PALM™ technology

SOUND & STAGE • LIGHTING • INSTALL SOUND • MUSIC PRODUCTION • DJ TECHNOLOGY

THE BIG STAGE DJ EQUIPMENT GUIDE

- DJ Controllers
- DJ Headphones
- CDJs & Media Players
- LED Display
- Lighting Consoles

Check out the Product Focus Section for a comprehensive line-up

THE BIG STAGE DJ ISSUE

Morten Jorgensen, Vibhor Khanna, Christian Liebenberg in conversation with Anil Chopra about Bose innovation in products, sales and distribution

BELIEVING IN THE MARKET
- Bose DISTRIBUTION Strategy

Features:

11 Questions
- Karan Singh - CEO, Sunburn Global

SENNHEISER CHRONICLES
- Interview with Vipin Pungalia

BUILDING DJ TALENT

THE FINCH
- Live Music and more

A Note from the Editor:

FIVE MILLION DJ SETUPS IN INDIA PER ANNUM
FUTURE SOURCE PREDICTS $1 BILLION GROWTH IN
TOURING, RENTAL AND PORTABLE AUDIO

TOURING & LIVE SOLUTIONS

Elevate your concert sound to British Luxury Standards

DiGiCo

S21

Rewriting the rule book

The Specification

- 96kHz as standard
- 24 mic line inputs
- 12 analogue outs
- 2 AES I/O (mono)
- Word Clock I/O
- 1 GPI and 1 GPO
- DVI out (for an external monitor)
- 2 DMI Card slots (up to 64 I/O per slot)
- 2 Ethernet connections for Networking
- 2 x 24 segment master/solo meters
- Touch sensitive rotaries with integrated switch & HTL
- 2 x multi-touch screens
- 21 x touch sensitive moving faders
- 4 x layers of banks of 10 faders
- Customisable bank and channel layout
- Snapshots
- Integrated USB2 Audio I/O interface for recording and play-back of up to 48 channels

- 40 x Input flex-channels Mono/Stereo (equivalent of 80 DSP channels)
- 46 busses: 16 x flexi-busses Mono/Stereo (equivalent of 32 DSP busses), Stereo Master (2), Solo busses (2 stereo, 4 total), and 10 x 8 Matrix (8)
- 10 x Control Groups
- 1 x Compressor per channel and buss
- 1 x Gate per channel and buss (switchable to ducker, or compressor with side chain access)
- 16 x assignable 32 band Graphic EQs
- 8 x FX engines (reverbs, delays, w/modulation and enhancer)
- 4 x assignable DiGiTuBes
- 4 x assignable Multiband Comps
- User definable Macros
- An extremely high power headphone amplifier with 1/4 inch and mini jack socket

DMI Card Options

DMI-DANTE

DMI-MADI-B

DMI-HYDRA 2

DMI-ADC

DMI-MADI-C

DMI-AES

DMI-DAC

DMI-SOUNDGRID

DMI-OPTO

DMI-AVIOM

a note from the editor
Anil Shiv Raj Chopra

Five million DJ set-ups in India per annum drive pro sound business

Futuresource predicts $1 billion growth in touring, rental and portable audio

PALM Technology is challenged at times to present a choice of equipment to its readers in our Product Focus pages; chances are featuring popular products and brands might result in Déjà vu. I do realise we all have the habit of ordering Coke or worst case Pepsi, always wondering what else in on the shelf? Well, there are hundreds of new age drinks offering all sorts of solutions, costlier, exotic, cheaper, taste, packaging et al. My brief is simply that this magazine is meaningful if readers get to know stuff they didn't - DJ Controllers on page 28 has six products [Denon, Hercules, Native Instruments, Numark, NX Audio, Reloop]. The lateral market for DJs expectedly is influenced by price and product extension and specialised features. Not all DJ performance is the same always. There are levels in DJ use in India which allow brands to cater to niches segments. Our objective is to expand Indian market by providing scope to tier 2 and tier 3 and yes! Tier 4 and tier 5 markets. Only this expansion will explode the market to its fantabulous potential all reports speak off. PT has its eye on the pro audio and lighting market as never before.

Flourishing audio market

Futuresource predicts audio market growth by $1 Billion in 2018 covering touring, rental, and portable audio markets. Estimate of 5 million DJ set ups in India per annum is probably overkill, but a sure guidance on the market. Controllers or consoles and CD players or Media players, and then mixers, speakers and amplifier, the whole thing-a-ma-jig reflects works up to massive sound reproduction gear driving events across verticals. Top-end console set-ups from premium brands would account for 10% OR 50,000 DJ set-ups.

Big stage DJ Gear

CD Jockeys / Media Players on **page 64**. [Denon, Gemini, Numark, Reloop, Pioneer]. The Spotify/cloud streaming solution is affecting adversely any adventure with new CDJs/players all of which today do not already feature CD mechanisms. Softwares are killing the market for hardware consoles and controllers are 95% of the market.

Sound reproduction gear and DJ headphones. On **page 48** is the DJ Headphone product focus [Allen & Heath, Audio Technica, Numark, Pioneer, Sennheiser, Shure, AKG, V-moda]. PALM Headphone Shootout at the show is aimed at serious professional evaluation opportunity during the three days of the 2018 expo. Our feature of Premium Product Focus features on **page 47** the Beyerdynamic DT 240 Pro. I would like most brands to opt for Premium Product Focus for their new products which I can assure almost is the best way to move into the market.

DJ Big Stage (theme of this issue) accounts for a chunk of big ticket events (very few pop acts) with Sunburn leading the entourage under Shailendra until recently; in typical filmy style big brother's son now heads Percept and Sunburn. Read 11 Questions from Karan Singh on **page 105** who now heads Percept DJ big stage biz. PT hopes to feature 11 Questions to Shailendra sooner than later. His last shout was on home-grown talent.

Smita Rai our Managing Editor has collated all the action from PALM DJ Championship winners **page 66** and your eyes will light up to learn how winners are true winners in the big bad world once they have the PALM credentials. 2018 we present the 8th DJ Championships. Over the last seven years indeed we have built a solid platform producing talent for event business and the big DJ stage. More on DJ Championship go to www.palmexpo.in/dj

DJ Nelson Swamy wins second runner-up position at PALM DJ Competition and goes on to bag resident DJ position at Vortex club, Mumbai and a chance to play at the EVC Festival 2017. From l-r: Ramesh Chetwani – PALM Exhibition Director, Mother Of Electronica in India - Ma Faiza, Pankaj Agrawal of Trimac, Anil Chopra – Founder of DJ Championship and DJ Reji – Championship Director.

PALM focus on Audiovisual and Cinema Sound & Projection

The Bose story on page 30 reveals a lot of strategy to make good in a market as challenging as India. Change of strategy is the key for Bose and the new path laid out ahead is a lesson for most companies serious on traction in AVI segment. PT provides food for thought to top honchos! Read on!

On the subject of AV, 2018 will be exciting for audio; especially modular audio which segment Bose is also restating strategy. AV 2018 will see Laser based projection gaining strength- Epson BrightLink Pro 1470Ui Interactive Laser Display product design setting the trend. 4K Display penetration continues. PALM 2018 aim in presenting a range of display solutions at the show targeted at System Integrators who visit for total solutions in AV. I have included PALM expo brochure in this issue to provide important information on expo opportunities. Cinema Sound and Projection is a special focus in 2018. This dynamic tech space is evolving rapidly and PALM is the birthplace of digital cinema in India in 2001. We bring back this segment in force next year.

Live music performance segment is Sennheiser's leading segment in India. Vipin Pungalia was interviewed by our Managing Editor Smita Rai on page 52. The pro audio market in India is experiencing double digit growth across all segments, which is reflected in entry of major brands in all product categories. PALM 2018 will present many new brands and distributors rushing the market. Cheers!

Anil Shiv Raj Chopra - Editor

28

The **Product Focus** Section presents a comprehensive line-up of Big DJ Stage equipment - DJ Controllers, DJ Headphones, CDJs & Media Players, LED Display, Lighting Consoles. The Premium Product Focus features Beyerdynamics DT 240 Pro for Musicians

Features

CONTENTS

CONTENTS

> " With change in technology, Virtual Reality is our focus. Hence, we are aggressively going to push for AMBEO VR Headsets which we are sure will create the required buzz in this industry. "

Vipin Pungalia, Director Professional Segment, Sennheiser India

52

Advertisers Index

Big Sound Big Value

POPE PROFESSIONAL ®

One World One Sound

GL-112V2 TWO WAY SPEAKER 800W

GL-12 THREE WAY SPEAKER 1800W

GL-28 TWO WAY SPEAKER 960W
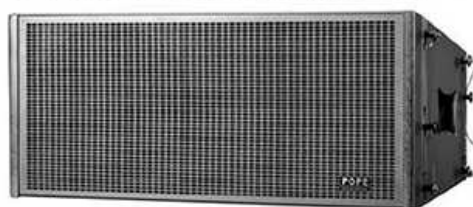
GL-10 TWO WAY SPEAKER 700W

GL-210 TWO WAY SPEAKER 1300W
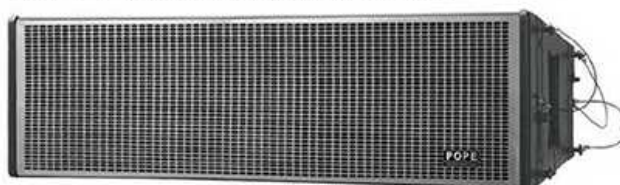
Line Array

Electronics

★ Distributor Enquiry Solicited

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MAC-3202

MAC-5202

MAC-7202

MAC-8202

XP-SERIES DSP

XP-2060

XP-4080

MA-SERIES

MA-7200

MA-8200

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HARMAN PROFESSIONAL SOLUTIONS BRINGS PREMIUM SOUND AND LIGHTING TO THE SUFI ROUTE FESTIVAL IN INDIA

India's first folk, poetry and Sufi music festival deploys JBL Professional speakers and Martin lighting to deliver an exceptional audience experience

HARMAN Professional Solutions recently partnered with HARMAN Global Brand Ambassador and Grammy Award-winning artist **A.R. Rahman** to produce *The Sufi Route*—India's first folk, poetry and Sufi music festival.

HARMAN Professional Solutions was the official technology partner of the concert, which was held on November 18, 2017 at the Qutub Minar, one of New Delhi's most iconic and historic monuments. The lineup featured legendry artists such as Javed Akhtar, Nooran Sisters, Hans Raj Hans, Mukhtiar Ali, Kamna Prasad Sood, Fouzia & Firoz, Dhruv Sangari and a Whirling Dervish ceremony from Turkey.

The Sufi Route and HARMAN partnered with The Kailash Satyarthi Children's Foundation to make the

JBL speakers.

"HARMAN Professional is proud to be associated with a concert of this genre and scale," said **Prashant Govindan**, Senior Director, HARMAN

The HARMAN audio system was comprised of 24 JBL VTX V25-II loudspeakers, 4 clusters of Vertec VT4888 loudspeakers, 9 VTXG28 subwoofers, and 6 VTX

used for configuration and control.

The performances were mixed on two Soundcraft Vi3000 consoles and a Soundcraft Vi6 console. Artists relied on AKG microphones for

HARMAN Professional Solutions partners with HARMAN Global Brand Ambassador and Grammy Award-winning artist A.R. Rahman to produce The Sufi Route
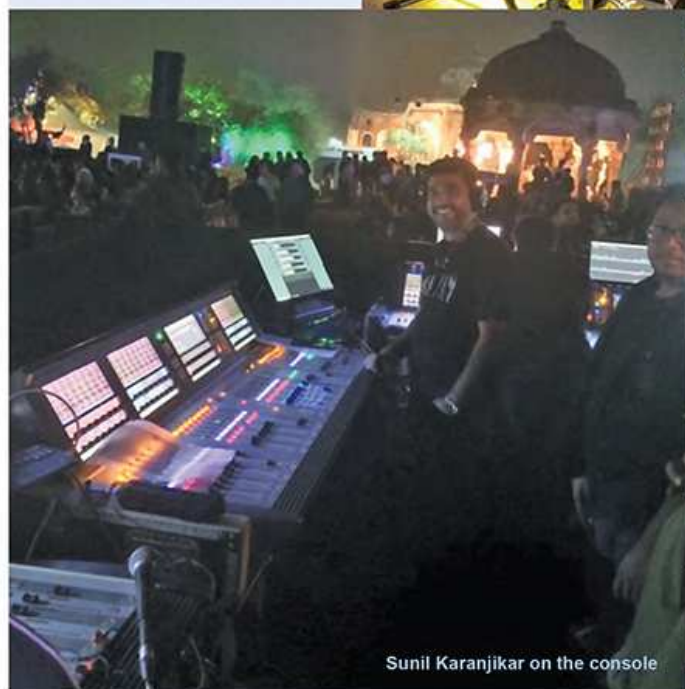
Sunil Karanjikar on the console

Hans Raj Hans performs at the festival

show accessible to 35 students with hearing loss, in support of the organization's "A Billion Acts for Peace" campaign. Students from the Centrum GRO Advanced Skill Training Center for the Deaf enjoyed the performances using four translators and vibrations from

Professional Solutions, India & SAARC. "Martin lights created the ambience, while JBL sound solutions rendered music exactly the way artists intended for their audience. *The Sufi Route* was also made accessible to hearing impaired attendees including children, which is even more heart-warming."

S28 subwoofers. In addition to the main system, the venue deployed VRX932LA-1 loudspeakers for out fills, STX835 loudspeakers forside fills, and VRX915M speakers for stage monitors. Crown I-Tech 12000HD and I-Tech 4x3500HD amplifiers provided power for the entire system, and JBL Performance Manager software was

vocal and instrument reproduction, including the DMS800 Vocal Set, Drum Set Premium, D40, C518, C5 and D5. The Martin lighting rig for the main stage included 36 MAC Quantum Wash fixtures, 48 MAC Aura LED wash fixtures, 12 Rush MH7 Hybrid fixtures and 12 Mac Axiom Hybrid fixtures.

DEB ELECTRICALS POWERED WITH YAMAHA CL5

Deb Electricals, a well-known rental company in Kolkata who have few big events lined up this festive season of the year was looking for solutions to cater to the festive season requirements, as well as serve their purpose for the long run. To accommodate and further tune with the industry standards, Deb Electricals was planning to equip their inventory with high-end products having more I/O options and possibility of future enhancements.

Post technical discussions held between Mr. Kishore Kumar Deb - Owner, Deb Electricals, Mr. Bobby Prasad - Sound Engineer, Deb Electricals and Mr. Samuel Amulraj - Product Specialist, Yamaha Music India and after fully understanding the workflow and considering the facility for future expansion, the CL5 along with the RIO3224-D was recommended.

Being a flagship model, CL5 is always one of the first choices for Live & Rental companies. With a three-section fader layout for efficient hands-on control, the CL5 is the ideal choice for a diverse spectrum of live sound systems having Mixing capability of 72 Mono & 8 stereo channels with 24 Mixes and 8 Matrices Buses.

"Being the first customer to introduce CL5 in Eastern part of India, we feel proud and happy to take forward the legacy of Yamaha," said Kishore Kumar Deb, who adds "it's a truly multi-purpose console that will fit neatly into any space and transport very easily. One reason why the CL5 was chosen is that it runs on the same operating principals as other Yamaha digital Boards, so all our engineers who are used to working with Yamaha digital consoles will be able to use the CL5 immediately, and quickly familiarize themselves with its many additional features. You can use the board for multitrack live recording and playback facility also, without any additional investments for sound cards."

"The RIO3224-D offers 32 inputs and 16 analog outputs plus 4 stereo AES outputs which will connect to board via single Cat-5e or Cat-6 cable and run on Audinate's scalable Dante network rather than to run long analog snake drums resulting time saving and making life more easy during the events" added Bobby Prasad.

The purchase was through Yamaha authorized Business partner **Mr. Gopal Das Deb - Raja Electric, Kolkata**.

"As per the client's requirement they were looking for a digital board with multi I/O options and possibility of future expansion. Further they wanted to utilize the same board for live recordings and wanted it to have remote control apps. We are very confident that CL5 along with RIO3224-D will be the perfect choice for Deb Electricals. Dante Network, Virtual Rack, Live Recording, CL Editor app for PC, CL stage-mix for IPAD, Sharing of Console files between Yamaha's Other digital boards are the few of the features that will fulfill the client's requirements" said Ashish Routh, Senior Sales Executive, East Region, Yamaha Music India.

Deb Electricals becomes the first customer to introduce the YAMAHA CL5 in Eastern India

ROLAND INTRODUCES SP-404A LINEAR WAVE SAMPLER
Compact Performance Sampler Added to the AIRA Series

Roland has introduced the SP-404A Linear Wave Sampler, a new performance sampler for the AIRA instrument lineup. Designed for live use, the SP-404A expands the sounds of the Roland AIRA TR-8 Rhythm Performer for a combination of sample and percussive synthesis. It also functions as a portable standalone sampler with a built-in mic and battery-powered operation. Offering a fast, hands-on approach, the SP-404A is a perfect fit for the rhythmic effects and step-sequencer of the TR-8.

The SP-404A is based on Roland's popular SP-404SX, a longtime sampling favorite of DJs and music producers. All of the functions and features of the SP-404SX are contained in the SP-404A, including 16-bit linear sampling, 29 onboard DSP effects, smooth FX switching, 12 professional performance pads, and an onboard pattern sequencer.

The SP-404A can be triggered from the TR-8 Rhythm Performer via MIDI for integrated beat and sample production. Users can incorporate samples from the SP-404A and use them in conjunction with drum patterns, and each of the TR-8's 11 tracks can trigger a sample on the SP-404A, play a TR-8 sound, or both.

In addition, the TR-8 can be used as an audio sub-mixer and processor for the SP-404A. In this configuration, all samples played on the SP-404A can be effected using the TR-8's Scatter feature to reverse, glitch, gate, truncate, stutter, and perform all types of rhythmic variations in perfect sync. Samples can also be controlled by the TR-8's per-step Side Chain function for rhythmic ducking and gating effects.

To get users started with sample looping, the SP-404A comes with an SD card loaded with a library of new sounds created by Loopmasters, a leading sample developer. The samples in the library have been designed specifically to complement the TR-8, but also work well in standalone applications.

Roland SP-404A Linear Wave Sampler

BOSE PROFESSIONAL'S SHOWMATCH WITH NEXT-GENERATION DELTAQ TECHNOLOGY ADVANCES SOUND REINFORCEMENT IN INDIA

The rental market in India has evolved through leaps and bounds, nurturing qualitative growth as its foundation along its path. And vital to this growth is technology; enhancements in loudspeaker and line array systems being key. Today, the market has access

venues, stadia, live theatres, and arenas in the years to come.

"With enhancement in infrastructure presenting a steady stream of opportunities, and live event professionals emphasizing more on sound to create an enchanting experience for audiences; the market

DeltaQ system has made quite an impression among key players in the market; with reputed rental companies like Bangalore based Acoustic Control and Hyderabad based Highbrow Production Services acquiring comprehensive ShowMatch DeltaQ array rigs (complete with

delivers it all. Whether you're doing a gig that plays high-energy alt rock with a lot of slam-to-the-wall stuff, or something mellow and calm like an acoustic set; the system is built to intersperse sound cleanly, with great detail and amazing intelligibility. Plus, even if you have a mix with a lot of dynamics, you'll notice that the system retains all the power without fatiguing, and with no issues translating the nuances of that FOH sound. And of course, the best part about the system is its interchangeable horizontal waveguide plates which can easily be swapped on site to suit

The band 'Chehre' performing at the launch demo of the ShowMatch array in Mumbai

The revolutionary ShowMatch array speaker system with the next-gen DeltaQ technology

to a plethora of line arrays and loudspeaker systems promising quality, adaptability, portability and efficiency in different coalescence. Users, however, do stress that there's a lot left to be desired.

Bose Professional presented its revolutionary ShowMatch array speaker system with the next-gen DeltaQ technology to India's pro audio community at the end of 2016; and ever since has drawn attention of several rental companies and DJs across the country. Bose Professional asserts that the Indian market is important to the brand as a key business region, owing to its healthy growth rate and the potential for increase in the number of live music

in India was ready for the next wave of pro audio technology. As a brand, Bose Professional has always challenged conventional approaches to sound, and we believe the ShowMatch DeltaQ is the next-generation in revolutionary array technology that's been designed to answer the yet unmet customer needs in live sound. The ShowMatch system provides users with the ability to design a system with consistent tonal balance and significantly more detailed and balanced sound with uniform coverage; which makes it easier to EQ and provide unmatched sound clarity" said **Vibhor Khanna**, Country Manager – SAARC, Bose Professional.

The Bose Professional ShowMatch

amplification + processing) as their premier reinforcement solution. Teams from the respective rental companies proudly expressed their elation with their new rig, asserting that the ShowMatch DeltaQ system's performance has far surpassed all expectations.

Sanjay Mudartha of Acoustic Control shares his comment on their new Bose ShowMatch system saying, "This system is pure genius. Impressive is an understatement. From the thundering bass to the clear mids and sparkling highs. This system

any venue be it a small space or a performing arts center or amphitheater or whatever. Plus, designing the perfect delivery

MAUI 11 G2

MAUI 28 G2

SO ND
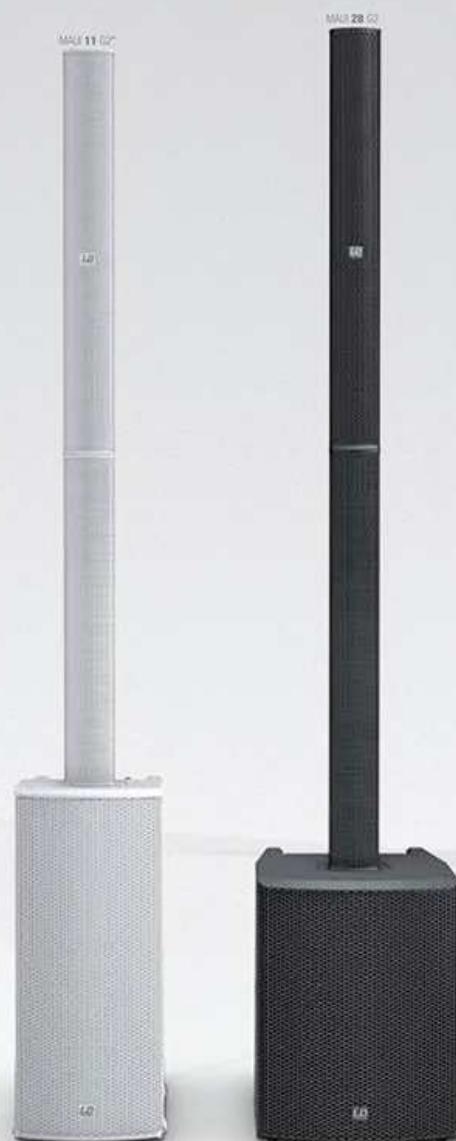
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SERIES

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PA SYSTEMS

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Phenomenal **sound** and plenty of **power**. No-compromise engineering and remarkable **user friendliness**. This was our mission when designing the **MAUI® G2 Series**. Delivering **distortion-free audio** with **uniform coverage** and **maximum portability**, our column systems let you focus on what's most important – **your music and your performance**.

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ALLEN & HEATH UNVEILS NEW COMPACT SQ SERIES

British Mixer Company, Allen & Heath has introduced its new SQ series of digital mixers with XCVI 96kHz FPGA engine, for live sound, AV and installation. The SQ-5 and SQ-6 mixers deliver class-leading high and 25 faders. Both consoles can be expanded up to 48 inputs via a family of remote expanders and feature an audio networking slot for optional Dante, Waves and other card formats, expanding the scope

The SQ-5 and SQ-6 digital mixers can be expanded up to 48 inputs via a family of remote expanders and feature an audio networking slot for optional Dante, Waves and other card formats

resolution audio with a latency of <0.7ms.

Product Features

SQ-5 has 16 onboard preamps and 17 faders and is 19" rack mountable, while the SQ-6 provides 24 preamps

for system integration, FoH / monitor splits and multitrack recording.

A built-in SQ-Drive makes it easy to capture high resolution 96kHz stereo and multitrack recordings direct to a USB drive. SQ can also

be hooked up to a PC or Mac via USB to become a plug 'n play, Core Audio or ASIO compliant 32x32 audio interfaces, with MIDI and DAW Control capabilities. Allen & Heath's DEEP processing plug-in architecture allows boutique compressor and preamp emulations to be added to the SQ mixer and embedded directly within its inputs and mix channels without adding system latency or setup hassles. SQ also features a fully integrated Automatic Mic Mixer (AMM), handling conferences, panel talks and TV shows.

"SQ is such a great solution for AV, corporate, rental and installation scenarios," commented Allen & Heath's Product Manager, Keith Johnson. "It's compact, connected, great sounding, and capable of mixing anything from a panel discussion to a full live band, all with incredibly low latency and pristine 96kHz audio.

The console is DEEP processing ready, so when users register their SQ they'll be able to get stunning tube preamp emulation worth $149 for free, and we're planning to offer many more boutique processing models in the future."

The SQ user interface marries a capacitive touchscreen with an accompanying set of illuminating rotary controls. Channel and mix layouts can be configured to fit the audio professional's own workflow, with colour displays and custom naming on all strips. SQ-5 features 8 softkeys, allowing further customization, while SQ-6 has four assignable rotary controls and displays in addition to its 16 softkeys.

SQ is the centrepiece of a wraparound ecosystem of apps, remote I/O expanders, audio networking cards and personal mixers, multiplying the system's expansion and integration possibilities. The SLink intelligent port allows connection of Allen & Heath's 96kHz and 48kHz expanders and can link to another SQ, or even to a dLive system.

BOSE PROFESSIONAL'S SHOWMATCH ADVANCES SOUND REINFORCEMENT... (Continued from page 16)

system tailored to the venue is an absolute breeze with the software. This is why the Bose ShowMatch DeltaQ is next-gen; and we are absolutely proud to have it feature in our inventory."

The ShowMatch array loudspeakers comprise compact Baltic birch ply enclosures, with weights ranging from 64 to 67.5 pounds (depending on model), including the integrated 3-point quick-pin rigging and endcaps. The array modules are offered in three versions with 5/10/20-degree vertical dispersion; and under the protective steel grill, two dual long-excursion 8-inch neodymium woofers flank a CADS (Continuous-Arc Diffraction-Slot) manifold. The latter is a proprietary Bose innovation that provides interference-free acoustic summation of the four Bose EMB2S compression drivers. The array loudspeakers have also been recorded to deliver the highest full-range output for their size class with 145 dB peak array output

levels. And with field-changeable waveguides aimed at optimizing sound quality throughout the audience area, users can create both traditional J-Array, Constant Curvature and DeltaQ array configurations, bringing selectable coverage control to the portable/rental markets. All the speakers are unpowered and employ two-way designs with no midrange-specific driver; the crossover point is 1,500 Hz, sidestepping the critical vocal range.

'There are two key elements of differentiation for ShowMatch DeltaQ: Sound quality and flexibility" explains Vibhor as he talks about the performance value derived from the ShowMatch system. He continues, "With respect to sound quality, it is the vocal clarity that the product provides. Historically, many loudspeakers have a crossover in the vocal region, which degrades vocal clarity. We came up with a two-way system and invented new proprietary transducers and compression drivers that kept the cross-over point outside the vocal clarity range

thereby improving the intensity and clarity of vocal projection significantly. Another key positive of the ShowMatch system is its ability to deliver seamless coverage throughout the audience listening area and achieve a system that performs best to the venue orientation. DeltaQ refers to being able to vary or change 'Delta' the directivity 'Q' of the boxes, both horizontally and vertically. This proprietary approach enables the creation of a custom array shape to meet the needs of the venue. ShowMatch modules have three different variants for the vertical coverage angles – 5-degrees, 10-degrees, and 20-degrees – and there are three different options for the horizontal patterns which are field-changeable. The CADS manifold not only allows building arrays made up of multiple modules, creating a smooth and coherent wavefront from the top to the bottom of the array, but it also lets us bend the vertical, to create differing verticals, while maintaining that acoustic spacing for coherent summation. So if you want

to change the horizontal coverage angles in the field, you are able to do so quite easily. And you can even outfit modules for asymmetric patterns. This is something unique to the Bose Professional ShowMatch DeltaQ system."

Bose Professional asserts that the ShowMatch system has been designed to provide optimum performance value when paired with amplification and processing products from the brand's portfolio. Vibhor elaborates "The ShowMatch DeltaQ array system powered by Bose PowerMatch amplifiers and routed through Dante audio networking from Bose ControlSpace processors forms the finest reinforcement system in its class available in the market today; and we are happy to present the ShowMatch DeltaQ as a premium solution to rental companies and DJs who emphasize world-class quality. We see great scope for it in the market here, and are confident of exciting developments in the near future."

NSJM SOUND REINFORCES SUNBURN'S KSHMR AND KYGO WITH THE D&B AUDIOTECHNIK V SERIES

NJSM delivered outstanding audio support for Sunburn's KSHMR and KYGO tours for their Kolkata and Mumbai chapters respectively. Both these events were powered by their much recently acquired d&b Audiotechnik V Series rig.

and during the show for Mix Engineer Sancheth Suvarna. "I used one Waves plug in on the Subs and one Waves Multiband Compressor on the master, and that's about it, tuning the system is practically not needed when it comes to the d&b," says Sancheth.

system later, since d&b's calculated data is accurate. If everything is done right, everything sounds right" says Sachit who was the Chief System Engineer again for this show. Rigging on this show was a different experience for this young team as

tops, but here we finished two hangs of 14 tops, two outfill hangs of 4 tops and two subarray hangs of 4 subs each and 20 Subs on ground within 4-5 hours" says Sudharshan Shetty the Chief Rigging Specialist.

"Working with a new teams is always fun, they are more energetic and enthusiastic. The NJSM team is not just young and energetic but also technically very sound. They take the event as a whole and not just as sound vendors helping us wherever needed. The gear they use is amazing and they execute their events with passion and that's what we are looking for. We look forward to work on more gigs with this team" says Yogesh Malhotra, the Production Manager of Percept Live,

The NSJM Team (From l-r) Sudharshan Shetty, Sachit Subramanian, Nixon Johny & Sancheth Suvarna at Sunburn's KYGO tour, Mumbai

(From left to right) Abhijeet Khedekar, Sancheth Suvarna, Vivek Reddy, Sachit Subramanian, Ajay Rathod, Tapas Bar and Kunal Gori at Sunburn's KSHMR tour, Kolkata

The Kolkata event was powered by 24 V Series tops with 20 Subs. "Typically we have worked on this venue for previous events of Sunburn and now are well aware of the venue, but this time we had a challenge since we were working with a different system, but d&b's ArrayCalc made it very easy for us" says Sachit Subramanian the Chief System Engineer on the show.

The show was pre-planned with the help of accurate venue data from Sunburn's crew which was later on used to create simulations on ArrayCalc, therefore making it very easy to setup for the technician crew

The event had over 5000 crowd as footfall making it another successful event for the NJSM team in Kolkata.

The Mumbai event was a very different challenge; the venue was a broader venue and crowd expectancy was over 7000 people. Also since it was Mumbai the home turf for Percept and NJSM, no mistakes could have been made. It again started with accurate venue data that was provided. "I went down to the level of marking and measuring everything by the millimeter - proper measurements and then placement on site according to that, which meant less work for me to tune the

they have just started their journey into large scale events. "We started rigging our system only at 4:00 PM on the previous day and started having some challenges. Here I'd say the loudspeaker manufacturer has actually made rigging as easy as eating a cake. Our earlier systems used to take a day just to rig 10

the company that owns and executes the property Sunburn. "SIZE DOES NOT MATTER" exclaims Nixon Johnny, "I've always believed that engineering today has reached a stage where smaller boxes can deliver similar dynamics that a bigger box can and d&b V Series have proven that to us time and again" he adds.

