

Release Notes – Zebra VC80x AndroidN Update005 based on 01-01-49-NN-00-A Release for AOSP

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Introduction

With the VC80x, you can easily migrate your material handling vehicles to the next generation platform for warehouse mobility — Android. You get a well-proven mobility platform, guaranteed security support with Zebra’s LifeGuard™ for Android, as well as a common solution platform with other Zebra Android handheld and wearable devices in the warehouse. You can migrate from Windows to Android without changing the experience you have in place today. Designed for the most extreme environments, the VC80x can go everywhere your vehicle operators need to go, including the freezer. And the VC80x is packed with features and options to boost productivity and task accuracy — including the fastest wireless connections and fastest processor in its class, an optional super bright 1,000 NIT screen that’s easy to see outside, an optional rugged

keyboard and more. The VC80x — ultra-rugged, Android-powered for a smarter warehouse.

Description

Android Nougat **01-01-49-NN-00-A Update005** (AOSP) is a maintenance release for the VC80x.

This release documentation contains the details of this OS release – features, instructions, component details, part numbers supported and known issues/limitations.

Zebra Value Adds Feature List

Components	New Features	Comments
Scanning	Added support for RS507x Fixed Bluetooth scanner firmware update failure	
OSX	DS3608 USB SSI scanner can now scan the "Skip GMS Setup Wizard" barcode	
Stage Now	Stage Now can now be used with RS232 serial scanners	
DataWedge	Fixed the issues: DataWedge default Template selection to "Default - Barcode 4.xml" SPR-33973 Wrong profile gets loaded when SwitchToProfile intent is used VC80(N) StageNow Barcode Staging not working with DS3608 serial scanner DataWedge crash when template file deleted	

EMDK	Fixed the issues: Unable to create a DataWedge profile using EMDK Profile Manager. "getLabelType()" method returns "UNDEFINED" for mailmark and Hanxin barcode	
OEMConfig	Fixed the issue: "SignalOccurrenceOfThreat" parm is not added in threatStep	
Device Central	Added support for RS507x	
USB memory	File Browser now shows the USB flash memory stick under /storage	
Battery Manager	Battery Manager now displays correct battery manufacture date for all batteries	
VC settings	Configuration for Vehicle Computer settings	a. Added setting to keep the display on all the time. b. Added setting to keep the built-in speaker on when an M1000 speaker/microphone is plugged in.
Ivanti Velocity	Integrated Velocity ATTE 2.0	

Device Compatibility

This software release has been approved for use on the following devices.

USA	
Warehouse AOSP	VC80X-10SSRAABBA-U
Freezer AOSP	VC80X-10FSRAABBA-U
Outdoor AOSP	VC80X-10SORAABBA-U

Rest of the World	
Warehouse AOSP	VC80X-10SSRAABBA-I
Freezer AOSP	VC80X-10FSRAABBA-I
Outdoor AOSP	VC80X-10SORAABBA-I
India	
Warehouse AOSP India	VC80X-10SSRAABBA-IN
Outdoor AOSP India	VC80X-10SORAABBA-IN

Component Contents

Package Name	Description
AT_N_FPU_AOSP_01_49.zip	AOSP Full Package Update includes all components
Atlas_N_Ent_Reset_AOSP_01_49.zip	Enterprise Reset (Erases Data Partitions)
Atlas_N_Fact_Reset_AOSP_01_49.zip	Factory Reset (Erases Data & Enterprise Partitions)
CFE-VC80x_MC33-01-01-49-NN-00-A-05.zip	Update 005 diff package for upgrading from previous releases (01-48, Update003, Update004)

Component Version Info

Component / Description	Version
Product Build Number	01-01-49-NN-00-A
Android Version	7.1.2
Linux Kernel	3.10.84
Android SDK Level	25
Platform	QC8956

