



# Service Manual

## KP050 Series Full Range Loudspeaker System

- KP051
- KP052
- KP055





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# KP051

## 10-Inch Full Range Loudspeaker System

### Professional Series

#### Key Features:

- ▶ 10" high power and high efficiency woofer
- ▶ 1.5" annular polymer diaphragm compression driver with NdFeB magnet system
- ▶ Enclosure constructed of 15 mm plywood with durable painting
- ▶ 80° × 70° coverage pattern for even and smooth response on and off axis
- ▶ Precision engineered crossover for optimal power response and performance in the vocal midrange
- ▶ Single position socket for pole-mount installation
- ▶ SonicGuard™ protects high frequency driver from excessive power without interrupting the performance
- ▶ Rotatable and luminous JBL ENTERTAINMENT logo for easy coherence to your installation
- ▶ PSL (Passive Sound Lighting) Technology indicates JBL devotion to scientific advancement



#### Applications:

- ▶ Sound reinforcement for karaoke venues
- ▶ Audio reproduction for nightlife clubs
- ▶ As satellite speaker for use with subwoofers

KP051 is a professional-grade full-range loudspeaker designed for high-street KTV venues and club house. The 2-way speaker combines a 10" (254mm) woofer with the 1.5" (38.1mm) JBL 2408H-1 annular polymer diaphragm neodymium compression driver, and stands itself out for its high power handling, low distortion and noticeable electro-acoustic conversion efficiency. Its 80° x 70° coverage pattern provides smooth and even coverage whether installed in vertical or horizontal orientation. A high-slope passive networking is utilized for minimized band overlap.

KP051 outshines its league for its one-of-a-kind Starry Brown appearance. The rugged enclosure, which is constructed from 15mm plywood and finished in durable paint-coating, ensures the combination of visual and sound beauty last long. The front grille made from 16-gauge steel and backed with acoustic fabrics not only creates an air of elegance but also provide enough protection for drivers and components inside. The entire whole is fitted with dual Neutrik® Speakon® NL4MP connectors for loop-thru of multiple speakers, thirteen (13) M10 threaded suspension points and six (6) M10 screws for bracket mounting, as well as a 35mm socket for pole mounting.

A showcase of JBL's dedication to technology advancement, the rotatable JBL ENTERTAINMENT logo will constantly illuminate during your hilarious karaoke singing. Thanks to the PSL (Passive Sound Lighting) Technology, the legendary JBL sound is now visible.

#### Specifications:

System:	
System Type:	10", 2-way, bass-reflex
Frequency Range (-10 dB) <sup>1</sup> :	48 Hz - 20 kHz
Frequency Response (±3 dB) <sup>1</sup> :	85 Hz - 20 kHz
Sensitivity (1w@1m) <sup>1</sup> :	96 dB
Nominal Impedance:	8 Ohms
Maximum SPL <sup>2</sup> :	122 dB (128 dB peak)
Power Rating <sup>3</sup> : (Continuous/Program/Peak)	400 W/800 W/1600 W
Coverage Pattern:	80° × 70° (H × V)
Physical:	
Dimensions (H × W × D):	533 mm × 300 mm × 370 mm 21.0 inch × 11.8 inch × 14.6 inch
Net Weight:	16.6 Kg (36.7 lbs)
LF Driver:	1 × 10" (254 mm) woofer
HF Driver:	1 × 1.5" (38.1 mm) JBL 2408H-1
Input Connectors:	2 × Neutrik® Speakon® NL4MP
Enclosure Construction:	Trapezoid, 15 mm, plywood

<sup>1</sup> Full space (4π) conditions

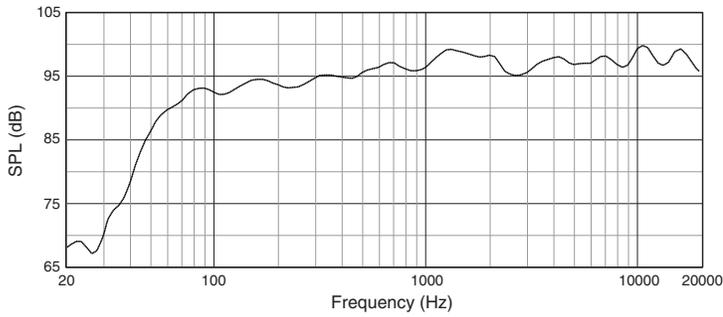
<sup>2</sup> Calculated maximum SPL based on rated power handling

<sup>3</sup> IEC standard, pink noise with 6 dB crest factor for 2hours

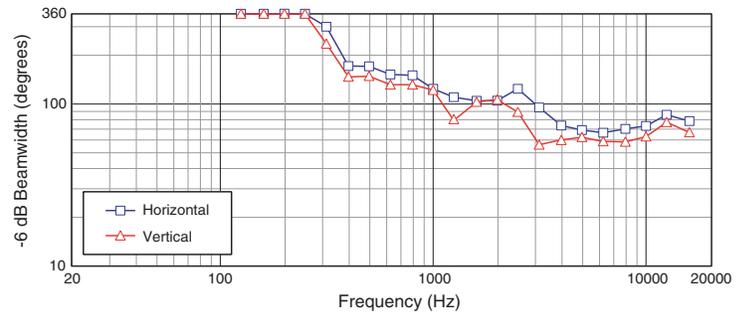
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## ▶ KP051 10-Inch Full Range Loudspeaker System

### Frequency Response:

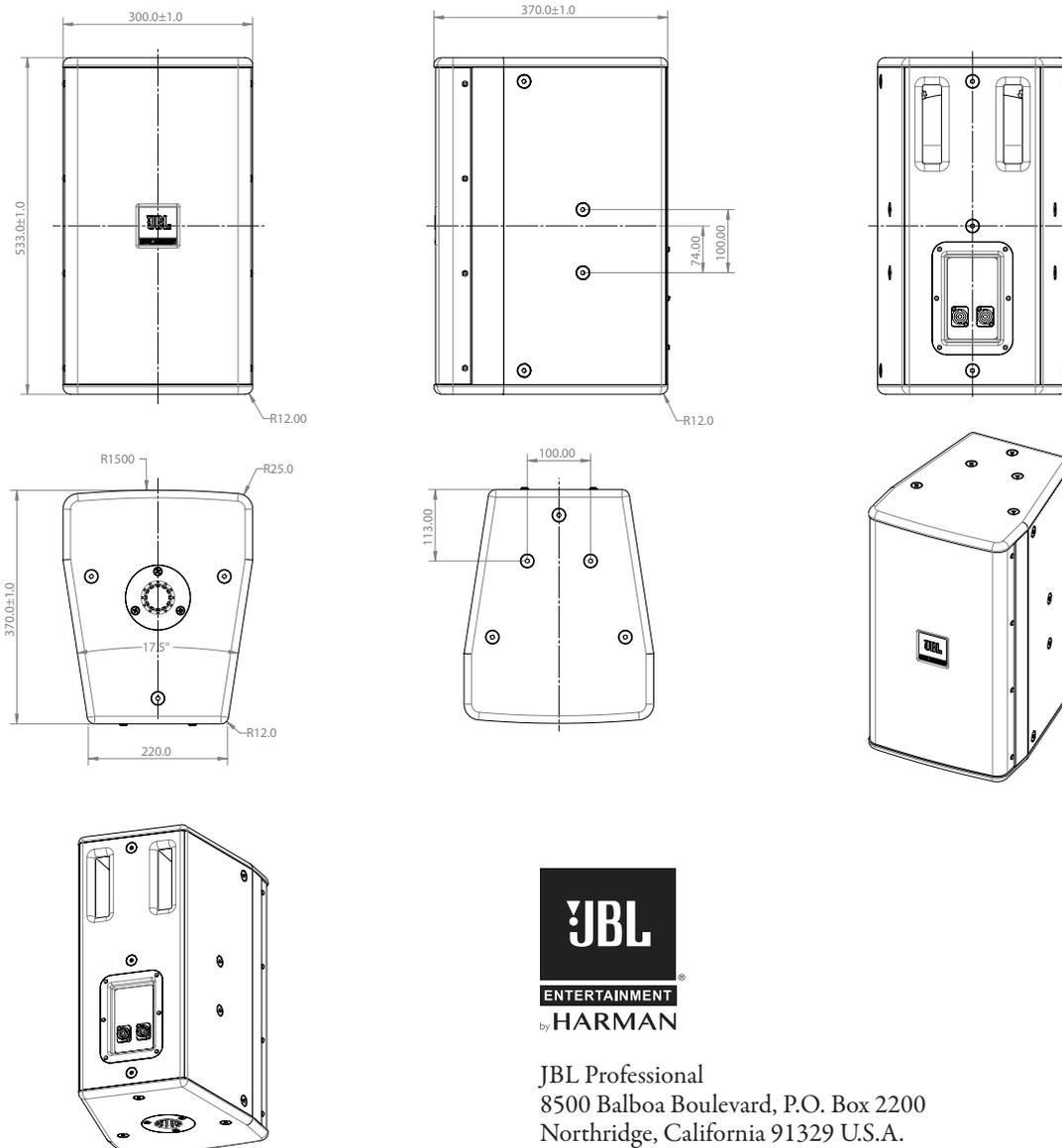


### Beamwidth:



### Dimensions:

Dimensions in mm



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SSKP051  
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27/12/17



# KP052

## 12-Inch Full Range Loudspeaker System

### Professional Series

#### Key Features:

- ▶ 12" high power and high efficiency woofer
- ▶ 1.5" annular polymer diaphragm compression driver with NdFeB magnet system
- ▶ Enclosure constructed of 15 mm plywood with durable painting
- ▶ 70° × 60° coverage pattern for even and smooth response on and off axis
- ▶ Precision engineered crossover for optimal power response and performance in the vocal midrange
- ▶ Single position socket for pole-mount installation
- ▶ SonicGuard™ protects high frequency driver from excessive power without interrupting the performance
- ▶ Rotatable and luminous JBL ENTERTAINMENT logo for easy coherence to your installation
- ▶ PSL (Passive Sound Lighting) Technology indicates JBL devotion to scientific advancement



#### Applications:

- ▶ Sound reinforcement for karaoke venues
- ▶ Audio reproduction for nightlife clubs
- ▶ As satellite speaker for use with subwoofers

KP052 is a professional-grade full-range loudspeaker designed for high-street KTV venues and club houses. The 2-way speaker combines a 12" (304.8mm) woofer with the 1.5" (38.1mm) JBL 2408H-1 annular polymer diaphragm neodymium compression driver, and stands itself out for its high power handling, low distortion and noticeable electro-acoustic conversion efficiency. Its 70° x 60° coverage pattern provides smooth and even coverage whether installed in vertical or horizontal orientation. A high-slope passive networking is utilized for minimized band overlap.

