CCS18

18 inch Subcardioid Subwoofer

Overview

The CCS18 is the companion subwoofer to CC Series Constant Curvature loudspeakers, sharing the same profile and rigging hardware for easy array integration. It includes a single, high power 18 inch direct-radiating woofer in a compact enclosure. Link bar kits allow creation of mixed subwoofer/full-range arrays or subwoofer-only arrays. A bespoke yoke bracket facilitates mounting single enclosures to ceilings or similar structure above.

The CCS18 incorporates Fulcrum's Passive Cardioid Technology™. Unlike active cardioid loudspeakers, passive cardioid technology does not require an additional amplifier channel or additional enclosure volume to achieve its impressive low frequency directional control. The subcardioid behavior is produced by a meticulously conceived acoustical circuit which balances the loading of the low frequency driver, the enclosure depth and volume, and specially constructed side-mounted ports which include a calibrated resistive element. By opting for a subcardioid pattern as opposed to a pure, hyper or super cardioid pattern, the rear rejection increases when the modules are deployed in a subwoofer array.

Proprietary **TQ**™ Processing DSP technology delivers crystal-clear audio across all frequencies. TQ Processing is compatible with a wide range of DSP and amplifier platforms, offering system design flexibility.

When used with Driveflex amplifiers and Fulcrum One software, CCS18 subwoofers are modeled, optimized, deployed, and controlled as part of an integrated system with CC Series full range loudspeakers. TQ presets and limiters are automatically applied, including advanced array limiter protection. The Optimization function in Fulcrum One adjusts array behavior to extend and smooth coverage across listening areas and enables custom voicing profiles. These parameters are automatically loaded into connected Driveflex amplifiers, which are managed through Fulcrum One software. This integrated workflow simplifies setup and maintains consistent performance across the array.

Performance Specifications[1]

Operating Mode

Single-amplified w/ DSP

Operating Range [2]

29 Hz to 131 Hz

Nominal Beamwidth

Subcardioid (>7dB rear rejection) within operating range

Transducers

LF: 18.0" woofer, 4.5" voice coil; neodymium magnet

Power Handling @ Nominal Impedance [3]

110 V / 1500 W @ 8 Ω

Recommended Power Amplifier

1500 W to 2250 W @ 8 Ω

Maximum Peak SPL [4]

138 dB

** Single box, ground plane, CCS18 preset, 80 Hz LPF*

Physical Specifications

Connections

(2) Neutrik NL4 Speakon
Pin 1+/-: LF Pin 2+/-: NC

Mounting / Suspension Points

(24) M10 x 1.5 eye bolt angle points, (4) M10 x 1.5 yoke points

Dimensions / Weight

See pages 3 & 4

Finish

Black painted enclosure w/ matte black grille

Accessories

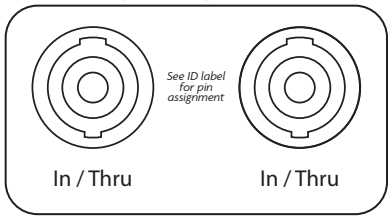
VAFK vertical array frame kit, LBKM & LBKS link bar kits,
YK-CCS18 yoke bracket

Options

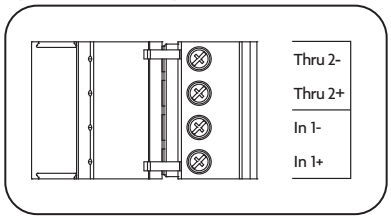
Phoenix block input, Custom color finish,
IP55 Weather-resistant (WR) enclosure & hardware

