

# TRINIX

## BROADLINX SOFTWARE



### Release Notes

Software Version 3.3.0

**KEMA Quality**

# CERTIFICATE

Certificate Number: 510040.001

The Quality System of:

## **Grass Valley USA, LLC and its Grass Valley Affiliates**

Headquarters:

**400 Providence Mine Road  
Nevada City, CA 95945  
United States**

**15655 SW Greystone Ct.  
Beaverton, OR 97006  
United States**

**Brunnenweg 9  
D-64331 Weiterstadt  
Germany**

**Kapittelweg 10  
4827 HG Breda  
The Netherlands**

**2300 So. Decker Lake Blvd.  
Salt Lake City, UT 84119  
United States**

Including its implementation, meets the requirements of the standard:

## **ISO 9001:2008**

Scope:

The design, manufacture and support of video and audio hardware and software products and related systems.

This Certificate is valid until: June 14, 2012  
This Certificate is valid as of: December 23, 2010  
Certified for the first time: June 14, 2000



H. Pierre Sallé  
President  
KEMA-Registered Quality

The method of operation for quality certification is defined in the KEMA General Terms And Conditions For Quality And Environmental Management Systems Certifications. Integral publication of this certificate is allowed.

**KEMA-Registered Quality, Inc.**  
4377 County Line Road  
Chalfont, PA 18914  
Ph: (215)997-4519  
Fax: (215)997-3809  
CRT 001 042108

Accredited By:  
ANAB



a  **DEKRA** company



# TRINIX

BROADLINX SOFTWARE

Release Notes  
Software Version 3.3.0

# Contacting Grass Valley

<b>International Support Centers</b>	<b>France 24 x 7</b>	+800 8080 2020 or +33 1 48 25 20 20	<b>United States/Canada 24 x 7</b>	+1 800 547 8949 or +1 530 478 4148
<b>Local Support Centers (available during normal business hours)</b>	<b>Asia</b>	<b>Hong Kong, Taiwan, Korea, Macau:</b> +852 2531 3058 <b>Indian Subcontinent:</b> +91 22 24933476 <b>Southeast Asia/Malaysia:</b> +603 7805 3884 <b>Southeast Asia/Singapore:</b> +65 6379 1313 <b>China:</b> +861 0660 159 450 <b>Japan:</b> +81 3 5484 6868		
		<b>Australia and New Zealand:</b> +61 1300 721 495	<b>Central/South America:</b> +55 11 5509 3443	
		<b>Middle East:</b> +971 4 299 64 40 <b>Near East and Africa:</b> +800 8080 2020 or +33 1 48 25 20 20		
	<b>Europe</b>	<b>Belarus, Russia, Tadzikistan, Ukraine, Uzbekistan:</b> +7 095 2580924 225 <b>Switzerland:</b> +41 1 487 80 02 <b>S. Europe/Italy-Roma:</b> +39 06 87 20 35 28 <b>-Milan:</b> +39 02 48 41 46 58 <b>S. Europe/Spain:</b> +34 91 512 03 50 <b>Benelux/Belgium:</b> +32 (0) 2 334 90 30 <b>Benelux/Netherlands:</b> +31 (0) 35 62 38 42 1 <b>N. Europe:</b> +45 45 96 88 70 <b>Germany, Austria, Eastern Europe:</b> +49 6150 104 444 <b>UK, Ireland, Israel:</b> +44 118 923 0499		

Copyright © Grass Valley USA, LLC. All rights reserved.

This product may be covered by one or more U.S. and foreign patents.

## Grass Valley Web Site

The [www.grassvalley.com](http://www.grassvalley.com) web site offers the following:

**Online User Documentation** — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

**FAQ Database** — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

**Software Downloads** — Download software updates, drivers, and patches.



## END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.



For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: [www.grassvalley.com/about/environmental-policy](http://www.grassvalley.com/about/environmental-policy)

001187401

# Contents

<b>Broadlinx Release Notes</b> .....	7
Purpose .....	7
Interoperability Requirements .....	7
New Features .....	8
Support for the Trinix 512x1024 Asymmetric Frame .....	8
Support for New Boards .....	9
Improved Installation Process .....	10
Replacing Trinix Boards .....	11
Software Installation .....	12
Introduction .....	12
Overview .....	12
Caveats .....	13
Updating Compact Flash Cards .....	13
Copying the Broadlinx Software to the CF Using a CF Reader .....	14
Updating New Broadlinx Boards .....	14
Updating Systems with a Single Broadlinx Board .....	15
Using the Web Page .....	16
Updating Systems with Two Broadlinx Boards .....	21
Using the Web Page .....	22
Updating the Second Broadlinx Board .....	26
Licensing SNMP on Both Broadlinx Boards .....	29
Formatting the Compact Flash Card with the FAT16 Format .....	31
Installation FAQ .....	33
The installation process seems to have stopped .....	33



# *Broadlinx Release Notes*

## **Purpose**

This document provides information about the new features and the software installation instructions for the 3.3.0 software release of the Broadlinx software.

Grass Valley strongly recommends that 256x512 Routing switcher owners update to the 3.3.0 release.

## **Interoperability Requirements**

- Any Encore system that is newer than the 1.7.3 version.
- Any Jupiter system.
- The 2.0.13 version of NetConfig or newer.

**Note** Do not use Broadlinx with either the Dynex DX-ESW8, 10/100M Fast Ethernet Switch or the Zonet Model ZFS3124.

## **Related Documents**

*Trinix Planning and Installation Manual.*

## **Upgrade Materials Supplied**

*Table 1. Broadlinx Version. 3.2*

<b>Quantity</b>	<b>Description</b>	<b>Part Number</b>
1	Broadlinx 3.3.0 Software	N/A
1	Broadlinx 3.3.0 Release Notes	071828317

## New Features

The 3.3.0 version of the Broadlinx software supports the following features:

- Support for the Trinix 512x1024 Asymmetric Frame
- Support for new boards
- Improved Installation process

These features are described in detail below.

**Note** All 256x512 frames with TRX-DM256-3G matrix cards must be updated to the 3.3.0 (or later) release of Broadlinx to avoid the input\_in\_frame equation interpreting the 256x512 frame as a 128x128 frame.

