Soundcraft

MH4

SOVICO
SOUND VISION COMMUNICATION

CPS800

MH4

.

!

.

:

(earth): (/ -)
(neutral): (-)
(live): (-)

:

• E
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• N .
• .
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' .

Sovico

■　(Introduction)

MH4 '　　　　　(dual purpose)　　　　　　　　　　　　　(mid-range)　PA
　　　.

　　　　　　　　　　　　　.

　　　　　　　　　　PA　　　　　　　　　　　　.

MH4　　　　　　　　　　：
- 23+4, 32+4, 40+4, 48+4　　　56+4
- 50dB　　　　　　-20dB　　　　　(level shift: max 60dB　)

- 　　　　　　　(Sweep high-pass filter)　EQ(　　　　　　　　4　　　)
- FOH　　　8　　　　12　(Aux)
- 　　　　　　16　　　(16　, 12　+2　　, 　8　+4
　　　　)
- 　-　LCR　(Panning)
- 8 VCAs　8　　. VCAs　　　　　　　　　　　　.
- 　　　　　　　　　　(　4)
- 20 * 8
- 100mm　　　　　　　　　　　(Alternate Stereo Output)
- 　　　　　　-　　　　(In-Ear Monitoring)　　　　-
　　EQ
- 　EQ　FX　　　　　　　　　　　　　　　　　.
- 　,
- 　　　　　　　　　　　　(　　MH4　　　　　　　)
- VU　　meterbridge (　)
- 　　　　　：　　　　　VCA
- 　　　　　　　　MIDI　(specification),　　　　　/
　　,　　　note on/off

(Installation)

(Dimensions and Configurations)

CONSOLE	OVERALL WIDTH mm [inches]
24CH	1445.411 [56.91]
32CH	1714.411 [67.50]
40CH	1958.411 [77.50]
48CH	2222.411 [87.50]
56CH	2476.411 [97.50]

sovico

■

(Precautions and Safety
Instructions)

(General Precautions)

,   ,

.

.

:   .

.

.

. (,

,   ):   (Leads)   (Chasis)

.

.

!   .

(Handling And Transport)

.

.

.   (flight

case)   .

.

(Power Supplies & Cables)

:

;

.

!   ,   ,

.

PSU   .

!   PSU(CPS800)   .

(Signal Levels)

.

.

.   ,

DC, AC   RF   .

, 0dBu = 0.775V RMS.
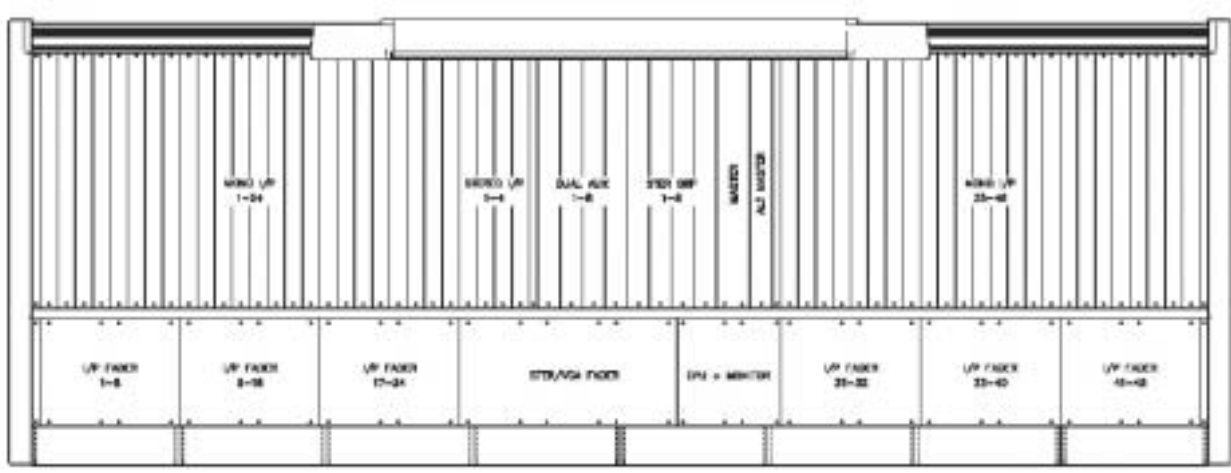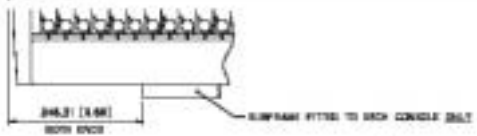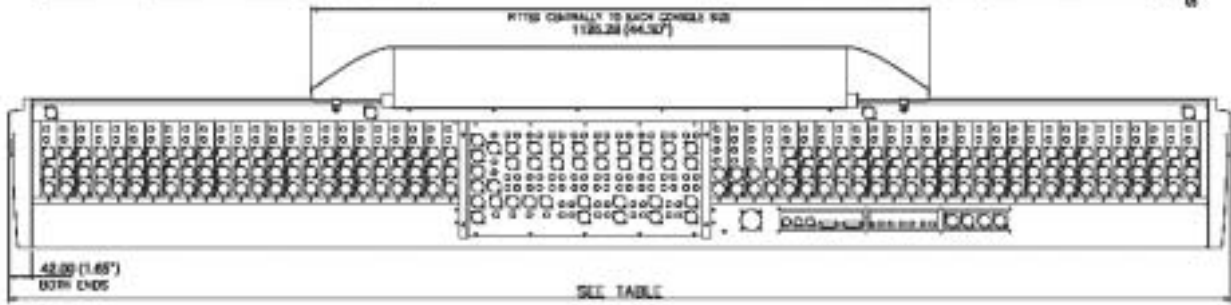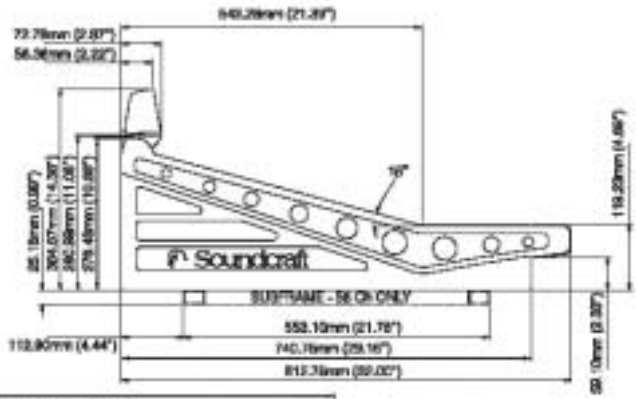
(Mains Installation)

(General Wiring Procedures)

soundcraft

(Hum),

(buzz), (earth loop)

(earthing system)

(Initial Wiring Considerations)

•

(daisy chain)'

• ' clean' ' dirty'

' clean' ' dirty'

•

(transformer)

•

•

• (unbalanced) (earth loop)

(Audio Wiring)

(screening)

- FOH   (hum),   (buzz)   RFI

-                          (foldback sends)

-

-

(Shielding)

:

-

-

-

         (wires)

        (source)

                                                 RF

0.01   (capacitor)   RF

(   )

(Points to Remember)

-

-

-

-

         (thyristor:),   ( )

RF

MH4

(Connections)

(Audio Connectors)

3 XLR
( )
( )
( )

1/4" / :

- ( )
- ( )
- ( )

1/4"

-
-
- ( )

(Lamp Connectors)

1, 3 = +/-12V
4 = 0V
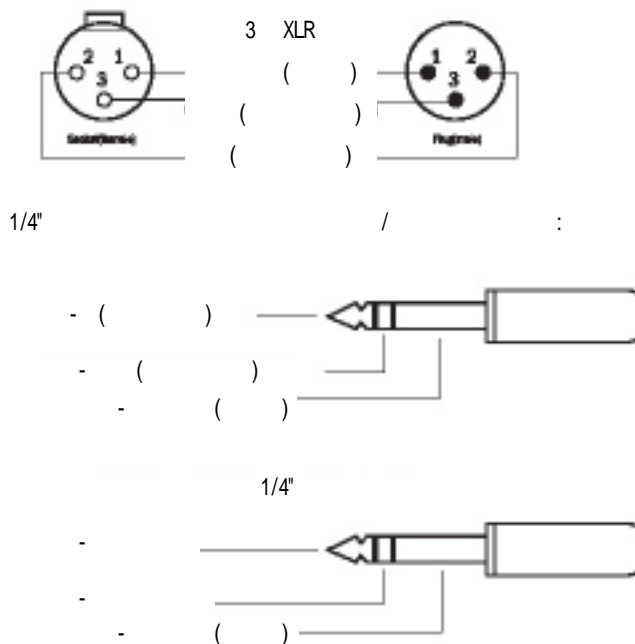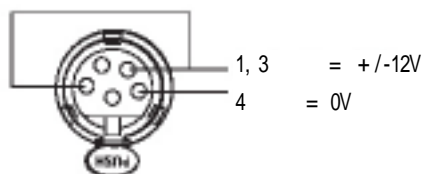
(MIDI Connectors)

opto-isolator .

9

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(Block Diagrams)

■ (Mono input)

(Stereo Input)

Sovico
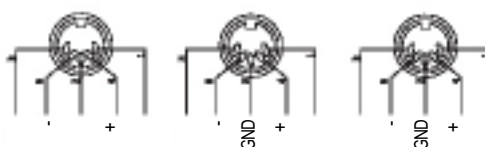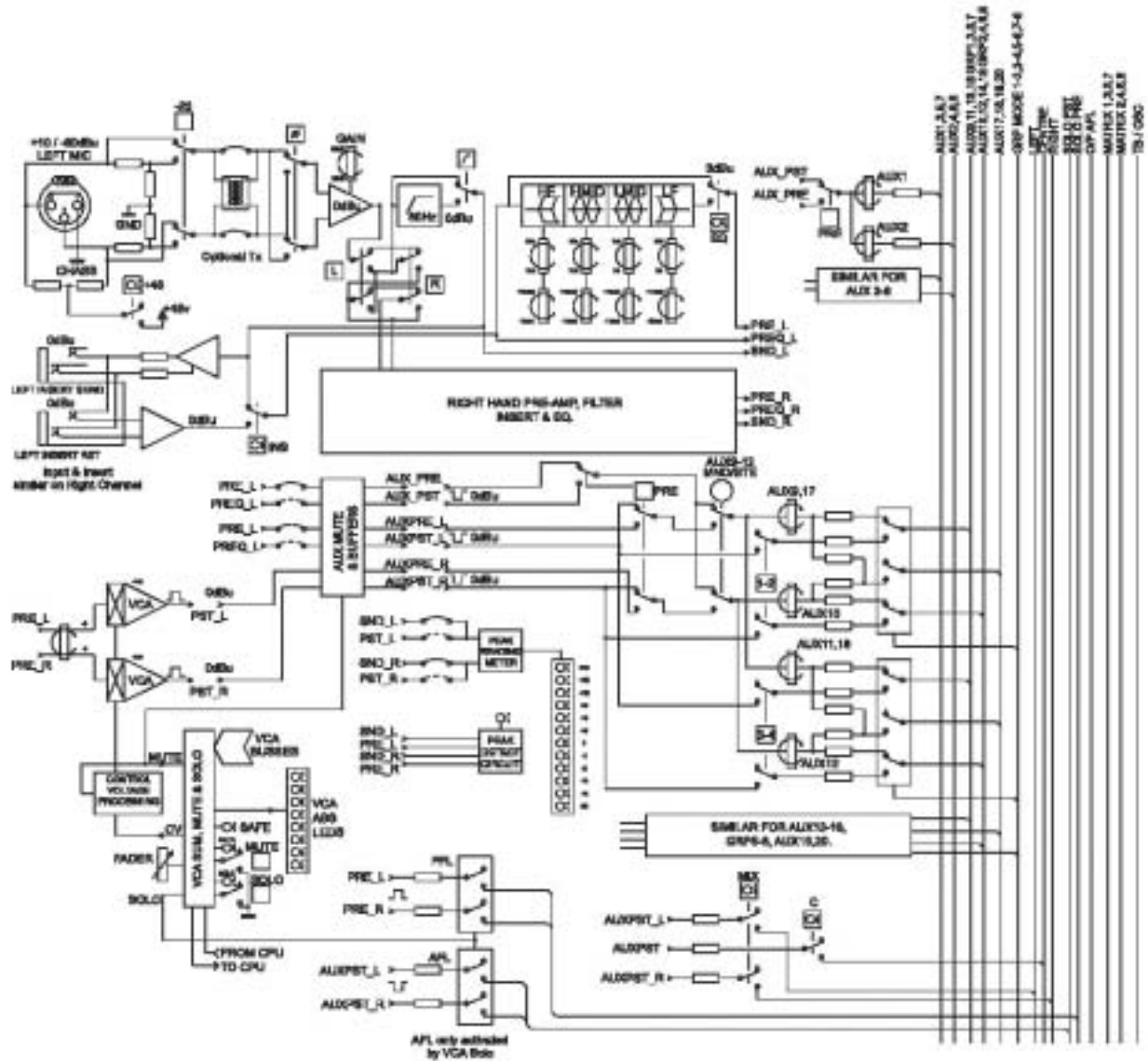
&
(Metering, Monitoring & Console Linking)

