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

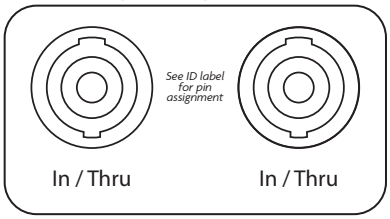
Black painted enclosure w/ matte black grille

Options

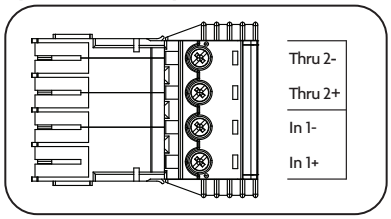
Phoenix block input, Custom color finish,
IP55 Weather-resistant (WR) enclosure & hardware

Connections

Neutrik NL4 Speakon Input



Optional Phoenix Input



Phoenix 1778081 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/resources .

Accessories

VAFK
Vertical array frame kit for CC215, CC230, and CCS18. Includes reversible extension bar. Use to suspend up to eight (8) loudspeaker enclosures.*

YK-CCS18
Yoke bracket for CCS18. Use to mount one (1) CCS18 subwoofer to overhead structure. Not to be used for wall mounting.

LBKM
Link bar kit for mixed CCS18 + CC215/CC230 arrays. Includes six (6) link bars. Connects CCS18 subwoofer to VAFK array frame or another CCS18.

LBKS
Link bar kit for subwoofer-only arrays. Includes four (4) link bars. Connects CCS18 subwoofer to VAFK array frame or another CCS18.

* *Use the CC rigging calculator to determine acceptable configurations of enclosures.*

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.*

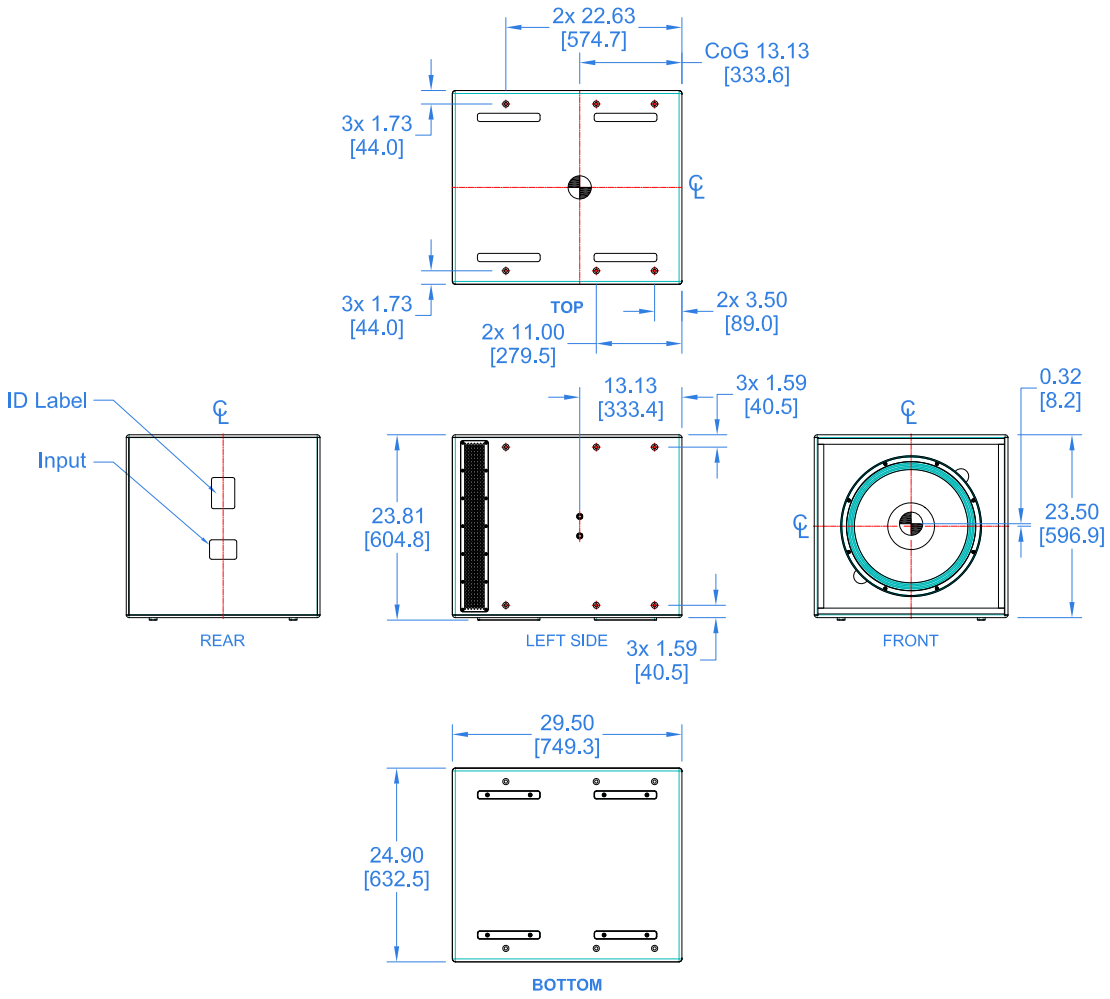
[2] **Operating Range** *The frequency range within which the processed response is within 10 dB of the average.*

