



Service Manual

Ki100 Series

10 "/12" 3-Way Speaker System

- Ki110
- Ki110WH
- Ki112
- Ki112WH





Table of Contents

Datasheets and Specifications

Exploded View Diagrams

Network Assembly Diagram

Bill of Materials





Ki110/Ki110WH

10 Inch 3-Way Full Range Loudspeaker System

Professional Series

Key Features:

- ▶ 10" woofer with 2" four-layer voice coil can provide higher power handling
- ▶ Linear suspension and vented pole piece design for woofer can effectively reduce the distortion and power compression
- ▶ Two 3" cone mid-range drivers, and two 3" cone tweeters for better vocal reproduction
- ▶ Precision engineered crossover can divide accurately and optimize three band frequency response
- ▶ The enclosure is constructed of MDF (Medium Density Fiberboard) with vinyl laminated finish
- ▶ Built-in protection circuit engineered specifically to protect the tweeter without interrupting the overall performance
- ▶ Two colors for multiple applications: Black (Ki110) and White (Ki110WH)



Applications:

The Ki110 is a 3-way full-range speaker designed specifically for KTV market needs. The Ki110 utilizes a 10" woofer, two 3" cone mid-range drivers, and two 3" cone tweeters.

The 10" woofer features a non-pressed long fiber pulp cone with a foam surround providing necessary stiffness for long-lasting reliability, and the capacity to withstand the tremendous accelerating force generated by the magnetic energy of the motor structure. Two 3" cone mid-range drivers matched with two 3" cone tweeters enhances the performance in the mid-range and high-frequency range and provides perfect fidelity to meet KTV audio system needs.

The Ki110 is designed to handle 150 watts of continuous power. The enclosure is constructed of MDF with vinyl laminated finish and fitted with nickel plated binding post for reliable connectivity. Two high-strength M10 attachment points guarantee the stability of suspension.

The integrated grille, with elaborate design, adds a distinctive element to the overall elegant appearance of the loudspeaker in addition to protecting the components from damage.

Specifications:

System:		
System Type:	10", 3-way, bass-reflex	
Frequency Range (-10 dB) ¹ :	48 Hz - 18 kHz	
Frequency Response (±3 dB) ¹ :	65 Hz - 16 kHz	
Sensitivity (1w/1m) ¹ :	89 dB	
Nominal Impedance:	8 ohms	
Maximum SPL:	111 dB (117 dB peak)	
Power Rating ² :	150 W/300 W/600 W	
(Continuous/Program/Peak)		
Recommended amplifier power:	180 W~250 W/8 Ohms	
Coverage Pattern:	150° x 120° (H x V)	
Physical:		
Dimensions (H x W x D):	290 mm x 506 mm x 320 mm 11.4 in x 20 in x 12.6 in	
Net Weight:	12.4 kg (27.3 lbs)	
LF Driver:	1 x 10" WF	
MF Driver:	2 x 3" paper cone squawker	
HF Driver:	2 x 3" paper cone tweeter	
Input Connectors:	Binding post	
Enclosure Construction:	Vinyl covered 12 mm MDF	
Color:	Black (Ki110) / White (Ki110WH)	

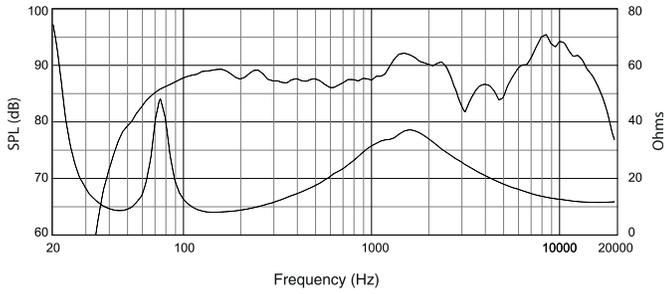
¹ Full space (4π) conditions

² IEC pink noise with 6 dB crest factor, in frequency range for 100 hours

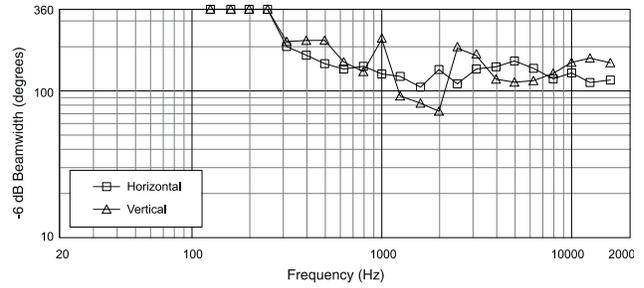
JBL continually engages in research related to product improvement. Some materials, production methods and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