KP052 outshines its league for its one-of-a-kind Starry Brown appearance. The rugged enclosure, which is constructed from 15mm plywood and finished in durable paint-coating, ensures the combination of visual and sound beauty last long. The front grille made from 16-gauge steel and backed with acoustic fabrics not only creates an air of elegance but also provide enough protection for drivers and components inside. The entire whole is fitted with dual Neutrik® Speakon® NL4MP connectors for loop-thru of multiple speakers, thirteen (13) M10 threaded suspension points and six (6) M10 screws for bracket mounting, as well as a 35mm socket for pole mounting.

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#### Specifications:

System:	
System Type:	12", 2-way, bass-reflex
Frequency Range (-10 dB) <sup>1</sup> :	45 Hz - 20 kHz
Frequency Response (±3 dB) <sup>1</sup> :	80 Hz - 20 kHz
Sensitivity (1w@1m) <sup>1</sup> :	98 dB
Nominal Impedance:	8 Ohms
Maximum SPL <sup>2</sup> :	125 dB (131 dB peak)
Power Rating <sup>3</sup> : (Continuous/Program/Peak)	500 W/1000 W/2000 W
Coverage Pattern:	70° × 60° (H × V)
Physical:	
Dimensions (H × W × D):	600 mm × 360 mm × 410 mm 23.6 inch × 14.2 inch × 16.1 inch
Net Weight:	21.3 Kg (47.0 lbs)
LF Driver:	1 × 12" (304.8mm) woofer
HF Driver:	1 × 1.5" (38.1 mm) JBL 2408H-1
Input Connectors:	2 × Neutrik® Speakon® NL4MP
Enclosure Construction:	Trapezoid, 15 mm, plywood

<sup>1</sup> Full space (4π) conditions

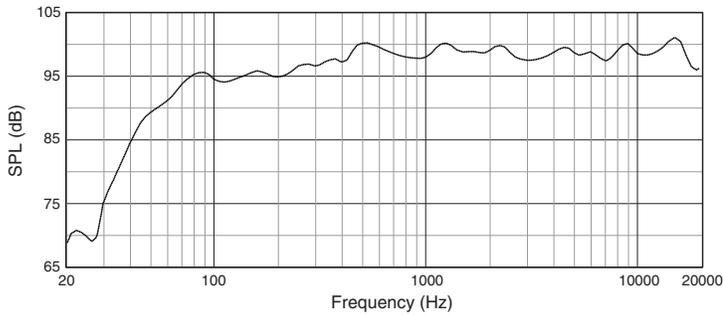
<sup>2</sup> Calculated maximum SPL based on rated power handling

<sup>3</sup> IEC standard, pink noise with 6 dB crest factor for 2hours

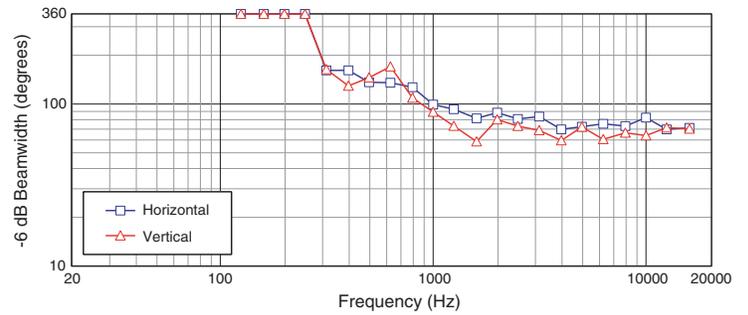
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## ▶ KP052 12-Inch Full Range Loudspeaker System

### Frequency Response:

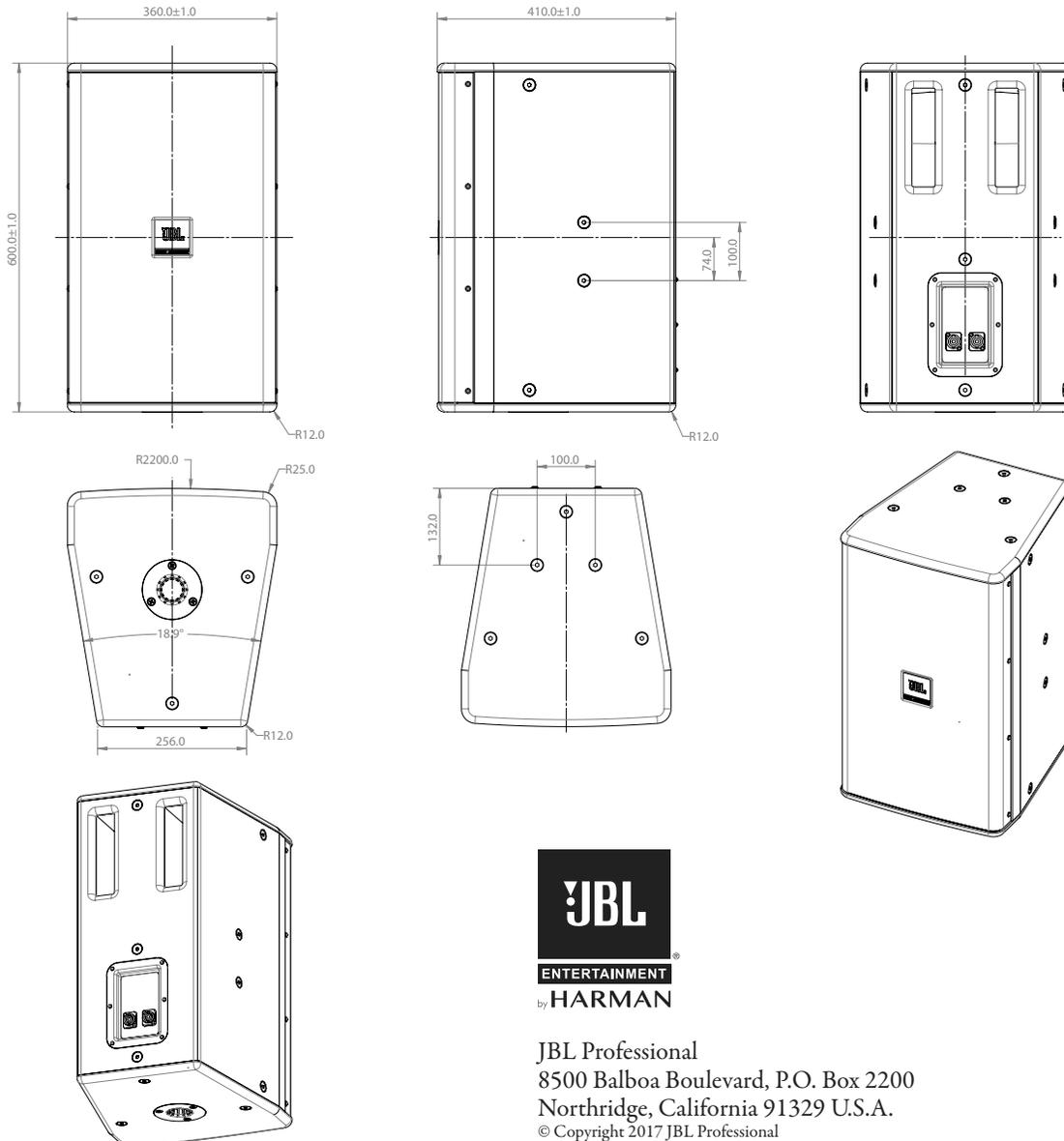


### Beamwidth:



### Dimensions:

Dimensions in mm



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# KP055

## 15-Inch Full Range Loudspeaker System

### Professional Series

#### Key Features:

- ▶ 15" high power and high efficiency woofer
- ▶ 1.5" annular polymer diaphragm compression driver with NdFeB magnet system
- ▶ Enclosure constructed of 15 mm plywood with durable painting
- ▶ 70° × 60° coverage pattern for even and smooth response on and off axis
- ▶ Precision engineered crossover for optimal power response and performance in the vocal midrange
- ▶ Single position socket for pole-mount installation
- ▶ SonicGuard™ protects high frequency driver from excessive power without interrupting the performance
- ▶ Rotatable and luminous JBL ENTERTAINMENT logo for easy coherence to your installation
- ▶ PSL (Passive Sound Lighting) Technology indicates JBL devotion to scientific advancement



#### Applications:

- ▶ Sound reinforcement for karaoke venues
- ▶ Audio reproduction for nightlife clubs
- ▶ For use with subwoofers

KP055 is a professional-grade full-range loudspeaker designed for high-street KTV venues and club houses. The 2-way speaker combines a 15" (381mm) woofer with the 1.5" (38.1mm) JBL 2408H-1 annular polymer diaphragm neodymium compression driver, and stands itself out for its high power handling, low distortion and noticeable electro-acoustic conversion efficiency. Its 70° x 60° coverage pattern provides smooth and even coverage whether installed in vertical or horizontal orientation. A high-slope passive networking is utilized for minimized band overlap.

