

# E-SERIES

Control Surfaces



## **Wheatstone consoles and control surfaces**

Wheatstone has long been the leader in audio consoles and networking for the radio and television audio industries. Wheatstone consoles built 25 years ago are still in service. They are known for their rock-solid reliability and superior performance, and we bring these qualities to the table whenever we design something new.

Our E-Series is no exception. Designed to take full advantage of everything our WheatNet-IP Intelligent Network has to offer, the E-Series can handle whatever you need - day in, day out, for as long as you need it and beyond.

## **WheatNet-IP: The Intelligent Network**

We looked at the world of AoIP Networking and thought long and hard before jumping in. The stuff that was out there was OK, but left a LOT of room for improvement. For starters, the way the workload was distributed had to change. Rather than having a single point call the shots, we thought it important to have distributed intelligence built into WheatNet-IP. What this means is that every BLADE (or node) has the DNA of the entire network and can operate in any position on the network. It means that the network can configure itself, as every BLADE is self-aware. It means the network can heal itself - if a BLADE fails (fat chance) just put a new one in its place and watch it set itself up. We also incorporated gigabit ethernet speed throughout the entire network, giving you 10 times the bandwidth of the common stock.

WheatNet-IP's Intelligent Network is what the industry has been waiting for - WheatNet-IP is what YOU'VE been waiting for!











# the range

programmability – tweakability – lockability – perfect control

Flexible, powerful and, at the same time, very easy to use. That defines the E-Series – the culmination of Wheatstone’s 30+ years of experience in designing consoles for broadcasters. Whether you’re producing, on-air or reporting it from where it happens, Wheatstone’s control surfaces are your best investment for increased productivity and imaginative programming.

## E-6

The flagship of our E-Series consoles, the E-6 does it all. When paired with an optional monitor, its intuitive interface gives you all the power you need for an on-air or production studio.

## E-1

With its small footprint, the E-1 can be a self-contained console when paired with our ip88cb Console Audio BLADE. It also becomes a fully functional station on our WheatNet-IP Intelligent Network.



# the surfaces: E-6

the industry standard for the intelligent network, sized to fit *your* studios

E-Series E-6 is a console control surface that interfaces with Wheatstone's WheatNet-IP networking and routing system via a single CAT6 cable. No audio is routed or mixed in the surface itself. As a networked system, the console can access any source in your entire complex, sharing remote codecs or bringing up another studio's program bus on the console.

A user-supplied high-resolution graphic display monitor can provide vivid VU and peak level indication, as well as in-depth control and programming of the console.

The E-6, the top of the line Wheatstone control surface, provides power and functionality for any radio on-air or production requirement, whether fast-action news, talk, and network origination, or major market music.

The E-6 is also designed from the ground up for mixing surround sound for radio (or even TV). Its master panel provides comprehensive control of module functionality as well as monitoring and talkback for two studios. A popular feature is Vorsis-quality EQ, filtering, and dynamics processing on every fader!

The E-6 is also ideal for smaller market facilities, news and voice tracking booths, production rooms where the primary focus is on the digital workstation, and even major-market strictly-music operations.

The E-6 surface provides extensive functionality for telephone talk and news formats, with four console-wide mix-minus busses as well as a dedicated mix-minus output from each channel with a talkback button right above the fader.

E-6 surfaces can be intermixed with all other surfaces in the same system, such as our LX-24, L-8, E-1, Sideboard or our Talent Stations. All surfaces include event save and recall. Set events for the morning show, normal programming, special events, remotes, weekly shows, whatever you desire. Easily recall the event to completely reconfigure the console: sources, bus assignments, and settings. Set levels of access so that the more experienced operators can accomplish even the most complex tasks, while keeping the part-time weekend op out of trouble.



*E-6 shown with optional meterbridge. Software runs on your standard VGA monitor, controllable from touchpad on console.*





- Touchpad for control of functions on the VGA monitor
- Dynamics, EQ, high- and low-pass filtering
- Four AUX output busses
- Control of source select, pan, mix-minus assign, and AUX 1-4 send level from the master panel – accessed by the SET switch on each input channel strip
- Two programmable buttons per input channel strip — use for source select or mode change
- Mode display on each input channel strip – stereo, left, right, mono, 5.1
- Control Room, Headphone, Studio 1 and Studio 2 monitoring controls
- 14 general-purpose programmable buttons
- Surfaces from 4 to 24 input faders
- Graphic VGA display with comprehensive metering, clock and timer, less frequently accessed control functions, and for console programming
- LED display of active source on every input channel strip
- Four program busses
- Four assignable global mix-minus busses
- Individual channel mix-minus outputs
- Talkback to mix-minus button on every channel strip
- SET switch to access secondary functions such as source selection, mix-minus assign, panning
- EVENT console snapshot recall and save from the front panel
- Passcode-protected access for four levels: Intern, Operator, Production, and Engineering
- Front-panel timer control
- Low-profile design drops into a countertop cutout – about 2<sup>1</sup>/<sub>4</sub>cm above counter top and 3<sup>1</sup>/<sub>8</sub>cm below
- Optional Wheatstone GLASS-E software to control the console from a remote PC
- External rack-mounted power supply; add a second for redundancy
- Works with the WheatNet-IP Intelligent Network



# the surfaces: E-1

standalone *and* ready for the network, the E-1 is one mighty little powerhouse

With the E-1, we wanted to create a control surface that brought the most popular features of our E-Series to a self-contained chassis that included a monitor and trackpad so that complete control was immediately accessible. In doing so, we've created a very compact control surface which, when coupled with our ip88cb Console Audio BLADE, creates a complete, standalone broadcast mixer that's ready to network whenever you are.

Whether you need to outfit one control room or several, using minimum space and adhering to a tight budget, the E-1 is for you. With its small footprint, built-in touch pad, and full feature set, the E-1 puts the power of a much larger console into a size appropriate for even the most cramped news booth or voice tracking room.

Comfortable as a standalone workstation (when used with an ip88cb) or as a part of the WheatNet-IP network, the E-1 is ready for the future. The compact E-1 Control Surface Console and associated ip88cb Console Audio

BLADE provide all the networked control, mixing, and I/O needed for small to mid-sized studios at a price comparable to similar sized standalone analog consoles.

