

Professional
live Consoles

ELECTRA
E₃

E3 A New Concept in Analog Automated Consoles

E₃
E₃ MONITOR



ELECTRA

natural
evolution

E₃

MAIN FEATURES

ALTAIR E3 is the natural evolution of our renown ELECTRA consoles. Hundreds of this consoles are on the road working hard all over the world.

The **signal path, and working environment** concept is **full analog** design with automated and recallable analog VCA's and mute functions. A small concession to the digital word is included to manage the 16 EQ and **dynamics** hard wired switchable sections. A display on the panel bridge complements the edit surface. The design pay special attention to ergonomics with a revolutionary placement of the Groups section in the upper side of the control surface, with preference to the Auxiliary masters placed on the middle.

As the pioneers of the FOH/MONITOR one magic switch convertible consoles, we are proud to introduce a step further in the multipurpose console concept: Convertible console without any switch. That is, all the functions of a **FOH** and a **Monitor** console are **at a glance**. No more confusions about connectors, faders, buses, etc., that are mode dependent. E3 simplifies the task: more auxiliary sends without loosening any of the benefits of a **powerful** FOH console. That is all.

- **FRAMES: 40/48/56 Channels** [as 32/40/48 Mono + 4 Stereo]
- **16 AUX** Sends (8 Mono+4 Stereo/8 Mono), **24 AUX** (Monitor version)
- **MIX BUSES: 8 GRP + 3 MIX (LCR)**
- **16 EQ** (8 band **paragraphic**)+**DYNAMICS**, **DSP** based (AUX, GRP, MTX outputs)
- **8 VCA Motorised** Masters
- **8 Master MUTES**
- 100 Scene & Mute Presets with **SD/MMC card** storing
- **Simultaneous** AUX/GRP Functionality: **FOH/Monitor/Both**
- **16x8 MATRIX**, under **digital control** for a clear console layout
- All Balanced, Dual Jack Insert points
- Super 4 band EQ on Inputs (H&L vary, Freq+Shl/Peak, 2 full parametric Mids)
- **Cable Test function** on each input
- VCA Solo in AFL/PFL mode. Now, you can listen the VCA group
- Optional **transformers** on Input Channels
- Combo^(TM) Input Connectors
- FULL Meter Bridge: LCD+24 x 20 led Bars + 4 Vu-Meters
- Robust, and light weight **Power Supply** with **redundant** connections
- Custom signal path, internally selectable
- **Console linking** facilities included



VCA/AUTOMATION Section

27 bus

1 SEL Switches Selects the Auxiliary output to be controlled in the EQ/DYN layout. Motorised VCA faders jump to the stored EQ positions.

2 F1-F8 Rotary Encoders and associated lamps controls the Frequency and Q. MTX sends GRPs.

3 F/Q switches Toggles to Q adjustment in that band. Bands 1 and 8 incorporates Shelving filter mode.

4 MUTE 1 to 8 VCA group mutes. **SOLO** is a powerful listen VCA solo that calls for a mix of all the assigned channels from that VCA group. When selected a VCA solo, the assigned channel's SOLOs will light to indicate what are soloing. The listen of this solo can be selected to be AFL or PFL depending of the global SOLO setting. This function can help the operator to balance the individual levels of the channels of each different VCA groups, and to double check real members of that group of signals.

5 VCA Moto-Faders Normally used as VCA control, serves as EQ levels and Matrix sends control.

6 Dynamics Blocks Selected Out Dynamics settings.

7 OPERATING SYSTEM KEYS Utilities page, configuration modes (for secure use, disabling parts of console). Menu, navigation, copy paste, input data.

8 MASTER MUTE Mutes group 1 to 8 Also used as DMA Direct access to recalled Scene.

9 SCENE MEMORY operations: load, save, preview, clear, scenes from memory and SD/MMC card

10 LAYER SELECT we can select the layer that we want edit by means of these buttons VCA, MUTES, MATRIX, EQ.

11 KEY LOCK It blocks all control panel, rotary, faders, buttons until it is pressed and confirmed.

12 SD CARD READER.

E3 incorporates VCA groups (with state of art VCA associate circuits) so you could mix from this versatil panel, since, you can make virtual groups, without noise, automatizables, that can be stored. Electra E3 has different ways to perform a mix. You would disable certain functions for greater security in the work. Handling SCENES, you can operate with the 8 VCAs, MUTES, DSP EQ and DYNAMIC and MATRIX depending on the job.