KP055 outshines its league for its one-of-a-kind Starry Brown appearance. The rugged enclosure, which is constructed from 15mm plywood and finished in durable paint-coating, ensures the combination of visual and sound beauty last long. The front grille made from 16-gauge steel and backed with acoustic fabrics not only creates an air of elegance but also provide enough protection for drivers and components inside. The entire whole is fitted with dual Neutrik® Speakon® NL4MP connectors for loop-thru of multiple speakers, thirteen (13) M10 threaded suspension points and six (6) M10 screws for bracket mounting, as well as a 35mm socket for pole mounting.

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#### Specifications:

System:	
System Type:	15", 2-way, bass-reflex
Frequency Range (-10 dB) <sup>1</sup> :	43 Hz - 20 kHz
Frequency Response (±3 dB) <sup>1</sup> :	75 Hz - 20 kHz
Sensitivity (1w@1m) <sup>1</sup> :	99 dB
Nominal Impedance:	8 Ohms
Maximum SPL <sup>2</sup> :	127 dB (133 dB peak)
Power Rating <sup>3</sup> : (Continuous/Program/Peak)	600 W/1200 W/2400 W
Coverage Pattern:	70° × 60° (H × V)
Physical:	
Dimensions (H × W × D):	680 mm × 410 mm × 460 mm 26.8 inch × 16.1 inch × 18.1 inch
Net Weight:	26.1 Kg (57.6 lbs)
LF Driver:	1 × 15" (381 mm) woofer
HF Driver:	1 × 1.5" (38.1 mm) JBL 2408H-1
Input Connectors:	2 × Neutrik® Speakon® NL4MP
Enclosure Construction:	Trapezoid, 15 mm, plywood

<sup>1</sup> Full space (4π) conditions

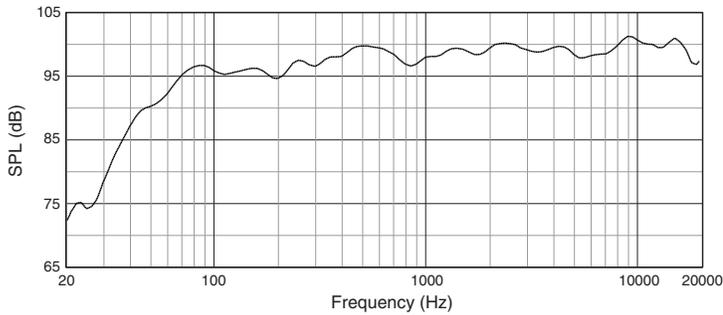
<sup>2</sup> Calculated maximum SPL based on rated power handling

<sup>3</sup> IEC standard, pink noise with 6 dB crest factor for 2hours

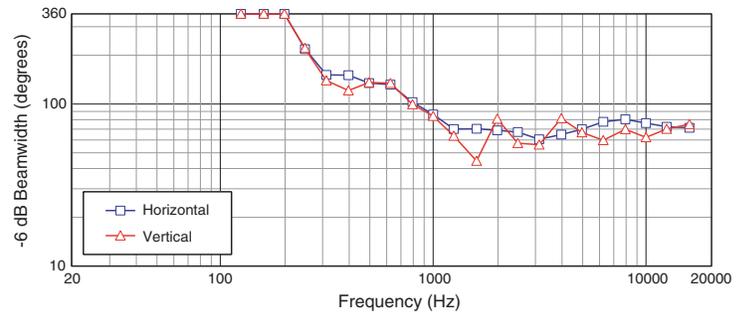
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## ▶ KP055 15-Inch Full Range Loudspeaker System

### Frequency Response:

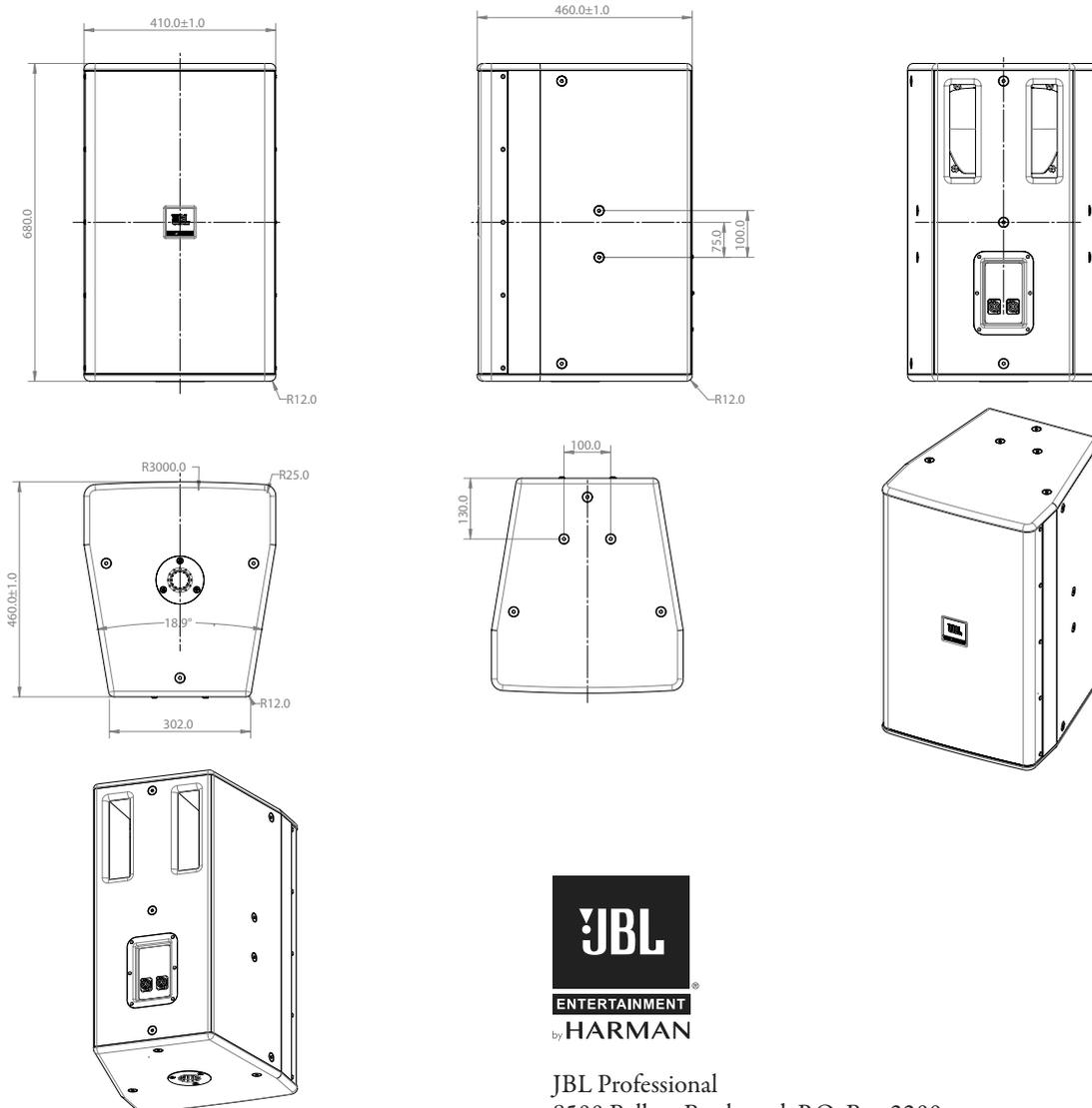


### Beamwidth:



### Dimensions:

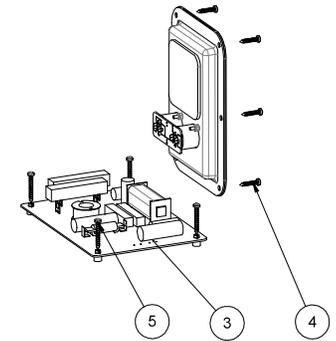
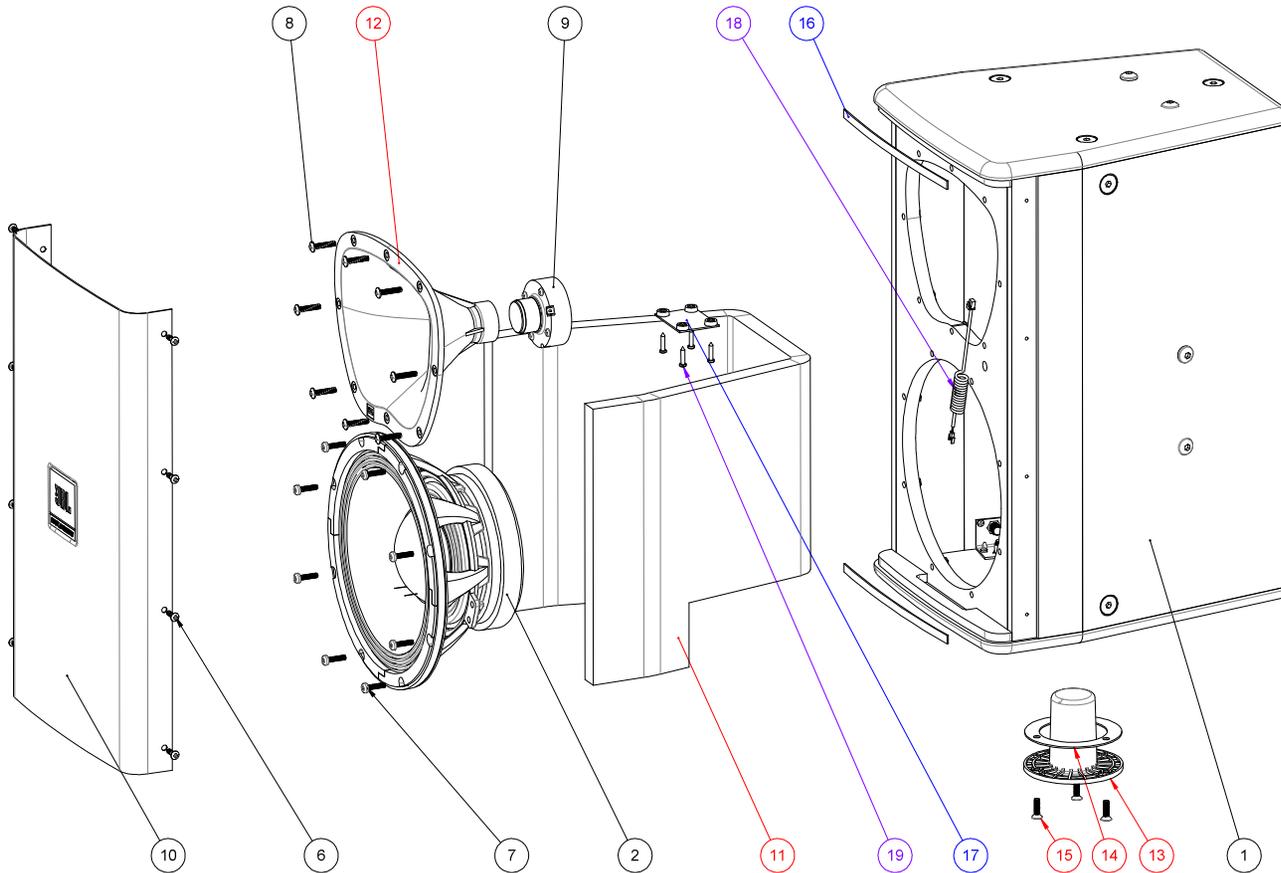
Dimensions in mm