### Support for the Trinix 512x1024 Asymmetric Frame

The new Trinix 512x1024 Asymmetric Frame is supported in the latest version of Broadlinx ([Figure 1](#)).

This support includes changes to the console commands and Web pages for the new Asymmetrical frame, including the new Input board, see ([Figure 2 on page 9](#)).

Figure 1. Broadlinx Web Page for the Trinix 512x1024 Asymmetric Frame

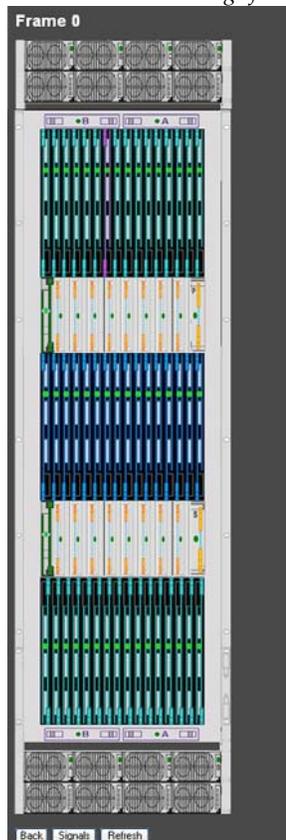


Figure 2. Broadlinx Web Page for the Input board

**HI-1024 Inputs 384-415**

Frame 0

**Device Information**

Parameter	Value
Channel 0: +5.00 BP A	OK
Channel 1: +5.00	OK
Channel 2: +3.30	OK
Channel 3: +5.00 BP B	OK
Channel 4: -2.10	OK
Channel 5: 3.30	OK
Channel 6: -7.00	OK
Channel 7: -0.80	OK
Alarm First Tripped	
Alarm Last Tripped	
Times alarm has tripped	0
Firmware Version	03
FPGA Version	3
CPLD DIP Sw. Version	2
CPLD Ch. Eq. Version	2
Up Time	00 days, 01:44:48

Back Signals Refresh

## Support for New Boards

The 3.3.0 version of Broadlinx supports the new innovative boards that Grass Valley offers, the Trinix Multiviewer and the Fiber Optic option.

Figure 3. Broadlinx Web Page for the Trinix Multiviewer

**TRX-MV Outputs 288-319**

Frame 0

**Device Information**

Parameter	Value
Channel 0 +5.00 BP Volt	OK
Channel 1 +5.00 Volt	OK
Channel 2 +3.30 Volt	OK
Channel 3 +3.30 D Volt	OK
Channel 4 +1.10 Volt	OK
Channel 5 +2.50 Volt	OK
Channel 6 +1.50 Volt	OK
Channel 7 +1.20 Volt	OK
Alarm First Tripped	MON AUG 15 17:40:16 2011
Alarm Last Tripped	MON AUG 15 17:40:16 2011
Times alarm has tripped	1
Firmware Version	02
Up Time	00 days, 00:03:44

Back Refresh

## Improved Installation Process

The steps needed to update a Trinix frame during installation have been reduced. Broadlinx now compares the micro-controller versions. If there is a difference between the Active (installed) code and the Pending (to be installed) version, the Status light will turn red. The firmware will be updated for each type of board at the same time instead of each individual board.

The actual installation time will depend on the size and configuration of the Routing switcher. These steps are described in *Software Installation* on [page 12](#).

Figure 4. Changes to the Firmware Management Screen

Module	Fpga Active	Fpga Pending	uControl Active	uControl Pending	Status
HI-33110			6 : 3	6 : 3	●
SI-33110			6 : 3	6 : 3	●
HO-33110	19	19	9 : 4	9 : 4	●
SO-33110	19	19	9 : 4	9 : 4	●
NR-33000	32	32	9 : 4	9 : 4	●
DM-33501	24	24	8 : 4	8 : 4	●
DM-33502	24	24	8 : 4	8 : 4	●
HO-33120	16	16	12 : 4	12 : 4	●
VI-33100	6	6	2 : 4	2 : 4	●
HI-33200	6	6	2 : 4	2 : 4	●
DM-256-1-3G	24	24	9 : 4	9 : 4	●
DM-256-2-3G	24	24	9 : 4	9 : 4	●
HO-33300-3G	14	14	15 : 4	15 : 4	●
TRX-SR	6	6	9 : 4	9 : 4	●
FI-33300	3	3	3 : 4	3 : 4	●
VxWorks			20110711	20110711	●
Web Interface			20110711	20110711	●

Installed version

3.3.0

Activate Upload Cancel

## Replacing Trinix Boards

When replacing Trinix boards, you should keep in mind that there was a change in the VIT timing. This change was made to accommodate the additional processing delay of 10.3 micro-seconds in the new 3G matrix cards.

The VIT signals generated from the NR and SR cards were advanced by 10.3 micro-seconds. All of the legacy matrix/output cards VIT timing will be delayed by the same amount of time.

Grass Valley recommends that you use matched versions of boards (all boards running Broadlinx version 3.X and newer) in your systems to meet RP-168 switch points.

**CAUTION** Grass Valley strongly recommends that customers keep all software updated to the latest released version. New boards are **NOT** guaranteed to be compatible with older versions of software. A system failure may occur if a new board is received as a replacement part and then loaded with an older version of software.

However, a “mismatched” system will operate but with a minor timing offset. If you mix a Broadlinx 3.x version board in a system that is running Broadlinx 2.x, when switched, signals will be outside of the SMPTE RP-168 specification. In other words, the switch will occur as much as 10.3 micro-seconds later (or early for 3.x NR/SR) for a path that passes through the mismatched version board.

# Software Installation

**CAUTION** Installation of this upgrade will interrupt video signals passing through the system. The length of this interruption will vary depending on system size and specific procedures used. Users of this equipment should consult with Grass Valley Technical Support personnel before proceeding.

## Introduction

The Broadlinx firmware is installed and updated using Compact Flash cards. If the programmed Compact Flash card is not available, you must obtain the necessary files and then copy them to a blank Compact Flash card. Ensure that the Compact Flash card is formatted to FAT16 rather than FAT32 (this format will decrease the time it takes for Broadlinx to “boot” or start up). The CF card must have a minimum of 128 MB of available memory.

