

Document version	Date	Comment
Version 2.0	April 2008	Update
Version 3.0	January 2010	Update and added AZ&EL
Version 4.0	November 2010	Appl. M-Series
Version 5.0	April 2013	Added M-series
Version 6.0	November 2013	New Newtec Template

© 2013 Newtec Cy N.V.

The material contained in this document is confidential and intended for use only by parties authorized by Newtec Cy N.V.

All Rights Reserved. No part of this document may be photocopied, reproduced, stored in a retrieval system, or transmitted, in any form or by any means without the prior written permission of Newtec Cy N.V.

Newtec Cy N.V.
Laarstraat 5
9100 Sint-Niklaas, Belgium
Tel: +32 (0)3 780 65 00
Fax: +32 (0)3 780 65 49
www.newtec.eu
sales@newtec.eu



About this manual

This manual provides all information on how to perform an upgrade of Newtec devices. The upgrade procedure depends on the hardware platform and the software release installed on the device. Consequently this document contains multiple procedures. Please follow the procedure that is applicable for your device.

Cautions and Symbols

The following symbols appear in this manual:



A caution message indicates a hazardous situation that, if not avoided, may result in minor or moderate injury. It may also refer to a procedure or practice that, if not correctly followed, could result in equipment damage or destruction.



A hint message indicates information for the proper operation of your equipment, including helpful hints, shortcuts or important reminders.



A reference message is used to direct to; an internal reference within the document, a related document or a web-link.

Feedback

Newtec encourages your comments concerning this document. We are committed to providing documentation that meets your needs.

Please send any comments by contacting us at documentation@newtec.eu

Please include document and any comment, error found or suggestion for improvement you have concerning this document.

Table of Contents

About this manual	3
Cautions and Symbols	3
Feedback	3
1 Introduction.....	5
1.1 Bucket Upgrade Files	5
1.2 Binary Installer File	5
2 Before the Upgrade	6
2.1 Setting IP Address on Device.....	6
2.2 Saving Configuration	6
2.3 Backup of the Configuration	6
2.3.1 NTC/21xx, NTC/22xx, AZxxx, ELxxx, HZxxx – R7.....	6
2.3.2 AZxxx, ELxxx, HZxxx – R8 or R9	7
2.3.3 M-Series	8
3 Upgrade Procedure	9
3.1 NTC/21xx, NTC/22xx, AZxxx, ELxxx, HZxxx – R7.....	9
3.2 AZxxx, ELxxx, HZxxx – R8 or R9	11
3.3 M-Series	13
4 Restoring the Configuration	14
4.1 NTC/21xx, NTC/22xx, AZxxx, ELxxx, HZxxx – R7.....	14
4.2 AZxxx, ELxxx, HZxxx – R8 or R9	15
4.3 M-Series	15



1 Introduction

A software upgrade is needed in following cases:

- To provide bug fixes and/or software enhancements;
- To activate new functionalities in the device.

The upgrade procedure depends on the hardware platform and the software release installed on the device. Consequently this document contains multiple procedures. Please follow the procedure that is applicable for your device.

1.1 Bucket Upgrade Files

The Newtec NTC/21xx, NTC/22xx, AZxxx and ELxxx (except EL8xx) devices consist of multiple boards. Consequently, prior to the upgrade of any of the aforementioned devices, you will receive a Bucket Upgrade Folder as a zip file that contains all necessary firmware and FPGA bit files for the boards in the device.

The Bucket Upgrade Folder also contains the application that manages the upgrade.

Upon starting the upgrade, the upgrade application will first perform a board scan in order to determine the boards installed in that specific device and their current software version. If the version detected is lower, the board will be upgraded. The results of the board scan can be viewed in:

ftp://<Device IP address>/httpd/upgrade_log.html.

1.2 Binary Installer File

Within the Newtec M-series devices, all functionalities are merged into one single board.

Consequently, prior to the upgrade you will receive a binary installer file that contains all necessary installer and binary data for the board in the device.



Use the Newtec Service Desk tool to receive more information and the corresponding upgrade files.

- > Browse **to <https://customersupport.newtec.eu>**.
- > Fill in your Username and Password
- > Create a ticket

As response of your request you will receive appropriate feedback from our support team.

In case you don't have a Username and Password yet for the Newtec Service Desk tool: request a login to customersupport@newtec.eu.