The E-1 features an integrated LCD Monitor for metering and control, a streamlined user interface with password-protected access to complex functions via LCD display and touchpad, and 4 Main Mix busses as well as Control Room and Studio Monitor outputs with selectable sources from the audio network. Complex mix-minus setups are made simple thanks to per channel bus-minus outputs with selectable reference mix and talkback interrupt.

The E-1 is designed and built completely in our New Bern, NC facility. Utilizing the finest materials available - from the electronic components to the P+G faders - no corners have been cut to bring you our best at a price that works for your budget. The way we see it, regardless of price point, you deserve the absolute best we can give you.





E-1

- Digital Control Surface in new compact frame
- Integrated LCD Monitor for metering and control
- Monitor / Channel Display area is angled for better ergonomics and display view
- Streamlined user interface with password protected access to complex functions via LCD display and touchpad
- 4 Main Mix Busses
- Control Room and Studio Monitor Outputs with selectable sources from Audio Network
- Per Channel bus-minus Output with Selectable Reference Mix and Talkback Interrupt. Complex mix-minus setups made simple.
- 99 Show Presets
- Available in frames to house 4, 8, 12 and 16 input faders.





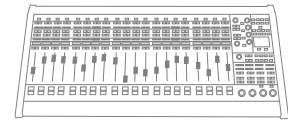
Sitting down to a Wheatstone console is at once exciting and reassuring. As a radio person, you know what to do, and encountering a board that's as intuitive and as powerful as a Wheatstone E-1 or E-6 makes it a joy to go to work every day. It's a reminder of what inspired you in the first place.





# the details: E-6

everything you need to mix - right there at your fingertips



## Input Channel Strip (individual modules)



**SET** Assigns the channel strip for programming of pan, mix-minus assign, and input source on the Master Panel and for less frequently used controls on the monitor screen

**PROGRAMMABLE** Can be programmed on the monitor display for a wide range of functionality; typically used for hot source select, mode change, or EQ/filter/compression insertion

**CHANNEL MODE** Displays channel strip's source mode, as set on the monitor screen

**PROGRAM ASSIGN** Assigns the source to the four program output busses

**MXM ASSIGN** LEDs that indicate which mix-minus busses the source is feeding; assignment is set on the Master Panel

**SOURCE DISPLAY** Displays the source currently assigned to the channel strip, or scrolls the available sources when changing input source

**CUE** Assigns the source to the CUE bus, pre-switch, pre-fader

**TB BUS** Interrupts the channel mix-minus output with talkback, typically using the console mic

**FADER** 100mm full-throw professional fader

**ON-OFF** Source to program bus on/off; fires programmed logic (start/stop)



Monitor Panel



**PAN** Controls the source on the input channel strip activated by its SET button; PAN (if a mono, left-only or right-only source), BALANCE (if a stereo source)

**MXM ASSIGN** Assigns the source on the input channel strip activated by its SET button to the four mix-minus busses

**MXM TB** Interrupts the mix-minus bus with talkback, typically from the console mic

**INPUT SOURCE** Selects a new source on the input channel strip activated by its SET button; available sources are displayed on the strip's LED source display and on a full source menu on screen; the console can be programmed with a separate source visibility list per channel strip to show only desired sources

**AUX** Dual function: AUX bus send level when a channel strip's SET button is pressed; when no SET button is active, is an AUX master send level control; TB interrupts the aux bus with talkback

**CUE** Level control for the output to the external cue speaker

**HDPN MODE SPLIT** sends L+R sum of the selected program to the right ear, CUE to the left ear

**EQ** routes the audio through a saved preset using the console's internal processing

**PROGRAMMABLE** 14 buttons – eight at the upper right, two above HDPN MODE, four above TIMER – to perform virtually any system function: fire salvos, activate events, trigger logic/GPI, etc.

**EVENT (UPPER RIGHT)** Snapshot save and recall; can be passcode protected

**SCREEN SELECT** Four buttons above the panel's trackpad that activate various GUI monitor functions

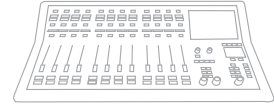
**TIMER** Controls for the on-screen timer; AUTO enables timer restart on pre-programmed input strips when the strip is turned on

**CONTROL ROOM HEADPHONE**

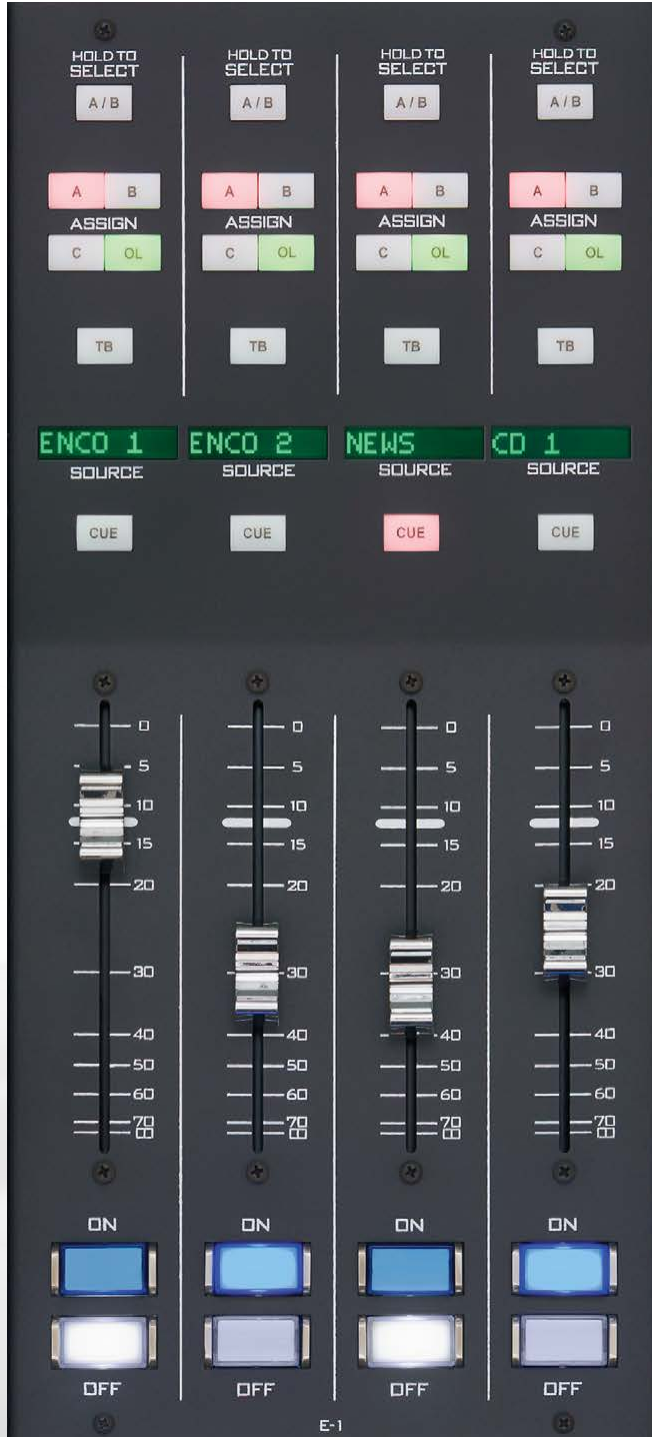
**STUDIO 1 & 2** Source select – 4 PROGRAM busses, 2 EXTERNAL pre-programmed (any system sources), 4 MIX-MINUS busses, 4 AUX SEND busses – and level control; both studios have TALKBACK buttons

