

Sage Alerting Systems  
Digital ENDEC model 3644  
Firmware Revision: 95 for Canada

Software Released November 3, 2022  
Release notes updated November 7, 2022

**Release notes for version 95 for Canada, adding support for National Public Alerting System  
Common Look and Feel version 2.0, TLS 1.2, and other features.  
For Canadian ENDECs only.**

This release is to be applied to ENDECs that already have version:

89-27

**Contents**

1	Important! .....	2
2	Browsers .....	2
3	Shortest instructions .....	3
4	Summary of Release Contents .....	4
5	Introduction to Rev 95.....	5
6	Other things you will want to do .....	8
7	New Features .....	10

For support in Canada:

Sage ENDEC Technical Support:  
1-888-494-4474 Option 3  
[sage.endec@trispec.com](mailto:sage.endec@trispec.com)

## 1 Important!

Once you have loaded the Rev 95 update, **DO NOT** attempt to reload an older version. The resulting mismatch of old and new portions of the firmware will result in an inoperable system. If you feel you need to revert your ENDEC to an older version, contact support first.

## 2 Browsers

Rev 95 requires a more recent web browser than did older versions of the ENDEC. We have found that you will need at least these versions of web browsers.

### Windows 7 or 10

- IE 11 (2013)
- Edge 16 (2015)
- Firefox 57 (2017)
- Chrome 66 (7/2018)
- Safari 12 (10/2018)

### Windows XP

The last version of Internet Explorer that runs on XP is not compatible with the Rev 95.

We have found that the last release of Firefox that runs on XP, called Firefox Extended Support Release (ESR) is able to support the ENDEC

If you need to stave off the inevitable, you could install Firefox ESR 52.9.0 on your XP system. We don't recommend this, as old versions of software, including Windows XP itself, do not receive support or security updates. Mozilla offers an archive of all of their old software, including 52.9.0esr for win32 at <https://archive.mozilla.org/pub/firefox/releases/>

### Mac

- Safari 12 – If you can't connect via HTTP, try using HTTPS.
- Firefox 57

### Other

- We have been able to access Rev 95 using recent Apple and Android phones and tablets. We recommend that you get the ENDEC updated and check for proper operation before connecting with handheld touchscreen devices.

Some features, such as the waveform graphic for audio playback on the log page, are only available on Chrome, Firefox, and Edge.

### 3 Shortest instructions

This release installs support for the Common Look and Feel Recommendations (CLF) version 2.0. This uses different text elements in the CAP message than previous versions. Environment and Climate Change Canada currently uses both the new and old elements for Broadcast Immediate alerts; however, this will change in the near future. Likewise, these new fields are in use by other Public Service agencies for alerting. To install Rev 95, you need to be on at least version 89-27.

For this release, each .x file can be installed only on the ENDEC it was purchased for. After you have purchased the update (processing may take one business day), to download the update for your ENDEC, go to this page: <https://www.sagealertingsystems.com/carev95download.html>. Enter your serial number. Your download will start. Save the file on your computer, then upload the .x file into your ENDEC in the usual way.

You will also need the latest version of EndecSetD. You only need to download it once onto any PC you will use to edit ENDEC settings files. You will need the latest version of ENDECSetD to edit the new Rev95 format. Go to this page: <https://www.sagealertingsystems.com/support-pc.htm>

The above steps are the minimum required to update your ENDEC so that it will process the CLF 2.0 format. There are other things you will want to do, see “Other things you’ll want to do” later in this document.

When installing, the ENDEC checks that its serial number matches the serial number encoded in the .x file, or that its serial number is in the range of those sold after March 26, 2021 and therefore eligible for a free update. If you attempt to install an update on the wrong ENDEC, or your ENDEC is not on the required minimum version, the ENDEC will not install the update. After uploading firmware to the ENDEC, be sure to check that the new version was installed using the “version” button on the ENDEC’s web page. Rev95 has an upload history button on the version page that will show upload errors.

