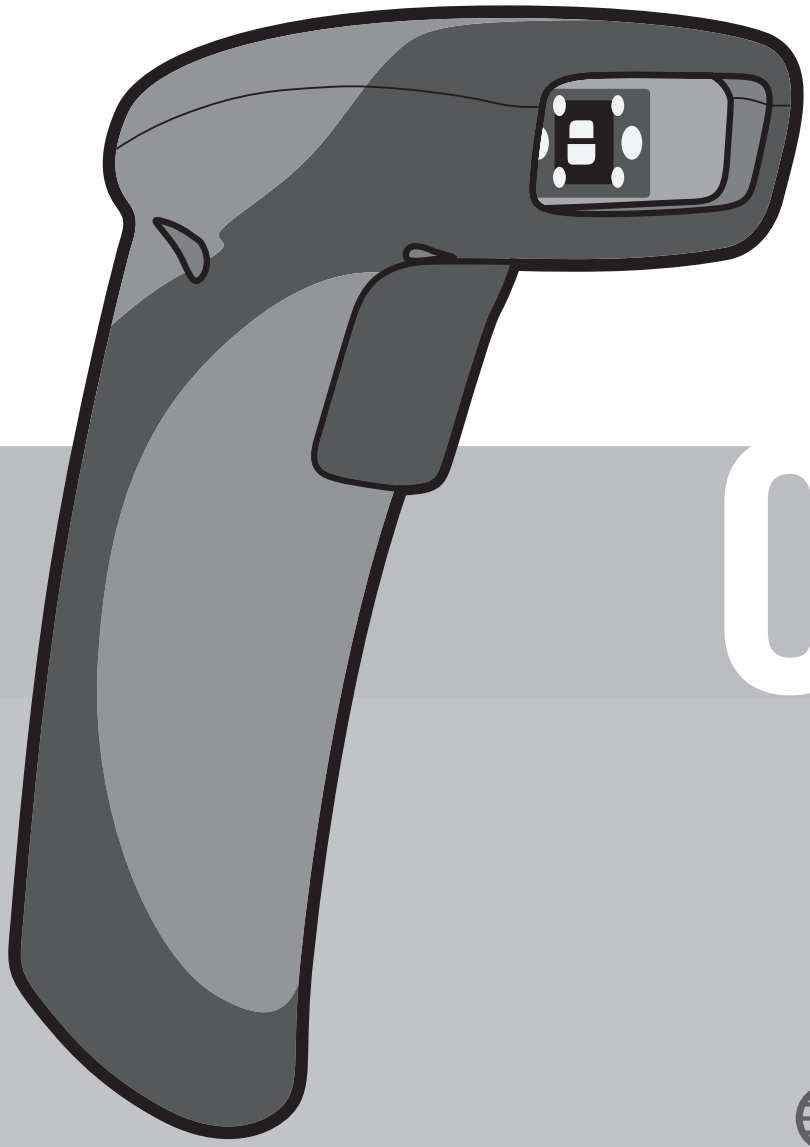
USER MANUAL



CR950

MANUAL VERSION 01
RELEASE DATE: JANUARY 2017

www.codecorp.com

Configuration Guide

YouTube.com/codecorporation

code®
ADVANCED BARCODE READERS

Statement of Agency Compliance

The Code Reader™ 950 (CR950) has been tested for compliance with FCC regulations and was found to be compliant with all applicable FCC Rules and Regulations.

IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, this device must not be co-located or operate in conjunction with any other antenna or transmitter

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The Code Reader 950 has been tested for compliance to CE standards and guidelines and was found to conform to applicable CE standards, specifically the EMC requirements EN 55024, ESD EN 61000-4-2, Radiated RF Immunity EN 61000-4-3, ENV 50204, EFT EN 61000-4-4, Conducted RF Immunity EN 61000-4-6, EN 55022, Class B Radiated Emissions, and Class B Conducted Emissions.

Code voids product warranty if the hard case has been opened or tampered with in any way.

In addition, a CB Test Certificate has been issued by the National Certification Board (NCB) indicating CR950 meets all safety and quality standards in accordance to IEC 60950-1:2001, First Edition.

Code Reader™ 950 User Manual

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The Code Reader software uses the Mozilla SpiderMonkey JavaScript engine, which is distributed under the terms of the Mozilla Public License Version 1.1.