ALLEN & HEATH TAKES UP ROB CLARK AS NEW MD

Allen & Heath, manufacturers of mixing consoles has announced the appointment of R&D Director, Rob Clark to the role of Managing Director. Clark takes over from longstanding company figurehead Glenn Roger, who will remain as a director of the Audiotonix group, focusing on identifying market opportunities and helping to specify new products.

Rob Clark joined Allen & Heath as a digital R&D engineer in 1993

and has played a key role in the development of the company's digital mixers, becoming R&D Director in 2008.

"It's an honour to take on this new challenge. Glenn has been a trusted friend and mentor for more than 20 years, and I know we can rely on his wise counsel in the future. It's a fantastic time to move into this role; the product range has never been stronger, we're blessed with an amazingly talented team, and

we have the collective expertise of the Audiotonix group to draw upon. Together we will continue to grow the business with the passion and innovation that Glenn has always personified." Rob Clark commented.

Mr. Rogers said, "Rob has a wealth of experience and the best team in the business behind him, so I know that Allen & Heath will continue to go from strength to strength under his leadership."

Rob Clark, Managing Director, Allen & Heath

AR SOUND EXTENDS THE BASS IN HYDERABAD WITH MACKIE

AR Sound, a reputed rental services provider in Hyderabad, famous for rendering comprehensive audio-visual and music entertainment services for a variety of live events and gigs across the board, has recently invested into adding multiple units of the Mackie SRM1850. The purchase, as confirmed by Suvarnaraj of AR Sound, came as a direct result of an immediate need to cover rental services for multiple number of gigs that were scheduled to take place at the same time.

Mr Suvarnaraj quotes, "Over the past decade or so, clients have become very particular about the quality of sound at their gigs, which was one of the primary reasons why we invested into Mackie when we first started. We've known for a fact through personal use and experience that Mackie products have always stood true to delivering reliable and great quality performance all the time. So when I had to make a choice, there was absolutely no doubt that we would be adding the Mackie SRM1850 to our existing setup. The subs are powerful, yet extremely versatile; and they're extremely easy to move around logistically, which is always a great thing. Plus, it is extremely easy to use and maintain. And, the extended low frequency that the SRM1850 delivers is absolutely unparalleled. Without a doubt it enhances the experience of the sound, energy and overall vibe at gigs in general. Extremely pleased with the SRM1850!"

The Mackie SRM1850 portable active subwoofer at AR Sound

STUDIOMASTER PROFESSIONAL DUAL LAUNCH

Studiomaster Professional's has recently added the latest Air U it's acclaimed AIR series mixing consoles, and the new XR-80 duet UHF wireless microphone system forms the epitome of uncompromising audio

AIR U MIXING CONSOLES

It is simple and efficient package to mix live shows, studio recordings, band rehearsals, podcasts, and much more, available in 6, 8, 12 & 16- channel configurations; the lightweight, compact and road-ready AIR U mixing consoles are loaded

an AUX Send, and balanced XLR and unbalanced 1/4" Jack master output; the mixer features on-board Delay EFX & FX send along with 3 band EQ on each channel, allowing for great sound in all kinds of live environments.

XR-80 wireless system

They also feature PFL (Cue) switch with individual channel control along with a dedicated headphone out with level control. There is also dedicated L/R pan pot and clip with LED per channel. Comprising an RCA line-in with control for external sources like a CD player, the consoles also feature a high quality built-in MP3 player that allows you to play music and media directly from a USB stick or SD card as a separate channel. The MP3 player displays track numbers and is controlled by a remote, which is supplied with the mixer thereby making it even more convenient to control media playback through the mixer.

XR-80 WIRELESS SYSTEM

It is available with 80 selectable channels, assuring superior vocal and speech reproduction even amidst high pressure and extreme conditions

of live events or installations. With a cardioid polar pattern & frequency response of 40Hz-16KHz, the XR-80 wireless system allows for two microphones to be used at the same time, and can be set up easily with Infra-Red.

The system presents individual XLR channel output with level control with a ¼" jack mix output, in addition to a back-lit display that aids in frequency identification. The handheld & bodypack transmitters require a nominal 2 units of 1.5V AA batteries, while the receiver operates through an AC adaptor, which is supplied with the set. Available in two configurations, HH (handheld + handheld) or HL (handheld + lapel), the XR-80 wireless system has been designed with simplicity and ease-of-use in mind, so much so that it can be operated to perfection by users of all levels of expertise.
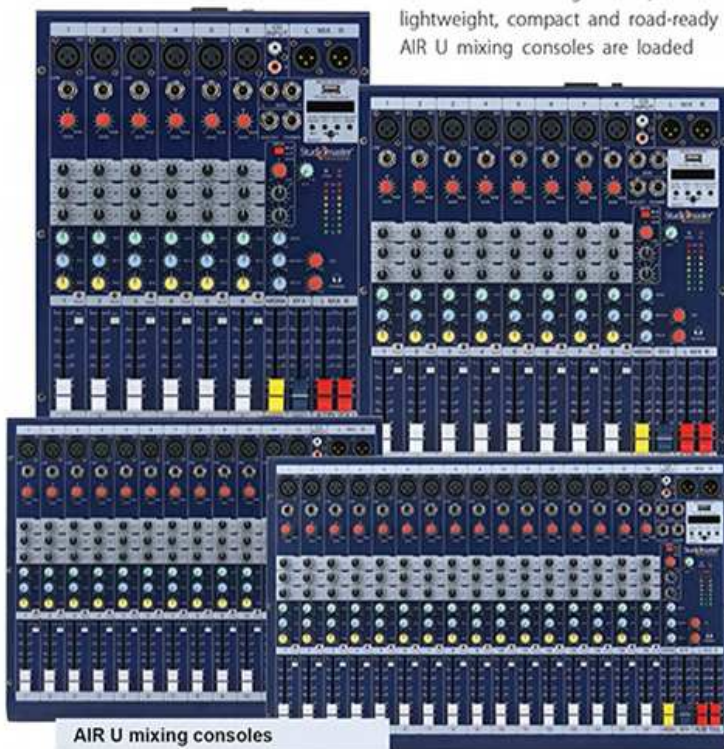
AIR U mixing consoles

delivery. With it's legacy of delivering a simple and efficient package to mix live shows, studio recordings, band rehearsals, podcasts, and much more.

The mixers sport high quality USB,

with analog connections and digital tools, making it a truly dexterous and feature-rich package.

360 PRO SOLUTIONS

Kiran SALES CORPORATION

NEUTRIK

NLT4FX

NLT4MX

NLT4FP

NLT4FP

NLT4FX-BAG

NLT4MX-BAG

NLT4MX-BAG

NLT4MP-BAG

GUIL

INCLUDES BOOM ARM WITH DOUBLE THREAD FITTINGS

METALLIC ADJUSTING SYSTEM

Aluminium

Aluminium

INCLUDES CABLE CLIP

ROSCA 3/8" y5/8" 3/8" & 5/8" THREAD FITTINGS

Ref.STA-03

ST-113 + STA-03

Ref.ST-113

SOUND EMPORIUM & OSRAM ORGANIZE KREIOS WEDDING PAR LAUNCH EVENTS

Sound Emporium and Osram recently organized Kreios Wedding PAR launch events at some of the major cities like - Ahmedabad, Pune, Kolkata, Hyderabad, Lucknow, Chandigarh, Ludhiana and Goa to increase awareness through improved visibility and effective communication with the target audience. This opportunity for face-to-face interaction with who's who of the industry not only helped

For over a century OSRAM has been synonymous with innovation, excellence and sustainability across an ever- growing range of products. With the Osram Kreios Wedding PAR, now Osram aspires to bring

the ITA Awards Mumbai, 2016

Kreios shines at Sur Ganga Sangeet Mahotsava, Varanasi

in building trust and credibility but also helped the buyers make informed purchases.

the same values to revolutionize the entertainment lighting industry.

Osram Kreios Wedding PAR consists

of two models:

Kreios Wedding PAR RGBW 100W

Osram Kreios Wedding Par RGBW, is a compact, lightweight, waterproof and robust design specially designed for Indian power grid, allows lighting up day time moments with unique combination of 3-4 shades of light that leaves audiences in spell. It also offers 2-year of guarantee.

Kreios Wedding PAR 100W

This product offers high intensity light with the low heat output, requires no active cooling, allow designers to create unforgettable effects with its dazzling white light. It can be control via DMX512, standalone mode or integrated sound-2-light programs.

Formed in 1999 by Mr. Nawal Agrawal, Sound Emporium has today established its name in the Indian market as one of the leading suppliers of Pro Light & Sound Systems PAN India. In the months to come, the company plans to organize more launch events and cover 10 more cities for increased reach.

L-ACOUSTICS ANNOUNCES HEAD OF TOURING APPLICATIONS TEAM

Tony Szabo, Industry expert has joined the L-Acoustics ranks as head of the touring applications team, to support major projects across the globe and co-manage its team.

He will work directly with F**lorent Bernard**, director of applications, Touring to deploy the application strategy for the touring market and manage the touring applications team. As part of the senior leadership team, he will ensure the continued success and strength of the global network of L-Acoustics partners and will support major projects around the globe.

Being a familiar face to many in the industry, his career spans 25 years - from Monitor Technician to FOH Engineer, Show Controller,

Tony Szabo, L-Acoustics to support major projects across the globe as head of the touring applications team

Crew Chief and Senior FOH Systems Engineer, Tony has worked with the world's top artists and festivals. Most recently, he served as Senior Systems Engineer at L-Acoustics UK partner Adlib Audio Solutions, designing systems for tours and festivals as well as mentoring the systems engineer team and leading technology acquisition decisions.

Tony has lived and worked in Australia, Canada and the UK, touring with artists such as David Bowie, Bryan Adams, Kylie Minogue and large-scale events like the Sydney Olympics Opening and Closing Ceremonies.

"Tony's extensive experience in key posts in the industry brings a unique and fresh perspective to lead

our market development strategy. His combination of technical expertise, industry knowledge, and business acumen will be a great asset for L-Acoustics," affirmed Florent Bernard. "Counting Tony in this newly created position will allow us to continue to affirm and expand our leadership in the touring market, while supporting our partners to do the same."

"I've worked extensively with all of the top pro audio technologies and I'm proud to join what I consider to be the leading pro audio brand," added Tony Szabo. "It's exciting to represent L-Acoustics in the touring market, ensuring the continued strength of the brand through the excellence of our internal team and our global network of partners."

ELIO CAIA NEW INTERNATIONAL SALES MANAGER FOR AXIOM

Proel has announced the appointment of **Elio Caia**, as International Sales Manager for the company's Axiom professional loudspeaker brand. Caia will be responsible for growing and coordinating all of Axiom's export markets in the EMEA, APAC, and North American regions.

Elio Caia comes to Axiom with a solid background in professional audio, having worked as part of an export team managing distributors, developing markets, and providing specialized technical support to export markets for a noted pro

audio sound systems manufacturer. He is also an accomplished linguist, and able to apply his fluency in Spanish, French, English, and Chinese to those markets where he will be deeply involved in a sales capacity. Caia's academic achievements have led him to understand very well the role that effective communications play in the arena of brand development.

"Elio has a fine balance of experience and skills to address the different facets of today's worldwide pro audio market," commented Axiom Business Unit Manager **Daniele**

Massaccesi, "I feel that a proper interpretation of different market needs requires a good cultural and linguistic background combined with a suitable technical and commercial knowledge, and these are talents that we have found in abundance with Elio. All of this, combined with what Axiom is able to offer in terms of added value, will allow the brand to achieve significant results and greater visibility on the international stage. I and the rest of the team have every confidence in Elio and would like wish him good luck with this endeavour."

Caia will be responsible for growing and coordinating all of Axiom's export markets in the EMEA, APAC, and North American regions

VLFC - MEYER SOUND'S LATEST ADDITION TO THE LEO FAMILY OF LINE ARRAY SYSTEMS

VLFC, very low frequency control element, is the latest addition to Meyer Sound's LEO Family of line array systems. It is the first large-scale loudspeaker system specifically engineered to create visceral impact at frequencies below the threshold of hearing. By focusing energy into a narrow band between 30 Hz and 13 Hz, VLFC is uniquely capable of

generating extreme variations in air pressure that are sensed by the entire body as compression waves while those frequencies at the upper end of its range are perceived as thunderous bass sound.

The VLFC is a self-powered system housing two low resonant frequency 18-inch cone drivers. The on-board power is supplied by a two-channel Class AB/H bridged amplifier with complementary MOSFET output stages for high peak power and clean transient reproduction even

at extreme operating levels. Cabinet porting and internal baffling have been optimized to deliver maximum acoustic output in one octave that extends across the lower limit of human hearing.

"You actually feel the effect of the VLFC much more than you hear it," explains **Pablo Espinosa**, Meyer Sound's Vice President of Research and Development and chief loudspeaker designer. The VLFC shares the same exterior footprint as Meyer Sound's 1100-LFC low frequency control element, allowing use of the same rigging grids and caster frames. When the VLFC is paired with the

1100-LFC, the combination produces linear, coherent bass response from 13 Hz to 100 Hz.

Applications for the VLFC include adding very low frequency, visceral impact to hard rock and electronic dance music in concerts, festivals and clubs. The VLFC also adds explosive impact to special effects in cinemas, themed spectacles, and theme park attractions. A limited early production run of VLFC elements was supplied for Metallica's ongoing Worldwired tour, where as many as 42 VLFC cabinets created a forceful impact that was felt throughout large stadiums.

MMI STAGE JAM ROOM COMPLETES ONE YEAR

Mumbai Music Institute announced that the institute's Stage Jam Room has successfully completed a year in December 2017. It is India's first Stage Jam room, which has become the most preferred venue for almost every renowned artist from music and sound industry like Shreya Ghoshal for her US and Canada Show, Arman Malik, Vishal Bharadwaj and Rekha Bharadwaj for their MTV Unplugged performance, Ajay-Atul for their concert with 70plus musicians with a huge rhythm section, Pritam and AR Rahman Band for his India Tour Concert.

The stage jam room provides a huge area of 10000 sq. ft. with a jam room area of 2500sq.ft, Food area

of 2000 sq. ft., open area of 500 sq ft, fitted with the equipment's like Avid Venue SC48 compact console, Das Audio Line Arrays, Lab Gruppen Amps, Monitors and many more. The Avid SC48 provides incredible sound quality, also combines all I/O and digital signal processing into a single console package and re-creates the studio-quality sound live with full plug-in support.

About MMI

MMI was originally setup as the Audio Garage Digital Recording Studio

by Mr. Arvind Vishwakarma in 2007 and got into recording for films launched by popular production houses with various projects.

And after establishing their name among one of the industry best recording studio they finally decided to venture out further and thus started THE MUMBAI MUSIC INSTITUTE with the aim to train the next generation of musicians, artistes, producers, sound engineers, composers and DJ's.

Nx Audio

PROGRESSIVE PERFORMANCE

DJ-MEDIA6000V
Professional USB Media Player

DIRECT USB PLAYBACK

BUILT IN PRO SOUNDCARD

USB

DJ-MEDIA7000....Professional USB Media Player

DJ-MEDIA4000....Professional USB Media Player

DJ-MEDIAMK2
**Professional USB /
Dual SD Card MP3 Player**

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DJ Controller

DJ Controllers supporting Lateral market

In recent years, the DJ hardware market has grown and changed exponentially. With an array of options available in the market, choosing the right DJ Controller to suit individual requirements can get daunting. PALM Technology digs deep into the market and brings up an array of controllers that only boast of impressive features but also suit the budget.

Denon DJ MC 7000

MC7000 is the professional DJ controller with 4-channel Serato DJ capability and dual USB connections. These two USB audio interfaces enable two DJs to play together. Coupled with Denon DJ's legendary build quality and superior 24-bit audio reproduction, the controller is perfectly suited to both mobile and club DJs. The MC7000 also includes the full version of Serato DJ, plus, 3 creative expansion packs (Pitch 'n Time, Flip and Video), enabling DJ's to empower their musical, remix and visual style - to the max! The dual 6-inch platters

have a touch-capacitive design with rotational LED displays, giving DJs maximum feedback to optimize track manipulation performance in real time. The unit's multi-input mixer also provides access to line/phono inputs from both authentic analog (vinyl) and digital sources.

Main Features include:

- 4-channel DJ controller with digital mixer
- Dual USB audio interfaces—connect 2 computers at once
- 3 Serato Expansion Packs Included
- 16 velocity-sensitive performance pads
- New dedicated key-matching and changing controls
- Solid 6-inch touch-capacitive platters with tracking LED
- 2 mic inputs with dedicated controls
- XLR booth and master connections
- Serato DJ DVS-compatible
- Solid compact design

Tech Specifications:

- Unit Weight: 7kg (without USB cable and adaptor)
- Unit Dimensions (width x depth x height): 664mm X 378.2mm X 68.2mm
- Total Power Consumption: 15w

Hercules P32 DJ

The P32 DJ is a unique, all-in-one controller at the crossroads of DJing and performance. With 2 decks, screens displaying the sizes of loops, effects racks, equalizers and more, Hercules P32 DJ is perfectly designed for mixing.

Main Features include:

- Loop size display
- Built-in audio
- Two grids of 16 performance pads
- Complete and intuitive professional DJing software DJUCEDTM 40°(PC / MAC) included
- Sample packs integrated within DJUCEDTM 40° DJing software
- Features 32 ergonomic and responsive pads for precise performance and high-quality feel.
- The combination of pads, dynamic backlighting and sample packs helps you refine your identity as a DJ.
- The Traktor mapping file is available for download on Hercules' website
- The Hercules P32 DJ is also compatible with all DJing software open to MIDI mapping, such as Virtual DJ, Cross DJ, DJAY, etc. (not included).

Technical Specification:

DJ controller with dual mixing decks
- Built-in audio (mix + preview outputs)
- Two grids of 16 performance pads
MINIMUM CONFIGURATION
- 2 GHz CPU or higher
- 2 GB RAM or more
- Windows 7 and higher (32 and 64-bit)
- Mac OS X 10.8 and higher(32 and 64-bit)

Native Instruments S5

Billed as a "compact DJ controller with Stems control", the Kontrol S5 is a more stripped back version of the flagship Kontrol S8 controller with some of the faders removed. Like the S8, the S5 comes with two colour displays, control for four channels, touch strips for track cueing, and all the controls you'll need to make use of Stems, the new audio format that lets you play individual elements of a track.

Main Features include:

- Delivers premium 4-channel mixing and deck controls built to the highest standards.
- Cutting-edge TRAKTOR hardware features and multisensory DJ technology.
- Access key controls, Stem Decks, or Remix Decks, and trigger loops, cue points, or FX directly on the unit.
- Plug-and-play control requires no mapping or control assignments necessary.
- Touch-sensitive Browse, Loop, and FX knobs trigger smart views and pop-up panels on the displays.
- Precision touch strips allows pitch bending, track seeking, and vinyl scratch emulation.
- Eight color-coded performance pads per deck.
- Slice-up and rearrange Freeze mode.
- Audio Interface

Technical Specification:

- Audio Inputs (A/D)
  - Channels : 1 Stereo
  - Sample Rate: 48 kHz
  - Bit Resolution: 24-bit
  - Converter: Cirrus Logic

- Audio Outputs (D/A)
  - Channels   2 Stereo
  - Sample Rate 48 kHz
  - Bit Resolution 24-bit
  - Converter   Cirrus Logic
- Headphone Output
  - Load Impedance 32 - 600 Ohm
  - Maximum Output Level (33 Ohm load) +10 dBu
  - DNR (a-weighted) 107 dB
  - THD+N <0.08 %
  - Frequency Response 20 Hz - 20 kHz, + 0.0 /- 0.4 dB
  - Phase deviation <0.15 deg

Numark Mixtrack Platinum DJ controller

Numark presents the Mixtrack Platinum DJ controller, built upon the Mixtrack Pro 3 by adding new LCD displays at the center of each platter to give lots of Serato DJ playback info as well as 4-deck control, and gain controls for each channel. This addition to the Mixtrack Numark family series enhances the performance of any DJ, from skilled amateur to the most advanced professional.

The Mixtrack Platinum also has full metal jog wheels to give it more durability and a more solid feel for DJ's. It has the 16-backlit pads bundled with Serato DJ Intro for basic DJ playback.

Main features:

- Hi-res LCD multi-function displays on each jog wheel
- Dual 5-inch metal platters with Numark-exclusive touch-capacitive response
- 4-deck capability
- Dedicated gain and filter knobs for each channel
- Independent transport controls
- 24-bit audio output—ready to go out of the box
- Includes Serato DJ Intro—upgrade-ready for full Serato DJ
- Includes Prime Loops remix tool kit
- Multi-function touch strip for dynamic FX control and Strip Search
- 100mm pitch controls
- 16 multi-function performance pads
- Multiple FX manipulation
- Dedicated track browsing controls from your library
- Integrated class compliant audio interface with 1/4-inch and 1/8-inch headphone connections

Tech Specifications:

- 24-bit, 44.1k audio interface
- RCA outputs- 1/8" headphone, 1/4" headphone, 1/4" microphone input

NX Audio DJ-MEDIA6000V

Direct USB playback-BUILT in PRO Soundcard

The DJ MEDIA6000-V is a Stand alone Multimedia mix-station with large 7" TFT display and features dual individual mixing with a Traditional   mixer/ player layout for   easy access. 2 large touch sensitive job wheels with scratch, loop, cue. 2 channel switchable line/phone inputs & 1/4" headphone out with volume make it a versatile product. Plays directly with USB/SD card.

Main Features include:

- Large 7" TFT display
- Classic 2-deck layout with complete mixer section
- Two touch-sensitive 4.5" multi-function jog wheels
- MP3-capable USB and SD inputs - for direct playback of MP3 tracks
- Intuitive, fast file management with playlist support (.m3u files)
- Clear waveform display
- Sample, effect and Loop section
- 2 jog wheels, 5 faders, 19 knobs and 61 buttons
- Pitch Control with pitchbend
- Cue functionality - set of return points
- Preview function & adjustable gain
- Channels with 3-band EQ (treble, mid and bass adjustable)
- Master, booth volume & beat-sync
- Adjustable fader curve
- Illuminated controls
- 6-line LED VU meters
- Power consumption: 15W
- USB, SD Card, Mic, Headphone, Record out, Booth out, RCA & XLR Master outs.
- 3 Programmable Hot Cue (Bank) Buttons per side.

Tech Specifications:

- Dimensions: 53 x 37 x 18.5 mm (length, width, height)
- Weight: 5 kgs

Reloop TOUCH

The new Reloop TOUCH is one of the first controllers with full touchscreen integration. It is a 4-deck controller boasts with a 7" touchscreen, performance pads, and dynamic FX control. TOUCH was developed in cooperation with VirtualDJ and it runs plug

and play after setup. Also, a full version of VirtualDJ 8 PRO is included.

Main Features include:

- 7" full-colour display: DJ without the need to look at the computer
- Touch-screen surface for intuitive operation, developed in cooperation with VirtualDJ
- Customisable user interface can be adapted to one's own preference
- Display up to 4 waveforms, including track, artist and album information
- XY panel for direct control of FX via touchscreen
- Integrated video mixing feature with full-screen support
- Easy media library organisation via drag & drop folders
- Large TRAX encoder for comfortable browsing of media libraries & cloud streaming providers (Pulselocker and Deezer)
- 4-channel club mixer layout, combined EQ/filter section
- Fader-FX unit for real-time editing of audio and video material
- High-resolution jog wheels, special non-slip design for pitch-bending
- Activate quantize, slip-mode and beat grid adjustment directly via the controller
- Xcoder: Multi-functional encoder with various modes – loop, size, and grid adjust
- 8 RGB-coloured performance pads for creative remixing
- Overall 12 performance modes with quick switch via PAD MODE button and SPLIT MODE support
- Vast adjustment possibilities for performance modes via PARAM button
- Colour-coded deck switching
- 50 mm pitchfader
- 2x headphone outs, 1x mic input, 2x master outputs (balanced/unbalanced)
- Plug 'n' Play: Incl. full version of VirtualDJ 8 PRO
- MIDI compatible with other softwares

Technical Specification:

- Inputs: Mic 6.3mm jack
- Outputs: Master 6.3mm jack (balanced), master RCA (unbalanced), headphones 6.3/3.5mm jack
- Interfaces: USB for audio, video and touch transmission
- Power supply unit: 12V/3A
- Dimensions: 594 x 377 x 43mm (height touch display 73mm)
- Weight: 3,7 kg
- Minimum system requirements:
  PC: Windows 8 or later; Dual Core 2.5 GHz or better; Minimum 4 GB RAM
  Mac: Mac OS X 10.9 or later; Dual Core 2.5 GHz or better; Minimum 4 GB RAM

BELIEVING IN THE MARKET
- Bose **Distribution** Strategy

What is your perception of the Indian Market?

MJ: I was in India in 94 and didn't quite know what to expect, but it's been really wonderful to be here. We have a global strategy we are trying to implement across all regions, so that we have a consistent way of building distribution and growing vertical markets. India is a key country for us. We have seen a lot of growth over the past several years and we want to continue that growth for many years to come.

Are you satisfied with growth in India?

MJ: I am never satisfied. Having said that, we are growing faster in India than many other regions and we will continue with this significant growth. So I cannot say I'm unhappy with this growth.

Does India have more potential in your view?

MJ: I think there are so many opportunities in India that I think we can grow more. In India the caliber of people is much higher as compared to other regions. They are very strong technically, and they've been good with building relationships, they're very motivated and excited. I think that's what's driving the growth that we see. We have several established verticals and we have several new verticals that we want to play in, such as the rental market and conferencing. In India compared to other regions, there is a huge growth potential for conferencing. We want to invest more into India and exactly decide where to put the money. For

*Fresh innovation from Bose Professional with launch of EdgeMax™ In-Ceiling Premium Loudspeakers with PhaseGuide® technology, impelled closer look at Bose strategy. **Anil Chopra**, Editor, PALM Technology interviewed **Morten Jorgensen** – Director, Global Sales & Operations, **Christian Liebenberg** - Pro Regional Sales Manager – SEAK, ANZ & SAARC and **Vibhor Khanna**, Country Manager-SAARC to learn Bose indeed innovating its sales and product portfolio to gain traction from India's robust market.*

Bose has developed Distribution network partners focused on AV verticals and an expanded product portfolio focused on system integration. Altering strategy in supporting System Integrators rather than compete for projects, essentially to broaden sales in AV and Engineered Sound segment.

From l-r: Morten Jorgensen, Vibhor Khanna and Christian Liebenberg

The Bose Demo at Infocomm showcased the new Bose innovation - The Edgemax that is touted as a flush ceiling mount package, but delivering a surface mount experience.

that we need to go after people, marketing, relationships and I am very excited about it.

Bose is here in India from many years and you must have a growth chart vis-à-vis investment which is imperative to sustain growth to build the market. So has the arc performed as per plan or has it under performed?

MJ: I think the big difference between today and about 15 years ago is the number of products that we have. 15 years ago we had a limited portfolio of products; it was just loudspeakers. But if we look at our portfolio today we do loudspeakers, we do amplifiers, we do signal processing and we do that in many different verticals – we do that in business music systems, we do that in the install market and in the portable market. Our products today are vastly different as compared to ten years ago, that has helped accelerating our growth in India.

CL: Each few years we relook our strategies because what worked in the last 5 years may not necessarily work for us today. What we are really doing now is that we have got a number of distribution partners who can allow us to penetrate the market. We do know it's going to have its limitations, so right now we are just evaluating from where the next big kick-start is going to come.

Any specific strategy for India?

MJ: I would also say that our approach to market strategy has changed radically from the past 5 years. If I go back five years in India, we were kind of like the system integrators. We were doing turnkey projects like Delhi airport etc. Then we realized that the global strategy for us is not to go direct but sell through a network. Our new strategy in India is to go to key integrators in the marketplace. We sell to them, we support them and they do the systems integration. This way we

> **15 years ago we had a limited portfolio of products; it was just loudspeakers. But if we look at our portfolio today we do loudspeakers, we do amplifiers, we do signal processing**

cater to the strengths we have and that is our products, and our people supporting our integrators.

Bose is renowned for speaker technology. Why did Bose expand its product portfolio to this extent?

MJ: The way I look at it is, that we want to make it easier for system integrators. The way we can make it easier for them is to make sure that our products are being designed to go together. For instance, if you

have a speaker and if you also manufacture the amplifier, you can put in equalization and limiting into your amplifier etc. and that makes it much, much easier for our integrators to do their job. And it makes the system perform better. These have been key reasons why we have expanded our product portfolio.

CL: The other critical point is that we don't limit the system integration companies to only utilizing pro solutions from Bose. We can actually sell amplifiers to system integrators

who want to use it with some other manufacturer's loudspeaker.

So is connected Audio the area of growth on the consumer side worldwide?

MJ: Another change we have made is that we are having a global sales and product development focus. If you look at out our markets in America, in Europe, China, Japan etc., they all are different. So, in the past in India we maybe went after a particular market. In Europe, we went

after a different market, and so on. So when there are five continents and when each region is doing their own thing, it's really hard to come up with one product which fits every market.

So from the last few years we have been developing a global strategy. So the strategy we have for the Americas (the way we set up distribution, the verticals we go after) is now similar in the Americas, Europe, China, Japan, India and South East Asia and that has been a key focus for us. So when we come out with a new product, it fits in all our global markets. We develop products for the globe.

Distribution network is the new mantra!

MJ: Plus we are focusing on technology as a key part. For example, over the past year's innovations in the ceiling speaker market haven't been anything to talk about. It's all been the same - just cheaper and more cheaper. But now Bose has developed EdgeMax - a ceiling speaker that has a compression driver, a phase guide and can give very, very even coverage. A flush-mount ceiling speaker with the audio performance of a surface mount speaker, but the aesthetics of a flush mount speaker – the best of both worlds. So by having a global strategy we can put all our focus on developing products that can fit all our markets.

Is there any one particular product innovated by Bose in response to the Indian market or from India feedback?

MJ: We typically don't develop products specifically for one market. We develop products for across the world. So we interview the America, Europe and India as well, and based on the kind of input we get, we then manufacture a product based on that.

You mentioned that conferencing was a very strong growth segment, so should we say that, that the strongest growth area for Bose is Audio Conferencing and then AV and then rental?

MJ: We already have three existing verticals which we go after. Firstly, we have Portable, then we have Engineered Sound for House of Worship, Airports, convention centers etc. and then hospitality and then we have two new verticals - Conferencing and Rental. Conferencing for us is huge because

we don't play in that market today. Maybe we sell ceiling speakers to the market but we do nothing about the electronics, the interface, the experience. So with our new products for this market there is huge growth potential for Bose in this segment.

How exciting is rental or stage sound, in the scheme of things.

VK: We have launched our rental gear called the ShowMatch last year. ShowMatch has been getting very good reviews in the market and three major rental companies already have invested into this gear and are quite aggressively using this gear for all their events, be it shows or AV events. So we are getting very good response and we see that this market is accepting this particular gear in a very positive fashion.

That's the reason we are very much excited about the future of this product line and we feel that it will be a good growth driver for us in the coming years. So Bose has become very serious about the rental business and we have a strategy in place.

We have established ourselves in the install domain in terms of the large convention centers and auditoriums but Rental and conferencing are new and the two are huge growth areas and there is a road map towards it and we are moving quite aggressively on both these two verticals.

How satisfying are the growth and net sales vis-à-vis the market for premium brands like Bose in the auditorium and in convention centers. How good is the market in India for that sector which is already established?

VK: We have lot of infrastructure projects with the new government coming in. The good part is that if we look at the last three years, the Bose pie has increased in the government vertical a lot which means customers - the government, which is traditionally a low cost buyer who buy L1 products have now started valuing the product and the quality of the product vis-à-vis the price. So they are ready to spend the premium in terms of getting the right quality sound.

