ΛHB
ALLEN AND HEATH BRENELL LTD.

VARISPEED
OWNERS MANUAL

HOW TO USE YOUR 'BRENELL VARISPEED'

Sufficient cable is allowed to enable the 'VARISPEED to be positioned remotely. It should be remembered that in use the main unit gets quite hot, this is normal, therefore you must allow GOOD VENTILATION around the unit.

Connect the 'VARISPEED' as shown in the connection diagram. The 'VARISPEED' will not operate as soon as the MINI 8 is switched on.

With the switch on the control box switched to 'SYNC' the tape speed will be synchronised to the mains frequency.

With the switch on the 'VARY' position the L.E.D. will illuminate and the tape speed may now be varied by means of the control potentiometer. It is possible to obtain a speed variation of approximately $\pm$ 15% of normal tape speed.

The 'VARISPEED' will be fully stable approximately fifteen minutes after switch on.
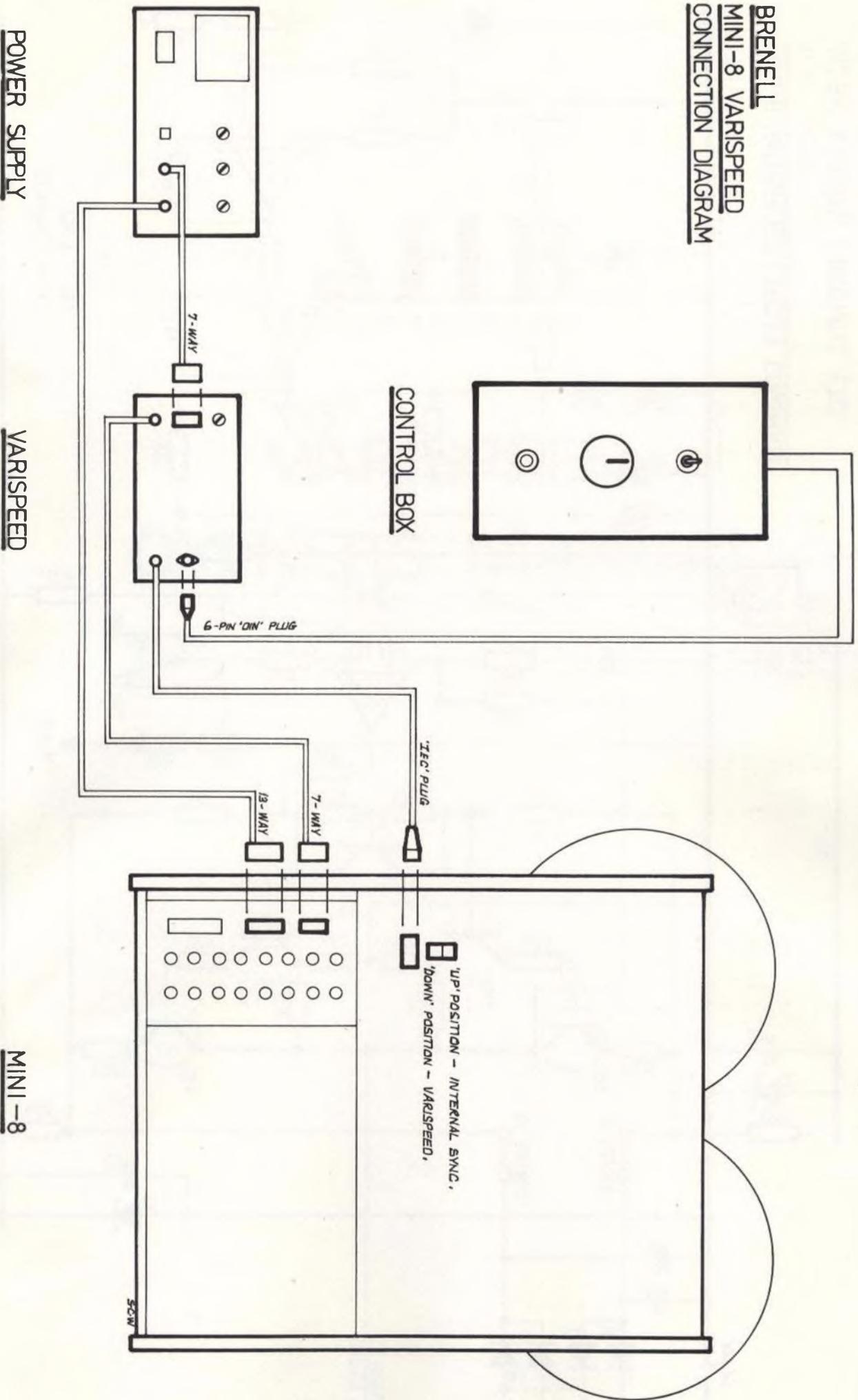
Should you wish to bypass the 'VARISPEED' and run from normal mains but without fully disconnecting it, simply switch the rocker switch on the 'MINI 8' into its upmost position.

