H29565 Audio Amplifier and Loudspeaker **NFU 101**

Purpose:

This unit features a built in 70mm diameter speaker, driven by a 300mW amplifier. It is powered by an internal 9V, 150mAh nickel cadmium rechargeable battery. Signal input is via a coaxial socket on the front, and has an input impedance of 1MΩ.
Included with the unit is a charging lead and a 750mm screened coaxial to 4mm plug lead, for the signal input.
At maximum gain, 300mW of output can be achieved with an input signal of 10mV.

Charging the battery:

The internal battery must be charged using the supplied cable. Connect to an a.c. or d.c. power supply, at a voltage of 13-24V.
The amplifier can be used whilst the battery is charging. Typically, a full charge will take 14 hours. Lifetime depends on the level of amplification.

Using the unit:

Before turning on the device, it is advisable to ensure the gain is rotated fully anticlockwise to its lowest setting. Connect the signal cable to the input of the unit, and then plug the other end into your signal source. Turn the unit on, and increase the gain until the desired volume is achieved.

Typical applications:

Connect to a signal generator to listen to the wave produced. Observe the audible differences between sine waves, triangle waves and square waves. Demonstrate the effect changing frequency or amplitude of a wave has on the sound it produces.

Student Audio Signal Generator	Philip Harris L79157
	Philip Harris G85779
Bench Signal Generator	Philip Harris R01308

Connect to a counting device for an audible indication of count rate, for example, in radioactivity experiments. Suitable counters, with a speaker connection, are:

UNILAB Technical Support
www.unilab.co.uk
0845 120 4521
techsupport@philipharris.co.uk

S-Range Scaler-Timer	Philip Harris H28925
S-Range Digicounter	Philip Harris H29280

Connect to the microwave receiver, or microwave probe receiver, to produce a louder sound for demonstrations to large groups. The microwave apparatus uses BNC output, so a BNC to 4mm socket adaptor is required.

Microwave Kit, Probe Receiver & Accessories	R01946
Microwave Kit & Accessories	J73481
Microwave Receiver	J73479
Microwave Probe Receiver	R01939
BNC to 4mm adaptor	A59419

Connect to a crystal microphone and oscilloscope to “see” and hear other sounds. Be careful when adjusting the gain, as the microphone is sensitive and there will be feedback.

Crystal Microphone	H27851

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.

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.

Cleaning
It may be wiped clean using a damp cloth.

Warranty, repairs and spare parts:
The power supply 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 power supply should be referred to the Philip Harris recommended repair agent.

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

Supplier details:
Philip Harris Education, 2 Gregory Street, Hyde, Cheshire SK14 4RH

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