



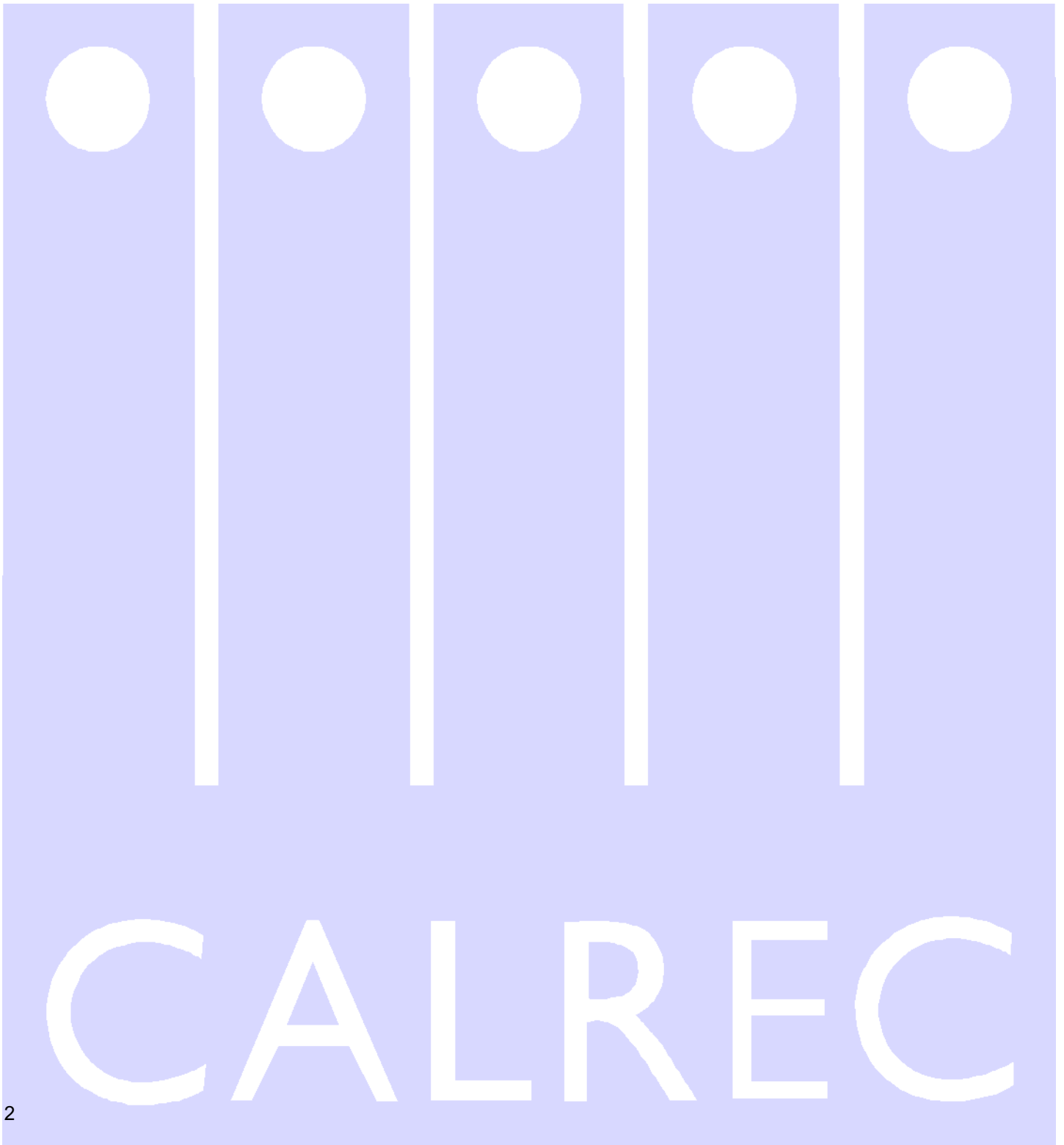
M3

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INTRODUCTION

The Calrec M3 is a high quality, mixing console which provides superior audio and operational performance in a choice of compact packages. It's ease of use makes the M3 ideal for novice operators as well as those who can make full use of the wealth of facilities provided. As with all Calrec products, the M3 has been designed for long life in real world environments, and offers high levels of reliability and excellent return on investment.

By combining sophisticated circuit designs with the latest construction techniques, the M3 provides comprehensive features which meet the increased demands of broadcasters for small format mixers. The M3 fulfils all the requirements of a broadcast mixing console with mix-minus facilities on every channel, stereo and mono auxiliaries, routing to four groups and two main outputs with a comprehensive monitoring system. High input headroom combined with excellent noise figures means there is no sacrifice in audio performance which is so often the result on location, or in space restrictive installations.

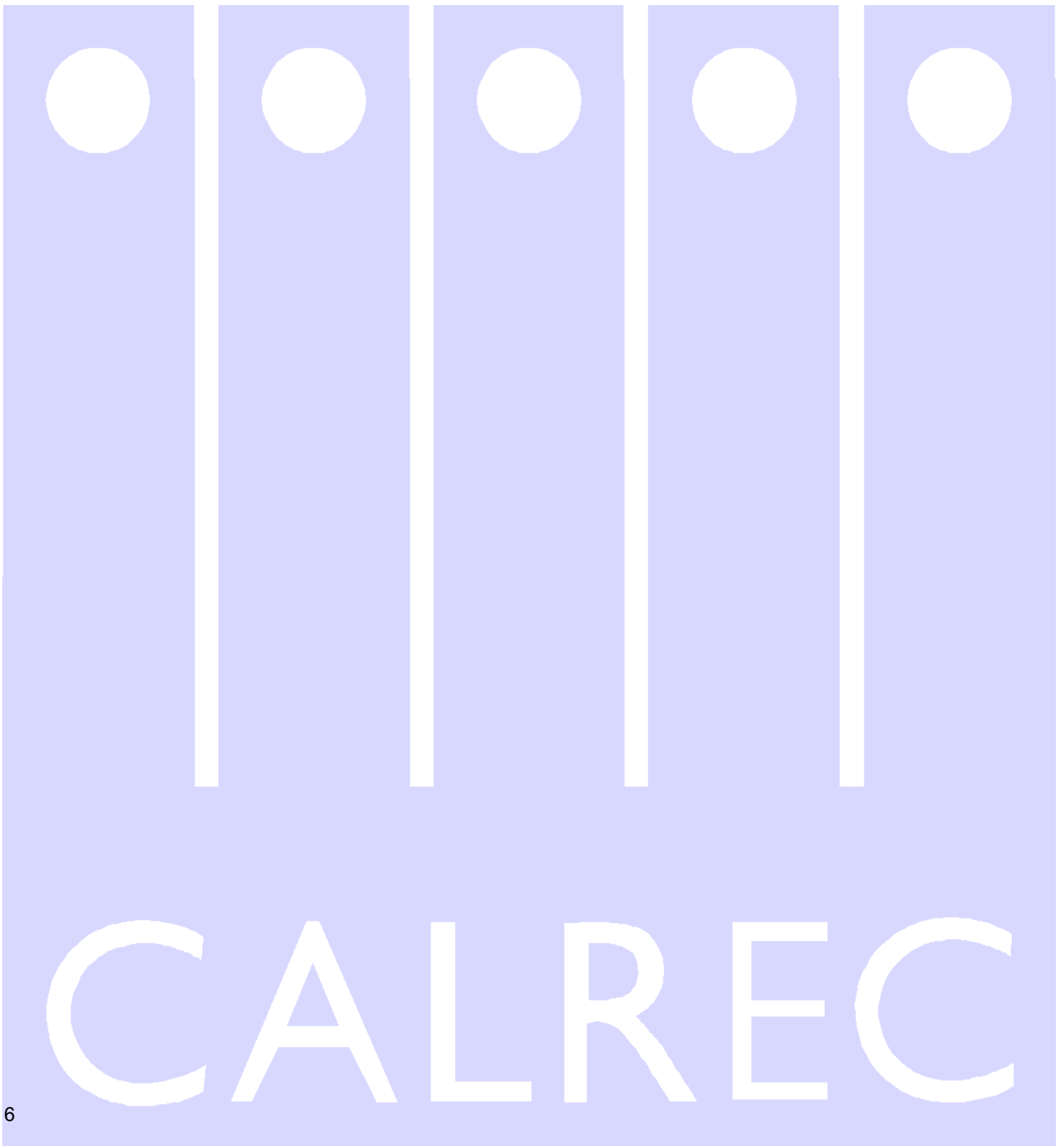
The M3 enables Broadcasters to meet the operational needs required from small installations without compromise and with the highest level of confidence in performance and reliability.

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PRINCIPLE FEATURES

- Available in three frame sizes
- Up to 10 Channels in the small frame
- Up to 24 Channels in the medium frame
- Up to 38 Channels in the large frame
- Optional 'Meter' Bridge Frames
- Dual Mono, Stereo Mic or Stereo Line Channels
- 3-band equaliser and 2-band filters on all Channel modules
- Individual Channel bargraph level monitoring
- Mix Minus cleanfeed system
- Fader Cue/Start system
- Up to 4 Mono or Stereo Groups
- Mono Groups can be used as a L/R split
- 3 Mono and 1 Stereo Auxiliaries
- 2 Main Stereo Outputs with Dynamics
- Comprehensive Monitoring with external inputs
- Internal or External Power Supply options

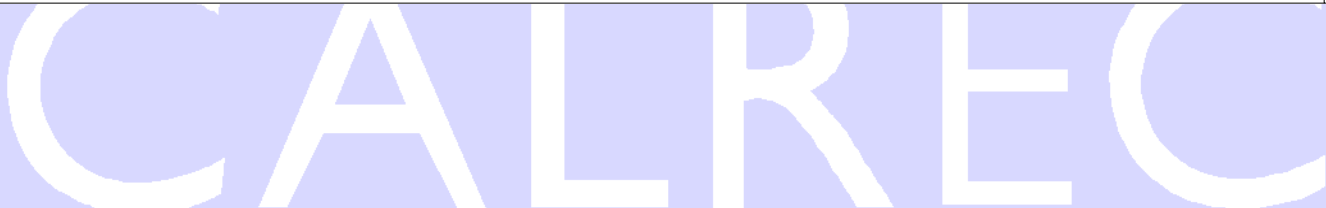
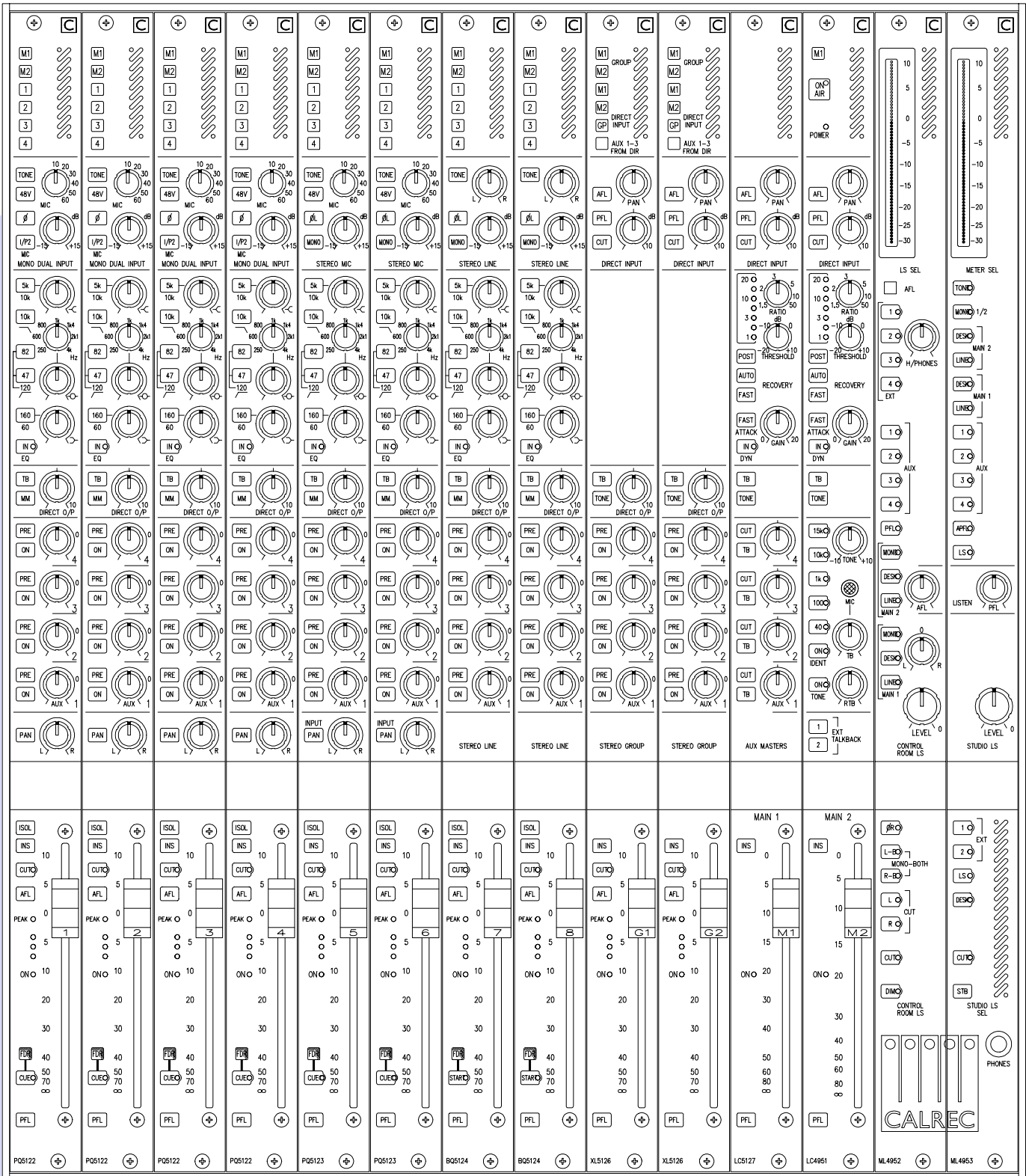
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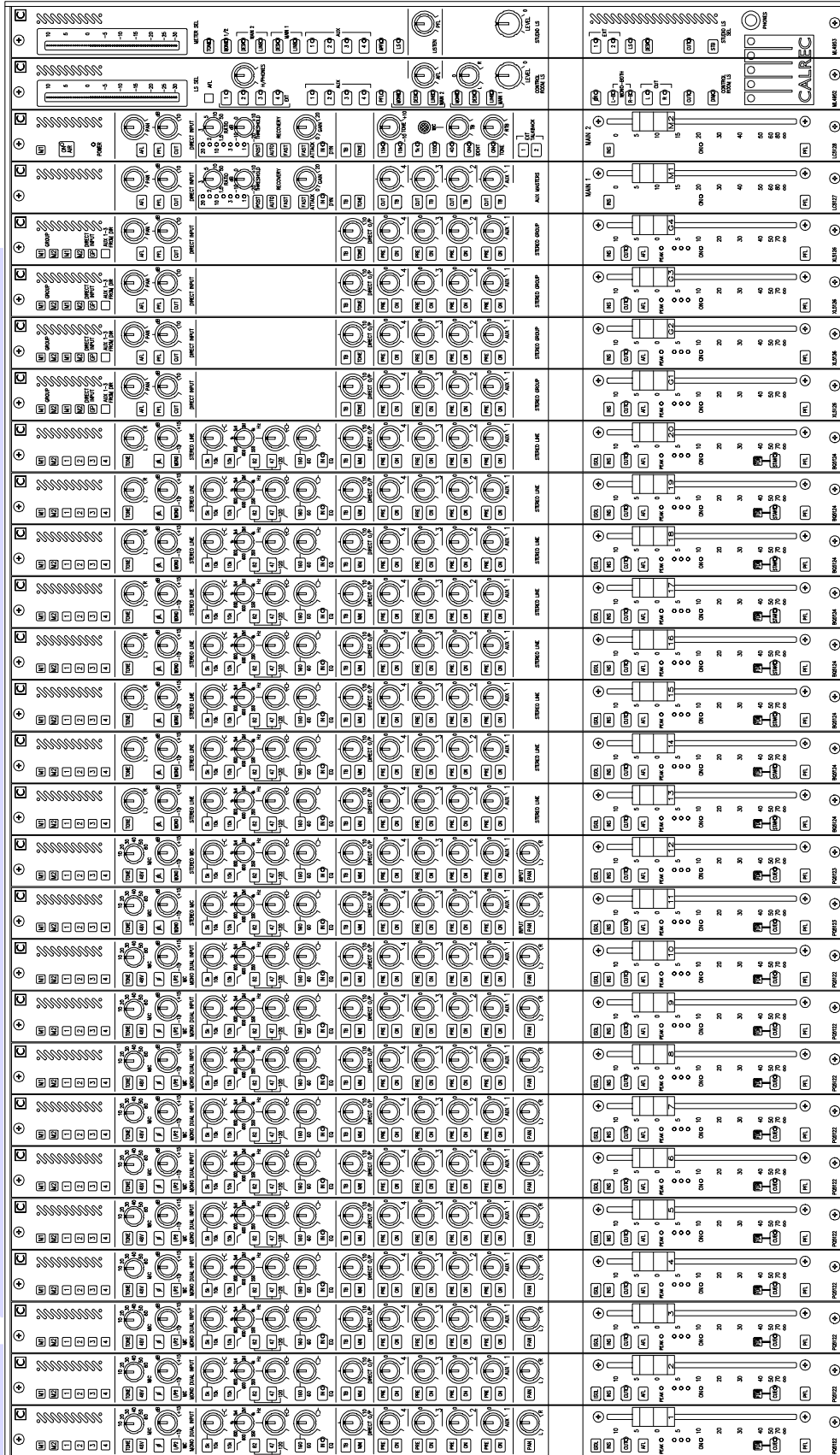
1.0 Layout & Profiles