So that is where we have seen growth and we are quite happy with it. We have pulled some more levers and we really want to grow aggressively in this particular vertical i.e auditorium and convention centers.

MJ: It's very exciting in India because we are at a crossroad where

certain verticals like install and portable have really changed our distribution model and now we have two more verticals.

VK: It's kind of a matrix structure for us that we run our distribution channels and we also run our vertical strategy. So that's how we cover the market much more effectively and we have partners specialized in various verticals.

So, which product would you like to emphasize to exploit this interview?

VK: We would encourage you to get a demo of the New EdgeMax premium In-ceiling loudspeakers. It's an out of the world product and nobody has it in the competitive world as of now.

I get the impression that in terms of install sound it's a major innovation.

MJ: Think about the old age where you had the surface mount speakers and people loved the sound and then we have the ceiling speakers and even with good conical ceiling speakers it was difficult to provide a great experience because the speakers were pointing straight down but with EdgeMax it gives you that surface mount experience but in a flush ceiling mount package. We have two phase guides – either 90 degree to put in the corner or 180 degree to put on the edge of the room. And the most beautiful thing is that the sound quality is similar to a surface mount loudspeaker but you don't see that because they get mounted all over at the edge. People who heard the difference between EdgeMax and conventional ceiling speakers, got out of their seats. We got a standing ovation. I believe that EdgeMax is the next generation ceiling speaker.

So, when you say the EdgeMax, you mean that now the speakers will only get installed at the edge not across the ceiling?

MJ: Yes. Think about a beautiful conference room where you got surface mounted speakers across the hall protruding out. You don't see EdgeMax, yet get an experience that is unparalleled to anything else in the world.

A journey to discover rebirth of Linear Topology

Part 2 of the article **Will The Linear Make A Real Comeback?** *wherein* **LT COL JASBIR SINGH KABERWAL**, *(Retd) SC hints at a futuristic emerging trend which may see a comeback of linear audio with advancements in technology offering sonic quality and advancement in size and energy efficiency to the next level.*

THE POWER - FIDELITY PARADOX

We know that a pair of great earphones gives us the cleanest audio reproduction when coupled with a precision audio player. The typical output level from a mobile audio device is a mere 0.5mV which is adequate for driving most earphones. Moving up to speakers designed for personal use (home hi-fi) requires amplification and yes, that too sounds very clean although not as good as with great earphones. Go louder, let's say at a cinema where the output is significantly higher but something seems to be missing - the finer notes we are accustomed to hearing on the earphones or a home hi-fi stereo setup are nowhere to be heard. Moving up in power to night-clubs – the audio is screaming loud – the thumping bass almost drowns out everything else. Hearing the finer notes is a distant dream, but is not considered a requirement in the application. However, as the quality of the overall experience is tied to the musical experience, we shall keep this example in play. We move step higher to live outdoor performances where audio output levels are nearer to overpowering loudness – a kind of cacophony. To an aficionado, the ears seem to be subjected to a constant assault in majority of the shows. Why does this happen? Earphones involve minimal amplification and distortion levels are unnoticeably low even to the most discerning listener. In applications demanding higher output levels, the increase in audio power output corresponds to a significant and noticeably higher output distortion - the rise being unbearable to the ears.

THE PAST JOURNEY

The answer to this problem must be found without colouring the actual audio signal by excessive processing or suppressing perception of output quality with extremely high power output.

By the end of this write up, we shall see the light beyond this dark tunnel of deception.

My journey to discover the rebirth of linear amplification started a few years ago at a home-theater install undertaken by me for a client. He wanted something exclusive and my search for the best available sound took me to Pune, where I was able to audition a pair of low power and reasonably priced linear amplifiers. In the course of the audition, I knew I had hit gold and found a great solution for my client. A demonstration was arranged at the client's place in Mumbai for the impending HT install. As the demonstration continued, I was stunned to hear some fine notes in movies that I had seen multiple times but never heard or felt even in well-equipped cinema halls. My client immediately placed his order for the set up using these amplifiers. While these were linear amplifiers, I was concerned about the lack of ventilated space for these linear amplifiers which ideally should have needed cooling. To my astonishment, the application team from the manufacturer installed two such 4-channel amplifiers inside a closed cabinet. It is a documented fact that linear amplification requires considerable cooling and was the basis of my skepticism about the reliability of a linear system operating in a virtually sealed space. Upon asking the inevitable question, was informed that the amplifiers had an operating energy efficiency of 81%.I was too shocked to balk at the figures that were laid out for me with my disbelief continually squashed by the hours as I spent observing the amplifiers in operation.

Out of overwhelming curiosity in the technology that generated that experience, I brought one such amplifier (500W x2) for myself, which I then rigged up to my floor standers. The result was phenomenal. My interest in this product drove me to go on to compare this piece of technology against some of the biggest names in linear amplification including Legendary Class A amplifiers. A head-to-head comparison gave me further confidence that my INR 80K device sounded and performed better than most devices costing INR 500K upwards.

A few years passed and my client's setup was still delivering without a glitch. I had a new-found respect for the creators of this technology and their sheer genius. I maintained contact with the team with an insatiable interest in the technology and whether it could scale up in power output from the level that I last experienced their magic. The question was will they be able to reduce the amp size from 2RU to 1RU and achieve a higher output than 500W x2 or 500W x4?

THE PARADOX - RESOLVED

In a recent visit to Classic Rock Café at Pune, I experienced very pleasant acoustics (despite the inherent challenges imposed by the architecture of the place) which in my opinion was surely better than many of the places I have visited in Mumbai. I took a closer look at the speakers and I saw the same logo as on the amplifier I brought a few years ago. My curiosity was peaking and the drive to know what powered this setup propelled me to grab a sneak peak at the rack behind the DJ console. There were just three 1RU amplifiers with the same logo glowing on the panels, powering 4x single 18" sub-woofers, one dual 18" sub-woofer, 4x Arrayed Mid-Size 2-way loudspeakers and 12x Mini Arrayable 2-way loudspeakers. This place was huge and reminiscent of the tunnels that staged so many rock-shows in the yesteryears. The entire place was well served with crystal clean sound even at that chest-thumping level. That very moment, I knew – LINEAR was reborn - reborn in a completely new avatar!

These amplifiers had transformed from a 5 hundred watts per channel to 5 kilowatts per channel within the form factors achieved only by class D topology amplifiers. I decided to spend an extra day to find out more and was fortunate to meet the manufacturers next evening in Koregaon Park at Agent Jacks Bar.

Apparently, the company had grown considerably since our first meeting nearly 6 years prior. I noticed their set up here too. Excited in the conversation, I had to ask "So where all have you put up your stuff?"

A random list came up promptly – FML Lounge WTC - Kharadi Pune, Thikana - Hinjewadi and FC Road Pune, Classic Rock Café - Baner Pune, Agent Jacks Bar – Baner and Mundhwa Pune, Nitrro Gym - Kalyaninagar Pune, HeadoState - Bangalore, Agent Jacks Bar - Indiranagar Bangalore, Fire n Ice - Hyderabad, Agent Jacks Bar - Hyderabad, Coco Resorts - Vagator Goa and so on. Pondering deep, since there are many famous Linear Amps already, so what was making these the preferred choice? How are these different from so many other Linear amps? The manufacturers explained to me, "Our approach to power amplification is of a linear voice-coil motor drive, designed for unflinching continuous sinusoidal power output rather than just for audio wave form bursts, where the power supply and power drive both are functioning under the command of a supervisory closed loop. That was too technical for a person who just enjoys music – the served dish and not the recipe. Since I didn't understand much, they demonstrated what they meant. Some renovation work was going on at the site and they got hold of an electric Jackhammer and a drill machine after sometime. They connected both power tools on either outputs of the two channel amplifier installed at that location, and fed a 50 Hz sine wave to the amplifier input. As they switched on both the machines, I was astonished to see them operating so smoothly. They even asked me to vary the speeds through the volume controls of the amplifier which was another flawless action. These electrical power tools demand a lot of power and it was amazing to see how easily the amplifier outputs were able to feed them plenty of it. I had found my answer - such enormous voltage supply with seamless precision from the outputs is where the difference lies. No wonder why this new avatar of linear technology is gaining rapid acceptance with over 30 premier installs in just six months and each executed install further propelling the demand and a strong preference over the class D topology set ups adding one new club/lounge/gym every week, that boasts of premier quality Linear audio.

360 PRO SOLUTIONS

ISOLATOR

D SNAKE

THE FINCH
- LIVE MUSIC AND MORE

Plutusone Hospitality Pvt. Ltd. unlocked a new side to Mumbai's entertainment scene on June 29th when they launched a chic, elegant restaurant and bar - **The Finch.**

Set in a funky old factory in an industrial unit on the Saki Vihar Road belt, in the western suburbs of Andheri, Mumbai, this understated yet distinctive venue fulfills Mumbai's appetite for great live music, specialty 'craft' beverages and comfort foods. Describing itself as 'Lushorious' venue, incomparable to the city's current nightlife scene and adding magic to the mundane with its 'sensory entertainment' and experiential dining concept, the versatile venue aims to bring back old-school nostalgia in a modern setting.

Spread across almost 8,500 sq. feet, encompassing 5500 sqft of restaurant area with stage and seating and over 2000 sq. feet brewery - touted to be the largest microbrewery in town, *The Finch* boasts of a live kitchen with wood fired and tandoor ovens, offering a complete culinary experience covering European, Oriental and Indian cuisines. *Finch's* signature 23 ft. long real blue onyx

backlight bar stands elegantly above the main restaurant space with interesting beer taps pouring straight fresh craft beers and ciders from its brewery.

With an exterior of industrial charm across a blue bridge not too far, the interior exudes a sense of calm comfort with superb lighting and acoustics that are 'pitch' perfect.

The venue headlines an impressive live music stage set-up with state of the art AV systems and lighting that provide the very best for artist performances. Music is key to the Finch as it pledges loyalty to classical, Jazz, Retro Pop, R & B, Soul, Folk and World Music with much awaited headliner acts every month. New talent showcases and impressive house bands form its music profile every week with fun-themed nights.

With velvet plush sofas, comfortable chesterfield armchairs, multiple large LED screens and an AV system that also includes a 9 ft. motorised drop down screen for projection, *Finch* has become an ideal venue to relax and unwind while experiencing foot-tapping live music. Bringing together rhythms, brews and global cuisines, this upbeat musical haven has elevated Mumbai's

dining experience.

"*The Finch* was a dream on paper and we were tasked to make it a reality, "says Singapore based, **Geeta Kirpalani**, Vice President – New Business Development, Greenfield Advisory Pte Ltd. who was taken on board to overlook and execute this project. "The brief was clear - Chic, upmarket & elegant with a vibe that would allow for intimate gatherings or celebrations, a casual chill out time or a fun lively time out partying with family and friends. It needed to have a sense of warmth and genuine hospitality, fantastic, easy listening, concert quality music, the best craft beer and world food that allowed individual portions for grazing through a few hours or a full meal" she adds.

"Music is the USP of *The Finch*. We wished to have eclectic music that would sooth, uplift and allow tuning in to concert quality performances or being able to sit back, relax and enjoy easy conversations. We encourage emerging talent by providing a platform for their music, especially local indie bands and we have a fantastic line up of headline bands from around India and Overseas."

Being a musical haven, it was impera-

tive that *Finch* was wired and backed with superior sound, light and backline. Geeta explored numerous companies for engaging on the Tech aspects and eventually Delhi based FOH, Monitor and Systems Engineer **Samir Kripalani** of Roomtone, along with Mumbai based Electro-Acoustic consultant **Milind Raorane** were sought out to design and integrate the sound at *The Finch*, while ace lighting designer **Roosevelt Dsouza** handled the lighting aspect.

"We have worked with Samir and Roosevelt on numerous events where they were present as Sound and Light engineers, respectively. It was therefore natural that we requested their advice on the sound and light and they offered this with unstinted support," informs Geeta. "Milind came on board from the moment we engaged formally with Samir, as Milind is based in Bombay."

Though the duo were provided a clear brief that the place was going to be a live music place, there were several missing elements, which were required to make it a live venue. With low ceiling heights, number of pillars, and an architect blueprint with a small stage and an incorrect console booth positioning in

The venue headlines an impressive live music stage set-up with state of the art AV systems and lighting. The JBL AM7315 three-way speakers were chosen to get a tone similar to a live outdoor stage

order to accommodate more seating area, the space did provided a number of challenges for Milind and Samir.

SOUND DESIGN AND IN-TEGRATION

"Milind's support on acoustics was invaluable with the challenge of the low ceiling height and pillars in the space. It was a case of 'all about the bass ⋯no treble' literally, as the pillars were masking the treble sounds," recalls Geeta.

"When I did the rekey of the site for sound and acoustic, I realised that being an old dilapidated industrial estate, there were many limitations. The place had too many columns, so forming a place for live was the biggest challenge. Live sound spaces are all large with nice sizable stages, even if they are indoors. However, at this venue, the height was just around 9-10.5 feet with many columns, so, viewing angles was a problem and then we had the challenge of placing the speakers because height was limited. Also, originally, according to the architect's design the FOH engineer would be sitting next to the stage, which itself was so small that we would be able to barely put up a drum set and probably one artiste on stage," says Milind.

"There were a number of points of debate and creating a stage for live sound was the biggest challenge for us, so we had serious reservations. Thankfully, Geeta was our only strong support because she understood the limitations as she came from the events background and though she was the client, she gave us an upper hand to take many decisions, which were crucial to the way the place has turned out. She was very clear that the points raised by us were essential and made sure that the architect took a back seat and concentrated mostly on the décor, let-

ting us decide on the stage and sound system layout," he adds.

Samir and Milind eventually handled the entire re-design, automation and video distribution of the venue, with HARMAN as the principal supplier of sound and lighting equipment. The duo formulated the entire space, in terms of acoustics and sound and chose acoustic material and loudspeaker systems accordingly. "We had to completely change the original design of the space in order to achieve the best acoustic and sound for a live venue. Since we wanted to create a certain sound experience, we relocated the stage keeping in mind the viewing angles and other factors such as placement of speakers and distribution of sound, as also housing of air-conditioning, lighting and acoustics under the low ceiling height. Though we still have the light and sound technicians crammed in a small space, they are now all in front of the stage, where they should be."

THE HARMAN EFFECT

Mounted to the Stage Left & Right F.O.H are the JBL AM7315 series; the ASH6118 subwoofers are positioned under the stage, while the AC28 have been used for fills. Additional control and processing is from a single BSS BLU 100 processor. Mixing signals is the QU24 Allen & Heath console supplied by Delhi based Sun Infonet.

Explaining the choice of products, Milind says, "The speakers are not off the shelf products from the regular sales list; the subs were custom built and shipped from the United States. The main speaker is the JBL AM7315 three-way speaker, which was chosen to get a tone, which is similar to a live outdoor stage tone and not an indoor club, lounge tone. We wanted to give a feel of listening to a band, on an

outdoor stage or on a bigger venue. So, acoustically we made sure that patrons do not feel that it is a small space, in terms of sounds. It sounds just like a live sound stage and that was the main idea behind selecting these models. Also, the PA is just in the front of the artist, right on the head, in front of the stage, in order to ensure that there isn't a lot of bleed on the stage. Basically we selected speakers that have more forward projection of sound on the audience, rather than on the stage."

"We have received great support from HARMAN during the tech acquisition and continued support on various works involving our music line up," said Geeta.

'WYRE'ING THE VENUE

The modern bar & restaurant project required video distribution from multiple sources with full uncompressed HD video and multichannel audio signals split and switched between '7 Stage Backdrop Screen, Stage Left TV, Stage Right TV, Outside smoking area - 2 TVs, 1

HARMAN SOUND INVENTORY AT FINCH

4 units of JBL AM7315/95
2 units of JBL ASH6118
2 units of JBL AL7115
7 units of JBL AC28/95
2 units of JBL Control 16CT
1 unit of Crown GDCI4x600
3 units of Crown GDCI4x1250
1 unit of Crown GDCI2x2400
1 unit of Crown GDCI2x1250
1 unit of AKG Drumset Session I
4 units of BSS AR-133
1 unit of BSS BLU-100
1 unit of BSS BLU-BOB1

Male Wasroom mirror TV and 1 Female Washroom Mirror TV and number of main areas around the location and Milind and Samir opted for WyreStorm devices for the entire video distribution. "Right now, there is one key iPad with the in-house engineer and the entire programming and control is on his iPad," says Milind

Acting on advice by Milind and Samir, in the first three months of operation *Finch* opted to contract Mumbai based rental company Gearhouse by Sound.com to provide stage gear, and backline equipment. Gearhouse also provided two resident engineers who were posted at the venue on all days. Today the venue has its own resident engineer and its own stage backline, which includes drum sets, a Yamaha piano, Shure and Sennheisher mics and other gear.

THE COLLABORATION

Elaborating on his collaboration with Samir Kriplani on this project, Milind says, "Samir was the one who fronted the project and I was called on board because I was based in Mumbai and coming from an install and acoustic background I understood the limitations of small spaces with respect to loudspeakers. While the Acoustics was taken care of by me, the entire sound design concept was formulated together based on Samir's vast experience in live sound. He is one of the leading live sound engineers in the country today, and having worked with lots of these bands, who were expected to come and play at the venue, he exactly knew their psyche and how they would want the sound to be. Together we made all the drawings, all the diagrams and chromatics. Samir handled the commercial aspect, like talking to all the vendors, getting quotations, getting client approvals. I was not completely involved into the commercials but was more focused on the site management, and acoustic and sound design. We took on a 50-50 role, sharing notes and discussing every detail. Though Samir is not based in Mumbai, he always knew what was happening on the site. I think it has been a good handshake of both our experiences together and I think this is very evident when you listen to the system at *Finch*, and the way the audio system integration has turned out."

ARTISTE FEEDBACK

"Our bands from India and Overseas consistently remark that the sound and ambience is superb - one of the best they have had the pleasure to perform at," enthused Geeta.

Though the first show at the venue was opened by 'Indian Ocean', they

initially had reservations because of the small stage, as they thought that the acoustics would be compromised and they wouldn't sound good, however the acoustic response they got during rehearsals totally changed their perception. "When they opened the show, the first thing they said was – 'this is the first smallest stage we have ever played on but believe us this is the best ever stage we have played in terms of sound," informs Milind, "Overall, everything has turned out fantastic and every band who has come in to perform has appreciated the sound and acoustics of the venue," he adds.

According to Geeta, "The Finch is today, an outstanding space for live music comparable to the best in the world and the sound at the venue stands as a testimony to Sam and Milind's dedication and hard work. The planning was meticulous and over many long hours, days and nights, testing and tweaking towards perfection."

LIGHTING UP FINCH

Roosevelt Dsouza was hired to bring in something special to the lighting at the venue, as Geeta wanted a subtle, subdued lighting theme at Finch, which would allow patrons to sit back and enjoy the music at the venue. "I

The lighting at Finch has been camouflaged in a way that it blended with the ambience, as the low ceiling heights made the fixtures visible.

was hired as the lighting Designer, and also to run the show when there was a performance. According to brief given by Geeta, the place was not to look like a nightclub. The guests just needed to enjoy the music over some delectable world food menu, so I had to plan the lighting accordingly," says Roosevelt.

Again, the low ceiling height was a challenge for Roosevelt too, as several factors such as size of the fixtures and heat generation from the lamps had to be considered. "The place is a warehouse and the height was low and it being a chic upmarket Restaurant Bar and microbrewery and not a night-club, we had to plan accordingly. So, we drew a blueprint of what was required for

mounting the lights, keeping in mind the power and heat factor. I had to use small fixtures that would not generate too much heat while consuming less power, but was powerful enough for the performance. The low ceiling would obviously make the fixtures very visible; hence, we had to also camouflage the lighting in a way that it blended with the ambience."

Considering these factors Roosevelt opted for fixtures from the Martin range by HARMAN, which included the **Rush Gobo projector, Rush MH - 5 profile, Rush MH - 4 Beam, Aura XB, Martin Jem Hazer pro, Atomic 3000** and the **Martin splitter**.

"I would say that the place looks good

and is a fabulous place to visit and dine. The sound and lighting put together is by far the best for a venue like this in that part of Mumbai," says Roosevelt

"For us, having Samir as Sound Engineer and Milind as Acoustics Engineer and Roosevelt as Lighting Engineer on board has been a dream team. They are a pleasure to work with. They are absolute professionals who kept our budgets in view and with great responsibility and hard work, have given us sound and light and tech back up to a high degree. We are in the planning stages on numerous projects in other cities in India and Sam, Milind & Roosevelt will definitely be part of the team," concludes Geeta.

AHUJA'S SOUND FORUM ATTRACTS TOP SOUND CONSULTANTS, ARCHITECTS AND SYSTEM INTEGRATORS

After enthralling AV industry professionals across all the major cities of India like Jaipur, Bhopal, Nagpur, Raipur, Kolkata, Ranchi, Bengaluru, Hyderabad, Vijayawada, Chennai, Kochi, Kozhikode etc. in the last 3 years, Sound Forum was back where it all started – New Delhi, albeit in a much grand and impressive avatar.

Ahuja Radios, India's leading manufacturer & exporter of Public Address Equipment, organized the Sound Forum in November at one of Delhi's best known and premium hotel – EROS, Nehru Place, where a wide range of products suitable for installed sound were on active display with special focus on latest

S. Khurana – Deputy General Manager, Marketing, highlighting recent marketing activities and resultant key achievements of Ahuja Radios

The show was attended by 250 industry professionals including sound consultants, architects, system integrators and resellers

IP based 2-Way Communication System (AIP-7000 series) and Smart Intelligent Paging System for Emergency Evacuation and Zonal Paging (APZ-500 Series). In addition to the above Wireless Conference System (CWS-8000 Series), Motor-Bike PA System (MPA-40S) and Counter Communication System (CCS-2300) generated lot of interest among visitors. Broad range of installation speakers on display including IP-66 rated wall speaker OSX-666T also attracted lot of attention.

EVENT & PRESENTATIONS

The event kicked-off with a brief-presentation by **S. Khurana –**

Deputy General Manager, Marketing, highlighting recent marketing activities and resultant key achievements like adding host of new key accounts and executing installations at prestigious places. Then the stage was took-up by the **Mr. A.B. Lal - Technical Director** at Ahuja Radios, explaining the features and advantages of the specialized installation products / solutions offered by Ahuja Radios. Core-competency of Ahuja products – Pocket Friendly and Easy-to-Use, yet highly reliable was the key theme underscored in this presentation. Both the presentations were followed by guided-demo and business related discussions over drinks and dinner.

PRODUCTS & FEATURES

The first product was Ahuja Radio's Counter Communication System (CCS-2300), which consists of an attendant unit, a customer unit and a power supply unit, which are easy and hassle-free to install and simple to connect through dedicated cables as supplied with the system. Along with this it has, a 3.5mm jack socket to connect a headband microphone like Ahuja HBM-50. In addition, Ahuja Radios also presented the Wireless Conference System (CWS-8000 Series), which uses 2.4GHz digital communication technology and can be installed with minimum wiring making it ideal for various types of Corporate, Education & Hotel conference room settings. CWS-8000 series consist of a Chairman Unit (CWS-8100C0, a Host Unit (CWS-8300R) & 'N' Number of delegates (CWS-8200D).

Also in focus was the MPA-40S, Motorcycle 22W PA Amplifier Set, with 1 Mic input, operates on 12V Battery Operation.

The above products were accompanied by a broad range of installation speakers including IP-66 rated wall speaker OSX-666T, which is a weather resistant plastic cabinet comprising of polypropylene cone woofer, a Titanium Silk Dome Tweeter and a crossover network, suitable for use on 100V line, or on direct 8ohm impedance. The front grill of OSX-666T is made up of perforated rust-free aluminum sheets, suitable for various weather conditions.

The show was a success and as expected it was attended by 250 industry professionals including sound consultants, architects, system integrators, resellers and even end-users.

ROLAND PROFESSIONAL A/V INTRODUCES THE XS-62S SIX-CHANNEL VIDEO SWITCHER AND AUDIO MIXER

Roland Professional A/V debuted the XS-62S, an integrated six-channel video switcher and audio mixer with PTZ camera control capabilities. Its space-saving design is optimized for installed or portable live event, recording, broadcast and streaming productions.

This latest addition to Roland's comprehensive line of video production solutions delivers a powerful feature set in a compact 1RU form factor and can be operated by a single user from easy-to-use front panel controls, or remotely from a Mac or PC or programmable interface.

VIDEO & AUDIO

The Roland XS-62S supports seamless six-channel switching between four SDI inputs, featuring de-lacer along with scaled HDMI and RGB inputs from computer, tablet and other video sources, plus two still images stored in internal memory. Two SDI and two HDMI outputs may be assigned to program (PGM), preview (PVW) or auxiliary (AUX) buses. The multiview output displays all six video input sources, two still images and PGM and PVW outputs with audio meters. Three video switching modes are available, enabling the XS-62S to handle a wide range of applications, including presentations, performances and special events, corporate AV conferences and distance learning.

In PGM/PST Mode, the XS-62S operates as a traditional video switcher, enabling the grouping of multiple images on a single screen, with independent assignment to the AUX bus supporting confidence, downstage monitor or additional presentation screens. Downstream keyer (DSK), which supports both luminance (black/white) and chroma (blue/green) keying, plus PinP (picture-in-picture) functionality, enables compositing of titles, graphics and inset video. PinP may be selected in circle, heart or diamond shapes in addition to the typical square or rectangle.

Dissolve Mode offers video

switching and composition with cross-dissolve to the PGM bus and is suitable for a system where the user directly operates the main unit in a meeting space or event. The separate AUX bus is also available in Dissolve Mode.

In Matrix Mode, the XS-62S allows individual video input signals to be assigned to three different

fix audio issues or separate multi-language audio sources when editing after an event.

In addition to the high-quality preamps, powerful on-board audio processing includes a high-pass filter, gate, compressor, three-band EQ and delay, plus the ability to select audio-follows-video channels. Processing may be controlled from

on the front panel. Programmable PTZ camera control eliminates the need for individual camera operators through one-touch recall of preset camera positions and angles, combined with the audio auto-mixer, allows the operator to focus on switching video. Professional broadcast-quality crosspoint buttons are back-lit with

This latest addition to Roland's comprehensive line of video production solutions delivers a powerful feature set in a compact 1RU form factor

destinations on three buses with fade-to-black seamless switching. This mode is effective for routing signals in applications using multiple screens while simultaneously mixing program audio and controlling PTZ remote cameras.

The XS-62S features an 18-channel audio mixer with four TRS jacks and an RCA stereo pair, plus audio de-embed from the six video inputs. Roland's innovative discreet eight-channel analog audio embedding enables the operator to select which audio source to embed separately to SDI outputs 1 and 2, for example, to

the front panel screen menus or using Roland's powerful Remote Control Software (RCS). Integrated auto-mixing automatically adjusts the audio inputs based on weighting, ensuring even levels for the room mix, recording and web streaming even from hard-to-manage sources as multi-microphone discussion panels.

WORKING & CONTROL SYSTEM

The XS-62S is designed for direct control and intuitive operation by a single user in any AV application, with a dedicated menu screen and audio volume knobs easily accessible

brightness control for use in bright daylight or dark performance spaces.

XS-62S RCS, an easy-to-use software application (Mac/PC), provides setup and control through a network port, plus copy, store and recall memory (backup) and preset settings. An RS-422 port provides PTZ control (VISCA) along with an RS-232 connector for remote control from a touch panel or other programmable interface device. A USB port is included for still image uploads and for saving program files.

QSC CEO JOE PHAM NAMED PRESIDENT-ELECT OF 2018 AVIXA BOARD OF DIRECTORS

Joe Pham, President and CEO of QSC, has been named President-Elect of the 2018 Board of Directors for AVIXA. This will be Pham's fourth year serving on the board where he served as Secretary-Treasurer in 2017.

"Part of AVIXA's rebranding is to reinvigorate the market and focus more on the user experience," says Pham. "As this industry shifts into a world of convergence, AVIXA is

looking to grow the AV industry globally and offer additional support and programs to its members. It really is an exciting time in our market and I'm thrilled to be part of this transformation," said Mr. Pham

NARAIN AUDIO ELEVATES THE SOUND AT GATEWAY TAPROOM

Situated at Nariman Point, Taproom is now the go-to place because of its cocktails, mock tails and also the food. The place is filled with post-office crowd, enjoying a cold beer after a rough Work day.

There are match screenings as well, which makes it a hotspot for sports enthusiasts. However, no chill-out experience is ever complete without music and dance moves! This is where The Gateway Taproom scores the highest. Top Marks!

Narain Audio & Lighting LLP has elevated the experience customers have had at The Gateway Taproom, by installing its range of products by NX Audio and Audiocenter. The powerful and efficient audio systems installed at the venue has been placed after carrying out an extensive research and detailed analysis of the space available.

The comprehensive house system comprises of the DJ801 amplifier by Proton which powers up the high quality two-way loudspeakers consisting of 6 units of the PF8+, single 8" Audiocenter speakers of 200W RMS each and 1 PF112B+

subwoofer consisting of 500W RMS. These speakers are placed strategically to deliver uniform coverage with great clarity and impact. To make the sound impactful and clean but not obstructive and irritating, the DBX260 loudspeaker management system has been given the responsibility of fine tuning the speakers and subwoofers, controlling the audio level and maintaining optimum audio performance at all times.

In the end, the management team at The Gateway Taproom was thrilled with the installation led by Shaan Bhavnani. They commented 'The Gateway Taproom - The place in itself has a great charm to it, and so we realized that having the right audio system in place would only make it even more fantastic and unforgettable. It has truly transformed into one of the hubs for a party in Mumbai even though it's just been a while since we have opened. The sound and light systems installed at the site needs no introduction as NX Audio is one of the most trustworthy and reliable brands one can look for. We're sure the crowd is having an absolute wonderful time.'

The comprehensive system at The Gateway Taproom comprises of the DJ801 amplifier by Proton and two-way loudspeakers consisting of 6 units of the PF8+, single 8" Audiocenter speakers

COMMUNITY PRO INTRODUCES IV6 ARRAY

With the introduction of it's new IV6 Modular Vertical Array 600 system, the Community Pro has expanded its I SERIES family. Designed for installed indoor or outdoor applications, IV6 is a scalable, adaptive sound reinforcement system featuring wide-dispersion IV6-1122 array elements (12-inch, 2-way) available in two complementary vertical coverage angle versions (5-degree and 15-degree).

Up to 5-degree of splay between elements reportedly eliminates excessive overlap or coverage gaps. The single 18-inch IV6-118S subwoofer can be flown above or behind any array to provide additional low frequency impact.

Built-in Passive Acoustic

Optimization (PAO) settings on the rear of each loudspeaker allow up to 55 different frequency response profiles to select them independently for each element in the array. Community's exclusive PAO module included within EASE Focus 3software quickly calculates the ideal PAO settings for each loudspeaker.

IV6 loudspeakers are available in textured black or white finishes for indoor applications, and may also be ordered in weather-resistant versions featuring Community's exclusive PolyGlas enclosures and optional powder-coated stainless-steel hardware for outdoor applications.

CLOUD 9 GYM UPGRADES PRO AUDIO SYSTEM

Gymnasiums are all about getting fit and staying healthy, and 'Cloud 9 Gym' is considered to be one of the few great gyms in its locale in

of the ever dependable HP8A+ versatile active loudspeakers

Mumbai, as it delivers the perfect ambiance that motivates patrons to come back and exercise on a regular basis. A key component to this is the wide variety of music that supports the diverse workout regimes of the patrons at the gym. To reinforce the music delivery, Cloud 9 has installed pro audio system that comprises stellar products from industry leaders Dynatech and Mackie.