For support in Canada:

Sage ENDEC Technical Support:  
1-888-494-4474 Option 3  
[sage.endec@trispec.com](mailto:sage.endec@trispec.com)

## 4 Summary of Release Contents

Complete details are provided in the new features later in this document

- 1) The Rev 95 update implements support for the TLS 1.2 protocol, the method used to access web sites securely. TLS is used to access the ENDEC when using HTTPS. The old TLS 1.0, supported by ENDEC versions prior to Rev 95, is gradually being removed from web browsers.

This release includes additional security features, such as using TLS 1.2 on browser connections to the ENDEC as well as connections from the ENDEC, such as emailed alerts. We've also added the ability to add additional user logins to the ENDEC with assignable roles. HTTP/HTTPS ports can now be changed, and a server certificate can now be built on, or uploaded to, the ENDEC. We encourage you to use HTTPS when accessing the ENDEC remotely. If you still haven't changed the password on your default logins, the ENDEC will nag you until you do. There are several other new and modified features that are discussed in detail later in this document.

- 2) The update uses a new web interface that provides a cleaner interface and additional features. We've attempted to keep existing features in similar places with the same names to minimize any impact on your day-to-day operations, while adding new features.
- 3) The Common Look and Feel guidance recommendation version 2.0 is now supported, with changes to message text and text to speech construction as well as the handing of Update messages.

Please read the rest of this document for important information.

## 5 Introduction to Rev 95

Rev 95 includes:

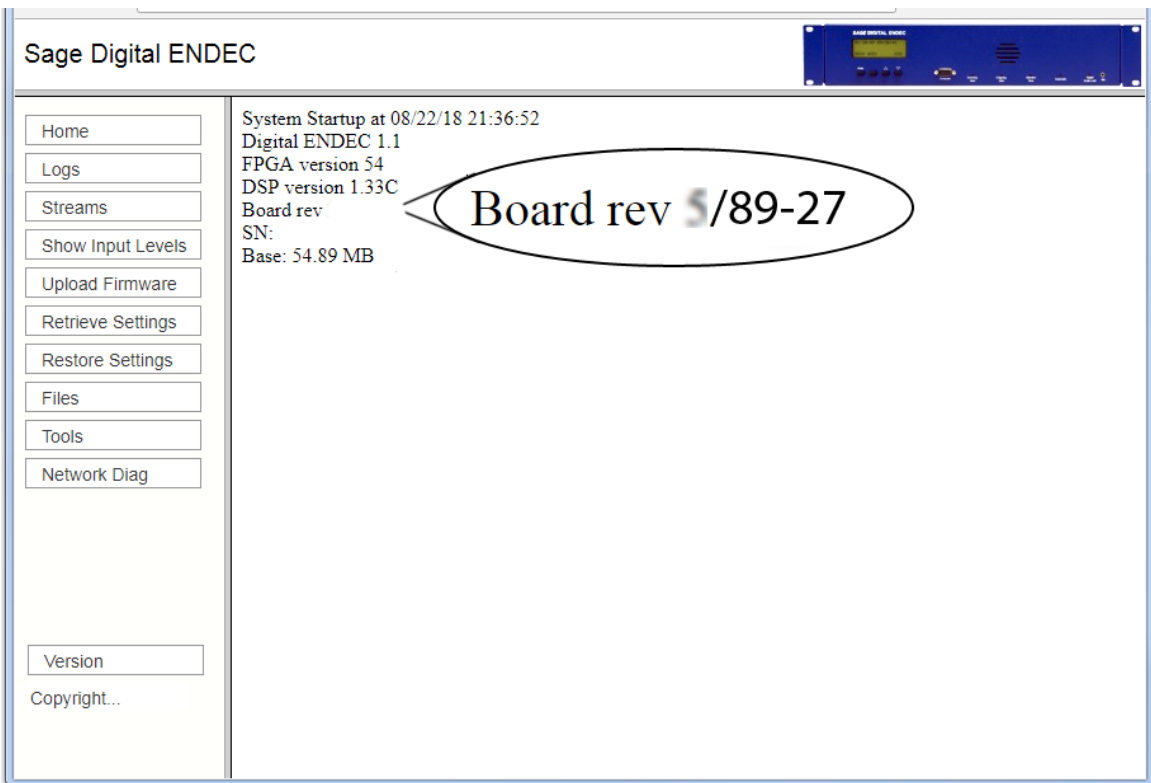
- **Security:** Using the certificates menu button, you can upload a server certificate you want the ENDEC to use, or you can have the ENDEC build a certificate to your specifications. With a custom server certificate, you can connect to the ENDEC with HTTPS and avoid the red and yellow banners, proceed at your own risk buttons, and other warnings about accessing a system without a proper server certificate.
- **Default Password detection.** If any of the user accounts on the ENDEC use the default passwords, you are prompted to change them. Use the access control button to build additional user names, passwords, and roles, and also to remove the old default user and admin web logins.
- **Support for Common Look and Feel Recommendations Version 2.0.** This provides better text content for logging, crawls, and other text displays.