## Overview

This section describes the Installation process. These steps are:

- Updating Compact Flash cards
- Updating systems with a single Broadlinx board
- Updating systems with two Broadlinx boards

The difference between the update process for frames with one or two Broadlinx boards is that you must:

1. Update the inactive Broadlinx board.
2. Activate the inactive Broadlinx board.
3. Update the now inactive Broadlinx card.

With the single board, you will only need to update one board.

## Caveats

Before starting the Installation process, please read the following:

- All frames with TRX-DM256-3G matrix cards **MUST** be updated to the 3.3.0 (or later) release of Broadlinx. For example, the 256x512, 512x512, and the 512x1024.
- Web tools such as NetConfig cannot be used to install versions prior to the 3.2.0 version of Broadlinx. The 2.0.13 version of NetConfig or newer must be used.
- Protected paths are not monitored during firmware updates. If the primary path fails during a firmware update, no fail-over switch will occur.
- Certain TRX-NXT-512x512 systems will require DIP switch changes to operate properly with the 2.4 release (or newer) software. The S401-7 and S401-8 DIP switches on the DM-33501 and DM-33502 1.5G matrix boards should be set to **ON**. If the stickers are not present, these switches should be set to **Off**. The remaining six switches on S401 are always set to **Off**.
- For multiple Trinix 128 or 256 frame systems only, the dip switch “A” setting on the frame with the Broadlinx board that is driving the Com Bus should be set to Open. This setting should be set to Closed on all other frames in the system. This step is required when using Protected Paths. For single frame operation, the “A” switch must be set to the Open position.
- Certain steps of the following procedure will momentarily interrupt switcher operations. These steps are preceded by a **Caution** statement.

**Note** If the Installation process is taking 20% longer than the initial time shown in [Figure 8 on page 17](#), see *The installation process seems to have stopped on page 33*.

- 

For more information, contact Grass Valley’s Technical support; see [page 4](#).

## Updating Compact Flash Cards

Compact Flash (CF) Memory cards are used to update Broadlinx. These cards are read from the NR-33000 (Broadlinx) board. You must use at least a 128MB CF memory card.

## Copying the Broadlinx Software to the CF Using a CF Reader

This process assumes that a Compact Flash (CF) card reader has been connected to the workstation. If not, see the Installation instructions that came with the CF card reader.

**Note** Grass Valley recommends that you format your CF card to the FAT16 format. For more information, see *Formatting the Compact Flash Card with the FAT16 Format* on page 31.

Follow these steps to update a CF with the latest version of Broadlinx:

1. Place the Broadlinx CD in the computer's CD drive.
2. Open Windows Explorer using one of the following suggested options:
  - Press the **Windows logo** and **E** key combination.
  - Right click the **Start** button and then select the "Explore all users" option.
  - Click the **Start** button, then All Programs, point to Accessories, and then select Windows Explorer.
3. Navigate to the CD, select and then copy all of the Broadlinx files.
4. Navigate to the Compact Flash memory and then paste the files.

**Note** If you use a CF card on which a previous version of Broadlinx has been saved, you will need to overwrite the existing files. It is important that you do NOT overwrite the ipconfig.txt file on the Compact flash.

The compact flash is now ready to update your system.

## Updating New Broadlinx Boards

All Broadlinx boards (NR33000) have the Broadlinx 3.3.0 firmware pre-loaded. If your Trinix router is currently running a previous version of Broadlinx, please contact Grass Valley's Technical Support department (+1 800 547 8949 or +1 530 478 4148).

The Broadlinx software that is currently running on your Trinix Routing switcher must be updated to Broadlinx 3.0.1 (or newer) if you add **ANY** of the following Trinix 3G boards:

- TRX-HI-3G
- TRX-HO-3G
- TRX-DM128-3G
- TRX-DM128R-3G
- TRX-DM256-3G

You **MUST** do one of the following options when you are adding a new HD board to a Trinix router that is running Broadlinx 2.4.2 or older:

**Note** Selecting one of these options will insure that switches occur at the correct timing position. See *Replacing Trinix Boards* on page 11.

- Update the Trinix router to Broadlinx 3.0.1 or newer (most preferred).
- Rollback the version of Broadlinx on the new HD board to the version of Broadlinx that is currently running on your router (least preferred). You must understand that some boards will be supported by older versions of Broadlinx.

**CAUTION** Grass Valley strongly recommends that customers keep all software updated to the latest released version. New boards are **NOT** guaranteed to be compatible with older versions of software. A system failure may occur if a new board is received as a replacement part and then loaded with an older version of software.

Before Proceeding with the Installation process, see the Broadlinx Version and Supported Trinix Boards section in the *Trinix Installation manual*. The information in this section is intended to help you understand what would be required to update from your current version to the latest version of software.

## Updating Systems with a Single Broadlinx Board

This section describes the steps for updating existing Broadlinx boards. The update process can be accomplished using the Broadlinx Web page to navigate to the Firmware Management screen to activate the FPGAs for the boards. These steps are described below.

**Note** Using Telnet or a Console session during an firmware update can cause the update to fail.

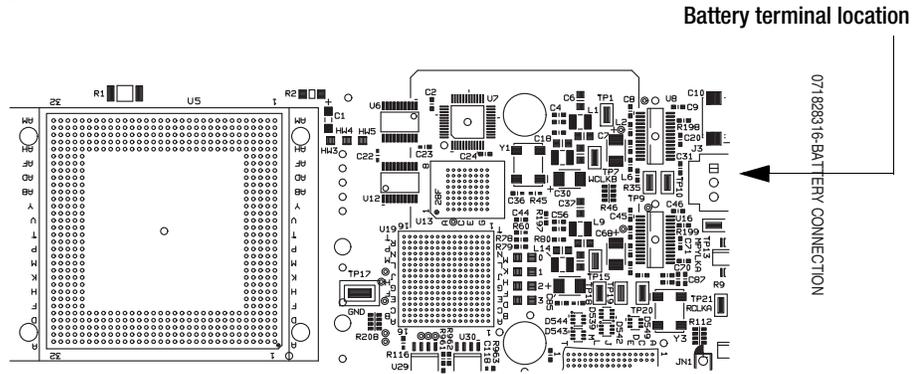
Follow these steps to update all the boards within the frame (except an active NR-33000 board):

1. Remove the Broadlinx board from the chassis and remove the existing compact Flash card by pressing the Eject button (Figure 6 on page 16).

