



Intuitive, Elegant Engineering

Designing Audio Mixing Consoles Since 1968





The Cadac name has been synonymous with premium quality audio mixing consoles for over 45 years.

From the earliest recording studio desks in the late 1960s, which recorded classic tracks from major international artists, through to the live sound consoles found in prestigious theatres and on global concert tours, Cadac has always set the benchmark for quality. In fact there are few brands that can match Cadac's unparalleled pedigree in the world of professional audio.





History

In 1967 Clive Green started working with Adrian Kerridge at London's Lansdowne Studios, working on replacing all the valve parts for an old EMI desk with solid state technology and modifying the desk for 8 track recording.

In 1968 Terry Brown, a sound engineer at Lansdowne and Olympic Studios, was asked by Barry Morgan and Monty Bason to set up the new Morgan Studios. Morgan Studios wanted to buy the designs for the new desk that Clive and Adrian had built for Lansdowne. Clive suggested that it would be a better idea if he built the desk for Terry. Clive together with Adrian, David Bott, an engineer from "TVT", and Charles Billet of Audix, who made the frames for the desks, formed a separate company - Cadac. The name was derived from the first letter of each of their Christian names; Clive, Adrian, David And Charles - hence Cadac. This was also the beginning of a long relationship between Cadac and Morgan Studios. The new desk was an 8 track split console design with transformer balanced inputs and outputs but no automation.

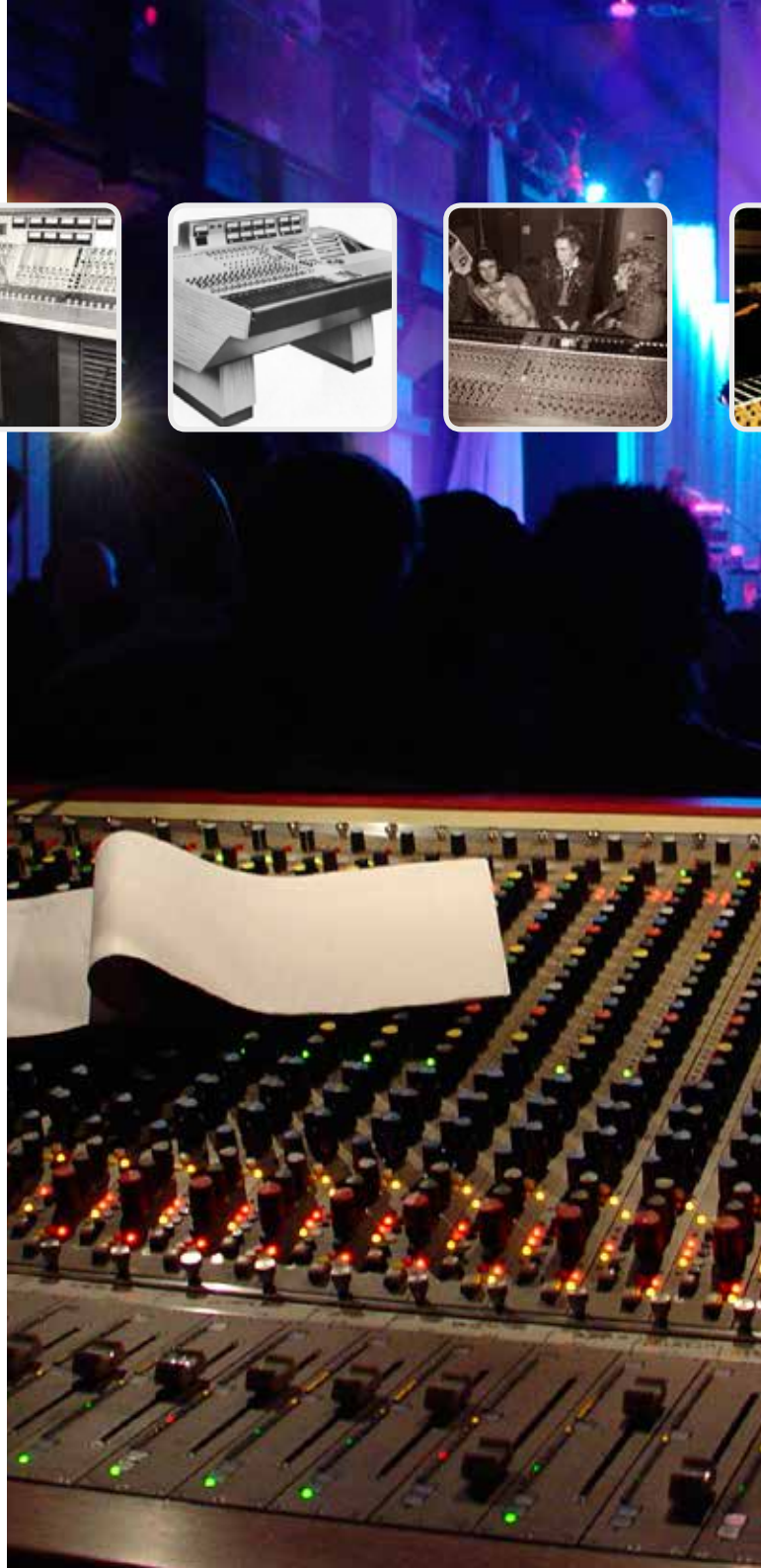
Even today many Cadac recording desks are still in operation in studios all over the world with the last ever studio desk being installed, and still working, at Air Edel Studios in London.

In 1984 a sound engineer, Martin Levan, from Morgan Studios was asked to put on a live show, Little Shop of Horrors and this resulted in the first Cadac desk built for live theatre. The spec for the console dictated that it should be of "studio quality audio" and that the front-to-back dimension could not be deeper than a row of seats. This allowed for one row to be taken out by the console and another by the engineer.

This was the start of Cadac dominating the theatre market with nearly 70% of theatre shows using Cadac desks. Performances included: Billy Elliot, We Will Rock You, Hairspray, Jersey Boys, Lion King, and Wicked and on Broadway: 13, Avenue Q, Chicago, Guys and Dolls, Gypsy, Hairspray, Jersey Boys, Lion King, Mary Poppins, Pal Joey, South Pacific and Wicked. The longest continually serving Cadac console in London was on Phantom of the Opera where it was used from 1984 until 2008, providing 24 years continuous service!

Not all Cadac consoles were found in recording studios and theatres, they were also the console of choice for concert touring for many internationally acclaimed performers including; Rolling Stones, Van Halen, Franz Ferdinand, Pavarotti, Andrea Bocelli, Status Quo, The Beach Boys, Tom Jones and Bryan Adams.

Today, Cadac have a range of both analogue and innovative digital consoles aimed at the live sound market and the company is continually investing heavily in research and engineering to develop the next generation of digital consoles. Currently Cadac's flagship digital console the CDC eight has been deployed in a variety of applications ranging from theatre shows and major stadium tours to Houses of Worship and broadcast. Cadac are now redefining customer expectations of digital mixing by designing consoles with previously unachievably low latency, audio quality, and ease-of-use.





Cadac's analogue mic-amps have been universally acclaimed as the premium mic-amp in the industry. The design brief for a digital console was simple and consistent with the brand's ethos for over 45 years – **audio first.**





Cadac Audio Quality

Cadac's digital consoles bear the hallmark of their analogue origins which can be traced back beyond the now legendary J-Type, which itself is still in production after nearly 25 years, to those classic consoles of the golden age of recording studios. The audio performance still retains its traditional wide dynamic range and low noise floor through a combination of unique analogue emulating algorithms and the latest 24-bit / 96 kHz Delta Sigma AD/DA convertors.

Another key to the Cadac sound is the attention paid to latency management – a major factor in digital audio performance and over looked by a majority of other digital consoles.

All digital consoles take time to process audio. Combining signals with different paths and processing, most digital consoles when summing the multiple signals will be partly out of phase. Cadac digital consoles have an extensive automatic latency management system which manages all internal routing and associated processing latency, which means that all audio samples are synchronised before summing, resulting in absolute phase coherency at all outputs.

Both the CDC eight and the new CDC six on Cadac's MegaCOMMS network have a latency of under 0.4 milliseconds, from analogue inputs on stage, through the console, to analogue outputs on stage. This makes them perfect for in-ear monitoring. All inputs and all outputs are time aligned to sample accuracy - no matter the routing or where they are located in the network.



Feature Summary

- > Over 45 years of Cadac audio knowledge
- > Comprehensive and automatic latency management system
- > Comprehensive automatic time alignment, with sub 0.4 millisecond latency from analogue inputs on stage to analogue outputs on stage with the CDC eight and the CDC six
- > 24-bit / 96 kHz Delta Sigma AD/DA convertors

cdc eight

CDC eight is Cadac's flagship digital live sound console designed specifically for the highly demanding worlds of concert touring and fixed installation. To help meet these exacting demands Cadac has taken a highly innovative approach to the user interface and has designed a far less menu dependent console compared to traditional digital consoles, resulting in a fast, logical workflow. Gone are the multiple strips of restrictive fixed physical controls found on conventional analogue and a majority of digital consoles and have been replaced by an intuitive "high agility" user interface accessed via 24 inch touch screens. The result is the CDC eight, which really is exceptionally smart, nimble and intelligent in operation without the compromises dictated by more hardware-centric designs.





Overview

Visually the most striking feature of the CDC eight are the 24 inch 16:10 high definition LCD touch screens surrounded by digital encoders. The screens display the clean exceptionally intuitive graphical user interface and this unique combination naturally leads to an instinctive use of touch and swipe with traditional encoders giving additional control of the features on the console. The motorised 100mm faders follow the swipe of the screen or scrolling of the channels, ensuring full control at all time of any combination of inputs, outputs or VCAs displayed on the screen. First time users will have a minimal learning curve as they soon find themselves navigating the features by using gestures similar to those for navigating a tablet or smart phone - all without the need for intensive formal training.

The additional centrally-located 6 inch LCD touch screen provides quick access to the advanced system controls and automation functions.

The CDC eight is available in two surface configurations; the dual screen 32 fader console and a smaller single screen 16 fader version, both are identical in capacity and capability but allow a choice of console footprint to fit the space dictated by the application. For those requiring additional faders or greater flexibility due to physical constrictions or simply need a remote mix location, a single screen 16 fader CDC eight-16S side car is also available. All versions are housed in a beautifully engineered, road ready chassis, complete with milled aluminium side cheeks and Cadac's traditional "warm to the touch" wooden arm rest.

The combination of an exceptional user interface, legendary Cadac mic-pre's, state-of-the art DSP and FPGA processing technology, with incredibly low latency and multiple surface options, makes the CDC eight a unique proposition for those who do not want to be faced with either audio or creative compromises.



Hardware Summary

- > Intuitive, clear graphical user interface
- > Proprietary DSP mix platform
- > 32/40 bit floating point SHARC processors
- > 24" high definition anti-glare touch screens
- > 6" LCD touch screen for system control
- > 100mm accurate, quiet motorised faders
- > 8 x local I/O card slots
- > Two frame sizes: dual screen, 32 faders or single screen, 16 faders
- > One extender: Single screen with 16 faders
- > External 2U PSUs - redundant option

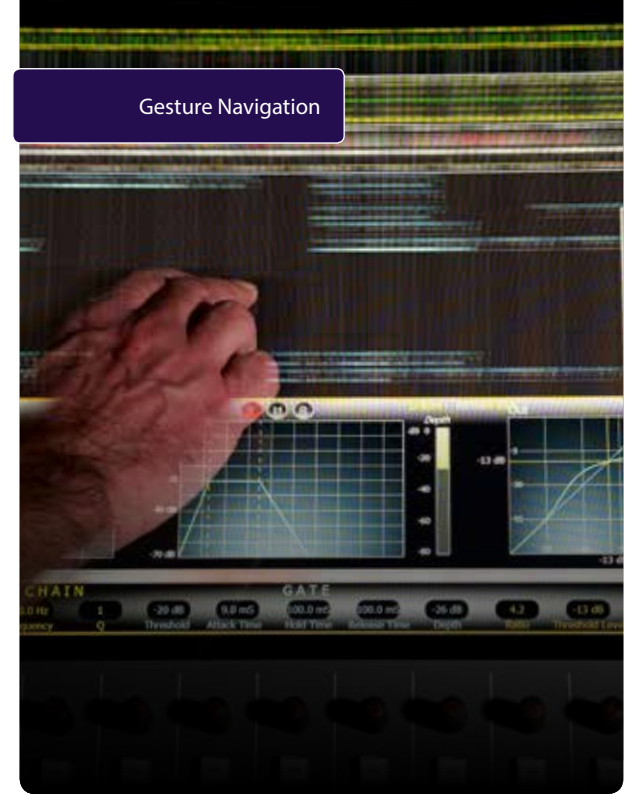
Feature Summary

- > Classic Cadac mic-pres
- > Sub 0.4 millisecond latency from analogue inputs on stage to analogue outputs on stage
- > 128 input channels
- > 64 output busses
- > 56 assignable busses - Group, Stereo Group, Aux, Stereo Aux or Matrix
- > Unique Monitor Mode
- > 4 band fully parametric EQ
- > Extensive dynamics
- > 16 VCA groups including 'VCA unfold' navigation
- > 8 assignable buttons
- > 16 stereo on-board effects
- > 31 band graphic equaliser on all outputs as well as 4 band fully parametric EQ
- > Compressor/limiter on all outputs
- > Input and output delays
- > Snapshot automation system
- > User definable languages for console labelling

cdc eight



Gesture Navigation



The physical feature that dominates the CDC eight console are the 24 inch 16:10 high definition LCD touch screens which provides the engineer with an exceptionally clean and intuitive graphical user interface (GUI). The channel selection is just a simple case of swiping the screen to move the 128 channels seamlessly either left or right. Once the desired channel is reached a touch of the screen brings up the clear, logical GUI of the required function. No layers or clunky block scrolling which reduces the learning curve for the console to a minimum and allows fast setup.

The CDC eight also has a Move Channels function. Input channels can be inserted in any position or replace existing channels, either singularly or in groups, by simply selecting and then dragging and dropping to the desired location in the Channel Settings page.

- > Swipe to scroll through all 128 channels
- > Intuitive touch operation, minimal learning curve
- > Intuitive features such as the "drag and drop" Move Channels function
- > Clean and logical graphical user interface
- > Fast console setup




Monitor Mode

A unique Cadac feature found on the CDC eight is the Monitor Mode. This has been developed to tackle the specific requirements of the monitor engineer which is often an after-thought on many of today's digital consoles.

When monitor mode is enabled, it gives the engineer the ability to access any of the 56 assignable busses and their respective contribution channels in 'sends on fader' mode with a single touch of the screen, making shows with a large number of monitor mixes fast and easy.

Add to this the 'mix focus' feature, which when enabled means that when any mix is 'flipped' into sends on faders mode, the console will only present the user with the channels that are contributing to the selected mix, negating the need to navigate through all of the inputs.

It is also possible to select an input channel and 'flip' the outputs onto the faders, allowing a single channel to be sent to multiple destinations simultaneously via the faders.



All this, combined with the incredibly low latency, makes the CDC eight a formidable weapon of choice for the discerning monitor engineer!

- > Designed especially for monitor applications
- > Fader flip in both directions
- > Access to all 56 busses simultaneously
- > Mix focus for speedy navigation within fader flip
- > Incredibly low latency – ideal for in-ear monitoring



Mic Pre

For decades Cadac's analogue mic-amps have been considered by many to be the premium mic-amp in the live sound industry. Cadac's digital consoles proudly bear the hallmark of their analogue origins which can be traced back beyond the now legendary J-Type to those classic Cadac consoles from the golden age of recording studios.

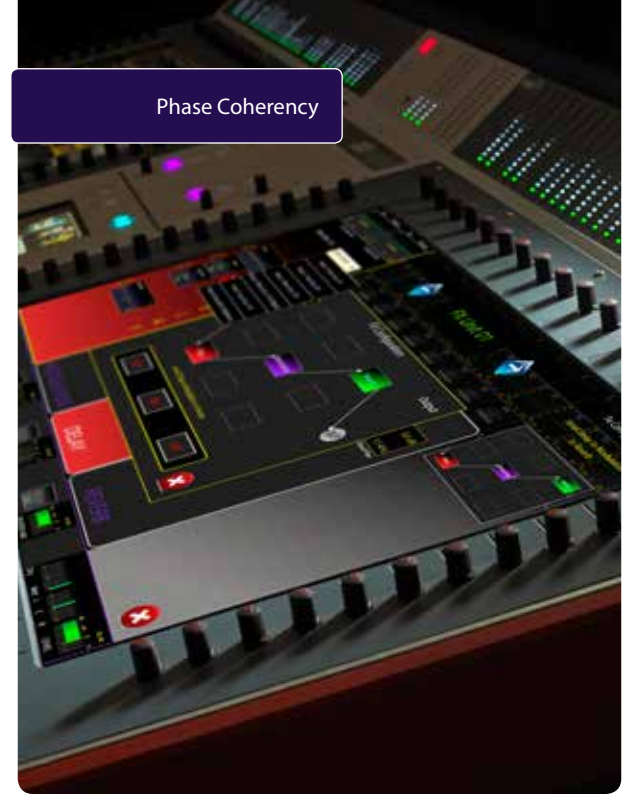
The CDC eight's audio performance still retains the traditional wide dynamic range and low noise floor which has been achieved through a combination of unique analogue emulating algorithms and the latest 24-bit / 96 kHz Delta Sigma AD/DA convertors. The result is the classic Cadac sound - clean, transparent, and musical.

