



The  
**ALLEN & HEATH**  
**PRO LIMITER**

for LIMITED  
BUDGETS  
SPACE  
DYNAMICS  
HEADROOM



**AH**

# The ALLEN & HEATH PRO LIMITER

**AH** The Pro Limiter has been designed to provide high quality, low distortion dynamic range compression in applications where either budget or space do not dictate the use of bulky, expensive signal processing gadgetry.

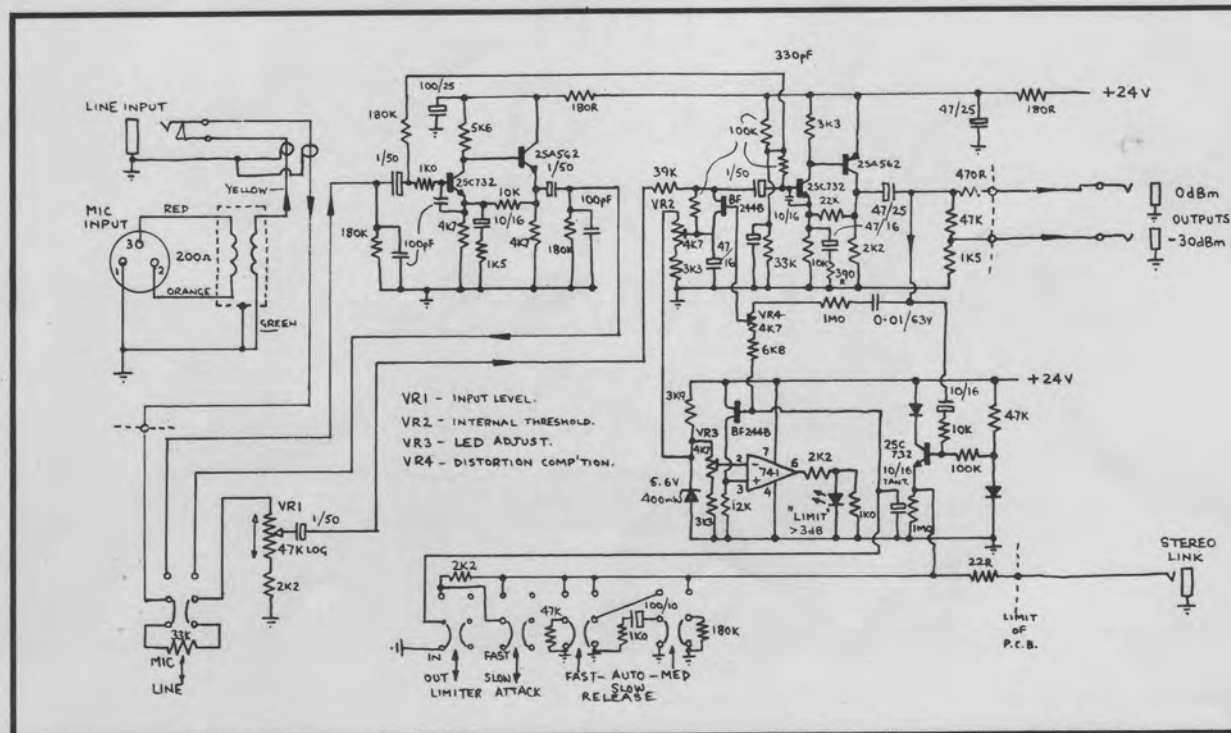
Ideal applications for the Pro Limiter are as follows:

- \* Recording problem sounds such as vocals and guitar with wide dynamic range.
- \* Protecting distortion-prone devices such as tape recorders.
- \* Special effects in 'live stage situations.
- \* Avoidance of overload distortion in P.A. systems.
- \* Increasing speech intelligibility in paging systems.
- \* Voice over music effects on discotheque equipment.

The low cost of the Pro Limiter opens up other possibilities previously thought impractical due to cost considerations.

The unit is mains powered and features variable attack and decay times, variable threshold sensitivity, LED limiting indicator, stereo linkage and line/balanced microphone input. Both high and low level outputs are provided. Auto decay is provided for situations where programme material varies in content.