The Code Reader software is based in part on the work of the Independent JPEG Group.

Code Corporation, 12393 S. Gateway Park Place, Ste. 600, Draper, Utah 84020

www.codecorp.com

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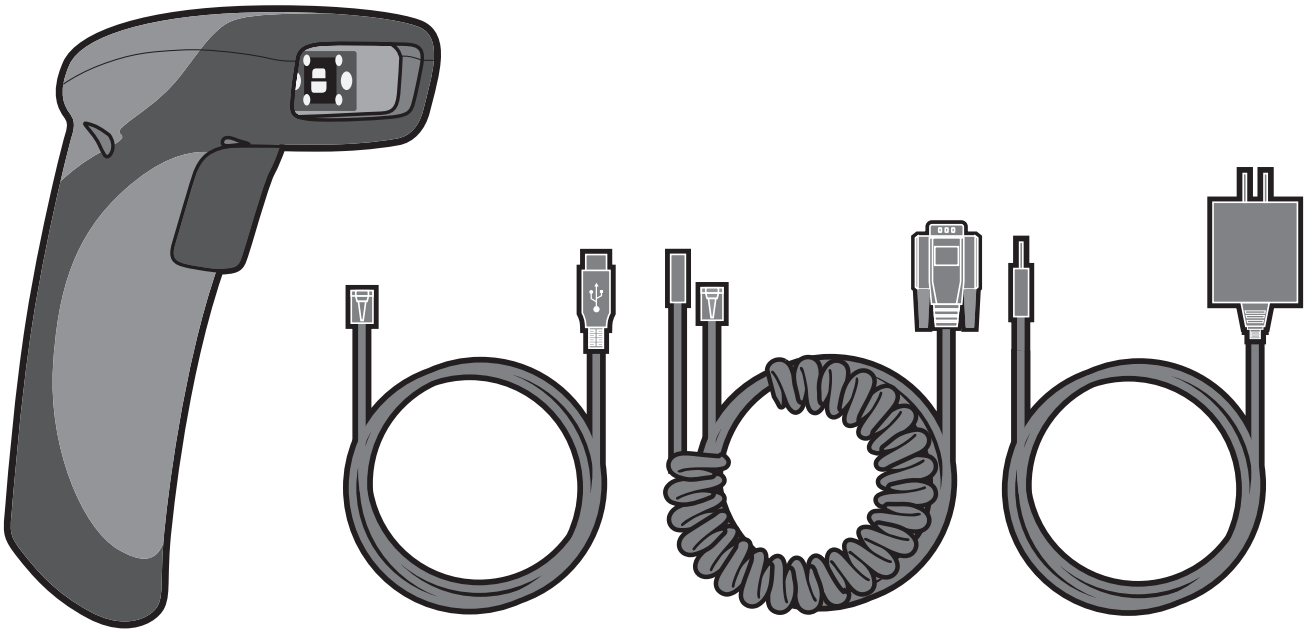
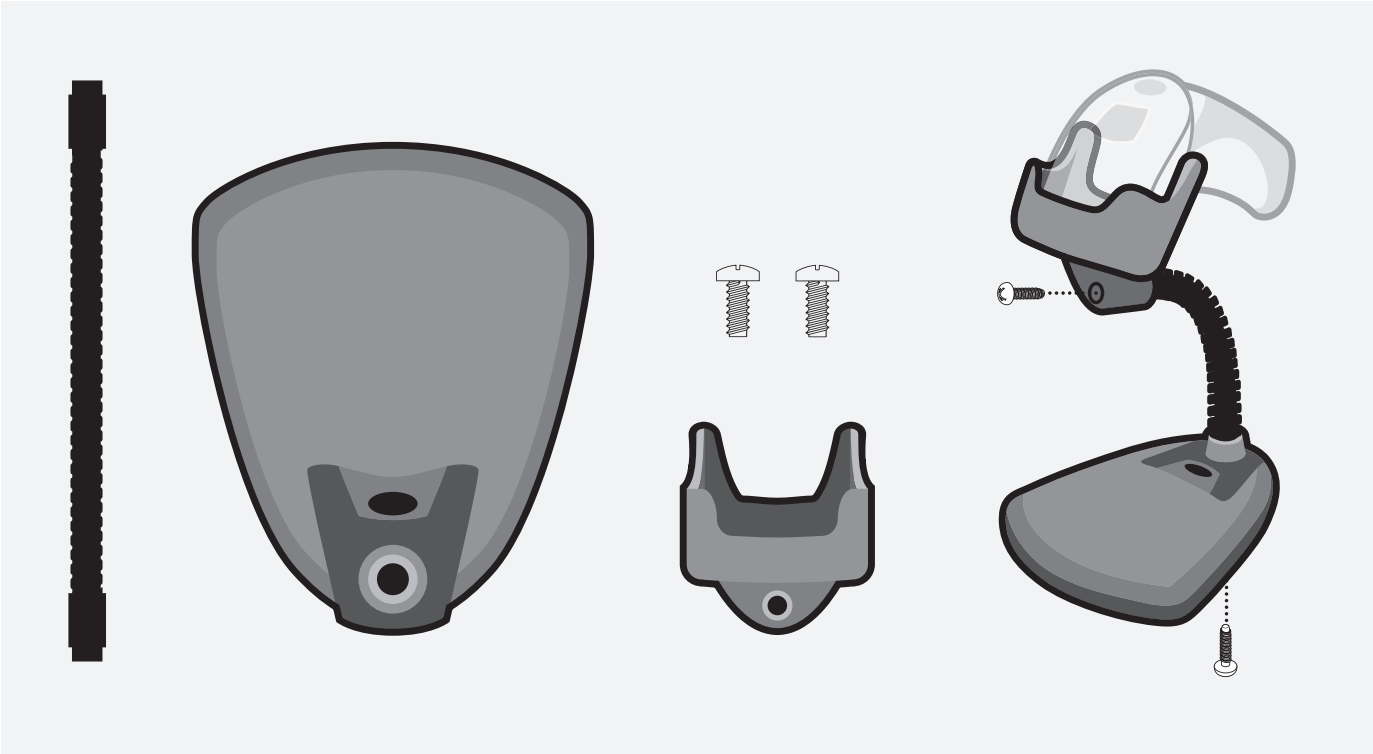
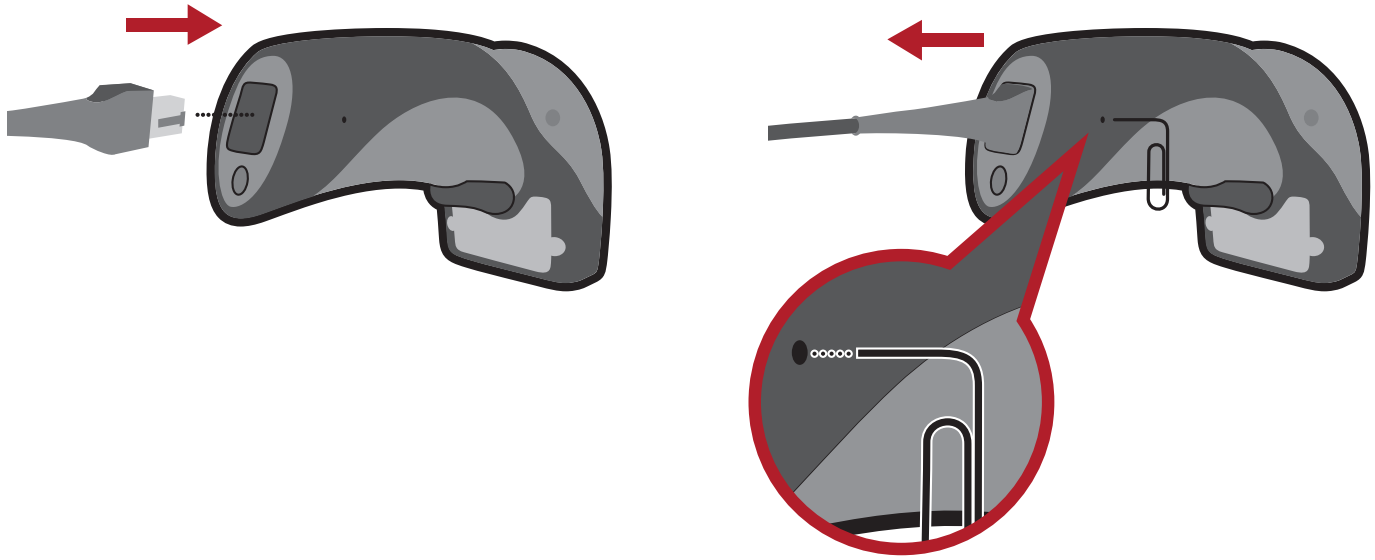
1.0 - Included if Ordered



