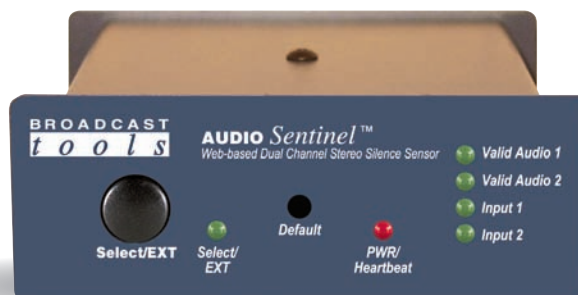


Installation and Operation Manual



Audio Sentinel *Web based dual channel stereo silence monitor.*

Manual updated 12/15/2009

For firmware versions equal to or greater than ASX_V1.20_ASW_V1.18.lx

Due to the dynamic nature of product design, the information contained in this document is subject to change without notice. Broadcast Tools, Inc., assumes no responsibility for errors and/or omissions contained in this document. Revisions of this information or new editions may be issued to incorporate such changes.

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INTRODUCTION

Thank you for your purchase of a Broadcast Tools® Audio Sentinel™ Web based dual channel stereo silence monitor (referred to as the Audio Sentinel™ throughout this manual). We're confident that this product will give you many years of dependable service. This manual is intended to give you all the information needed to install and operate the Broadcast Tools® Audio Sentinel™.

SAFETY INFORMATION

Only qualified technical personnel should install the Audio Sentinel™. 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 Audio Sentinel™ 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 Audio Sentinel™.

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:

Broadcast Tools, Inc.
131 State Street
Sedro-Woolley, WA 98284-1540 USA
Voice: 360.854.9559
Fax: 866.783.1742

Internet Home Page: www.broadcasttools.com
E-mail: support@broadcasttools.com

**THANK YOU FOR CHOOSING
BROADCAST TOOLS® BRAND PRODUCTS!**



CAUTION!

Broadcast Tools® Products, as with any electronic device, can fail without warning. Do not use this product in applications where a life threatening condition could result due to failure.



NOTE:

This manual should be read thoroughly before installation and operation.

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Product Overview

The Audio Sentinel™ is a web based dual channel stereo silence monitor combined with a transparent, integrated audio switcher. Audio Sentinel™ is designed to monitor two balanced or unbalanced independent stereo analog audio sources and switch to a back-up analog audio source when silence is detected on either or both channels. The Audio Sentinel™ can be controlled and monitored locally and/or remotely over any IP network, including private networks, IP-based industrial control networks, and the Internet. Users can operate the product using a web browser or web-enabled mobile device. Email notification may be configured to alert up to four recipients when alarms are detected. The user may also enable a sound effect to play on their PC speaker when an alarm is generated. Logging of system status, along with the site ID may be emailed in time spans from once an hour to once a day. One SPDT relay is supplied to indicate which input channel is feeding the output, while two additional independent SPDT relays may be configured to perform user defined logic functions. SNMP and SMTP username and passwords are also supported.

Inspection

Please examine your Audio Sentinel™ carefully for any damage that may have been sustained during shipping. If any damage is noted, please notify the shipper immediately and retain the packaging for inspection by the shipper. The package should contain the Audio Sentinel™, this manual and/or CD, 7 foot BLUE straight-through CAT 5 cable, 7 foot GRAY crossover CAT 5 cable, and the 7.5 VDC @ 1 amp wall transformer.

Installation

Surge Protection

The Audio Sentinel™ has built-in resistance to voltage changes; we recommend that you use a power surge protector or line conditioner on the incoming AC line. Lightning strikes and/or other high voltage surges may damage your Audio Sentinel™ and connected equipment if it is not properly protected. For lightning protection devices, check out www.polyphaser.com and www.itwlinx.com.

UPS Standby Power System

We recommend that you connect your Audio Sentinel™ to a UPS system. A UPS helps minimize the risk to the Audio Sentinel™ and provides AC power during a power outage.



Installation of the Audio Sentinel™ in high RF environments should be performed with care. The station ground should be connected to the designated chassis ground terminal or chassis ground screw using a 20 to 24-gauge wire.

“NET” RJ45 network connector

Connect one end of the supplied CAT5 (straight or crossover) cable to the desired ETHERNET (WAN/LAN) or PC port.

POWER, 7.5 VDC connector

This is the connector used to power the unit. Never use any type of power supply other than the specified/supplied power supply.

PWR/Heartbeat LED

This led will flash indicating proper power and operation.

K3, K4, K5 relay connections

Equipment controlled by (de-energized state) relays K3, K4 and K5 should be connected to terminals labeled NC (normally closed); CM (common) and/or NO (normally open).

K3 & K4 operation is determined by the configuration assigned on the “Silence Sensor Setup” page.

K5 is used to represent the status of each channel. When channel ONE is selected or power is removed, the NO contact is open, while the NC contact is closed with respect to the CM contact.

Select/EXT input connection

The Select/EXTernal input accepts a ground closure for proper operation. Connections should be attached between the “EXT” and “GND” terminals.

Chassis (CHS) GND connection

Connect the station ground to this terminal.

Audio Inputs connections

Connect your audio sources to either of the two stereo balanced channels labeled LT1+/- and RT1 +/- or LT2+/- and RT2 +/- . For unbalanced inputs, connected the high side of the source to the (+) positive input and the shield along with a jumper between the “-” input and GND terminals. Single (monaural) inputs should have their left and right inputs connected in parallel. Observe proper phasing.

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INSTALLATION

Audio Output Connections

Note: The switching function of the Audio Sentinel is not required for proper operation. Connect the load to the terminals labeled “LT-/+ CM and RT-/+ CM. For unbalanced loads, use the “+” and GND terminals only. Shields should be tied to the “GND” terminals.

