

CONTENTS LIST

1. GENERAL
2. CIRCUIT DESCRIPTION
3. SPECIFICATION
4. PARTS LIST

DRAWINGS

Front Panel Layout	ML33752
Block Diagram	EB20362
Circuit Diagram	ES10238

Printed Circuit Board

Motherboard BA784 (separate section)

33752 CHANNEL SWITCHING UNIT

1. GENERAL

(see block diagram EB20362)

The 33752 channel switching unit provides channel audio assignment switching as follows:

- (1) Pre-fade pre-cut mono solo outputs via the fader over-press switch.
 - (2) Post-fade panned outputs to :
 - (a) Solo L and R
 - (b) Eight group outputs.
 - (3) Four auxiliary outputs with pre-fade and post-fade selection and individual level controls.
- D.C. switching is provided for channel-cut and master-cut A and B assignment, and for P.A. outputs.

Drawing ML33752 shows the front panel layout.

2. CIRCUIT DESCRIPTION

(see circuit description ES10238)

The circuit is divided between the BA784 motherboard and the front-panel mounted controls.

A balanced audio input is provided at pins 32,33,35; after pre-fade level adjustment a pre-fade solo signal is taken through the fader overpress switching loop through pins 24 and 23 to the SOLO output switch S9; when the switch is not selected, operation of the fader overpress switch provides a mono solo output on pins 1 and 2.

The fader send connection is taken from pin 19, with fader return on pin 20. A pre-fade connection is also taken from pin 18 to the AUX 1-4 selector switches S4 - S7. After post-fade level adjustment the direct unbalanced output is taken from pin 22; a parallel connection from pin 22 provides the post-fade output to the AUX 1-4 selector switches S4 - S7. Potentiometers RV2 - RV5 provide individual auxiliary level output controls.

The unbalanced output is also applied in parallel with the dual tracks of the PAN potentiometer RV1, which provides differential output level control between odd-numbered and even-numbered group switches. The panned components are also connected to the SOLO switch S9; operation of this switch provides stereo in-position SOLO outputs. A yellow l.e.d. is illuminated when SOLO is selected.

The outputs from the PAN potentiometer are taken via the pan on/off switch S8, which also operates a green l.e.d. indicator.

The channel-cut switch S3 operates a red indicator l.e.d. DC switching is performed by S2 (master-cut A and B selection) and S1 (p.a.) A detailed description of the motherboard BA784 is given separately.

3. SPECIFICATION

3.1 Power Consumption

100mA \pm from +24V power supply.

3.2 Outputs Levels

Apply 1kHz line wave input at +4dBu; adjust RV1 (PAN) to give -6dBu \pm 1dB on group outputs and SOLO outputs.

Check the action of the channel cut switch; confirm all outputs are at 0V, except the SOLO output, when not selected; the pre-fade mono signal should be available on the SOLO outputs when the fader overpress switch is operated.

3.3 Auxiliary Outputs

With the 1kHz input at +4dB confirm that the pre/post switch action is correct for auxiliary outputs. Check that AUX level controls give outputs -10dB \pm 2 dB at the mid position, relative to the maximum AUX output.

3.4 Pan Control

Check the operation of the pan switch, and confirm that the odd-numbered and even-numbered group outputs are -6dB compared to the direct unbalanced output, at the mid-position of the PAN potentiometer.

3.5. Maximum Output

With the 1kHz input level increased until the direct output just clips, the output level should be not less than +18dBu.

3.6. Frequency Response

Adjust the 1kHz input until the direct output level is at 0dBu. When the input signal frequency is varied between 20Hz and 20kHz the output level should remain at 0dBu \pm 0.5dB.

3.7 Distortion

When measured at the group outputs, at an output level of +10dBu, the distortion at different frequencies should be as follows:

- (1) 100Hz - less than 0.03%
- (2) 1kHz - less than 0.01%
- (3) 10kHz - less than 0.02%

3.8 Crosstalk

Adjust the 1kHz input to give +10dBu output on Group 1. Deselect Group 1 and select all other outputs; the crosstalk should be less than -100dB.

3.9 Square Wave Response

Apply a square wave input at 3kHz and adjust the level to give 0.5V amplitude at the direct output. The overshoot should be less than 3%.

3.10 Noise

With input short-circuited, the noise at any group output must be less than -0dBu in the frequency range 20Hz to 20kHz.

3.11 Impulse Noise

Noise due to switch operation must be less than -60dBu.

