

# Code Handheld Barcode Scanners

## Advanced, cost-effective barcode readers

The Code Reader™ line of advanced barcode readers have been designed to provide reliable data capture in a variety of settings, while maintaining an ergonomic, lightweight form factor. Code has developed the world's best image capture by using a powerful vision sensor and built-in lighting to reliably capture the barcode while not relying on external light sources.

In addition to leading-edge technical capabilities, all Code handheld barcode scanners feature housings made from specially engineered CodeShield™ plastics. These case materials are designed to provide superior, long-term protection against most commonly used chemicals and chemical disinfectants without damage to the housing.



**CR950**

The Code Reader™ 950 (CR950) is an aggressive barcode reader that rapidly decodes 1D and 2D barcodes. Its lightweight, ergonomic design makes it comfortable to use over long shifts, and unmatched durability makes it an investment that will last.



**CR1500**

The Code Reader™ 1500 (CR1500) is a compact tethered barcode reader that features a high-performance scan engine, patented dual-field optical platform, and intuitive targeting that makes reading 1D, 2D, and postal bar codes extremely fast and reliable.



**CR1100**

The Code Reader™ 1100 (CR1100) is a compact, corded barcode reader that takes up limited workspace without compromising barcode reading performance. The patented dual-field optical platform of the CR1100 allows users to quickly scan both wide 1D barcodes and small dense 2D barcodes.



**CR5210**

The Code Reader™ 5210 (CR5210) is designed for use in fast-paced environments and handles data from 1D, 2D and postal barcodes with speed and accuracy. The tabletop design allows for hands-free operation or optional trigger reading of large, heavy or bulky items.



**CR2701 / CR2702**

The Code Reader™ 2700 (CR2701/CR2702) is Code's fourth-generation (Bluetooth 5) barcode scanner, combining nearly 20 years of market experience with new features to improve workflow in any setting. Code has taken their unparalleled scanning performance and stepped it up a notch, tackling even more damaged or poorly-printed barcodes to keep your business moving.

# Code Handheld Barcode Scanners



## CR950 Advanced Cost-Effective Barcode Scanner



CR950

The Code Reader™ 950 (CR950) is a versatile barcode reader that is easy to set up and use in a variety of different settings. It is available with either USB or RS-232 communication capabilities. The USB version can connect to the **C-more** HMI. AutomationDirect provides sample code which can be used to connect the reader to Click, BRX, and Productivity PLCs.

### Features

- High-speed, omnidirectional reading of 1D and 2D barcode symbologies.
- Manual or automatic triggering. Stand (sold separately) is required for automatic triggering.
- User feedback with LED and audible tone.
- All-inclusive kits include reader and cable.
- Reads barcodes on backlit screens such as those found on mobile devices.
- Optional stand (sold separately).

### Code Handheld Barcode Reader – Selection Chart

| Part Number                     | Price    | Description  | Communication Protocol | Corded/Cordless | Form Factor | Weight (lb [kg]) | Dimensional Drawing |
|---------------------------------|----------|--|------------------------|-----------------|-------------|------------------|---------------------|
| <a href="#">CR950-K301-C298</a> | \$153.00 | Code barcode scanner, 6ft [1.83 m] USB cable included.                           | USB                    | Corded          | Handheld    | 0.25 [0.11]      | <a href="#">PDF</a> |
| <a href="#">CR950-K302-C298</a> | \$177.00 | Code barcode scanner, 6ft [1.83 m] RS-232 (DB9) cable and power supply included. | RS-232                 | Corded          | Handheld    | 0.25 [0.11]      | <a href="#">PDF</a> |

### Code Handheld Barcode Scanners Typical Working Range (in [mm])

| Size and Type of Barcode (in [mm]) | CR950-K30x-C298 |            |
|------------------------------------|-----------------|------------|
|                                    | Min             | Max        |
| 3 mil Code 39                      | –               | –          |
| 7.5 mil Code 39                    | 2 [50]          | 9.6 [245]  |
| 10.5 mil GS1 DataBar               | 1.4 [35]        | 8.9 [225]  |
| 5.8 mil PDF417                     | 3.3 [85]        | 6.1 [155]  |
| 6.7 mil PDF417                     | 2.6 [65]        | 6.9 [175]  |
| 13 mil UPC                         | 1.6 [40]        | 14.6 [370] |
| 4.2 mil Data Matrix                | –               | –          |
| 5 mil Data Matrix                  | 3.0 [75]        | 3.5 [90]   |
| 6.3 mil Data Matrix                | 2.8 [70]        | 5.3 [135]  |
| 10 mil Data Matrix                 | 2.0 [50]        | 8.1 [205]  |
| 20.8 mil Data Matrix               | 1.2 [30]        | 15.7 [400] |

