

XL+ Firmware Restore Manual

Introduction.....	1
Details.....	1
Removable Media.....	1
Downloading Firmware.....	1
Updating Firmware.....	2
Technical Support.....	8

Introduction

In rare cases, it may be required to boot the OCS from the Removable Media drive, and then perform a system update. This is generally necessary if the OCS does not successfully boot up after applying power.

This document details the procedure used to turn a microSD card into a “boot disk” that can be used to recover the controller.

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 XL+ User Manual [MAN1106] has instructions for performing backups.

Removable Media

The XL+ 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 XL+'s Firmware Update function.

Downloading Firmware

In North America, visit <https://hornerautomation.com/controller-firmware> and select XL+.

-OR-

In Europe, visit <http://www.horner-apg.com/en/download/ocs.aspx> and click the **Firmware** tab and download the desired firmware (an account is required to access firmware updates, create one if necessary).

Updating Firmware

1. Double click on 'Make_uSD' file.
2. The following will be displayed:
 - a. For firmware version prior to 15.20:

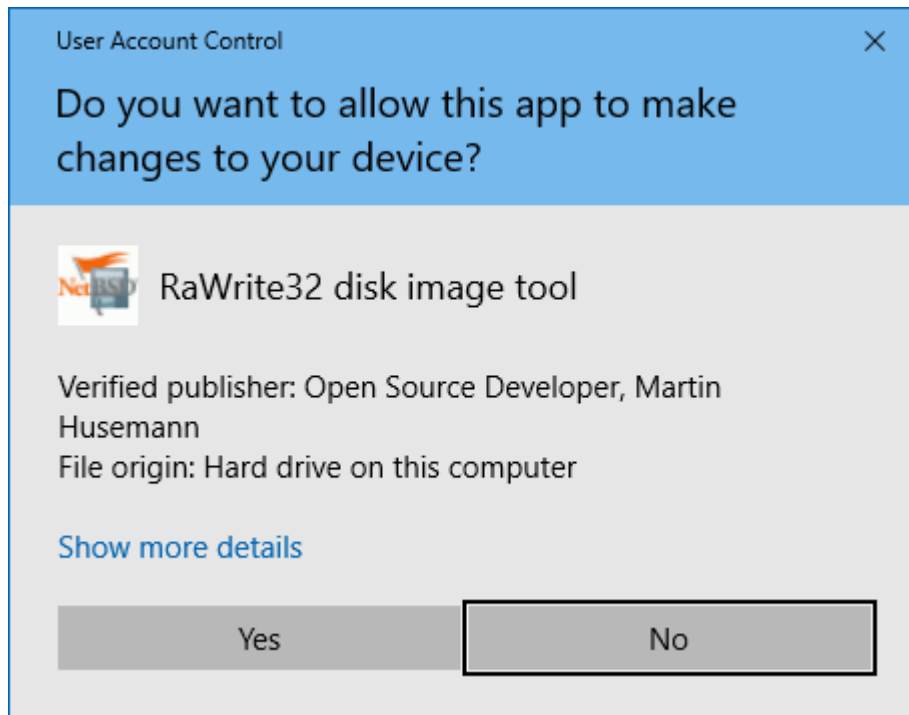
```
C:\WINDOWS\system32\cmd.exe
XLPLUS MicroSD Image Creator v1.0
CAUTION: This utility will erase all files on the selected drive!
Target Model   Target Model Name
=====
XLPLUS-CsCAN  xlplus      (default)
Enter the Target Model Name:                               xlplus
Is 106 IO card connected (Y/N)?                           n
Enter the MicroSD drive letter:                             i
Create DEBUG image (Y/N)?                                  n
Select OEM (horner, hsmotion, bhdt, imo or novus):         horner
Creating...on MicroSD Drive i:  NORMAL xlplus bootable image...
```

NOTE: If the XL+ has Model 6 I/O, answer "Y" to Is 106 IO card connected (Y/N)?". Otherwise, answer "N".

