

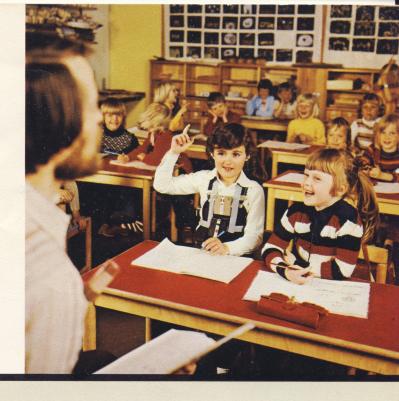
Educational Equipment

The problem for hard of hearing children at school is often that the teacher is relatively far from the pupil and that the classroom has often poor acoustics. In order to eliminate these drawbacks, 747 can be connected to an FM receiver and for the teacher – a suitable radio transmitter.

The distance between teacher and pupil will therefore never be longer than the distance from the teacher's mouth to the radio transmitter's microphone.

The radio signals are reproduced in the telephone coil positions (T and MT) of the hearing aid. In the MT position this enables the pupil to hear the teacher's voice as well as the voices of the other pupils at the same time.

The advantage of having hearing aid and radio receiver in two units is that the radio receiver can be taken off when not in use and that the pupil always uses the same hearing aid.



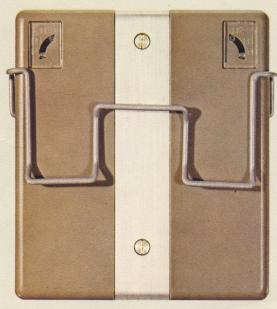
PERATING SWITCH M for microphone on I for telecoil MT for microphone and telecoil functioning at

the same time.

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TONE CONTROL

On the back of the aid individual tone controls are positioned for right and left channels. These are adjusted by the audiologist, (N-H1-H2).

CONNECTING PLUG

The 2 earphone cords are inserted into the output sockets on each side of the aid. On one side of the aid you will find a jacksocket for radioreception. Furthermore, a socket for the charging of the aid can be seen at the bottom of the instrument.



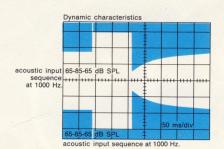
Wearing the Aid

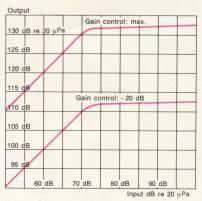
747 can be worn by grown-ups as well as children, and its design combined with a practical, reversible clip makes it easy to wear either on the outside or inside of the pocket.

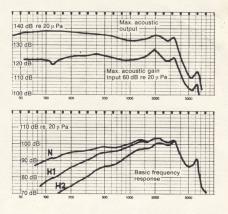
A strap arrangement can also be used. The length of the strap can be adjusted and the strap fastened by means of nylon interlocks so that there are no metal parts on the strap which could cause irritations to the skin. The interlocks will be realeased by a pressure of about 3 kg, and there is no risk for children being injured when using the aid therefore.











Compression

The compression in model 747 has an attack time of 4 milliseconds and a recovery time of 150 milliseconds and is sufficiently short for all syllables to be clearly reproduced. Distortion is kept at an absolute minimum.

The input/output curves show the new form of

compression in model 747, which starts functioning at input sound pressure levels above 72 dB SPL, which is to say above normal speech level. The automatic compression operates regardless of the position of the volume control. The dynamic range of speech is therefore not affected by the compression.

Elegant Design and Easy Operation

ON/OFF SWITCH

The aid is supplied with a separate On/Off Switch (0-I).

ADJUSTMENT OF GAIN CONTROL

The gain control can be adjusted separately for right and left channel whereafter both controls can be adjusted with one finger to the most comfortable level. The gain control in model 747 regulates the output sound pressure.



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- T for
- the sa

MT Swi

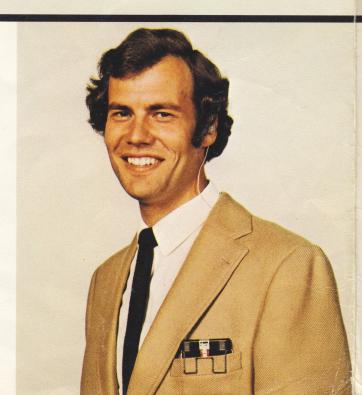
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Earphones

SM-N earphones (for normal frequency range) are supplied as standard equipment for model 747, but the audiologist has the possibility of choosing from a wide range of earphones. H for bass cut, L for treble cut, W for wide frequency range and M for powerful middle frequency.

