

FOR REVIEW ONLY – DO NOT PUBLISH OR DISTRIBUTE

DRAFT 08

# RX2 User's Guide

(Microsoft® Windows® CE .NET Equipped)



Copyright © March 2006 by LXE Inc.  
All Rights Reserved  
E-EQ-RX2OGWW-A



Language: English  
**Notices**

LXE Inc. reserves the right to make improvements or changes in the products described in this guide at any time without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, LXE assumes no liability resulting from any errors or omissions in this document, or from the use of the information contained herein. Further, LXE Incorporated, reserves the right to revise this publication and to make changes to it from time to time without any obligation to notify any person or organization of such revision or changes.

---

**Copyright:**

This manual is copyrighted. All rights are reserved. This document may not, in whole or in part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form without prior consent, in writing, from LXE Inc.

Copyright © 2006 by LXE Inc. An EMS Technologies Company.  
125 Technology Parkway, Norcross, GA 30092 U.S.A. (770) 447-4224

---

**Trademarks:**

LXE® is a registered trademark of LXE Inc. Microsoft, Windows and the Windows logo are registered trademarks of Microsoft Corporation in the United States and/or other countries. Java and Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. or other countries, and are used under license. All other brand or product names are trademarks or registered trademarks of their respective companies or organizations. When this guide is in PDF format: “Acrobat® Reader Copyright © 1987-2006 Adobe Systems Incorporated. All rights reserved. Adobe, the Adobe logo, Acrobat, and the Acrobat logo are trademarks of Adobe Systems Incorporated.” applies.

**The user is strongly encouraged to read Appendix A, “Regulatory Notices and Safety Information”. Important safety cautions, warnings and regulatory information is contained in Appendix A.**



**Important:** This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive 2002-96-EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash. For information about proper disposal, contact LXE through your local sales representative, or visit [www.lxe.com](http://www.lxe.com).

# Table of Contents

<b>INTRODUCTION</b>	<b>1</b>
<b>Overview</b> .....	<b>1</b>
Document Conventions .....	2
RX2 Environmental Specifications .....	2
Battery Charger Environmental Specifications .....	2
<b>Components</b> .....	<b>3</b>
<b>Quick Start</b> .....	<b>3</b>
<b>RFID Introduction</b> .....	<b>4</b>
RFID Reader Scan Range .....	4
RFID Tag Data Collection.....	4
<b>Getting Help</b> .....	<b>5</b>
Manuals.....	5
Accessories .....	5
<b>INSTALLATION</b>	<b>7</b>
<b>Introduction</b> .....	<b>7</b>
<b>Mounting the RX2</b> .....	<b>7</b>
<b>Mounting RX2 Accessories</b> .....	<b>8</b>
Bracket for Coupler (Internal Battery and Charger or External Battery) .....	8
Bracket for Terminal Block (DC to DC Power Supply).....	8
DC to DC Power Supply.....	8
<b>Connect Power Source</b> .....	<b>9</b>
Internal Battery Pack (Optional).....	9
External Battery Pack .....	10
Vehicle 12VDC Power Connection.....	12
DC to DC Power Supply.....	14
<b>The RX2 Battery Charger</b> .....	<b>15</b>
<b>OPERATION</b>	<b>17</b>
<b>The Power Switch</b> .....	<b>17</b>
<b>The Power LED</b> .....	<b>18</b>
Additional Low Power Warning.....	18
<b>Tag Orientation and the RX2</b> .....	<b>19</b>

<b>APPENDIX A REGULATORY NOTICES AND SAFETY INFORMATION</b>	<b>21</b>
<b>Approvals .....</b>	<b>22</b>
<b>INDEX</b>	<b>23</b>

---

## Illustrations

Figure 1 RX2 Connector Panel .....	3
Figure 2 RX2 Components .....	3
Figure 3 RFID Tag Reading Ranges .....	4
Figure 4 Mounting Provisions.....	7
Figure 5 Battery Charger and Cable.....	9
Figure 6 External Battery, Connection to RX2 .....	10
Figure 7 External Battery, Connection to Charger.....	10
Figure 8 Vehicle Power Connection Cable (Fuse Not Shown).....	12
Figure 9 Connecting the Power Cable to the Vehicle .....	12
Figure 10 Vehicle Connection Wiring Color Codes .....	13
Figure 11 DC to DC Power Supply Cabling .....	14
Figure 12 RX2 Battery Charger .....	15
Figure 13 RX2 Battery Charger and Internal Battery .....	15
Figure 14 RX2 Battery Charger and External Battery .....	15
Figure 15 Power Switch.....	17
Figure 16 Power LED .....	18
Figure 17 Tag Rotation, Example 1 .....	19
Figure 18 Tag Rotation, Example 2 .....	19

## Introduction







### Overview

The LXE RX2 is a rugged, vehicle mounted Microsoft® Windows® CE .NET equipped mobile computer capable of wireless data communications and equipped with an RFID module. The mobile device can transmit information using its 2.4 GHz 802.11 radio with integrated antenna.

