

FR Series

Professional Nearfield Full Range Loudspeaker Systems



Ultra Compact Size - Occupying less than 1 cubic foot of volume, the FR 102 is the ideal problem solver for tight fitting applications such as under balcony fill, foreground music and portable AV presentations.

- **Exceptionally Wide Horizontal Coverage** - The FR 102 maintains horizontal coverage of 110° above 16k Hz so even the highest musical overtones can be heard by every listener.
- **High Output Capabilities** - The combination of the FR 102's 98 dB SPL sensitivity and 250 watts power handling result in 122 dB SPL maximum output, enabling the FR 102 to offer the equivalent output of 4 to 8 hi-fi or compact monitor speaker systems.
- **Ultra Durability** - Despite its size, the FR 102 is constructed with the same standards as EAW's concert loudspeakers and, as such, provides a level of reliability unmatched in the pro industry.
- **Space Age Magnetic Damping Fluid** in the high frequency driver provides improved heat transfer increasing the thermal power handling 3 to 6 dB, virtually eliminating thermal failures. The fluid also provides low distortion at high power levels and eliminates cavity resonances.

Note: The FR102 is also available in a special version designed for permanent installation applications as the FR102PI which includes tee-nuts and eye-bolts for hanging and is supplied without handles or corners.

Design Leadership - The FR122 utilizes the latest developments in system design, including time compensation and bi-frequency vent alignment. These advanced features enable the FR 122 to offer performance unequalled by other systems anywhere near its size. Listening to the FR122, you will be aware that each and every aspect of the FR122 reflects EAW's state-of-the-art engineering capabilities and dedication to accuracy.

- **Coherent Time Design** - The FR 122 utilizes a time offset baffle to ensure proper driver time/phase alignment at crossover for seamless response through the crossover region.
- **Compact Durable Package** - The FR122's small (2.4 ft³) size allows 2 units to fit conveniently in the back of most commuter cars.
- **Unique High Frequency Driver** - The TWI 16 hard dome high frequency driver is the key to the FR122's natural sound character. This 2 inch dome is similar to the drivers found in the finest hi-fi systems, but its massive magnetic structure produces the output required for pro use. The result is 6 to 10 dB higher efficiency and 3 to 6 dB more power handling than hi-fi systems, while retaining the smooth response and wide coverage.

Note: The FR122 is also available in a special version designed for permanent installation applications as the FR122PI which includes tee-nuts and eye-bolts for hanging and is supplied without handles or corners.

Forsythe Series

FR152T

**Compact
High Output
Nearfield
System**



FR153

**Wide
Bandwidth
Nearfield
System**



- **Very High Output From A Compact Box** - As a result of its exceptionally high sensitivity (101 dB SPL) and 400 watts power handling, the FRI 52T can produce 127 dB SPL peak output at one meter from a box that measures only 4 cubic feet.
- **Excellent Projection For Medium Throw Applications** - The FRI 52T's coverage pattern has been optimized to project the vocal band, making it an ideal choice for compact portable PA applications.
- **Complex Forsythe Designed Crossover Network** provides asymmetrical sloped filters that electronically compensate amplitude, phase and impedance for uncompromising sonic accuracy.
- **State-of-the-Art Transducers** - The use of the new EAW N482 titanium diaphragm compression driver combined with the new high power L15/864K 15-inch Kapton™ former bass driver enable the FRI 52T to offer superior efficiency and reliability.
- **World Famous EAW Durability** - The FRI 52T is built using the same world famous construction technology EAW uses in large concert touring systems including cross-grain-laminated hardwood, recessed cabinet hardware and vinyl coated perforated steel grills.
- **Exceptionally Wide Bandwidth** - The FR 153's usable frequency range of 35 to 22k Hz enables it to accurately reproduce the full musical spectrum from deep fundamentals to delicate overtones. As a result your audio presentation can realize the full potential of modern synthesized music.
- **State-Of-The-Art Drivers** including the TW1 16 hard dome high frequency driver, a truly unique device incorporating a massive advanced magnetic circuit design and composite material dome diaphragm.
- **Advanced Crossover Network** - The Forsythe designed crossover is the key to the FRI 53's seamless frequency response. A complex third order network, it utilizes asymmetrical electrical slopes to provide equalization at the crossover points resulting in maximal flat acoustic performance with effective 24 dB per octave acoustic slopes. The crossover also features electronic damping for the system and driver protection fuses.
- **Unmatched Wide Coverage** - The FRI 53's greater than 130' horizontal coverage to 10,000 Hz and 100' coverage at 16,000 Hz results in a very natural open sound character over a broad listening area.

Note: The FRI 52T is also available in a special version designed for permanent installation applications as the FRI 52PI which includes tee-nuts and eye-bolts for hanging and is supplied without handles or corners.

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Nearfield Full Range Systems



FR183
*Wide
Bandwidth
Nearfield
System*



FR253T
*High
Definition
Nearfield
System*

Exceptionally Wide Bandwidth - The FR183's usable frequency range of 32 Hz to 22,000 Hz enables it to reproduce accurately the full musical spectrum from thunderous bass fundamentals to the most delicate overtones. As a result, the FR183 is the ideal choice for use with state-of-the-art electronic keyboards and drums in addition to portable dance music playback systems.