4. PARTS LIST

Components outside Motherboard BA784

Circuit Ref	Component/Value	Part no
-	Light emitting diode, green	LA13000
-	" yellow	LA13001
-	" red	LA13002
-	L.E.D. mounting kit	LA13201
-	Potentiometer 10k lin (Aux)	PT15028
-	Potentiometer 2x10k (Pan)	PT45014
-	Resistor 1.8 k	RA001K8
-	9.1 k	RA009K1
-	Switch (S1,2,4-7)	SW10205
-	" (S3)	SW20500
-	" (S8,S9)	SW20501
-	" (S10 - 17)	SW20560

Motherboard BA784 (See separate section).

DRAWING No.
EB 20362



Rupert Neve & Company Ltd. own the copyright of this drawing which is not to be copied, reproduced or disclosed, in part or whole, to a third party without written permission.

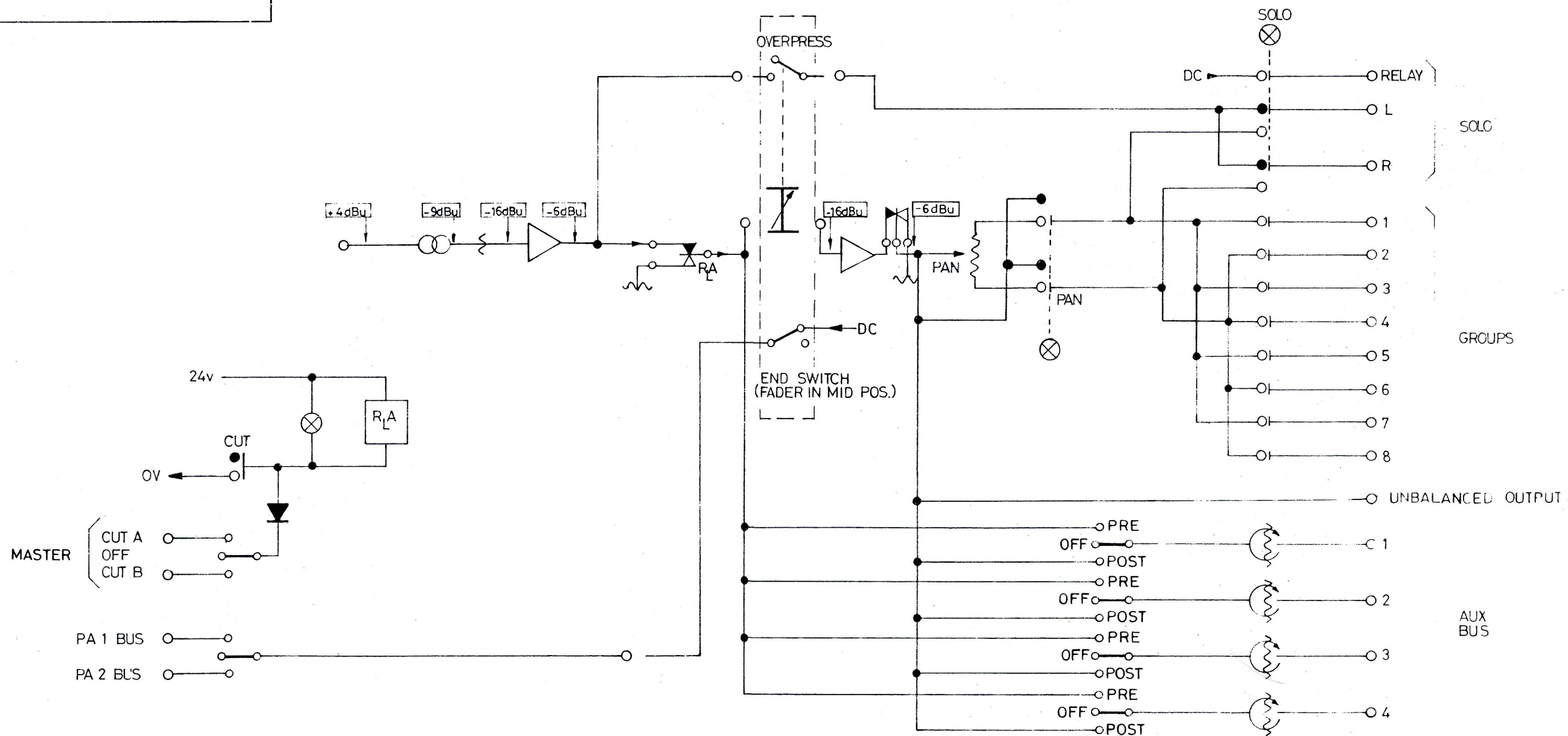