[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



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FRACTIONS ±1/32 ANGLES ±1/2°

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DIMENSIONS ACROSS CENTERLINES TO BE SYMMETRICAL

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1 MAIN STREET WHITINSVILLE, MA 01588 USA

TITLE: Mechanical Spec, CCS18

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

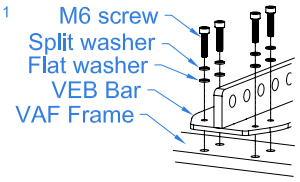
DWG. NO. 820-100-189 | REV 3

Drawing is reduced. Do not scale.

Notes:
1. Net Weight = Approx. 39.0 lb / 17.7 kg
2. Material: 0.187" & 0.50" A36 Steel
3. VAFK includes (2) 3/8 inch screw pin anchor shackles
4. To mount VEB extension bar, place flat and split washers over (8) M6 screws (supplied) as shown in Fig. 1 and tighten screws to specified torque
5. To mount LBK link bars (not included), place flat and split washers over (6) M10 screws (supplied) as shown in Fig. 2 and tighten screws to specified torque

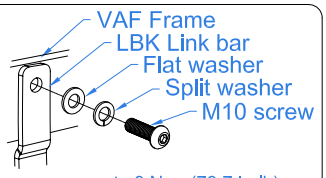
REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	NEW ISSUE	RAF 7/2/25
2	UPDATE DRAWING PART NUMBER	RAF 1/16/26
3	UPDATE DRAWING PART NUMBER	RAF 3/24/26

Fig. 1



Torque screws to 5 N-m (44.3 in-lb) using M5 hex wrench

Fig. 2



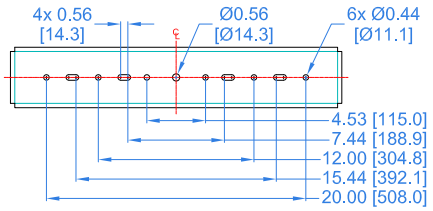
Torque screws to 9 N-m (79.7 in-lb) using M6 hex wrench

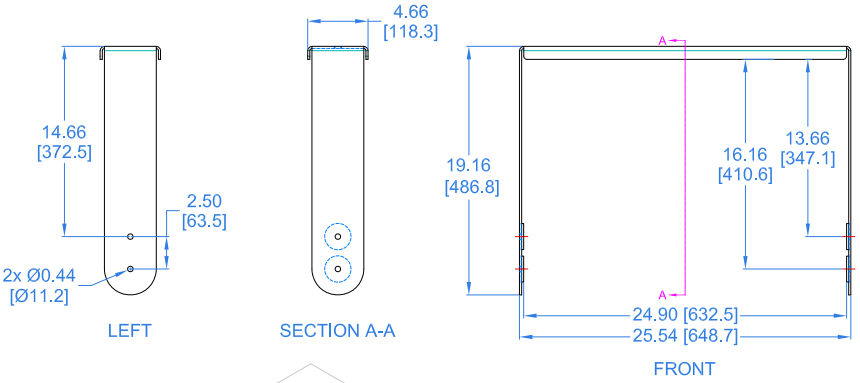
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		APPROVALS / DATE	
		DRAWN: RAF 7/2/25	TITLE: Mech Spec, VAFK Vertical Array Frame Kit
		CHECKED:	
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		MFG ENG:	DWG. NO. 820-300-062 REV 3