# the details: E-1

everything you need to mix - right there at your fingertips



## Input Panel



**A/B BUTTON** The A/B button located at the top of each fader strip provides two different functions.

The first use of the A/B button is as a source selector for the fader strip. Each fader can be programmed to quickly switch between two different sources, designated as the A source and the B source.

The A/B button also functions as a channel select switch when pressed and held for three seconds. Channel selection enables console master section functions (source select, pan, mode) for that channel.

**ASSIGN** Output switches assign the selected source signal to any combination of the surface's four stereo Program outputs—A, B, C, and D (also known as OL, or Off Line).

**TB SWITCH** The TB BUS switch routes the TB BUS audio, typically the operator's microphone, to the BUS MINUS output for that channel, allowing the operator to talkback to the talent hearing that BUS MINUS signal.

**LCD READOUT** An 8-character display shows the name of the audio source selected to the fader.

**CUE SWITCH** The CUE switch assigns the selected source to the CUE bus, letting the control surface operator monitor the channel's pre-fader signal.

**BUS-MINUS / DIRECT OUTPUTS** Each fader has a dedicated Bus-Minus output that includes all active faders on its selected source bus, except for itself. These auto generated mono mix-minus signals may be routed to feed telephone hybrids, or other devices as required.

Alternately, these outputs may be set to provide a separate direct output from that channel only that consists of the source assigned to that channel. This is very useful for multitrack production work.

**FADER** Channel output level is set by a P+G 100mm, professional conductive plastic fader.

**CHANNEL ON SWITCH** The channel ON switch turns the channel signal ON and fires any channel ON (START) logic mapped with VDip to the fader's source signal.

**CHANNEL OFF SWITCH** The channel OFF switch turns the channel signal OFF and fires any channel OFF (STOP) logic mapped with VDip to the fader's source signal.



Monitor/Master Panel



**CR AND HEADPHONE** (bottom)

These share a bank of source select buttons. Both control room and headphone have dedicated meters and level controls.

The built in HDPN amplifier output signal appears at the headphone jack, mounted on the right-hand front of the control surface's lower mainframe pan.

**STUDIO** (bottom) This has its own bank of source select buttons, and adds a TB button, allowing the operator to talkback to the studio. The monitor output has options for muting as well as locking the output level.

**MONITOR SOURCE SELECT SWITCHES** Each monitor output section (one for CR and HEADPHONE, the other for STUDIO) has its own bank of source select switches that determine the audio signal to be monitored. Each bank includes dedicated switches for selecting PGM A, B, C, or D (OL), and two programmable sources (EXT and EXT 2).

**CUE KNOB** The CUE master level control determines the overall loudness of the cue signal.

**SELECT KNOB** The SELECT knob serves as a Source signal selector for fader strips. When the A/B button is pressed and held on the desired fader strip AND the Input Tab (on screen) is positioned on the main SOURCE screen, the SELECT knob can be used to choose the desired source. Pressing the SELECT knob will open a screen showing a full list of input sources and locations for quick source selection on a fader.

**SCREEN SELECT BUTTONS** This bank of buttons, located above the panel's trackpad, is for controlling various functions on the GUI.

**PROGRAMMABLE BUTTONS** These four LED illuminated switches are designed to perform user-programmable functions. Some functions, such as firing Salvos, making temporary connections, or interfacing with the logic input and output ports on system Logic I/O cards, are configured through the Windows™ NAVIGATOR application.

**TIMER** The console timer's AUTO-RESTART function lets programmed input strips reset the timer and start a new count when their On buttons are pressed.

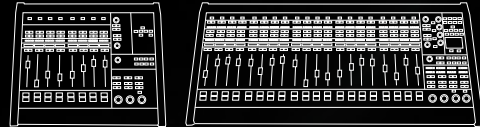
The S/S (start/stop) button halts the timer, which resumes when pressed again.

RESET - If pressed while the timer is counting, resets to zero and starts a new count. If pressed with timer stopped, resets to zero and holds until Start is pressed.

The HOLD button allows you to freeze the display while the counter continues in the background.

# the big picture: E-6

this is where you get to see what you are hearing

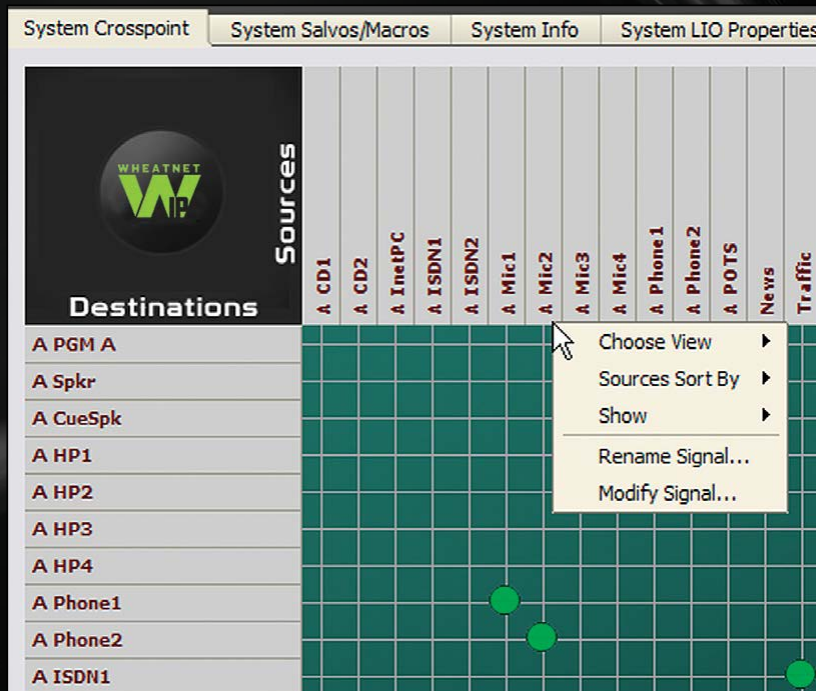


The full power of the E-Series consoles is accessed through the Graphic Display: Easy to understand even for the less experienced board op; power tools for the experienced production guru; setup and programming for the facility engineer. The VGA driver and software is embedded in the console surface so no external PC is required.



