

C2 TECHNICAL SPECIFICATIONS



Broadcast Production Console



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C2

INTRODUCTION & PRINCIPAL FEATURES



PRINCIPAL FEATURES

The Calrec **C2** is a standard low-profile console design providing mono and stereo broadcast facilities in a small space ideal for outside broadcast vehicles or small studios.

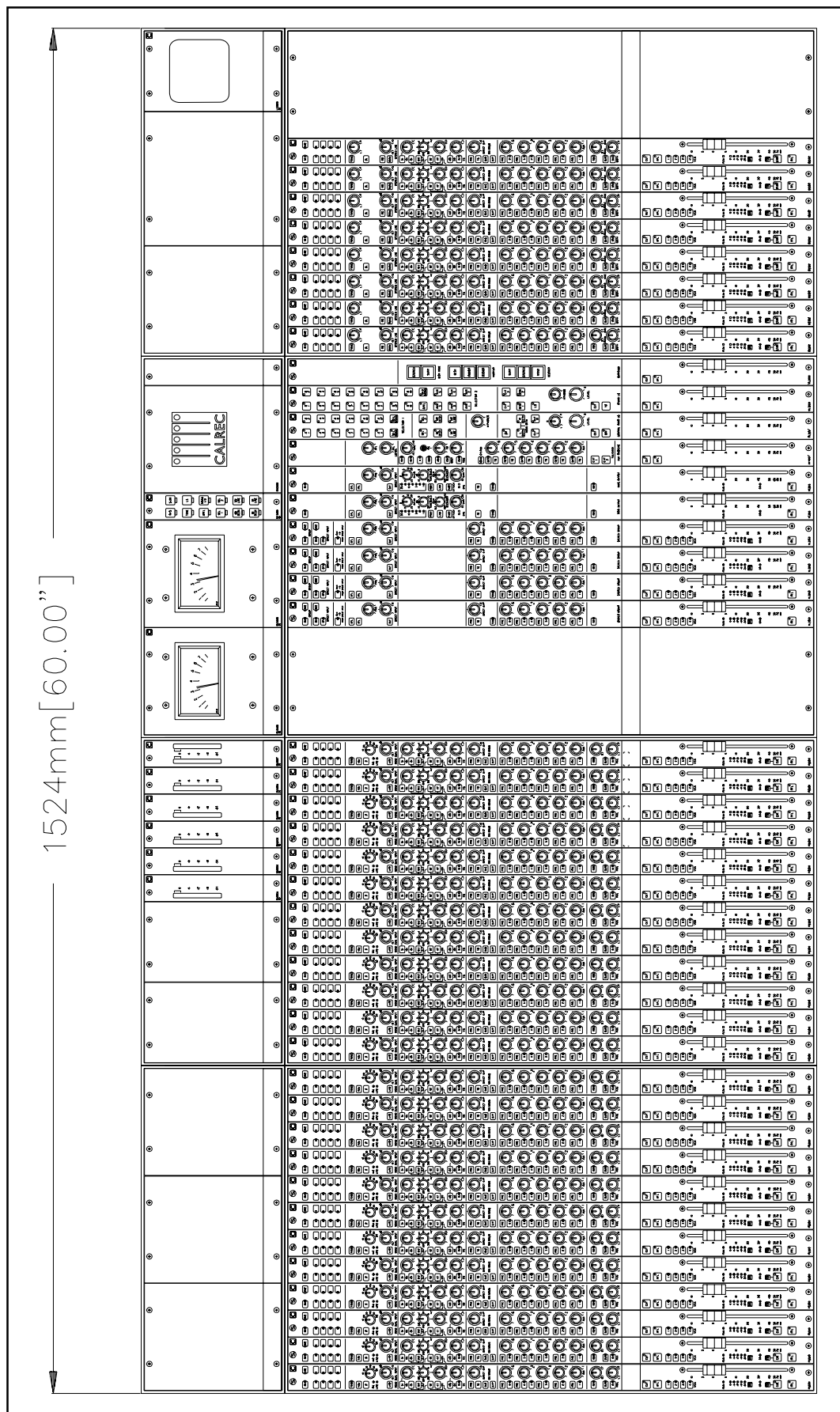
- **Mono, Stereo Mic/Line and Stereo Line Modules**
- **Very compact module configuration**
- **Can be configured from 12 to 48 channels**
- **Up to 8 Groups, Mono or Stereo**
- **5 Mono and 1 Stereo Auxiliaries**
- **1 or 2 Stereo Main Outputs with Dynamics**
- **30mm Wide Modules**
- **32dB Channel pre-fade headroom**
- **3-band Equaliser and 2-band filter on channels**
- **Mix-Minus system**
- **4 VCA Groups**
- **Surround option available**
- **Solid state routing switches**
- **Provision for extra dynamics, equalisers and a comprehensive range of metering in the upstand**
- **SLS/PA Mute system follows faders and main routing**
- **Stereo AFL and PFL**
- **Comprehensive Loudspeaker Monitoring System**
- **Channel bargraph metering**
- **Stereo Width and Front/Back pan on Stereo channels**
- **Talkback and Mix-Minus to channel direct outputs**

C2

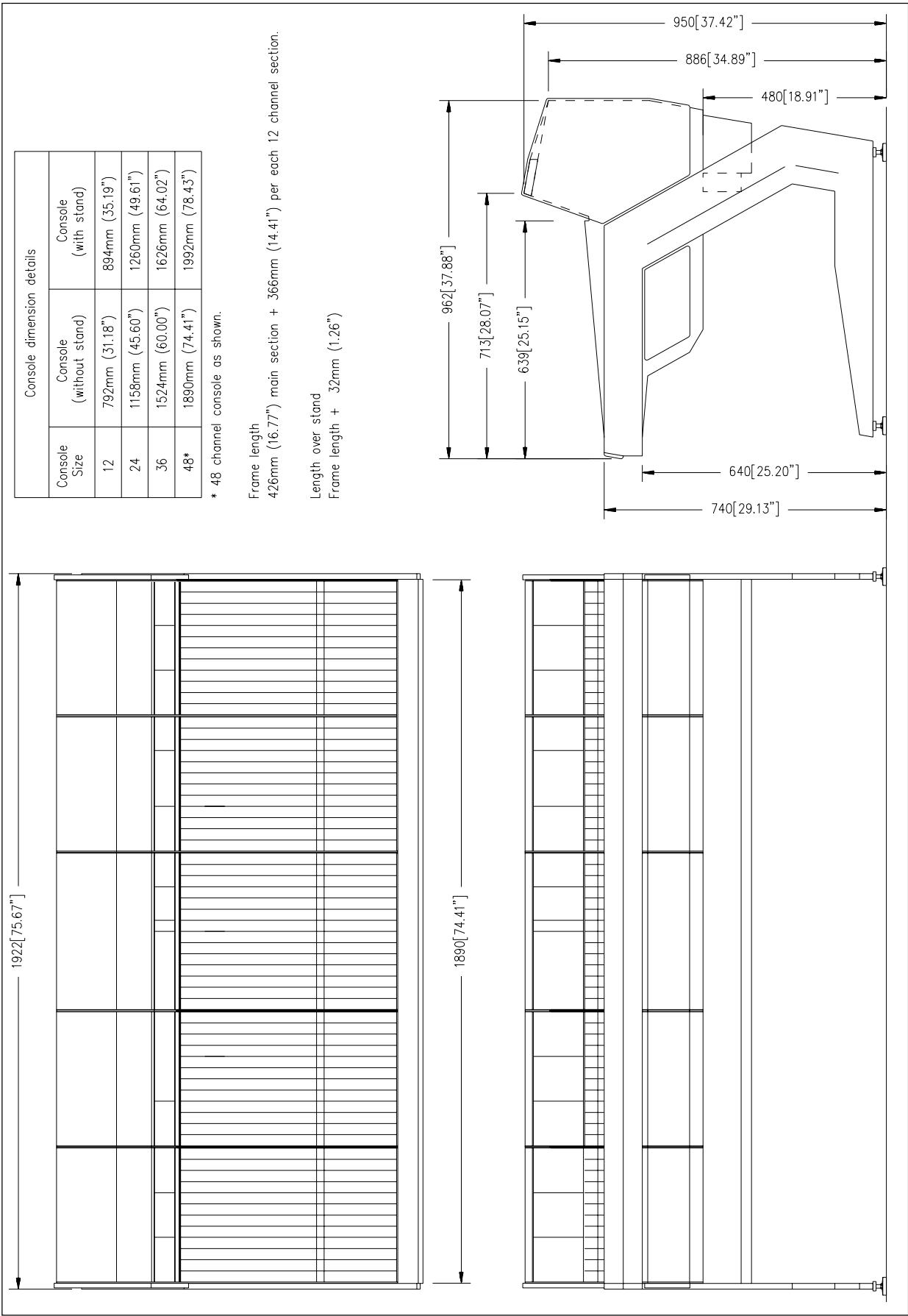
CONSOLE LAYOUT



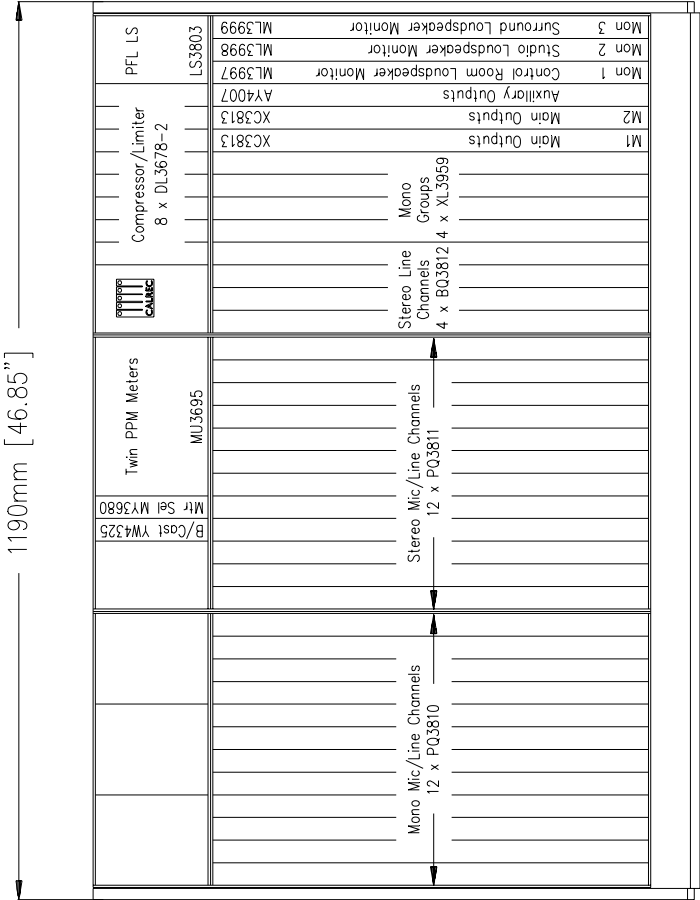
TYPICAL LAYOUT



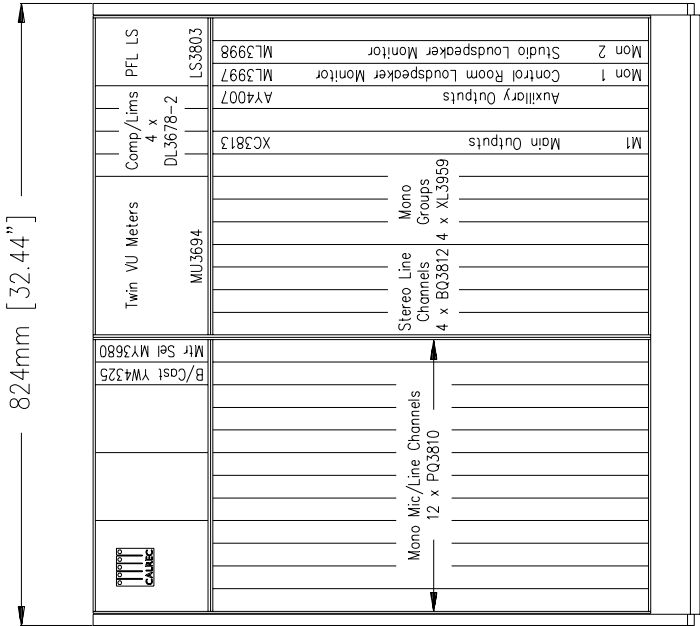
CONSOLE PLAN AND ELEVATION DETAIL DIMENSIONS

