Conventional

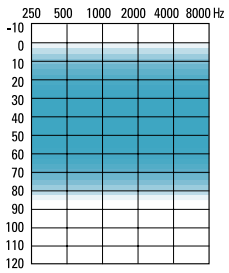
unitron hearing™

Sound F/X
Custom
Multi-Channel
Wide Dynamic Range Compression

HEARING AID FEATURES

- Two channels with Wide Dynamic Range Compression circuitry that is independently adjustable for each channel
- Five parameters provide full fitting flexibility:
  GL - Low-channel Gain
  GH- High-channel Gain
  F - Crossover Frequency
  TK - Threshold Kneepoint
  P - Power
- Twin average compression detectors reduce “pumping”
- Available shell styles to suit your clients’ requirements:
  - Mini-canal - Canal
  - Half-shell - Full-shell
- Class D circuitry for excellent battery life
- High quality microphone has higher sensitivity and reduced noise
- Range of venting options available
- Optional telecoil with preamplifier
- Contoured, matte finish faceplate provides attractive cosmetics
- Fitting is supported by NOAH-compatible Unifit or Standalone Unifit

SUITABLE FOR FITTING MILD TO MODERATELY SEVERE HEARING LOSSES



Fitting Guide


Full-Shell


Half-Shell


Canal


Mini-Canal

Can fit audiogram configurations ranging from reverse to precipitously sloping.

MATRIX SELECTION

Mini-Canal	95/30-5/F/X 100/35-10/F/X 105/40-15/F/X
Canal/Half-Shell	95/30-5/F/X 100/35-10/F/X 105/40-15/F/X 110/45-20/F/X
Full-Shell	95/35-5/F/X 100/40-10/F/X 105/45-15/F/X 110/50-20/F/X 115/50-25/F/X 115/55-25/F/X

MAXIMUM FITTER ADJUSTABLE PARAMETERS

Mini-Canal	1	Parameter
Canal	2	Parameters
Half-Shell	2	Parameters
Full-Shell	3	Parameters

Telecoil Switch

ANSI S3.22-1996 TECHNICAL DATA

Frequency Range		100-8000 Hz
Peak Gain		30-55 dB
Peak Output		95-115 dB
Reference Test Gain		5-36 dB
HF Average Gain (50 dB in)		5-49 dB
HF Average OSPL90		93-113 dB
Typical Battery Life	13	225-485 h
(Zinc Air Premium)	312	115-250 h
	10A	90-150 h
Current Drain at RTP		0.6-1.3 mA
Telephone Magnetic Field Simulator		
HFA SPLITS		82-98 dB
STS SPLITS		2 dB
Equivalent Input Noise at RTP		< 28 dB
Total Harmonic Distortion at RTP		
500 Hz	typical 1%	< 6%
800 Hz	typical 1%	< 6%
1600 Hz	typical 1%	< 6%
Fast Time Constant		
Attack Time		5 ms
Release Time		20 ms
Slow Time Constant		
Attack Time		200 ms
Release Time		500 ms
Compression Ratio		1:1 to 4:1

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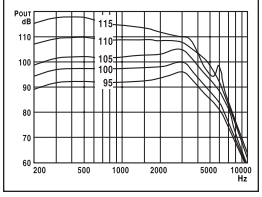
SOUND F/X CUSTOM ANSI SPECIFICATIONS

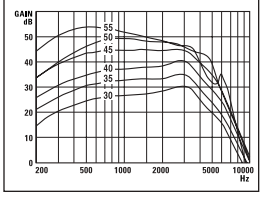
OSPL90 CURVES



Input sound pressure level: 90 dB
Volume Control: full on

GL	GH	F	TK	P
+	+	–	–	+

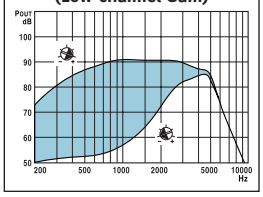
GAIN CURVES



Input sound pressure level: 50 dB
Volume Control: full on

GL	GH	F	TK	P
+	+	–	–	+

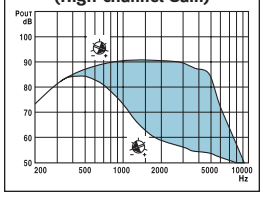
EFFECT OF GL PARAMETER (Low-channel Gain)



