# Release Notes – Zebra Android Oreo 01-30-04.00-ON-U45-STD Release (AOSP)

## Highlights

The details of the Android AOSP Oreo release 01-30-04.00-ON-U45-STD that covers PS20x. Please see, Device Compatibility under Device Support Section for more details.
Lifeguard patches are cumulative and include all previous fixes that are part of earlier patch releases.

### Software Packages

| Package Name | Description |
|---|---|
| HE_DELTA_UPDATE_01-30-04.00-ON-U45-STD.zip | LG Package Update |

### Security Updates

This build is Compliant up to Android Security Bulletin  of Oct 05, 2021.

### LifeGuard Update 45:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.

### Fixes

- Fixed intermittent abnormal display behavior during initial device bootup on Zebra splash screen.

### Features

- None

### LifeGuard Update 44:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- Datawedge : 8.2.215

### Fixes

- SPR45691 - Resolved an issue where the Device lost Audio connectivity with HS3100 after some idle time

- SPR45600 - Resolved an issue wherein DW Api Suspend_Plugin sometimes remains in a Waiting for the state.
- SPR39760 - Resolved an issue wherein touch gets auto released after 15 secs during long press event in TC52/57 device.
- SPR46125 - Resolved an issue wherein QR code enrollment was not working.

### Features

- Added support for BMI270/ICM42607 Gyroscope/accelerometer Sensors
- NFC Updates

## LifeGuard Update 41:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- MXMF: 10.3.0.28
- FUSION_QA_2_1.11.0.025
- OemInfo: 9.0.0.565
- Scanning framework: 23.1.24.1

### Fixes

- SPR44256 - Resolved an issue wherein echo was heard during calls in Speaker phone mode
- SPR41354 - Resolved an issue wherein erroneous time was displayed when timezone was set to Sao Paolo, Brazil.
- SPR43031 - Resolved an issue wherein CC6000 devices were unable to decode barcodes intermittently.
- SPR45082- Resolved an issue wherein the DS3608 scanner was resetting when connected to ET51/56 devices in SSI over USB CDC mode
- SPR45279- Resolved an issue wherein the check digit rule was not working as expected on MSI barcode symbology with newer ZBACK scanner
- SPR45041 - Resolved an issue wherein a delay was observed in detecting Tire Tread Reader accessory on TC77
- SPR44942, SPR45110 - Resolved an issue wherein TC77/72 device was experiencing random touch events intermittently.
- SPR44889 - Resolved an issue wherein NFC "Reset to Factory defaults" option was not working in later Oreo releases.

### Features

- Added BLE battery support for TC52 and TC57 devices.
- Added support for WLAN Front End Module 45868 on TC72, TC77, ET51, ET56, EC30, PS20, TC52, TC57, L10, TC83, MC93, CC600, CC6000 and VC83 devices.

- Added support for BT Module 22545 on TC72, TC77, TC52 and TC57 devices.
- Added support in OemInfo for WIFI MAC, WIFI AP MAC, ETHERNET MAC and grant read access to applications signed with updated Zebra OEM keys

## LifeGuard Update 36:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.

### Fixes

- SPR45273 - Patched the use-after-free security vulnerability which could allow code execution and local elevation of privilege to the kernel from an untrusted application.

## LifeGuard Update 35:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
  The LG Patch includes the following updated components.

- MXMF: 10.3.0.27
- FUSION_QA_2_1.11.0.024
- PTT Express 3.1.54

### Fixes

- SPR41003 - Resolved an issue wherein BluParrot headset connected to ET51 was picking up voice from a farther distance.
- SPR43683 - Resolved an issue where USB to Serial Port converter was not working on a 3rd party cradle.
- SPR43148 - Resolved an issue where configuring WLAN Channels in range format through OEMConfig use to fail.
- SPR43770/SPR43773 - Resolved an issue wherein a framework reset was observed intermittently.
- SPR43429/SPR43802 - Resolved an issue wherein OS update initiated through StageNow immediately after boot use to fail intermittently
- SPR41910 - Resolved an issue wherein first touch was not working correctly after resume
- SPR41881 - Resolved an issue wherein a permission that was not supported originally on a OS was not regranted to application upon newer OS update that supported those permissions
- SPR 44252 - Resolved an issue where PTT calls would sometimes not terminate with the release of the button.
- SPR44031 - Resolved an issue wherein random touch events were getting generated without end user touching the screen.
- Added fix for multiple vulnerability issues with respect to Fragmentation and Forging attacks.

