

Firmware 15.52 Release Notes

Horner Automation has released a new Firmware revision for the X5, XL4, EXL6, EXLW, XL7, EXL10, RCC972, RCC1410, RCC2414, and RCC8842.

This is available for download from the firmware section at the following websites:

North American Website <https://hornerautomation.com/controller-firmware>
European Website <http://www.hornerautomation.eu>

NOTE: This Firmware release requires bootloader to be installed. It is not an option.

| Latest System File Revisions | |
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| Firmware | 15.52 |
| OS Version | 2.6.35.80 |
| InitRd | 1.24 |
| FPGA | 0.7 |

A NOTE ABOUT FIRMWARE UPDATES:

This firmware has been thoroughly tested, and every precaution has been taken to prevent the introduction of new issues that may be problematic in your application. It is always important for customers to perform their own internal system testing prior to deployment of the new firmware.

IMPORTANT NOTE FOR EXL6, EXLW & EXL10 USERS

Due to a Microprocessor issue, some customers have reported difficulty in completing firmware updates using the traditional method. This method involves copying a set of files onto microSD or USB and invoking the "Install Bootloader" Update Menu by pressing and holding the **SYSTEM** key. **In some cases, EXL6, EXLW or EXL10 units would fail to reboot after the update.**

Because of this, **we are recommending that ALL EXL6, EXLW, and EXL10 users perform the 15.52 update by booting from microSD.** This method involves downloading a Horner update tool to create a bootable microSD, booting from microSD using a special hardware switch, and completing the update from there.

NOTE: A tool for creating a bootable microSD card and procedure document is included with the firmware download.

| Firmware 15.52 - Licensed Features | |
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| 1. | Enhanced IEC Logic Programming - Enhancements over standard IEC in performance, capacity (>5x), online programming and troubleshooting. Requires Cscape 9.90 SP4. |
| 2. | Enhanced IEC Licensing - Features added. Requires Cscape 9.90 SP4. |
| 3. | MQTT - Expanded offline message buffering from 20 messages / broker to 1024 messages / broker. (5177) |
| 4. | J1939 - J1939 protocol may now be licensed and added in the field for all XL4, EXL6, EXLW and X5 products. |

| Firmware 15.52 - New Features | |
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| 1. | Added support for CANopen, J1939 and DeviceNet to the HE-EXLW products. (4637) |
| 2. | Added Ethernet Protocol Reset capabilities for FTP, EGD, Modbus and WebMI protocols - LAN1 and LAN2: %SR156.1 - EGD for LAN1 %SR156.2 - Modbus TCP Slave for LAN1 %SR156.4 - FTP for LAN1 %SR156.5 - WebMI for LAN1 and LAN2 %SR153.1 - EGD for LAN2 %SR153.2 - Modbus TCP Slave for LAN2 %SR153.4 - FTP for LAN2 User should not set other bits of %SR153 and %SR156 to one. |

| Firmware 15.52 - Significant Bug Fixes | |
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| 1. | Resolved an issue which could cause built-in digital inputs (%I) to turn ON during power-down (4789). |
| 2. | Units with part numbers ending in 1E2 only (i.e. HE-XC1E2). Fixed an issue where a power glitch below the operating voltage threshold could cause a relay output to latch ON (3746). |
| 3. | Resolved an issue where it was possible (but typically rare) for the unit to get stuck while booting. This situation could result in complete battery drain if left unresolved. Failure to boot within a short time will now cause the unit to re-initiate the boot, which has consistently proven to resolve the issue. |
| 4. | EXL6, EXLW and EXL10 only. Corrected an issue where the unit was getting stuck on the bootloader screen during a firmware update. Unit can be recovered by using the XL Series Firmware Recovery package - available from Horner Automation Tech Support. |
| 5. | Fixed an issue where units were not shutting down properly when the battery voltage was below 2.0V. |
| 6. | Resolved issue where Modbus Master ladder block was not working. Port loopback test failed on MJ1, MJ2 & MJ3. (5713) |