► Ki110/Ki110WH 10 Inch 3-Way Full Range Loudspeaker System

Frequency Response and Impedance

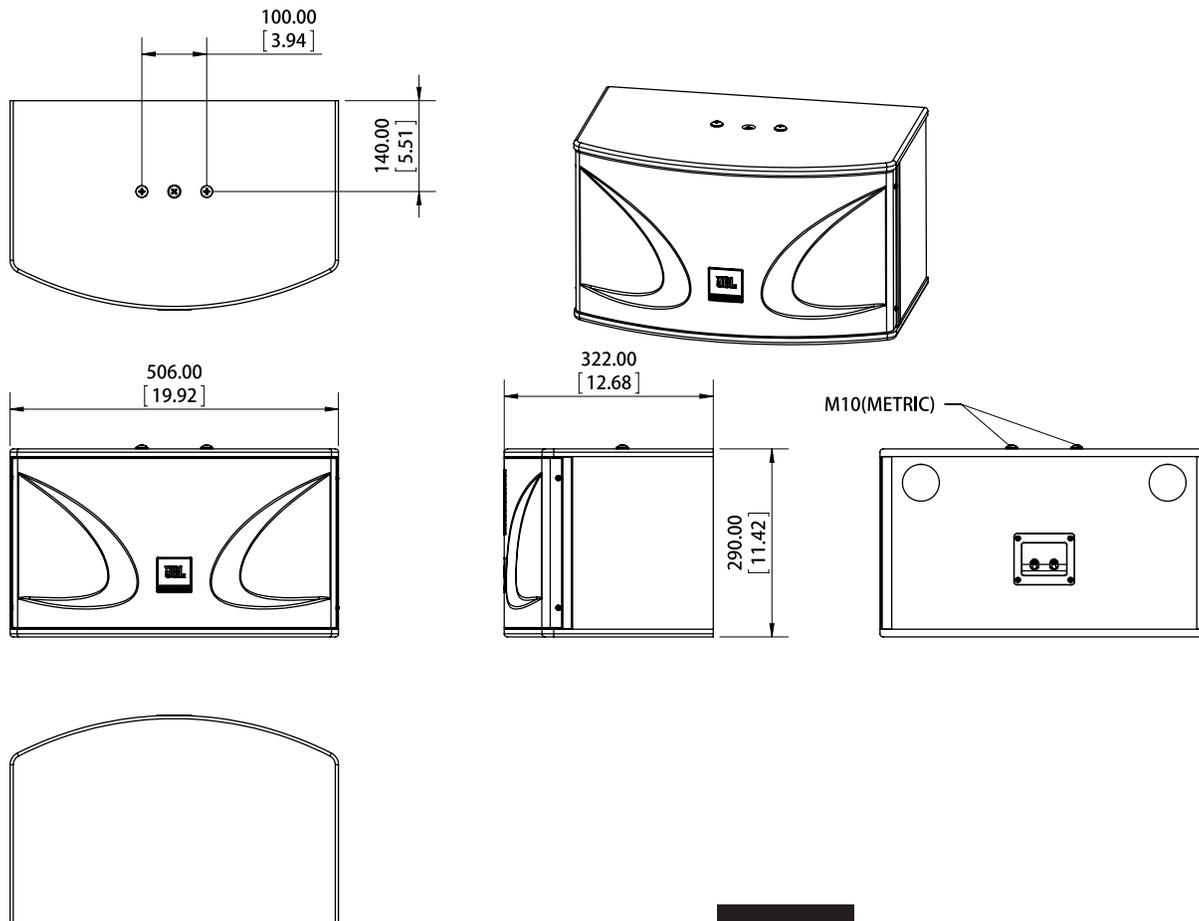


Beamwidth



Dimensions

Dimensions in mm (inch)



JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.
© Copyright 2014 JBL Professional
www.jblpro.com

Ki110
Ki110WH
SZ
08/14



Ki112/Ki112WH 12 Inch 3-Way Full Range Loudspeaker System

Professional Series

Key Features:

- ▶ 12" woofer with 2.5" four-layer voice coil can provide higher power handling
- ▶ Linear suspension and vented pole piece design for woofer can effectively reduce the distortion and power compression
- ▶ Two 3" cone mid-range drivers and two 3" cone tweeters for better vocal reproduction
- ▶ Precision engineered crossover can divide accurately and optimize three band frequency response
- ▶ The enclosure is constructed of MDF (Medium Density Fiberboard) with vinyl laminated finish
- ▶ Built-in protection circuit engineered specifically to protect the tweeter without interrupting the overall performance
- ▶ Two colors for multiple applications: Black (Ki112) and White (Ki112WH)



Applications:

The Ki112 is a 3-way full-range speaker designed specifically for KTV market needs. The Ki112 utilizes a 10" woofer, two 3" cone mid-range drivers, and two 3" cone tweeters.

The 12" woofer features a non-pressed long fiber pulp cone with a foam surround providing necessary stiffness for long-lasting reliability, and the capacity to withstand the tremendous accelerating force generated by the magnetic energy of the motor structure. Two 3" cone mid-range drivers matched with two 3" cone tweeters enhances the performance in the mid-range and high-frequency range and provides perfect fidelity to meet KTV audio system needs.

The Ki120 is designed to handle 250 watts of continuous power. The enclosure is constructed of MDF with vinyl laminated finish and fitted with nickel plated binding post for reliable connectivity. Two high-strength M10 attachment points guarantee the stability of suspension.

The integrated grille, with elaborate design, adds a distinctive element to the overall elegant appearance of the loudspeaker in addition to protecting the components from damage.

Specifications:

System:	
System Type:	12", 3-way, bass-reflex
Frequency Range (-10 dB) ¹ :	45 Hz - 18 kHz
Frequency Response (±3 dB) ¹ :	60 Hz - 16 kHz
Sensitivity (1w/1m) ¹ :	90 dB
Nominal Impedance:	8 ohms
Maximum SPL:	114 dB (120 dB peak)
Power Rating ² : (Continuous/Program/Peak)	250 W/500 W/1000 W
Recommended amplifier power:	300 W~400 W/8 Ohms
Coverage Pattern:	150° x 100° (H x V)
Physical:	
Dimensions (H x W x D):	350 mm x 586 mm x 368 mm 13.8 in x 23.1 in x 14.5 in
Net Weight:	17.8 kg (39.2 lbs)
LF Driver:	1 x 12" WF
MF Driver:	2 x 3" paper cone squawker
HF Driver:	2 x 3" paper cone tweeter
Input Connectors:	Binding post
Enclosure Construction:	Vinyl covered 15 mm MDF
Color:	Black (Ki112) / White (Ki112WH)

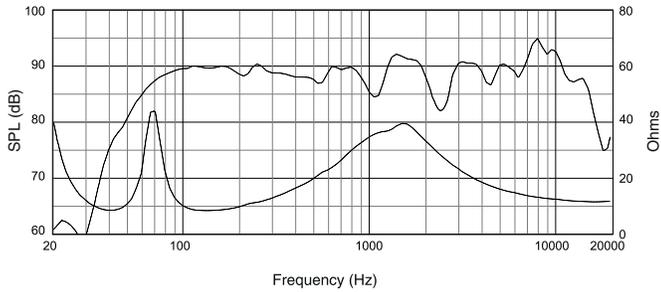
¹ Full space (4π) conditions

² IEC pink noise with 6 dB crest factor, in frequency range for 100 hours

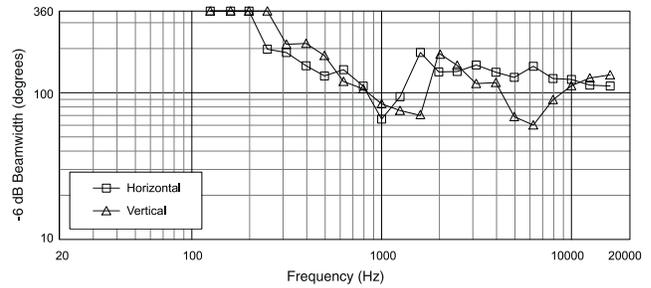
JBL continually engages in research related to product improvement. Some materials, production methods and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

