

# V15a+ Dual Output Hearing Loop Driver

Our highly efficient and compact V15a+ is a constant current, dual output hearing loop driver, with integral phase shifter for phased array configuration. The V15a+ is suitable for small and medium sized facilities and venues.

It has Class-D amplifier output stages and an audio subsystem built around an advanced DSP core. Combined with a powerful CPU to ensure peak performance, the V15a+uses cutting edge technology proven in the pro audio world to achieve life-like speech and first-class music reproduction.

#### **Features**

- DSP controlled automatic gain control and high frequency compensation for metal loss
- 2 X 90° phase shifted (DSP controlled) Class-D amplifier output stages capable of delivering 5A<sub>RMS</sub> @ >15V<sub>RMS</sub>
- Ultra-efficient power utilisation (up to 90% efficient)
- High Pass Filter
- Audio time delay
- Switchable AGC (Automatic Gain control)
- Enhanced Loop Diagnostics
- True constant current output stage
- Simple user interface
- Backlit LCD display
- Sleep mode
- Continuous self-testing
- Integrated protection circuits with temperature, voltage, short circuit and DC detection
- Compact half-width 1U chassis (compatible 6U Rack Cabinet available upon request)

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V15A-PLUS-UK / V15A-PLUS-EU V15A-PLUS-AUS / V15A-PLUS-USI

#### **Applications**

Suitable for small and medium sized facilities, such as:

- Meeting rooms
- Classrooms
- Care & nursing rooms
- Waiting rooms
- Lecture halls

#### **Voltage and Current**

>15Vrms @ 5Arms

#### **Accessories**

- Single V-Series Mounting Bracket [MBR-V1]
- Dual V-Series Mounting Shelf [MBR-V2]
- Blanking Plate for Dual V-Series Mounting Shelf [MBR-VBLANK]
- 6U Rack Cabinet [IL-AC-RACK-19]

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#### **Components**

- V15a+ Hearing Loop Driver
- PS-60 Power Supply



	Driver Area Coverage	Area		
		1:1	1:2	1:3
	Phased array (no metal loss)	625.00m <sup>2</sup>	684.50m²	705.33m²
	Phased array (medium metal loss)	289.00m <sup>2</sup>	288.00m <sup>2</sup>	408.33m <sup>2</sup>

All phased array loop areas calculated under the following conditions: Area at maximum driver current without voltage clipping at 1.6KHz \* 3 metre segment width \* calculated with 25mm x 0.1mm flat copper tape \* loop cable installed on floor \* listening plane 1.2m \* medium metal loss = 6dB

## **Physical Data**

Dimensions	Height – 42mm (1.65") Width – 196mm (7.80") Depth – 132mm (5.20") [150mm (5.90") incl. XLR and control dial]
Weight	978g (2.15lbs)
Construction	Mild Steel
Finish	Black Powder Coated

#### **Technical Data**

Power Supply	100W 24Vdc 4.17A via External PSU (PS-60) Class 6 External PSU (100V-240V AC 50Hz-60Hz)		
Inputs	1 X Balanced Line Level (3 Pin Euro-Block) or 1 X Balanced Line Level (XLR) [optimised for -10dBV to 0dBv]		
	1 X Mic Level (12V phantom power via 680Ω) [optimised for levels above -45dBv]		
	1X DC Input		
Outputs	2 X Loop Output (5.08mm Euro-Blo	ock)	
	Voltage	15Vrms (42.3Vpk-pk) @ 5Arms (14.14Apk-pk)*	
Loop Output Characteristics	Current	5Arms (14.14Apk-pk) up to 300 seconds	
	Loop Connector	5.08mm Euro-block	
	Frequency Response	80Hz to 6.5kHz	
Audio System	Distortion	THD+N <0.3% (-50.5dB) Full current both outputs driven	
	AGC	Switchable (ON/OFF)	
	HF Comp	7 optimised stages	
	Acoustic Time Delay	10ms to 70ms adjustable in 1ms steps	
Display 9 Controls	Display	LED Backlit LCD display	
Display & Controls	Control	Single rotary control	
Fault Monitoring and Protection	Main Display	Open circuit loop (DCR measurement)	
		Loop ground fault	
	Front Panel LED	Output voltage clipping	
	Cooling	Internal heatsinks with thermal protection	

\*Note 1:  $Z=3\Omega$  (265.4uH + 1.37 $\Omega$  @ 1.6KHz), Note 2: 1% (-40dB) distortion)



#### **Rear Connections**



#### **Standards**

• Induction loop performance compliant with BS EN60118-4 (when correctly installed)

## Legislation

Directive Number	Directive Title
2014/30/EU	The Electromagnetic Compatibility Directive
Test Standards:	EN 55032:2015, Class B
	> EN55016-2-1:2009 A1 2011
	> EN55016-2-3:2010 A1 2010
	EN 55103-2:2009 E2
	> EN61000-4-2;2009
	> EN61000-4-3:2006 A1 2008 A2 2010
	> EN61000-4-4:2012
	> EN61000-4-5:2014
	> EN61000-4-6:2009
	> EN61000-4-11:2004
	EN 61000-3-2:2014
	EN 61000-3-3:2013
2014/35/EU	Low Voltage Directive (LED)
2012/19-EU	Waste Electrical & Electronic Equipment (WEEE) Directive
2011/863/EU	The Restriction of Hazardous Substances Directive