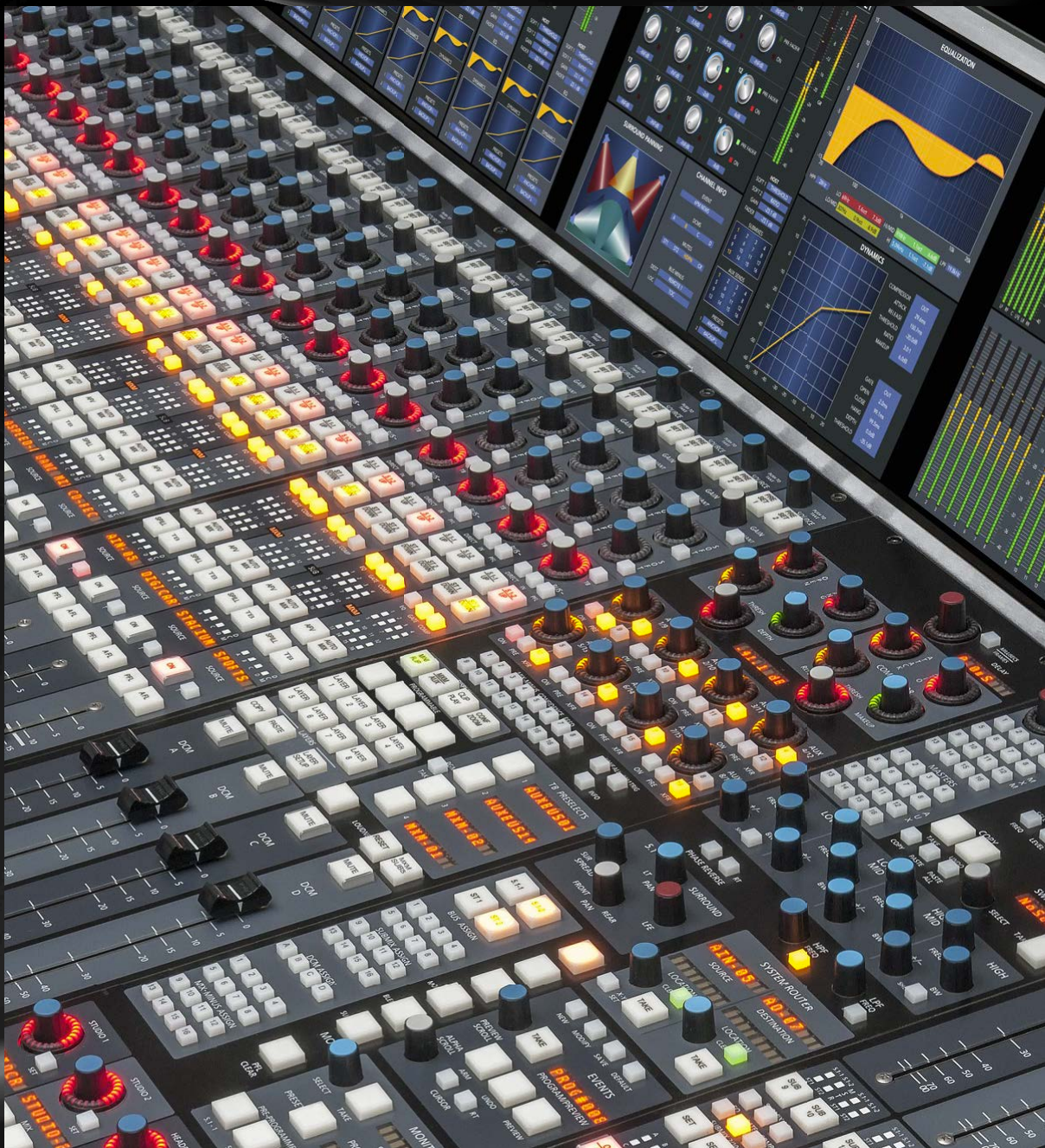


# DIMENSION THREE

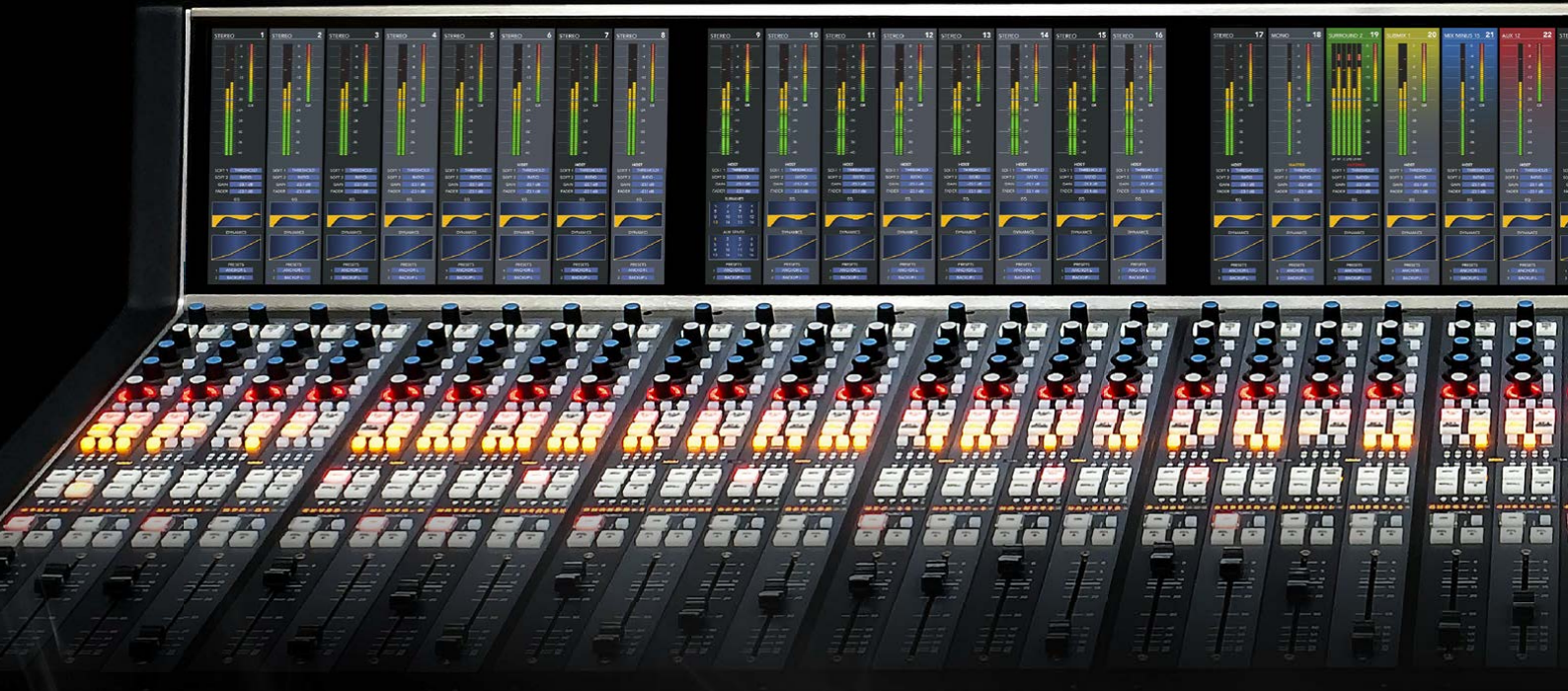
Full control of your audio network has never been this easy





## full access network

opening new networking opportunities to the TV audio world. Any source, anywhere, any time.



With all I/O managed through a separate rack unit, the Dimension Three has no limitations with fixed connection points on the console chassis itself. Any channel can connect to any audio source, using any preferred audio format at any time, whether it's HD/SDI, AES, MADI, AoIP, Analog or TDM.