**Note** For the Asymmetric frames, the NR-33000 (Broadlinx) board is turned sideways, so the Eject button is at the bottom.

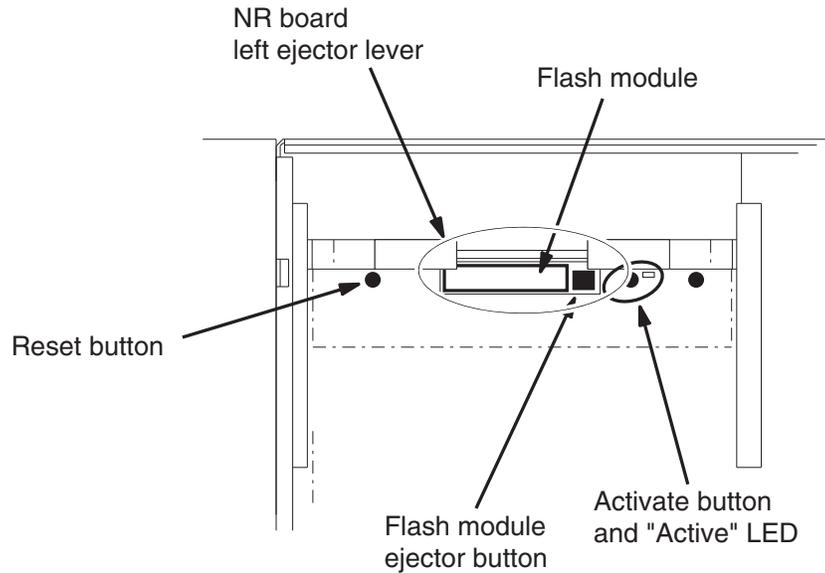
For Encore controlled systems, the memory must be cleared by disconnecting the battery terminal, leave it un-connected for couple of minutes, and then reconnect the battery (Figure 5 on page 16).

Figure 5. Battery location on the NR-33000.



2. Insert the Compact Flash card into the slot on the Broadlinx board and then insert the Broadlinx board into the frame. Broadlinx will then inventory the boards that are in the frame.

Figure 6. NR-33000 (Broadlinx board) Controls.



## Using the Web Page

Navigate to the Broadlinx Firmware Management Web page to update the firmware.

**Note** Do not press the Browser's Refresh button (or press F5 on your keyboard) during the installation. A redrawing issue may occur with the 512x1024 routing switcher's Web page. If you do press the Refresh button, you must reset the bottom half of the 512x1024 frame.

The Broadlinx Firmware Management page displays the following:

- The possible types of PC boards
- The version of the Broadlinx software that is presently associated with each type of board that is installed
- The versions of top-level software packages that are present in the Broadlinx board
- The compatibility Status of these software elements.

An example of this table is shown in the figure below (Figure 7).

When accessing this web page there may be a slight delay as the page is gathering the latest information.

Figure 7. The Firmware Management Screen

Module	Fpga Active	Fpga Pending	uControl Active	uControl Pending	Status
NR-33000	30	32	8 : 3	9 : 4	Red
DM-33501	22	24	6 : 3	8 : 4	Red
DM-33502	22	24	6 : 3	8 : 4	Red
HO-33120	13	16	12 : 3	12 : 4	Red
DM-256-1-3G	18	24	7 : 3	9 : 4	Red
DM-256-2-3G	18	24	7 : 3	9 : 4	Red
HO-33300-3G	10	14	13 : 3	15 : 4	Red
TRX-OPM	2	3	3 : 3	4 : 4	Red
TRX-MV			2 : 3	3 : 4	Red
HI-1024	3	4	3 : 3	2 : 4	Red
VxWorks			20110801	20110801	Green
Web Interface			20110801	20110801	Green

The installed version of Broadlinx: 3.3.0

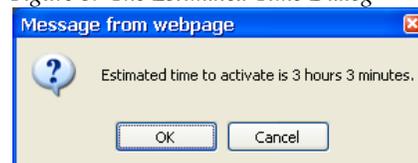
Buttons: Activate, Upload, Cancel

Some of the Status lights, in the Status column, will be red following an installation using a Compact Flash card (Figure 7). This indicates that the software that is currently running in the module is different (or older) than the software that was just installed. The new software should be activated by following the instructions provided below.

## Activating Software

1. Click the **Activate** button at the bottom of the page (Figure 7). The *Message from webpage* dialog will then appear:

Figure 8. The Estimated Time Dialog



2. Write down the time displayed for future reference.
3. Click the **OK** button. The *Broadlinx: Updating firmware* status window will then appear:

Figure 9. The *Broadlinx: Updating Firmware Status Window*



The new software will then be copied from the NR-33000 (Broadlinx board) to each board that requires an update. This process can take from several minutes to a half an hour or more.

- When updating systems with two NR boards, the NR performing the update will not install the software onto itself.

The progress of the installation will be shown by the progress bars on the *Broadlinx: Updating Firmware Status Window* and by the alarm LEDs on the boards that are being updated.

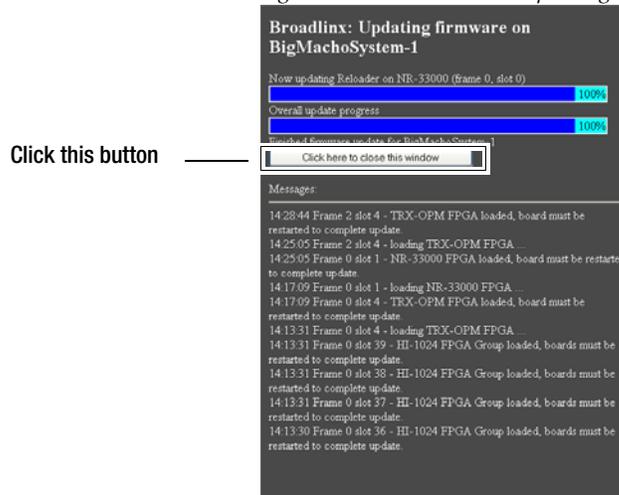
**Note** When performing a firmware update, the *Overall update progress* bar indicator will reach and stay at 99% until the update is finished. The update procedure has not locked up. The Web page will correctly show that the update is finished when all boards are updated.