2 Before the Upgrade

In order to successfully complete the upgrade some preparation steps need to be taken.

2.1 Setting IP Address on Device

First of all, make sure you have a connection between your device and the management PC.

Please refer to the “Quick Start-Up Guide” for more detailed information.

2.2 Saving Configuration

It is advised to save the configuration of your device as boot configuration before starting the upgrade.

Please refer to the “Quick Start-Up Guide” or the User Manual for more detailed information.

2.3 Backup of the Configuration

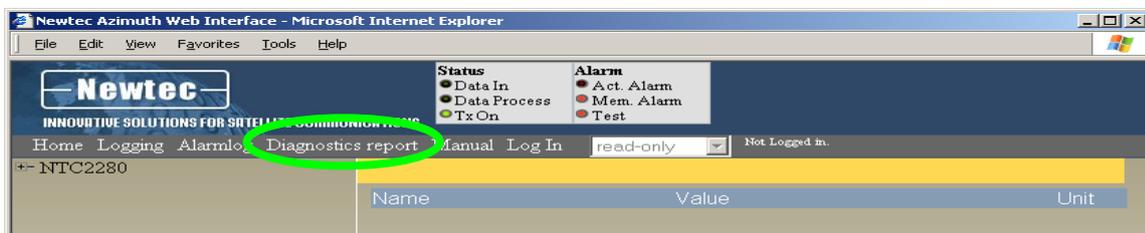
Next to saving the configuration as boot configuration on the device, you can also take a backup of the current configuration as an optional extra safety measure.

2.3.1 NTC/21xx, NTC/22xx, AZxxx, ELxxx, HZxxx – R7

There are 2 options to store the configuration. One of them is to generate a diagnostic report; the other is generating an output file. Both procedures are described below.

Generating diagnostic report

- Open a web browser and type http://<Device_IP_address> in the address field;
- Click “Diagnostics report” in the quick navigation bar. This will generate a report with all the actual settings;
- Save this diagnostics report on your PC (leave as html format).



Generating output file

- Go to the Control menu and select Unit configuration;

```
NTC2xxx >> Unit >> Control >  
Generate output file: Unit Configuration
```

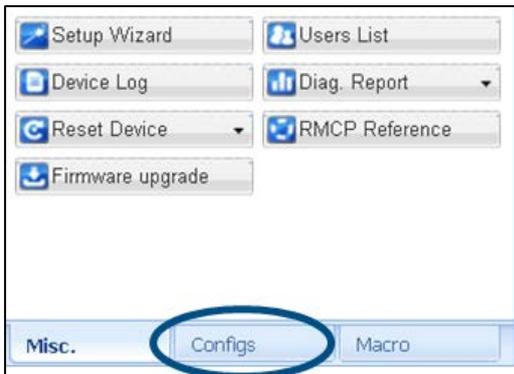
- Open a web browser and enter ftp://<device_IP_address>/ftp/out/;
- Copy the *.cfg file to your PC.



Due to older software on the device, it could be that “Generating Output File” is not supported. In this case, use the diagnostic report procedure.

2.3.2 AZxxx, ELxxx, HZxxx – R8 or R9

- Open a web browser on the management PC;
- Enter the Device IP address;
- Log in with username ‘root’ and password ‘root’
- The Graphical User Interface will open.
- Click on the ‘Configs’ tab in the bottom right corner of the GUI screen;



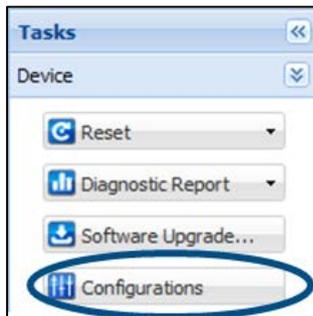
- Click ‘Export’ to export the current configuration;



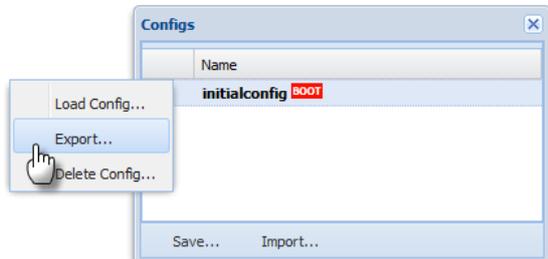
- Save the config file on your storage location.