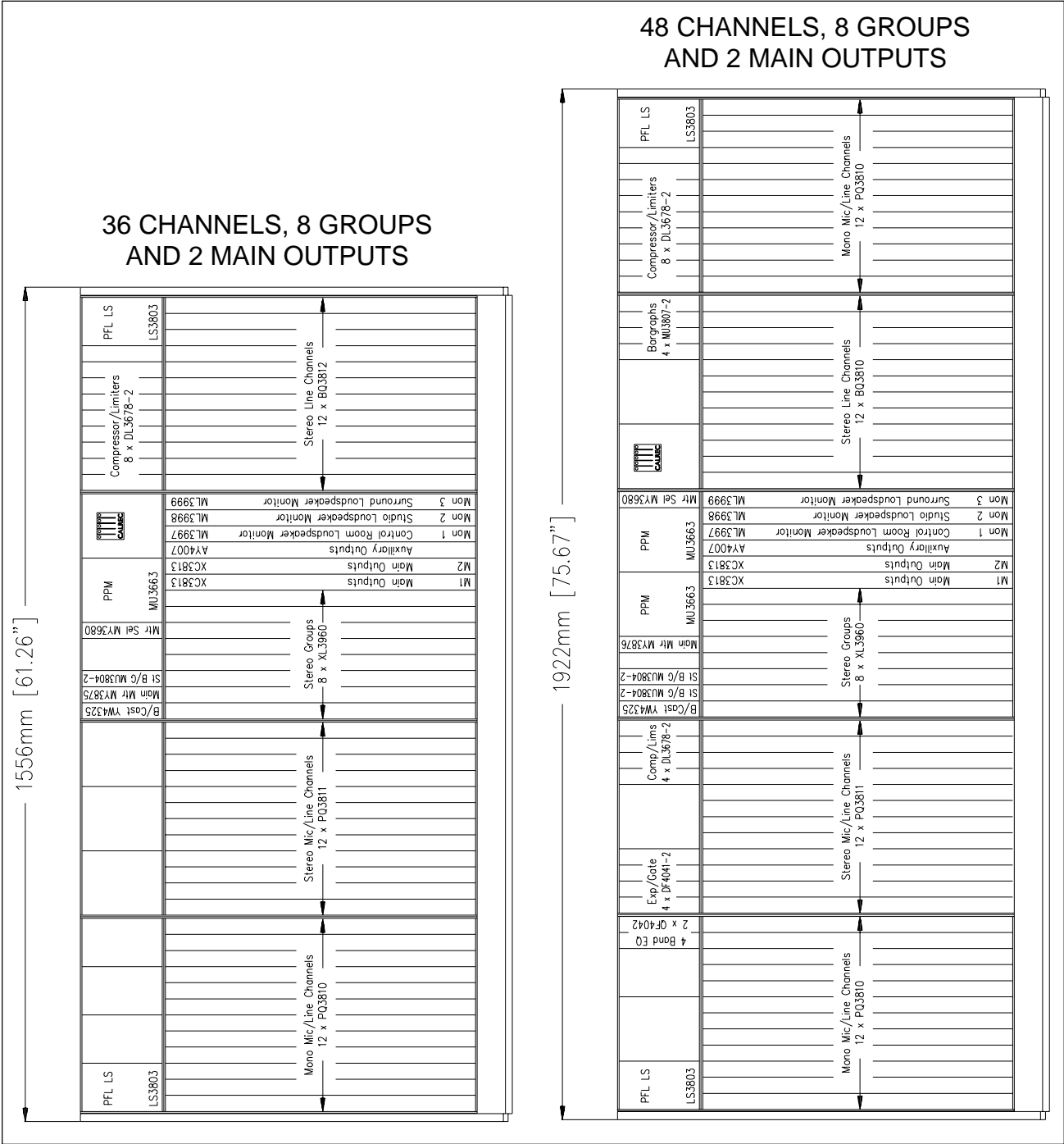


28 (24) CHANNELS, 4 (8) GROUPS
AND 2 (1) MAIN OUTPUTS

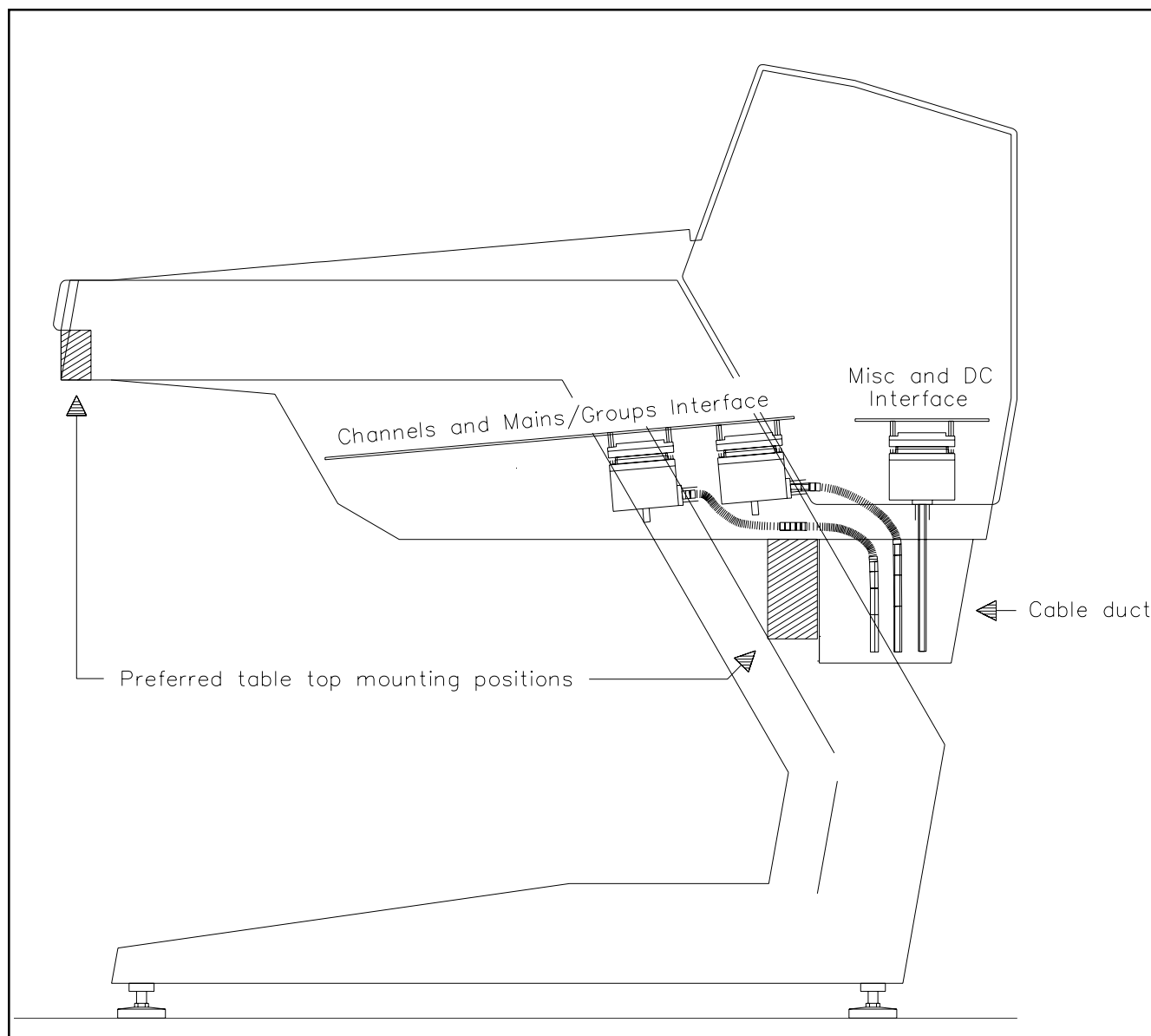


16 CHANNELS, 4 GROUPS
AND 1 MAIN OUTPUT





LAYOUT OF CONNECTORS



C2

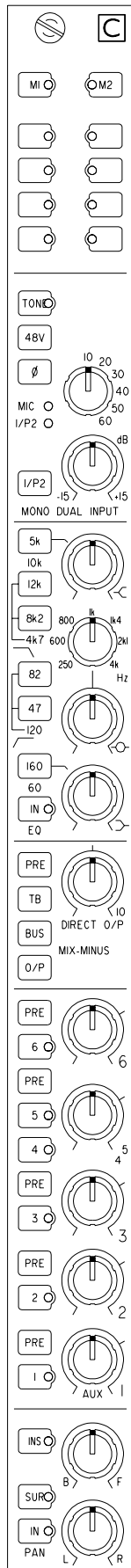
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PQ3810 MONO CHANNEL



Routing to :-

Tone

48V



Mic

I/P2

Gain

Trim

HF Filter

LF Filter

3 band equaliser :

HF shelf

MID Bell

LF shelf

EQ in/out button (includes filters) Red LED

Direct output gain control 10dB in hand.

Pre button

TB

2 main stereo outputs. Red LED's up to 8 mono or stereo groups. Yellow LED's Red button switches alignment tone to the channel post mic gain control but pre the trim - Inhibited on air Microphone phantom power Phase reverse Red LED. From input 1 (mic only) Green LED. From input 2 (mic or line, internal option) Rotary switch +10 to +60 dB in 10dB steps (Mic only) +/- 15dB - extends mic range -5dB to +75dB gain line range +/- 15dB

2 buttons : 12kHz, 8.2kHz, both 4.7kHz

2 buttons : 47Hz, 82Hz, both 120Hz

+/- 15dB at 10kHz or 5kHz with button

+/- 15dB frequency variable from 250Hz to 4kHz

+/- 15dB at 60Hz or 160Hz with button

selects pre-fader source (normally post-fader) talkback button to direct output

Mix-Minus system :

Bus Selects channel signal (pre or post fader optional) to feed the Mix-Minus bus

O/P sends Mix-Minus bus, less own signal to direct output

Aux 6 Stereo output to aux 6 bus, selectable pre or post fader and an on switch. Follows channel pan

Aux 4/5 dual mono output to Aux 4 and 5 busses, individually selectable, but with a common level and pre/post controls

Aux 1-3 mono outputs to Aux 1-3 busses, with individual level, pre/post and on controls

Insert button selects insert circuit, can be pre or post fader (internal option)

Surr button selects odd numbered groups and mains to be left/right and even numbered groups and mains to be centre/surround

F/B front/back pan control - only works when surround selected

L/R left/right pan selected by IN button

Scribble Strip

Cut latching button cuts all pre and post signals except: insert-send (if selected pre) and PFL

AFL latching button routes channel Left/Right signal in stereo (post F/B pan if selected) to the AFL mix which is fed to the monitor loudspeakers, automatically over-riding the normal feed

VCA VCA group select 1-4 puts the channel fader under additional control of the selected VCA Master fader

Includes AFL and Cut

(Isolate External VCA Control, fitted by special order)

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

5 LEDs bar display shows pre EQ signal level relative to 0dBu

DIR button switches bar display to show Direct output level

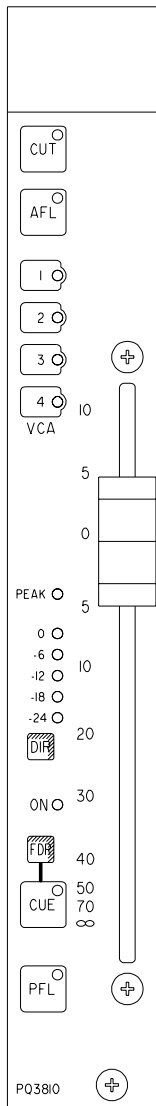
ON Green LED illuminates to show channel fader open

FDR button fires remote start/cue when fader is open

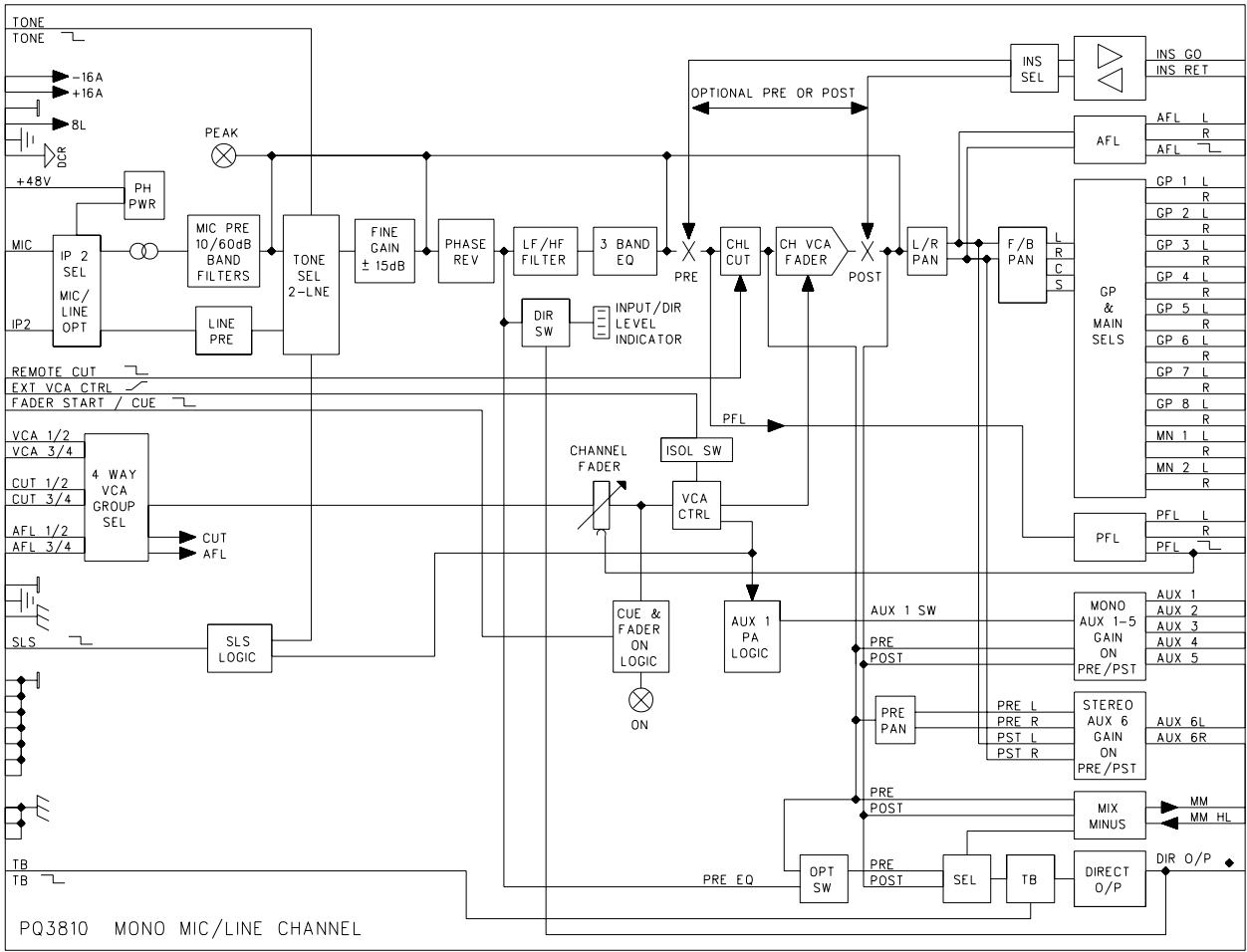
CUE button fires remote start/cue when pressed

PFL latching button routes pre-fader channel signal to the small PFL loudspeakers (follows channel pan)

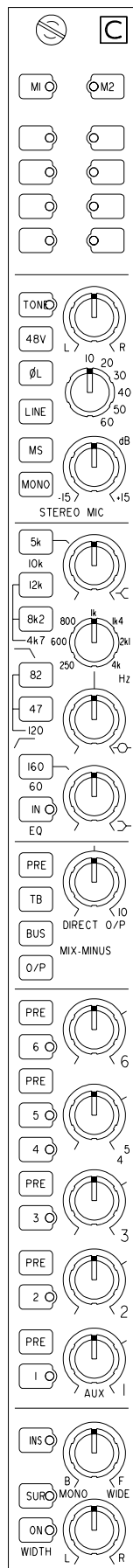
Fader with 10dB gain in hand and momentary PFL overpress



PQ3810 MONO CHANNEL



PQ3811 STEREO CHANNEL



Routing to :-

L/R

Tone

48V

Ø

LINE

Gain

MS

Mono

Trim

HF Filter

LF Filter

3 band equaliser :

HF shelf

MID Bell

LF shelf

EQ in/out button

Direct output gain control

TB

Mix-Minus system:

Bus

2 main stereo outputs. Red LED's

up to 8 mono or stereo groups. Yellow LED's

input balance control +3/0/off

Red button switches alignment tone to the channel

post mic gain control but pre the trim - Inhibited on air

Microphone phantom power

Phase reverse left leg

inserts line input amplifier

Rotary switch +10 to +60 dB in 10dB steps (Mic only)

button inserts LR/MS converter

switches both inputs to both outputs

+/- 15dB - extends mic range -5dB to +75dB gain line range +/- 15dB

2 buttons : 12kHz, 8.2kHz, both 4.7kHz

2 buttons : 47Hz, 82Hz, both 120Hz

+/- 15dB at 10kHz or 5kHz with button

+/- 15dB frequency variable from 250Hz to 4kHz

+/- 15dB at 60Hz or 160Hz with button

(includes filters) Red LED

Pre button selects pre-fader source (normally post-fader)

talkback button to direct output

selects channel signal (pre or post fader optional) to feed the Mix-Minus bus

O/P sends Mix-Minus bus, less own signal to direct output

Aux 6 Stereo output to aux 6 bus, selectable pre or post fader and an on switch. Responds to channel pan

Aux 4/5 dual mono output to Aux 4 and 5 busses, individually selectable, but with a common level and pre/post controls

Aux 1-3 mono outputs to Aux 1-3 busses, with individual level, pre/post and on controls

Insert button selects insert circuit, can be pre or post fader (internal option)