### Features

- Added support for SHT4x humidity Sensor on MC93.

- Added support for LSM6DSM Gyroscope/accelerometer Sensor on MC93, TC8300, and PS20 devices.

## LifeGuard Update 32 (Released for ET51 and ET56 only):

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- Scanning framework: 23.1.23.0

### Fixes

- SPR41882: Resolved an issue where we were Unable to provision device using QR code with EXTRA_PROVISIONING_WIFI_PROXY_HOST and EXTRA_PROVISIONING_WIFI_PROXY_PORT.

### Features

- Added support for Zebra Integrated Scanner Frame SKU's ET51CE-G21E-SFA6, ET51CE-G21E-SFNA, ET51CE-G21E-SFIA and ET51CE-L21E-SFCN, that supports the Zebra PL5000 decoder, which replaces the Zebra PL3307 decoder.

## LifeGuard Update 31:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- MXMF: 10.3.0.24/ OSX: QCT.81.8.26.23
- FUSION_QA_2_1.11.0.021_O

### Fixes

- SPR43012 - Resolved an issue wherein USB based bin file staging was intermittently not working.
- SPR41623 - Resolved an issue where TC52 was displaying incorrect magnetometer values
- Added a feature to handle the network issue of ARP Requests not getting response from backend network.
- Added a feature to detect low RSSI conditions and scenarios and allow device to do quick recovery from the low RSSI state.
- Added support for LSM6DSM Gyroscope/accelerometer Sensor on TC72/TC77, TC52/57 devices.

**LifeGuard Update 25 (Not released for ET51, ET56, TC52, TC57, TC52HC):**

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
   The LG Patch includes the following updated components.

   - MXMF: 10.3.0.24/ OSX: QCT.81.8.26.21
   - Scanning Framework:  23.1.22.0
   - OemInfo: 9.0.0.331

   **Fixes**

   - SPR40428: Resolved an issue where the display backlight was not turning on after resuming or turning on the device.
   - SPR41891: Resolved an issue where the WLAN profile is permanently disabled when wrong credentials are entered.
   - SPR41635: Updated the APN details for Telefonica operator.
   - SPR41911: Resolved an issue where the MX TouchMgr 'protector' param (Screen Protector (checkbox)) would not set the value to "false".
   - SPR43144: Fixed an issue wherein Microsoft PowerApps installation was failing.
   - SPR41763: Resolved an issue where intermittently Airplane mode was enabled after an improper Battery Swap.
   - SPR40216: Resolved an issue where the Torch Mode light intensity was too high when turned on for a longer time.

**LifeGuard Update 20 (Released for ET51 and ET56 only):**

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
   The LG Patch includes the following updated components.

   - DataWedge   8.2.211
   - StageNow     5.1.0.1
   - EMDK       9.0.3.3003
   - MXMF: 10.3.0.18/ OSX: QCT.81.8.25.21
   - Scanning framework: 23.01.22.00

   **Fixes**

   - SPR41440: Added support to retrieve logs when device goes into rescue party mode.
   - SPR40468: Resolved an issue wherein some part of barcode data was getting lost when used along with DS3678 in HID mode.
   - SPR39238: Updated Chromium browser to v85 for AOSP BSP only to resolve same site cookie vulnerability.
   - SPR40219: Resolved an issue wherein MSI barcodes were not getting decoded.
   - SPR40672: Resolved an issue wherein CTRL key was not able to be suppressed using stage Now in VC83.
   - SPR40400: Resolved an issue wherein WWAN was disconnecting at high temperatures.
   - SPR41037: Updated the APN details for Movistar operator.
   - SPR41038: Updated the APN details for Telenor operator.