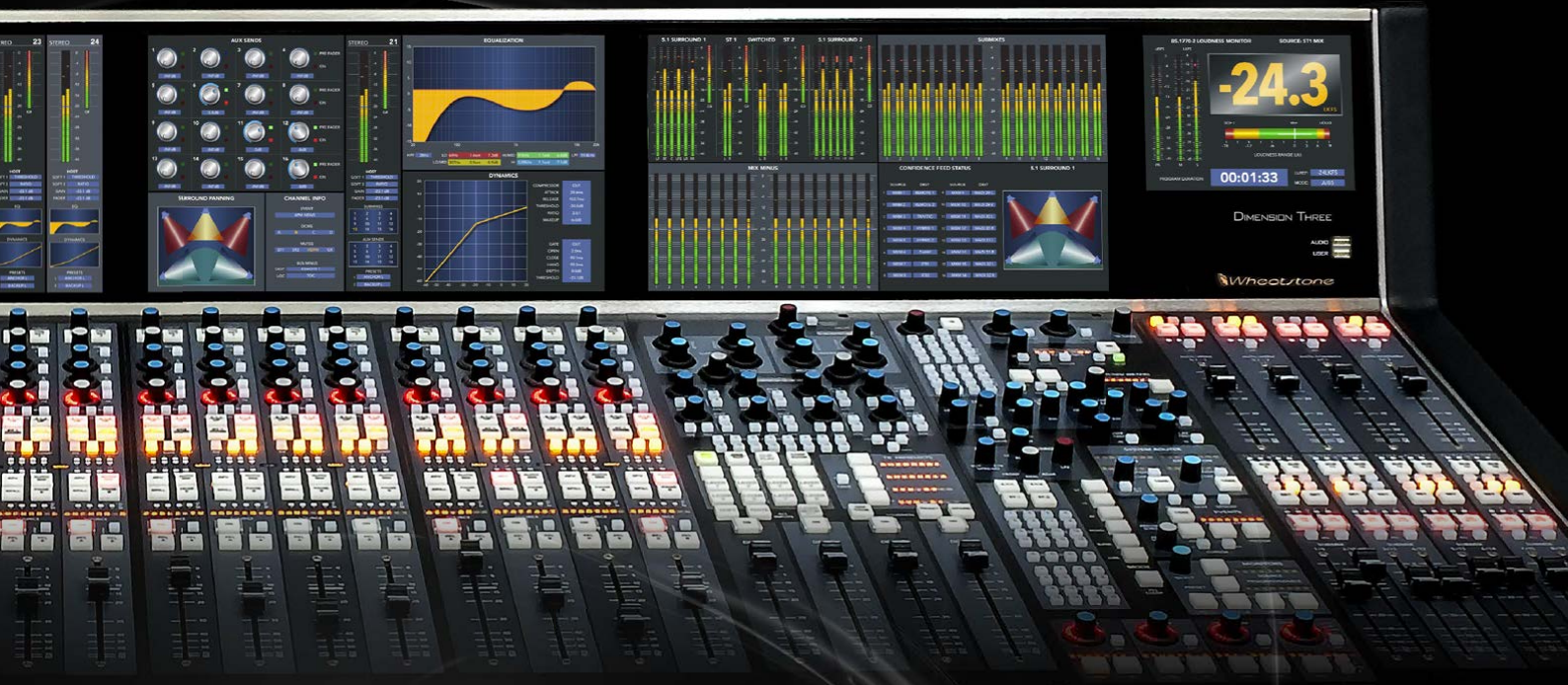
The result is the first large-format audio console that is so truly universal, it can fit into almost any TV production environment, anywhere -- whether it's a Wheatstone TDM routed studio, a MADI-equipped stadium, a remote truck or even the newest space in studio networking based on IP connectivity.

With our Network First approach, everything essential to audio routing, logic and processing is situated in racks located wherever you like, accessible via the network. This provides facility-wide access to all of your audio, regardless of where it's coming from. You can route any audio source to any fader on any control surface within your network. And, because we've designed our rack cages with front access and full hot-swappability, you'll never need to tear apart a console or rack to upgrade, repair or otherwise access its components. This all translates to 100% uptime and unprecedented expandability.

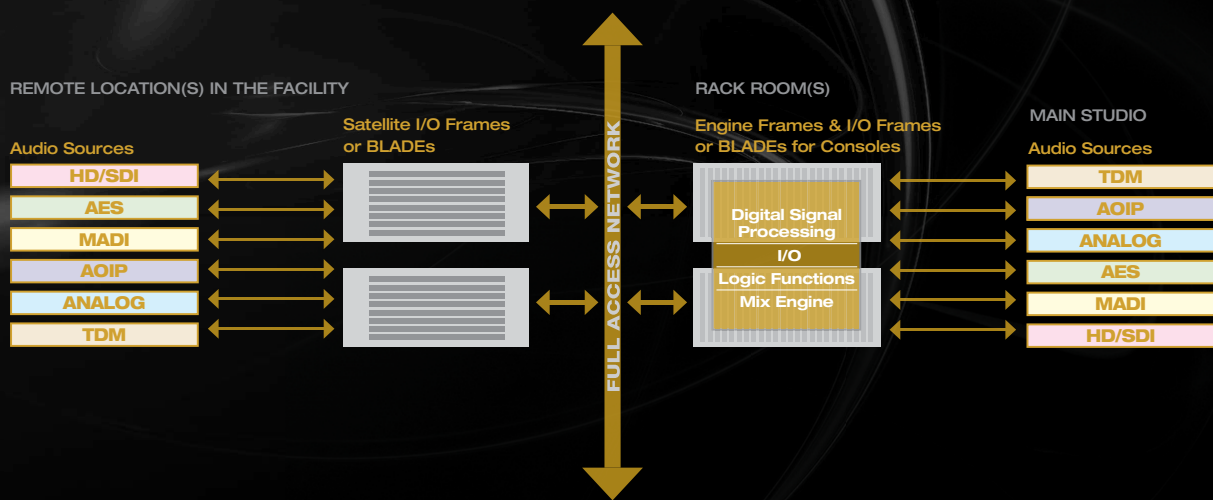
Because the entire system is modular, its components can live wherever you need them. Multiple control surfaces can access ANY audio from ANYWHERE on the network. No more making concessions in the form of dedicated input strips or physically rerouting inputs for different applications. The following shows a typical television operation in which the operator has access to some 1,024 channels of digital signal processing through one control surface.

With Gibraltar IP Mix Engine, you are now open to the world of IP Audio Networking with access to powerful, cost-effective BLADE-3 units for I/O, logic and processing functions.





The true advantage of a fully modular router-based network system is ultimate flexibility



Simple flow.  
Incredible Power.

## the surface

every fader, knob and button exactly where you need it to be

The Dimension Three TV audio console provides the best of all possible worlds, combining capabilities such as I/O layering and profiling of channels into any configuration on the surface with unlimited access of sources at any time, from anywhere and in just about any format from the network. Unlike traditional broadcast consoles with all sources wired to the board, the new Dimension Three puts mixing, I/O and processing where a modern network puts them: in a separate network unit unrestricted by tight spaces and limited access.

The Dimension Three console offers easy layering of channels and mixes from a menu display or offline through a network connection, and includes convenient USB interface on its meter bridge for recording/playback of audio clips or for saving and recalling configuration settings. The Dimension Three is freelance-friendly, too! Freelancers can bring in their USB Flash drives week after week or show after show for instant recall of console settings, configurations and layering preferences — plus audio files for the built-in audio clip player.

Based on Wheatstone's powerful Gibraltar mixing engine capable of 1,024 channels of simultaneous digital signal processing, the Dimension Three can handle the most challenging productions for fixed or remote installations. It offers specialty features such as automatically crossfading between inputs as the switcher or automation system cuts or dissolves between video sources and optimizing levels of group microphones during a dialogue. Other standout features include audio-follow-video (AFV) switching, audio processing on every input channel and on all major output busses — all with resource sharing through the network and virtually no routing restrictions.

Unrestricted routing means being able to have all faders available to dial up whatever mix you need; the days of having to block out channels based on input type are a thing of the past, as is having to repurpose inputs because of physical chassis limitations.

Dimension Three provides an impressive 16 dedicated mix-minus busses and 16 stereo AUX sends plus a bus-minus (N-1) output for every input channel (up to 128 input channels on 64 physical faders) — in addition to two stereo and two 5.1 surround master busses. It offers up-mixing and down-mixing between stereo and 5.1 sources, plus a full complement of stereo and 5.1 surround panning with EQ and dynamics processing available for each input, each subgroup and each program bus. For overall control, this control surface uses motorized faders, each of which controls a source that can be mono, stereo, or full 5.1. Each fader also has a “spill” function, which allows its individual channels to spill out onto separate faders (two for stereo or six for 5.1 sources).


The Dimension Three is built rugged, yet is beautifully crafted with backlit buttons and oversized wide-screen displays for easy setup and monitoring, including LKFS readout for monitoring CALM compliance.