Bluetooth Stack	1.1
Flash Size	32GB
RAM Size	4GB
Scanning	19.0.37.0
DataWedge	6.7.39
EMDK	6.8.21.1121
MXMF / OSX	MXMF-7.2.1.0 / OSX-QCT.71.7.5.7
WiFi	FUSION_BA_2_10.0.0.017_N Application: BA_2_10.0.0.009_N Radio: BA_2_10.0.0.017_N Middleware: BA_2_10.0.0.011_N Firmware: 7.35.205.8_20180209
PTT	3.1.35
Touch FW	N/A
RxLogger	5.4.10.0
B2M	N/A
Bluetooth Pairing Utility	3.11
DataAnalytics	3.0.0.1289
File Browser	1.19.1.2
Stage Now	2.10.1.1389
App Gallery	3.0.1.7
User Guide	N/A
Sensors (Accel, Gyro)	2061000, 2061000
MobiControl	N/A
ZVC	2.0.0.15
Battery Manager	1.3.8
ActiveEdge	2.5.16
SmartMU	N/A

Device Central	1.0.5.0
Audio	0.22.0.0
Diagnostic Tool	1.15.0.6
FingerPrint	Zebra/VC80x/VC80x:7.1.2/01-01-49-NN-00-A/6:user/release-keys
Security Patch Level	March 05, 2018
GMS Version	N/A

Installation Requirements

01-01-48-NN-00-A (AOSP) was the first OS released for VC80x supporting all SKUs. Update003 and Update004 were released for bugfixes and security updates. These versions change the bsp version to 01-01-49-NN-00-A.

This OS release (**01-01-49-NN-00-A Update005**) adds additional features, security updates and bugfixes. The update can be installed either using the

- FullPackageUpdate package (AT_N_FPU_AOSP_01_49.zip)
- Update0005 patch file (CFE-VC80x_MC33-01-01-49-NN-00-A-05.zip) on top of any previous OS releases.

Notes

1. When switching between GMS and AOSP build, you need to perform a Factory or Enterprise reset after installing the Full Package update.
2. The internal battery must be charged to at least 30% to update using recovery mode.
3. The micro USB connector used for adb sideload is located under the antenna cover at the top of the unit. When a USB cable is plugged into the adb client port, the RS232 ports and USB ports on the bottom of the unit are disabled.

Installation Instructions

Using ADB Sideload

The installation instructions assume you have ADB installed on your PC (the adb tools and Zebra USB drivers) and your VC80x has Developer options enabled and USB debugging ON.

Instructions on how to enable ADB is in user guide.

1. Remove the radio antenna cover (four Torx T-10 screws)
2. Connect the VC80x to the PC using a USB data cable
3. Open Command Prompt, run “adb devices” and check to see if you can see the device’s serial number.
If yes, proceed to next step
If not please install the Zebra USB drivers and set up Device Manager on your PC to recognize the VC80
4. You may also get a pop up on your PC (Win 7) that you will be connected as a Portable MediaPlayer. this can be ignored.
5. Download update files to a folder on your PC.
 - a. Full Package Update File and any applicable patches listed above in content section.
 - b. Factory or Enterprise reset files (Optional)
6. Entering Recovery Mode
 - a. Option 1: In Command Prompt, run “adb reboot recovery”
 - b. Option 2:
 - Power off the VC80x using the power button menu.
 - When the screen goes black, hold the Power and + buttons.
 - When the Zebra Technologies logo appears on the screen release the buttons
7. The VC80x will reboot and display the Android Recovery screen.
8. Apply update via sideload method
 - Use + and – buttons to move the highlight item up or down.
 - Use the Power button to select menu item “Apply update via adb sideload”
9. In the Command Prompt, type “adb sideload” and the filename of the update to install.
 - a. Your PC screen will show files being installed and a blue horizontal progress bar on your device will show status. After several minutes (could be 10+ minutes if installing GMS) it should be done and you should be back at the Android Recovery screen.
 - b. Repeat above steps for all mandatory packages

10. Unplug the USB data cable
11. Highlight the “Reboot system now” menu item and press the Power Key to reboot.
12. Device reboots and you will first see the “Zebra Powered by Android” boot screen followed by the VC80x boot screen. The boot process can take several minutes. (could be 7+ minutes if installing GMS).
13. If you installed a GMS BSP, you will need to complete the Setup Wizard by setting up Wi-Fi and E-mail accounts and such. If on AOSP (non-GMS), there is no process to follow.