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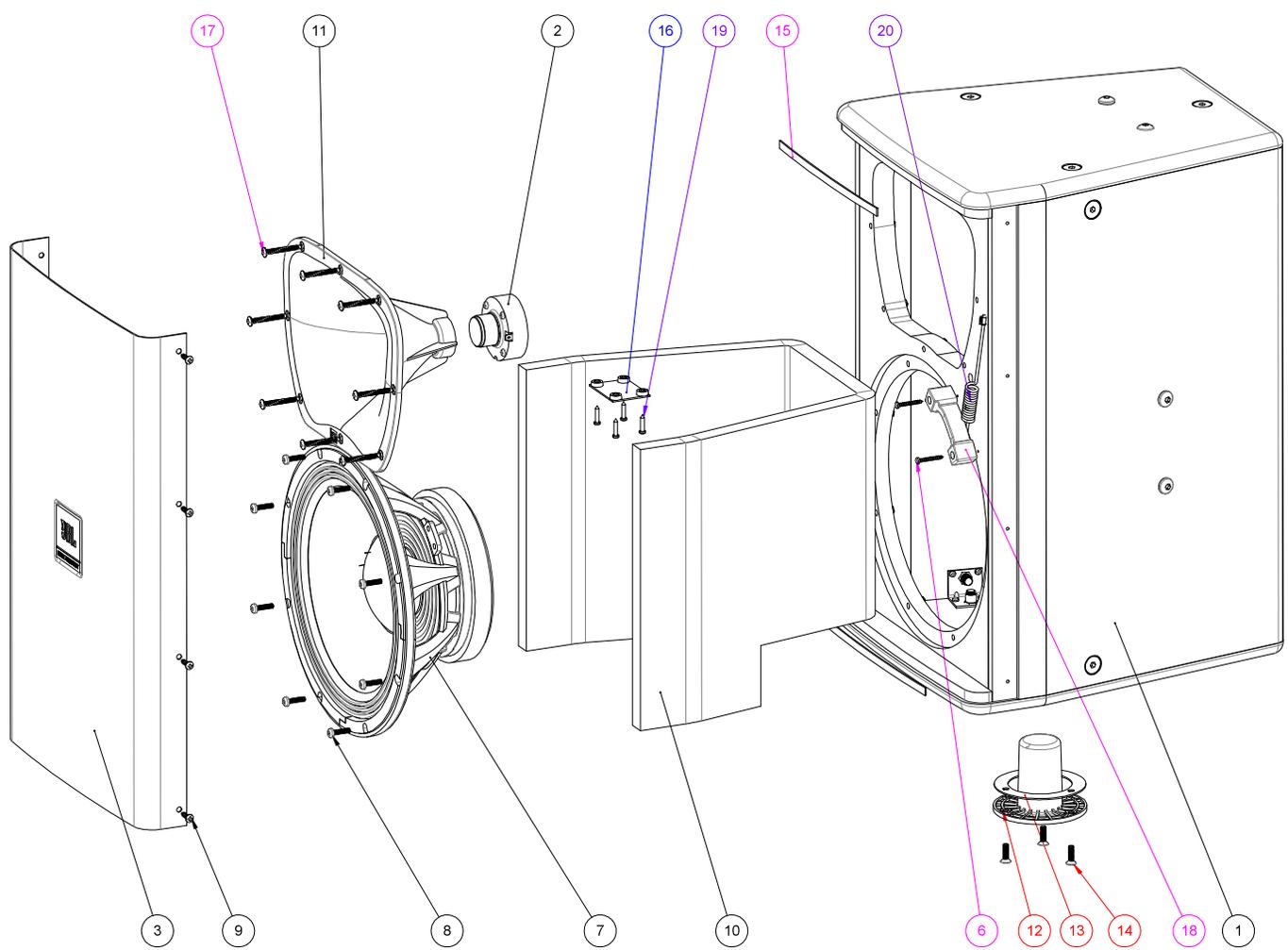
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REVISION HISTORY			ZONE	BY
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION	
11/11/2016	A1		RELEASE FOR DV	Govh
3/30/2017	A2		CHANGE DESIGN	Govh
3/18/2017	A3		ADD BRACKET AND WIRE	Govh
9/28/2017	A4		CHANGE 4000(40) (COATED RUBBER STOP) TO SOLID (EVA GASKET)	Govh
10/25/2017	B1		CHANGE TO DISPLAY PCB ASY INSTALLATION POSITION AND SCREWS: CHANGE CABLE	Govh

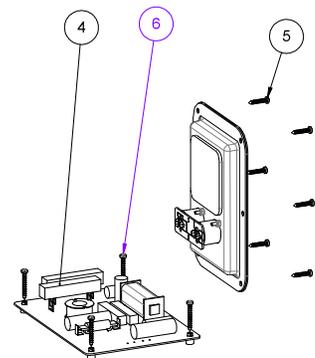


ITEM NO.	PART NUMBER	PART NUMBER	QTY.	REMARK
1	ENCL,ASY,KP051		1	
2	AUD,LS,ASY,KP051 WOOF		1	
3	SPKSYS,NETWORKS ASY,KP051		1	
4	SCR,ST4x20 PH PAN EDB.		6	
5	SCR,PA4X30,PAN,PH,BLK ZINC		4	
6	SCR,ST5x20 PH TRUSS EDB.		8	
7	SCR,M5x25,HEX,FILL,EDB.		8	
8	SCR,M5x25 PH TRUSS BLK ZINC.		8	
9	MFD ITEM, 2408H-1 (CHINA)		1	
10	MECHASY,GRILLE ASY,KP051		1	
11	SPKRSYS,PDNG,WADDING,KP051		1	
12	HORN MP500 ( INCLUDE GASKET)		1	
13	HDWR,POLE HAT,M1557		1	
14	POLE CUP EVA GASKET		1	
15	SCR,M6x20 PH FLAT EDB		3	
16	GASKET,EVA,KP4000 STANDOFF		2	
17	SPKRSYS,ELEC,DSPL,KP050		1	
18	CBL,WA,2COND,SPRING,LENGTHEN,KP050		1	
19	SCR,8 X 3/4,PAN,PH,PB,BLK ZINC,LCS		4	

