

# Update

## Hypercom/Equinox L5300 PCI 2.0, L4150 and L4250 Software and Certificate Expirations

September 10, 2015  
Issue 2

Note: this Issue 2 provides crucial updates regarding Hypercom and Equinox payment terminal certificate expirations. Changes of significance are highlighted in red.

Software and security certificates embedded into many Hypercom L4150 and L4250 payment terminals **as well as the Equinox L5300 PCI 2.0 model (but *not* the L5300 PCI 3.0 version)** will expire later this year, thereby disabling the PIN pad. Users will need to either (a) update the certificates or (b) replace the affected PIN pads.

Boot software and Application Management software (SCAT/FPE) certificates expire several years after their signing dates, as do the PED certificates. These certificates authenticate and enable PIN pad communications, so when any of these certificates expire, the PIN pad can no longer interact with the host. This disables communication and payment functions for that lane.

**In addition, an Access Control List (ACL) provides a set of user permissions for files, folders, program or other objects in each terminal. The ACL controls the functions and operations that users and groups may access and perform, including read, write and execute permissions.**

**ADDITIONAL INVESTIGATION BY EQUINOX HAS REVEALED THAT ALL ACL CERTIFICATES FOR L4150, L4250 AND L5300 PCI 2.0 TERMINALS MUST BE REPLACED BY OCTOBER 19, 2015.**

This Update provides the timing information and resolution options for these expirations.

Two product bulletins from Equinox are attached that provide detailed upgrade information, with including a cross-reference of all Hypercom L4150 and L4250 serial numbers, part numbers, manufacturing dates and their associated boot and FPE software versions. **An additional bulletin provides ACL expiration information for the Equinox L5300 PCI 2.0.**

**In addition, the Equinox Boot Upgrade Guide is also attached.**

### L4150 EXPIRATIONS

#### ■ **L4150 Terminal ACL certificates:**

- All L4150 terminal ACLs will expire **October 19, 2015**.

#### ■ **L4150 Boot software:**

- L4150 terminals built through August 2009 were shipped with boot software version 20070627, which will expire **October 19, 2015**.
- L4150 terminal ACLs will expire **October 19, 2015**.
- Later L4150 terminals shipped from September 2009 – March 2013 were provided with boot version 20090709, which will not expire until **July 20, 2019**.

- Field upgrades of boot software have *not* been available to date. Unless a PIN pad was returned to Equinox for updates or repairs, and a boot software update was requested and performed, the original boot software will still be resident and *will expire on the above dates*.
- **L4150 Application manager (SCAT/FPE) software:**
  - Hypercom FPE software versions 20080527 and 20081218 will expire **October 19, 2015**.
  - L4150 terminals with FPE version 20090722 or later will also operate until **July 20, 2019** or later (see chart on attached Equinox bulletin).
  - Application manager software field upgrades have been available, so a SCAT/FPE load may have been updated since its original shipment. Otherwise the original application manager software *will expire on the above dates*.
- **L4150 PED certificates:**
  - L4150 PED certificates expire 10 years from the manufacturing (or factory service) date if the unit was built before March of 2012. Since manufacturing of the L4150 started in July of 2007, no L4150 PED certificates will expire before **July 2017**.
  - L4150 terminals built in March 2012 and after have a 15-year PED certificate, not expiring until the year **2027** at the earliest.

## L4250 EXPIRATIONS

- **L4250 Terminal ACL certificates:**
  - All L4250 terminal ACLs will expire **October 19, 2015**.
- **L4250 Boot software:**
  - L4250 terminals built up to (and possibly into) March 2010 were shipped with boot software version V1.3.2 or 20070607, both of which expire **October 19, 2015**.
  - Later L4250 terminals shipped from April 2010 – January 2012 were provided with boot version 20090709, which will not expire until **July 20, 2019**. (Some March 2010 units will also have this newer boot software version 20090709.)
  - **Field upgrades of boot software are now available and can be downloaded from the Equinox FTP Site – the login and passwords are provided in the attached bulletin from Equinox.**
    - **Note! All L4250s require this boot software update! The December 2014 update of L4250 SCAT/FPE Application Manager software did *not* address this boot update requirement.**
    - **Unless a PIN pad was returned to Equinox for updates or repairs, and a boot software update was specifically requested and performed, the original boot software will still be resident and *will expire on the above dates*.**
- **L4250 Application manager (SCAT/FPE) software:**
  - All L4250 terminals were originally shipped with application software that expired in **December of 2014**.
  - Therefore, any L4250 terminals operating today must have been upgraded with new SCAT/FPE software in December 2014, which extended the application manager software certificates until **December of 2024** or later. (Any spare or otherwise not-in-service L4250 terminals that were not upgraded cannot now function until new boot and FPE software has been loaded.)

### ■ *L4250 PED Certificates:*

- The L4250's PED certificate will expire 10 years from the manufacturing (or factory service) date if the unit was built before March of 2012. Since manufacturing of the L4250 commenced in June of 2006, no L4250 PED certificates will expire before **June 2016**.
- L4250 terminals built March 2012 or later have a 15-year PED certificate, not expiring until **2027** at the earliest.
- PED certificates have never been upgradable in the field. Unless the L4250 terminal was repaired or serviced at Equinox or an Equinox Authorized Repair Facility, the resident PED certificate will still be resident and expire as listed above. *Upgrading the application manager (SCAT/FPE) software in December 2014 did not upgrade the PED certificate.*
- L4250 PED certificates will therefore start to expire in **June of 2016** – that is, ten years after a unit's manufacturing date or the most recent factory service.

