



# XL4 Firmware Update Manual

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## 1. Introduction

This guide details how to update or change firmware on the Horner OCS Controllers. Updating firmware to the newest version adds new benefits to the controller. Also, changing firmware is necessary when changing communications between CsCAN and CANopen.

**WARNING: Firmware updates should only be performed when the equipment being controlled by the OCS is in a safe, non-operational state. Communication or hardware failures during the firmware update process can cause the controller to behave erratically resulting in injury or equipment damage. Make sure the functions of the equipment work properly after a firmware update before returning the device to an operational mode.**

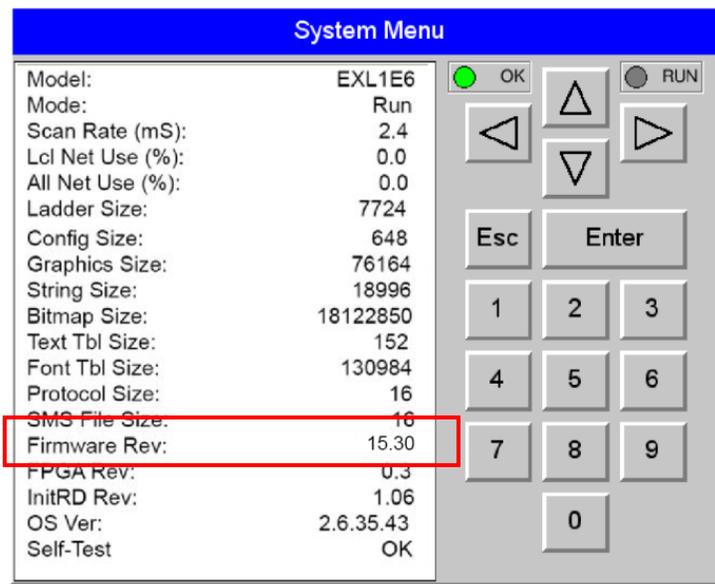
## 2. Resources

For further information on this controller, please refer to the following documents on our website: [www.hornerautomation.com](http://www.hornerautomation.com).

Manual Numbers for XL4	
User Manual	MAN0964
Datasheet for Model 0	MAN1143
Datasheet for Model 2	MAN1144
Datasheet for Model 3	MAN1145
Datasheet for Model 4	MAN1146
Datasheet for Model 5	MAN1147
Datasheet for Model 6	MAN1148

## 3. How to Check for Current Firmware Revision

To check the firmware revision on a controller, open **System Menu** → **View Status**.



## 4. Details

**Note: Updating firmware will clear the application program, screens, configurations, and register data.** If required, make sure to backup program and register data before updating firmware. The controller's User Manual has instructions for doing backups.

There are three methods for updating firmware. The method used depends on the type of controller being updated.

**Method A: Removable Media Method** - The controller firmware is updated by a bootloader, using a microSD card or USB Flash drive (**not through the Cscape Firmware Update Wizard**). To update or change firmware:

- 1) Download desired Firmware set from the Horner APG website. (Verify CsCAN or CANopen communications.)
- 2) Save Firmware files to microSD card or USB, these are the removable media devices.
- 3) Update the firmware through the controller's Firmware Update function

**NOTE:** Files from the Horner website come as a .ZIP file which need to be unzipped and placed in the root of the drive for them to function properly.

**Method B: RS232 Serial Connection** - Serial firmware updates are done from Cscape software to the controller's primary serial port, MJ1 in most cases.

### STEP ONE:

In North America, visit <https://hornerautomation.com>. Go to **Support → Controller Firmware** and download the most recent firmware set with the correct communication protocol and controller.

-OR-

In Europe, visit <http://www.hornerautomation.eu/support/firmware>. and click the **Firmware** tab and download the desired firmware. Create an account to enable access to the latest firmware updates.

## 5. Firmware Update for XL4

Update firmware in an XL4 by completing the following steps:

- a. Unzip all files from downloaded .zip file (Step One) onto removable media.
- b. Plug the removable media into a powered-up OCS controller.
- c. Press and hold the **SYSTEM** key until the **Boot Installer Screen** appears.
- d. Press the **Install Bootloader** button and then press **Yes**.  
**NOTE:** DO NOT press the "Install Firmware" option. This has the potential to create a scenario where the unit will not boot up. If this is pressed by mistake, contact Tech Support for the recovery procedure.
- e. When **Operation Completed** appears, press **OK**.
- f. Power-cycle the OCS controller and wait for it to boot up.
- g. Press **SYSTEM** key, select **View Status** and press the **Enter** button.
- h. Scroll down to see the version numbers.
- i. If any of the version numbers are incorrect, verify the correct files were copied to the removable media device and repeat the steps above.

## 6. Technical Support

### **North America:**

Tel: (317) 916-4274

Fax: (317) 639-4279

Website: <https://hornerautomation.com>

Email: [techsppt@heapg.com](mailto:techsppt@heapg.com)

### **Europe:**

Tel: (+) 353-21-4321-266

Fax: (+353)-21-4321826

Website: [www.hornerautomation.eu](http://www.hornerautomation.eu)

Email: [technical.support@horner-apg.com](mailto:technical.support@horner-apg.com)