► Ki112/Ki112WH 12 Inch 3-Way Full Range Loudspeaker System

Frequency Response and Impedance

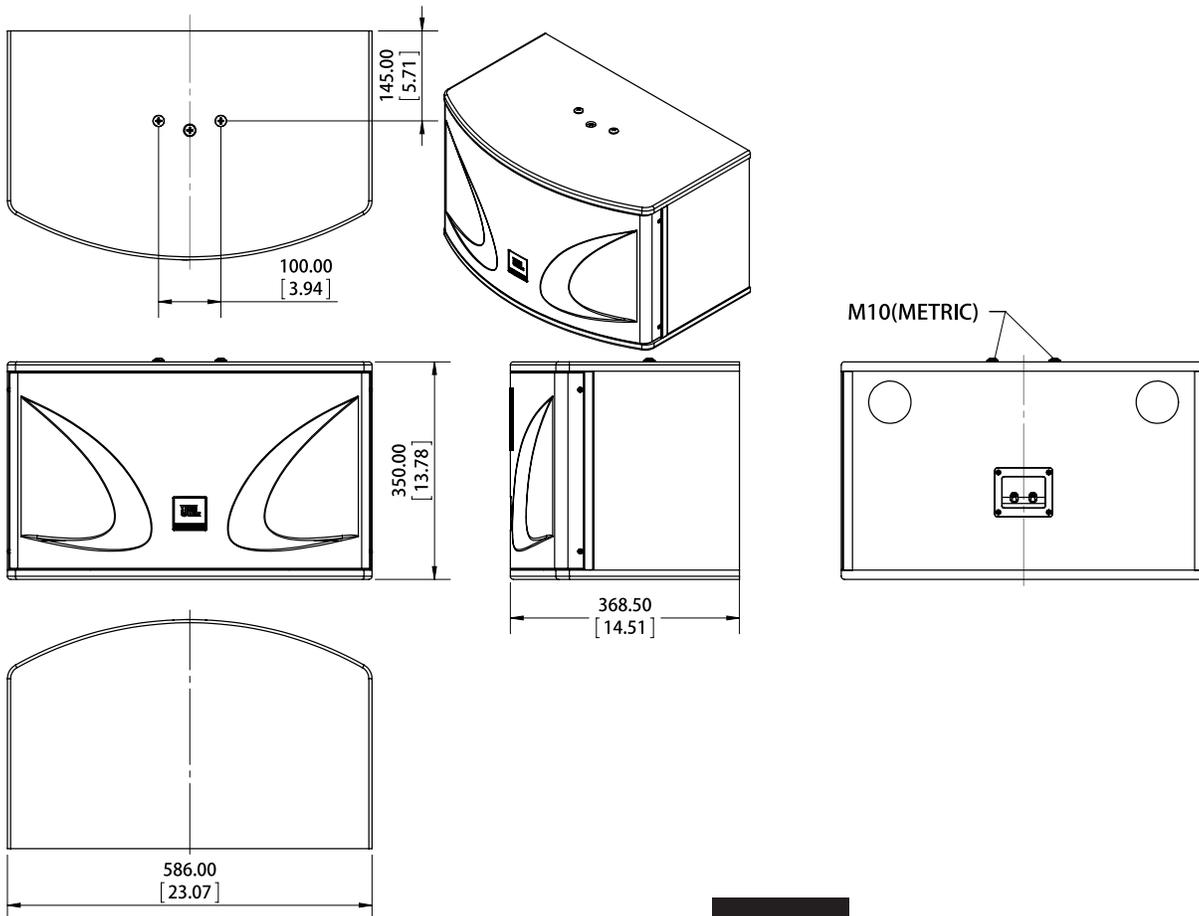


Beamwidth



Dimensions

Dimensions in mm (inch)



JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.

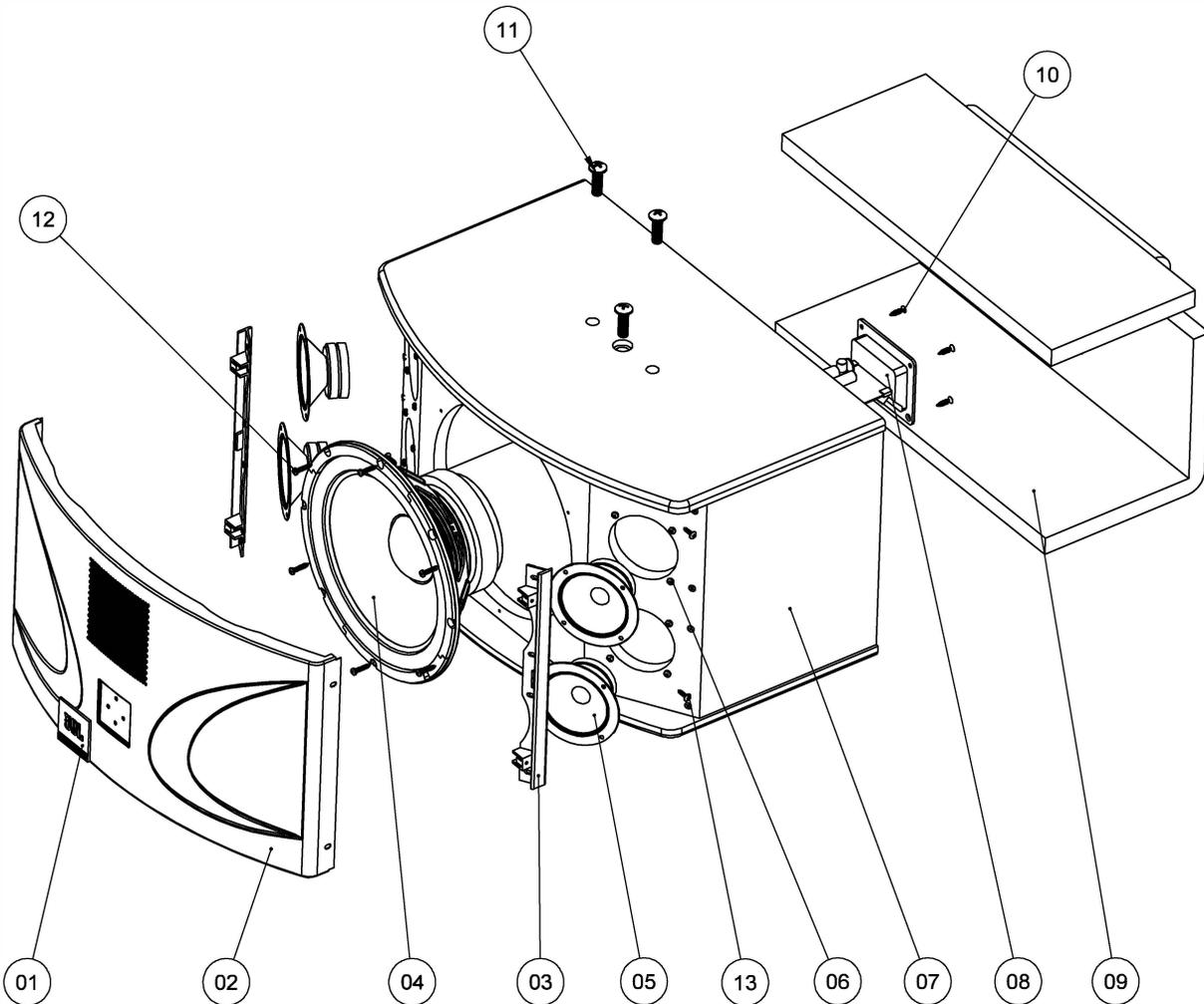
© Copyright 2014 JBL Professional
www.jblpro.com