## L5300 PCI 2.0 EXPIRATIONS

### ■ *L5300 PCI 2.0 Terminal ACL certificates:*

- All L5300 PCI 2.0 ACLs will expire **October 19, 2015**.

**Note:** L5300 PCI 3.0 Boot Software, SCAT/FPE, PED and ACL certificates are not affected by any of these near-term expiration dates.

## RESOLUTION SUMMARY

Since the responsibility for fraudulent non-EMV transactions shifts to the merchant in October of 2015, most merchants will likely replace the L4150 and L4250 PIN pads with payment terminals that include EMV support such as the L5200 or L5300. The older L4150 and L4250 designs cannot be upgraded to support EMV.

### ■ *ACL Certificates:*

- The new/replacement ACL certificates will not expire until October 11, 2029.
- Equinox now provides a file package including the boot software, Application Management software and ACL certificates required to upgrade the terminals. This file package can also be up-loaded to users' configuration/setup at the Connected Payments host and then downloaded to that user's lanes via Connected Payments' forms download capability. See the Equinox documentation and support website for details and the applicable file packages for each terminal and situation.

### ■ *Boot software (models L4150 and L4250):*

- Equinox has new boot software for the L4150 and L4250 with updated signing dates that will delay expiration for at least ten (10) years.
- Up to now, boot software has not been field-upgradable, and was performed only at Equinox or an Authorized Repair Facility (ARF).
- The remote loading capability described above also enables the boot software certificate to be updated along with the ACL and Application Management certificates. This is now complete and available from Equinox.

### ■ *Application Management (SCAT/FPE) software (models L4150 and L4250):*

- Equinox has new Application Management software for the L4150 and L4250 with updated signing dates that will delay expiration for at least ten (10) years.

- Hypercom L4150 and L4250 payment terminals can currently be upgraded in the field using on-site cable connections to install downloaded SCAT/FPE Application Management software loads. Instructions are provided on the following pages.
- **The remote loading capability described above also enables the Application Management software to be updated along with the boot software and ACL certificate. This is now complete and available from Equinox.**
- **PED Certificates:**
  - PED certificates cannot be updated in the field. Payments industry mandates require that PED certificates can only be loaded at certified and authorized facilities
  - Hypercom L4150 or L4250 payment terminals needing updated PED certificates must be sent to Equinox or an Equinox Authorized Repair Facility (ARF).
  - The planned remote loading tools will not update PED certificates.
  - Warranty conditions do not apply to PED certificates: standard service pricing will apply.
  - *So even if the FPE and boot software are updated, the PIN pad must still be returned to the factory or ARF for the required PED certificate upgrade.*

## DETAILED INFORMATION

- **Get dates from Equinox for a specific device:** Solution Providers can provide Equinox with L4150 or L4250 serial numbers via email ([HypercomCertExpiry@equinoxpayments.com](mailto:HypercomCertExpiry@equinoxpayments.com)) to receive the currently logged certificate information for those terminals.
- **Expiration summary table:** The table below provides a summary of the manufacturing dates, expiration deadlines and the method of getting the L4150 and L4250 payment terminals updated.
  - L5300 PCI 2.0 expirations are limited to the ACL only, and all these terminals have the same October 19, 2015 expiration date.
  - All L4150 and L4250 terminal ACL certificates expire on October 19, 2015.
  - Since all L4xxx and L5300 PCI 2.0 ACL certificates expire on the same October 19, 2015 date – *all these terminals must be upgraded by that date.*
- **Equinox product bulletin:** The Equinox product support bulletin regarding expiring security certificates is attached below, providing extensive cross-reference information for the L4150 and L4250 terminals.
- **Equinox Boot Upgrade Guide:** Also attached is the Equinox Boot Upgrade Guide.