2.3.3 M-Series

- Open a web browser on the management PC;
- Enter the Device IP address;
- Log in with username 'operator' and password 'operatoroperator'
- The Graphical User Interface will open;
- Navigate to the **Tasks Pane** (GUI);
- Click **Device**;
- Click **Configurations**;



- Click the **Config Name** you want Export;
- Click **Export** to export the XML file to your storage location.



3 Upgrade Procedure

3.1 NTC/21xx, NTC/22xx, AZxxx, ELxxx, HZxxx – R7

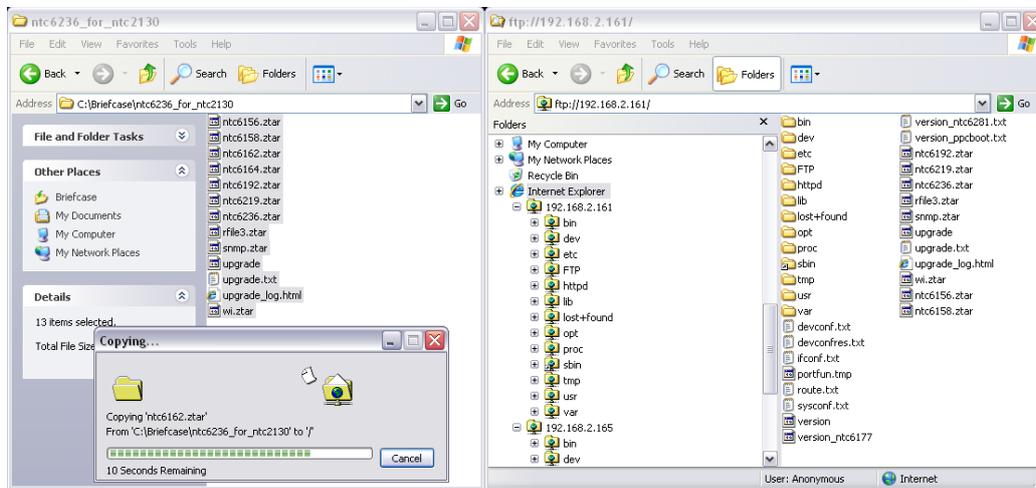


Before starting the upgrade we recommend to restart the device. This can be done by simply unplugging and reconnecting the power cable.



Before starting the upgrade we recommend to turn off the firewall of your PC. The PC firewall could cause issues during ftp transfer of the files to the device.

- 1 Unzip Bucket Upgrade File to a local folder on your PC.
- 2 Make a ftp connection with your device in the following way:
 - Open Windows explorer on your PC.
 - Type ftp://ip_address_device in the address field. (If prompted for a username and password, use ftp, ftp).
- 3 Transfer the content of the upgrade file to the device:
 - Open local folder with unzipped Bucket upgrade files.
 - Drag and drop all these files into the root directory of the device.



Do not copy the zipped Bucket Upgrade file itself to the root folder!

- 4 Start the upgrade on the device by going to the following menu:

```
NTC2xxx >> Unit >> Control
Device reset: <=Upgrade=>
```

- Select “upgrade”.



- Upgrade information is displayed on the front panel
- The device will scan its boards to detect the current firmware version and FPGA bit file version.
- Wait until the Upgrade is finished. The front panel display will provide a percent complete status indication for each of the files being upgraded. During the upgrade, the Test LED will flash.
- Do not power-cycle the device during the upgrade, the device will reboot itself upon completion of the upgrade.

- 5 Store the upgrade_log by performing the next actions:

- Press F5 in your local Windows explorer to refresh the ftp site contents;
- Go to ftp://<Device_IP_address>/httpd/upgrade_log.html;
- Save this file to your desktop. Keep the html format;
- Send the file to customersupport@newtec.eu.



The upgrade log file contains:

- A list of upgrade files that were found on the ftp site.
- The boards present in the device with hardware and software identification.
- A check for all upgrade files if the related board are present. If present the software version is checked and if needed the result and versions (before and after the upgrade) are listed.



In case you were provided with multiple Bucket Upgrade Files (e.g. when the device software must be upgrade but also the SNMP daemon from a separate Bucket Upgrade File), the above described procedures (1-5) will have to be repeated.