- Network access to audio in all major formats: HD/SDI, AES, MADI, AoIP, Analog or TDM
- With Gibraltar IP Mix Engine, you have access to powerful, cost-effective BLADE-3 units for I/O, logic and audio processing
- AES67 compatibility
- Flexible I/O layering and profiling of channels
- 16 dedicated mix-minus busses
- 16 stereo AUX sends
- Bus-minus (N-1) output for every input channel (up to 128 in all)
- Two 5.1 surround master output busses
- Two stereo master output busses
- Up/Down mixing between 5.1 and stereo
- Full digital audio processing on all inputs and major output busses (EQ, comp/limiter, expander/gate, high/low pass filters)
- Programmable delay applicable to inputs and outputs
- Automatic microphone mixing (AutoMix)
- Audio-follow-video switching (AFV)
- Built-in audio clip player
- USB interface for Flash drives
- Two programmable soft knobs per input – can be assigned any control function on the console
- 4 fully programmable switches for implementing custom routing and switching functions
- 99 show presets for complete recall of console setups
- Control interface for major automation systems



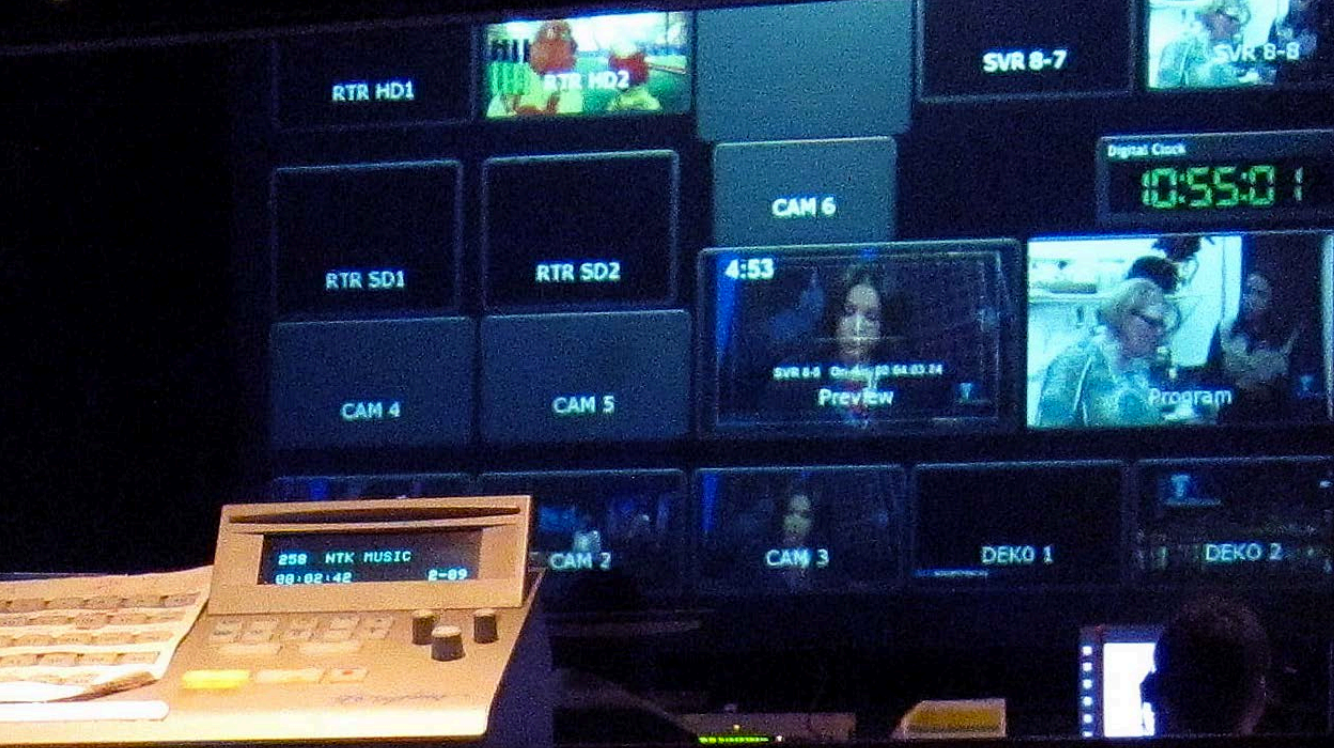




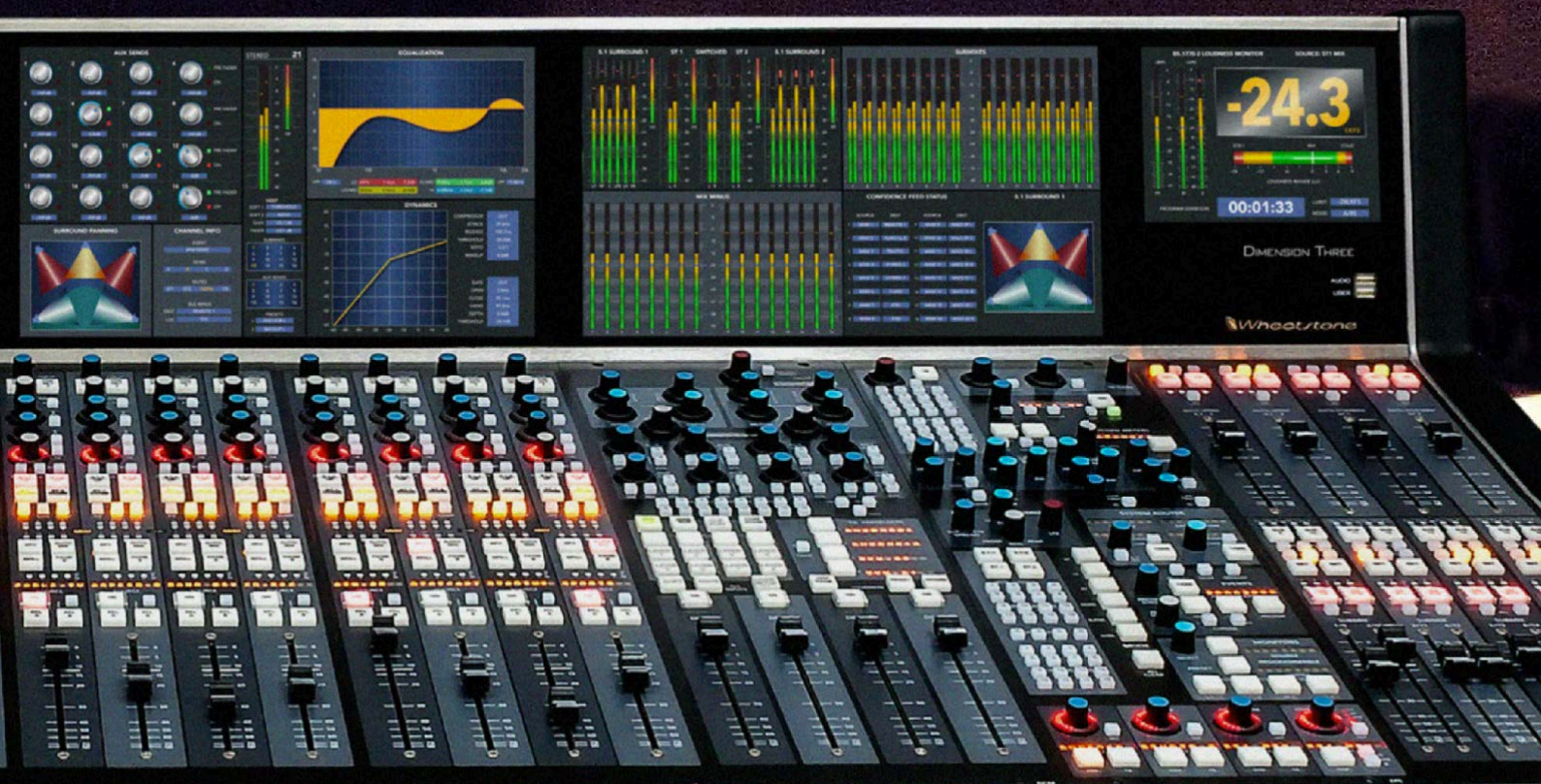
A person wearing glasses is seen in profile, working at a broadcast control console in a dark environment. The console features a microphone, a small monitor displaying a blue screen, and a large array of buttons and sliders. A prominent feature is a row of buttons with blue backlights, each labeled with a station call sign and a number (e.g., 'DIR TO ST01', 'NEWS ST02', 'PROD ST03', 'PHIS ST04', 'NCLE ST05', 'NCEL ST06', 'UPLA COM1', 'ITTS COM2', 'GANG COM3', 'MCR COM4', 'FRON TU'). Below this is a large screen showing multiple vertical bar graphs and waveforms, and at the bottom, a row of physical sliders and buttons. The overall scene is dimly lit, with the primary light sources being the screens and the backlit buttons.

the greatest return on investment  
happens when two core things come  
together... functionality and futurability...  
with neither existing at the expense of the other





*Dimension Three's wide-screen, high definition LCD displays are the perfect way to watch your work*





# the surface

## top-of-the-food-chain functions come to a new price point

The DSP power and intelligence behind Dimension Three’s design have enabled us to include features that have never before been seen in a product in this price class. These features, normally seen only on high-end TV audio consoles, afford operator convenience as well as impressive automation capabilities.

### audio follow video (AFV)

Audio Follow Video works in conjunction with the video production switcher or production automation system. When engaged, the audio console will automatically crossfade between inputs as the switcher or automation system cuts or dissolves between video sources. This feature can either supplement the work of an audio operator, allowing him to concentrate on sweetening and other tasks, or in some cases it can stand in for the audio operator during simple operations such as integrating remote broadcasts with a local anchor.

