



FEATURES

- JFL210 companion subwoofer.
- Simple-to-use rigging allows flown and ground-stacked arrays to be constructed with ease.
- Built to EAW construction standards: rugged enclosure, sturdy finish and reinforced steel grille stands up to road abuse.
- Ideal for a wide range of portable and installed AV applications.

DESCRIPTION

The JFL118 is a light weight, high-powered, single 18 inch, flyable subwoofer that is designed to extend the low frequency response of the companion JFL210 full range line array loudspeaker. JFL118 subwoofers may be ground stacked, flown as part of a JFL210 array, or flown separately alongside a JFL210 array. Integral, proprietary rigging will suspend up to six any combination JFL118 / JFL210 enclosures with a 10:1 design factor. The optional FB121 fly bar includes multiple pick points which allow users to easily set an array's tilt angle. The JFL118 also includes M10 threaded suspension points that allow users to deploy arrays in permanently installed applications by means of cost-effective, forged shoulder eyebolts.

The JFL118 includes a metal cup which allows up to two JFL210 to be pole mounted above up to two stacked JFL118. Alternately JFL210 loudspeakers may be stacked directly atop the JFL118. In this instance all enclosures are affixed together using their integral rigging.

JFL118 subwoofers utilize Neutrik® Speakon® STX Series connectors. The STX Series' all-metal housings are extremely rugged, and feature a built-in gasket providing weather protection to IP54 when used with companion NLT4FX in-line cable connectors. There are three NL4 connectors on the rear of each JFL118: two are used for subwoofer and optional high-passed signal input, while the third is used as an output to loop the high-passed signal to JFL210 or other loudspeakers.

Six year warranty.

¹ To achieve specified performance, the listed external signal processing with EAW-provided settings is required.

² For recommendations to select power amplifier size refer to: "HOW MUCH AMPLIFIER POWER DO I NEED?" on the EAW web site.

18 INCH SUBWOOFER

See TABULAR DATA notes for details, half space = floor-mounted

CONFIGURATION

Subsystem:

| Transducer | Loading |
|-------------------|---------|
| SUB 1x 18 in cone | Vented |

Operating Mode:

| Amplifier Channels | External Signal Processing |
|--------------------|----------------------------|
| Single-amp LF | DSP w/1-way filter |

PERFORMANCE¹

Operating Range: 30 Hz to 150 Hz

Nominal Beamwidth:

| | |
|------|------|
| Horz | 360° |
| Vert | 360° |

Axial Sensitivity (SPL):

| | | |
|------------------|--------|-----------------|
| LF (whole space) | 94 dB | 30 Hz to 150 Hz |
| (half space) | 100 dB | 30 Hz to 150 Hz |

Input Impedance (ohms):

| Nominal | Minimum |
|---------|--------------|
| LF 8 | 7.1 @ 145 Hz |

High Pass Filter: High Pass=>30 Hz, 12 dB/octave Butterworth

Accelerated Life Test²:

| | | |
|--------|---------|---------------|
| System | LF 80 V | 800 W @ 8 ohm |
|--------|---------|---------------|

Calculated Axial Output Limit (SPL):

| | Average | Peak |
|------------------|---------|--------|
| LF (whole space) | 123 dB | 129 dB |
| (half space) | 129 dB | 135 dB |

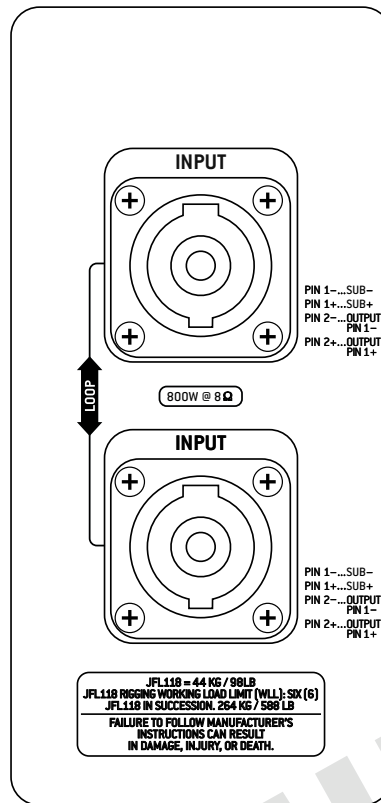
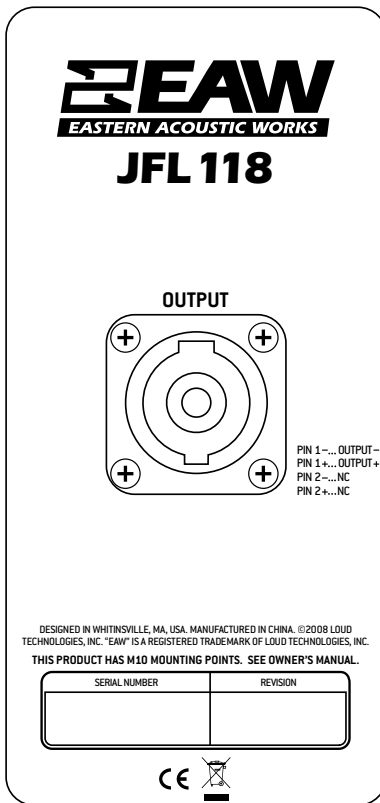
ORDERING DATA

| Description | Part Number |
|------------------|-------------|
| EAW JFL118 Black | 0030529-90 |