**Note:** Working ranges may vary depending on barcode quality and reading environment. The above numbers are a combination of both the wide and high density fields. All samples were high quality barcodes and were read along a physical center line at a 10 degree angle. Distances are measured from the front of the reader. Default automatic gain control settings were used with regular office lighting. Accuracy = +/- 10%. Test conditions may affect working ranges.

### Code Handheld Barcode Scanners Specifications

|                               | CR950-K30x-C298  |
|-------------------------------|--|
| <b>Power Requirements</b>     | 5VDC<br>(USB versions are powered from the host device)<br>(RS232 versions utilize a 120VAC-to-5VDC power adapter) |
| <b>Sensor</b>                 | CMOS 1.2 megapixel monochrome  |
| <b>Operating Temperature</b>  | -20 to 50°C [-4 to 122°F]  |
| <b>Storage Temperature</b>    | -30 to 65°C [-22 to 150°F]   |
| <b>Humidity</b>               | 5% to 95% non-condensing   |
| <b>Field Selection</b>        | Wide Field (used for long barcodes)  |
| <b>Field of View</b>          | 51° horizontal by 39.4° vertical   |
| <b>Focal Point</b>            | Approximately 130mm [5.12 in]  |
| <b>Optical Resolution</b>     | 1280 x 960   |
| <b>Pitch</b>                  | ± 65° (from front to back)   |
| <b>Skew</b>                   | ± 60° from plane parallel to symbol (side to side)   |
| <b>Rotational Tolerance</b>   | ±180°  |
| <b>Symbol Contrast</b>        | 15% minimum reflectance difference   |
| <b>Target Beam</b>            | Single, blue targeting bar   |
| <b>Ambient Light Immunity</b> | Sunlight: Up to 9,000 ft candles   |
| <b>Shock</b>                  | Withstands multiple drops of 6ft [1.8 m] to concrete   |
| <b>IP Rating</b>              | IP54   |
| <b>Agency Approval</b>        | CE   |

# Code Handheld Barcode Scanners



| Code Handheld Barcode Scanners Decode Capability |                                |        |        |        |        |   |
|--|--------------------------------|--------|--------|--------|--------|---|
| Decode Capability                                | CR950                          | CR1100 | CR1500 | CR5210 | CR270x |   |
| <b>1D</b>  | BC412                          | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Codabar                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Code 11                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Code 32                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Code 39                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Code 39 Extended               | -      | ✓      | -      | -      | - |
|  | Code 93                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Code 128                       | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | GS1 Databar                    | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Hong Kong 2 of 5               | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | IATA 2 of 5                    | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Interleaved 2 of 5             | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Matrix 2 of 5                  | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | MSI Plessey                    | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | NEC 2 of 5                     | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Pharmacode                     | -      | ✓      | ✓      | ✓      | ✓ |
|  | Straight 2 of 5                | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Telepen                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Trioptic                       | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | UK Plessey                     | ✓      | ✓      | ✓      | ✓      | ✓ |
| UPC/EAN/JAN                                      | ✓                              | ✓      | ✓      | ✓      | ✓      |   |
| <b>Stacked 1D</b>                                | Codablock F                    | -      | ✓      | ✓      | ✓      | ✓ |
|  | Code 49                        | -      | ✓      | ✓      | ✓      | ✓ |
|  | GS1 Composite (CC-A/CC-B/CC-C) | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | GS1 DataBar Expanded Stack     | ✓      | ✓      | -      | -      | - |
|  | MicroPDF                       | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | PDF417                         | ✓      | ✓      | ✓      | ✓      | ✓ |
| <b>2D</b>  | Aztec Code                     | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Data Matrix                    | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | Grid Matrix                    | -      | ✓      | ✓      | ✓      | ✓ |
|  | HanXin                         | -      | ✓      | ✓      | ✓      | ✓ |
|  | Maxicode                       | -      | ✓      | ✓      | ✓      | ✓ |
|  | Micro QR Code                  | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | QR Code                        | ✓      | ✓      | ✓      | ✓      | ✓ |
|  | QR Model 1                     | -      | ✓      | ✓      | ✓      | ✓ |
| <b>Postal Codes</b>                              | Australian Post                | -      | ✓      | ✓      | ✓      | ✓ |
|  | Canada Post                    | -      | ✓      | ✓      | ✓      | ✓ |
|  | Japan Post                     | -      | ✓      | ✓      | ✓      | ✓ |
|  | KIX Code                       | -      | ✓      | ✓      | ✓      | ✓ |
|  | Korea Poast                    | -      | ✓      | ✓      | ✓      | ✓ |
|  | UK Royal Mail                  | -      | ✓      | ✓      | ✓      | ✓ |
|  | UPU ID Tags                    | -      | ✓      | ✓      | ✓      | ✓ |
|  | USPS Intelligent Mail          | -      | ✓      | ✓      | ✓      | ✓ |
|  | USPS Planet                    | -      | ✓      | ✓      | ✓      | ✓ |
|  | USPS Post-net                  | -      | ✓      | ✓      | ✓      | ✓ |