Surr button selects odd numbered groups and mains to be left/right

and even numbered groups and mains to be centre/surround

F/B front/back pan control - only works when surround selected

L/R left/right pan selected by IN button

Scribble Strip

Cut latching button cuts all pre and post signals except : insert-send (if selected pre) and PFL

AFL latching button routes channel Left/Right signal in stereo (post F/B pan if selected) to the AFL mix which is fed

to the monitor loudspeakers ,automatically over-riding the normal feed

VCA VCA group select 1-4 puts the channel fader under additional control of the selected VCA Master fader Includes AFL and Cut

(Isolate External VCA Control, fitted by special order)

Peak Red LED illuminates when the signal anywhere in the module is

within 3dB of clipping

5 LEDs bar display shows pre EQ signal level relative to 0dBu

DIR button switches bar display to show Direct output level

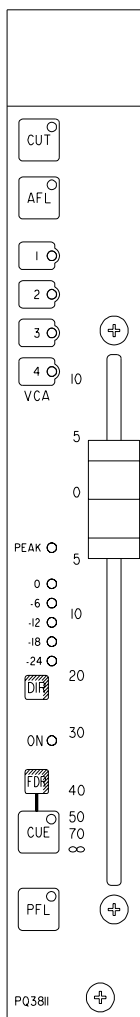
ON Green LED illuminates to show channel fader open

FDR button fires remote start/cue when fader is open

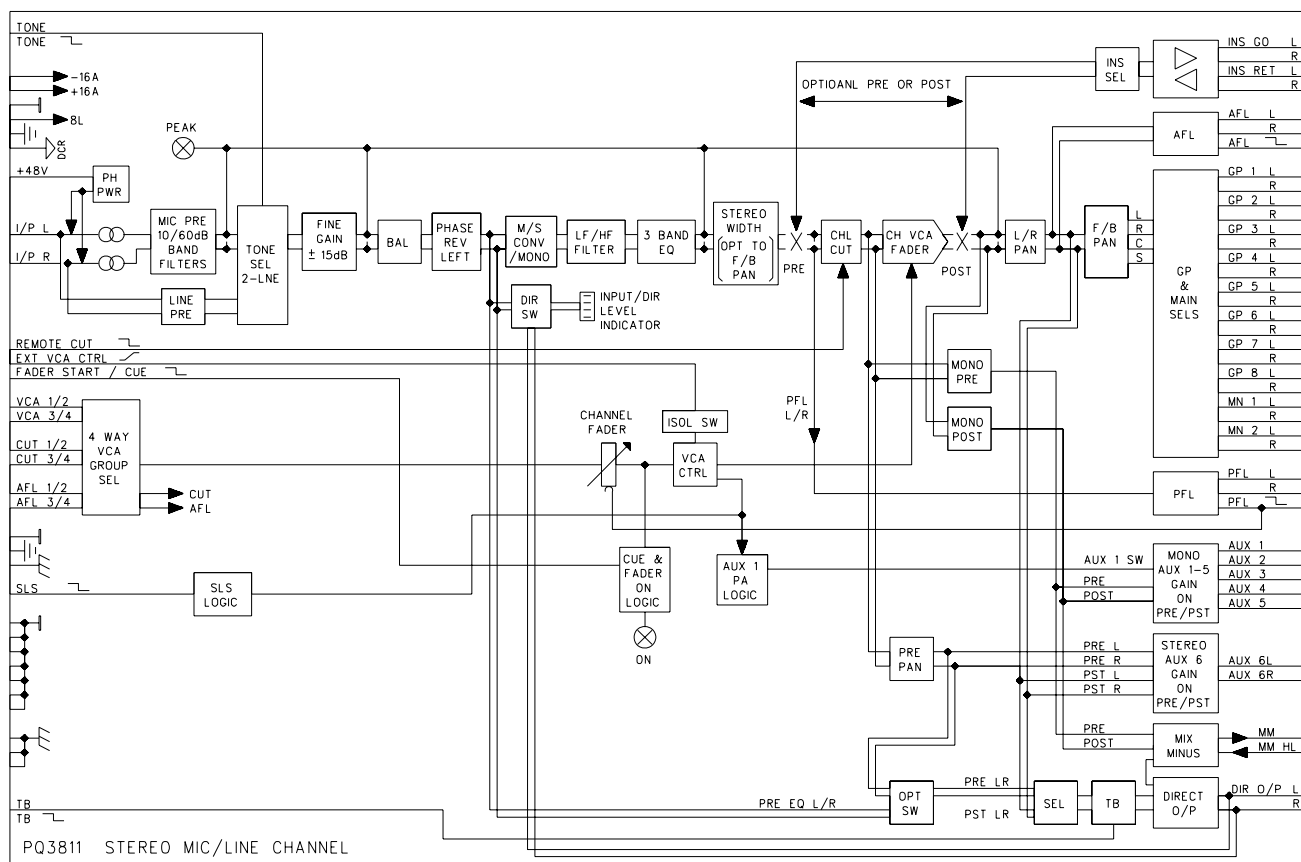
CUE button fires remote start/cue when pressed

PFL latching button routes pre-fader channel signal to the small PFL loudspeakers (follows channel pan)

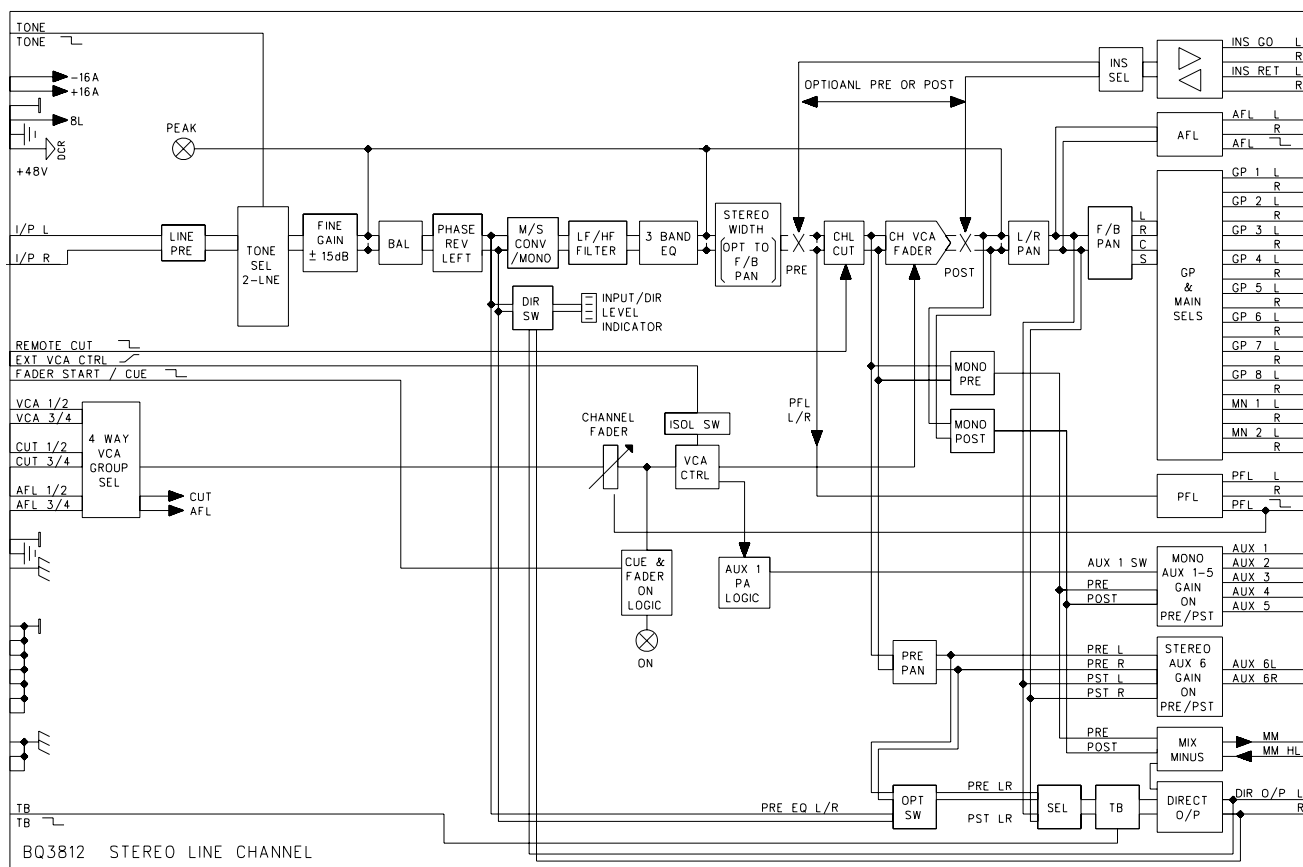
Fader with 10dB gain in hand and momentary PFL overpress



PQ3811 STEREO CHANNEL



BQ3812 STEREO LINE CHANNEL





Group routing to 2 Main Stereo Outputs . Red LEDS

Group Direct input routing to 2 Main Outputs. Red LEDS
to Group Mixer Yellow LEDS

Aux 1-5 from Direct button switches Aux 1-5 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(s)

Direct CUT latching button cuts Direct input signal

Direct PAN Control pans mono Direct input Signal between Left & Right outputs

Direct Gain control sets Direct input signal level, +10dB in hand

Direct output gain control

Direct output PRE fader button, normally post fader

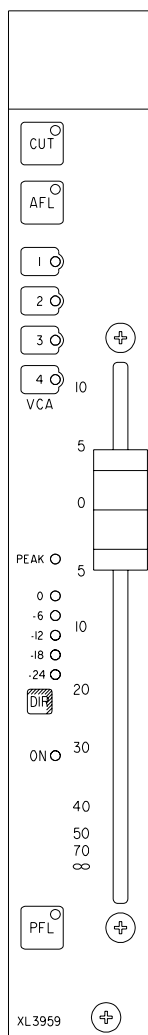
TB Talkback button to Direct output - momentary

TONE button to Direct output. Inhibited ON AIR

Aux 6 Stereo Input post pan to Aux 6 Stereo bus, selectable PRE (button) or Post fader ON switch with Green LED

Aux 4/5 Shared Mono output to Aux 4 or Aux 5 as selected. Green LEDS Control can be PRE (button) or Post fader

Aux 1 - 3 3 Mono outputs to Aux 1-3 buss. ON switches. Green LEDS Controls can be PRE (button) or Post fader



Insert button. Yellow LED. Selects Insert circuit Pre or Post fader (internal switch)

Group Pan Control with IN button, Red LED

Scribble Strip

CUT latching button cuts Group output. Yellow LED

AFL latching button routes Group output signal exclusively to Monitor Loudspeakers following Group Pan Control

VCA Group Sel buttons 1-4. Green LEDS. Puts Group fader under additional control of nominated VCA Group fader. Includes CUT & AFL

PEAK Red LED. Illuminates when signal anywhere in circuit approaches within 3dB of clipping.

5 LED Bar graph 1 Red, 1 Yellow, 3 Green LEDS - shows pre fader signal level in group, to show Direct output level

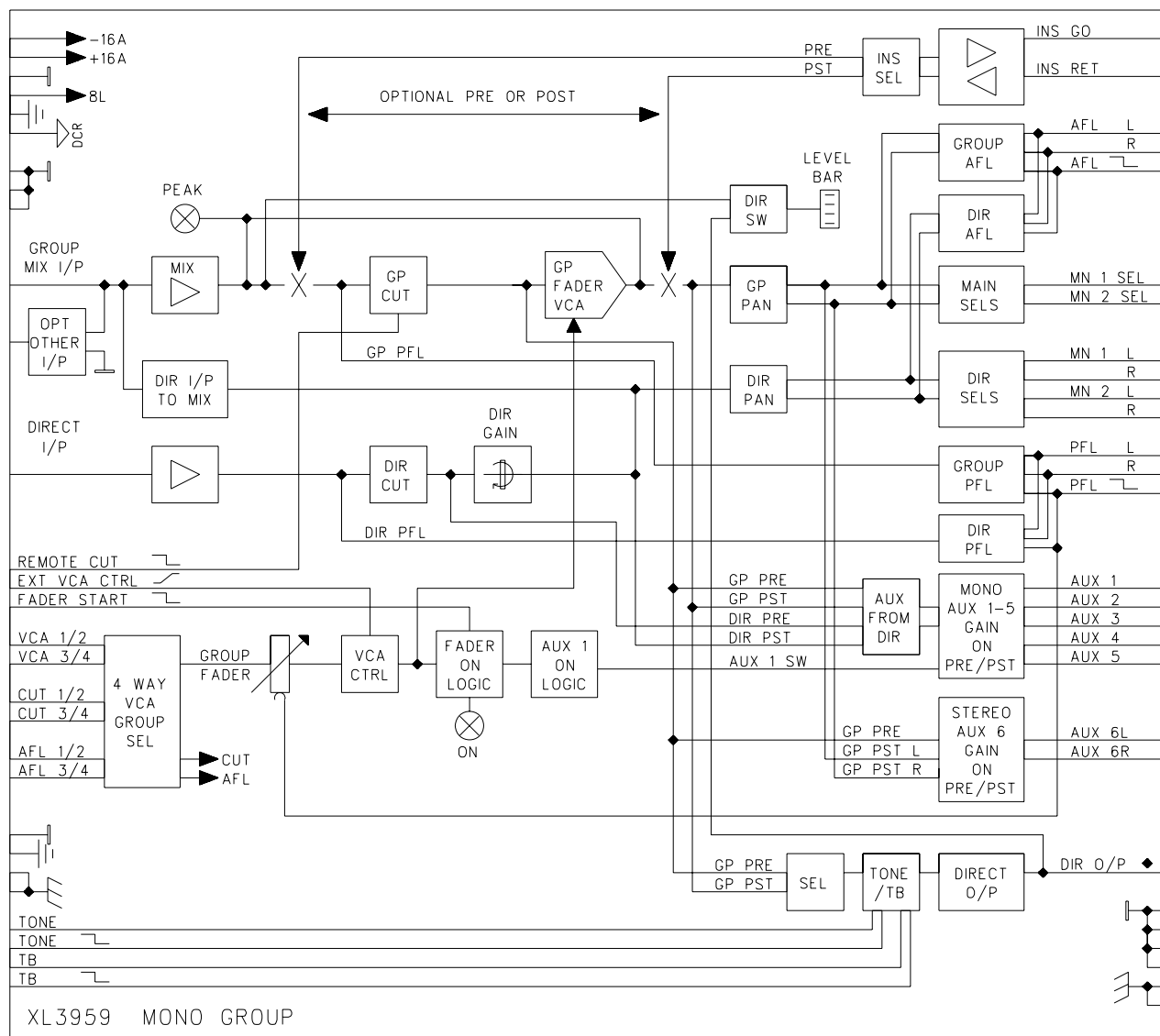
DIR button switches bar display to show Direct output level

ON Green LED when fader is open

PFL latching button routes Group pre fader signal to small PFL Loudspeaker(s)

FADER with +10dB in hand and momentary PFL overpress.

