

# Technical Manual



# EVOi324/WH

## SPECIFICATIONS

- Frequency Range (-10 dB): 40 Hz – 18 kHz
- Frequency Response (-3 dB): 48 Hz – 16 kHz
- Horizontal Coverage (-6 dB): 80° (Averaged 500 Hz – 16 kHz)
- Vertical Coverage (-6 dB): 80° (Averaged 500 Hz – 16 kHz)
- Directivity Factor (Q): 11.4 (Averaged 500 Hz – 16 kHz)
- Directivity Index (DI): 10.6 dB (Averaged 500 Hz – 16kHz)
- Sensitivity: 101 dB (-15 dBu @ 1 Meter)\*
- Low Frequency Driver: 14" NDD, Carbon Fiber Cone, Dual 2" Voice Coils, Integral Thermomaster
- DC Resistance: 5.7 ohm
- Low Frequency/Mid Driver: 14" NDD, Carbon Fiber Cone, Dual 2" Voice Coils, Integral Thermomaster
- DC Resistance: 5.7 ohm
- High Frequency Driver: 2430, Large Format, 1.5" Exit Compression Driver with a Neodymium Motor, 100 Watt 3" Encapsulated Voice Coil, Aluminum Diaphragm
- DC Resistance: 4.4 ohm ±10%
- Waveguide: Aluminum Thermally Coupled to 2430 via "silpad" Gasket
- Amplifier Power Low Frequency: 440 Hz Load Ref = 6 ohms, Input = 1.4 Vrms/5.14 dBu, Output = 300 Wrms, THD < 0.3%
- Max Continuous Output: 330 Wrms (with Limiters)
- Burst Output: 600 Wrms
- Signal-to-Noise Ratio > 90 dB A Weighted
- Amplifier Power LF/Mid: 440 Hz Load Ref = 6 ohms, Input = 1.4 Vrms/5.14 dBu, Output = 300 Wrms, THD < 0.3%
- Max Continuous Output: 330 Wrms (with Limiters)
- Burst Output: 600 Wrms
- Signal-to-Noise Ratio > 90 dB A Weighted
- Amplifier Power HF: 3 kHz Load Ref = 8 ohms, Input = 3.2 Vrms/12.3 dBu, Output = 35 Wrms, THD < 0.2%
- Max Continuous Output: 50 Wrms (with Limiters)
- Burst Output: 100 Wrms
- Signal-to-Noise Ratio > 90 dB A Weighted
- Audio Connectors: Balanced XLR
- LF Crossover Frequency: 250 kHz
- LF/Mid Crossover Frequency: 1.25 kHz
- HF Crossover Frequency: 1.25 kHz
- Limiting: Dynamic Amplifier Clip Prevention
- Transducer EQ Type: Parametric

Specifications Continued Next Page

### AUTO-EQ

- Auto-EQ Sample Rate: 6 kHz
- MLS Sequence Length: 4095
- Number of Averaged Sequences: 8
- Maximum Impulse Response Length: 682 ms
- FFT Length: 4096
- FFT Window Type: Raised Cosine Bell
- Log-Frequency Domain Resolution: 1/50th Octave
- Number of EQ Filters: 6

### ANTI FEEDBACK CONTROL

- Number of Fixed Filters: 6 Parametric
- Number of Live Filters: 6 Parametric
- Maximum Cut: 15 dB
- Width: 0.05 – 0.4 Octave
- Self-Diagnostics: 18 Status Reporting Conditions