# Code Handheld Barcode Scanners



| Code Handheld Barcode Reader Accessories |          |   |                  |                            |
|--|----------|---|------------------|----------------------------|
| Part Number                              | Price    | Description                                   | Weight (lb [kg]) | Drawing                    |
| <a href="#"><u>CRA-C503-C298</u></a>     | \$38.50  | 8ft coiled RS232 cable with power supply      | 0.40 [0.18]      | N/A                        |
| <a href="#"><u>CRA-A274-P1-C298</u></a>  | \$108.00 | Quad bay battery charger                      | 0.67 [0.30]      | N/A                        |
| <a href="#"><u>CRA-B27DK-C298</u></a>    | \$75.00  | Battery for CR270x                            | 0.10 [0.05]      | N/A                        |
| <a href="#"><u>CRA-C34-C298</u></a>      | \$15.00  | 3ft straight USB cable (USB-A to micro USB)   | 0.09 [0.04]      | N/A                        |
| <a href="#"><u>CRA-C500-C298</u></a>     | \$14.50  | 6ft straight USB cable                        | 0.15 [0.07]      | N/A                        |
| <a href="#"><u>CRA-C501-C298</u></a>     | \$14.50  | 8ft coiled RS232 cable                        | 0.35 [0.16]      | N/A                        |
| <a href="#"><u>CRA-C502-C298</u></a>     | \$14.50  | 6ft straight RS232 cable                      | 0.20 [0.09]      | N/A                        |
| <a href="#"><u>CRA-C508-C298</u></a>     | \$14.50  | 8ft coiled USB cable                          | 0.25 [0.11]      | N/A                        |
| <a href="#"><u>CRA-C519-C298</u></a>     | \$14.50  | 6ft straight DB9-RJ12 RS232 cable             | 0.20 [0.09]      | N/A                        |
| <a href="#"><u>CRA-US3-C298</u></a>      | \$26.00  | Flexible stand for CR950, CR1100 in dark gray | 0.85 [0.39]      | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>CRA-US4-C298</u></a>      | \$38.50  | Flexible stand for CR6022 in dark gray        | 0.85 [0.39]      | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>CRA-US9-C298</u></a>      | \$17.50  | Rigid stand for CR950, CR1100 in dark gray    | 0.20 [0.09]      | <a href="#"><u>PDF</u></a> |
| <a href="#"><u>CR2AG-P1-C298</u></a>     | \$26.00  | Power supply for RS232 readers                | 0.10 [0.05]      | N/A                        |

## RS232 Accessories



[CRA-C501-C298](#)



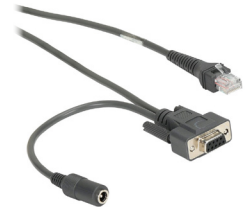
[CRA-C502-C298](#)



[CR2AG-P1-C298](#)



[CRA-C519-C298](#)



[CRA-C503-C298](#)

## USB Cables



[CRA-C500-C298](#)



[CRA-C508-C298](#)



[CRA-C34-C298](#)

## Stands



[CRA-US4-C298](#)



[CRA-US3-C298](#)



[CRA-US9-C298](#)

## Battery and Charger



[CRA-B27DK-C298](#)



[CRA-A274-P1-C298](#)

