EQUIPAMIENTO TECNICO

AUDITORIO ATALICA Y SALAS GRANDES
1.- VIDEO PROYECTORES

**EPSON 12K EB-L1505UH. (12.000 lumens)**
Potente proyector láser 3LCD WUXGA de 12.000 lúmenes que ofrece un brillo y una nitidez de imagen excepcionales, un rendimiento de larga duración y un mantenimiento reducido.

El proyector láser EB-L1505UH ofrece un potente rendimiento WUXGA de 12.000 lúmenes con colores brillantes y vivos, es perfecto para usarse en salas grandes y auditorios, y una vez instalado, no tendrás que preocuparte de nada más. Dado que su instalación se adapta a cualquier situación y no requiere un mantenimiento alto, este proyector mejorado con tecnología 4K constituye una solución perfecta para los espacios que exijan un rendimiento y una resistencia superiores.

Imágenes con precisión láser
Asegúrate de que tus presentaciones, imágenes y vídeos causan un gran impacto con la proyección viva y nítida de este proyector láser 3LCD. Está diseñado para usarse en salas de gran tamaño, las imágenes de alta resolución WUXGA que proyecta son vibras y brillantes, incluso a plena luz del día, mientras que la tecnología de rueda de fósforo inorgánica proporciona una luz superior y resistencia al calor para ofrecer una excelente fiabilidad que dura hasta 83.000 horas.

Mejora 4K
Para una experiencia de visualización de un nivel superior, el proyector cuenta con "4K" que confiere una nitidez y una claridad excepcionales a las imágenes, y garantiza que el texto de las presentaciones se lea a la perfección.

Colocación flexible
Gracias a una nueva gama de lentes motorizadas, que incluyen opcionalmente lentes de distancia ultracorta (UST por sus siglas en inglés), el proyector se beneficia de una auténtica flexibilidad de instalación de 360°, lo que permite su colocación casi en cualquier lugar sin que se pierda brillo ni se distorsione la imagen. El proyector también dispone de una cámara incorporada para garantizar la precisión en la calibración y la captura de imágenes con fines diagnósticos (puede desactivarse por completo para evitar el acceso remoto).

Nuevo software versátil
Todos los modelos de la serie EB-L1000 pueden aprovechar las ventajas del software Epson Professional Projector Tool gratuito a partir de diciembre de 2017. Permite configurar instalaciones de varios proyectores de inmediato, con facilidad y rapidez, así como utilizar técnicas avanzadas como la asignación de proyección y la combinación de bordes.
**ESPECIFICACIONES DEL PRODUCTO**

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<td>Tecnología 3LCD</td>
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<td>Pantalla LCD</td>
<td>1,03 pulgada con C2 Fine</td>
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**IMAGEN**

| Emisión de luz en color | 12 000 Lumen- 8 400 Lumen (económico) de conformidad con IDMS15.4 |
| Emisión de luz blanca   | 12 000 Lumen- 8 400 Lumen (económico) de conformidad con ISO 21118:2012 |
| Emisión de luz en color vertical | 12 000 lm |
| Resolución              | UXGA, 1920 x 1200, 16:10 |
| Relación de contraste   | 2.500:1 |
| Nivel Contraste         | 2.000:1 |
| Corrección keystone     | Manual vertical ± 45 °, Manual horizontal ± 30 ° |
| Reproducción del color  | Hasta 1 070 millones de colores |

**ASPECTO**

| Relación proyección   | 1,57 - 2,56:1 |
| Zoom                  | Motorizado; Factor: 1 - 1,6 |
| Lens position memory  | 10 posiciones |
| Tamaño de la imagen   | 60 pulgadas - 500 pulgadas |
| Distancia proyector objetivo gran angular | 2 m - 17,2 m |
| Distancia proyector tele | 3,3 m - 27,8 m |
| Distancia proyección gran angular/objetivo | 1,99 m - 27,77 m |
| Lente de proyección número F | 1,8 - 2,5 |
| Distancia focal        | 36 mm - 57,35 mm |
| Foce                  | Motorizado |