*continued on following page...*

## Hypercom L4150 and L4250 Certificate Summary

**The ACL Certificate in all L4150, L4250 and L5300 PCI 2.0 terminals expires on October 19, 2015.**

	Date of Manufacture	Boot Software	Application Manager (SCAT/FPE) Software	PED Certificate
<b>Hypercom L4150</b>	Through <b>August 2009</b>	<b>Expires 19-Oct-15</b> Fix: use remote loading tool <sup>1</sup> or return L4150 to ARF. <sup>2</sup>	<b>Expires 19-Oct-15</b> (v20080527 or v20081218) Fix: use current download <sup>3</sup> or remote loading tool, or return L4150 to ARF. <sup>2</sup>	<b>July 2017</b> Expirations begin (10 years after manufacture or last ARF service date) Fix: PED certificate can be updated by ARF <sup>2</sup> only.
	After <b>September 2009</b>	<b>Expires 20-Jul-19</b> Fix: use remote loading tool <sup>1</sup> or return L4150 to ARF. <sup>2</sup>	<b>Expires 20-Jul-19</b> (v20090722) Fix: use current download <sup>3</sup> or remote loading tool, <sup>1</sup> or return L4150 to ARF. <sup>2</sup>	<b>July 2017</b> Expirations begin (10 years after manufacture or last ARF service date) Fix: PED certificate can be updated by ARF <sup>2</sup> only.
	After <b>March 2012</b>	<b>Expires 20-Jul-19</b> Fix: use remote loading tool <sup>1</sup> or return L4150 to ARF. <sup>2</sup>	<b>Expires 20-Jul-19</b> (v20090722) Fix: use current download <sup>3</sup> or remote loading tool, <sup>1</sup> or return L4150 to ARF. <sup>2</sup>	<b>April 2027</b> Expirations begin (15 years after manufacture or last ARF service date) Fix: PED certificate can be updated by ARF <sup>2</sup> only.
<b>Hypercom L4250</b>	Before <b>March 2010</b>	<b>Expires 19-Oct-15</b> Fix: use remote loading tool <sup>1</sup> or return to L4250 ARF. <sup>2</sup>	<b>Expires December 2024</b> Fix: none required, since all L4250 SCAT/FPE was updated in December 2014.	<b>July 2016</b> Expirations begin (10 years after manufacture or last ARF service date) Fix: PED certificate can be updated by ARF <sup>2</sup> only.
	After <b>March 2010</b> <sup>4</sup>	<b>Expires 20-Jul-19</b> Fix: use remote loading tool <sup>1</sup> or return L4250 to ARF. <sup>2</sup>	<b>Expires December 2024</b> Fix: none required, since all L4250 SCAT/FPE was updated in December 2014.	<b>April 2020</b> Expirations begin (10 years after manufacture or last ARF service date) Fix: PED certificate can be updated by ARF <sup>2</sup> only.
	After <b>March 2012</b>	<b>Expires 20-Jul-19</b> Fix: use remote loading tool <sup>1</sup> or return L4250 to ARF. <sup>2</sup>	<b>Expires December 2024</b> Fix: none required, since all L4250 SCAT/FPE was updated in December 2014.	<b>April 2027</b> Expirations begin (15 years after manufacture or last ARF service date) Fix: PED certificate can be updated by ARF <sup>2</sup> only.

<sup>1</sup> Equinox now provides file packages for each terminal variation that can be downloaded and remotely applied using Connected Payments. See the Equinox information on the following pages, and visit the Equinox website for additional details.

<sup>2</sup> Equinox Authorized Repair Facility (ARF).

<sup>3</sup> Application management software (SCAT/FPE) is available from Equinox support. See attached instructions on following pages.

<sup>4</sup> Some units built in March 2010 likely have the newer software. Check the individual unit serial numbers.

**August 10, 2015**

## Expiring Security Certificates

Several product lines including the L4150 and L4250 were designed by Hypercom using a cryptographic certificate structure to manage the device and associated system software authenticity. This structure provides secure payment architecture necessary to comply with PCI requirements.

Each of the cryptographic certificates has an expiry date that was set by Hypercom on the day of certificate or software signer creation. From our analysis, it appears that Hypercom initially set the lifetime of some system software components to ten years.

In addition to the software expirations, each device is loaded with a PED certificate with an expiration date. From 2007 through April 2012, this expiration was ten years from the date of manufacture or repair. Beginning April 2012, the PED certificate expiration is fifteen years.

**Note:** If a terminal has gone through a repair, the PED certificate is reloaded and the PED certificate expiration would be ten or fifteen years from the date of repair depending on when the repair occurred.

Below are the four separate elements/certificates that should be noted.

- |                         |   |
|-------------------------|---|
| 1. Boot Software        | See Table below: next date, October 19, 2015.   |
| 2. FPE\SCAT Application | See Table below for valid FPE\SCAT versions   |
| 3. Terminal ACL         | October 19, 2015  |
| 4. PED Certificate      | Units manufactured before March 2012 10 years from date of manufacture, thereafter 15 years from date of manufacture. |

**On OCTOBER 19, 2015 a number of revisions of the L4150 and L4250 terminals will experience a certificate expiry event.** Please refer to the tables on the following pages for a list of hardware and software versions and their corresponding expiration dates.

**Note:** The L4100 does NOT have the capability to perform a boot update. The L4100 is a pre-PCI device and has reached its End-of-Service date as of December 30, 2012. The boot and ACL for the L4100 will expire on October 19, 2015. It is recommended that these terminals be removed from service prior to October 19, 2015.

## Resolution

### **Recommended Solution**

Upgrade to our next generation L5000 product family, the L5300 or L5200.

**Please Note:** EMV is not available on the L4XXX series and **October 1, 2015**, is the liability shift date where retailers not supporting EMV will be liable for fraudulent transactions. Upgrading to the L5XXX series, not only removes that financial risk, it also supports many new features such as a contactless reader for Apple Pay, Android Pay, Samsung Pay, etc., supports EMV Contact and Contactless, multiple P2P schemas and in-lane Remote Key Injections.