The Gym has added two units

from Dynatech to its existing loudspeaker system of Mackie Thump12 loudspeakers, each of which are strategically placed so as to deliver optimum coverage and maximum impact. The gym has also added a single unit of the Mix5 compact mixing console from Mackie to shoulder the audio signal chain processing responsibilities. The project was designed and commissioned by

MACKIE CHANNELS CONTROLLED AUDIO INSTALLED AT SVP NATIONAL POLICE ACADEMY

The Sardar Vallabhai Patel National Police Academy, Hyderabad is an iconic institution and hallmark of excellence in the sphere of formal police training. Over the years it has attracted the best of youth from across the state and region and has transformed them into officers and dignified citizens of the country. The School is equipped with some of the most modern and advanced facilities and infrastructure like well-equipped classrooms, modern facilities, internet enabled Computer Laboratory, well stocked Libraries, Language Laboratory, and state-of-the-art mini auditoria style plush classrooms that host various events such as lectures, presentations, musical evenings, debates, quiz competitions, and other such Inter-Battalion programmers etc.

During its recent course of renovations which included improvements in seats, safety norms, interior decor, external aesthetics, up gradation of facilities etc, the management decided to upgrade their existing audio architecture through the inclusion of a brand new mixing console system in the form of the incomparable DL1608 compact mixing console from Mackie, which was supplied by Hyderabad based reputed AV solutions company – Omega Tech.

Mr. Laxmi Narayana of Omega Tech comments, "We're extremely proud and happy to have had the opportunity to be a part of this project. The management decided to purchase a large format console to reinforce events of all scales, and we asserted that the Mackie DL1608 would be the best fit. The console is an absolutely amazing piece of technology as

it delivers the best set of features with amazing flexibility and great quality audio reproduction, while being extremely easy to understand and use. Plus, the overabundance of features packed into its portable and logistical friendly frame, combined with its adaptability makes the console a truly amazing asset. Also,

not to forget, the brilliant quality of sales and service support that Sonotone has maintained, is another positive that works in Mackie's favor. All in all this was a great purchase decision, and the clients are extremely glad and proud of the decision to go with the DL1608."

SVP Police ACademy upgrades audio architecture with the Mackie DL 1608

YVC-1000MS SPEAKERPHONE FOR LARGE MEETING SPACES, CERTIFIED FOR SKYPE FOR BUSINESS, NOW AVAILABLE

Yamaha UC, is now shipping the Yamaha YVC-1000MS, a USB speakerphone and Yamaha's first product certified for Skype for Business. It is engineered with Yamaha's superior audio technology and expertise to enhance the user experience in large meeting rooms. Available worldwide, the microphone and speaker system passed Skype for Business Certification Version 3 tests — Microsoft's highest standards

— providing natural, clear audio that defines the platform's meeting experience.

"The certification of the YVC-1000MS ensures audio specifically tuned to overcome the common challenges and limitations that can negatively impact productivity in a large meeting environment," said Tats Umeo, group leader of UC product planning at Yamaha Corporation. "Passing the rigorous testing procedure also guarantees it complements the rest of the Skype for Business application, creating intuitive and fluid collaboration across the entire UC platform. Now customers can experience the excellent sound

quality that Yamaha is known for in their daily online meetings and conference calls."

The unified communications speakerphone provides a scalable and flexible solution engineered to support the audio requirements of large meeting rooms, rooms with special table configurations, and even remote education classes or seminars

within the Skype for Business application. The intuitive design provides fast, simple connection to a PC via USB and/or smartphones with Bluetooth®. Featuring Yamaha's adaptive echo cancellation and other unique sound processing technologies that have been developed over the years, the system facilitates stress-free conversation.

CLOUD 9 GYM UPGRADES...

Sonotone Electronics, the official distributors of Dynatech and Mackie products in India.

Elaborating on the choice of products for the project, Jaison of Sonotone Electronics comments "Firstly, it's a matter of great joy that the management at Cloud9 have continued to share their faith and trust in us for their audio needs, as they were extremely happy with the audio system we'd integrated there

earlier. So when the time came to add to the high quality system there, we decided to present them with products which would blend in perfectly with the existing setup and only further propel the positive audio experience at the gym. The management claim that their patrons love working out there even more now. It's great to hear that everyone loves the sound at Cloud 9 gym members and management alike!"

beyerdynamic DT 240 PRO

NEW PROFESSIONAL MONITOR HEADPHONES

Ideal for musicians, podcasters and filmmakers: beyerdynamic presents the DT 240 PRO compact monitor headphones.

The DT 240 PRO monitor headphones from beyerdynamic fit perfectly into mobile workflow.

Creative minds can work anywhere with these headphones – start a project in one place and continue working on it somewhere else. At the mixing desk, behind the camera or on the train, the DT 240 PRO ensures seamless audio control without compromising on quality.

And best of all: its attractive price also makes it affordable for producers with a smaller budget.

Main Features include:

· **Works on all devices**
Thanks to low-ohm acoustic transducers (34 ohm), the DT 240 PRO requires little amplifier power.

· **Compact, Robust Design**
Specially shaped ear cups make the DT 240 PRO very easy to handle.

· **Rich Sound and High Wearing Comfort**
Its sound is characterised by a clean, deep bass, lively mids and clearly defined highs. Creative sound smiths will find it difficult to find its equal in the price category up to 100 euros.

Excellent sound insulation ensures that the same high performance levels are also achieved in loud environments, for example, at trade fairs or live concerts.

The fact that the newcomer to the beyerdynamic range looks cool on top of it all certainly pleases digital nomads in particular. With their matt black finish, the headphones look as good on professional SLR cameras or portable recorders as they do on private audio players or smartphones.

In other words, a model like the DT 240 PRO is what musicians, podcasters, YouTubers and semi-professional filmmakers have wanted for a long time. Now the wait is finally over.

Technical Specification:

· Operating principle: Open
· Frequency response: 5 - 35,000 Hz
· Nominal impedance: 34 Ω
· Transducer type: Dynamic
· Max. SPL: 119 dB SPL (200 mW / 500 Hz)
· T.H.D.: < 0.05% (1 mW / 500 Hz)
· Nominal power handling capacity: 100 mW
· Sound coupling to the ear: Circumaural
· Nominal headband pressure: approx. 5.2 N
· Weight (without cable): 196 g
· Length and type of cable: 1.25 m / coiled cable stretched 3 m,
· Connection & adapter (6.35 mm): Gold-plated mini stereo jack 3.5 mm

DJ Headphones

Hearing Essentials

The right set of headphones can make a difference in the way a DJ monitors his or her show. A well-designed pair will not only provide comfort for the whole duration of the gig but will also let the DJ accurately monitor the music he is spinning and cueing up. Intended as a guide only, this line-up of some popular DJ headphones details in the features and specs that matter when investing in a good pair of headphones.

Allen & Heath XONE XD2-53

With a circumaural design to provide excellent isolation from ambient noise, the Xone XD2-53 is an ideal product for DJ's works in loud environments. Its 53mm drivers deliver an extremely high performance, with an extended low frequency response and the rotating earpieces with soft earpads allow easy one-ear monitoring and the adjustable, metal reinforced headband ensures excellent wearing comfort.

Main Features include:
- Designed to excel in high noise DJ booth environments
- Touring grade build quality, including metal reinforced headband
- 53mm diameter drivers with high power neodymium magnet design
- Detachable coiled cable with 3.5mm connector and ¼" jack adaptor
- Rotating earpieces for easy one-ear monitoring
- Folding design for portability
- Carry pouch included

Tech Specifications:
- Type: Closed-back Dynamic (circumaural isolation design)
- Driver Diameter: 53mm

- Magnet: Neodymium
- Frequency Response: 5 – 33,000Hz
- Maximum Input Power: 3,500mW
- Sensitivity: 105dB/mW at 1kHz
- Impedance: 36 ohms
- Weight: 350g
- Cable Length: 1.2m (Coiled) / Max 3.0m

Audio-Technica ATH-PRO500MK2

Originally designed for DJs, but easily integrated into any audiophile's collection, the ATH-PRO500 Mk2 is a highly portable and extremely powerful pair of headphones. With complete isolation, swiveling ear cups, and customizable cable, ATH-PRO500MK2 headphone delivers amazing sonic performance. Its rugged design offers improved strength and smooth rotation of the earpieces.

Main Features include:
- 53mm large-diameter drivers provide accurate sound reproduction for DJ
- High magnetic power delivers powerful sound
- High maximum input of 1,600mW

achieves powerful, wide-range frequency response
- One-ear monitoring capability
- Swivelling earpieces (50° / 90°)
- Detachable cable with secure screw-on design
- Two types of detachable cables included (1.2-3.0m coiled cable & 3.0m straight cable)
- Available in black or red

Technical Specification:
- Type: Closed-back Dynamic
- Driver Diameter : 53 mm
- Frequency Response: 10 - 30,000 Hz
- Maximum Input Power: 1,600 mW
- Sensitivity: 106 dB/mW
- Impedance: 58 ohms
- Weight: 290g
- Accessories Included: Detachable coiled 1.2m –3.0m cable, detachable straight 1.2m –3.0m cable, 3.5mm gold plated stereo mini plug, Screw-on 6.3mm adaptor.

V-MODA CROSSFADE M-100

Available in matte black, grey or white, the Crossfade M-100 headphone are the first headphones in the V-Moda range to feature ear cups that collapse inside of the headband. Powered by a 50mm dual diaphragm driver and with a frequency response of 5 – 30 kHz, the M-100s once again place the emphasis on bass.

Main Features include:
- Immersive 3D Soundstage: Live performance experiences
- Clean Deep Bass: Feel and hear precise vibrations of the music without bloated boom or muddy mids
- Ultra Wide Clarity & Vivid Midrange
- 50mm Dual-Diaphragm Driver (Patent Pending): Inner and outer rings separate the bass from bleeding into the mids and highs
- Master Crafted Materials: More expensive driver and components than peer headphones at this price range

- Analog Noise Isolation: Naturally cut out the distractions of jet engines, crying babies and crowd noise
- No Batteries or Artificial Processing: Powerful, pure sound without the pollution of two extra digital-to-analog conversions of battery powered headphones
- Minimal sound leakage: Immersive sound for you without bothering others view details
- Consistent Driver Quality: Quality tested at 6 frequencies to maintain stricter consistency than the competition, often by an order of magnitude
- 4+ Years of Comfort R&D: Ergonomic headband and hexagon shape that minimizes the force on your head, ears and gap
- BLISS Memory Foam Cushions: Naturally forms to your ears to provide supreme comfort and noise isolation

Tech Specifications:
- Headphone Design: Over-Ear Circumaural
- Headphone Style: Closed-Black
- Microphone: 1 Button Mic
- Driver Unit: 50mm
- Frequency Response: 5Hz - 30,000Hz
- Impedance: 32 Ohms
- Cable Type: Kevlar Cable
- Plug Type: 3.5mm L-Shaped Jack
- Weight: 280 grams
- Microphone Sensitivity: -42db @ 1 kHz
- Sensitivity: 103 db @ 1kHz 1mW

Numark HF325

The HF325 Professional DJ Headphones, are perfect for hard working DJs requiring headphones for airtight performances. It packs an incredible amount of sound quality into a compact, noise isolating design that won't hog all of the space in the gig bag.

The on-ear, noise isolating earcups reduce ambient noise to a minimum, making them ideal for use in loud club environ-

ments. The up-front sound signature is like a microscope for the ears. Vocals are intimate, bass is tight and punchy, and the subtle nuances in tracks are exposed with smooth, rich detail.

In addition, it's compact design and lightweight makes it both easy to carry and listen for extended periods of time.

Main Features include:
- Studio-grade acoustics with stunning detail for DJ use
- On-ear cups provide exceptional noise isolation and portability
- Exceptional handling power for use with pro-grade mixers and controllers
- Rotating earcup provides hands-free, single-ear monitoring
- 40mm driver delivers deep, defined bass for beatmatching
- 20 Hz - 20 kHz frequency response lets you hear every nuance
- Immediate, up-front sound signature gets you closer to the mix
- Aggressive isolation for use in noisy environments
- Leatherette earcups provide a cushy, custom fit
- 32 ohm impedance works well with low-output devices
- 4ft (1.2m) cable with 1/8-inch (3.5mm) stereo plug
- 1/8-inch to 1/4-inch (6.3mm) adapter included

Technical Specification:
- Colour: Black
- Frequency Range: 20Hz - 20KHz
- Impedance: 32
- Driver Unit: 40mm
- Closed/Open Back: Closed Back
- Plug Type: 3.5mm Jack
- Cord Length: 1.2
- Accessories: 3.5mm to 1/4" jack adapter

Pioneer-HDJ-2000-K

The HDJ-2000-K is a high-quality professional DJ headphone with firm and sturdy material. It is extremely flexible and adaptive to strange/awkward positions. It's 50mm drivers can easily produce high quality, well-defined sound required by DJs while performing on stage or in the club, it can accurately recreate high and low beats. It is designed for maximum comfort and durability and has lightweight bindings on the headband and hanger to reduce the pressure on the head. Their soft, leather-like ear pads with memory foam ensure a snug fit.

Main features:
- Type: Fully-enclosed, dynamic headphones
- Driver Units: 50 mm dome type
- Plug: 3.5 mm stereo mini-jack (gold-plated, 2-way, screw-type)
- Cable: 1.2 m side mount coil cable (3 m extended length)
- Included Accessories: 6.3 mm 3P plug adapter (gold-plated, threaded type), Carrying pouch

Tech Specifications:
- Weight (without cord): 290 g
- Maximum Input Power: 3500 mW
- Output Sound Level: 107 dB
- Frequency Range: 5 - 30000 Hz
- Impedance: 36 Ω

Sennheiser HD 25

The HD 25 is a lightweight and comfortable headphone, even when used for long periods. Considered to be the "Industry Standard" for DJ Headphones, these headphones are often found in DJ Booths, small and large. Due to their low weight and the option of one-ear listening, the HD 25 headphones are indispensable for mobile monitoring also.

Main features include:
- High sensitivity due to lightweight aluminum voice coils
- Capable of handling very high sound pressure levels
- Very lightweight and comfortable, even if used for long periods of time
- Tough, detachable, single-sided cable
- Rotatable capsule for single-ear listening.

Technical Specification:
- Color: Black
- Frequency response (Headphones): 16 - 22000 Hz
- THD, total harmonic distortion: < 0,3 %
- Contact pressure: ~ 2,5 N
- Ear coupling: supraaural
- Jack plug: 3,5/6,3 mm stereo
- Cable length: 1,5 m (HD 25 Plus: 1-3 m)
- Transducer principle: dynamic, closed
- Weight: Without cable, ~ 140 g
- Nominal impedance: 70 Ω
- Load rating: 200 mW
- Max. Sound pressure level (active): 120 dB

Shure SRH750DJ

The SRH750DJ Headphones promises to deliver world-class sound reproduction, comfort, and durability to professional DJ's in any situation. It has the largest driver in the Shure headphone range, which helps to produce high bass response with extended highs. With a high rated load of 3000 mW this headphone can cope with very high volumes clearly and is distortion-free. The SRH750DJ headphones are suited for use by bass lovers and DJs alike. Also, replaceable cable and included set of replacement ear pads ensure a long product life.

Main Features include:
- 50 mm neodymium dynamic drivers optimised for high-output mixers
- Closed-back, circumaural collapsible design with 90-degree earcup swivel
- Detachable coiled cable
- Includes threaded 3.5 mm gold-plated adapter, carrying bag, replacement ear pads
- Adjustable, collapsible headband
- 90 degree swivel ear cups

Technical Specification:
- Weight: 291 g
- Driver: 50 mm
- Impedance: 32 Ω
- Sensitivity: 106 dB/mW
- Max. Input Power: 3000 mW
- Frequency Range: 5 Hz – 30 kHz
- Cable length: 300 cm
- 90° swivel earcups: Yes
- Cable type: Detachable coiled
- Cable exit: Single-sided
- Plug: Gold-plated 3,5 mm stereo jack
- Design: Closed-Back
- Uses: DJ mixing & personal listening, Live professional DJ mixing and monitoring

AKG K181 DJ UE

The K181 DJ UE is a reference class DJ headphone, developed based on input from professional DJs. These ultimate Edition headphones are built for professional DJ use in any club environment. The K181 DJ UE headphones feature a closed back design and a sturdy 50 mm transducer, delivering enough power to withstand even the strongest PA speakers, especially for pre-fader listening. For loud working conditions, the Bass Boost will help DJs hear low frequencies better, while the headphones' coiled cable offers freedom to move without stepping on it.

Main Features include:
- Bass Boost switch: To emphasize low frequencies in loud working conditions.
- Detachable coiled cable: Gives freedom to move in the DJ booth.
- Mono/Stereo switch: For optimum single ear monitoring.
- 3D-Axis folding mechanism: For easy transport and storage in record or laptop bags.
- Light weight construction: That enables multiple mixing positions.

Technical Specification:
- **General Specifications**
  - Headphone type: Closed-back
  - Max. Input Power: 3500 mW
  - Audio frequency bandwidth: 5 - 30000 Hz
  - Sensitivity headphones: 112 dB SPL/V
  - Rated Impedance: 42 Ohms
  - Detachable cable: yes
  - Cable Length: coiled 5 m
  - Earpads replaceable: yes
  - Foldable: yes
- **Wearing Style**
  - On-ear: Yes
- **Foldable**
  - Foldable: Yes
- **Dimensions**
  - Net Weight :280 g
- **Audio Interface**
  - Type: Mini XLR
  - Contacts: 3-pin
  - Interface finish: Gold

Sennheiser Chronicles:
Interview with Vipin Pungalia

In an interview with PALM technology, VIPIN PUNGALIA, Director Professional Segment, Sennheiser India talks about the global launch of the wired XS 1 dynamic in India, his perception of the market for Sennheiser products in India and the growth achieved by Sennheiser in the country.

Tell us about your journey in the pro-audio industry? What have been some of the highs and lows?

I have been in the Pro AV industry for more than 2 decades now and it has been nothing short of amazing. Of course, this industry in particular is a lot more technical in terms of products and services. It has been a truly rewarding experience to be part of this Pro Audio Industry and to be able to contribute in developing and serving this Industry. There are several highs in the journey so far, ranging from (the way sound is captured, processed and consumed, to the integration of Audio with IT), successfully delivering in tight time line very critical projects of national repute, to organizing events like Live Mixing Workshop, Top 50 for the Pro Audio Industry which were widely appreciated. Sennheiser India has become the fastest growing subsidiary of Sennheiser.

Honestly, it's difficult to recall any lows, except one which is when the pro industry was going through a real slump way back in 2009-2010 due to the introduction of VST instruments (Virtual Studio Technology) which significantly reduced the number of mics being used in recordings. In a way that helped us to look for more new business opportunities and today we have different teams addressing different verticals of pro audio business.

Tell us a little about the launch of the wired XS 1 dynamic; How is the wired XS 1 dynamic microphone superior or different from other traditional wired microphones?

This rugged, entry-level mic brings Sennheiser quality to applications ranging from solo vocals to choir miking and speech. The cardioid XS 1 offers well-defined sound with an excellent presence in the mix. It is fitted with a lockable 'mute' switch and comes complete with a stand mount and leather pouch.

Additionally it is an attractively priced microphone from the German audio giant (giving an opportunity to beginners to upgrade themselves to the Sennheiser class). India is the first country to launch this exciting new wired Mic XS1 which will further strengthen our Wired Mic family.

If you have to name one single component in the wired XS 1, most responsible for delivering vocal clarity? What would it be?

The XS1 wired is designed in a way so as to deliver maximum vocal clarity. It features balanced, full-bodied sound with a slight emphasis on the treble, which ensures that vocals can easily cut through high on-stage sound levels. Its cardioid pick-up pattern provides additional isolation from unwanted sound and great feedback rejection. The capsule is shock-mounted to minimise handling noise, while the mic's frequency response (55 to 16,000 Hz) filters out any structure-borne low-frequency noise.

Who are your main target customers for wired XS 1?

It would be an ideal choice for budding Musicians, Podcasters and presenters alike. Sennheiser XS1 Wired Vocal Mic has been designed for those who appreciate simplicity, upfront vocal presence in the mix, and no complications at a very attractive price.

Which is your biggest business making arm – consumer or pro?

Both the segments contribute equally in the business. We at Sennheiser are focused on providing the best audio quality to our customers be it the audiophiles, music lovers, presenters, YouTubers, etc.

In Professional audio which is the biggest segment ?

Live Music Performance segment is our leading segment as of now. However, the other two verticals of pro audio- Broadcast & Studio, and installed sound are also increasing at a very fast pace.

Which product are you currently pushing most aggressively in the pro audio market?

With change in technology, Virtual Reality is our focus. Hence, we are aggressively going to push for AMBEO VR Headsets which we are sure will create the required buzz in this industry.

Apart from AMBEO, we are also focusing on Digital 6000 Series which is our topmost wireless Mic system for challenging requirement to XS1 Wired Microphone as it is an ideal choice for budding musicians. At the same time, for other segments like installed sound, our major focus is on innovative products like the Team Connect Family for various conferencing solutions.

Your perception of the market for Sennheiser products in India? What is the greatest challenge that you face in the Indian pro audio market and what is the growth rate achieved by Sennheiser India despite the

challenges?

Since the Indian consumers are shifting from price-conscious to quality-conscious, Sennheiser in India is witnessing year-on-year high double-digit growth.

What is Sennheiser doing with regards to studio microphones? Which was your last innovation for the studio?

Sennheiser MK4, MK 4 digital and MK 8 are the best in class studio condenser mics from Sennheiser for the studio segment. It is an ideal choice for professional, project studios and home recordists, offering excellent quality at an irresistible price point. Further, to add to our wide range of Neumann Studio Mics, we have the TLM 102 which is not only an extremely versatile studio microphone but also is a workhorse to many reputed studios and artists.

Where or how do you see the market for wireless microphones and headphones in India in the next five years?

The wireless segment is booming like never before. Not just audio, but telecom giants are also paving way for wireless segment with 3.5mm headphone jack. Therefore, we at Sennheiser, are innovating consistently and delivering new and innovative solutions to our audiophile consumers in order to provide best audio experience on the move for our customers.

Today there is a growing awareness in the Indian market for quality - is it true or a myth?

Yes, Indian consumers are now very aware of the technology that

goes into making a product. Apart from price they also focus on the quality of the product offered. More than 75% of the Indian consumers choose quality over price as the first aspect when purchasing a product. Especially, audiophiles and musicians are very particular about the sound quality of headphones/microphones.

You do not have any retail stores for mics and headphones right? Wouldn't it be great to have retail stores where people can experience the product first-hand?

Although we do not have any exclusive retail stores for Sennheiser, we have Sennheiser experience zones installed at all leading Pro Audio Dealers as well as electronic retail stores for our consumer range like Croma, Reliance Digital among others where customers can come and experience the wide range of products. Apart from that, Sennheiser stands as the trend setter in Industry for setting up company owned advanced level service centres. Right from the inception of the company in India the strategic focus has always

creators, who want to dazzle their audience with audio just as immersive as their pictures. The AMBEO SMART HEADSET integrates seamlessly with Apple iOS devices, and, of course, it delivers high-quality Sennheiser sound. Whereas the AMBEO VR Mic makes capturing real spatial sound as simple as any stereo recording. You don't need to set up several microphones – saving you time, money and manpower. Furthermore, using the AMBEO VR Mic means you'll never have to add other sounds in the mix anymore to achieve stunning 3D sound.

What are your plans for the Sennheiser Top 50 and how much do you think this platform has succeeded in helping upcoming talent?

We are focussed on promoting independent m usic scene in India and hence will look at ways to engage more with the bands. The response of Season 3 has been much more than

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been on "Product with service", be it pre or post sale services, the experts from Sennheiser's core technical team is always there to support. We have three company owned post sale service centres in Gurgaon, Mumbai and Bengaluru.

AMBEO technology has become a huge part of audio engineering for Sennheiser. Can you brief us on what our readers could look forward to in this domain in the near future?

Sennheiser AMBEO umbrella has VR Headsets and VR Mic which helps record binaural sound to give the perfect 3D illusion. The AMBEO SMART HEADSET is the world's first intuitive, compact, and mobile 3D sound recording headset. Its earpieces are fitted with omnidirectional microphones that capture the sounds in your environment just like your ears would. This makes the AMBEO SMART HEADSET the ideal new tool for vloggers and other content

what we expected; over 500 bands participated in this season. We hope to make it bigger and better in the coming season and expand our initiative to give the musicians the best experience when it comes to audio products by introducing them to Sennheiser early on in their journey. We are also planning to do more on-ground events and create more initiatives with the independent bands. As of now, we do not have any set plans but the idea is to do better and better for the bands every year and add more value.

We strongly believe that we have successfully provided a platform for young artists to showcase their talent and make a name in the music industry. The Local Train (Season 1 winner) and Parvaaz (Season 2 winner) have come very far in their career and we hope more such bands come forward and we are able to help them showcase their talent.

SONY PREVIEWS HIGH RESISTANCE STUDIO MICROPHONES

Sony Electronics' Pro Audio Division has previewed the prototypes of its latest addition to the Hi-Resolution microphones. Designed for professional studio and home recording applications, the new Hi-Res microphones are capable of extended frequency response to 50kHz.

The side address mic, C-100 is optimized for vocal use, while the two end address models-the cardioid:

Sony C-100 Hi-Res Mic

ECM-100U and the omnidirectional ECM-100N, are ideal for instruments.

C-100 Hi-Res Mic (Side Address) – Ideal for Vocal Applications

- Supports Hi-Res Recording (~50kHz) in an ultra-compact package
- Two-way structure incorporates newly developed capsules with variable directivity that deliver a wide frequency response of 20Hz to 50kHz
- Selectable pick-up pattern (Omni/ Uni/Bi) supports a wide variety of recording applications
- Two-part metallic body structure succeeded from the C-800G microphone prevents acoustic vibration resulting in low noise and clear sound
- Low-Cut filter eliminates low-

Sony ECM-100U Hi-Res Uni-Directional Mic

frequency noise and proximity effect
- -10dB pad switch provides added headroom

ECM-100U and ECM-100N Hi-Res Mic (End Address) – Ideal for Instrument Applications

- Ultra-compact with a choice of two models: Uni-directional (ECM-100U)

or Omni-directional (ECM-100N)

- Flat and wide frequency response (20Hz to 50kHz) ideally suited for High-Res Recording
- Low-Cut filter eliminates low-frequency noise and proximity effect
- -10dB pad switch provides added headroom

The new mics expand Sony's High-Resolution Audio line, which has included a complete series of solutions designed, so that the latest generation of music enthusiasts can enjoy Hi-Res digital music.

Sony ECM-100N Hi-Res Omni-Directional Mic

QSC ANNOUNCES RELEASE OF TOUCHMIX-30 PRO

QSC has announced the release of the TouchMix-30 Pro Microsoft Windows Driver for the acclaimed TouchMix-30 Pro compact digital mixer, the powerful, 32-channel mixer with advanced professional features. The new driver provides Windows users with the capability to utilize the TouchMix-30 Pro as a high fidelity, studio-grade 32 x 32 channel DAW interface.

"We are pleased to offer the new Pro Audio Driver for TouchMix-30 Pro to Windows DAW users throughout the world," says QSC Professional Vice President Product Management, **Gerry Tschetter**. "Now, the powerful DAW interface capabilities of the mixer can be enjoyed by our recording studio

clients in either Mac or Windows environments."

Additional Benefits

As a 32-channel DAW interface, the TouchMix-30 Pro also offers additional advantages in the studio including the capability to provide seven independent stereo headphone mixes, each under phone or tablet control, with three stereo headphone mixes directly driven by the on-board headphone amplifier.

Not to be eclipsed by its studio capabilities, the TouchMix-30 Pro excels in the sound reinforcement environment, providing a feature-rich yet easy-to-use live console for production professionals, musicians and bands and live performance

venues. Its 32 mixing channels (24 Mic/Line, 6 Line, Stereo USB) and 16 outputs offer tremendous signal management flexibility for a wide range of applications while a host of additional pro features including Anti-Feedback and Room-Tuning Wizards, dual RTA, extensive dynamics processing, advanced EQ, six effects processors and more combine to

provide a highly-capable, advanced digital console experience in a compact and portable form factor.

SONARWORKS RELEASES FOURTH GEN ACOUSTIC CALIBRATION SOFTWARE

Sonarworks has released its fourth generation acoustic calibration software, **Reference 4** - which delivers reliable monitoring to even more sound engineers, producers and musicians.

Adored and relied on by thousands of studios around the globe, Sonarworks software removes sound coloration from monitors in purpose built control rooms as well as more down-to-earth locations. With the new Reference 4 even

more music creators can focus on creating music instead of worrying about their equipment.

Reference 4 introduces zero

latency to the already impressive feature list Sonarworks' users have grown to love and rely on. No extra latency means that the Reference 4 plug-in can be used for vocal and instrument tracking. Finally, musicians who demand instant response on their input will be able to fully rely on their monitoring.

Sonarworks has announced immediate availibility of the Reference 4.

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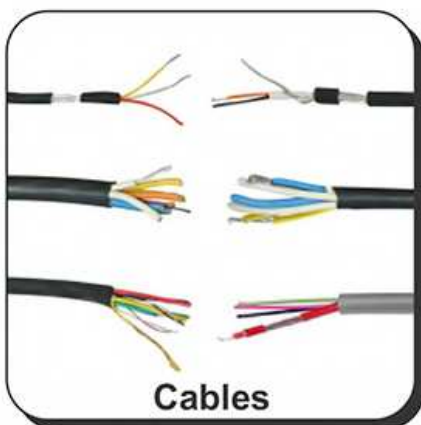
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Actual site photograph of KWIK TRUSS installed at Madhya Pradesh Diwas by Phoenix Networks. Size 100 x 100 x 45 feet with 8 pillars.

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EARTHWORKS UNVEILS FLAGSHIP STUDIO VOCAL MIC

Earthworks have unveiled a flagship model microphone– the **SV33.** Its front address cardioid condenser microphone, offers incredibly high resolution performance, providing staggering realism and purity of sound for male and female vocals.

Featuring hand-tuned circuitry paired with a 14mm capsule, the SV33 delivers superior audio performance with the warmth of a large diaphragm capsule coupled with the stunning detail that Earthworks is known for. Incorporating Earthworks' patented polar technology, the SV33 delivers a near-perfect cardioid polar pattern that is consistent up to 80 degrees off-axis. This revolutionary performance allows the singer to move freely in front of the microphone without sacrificing timbre or level. This microphone also has very low handling noise and a built in windscreen to prevent plosives.

The SV33 excels at rejecting unwanted sounds at the rear of the microphone, while any sounds that do come in off-axis sound incredibly natural and uncolored. It boasts a frequency response of 30Hz to 33kHz ±2dB at 5 inches with self-noise of 15dBA, yielding a 79dB S/N ratio. Its maximum acoustic input level is 145dB SPL.

Every SV33 is individually handmade in the company's New Hampshire, USA headquarters and is housed in an elegant aluminum body with Nextel Dark Black plating for low reflectivity and durability. The SV33 comes with a flexible mounting bracket for attaching the microphone to booms or stands. Each microphone comes in a custom designed carrying case to protect the SV33.

The Earthworks SV33

UNIVERSAL AUDIO INTRODUCES THE EMPIRICAL LABS EL8 DISTRESSOR COMPRESSOR PLUG-IN

Universal Audio introduces the Empirical Labs EL8 Distressor Compressor plug-in for UAD hardware and Apollo interfaces as part of UAD Software v9.4— an expert end-to-end circuit emulation of the iconic compressor that has been used on thousands of hit records.

"The UAD EL8 Distressor plug-in is significantly better in accuracy and operation than the other plug-ins that try to cop its vibe and sound," says Distressor creator Dave Derr. "It's the best Distressor emulation in the world and will stand the test of time as the definitive Distressor emulation."