**CORRECCIVIDAD**

| Interfaces             | Entrada de audio Stereo mini-jack (3x), Salida de audio Stereo mini-jack, HD-BaseT, Entrada BNC, Entrada HDMI, Entrada DVI, Salidas VGA, Entrada VGA, Interfaz Ethernet (100 Base-TX/10 Base-T), RS-232C, USB 2.0 Tipo B (Sólo Servicio), HD-SDI, LAN inalámbrica b/g/n (2,4 GHz) (opcional) |
| Aplicación Epson Projection | Ad-Hoc / Infraestructura |

**FUNCIONES AVANZADAS**

| Seguridad              | Protección Kensington, Barra de seguridad, Bloqueo de unidad LAN inalámbrica, Seguridad de LAN inalámbrica, Protección por contraseña |
| Características        | 4K mejora, Negro profundo, Calibración automática, Logo de usuario personalizable, Interpelación de fotografías, Cámara integrada para la calibración y la captura de imágenes, Memoria de posición de la lente |
| Mocos de color         | Cine, Dinámico, Presentación, DICOM SIM, Multi Projection, BT709 |

**GENERAL**

| Consumo de energía     | 908 vatios, 597 vatios (económico), 0,3 vatios (Standby), Con modo power consumption as defined in JMSA-84-633 vatios |
| Dimensiones del producto | 586 x 492 x 211 mm (ancho x profundidad x altura) |

**OTROS**

| Garantía               | 60 meses Reparación en taller o 20 000 h |
| Ampliación de garantía | Ampliación de garantía opcional disponible |

**INFORMACIÓN LOGÍSTICA**

| Código SKU            | V11H910140 |
| Código de barras      | 8715946647005 |
| País de origen        | China |

**EB.L1505UH**

**INCLUYE**

- Mando a distancia incl. pilas
- Guía rápida
- Cable de alimentación y señal (3 m)
- Cable VGA
- Cubierta de cable
- Manual en CD

**ACCESORIOS OPCIONALES**

- Air Filter - ELPLF51
- SD Polarizer - ELPLP01
- Ceiling Mount - ELPMB47 Low EB-G7000L/1000
- Ceiling Mount - ELPMB48 High EB-G7000L/1000
- HDBaseT Transmitter - ELPHD01
- V12H547040
- Stacking Frame - ELPMB50 - L1000 Series (Premium)
- V12H008580
- Wireless LAN Adapter - ELPRP10
- V12H731P01

**LENTES OPCIONALES**

- Lens - ELPLL08 - Long throw - G7000L/1000 series
- Lens - ELPLM10 - Mid throw 3 - G7000L/1000 series
- Lens - ELPLM15 - Mid throw L1500L,1700 Series
- Lens - ELPLU03 - G7000 & L1000 Series ST off axis 1
- Lens - ELPLU04 - G7000 & L1000 Series ST off axis 2
- Lens - ELPLU05 - G7000 & L1000 Series wide zoom 1
- Lens - ELPLU06 - L1500U/1505U wide zoom 2
- Lens - ELPLU07 - UST Lens L1500/1700 Series
- Lens - ELPLU08 - UST Lens L1500/1700 Series

1 - Vida útil de láser de hasta 83 000 horas en modo personalizado.

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Tel. 902 49 59 69 (Previa notificación)
Fax. 93 582 15 55
www.epson.es

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La información sobre los productos puede estar sujeta a modificación en función de las actualizaciones en sus especificaciones.
2. MONITORES DE VIDEO

- SAMSUNG PLASMAS KV6300FLAT SMART 4K VHD TV 40”
SAMSUNG
J6300F Flat Smart Full HD TV

PLASMAS 40”, 43”, 55” y 60”
3. MESA DE MEZCLAS SONIDO

- YAMAHA TF
- MIDAS M 32
Design Meets Intuition

Yamaha has always made it a mission to stay in touch with the needs of sound engineers world-wide and the flagship RIVAGE PM10. The key to success has always been in supporting the user's and now Yamaha has created a new digital mixing console that gives the user's intuition even the user to respond to the music and artists on stage with unprecedented speed and freedom.

