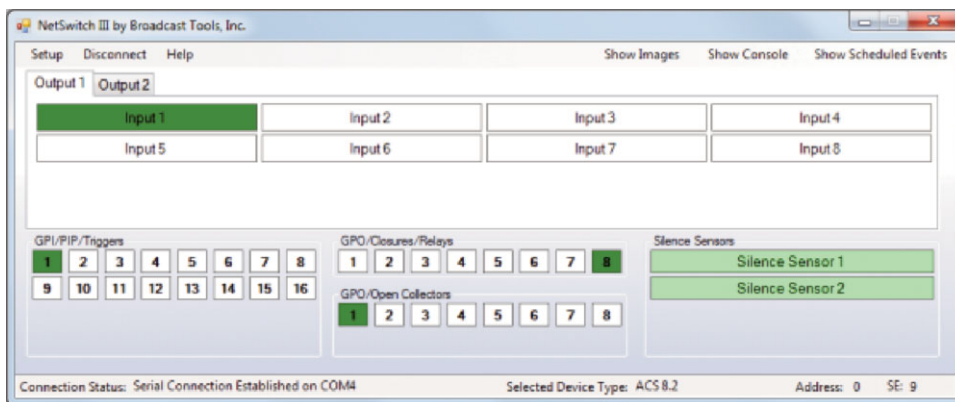


BROADCAST[®] tools INC

PROBLEM SOLVED

Installation and Operation Manual



NetSwitch III PC-based Switcher Control/Scheduler Software

Manual update: 8/11/2026

Software version 1.2.2.8

If you need a firmware upgrade, contact Broadcast Tools[®]

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NOTE: We recommend the use of Chrome, Firefox or Safari as your browser.

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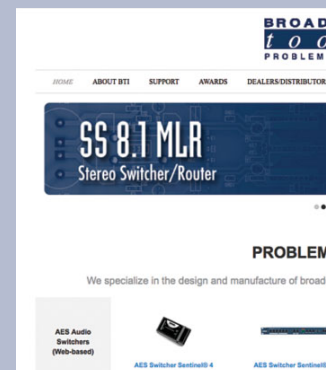
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INTRODUCTION

Welcome to NetSwitch III, from Broadcast Tools. This utility was created to allow simple direct access to popular Broadcast Tools devices using TCP Ethernet or Serial connections. You can directly control and monitor the operation of your supported Broadcast Tools device from your desktop or portable Windows* 11/10/8/7 PC.

NOTE: If your PC does not have a built-in RS-232 serial port but does have USB, then a USB-to-serial adapter cable is a good way to add USB serial capability. We recommend USB-to-serial adapters that use the FTDI chipset and have had good results with the model "SBT-FTDI" from Sabrent.

NOTE: If you wish to add TCP Ethernet control to a serial device you can use an Ethernet to Serial adapter/Device Server such as the Lantronix XDirect, available from <http://www.lantronix.com>.

* Windows is a registered trademark of Microsoft Corporation.

CONFIGURATION

When you first open NetSwitch III, you will need to configure your serial or TCP/IP connection settings and device type/device address before you can connect to your supported device. Serial connections can be made directly to your PC's RS-232 serial/COM port. If your PC does not have a built-in RS-232 serial port but does have USB, then a USB-to-serial adapter cable is a good way to add serial capability. We recommend USB-to-serial adapter cables that use the FTDI chipset and have had good results with the model "SBT-FTDI" from Sabrent. TCP connections may require an additional Ethernet to Serial adapter (Ethernet Device Server), such as the Lantronix XDirect, available from <http://www.lantronix.com>.

WHO TO CONTACT FOR HELP

If you have any questions regarding your product or you need assistance, please contact your distributor from whom you purchased this equipment. If you would like more information about BROADCAST TOOLS® products, you may reach us at:

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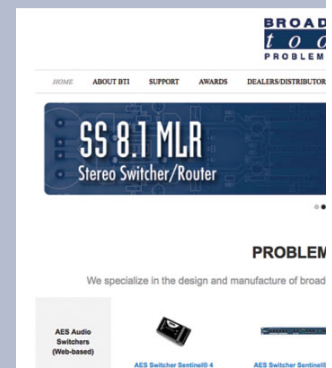


NOTE:

This manual should be read thoroughly before installation and operation.

