

Tie™

TRANSDUCERS IN THE EAR



*World first modular
hearing system*

anaton[®]
reliability in hearing



Understanding **comfortably**

Hearing and understanding comfortably is a priority. Only hearing sounds is not enough anymore, it also needs to be comfortable and simple.

anaton Tie; equipped with a series of unique physical and algorithmic features that enhance sound comfort. It builds a wonderful hearing line with hearing acoustic technology that prioritizes personal needs and weakens disturbing sounds.

The power of the words

We enjoy when we understand *sounds in the environment.*

When a music melody is fully understood, *it gives peace to our souls.*

Understanding what's spoken *connects us to conversation.*

The clarity of the voice facilitates understanding and ensures the *continuity of communication.*

The main task of our hearing system which is one of our five senses, is to keep us in *touch with the world of sounds.*



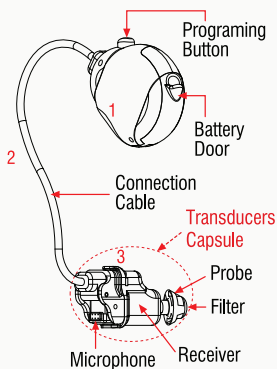
Creative mini design great performance

Tie exhibits unique abilities in its category with its functional exceptional structure and extraordinary innovative design.

It offers excellent performance with its aesthetic, almost hidden behind the ear and mini size design.

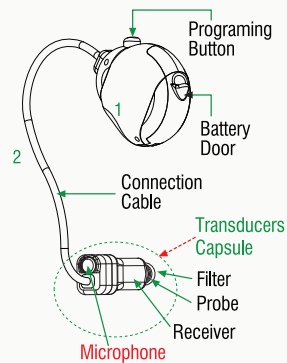


TIE Modular



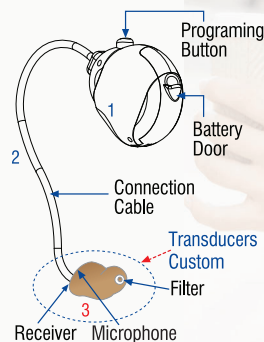
- 1- Amplifier and Battery Module
- 2- Connection Cable
- 3- Transducers Capsule

TIE Semi-Modular



- 1- Amplifier and Battery Module
- 2- Connection Cable & Transducers Capsule

TIE Custom Modular



Model: FPS / FPM / FP-P

- 1- Amplifier and Battery Module
- 2- Connection Cable
- 3- Transducers Custom

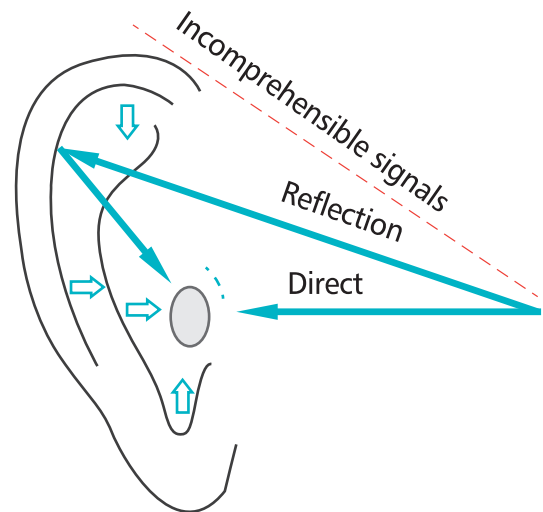
Every sound is important

Change of sound levels according to the environment, speaking habits and environmental factors are important elements in understanding the sound needed.

New generation **Tie** technology is focused on the beneficial sound needed even in difficult variable acoustic environment. It is the first modular hearing system that adds all functions of the auricle to the hearing line.

Hearing sounds naturally, transmission of noises by suppression, and ease of directional determination make the highest contribution to perception.

Hearing sense and Speech



Your life is the sounds you hear

The voices you hear and understand determine your standard of living.

You participate in life as much as you understand, and you are active at the level you meet your expectations.

My Sound World



Tie is the technology of both today and tomorrow

anaton Tie; keeps you stay in touch at anywhere and anytime.

For example;

At family gatherings, your favorite dinners, restaurants, driving, outdoor walking, business meetings, places of worship, listening to phone or watching television...

anaton Tie; uses all the technological and audiological possibilities for you to be able to hear and understand better.

Tie; equipped with a number of unique hearing features, Enhanced superior technological features.