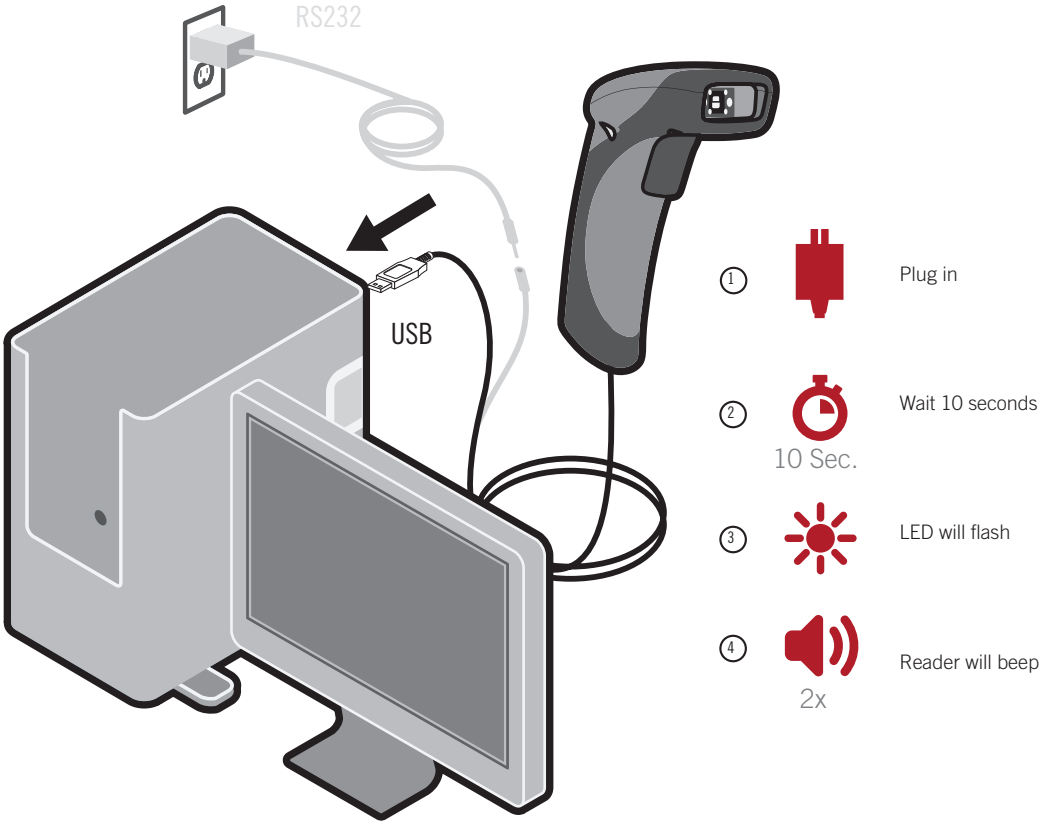
CR950 | USB 2.0 Cable | RS232 Cable | 5VDC Power Supply