Sovico
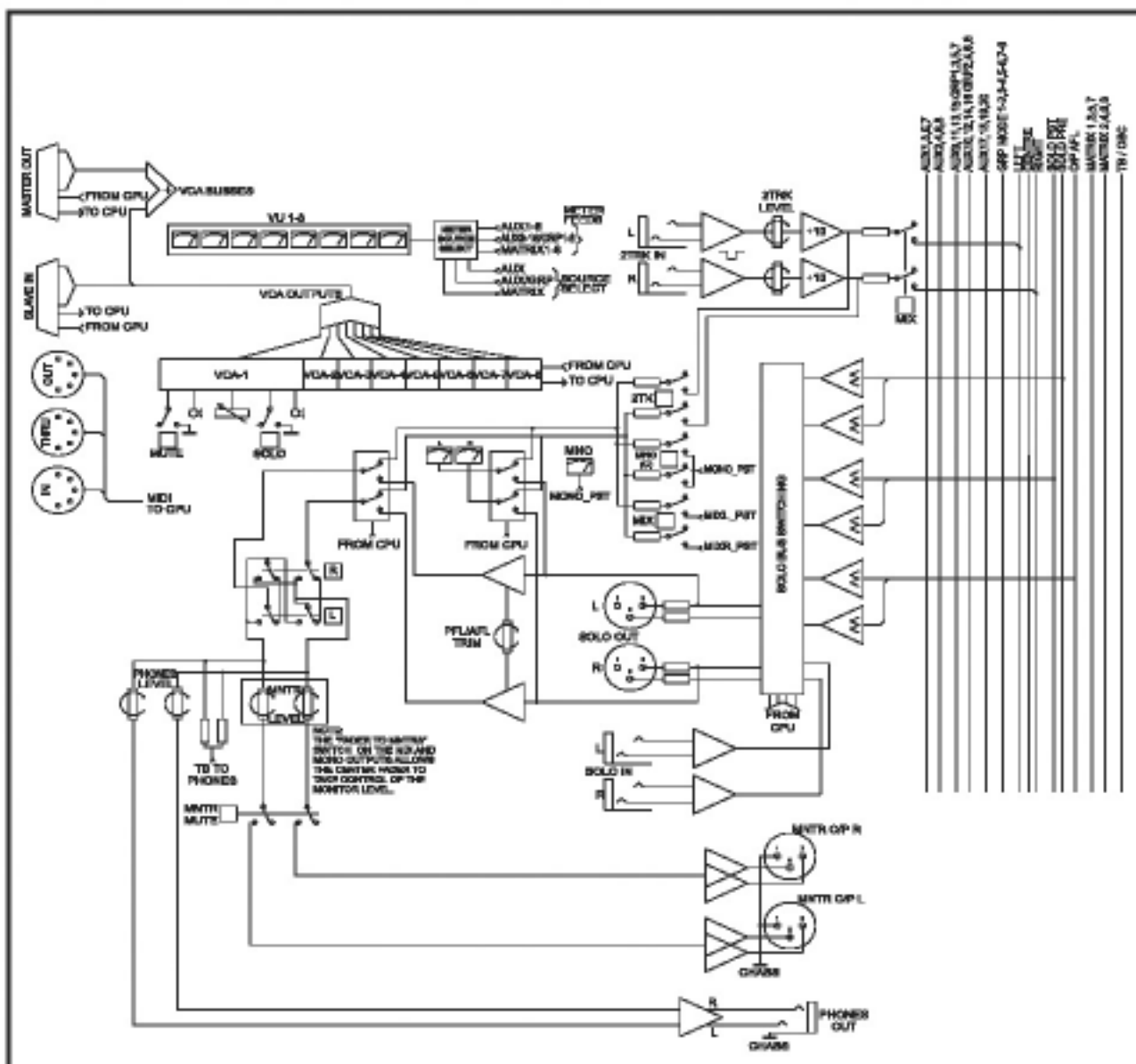
■   AUX /   (Mono Aux / Matrix Output)

ovico
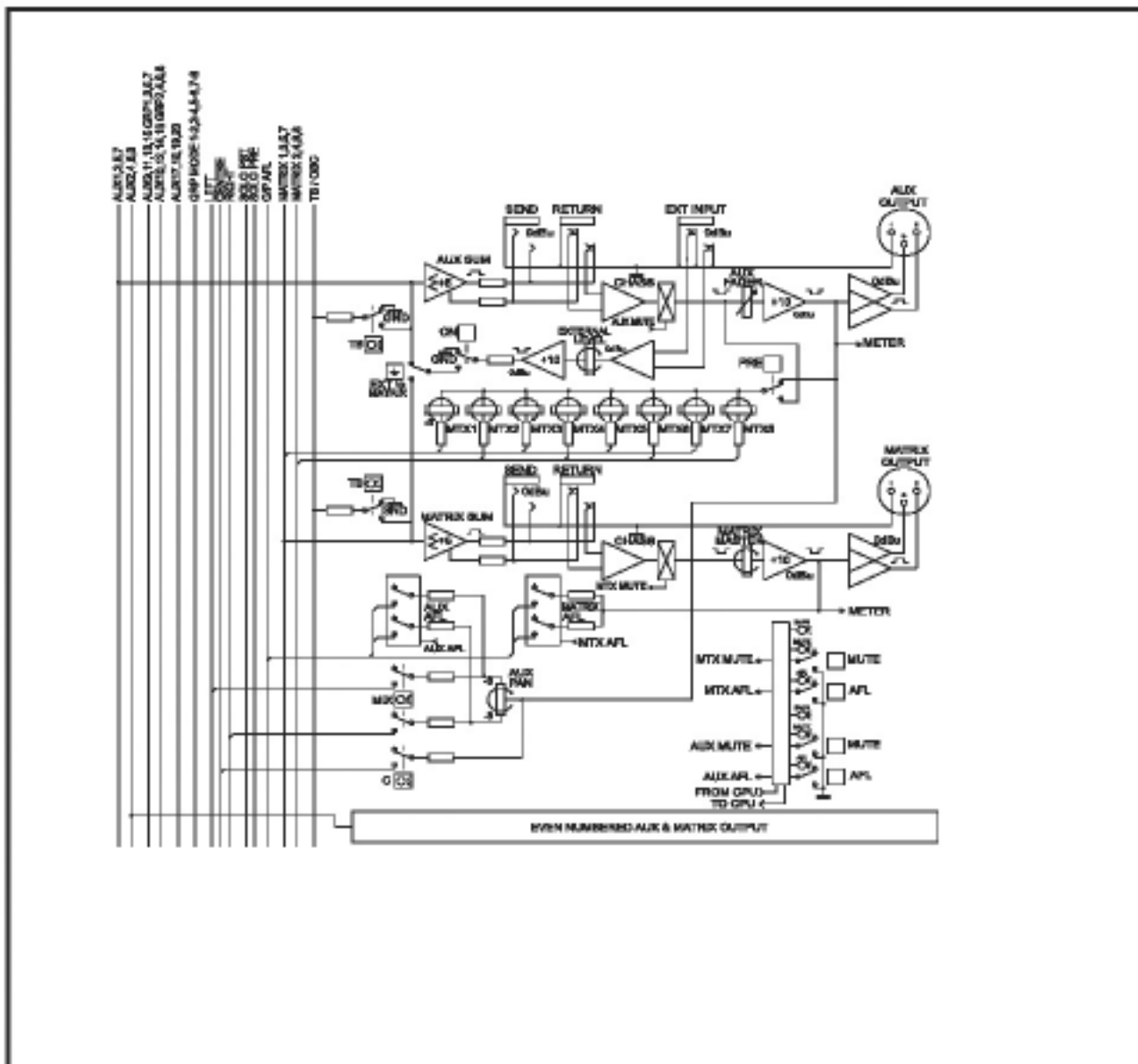
■ / Aux (Group / Stereo Aux output)
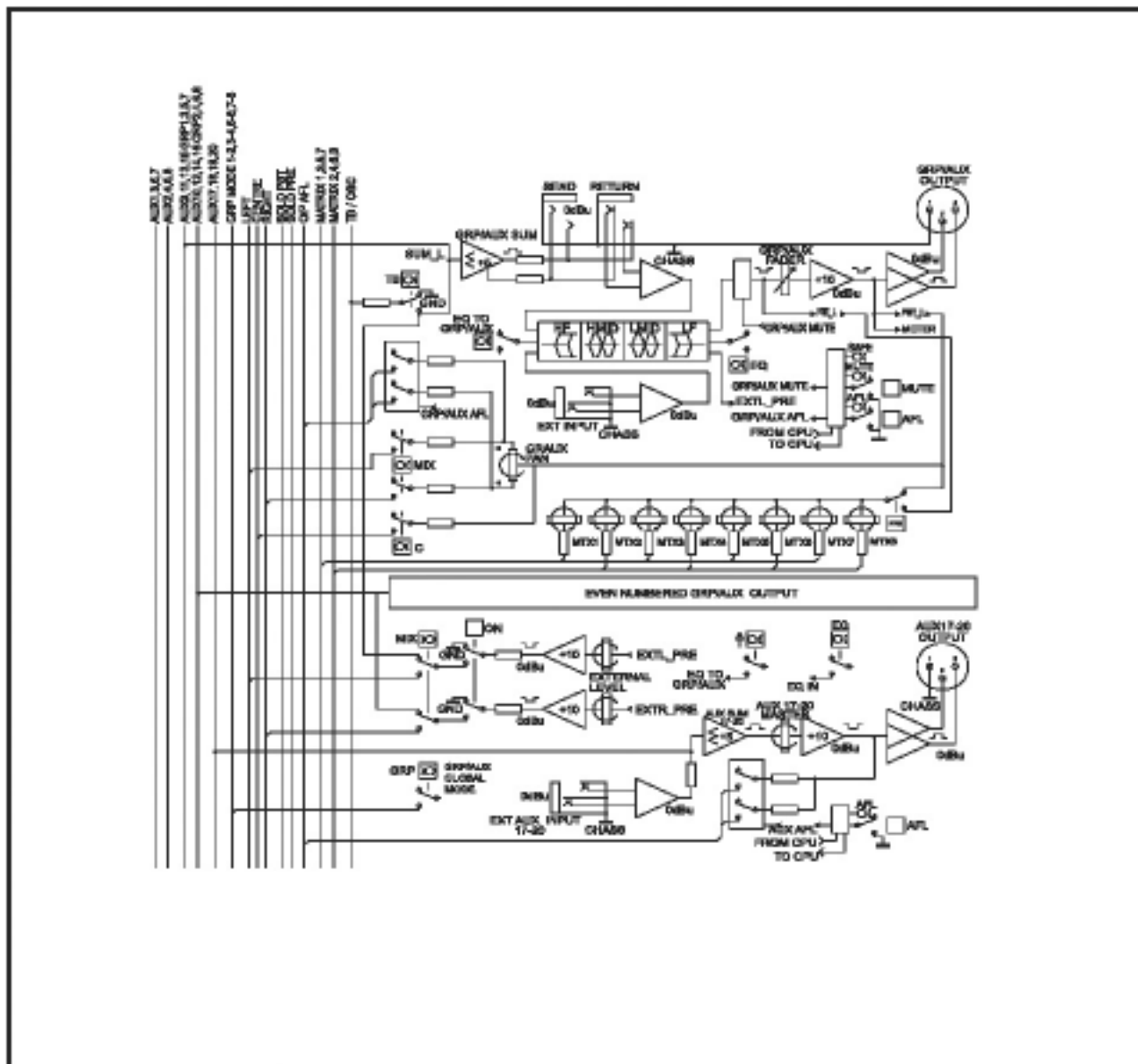
■   &   (C)   (Mx & Mono(C) Outputs)