Connections

Neutrik NL4 Speakon Input



Optional Phoenix Input



Phoenix 1777749 plug:
Min 24 AWG / 0.2 mm^2
Max 10 AWG / 6.0 mm^2

Mechanical Specification Drawings

2D and 3D DWG 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.*

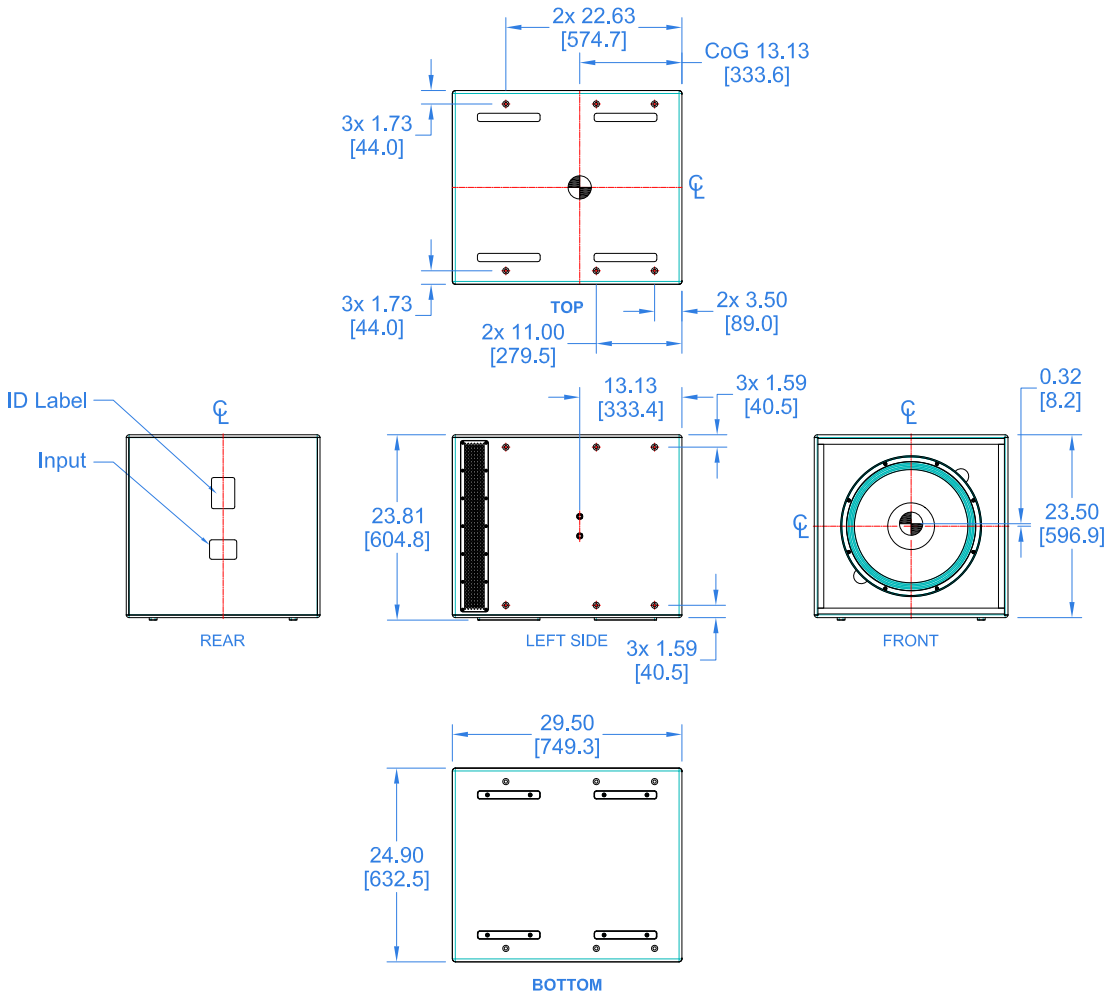
[2] **Operating Range** *The frequency range within which the processed response is within 10 dB of the average.*

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

[4] **Maximum Peak SPL** *Signal source is AES75 Music Noise, measured at 2 meters and scaled to 1 meter with no weighting. The maximum SPL that can be achieved under real-world conditions depends on a number of factors, including array size and shape, distance to the listener, nature of the source material for tests (its spectrum and peak-to-average ratio), SPL meter settings (e.g. A, C, flat, LEQ), and signal processing settings. No single number can encapsulate all these variables. Please refer to Fulcrum One design software to explore SPL capabilities of a specific system design.*

Notes:
1. Net Weight = Approx. 105.5 lb / 47.9 kg
2. Symbol ◎ = M10 x 1.5 eye bolt angle point
3. Symbol ○ = M10 x 1.5 nut plate
3. Symbol ◓ = CoG

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	New Issue	RAF 05/21/25
2	Move CoG, add yoke bracket mounting points	RAF 06/27/25
3	Update weight, CoG, & yoke point location	RAF 09/26/25



