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40a Series Audiology Booths

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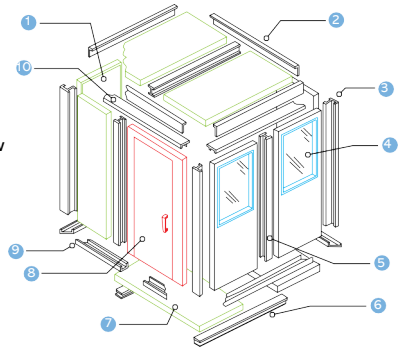
Standard Audiology Booths

All IAC audiometric booths are constructed using Moduline™, an integrated system of laboratory and field tested components - including wall and roof panels, structurally isolated floors, doors, windows and silenced ventilation systems. The system offers many key advantages over traditional building materials:

- Guaranteed acoustic performance and compliance with all major technical standards, including HTM 2045 / ISO 8253
- Clean, rapid installation, keeps building time and mess / disruption to an absolute minimum
- Strong, lightweight structures are approximately 1/3 the weight of conventional structures of the same acoustic performance
- Rooms can be dismantled and moved to a different location at low cost and with no loss in acoustic performance

1. Panel - inner surface typically perforated
2. Roof apron
3. Corner joiner
4. IAC Noise-lock® acoustic window
5. IAC 'H' panel joiner
6. Isolation rail
7. Floor panel
8. IAC Noise-lock® acoustic door
9. Floor channel
10. Roof channel



IAC modular audiology rooms are available in a wide range of sizes and can be finished to suit individual requirements. The range of rooms available are:

- **40a Range** - single skin construction complete with acoustic window
- **TETRA** - single skin construction for use in corners to save space
- **120a Range** - double skin construction for extra acoustic performance complete with quadruple glazed acoustic window
- **act Range** - a mixture of single / double skin construction rooms, each with an adjoining control/observation room

IAC standard booths are constructed from 102mm thick IAC Noishield™ panels and offer a fitting environment for a whole range of audiological investigations and measurements, including bone conduction tests, speech therapy and psychological evaluations.

Engineered to perfection.

Over 50 years experience in manufacturing and installing audiology rooms has given IAC the ability to provide the best possible facilities in both aesthetics and performance.

40a Series Audiology Booths

Providing a suitable environment for hearing testing examinations and research

Noise Reduction & Sound Absorption

Noise Reduction*: The minimum allowable noise reduction of completely assembled rooms, as tested in accordance with ASTM Standards in a recognised independent and approved laboratory, as shown in the table below.

Sound Absorption: The composite sheet metal and sound absorbing assembly shall have a sound absorption coefficient based on laboratory tests in accordance with ASTM C423-77 as shown in the table below.

	Octave Band Centre Frequency (Hz)						
	125	250	500	1k	2k	4k	8k
Noise Reduction (dB) for 40a Series Booths**	25	37	48	55	59	61	62
Sound Absorption Coefficient	0.49	0.37	0.83	0.96	0.99	1.00	-

Noise Reduction measurements shall be made in accordance with the following ASTM Designations: E596 and, where applicable, portions of E90 and E336.

* Defined as the measured difference between the sound pressure levels in a reverberant room, outside the booth and inside the booth.

** +/- 3dB for field instrument accuracy.

NIC – Noise Isolation Class, single number rating system for noise-reduction characteristics.

Specification for IAC 40a Series Audiometric Examination & Medical Research Booths

Roof & Wall Construction: Roofs and walls are constructed from standard IAC Noise-Lock® 2 acoustic panels, 102mm thick. Average weights are no less than 50kg/m².

Floor Construction: IAC Acousti-flote™ floors shall be 50mm high and structurally reinforced. All floors are carpeted. Average weights are no less than 90kg/m². Floors float on properly loaded vibration isolators rated for a natural frequency of 6.5Hz for maximum elimination of structural noise.

Acoustic Infill: Floor, wall, door and roof panels shall be sound retardant, absorbing, inert, mildew resistant and vermin proof. Heat transfer factor shall be no more than 0.397W/m²°C.

Door Construction: IAC Noise-lock®, flush fitting doors with twin magnetic seals, cam lift hinges and pull handles shall be provided with a clear opening of 838mm wide x 1857mm high.

Wall & Roof Panel 'H' Joiners: Wall and roof panels shall be acoustically and structurally joined together by IAC 'H' joiners, to maintain the acoustic integrity of the booth.

