Your Global Automation Partner

TURCK

PD-IDENT-UHF
User Guide

1   General Information

1.1   About these instructions

The following user manual describes the setup, functions, and use of the system. It helps you to plan, design, and implement the system for its intended purpose.

Note*: Please read this manual carefully before using the system. This will prevent the risk of personal injury or damage to property or equipment. Keep this manual safe during the service life of the system. If the system is passed on, be sure to transfer this manual to the new owner as well.

1.2   Explanation of symbols used

1.2.1   Warnings

Action-related warnings are placed next to potentially dangerous work steps and are marked by graphic symbols. Each warning is initiated by a warning sign and a signal word that expresses the gravity of the danger. The warnings have absolutely to be observed:

DANGER!

DANGER indicates an immediately dangerous situation, with high risk, the death or severe injury, if not avoided.

WARNING!

WARNING indicates a potentially dangerous situation with medium risk, the death or severe injury, if not avoided.

ATTENTION!

ATTENTION indicates a situation that may lead to property damage, if it is not avoid-ed.

NOTE

In NOTES you find tips, recommendations and important information. The notes facilitate work, provide more information on specific actions and help to avoid overtime by not following the correct procedure.

➢ CALL TO ACTION

This symbol identifies steps that the user has to perform.

➔ RESULTS OF ACTION

This symbol identifies relevant results of steps

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1.3 Contents

The contents of this manual/guide cover the following:

- Ex. The Turck PD-IDENT handheld RFID reader
- Ex. An Android or iOS device (supplied by the user)
- Ex. The Turck RFID app

1.4 Feedback about these instructions

We make every effort to ensure that these instructions are as informative and as clear as possible. If you have any suggestions for improving the design or if some information is missing in the document, please send your suggestions to **techdoc@turck.com**.

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2 Notes on the product

2.1 Included parts:

- Handheld reader (1x)
- Micro-USB cable (1x)
- 2A USB charger (1x)

2.2 RFID Communication

US

The Turck PD-IDENT handheld RFID reader complies with Part 15 of the FCC rules.

Canada

The Turck PD-IDENT handheld RFID reader complies with RSS-210 of Industry Canada.

EU

The Turck PD-IDENT handheld RFID reader complies with applicable ETSI standards and carries the CE marking on the product signifies that Turck holds the reference technical files available to European Union authorities

3   Charging the Turck PD-IDENT handheld reader

1. Using the included 2A micro/USB charger, plug the micro USB connector into the bottom of the handheld reader.

2. Connect the charger into a 120V outlet, or

3. Disconnect the USB connector from the micro/USB charger, and plug the USB connector into a USB port (such as one found on your laptop or desktop computer).

NOTE

Charging speeds will vary depending on which method is used. It is recommended to charge the handheld reader for a minimum of 2 hours to ensure proper operation.

4 Connecting to Smartphone device

1. Plug the stereo connector into your iPhone or Android smartphone

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NOTE

To ensure proper operation, a smartphone device must be physically connected, and TURCK RFID App must be installed.

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5 App description

The Turck RFID app is available for both Android and iOS devices. The app looks and functions the same on Android and on iOS with a couple of minor exceptions, which are noted.

5.1 Obtaining the app: Android

1. Open the Play Store by touching on the "Play Store" icon on the Android device.

2. Search for "Turck RFID". Then download and install it.
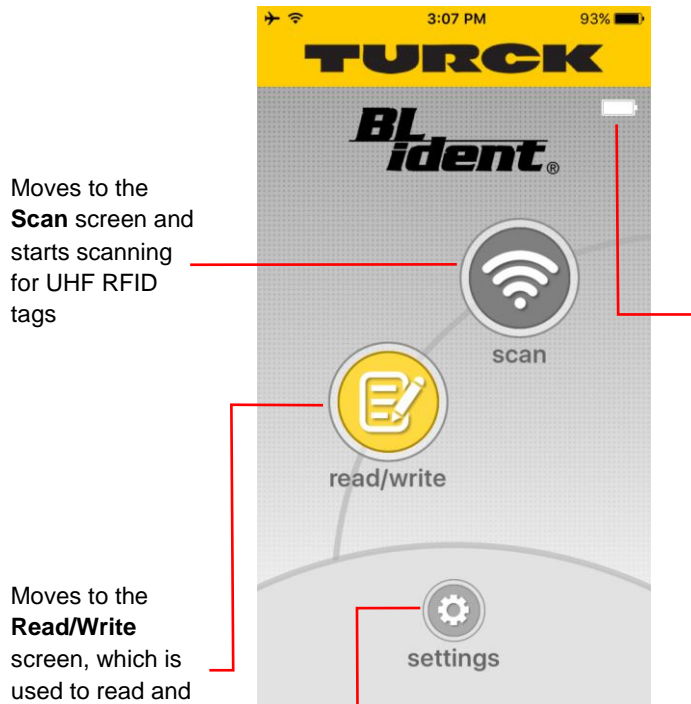

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5.2 Obtaining the app: iOS

1. Open the iTunes App Store by touching on the "App Store" icon on the iOS device.

2. Search for "Turck RFID". Then download and install it.

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6 Home Screen

Moves to the **Scan** screen and starts scanning for UHF RFID tags

Moves to the **Read/Write** screen, which is used to read and write data to an individual UHF RFID tag

