L-8 · L-12

ADVANCED MODULAR NETWORKABLE CONSOLES

Wheatstone

BROADCAST AUDIO PERFECTIONISTS℠

the surface
our top of the line console feels exactly the way a surface like this should...perfect

Make it happen with this sleek new control surface scaled just right for producing news and voiceovers. Like the LX-24, the L-8/L-12 has all the latest goodies plus is hot swappable down to the individual fader.

These cousins to the popular LX-24 are big in capability but scaled for news production, voiceover work and all those applications requiring a solid control surface that will deliver under deadline. The L-8 and L-12 are based on all the same design principles as the LX-24 – precision-built, low-profile, tabletop IP control surfaces with hot-swappable individual fader modules that offer assignable sources to any fader.

Each fader can access four stereo output busses, a stereo cue bus, and its own individual Bus-Minus. An OLED source name display, an A/B source selector, and one programmable soft button are also provided, and a SET button gives access to assignable controls in the master section. Snapshots of the L-8 or L-12 configuration can be saved and recalled at the touch of a button, making setup for different working sessions a snap.

The L-8/L-12 meter bridge features three sets of bright, high resolution LED meters. A digital timer is also included. The console has control room and headphone outputs with level controls and source selection, as well as an independent studio monitor output. The L-12 als has a built-in cue speaker

These are designed for use with the WheatNet-IP Intelligent Network. An IP88CBL Console Audio BLADE provides the audio mix functionality as well as power to the L-8 (the L-12 has a dedicated power supply); additional BLADEs can be added for inputs and outputs in a variety of digital and analog formats. These new IP consoles are sleek, versatile, and low profile (no tabletop cutout needed). Just plug the L-8 or L-12 into your WheatNet-IP Intelligent Network, and quickly assign any source of any type from anywhere in your network to any channel fader.

- Low-profile, tabletop form factor allows clear sight lines and requires no furniture cutouts
- Any source to any fader
- Four stereo busses
- A/B dual input switching
- Bus Minus (N-1) on each input channel
- Hot-swappable fader modules
- Event preset recall
- Built-in headphone amplifier and level control
- Built-in Cue speaker on L-12
- Includes IP88CBL Console Audio BLADE

Gorgeous high-definition OLED displays on every channel are dynamic to give you exactly the information you need.

L
R

DBFS

SWITCHED

02:34

METER

EXT SET

AUX

UTIL

HOLD FOR SET

A/B SET

SOFT

ASSIGN

PGM

AUD

AUX

UTIL

TAKE

PAN

MODE

EVNT

TIMER

S/S RST

AUT

L8 A

Bla

0

No Event

INFO

CR/HDPN

EXT SET

PGM

AU

AUX

HOLD FOR SET

A/B SET

SOFT

ASSIGN

PGM

AUD

AUX

UTIL

Mic 2
-6.3 dB
STEREO
INFO

TB

CUE

HOLD FOR SET

A/B SET

SOFT

ASSIGN

PGM

AUD

AUX

UTIL

Mic 1
-3.3 dB
STEREO
INFO

TB

CUE

AUD

UTIL

UX

Tel 1
-17.4 dB
STEREO
INFO

TB

CUE

FUN

0

5

P+G

5

0

10

5

0

5

10

15

20

5

25

30

HDP

Elegance and sophistication are not solely for expansive consoles.

Whatever size your needs dictate, there's no reason to not have the best.

Our L-8 and L-12 bring the exceptional feel, appearance, response and

functionality of our LX-24 to a compact frame.

the network
what the control surface controls and how it does it

WheatNet-IP Intelligent Network

Whether you're setting up a new build, updating your analog facility or are replacing your outdated Audio over IP system with one that can accommodate *all* your needs, *now* is the time to bring your facility into the 21st century with Wheatstone's proven AoIP environment, WheatNet-IP. Designed from the ground up by the folks who defined audio networking for radio and production, WheatNet-IP is the single best thing you can do for your station.