Pediatrics products are being redefined

Tie modular;

Revolutionary strong and small size

Possibility to do fitting very easily with infants and children

Ergonomic cabin

It increases the daily use of the devices

Design and application suitable for all ages

Posibility of open and close fitting

It can be applied to different hearing loss by changing transducers

Fitting area:

Mild to profound hearing loss



Babies meet the world of **Tie** sound



TRANSDUCERS IN THE EAR

KEY BENEFITS

- It retains the features of the auricle, such as *directionality* and *natural sound*.
- *Comprehension performance is higher* than conventional BTE, RIC and Open-fit devices.
 - Listening to *music* is more enjoyable.
 - Easier to understand *high frequency letters and sounds*.
 - It is not affected by wind because the *microphone is in the ear canal*.
- Components such as receiver and microphones can be replaced immediately, *no repair is required*.
- It can be applied to different types of *hearing losses with four different transducers*.
 - It can be applied to *all age groups*.
- *T-FIS can be applied easily with* open system.

Solution to the **tinnitus** problem with **Tie**

Tinnitus is present in approximately 15% of the population. It is clear that there is a link between tinnitus and hearing loss. There is hearing loss in 4 out of 5 people who have tinnitus complaints. The recovery rate of Tinnitus comes from brain is weak and is not expected to heal most of the time. Among the tinnitus therapies, hearing aid therapy is the most effective therapy method.

T-FIS *(Tinnitus Frequency Isolation System)*

T-FIS, a proven therapy strategy developed by ear-technic, has reduced or eliminated the effect of Tinnitus, which is circulating in the brains of tens of thousands of people.

It isolates Tinnitus which makes people nervous by keeping the frequency-specific input or output sound under control.

Your closest day to peace with tinnitus may be the day you met T-FIS:

The lives of tens of thousands of people have changed, and yours also may change!

Tie will come to you
as you want the best





TECHNICAL SPECIFICATIONS

TIE AS / TIE BS / TIE CS		EN 60118-0 Ear Simulator				EN 60118-7:2005 2ccm-coupler			
		Mod.S	FP-S	FP-M	FP-P	Mod.S	FP-S	FP-M	FP-P
Max Output (OSPL90)	dB SPL	118	118	125	130	110	110	117	122
HFA Avg (1000,1600,2500 Hz)	dB SPL	114	114	122	125	106	106	114	117
Max Gain (FOG50)	dB	50	50	64	68	42	42	54	58
HFA Avg (1000,1600,2500 Hz)	dB	40	40	60	62	33	33	49	53
Reference Test Gain (Input 60 dB SPL)	dB	37	37	45	48	30	30	37	40
EQ Input Noise	dB SPL	23	23	21	23	23	23	22	24
Frequency Response (RESP60)	Hz	<100-7500	<100-7500	<100-5900	<100-5600	<100-7200	<100-7200	<100-5700	<100-5400
Total Harmonic Distortion (500/800/160 Hz)	%	0.7/0.9/0.9	0.7/0.9/0.9	0.5/0.8/0.5	0.8/0.6/0.3	0.7/0.9/0.9	0.7/0.9/0.9	0.9/0.9/0.5	0.9/0.5/0.3
Telecoil Sensitivity (MASL)	dB SPL	46	46	54	75	38	38	46	70
Battery Current	mA	0.75	0.75	0.8	0.84	0.75	0.75	0.8	0.84
Battery Life (Average)	Hour	120	120	115	105	120	120	115	105
Battery Type		10							
Operating Voltage		1.3							
Number of Programs		TIE A1:6 / B1:6 / C1:4							
Number of Frequency Channel		TIE A1:16 / B1:12 / C1:8							
Microphone		Omni							
Telecoil		+							
Volume Control		+							

NOTE: The Acoustic Technical Specifications of TIE Modular (S), TIE Semi-Modular (S) and TIE Custom Modular (S) Devices are the same.

Modular S Fitting Range

FP-S Fitting Range

FP-M Fitting Range

FP-P Fitting Range

Programming (4 Pin. System)

Cable : CS44 Program Cable
 Battery : Without Battery
 Progr. Box : Hi-Pro / Hi-Pro2 with USB
 Software : SmartFit2

Fitting Formulas: NAL-NL2, DSL Adult, DSL Pediatrics

Some of the Main Features of Tie

64/48/32 Compression Parameters

16/12/8 WDRC Channels

8/12/16 independent fitting channels

16/12/8 Channels Fine Tuning Gain Bands

Enables frequency-based gain, sound balance and clarity

16/12/8 Channel MPO

Adjusts the maximum audio output level in 16 channels and provides channel-based safe sound

