



Service Manual

Created: 14 March 2015



ULTRABASS BX4500H

450-Watt Bass Amplifier Head with Ultrabass Processor and Shape Filter

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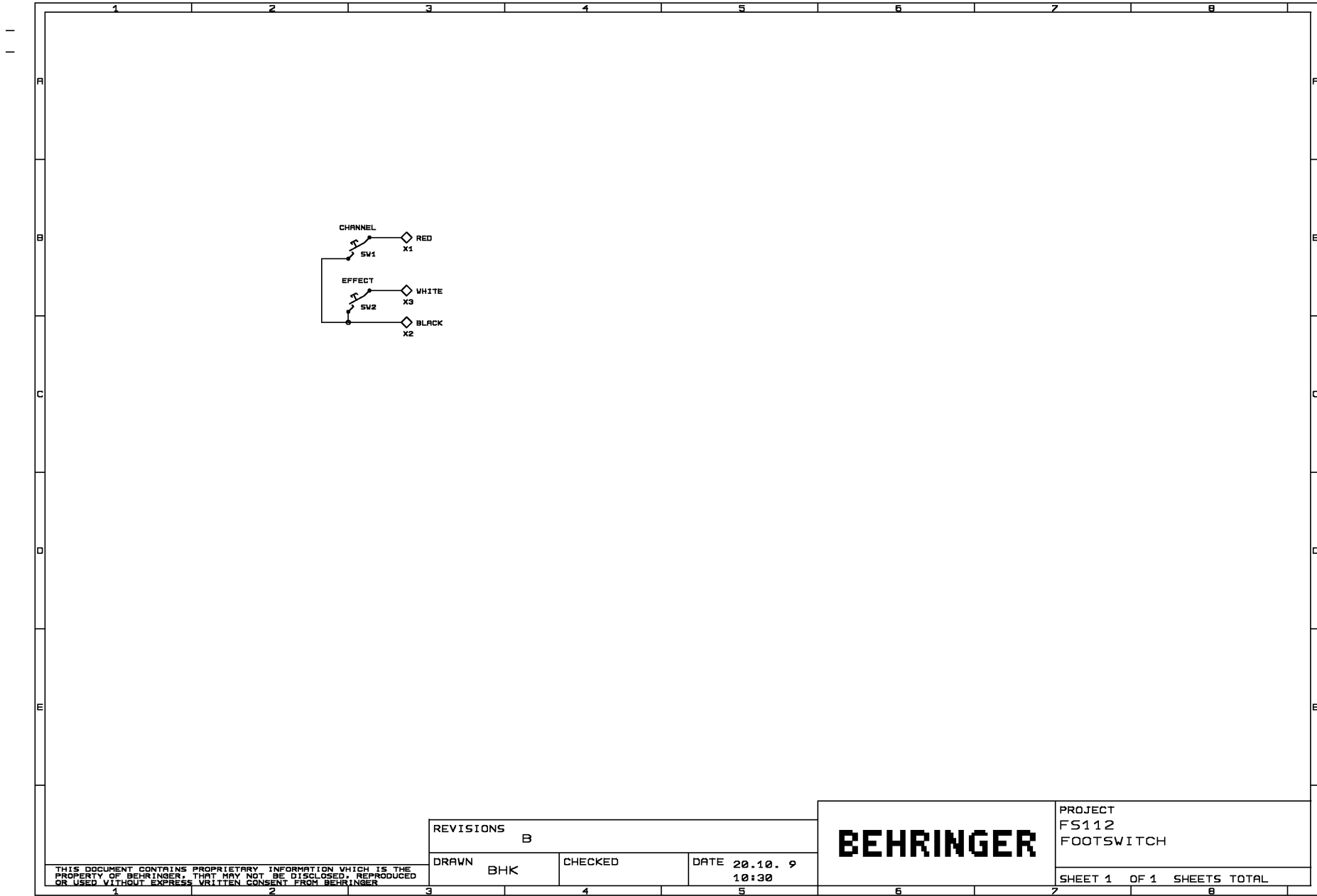
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ULTRABASS BX4500H

Specifications

- Extremely powerful 450-Watt bass amplifier head
- Dynamizer technology for ultimate punch and to capture every nuance of your playing
- Switchable Ultrabass subharmonics processor for unbelievable low-end power
- Revolutionary Shape filter for extreme sound range
- Dedicated 5-band EQ with Bright and Deep functions for awesome sound shaping
- Musical limiter for ultimate volume without distortion
- Vintage-style VU meter for precise signal level control
- Dual footswitch for Ultrabass and Shape functions included
- Balanced DI output for direct connection to your mixing console
- Dedicated Tuner Output/Effect Send and separate Line output for additional flexibility
- FX Insert for external effects devices (stomp boxes, rack effects, etc.)
- 3 speaker outputs on 1/4" jack and professional speaker connectors (compatible with Neutrik Speakon connectors)
- Active, temperature-controlled cooling system for ultimate protection
- High-quality components and exceptionally rugged construction ensure long life
- Conceived and designed by BEHRINGER Germany