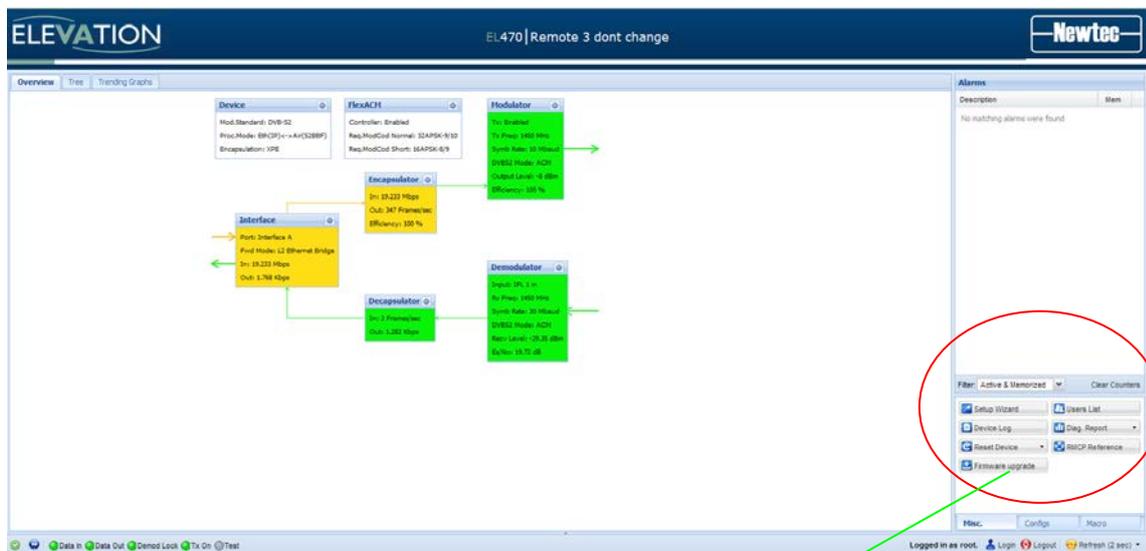
We strongly recommend you to clear the cache of your web browser after the GUI has been reloaded.

3.2 AZxxx, ELxxx, HZxxx – R8 or R9

From R8 onwards the firmware can be upgraded using the graphical user interface. This makes the upgrade simpler since no direct ftp access is required anymore.

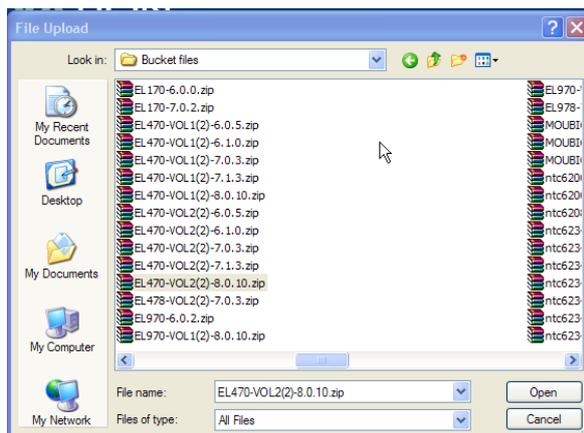
The next steps explain how the firmware upgrade works using the graphical user interface.

- 1 Open a web browser and type <http://<Device IP address>> in the address field;
- 2 The GUI will open and you will be asked to log in. Log in as root using following details:
 - Username: root
 - Password: root
- 3 Logged in as root the following screen will appear (the 'Overview' will differ per device):

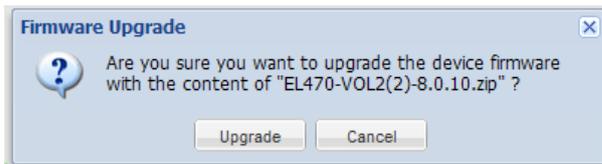


The upgrade can be started by pressing the 'Firmware Upgrade' button on the 'Misc.' tab in the right bottom corner.

