

ToughRunners User Guide

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SUMMARY

<u>SUMMARY</u>	2
<u>REVISION HISTORY</u>	3
<u>INTRODUCTION</u>	4
1) <u>LANYARD</u>	5
2) <u>RECHARGING THE BATTERY</u>	5
3) <u>SWITCHING ON THE READER</u>	5
4) <u>QUICK START UP GUIDE</u>	6
HOW TO READ BARCODES	6
USAGE MODES	7
READING MODE	7
5) <u>STATUS DISPLAY SUMMARY</u>	8
6) <u>THE DIFFERENT WAYS TO CONNECT SCANNER TO A HOST</u>	9
7) <u>CONFIGURING YOUR SCANNER</u>	11
RESET YOUR SCANNER	11
SECURITY	11
SYMBOLGY	11
DATA FORMAT	12
BEEPS AND LEDS	12
POWER MANAGEMENT	12
LOW BATTERY	12
<u>SAFETY / REGULATORY</u>	13
FCC:	13
EU:	14
LASER NOTICE	15
EXTREM VERSION NOTICE - USING CONDITIONS	15
<u>LIMITED WARRANTY</u>	16

Revision History

Changes to the original manual are listed below

Document	Date	Description
1.0	4 Sept. 07	Initial release
1.1	24 Sep. 07	Change LED information, Add Laser regulatory
1.2	09 Jan. 08	Modification of regulatory information
1.3	07 Feb. 08	Add Extreme version information - using conditions
1.4	09 Apr. 08	Update graphic presentation
1.5	09 Apr. 08	Update "Status Display Summary" section
1.6	22 Dec. 08	Update "Reading Mode" section
1.7	11 oct. 10	Section "Extrem version notice – using conditions" : tapping error corrected

Introduction

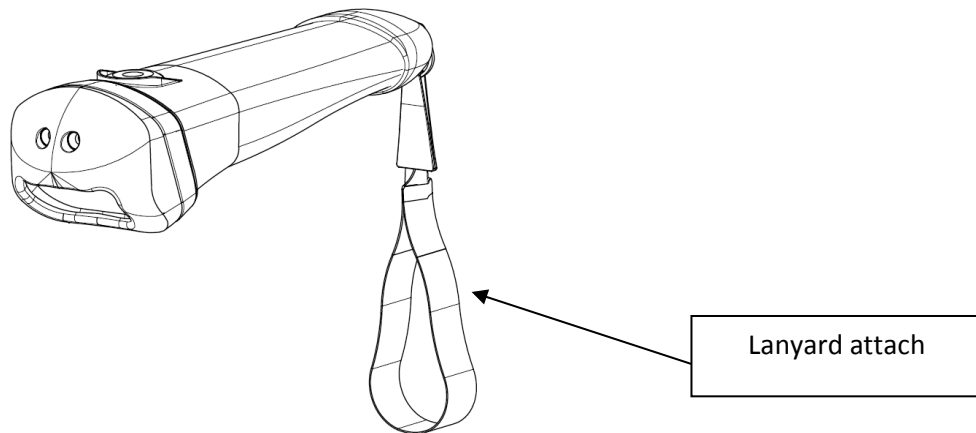
The ToughRunners barcode scanner is easy to use. Just press the trigger in order to switch on the scanner and simply press it again to scan a barcode. The colour of the LED indicates the status of the device. A beep and LED indicate the status of the scanner as “Good Read”, “Connected”, etc... “No Data Loss Mode” function stores the last several scans and is configurable by the user.

Barcodes are transmitted in real time to the remote host devices/terminals using Bluetooth wireless technology. You can download on our Website all software updates and additional documentations:

<http://www.baracoda.com/>

1) Lanyard

You can choose to attach or not the lanyard to scanner.



