



# Wave ID<sup>®</sup> Plus Badge Readers

RDR-80081AKU-V2



**This document provides the following information:**

- I. Connector Options
- II. Installing the Configuration Utility Software
- III. Reader Setup
- IV. Configuring the Reader
- V. Troubleshooting



*rf IDEAS Wave ID® and Wave ID® Plus Readers*

## Congratulations on the purchase of your Wave ID® or Wave ID® Plus reader!

Configuration of rf IDEAS readers is easy. With our “plug and play” design, you will be able to quickly take advantage of a more secure environment in your business, school, or organization.

rf IDEAS products are an integral part of a variety of solutions in every market such as healthcare, manufacturing, government, enterprise and other markets. The number of applications is ever-increasing, and we maintain a strong relationship with our robust list of software partners and resellers which are readily found on our website.

Please contact our sales department if you have any questions or are interested in our OEM and Independent Developers programs.

For more details about our product line, please visit [www.rfIDEAS.com/knowledge-center](http://www.rfIDEAS.com/knowledge-center) or follow the Support > Learning Center link for more details about our various products.

Thank you,

The rf IDEAS team

### CONTACT INFORMATION

Phone: +1 (847) 870-1723

Toll Free: (866) 439-4884

Fax: (847) 483-1129

Email: [Sales@rfIDEAS.com](mailto:Sales@rfIDEAS.com)

Support: [TechSupport@rfIDEAS.com](mailto:TechSupport@rfIDEAS.com)

### ADDRESS

rf IDEAS, Inc.


425 N. Martingale Road, Suite 1680

Schaumburg, IL 60173, USA

## 1. Connector Options

---

There are two connector options available with the reader for data input and output.

Connector Type	Output Data Type
USB 	USB Keystroke SDK Virtual Com Port: ASCII or SDK



The product you have purchased may need to be configured before use.

The configuration software and support documents can be downloaded from our product support page at: <http://www.rfIDEAS.com/support/product-support>

The configuration section details the steps necessary to install the configuration utility software and update the configuration to meet your requirements.

## 2. Installing the Configuration Utility Software

---

To install the configuration utility software, complete the following steps:

1. Verify the system meets the following minimum requirements:
  - Hardware — Pentium class PC
  - Memory — 32 MBRAM
  - Disk — 25 MB hard disk space
  - I/O — 1 available DB9 or USB port, dependent upon the connector
  - Operating System – Any operating system that supports a USB keyboard including Microsoft Windows XP®, 7®, 8®, 10® and Linux. Can be used for keystroke applications.
2. Install the pcProx Configuration Utility from the following Web page:  
<http://www.rfIDEAS.com/Software/pcProxConfig/>

## 3. Reader Setup

---

**To set up the reader:**

3. Plug the connector into the workstation's (or available on any peripheral) open RS-232, USB, or Ethernet plug.
4. Place the device next to the monitor, beside the workstation, or where appropriate.
5. The workstation should detect new hardware for USB and DB9 connections. Verify the workstation recognizes this connection using Device Manager.
6. For RS-232 products, verify the correct COM port for RS-232 DB9 connections using Windows Device Manager.

## 4. Configuring the Reader

To configure the Reader for operation, complete the following steps:

7. Start the pcProx Configuration Utility software.
8. Plug the reader into the workstation's USB or DB9 port.
  - a. If the reader has a USB connector, verify the workstation detected the connection automatically using Windows Device Manager.
  - b. If the reader has a DB9 connector, verify the correct COM port using Windows Device Manager.
9. If your reader requires a custom configuration, refer to the pcProx Plus/pcProx Enroll Manual for detailed information on the configuring the reader. The manual is available at [www.rfIDEAS.com](http://www.rfIDEAS.com) > **Support** > **Product Manuals**.
10. After the configuration settings are correctly configured and written/saved to the device, unplug the reader.

The reader is now ready for use.

## Troubleshooting

If the device is not working or the following error message is displayed:

11. Check to be sure the device is connected to the USB or RS-232 port. When the workstation is on and no card is being read, the LED is red. A valid proximity card causes the LED to turn green, provided the configuration is not set to only read certain bit lengths.
12. Only one COM port application can own the RS-232 port at a time. Make sure there is not another COM port application running. This prevents our software from seeing the device.
13. Verify the correct model and the software configuration screen agrees with the device attached.
14. Verify the port agrees with the workstation connector.
15. If the device still does not work, disconnect it, remove 'General USB Device' using Windows 'Control Panel' a 'Add/Remove' Hardware. Then reboot the workstation. When the workstation boots up, re-attach the device USB and the OS should re-install the Windows driver automatically.



If the device does not read the card, contact the card manufacturer/vendor to verify that the card type is compatible with the device model.