XL3959 MONO GROUP



XL3960 STEREO GROUP



Group routing to 2 Main Stereo Outputs. Red LEDS

Group Direct input: Stereo routing to 2 Main Outputs. Red LEDS
to Group Mixer. Yellow LEDS

Aux 1-5 from Direct button switches Aux 1-5 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(s)

Direct CUT latching button cuts Direct input signal

Direct PAN Control pans Stereo Direct input Signal

Direct Gain control sets Direct input signal level, +10dB in hand

Direct output gain control

Direct output PRE fader button, normally post fader

TB Talkback button to Direct output - momentary

TONE button to Direct output. Inhibited ON AIR

Aux 6 Stereo output to Aux 6 bus selectable PRE (button) or Post fader ON switch with Green LED

Aux 4/5 Shared Mono output to Aux 4 or Aux 5 as selected. Green LEDS
Control can be PRE (button) or Post fader

Aux 1 - 3 3 Mono outputs to Aux1-3 buss. ON switches. Green LEDS. Controls can be PRE button) or Post fader

Insert button. Yellow LED. Selects Insert circuit Pre or Post fader (internal switch)

Scribble Strip

CUT latching button cuts Group output. Yellow LED

AFL latching button routes Group output signal exclusively to Monitor Loudspeakers following Group Pan Control

VCA Group Sel buttons 1 - 4. Green LEDS. Puts Group fader under additional control of nominated VCA Group fader. Includes CUT & AFL

PEAK Red LED. Illuminates when signal anywhere in circuit approaches within 3dB of clipping

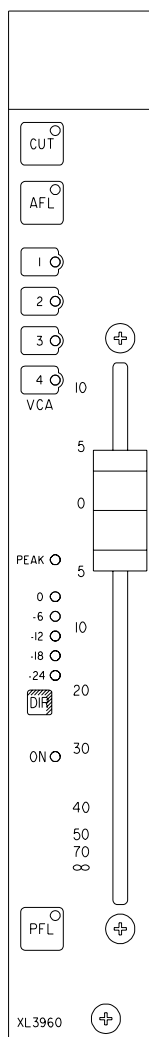
5 LED Bar graph 1 Red, 1 Yellow, 3 Green LEDS - shows pre fader signal level in group, to show Direct output level

DIR button switches bar display to show Direct output level

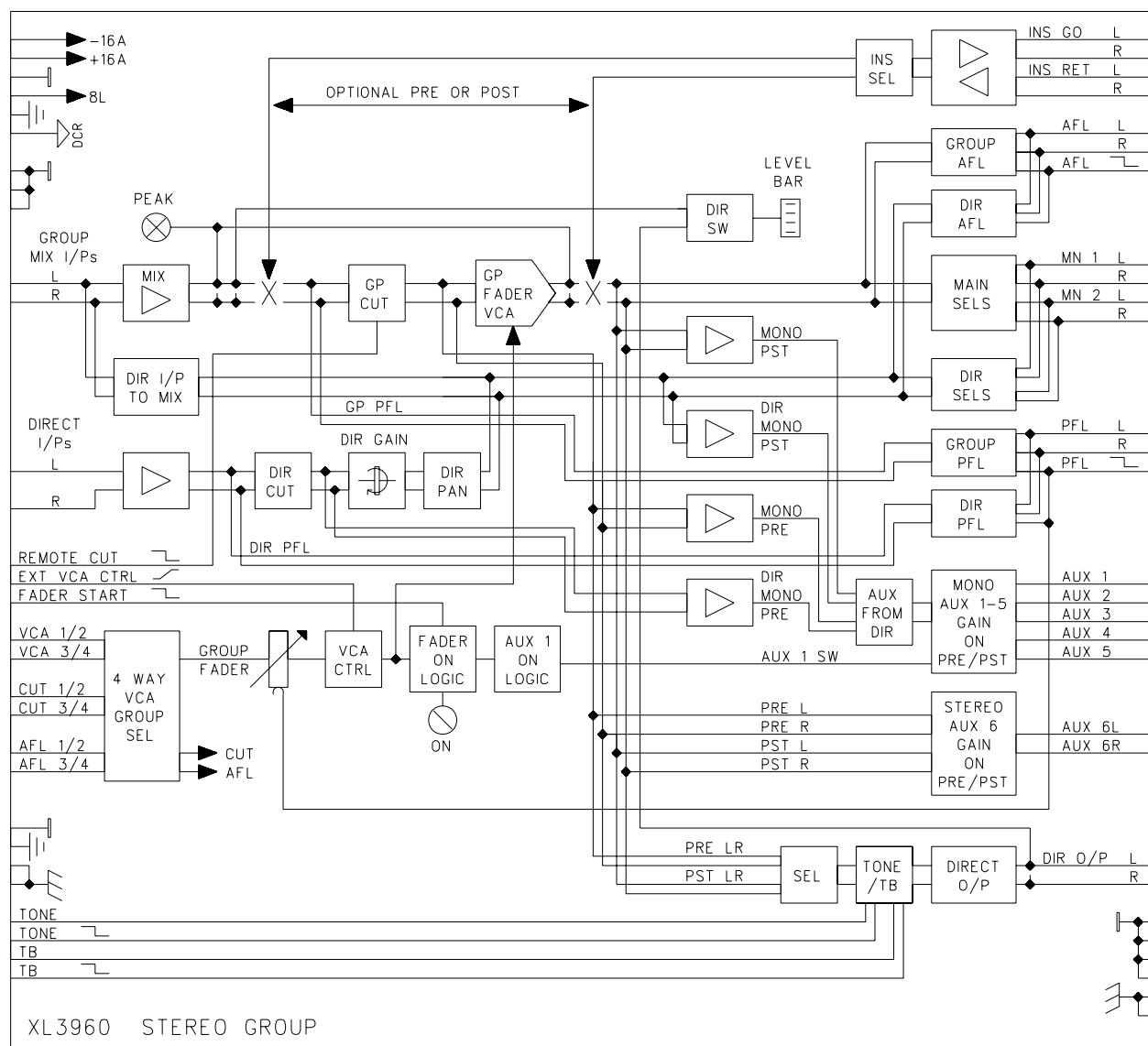
ON Green LED when fader is open

PFL latching button routes Group pre fader signal to small PFL Loudspeaker(s)

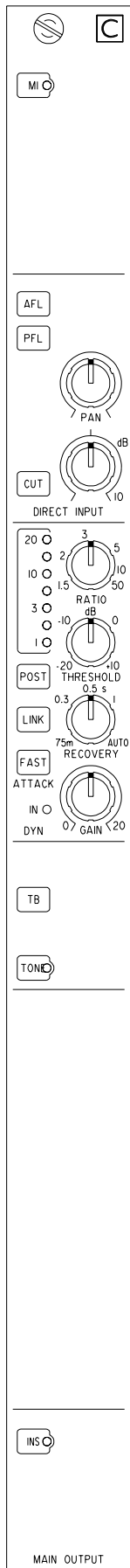
FADER with +10dB in hand and momentary PFL overpress



XL3960 STEREO GROUP



XC3813 MAIN OUTPUT



Routing to Main 1 on Main 2 only. Red LED

- 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(s)
- Direct CUT latching button cuts Direct input signal
- Direct PAN Control pans Stereo Direct input Signal
- Direct Gain 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 bargraph

Normally Pre fader can be set Post fader

LINK can be linked to other MAIN output

ATTACK Normal 4m Sec @ 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

RECOVERY 75m sec to 4 sec variable control

At fully clockwise position becomes AUTO 0.1 to 1.5 secs programme dependant

GAIN Make-up variable control 0 to +20dB

TB Talkback momentary button. Inoperative ON AIR

TONE latching button. Inoperative ON AIR

Insert button. Yellow LED. Selects Insert circuit Pre or Post fader (internal switch)

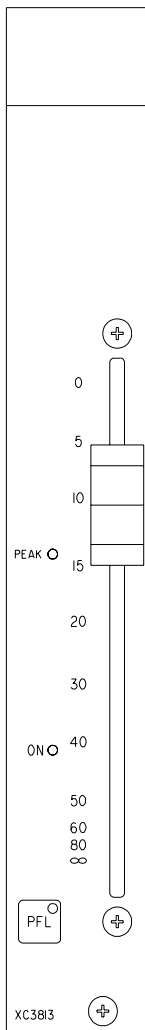
Scribble Strip

PEAK Red LED. Illuminates when signal anywhere in circuit approaches within 3dB of clipping

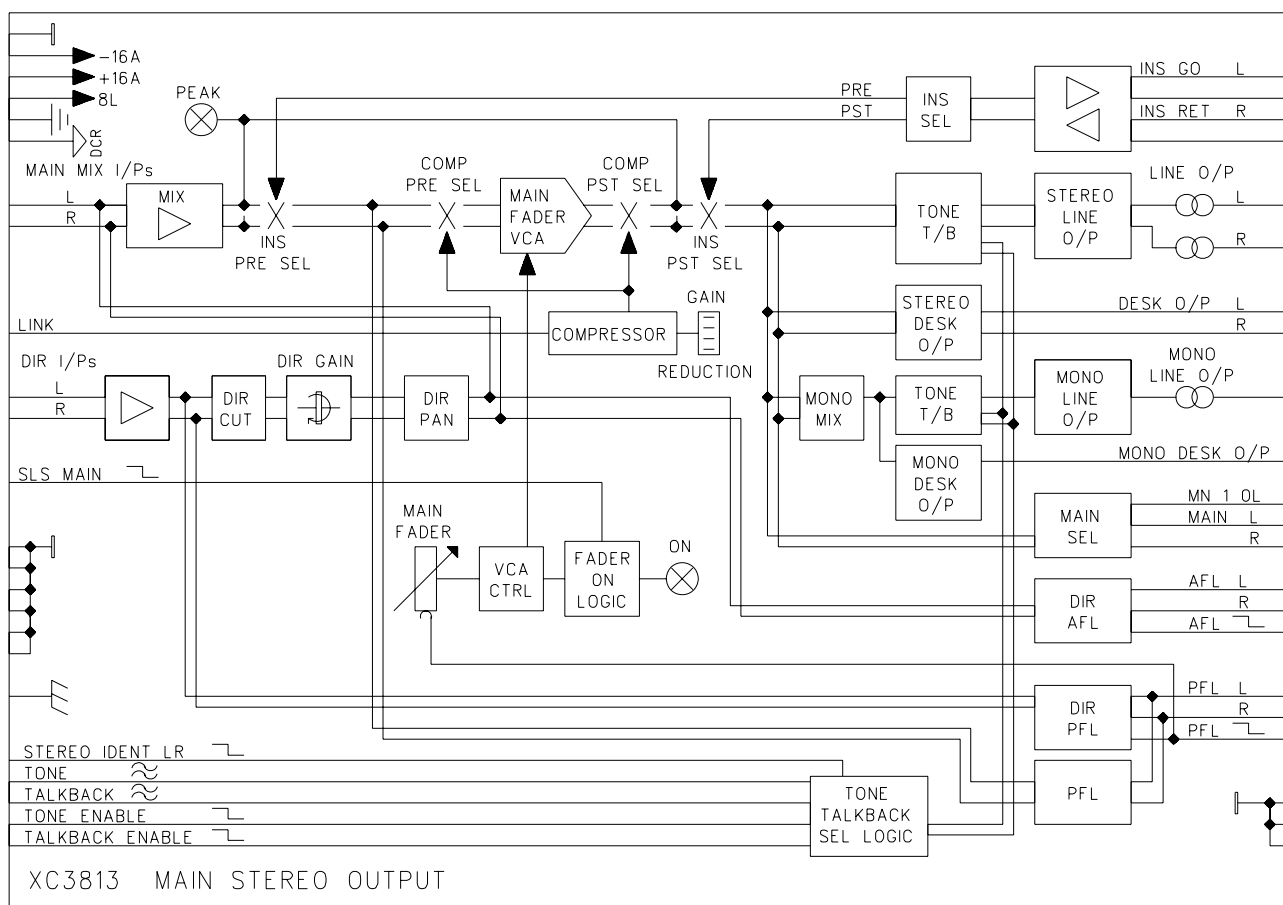
ON Green LED when fader is open

PFL latching button routes Main output pre fader signal to small PFL Loudspeaker(s)

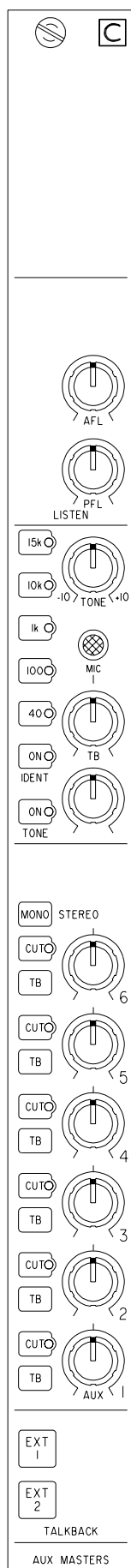
FADER with +10dB in hand and momentary PFL overpress



XC3813 MAIN OUTPUT



AY4007 AUX OUTPUTS



AFL After fade listen trim control to Monitor Loudspeakers
PFL Pre fade listen level control to PFL Loudspeaker(s)

OSCILLATOR FREQUENCY 5 buttons 40, 100, 1K, 10K, 15K
IDENT button pulses tone to main outputs only to EBU or BBC GLITS specification (internal switch)

TONE button switches ON Oscillator. Red LED
TONE control +10dB on nominal 0dBu output

MIC Talkback microphone

TB Sets talkback level

REV TB Sets reverse talkback level to PFL Loudspeaker(s)

Aux 1 - 6 Outputs level controls +10dB in hand

Aux 1 - 6 Output CUT buttons. Yellow LED

Aux 1 - 6 TB - Talkback buttons (momentary)

Aux 6 MONO button. Joins L & R signals together

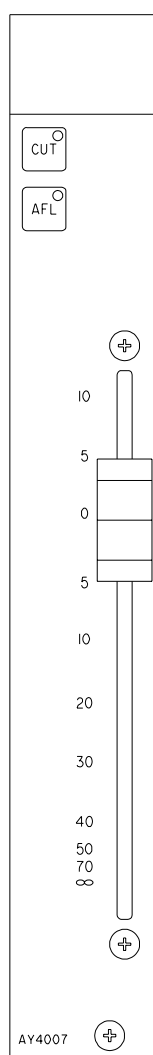
EXT 1 & 2 TALKBACK buttons to external connections