2) Recharging the battery

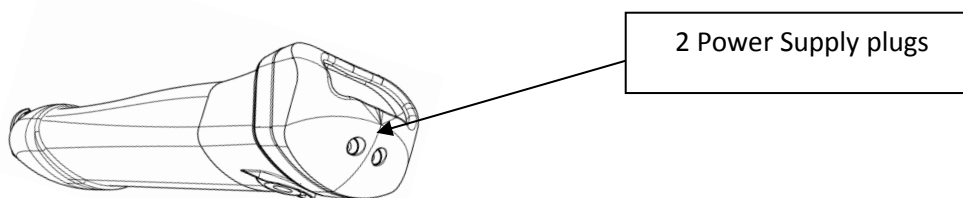
Recharge the internal battery by using the included AC adapter. The Adapter rating is 5V, 500mA. Place the scanner front toward the ground, and connect the AC adapter.

When the scanner is charging, the LED is red (solid).

When the scanner is fully charged, the LED is green (solid).

A full recharge (from completely drained batteries) takes approximately 3 hours.

When the original batteries wear out, please contact your Baracoda reseller for replacements.



3) Switching on the reader

Remember to fully charge the battery before first use.

In order to switch on the scanner, please press the trigger.

The scanner will switch off alone after some period of inactivity. In its standard mode Scanner will switch off after 20 minutes of inactivity. This value can be modified by the user with the BaracodaManager software.

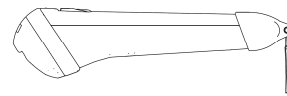
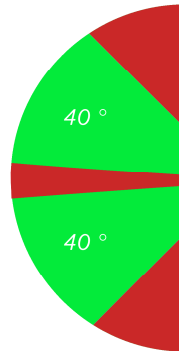
4) Quick Start up guide

How to read barcodes

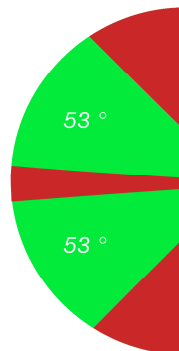
In order to switch on the scanner, please press the trigger.

Position the scanner so the light beam fully overlaps and crosses the bar code. The scanner will emit a beep when the scan is successful. Illustrated below are the correct scanning positions.

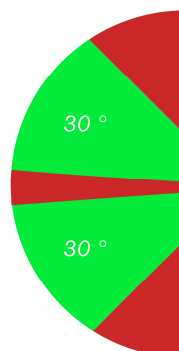
BTR-L : ToughRunners CMOS



BTR-LA : ToughRunners Laser



BTR-LR : ToughRunners Laser Long Range



Usage modes

Real Time mode

In real time mode, the barcode is decoded and transmitted to the remote host without delay. If the scanner is not connected, the data is lost (Status Led: red flash).

Real Time mode with No Data Loss option

With the No Data Loss option, if the scanner is not connected or out of range, it will store the data and later automatically upload it to the remote host.

Every barcode sent to the host must be acknowledged by the host (until then, the scanner will transmit it again and again).

This acknowledgment mode is disabled in the default settings. It is strongly recommended to set the No Data Loss mode to ON. This configuration can be set with the BaracodaManager software or with the Programming Guide.

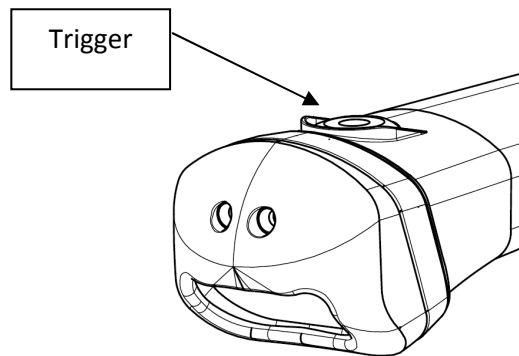
Additionally, this protocol acknowledgment allows having an audio acknowledgment that the barcode has been successfully transmitted to the host.

Reading mode

i) Trigger mode

Simply press the trigger when you want to scan a barcode.