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INTRODUCTION

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 necessary fields for your selected connection type.

The screenshot shows the 'Connection Settings' dialog box with the 'Serial' radio button selected. The fields are as follows:

Field	Value
Connection Type:	Serial
Comm Port:	COM4
Baud Rate:	9600
Data Bits:	8
Parity:	None
Stop Bits:	1

At the bottom, there is an unchecked checkbox for 'Auto-Connect on Startup' and two buttons: 'Cancel' and 'Save'.

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

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 supported Broadcast Tools device or device server and enter them into the IP Address and Port fields.

The screenshot shows the 'Connection Settings' dialog box with the 'TCP/IP' radio button selected. The fields are as follows:

Field	Value
Connection Type:	TCP/IP
IP Address	192.168.1.55
Port	10001

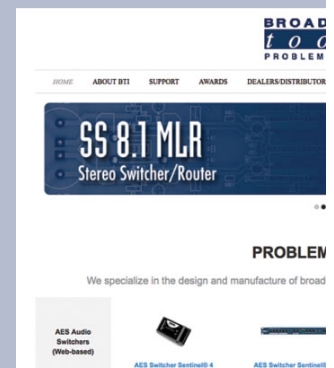
At the bottom, there is an unchecked checkbox for 'Auto-Connect on Startup' and two buttons: 'Cancel' and 'Save'.

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 have made and have them revert to their previous settings, click on the Cancel button.

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Device Type

Before you connect to your device, you will 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 choose the specific device and the device address directly (see the next section of this manual).

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”.

Device Address

If you have chosen the “Auto-Detect Upon Connection” option from the Device Type menu, you will not 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 have chosen the “Custom” device type option, the Device Address setting does not apply, so the menu option will be greyed out. If you have chosen your device type manually, you will 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 and Controlling your Device

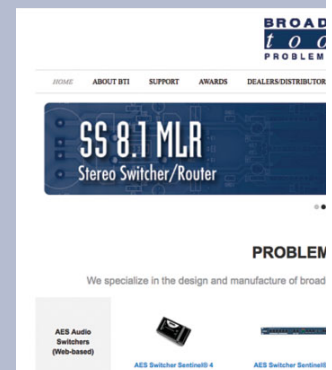
Now that you have configured your Connection Settings, your Device Type, and your Device Address settings, you are ready to connect to your device. Click on the Connect menu option to open the connection to your device. NetSwitch III will open your configured communication method. Depending on the device type, you will see fields for the functions available on your device. Audio Switchers will show the input/output status field, and devices that support GPI, GPO (Relays/Open Collectors), and Silence Sensors will show corresponding status fields as well.

All the status fields except the GPI and silence sensor fields are clickable, so you can control your connected device remotely in real time. Left click to turn an audio input, open collector, or relay on, and right click to turn it off. Each audio output has its own tab, for example: to view or control Output 2, click on the tab labelled “Output 2.”

