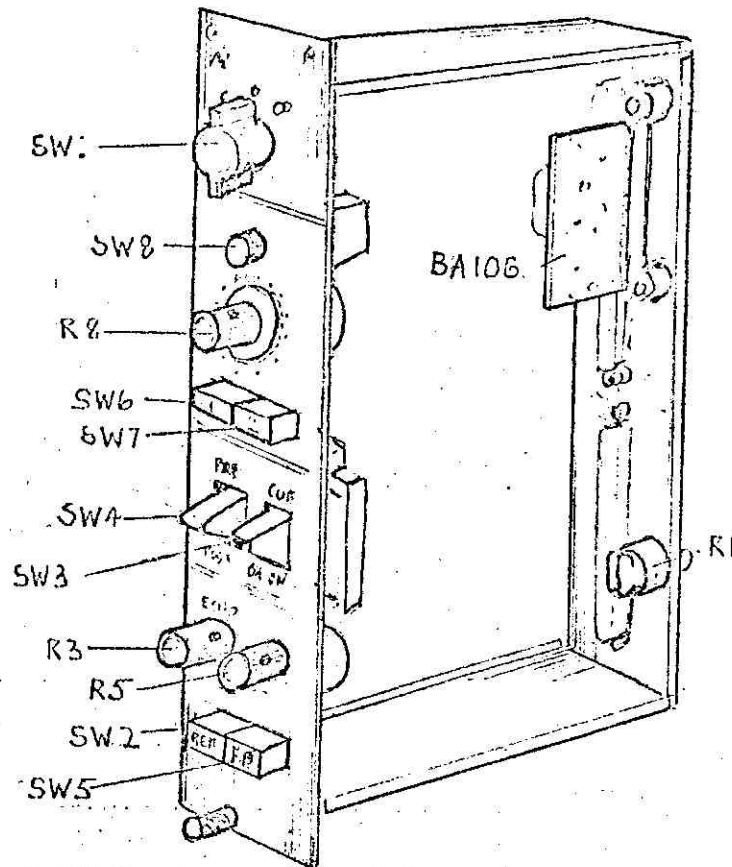


SWITCHING UNIT I895



The switching unit operates in conjunction with the Channel Amplifier 1073. The two incoming microphone lines and the high level input are taken to the Input Selector Switch SW1 of the switching unit. The high level input is routed via a jackfield connection.

Switcher and Associated units - Circuit Description

The small printed board circuit BA106 on the interior rear panel of the module consists of an emitter follower stage which effects an impedance transformation at unity gain. The output from the channel amplifier at pin K of the main connector is taken to pin N1 of the switching unit. From N1 the signal is routed via contact B of the printed circuit board BA106 where it is taken to the base of the emitter follower BC107. The level of the signal is at -16 dBm. The base of TR1 is biased from the voltage divider R1, R2 and output at the emitter is coupled via C3 to the output contact K of the board. From K the signal patch divides among three routes as follows:

1. Via R1 (pre-set potentiometer at rear of module) to the channel fader.
2. To SW3 (CUE - OFF - CHANNEL OFF)
3. To contact J2 of the switcher which is taken to the channel over-press fader switch at contact 4 of the fader (see 2-wire circuit). When the over-press switch is operated the signal is routed out via contact 6 to the cue bus which terminates at the input contact A of the CUE loudspeaker amplifier 1278.

The signal routed to the Channel fader via R1 is returned at contact P1 of the switcher and taken to SW3. With SW3 in the CUE position contacts 10 and 12 are joined routing the signal to contact R2. From R2 the signal is taken via cable C41 (CH. 1) to contact 2 of the channel fader. With the fader ON the signal is routed via contact 6 to the cue bus and to the cue loudspeaker amplifier 1278.