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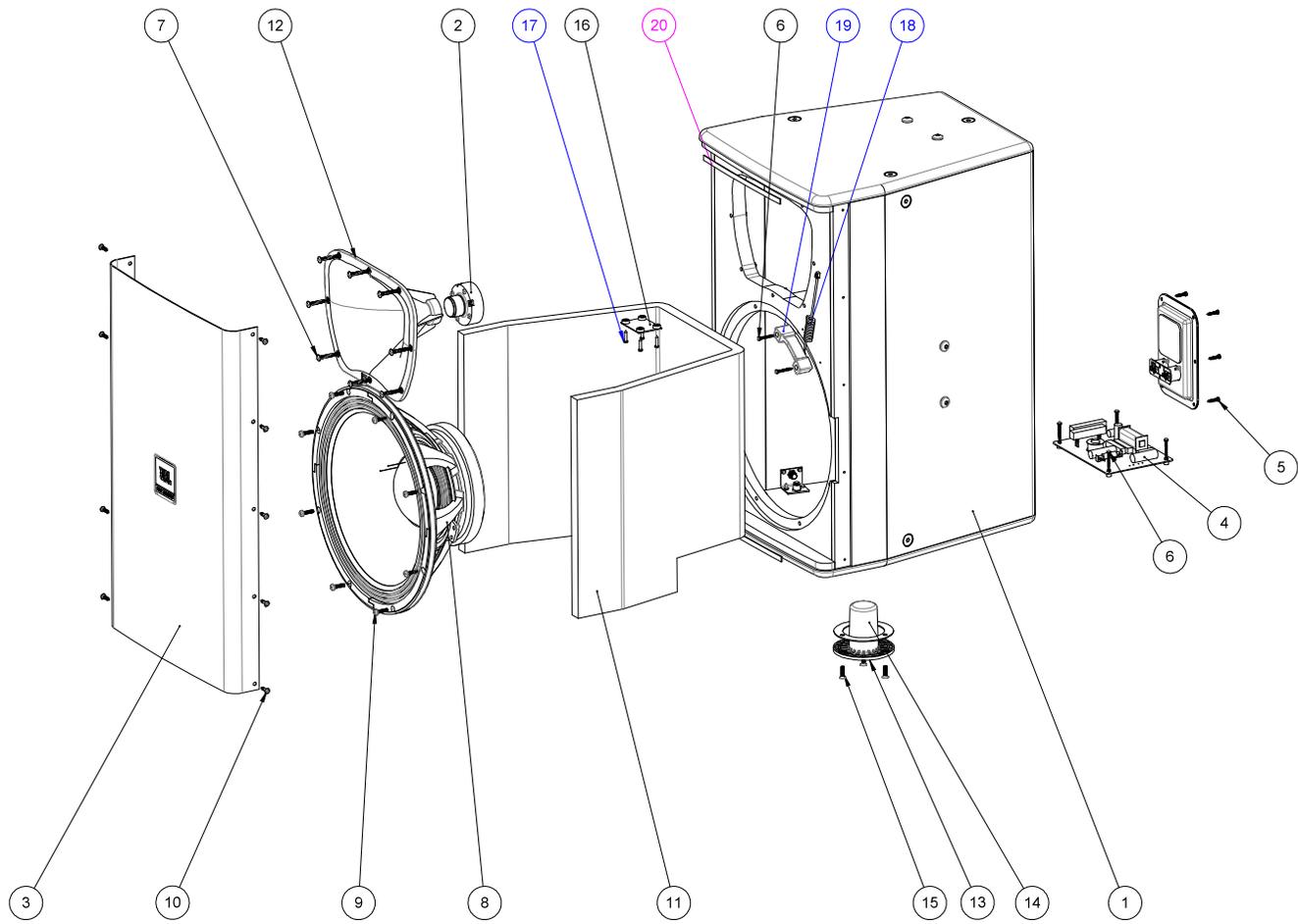


DATE		REV.	PREVIOUS PART NO.	DESCRIPTION	EDN	BY
11/11/2018		A1		RELEASE FOR DIV		Grain
3/08/2017		A2		CHANGE DESIGN		Grain
5/16/2017		A3		ADD REFRAY		Grain
4/23/2017		A4		CHANGE HORN SCREENS, ADD RUBBER BUMPS AND SCREWS		Grain
9/28/2017		A5		CHANGE 485454011(FORMED RUBBER STRIPS TO 584703 (EVA GASKET)		Grain
10/4/2017		A5.1		CHANGE 8014101 QTY, FROM 1PCS TO 4PCS		Grain
10/19/2017		B1		CHANGE REFRAY PCB ASY INSTALLATION POSITION AND SCREWS; CHANGE CABLE		Grain



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REMARK
1		ENCL, ASY, KP052	1	
2		MFD ITEM, 2408H-1 (CHINA)	1	
3		MECHASY,GRILLE ASY, KP052	1	
4		SPKRSYS,NETWORKS ASY, KP052	1	
5		SCR, ST4x20 PH PAN EDB.	6	
6		SCR, PA4X30, PAN, PH, BLK ZINC	6	
7		AUD, LS, ASY, KP052 WOOF	1	
8		SCR, M5x25, HEX, FILL, EDB	8	
9		SCR, ST5x20 PH TRUSS EDB,	8	
10		SPKRSYS, PDNG, WADDING, KP052	1	
11		HORN, MRX512, VARIOUS (INCLUDE GASKET)	1	
12		HDWR, POLE HAT, M1557	1	
13		POLE CUP EVA GASKET	1	
14		SCR, M6x20 PH FLAT EDB,	3	
15		GASKET, EVA, KP4000 STANDOFF	2	
16		SPKRSYS, ELEC, DSPL, KI500	1	
17		SCR, M5x40 PH TRUSS BLK DACROMET	8	
18		HDW, BUMP, KP052	1	
19		SCR, 8 X 3/4, PAN, PH, PB, BLK ZINC, LCS	4	
20		CBL, WA, 2COND, SPRING, LENGTHEN, KP050	1	

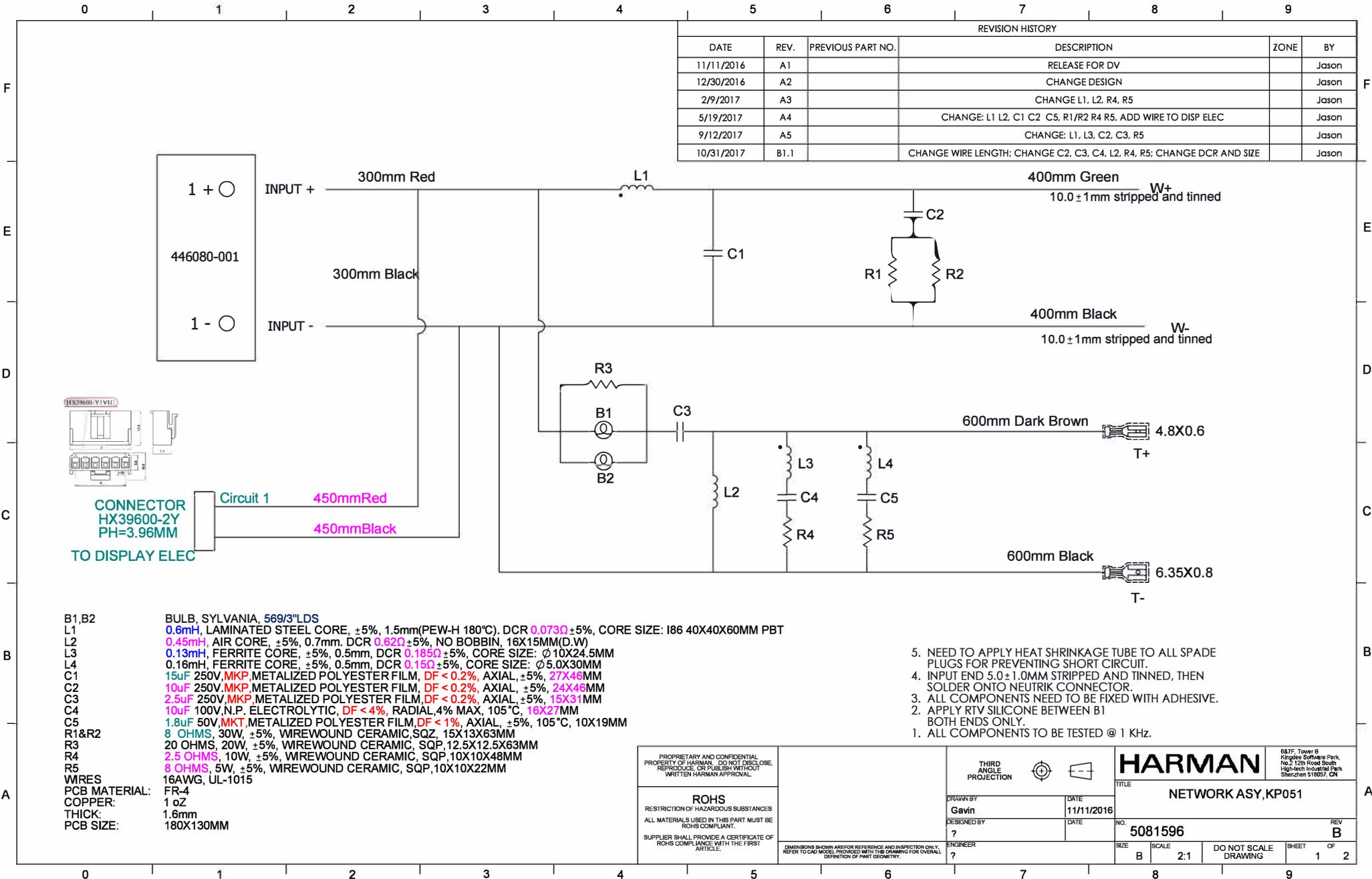
ICHS REVISION HISTORY ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE		HARMAN 11/11/2018 Grain 582013 KP052		SPKRSYS ASY KP052 B 1 2	
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DATE	REV.	PREVIOUS PART NO.	REVISION HISTORY	ZONE	BY
11/11/2016	A1		RELEASE FOR DIV		Gwin
2/16/2017	A2		ADD POLE		Gwin
3/27/2017	A3		CHANGE DESIGN		Gwin
3/22/2017	A4		ADD DISPLAY AND NIBS		Gwin
6/26/2017	A5		CHANGE HORN SCREWS, ADD RUBBER BUMPER AND SCREWS		Gwin
7/27/2017	A6		CHANGE 4894261 (FOAMED RUBBER STRIP) TO 547553 (EVA GASKET)		Gwin
10/23/2017	B1		CHANGE "DISPLAY PCB ASY" INSTALLATION POSITION AND SCREWS. CHANGE CABLE USE KP050 PUMP		Gwin