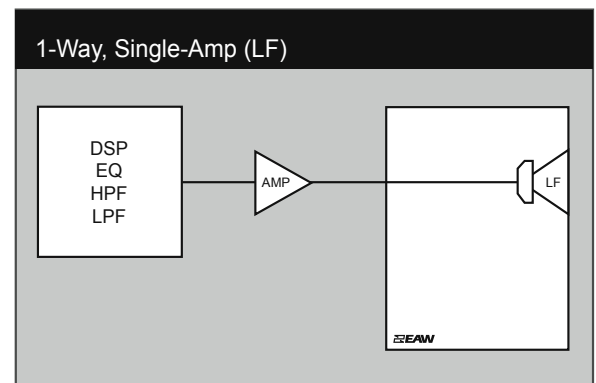
Optional Accessories

| | |
|-----------------------------------|------------|
| EAW FB121 Fly Bar Black | 0031170 |
| EAW CSTR118 Caster Kit | 0032377-90 |
| M10 x 1.5 Forged Shoulder Eyebolt | 0029818 |

INPUT PANEL



SIGNAL DIAGRAM



LEGEND

- DSP:** User-supplied Digital Signal Processor.
HPF: Recommended High Pass Filter.
LPF: Low Pass Filter for crossover.
LF: Low Frequency.
AMP: User-supplied Power Amplifier.

NOTES

TABULAR DATA

- Measurement/Data Processing Systems:** Primary - FChart: proprietary EAW software; Secondary - Brüel & Kjær 2012.
- Microphone Systems:** Earthworks M30; Brüel & Kjær 4133
- Measurements:** Dual channel FFT; length: 32 768 samples; sample rate: 48 kHz; logarithmic sine wave sweep.
- Measurement System Qualification** (includes all uncertainties): SPL: accuracy +/-0.2 dB @ 1 kHz, precision +/-0.5 dB 20 Hz to 20 kHz, resolution 0.05 dB; Frequency: accuracy +/-1 %, precision +/-0.1 Hz, resolution the larger of 1.5 Hz or 1/48 octave; Time: accuracy +/-10.4 µs, precision +/-0.5 µs, resolution 10.4 µs; Angular: accuracy +/-1°, precision +/-0.5°, resolution 0.5°.
- Environment:** Measurements time-windowed and processed to eliminate room effects, approximating an anechoic environment. Data processed as anechoic or fractional space, as noted.
- Measurement Distance:** 7.46 m. Acoustic responses represent complex summation of the subsystems at 20 m. SPL is referenced to other distances using the Inverse Square Law.
- Enclosure Orientation:** For beamwidth and polar specifications, as shown in Mechanical Specification drawing.
- Volts:** Measured rms value of the test signal.
- Watts:** Per audio industry practice, "loudspeaker watts" are calculated as voltage squared divided by rated nominal impedance. Thus, these are not True Watt units of energy as defined by International Standard.
- SPL:** (Sound Pressure Level) Equivalent to the average level of a signal referenced to 0 dB SPL = 20 microPascals.
- Subsystem:** This lists the transducer(s) and their acoustic loading for each passband. Sub = Subwoofer, LF = Low Frequency, MF = Mid Frequency, HF = High Frequency.
- Operating Mode:** User selectable configurations. Between system elements, a comma (,) = separate amplifier channels; a slash (/) = single amplifier channel. DSP = Digital Signal Processor. IMPORTANT: To achieve the specified performance, the listed external signal processing must be used with EAW-provided settings.
- Operating Range:** Range where the processed Frequency Response stays within -10 dB SPL of the power averaged SPL within this range; measured on the geometric axis. Narrow band dips are excepted.
- Nominal Beamwidth:** Design angle for the -6 dB SPL points, referenced to 0 dB SPL as the highest level.
- Axial Sensitivity:** Power averaged SPL over the Operating Range with an input voltage that would produce 1 W at the nominal impedance; measured with no external processing on the geometric axis, referenced to 1 m.
- Nominal Impedance:** Selected 4, 8, or 16 ohm resistance such that the minimum impedance point is no more than 20% below this resistance over the Operating Range.
- Accelerated Life Test:** Maximum test input voltage applied with an EIA-426B defined spectrum; measured with recommended signal processing and Recommended Protection Filter.
- Calculated Axial Output Limit:** Highest average and peak SPLs possible during the Accelerated Life Test. The Peak SPL represents the 2:1 (6 dB) crest factor of the Life Test signal.
- High Pass Filter:** This helps protect the loudspeaker from excessive input signal levels at frequencies below the Operating Range.

GRAPHIC DATA

- Resolution:** To remove insignificant fine details, 1/12 octave cepstral smoothing was applied to acoustic frequency responses and 1/3 octave cepstral smoothing was applied to the beamwidth and impedance data. Other graphs are plotted using raw data.
- Frequency Responses:** Variation in acoustic output level with frequency for a constant input signal. Processed: normalized to 0 dB SPL. Unprocessed inputs: 2 V (4 ohm nominal impedance), 2.83 V (8 ohm nominal impedance), or 4 V (16 ohm nominal impedance) referenced to a distance of 1 m.
- Processor Response:** The variation in output level with frequency for a constant input signal of 0.775 V = 0 dB reference.
- Impedance:** Variation in impedance magnitude, in ohms, with frequency without regard to voltage/current phase. This means the impedance values may not be used to calculate True Watts (see 9 above).