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<td>JD</td>
<td>7/8/2014</td>
<td>1.01</td>
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<td>5/6/2016</td>
<td>1.02</td>
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INTRODUCTION

The nERGY Siren Configuration Utility will update the firmware in SoundOff Signal 400 series amplifiers and control panels. Private label amplifiers and control panels are not firmware updatable. However configuring private label devices is supported. It allows the configuration of the hand held, remote, and console versions.

HARDWARE SETUP

When configuring or updating a device, the device must be properly powered.

Typical hardware setup is to have the control panel RJ45 connection attached via a CAT5 cable to the siren amplifier and the siren amplifier properly powered. Refer to the supplied instruction manual for proper operation before attempting configuration or updates.

Once the system is operating, you now must connect the LIN to USB adapter. If you are using the remote Control Panel, you can plug the CAT5 cable into its extra RJ45 connection. However, if using the hand held control panel, you must use an Ethernet splitter similar to Figure 1. Plug the splitter into the amplifier, the hand held Control Panel into one side, and the LIN to USB adapter into the other. You must plug in the hand held first, check operation, and then plug in the LIN to USB adapter. If the Control Panel is operational, you should be ready to use the configuration utility.

Figure 1
SOFTWARE INSTALLATION AND SETUP

Please visit www.SoundOffSignal.com or contact SoundOff Signal for the nERGY Siren Configuration Utility installation files. Once received, double click the setup file and follow the installation instructions.

You must agree the SoundOff End User License Agreement before proceeding. Application should install into your start menu and create a siren icon on your desktop.

To operate the system you must have a USB to LIN adapter plugged into your computer and the RJ45 jack plugged into either the bluePRINT Central unit (CN2), if installed, or the siren amplifier. If working with the control panel, you must use a RJ45 splitter, one port for the USB to Ethernet adapter and the other for the control panel.

IMPORTANT!!!! When updating the firmware in the hand held siren Control Panel you must connect to the system via the siren amplifier. If you connect to the handheld via the bluePRINT Central unit and attempt a firmware update, the siren hand held Control Panel will become unusable. However, configuration of the handheld Control Panel will work through the bluePRINT Central unit. Other control panel units do not have this issue, it is only the handheld unit that exhibits this behavior.

RUNNING THE APPLICATION

Double click on the desktop icon or choose the application from the start menu under the SoundOff Signal folder. Once the application starts, you should get a screen that looks like Figure 2. Note: The application runs at a resolution of 1366 x 600. If you have your screen magnifying or the icons at “larger”, you may need to adjust the screen settings. If running on a tablet, the landscape layout is the only one that displays properly. If rotated portrait and back again, it will return to its proper scale.

The application runs a “Windowless” form. If you click and hold anywhere on the form that is NOT a control, you can drag the form around the screen. Clicking on the “-” or the “x” will also perform minimize or close respectively.

Figure 2
The main menu is located at the top of the screen and consists of the File, Device, Firmware, Report, and Help menus. Each of these menu items perform tasks related to the labels. Click on the word to get the label drop down. The main menu is where all of the interaction between the devices and the application takes place.

**FILE MENU**

Figure 3

The file menu (Figure 3) consists of the standard file options: New, Open…, Save, and Save As… These commands all deal with the configuration of the control panels.

- New - Clears everything on the screen.
- Open… - Opens a previously saved file.
- Save - Saves an existing configuration file.
- Save As… - Save the configuration prompting for a file name.

Note: when opening a file, you must upload the configuration to the device for it to take effect.

**DEVICE MENU**

Figure 4

The Connect menu (Figure 4) is where the retry is done if there are connection problems.
When the software connects to the control panel, it will automatically attempt to download the configuration. Because the LIN line is very busy between the control panel and the siren, the 20 attempts to interject may not always succeed. In that case you will get an error message (Figure 7). Continue to retry until you get a connection.

Some of the devices have an optional password and you may be prompted depending upon the prior configuration settings.

If a hand held control panel is detected on connection, the screen will change, removing the remote control panel display and showing a Config Buttons button (Figure 9, Pg. 8). This button, when clicked, will display the hand held control panel screen (Figure 18, Pg. 15).

The firmware version of the control panel is displayed at the top right upon connection (Figure 8).
DISCONNECT

To disconnect from the USB to LIN converter and hence the system, unplug the device from the PC. Disconnect will happen automatically if the connection is active and the application is closed. Disconnection is indicated by the connection indicator (Figure 5, Pg. 7).

UPLOAD CONFIGURATION

Uploading configuration will push the configuration settings you have setup in the software to the siren control panel. Activity is indicated by the progress bar at the top of the screen (Figure 9). You must upload configuration whenever changes are made to the software and you wish those changes to be applied to the control panel. Some devices have the ability to apply a password and this password is required on an upload when configured to do so.

DOWNLOAD CONFIGURATION

Downloading configurations from the control panel will update the settings in the software from the control panel connected. This is done on the initial connection and can be done at any time via this menu choice. Activity is indicated by the progress bar at the top of the screen. Some devices may require a password to download and you will be prompted if that device is configured to do so.
The firmware menu (Figure 10) is where tasks relating to updating the firmware of the connected device occur. The options are Update System, Control Panel to App, and Amp to App.

**UPDATE SYSTEM**

When chosen, the Update System menu option will check the firmware of the control panel and amplifier. If the versions are the same, it will allow you to skip that device, if they are not, it will force the update. Activity will be indicated by a progress bar at the top of the screen and a dialog will show success or failure. IMPORTANT – Updating the hand held control panel must be done from the siren.

**UPDATE AMP**

When updating the amplifier firmware it is recommended that you plug directly into the amplifier. However, you can update the amplifier from the bluePRINT Central via the control panel. Updating from the amplifier avoids the need to interrupt communication between the amp and the control panel. If updating from the control panel, you may have to try multiple times to get it started. Once started the activity is denoted by the progress bar at the top of the screen. A dialog box will appear indicating a pass or fail condition.