Manual Operation and Indicators

The Audio Sentinel may be operated from most web browsers, front panel and/or remote control connections. The front panel is equipped with two LED’s (Valid Audio x) to indicate when valid stereo or dual-monaural audio is detected for each channel.

Two additional LED’s (channel x) indicate what channel is active (x indicates either channel one or two).

The “EXT/Select” push button is in parallel with the rear panel terminal. The front panel LED indicates when activated.

This function is user configurable for either sustained or toggle mode operation.

Note: Sustained mode operates in either manual or automatic mode.

Sustained mode is normally used with STL systems with the input tied to the receivers squelch relay. When the receiver fails, the squelch relay closes and forces the Audio Sentinel to switch to channel two. When the relay opens, the unit returns to channel one.

When the toggle mode is selected, each time this input is pulled to ground, the unit toggles between channels one and two. **NOTE:** The unit **MUST** be in **MANUAL** mode.

Factory defaults may be restored by depressing the recessed front panel “default” push button for five seconds while powering up the unit. The PWR/HB led will rapidly blink two to three times when loaded.

The slow blinking “PWR/Heartbeat” LED indicates valid power and proper operation.

Ethernet “Quick Start” guide

CAUTION! NEVER DOWNLOAD FIRMWARE UPDATES OR CHANGES TO THE XPORT WEBSERVER UNLESS INSTRUCTED TO DO SO BY BROADCAST TOOLS®. DOING SO DELETES ALL SOFTWARE AND VOIDS ALL WARRANTIES FROM BROADCAST TOOLS, INC.

! TIP

Helpful tips area.

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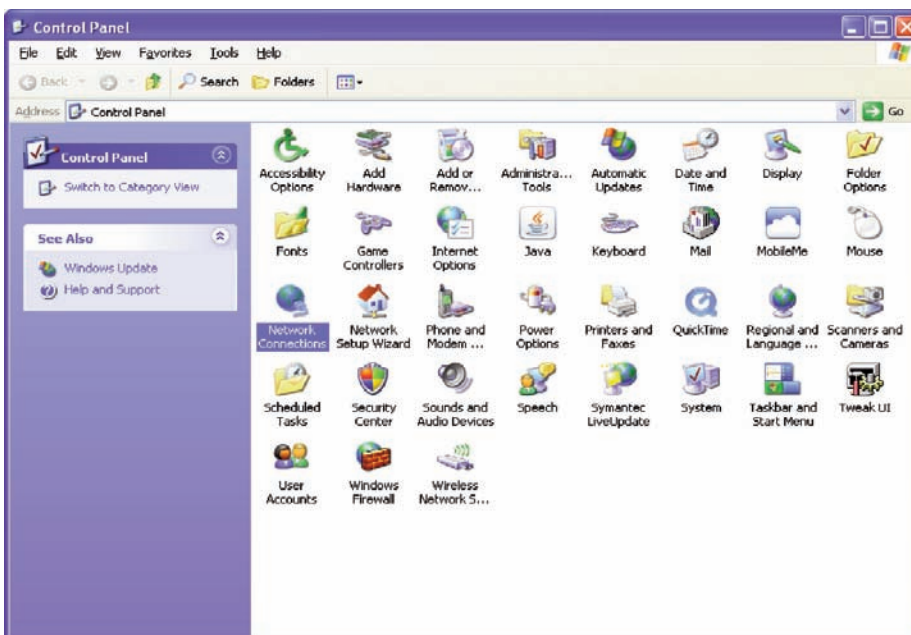
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Ethernet “Quick Start” guide

Instructions for changing the IP address of the computer that will be used for the configuration of this product are given here. Note that these instructions are specifically for computers with the Windows XP operating system. For setup using other operating systems, refer to the appropriate OS user’s manual.

Step 1: Open the control panel by clicking on the start menu, click on settings, then click on Control Panel. (Note that the control panel shown is in “Classic View”. If control panel is in “Category View” select the “Classic View” option before proceeding.)



CAUTION!

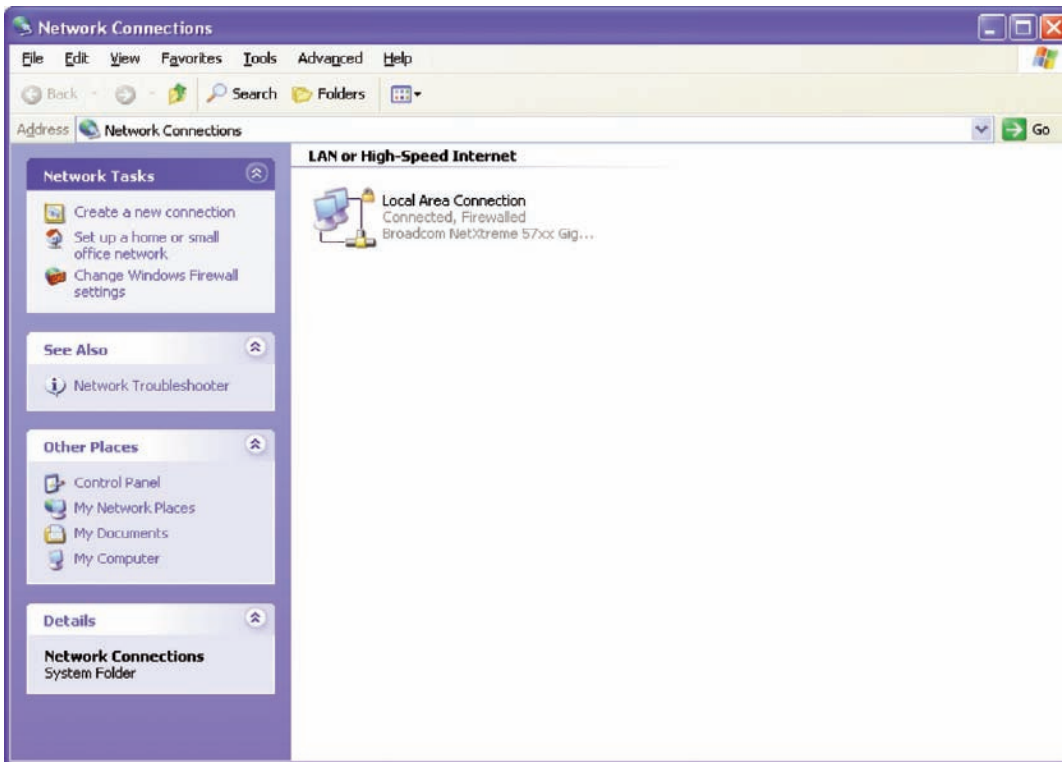
If you are not familiar with Ethernet enabled equipment, it may be useful to contact your IT department, network administrator or network consultant for assistance. Assigning an IP address already in use by another device may cause problems with your network!