If the window is accidentally closed, you can return to it by navigating to the home page of the Broadlinx card. The rest of the Broadlinx pages are not available while the update is in progress.

When the progress bars reach 100%, a “finished firmware update” message will appear.

4. Click the **Click here to close this window** button ([Figure 10 on page 19](#)).

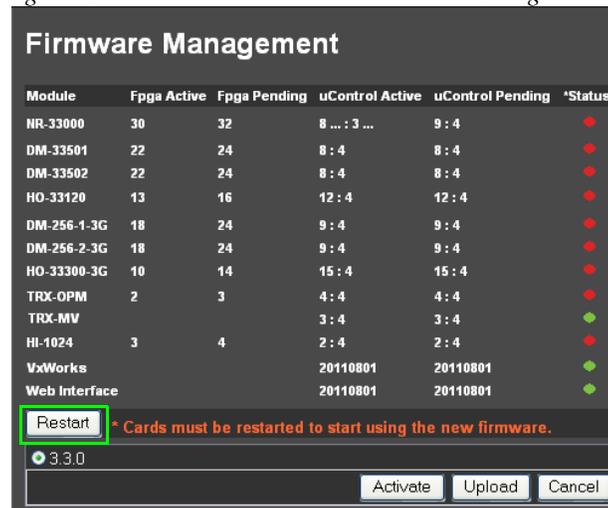
Figure 10. The Broadlinx: Updating Firmware Status Window - Update Completed



The Broadlinx web page will then indicate “Post Completed.”

5. Navigate to the Firmware Management page. The **Restart** button will now appear near the bottom of the page. (The display may vary from the example that is shown in [Figure 11](#).)

Figure 11. The Restart Button on the Firmware Management Screen



The cards must be restarted to use the new firmware.

6. Click the **Restart** button, which is shown above in [Figure 11](#).

The following Caution pop-up window will then appear:

Figure 12. The Restart Caution Popup



**CAUTION** Clicking the OK button will cause a momentary interruption to video passing through the Routing switcher. Clicking the Cancel button, while not advised, will stop the restart process allowing you to restart the board during a scheduled service time. However, the new software will not be applied until the boards are restarted.

7. Click the **OK** button.

The Post Complete window will then reappear.

8. Navigate to the Firmware Management page. All Status indicators should be green.

Figure 13. The Firmware Management Screen All boards are up to date

Firmware Management					
Module	Fpga Active	Fpga Pending	uControl Active	uControl Pending	Status
NR-33000	32	32	9 : 4	9 : 4	●
DM-33501	24	24	8 : 4	8 : 4	●
DM-33502	24	24	8 : 4	8 : 4	●
HO-33120	16	16	12 : 4	12 : 4	●
DM-256-1-3G	24	24	9 : 4	9 : 4	●
DM-256-2-3G	24	24	9 : 4	9 : 4	●
HO-33300-3G	14	14	15 : 4	15 : 4	●
TRX-OPM	3	3	4 : 4	4 : 4	●
TRX-MV			3 : 4	3 : 4	●
HI-1024	4	4	2 : 4	2 : 4	●
VxWorks			20110801	20110801	●
Web Interface			20110801	20110801	●

3.3.0

Activate Upload Cancel

## Updating Systems with Two Broadlinx Boards

This section describes the steps for updating existing Broadlinx boards. The Installation process uses the Broadlinx Firmware Management Web page. These steps are described below.

**Note** Using Telnet or a Console session during an firmware update can cause the update to fail.

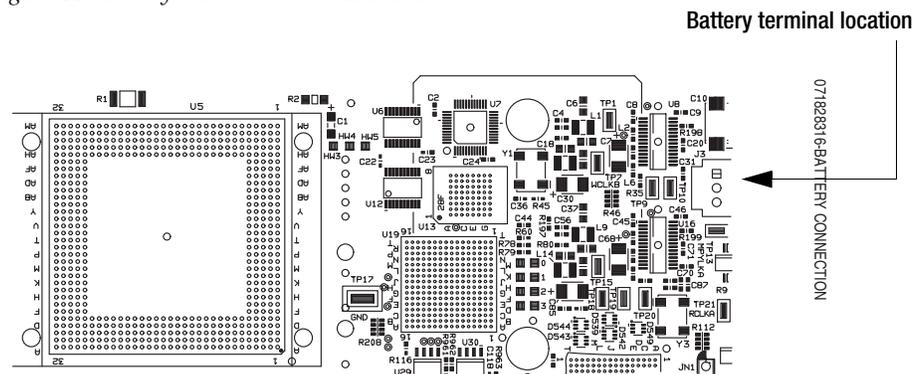
Follow these steps to update all the boards within the frame (except an active NR-33000 board):

1. Remove the Broadlinx board from the chassis and remove the existing compact Flash card by pressing the Eject button (Figure 15 on page 22).

**Note** For the Asymmetric frames, the NR-33000 (Broadlinx) board is turned sideways, so the Eject button is at the bottom.

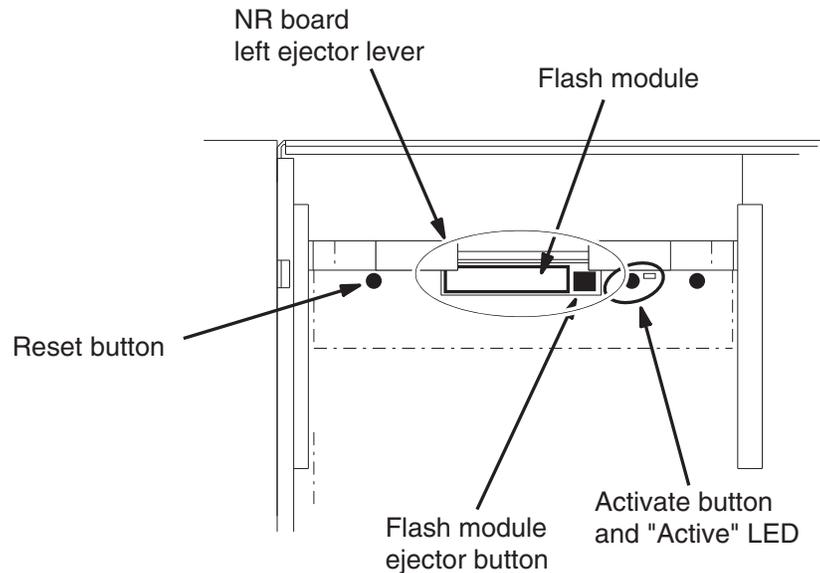
For Encore controlled systems, the memory must be cleared by disconnecting the battery terminal, leave it un-connected for couple of minutes, and then reconnect the battery (Figure 14).

