



DESIGNS DEPARTMENT LIAISON UNIT BBC LONDON W1A 1AA 01-580 4468 EXT. 4345

Limiting Amplifier AM6/14

This is a monophonic limiting-amplifier for use at audio frequencies. It has been designed primarily for transmitter-protection, but has facilities which make it suitable for studio-use also. Two of the amplifiers can be ganged for stereophonic use by means of simple wired connections between tags of their mating connectors.

The limiting action is free from overshoot. A meter on the front-panel indicates gain-reduction, and the gain-recovery time is switchable to any of seven fixed values between 160ms and 3s or to "automatic" recovery i.e., a condition in which the recovery-time is normally 10s but changes to approximately 0.5s if gaps of 1s or more occur in the programme. Another facility activated by gaps in the programme (in this instance gaps of 0.6s or more) is a noise gate which can be switched into circuit to reduce the gain of the amplifier by 12dB when such gaps occur.

A "voice-over" input circuit is provided to enable a second incoming signal to be used, in addition to the signal in the side-chain of the amplifier, to reduce the gain of the main chain.

An input attenuator is provided to enable the amplification of an incoming 0dB-volume signal to be varied, in 2dB steps, so as to produce up to 20dB of gain-reduction by the limiting-circuit.

The gain-recovery, noise-gate and attenuator switches are all front-panel controls.

A pre-emphasis network with a time-constant of 50 μ s can be introduced into the control-chain feed.

The onset of limiting causes a relay to operate, the contacts of which are available via pins of the unit connector to mute automatic monitors.

The unit is constructed on a chassis type CH1/26B.

For further information, please contact M.M. Gleave, Room 210, Western House (PABX BH3863).

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LIMITING AMPLIFIER AM6/14

PERFORMANCE DATA

Power requirement	135mA d.c. at 24V
Design source impedance	600 Ω
Input impedance	10k Ω
Output impedance	60 Ω (maximum)
Design load impedance	600 Ω (minimum)
Input signal level	+8dB peak
Output signal level	+8dB peak (+12dB peak, by internal adjustment at FM transmitters)
Limiting range	20dB