**CONTROL PANEL TO APP**

Updating firmware requires that the control panel be put into a "boot loader" state. There is the possibility of getting the system into the boot loader state and getting an error on the update. If this occurs, choosing the Control Panel to App menu option will attempt to put the control panel back into its original working state.
AMP TO APP

Updating firmware requires that the siren amplifier be put into a “boot loader” state. There is the possibility of getting the system into the boot loader state and getting an error on the update. If this occurs, choosing the Amp to App menu option will attempt to put the siren amplifier back into its original working state.

REPORT

Figure 11

The Report menu option (Figure 11) currently contains only one option, Create.

CREATE

The Create menu option will create and display an HTML report in a web browser. This report contains the configuration information in the software at the time of choosing this option. To get an accurate, up to date picture of the configuration, you must first download the configuration from the control panel and then create the report.
The Help menu (Figure 12) contains three options for help: Contextual Help, Documentation, and About.

CONTEXTUAL HELP

The Contextual Help menu option is a checkbox that will allow help directly from the software window. When checked the available options for help will turn green (Figure 13). Any green item on the screen, when clicked, will display a help dialog specifically about that item.
The nERGY Siren Configuration Utility contains the documentation for the control panels embedded within the application. When the Documentation menu item is chosen, the application creates a temporary PDF file in the users My Documents folder and displays that file to the user in their default PDF reader.

The About menu (Figure 14) option gives version and copyright information pertaining to the nERGY Siren Configuration Utility.

Configuration of the nERGY Siren systems is strictly done in the control panels. When powered and communication is established, the control panel will update the amplifier with the information that is needed. Therefore, no configuration is possible when directly connected to an amplifier unless also connected to a control panel via the RJ45 splitter. Again, configuration settings exist in the control panels only.

The console and remote control panels are the default screen for the nERGY Siren Configuration Utility configuration. All buttons and options are available on the initial screen (Figure 2, Pg. 5). Remember that after setting the options on the screen, you must upload the configuration to the control panel for the changes to be realized.
Most of the configuration options on the initial nERGY Siren Configuration Utility are standard controls. Check boxes either turn the option on or off, radio buttons are mutually exclusive options, and slide bars adjust a sliding scale. Depending upon the type of control panel connected, these options may change. If you have questions about the values, you can choose Contextual Help from the Help menu and click on the option in question.

NON-STANDARD CONTROL BEHAVIORS

There are certain controls that require some explanation on how to operate. Those controls are the Horn Ring in the Alternate Modes group and the Slide Switch located at the bottom of the screen.

HORN RING (ALTERNATE MODES)

Horn Ring in the Alternate Modes group is a three state option control (Figure 15). The first state is off, which indicates there is no custom operation of the vehicle horn. The second state is on, which indicates there is custom options for the control. When checked, two options will appear. When unchecked the two options will disappear. The third state is either option 1 or option 2. If you have questions about the values, you can choose Contextual Help from the Help menu and click on the option in question.

Figure 15

SLIDE SWITCH

The slide switch at the bottom of the Console and Remote control panel’s screen, directly affects the behavior of the control panel button configuration. When the slide switch is OFF and a button is clicked, the configuration is in the “AUXILLARY SWITCH SETTINGS” mode as indicated in the documentation. When in this mode and a button is clicked, a dialog box will come up indicating the available options for the button (Figure 16). If the switch is set to a value other than OFF, the configuration is in the “Auxiliary Push-button to Slide switch mapping programming” mode. Selecting the button will either turn it on, mapped to the slide switch setting, or off, unmapped to the switch setting (Figure 17, Pg. 15).
As mentioned in the Connect menu documentation, when a connection is made with a hand held control panel on the system, the screen will remove the control panel buttons and replace them with a Config Buttons button.

When the Config Buttons button is clicked a dialog box will appear that looks similar to the layout of the hand held control panel (Figure 18).
STANDARD CONTROLS

The buttons on the hand held control panel configuration dialog when clicked, either produce a dialog box of choices or toggle between on and off. Configuration settings are displayed below the buttons. Active buttons are green, aside from the Apply button, which is always green. The power and radio rebroadcast buttons are not used when configuring from software.

The Clear button (Figure 20) will reset the configuration back to a default state and the Apply button (Figure 19) will set the button configuration and close the dialog. Remember, that once the button configuration is complete, you must still upload the configuration via the Devices menu.
NON-STANDARD BUTTON BEHAVIORS

There are certain controls that require some explanation on how to operate. These are the Switch buttons (0-3) and the Siren button.

SWITCH BUTTONS (0-3)

The Switch buttons change the operation of the six auxiliary buttons on the dialog window. When zero is active, clicking the auxiliary button will produce a dialog screen to set the button behavior. The setting will set under the clicked button (Figure 21). When any other Switch button is active the auxiliary button is mapped to that Switch button and is active when the Switch button is active.
SIREN BUTTON

When the Switch button (0-3) is set to zero and the Siren button is clicked, it will display a dialog to set up to three different tones. The tone being set at the time of the click will be displayed at the top of the Tones Program dialog (Figure 22). Each time the Siren button is clicked, it will iterate through the three siren tone settings. If you don’t wish to change the tone click cancel, click the Siren button again, and the next tone will display. When OK is pressed the setting will be reflected below the button under the proper siren label (Figure 23).
When the Switch button (0-3) is set to something other than zero and the Siren button is clicked, a dialog box will appear to set the tone to the active Switch button (Figure 24). When the option is chosen, the Siren tone label background will highlight. Cycling through the Switch tone buttons will show the proper tone set for each.