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

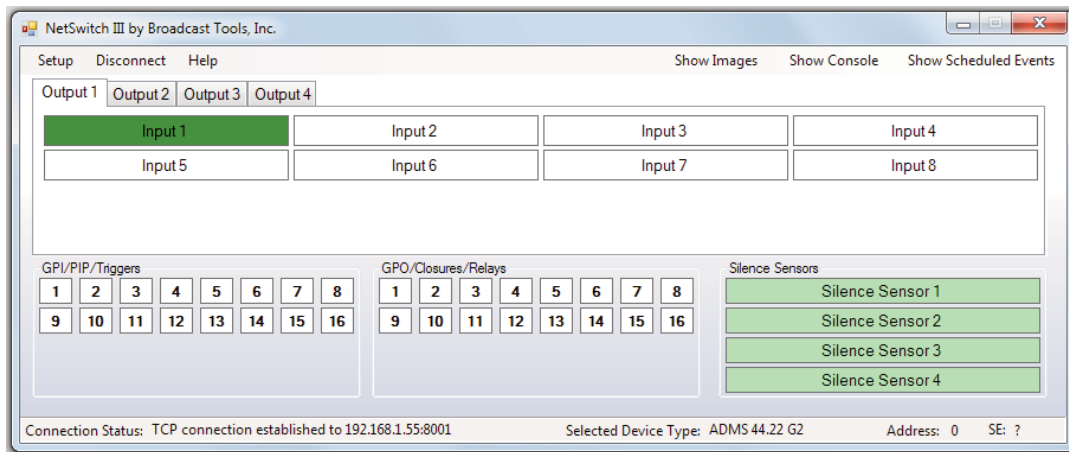
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Customizing the Interface

NetSwitch III will display a graphical image of the connected device on screen. If you do not 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:

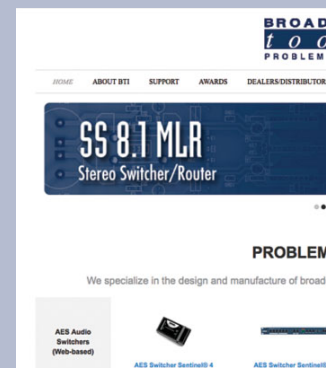
The main window of NetSwitch III hides all the background communication from you. Should you need to troubleshoot communication issues, or send custom control commands, you can switch to the Console View by clicking on the Show Console menu option. To revert to the default device view when the Console 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 stop until you either uncheck the Pause Auto-Data option or hide the Console View.

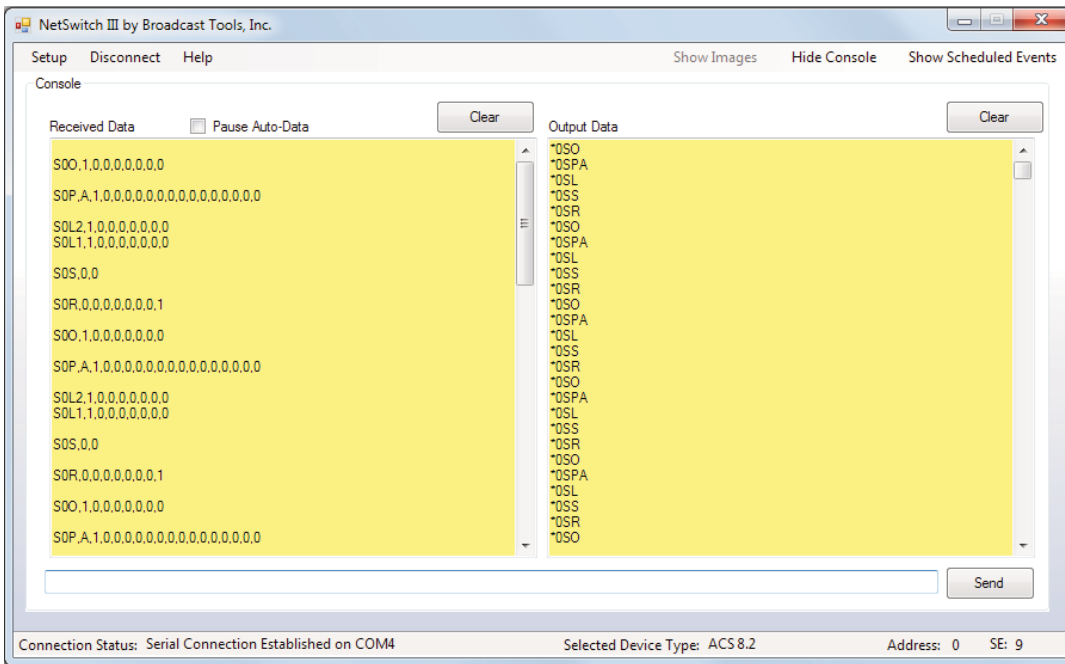
To manually send a string to the device, enter the text you wish to send in the text field to the left of the Send button, and then click on the Send button to send that text to your device. You will see your sent text get logged in the Output Data field, and any response that you get will be displayed in the Received Data field.