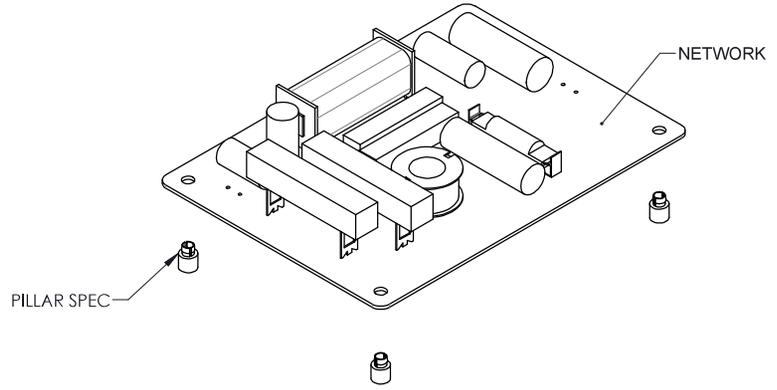
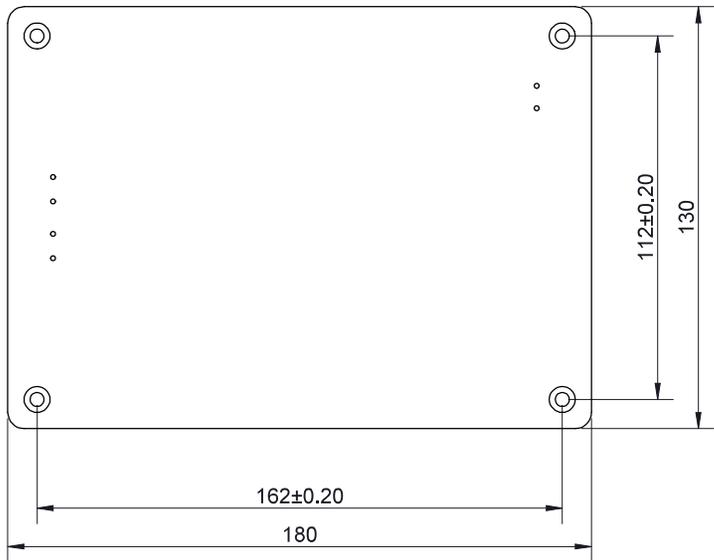
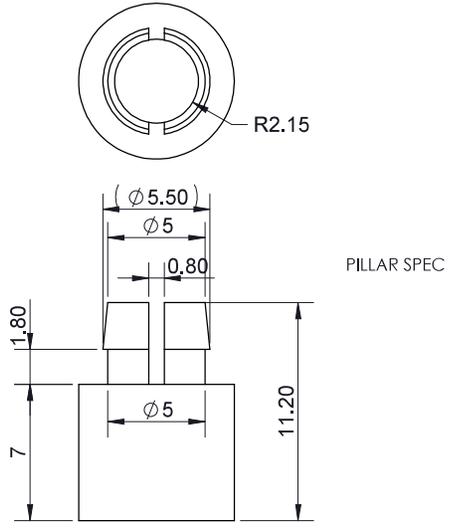
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REMARK
1	ENCL,ASY,KP055		1	
2	MFD ITEM, 2408H-1 (CHINA)		1	
3	MECHASY,GRILLE ASY,KP055		1	
4	SPKSYS,NETWORKS ASY,KP055		1	
5	SCR,ST4*20 PH PAN EDB		6	
6	SCR,PA4X30,PAN,PH,BLK ZINC		6	
7	SCR,M5*40 PH TRUSS BLK DACROMET		8	
8	AUD, LS, ASY, KP055 WOOLF		1	
9	SCR,M5*25, HEX, FILL, EDB		8	
10	SCR,ST5*20 PH TRUSS EDB		10	
11	SPKRSYS,PDNG,WADDING,KP055		1	
12	HORN, MRX512, VARIOUS ( INCLUDE GASKET)		1	
13	HDWR,POLE HAT,M1557		1	
14	POLE CUP EVA GASKET		1	
15	SCR,M6*20 PH FLAT EDB		3	
16	SPKRSYS,ELEC,DSPL,KI500		1	
17	SCR,8 X 3/4,PAN,PH,PB,BLK ZINC,LCS		4	
18	CBL,WA,2COND,SPRING,LENGTHEN,KP050		1	
19	HDW,BUMP,KP052		1	
20	GASKET,EVA,KP4000 STANDOFF		3	

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	DATE: 11/11/2016 BY: Gwin	HARMAN SPKSYS,ASY,KP055	PART NO: KP055 REV: B



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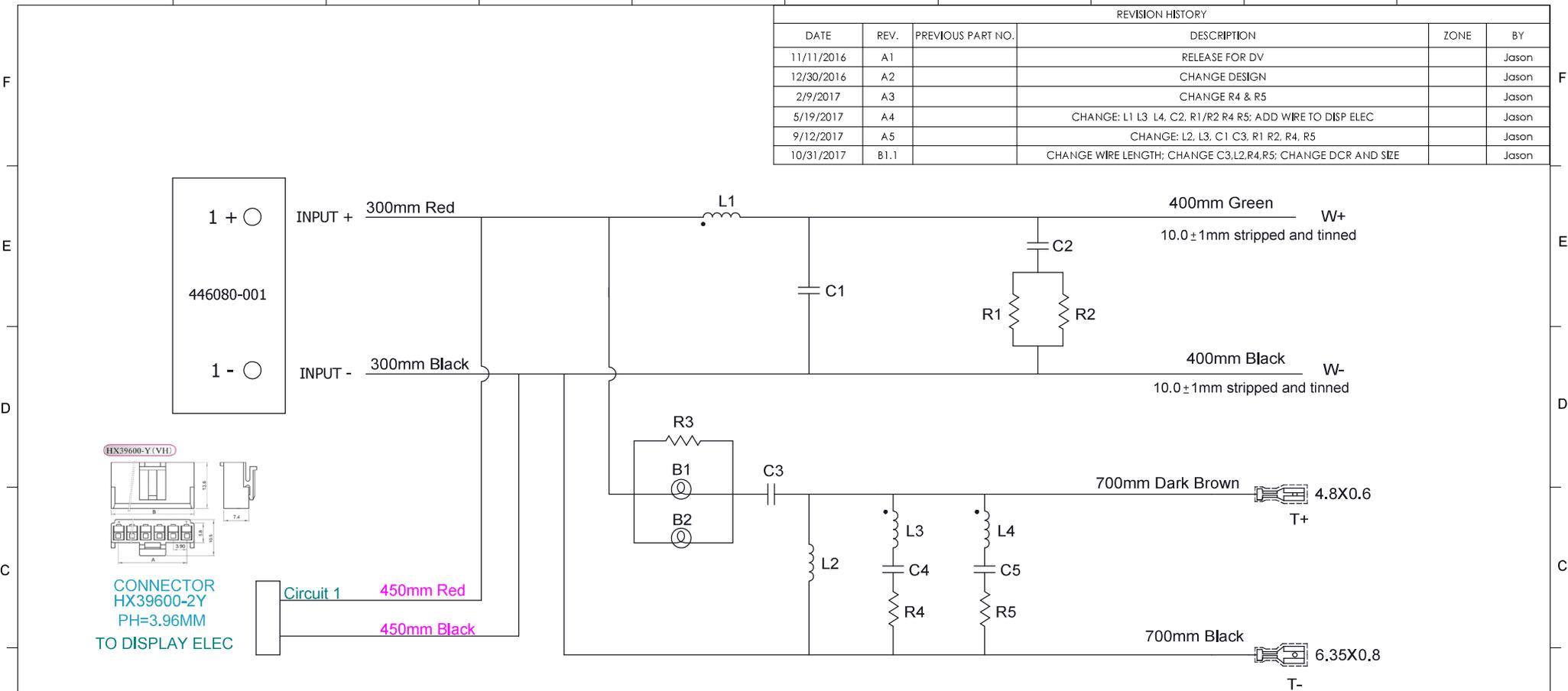
REVISION HISTORY					ZONE	BY
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION			



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	<b>ROHS</b> RESTRICTION OF HAZARDOUS SUBSTANCES ALL MATERIALS USED IN THIS PART MUST BE ROHS COMPLIANT. SUPPLIER SHALL PROVIDE A CERTIFICATE OF ROHS COMPLIANCE WITH THE FIRST ARTICLE.		DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THE DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.		
DRAWN BY <b>Gavin</b>		DATE <b>11/11/2016</b>		NO. <b>5081596</b>	
DESIGNED BY ?		DATE ?		REV <b>B</b>	
ENGINEER ?		SIZE <b>B</b>	SCALE <b>1:2</b>	DO NOT SCALE DRAWING	SHEET OF <b>2 2</b>

0 1 2 3 4 5 6 7 8 9

REVISION HISTORY					
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION	ZONE	BY
11/11/2016	A1		RELEASE FOR DV		Jason
12/30/2016	A2		CHANGE DESIGN		Jason
2/9/2017	A3		CHANGE R4 & R5		Jason
5/19/2017	A4		CHANGE: L1 L3 L4, C2, R1/R2 R4 R5; ADD WIRE TO DISP ELEC		Jason
9/12/2017	A5		CHANGE: L2, L3, C1 C3, R1 R2, R4, R5		Jason
10/31/2017	B1.1		CHANGE WIRE LENGTH; CHANGE C3,L2,R4,R5; CHANGE DCR AND SIZE		Jason