Move to the **Settings** screen, which is used to configure the app and the RFID reader

Icon	Description
	Reader not connected to Android/iOS device
	Reader and Android/iOS device in connection process
	Reader and Android/iOS device is connected, and the battery state is as indicated (empty on the top, full on the bottom)
	Reader and Android/iOS device is connected, and the battery is charging
100%	Reader and Android/iOS device is connected, and the battery is full
	The yellow thermometer above the battery indicates that the RFID reader is warm
	The red thermometer above the battery indicates that the RFID reader is too hot to scan. ***Note**: Allow the RFID reader to cool down

7 Scan Screen

When a tag is found, its EPC is displayed. Touching a tag reads/writes this tag, then moves to the read/write screen.

(Screen display)
✈ 📶 3:30 PM 91% 🔋
‹ scan 🔋 ⚙
found: 3   time: 00:02

546578742045504321000000 ▦.

000000000000000000000006 ▦.

3BD00000026259FF88CD9598 ▦.

pause   stop   geiger

Image	Description
(slider icon)	Changes the volume/power. By default, it is set to the maximum level
(slider icon)	The volume/power is set to less than the maximum level

While scanning:
pause/resume
Pauses scanning and changes this button to "resume". Pausing and resuming scanning preserves the list of tags found.

After scanning is stopped:
email
Emails the scanned EPC's to specified address.
If an email address has not been entered, you will be prompted to enter an email address.
If the "prompt for email note" setting is on (in the "settings" screen), you will be prompted to enter a note to send in the email.

Starts/stop scanning

While in Geiger mode:
Geiger
In his mode the RFID reader will make a very short beep each time a tag is scanned, so even with one tag in range, you will hear continuous beeping if he tag is close to the reader.
Note: This mode is useful for finding tags.

Additionally, a small graph appears to the right of the EPC, showing how frequently the tag has been found, which roughly corresponds to how close it is to the reader

While in Once mode:
Once
In this mode the RFID reader will beep once for each tag found.
Note: This mode is useful for taking inventory of tags, especially when many tags are present

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ℹ **NOTE**

Entering the scan screen automatically causes the RFID reader to start scanning for tags.

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8   Read/Write Screen

The byte offset to start reading in the domain.

The number of bytes to be read.

Displays data as hex, decimal, or text format

Read the RFID tag using the settings displayed.

Write the displayed data to the RFID tag.

*Note: Only displayed after data has been read

0x0000 displays a dialog to change the start byte

Hex/decimal changes the format for the start byte.

All reads as many bytes as possible.

Some reads a specific number of bytes. If some is selected, the number of bytes to read is displayed. Touching the number of bytes value displays a dialog to change the number of bytes.

8.1   More Read/Write

Changes the **lock/unlock** state of the RFID tag for the selected domain, and displays a list of the possible states.

*Note: Touching a state shows a confirmation dialog describing the state touched.

Loads previously saved data

Sets the password when:

1. Writing tags (any domain)
2. Changing the lock/unlock state (any domain)
3. Reading the kill password domain or the access password domain

When tag data has been read, sends the currently displayed tag data via email.

*Note: If an email address has not been entered, you will be prompted to enter an email address.
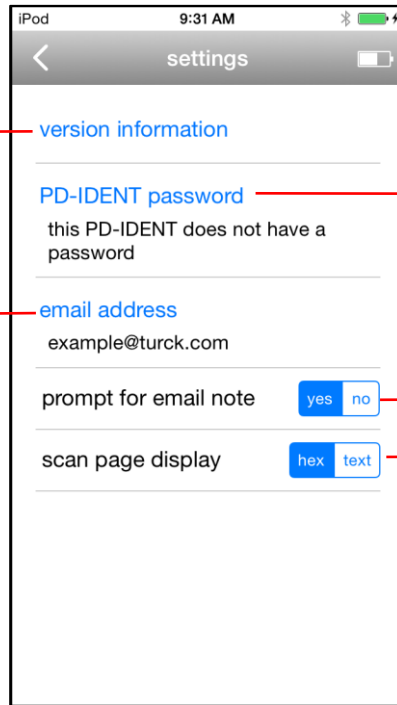
Saves read tag data.