The RX2 does not feature a display or keypad. Configuration is performed via the USB port using Microsoft ActiveSync and other utilities. Please refer to your system administrator for details on configuration and application operation.



## Document Conventions

ALL CAPS	All caps are used to represent disk directories, file names, and application names.
Menu   Choice	Rather than use the phrase “choose the Save command from the File menu”, this guide uses the convention “choose File   Save”.
“Quotes”	Indicates the title of a book, chapter or a section within a chapter (for example, “Document Conventions”).
< >	Indicates a key on the keypad (for example, <Enter> ).
	Indicates a reference to other documentation.
<b>ATTENTION</b>	Keyword that indicates vital or pivotal information to follow.
	Attention symbol that indicates vital or pivotal information to follow. Also, when marked on product, means to refer to the user’s guide.
	International fuse replacement symbol. When marked on the product, the label includes fuse ratings in volts (v) and amperes (a) for the product.
<i>Note:</i>	Keyword that indicates immediately relevant information.
<b>Caution</b> 	Keyword that indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
<b>Warning</b> 	Keyword that indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
<b>Danger</b> 	Keyword that indicates a imminent hazardous situation which, if not avoided, will result in death or serious injury.

## RX2 Environmental Specifications

Operating Temperature	-4°F to 122°F (-20°C to 50°C) (non-condensing)
Storage Temperature	-22°F to 158°F (-30°C to 70°C) (non-condensing)
Water and Dust	IEC IP66
Operating Humidity	5% to 95% non-condensing at 104°F (40°C)
Vibration	Based on MIL Std 810F
ESD	8 kV air, 4kV contact
Shock	14G, 10ms, ½ Sine

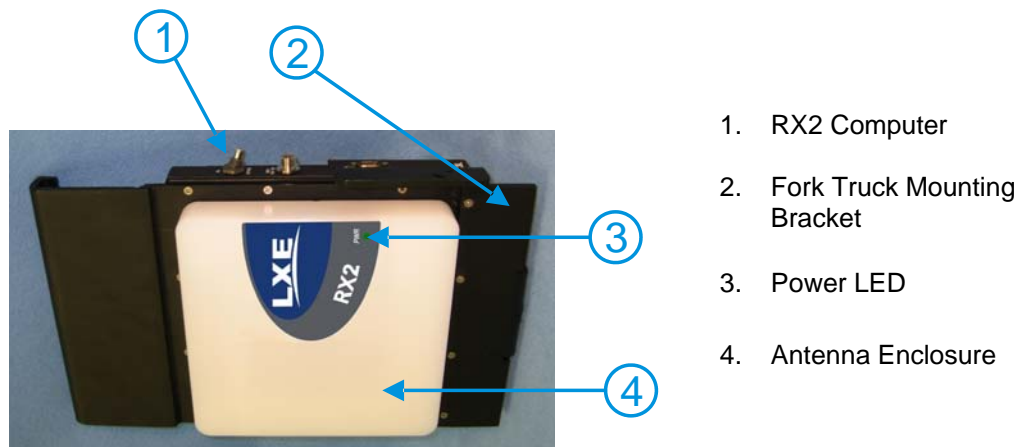
## Battery Charger Environmental Specifications

Operating Temperature	32°F to 104°F (0°C to 40°C) (non-condensing)
Storage Temperature	14°F to 158°F (-10°C to 70°C) (non-condensing)
Operating Humidity	5% to 95% non-condensing

## Components



**Figure 1 RX2 Connector Panel**



**Figure 2 RX2 Components**

## Quick Start

*Note: The RX2 is assembled with an optional internal battery pack (if ordered) and radio card installed before shipment.*

This section's instructions are based on the assumption that your new system is pre-configured and requires only a power source.

In general, the sequence of events is:

1. Provide a power source for the RX2:
  - Connect a fully charged external battery pack.
  - or-
  - Connect an external power source to the unit (if required).
  - or-
  - Use the optional internal battery pack (the internal battery pack, if ordered, must be fully charged before use).
2. Flip the power switch to On.

*Note: Do **not** connect a tethered scanner cable to a USB-C labeled port. This port cannot power a tethered scanner.*

## RFID Introduction

Radio frequency identification, or RFID, is a generic term for technologies that use radio waves to automatically identify individual items. The individual items identified/read by a RFID reader contain a tag (also known as an electronic label or transponder). Unlike barcodes that must be read by a beam passing over the barcode, RFID tags do not have to be in the line of sight of the reader before the reader can collect the data from the tag but they do need to be within the established reading range of the RFID-module.

See the “RX2 Reference Guide” for further information and configuration.