### automatic microphone mixing

When airing a panel discussion, forum, or other program where many microphones are located close together, an audio operator has his work cut out for him. Simply leaving all the mics open all the time will result in an ugly, comb-filtering effect that will make the room sound hollow. The operator must constantly pay attention to the discussion in progress, and keep unused mics pulled down. There are many opportunities for errors which are obvious to the audience. Automatic Microphone Mixing takes this difficult task out of the hands of the operator.

By engaging this feature on each of the microphones, the operator allows the console to monitor the level coming from each microphone and automatically bring up only those that are being spoken into. The rest are kept pulled down to low levels until they become active. He can even designate one microphone as the HOST, allowing it to automatically override any other active signal in the automix group.

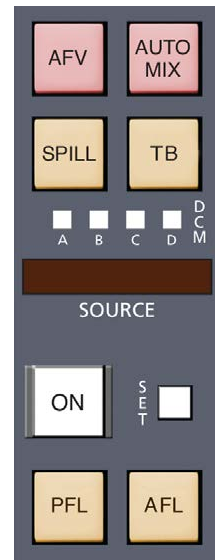
### system routing

Full control over crosspoint connections is a must in any router based system. The Dimension Three System Router section allows signal Sources and Destinations (logically grouped according to Location) to be assigned with virtually unlimited flexibility. It operates in two modes:

In STANDARD MODE the displays respond to any Set function invoked on the surface. If the Set applies to an input channel the destination display shows the output routing for that channel’s Bus Minus output. If the Set function applies to an output bus, the Destination display shows the output routing for that bus. In both instances on-the-fly changes can be made quickly via the scroll knob and take switch. The second mode of operation is full XY MODE, where any system source can be sent to any system destination. The lists of signals that are visible (and therefore routable) can be programmed through software so critical crosspoints remain protected.

### spill

Usually, it’s extremely convenient to be able to control the level of an entire 5.1 surround source package with a single fader. Sometimes, however, it is necessary to individually trim the levels within that package. For example, we might need to knock down the subwoofer level, or increase the center channel gain slightly. On the Dimension Three, this is easy. Just press the “Spill” button on the fader. Instantly, the six signals of the 5.1 source will be spread across six separate faders and labeled for you, and the motorized faders will snap to the current levels. Make your adjustment, turn spill off, and everything switches back to normal.



### TB

Press to momentarily send the Talkback interrupt signal to the selected monitor mix. Releasing the button removes the Talkback interrupt signal from the mix.

### PFL and AFL

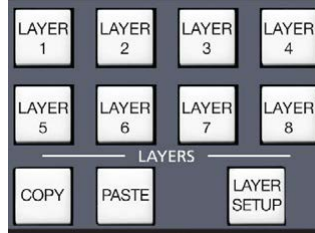
Push buttons allow you to hear pre (PFL) or post (AFL) fader levels.





### layers

The Dimension Three is equipped with eight layers. Each layer represents a complete setup of your entire surface. You have the ability to select each of those eight setups simply by pushing the associated button. All your inputs, mix-minuses, aux-sends, EQ, processing - the works - time eight. Switching to another layer gets you to another complete setup.



Any source, anywhere on the network, can be dialed up on any or many of those channels at any time. And wherever that source is used, it will utilize the settings on that channel. This makes the Dimension Three a powerhouse console.

### user: you CAN take it with you

You'll notice a pair of USB ports in the right of the meter bridge. The one labeled "USER" allows you to store and recall your settings on a USB Flash/Thumb drive, making them portable. Freelancers can bring in their USB Flash drives week after week or show after show for instant recall of console settings, configurations and layering preferences.



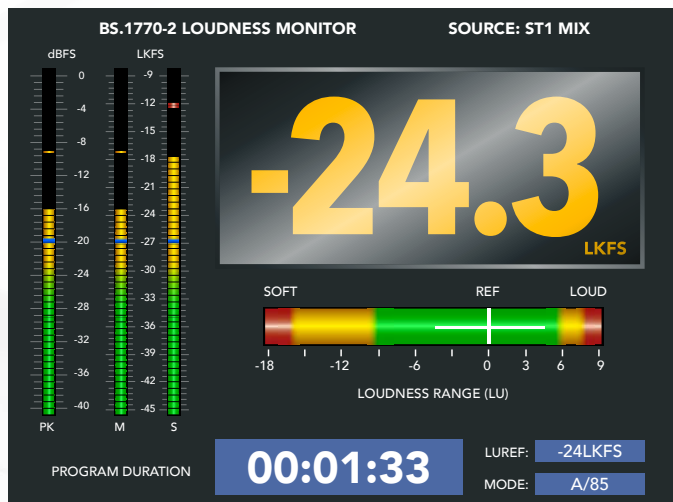
### built-in audio clip player

The other USB port on the front right of the meter bridge is labeled "AUDIO". This allows you to plug in a Flash/Thumb drive with audio clips you'd like to have access to. Set up a playlist and control it right from the console. A built-in clip player gives you a clean readout on the screen. Simply assign a channel to playing clips as a source, dial up the clip you want, and play it from the ON button on the channel. Easy as pie!



### Loudness Monitoring

The meterbridge LOUDNESS meter has the required momentary, short-term, and integrated metering as well as a peak reading meter. The Loudness Range meter provides a level history over the course of your program with a Program duration display and a reset control on the Dimension Three surface. The Loudness Meter can be set to read any of the Stereo Program or 5.1 Program busses. The large LKFS readout helps your operators maintain CALM compliance, avoiding more noticeable downstream corrections.



## with Dimension Three you can

- assign any source of any type to any fader on any layer at any time
- hot-swap components without powering down or disassembling
- share I/O with other networked control surfaces
- remotely run automation, even without a physical control surface
- switch live, on the fly, between primary and back-up sources on the same fader
- take your settings with you
- play audio clips from the console









# Gibraltar Network

the processing power behind Dimension Three – brains, brawn and futurability

Designing from the ground up meant considering not only how things function but where they live. Given the technology we have today, and considering what's on the horizon, it only made sense to take a completely modular approach. This provides us with the ability to create incredibly powerful devices with unimaginably small footprints. Since all function is in soft/firmware, it also gives us the capability to ensure that your investment in our technology today will last well into the future. In other words: Wheatstone = incredible ROI.

## Meet Gibraltar

The Gibraltar® Network is the powerhouse of Wheatstone's consoles. Its modular design uses multiple Gibraltar DSP cards to provide the mixing, bussing, I/O, and processing power which the control surface presents to the operator. The amount of DSP processing available can be scaled to the size and complexity of the intended installation and to allow for future expansion.

The Gibraltar Network has an internal, modular power supply and has room for a second one for full power redundancy. A "hot standby" Gibraltar DSP card can also be installed and will seamlessly take over the functions of any failed DSP card.

And now, Gibraltar Network adds an IP Mix engine, expanding it into the world of IP Audio networking.



### More than enough DSP to do the job

There are 1,024 channels of processing available. Sound like a lot? It is! For a modern studio, consider that for every input you'll need a minimum of 6 channels of processing for 5.1 surround as well as 2 channels for stereo processing. Add to that processing for all major output and monitor busses (stereo and surround mains, submixes, aux sends, mix-minus, tracks, control room, studios and headphone feeds) and you'll see that it adds up to a lot.

### Extreme flexibility

With over 10,000 audio input sources simultaneously available on the network, you'll never have to repurpose your inputs again. This kind of unrestricted access means your throughput is greatly streamlined AND your flexibility options are SIGNIFICANTLY increased.

### No blockouts

Of course having a ton of simultaneous inputs for a single production is not an every day occurrence, but since you have completely unrestricted integrated router flexibility, having all faders available to dial up whatever mix you need means the days of having to block out channels based on input type are a thing of the past.



The SR-8 provides eight XLR inputs and four XLR outputs in a stage-box configuration. It interfaces to the Gibraltar Network via CAT-6 cables and comes with dual internal power supplies for redundancy.



## Gibraltar IP Mix Engine with WheatNet-IP

Add the modern, intelligent WheatNet-IP audio network to your Dimension Three

The Gibraltar IP Mix Engine provides Wheatstone's line of audio consoles with direct connectivity into WheatNet-IP, an AES67 compatible IP audio network with all the necessary broadcast audio tools and controls integrated into one robust, distributed network. Among the benefits of WheatNet-IP networked audio consoles are:

- With all I/O managed through the IP network, the IP console has no limitations with fixed connection points on the console chassis itself. Any channel can connect to any audio source, using any preferred audio format at any time, whether it's HD/SDI, AES, MADI, AoIP, Analog or TDM.
- No soundcards needed. Listen to any crosspoint in the network and move audio around the studio, without a single soundcard.
- Share VTRs, mics and mixing consoles across one common IP platform, whether for live broadcast or post-production.
- Based on native IP, for directly transferring multiple stereo channels from the audio workstation to the console with no A/D/A conversion required.
- Direct connectivity to automation. Talks IP to all of the commonly used production automation systems. No serial data conversions needed.
- 24/7/365 reliability. Each amazing I/O BLADE in the WheatNet-IP network 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!
- Changes are a lot easier. Reuse studios for multiple purposes. Instantly change mic feeds, IFB connections and processing settings, either on the fly or using presets.
- Finally, a way to control audio. Logic controls follow audio on the same cable. Pick up a mic feed and the processing settings for that mic in Studio A same as in Studio B.
- AES67 compatible.
- All sources in the network are accessible, and every destination visible from the console.