EXTERNAL CONTROL

It is possible to control the tape speed from an external voltage source. To do this proceed as follows:—

a)   Obtain a suitable 6 pin DIN PLUG.

b)   Disconnect mains.

c)   Disconnect the control box from the 6 way DIN socket.

d)   Insert 6 pin DIN plug and connect pins 1 and 5 together.
      This puts the 'VARISPEED' into the 'VARI' mode.

e)   Apply the control voltage to pin 4 of the 6 pin DIN plug. This voltage should be low
      impedance (approximately 600 ohms) and is of a fairly low level, in the range of 0.6
      volts to 1.1 volts. Exceeding these values may cause the capstan motor to fall out of
      synchronisation.

BRENELL
MINI–8 VARISPEED
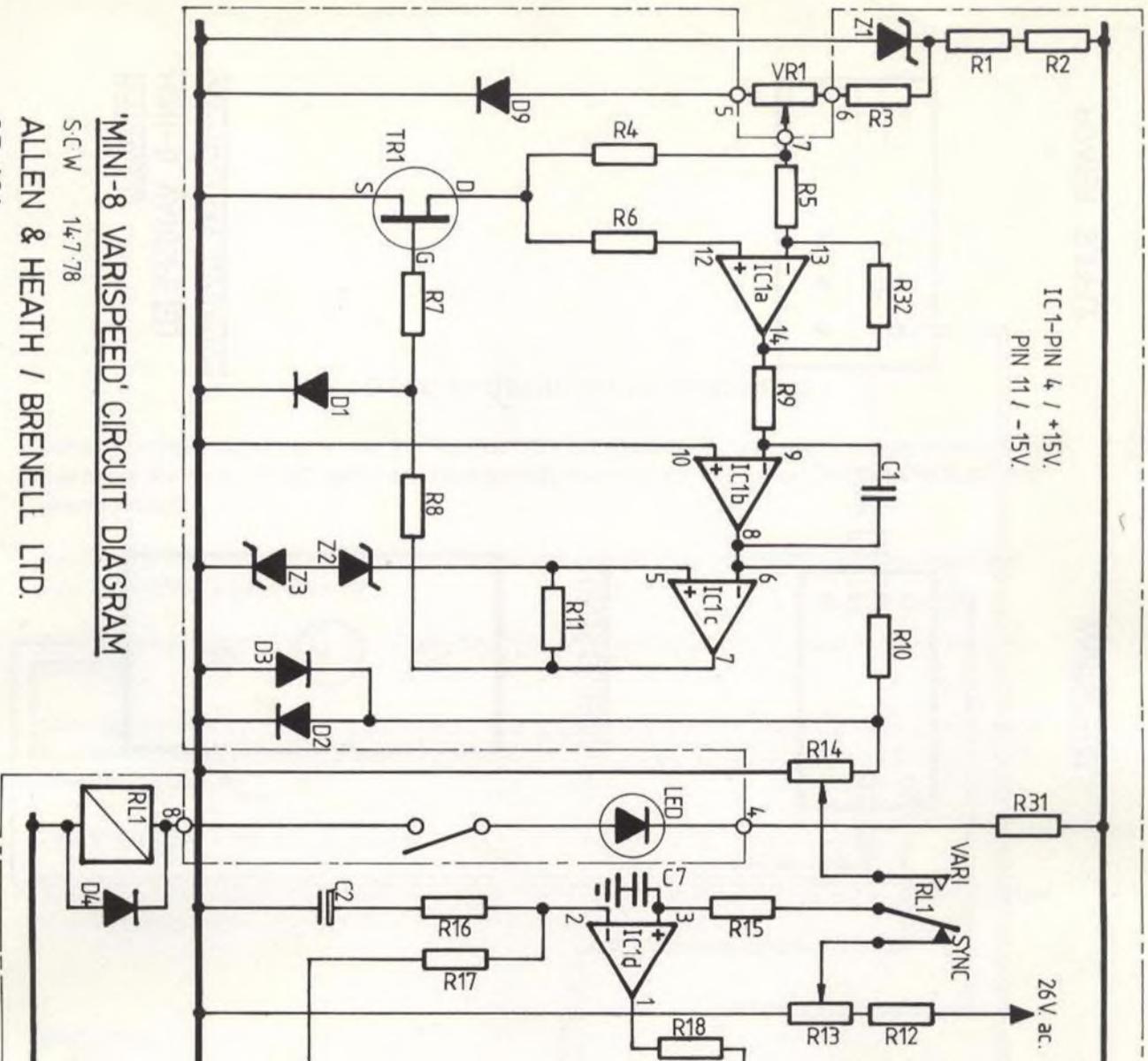## CONNECTION DIAGRAM

