



CR2700 Application Firmware Read Me

Version 2.6.20

August 2023

Associated firmware file versions	
CR2700	
CR2700 Firmware	2.6.20
Decoder	22.2.6
Charger A271	3.1.3

******* PLEASE NOTE: *******

- This readme file contains information about the latest version of the firmware for the CR2700 hardware. Code Technical Support and/or Support for all Code products is available from Code website at: www.codecorp.com

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1. NEW FEATURES IN THIS RELEASE

Version 2.6.20

- Integration of decoder 22.2.6
 - Enhanced PDF417 to decode poorly printed Start and Stop patterns.
 - Added new aim identifiers (7011, 7230~9, 7240, 4309) for GS1 Validation.
- Added ability to transfer raw JPEG images in CDC mode.

2. ENHANCEMENTS/IMPROVEMENTS/FIXES

Version 2.6.20

- In the 2.4.1 version of the firmware, the “CDDT_TL” command served to set the decode locate time and decode time limit, using a formula where the decimal input value 9830720 equated to 0x00960140 (0x0096 = 150ms; 0x0140 = 320ms). However, a bug prevented the decode locate time value from taking effect. In the subsequent update, version 2.6.12, the command structure was enhanced by splitting it into two commands, “CDDT_TL” for decode time limit and “CDDT_LT” for decode locate time, and transitioned the input format from decimal to hexadecimal values. In order to further simplify and maintain backward compatibility with firmware version 2.4.1 and earlier, the input format reverted to decimal in version 2.6.19.
- Fixed an issue where platform settings couldn’t be removed using a “^” or settings that were longer than 10 characters.
- Fixed an issue where sending RDCMXEV7 ~600 times caused the reader to become unresponsive.
- Fixed a manufacturing issue where the Quality bits could get corrupted.
- Fixed an issue where RDCMXEV1,P10 would not stop a continuous scan event with timeout (RDCMXEV1,P11,P20,P3500).
- Fixed an issue where RDCMXEV9 would trigger a continuous event if RDCMXEV7 has been issued since boot.
- Fixed an issue where the decode performance took ~20ms longer.
- Fixed an issue where setting the Bluetooth Auto-Reconnect beep time (BTRDSRB0) wouldn’t take effect.
- Updated cleanliness test to allow preferred field selection on dual field lenses instead of running the test on the entire captured image.

Version 2.6.15

- Added support for CT8200 chip revision 2.2
- Allow upgrades to a future firmware version that supports a 3.x CT8200 chip revision

Version 2.6.12

- Added Batch Mode feature
- Added Night Mode feature
- Added capability to communicate with CodeBT SDK
- Removed the requirement of a 5014 license for driver’s license parsing
- Updated decoder to 21.2.4
- Moved motion detection to DecodePlus architecture in order to improve performance
- Added the ability to adjust desired brightness target for decoding and picture capture

- Battery properties added to JavaScript to retrieve battery information
- Added control of the LED color indicators to JavaScript
- Added command that will prevent the reader from sending data to a unenumerated host.
- Added support for transitional images (normal to cellphone mode)
- Added settings to control the blinking of the Good Read LED
- Added support for future chip revisions
- Removed the warning on battery percent property
- Reconnect, Reconnect Beep, and Vender Timeout now take effect without a reboot
- Fixed an issue with the SwissGerman_Win keyboard mode, where some keypresses were incorrect
- Fixed an issue where the reader would get into a bad illumination state when removed from the stand
- Fixed an issue where the returned value from onDecodes() was not being handled correctly
- Fixed an issue where the reader object could not nest calls in JavaScript
- Improved illumination handling
- Improved Paging and charging test for manufacturing
- Recovery mode can now erase platform settings

Version 2.4.1

- Updated decoder to 21.1.20
- Fixed issue where the reader would reset around 8,000 scans