---

## RFID Reader Scan Range

Type of Tag	Scan Range
Class 0 Tag	9.8 feet / 3.0 meters
Class 1 Tag	9.8 feet / 3.0 meters
Gen2 Tag	9.8 feet / 3.0 meters

**Figure 3 RFID Tag Reading Ranges**

Unlike barcode scanners that require line-of-sight before successfully reading a barcode, the RFID reader does not require line-of-sight when searching for and reading tags.

The range of the RFID reader is dependent on many outside influences including the tag construction and orientation.

---

## RFID Tag Data Collection

Generally, when the RX2 is powered on, the RFID reader is ready for use.

- While the RX2 is booting, the Power LED is lit solid. The RFID reader is not available until the Power LED begins flashing and all drivers have finished loading.
- Please consult your system administrator for application details. Although the reader is ready for use, the application may not yet have enabled the reader.
- If the battery charger is connected to the RX2, the RX2 remains Off, even if the power switch is in the On position.

The reader supports Class 0 (read only) and Class 1 (read and write) tags as well as Class 1 Gen2 (read and write) tags.

The RFID information is relayed to the network via the 802.11 radio in the RX2. Data transmission is application specific. Please refer to your system administrator for details.



## Getting Help

All LXE user guides are now available on one CD and they can also be viewed/downloaded from the LXE ServicePass website. Contact your LXE representative to obtain the LXE Manuals CD.

You can also get help from LXE by calling the telephone numbers listed on the LXE Manuals CD, in the file titled “Contacting LXE”. This information is also available on the LXE website [www.lxe.com](http://www.lxe.com).

Explanations of terms and acronyms used in this guide are located in the file titled “LXE Technical Glossary” on the LXE Manuals CD.

---

## Manuals

RX2 Reference Guide

---

## Accessories

### Data Cables

Cable, USB Host D9F to USB, 6'	MX3XA069CBL09USBCLNT
--------------------------------	----------------------

### DC Power Accessories

DC Adapter Cable, 12V, with Bracket	RX2A052CBLDCPWR
DC to DC Power Supply, 24-60VDC to 12V	9000A316PS24V72VBARE

### Battery Chargers and Battery

Battery Charger US, with Connector Cables	RX2A381CHGRUS
Cable, Adapter, RX2 to Charger, with Bracket	RX2A051CBLRMT
Battery, External	RX2A381BATT4AHEXT

### Brackets

External Battery Mounting bracket	???
-----------------------------------	-----



# Installation

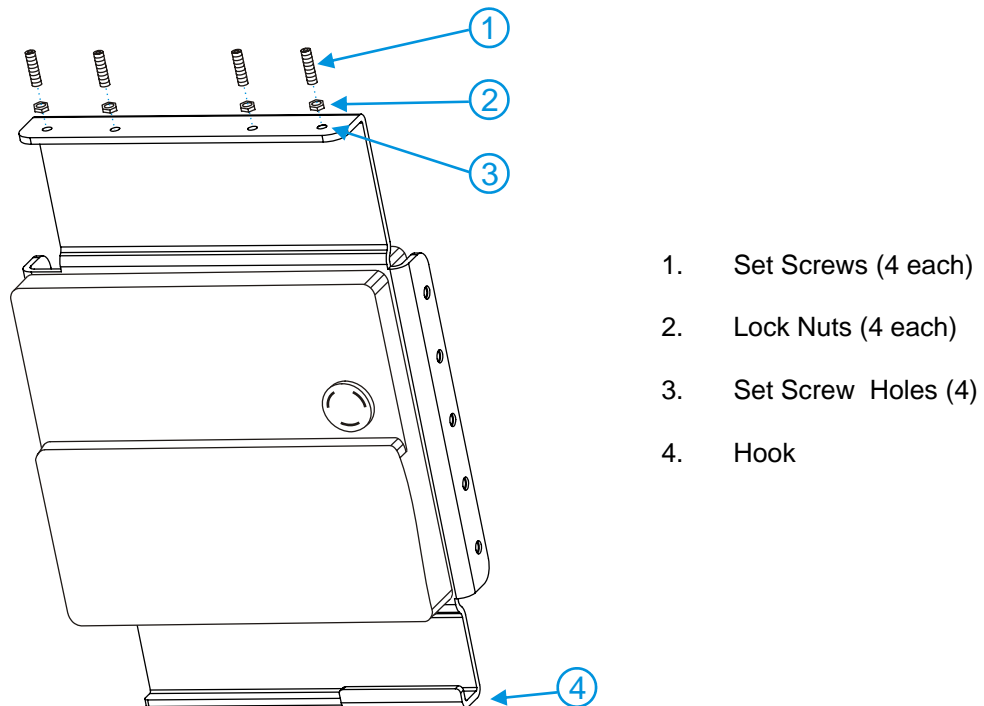
## Introduction

The general installation procedure consists of

1. Mounting the RX2 and any accessories to the forklift truck.
2. Providing a power source to the RX2:
  - Use the optional internal battery after it is charged with the RX2 Battery Charger
  - Use an external battery pack after it is charged with the RX2 Battery Charger
  - Use a direct connection to 12V DC vehicles
  - Use a DC to DC converter for 24 – 60 VDC vehicles

