



F1 AvantGarde

The perfect loudspeaker is now a reality!



www.tagmclarenaudio.com
TAG McLaren

Technical Specification

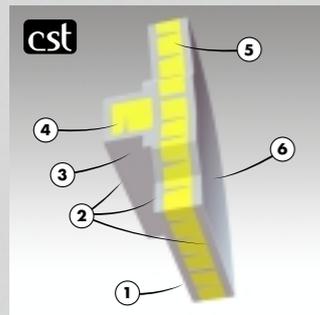
F1 AvantGarde Loudspeakers (left and right)

LF extension	-10 dB @ 20 Hz (-3 dB @ 27 Hz) (in room)
Response uniformity	±1 dB (80 Hz – 20 kHz) (anechoic)
Sensitivity	87.5 dB/W/m
Impedance	6 Ω nominal
Distortion	<0.3% T.H.D. (ref. 1 W, 100 Hz – 20k Hz)
Power amplifier requirements	15 W minimum recommended
Maximum S.P.L.	118 dB (in-room)
Operating temperature range	18 – 35 °C
Width	350 mm
Height	1150 mm
Depth	450 mm
Weight approx.	65 kg each loudspeaker

F1 Centre Channel Loudspeaker

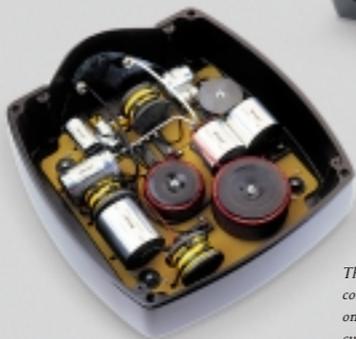
LF extension	-10 dB @ 25 Hz (-3 dB @ 33 Hz) (in room)
Response uniformity	±1 dB (80 Hz – 20 kHz) (anechoic)
Sensitivity	87.5 dB/W/m
Impedance	6 Ω nominal
Distortion	<0.3% T.H.D. (ref. 1 W, 100 Hz – 20k Hz)
Power amplifier requirements	15 W minimum recommended
Maximum S.P.L.	115 dB (in-room)
Operating temperature range	18 – 35 °C
Width	670 mm
Height	525 mm
Depth	550 mm
Weight approx.	40 kg

We reserve the right to alter design and specification without notice. Specification may vary for different countries.



Cross section through the 'Composite Sandwich Technology' wall of the F1 AvantGarde loudspeaker (unpainted):

1. internal enclosure face
2. reinforced epoxy resin containing 25% powdered slate
3. box section reinforcing rib
4. moulded core
5. moulded flexible core
6. external enclosure face



The F1 AvantGarde loudspeaker plinth contains the advanced cross-over, built only from the finest materials and custom components

TAG McLaren Audio Ltd.

The Summit, Latham Road, Huntingdon, Cambs., PE29 6ZU
United Kingdom
tel: +44 (0)1480 415600 fax: +44 (0)1480 52159
freephone: 0800 783 8007

e-mail: helpdesk@tagmclarenaudio.com

TAG McLaren Audio Inc.

1506 Providence Highway, Unit 25, Norwood, MA 02062
United States of America
tel: (781) 769-6611 fax: (781) 769-6615
toll free: (888) 293-9929

website: www.tagmclarenaudio.com

"The F1 AvantGarde loudspeaker is World Class."

Audiophile 1/2000

"Extraordinary!"

AUDIO 9/1999

F1 8079A



F1 AvantGarde the perfect loudspeaker is now a reality

TAG McLaren Audio is renowned for its engineering skills and technological achievements. Quickly recognised for outstanding design and functionality, our award winning products are appreciated for their sound-quality, style and distinction. The F1 AvantGarde loudspeaker builds on this tradition by pushing the boundaries of loudspeaker design into new realms.

Is there a perfect loudspeaker, a loudspeaker that can truly reproduce music as it was originally performed? Until now many compromises had to be accepted, preventing the perfect loudspeaker from being built. Perfection would require a stiff, dense, resonance free cabinet, without parallel structures, sharp edges or symmetry. Such characteristics would minimise diffraction and coloration resulting in an unparalleled transparent and spatial sound ⁽¹⁾.

Wood-based panel construction simply cannot achieve all these vital characteristics due to the limitations of the material itself, consequently they often suffer from panel-related diffraction and coloration, leading to impaired stereo image, a loss of focus and deficiencies in perspective and sound stage depth.

TAG McLaren Audio's designers worked closely with McLaren's Formula One materials specialists, as their expertise is second to none. The resulting 'Composite Sandwich Technology', developed for the F1 AvantGarde loudspeaker, gave a very stiff, dense, resonance free cabinet. The complex curves in the cabinet walls avoid symmetry and eliminate sharp edges from the shape; the perfect loudspeaker cabinet.

But the development extended far beyond the cabinet...

⁽¹⁾ A detailed technical report on the F1 AvantGarde's development is available from our website www.tagmclarenaudio.com



the driving force

Having achieved their goals in cabinet design, our loudspeaker experts turned their attention towards the best drive units to match. Advanced units were specified and designed, resulting in low distortion and the ability to design an exemplary cross-over, splitting the sound between the drive units without adding coloration.

The F1 AvantGarde loudspeakers' low frequency drive units work with considerable frequency overlap to allow power sharing, increasing power handling, bass extension and dynamics. For optimal centre performance, the F1 Centre Channel Loudspeaker employs two 180 mm bass units, working in parallel.

The low frequency drivers are 250 mm and 180 mm bass units utilising carbon fibre loaded pulp cones, coupled to low-loss rubber surrounds and high power voice coils. These deliver fast, dynamic bass, free of compression. The 250 mm lower bass unit is mass tuneable (by the owner) allowing the loudspeaker to be fine tuned to suit room positioning.

The 150 mm midrange drive unit has a pulp cone, radially slit and damped. The spider has been carefully optimised to provide a balanced restoring force, required at higher sound levels. This, combined with the die-cast aluminium 'grasshopper' chassis, designed to allow clean airflow from the rear of the drive unit, reduces compression and non-linearity.

The 20 mm coated silk dome tweeter is mounted on an alloy front plate, milled from solid aluminium, to prevent microscopic flexure, reducing intermodulation distortion. The rear output of the dome is vented progressively through two rear chambers, preventing energy from reflecting back into the dome, eliminating time smearing.