Release Notes - Zebra VC80x Android Oreo 02-13-15.00-ON-U01-STD Release (NGMS)

Introduction

With the VC80x, you can easily migrate your material handling vehicles to the next generation platform for warehouse mobility — Android. 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 O 02-13-15.00-ON-U01-STD (NGMS) is the first Android Oreo release to support VC80x. The software update for VC80x will deliver fixes, updated security and many feature enhancements listed in the next section. This release documentation contains the details of the OS release – features, instructions, component details, part numbers supported and known issues/limitations.

Zebra Value Add Feature List from Nougat to Oreo

Components	New Features	Comments
Scanner	1. Differentiate GS1 Datamatrix and GS1 QR Code 2. Character Set selection 3. Basic MultiBarcode Support 4. PRESS_AND_SUSTAIN AimType	
Wi-Fi	EAP-PWD authentication support.	
Zebra Software License Manager		ZSL manages licensing for MTW, EB 2.0 and above. ZSL does not manage the licensing of the WFC-Voice client.
WorryFree WiFi Analyzer		WorryFree WiFi Analyzer is a new feature.
BT	1. BT additional setting, BT CSP features, are moved to ZebraBluetooth application	
Audio		Following SPR fix is included: SPR 35763 & SPR 35305: "one-way audio" one end of the call hears conversation while the other hears no sound
ZVC	1. Accessibility volume control bar support 2. OEM Config support	
EMDK	1. Differentiate GS1 Datamatrix and GS1 QR Code 2. Character Set selection 3. Bluetooth Scanner DS2278 4. PRESS_AND_SUSTAIN AimType	

DataWedge	1. Enhanced intent API support 2. Voice Input plugin 3. Differentiate GS1 Datamatrix and GS1 QR Code 4. Character Set selection 5. Bluetooth Scanner DS2278 6. PRESS_AND_SUSTAIN AimType	

Component Contents

Package Name	Package Description
FPU_ATLAS_02-13-15.00-ON-U01-STD.zip	Full Package Update includes all components
ATLAS_ON_ENT_RESET.zip	Enterprise Reset (Erases Data Partitions)
ATLAS_ON_FACT_RESET.zip	Factory Reset (Erases Data & Enterprise Partitions)

Component Version Info

Component / Description	Version
Product Build Number	02-13-15.00-ON-U01-STD
Android Version	8.1.0
Linux Kernel	3.10.84
Android SDK Level	27
Platform	QC8956
Bluetooth Stack	4.1
Flash Size	32GB

RAM Size	4GB
Scanning	20.0.38.0
DataWedge	7.0.4
EMDK	7.0.0.2000
MXMF / OSX	MXMF : 8.2.1.0 / OSX : QCT.81.8.5.1
WiFi	FUSION_BA_2_11_0.0.022_O
	Radio: BA_2_11_0.0.015_O
	Application: BA_2_11_0.0.012_O
	Middleware: BA_2_11_0.0.015_O
	Firmware: 7.35.205.8_20180813
PTT	3.1.38
Touch FW	N/A
RxLog	5.4.12.0
Bluetooth Pairing Utility	3.14
Zebra Data Service	3.4.0.1180
Files	8.1.0
Stage Now	3.1.1.1019
Battery Swap	1.0
User Guide	N/A
ZVC	2.1.0.11
Battery Manger	1.4.2
ActiveEdge	2.5.16
WorryFree WiFi Analyzer	3.2.13
Device Central	1.0.6.0
Zebra Software License Manager	3.1.1
Audio	0.8.0.0
Diagnostic Tool	1.16.0.1
Finger Print	Zebra/VC80x/VC80x:8.1.0/02-13-15.00-ON-U01-STD/25:user/release-keys
Security Patch Level	Oct 01, 2018
GMS Version	8.1_201809

Following is the list of SPRs which are either fixed new in Oreo or fixed in earlier OS versions and carried forward to Oreo OS version:

SPR-32125 -- Resolved out of memory issue observed in firmware .

SPR-32320 -- Resolved an issue wherein WIFI disconnects

SPR-32403 -- Resolved an issue wherein Scanning Invokes toggling between tab in google chrome

SPR-32611 -- Resolved an issue wherein device disconnects from WLAN network

SPR-32626 -- Resolved an issue wherein remap capacitive buttons BACK HOME MENU SEARCH using EMDK or StageNow results in Unsupported Key error

SPR-32647 -- Resolved an issue wherein Radio Driver fails, unbale to answer the calls.