OUTPUT Section



ELECTRA E3



POWER SUPPLY Extensive electronic design effort has been paid in the console heart: the power supply. Using actual proven technology, E3 pioneers this low weight, universal voltage, and 2U high converter. Forget the line fluctuations with a headroom of 90 to 245 VAC in a 6 Kg. power supply. Automatic power supply switchover is incorporated for dual redundant operation.

CHASSIS The construction of the chassis is by structural heavy-duty aluminium profiles and 8 mm hard aluminium plates. Bottom cover is made of honeycomb aircraft aluminium sandwich. This panel is extremely robust and lightweight, enhancing RFI screening.

MOTOFADERS What is the sense to save in memory the VCA groups without storing the actual VCA fader positions? That is our response. All we know that the relative positions of these faders define 100% the final mix, so recallable position is a must in VCA grouping.



For maximum flexibility of applications the E3 comes in two versions all including similar functionalities:

E3 plus 4 stereo (you can install additional stereo modules if you need). The console is intended for live, broadcast or studio applications. Its 16 auxes section can be configured in mono or stereo pairs. The group section includes 8 standard mixes. An 8x16 Matrix section with analog masters is included with the benefits of digitally controlled sends specially needed in theatre and great venue events.

E3 Monitor in 3 frame sizes: 36, 44 and 52 mono input channels is intended mainly for monitor live applications. section can be configured in mono or stereo pairs. The 8x16 Matrix section is also included. Auxes 17 to 24 can be redirected as groups to the main LRC busses permitting the use in FOH application. As in the E3, the Centre feed and LR busses can be trimmed in every channel resulting in a total of **27** auxiliary sends console.



WHAT ABOUT SECURITY?

- Autorange mains power supply and Redundant option
- It's raining, liquid splits over. One channel is locked and digital problems arise. Do you have a pen? Yes, no problem, press the CPU CANCEL and run in analog. OK
- E3 recovers seamlessly and automatically to its last settings, in a total power loss. That easy.

DYNAMIC and PARAGRAPHIC DIGITAL

EQ. Auxiliaries, groups and matrix incorporates dynamics and 8 bands full PARAMetric digital equaliser. The 8 bands are preset at start-up in a distribution manner, so it is easy to start equalising from the beginning although you are in front of a powerful sophisticated parametric.

Operation Modes Layer Selection

To avoid possible confusion between LAYERS, all the switches and function leds are colour-coded.

Moreover, you can customize the Layers in the configuration Menu to enable only the ones used in the current show. As an example, in studio production or FOH operation, you only need VCA and MUTES.

On the other hand, Theatre or Monitor applications need the EQ and MTX enabled normally.

■ **VCA** Selects the VCA layer. The 8 motorized Faders shows the VCA Fader level. The Fader position is stored and Recalled as part of the Scene memory. In this mode, the assign leds on each input channel shows the VCA group assign.

■ **MUTES** Selects the Mute layer. The Fader position remains as in VCA control. In this mode, assign leds on each input channel shows the assigned MUTE group.

■ **EQ** Selects the Equalization layer. Fader position shows the level of the 8 frequency bands of the SElected Auxiliary Out. You can edit it in real time or in preview mode.

■ **MATRIX** In this mode, you can adjust the Matrix sources (inputs) of the SElected Matrix Master 1-8. Matrix inputs: Aux 1-4, GRP 1-8, L, R, C, and external MTX Input

APPLICATION EXAMPLES				
APPLICATION	VCA	MUTES	EQ/DYN	MATRIX
Live music	ENABLED	ENABLED	DISABLED	DISABLED
Live music monitor	ENABLED	ENABLED	DISABLED	DISABLED
Studio	ENABLED	ENABLED	DISABLED	DISABLED
Broadcast	DISABLED	ENABLED	DISABLED	ENABLED
Theatre	DISABLED	ENABLED	ENABLED	ENABLED



EDIT MODES

VCA/MUTES EDIT

Edit sequence is like similar range consoles. It is intuitive and is followed by indications on the main screen and associated key lamps. It is possible to edit with the parameter Wheel and cursors as well.

E3 software control

Allow display and control remotely E3

VCA or MUTE EDIT Example

Press VCA layer key

Press EDIT key

Select the vca group (1.....8)

Go to channels and press Solo/vca assign

EDIT MUTES on the FLY

At any moment, you can store the MUTE state of all the input and output channels on the desired MASTER MUTE 1 to 8 by holding it down for a while. This function erases the previous Master Mute assign.