- > 45 years of Cadac engineering heritage
- > Wide dynamic range
- > Low noise floor
- > 24-bit / 96 kHz Delta Sigma AD/DA convertors

cdc eight



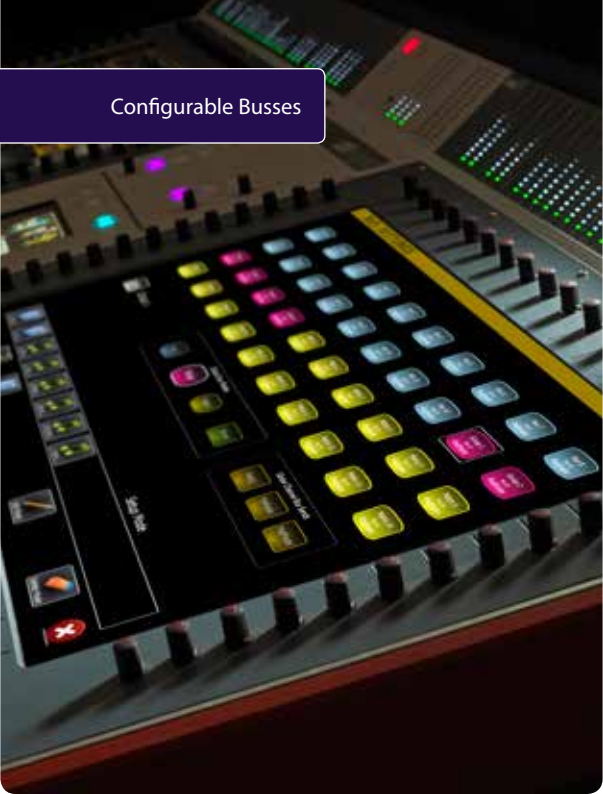
Phase Coherency



A major contributor as to why Cadac digital consoles sound so clean and transparent is the attention paid to latency management – a major factor in digital audio performance and over looked by a majority of other digital consoles. It has to be remembered that all digital audio takes time to process, and that differences in latency of less than 0.1ms will have a hugely detrimental effect on audio quality.

When combining signals with different paths and processing, most digital consoles will be summing multiple signals which will be partly out of phase. Cadac digital consoles have an extensive automatic latency management system which manages all internal routing and associated processing latency, resulting in all audio samples being synchronised before summing and providing absolute phase coherency at all outputs.

- > Automatic latency management
- > Absolute phase coherency
- > Sample-accurate summing
- > Sub 0.4 millisecond latency from analogue inputs on stage, through the CDC eight, to analogue outputs on stage



Configurable Busses

The CDC eight has a total of 56 configurable busses, plus LCR, Monitors and talkback. All the configurable busses can be assigned as any combination of auxiliaries, groups, stereo auxes, stereo groups or matrix outputs depending upon the application with a simple touch of the screen.

The bus sends can be individually set as Pre EQ, Pre Fader or Post Fader, and pre-or-post VCA. To help workflow the busses can be renamed from the pre-set library or with user defined names by using the soft keyboard and then added to a user library.

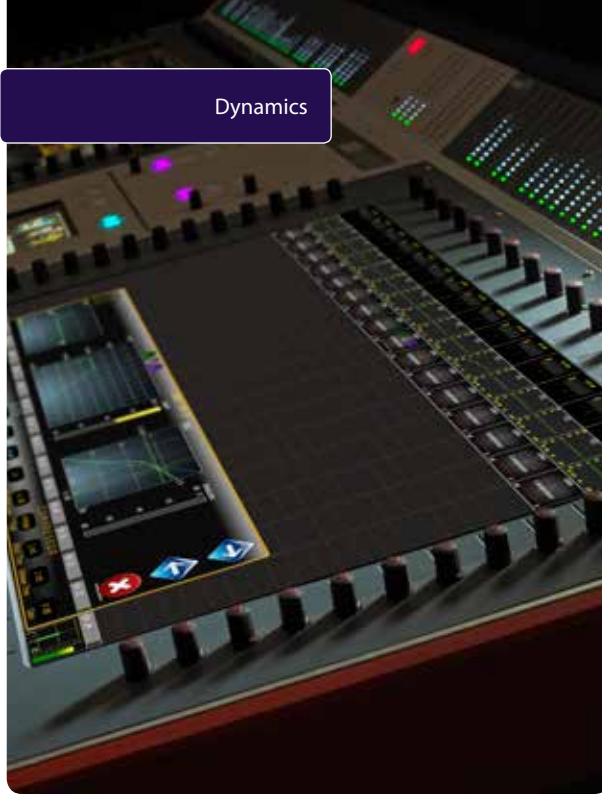
- > 56 configurable output busses
- > Assignable as Groups, Stereo Groups, Auxes, Stereo Auxes or Matrixes
- > User definable naming



EQ

The EQ section features 6 bands, comprising a four band fully parametric section and variable low and high pass filters. All six bands can be independently switched in and out or the whole EQ can be bypassed with a master EQ bypass. The LF and HF bands of the EQ feature a Bell/Shelf option, and the EQ can be configured to either emulate the response and behaviour of the classic J-Type analogue filters, or to provide 4-band fully parametric operation on a per - channel basis.

- > 4 band fully parametric EQ
- > J-Type analogue filter option
- > Low and high pass filters



Dynamics

The dynamics processing on the CDC eight have been designed to provide a broad scope of possibilities to maximise the creative potential. The input dynamics consists of a gate and dual-mode compressor with side chain filtering, with classic or vintage modes of operation. Output dynamics processing features compression and limiting.

Control is achieved by simple touch access which will populate the screen with only relevant, concise control and visual information. The need to fiddle with sub menus or small, confusing graphics found on other digital consoles has been removed by the use of large touch friendly icons, thereby increasing the overall speed of operation and improving the workflow.

- > Dual-mode compressor, gate and side chain filtering
- > Clear graphical interface
- > Simple workflow
- > All phase coherent and time aligned



cdc eight



Effects

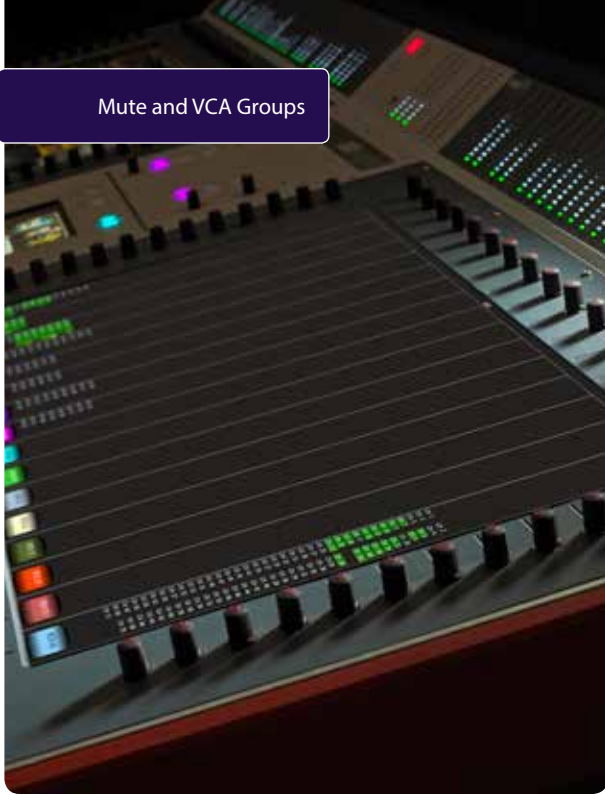
The CDC eight has 16 stereo on-board effects units including various types of reverb, delay and modulation effects. These have been specially designed by our own software engineers to provide a pallet of superlative room, hall and plate reverb simulations, comprehensive tap-delay effects and rich, luscious modulation programs.

CDC eight features 16 stereo effect "slots", each with reverb, modulation and delay elements, all of which can be used simultaneously and freely configured by the user. The 3 elements within each effect slot can be arranged in either series or parallel, and in any order, using a simple and intuitive 'drag and drop' method. Effects can be patched as inserts on any channel, or in-line on an aux send/return basis.

A Waves interface card is fitted as standard which provides connectivity to the Waves MultiRack server, allowing any Waves plug-ins to be used together with the console's own DSP effect options. The Waves GUI is displayed on the CDC eight's touchscreen for viewing and editing.

- > Range of on-board effects
- > On-board effects can be daisy chained
- > Latency management
- > All phase coherent and time aligned
- > Waves Integration for additional processing options

Mute and VCA Groups



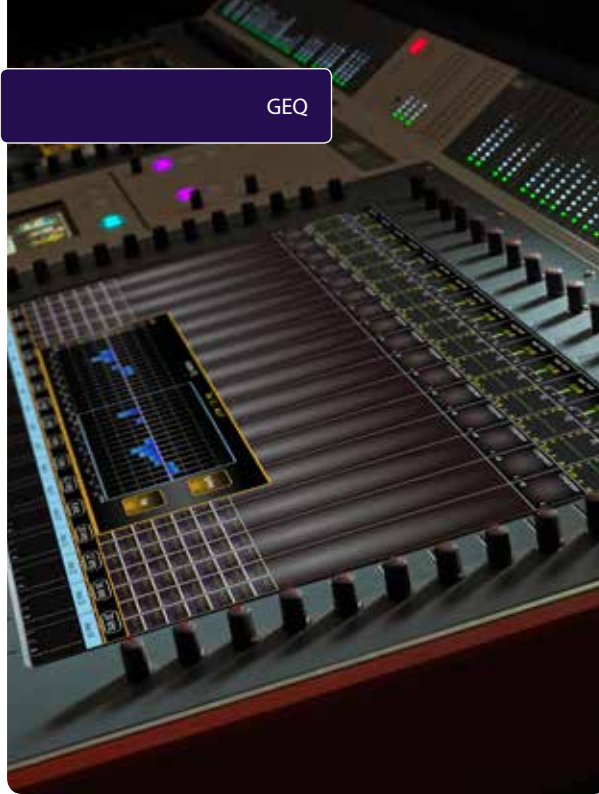
The CDC eight has many reassuringly familiar features. These include 8 assignable buttons and 16 VCA Groups. Any input can be assigned to any VCA or MUTE group, or to multiple groups, with a simple touch of the screen. Both the input and the groups can be named using the labels from the console's library or by using the on screen keyboard.

The CDC eight also features enhanced VCA navigation with VCA unfolding. This allows the contributions of the chosen VCA to be deployed on to the input faders as well as giving instant access to all the inputs control parameters of the inputs for that VCA. Whilst a VCA is 'unfolded' onto the faders, the other VCA names persist meaning the user can jump from one VCA group directly into another VCA group, without the need for 'backing out' into the VCA master page first.

The structure of the VCA groups all 16 can be viewed at a glance on an overview screen showing all the inputs that contribute to each VCA along with their post-fade input meters.

- > Up to 8 MUTE groups with simple configuration
- > 16 VCA groups with simple configuration
- > VCA unfolding for quick access to VCA contributions
- > VCA overview screen with input contribution meters

GEQ



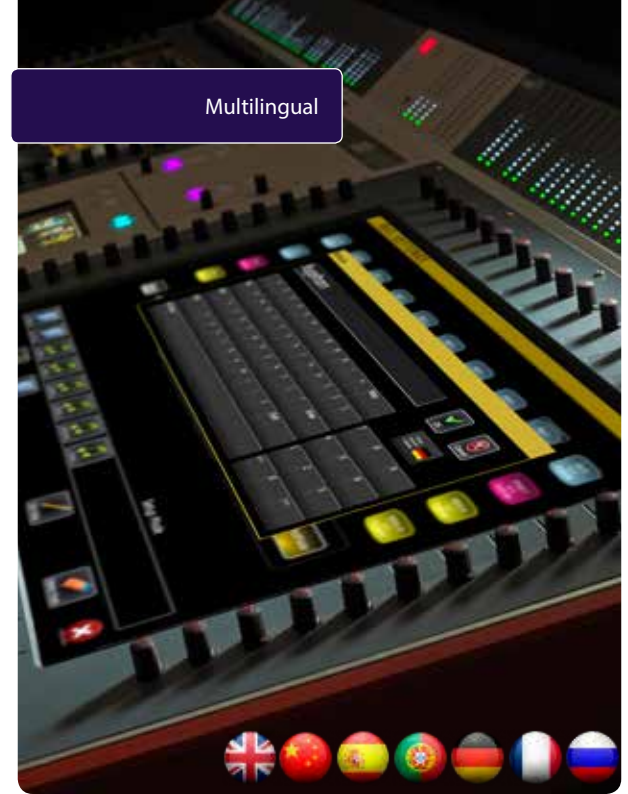
All of the CDC eight's output busses feature 4-band fully parametric EQ, plus variable HPF and LPF plus a 1/3 octave GEQ.

All parametric and Graphic EQ's can be used simultaneously, without any concern about available processing power or tonality compromise. GEQ parameters can be easily viewed on the 24" touch screen in the form of a virtual GEQ, and adjustments made quickly using the console's 100mm faders.

Additional features include GEQ in/out, an "instant flat" switch and a bypass function for individual GEQ filters.

- > 1/3 octave GEQ on all output busses
- > On screen GEQ graphical user interface
- > Control via 100mm faders

Multilingual



The CDC eight helps make life a little easier by being multilingual. The console has a library of languages for user definable console labelling. By simply selecting the preferred language, inputs, busses and VCAs etc. can be labelled in the users preferred language, making the console a much friendlier place to work and improving workflow.

- > Library of languages for user definable labelling including English, French, German, Portuguese, Russian, Spanish and Chinese - with more to be added
- > Ability to have user definable labelling in one language and control labelling in another



cdc eight

Automation

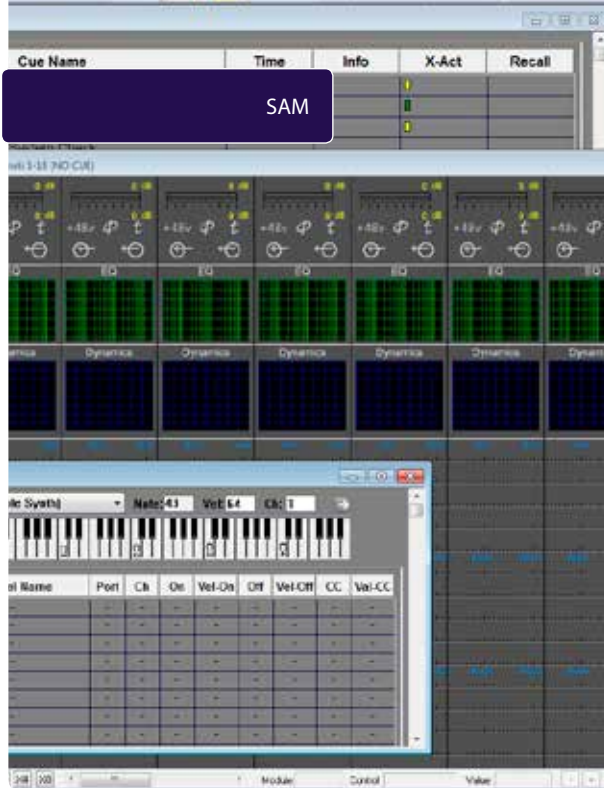


CDC eight features, as you would expect from Cadac, a comprehensive cue-based automation system which is capable of storing hundreds of Cues within each Show file and there can be a number of Show files in a single Project. For automation heavy applications required for complex theatrical based productions there is the option of SAM – Sound Automation Manager – which runs on an external PC.

Using the console automation each Cue contains every setting and parameter value for every input and output channel in the console. Due to the dynamic nature of live events, the sound engineer will need the ability to intervene in the recall process as changes to the programme occur in real time. To facilitate this in the simplest possible way, the CDC eight on-board automation includes three discrete levels of automation isolation or “safe” status.

The CDC eight's Project files can be imported or exported via USB.

- > Cue-based automation system
- > Three levels of automation Safe
- > Extensive MIDI control
- > Input and export show files via USB
- > SAM available for advanced automation applications



SAM

Cadac virtually invented automation for live sound consoles. Most major Broadway and West End Theatre shows were designed around the prodigious capabilities of Cadac's SAM - Sound Automation Manager - software.

SAM's features have been developed in conjunction with the theatre world's leading sound designers over a number of years, so everything you could possibly need to produce a flawlessly repeatable show will already be present in the software. Advanced functionality, such as Ripple-Through, Dynamic Mixing and X-Act, make complex programming quick and logical. The updated SAM with CDC eight based GUI, ensures intuitive operation either offline while configuring a production without the use of a console or online during a show.

SAM includes an intelligent management of Program Change values called Ripple-Through where changing the value in one parameter will ripple down all the rest of that particular parameter until it finds a value different from itself.

SAM can handle dual users allowing, for example, a theatre sound designer to edit and create data for Cues whilst the show rehearsals are going on. SAM can also be simultaneously mirrored on dual PCs for automation redundancy.



SAM has the ability to not only run the CDC eight but also control third party equipment using MIDI and Events. Control data can be sent either to the console's rear panel connections whilst other data is sent to peripheral devices directly from the PC running SAM. SAM can literally run the show.

- > SAM is the result of Cadac's long-standing theatre software expertise, dating back to 1986
- > On-line and off-line operation
- > CDC eight based GUI
- > Integrated support for all Cadac current digital consoles
- > Cross-console compatibility and conversion for analogue Cadac console files
- > Extensive MIDI control facilities, via console or PC hardware
- > Multiple, concurrent MIDI sequences
- > Data copying and editing facilities, speeding up the creation of a show's cues list
- > Dual PC redundancy



I/O

The CDC eight has eight user configurable card slots on the rear of the surface for local I/O which can be a combination of 5 different cards providing up to 64 inputs / outputs. There are two fixed format Cadac stageboxes with MegaCOMMS connectivity providing inputs and outputs remotely from the console. The above image is the CDC I/O 6448 which features 64 superb Cadac mic inputs and 48 analogue outputs. Additional features are dual-redundant MegaCOMMS ports, front panel metering and status indication and dual-redundant power supply option.