With the TouchFlow Operation interface optimized for touch panel control, experienced engineers with high-performance I/O racks give these compact digital mixers capabilities that make them with Recallable D-PRE™ preamplifiers support sound quality that will satisfy the most discerning professionals as well as newcomers to the field will find it easier than ever to achieve the ideal mix.

Experience the intuitive control and creative freedom that a truly evolved digital console can provide.

Digital Mixing Console

TF Series

TF5    TF3    TF1    TF-RACK
ol Flow

engineers worldwide regarded Selected Channel series combines Yamaha know-how offer an evolved experience ones, refined design, these elements comprise bedented comfort and

Intuitive User Interface Optimized for Touch Panel Operation

New Features for Smooth Setup and Operation

Practical Presets and Scenes - Shortcuts to Great Sound
Touch Operation for Intimate Control

Refined for the smoothest possible operation via touch-panel control, the TF user interface is designed for easy, direct accessibility, with a focus on shaping the sound with your fingertips.

Touch & Turn Knob Offers Extra Control Precision

When you need extra precision for a fine EQ or other adjustment, the physical Touch & Turn knob is always available right beside the touch panel. There are also four User Defined Knobs below the panel that can be assigned to control compressor threshold, EQ gain, or other parameters you need fast, direct access to while mixing. The knobs always affect the currently selected channel.
1-knob COMP™ & 1-knob EQ™: One Knob to Dial In the Ideal Sound

An experienced engineer can do a lot with a compressor: bring a guitar to life, add punch to a snare, and make vocals ride clearly on the mix. The 1-knob COMP can do this easily, without the need to juggle multiple parameters to achieve the desired effect. Originally introd
mixers, the 1-knob COMP quickly became a popular and valued feature. It has now been further re-engineered to add new setup ease and efficiency to the TF consoles.

The same concept has been applied in a new 1-knob EQ feature that provides notably improved sp operation. 1-knob EQ has been painstakingly fine-tuned by Yamaha R&D staff in cooperation with x² engineers, to ensure that you can achieve outstanding results with minimum effort in the shortest time.

Mode makes it easier than ever to achieve a clear, well-defined vocal sound, while an “Intensity” Mod control over EQ curves you either select from the presets or create from scratch.

But there’s more: the 1-knob COMP and 1-knob EQ are provided on the output channels too, so you can optimize overall output compression or EQ that ideally matches the room and audience size. The output 1-knob EQ Mode in place of the Vocal Mode, effectively increasing the sound pressure level while maintaining a balanced mix.

Both the 1-knob COMP and 1-knob EQ provide quick access to the full compressor and EQ display settings as required.
TF Editor Facilitates Offline Editing Plus Showtime Control

The TF Editor application for Windows and Mac computers provides a complete interface for offline editing and setup of TF consoles, with scene and preset management capabilities plus convenient keyboard entry of channel names. In addition to being able to set up the console offline at any convenient location and time, the TF Editor can be used online at the same time as the TF StageMix and MonitorMix applications. A Windows 8 PC with a multi-touch screen can use the same gestures as on the console itself. And if using Wi-Fi, a PC can function as a convenient remote-mixing device. Up to three devices running TF Editor or StageMix can be connected at the same time.

TF StageMix™ for Wireless Mixing

TF StageMix is an iPad application that provides wireless control of TF series consoles, allowing remote mixing from audience seating, in front of floor monitors, or any other listening position. It can also be used at the console as an extension of the console’s own interface. The TF StageMix interface is designed for similar operation and flow to the console display, making it easier than ever to refine the mix from any location.

Personal Monitoring with MonitorMix

The MonitorMix application for the TF Series allows individual wireless AUX mixing from up to 10 iPhone, iPad or iPod touch devices simultaneously. Each performer can have convenient control over the AUX buses assigned to them, without having to deal with complex settings or parameters. They can also create personal Group settings for even easier adjustment: all levels on just one fader, for example. Since up to three devices running TF Editor or StageMix and up to 10 devices running MonitorMix can be connected at the same time, even large bands can have the personal control they need, reducing demands on the sound engineer.