The Pro Limiter is extremely compact being a mere 12" x 4" x 1½" and weighing only 1.3 kg.



## Technical Details

### CONTROLS

5 push button switches working as follows:

Button	Out	In
1	line input	mic' input
2	limiter out	limiter in
3	attack slow (5ms)	attack fast (100us)
4	decay slow (4 s)	decay fast (100ms)
5	decay slow (4 s)	decay medium (350ms)
(4+5)	decay slow (4 s)	auto decay (50ms to 2 s)

### LED INDICATOR

This circuit warns that 3dB or more of limiting has occurred. It is important that correct signal levels are applied to the limiter and in normal circumstances the LED would only light in the presence of signals beyond the dynamic range of the system being used.

### TERMINATIONS

#### INPUT

microphone — balanced XLR (pin 3 hot)  
line (0dBm) — single pole 1/4" (6.25mm) socket

#### OUTPUT

line (0dBm) — single pole 1/4" (6.25mm) socket  
line (-30dBm) — single pole 1/4" (6.25mm) socket

#### STEREO CONTROL LINK

single pole 1/4" (6.25mm) socket

### LIMITING THRESHOLD

This is pre-set at our factory for one dB of limiting at an output level of 0dBm. A pre-set output of up to +8dBm is possible at the cost of increased distortion. For normal limiting applications this modification is not advisable.

### COMPRESSION RATIO

7:1 above threshold.

### LIMITING CAPABILITY

20dB or greater.

### INPUT SENSITIVITY

for 1dB of limiting:

Mic — 70dBm 200 ohm source  
Line — 25dBm

Above figures are with input level fader at maximum. All levels may be reduced by at least 25dB.

### INPUT IMPEDANCE

Mic — 500 ohms  
Line — 80K ohms

### OUTPUT (Limiter In)

0dBm into 10K or greater  
-30dBm into 10K Ohm or greater

### OUTPUT (Limiter Out)

+17dBm into 10K Ohm or greater

### FREQUENCY RESPONSE

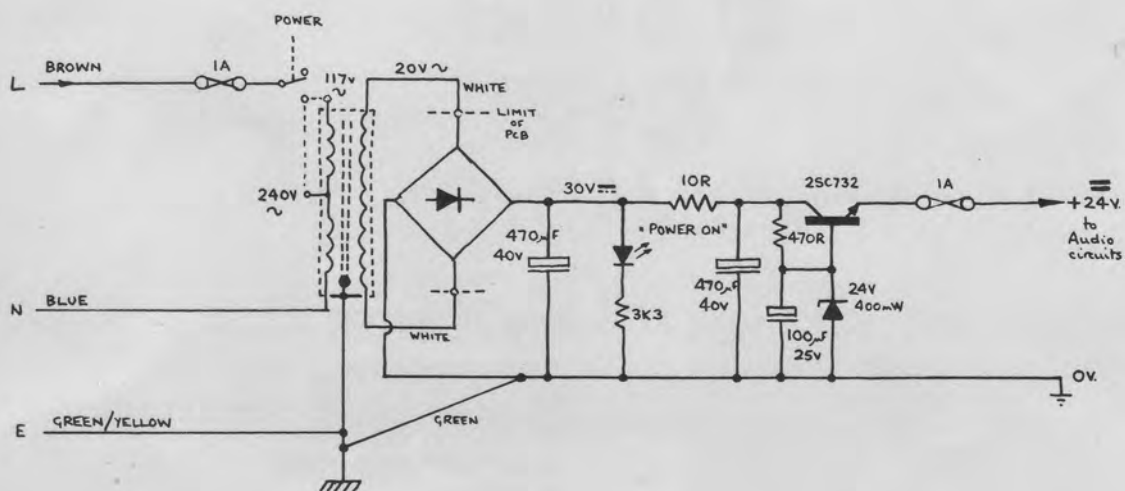
20Hz to 20kHz  $\pm$  1dB under all normal operating conditions