Storing Data

PANEL FUNCTIONS

SD CARD don't worry about to loose your precious settings. You can insert a SD card to SAVE the actual Scene of the console, RECALL the previously saved, SAVE all the contents of the console Scenes and RECALL it from 0 to 99. A Scene stores the channel status (SOLO, ON, MUTE groups, VCA groups), VCA fader positions, EQ of all the 16 auxes, and all the console settings under digital control. Each console operator can store and recall its own settings. SD memory data can be shared between computers, PDA or internet. Sd card slot is protected with a spring loaded door for dust and moisture protection.

CLEAR

This key is contest sensitive:

EQ: Flats the level. Also restores EQ default frequency/Q factory presets
VCA: 8 faders to nominal 0 dB position
EDITING MUTE/VCA GROUPS and EDITING CHANNEL MUTE/VCA: Resume to unassigned or blank.

KEYBOARD LOCK

This function key allows the full VCA panel to be locked to avoid non-desired operations. Fader positions and layer modes are only operational as visual indication feature, without audio effect.

DYNAMICS

This BLOCK controls the parameters of the SElected Auxiliary output (or GRP/MTX when flipped), COMpression Ratio, EXPAND Ratio, THRESHOLD.

Attack and Release

You can use simultaneously the Compressor and the Expander by selecting a Ratio different from 1:1 in each block.

STORE

All the automated functions like EQ, VCA, MUTE, ON, etc, are Stored as Scene Memory 1-99.

RECALL

Recalls the entire scene or parts: VCA, MUTE, EQ+DYN, ON, MTX settings.

PREVIEW

This **powerful** function allows seeing quickly all the Scene parameters, previous to Recall, and during a show.

DMA

Direct Memory (SCENE) Access. This function permits a quick Recall to a previously selected Scene

COPY/PASTE

The Copy and Paste function is context sensitive.

Stereo Input

Mono Input

Phantom on
LR Input Gain

-30dB Pan
L Phase reverse
LR Mono

HF G—F

MIDI1 G—F

MIDI1 Q

MIDI2 G—F

MIDI2 Q

LF G—F

Eq on

HPF on

Aux 1 send level

Aux2 send level

Pre & Stereo Aux 1-2

INPUT

- High performance **Mic** amplifier. BB™
- Input transformer option
- 60 dB Gain Input
- 30 dB attenuator pad

EQ

GAIN: +/-15 dB

HF: Peaking/Shelving 1KHz-20KHz

MIDI1: Full parametric 400Hz-8KHz // Q-0.5-3

MIDI2: Full parametric 100Hz-2KHz // Q-0.5-3

LF: Peaking/Shelving 30 Hz-600 Hz

HF & LF SHL: Turns from Bell shape to Shelf
HPF: Variable Freq.: 20Hz-400Hz // 12 dB/oct
HPF: Fixed Freq.: 60Hz // 12 dB/oct (STEREO)

AUX

Switchable PRE-POST fader, in pairs

AUX 1-8

Mono (L+R) Sends, can be switched to Stereo in pairs, Aux 1 sends L, 2 sends R...

AUX 1-8

Aux 8 can be routed away to direct out, for simultaneous multitrack recording (see custom signal path options section)

Aux Pre/Post in pairs

AUX 9-10

Dual concentric Pots, Normally configured as mono, can be changed to stereo pairs from GRP/AUX Modules. Switchable PRE-POST in pairs.

AUX 11-12, 13-14, 15-16 Same as above

Aux 9/10 send level

Pre Aux 9-10

Phantom on
Input Gain

-30 dB PAD
Phase reverse

HF G—F

HF shelving mode

MIDI1 G—F

MIDI1 Q

MIDI2 G—F

MIDI2 Q

LF G—F

Eq on

HPF on

Insert HPF on

Aux3 send level

Aux4 send level

Pre Aux3-4

Aux5 send level

Aux6 send level

Pre Aux5-6

Aux7 send level

Aux8 send level

Pre Aux7-8

Aux9 send level

Aux10 send level

Pre Aux9-10

Aux11 send level

Aux12 send level

Pre Aux11-12

LCR MODE

Dual concentric L-R (PAN) outer and C (Centre) inner knobs. When LCR switch is enabled, inner Knob performs LR-C image control, right position sends the signal only to C speaker and left position to L-R C LR Bal main speakers. Intermediate positions place the signal in between.