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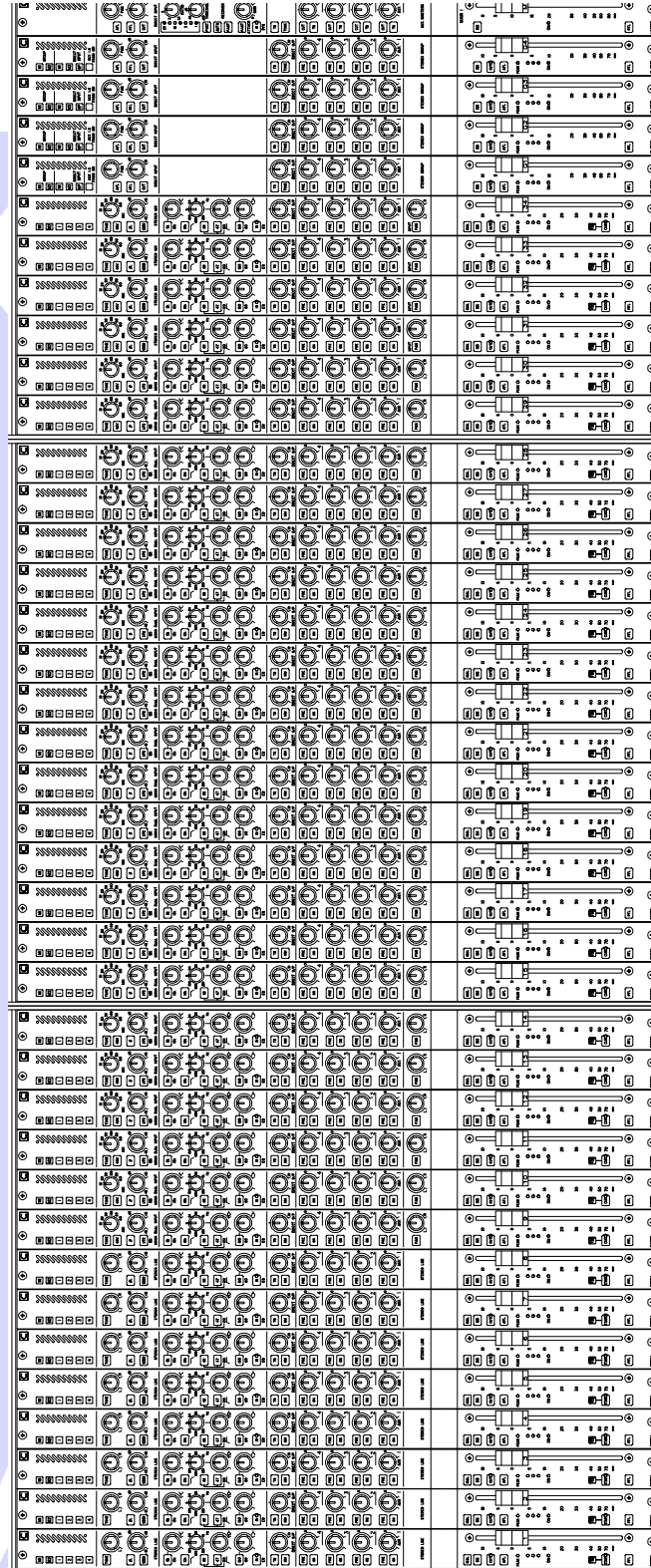
SMALL CHASSIS TYPICAL LAYOUT



MEDIUM CHASSIS TYPICAL LAYOUT

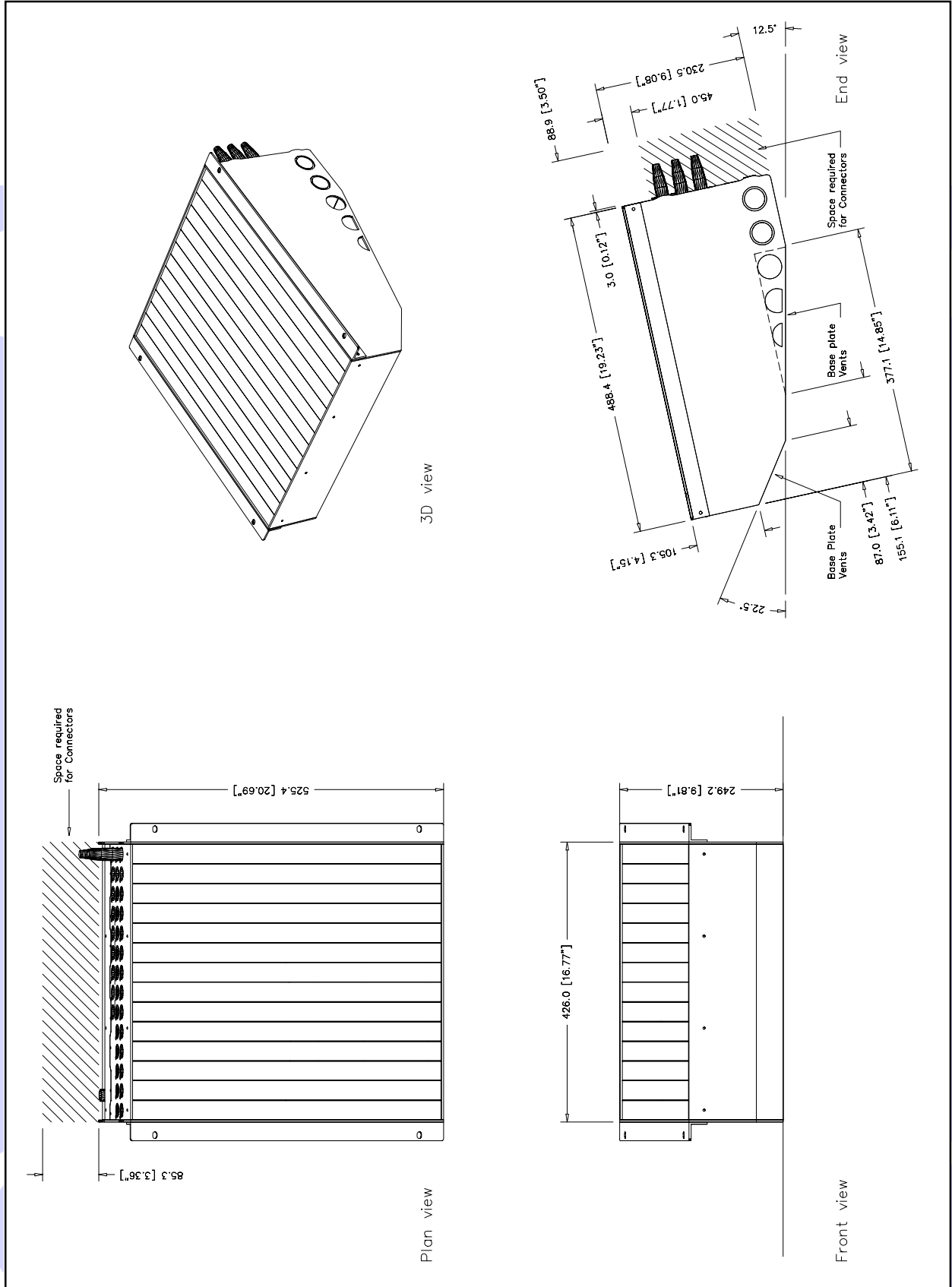


LARGE CHASSIS TYPICAL LAYOUT



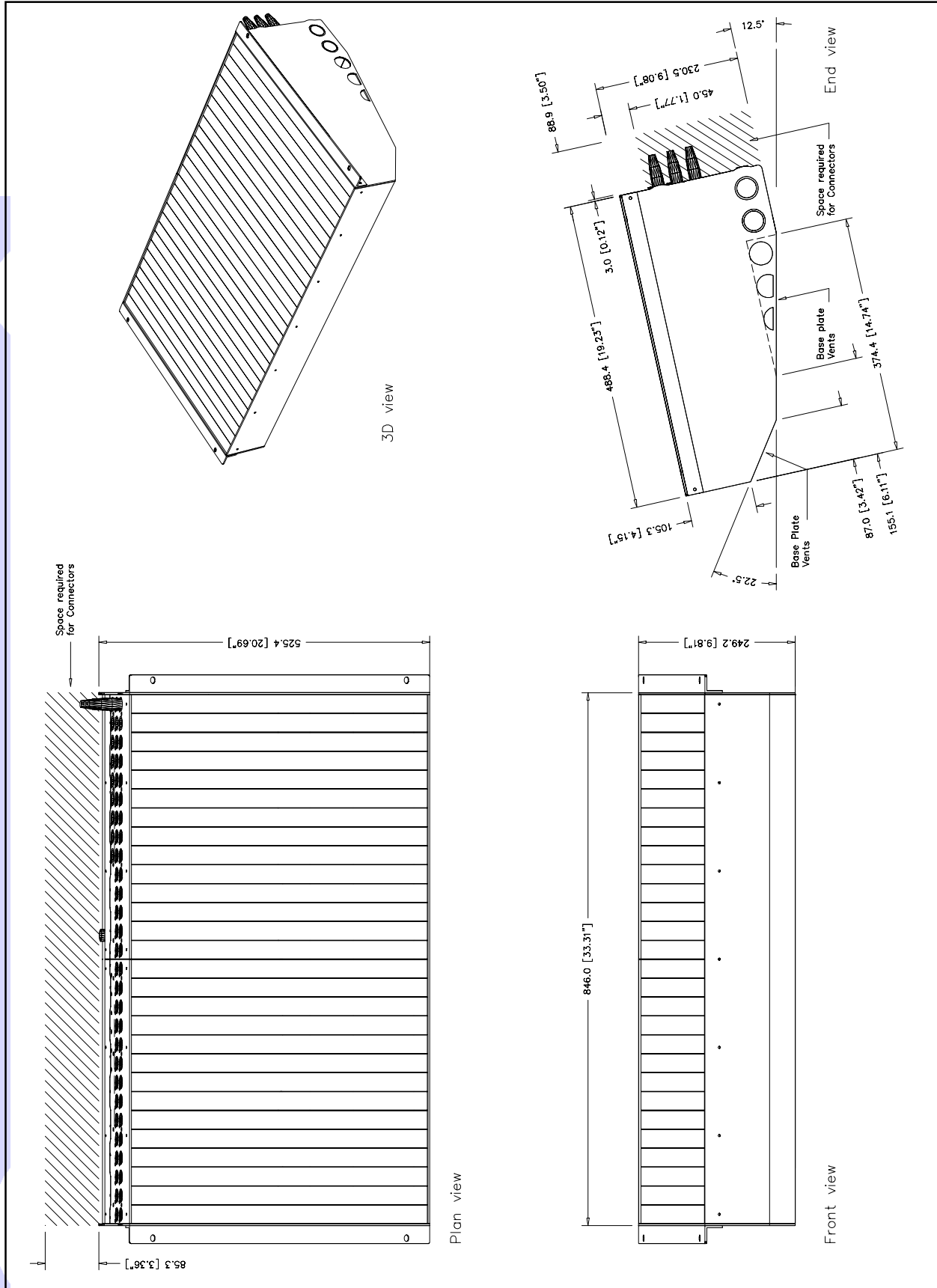
PLAN, ELEVATION AND GENERAL ARRANGEMENT DETAILS

SMALL CHASSIS



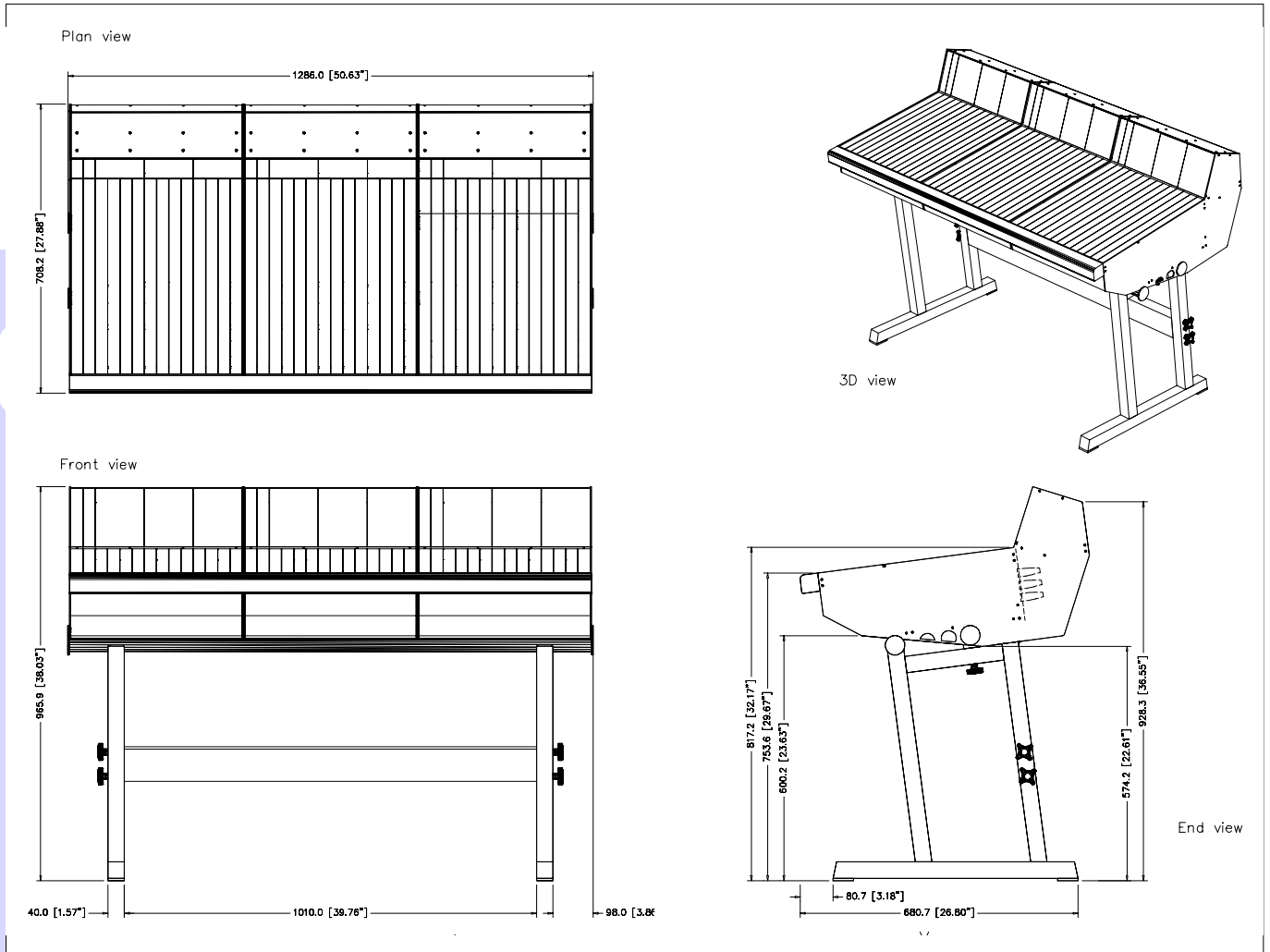
PLAN, ELEVATION AND GENERAL ARRANGEMENT DETAILS