Figure 14. Battery location on the NR-33000.



2. Insert the Compact Flash card into the slot on the Broadlinx board and then insert the Broadlinx board into the frame. Broadlinx will then inventory the boards that are in the frame.

Figure 15. NR-33000 (Broadlinx board) Controls.



## Using the Web Page

Navigate to the Broadlinx Web page to complete updating the firmware.

**Note** Do not press the Browser's Refresh button (or press F5 on your keyboard) during the installation. A redrawing issue may occur with the 512x1024 routing switcher's Web page. If you do press the Refresh button, you must reset the bottom half of the 512x1024 frame.

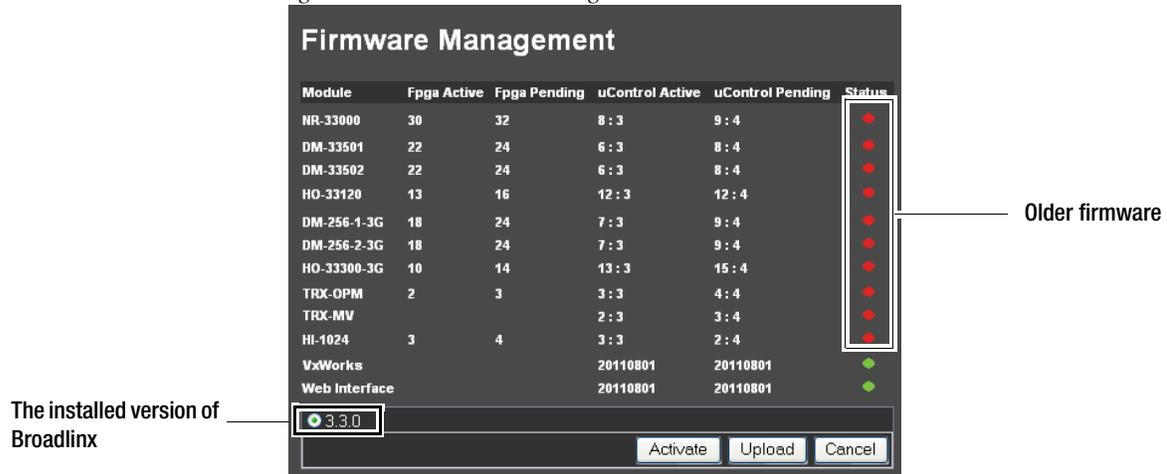
The Broadlinx Firmware Management page displays the following:

- The possible types of PC boards
- The version of the Broadlinx software that is presently associated with each type of board that is installed
- The versions of top-level software packages that are present in the Broadlinx board
- The compatibility Status of these software elements.

An example of this table is shown in the figure below ([Figure 16 on page 23](#)).

When accessing this web page there may be a slight delay as the page is gathering the latest information.

Figure 16. The Firmware Management Screen

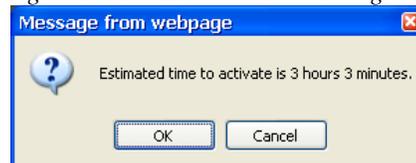


Some of the Status lights, in the Status column, will be red following an installation using a Compact Flash card (Figure 16). This indicates that the software that is currently running in the module is different (or older) than the software that was just installed. The new software should be activated by following the instructions provided below.

### Activating Software

1. Click the **Activate** button at the bottom of the page (Figure 16). The *Message from webpage* dialog will then appear:

Figure 17. The Estimated Time Dialog



2. Click the **OK** button. The *Broadlinx: Updating firmware* status window will then appear:

Figure 18. The Broadlinx: Updating Firmware Status Window



The new software will then be copied from the NR-33000 (Broadlinx board) to each board that requires an update. This process can take from several minutes to a half an hour or more.

- When updating systems with two NR boards, the NR performing the update will not install the software onto itself.

The progress of the installation will be shown by the progress bars on the Broadlinx: Updating Firmware Status Window and by the alarm LEDs on the boards that are being updated.

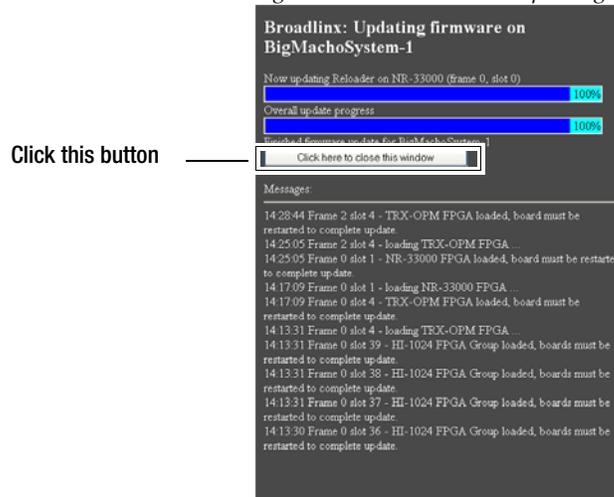
**Note** When performing a firmware update, the *Overall update progress* bar indicator will reach and stay at 99% until the update is finished. The update procedure has not locked up. The Web page will correctly show that the update is finished when all boards are updated.

If the window is accidentally closed, you can return to it by navigating to the home page of the Broadlinx card. The rest of the Broadlinx pages are not available while the update is in progress.

When the progress bars reach 100%, a “finished firmware update” message will appear.