Ki112
Ki112WH
SZ
08/14

Exploded View Diagrams

PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL.

REVISION HISTORY			
DATE	REV.	DESCRIPTION	BY
4/13/2012	A	RELEASE FOR MP	PZ
5/28/2012	B	INCREASE TWEETER TO 4PCS	PZ
7/19/2012	C	RELEASE FOR 2nd PP	PZ
9/6/2012	D	RELEASE FOR MP	PZ



13	ST3.5X12,Pan	4	
12	ST4.0X20,Truss	8	
11	screw M10X35	3	
10	ST3.5X20,Countersunk head,BLK Zinc mattblk	12	
09	20mm poyester;16kg/m3;	1	
08	Terminal cup asm	1	
07	cabinet assembly	1	
06	ST3.5X20,Truss head,BLK Zinc Mattblk	16	
05	Tweeter, 3 inch	4	
04	woofer, 10 inch	1	
03	Plastic stick, for grille	2	
02	Grille, SPCC=1.0mm,Grain textuer black powdercoated	1	
01	Plastic Badge,50X50mm	1	
ITEM NO.	PART NUMBER	DESCRIPTION	QTY

VERSION | THIRD ANGLE PROJECTION

DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO 3D MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.

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 :±0.3mm
.XX :±0.5mm
Angular: ±.5°

