## Section 1 - Getting Started: Prep your environment.

Power up the ENDEC. Connect it to your local network, using the modular jack on the rear of the box. Launch the web browser on your computer. Firefox or IE (modern versions) will work fine. Create a folder on your computer to store the files we're going to use - one file for the firmware update, and one file for the ENDECSetD installer - and then download the files. Each of these steps will take place at your computer.

## 1. Open your web browser, and go to this address:

http://sagealertingsystems.com/support-firmware.htm

Any modern web browser should do the trick, e.g. Internet Explorer 7 or greater, Firefox, etc.

## 2. Create a folder on your desktop.

For convenience, simply call it "sage".

## 3. Download the latest firmware.

From the firmware update page you opened in Step 1, click the link for the firmware file. When prompted to run or save the file, choose to save it in the folder you created in Step 2 of this section. The filename will be the firmware version and have an .x extension, e.g. 1h74.x.

## 4. Download the ENDECSetD software.

From the firmware update page that should be open in your browser from Step 1, download the ENDECSetD utility. When prompted to run or save the file, choose to save it in the folder you created in Step 2 of this section. Once the download process has completed, open the folder and double-click the EndecSetD.msi file. Answer all questions in the affirmative, stepping through the installation process just as you would when installing any program.



## Section 2 - Configure basic network operation.

Tell the ENDEC whether it will have a static or dynamic IP address. Activate the built-in web server. Each of these steps will take place at the ENDEC. If at any time the ENDEC display prompts you for the admin password, use the default value of 1111 - simply push the far-left button four times.

### 1. Determine whether you will use a dynamic address (DHCP) or a static address.

The correct answer depends on how your network is configured, and can be had by asking your IT guy. Note also that DHCP provides netmask, gateway and DNS details automatically. If you choose to use a static address, you will need to enter these details manually. Netmask, gateway and DNS values are also network-dependent.

#### Important!

By default, the ENDEC will attempt to obtain an address using DHCP. If you need to change from a static address to DHCP, proceed to step 2a. If you will be using a static address, proceed to step 2b. Step 2a and Step 2b are EXCLUSIVE of each other.

## 2a. Configure the ENDEC to use a dynamic IP address.

- 1. At the ENDEC's front panel, push the Enter button (the first button on the left).
- 2. Push the down arrow button to move down the list until the arrow on the screen is pointing at the Network option, then push the Enter button.
- 3. Push the down arrow button until the arrow on the screen is pointing at Network Addr Type, then push the Enter button.
- 4. Push the Enter button again to select DHCP. The display will return to the Network menu.
- 5. Push the up arrow button to move up the list until Show IP Addr is selected.
- 6. Push the Enter button, and then write down the IP address shown on the display.

## 2b. Assign the ENDEC a static IP address. Configure gateway and DNS settings.

- 1. At the ENDEC's front panel, push the Enter button (the first button on the left).
- 2. Push the down arrow button to move down the list until the arrow on the screen is pointing at the Network option.
- 3. Push the Enter button, then push the down arrow button until the arrow on the screen is pointing at Network Addr Type.
- 4. Push the Enter button, and then push the up arrow button to select **STATIC**. The display will return to the Network menu.
- 5. Push the down arrow button to move up the list until IP Address is selected, then push the Enter button.
- 6. Set the ENDEC's IP address. Push the up arrow to increment the value above the cursor, the down arrow to decrement, and the unlabeled button (second from the left) to move the cursor to the next position. When you have finished, push the Enter button.
- 7. Do not be alarmed if the ENDEC displays a warning that the gateway is not on the current network.
- 8. The display will return to the Network menu. Push the Down button until the Netmask option is selected.
- 9. Using the buttons in the same fashion as when setting the IP address, set the Netmask value, and then push the Enter button.
- 10. The display will return to the Network menu. Push the Down button until the Gateway option is selected.
- 11. Using the buttons in the same fashion as when setting the IP address, set the Gateway address, and then push the Enter button.
- 12. The display will return to the Network menu. Push the Down button until DNS1 is selected.
- 13. Set the addresses for DNS1 and DNS2, using the buttons in the same way as when setting the ENDEC's IP address.

### 3. Turn on the ENDEC's built-in web server.

From the Network menu, use the Up and Down buttons to select the **Web Server** option, then push the Enter button. The display will ask whether Web Server should be **Yes** or **No**. Push the Enter button to choose Yes.