### Gibraltar IP Mix Engine features:

- IP network interface and mix engine for Wheatstone's IP networked consoles
- Up to 1024 DSP processing signal paths (any combination of 5.1, stereo, and mono channels)
- Talks native IP to standard production automation systems. No serial data conversions required.
- Can apply processing functions to 768 input paths and 256 mix output paths simultaneously
- Flexible mixing architecture allows over 500 mix busses
- 4 band fully parametric EQ with HF/LF peaking or shelving
- 3 parametric filters
- Parametric compression, limiting, and gating
- 16 control channels for keying/ducking/sidechain applications
- Panning and surround imaging control
- Individual input and output delay capability; up to 660mS per path
- AES67 compatible
- A distributed network of intelligent I/O devices to gather and process audio throughout your facility
- Control, via both hardware GPI and software logic ports, that can be extended throughout the plant as well
- Rapid route changes via both salvos and presets to instantly change audio, mic control, and tallies between sets
- A suite of software apps and third party devices that all communicate via the common gigabit IP interface
- True plug-and-play scalability – devices are easily added to the IP network
- Triggered crosspoints to create routable IFB throughout the facility

### GIBRALTAR IP MIX ENGINE

#### Why WheatNet-IP Audio Networking?

WheatNet-IP is more than just an IP network that routes audio within a TV facility. It is a full system that combines a complete audio tool kit, an integrated control layer, and a distributed intelligent network that takes full advantage of IP audio.

By combining these three components seamlessly into one system, we can deliver the following:



# extending your IP audio network

there's a world of Wheatstone BLADE-3s 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.

## Audio Processing BLADE-3s

Placing a processor everywhere you'd like one has been costly and impractical. Until now. One 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.

## 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.

Our HD-SDI BLADE de-embeds multiple audio channels from HD-SDI streams so you can mix, process or simply route audio to your console for final broadcast. It is capable of de-embedding up to four HD-SDI streams, and up to 8 AES/EBU pairs (16 audio channels) per stream.

## Wheatstone Television Audio Console(s)



### Distributed BLADE Network:

- Analog I/O BLADE
- Mic Level Input BLADE
- Combo Analog Digital BLADE
- WNIP Software Driver BLADE
- AES I/O BLADE
- HDI/SDI De-embedder BLADE
- Aura-8IP-3 Audio Processing BLADE
- MADI BLADE



## failsafe redundancy

it's all about staying on the air - every second of every day - without fail

Wheatstone's experience in designing audio consoles for all broadcast realms as well as pioneering networking comes together in the Dimension Three. More power to handle modern needs with a user interface that is pure joy to get your hands on. And with Wheatstone's built-in safeguards, you can rest assured that you'll always be on the air...with or without fail.

### failsafes: keeping you live

#### redundant sources



With Preset 1 and Preset 2 source selectors provided on each fader, if the primary feed goes silent, an operator need simply press the second source to recover audio. Because the system supports such a vast number of inputs, there's room to provide these redundancies without the need for patching or external switching.

#### redundant components



If a DSP chip fails in a traditional console, it tends to take the entire card with it, leaving the board dead. Thus, having a backup DSP chip on the same card is not really a solution. With Wheatstone, a hot-spare DSP card can be utilized with automatic failover in the event of a problem with the primary engine. Because any source can be assigned to any fader, even catastrophic damage to a fader module on the console (as from a drink spill or falling object) only means that the damaged faders are out of action. The sources can be rerouted to other faders, and the show goes on.

#### redundant power



Gibraltar Network cage utilizes internal modular power supplies and can accommodate up to two units for redundancy.



On the Gibraltar Network and Gibraltar IP Mix Engine cages, power supplies are internal and can be single or dual modules.

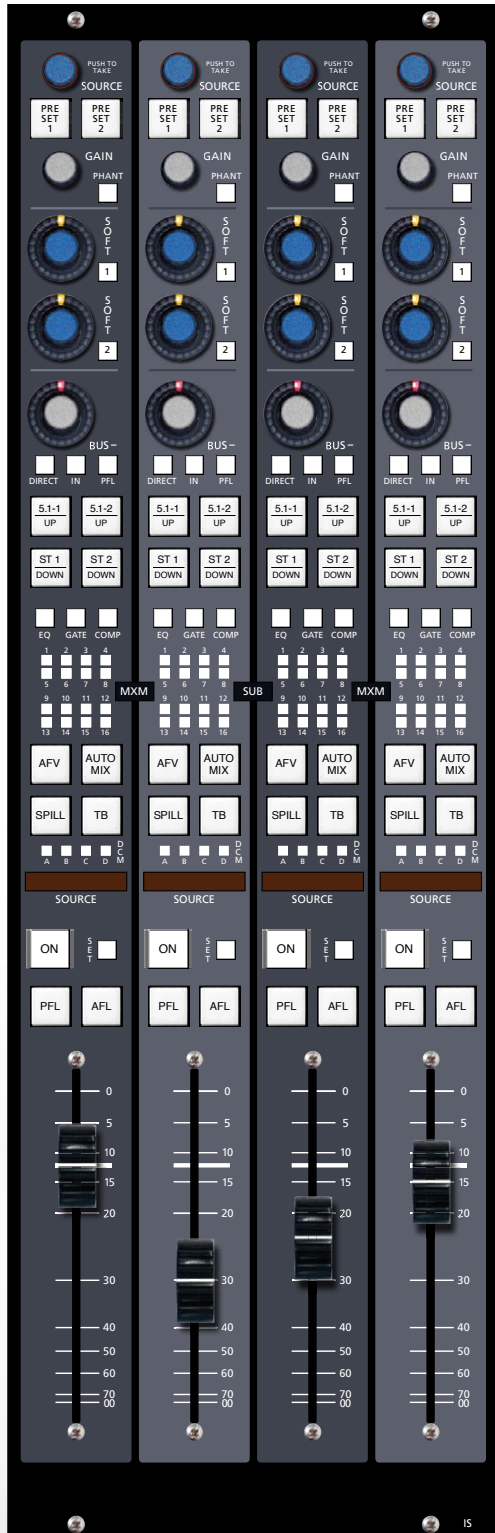
The back provides access to the cards' connections.



# the details

everything you need to mix - right there at your fingertips

## Input Module



**SOURCE:** Rotate the knob to select a source, press the knob to take that source. Preset 1 & 2 sources allow a redundant source to be preset for immediate backup use.

**GAIN:** Allows gain of an incoming source to be trimmed. **PHANT** switches phantom power (mic inputs only).

**SOFT:** Programmable knobs and switches which can be assigned to a variety of functions.

**BUS- (BUS MINUS):** Allows the channel strip's signal to be subtracted from a bus, creating an automatic mix-minus output.

**5.1 UP/ST DOWN:** Assign the fader strip's signal to the console's output busses: 5.1 Surround 1 & 2 and Stereo Masters 1 & 2.

**EQ, GATE, COMP:** Activates a parametric equalizer, a noise gate, and a compressor/limiter on the channel strip. Controls are in the master section (or can be assigned to **SOFT** controls).

**MXM/SUB:** 16 indicators showing which mix-minus or submix busses the channel strip currently feeds.

**AFV:** Engages Audio-Follow-Video, allowing the channel strip to be switched with video sources.

**AUTOMIX:** Press to enable this fader into automatic mic mixing. Overpress to make this fader the priority source.

**SPILL:** For 5.1 sources, spills the source channels onto adjacent faders for individual control.

**TB:** Press to momentarily send the console's Talkback interrupt signal to the channel's bus-minus output. Releasing the button removes the Talkback interrupt signal from the mix.