If the scan engine is a laser technology, please advise, 'Laser notice' (ie : paragraph 'Safety / regulatory') in case of laser scan engine.



ii) Manual Autoscan mode

This mode enables to scan continuously. In Manual Autoscan mode, the scan beam is continuously on.

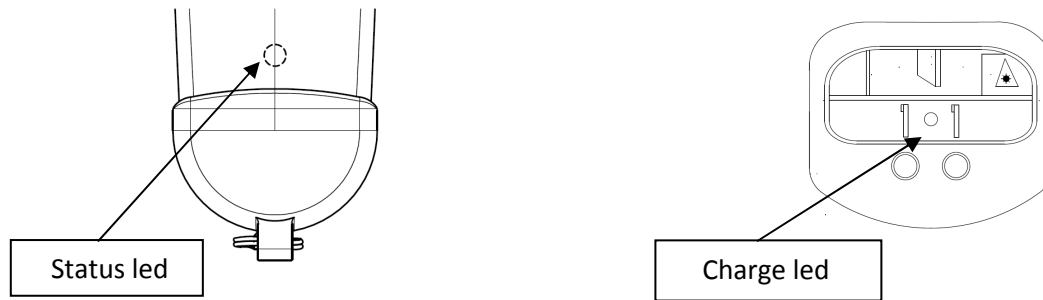
Simply press the trigger when you want to turn on the beam to scan a barcode. And press again the trigger if you want to turn off the beam.

iii) Option

ScanWear allows to enable the option "No duplicate scans" order to not scan twice in the same barcode. By default, this option is disabled, but can be changed with the BaracodaManager software.

5) Status Display Summary

The ToughRunners includes two (2) LEDs. All functions for the Status led are described below.



Operating Mode	LED	Status	Description
Battery	Red	Full	In Charge
	Green	Full	Charge completed
	Red	Flash	Battery low
	Red/Green/Blue	Flash	Switch on
Bluetooth	Blue	One single short Flash	Not Connected to Host
	Blue	Two single short Flash	Connected to Host
Scan barcode	Green	One single long Flash	Good read
	Red	Flash	. No host transmission . Barcode lost . Barcode reading failure
Programmation mode	Green + Red	Full	In this mode (Timeout : 1mn), you can configure the scanner using configuration barcodes

6) The different ways to connect scanner to a Host

Baracoda proposes three (3) ways to simplify this process. Just choose the most appropriate one according to your specific need.

For users: Plug & Scan hardware solutions

The easiest way to associate our scanners with a Host is by using Baracoda Plug and Scan solutions. Baracoda offers the RS232 Plug&Scan or the USB Plug&Scan dongle. If you have one of these devices:

1. Plug the dongle into the USB port or into the RS232 port of the computer.
2. Wait 5 seconds for the host computer to recognize the Plug&Scan dongle.
3. Scan the "Connect barcode" available on the Plug & Scan dongle just once.
4. Within less than 20 seconds the LED on the scanner will start double flashing green: you are now paired and connected!

If you have the USB dongle just open up the target application (such as Notepad, Excel and Word). Make sure the active cursor is where the user wants the barcode information to be placed and start scanning barcodes.

If you have the RS232 Plug&Scan Dongle, your application will have to retrieve the information from the serial port, download RS232 Kemul Software on the Baracoda Website <http://www.baracoda.com/>

Please note that the scanner is set by the Baracoda Plug&Scan USB in "no data loss mode" ON by default. This implies that the reader will bufferise barcodes if the barcodes are read out of range.

For users: software solutions

Two software used to simplify the day-to-day usage of Bluetooth barcode devices are:

- K-Emul software lets you insert the scanned barcode value in the selected field. It also allows adding a prefix and a suffix.
- BaracodaManager software is a user-friendly, advanced software that, besides inserting the scanned barcode in a field of your application (Kemul plug-in) or displaying it (Terminal plug-in), presents the following features: very easy connection (one click connectivity), automatic reconnection, bufferisation of the data and automatic re-transmission.