SPR-32684 -- Resolved an issue wherein FTOverDS setting via StageNow was disabled

SPR-33049 -- Added API to set the pin screen lock

SPR-33207 -- Resolved an issue wherein DDT was showing battery Cycles always Zero and a Green OK flag

SPR-33311/34046 -- Resolved Voxware issue with MODCOM ONE HS3000/BTH 430) with OpenSLES Audio SCO Channel and Mic when RS507 BT Disconnects

SPR-33425 -- Resolved an issue wherein Mx Framework was not working properly after installing previous patch

SPR-33462 -- Resolved an issue wherein Keymapping CSP is being suspended when device locks

SPR-33521 -- Resolved an issue wherein PingID Failed to run

SPR-33671 -- Resolved an issue wherein EMDK profile update failed to add WIFI profile if username contains backslash followed by number

SPR-33862 -- Resolved an issue wherein screen Time off settings using display manager CSP was not working

SPR-33981 -- Resolved an issue wherein Czech Republic Regulatory Country cannot be set using Wifi config profile via StageNow

SPR-34145 -- Resolved an issue wherein indexing of the WEP key was not handled correctly in framework as well as in WifiConfig.csp

SPR-34175 -- Resolved an issue wherein device information is missing when used with right-to-left languages

SPR-34259 -- Resolved an issue wherein limit USB usage to allow external storage only using UsbMgr

SPR-34278 -- Resolved an issue wherein 2.4 GHz Connectivity on WLAN lost after few minutes

SPR-34311 -- Resolved an issue wherein Fully Qualified Domain Name (FQDN) blocks the device to acquire IP address due to parsing error

SPR-34313 -- Resolved an issue wherein the device generates keyScanCode 228 automatically after it goes to standby

SPR-34338 -- Resolved an issue wherein the Device was not able to process received EAP request even after multiple attempts from AP resulting in DEAUTH from AP

SPR-34346 -- Resolved an issue wherein Velocity app installation was not persisting after reboot

SPR-34349 -- Resolved an issue wherein large audio gaps and some generic network issues seen in device

SPR-34353 -- Resolved RxLogger issue

SPR-34429 -- Resolved an issue wherein DataWedge did not load the "default Profile0" as per the expectation

SPR-34432 -- Resolved an issue wherein NTP is not able to sync time based on the interval

SPR-34441 -- Resolved an issue wherein each mail content Sync Feature is causing the issue

SPR-34445 -- Resolved a DS3678-ER no beam issue

SPR-34472 -- Resolved an issue wherein framework is unable to throw transaction too large exception

SPR-34578/34579 -- Resolved an issue wherein headset audio volume is too low when used with VoIP applications

SPR-34590 -- Resolved an issue wherein MX Framework does not restart after being killed by lowmemkiller

SPR-34614 -- Resolved an issue wherein DataWedge goes into a condition where scanner cannot be enabled due to quick enable and disable the scanner via intent APIs

SPR-34648 -- Resolved an issue wherein DHCP Client was crashing

SPR-34679 -- Resolved an issue wherein error seen when setting Band Selection to Auto via StageNow

SPR-34757 -- Resolved an issue wherein reboot loop - issue manifests during DHCP assignment on VC80 device

SPR-34781 -- Resolved an issue wherein DataWedge is sending char 10 instead of char 13

SPR-34888 -- Resolved an issue wherein Key programmer app fails to launch

SPR-34894 -- Resolved an issue wherein DataWedge PROFILE RANDOMLY DISABLING CAUSING SCANNER TO STOP

SPR-34970 -- Resolved Speech Quality issue.

SPR-34972 -- Added DW new implementation to avoid delay in enable and disable the scanner

SPR-35054 -- Resolved an issue wherein the device Unable to scan MSI barcode due to insufficient quiet zone

SPR-35090 -- Resolved an issue wherein the device connected to network, but Wi-Fi icon shows an "X"

SPR-35414 -- Method to differentiate scanners support has been added

SPR 35763 -- Resolved an issue wherein "one-way audio" one end of the call hears conversation while the other hears no sound

Installation Requirements

Download both Full Package and Reset Packages (Optional). Read specific notes on OS-Upgrade and OS-Downgrade scenarios for more details.

Specific notes on OS-Upgrade Scenarios:

1. OS Upgrade behavior for normal upgrade is same as in previous releases. Data persistence is maintained for the normal upgrade scenarios.

