

# Firmware Update Manual

## Prime Series

### Contents

Introduction.....	2
How to Check for Current Firmware Revision .....	2
Upgrading Firmware for XL Prime Series (FW 16.10 or later) .....	3
Firmware Upgrade via System Menu .....	3
System Register bits used for firmware upgrade .....	4
User Configurable Splash Screen and Slide Key .....	4
Technical Support .....	4

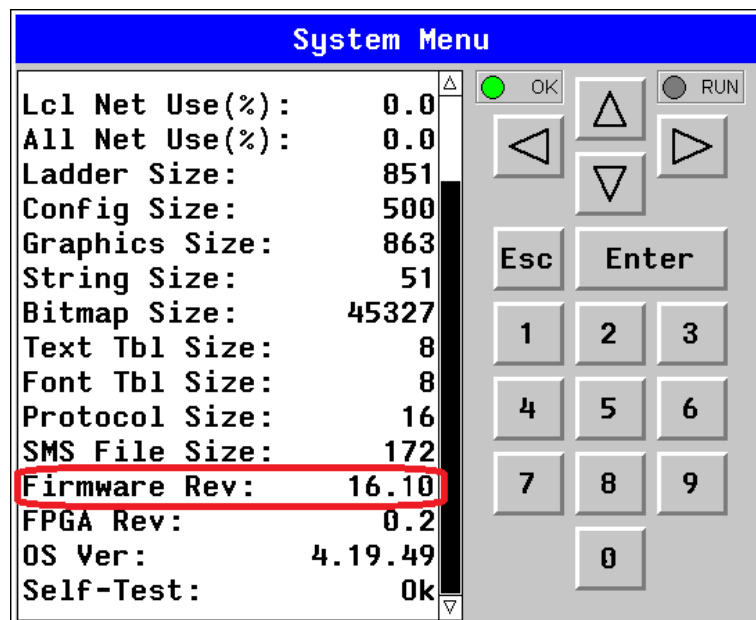
## Introduction

This guide details how to update or change firmware on the Horner OCS Prime Controllers. Updating firmware to the newest version adds new benefits to the controller.

**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.

## How to Check for Current Firmware Revision

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



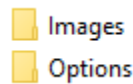
## Upgrading Firmware for XL Prime Series (FW 16.10 or later)

**NOTE:** Use a microSD card without any bootable files on it, preferably format the microSD card or an empty one.

1. Extract the folders available in the following zipped folder.  
**Website:** <https://hornerautomation.com/controller-firmware-cscan/>



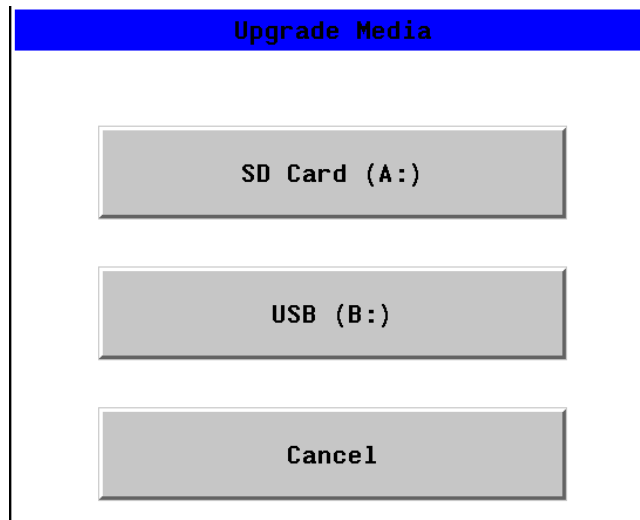
2. Copy the following folders to the root of microSD card or USB drive.



3. Insert the microSD card to XL Prime device and user can update firmware either via System Menu (mentioned below) or using system register bits.

### Firmware Upgrade via System Menu

1. Insert the microSD card / USB (having proper firmware folders) to XL Prime device.
2. Press and hold the 'System' button for several seconds to display the system recovery screen wherein user must select "System Upgrade" option for the following window to be displayed.



3. Select "SD Card (A:)" for upgrading firmware from microSD card or USB (B: ) for upgrading firmware from USB. Firmware upgrade will be started with appropriate message being displayed.

## System Register bits used for firmware upgrade

- a. **%SR154.9** - Set by user to upgrade firmware via microSD card.
- b. **%SR154.10** - Set by user to upgrade firmware via USB.
- c. **%SR154.11** - Will be set by the firmware to ask for confirmation to upgrade firmware, resetting %SR154.9 / %SR154.10. When user resets SR154.11, the upgrade process will start
- d. **%SR154.12** - Setting this bit high (ON) will not retain programs / variables after firmware update. Setting this bit low (OFF) will retain programs / variables after firmware update.
- e. **%SR154.14** - If firmware upgrade is not required, then %SR154.14 will be set. For example: In case firmware on device and on the microSD / USB is same.
- f. **%SR154.15** - This bit will be set by firmware if there is any error in updating firmware such as a missing firmware file.

## User Configurable Splash Screen and Slide Key

A custom splash screen and slide key (applicable to XLW Prime only) can be updated on the OCS Prime unit as part of the firmware upgrade.

### NOTE:

- User must take care to create the **splash.jpg** with the proper resolution as per the model used for firmware upgrade.
  - XL10 Prime - 640 x 480
  - XL6 Prime - 800 x 480 (viewable area is offset from the left edge by 42 pixels).
  - XLW Prime - 800 x 480
  - XL4 Prime - 320 x 240
  - XL7 Prime - 800 x 480
- The custom splash screen should be a .jpg image file. The Filename must be 'Splash.jpg' The custom function key slideout image must be a .bmp file. The filename must be 'Key7.bmp.'
- Place the custom files in the following directories on uSD or the USB before performing the firmware update. If valid custom image files are found in the following directories of uSD or the USB, then OCS prime unit will be updated with those files.
  - a. Splash screen file (splash.jpg) in "<sd card> \Options\Horner" path.
  - b. Slide key file (keys7.bmp) in "<sd card> \Options\" path
- Key7.bmp used for XLW prime device should be 68 x 480 resolution.

## Technical Support

### North America:

Tel: 1-877-665-5666

Fax: 317 639-4279

Web: <https://hornerautomation.com>

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

### Europe:

Tel: +353-21-4321266

Fax: +353-21-4321826

Web: <http://www.hornerautomation.eu>

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