- SPR40859: Resolved an issue wherein frequent drops in LTE data drop was being reported.
- SPR41400: Resolved an issue wherein key remapping was not working for CTRL and other advanced key modifiers using OemConfig.
- SPR40906/SPR40819: Resolved an issue wherein 7-bit ASCII encoded data matrix code was not getting decoded.
- SPR41116: Resolved an issue wherein user was unable to configure Code128 Ignore FNC4 param from Datawedge on ET51, ET56 with Integrated scanner.
- SPR41056: Resolved an issue where device boots with the active SIM card the message popup shows "No SIM detected"
- Resolved an issue where device failed to perform sim slot switching and crashed.

## Features

- Added support for Zebra Scanner Expansion Back - ZBK-ET5X-10SCN7-02, ZBK-ET5X-8SCN7-02, that supports the SE4770 scan engine.
- Added support for Multibarcode feature - Read only specific barcodes
- Added support in OemInfo to allows customer applications and sideloaded applications to read BTMAC address.
- Added support for SAM Bridge FW Version in Settings App.
- Added support for A/B Streaming Update.
- Added support for enabling custom features with CustomFeatureCSP
- Added support to clear the list of Bluetooth paired devices.
- Added support for Illumination Brightness parameter for SE4710 & SE4750 Scan Engines.
- Added support for Feature based Zebra software Licensing support for Enterprise Browser.
- Added Support "Wake up and Scan" on Trigger Press

## LifeGuard Update 19 (Not Released for ET51 and ET56):

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- DataWedge   8.2.211
- StageNow     5.1.0.1
- EMDK       9.0.3.3003
- MXMF: 10.3.0.18/ OSX: QCT.81.8.25.21

## Fixes

- SPR41440: Added support to retrieve logs when device goes into rescue party mode.
- SPR40468: Resolved an issue wherein some part of barcode data was getting lost when used along with DS3678 in HID mode.
- SPR39238: Updated Chromium browser to v85 for AOSP BSP only to resolve same site cookie vulnerability.
- SPR40219: Resolved an issue wherein MSI barcodes were not getting decoded.
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- SPR40906/SPR40819: Resolved an issue wherein 7-bit ASCII encoded data matrix code was not getting decoded.
- SPR41116: Resolved an issue wherein user was unable to configure Code128 Ignore FNC4 param from Datawedge on ET51, ET56 with Integrated scanner.
- SPR41056: Resolved an issue where device boots with the active SIM card the message popup shows "No SIM detected"
- Resolved an issue where device failed to perform sim slot switching and crashed.

### Features

- Added support for Multibarcode feature - Read only specific barcodes
- Added support in OemInfo to allows customer applications and sideloaded applications to read BTMAC address.
- Added support for SAM Bridge FW Version in Settings App.
- Added support for A/B Streaming Update.
- Added support for enabling custom features with CustomFeatureCSP
- Added support to clear the list of Bluetooth paired devices.
- Added support for Illumination Brightness parameter for SE4710 & SE4750 Scan Engines.
- Added support for Feature based Zebra software Licensing support for Enterprise Browser.
- Added Support "Wake up and Scan" on Trigger Press

## LifeGuard Update 15:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- DataWedge  8.2.48
- StageNow    5.0.0.1
- EMDK    8.2.4.2804
- MXMF: 10.2.0.25/ OSX: QCT.81.8.25.20