LCR mode

C—LR Pan

LCR MODE

Examples

Left Channel C

Right Channel C

Left Channel L

Right Channel R

Left Channel C

Right Channel C

Left Channel L

Right Channel R

Left Channel C

Right Channel C

Left Channel L

Right Channel R

Left Channel C

Right Channel C

Left Channel L

Right Channel R

Left Channel C

Right Channel C

Left Channel L

Right Channel R

Left Channel C

Right Channel C

Left Channel L

Right Channel R

Left Channel C

Right Channel C

Left Channel L

Right Channel R

PREVIEW Led. PREVIEW FUNCTION: lights if Channel is on.

PAN Subgroup assigns can routed pre or post PAN Pot.

SAFE

This switch cancels out the automation Mute function. The Safe state is stored in the Scene memory automatically.

VUMETER

Eight segment vumeter and peak leds. Factory set to PRE fader.

CPU CANCEL

Automation cancel security switch to prevent cpu abnormal operations. Note: In cpu cancel mode, channel turns to analog conventional console operation. Disabled digital functions.

SOLO SWITCH

PFL/AFL function depending on selection on MASTER module. Enables **cue test**. This is an ALTAIR exclusive tool. Used as VCA & MUTE assign switches.

Vumeter led

C—LR Bal

Pan

Group 1-2

assign 5-6

On channel

Edit/

preview led

Safe

Vumeter led

CPU cancel

Fader

VCA/MUTE

leds

Solo

Grp 1-8/ Aux 1-8

ON SWITCH

Automated on/off switch. **SAFE MODE:** Cancels out the automation Mute function. Press and hold this switch for a few seconds.

PREVIEW Led

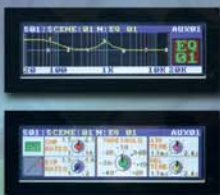
PREVIEW FUNCTION: lights if GRP is on
EDIT MUTES: blinking when these master mute is selected **MUTE:** blinking if you try to switch-on in mute state

EQ FLIP

Flips the EQ/DYN section to the upper strip

EQ on/off

This switch enables the auxiliary 1 to 16 digital equalisation to take place



The curve display is autorange to accommodate large settings

SOLO (AFL or PFL)

Automated SOLO switch. **MUTE assign mode:** Press this button to assign the Strip to the MASTER MUTE.

REAR PANNEL

Same as Master section.

AUX Mono



Matrix 1-8/ Aux 9-16

SELECT SWITCH

Selects the matrix layer on VCA panel to assign the matrix sources: Groups Gpr1-Gpr8, Aux 1-4, LCR and external input. This switch ensure a fast view and editing.

GLOBAL MONO STEREO SWITCH

This switch configures the auxiliaries 9/10 to 15/16 in mono or stereo pairs.



AUX Stereo/Mono



Master Module

STEREO INPUT

Stereo general purpose Line input incorporating HF/LF Eq LR/C sends and SOLO. L and R switches allows mono input Input Gain: -18 to +7 dB Multipoint clipping meter.

L and R
Input Gain
High frequency Eq
Low frequency Eq
Overflow and signal
Assign to LR
Assign to C

Frequency adjustment
X10 multiplier frequency
Talkback level
Sine generator Switch
Beat/pink noise generator
Select pink noise generator

XLR talkback mic input
Phantom enable Switch
Talkback mic gain
Enable Talkback mic Switch

TALKBACK GENERATOR

Sine, pink noise and test signal BEAT. This BEAT is a Drum sample, very useful for room acoustics, reverb set up, loudspeakers check or Delay.

TALKBACK MIC

SOLO SYSTEM

S.I.P. Solo in place

PFL ADJ.

Allows level balance between SOLO PFL and AFL in the Monitor and Phones outputs

SOLO
Solo In place function
SOLO CLEAR
PFL ADJ.
Monitoring PFL adjust

SOLO exclusive mode
Clear all solos
PFL global Solo
AFL global solo

Exclusive SOLO: Toggles between individual or SOLO group selections. Set it to Exclusive using the Cable Test.

SOLO CLEAR

Clear all selected Solos.

SOLO MODE: Selects global mono PFL or Stereo AFL mode on all SOLO switches.

MONITOR

WEDGE/PHONES

Stereo Monitor level control. Allows easy control of a Wedge in monitor applications.

