

STANDARD FEATURES

- On/off volume control
- Four(4) pin socket
- Variable vent system
- Windscreen
- 1 year loss or damage
- 2 year warranty

OPTIONS

- Programmable volume control
- Multi-memory(2-4) with tone indicator
- Programmable telephone coil
- Program thru faceplate
- Trimmer volume control
- On/Off switch
- Foto-coat
- Flip Top wax trap
- 10A Mini canal
- Windscoop/windhood

Description

The 312S **INSTINCT** is cutting-edge technology featuring the latest in digital processing strategies; Intuitive Feedback Cancellation and Automatic Noise Reduction algorithms.

Intuitive Feedback Reduction automatically reduces feedback without reducing gain. Spectral Information is maintained.

16 bands of gain adjustment for precise target matching

Four selectable noise reduction algorithms

Highly configurable digital signal processor provides excellent versatility, with independent channel compression characteristics including four(4) parameter I/O adjustment

Three(3) adjustable crossover frequencies

Full dynamic range, low noise and 16kHz bandwidth offers true, high fidelity audio processing without compromise

Three(3) selectable time constants for each channel

AGC-o compression limiting

Effective dynamic range of 95dB

Low Battery Indicator

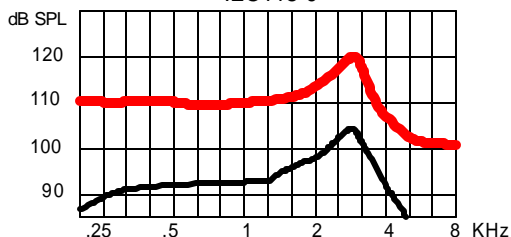
Multi Memory Tone Indicator

Programmable with HiPro or the Microconnect card and the Audina ezFit software(NOAH os Standalone)

Performance Data:

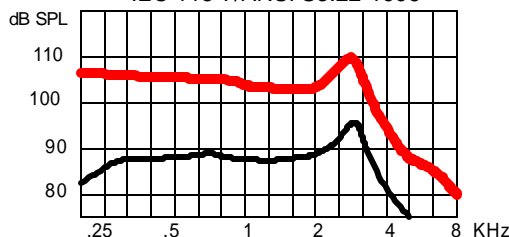
			Coupler 2cc IEC 118-7/94	Coupler MZ (7/1) IEC 118-0/94	Coupler 2cc ANSI S3.22-1996	Limits
SATURATION (OSPL 90)	Peak	dB SPL	110	120	110	+/- 3
	F Reference	dB SPL	103	113	104	+/- 3
	HF Average	dB SPL		112	105	+/- 3
Full-on Gain (Input: 50dB SPL)	Peak	dB	45	53	45	+/- 4
	F Reference	dB	38	46	38	+/- 4
	HF Average	dB		40	40	+/- 4
Nominal Reference Test Gain (RTG)	dB	26	41	28		
Frequency Range	Hz	200-8000				
Volume Control Range	dB	<40				
Total Harmonic Distortion at RTG:						
70 dB SPL in	500 Hz	%	1	1	1	<4
	800 Hz	%				<4
65 dB SPL in	1600 Hz	%				<4
Equivalent Input Noise Level	dB		30	30	30	<33
	dB					<33
Maximum Telecoil Sensitivity						
FOG; Input 10mA/m @ RTF	dB		91			
RTG; Input 31.6mA/m @ RTF	dB			95		
FOG; Input 31.6mA/m @ RTF	dB				94	
SPLITS @ RTF	dB				86	
HF Average	dB				88	
STS	dB				1.0	
Supply Current	input dB SPL		60		65	
at RTG	mA		0.90		0.90	<1.0
Battery Life	Type 312 Zinc-Air(110mAh)	hrs	120		120	
	Type 10A Zinc-Air(60mAh)	hrs	65		65	
AGC @ 2KHz	Attack	mS	60	60	60	+/-50%
	Release	mS	800	800	800	+/-50%
Reference Test Frequency(RTF)	Hz		1600	1000	1000	