Killing a tag renders the RFID tag permanently inaccessible.

*Note: You will be prompted to enter a password, which must match the kill password stored on the RFID tag.

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9 Settings Screen

Displays RFID App version, and RFID reader version.

Set or change the email address to send data to using the "email" button on the Scan screen or the "send data via email" item on the more menu in the read/write page.

iPod   9:31 AM

settings

version information

PD-IDENT password
this PD-IDENT does not have a password

email address
example@turck.com

prompt for email note   yes | no

scan page display   hex | text

Prompts for a password to be stored in the Turck PD-IDENT handheld RFID reader.
*Note: If a password is stored in the reader, this password must be entered before the reader can be used to modify RFID tags in any way (writing data, changing the lock/unlock state, or killing the RFID tag).

Set whether or not to prompt for a note to include when sending email.
*Note: Only displayed if an email address is set

Sets the display format for EPCs on the scan page.

10 Basic Troubleshooting/Tips

10.1 Issues Reading/Writing

10.1.1 Multiple tags in the environment

Reading and writing an RFID tag works much better when only no other RFID tags are visible to the reader. Therefore it is advisable to not have other RFID tags in the vicinity when reading or writing tags.

NOTE

Putting RFID tags inside a metal box is an easy way to render the RFID tags invisible to an RFID reader.

10.2 Issues with Android device connection

There are a number of reasons that an Android device might not properly communicate with the Turck PD-IDENT handheld RFID reader.

1. Make sure the reader is fully charged. When the reader's battery is low, it will not connect to any smart device.
2. Some phone cases can block the audio jack from completely inserting. Try removing the case.
3. Sometimes a dirty audio port can be an issue, try cleaning with compressed air and/or a toothpick.
4. Try restarting the phone.
5. If possible, verify the reader is working by using a different Android/iOS device.
6. The Turck PD-IDENT handheld RFID reader may need new firmware so it can communicate with this Android device.

NOTE

Try updating the firmware using an iOS device, or try a different Android device, then try the problematic Android device again.

10.3 Technical Support

For additional support, email inquiries to appsupport@turck.com, or call Application Support at 763-553-7300, Monday-Friday 8AM-5PM CST.
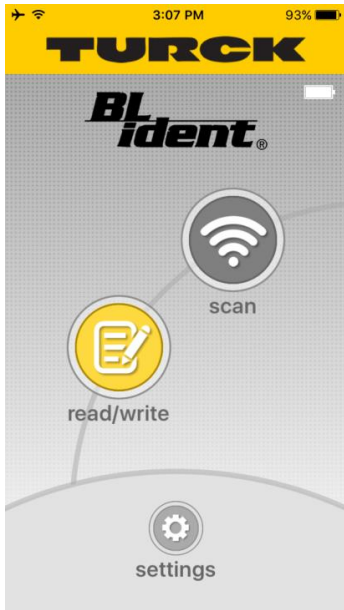
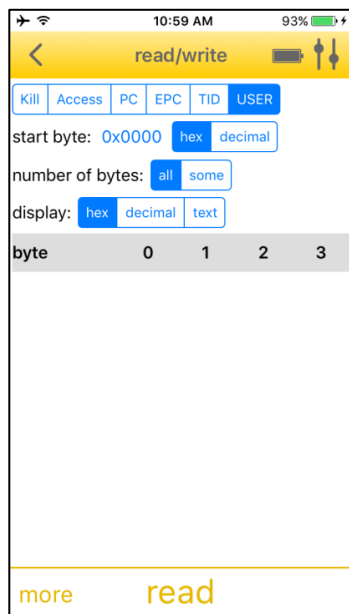# 11 Screen Appendix

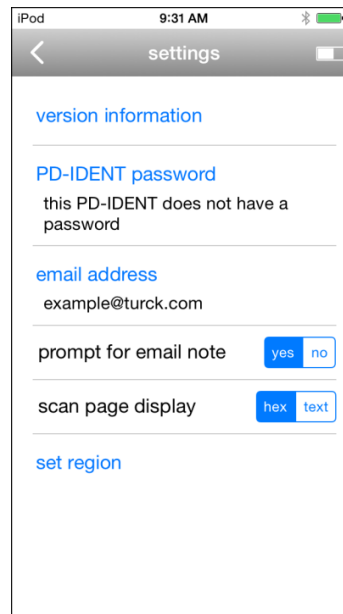Fig 1. Home Screen

Fig 2. Scan Screen

Fig 3. Read/Write Screen

Fig 4. Settings Screen

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