MEDIUM CHASSIS



PLAN, ELEVATION AND GENERAL ARRANGEMENT DETAILS

LARGE CHASSIS

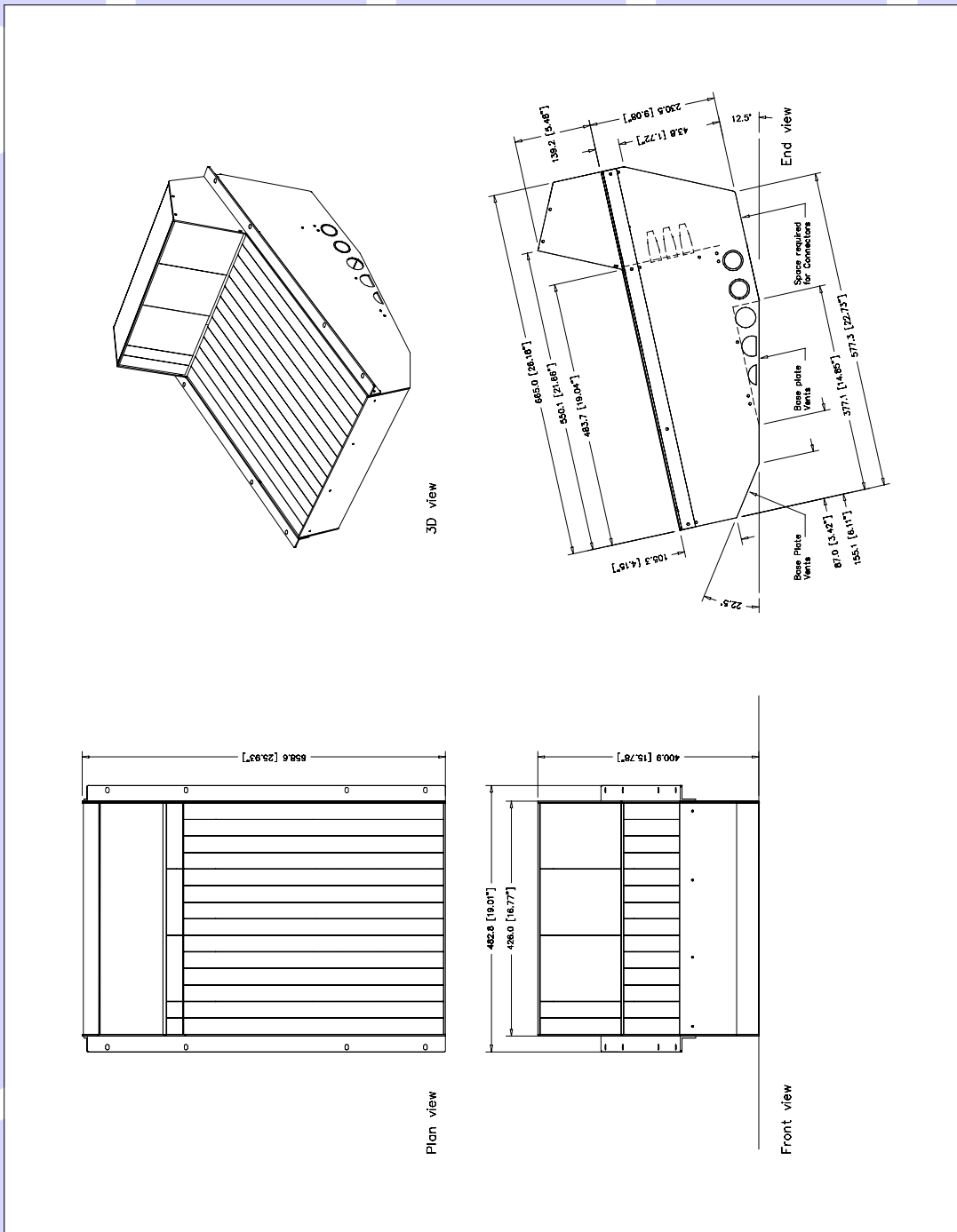


OPTIONAL METER BRIDGE

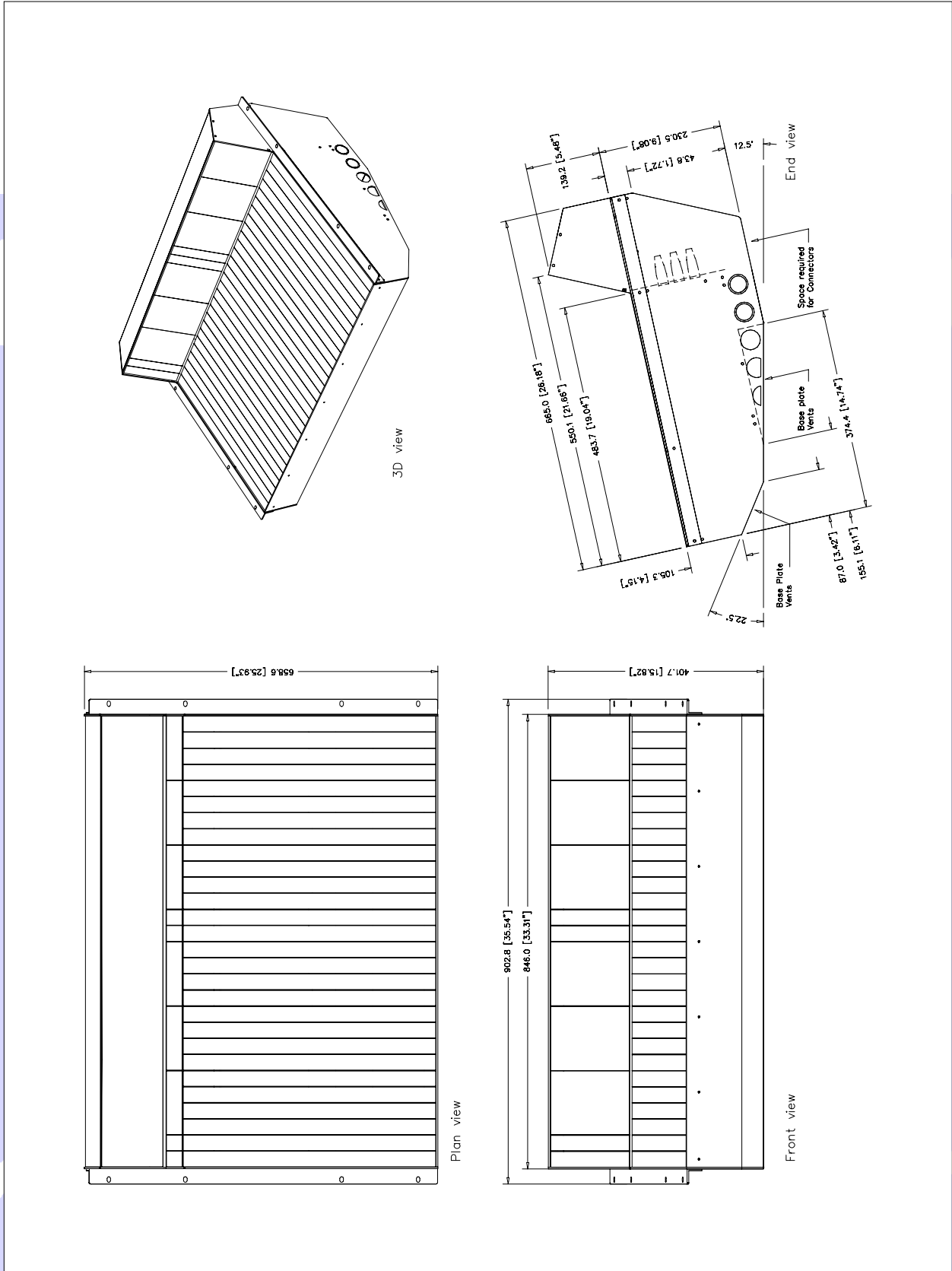
All chassis sizes of the M3 console may be supplied with an optional ‘meter bridge’ which can house a selection of Calrec level meters. These units derive their audio and power interface from the main M3 chassis.

The meter bridge may be specified only at time of order.
Order numbers are:

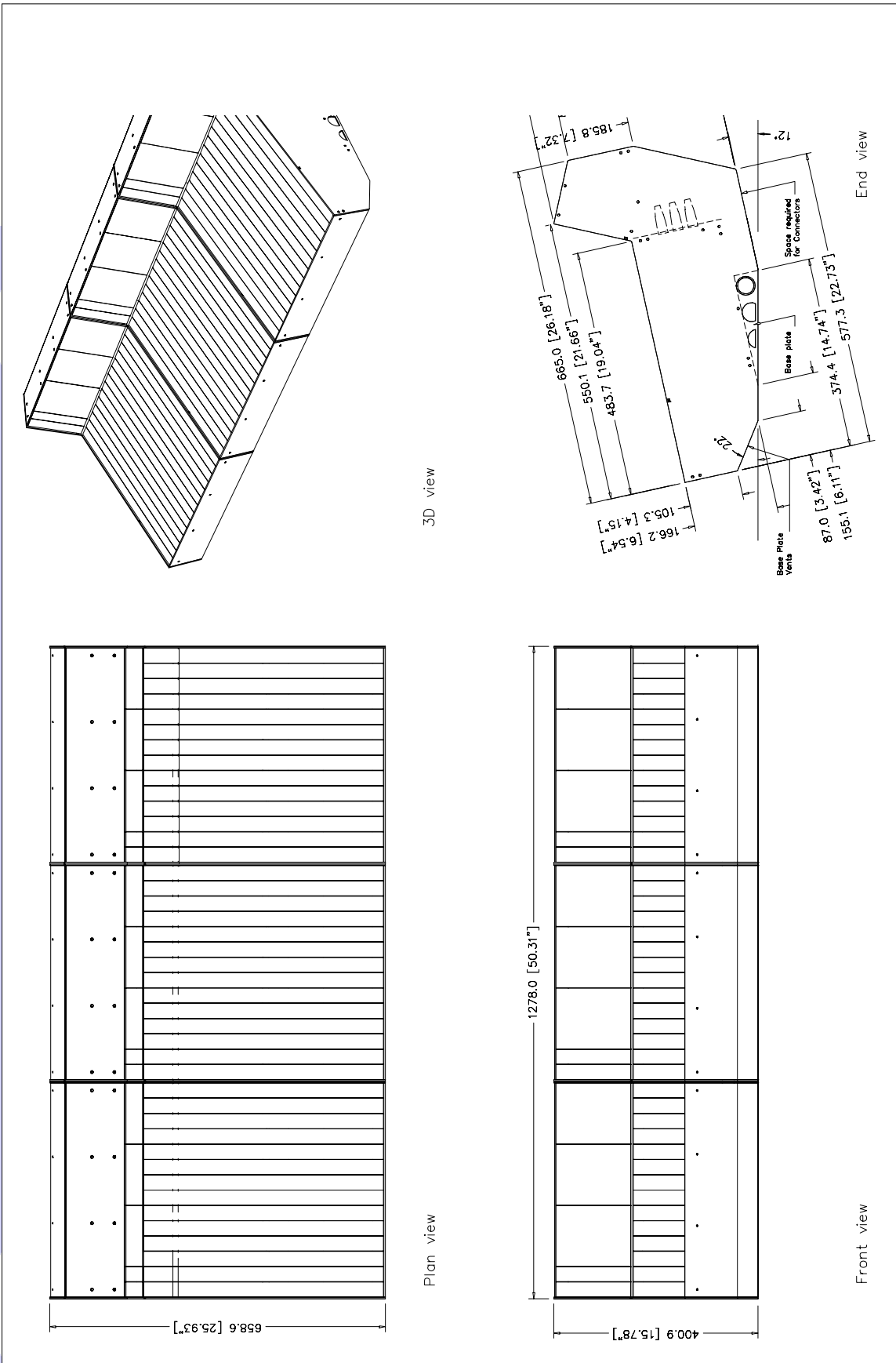
SMALL CHASSIS METER BRIDGE (EM4997)



MEDIUM CHASSIS METER BRIDGE (EM4998)



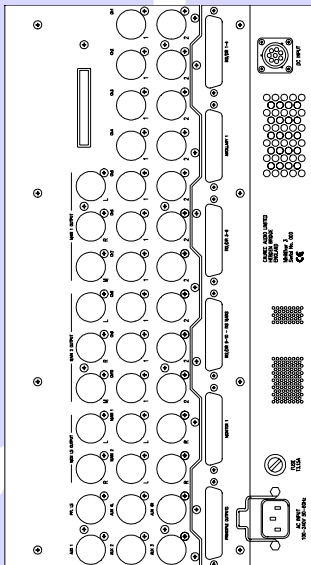
LARGE CHASSIS METER BRIDGE (EM5275)



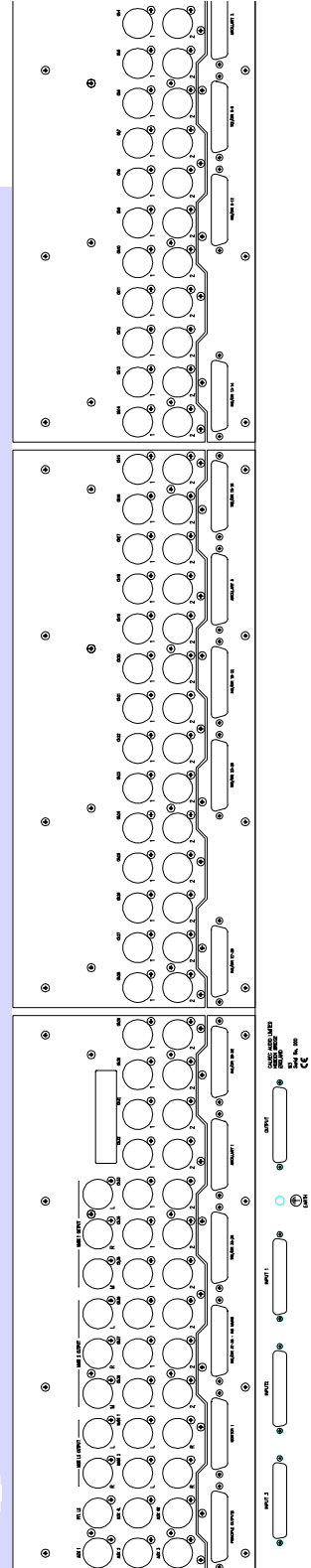
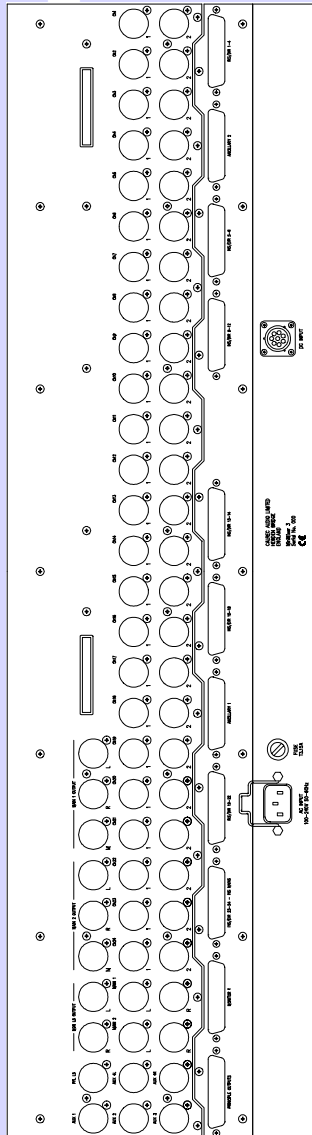
REAR CONNECTOR DETAILS

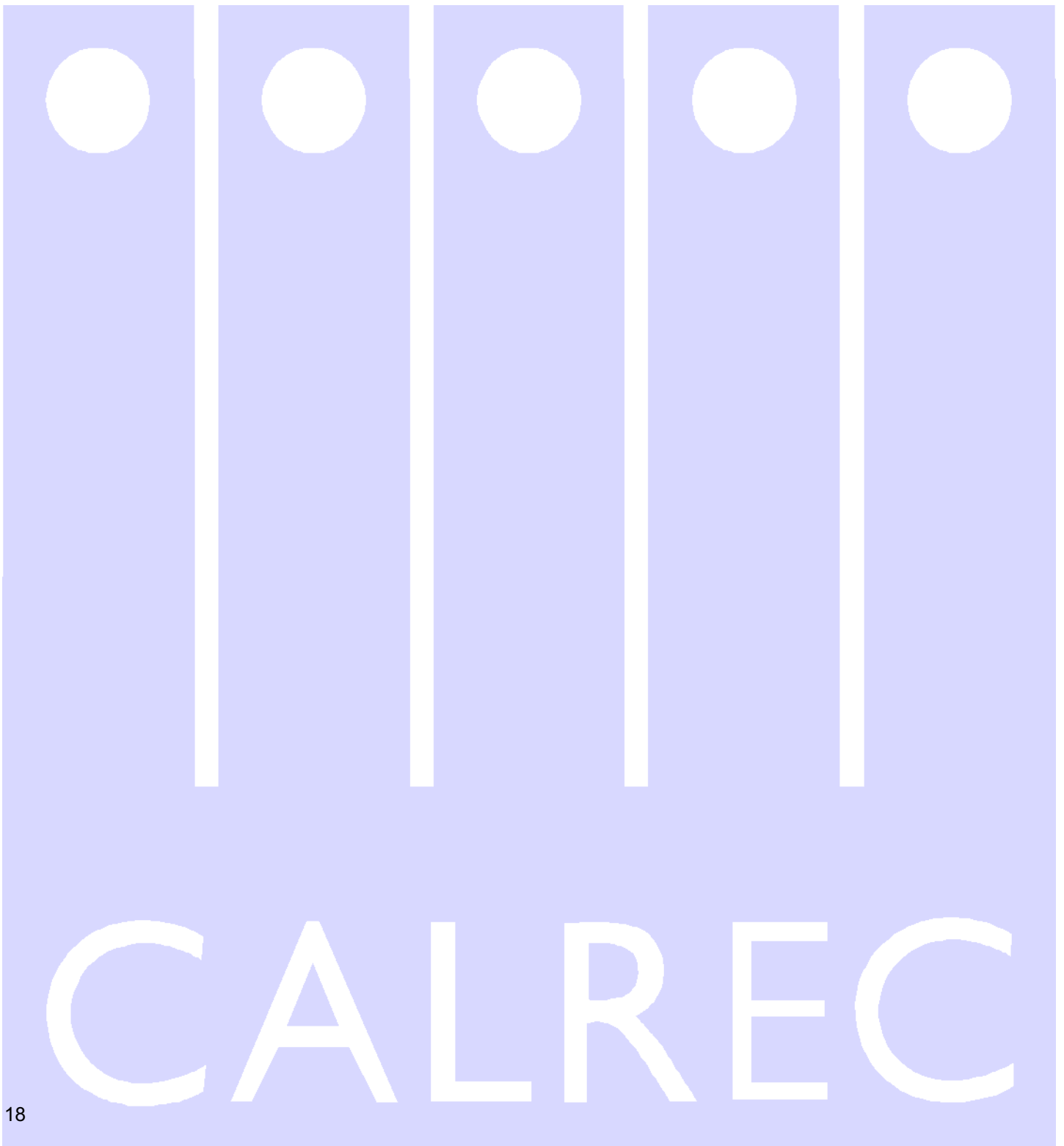
Large Chassis

Small Chassis



Medium Chassis

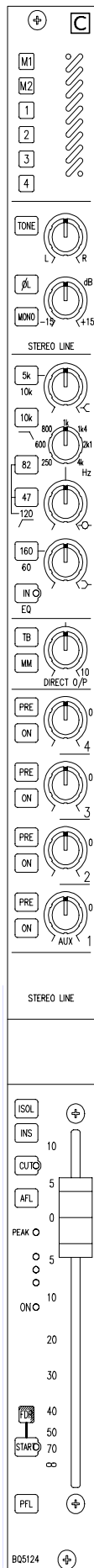




2.0 Modules & Panels Description

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BQ5124 CHANNEL STEREO LINE



- Routing** 2 main stereo outputs and up to 4 mono or stereo groups

- Tone** Red button switches alignment tone to the channel post mic gain control but pre the trim - Inhibited on air.
- L/R** Input balance control. +3/0/off.
- ØL** Phase reverse left leg
- Mono** Switches both inputs to both outputs
- Trim** ± 15dB

- 3 band equaliser**
 - HF shelf ± 15dB at 10kHz or 5kHz (button pressed)
 - MID bell ± 15dB frequency variable from 250Hz to 4kHz
 - LF shelf ± 15dB at 60Hz or 160Hz (button pressed)
 - EQ in/out button (includes filters) red LED

- HF Filter** 1 button : 10kHz
- LF Filter** 2 buttons : 47Hz, 82Hz, both 120Hz

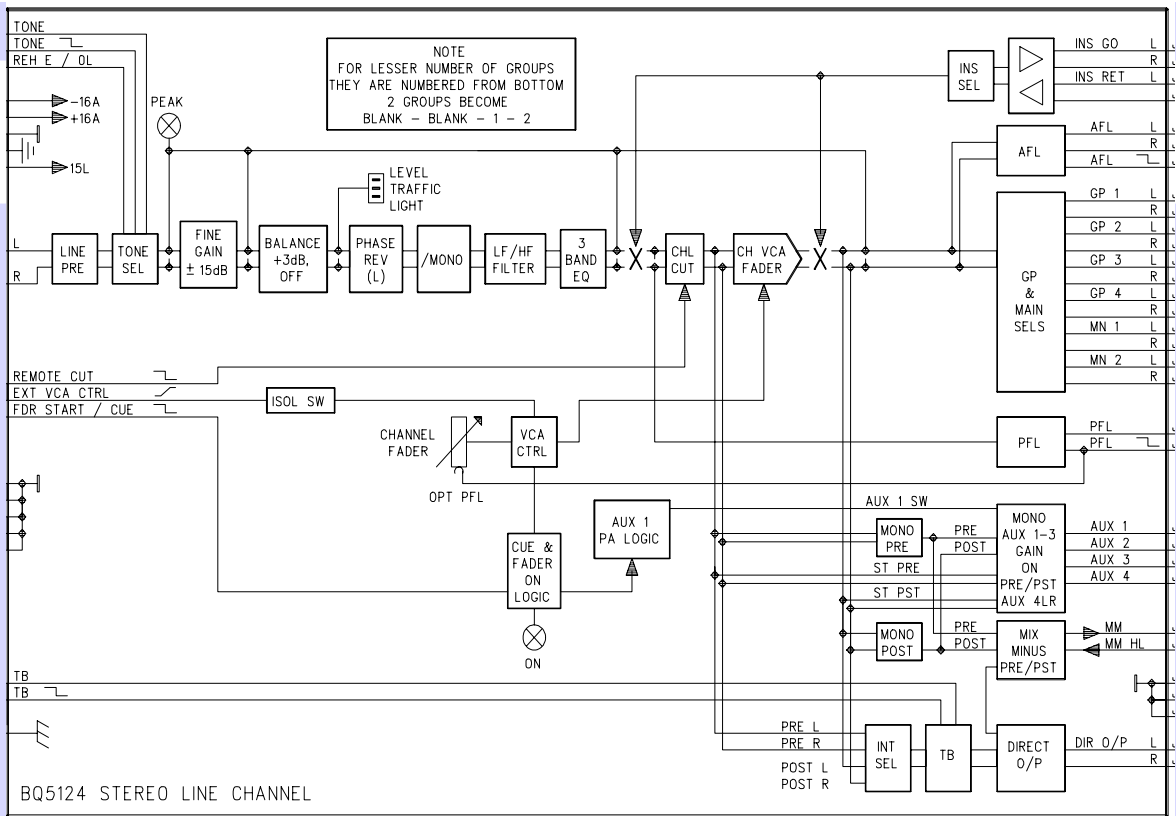
- Direct Output gain control, 10dB in hand (can be internally selected pre or post fader).**
- TB** Talkback button to direct output.
- MM** Push button selects Mix-Minus buss to either the channel direct output or as a channel contribution to a common Mix-Minus buss (both the direct o/p and the MM contribution can be internally selected pre or post fader).