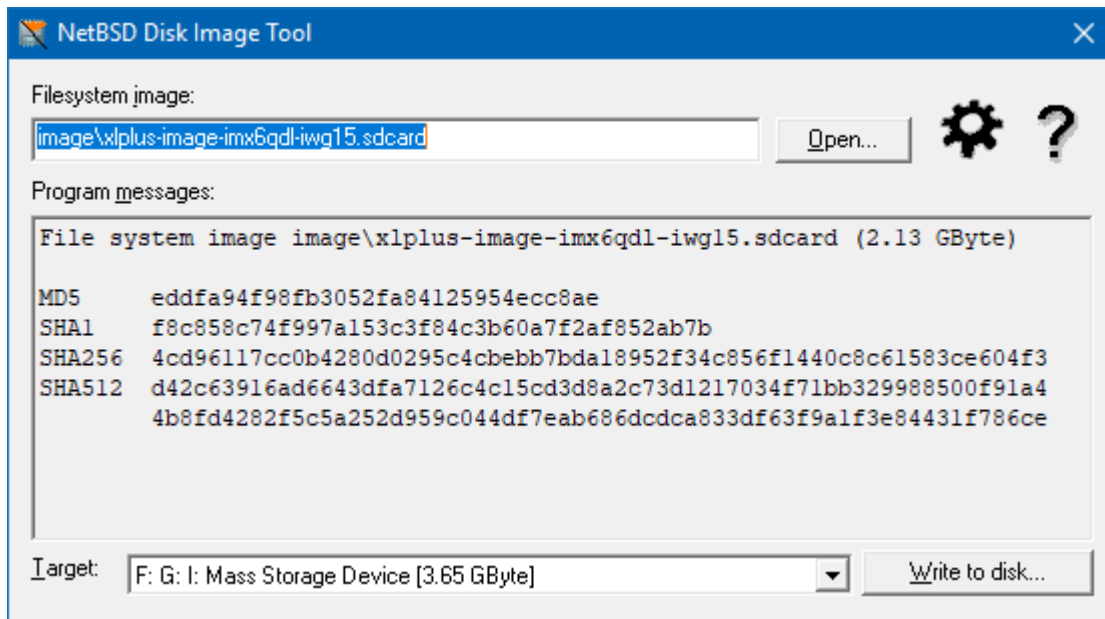
- b. For firmware version 15.20 or higher:

```
C:\WINDOWS\system32\cmd.exe
XLPLUS MicroSD Image Creator v1.0
CAUTION: This utility will erase all files on the selected drive!
Target Model   Target Model Name
=====
XLPLUS-CsCAN  xlplus      (default)
Enter the Target Model Name:                               xlplus
Enter the MicroSD drive letter:                             i
Create DEBUG image (Y/N)?                                  n
Select OEM (horner, hsmotion, bhdt, imo or novus):         horner
Creating...on MicroSD Drive i:  NORMAL xlplus bootable image...
```

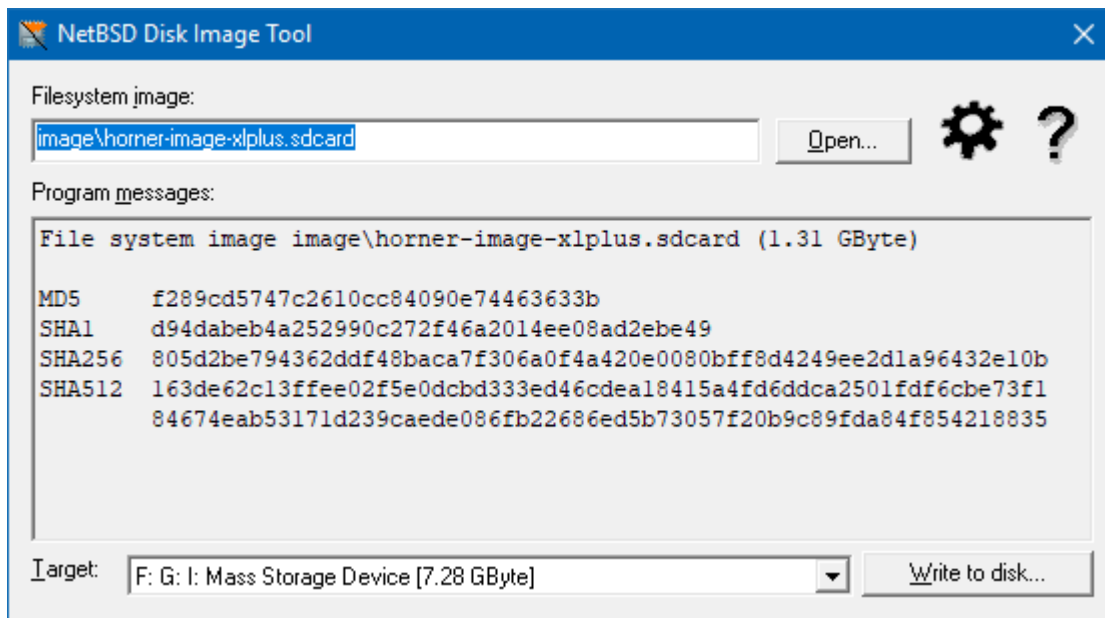
3. Once connected, the following window appears. Select **Yes**.