Talkback

Sovico

■
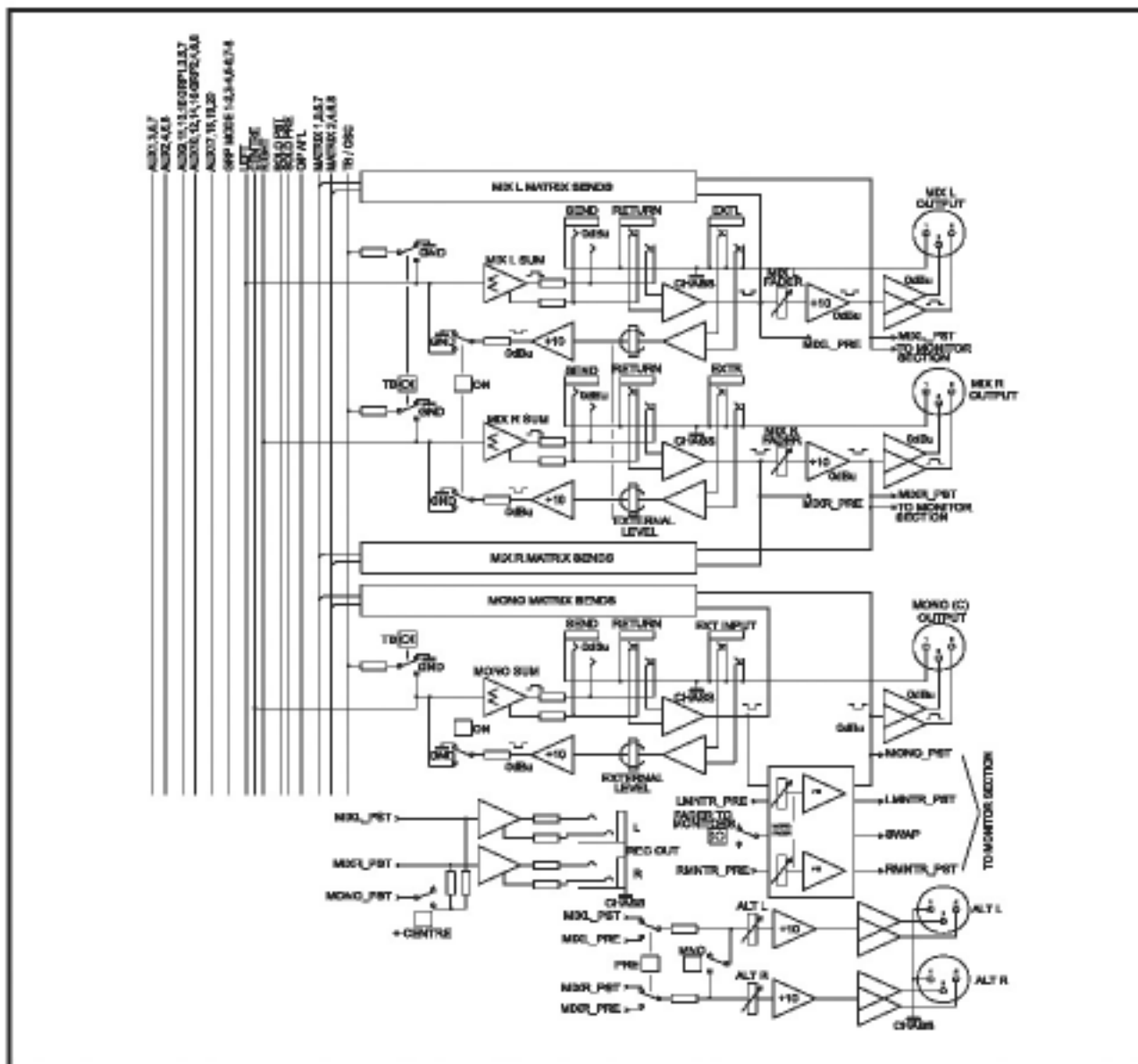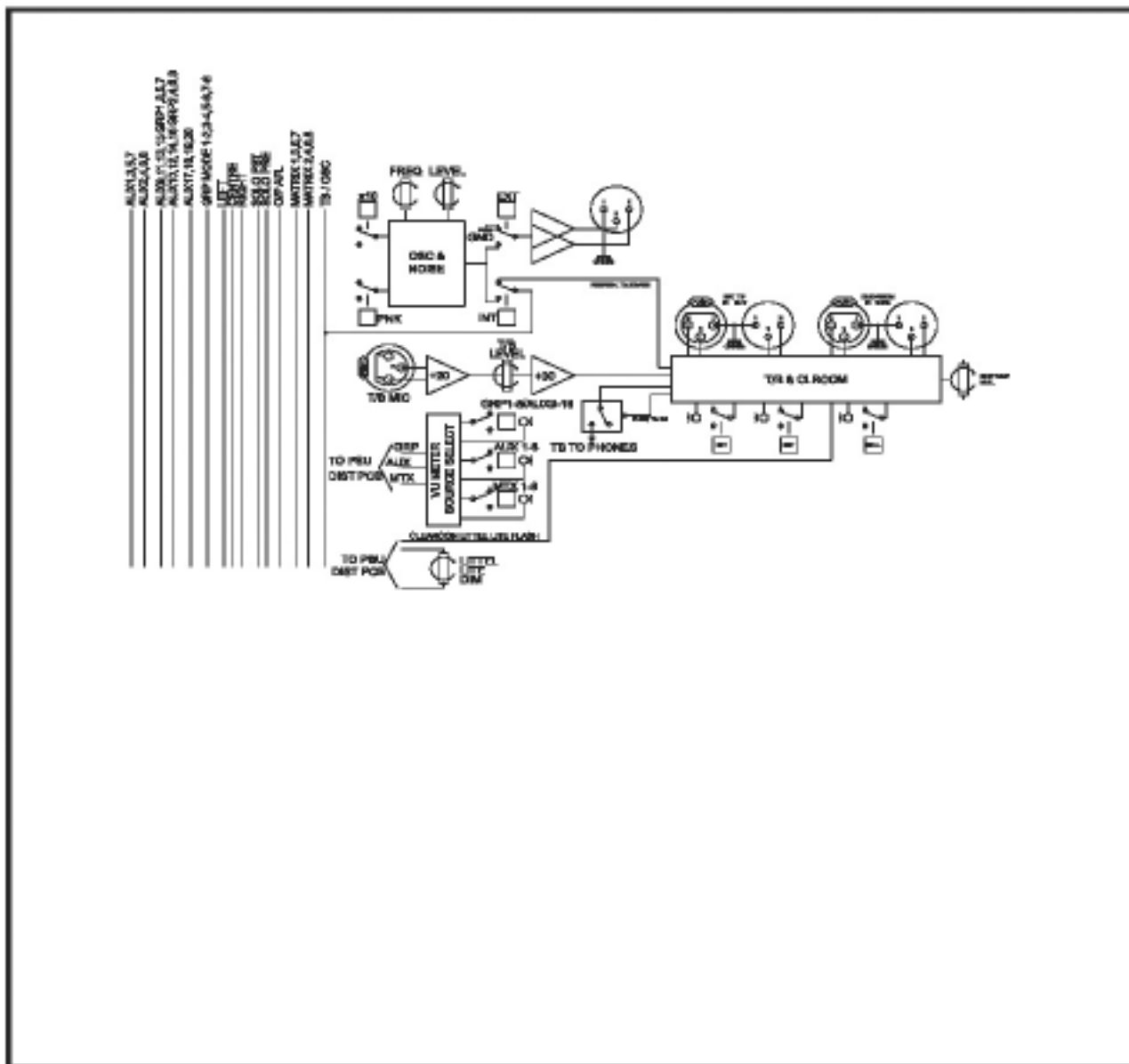
(Mono Input Module)
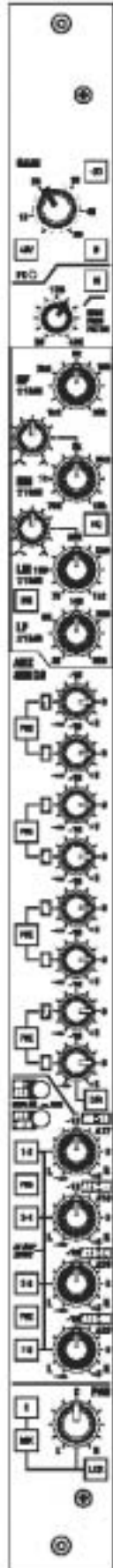
■ (Gain)

XLR   . XLR   : + 15dBu
+ 60dBu   , -20dB   .
         XLR   XLR   MH4
                   FOH   . XLR   1 XLR
   1   .

■ (Pantom Power)

48V   (   ) 48V   XLR   .   XLR
                                                        .

LED   48V   LED
                                                .

                        LED
                        :
                                            .

■ -20dB

-20dB   20dB   XLR
               .

■ LED (Peak LED)

      LED
                          .   3
   ,   EQ   . LED   + 18dBu
                          .

■ (Phase)

PHASE   .

■ - (Hi-Pass)

HI-PASS   .   30-
400Hz   IN   .

■ EQ

EQ   -
         -                   4   .
HF   15dB   (-   ) 1.2kHz   20kHz(-
)   .

17
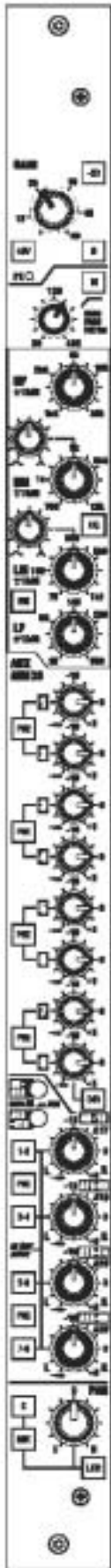
EQ   .
(HIGH MID)   15dB   (-   )
750Hz   12kHz(-   )   . Q
0.5   3   .
(LOW MID)   15dB   (-   )
75Hz   1.2kHz(-   )   . Q
0.5   3   .
(LF)   15dB   (-   )
35Hz   550Hz(-   )   .

EQ   EQ   .

(Insert Point)

0dB   .
1/4"   .
(SW50)   EQ   .

INS   (INS Switch)

INS   .   INS
.

(Mono Aux Sends)

8   FOH   FX   .
5dB   .

(PRE Switch)

PRE   .
-                                  -EQ   pcb   -
EQ   . (   )

DIR   (DIR Switch)

DIR   8   ,   8
. DIR   8   -EQ   pcb
EQ   .

(Direct Output)

XLR   .
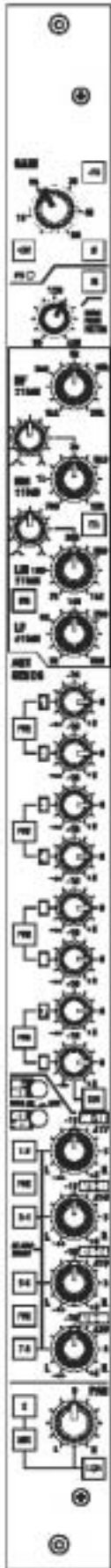
- pcb EQ
. DIR ( ) 8

/ (Groups and Mono / Stereo Aux Send)

MH4 - FOH/
GRP
. (4
). /
.

GRP '(') Global GRP mode NOT SELECTED (Monitor'
Mode)
GRP ' ' .
4 A9-10, A11-12, A13-14, A15-16
- .
9-16 9-10
. 4 9,10
11,12 (5dB) 2
(3dB)
. 4 2
13,14 15,16 .
1-2, 3-4, 5-6 7-8 .
.
PRE
.
(Aux1-8) - -EQ pcb
EQ . (

**GRP '(FOH') /
Global GRP Mode SELECTED)**

GRP FOH .
9-16 1-2, 3-
4, 5-6, 7-8 . FOH

.

. (8
)
4
.

MNO/STEREO   FOH   .
FOH   -   A17,
18, 19, 20   4   FX   PRE
                                                                     .   4
                                      .

        4   .

(Routing To Mx Busses)

                                MIX   C   (   )   .
3dB   STE   .
                           LCR   -   .

LCR   (LCR Panning)

LCR   3dB
                                                      ,   3-   LCR
              .   .

(Fader)

100mm

(Mute)

MUTE   -   .
, SIP   , VCA   (scene)
.
MUTE   SIP   VCA   . MUTE
(toggle)
. (SAFE/PREV LCE   )

SAFE/PREV

SAFE/PREV LED

. CPU   EDIT SAFES
MUTE   SAFE   (toggle)   .
LED   .

(Scene)   .

(Meter)

12   LED   (
pcb   .)
.
+ 21dBu   .

VCA   LEDS (VCA Assign LEDS)

VCA   SOLO   SOLO   8   VCA
. SOLO   VCA
Assign Mode   (cpu   VCA Assign
Mode   )   VCA   8   VCA   LED
.

(SOLO)

-
.
INPUT PRIORITY   ,
.   AUTO CANCEL
. INPUT
PRIORITY   .
SOLO   SOLO   SOLO CLEAR
AUTIO CANCEL   SOLO
(IP Priority   -   SOLO
)

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(Solder Link Option)

MH4

pcb

		( )
*	-EQ	EQ(*)
		(R225)
	-EQ	EQ (R226)
8-	-EQ -EQ,	-EQ
	( )	( ) (R227)
(DIR)	-EQ -	- (R228)

* pcb SW50

(Input and Output Levels)

	+ 15dBu to + 60dBu(-5dBu + 40Bu. -20)
	+ 26dBu
	2kohms
	0dBu
	+ 21dBu 2kohms
	<75ohms
	0dBu
	+ 21dBu
	>10kohms
DIR	
	0dBu
	+ 21dBu 2kohms
	<75ohms

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(Rear Connectors)

(3   XLR)

1

2

3

SPLIT O/P (3-   XLR)

1

2

3

(1/4″ TSR JACK)

(1/4″ TSR   )

DIR O/P (3-   XLR)

1

2

3

SPLIT O/P   XLR

FOH   .