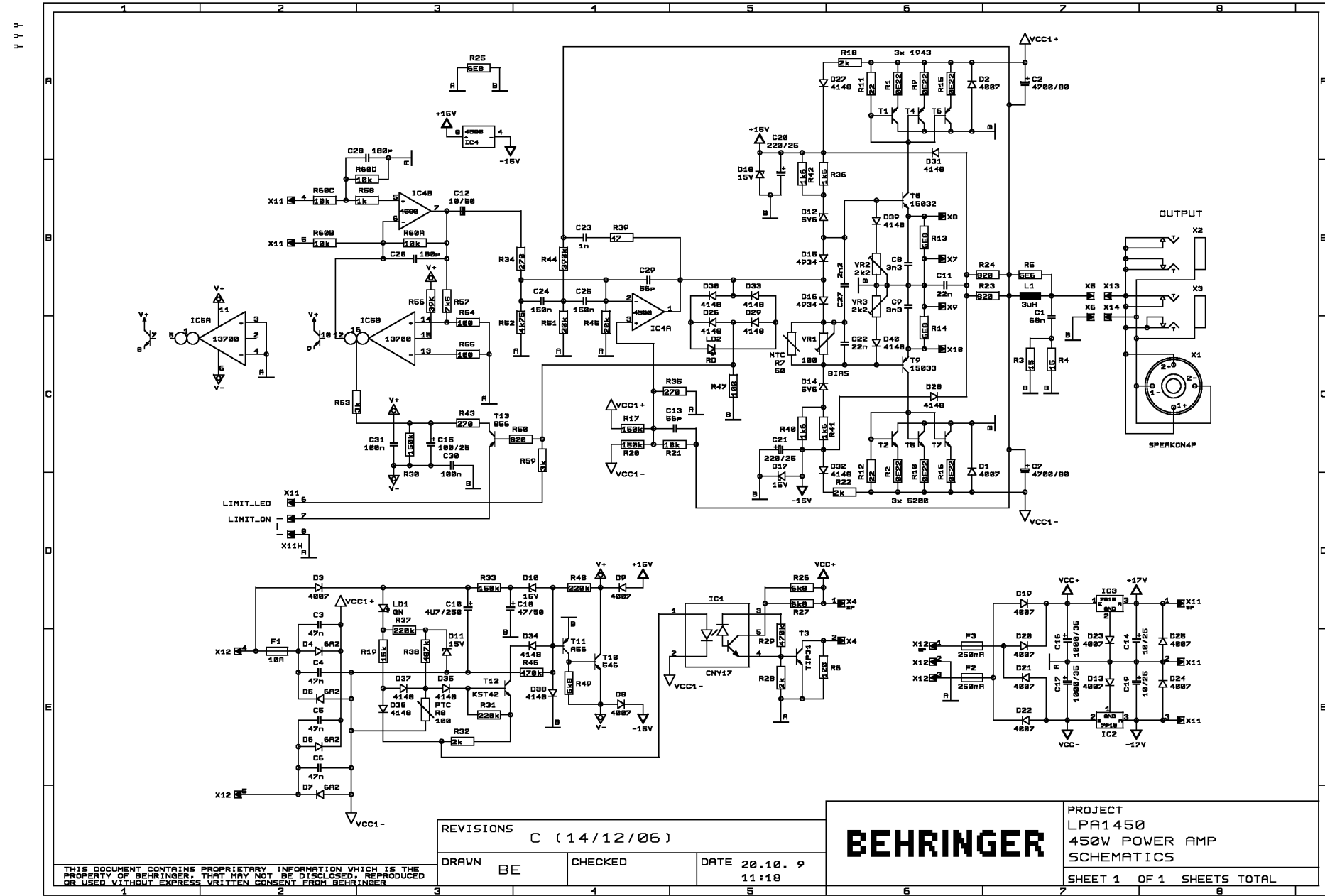


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PROJECT	FS112
FOOTSWITCH	
SHEET 1 OF 1 SHEETS TOTAL	

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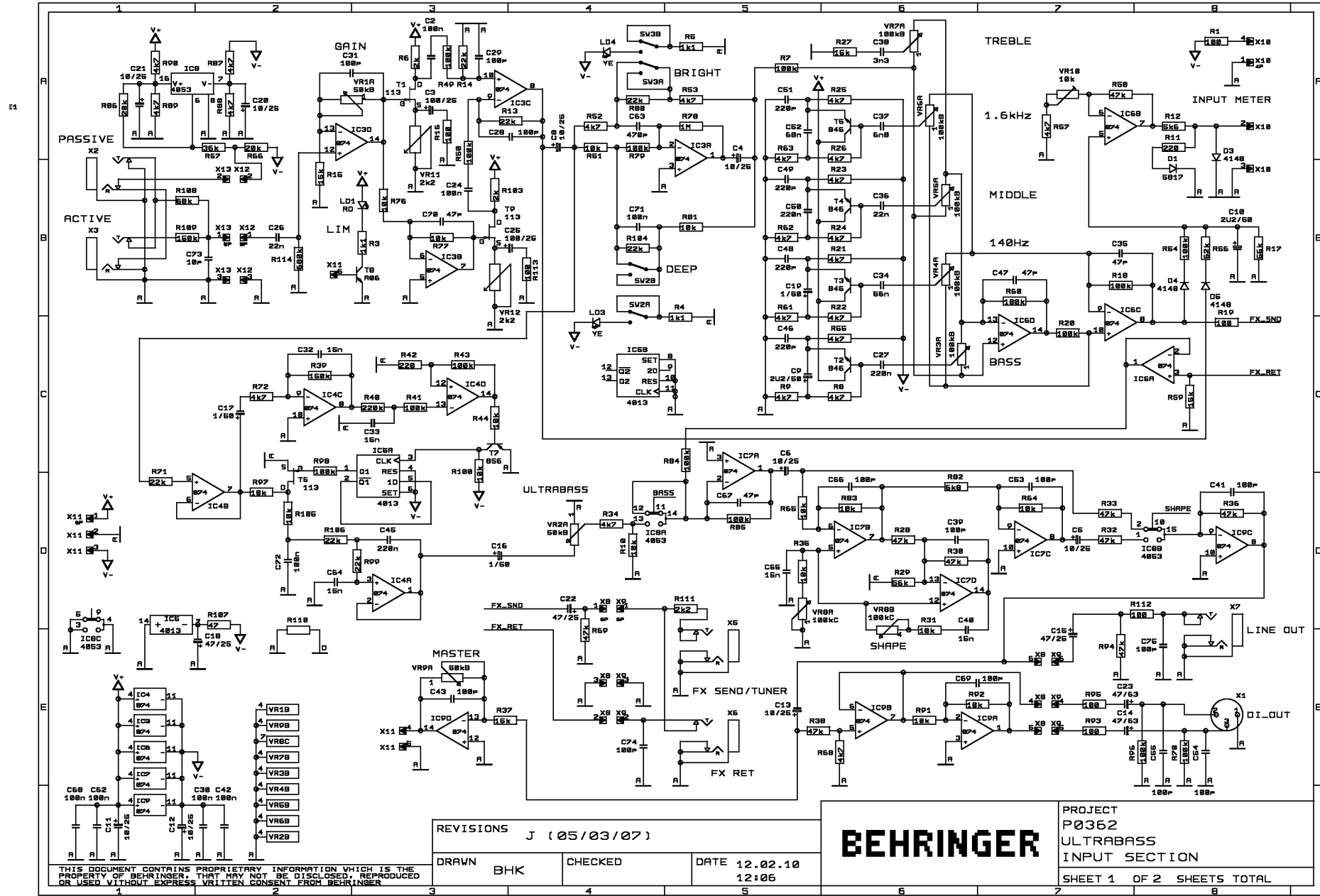


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PROJECT
LPA1450
450W POWER AMP
SCHEMATICS
SHEET 1 OF 1 SHEETS TOTAL

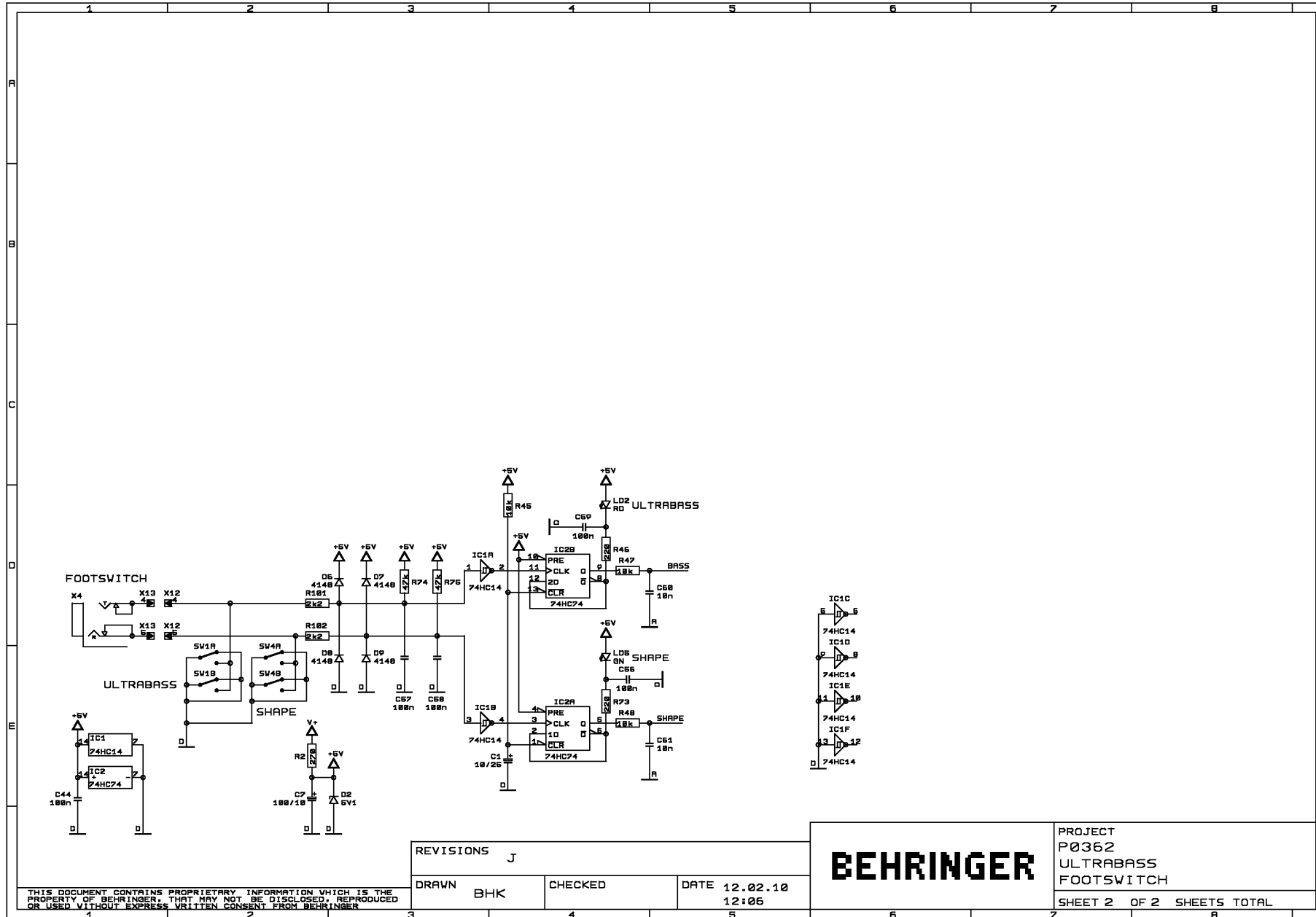


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PROJECT
P0362
ULTRABASS
INPUT SECTION
SHEET 1 OF 2 SHEETS TOTAL

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PROJECT
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ULTRABASS
FOOTSWITCH
SHEET 2 OF 2 SHEETS TOTAL

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Hi Pcb Assemblies

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC	Q05-00001-02975	A05-00001-02975	PCB ASSEMBLY;LPA1450;BVT4500H BX4210A BX4410 BX4410A;PCB:01;AMP;REV:C;HAND INSERT;NO:926020		
2	1.0000	PC	Q05-00002-03839	A05-00002-03839	PCB ASSEMBLY;LPA1450;PCB:01;OUTPUT;REV:C;HAND INSERT;NO:927020		
3	1.0000	PC	Q05-36201-04252	A05-36201-04252	PCB ASSEMBLY;BX4500H;PCB:01;MAIN;REV:J;HAND INSERT;NO:705030		
4	1.0000	PC		A05-36202-04254	PCB ASSEMBLY;BX4500H;PCB:02;CONNECTOR;REV:J;HAND INSERT;NO:706030		
5	1.0000	PC		A05-36203-04256	PCB ASSEMBLY;BX4500H;PCB:03;INPUT;REV:J;HAND INSERT;NO:707030		