**DCM:** Visual confirmation of DCMs to which this fader has been assigned.

**SOURCE DISPLAY:** Displays the name of the selected source on this channel strip.

**ON:** Switches the channel strip's audio path on and off.

**SET:** Selects this channel strip to be modified by controls in the master section.

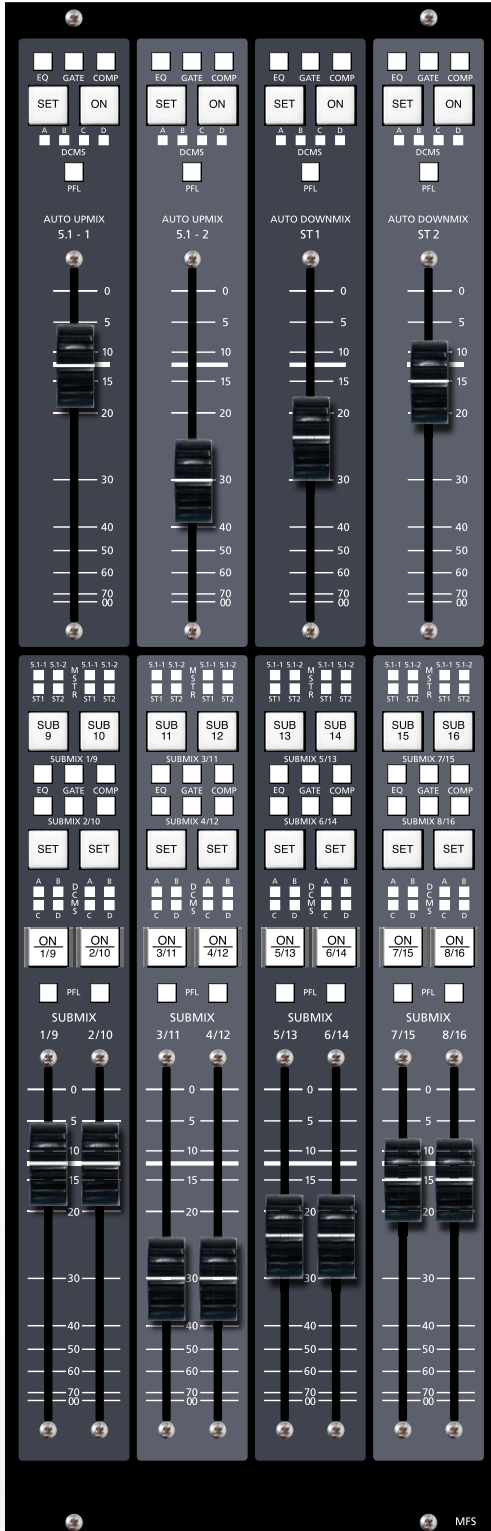
**PFL:** Pre-Fader Listen. Allows the channel's audio signals to be previewed pre-fader.

**AFL:** After-Fader Listen. Allows the channel's audio signals to be previewed post-fader.

**FADER:** Penny + Giles motorized long-throw fader.



## Master Module



**EQ, GATE, COMP:** Allow a parametric EQ, a noise gate, and a compressor/limiter to be inserted into the mix bus signal path.

**SET:** Selects this mix bus for modification or adjustment by controls in the master section.

**ON:** Switches the mix bus signal path on and off.

**DCMS:** LED indicators provide visual confirmation of which DCMs (Digital Control Masters) this output bus master fader has been assigned to.

**PFL:** Pre-Fader Listen selects the output mix for listening on the PFL bus.

**5.1 SURROUND and STEREO MASTER FADERS:** Motorized Penny + Giles long-throw faders. These control the master output bus levels. If a stereo or mono signal is assigned to a 5.1 bus, it is upmixed to multiple surround channels. If a 5.1 signal is assigned to a stereo master, it is downmixed to 2 channels - left and right.

**MASTERS:** LEDs provide visual confirmation of which output busses the submix master has been assigned to.

**SUBMIX PAGE:** Switches individual faders from one page to the other (e.g. from SUBMIX 1 to SUBMIX 9).

**EQ/GATE/COMP:** Allows a parametric equalizer, a noise gate, and a compressor/limiter to be inserted into the submix signal path.

**SET:** Selects a submix for modification using controls in the master section.

**DCMS:** LEDs provide visual confirmation of which DCMs the submix has been assigned to.

**ON:** Switches the submix master signal path on or off.

**PFL:** Pre-Fader Listen selects the submix for listening on the PFL bus.

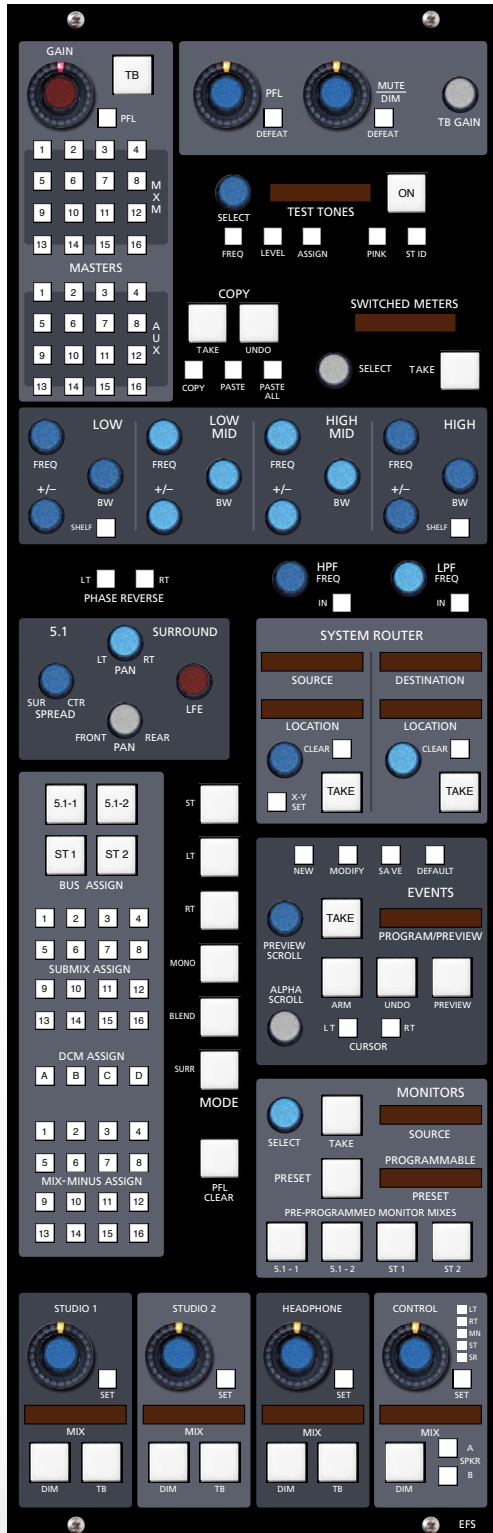
**SUBMIX FADERS:** Control overall volume of submixes. (Motorized Penny + Giles long-throw faders.)



# the details

everything you need to mix - right there at your fingertips

## Monitor Module



### (TOP LEFT)

**MASTER LEVELS:** One mix-minus or aux bus can be selected using the MASTERS buttons. With a bus selected:

- TB** - Engages talkback to that bus.
- GAIN** - Adjusts the master level of that bus.
- PFL** - Selects that bus for listening on the Pre-Fader Listen bus.

**EQ controls:** Four fully parametric EQ bands with frequency, bandwidth, and boost/cut controls. The upper and lower bands can be switched to be shelving equalizers. The EQ controls operate on the signal that has its SET button pressed.

**PHASE REVERSE:** These buttons invert the left or right channel phase of the selected source.

**HPF:** Frequency selector and on/off button for a 24dB/octave Butterworth high-pass filter; tunable from 16.1 Hz to 500 Hz.

**LPF:** Frequency selector and on/off button for a 24dB/octave Butterworth low-pass filter; tunable from 1 KHz to 20.2 KHz.

**SURROUND:** Adjusts the surround panning of the selected source.

- PAN (L/R)** - Moves the signal from left to right in the surround image.
- SPREAD** - Adjusts the width of the signal within the surround image.
- LFE** - Adjusts the amount of signal sent to the LFE (subwoofer) channel of the 5.1 image.
- PAN(F/R)** - Moves the signal from front to rear in the surround image.

**BUS ASSIGN:** Assigns the selected channel strip to any of the console's four mix busses (two stereo, two 5.1 surround).

**SUBMIX ASSIGN:** Assigns the selected channel strip to any of 16 true audio submixes.

**DCM ASSIGN:** Assigns the selected channel strip to any of four Digital Control Masters.

**MIX-MINUS ASSIGN:** Assigns the selected channel strip to any of 16 mix-minus busses.

**MODE BUTTONS:** Sets one of the following modes for the selected channel strip or monitor bus:

- ST** - Selects stereo mode.
- LT** - Selects left-channel only mode.
- RT** - Selects right-channel only mode.
- MONO** - Selects mono mode.
- BLEND** - Selects BLEND mode.
- SURR** - Selects 5.1 Surround mode.

**PFL CLEAR:** Turns off any PFL buttons which might be activated anywhere on the control surface.

**MONITOR MIX SOURCE SELECTION:** Permits source selection for the monitor mix whose SET button is pressed.

**PRE-PROGRAMMED MONITOR MIXES:** These four buttons select pre-configured monitor setups for each of the four main mix busses.

### STUDIO 1, STUDIO 2, HEADPHONE:

Level controls and DIM/Talkback buttons for two studio and one headphone outputs. The mix being monitored is displayed in the MIX window for reference.