GND LIFT   XLR   1   .

.

Sovico

■

(Stereo Input
Module)

4

(Gain)

XLR

.
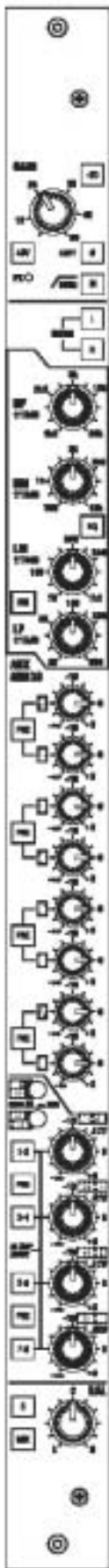
XLR   : + 15dBu to + 60dBu. -20   .

(Phantom Power)

48V   (   ) 48V   XLR   .   XLR
.
.

LED   48V   LED
.

LED
:
.

-20dB

-20dB   20dB   XLR
.

LED (Peak LED)

LED
.   3
,   EQ   . LED   + 18dBu
.   LED   .

(Phase)

PHASE   .

L (Mono L)

MONO L   .

R (Mono R)

MONO R   .

.
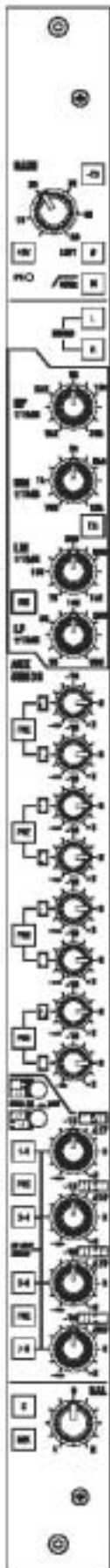
- (High Pass Filter)

HI-PASS IN   80Hz   .

EQ

EQ   4-   .
HF   15dB   (-   )   1.2kHz   20kHz(-
)   .   .
           (HIGH MID)   15dB   (-   )
           750Hz   12kHz(-   )   . Q
1.3   .
           (LOW MID)   15dB   (-   )
           75Hz   1.2kHz(-   )   . Q
1.3   ..
     (LF)   15dB   (-   )
35Hz   550Hz(-   )   .
                                   .

EQ   EQ   .

(Insert Point)

           0dB   .
                           1/4"   .   -EQ
                                   .   (   )   INSERT IN
                      .
     .

(Mono Aux Sends)

8   FOH   FX   .
5dB   L   R   .

PRE   (PRE Switches)

                           PRE   .
     -   .
                           -                              -EQ   pcb   -
EQ   . (   )
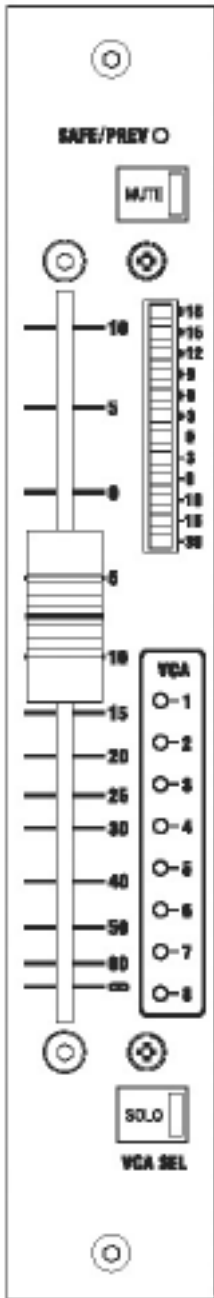
/   (Groups & Mono / Stereo Aux Sends)

MH4   -   FOH/
                                             .   GRP
                                   . (4
).   /
                      .
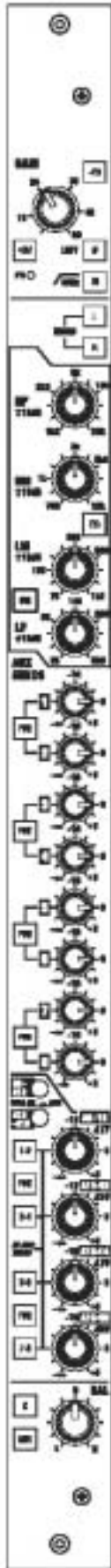
GRP ‘(’)
Global GRP mode NOT SELECTED ‘(Monitor’ Mode)

GRP   ‘   ’   .

4   A9-10, A11-12, A13-14, A15-16

-   .   9-16

9-10   .

‘

’

.

9,10   11,12   /   ;

13,14   15,16   .

1-2,3-4, 5-6   7-8   .

.

PRE

.

(Aux1-8   )   -   -EQ   pcb

EQ   . (.

GRP   ‘(FOH’   ) Global GRP mode SELECTED ‘(FOH Mode’)   GRP

FOH   .

9-16   1-2,3-4,5-6,7-8

.   -

.   L-R

(FOH   ).

FOH   -   A17,

18, 19, 20   4   .

PRE   .

4   .

4   .

(Routing To Mix Busses)

MIX   C   (   )

.

(Balance)

BAL

.

C   -   .
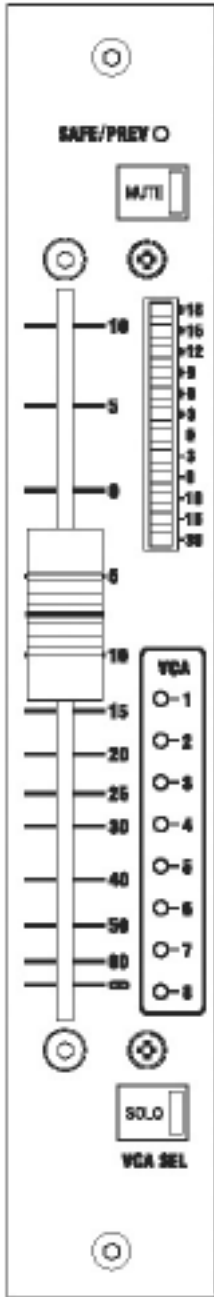
(Fader)

-     100mm VCA   VCA   .

(SOLO)

    -

    .

    INPUT PRIORITY   ,

    .

    AUTO CANCEL

    . INPUT PRIORITY

    .

SOLO   SOLO   SOLO CLEAR   AUTIO
CANCEL   SOLO
(IP Priority   SOLO   )

(Mute)

MUTE   -   .
    , SIP   , VCA
    .   MUTE
    SIP   VCA   .
    (toggle)   . (
  SAFE/PREV LCE   )

SAFE/PREV

SAFE/PREV LED
    .   CPU   EDIT SAFES
MUTE   SAFE   (toggle)   .
LED   .

(Scene)   .

VCA   LEDs (VCA Assign LEDs)

    VCA   VCA   SOLO
SOLO   8   VCA   .   CPU   " VCA
    "   .
    VCA   8   VCA   LED   ..
VCA   VCA   .

Sovico

(Meter)

12   LED

. (pcb

.)

(Note)

.

.

4   .

(Solder Link Option)

MH4

.   -

pcb   .

-

.

.

.

		( )
		(R242 R247)
L	-EQ	EQ (R178)
R	-EQ,	EQ (R185)

*   pcb   SW50

(Input and Output Levels)

L,R	
	+15dBu to +60dBu(-5dBu to +40Bu. -20)
	+26dBu
	2kohms
	0dBu
	+21dBu 2kohms
	<75ohms
( )	
	0dBu
/	+21dBu
	>10kohms
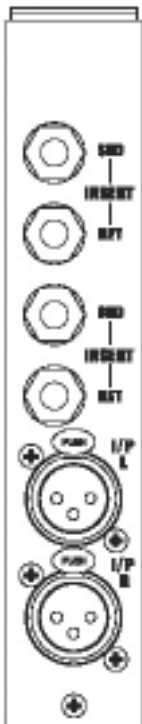
(Rear Connectors)

, (3 XLR)

1

2

3

, (1/4' TSR)

1

2

3

(1/4' TSR)

■　　　　　　-　　　　　(Output Section - Overview)

GRP　　　　　　　　　　　　　　4　　　　　　16
8　2　　　　　　　　　　　　　.
8　VCA　　　　　　　　　　　　.　　4　2　　（　　　）
8　　　　　　　　　　8　　　　　　　　　　　　　　.
4　2　　　（　　　　　）　8　　　　　　　/
4　EQ　　　　　　　　　　　　　　　　　　　.
8　　　　　　　　　　　　　　.
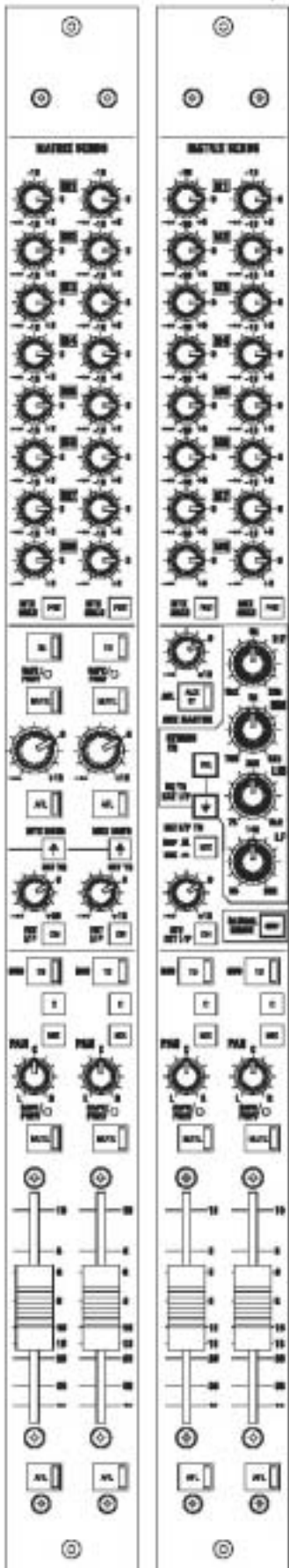
(Dual Aux Output Module)
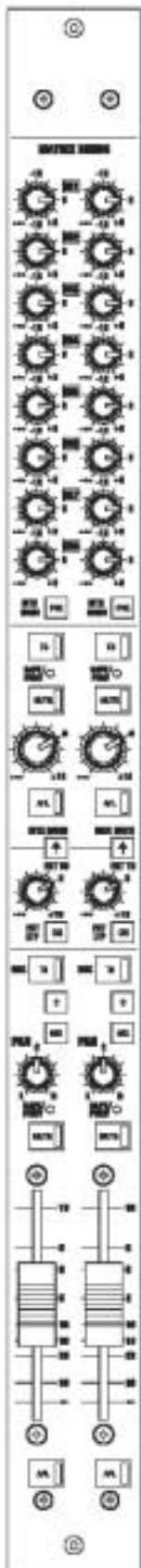
1-8

4   2

- (Aux Insert Point - on rear panel)

1/4″   .

0dBu   .   .

(External Input)

1/4″

0dBu   .

EXT IN   + 10dB   .

ON   .

.   .

(Fader)

60mm   10dB

.   XLR

0dBu   .

(Mute)

MUTE   , MIX, C   (   )

. MUTE   - -

.   (Scene)

(toggle)

. (SAFE/PREV LED   )

SAFE/PREV LED

SAFE/PREV LED

.   CPU   EDIT SAFES

MUTE   SAFE   (toggle)   .

LED   .

(Scene)   .

AFL

AFL   AFL   . AFL
                                        . -   AFL
                              . :
                                                  .   AFL
                  AFL   .   AFL
                                                                              AFL   2
                              .   .
                                        AFL
                  .
            AFL
                        .
      INPUT PRIORITY
      AFL   .
AFL   MIDI   BSS VARICURVE   dbx DriveRack
                        BSS/dbx   EQ
                  .

(Routing to the Mix)

MIX   C   ,   L, R   C
                        .
                                          3dB   .
                              AFL   .

TB/OSC

      TB/OSC   (   )
                                                                                          TALK
OSCILLATOR INT   .

(Meter)

      /   8   VU   .
                        3   8   /   / , 8   8
                                                    .

(Matrix Sends)

                                    (   )   (
)   M1-8   .
PRE   .
                  .

ovico

(Matrix Section)

2   2   8
                      8   2   . 8
/   8   .
                (   ) MIX   C
                        20x8   .
                              /   PRE   (
)   /
.

(Sends)

8   8
     .
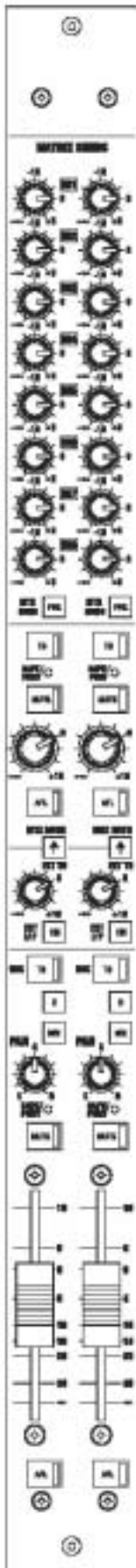
(Matrix Master Fader)

          10dB   .
                                   (XLR)   .