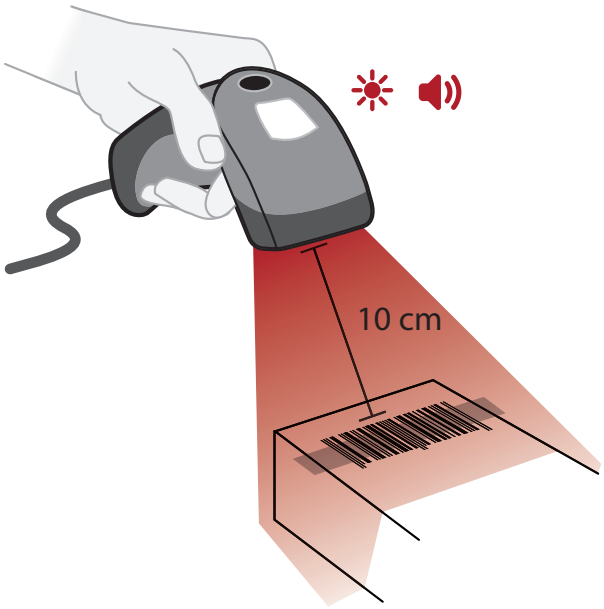
2.0 - Attaching and Detaching a Cable



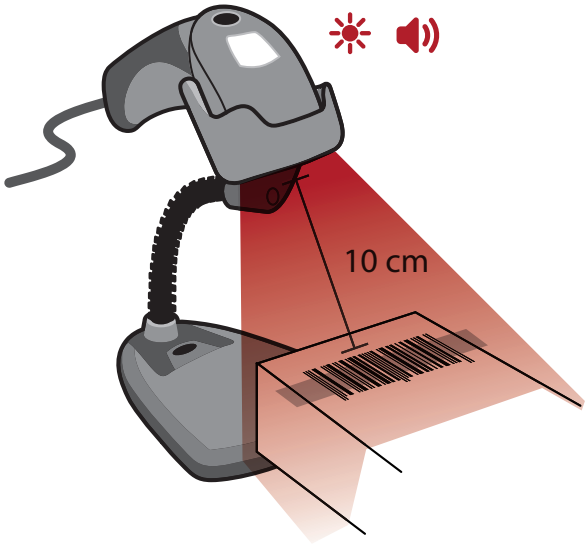
3.0 - Set Up



4.0 - Using a CR950 Out of a Stand



5.0 - Using a CR950 In a Stand



6.0 - Reading Ranges

CR950 Performance		
Test Barcode	**Min Inches (mm)**	**Max Inches (mm)**
7.5 mil Code 39	2.0” (50 mm)	9.6” (245 mm)
10.5 mil GS1 Databar	1.4” (35 mm)	8.9” (225 mm)
13 mil UPC	1.6” (40 mm)	14.6” (370 mm)
5.8 mil PDF417	3.3” (85 mm)	6.1” (155 mm)
6.7 mil PDF417	2.6” (65 mm)	6.9” (175 mm)
5 mil DM	3.0” (75 mm)	3.5” (90 mm)
6.3 mil DM	2.8” (70 mm)	5.3” (135 mm)
10 mil DM	2.0” (50 mm)	8.1” (205 mm)
20.8 mil DM	1.2” (30 mm)	16.7” (425 mm)

Note: All samples were high quality barcodes and were read along a physical center line at a 10° angle. Default AGC settings were used. Accuracy= +/- 10%.

7.0 - Reader Feedback

Scenario	Top LED Light	Sound
CR950 Successfully Powers Up	Green LED Flashes	1 Beep
CR950 Successfully Enumerates with Host (via cable)	Once Enumerated, the Green LED turns Off	1 Beep
Attempting to Decode	Green LED Light is Off	None
Successful Decode and Data Transfer	Green LED Flashes	1 Beep
Configuration Barcode Successfully Decoded and Processed	Green LED Flashes	2 Beeps
Configuration Barcode Successfully Decoded but Wasn't Successfully Processed	Green LED Flashes	4 Beeps

8.0 - Symbologies Defaulted On

The following are symbologies that have a default of ON.
To turn symbologies on or off, scan the symbology barcodes located in the CR950 Configuration Guide located on our website at www.codecorp.com/files.php.

Aztec
Codabar
Code 39
Code 93
Code 128
Data Matrix
GS1 Databar
PDF417
QR Code
Interleaved 2 of 5
UPC/EAN/JAN

9.0 - Symbologies Defaulted Off

Code barcode readers can read a number of barcode symbologies that are not enabled by default. To view a complete list of supported symologies or to turn a symolobgy on or off, view the CR950 Configuration Guide located on our website at www.codecorp.com/files.php.

Code 11
Code 32
Hong Kong 2 of 5
IATA 2 of 5
Matrix 2 of 5
Micro PDF417
MSI Plessey
NEC 2 of 5
Plessey
Standard 2 of 5
Telepen
Trioptic

10.0 - Configuring a CR950

The CR950 can be configured for specific tasks and data manipulation by scanning configuration barcodes found in the CR950 Configuration Guide found at www.codecorp.com/files.php.

11.0 - Reader ID and Firmware Version

To find out the Reader ID or Firmware version:

1. View the CR950 Configuration Guide located on at www.codecorp.com/files.php.
2. Locate the Get All Firmware Information or Reader Information configuration barcode.
3. Open a text editor program (i.e., Notepad, Microsoft Word, etc.)
4. Scan the configuration barcode.