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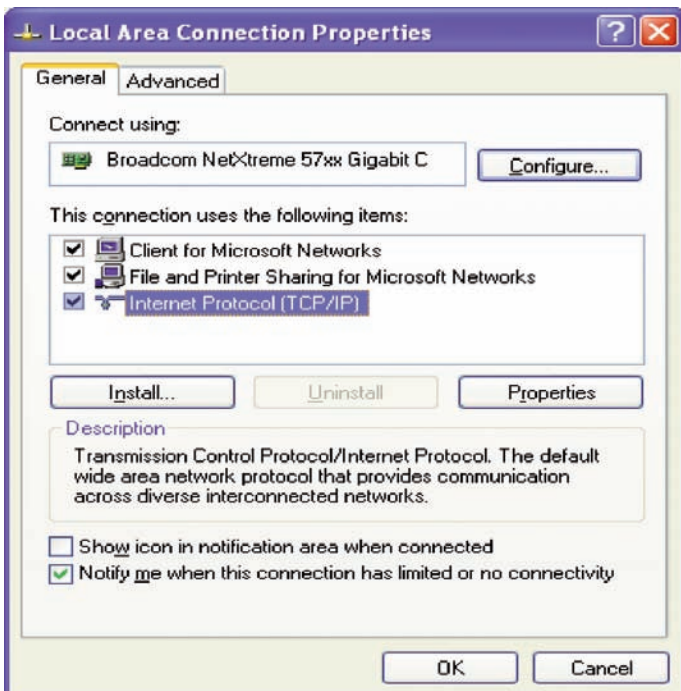
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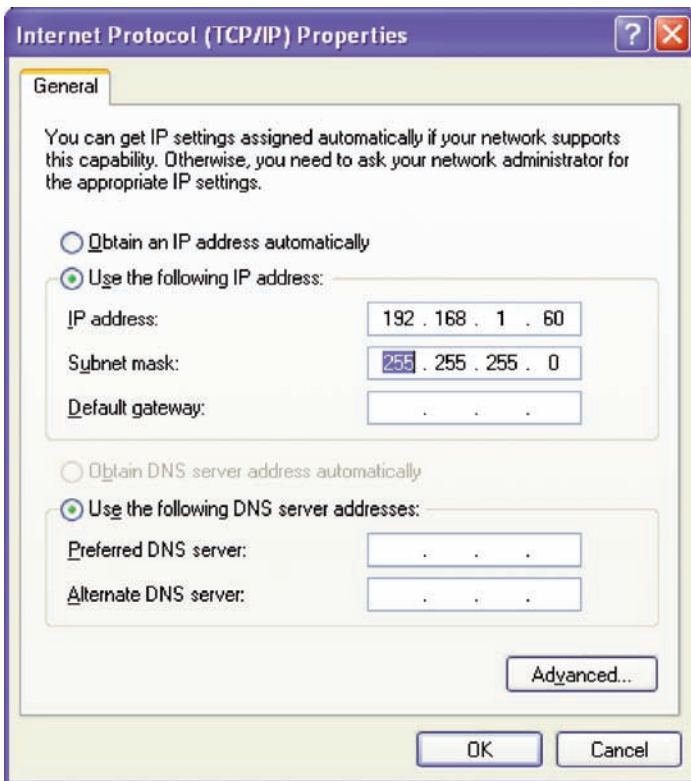
Step 2: Double click on the icon labeled Network Connections. The following menu will pop up.



Step 3: Right click on the icon labeled **Local Area Connection**. Another menu will appear. Select the option at the bottom of the menu labeled **Properties**. The **Local Area Connection Properties** window will appear.



Step 4: On the Local Area Connection Properties page, double click on **Internet Protocol (TCP/IP)** to display properties.



Step 5: Before making any changes to the network settings, write down the current settings (or screen capture the page and print) so that they can be restored once the unit is configured. Next, select the radio button labeled “Use the following IP address” and type in the IP address 192.168.1.60. Type in the subnet mask of 255.255.255.0. Leave the default gateway field blank. Click OK to apply the new settings.

Opening the LOGIN Web Page

1. Connect the supplied GRAY colored XOVER cable between the PC’s Ethernet port and the products “NET” network RJ45’s jack.

2. Connect the supplied 7.5 VDC power supply to the product’s power jack labeled Power 7.5 VDC. Verify that the green PWR/Heartbeat LED is blinking and the left “LINK” LED above the “NET” Network RJ-45 is illuminated

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INSTALLATION

Web Setup and Operation

Ethernet (NETWORK) port LED indicator functions

Link LED Left Side	
Color	Meaning
Off	No Link
Amber	10 Mbps
Green	100 Mbps

Activity LED Right Side	
Color	Meaning
Off	No Activity
Amber	Half Duplex
Green	Full Duplex

3. Open the product's login page by typing the following URL into the browser: <http://192.168.1.55>. The username and password is required to change any parameter and are case sensitive. You may view the password by checking the "Show Password" box.