Also available is the CDC I/O 3216 which has 32 mic inputs and 16 analogue outputs, and offers greater flexibility of I/O deployment. Two stageboxes can be connected directly to the rear of the console but up to eight units can be added with the CDC MC Router, creating a large MegaCOMMS audio network. The CDC eight automatically detects I/O units, and patching is simply achieved by a touch on the screen. Each input and output on the unit can be "flushed" from the console making identification incredibly easy on the stage.

- > 8 local configurable card slots with a choice of 5 cards
- > Fixed format stageboxes with up to 64 inputs and 48 outputs
- > Network up to 8 stageboxes



16 Segment Dimmable LED Metering

24" 16:10 High Definition LCD Touch Screens

USB File Import/Export

Touch Sensitive Digital Encoders with Push Function

Solo

Channel ON

GEQ

Fader Follow

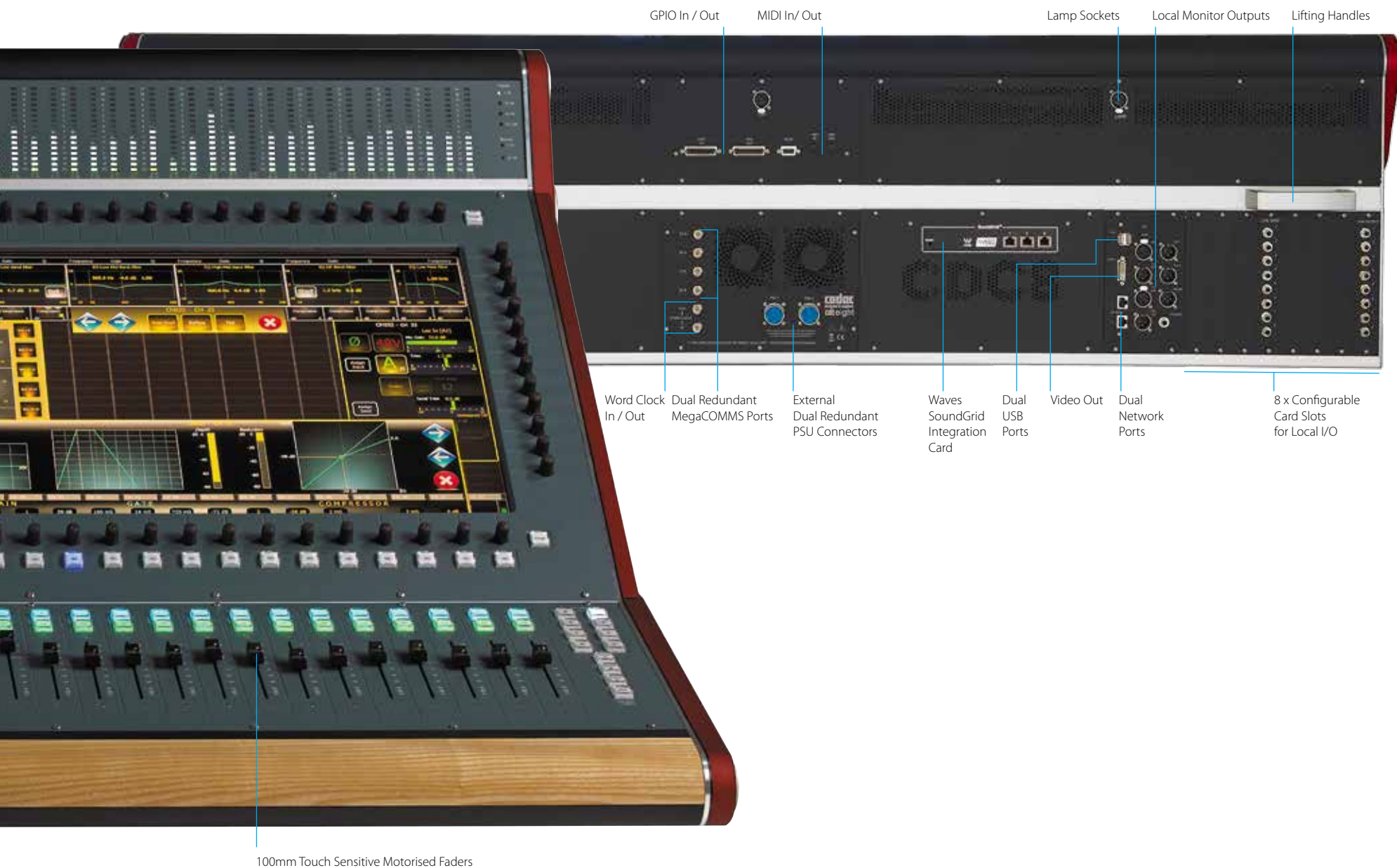
Fader Layer Selection

8 User Assigns

Monitor Faders

6" LCD Touch Screen for System Control and Automation

LCR Output Fader



100mm Touch Sensitive Motorised Faders

cdc six

CDC six is the latest in the digital console line up from Cadac. Based on the highly acclaimed, innovative user interface developed for the CDC eight, the CDC six is far less menu dependent than traditional digital consoles. The traditional fixed physical controls have been replaced by an intuitive "high agility" user interface, accessed via a widescreen 23.5 inch touch screen resulting in a fast, logical workflow without the compromises dictated by hardware-centric designs.





Overview

Visually the most striking feature of the CDC six is the optically bonded 23.5 inch 16:9 high definition LCD touch screen with digital encoders to the bottom and the right of the screen. The screen displays the clean, exceptionally intuitive graphical user interface and this unique combination of touch screen and traditional encoders for additional control of the features on the console, naturally leads to an instinctive use of touch and swipe. The faders follow the swipe of the screen or scrolling of the channels, ensuring full control at all time of any combination of inputs, outputs or VCAs displayed on the screen. First time users will have a minimal learning curve as they soon find themselves navigating the features by using gestures similar to those for navigating a tablet or smart phone - all without the need for intensive formal training.

To aid fast operation, CDC six features stereo metering conveniently located to the left of the 100mm motorised faders plus above each fader an individual full colour OLED display. The hi-res OLEDs depict the channel name, complete with colour coding, to aid the speed of channel navigation. The OLEDs also denote any VCA assignment of the channel.

The additional 6.5 inch LCD touch screen, located to the left of the main screen, provides quick access to the advanced system controls and automation functions.

The combination of an exceptional user interface, legendary Cadac mic-pre's, state-of-the art DSP and FPGA processing technology, with incredibly low latency, makes the CDC six a unique proposition for those who do not want to be faced with either audio or creative compromises.

For more indepth information about the CDC six please refer to the dedicated CDC six brochure.



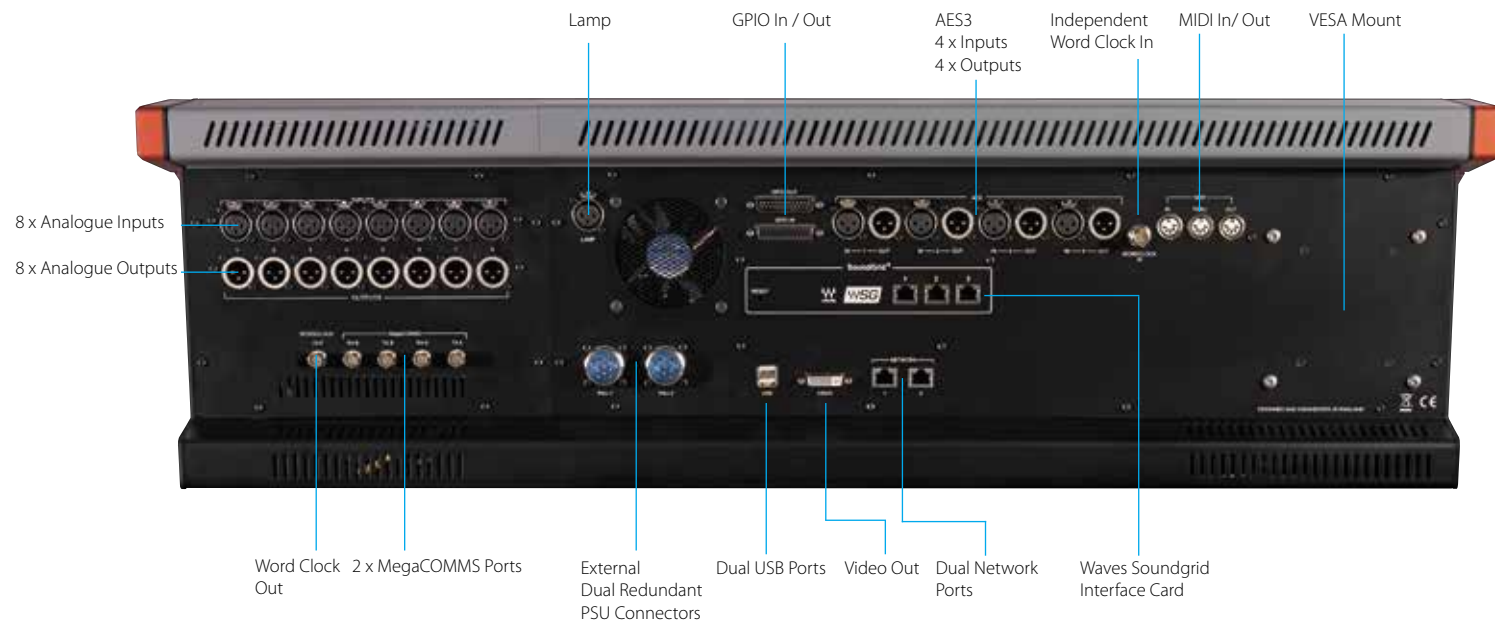
Hardware Summary

- > Intuitive, clear graphical user interface
- > Proprietary DSP mix platform
- > 32/40 bit floating point SHARC processors
- > 23.5" flush mounted 16:9 high definition LCD touch widescreen
- > 6.5" LCD touch screen for system control
- > 24 user definable colour OLED displays
- > 20 segment stereo channel metering
- > 20 touch sensitive 100mm motorised faders
- > 4 AES3 inputs and 4 AES3 outputs
- > 8 fully programmable line inputs and outputs
- > External PSU

Feature Summary

- > Classic Cadac mic-pres
- > Sub 0.4 millisecond latency from analogue inputs on stage, through the CDC six, to analogue outputs on stage
- > 64 input channels
- > 48 assignable busses – as Group, Stereo Group, Aux, Stereo Aux or Matrix plus LCR, Monitors and Talkback
- > Unique Cadac Monitor Mode
- > 4 band fully parametric EQ
- > Extensive dynamics
- > 16 VCA groups including 'VCA unfold' navigation
- > 8 assignable buttons with OLED displays
- > 16 stereo on-board effects
- > 31 band graphic equaliser on all outputs as well as 4 band fully parametric EQ
- > Compressor/limiter on all outputs
- > Input and output delays
- > Snapshot automation system
- > User definable languages for console labelling

cdcSix





MegaCOMMS

Cadac's MegaCOMMS digital network allows the audio infrastructure to be designed to meet the requirements of the most challenging applications. With a choice of local I/O cards, stageboxes and audio network bridges plus a dedicated router to handle the dynamic management of the audio, the network can be as complex or as simple as required.



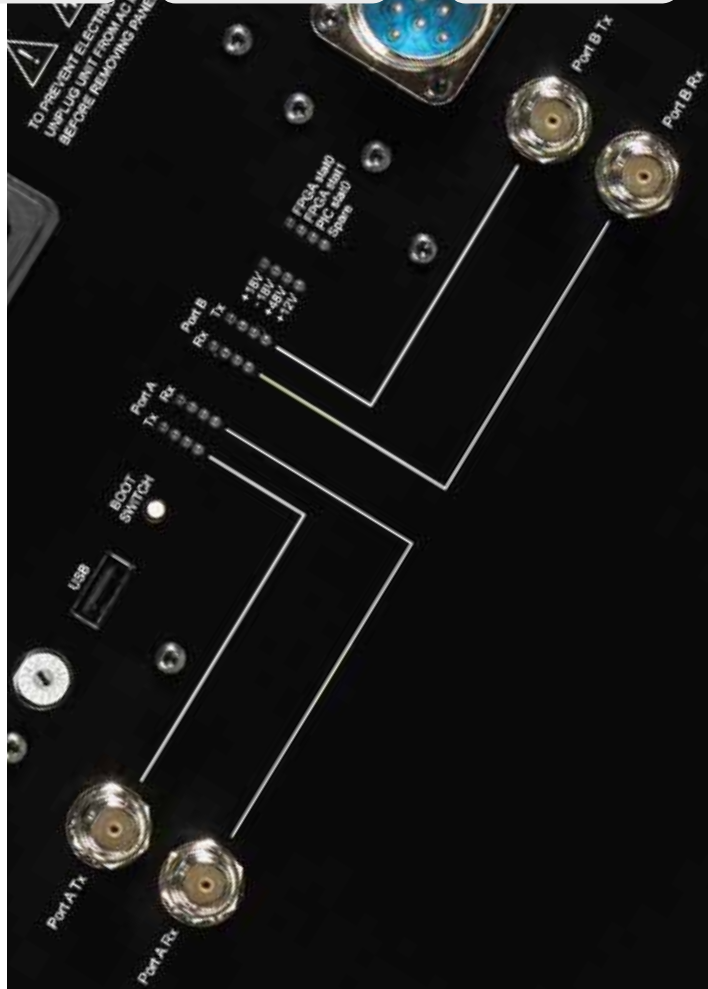
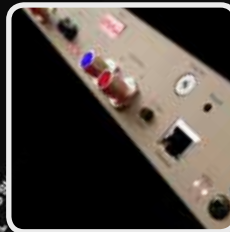
MegaCOMMS Digital Audio Protocol

All Cadac digital audio is transmitted using Cadac's proprietary MegaCOMMS digital interconnect protocol which provides less than 0.4 ms latency from analogue input on stage, through the CDC eight or CDC six, to analogue output on stage, plus robust error correction and advanced system clocking.

The protocol provides up to 128 bi-directional channels of 96 kHz / 24-bit audio along with all control data and clock synchronisation. This is all carried on co-axial cable with runs of up to 150 meters (492 feet) from the console or MC Router. The benefit of combining audio, control, and clock into one single network simplifies connectivity, shortens set-up time and reduces investment in cabling infrastructure.

Cadac have a variety of network products to take advantage of the power and flexibility of the network. This includes a MegaCOMMS router where a single router can currently connect up to 4 MegaCOMMS consoles with up to 8 MegaCOMMS devices.

MegaCOMMS devices can be either I/O stageboxes or audio network bridges and can be freely distributed in multiple locations on the stage, around an auditorium or theatre, Front of House or remotely in a broadcast suite. The MC network bridges allow MADI and Dante protocol based products to be seamlessly integrated in to the MegaCOMMS network allowing third party networks and hardware to make use of those superlative Cadac mic-pres.



Feature Summary

- > Up to 128 bi-directional channels of 96 kHz / 24-bit audio
- > Cable runs of up to 150 meters / 492 feet
- > Sub 0.4 millisecond latency from analogue inputs on stage to analogue outputs on stage with the CDC eight or CDC six
- > Uses robust co-axial cable
- > A range of network products available from consoles to audio network bridges

MegaCOMMS

CDC MC Router

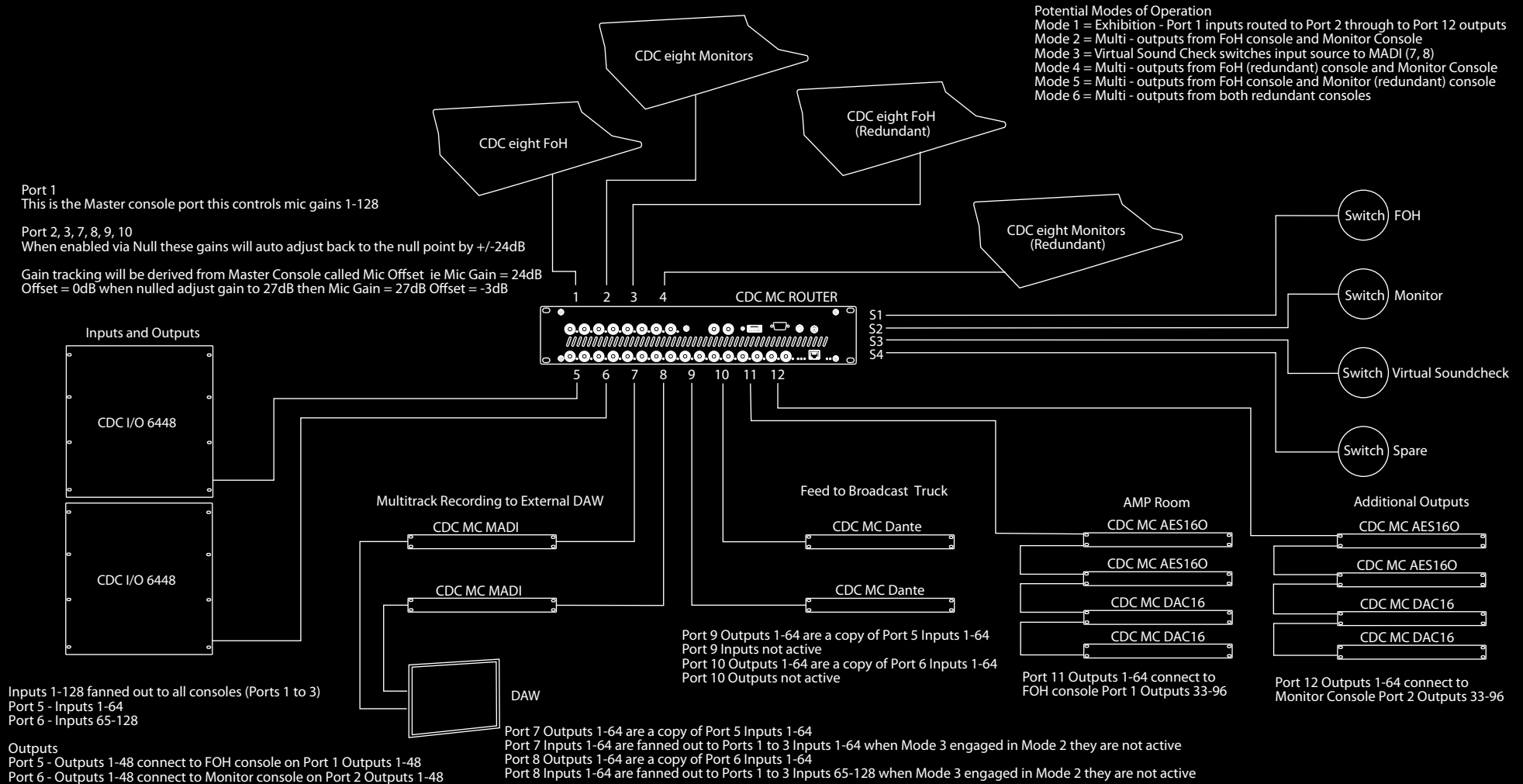


The CDC MC Router provides the routing capability for the MegaCOMMS network. This 2U unit with 12 pairs of MegaCOMMS ports currently allows up to 4 MegaCOMMS consoles, with gain compensation, to link to up to eight MegaCOMMS units within the same audio network. It can also be used to expand the audio network up to a count of 3072 channels.