Using External USB memory stick

This installation method does not require an adb connection between your PC and the VC80x. If the VC80x is connected to your PC via a USB cable, disconnect it so that the external USB host ports are enabled on the VC80x.

1. Download Images FullPackageUpdate.Zip file, any applicable patches listed above in content section and Reset Files (Optional) to your PC. Copy the files onto an external USB memory stick
2. Entering Recovery Mode
 - Power off the VC80x using the power button menu.
 - When the screen goes black, hold the Power and + buttons.
 - When the Zebra Technologies logo appears on the screen release the buttons
3. The VC80x will reboot and display the Android Recovery screen.
4. Applying update via USB memory stick
 - Use + and – buttons to move the highlight item up and down
 - Use the Power button to select menu item “Apply update from USB drive”
 - Use the + and – buttons, and Power button to select the update to apply
5. Once the update is complete, highlight the “Reboot system now” menu item and press the Power Key to reboot.

6. Device reboots and you will first see the “Zebra Powered by Android” boot screen followed by the VC80x boot screen. The boot process can take several minutes. (could be 7+ minutes if installing GMS).
7. If you installed a GMS BSP, you will need to complete the Setup Wizard by setting up Wi-Fi and E-mail accounts and such. If on AOSP (non-GMS), there is no process to follow

Verified scanners

X indicates a verified configuration.

Scanner model	Bluetooth Interfaces	
	Bluetooth SSI	Bluetooth HID
LI3678-SR		X
DS3678-SR	X	X
DS3678-ER	X	X
DS3678-HP	X	X
DS3678-HD	X	X
RS6000	X	X
RS507	X	X
RS507x	X	X
LS3578-ER		X
LS3578-SR		X
LS3578-HD		X
LS3578-FZ		X
DS3578-SR		X
DS3578-ER	X - Custom firmware required	X
DS3578-HD		X

Scanner model	Wired Interfaces			
	USB SSI	USB HID	RS232 SSI	RS232 no protocol
LI3608-SR		X		X
DS3608-SR	X	X		X
DS3608-ER	X	X		X

DS3608-HP	X	X		X
DS3608-HD	X	X		X
DS3508-SR		X		X
DS3508-ER		X		X
DS3508-HD		X		X
LS3408-FZ		X		X
LS3408-ER		X		X

NOTE

The scanners above that support SSI protocol were tested with specific versions of firmware.

- DS3678 Bluetooth scanner should be using the firmware version CAACKS00-003-R00D0.DAT.
- DS3608 USB scanner should be using the firmware version CAACJS00-004-R00D0.DAT.
- DS3578 Bluetooth scanner should be using custom firmware version – “CAABRC17-001-R01D0.DAT”. DataWedge will show the firmware version as "PAABRC17-001-R01". The DS3578 running the custom firmware advertises its name as RS507. As a result, the VC80x will display in notification bar that “RS507” is connected/disconnected.

Known Issues and Limitations

1. A version of Ivanti Avalanche compatible with Android Nougat was not available for testing on this release. Avalanche for Nougat will be verified on the VC80x once it is available.
2. If the user enables "Always ON VPN" option, and then try to perform "Network Settings Reset" from device settings, a settings application crash is observed.
Mitigation: user should disable the "VPN always on" option" and then perform "Network Settings Reset"
3. OS update using an MDM to download image to USB memory stick is not supported.
4. LI36x8 scanners not supported in SSI mode.
5. When a USB cable is plugged into the adb client port, the RS232 ports and USB ports on the bottom of the unit are disabled.
6. The com.wavelink.velocity folder is not created by OS until the Velocity application is opened at least once. In order to push a wdep profile before launching velocity application, user needs to create the folder manually or via MDMs.
7. The Velocity ATTE console PC application cannot be used to configure serial scanners. Serial scanners must instead be configured in DataWedge.
8. Airwatch remote control of the device will not work when screen capture is disabled.

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