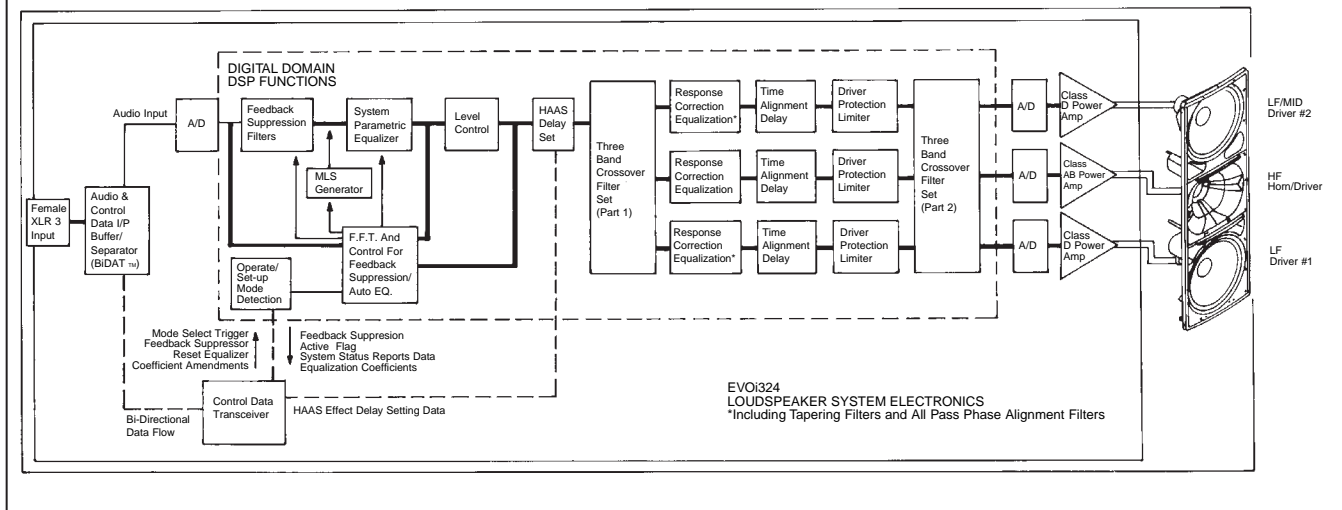
\*EVOi324 Sensitivity Chart

Electrical Input		Acoustic Output Measured SPL (dB re: 20uPa)
dBu	Volts (AC RMS)	
-25	0.04	91
-20	0.08	96
-15	0.14	101
-10	0.25	106
-5	0.44	110
0	0.78	116
5	1.38	118
8	1.95	120
10	2.45	122

101 dB = Equivalent 1w/1m Specification

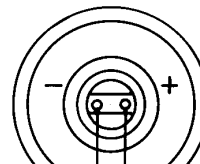
# EVOi324/WH

## SCHEMATIC



## WIRING DIAGRAM

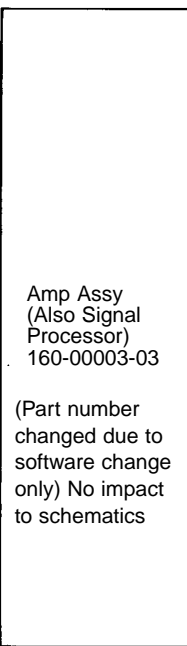
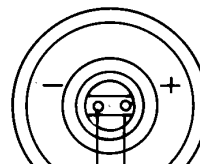
Driver, Low Freq  
No.2  
EVO-LF8  
Cone Repl  
C8REVO



Driver, High Freq  
2430H  
(125-30000-00X)  
(Diaph Repl)  
D8R2430



Driver, Low Freq  
No.1  
EVO-LF8  
Cone Repl  
C8REVO



### SPECIFICATIONS (Cont'd)

#### AURAL SWEEP TEST SPECIFICATIONS:

- A. System Aural Sweep Test: 0.3V Input, 20 Hz to 20 kHz
- B. L.F. Aural Sweep Test: 7.0V Input, 20 Hz to 3 kHz
- C. H.F. Aural Sweep Test: 2.83V Input, 550 Hz to 20 kHz

#### PHYSICAL SPECIFICATIONS:

- Enclosure Dimensions: 1067mm x 353mm x 386.2mm D  
(42.0 x 13.9 x 15.2 in.D.)
- Shipping Weight: 87 lbs. (39.4 kg.)