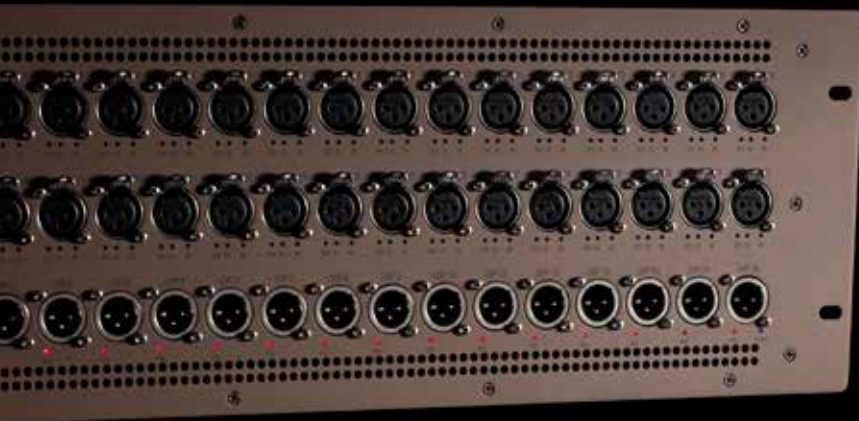
The MegaCOMMS units include stageboxes and audio network bridges. This means that a number of I/O stageboxes can be placed around a venue feeding the FoH and monitor positions – and redundant consoles – plus either Dante or MAD1 network bridges feeding 128 channels to broadcast trucks or a DAW. All this on 150 meter (492 feet) cable runs from the CDC MC Router.

- > 2U MegaCOMMS router
- > 12 pairs of MegaCOMMS ports per Router
- > One audio network of up to 3072 channels
- > Up to 128 bi-directional channels of 96 kHz / 24-bit audio per port
- > Adds less than 0.01 milliseconds to a MegaCOMMS network
- > Connect up to 4 MegaCOMMS compatible consoles, with gain compensation, in one network
- > Connect up to 8 MegaCOMMS compatible units in one network
- > Cable runs of up to 150 meters / 492 feet
- > MegaCOMMS network co-axial ports glow either red or blue for Rx (receive) or Tx (transmit)

MegaCOMMS Audio Network



I/O Expansion



CDC I/O 6448 Stagebox



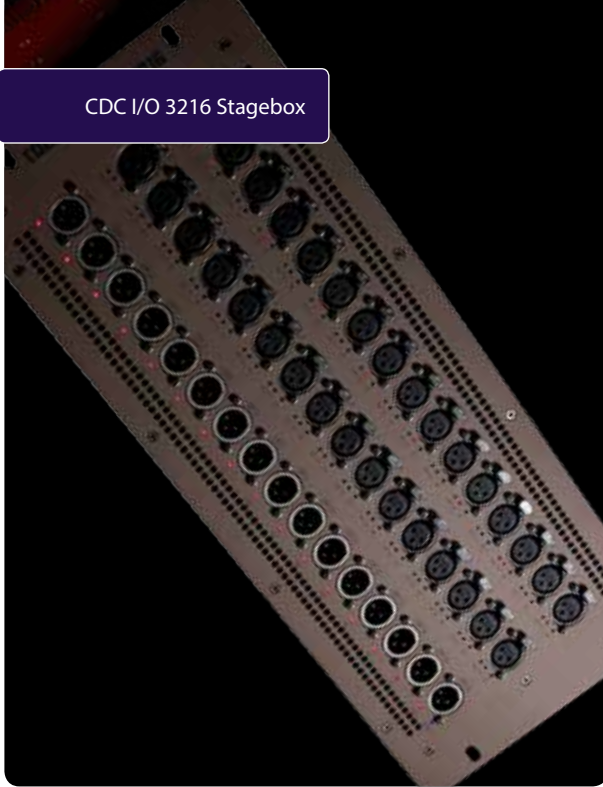
The CDC I/O 6448 is an 11U fixed configuration stagebox featuring 64 highly acclaimed Cadac mic-amps and 48 analogue XLR outputs. The stagebox is connected to the console using Cadac's MegaCOMMS network protocol allowing the I/O unit to be located up to 150 meters from the mixer. The CDC I/O 6448 has dual MegaCOMMS send and receive ports on the rear for redundancy.

The Cadac mic-press can be controlled remotely from the console along with output assignments. To complete the user interface there is signal present, clip and phantom power indication plus mute indication for the outputs. Larger networks can be created by using the MegaCOMMS router which can currently connect up to 4 consoles with up to 8 MegaCOMMS units.

For that extra peace of mind there is also the option for adding an additional power supply to safe guard against PSU failure.

- > 11U fixed configuration
- > 64 Cadac mic / line inputs
- > 48 line outputs
- > Dual MegaCOMMS ports
- > Redundant power supply option

CDC I/O 3216 Stagebox



It is a 4U fixed configuration unit featuring 32 mic / line analogue inputs and 16 XLR analogue outputs. The stagebox is connected to the console by using Cadac's propriety low latency MegaCOMMS audio network protocol. The CDC I/O 3216 can be located up to 150 metres (492 feet) away from the console using just a pair of co-axial cables.

The mic-pres can be controlled remotely from the console and the outputs can also be assigned from the console. To complete the user interface there are signal present, clip and phantom power indication plus mute indication for the outputs.

- > 4U fixed configuration
- > Provides an additional 32 Cadac mic / line inputs on stage
- > Provides 16 line outputs on stage
- > Single MegaCOMMS port

CDC eight Local I/O Cards



The CDC eight-32 and the CDC eight-16 have 8 user configurable card slots on the rear of the surface for local I/O. These can be configured with any combination of the following 5 cards to suite user application providing up to 64 inputs / outputs.

CDC-XLR4-O: Analogue Output card

- > 4 analogue XLR outputs with "no audio" mute and remote "check" LEDs on a single card
- > High-current drive capability for long cable runs
- > 24-bit / 96 kHz Delta-Sigma AD/DA converters maintain audio integrity

CDC-XLR4-I: Analogue mic/line Input card

- > 4 analogue mic/line inputs featuring Cadac remote control mic-preamps on a single card
- > With +48 V and "check" remote indicators
- > 24-bit / 96 kHz Delta-Sigma AD/DA converters maintain audio integrity

CDC-TRS8-I: 8 TRS analogue line Input card

- > 8 line level inputs on a single card
- > All balanced TRS sockets



CDC-TRS8-O: 8 TRS analogue line Output card

- > 8 line level inputs on a single card
- > All balanced TRS sockets
- > "No audio" mute LEDs

CDC-AES4-I/O: Digital AES/EBU Input and Output card

- > 2 x 2 inputs and outputs on a single card in 2 AES/EBU in/out pairs
- > Inputs feature sample rate converters and sync to external clock
- > Outputs feature sample rate converters, selectable word length and choice of clock (internal 96 kHz, 48 kHz or external)

Integration



TabMix 2



The Cadac's console remote manager iPad App - TabMix 2 - provides wireless remote control of the key functions of the CDC eight and CDC six consoles. Once a wireless router is connected to the desk there is no difficult setup procedure as the App automatically detects and selects the active console type.

With the App you can monitor in real time all input and output metering simultaneously as well as remotely EQ the PA whilst having the freedom to walk around the venue with the iPad. TabMix 2's logical graphical user interface coupled with the ability to control the major features of the console makes sound check part of the creative process.

TabMix 2 also enables multiple iPads to be used simultaneously with each one locked to a single mix so artists can create their own monitor mixes without changing any other console settings.

TabMix 2 is free to download from Apple's App Store.

- > Simple setup – auto detect of console type
- > Real time control of the console
- > Intuitive graphical interface
- > Allows multiple iPads on a single network

Waves & Multitrack Recording



Both CDC eight and CDC six feature an integrated Waves interface card which provides connectivity to the Waves MultiRack SoundGrid via Cat5e. The audio is streamed from the integrated interface card on the rear of the CDC eight and CDC six to the SoundGrid server, processed, and then streamed back to the console.

This allows up to 64 channels of Waves studio-grade plug-ins to simultaneously run alongside the CDC eight's and six's own native effects options with the Waves GUI displayed on the console's touchscreen for control.

As well as providing direct connectivity to a Waves SoundGrid server, the interface can connect direct to a standard laptop computer, which, once the Waves SoundGrid Studio application has been installed, will connect to just about any DAW software. This permits the use of your favourite 3rd party plug-ins, multitrack recording, playback and "virtual soundcheck".

The Waves processing is patched in the same way as the existing Cadac I/O racks, and can be used as a send and return for effects processing, or alternatively can be patched and used as inserts, giving great flexibility.

Virtual Soundcheck

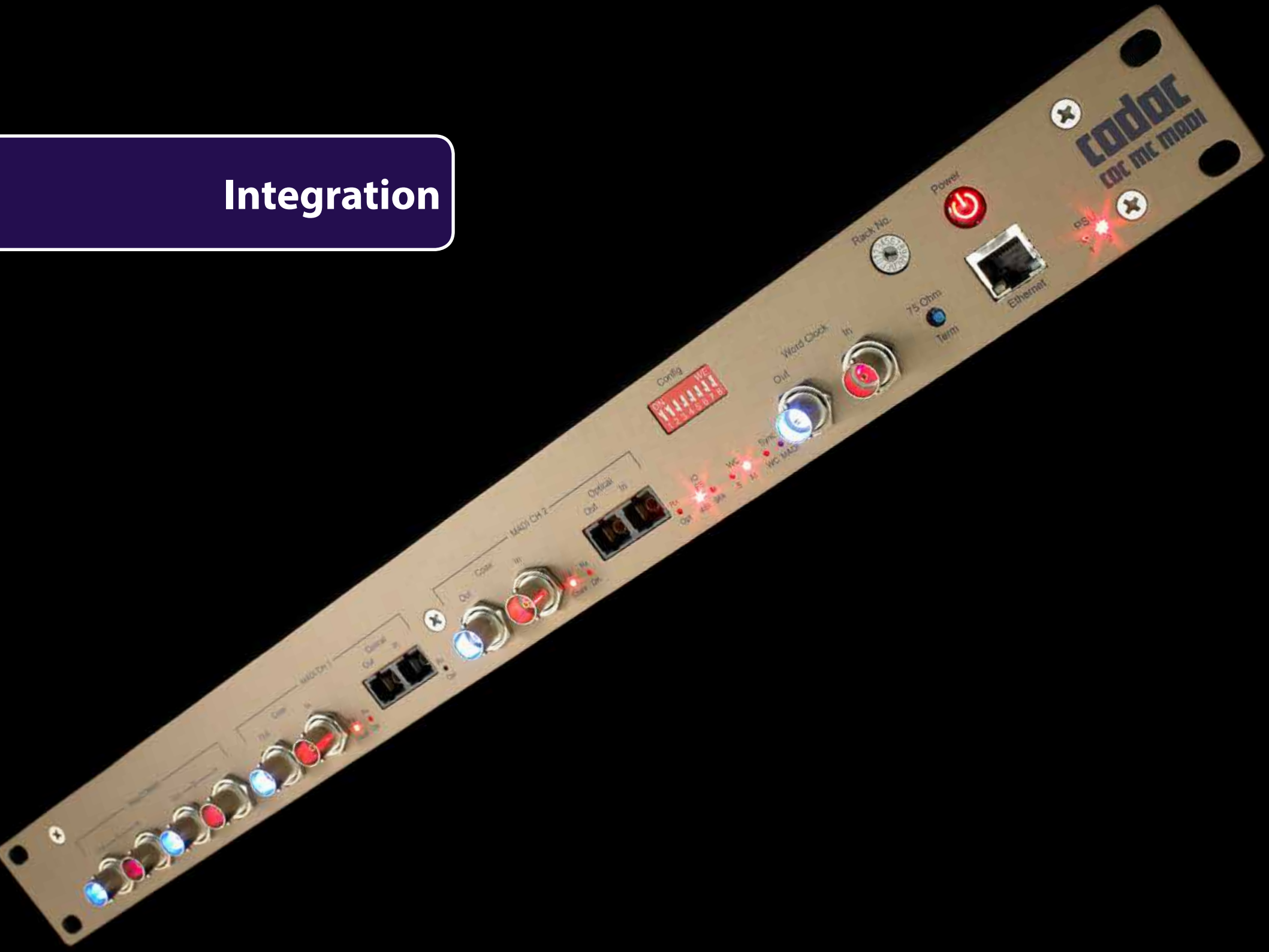


Every CDC eight and CDC six features a Waves SoundGrid interface, which when connected to a suitable laptop or desktop computer with the Waves "Tracks" software installed, will record up to 64 tracks of 24-bit, 96 kHz audio. With Waves' Studio App installed on your computer, any DAW can be used for multitrack recording.

Each of the CDC eight's 128 input channels and CDC six's 64 input channels feature two inputs. These can easily be configured as mic/playback and switching between them globally achieved at the touch of a screen.

- > Standard integrated Waves card for MultiRack SoundGrid server
- > 64 channels of Waves processing
- > Control via the console's touch screen
- > Multitrack recording direct to laptop via Waves SoundGrid Studio App

Integration



CDC MC MADI



The CDC MC MADI is a MADI to MegaCOMMS audio network bridge allowing the seamless integration of MADI audio streams into a MegaCOMMS audio network. The 1U unit can operate at 96 kHz or 48 kHz and can handle up to 64 inputs and outputs and is equipped with 128 channels of SRC as well as its own independent word clock.

The MC MADI comes as standard with dual PSUs ideal for mission critical applications. The MADI audio connections are handled via co-axial and optical. To aid with configuring the MegaCOMMS network the unit's co-axial ports glow either red or blue for Rx (receive) or Tx (transmit) – a real boon for speeding up low light set-up.

- > 1U MC MADI audio network bridge
- > 96 kHz or 48 kHz operation
- > Up to 64 inputs and outputs
- > Co-axial and optical audio connections
- > Independent word clock synchronisation
- > MegaCOMMS network co-axial ports glow either red or blue for Rx (receive) or Tx (transmit)
- > Dual PSUs

CDC MC Dante



The CDC MC Dante is a 1U Dante to MegaCOMMS audio network bridge enabling Dante units to be incorporated in to the MegaCOMMS audio network. The unit can work at either 96 kHz or 48 kHz and can handle up to 64 inputs and outputs.

The MC Dante also has 128 channels of SRC as well as its own independent word clock with audio connections via co-axial plus dual PSUs as standard for extra peace of mind when used in critical applications. As with the CDC MC MADI unit the co-axial ports glow either red or blue for Rx (receive) or Tx (transmit) – enabling fast and accurate configuring of the MegaCOMMS network especially in low light.

- > 1U MC Dante Audio Network Bridge
- > 96 kHz or 48 kHz operation
- > Up to 64 inputs and outputs
- > Co-axial and RJ45 audio connections
- > Independent word clock synchronisation
- > MegaCOMMS network co-axial ports glow either red or blue for Rx (receive) or Tx (transmit)
- > Dual PSUs

MegaCOMMS Card



The MegaCOMMS card is the optional audio interface for the CDC four:m and CDC four allowing the consoles to take advantage of Cadac's MegaCOMMS audio protocol. The card enables the CDC four:m and CDC four to connect to Cadac's range of stageboxes permitting the input count to rise to 64 along with, up to 26 outputs on stage.

The card simply slots in the rear of the console and the audio connection to the stagebox is via 2 coaxial cables which can be up to 150 metres (492 feet) in length.

