supply

Use only a Symbol approved power supply p/n 50-14000-154 output rated 24 Vdc and minimum 3 Amps.

The power supply is certified to EN60950 with SELV outputs. Use of alternative power supply will invalidate any approval given to this device and may be dangerous.

### Wireless Devices

#### Country Selection

Select only the country in which you are using the device. Any other selection will make the operation of this device illegal.

### 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

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.

### Radio Transmitters

This device complies with RSS 210 of Industry & Science Canada. 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.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.