## Main Screen

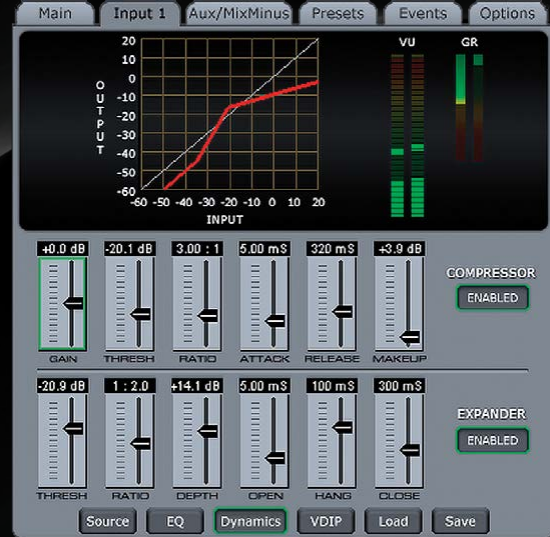
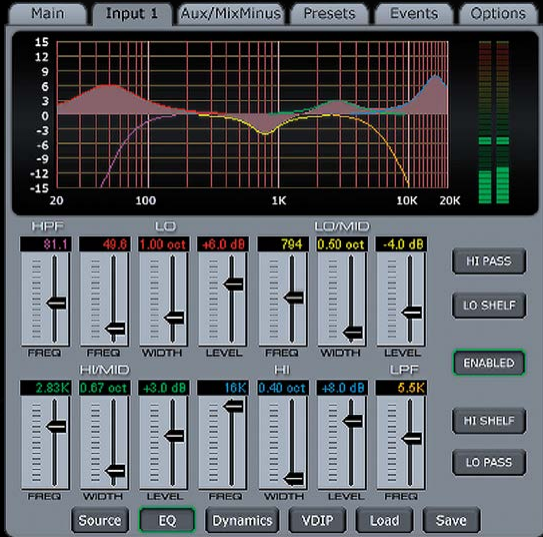
Displays all critical information to the operator including program bus names, high-resolution program level meters (average/peak or PPM), switchable meter, analog and digital clock, timer, and current event. Tabs allow access to lesser-used functions.



## Router

Powerful full system routing, not limited to just the console's I/O. Route any system source to any system destination directly from the console. The screen can be programmed to show only those desired sources and destinations.





### EQ & Dynamics

The E-6 offers comprehensive Vorsis-grade processing for great sounding voices, cleanup of remote feeds, and sweetening in the production environment. Includes 4-BAND PARAMETRIC EQUALIZER with top and bottom bands switchable peak/shelf (the display shows the resulting curve); HIGH- AND LOW-PASS FILTERS, 24db/ octave, adjustable frequency 16-500Hz and 1-20kHz; SOFT-KNEE COMPRESSOR with adjustable threshold, ratio, attack, release, and makeup level; and EXPANDER/NOISE GATE with adjustable threshold, ratio, depth, and time constants.



### Events

Create and recall console configurations for your different shows, functions, remotes, and even for different announcers (recalling mic processing optimized to their voice).



### User Permissions

The engineer can set up four levels of access, each with its own passcode: INTERN, OPERATOR, PRODUCTION, ENGINEER. For example, the INTERN setting could lock the display to only the MAIN screen, keeping them out of trouble.

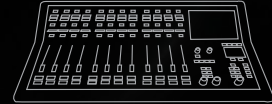


### Source

At a glance display and control of all attributes of the selected input channel strip. On the E-6, shows the function of the programmable buttons and the four AUX sends.

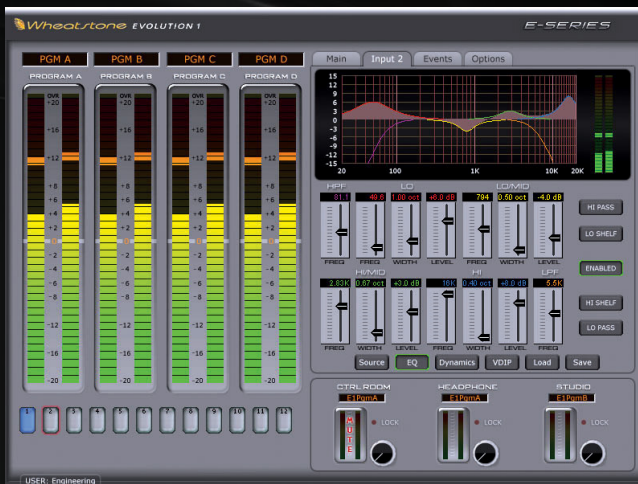
# the big picture: E-1

the E-1's built in LCD display is vibrant and gives you all the info you need for configuring the console as well as daily use.



## Main Screen

Displays all critical information to the operator including program bus names, high-resolution program level meters (average/peak), switchable meter, analog and digital clock, timer, and current event. Tabs allow access to lesser-used functions.



## EQ & Dynamics

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The E-1 is compact in size only. Functionally, it's HUGE. The E-1's power lies in its flexibility and ability to be programmed so that even the most inexperienced talent can operate it. Its password-protected interactive GUI gives you full programmability as well as some real-time functions if you prefer.



### Events Screen

Create and recall console configurations for your different shows, functions, remotes and events. Store channel source and bus assignments, mix-minus settings, input mode and pan, and monitor configurations.



### Input Screen

Displays the source mode and panning configurations for each input channel.



