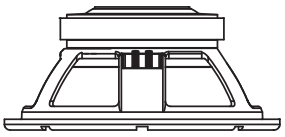
INSTRUCTION MANUAL

Studiomaster®
PROFESSIONAL

FURY SERIES

Professional Transducers



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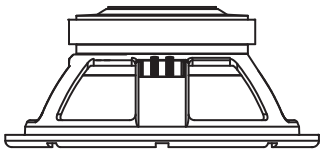

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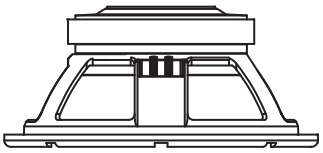

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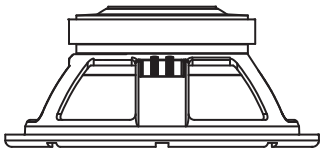

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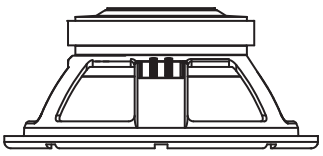
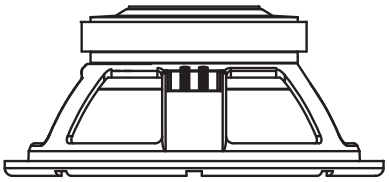


F15.70



F18.120

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, a 100 W amplifier was connected to a 200 W loudspeaker. The sound engineer might push the level so high that the amplifier will start clipping. Clipping produces high levels of high frequency distortion & will easily damage the speaker (especially the HF diaphragms).

Technical Specifications:

Model No.	F12.30X	F15.40	F15.40X	F15.50X	F15.70	F18.120
General specification						
Type	Mid-Bass (Dual Cone)	Mid-Bass	Mid-Bass (Dual Cone)	Mid-Bass (Dual Cone)	Mid-Bass	Sub-Woofer
Nominal diameter (mm/inch)	300/12	380/15	380/15	380/15	380/15	460/18
Rated impedance (Ω)	8	8	8	8	8	8
RMS Power (Watts)	300	400	400	500	700	1200
Peak Power (Watts)	600	800	800	1000	1400	2400
Sensitivity (SPL1w@1m) (dB)	96	97	97.5	98	97	98
Frequency range (Hz)	50-15000	40-5000	40-11000	40-13000	42-4000	33-3500
Voice coil diameter (mm/inch)	60.6/2.38	78.6/3	78.6/3	76.5/3	100/4	100/4
Voice coil material	CCAW	CCAW	CCAW	CCAW	CCAW	Copper
Kind of layer	inside /outside	inside /outside	inside /outside	inside /outside	inside /outside	inside /outside
Basket	Die-Cast	Die-Cast	Die-Cast	Die-Cast	Die-Cast	Die-Cast
Thiele-Small parameters						
Resonance frequency (Fs) (Hz)	49.542	40.138	40.138	40.138	41.617	33.723
DC resistance (Re)	6.8	6.8	6.8	6.8	5.5	5.5
Mechanical Q factor (Qms)	2.958	2.994	2.127	2.533	4.56	13.411
Electrical factor (Qes)	0.478	0.514	0.449	0.38	0.495	0.348
BL factor (BL) (T.M)	14.506	15.059	16.349	17.662	16.025	21.853
Effective moving mass (Mms) (Gr)	47.533	67.912	69.912	60.912	84.912	142.784
Equivalent cas air load (Vas) (Liters)	95.216	252.374	245.155	245.155	197.651	371.271
Effective piston area (Sd) (M2) (Sqm)	55.572	87.616	87.661	87.616	87.616	129.462
Magnet size (mm)	156*70*20	180*90*20	180*90*20	190*90*25	200*110*20	220*110*25
Magnet material	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite	Ferrite
Magnet Weight (Kg)	1.5	1.9	1.9	2.7	2.2	3.5
Mounting information						
Overall diameter (mm/inch)	304/12	381/15	381/15	381/15	381/15	458/18
Bolt circle diameter (mm)	φ295	φ377	φ377	φ377	φ377	φ440
Bolt hole diameter (mm/inch)	8-φ6.5	8-φ6*9	8-φ6*9	8-φ6*9	8-φ6*9	8-φ7*11
Shipping Information						
Net weight (Kg)	4.5	6.2	6.2	8	7.4	10.3

* Design and specification are subject to change without notice.

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