### Fixes

- SPR39478: Resolved an issue wherein user was unable to change the touch mode functionality such as" Stylus, Glove and Finger" using stagenow.
- SPR 40289: Resolved an issue wherein TC52 was intermittently loosing audio connectivity with HS3100.
- SPR40078: Resolved an issue wherein EC30 was performing BLE packet advertisement on incorrect power level when the MAX set level.
- SPR39982: Fixed an issue wherein isVerifyAppsEnabled api was returning false though it was enabled from settings.
- SPR40301: - Resolved an issue where Webview does not load intermittently after Enterprise Reset with GMS-Restricted persistent profile.
- SPR39795: Resolved an issue wherein timestamp was missing in dotcode scanned data.
- SPR40025: Removed the ImagerMode options from Datawedge as it is not supported.
- SPR40770: Standardized the Thermal mitigation response for TC57

- SPR40602: Resolved an issue wherein WFW Manager CSP was returning coverage view config error.

### Features

- Added support for Edge-detect Document Capture
- Add support for Signature presence checking with anchor barcode image capture.
- Add UI support for Enterprise NFC.
- Added support for 802.11k Link and Beacon Measurement
- Provided additional option for the user to change the touch panel mode configuration from Power Menu without going into settings menu once it is enabled using the csp file.
- Added Support for Trusted Device Pairing and Single Pairing feature over Bluetooth
- Integration of Custom Feature CSP to add ability to suppress USB permissions pop-up notification
- Added support for AR1337 camera on TC52, TC57, TC72, TC77, MC93, TC83 devices(Refer Point 3 in NOTE section for more info)
- Added software audio codec support for TC83 Rev B SKU with HW ID 651,653,654,655,656,658,659,660,661,662,664,666,667,668,669 (Refer Point 4 in NOTE section for more info)
- Added support for KYPD-MC93DLA-01 and KYPD-MC93DLA-10 custom keypads on MC93.
- Added feature in OemInfo to verify the signature and grant read data access to applications signed with Zebra OEM keys or MX Plugin CSP keys.
- Added feature in ZDS to receive southbound messages from FCM in Oreo devices.

## LifeGuard Update 13:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
   The LG Patch includes the following updated components.

- MX: - 10.1.0.47
- DataWedge: - 8.1.48
- EMDK: - 8.1.9.2709
- OSX: 81.8.25.19

### Fixes

- SPR40239 – Resolved an issue wherein the QR code provisioning failed to work on non-camera SKUs using built-in scanner
- SPR40567 – Resolved an issue wherein DataWedge used to crash upon sending enable/disable DW intent from an Application
- SPR40544 – Resolved an issue wherein Connected notification was not being sent by Datawedge to the Applications when "AutoSwitch to default on event" was enabled.
- SPR40408, SPR40771, SPR40400 – Fixed an issue wherein WAN was getting turned off at very high temperatures and would turn back on after the temperature reduced by a great extent.
- SPR40500 – Resolved an issue wherein the configured custom private Verizon APNs used to get reverted to defaults on updating the BSP.
- IrDA Raw mode throughput issue has been solved in this release.

## LifeGuard Update 12:

➤ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.

### Fixes

➤ Fixed multiple vulnerability in the QCOM SoC

## LifeGuard Update 11 (Only for TC72/TC77):

➤ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.

### Features

- Added Display timing optimization for TC72/TC77 SKUs supporting the SE4770 scan engine New display vendor devices.

## LifeGuard Update 10:

➤ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.

### Fixes

- SPR40250 – Resolved an issue wherein user was unable to power off the device by clicking on the Power menu item while automation suite was running on the device.
- SPR40109 – Resolved an issue wherein proxy service was getting killed after reboot.
- SPR39918 – Resolved an issue wherein Phone information was being displayed upon dialing UUID code.
- SPR39868 – Resolved an issue wherein Diamond key UI was showing (/) instead of (?) while in shifted state.
- SPR37883 – Resolved an issue wherein proxy resolution fails when Java script functions are invoked.

## LifeGuard Update 08:

➤ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
  The LG Patch includes the following updated components.