IEC118-0

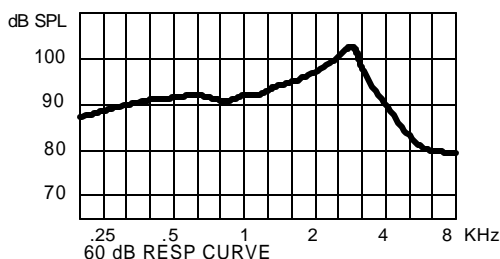


OSPL90 50 dB FULL ON GAIN CURVE

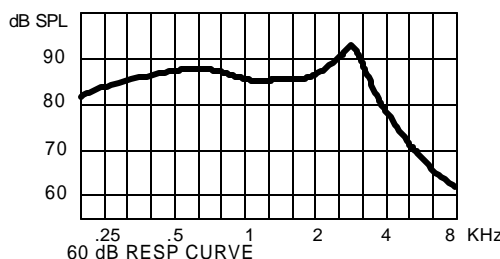
IEC 118-7/ANSI S3.22-1996



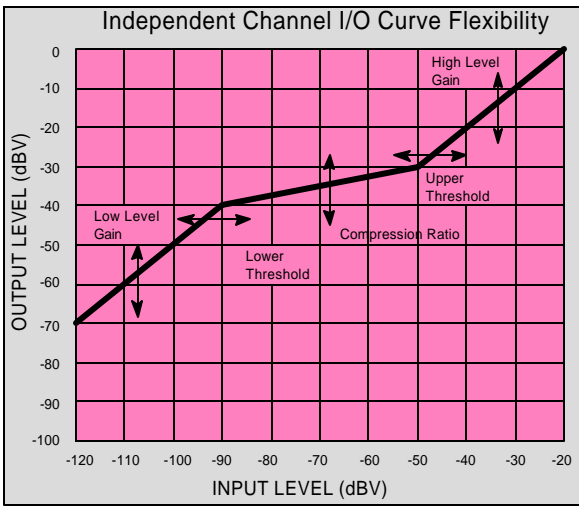
OSPL90 50 dB FULL ON GAIN CURVE



60 dB RESP CURVE



60 dB RESP CURVE



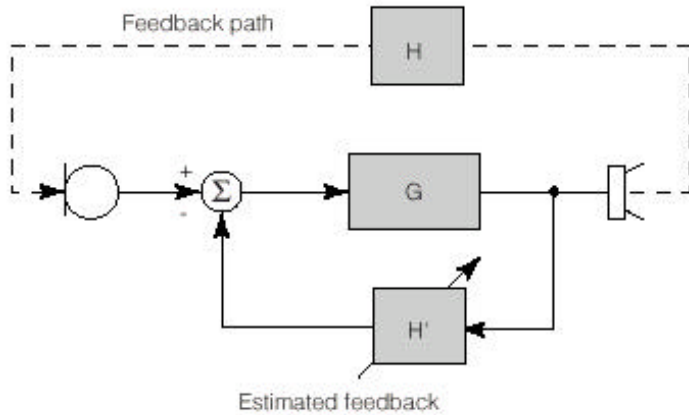
CHANNEL PROCESSING

This figure represents the I/O characteristics of independent AGC channel processing. The I/O curve can be divided into three(3) main regions:

- *Low input level linear region
- *Compression region
- *High input level linear region (return to linear)

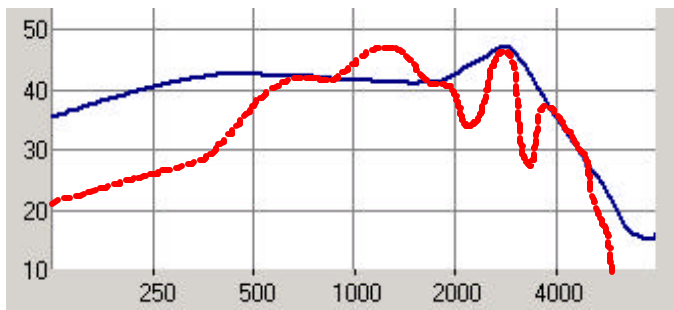
The I/O characteristics can be adjusted in four(4) ways:

- *Low level gain
- *Lower threshold
- *Upper threshold
- *Compression Ratio



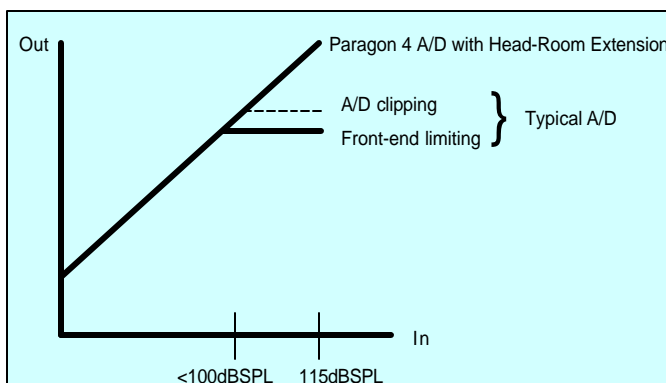
Intuitive Feedback Reduction

The intuitive feedback reduction (IFB) reduces the acoustic feedback by forming an estimate from the feedback signal and then subtracting this estimate from the hearing aid input. Therefore the forward path of the hearing aid is not affected. Unlike adaptive notch filter approaches, Instinct's IFB does not reduce the hearing aid's gain. The IFB is based on a time-domain model of the feedback path.



Sixteen-Band Gain Adjustment

- For precise target matching
- Low Frequency Shaping
- High Frequency Shaping
- Resonance Smoothing
- Feedback Notches
- Peak Shifting



HIGH FIDELITY DIGITAL SYSTEM

Dual A/D converters are combined with the Head-Room Extension Algorithm to yield a 16kHz bandwidth and a 95dB of full dynamic range hearing instrument.