ALL DIMENSIONS ARE IN MILLIMETERS
ALL DIMENSIONS APPLY AFTER FINISH

DRAWN BY
Pu zhong
DESIGNED BY
DATE
5/25/2012
ENGINEER

HARMAN

TITLE
Ki110 EXPLODED DRAWING

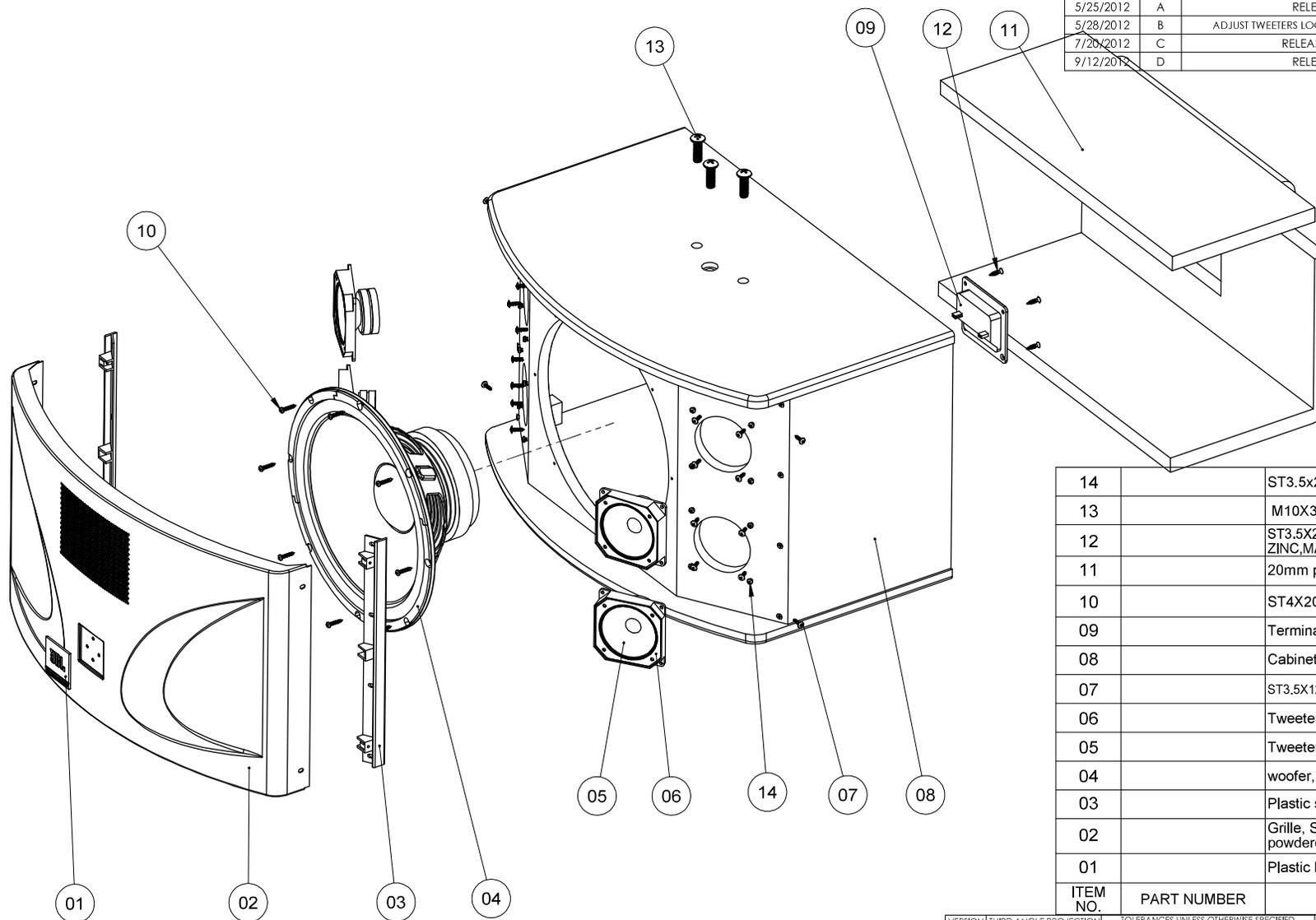
CAD DRAWING NO.
5017669
REV
D

SIZE
A3
CAD MODEL NO.
WT PART NO.
5017669

SCALE
1:12
DO NOT SCALE DRAWING
SHEET
1 of 1

PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL

REVISION HISTORY			
DATE	REV.	DESCRIPTION	BY
5/25/2012	A	RELEASE FOR MP	PZ
5/28/2012	B	ADJUST TWEETERS LOCATION AND SOME DIMENSION.	PZ
7/20/2012	C	RELEASE FOR 2nd PP	PZ
9/12/2012	D	RELEASE FOR MP	PZ

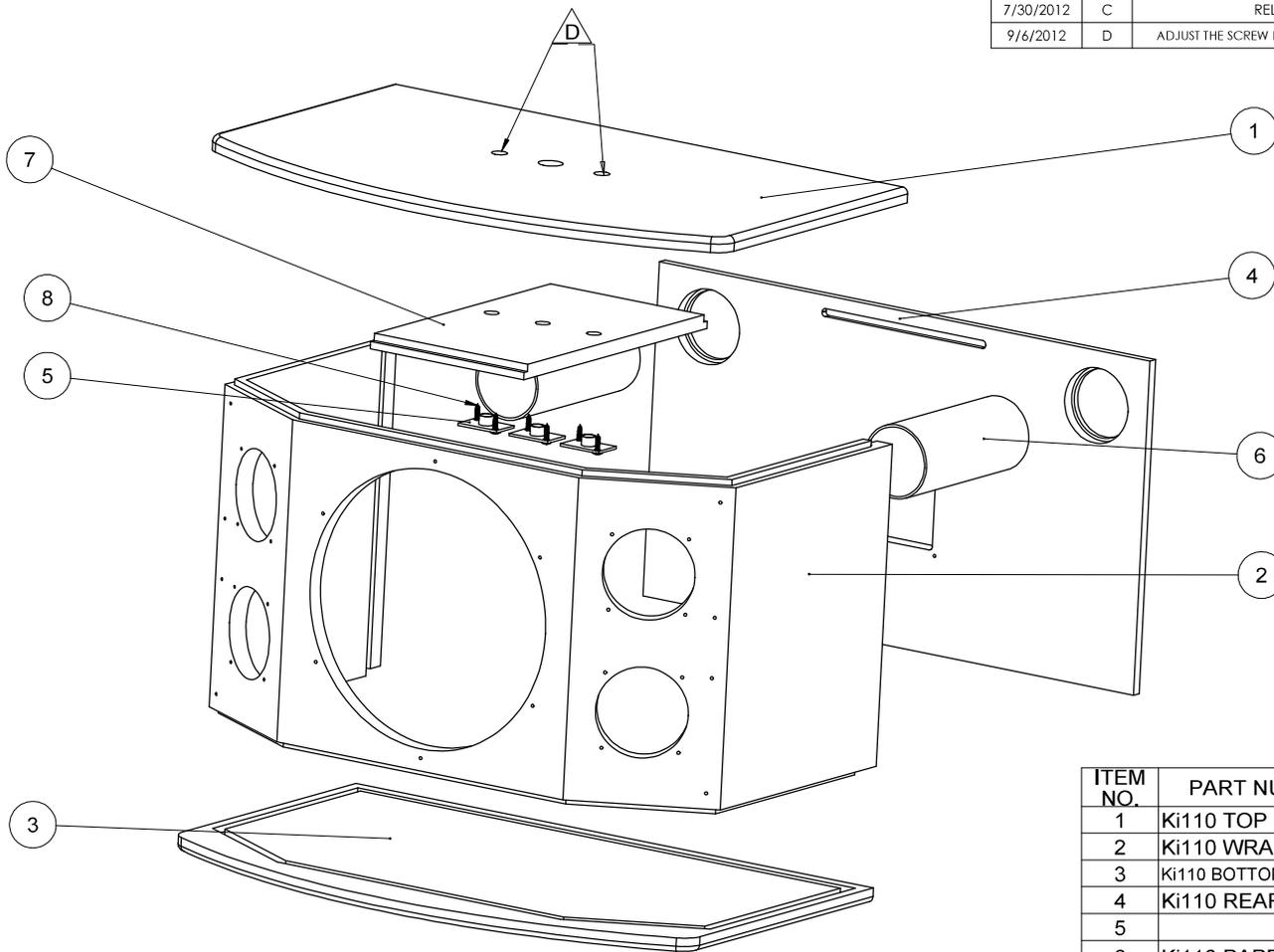


14	ST3.5x20,TRUSS	16	
13	M10X35	3	
12	ST3.5X20,COUNTERSUNK HEAD,BLK ZINC,MATTLBK	12	
11	20mm ployester;16kg/m3;	1	
10	ST4X20,TRUSS,FOR WOOFER	8	
09	Terminal cup ASM	1	
08	Cabinet assembly	1	
07	ST3.5X12,Pan HEAD,BLK ZINC,MATTLBK	20	
06	Tweeter Bracket	4	
05	Tweeter, 3 inch	4	
04	woofer, 12inch	1	
03	Plastic stick, for grille	2	
02	Grille, SPCC=1.0mm,Grain textuer black powdercoated	1	
01	Plastic Badge,50X50mm	1	
ITEM NO.	PART NUMBER	DESCRIPTION	QTY