* TF StageMix and MonitorMix can be downloaded from Apple’s App Store at no charge.
* Apple, the Apple logo, iPad, iPhone, iPod touch and Mac are trademarks of Apple Inc., registered in the U.S. and other countries.
* App Store is a service mark of Apple Inc.
QuickPro Presets™ Provide Instant Access to Pro Sound Setups

Working with microphone manufacturers such as Audio-Technica, Sennheiser and Shure as well as respected engineers, and evaluating a large number of microphones, musical instruments, speaker systems, and in-ear monitors, the Yamaha R&D team focused on creating a range of shortcuts to great sound that would be effective in a wide variety of live-sound situations. Armed with these practical presets even the novice engineer can get very close to the ideal sound, while experienced engineers will appreciate the significant time savings they can provide starting points for further adjustments.

The QuickPro Presets can be searched by instrument type and recalled quickly and easily. The presets include HA gain, EQ, Comp and other settings, right down to the channel name and color. The 1-knob EQ and 1-knob COMP can be used with QuickPro Presets, providing a super streamlined way to tweak the sound.

The output channel preset library includes parameter sets optimized for Yamaha powered speakers, with several variations to match different environments and room sizes. Presets are provided for in-ear monitors too. All of these can be used as is when time is tight, but they are also great starting points for manual fine tuning. Setups created from the presets or from scratch can be saved as additional presets too.

Two Scene Memory Banks

The scene memory features banks A and B, each capable of holding up to 100 scenes. That's a total of 200 scenes that can be set up and instantly recalled whenever needed.

A number of scenes are pre-programmed to give users a head start: scenes with the 1-knob COMP and 1-knob EQ controls engaged for the easiest possible operation, and scenes with the 1-knob features disabled for experienced engineers who might want to follow an established procedure. The banks are great for organizing different types of scenes: one for scenes categorized by music type, and the other by event type, for example.

Comment from Sennheiser

Michael Polten, Product Management & Marketing, Live Performance & Music

"The presets in the Yamaha TF series digital mixers provide users with an accurate indication of how to set the EQ for a wide variety of instrument/microphone combinations, giving the sound technician a solid basis to start from. All that is needed is to adapt the EQ-ing to the specific room and the instruments.”

Comment from Shure

"We're thrilled to be offering QuickPro Presets with our KSM and PG Alta microphones in the experience with the versatile new TF engines at any level of experience, effective sound checks and perform audio instead of chasing problems."
**Comprehensive Fader Bank**
Two INPUT banks and one OUTPUT selected by pressing both the INPUT and the levels of multiple channels to be CUSTOM fader bank where you can...

**DCA Roll-out Enhances Group**
When the GROUP fader bank is select as Roll-out faders. Selecting one of the belonging to that group to the Roll-out and other parameters of individual cha...

**Channel Name and Color**
A display panel located above each ch the port name, and the current fader sr operation can also be displayed. A col navigation a breeze, and prevents cont...

**Faders Provide a Control**
The TF5 has 33 motor All rear-panel inputs h glance and they can be directly an...

**SEDDS ON FADER section**
The SENDS ON FADER buttons inr the faders for easy verification and engaged the MASTER fader acts a can be checked and controlled with...

**Advanced Design Promotes Sn**
The upper section of the panel is d memos, and/or other small items. the operator maximum visibility an...
A Comprehensive Fader Bank section:
Two INPUT banks and one OUTPUT bank are provided, and the GROUP bank can be selected by pressing both the INPUT bank buttons simultaneously. The GROUP bank allows the levels of multiple channels to be controlled from a single DCA fader. There’s also a CUSTOM fader bank where you can assign any input, output, and DCA group to any fader. DCA Roll-out Enhances Group Control: When the GROUP fader bank is selected, all faders other than DCA masters 1 through 8 function as Roll-out faders. Selecting one of the DCA groups instantly “rolls out” the input channels belonging to that group to the Roll-out faders. This useful function makes it easy to adjust the level and other parameters of individual channels while using the eight DCA faders for overall mixing.