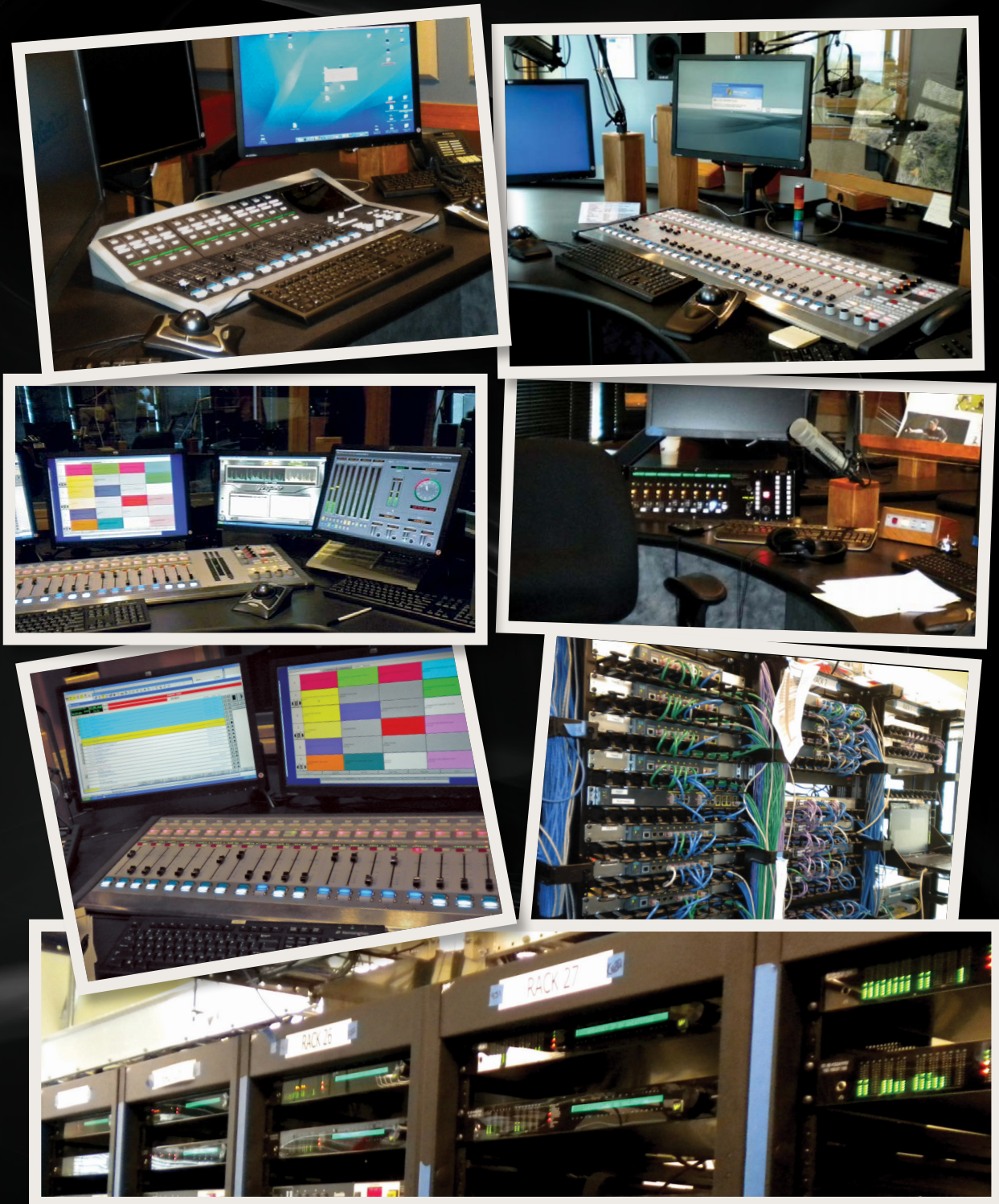
### Options Screen

Essentially, this is your preferences screen. You can set options for studio mutes, studio tallies, bus-minus settings, offline mix and more.

# snapshots from the field

a scrapbook of real-world photos of real-world WheatNet-IP installations

We love it when, fresh after a new installation, we start getting photos from our customers proud of their new studios. Here's a sampling of recent photos we've received of installations from all over the northern hemisphere.







# the network

With the modern, intelligent WheatNet-IP audio networking, you can:

## **Make wholesale studio changes...**

...or switch studios from any seat, reconfigure control surfaces for multiple purposes, and even change audio processing settings automatically when, say, a certain mic turns on. It's all in the WheatNet®.

## **Bring on the devices.**

WheatNet-IP gets along with everyone, including MADI gear like ProTools and TDM systems, and interfaces to more than 40 third-party brands and/or products for end-to-end, seamless operation from the microphone to the stick. In addition, new third-generation WheatNet-IP access units are AES67 compatible, which means you can integrate your audio network with other AES67 compatible devices and systems.

## **Integrate audio routing and automation.**

Imagine interfacing your audio network to your automation system with no sound cards, external logic connections or added routers. Or, better yet, imagine fully integrated audio automation and routing so an announcer seated at the playout system can set a fader for a console located anywhere in the facility. That's WheatNet-IP.

## **Access any audio, anywhere.**

WheatNet-IP handles native analog, microphone, AES/EBU, SPDIF, AoIP, MADI, SDI and even AES67, which is now included in our third-generation access units. Ingest any audio format into the WheatNet-IP, and convert to any audio output — analog to digital, AES to IP, microphone to AoIP or MADI to AES67.

## **Control and route audio all on the same cable.**

No more having to chase down or create new logic commands for sources every time you change control surfaces or studios. Logic follows audio. Audio and control for that audio travel down the same cable, so you can pick up feeds and the logic for those feeds anywhere along the network. Route any audio input to any or all outputs in the network.

## **Relax, you have switch-over silence detection.**

Let's say an operator misses a cue or leaves a fader down. No problem. When WheatNet-IP senses silence, it can take the automation system directly to air until the operator catches up. Every single audio output channel can be programmed with silence detection and automatic switch-over function.

## **Simplify things.**

No need to assign IP addresses or allocate bandwidth or pay someone else big money to do it. Just plug it into your managed gigabit Ethernet switch and let WheatNet-IP do the rest. Add codecs, processors and controllers or change I/Os in a snap. You spend less time configuring the system, and more time on what's important: creating awesome sound.

## **Call the shots.**

You call the shots, not some PC. WheatNet-IP distributes the workload to all access points in the system for better overall network stability. Each WheatNet-IP BLADE access unit has its own embedded processor with operating system that allows it be a powerful standalone router or part of a larger system. WheatNet-IP is an embedded system that does not require outside intervention or control from 3rd party software running on PCs. The configuration of the entire network is stored in each BLADE.