(Matrix Insert Point)

                    -             0dB
          .   SEND   RETURN   1/4"
               .

(Mute)

MUTE   .
                              -   -   . MUTE
                              (toggle)
     .

SAFE/PREV LED

SAFE/PREV LED
                         .   CPU   EDIT SAFES
MUTE   SAFE   (toggle)   .
LED   .

(Scene)   .

(Sends)　　　　(The External Input)

EXT to MTX(　　)

ON

(Stereo Group
Output Module)

4   /   (9-16)   4
17-20   8   4   /

/   -
(Group/Aux Insert Point - on rear panel)

/   1/4"   .
0dBu   .
/   .

(External Input)

1/4"   /   0dB
/
.   EXT IN
+ 10dB   .

(MIX Switch)

MIX   /   L   R
.

EQ (Stereo EQ)

EQ   FLIP(   )
.   EQ
.   EQ   EQ   . (EQ   EQ
)

(Fader)

60mm   10dB
.   /   XLR   0dBu
.

(MUTE)

MUTE   , MIX, C   (   )
. MUTE   -   -
.   (toggle)
.

SAFE/PREV LED

SAFE/PREV LED

CPU   EDIT SAFES

MUTE   SAFE   (toggle)   .

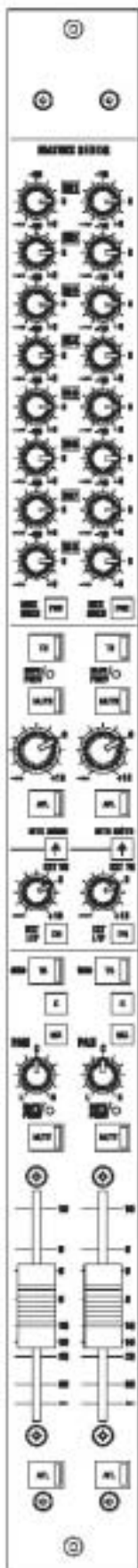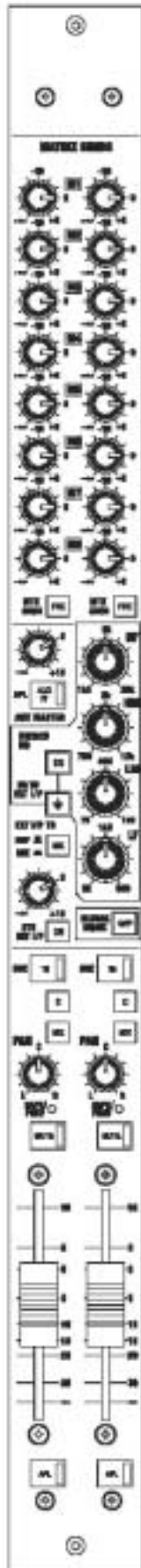LED   .

(Scene)   .

AFL

AFL   AFL   . AFL

. -   AFL

. :

.   AFL

AFL   .   AFL

AFL   2

.   .

AFL

.

AFL

.

INPUT PRIORITY

AFL   .

AFL   MIDI   BSS VARICURVE   dbx DriveRack

BSS/dbx   EQ

.

(Routing To The Mix)

MIX   C   ,   L, R   C

.

L-R   3dB

. PAN   AFL   .

TB/OSC

TB/OSC   (   )

TALK

OSCILLATOR INT   .

(Meters)

/   8   VU   .

3   8   /   , 8   8

.

17-20
(Aux Master Aux 17-20 Outputs)

4   GRP

4

                                                                                              10dB

AFL   .   .

(Global Switching)

    /   FOH

                                                                         .

                                              ;   -)

                                                                                                  .

4   .   )

(Matrix Sends)

                                        (   )   (

)   M1-8   .

PRE   .   -

    .

(Input and Output Levels)

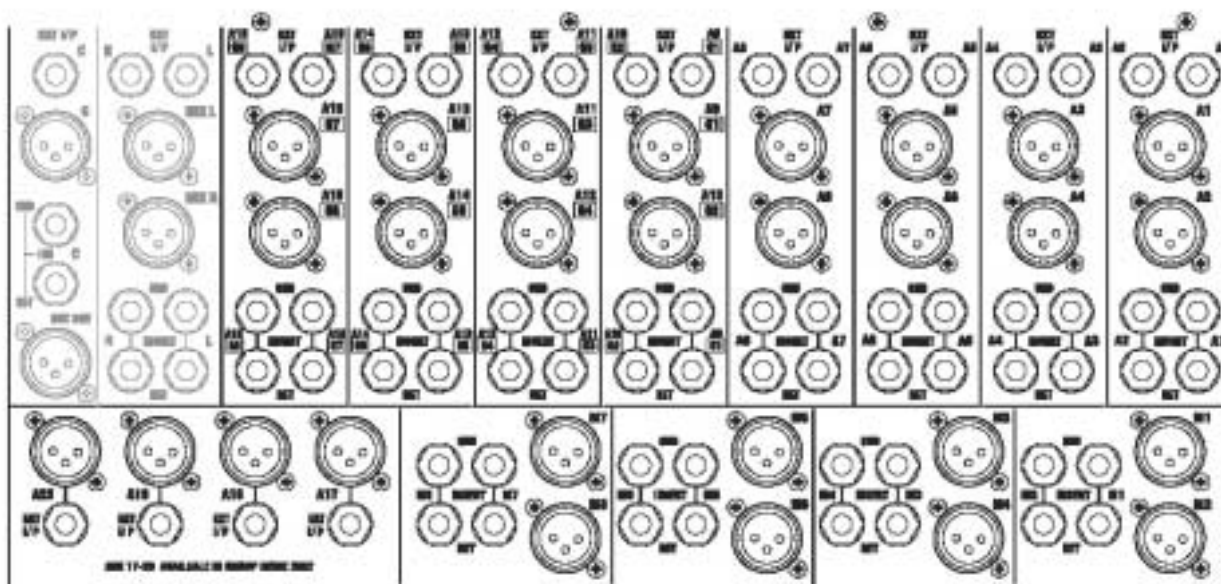| (INSERT SENDS)		
	0dBu	
	+ 21dBu into 2kohms	
	<75ohms	
/ /MTX	(GROUP/AUX/MTX OUTPUTS)	
	0dBu	
	+ 21dBu 2kohms	
	<75ohms	
,	(INSERT RETURNS, EXTERNAL INPUTS)	
	0dBu	
/	+ 21dBu	
	>10k balanced	

(Rear Connectors)

, / / MTX (1/4″ TSR)

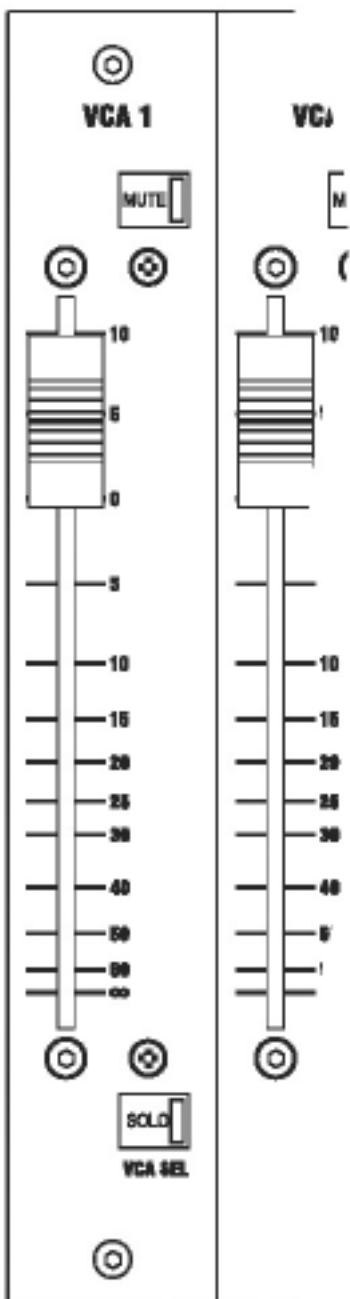(1/4″ TSR)

/ / MTX (3 XLR)

1

2

3

■ VCA
VCA
(VCA Master Fader Pannel
& Assigning VCA Groups)
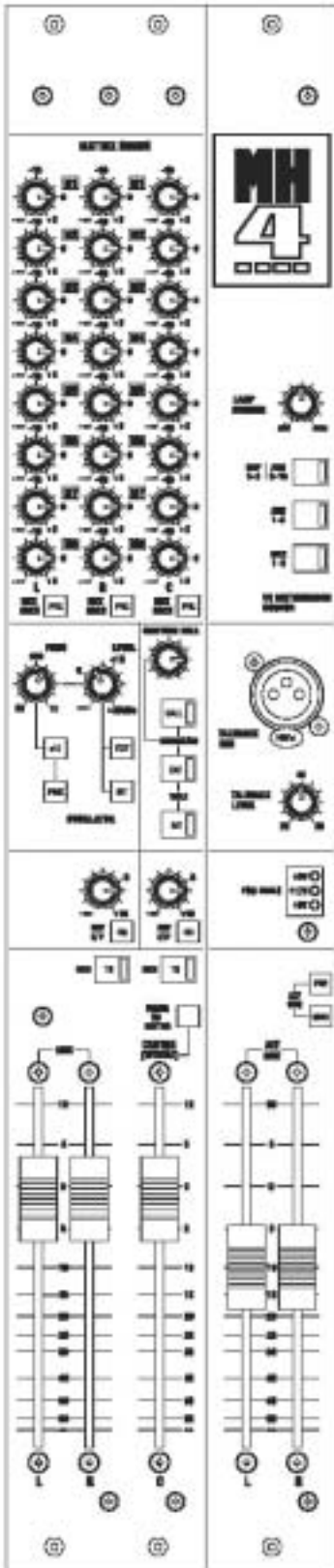
8   VCA
. SOLO   VCA
VCA   .

VCA   (VCA Master Fader)

100mm VCA   VCA   .
.

VCA   (VCA MUTE)

VCA   VCA   (Trigger)
.   LED   (Scene)   VCA
. VCA
.

VCA   VCA   (VCA SOLO & Assigning VCAs)

VCA SOLO   VCA   SOLO
.   VCA   PFL
AFL   . SIP
VCA   SIP
. (:   )
VCA SOLO   VCA   . VCA ASSIGN
. VCA SOLO   VCA
.   SOLO
VCA   VCA   LED
.

:
VCA   .

VCA   SOLO
.
VCA   . SOLO
.

(Master Modules &
Fold Fader Panel)

. , (C)
' /
.
, 2 .

(Main Outputs)

(Faders)

MIX L R C .
10dB .
XLR .

(Fader To Monitors)

Fader to Mntrs

.

.

(Insert Points)

MIX L R 0dB
. 1/4"
.

TB/OSC

TB/OSC Mix L R
/ . TALK OSCILLATOR INT
.

(ALT MIX Output)

ALT MIX ALT MIX L R
. XLR .

PRE

PRE MIX ALT .

MNO

MNO ALT L R MIX L R .

(External Inputs)

1/4"   /   0dB
                                                                /
               .   EXT IN
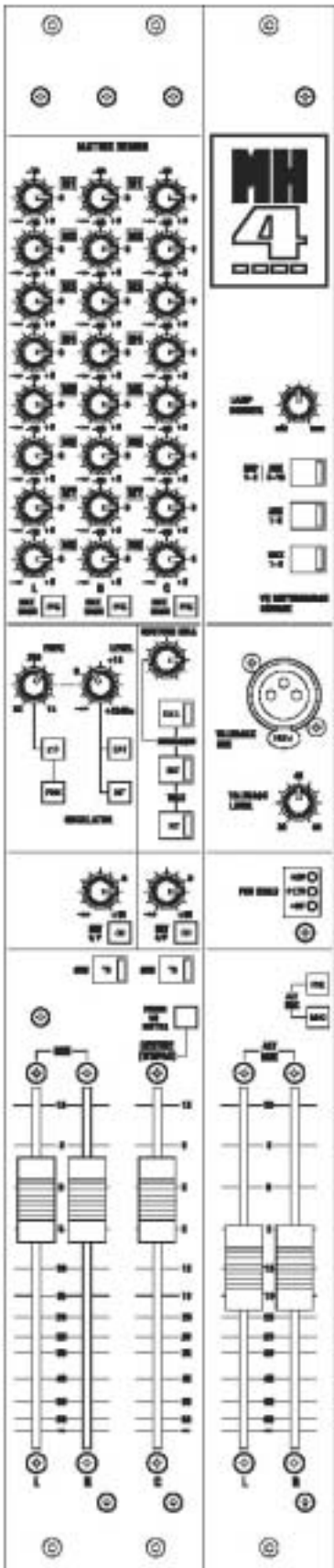   + 10dB   .