3. Click the **Click here to close this window** button ([Figure 10 on page 19](#)).

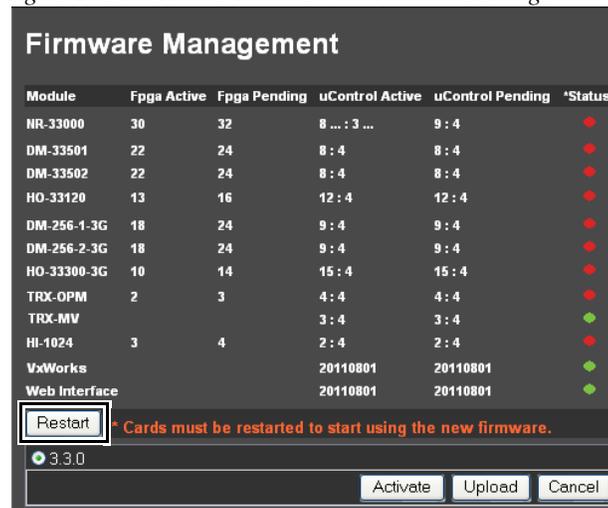
Figure 19. The Broadlinx: Updating Firmware Status Window - Update Completed



The Broadlinx web page will then indicate “Post Completed.”

4. Navigate to the Firmware Management page. The **Restart** button will now appear near the bottom of the page.

Figure 20. The Restart Button on the Firmware Management Screen



The cards must be restarted to use the new firmware.

5. Click the **Restart** button, which is shown above in [Figure 20](#).  
The following Caution pop-up window will then appear:

Figure 21. The Restart Caution Popup



**CAUTION** Clicking the OK button will cause a momentary interruption to video passing through the Routing switcher. Clicking the Cancel button, while not advised, will stop the restart process allowing you to restart the board during a scheduled service time. However, the new software will not be applied until the boards are restarted.

6. Click the **OK** button.

The Post Complete window will then reappear.

## Updating the Second Broadlinx Board

You will now need to update the second Broadlinx (NR-33000) board. You are going to make the secondary Broadlinx board active and then update the Primary board.

Follow these steps to Update the second Broadlinx board:

1. Make the Secondary board active. There are many ways to do this step, the following ways are suggested:
  - Enter "redundancyBoardActivate" at the Telnet prompt in a Telnet session for the inactive board.
  - Press the Activation button on the Inactive board. The Activate button is the button closest to the CF card
2. Navigate to the Firmware management page. All Status indicators should be green but the now inactive broadlinx board.

Figure 22. The Firmware Management Screen Broadlinx Status is Red

Firmware Management					
Module	Fpga Active	Fpga Pending	uControl Active	uControl Pending	Status
NR-33000	30	32	8 : 3	9 : 4	●
DM-33501	22	24	6 : 3	8 : 4	●
DM-33502	22	24	6 : 3	8 : 4	●
HO-33120	13	16	12 : 3	12 : 4	●
DM-256-1-3G	18	24	7 : 3	9 : 4	●
DM-256-2-3G	18	24	7 : 3	9 : 4	●
HO-33300-3G	10	14	13 : 3	15 : 4	●
TRX-OPM	2	3	3 : 3	4 : 4	●
TRX-MV			2 : 3	3 : 4	●
HI-1024	3	4	3 : 3	2 : 4	●
VxWorks			20110801	20110801	●
Web Interface			20110801	20110801	●

3.3.0

Activate Upload Cancel

- Click the **Activate** button in the lower right side. The board will be updated similar to the process described when updating the first board.
- Navigate to the Firmware Management page. The **Restart** button will now appear near the bottom of the page. (The display may vary from the example that is shown in [Figure 23](#).)

Figure 23. The Restart Button on the Firmware Management Screen

Firmware Management					
Module	Fpga Active	Fpga Pending	uControl Active	uControl Pending	*Status
NR-33000	30	32	8 ... : 3 ...	9 : 4	●
DM-33501	22	24	8 : 4	8 : 4	●
DM-33502	22	24	8 : 4	8 : 4	●
HO-33120	13	16	12 : 4	12 : 4	●
DM-256-1-3G	18	24	9 : 4	9 : 4	●
DM-256-2-3G	18	24	9 : 4	9 : 4	●
HO-33300-3G	10	14	15 : 4	15 : 4	●
TRX-OPM	2	3	4 : 4	4 : 4	●
TRX-MV			3 : 4	3 : 4	●
HI-1024	3	4	2 : 4	2 : 4	●
VxWorks			20110801	20110801	●
Web Interface			20110801	20110801	●

Restart Cards must be restarted to start using the new firmware.

3.3.0.i

Activate Upload Cancel

The cards must be restarted to use the new firmware.

- Click the **Restart** button, which is shown above in [Figure 23](#). The following Caution pop-up window will then appear:

Figure 24. The Restart Caution Popup



**CAUTION** Clicking the OK button will cause a momentary interruption to video passing through the Routing switcher. Clicking the Cancel button, while not advised, will stop the restart process allowing you to restart the board during a scheduled service time. However, the new software will not be applied until the boards are restarted.

6. Click the **OK** button.

The Post Complete window will then reappear.

7. Navigate to the Firmware Management page. All Status indicators should be green.

Figure 25. The Firmware Management Screen All boards are up to date

Firmware Management					
Module	Fpga Active	Fpga Pending	uControl Active	uControl Pending	Status
NR-33000	32	32	9 : 4	9 : 4	●
DM-33501	24	24	8 : 4	8 : 4	●
DM-33502	24	24	8 : 4	8 : 4	●
HO-33120	16	16	12 : 4	12 : 4	●
DM-256-1-3G	24	24	9 : 4	9 : 4	●
DM-256-2-3G	24	24	9 : 4	9 : 4	●
HO-33300-3G	14	14	15 : 4	15 : 4	●
TRX-OPM	3	3	4 : 4	4 : 4	●
TRX-MV			3 : 4	3 : 4	●
HI-1024	4	4	2 : 4	2 : 4	●
VxWorks			20110801	20110801	●
Web Interface			20110801	20110801	●

3.3.0

Activate Upload Cancel

## Licensing SNMP on Both Broadlinx Boards

SNMP is licensed for a frame type using the hardware Ethernet address (MAC Address) of the Broadlinx or NR33000 processor. To license SNMP use the Enter License Key option from the Configuration web page on both boards with the specific key for each board.

