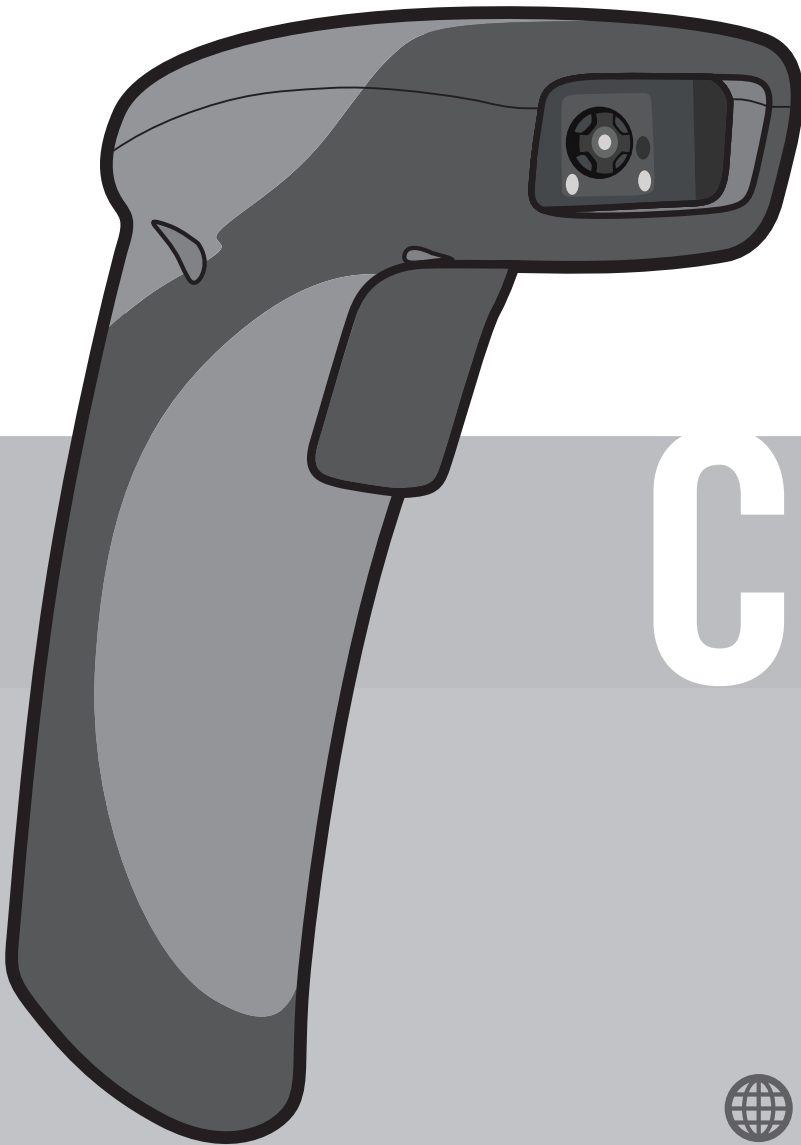


USER MANUAL



CR950

MANUAL VERSION 02
RELEASE DATE: OCTOBER 2017



www.codecorp.com



Configuration Guide



[YouTube.com/codecorporation](https://www.youtube.com/codecorporation)

code[®]

REVOLUTIONIZING BARCODE READING



NOTE: 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.

Industry Canada (IC)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Industrie Canada (IC)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

Contact Code for additional information on compliance and certification.

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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.

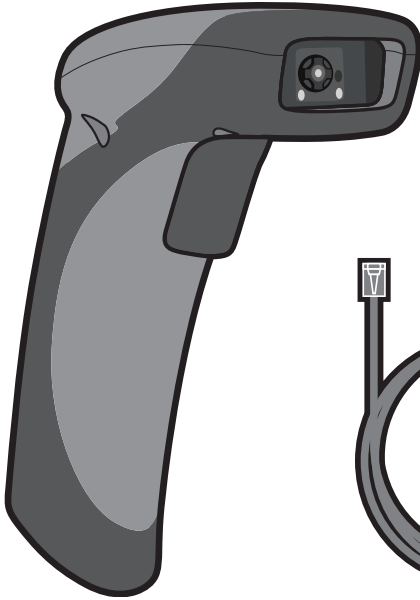
Code Corporation, 12393 S. Gateway Park Place, Ste. 600, Draper, Utah 84020