L and R default Cue
C default Cue
Enable Monitor wedge output

Pre fader L, R send
Mix L, R
Solo master B

Master B fader

MASTER B

Additional Master output. Can be set PRE or POST main MASTER. Very useful to check the mono compatibility of the Stereo LR output.

Common rear layout for
AUX, MTX, L, C, R in/out
Bus Inject
For console linking or
inject to the bus.
Bus Output
Insert



PHONES

A pair of paralleled Phones output located under the panel for ease phones cord handling.

Phones level

Bus clipping C
Talkback into C
Insert C

Phones 1 jack

Phones 2 jack

GROUP/MATRIX

Bus clipping L
Bus clipping R
Talkback into LR
Insert, L and R

CLR faders

GRP/MTX Meter selector
Right hand meterbridge

LR BUS

TB
Talkback Signal assignment to LR or C buses.

INS
Enables the Insert connection to take place.

CLIPPING meter
multipoint measurement.

LRC
Main Master L-R-C faders, ALPS 100 mm K series in all the console.

Rear Panel
STEREO INPUT
MASTER B
WEDGE OUT
T BACK OUT
From the Talkback section. Used for console calibration or tone output.

AFL/ PFL Outputs and Bus Inject inputs for console linking.



ELECTRA

the other
face

E3



LAYOUT example

Panel description:

- 40 MONO INPUTS: Combo input for Mic+Line, XLR direct out, 2 Jack for Insert (Send+Return)
 - 4 STEREO INPUTS: Combo input for Mic+Line, 2 Jack for Insert (Send+Return) per channel.
 - 27 MIX OUTPUTS: (16AUX, 8GRP, LRC): XLR out, Bus inject Jack, 2 Jack for Insert (Send+Return)
 - 8 MTX OUTPUTS: XLR out, Ext input Jack, 2 Jack for Insert (Send+Return)
 - MASTER module:
 - 2 MASTER B XLR outs.
 - 2 MONITOR/WEDGE XLR outs.
 - 3 SOLO OUTPUTS: AFL- L,AFL-R, PFL.
 - 3 SOLO INPUTS Jack. Inject for console link.
 - 2 EXTERNAL INPUT: Combo line inputs L and R.
 - 1 OSCILLATOR+T*BACK XLR out.
 - 1 METER bridge.
 - 4 LAMP XLR-4 connectors.
 - 4 FAN.
 - 1 POWER SUPPLY+rs 232+midi+GND post.
 - 4 BLANK PANELS. Customer options.
- NOTE: All connections are balanced (2+)



METER BRIDGE AND LCD



All clipping meter are multipoint

1. AUX 1-8 LED BARGRAPH. Led bar shows the actual post fader output level. Bargraph is equipped with a total of 20 leds ranging from -30 to +18 dB and a CLIP led indicator.
2. AUX 9-16 LED BARGRAPH. Same as above.
3. LCD SCREEN. Color screen helps in console set-up and configuration. Console operation is possible in bad or null display visibility situations (direct sun rays), thanks to redundant indications by leds and motorfader position. Lcd brightness and contrast controls are located near the display.
4. VU-METERS. Four high quality moving coil VU-meters, showing the Left-Right-Centre output level and the PFL level. When the solo is in AFL mode, indicated by a red panel label, the Centre and PFL vu-meters are replaced by the Left-AFL and Right-AFL solo levels. All four Vu-meters incorporate a CLIP led indicator.
5. AFL INDICATION LABEL. Shows the Vu-meter readings and the solo mode selected.
6. GROUP 1-8/MATRIX 1-8 LED BRAGRAPH. This bargraph shows the output level of the GRP 1 to 8 or the levels of the MTX 1 to 8 depending on the GRP/MTX meter selection switch located on the Master module.

REAR PANELS

RS-232

This connector allows the following interfaces:

- Console Linking. By connecting to another E-3 console, the logic functions are linked together. Solo in Place, Solo, VCA and Mute automation, etc.

- PC communications. The console automated settings and Scene memories can be Stored and Recalled from an external PC computer by using the ALTAIR E3 ROC software.

This implementation grants bigger size screen display.

- Software update. Internal console CPU software can be upgraded by the user with a special set-up. Consult the factory for details.