WheatNet-IP is called the "Intelligent Network" for a few reasons:

1. The front panel setup wizard in each BLADE gets you up and running in moments. Extensive front panel metering and status indicators provide quick confirmation that all is well.

   WheatNet-IP's NAVIGATOR Administration and Control Software and web interface let you further customize and control your system, locally or remotely.

2. Every BLADE carries the DNA of your entire network. If you need to replace one, its replacement will recover its configuration from the network.

3. There is virtually no latency – that means there is no lag to throw your game off. And it operates *fully* at Gigabit speed.

4. It's no more expensive than the other guys - in fact, it *can* save you *lots* of money.

5. Unlike other systems, WheatNet-IP manages audio by sending it to where it's needed AS it's needed. Imagine all the audio streams running to every device on your network at the same time. Confusing and system-bogging to say the least. WheatNet-IP solves this by sending only the audio you are asking for when you need it, in real time. This makes the network infinitely more efficient, cleaner, faster and more reliable. WheatNet-IP embraces the relevant standards and *fully implements* the IGMP standard.

6. Each and every BLADE has built in intelligence for router control, logic control, gain control, utility mixing and silence detection and switching. This eliminates the need (and expense) for a lot of the extras that other systems need to make their gear work.

7. Everything you need comes from Wheatstone. We can help you design, install, set up and maintain the system so there are never any surprises...except happiness.

Where To Start...The Control Surface

As with your traditional on-air or production studio, the first thing to consider is the mixing console. Wheatstone's control surfaces *are* the consoles, when combined with mix engines and assorted BLADES (see below) that handle I/O, processing or other tasks. They come in a wide variety of configurations, from a single channel desktop mount panel to our multi-channel flagship LX-24.

With WheatNet-IP, you can start simple or go full-blown. A control surface, mix engine/audio interface is no more expensive than a digital board and offers *much* greater functionality. Expanding is a snap - just add I/O or specialty BLADES and/or more control surfaces wherever you need them (annex studio, newsroom, production suite, streaming rack, etc.). That's when you begin to realize how seamless and powerful the Intelligent Network really is. Imagine access to audio anywhere in your facility from *any* control surface. Imagine interfacing your automation with no sound card, external logic connections or added routers. Imagine having processing wherever and whenever you need it – mics, program, remotes or headphones. If you can imagine it, you can do it with WheatNet-IP.

Next...BLADES: What They Are and WHY You Need Them

BLADES are WheatNet-IP's intelligent interfaces and are the heart of the WheatNet-IP network. They are exceptionally intelligent – each BLADE knows what it's supposed to do *and* what all the others are doing. BLADES offer distributed intelligence across the entire network instead of having all the nodes on the network waiting for commands from a single brain. This makes for a super-efficient system that can literally handle any routing and logic tasks you have. It also eliminates the need for dedicated router devices which other systems rely on that can add great cost to a system. Each contains full intelligence for router control, logic control, gain control, utility mixing (two 2x8 utility mixers), silence detection and switching (among other things).

For I/O, there are analog, digital, analog/digital I/O BLADES, a Mic BLADE with 8 XLR inputs, and the MADI BLADE, which allows up to 64 discrete channels of audio to move from any MADI capable gear on any network. Operating as a mix engine-I/O device, the Console Audio BLADE works directly with select control surfaces to create a cost-effective, standalone console that's a CAT6 cable away from being networked. And there is a Mix Engine BLADE that works as the heart of our Control Surfaces.

The Aura8-IP Processing BLADE offers 8-channels of Vorsis Ultra High Resolution Processing. The VP-8IP, FM-531HD, AirAura X3, and our M-4IP are all processors that can act as BLADEs and are all WheatNet-IP native.

That's It!