## **Self-pruning multicast trees.**

A lot of older IP audio networks don't manage the multicast streams, which could require you having to periodically manage this yourself or getting a bigger, more expensive switch to handle the mounting volume of streams. Not WheatNet-IP, which continually prunes unused source groupings from the network so that you never run out of switch or time having to delete unused channel assignments that are no longer in use.

## **Avoid costly system failures.**

A distributed and intelligent network means no more centralized points of failure to go wrong, plus more points of recovery. Each WheatNet-IP BLADE access unit is self-aware, and can reconfigure itself in an emergency. In fact, each BLADE in the network can recover settings for your entire studio operation!

## **Stay ahead of the curve with Gigabit Ethernet architecture.**

You might not be in a hurry now with 100mbps throughput, but we promise you'll want the system that has 1 gigabit/second Ethernet throughput once you get your audio network up and running. All WheatNet-IP BLADEs use gigabit Ethernet. This makes all the difference in network throughput, near-zero delay, reliability – and a whole lot more.

## **Get more on the network for less cost.**

Some IP audio nodes are mere input/output devices. Each WheatNet-IP BLADE I/O access unit, by comparison, comes standard with routable utility mixers for mixing, summing and controlling audio in lieu of costly DAs, plus newer BLADE-3s include a multi-band stereo processor for "spot" processing satellite feeds, headphone audio, web streams or any audio feed routed throughout the network. Also included in our new BLADE-3 access units is embedded audio playback that can be used to put emergency audio on the air, and much, much more. With all that functionality built in, WheatNet-IP can save you substantially in hardware costs alone.

## **Eliminate audio latency problems.**

Finally, an audio IP system that can keep up with audio, which means your automation system won't ever drop a satellite feed or skip a commercial because of delay again. Gigabit Ethernet is why.

## **Get way more for less.**

We're talking full-featured routable mixers, stereo processor, and automation control in each BLADE-3 I/O unit, so operators can pan audio, turn channels ON/OFF, set fader levels, and do audio fades, ducking, source assignments – and lots more. The possibilities are mind-boggling.

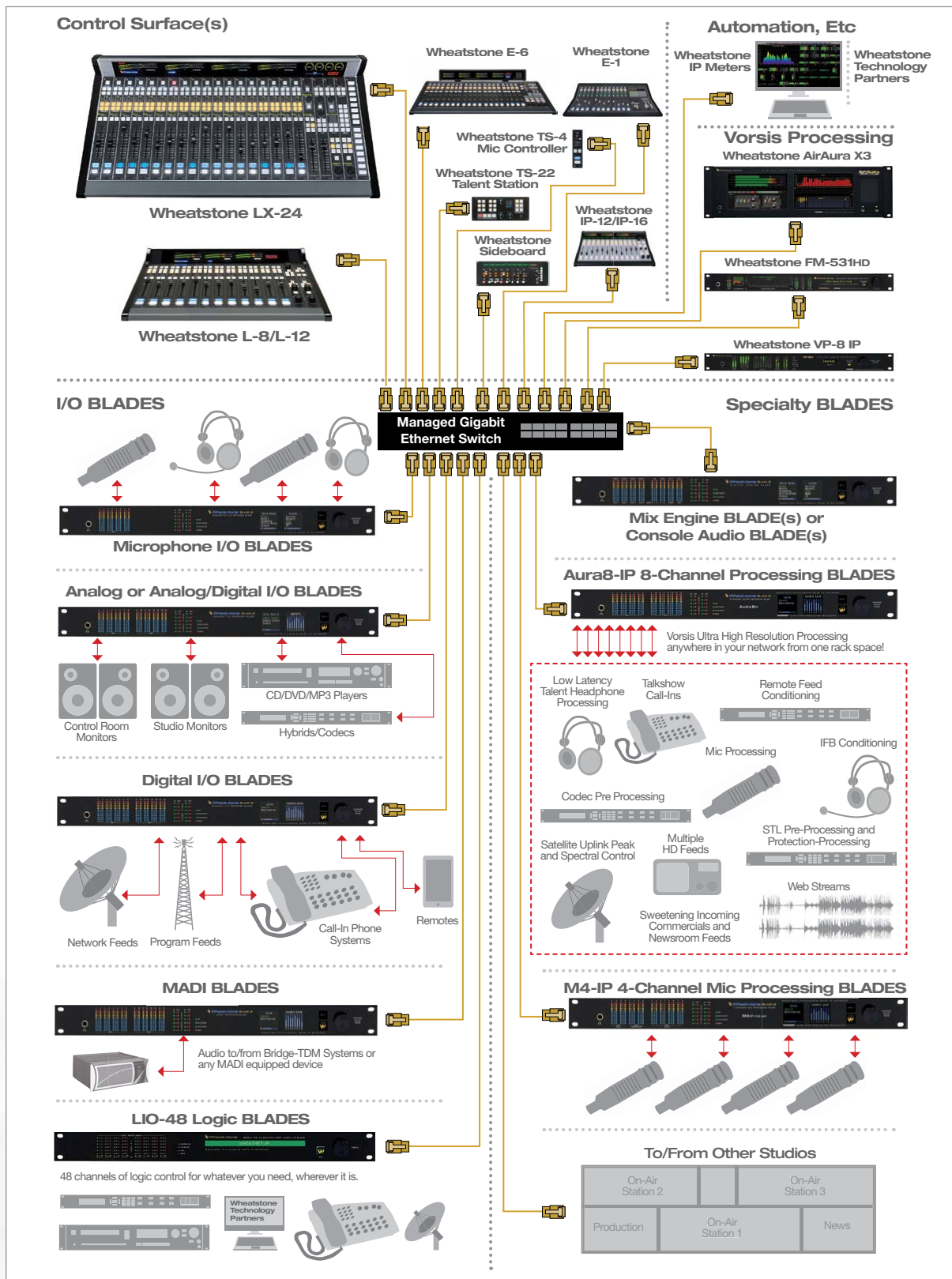
## **Expand your network at any time, for less.**

With control and intelligence built into every WheatNet-IP BLADE I/O access unit, you already have most of the networkability you need to grow with the times.



# the network

building the audio ecosystem



# beyond the surface

there's a world of Wheatstone smart control panels, software, BLADE-3s and other surfaces for you to put to work.