And 8 line outputs. It features the same recallable D-PRE™ microphone preamplifiers.

**TF-RACK: Rear**

1. FAN switch
2. DIP switch
3. PRIMARY and SECONDARY Dante connection

**User Defined Keys section:**
Assign mixer settings that you use often to these six buttons for instant recall of specified scenes.

**Mute section:**
Multiple inputs or effects can be muted with a single operation.

**Turn section:**
Achieve with a very simple such a parameter or the knob to adjust.
Freedom can take over in the TF series.

Not only deliver outstanding quality, assessed and redesigned where necessary to be kept up by an updated selection of tools such as EQ, gates, and spectrum of creative capabilities.
A High-performance Stagebox Solution that’s Simple to Set Up

The natural, musical sound that was a key element of the TF Series design policy is carried on without compromise in the Tio1608-D I/O Rack. Mechanical construction, circuit board layout, power supply, grounding, and parts selection have all been executed with meticulous attention to detail and quality, and exhaustive performance and listening tests were carried out at each stage of development. For networking the same Dante protocol implemented in higher end Yamaha digital consoles is used for precise synchronization, low latency, low jitter, and high sample accuracy. In addition to superior performance, a Tio1608-D stage box system can be set up in just three easy steps.

System expansion with Tio160

Tio1608-D allows you to easily expand system up to 40ch inputs/24ch out using a Plug In & Play method. Simply connect the device ID's and the system control is available via Cat5e. Stage remote control of the console from the audience etc.

Dante™
that allow selection between a USB source such as an iPad, iPhone, USB storage device, PC, on channels, can be simultaneously verified directly via the control panel.

for the first time in a digital console. This allows preamp setup to be recalled from scene memory where full-console changes need to be made on the fly. In addition to all-around performance eight and compact for unrivaled portability and space savings.

DIGITAL MIXING CONSOLE

**TF5**

- 33 motor faders (32 channels + 1 master)
- 48 input mixing channels (40 mono + 2 stereo + 2 return)
- 20 AUX (6 mono + 6 stereo) + stereo + sub buses
- 6 DCA groups with Roll-out
- 32 analog XLR/TRS combo mic/line inputs +
  2 analog RCA pin stereo line inputs

- 16 analog XLR outputs
- 34 x 34 digital record/playback channels via
  USB 2.0 + 2 x 2 via a USB storage device
- 1 expansion slot for NY64-D audio interface card

**TF1**

- 17 motor faders (16 channels + 1 master)
- 40 input mixing channels (32 mono + 2 stereo + 2 return)
- 20 AUX buses (8 mono + 6 stereo) + stereo + sub
- 8 DCA groups with Roll-out
- 16 analog XLR/TRS combo mic/line inputs + 2 analog RCA pin stereo line inputs
- 16 analog XLR outputs
- 34 x 34 digital record/playback channels via USB 2.0 + 2 x 2 via a USB storage device
- 1 expansion slot for NY64-D audio interface card

Dante

Audio Interface Card

**NY64-D**

The NY64-D is an I/O expansion card for TF series consoles that allows transmission and reception of up to 128 channels (64 in/64 out) of uncompressed 48 kHz 24 bit digital audio data via a Dante™ audio network.

Used in conjunction with the Tio1608-D I/O it becomes possible to create a versatile stage box system with up to 48 inputs and 24 outputs.
**Specifications**

**TF-Rack General Specifications**

**Fader Configuration**
- Input Channels: 46 (20 Main + 20 Sub) + 3 Returns
- Mixing Capacity: 10 (Main) + 6 (Sub)
- Aux Buffers: 20 (Aux 1) + 6 (Aux 2)
- Sends: 20
- Num. Mono Sends: 12
- Inputs: 16 (10 MAIN + 6 SUB + 1 TRS Phone) + AUX 1/2 + 24/7, 2 (TS Phone)
- I/O Connectors: 24 (AUX 1, 2) + 6 (TS Phone)
- Sub Outputs: 6 (MAIN + 6 SUB)
- Expansion Slot: 1
- MIDI IN/OUT
- Signal Processors: 8 Fx+ (4 FX)
- Recording/Playback: CD/MD, USB
- USB Storage Device: USB 2.0, USB 3.0
- Sampling Frequency: 44.1 kHz
- Input/Output: Balanced +4 dBu/ -10 dBu
- Talkback: +48 dBu/ +48 dBu