Essentially, you select a control surface and the BLADES you need. Hook them up with CAT6 cables to an Ethernet Switch and WheatNet-IP does the rest. Repeat as needed for each of your studios. All of Wheatstone's products, including our world-class control surfaces, are made in the USA in our New Bern, NC facility. Support is available 24/7/365. Parts, should you ever need them, are mere hours away. WheatNet-IP is the first choice for stations looking for next-generation IP network solutions. It is hands down the most advanced, reliable *and* easy-to-use system you'll ever use.
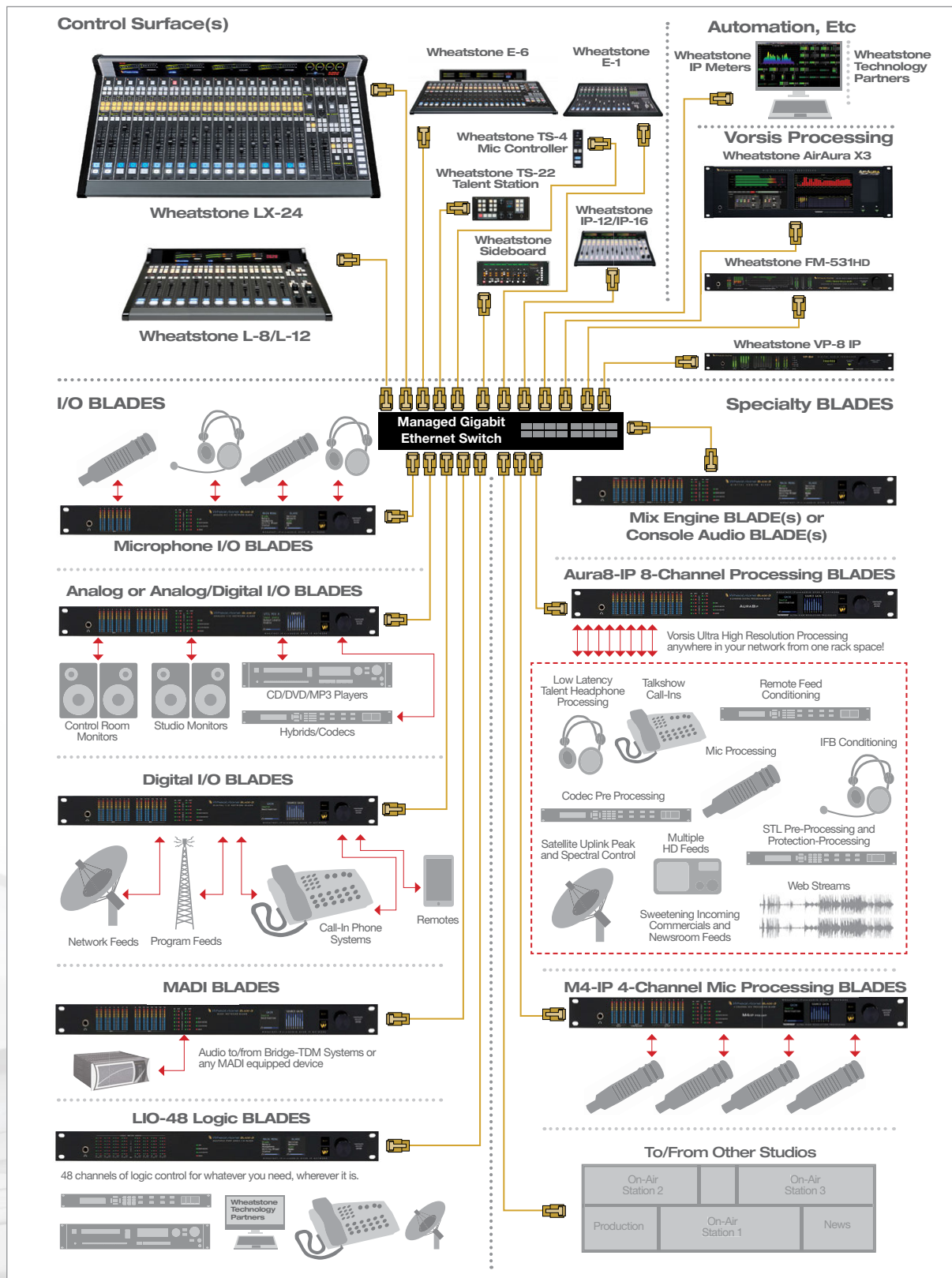
Wheatstone & WheatNet-IP Are Automation and Control Ready