## License Agreement and End-User License Agreement

End-User License Agreement for RF IDEAS™ SOFTWARE and HARDWARE - rfIDEAS' WaveID®, Proximity Activated Readers, Software Developer's Kit, and Proximity Reader DLLs, and Protocol(s).

**IMPORTANT-READ CAREFULLY:** This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and the manufacturer RF IDEAS ("Manufacturer") with which you acquired the RF IDEAS software and hardware product(s) identified above ("PRODUCT"). The PRODUCT includes the RF IDEAS reader, computer software, the associated media, any printed materials, and any "online" or electronic documentation. The SOFTWARE PORTION OF THE PRODUCT includes the computer software, the associated media, any printed materials, and any "online" or electronic documentation. By installing, copying, or otherwise using the PRODUCT, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, rf IDEAS is unwilling to license the PRODUCT to you. In such event, you may not use or copy the SOFTWARE PORTION OF THE PRODUCT, and you should promptly contact the vendor you obtained this PRODUCT from for instructions on return of the unused product(s) for a refund.

The products described in this publication are intended for consumer applications. rf IDEAS assumes no liability for the performance of product. rf IDEAS products are not suitable for use in life-support applications, biological hazard applications, nuclear control applications, or radioactive areas. None of these products or components, software or hardware, are intended for applications that provide life support or any critical function necessary for the support of protection of life, property or business interests. The user assumes responsibility for the use of any of these products in any such application. RF IDEAS shall not be liable for losses due to failure of any of these products, or components of these products, beyond the RF IDEAS commercial warranty, limited to the original purchase price.

**SOFTWARE PRODUCT LICENSE:** The PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PORTION OF THE PRODUCT is licensed, not sold.

**1. GRANT OF LICENSE.** This EULA grants you the following rights: \*Software. You may install and use one copy of the SOFTWARE PORTION OF THE PRODUCT on the COMPUTER. \*Network Services. If the SOFTWARE PORTION OF THE PRODUCT includes functionality that enables the COMPUTER to act as a network server, any number of computers or workstations may access or otherwise utilize the basic network services of that server. The basic network services are more fully described in the printed materials accompanying the SOFTWARE PORTION OF THE PRODUCT. \*Storage/Network Use. You may also store or install a copy of the computer SOFTWARE PORTION OF THE PRODUCT on the COMPUTER to allow your other computers to use the SOFTWARE PORTION OF THE PRODUCT over an internal network and distribute the SOFTWARE PORTION OF THE PRODUCT to your other computers over an internal network.

**1.1 General License Grant.** rf IDEAS grants to an individual, a personal, nonexclusive license to make and use copies of the SOFTWARE PRODUCT for the sole purposes of designing, developing, and testing your software product(s) that are designed to operate in conjunction with any rf IDEAS designed proximity reader product. You may install copies of the SOFTWARE PRODUCT on an unlimited number of computers provided that you are the only individual using the SOFTWARE PRODUCT. If you are an entity, rf IDEAS grants the right to designate one individual within your organization to have the sole right to use the SOFTWARE PRODUCT in the manner provided above.

**1.2 Documentation.** This EULA grants an individual, a personal, nonexclusive license to make and use an unlimited number of copies of any documentation, provided that such copies shall be used only for personal purposes and are not to be republished or distributed (either in hard copy or electronic form) beyond the user's premises and with the following exception: you may use documentation identified in the SOFTWARE PRODUCT as the file format specification for rf IDEAS' proximity readers solely in connection with your development of software product(s) or an integrated work or product suite whose components include one or more general purpose software products.

**1.3 Storage/Network Use.** You may also store or install a copy of the SOFTWARE PRODUCT on a storage device, such as a network server, used only to install or run the SOFTWARE PRODUCT on computers used

by a licensed end user in accordance with Section 1.1. A single license for the SOFTWARE PRODUCT may not be shared or used concurrently by other end users.

**1.4 Sample Code.** rf IDEAS grants you the right to use and modify the source code version of those portions of the SOFTWARE PRODUCT identified as "Samples in the SOFTWARE PRODUCT" ("Sample Code") for the sole purposes to design, develop, and test your software product(s), and to reproduce and distribute the Sample Code, along with any modifications thereof, only in object code form.