- > Connects CDC four:m and CDC four to Cadac's MegaCOMMS stageboxes
- > Allows connection to the MegaCOMMS router and network bridges
- > Allows the stagebox to be up 150 meters / 492 feet from the console

cdc four^m

Based on a proprietary DSP mix platform, the CDC four:m is a fully featured versatile digital console with the look, feel and simplicity of using an analogue console. The CDC four:m builds upon the CDC four feature set by providing the user with GEQs on all aux busses in addition to the master L and R, plus the inclusion of a 6 x 4 matrix with GEQ, PEQ and dynamics processing.

The CDC four:m brings Cadac sound and build quality to the compact, rack mountable, digital console market providing a high-quality solution for all applications and budgets.





Overview

The CDC four:m features 16 fully motorised channel faders, high resolution TFT colour display and fully recallable scene memory. Cadac's signature sound quality is achieved by using specially developed remarkably low distortion EQ filters, true analogue sounding compressors, 96 kHz 24-bit Delta Sigma AD/DA converters and fourth generation 32/40-bit floating point SHARC processors.

Due to its audio performance the CDC four:m excels equally well in recording applications as it does in its primary function as a live sound console used for concert touring, corporate AV, schools and houses of worship. It also has the advantage of being rack mountable making it ideal for situations requiring up to 56 channels in a 19" rack.

Multitrack recording is achieved via an optional MC MADI network bridge, while input channels can be increased for live applications with the optional MegaCOMMS card and the CDC I/O 3216 stagebox, which provides an additional 32 inputs and the 16 outputs up to 150 metres (492ft) away on stage.

The CDC four:m, which has GEQs on all aux busses in addition to the master L and R, and when used in conjunction with a CDC I/O 3216 the console's 6 x 4 matrix, with GEQ, PEQ and dynamics, are available on the stagebox's outputs.

With Cadac's iPad App - TabMix - there is the ability to control the major features of the console remotely, making both sound check and show time easier as it frees the console operator from the confines of the mixer's location.

Hardware Summary

- > 7" TFT high resolution colour display
- > All channel functions have their own dedicated encoder for quick access
- > 16 motorised high quality 100mm faders
- > Includes 19" rack mounting kit
- > Internal switch mode power supply

Feature Summary

- > Up to 56 Channels of Cadac quality sound
- > 24 channels (16 mic / 8 stereo) on board
- > 16 superb Cadac mic pre's
- > 32 channel expansion using the CDC I/O 3216 stagebox
- > 8 aux busses, 2 FX busses and 4 subgroups
- > 8 VCA groups
- > 6 x 4 matrix with GEQ, PEQ and dynamics processing when used with the CDC I/O 3216 stagebox
- > GEQs on all aux busses in addition to the master L and R
- > 6 stereo effects with 96 kHz processing
- > 2 dedicated stereo returns for FX processors
- > 96 kHz 24-bit Delta Sigma AD/DA converters
- > 4th generation 32/40-bit floating point SHARC processors
- > Automatic latency management
- > Comprehensive LED metering
- > Built in oscillator/noise generator
- > Talkback with dedicated talk button
- > High quality headphone amplifier
- > Solo, PFL/AFL and Solo in Place, with multiple configuration options
- > Channel and output muting



cdc four^m



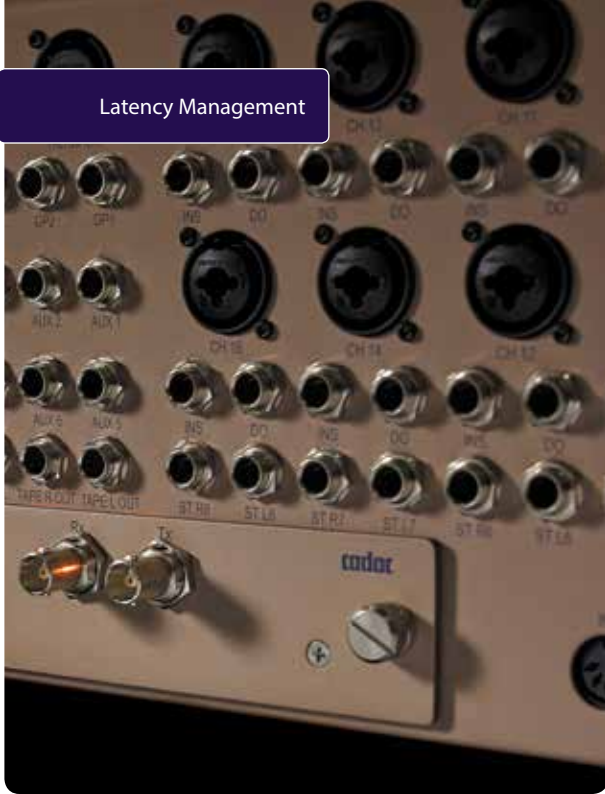
Microphone Pre Amps



As with all Cadac digital consoles meticulous care has been taken in designing the analogue elements of the audio path and in the conversion process for the CDC four:m. The mic pre's on the CDC four:m features a wide dynamic range plus extremely low noise floor and uses only premium components in its construction. As a result the console provides outstanding CMRR and the classic Cadac sound that is clean, transparent, and musical.

- > Over 45 years of Cadac engineering heritage
- > Wide dynamic range
- > Low noise floor
- > 24-bit / 96 kHz Delta Sigma AD/DA convertors

Latency Management

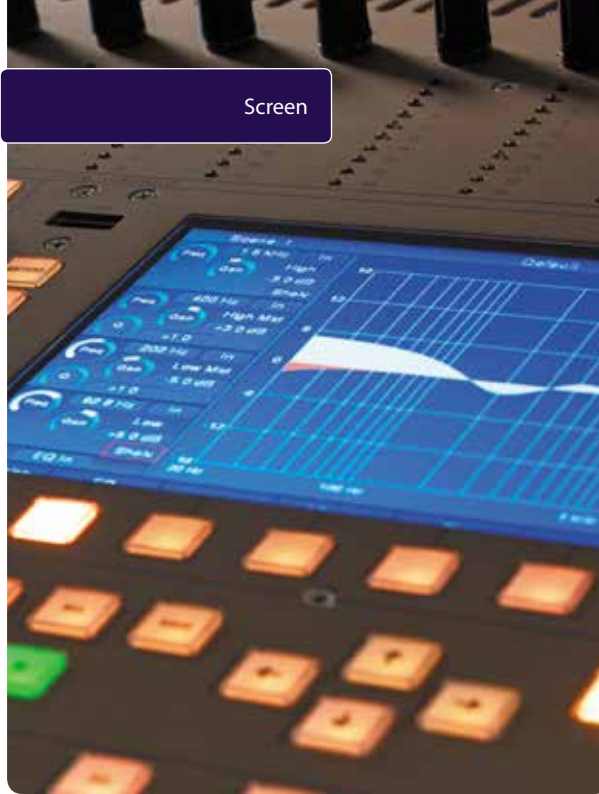


A major contributor as to why Cadac digital consoles sound so clean and transparent is the attention paid to delay management, which is often overlooked by a majority of other digital consoles. As with the flagship Cadac CDC eight, the CDC four's latency is deterministic and automatically managed.

It is essential for superior audio reproduction that the latency is synchronised which means that all audio is phase coherent at all times.

- > Automatic latency management
- > Absolute phase coherency
- > Sample-accurate summing

Screen

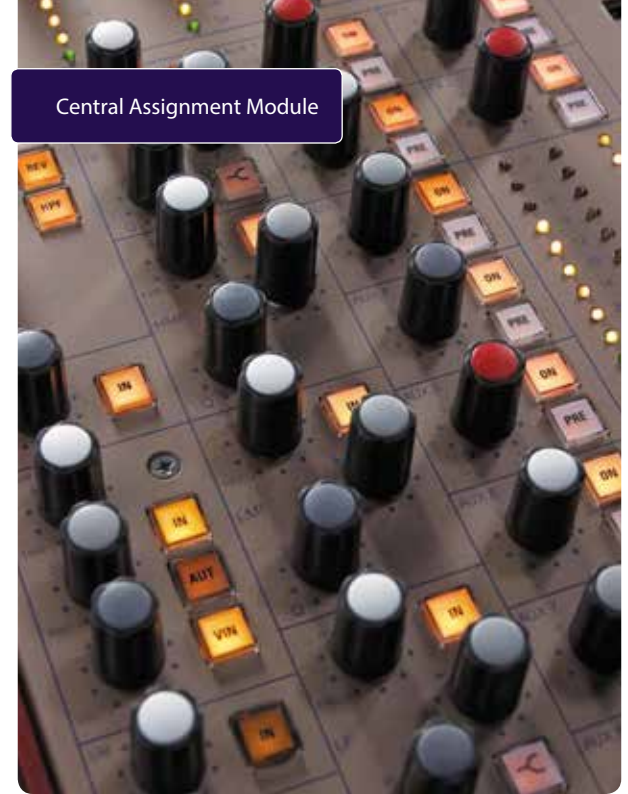


The central 7-inch hi-resolution colour TFT display shows detailed views of all channel parameters along with scene control, effects processors, MIDI status, editing and routing control.

Rotary encoders can allow fine resolution changes by pushing and turning the control. Bus routing, auxiliary pre/post assignment and detailed dynamics are shown in the display; this leaves more front panel space for quick access to real time functions.

- > 7" hi-resolution screen
- > Rotary encoders for quick access and navigation

Central Assignment Module



The Central Assignment Module (CAM) controls equalisation, group assignment, VCA control, effects, auxiliary sends and dynamics. Each of these functions has a discrete control with no 'doubling up' or time consuming menu scrolling. This enables the desk to be operated as quickly as its analogue counterpart. The Master section has exclusive dedicated controls for output EQ and dynamics, so your mix is always instantly accessible.

- > Quick access to consoles functions
- > No 'doubling up' of functions
- > No menu scrolling
- > Dedicated Master section controls



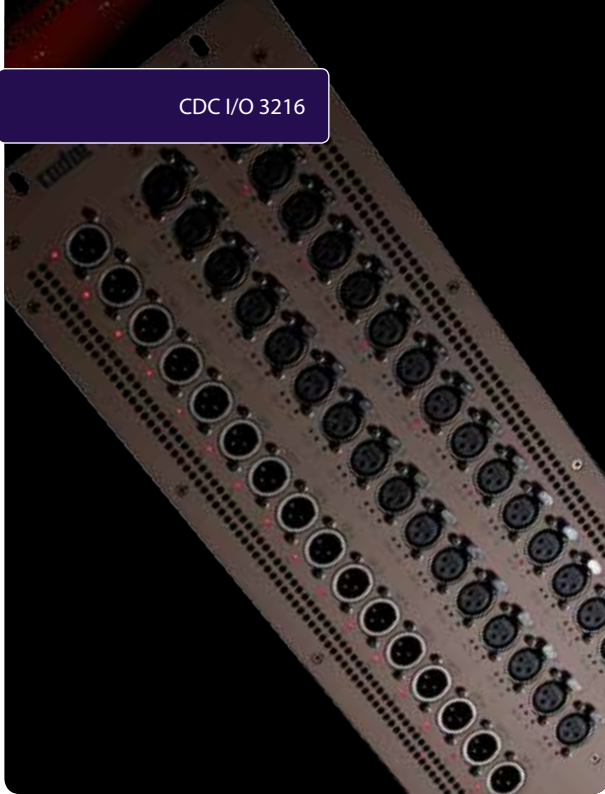
cdcfour^m

MegaCOMMS Card

The MegaCOMMS card is the audio interface for the CDC four:m that allows the consoles to take advantage of Cadac's MegaCOMMS audio protocol. The optional card enables the CDC four:m to connect to Cadac's range of stageboxes permitting the input count to rise to 64 along with, up to 26 outputs on stage. The card simply slots in the rear of the console and connection to the stagebox is via 2 co-axial cables of up to 150 metres (492 feet) in length. This neatly dispenses with the need for heavy, bulky and expensive analogue multicores.

- Connects the CDC four:m to Cadac MegaCOMMS stageboxes
- Allows stagebox to be up to 150 meters / 492 feet from the console
- Allows connection to the MegaCOMMS router and audio network bridges
- Simple plug-and-play

CDC I/O 3216



The CDC I/O 3216 is the ideal stagebox for the CDC four:m. It is a 4U fixed configuration unit featuring 32 mic / line analogue inputs and 16 XLR analogue outputs permitting the input count to rise to 64 along with 16 outputs selected from the available 26, on stage. The stagebox is connected to the CDC four:m via the MegaCOMMS card allowing the console to take advantage of Cadac's propriety low latency MegaCOMMS audio network protocol. The CDC I/O 3216 can be located up to 150 metres (492 feet) away from the console using just a pair of co-axial cables.

When the CDC I/O 3216 is used in conjunction with the CDC four:m the console's 6 x 4 matrix outputs, with GEQ, PEQ and dynamics, are available on the stagebox's outputs.

The mic-pres can be controlled remotely from the console and the outputs can also be assigned from the console. To complete the user interface there are signal present, clip and phantom power indication plus mute indication for the outputs.

- > 4U fixed configuration
- > Provides an additional 32 Cadac mic / line inputs on stage
- > Provides 16 line outputs on stage
- > 6 x 4 matrix on outputs when used with the CDC four:m
- > Single MegaCOMMS port

Third Party Integration



By using the MegaCOMMS interface card the CDC four:m can also take advantage of either of Cadac's audio network bridges; the CDC MC MADI or CDC MC Dante. This allows the CDC four:m to be integrated into third party MADI or Dante audio networks. The console can of course also be seamlessly incorporated into a much larger MegaCOMMS network, with up to 3072 channels, via the CDC MC Router.

The MC MADI convertor will allow you to stream the input channels to your DAW (with the appropriate computer interface) and make multi-track recordings quickly and easily. Recordings can be made at the standard 48 kHz MADI sample rates or at 96 kHz for more demanding applications. Multi-track recordings can then be played back through the CDC four:m for remixing or for "virtual sound check" when the live artiste is not available.

- > MADI integration via the CDC MC MADI network bridge
- > Dante integration via the CDC MC Dante network bridge
- > MegaCOMMS network expansion via the CDC MC Router

TabMix



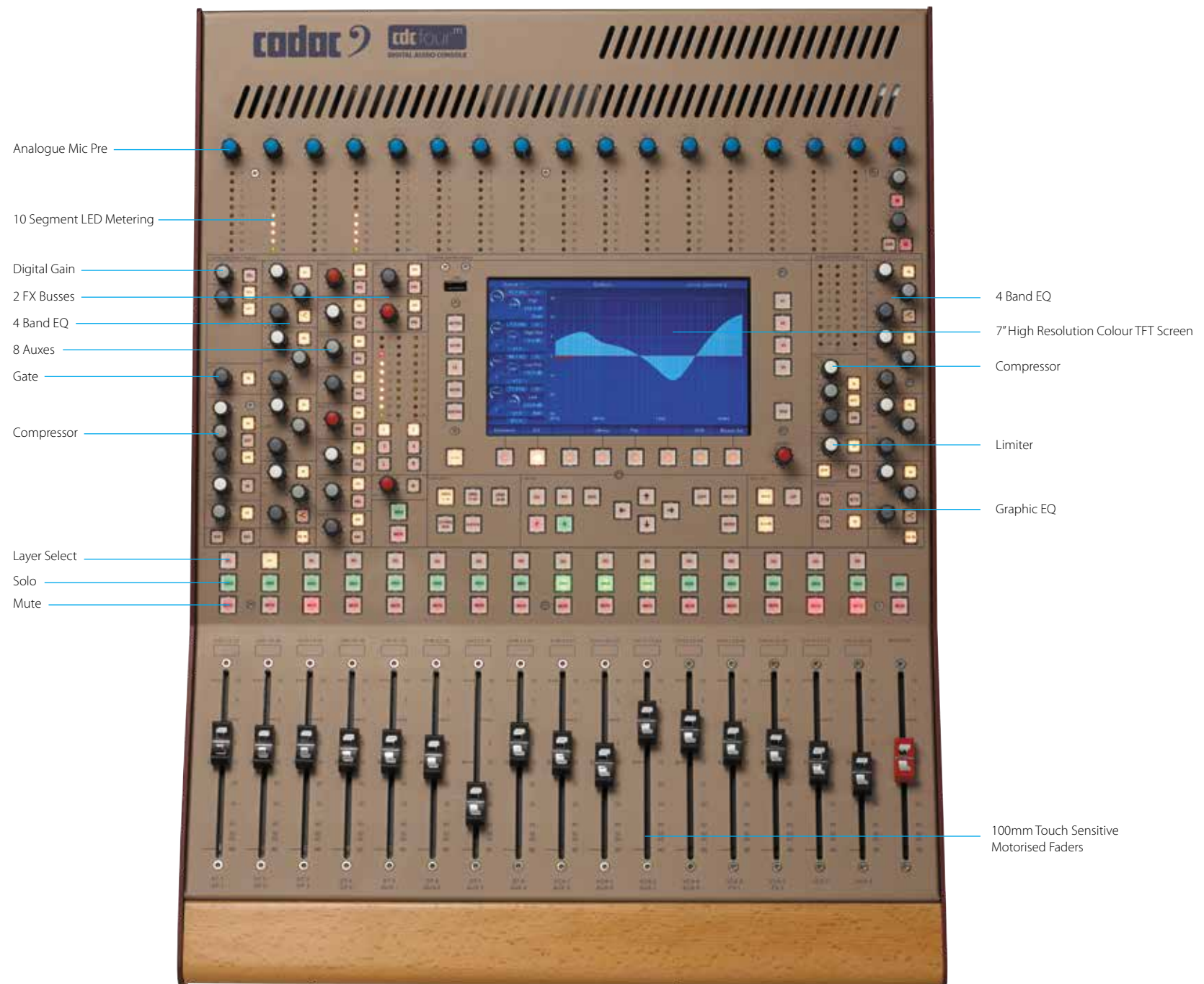
Cadac's Console Remote Manager iPad App - TabMix - provides wireless remote control of the key functions of the CDC four:m. Once a wireless router is connected to the console there is no difficult setup procedure as the App automatically detects and selects the active console type.