- Aux 4** Stereo output to aux 4 buss, selectable pre or post fader and on/off. Follows channel pan.

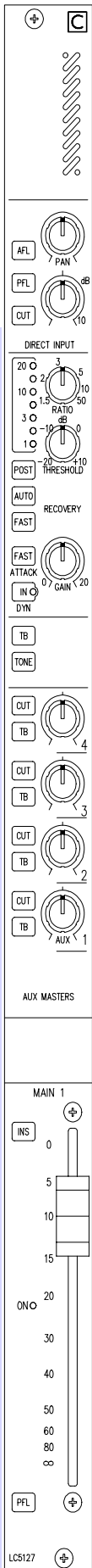
- Aux 1-3** Mono outputs to aux 1 to 3 busses with individual level, pre/post and on/off controls.

- Scribble strip**

- ISOL** Isolates external VCA control.
- INS** Selects insert circuit (pre or post fader or bypassed are internal options)
- CUT** Latching button cuts all pre and post signals except: insert send (if internally selected pre) and PFL, yellow LED.
- AFL** Latching button routes channel left/right signal in Stereo to the AFL mix which is fed to the monitor loudspeakers, automatically over-riding the normal feed.
- Peak** Red LED illuminates when the signal anywhere in the module is within 3dB of clipping.
- 3 LEDs** Bar display shows pre EQ signal level relative to 0dBu.
- ON** Green LED illuminates to show channel fader open.
- FDR** Button fires remote start/cue when fader is open.
- START** Button fires remote start/cue when pressed, green LED.
- PFL** Latching button routes pre-fader channel signal to the small PFL loudspeaker (with internal option to inject into the main monitor chain).
- Fader** With 10dB in hand.



LC5127 MAIN OUTPUT 1 AND AUX MASTERS



Direct AFL Latching button routes direct input after fader signal exclusively to monitor loudspeaker.
Direct PFL Latching button routes direct input pre fader signal to small PFL loudspeaker.
Direct CUT Latching button cuts direct input signal.
Direct PAN Control pans Stereo direct input signal
Direct level Control sets direct input signal level, 10dB in hand.

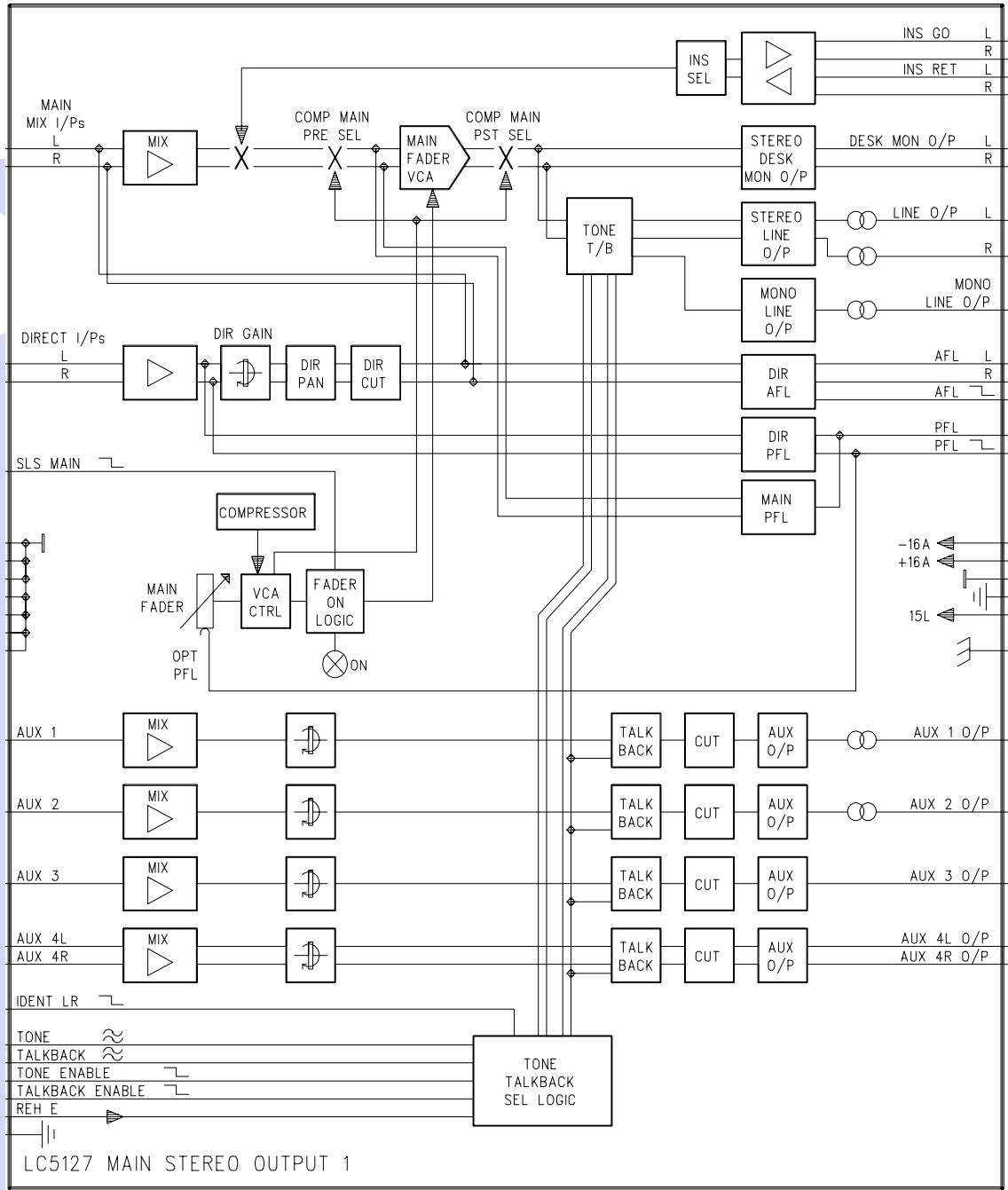
Main output Compressor, may be used as a Limiter (50:1 ratio) 20dB Gain reduction, Yellow LEDs.
 Normally pre fader can be set POST fader (with button pressed).
RECOVERY AUTO Sets recovery to between 0.1 to 1.5 secs, programme dependant.
RECOVERY FAST Changes recovery time from 1 secs to 75ms (overridden by AUTO button)
ATTACK Normal 4ms @ 5:1 ratio or FAST 0.2ms @ 5:1 ratio
Dynamics IN button Red LED.
RATIO 1.5 to 50:1 variable control.
THRESHOLD -20 to +10dBu, variable control.
GAIN make-up 0 to +20dB variable control.

TB Talkback momentary button, inoperative ON AIR.
TONE latching button Inoperative ON AIR.

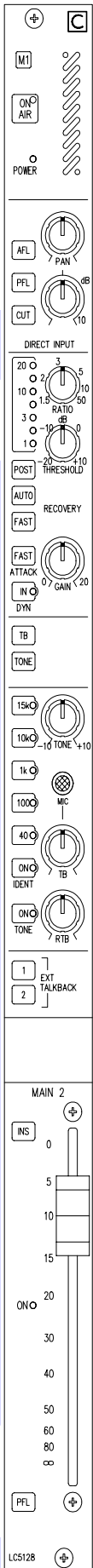
Aux 1-4 Output level controls +10dB in hand.
 Output CUT buttons.
 TB Talkback buttons (momentary).

Scribble Strip

INS Insert button - Selects main output insert (pre fader).
ON Green LED Illuminates when fader is open.
PFL Latching button routes main output pre fader signal to small PFL loudspeaker.
FADER With 0dB in hand.



LC5128 MAIN OUTPUT 2 AND TONE TALKBACK



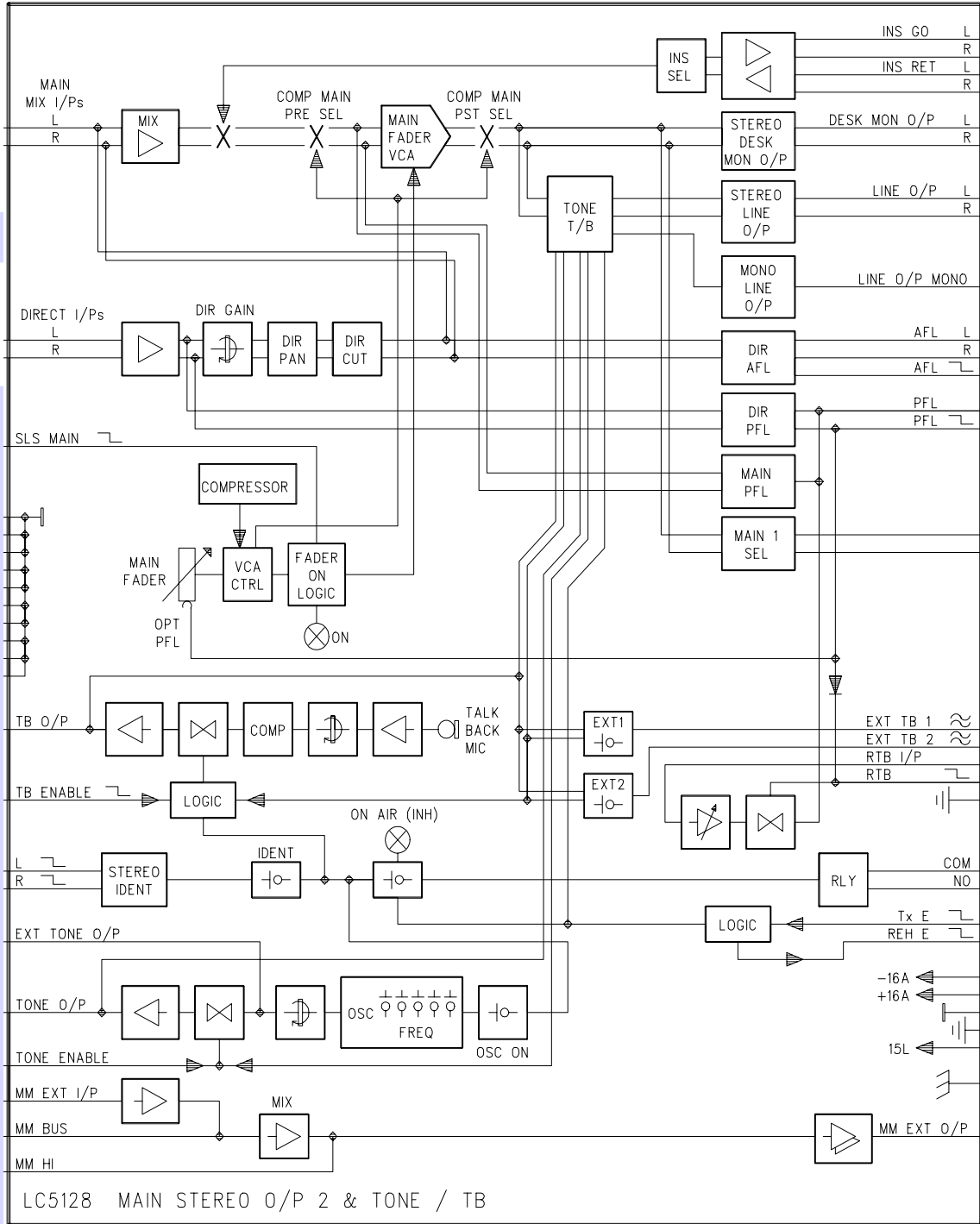
- M1** Routes to Main 1.
- ON AIR** Pushbutton with red LED. Inhibits tone and talkback within the console and closes relay contact for interface to other areas.
- POWER** Red LED flashes to indicate a failure of either the PSU or the fan (if fitted).
- Direct AFL** Latching button routes direct input post fader, exclusively to monitor loudspeaker.
- Direct PFL** Latching button routes direct input pre fader signal to small PFL loudspeaker.
- Direct CUT** Latching button cuts direct input signal.
- Direct PAN** Pans stereo direct input signal.
- Direct Input** Sets signal level, 10dB in hand.
- Main output Compressor**, may be used as a Limiter (50:1 ratio)
- 20dB Gain reduction** Yellow LEDs. Normally pre fader can be externally switched to POST fader.
- RECOVERY AUTO** Sets recovery to between 0.1 to 1.5 secs, programme dependant.
- RECOVERY FAST** Changes recovery time from 1 secs to 75ms (overridden by AUTO button)
- ATTACK** Normal 4ms @ 5:1 ratio or FAST 0.2ms @ 5:1 ratio.
- Dynamics IN button** Switches in dynamics. Red LED
- RATIO** 1.5 to 50:1, variable control.
- THRESHOLD** -20 to +10dBu, variable control
- GAIN** Make-up gain adjustable from 0 to +20dB, variable control.
- TB** Talkback momentary button, inoperative ON AIR
- TONE** Latching button, inoperative ON AIR
- OSCILLATOR FREQUENCY** 5 buttons 40, 100, 1k, 10k, 15kHz
- IDENT button green LED.** Pulses tone to main outputs only, choice of 4 sequences which include EBU & BBC GLITS specification (internally selectable).
- TONE button** Switches ON oscillator, red LED.
- TONE control** ±10dB level adjustment on nominal 0dBu output.
- MIC** Talkback microphone.
- TB** Sets outgoing Talkback level.
- RTB** Sets reverse (incoming) Talkback level to PFL loudspeaker.

EXT 1 & 2 TALKBACK buttons to external destinations

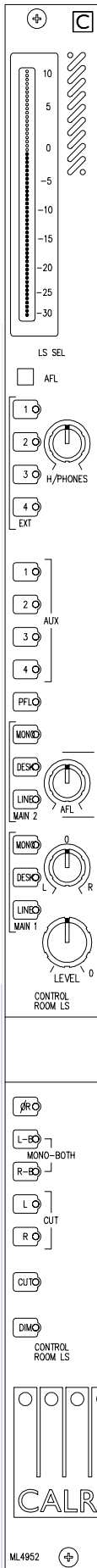
Scribble Strip

- INS** Insert button. Selects main output insert (pre fader).
- ON** Green LED. Illuminates when fader is open.
- PFL** Latching button routes main output pre fader signal to small PFL loudspeaker.
- FADER** with 0dB in hand





ML4952 MONITOR 1



LEVEL BARGRAPH Displays level of left channel of meter select output (internally selectable for PPM/VU and 0dB reference level).

AFL Red indicator - illuminated when any AFL selection is made.

CONTROL ROOM MONITOR SELECTOR : 15 way selector with the following sources:

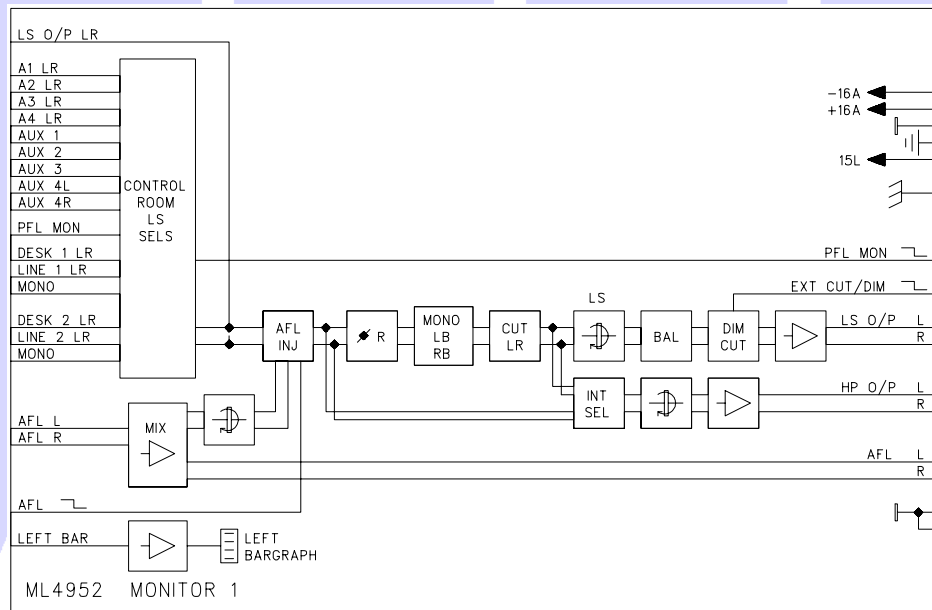
- 4 external Stereo inputs A1 to A4, Green LEDs.
- Aux 1 to Aux 4, Green LEDs.
- PFL, Yellow LED.
- MAIN 2; Stereo line, Stereo desk and Mono outputs, Yellow LEDs.
- MAIN 1; Stereo line, Stereo desk and Mono outputs, Yellow LEDs.

HEADPHONE level control, monitors output of control room selector (internally selectable for output to be taken either pre or post the LB, RB mono and phase reverse switching).

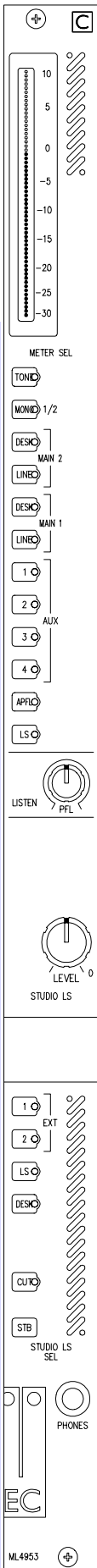
AFL After Fade Listen trim control to monitor loudspeakers.

CONTROL ROOM MONITOR LOUDSPEAKER CONTROLS:

- L - R** Balance control.
- LEVEL control** Sets loudspeaker level.
- ØR** Phase reverses right leg in monitor chain, Red LED.
- L-B** Left to both outputs, Red LED (pressing both L-B and R-B gives a Mono mix to both outputs).
- R-B** Right to both outputs, Red LED.
- CUT L** Cuts left loudspeaker, Red LED.
- CUT R** Cuts right loudspeaker, Red LED.
- CUT button** Cuts both loudspeakers, Red LED.
- DIM button** Reduces loudspeaker level by 14dB, Red LED.



ML4953 MONITOR 2



LEVEL BARGRAPH Displays level of right channel of meter select output (internally selectable for PPM/VU and 0dB reference level).

METER SELECTOR : 12 way selector with the following sources:

- TONE** Sends line up tone to meters, Red LED.
- LS** Follows control room monitor selector, Green LED.
- AUX 1** Mono aux 1 to left meter, Green LED.
- AUX 2** Mono aux 2 to left meter, Green LED.
- AUX 3** Mono aux 3 to left meter, Green LED.
- AUX 4** Stereo aux 4 to both meters, Green LED.
- APFL** AFL plus PFL, Green LED.
- MONO 1/2** Main outputs 1 & 2 to meters, Green LED (main 1 to left meter, main 2 to right meter).
- MAIN 1 DESK** Green LED.
- MAIN 1 LINE** Green LED.
- MAIN 2 DESK** Green LED.
- MAIN 2 LINE** Green LED.