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, Burli, 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.

the network
building the audio ecosystem

Control Surface(s)

Wheatstone E-6

Wheatstone E-1

Automation, Etc

Wheatstone IP Meters

Wheatstone Technology Partners

Wheatstone LX-24

Wheatstone TS-4 Mic Controller

Wheatstone TS-22 Talent Station

Wheatstone Sideboard

Wheatstone IP-12/IP-16

Vorsis Processing

Wheatstone AirAura X3

Wheatstone FM-531HD

Wheatstone L-8/L-12

Wheatstone VP-8 IP

I/O BLADES

Microphone I/O BLADES

Managed Gigabit Ethernet Switch

Specialty BLADES

Mix Engine BLADE(s) or Console Audio BLADE(s)

Analog or Analog/Digital I/O BLADES

Control Room Monitors

Studio Monitors

CD/DVD/MP3 Players

Hybrids/Codecs

Aura8-IP 8-Channel Processing BLADES

Vorsis Ultra High Resolution Processing anywhere in your network from one rack space!

Low Latency Talent Headphone Processing

Talkshow Call-Ins

Remote Feed Conditioning

Mic Processing

IFB Conditioning

Codec Pre Processing

Satellite Uplink Peak and Spectral Control

Multiple HD Feeds

STL Pre-Processing and Protection-Processing

Web Streams

Sweetening Incoming Commercials and Newsroom Feeds

Digital I/O BLADES

Network Feeds

Program Feeds

Call-In Phone Systems

Remotes

MADI BLADES

Audio to/from Bridge-TDM Systems or any MADI equipped device

M4-IP 4-Channel Mic Processing BLADES

LIO-48 Logic BLADES

48 channels of logic control for whatever you need, wherever it is.

Wheatstone Technology Partners

To/From Other Studios

On-Air Station 2	On-Air Station 3
Production	On-Air Station 1	News

beyond the surface

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

I/O BLADES

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.

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.

Audio Processing BLADES

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 Vorsis 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.

Special Purpose BLADES

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.

Finally, 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.

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
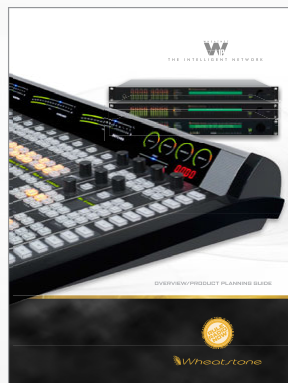
Small Control Surfaces

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 details

all the panels – everything you need to mix - right there at your fingertips

The L-8 is a modular console design that accommodates multiple input channel faders.

All modules feature sealed-contact illuminated LED switches. ON/OFF switches have stainless steel guards.

input

A/B SET One press of this button toggles between the channel's A and B source inputs. Press and hold (SET) to program the channel's source signals and to access PAN and MODE functions.

SOFT A programmable one-press button; typically used to access hot source preset selection or channel mode settings.

ASSIGN Assign the channel's signal to the four console output busses: Program, Audition, Auxiliary and Utility.

**INFO** An OLED color display that shows the channel's signal source, fader and mode settings.

TB A momentary switch that activates talkback to the bus-minus/IFB output associated with the channel's source signal.

CUE Places the channel's signal on the console's cue bus.

FADER A long-throw Penny + Giles fader sets the channel's output level.