With TabMix's intuitive graphical user interface and real-time command of the console, sound check becomes less of a chore and more of a creative process.

TabMix is free to download from Apple's App Store.

- > Real time control of the console
- > Intuitive graphical interface
- > Simple setup – auto detect of console type





LIVE1

LIVE1 is Cadac's first compact analogue console design. It is a fully specified console featuring the company's renowned heritage of analogue engineering resulting in the audio quality that was once reserved for top musical theatre and touring productions.

The LIVE1 delivers Cadac's core value of exceptional audio engineering at a cost effective price point that opens up new markets and applications for a professional analogue audio console.





Overview

LIVE1 is at home in a multitude of markets from small clubs, touring and corporate events through to theatres, Houses of Worship and recording. The audio quality and level of flexibility makes the LIVE1 ideal for a variety of applications including monitor mixing, sub-mixing, location and project recording applications as well as a perfect analogue front end for DAWs.

The preamplifier, designed with the latest engineering and component technology, puts the audio performance of the LIVE1 on a par with that of legendary large-format Cadac consoles regardless of the massive difference in cost. The Cadac signature is reinforced with an industry proven, proprietary Cadac 4-band EQ, with two swept mid filters, that delivers the Cadac characteristics of responsive and musical articulation.

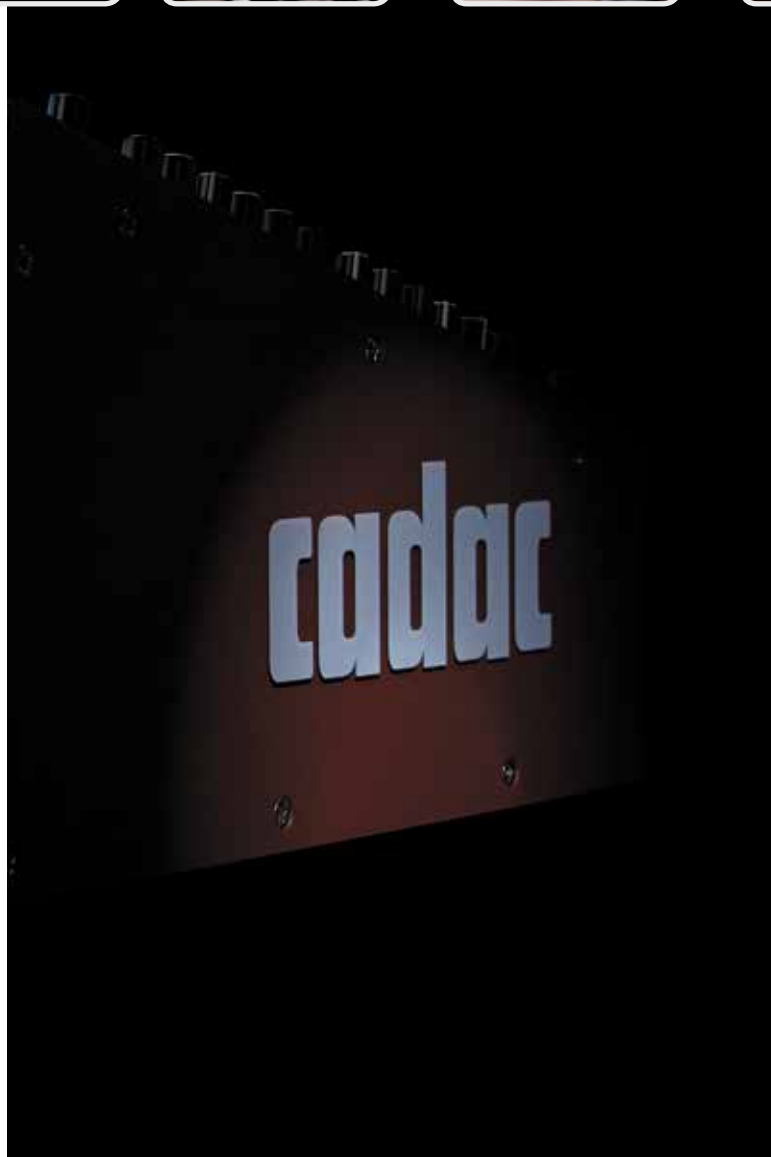
The three LIVE1 is available in three different frame sizes:

- > LIVE1 1642 with 8 mic and 4 stereo line channels
- > LIVE1 2442 with 16 mic and 4 stereo line channels
- > LIVE1 3242 with 24 mic and 4 stereo line channels

LIVE1 1642 has the advantage of also being rack mountable, using the optional 19" rack adaptors, giving a massive specification in a compact unit for optimum flexibility, portability, durability and sound quality.

Feature Summary

- > Cadac analogue Mic Pre
- > Cost effective reliability
- > Three frame sizes: 16, 24 and 32 inputs
- > LIVE 1642 can be 19" rack mounted
- > New high performance microphone pre amplifier circuit
- > 4 band EQ with two swept mid sections
- > 6 auxiliary sends selectable in pairs either PRE or POST fader
- > 6 mono and 2 stereo auxiliary returns
- > 4 subgroups with 100mm faders, PFL, mute and pan controls
- > Comprehensive monitoring and metering
- > 100mm high quality input faders
- > High quality steel construction
- > Robust 2U 19" external power supply



LIVE1



Microphone Amplifiers

The LIVE1's high performance microphone pre amp circuit has been designed to deliver quality unrivalled in its class with full adjustment from 0 to 60 dB of gain. The microphone input is complimented with 48 V phantom power and an 80 Hz 12 dB/octave high pass filter.

EQ

The 4-band EQ utilised in the LIVE1 is derived from the EQ used on all the larger Cadac analogue consoles. Giving up to 18 dB of cut/boost to all frequencies, with two swept mid sections on the mono channels and 4 fixed bands on the stereo channels. All channels feature and EQ-in switch to enable bypassing of the EQ section if required.

Channel Operation

Each channel features 6 auxiliary sends, configurable either pre or post fader in pairs from the Pre/Post selections in the LIVE1 master section.

Pan and routing control is fully selectable to all subgroups and / or the master output. Channel monitoring is available using the PFL button which is configurable either PFL or AFL using the mode selections in the LIVE1 master section.

Every channel comes complete with channel mutes, signal level LEDs including overload and high quality 100mm long throw faders.

Outputs and Master Section

There are 4 fully featured sub groups each with its 100mm fader, pan control, PFL and mute switching. Control and monitoring of the Master Output on the LIVE1 is provided via a high quality 100mm stereo fader, and features a mono summing selection, PFL and mute switching and dedicated 10 segment bar graph metering.

The Master Section features additional comprehensive 10 segment bar graphs metering, which is switchable to monitor either the group outputs / Stereo returns or the 6 auxiliary send levels. PFL / AFL monitoring is achieved with dedicated 10 segment bar graph meters. Master selection for PFL / AFL mode and AFL level is also available.

PRE / POST auxiliary selection is controlled globally from the Master Section. Simple switching for each pair of auxiliaries sends. Talkback via a dedicated phantom powered XLR socket can be routed to all auxiliary subgroups or the L-R master output. The Master Section is completed with Headphone and Monitor output level controls.

Additional Inputs

All LIVE1 consoles feature 6 mono auxiliary returns and 2 stereo returns. The mono aux returns each come with level controls, as well as routing to AUX 5 and AUX 6 on returns 1 to 4, enabling effects to be easily added to the fold back / monitoring mix. The stereo returns have their own dedicated 100mm faders, balance control, PFL and mute switching, and routing to AUX 5 and AUX 6 when required.

An additional LINE input is available for connecting an audio source for interval or pre-show music and other playback material without using up valuable stereo or mono inputs. The LINE input is routed directly to the L-R master output.

Rear Panel

The comprehensive array of connections on the LIVE1 features mic, line inputs and direct outputs on every microphone channel. Master output connectors on balanced XLR sockets and 3-pin XLR gooseneck lamp connectors. All XLR and 1.4" jack sockets are high quality, high durability types.

Power Supply

The LIVE1 comes with a robust external 2U switch mode power supply. All models operated with incredibly low noise levels on all global voltages.



LIVE1



Mic Pre

4 Band EQ

6 Auxes

Mute

10 Segment
Led Metering

Aux Send Masters

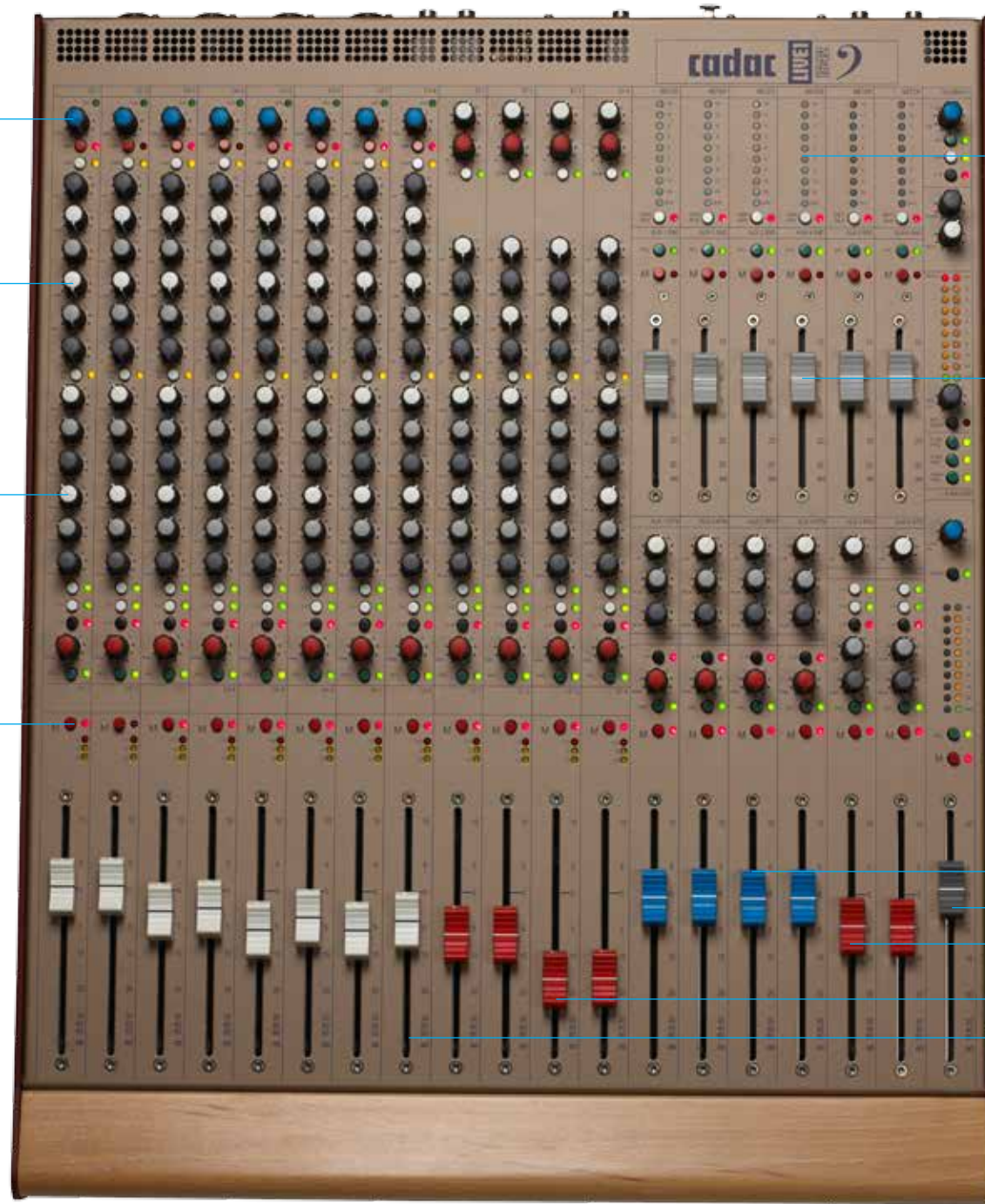
4 Sub Groups

Master Output

2 Stereo Returns

4 Stereo Inputs

100mm Faders



S type





Introduction

The S-Type is Cadac's compact modular fixed frame console with 8 Aux, 8 Subs and 8 Matrix outputs. The S-type's specification includes the same high quality mic input and a 4-band fully parametric EQ that were originally designed for the large format J-Type live production console. This provides the S-Type with an unequalled level of performance compared with comparative console designs.

Overview

The S-Type's superb audio performance, packaged in a compact frame, has made it ideally suited for handling a variety of roles, whether in TV and radio broadcast, corporate events or in house of worship applications. It has also been built to last. This is due to Cadac's commitment to using only the highest quality components backed up by over 45 years of experience in innovative electronic and mechanical designs.



Feature Summary

- > Cadac analogue audio quality in a cost-effective modular design
- > Cadac's unique design of any module in any position
- > Four frame sizes – 17, 25, 33 and 41
- > Expandable and linkable using optional bus connector
- > Stereo input channel with line inputs
- > Fully balanced direct output with level control
- > 8 switchable PRE/POST auxiliary sends, two of which are stereo
- > 10 x 8 output matrix
- > Inserts on inputs, sub groups and matrix
- > Fully assignable DC (VCA) masters
- > Comprehensive metering, with full range LED meters on inputs and outputs
- > Full size 100mm faders



High Quality Microphone Amplifier

The S-Type's microphone amplifier provides 60 dB of gain and a 20 dB pad for the line level inputs; the input includes phase reversal and 48 V phantom power facilities. The input gain level is displayed on a 12-segment LED meter mounted in the visible sight line adjacent to the 100mm channel fader for instant feedback and operator control.

Listening

The S-type offers extended listen facilities. Monitoring can be through either an amplifier / loudspeakers or headphones, each with its own level control for comfortable listening. Alternatively, monitoring can be purely visual using the dual channel LED bar graph metering. The flexible PFL monitoring can hold multiple channels and clear the selection with a press of a button.

Subgroups and Panning

A variety of input channel options plus enhanced sub-group routing with a selectable and dedicated stereo bus, including the ability to pan the signal across the bus.

EQ and VCA Group Assignment

Assignment versatility across all functions. The EQ can be bypassed or switched in to the signal path as required, and can also be selected to the PRE insert. In addition, the S-type is fitted with a fixed frequency high pass filter. The S-type's flexible assignment facilities enable every input channel to assigned to one or more DC (VCA) master group fader(s) as required. The VCA masters can also be configured as Mute Groups if required.

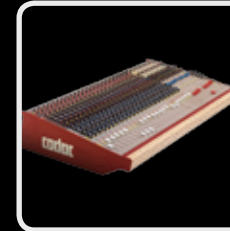
Matrix Output with 8 Matrix Sends

The Matrix Output features variable output level control with full range metering. In addition to the individual PFL and MUTE selection, a switchable INSERT, and a useful ON switch are also provided. The Sub Group outputs can be re-mixed to the 8 matrix outputs, using the 4 dual-concentric level send controls. Additionally, the stereo master output can be re-mixed to all matrix outputs as L-R pairs or summed mono.

Mono and Stereo Auxiliary Outputs

Both mono and stereo aux output masters are available, and can be combined to a maximum of 6 mono aux master modules and 2 stereo aux master modules per console. Each aux master has its own full metering, providing at a glance the state of all output levels, plus output level control, MUTE and PFL selections.

In addition to the groups, the S-type features a dedicated stereo master output with its own fader. To provide even more flexibility, the stereo output can also be re-routed to the matrix outputs – either as a stereo pair or as a summed mono signal. This send can be selected pre-fader if required.



Power Supply

The 2U external power supplies are connected via a shielded multicore cable with 6-pole circular bayonet connectors. Each console may be powered from two independent power supply systems, operating simultaneously for continuous redundant operation.