- **Very High Output From A Compact Box** -The FR183 can reproduce peaks of 128 dB SPL at one meter and will provide 124 dB SPL on a long term basis, substantially more than any system of comparable size and bandwidth.
- **Wide Horizontal Coverage** of greater than 130 degrees, as a result of the FR183's unique hard dome type high frequency driver, ensures that every member of the audience will hear full bandwidth reproduction.
- **State -Of -The -Art Drivers**, including the new L 18/851K 1, 000 watt AES Standard power handling driver, utilizing space age materials like a Kapton™ voice coil former and Kevlar™ spider for the ultimate in reliability and low distortion.

- **Exceptionally Wide Bandwidth** - The FR253's unparalleled wide frequency range enables it to accurately reproduce modern musical programs with remarkable realism and impact at concert levels.
- **Very High Output And Power Handling** with 104 dB SP - L sensitivity and over 900 watts power handling, the FR253 is capable of output greater than 130 dB SPL. This is not only one of the highest output vented systems on the market, but it maintains full power bandwidth to the 45 Hz region.
- **State -Of -The -Art Drivers**, including EAW's advanced MF1 70A 6.5-inch mid-range driver, utilize a poly-laminated cone to reduce distortion, while its small piston size enables the FR253 to provide unequalled clarity and definition in the vocal band.
- **Applications** -The FR253's unique high definition sonic performance and output capabilities make it ideal for use in high quality portable music reproduction applications. FR253's have proved themselves throughout the world in both portable and installed dance music systems, portable speech reinforcement, club PA systems and on stage keyboard monitors.

FR Series Specifications

Model	FR102	FR122	FR152T	FR153	FR183	FR253T
Frequency Response						
+ 3 dB:	80-17k HZ	50-19k Hz	45-17k Hz	45-19k Hz	38-19k Hz	40-17k Hz
- 10 dB:	45-20k Hz	35-22k Hz	35-19k Hz	35-22k Hz	32-22k Hz	28-19k Hz
Axial Sensitivity (1w@1m):						
	98 dB SPL	97 dB SPL	101 dB SPL	98 dB SPL	99 dB SPL	103 dB SPL
Reference Efficiency (1/2 Space):						
	2.3%	2.3%	5.0%	3.7%	3.1%	7.4%
Power Handling						
100H Sine Wave:	100 w	130 w	175 w	200 w	300 w	400 w
AES Standard:	250 w	300 w	400 w	450 w	800 w	900 w
Maximum Sound Pressure Level						
Peak:	122.0 dB	121.8 dB	127.0 dB	124.5 dB	128.0 dB	132.5 dB
Long Term:	118.0 dB	118.1 dB	123.4 dB	121.0 dB	124.8 dB	129.0 dB
Maximum Output (Acoustic Watts)						
Peak:	6 a. w.	7 a. w.	20 a. w.	17 a. w.	25 a. w.	67 a. w.
Long Term:	2 a. w.	3 a. w.	9 a. w.	7 a. w.	9 a. w.	30 a. w.
Nominal Impedance:	8Ω	8Ω	8Ω	8Ω	4Ω	4Ω
Minimum Impedance:	7Ω	8Ω	5Ω	6Ω	4Ω	4Ω
Nominal Coverage Angles						
Horizontal:	120°	130°	100°	130°	130°	100°
Vertical:	60°	100°	50°	100°	100°	50°
Transducer Complement						
Low Frequency:	L10/561K 250mm/10-in	L12/565K 300mm/12-in	L15/864K 380mm/15-in	L15/542K 380mm/15-in	L18/851K 450mm/18-in	2x L15/542K 380mm/15-in
Mid Frequency:	n/a	n/a	n/a	MF170A 170mm/7-in	L10/581K 250mm/10-in	2x MF170A 170mm/7-in
High Frequency:	N252F	TW116	N482/H3709	TW116	TW116	N482/H3709
Crossover Data						
Type:	Equalized Third Order LC Network					
Slope:	18 dB Per Octave					
Frequencies:	3.5k Hz	2.8k Hz	900 Hz	450, 3.5k Hz	450, 2.4k Hz	450, 3k Hz
Enclosure Data						
Enclosure Design:	Forsythe Designed Optimally Vented					
Net Internal Volume:	0.8 ft3 29.0 liters	1.3 ft3 45.0 liters	3.3 ft3 115.0 liters	3.3 ft3 115.0 liters	5.1 ft3 180.0 liters	7.3 ft3 260.0 liters
Enclosure Construction Material:	18 Ply/Inch Cross - Grain - Laminated Birch Hardwood					
Enclosure Finish:	Catalyzed Polyurethane Chemical Coating					
Dimensions						
Height:	19.75 in 501.7 mm	24.63 in 625.5 mm	24.63 in 625.5 mm	24.63 in 625.5 mm	29.75 in 755.7 mm	41.50 in 1054.1 mm
Width:	11.75 in 298.5 mm	14.63 in 371.5 mm	19.75 in 501.7 mm	19.75 in 501.7 mm	24.63 in 625.5 mm	24.63 in 625.5 mm
Depth:	9.50 in 241.3 mm	11.75 in 298.5 mm	19.00 in 482.6 mm	19.00 in 482.6 mm	19.75 in 501.7 mm	19.75 in 501.7 mm
Note: All dimensions are for the cabinet only and do not include an allowance for corners.						
Net Weight:	30 lbs	48 lbs	76 lbs	83 lbs	116 lbs	157 lbs
Shipping Weight:	64 lbs (pair)	54 lbs	86 lbs	93 lbs	128 lbs	172 lbs