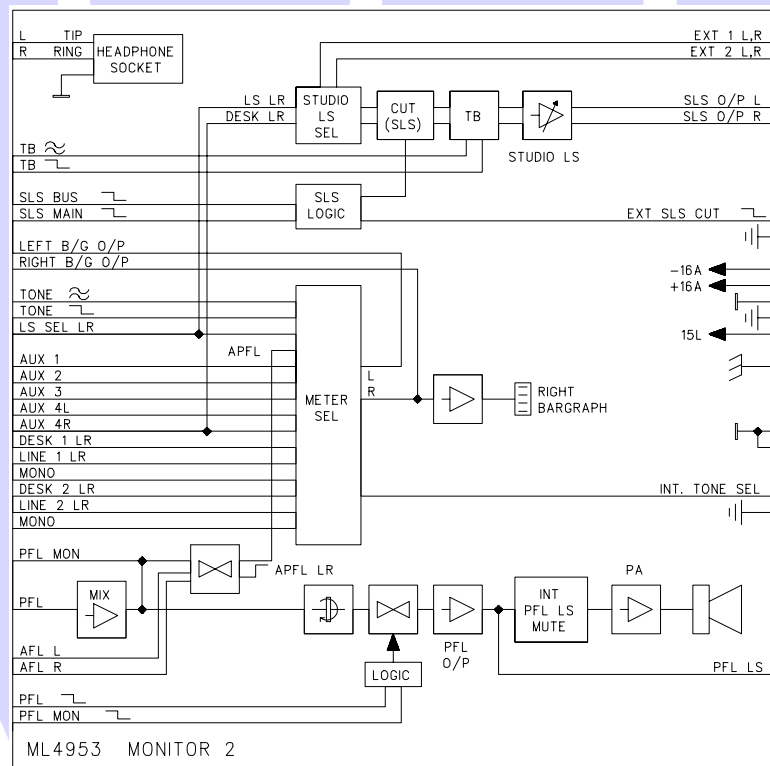
PFL Pre Fade Listen level control to PFL loudspeaker.
STUDIO LS LEVEL Sets studio loudspeaker level.

STUDIO LS MONITOR SELECTOR, 4 way selector with the following sources:

2 External sources EXT 1 and EXT 2, Red LEDs.

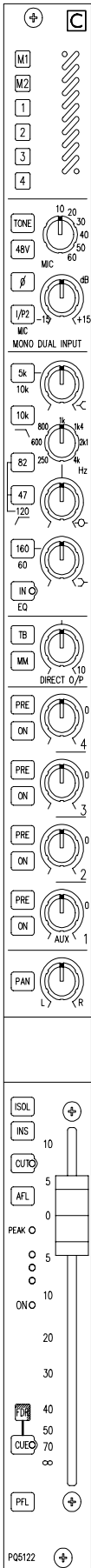
- LS** Follows control room monitor selector, Red LED.
- DESK** Main 1 desk output, Red LED.
- CUT button** Cuts studio loudspeaker, Yellow LED (may also be cut by the SLS logic system).
- TB button** Momentary, selects desk Talkback to studio loudspeaker.

HEADPHONE socket for headphone monitoring.



PQ5122 CHANNEL MONO MIC\LINE

Routing to: 2 main Stereo outputs up to 4 Mono or Stereo groups.



Tone Red button switches alignment tone to the channel post mic gain control but pre the trim - Inhibited on air, but can be internally set to be permanently enabled

48V Microphone phantom power.

Ø Phase reverse.

I/P2 Selects input 2 (mic or line, internal option).

Gain Rotary Switch +10 to +60dB in 10dB steps (Mic only).

Trim ± 15dB (applies to both Mic and Line inputs).

HF Filter 1 button : 10kHz.

LF Filter 2 buttons : 47Hz, 82Hz, both 120Hz.

3-band equaliser :

HF shelf ± 15dB at 10kHz or 5kHz (button pressed).

MID bell ± 15dB frequency variable from 250Hz to 4kHz.

LF shelf ± 15dB at 60Hz or 160Hz (button pressed).

EQ in/out button(includes filters) Red LED.

Direct output gain control 10dB in hand.

TB Talkback button to direct output.

MM Pushbutton selects Mix-Minus buss to either a channel direct output or as a channel contribution to a common Mix-Minus buss (both the direct o/p and the MM contribution can be internally selected pre or post fader).

Aux 4 Stereo output to aux 4 buss, selectable pre or post fader and on/off. Follows channel pan.

Aux 1-3 Mono outputs to aux 1 to 3 busses with individual level, pre/post and on/off controls.

L/R Left/right pan selected by PAN button.

Scribble strip

ISOL Isolates external VCA control.

INS Selects insert circuit (pre or post fader or bypassed are internal options).

CUT Latching button (Yellow LED) cuts all pre and post signals except insert send (if selected pre) and PFL.

AFL Latching button routes channel left/right signal in stereo to the AFL mix which is fed to the monitor loudspeakers, automatically over-riding the normal feed.

Peak Red LED illuminates when the signal anywhere in the module is within 3dB of clipping.

3 LEDs Displays pre EQ signal level relative to 0dBu.

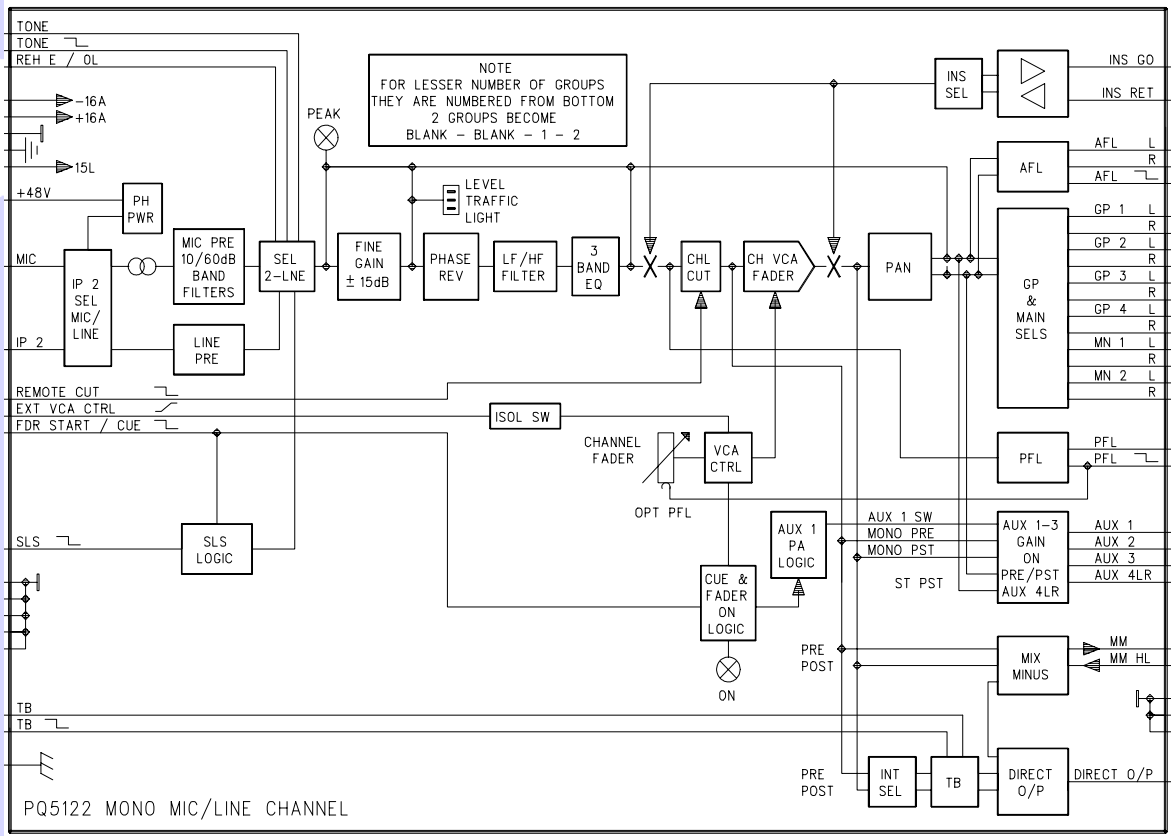
ON Green LED illuminates to show channel fader open.

FDR Fires remote start/cue when fader is open.

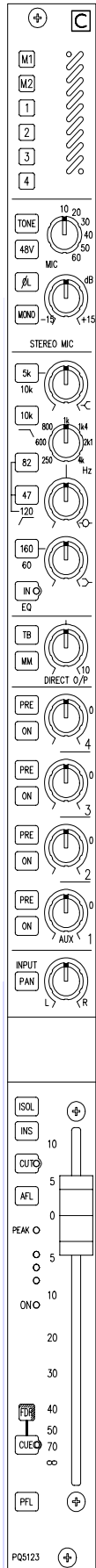
CUE Fires remote start/cue when pressed, Green LED.

PFL Latching button routes pre-fader channel signal to the small PFL loudspeaker (with internal option to inject into the main monitor chain)

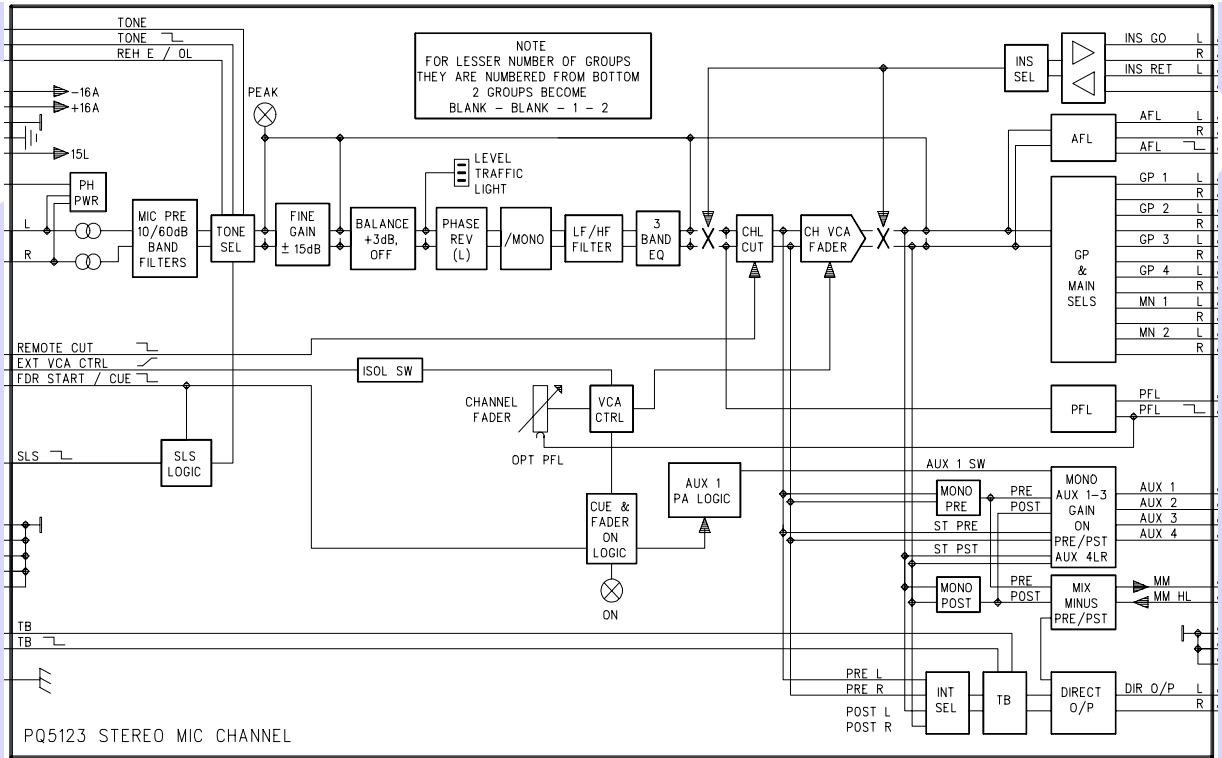
Fader 10dB in hand



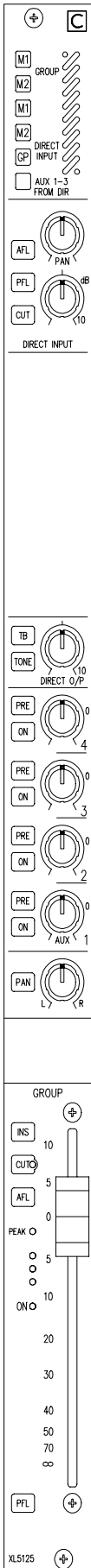
PQ5123 STEREO MIC INPUT MODULE



- Routing to: 2 main Stereo outputs up to 4 Mono or Stereo groups. Optional routing to mono groups - left to odds, right to evens.
- Tone Red button switches alignment tone to the channel post mic gain control but pre the trim - Inhibited on air.
- 48V Microphone phantom power.
- ØL Phase reverse left leg.
- Mono Switches both inputs to both outputs.
- Gain Rotary Switch +10 to +60dB in 10dB steps.
- Trim ± 15dB.
- HF Filter 1 button : 10kHz.
- LF Filter 2 buttons : 47Hz, 82Hz, both 120Hz.
- 3-band equaliser :
 - HF shelf ± 15dB at 10kHz or 5kHz (button pressed).
 - MID bell ± 15dB frequency variable from 250Hz to 4kHz.
 - LF shelf ± 15dB at 60Hz or 160Hz (button pressed).
- EQ in/out button (includes filters) Red LED.
- Direct output gain control 10dB in hand.
- TB Talkback button to direct output.
- MM Pushbutton selects Mix-Minus buss to either a channel direct output or as a channel contribution to common mix-minus buss (both the direct output and the MM contribution can be internally selected to be pre or post fader)
- Aux 4 Stereo output to aux 4 buss, selectable pre or post fader and on/off. Follows channel pan.
- Aux 1-3 Mono outputs to aux 1 to 3 busses with individual level, pre/post and on/off controls.
- L/R Input signal left/right pan selected by INPUT PAN button.
- Scribble strip
- ISOL Isolates external VCA control.
- INS Selects insert circuit (pre or post fader or bypassed are internal options).
- CUT Latching button (yellow LED) cuts all pre and post signals except insert send (if selected pre) and PFL
- AFL Latching button routes channel left/right signal in stereo to the AFL mix which is fed to the monitor loudspeakers, automatically overriding the normal feed.
- Peak Red LED illuminates when the signal anywhere in the module is within 3dB of clipping.
- 3 LEDs Displays pre EQ signal level relative to 0dBu.
- ON Green LED illuminates to show channel fader open.
- FDR Fires remote start/cue when fader is open.
- CUE Fires remote start/cue when pressed, Green LED.
- PFL Latching button routes pre-fader channel signal to the small PFL loudspeaker (with internal option to inject into the main monitor chain).
- Fader 10dB in hand.



XL5125 MONO GROUP



Group routing to 2 main Stereo outputs.

Group direct input routing to 2 main Stereo outputs to group mixer.

Aux 1-3 from direct button switches aux 1-3 to group direct input.

- Direct AFL** Latching button routes direct input after fader signal exclusively to monitor loudspeaker.
- Direct PFL** Latching button routes direct input pre fader signal to small PFL loudspeaker.
- Direct CUT** Latching button cuts direct input signal.
- Direct PAN** Pans Mono direct input signal between left & right outputs.
- Direct Gain** Sets direct input signal level, 10dB in hand.

Direct output gain control 10dB in hand (direct output can be internally selected pre or post fader)

- TB** Talkback button to direct output
- TONE** button to direct output, inhibited ON AIR

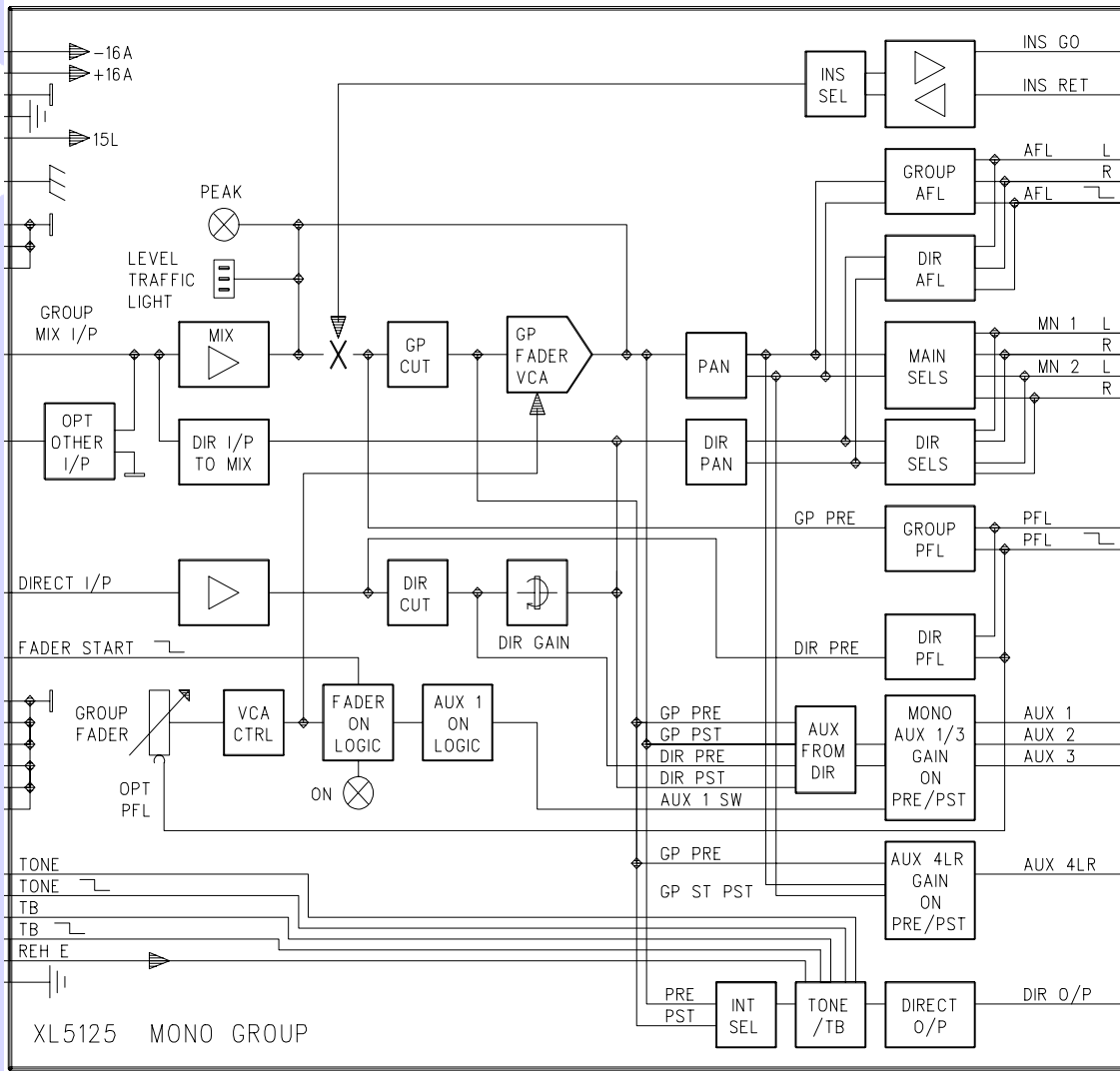
- Aux 4** Stereo output to aux 4 buss, selectable pre or post fader and on/off. Follows channel pan
- Aux 1-3** Mono outputs to aux 1 to 3 busses with individual level, pre/post and on/off controls

L/R Left/right pan selected by PAN button.