Frame

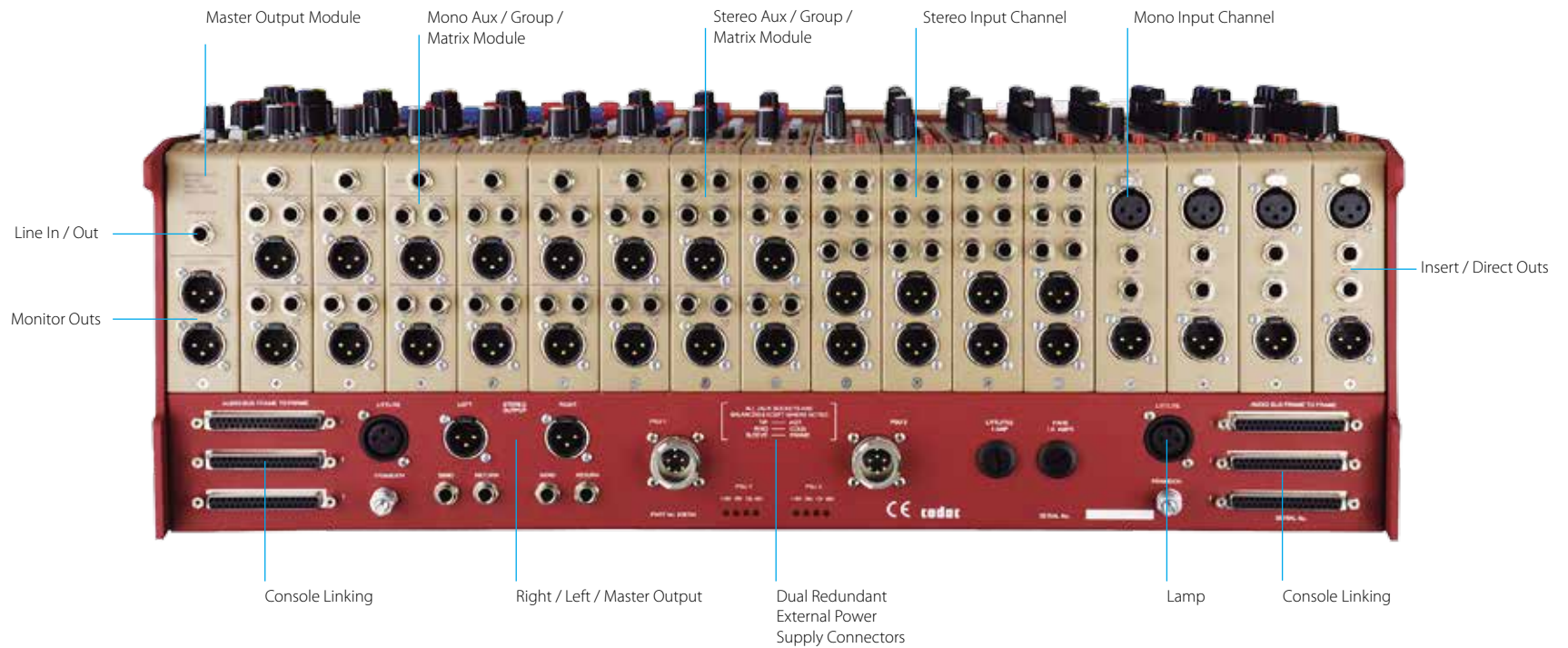
Flexibility is central to the S-type's design. Multiple frames are linkable to make a larger format console quickly and easily, via optional bus connectors. Users can mix and match the S-type's modules, moving them in the frame to suit a given requirement and giving complete configuration control.

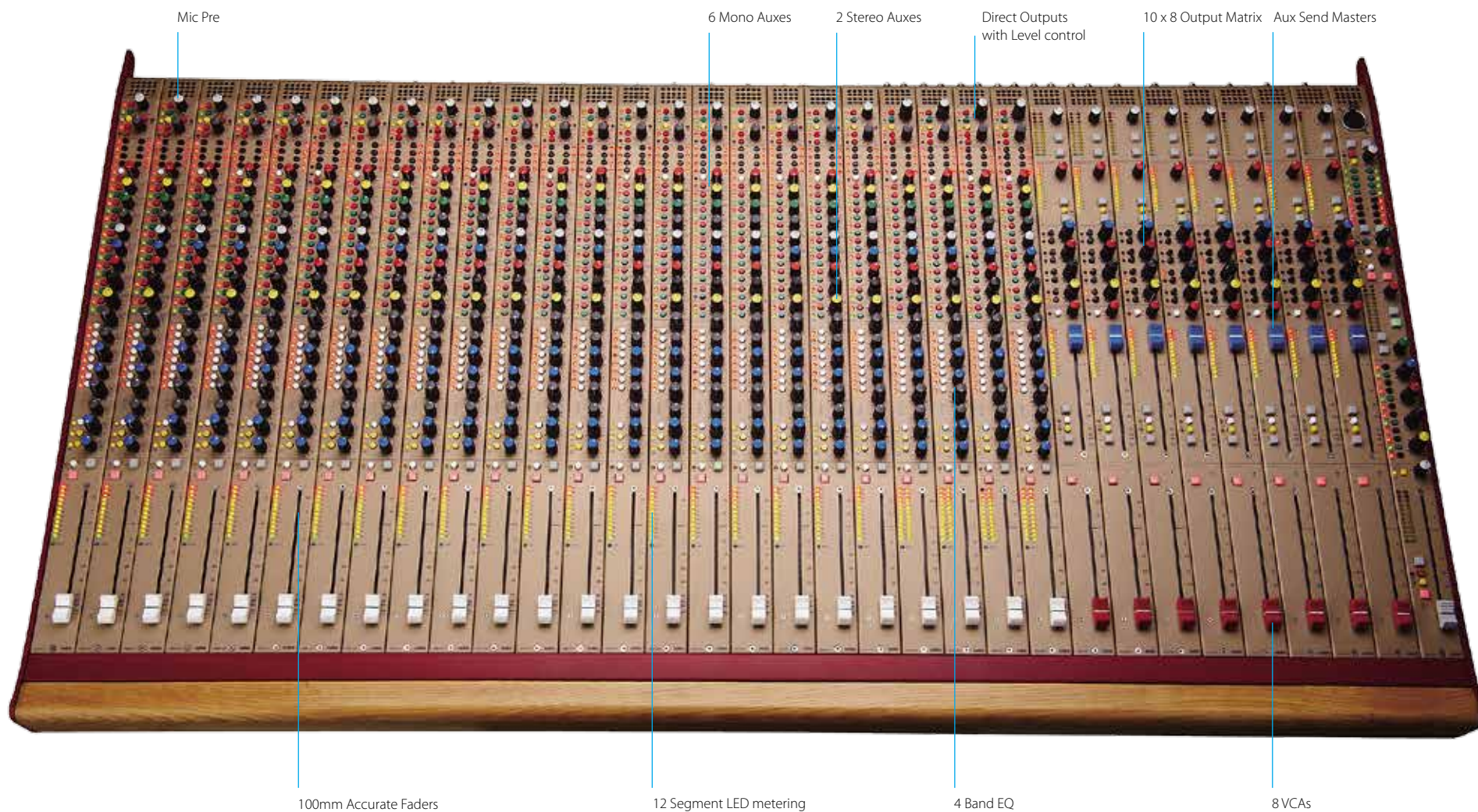
The S-type construction allows multiple frames to be positioned so that modules are almost adjacent. Internal audio bussing is balanced and uses ribbon cables. All power bussing is also routed via ribbon cables. Frame mounted inputs include diode mixed power inlets, earth points, a headphone jack, bus expansion connectors, main stereo output XLRs, main stereo insert point jacks and gooseneck lamp XLRs. The frame also incorporates multiple cooling fans.

The four sizes of frame available comprise 17, 25, 33 and 41 module positions. These allow for the standard configurations of 8, 12, 20 and 28 mic inputs, with 4 stereo lines, 4 or 8 group/VCA groups, and a stereo master / talkback / oscillator / comms module choices. Alternatively any combination of modules can be fitted. The only limits are a maximum of 8 output groups and 1 oscillator / comms module in a system. A system can comprise multiple frames with modules located into any position within the frame to suit application.



S type





Mic Pre

6 Mono Auxes

2 Stereo Auxes

Direct Outputs
with Level control

10 x 8 Output Matrix

Aux Send Masters

100mm Accurate Faders

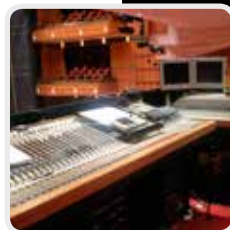
12 Segment LED metering

4 Band EQ

8 VCAs

J type





Introduction

The Cadac J-Type has a uniquely enviable reputation when it comes to delivering faultless performances night after night, year after year, on almost every imaginable type of production. It has proved itself in critical applications where quality is paramount. The J-Type signifies top quality audio all within a rugged, reliable package.

Where flexibility is essential the J-Type can be configured to suit the application in hand, without compromise, and equally importantly, to combine this with intuitive operation during a performance. The J-Type's superlative audio is also matched by exceptional reliability in the often hostile conditions that are typical of live sound environment.

Overview

There is an impressive range of input modules to choose from for the J-Type, underlining its performance capabilities. Users can combine the original mono inputs with the programmable dual input and stereo input channels to get the precise routing and mix required for every cue. This is complemented by the J-Type's versatile matrix - with up to 16 sub and 32 matrix group outputs.

The J-Type was the first console to feature Cadac's unique frame design, which allows users to put any module in any position, thus configuring the console to suit the project in hand. Each module is fitted with XLR connectors and jack sockets on the rear vertical face, enabling the module to be moved quickly and easily. For audio quality, the J-Type maintains the Cadac tradition for exceptional performance.

All of the inputs, insertion send/returns and outputs are electronically balanced, as are all audio mixing busses. The J-Type Live Production console epitomises Cadac's innovative design approach.

Feature Summary

- > Frame sizes to accommodate from 26 to 63 module positions
- > Up to 4 mixer frames and 128 channels can be combined as a single system
- > Any of the modules can be used in any position, in any of the frames
- > Performance flexibility with Cadac's unique programmable modules
- > Recall all pot and switch settings on a cue by cue basis
- > 16 Sub Group and 32 Matrix outputs
- > 12 auxiliary group outputs
- > VCA channel faders and Sub Groups can be controlled by any one of 15 DC Master faders
- > Full talkback communications
- > Central Control with Local Memory
- > Oscillator/Pink Noise Generator/PFL system
- > Dual power supply system
- > 120mm LED meter by the side of each channel fader
- > 20 segment LED meter, reading over a range of 57 dB on all outputs
- > Direct outputs on all channels, selectable Pre/Post faders
- > Direct inject with level pots to sub group and matrix group mix busses



J type



Frame

The J-Type is constructed from extruded aluminium bearers, fixed to 7mm two-part aluminium end profiles. This allows multiple frames to be positioned so that modules are almost adjacent. Internal audio bussing is balanced and uses ribbon cables, with 'floating' connectors fitted on to steel cradles.

Frame-mounted input connectors include diode-mixed power inlets, earth points, headphone and lamp connections, as well as optional bus expansion connectors. The frames incorporate multiple cooling fans with a 5- speed control. Any frame size maybe specified from 25 to 63 modules wide.

- > Unique modular construction can house from 25- 63 modules in any position
- > Up to 4 mixer frames and 128 channels can be combined as a single system
- > Multiple 5 speed cooling fans
- > Data busses use dedicated ribbon cable. All power bussing is rated at 40A per rail.

Modules

The J-Type module's design features a motherboard, with plug-in daughter boards for all audio and digital control functions. This ensures servicing simplicity and fast replacement of any faulty component. Each module may be plugged into any position in the console frame, by means of a top quality two-part connector system, which is designed as a mating pair to provide excellent mechanical and electrical reliability. A rail system is used to guide each module into its correct position. The console design allows modules to be removed or inserted without powering down.

- > Any of the modules can be used in any position, in any of the frames
- > Performance flexibility with Cadac's unique programmable modules
- > Hot swappable
- > Designed for ease of service

Automation

The J-Type provides a sophisticated level of automation when complemented by Cadac's Sound Automation Manager (SAM) for Windows®, in combination with the J-Types programmable modules. This level of sophistication is due to Cadac's long-standing theatre software expertise, dating back to 1986.

The console's Central Control Module interfaces to a standard PC, with the Sound Automation Manager (SAM) handling cue management, routing and VCA automation - supported by comprehensive visual feedback of all routing and variable functions, including fader positions. For additional flexibility, all console programming for a production can be implemented off-line, porting to the on-line console PC via the Ethernet LAN.

- > Extensive MIDI control facilities, via console or PC hardware
- > Provides comprehensive control of motor faders
- > Multiple, concurrent MIDI Sequences
- > Data copying and editing facilities, speeding up the creation of a show's cues list

Connectors

Audio connections will be determined by the user's specification and whether a patch bay is required. XLR type connectors are standard for all inputs and outputs. 1/4" jack sockets are used for insert sends and returns. Two other possible variations are:

- > Military standard round multi way connectors for a touring system, with a separate patch bay.
- > Varelco multi way connectors for a fixed installation, with a separate patch bay.

Power Supply

Each J-Type console requires the following:

- > $\pm 18V$ for the audio electronics
- > +13V for LEDs, relays and logic circuits
- > +48V for phantom powering of microphones

The power supplies are suitable for rack-mounting or flight cases, and are connected via a heavy duty, shielded multicore cable with military circular bayonet connectors at each end. Each console may be powered by two independent power supply systems, operating simultaneously.

Finish

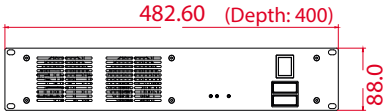
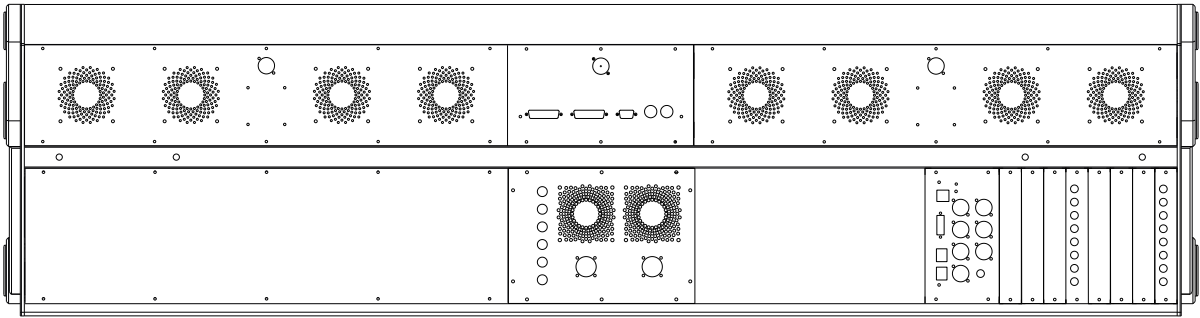
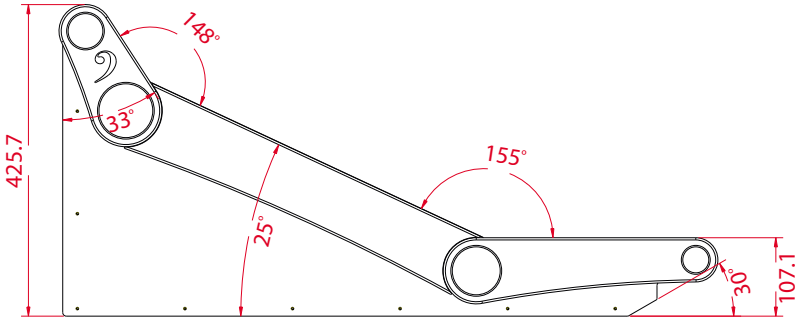
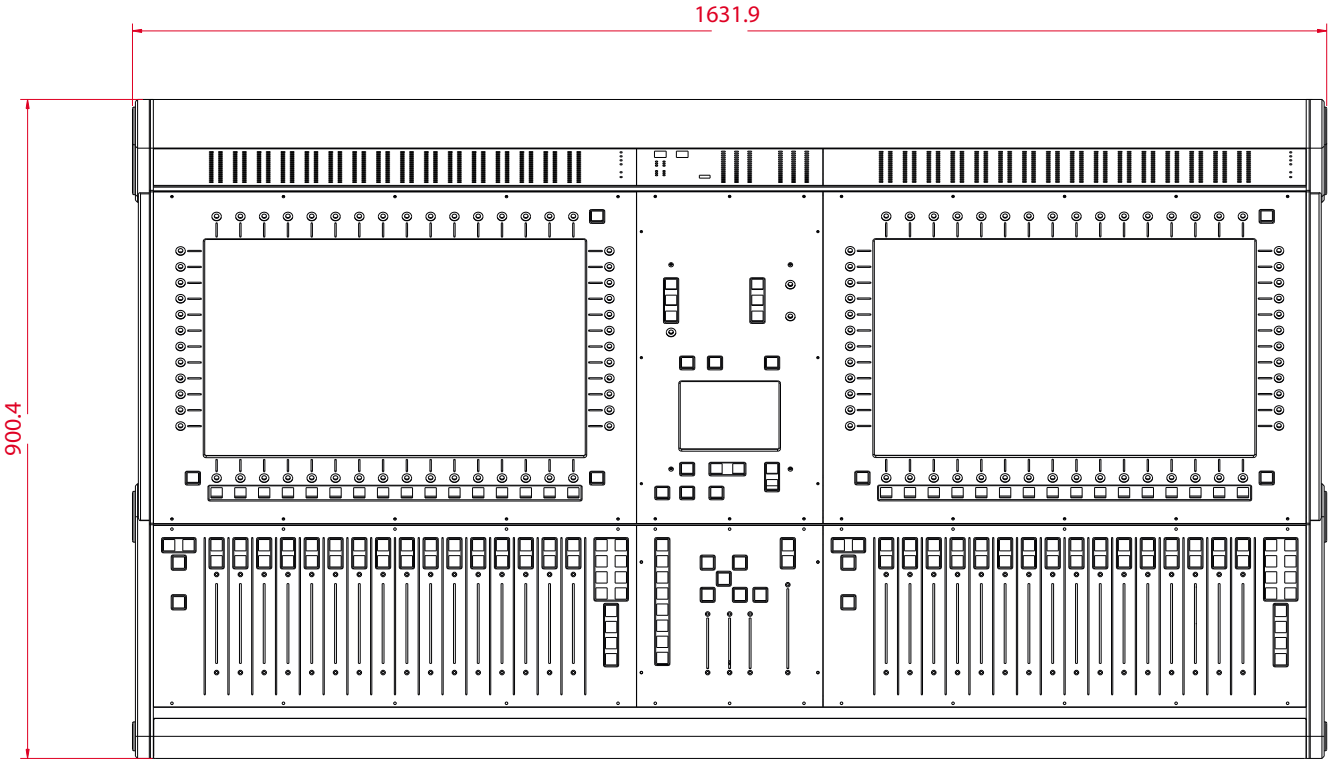
All Cadac J-type front panels are machined from custom-designed 3mm aluminium extrusion, which is stove enamelled, silk-screened and lacquered. The silk-screened legend is designed to withstand arduous operating conditions. Custom-made flight cases are available for the J-Type console, as required.