**Dimensions**
- TF-Rack: 430 x 176 mm
- TF1: 205 mm x 88 mm
- TF2: 205 mm x 88 mm

**Tio1606-D General Specifications**

**Sampling frequency**
- 44.1 kHz or 48 kHz

**Total harmonic distortion**
- Less than 0.08% at +4dBu/20kHz or 0.035% at +0dBu/20kHz

**Frequency response**
- +0.5 dB/ -1.5 dB/ 20kHz
- Measured according to IEC 60950-1

**Hum & noise level**
- Equivalent input noise: 12dBu
- Rated for 48V phantom power

**Crest factor**
- 10:1

**Heat dissipation**
- 80W (120V) / 60W (230V)

**Power consumption**
- 24V (120V) / 12V (230V)

**Dimensions**
- 205 mm x 88 mm

**Net weight**
- 5 kg

**Accessory requirements**
- 12V DC Power Cord (Supplied)

**Others**
- Temperature Range: 0°C to 40°C
- Temperature Range: 0°C to 40°C
M32 DIGITAL CONSOLE

Digital Console for Live and Studio with 40 Input Channels, 32 MIDAS Microphone Preamplifiers and 25 Mix Buses

User Manual
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9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Use only attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (WEEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with WEEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.
Precautions

Before installing, setting up or operating this equipment make sure you have read and fully understand all of this section and the ‘IMPORTANT SAFETY INSTRUCTIONS’ at the front of this manual.

This equipment is supplied by a mains voltage that can cause electric shock injury!

The following must be observed in order to maintain safety and electromagnetic compatibility (EMC) performance.

Safety warnings

Signal 0V is connected internally to the chassis.

To completely isolate this equipment from the AC mains, while observing full safety precautions (see ‘Power’ on page xiii), switch off the isolator switch (above the mains power sockets on rear of control centre) and then switch off the mains at the three mains outlets. Unplug the three mains leads from the rear of the control centre. For details of how to remove Voxelex locking type plug, see ‘Power’ below.

To avoid electrical shock do not remove covers.

General precautions

In the event of ground loop problems, disconnect the signal screen at one end of the connecting cables. Note that this can only be done when the equipment is used within a balanced system.

Do not remove, hide or deface any warnings or cautions.

Power

The system power supplies contain LETHAL VOLTAGES greatly in excess of the mains voltage and its rails can produce extremely large currents that could burn out equipment and wiring if shorted.

The internal power supplies are of the switch mode type that automatically sense the incoming mains voltage and will work where the nominal voltage is in the range 100 VAC to 240 VAC.

Each mains inlet is to be sourced from its own separate wall-mounted mains outlet socket.

Otherwise, their mains sources must be suitably distributed so as to meet local safety regulations.

A Voxelex locking type plug is fitted on each supplied mains cable, which plugs into a mains IEC connector on the unit. When fitted properly the Voxelex plug locks into place, preventing it from working loose, or being inadvertently knocked loose or pulled out. To fit a Voxelex plug, insert it into the mains IEC connector and push it in until it locks in place. Then, check to make sure it is locked in place. To remove it, release its locking device and then pull it out. When fitting or removing a Voxelex plug, always hold the plug itself and never use the cable, as this may damage it.

During operation, a minimum of two of its three mains inlets must be connected and supplying power.

When removing the equipment’s electric plugs from the outlets, always hold the plug itself and not the cable. Pulling out the plug by the cable can damage it. Never insert or remove an electric plug with wet hands.

Do not connect/disconnect a mains power connector to/from the M32 Control Centre while power is being applied to it. Switch the power off first.

Before switching the M32 Control Centre on or off, make sure that all monitor loudspeaker power amplifiers are turned off or muted.

Handling the equipment

 Completely isolate the equipment electrically and disconnect all cables from the equipment before moving it.