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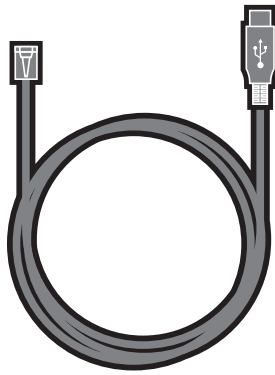
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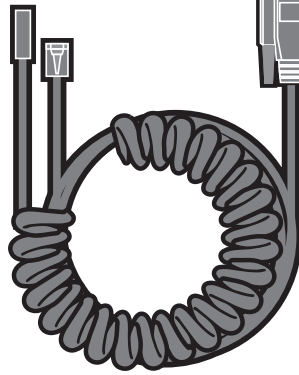
1.0 - Included if Ordered



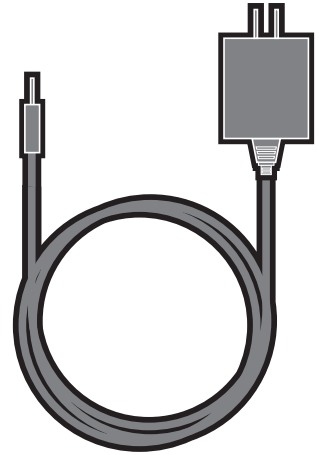
CR950



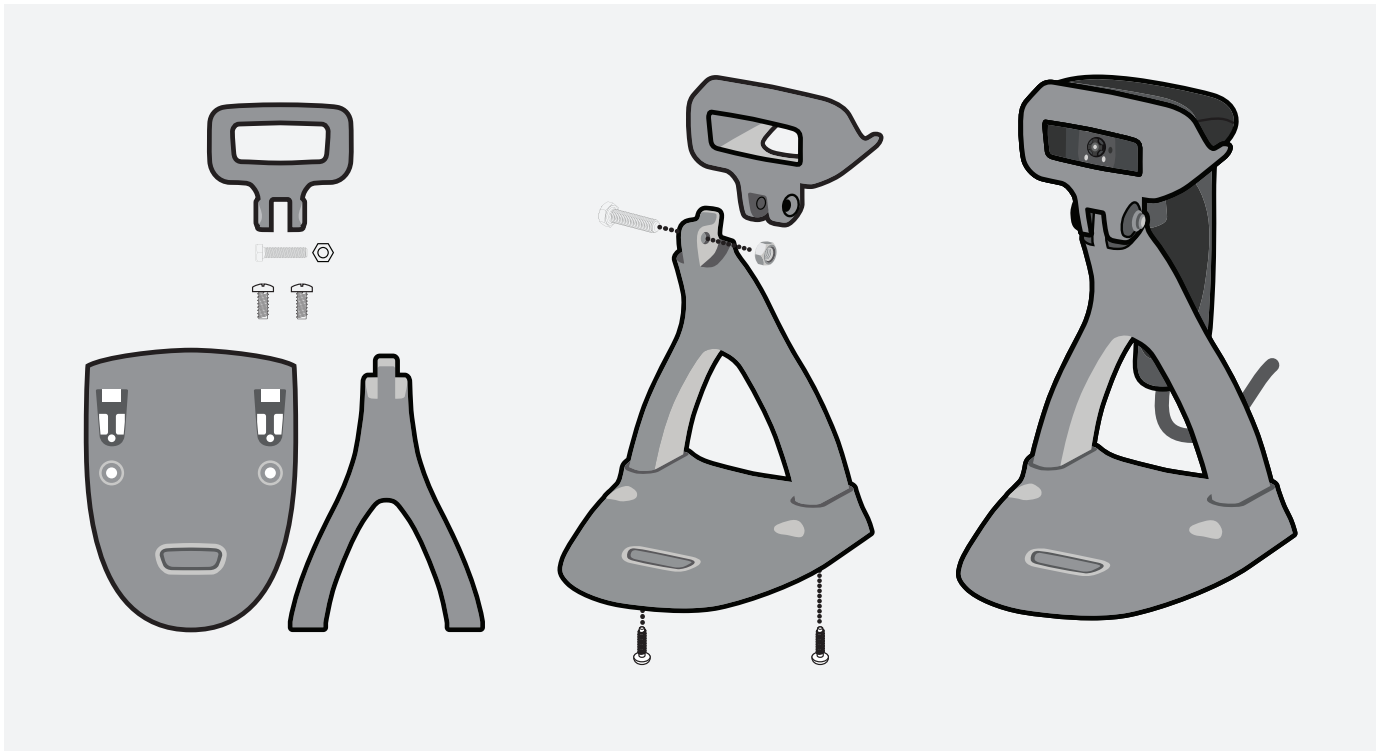
USB 2.0 Cable