VERSION THIRD ANGLE PROJECTION A 2		TOLERANCES UNLESS OTHERWISE SPECIFIED Extruded Features: ±.20 for first mm, plus .10 for each add'l mm Machined Features: ±.10 Angular: ±.5°		HARMAN TITLE Ki112 EXPLODED DRAWING		4875, Tower 8 Kingdee Software Park, No. 2, 12th Road South High-tech Industrial Park Shenzhen 518057, CN	
DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO 3D MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.		ALL DIMENSIONS ARE IN MILLIMETERS ALL DIMENSIONS APPLY AFTER FINISH		CAD DRAWING NO. 5017670		REV D	
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		DRAWN BY Pu Zhong		DATE 5/25/2012		SRE A3	
		DESIGNED BY		DATE		CAD MODEL NO. 5017670	
		ENGINEER		SCALE 1:20 DO NOT SCALE DRAWING		WT PART NO. 5017670	
						SHEET 1 OF 1	

PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL

REVISION HISTORY			
DATE	REV.	DESCRIPTION	BY
5/15/2012	A	RELEASE FOR SAMPLE	PZ
5/25/2012	B	ADDED TWEETER TO 4 PCS AND RELEASE FOR PP	PZ
7/30/2012	C	RELEASE FOR 2NDPP	PZ
9/6/2012	D	ADJUST THE SCREW HOLES LOCATION AND TOLERANCES	PZ



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Ki110 TOP PANEL	MDF,T=12.0mm	1
2	Ki110 WRAP	CHIPOARD,T=12.0mm	1
3	Ki110 BOTTOM PANEL	MDF,T=12.0mm	1
4	Ki110 REAR PANEL	CHIPBOARD,T=15.0mm	1
5		M10	3
6	Ki110 PAPER PORT	PAPER,T=2.0mm	2
7	Ki110 TOP PAD	MDF, T=12mm	1
8	882-41410-12	ST4X12mm	6

3. ALL THE DIMENSIONS ARE WITHOUT VINYL.

2. FINISH (CABINET) : VINYL FILM LAMINATION;

1. MATERIAL: 12mm MDF/15mm CHIPBOARD;

NOTES: (UNLESS OTHERWISE SPECIFIED)

VERSION THIRD ANGLE PROJECTION

DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO 3D MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.

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 : ±0,3mm
.XX : ±0,5mm

Angular: ±.5°

ALL DIMENSIONS ARE IN MILLIMETERS
ALL DIMENSIONS APPLY AFTER FINISH

DRAWN BY PZ DATE 5/25/2012

DESIGNED BY DATE

ENGINEER

HARMAN

467F, Tower B
Kingdee Software Park,
No. 2 12th Road South,
High-Tech Industrial Park,
Shenzhen 518057, CHN

TITLE
ENCL.CABINET EXPLODED, Ki100

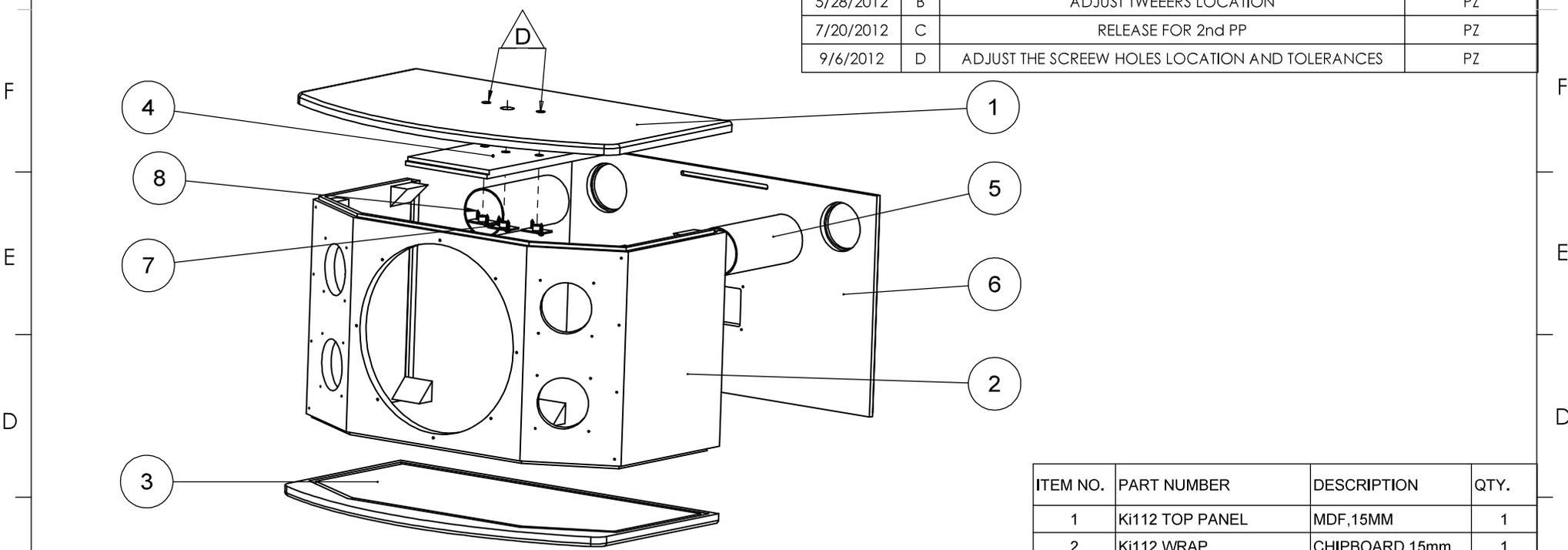
CAD DRAWING NO. REV D

SCALE A3 CAD MODEL NO. WT PART NO. 5017693

SCALE 1:8 DO NOT SCALE DRAWING SHEET 1 OF 10

PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL

DATE	REV.	DESCRIPTION	BY
5/25/2012	A	RELEASE FOR PP	PZ
5/28/2012	B	ADJUST TWEETERS LOCATION	PZ
7/20/2012	C	RELEASE FOR 2nd PP	PZ
9/6/2012	D	ADJUST THE SCREW HOLES LOCATION AND TOLERANCES	PZ