Recommended also, are the larger earphones type "7" which are characterized by high sensitivity as well as type "PP" providing a very high amplification in the middle frequency range. There are optimum fitting possibilities for the users' individual requirements therefore.

The earphone impedance is indicated on both sides of the instrument (68 ohms).



MODEL 747 PP

Typical specifications:

Stereophonic Hearing Aid Model 747 PP and Charger Model 747 L.

Maximum acoustic gain: 66 dB Maximum acoustic gain at 1000 Hz: 61 dB ± 4 dB

Maximum acoustic output: 138 dB re 20 μPa

Maximum acoustic output at 1000 Hz: 133 dB re 20 μPa

Rated acoustic output at 1000 Hz (10 % distortion): 133 dB re 20 μ Pa

Random acoustic noise at 40 dB gain at 1000 Hz: less than 69 dB re 20 µPa

Telecoil sensitivity at 1000 Hz (input 10 mA/m field): 114 dB re 20 μPa

Radio input sensitivity (input 10 mV at 1000 Hz): 123 dB re 20 μPa

Radio input impedance: larger than 10 k Ω

Effect of temperature variation on gain between -25°C and +45°C: 0.05 dB/ 10°C

Effect of accumulator voltage variation on gain between 5.0 V and 7.0 V: 0.03 dB/0.1 V

Effect of gain control variation on gain: 2 dB/10° turn

Accumulator quiescent current: 4.3 mA Accumulator average current: 13 mA

Compression attack time: approx. 5 ms Compression recovery time: approx. 150 ms

Microphones: Electret, internal. Earphones: Magnetic, external.

Circuit: Two-channel balancing class B push-pull with 4 integrated circuits, individual compression circuits

operating on input sound pressure level and separate telecoil pre-amplifier.

Accumulator: 5 built in nickel-cadmium

Operating capacity:

Approx. 13 hours/1 hour 30 min. charge or

Approx. 16 hours/8 hours charge. (Dependent on operating conditions).

Charger model 747 L:

Standard version: 220 V ± 10 %, 50 Hz. Other versions available. Power consumption max. 6 W. Automatic electronic switching system relating to accumulators charge con-

Red light: Fast charge condition. Green light: Maintenance charge condition.

Dimensions: 100×75×52 mm $(3.94 \times 2.95 \times 2.05 \text{ inches})$

Weight: 322 grammes (11.4 ounces).

Temperature: 0-40°C.

Gain controls: Separate, continuous. Tone controls: N-H1-H2 to be adjusted by the audiologist.

Function switch: M-T-MT. On/off switch: 0-1.

Housing: ABS-plastic housing. Colour: Beige.

Dimensions: 80×70×24 mm

(3.11×2.75×0.95 inches).

Weight without earphones 129 grammes (4.5 ounces).

Earphone plug according to IEC 90

(1973) fig. 1. Radio plug according to IEC 130-8 (1969) fig. 4.

Data in accordance with USAS S3.8-1967 and DIN 45605 (previous HAIC data):

Gain:

63 dB

Output:

135 dB re 20 μPa

Frequency range: 70-6500 Hz

All the above measurements have been obtained with accumulator voltage 6.3 V., earphone type SM-N, 68 Ω , with tone control in position "N", on-off switch in position "I" and othervise in accordance with IEC publications 118 of 1959 and 126 of 1961. All data are expressed per channel.



DANAVOX MODEL 747 PP

STEREOPHONIC PUSH-PULL BODY WORN HEARING AID WITH COMPRESSION RELATED TO INPUT LEVEL AND TELECOIL FOR LEFT AND RIGHT CHANNELS TONE- AND GAIN CONTROLS AND SEPARATE ON/OFF SWITCH FOR CONDUCTIVE, MIXED OR PERCEPTIVE HEARING LOSS WITH RECRUITMENT UP TO 85 dB.

Model 747 is a 2-channel push-pull hearing aid with a very wide frequency range (Electret Condenser Microphone) and with automatic compression. Technically the instrument performes as a stereophonic hearing aid, and it is especially developed for the severely hard of hearing. The instrument compensates for practically any kind of hearing loss, and the acoustical and audiological features have been developed in close co-operation with experts in this field.

The stereophonic response of model 747 provides a better directional sound effect and increases the intelligibility of speech considerably.

When listening with both ears, i.e. with a two-channel or binaural fitting, the subjective sound impression is approximately 8 dB higher. This requires lesser amplification therefore with resulting higher quality and less strain on the individual

Model 747 is of course included in the unique International Danavox Hearing Aid guarantee system.