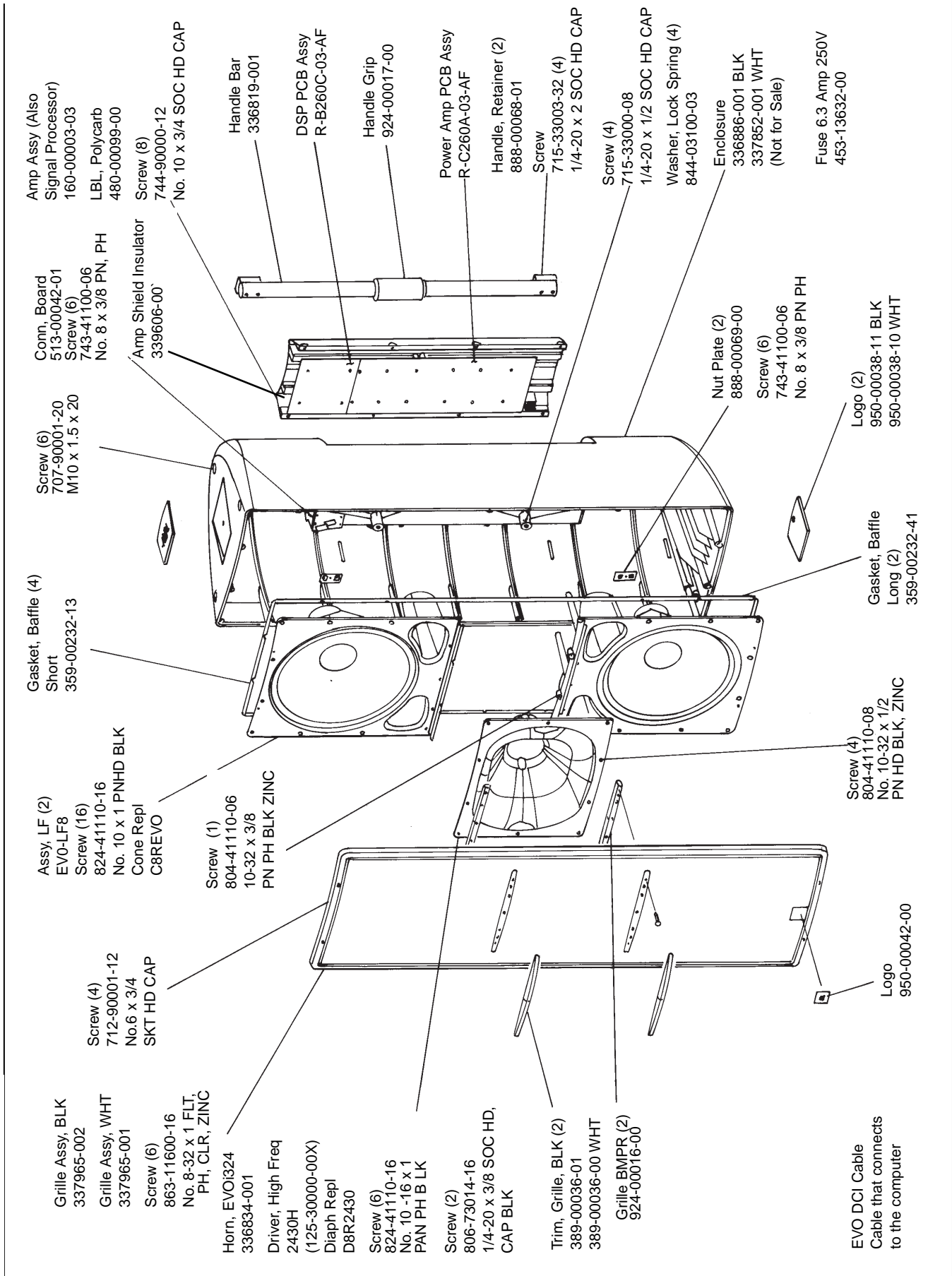
#### WARRANTY INFORMATION:

- Refer to Warranty Statement packed with each product.