Prerequisites.

You must have previously installed version 89-27. If you don't have version 89.27, you will need to contact Trispec support for update assistance.

### Installing Rev 95.

**Step 1.** Verify that your ENDEC is on version 89-27, and is ready for this update. Check your version by clicking the version button on the ENDEC's web page. You need to see version 89-27 in the marked area below. If you are on a release that is older than 89-27, for example 79 or 89-15, contact Trispec for assistance.



## Step 2. Download the firmware, and upload to the ENDEC

Download the firmware from the Sage web site here:

Go to the Sage Rev 95 download page: <https://www.sagealertingsystems.com/carev95download.html>

After you have purchased the update, enter your serial number and receive your file. Save it on your PC, and then upload it to your ENDEC using the Upload Firmware button on the ENDEC's web page. If you purchased your ENDEC after March 26, 2021, you are eligible for a free update.

**Step 3.** Once the ENDEC has rebooted, you will need to manually refresh the web page after about two minutes. Don't click the home or any other button on the web page until you have refreshed the page. Then click the version button. Check to make sure you now have version 95-00 installed as shown by clicking the version button and looking for the version on that page:

### Version Information

Your current firmware version number is **95-00**.

If you don't see version 95-00, then you should see a failure report in the version window, most likely a message that your ENDEC did not meet the minimum version number, or that your serial number did not match.

FAILED - Minimum firmware version not met (rev95).

or

FAILED - Update file is not for this ENDEC (rev95).

Correct the condition and try again.

The version page will now also show an update status, letting you know what the previous version was and various other installation results.

#### **Step 4. ENDECSetD**

Rev 95 uses a different format for the settings file. You will need to have the current version, 2.56. ENDECSetD will handle both the old and new, should you need to maintain older ENDECs during the transition to Rev 95. If you are using the old- format settings file, ENDECSetD will ask if you want to save it as a new format file. You must be using the new format to access the HTTP/HTTPS port number settings on the network tab. Note that web passwords and user roles are now entered using the Access Control button on the ENDEC's web page, web passwords are no longer entered into ENDECSetD.

To download the latest ENDECSetD:

<https://s3.amazonaws.com/sagealertingsystems/release/EndecSetD56.msi>

and run it to install.

#### **Step 5. Other settings to check for**

See the section on other things you will want to do, such as using the new security features.