Cable

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	0.2620	M		A74-00000-00706	WIRE;RAW FLAT CABLE;UL2651;AWG:28;POLES:6;GRAY;PIN1:RED;PITCH:1mm27		
2	1.0000	PC		A74-90020-25706	CABLE;FLAT;P:2mm54;LENGTH:250mm;ZEE;AWG:28;FC1/FD;+10/-0mm;ZEE;POLES:06	[BX4500H:01: {1.0}(X11)]	
3	0.0000	PC		A81-05030-66742	WIRE HARNESS;LENGTH:50mm;AWG:26;P:2mm;SHS;HOUSING-BOARD IN CONNECTOR;POLES:06;PIN1 RED/OTHERS BLK		
4	1.0000	PC		A81-05030-66842	WIRE HARNESS;LENGTH:50mm;AWG:26;P:2mm;SHS;ZEE;HOUSING-BOARD IN CONNECTOR;POLES:06;PIN1 RED/OTHERS BLK	[BX4500H:02: {1.0}(X9)]	
5	0.0000	PC		A81-08030-46722	WIRE HARNESS;LENGTH:80mm;AWG:26;P:2mm;SHS;HOUSING-BOARD IN CONNECTOR;POLES:4;PIN1 RED/OTHERS BLK		
6	1.0000	PC		A81-08030-46822	WIRE HARNESS;LENGTH:80mm;AWG:26;P:2mm;SHS;ZEE;HOUSING-BOARD IN CONNECTOR;POLES:4;PIN1 RED/OTHERS BLK		
7	0.0000	PC		A81-09030-56732	WIRE HARNESS;LENGTH:90mm;AWG:26;P:2mm;HOUSING - BOARD IN CONNECTOR 5 POLE;NO WIRE FOR PIN2;PIN1 RED/OTHERS BLK		
8	1.0000	PC		A81-09030-56832	WIRE HARNESS;LENGTH:90mm;AWG:26;UL2468;P:2mm;ZEE;HOUSING - BOARD IN CONNECTOR 5 POLE;NO WIRE FOR PIN2;PIN1 RED/OTHERS BLK	[BX4500H:03: {1.0}(X13)]	
9	1.0000	PC	Q89-50031-04316	A89-50031-04316	FOOTSWITCH CABLE;FS112;LENGTH:5000mm;POLES:3;COLOR:BLK;SPEC.NO:04316		
10	1.0000	PC	Q76-15222-06417	A76-15222-06417	CABLE;AC-CORD;W/POLYBAG;LENGTH:152cm;AWG:18;VERSION;UL;SPEC.NO:06417		(UL)
11	1.0000	PC	Q76-15042-05624	A76-15042-05624	CABLE;AC-CORD;W/POLYBAG;LENGTH:150cm;H05VV-F3G0.75MM2;VERSION;UK;SPEC.NO:05624		(UK)
12	1.0000	PC	Q76-00000-05305	A76-00000-05305	CABLE;AC-CORD;3;BR;1500 MM;Plug + Connector:375+730;H05VV-F 3G0.75		(BR)
13	1.0000	PC	Q76-15032-55649	A76-15032-55649	CABLE;AC-CORD;CLASS II;W/POLYBAG;JAPAN;LENGTH:150cm;POLES:3;APPROVAL:PSE;JS155 3 + VCTF 3x0.75mm2 + V1528		(JP, HM, SH)
14	0.0000	PC		A76-18050-06505	CABLE;AC-CORD;LENGTH:180cm;VERSION:SAA;PLUG:HE105 ISOLATED;SAA H05VV-F 3x0.75mm2;CONN.HP-3;PANYU		(SAA)
15	1.0000	PC	Q76-15212-03119	A76-15212-03119	CABLE;AC-CORD;W/POLYBAG;LENGTH:152cm;H05VV-F 3G 0.75MM2;VERSION;EU;SPEC.NO:03119		(EU, RU)
16	1.0000	PC	Q76-15212-03119	A76-15212-03119	CABLE;AC-CORD;W/POLYBAG;LENGTH:152cm;H05VV-F 3G 0.75MM2;VERSION;EU;SPEC.NO:03119		
17	1.0000	PC	Q76-00000-13573	A76-00000-13573	CABLE;AC-CORD;3;AR;1500 MM;Plug + Connector:321+730;H05VV-F 3G0.75		(AR)
18	1.0000	PC	Q76-18050-47490	A76-18050-47490	CABLE;AC-CORD;LENGTH:180cm;VERSION:SAA;PLUG:HE105 ISOLATED;SAA H05VV-F 3x0.75mm2;CONN.HP-3;SPEC.NO:47490		(SAA)

Capacitor

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC			CAP E;100uF;10V;PITCH:2mm5;5mm x 11mm;VERTICAL 12.7-15-9mm	[BX4500H:01: {1.0}(C7)]	*NOT available in DP
2	10.0000	PC			CAP E;10uF;25V;PITCH:2mm5;5mm x 11mm;VERTICAL 12.7-15-9mm	[BX4500H:01: {3.0}(C8,C20-C21)]	*NOT available in DP
3	2.0000	PC			CAP E;47uF;25V;PITCH:2mm5;5mm x 11mm;VERTICAL 12.7-15-9mm	[BX4500H:01: {2.0}(C18,C22)]	*NOT available in DP
4	2.0000	PC			CAP E;100uF;25V;PITCH:2mm5;6mm x 12mm;VERTICAL 12.7-15-9mm	[P0362:01: {2.0}(C3,C25)]	*NOT available in DP
5	3.0000	PC			CAP E;1uF;50V;PITCH:2mm5;5mm x 11mm;VERTICAL 12.7-15-9mm	[P0362:01: {3.0}(C16-C17,C19)]	*NOT available in DP
6	2.0000	PC			CAP E;2uF;25V;PITCH:2mm5;5mm x 11mm;VERTICAL 12.7-15-9mm	[BX4500H:01: {1.0}(C10)]	*NOT available in DP
7	2.0000	PC			CAP E;10uF;25V;PITCH:2mm5;5mm x 11mm;PRECUT:3mm2 - 0/+0mm2	[LPA1450:01: {2.0}(C14,C19)]	*NOT available in DP
8	1.0000	PC			CAP E;47uF;25V;PITCH:2mm5;5mm x 11mm;PRECUT:3mm2 - 0/+0mm2	[BX4500H:02: {1.0}(C15)]	*NOT available in DP
9	1.0000	PC			CAP E;100uF;25V;PITCH:2mm5;6mm3 x 12mm;PRECUT:3mm2 - 0/+0mm2	[LPA1450:01: {1.0}(C15)]	*NOT available in DP
10	2.0000	PC			CAP E;220uF;25V;PITCH:3mm5;8mm x 12mm;PRECUT:3mm2 - 0/+0mm2	[LPA1450:01: {2.0}(C20-C21)]	*NOT available in DP
11	2.0000	PC			CAP E;1mF;35V;PITCH:5mm;13mm x 21mm;PRECUT:3mm2 - 0/+0mm2	[LPA1450:01: {2.0}(C16-C17)]	*NOT available in DP
12	1.0000	PC			CAP E;47uF;50V;PITCH:2mm5;6mm x 11mm;PRECUT:3mm2 - 0/+0mm2	[LPA1450:01: {1.0}(C18)]	*NOT available in DP
13	2.0000	PC			CAP E;47uF;63V;PITCH:2mm5;6mm3 x 11mm;PRECUT:3mm2 - 0/+0mm2	[BX4500H:02: {2.0}(C14,C23)]	*NOT available in DP
14	2.0000	PC			CAP E;4mF7;100V;PITCH:10mm;30mm x 50mm;SNAP-IN	[LPA1450:01: {2.0}(C2,C7)]	*NOT available in DP
15	1.0000	PC			CAP CER;56pF;50V;10%;SMT603	[LPA1450:01: {1.0}(C29)]	*NOT available in DP
16	2.0000	PC			CAP CER;180pF;50V;10%;SMT603	[LPA1450:01: {2.0}(C26,C28)]	*NOT available in DP
17	1.0000	PC			CAP CER;1nF;50V;10%;SMT603	[LPA1450:01: {1.0}(C23)]	*NOT available in DP
18	1.0000	PC			CAP CER;2nF2;50V;10%;SMT603	[LPA1450:01: {1.0}(C27)]	*NOT available in DP
19	1.0000	PC			CAP CER;10pF;50V;10%;SMT805	[BX4500H:03: {1.0}(C73)]	*NOT available in DP
20	4.0000	PC			CAP CER;47pF;50V;C0G;5%;SMD805	[BX4500H:01: {4.0}(C35,C47,C67,C70)]	*NOT available in DP
21	13.0000	PC			CAP CER;100pF;50V;10%;SMT805	[BX4500H:01: {9.0}(C28-C29,C31,C39,C41,C43,C53,C66,C69)]	*NOT available in DP
22	4.0000	PC			CAP CER;220pF;50V;10%;SMT805	[BX4500H:01: {4.0}(C46,C48-C49,C51)]	*NOT available in DP
23	1.0000	PC			CAP CER;470pF;50V;10%;SMT805	[BX4500H:01: {1.0}(C63)]	*NOT available in DP
24	1.0000	PC			CAP CER;3nF3;50V;10%;SMT805	[BX4500H:01: {1.0}(C38)]	*NOT available in DP
25	1.0000	PC			CAP CER;6nF8;50V;10%;SMT805;X7R	[BX4500H:01: {1.0}(C37)]	*NOT available in DP
26	2.0000	PC			CAP CER;10nF;50V;10%;SMT805	[BX4500H:01: {2.0}(C60-C61)]	*NOT available in DP
27	5.0000	PC			CAP CER;15nF;50V;10%;SMT805	[BX4500H:01: {5.0}(C32-C33,C40,C64-C65)]	*NOT available in DP
28	1.0000	PC			CAP CER;22nF;50V;10%;SMT805	[BX4500H:01: {1.0}(C36)]	*NOT available in DP
29	1.0000	PC			CAP CER;56nF;50V;10%;SMT805	[BX4500H:01: {1.0}(C34)]	*NOT available in DP
30	1.0000	PC			CAP CER;68nF;50V;10%;SMT805;X7R	[BX4500H:01: {1.0}(C52)]	*NOT available in DP
31	13.0000	PC			CAP CER;100nF;50V;X7R;10%;SMT805	[LPA1450:01: {2.0}(C30-C31)]	*NOT available in DP
32	2.0000	PC			CAP CER;150nF;50V;10%;SMT805	[LPA1450:01: {2.0}(C24-C25)]	*NOT available in DP
33	3.0000	PC			CAP CER;220nF;50V;10%;SMT805	[BX4500H:01: {3.0}(C27,C45,C50)]	*NOT available in DP
34	1.0000	PC			CAP MYL;22nF;50V;10%;PITCH:5mm;DIPPED;VERTICAL 12.7-15-9mm	[P0362:01: {1.0}(C26)]	*NOT available in DP
35	2.0000	PC			CAP MYL;100nF;100V;10%;PITCH:8mm;DIPPED;PRECUT:3mm1 +/- 0mm5	[BX4500H:01: {2.0}(C2,C24)]	*NOT available in DP
36	2.0000	PC			CAP FILM;3nF3;63V;MPF;10%;PITCH:5mm;BOX;PRECUT:3mm1 +/- 0mm5	[LPA1450:01: {2.0}(C8-C9)]	*NOT available in DP
37	2.0000	PC			CAP FILM;22nF;63V;MPF;10%;PITCH:5mm;BOX;PRECUT:3mm1 +/- 0mm5	[LPA1450:01: {2.0}(C11,C22)]	*NOT available in DP