**Alternative Solution**

*Software Update:* Equinox has re-signed the Boot Software for the L4XXX series, the Terminal ACL, and multiple versions of the FPE\SCAT application. The re-signed software is valid through year **2019**, well past the end-of-life (EOL) Service date. This re-signed software must then be loaded into all devices to prevent a failure due to software expirations. Please refer to the *Boot Upgrade Guide: L4x50 Series (940366-067E\_RevB\_BootUpgradeGuide\_Final\_072815.pdf)* for detailed instruction on the update process.

**Note:** Equinox can provide direct ship customers with a list of serial numbers and the corresponding Boot and PED certificate expiration dates. If you are not a direct ship customer and you have a list of serial numbers but do not know what revision they are, you can provide us with a serial number list and we will provide the hardware revision.

If you have any questions, please email us at [HypercomCertExpiry@equinoxpayments.com](mailto:HypercomCertExpiry@equinoxpayments.com) or contact your sales representative.

**Updated FPE\SCAT Software Expiration Dates**

The FPE\SCAT revisions listed below have a validity date of July 20, 2019. If you are not currently running one of these versions, please email us at [HypercomCertExpiry@equinoxpayments.com](mailto:HypercomCertExpiry@equinoxpayments.com) and provide the FPE\SCAT version you are running. We will update your version of FPE\SCAT with a validity date of July 20, 2019.

FPE\SCAT Application valid through July 20, 2019		
3.0.020	3.P.030	3.0.031
3.0.033	4.P.000	4.P.012
4.P.020	4.P.025	4.P.031
4.P.040	4.P.046	5.P.100
5.P.110	5.P.130	5.P.131
5.P.133	5.P.134	5.P.135
5.P.138		

### L4150 Expiration Dates

L4150 Boot Software		
Boot Version	Expiration Date	In terminals built during
20070627	10/19/2015	July 2007 to August 2009
20090709	7/20/2019	September 2009 to March 2013

L4150 Part Number Revisions and Boot Versions							
HW P/N	REV	Boot Version	Boot Expiration	HW P/N	REV	Boot Version	Boot Expiration
010338-001R	A - ZE	20070627	10/19/2015	010338-119R	A - G	20070627	10/19/2015
	ZF - ZH1	20090709	7/20/2019	010338-120R	A - A1	20070627	10/19/2015
010338-002R	A - ZG	20070627	10/19/2015	010338-202R	B - C	20090709	7/20/2019
	ZH - ZKA	20090709	7/20/2019		A - H	20090709	7/20/2019
010338-003R	A - ZF2	20070627	10/19/2015	010338-205R	A - H	20090709	7/20/2019
010338-004R	A - ZH1	20070627	10/19/2015	010338-206R	A - J	20090709	7/20/2019
010338-005R	A - ZE	20070627	10/19/2015	010338-207R	A - H	20090709	7/20/2019
	ZF - ZHB	20090709	7/20/2019	010338-229R	A - D	20090709	7/20/2019
010338-006R	A - ZF	20070627	10/19/2015	010338-251R	A - L	20090709	7/20/2019
	ZG - ZJA	20090709	7/20/2019	010338-252R	A - C	20090709	7/20/2019
010338-007R	A - ZE	20070627	10/19/2015	010338-902R	01 - 2P3	20070627	10/19/2015
	ZF - ZHB	20090709	7/20/2019	010346-002R	A - ZH1	20070627	10/19/2015
010338-008R	A - ZE	20070627	10/19/2015	010346-004R	A - ZH1	20070627	10/19/2015
	ZF - ZHA	20090709	7/20/2019	010346-006R	A - ZG1	20070627	10/19/2015
010338-009R	A - ZF	20070627	10/19/2015	010346-008R	A - ZG1	20070627	10/19/2015
	ZG - ZJA	20090709	7/20/2019	010346-102R	A - B1	20070627	10/19/2015
010338-010R	A - ZF	20070627	10/19/2015	010346-106R	A - B1	20070627	10/19/2015
	ZG - ZJA	20090709	7/20/2019	010347-002R	01 - 05	20070627	10/19/2015
010338-011R	A - ZF	20070627	10/19/2015	010347-003R HKLD	A	20070627	10/19/2015
	ZG - ZJA	20090709	7/20/2019		B - ZC	20070627	10/19/2015
010338-013R	A - ZG2	20070627	10/19/2015		ZD - ZG1	20070627	10/19/2015
010338-015R	A - ZF2	20070627	10/19/2015	010347-004R HKLD	A - E1	20070627	10/19/2015
010338-017R	A - ZH2	20070627	10/19/2015	010347-006R HKLD	A - C2	20090709	7/20/2019
010338-018R	A - ZFC	20070627	10/19/2015	010347-007R HKLD	A - C2	20090709	7/20/2019
010338-019R	A - ZGB	20070627	10/19/2015	010347-008R HKLD	A - A2	20090709	7/20/2019
010338-020R	A - ZJ1	20070627	10/19/2015	010347-206R HKLD	A - F1	20090709	7/20/2019