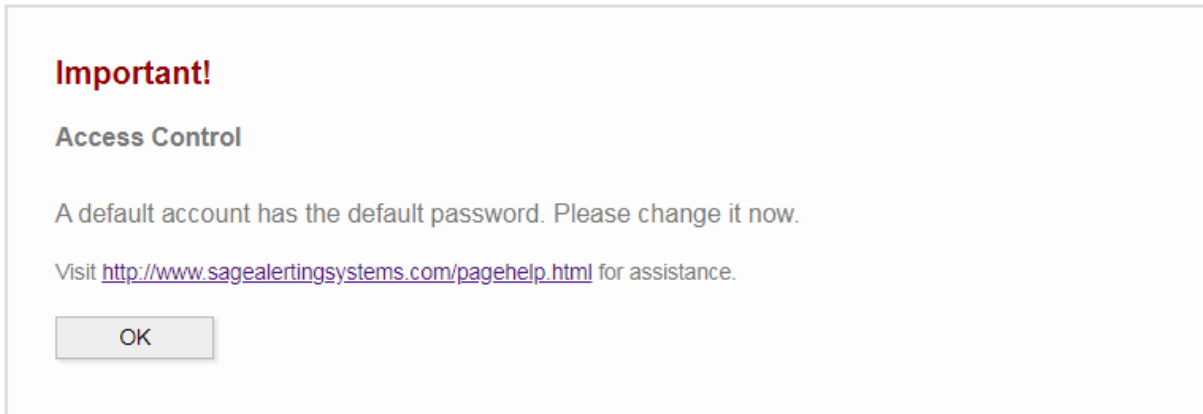
For support in Canada:

Sage ENDEC Technical Support:  
1-888-494-4474 Option 3  
[sage.endec@trispec.com](mailto:sage.endec@trispec.com)

## 6 Other things you will want to do

### Passwords and Access Control

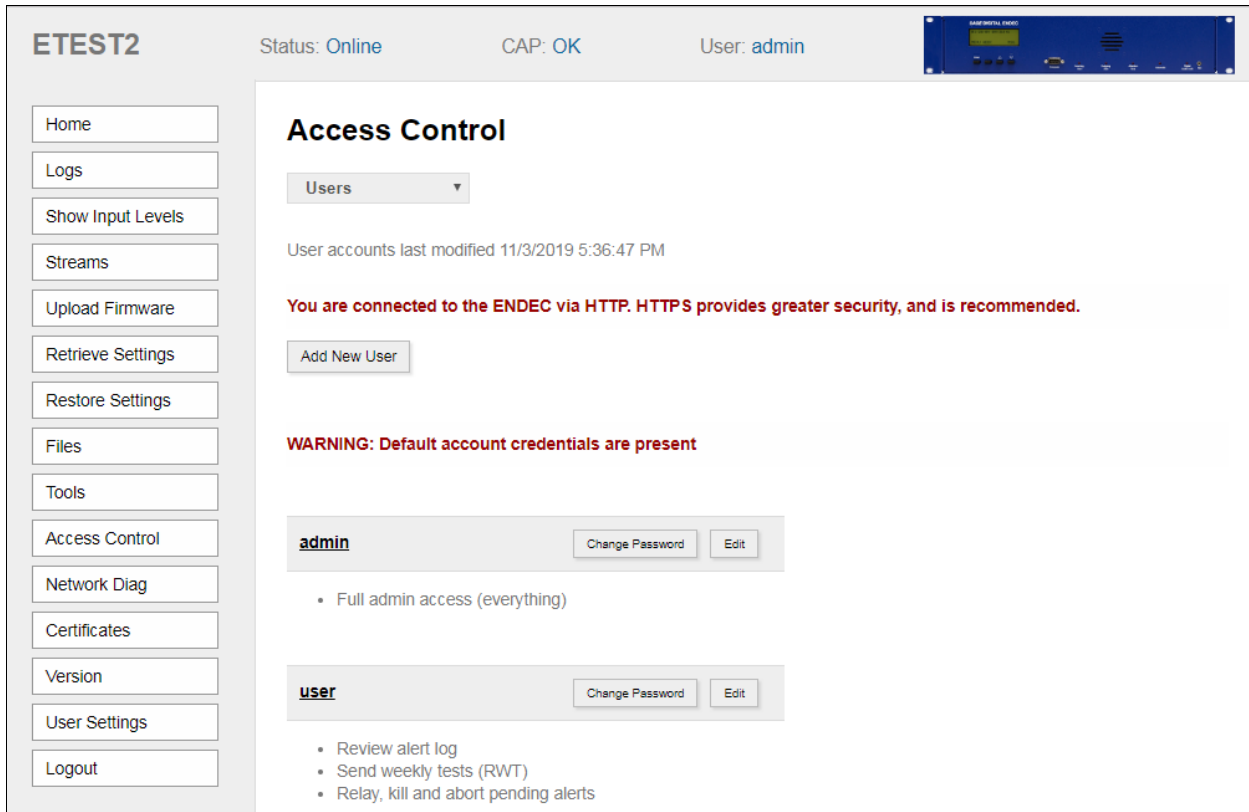
You might see this message after you install Rev 95. It means that one or both of the default users installed on the ENDEC are still there, i.e., admin, user, or both. You must change them to keep your system secure.