Version 2.3.1

- Updated decoder to 20.3.4
- Added support for Code 128 FNC4 symbology
- Added JavaScript control of data storage LED
- Added firmware check and correction of faulty battery status
- Fixed issue where the reader would reboot several times when in the charger and the battery was very low
- Fixed issue where upgrades on some readers resulted in the reader rebooting continuously
- Fixed issue where the reader would indicate an error if it went back into transmission range
- iOS screen toggle feature when CR2700 is connected wirelessly to an iOS device

Version 2.0.6

- Updated decoder to 20.1.9
- Updated firmware to handle new CT8200 chip
- Updated Bluetooth Radio SoftDevice
- Updated wireless LED to blink rapidly anytime the reader is attempting to connect to a peripheral device
- Improved connection handling on CR2700 when base is not available
- Improved power up behavior in the charger when a low battery is installed
- Improved .crvfw file handling
- Added configuration to return the radio chip revision
- Added support for extended Codabar checksum
- Added minimum length support Code 39, CodaBar, Code 93, Code 128, MSI Plessey
- Added ability to configure minimum and maximum BLE connection intervals in keyboard mode
- Added ability to store captured images to the filesystem
- Added ability to remove .codeRules.js files without removing other files

- Fixed issue where reader may power off when removed from the charger
- Fixed issue where good read beep volume could not be reset in JavaScript
- Fixed issue where checksum parameters were ignored for Straight 205 symbology
- Fixed issue where the length parameter was being ignored for Interleave 205 symbology
- Fixed issue where reader would remain in presentation mode when reader was removed from the base

Version 1.2.6

- Updated decoder to 19.1.13
- Added an alternate cell phone mode for better performance for high cell phone reading environments
- Fixed issue where a reader would stop scanning when exposed to large changes in ambient lighting until a reboot
- Added ability to correctly report new versions of the CT8200 processor
- Fixed issue where base would stop outputting data to the host when caps lock was enabled

Version 1.2.2

- Updated Cortex Decoder to version 18.3.8
- Added ability to scan QR configuration barcodes with the QR symbology disabled
- Added ability to retrieve BLE security information about the current Bluetooth connection
- Added ability to enable and disable cellphone mode
- Improved decoding performance when cellphone mode is enabled
- Improved robustness of A271 to CR2700 paging feature
- Fixed issue when the trigger was pressed while in the charger and presentation mode enabled, the presentation mode did not immediately resume
- Fixed issue where battery deployment date or serial number could not be set using CortexTools2
- Fixed issue after initial scan the reader would double scan if trigger was not released
- Removed vibrate indication for a successful decode when reader is in the charger
- Support for DotCode

Version 1.1.1

- Added ability to terminate paging via capacitive touch button on A271
- Added support for BLE 5 Secure Pairing
- Improved BLE firmware upgrade robustness
- Improved reader response at extremely low battery conditions when placed in the charger
- Improved connection reliability
- Fixed issue where if default JavaScript files are removed, the user was not able to scan barcodes
- Fixed issue where the reconnection notification beeps did not stop after the auto-reconnect timeout
- Fixed issue where the file listing was not returning when connected to CortexTools2 through the A271
- Fixed issue where unexpected characters returned when retrieving the battery serial number
- Updated Cortex Decoder to version 18.3.4

Version 1.0.6

- Supports Bluetooth Low Energy (BLE) HID Keyboard mode
- Supports BLE connection to A271 charging base via scanning Quick-Connect Code (QCC) or auto-reconnect (configurable)
- Wireless charging

- Supports battery health queries from host
- Setting of CR2700, A271, and battery deployment dates
- Configurable HID keyboard delays for both BLE Keyboard and A271 connection modes
- Link Lock – A271 to allow connection to only one specific CR2700
- Automatic presentation mode entry when CR2700 is placed in A271
- Battery capacity LEDs
- Power savings features
- Programmable triggers via custom JavaScripts
- CR2700 paging via A271 button
- A271 Pre-emptive mode
- Omnidirectional reading of 1D, 2D, and postal barcodes
- Dual-field optics
- Cortex Decoder 18.2.31

3. CHANGES TO DEFAULT SETTINGS

Version 2.6.20

- None

Version 2.6.15

- None

Version 2.6.12

- Radio firmware version was 2.1.0, new value is 2.2.1
- Added commands for Batch Mode control
- CMMO_AD changed from 1 to 0 for default