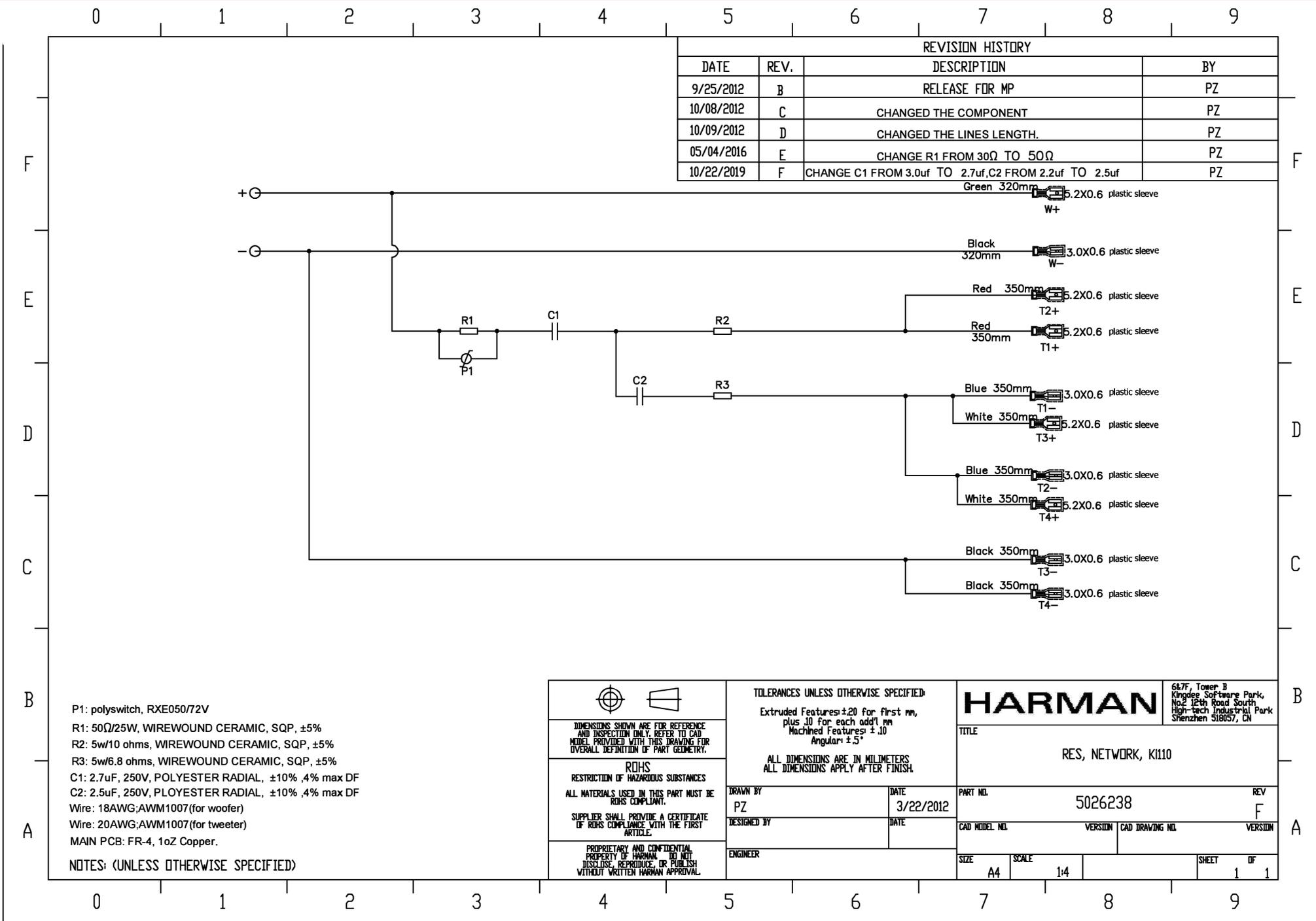


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Ki112 TOP PANEL	MDF, 15MM	1
2	Ki112 WRAP	CHIPBOARD, 15mm	1
3	Ki112 BOTTOM PANEL	MDF, 15mm	1
4	Ki112 TOP PAD	MDF, 12mm	1
5	Ki112 PORT	PAPER, 2.0mm	2
6	Ki112 REAR PANEL	CHIPBOARD, 15mm	1
7		NUT, M10	3
8		ST4X15mm	6

VERSION	THIRD ANGLE PROJECTION	TOLERANCES UNLESS OTHERWISE SPECIFIED			
DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO 3D MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.		.X ±0.3mm .XX ±0.5mm Angular: ±.5°		6&7F, Tower B Kingdee Software Park, No.2 12th Road South High-tech Industrial Park Shenzhen 518057, CN	
ALL DIMENSIONS ARE IN MILLIMETERS ALL DIMENSIONS APPLY AFTER FINISH		ALL DIMENSIONS ARE IN MILLIMETERS ALL DIMENSIONS APPLY AFTER FINISH		TITLE Ki112 CABINET EXPLODED	
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		DRAWN BY PZ	DATE 5/25/2012	CAD DRAWING NO.	REV D
		DESIGNED BY	DATE	SIZE A4	CAD MODEL NO.
		ENGINEER		WT PART NO.	
				SCALE 1:20	DO NOT SCALE DRAWING
				SHEET 1 OF 7	