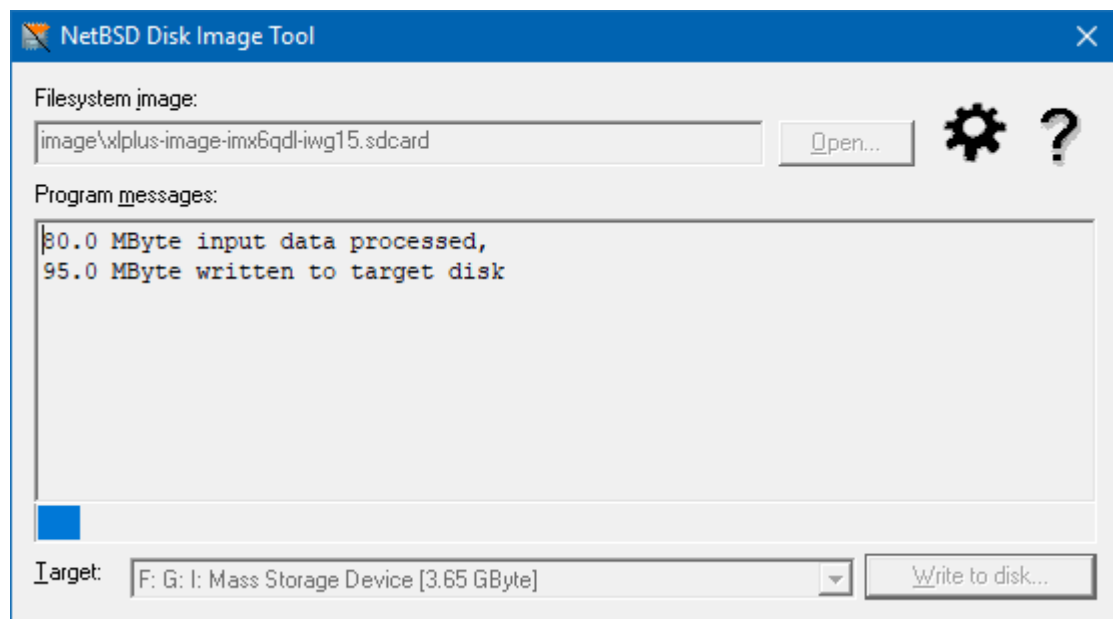
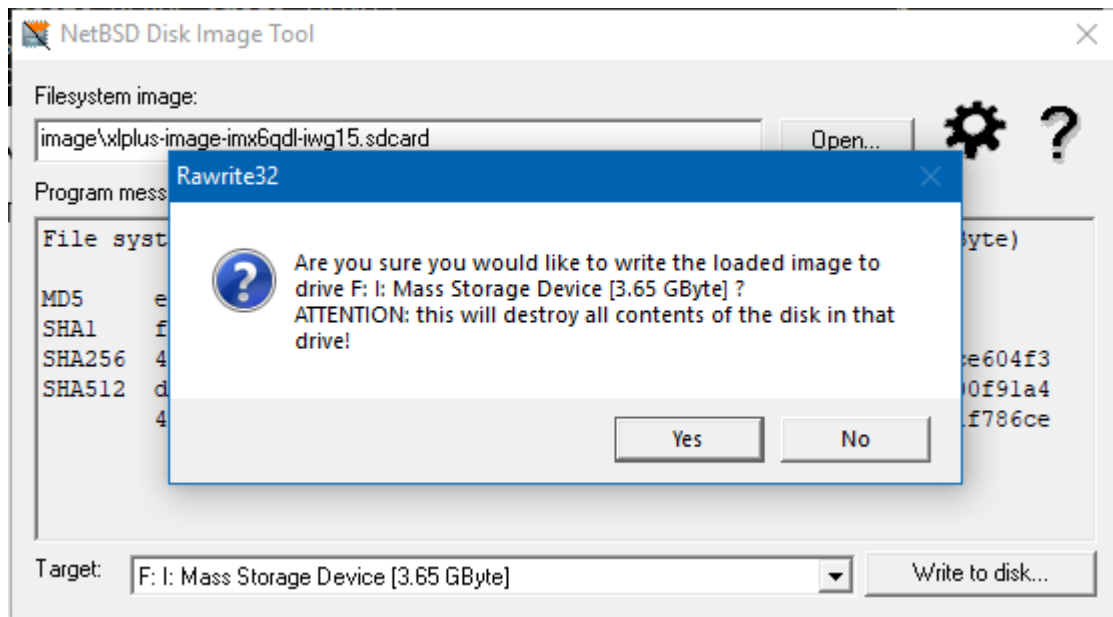
4. A popup window will be displayed. Select the target drive and select **Write to Disk**.
 - a. For firmware version prior to 15.20, the following will be displayed:



- b. For firmware version 15.20 or higher, the following will be displayed:

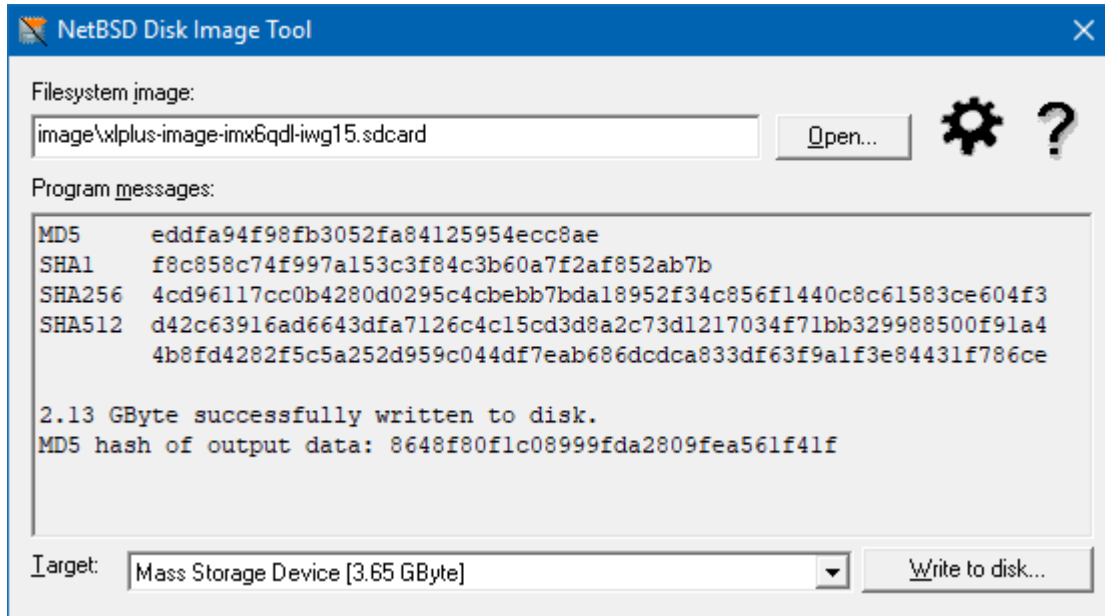


5. Select "Yes" to go forward.

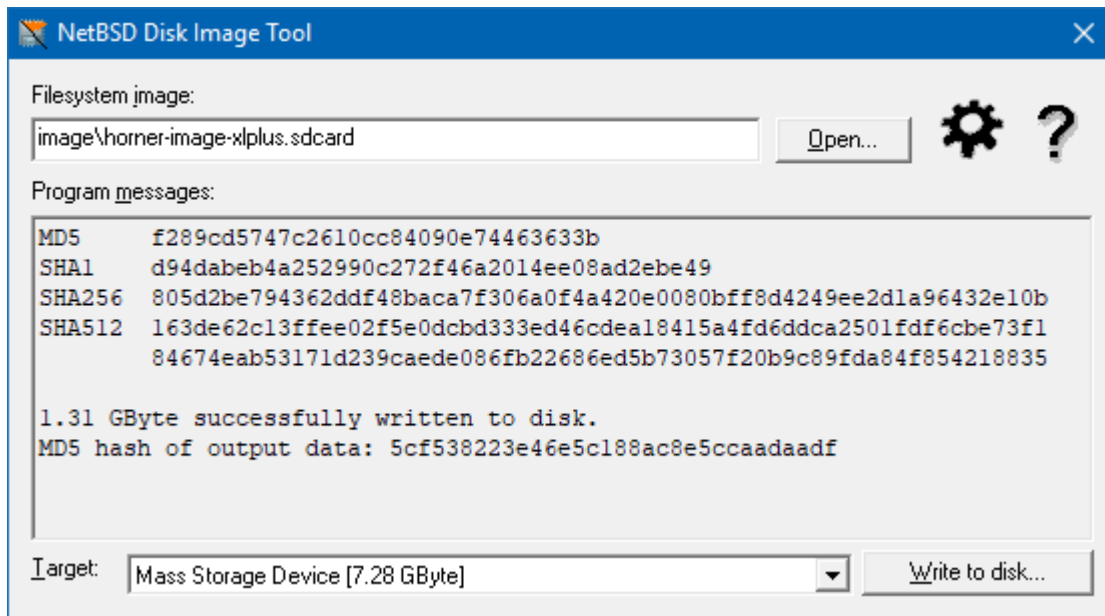


6. Once writing to disk is completed, a successful message appears on the window as shown below. Close the window.

a. For firmware prior to version 15.20, following will be displayed:



b. For firmware version 15.20 or higher, the following will be displayed:



7. Wait for approximately 10 seconds in cmd prompt for the following message to be displayed: “press any key to continue...”

- a. For firmware prior to version 15.20, the following will be displayed:

```
C:\WINDOWS\system32\cmd.exe

XLPLUS MicroSD Image Creator v1.0
CAUTION: This utility will erase all files on the selected drive!
Target Model   Target Model Name
=====
XLPLUS-CsCAN  xlplus   (default)
Enter the Target Model Name:                               xlplus
Is 106 IO card connected (Y/N)?                           n
Enter the MicroSD drive letter:                             i
Create DEBUG image (Y/N)?                                  n
Select OEM (horner, hsmotion, bhdt, imo or novus):         horner
Creating...on MicroSD Drive i:  NORMAL xlplus bootable image...
Copying....to MicroSD Drive i:  horner xlplus EMMC Flash files...
bmp created
Success...
Press any key to continue . . .
```

- b. For firmware version 15.20 or higher, the following window will be displayed:

```
C:\WINDOWS\system32\cmd.exe

XLPLUS MicroSD Image Creator v1.0
CAUTION: This utility will erase all files on the selected drive!
Target Model   Target Model Name
=====
XLPLUS-CsCAN  xlplus   (default)