MIDI

The MIDI connectors allow connection to other MIDI equipment to provide the following functions:

CUSTOM SIGNAL PATH OPTIONS

Internal Setup

MASTER	
PATH	OPTIONS
C Out to MTX select	PRE-FADER POST-FADER
R Out to MTX select	PRE-FADER POST-FADER
L Out to MTX select	PRE-FADER POST-FADER

AUX 1 TO 8		
PATH	OPTIONS	NOTES
GRP 1-8 to MTX select AUX 1 to 8 PCB'S	PRE-FADER	Positions PRE-EQ and POST-EQ are POST fader.
	PRE-EQ	
	POST-EQ	
AUX 1-4 to MTX select	PRE-FADER	Positions PRE-EQ and POST-EQ are POST fader.
	PRE-EQ	
	POST-EQ	

- Program change message reception from an external MIDI device for scene.
- Transmission of program change memory selection.
- Transmission of program change messages to external MIDI devices when a scene memory is recalled on the console.
- Reception and transmissions of another messages for automated remote control of the console.

CHANNELS		
PATH	OPTIONS	NOTES
VUMETER CONFIG	PRE-FADER POST-FADER	Normally configured in pre-fader to show internal channel level.
DIRECT OUT	PRE-FADER POST-FADER AUX-8 Send	When configured as AUX-8 Send, signal follows AUX-8 jumper settings.
INSERT POINT	PRE-EQ POST-EQ	In PRE-EQ, The Insert signal is not affected by the EQ.
AUX 1-8 PRE config.	PRE-FADER PRE-EQ PRE-INSERT	
AUX 9-16 PRE config.	AS AUX 1-8 config.	As Aux 1-8 means that Auxes 9-16 in PRE, follows the Jumper Settings as in AUX 1-8
AUX 1-8 PRE. Mute	PRE-EQ ON OFF	ON: Auxes 1-8 are affected by Mute action in PRE mode



POWER SUPPLY

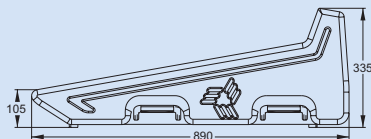
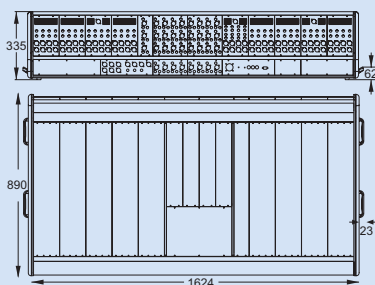
There is no need for concessions about this. E3 power supply opens up new concepts in console's power supply. It uses an actual and proven technology with higher reliability. High efficiency design results in a smaller heat dissipation, which implies a compact 2 rack units size, and only 6Kg of weight. You can work in redundant dual mode to increase your global system security.

This power supply is auto range. You must only connect the mains cord and it-self adapts to local voltage, within a broad range of 90 to 265V. You will have no trouble working in areas with different voltages or generators power. Auto range increase your reliability. Another benefit of the PS is their green efficiency.



TECHNICAL SPECIFICATIONS

DIMENSIONS AND WEIGHT



	DIMENSION (Width x Height x Depth) mm	WEIGHT
Electra E3 32+4	1624 x 335 x 890mm	104Kg
Electra E3 40+4	1884 x 335 x 890mm	120Kg
Electra E3 48+4	2140 x 335 x 890mm	135Kg
Power supply E3	2U height (89mmX482mmX290mm)	6Kg

SPECIFICATIONS INPUT OUTPUT CONNECTIONS

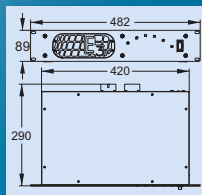
INPUTS	CONNECTOR	GAIN (dB)	SENSITIVITY (dB)	MAX BEFORECLIP (dB)	IMPED (Ω)	RECOMMENDED IMPEDANCE (Ω)
CH MONO IN	COMBO	16 (60) PAD -30 (G 16)	-14 (-58) +16	+4 (-40) 34	2K	30 to 600
CH STEREO IN	COMBO	16 (60) PAD-30 (G 16)	-16 (60) +14	+4 (-35) +34	2K	30 to 600
T'BACK MIC	XLR F	16 (60)	-10 (-54)	+7 (-35)	2K	30 to 600
STEREO EXT IN L, R	COMBO	50	-5	+15	20K	600
BUS INJECT L, R, C, GRP1-8, AUX 1-16 (-24")	JACK		+4	+24	20K	600
BUS INJECT MTX 1-8				+20		
SOLO INJECT PFL, AFL L, AFL R	JACK		+4	+24	20K	600
INSERT RET CH MONO	JACK		0	+21	20K	600
INSERT RET CH STE	JACK		0	+20	20K	600
BUS INSERT L, R, C, GRP1-8, AUX 1-16 (-24"), MTX 1-8	JACK		0	+20	20K	600

