



Line Clamp Amplifier Type BD 921

THIS amplifier is designed for processing signals which have become distorted during transmission over links and cables. It is an improved design resulting from experience gained in marketing the previous model, Type BD 651.

Where signals have suffered severe distortion, elaborate processes are necessary to restore them to a usable condition. These instances are, however, rare and so in the Type BD 921 Line Clamp amplifier, provision has been made in the design to enable circuits to be added as required in the form of extra printed boards.

Three standard editions can be supplied:

Edn A For use in the presence of badly mutilated signals.

Edn B For terminating vision circuits where moderate distortion occurs.

Edn C For use on the outputs of mixing and master switching equipments where fading is required.

Features

Exclusive Marconi circuit for re-establishing synchronizing pulses, suitable for use with monochrome and colour signals.

Exclusive clipping circuits of exceptional stability.

Choice of clamp time constant by switch.

Easy servicing due to new 19 in. rack mounting unit and printed-wiring plug-in boards.

'Mother-boards' and printed wiring cable forms make inter-board connections 100% more reliable.

Local or remote variable gain control.

Four vision outputs with good isolation.

Emergency by-pass switch to connect input to output.

Special (remotely controlled if required) peak white clipping circuit for over white signals.

Chroma control provided.

Designed for use with automatic gain control unit for automated station.

EQUIPMENT

The facilities of the line clamp amplifier (normal) are:

Picture amplitude adjustment (remoteable)

Synchronizing pulse amplitude (remoteable)

Peak white clipper (remoteable)

Noise immune clamping

Bypass Relay

Chroma control

Four isolated outputs

Fitted with the blanking and synchronizing regenerator circuits the facilities are as above with the addition of:

Reblanking

Set up adjustment

Addition of synchronized pulses

NOTE: Blanking and syncs. may be derived from the incoming signal within the unit, or pulses from a genlocked sync. generator can be used.

A separate synchronizing pulse output is available if required, but is not provided on the standard unit.

The output can be made non-composite simply by adjusting the synchronizing pulse amplitude to zero.

The power supply is self contained and uses silicon rectifiers with conventional valve stabilization of the h.t. voltage.

CIRCUITS

The amplifier has a variable gain control covering a range of -9 dB to +3 dB which may be remotely operated, also in extreme circumstances the gain may be increased by 6 dB by the operation of a switch.

The peak-white clipping circuit will handle large areas of signal with negligible effect on the reference voltage.

A new circuit technique enables reblanking techniques to be applied without affecting the black level stability and synchronizing processing is accomplished without disturbing the timing of the signals.

When the blanking and sync. regenerator board is fitted, the choice between using blanking and sync. from the genlocked synchronizing generator, or blanking from the blanking regenerator together with processed sync. pulses, can be made by a switch positioned either locally or remotely.

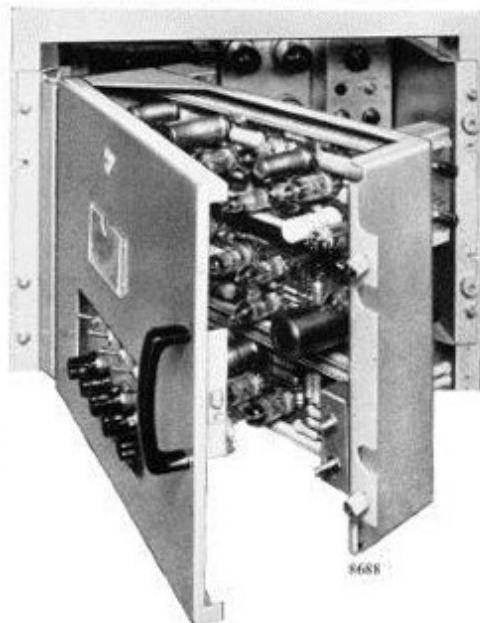
Data Summary

INPUTS

Mains: 100-125 or 200-250 V (5 V steps), 50 or 60 c/s. Consumption 264 VA normal, 320 VA with blanking and sync. regeneration.

Sync. and blanking: Bridging inputs, 1.75 to 6 V p-p negative.

Vision inputs: Composite, white positive, -12 dB to +3 dB relative 1 V p-p.



Line Clamp Amplifier Type BD 921 showing ease of access for servicing.

Colour: Composite encoded, white positive with or without burst, -12 dB to +3 dB relative 1 V p-p.

Impedance: Bridging. The reactive component of the input is built into a filter.

OUTPUTS

Vision monochrome: Composite or equivalent non-composite white positive, 1 V p-p (4 outputs).

Colour: Composite encoded or equivalent non-composite, white positive, with or without burst, 1 V p-p (4 outputs).

Dimensions:

Height 14 in. (36 cm)

Width 19 in. (48 cm)

Depth 15 in. (38 cm)

Marconi

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