

G85779

Spacesaver Bench Signal Generator

NFU 601



Purpose:

A robust, basic instrument for general laboratory use. The output is suitable for input to oscilloscopes and small loudspeakers. An internal speaker makes it useful for small group work in sound.

Output:

Sine and square waveforms.
Frequency range 10Hz to 110kHz in 4 decades.
Accuracy 2%, distortion less than 0.5% at 1kHz sine.
2V rms (5.6V peak to peak) into a 100 ohm load
Frequency response 10Hz to 110kHz
Output impedance 100 ohm.

Ratings:

230V ac +/-10% 50Hz 40VA Class II
Fuse: F50mA
Temperature range: 10 to 40°C
Humidity: 10 to 90%
RH Mass: 3.1kg

EMC:

This equipment is Class A according to the EMC standard EN55011 and is intended for use in a non-domestic environment only. Interference from nearby sources of RFI (radio frequency interference) may affect the output signals. Likewise, this

equipment may affect other equipment: PCs, laptops, tablets and mobile phones may be affected.

Warnings:

For your safety, this product should be used in accordance with these instructions, otherwise the protection provided may be impaired.

Do not open or remove covers or panels. Repairs and service may only be carried out by our repair agent, otherwise the warranty may be void.

Use only the 3-core mains cable supplied with the unit. If the mains cable is replaced, the rating of the replacement must be the same or better than the original.

The unit must be earthed at all times. The unit is earthed/grounded through the 3-core mains lead, so no additional earth connection is required.

Always position the generator so that it can be disconnected from the mains, if an emergency arises.

This unit is intended for use in DRY conditions. Avoid spillage of water and other liquids on to the unit. If spillage occurs, disconnect the mains supply.

There is no specific requirement for insulation of external circuits as they cannot become hazardous live, as a result of connection to this unit. Limit the length of any connecting leads to 3 metres.

Features:

- Sine and square waveforms available
- Continuously variable output
- Built-in speaker with on/off control for audio frequencies
- Time-delay fuse protects the transformer primary
- Thermal trip protection for transformer



Controls:

The COARSE FREQUENCY control selects the decade range:
10 to 110Hz, 0.1 to 1.1kHz
1 to 11 kHz or 10 to 110kHz

The large control sweeps the output frequency from 1 to 11, to cover the selected decade range.

Pressing SPEAKER On/Off turns the internal speaker On and Off. It has a useful response from 100Hz to 15kHz. Default is Off.

The WAVEFORM button toggles between sine and square waveforms. The LED indicates the current selection. Default is sine.

OUTPUT LEVEL controls the overall output level or amplitude.

Although the output is intended for input to oscilloscopes and electronic circuits, it will give useful output via a small loudspeaker, with an impedance of around 65Ω.

The output from the two yellow sockets 'floats', i.e. it is not referenced to earth (zero volts). Using either of the yellow sockets together with the green ground/earth socket, provides a signal referenced to zero volts.

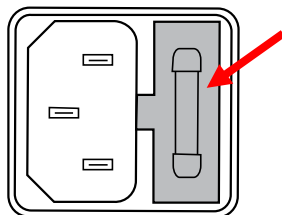
Ground/Earth socket: this is a true Earth, connected to the case of the unit and also to the Earth conductor in the mains lead.

Mains lead and fuse replacement

The mains cable stows on the back of the unit with a wind and clip feature. The mains cable retainer can be removed to allow the cable to be stored separately. Simply remove the screw and retainer from the base of the unit. The IEC cable is now detachable.



In the unlikely event of the fuse blowing, the retainer and mains cable must be removed to gain access to the fuse carrier.



The carrier can be removed with a fingernail or tip of a screwdriver. A spare fuse is provided in the carrier.

Replacement fuses must be 20mm cartridge fuses, of the correct rating : F50mA

Cleaning

The front panel membrane conceals and protects switches and LEDs. It may be wiped clean using a damp cloth. Be sure to disconnect the unit from the mains before cleaning, and do not use any abrasive cleaners or organic solvents.

Periodic testing:

Check the mains lead and plugs at both ends for any damage.

Periodically check the earth bonding and insulation, by performing a Portable Appliance Test (PAT). Most schools and local authorities have a regular schedule for such testing.

Check that the fuse in the mains plug (5A recommended) and the two fuses (active and spare) in the IEC socket on the back panel are all of the correct rating.

Warranty, repairs and spare parts:

The signal generator is guaranteed for a period of one year from the date of delivery to the customer. This warranty does not apply to defects resulting from the action of a user such as misuse, improper wiring, any operations outside of its specification, improper maintenance or repair, or unauthorized modification.

Our liability is limited to repair or replacement of the product. Any failure during the warranty period should be referred to Customer Services.

In the event of a fault, apart from replacing the instrument fuse in the IEC socket, the signal generator should be referred to the Philip Harris recommended repair agent.

Please contact Customer Services or techsupport@philipharris.co.uk for advice

Instructions for authorized service technicians:

Ensure that any replaceable mains cord is of the correct rating.

Ensure that all earth conductors and protective earth bonding is maintained after service work. Please refer to the detailed service procedures, safe servicing and continued safety - contact techsupport@philipharris.co.uk for advice.

For any manufacturer specific parts please refer to our recommended repairer.

Please refer to product specific risks that may affect service personnel, the protective measures and verification of the safe state after repair.

Disposal of Waste Electrical and Electronic Equipment (WEEE)



Do not dispose of this product with household waste

- For the proper treatment, recovery and recycling please take this product to an appropriate collection point.
- If you are unsure where this is, contact your Local Authority.
- By disposing of this product correctly you will be providing positive help to the environment.

Supplier details:

Customer Service Centre, Philip Harris & UNILAB, Hyde Buildings, Ashton Road, Hyde, Cheshire SK14 4RH UK

Orders and Information Tel: 0845 120 4521
Fax: 0800 138 8881

Repairs Tel: 0845 120 3211

E-mail: techsupport@philipharris.co.uk

Website: www.philipharris.co.uk

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