EAGLE

BROADCAST AUDIO MIXER

The Eagle On-Air Mixer is of true modular design and construction based on 6 different plug-in removable active modules and passive backplane boards mounted in the chassis. It features a choice of balanced stereo line inputs, balanced microphone inputs and multiple telephone inputs with 1 stereo plus 4 mono mix minus buses. AES-EBU digital input and output options are also available.

Several sizes of chassis are available to order, with standard 12 and 16 input versions available, and options from 8 to 30 inputs including split configuration and script space versions. The chassis is designed in an attractive low profile protruding only 100 mm below and 85 mm above the desk top. It is solidly constructed from welded steel, painted Anotec dark grey and enhanced by polished timber end trim strips crafted from unique West Australian Sheoak. A hinged riser cowl located at the rear of the modules gives access to all input, output and control connections.

The Eagle Mixer is designed for quick and easy installation. All input, output and control connections are available on removable screw terminals with some duplicated on RJ-45 connectors. Cable access holes are provided below table height, right across the back of the chassis with a generous amount of lacing bars to secure the cabling.

Most of he Eagle's function settings are PC configurable. The stereo and auxiliary mix minus bus, monitor mute control bus, on air light relay, machine start relay (plus many more) can be turned on and off, assigned to any channel and to the Program or Audition bus via PC. The mixer configuration can be stored as a profile and up to three profiles can be stored.

The riser features are fully customisable. Available are 2 banks of High Level Selectors, Cue Speaker, Clock/Timer, LED or Analog VU Meter Display, Monitor Select Switch Bank, Anunciator Display and On Air Delay Controller.

MAIN FEATURES

- Choice of Balanced Microphone, Balanced Stereo Line, Digital SPDIF/AES-EBU Inputs
- Optional Digital AES-EBU Output
- Dual Bus Balanced Stereo Outputs
- 1 Stereo Plus 4 Mono Mix Minus Buses
- Low profile design
- Easy to setup and maintain, Australian Made
- PC configurable settings
- Customisable Riser
- LED VU Meters - SMPTE Clock/Timer
- Cue Speaker - Mimic Indicators
- Comprehensive Monitor Facilities
- 9 Point Studio to Studio Intercom
- Connections by Pluggable Terminals and RJ45 sockets

The Eagle Mixer is based on 6 different Plug-In Modules and Sub Assemblies

- EIN-301 Input Module
    - EMI-301 Microphone Input Board
    - EAI-301 Balanced Line Analog Stereo Input Board
    - EDI-301 AES-EBU Digital Input Board
- EAI-301 Balanced Line Analog Stereo Input Board
- EMO-301 Master Line Output Module
- EMC-301 Monitor Control Module
- EHC-301 Headphone Control Module
- ECC-301 Cue Control Module
- ETB-301 Talkback Module
- Blank module for custom functions

EIN-301 Input Module

The EIN-301 is the base module used for Microphone, Balanced Line Analog Stereo and Digital Line Inputs. Three different Input Boards are available to customise the basic EIN-301 Module.

EIN-301 Base Module

- Penny and Giles Conductive Plastic Fader
- Silent Click Free Audio Switching to Outputs
- High Quality LED Illuminated E.A.Olten Channel On-Off and Cue Switches
- Manual LED Illuminated Selector Switches for Stereo Program and Audition Buses
- Programmable Switching to Stereo Auxiliary, Mono Auxiliary 1. 2. 3 and 4 Buses, and Telephone Mix Minus Bus
- Mono Cue Bus, Mic Cleanfeed Bus, Setup Data Bus Input
- Module Address DIP Switch

EMI-301 Microphone Input Board (Sub assembly)

- 48V DC Microphone Phantom Power Supply
- Low Noise Balanced Line Microphone Pre-Amplifier
- Coarse Input Gain Control Links to make the EMI-301 suitable for any type of conventional Microphone
- Switchable LF Cut
- Rotary Gain Control Potentiometer
- Limiter with LED Indicator and On-Off Switch
- Floating Start-Stop Relay Contacts
- Cough Mute Input , Remote On Off Input

EIA-301 Balanced Line Analog Stereo Input Board (Sub assembly)