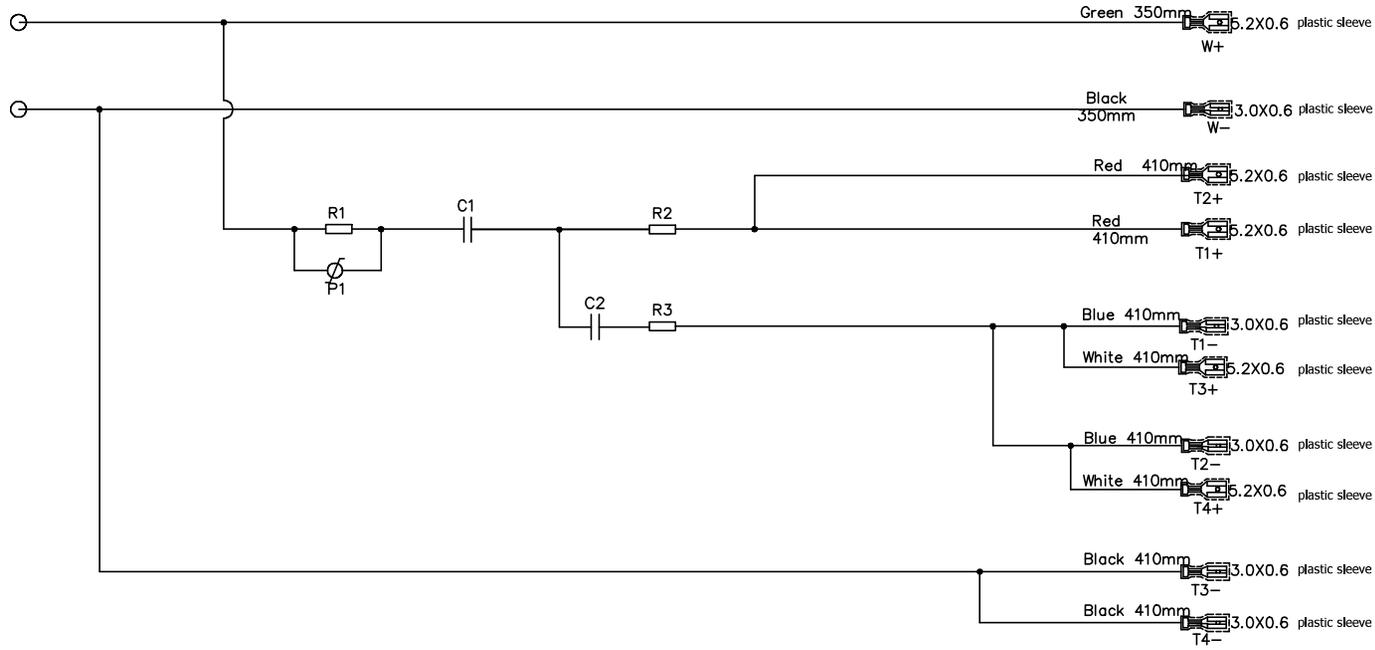
3. ALL THE DIMENSIONS ARE WITHOUT VINYL.
2. FINISH: VINYL FILM LAMINATION,
1. MATERIAL: REFERENCE BOM
- NOTES: (UNLESS OTHERWISE SPECIFIED)

Network Assembly Diagram



<p>DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.</p> <p>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.</p> <p>PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL.</p>	<p>TOLERANCES UNLESS OTHERWISE SPECIFIED:</p> <p>Extruded Features: ±.20 for first mm, plus .10 for each add'l mm Machined Features: ±.10 Angular: ±.5°</p> <p>ALL DIMENSIONS ARE IN MILLIMETERS ALL DIMENSIONS APPLY AFTER FINISH.</p>		<p>HARMAN</p> <p>647F, Tower B Kingdee Software Park, No.2 Jiehu Road South High-tech Industrial Park Shenzhen 518057, CN</p>	
	<p>RES, NETWORK, KI110</p>			
	<p>DRAWN BY PZ</p>	<p>DATE 3/22/2012</p>	<p>PART NO. 5026238</p>	<p>REV F</p>
<p>DESIGNED BY</p>	<p>DATE</p>	<p>CAD MODEL NO.</p>	<p>VERSION CAD DRAWING NO. VERSION</p>	
<p>ENGINEER</p>	<p>SIZE A4</p>	<p>SCALE 1:4</p>	<p>SHEET 1 OF 1</p>	

REVISION HISTORY			
DATE	REV.	DESCRIPTION	BY
9/24/2012	B	RELEASE FOR MP	PZ
12/07/2012	C	CHANGE THE PCB FROM CEM-1 TO FR-4	PZ
4/1/2016	D	CHANGE THE PTC FROM 065 TO 050.	PZ
5/4/2016	E	CHANGE R1 FROM 30Ω/25W TO 50Ω/25W	PZ
10/22/2019	F	CHANGE R2 FROM 4Ω/5W TO 3Ω/5W,R3 FROM 6.8Ω/5W TO 5.6Ω/5W	PZ



- P1: polyswitch, RXE050/72V
- R1: 50Ω/25W, WIREWOUND CERAMIC, SQP, ±5%
- R2: 5w/3 ohms, WIREWOUND CERAMIC, SQP, ±5%
- R3: 5w/5.6 ohms, WIREWOUND CERAMIC, SQP, ±5%
- C1: 3.0uF, 250V,POLYESTER RADIAL, ±10% ,4% max DF
- C2: 1.5uF, 250V,POLYESTER RADIAL, ±10% ,4% max DF
- Wire: 18AWG;AWM1007(for woofer)
- Wire: 20AWG;AWM1007(for tweeter)
- MAIN PCB: FR_4, 1oz Copper.

NOTES: (UNLESS OTHERWISE SPECIFIED)

	DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.		TOLERANCES UNLESS OTHERWISE SPECIFIED: Extruded Features: ±.20 for first mm, plus .10 for each add'l mm Machined Features: ±.10 Angular: ±.5°			687F Tower B Kingdee Software Park, No.2 J2th Road South High-tech Industrial Park Shenzhen 518057, CN	
	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.			TITLE RES, NETWORK, KI112	
PROPRIETARY AND CONFIDENTIAL PROPERTY OF HARMAN. DO NOT DISCLOSE, REPRODUCE, OR PUBLISH WITHOUT WRITTEN HARMAN APPROVAL.		DRAWN BY PZ	DATE 3/22/2012	PART NO. 5026237	REV F	SHEET OF 1 1	
		DESIGNED BY	DATE	CAD MODEL NO.	VERSION	CAD DRAWING NO.	VERSION
		ENGINEER		SIZE A4	SCALE 1:4		

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