The Baracoda Manager software is the most advanced software of Baracoda. Please check compatibility for some specific Hosts (see our Compatibility Table available on <http://www.baracoda.com/download>).

How to quickly verify that your scanner is working correctly, using the BaracodaManager software:

1. Make sure that your host device (PC or PDA) is Bluetooth enabled. If not, please contact your reseller.
2. Install the BaracodaManager software (updates can be downloaded from <http://www.baracoda.com/download>).

If your Bluetooth software is not compatible with the BaracodaManager software, you can test your scanner with HyperTerminal or Kemul software. Refer to Communication Protocol documentation. (Download on <http://www.baracoda.com/download>)

3. Configure the BaracodaManager.
 - Start the BaracodaManager software by selecting Start> Programs> BaracodaManager> BaracodaManager. The application automatically searches for wireless scanners.
 - Place the scanner in discovering mode by pressing the trigger button.
 - Highlight the scanner in the Devices in range box and click add.
 - The Bluetooth connection asks for the passkey. While the message displays, click on the Bluetooth connection icon in the system tray at right side of the task bar.
 - Enter **0000** in the default Bluetooth Passkey Request dialog box.
 - Look at the status of the scanner in the BaracodaManager application window. When the status changes to “connected”, the scanner is ready to be used.
4. The first time you configure a scanner, the BaracodaManager software opens a terminal window. Scan a barcode and you will see the data appear in the terminal window
 - Close the Terminal window by clicking on exit
 - Select the plug-in from the drop down menu. For more information, see the BaracodaManager documentation.
5. When you have finished your session, click on exit of the application to save your configuration.

For developers: Baracoda Software Development Kit (SDK)

The Baracoda SDKs are design for developers who want to integrate the barcode functions into their own software code, thus enabling end-users to run a single program (and not the BaracodaManager and the user software)

BaracodaManager uses libraries that provide an abstraction layer allowing developers to integrate Baracoda products into their own application very rapidly. Moreover, these libraries will deal with all the low-level routines, timeouts, connections and configuration management.

These libraries are available to developers for free (www.baracoda.com for more information)

7) Configuring your scanner

There are two (2) ways to configure your scanner:

- When connected to a host device, you can use the BaracodaManager software for multiple settings changes.
- Or you can use configuration barcodes (refer to the Programming Guide). In this case you do not need to be connected.

Reset your scanner

To reset the scanner to its “default settings”, use BaracodaManager software or scan the Reset configuration barcode.



Security

The Bluetooth connection is secured with a PIN code authentication.

You can configure security (enable/disable/change PIN code) through BaracodaManager software and through configuration barcodes.

The Security is enabling by default: default PIN code is **0000**.

Symbology

You can enable/disable any type of barcode decoders with BaracodaManager software or with the Programming Guide.

Data format

The data format is the following:

Header	General Prefix	Symbology Prefix	Barcode	Symbology Suffix	General Suffix
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Baracoda Header

It is a proprietary data encapsulation. It is necessary to activate the Baracoda header in 2 cases:

- To use the Baracoda keyboard emulation (Kemul) and Terminal.
- To use the “No data loss” mode.

You can configure Baracoda Header through BaracodaManager software.

The Baracoda header is enabled in default settings

General Prefix / Suffix

You can add a general prefix and/or a suffix to every barcode sent to the host device.

You can configure prefix/suffix through BaracodaManager software or with the Programming Guide.

There is no prefix/suffix in default settings.

Symbology Prefix / Suffix

You can add a prefix and/or a suffix to specific symbology barcode sent to the host device.

Meaning a certain prefix/suffix will be added while reading a specific symbology.

You can configure prefix/suffix through BaracodaManager software.

There is no “symbology prefix/suffix” in default settings.

