



TS215

Dual 15 inch Direct-Radiating Subwoofer

*fa*PORTABLE.



Overview

The TS215 is a portable, dual 15 inch, direct radiating subwoofer that is designed to provide impressive low frequency impact and solid musicality. Its 4.5 inch voice coils, strong neodymium magnets, and innovative low-turbulence ports permit an optimal tuning to be achieved in an enclosure that is unusually small for a dual 15 inch subwoofer.

Eight handles and an optional face pallet facilitate transport of the enclosure. An M20-threaded connector plate is centered on the TS215's top panel for use with the optional, height-adjustable SPI Speaker Pole. This pole's M20 threaded bolt screws securely into the connector plate and is used to mount loudspeakers equipped with a 35 mm / 1.38 inch pole socket directly above the TS215.

Four vibration isolation feet prevent spurious vibrations and "walking". When stacking enclosures, the vibration isolators nest in recesses in the enclosure below. The recesses are configured so that enclosures can be rotated to create cardioid arrays. The input is mounted on a chamfer at the rear of the enclosure, allowing cable access without requiring additional space between the enclosure and a wall or stage.

The TS215's massive output capability rivals that of many conventional dual 18 inch subwoofers, while its compact size reduces transport costs and saves precious truck space and venue real estate. The combination of high performance, labor saving portability, and aesthetic appeal represents an ideal solution for nightclub PA, drum/ side fill monitoring, corporate A/V, theatrical productions, and more.

Performance Specifications¹

Operating Mode

Single-amplified w/ DSP

Operating Range²

30 Hz to 154 Hz

Nominal Beamwidth

Spherical within operating range

Transducers

LF: 2x 15.0" woofers, 4.5" voice coil; neodymium magnet

Power Handling @ Nominal Impedance³

110 V / 3000 W @ 4 Ω (2x 1500 W @ 8 Ω)

Nominal Sensitivity @ Input Voltage⁴ (half / whole space)

102 dB / 96 dB @ 2.00 V

Nominal Maximum Continuous SPL (half / whole space)

143 dB / 137 dB peak
137 dB / 131 dB continuous

Equalized Sensitivity @ Input Voltage⁵ (half / whole space)

99 dB / 93 dB @ 2.00 V

Equalized Maximum SPL⁶ (half / whole space)

140 dB / 134 dB peak
134 dB / 128 dB continuous

Recommended Power Amplifier

3000 W to 4500 W @ 4 Ω

Physical Specifications

Connections

(2) Neutrik NL4 Speakon

Pin 1+/-: LF1

Pin 2+/-: LF2

Mounting / Suspension Points

None

Dimensions / Weight

See page 4

Finish

Black painted enclosure w/ matte black grille

Options

TS215 Padded Cover w/ Logo

TS215 Face Pallet

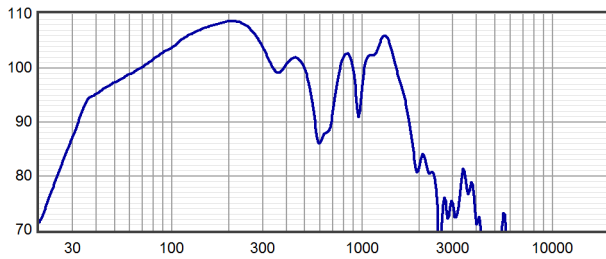
SPI Speaker Pole

Height-adjustable between 905 mm / 35.6 in and 1450 mm / 57.1 in

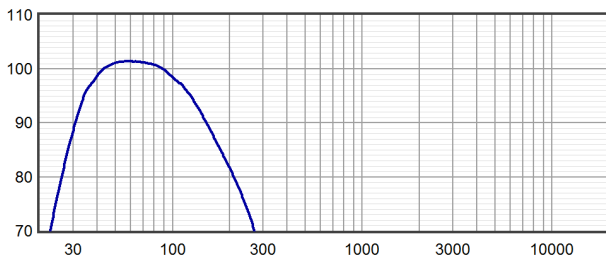


product specification

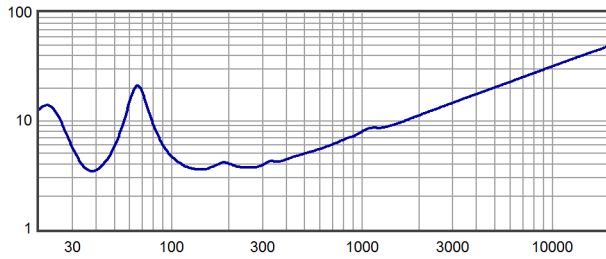
Axial Sensitivity (dB SPL, 2.00 V @ 1 m, half space)^{7,8}