- Balanced Line Analog Stereo Inputs
- Sufficient gain to accept Unbalanced -10 dBu Hi-Fi Level
- Stereo to Mono Link
- Left Input Mono Link
- Gain Control Pre-Set Potentiometers accessible from the terminal compartment without having to remove module
- Floating Start-Stop Relay Contacts
- Remote On-Off switching through Opto Inputs

EDI-301 AES-EBU Digital Input Board (Sub assembly)

- Transformer Balanced Input
- Accepts 16, 20 and 24 Bit Digital Signal
- Accepts 32, 44.1, 48 and 96 KHz Sample Rates
- Gain Control Pre-Set Potentiometers accessible from the terminal compartment without having to remove module
- Floating Start-Stop Relay Contacts
- Remote On-Off switching through Opto Inputs
- SPDIF and Optical inputs

CONTROL MODULES

EMO-301 Master Line Output Module

- 10 Mixing Bus Summing Amps with Gain Pre-Set Potentiometers
- Buffer Amplifiers and Balanced Line Output Amplifiers
- Buses are Program Left and Right, Audition Left and Right, Stereo Aux Left and Right and Mono Aux 1 to 4
- Sum and Buffer Amplifiers are Surface Mount
- Line Amplifiers are Plug-In type for easy replacement in case of accidental damage

EMC-301 Monitor Control Module

- Balanced Stereo Inputs from Program, Audition and External Monitor Selector
- Silent Audio Input Source Switching
- Mono Check Switch
- Penny and Giles Conductive Plastic Fader
- Monitor Dim and Monitor Mute Switches
- Balanced Line Output to Monitor Amplifier
- Feed to Announcers Headphone Module
- Balanced Line VU Meter Feed with Programmable Source Selection and Impedance selection links
- Setup Data Bus Input
- Interlock Bus Inputs

EHC-301 Headphone Control Module

- Presenters and Guest Headphone Control
- Presenters Program Feed same as selected for Monitoring
- Headphone Program Volume Control via VCA and Rotary Digital Encoder Switch

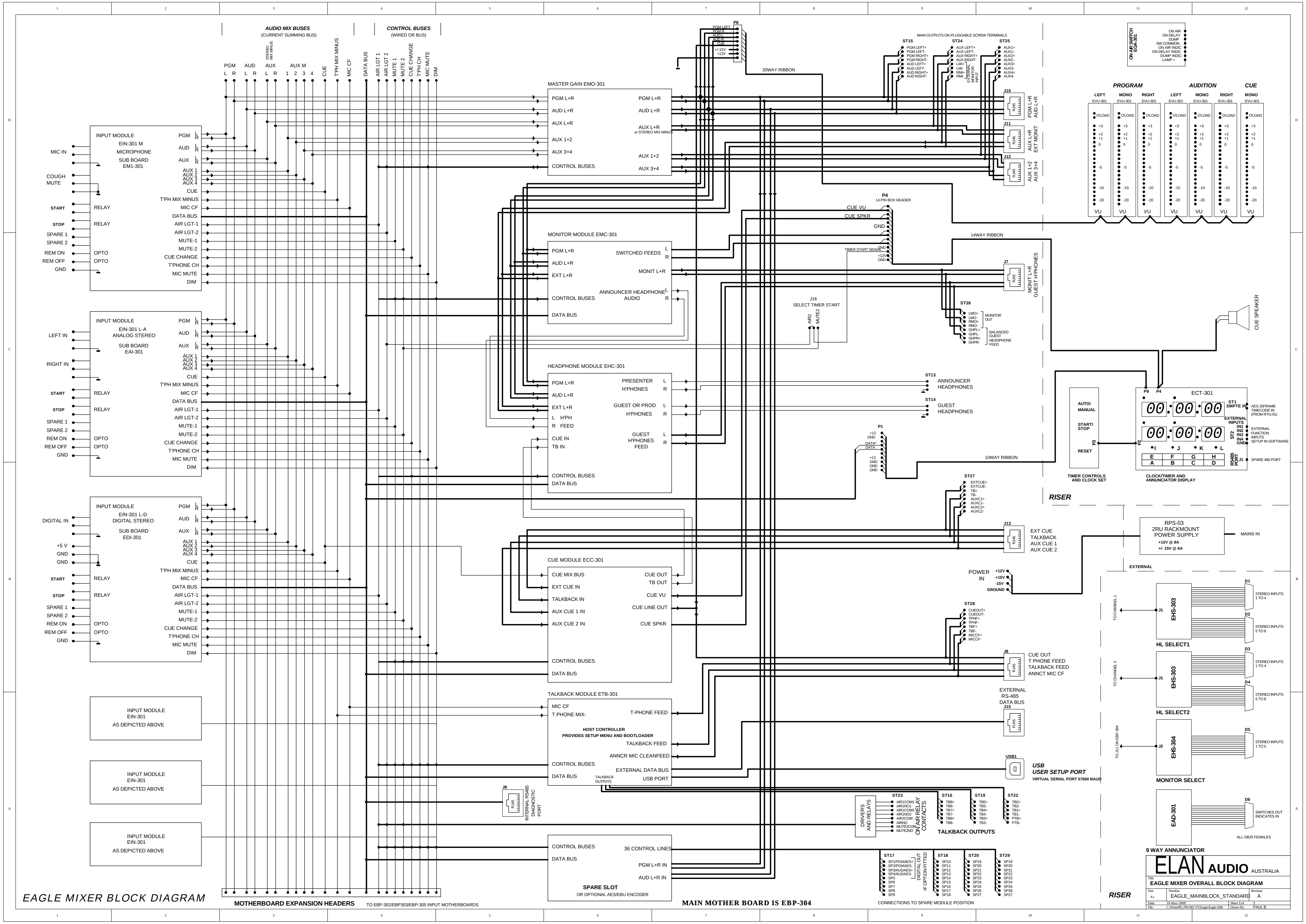
- Split Cue System, Cue Signal to Presenters Right Headphone with Program Muted, Talkback to Right Headphone, VOX controlled Program Muting
- Presenters Headphone Amplifier
- Guest Headphone Input selectable from Program Output
- Audition Output and selected external monitor source
- Main Guest Headphone facilities identical to Presenters
- Balanced Line Level Stereo Guest Headphone output following Guest Headphone source selection suitable to feed additional Guest Headphones through external Headphone Amplifiers
- Setup Data Bus Input
- Interlock Bus Inputs