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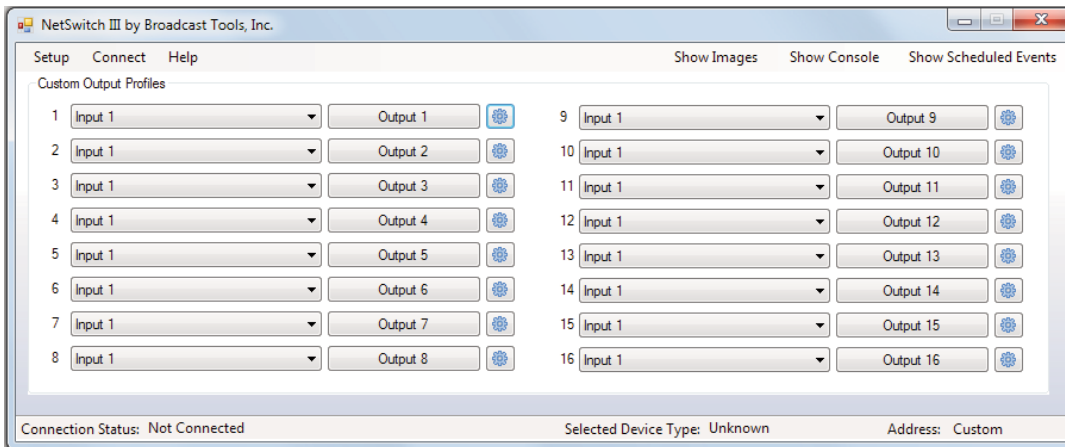


CONNECTION



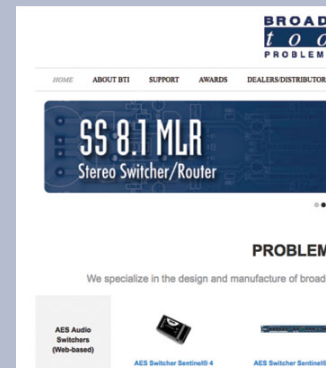
Configuring the Custom Device Profile:

The Custom device profile allows you to control devices that are not 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.



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CUSTOMIZATION

To configure 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.

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 do not want to save your changes and wish to revert to the previously saved settings, click on the Cancel button.

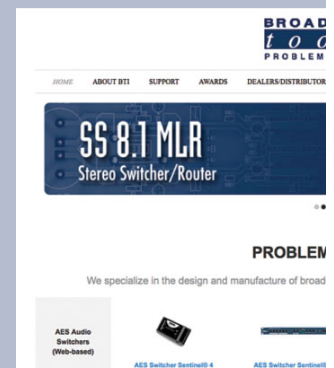
Output Profile 1 Settings

	Input Label	Data Command
1	Input 1	*0011
2	Input 2	
3	Input 3	
4	Input 4	
5	Input 5	
6	Input 6	
7	Input 7	
8	Input 8	
9	Input 9	
10	Input 10	
11	Input 11	
12	Input 12	
13	Input 13	
14	Input 14	
15	Input 15	
16	Input 16	*0161

Output Label:

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Using the Custom Device Profile

Once you have configured the Custom Device Profile, test it by connecting 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 does not show device status feedback. To see feedback from your device, you will 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.

Using the Event Scheduler

NetSwitch III features an event scheduler which allows you to control your Broadcast Tools device automatically using day/week/time-based commands as long as NetSwitch is running. Click "Show Scheduled Events" to start setting up the scheduler. Scheduler events can be configured for a specific day of the week, or on multiple days of the week using the "Day of Week" check boxes. Events can be configured for a specific time of day, or be configured to repeat every hour, every 10 minutes, or every minute, using the time field and "Time" check boxes.