OUTPUTS	CONNECTOR	NOMINAL (dBu) REF 0dB	MAX (dB)	IMPED. (Ω)	RECOMMENDED IMPEDANCE (Ω)
CH MONO DIRECT OUT	XLR M	+4	+24	100	>600
BUS L, R, C, GRP1-8, AUX 1-16 (-24")	XLR M	+4	+24	100	>600
MONITOR/ WEDGE L, R	XLR M	+4	+24	100	>600
MASTER B L, R	XLR M	+4	+24	100	>600
OSC+T'BACK	XLR M	+4	+4	100	>600
PFL, AFL L, AFL R	XLR M	+4	+24	100	>600
INSERT SEND CH MONO	JACK	0	+21	100	>600
INSERT SEND CH STEREO	JACK	0	+21	100	>600
INSERT SEND BUS L, R, C, GRP1-8, AUX 1-16 (-24"), MTX 1-8	JACK	0	+19	100	>600
MTX 1-8		+4	+17	100	>600
PHONES 1, 2	JACK	40 mW (64 Ω) 13 mW (600 Ω)	600 mW (64 Ω) 200mW (600 Ω)	32	32-600

OTHERS	CONNECTOR	NOTE
CONSOLE		
POWER SUPPLY DC INPUT	Socapex™ MALE	5 meters long power DC cable. Included
MIDI IN	DIN5p	
MIDI OUT	DIN5p	
MIDI THRU	DIN5p	
RS232	DSUB-9p	
CHASSIS GROUND LAMP	5 binding post XLR 4p	Pinout: pin 4 +12 v, pin 3 pin 1 and 2 not connected
POWER SUPPLY		
POWER SUPPLY MAINS	IEC	To the mains. Included
DC IN	Socapex™ FEMALE	From redundant POWER SUPPLY. Link connector
DC OUT	Socapex™ FEMALE	To console

POWER SUPPLY SPECIFICATIONS

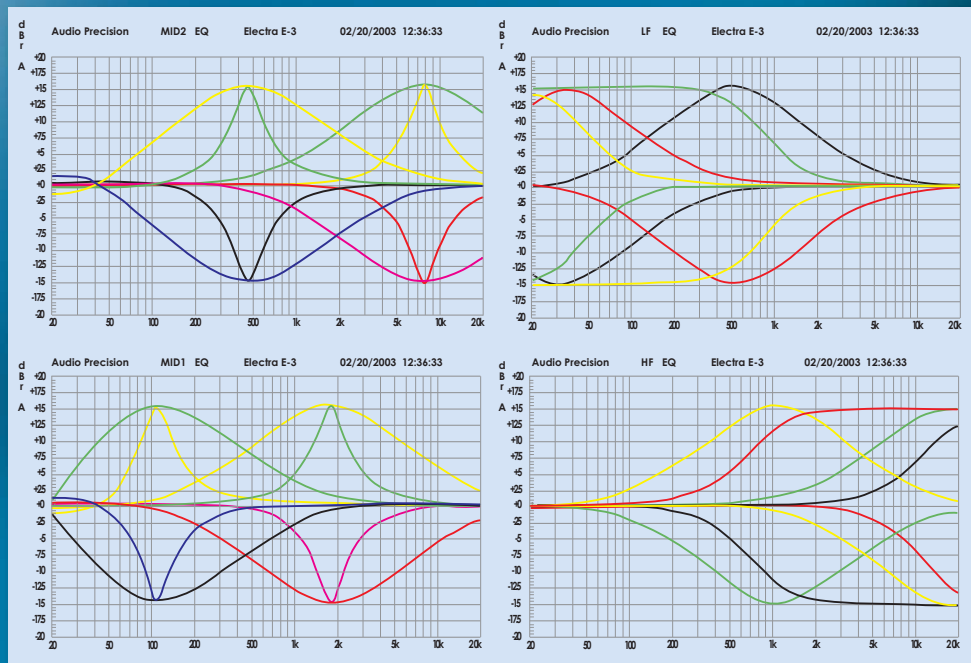
- Input voltage range: 90 to 260 VAC /50-60 Hz. Universal Voltage. Auto-range.
- Power Factor: 0.99 Meets EN61000-3-2 in terms of Harmonic Distortion
- Inrush Current 40 A peak max
- Power output +17/-17 VDC/11 Amp max
- 12 VDC/10 Amp max
- 48 VDC/1Amp max
- Radiated EMI: Meets CISPR 22, EN55022 Level B
- Leakage current: 2.0 mA max @240 VAC
- Ambient Temperature Range: 0°C to 50°C max