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
38	1.0000	PC			CAP E;BIPOLAR;10uF;50V;20%;PITCH:2mm5;PRE CUT:3mm2 - 0/+0mm2	[LPA1450:01: {1.0}(C12)]	*NOT available in DP
39	1.0000	PC			CAP E;4uF7;250V;PITCH:3mm5;8mm x 11mm5;PRE CUT:3mm2 - 0/+0mm2	[LPA1450:01: {1.0}(C10)]	*NOT available in DP
40	1.0000	PC			CAP CER;56pF;200V;10%;PITCH:5mm;DISC;PRE CUT:3mm1 +/-0mm5	[LPA1450:01: {1.0}(C13)]	*NOT available in DP
41	1.0000	PC			CAP FILM;68nF;250V;MPF;5%;PITCH:5mm;PRE CUT:3mm1 +/-0mm5	[LPA1450:01: {1.0}(C1)]	*NOT available in DP
42	4.0000	PC			CAP FILM;47nF;250V;MPF;10%;PITCH:5mm;BOX;PRE CUT:3mm1 +/-0mm5	[LPA1450:01: {4.0}(C3-C6)]	*NOT available in DP

Circuit Protector

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	6.0000	PC	R21-15201-52000	B21-15201-52000	FUSE CLIP;2 A;ZINC PLATING;250V;SERIES;520;FUSE;250 V;PLATING		
2	2.0000	PC	R22-01512-25001	B22-01512-25001	FUSE;250mA;250V;SLOW BLOW;H-TYPE;5mm x 20mm	[LPA1450:01: {2.0}(F2-F3)]	
3	1.0000	PC	R22-01514-10001	B22-01514-10001	FUSE;10A;250V;SLOW BLOW;H-TYPE;5mm x 20mm	[LPA1450:01: {1.0}(F1)]	(EU, UK, SAA, AR, RU)
4	2.0000	PC	R22-01514-10001	B22-01514-10001	FUSE;10A;250V;SLOW BLOW;H-TYPE;5mm x 20mm	[LPA1450:01: {1.0}(F1)]	(UL, JP, BR, HM, SH)
5	1.0000	PC	R22-01516-30001	B22-01516-30001	FUSE;6A3;250V;SLOW BLOW;H-TYPE;5mm x 20mm		(EU, UK, SAA, AR, RU)
6	1.0000	PC	R22-01516-30001	B22-01516-30001	FUSE;6A3;250V;SLOW BLOW;H-TYPE;5mm x 20mm		

Coil

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC		B30-03002-23144	COIL;AIR RADIAL;3uH;PITCH:10mm;AWG13	[LPA1450:01: {1.0}(L1)]	

Connector

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC	R80-03440-44694	B80-14440-01101	CONNECTOR;SPEAKON;MALE;STRAIGHT;POLES:4;STYLE:NL4MDV;(C HUN-SHENG HP-01-EP)	[LPA1450:01: {1.0}(X1)]	
2	4.0000	PC	R84-30060-06009	B84-30060-06009	JACKET;FOR 6mm35 AMP CONNECTOR;PVC;STRAIGHT;DIAMETER:4mm		
3	4.0000	PC		B84-32050-05839	CRIMP CONNECTOR;AMP;RECEPTABLE;6mm3 x 7mm5;AWG 14-18;WIRE MOUNT;STRAIGHT;250 SERIES		
4	2.0000	PC	R84-39000-03120	B84-39000-03120	CONNECTOR;AMP;PCB;PCB MOUNT;PITCH:5mm;WIDTH:6mm3	[LPA1450:01: {2.0}(X13-X14)]	
5	1.0000	PC		B84-42050-00155	CRIMP CONNECTOR;LUG;INNER DIA:4mm3;AWG 14-18;WIRE MOUNT;STRAIGHT		
6	1.0000	PC	R95-01320-03303	B95-01320-03303	CONNECTOR;XLR;SOCKET;MALE;STRAIGHT;POLES:3	[BX4500H:02: {1.0}(X1)]	
7	1.0000	PC	R84-39000-33065	B84-39000-33065	CONNECTOR;AWG 14-16;CLOSED ENDED;W/ NYLON66 COVER;APPROVALS:UL-CSA		(EU, UL, UK, SAA, BR, AR, RU)
8	1.0000	PC	R84-39000-33065	B84-39000-33065	CONNECTOR;AWG 14-16;CLOSED ENDED;W/ NYLON66 COVER;APPROVALS:UL-CSA		

Diode

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	4.0000	PC			DIODE;6A2;TEMIC OR FC;BULK	[LPA1450:01: {4.0}(D4-D7)]	*NOT available in DP
2	13.0000	PC			DIODE;1N4007;DO41	[LPA1450:01: {13.0}(D1-D3,D8-D9,D13,D19-D25)]	*NOT available in DP
3	2.0000	PC			DIODE;1N4934;DO41; (ONLY CHRYSTAL FIELD OR MCC)	[LPA1450:01: {2.0}(D15-D16)]	*NOT available in DP
4	1.0000	PC			DIODE;1N5817;DO41	[P0362:01: {1.0}(D1)]	*NOT available in DP
5	22.0000	PC			DIODE;LL4148;LL34;TEMIC OR FC	[LPA1450:01: {15.0}(D26-D40)]	*NOT available in DP
6	2.0000	PC			DIODE;ZPD05V6;DO35;TEMIC OR FC	[LPA1450:01: {2.0}(D12,D14)]	*NOT available in DP
7	4.0000	PC			DIODE;ZPD15V0;DO35;TEMIC OR FC	[LPA1450:01: {4.0}(D10-D11,D17-D18)]	*NOT available in DP
8	1.0000	PC			DIODE;ZD5V1;DO41	[P0362:01: {1.0}(D2)]	*NOT available in DP