Create a new schedule event by selecting the days of the week, time, description, and command then clicking "Add Scheduled Event". Commands can be typed in manually or selected visually using the "Select from Device" button. Repeat these steps for any additional schedule events. To edit a scheduled event: click on the event to select it, make the necessary changes to the events parameters, and click the "Update Scheduled Event" button to save the changes. Once events have been created if NetSwitch III is running and connected to a device it will send commands as scheduled.

X	Day of Week	Time	Description	Command
	Mo, Tu, We, Th, Fr, Sa, Su	##:00:02	ID 0002	*00R2P
	Mo, Tu, We, Th, Fr, Sa, Su	##:00:07	BREAK 0007	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:02:00	BREAK 0200	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:11:24	BREAK 1124	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:12:58	BREAK 1258	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:26:59	BREAK 2659	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:37:15	BREAK 3715	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:41:53	BREAK 4153	*00R1P
	Mo, Tu, We, Th, Fr, Sa, Su	##:54:27	BREAK 5427	*00R1P

Day of Week: ☒ Monday ☒ Tuesday ☒ Wednesday ☒ Thursday ☒ Friday ☒ Saturday ☒ Sunday

Time: ##:00:02 ☒ Every Hour ☐ Every 10 Min. ☐ Every Min.

Description: ID 0002

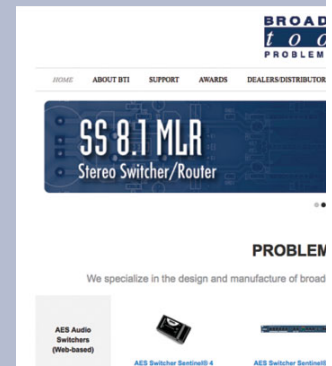
Command: *00R2P

Buttons: Add Scheduled Event, Update Scheduled Event, Delete Scheduled Event, Select From Device

Status Bar: Connection Status: Serial Connection Established on COM4 Selected Device Type: ACS 8.2 Address: 0 SE: 8

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SCHEDULING

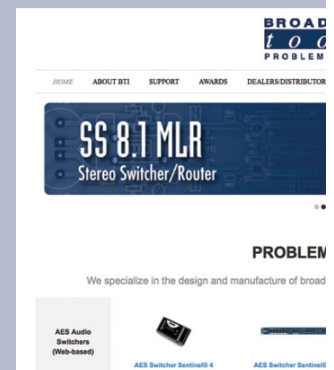
Supported Devices

NetSwitch III supports the following Broadcast Tools devices:

- 16x1 (Serial)
- ACS 4.1 (Serial)
- ACS 4.4 G2 (Serial)
- ACS 8.2 Plus (Serial)
- ACS 8.4 G2 (Serial or Ethernet)
- ACS 16.2 (Serial)
- ADMS 44.22 (Serial)
- ADMS 44.22 G2 (Serial or Ethernet)
- AES Switcher Sentinel 4 XLR (Ethernet)
- GPI-16, GPI-16 Plus, GPI-16 + G2 (Serial)
- GPI-16 + G2 NET (Ethernet)
- GPI-24 (Serial)
- GPI-32 (Serial)
- GPIO 32+2 (Serial)
- SRC-4 (Serial)
- SRC-16, SRC-16 Plus (Serial)
- SRC-16 + G2 (Serial or Ethernet)
- SS 2.1 MLR and SS 2.1 MLR G2 (Serial)
- SS 2.1 MLR G2 NET (Ethernet)
- SS 4.1 MLR and SS 4.1 MLR G2 (Serial)
- SS 4.1 MLR G2 NET (Ethernet)
- SS 6.1 MLR/BNC (Serial or Ethernet)
- SS 8.1 MLR and SS 8.1 MLR G2 (Serial)
- SS 8.1 MLR G2 NET (Ethernet)
- SS 4.4 (Serial)
- SS 16.4 (Serial)
- Universal 4.1 MLR>>Web (Ethernet)
- Universal 4.1 MLR/Serial (Serial)
- ...plus, a custom definable device profile for custom control.

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