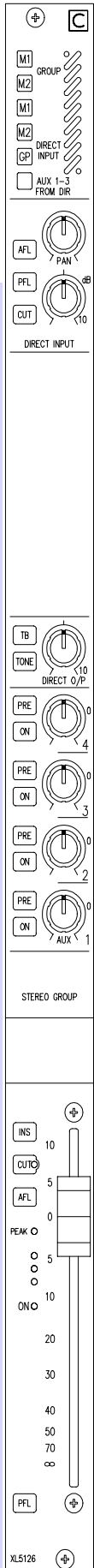
Scribble strip

- INS** Selects insert circuit (pre fader).
- CUT** Latching button (Yellow LED) cuts all pre and post signals except insert send and PFL.
- AFL** Latching button routes channel left/right signal in Stereo to the AFL mix which is fed to the monitor loudspeakers, automatically overriding the normal feed.
- Peak** Red LED illuminates when the signal anywhere in the module is within 3dB of clipping.
- 3 LEDs** Displays pre EQ signal level relative to 0dBu.
- ON** Green LED illuminates to show channel fader open.
- PFL** Latching button routes pre-fader channel signal to the small PFL loudspeaker (with internal option to inject into the main monitor chain).
- Fader** 10dB in hand

Mono groups can be internally selected to be fed with either a mono mix signal or a left/right split to pairs of group mono modules. Left to groups 1+3, right to groups 2+4.



XL5126 STEREO GROUP



Group routing to 2 main Stereo outputs.

Group direct input routing to 2 main Stereo outputs to group mixer.

Aux 1-3 from direct button switches aux 1-3 to group direct input.

Direct AFL Latching button routes direct input after fader signal exclusively to monitor loudspeaker.

Direct PFL Latching button routes direct input pre fader signal to small PFL loudspeaker.

Direct CUT Latching button cuts direct input signal.

Direct PAN Pans Stereo direct input signal between left & right outputs.

Direct Gain Sets direct input signal level, 10dB in hand.

Direct output gain control 10dB in hand (direct output can be internally selected pre or post fader).

TB Talkback button to direct output.

TONE To direct output, inhibited ON AIR.

Aux 4 Stereo output to aux 4 buss, selectable pre or post fader and on/off. Follows channel pan.

Aux 1-3 Mono outputs to aux 1 to 3 busses with individual level, pre/post and on/off controls.

Scribble strip

INS Selects insert circuit (pre fader).

CUT Latching button (yellow LED) cuts all pre and post signals except insert send and PFL.

AFL Latching button routes channel left/right signal in Stereo to the AFL mix which is fed to the monitor loudspeakers, automatically overriding the normal feed.

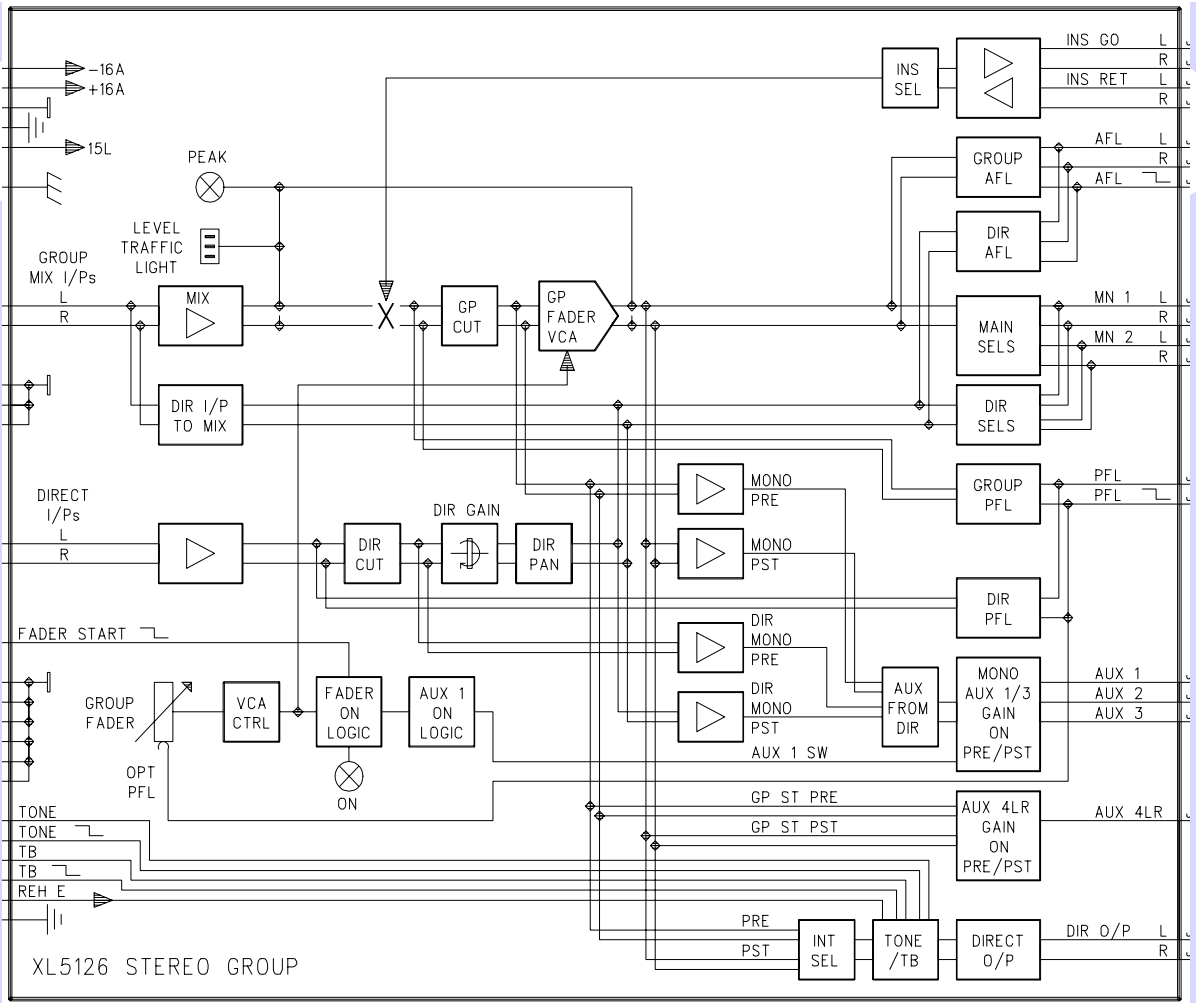
Peak Red LED illuminates when the signal anywhere in the module is within 3dB of clipping.

3 LEDs Displays pre EQ signal level relative to 0dBu.

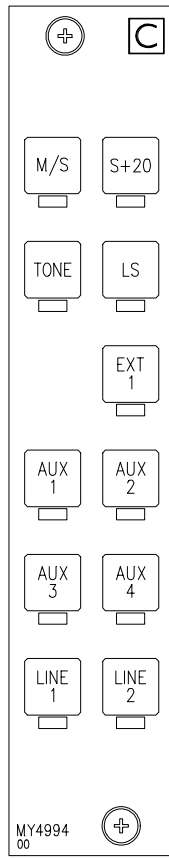
ON Green LED illuminates to show channel fader open.

PFL Latching button routes pre-fader channel signal to the small PFL loudspeaker (with internal option to inject into the main monitor chain).

Fader 10dB in hand.



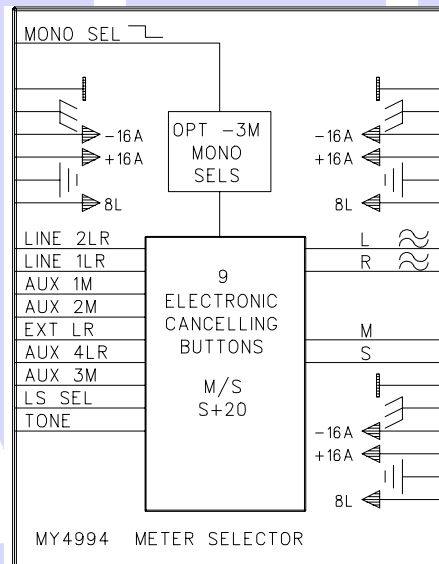
MY4994 METER SELECTOR



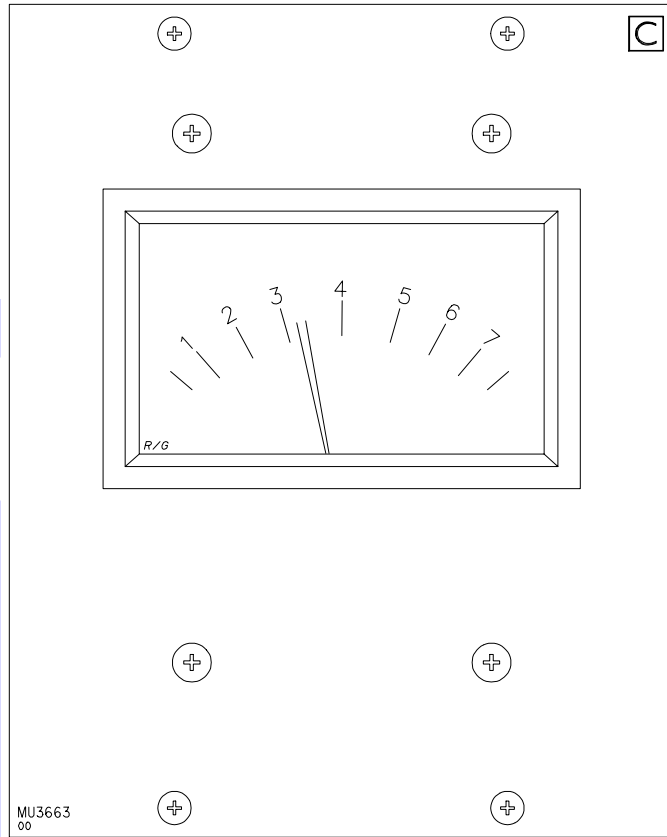
Selections from labelled sources.

Yellow LEDs - Electronic cancelling set.

M/S latching & S+20. Red LEDs meter selector can be internally selected to automatically switch the meaning to m/s when a mono source is selected and to automatically reduce the metering by -3dB if required. This is done to bring the mono and stereo signals in line with each other at 0dB.

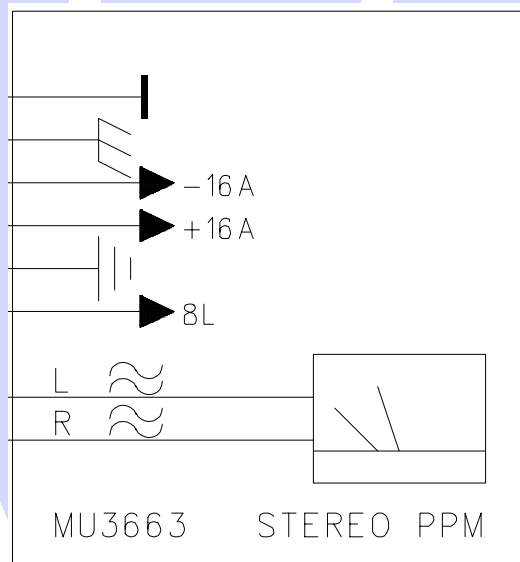


MU3663 STEREO PPM L/R

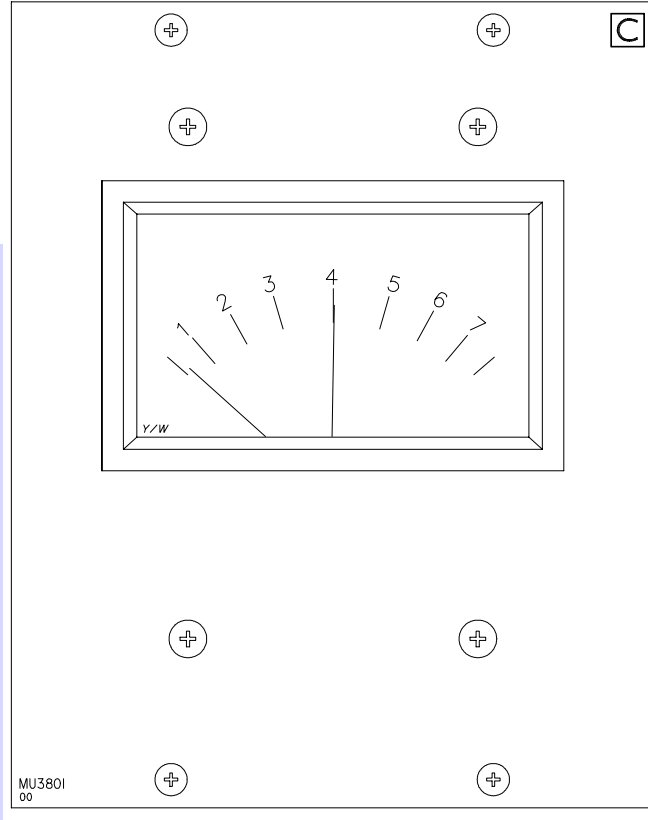


Stereo PPM with Red/Green needles and illumination.

Internal PPM driver.

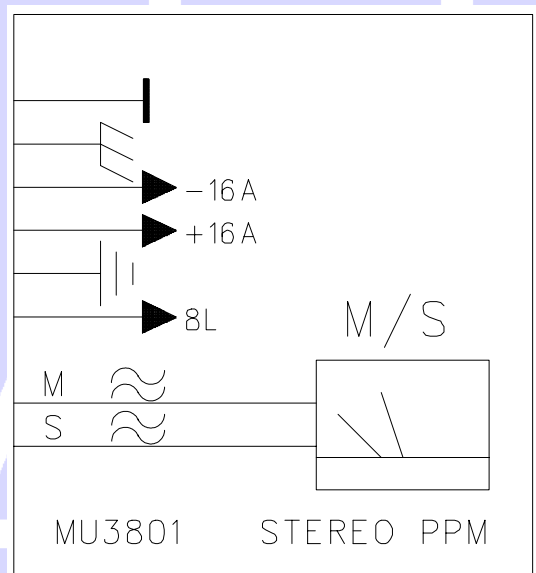


MU3801 STEREO PPM M/S

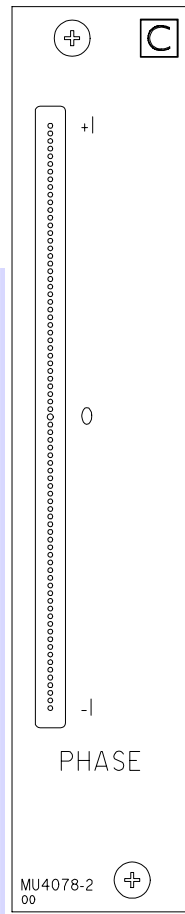


Stereo PPM with Red/Green needles and illumination.

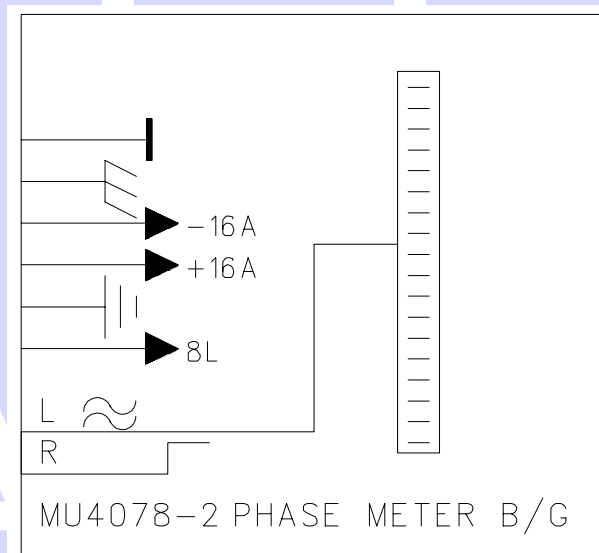
Internal PPM driver.



MU4078-2 PHASE BARGRAPH

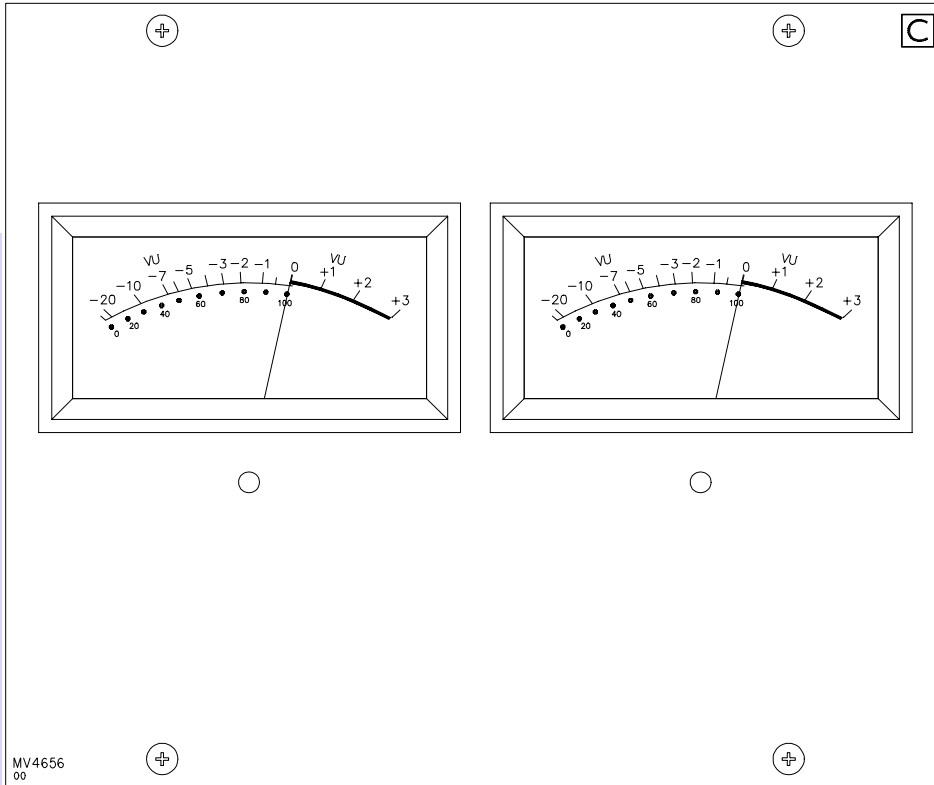


LED Bargraph.
 Upper section representing good phase coherence is GREEN.
 Lower section representing poor phase coherence is RED.
 Spot moves dynamically.