The UAD 9.4 has three new direct developer plug-ins: the Dytronics

Tri-Stereo Chorus, the Gallien Krueger 800RB and the Ocean Way Mic Collection for Townsend Sphere.

Developed by Softube, The **Dytronics Tri-Stereo Chorus** is based on the ultra-rare effect made famous by '80s LA session royalty — including Michael Landau, Steve Lukather, and Dann Huff. The plug-in emulates the original's three bucket-brigade delays for rich, swirling analogue chorus textures, say UA.

The **Gallien Krueger 800RB plug-in**, developed by Brainworx for UAD emulates the solid-state bass amp used by artists like Red Hot Chili Peppers, Radiohead, No Doubt and Guns 'n' Roses. The Gallien-Krueger 800RB plug-in emulates the original hardware's bi-amplified architecture, providing two different power amps — one for the lows and one for the highs. An adjustable crossover allows you to control which frequencies go to which power amp, and each has a master volume knob, making it easy to dial in just the right amount of bass or bite.

Finally, leveraging their Sphere modeling microphone technology, Townsend Labs have teamed up with Ocean Way to capture the best microphones from Allen Sides' much-admired mic locker. The **Ocean Way Mic Collection** features 12 mics from the likes of Neumann, Sony, RCA, AKG and others. The Townsend technology means that proximity effect, polar patterns, and the other off-axis characteristics of vintage microphones can be modeled.

SOUNDTOYS LAUNCHES LITTLE PLATE REVERB PLUG-IN

The Little Plate reverb plug-in is the latest emulation from the plug-in developers, Sountoys. Though inspired by the EMT 140, Soundtoys asserts that they have added a couple of fun twists that let you take it to spaces the original hardware only dreamed of. It is simple and infinite possibilities make it more than amazing.

While the original EMT 140, with its mechanical and possibly asbestos-clad damping plate, could only muster a modest five seconds, Little Plate offers a broader range of decay times: as short as half a second for super tight ambience effects, to truly cavernous extended decay times up to infinity for unique and creative frozen reverb sounds. When Mod is switched on, chaotic variations are used to add life and movement to the reverberation effect. The Low Cut and Mix knobs help to dial in the perfect reverb sound quickly and easily.

Significant Features:

- Add the sound of vintage plate reverb to your tracks.
- Push beyond the limits of the hardware with extended reverb decay time.
- Create infinite reverb effects that never decay.
- Optional modulation for natural-sounding variation in the reverb tail
- Low Cut filter to tame low frequency build-up.
- 25 distinct presets to quickly dial in a sound.

ANTELOPE ANNOUNCES AVAILABILITY OF DISCRETE 8 THUNDERBOLT & USB INTERFACE AND EDGE AND VERGE MODELING MICROPHONES

High-end professional audio equipment manufacturer Antelope Audio has announced the availability of its DISCRETE 8 Thunderbolt & USB Interface with 8 Discrete Mic Preamps, plus accompanying EDGE and VERGE modeling microphones.

Antelope Audio's DISCRETE 8 Thunderbolt & USB Interface with 8 Discrete Mic Preamps comes complete with eight console-grade, six-transistor, fully-discrete design preamps; 121 dB dynamic range conversion; and rock-solid

classic vintage gear to its recording roster.

When working, DISCRETE 8 users can create custom presets to set up various tracking scenarios easily and speedily. The front panel features a large monitor volume knob and dedicated HP knobs for each output. On top of that, the talkback microphone is also built into the front panel right above the TBK (talkback) button. Talkback can be engaged via the assignable FOOTSWITCH on the rear, in the EasyPanel software, or via the iOS/

dual ADAT I/O, DISCRETE 8, was developed after extensive research of legendary microphone preamp circuitry. Engineers and performers alike can instantly hear the authentic blends of 10 different mic preamps — without any latency or annoying comb filtering. The microphone source can be recorded with or without Accusonic modelling, allowing engineers to choose between preamp models during mixing. Moreover, the entire signal path has been designed for optimal sound with any microphone, yet really shines

these new modelling microphones usher in a new era for modern recording.

EDGE

EDGE features dual edge-terminated capsules for a smooth/natural sound, reproducing the expressiveness and character of costly classic microphones — albeit without excessive expense. Antelope Audio CEO Igor Levin has designed groundbreaking fully-discrete electronics especially for the job at hand while hand-selected capsules are encased in a carefully-crafted enclosure with contours carefully shaped for optimal sonic performance. As a direct result, EDGE is an exquisite large-diaphragm condenser modelling microphone with excellent transient response and capable of multiple polar patterns.

VERGE

VERGE visibly differs as a small-diaphragm condenser (back electret-type) modelling microphone suited to both nuanced accuracy and high SPL (Sound Pressure Level) recording. Also exhibiting excellent performance in its own right, it can capably take on the character and personality of the world's best small-diaphragm condensers and electrets.

DISCRETE 8's FPGA Accusonic 3D Modelling Engine enables users to transform both EDGE and VERGE into vintage replicas, realising complete control over proximity effect, off-axis response, and even allowing them to change polar patterns during or after recording!

The Antelope Audio Discrete 8 Audio Interface with Mic Modelling

clocking. It includes all Antelope Audio's premier real-time FPGA FX, including authentic models of iconic gear from BAE, Gyraf Audio, LANG, and many more besides. Being based on Antelope Audio's AFX platform — a rapidly expanding hardware modeling engine — enables DISCRETE 8 to add Accusonic microphone and preamp models, guitar amps, transformer and tube effects alongside a huge selection of

Android app. Meanwhile, metering is viewable on the front panel display, inside the EasyPanel, and via the remote app.

With a 26-input/32-output audio interface with eight analogue inputs (A1 through to A8), eight analogue outputs (on a standard 25-pin D-SUB connector), a pair of MONITOR outputs, two REAMP outputs, and a pair of headphone outputs, with additional digital connectivity courtesy of S/PDIF IN and OUT alongside

when working with Antelope Audio's new EDGE and VERGE modelling microphones, which are both specially designed for DISCRETE 8's preamps, featuring matching discrete electronics.

EDGE and VERGE are both ideally suited, to Antelope Audio's realtime mic preamp modelling. Creatively combined with the company's already-acclaimed FPGA vintage hardware-based effects encompassing ever-expanding compressors and EQs,

WAVES IS NOW AVAILABLE WITH CUBASIS 2.3 ON IOS

Waves Audio, provider of digital signal processing solutions and digital music production tools, announces that Waves is now available for iOS. Waves and Steinberg have joined forces in offering Cubasis and Cubasis LE users' three in-app purchasable plugins by Waves.

Cubasis is Steinberg's sequencer app for iPad, similar to its Cubase

music production system, providing the same look and feel as well as project compatibility for easy import to Cubase. It provides all the required tools to arrange, mix and edit music productions, including many effects and hundreds of instrument sounds.

Exclusively available to Cubasis, Waves is providing Cubasis with in-app purchases of its revamped and

reskinned 25th Anniversary versions of three of its classic plugins: Q10 Equalizer, the AudioTrack channel strip plugin and the L1 Ultramaximizer level maximizer/peak limiter, thus adding high-end studio quality to professionally mix on an iPad.

Mick Olesh, Waves EVP of Sales & Marketing, comments, "We are delighted to join forces with Steinberg, providing iPad users with

Cubasis, along with access to our plugins and studio-quality mixing tools, to help users polish tracks with professional sound within iOS-compatible music software. Waves' availability for iOS is in line with our belief in open platforms, which goes hand in hand with our continual objective to faithfully serve all users, regardless of hosts, pro audio field or genres."

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CHANDLER LIMITED AND ABBEY ROAD INCLUDE EMI TG OPTO AND TG12345 MKIV TO 500 SERIES

Chandler Limited, the only company in the world authorized to develop, manufacture and market the 'Official Equipment' of EMI/Abbey Road Studios, has expanded their 500 Series palette with additions of the TG Opto compressor and TG12345 MKIV EQ to its EMI/Abbey Road Studios historic lineup.

The TG Opto compressor borrows from the TG1 Opto counterpart, first introduced as part of the Chandler Limited TG Microphone Cassette in late 2016, and the modern studio classics, the TG1 Limiter, and TG12413 Zener Limiter. The TG Opto compressor for 500 Series is a double space, mono module, featuring continuous input, output (makeup gain), attack and release controls, sharp and rounded knees, and true bypass. The continuous controls, coupled with the option of sharp or rounded knees, allows the TG Opto to go from explosive on drums to subtle on sources such as vocals, where less obvious compression is desired.

The TG12345 MKIV equalizer for 500 Series is a single space, mono module, featuring a presence and bass control-set, as found on the historic EMI TG12345 recording and mixing console microphone cassettes. The presence section is a bell type with eight frequency options and out position, while the bass control is a dual frequency selectable shelving type.

SENNHEISER'S LAUNCHES HD 660 S HEADPHONES FOR THE HOME STUDIO

Sennheiser has launched a new open dynamic headphone for the passionate audiophile – the HD 660 S. The new model builds on the legacy of the HD 650 and features a new and improved transducer design that delivers lower harmonic distortion for an even more natural, lifelike audio experience, the company says. With a lower impedance of 150 ohms, the HD 660 S offers even greater versatility, allowing listeners to enjoy the headphones' reference-class fidelity with both stationary and mobile HiRes players.

It's improved acoustic design ensures low harmonic distortion, while Sennheiser's proprietary transducer offers improved control of the diaphragm movements thanks to a specially manufactured precision stainless steel fabric, which is adapted to the contour of the diaphragm. The transducers are carefully selected and paired by hand to guarantee consistently narrow tolerances (± 1dB), while their extremely light aluminum voice coils ensure the highest impulse fidelity.

In the HD 660 S, leading-edge technology meets a long tradition of uncompromising German audio and builds quality, Sennheiser states. This combination of craftsmanship and breakthrough innovation is reflected in their new matte black and anthracite design – a high-end aesthetic approach that embraces both contemporary style and timeless elegance. The robust yet lightweight construction also makes listening supremely comfortable. The elliptical ear cups are shaped to follow the anatomy of the ear, while thick padding on the headband and the replaceable ear cushions provides a relaxing and luxurious experience that places the enjoyment of music at center stage.

Offering a lower impedance of 150 ohms, the HD 660 S can be enjoyed with HiRes mobile players or when directly connected to high-quality, stationary HiFi components. Sennheiser recommends the use of dedicated amplifiers, which offer balanced outputs such as the Sennheiser HDV 820 or the balanced output of a mobile digital audio player, if available. Accordingly, the headphones offer a choice of connectivity options. The detachable connecting cables made from highly conductive OFC copper offer either a 6.35 mm stereo plug or a balanced 4.4 mm Pentaconn stereo plug, with a 6.35 mm to 3.5 mm adapter also provided.

OVERLOUD UNVEILS SCULPTUBE TUBE PROCESSOR

Italian audio software developers Overload have added Sculptube to its series of effects plug-ins. Its processor features both triode and pentode simulated tubes by using DSP technology and has three different tube configurations available, each to provide a different sound.

> **Top features include:**
- Hyper-realistic simulation of tube warming/distortion
- Triode and Pentode simulation
- Tube biasing control
- Built-in EQ and parallel processing to sculpt the tone
- Low CPU usage: more than 1500 instances on a Macbook Pro Retina
- Multilevel undo-redo
- A/B Comparison

- Scribble Strips: take notes anywhere on the plug-in panel
- Meter Calibration: calibrate the VU meters at 4 different sensibilities
> THREE TONES IN ONE PROCESSOR: Overloud Sculptube is a versatile tool to build a wide variety of analog tones.
> WARM-UP: With mild Drive settings it allows to recreate an authentic analog coloration to individual tracks or mixes.
> DISTORT: It can also be used to overdrive the input and recreate different kind of tube distortions, including Triode and Pentode curves.
> EXCITE: It's built-in eq and parallel processor, it can be used to revive the tracks by adding natural harmonics in the high-end.
> THE MAGIC OF TUBE BIASING: The Bias knob controls the amount of current through the tubes.
- At low current the tubes are under-biased and the sound is inclined to be thinner and break up easily.
- At medium current settings the Sculptube distorts least, and this is the typical setting for just warming up a sound.
- At high current the tubes are over-fed and the tone becomes quite fat and harmonically rich.
> 3 TUBE CONFIGURATIONS AT YOUR FINGERTIPS
There are 3 settings for the type of distortion:
- Program 0 (Triode) creates the typical musical effect found with triode valves, with very rich 2nd harmonic distortion, good for warming up a sound.
- Program 1 (Pentode) creates a Pentode distortion, with prevailing odd harmonics, which makes the sound more aggressive while retaining that valve character.
- Program 2 (Special) is obtained with a pretty unusual way of configuring the valve, which gives an extra octave at higher bias settings.

CDJs & Media Players

Loops and Beats

Continuing with its lineup of DJ equipment, PALM Technology presents a lineup of six popular CDJs / Media Players in the global market. CDJs have ushered in an exciting new era of DJing where the 'spinmaster' may not be called to DJ with vinyl at all and this guide is intended for all the controller DJs out there who have decided to get tech-savvy about CDJs.

Denon DJ SC5000

The DJ SC5000 Prime from Denon is a digital DJ Media Player with a high definition, hi-contrast display, enables multi-touch gestures for the ultimate in latency-free, tactile track navigation, load and playback. It is also the world's first DJ Player capable of on-board music file analysis.

Main Features include:

- 7-inch HD display with multi-touch gestures
- 24-bit/96kHz digital audio outputs
- Dual-layer playback with individual audio outputs
- Plays uncompressed audio formats (FLAC, ALAC, WAV)
- 8 multifunction trigger pads for Cues, Loops, Slices and Rolls
- 8-inch rugged metal jog wheel with HD central display
- Customizable RGB color around the jog wheel
- (3) USB and (1) SD input for music playback
- LAN output to link to up to four players
- Import Rekordbox® files and database content from an inserted USB/SD, directly into the SC5000.

Tech Specifications:

➢ Audio:
- Analog Output: 2.0 Vrms (0 dBFS, 1 kHz)
- Dynamic Range: 116 dB
- Distortion (THD+N): < 0.0015%
- Frequency Range: 22–22,000 Hz
➢ Digital Output:
- Sampling Rate: 96 kHz
- Bit Depth: 24-bit
➢ Platter:
- 8.0" / 203 mm (diameter)
- Metal construction with display &

touch-capacitive circuitry
➢ Power:
- Connection: IEC
- Input Voltage: 110–240 VAC, 50/60 Hz
- Consumption: 75 W
➢ Dimensions (width x depth x height):
- 320mm X 419mm X 135mm
- 12.6" x 16.5" x 5.3"
- 32.0 x 41.9 x 13.5 cm
➢ Weight (without USB and power cable): 8.79 lbs. / 4 kg

Gemini MDJ-500

The Gemini MDJ-500 is a compact professional DJ player / controller designed to offer the flexibility of playing from USB jump drives or from a computer, while maintaining a natural 'hands on' control. With a large 4.3-inch vivid full-color screen, it provides real-time visual feedback of the tracks. Full track information including Title, Time, BPM, and Pitch are clearly displayed alongside the precise full-size waveform window.

Main Features include:

- Full-featured USB media player with 4.3" color screen, moving waveform, and onboard search and analysis
- 5" high resolution touch platter is perfect for even the most demanding performance
- Manual and BPM-based auto looping makes it easy to create builds or extend breaks
- 4 hot cues per track let you jump to that

sample or drop with ease
- The 100mm pitch fader and adjustable pitch ranges from 4% to 100% let you mix with surgical precision
- Slip Mode means you can use scratches or hot cues without ruining your mix
- Multiple platter modes available, including reverse play, vinyl, and stutter cue
- MIDI Mode turns your MDJ-500 into the ultimate platter controller – complete with on-screen deck info* (*in Virtual DJ).

Technical Specification:

- Outputs: Stereo RCA outputs and S/PDIF digital audio outputs
- Plays: MP3, AAC, WAV and AIFF formats
- BPM functions: Including auto (sync), manual (tap), and BPM lock
- Variable pitch control: With six settings: +/- 4%, 8%, 16%, 24%, 50%, 100% and Master Tempo control
- Start/Stop: Time jog mode adjustment
- Dimensions: 290 x 220 x 111 mm
- Weight: 2.6 kg

Numark NDX500

Numark NDX500 is a USB/CD media player and software controller, capable of playing and mixing music from virtually any digital audio source.

Main Features include:

- Control DJ software and play music from USB flash drives, CDs, or MP3 CDs
- Built-in USB computer audio interface for playing back music from your Mac or PC
- Touch-sensitive scratch and search wheel for unprecedented control
- Control DJ software via USB MIDI
- Auto BPM with tap override for instant tempo analysis

- Start/stop time adjustment for vinyl-style braking
- Three hot cues for quick access to key points
- Seamless looping with stutter start for easy loop creation and integration
- Pitch tracks up or down by up to 100%
- Master Tempo preserves key while pitch-shifting
- Anti-Shock buffered skip-protection technology
- Text display for quickly and easily navigating media files
- Pre-mapped for deep integration with Serato DJ*
- Class-compliant, instantly works with Windows and Mac OS X, no driver required.

Technical Specification:
- Output Connectors: Stereo RCA Jacks
- Input Connections: USB
- Pitch Control Range: ± 4, 8, 16, or 100%
- Loop Points: Yes
- Effects: Brake, Reverse
- Time Display: Track elapsed, track remaining, total remaining (CDs)
- Supported Formats: Redbook CD, CD-R, CD-RW, and MP3 CD
- Frequency Response: 20 Hz to 20 kHz (±2 dB)
- THD: <0.03%
- Signal to Noise Ratio: 80 dB (A-weighted)
- Output Level: 1.9 V (±0.2)
- Channel Separation: Channel Separation: >80 dB
- Channel Difference: <1 dB
- Power Requirements: Supply: 115 / 230 VAC, 60 Hz / 50 Hz
- Consumption: 20 W
- Dimensions (WxHxD): 8.5 x 11.5 x 4.2" / 21.6 x 29.2 x 10.7 cm
- Weight: 7.1 lb / 3.2 kg
- Package Weight: 9.25 lb
- Box Dimensions (LxWxH): 15.5 x 11.8 x 6.4"

Pioneer DJ CDJ-2000NXS2

Pioneer DJ's CDJ-2000NXS2 is a flagship media player with all the best features from its predecessor – the CDJ-2000NXS.

Main features:
- IMPROVED SOUND DESIGN: It has a 96 kHz/24-bit sound card
  Digital Out and Analogue noise is reduced to a minimum by a high-performance 32-bit D/A converter and separate analogue power supply.
- LARGE TOUCH SCREEN: The 7-inch, full-colour touch screen gives instinctive control of features. It displays all the info, including Wave Zoom, Needle Count-

down, Phase Meter, and more. Keyword Search and Track Filter mode helps to browse and select tracks faster for an effortless performance.
- 8 HOT CUES: Set cue points in rekord-box and customise their colours. 2 banks of 4 colour-illuminated Hot Cues put instant playback of pre-set cue points at your fingertips.
- BEAT PERFECT: Quantize snaps cues and loops to the rekordbox beat grid for a reliable performance every time.
- ADD A DDJ-SP1: Add the DDJ-SP1 to your set-up and access even more performance features. Simply plug in a USB cable and control up to 4 CDJ-2000NXS2s using Pro DJ Link.

Tech Specifications:
- Width: 320 mm
- Height: 113.2 mm
- Depth: 414.4 mm
- Weight: 5.7 kg
- Processor: Asahi Kasei DAC (AK4490EQ)
- Soundcard: 24 bit/96 kHz
- Frequency Range: 4 - 40000 Hz
- Signal-to-Noise Ratio: 115 dB
- Distortion: < 0.0018 %
- Audio Output Level: 2.0 Vrms (1 kHz, 0 dB)
- Power Consumption: 41 W
➤ Display
- Display: 7-inch, full-colour LCD touch screen
- On Jog Display: Yes
➤ Performance Control
- Jog Dial size: 206 mm
- Hot Cue: Yes
- Slip Mode: Yes
- Reverse: Yes
- Needle Search / Needle Drop: Yes
- My Settings: Yes
- Vinyl Speed Adjust: Yes
➤ Terminals
- Audio Sources: iPhone/iPad/iPod touch, Android phones/Android Tablet, USB storage devices (flash memory/HDD, etc.), SD Card, Computers (Mac/Windows PC), Optical drive (CD, CD-R/RW, DVD±R/RW/R-DL)
- LAN: 1 (100Base-TX)
- USB: 1 USB A port & 1 USB B port
- Outputs: 1 ANALOGUE (RCA) & 1 Digital (Coaxial)

Reloop RMP-4

The RMP-4 hybrid media player from Reloop is an addition to the RMP series and an ideal combination of CD player, USB player and performance software controller.

Main features include:
- Hybrid Media Player: Play Audio from CDs, USB Drives and Control Software via MIDI
- Performance layout supports intuitive work flow
- Quick Source Select: CD, USB or MIDI Mode
- USB 2.0 port for the connection of hard disks, USB sticks, flash drives
- Four performance modes with 8 Trigger Pads: Hot Cue, Hot Loop, Loop Roll, Sampler
- Sync function for auto beat matching two connected RMP-4 with analysed tracks (USB Master/Slave)
- Smart-Link Connection: Connect two RMP-4 players to share one USB source, control software and beat sync
- Navigation Encoder with Push function
- Large, high-resolution 100 mm pitch fader
- Micro Pitch adjustment (+/- 0,01%)
- Database Manager Software for Mac & PC software for analysing your music library for fast access
- High-Volume Club Quality-Sound output
- MIDI Mappings available for popular DJ software
- Pitch Range select from 4-100%
- Info Button / ID3 Tag Toggle
- Manual Loop In/Out/Exit/Reloop
- Auto BPM counter / Manual TAP mode / Manual BPM Adjust
- Large CUE/PLAY/CUP transport controls
- Loop Adjust In/Out via Jog Wheel
- Half/Double Loop access
- Shock absorbing feet

Technical Specification:
- Supported formats: MP3, WAVE, AAC, AIFF
- Output level: 2 V
- Signal-to-noise ratio: 90 dB
- Frequency range: 17 – 20 kHz
- Distortion: 0.006% – 0.007%
- Anti-shock: 19 seconds
- Outputs: RCA (analogue)
- USB: 1 USB port A, 1 USB port B
- USB format: FAT 12/16/32
- Power consumption: 18 W
- Power source: AC 100 – 240 V, 50/60 Hz
- Pitch accuracy: 0.15%
- Dimensions: 320 x 340.5 x 112.6 mm
- Weight: 3.91 kg

BUILDING DJ TALENT

PALM DJ Championship draws craftsmanship from across the country

With millions of DJs in the running, reaching the top can be a daunting task. The PALM DJ Championship has been instrumental in building, promoting and nurturing this bank of upcoming DJ Talent since 2011

The DJ industry in India has expanded exponentially in the last five years due to a number of EDM festivals across the country and the demand for a music and DJ Setup not only in clubs, pubs and lounges, but also at social gatherings like weddings, birthdays, private parties and other community events. Adding impetus to the industry are amateur DJs and women too, who are embracing DJing as a fulltime career. As the industry continues to evolve, the demands for expertise and proficient DJs have also witnessed a magnificent growth.

The First Breakthrough

"Participants come from all over the country and this platform provides them an opportunity to go ahead and it works as the first breakthrough for aspiring DJs, "says DJ Championship Director – DJ Reji. DJ Reji has contributed a lot of energy to this talent hunt platform, adding significantly to its success. In his opinion, the Championship is a boost that everybody needs and asserts that most of the DJs who come for the Championship are mostly young enthusiastic kids who would want to be recognized and who want to display their talent in front the informed and enthusiastic audience.

With a musical career that has spanned more than 18 years, DJ Reji has donned various hats in the alternative and electronic music scene in Mumbai – from being a DJ and Turntablist to an Educator and Curator. He has been a driving force behind PALM DJ Championship since 2011, motivating young minds and making sizeable contributions to the DJ industry. He believes that the Championship is the first breakthrough for the participants, propelling them to the next level.

The DJ Championship process involves shortlisting 20 contestants from hundreds of online registrations received on the PALM expo website. A preview of the participant's previous work is taken into consideration while choosing these 20 contestants who then get an opportunity to battle it out in the Qualification rounds that take place at the PALM expo venue. The contestants play three or more tracks within the 4 minutes allotted to each, with pre-mixed/edited tracks being immediately disqualified. 10 of the 20 contestants who are judged on the criteria of Track selection, Technical skills, Creativity, Confidence and Crowd Response go into the Final Rounds which takes place on the second day of the PALM expo. The final three winners are then adjudged from these 10 contestants.

The DJ Championship gives new talent an opportunity, while also laying a lot of emphasis on the prizes. The main focus is that the winners go home with top quality industry standard gear that will take their craft to the next level. "I know a lot of participants who really look forward to the PALM DJ Championship as it is their highlight of the year and it will give them an opportunity to break their personal glass ceilings," says Reji

The Talent Pool

Reji perceives that changing trends in music each year is reflected at the DJ Championship which has witnessed newer forms of music down the years. "Every year, the quality of talent that participates in the Championship takes a new leap, plus everyone is taking the gamble with scratching," he says.

While 20 contestants get their 4 minutes of fame each year, there are few who stood out Here's what some of the championship winners are now doing.

DJ Atom - Bass Boy (2017 Championship Winner)

Palm Expo 2017 DJ championship introduced a DJing phenomenon - DJ Atom - Bass Boy, a 10-year-old wunderkind who sent audiences in a tizzy with his insane DJing skills. Today India's youngest DJ has become a star in the DJ circuit. The prodigy has performed for many concerts, events & top of the line pubs. Soon after winning the championship, Mumbai based artiste Management Company - Coconut Talent Management that manages DJ Atom's career growth, were busy handling enquiries for the 10 year Old's live performance in events & clubs.

DJ Prathamesh (2017 Championship 1st Runner Up)

"After winning the PALM DJ Championship my life has totally changed. I now have good projects in hand as I have tied-up with few event companies and the going is good after winning this title." Prathamesh has been busy doing shows with event companies like Sheer Management, Back Benchers, Concept Wedding, hotstuff buzz events and some private gigs and destination wedding, as well as corporate gigs for Tata Pvt. Ltd. & Majestic Pvt. Ltd.

DJ Nelson (2017 Championship 2nd Runner Up)

"I am probably the 2nd youngest DJ in India, as I won this competition at the age of 19. These days I am doing gigs in some very good clubs in Mumbai with great artists." DJ Nelson is today resident DJ at Mumbai's new rooftop dining & club venue - *Vortex Bandra.* "This year I will be playing at EVC 2017 and will be opening for Armin Van Buuren," he adds.

2017 Championship 2nd Runner Up - DJ Nelson is today a resident DJ at Vortex, Bandra and has also played at EVC 2017, opening for Armin Van Buuren

DJ Ashitosh (2016 1st Runner Up)

"My life took a whole new turn after the Championship. I got qualified in DMC online world DJ championship 2017 wherein I represented India and was placed 6th out of 29 participants." Currently Ashitosh is working hard to get into DMC world championship 2018 and he dreams of dedicating the winning title to his country.

DJ Atharva Sawant (2016 2nd runner up)

"Palm DJ championship is one of the biggest platform for aspiring DJ's in the country. I clearly experienced an escalation in my career after winning the DJ championship. PALM DJ Championship was my 20th such achievement and the most important benchmark for me. I really got some great shows in the past year & had some excellent collaborative music projects with some renowned record labels. I always wanted to prove myself as one of the best DJs and thankfully, PALM was the right platform for me." Atharva has since also participated in a remix competition held by Dutch record label - *Spinning Records*, and his track is on number 7 in charts worldwide.

DJ Abhishek Pardeshi (2015 Championship Winner)

"Being a Palm DJ winner earns you lot of bookings in clubs and amazing festivals. I also got a management contract from two agencies "AMA" and "Redalert Team", said Abhishek Pardeshi.

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BAY SIX

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Stage LED

BIG STAGE VISUALIZATION

In recent years LED displays have become the new standard for Big DJ stages. Their bright image displays, ease of use and declining rental costs make them an attractive option for live stage shows. This product focus highlights a line-up of six LED displays from amongst a vast array of options available in the market today.

Absen T5

Main Features include:

- Lightweight: 25kg/sqm, lightweight; 0.72sqm/panel, fast installation; significantly reduce the operating cost of transportation.
- Excellent Display Effect: 110% color gamut and more than 5000:1 high contrast. The product

features high gray-scale, refresh rate and low brightness with high gray-scale rate.
- Multifunctional: Both indoor and outdoor use, panel structure is also suitable for rigging, stacking and perimeter banner.
- Friendly Structure Design: 8:9 ratio, easy to build 16:9, user-friendly designed frames for easy handling.
- Applications: Suitable for events, touring and sports.

Tech Specifications:

- Pixel Pitch: 5.55 mm
- Brightness: 5000 nit
- Refresh Rate: 3840 H

Gloshine ZM6.94

Main Features include:

- It has two kinds of cabinet versions, straight & curved.
- Support 90-degree accessibility.
- Hanging installation & Stacking Installation: Max 10 meters high
- Adapts to a variety of installation environments.
- Fast maintenance
- Eco-friendly material, anti-electrostatic, safe

& reliable.

Technical Specification:

- Model No.: ZM6.94(Outdoor)
- Pixel Pitch: 6.94mm
- LED: SMD1921 (High frame)
- Pixel Density: 20736pixel/㎡
- Brightness: 800-1200nits/ 2000-2500nits
- Color Temperature: 6500-9500k
- Scan: 1/9
- Panel Dimension (W*H*D): 500mm×500mm×66mm 19.7"×19.7"×2.6"
- Panel Resolution: 72×72pixel
- Panel Weight: 7.00kg/15.43lb
- Cabinet Material: Die casting aluminum
- Max Power Consumption: ≦700w/㎡
- Average Power Consumption: ≦350w/㎡
- Viewing Angle: H: 160º V: 140º
- Refresh Rate: 1920Hz
- Gray Scale: 14-16bit
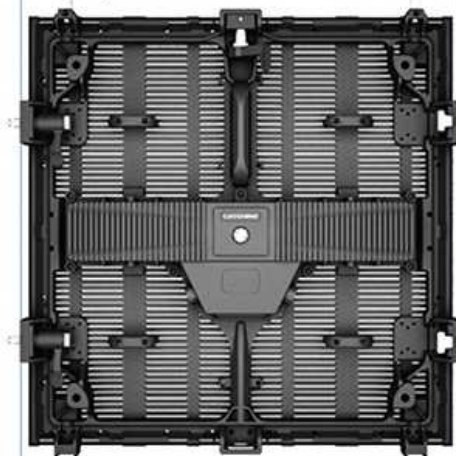
- IP Rating: Front IP65, Rear IP54
- Operating Humidity: 10%-90%RH
- Operating Temperature: -20℃~+40℃
- Max. Stacking: 20pcs
- Max. Hanging: 20pcs
- Curve (Optional): -7.5°~+7.5°
- Lifetime: 50,000 hrs
- Storage Temp/Humidity: -40℃~+60℃ ；10%-60%RH

Htile Display P5.95

Main Features include:

- It's size can be 500*1000 or 500*500mm.
- The ultra-lightweight cabinet is made of aluminum, which gives it extra strength.
- Cabinet of Lightweight LED Screen is designed with perfection, making it easy to install.
- The quick-lock feature requires no technical skills to install and uninstall.

