

**EMB 1530****Studiomaster®**  
PROFESSIONAL

### ***Studiomaster Professional Speakers Guideline***

Have you ever blown a loudspeaker? Then you probably don't want to do it again. Here's how not to shred your cones.....

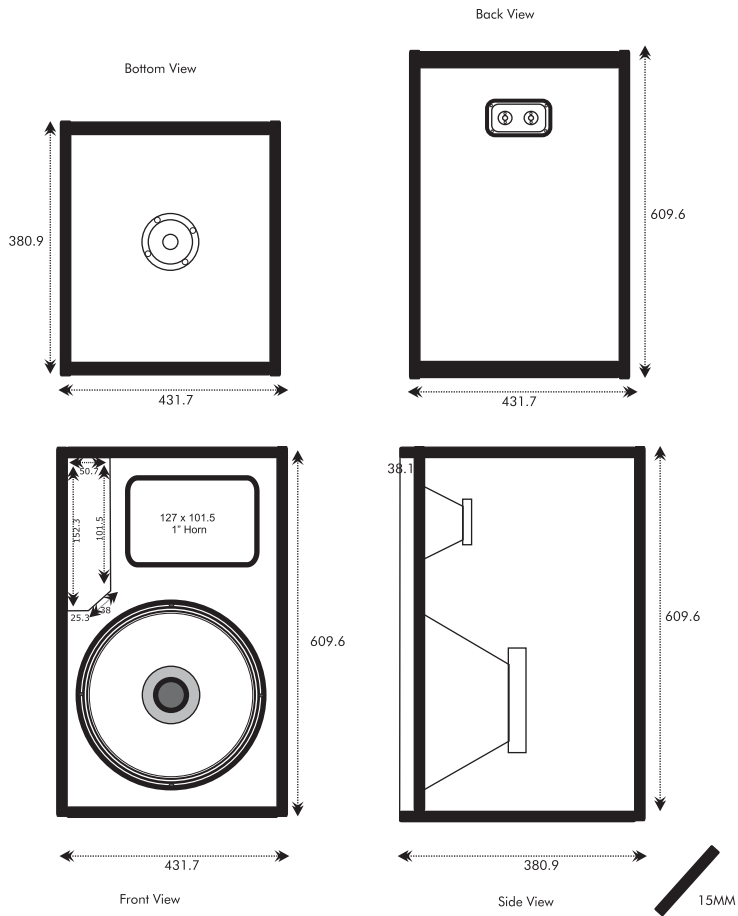
- There are two ways in which a moving coil drive unit may be damaged. One is to drive it at too high a level for too long. The coil will get hotter and hotter and eventually will melt at one point, breaking the circuit ('thermal damage').
- The drive unit will entirely cease to function. The other is to 'shock' the drive unit with a loud impulse. This can happen if a microphone is dropped, or placed too close to a theatrical pyrotechnic effect. The impulse won't contain enough energy to melt the coil, but it may break apart the turns of the coil, or shift it from its central position with respect to the magnet ('mechanical damage'). The drive unit will still function, but the coil will scrape against the magnet producing a very harsh distorted sound.
- Many drive units can be repaired, but of course damage is best avoided in the first place. The trick is to listen to the loudspeaker. It will tell you when it is under stress if you listen carefully enough.
- To get the best performance from a loudspeaker, the amplifier should be rated higher in terms of watts. It wouldn't be unreasonable to connect a 200 W amplifier to a 100 W speaker, and it won't blow the drive units unless you push the level too high.
- It is up to the sound engineer to control the level. Suppose, on the other hand, that a 100 W amplifier was connected to a 200 W loudspeaker (two-way, with woofer and tweeter). The sound engineer might push the level so high that the amplifier started to clip. **Clipping produces high levels of high frequency distortion.**

Model: - SM15MB - 340 watts RMS @8 Ohms

The SM15MB is a powerful, portable Wide range system with detailed pure Mid & Mid-low frequency performance Uses are: P.A., Dance, and install, Concert.

Cabinet Design

340 watts, Internal X-over point 2500Hz



All Dimension are External MM Size

Model: - SM15MB

Bill of materials

Sr. No.	Description	Qty.
1	Paint finish Cabinet (Including grill, connector with plate, glass wool) (Model –SM15MB)	1
2	15" EMB 1530 (300 watts RMS @8 Ohms)	1
3	1" SHF0104 (40 watts RMS @8 Ohms)	1
4	HF horn 1" throat (coverage angle 60x40)	1
5	Passive crossover 2500 Hz 8 ohms (SM15MB)	1