(Matrix Sends)

                         8   ,   8
            .

PRE

PRE

                                              . -   .

(Talkback)

                    ,   (17-20   ),   ,
                                        3-
                                        .
            (CALL, EXT, INT)   C   . .
TALKBACK   3   TALKBACK MIC XLR
            .   -20dBu   -50dBu
48v   (= 48V OFF)
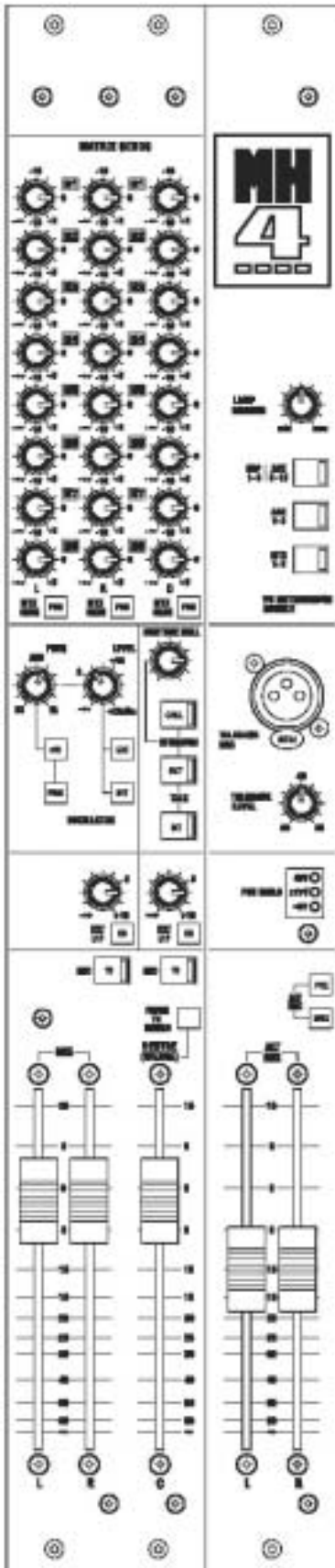   .   pcb   XLR   .

INT

INT

                    TB/OSC   .
            (,   )   (Arm)
                                    TB/OSC

ENT

EXT

            .
                                                        + 15v DC   -
            TALKBACK OUT XLR   .
                              -     DC   . EXT
            TB   (CLEARCOM IN   THRU   )   TB
                                                                    15dB
                    . TB
SIDETONE NULL   .

15V   -   TB IN XLR
            TB IN   15dB   . EXT
LED   .   EXT
        .

(Call)

CALL   10Vdc
                                    .
            '   '   10Vdc   . ('   '
EXT   .
            '   10V   .
            :   .CALL   .

(Oscillator)

                FREQ   63Hz   1kHz   .
X10   630Hz   10kHz   .
PINK   .
                    OSC/INT   TB/OSC
    OSC/EXT   .
            XLR   0dBu   .
            + 20dBu   .

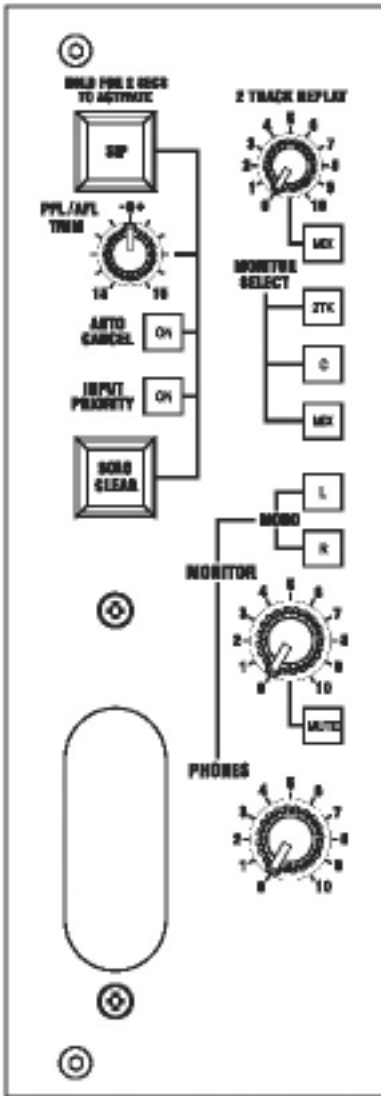### PSU   (PSU Status Indicators)

3 PSU   LED(   )   PSU rails + 48v   + /-17v(   )
5V   .

(Lamp Dimmer)

LAMP DIMMER   .
12V 5W   .
                                                                                        .

(Monitor and Headphones Outputs)

O/P   Mntr   ,   O/P

XLR   .

(Mute)

MNO L & R

MNO L   R   .

(Phones Socket)

1/4"   .

(Signal Sources)

3   .
- MIX   /   .
- C
- 2TK   1/4"   2   /

3   . (MIX   C
                                                                        LCR-

- PFL/AFL   .
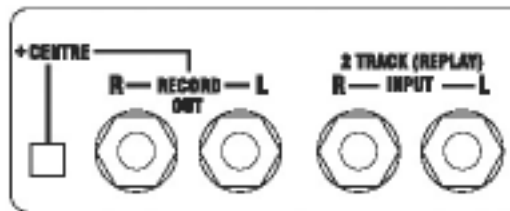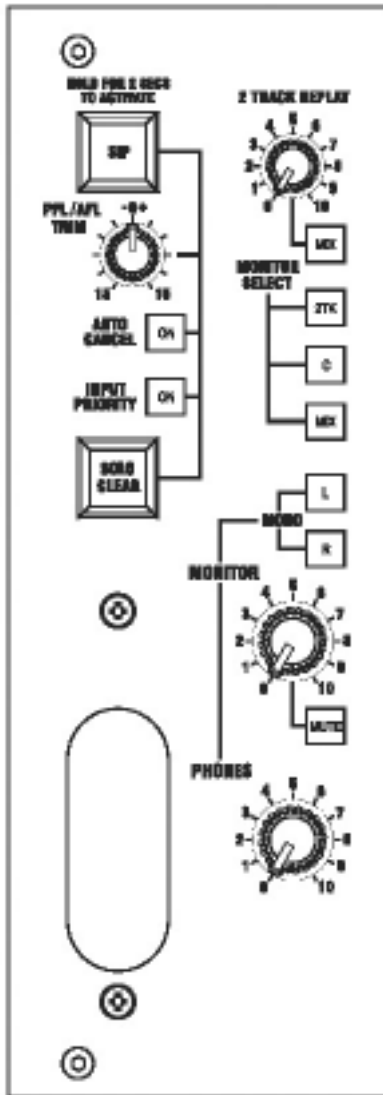-   MIX, C, 2TR   PFL/AFL

- PFL/AFL   VU
. MIX   VUs   MIX   .

2   (2 Track Replay)

(Input)

2TRACK REPLAY   1/4"   2
                                                    . MIX   2TK

(Output)

REC   ,   -10dBv

  MIX   RCA/phono   .

+ CENTRE

Sovico
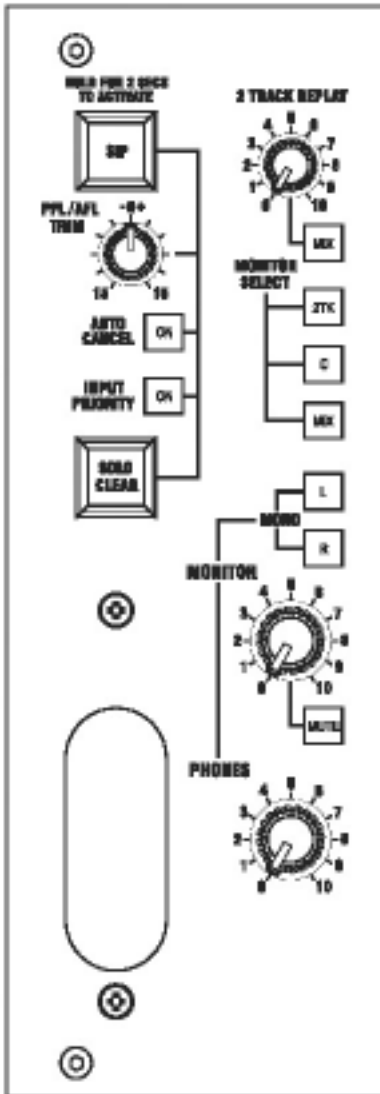
(Solo System)

■

(Introduction)

3

- / PFL
- AFL
- SIP (Solo-in-Place)

PFL & AFL

PFL AFL /

- . (MIX/C/2TK .)

PFL (PFL)

AFL AFL . VCA

VCA .

(Solo In Place)

- - CPU

/ - (

).

(unmute) .

SIP - SIP

AFL /

.

SIP

- - CPU SIP .

2

.

PFL/AFL TRIM

PFL/AFL / PFL AFL + /-15dB

. VU

.

(Solo Clear)

SOLO CLEAR AFL .

/AFL .

(Auto Cancel)

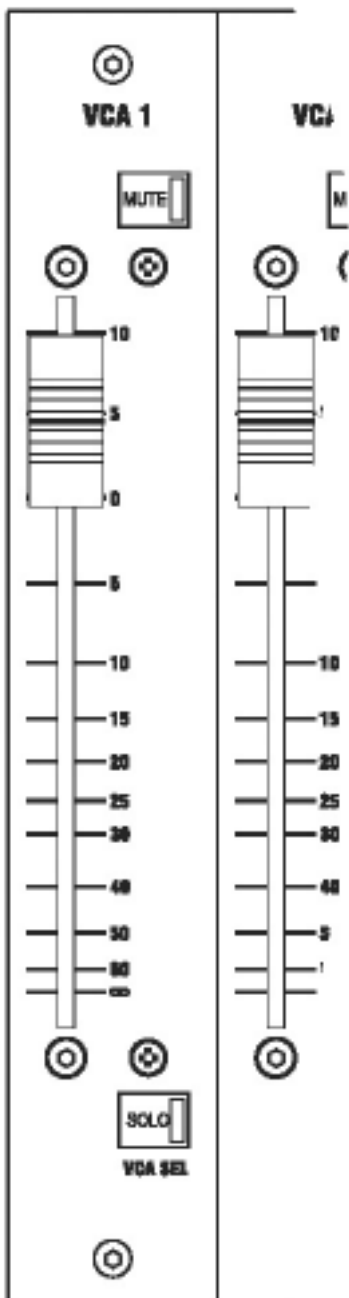AUTO CANCEL   ON   /AFL

(   )

(Input Priority)

INPUT PRIORITY   ON   AFL

(   )

.

.

.

.

VCA   (VCA Solo)

VCA   VCA

PFL   AFL

.   AFL   .

SIP   VCA   SIP

- -   .

(Console Linking)

SOLO L, R   :   MH4

.   1/4"

.

SOLO L, R   XLR

.

61   .

(Output/Input Levels)

MX,ALT L/R,CENTRE,OSC,EXT TB,MNTR L/R,SOLO L,R OUTPUT	
	0dBu
	+ 21dBu into 2kohms
	<75 ohms
EXT TB OUTPUT (15V dc)	
	0dBu
	+ 21dBu 2kohms
	<75ohms
EXT TB,2TK L,R INPUT, BUS INPUT: MX L/R,CENTRE,,SOLO L,R	
	0dBu
	+ 21dBu
	>10k ohms
MX L/R, CENTRE INSERT SENDS	
	0dBu
	+ 21dBu into 2kohms
	<75 ohms
MX L/R,CENTRE INSERT RETURNS	
	0dBu
	+ 21dBu
	>10 Kohms
	50 ohms
	+ 20dBu into 400 ohms / + 14dBu into 50 ohms

(Rear Connectors)

MIX,ALT L/R,CENTRE,OSC,EXT TB,MNTR L/R   ,SOLO L,R   (3   XLR)

   1

   2

   3
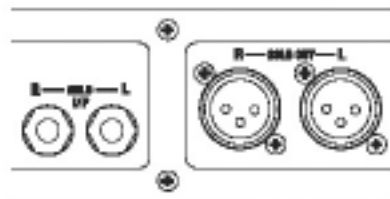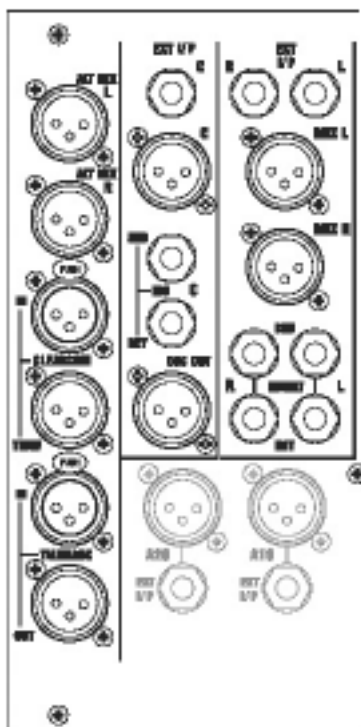
CLEARCOM IN (3-   XLR) & CLEARCOM THRU (3-   XLR)

   1

   2   (   )

   3

MIX L/R   ,   , SOLO L,R   , 2TK L,R   , MIX L,R

   (1/4" TSR JACK)

EXT TB   , TB   (3-   XLR)

   (1/4" TSR   )

   1

   2

   3

█ VU   .
(VU Meter bridge)

▬▬▬ (Meters)

LED   3   VU   ,   .
,   PFL/AFL
.