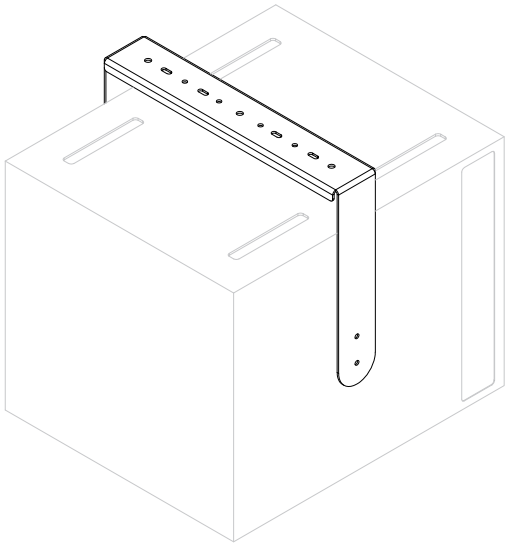
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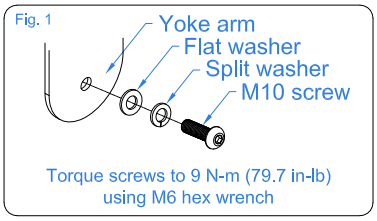
Notes:
1. Net Weight: Approx. 14.0 lb / 6.4 kg
2. Material: 8 GA ASTM A36 steel
3. Bracket includes (4) each M10 button head hex screws, flat washers, and split washers
4. YK-CCS18 may be used to mount (1) CCS18 subwoofer to overhead structure; do not use for wall-mount applications
5. Remove two center M10 flat head screws from each side and discard
6. Place flat & split washers over supplied M10 button head hex screws as shown in Fig. 1 and tighten bolts to specified torque

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	New Issue	RAF 03/23/26









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TITLE: YK-CCS18 Yoke Bracket

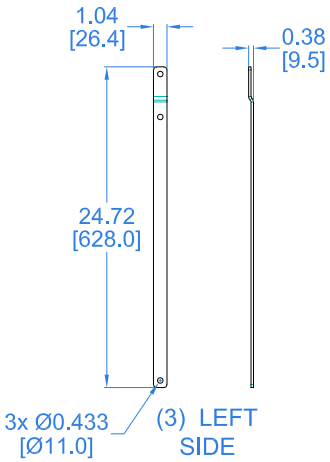
A | SHEET 1 OF 1 | SCALE: 1 : 12

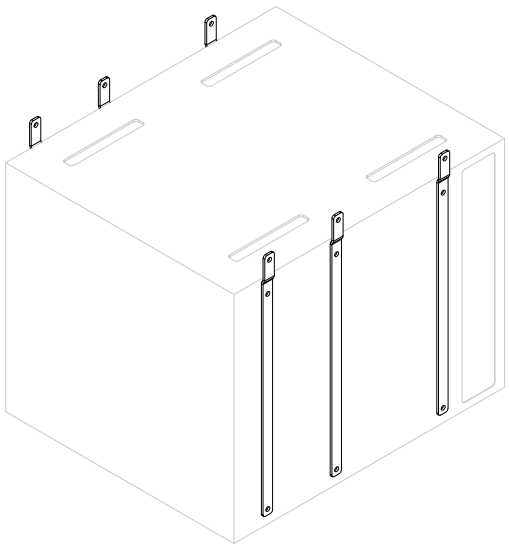
DWG. NO. 820-300-072 | REV 1

Drawing is reduced. Do not scale.

