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## *Installation and Operation Manual*

### **NetSwitch III**

Manual update: 10/01/2019

If you need a firmware upgrade, contact Broadcast Tools<sup>®</sup>

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## INTRODUCTION

Welcome to NetSwitch III, from Broadcast Tools. This utility was created to allow simple direct access to popular Broadcast Tools devices using TCP or Serial connections. You can directly control and monitor the operation of your supported Broadcast Tools device from your desktop or portable Windows XP/7/8/10 PC.

NOTE: TCP connections require a TCP to Serial adapter to work with the supported Broadcast Tools devices, such as the Lantronix XDirect, available from <http://www.lantronix.com>.

## SAFETY INFORMATION

Only qualified technical personnel should install the NetSwitch III. Any attempt to install this device by a person who is not technically qualified could result in a hazardous condition to the installer or other personnel or damage to the NetSwitch III or other equipment. Please ensure that proper safety precautions have been taken before installing this device. If you are unfamiliar with this type of equipment, please contact a properly qualified engineer to handle the installation and setup of the NetSwitch III. Broadcast Tools, Inc., is unable to support NON-Broadcast Tools software, hardware or NON-Broadcast Tools computer/hardware/software problems. If you experience these problems, please research your hardware/software instruction manuals or contact the manufacturers technical support department.

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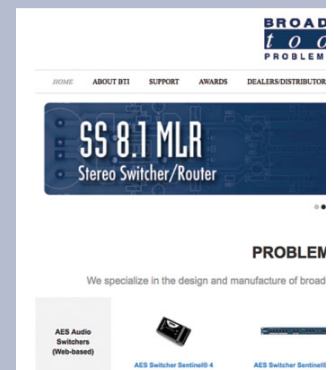
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This manual should be read thoroughly before installation and operation.

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## INTRODUCTION

## SUPPORTED DEVICES

NetSwitch III supports the following Broadcast Tools devices:

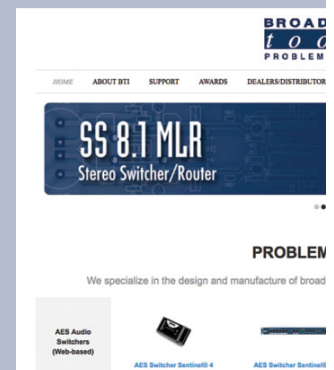
- 16x1
- ACS 4.1
- ACS 8.2 Plus
- ACS 16.2
- ADMS 44.22
- GPI-16
- GPI-24
- GPI-32
- GPIO 32+2
- SRC-4
- SRC 8-III
- SRC-16
- SS 2.1 MLR
- SS 4.1 MLR
- SS 8.1 MLR
- SS 4.4
- SS 16.4
- ...plus, a custom definable device profile

## Configuration:

When you first open NetSwitch III, you will need to configure your connection settings and device type/device address before you can connect to your supported device. Serial connections can be made directly to your PC. TCP connections require a TCP to Serial adapter, such as the Lantronix XDirect, available from <http://www.lantronix.com>.

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## Connection Settings:

To configure your connection type, go to the Setup menu from the menu bar at the top of NetSwitch III's main window and choose Connection Settings. You can choose between serial or TCP/IP connection types. Choosing either option will toggle the available settings, showing only the pertinent fields for you selected connection type.

For a serial connection, you will need to know your Comm Port number (which comm port your device is plugged in to), the Baud Rate ("9600" is the default for most Broadcast Tools devices), the Data Bits (8 is typical), the Parity (usually "None"), and finally the Stop Bits (normally "1").

For a TCP/IP connection over your LAN (or across the internet if you have configured your router properly, consult your router's documentation for info on port forwarding/NAT), you will need to know the IP address and port number for your TCP/IP to Serial adapter that is connected to your supported Broadcast Tools device and enter them in to the IP Address and Port fields.

Lastly, if you want NetSwitch III to automatically connect to your device using the given connection settings when the application is started, place a check mark in the Auto-Connect on Startup check box.

After verifying that your connection settings are entered correctly, click on the Save button. Conversely, if you want to discard any changes you've made and have them revert to their previous settings, click on the Cancel button.

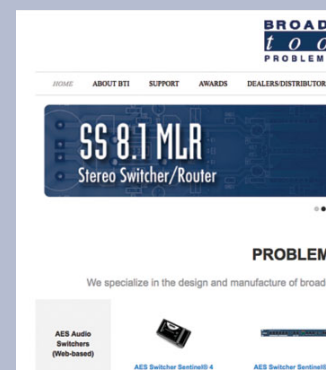
## Device Type:

Next, before you connect to your device, you'll need to select the type of device you are going to connect to. You can either choose the specific device type, or you can choose the "Auto-Detect Upon Connection" option. Keep in mind that some devices do not support the Auto-Detect function (they are denoted with the "Can't Auto-Detect" tag to the right of the device type selection menu), so if you are using one of those specific devices, you must directly choose the specific device and the device address (see the next section of this chapter).

Note that there is an option in the Device Type menu for "Custom". This device type is a free-form profile. Unlike the model specific device type profiles, the custom device profile can output any ASCII text string you program it to. For more information on setting up the custom device profile, see the section in this manual titled "Configuring the Custom Device Profile".

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## Device Address:

If you've chosen the "Auto-Detect Upon Connection" option from the Device Type menu, you won't need to manually select the device address, it'll do that for you upon connection, so the menu option will be greyed-out.