## I/O BLADE-3s

I/O BLADEs are access points on the WheatNet-IP Intelligent Network, converting each hardware physical input — audio or logic — to a data stream on the network, and converting data streams to hardware digital outputs. They provide the means of interfacing and controlling all of the audio equipment on your network.

The IP88A (analog), IP88D (digital), IP88AD (analog/digital) and IP88M (mic level) BLADEs handle your standard audio I/O requirements. Each has 8 stereo channels, 16 mono channels, or any combination totaling 16 discrete channels. The A/D versions are half analog, half digital. And the mic BLADE has 8 XLR inputs with high-quality mic preamps.



## Special Purpose BLADE-3s

Another I/O BLADE is the MADI BLADE, which converts a 64-channel MADI input to data streams on the network, and converts data streams to 64-channel MADI outputs.

The LIO-48 Logic BLADE provides 48 universal logic I/O ports, each individually configurable, for turning devices on or off by time or event, for automatically adjusting the audio processing settings when a certain mic turns on, and for any other logic control you need in your studio operation.



## Mix Engine & Console Audio BLADE-3s

We have several BLADEs built to handle specific tasks. First are the Engine BLADEs: IP88E and IP88CB. The IP88E is a BLADE that houses all DSP power for an individual control surface or Glass-E virtual mixer, and distributes the four stereo PGM busses, four stereo AUX sends, per-channel mix-minus feeds, monitor outputs, and other bus signals to the network. Once on the network, they are available as sources and destinations anywhere. This creates an extremely flexible system, where program outputs from one surface can be a source on any other surface. For example, a news mixer's program bus can come up as a source on the air studio control surface. While the IP88E doesn't house audio I/O, it does include 12 universal logic (GPIO) ports.

The IP88CB provides powerful interface options, including four AES inputs, four stereo analog inputs, four AES outputs, and four stereo analog outputs on RJ45s; control room and studio stereo analog outputs on XLRs, two mic level inputs with gain trim and switchable phantom power on XLRs; cue and headphone outputs on both RJ45 and 1/4" TRS, and 12 GPI logic ports on RJ45.

## WheatNet-IP Overview & Planning Guide

Get a good overview of the Intelligent Network. Learn about all of your console options, details about all BLADEs and compatible processors, all accessories, details on WheatNet-IP technology, interface ideas and more.

This guide is downloadable from any WheatNet-IP product page on our website.

Or, just go to:  
<http://ip-overview.wheatstone.com>



## Audio Processing BLADE-3s

Placing a processor everywhere you'd like one has been costly and impractical. Until now. A single Aura8-IP gives you up to eight processors to use as you wish. Use it as a standalone processor with analog and digital inputs or make it a part of your WheatNet-IP network. Either way, the Aura8-IP is a powerhouse.

The M4-IP Microphone Processor BLADE combines four high-quality microphone preamps, four channels of Voris embedded microphone processing, and a WheatNet-IP BLADE interface, allowing you to place four microphone inputs anywhere in your WheatNet-IP Intelligent Network. The preamps and processors are accessed and controlled from any point on the network via its Windows-based GUI.

There are several other processors that are WheatNet-IP native as well. These include the VP-8IP, AirAura X3 and FM-531HD.

*NOTE: As of August 2014, our original BLADEs are still available. Please contact your Wheatstone sales engineer for further info.*







**Small Control Surfaces**

**1. TS-4 Talent Station**

Provides lighted on/off/cough and talkback switches for a single talent microphone. A rotary headphone source selector is provided along with an OLED display for identifying the selected source.

**2. TS-22 Talent Station**

This full featured Talent Station turret plugs into the WheatNet-IP intelligent network to provide microphone control, headphone (with built-in amplifier) and speaker levels, plus source select, programmable soft buttons and timer control. No outboard equipment required and no wiring it all together; a single CAT6 cable handles it all. Also available as a flush-mount countertop panel.

**3. Sideboard Control Surfaces**

This small control surface is available in 4 or 8 input, tabletop or rack versions and provides an extensive tool set, yet simple operation. Includes built-in headphone amp and controls, source select, and programmable buttons. As with the Talent Stations, just plug it into the WheatNet-IP network and go.



**Controllers**

**HBX8-R Controller**

An eight button rackmounted source controller for rapid access to eight preprogrammed sources. An encoder knob with associated display allows access to any signal on the network.

**XYE-R IP Controller**

A rackmounted controller with full dialup source and destination control. Any signal accessible in a networked system is fully routable.



**IP Meters GUI Software**

Get a quick read of any audio source, destination or stream in your WheatNet-IP Intelligent Network. Our new IP Meters GUI app displays a “wall of meters” on your computer screen for ongoing monitoring of audio peak levels and average levels at selected points throughout the entire network. Included is a separate analysis meter for spectral readings plus visual alerts should a channel go dark.



**Glass-E Software**

Wheatstone’s Glass-E is the ultimate remote access tool. Use it where you don’t need a physical control surface, or to augment one that already exists. Think of it as a glass cockpit for your control room. With it, any of our control surfaces can be controlled remotely. Use GLASS-E to take command of the console from anywhere that has network access to the system – ideal for running the board from a remote or for assisting an unfamiliar operator from the engineer’s home!



**GP Series Control Panels**

**GP8 and GP16 Panels**

More than simple switch arrays, these 8 and 16 button panels come with their own scripting wizard. At the simplest level they can do source selection, push-to-talk, and preset/salvo activation. But the intelligence in each panel allows them to query the entire network and make switching decisions based on what they find. Conditional switching using Boolean logic functions allows for complex switching scenarios such as IF Studio B has requested the airchain, AND Studio A has acknowledged, THEN fire the Studio Change salvo.

**GP3 Panel**

A straightforward headphone panel with level control, 1/4” headphone jack and a switch with LED tally (typically used for the COUGH function, but can be custom wired). Connectorized with both RJ45 and Phoenix screw terminals.

**GP4 Panel**

A 4 button switch array for remote mic functions (typically ON, OFF, COUGH, TALKBACK). Interfaces with any available BLADE GPIO ports. Of course, all four switches can be custom wired for other functions as well.

**GP Turret**

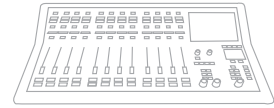
A compact desktop turret designed to house up to three (or six in our double width version) GP Panels.