Beeps and LEDs

You can enable/disable Beeps / LED through the BaracodaManager software or with the Programming Guide.

Power management

Mutiple parameters exist to optimize the battery autonomy (“Sniff period”, “Shutdown timer”, etc...)

Scanner works at 20 dBm (Bluetooth class.1) by default. You can configure at 10dBm (Bluetooth Class.2) through BaracodaManager software or with the Programming Guide.

Low battery

When the red LED is blinking, this indicates that the battery level is low. Recharge battery immediately.

Safety / Regulatory.

FCC:

Product FCC Id: QSHAIBTR

Interference statement:

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.

Modification statement:

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Baracoda Wireless Technology, may void the user's authority to operate the equipment.

Class B digital devices regulatory notice:

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 1 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 or television technician for help

Wireless notice

This product emits radio frequency energy, but the radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact with the antenna during normal operation is minimized. The system antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

EU:

This equipment is intended to be commercialised in all the countries of the European Union and there is no commercialisation or operational restrictions in any of the countries.

Hereby, Baracoda Wireless Technology declares that this Bluetooth barcode scanner is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at:

<http://www.baracoda.com/baracoda/librairie-doc/Baracoda-ToughRunners-Declaration-of-Conformity.pdf>

Laser notice

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

The laser scanner utilizes a low-power laser diode. Although staring directly at the laser beam momentarily causes no known biological damage, avoid staring at the beam as one would with any very strong light source, such as the sun. Avoid that the laser beam hits the eye of an observer, even through reflective surfaces such as mirrors, etc.

The following information is shown on the laser scanner device class label:

**Extrem version notice – using conditions**

The Extreme version of the ToughRunners consists of an IP65 radio base and of a laser reader.

In this version, the laser reader withstands:

- a use in atmosphere saturated with humidity (food, refrigerating sector)
- Short incursions in a severe cold environment (-30°C / -22°F)

If the ToughRunners is used in a prolonged environmental temperature lower than -10°C (14°F) the guarantee is voided.

If ToughRunners were exposed to the cold, the recharge of the battery must be carried out at ambient temperature between 0 to 45°C (32 to 113°F).

Laser Reader

Operating temperature: -10°C to +50°C (14°F to 122°F)

Storage temperature: -20°C to +60°C (-4°F to 140°F)

Limited Warranty.

Manufacturer warrants that the product will be free of defects in material and workmanship for one (1) year from the date of shipment. Manufacturer will, at its option, either repair, replace or refund the purchase price paid by buyer for the defective products.

Such repair, replacement or refund shall be buyer's sole remedy in the event of Manufacturer's breach of this limited warranty. Repaired or replaced parts or product may include new, reconditioned or remanufactured parts and equipment at Manufacturer's option. All costs associated with shipment to Manufacturer for warranty service, including but not limited to freight, duties, insurance and customs fees are buyer's responsibility. Manufacturer will pay the freight costs (duties, insurance, customs and any other fees are buyer's responsibility) associated with the return shipment to buyer. The method of shipment will be at Manufacturer's discretion. Repair or replacement of any parts or equipment does not extend the period of warranty provided for herein. THIS LIMITED WARRANTY IS MANUFACTURER'S ONLY WARRANTY. MANUFACTURER DOES NOT GIVE WARRANTIES OF MERCHANTABILITY OR WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. To take advantage of this warranty, buyer should contact the seller not the Manufacturer. The warranty set forth herein does not cover and Manufacturer will have no obligations hereunder if any non-conformance is caused in whole or in part by; accident, transportation, neglect, misuse, alteration, modification, or enhancement of the products or incorporation, interfacing, attachment of any feature, program, or device to the Products by a person or entity other than Manufacturer, failure to provide a suitable installation environment, use of the products for other than the specific purpose for which the products are designed or any use of the product not in accordance with the User Guide or other misuse or abuse of the product. The warranty does not cover problems linked to batteries.