When switch SW3 (CUE-OFF Channel ON) is in the centre (OFF) position, the contacts are linked as shown on drawing S/10,045. The cue outgoing line at R2 is taken to B- (K2) via contacts 10, 11; contact K2 is connected via links 7, 9 to the Foldback push-button switch SW5, and B- is connected to pins 2 and 6 of the Echo key SW4. The linked contacts 7, 9 also ensures that no group output is available should SW6, SW7 or SW8 be operated.

With SW3 in the "Channel ON" position, the following contacts are closed:

- (a) Contacts 1, 2 (Channels ON contacts)
- (b) Contacts 4, 5 (Pre-fade signal to pin 6 of SW4)
- (c) Contacts 7, 8 (Fader Return Signal to Group outputs and to pin 2 of SW4)

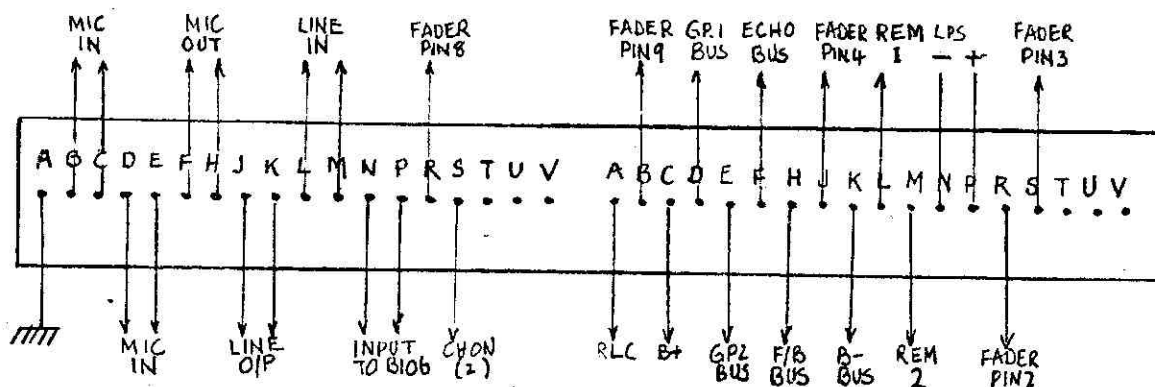
The closing of contacts 1, 2 of SW3 links R1 and S1 of the switching unit which completes a circuit via contacts 8 and 10 of the channel fader (fader off) linking pins 2 and 3 on the Channel 37-pin Cannon D connector. When the Channel fader is ON, contacts 7 and 8 link the cannon pins 2 and 1. The object of this circuit is to ensure the initiation of an external function either by the operation of the Channel ON switch SW3 of the switching unit or by moving the fader from off to on, thereby changing contacts of the fader microswitch (contacts 7, 8 and 10 of the fader connector)

When contacts 4 and 5 are closed (SW3 to Channel ON) a pre-fade signal is available at pin 6 of SW4. Moving the key-switch SW4 UP closes contacts 4 and 6 feeding the signal out via pins 1 and 3, applying it across the echo potentiometer R3. The slider of R3 is connected to contact F2 (ECHO) of the mixer which is taken to the echo bus.

Turning SW3 to the "Channel ON" position closes contacts 7, 8 taking the output from the channel fader (Fader Return) to the separate group output switches SW6, SW7 (GR1 and GR2) and to the single or combined group switch, SW8 which is self-illuminating (see LP1). The fader return signal is also present at contact 2 of SW4. On moving the toggle switch SW4 (ECHO) to the down position, contacts 1 and 2 are closed routing the fader return signal to ECHO at F2 as described.