Scribble Strip

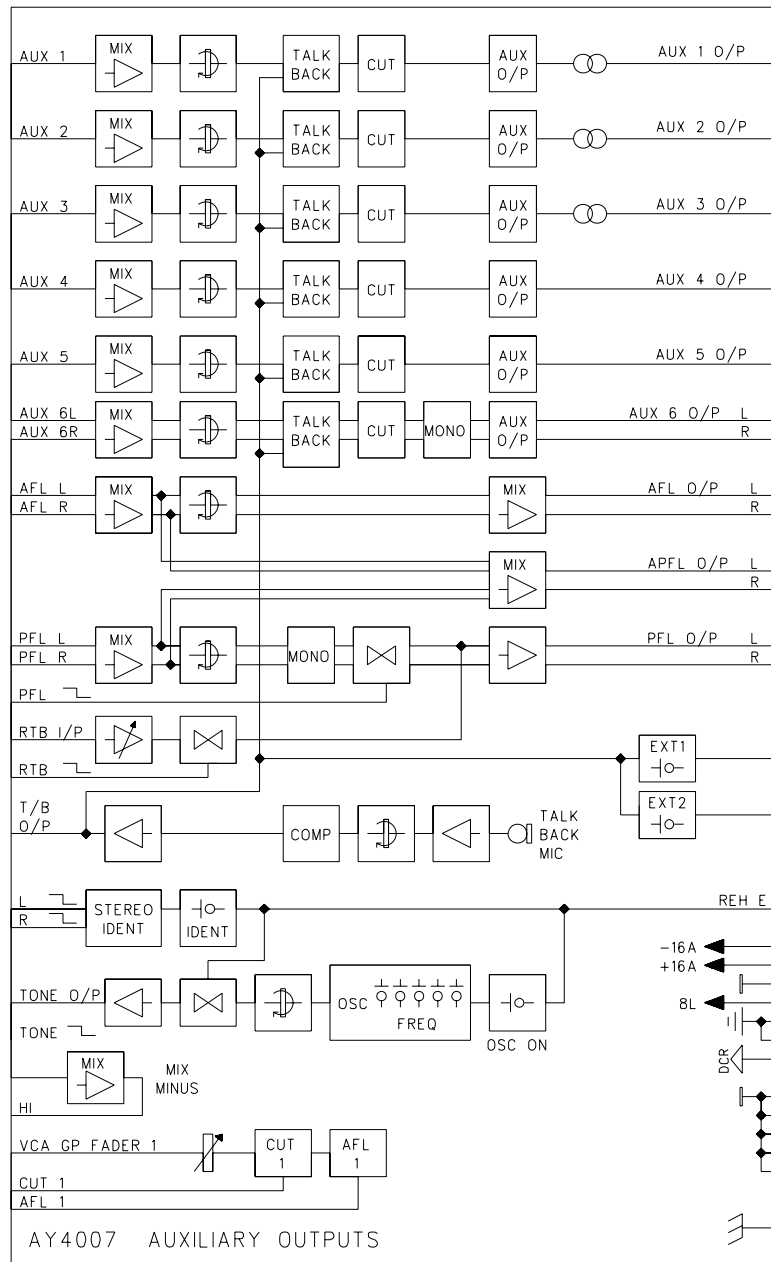
VCA Group 1 fader +10dB in hand

VCA Group 1 CUT button Yellow LED
CUTS channels & groups selected to VCA Group 1

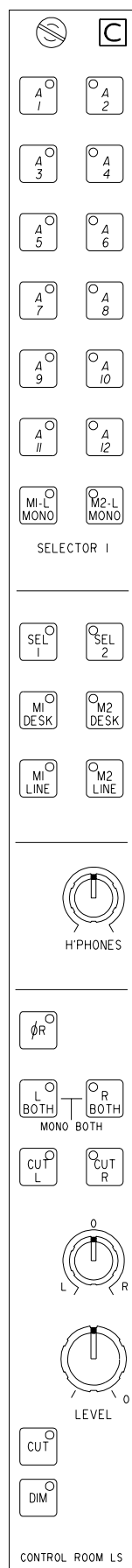
VCA Group 1 AFL button (latching) Red LED sends the output signal from all channels & groups selected to VCA Group 1 exclusively to the Monitor Loudspeakers



AY4007 AUX OUTPUTS



ML3997 MONITOR 1 - CUBICLE LS



SELECTOR 1: 14 Way set of cancelling buttons. Green LEDS

12 External stereo inputs A1 - A12

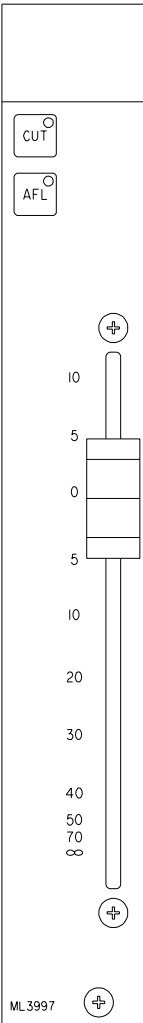
Main 1 & Main 2 MONO LINE outputs Monitor

MAIN SELECTOR to control room Monitor Loudspeakers
6 way set of cancelling buttons. Yellow LEDS

Control room HEADPHONES Gain control

CONTROL ROOM LOUDSPEAKERS - or Phase Reverse right button. Red LED

- L both Left to Both outputs
- R both Right to Both outputs
- L both + R Both mono mix to both outputs
- CUT L cut left loudspeaker. Red LED
- CUT R cut right loudspeaker. Red LED
- L - R Balance control + 3dB
- LEVEL control sets loudspeaker level
- CUT button cuts loudspeakers. Red LED
- DIM button reduces loudspeaker level -14dB. Red LED



Scribble Strip

VCA Group 2 fader

+10dB in hand

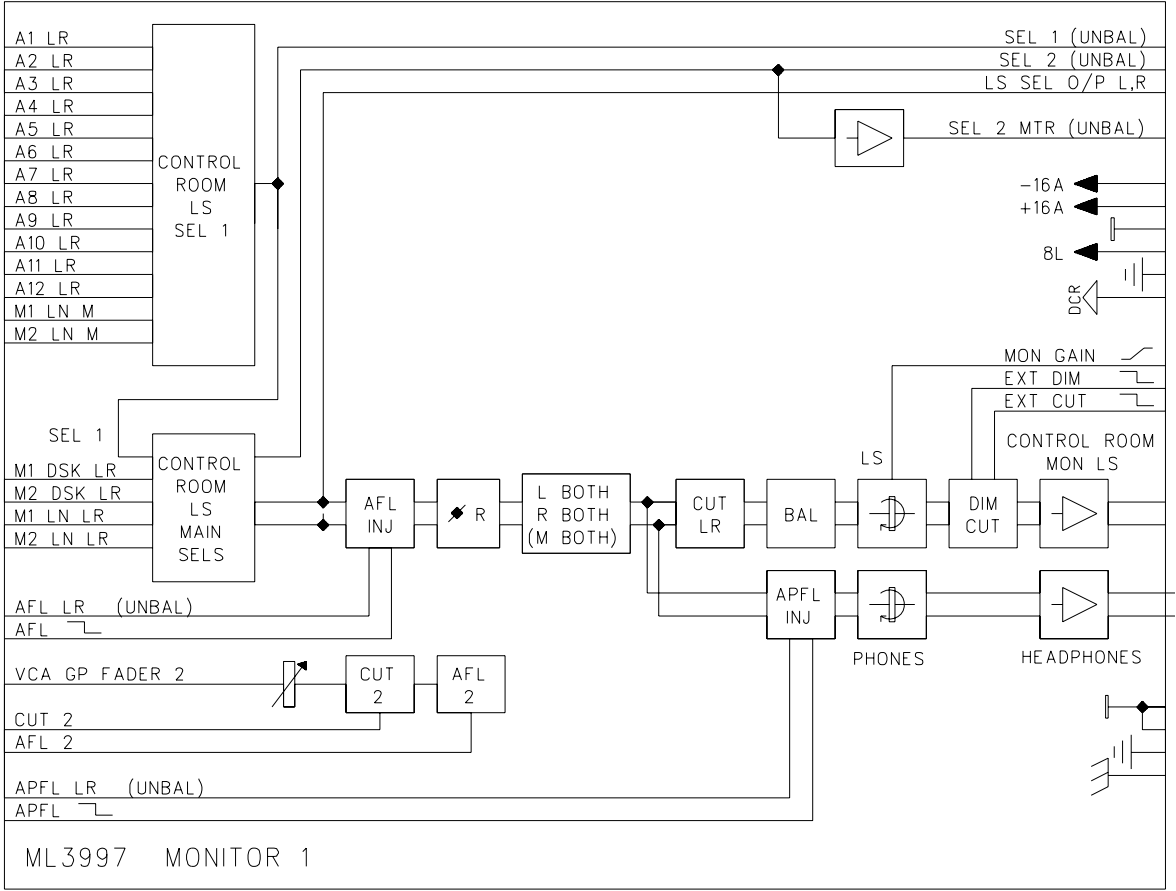
VCA Group 2 CUT button

Yellow LED. Cuts channels & Groups selected to VCA Group 2

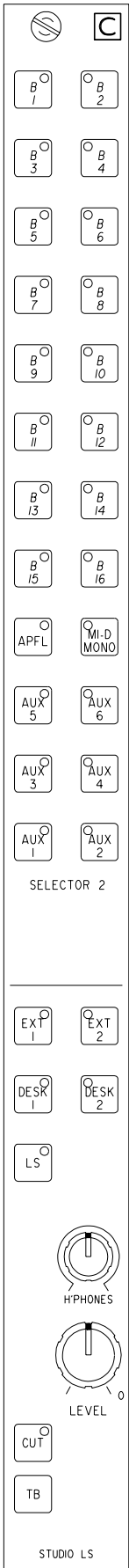
VCA Group 2 AFL latching button

Red LED sends the output signal from all channels & groups selected to VCA group 2 exclusively to the Monitor Loudspeakers

ML3997 MONITOR 1 - CUBICLE LS



ML3998 MONITOR 2 – STUDIO LS



SELECTOR 2 24 way set of cancelling buttons. Green LEDS

12 External stereo inputs B1 - B12
4 External Mono inputs B13 - B16

APFL & spare selections

Auxiliary 1 - 6 Monitor

Studio Loudspeaker selections:-
2 External Stereo inputs Ext 1 & Ext 2
Desk 1 & 2 Monitor inputs
LS Follow control room Monitor selection

Studio Headphones gain control
Studio Loudspeaker level control

CUT Cuts studio Loudspeaker.
Operates automatically when Microphone channel is open to Main Output. Red LED
TB Talkback to Studio Loudspeaker and Headphones - Loudspeaker inhibited ON AIR

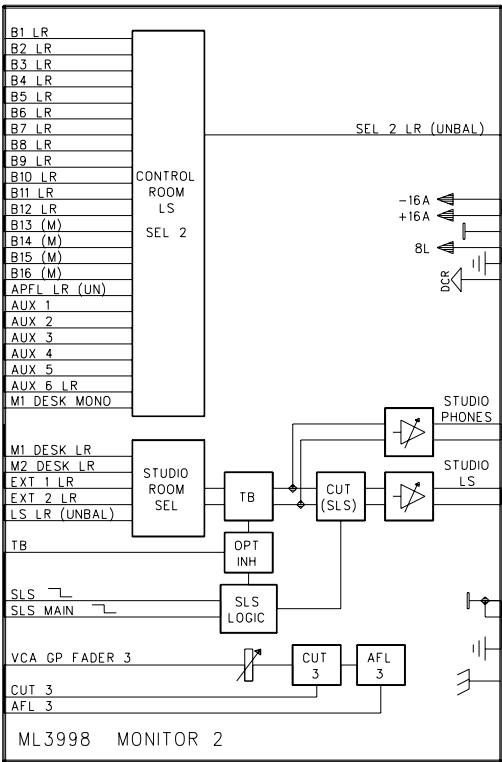
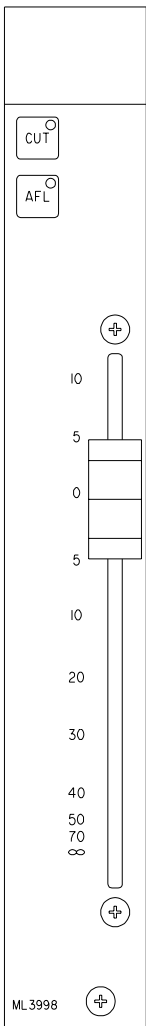
Scribble Strip

VCA Group 3 fader
VCA Group 3 CUT button

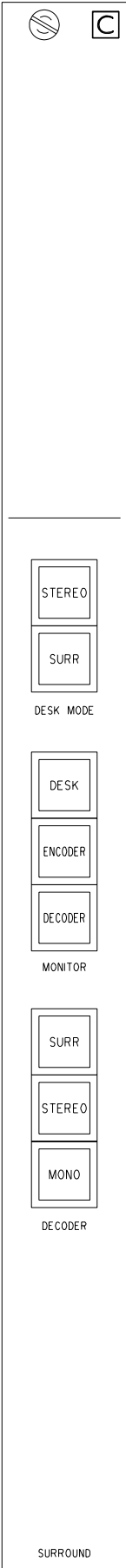
VCA Group 3 AFL latching button.

+10dB in hand
Yellow LED. Cuts channels & Groups selected to VCA Group 3

Red LED. Sends the output signal from all channels & groups selected to VCA Group 3 exclusively to the Monitor Loudspeakers



ML3999 MONITOR 3 – SURROUND



DESK MODE: 2 way selector - Normal Stereo or Surround

MONITOR SELECTOR ON SURROUND: Normal condition DESK Monitors the desk surround output. Monitor checks can be made at the ENCODER output (in stereo) and at the Monitor DECODER output as a comparison to the DESK output

DECODER MODE SELECTOR. The decoder can be remotely controlled to check SURROUND output (normal) and STEREO & MONO compatibility

Scribble Strip

VCA Group 4 fader

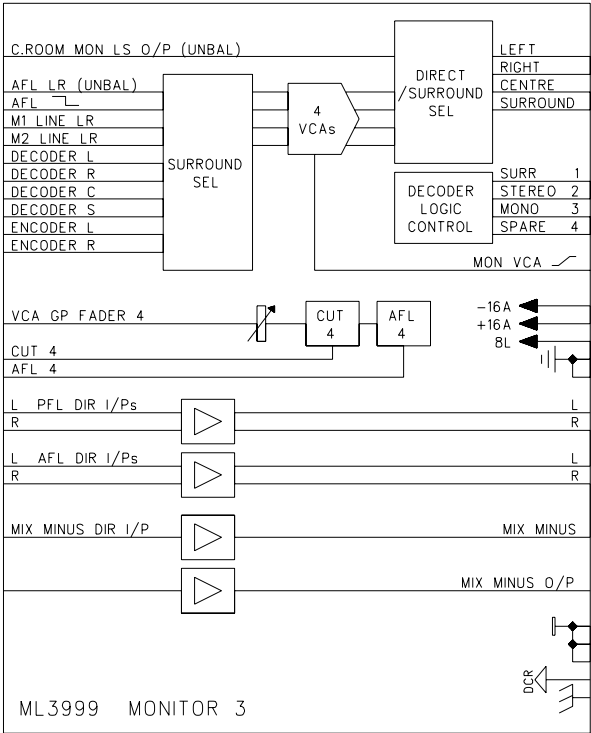
+10dB in hand

VCA Group 4 CUT button

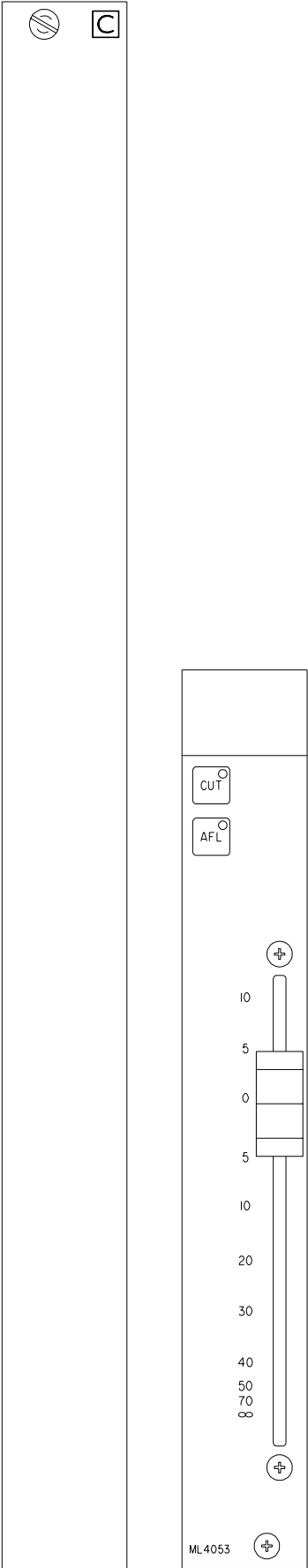
Yellow LED. Cuts channels & Groups selected to VCA Group 4