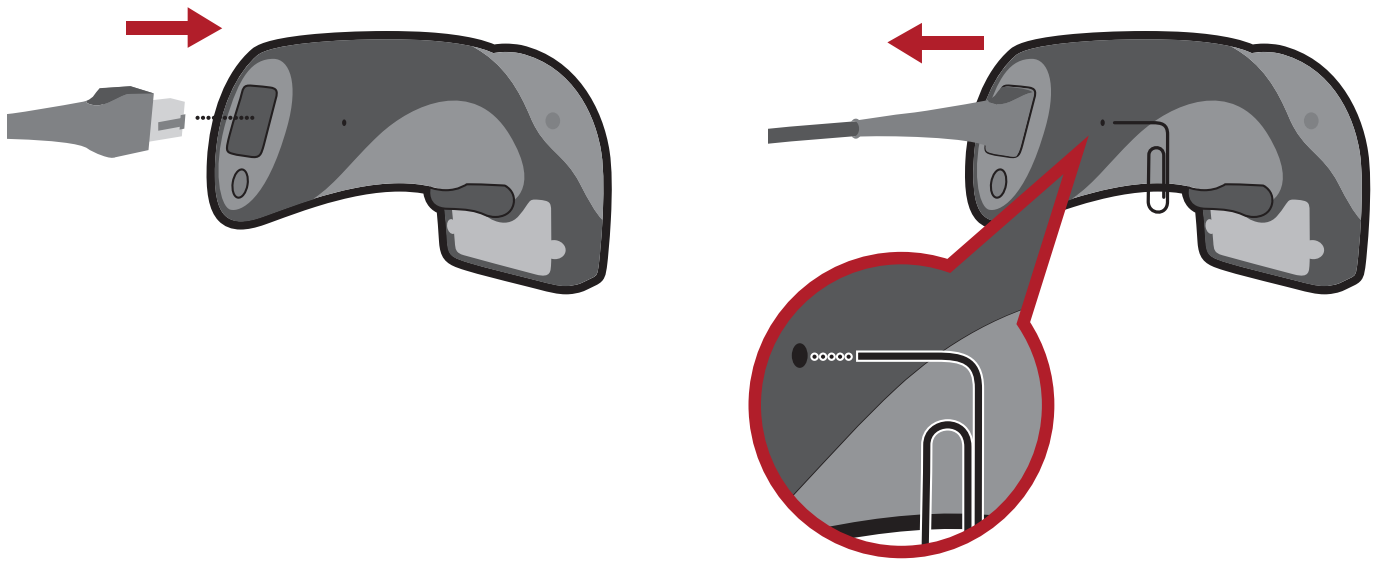
RS232 Cable



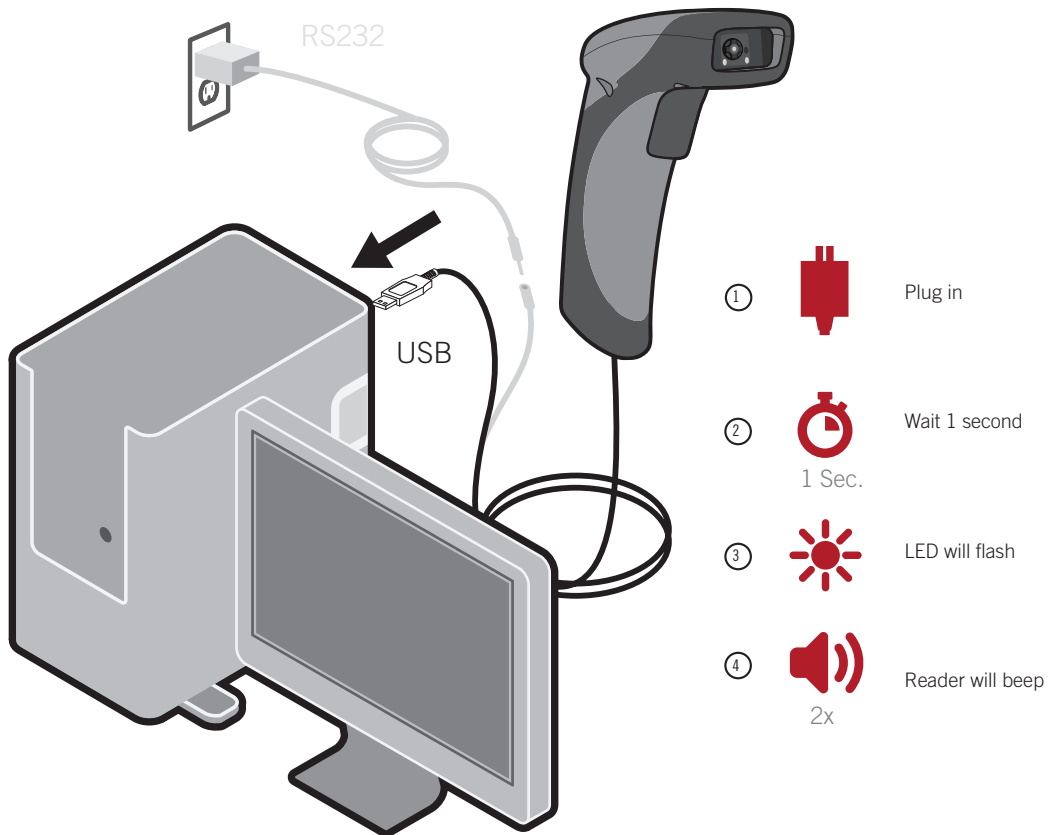
5VDC
Power Supply



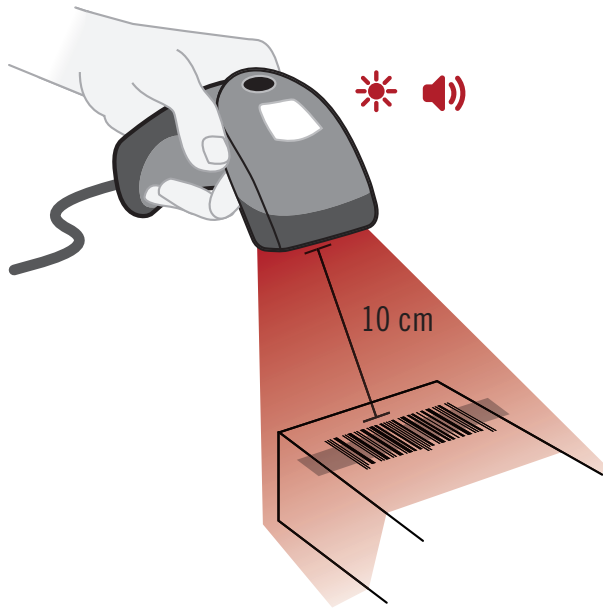
2.0 - Attaching and Detaching a Cable



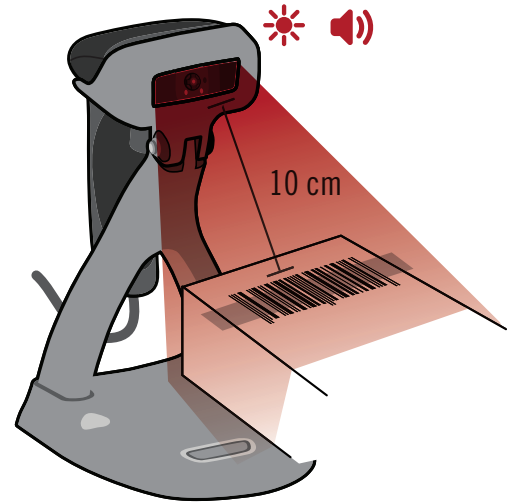
3.0 - Set Up



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)	15.7" (400 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	GS1 Databar
Codabar	PDF417
Code 39	QR Code
Code 93	Interleaved 2 of 5
Code 128	UPC/EAN/JAN
Data Matrix	

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 symbologies or to turn a symbology on or off, view the CR950 Configuration Guide located on our website at www.codecorp.com/files.php.