MIX
.

3   .
8   -   VU   3   MTR
SRCE   , 3   .
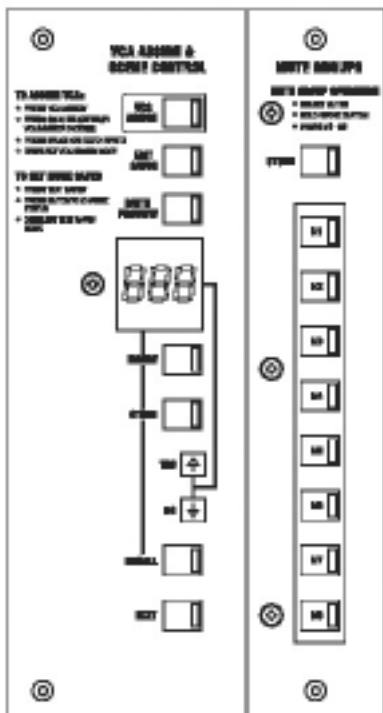• GRP/STE AUX   1-8   9/10-15/16   (
)   8   .
• AUX   1-8   8   .
• MTX   1-8   8   .
3   .

▬▬▬ (Illumination)

VU   LED   .

▬▬▬ (Recalibration)

.
1.

.
2

.
3   4   M3   (2   :
2   )   .
4   .
5   .
6   .

(Automation)

▌　　　　　　CPU　　　　
(Automation CPU Pannel)

　　　　　　　　　　　VCA　　　　　　　　　　/
　　　　　.

　　　　　　　　　　:
• 　　　　　　　　　　(Mute Scene Automation)
　MIDI　　　　　　　,　　　,　　　,　　　,　　　, Up/Down,　　　　　　　　7
　　　　　　　　128　　　(Mute Scene).
• 　　　　　　　　　8
• 　　　　& VCA　　　　　　　8 VCA
•
　AFL/PFL　　　, SIP,　　　　　(solo clear),　　　　　(Input Priority),　-　(Auto Cancel)
• Safe
　　(Sxenes),　　　, VCA　　　　, MIDI　& SIP　　　　　　(Safe)
• 　　　　　(Preview System)
　　　　&　　　　　　　　.
• MIDI
　Note On/Offs　　　　　　　　.　　　　　　　　.
　　(Exclusive)　　.' BSS Varicurve MIDI　'　.' driverack 480　　AFL sysex
　protocol　.
• Cascade
• 2　　　　& RS232
• Miscellaneous
　　　　　VCA　　　　User　　,　　　　, Transmit
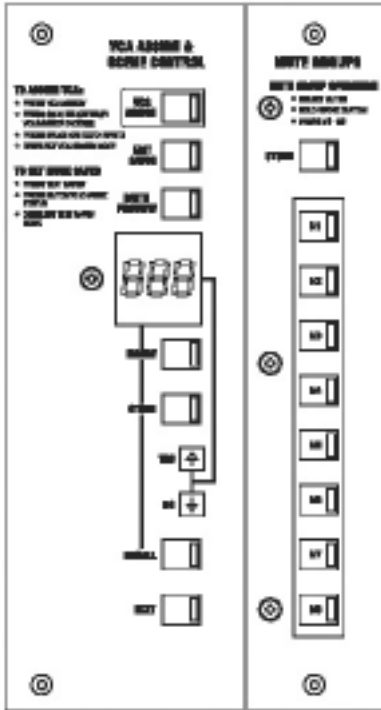　On/Off,　　　　　　　,　　　　, MIDI　　Note　,

Assignment

VCA (VCA ASSIGN)

VCA ASSN　　VCA Assign　　　.　　VCAs　　　　,
　VCA assign Mode　　　,　　　　　VCA
SOLO　　-　SOLO　　　.
　　　　　　.　　　VCA Assign LEDs
　　　　.　　2
　　-　　　.　, VCA
Assign　　　　　　　(Assignment)
.
　　　　, VCA (assigning)
　　:　VCA
.
　　(Assignment)　　, VCA　,
VCA　　　.
.
Note:　(assignment)
VCA (scene)　.　(recall).
　　" User Modes"　.

sovico

(EDIT SAFES)

EDIT SAFES   SAFE
.   ,   (place
mute)   .
.   SAFE/PREVIEW LED   SAFE
.
,   MUTE SAFE   .

(MUTE PREVIEW)

MUTE PREVIEW
.   ,
,   .
,   .
.
.
LED
.
MIDI
.

(Rear Pannel)

,   &   (MDI In, Out & Thru)

15-pin D-type   .   .
(Console Linking)   .

(Mute Groups)

(Mute Group Master Switches)

8   8   .

(   ) 128   '

'   ' Shortcut'   .

' User Modes'

-                                      .

( )
(Mute Group Masters in Mute Mode-default mode)

'   .

STORE

'   .   .

.   '   LEDs   .
:

• .
• VCA   (   )
.
• '
.
• '
.

' '
(User Mode 1- Mute Group Masters as Scene' Shortcuts' - Active)

User Mode 1
.

User Mode 1 (Mute Group Masters)   '
(scene)   .
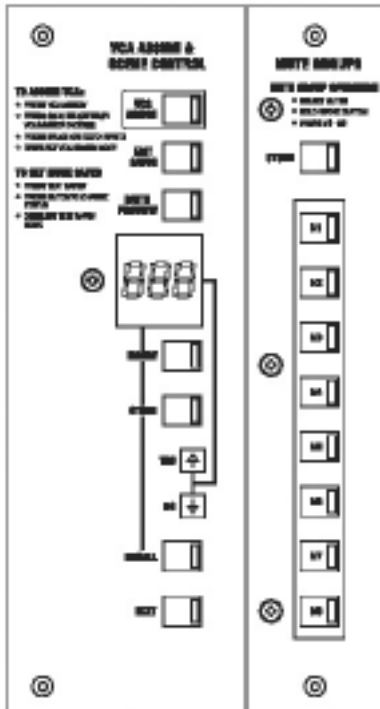'   -
(preview-recall)   .
'   /
.   Store   '
.   1-8   1-8   .

▌SCENE CONTROL SECTION　　　　　　　(SCENE AUTOMATION)

7　　　　　　　　　　　　　　　(7-Segment Display)

3　　　　　　　　　　　　　　　　　.

　　　　　　　　　　'　　　　　　　　　　　　　　　　　　　　　　.

　　　　　　　(User Mode 3　　　　　　　　　)　　VCA　　(User Mode4
　　)

　　　.　　　　　　　　　　　　　　-　　　　　(User Mode4　　　　　　　　　　)

/　　　　　　　　　　　　　(YES/NO Switches)

　　　　　　　　　　　　.　　　　　　　　　　　　　　　　　　　(
　　). Recall　　　　　　　　　　'　　　　　　/　　　　　'
　　　　　　　　　.　　　　　　-
. YES/NO　　Store　　Insert　　　　　　　　　　　　　　.

(Recall Switch)

　　　　　　　　　'　　　　　　/　　　　'
　'　　　　　　　　　　　　.
　　　　　　　　　　　　(
　　　　　　　　　)　　LED　　　　　.
　　　　　　　　'　　　　　　　　　/　　　, LED
　.

(NEXT Switch)

　　　　1　　　　　　.　　'　　　/　　　'
Recall　　　　　　　　　.
　　　.
LED　　　　　　　　　　　　　　　　　.

(Store Switch)

　　　　　　VCA　　　　　　.
<　　>yes><no>　　　.　/　　/　　LED
.　　　　　　(Yes)　　　　.
　　(No)　Store　　　.
　　　LED　　　.

(Insert Switch)

. 128   !
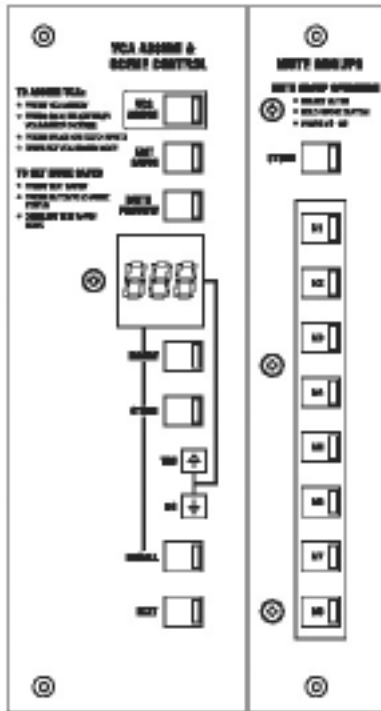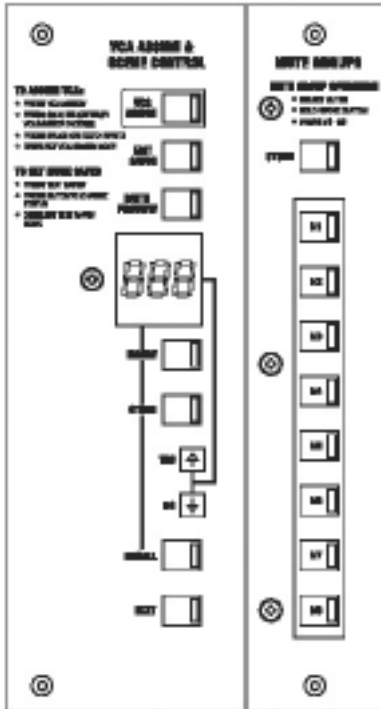<   ><yes><no>   .   /   /   LED
. 128   (Yes)
.   (No)   Insert   .
                          LED   .

6

(User Modes)

LEDs   2

LED   ,   .

on/off   ,   LED
                              .

1   ,   ,
2   :
                              =
                              =
3   VCA Assign On
4   Off
5   MIDI Tx   Off
6   -   (auto-increment) On

Application Notes:

> On/Off
> (Mute Froup Masters as Scene Shortcuts On / Off)

Mdi Note   -   /
(Mdi Note Mode - Sequencer / Sampler)
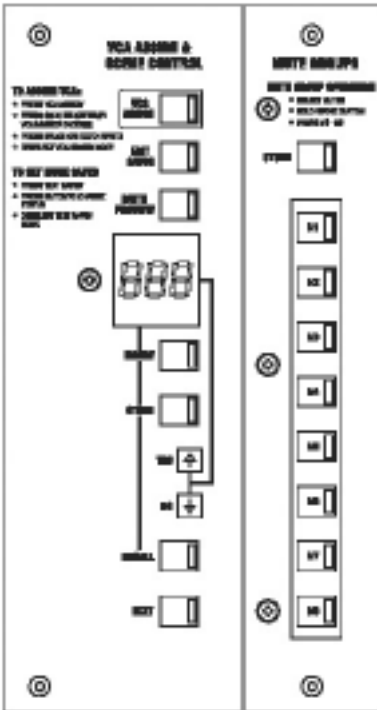
VCA   On/Off (Snapshot VCA REcall On / Off)

.

.

VCA   ,

.

,   VCAs   -   VCA

.

**On/Off
(Snapshot Recall Mute Update On / Off)**

.

.

MIDI FX   .

.

**MIDI Tx
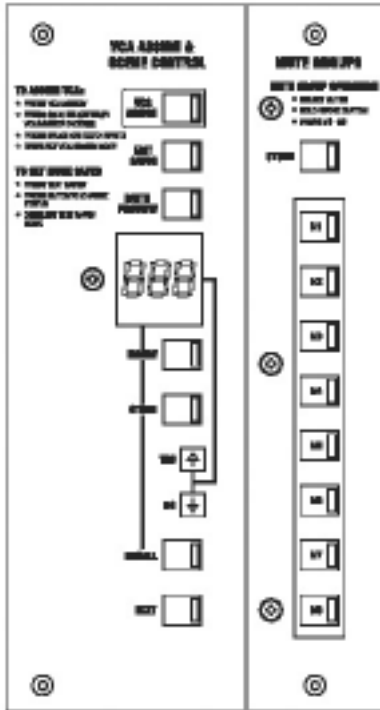(Scene Recall MIDI Tx Program Change On / Off)**

,   MIDI

.   ,   FX   ,

FX   ,

.

■

(Power Down Settings)

EPROM   .