**CONTROL:** Level control and DIM button for the control room monitors. Includes LEDs to indicate the current monitoring mode, as well as a selector for two independent monitor speaker outputs.

### (TOP RIGHT)

**PFL:** Adjusts the level of the PFL bus output.

**MUTE/DIM:** Adjusts the level reduction that results when a monitor section DIM button is pressed.

**DEFEAT buttons:** The PFL and control room monitor outputs normally mute when a local microphone is selected to prevent feedback. These buttons override that automatic behavior.

**TB GAIN:** Adjusts the level of the talkback source.

### TEST TONES:

- SELECT** - Rotary control used to select frequency or level of the test tone.
- ON** - Enables the tone generator.
- FREQ** - Display or adjust the tone frequency.
- LEVEL** - Display or adjust the tone level.
- ASSIGN** - Sends the tone generator signal to a destination with its SET button pressed.
- PINK** - Causes the tone generator to output pink noise rather than the selected tone.
- ST ID** - Selects a STEREO ID tone.

**COPY:** Settings can be easily copied from one fader strip to another, or to many others, using these controls.

**SWITCHED METERS:** Shows the name of the source being read by the switched meters on the meter bridge.

**SELECT** - This rotary control allows selection of a new source for the switched meters.

**TAKE** - Takes the selected source.

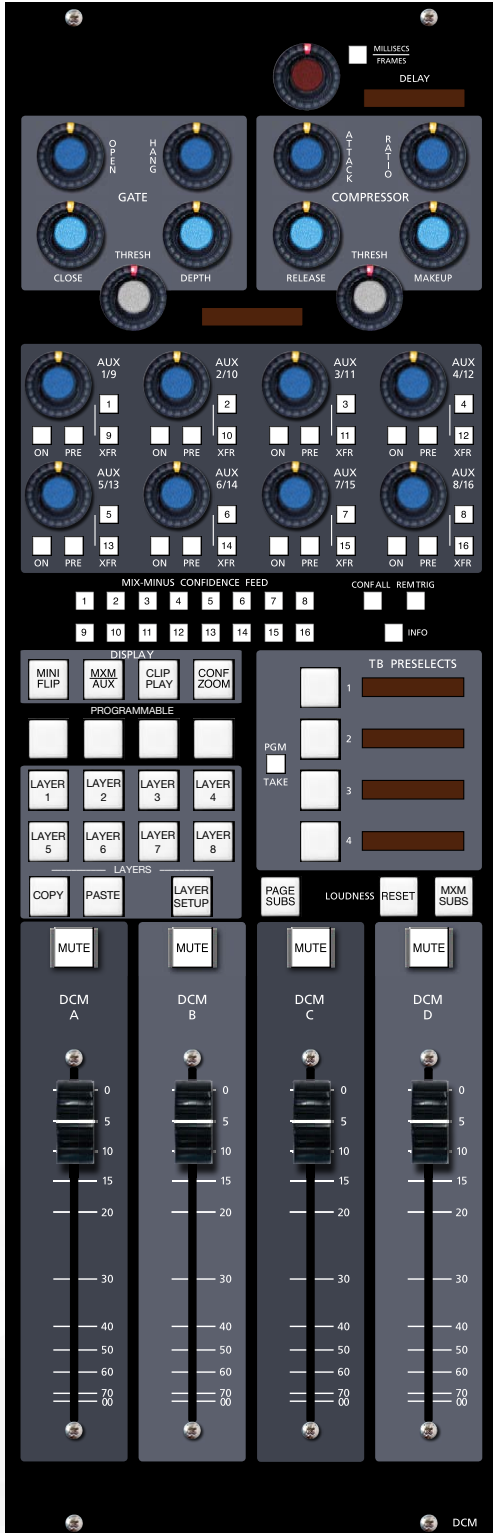
**SYSTEM ROUTER:** Allows sources to be assigned to input channels, and destinations for output mixes to be selected.

- SOURCE/DESTINATION** - Displays the name of the source or destination selected.
- LOCATION** - Displays the physical locations of the source and destination.
- CLEAR** - Allows clearing a currently routed source, or deleting a destination from the list of locations a source is feeding.
- X-Y Set** - Changes the controller to function as a conventional X-Y controller for sources and destinations that are not associated with the control surface.

**EVENTS SECTION:** Allows storage and retrieval of snapshots of the entire control surface with all settings, sources, and selections. Up to 99 different events can be stored with descriptive names, and recalled instantly.



## Dynamics Module



**DELAY:** Allows a delay of up to 20 frames or 667.5 milliseconds to be applied to the selected audio path to compensate for video processing delays (preserving lip-sync).

**GATE:** These five rotary controls adjust the parameters of a gate, if activated for the selected audio path. The operator can adjust open, close, and hang times, the depth of the gate's attenuation, and the threshold of the gate. A shared display shows the numeric value of the last-adjusted parameter.

**COMPRESSOR:** These five rotary controls adjust the parameters of a compressor/limiter, if activated for the selected audio path. Threshold, attack and release times, compression ratio, and makeup gain can be adjusted by the operator. A shared display shows the numeric value of the last-adjusted parameter.

**AUX 1-16:** A level control, ON/OFF push-button, and prefader/postfader switch is provided for each pair of the 16 AUX sends.

**MIX-MINUS CONFIDENCE FEED:** These 16 buttons turn the confidence feed (a selectable source, usually the station's off-air feed) on and off for the corresponding mix-minus. When the button is not lit, the mix-minus output receives the normal mix-minus bus.

**CONF ALL:** Switches Confidence feed audio to all 16 MXM outputs.

**REM TRIG:** When lit, enables remote control of the CONF ALL switch from a tally relay on the Master Control switcher. Turn OFF to bypass remote control. This is generally used to send the confidence feed to the mix-minuses only when the station is in a commercial.

**INFO:** Switches a shared LCD display on the console's meterbridge to display technical information about the surface; Surface ID, network settings, software revision, etc.

### DISPLAY:

**MINI FLIP** - toggles the lower portion of input channel meterbridge displays to show EQ and compressor/limiter curves instead of default submix and aux/mxm assignments.

**MXM/AUX** - toggles the shared LCD meterbridge display to show metering for the 16 stereo Aux send outputs or the 16 Mix-Minus outputs.

**CLIP PLAY** - toggles to Clip Player screen

**CONF ZOOM** - zooms the confidence feed portion of the meterbridge shared display to double size.

**TB PRESELECTS:** Allows four destinations to be preselected for talkback; the destination names appear in the displays beside the buttons. When the TB buttons are pressed, talkback is engaged to the corresponding destination.

**PROGRAMMABLE:** These 12 buttons can be programmed for user functions not otherwise accommodated on the control surface.

**LAYERS (1-8):** Selects which LAYER is the active layer.

**LAYER SETUP:** Puts the selected layer into programming mode, allowing DSP assignments to individual channel faders.

**COPY and PASTE:** Copies the setup of one layer to another. The target layer can then be further modified to the desired state.

**PAGE SUBS:** Flips all submix channels from their current settings to alternate pages.

**LOUDNESS RESET:** The meterbridge LOUDNESS meter displays a continuously averaging loudness level. Pressing the RESET button immediately overrides the current reading, causing it to begin averaging again.

**DCM FADERS and MUTE BUTTONS:** Control the level and mute of all channels assigned to the corresponding DCM. These Digital Control Masters allow a group of sources to be collectively adjusted or muted without actually combining their audio onto a submix bus.



# the bigger picture



## Input Channel Strips

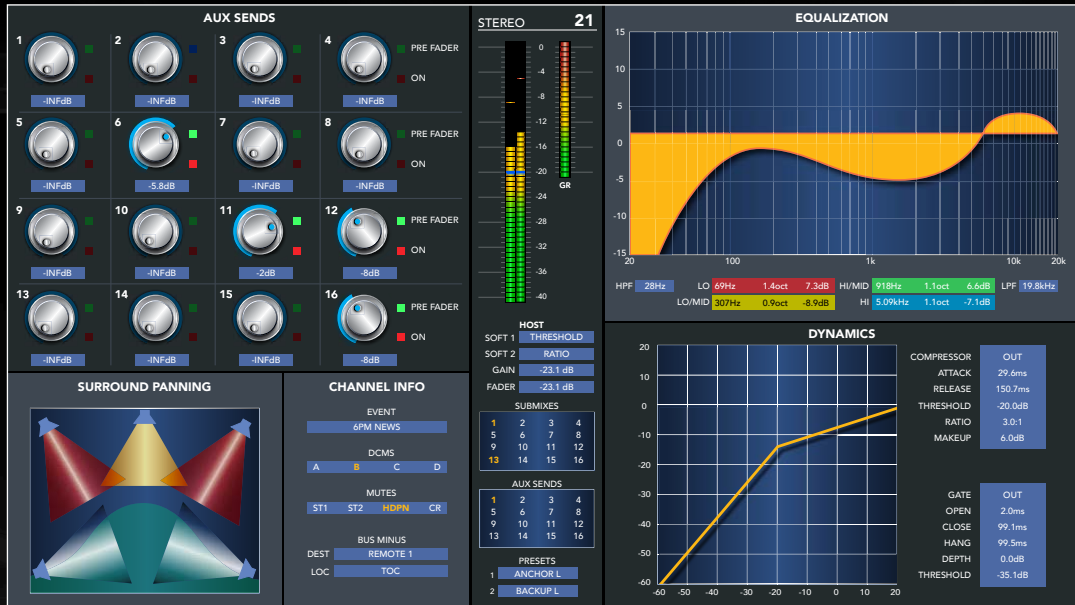
A dedicated LCD monitor for every eight input faders displays source & gain reduction metering, EQ and Automix status, Submix assignments, Master status, and programmable controller values. The MINI FLIP button replaces submix and aux assignment information with EQ and dynamics curves for each channel. Pressing the SET button on an input channel opens up detail view screens for any fader on the console.