**Please read Appendix A, “Regulatory Notices and Safety Information” before installation.**

## Mounting the RX2



**Figure 4 Mounting Provisions**

To install the RX2:

1. Install the bracket by placing the hook (at the bottom of the bracket) over the lip of a Cascade E or F series side shifter.
2. Slide the RX2 over to the desired position.
3. Secure with (4) 1/4-20 set screws in the threaded holes on the top surface of the bracket. Thread a lock nut onto each set screw. Using an Allen wrench, tighten all four set screws to an equal depth, but do not tighten the locking nuts yet.
4. After all set screws have been tightened, recheck and retighten all screws. Tighten the locking nut while holding the set screw tight with an Allen wrench.

## **Mounting RX2 Accessories**

---

### **Bracket for Coupler (Internal Battery and Charger or External Battery)**

??

---

### **Bracket for Terminal Block (DC to DC Power Supply)**

??

---

### **DC to DC Power Supply**

??

## Connect Power Source

A power source must be connected to the RX2 before it can be used.

Please refer to the following sections to determine the desired method to power the RX2.

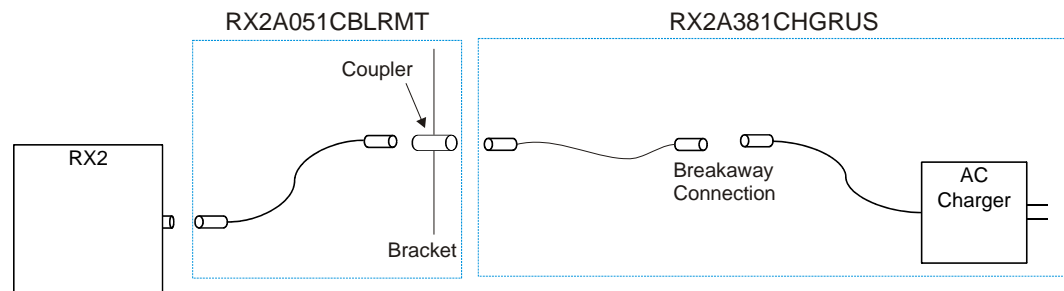
### Internal Battery Pack (Optional)

The RX2 is available with an optional internal battery pack.

Use the battery charger to charge the RX2's internal battery. The RX2 battery charger charges the RX2 battery pack in less than 6 hours. It is recommended the internal battery pack be fully charged before installing the RX2.

The battery charger uses an adapter cable. One end of the cable has a "break away" connection to reduce the chance of damage if the forklift is moved before the battery charger is disconnected. The other end of the cable attaches to the coupler on the forklift.

The coupler is mounted on a bracket. The coupler is connected via a cable to the RX2.



**Figure 5 Battery Charger and Cable**

Once fully charged, the internal RX2 battery pack powers the RX2 for nine hours.

The RX2 provides a low battery warning as follows:

- The power LED flashes red (or is solid red while the RX2 is booting)
- The low battery buzzer sounds
- A low battery signal can be sent via the radio card to the network host (please refer to your system administrator for details).

When the low battery warning is displayed, there is approximately 30 minutes of power left in the battery. If the battery is not recharged before it is depleted, the RX2 automatically shuts down. The RFID reader remains functional until the battery can no longer power the RX2.

If time does not permit the recharging of the internal battery pack, an external battery pack may be connected as detailed later in this chapter.

**Caution:**



To prevent damage to the RX2, the cables or the battery charger, make sure the charger is disconnected before moving the forklift truck.

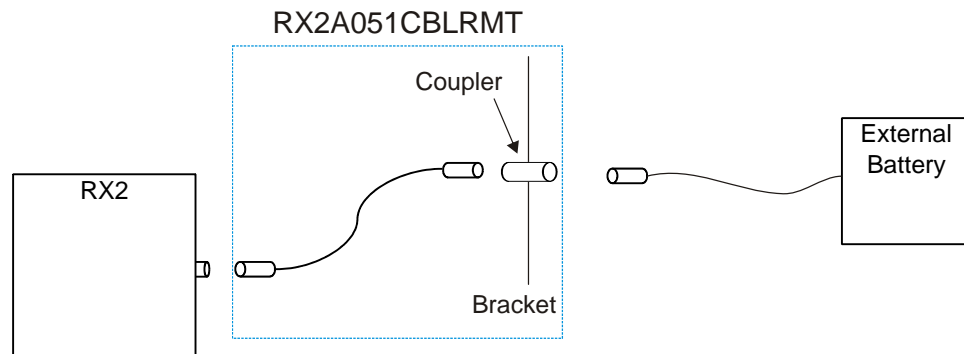
## External Battery Pack

The external battery pack may be used when the optional internal battery pack was not ordered or there is not time to permit a recharge of the optional internal RX2 battery pack.