Axial Processed Response (dB, half space)^{7,9}



Impedance (ohms)





Technologies

The 15 inch woofers in the TS215 have 4.5 inch voice coils, unusually strong neodymium magnet structures, and dual silicone impregnated spiders for high excursion and long term stability. This allows the pair of woofers to handle 3000 watts of long term power, and provides the motor strength required to operate effectively in such a small enclosure.

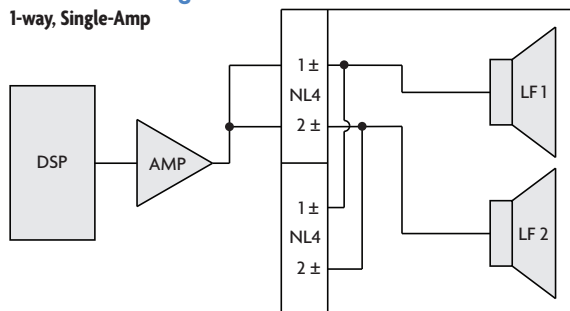
The enclosure shell is constructed of Baltic birch plywood, while the ports are constructed of curved plywood. The port design makes use of all available frontal area, minimizes turbulence, and smoothly guides the air flow around the woofers' magnet structures.

The specially-selected vibration isolators are much more effective than conventional loudspeaker feet. They are constructed of high-compliance neoprene for a high coefficient of friction and up to 4 mm of lateral displacement.

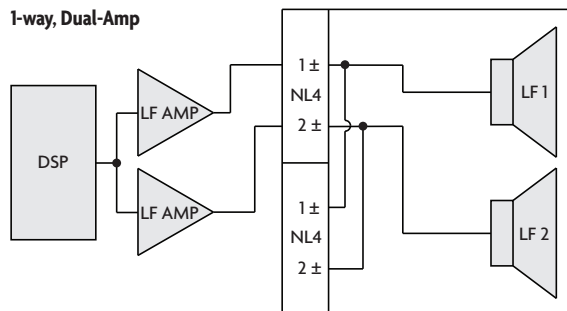
The net result is a subwoofer that provides low frequencies with a very authoritative character in a package that is less than half the size of most competitive products.

Connection Diagram

1-way, Single-Amp



1-way, Dual-Amp



Mechanical Specification Drawings

2D and 3D DXF dimensional drawings are available for download at www.fulcrum-acoustic.com/support.

Notes

¹ **Performance Specifications** All acoustic specifications rounded to nearest whole number. External DSP with Fulcrum Acoustic-provided settings is required to achieve the specified performance.

² **Operating Range** The frequency range within which the processed response is within 10 dB of the average.

³ **Power Handling** Based on the AES power handling of the transducers.

⁴ **Nominal Sensitivity** The 1-meter-referenced SPL produced by a 1 watt band limited pink noise signal, with no processing applied.