L4150 Part Number Revisions and Boot Versions							
HW P/N	REV	Boot Version	Boot Expiration	HW P/N	REV	Boot Version	Boot Expiration
010338-020R	A - ZGB	20070627	10/19/2015	010347-207R HKLD	A - F1	20090709	7/20/2019
010338-022R	A - ZHA	20070627	10/19/2015	010347-208R HKLD	A - F1	20090709	7/20/2019
010338-024R	1 - 6 Prelim	20070627	10/19/2015	010358-202R	A - G	20090709	7/20/2019
010338-025R	A - ZH2	20070627	10/19/2015	010358-205R	A - G	20090709	7/20/2019
010338-026R	A - ZHA	20070627	10/19/2015	010358-206R	A - G	20090709	7/20/2019
010338-028R	A - ZHA	20070627	10/19/2015	010358-207R	A - H	20090709	7/20/2019
010338-101R	A - C	20090709	7/20/2019	010358-251R	A - L	20090709	7/20/2019
010338-102R	1 - 3P6	20070627	10/19/2015	010358-252R	A - D	20090709	7/20/2019
	3P7 - 4P3	20090709	7/20/2019		010370-001R HERD		
010338-118R	A - F	20070627	10/19/2015				

## L4250 Expiration Dates

L4250 Boot Software		
Boot Version	Expiration Date	In terminals built during
V1.3.2	10/19/2015	June 2006 to December 2007
20070607	10/19/2015	December 2007 to March 2010
20090709	7/20/2019	March 2010 to January 2012

L4250 Part Number Revisions and Boot Versions							
HW P/N	REV	Boot Version	Boot Expiration	HW P/N	REV	Boot Version	Boot Expiration
010314-005	A - Q	V1.3.2	10/19/2015	010314-015	A - P	V1.3.2	10/19/2015
	R - W	20070607	10/19/2015		Q - Y	20070607	10/19/2015
	Y - Z	20090709	7/20/2019		Z - ZA2	20090709	7/20/2019
010314-005R	A - E	V1.3.2	10/19/2015	010314-016	A - Q	V1.3.2	10/19/2015
	F - L	20070607	10/19/2015		R - Y	20070607	10/19/2015
	M - N1	20090709	7/20/2019		Z - ZB1	20090709	7/20/2019
010314-006	A - R	V1.3.2	10/19/2015	010314-017	A - R	V1.3.2	10/19/2015
	S - Y	20070607	10/19/2015		S - Z	20070607	10/19/2015
010314-006R	A - E	V1.3.2	10/19/2015		ZA - ZC	20090709	7/20/2019
	F - L	20070607	10/19/2015	010314-018	A - R	V1.3.2	10/19/2015
	M - N2	20090709	7/20/2019		S - Z	20070607	10/19/2015
010314-007	A - R	V1.3.2	10/19/2015	010314-019	ZA - ZC2	20090709	7/20/2019
	S - Z	20070607	10/19/2015		A - L	V1.3.2	10/19/2015
	ZA - ZC1	20090709	7/20/2019		M - U1	20070607	10/19/2015

L4250 Part Number Revisions and Boot Versions							
HW P/N	REV	Boot Version	Boot Expiration	HW P/N	REV	Boot Version	Boot Expiration
010314-007R	A - E	V1.3.2	10/19/2015	010314-020	A - M	V1.3.2	10/19/2015
	F - L	20070607	10/19/2015		N - V1	20070607	10/19/2015
	M - P1	20090709	7/20/2019	010314-021	A - K	V1.3.2	10/19/2015
010314-008	A - S	V1.3.2	10/19/2015		L - T	20070607	10/19/2015
	T - ZA	20070607	10/19/2015	010314-022R	A - E	V1.3.2	10/19/2015
	ZB - ZD2	20090709	7/20/2019		F - M1	20070607	10/19/2015
010314-008R	A - E	V1.3.2	10/19/2015	010314-023R	A - D	V1.3.2	10/19/2015
	F - L	20070607	10/19/2015		E - M1	20070607	10/19/2015
	M - P2	20090709	7/20/2019	010314-024R	A - G	20070607	10/19/2015
010314-009	O1 - 2P1	V1.3.2	10/19/2015	010314-025	4-Jan	20070607	10/19/2015
010314-010	A - R	V1.3.2	10/19/2015	010314-027	A - E1	20070607	10/19/2015
	S - Z	20070607	10/19/2015	010314-610R	A - D1	20070607	10/19/2015
	ZA - ZC1	20090709	7/20/2019	010328-001	O1 - 3E2	V1.3.2	10/19/2015
010314-011	O1 - 2P3	V1.3.2	10/19/2015	010328-001R	A - E	V1.3.2	10/19/2015
010314-012	A - P	V1.3.2	10/19/2015		F - N	20070607	10/19/2015
	Q - W	20070607	10/19/2015		P - R	20090709	7/20/2019
	Y - Z1	20090709	7/20/2019	010328-002R	1 - 3	V1.3.2	10/19/2015
010314-013	A - P	V1.3.2	10/19/2015	010328-004R	A - B2	20090709	7/20/2019
	Q - W	20070607	10/19/2015	010346-001	A - H	20070607	10/19/2015
	Y - Z1	20090709	7/20/2019	010346-003	A - H	20070607	10/19/2015
010314-014	A - P	V1.3.2	10/19/2015	010346-005	A - H	20070607	10/19/2015
	Q - Y	20070607	10/19/2015	010346-007	A - H	20070607	10/19/2015
	Z - ZA2	20090709	7/20/2019	010346-101	A - C	20070607	10/19/2015
				010346-105	A - C	20070607	10/19/2015

## Frequently Asked Questions

This section provides answers to commonly asked questions.

