



## Technical Data Sheet

### CANFORD 12 VOLT PORTABLE POWER AMPLIFIER

20-350 Canford 12 Volt Portable Power Amplifier, Black

#### DESCRIPTION

The Canford 12Volt Portable Power Amplifier is ideal for small mobile PA applications where the only power source available is a 12V DC vehicle system or similar.

A captive power lead (2m long) is fitted with a universal 'cigar lighter' plug at one end. The amplifier may be freestanding or attached to the rear of a small speaker or other flat surface by means of the optional mounting bracket kit, (stock code 20-319), which includes a pair of brackets, six self-tap screws, washers and a mounting hole template.

Input connection is by a 3 pin female Neutrik combination 1/4" (6.35mm) jack and XLR socket.

The input is electronically balanced with either line or mic levels switchable on the rear panel.

Electret mic power may be enabled by fitting an internal link to the position marked LK1, "ELECTRET POWER", on the PCB for microphones that require such. This link can be accessed by removing the front panel, volume knob and the rear panel screws. The PCB can then be slid out of the case from the rear to allow the jumper link to be moved to fit across both pins of the link.

A volume control is fitted to the front panel. An automatic gain control, (AGC,) is incorporated primarily for speech applications. This may be enabled using the appropriate switch on the rear panel. When the AGC is enabled, it is virtually impossible in normal use to overload the unit, thus ensuring that no audible distortion occurs.

The user can filter the low frequency response to the loudspeaker outputs. This is to avoid driving bass reflex speakers below their cut-off point, thus protecting the speaker and reduce intermodulation distortion. This feature is set internally via a jumper.

Remove the volume knob, the front panel and bezel,

then move the link on J7 at the front of the PCB to the position marked "IN".

The amplifier output is fully protected against overload, short circuit and thermal damage. The output is muted when the power is turned on and off to avoid damaging and obtrusive audible transients.

The speaker connection is by two Neutrik Speakons connectors wired in parallel. Mating connectors are included; stock code 43-041 Neutrik NL4FC cable connector.

The DC power input is fully protected against reverse polarity and has an in-line fuse holder fitted to the captive cable. The power switch features an integral LED to indicate power on.

The unit is housed in a robust black extruded aluminium case with an integral heatsink and protective glass filled nylon end bezels.

Do not cover or otherwise restrict the flow of air around the unit.

This apparatus is intended to be used with screened input signal cables. In common with most sensitive audio/video equipment, electrical phenomena such as high voltage transient pulses on the power supply could result in an audible disturbance at the signal outputs of this unit. If this occurs, it is recommended that this interference is eliminated at source or a filter fitted. The use of radio transmitting equipment, such as mobile telephones and hand-held radio sets, in close proximity to this apparatus could result in an audible disturbance at the output of the apparatus.

The CE mark is applied to this product in respect of the Electromagnetic Compatibility Directive. This apparatus complies with the EMC requirements of this Directive when used as intended in domestic, commercial, light industrial and similar general indoor use.



## WIRING CONVENTIONS

**Input Connector:** 1x Neutrik Combination XLR and 1/4" jack

### XLR

Pin 1 Screen  
 Pin 2 +Ve Phase signal  
 Pin 3 -Ve Phase signal

### 1/4" (6.35mm) TRS Jack Socket

Tip +Ve Phase signal  
 Ring -Ve Phase signal  
 Sleeve Screen

**Output Connector:** 2x Neutrik NL4 Speakon

1+ +Ve Phase signal  
 1- -Ve Phase signal  
 2+ n/c  
 2- n/c

## TECHNICAL SPECIFICATION

|                                 |  |
|---------------------------------|--|
| <b>Input sensitivity:</b>       | - 55dBu to +15 dBu for full output   |
| <b>Input impedance:</b>         | > 47 k ohms  |
| <b>Input filter:</b>            | 80Hz, -3dB point, 12dB/oct (user selected option)  |
| <b>CMRR:</b>                    | > 35dB, 1kHz-10kHz   |
| <b>Rated Continuous Output:</b> | 22W RMS into 8 ohms @ 0.5% THD; 14.4V DC<br>32W RMS into 4 ohms @ 0.5% THD; 14.4V DC                 |
| <b>Peak Output Power:</b>       | 44W into 4 ohms @ 0.5% THD; 14.4V DC   |
| <b>Frequency response:</b>      | 20Hz-30kHz, -3dB points (HP filter out of circuit)<br>50Hz-20kHz, ±0.5dB (HP filter out of circuit.) |
| <b>THD:</b>                     | < 0.05% @ 1kHz, 22kHz bandwidth  |
| <b>Supply:</b>                  | 11-17V DC, 4A at maximum output swing into 2 ohms load.  |
| <b>Supply fuse:</b>             | 5A (T), 20mm Stock code: 42-267  |
| <b>Dimensions:</b>              | 175 x 110 x 60   |
| <b>Weight:</b>                  | 1kg  |