Factory "login" defaults: **username:** admin (lower case)
password: 1234

Once you are logged in, follow this manual for setup and/or operational information.

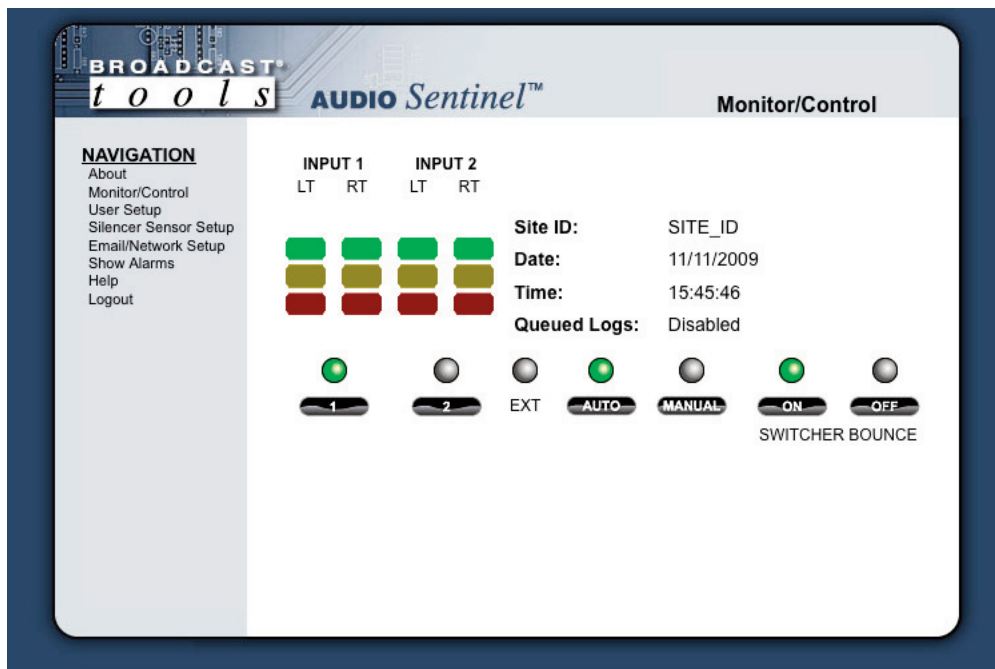
"Login" Web Page

The Login screen displays the Username and Password entry points.



After you have successfully logged in, the Monitor/Control page will be displayed. Depending on your access level, you may or may not be able to control or modify the product's configuration.

“Monitor/Control” Web Page



The Monitor/Control page allows the monitoring and or control of the Audio Sentinel. The following is an explanation of each item on this page:

User defined Site ID, Time and Date is always displayed.

Left and Right Level LED's: Display the left and right input channel levels for channels one and two. The green led's operate from -19 and above. The yellow and red led activations are determined by the programmed trip levels.

Input Selection buttons: If the unit is in manual mode, the user may switch between each channel by placing the cursor under each channel LED, then click. The desired channel is selected as denoted by the LED being illuminated.

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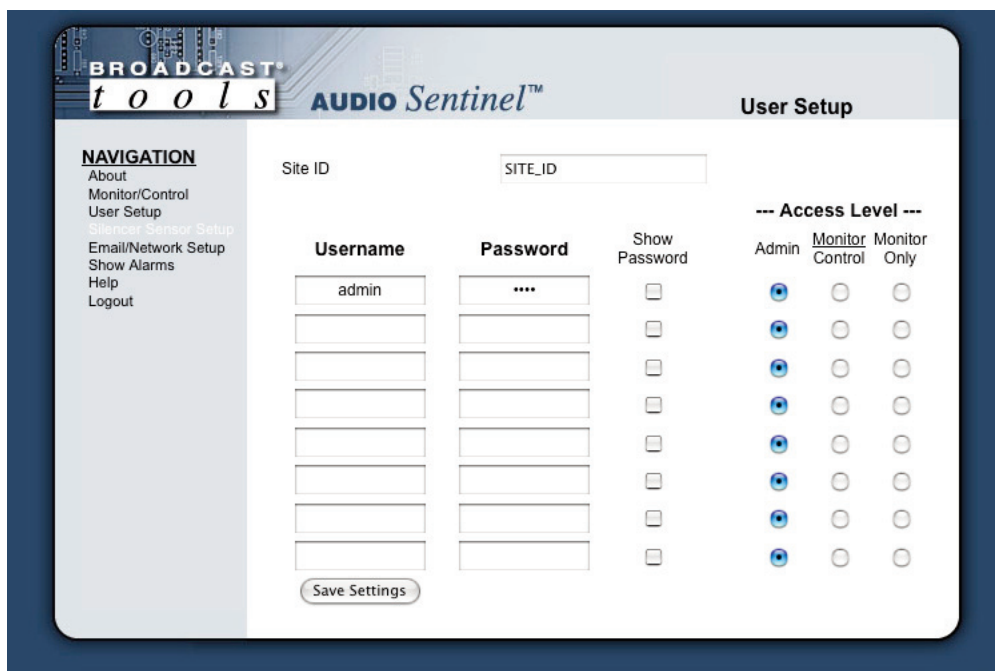


- EXT LED:** Illuminates when the “SELECT/EXT” input is selected.
- AUTO:** When this mode is selected, any time channel ONE fails, the unit will switch to channel TWO. Manual and remote operation of the unit is disabled except for “SUSTAINED” operation. The LED is illuminated when selected.
- MANUAL:** Manual mode allows the user to select either channel one or two as well as remote control operation. The manual LED is illuminated when selected. **NOTE: No email alerts are generated.**
- SWITCHER BOUNCE:** Allows the switcher to automatically switch between channels when in AUTO mode and valid audio and time delays have expired.
- QUEUED LOGS:** Displays if the number of queued logs available.