When lifting or moving the equipment, always take its size and weight into consideration. Use suitable lifting equipment or transporting gear, or sufficient additional personnel.

Do not insert your fingers or hands in any gaps or openings on the equipment, for example, vents.

Do not press or rub on the sensitive surface of the GUI screens.

If the glass of the GUI screen is broken, liquid crystals shouldn’t leak through the break due to the surface tension of the thin layer and the type of construction of the LCD panel. However, in the unlikely event that you do make contact with this substance, wash it out with soap.

Installation

Before installing the equipment:

Make sure the equipment is correctly connected to the protective earth conductor of the mains voltage supply of the system installation through the mains leads

Power to the equipment must be via a fused spur(s)

Power plugs must be inserted in socket outlets provided with protective earth contacts. The electrical supply at the socket outlets must provide appropriate over-current protection

Both the mains supply and the quality of earthing must be adequate for the equipment.

Before connecting up the equipment, check that the mains power supply voltage rating corresponds with the local mains power supply. The rating of the mains power supply voltage is printed on the equipment.

Location

Ideally a cool area is preferred, away from power distribution equipment or other potential sources of interference.

Do not install the equipment in places of poor ventilation.

Do not install this equipment in a location subjected to excessive heat, dust or mechanical vibration. Allow for adequate ventilation around the equipment, making sure that its fans and vents are not obstructed. Whenever possible, keep the equipment out of direct sunlight.

Do not place the equipment in an unstable condition where it might accidentally fall over.

Make sure that the mains voltage and fuse rating information of the equipment will be visible after installation.

Ensure that all underside vents are left clear during operation.
Audio connections
To ensure the correct and reliable operation of your equipment, only high quality, balanced, screened, twisted pair audio cable should be used.

XLR connector shells should be of metal construction so that they provide a screen when connected to the control centre and, where appropriate, they should have Pin 1 connected to the cables screen.

Electrostatic discharge (ESD) precautions
Observe full electrostatic discharge (ESD) — also known as ‘anti-static’ — precautions when carrying out procedures in this manual that are accompanied by the ESD Susceptibility Symbol (shown above). This caution symbol shows you that ESD damage may be caused to items unless proper ESD precautions are taken, which include the following practices:

- Keep the work area free from plastic, vinyl or styrofoam
- Wear an anti-static wrist strap
- Discharge personal static before handling devices
- Ground the work surface
- Avoid touching ESD-sensitive devices.

Radio frequency interference — Class A device
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Electric fields
Caution:
In accordance with Part 15 of the FCC Rules & Regulations, “… changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.”

Should this product be used in an electromagnetic field that is amplitude-modulated by an audio frequency signal (20 Hz to 20 KHz), the signal to noise ratio may be degraded. Degradation of up to 60 dB at a frequency corresponding to the modulation signal may be experienced under extreme conditions (3 V/m, 90% modulation).

Safety equipment
Never remove, for example, covers, housings or any other safety guards. Do not operate the equipment or any of its parts if safety guards are ineffective or their effectiveness has been reduced.

Optional equipment
Unless advised otherwise, optional equipment must only be installed by service personnel and in accordance with the appropriate assembly and usage regulations.

Special accessories
To comply with part 15 of the FCC Rules, any special accessories (that is, items that cannot be readily obtained from multiple retail outlets) supplied with this equipment must be used with this equipment; do not use any alternatives as they may not fulfil the RF requirement.

Introduction
Welcome to the M32 Digital Console User Manual! After years of intense development, we are proud to offer a mixer that combines tremendous power and flexibility with a very user-friendly layout and intuitive workflow that allows you to get up and running right away.

The M32 combines a control surface with streamlined workflow, extensive I/O and signal processing into a compact desktop format factor. Employing award-winning MIDAS PRO Series microphone preamplifiers and the custom-designed MIDAS PRO motorised faders that are rated for one million cycles, along with a daylight-readable TFT screen, the control surface is designed to allow immediate access to critical functions with total and automatic recall of settings. Extensive onboard I/O includes 48 A/D and 24 D/A Cirrus Logic converters, 96 bi-directional channels over SuperMAC AES50, stereo AES/EBU out, 16 channels of Ultranet personal monitoring and 32 x 32 channels of recording over USB.