<b>Q.</b>	Is it a requirement to perform the boot update, reloading of FPE\SCAT, and the ACL update in three separate steps?
<b>A.</b>	Yes, the process described in this guide is the recommended and most reliable way to perform the updates.
<b>Q.</b>	Do I have to reload my forms package after reloading FPE\SCAT?
<b>A.</b>	No, your forms will still be present and will be available after you reload the standard FPE\SCAT software that was in the PIN pad prior to the start of the update. Reloading the forms is recommended but not required.
<b>Q.</b>	Is the PIN pad in a non-functional state after applying the boot update?
<b>A.</b>	The software that updates the boot does not have the same functionality as standard FPE\SCAT so the PIN pad cannot return to regular functionality until a standard FPE\SCAT is loaded back into the PIN pad.
<b>Q.</b>	How do I know if the boot update was successful?
<b>A.</b>	At the end of the update, the "LANE CLOSED" screen will display the boot version of 20090709. You can also check the boot version through the Setup screen on the PIN pad by selecting Utility, then HW Conf.
<b>Q.</b>	Is there anything that tells us the ACL update actually applied?
<b>A.</b>	There is no version number for the ACL and no way to check the validity date. The only indicator is the confirmation of a successful download.
<b>Q.</b>	What is the PIN pad behavior when the Boot expires?
<b>A.</b>	When the PIN pad is rebooted after the expiry of the boot, the PIN pad will be non-functional. The screen will be blank and it will emit three beeps. The PIN pad can only be restored to normal operation by the Equinox repair facility.
<b>Q.</b>	What is the PIN pad behavior when the ACL expires?
<b>A.</b>	When the PIN pad is rebooted after the expiry of the ACL, the PIN pad will be unable to display customer forms and will display the standard close form. The PIN pad can still accept a download so once the updated ACL is loaded, it will return to normal operation.
<b>Q.</b>	Will I have to reload my encryption keys after these updates are complete?
<b>A.</b>	No, these updates have no impact on keys that are in the PIN pad.
<b>Q.</b>	What is the expiry date of the L4XXX boot that is being loaded during this process?
<b>A.</b>	The 20090709 boot version for the L4XXX PIN pads has an expiry date of July 20, 2019.
<b>Q.</b>	Can the PED certificate be updated remotely with a download?
<b>A.</b>	No, the only option for a PED certificate update is sending the terminal for repair.
<b>Q.</b>	Can the boot and ACL be updated on the L4100?
<b>A.</b>	No. The L4100 does NOT have the capability to perform a boot update. The L4100 is a pre-PCI device and has reached its End-of-Service date as of December 30, 2012. The boot and ACL for the L4100 will expire on October 19, 2015.

## Contact Us

If you have any questions, please contact your Equinox Payments Customer Support Specialist directly or use any of the methods below:

**Email**     [HypercomCertExpiry@equinoxpayments.com](mailto:HypercomCertExpiry@equinoxpayments.com)

**Phone:**    1.877.497.3726

**Note:** For any communication method used, please leave your **Name, Phone Number, Email Address** and specific **Reason** for contacting us.

**August 5, 2015**

## Expiring Software Components

Several product lines including the L5300 PCI2 were designed by Hypercom using a cryptographic certificate structure to manage the device and associated system software authenticity. This structure provides the secure payment architecture necessary to comply with PCI requirements.

Each of the cryptographic certificates has an expiry date that was set by Hypercom when the **certificate was created**. From our analysis, it appears that although Hypercom documentation indicated it was initially set, with the lifetime of some system software components being ten years, a number of components are expiring in 2015.

The expiring software file that affects the L5300 PCI2 is the **Terminal ACL**.

**OCTOBER 19, 2015** is the expiry date of the L5300 PCI2 Terminal ACL.

The expiry of the Terminal ACL will take effect **ONLY** if the L5300 PCI2 is power cycled or rebooted after **October 18, 2015**. If the certificate expires, the L5300 PCI2 will be unable to display customer forms and will only display the standard close form. In this condition, the L5300 PCI2 can still accept a download so once the updated ACL is loaded, it will return to normal operation.

L5300 PCI3 and all L5200 devices are **NOT** affected. Only L5300 PCI2 terminals require this Terminal ACL update.

## Impacted L5300 PCI2 Part Numbers

The expiring Terminal ACL affects the following part numbers:

- 010360-011R
- 010360-012R
- 010360-013R
- 010360-014R
- 010360-015R
- 010360-017E
- 010360-018E
- 010360-201R
- 010360-202R
- 010360-203E
- 010360-204E
- 010360-205E
- 010360-611E
- 010360-612E
- 010360-615E
- 010360-623E

## Resolution

Prior to October 18, 2015 using your current method for loading forms or software updates, load the updated Terminal ACL. The updated file is available on the FTP site listed below. Updated ACL files have a new certificate expiry date of 10/11/2029.

## Updating the Terminal ACL

This section provides instructions for downloading the software and performing the ACL update.