**2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.** \*Limitations on Reverse Engineering, De-compilation and Disassembly. You may not reverse engineer, decompile, or disassemble the PRODUCT, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation \*You may not reproduce or otherwise emulate, in whole or in part, any form of the protocol(s) defined within this PRODUCT for use without a rf IDEAS PRODUCT Redistributable Code. If you are authorized and choose to redistribute Sample Code ("Redistributables") as described in Section 1.4, you agree to: (a) distribute the Redistributables in object code only in conjunction with and as a part of a software application product developed by you using the PRODUCT accompanying this EULA that adds significant and primary functionality to the SOFTWARE PRODUCT ("Licensed Product"); (b) not use rf IDEAS' name, logo, or trademarks to market the Licensed Product; (c) include a valid copyright notice on the Licensed Product; (d) indemnify, hold harmless, and defend RF IDEAS from and against any claims or lawsuits, including attorney's fees, that arise or result from the use or distribution of the Licensed Product; (e) otherwise comply with the terms of this EULA; and (f) agree that rf IDEAS reserves all rights not expressly granted. You also agree not to permit further distribution of the Redistributables by your end users except: (1) you may permit further redistribution of the Redistributables by your distributors to your end-user customers if your distributors only distribute the Redistributables in conjunction with, and as part of, the Licensed Product and you and your distributors comply with all other terms of this EULA; and (2) in the manner described in Section 1.4.

\*Separation of Components. The PRODUCT is licensed as a single product. Its component parts may not be separated for use on more than one computer.

\*Single COMPUTER. The PRODUCT is licensed with the COMPUTER as a single integrated product. The PRODUCT may only be used with the COMPUTER.

\*Rental. You may not rent or lease the PRODUCT without permission from RF IDEAS.

\*Software Transfer. You may permanently transfer all of your rights under this EULA only as part of a sale or transfer of the COMPUTER, provided you retain no copies, you transfer all of the PRODUCT (including all component parts, the media and printed materials, any upgrades, this EULA and, if applicable, the Certificate(s) of Authenticity), AND the recipient agrees to the terms of this EULA. If the PRODUCT is an upgrade, any transfer must include all prior versions of the PRODUCT.

\*Termination. Without prejudice to any other rights, rf IDEAS may terminate this EULA if you fail to comply with the terms and conditions of this EULA. In such event, you must destroy all copies of the SOFTWARE PORTION OF THE PRODUCT and all of its component parts.

**3. UPGRADES.** If the SOFTWARE PORTION OF THE PRODUCT is an upgrade from another product, whether from RF IDEAS or another supplier, you may use or transfer the PRODUCT only in conjunction with that upgraded product, unless you destroy the upgraded product. If the SOFTWARE PORTION OF THE PRODUCT is an upgrade of a RF IDEAS product, you now may use that upgraded product only in accordance with this EULA. If the SOFTWARE PORTION OF THE PRODUCT is an upgrade of a component of a package of software programs which you licensed as a single product, the SOFTWARE PORTION OF THE PRODUCT may be used and transferred only as part of that single product package and may not be separated for use on more than one computer.

**4. OEM COPYRIGHT.** All title and copyrights in and to the PRODUCT (including but not limited to images, photographs, animations, video, audio, music, text and "applets," incorporated into the PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE

PORTION OF THE PRODUCT are owned by rf IDEAS or its suppliers. The PRODUCT and SOFTWARE PORTION OF THE PRODUCT is protected by copyright laws and international treaty provisions. You may not copy the printed materials accompanying the PRODUCT.

5. DUAL-MEDIA SOFTWARE. You may receive the SOFTWARE PORTION OF THE PRODUCT in more than one medium. Regardless of the type or size of medium you receive; you may use only one medium that is appropriate for your single computer. You may not use or install the other medium on another computer. You may not loan, rent, lease, or otherwise transfer the other medium to another user, except as part of the permanent transfer (as provided above) of the SOFTWARE PORTION OF THE PRODUCT.

6. OEM PRODUCT SUPPORT. Product support for the product is not provided by RF IDEAs or its subsidiaries. For product support, please refer to the OEM supplies support number provided in the documentation. Should you have any questions concerning the EULA, or if you desire to contact OEM for any other reason, please refer to the address provided in the documentation provided.

FOR THE LIMITED WARRANTIES AND SPECIAL PROVISIONS PERTAINING TO YOUR PARTICULAR JURISDICTION, PLEASE REFER TO YOUR WARRANTY BOOKLET INCLUDED WITH THIS PACKAGE OR PROVIDED WITH THE SOFTWARE PRODUCT PRINTED MATERIALS.

Limited Warranty: rf IDEAS warrants to the original buyer of this product, that the hardware and related disk(s) are free of defects in material and workmanship for a period of one year from date of purchase from RF IDEAs or from an authorized RF IDEAs dealer. Should the RF IDEAs products fail to be in good working order at any time during the one-year period, RF IDEAs will, at its option, repair or replace the product at no additional charge, provided that the product has not been abused, misused, repaired or modified. This warranty shall be limited to repair or replacement and in no event shall rf IDEAS be liable for any loss of profit or any commercial or other damages, including but not limited to special, incidental, consequential or other similar claims. No dealer, distributor, company, or person has been authorized to change or add to the terms of this agreement, and rf IDEAS will not be bound by any representation to the contrary. rf IDEAS SPECIFICALLY DISCLAIMS ALL

OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS OF PURPOSE. Since some states do not allow such exclusion of limitation of incidental or consequential damages for consumer products, check the statute of the state in which your business resides.