8 kHz Bandwidth

Covers all the speech frequencies and ensures that music and rare loud sounds in everyday life can be heard easily

Channel Based Scalar Noise Reduction

Channel based noise reducer decreases noise gradually

Memory

Adjustable 6 or 4 Programs. Offers options for different environments from 1 to 6 or 4 programs

Input Mode

It provides different input options such as Omni directional, Inductive and Tinnitus therapy

Physical Button

If the physical button is inserted, it can be used for two purposes:

- Can be used for switching the programs and volume adjustment
- Short press to change program, long press to adjust volume

In-Situ Comfort Test

The sound level performance of each frequency is measured and the fitting confirmation is obtained by the hearing aid. 'Which frequency is heard how much by user' is observed through mold, vent and tube modifications

Battery Warning

Gives a warning via signal tone

Low Battery Signal

Gives an audible warning or signal tone to 'change the battery'

Setting the Start Time

When the device is turned on, it starts to operate automatically with the same program and volume level that were used last after it was turned off

Data Recording

Makes contribution to the compatibility of other programs. Usage preferences are determined

Base Sound Clarity

Extra suppression the low frequency noise, removes the speech dullness and eliminates the noise

Internal Noise Blocker

- Hearing instruments normally produce internal noise as they work with batteries and those who do not have hearing loss at low frequencies are uncomfortable with that

- Internal Noise Blocker offers an excellent usage pleasure because it suppresses the internal sound of the device



Difference of **Tie** Modular Technology

	Classic BTE	RIC/RITE	Classic ITE	Tie
Sound distortion in the transmission line	Yes	Yes	Depends on the mold	No
Natural pinna effect	Weak	Weak	Strong	Strong
High frequency loss	Yes	Yes	No	No
Frequency range	Narrow	Narrow	Wide	Wide
Wind effect	Yes	Yes	Depends on the ear mold	No
Direction deviation	Yes	Yes	Depends on the ear mold	No
Mold requirement	Yes	No	Yes	No
Risk of early breakdown	Yes	Yes	Yes	No
Repair cost	High	Normal	High	Low
Device lifetime	Long	Long	Normal	Long
Perception	Normal	Normal	Very Good	Very Good
Usage comfort	Low	Very Good	Very Good	Very Good
Aesthetic	Low	Very Good	Very Good	Very Good
Ease of repair	Difficult	Normal	Difficult	Easy
Modular system	No	No	No	Yes
Transition to upper segment	Difficult	Easy	Difficult	Easy
Occlusion effect	Yes	No	Depends on the ear mold	No
Filtered signal processing	Weak	Weak	Strong	Strong
Need for second microphone	Yes	Yes	No	No
Suitability for all ages	Easy	Difficult	Difficult	Easy

Treble Sound Clarity (Eco Stop)

Adjusts the echo and gain at high frequency sounds to provide a comfortable and easily understandable sounds

Preferential Memory Control

User can start with the preferred program

T-FIS (Tinnitus Frequency Isolation System)

Successful frequency isolation system at any frequency for tinnitus rehabilitation

Wind Effect Reduction (Wind Block)

Reduces wind impact on microphone

Impulse Reducer

Suppresses sudden and short-lived disturbing sounds

Super Adaptive Feedback Reducer

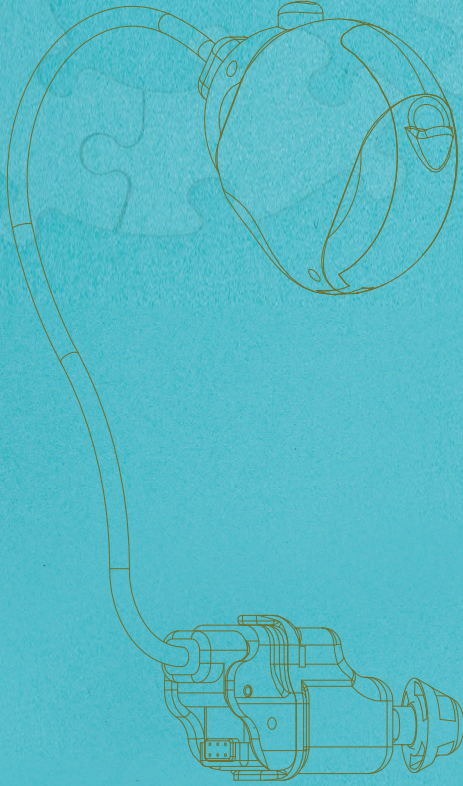
Innovative and best feedback cancellation management

NOTE:

The specifications vary by device models.

Impressive Design


anaton[®]
reliability in hearing



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