**The Wheatstone Touch**

Our protocol allows us to interface with commercially available third party touchscreens. You can create customized touch panels that are perfect for your application.

# the nitty gritty: E-1

specifications and other important stuff you should know about



## Recessed Installation

The E-1 flushmounts to your counter top as the chassis extends below the counter surface to provide easy connection and a clean installation.



## CONNECTORS

Ethernet	RJ-45, for use in a WheatNet-IP network, or for external computer control and programming of the console.
Mixer	RJ-45, for use with E-Series SAT cage (Bridge, E-Sat, WheatNet systems)
Keyboard	PS/2
Headphone	DB-9, line level stereo
Power	Dual jacks for redundant PSU



## PSE-1 Power Supply

Clean and proper power is key to the great performance you've come to expect from Wheatstone. It would be easy to just purchase over-the-counter power supplies for our E-Series Consoles. But we don't. In order to maintain our high level of quality we've designed and built a dedicated separate rackmount supply for our E-1 surfaces.

## POWER SUPPLY PSE-1

19"/48.3cm wide,  
1-3/4"/4.5cm high,  
12-1/4"/31.1cm deep

Redundancy: use two PSE-1s  
Power Requirements: 120 VAC, 50-60Hz, 90 Watts

## FRAME SIZES

E-1 frames are available to house 4, 8, 12 and 16 input faders



## PHYSICAL DIMENSIONS

Surface front to back 16 3/4"/42.5cm  
Cutout front to back 13 1/8"/33cm  
Setback from front edge to cutout 1 1/4"/3.2cm  
Height at front 3/4"/2cm  
Height at rear 3 5/8"/9cm  
Maximum depth below counter surface 2 7/8"/7.3cm

4 panel frame	surface 16 1/8"/41cm	cutout 14 1/2"/37cm wide
8 panel frame	surface 22 1/2"/57cm	cutout 20 7/8"/53cm wide
12 panel frame	surface 28 7/8"/73cm	cutout 27 1/4"/69cm wide
16 panel frame	surface 35 1/4"/90cm	cutout 33 5/8"/85cm wide



## IP88-3CBE Console Audio BLADE

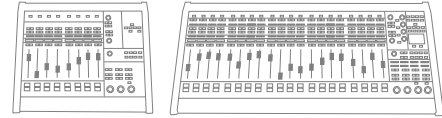
The IP88-3CBE provides powerful interface options, including four AES inputs, four stereo analog inputs, four AES outputs, and four stereo analog outputs on RJ45s; control room and studio stereo analog outputs on XLRs, two mic level inputs with gain trim and switchable phantom power on XLRs; cue and headphone outputs on both RJ45 and 1/4" TRS and 12 GPI logic ports on RJ45, plus EQ and Dynamics processing.





# the nitty gritty: E-6

specifications and other important stuff you should know about



## Recessed Installation

The E-6 flushmounts to your counter top as the chassis extends below the counter surface to provide easy connection and a clean installation.



## CONNECTORS

- Monitor VGA DB15
- Ethernet RJ45, for use in a WheatNet-IP network, or for external computer control and programming of the console
- Mixer RJ45, for use with E-Series SAT cage (Bridge, E-Sat, WheatNet systems)
- Keyboard PS-2
- Mouse USB
- Headphone DB9, line level stereo
- Power Two 5-pin for redundant power supplies

## POWER SUPPLY PSE-1

19"/48.3cm wide,  
1-3/4"/4.5cm high,  
12-1/4"/31.1cm deep

Redundancy: use two PSE-1s  
Power Requirements: 120 VAC, 50-60Hz, 180 Watts



## PSE-1 Power Supply

Clean and proper power is key to the great performance you've come to expect from Wheatstone. It would be easy to just purchase over-the-counter power supplies for our E-Series Consoles. But we don't. In order to maintain our high level of quality we've designed and built a dedicated separate rackmount supply for our E-6 surfaces.

## PHYSICAL DIMENSIONS

E-Series frames accommodate from 2 to 8 panels, each panel 6.26"/15.9cm wide: 4-input channel INPUT panel, MASTER panel, phone panel, accessory pushbutton panel.

All frames, surface  
17 7/8"/45.3cm deep  
1"/0.3cm high at front  
1 7/8"/4.4cm high at rear  
3 1/4"/8.2cm max depth below countertop

All frames, cutout: 14 1/8"/36.0cm deep		
2 panel frame	surface 14 1/2"/36.9cm	cutout 13"/32.8cm wide
3 panel frame	surface 20 7/8"/52.9cm	cutout 19 1/8"/48.7cm wide
4 panel frame	surface 27"/68.7cm	cutout 25 1/2"/64.6cm wide
5 panel frame	surface 33 3/8"/84.6cm	cutout 31 3/4"/80.5cm wide
6 panel frame	surface 39 1/2"/100.5cm	cutout 38"/96.4cm wide
7 panel frame	surface 45 7/8"/116.4cm	cutout 44 1/4"/112.3cm wide
8 panel frame	surface 52 1/8"/132.3cm	cutout 50 1/2"/128.2cm wide



## E-6 Optional Meterbridges

Sized to house three or four level meters, along with a clock and timer functions and a speaker, these meterbridges mount directly to an E-6 console.

## IP88-3E Engine BLADE

The IP88-3E BLADE houses all DSP power for an individual control surface and distributes the four stereo PGM busses, four stereo AUX sends, per-channel MIX-MINUS feeds, monitor outputs, and other bus signals to the network. While the IP88-3E doesn't house audio I/O, it does include 12 universal logic (GPIO) ports.



## Wheatstone & WheatNet-IP Are Automation and Control Ready

The power of Wheatstone's advanced mixing router includes handshaking technology with many of the broadcast industry's leaders: Agile, Audioarts, AudioVault, Audio Compass, AVT, Burl, BSI, Calliope, Crestron, Dalet, Davicom, DE Broadcast Shop, Digital Jukebox, Enco, Eventide, FLEX, Genesys, Grass Valley, iMediaTouch, Macromedia, Miranda, Moseley, MRZ Broadcast, Netia, NewsBoss, Op-X, Pulsar Multimedia, RCS, Reality Check Systems, Rivendell, Ross, SkyView, Sony, StreamSolution (XDEVEL corp.), Tieline, Utah Scientific, Vorsis, VoxPro, WideOrbit, WinMedia, Wire Ready, and Zenon X Media. And more are partnering with us every day.



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 **Wheatstone**  
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