The external battery pack mounts to the fork truck via a battery bracket and is connected to the RX2 with cables. The cable on the external battery connects to the coupler.

The coupler is mounted on a bracket. The coupler is connected via a cable to the RX2.

The external battery pack is designed to be mounted on the same side of the fork truck as the truck's main battery for ease of service.

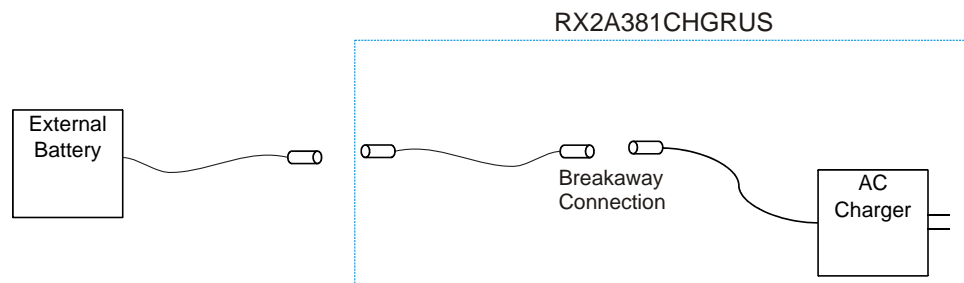


**Figure 6 External Battery, Connection to RX2**

Use the battery charger to charge the external battery pack. The RX2 battery charger charges the battery pack in less than 6 hours.

The battery charger uses an adapter cable. One end of the cable has a “break away” connection to reduce the chance of damage if the forklift is moved before the battery charger is disconnected. The other end of the cable attaches to the external battery.

To use the charger, connect the adapter cable to the external battery.



**Figure 7 External Battery, Connection to Charger**

Once fully charged, the external battery pack powers the RX2 for nine hours.

The RX2 provides a low battery warning as follows:

- The power LED flashes red (or is solid red while the RX2 is booting)
- The low battery buzzer sounds
- A low battery signal can be sent via the radio card to the network host (please refer to your system administrator for details).

When the low battery warning is displayed, there is approximately 30 minutes of power left in the battery. If the battery is not recharged or replaced before it is depleted, the RX2 automatically shuts down.




The RX2 internal battery pack does not charge from the external battery pack.

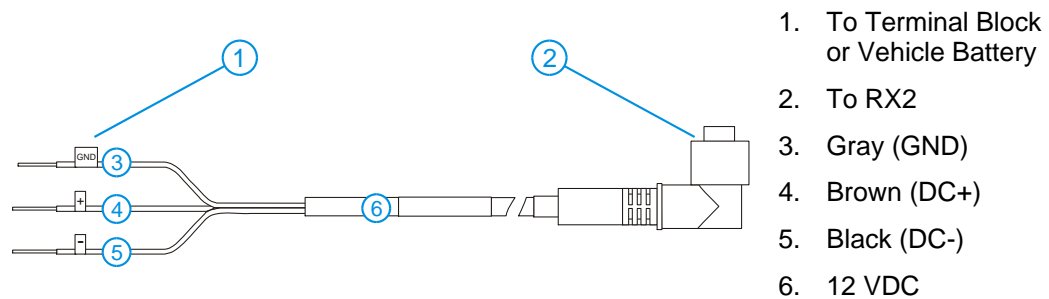
***Caution:***



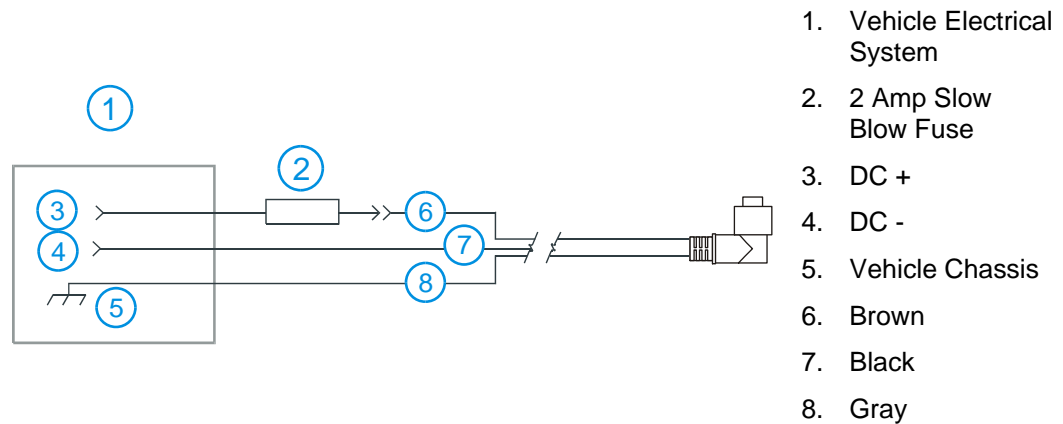
To prevent damage to the RX2, the cables or the battery charger, make sure the charger is disconnected before moving the forklift truck.