·

(Manual Mute status)

(1   )

VGA

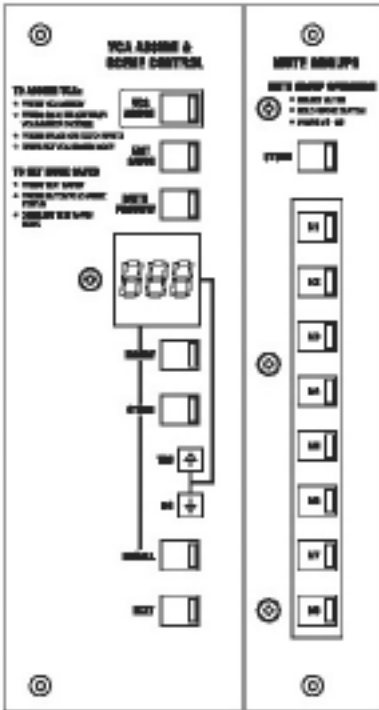VGA   (VGA Assign Membership)

(1   )

AFL'   (pairing)'

CPU
(Resetting the CPU)

CPU   (CPU Reset)

CPU   ,
.   (scene),   VCA
.
. SAFES+ YES+ NO
CPU   .
CPU   CPU pcb   CPU
.   CPU pcb
CPU   CPU
.   pcb
.

(Hard Reset)

,   MDI
(scene)   .

Store+ Recall   .
' factory defaults'   .   ' empty (. No
mute/VCA assignments),   ' empty'   ,   ,
/   .

■

(Dumping & Reloading the
Internal Memory)

Sys-Ex   MIDI   (scene)

MIDI Sys-Ex   .

| SysEx Dump   (Transmitting a SysEx Dump) |

YES, NO

Sys-Ex   .
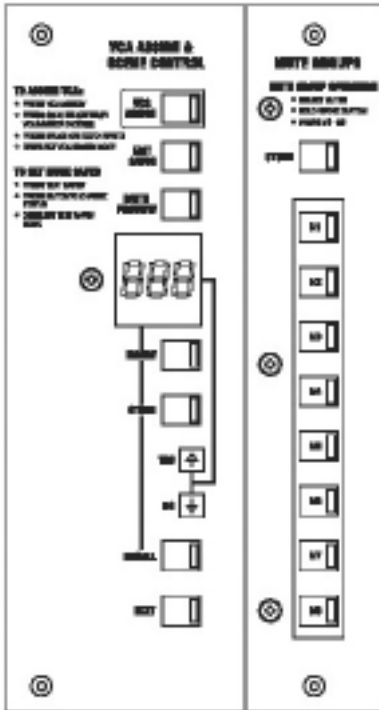
' _ do'   128

.

(Notes)

(.   /   /   )

.

/   .   '

.

MIDI   MIDI

.

| SysEx   (Receiving SysEx Dump) |

'

.   Sys-Ex   .

Sys-Ex   MIDI

' _ di'   .

'

EEPROM   .

.

Sys-Ex   Sys-Ex   1

.

MIDI   .

(Notes)

.

Sys-Ex   .

Sys-Ex   .

/SIP   .

■
(Consol Linking)   '   '

                                                                                                      . (
)

                              ┌─────────────────────────────────┐
                              │   (Audio Linking)   │
                              └─────────────────────────────────┘
                                     XLR to 1/4'
                          (,   ,   ,   )
                    . 25-   .   '
                                                                       .

                              ┌─────────────────────────────────┐
                              │   -VCAs,   │
                              │ (Logic Linking - VCAs, Groups & Solos) │
                              └─────────────────────────────────┘

15-   VCA   .
                                                                              .
VCA   TO MASTER   VCA   TO SLAVE
                                .   /   .
)   TO MASTER   TO SLAVE   .

                                    '   CPU   15-wy
               (Cascade Cable'   )   RS232   .
                                                          .
                                                       .   '   ' '   '
            '   '   .

                           .   .
                         (   )   ' SLA'   .
                                                              *
                   ,   SIP,   , IP   .

                        .   .

*   MDI   -   UP, DN
                              (   ) MDI   .

                              VCA
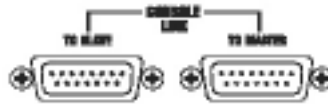   .

                              (.   /   /VCA   /SIP   /
      /   )   .
                                    .

```
              :
(Link established : Synchronizing Console Settings)
```

                                        7-   .
                                                                          VCA
(   )   .
                                                                                    .
                        10   hello call-reply handshake   .
handshake
                            . (.   /   /VCA   ).
                                            ' SLA'
      .   .

                                                            .   30

            .
                              .
          -                            .

```
                                            (Cascaded Operation)
```
                        ,   ,   VCA
            .   /LED   ;   .
                                    , LED   -   (MDI
)   .
                              ,VCA   ,
            ,   ,   ,*UP,*DN *
          MG   , MG   1-8
            VCA   , VCA
(*   : UP, DN   MDI   )
            7-   ' _ di'   ' do'
            ' -'-   MDI   .

(User Modes over cascaded consols)

1(
), 5(Tx OFF) 6 ( )

(Solo Automation Control)

SIP, , IP ,
.

.

,) SIP SIP
SIP LED .

(Solo Modes over cascaded consoles)

(, , + .)
. +

.

(Mute Group Operation over cascaded consoles)

.

. .

VCA
(VCA Master Faders over cascaded consoles)

VCA
. VCA
. .

VCA /
(VCA Master Mute / Solo over cascaded consoles)

VCA .

. VCA .

(Scene Automation over cascaded consoles)

(UP , DN, , , ,) .

.

(Mode Switching over cascaded consoles)

(/   /VCA   )   .

                                                    .

                              MIDI   (MIDI Dumping over cascaded condsoles)

MIDI   (MIDI Dump)

MIDI   (/   )   ,   )
                                                    .

       (   ) MIDI   (/   )   ,
                                                              .   /
                                        ' ---'.   .   ,
                                                                                              MIDI
                                        .

MIDI
(MIDI Implementation over cascaded consoles)

MIDI   (MIDI Mutes)

MIDI
                                                            .
        MIDI   MIDI   /
          .
                /   MIDI   MIDI
                                        .

(Scene Program Changes)

MIDI   .
              MIDI   MIDI
              .
          (5   )   MIDI
MIDI   .
              MIDI   .
          MIDI   .

Dbx Driverack 480 AFL
(Dbx Driverack 480 AFL Protocol Solos)

Dbx Driverack 480 AFL   .
MIDI   MIDI   AFL   /
          .   /   MIDI
MIDI   .

BSS Varicurve MIDI Loop Mode

BSS MIDI   AFL   .

SPECIFICATIONS

FREQUENCY RESPONSE	XLR input to any output	+0/-0.5dB, 20Hz-20kHz
T.H.D. & NOISE	All measurements at +10dBu	
	XLR in to Direct Out	<0.015% @ 1kHz
		<0.02% @ 10kHz
	XLR in to Mix Out	<0.015% @1kHz
		<0.02% @10kHz
MIC INPUT E.I.N	22Hz-22kHz bandwidth, unweighted	<-128dBu (150 Ohm source)
RESIDUAL NOISE	Mix Output; no inputs routed, Mix fader @0dB :	-90dBu
BUS NOISE	Mix Output, 48 channels routed, input faders @ - , Mix fader 0dB : <-84dBu	
	Grp Output, 48 channels routed, input faders @ - , Grp fader 0dB : <-84dBu	
	Aux Output, 48 channels routed,input sends @ - , Aux fader 0dB <-85dBu	
CROSSTALK	1kHz, +20dBu input signals	
	Input Channel Muting	>100dB
	Input fader cutoff	>100dB
	Input pan pot isolation	>70dB
	Mix routing isolation	>100dB
	Group routing isolation	>88dB
	Group-group crosstalk	<-90dB
	Group-Mix crosstalk	<-100dB
	Mix-Group crosstalk	<-95dB
	Aux send off	<-88dB
CMRR	Mono input	-85dB @ 1kHz
OSCILLATOR	63Hz to 10kHz/Pink Noise, variable level	
HP FILTER (MONO INPUT)	30-400Hz, 12dB per octave	
EQ (MONO INPUT)	**HF :** 1.2k-20kHz, +/-15dB, shelving , **Hi -Mid :** 750-12kHz, +/-15dB, Q = 0.5-3.0	
	Lo-Mid : 75-1.2kHz, +/-15dB, Q = 0.5-3.0, **LF :** 35-550kHz, +/-15dB, shelving	
METERING	**Overbridge :** 8VU Meters monitoring Group / Aux / Matrix	
	+3VU Meters monitoring Left Mix / AFL / PFL,Right Mix / AFL / PFL & Mono(centre)	
	Mix Each meter has a peak LED set to 6db below clipping.	
	Mono & Stereo Inputs : 12-LED baragraph + Peak LED	
POWER CONSUMPTION	**Main Power :** 56ch - 600VA max, 24ch : 300VA max	
	48ch Console : each 17V rail takes 6.5A (nominal)(measured without littlites connected)	
	the 8V rail takes 0.5A(nominal)	
WEIGHT	24 Ch - 76kg (168 lb) / 32Ch - 89kg (196lb) / 40Ch - 102kg (225lb)	
	48Ch - 115kg (254lb) / 56Ch - 128kg (282lb)	
OPERATING CONDITIONS		
Temperature Range	-10°C to + 30°C	
Relative Humidity	0% to 80%	

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	MODULE	SIGNAL	CONN.	PIN	NOM LEVEL	MAX LEVEL	IMPEDANCE
INPUTS	Mono Input	Input(A&B)	Female XLR	Pin 1 - Ground Pin 2 - Signal Hot Pin 3 - Signal Cold	-50 to -15dBu -30 to +5dBu (switched range)	+26dBu	2kΩ
	Stereo Input	STE IN (Left & Right)	Female XLR		-50 to -15dBu -30 to +5dBu (switched range)	+26dBu	>2kΩ
	Matrix & Bus linking Inputs	Ext. IN	TRS(1/4" Jack)	Tip - Signal Hot Ring - Signal Cold Sleeve - Ground	0dBu	+21dBu	>10kΩ
	Master	TB Mic I/P	Female XLR	Pin 1 - Ground Pin2 - Signal Hot Pin3 - Signal Cold	-50 to 0 dBu	0dBu	2kΩ
		EXT TB I/P	Female XLR	Pin 1 - Ground Pin2 - Signal Hot Pin3 - Signal Cold	+0dBu	+21dBu	>10kΩ
		2-TK Returns (L&R)	Female XLR	Pin 1 - Ground Pin2 - Signal Hot Pin3 - Signal Cold	0dBu	+26dBu/ +12dBV	>10kΩ
INSERT POINTS	Mono Input	Channel Snd & Ret	TRS (1/4" Jack)	Tip : Signal hot Ring - Signal Cold Sleeve- Ground	Send 0 dBu Return 0 dBu	+21dBu (into 2kΩ) +21 dBu	Send <75Ω Return > 15kΩ
	Stereo Input (L&R)	Channel Snd & Ret					Send <75Ω Return > 15kΩ
	Matrix	Matrix Snd & Ret			Send 0 dBu Return 0 dBu	+21dBu +21dBu	Send <75Ω Return > 15kΩ
	Group / Aux Master	Group / Aux Snd & Ret			Send 0 dBu Return 0 dBu	+21dBu (into 2kΩ) +21 dBu	Send <75Ω Return > 15kΩ
	Output Master	Main Mono, L&R Snd & Ret					Send <75Ω Return > 15kΩ
OUTPUTS	Mono Input	Diret Output	Male XLR	Pin 1 - Ground Pin2 - Signal Hot Pin3 - Signal Cold	0dBu	+21dBu(into 2kΩ)	<75Ω
	Matrix	Matrix Output	Male XLR		0dBu	+21dBu(into 2kΩ)	<75Ω
	Group / Aux / Master	Group / Aux / Output	Male XLR		+0dBu	+21dBu(into 2kΩ)	<75Ω
		L/R/Mono Alt L&R Outputs	Male XLR		0dBu	+21dBu(into 2kΩ)	<75Ω
	Output Master	Ext TB Output	Male XLR		0dBu	+21dBu(into 2kΩ)	<75Ω
		Oscillator Output	Male XLR		0dBu	+21dBu(into 2kΩ)	<75Ω
		Headphones Output	TRS (1/4" Jack)	Tip : Left Ring : Right Sleeve : Ground	0dBu	+20dBu (into 600Ω) 0dBu (into 8Ω)	<50Ω
		Monitor Outputs L & R	Male XLR	Pin 1 - Ground Pin2 - Signal Hot Pin3 - Signal Cold	0dBu	+21dBu(into 2kΩ)	<75Ω
		Record Outputs L & R	RCA Phono	Inner - Signal Hot Outer - Ground	-10dBV	+21dBu(into 2kΩ)	<75Ω
		Solo Outputs L & R	Male XLR	Pin 1 - Ground Pin2 - Signal Hot Pin3 - Signal Cold	0dBu	+21dBu(into 2kΩ)	<75Ω

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