Reader Information

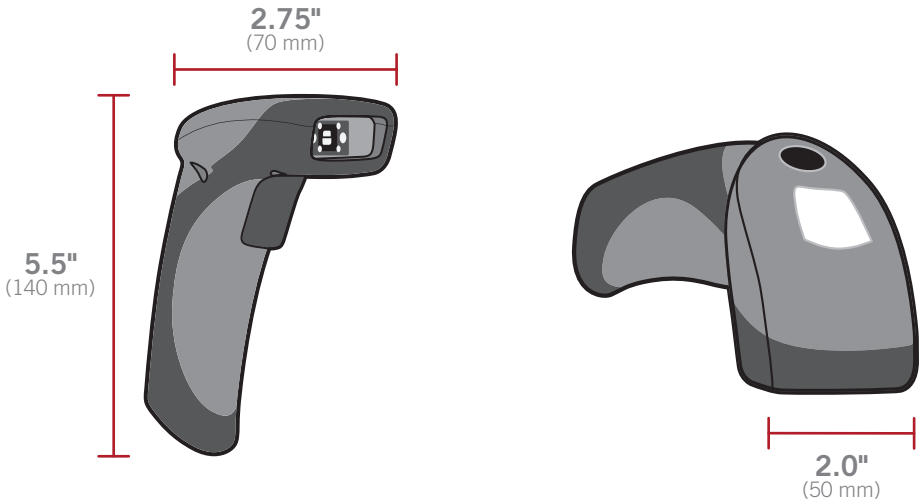
<RD><RR SN="0000000000" ID="96919606" HR="0x00" MT="0" IS="20161123:0831" /></RD>
where SN is the serial number, ID is the reader identifier, HR is hardware revision, MT is the model type, and IS is the reader information string

Get All Firmware Information

<RD><FW MJ="1" MN="4" BU="14882" DV="cd(16.1.6)" /></RD>
where MJ is the major version, MN is the minor version, BU is the build number, and DV is the decoder version

Note: Code will periodically release new firmware for CR950 readers. For information on latest firmware visit our website at www.codecorp.com/codesupport.php.

12.0 - CR950 Overall Dimensions



13.0 - USB Cable Example with Pinouts

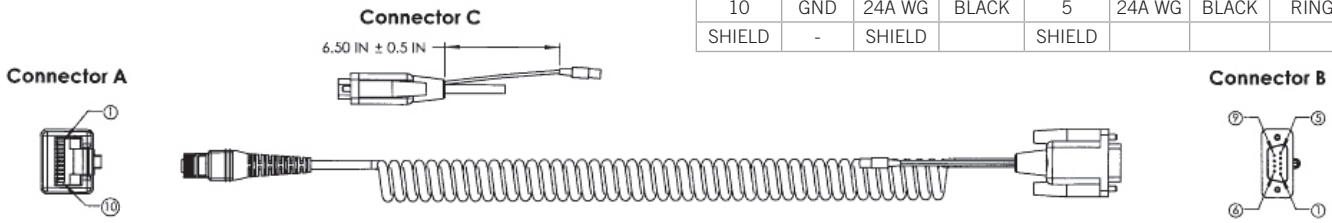
NOTES:
1. Part to be ROHS and Reach compliant.
2. Maximum Voltage Tolerance = 5V +/- 10%.
3. Caution: Exceeding the maximum voltage will void manufacturer warranty.

CONNECTOR A	NAME	WIRE	COLOR	CONNECTOR B
1	VIN	24A WG	RED	1
2	DM	28A WG	WHITE	2
3	DP	28A WG	GREEN	3
4	GND	24A WG	BLACK	10
SHELL	-	SHIELD	BARE	SHELL

14.0 - RS232 Cable Example with Pinouts

NOTES:
1. Part to be ROHS and Reach compliant.
2. Maximum Voltage Tolerance = 5V +/- 10%.
3. Caution: Exceeding the maximum voltage will void manufacturer warranty.