THIRD ANGLE PROJECTION

DRAWN BY: DEW | DATE: 05/13/25

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES

TOLERANCE IN INCHES
X.X±.1 X.XX±.015 X.XXX±.005
FRACTIONS ±1/32 ANGLES ±1/2°

(X.XX) = REF DIMS
NO TOLERANCE IMPLIED

TSC = THEORETICAL SHARP CORNER

DIMENSIONS ACROSS CENTERLINES TO BE SYMMETRICAL

FULCRUM ACOUSTIC, LLC
1 MAIN STREET WHITINSVILLE, MA 01588 USA

TITLE: Mechanical Spec, CCS18

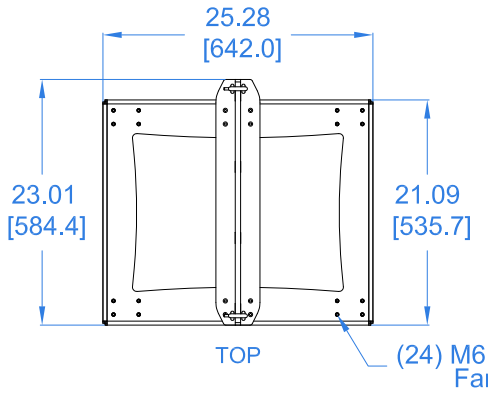
A | SHEET 1 OF 1 | SCALE: 1 : 20

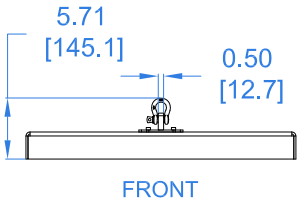
DWG. NO. 820-100-189 | REV 3

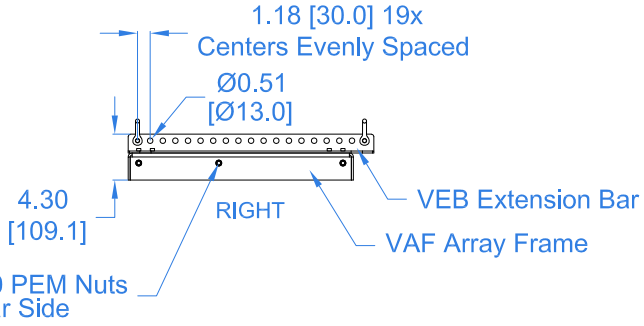
Drawing is reduced. Do not scale.

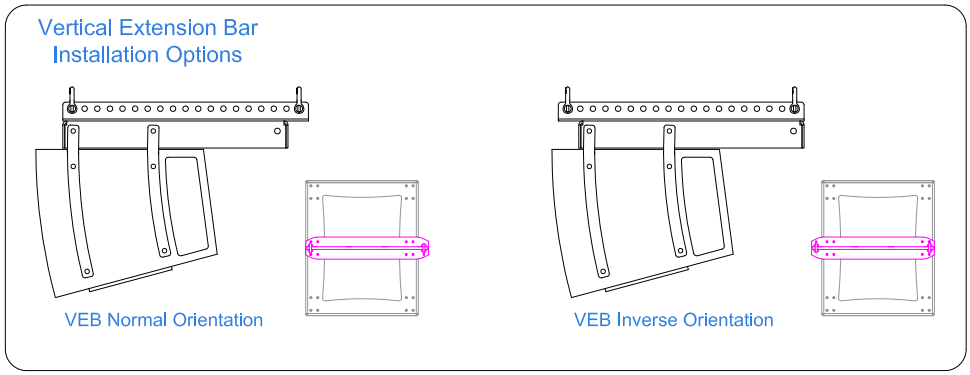
Notes:
1. Net Weight = Approx. 39.0 lb / 17.7 kg
2. Includes (2) 3/8 inch screw pin anchor shackles,
   (6) M10 x 1.5 button head hex screws
3. Material: 0.187" & 0.50" A36 Steel

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	RAF 7/2/25









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		APPROVALS / DATE	
		DRAWN: RAF 7/2/25	TITLE: Mech Spec, VAFK Vertical Array Frame Kit
		CHECKED:	
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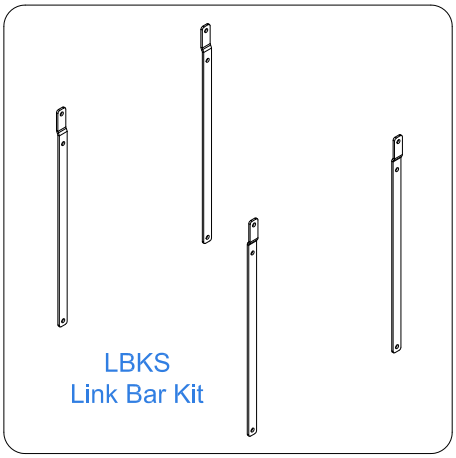
		MFG ENG:	DWG. NO. 820-300-059 REV 1

Drawing is reduced. Do not scale.

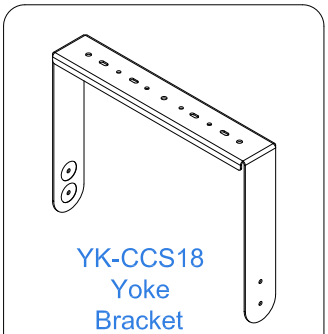
Notes:
1. Material: 8 GA ASTM A36 Steel (YK-CCS18), 0.187" A36 Steel all else

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	RAF 10/9/25

LBKM
Link Bar Kit



LBKS
Link Bar Kit



YK-CCS18
Yoke
Bracket

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		APPROVALS / DATE	
		DRAWN: RAF 10/9/25	TITLE: CCS18 Rigging Accessories
		CHECKED:	
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		MFG ENG:	DWG. NO. 820-300-061 REV 1

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