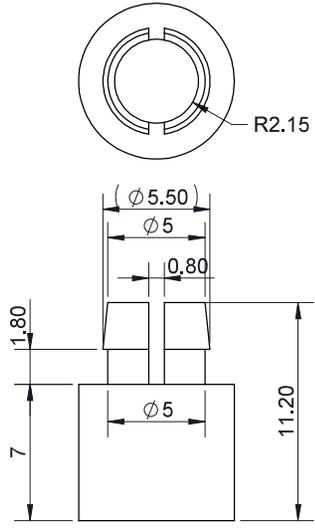
- B1 & B2 BULB, SYLVANIA, 569/3" LDS
- L1 0.68mH, LAMINATED STEEL CORE, ±5%, 1.5mm(PEW-H 180°C), DCR 0.078Ω±5%, CORE SIZE: 186 40X40X60MM PBT
- L2 0.45mH, AIR CORE, 5% 0.7mm, DCR 0.620Ω±5%, NO BOBBIN, 16X15MM(D.W)
- L3 0.13mH, FERRITE CORE, ±5%, 0.5mm, DCR 0.185Ω±5%, CORE SIZE: Ø 10X24.5MM
- L4 0.6mH, FERRITE CORE, ±5%, 0.4mm, DCR 0.48Ω±5%, CORE SIZE: Ø 5.0X30MM
- C1 12uF 250V, MKP, METALIZED POLYESTER FILM, DF < 0.2%, AXIAL, ±5%, 25X46MM
- C2 15uF 250V, MKP, METALIZED POLYESTER FILM, DF < 0.2%, AXIAL, ±5%, 27X46MM
- C3 2.5uF 250V, MKP, METALIZED POLYESTER FILM, DF < 0.2%, AXIAL, ±5%, 15X31MM
- C4 12uF 100V, N.P. ELECTROLYTIC, DF < 4%, RADIAL, 4% MAX., 105°C, 16X27MM
- C5 0.47uF 50V, MKT, METALIZED POLYESTER FILM, DF < 1%, AXIAL, ±5%, 105°C, 6.9X19MM
- R1&R2 8 OHMS, 30W, ±5%, WIREWOUND CERAMIC, SQ, 15X13X63MM
- R3 20 OHMS, 20W, ±5%, WIREWOUND CERAMIC, SQ, 12.5X12.5X63MM
- R4 4 OHMS, 10W, ±5%, WIREWOUND CERAMIC, SQ, 10X10X48MM
- R5 20 OHMS, 5W, ±5%, WIREWOUND CERAMIC, SQ, 10X10X22MM
- WIRES 16AWG, UL-1015
- PCB MATERIAL: FR-4
- COPPER: 1 oz
- THICK: 1.6mm
- PCB SIZE: 180X130MM

5. NEED TO APPLY HEAT SHRINKAGE TUBE TO ALL SPADE PLUGS FOR PREVENTING SHORT CIRCUIT.
4. INPUT END 5.0±1.0MM STRIPPED AND TINNED, THEN SOLDER ONTO NEUTRIK CONNECTOR.
3. ALL COMPONENTS NEED TO BE FIXED WITH ADHESIVE.
2. APPLY RTV SILICONE BETWEEN B1 BOTH ENDS ONLY.
1. ALL COMPONENTS TO BE TESTED @ 1 KHZ.

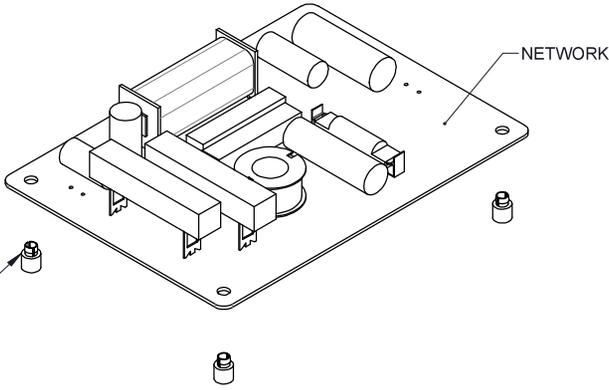
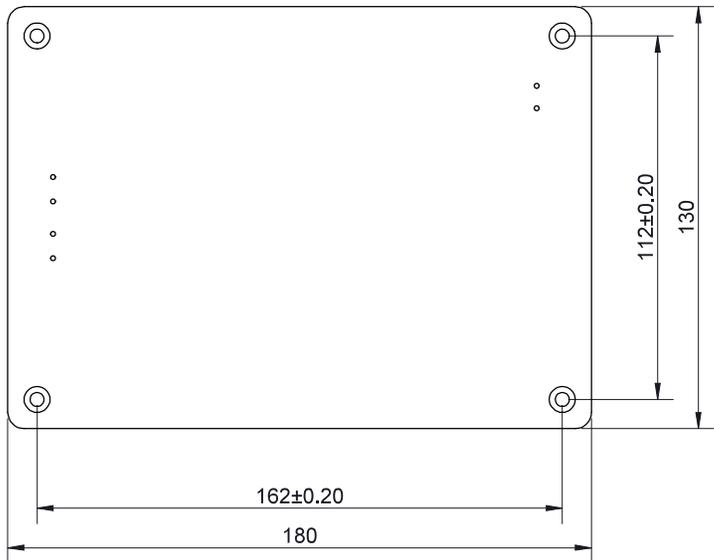
<small>PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL.</small>		<b>THIRD ANGLE PROJECTION</b>						<small>687F, Tower B Kingdee Software Park, No.2 12th Road South High-tech Industrial Park Shenzhen 518057, CN</small>	
<b>ROHS</b> <small>RESTRICTION OF HAZARDOUS SUBSTANCES ALL MATERIALS USED IN THIS PART MUST BE ROHS COMPLIANT.</small>		<small>SUPPLIER SHALL PROVIDE A CERTIFICATE OF ROHS COMPLIANCE WITH THE FIRST ARTICLE.</small>		<small>DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.</small>		<b>NETWORK ASY, KP052</b>		<b>5081618</b>	
<small>DRAWN BY</small> Gavin	<small>DATE</small> 11/11/2016	<small>NO.</small> 5081618	<small>REV</small> B	<small>SIZE</small> B	<small>SCALE</small> 2:1	<small>DO NOT SCALE DRAWING</small>	<small>SHEET</small> 1	<small>OF</small> 2	<small>REVISION HISTORY</small>

0 1 2 3 4 5 6 7 8 9

REVISION HISTORY					ZONE	BY
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION			



PILLAR SPEC



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**ROHS**  
RESTRICTION OF HAZARDOUS SUBSTANCES  
ALL MATERIALS USED IN THIS PART MUST BE  
ROHS COMPLIANT.  
SUPPLIER SHALL PROVIDE A CERTIFICATE OF  
ROHS COMPLIANCE WITH THE FIRST  
ARTICLE.

TOLERANCES UNLESS OTHERWISE SPECIFIED  
.X  $\pm 0.30$  mm  
X.  $\pm 0.50$  mm  
ANGULAR  $\pm 0^{\circ}30'$   
ALL DIMENSIONS ARE IN MILLIMETERS  
ALL DIMENSIONS APPLY AFTER FINISH

THIRD ANGLE PROJECTION

DRAWN BY <b>Gavin</b>	DATE 11/11/2016
DESIGNED BY ?	DATE
ENGINEER ?	

**HARMAN**

687F, Tower B  
Kingdee Software Park,  
No.2 12th Road South  
High-tech Industrial Park  
Shenzhen 518057, CN

TITLE  
**NETWORK ASY, KP052**

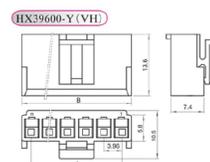
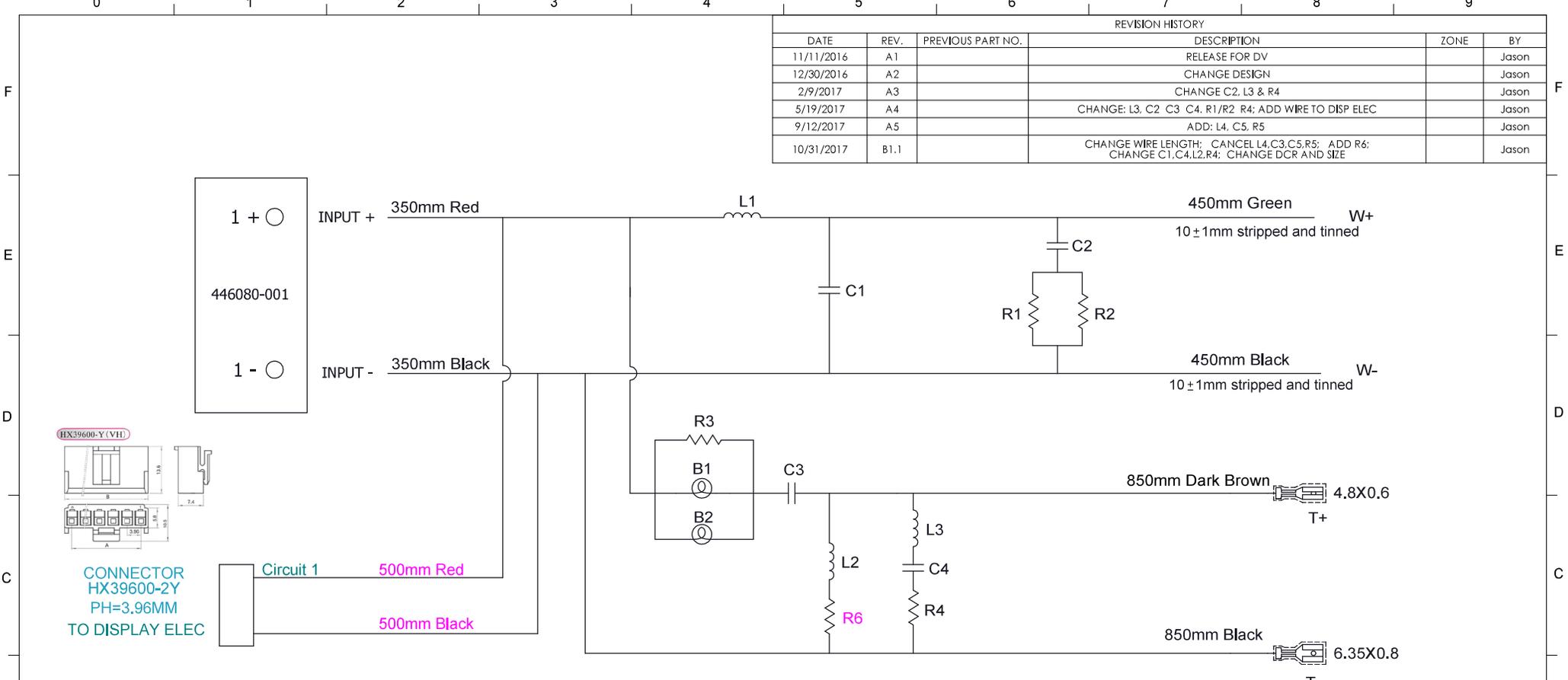
NO. **5081618** REV **B**

SIZE **B** SCALE **1:2** DO NOT SCALE DRAWING SHEET **2** OF **2**

DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY.  
REFER TO CAD MODEL PROVIDED WITH THE DRAWING FOR OVERALL  
DEFINITION OF PART GEOMETRY.