Window Construction: Windows shall be 750mm x 600mm (sizes may vary in some orientations), using sealed double glazed assemblies within profiled steel frames.

Jack Panel: Jack panel comprising of nine 6.4mm three-pole jack sockets and one Type A USB connector shall be provided below the window. The panel shall be designed and installed to preserve the acoustic integrity of the booth.

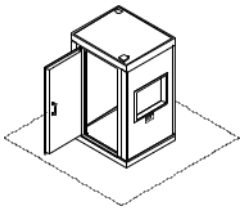
Electrical: All booths are provided with lighting operated from an adjacent switch. A separate switch will control the ventilation system. Power operation 240 volt, 50Hz. (All cable supplied by others).

Ventilation: All models shall have the ventilation system roof or wall mounted and be operated in conjunction with special ventilation panels. A further 370mm should be added to the height, width or depth of the booth, depending on the location of the system.

Finish: All booths are supplied in a factory finish polyester powder coated condition. Colour: RAL 9002 (grey/white). All floors are covered in an anti-static carpet, colour: Light blue.

40a Series - Standard Sizes Available

The IAC 40a series is a range of single-walled booths for individual or multiple occupancy.

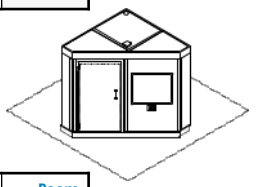


- Door Opening: 838mm wide x 1857mm high
- Window Clear View: 750mm wide x 600mm high
- Ventilation: Models 40a-1, 40a-2, 40a-2-se and TETRA have a ventilation system built into the roof panel. For Models 40a-3 to 40a-6 a further 370mm should be added to the height, width or depth of the booth, depending on the preferred location of the ventilation system

Model	Internal Dimensions (mm)			External Dimensions (mm)			Room Weight (kg)
	Width	Depth	Height	Width	Depth	Height	
40a-1	1066	864	1995	1270	1068	2197	740
40a-2	1320	1067	1995	1524	1271	2197	930
40a-2.5	1066	1880	1995	1270	2084	2197	1164
40a-3	2031	1067	1995	2235	1271	2197	1227
40a-4	2133	1422	1995	2337	1626	2147	1483
40a-5	1879	1880	1995	2083	2084	2147	1610
40a-5.5	1930	2286	1995	2134	2490	2147	1859
40a-6	2133	2134	1995	2337	2338	2147	1893
40a-7	2133	2286	1995	2337	2490	2147	1981
40a-7.5	1930	2540	1995	2134	2744	2147	1998
40a-8	2133	2642	1995	2337	2846	2147	2185
40a-9	2133	2997	1995	2337	3201	2147	2390
40a-10	2488	2642	1995	2692	2846	2147	2416
40a-11	2590	2591	1995	2794	2795	2147	2450
40a-12	2488	2997	1995	2692	3201	2147	2639
40a-13	2844	2997	1995	3048	3201	2147	2889
40a-13.5	2641	3404	1995	2845	3608	2147	3011
40a-14	3200	2997	1995	3404	3201	2147	3138
40a-2-se	1220	1016	1995	1424	1220	2197	866

TETRA

The IAC TETRA is a uniquely shaped alternative to the options above, designed for single occupancy.



- Door Opening: 838mm wide x 1857mm high
- Window Clear View: 750mm wide x 600mm high
- Ventilation: Built into the roof panel

Model	Internal Dimensions (mm)			External Dimensions (mm)			Room Weight (kg)
	Width	Depth	Height	Width	Depth	Height	
TETRA	1930	1930	1995	2134	2134	2317	1140

Optional Extras (additional costs apply)

- Acoustic double glazed vision panel within door (150mm x 600mm high)
- Emergency light pack
- Internal power sockets
- RF and electrostatic shielding
- Fabric covering to internal walls
- Power filters
- Special jack panels, cut-outs and plugs
- Increased clear opening width doors (where possible)
- One-way viewing film fitted to window
- High frequency fluorescent lights
- Additional colour options are available for all panels and doors

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IAC has worldwide offices and manufacturing plants in the UK, Australia, Canada, China, Malaysia, Indonesia, Thailand, Philippines Denmark, France, Germany, Italy, Spain, UAE - Dubai, USA Houston, USA Lincoln, USA - New York.