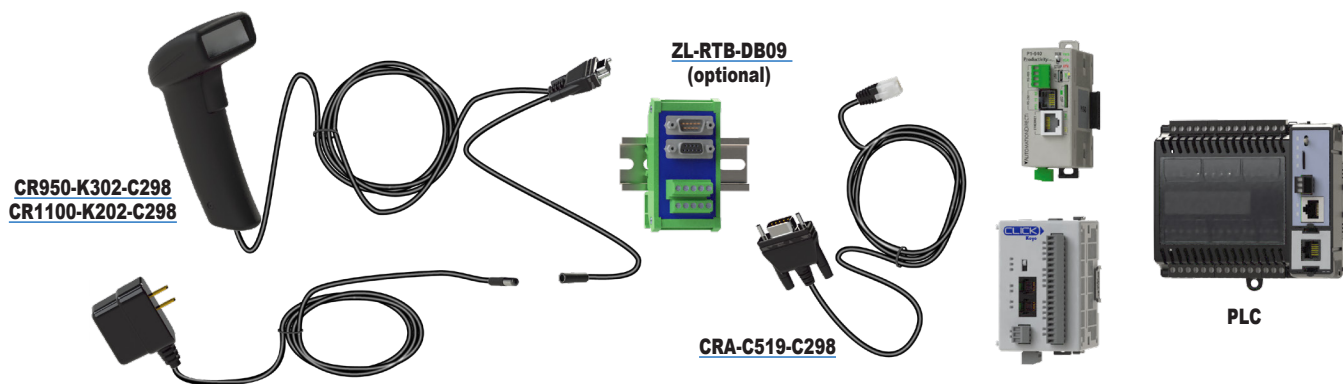
# Code Handheld Barcode Scanners



| Compatibility                    |                           |            |                  |           |         |
|----------------------------------|---------------------------|------------|------------------|-----------|---------|
| Scanner                          | C-more EA9                | C-more CM5 | Productivity PLC | CLICK PLC | BRX PLC |
| <a href="#">CR950-K301-C298</a>  | Yes, with powered USB hub | Yes        | No               | No        | No      |
| <a href="#">CR950-K302-C298</a>  | No                        | No         | Yes              | Yes       | Yes     |
| <a href="#">CR1100-K201-C298</a> | Yes, with powered USB hub | Yes        | No               | No        | No      |
| <a href="#">CR1100-K202-C298</a> | No                        | No         | Yes              | Yes       | Yes     |
| <a href="#">CR1500-K201-C298</a> | Yes, with powered USB hub | Yes        | No               | No        | No      |
| <a href="#">CR1500-K202-C298</a> | No                        | No         | Yes              | Yes       | Yes     |
| <a href="#">CR5210-C502-C298</a> | No                        | No         | Yes              | Yes       | Yes     |
| <a href="#">CR5210-C500-C298</a> | Yes, with powered USB hub | Yes        | No               | No        | No      |
| <a href="#">CR2701-200-C298</a>  | Yes**                     | Yes**      | No               | No        | No      |
| <a href="#">CR2702-200-C298</a>  | Yes**                     | Yes**      | No               | No        | No      |

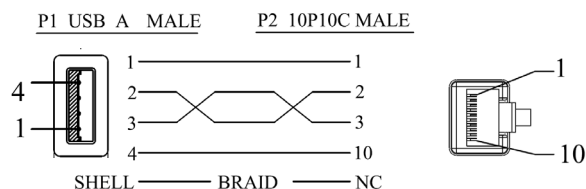
\*\* Please note that although the CR270x will work with the HMI, the HMI will not provide enough current to charge the scanner. However, the scanner battery can always be charged using an external charger such as the [CRA-A274-P1-C298 quad bay battery charger](#).

## System Assembly Options

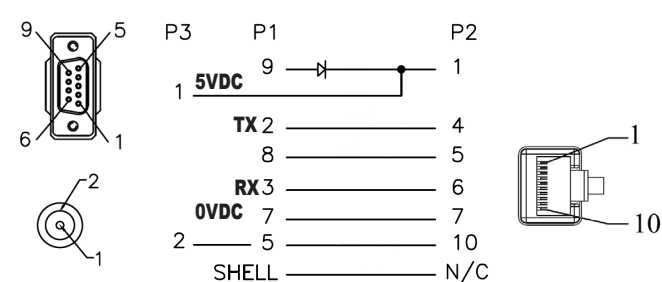


## Connection Diagrams

### USB Connections (CRA-C500-C298, CRA-C508-C298)



### RS232 Connections (CRA-C501-C298, CRA-C502-C298)



### DB9 to RJ12 (CRA-C519-C298)