## Optional Touchscreen

Many functions are accessible from Dimension Three's optional touchscreen. It uses the same gestures you are familiar with from using pads and smartphones. Simply select the functions you need from the bottom row of buttons.





**Detail View Screen**

This single detailed screen brings together information pertinent to a particular channel. In this example, AUX sends, surround panning, processing, channel control, channel info and all assigns for that channel are displayed and editable. The large high resolution Dimension Three displays with dynamic screen assignment ensure that channel details are easily viewed from any operator position.

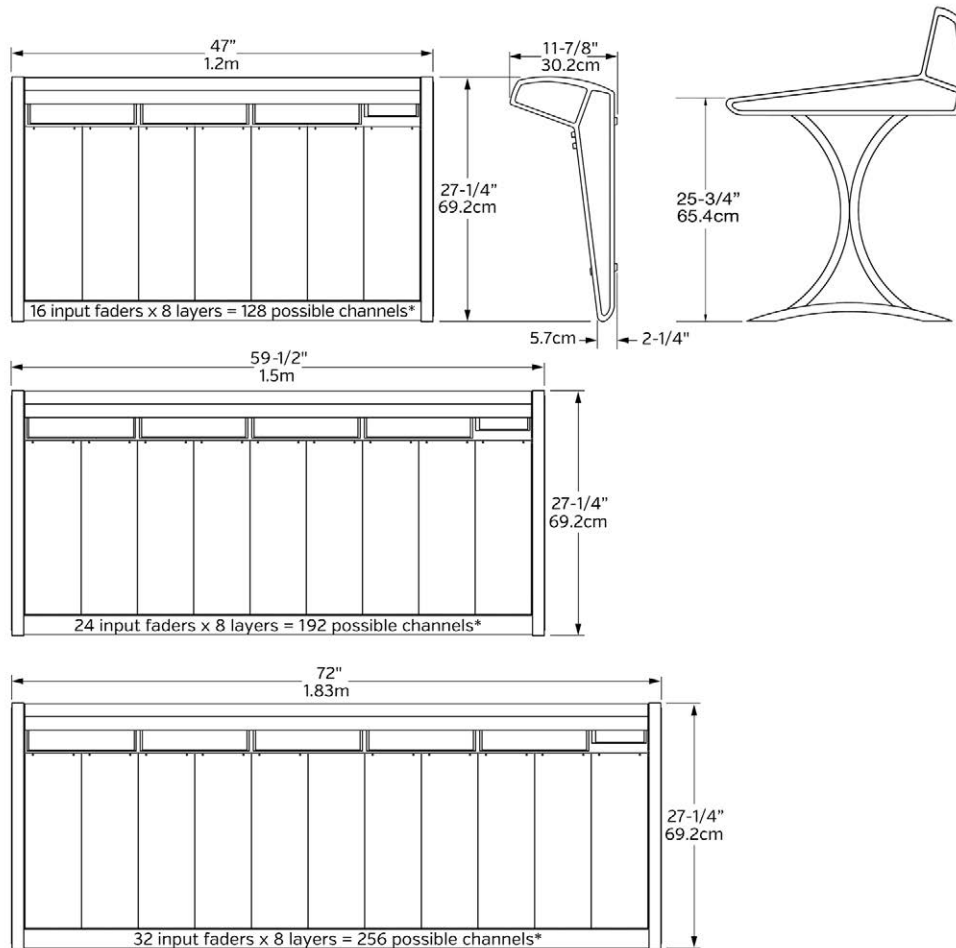


**Summary Screens**

At-a-glance mixing...Everything you need to determine the status of your Surround levels and panning, stereo levels and panning, Submix levels, Aux Send or Mix Minus levels and Confidence Feed status, all in one quad display. A CONF ZOOM button expands the size of the confidence feed section to take up a full half-screen.

## the nitty gritty

specifications and other important stuff you should know about



### CONTROL SURFACE FRAME CAPACITIES:

Frame 1 — up to 16 physical input faders\*  
 Frame 2 — up to 24 physical input faders\*  
 Frame 3 — up to 32 physical input faders\*  
 (standard frames; larger sizes available)

### INPUT PANELS:

IS - Input Channel Panel (4 Faders per panel; each fader can be mono, stereo or 5.1 surround)

### MASTER CONTROL PANELS:

MFS - Submix/Master Output Control Panel  
 EFS - Monitor (CR, Hdpn, Studio 1 & 2), EQ, Aux Send/Mix-Minus Control, Event Store/Recall, Test Tones, Surround Pan, Router, Mode, Bus Assign  
 DCM - Compressor/Limiter/Gate, Talkback Assign, Channel Delay, Confidence Feed, Aux Send Masters, Global Page, Display, DCM Masters

### METERBRIDGE:

Multiple 6.5x11.5" high resolution LED backlit TFT LCD flat panel displays

### CONNECTIONS:

DSP Engine Link - Fiber (SFP module) or Copper UTP (RJ-45) - dual connectors for redundant operation  
 Administrative Port - 100M Ethernet - Copper UTP (RJ-45); for setup only  
 Power - Dual HiPower DB-5 connectors for redundant operation

### BUS STRUCTURE:

Main Busses  
 Two 5.1 Program busses with auto downmix  
 Two Stereo Program busses with auto upmix  
 Ancillary Bussing  
 16 Sub-Mix Groups  
 16 Auxiliary Sends  
 16 Mix-Minus  
 Mix-Minus  
 Up to 128 Bus-Minus mixes  
 Monitoring  
 Four monitor feeds (CR/Hdpn/Studio 1&2) each with independent muting and tally control  
 Communications  
 Dedicated and programmable Talkback to Aux Sends, Mix-Minus, Bus-Minus and Monitor Mixes

### INPUTS:

Any mic, analog line, AES-3, HD/SD SDI, or MADI input may be routed to any input fader or monitor pot

### OUTPUTS:

Any output mix may be routed to any combination of analog, digital AES-3, or MADI outputs

### EVENT RECALL:

All surface settings may be stored/recalled for up to 99 named events

### TOUCHSCREEN OPTION AVAILABLE

### \* ABOUT LAYERS AND INPUTS

*The Dimension Three is equipped with eight layers. Each layer represents a complete setup of your entire surface. You have the ability to select each of those eight setups simply by pushing the associated button. All your inputs, mix-minuses, aux-sends, EQ, processing - the works - time eight. Switching to another layer gets you to another complete setup. Any source, anywhere on the network, can be dialed up on any or many of those channels at any time. And wherever that source is used, it will utilize the settings on that channel. This makes the Dimension Three a powerhouse console.*



## the inside story

it's incredibly easy to access all the parts you don't see



Servicing, upgrading or accessing internal components in a traditional console is a task even the most seasoned veterans don't look forward to. First, the console usually has to be taken off-line, meaning downtime for your programming. Just getting to the internal components is a job in itself. Due to rear access and very cramped quarters, it's a great deal like servicing an appliance. Everything needs to be unhooked, the console needs to be pulled out and the person servicing it needs to be a contortionist.

Thanks to its modular architecture, servicing Dimension Three is a snap. First, since all of the audio and logic components live in a rack enclosure, all you need to do is open the front panel and replace or add cards. You don't even need to shut anything down - everything is redundant and hot-swappable.

The Dimension Three control surface is just as impressive. Should you need to replace a channel strip module, remove four screws and unplug the ribbon cable. Drop a new module in and all your sources and presets are right where they were before the swap. The entire module has exactly the same functions you assigned to it.

There's really no other mid-market board that brings together the incredible list of features and the exceptional serviceability of the Dimension Three.



Designed and built by  
Wheatstone Corporation  
600 Industrial Drive | New Bern NC 28562-5440 USA  
phone 1.252.638-7000 | fax 1.252.635-4857  
wheatstone.com | sales@wheatstone.com

 **Wheatstone**  
BROADCAST AUDIO PERFECTIONISTS<sup>SM</sup>