If you've chosen the "Custom" device type option, the Device Address setting doesn't apply, so the menu option will be greyed-out.

On the other hand, if you've chosen your device type manually, you'll need to select the device's address from the Device Address menu. You can determine the device address by looking at the device's DIP switch setting legend for your device, available in the user manual for your specific device.

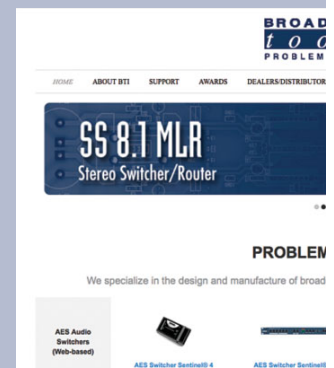
## Connecting to your Device:

Now that you've configured your Connection Settings, your Device Type, and your Device Address settings, you are ready to connect to your device. Click on the Connect menu option to open the connection to your device. NetSwitch III will open your configured communication method. Depending on the device type, you'll see fields for the functions available on your device. Audio Switchers will show the input/output status field, and devices that support GPI, GPO, Open Collectors, and Silence Sensors will show corresponding status fields as well. All the status fields (with the exception of the GPI status field) are clickable, so you can control your connected device remotely in real time.

When you wish to disconnect from your device, you can either click on the Disconnect menu option, or simply close the NetSwitch III application.

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## Customizing the Display:

NetSwitch III will display a graphical image of the connected device on screen. If you don't want NetSwitch III's user interface to take up as much space, you can click on the Hide Images menu option. The image will be hidden, and the overall window will be shrunk to conserve screen space. To show the images again once they are hidden, click on the Show Images menu option.

You can also modify the input and output labels for the audio switcher device profiles. To edit the labels, you can either manually select your device type, or connect to your device using the "Auto-Detect Upon Connection" device type option. Once the device type is determined, go to the Setup menu and select either the Define Input Names or Define Output Names menu options. A window will appear with the available field names. Change any of the input/output names to better describe what is connected to each input/output channel to make identification easier. Leaving a field blank will cause the name to revert to the pertinent "Input #" or "Output #" label.

## Communications Console:

The main window of NetSwitch III hides all the background communication from you. Should you need to troubleshoot communication issues, or send custom control commands, you can switch to the Console View by clicking on the Show Console menu option. To revert to the default device view when the Console View is showing, click on the Hide Console menu.

You may notice a lot of Output Data and Received Data scrolling on the console view. This is the back-and-forth data the Device View sends/receives continually to update the user interface. If you wish to send custom commands without the Device View's communications getting in the way, click on the Pause Auto-Data check box. This will make the Device View's data output to stop until you either uncheck the Pause Auto-Data option or hide the Console View. To send custom data, enter the text you wish to send to your device in the text field to the left of the Send button, and then click on the Send button to send that text to your device. You'll see your sent text get logged in the Output Data field, and any response that you get will be displayed in the Received Data field.

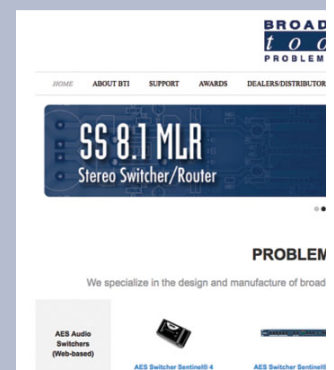
## Configuring the Custom Device Profile:

The Custom device profile allows you to control devices that aren't specifically supported by NetSwitch III. There are 16 available "controls". Each control allows you to set up 16 data output commands, each with their own text input identification label, and a single output identification label for that control.

To access the setup for each control, click on the configure button-which has a gear/cog icon-next to the control you wish to configure. The Output Profile Settings window will appear.

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## CUSTOMIZATION

The Input Labels section contains two columns. The first column is named “Input Label”, text entered here allows you to have a human-friendly name for your output command which will be displayed in the control’s dropdown. The second column, named “Data Command”, is for you to put your ASCII command string that will be sent to your device from NetSwitch III. The Input Label allows you to recognize your command without having to memorize what the potentially cryptic command does.

Finally, there is a field titled “Output Label”, which allows you to give your control a static name, regardless of which Data Command is chosen from a control’s dropdown.

Once you are done configuring your specific control, click on the Save button to save your changes. Conversely, if you don’t want to save your changes and wish to revert to the previously saved settings, click on the Cancel button.

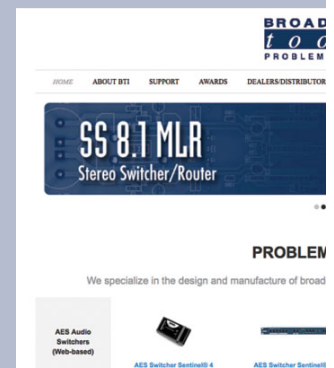
### Using the Custom Device Profile:

Once you have configured the Custom device profile, to use it, connect to your device by clicking on the Connect menu option at the top of the NetSwitch III main user interface. Once you have successfully connected, select your desired Data Command by clicking the dropdown field (the left-most field of each numbered control) and clicking on it to select it. To send your configured Data Command, click on the Output button (the middle field of each numbered control).

Note that the Custom device profile doesn’t show any feedback of your device’s status. To see any feedback from your device, you may need to inspect the actual device’s physical status indicators or look at the Console View for any text information returned via TCP/Serial communications.

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