- MX: - 10.1.0.33
- DataWedge: - 8.1.38
- EMDK: - 8.1.6.2706
- StageNow-Client: - 4.3.2.3
- MX Proxy Framework: - 10.1.0.5
- Scanning Framework: - 23.1.16.0
- PTT Express: - 3.1.46 (Added PTT Express A la Carte license)

### Fixes

- SPR39482//SPR40126 – Resolved an issue wherein the check digit rule was not working as expected on MSI barcode symbology.
- SPR40076 – Resolved an issue wherein scanner framework crash was seen due to incorrectly invoking of EMDK API sequence.

- SPR39819 – Resolved an issue wherein an additional "Enter key" was being added in the barcode data when Datawedge ADF rule for Line feed Action Key Char was set to "Send Char" 10.
- SPR39560 – Resolved an issue wherein upon performing OS updates with below 30% battery level would lead to device prompting for the device password.
- SPR39522 – Resolved an issue wherein the CTRL key combination modifier functionality was not working when pressed with any other key in quick succession.
- SPR37538 – Resolved an issue wherein batteries were not getting charged when placed in toaster while it used to charge in the device.
- SPR38955 – Resolved an issue wherein button actions are incorrect in case user slides finger to touch screen or another on-screen button without lifting.
- SPR39924 – Resolved an issue where in DNS resolution was not working as expected in ethernet interface.
- SPR40170 - Resolved an issue where Bluetooth was crashing when more than 100 devices are paired.

### Features

- Added support for Digimarc SDK 3.8.1
- Added support for XAPDU and SAM ATR, PPS on TC7x SAM product
- Permanently disabled Ambient Display for EC30
- Added support of Individual Wakeup source for EC30
- Added support for USB-C charging for ET51 Scanner Frame SKU

## LifeGuard Update 06:

➢ This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
The LG Patch includes the following updated components.

- MX: - 10.0.5.1
- DataWedge: - 8.0.42
- StageNow-Client: - 4.2.6.6
- MX Proxy Framework: - 10.0.1.1
- Enterprise Browser: - 2.7 (for PS20 devices only)

### Fixes

- SPR39784/SPR39879 - Resolved an issue wherein setting time zone would not set the time correctly via MX
- SPR39878 – Resolved an intermittent crash issue in Datawedge.
- SPR39592 – Resolved an issue wherein intermittently the BT Pairing pop up would appear on disconnecting a BT scanner.
- SPR39647 – Resolved an issue wherein CODE39 symbology was not being decoded
- SPR39327 – Resolved an issue wherein intermittently devices would get stuck in fastboot screen after a Factory reset.

### Features

- Added eSIM provisioning
- Added support to change the device's domain selection like from voice to data and vice versa.

- Added auto selection of active SIM/USIM/eSIM subscriptions when device is in DSDS mode

**LifeGuard Update 04:**

- This LG patch is applicable for 01-30-04.00-ON-U00-STD BSP version.
  The LG Patch includes the following updated components.

  - MX: - 10.0.2.6
  - DataWedge: - 8.0.37
  - StageNow-Client: - 4.2.5.5
  - Enterprise Keyboard: - 2.2.2.3
  - EMDK: - 8.0.10.2621
  - DDT: - 1.20.0.2
  - Event injection Service: - 4.3.0.0
  - Zebra Folder: -10.0
  - Wi-Fi: - FUSION_QA_2_1.11.0.008_O
  - OSX: QCT.81.8.25.18