Dimensional Drawings

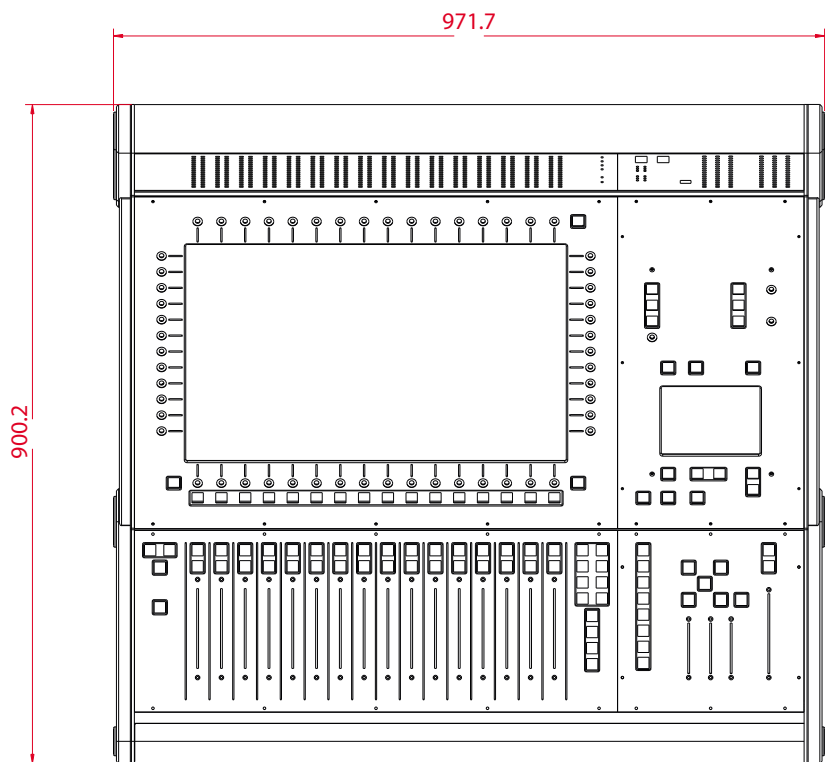
(Dimensions in mm)

CDC eight-32

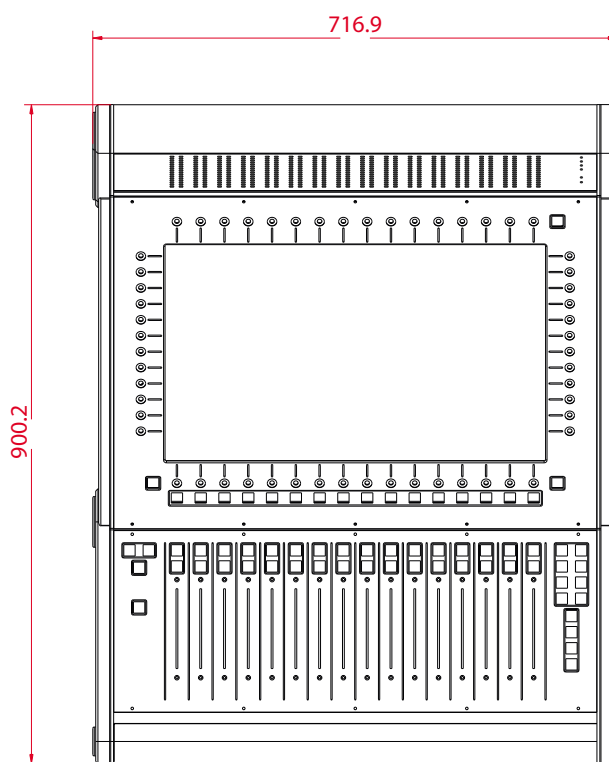


CDC PSU 4800
external power supply

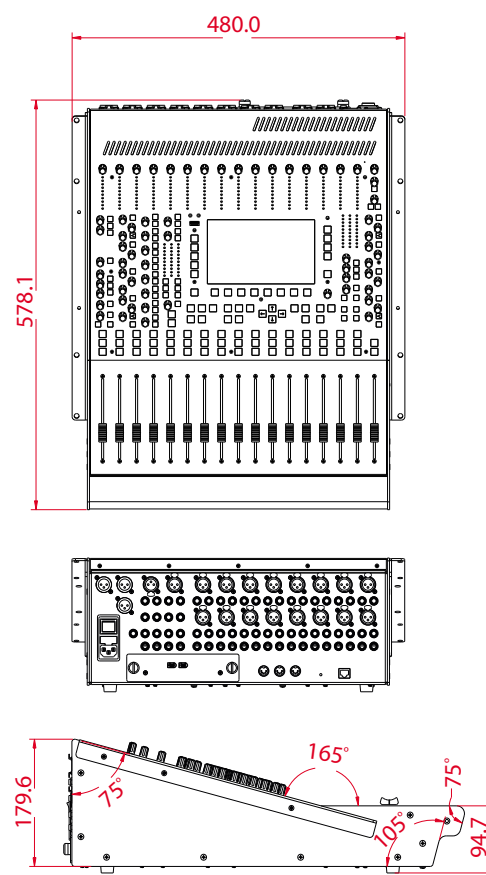
CDC eight-16



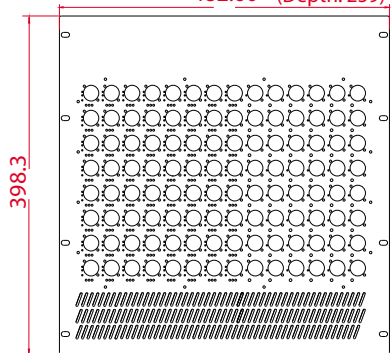
CDC eight-16S



CDC four:m

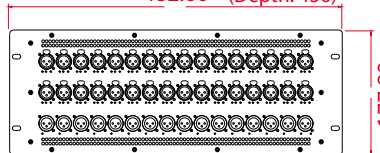


482.60 (Depth: 259)



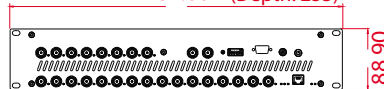
CDC I/O 6448 remote stagebox

482.60 (Depth: 436)



CDC I/O 3216 remote stagebox

482.60 (Depth: 253)



CDC MC MegaCOMMS router

482.60 (Depth: 253)



CDC MC MADI network bridge

482.60 (Depth: 253)

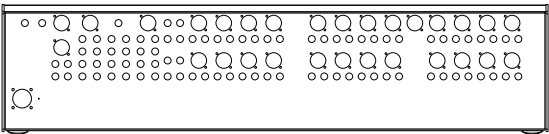
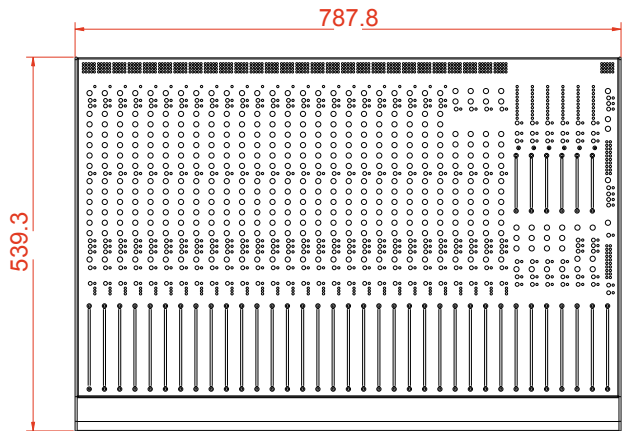


CDC MC Dante network bridge

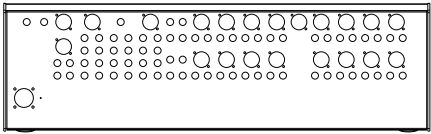
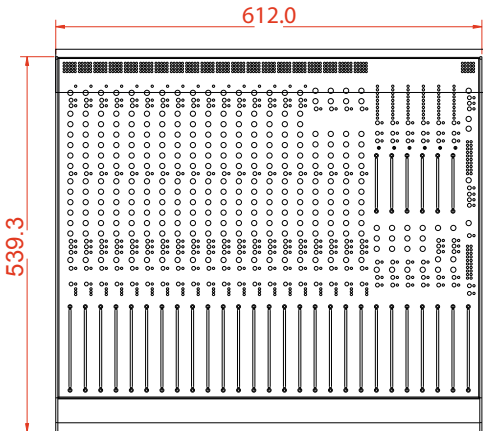
Dimensional Drawings

(Dimensions in mm)

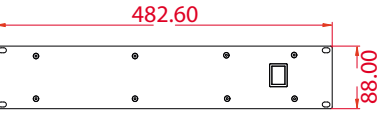
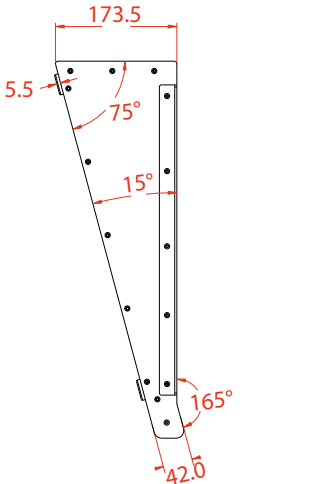
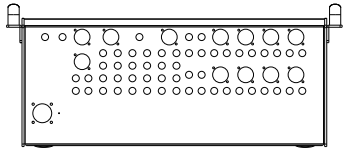
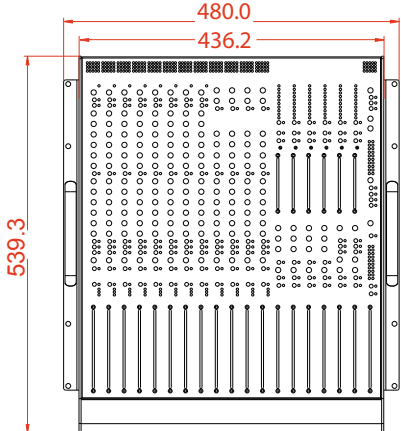
LIVE1 3242



LIVE1 2442

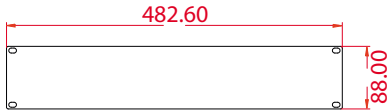
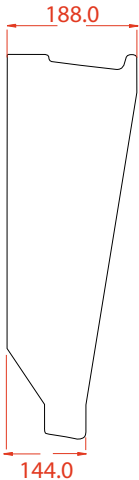
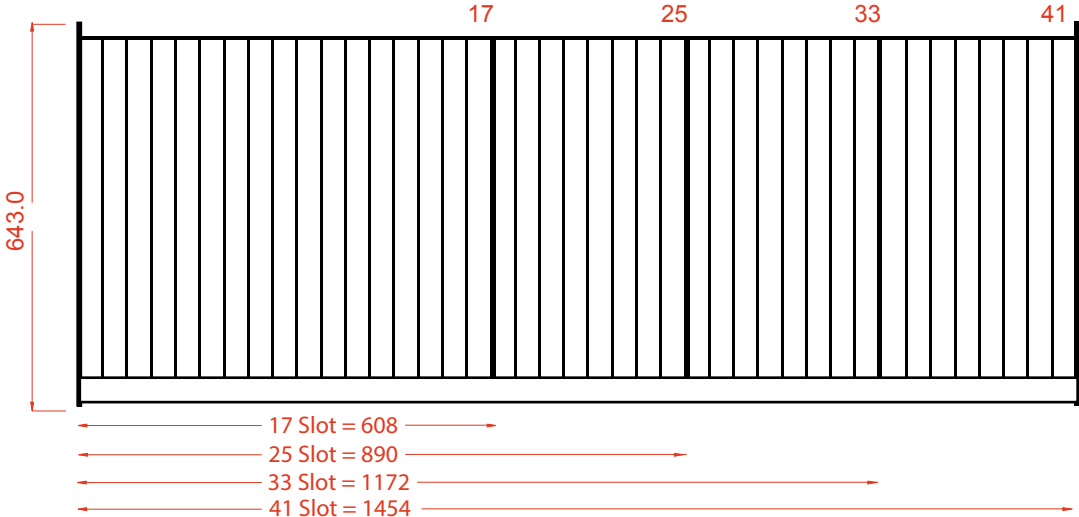


LIVE1 1642



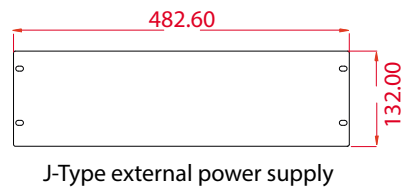
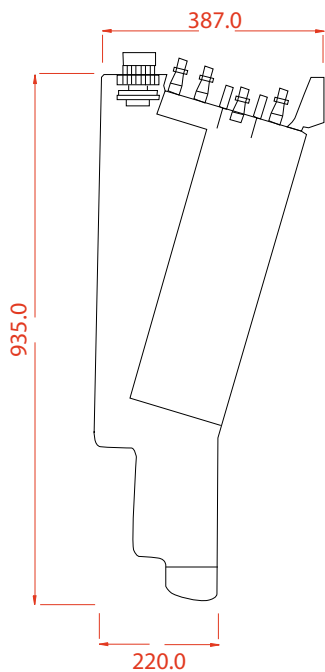
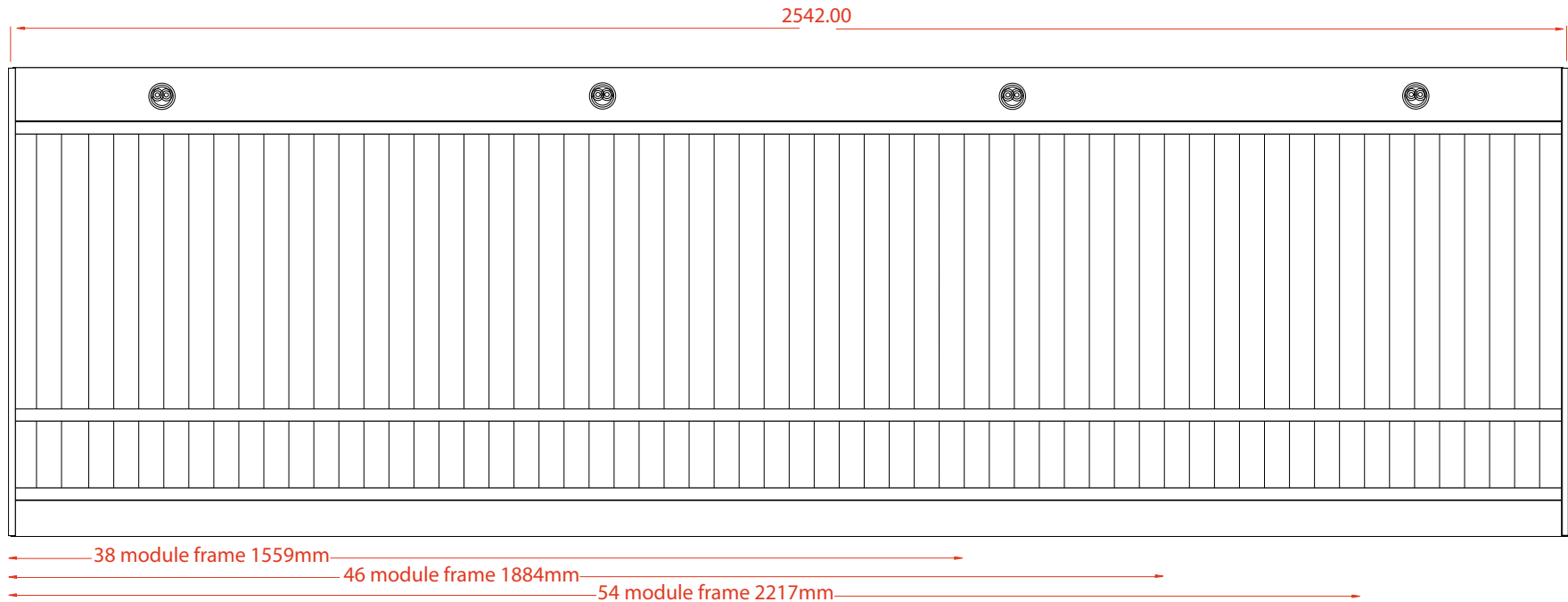
LIVE1 PS1 external power supply

S-Type: Typical Frame Configuration



S-Type external power supply

J-Type: 62 module frame

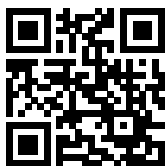


J-Type external power supply

Weights

CDC eight-32	110kg / 245.5lb	LIVE1 1642	12.9kg / 28.44lb
CDC eight-16	75kg / 165.35lb	LIVE1 2442	17.9kg / 39.46lb
CDC eight-16S	41kg / 90.93lb	LIVE1 3242	22.7kg / 50.04lb
CDC PSU 4800	10kg / 22.05lb	PS 1	4.5kg / 9.92lb
CDC four:m	14.8kg / 32.63lb	S-Type 17	42kg / 92.59lb
CDC four	14.8kg / 32.63lb	S-Type 25	49kg / 108.03lb
CDC I/O 6448	13.5kg / 29.76lb	S-Type 33	55kg / 121.25lb
CDC I/O 3216	10.9kg / 24.03lb	S-Type 41	79kg / 174.16lb
CDC MC MADI	4.5kg / 9.92lb	J-Type	Depends on configuration
CDC MC Dante	4.5kg / 9.92lb		
CDC MC Router	5.5kg / 12.13lb		

All weights are approximate and out of the flight case



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