Hardware

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	30.0000	PC			NAIL;CROWN:2mm2;WIDTH:1mm27;THICKNESS:1mm0;LENGTH:25mm;18-GAUGE (0.49*0.40) FINISH;GALVANIZED		*NOT available in DP
2	4.0000	PC			CABLE TIE;NYLON;4in;COLOR:		*NOT available in DP
3	1.0000	G			THERM-GREASE;COLOR:WHT;SPEC.NO:09286		*NOT available in DP
4	0.7800	G			SCREWLOCK;SPEC.NO:01090		*NOT available in DP
5	2.0000	PC			NUT;M:3 MM;3.2 MM;HEX WASHER;7.3 MM;ZINC;BLUE;HEXAGON REC.;0.5 MM;M3*0.5mm NUT WITH TEETH EXTERNAL WASHER		*NOT available in DP
6	4.0000	PC			HEX.NUT;INNER DIA;M3mm;SURFACE:ZINC		*NOT available in DP
7	1.0000	PC			HEX. NUT;INNER DIA;M4mm;SURFACE:ZINC		*NOT available in DP
8	2.0000	PC			T-NUT;INNER DIA;M5mm;W/PRONG;SURFACE:ZINC/BLACK		*NOT available in DP
9	1.0000	PC			HEX. NUT;INNER DIA;M6mm;SURFACE:ZINC		*NOT available in DP
10	2.0000	PC			HEX. NUT;FOR JACK;M 3/8in;HEXWRENCH:11mm;THICKNESS:2mm4;SURFACE:NICKEL/SILVER		*NOT available in DP
11	6.0000	PC			OCT. NUT;FOR JACK;3/8in;OCTWRENCH:14.5mm;THICKNESS:3.5mm;SURFACE:NICKEL/SILVER		*NOT available in DP
12	2.0000	PC		F87-01000-12070	PAD;RUBBER;6mm*2mm5;COLOR:BLK;DWG.NO:12070;(R14-GUITAR-RUBBERPAD-REV.B.DWG)		
13	5.0000	PC			SCREW;M3mm*6mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:SILVER/ZINC		*NOT available in DP
14	6.0000	PC			SCREW;M3mm*6mm;PITCH:0mm5;HEAD:FLAT;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
15	4.0000	PC			SCREW;BT3mm*8mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:ZINC		*NOT available in DP
16	2.0000	PC			SCREW;BT3mm*8mm;HEAD:PAN;INSERT:PHILLIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
17	4.0000	PC			SCREW;M3mm*8mm;HEAD:PAN;INSERT:PHILLIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
18	4.0000	PC			SCREW;M03mm*08mm;HEAD:PAN SPRING WASHER;INSERT:PHILIPS REC.;SURFACE:SILVER/ZINC		*NOT available in DP
19	6.0000	PC			SCREW;M3mm*10mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
20	6.0000	PC			SCREW;M3mm*12mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
21	6.0000	PC			SCREW;M3mm*12mm;HEAD:PAN SPRING WASHER;INSERT:PHILIPS REC.;SURFACE:SILVER/ZINC		*NOT available in DP
22	32.0000	PC			SCREW;A3mm*13mm;HEAD:FLAT;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
23	4.0000	PC			SCREW;M4mm*10mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
24	4.0000	PC			SCREW;M4mm*14mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
25	1.0000	PC			SCREW;M4mm*16mm;HEAD:BINDING;INSERT:PHILIPS REC.;SURFACE:SILVER/ZINC		*NOT available in DP
26	7.0000	PC			SCREW;M4mm*30mm;HEAD:OVAL;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
27	4.0000	PC			SCREW;A5mm*18mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
28	2.0000	PC			SCREW;M5mm*25mm;HEAD:PAN;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
29	1.0000	PC			SCREW;M6mm*70mm;HEAD:BINDING;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
30	2.0000	PC		F89-43000-00002	INSULATION SHEET;GLIMMER;TO220 W/HOLE;HOLE-DIAMETER:3MM1(IN-GLTO220_3MM1-REVA.DWG)		
31	1.0000	PC			SILICA GEL;MASS;20g;SPEC.NO:20QB-BB2001-4		*NOT available in DP
32	2.0000	PC			SPRING;CYLINDRICAL;F5112;6mm*14mm8;CARBON STEEL;DWG.NO:04288;(R14-FCB1010-SPRING-REVA.DWG)		*NOT available in DP
33	5.0000	PC			STUD;THREAD-DIA;3mm;LENGTH:13mm8;INT/INT		*NOT available in DP
34	0.0200	M			SHRINKING TUBE;INNER DIA;3mm;SPEC.NO:01097		*NOT available in DP
35	0.0300	M			SHRINKING TUBE;INNER DIA;4mm;SPEC.NO:01098		*NOT available in DP
36	0.0900	M			SHRINKING TUBE;INNER DIA;6mm;SPEC.NO:01099		*NOT available in DP
37	6.0000	PC			WASHER;9.7 MM;16 MM;NICKEL;WHITE;WASHER;FLAT;DIM:9.7*16*0.5mm;NIC		*NOT available in DP
38	1.0000	PC			WASHER;PLAIN;INNER DIA:6mm;OUTER DIA:12mm5;THICKNESS;1mm;PLATING;NIC		*NOT available in DP
39	2.0000	PC			WASHER;PLAIN;INNER DIA:9mm6;OUTER DIA:13mm;THICKNESS;0mm5;PLATING;NICKEL		*NOT available in DP
40	1.0000	PC			WASHER;SPRING;INNER DIA:6mm4;OUTER DIA:11mm8;THICKNESS;2mm		*NOT available in DP
41	2.0000	PC			WASHER;EXTERNAL TEETH;INNER DIA:3mm;OUTER DIA:6mm;THICKNESS:0mm5		*NOT available in DP
42	2.0000	PC			WASHER;EXTERNAL TEETH;INNER DIA:4mm;OUTER DIA:7mm;THICKNESS;1mm7		*NOT available in DP
43	7.0000	PC			WASHER;DONUT;INNER DIA:5mm5;OUTER DIA:16mm;THICKNESS;2mm6;PLATING;BLACK/ZINC		*NOT available in DP
44	1.0000	PC		F97-00200-00344	FOAM PAD;BX3000T;MATERIAL:K30R30F9;DST.NO:002;DPT.NO:00344;(BX3000T-FOAM-REVB.DWG)		
45	1.0000	PC		F97-00300-02883	FILM;PROTECTIVE;BX3000T;DST.NO:003;DPT.NO:02883;(BX3000T-PCB-FOIL-REVC.DWG)		
46	1.0000	PC		F97-00400-07742	FILM;PROTECTIVE;PROTECT3;DST.NO:004;DPT.NO:07742;(PROTECT3-REVD.DWG)		
47	1.0000	PC		F97-17000-04145	SHEET;FOAM;FOOTSWITCH;F5112;W/ DURABLE ADHESIVE;DWG.NO:04145;(R14-GX112-FOAM-REVA.DWG)		
48	1.0000	PC			BUSHING;CABLE;F5112;NYLON;DWG.NO:04141;(R14-CABLEBUSHING-REVA.DWG)		*NOT available in DP
49	2.0000	PC			BUSHING;MINIATURE;NYLON;DWG.NO:27886;(R20-SC-PLA_NYLBUSHM3x1_4.DWG)		*NOT available in DP
50	5.0000	PC			SCREW;M3mm*6mm;PITCH:0mm5;HEAD:FLAT;DIA:4mm5;INSERT:PHILIPS REC.;SURFACE:BLACK/ZINC		*NOT available in DP
51	2.0000	PC			SCREW; M3mm*10mm; PITCH:0mm5; SURFACE:BLACK/ZINC; DWG.NO:06302; (R14-DX100-SCREW-REVA.DWG)		*NOT available in DP

Ic

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC		C73-00000-29050	IC;OPAMP;SMD;SOP;8;BA4580RF	[LPA1450:01: {1.0}(IC4)]	
2	1.0000	PC	S73-22370-00516	C73-22370-00516	IC;OPAMP OPAMP;V13700M;SOP	[LPA1450:01: {1.0}(IC5)]	
3	5.0000	PC	S73-58007-40514	C73-31007-40514	IC;OPAMP OPAMP;TL074;SOP;	[BX4500H:01: {5.0}(IC3-IC4,IC6-IC7,IC9)]	
4	0.0000	PC	S73-59458-00508	C73-59458-00508	IC;OPAMP OPAMP;NJM4580;SOP		
5	1.0000	PC	S77-15107-03110	C77-15107-03110	IC;VOLT.REGULATOR;7815F;FULLPACK;TO220		
6	1.0000	PC	S77-15207-03110	C77-15207-03110	IC;VOLT.REGULATOR;7915F;FULLPACK;TO220		
7	1.0000	PC	T22-31001-40514	D22-31001-40514	IC;LOGIC;74HC14;SOP	[BX4500H:01: {1.0}(IC1)]	
8	1.0000	PC	T22-31007-40514	D22-31007-40514	IC;LOGIC;74HC74;SOP	[BX4500H:01: {1.0}(IC2)]	
9	1.0000	PC	T30-06405-30516	D30-06405-30516	IC;SWITCH/MUPLEX;CD4053-SB1;SOP;MOT/THOMSON ONLY;SOP	[BX4500H:01: {1.0}(IC8)]	
10	1.0000	PC		D30-82403-00514	IC;SWITCH/MUPLEX;CD4013;SOP	[BX4500H:01: {1.0}(IC5)]	

Led

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	2.0000	PC	U10-53565-00588	E10-53565-00588	LED HIB;3mm ROUND;GREEN	[LPA1450:01: {1.0}(LD1)]	
2	2.0000	PC	U10-59585-00592	E10-59585-00592	LED HIB;3mm ROUND;YELLOW	[BX4500H:01: {2.0}(LD3-LD4)]	
3	3.0000	PC	U12-57630-00590	E12-57630-00590	LED;3mm ROUND;RD	[LPA1450:01: {1.0}(LD2)]	

Metal Part

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC		A62-00300-00432	METAL;TRANSFORMER-SPACER;BX3000T;DST.NO:003;DPT.NO:00432;(BX3000T-TRAN-SPACER-REVC.DWG)		
2	1.0000	PC		A62-09400-25947	METAL;BOTTOM;FS112B;CHAMPAGNE;DWG.NO:25947;(R14-GX-FOOTBOTTOM-REVC.DWG)		
3	1.0000	PC	Q63-02000-28910	A63-02000-28910	METAL;HEATSINK;P0113;ALU;EXTRUSION;ANODIZING;BLACK;DWG.NO:2891;(BX3000T-HEATSINK-REVA.DWG)		
4	1.0000	PC	Q65-00200-01677	A65-00200-01677	METAL;BELT;GX-SERIES;DST.NO:002;DPT.NO:01677;(R14-MET-BELT-REVB.DWG)		
5	2.0000	PC		A65-04700-04125	METAL;HANDLE FIXATION;BG-SERIES;(STAINLESS)STEEL;DWG.NO:04125;(R14-MET_H-COVER-REVA.DWG)		
6	1.0000	PC		A65-09000-25912	METAL;FAN GUARD;DIAMETER:80mm;TYP:G;NO:01;SPEC.NO:25912		
7	2.0000	PC		A65-15000-04134	METAL;SPACER;LENGTH:4mm4;HOLE DIA:3mm5;DWG.NO:04134;(R14-FS112-SPACER-REVA.DWG)		
8	2.0000	PC		A65-21700-15300	METAL;FAN SCREW HOLDER;GX-SERIES BX-SERIES;SECC;BLACK;DWG.NO:15300;(R14-FAN-8080-HOLDER-REVB.DWG)		
9	1.0000	PC		J02-00000-45888	METAL;P0362;USERUNIT;H009		
10	1.0000	PC		J02-00000-63824	METAL;POAST;SECC 1.6mm;COVER;STAMPING;SPRAYING;CHAMPAGNE;D006		
11	1.0000	PC		J05-00000-45889	METAL;P0362;STRIP;D003		