Enter the Target Model Name:                               xlplus
Enter the MicroSD drive letter:                             i
Create DEBUG image (Y/N)?                                  n
Select OEM (horner, hsmotion, bhdt, imo or novus):         horner
Creating...on MicroSD Drive i:  NORMAL xlplus bootable image...
Copying support files...
bmp created
Success...
Press any key to continue . . .
```

8. Remove the microSD card and insert into the controller microSD card slot.

For firmware prior to version 15.20, complete the following steps:

- For a new unit, bootload from switch is recommended. Bootload can also be done via System Menu.
 - **From System Menu** - Press System key for few seconds until system recovery screen is displayed. Select System Upgrade and then select Install Bootloader.
 - **Switch bootload** - with pressing the load / boot switch, power on the device and release the switch. Select Install Bootloader in the bootloader screen.
- Device takes approximately 10 minutes to complete the bootload. Once done, power cycle the unit.

For firmware version 15.20 or higher, complete the following steps:

- Do switch bootload i.e., with pressing the load / boot switch, power on the device and release the switch.
- Select Install Bootloader.
- Device takes approximately seven (7) minutes to complete the boot. Once done, power cycle the unit.

Technical Support

North America:

Tel: 1-877-665-5666

Fax: 317 639-4279

Web: <https://hornerautomation.com>

Email: techsppt@heapg.com

Europe:

Tel: +353-21-4321266

Fax: +353-21-4321826

Web: <http://www.horner-apg.com>

Email: technical.support@horner-apg.com