ON/OFF These switches turn the channel signal on and off. Can trigger external source feeds.

control room
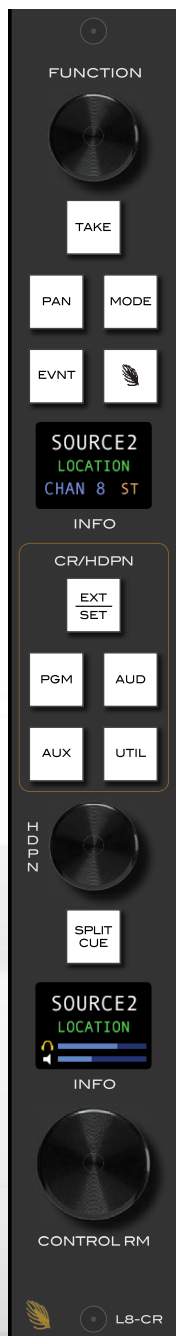
FUNCTION A rotary encoder that scrolls through various control choices whenever a SET button is pressed on the console.

TAKE Once the function control has selected the desired result (source, mode, pan, event, etc.) pressing the TAKE button activates that choice.

PAN Pans the selected channel's signal in the stereo field.

MODE Sets the selected channel's signal as left, right, stereo or mono.

EVENT The L-8 console can store 8 named events (console control surface snapshots) for instant recall.

INFO Displays information associated with a SET button – input panels, events, etc.

CR/HDPN Five source select buttons (EXT, PGM, AUD, AUX, UTIL) that determine the control room/ headphone monitor feed. If the EXT/SET button is pressed and held, any source in the network can be selected (source visibility software controlled).

HDPN Sets the output level of the built-in headphone amp (output jack located in the righthand console endpiece).

SPLIT CUE Sums the current monitor source L+R and sends it to the right channel; CUE appears in the left channel.

INFO Displays source and location information for the current CR/HDPN monitor signal, as well as bargraph indicators for the headphone and CR output levels.

CONTROL RM The level control for the control room monitor output signal.

studio control
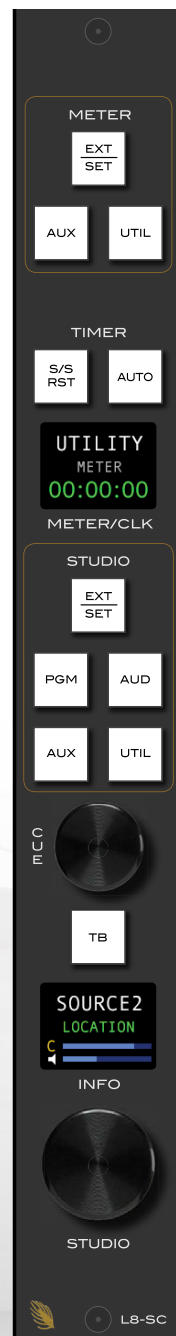
METER Similar to the CR/HDPN source select switchbank. Determines the monitor source for the console's switched meter pair.

TIMER Start/Stop toggle or RESET (press and hold) for the meterbridge digital timer. The AUTO switch starts the timer from zero when a programmed input channel's ON switch is pressed.

METER/CLK Displays the switched meter pair's signal info; includes a time of day digital clock.

STUDIO Similar to the CR/HDPN source switchbank.

CUE Sets the master level of the console's CUE bus.

TB A momentary action switch that sends the console operator's microphone signal to the studio monitor output.

INFO Displays source and location information for the studio monitor signal, as well as bargraph indicators for cue and studio monitor output levels.

STUDIO The level control for the studio monitor output signal.

the nitty gritty
specifications and other important stuff you should know about

Headphone Jack

Back of L-8

PHYSICAL DIMENSIONS L-8:
 Front to back 16-1/8"
 Front height 1-1/4"
 Rear height 3-3/4"
 Width 16-1/2"

PHYSICAL DIMENSIONS L-12:
 Front to back 16-1/8"
 Front height 1-1/4"
 Rear height 3-3/4"
 Width 24"

CONNECTORS:
 Ethernet: RJ-45
 Headphone: RTS 1/4" phone
 Power: DC connector jack w/locking ring

IP-88CBL Console Audio BLADE (includes Power Supply for L-8)

The IP88CBL 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, 12 GPI logic ports on RJ45, and the power supply DC out the for L-8.

The L-12 utilizes an IP-88CB and a compact external power supply.

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