If you have logged in as admin, you will be taken to the access control page (shown below). You should log out and reconnect using HTTPS. The ENDEC includes a server certificate, and though browsers will complain about it because it isn't customized for your use, they will allow you to connect. This will provide the necessary encryption to keep your changes to your password secure. You should always connect to the ENDEC with HTTPS, for example, <https://192.160.1.50>, especially when you are dealing with the security sections of the ENDEC.

Once connected, change the passwords. Better yet, build new users and set appropriate roles for each. When you are done, log in to your new admin account and delete the old default users.





You can also use the access control dropdown box to set a white list of IP addresses that can connect to the ENDEC's web page. If you accidentally lock yourself out, you can reset the white list and the web logins from the ENDEC's front panel network menu.

You can use the Certificates button to create a custom server certificate. You can set it with the IP address(es) that you use to access the ENDEC. This certificate will be self signed, so you will need to manually add it to the trusted root store in your PC. Each browser has a different way of doing this, Sage will provide a tutorial for each on the FAQ section of our web site shortly after the release of Rev 95.

You can also upload a certificate and intermediates signed by a Certificate Authority for even better interaction with browsers.

## 7 New Features

Rev 95 includes these new features and improvements:

- Support for National Public Alerting System Common Look and Feel Guidance version 2.0.  
The CLF document sets specifications and recommended practices for the National Public Alerting System in Canada. The 2.0 version recommends that different text elements in the CAP message be used than in previous versions and provides a new method of constructing messages for text display and for use in local text to speech when audio is not provided in the CAP message. Different handling of update messages is also specified to reduce the airing of repeating information as, for example, a large storm moves through a broadcast coverage area.
- Security
  - Support for TLS 1.2
  - Server Certificate can be built by, or uploaded to, the ENDEC
  - For users with the tools/view IP address role, the user and IP address that initiated settings or firmware uploads, and other actions, are visible in the log. A check box on the log page removes these items in case you want to cut and paste and include parts of the log in an email or other public posting
  - HTTP/HTTPS port numbers can be changed for ease of use with a firewall or NAT
  - added multiple users and roles
  - user can change password from web page
  - IP whitelist for web page access
  - Removal of port 8888 for streaming audio access, audio is now streamed via the http/https connection, for one less hole in the firewall.
- Updated home page, with a dashboard showing
  - countdown to alert relay
  - countdown to the end of an in-progress alert
  - UTC time
  - ENDEC's local time
  - most recently sent alert (click and the log entry appears)
  - last reboot time
  - error conditions
- Updates to log display
  - log includes firmware/settings uploads and startups
  - graphic display of logged audio on Chrome, Firefox, and Edge
  - added log of user/IP address for web initiated actions
  - The time that a CAP message arrived and was queued is now included in the log. Messages continue to appear in the log in the order they became actionable
  - CAP server name is included in emailed logs
- Alert audio start/end messages added to Simple Automation API