   Following are the examples of the <u>normal upgrade</u> scenarios:

   a. Nougat (GMS) -> Oreo (GMS)

   b. Nougat (NGMS) -> Oreo (NGMS)

   c. Oreo (GMS) -> Oreo (GMS)

   d. Oreo (NGMS) -> Oreo (NGMS)

2. When user performs **cross upgrade** from Nougat to Oreo, **system performs automatic enterprise reset**.

   Following are the examples of **<u>cross upgrade</u>** scenarios where automatic enterprise reset is performed by the system:

   a. Nougat (GMS) -> Oreo (NGMS)

   b. Nougat (NGMS) -> Oreo (GMS)

Specific notes on OS-Downgrade Scenarios:

OS downgrade behavior has changed in Oreo. Automatic enterprise data reset is performed when the system detects OS downgrade operation.

Following are the examples of OS downgrade operations:

a) Oreo (GMS/NGMS) -> Nougat (GMS/NGMS)

b) Downgrading to lower level patch versions within Oreo

General notes:

There is a new feature **"Data reset screen"** introduced in Android Oreo to handle error scenarios while updating OS. This data reset screen is triggered when the system encounters error situations like continuous system service crash or any application crash during the OS update process.

The data reset screen prompts user to select one of the following options

a) "Try again"

b) "Factory Reset"

Select option (a) "Try again" to continue the OS update process. Do not select option (b) "Factory Reset", as it will erase the user data.

Installation Instructions

Using ADB Sideload

The installation instructions assume you have ADB installed on your PC (the adb drivers etc..) and your VC80x has developer options enabled and USB debugging ON. Instructions on HOW TO enable ADB is also captured in the Integrator 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 VC80x

4. You may also get a pop up on your PC (Win 7) that you will be connected as a Portable Media Player... this can be ignored.

❖ **Download Image**

  a) FPU_ATLAS_02-13-15.00-ON-U01-STD.zip listed above in content section
  b) Reset files (Optional)

5. Entering Recovery Mode
    a. Choice 1: In Command Prompt, type *"adb reboot recovery"* and click enter.
    b. Choice 2:
       • Reboot 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

6. Your VC80x will reboot and put you on the Android Recovery screen.

7. If applying update via sideload Method

    a. Use the Volume + and – to highlight, "Apply update from ADB" and press the Power key to select it for applying OS upgrade package

    b. Use the Volume + and – to highlight, "Apply downgrade from ADB" and press the Power key to select it for applying OS downgrade package

8. With your Command Prompt open in the Host machine, type *"adb sideload"* command and add a space and then drag and drop the Full Package Update zip file on to it and click enter.

    a. Your PC screen will show files being installed and a little blue horizontal progress bar on your device will show status... and after about 6~ 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

9. *"Reboot system now"* is highlighted. Press the Power Key to Reboot.

10. Device reboots and you see Zebra on top and POWERED BY android at the bottom and after about 1 minute will transition to the VC80x Touch Computer splash screen with 5 dancing white dots at bottom… it will stay at this screen for a little over another minute (could be another 7+ minutes if installing GMS) and then you are at the Factory "Welcome" screen.

11. If you installed a GMS BSP, you will need to complete the process by setting up Wi-Fi and Email accounts and such. If on AOSP (non-GMS), there is no process to follow.

12. At the Home Screen, we need to verify that the BSP upgrade took place and set the Date & Time.
    a. Go to "Settings" and scroll down to "About phone" and look at the "Build number". It should start with **"02-13-15.00-ON-U01-STD"**. Now you are on the correct BSP.
    b. Setting the Date and Time. If you associate to a WLAN AP, do so now, as it should automatically set the time and date… the only thing left is to set the time zone. Go to "Settings" and scroll to and select "Date & time". Scroll down to and select "Select time zone", and scroll down to and select the appropriate time zone and you are done.

13. Now you are all set to use your VC80x.

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 FPU_ATLAS_02-13-15.00-ON-U01-STD.zip and Reset Files (Optional) to your PC. Copy the files onto an external USB memory stick

2. Entering Recovery Mode
    • Reboot 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
    a. Use + and – buttons to move the highlight item up and down
    b. Use the Power button to select menu item "Apply update from USB drive"
    c. Select the update to apply

5. 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

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

Known Issues and Limitations

1. Velocity application stops if user use the Android Recent button to close Velocity app. As a workaround, user can close the application from the velocity application client menu.

2. Unable to perform UI Operation on remote device via Remote Management of Airwatch. VMWare has committed to fix this issue by December 1st week 2018.