VCA Group 4 AFL button (latching)

Red LED. Sends the output signal from all channels & groups selected to VCA Group 4 exclusively to the Monitor Loudspeakers



ML4053 MONITOR 3 – NO SURROUND



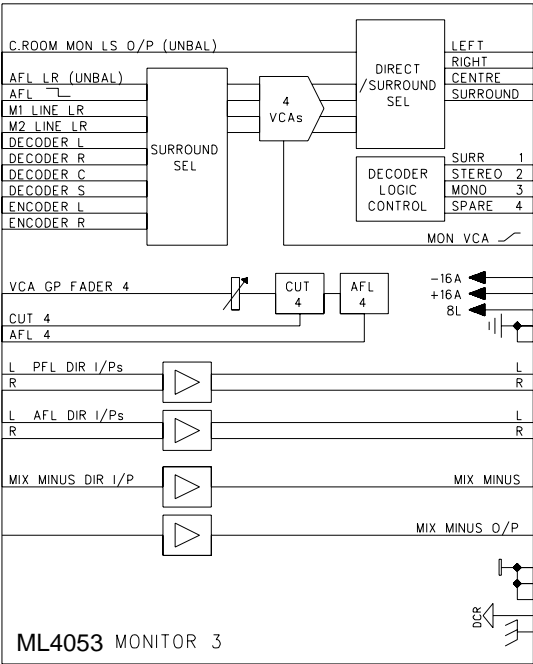
Scribble Strip

VCA Group 4 fader
VCA Group 4 CUT button

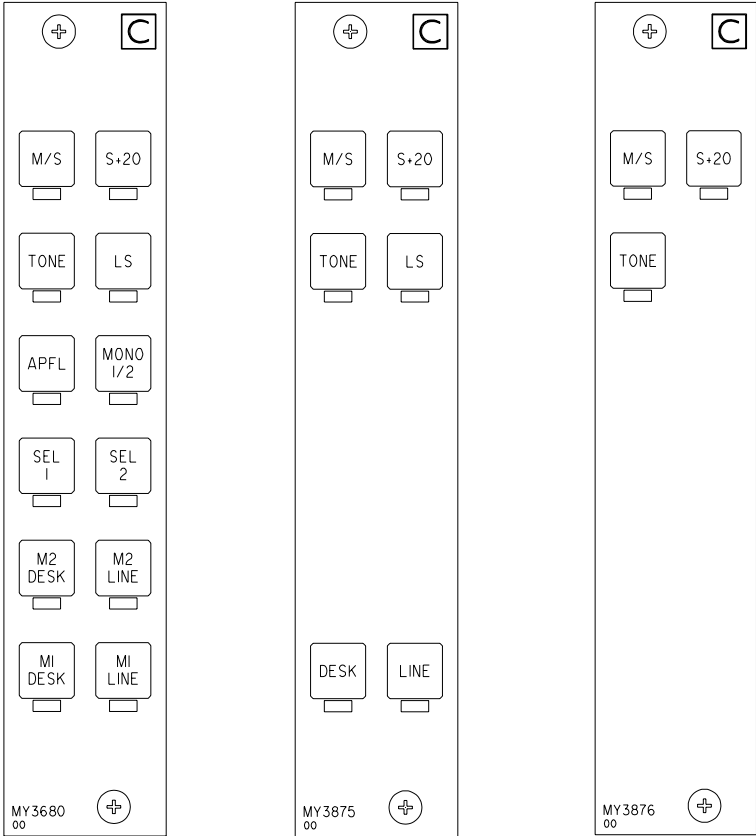
+10dB in hand
Yellow LED. Cuts channels &
Groups selected to VCA
Group 4

VCA Group 4 AFL latching button

Red LED. Sends the output
signal from all channels &
groups selected to VCA Group
4 exclusively to the Monitor
Loudspeakers



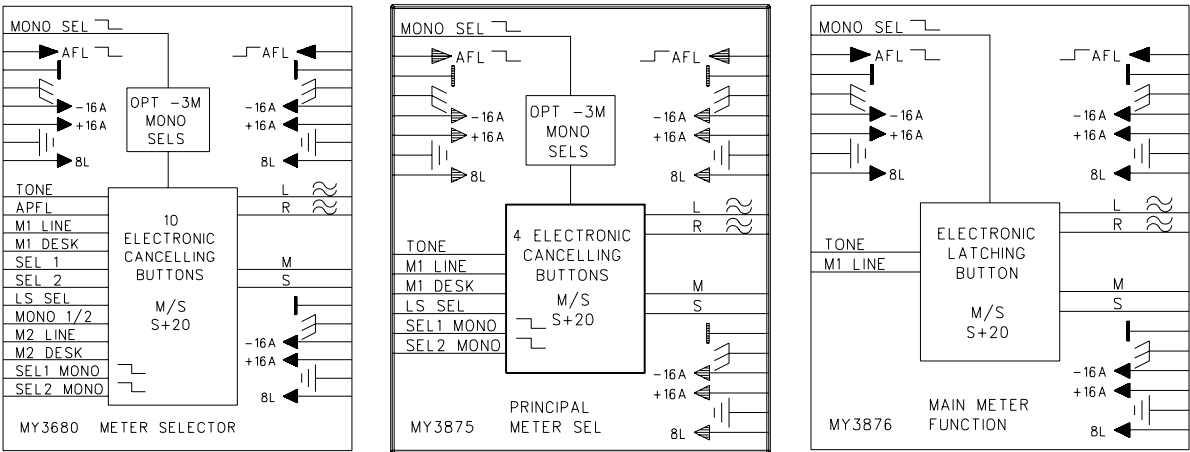
MY3680 ANCILLARY METER SELECTOR
MY3875 MAIN METER SELECTOR
MY3876 MAIN LINE METER SELECTOR



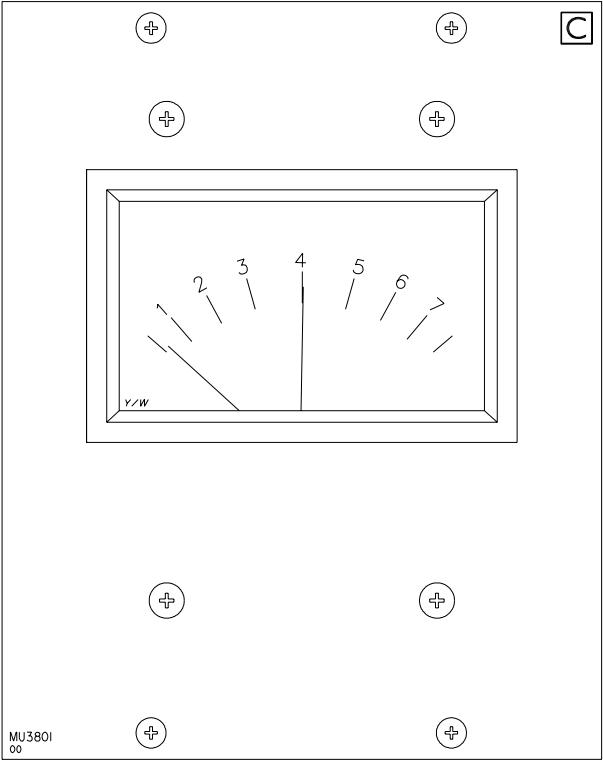
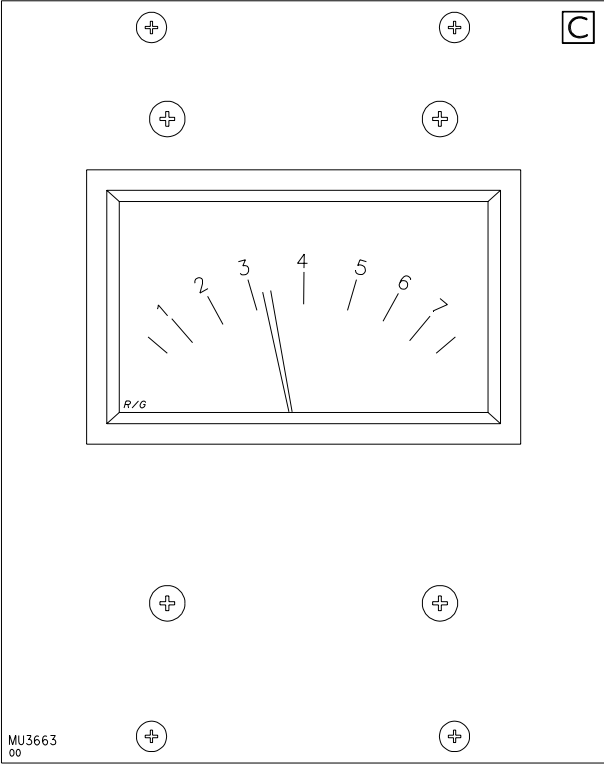
Selections from labelled sources.

Yellow LEDs - Electronic cancelling set (latching on MY3876).

M/S latching & S+20. Red LEDs.

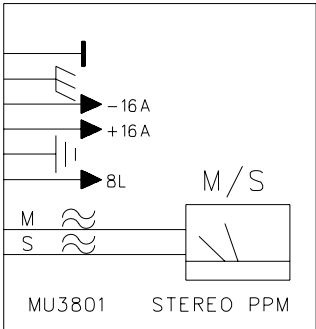
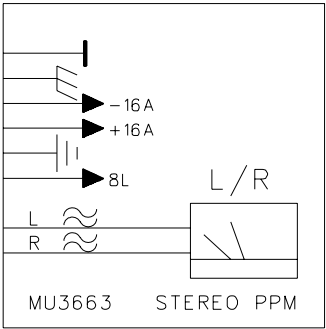


MU3663 L/R PPM METER
MU3801 M/S PPM METER

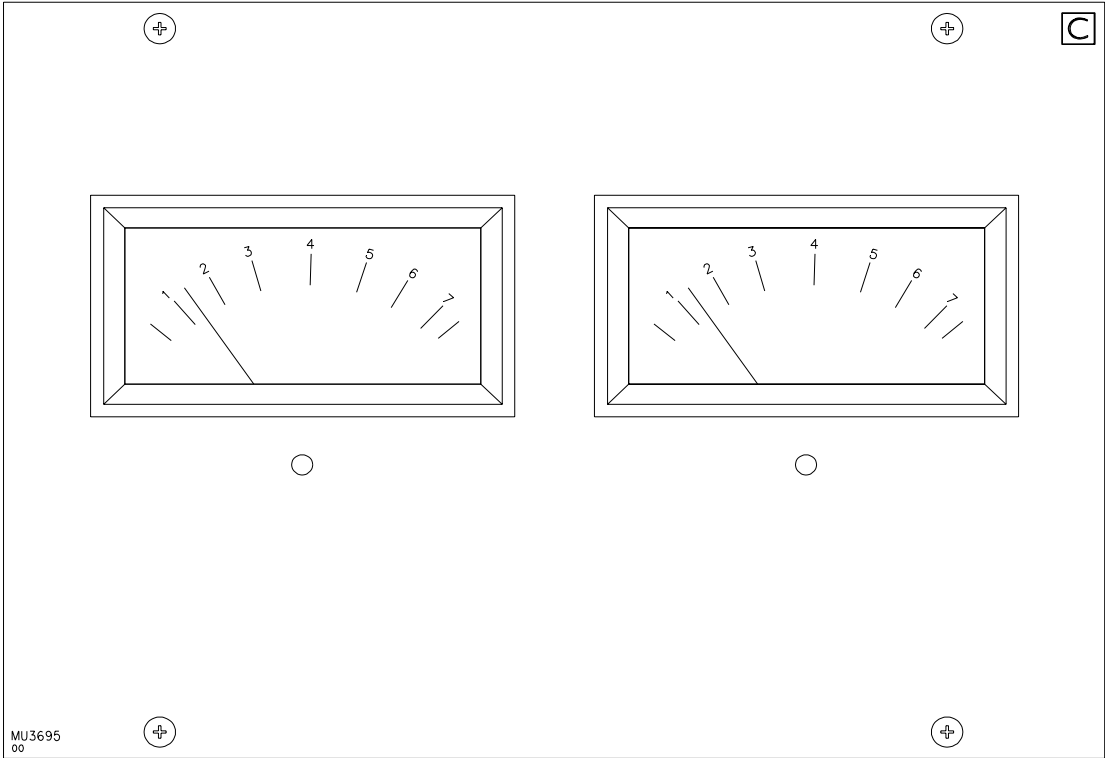


MU3663 Stereo PPM with Red/Green needles and illumination.
MU3801 Stereo PPM with White/Orange needles and illumination.

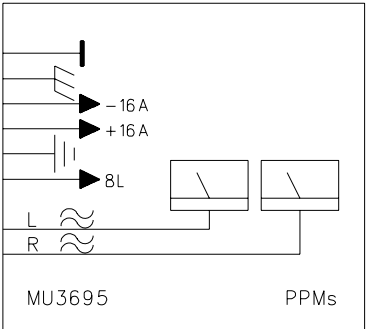
Internal PPM drivers.



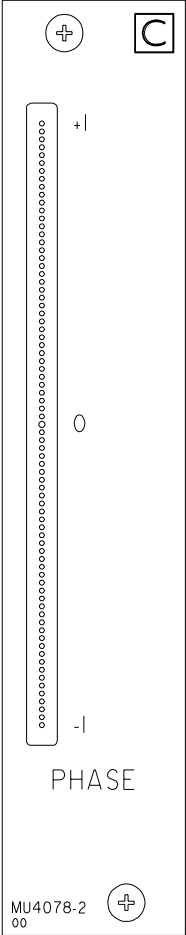
MU3695 TWIN MONO L/R PPM METERS



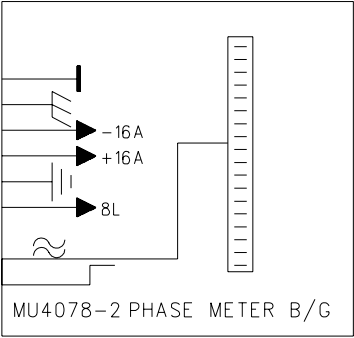
Mono PPMs with white needles and illumination.
Internal PPM drivers.