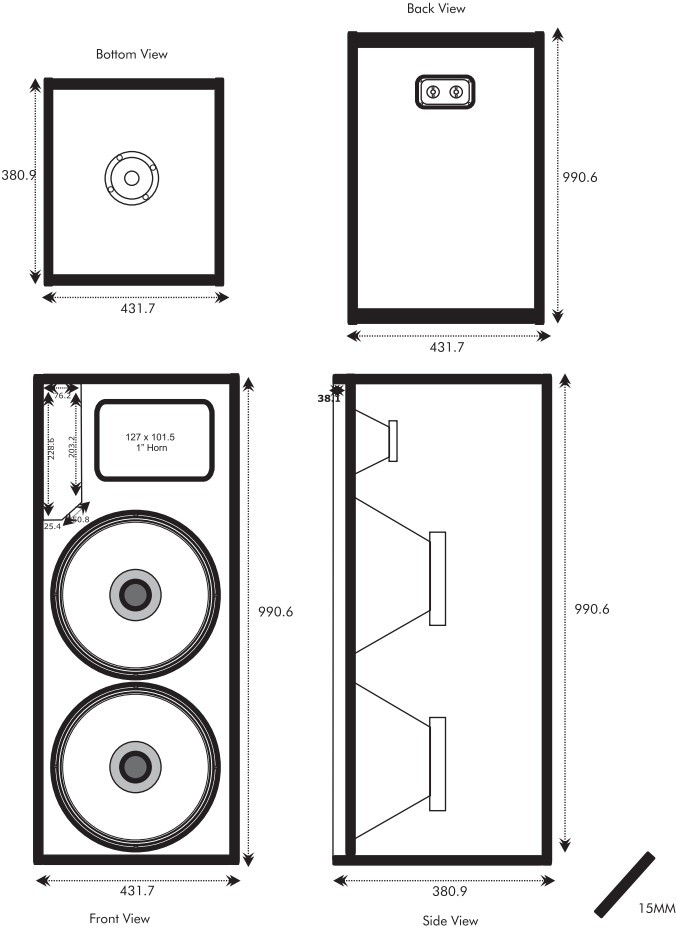
Recommend Power amplifier for SM15MB : Studiomaster PA 1.5 and Studiomaster DPA 2000

Model: - SM 152MB - 640 watts RMS @4 Ohms

The SM152MB is a powerful, portable Wide range system with detailed pure Mid & Mid-low frequency performance Uses are: P.A., Dance, and install, Concert.

Cabinet Design

640 watts, Internal X-over point 2500Hz



Model: - SM152MB

Bill of materials

Sr. No.	Description	Qty.
1	Paint finish Cabinet (Including grill, connector with plate, glass wool) (Model -SM152MB)	1
2	15" EMB 1530 (300 watts RMS @8 Ohms)	2
3	1" SHF0104 (40 watts RMS @8 Ohms)	1
4	HF horn 1" throat (coverage angle 60x40)	1
5	Passive crossover 2500 Hz 4 ohms (SM152MB)	1

Recommend Power amplifier for SM152MB : Studiomaster PA 2.0 and Studiomaster DPA 2000

## Technical Specifications:

General specification			
Nominal diameter		385/15	MM/Inch
Rated impedance		8	Ohm
Peak power		600	Watts
RMS power		300	Watts
Sensitivity (SPL1w@1m)		97	dB
Frequency range		55Hz~4000Hz	
Minimum impedance		5.6	Ohm
Max Excursion Before Damage (peak to peak)		100/4	MM/Inch
Voice coil diameter		75.5/3	MM/Inch
Voice coil material		KSV	MM/Inch
Voice coil winding depth		16.5/0.65	
Kind of layer		Outside	MM
Magnet size		190	
Magnet type		Ferrite	
Basket		Steel	
Thiele-Small parameters			
Resonance frequency	Fs	50	Hz
DC resistance	Re	6.8	Ohm
Mechanical Q factor	Qms	10.28	
Electrical Q factor	Qes	0.75	
BL factor	BL	13.4	T.M
Effective moving mass	Mms	63.8	Gr
Equivalent cas air load	Vas	153	Liters
Effective piston area	Sd	0.0835	M2 (sqm)
Max.linear excursion	Xmax	4	MM
Mounting & Shipping information			
Overall diameter		385/15	MM/Inch
Bolt circle diameter		370/14.56	MM/Inch
Bolt hole diameter		710/0.39	MM/Inch
Front mount baffle cut-out		350/13.77	MM/Inch
Rear mount baffle cut-out		320/12.59	MM/Inch
Depth		150/5.59	MM/Inch
Net weight		6.5	Kg

Design and specification are subject to change without notice

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A1/A2, Giriraj Industrial Estate, Mahakali Caves Road, Andheri (East),  
Mumbai - 400 093. India Tel.: 022 - 42869000/01/ 66916232 / 33  
Fax: 022-26871453 E info@audioplus-india.com W www.audioplus-india.com