BC412	Micro PDF417
Code 11	MSI Plessey
Code 32	NEC 2 of 5
Composite	Pharmacode
Codablock A	Plessey
Codablock F	Standard 2 of 5
Hong Kong 2 of 5	Telepen
IATA 2 of 5	Trioptic
Matrix 2 of 5	

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. From the Reader/Modem Command Settings section, locate the "Get Reader Parameters".
3. Open a text editor program (i.e., Notepad, Microsoft Word, etc.)
4. Scan the configuration barcode.

Below is an example of reader parameter output:

```
<RD><RR SN="0000000000" ID="96919606" HR="0x00" MD="CR950" MT="2A90" IS="20161123:0831" /></RD>
```

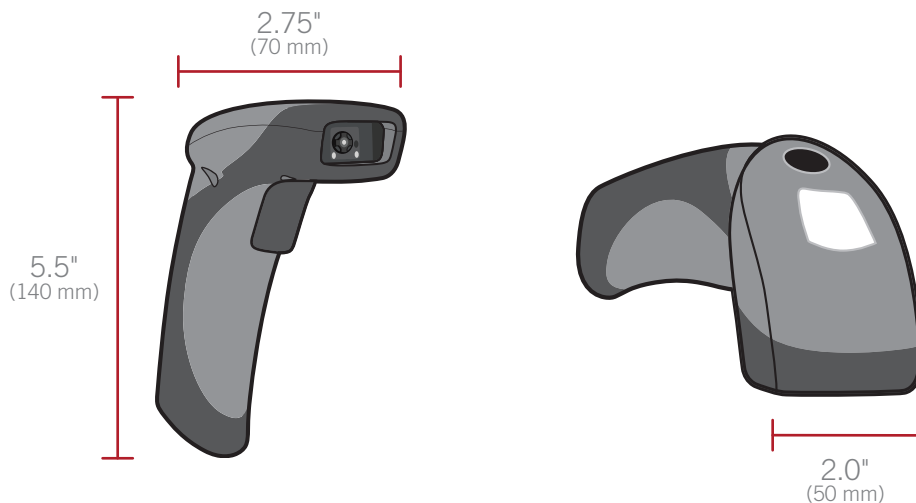
where SN is the serial number, ID is the reader identifier, HR is hardware revision, MD is the model number, MT is the model type, and IS is the reader information string

```
<RD><FW MJ="1" MN="4" BU="1" OP="" VS="1.2.1" TY="C010718" DV="cd(16.1.6)" /></CP>
```

where MJ is the major version, MN is the minor version, BU is the build number, OP is the option version, VS is the firmware version, TY is the firmware type, 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	CONNECTOR B
1	VIN	26 AWG	1
2	DM	24 AWG	2
3	DP	24 AWG	3
4	GND	26 AWG	10
SHELL	-	SHIELD	NC

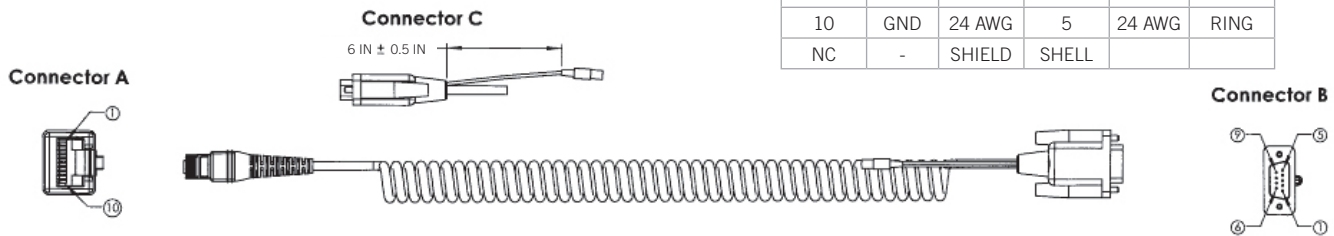


14.0 - RS232 Cable Example with Pinouts

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	CONN B	WIRE	CONN C
1	VIN	24 AWG	9	24 AWG	TIP
4	TX	26 AWG	2		
5	RTS	26 AWG	8		
6	RX	26 AWG	3		
7	CTS	26 AWG	7		
10	GND	24 AWG	5	24 AWG	RING
NC	-	SHIELD	SHELL		



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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