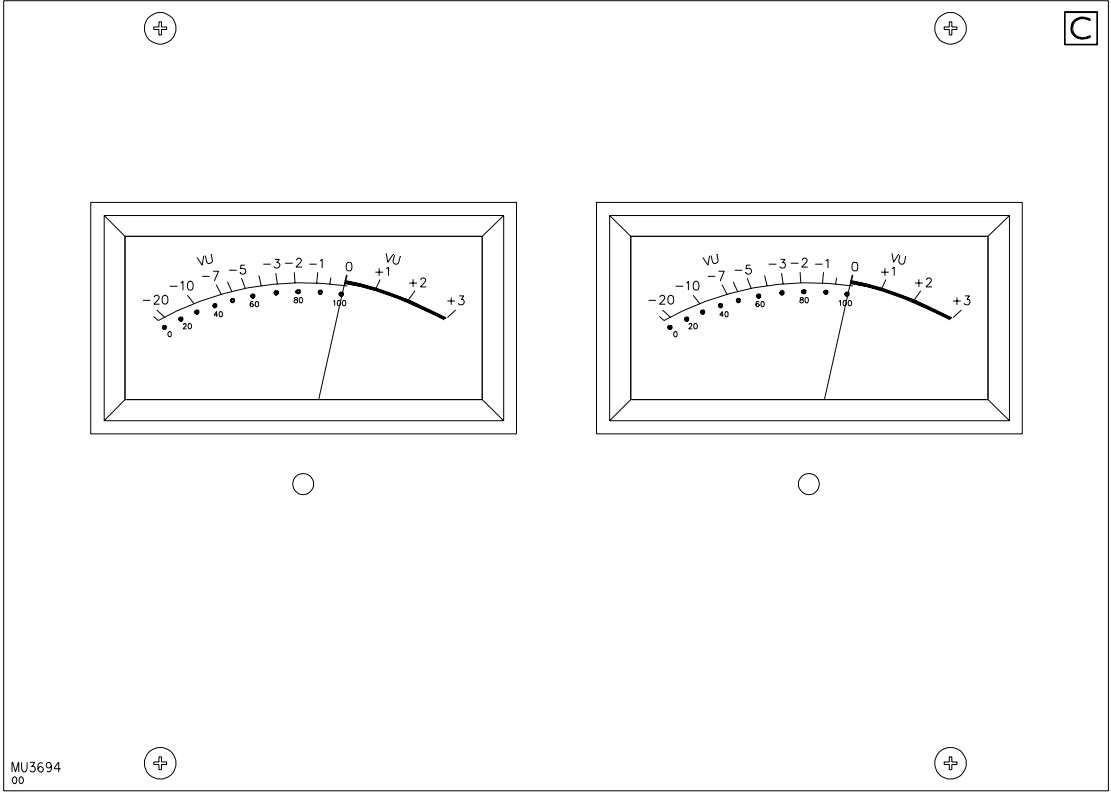
MU4078-2 PHASE METER BARGRAPH



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

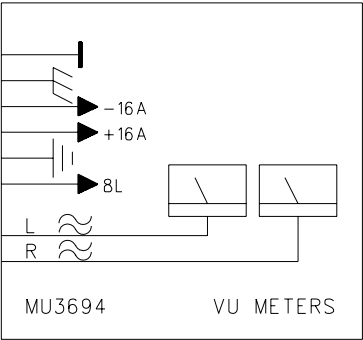


MU3694 TWIN MONO L/R VU METERS

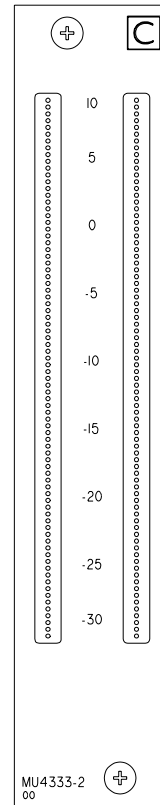
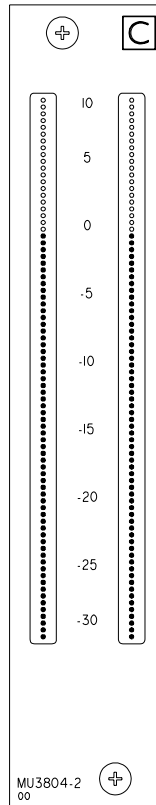
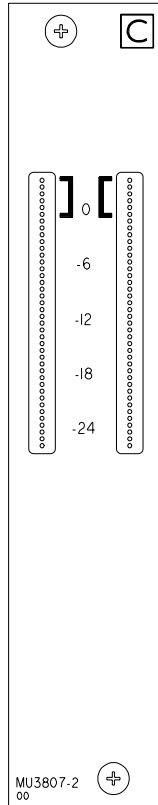


VU meters with illumination.

Internal buffer amplifiers.



MU3807-2 SMALL STEREO BARGRAPH MU3804-2 LARGE STEREO BARGRAPH MU4333-2 LARGE STEREO BARGRAPH - REVSD.COLS

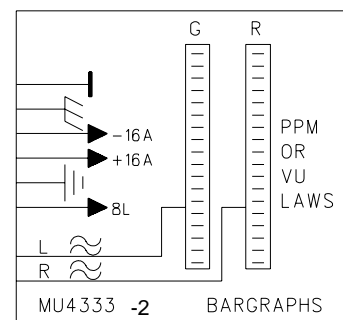
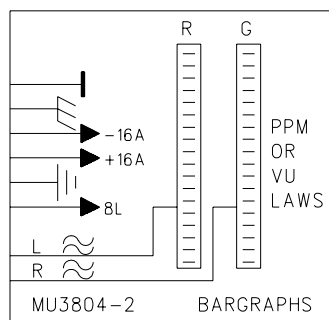
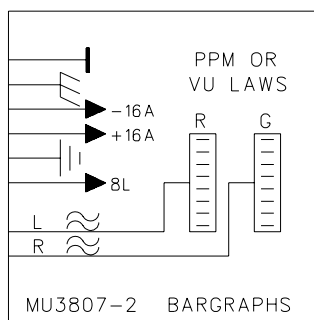


Twin LED bargraphs - 40 LED's each for good resolution.

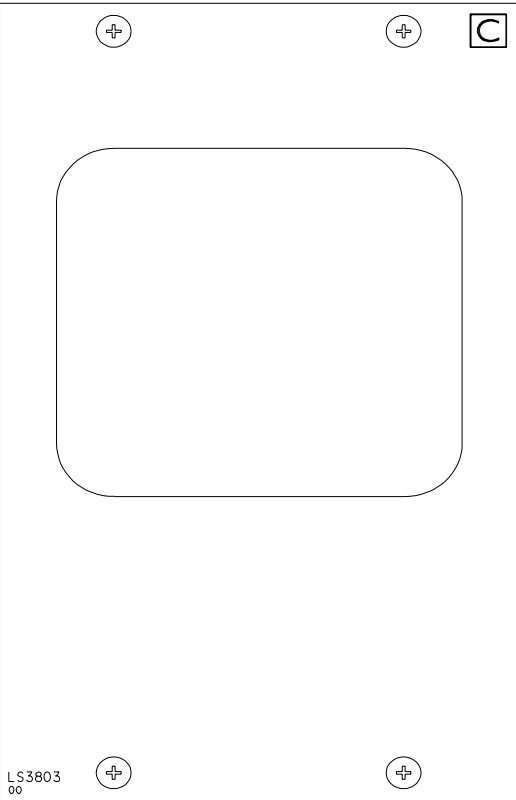
Left hand bar is RED.

Right hand bar is GREEN. (Reversed colours on MU4333)

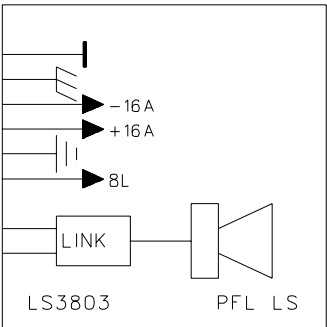
Bars brighten at 0dB representing +6 or +8 dBu for PPM or +4dBu (SCALE 0) for VU (set internally).



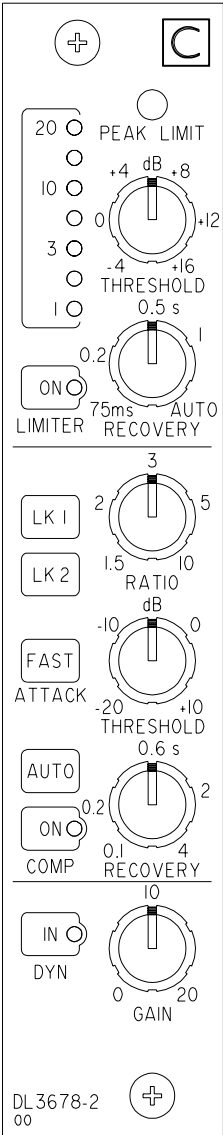
LS3803 PFL LOUDSPEAKER



Module can be set for Left, Right or Mono use.
Module can receive Reverse talkback plus an extra intercom signal if required.



DL3678-2 COMPRESSOR LIMITER



Stereo Limiter

Ratio	fixed 100/1
Threshold	-4/+16dBu variable
Attack	fixed 100 u-secs
Recovery	0.075 to 4 secs variable with AUTO facility: 0.1 to 1.5 secs (programme dependent)
Peak Limit	Yellow LED indicator
Limiter	On button with Yellow LED indication

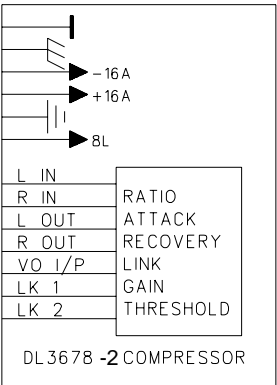
Stereo Compressor

Ratio	1.5/10 variable
Threshold	-20/+10dB variable
Attack	Normal 4 msec @ 5:1 or FAST 0.2mS @ 5:1
Recovery	0.1 to 4 secs variable with AUTO facility: 0.1 to 1.5 secs (programme dependent)
Make-up Gain	0/20dB variable
Voice-over	Line level balanced input (may be used when compressor is Off)
Compressor	ON button with Yellow LED indicator

Compressor & Limiter

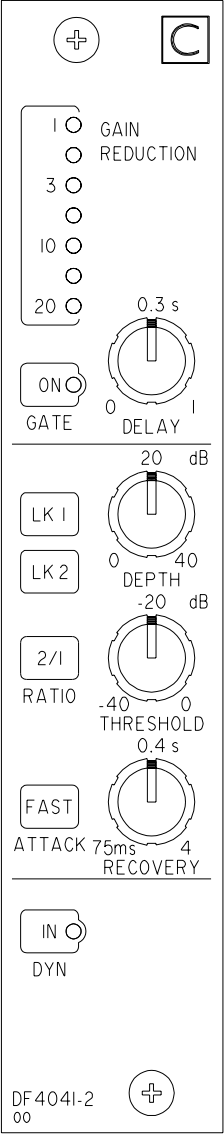
Bargraph	Up to 24dB gain reduction with enhanced resolution at lower reduction levels
Links	Button 1 & 2 to external buss or pairs etc - links side chains together.
DYN-IN	Button with Red LED indication - when OUT gives total bypass condition except that bargraph operates as a preview at reduced intensity

Balanced line input & outputs, 0dBu
Ignore right channel for mono use



The compressor and limiter normally respond to the higher of the left and right signals. An internal option allows the mono reduction of left and right (-3dB) to take control if the stereo coherence is such that this exceeds left or right. This renders it unnecessary to “under-drive” the stereo outputs to guard against the possibility of a higher than desired mono level.

DF4041-2 EXPANDER GATE



Stereo Expander

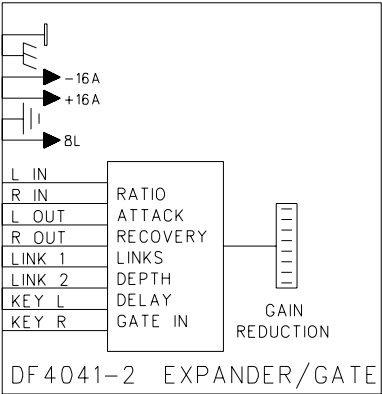
Ratio	Normal, varies with level 1.5/1 to 5/1 Fixed 2/1 (button)
Threshold	0/-40dBu variable
Attack	Normal 4 ms. FAST (button) 50 u-sec
Recovery	75ms to 4 sec variable
Depth	0/40dB variable (extent of expansion below threshold)
Bargraph	Up to 20dB gain reduction
Links	1 & 2 to external busses or pairs

Stereo Noise Gate

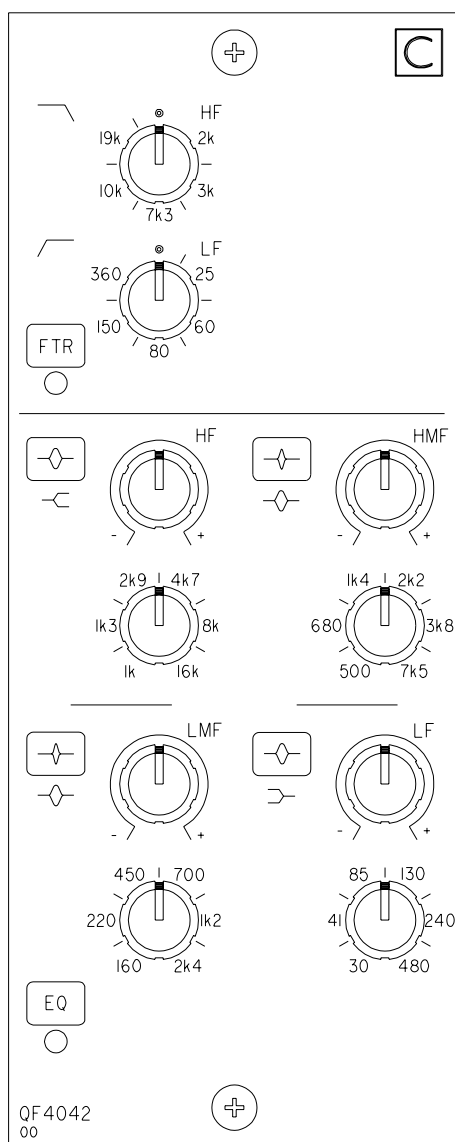
Gate	Button with LED indication. All expander controls apply except Ratio becomes infinite
Gate Delay	0/1 sec variable - in addition to normal 6dB gate hysteresis

Expander & Noise Gate

DYN-IN	Button with LED indication - when OFF gives total bypass condition except that bargraph operates as a preview at reduced intensity
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QF4042 EQUALISER



Stereo Filters / Equaliser

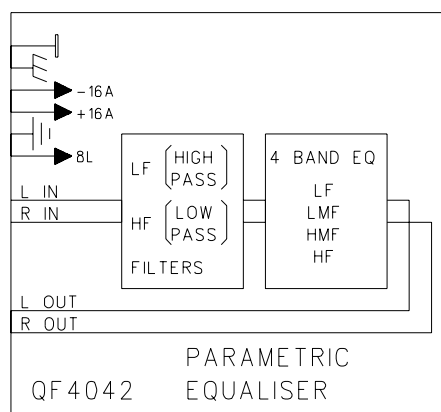
[illegible]

4 band parametric equaliser $\pm 16\text{dB}$ max at selected frequencies

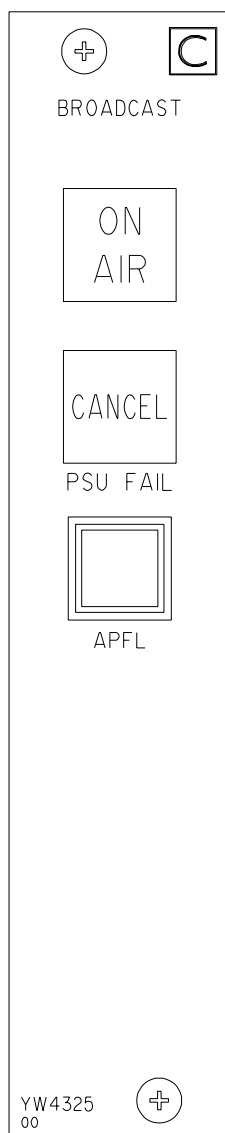
Exclusive lift/cut law allows fine control near centre and low noise in detent