## Vehicle 12VDC Power Connection

<p><b>Caution:</b></p> 	<p>For proper and safe installation, the input power cable must be connected to a fused circuit on the vehicle. This fused circuit requires a 2 Amp maximum time delay (slow blow) high interrupting rating fuse. If the supply connection is made directly to the battery, the fuse should be installed in the positive lead within 5 inches of the battery positive (+) terminal.</p>
<p><b>Caution:</b></p> 	<p>For installation by trained service personnel only.</p>
<p><b>Warning:</b></p> 	<p>Risk of ignition or explosion. Explosive gas mixture may be vented from battery. Work only in well ventilated area. Avoid creating arcs and sparks at battery terminals.</p>



**Figure 8 Vehicle Power Connection Cable (Fuse Not Shown)**



**Figure 9 Connecting the Power Cable to the Vehicle**

*Note:* Correct electrical polarity is required for safe and proper installation. Connecting the cable to the RX2 with the polarity reversed will cause the power cable's fuse to be blown. See the following figure titled "Vehicle Connection Wiring Color Codes" for additional wire color-coding specifics.



### How To: Connect Vehicle 12VDC Connection

1. The RX2 must be turned off and the power cable must be UNPLUGGED from the RX2.
2. While observing the fuse requirements specified above, connect the power cable to the terminal block or as close as possible to the actual battery terminals of the vehicle. When available, always connect to unswitched terminals in vehicle fuse panel, after providing proper fusing.

**ATTENTION:** *For uninterrupted power, electrical supply connections should not be made at any point after the ignition switch of the vehicle.*

3. Route the power cable the shortest way possible. The cable is rated for a maximum temperature of 105°C (221°F). When routing this cable it should be protected from physical damage and from surfaces that might exceed this temperature.

Do not expose the cable to chemicals or oil that may cause the wiring insulation to deteriorate.

*Note: If the vehicle is equipped with a panel containing Silicon Controller Rectifiers (SCR's), avoid routing the power cable in close proximity to these devices.*

Always route the cable so that it does not interfere with safe operation and maintenance of the vehicle.

Use proper electrical and mechanical fastening means for terminating the cable. Properly sized “crimp” type electrical terminals are an accepted method of termination. Please select electrical connectors sized for use with 18AWG (1mm<sup>2</sup>) conductors. (Connectors already installed?).

Wiring color codes for LXE supplied DC input power cabling:

Vehicle Supply		Wire Color
+12 VDC	(DC +)	Brown
Return	(DC -)	Black
Vehicle Chassis	GND	Gray

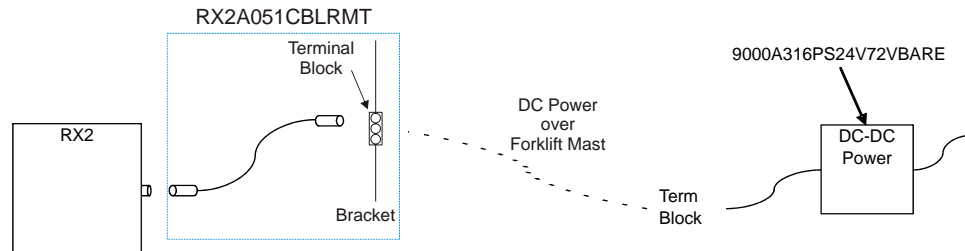
**Figure 10 Vehicle Connection Wiring Color Codes**

4. Provide mechanical support for the cable by securing it to the vehicle structure at approximately one foot intervals, taking care not to over tighten and pinch conductors or penetrate outer cable jacket.

## DC to DC Power Supply

If the vehicle does not provide 12V DC power, the DC to DC converter may be used. The DC to DC converter accepts 24 – 60VDC input power and provides 12VDC output power.

The DC to DC power supply is designed to be mounted in the forklift cab. Customer supplied wiring connects the DC to DC power supply (over the forklift mast) to the terminal block mounted on the bracket. The cable from the terminal block connects to the RX2.

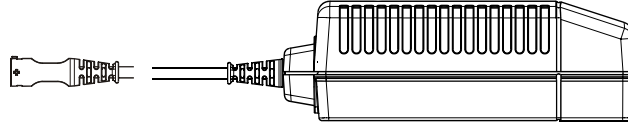


**Figure 11 DC to DC Power Supply Cabling**

A power filter may be required when vehicles have unclean forklift power in which power spikes cause problems with the RX2.

## The RX2 Battery Charger

The RX2 battery charger accepts AC power input.