NOTE: It is suggested that when used without the switching function, the unit should be set to “Auto” mode and “Switcher Bounce” set to OFF. This will allow alarm emails to be generated.

“User Setup” Web Page

This page can only be configured with (factory default) the “admin” access level.



To select other pages (if authorized); make your selection under the left hand Navigation column.

Eight Usernames and Passwords may be configured for up to three access levels.

1. “Admin” allows complete product configuration access.
2. “Monitor/Control” allows the following access:
About, Monitor/Control, Show log (unable to clear log), Help, and Logout.
3. “Monitor Only” allows the following access:
About, Monitor only, Show log (unable to clear log), Help, and Logout.

NOTE: You may view the password by checking the “Show Password” box.

NOTE: After any item has been changed, you **MUST** press the “Save Settings” button for your changes to be saved.

“Silence Sensor Setup” Web Page

NAVIGATION
About
Monitor/Control
User Setup
Silencer Sensor Setup
Email/Network Setup
Show Alarms
Help
Logout

Input 1
Input 1 Delay (Sec) 2
Input 1 Restore (Sec) 0
Input 1 Trip Level (dB) -25
Input 1 dual mono mode

Input 2
Input 2 Delay (Sec) 2
Input 2 Trip Level (dB) -25
Input 2 dual mono mode

Ext-Input Function Sustained
 Input Toggle

K3 Configuration
When Input 1 Is Active delay 0 sec. then engage for 1 sec.

K4 Configuration
When Input 2 Is Active delay 0 sec. then engage for 1 sec.

Save Settings

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NOTE: The delay and restore timing for both channels is 0 (OFF) to 65535 seconds (18 hours, 12 minutes and 15 seconds).

- Input 1 Delay (Sec):** This is the time from when the left, right or both inputs for channel ONE falls below the trip level to when it switches to channel TWO.
- Input 1 Restore Delay (Sec):** This is the time required for valid stereo audio to be present before the units switches back to channel ONE.
- Input 1 Trip Level (db):** The left, right or both input levels at which the channel audio is considered BAD.
- Input 1 dual input mono mode:** When in dual input mono mode, both the left and right inputs must be below the trip level before the channel is considered BAD and the audio is switched.
- Input 2 Delay (Sec):** This is the time from when the left, right or both inputs for channel TWO falls below the trip level to when it switches to channel ONE.
- Input 2 Trip Level (db):** The left, right or both input levels at which the channel audio is considered BAD.
- Input 2 dual input mono mode:** When in dual input mono mode, both the left and right inputs must be below the trip level before the channel is considered BAD and the audio is switched.
- Ext-Input Function:** Selects how the “Select/EXT” input will function. The operation is described in the Manual Operation section of this manual.
- K3 and K4 logic operation:** Each relay may be independently programmed to operate when each channel is considered bad or is restored. The logic for each relay is as follows:
When [channel 1 or channel 2] [Is Active or Inactive or Silent] delay [X] seconds then [Engage] for [X] seconds.

NOTE: To enable latch type operation, the [Engaged] delay needs to be set to 0.

NOTE: After you are done making changes to this page, you MUST press the “Save Settings” button to save your changes.

“Email/Network Setup” Web Page

BROADCAST tools AUDIO Sentinel™ Email / Network Setup

NAVIGATION
 About
 Monitor/Control
 User Setup
 Silencer Sensor Setup
 Email/Network Setup
 Show Alarms
 Help
 Logout

Device Address: 192 . 168 . 1 . 59
 Device Netmask: 255 . 255 . 255 . 0
 Gateway Address: 192 . 168 . 1 . 1
 DNS Server Address: 192 . 168 . 1 . 1
 HTTP Port: 4010

SMTP Server Address:
 SMTP Port: 25
 SMTP Return Address:
 SMTP Host ID:
 SMTP Authentication:
 SMTP Username:
 SMTP Password: show password

Logging Email Address:
 Update Interval (Hours): 0
 Email Alarms: **Immediately** (dropdown)
 Daily Alarm Email Time (Hour): 0
 Recipient Addresses: 1
 2
 3
 4

SNMP Manager IP Address: 192 . 168 . 1 . 170
 SNMP Manager Trap Port: 162
 SNMP Read Community: public
 SNMP Write Community: private
 SNMP Enable Traps:

NTP Server Address: pool.ntp.org
 NTP Port: 123
 NTP Update Interval (Minutes): 30
 NTP Enabled:

Site ID: SITE_ID
 Monitor Refresh Time: 1 Seconds
 Time Zone Offset from UTC: -7.0 hours (dropdown)

Enable Event Logging: Login
 Email
 Reboot
 Alarms Cleared

Buttons: Save Settings, Reboot Device, Send Test E-mail, Reload Defaults, Clear Daily Logs, Send Daily Logs

Restoring Network Factory Defaults

NOTE: The Audio Sentinel™ factory defaults may be restored by depressing the recessed front panel “default” push button for five seconds while powering up the unit.

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OPERATION

- Device Address: Enter a static IP address here. Default: 192.168.1.55
- Device Netmask: Enter the Netmask here: Default: 255.255.255.0
- Gateway Address: Enter the Gateway IP here: Default: 192.168.1.1
- DNS Server IP Add: Enter your DNS address here. Default: 192.168.1.1
- HTTP Port: Normally Port 80 Default: 80
- SMTP Server Address: The user can enter either an IP address in the xxx.xxx.xxx.xxx format or a URI in the form:smtp.comcast.net. In order to resolve the URI, a working DNS server must be present or its IP address entered into the system.
- SMTP Port: Normally Port 25 Default: 25
- SMTP Return Address: Enter your return email here. If an email cannot be delivered a message stating why will be sent to this address.
- NOTE: The user must enter the following items before an email can be successfully sent: SMTP Server Address, SMTP Port, SMTP Return Address, SMTP Host ID, SMTP username and SMTP password must be supplied if authentication is turned on and Recipient Address 1. The test email is sent to email recipient address 1. The user should press the “Save Settings” button after entering the SMTP information before attempting an email test. If authentication fails, the email is not sent, please ensure that the username and password is correct.
- SMTP Host ID: Enter something here, to identify the device if you have multiple devices.
- SMTP Authentication: When checked, Base64 SMTP authentication is supported by clicking on the checkbox.
- SMTP Username: Enter user name here.
- SMTP Password: Enter password here.
- Logging Email Address: IP address for the “Logging” email recipient (may be different from the four “Alarm” Recipient Addresses. Logging emails and Daily emails are sent to this address.