0 1 2 3 4 5 6 7 8 9

REVISION HISTORY					
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION	ZONE	BY
11/11/2016	A1		RELEASE FOR DV		Jason
12/30/2016	A2		CHANGE DESIGN		Jason
2/9/2017	A3		CHANGE C2, L3 & R4		Jason
5/19/2017	A4		CHANGE: L3, C2, C3, C4, R1/R2, R4; ADD WIRE TO DISP ELEC		Jason
9/12/2017	A5		ADD: L4, C5, R5		Jason
10/31/2017	B1.1		CHANGE WIRE LENGTH; CANCEL L4, C3, C5, R5; ADD R6; CHANGE C1, C4, L2, R4; CHANGE DCR AND SIZE		Jason



CONNECTOR  
HX39600-2Y  
PH=3.96MM  
TO DISPLAY ELEC

Circuit 1  
500mm Red  
500mm Black

- B1 & B2 BULB, SYLVANIA, 569/3" LDS
- L1 0.7mH, LAMINATED STEEL CORE, ±5%, 1.5mm(PEW-H 180°C), DCR 0.08Ω±5%, CORE SIZE: 186 40X40X60MM PBT
- L2 0.45mH, LAIR CORE, 5%, 0.7mm, DCR 0.62Ω±5%, NO BOBBIN, 16X15MM(D.W)
- L3 0.11mH, FERRITE CORE, ±5%, 0.5mm, DCR 0.19Ω±5%, CORE SIZE: Ø10X24.5MM
- L4 0.55mH, FERRITE CORE, ±5%, 0.4mm, DCR 0.50Ω±5%, CORE SIZE: Ø5X30MM
- C1 12uF 250V, MKP, METALIZED POLYESTER FILM, DF < 0.2%, AXIAL, ±5%, 25X46MM
- C2 15uF 250V, MKP, METALIZED POLYESTER FILM, DF < 0.2%, AXIAL, ±5%, 27X46MM
- C3 3.0uF 250V, MKP, METALIZED POLYESTER FILM, DF < 0.2%, AXIAL, ±5%, 16X31MM
- C4 10uF 100V, N.P. ELECTROLYTIC, DF < 4%, RADIAL, 4% MAX, 105°C, 16X27MM
- C5 0.47uF 50V, MKT, METALIZED POLYESTER FILM, DF < 1%, AXIAL, ±5%, 106°C, 6.9X19MM
- R1&R2 6 OHMS, 30W, ±5%, WIREWOUND CERAMIC, SQ, 15X13X63MM
- R3 20 OHMS, 20W, ±5%, WIREWOUND CERAMIC, SQ, 12.5X12.5X63MM
- R4 2.5 OHMS, 10W, ±5%, WIREWOUND CERAMIC, SQ, 10X10X48MM
- R5 10 OHMS, 5W, ±5%, WIREWOUND CERAMIC, SQ, 10X10X22MM
- R6 1.5 OHMS, 20W, ±5%, WIREWOUND CERAMIC, SQ, 12.5X12.5X63MM

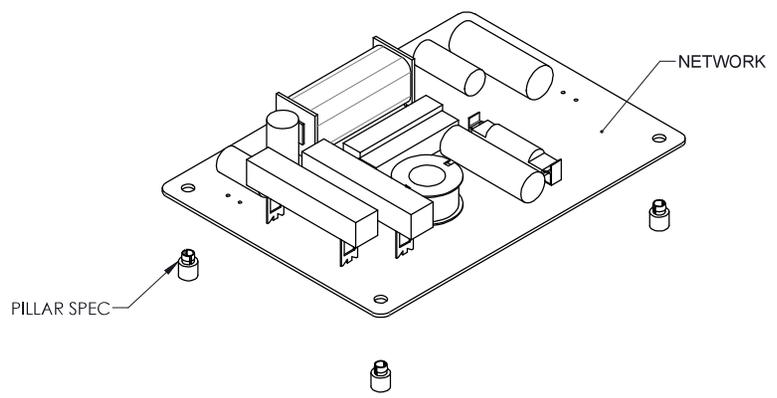
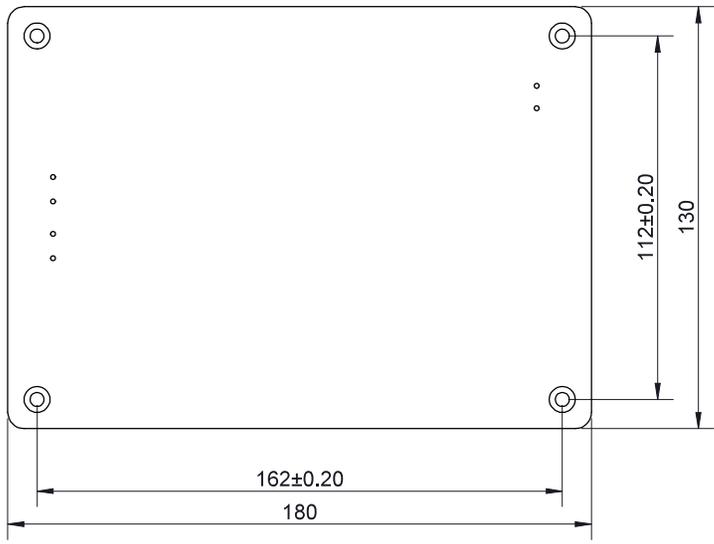
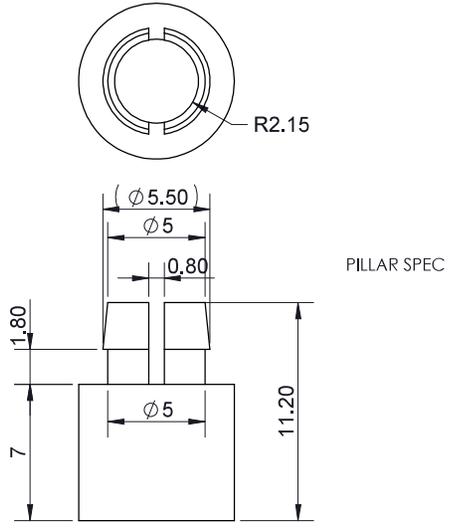
WRES 16AWG, UL-1015  
PCB MATERIAL: FR-4  
COPPER: 1 oz  
THICK: 1.6mm  
PCB SIZE: 180X130MM

- NEED TO APPLY HEAT SHRINKAGE TUBE TO ALL SPADE PLUGS FOR PREVENTING SHORT CIRCUIT.
- INPUT END 5.0±1.0MM STRIPPED AND TINNED, THEN SOLDER ONTO NEUTRIK CONNECTOR.
- ALL COMPONENTS NEED TO BE FIXED WITH ADHESIVE.
- APPLY RTV SILICONE BETWEEN B1
- BOTH ENDS ONLY.
- ALL COMPONENTS TO BE TESTED @ 1 KHz.

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RESTRICTION OF HAZARDOUS SUBSTANCES ALL MATERIALS USED IN THIS PART MUST BE ROHS COMPLIANT.		DRAWN BY Gavin		DATE 11/11/2016		TITLE NETWORK ASY, KP055	
SUPPLIER SHALL PROVIDE A CERTIFICATE OF ROHS COMPLIANCE WITH THE FIRST ARTICLE.		DESIGNED BY		DATE		NO. 5081636	
DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.		ENGINEER ?		DATE		REV B	
		SIZE B		SCALE 2:1		DO NOT SCALE DRAWING	
		SHEET 1		OF 2			

0 1 2 3 4 5 6 7 8 9

REVISION HISTORY					ZONE	BY
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION			



PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE. REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL.	TOLERANCES UNLESS OTHERWISE SPECIFIED .X ± 0.30 mm X <sub>c</sub> ± 0.50 mm ANGULAR ± 0°30'		THIRD ANGLE PROJECTION		<b>HARMAN</b> <small>687F, Tower B Kingdee Software Park, No.2 12th Road South High-tech Industrial Park Shenzhen 518057, CN</small>			
	<b>ROHS</b> RESTRICTION OF HAZARDOUS SUBSTANCES ALL MATERIALS USED IN THIS PART MUST BE ROHS COMPLIANT. SUPPLIER SHALL PROVIDE A CERTIFICATE OF ROHS COMPLIANCE WITH THE FIRST ARTICLE.	ALL DIMENSIONS ARE IN MILLIMETERS ALL DIMENSIONS APPLY AFTER FINISH	DRAWN BY <b>Gavin</b>	DATE <b>11/11/2016</b>		TITLE <b>NETWORK ASY, KP055</b>		
DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.		DESIGNED BY	DATE	NO. <b>5081636</b>	REV <b>B</b>			
		ENGINEER ?		SIZE B	SCALE 1:2	DO NOT SCALE DRAWING	SHEET 2	OF 2

0 1 2 3 4 5 6 7 8 9

Refer to the corresponding Service Bill of Materials (SBOM) to order parts stocked by Harman.