  **Fixes**

  - SPR39012 - Resolved an issue wherein the profile with SKIP_SUW used to take more time to get applied
  - SPR39545-Resolved an issue wherein external USB keyboard was not getting disabled via StageNow or MX
  - SPR39405- Resolved an issue wherein cellular network connection failure were observed.
  - SPR39514-Resolved an issue wherein while using chrome in GMS restricted profile, enable Google Play services notification popup used to appear.
  - SPR39613 - Resolved an issue where Device was unable to fetch UUID details of remote device
  - SPR39513- Resolved an issue wherein screen would not wake up from suspend when using scan-trigger as wakeup source
  - SPR39006 – Added support to automatically agree to the location consent when the location modes are changed using WirelessMgr CSP
  - SPR35665 – Resolved an issue wherein Google keyboard settings are not persisting through a reboot when configured directly after factory reset
  - SPR38534 – Resolved an issue where disconnection is observed in Fast Transition mode when device is in suspend state.
  - SPR39082 – Resolved an issue wherein Intermittent loss of Ethernet connection is observed.
  - SPR38880 – Resolved an issue wherein device gets stuck on bootup screen.
  - SPR38885 – Added support to allow package installation while App whitelist is enabled with App verification mode as long as the package and its corresponding signature is whitelisted.
  - SPR39332 – Resolved an issue wherein scanning multiple barcodes would not work while in SKIP SETUP Wizard screen
  - SPR38739 – Resolved an issue wherein streaming of certain MP3 files used to fail
  - SPR38748 – Resolved an issue wherein multicast voice traffic reception is improved.
  - SPR39578-Resolved an issue where Device was unable to retain Bluetooth connection after idle timeout period.
  - Fixed an issue on SE4750 scanner devices where scanning would occasionally stop after extensive scanning.
  - SPR39544 - Resolved an issue wherein the eMMC health data was being reported incorrectly for a specific flash part.

- SPR39644 – Included Rxlogger v5.4.16.0 that provides option to store the logs in the Internal sdcard, even when external SDcard is present on the device. User needs to select "Enable Internal sdcard only" to store the logs in the internal sdcard.

## Features

- Added Workstation Dock Enhancements & PH10 Support.
- Added Ability to Provision network credentials as part of Android Setup Wizard.
- Added support for Google QR Code integration with device scanner.
- Added support for Raw and IrCOMM modes for existing IrDA SW package.
- Added secure DataWedge Intent APIs for device and data security.
- Added support of Dynamic Staging to mass create barcodes from a single profile.
- Added Ability to easily add support for new File Transfer protocols.
- Added support to Control Access to Sensitive MX Functions.
- Added MC93 Cold Storage SKUs Heater Control Logic Optimization.
- Added Scanner Frame support for ET51.
- Added support for Connectivity analysis retry in Worry Free Wifi
- Added support for Image Capture with anchor barcode.
- Added support for Sensitivity parameter for Presentation mode.
- Added support for Trigger modes (Timed Release & Timed Hold) support in DS36xx and L36xxx scanners.

## Cellular carrier supported

AT&T, Verizon Wireless, Sprint, Telstra, and ROW (Rest of World)

## Version Information

Below Table contains important information on versions

| Description | Version |
|---|---|
| Product Build Number | 01-30-04.00-ON-U45-STD |
| Android Version | 8.1.0 |
| Security Patch level | Oct 05, 2021 |

| Linux Kernel | 4.4.78 |
|---|---|
| Component Versions | Please see Component Version under Addendum section |

# Important Links

- **Requirements and Instructions**
    - o Installation and setup instructions
- Zebra Techdocs
- Developer Tools

## Upgrade Options

Below table provides detailed information on shortest path to upgrade based on current version of software.

| Current Software Version on Device | Steps to get to this Release | Comments |
|---|---|---|

| | | |
|---|---|---|
| 01-12-01.00-ON-Uxx<br>01-13-20.00-ON-Uxx<br>01-18-02.00-ON-Uxx<br>01-21-18.00-ON-Uxx | Apply Full Package Update<br>HE_FULL_UPDATE_01-30-04.00-ON-U00-STD.zip<br>**Followed by**<br>Apply Delta Update<br>HE_DELTA_UPDATE_01-30-04.00-ON-U45-STD.zip | Full Package Update |
| 01-23-19.00-ON-Uxx | **Option 1:** Apply Delta Package Update<br>HE_DELTA_UPDATE_01-23-19.00-ON_TO_01-30-04.U00-ON.zip<br>**Followed by**<br>Apply Delta Update<br>HE_DELTA_UPDATE_01-30-04.00-ON-U45-STD.zip<br>**Option 2:** Apply Full Package Update<br>HE_FULL_UPDATE_01-30-04.00-ON-U00-STD.zip<br>**Followed by**<br>Apply Delta Update<br>HE_DELTA_UPDATE_01-30-04.00-ON-U45-STD.zip | **Option #1** is recommended as size of Delta package update is smaller compared to Full Package Update |
| 01-30-04.00-ON-Uxx | Apply Delta Update<br>HE_DELTA_UPDATE_01-30-04.00-ON-U45-STD.zip | |