Update Interval (Hours): This determines how often an update email is sent. Only devices enabled for logging will be included in this email. If set to 0 (zero), no logging email will be sent. Default: 0

“Alarm” Recipient Addr: Email Recipient 1, Email Recipient 2, Email Recipient 3, Email Recipient 4

SNMP Manager IP Addr: This is the IP address of the SNMP manager. The system only accepts SNMP requests from this IP address, and will send traps to this IP address only.

SNMP Manager Trap Port: This is the port number that SNMP trap messages will be sent.

SNMP Read Community: This is the community name for Read-Only access.

SNMP Write Community: This is the community name for Read-Write access.

SNMP Enable Traps: When checked, trap messages will be sent, when unchecked no trap messages will be sent.

NOTE: A cold-start trap will be sent when the unit boots up if the SNMP Enable Traps is checked, otherwise trap messages are sent based on the device and enabled alarms.

NTP Server Address: Enter the NTP address here. Default: pool.ntp.org

NTP Port: Normally 123. Default: 123

NTP Update Interval (Min): Time between timing updates. Default: 30

NTP Enabled: Must be enabled for correct timing.
Default: Enabled

Site ID: This is the Site Identifier that will be sent in each email.

Monitor Refresh Time (Sec): How many seconds the Monitor page refreshes, shorter times may increase network traffic.

Time Zone Offset frm UTC: Must be set for correct timing. Default: -8

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Save Settings: After pressing the “Save Settings” button, the device will reboot (If you changed the IP address, you must navigate your web browser to the new IP address (if the HTTP port was changed from port 80, be sure to add the new port number after the IP: xxx.xxx.xxx.xxx:port #). If you didn’t change the IP address, then the web page will return to the login screen after the device reboots.

Reboot Device: When you press the “Reboot Device” button, the device resets, you must navigate your web browser to the new IP address.

Send Test Email: Press this button to send a test email. When the email has completed an alert box will pop-up indicating the status of the email and an error condition if the email was not sent correctly. If an email was not sent correctly please review your SMTP settings and correct as necessary.

NOTE: After you are done making changes to the Email/Network Setup page, you MUST press the “Save Settings” button to save your changes.

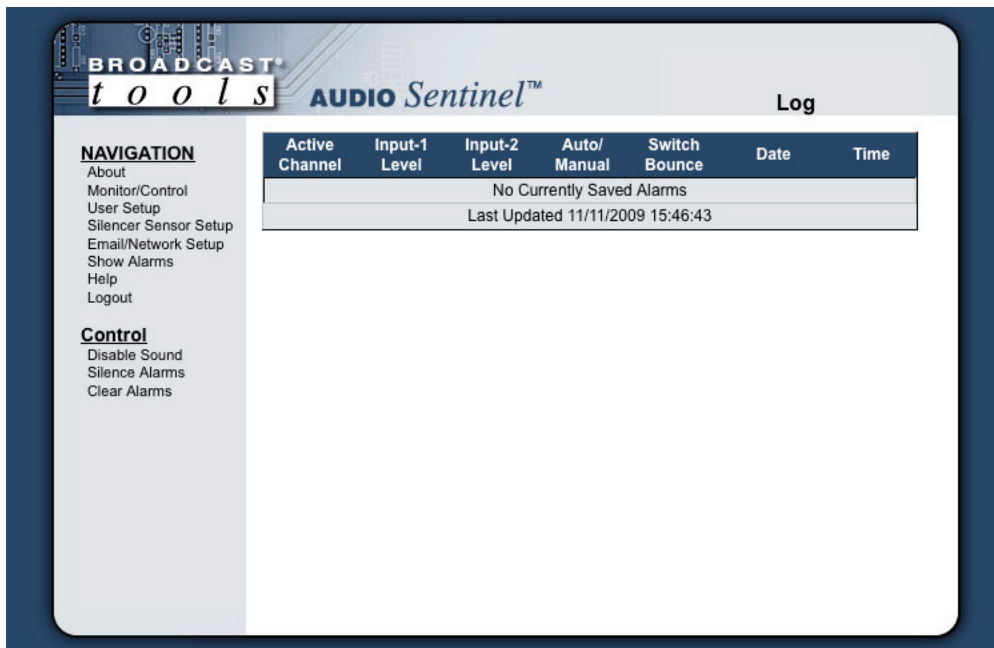
Reload Defaults: When you press the “Reload Defaults” button, the device resets, you must navigate your web browser to the new IP address (if the HTTP port was changed from port 80, be sure to add the new port number after the IP: xxx.xxx.xxx.xxx:port #).

Clear Daily Logs: When you press the “Clear Daily Logs” button the daily logs stored in memory will be cleared. Keep in mind that if the Alarms Cleared Event is enabled this event will post after the logs are cleared.

Send Daily Logs: When you press the “Send Daily Logs” button the system will send the daily logs email and then clear those logs as if the correct time has expired.



“Show Log” Web Page



This page displays current alarms.

Active Channel: Displays which channel is active.

Input (Channel) 1 Level: Displays if channel ONE has a valid level as configured.

Input (Channel) 2 Level: Displays if channel TWO has a valid level as configured.

Auto/Manual: Displays what switching mode is active.