GENERAL SPECIFICATIONS

HARMONIC DISTORTION:	Less than 0,05% from 20 Hz to 20 KHz with -30 dBu input and +4dBu output @ 600 Ohm.
FREQUENCY RESPONSE:	20 Hz - 20 KHz (-2, -0.5 dB), microphone input, 35 dB gain.
NOISE:	128 dBu (E.I.N.), -82 dBu in the L-R output with master to unity gain & 24 channels assigned.
MIC GAIN (pad off):	82 dB to L-R, 92 dB to L-R from one group, 82 dB to group & 84 dB to auxiliary output.
LINE GAIN (pad on):	52 dB to the L-R output, 52 dB to the group output, 54 dB to aux. output.
CROSSTALK:	-85 dB between groups (1 KHz), -85 dB between adjacent channels (1 KHz).
INPUT CH. EQUALISER:	+/- 15 dB HF - Peaking/Shelving (SHV only on STO ch) 1KHz - 20 KHz. +/- 15 dB MID1 - Full parametric 400 Hz - 8 KHz // Q: 0.5 - 3. +/- 15 dB MID2 - Full parametric 100 Hz - 2 KHz // Q: 0.5 - 3. +/- 15 dB LF - Peaking/Shelving (SHV only on STO ch) 30 Hz - 600 Hz.
INPUT CHANNEL HPF:	Continuously variable, 12 dB per octave 20 Hz - 400 Hz.
AUXILIARY EQUALISER:	8 bands full parametric/shelving digital equaliser. Propagation delay 1,4 ms +15/-30 dB; 20 Hz - 20 KHz // Q: 0,1 - 10
VUMETERS:	24 bargraph (16 points) - 4 moving coil (L-C-R-PFL) - Graphic colour lcd display.
POWER SUPPLY:	+17, -17, +12, +48 VDC 600 Watts. Connector for redundancy.
OPTIONS:	Input channel transformer. Lamps. Flight Case. Output transformer.

INPUT CHANNEL EQUALIZER CURVES



E3 Monitor

Applications includes on-stage live monitoring and hybrid technics. In Ear Monitoring plus wedge is a fact thanks of its 27 total auxiliaries. Helpful tools like digital parametric EQ, to cancel out stage feedbacks and DYNAMIC section for an extra IEM hearing protection are included. E3 Monitor operates also as FOH, thanks to the aux 17 to 24 sends to LRC main busses, creating virtual groups.

All the E-3 FOH version features and more:

- FRAMES 36,44 and 52 mono CH
- MONO INPUT CHANNEL STRIP
- EXCELENT BB™ MIC-AMP
- 4 FULL PARAMETRIC EQ POINTS+var HPF (LF,HF peak/shelving)
- **CABLE TEST** feature in all input channels
- **8 VCA, 8 MASTER MUTE**
- 100 mm ALPS K fader
- **16, EQ (8 band parametric)+DYNAMICS strip, DSP based (AUX 1-24 , MTX outputs)**

TOTAL 27 AUX count:

- 24 AUXES , Pre/post Fader in pairs
- 8 MONO
- 4 STEREO Switchable to 8 mono
- 4 STEREO
- 3 MIX OUTS: L-C-R

24 Aux/ Matrix Section

STEREO AUX



MATRIX



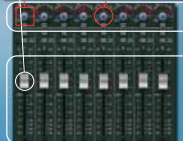
MONO AUX



MONO/ST AUX



PARAMETRIC EQ



Free/Q of each band

Gain of each band



CABLE TEST feature



EQUIPOS EUROPEOS ELECTRÓNICOS, S.A.L.

Avda. de la Industria, 50 • 28760 TRES CANTOS - MADRID - (SPAIN)

Tel.: +34 91 804 32 65 - Fax: +34 91 804 43 58 • e-mail: altair@altairaudio.com

www.altairaudio.com