Plastic Part

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	4.0000	PC	W51-00300-06264	G51-00300-06264	RUBBER FOOT;ROUND;BIG;DWG.NO:06264;(R14-RUBFOOT_WASHER-REVA.DWG)		
2	2.0000	PC	W52-00200-10076	G52-00200-10076	KNOB;POT;BX SERIES;W/ WHITE LINE;DST.NO:002;DPT.NO:10076;(POTKNOB-19-REVB.DWG)		
3	7.0000	PC	W52-00200-10077	G52-00200-10077	KNOB;POT;BX2600T BX3000;DST.NO:002;DPT.NO:10077;(POTKNOB-23-REVB.DWG)		
4	4.0000	PC	W52-80008-17625	G52-80008-17625	KNOB;SWITCH;DPM;CAP;BLK;DWG.NO:17625;(R14-DPM1-KNOB1-REVA.DWG)		
5	2.0000	PC	W52-80500-09382	G52-80500-09382	KNOB;SWITCH;FOOTPEDALS;BLACK;DWG.NO:09382;(R14-GUITAR-SWITCHKNOB1-REVA.DWG)		
6	1.0000	PC	W58-00200-01081	G58-00200-01081	PLASTIC;HANDLE;P0357;PVC;EXTRUSION;BLACK;DST.NO:002;DPT.NO:01081;(R14-PLA-BELT-REVB.DWG)		
7	5.0000	PC		G58-14100-13806	PLASTIC;LED SPACER;ABS;BLACK;GX-SERIES;NO:7;DWG.NO:13806;(R14-LED_SPACER11_5-REVA.DWG)		
8	1.0000	PC		G58-35300-06241	PLASTIC;GASKET;P0077;GX212 GX2000;RUBBER HEATSINK;DWG.NO:06241;(R14-HSGASKET1-REVB.DWG)		
9	2.0000	PC		G58-53000-25624	PLASTIC;BASE;P0089;ABS;YS1285A;BLACK;FS112 FS114 FCB1010;COLOR:BLK;DWG.NO:25624;(R14-GUITAR-SWITCHBASE1-REVB.DWG)		
10	8.0000	PC	W58-54100-12083	G58-54100-12083	PLASTIC;CORNER;P0113;BX3000T (NO 6);(R14-CORNER6-REVA.DWG)		
11	2.0000	PC	W58-40100-04229	I68-00000-40599	PLASTIC;P0000;HANDLECOVER;B001		

Plug Socket

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC		G61-65206-03287	BOX HEADER;POLES:06;2 ROW;STRAIGHT;PITCH:2mm54;SCM-06S	[LPA1450:01: {1.0}(X11)]	
2	1.0000	PC		G61-75206-05765	CABLE HEADER;POLES:6;2 ROW;IDE;STRAIGHT;PITCH:2mm54;FC-6P		
3	1.0000	PC		G61-85206-08163	TRANSITION PLUG;FLAT CABLE;POLES:6;ROWS:2;STRAIGHT;PITCH:2mm54;BLACK;FD-06P		
4	4.0000	PC	W64-01211-03174	G64-01211-03174	PLUG;JACK STEREO 6mm3;STRAIGHT SOLDER;W/O MET.RNG.;MET.BUSH.;NO NUT/WASHER;(JY-6351G-02-250)	[BX4500H:02: {3.0}(X5-X7)]	
5	2.0000	PC	W64-16112-00062	G64-16112-00062	PLUG;JACK MONO 6mm3;STRAIGHT SOLDER;DUAL TIP/NO RING CONTACTS;MET.BUSH.;NO NUT/WASHER;(CHUNSHENG PJ-636HA)	[LPA1450:01: {2.0}(X2-X3)]	
6	2.0000	PC	W64-16212-00005	G64-16212-00005	PLUG;PCB;PLUG;JACK STEREO 6mm3;STRAIGHTPCB LUGS;NO NUT/WASHER;METAL BUSHING;(CHUNSHENG PJ-632HA)	[BX4500H:03: {2.0}(X2-X3)]	
7	1.0000	PC	W71-23104-03185	G71-23104-03185	WAFER;POLES:4;STRAIGHT;PITCH:2 mm;1 ROW;JS1125-04	[BX4500H:01: {1.0}(X10)]	
8	1.0000	PC	W71-23105-03186	G71-23105-03186	WAFER;POLES:5;STRAIGHT;PITCH:2 mm;1 ROW;JS1125-05	[BX4500H:01: {1.0}(X12)]	
9	1.0000	PC	W71-23106-03187	G71-23106-03187	WAFER;POLES:6;STRAIGHT;PITCH:2 mm;1 ROW;JS1125-06	[BX4500H:01: {1.0}(X8)]	
10	1.0000	PC	W71-24102-20590	G71-24102-20590	WAFER;POLES:2;STRAIGHT;PITCH:2.5 mm;1 ROW;JS1001-02	[LPA1450:01: {1.0}(X4)]	
11	1.0000	PC	W71-27105-03197	G71-27105-03197	WAFER;POLES:5;STRAIGHT;PITCH:3.96 mm;1 ROW;JS4001-05	[LPA1450:01: {1.0}(X12)]	
12	14.0000	PC		G71-43000-05662	HOUSING;TERMINAL;SPH-002T-P0.5L		
13	1.0000	PC		G71-43104-05627	PLUG;HOUSING;POLES:4;1 ROW;STRAIGHT;PITCH:2mm		
14	1.0000	PC		G71-43105-05628	PLUG;HOUSING;P:2mm0;POLES:5;1 ROW;STRAIGHT;PITCH:2mm0		
15	1.0000	PC		G71-43106-05629	PLUG;HOUSING;P:2mm0;POLES:6;1 ROW;STRAIGHT;PITCH:2mm0		
16	10.0000	PC	W71-80000-05663	G71-80000-05663	BD.-IN-CONN;TERMINAL;SAN-002T-0.8A		
17	1.0000	PC	W71-83105-05647	G71-83105-05647	BOARD-IN-CONNECTOR;POLES:5;ROWS:1;STRAIGHT;PITCH:2 mm		
18	1.0000	PC	W71-83106-05650	G71-83106-05650	BOARD-IN-CONNECTOR;POLES:6;ROWS:1;STRAIGHT;PITCH:2 mm		
19	1.0000	PC		G67-20103-01421	PLUG;AC SOCK;W FUSE;COLOR:BLK;POLES:03;(JACKSON JR-101-1F)		(EU, UL, JP, UK, SAA, BR, AR, HM, SH, RU)
20	1.0000	PC		G67-20103-01421	PLUG;AC SOCK;W FUSE;COLOR:BLK;POLES:03;(JACKSON JR-101-1F)		
21	0.0000	PC	W67-20103-01396	G67-20103-01396	PLUG;AC SOCK;W FUSE;COLOR:BLK;POLES:03;(RONG-FENG RF-2004-C-4.8)		(EU, UL, JP, UK, SAA, BR, AR, HM, SH, RU)
22	0.0000	PC	W67-20103-01396	G67-20103-01396	PLUG;AC SOCK;W FUSE;COLOR:BLK;POLES:03;(RONG-FENG RF-2004-C-4.8)		

Power Supply

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC	Z68-93419-03153	J68-93419-03153	TRAF0;TOROIDAL;LPA1450;EU CCC SAA UK 230V;(NRE TR07-0004(R1L))		(EU, UK, SAA, AR, RU)
2	1.0000	PC	Z68-90007-03151	J68-90007-03151	TRAF0;TOROIDAL;LPA1450;JP 100V;(NRE TR07-0006(R1L))		(JP, HM, SH)
3	1.0000	PC	Z68-90005-03150	J68-90005-03150	TRAF0;TOROIDAL;LPA1450;UL 120V;(NRE TR07-0005(R1L))		(UL, BR)