Switch Bounce: Displays if switch bounce is ON or OFF.

Date: Displays what date the alarm was logged.

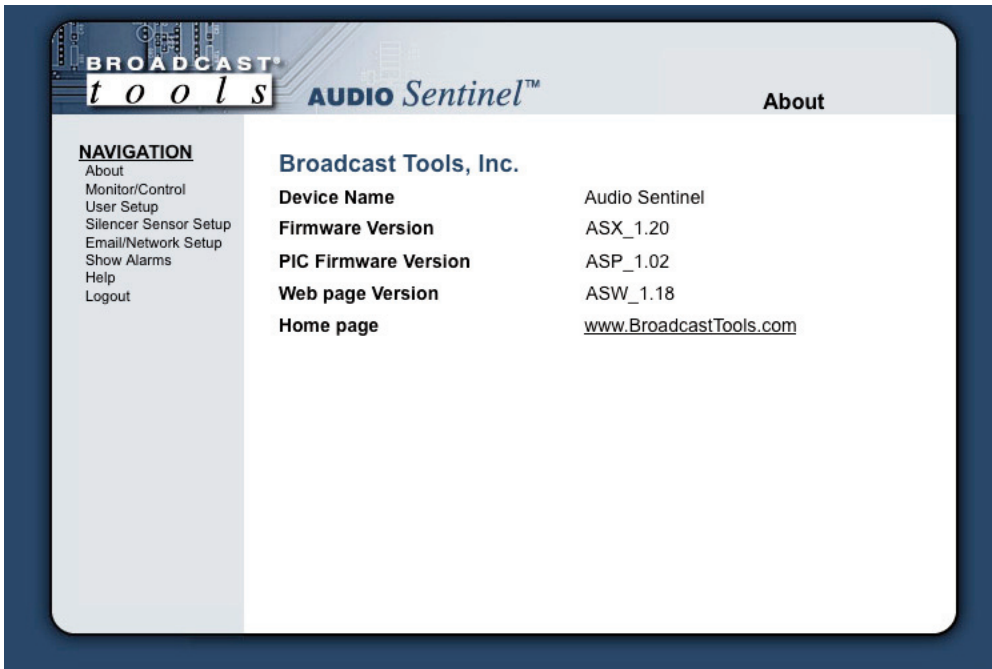
Time: Displays what time the alarm was logged.

With the “admin” access level, the user may control all functions.

With the “Monitor/Control” and “Monitor” only access level, the user may view the “Show Log”, enable/disable PC speaker sound and silence alarms.

NOTE: Shock Wave “Flash” must be installed and operating properly on your PC for the “Alarm Sound” to work when enabled.

“About” Web Page



The “About” Web Page displays the product name, firmware version numbers, and Broadcast Tools® Web site link.

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Specifications

Ethernet Interface:	RJ-45, 10base-T or 100base-TX, auto sensing with link & activity led indicators
- Full/half duplex.	
Protocols:	TCP/IP, UDP/IP, ARP, ICMP, SNMP, TFTP, Telnet, DHCP, BOOTP, HTTP, and AutoIP.
Input Level:	-10 to +24 dBu, 22 K ohm, balanced.
Transparent (4PDT) Program switcher:	Any input level and impedance can be used. Inputs may be balanced or unbalanced. Output levels, impedance, distortion, noise and balancing will match that of the selected input.
Silence Sense (1 & 2) Level:	-24 to -35 dB below normal level.
Alarm Delay(1 & 2), Restore Delay(1)Time:	Off to 99 seconds.
Select/EXternal Input:	Closure to ground. Pulled up to 5 VDC. (Sustained or momentary depending on mode).
Relays (K3, K4, K5):	3 - SPDT dry contacts, 30 VDC @ 1 Amp.
Connectors:	All I/O, removable euroblock screw terms.
EMI / FCC Compliance:	See the Declaration of Conformity page. Operation is subject to the following two conditions: 1) This device may not cause harmful interference, and 2) this device must accept any interference received, including that which may cause undesired operation.
Required power supply:	7.5 VDC only @ 500ma. 2.1mm ID x 5.5mm OD coaxial connector. PS supplied.
Size:	4.20" x 6.00" x 1.55", painted aluminum chassis w/ 4 - 6-32 mounting holes.
Weight:	1.0 lb.
Options:	* CE certified 240 VAC power supply. * RA-1, 1-RU rack shelf.

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SPECIFICATIONS

LIMITED WARRANTY

The term "Buyer" as used in this document refers to and includes both (but only) (a) any person or entity who acquires such an item for the purpose of resale to others (i.e., a dealer or distributor of an item), and (b) the first person or entity who acquires such an item for such person's or entity's own use.

Broadcast Tools warrants to each Buyer of any item manufactured by Broadcast Tools that the item will be free from defects in materials and workmanship at the time it is shipped by Broadcast Tools if the item is properly installed, used and maintained.

EXCLUSIVE REMEDIES

If Broadcast Tools is notified, in writing, of a failure of any item manufactured by Broadcast Tools to conform to the foregoing Limited Warranty within one (1) year following the date of the Buyer's acquisition of the item, and if the item is returned to Broadcast Tools in accordance with Broadcast Tools' instructions for confirmation by inspection of the defect (which at Broadcast Tools' election may include, without limitation, a requirement that the Buyer first obtain a Return Authorization number from Broadcast Tools, that the Buyer furnish proof of purchase in the form of an invoice and/or receipt, and that the Buyer prepay all freight charges associated with any return of the item to Broadcast Tools using such freight service as Broadcast Tools reasonably may specify), Broadcast Tools will repair or replace the defective item, or will refund the purchase price paid by the Buyer for the item. Broadcast Tools shall have the exclusive right to choose between these alternative remedies.

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Broadcast Tools, Inc.