ON/OFF SWITCH:

The aid is supplied with a separate On/Off Switch (0-I).

ADJUSTMENT OF GAIN CONTROL:

The gain control can be adjusted separately for right and left channel whereafter both controls can be adjusted with one finger to the most comfortable level. The gain control in model 747 regulates the output sound pressure.

OPERATING SWITCH:

M for microphone on T for telecoil MT for microphone and telecoil functioning at the same time.

The On/Off and the M-T-MT Switches are of a new design enabling the user to operate these easily in any position.

A so-called »baby cover« can be supplied if the operating controls need to be fixed into position.

CONNECTING PLUG:

The 2 earphone cords are inserted into the output sockets on each side of the aid. On one side of the aid you will find a jacksocket for radioreception. Furthermore, a socket for the charging of the aid is placed at the bottom of the instrument.



TONE CONTROL:

On the back of the aid individual tone controls are positioned for right and left channels. These are adjusted by the audiologist, (N-H1-H2).

COMPRESSION:

The compression in model 747 has an attack time of 4 milliseconds and a recovery time of 150 milliseconds and is sufficiently short for all syllables to be clearly reproduced. Distortion is kept at an absolute minimum.

The input/output curves show the new form of compression in model 747, which starts functioning at input sound pressure levels above 73 dB SPL, which is to say above normal speech level. The automatic compression operates regardless of the position of the gain control.

The dynamic range of speech is therefore not affected by the compression.

EARPHONES:

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Recommended also are the larger earphones type "7" which are characterized by high sensitivity as well as type "PP" providing a very high amplification in the middle frequency range. There are optimum fitting possibilities for the users' individual requirements therefore.

The earphone impedance is indicated on both sides of the instrument (68 ohms).

CHARGING:

Model 747 has 5 built-in accumulator cells which provide in total 6 volts which need never to be taken out.

The charger is connected to the mains and the charging itself is a fully automatic procedure. It is advisable always to place the hearing aid in the charger when not in use.

The current consumption of the charger is so little that it can hardly be registered. Only one and a half hours are needed to charge the cells to 80% of their capacity (80% = 13 hours of use). Full charge takes about eight hours and provides 16 hours of use.

The charging is controlled by means of a red and green indicator lights.

The red control light indicates: "under charge" — and the green light that the hearing aid is at least 80 % charged. When the hearing aid is 80 % charged, the charging current is automatically changed to maintenance current. The hearing aid can therefore always remain in the charger, when not in use. It is not necessary to supervise the charging or to check the time.

WEARING THE AID:

A practical, reversible clip makes 747 easy to wear either on the outside or inside of the pocket.

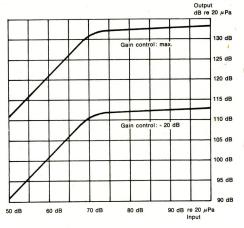
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EDUCATIONAL EQUIPMENT:

747 can be connected to a FM receiver and for the teacher – a suitable radio transmitter.

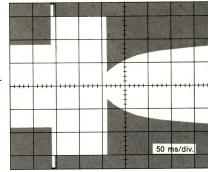
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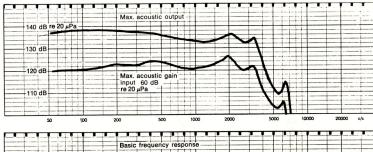


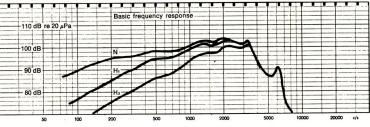
Output/Input at 1000 Hz.

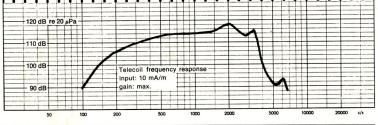


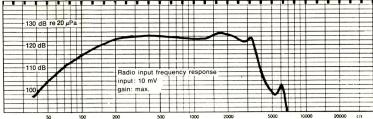


65-85-65 dB SPL acoustic input sequence at 1000 Hz.













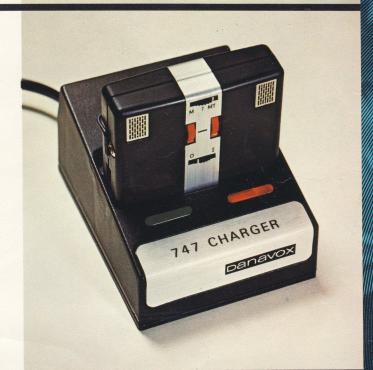
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