### *Access Equinox FTP Site*

Use the following FTP login credentials to download the file listed below to your local hard-drive:

**URL address:** <https://ftp1.equinoxpayments.com>  
**Username:** epmluser  
**Password:** Ep2018\$\$

**NOTE:** Click on the above URL address for direct access to the folder.

On the FTP site, locate the specific folder: **L5300 PCI2 ACL Update**

The file needed for the Terminal ACL update is **L5300PCI2\_PROD\_ACL\_Update\_dl.zip**.

Use a compression application (such as Winzip or 7-Zip) and extract the files from the zip file into its own folder. For example, **..\L5300PCI2\_ACL\_Update\_Prod**.

Using your current method for loading software and/or forms, download the packinglist file located in the "dl" sub directory of the folder created during the unzip of the file downloaded from the FTP site.

## Frequently Asked Questions

This section provides answers to commonly asked questions.

<b>Q.</b>	Are there any other software or certificate expirations I need to be concerned about?
<b>A.</b>	There are no other imminent software or certificate expirations for the L5300 PCI2.
<b>Q.</b>	Is it a requirement to perform the ACL update separate from a FPE or Forms update?
<b>A.</b>	Yes, the process described in the guide is the recommended and most reliable way to perform the updates.
<b>Q.</b>	Do I have to reload my forms package or FPE after the ACL update?
<b>A.</b>	No, your forms and FPE will still be present and will be available after you load the ACL update.
<b>Q.</b>	Is there anything that tells us the ACL update actually applied?
<b>A.</b>	There is no version number for the ACL and no way to check the validity date. The only indicator is the confirmation of a successful download.
<b>Q.</b>	What is the PIN pad behavior when the ACL expires?
<b>A.</b>	When the PIN pad is rebooted after the expiry of the ACL, the PIN pad will be unable to display customer forms and will display the standard close form. The PIN pad can still accept a download so once the updated ACL is loaded, it will return to normal operation.
<b>Q.</b>	Will I have to reload my encryption keys after the update is complete?
<b>A.</b>	No, the ACL update has no impact on keys that are in the PIN pad.
<b>Q.</b>	What is the expiry date of the Terminal ACL loaded during this process?
<b>A.</b>	The updated ACL has an expiry date of October 11, 2029.
<b>Q.</b>	Does the L5300 PCI3 have any impending software or certificate expirations?
<b>A.</b>	No, there are no imminent software or certificate expirations for the L5300 PCI3.
<b>Q.</b>	Does the L5200 have any impending software or certificate expirations?
<b>A.</b>	No, there are no imminent software or certificate expirations for the L5200.

## Contact Us

If you have any questions, please contact your Equinox Payments Customer Support Specialist directly or use any of the methods below:

**Email**     [HypercomCertExpiry@equinoxpayments.com](mailto:HypercomCertExpiry@equinoxpayments.com)

**Phone:**    1.877.497.3726

**Note:** For any communication method used, please leave your **Name, Phone Number, Email Address** and specific **Reason** for contacting us.

# **Boot Upgrade Guide**

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L4x50 Series

Boot Upgrade Guide: L4x50 Series

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# TABLE OF CONTENTS

<b>Introduction .....</b>	<b>1</b>
Who Should Use This Guide .....	1
How To Use This Guide.....	1
Assumptions .....	2
Technical Support.....	2
 <b>Access Equinox FTP Site .....</b>	 <b>3</b>
 <b>Download Boot Updater .....</b>	 <b>5</b>
 <b>Frequently Asked Questions .....</b>	 <b>7</b>
 <b>Contact Us .....</b>	 <b>9</b>

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# Introduction

The Boot Upgrade Guide describes how to easily and quickly update the boot/firmware and terminal ACL for the Optimum L4xxx series of payment terminals. Supported terminals within this document are:

- L4150
- L4250

## Who Should Use This Guide

The information in this guide is intended for administrative users who will be responsible for:

- Configuring the payment terminal
- Launching applications
- Installing new or upgrade applications

Intended users may also include:

- Application developers
- Technicians
- Help desk personnel
- Distribution center personnel

## How To Use This Guide

Before configuring your terminal with the latest boot/firmware, first determine what version(s) reside within your payment terminal. To do this, please see [Verify Terminal Connection](#).

If you see that the Boot version on your terminal is **20090709**, then your payment terminal has the latest version. The Boot update is NOT needed, only the Terminal ACL update is NEEDED. Go directly to Step 6 on page 6 for instructions on how to load the ACL firmware.

If you see a different version, your payment terminal will need to be updated. To do this, please see [Access Equinox FTP Site](#) to update your payment terminal with the latest boot/firmware.

## Assumptions

This document assumes that you have some working knowledge of the following:

- L4150 or L4250 terminal connected to your PC
- FPE-Sim or Java FPE-Sim
- Administrative rights to your PC

## Technical Support

If you have questions about any of the supported payment terminals (as mentioned above), please contact your Equinox Payments Customer Support Specialist directly or use any of the methods below:

**Email:**           HypercomCertExpiry@equinoxpayments.com

**Phone:**           1.877.497.3726

A Customer Support Specialist will either send you an email or return your phone call.