A

B

C

D

E



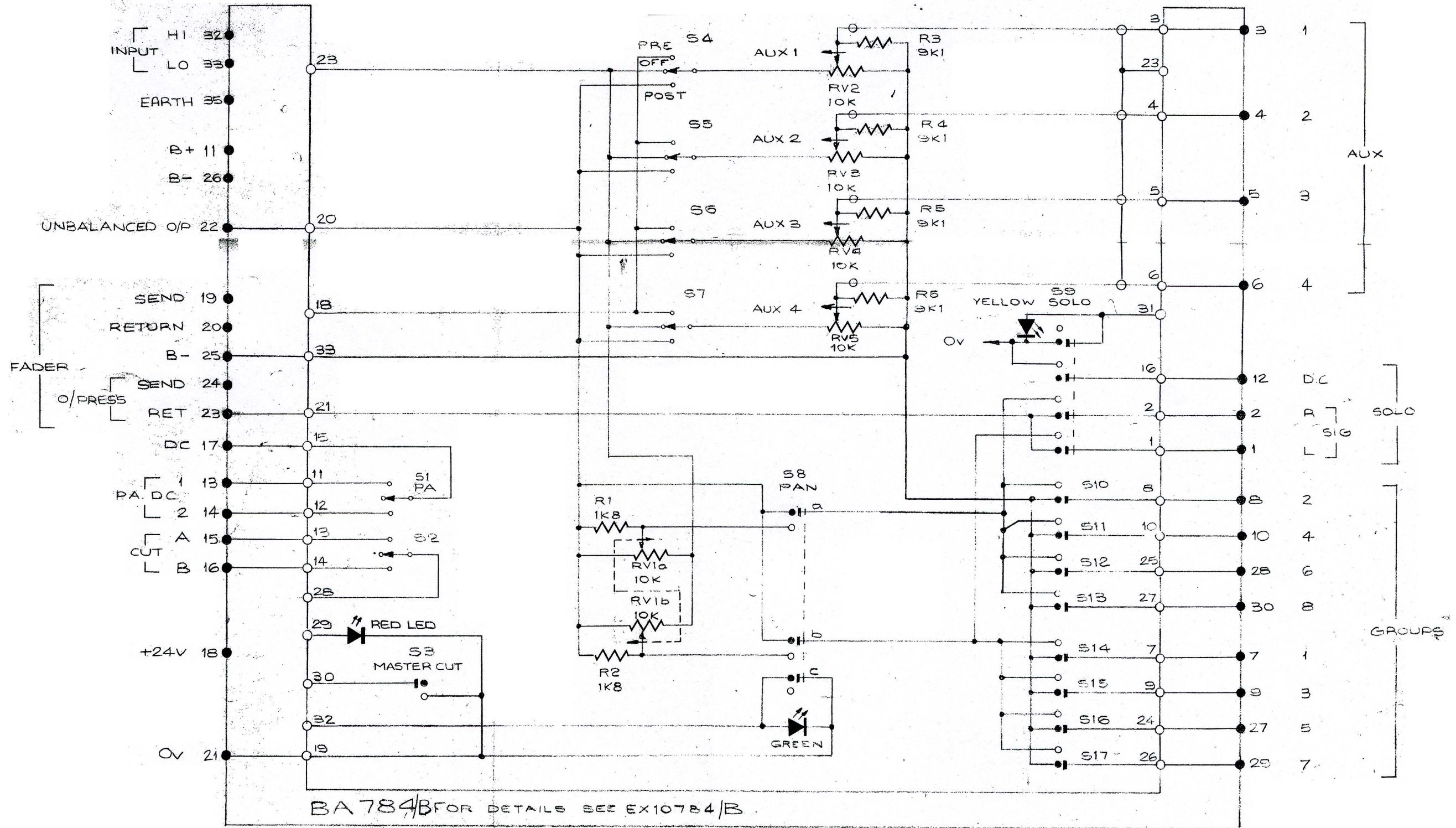
3	2	1	ISSUE	FIRST USED ON SPEC 5316	MATL.	TOL UNLESS OTHERWISE STATED		
11 JAN. 79.	6 OCT 78	21 SEP 78	DATE	DRN. PNW	FINISH	LINEAR +	ANGULAR 3rd ANGLE PRJ.	HOLES +0.13 -0 SCALE
			CHANGE NOTEN?	TRACED JAS	TITLE	DRG. No. EB 20362		
			CHECKED	CHECKED	CHANNEL SWITCHING UNIT	1978 © A3		



Rupert Neve & Company Ltd.

1978

© A3



3	2	1	ISSUE	FIRST USED ON D245	MATL.	TOL. UNLESS OTHERWISE STATED
26-5-81	24 9 80	1-2-79	DATE	DRN. DRP	FINISH	LINEAR ANGULAR HOLES
20281	60939		CHANGE NOTE NO	TRACED JDW	TITLE 33752 CHANNEL SWITCHING UNIT	3rd ANGLE PROJ DIMS. IN SCALE
AP	AP		CHECKED			DRG. No. ES10238