Technical Specification:

- Item: Outdoor Rental Aluminum Display
- Pixel Pitch (mm): 5.95mm
- Pixel density (dot/m2): 25600
- LED Type: 2727
- Viewing angle: H:140°,V:140°
- Brightness (nits) : ≥6000
- Drive Method: 1/16
- Refresh Rate (Hz): 1920
- Module Size (mm): 250×250×18
- Cabinet Size (mm): 500×500×77
- Cabinet Material: Die casting aluminum
- Cabinet weight (kg): 8kg
- Voltage: 110/240V
- Average power (W / m2):300
- Max power (W / m2): 700
- IP Grade: IP65/IP54
- Operating temperature: temperature：-20℃ ~ 50℃ humidity：10~90%RH
- Storage temperature: temperature：-40℃~ 60℃ humidity：10~90%RH
- Lifetime(h): ≥50000
- Compliant Standard: CCC、CE.
- Control system: Linsn or Novastar

MrLED Rental AF Series

Main features:

- Intelligent Connection: It's cabinet position can be adjusted freely when assembled; the network cable can be removed arbitrarily after installation, and after powering on, a key can connect the full screen automatically through the controller button to achieve easy operation.
- Modular Design: The cabinet consists of box components, modules with highly Integrated design; the installation of different pixel of the module size is unified, which can be interchanged and shared.
- Integrated Connection: Module and adapter board and the aviation plug, both use hard coonection, effectively enhancing the stability of the product.
- Low Brightness, High Grayscale, no Ghosting: With low brightness, perfect gray with a rich sense of layering and color saturation, the screen is very clear and clean without protracted superimposed picture and ghost phenomenon.
- Easy Maintance: When a single cabinet fails, rapid replacement can be achieved through the quick disassemble and assemble power box, without affecting the other cabinet.

Tech Specifications:

- ➢ Module: AF048
- Pixel Pitch: 4.81 mm
- Brightness: ≤3000 nits
- Refresh Rate: ≥1920 Hz
- Driving Method: 1/13 scan
- Grey level: 43264 Level
- Color Display: 281 trillion
- LED Type: SMD2727
- IP Grade: IP65/IP54
- Power consumption (Max/Average): 350/140 W/sq.m
- ➢ Cabinet
- Module Size (mm): 250×250×17 mm
- Cabinet Size(mm): 500×500×95 mm
- Cabinet Material: ADC12
- Cabinet weight(kg): 8.5kg
- Cabinet resolution: 104×104 Pixels
- Pixel density: 10816 Pixels/sq.m

- ➢ Application environment
- Input AC power voltage: 110V-240V
- Working temperature: -20℃~50℃
- Working humidity: 10%-95%RH
- Signal type(with video processor): AV, S-Video, VGA, DVI, HDMI, SDI, DP
- Control distance: HSYV: <100m; SMF: <10km

PixelFlex FlexTour

FLEXTour is a robust, High Definition curve-able 500 x 500mm LED video display designed for the high demands of the touring production world. Each tile is modular in design with unique rigging capabilities for traditional and unique off set designs. Each tile front serviceable with magnetic modules for easy on-site maintenance. Its integrated climbing ladder allows technicians quick access to displays flown overhead. Built with the highest standard in components including the new A8S Novastar receiving card, FLEXTour is the premier rental staging product on the market.

Main features include:

- Locating Pins: Quick Seat locating pins ensure perfect alignment and proper seating on LED cabinets each time
- Fast Change Power and Data: It has modular twist lock and play connections for rapid change of data and power enclosure.
- Integrated Corner Protection: It's corners are protected by an integrated cover that rotates in and out of place on all four corners for transit and staging.
- Offset Tile Interlocking: With it's top and bottom, interlocking hardware, the FLEXTour can be built in offset configurations for yet additional creative freedom in your LED Designs.
- High Accuracy Curving: Each cabinet allows for 15 degrees convex and concave curving allowing for creative freedom in your production designs.
- Road Ready: Full touring carts that hold 24 tiles are available to decrease load in and load out efficiency. Traditional casing is de-

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signed to hold 16 tiles which slide in with the LED's facing up to help protect each tile. Each case also holds 8 rigging headers.

Technical Specification:

- Pitch: 2.84-6.9mm
- Pixels/PSM: 3,600-22,500
- Brightness: 1200-4500 NIT
- Refresh Rate: 3840Hz
- Panel Size: 500 x 500 x 90mm / 37.79 x 37.79 x 4.13 In
- Weight: 9Kg / 21.4Lbs
- Avg. Power Consumption: 240 W/per Cabinet
- Max Power Consumption: 700 W/per Cabinet
- Weather Rating: IP 65 / IP45

Video Wall VWI 10 mm

The VWI 10 mm is an outdoor LED screen manufactured using the highest quality LED components offering stunning brightness, contrast and color reproduction. It has an IP65 waterproof rating, which means that they are built to withstand all weather conditions. These outdoor LED screens has a much higher brightness than its indoor counterpart, in order to deliver bright and vibrant images, even in direct sunlight.

Technical Specification:

- Model: P10
- Pixel pitch: 10mm
- Pixel configuration: 1R1G1B\
- Pixel matrix per panel: 32*16pixels
- Module resolution rate: 32*16=512dots
- Module dimensions (W*H): 320*160
- Driving mode: 1/16 scan, constant current
- Brightness: ≥6000 cd/m2
- Cabinet dimensions (W×H): 640*640mm
- Cabinet Resolution: 64*64=4096dots
- Viewing angle (H/V): H/V 140°/120°
- Best viewing distance: ≥10m
- Protection: IP65 & IP54
- Gray scale per color: 12-16bits for red,green,blue
- Life time: ≥100,000 hours
- MTBF: ≥10,000 hours
- Refresh rate: ≥ 480Hz
- MAX. Power: ≤580 W/m2
- Input voltage (AC): 110V ~ 240V
- Operating temperature: -20℃ ~+ 50℃
- Operating humidity: 10% ~ 90%
- Control system: Nova
- Operating System: Windows 7 to 2010

D3 TECHNOLOGIES INTRODUCES NEW NAME - DISGUISE

d3 Technologies have revealed a new company name - **disguise**. The new name wraps up a momentous year of key changes and growth for the company which finds an expanding international community using their technology at the heart of some of the world's most exciting cultural experiences, in verticals including concert touring, broadcast, theatre, fixed installs and, most recently, film. Despite this rapid growth, 'disguise' maintains they are still the same company at heart, focused on the same level of support and innovation that have earned them success. "This year at LDI, we're doing something different. Instead of showing our products as they exist at the moment, we are offering a sneak preview of what is coming next. With the help of
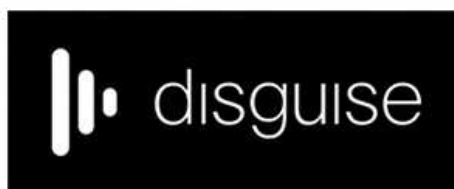
our friends at Barco, DWP, Possible, LMG, Bild, Satis&Fy, and VT Pro, we've gone out of our comfort zone and created a projection demo like you've never seen before," says Ash Nehru, founder of d3 Technologies / disguise. "Our user communities use our products to overcome the hardest challenges in the projection industry - short setup times, large numbers of projectors, huge content resolutions, complex surfaces, moving objects, and more. With this demo we want to show our vision of a world where these challenges have been overcome," he adds.

WORK PRO UNVEILS LIGHTSHARK - NEW HARDWARE LIGHTING CONSOLE

LightShark is the new range of hardware lighting consoles launched by Work Pro. It is the first ever DMX-based hardware lighting console range to offer wireless, browser-based control from a multi-touch Smartphone or tablet, with support for up to three connected devices simultaneously.

The LightShark range is consist of two independent products,

only lighting control and marries them to an intuitive, ergonomic assignable hardware control surface. The LS-Core omits the LS-1's hardware control surface but offers exactly the same lighting control software, processing power, and Smartphone/tablet-based software control interface.

Along with all the features of a modern and full lighting control system,

LS-Core

the LS-Core and the LS-1 console, both developed and designed entirely within WORK PRO's lighting division. The LS-1 brings together the best features from the world of innovative software-

LightShark also offers an intuitive control over a total of 8 DMX universes of 512 channels, in addition to built-in support for a library increasing of Fixtures. It also integrates an editor of Fixtures for those wishing to modify or customize

the Fixtures control templates.

For professionals who prefer the control through a physical user interface, it is worth remembering that once configured and assigned, all aspects of the LS-1 system can be controlled completely from the surface hardware; a wide LCD display to the right of the control surface shows how physical controls are mapped at all times, and is updated when the user switches between layers of control allocation. For this reason, the LS-1 users have the freedom to control their lighting systems through software based on Web browser control.

"The LS-1 console is designed to fill what they perceive as a significant gap in the market of lighting control," explains the CSO's WORK PRO, Juan José Vila".

"At the upper end of the market there are traditional lighting hardware

consoles that cost thousands of dollars, even the smallest still sell for, at least 1500 euros." At the opposite end of the market there are many systems or control only software applications, some with innovative automation and control functions which are very popular among lighting professionals. These

LS-1 Console

are available for a few hundred euros maximum, but you must have a computer and a DMX interface hardware to complete the system,

X-LASER UNVEILS "PROJECT MERCURY" AT LDI

X-laser has completed "Project Mercury" and the final product was released at LDI 2017. The company has revealed that "Project Mercury" signifies X-Laser's proprietary system for controlling laser projectors directly from a lighting console.

"X-Laser has always been about one thing: bringing lasers to as many people as possible," Adam Raugh, X-Laser's President, said. "Using input from our clients, we've worked since

2015 to solve a core problem within the lighting industry that lasers are difficult to integrate into lighting rigs. With Mercury, lighting designers can program a laser projector just like they would program any other moving-head fixture."

Mercury-equipped laser fixtures can be discovered, profiled, configured and programmed directly from the lighting console. By leveraging the powerful tools already built into

today's lighting desks, LDs can control an array of lasers just like how they'd control an array of moving-head fixtures. For maximum functionality and compatibility, Mercury features DMX+RDM and Art-Net protocols, and will feature sACN (E1.31/ E1.33) in the future.

CHAUVET LIM AND CASTELINO TO EXPAND GLOBAL REACH

Chauvet has announced the appointment of John Castelino as the Vice President of Global marketing and Hanslee Lim to expand its global reach.

The well-known industry figure **Hanslee Lim** will be spearheading Chauvet's sales efforts in Asia. Lim comes to Chauvet after directing Asian market sales for Robe and prior to that SGM.

"We are extremely happy to have someone with Hanslee's impressive track record and commitment to excellence on our team," said Stéphane Gressier, International Sales Director of Chauvet. "Hanslee has an extraordinary depth of knowledge about lighting in general and more specifically about lighting in the Asian market. Most importantly though, he has a well-deserved reputation for understanding the

Hanslee Lim will be spearheading Chauvet's sales efforts in Asia

needs of customers and putting them first. This makes him very compatible with the Chauvet way of doing business."

In his new role, Lim will be responsible for directing sales

throughout the Asian market for all Chauvet brands including CHAUVET Professional, CHAUVET DJ, ILUMINARC architectural lighting and TRUSST trussing. He will report directly to Gressier.

John Castelino, in his new position will be responsible for Chauvet's entire brand portfolio, which includes Chauvet Professional, Chauvet DJ, Iluminarc, TRUSST, and ChamSys.

Castelino joins Chauvet after a distinguished career at Stanley Black & Decker, where he served as Vice President of product management and marketing. During his time at Stanley Black & Decker, Castelino led some of the company's largest brand portfolios such as DeWalt and Mac Tools.

Castelino who is excited by the opportunity said, "I am thrilled to join Chauvet and work with a visionary CEO in a fast paced,

John Castelino Vice President of Global Marketing

dynamic industry. Chauvet's commitment to being a leader, our customer-centric approach, and our commitment to new product development are great combination."

HARMAN PROFESSIONAL ANNOUNCES MARTIN MAC ENCORE WASH

HARMAN Professional Solutions announced the launch of Martin MAC Encore Wash, a full-featured, LED moving head designed to produce premium white wash lighting in a

K CCT.
- No color temperature variation during zoom and dimming.
- Flicker-free operation—LED driver frequency suitable for all camera

Encore Wash WRM 560

wide variety of applications where critical lighting is required. The feature-packed soft edge moving head offers unparalleled 3000 K warm tungsten emulation that truly challenges the output quality of a real incandescent light source, and doubles as a modern replacement for generic fixtures like tungsten based Fresnel fixtures, with the additional benefit of color mixing and movement.

Product Features:
- Pure white LED engine with 3000

Encore Wash CLD 560

applications.
- Whisper-silent—Combines convection and forced air cooling with userselectable output vs. sound level control.
- Fully electronic dimmer/shutter control with various dimming curves and tungsten red-shift emulation.
- Vibrant CMY color mixing with a superior palette of colors ranging from rich, saturated primary colors to light and smooth pastel shades.

- Variable CTB—tungsten to daylight CCT control and expansion of the CMY palette that stays true to the black body curve.
- Color wheel—6 interchangeable dichroic filters + open.
- Fresnel lens: 1:4 zoom—precise, silent and fast zoom.
- PC lens (optional): 1:5 zoom—precise, silent and fast zoom.
- Internal barndoor system with two shutter blades and iris. Shutter blades can overlap for full blackout and the entire system rotates +/- 100°.
- Repeats cues with great precision.

- Precise and tight iris with adjustable dynamic effects.
- Animotion™ FX System—Internal dimming effect macros for stunning 3D mid-air and projection effects.
- Super precise and silent pan/tilt movement and positioning due to 3-phase stepper motor technology and absolute position monitoring.
- Compact size—L: 452 x W: 480 x H: 745 mm / L: 17.8 x W: 18.9 x H: 29.3 in.
- Low weight—28.5 kg/62.9 lbs
- Foam rubber (SIP) flight case insert for secure shipment.

WORK PRO UNVEILS LIGHTSHARK...

as well as a controller hardware if you prefer to not use mouse. Such a configuration is not very portable or resistant when it comes to a rigorous use at live events. We thought that we could do better, partly inspired by some of the excellent interfaces user software which have been developed recently for consoles in the professional audio market," said Vila.

"What we wanted was to design a system of lighting control that combines the versatility of the software solutions with ergonomics, an integrated interface and the physical

usability of a hardware console, but keeping the price as close as possible to 1000" euros. The use of graphics capabilities advanced easily available smartphones and tablets modern for our control interface has meant that we didn't have to reinvent the wheel for LightShark, which has helped keep the price low. The LS-1 is the result, and we are very proud of it. The LS-Core is an even more affordable option for installations in which the control in real time through a physical interface is less important," he concludes.

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For more information, please contact

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ELUMEN8 DEBUTS NEW RANGE OF PROFESSIONAL MOVING HEADS

elumen8, recently released their new range Evora series, professional moving heads. With super smooth movements, the series feature 3 phase motors, immensely bright LEDs with superior dimming and display battery backup.

The 3 moving heads within the eLumen8 Evora series have each been designed to give lighting designers and installers an arsenal of professional features and effects needed in today's event and installation markets.

The **eLumen8 Evora 1000 BSW** is a 3-in-1 hybrid, that features a powerful 180W LED which is ample for most large venues and events. This fixture has the ability to switch between a beam, spot and wash offering a huge potential of creativity for projecting patterns onto walls or generating stunning mid-air effects. Used as a beam effect (4.5°), the unit emits sharp beams of light whilst as a spot (20°) the fixture is capable of stunning projections. When operated in the wash mode (45°) the unit produces soft-edged washes. This version also has 8 facet circular and 6 facet linear rotating indexable prisms, motorised zoom and focus, frost filter, a colour wheel, a static gobo wheel and a rotating, indexable, replaceable gobos wheel.

With a host of features, including a super bright 180W LED and colour wheel, the **eLumen8 Evora 1000 Spot** is an ideal fixture for larger events and venues. These coupled with a 3 facet, indexable rotating prism plus 5 facet linear rotating indexable prism and remote focus produce rich vibrant colours, whilst the 2 gobo wheels (9 static and 7 rotating) provide a host of superb animated effects. Pan/tilt auto correction and 16 bit positioning make this fixture perfect for rental and installation alike.

With a 100W LED the **eLumen8 Evora 500 Spot** sports a host of features inside its compact shell. A 3 facet, indexable rotating prism, remote focus and manual zoom combined with rich vibrant colours and 2 gobo wheels result in stunning light shows to fill any venue. Whilst the 16 bit resolution and pan and tilt auto correction make this little mover ideal for rental and installations alike.

The introduction of the feature-packed Evora series not only solidifies eLumen8's place in the event, stage, production and hire markets, but gives designers a choice of fixtures to use whether they want to produce unique lightshows or enhance existing installations.

Evora 500 Spot   Evora 1000 Spot   Evora 1000 BSW

ELATION PROFESSIONAL DEBUTS KL FRESNEL SERIES

Elation Professional has announced the KL Fresnel series of warm-white LED Fresnel lights that provides the attractive warmth of tungsten halogen with all the benefits of LED.

These are available in 50W, 150W and 350W models, a 3000K fixed colour temperature and high colour rendering capacity ideally mimic the warm glow output of traditional Tungsten halogen lights while surpassing them in output and efficiency.

PRODUCT DETAILS:

The KL Fresnel series: (KL for Key Light) has been designed to produce the warmer, natural key light that designers desire while providing high CRI's to make colours radiate, accurately reflecting an object's true colour. They project a superior quality of light and are an excellent choice for the wide variety of white light illumination required in broadcast, theatrical or stage environments from highlighting performers or scenery on stage to illuminating speakers. The KL Fresnel 4 and 6 models house a manual zoom while the KL Fresnel 8 features a motorised zoom system. All models include removable barndoors and a filter frame.

The KL Fresnel 4: uses a 50W warm-white LED engine calibrated at 3,000 Kelvin to emit a smooth wash of light that simulates the warmth of a tungsten halogen source. With a high CRI of 91 and superior light quality, the KL Fresnel 4 has the ability to better distinguish colour and contrast. Total lumens output exceeds 1,600, on par with compatible Tungsten halogen models. For easy adjustment of beam size for more precise coverage, the fixture incorporates a 14° to 31° manual zoom. Consistent lux levels are maintained throughout the zoom range.

The KL Fresnel 6: uses a 150W warm-white LED engine calibrated at 3,000 Kelvin to emit a smooth wash of light that simulates the warmth of a Tungsten halogen source. With a high CRI of 97 and a superior light quality, the KL Fresnel 6 has the ability to better distinguish colour and contrast. Total lumens output exceeds 5,200, on par with compatible Tungsten halogen models. For easy adjustment of beam size for more precise coverage, the fixture incorporates a manual zoom that expands the beam evenly from 16° to 31°. Consistent lux levels are maintained throughout the zoom range.

The KL Fresnel 8: uses a 350W warm-white LED engine calibrated at 3,000 Kelvin to emit a smooth wash of light that simulates the warmth of a tungsten halogen source. With a high CRI of 97 and a superior light quality, the KL Fresnel 8 has the ability to better distinguish colour and contrast. Total lumens output exceeds 6,400, on par with compatible tungsten halogen models.

Elation Lighting KL Fresnel Series 50W, 150W and 350W models

For easy adjustment of beam size for more precise coverage, the fixture incorporates a 12° to 36° motorised zoom. Consistent CT and CRI levels are maintained throughout the zoom range.

All KL Fresnel fixtures dim smoothly all the way to zero with smooth 16-bit selectable dimming curve modes included for programming ease. Gamma correction and LED refresh rate can be adjusted variably for flicker-free operation for broadcast and film environments. Professional control options include DMX and RDM (Remote Device Management), and all fixtures can be controlled manually. All KL fixtures are fitted with 5-pin XLR and powerCON TRUE1 in/out connections while a four-button / two-rotary dial control panel and LCD menu display make for easy navigation. All units come with multiple-unit power linking to save on setup time and hassle, and are outfitted with a multi-voltage universal auto switching power supply.

The KL Fresnel series offers all the benefits of LED like greater reliability and less maintenance and consumes little power for a lower cost of ownership.

PAOLO ALBANI QUITS DTS

Paolo Albani, appointed as International sales manager in 2015, has decided to leave DTS. Hes says, "We started with a big question mark on both sides, we got involved, we improved each other and got amazing results together. I had the opportunity to meet extraordinary people, inside and outside the company in all parts of the globe. I can only say that this was an unforgettable experience, but unfortunately came the day when I feel the need to find new motivations and new challenges. I would like to thank all the people who have been part of this fantastic trip, even the least, and I hope to meet them soon."

Silvano Latteo, DTS President, said, "The choice of having Paolo in our staff has been a success; we have been able to improve and to make the company and its people grow.

Today we are proud to compete internationally with the industry leaders. In an ever-changing market the need to expand your own horizons is important, and for this reason the relationship ends with the best wishes, leaving a strong sense of trust and esteem in both parties. On behalf of the whole company, I wish Paolo the best for its future activities."

ALL-IN-ONE IP65 RATED Q-10 JOINS SGM Q SERIES

SGM has introduced the Q-10, a powerful all-in-one IP65-rated unique RGBW LED luminaire with a staggering output of 60,000 lumen. This product carries the functionalities of a strobe light, a flood light, a pixel light, and a blinder with a non-fading continuous output. At the same time, the powerful and low-noise Q-10 is practically maintenance free and comes with a user-friendly display, wireless control, and integrated handle making is easy to operate, transport, rig, and to focus.

As with all the other IP65-rated luminaires in SGM's product range, the Q-10 comes with the well-known SGM thermal management and is kept free of externally induced particles on internal optics and light sources. The internal built-in patented SGM dehumidifier further protects the fixture from moisture, smoke fluid, pollution, humidity, and any other factors that can generate corrosion.

With an expected lifetime of 50,000 hours, this rectangular full color SMD LED luminaire keeps the same accurate color calibration of the remaining SGM Q series and the avoidance of color shifts. It incorporates a total of 4,096 SMD LEDS evenly distributed between RGB SMD LEDs and white SMD LEDs, delivering best-in-class optical color mixing as well as a linear color temperature control ranging from 2,000K to 10,000K.

With the wide 110° beam angle, the Q-10 offers a wide even-field coverage, making it ideal for cycloramas, wall washing, large objects and areas, and stage lighting. It comes with eight individually controllable segments, generating wide-ranging color effects and pixel-mapping combinations for creative lighting designs. Each segment provides extremely fast feedback, individual RGB control and superior dimming performance for velvet smooth fades and flicker-free operation.

LYNTEC'S NPAC RACKMOUNT POWER MANAGEMENT AND WHOLE VENUE SOLUTIONS WITH COMPREHENSIVE CAPABILITIES

LynTec, manufacturer of electrical power control solutions for professional audio, video, and lighting systems, displayed its new Networkable Power Automation Control (NPAC) rack-mounted system and Whole Venue Control capabilities at LDI 2017. The Whole Venue Control allows lighting professionals to mix and match. LynTec's market-leading panels, including the DMX and SACN-compatible NPAC, across a facility and control them as one system.

"For the first time ever, not only can designers use just one system to control all the LynTec lighting panels in their design using our Whole Venue Control offering, but with the addition of the new NPAC solution, it gives them a rack-mounted power control for lighting control," said Mark Bishop, president of LynTec.

The Whole Venue Control lineup, the NPAC is engineered to protect and control installed entertainment AVL systems across multiple zones and with multiple control protocols (HTTP, Telnet, sACN, DMX) and simple contact closures. The NPAC series includes both: 120V or 240V models to manage higher power loads. It features four 20A circuit inputs in a single 2RU enclosure, saving integrators valuable rack space and eliminating the need to wire multiple units together. The unit boasts pre-terminated cables that are ready to plug into existing sources and four NEMA 5-20 outlets (6-20 outlets for the 240V model) that allow for easy connection to gear.

LynTec, Whole Venue Control capabilities allow system designers to create a completely tailored AVL power control system using LynTec's RPC Remote Control Breaker Panels, RPCR Automated Relay Panels, or NPAC units in any combination units within the same network on a single interface. This allows system designers to create a completely tailored AVL power control system. They can mix and match LynTec's leading line of electrical power control solutions to address the unique infrastructure requirements across a broad range of applications. By accessing a single IP address, customers can set up, control, and monitor all their AVL sequences or DMX lighting zones across the facility, making LynTec the ideal power control and management solutions provider for mega churches, theaters, stadiums and arenas, conference centers, and other large venues.

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L-210 TWO WAY LINE ARRAY 1300W

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SL-218B SUB-WOOFER 2400W

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INTEGRATING THE FUTURE
SOUND LIGHT AUDIOVISUAL

'THE LEISURE ECONOMY'

Clever Entrepreneurs have converted almost every social encounter into an entertainment opportunity.

A simple coffee moment is looked at as an opportunity to encourage the happy consumer to spend even more money. Why not? Every economist says that the countries prosperity does not depend on how much money everybody has – but how fast and how often it moves from hand to hand.

Conspicuous consumption is to be praised. 'More, More and More' is the mantra.

We are not here to comment on how cultures are made or destroyed. This article is solely devoted to the business opportunities this throws up, for us entertainment professionals.

Entertainment electronics which was confined to live performance venues have spread everywhere. To Discos (in their time) and now onto lounges or restobars or slinkys... Or whatever name they dream up next.

Theater Lighting principals started being applied into malls and other retail venues. Store designers started using concepts of key lighting and ambiance lighting to make products even more desirable.

Here we fell into a hole. The conundrum that confounds all us stage lighting guys - 'Good lighting disappears. Bad lighting can be seen'

Everybody thought they could do it. It looked easy. Point a light in the right direction and you are done.

Only in hindsight did they realize how easy it was to mess up. Physics cannot be ignored.

But that learning opened a huge opportunity for architectural lighting professionals. Sadly that particular door closed just as quickly as today's 'Mall Culture' is on the wane. But it looks like in India we may have some good years ahead. That is if Budgets will allow.

But the good news is that from malls the concept has moved to open work spaces and so the principals of key and ambient lighting have moved to offices. Gone are the days of overhead tube lights as open networking spaces seem to find a niche and open offices become more popular.

As office spaces get thinned out (as in lesser number of people using smaller offices) the size of public buildings is growing in multiples.

Airports, Hotels, Town Centers are becoming larger and more sophisticated. Many retail stores are trying to exploit these large numbers of 'walk throughs' and converting them into business opportunities.

In an open space, lighting and visual strength can be a great way to attract customers to us.

Third opportunity is created in the totally different worlds that are just about starting. Virtual Reality or any of the dozens of other names it goes under. I have an idea that in time our entire experience of things will become virtual. Today we chase dragons, race F1 cars, play for Barca (or Man U), and climb Everest on our computer screens. Gone are the days of passive entertainment where you sit and watch actors playing out clearly defined characters on the movie screens. On screen, certain ladies already allow you to live out your fantasies on command. How long before we step into a movie and be the '11th Lagaan Team Member.' Have Anjelina Jolie run beside you as you outfox the bad guys. This is our industry's true opportunity.

Already most events have adopted dynamic backdrops that can change character by the minute. How much longer before we step into an entire room of led screens on which we can be at the Paris opera one minute and sailing on the Ganges the next? Or you step into a black box, wear a helmet and be in your own world.

Already the US gaming industry earns more money than Hollywood. Amazingly Gaming stars don't have the exposure that Hollywood big shots like Spielberg have. Maybe because a lot of them are Chinese.

The Chinese are not afraid of spending money. See how brands like Oppo and Vivo have almost captured our handset market. So expect a lot of exciting things from them.

That's the scenario as I see it today. How will we harness the opportunity?

India has emerged as the animation hub for a lot of Hollywood. Overtaking Singapore and Hong Kong. That has built a huge reserve of talent. I am not sure how much creative control they have on content, but just simply being there must be a great learning experience for anybody who was part of this revolution.

I hope they can use their skill sets and experience in creating formidable companies who can adapt that technology to retail stores, tourism experiences and any other form of entertainment that the technology allows. Surely the political class will exploit the messaging opportunities that mass media will throw up.

Advertising as we know it will have to transform itself from creativity and instinct to just huge number crunching capability. It may suck the joy and discovery out of the profession but jobs and enterprises will flourish.

The other medium I see evolving is what I call the 'Grand Gesture'. What is that?

As the digital world draws all of us into our own niches – that part of us that needs human connection will always remain to be fulfilled. To meet that need, I believe a large platform will be created where people can interact on a common level.

I get this from these huge festivals that have changed the way we look for expression. Burning Man, Glastonbury, Coachella and closer to home we have so many of these desert festivals. Once fringe festivals, they struggle under huge costs. Mostly to create the infrastructure. Not understood by corporate sponsors – too little money is spent. Mistrustful and uncomprehending governments have let these festivals go on...... only to step in when some vested interest gets violated.

But from all this experience will emerge festivals that will draw people. It could be business opportunity, it could be music, and it could well be some religious or social bond.

This networking of interests and expressing and sharing of ideas will be necessary for people to simply look up from their hand phones once in a while.

I have no idea of the shape and form it will take. Or how long it will take to evolve. If I did, I would not be writing this, but stepping out and making a buck on the idea.

There is the opportunity. Look up guys from the work you are doing today and see the future. My only wish is that creativity and possibility will lead. The money will follow.

(The views expressed by the author are his own personal comments and the magazine does not subscribe to them).

A JOURNEY TO DISCOVER REBIRTH...

The refinement of audio quality we heard through our earphones is now felt all over the vast spaces in larger clubs.

SNOWBALLING FUTURE

This number is growing – and growing very fast. I have felt this unique quality of sound packed with a punch and state with absolute confidence and responsibility that these sound way above any class of amplifiers. Just as I have felt, many more too share my point of view. Is this the preference of the consumer for linear sound that's fueling the growth of a new topology? Are these indicators of rise of a new era in amplification topology? The USP of Class D was its compact form factor and reliability that compensated for its shortcomings on the quality of audio. That USP of form factor has been paralleled without the loss of any audio fidelity even at full power. After experiencing and comparing all existing topologies and witnessing the rebirth of linear amplifiers, what I foresee is a scramble on the part of amplifier manufacturers to elevate the quality of sound delivered by class D topology with the realization that the cornerstone of Class D has been veritably challenged and soundly beaten by a new Linear Avatar, "Born in the Himalayas in India" as the manufacturers state. For everyone in the professional audio industry, a date with this reborn Linear topology is going to be exciting one and for some who may not be as excited and as keen - it may be inevitable.

LINEAR is back – and well on its path to redefine all known concepts of amplification topology globally.

Console

Painting Light Canvases

Lineup of products from six major lighting console brands, lighting up events & venues across the globe

Avolites Arena

The Arena is the perfect desk for festivals and theatres. It combines the popular interface of the Tiger Touch II with more live control than ever before.

Main Features include:

- 40 precision playback faders in three pageable groups.
- 20 programmable macro executor buttons.
- 3 metal shaft optical attribute encoders.
- 4 optical playback encoder pots.
- 15.6" vibrant main touch screen with brightness control.
- 7" vibrant secondary touch screen.
- 6 mono LCD screens for digital fader legends.
- UPS battery back-up
- New six-position articulation stand
- Ergonomic trim and carry handles
- Robust stainless and zinc treated steel construction – built for life on the road
- Includes 4-port managed Gigabit network switch
- OpticalCON Stage link output, with an optional second link
- 8 physical 5-pin XLR opto-isolated DMX out, up to 16 universes over ArtNet or streaming ACN – total of 8192 console channels.
- Compatible with Titan Net – up to 64 universes, total of 32,768 system channels.
- 4 Ethercon Gigabit primary network connection with a battery maintained managed switch supporting Titan Net, ArtNet and streaming ACN.
- 1 Ethercon Gigabit secondary Network connection for Titan Net, ArtNet and streaming ACN.
- 1 standard OpticalCON stage link output, to connect to industry standard network switches with optical support.
- SMPTE Timecode/LTC input 3-pin XLR (transformer isolated).
- Trigger inputs on ¼" jack, suitable for foot switches.
- Audio in on stereo ¼" jack for Audio Triggering.
- Headphone 3.5mm jack conveniently placed on the front panel.