**Figure 12 RX2 Battery Charger**

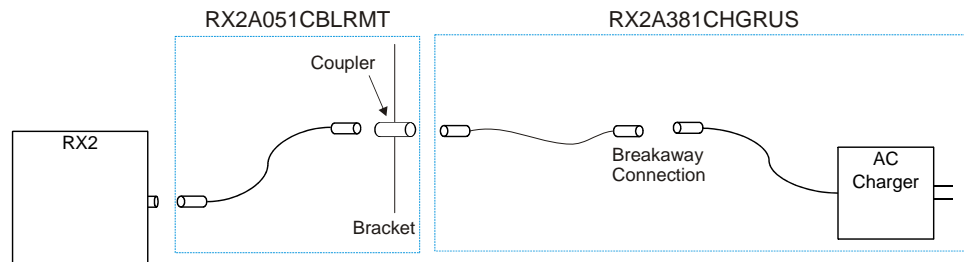
The charger can be used to charge either an internal RX2 battery pack or the external battery pack. Either type of battery pack recharges in less than six hours. The battery charger can operate in environments from 32°F to 104°F (0°C to 40°C).

The charger has a **red** LED that indicates the status of the charger:

- Rapid flashing – The charger is in deep discharge mode.
- Solid – The charger is in Rapid Charge mode.
- Slowly flashing – The battery is charged and ready for use. The charger provides a trickle charge to keep the battery at full charge.

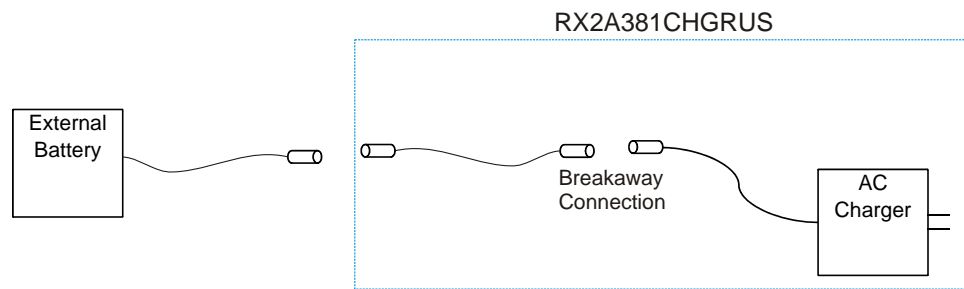
The type of cable required for using the battery charger depends on the type of battery being charged:

- Charger adapter cable – This is a shorter cable that provides easy access to charge the RX2. The cable features a loop



**Figure 13 RX2 Battery Charger and Internal Battery**

- External battery to charger adapter cable – This cable connects the charger to the external battery.



**Figure 14 RX2 Battery Charger and External Battery**



## Operation

### The Power Switch

The power switch is a toggle switch located on the connector panel side of the RX2.



**Figure 15 Power Switch**

When the switch is set to **On**:

- The CPU is on and the RX2 functions normally if power is present and the battery charger is not attached.
- The CPU remains Off if the battery charger is attached, even if the power switch is flipped to On. This allows the optional internal battery to charge.
- If the RX2 is On, the RX2 automatically powers down when the battery charger is attached. This allows the optional internal battery to charge. If the charger is disconnected and the switch remains in the On position, the RX2 boots up.

When the switch is set to **Off**:

- If the battery charger is connected, the battery recharges.
- If DC power is connected, the battery DOES NOT charge.
- If neither the battery charger nor DC power is connected, the RX2 is off.

When the power switch is flipped to On and a power source is present:

- The LED lights solid green (or solid red if battery power is low) while booting
- When the RX2 has finished booting, the LED flashes green (or red if battery power is low). The RX2 is ready for use after a slight delay while drivers and applications load. Consult your system administrator for more information.
- If the battery charger is connected, the RX2 remains Off, even if the power switch is flipped to On.

## The Power LED

The RX2 has a power status LED on the front of the antenna enclosure.



**Figure 16 Power LED**

The LED indicates the status of the RX2:

<b>Off</b>	Indicates the RX2 is switched off or no power is applied to the RX2. The LED is off when the battery charger is attached to the RX2.
<b>Solid Green</b>	Indicates the RX2 is booting and battery power is good (or DC power is attached).
<b>Solid Red</b>	Indicates the RX2 is booting and battery power is low.
<b>Flashing Green</b>	Indicates the RX2 has finished booting and is ready for use. Battery power is good (or DC power is attached).
<b>Flashing Red</b>	Indicates the RX2 has finished booting and is ready for use. Battery power is low.

When the power LED switches from green to red, this indicates approximately 30 minutes of battery power remains in the battery pack (either internal or external).

Before the 30 minutes expire, action should be taken:

- The RX2 battery charger can be used to charge either the internal or external battery pack. The RX2 cannot be used while the battery is charging.
- A fresh external battery pack can be used to replace a depleted external battery pack or to supplement an internal battery pack when charging time cannot be allotted.