## Section 3 - Update ENDEC firmware.

It's good to begin an initial installation with the latest firmware. This section will help you accomplish that, and serves as the steps you'll follow anytime you update the ENDEC's firmware in the future. Each of these steps will take place at your computer. You will need to know the current IP address of the ENDEC. If you don't know the address, refer to Section 2, Step 2a. You will also need to know where the firmware file is located on your computer. If you're unsure, refer to Section 1.

### Important!

Make sure the power to the ENDEC does not go out during this process. You may not, for instance, want to do this during a thunderstorm.

- 1. Open your web browser. In the address bar, type in the IP address of the ENDEC, then hit Enter. The ENDEC's built-in web page will appear in your browser.
- 2. From the buttons on the left-hand side of the page, click Upload Firmware. The Upload Firmware Update form will appear on the right-hand side of the page.
- 3. Click the Browse button on the form. Using the file selection window that pops up, navigate to the folder containing the firmware file.
- 4. Click the firmware file to select it.
- 5. Click the Open button at the bottom of the file selection window. The file selection window will disappear, and you will see the firmware update form again.
- 6. Click the Upload button in the bottom-center of the firmware update form.
- 7. A message will be displayed, indicating that the update is underway, and that you must *not* disturb the ENDEC until the update process has completed.

The ENDEC will automatically reboot and return to an operational state once the firmware update process has finished.



## Section 4 - Configure ENDEC operational parameters.

Quick changes to basic settings can be made at the ENDEC's front panel, but more involved procedures (incoming alert filters, for example) are best handled using the ENDECSetD utility. If you haven't yet installed the ENDECSetD utility on your computer, refer to Section 1. This section provides the basic steps to retrieve your ENDEC's settings, edit them on your computer, and then upload your changes back into the ENDEC. You will also need a folder to store the ENDEC settings file - the Sage folder you created in Section 1 is a good place for this purpose, and we'll refer to it here as your Sage folder.

## 1. Open your web browser to the ENDEC's built-in web page.

Open your web browser. In the address bar, type in the IP address of the ENDEC, then hit Enter. The ENDEC's built-in web page will appear in your browser.

## 2. Get the current settings from the ENDEC.

From the menu down the left-hand side of the screen, click the Retrieve Settings button. Once the Retrieve Settings form appears on the right-hand side, click the gray Retrieve Settings button in the form. When prompted to open or save, choose to save the file, following the prompts to browse and select your Sage folder. The file will have an extension of ES2.

## 3. Launch the ENDECSetD utility.

Open your Sage folder and double-click the ES2 file that's in there. ENDECSetD should automatically open, populated with all of your ENDEC's current settings.

#### If ENDECSetD does not open when you double-click the ES2 file ...

You can launch the ENDECSetD utility manually, and then open the ES2 file for editing. If you don't have a ENDECSetD shortcut already on your desktop, you can find ENDECSetD in your Program Files folder. It will be inside of a subfolder called "Sage Alerting Systems." You might consider placing a shortcut on your desktop.

## 4. Edit your ENDEC's configuration settings as desired.

All operational parameters, including alert handling, UTC offset and DST, relay programming, incoming alert filters, and basic callsign and station group identification, can be set within the ENDECSetD utility.

### 5. When you are finished, save your changes.

Simply click the little floppy disc button, located near the upper left of the ENDECSetD window.

### 6. Update the ENDEC with your new settings.

Open your web browser to the ENDEC's built-in web page, once again. From the menu down the left-hand side, click the Restore Settings button. The Upload Settings File form will appear on the right. From that form, click the Browse button, and navigate to the ES2 file in your Sage folder. Click it once to select it, then click the Open button at the lower right of the file selection window. Once the window goes away, click the Upload button on the Upload Settings File form. A message will be displayed, indicating that the update is underway, and that you must *not* disturb the ENDEC until the update process has completed. After the ENDEC completes its update and reboot process, it will return to the operational state, with your new settings in effect.



## Consult the Sage Digital ENDEC 3644 manual for complete details on all settings.

Get the official Sage Digital ENDEC 3644 manual from this URL: http://sagealertingsystems.com/docs/digital\_endec\_1\_0.pdf

In the manual, filters are discussed in detail in section 5.4, beginning at the bottom of page 40. Page 41 gives a list of the various types of events, and take a close look at the table on page 42 that lays out the possible actions the ENDEC can be programmed to take when a given filter is matched.

After you setup your filters, consult the section on relay programming, which features a description of the four relays available on the back of the box and has a series of tables that explain the possible configurations. This information begins on page 47.

Our FAQ is also very helpful: http://sagealertingsystems.com/faq.htm

For assistance, contact support: 914.872.4069 ext. 1 support@sagealertingsystems.com