This warranty gives you the specific legal rights in addition to any rights that you have under the laws of the state in which your business resides or operates.

Returns: rf IDEAS products which require Limited Warranty service during the warranty period shall be delivered to the nearest authorized dealer or sent directly to RF IDEAs at the address below with proof of purchase and a Return Materials Authorization (RMA) Number provided by rf IDEAS Technical Support Dept. Replacement parts or complete boards become the property of RF IDEAs. If the returned board or unit is sent by mail, the purchaser agrees to pre-pay the shipping charges and ensure the board or unit or assume the risk of loss or damage which may occur in transit. The purchaser is expected to employ a container equivalent to the original packaging. Copyright: Copyright by RF IDEAs 2017. All rights reserved. Reproduction or distribution of this document in whole or in part or in any form is prohibited without express written permission from RF IDEAs.

Trademarks: All rf IDEAS products are trademarks of rf IDEAS. All other product names or names are trademarks or registered trademarks of their respective holders.

Applicable Patents: rf IDEAS Wave ID Plus card readers supporting HID formats retain US Patent No. 5,952,935 and U.S. Patent No. 7,439,862.

Disclaimer: This Reference Guide is printed in the U.S.A. Any resemblance mentioned in the Reference Guide to persons living or dead, or to actual corporations or products is purely coincidental. rf IDEAS believes that the information contained in this manual is correct. However, rf IDEAS does not assume any responsibility for the accuracy of the content of this User Manual, nor for any patent infringements or other rights of third parties. rf IDEAS reserves the right to make any modifications in either product or the manual without giving prior written notification.

## FCC/ISED Compliance Statement

FCC ID: M9ML8008UV2 (Multi-protocol Card Reader)

"Pursuant to FCC 15.21 of the FCC rules, changes not expressly approved by RF IDEAs might cause harmful interference and void the FCC authorization to operate this product.

Note: This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). 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 product complies with FCC OET Bulletin 65 radiation exposure limits set forth for an uncontrolled environment.

The reader may not recognize value cards in the presence of high RF fields. If the current reading is erratic, the user shall take the following step: Move the equipment from any known transmitters nearby. For more information contact Tech Support at (866) 439-4884 or TechSupport@RFIDEAs.com.

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.

## ISED French Compliance Statement

IC: 6571A-L8008UV2 (Multi-protocol Card Reader)

"Conformément à la FCC 15.21 de la réglementation FCC, les changements ne sont pas expressément approuvés par les idées RF peuvent causer des interférences nuisibles et annuler l'autorisation FCC d'utiliser ce produit.

Note: Cet appareil est conforme à la Partie 15 des règlements de la FCC et d'Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes: (1) Ce dispositif ne doit pas causer d'interférences nuisibles, et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant entraîner un fonctionnement indésirable. Ce produit est conforme aux normes FCC OET Bulletin 65 l'exposition aux rayonnements limites définies pour un environnement non contrôlé.

Le lecteur peut ne pas reconnaître des cartes de valeur, en présence de champs RF élevées. Si la valeur actuelle est erratique, l'utilisateur doit passer à l'étape suivante: Déplacer le matériel de toute émetteurs connus proximité. Pour plus d'informations contactez le support technique au 866.439.4884 or TechSupport@RFIDEAs.com.

Cet équipement a été testé et jugé conforme aux limites d'un appareil numérique de classe B, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre de l'énergie de radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions, peut causer des interférences nuisibles aux communications radio. Cependant, il n'y a aucune garantie que des interférences ne se produiront pas dans une installation particulière. Si cet équipement cause des interférences nuisibles à la réception de la radio ou de la télévision, ce qui peut être déterminé en éteignant et en allumant l'équipement, l'utilisateur est encouragé à essayer de corriger les interférences par une ou plusieurs des mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la séparation entre l'équipement et le récepteur.
- Connectez l'équipement dans une prise sur un circuit différent de celui auquel le récepteur est connecté.
- Consultez le concessionnaire ou un technicien radio/TV expérimenté pour obtenir de l'aide.



**rf IDEAS, Inc.**

425 N. Martingale Road,  
Suite 1680, Schaumburg,  
IL 60173 USA

Toll Free: 866-439-4884

Voice: 847-870-1723

Fax: 847-483-1129

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

© is a registered trademark of rf IDEAS Inc. Trademarks not belonging to rf IDEAS are property of their respective companies.  
©2022 rf IDEAS, Inc. All rights reserved. Products are subject to change without notice.

99009230