Input sound pressure level: 50 dB
Volume Control: RTP

GH	F	TK	P
+	+	–	+

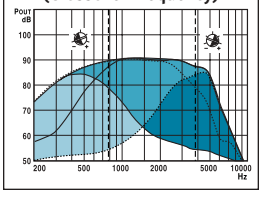
EFFECT OF GH PARAMETER (High-channel Gain)



Input sound pressure level: 50 dB
Volume Control: RTP

GL	F	TK	P
+	–	–	+

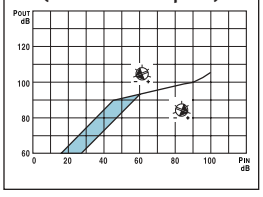
EFFECT OF F PARAMETER (Crossover Frequency)



Input sound pressure level: 50 dB
Volume Control: RTP

GL	GH	TK	P
+/–	+/–	–	+

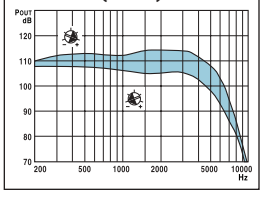
EFFECT OF TK PARAMETER (Threshold Kneepoint)



Input at 2000 Hz
Volume Control: RTP

GL	GH	F	P
+	+	–	+

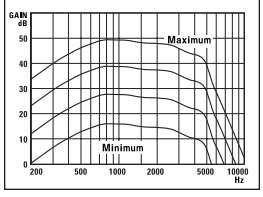
EFFECT OF P PARAMETER (Power)



Input sound pressure level: 100 dB
Volume Control: full on

GL	GH	F	TK
+	+	–	–

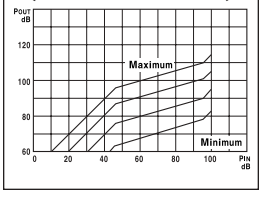
VOLUME CONTROL RANGE



Input sound pressure level: 50 dB
Volume Control: as shown

GL	GH	F	TK	P
+	+	–	–	+

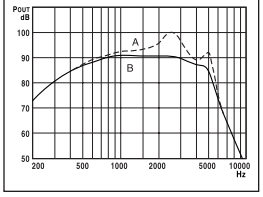
INPUT-OUTPUT CURVES (Effect of Volume Control)



Input at 2000 Hz
Volume Control: as shown

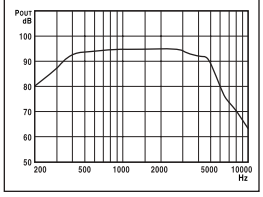
GL	GH	F	TK	P
+	+	–	–	+

EFFECT OF 2K FILTER



Input sound pressure level: 50 dB
Volume Control: RTP
"A" unfiltered, not recommended
"B" filtered, standard

TELECOIL RESPONSE



Input level: 31.6 mA/m
Volume Control: RTP

GL	GH	F	TK	P
+	+	–	–	+

TEST CONDITIONS

RTP-ANSI: Reference Test Position of the Volume Control
BATTERY: 13 Zinc Air Premium
SOURCE: Voltage 1.3 V Impedance 6 Ohms
COUPLER: HA-1
VENT: Closed at canal end
Refer to: "Summary of Test Conditions and Limits" for more details.

AID MARKING: S F/X

COMPLIANCE

Responses will vary according to ear size and shape, hearing loss requirements and shell acoustics.

REFERENCES

ASA: Acoustical Society of America, ANSI S3.22-1996
FDA: Food and Drug Administration, Part 801

We reserve the right to change specification data without notice as improvements are introduced.

This product is manufactured under the protection of U.S. Patent #4349082 & #5204917.

Caution: Hearing aids and batteries can be harmful if swallowed or improperly used.

unitron hearing™

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