### DISTORTION

For 1dB of limiting 0.1%  
at +10dBm output (limiter out) 0.1%

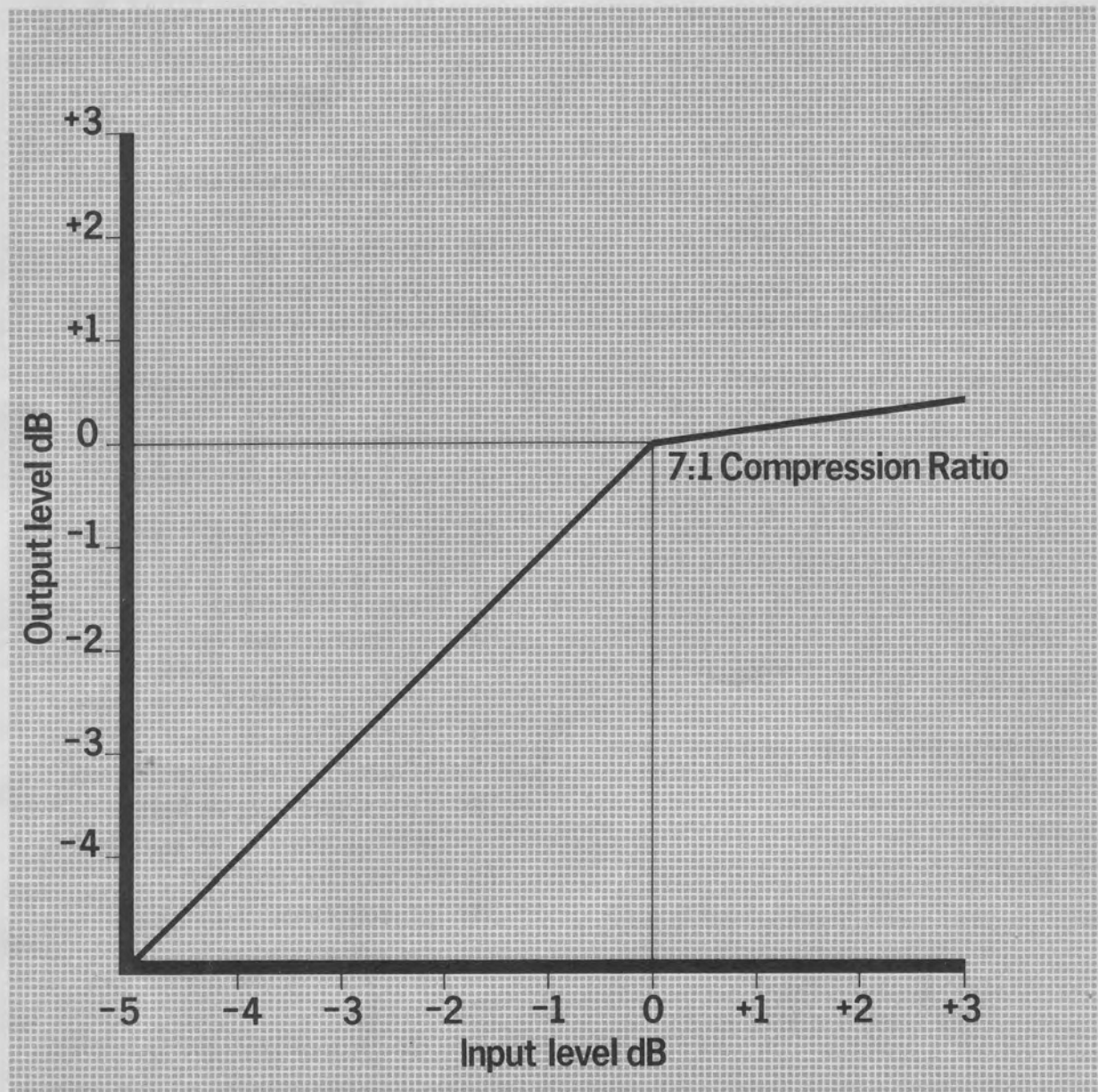
### POWER

220-240V or 110-120V 50/60Hz



Power Supply Circuit

# Compression Characteristics



Appointed Agent



The

**PRO LIMITER**

is made in England by

ALLEN AND HEATH – BRENELL LIMITED

PEMBROKE HOUSE

CAMPSBOURNE ROAD

HORNSEY

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