POWER SUPPLY

VARISPEED

CONTROL BOX

MINI–8

7-WAY

6-PIN 'DIN' PLUG

13-WAY

7-WAY

'IEC' PLUG

'UP' POSITION – INTERNAL SYNC.

'DOWN' POSITION – VARISPEED.

'MINI-8 VARISPEED' CIRCUIT DIAGRAM

S·C·W   14·7·78

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CD 101

IC1-PIN 4 / +15V.
PIN 11 / −15V.

26V ac.
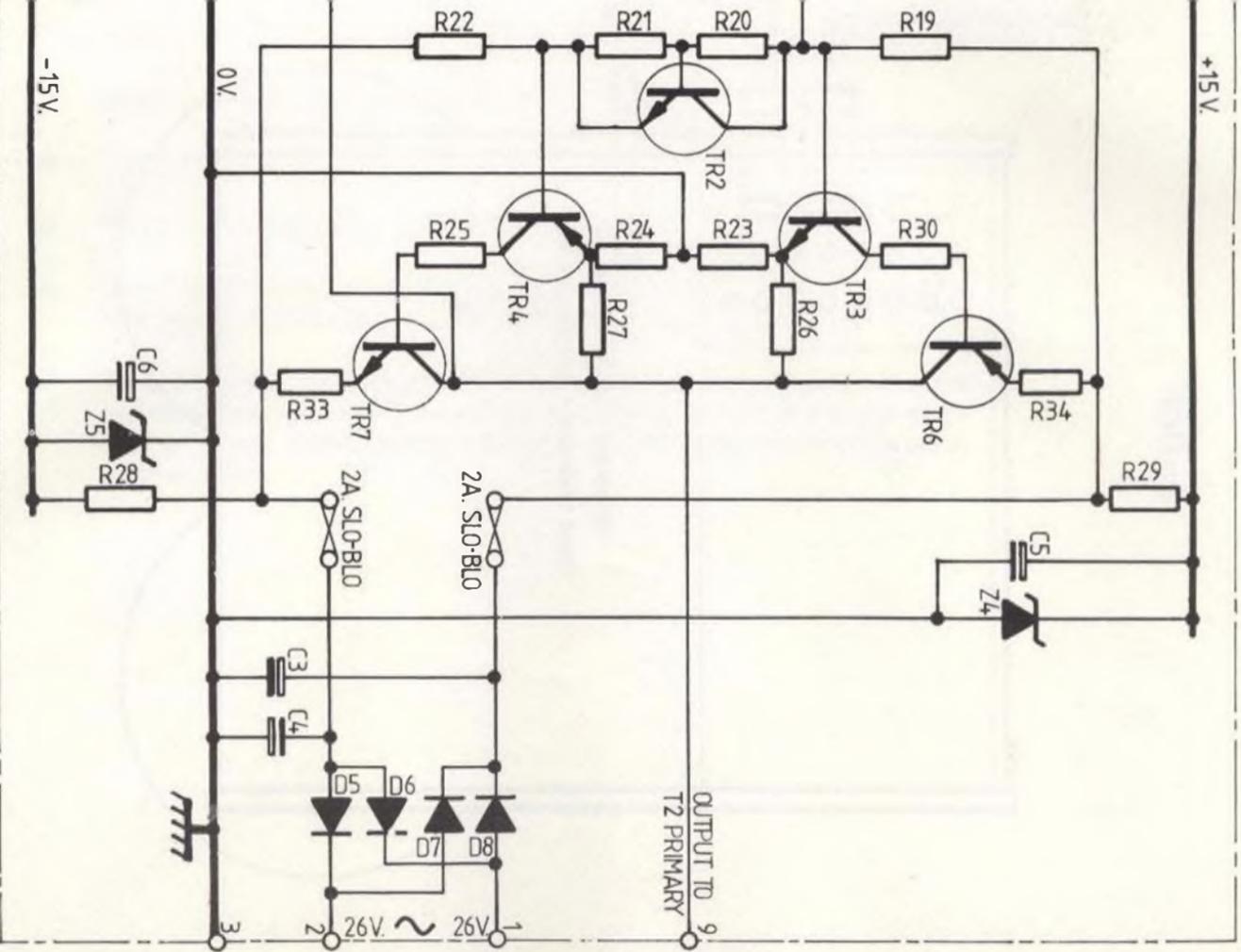
MINI 8 VARISPEED COMPONENTS

R1	=	1K		VR1	=	220R Linear
R2	=	1K		C1	=	0.33 mfd
R3	=	3K9		C2	=	100 mfd 3v Tantillum
R4	=	47K		C3	=	5000 mfd Electrolytic 50v
R5	=	100K		C4	=	5000 mfd Electrolytic 50v
R6	=	47K		C5	=	220 mfd Electrolytic 25v
R7	=	47K		C6	=	220 mfd Electrolytic 25v
R8	=	47K		C7	=	0.047 mfd Mylar 100v
R9	=	2K2		TR1	=	BF244 FET
R10	=	12K		TR2	=	BF240
R11	=	10K		TR3	=	BFX85