CONN A	NAME	WIRE	COLOR	CONN B	WIRE	COLOR	CONN C
1	VIN	24A WG	RED	9	24A WG	RED	TIP
4	TX	28A WG	BROWN	2			
5	RTS	28A WG	ORANGE	8			
6	RX	28A WG	YELLOW	3			
7	CTS	28A WG	GREEN	7			
10	GND	24A WG	BLACK	5	24A WG	BLACK	RING
SHIELD	-	SHIELD		SHIELD			



15.0 - Reader Pinouts

The connector on the CR950 is an RJ-50 (10P-10C). The pinouts are as follows:

Pin 1	+VIN (5v)
Pin 2	USB_DM
Pin 3	USB_DP
Pin 4	RS232 TX (output from reader)
Pin 5	RS232 RTS (output from reader)
Pin 6	RS232 RX (input to reader)
Pin 7	RS232 CTS (input to reader)
Pin 8	External Trigger (active low input to reader)
Pin 9	N/C
Pin 10	Ground

16.0 - CR950 Maintenance

The CR950 device needs only a minimum of maintenance to operate. A few tips are given below for maintenance suggestions.

Cleaning the CR950 Window

CR950 window should be clean to allow the best performance of the device. The window is the clear plastic piece inside the head of the reader. Do not touch the window. Your CR950 uses CMOS technology that is much like a digital camera. A dirty window may stop the CR950 from reading barcodes.

If the window becomes dirty, clean it with a soft, non-abrasive cloth or a facial tissue (no lotions or additives) that has been moistened with water. A mild detergent may be used to clean the window, but the window should be wiped with a water moistened cloth or tissue after using the detergent.

Technical Support and Returns

For returns or technical support visit www.codecorp.com/codesupport.php.

17.0 - Warranty

Visit www.codecorp.com/warranty to view the CR950 warranty period.

Limited Warranty. Code warrants each Code product against defects in materials and workmanship under normal use for the Warranty Coverage Term applicable to the product as described at www.codecorp.com/legal/warranty/term.php. If a hardware defect arises and a valid warranty claim is received by Code during the Warranty Coverage Term, Code will either: i) repair a hardware defect at no charge, using new parts or parts equivalent to new in performance and reliability; ii) replace the Code product with a product that is new or refurbished product with equivalent functionality and performance, which may include replacing a product that is no longer available with a newer model product; or ii) in the case of failure with any software, including embedded software included in any Code product, provide a patch, update, or other work around. All replaced products become the property of Code. All warranty claims must be made using Code's RMA process.

Exclusions. This warranty does not apply to: i) cosmetic damage, including but not limited to scratches, dents, and broken plastic; ii) damage resulting from use with non-Code products or peripherals, including batteries, power supplies, cables, and docking station/cradles; iii) damage resulting from accident, abuse, misuse, flood, fire or other external causes, including damage caused by unusual physical or electrical stress, immersion in fluids or exposure to cleaning products not approved by Code, puncture, crushing, and incorrect voltage or polarity; iv) damage resulting from services performed by anyone other than a Code authorized repair facility; v) any product that has been modified or altered; vi) any product on which the Code serial number has been removed or defaced. If a Code Product is returned under a warranty claim and Code determines, in Code's sole discretion, that the warranty remedies do not apply, Code will contact Customer to arrange either: i) repair or replace the Product; or ii) return the Product to Customer, in each case at Customer's expense.

Non Warranty Repairs. Code warrants its repair/replacement services for ninety (90) days from the date of shipment of the repaired/replacement product to the Customer. This warranty applies to repairs and replacements for: i) damage excluded from the limited warranty described above; and ii) Code Products on which the limited warranty described above has expired (or will expire within such ninety (90) day warranty period). For repaired product this warranty covers only the parts that were replaced during the repair and the labor associated with such parts.

No Extension of Term of Coverage. Product that is repaired or replaced, or for which a software patch, update, or other work around is provided, assumes the remaining warranty of the original Code Product and does not extend the duration of the original warranty period.

Software and Data. Code is not responsible for backing up or restoring any of software, data, or configuration settings, or reinstalling any of the foregoing on products repaired or replaced under this limited warranty.

Shipping and Turn Around Time. The estimated RMA turn-around time from receipt at Code's facility to shipment of the repaired or replaced product to Customer is ten (10) business days. An expedited turn-around time may apply to products covered under certain CodeOne Service Plans. Customer is responsible for shipping and insurance charges for shipping Code Product to Code's designated RMA facility and repaired or replaced product is returned with shipping and insurance paid by Code. Customer is responsible for all applicable taxes, duties, and similar charges.

Transfer. If a customer sells a covered Code Product during the Warranty Coverage Term, then that coverage may be transferred to the new owner by written notification from the original owner to Code Corporation at:

CodeOne Service Center
12393 South Gateway Park Place, Suite 600
Draper, UT 84020

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