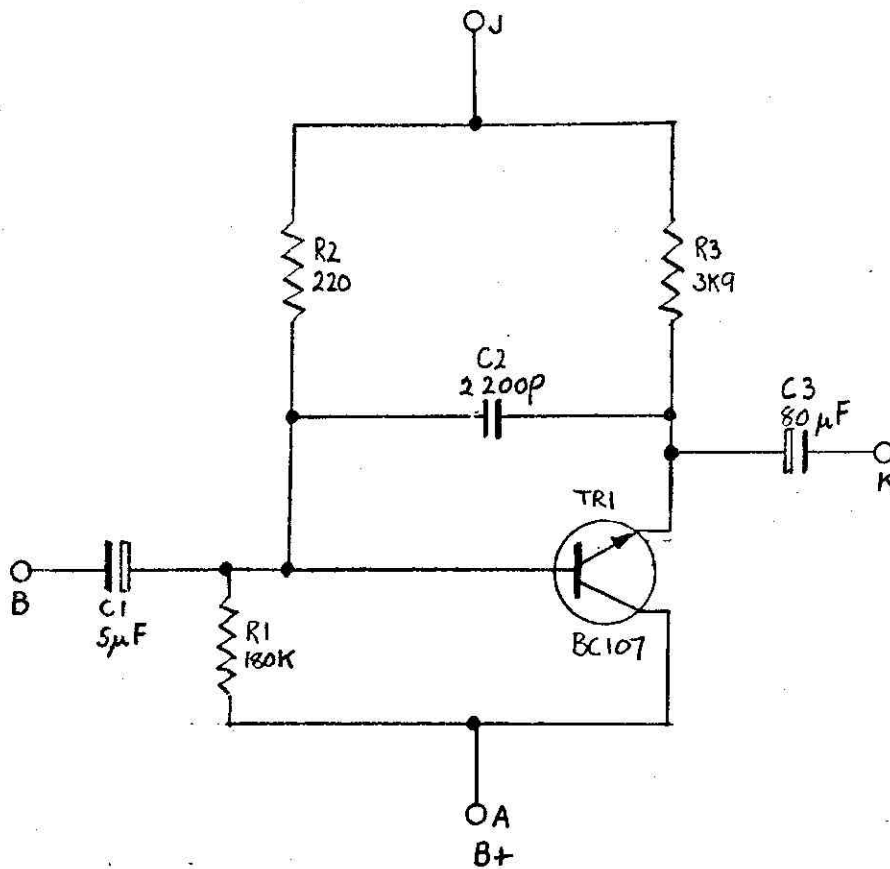
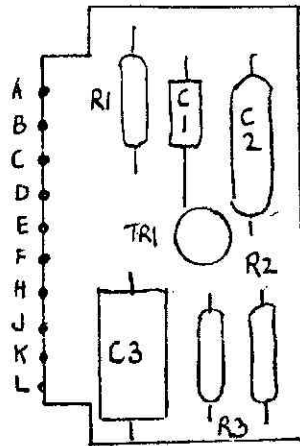
MODULE PARTS LIST

Ref.	Description	Part No.
R1	5K Potentiometer, Linear Law Plessey M1 + 1	P0013
R2	5K1 TR5, 5%	R5 5K1
R3	10K Potentiometer, Linear Law M1 + 1	P1130
R4	5K1 TR5, 5%	R5 5K1
R5	10K Potentiometer, Linear Law M1 + 1	P0030
R6,7	2.2K TR5, 5%	R5 2K2
R8	10K Potentiometer, Linear Law M1 + 1	P0030
R9	100 Y9, 5%	Y9100
C1	80uF, electrolytic C426 AR/F80	C0029
SW1	Rotary 5P, 3W Switch	S0254
SW2,4,5,6	Isostat push button	S0132
SW3	Switch key	S0160
SW7	Switch P.B. EMI	S0141