R12	=	180K		TR4	=	BFX87
R13	=	2K Preset		TR6	=	TIP36C
R14	=	2K Preset		TR7	=	TIP35C
R15	=	47K		D1	=	1N4148
R16	=	680R		D2	=	1N4148
R17	=	82K		D3	=	1N4148
R18	=	100R		D4	=	1N4148
R19	=	4K7		D5	=	1N5401
R20	=	150R		D6	=	1N5401
R21	=	470R		D7	=	1N5401
R22	=	4K7		D8	=	1N5401
R23	=	22R 2.5W Wirewound		D9	=	1N4148
R24	=	22R 2.5W Wirewound		IC1	=	LM324N
R25	=	150R 2.5W Wirewound		Z1	=	BZY 88 5v6
R26	=	220R 2.5W Wirewound		Z2	=	BZY 88 5v6
R27	=	220R 2.5W Wirewound		Z3	=	BZY 88 5v6
R28	=	1K ½W Carbon		Z4	=	BZY 88 15v
R29	=	1K ½W Carbon		Z5	=	BZY 88 15v
R30	=	150R 2.5W Wirewound		RL1	=	MZ 24HG Single Pole Changeover
R31	=	560R				
R32	=	100K				
R33	=	2R2 7W Wirewound				
R34	=	2R2 7W Wirewound				

ALL RESISTORS ¼ WATT CARBON UNLESS OTHERWISE STATED.