Resistor

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	1.0000	PC			RESISTOR;CARBON;47ohm;5%;0W063;SMD603	[BX4500H:01: {1.0}(R107)]	*NOT available in DP
2	2.0000	PC			RESISTOR;CARBON;100ohm;5%;0W063;SMD603	[LPA1450:01: {2.0}(R54-R55)]	*NOT available in DP
3	1.0000	PC			RESISTOR;CARBON;220ohm;5%;0W063;SMD603	[BX4500H:01: {1.0}(R42)]	*NOT available in DP
4	1.0000	PC			RESISTOR;CARBON;1Kohm;5%;0W063;SMD603	[LPA1450:01: {1.0}(R58)]	*NOT available in DP
5	2.0000	PC			RESISTOR;CARBON;3Kohm;5%;0W063;SMD603	[LPA1450:01: {2.0}(R53,R59)]	*NOT available in DP
6	1.0000	PC			RESISTOR;CARBON;4Kohm7;5%;0W063;SMD603	[BX4500H:01: {1.0}(R72)]	*NOT available in DP
7	1.0000	PC			RESISTOR;CARBON;7Kohm5;5%;0W063;SMD603	[LPA1450:01: {1.0}(R57)]	*NOT available in DP
8	4.0000	PC			RESISTOR;CARBON;10Kohm;5%;0W063;SMD603	[BX4500H:01: {4.0}(R44,R97,R100,R105)]	*NOT available in DP
9	2.0000	PC			RESISTOR;CARBON;20Kohm;5%;0W063;SMD603	[LPA1450:01: {2.0}(R45,R51)]	*NOT available in DP
10	3.0000	PC			RESISTOR;CARBON;22Kohm;5%;0W063;SMD603	[BX4500H:01: {3.0}(R71,R99,R106)]	*NOT available in DP
11	1.0000	PC			RESISTOR;CARBON;39Kohm;5%;0W063;SMD603	[LPA1450:01: {1.0}(R56)]	*NOT available in DP
12	3.0000	PC			RESISTOR;CARBON;100Kohm;5%;0W063;SMD603	[BX4500H:01: {3.0}(R41,R43,R98)]	*NOT available in DP
13	1.0000	PC			RESISTOR;CARBON;150Kohm;5%;0W063;SMD603	[BX4500H:01: {1.0}(R39)]	*NOT available in DP
14	1.0000	PC			RESISTOR;CARBON;220Kohm;5%;0W063;SMD603	[BX4500H:01: {1.0}(R40)]	*NOT available in DP
15	2.0000	PC			RESISTOR;CARBON;470Kohm;5%;0W063;SMD603	[LPA1450:01: {2.0}(R29,R46)]	*NOT available in DP
16	1.0000	PC			RESISTOR;METAL;4Kohm75;1%;0W063;SMD603	[LPA1450:01: {1.0}(R52)]	*NOT available in DP
17	1.0000	PC			RESISTOR;METAL;390Kohm;1%;0W063;SMD603	[LPA1450:01: {1.0}(R44)]	*NOT available in DP
18	1.0000	PC			RESISTOR;METAL;680Kohm;1%;0W063;SMD603	[BX4500H:01: {1.0}(R114)]	*NOT available in DP
19	1.0000	PC			RESISTOR;CARBON;47ohm;5%;0W1;SMD805	[LPA1450:01: {1.0}(R39)]	*NOT available in DP
20	7.0000	PC			RESISTOR;CARBON;100ohm;5%;0W1;SMD805	[LPA1450:01: {1.0}(R47)]	*NOT available in DP
21	3.0000	PC			RESISTOR;CARBON;220ohm;5%;0W1;SMD805	[BX4500H:01: {3.0}(R11,R46,R73)]	*NOT available in DP
22	3.0000	PC			RESISTOR;CARBON;270ohm;5%;0W1;SMD805	[LPA1450:01: {3.0}(R34-R35,R43)]	*NOT available in DP
23	1.0000	PC			RESISTOR;CARBON;820ohm;5%;0W1;SMD805	[LPA1450:01: {1.0}(R50)]	*NOT available in DP
24	4.0000	PC			RESISTOR;CARBON;1Kohm6;5%;0W1;SMD805	[LPA1450:01: {4.0}(R36,R40-R42)]	*NOT available in DP
25	4.0000	PC			RESISTOR;CARBON;2Kohm;5%;0W1;SMD805	[LPA1450:01: {2.0}(R28,R32)]	*NOT available in DP
26	3.0000	PC			RESISTOR;CARBON;2Kohm2;5%;0W1;SMD805	[BX4500H:01: {2.0}(R101-R102)]	*NOT available in DP
27	21.0000	PC			RESISTOR;CARBON;4Kohm7;5%;0W1;SMD805	[BX4500H:01: {21.0}(R8-R9,R21-R26,R34,R52-R53,R55,R57,R61-R63,R68,R87-R90)]	*NOT available in DP
28	1.0000	PC			RESISTOR;CARBON;5Kohm6;5%;0W1;SMD805	[BX4500H:01: {1.0}(R12)]	*NOT available in DP
29	4.0000	PC			RESISTOR;CARBON;6Kohm8;5%;0W1;SMD805	[LPA1450:01: {3.0}(R26-R27,R49)]	*NOT available in DP
30	13.0000	PC			RESISTOR;CARBON;10Kohm;5%;0W1;SMD805	[BX4500H:01: {13.0}(R10,R31,R35,R45,R47-R48,R51,R64-R65,R81,R83,R91-R92)]	*NOT available in DP
31	4.0000	PC			RESISTOR;CARBON;15Kohm;5%;0W1;SMD805	[BX4500H:01: {4.0}(R15,R27,R37,R59)]	*NOT available in DP
32	2.0000	PC			RESISTOR;CARBON;20Kohm;5%;0W1;SMD805	[BX4500H:01: {2.0}(R66,R86)]	*NOT available in DP
33	4.0000	PC			RESISTOR;CARBON;22Kohm;5%;0W1;SMD805	[BX4500H:01: {4.0}(R13-R14,R80,R104)]	*NOT available in DP
34	1.0000	PC			RESISTOR;CARBON;36Kohm;5%;0W1;SMD805	[BX4500H:01: {1.0}(R67)]	*NOT available in DP
35	11.0000	PC			RESISTOR;CARBON;47Kohm;5%;0W1;SMD805	[BX4500H:01: {11.0}(R28,R30,R32-R33,R36,R38,R58,R69,R74-R75)]	*NOT available in DP
36	2.0000	PC			RESISTOR;CARBON;56Kohm;5%;0W1;SMD805	[BX4500H:01: {2.0}(R17,R29)]	*NOT available in DP
37	1.0000	PC			RESISTOR;CARBON;62Kohm;5%;0W1;SMD805	[BX4500H:01: {1.0}(R56)]	*NOT available in DP
38	1.0000	PC			RESISTOR;CARBON;68Kohm;5%;0W1;SMD805	[BX4500H:03: {1.0}(R108)]	*NOT available in DP
39	12.0000	PC			RESISTOR;CARBON;100Kohm;5%;0W1;SMD805	[BX4500H:01: {12.0}(R7,R18,R20,R49-R50,R54,R60,R79,R84-R85)]	*NOT available in DP
40	3.0000	PC			RESISTOR;CARBON;150Kohm;5%;0W1;SMD805	[LPA1450:01: {2.0}(R30,R33)]	*NOT available in DP
41	3.0000	PC			RESISTOR;CARBON;220Kohm;5%;0W1;SMD805	[LPA1450:01: {3.0}(R31,R37,R48)]	*NOT available in DP
42	1.0000	PC			RESISTOR;CARBON;1Mohm;5%;0W1;SMD805	[BX4500H:01: {1.0}(R78)]	*NOT available in DP
43	2.0000	PC			RESISTOR;METAL;10Kohm;1%;0W1;SMD805	[BX4500H:01: {2.0}(R76-R77)]	*NOT available in DP