---

## Additional Low Power Warning

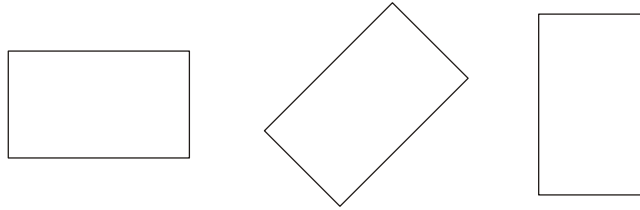
In addition to the LED turning red, other indications of a low battery may be present depending on your configuration:

- A low battery buzzer may sound (N/A on early units).
- The network host may be configured to monitor for RX2 units with a low battery. Please consult your system administrator for details.

## Tag Orientation and the RX2

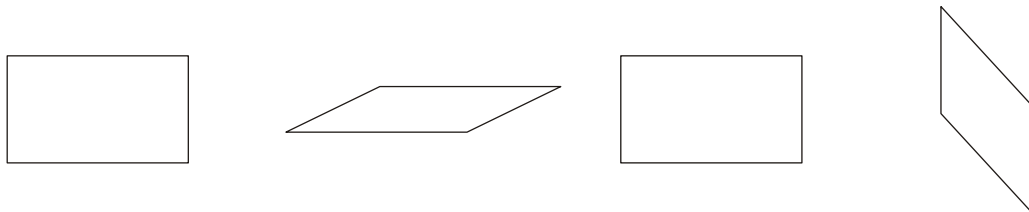
The RX2 contains an RHCP (right hand circularly polarized) antenna.

Tags orientation by rotation on the “Z” axis does not decrease the range of the RX2’s RFID reader.



**Figure 17 Tag Rotation, Example 1**

However, changing tag orientation by rotating on the “X” axis or “Y” axis can reduce the range of the RX2’s RFID reader.



**Figure 18 Tag Rotation, Example 2**

If you have any questions about tag orientation and its effect on the RX2’s range in your warehouse, please consult your system administrator.





## Appendix A Regulatory Notices and Safety Information

---

### FCC Information:

This device complies with FCC Rules, part 15. Operation is subject to the following conditions:

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

**Note:** This equipment has been tested and found to comply 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 guide, may cause harmful interference to radio communications. Operation 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.

**Warning:** Changes or modifications to this device not expressly approved by LXE, Inc., could void the user's authority to operate this equipment.

---

### Industry Canada:

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouiller du Canada. Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Classe A prescrites dans le Règlement sur le brouillage radioélectrique édictés par le ministère des Communications du Canada.

---

### RF Safety Notice

 **Caution** *This device is intended to transmit RF energy. For protection against excessive RF exposure to humans and in accordance with FCC and Industry Canada rules, this transmitter should be installed such that a minimum separation distance of at least 25cm (9.8 in.) is maintained between the antenna and the general population. This device is not to be co-located with other transmitters.*

---

### Notice:

The long term characteristics or the possible physiological effects of radio frequency electromagnetic fields have not been investigated by UL.

---

### Antenna Description:

The antenna approved to operate with the RX2 Vehicle Mount Computer is a Right Hand, Circularly Polarized (RHCP) single-patch with 5dbi linear gain.

---

## Approvals

Product	EMI / EMC Standards
<b>RX2</b>	FCC Part 15 Subpart B, Class A  Industry Canada Class A

### Transceiver:

Transceiver	RF Standards	Notes
<b>6726</b> (LXE Model No.) [Cisco]	FCC Part 15, Subpart C FCC Part 2  IC-RSS 210  IC-RSS 102	Unlicensed Operation  Requires License for Outdoor Use



**Important:** This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEE) appropriately, per Directive 2002-96-EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash. For information about proper disposal, contact LXE through your local sales representative, or visit [www.lxe.com](http://www.lxe.com).



## Vehicle Power Supply Connection Safety Statement



### Vehicle Power Supply Connection:

If the supply connection is made directly to the battery, a 2A slow-blow fuse should be installed in the positive lead within 5 inches (12.7 cm.) of the battery positive (+) terminal. (US)

**Legend:** English – US

Updated 02/10/2004

## Index

---

### **C**

Color Codes, Wiring.....13

---

### **E**

Environmental Specifications.....2

---

### **F**

Features .....1

---

### **G**

Getting Started.....3

---

### **H**

How To  
Connect 12-60VDC Vehicle Power .....13

---

### **I**

Input Cable, Max Temp rating.....13

---

### **M**

Manuals .....5

---

### **O**

Operating Temperature.....2

---

### **P**

Polarity .....13

---

### **Q**

Quick Start Instructions.....3

---

### **R**

Radio frequency identification (RFID).....4  
Regulatory Notices .....18  
RFID tags.....4

---

### **S**

Safety Information.....18  
Scan Ranges  
RFID .....4  
Silicon Controller Rectifiers (SCR's).....13  
Sizing of electrical connectors for use with 18AWG  
conductors.....13  
Specifications  
Environmental.....2

---

### **W**

Wiring Color Codes.....13