# EVOi324/WH

## COMPONENT EXPLODED VIEW

**EVOi324/WH**



- Grille Assy, BLK  
337965-002
- Grille Assy, WHT  
337965-001
- Screw (6)  
863-11600-16  
No. 8-32 x 1 FLT,  
PH, CLR, ZINC
- Horn, EVOi324  
336834-001
- Driver, High Freq  
2430H  
(125-30000-00X)
- Diaph Repl  
D8R2430
- Screw (6)  
824-41110-16  
No. 10 -16 x 1  
PAN PH B LK
- Screw (2)  
806-73014-16  
1/4-20 x 3/8 SOC HD,  
CAP BLK
- Trim, Grille, BLK (2)  
389-00036-01
- 389-00036-00 WHT
- Grille Bmpr (2)  
924-00016-00
- EVO DCI Cable  
Cable that connects  
to the computer
- Grille Ass'y (Also  
Signal Processor)  
160-00003-03
- LBL, Polycarb  
480-00099-00
- Screw (8)  
744-90000-12  
No. 10 x 3/4 SOC HD CAP
- Handle Bar  
336819-001
- DSP PCB Assy  
R-B260C-03-AF
- Handle Grip  
924-00017-00
- Power Amp PCB Assy  
R-C260A-03-AF
- Handle, Retainer (2)  
888-00068-01
- Screw  
715-33003-32 (4)  
1/4-20 x 2 SOC HD CAP
- Screw (4)  
715-33000-08  
1/4-20 x 1/2 SOC HD CAP
- Washer, Lock Spring (4)  
844-03100-03
- Enclosure  
336886-001 BLK  
337852-001 WHT  
(Not for Sale)
- Fuse 6.3 Amp 250V  
453-13632-00
- Conn. Board  
513-00042-01
- Screw (6)  
743-41100-06  
No. 8 x 3/8 PN, PH
- Amp Shield Insulator  
339606-00
- Nut Plate (2)  
888-00069-00
- Screw (6)  
743-41100-06  
No. 8 x 3/8 PN PH
- Logo (2)  
950-00038-11 BLK  
950-00038-10 WHT
- Gasket, Baffle  
Short  
359-00232-13
- Screw (6)  
707-90001-20  
M10 x 1.5 x 20
- Gasket, Baffle  
Long (2)  
359-00232-41
- Assy, LF (2)  
EVO-LF8
- Screw (16)  
824-41110-16  
No. 10 x 1 PNHD BLK
- Cone Repl  
C8REVO
- Screw (1)  
804-41110-06  
10-32 x 3/8  
PN PH BLK ZINC
- Screw (4)  
804-41110-08  
No. 10-32 x 1/2  
PN HD BLK, ZINC
- Logo  
950-00042-00

# EVOi324/WH

## PACKAGE

Warranty 59660  
Owners Manual  
981-00057-00  
Tech Note Sheet  
980-00036-00

Hardware Kit  
336820-001  
(includes:  
1 ea. 980-0003-00 Instruction sheet  
3 ea. 846-73315-03 Washer  
3 ea 888-00049-01 Eyebolt nickle Pltd

Cord, AC, Line, 120V  
425-00000-00

Foot, Small EVOi324 (2)  
924-00020-00

Foot, Large, EVOi324  
924-00021-00

Washer, M10  
846-73315-03

Bag, Ziplock  
315953-001

Filler, Front (2)  
991-00248-00

Filler, Sides (2)  
991-00247-00

Filler, Top  
and Bottom (2)  
991-00246-00

Bag (2)  
322591-001

Filler, Top  
and Bottom (2)  
991-00245-00

Carton  
990-00227-00

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