Abundant analogue connectivity is provided by 32 MIDAS PRO Series digitally-controllable microphone preamps, six line-level auxiliary inputs and outputs, 16 XLR outputs, stereo monitoring outs on XLR/TRS and dual phones outputs. Each of the 32 microphone inputs can accept balanced or unbalanced mic- or line-level signals, and include switchable phantom power. 72 dB gain range and maximum +23 dBu level before clip. A separate external microphone input and the internal talkback mic allow communication to various destinations.

Dual AES50 Ethernet jacks that employ KLARK TEKNIK SuperMAC technology contribute 96 x 96 signals to the total count of 168 x 168 accessible sources and destinations. Motorised faders, recallable mic preamps, programmable routing and the ability to save and recall entire scenes make set up or programme changes quick and simple. A top panel USB connector enables system data to be stored, or a board mix to be recorded directly to external flash or hard drives.

The input section is home to 16 high-resolution 100 mm motorised faders, providing control over channels 1-16, 17-32, Aux inputs/USB playback/FX returns. A separate section of eight motorised faders controls DCA groups 1-8, bus masters 1-8 and 9-16, as well as matrices 1-6. The channel editing section provides tangible controls for instant access to the selected channel’s gain, dynamics, EQ and other functions. A custom-assignable section allows certain control functions to be mapped directly to a set of dedicated rotary controls and buttons.

A main seven inch-wide, high-contrast colour display provides information for editing pertinent parameters of the active function or effect. Relevant parameters are quickly recalled to the display for editing via ‘VIEW’ buttons in each subsection. Each channel also features a small, customisable LCD screen for track name, number, colour and source graphic.

A virtual FX rack offers eight true-stereo (16 mono) multi-effects processors, with over 60 effects models that eliminate the need for any additional outboard gear. Four high-quality effects such as delay, chorus and reverb can run concurrently with eight channels of 31-band graphic equalisation.

Transmit up to 32 channels of audio to and from a computer using the KLARK TEKNIK DN32 USB audio interface.

The M32 integrates seamlessly with other M32 consoles, the MIDAS DL16 digital stagebox and the Behringer P-16 personal monitoring system for a complete live, studio and installed sound solution.

Control the mixer from a distance with the free iPad application, or with editing and remote control software connected via Ethernet. The M32’s ease of use, intuitive workflow, diverse feature set and integration with other equipment make it an ideal centrepiece for installed and production sound in any setting.

Continue through this User Manual to learn all about the functionality that this powerful mixer has to offer. We also recommend that you check midasconsoles.com to make sure you have the latest firmware installed, as we release frequent updates.
1. Control Surface

1.1 Channel Strip - Input Channels

REM - DAW Remote Button
Press this button to enable remote control of your Digital Audio Workstation software using the Group/Bus fader section controls. This section can emulate HUI or Mackie Control Universal communication with your DAW.

Layer Select Buttons

INPUTS 1-16 / INPUTS 17-32
Pressing one of these buttons selects either the channel 1-16 layer, or the channel 17-32 layer.

AUX IN / USB
Press to select the Aux In / USB Recorder and FX 1-4 Returns layer.

BUS MAST
Press to bring up all the 16 Bus Master channels.

SOLO Button
Press to send the channel to the solo bus.

Scribble Strip
Information such as channel number, input source and a graphic icon are displayed here.

MUTE Button
Press to mute the channel.

Fader
Use the MIDAS PRO Motor Fader to adjust the channel output volume. In Sends on Faders mode channel faders represent the send level from channels to the currently selected output bus (see next page).

Individual Channel Strip Controls
Each of the above layers operates in a similar way by use of the following controls:

SEL Button
Press to select an input or bus (depending on which layer is active) and allow it to be edited by the Channel Strip and Main Display.

Channel Meter
This displays the signal level of the input or bus, depending on which layer is active. The COMP and GATE LEDs light to indicate that compression and/or noise gate are active.