Notes:
1. Material: 0.187" A36 steel
2. LBKM used for mixed subwoofer/full range arrays
3. Kit includes (6) brackets; mirror (3) per side
4. Remove (12) M10 button head hex screws (six per side of loudspeaker) and re-use to attach brackets
5. Place (12) M10 flat & split washers (supplied with LBKM kit) as shown in Fig. 1 and tighten screws to specified torque

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	New Issue	RAF 03/18/26





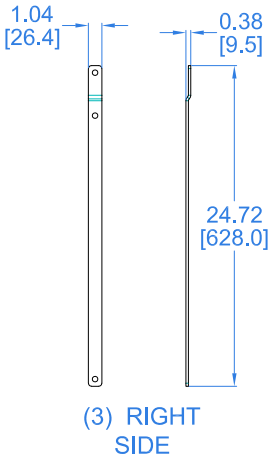
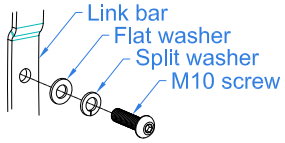


Fig. 1



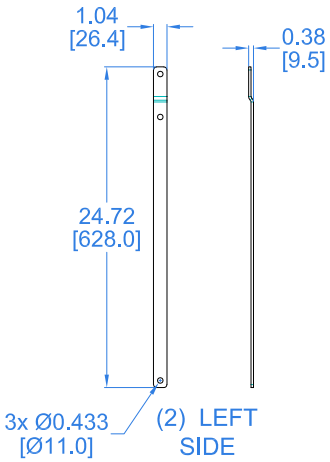
Torque screws to 9 N-m (79.7 in-lb) using M6 hex wrench

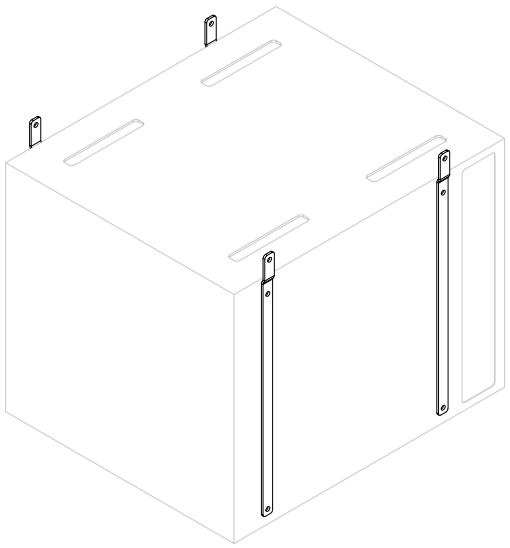
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DRAWN BY: RAF DATE: 03/18/26		A SHEET 1 OF 1 SCALE: 1 : 12
		DWG. NO. 820-300-068 REV 1

Drawing is reduced. Do not scale.

Notes:
1. Material: 0.187" A36 steel
2. LBKS used for subwoofer-only arrays
3. Kit includes (4) brackets; mirror (2) per side
4. Remove (8) M10 button head hex screws (four per side of loudspeaker) and re-use to attach brackets
5. Place (8) M10 flat & split washers (supplied with LBKM kit) as shown in Fig. 1 and tighten screws to specified torque

REVISIONS		
REV	DESCRIPTION	APPR / DATE
1	New Issue	RAF 03/18/26





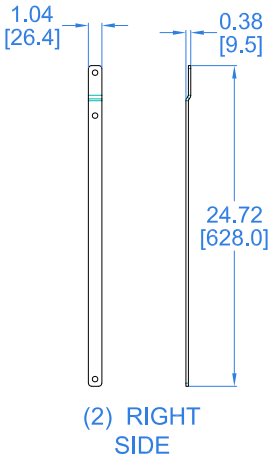
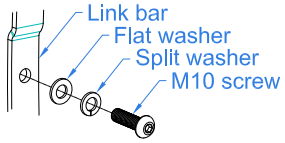


Fig. 1



Torque screws to 9 N-m (79.7 in-lb) using M6 hex wrench

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TITLE:
LBKS
Link Bar Kit

A | SHEET 1 OF 1 | SCALE: 1 : 12

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