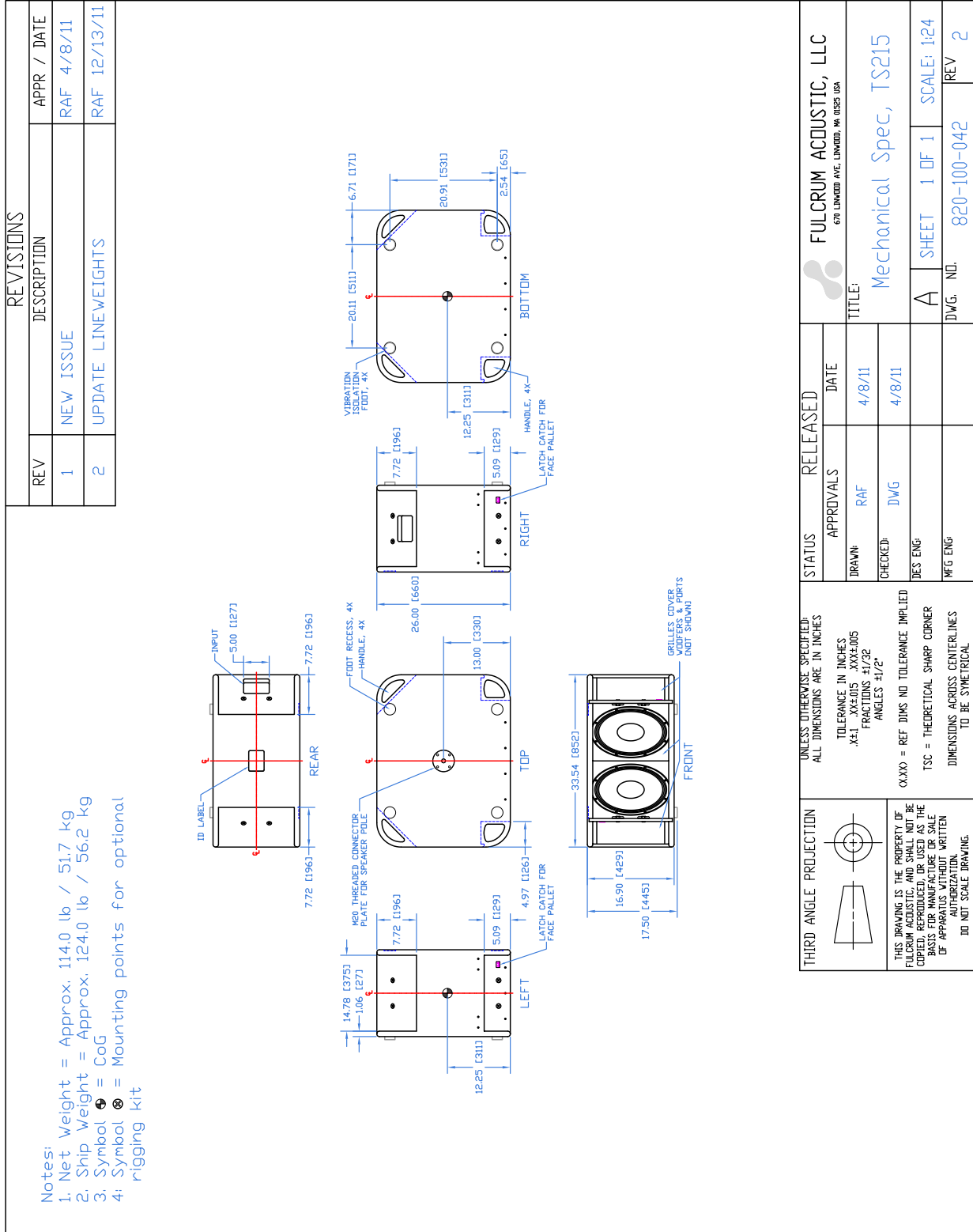
⁵ **Equalized Sensitivity** The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which produces a total power of 1 watt, in sum, to the loudspeaker subsections.

⁶ **Equalized Maximum SPL** The 1-meter-referenced SPL produced when an EIA-426-B signal is applied to an equalized loudspeaker system, at a level which drives at least one subsection to its rated power.

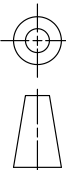
⁷ **Resolution** All response graphs are subjected to 1/6 octave cepstral smoothing with a gaussian weighting function.

⁸ **Axial Sensitivity** The SPL plotted against frequency for a 1 watt swept sine wave, referenced to 1 m with no signal processing.

⁹ **Axial Processed Response** The axial magnitude response with recommended signal processing applied.



Drawing is reduced. Do not scale.

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		MFG ENG		DWG. NO.	820-100-042
				SCALE:	1:24
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