NOTE:

1. The MC93 devices with below HW IDs are not allowed to downgrade to any of the older BSPs than 01.30.04.
    a. HW IDs: 513, 514, 521, 544, 549, 588, 589
    b. The HW ID from MC93 devices can be found under "Settings->System->About phone->SW Components ->HW ID"
2. The TC72/TC77 devices with new display vendor are not allowed to downgrade to any of the older BSPs. For TC72 the device is not allowed to upgrade to Android P BSP 2.11.01. To identify the display type on TC72/TC77 devices user can check the ro.config.device.display property using getprop command from adb.
    a. For TC72/TC77 Original Display vendor device [ro.config.device.display] = 900
    b. For TC72/TC77 New Display vendor device [ro.config.device.display] = 512

3. In devices with AR1337 camera on TC72, TC77,TC52,TC57,MC93,TC83 , the camera will not work with any of the older LG releases or BSPs below 01-30-04.00-OG-U15.They can be identified by reading the property "ro.config.device.camera0" using getprop command from adb.
    a. [ro.config.device.camera0]: [128]
    b. [ro.config.device.camera0_sensor_name]: [ON-Semi AR1337]
    c. TC52, TC77, TC72, TC77 AR1337 new SKU list with AR1337 camera support is available in Device support section in the release notes

4. TC83 Rev B SKU's (HW ID's 651,653,654,655,656,658,659,660,661,662,664,666,667,668,669) are not allowed to downgrade to any of the older LG releases or BSPs below 01-30-04.00-ON-U15 .
    a. The HWID can be identified from Settings->System->About phone->SW Components->HW ID or by reading the property "ro.config.device.sku" using getprop command from adb .

5. The MC93 devices with SHT4x Humidity Sensor require 01-30-04.00-ON-U35-STD or higher to ensure full humidity sensor functionality
   MC93 SHT4x humidity sensor devices can't be downgrade below 01.30.04 Lifeguard Update 35
   To identify the SHT4x humidity sensor on the device users can check the ro.config.device.sku property using getprop command from adb.
   a. Devices with for SHT4x humidity sensor will have [ro.config.device.sku] = 522 or 523.
   b. Devices with SHT4x humidity sensor will list HW ID as 522 or 523 on "Settings-->About phone-->SW components-->HW ID"

6. To identify the LSM6DSM Gyroscope/accelerometer sensor on the device users can check the ro.config.device.gyro property using getprop command from adb.
   a. Devices with LSM6DSM sensor will have [ro.config.device.gyro] = 8.
   b. Devices with LSM6DSM sensor will list sensor type as LSM6DSM on "Settings-->About phone-->SW components-->Gyroscope" or "Settings-->About phone-->SW components -- >Accelerometer".

7. LG CFE Patch U41 is a Mandatory patch for devices with WLAN Front End Module 45868 & BT Filter 22545
   WLAN Front End Module can be identified using
   adb shell getprop ro.config.device.wlan_fem
   [ro.config.device.wlan_fem]: [QM45868]

   BT Module can be identified using adb shell getprop ro.bluetooth.bt_filter
   ro.bluetooth.bt_filter=QM22545

8. BMI270/ICM42607 Gyroscope/accelerometer sensor devices require 01-30-04.00-ON-U44-STD  or higher to ensure full G-sensor functionality

# Known Constraints and Workarounds

- WiFi sleep policy set to "Always" (Android O limitation)

- Some devices operate at 320 dpi. This screen configuration results in the majority of the AOSP applications displaying content consistently in both portrait and landscape modes. In most cases if the application layout is not optimal in landscape it is optimal in portrait or vice versa. However, there are a few applications that do not render properly in either portrait or landscape. In this case the suggested alternative is to change the display size using the bundled Display Settings APK or use settings menu to change the display size and font size (settings ☐  Display ☐  Advanced settings ☐  Display Size / Font Size).