ECC-301 Cue Control Module

- Cue Bus Summing Amplifier
- External Cue Input from optional External Cue Selector Switch
- Selector Switches for Internal Cue Bus or External Cue Selection
- Balanced Cue Line Output and Cue VU Meter Feed
- Unbalanced Cue Feed to Headphone Control Module
- Cue Loudspeaker Volume Control via VCA and Rotary Digital Encoder Switch
- Balanced Line Level Talkback, Aux-1 Cue and Aux-2 Cue Inputs with conventional Volume Control Potentiometers
- Movable Links to prevent Talkback and Aux Cue Inputs from being turned completely off
- Click-Free Cue Speaker Mute and “Dim” Switches
- Cue Loudspeaker Amplifier
- Talkback and Aux Cue Feed to Headphone Module
- Programmable Muting of Aux Cue 1 and 2
- Setup Data Bus Input
- Interlock Bus Inputs

ETB-301 Talkback Module

- Presenters Microphone Summing Amplifier
- Balanced Line Presenters Microphone Clean Feed and Talkback Feeds
- Telephone Mix Minus Bus Summing Amplifier
- Click Free Switching between Presenters Microphone and Telephone Mix Minus
- Balanced Line Telephone Hybrid Feed
- Producer Talkback and 8 General Talkback Switches
- 3 Special Switches, Special Function, Screen Step and Activate to control Profiles
- Data Setup Bus Input
- Interlock Bus Inputs
- Host Controller, USB interface, bootloader and Menu server