- 4 USB3 ports – 1 front, 3 rear.
- DVI-D for external display.
- Two 3-pin XLR dimmable lamp connector
- MIDI in, out and thru.
- Compatible with Titan Remote (Wi-Fi access point required)
- Optional extras: Flight Case, Dimmable Lamp x2, Cover

Tech Specifications:

- Dimensions (mm): 1072 x 428 x 150
- Weights: 23kg

HedgeHog 4E

The HedgeHog4E is a professional lighting controller with ArtNet and CITP capabilities, designed for small to mid-level shows like theaters, nightclubs, corporate events, medium scale rental jobs or churches.

Main Features include:

- Robust Hog 4 Operating Software
- With Newest V3.0 Software including Pixel Mapper and Plot View
- Unlimited Number of Simultaneous Crossfades
- MIDI Input and Output, MIDI Show Control and MIDI Time Code via Optional External Widget

- Supports USB Playback and Master Wings
- Dust cover Included
- Optional Custom Road Case

Technical Specification:

- Length: 20.74" (526.8mm)
- Width: 21.83" (554.37mm)
- Height: 3.97" (100.78mm)
- Weight: 17 lbs. (7.7 kg)
- ELECTRICAL / THERMAL: AC 90-250V - 50/60Hz

Martin Lighting M6

The M6 is a lighting console that functions as a highly advanced visual control surface. It can control everything from conventional and moving lights to the most advanced media server for multimedia shows.

Main Features include:

- 2 x positionable BriteTouch widescreens (sunlight readable, multi-touch)
- 2 x external DisplayPort touchscreens up to 1920x1080 per output
- FastTouch 3.5" touchscreens
- 1 x LiveBlender split T-Bar with 8 x Fast-Blend™ RGB buttons
- 4 x FastTrack linear encoders
- 12 x FastDial rotary encoders
- 1 x dedicated dimmer wheel
- 10 x motorized playbacks with LCD displays and 4 x customizable buttons
- 10 x PlayPairs buttons with LCD displays
- 12 x Sub Playback faders and 12 x Sub Playback buttons
- 2 x Main Go sections
- 12 x F-Keys and 5 x FastKeys
- Low-profile housing with adaptable module layout
- Show-ready boot up in under a minute
- 64 DMX universes directly from the console network ports

Technical Specification:

- Length: 668 mm (26.3 in.)
- Width: 1058 mm (41.7 in.)
- Height: 204 mm (8.1 in.)
- Weight: 37.5 kg (82.7 lbs.)
- Shipping weight (in flightcase): TBA
- 4 x DMX universe outputs: 5-pin locking XLR

- 1 x DMX input: 5-pin locking XLR
- DisplayPort: 2 x external touchscreen (both up to 1920x1080)
- Art-Net (up to 64 universes): Gigabit Ethercon RJ-45
- MaxNet controller link: Gigabit Ethercon RJ-45
- Peripherals and USB memory devices: 2 x USB 3.0, 8 x USB 2.0
- SMPTE In/Out: 3-pin locking XLR
- VITC In/Out: BNC MIDI in/out/thru (MIDI show control, MIDI notes, MIDI timecode): 5-pin DIN
- Stereo audio In/Out: 3-pin locking XLR
- Microphone: 3-pin locking XLR
- 2 x desk lamps (optional accessories): 3-pin locking XLR
- AC power input: Neutrik PowerCon

MA Lighting grandMA2

The GrandMA2 is equipped with up-to-date technology and special features, suppling intuitive and fast control of all connected fixtures and channels.

Main features:

- Real-time control for up to 65,536 parameters per session in connection with MA NPU (equivalent to 256 DMX universes)
- 8,192 HTP/LTP parameters
- 3 internal TFT wide mode touchscreens (15.4" WXGA)
- 2 external TFT screens can be connected (UXGA, touchscreens accepted)
- 1 internal command screen – multi-touch (9" SVGA)
- 30 motorized executor faders
- Integrated keyboard drawer
- Built-in uninterruptible power supply (UPS)
- 2 etherCON connectors, 5 USB 2.0 connectors
- Motorized monitor wing
- 2 motorized A/B fader 100mm

Tech Specifications:

- Operating voltage/ Supply voltage: 120V/230V, 50/60Hz (automatic detection)
- Dimensions: 1,284 x 204 x 661mm / 50.6 x 8 x 26inch
- Net weight: 46kg / 101lbs

- Output connectors: 6 x XLR 5pin (DMX), 2 x DVI (external monitor), 2 x etherCON, 1 x MA Link (grandMA2 fader wing), 5 x USB, 1 x DIN (MIDI), 2 x XLR 4pin (desklight)
- Input connectors: 1 x XLR 5pin (DMX), 1 x XLR 3pin (Sound), 1 x XLR 3pin (SMPTE), 1 x DIN (MIDI), 1 x Sub-D 25pol (Analogue Remote), 1 x powerCON

ETC Cobalt 10

The Cobalt 10 is a compact solution suitable for touring or smaller control rooms.

Main features include:

- Two 12" articulating, multi-touch displays
- Backlit command keypad
- 20 Master playbacks, consisting of 10 motorized faders and 10 backlit, color-coded endless pots with full-color touch displays
- Solid-state hard drive
- Supports three external DisplayPort monitors starting at 1280x1024 resolution with optional touchscreen control
- Dual PoE Ethernet ports
- 4,096 or 16,384 outputs/parameters
- 5,000 control channels (nameable to 9999)

Technical Specification:

➤ SYSTEM CAPACITY
- 16,384 Outputs/parameters
- 5,000 Control Channels
- 9,999,999 Presets
- 4 x 999 Palettes (Focus, Color, Beam, All)
- 999 Groups, Macros, Sequences, Master Pages
- 99 Effect Playbacks
- Supports three external DisplayPort monitors starting at 1280x1024 resolution with optional touchscreen control
- Seven USB 2.0 ports for USB flashdrive, pointing devices, keyboards
- AC input (100 - 240V at 50/60 Hz)
- Maximum power consumption (excluding external monitors) approximately 2A 120/240V

➤ PHYSICAL
- Height: 12.5 inches
- Width: 31.9 inches
- Depth: 23.5 inches

Chamsys MagicQ MQ80

The MagicQ MQ80 is a small but powerful console with a large central touch screen, which provides easy access to all MagicQ features and display and selection from full lighting plots.

Main features include:

- Advanced Media Server Support
- Fixture Morphing & Cloning
- LED Pixel Mapping
- Fixture Plot View including Target Focus
- Powerful PC/Mac Show Editor
- Fixture, FX and Gel Library
- In-built Fixture Editor
- Fixture morphing and cloning
- Tracking / non-tracking option
- Rainbow colour picker (CMY, RGB, HSI)
- Individual fade times on any channel
- Easy fanning of parameters and times
- Configurable faders - HTP, LTP, speed, size, masters
- Theatre mark cues, split fades and inhibit masters
- Client/Server network architecture
- Multiple console playback tracking
- Multiple console programming
- In-built Web Server
- Remote console control
- Visualizer support (including patch transfer)
- Architectural Zoning and Day/Date support
- In-built UPS (~5 minutes)

Technical Specification:

- Universes: 24
- Channels: 12288
- Number of fixtures: Up to 12288
- Cues: 5000
- Cue stacks: 2000
- Palettes: 4096
- Groups: 5000
- Media server support: 50
- Faders: 13
- Direct DMX ports & Network Ports: 4
- External monitor: Up to 1920x1200
- Internal monitor resolution: 1280x800
- USB ports: 6
- Audio input (1 channel, 7 band)
- Inbuilt UPS
- Power input: 110 to 240 VAC
- Width: 570mm (22.5")
- Depth: 405mm (15.9")
- Height: 110mm (4.3")
- Weight: 8kg (17.5lb)

HEALTH & SAFETY

Health

How important our H&S compliances are at events, yet we fail at every event in practically every department, other than a few individual pockets of excellence working around a world of other risky suppliers or production companies putting the entire production at risk; is so the norm.

When I say health, it really starts with a good nights sleep and healthy breakfast and the drive to the venue using your seatbelt even if you're sitting at the back. The clothes you wear, the shoes on your feet and the amount of water you are consuming are the most primary health related matters that are most often ignored. Health is about setting personal standards, just like hygiene is and this cannot be taught beyond a certain point, it comes from an attitude.

I cannot bear when people tell me, especially my crew, trying to earn brownie points by saying we worked so much that we did not even eat our lunch or dinner. I find that deplorable and very uncool. The fact that you did not eat, put you at a health risk both short term & long term, as well as made you focus a lot on hunger (much more than the time it took for you to actually eat) rather than focus on the work in hand. Now about drinking water, does your urine have to be so yellow is a manifestation of the fact that you are not hydrated enough and that's bad especially if you're working in the sun?

Protecting your ears is a very important H&S compliance and nobody can do that for you but yourself, for example if I am at a event and the volume isn't to my liking/level then I am with 9 DB filters in my ear moulds and if its atrociously loud then I am 18db filters in my ear moulds. I just cannot understand why we expose ourselves to such bludgeoning volumes. I can't stand even for 5 mins for some gigs people expose themselves to for at least 2 to 3 hours. By simple logic, if anything hurts my ears then whatever the decibel level is, it isn't good for me.

My shoes are the most expensive piece of gear I have when I allocate a budget to my personal health, if I

am going to be standing at a venue the whole day then I am not going to compromise on what shoes I am wearing and so should you. My socks likewise too, I do not wish to be reeking of foul odor when I take my footwear out. Clothes, jackets, caps, shades are as important to you as your measurement tools are.

Safety

Safety is a very misunderstood subject and when people ask me why do events fail in safety standards my

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The most powerful message I have read in recent times on safety is "If you think Safety is expensive try Accident"

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simple answer is ignorance or act of god, whilst the former is 99.9% the problem. Why do we have such poor standards, why isn't it budgeted for. The most powerful message I have read in recent times on safety is "If you think Safety is expensive try Accident"

I think that only if regulation is put in by the government will safety improve otherwise it will just keep happening. I can't even begin to tell you in how many events accidents don't get recorded or reported and how all those incidents are needed to come to light in order for us to learn and correct them. Unless we put the fear of God in people with fines, cancelling of insurance and jail term, we will

not be able to achieve this and this is the honest truth. Safety has to be made a habit with our staff and not a drudgery to comply with. H&S should be followed with pride and educating through actions is the greatest way of creating awareness for H&S.

Truss Safety

Truss or scaffolding falling is a norm and even if you follow standards there is a possibility that the other service provider doesn't, be it infrastructure of electrical. We have

very low safety standards due to being uneducated about it and the very fact that we do not have more than 8 rated roof structures in India tells you how deplorable the safety norms are. The most surprising thing is also that those who have good safe structures are the ones who will ballast their structures and the unsafe ones have no ballasting at all. And when it comes to scaffolding systems, I dread even standing near any of the run of the mill rostrums and scaffs available locally. However I can safely say that I am seeing rapid improvement here in companies investing in Layher or Chinese scaff similar to Layher, but much safer than what's made in fabricated sweatshops back home.

Electrical Safety

Grossly misunderstood is the problem of electrical safety that causes the second most accidents and fires. When will we learn that water cannot be used to douse an electrical fire and it will just cause more damage, whilst we use the cheapest cables and connectors. Electricity is something that is invisible to our eyes but potentially very hazardous without the correct apparatus and protection. This is why so many electrical accidents happen. Its solely because we only fear what we see. We are oblivious to the dangers that aren't evident and this is why I am far much more concerned of electrical safety. In fact I am so serious about it that most top tier electrical contractors in India are fully aware that it is mandatory to ground all my structures especially the PA towers or I will stop work on site.

Numerous cases of event fires are due to pyros and chemicals that are used on-site, they are time bombs waiting to destroy every production and it's a long road to getting there in India especially at social events and weddings I get mortified when I see the use of dangerous pyros. Here too, I am seeing progress, but it is not happening at pace that's required for our industry.

Lifting Equipment

We have no understanding of working loads and lifting equipment and I am appalled at so many shockers I witness on site. And compared to the west, we aren't even looking like we are willing to start, forget play catch up with them.

We need courses, we need workshops, we need awareness, and we need change, BE THE CHANGE! And in that light I pledge to help anyone who wishes to make his or her event space a safer place to work.

Warren D'souza - Founder, Managing Director, & Working Member of Sound.Com
#SoundGuyForlife
#AudioEvangelist

PALM▶ EXPO

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BEC MUMBAI, INDIA

INTEGRATING
THE FUTURE
SOUND
LIGHT
AUDIOVISUAL

India's globally
renowned
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exhibition on Pro
Audio, Light,
Audiovisual for
Entertainment,
Event and Music
Production.

palmexpo 2018
record — play — perform

INTEGRATING

THE FUTURE

SOUND

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palmexpo 2018
record — play — perform

EVOLUTION

Now in its 18th edition, PALM Expo is India's foremost platform for stage, entertainment event and music production technology. The expo continues to grow year on year, with local and international pro audio, lighting, and audiovisual manufacturers convening to showcase cutting edge technology on the expo floor.

PALM expo on its part fulfills its mantra of providing a neutral platform, acknowledged and reputed for galvanizing sales and delivering business on the exhibit floor. In the past 17 glorious editions, the show has become an industry phenomenon, showcasing front line technological innovations, delivering abundant opportunities for brand building and networking, and fuelling the industry by connecting manufacturers and distributors with dealers and end-users.

EVOLUTION TO AUDIOVISUAL

PALM's evolution in providing total solutions in event entertainment technology has witnessed the largest gathering of system integrators than at any other expo in India. AV consultants necessarily attending PALM each year for sound and light solutions demand display and projection solutions integral to their project implementation. Audiovisual exhibits have been prominent at PALM as the preferred destination for latest LED displays, videowall display, projection systems.

PALM 2018 focus on Audiovisual is a game changer for the AV industry in India. For the first time the AV industry will have a real opportunity to reach the potential market in exhibiting to over 21,000 unique visitors, directly or indirectly involved in AV technology.

REASONS TO EXHIBIT

BUSINESS

▸ **Purchasing Power:** India ranks among the top 10 economies in the world. It is on the map of the global audiovisual industry by virtue of its purchasing power and knowledge to adopt the latest brands and technology.

▸ **Distribution Network & Partnerships:** PALM has been instrumental in expansion of sales distribution and dealer network, which has grown exponentially over the last decade. International companies participating at PALM assuredly establish distribution partnerships at the show.

▸ **PALM is the place to network with influential buyers and professionals:** The show attracts top rental companies and influential systems integrators looking for solutions across stage sound, lighting, AV, Audio–for–Video, cinema sound, studio recording and music production solutions. Over the three days, top honchos and tech gurus in the event business are present in strength at the show.

▸ **Business Oriented Content & Exhibit Features:** PALM hosts over 10 allied events. PALM has a strong philosophy and belief in the assets it creates. The PALM mantra **'we deliver business'** is a constant focus in the development of features for content and exhibit. Live sound and light demos, interactive conference & seminars, informative workshops and innovative showcases attract delegates from across the country, providing more opportunity for business as well as product and brand exposure.

▸ **Brand Reinforcement:** The range of exhibits encompasses hundreds of brands from over 200 companies. The best technology and products in sound and light, systems engineering and AV from USA, Europe, China and India are represented at the expo. Hence, exhibiting at PALM is critical in terms of market contact, product recognition and brand reinforcement.

INDIAN MARKET CONSUMPTION, GROWTH & DISTRIBUTION

PALM is witness to India's robust consumption of audiovisual install and stage rental business, attracting local distributors, as well as International brands entering India on the wave of aggression in pro audio distribution. The pro sound, light and audiovisual market continues to mature across India. Even as the Indian event industry continues to grow, attracting top acts and artistes from across the world, diverse industries are creating new opportunities for sales and consumption. Growth is driven primarily by a surge in the event and hospitality industry, as well as corporate AV business. The pro sound, light and audiovisual segment has registered growth in the number of rental companies and systems integrators catering to the events and corporate segment. All major brands are entering India on the PALM platform as international brand power has been confirmed in the Indian market context, which affords high quality sound, light and AV equipment. Furthermore Indian distribution has enough scope & depth for supporting new brands, thereby fuelling the industry.

PERPETUAL ENHANCEMENT - PALM FEATURES

CONTENT FEATURES

palm CONFERENCE & SEMINAR

Curated by PALM technology magazine, it is the learning and networking platform where the best talent and high caliber top notch professionals from the country and across the world, share their expertise, skills and knowledge on technology and industry trends through a range of topics covering pro audio & light, AV Install & Integration and Music Production.

PALM SOUNDSCAPE

Brings together top decision makers and influencers, shaping the present and future of the DJ, electronic music production & event entertainment industries on a platform encompassing interactive panel discussions, high value educational workshop and music deconstruction master classes.

palm LIGHTING DESIGN COMPETITION

This brilliant feature, now in its second consecutive year, attracts young aspiring lighting designers as well as seasoned professionals to display their programming and designing skills. A stage with a custom made lighting rig is specially created for this ingenious feature which fulfills in providing opportunity for building professional talent.

EXHIBIT FEATURES

palm LIVE ARENA

This most loved feature of PALM enters its 8th year with the PALM expo 2018. This feature facilitates live demonstrations of advanced sound and lighting systems through a three day musical stage extravaganza featuring the most popular and budding artists and bands from the country's independent music scene. Since the last 7 consecutive years, HARMAN has powered this feature with top of the line/ newly launched products & solutions of brands from the HARMAN bouquet, culminating in an audio-visual feast for the senses.

India, the second largest market in Asia for the Audiovisual and Systems Integration segment continues to excite the market. Over the years, PALM has witnessed phenomenal growth in the number of Systems Integrators and AV consultants sourcing products and solutions for entertainment venues and home theatre projects. In view of this important dynamics, PALM is leading the charge with initiatives like the three-day PALM Certification Course in AV Install & Integration, designed to provide knowledge of audio and video fundamentals and enhanced troubleshooting skills, while promoting best-practices and technological expertise of systems technologies. PALM is highly invested in the audiovisual domain. The expo's official magazine PALM technology has continued focus on Install. This course is aimed at providing knowledgeable manpower, replacing the 'electrician' with a 'qualified integrator' and creating a talent with specific learning for AV integration PALM has played this role in the past for sound engineering.

The IRAA (Indian Recording Arts Academy Awards) and the PALM Sound & Light Awards are major highlights at the PALM expo. These awards in recognition of the music recording and live events fraternity respectively, invest pride, praise, privilege and position to the winners, comprising the best professionals and companies in the country and groundbreaking technology from across the globe.

Augmented and virtual reality and 3D Immersive projection & mapping which is impacting all corporate sector events and entertainment events and venues, is an important highlight at PALM. This feature presents jaw-dropping visual experiences through educative video projection mapping demos on the expo floor.

PALM partners with exhibitors to host live rigging and trussing demos and workshops on topics ranging from truss roofing structures, the need for ballasts and guywire based cross-bracing to safe truss climbing, fall & rescue techniques and more.

The center of gravity for Indian DJs, the championship is the only platform of its kind in India which promotes and fosters upcoming DJ talent, through a National DJ Talent Hunt judged by some of the best DJs in the country.

The experiential shootout will feature soundproof listening booths with market preferred headphone selection by PALM, offering buyers a unique opportunity to experience and hear the latest headphone technology.

The Demo Qube feature has been an ideal concept for audio companies to demonstrate their high end speaker systems and products with ease in a private cube structure.

Indoor Line Array Demo conducted in realistic indoor conditions at the venue, facilitates exhibit and demo of compact indoor line array systems.

EXHIBIT PRODUCT PROFILE

DEDICATED EXHIBIT AREAS

The internationally acclaimed PALM expo boasts of an extensive spectrum of products and technological solutions for pro audio, music production, audiovisual, cinema sound and lighting. In order to accommodate the expanse of exhibits in a manner which facilitates efficient movement of buyers leading to better business for exhibitors, PALM has dedicated exhibit areas for sound + music production + audiovisual and lighting + laser + effects

HALL 1

Sound + Music Production

- Stage Sound
- Concert Sound
- Installed Sound
- Cinema Sound
- PA Systems
- Studio Equipment
- Microphones
- Music Production & Broadcast
- Audio for Video
- DJ Gear

HALL 5

Lighting

- Light + Laser
- Laser & Effects
- Lighting Design & Installation
- Stage Lighting
- Stage Machinery
- Stage Technology
- Truss / Rigging

HALL 1

Audiovisual + Display

- LED
- Video Display
- Cinema Projection
- Video Projection
- Digital Signage
- Digital Cinema

CINEMA SOUND & PROJECTION

PALM 2018 spotlights Cinema Sound focusing on the Dolby atmos upgrade in Indian theatres. Major Cinema projection, speaker sound and power amplifier brands participate at the PALM expo. The range of projectors and cinema surround speakers are ideally exhibited by over 150 brands. Studio engineers, location sound recording engineers, sound track mixing engineers, acoustic engineers, as well as, professionals and decision makers for cinema sound and projection technology gather at the PALM each year, since the last 17 years. PALM 2018 brings special delegations from all multiplex chains involved in the theatre design and technology.

Your exhibit of cinema sound and projection range at PALM 2018 will benefit greatly.

VISITOR PROFILE

Celebration of Sound, Light & Audiovisual technology

PALM 2017 welcomed 21,506 unique visitors across the three days of the show. The infectious excitement of the professional sound, light and audiovisual community at PALM is what makes the expo unlike any other expo in the subcontinent

PROFESSIONAL VISITORS

- AV Consultants
- Cinema and Multiplex owners
- Design Consultants
- DJs
- Electroacoustic Consultants
- Event Managers
- Film / TV Studio Managers
- Lighting Designers
- Production Managers
- Project Engineers
- Projection Designers
- Purchase Managers
- Sound Engineers
- Systems Integrators
- Visual Artists and Jockeys

BUSINESS SEGMENTS

- Auditoriums
- Broadcast, Film & Post Production Studios
- Cinema Theatres / Multiplexes
- Clubs / Pubs / Discos/Lounge Bars
- Corporates
- Educational Institutes
- Event Management Companies
- Government
- Hospitality
- House of Worship
- Manufacturers , Distributors, Dealers & Retailers
- Museums
- Music Recording Studios
- Rental Companies (Stage Sound & Lighting / PA / AV)

S T A T I S T I C S &
D E M O G R A P H I C S

V I S I T O R S B Y B U S I N E S S N A T U R E

3908

450

1138

895

2145

3015

7208

1095
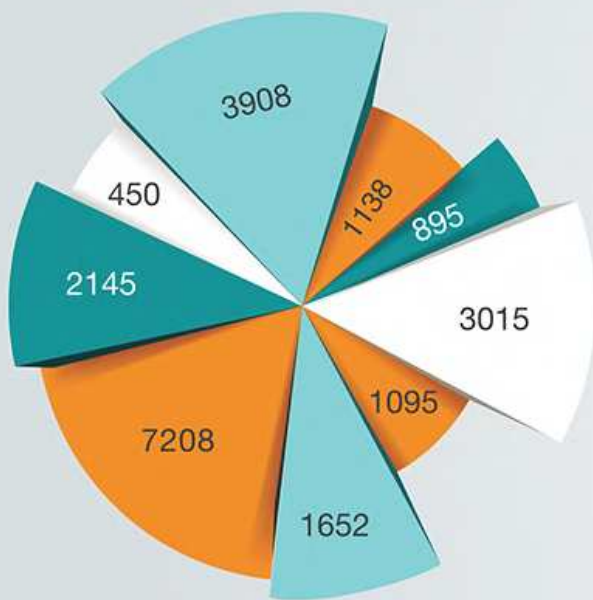
1652

RENTAL (LIVE SOUND & STAGE + LIGHTING & EFFECTS)	7208
SYSTEM INTEGRATION (AUDIO VISUAL + DIGITAL SIGNAGE + PROJECTION SYSTEMS)	3908
DISTRIBUTOR & DEALER	3015
EVENT MANAGEMENT/AD AGENCY/ENTERTAINMENT	2145
PERFORMANCE VENUE	1652
STUDIOS (MUSIC PRODUCTION/TV/RADIO/RECORD LABEL)	1138
OTHERS	1095
MANUFACTURER	895
HOUSE OF WORSHIP	450

V I S I T O R S B Y J O B F U N C T I O N

LIVE SOUND / LIGHTING / RECORDING ENGINEERS	22%
SENIOR MANAGEMENT	20%
DJs	20%
SYSTEM INTEGRATORS/CONSULTANTS/TECHNICIANS	19%
EVENT PRODUCTION	7%
PROFESSIONAL MUSICIANS & ARTISTS	7%
OTHERS	5%

20%

7%

20%

22%

19%

5%

7%
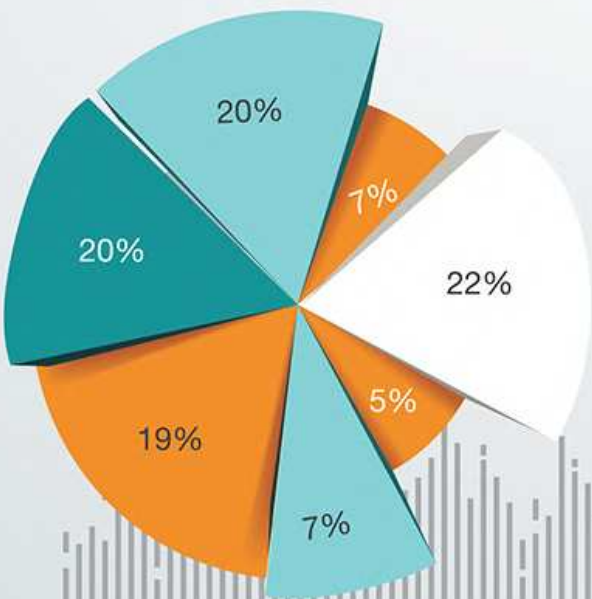
VISITORS BY PRODUCT OF INTEREST
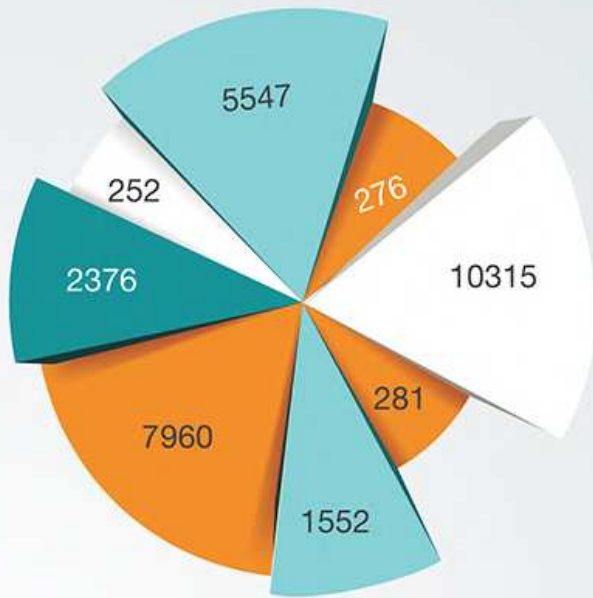
PRO AUDIO EQUIPMENT	10315
AV INTEGRATED SYSTEMS	7960
STAGE SOUND & LIGHT	5547
LED & VIDEO DISPLAY TECHNOLOGIES	2376
DJ EQUIPMENT	1552
PARTS & ACCESSORIES	281
RADIO & TV POST PRODUCTION	276
OTHERS	252

REASONS FOR VISIT

PURCHASE & ORDER	55%
SEE NEW TECHNOLOGY AND PRODUCTS	23%
NETWORKING / CONNECT WITH INDUSTRY	22%
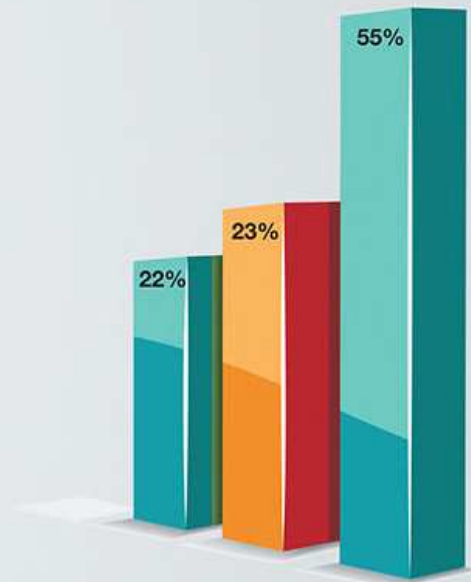
PRODUCT PROFILE

SEGMENT	PERCENTAGE OF PRODUCTS
STAGE SOUND	35.50%
AUDIO VISUAL (SYSTEM INTEGRATION)	20.70%
LIGHTS	13%
STUDIO / MUSIC PRODUCTION	12.60%
DJ	7.10%
MISC.	5.90%
DISPLAY	4.40%
ACADEMY	0.80%
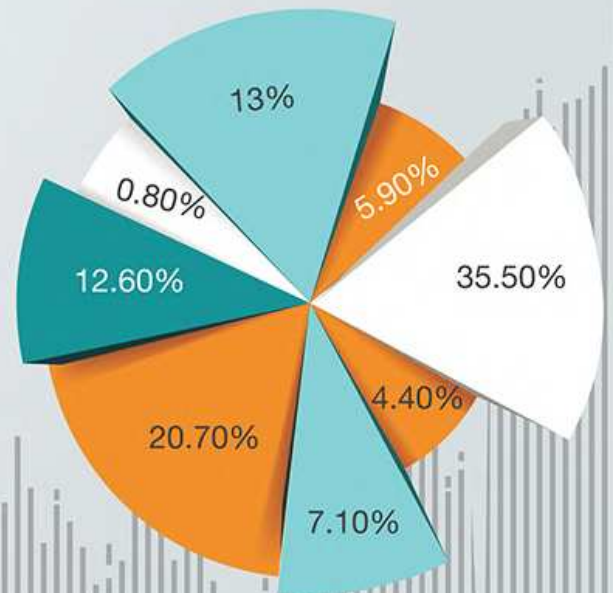
HARISHA GN
YAMAHA Music India

It was a great Show. The quality footfall has always been an edge for participating at PALM Expo. It always provides a unique platform for new product launches, technical information sharing, chance to meet Industry stakeholders and compare notes with major suppliers of "Products and Services.

PRASHANT GOVINDAN
HARMAN Professional Solutions

PALM 2017 is a brilliant show. I think it is a lot busier than last year. I think almost 30,000 people have visited this year's PALM show. And for us it has been an extremely busy show. I haven't even had a chance to go outside the booth, for the least. We are very excited and it has been a very successful show so far.

KARAN NAGPAL
Sonotone Audio LLP

We have been taking part every year, since the first edition to showcase our new products to the customers and to create an experience for them. So PALM is a very good platform for them to experience our products. The response was good this year for our booth and I am quite happy.

HERE'S WHAT THE INDUSTRY HAS TO SAY ABOUT PALM

SONU KHURANA
Ahuja Radios

We were here two years ago in 2015 and when we compare 2015 with 2017, we found that the attendance was much higher and of very high quality. I guess the whole show is much more satisfying than it was in 2015. The response has been better with the kind of people coming in. I must compliment PALM expo for that.

KARAN KATHURIA
Touchpoint, MUSIC Group

PALM as every year is one of the most important shows for the pro audio industry in India, and we really recon the importance of this show. It is one of the platforms where we go and really understand from the customers what exactly they need, and we actually drive our product development as per their needs and not vice versa. PALM is a very important forum for us to understand, to hear and to see the audience live."

DAVINDER WADHWA
Modern Stage Service Pvt. Ltd.

PALM 2017 is always a good show for us; not only 2017 but since the last 11-12 years we are participating in the show and it is a lovely show. It is one of the best shows in the country. There has been a very good response for our new products. This year we added two new brands, Enttec and Faeber and everyone is liking this project and we are doing great."

ANAND RAJ
OSRAM Lighting

PALM is an event of utmost importance for the Indian lighting industry. It provides a fantastic opportunity to meet prospective customers & end users (i.e. dealers, distributors, event companies & others) and facilitate a perfect platform for showcasing our robust technology & introducing new product innovations to the Indian market.