- Upgrading from a higher SPL level in Oreo to a lower SPL level in A10, will result in loss of user data.

- Illumination brightness is set to maximum by default for SE4710 and SE4750 Scan Engines.

- TC72/TC77, TC52/57 devices with LSM6DSM Gyroscope/accelerometer Sensor shouldn't use software released before 01-30-04.00-ON-U31

  To identify the Gyroscope/accelerometer sensor on the device users can check the ro.config.device.gyro property using getprop command from adb.

Devices with LSM6DSM sensor will have [ro.config.device.gyro] = 8.

Devices with LSM6DSM sensor will list sensor type as LSM6DSM on "Settings-->About phone-->SW components-->Gyroscope" or "Settings-->About phone-->SW components -->Accelerometer".

• Support for ZBK-ET5X-10SCN7-02 and ZBK-ET5X-8SCN7-02 (SE4770 scan engine devices) is not available with software released before 01-30-04.00-ON-U20-STD.

• Devices with BMI270/ICM42607 Gyroscope/accelerometer Sensor shouldn't use software released before 01-30-04.00-ON-U44. To identify the Gyroscope/accelerometer sensor on the device users can check the ro.config.device.gyro property using getprop command from adb.

• The installed Gyroscope/Accelerometer sensors can be identified either in SETTINGS or via ADB command:

**SETTINGS**

a. Devices with BMI270/ ICM42607 Gyroscope/accelerometer sensor will list sensor type as BMI270/ ICM42607 on "Settings-->About phone-->SW components-->Gyroscope" or "Settings-->About phone-->SW components -- >Accelerometer".

**ADB**

Check the ro.config.device.gyro & ro.config.device.accelerometer property using **getprop** command from adb.

a. Devices with **BMI270** Gyroscope/accelerometer sensor will have ro.config.device.gyro = 32  ro.config.device.accelerometer=120

b. Devices with **ICM42607** Gyroscope/accelerometer sensor will have ro.config.device.gyro = 260  ro.config.device.accelerometer=2052

# Device Support

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

| Device Family | Part Number | | Device Specific Manuals and Guides |
|---|---|---|---|
| PS20 | PS20J-B2G2CN00 | PS20J-P4G2CN00 | PS20 Home Page |

# Addendum

## Component Versions

| Component / Description | Version |
|---|---|
| AnalyticsMgr | 2.4.0.1254 |
| Battery Management | Version: 1.4.2 |
| Bluetooth Pairing Utility | Version 3.16 |
| Device Central | 2.1.0.15 |
| DataWedge | 8.2.215 |
| EMDK | 9.0.3.3003 |
| Enterprise Keyboard | 2.2.2.3 |
| System Update | 3.3.0.19(Need to check) |
| MXMF | 10.3.0.28 |
| OSX | QCT.81.8.27.23 |
| StageNow-Client | 5.1.0.1 |
| Wi-Fi | FUSION_QA_2_1.11.0.026_O |
| License Manager | 5.0.0 |
| Rxlogger and RxLoggerUtility | Version 5.4.16.0 and Version: 1.3.3.12 |
| Scanning Framework | 23.1.24.1 |
| WorryFree Wifi Analyzer | WFW_QA_2_1.11.0.001_O |

# Revision History

| Rev | Description | Date |
|---|---|---|
| 1.0 | Initial Release | April 28, 2022 |
| 2.0 | PS20 flickering issue resolved | May 25, 2023 |