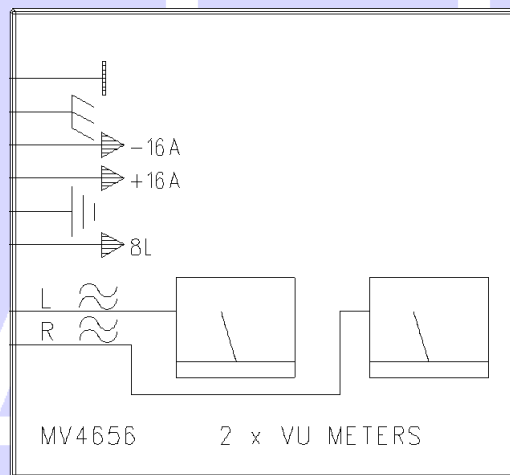


MU4078-2 PHASE METER B/G

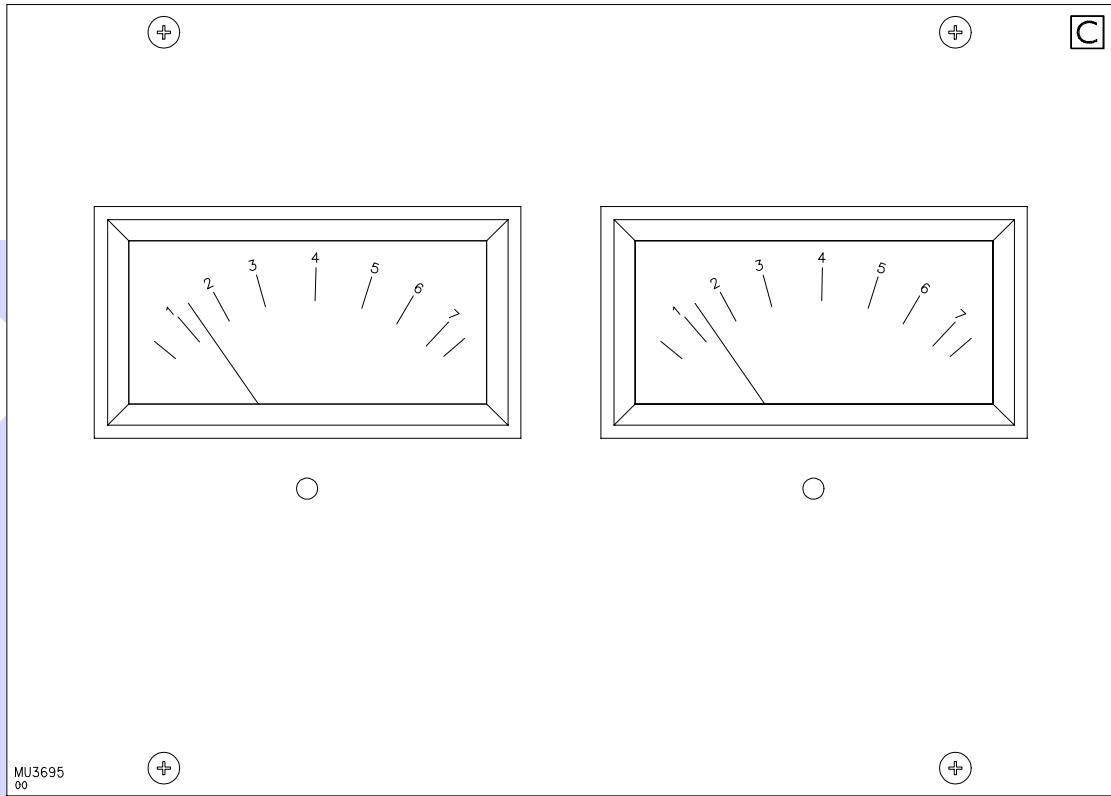
MV4656 TWIN VU METERS



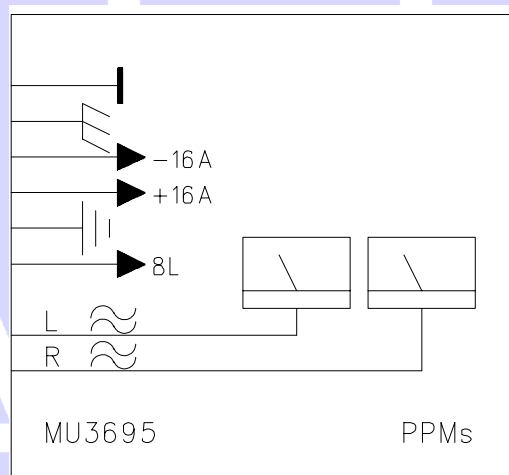
VU meters with illumination. Internal buffer amplifiers.



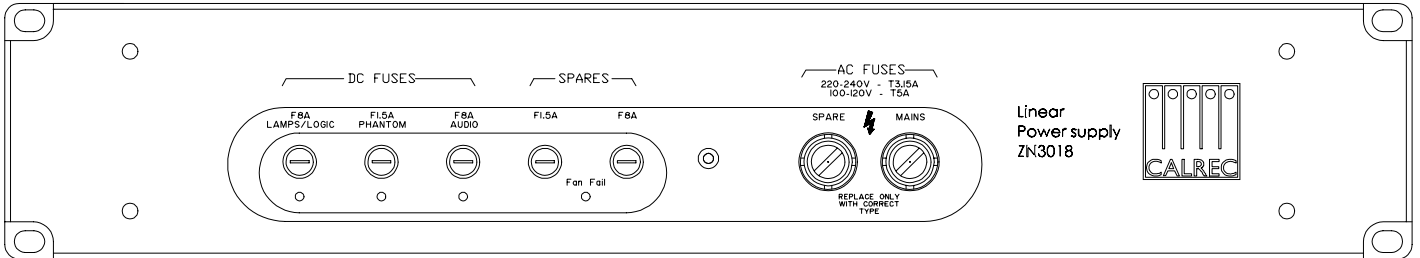
MU3695 2 MONO PEAK PROGRAMME METERS



Mono PPMs with white needles and illumination. Internal PPM drivers.

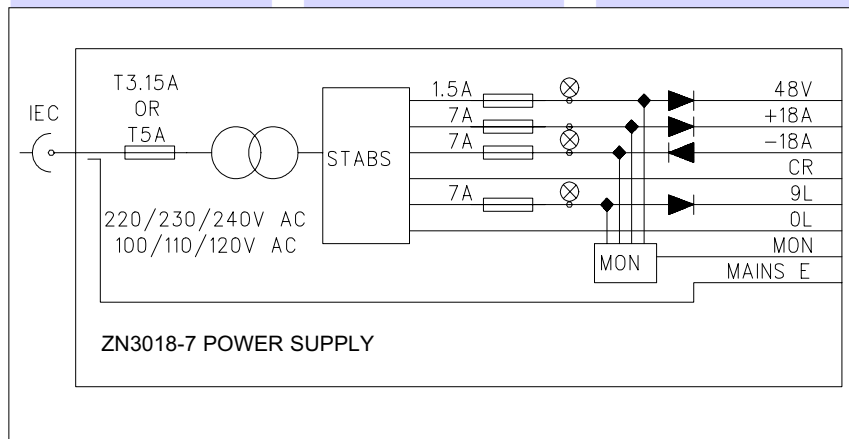


ZN3018-7 POWER SUPPLY



A Calrec designed special unit to provide ± 16 volts audio power, 8 volts logic power (stabilised in modules at 5 volts where required), and 48 volts phantom power suitable for approximately 16 channels each in a typical console. It is recommended that there be one "Hot" spare in the system which in addition will share the load.

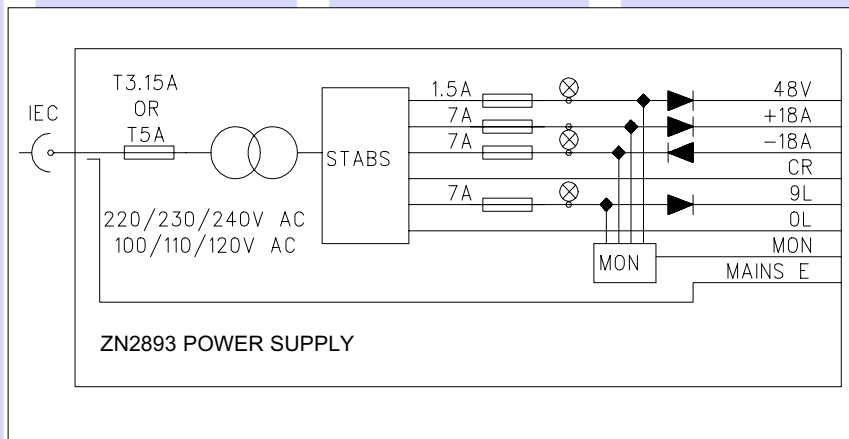
The 2U units include a monitor of the 4 outputs and send a fault signal to the console in the event of a failure. The units operate in parallel via internal diodes and are designed to operate at mains voltages 10% below that set.

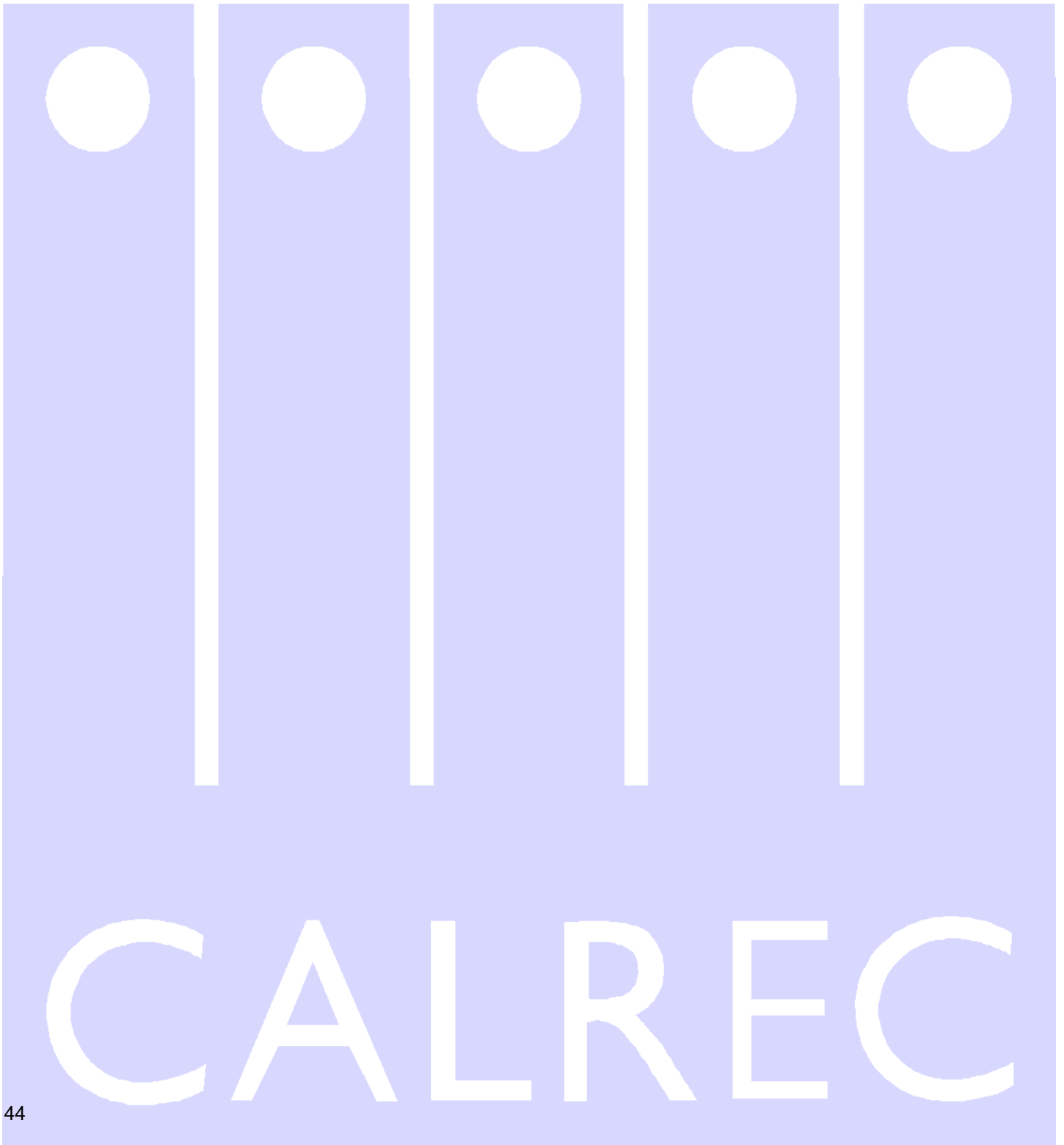


ZN5210 EXTERNAL POWER SUPPLY UNIT



A Calrec designed PSU to provide ± 18 volts audio power, 9 volts logic power (stabilised in modules to 5 volts where required) and 48 volts phantom power. The units are designed to be able to operate at mains voltages 10% below that set. This 1RU unit is suitable for use as either the main external PSU or as a back-up unit for the small frame M3.





3.0 Connections, Specification & Block Diagram

CALREC

CONNECTIONS

The M3 uses XLR-3 fixed (panel mounted) female (socket) connectors for Channel Mic and Line level inputs and direct inputs to groups and mains.

Main, monitor and Aux outputs are on XLR-3 fixed (panel mounted) male (plug) connectors

50 way D-type fixed panel mounted) female (sockets) connectors are used for all other audio and control connections.

Recommended

Interface	Connector	Level	Nominal Impedance	Min Load
Microphone inputs	XLR-3F	-75/+5dBu	1kW	-
Line inputs	XLR-3F	-24/+18dBu	20kW	-
Insert sends	D-50F	0dBu	40W	600W
Insert returns	D-50F	0dBu	20kW	-
Direct outputs	D-50F	0dBu(+10)	40W	600W
External Cuts/VCA Control/fader start	D-50F	5V/0V operate	-	-
Group direct inputs	XLR-3F	0dBu	20kW	-
Main direct inputs	XLR-3F	0dBu	20kW	-
Auxiliary outputs	XLR-3M and D-50F	0dBu	40W	600W
Main outputs	XLR-3M and D-50F	0dBu	40W	600W
Monitor inputs	D-50F	0dBu	20kW	-
Monitor outputs	XLR-3M and D-50F	0dBu	< 40W	600W

WEIGHTS

Small chassis (with internal PSU) = 19.5kg (43lb) approx

Large chassis (with internal PSU) = 36kg (70.5lb) approx

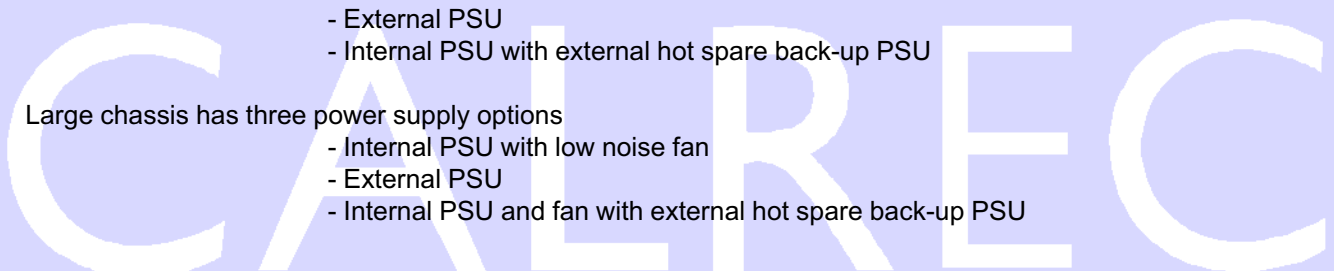
Power Supply options

Small chassis has three power supply options

- Internal PSU
- External PSU
- Internal PSU with external hot spare back-up PSU

Large chassis has three power supply options

- Internal PSU with low noise fan
- External PSU
- Internal PSU and fan with external hot spare back-up PSU



SPECIFICATION

Measurements are with 22-22KHz filters unless otherwise stated. All specifications are in the frequency range 40-15KHz unless otherwise stated. Measurements specified are with equaliser and dynamics out of circuit.

0dBu = 0.775 volts RMS. dBq = CCIR QUASI PEAK.