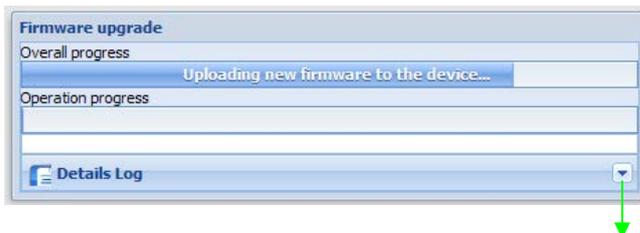
- 4 A pop up box will appear where you need to select the 'Bucket Upgrade File';



- 5 The upgrade will be started when you click 'Upgrade' in the pop up window:



- 6 During the upgrade the following window appears:



A detailed log can be viewed clicking the drop down arrow.

- 7 When the upgrade is finished you will be asked to reload the GUI.



We strongly recommend you to clear the cache of your web browser after the GUI has been reloaded.



In case you were provided with multiple Bucket Upgrade Files the above described procedures will have to be repeated.

3.3 M-Series

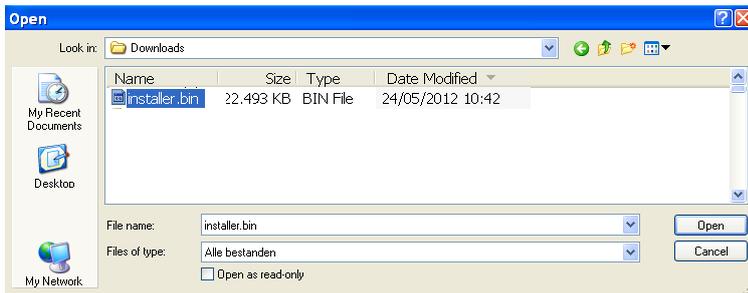
Use the applicable software upgrade file (installer.bin).

Proceed as follows to perform a software upgrade:

- Log in as expert
(default password: expertexpert) or
operator (default password: operatoroperator).
- Navigate to the device Tasks Pane;



- Click **Software Upgrade....**;
- Browse to the folder where the ".bin file" is stored;



- Select the file and click **open**.
The following message is displayed:



Software Upgrade:
This operation will reboot your device!
Are you sure, you want to upgrade the device firmware with the
content of "file_name.bin"?

- Click **Upgrade**. Refresh the browser after about 40 seconds.

4 Restoring the Configuration



Use this procedure in case some settings are not recognized after the upgrade.

4.1 NTC/21xx, NTC/22xx, AZxxx, ELxxx, HZxxx – R7

Diagnostic report

Use the diagnostic report, generated before the upgrade, to manually reset all device parameters. Open the report, all control parameters are described under: NTC2(AZ)(EL)xxx/<device type>/Control.

Use the GUI or front panel to reconfigure, one by one, the parameters retrieved from the diagnostics report.

In Appendix B you can find an example of a diagnostic report.

Activating system file

Use the cfg file to restore all parameters in the device. The cfg file must be copied from your local PC back onto your device.

- Paste the file in your windows explorer to the following directory on your device:
ftp://<device_IP_address>/FTP/in/
- Activate the system file:

```
NTC2xxx >> Unit >> Control
Activate System File: All
```

4.2 AZxxx, ELxxx, HZxxx – R8 or R9

- Open a web browser on the management PC;
- Enter the Device IP address;
- Log in with username 'root' and password 'root';
- The Graphical User Interface will open;
- Click on the 'Configs' tab in the bottom right corner of the GUI screen;



- Upload the config file from your storage location.

4.3 M-Series

- Open a web browser on the management PC;
- Enter the Device IP address;
- Log in with username 'operator' and password 'operatoroperator';
- The Graphical User Interface will open;
- Navigate to the **Tasks Pane** (GUI);
- Click **Device**;
- Click **Configurations**;
- Click 'Import'



- Upload the config file from your storage location.

Get More Out of Your Equipment

The understanding of your application in combination with our product leads to reliable and cost-efficient solutions.

Visit: www.newtec.eu/applications for our full application range.

Newtec Cy N.V.
Laarstraat 5
9100 Sint-Niklaas, Belgium
Tel: +32 (0)3 780 65 00
Fax +32 (0)3 780 65 49
www.newtec.eu
sales@newtec.eu



[Twitter.com/Newtec_Satcom](https://twitter.com/Newtec_Satcom)



[Linkedin.com/company/newtec](https://www.linkedin.com/company/newtec)



[Youtube.com/NewtecSatcom](https://www.youtube.com/NewtecSatcom)



[Slideshare.net/newtec_satcom](https://www.slideshare.net/newtec_satcom)



Visit our website: www.newtec.eu