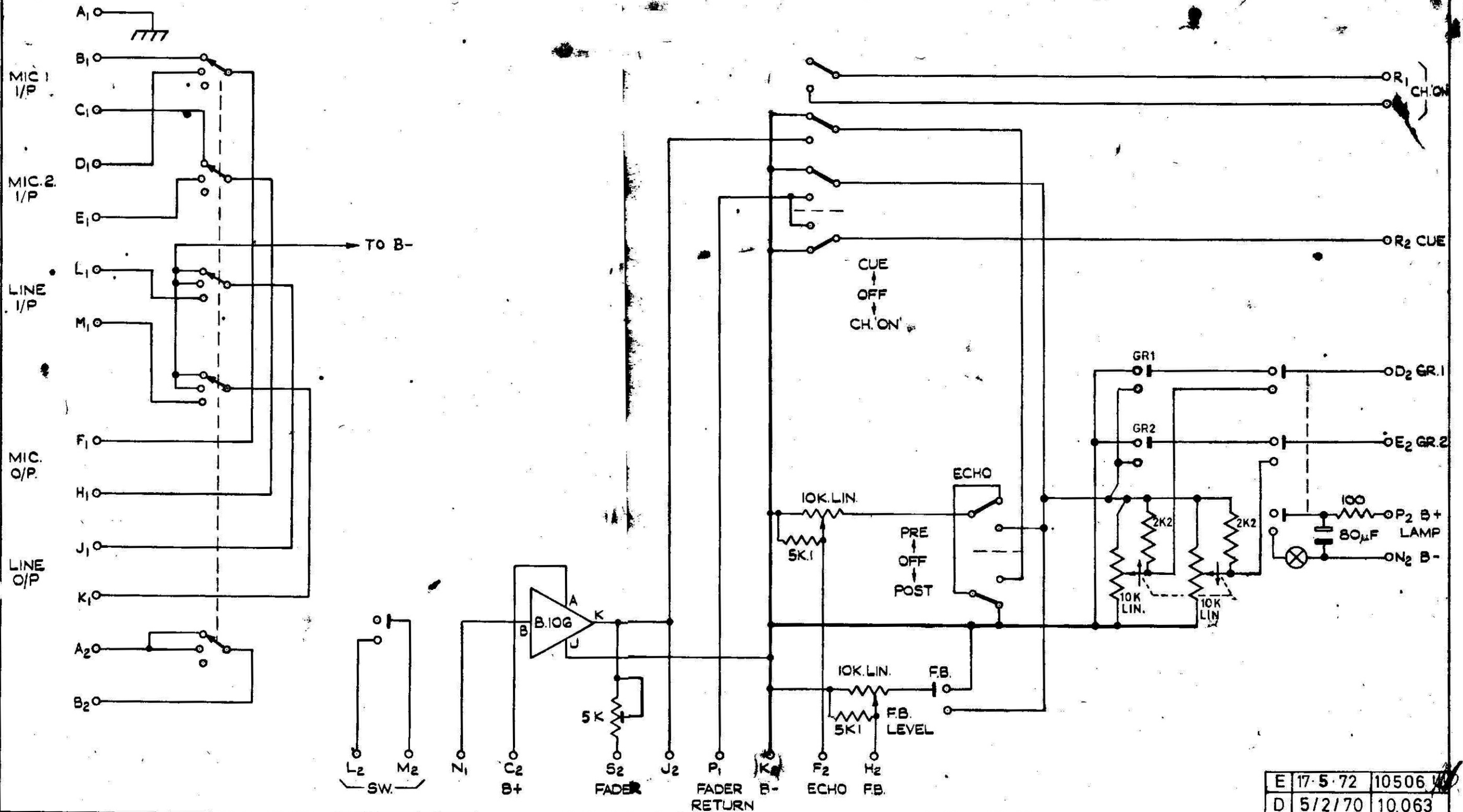


SWITCHING UNIT CONNECTOR KEY


BOARD BAI06



Ref	Description	Part No.
R1	180K TR5 5%	R5 180K
R2	220K " "	R5 220K
R3	3K9 " "	R5 3K9
C1	5µF, 64V C426 AR/45	C0034
C2	2200pF C296 AC/A	C0003
C3	80µF, 25V C426 AR/F80	C0029
TR1	BC107	T0042



E	17-5-72	10506
D	5/2/70	10,063

 **The Neve Group of Companies**
 TITLE 1895 B.C.M.10/2. SWITCHING UNIT

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C	28/1/70	10,062	DATE	7-10-69
B	23-12-69	10,052	DRAWING	NUMBER S/10045
A	8-10-69			