An alternative to licensing both boards is to enable inter-board communications to save the license key from the active board that has been licensed to the standby board. To license a newly added standby board either in the primary or secondary slot type `setSnmppCommunicationsEnable` and wait for the SNMP license set message then reboot the board.

The `setSnmppCommunicationsEnable` command will allow the SNMP key to be saved from the active board to the inactive board. Inter-board communications of the license key is verified with the `redundantConfigShow` command.

Follow these steps to save the license key from the primary board:

1. Start a console or telnet connection to the standby Broadlinx board
2. Enter `setSnmppCommunicationsEnable` at the command prompt. The SNMP license should now be saved to the secondary board.
3. Enter the `redundantConfigShow` command at the command prompt to verify that the communications is active and that the SNMP license key had been transferred.
4. Once the key is transferred the board should be rebooted.

Figure 26. Example

```

Trinix_2 > setSnmpCommunicationsEnable
value = 0 = 0x0
Trinix_2 > 20000101.170709: SNMP license set to 0x00000002 (snmpLicense.c:3:
Trinix_2 > redundantConfigShow
--- RedundantConfig -----
Slave:
Timeout is 5 seconds
Processing interval: every 3655243.75 seconds
Elapsed time: -55895 (946685116 - 946741011)
Non-counting
SNMP key is 0x00000002 (master SNMP key is 0x00000002)
*** IP configuration ***
== Bootline =====
boot device      : ata=0,0
unit number     : 0
processor number : 0
host name       : host
file name       : /ata0/vxworks
inet on ethernet (e) : 192.168.166.139:ffffff00
host inet (h)   : 192.168.166.1
gateway inet (g) : 192.168.166.1
user (u)        : broadlinx
ftp password (pw) : broadlinx
flags (f)       : 8
target name (tn) : Trinix_2
other (o)       : 192.168.166.2
== IPConfig =====
      what set cha Data
-----
board: x      192.168.166.139
subnet: x     255.255.255.0
gateway: x    192.168.166.1
host: x      192.168.166.1
other: x     192.168.166.2
target: x    Trinix_2
snmp:
*** Master configuration ***
== IPConfig =====
      what set cha Data
-----
board: x      192.168.166.138
subnet: x     255.255.255.0
gateway: x    192.168.166.1
host: x      192.168.166.1
other: x     192.168.166.2
target: x    Trinix_1
snmp:
----- RedundantConfig ---
Trinix_2 > setSnmpCommunicationsEnable(1)
Trinix_2 >

```

The SNMP Keys status

Ensure that the SNMP key and the master SNMP key values are the same.

The value for the SNMP keys shown in this example are for the frame type rather than the encrypted key number that was entered on the Web page.

If zero is shown, no SNMP key has been set.

## Formatting the Compact Flash Card with the FAT16 Format

These steps describe the steps needed to reformat your Compact Flash (CF) card to the FAT16 format, which will decrease the time it takes to “boot” or start up. The FAT16 format will check all the file entries in less time than the FAT32 format.

When you format the CF, a warning will appear that indicates that the format may not be compatible with older versions of Windows because of the large allocation size. The data that will be stored on the CF is a small enough amount that you do not need to be concerned about the file storage inefficiency.

Follow these steps to format the CF card with the FAT16 format:

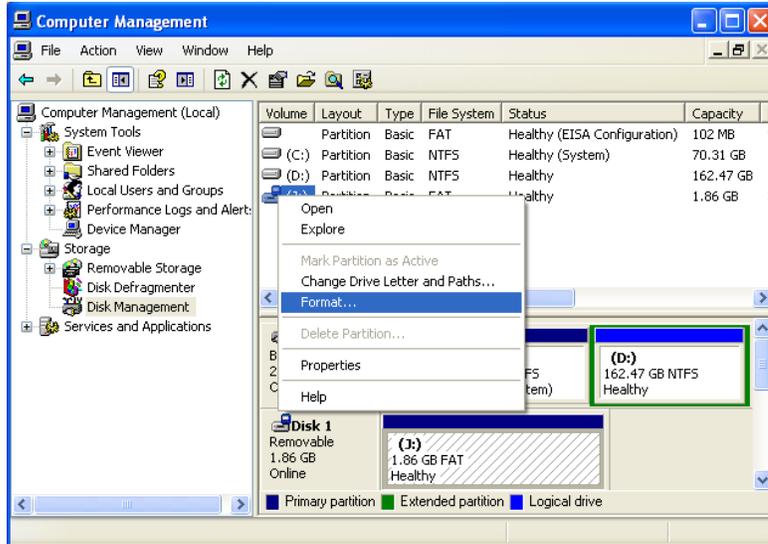
1. Select the Start menu.
2. Right click the **My Computer** icon and then select the Manage option (Figure 27). The Computer Management dialog will then appear.

Figure 27. The Manage Option of the My Computer Menu



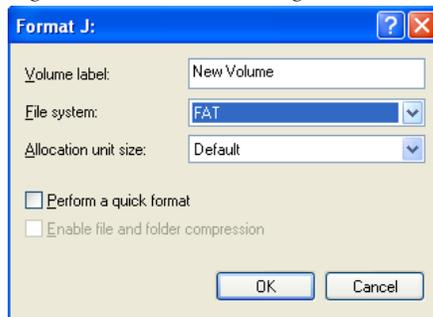
3. Select the Disk Management option under the Storage menu.
4. Right click the CF, when it appears, and then select the Format option (Figure 28 on page 32).

Figure 28. The Format Option



The Format dialog will then appear (Figure 29).

Figure 29. The Format Dialog



5. Enter a preferred name in the Volume label field.
6. Select FAT from the File system drop-down list.
7. Select Default from the Allocation unit size drop-down list.
8. Click the **OK** button. A popup will appear (Figure 30).

Figure 30. Format Warning



Click the **OK** button.

## Installation FAQ

### The installation process seems to have stopped

If no activity is being shown on the Progress bar, and the time has exceeded the estimated time by 20%, check the LED on the door of the frame on which the installation is being performed.

- If the LED is green, Restart Web browser.
- If the LED is red, Open the door and see which board has a red LED.  
Then start a Telnet session to check the alarm conditions on the board.