| Firmware 15.52 - Bug Fixes | |
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| 1. | X5 only - Resolved a System Exception fault while accessing WebMI and while microSD was unplugged - immediately after a program download (4551). |
| 2. | X5 only - Corrected an analog accuracy issue introduced in firmware 15.42 after re-calibration of analog channels. Updating to 15.52 corrects the analog accuracy issue with no re-calibration required (4723). |
| 3. | RCC only - Corrected an issue introduced in 15.30 which caused the legacy (pre-WebMI) webserver not to operate (3867). |
| 4. | RCC only - Fixed an issue wherein it was not possible to recover RCCs with dead batteries (4674). |
| 5. | RCC2414 only - Corrected an issue wherein the RCC was not updating the LAN2 EGD status (4024). |
| 6. | EXLW only - Corrected the part numbers for the reported EXLW device type (3954). |
| 7. | Corrected an issue where the Alarm History was not being maintained after a power cycle (4206). |
| 8. | Corrected an issue where the NTP server was skipping a day after a new year (4910). |
| 9. | Fixed an intermittent watchdog issue which could occur immediately after loading a PGM file (4177). |

| Firmware 15.52 - Known Issues | | |
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| | Issue | Affected Controllers |
| 1. | Ethernet Upload / Download delays when exchanging big packets. | RCCs, XL4, EXL6, EXLW, XL7, EXL10 |
| 2. | OCS resets when a USB camera is plugged directly into a powered-up unit; only happens with some USB cameras. WORKAROUND: Plug video camera in prior to power-up or use a powered USB hub. | XL4, EXL6, XL7, EXL10 |
| 3. | If Retentive trends with log is enabled with Multi-language option, then two log files are created on microSD. Instead of logging data in single file, it is logging in two different files when switching between languages. | X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 4. | Sometimes IMX 28 Wi-Fi module not detected and sometimes Wi-Fi hardware is detected but MACID of WIFI module is not detected. (1964) WORKAROUND: After Power cycle or Unplug and plug the Wi-Fi module. | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 5. | Connection timeout may occur for the connected users on WebMI when connected over Wi-Fi if the LAN cable is removed from the unit. (1924) WORKAROUND: Logging again to the unit through Wi-Fi resolves the issue | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 6. | Wi-Fi settings for pgm file updates after power cycle. (1919) WORKAROUND: Issue is seen only when same PGM is loaded (It is as designed). If a PGM with different WIFI config is loaded, it will load new parameters (issue is not seen). | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 7. | Slide key is hidden behind trend / graph object when configured for full screen. (2044) | EXLW |
| 8. | False watch dog is seen when application is downloaded for first time and power cycled the unit. (4177) | EXLW |
| 9. | Multiple CF operations are allowed in Enhanced IEC. (4704) | X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 10. | After Clearing application, Device is still in run mode - Random issue. (4681) | XL7 |
| 11. | String Conversion- Fill zero is not working in Normal IEC. (4410) | X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 12. | Alarm blocks in Cscape SP4 IEC gives System exception while accessing previous alarms. (4474) | X5, XL4, EXL6, EXLW, XL7, EXL10 |

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| 13. | RCC2414 only - In Enhanced IEC, if user selects debug option, then Cscape displays connection failed message and Ok / Run LED goes OFF. (4716) | RCC2414 |
| 14. | LREAL type Setpoint variables are not getting loaded by loading pgm file into the device - RBAL and VBAL. (5795) | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 15. | ASCII to LREAL and DINT to LREAL conversion blocks are not working properly. (5262) | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 16. | Enhanced IEC - MODBUS Map slave block length check for Read Holding Register and Read coil bits are incorrect. (5770) WORKAROUND: Configure same array length for Input Bits and coil Bits. Similarly configure same array length for Input register and Holding Register | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 17. | Enhanced IEC - MODBUS ASCII protocol is not working for Do Request and old User Master blocks. (5771) WORKAROUND: Use MODBUS RTU protocol in Master block or use serial Downloadable with Modbus ASCII protocol. | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 18. | Enhanced IEC - Using multiple MODBUS blocks Do request and old user insame program with same port are not reading data from slave. (5784) WORKAROUND: Use serial downloadable protocol. | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 19. | Enhanced IEC - Not able to write values to %SR210 and %SR211 from screen and data watch for UTC. (5824) | RCCs, X5, XL4, EXL6, EXLW, XL7, EXL10 |
| 20. | Enhanced IEC - Press key ladder block is not functioning. (5822) | X5, XL4, EXL6, EXLW, XL7, EXL10 |

Technical Support

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