LF & HF bands can be shelf or bell (Q 1.0)
LMF & HMF bands can be normal Q (1.0) or high Q (3.5) bell

Separate Filters & EQ in buttons



YW4325 BROADCAST PANEL

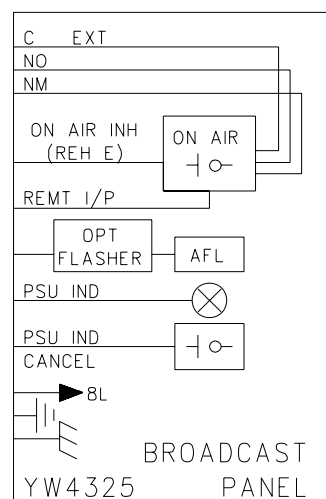


ON AIR - Large button with RED LED - Inhibits Tone and Talkback within the console and closes relay contacts to other areas

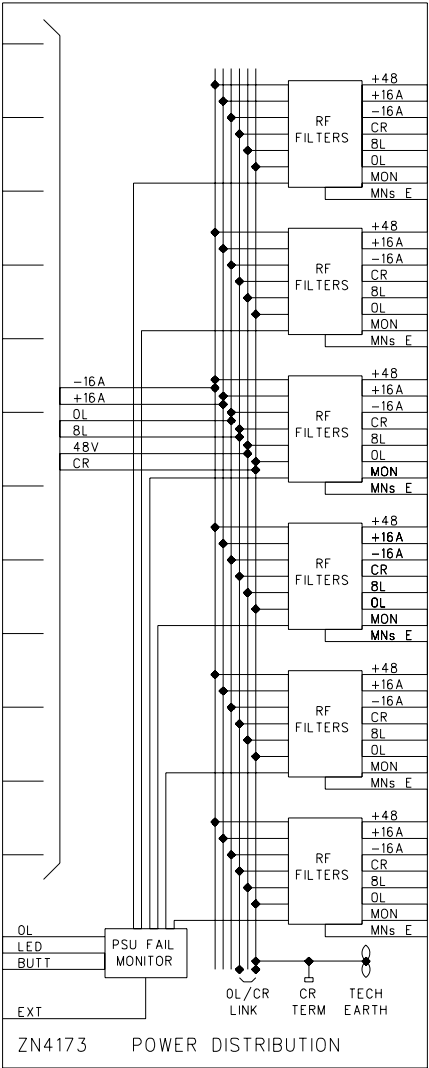
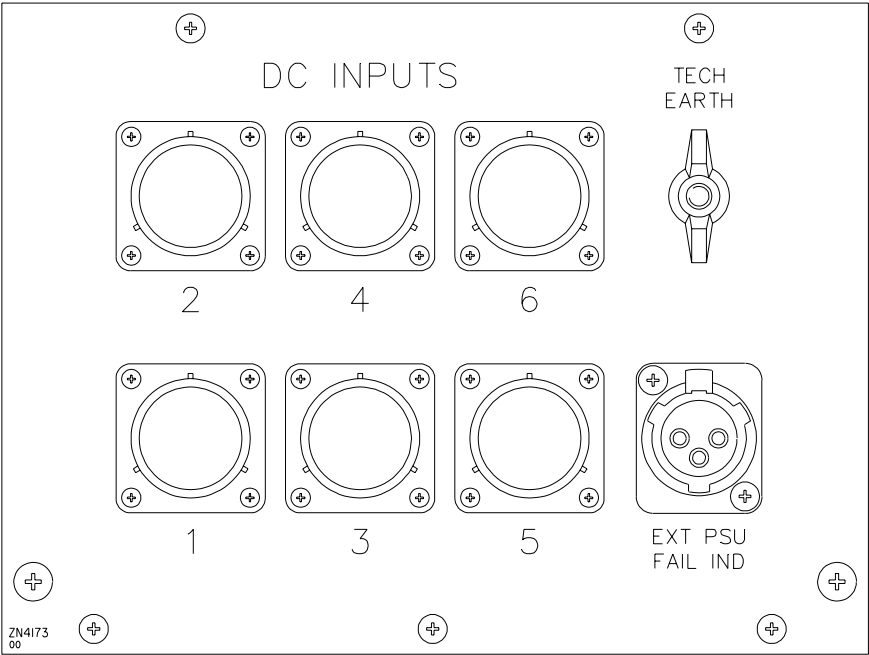
PSU FAIL/CANCEL - Red LED occults when a PSU or part of a PSU has failed. Occulting may be cancelled by button but will resume with a further failure or if the console is switched off and on again

APFL - Large RED LED - illuminated when ANY AFL selection is made - to avoid an operator being misled by their monitor loudspeakers

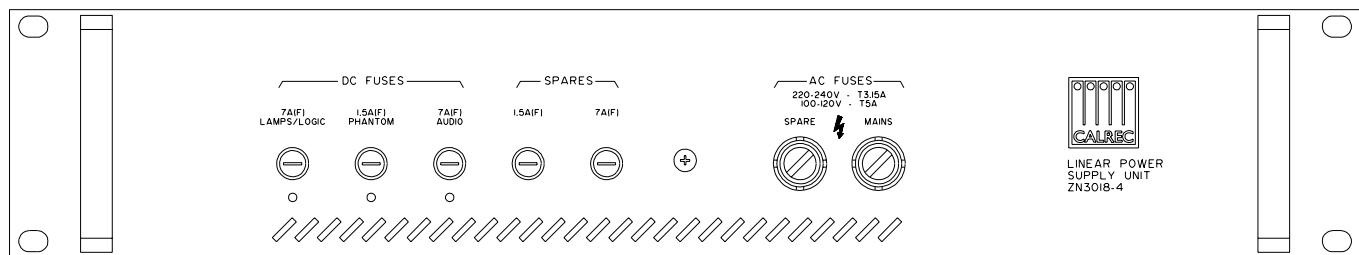
Also operates for PFL if PFL MON is selected



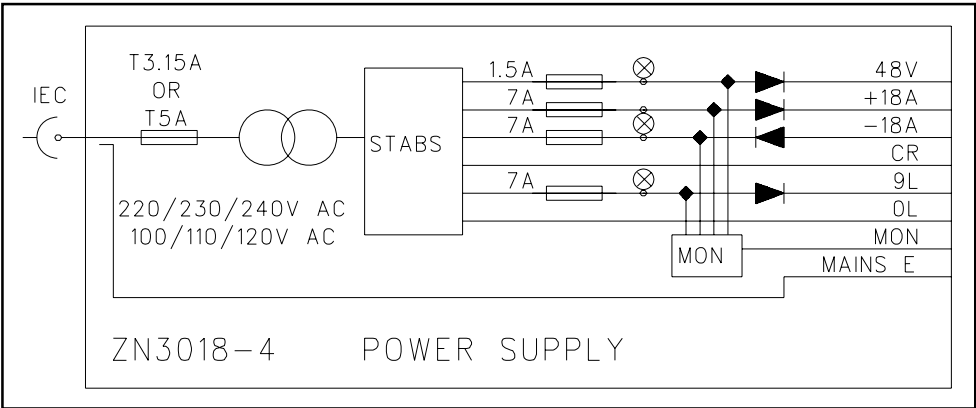
ZN4173 DC POWER INPUTS



ZN3018-4 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 failure. The units operate in parallel via internal diodes. The units are designed to operate at mains voltages 10% below that set.



C2 CONNECTIONS



CONNECTIONS

All connections are Varicon 56-way . Audio connections are all balanced.

<u>Interface</u>	<u>Recommended</u>		<u>Min Load</u>
	<u>Level</u>	<u>Impedance</u>	
Microphone I/Ps			
VP56 - 1 per 6chs	-75/+5dBu	1.2 K Ω	-
Line I/Ps VP56 - 1 per 6chs (plus VP38s St Lne)	-24/+18dBu	10 K Ω	-
Insert Go VP56 - 1 per 12 chs	0dBu	<40 Ω	600 Ω
Insert Return VP56 - 1 per 12chs	0dBu	20 K Ω	-
Direct Outputs VP56 1 per 12chs	0dBu (+10)	<40 Ω	600 Ω
External Cuts/VCA ctrl/ Fader on - VP56 1 per 12chs (8 Grps)	5V/0V operate	-	-
Group Directs I/Ps VP56	0dBu	20 K Ω	-
Auxiliary Outputs VP56	0dBu	<40 Ω	600 Ω
Main Outputs/Mn Dir I/Ps/W			
Monitor VP 56	0dBu	20/20 K Ω	600 Ω
Monitor LS I/Ps VP56	0dBu	20 K Ω	-
Optional additional Monitor I/Ps VP56	0dBu	20 K Ω	-
Main D.C Interface (Cuts/ dims/tone/tb etc) VP56	5V/0V operate	-	-
Optional Compressor/ Limiter conns VP56	0dBu	20/20 K Ω	600 Ω

* Note - Recommended minimum loads of 600R can be 300R with reduced output levels.

C2 SPECIFICATION



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

Microphones	Transformer balanced	1k Ω
	Sensitivity	-10/-60dBu in 10dB steps +/- 15dB Variable trim
	Input Headroom	32dB Above setting Maximum input +12dBu
Line	Electronic balanced	20k Ω
	Sensitivity	+/-15dB Variable trim Maximum input +32dBu

Monitor/Direct	Electronic balanced	20k Ω
	Sensitivity	0dBu

Outputs

Main Line	Transformer balanced	0dBu into 600 Ω
	Maximum output	+25dBu into 600 Ω +28dBu into 10k Ω
	Source impedance	25 Ω nominal
Aux 1 - 3	Transformer balanced	0dBu into 600 Ω
	Maximum output	+22dBu into 600 Ω
	Source impedance	30 Ω nominal
Main Desk/Aux 4-6 Groups/Dir/Ins go/ Mon LS/Talkback	Electronic balanced	0dBu into 600 Ω
	Maximum output	+25dBu into 600 Ω +28dBu into 10k Ω
	Source impedance	40 Ω nominal
	Output balance	-40dB at 1KHz
	Output common mode :Transformer	-70dB
	:Electronic	-50dB

Performance

Noise	Microphone (EIN)	-125dB
		200 Ω , RMS
Distortion	Line/Group/Main	< -83 dBu
	at +16dBu	<0.03%
		40Hz-10kHz
Freq. Response	Any circuit	+/-0.5dB, 20Hz-20kHz
Input/Output Balance	Microphone	<-75dB at 1kHz, <-65dB at 10kHz
Crosstalk	Line level circuits	<40dB
	Fader cut-off	<-90dB at 1kHz <-85dB at 15kHz
	Adjacent channel	<-85dB at 1kHz <-70dB at 10kHz
	Stereo path	<-60dB at 10kHz

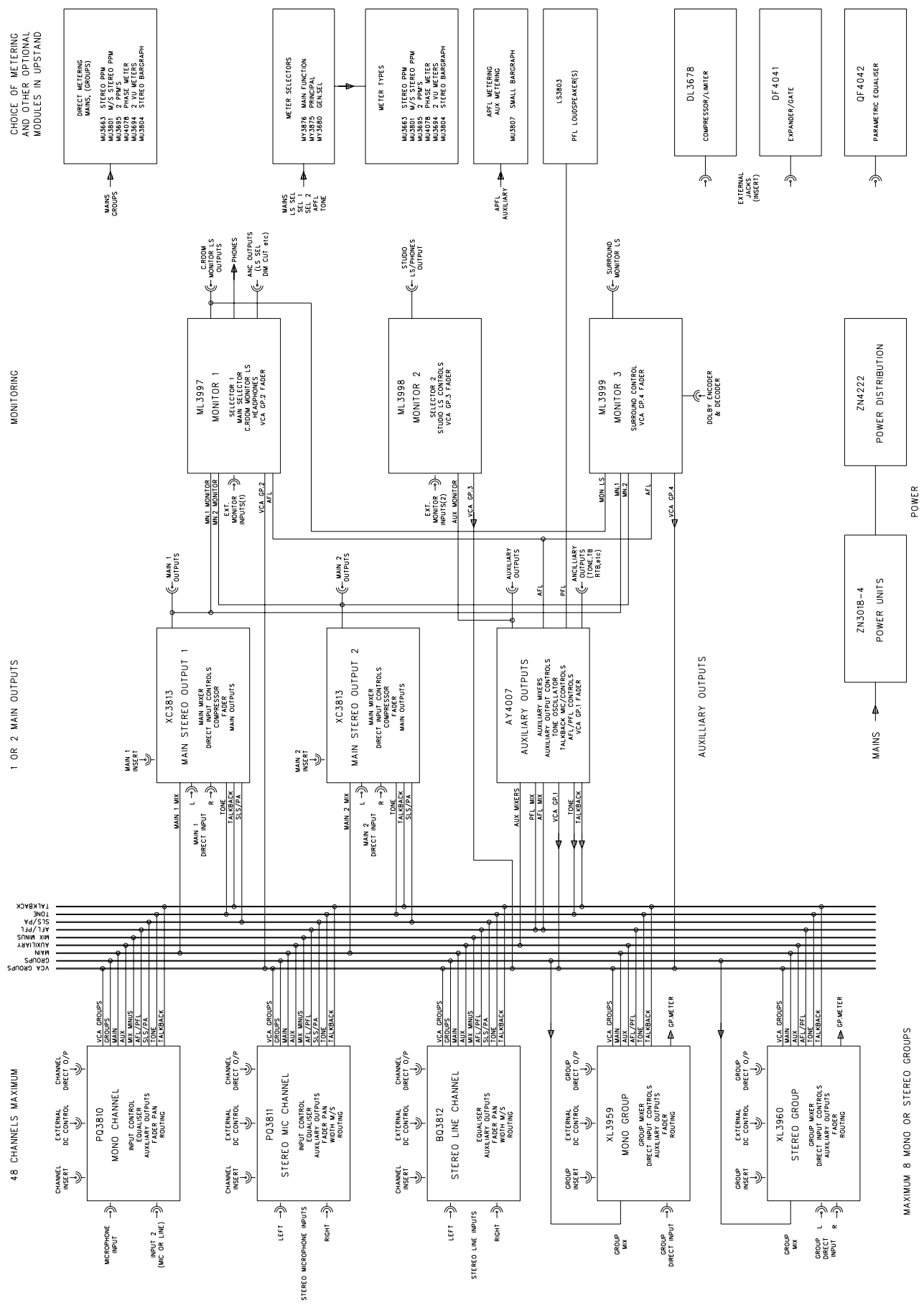
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C2

GENERAL INFORMATION



SIMPLE BLOCK SCHEMATIC



Notes

Calrec Audio Ltd
Nutclough Mill
Hebden Bridge
West Yorkshire
England UK
HX7 8EZ

Tel +44 (0)1422 842159
Fax +44 (0)1422 845244
Email Enquiries@calrec.com

calrec.com

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