Version 2.4.1

- None

Version 2.3.1

- None

Version 2.0.6

- CDTF_AB Extra image capture for AGC analysis and stabilization is now 4, was 0
- SYI2O5_LN Interleaved 2 of 5 is now 2, was 0

Version 1.2.6

- CDOP_CE Cell Phone Mode, is now enabled by default

Version 1.2.2

- UPC/EAN/JAN – Send AIM Modifier changed from 0 – Do not send AIM Modifier to 1 – Send AIM Modifier

Version 1.1.1

- Bluetooth Auto-Reconnect Timeout changed from 1 minute to 5 minutes

- Bluetooth Auto-Reconnect Beep Time changed from 1 to 0. The reader will only beep once after the first reconnect attempt.

Version 1.0.6

- None

4. OUTSTANDING ISSUES

Note: Firmware ENHANCEMENTS and OUTSTANDING ISSUES are categorized as critical and noncritical. Critical updates require the user to upgrade firmware and all reader programming guides and manuals.

***** CRITICAL *****

- None

*****NON CRITICAL*****

- Rapidly scanning a QCC, while there is a valid base nearby, can cause the base to reboot
- Occasionally image uploads fail over BLE
- Match string validation configuration string CDOP_SM and full data format string CDOP_SFD can only handle up to 512 bytes of data in the command
- When the reader is in packet mode ISO validation isn't error beeping
- When MDPM_ET is set to 1 it can cause a flicker in the targeting bar
- Sticky trigger isn't taking effect when the reader is in Motion detection or in stand
- Holding down the shift key and scanning causes shifted data
- Reader does not error beep when failing to connect to link-locked base
- Issue where targeting bar is on during image capture

5. CONFIGURATION CODES

NEW CONFIGURATION CODES: NONE

Code	Ver	Description

EXISTING CONFIGURATION CODES THAT HAVE BEEN MODIFIED: NONE

Code	Ver	Description

EXISTING CONFIGURATION CODES THAT HAVE BEEN REMOVED: NONE

Code	Ver	Description

6. FIRMWARE FILE NAMING CONVENTION

The CR2700 firmware CRVFW file names describe the corresponding platform associated with the file. See the table below for a breakdown of the filename:

Cxxxxxx_<Version>_<Product>_<Components>_<Imager_type>.crvfw

File name part	Description	Notes	
Cxxxxxx	Unique Code internal tracking number	This number is unique for all Code firmware/hardware but has no other significance	
<Version>	The version number of this firmware in three integers as Major.Minor.Build	Major	A change to this number equates to significant changes such as breaking backwards compatibility
		Minor	A change to this number equates to a change or addition to functionality
		Build	A change in this number equates to an issue fix or some minor change. It is updated for every build of the firmware.
<Product>	The product on which this firmware will run	Currently CR2700 only (other values reserved for future use)	
<Components>	Four alphanumeric characters describing product characteristics and sub-assemblies	1 st character	1 = CT8200 Chip Revision 1.01 2 = CT8200 Chip Revision 2.00
		2 nd character	A = CR8200 Optics M = CR8000 Optics
		3 rd character	K = CR2700 Development Board for Development D = CR2700 Decode Board in production units
		4 th character	0 = Normal firmware (other integers reserved for future use)
<Imager_type>	Designates the optics used	L00	Single-field optics
		L01	Single-field IR-Cut optics
		L02	Dual-field optics

7. SOFTWARE/READER TOOL COMPATIBILITY

Recently upgraded Code software is available for download from Code website at: www.codecorp.com or contact Code Technical Support.

Software	Version
CortexTools™3	2.1.20.1 or higher



8. TECHNICAL SUPPORT INFORMATION

You may contact Code at:

The Code Corporation
434 Ascension Way
Suite 300
Salt Lake City, UT 84123

Voice: 801-495-2200

Fax: 801-495-0280

support@codecorp.com

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If you have technical questions, please contact support@codecorp.com



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