EAGLE MIXER BLOCK DIAGRAM
AUDIO MIX BUSES
(CURRENT SUMMING BUS)
CONTROL BUSES
(WIRED OR BUS)
PGM
AUD
AUX
AUX M
CUE
T'PH MIX MINUS
MIC CF
DATA BUS
AIR LGT 1
AIR LGT 2
MUTE 1
MUTE 2
CUE CHANGE
T'PH CH
MIC MUTE
DIM
INPUT MODULE
EIN-301 M
MICROPHONE
SUB BOARD
EM1-301
MIC IN
COUGH
MUTE
START
STOP
SPARE 1
SPARE 2
REM ON
REM OFF
GND
RELAY
OPTO
INPUT MODULE
EIN-301 L-A
ANALOG STEREO
SUB BOARD
EAI-301
LEFT IN
RIGHT IN
INPUT MODULE
EIN-301 L-D
DIGITAL STEREO
SUB BOARD
EDI-301
DIGITAL IN
+5 V
INPUT MODULE
EIN-301
AS DEPICTED ABOVE
MASTER GAIN EMO-301
PGM L+R
AUD L+R
AUX L+R
AUX 1+2
AUX 3+4
CONTROL BUSES
MONITOR MODULE EMC-301
EXT L+R
SWITCHED FEEDS
MONIT L+R
ANNOUNCER HEADPHONE
AUDIO
DATA BUS
HEADPHONE MODULE EHC-301
PRESENTER
H'PHONES
GUEST OR PROD
GUEST
H'PHONES
FEED
CUE IN
TB IN
CUE MODULE ECC-301
CUE MIX BUS
EXT CUE IN
TALKBACK IN
AUX CUE 1 IN
AUX CUE 2 IN
CUE OUT
TB OUT
CUE VU
CUE LINE OUT
CUE SPKR
TALKBACK MODULE ETB-301
MIC CF
T PHONE MIX-
T-PHONE FEED
HOST CONTROLLER
PROVIDES SETUP MENU AND BOOTLOADER
TALKBACK FEED
ANNCR MIC CLEANFEED
EXTERNAL DATA BUS
USB PORT
TALKBACK OUTPUTS
36 CONTROL LINES
PGM L+R IN
AUD L+R IN
SPARE SLOT
OR OPTIONAL AES/EBU ENCODER
MOTHERBOARD EXPANSION HEADERS
TO EBP-302/EBP303/EBP-305 INPUT MOTHERBOARDS
MAIN MOTHER BOARD IS EBP-304
20WAY RIBBON
14WAY RIBBON
10WAY RIBBON
MAIN OUTPUTS ON PLUGGABLE SCREW TERMINALS
P4
14 PIN BOX HEADER
CUE VU
CUE SPKR
GND
TIMER START SIGNAL
J16
SELECT TIMER START
MONIT L+R
GUEST H'PHONES
MONITOR OUT
BALANCED GUEST HEADPHONE FEED
ANNOUNCER HEADPHONES
GUEST HEADPHONES
CUE SPEAKER
EXT CUE
TALKBACK
AUX CUE 1
AUX CUE 2
POWER IN
CUE OUT
T PHONE FEED
TALKBACK FEED
ANNCT MIC CF
EXTERNAL
RS-485
DATA BUS
USB
USER SETUP PORT
VIRTUAL SERIAL PORT 57600 BAUD
INTERNAL RS485 DIAGNOSTIC PORT
DRIVERS AND RELAYS
ON AIR RELAY CONTACTS
TALKBACK OUTPUTS
DIGITAL OUT IF OPTION FITTED
CONNECTIONS TO SPARE MODULE POSITION
ON AIR SWITCH
EAS-301
PROGRAM
AUDITION
CUE
LEFT
MONO
RIGHT
VU
AUTO/
MANUAL
START/
STOP
RESET
TIMER CONTROLS
AND CLOCK SET
ECT-301
CLOCK/TIMER AND
ANNUNCIATOR DISPLAY
AES 25FRAME TIMECODE IN (FROM RTG-01)
EXTERNAL FUNCTION INPUTS SETUP IN SOFTWARE
SPARE 485 PORT
RISER
RPS-03
2RU RACKMOUNT
POWER SUPPLY
+12V @ 8A
+/- 15V @ 6A
MAINS IN
EXTERNAL
EHS-303
HL SELECT1
HL SELECT2
EHS-304
MONITOR SELECT
EAD-301
9 WAY ANNUNCIATOR
STEREO INPUTS 1 TO 4
STEREO INPUTS 5 TO 8
STEREO INPUTS 1 TO 5
SWITCHES OUT INDICATES IN
ALL DB25 FEMALES
TO CHANNEL 1
TO CHANNEL 2
ELAN AUDIO AUSTRALIA
EAGLE MIXER OVERALL BLOCK DIAGRAM
EAGLE_MAINBLOCK_STANDARD
A
A3
19-May-2008
PAUL B