# Access Equinox FTP Site

Use the following FTP login credentials to download the files listed below to your local hard-drive:

**URL address:**     <https://ftp1.equinoxpayments.com/>

**Username:**        epmluser

**Password:**        Ep2018\$\$

**NOTE:** Click on the above URL address for direct access to the folder.

On the FTP site, locate the specific folder (as identified in RED): **L4xxx\_ExpiredCertRecovery/L4150 L4250 Boot Updater/**

The files needed for the Boot Update and Terminal ACL update are:

- L4x50\_BootUpdate\_Prod.zip
- L4150\_ACL\_Update\_dl.zip
- L4250\_ACL\_Update\_dl.zip

For **EACH** zip file that you downloaded from the FTP site, use a compression application (such as Winzip or 7-Zip) and extract the files from the zip file into its own folder.

For example, **..\L4x50\_BootUpdate\_Prod\FPE32v4\_P\_900\_PROD.**

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# Download Boot Updater

This section describes how to download the latest Boot firmware to your terminal. To complete this section, you will first need to download the Boot Updater file from the Equinox FTP Site (see Access Equinox FTP Site on page 3 for more information).

**NOTE:** This version of FPE\SCAT only supports the boot updates functionality and cannot be used for normal terminal operation.

## Step-by-Step

To download the Boot Updater:

1. Verify that the terminal is properly connected to your PC or electronic cash register (ECR).
2. Using your current method for loading software and/or forms, download the **packinglist** file (located within the FPE32v4\_P\_900\_PROD folder from page 3).

**NOTE:** Your terminal may take approximately 10-15 minutes to download the packinglist (see GREEN bar on your terminal for activity).

3. At startup, FPE\SCAT looks for the **NEWBOOT.DAT** file (containing the new bootloader image) on your PC. If found, the new bootloader image is validated, authenticated and written into flash memory.

The FPE\SCAT application checks both the current and new bootloader versions before performing the upgrade. When complete, the **NEWBOOT.DAT** file will be deleted automatically to save space on the disk.

4. You may want to reboot the terminal (if it doesn't automatically do this). On the terminal, you will see the newly installed boot version (see images below).

**NOTE:** These screen images may NOT look exactly what is shown on your terminal.

```
FPE 4.P.900
NEWBOOT.DAT
CurBoot: Boot.20070627,TURBO
Terminal type: L4150, SDRAM: 16 MB
RSAVerifySigUsingCert - Success
NewBoot: Boot.20090709,TURBO
Attempt 1 / 4
Verifying ...
Success
```

```
FPE 4.P.900
Terminal type: L4150, SDRAM: 16 MB
CurBoot: Boot.20070627,TURBO
NewBoot: Boot.20090709,TURBO
Attempt 1 / 4
Flashing ...
```

```
LANE CLOSED
```

```
Boot.20090709, TURBO

Please install FPE application
```

Success! The terminal has been updated with the latest firmware.

5. Reload your original FPE\SCAT and Forms.

**NOTE:** Keys do NOT need to be reloaded.

6. Load the packinglist (as it applies to your terminal) located in either:
  - ..\ACL\_New\L4150 Prod\dl OR
  - ..\ACL\_New\L4250 Prod\dl

Success! Once loaded, the terminal has been updated with the latest ACL firmware.

# Frequently Asked Questions

This section provides answers to commonly asked questions.

<b>Q.</b>	Is it a requirement to perform the boot update, reloading of FPE\SCAT, and the ACL update in three separate steps?
<b>A.</b>	Yes, the process described in this guide is the recommended and most reliable way to perform the updates.
<b>Q.</b>	Do I have to reload my forms package after reloading FPE\SCAT?
<b>A.</b>	No, your forms will still be present and will be available after you re load the standard FPE\SCAT software that was in the PIN pad prior to the start of the update. Reloading the forms is recommended but not required.
<b>Q.</b>	Is the PIN pad in a non-functional state after applying the boot update?
<b>A.</b>	The software that updates the boot does not have the same functionality as standard FPE\SCAT so the PIN pad cannot return to regular functionality until a standard FPE\SCAT is loaded back into the PIN pad.
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<b>A.</b>	When the PIN pad is rebooted after the expiry of the boot, the PIN pad will be non-functional. The screen will be blank and it will emit three beeps. The PIN pad can only be restored to normal operation by the Equinox repair facility.
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<b>A.</b>	When the PIN pad is rebooted after the expiry of the ACL, the PIN pad will be unable to display customer forms and will display the standard close form. The PIN pad can still accept a download so once the updated ACL is loaded, it will return to normal operation.
<b>Q.</b>	Will I have to reload my encryption keys after these updates are complete?
<b>A.</b>	No, these updates have no impact on keys that are in the PIN pad.
<b>Q.</b>	What is the expiry date of the L4XXX boot that is being loaded during this process?
<b>A.</b>	The 20090709 boot version for the L4XXX PIN pads has an expiry date of July 20, 2019.

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# Contact Us

If you have questions about any of the supported payment terminals (as mentioned above), please contact your Equinox Payments Customer Support Specialist directly or use any of the methods below:

**Email:** HypercomCertExpiry@equinoxpayments.com

**Phone:** 1.877.497.3726

- Leave your *name, phone number, email* and *reason* for calling

A Customer Support Specialist will either send you an email or return your phone call.

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Boot Upgrade Guide: L4x50 Series

Part Number: [Subject]

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