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Declaration of Conformity

The XPORT Device contained in the Audio Sentinel™ conforms to the following standards: (according to ISO/IEC Guide 22 and EN 45014)

Manufacturer's Name & Address:

Audio Sentinel™ : Broadcast Tools®, Inc.
131 State Street, Sedro Woolley, WA 98284-1503 USA

XPort: Lantronix 15353 Barranca Parkway, Irvine, CA 92618 USA

Declares that the following product:

Product Name Model: XPORT™ Device Server

Conforms to the following standards or other normative documents:

Electromagnetic Emissions:

EN55022: 1998 (IEC/CSP1R22: 1993) Radiated RF emissions, 30MHz-1000MHz
Conducted RF Emissions – Telecom Lines – 150KHz – 30MHz
FCC Part 15, Subpart B, Class B
IEC 1000-3-2/A14: 2000
IEC 1000-3-3: 1994

Electromagnetic Immunity:

EN55024: 1998 Information Technology Equipment-Immunity Characteristics
Direct ESD, Contact Discharge
Indirect ESD
Radiated RF Electromagnetic Field Test
Electrical Fast Transient/Burst Immunity
RF Common Mode Conducted Susceptibility
Power Frequency Magnetic Field Test

Manufacturer's Contact:

Audio Sentinel™ Broadcast Tools®, Inc.
131 State Street
Sedro Woolley, WA 98284-1503 USA
Tel: 360 . 854 . 9559 Fax: 866 . 783 . 1742

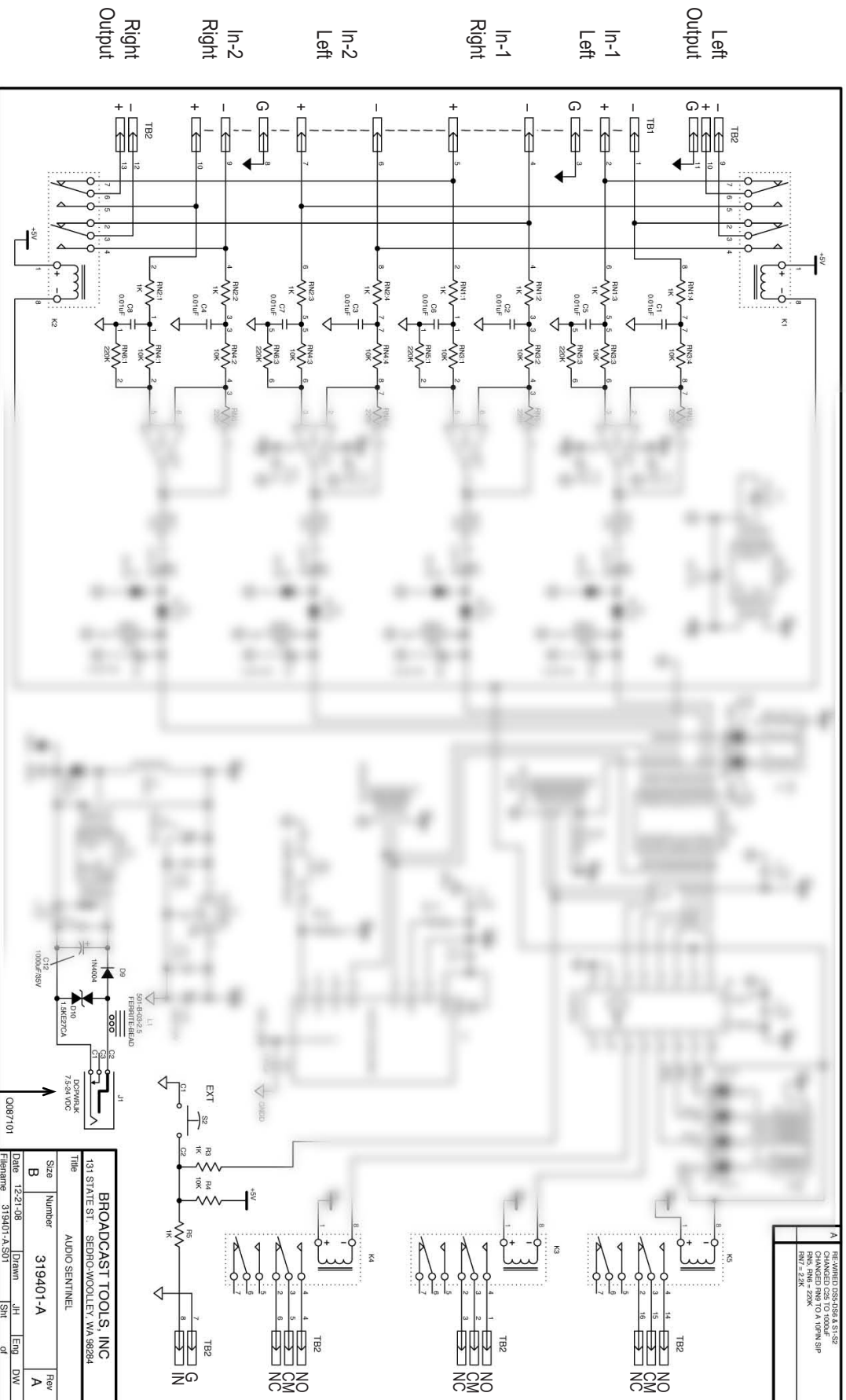
XPORT™

Lantronix:
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15353 Barranca Parkway, Irvine, CA 92618 USA
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WEBSITE:

Visit our web site for product updates and additional information.





Power Jack 7.5VDC

BROADCAST TOOLS, INC	
131 STATE ST. SEDRO-WOOLLEY, WA 98294	
AUDIO SENTINEL	
Size	Number
B	319401-A
Date	Drawn
12-21-08	JH
Filename	Sheet
319401-A.S01	1 of 1
Eng	DW
	Rev
	A

EXT Select Input

K4

K3

K5

Appendix