Inputs

Microphone Sensitivity	Transformer balanced -10/-60dBu in 10dB steps +/- 15dB Variable trim	1kW Nominal
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Input headroom	27dB Above setting Maximum input +10dBu	
Line	Electronic balanced Sensitivity	20kW Nominal +/- 15dB Variable trim Maximum input +27dBu

Monitor/direct	Electronic balanced Sensitivity	20kW Nominal 0dBu
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Outputs

Main Line	Transformer balanced Maximum output	0dBu into 600W +22dBu into 600W @1kHz
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	Source impedance	30W nominal
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Aux 1-2	Transformer balanced Maximum output Source impedance	0dBu into 600W +23dBu into 600W 30W nominal
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Main Desk/Aux 3-4 Groups/Dir/Ins go/ Mon LS/Talkback	Electronic balanced Maximum output	0dBu into 600W +23dBu into 600W +27dBu into 3.3kW
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	Source impedance	40W nominal
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Performance

Noise	Microphone (EIN)	-126dB
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Distortion	Line/Group/Main at +16dBu	£ -83dBu £ 0.03% 40Hz-10kHz
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Freq. Response	Any circuit	+/- 0.5dB, 20Hz-20kHz
Stereo Path Level error	L,R	+/-1dB

Input/Output

Balance	microphone	³ -80dB at 1kHz, ³ -70dB at 10kHz
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	Line level circuits	³ -40dB
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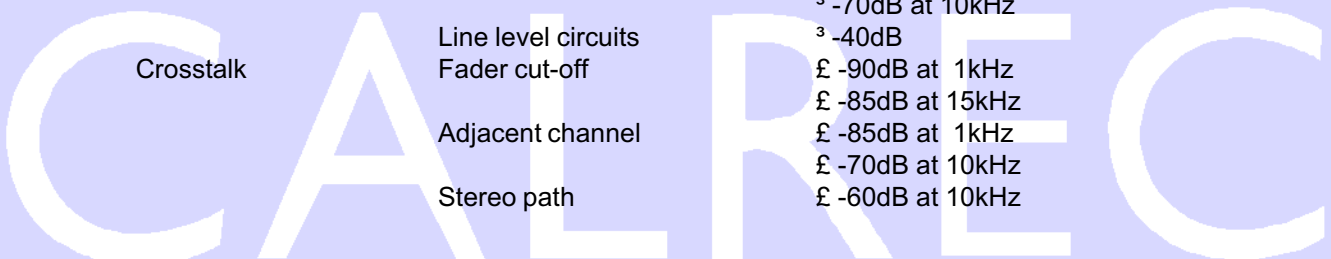
Crosstalk	Fader cut-off	£ -90dB at 1kHz
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	Adjacent channel	£ -85dB at 15kHz
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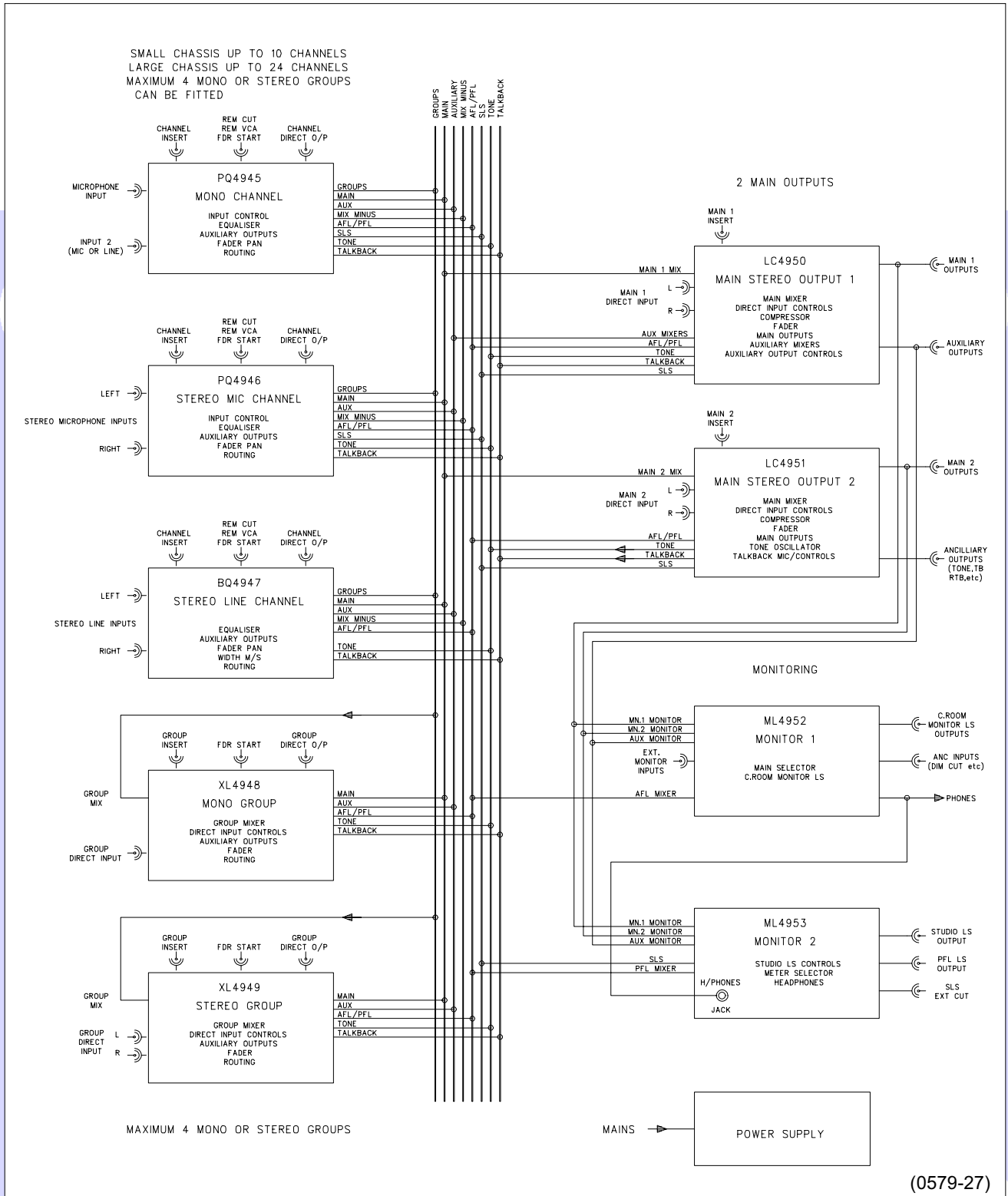
		£ -85dB at 1kHz
--	--	-----------------

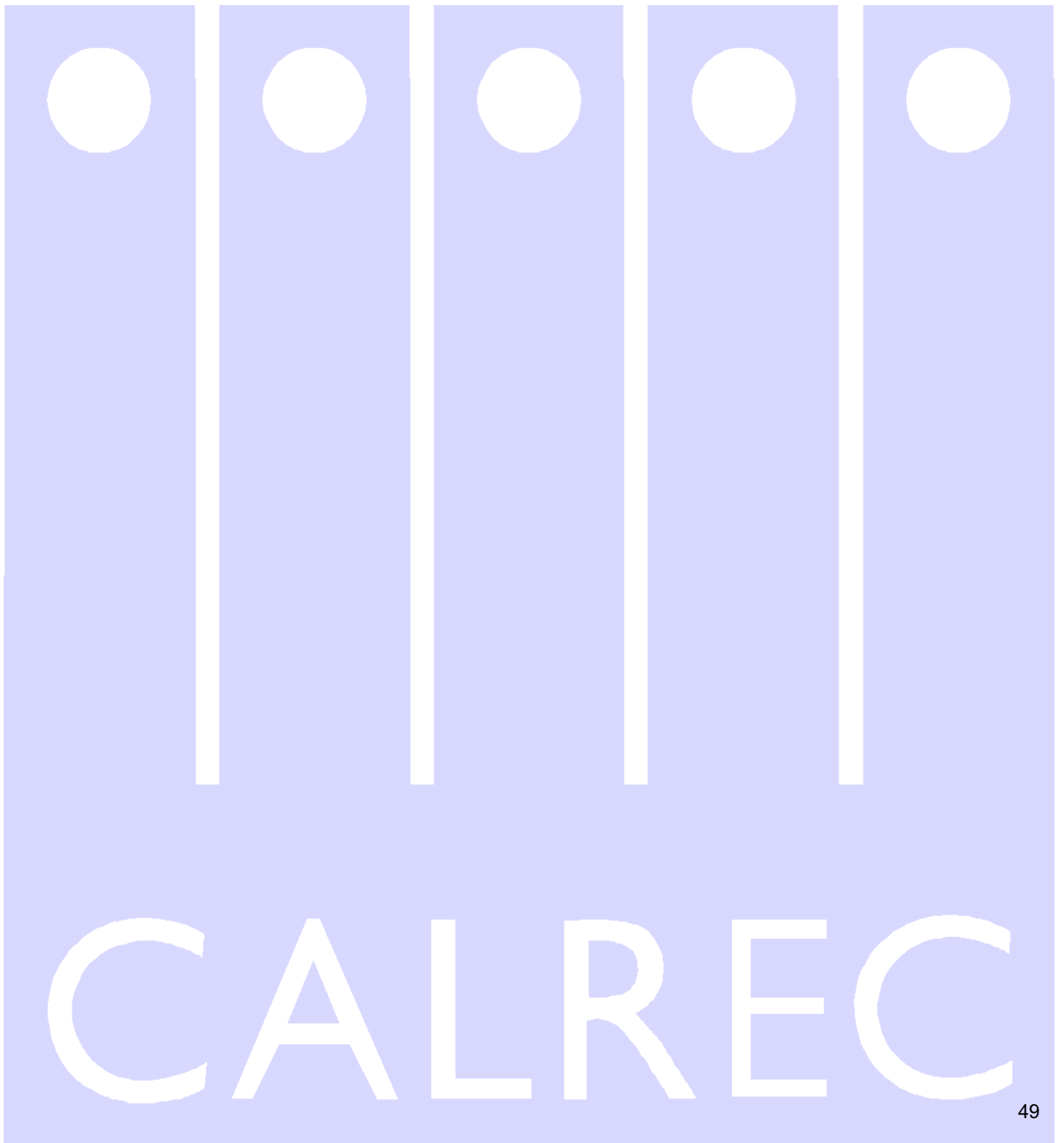
		£ -70dB at 10kHz
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	Stereo path	£ -60dB at 10kHz
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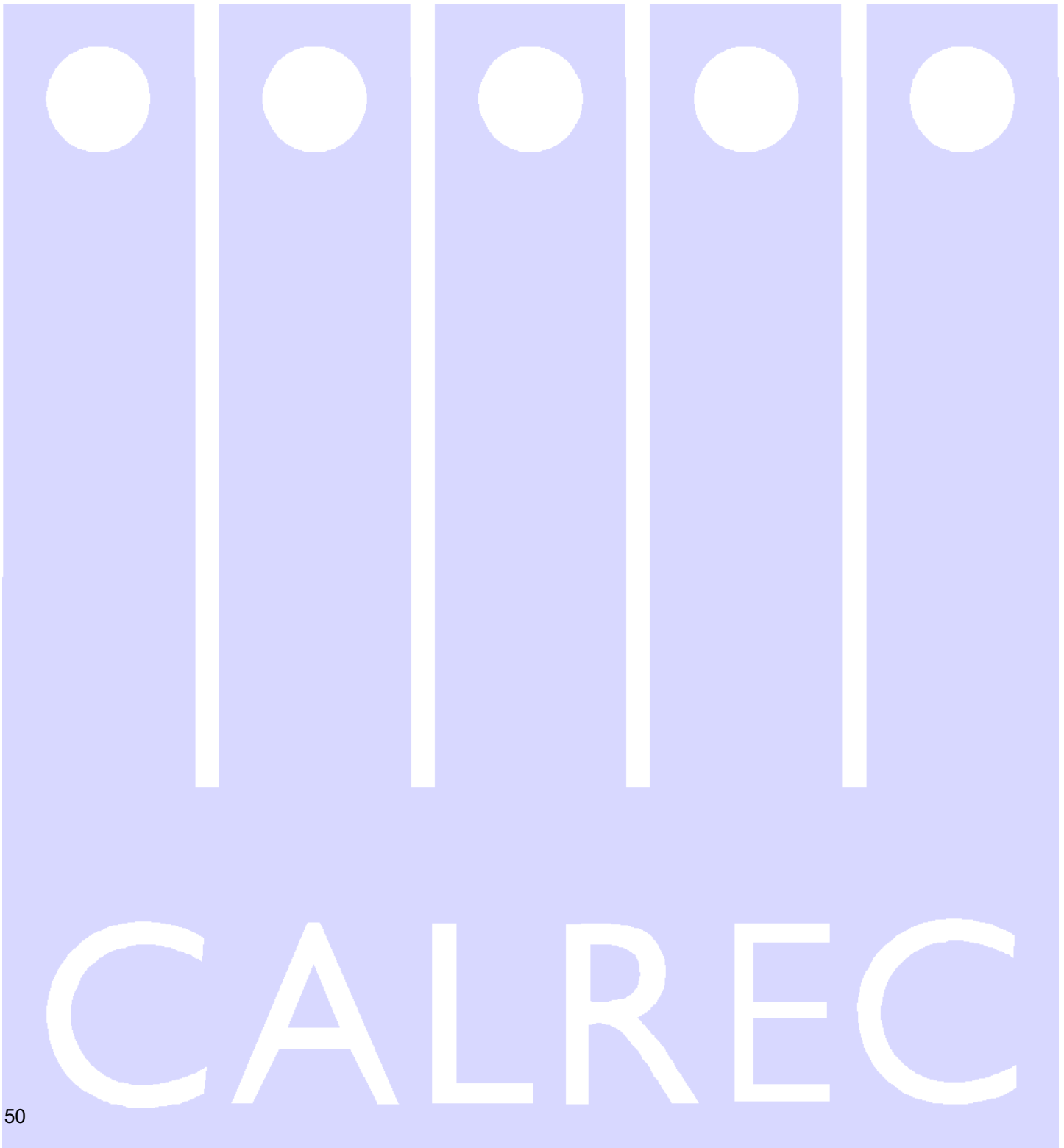


BLOCK DIAGRAM

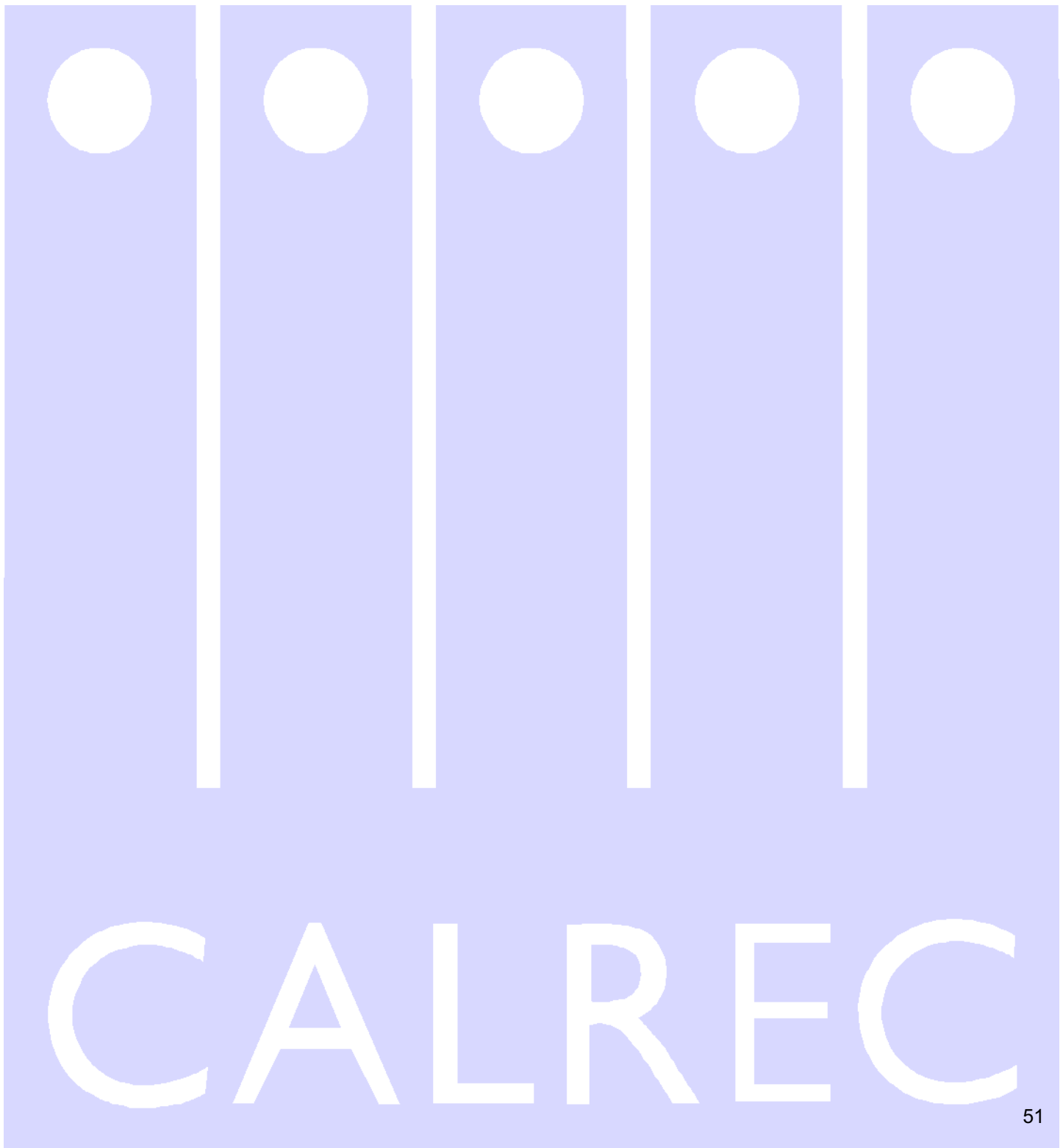


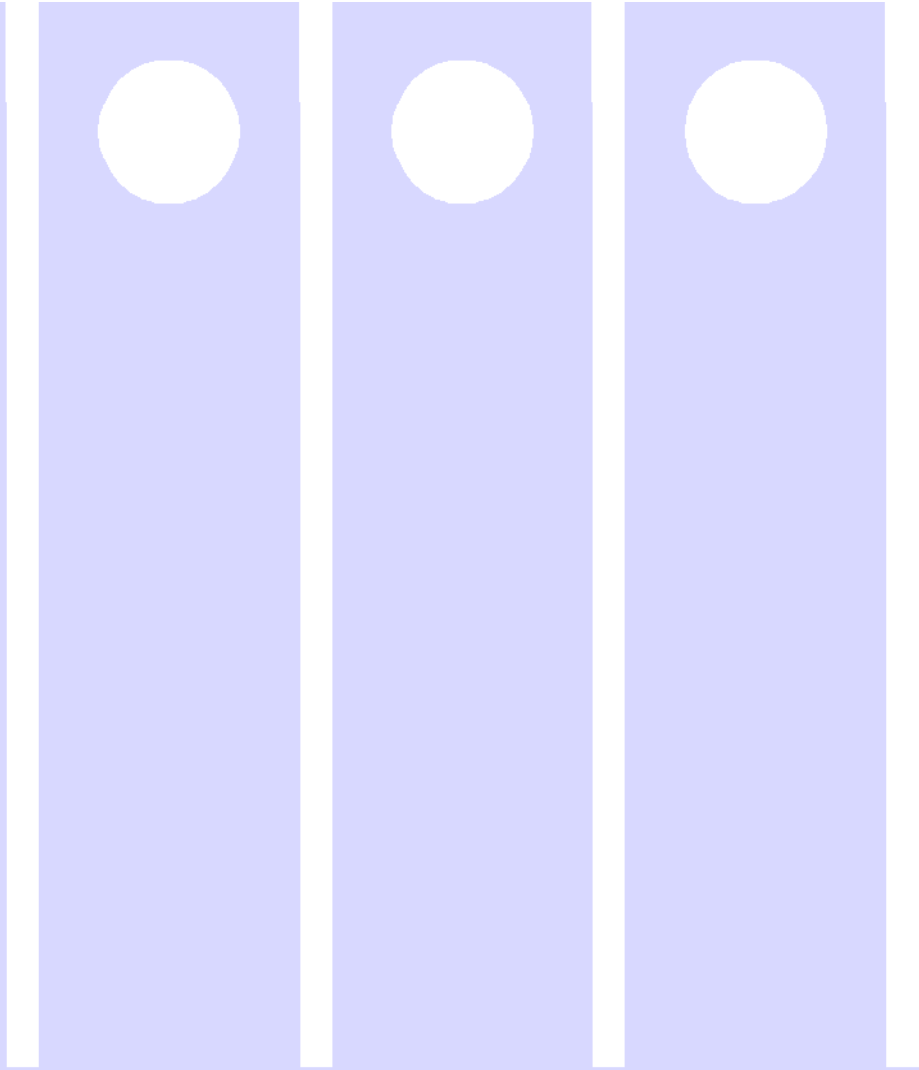


Notes

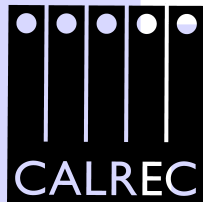


Notes





CALREC



Calrec Audio Ltd. reserve the right to change specifications without notice. E. & O.E.

(926-025 Iss10)