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
44	1.0000	PC			RESISTOR;METAL;487Kohm;1%;0W1;SMD805	[LPA1450:01: {1.0}(R38)]	*NOT available in DP
45	1.0000	PC			RESISTOR;ARRAY;10Kohm;SMD1206;CAY16-103J4	[LPA1450:01: {1.0}(R60)]	*NOT available in DP
46	1.0000	PC	Y04-15000-20589	I04-15000-20589	THERMISTOR;NTC;50ohm		
47	1.0000	PC	Y04-21001-29294	I04-21001-29294	THERMISTOR;PTC;100ohm;PTLS2101YP616Y		
48	1.0000	PC			RESISTOR;TRIMMER;100ohm;REVERSE PINS;5mm x 2mm5;RADIAL;T100E5 x 2.5V2	[LPA1450:01: {1.0}(VR1)]	*NOT available in DP
49	2.0000	PC			RESISTOR;TRIMMER;2Kohm2;REVERSE PINS;5mm x 2mm5;RADIAL;T002K2-5 x 2.5V2	[LPA1450:01: {2.0}(VR2-VR3)]	*NOT available in DP
50	1.0000	PC			RESISTOR;TRIMMER;10Kohm;REVERSE PINS;5mm x 2mm5;RADIAL;T010K5 x 2.5V2	[BX4500H:01: {1.0}(VR10)]	*NOT available in DP
51	2.0000	PC			RESISTOR;TRIMMER;2KOhm2;3mm9*3mm;PPM250;NOBLE TMC3KB2K2	[BX4500H:01: {2.0}(VR11-VR12)]	*NOT available in DP
52	3.0000	PC			RESISTOR;CARBON;1Kohm1;5%;0W25;LEAD WIRE;HORIZONTAL 26-6mm	[P0362:01: {3.0}(R3-R5)]	*NOT available in DP
53	2.0000	PC			RESISTOR;METAL;150Kohm;1%;0W25;LEAD WIRE	[LPA1450:01: {2.0}(R17,R20)]	*NOT available in DP
54	1.0000	PC			RESISTOR;METAL;10Kohm;1%;0W5;LEAD WIRE	[LPA1450:01: {1.0}(R21)]	*NOT available in DP
55	3.0000	PC			RESISTOR;CARBON;6ohm8;5%;1W;LEAD WIRE	[LPA1450:01: {3.0}(R13-R14,R25)]	*NOT available in DP
56	1.0000	PC			RESISTOR;CARBON;100ohm;5%;1W;LEAD WIRE	[BX4500H:01: {1.0}(R1)]	*NOT available in DP
57	1.0000	PC			RESISTOR;CARBON;270ohm;5%;1W;LEAD WIRE	[BX4500H:01: {1.0}(R2)]	*NOT available in DP
58	2.0000	PC			RESISTOR;METAL;22ohm;1%;1W;LEAD WIRE;FLAME PROOF	[LPA1450:01: {2.0}(R11-R12)]	*NOT available in DP
59	1.0000	PC			RESISTOR;CEMENT;5ohm6;5%;2W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5	[LPA1450:01: {1.0}(R5)]	*NOT available in DP
60	2.0000	PC			RESISTOR;CEMENT;15ohm;5%;2W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5	[LPA1450:01: {2.0}(R3-R4)]	*NOT available in DP
61	1.0000	PC			RESISTOR;CEMENT;120ohm;5%;2W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5	[LPA1450:01: {1.0}(R6)]	*NOT available in DP
62	1.0000	PC			RESISTOR;CEMENT;15Kohm;5%;2W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5	[LPA1450:01: {1.0}(R19)]	*NOT available in DP
63	6.0000	PC			RESISTOR;CEMENT;0ohm22;5%;3W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5	[LPA1450:01: {6.0}(R1-R2,R9-R10,R15-R16)]	*NOT available in DP
64	2.0000	PC			RESISTOR;CEMENT;820ohm;5%;5W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5	[LPA1450:01: {2.0}(R23-R24)]	*NOT available in DP
65	2.0000	PC			RESISTOR;CEMENT;2Kohm;5%;5W;LEAD WIRE;RADIAL;PITCH:5mm;PRECUT:3mm1+/-0mm5		*NOT available in DP
66	1.0000	PC	Y04-12000-03595	I04-12000-03595	THERMISTOR;NTC;20ohm;+/- 20%;DIA:;PITCH:7mm5;5;(UPPERMOST N20SP02M-5)		(EU, UK, SAA, AR, RU)
67	1.0000	PC	Y04-11000-03594	I04-11000-03594	THERMISTOR;NTC;10ohm;+/- 20%;6A;DIA:;PITCH:7mm5;(UPPERMOST N20SP010M-5W6)		(UL, JP, BR, HM, SH)
68	1.0000	PC	Y04-11000-03594	I04-11000-03594	THERMISTOR;NTC;10ohm;+/- 20%;6A;DIA:;PITCH:7mm5;(UPPERMOST N20SP010M-5W6)		

Potentiometer

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	3.0000	PC		I03-00000-86427	POTENTIOMETER;50 kohm;0.050W;B;20 %;MONO;BULK;CARBON;30MM;(NOBLE: XV09223YNPV30F1B50K/I)	[BX4500H:01: {3.0}(VR1-VR2,VR9)]	
2	1.0000	PC		I03-00000-88071	POTENTIOMETER;100 kohm;0.050W;TAPER:C;20 %;STEREO;BULK;CARBON;PITCH:30 MM;NORMAL TORQUE(NOBLE XV012323YGPV30F15C100K/I)	[BX4500H:01: {1.0}(VR8)]	
3	5.0000	PC	Y03-35251-09454	I03-85251-01975	POTENTIOMETER;100Kohm;TAPER:B;MONO;SHAFT:30MM;W/ CC;HIGH TORQUE;(TOPROOT RK093NVA01-F30B12-B100K(300)-CC-O-H	[BX4500H:01: {5.0}(VR3-VR7)]	

Switch

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	2.0000	PC	Y77-03422-02778	I77-03422-02778	SWITCH;RADIAL;2P2T;PCB VERSION;LOCKING;NONSHORT;RAD2P	[BX4500H:01: {2.0}(SW2-SW3)]	
2	2.0000	PC	Y77-03822-02779	I77-03822-02779	SWITCH;RADIAL;2P2T;PCB VERSION;NONLOCK;NONSHORT;RAD2P/NON	[BX4500H:01: {2.0}(SW1,SW4)]	
3	1.0000	PC	Y84-02221-36039	I84-02221-36039	SWITCH;ROCKER;2P1T;WHITE LINE MARKING HO;LOCKING;NONSHORT;AMP TABS;-0;6(6)A;12S/250V;(CHILY3072-KGP15T1C01B02BKBKTV		
4	2.0000	PC	Y87-43811-03768	I87-43811-03768	SWITCH;TACTILE;POLES:1;HEIGHT:4mm3;PCB VERSION;NONLOCK;NONSHORT	[90100: {2.0}(SW1-SW2)]	

Transistor

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	3.0000	PC			TRANSISTOR;2SA1943;FAIRCHILD(TO264) OR TOSHIBA(2-21F1A) ONLY !		*NOT available in DP
2	3.0000	PC			TRANSISTOR;2SC5200;FAIRCHILD(TO264) OR TOSHIBA(2-21F1A) ONLY !		*NOT available in DP
3	1.0000	PC			TRANSISTOR;MJE15032;TO220		*NOT available in DP
4	1.0000	PC			TRANSISTOR;MJE15033;TO220		*NOT available in DP
5	1.0000	PC			TRANSISTOR;BC546B;TO92;P:2.54(BENT LEAD)	[LPA1450:01: {1.0}(T10)]	*NOT available in DP
6	4.0000	PC			TRANSISTOR;BC846B;SOT;SMD	[BX4500H:01: {4.0}(T2-T5)]	*NOT available in DP
7	2.0000	PC			TRANSISTOR;BC856B;SOT;SMD	[LPA1450:01: {1.0}(T13)]	*NOT available in DP
8	1.0000	PC			TRANSISTOR;MPSA56;TO92;TAPING	[LPA1450:01: {1.0}(T11)]	*NOT available in DP
9	1.0000	PC			TRANSISTOR;MBTA06;SOT	[BX4500H:01: {1.0}(T8)]	*NOT available in DP
10	3.0000	PC			TRANSISTOR;SST113;SOT	[BX4500H:01: {3.0}(T1,T6,T9)]	*NOT available in DP
11	1.0000	PC			TRANSISTOR;TIP31C;TO220	[LPA1450:01: {1.0}(T3)]	*NOT available in DP
12	1.0000	PC			TRANSISTOR;KST42;SOT23	[LPA1450:01: {1.0}(T12)]	*NOT available in DP

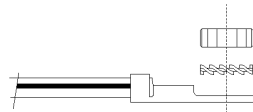
Cover

	Quantity	Unit	S.Sku	M.Sku	Description	Reference Designators	Notes
1	0.6000	M2		J11-80020-39927	CARPET;FELTED;QUALITY:W151;WIDTH:2000mm;COLOR:AGLEAM BLACK		



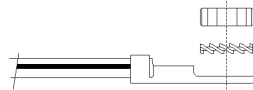
option: only for projects with PE-cable to PCB !

ASSEMBLED CABLE
(Yellow/Green) to PCB

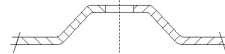


HEX NUT SC-NUHEXM04
 WASHER TEETH EXTERNAL SC-WATEEXT4x7x1.7
 ASSEMBLED CABLE WITH LUG 4.3mm WI-00/07/xxxx/07/05/00/18/34/00

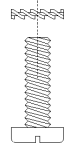
ASSEMBLED CABLE
(Yellow/Green) to Power Conn.



HEX NUT SC-NUHEXM04
 WASHER TEETH EXTERNAL SC-WATEEXT4x7x1.7
 ASSEMBLED CABLE WITH LUG 4.3mm WI-00/07/xxxx/07/05/00/18/34/00



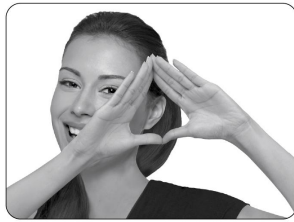
METAL CASE
 WASHER TEETH EXTERNAL SC-WATEEXT4x7x1.7



SCREW SC-M04x16-02-B-ZP-SLV
 (standard length, can be variable if required)

Part:		Name		Date	Project:
ASSEMBLE DRAWING		Drawn		PEUSE	08.01.1996
		File		R14-ASSEMBLE-PE-SCREW-REVD.DWG	
Drawing-No.:	X	Part-No.:			
		Color of Part			
		Printing			
		Surface			
D	changed from M3 to M4	03.06.2003	SCHOMMER	Scale	
C	add optional block, delete P-IDs	11.03.2002	MERKEL	Material	
B	adjust Part-IDs	11.04.2001	MERKEL	Units	
A		08.01.1996	PEUSE	Behringer	
Rev.	Modification	Date	Name	Part-ID:	DRA-ASSEMBLE/PE-SCREW
					Page 1
					of 1





We Hear You