RAJAN GUPTA
Hi-Tech Audio Systems

PALM 2017 has been a very successful exhibition for us. We had a DiGiCo training area at our booth, which was conducted by Fali Damania, and we got a very good response for this product. We have been very busy and it has been a great exhibition for us so far.

MANOJ MOTWANI
Narain Audio & Lighting LLP

Taking part in PALM is always an experience worth looking forward to. This exhibition has brought us so much closer to our customers. The best marketing strategy for our company.

NEERAJ CHANDRA
Sun Infonet

Sun Infonet has a very long association with PALM, and the show has given full cooperation to showcase its brands and products. It is a good platform for industry professionals and visitors to benefit from learning about the latest industry trends and technology.

SANDEEP MANDOT
Vardhaman Megatech

We have been exhibiting for several years now. PALM has become a key event for us; highly conducive to meeting almost all of our customers at the beginning of the Season, presenting our new catalogue and new products to them. With the number of visitors increasing each year, we now need a larger staff force to handle the ever increasing traffic, with the quality of visitors being particularly impressive in 2017. I appreciate the tradeshow's arrangements.

RASESH PAREKH
Integrated Entertainment Solutions

The response has been very good. It has been a wonderful show, lot of interests and lot many new customers, so it has been a good experience

ARUN KUMAR
Bose Corporation India

PALM Show has been gaining traction through the country gradually. Early on, the visitor profile was mostly focused on the West. This time I saw a lot of people from South and North India visiting. Through this platform I can reach out to a large audience. This is one reason why we invested in the Demo Qube. We met lot of people from two tier cities, which is a plus for PALM and for us. For us at Bose, our objectives get met.
It is much better organized and PALM has been improving every year.

SAHIL WADHWA
Modern Stage Service

It has been a great experience to be associated with PALM Expo for last 15 years and its amazing to see it growing each year with more and more lighting and sound professionals attending it from all over India. This year was I believe one of the best turnouts of the exhibition and I would really like to congratulate the ABEC team for making this exhibition a great success.

LESLIE LEAN
Ansata

PALM Expo is unanimously the best pro audio show in India covering all important bases for the media industry including MI, prosumer, professional audio & lighting segments and AV. We have seen tremendous growth over the years with its popularity and crowd pull from the industry. It is backed by a co-operative and friendly group of organisers.

DIPESH PANJWANI
MX - MDR Technologies

PALM Expo provided MX an excellent opportunity to showcase our innovative products and is an ideal setting to collaborate with prospective buyers and press, we would otherwise not have had the chance to meet. We are thoroughly satisfied that our participation succeeds in raising our profile and building awareness of our brand through PALM Expo.

CONNECT. ENGAGE.

SPONSORSHIP & ADVERTISEMENT OPPORTUNITIES

PALM Sponsorship & Advertisement provides opportunity for, and delivery of increased brand building and awareness, greater visibility and impact and predilection to purchase, right through the year leading up to the three day event. Align with PALM as a premium Sponsor, create enhanced visibility and drive traffic to your brand and products. Your products, solutions and marketing plans are unique. PALM offers customized, stand-out sponsorship opportunities to match your marketing goals.

PALM sponsorships are available only to exhibitors, so act now!

Maximize brand awareness and enhancement through prime exposure and targeted messaging and make an impact on your target buyers from the Entertainment event industry.

Sponsorship Opportunities available are:

▸ CONTENT FEATURES (PALM Conference & Seminar, PALM Soundscape, DJ Championship, PALM Awards – India Recording Arts Academy Awards [IRAA]).

▸ ONSITE (Registration Area, LED Billboards, Pillar Branding, Floor Graphics, Name Badges, Name Pouches, Lanyards).

▸ SHOW SOUVENIRS (Mugs).

▸ VISITOR/DELEGATE BAGS.

▸ PRINT ADVERTISING (PALM Show Magazine and PALM Technology Magazine).

▸ DIGITAL ADVERTISING (Banner ads on PALM Website).

TRANSFORM.

PALM CONFERENCE & SEMINAR PROGRAMME

Gateway to Business Intelligence

Make your participation even more significant by Sponsoring the PALM Conference & Seminar Programme which is committed to bringing the best Indian and International speakers on this reputed platform, delivering their skills and expertise to an informed and elite audience of media and entertainment professionals. This crucial feature helps disseminate information on the latest products & solutions and trends, developments and technologies driving the entertainment event, audiovisual & systems integration and music production industry

Book your Product Presentation Slot

The PALM offers its exhibitors an opportunity to avail of this reputed and respected features for brand building. Exhibitors can book one hour slots at the PALM Conference & Seminar Programme to conduct company sponsored product presentations or host workshops / training programs / education seminars etc.

Conference Theme

| Day 1: Stage Sound & Light
| Day 2: AudioVisual
| Day 3: Music Production

ONLY slots **3** available

Book your slot now.

" PALM was exceptional. Extremely well managed and planned. Thank you for having me on board as one of the Speakers snd for the recognition and award as a Live Sound Engineer. Cannot fault anything.
FALI DAMANIA, FOH Engineer

PARTNER YOUR BRAND

PALM
SOUNDSCAPE

Join the dialogue empowering the next breed of music production professionals!

PALM Soundscape focuses on technological advancements & industrial trends, empowering the next breed of professionals in the music creation and DJ industry through meticulously curated interactive panel discussions, workshops and deconstruction master classes. This vital platform attracts decision makers and influencers shaping the present and future of the industry who convene to discuss topics of prime relevance and significance.

Contact us now to be a Soundscape Partner!

PALM
DJ CHAMPIONSHIP

Fostering DJ Talent!

The Annual DJ Championship hosted by PALM which is now in its **8th edition**, has been instrumental in promoting DJ Talent in India. The Championship offers DJ equipment manufactures and solution providers an opportunity for strong and relevant partnerships through Prize Sponsorships that foster the best DJ talent, the country has to offer.

Contact us now to become the PALM DJ Championship 2018 Premium Prize Partner!

12TH INDIAN RECORDING ARTS ACADEMY AWARDS (IRAA)

There are very few awards ceremonies that honour the technical expertise behind song and music production with most others restricting themselves to popular categories. The IRAA awards are the first and only music awards in India that recognizes the regularly forgotten technical fields of music recording and engineering talent in India.

The IRAA Awards which has gained aspirational value through the years, reflects the industry's credibility and has become an eagerly looked forward to annual event.

In its 12th consecutive year, the IRAA awards will continue to applaud the best in the Indian music recording industry.

8TH PALM SOUND & LIGHT AWARDS

The PALM Sound & Light Awards honours technology innovations, organizations and industry professionals for their unmatched contribution to the events entertainment industry by rendering outstanding services in the field of stage, sound and light.

Over the past years the awards have generated much expectation from the body of live event organizers, rental companies and industry professionals like sound engineers, set designers, stage production companies and light designers.

Honouring Innovation, Excellence & Expertise!

PROTECTING IPR

Protection of Original Brand and Product Identity

New technology and design are introduced at Trade expos. With a view to provide a Neutral and independent platform that recognizes this need and opportunity to support new pro audio and lighting development and their success in the market, the PALM India is making an initiative that will clearly define the PALM India Expo as a platform that supports copyright in product design and technology.

PALM Expo, India Supports ORIGINAL BRAND and DESIGN.

We work closely with all international brands and global companies who are affected with such copyright violation. We want the Indian market to be proudly supporting the use of original products made available through regular channels at internationally competitive prices.

We will coordinate and liaison with the Indian bodies and organizations which can ensure your brand and design is protected.

11 QUESTIONS WITH Karan Singh

CEO - Sunburn Global; Percept Live

The head of India's premier electronic dance music brand - Sunburn, today ranked among the top 5 festivals in the world, answers 11 questions on the astronomical growth of the global IP in terms of the line-up which includes the most iconic international DJs and artists and the factors which have led to the iconic evolution of Sunburn, putting the festival on the world map.

Your father Harindra Singh is a pioneer in organising DJ stage events in India. How is it like working with him and what are the main tricks of the trade that you learnt from your father?

My father is a dynamic individual with an amazing infectious personality. It has been amazing to work with him and learn from him at every step. He takes real keen interest in this part of the live business as well as he sees great potential here. Firstly, in terms of his work ethics he really leads from the front and sets an amazing example for everybody else in the entire organization to follow. Secondly the manner in which he maintains his relationships with people is exemplary. His relationships with people - whether it is an artist, a sponsor or our partners, gives them a real sense of confidence which is extremely important; and I think that's something I have learnt from him.

Sunburn has grown into a global IP. While there may have been several factors which led to this iconic evolution, what do you consider to be the defining moves that put Sunburn on the world map?

Firstly, the whole idea of incepting it and starting this revolution in India was in 2007. That was a big step forward because, before that there were no large-scale music festivals like this in this country. It was revolutionary to recognize the potential, invest in creating that experience and to stick with it, even though in the first couple of years the company did suffer losses. But to recognize what it takes to build the IP and to recognize the potential was a defining move. Nothing happens overnight. We stuck to our vision and slowly the IP got established.

Secondly, 2011 onwards is when after 4 years we recognized that there is a lot potential in other parts of the country as well. It's a huge country, and not everybody could make it to one particular destination at one time of the year, so we came up with the format called Sunburn Arena. We followed this with other concepts such as Sunburn Campus and Sunburn Reload. Now we have four formats and we have started taking the experience to different places across the country with different artists. We did the first Arena with Avicii and then we did big shows like Swedish House Mafia and Deastro and several

other shows. That is when the business got a lot of scale and recognition on the global map. Today we do almost 100 plus shows under the brand of Sunburn alone and bring many world-class artists.

The IP has captivated fans by bringing on to the big stage the most iconic DJs and artists. Can you take us through the IP, specifically in terms of association and bringing down the big DJs and artistes? How challenging is this?

It's been challenging for sure, specially, in the early years to convince artists to come to India. India was never on the map for global touring. Artists came to Asia but never really considered India as a tour destination. To really connect and convince these artists to come to India and sell them on the experience of Sunburn was a task. However, once any artist who has ever come to India with us has loved the experience. We have offered them amazing hospitality and they find that the Indian fans have amazing energy that they don't see anywhere else in the world. Once an artist comes down to India, then to bring them back again becomes much easier. Over the time obviously even our events, our festivals, the production quality and the complete experience has elevated to greater heights. On the production front we are pretty much near International standards now because all the inventories are available in India and the partners we work with have also improved the quality of their inventory over the years. We are now at this stage where the experience we offer is truly world class as compared to any of the biggest

> There is a huge market and demand and there are so many markets within India. The only other country besides India, where you can look at 10-15 markets to do large scale shows is maybe the US.

brands of festivals, anywhere else in the world. Obviously that also helps in convincing new artists.

What is your perception of the Global market for the Big Stage EDM Events & how does India fit into this Global Scenario?

India is a very important market now. With a lot of hard work, Sunburn fortunately is one of the largest in the world today and it is recognized among the top five music festival properties in the world. We do a lot of headline tours with the biggest artist. Just in the last 12-15 months we have done tours with Hardwell, David Guetta, DJ Snake, Martin Garrix, Mike Tompkins and many more. We are touring with Kygo in the last week of November. So, most of the top artists are coming down to India and they are obviously recognizing India as a very important market. And the kind of fans that these artists enjoy in India now is phenomenal. India is one of the top communities for them as well, so, I think the country is very, very significant on the global map now.

Goa has been the favourite venue for Sunburn, but it moved to Pune last year. What has been your experience organizing Sunburn in Pune? Do you think fans would love it for Sunburn to go back to its original destination?

We decided to move to Pune because of a lot of factors and we believe that it was a good decision and a good move for us. We have had a very strong response and the move has definitely made the experience and festival much more accessible and affordable for

people and that was one of the key factors. The show has scaled up and we have to definitely bear in mind the numbers and make sure that accessibility and affordability is taken care of. In Goa, during the last weeks of December, both factors became quite prohibitive for people. So, Pune definitely again opened up the market even more for us, plus the experience that we gave last year was amazing and anyone who came to the festival walked away with great memories from it. It has been a strong move and this year we will be continuing in Pune.

What are major challenges you face as an organizer in India, which may probably have hindered Sunburn from growing into an even bigger big stage event?

In India, there are still a lot of challenges. The framework for getting permission for licenses is quite challenging and moreover it is different in each state; and there is no one consistent process that the organizers can follow. If that was smoothened out then I am sure that it could help all event organizers, not just us.

Then, infrastructure is also a challenge. The right venues – event-ready venues, are lacking in India. Most of our events and festivals are put-up in large and open grounds where we have to work on the venue; we have to make the venue ready for most of our events. We have to sort out lot of things like parking, access and sometimes even leveling of the land.

If you go to several other countries, even in Asia, they have much better infrastructure which obviously helps organizers a lot and enables them to invest their time, resources and money into other things, like programming, content, experience and marketing.

Lastly, I think that affordability definitely remains a concern as well in India. We have scale over here, we have huge numbers of youth, who are interested in this kind of music or interested in these kinds of festivals, but if you compare our average ticket price with any other market its far behind. Therefore sponsorship is the important source of revenue in India. And again, we are really fortunate to have really good set of sponsors and brands that are supporting us since many year and we really work very hard to add a lot of value to their brands.

Due to challenges mentioned above do you find it easier to do shows outside India?

We have not done too many shows aboard. We have done only couple of shows in Dubai, Colombo, and Nepal. Definitely in a place like Dubai, which is more organized, and a more developed market, the processes were much easier. India has its own pros and cons. There are lot of advantages also, which is why we are doing this and seeing lot of potential in this space and have been successful in building a global brand out of India. There is a huge market and demand and there are so many markets within India. The only other country besides India, where you can look at 10-15 markets to do large scale shows is maybe the US. So we really look at our brand as a live media asset. In this day and age, major consumer brands are

> **The framework for getting permission for licenses is quite challenging and moreover it is different in each state; and there is no one consistent process that the organizers can follow. If that was smoothened out then I am sure that it could help all event organizers, not just us**

looking at new ways to connect with the youth because the traditional medium of print and television are getting less and less effective. That is where platforms like us are coming in, because we provide a fantastic platform to connect and engage with the youth.

How has your audience changed over the years and how do you see the EDM scene in India 5 years from now, especially in the two and three tier cities?

I think that the audience has definitely evolved and developed. In the major cities the audience knows much more about music and artists. They are on the lookout for new experiences and new artists. We have taken the Sunburn experience to different cities. We did Hyderabad for the first time and the government has recognized Sunburn as a huge contributor to the city and to the state as well. We then took the experience to Calcutta, Chennai and other cities. I do see a good demand, which is only growing and people are enjoying these experiences and wanting more and more of it. In smaller two and three tier cities, we do smaller events via the Sunburn Reload format which again garners great response from the audience. Even five years from now I do see a strong and burgeoning scene and I see a lot of different markets in the country that would be active for a brand like Sunburn.

India being primarily a Hindi speaking country with hardcore Bollywood music lovers, how has EDM music managed to gain popularity with the younger generation? Do you think the Indian audience really understands EDM music or do the majority of them come for leisure?

I think EDM resonates with the Indian youth, because that kind of music is very energetic, and as I mentioned earlier, many DJ's have also said that the kind of energy they see from Indian fans in India is completely amazing. I have experienced festivals all over the globe and the energy the Indian youth has is definitely far more than other countries. So I think that is one of the reasons that this kind of music really resonates and connects with the youth in India.

If you study the trends in terms of listenership

- whether it is on radio or on streaming services, EDM is the top genre out of all international genres. So, clearly, it is this kind of music that is really connecting with people and therefore we don't think that this is a passing trend at all.

What do Indian DJs lack which is hindering them from making it big on the global stage at International EDM festivals. Is it lack of technology, resources, education, passion or talent?

Not at all! I think it's just a matter of time. We already have seen quite a few Indian DJ's performing at global festivals. Indian DJ's have a huge fan base and if you go to the top 100 on any of the streaming services, you will see original tracks of Indian artists showing up over there. Even Sunburn took 4-5 years to establish itself. It takes time, nothing happens overnight. There is lot of talent in this country like Nucleya, DJ Shan, Sartek, Anish Sood, and many more. Also, I think what Indian artist are also doing is, focusing on traditional music that appeals to the Indian audience. When the Indian market is so huge and there is so much untapped potential in this country, for us as a festival brand and for an Indian artist, obviously it make sense to first try and cater to our own market. The first step should be to have a strong, loyal fan base from all markets in India and that takes a lot of time. That takes years - it has taken us years.

Please enlighten us on the Sunburn Loyalty reward program and what are the key highlights of the upcoming December show that fans can look forward to?

Sunburn Loyalty program is something that we are working on right now. We would launch it pretty soon, hopefully before the festival this year itself. Because we do so many shows and have 100 plus shows across the country with loyal audience, we have been trying to work on a solution to reward them for their loyalty.

We have a really interesting and eclectic line up for the December show. We are fortunate to get the number one DJ in the world right now - Martin Garrix to spend New Year's Eve with us. We have DJ Snake performing for the first time at the festival. We also have Indian favorites Dimitri Vegas & Like Mike; then we are also doing something a little different - we are curating more live music as well this time. So we have Clean Bandit as one of our headliners as well, plus we have more headliners which we will announce very soon. For the first time we have a total of 6 or 7 headliners for the festivals over four days. Usually festivals in India don't have more than one headliner per day. We have gone all out this time. Apart from that, we are really investing in experience as well, and one of the main stages is going to be the biggest stage ever seen in the world. The size, scale, technology, production, special effects, production will take your breath away. We are entering into a new decade as it's our 11th year, so we intend to take production and technology to the next level - something that has never been seen in India before.

This is a topic on which I get a lot of queries, hence thought to write down my views about it. In SoundideaZ academy we regularly get this query about what is the difference between Live Sound engineering and Studio Sound engineering, Students for sound engineering need guidance to choose the right faculty.

Studio Sound Engineering

Lets discuss what is Studio Sound engineering. You have a well-designed acoustic space, which is an ideal environment for you to take the right decisions for your recording or mix. You invite musicians and vocalists to come here and record. The studio is acoustically designed isolated space. You ideally have no issues with external sounds leaking in your studio. The spectral balance of the control room as well as the dubbing room is pre designed.

The power supply for both the rooms is well filtered and regulated. The power connections in this studio are well distributed with respect to equipment load.

The equipments installed in the studio are ordered with deep research. The cabling of these equipments are done through patch panels and utmost care is taken for laying cables, so that it does not catch the interference from power cables.

The monitor speakers are correctly mounted and are tuned according to the control room response. A proper calibration process is followed while the studio is commissioned. There generally are two sets of speakers, one is far field and one is near field, depending on the size of the control room.

Hence whatever audio is recorded or played back there is heard in an ideal environment. The sound engineer is the one who is sitting at the sweet spot in the studio and judging the sound and taking decisions. There is no audience per say in the studio; the only people involved would be the Music composer and the producer.

The ability to understand the studio environment and adjust to it allows the engineer to take the right decision. Whatever decisions are taken there is reflected in the mix created in that room. It's the engineer's responsibility to ensure that his mix translates exactly on any audio system in the world. It's very rare to say that it translates exactly, but yes it can up to 90%. It's a very artistic job to ensure that what you hear in the studio exactly translates out.

> The ability to understand the studio environment and adjust to it allows the engineer to take the right decision. Whatever decisions are taken there is reflected in the mix created in that room.

- Now about the engineer. The expertise needed for the studio engineer is a completely different skillset than needed for a live sound engineer.
- The studio engineer normally listens to the audio in a soft volume level.
- He has enough time to take his decisions compared to the live sound engineer.
- He can take and discuss his decisions with the music composer and producer
- He can transfer his mixes and go out and listen to them in different systems.
- He still has scope for doing corrections.

In the next issue we will discuss live sound engineer.

Pramod Chandorkar
- Founder, SoundideaZ Academy

DIFFERENCE BETWEEN LIVE SOUND ENGINEERING AND STUDIO ENGINEERING

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SoundideaZ

DYNATECH HP-12A+ POWERS ASTUTE LEARNING AT MASTERCLASS DJ ACADEMY, MUMBAI

Masterclass is the name of Mumbai's latest niche academy that provides personalized one-to-one training in the art of DJing, and is an initiative of veteran DJ Cyrus Krishnaswamy, who has been making people dance to his tunes on the dance floor for almost 2 decades now. The institute is updated with the latest in industry standard DJ and audio gear, with the intention of giving students the opportunity to has a feel of what working with real-world equipment feels like.

The Masterclass DJ Academy has invested into adding a pair of worldclass HP12A+ high power loudspeakers that forms the backbone of the institute's DJ monitoring solution. The purchase was personally vetted by DJ Cyrus himself, who also happens to be an avid fan of the Dynatech HP series loudspeakers through personal experience.

Says Cyrus, "I use the HP15A+ as my personal monitoring solution when I play at places like Bombay Cocktail Bar etc. and there is absolutely no doubt in my mind that those speakers are absolutely phenomenal. Amazing projection, great clarity, astounding power and solid build is what makes them my number one pick. When I set up Masterclass, I knew that I wanted to offer my students the chance to learn on gear that I can blindly depend on; and this is why I chose to purchase the HP series loudspeakers for the academy. Considering the space dynamics of the practical room at the facility, the HP12A+ fit the bill perfectly. It would offer me all the amazing features and attributes of the HP15A+ that I'm so in awe of, that too in a smaller package. And I must say, what a brilliant decision it was. The students love the quality of sound, and teaching them every little nuance of music has become so much easier,

DJ Cyrus Krishnaswamy at his 'Masterclass'

all thanks to the HP12A+. Absolutely stoked with choosing Dynatech for Masterclass"

PIONEER RELEASES NEW DJS-1000 STANDALONE DJ SAMPLER

Pioneer DJ has released its new DJS-1000 standalone DJ sampler, enabling professionals to create unique sounds and phrases using an intuitive DJ-friendly interface. With an easy-to-use interface, 16 multi-coloured step input keys, 16 multi-coloured Performance Pads, a host of inputs and outputs, with various other performance features, the DJS-1000 is a great gear to propel the DJ sets to the next level.

KEY FEATURES OF THE DJS-1000
INTUITIVE USER INTERFACE

THE NEW 02 STICK DJ HEADPHONE: PHONON

The latest 02 Stick headphone by Phonon, a single earpiece attached to a foam stick. It is said to be the perfect, comfortable and sponge stick ear pads for DJ's. It works by summing the stereo cue signal into mono, always keeping one ear on the club rather than focusing too much on the next track.

It's unique style monophone is used by simply holding it in place with one hand over one ear, or resting it on your shoulder and holding it to your ear that way. When using the 02 Stick with a DJ mixer with split cue function, the cue channel and the master channel will be mixed together as your output. While a stick headphone might be used merely as

Phonon's 02 Stick DJ headphone

a fashion statement, they also can help DJs focus less on the next track they're going to play and more on energy of the crowd.

Phonon's 02 Stick is available now.

- Step sequencer- Easily creates a new groove by tapping the 16 large, multicolored step input keys.
- Multi-coloured Performance Pads- Use the 16 large rubber pads to trigger the tracks you have assigned samples and loops to. Each one is equipped with multi-coloured illumination and highly accurate velocity detection, to increase or decrease volume with the amount of pressure.
- Touch strip- By simply touching the strip, you can quickly change the pitch when using the pitch bend feature, or play a drum roll by using the note repeat feature. Customize parameters for even more creative options.

7-INCH FULL-COLOUR TOUCH SCREEN

- Home screen: allows viewing information on the sample assigned to each track.
- Sequence screen: View the sequence pattern currently playing.
- Mixer screen: Adjust the volume balance of each track.

POWERFUL PERFORMANCE FEATURES

- Live Sampling- Easily sample input sounds. The sampled sounds are automatically synchronized with the current sequence to play in a loop, so they can be dropped straight into a live remix. You can sample any input source, including audio from a turntable, via your mixer.
- FX- Add various FX to tracks with ease, changing the tone on the fly, you can apply FX such as echo, reverb and filter to individual tracks, a group of tracks, or all tracks.

PERFECT FIT IN THE DJ BOOTH

- The DJS-1000 is designed to fit perfectly alongside the CDJ-2000NXS2 and DJM-900NXS2, creating effortless unity in the DJ booth.

OTHER FEATURES

- Support for USB devices – manage your projects and samples easily
- Over 2,500 on-board Loop masters samples – start performing with the DJS-1000 straight out of the box
- Support for DJS-TSP Project Creator – easily create projects and SCENE files on a PC/Mac
- Support for project files created on the TORAIZ SP-16

PIONEER DJ ANNOUNCES DJM-900NX2 AND CDJ-2000NXS2 IN WHITE WITH EXCLUSIVE PLAQUES

Pioneer DJ has released its exclusive new versions of flagship multi-player and DJ mixer in a brilliant white finish. A strictly limited run of 1,800 CDJ-2000NXS2-W decks (1,600 for Europe, 200 for the USA) will be produced, along with 900 DJM-900NXS2-W mixers (800 for Europe, 100 for the USA). Each unit will be stamped with a distinctive plaque featuring a unique serial number.

KEY FEATURES OF THE CDJ-2000NXS2-W

- Next generation high-resolution audio with support for FLAC/ALAC files
- Full-colour touch screen with fast browsing and detailed track information including Wave Zoom, Needle Countdown, Phase Meter, and more
- Multiple performance features for almost endless creative possibilities
- Pro DJ Link enables even more features
- See full rekordbox™ track information including colour-coded Memory Cues

KEY FEATURES OF THE DJM-900NXS2-W

- Highest quality audio components for a warm, detailed sound
- Smooth curves on the EQs and channel faders for precise, seamless mixes
- Detailed control of a wealth of FX plus an independent send/return

Pioneer DJ Announces DJM-900NX2 and CDJ-2000NXS2 in White

- Two USB ports, four phono inputs and DVS support for total flexibility and seamless DJ handovers
- Pro DJ Link via LAN or USB for even more scope and flexibility The CDJ-2000NXS2-W and the DJM-900NXS2-W are available now

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SERATO'S LATEST DJ 1.9.10, SUPPORTS MACOS HIGH SIERRA

The DJ 1.9.10 update, is an update to its Serato DJ. It adds compatibility with macOS High Sierra, the latest operating system for Mac users, also brings Official Serato Accessory support for the Denon DJ SC5000 Prime media player, along with Serato DJ and Serato DVS compatibility with the Denon DJ X1800 Prime mixer. Support for the Mixars Quattro mixer is also included in the update.

This product comes with:

- macOS High Sierra support
- Mixars QUATTRO support
- Denon SC5000 Prime OSA support
- Denon X1800 Prime Club Kit support

Key Features include:

- Controls primary navigation, track-¬load and playback workflow from a single SC5000 Prime unit
- SC5000 on-¬board HD touchscreen shows Serato track collection, waveform overview, and vital DJ performance data
- Addresses and controls up to 4 Serato DJ 'decks' using just one SC5000
- SC5000 performance trigger pads enable expressive manipulation of standard Serato DJ pad modes.
- X1800 Prime mixer acts as

Serato DJ audio interface, introduces DVS to DJs with the Serato DJ and DVS Licenses (sold separately) offering a full hardware DJ mixing experience

- Controller Mode integration is the latest example of Denon DJ's commitment to continuous improvement for their revolutionary Prime Series equipment. It is available via Serato DJ 1.9.10

The upgrade to version 1.9.10 is free and is available now.

DENON DJ SC5000 PRIME MEDIA PLAYER UPGRADED TO VERSION 1.0.3 FIRMWARE

Denon DJ, manufacturer of premium DJ products and solutions, announced that their SC5000 Prime media player has received a significant upgrade with new v1.0.3 firmware. This new firmware will give the DJs performance enhancing pitch resolution, and most importantly, will now import rekordbox files and database content directly into the SC5000.

The new 1.0.3 firmware delivers two important upgrades, which significantly improve the SC5000's operational effectiveness:

- Direct import of rekordbox database — automatically and elegantly converts hot-cues, saved

loops and playlists into Engine format, directly within the SC5000 player
- Adjusted pitch resolution for more accurate BPM setting during DJ performance

In addition, 1.0.3 firmware is a solid indication of Denon DJ's commitment to continuous improvement for their revolutionary Prime Series equipment.

The 1.0.3 firmware will be part of SC5000 Prime media players started in November 2017 and it is available globally now.

MASCHINE GETS REAL-TIME STRETCHING MODE IN 2.7 UPDATE

Native Instrument's Maschine is finally getting real-time stretching of loops in its new update. It is the third iteration of its popular Maschine beat-making hardware. Through a blog, the company has outlined some new changes to the Maschine software, including time-stretching, loop hot-swapping and a gate mode.

"Pre-cut loops will simply play in time with the project, no matter their speed, and they'll adjust automatically to the project's tempo changes," NI's Chad Carrier says on the NI blog. "The Audio plug-in does the hard work for

you. After that, the Pattern behaves as it always has, whether it contains MIDI, audio loops, or a combination of both."

NI declares that the new loop hot-swapping feature is useful when someone needs creative inspiration in the studio. It allows loading audio loops into the Maschine project to change a synth preset, enabling browsing loops quickly to something that fits. The gate mode, meanwhile, means a loop will only be heard when the pad was hit, also

opening up possibilities for melodic re-pitching.

Maschine 2.7 is available as a free update for Maschine 2 owners.

ANALOGUE SOLUTIONS ANNOUNCES NEW SEMI-MODULAR MONO SYNTH

Analogue Solutions have announced a new semi-modular synth called the Treadstone synthBlock. The company

will launch the new mini synth in January next year, claiming, "no compromise has been made with the construction of Treadstone". With an oscillator variable between saw and square wave, MIDI sequencer, noise and sub oscillators, LFO, PWM and an on-board digital lo-fi delay, it is a simple but powerful unit.

Features Included:
- Full rugged steel/aluminium case

- no plastic mouldings
- Good quality smooth, fully sealed against dust
- Good quality knobs with spun aluminium caps
- High grade double sided circuit board
  - Analogue discrete VCO, analogue SSM style 24db filter
  - High Quality 16bit DAC for MIDI-CV conversion

Stable MIDI to CV
- MIDI converter
- MIDI loop sequencer
- LFO, Noise, Sub Osc, EG, PWM, lofi digital echo
- Analogue voice and modulation circuits
- Stable analogue oscillator
- Designed, built, tested and assembled in the UK
- True retro analogue voice and modulation circuits used in the synth element to give an authentic retro
- Real solid wood (not ply!)

MUMDANCE UNVEILS MUM M8, A LOW-PASS FILTER

Mumdance has launched a new Eurorack module called MUM M8, low pass filter for use in modular synthesizers with UK Company ALM Busy Circuit. This module is inspired by the filter design from Akai's iconic S950 sampler, though Mumdance, aka Jack Adams, have added a new resonance control as well as a saturator and dedicated VCA to the design.

It is a 12-bit sampler whose smooth, slurpy filter helped define the sound of hardcore and jungle. Built on an analogue core but digitally controlled, with aggressive resonance and attenuated CV control, while an on-board VCA allows saturating the signal. ALM Busy Circuits previously worked with Russel Haswell on his own custom module.

"The low pass filter gives the recognizable super-smooth vacuum-like tone sucking sound which works magic on complex sources," explains Matthew Allum of Busy Circuits. "The addition of clipped overdrive and intentionally aggressive self oscillating resonance complement the smooth filter core by juxtaposing it into more wasps like territory with acidic squeals and a more gritty sound." In other words, it has some of the same character of the S950, whose brutal filtering of Amen breaks can be heard across many drum 'n' bass classics.

The motivation for the module

came from discussing filters in classic samplers with Mumdance, aka Jack Adams. "Jack provided inspiration, help and feedback in the development of the filter," says Allum.

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VXS1ML

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- Power Rating (PGM): 10W
- Sensitivity (1W, 1m): 79dB SPL
- Certificate: UL1480, NFPA70, CE, RoHS

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