



Service Documents

***Confidential, for authorized service technicians only!
Do not disclose this information to or share these documents
with third parties.***

***Vertraulich! Nur für autorisierte Servicetechniker!
Nicht zur Weitergabe an Dritte freigegeben!***

HU0910

TM 18

Head

Note!

The components used in this product - particularly parts affecting safety as well as speakers and transformers - were developed and manufactured to certain specifications. Please use original spare parts only to ensure the product remains fully functional and safe.

Achtung!

Die in diesem Produkt verwendeten Komponenten, insbesondere sicherheitsrelevante Teile, Lautsprecher und Transformatoren wurden nach spezifischen Vorgaben entwickelt und gefertigt. Bitte benutzen Sie ausschließlich Original-Ersatzteile – nur so ist die volle Funktionalität und Sicherheit gewährleistet.



TECHNICAL SERVICE:

***Stamer Musikanlagen GmbH • Magdeburger Str. 8 • 66606 St.Wendel • Germany
Music & Sales P.E. GmbH • Leipziger Str. 3 • 66606 St.Wendel • Germany***



Directory

features				page:	3 - 9
drawing-numbers-example				page:	10
standard for single wire confection				page:	11
<u>HU0910 - Tubemeister 18 Head</u>				page:	12
exploded drawings:	complete	Rev.:	B-I	page:	13 - 15
spare parts list	mainboard	Rev.:	B	page:	16 - 18
	rearboard	Rev.:	A	page:	19 - 20
	LED-board	Rev.:	A	page:	21 - 22
cabling	complete	Rev.:	A	page:	23
circuit diagrams	mainboard	Rev.:	G	page:	24
	rearboard	Rev.:	D	page:	25
	LED-board	Rev.:	A	page:	26
	Reverb-board	Rev.:	E	page:	27
	tube bias regulator	Rev.:	A	page:	28
layout diagrams	mainboard			page:	29 - 30
	rearboard / LED-board			page:	31
	tube bias regulator			page:	32

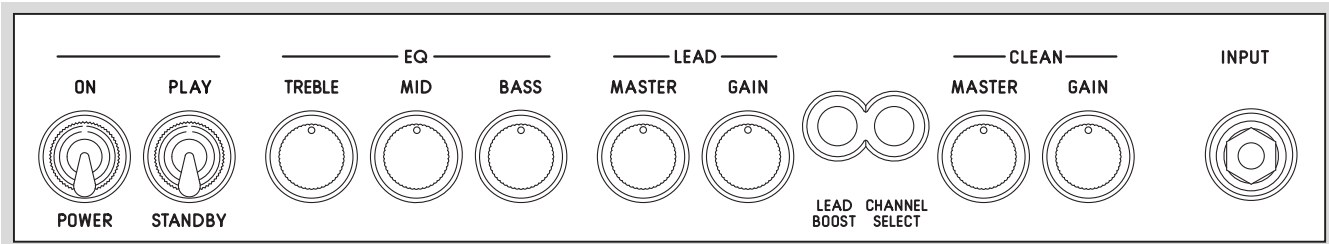
Table of contents

1	Connections & Control Features	12
2	Standard Setup/Cable Connections	15
3	Tube Safety Control (TSC)	16
4	Technical Specifications	17

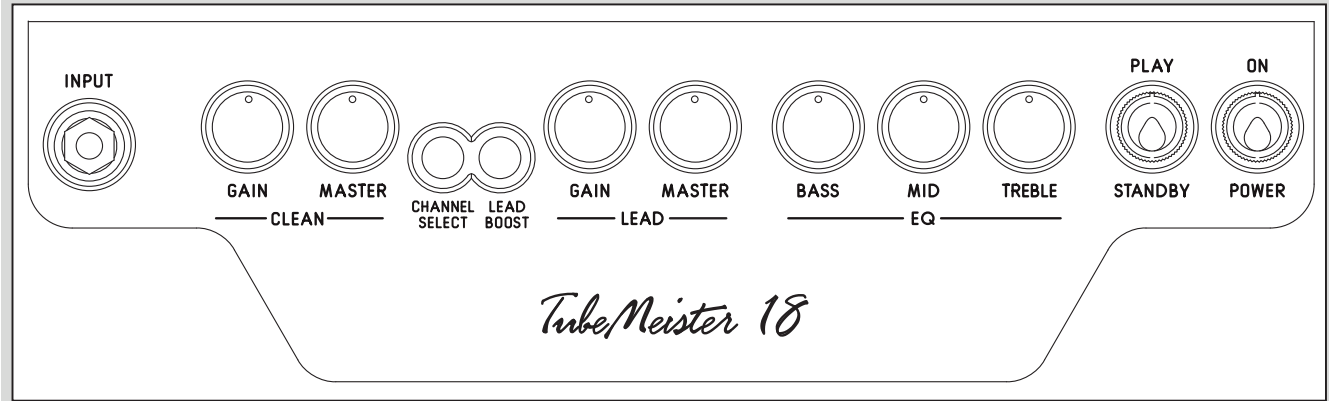
Things to Do Before Operating the Amp

- Please read these instructions carefully, particularly the notes on safety, before operating the amp.
- The manufacturer disclaims any liability or responsibility whatsoever for any damage or defect to this and other devices resulting from misuse.
- Before you plug the TubeMeister 18 into a mains power outlet, make sure its POWER and STANDBY switches are off (both pointing down) and that the voltage rating indicated on the amp's rear panel matches your local mains current.
- HEAD only: Please remember to always operate the amp with a speaker connected. The only exception to this rule is when the POWER SOAK is set to the SPEAKER OFF position. Always ensure the connected cabinet's impedance is no less than 8 Ω (see SPEAKER OUT for more on this).
- A word of warning before you fire up your TubeMeister 18: It's loud, and high volume levels can cause hearing damage.

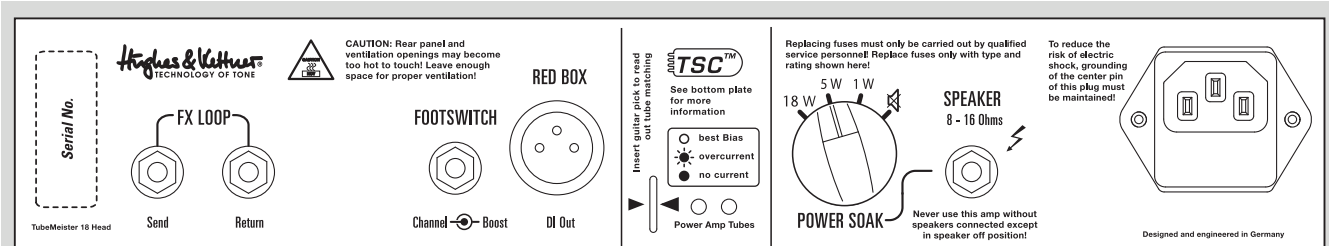
1 Connections and Control Features



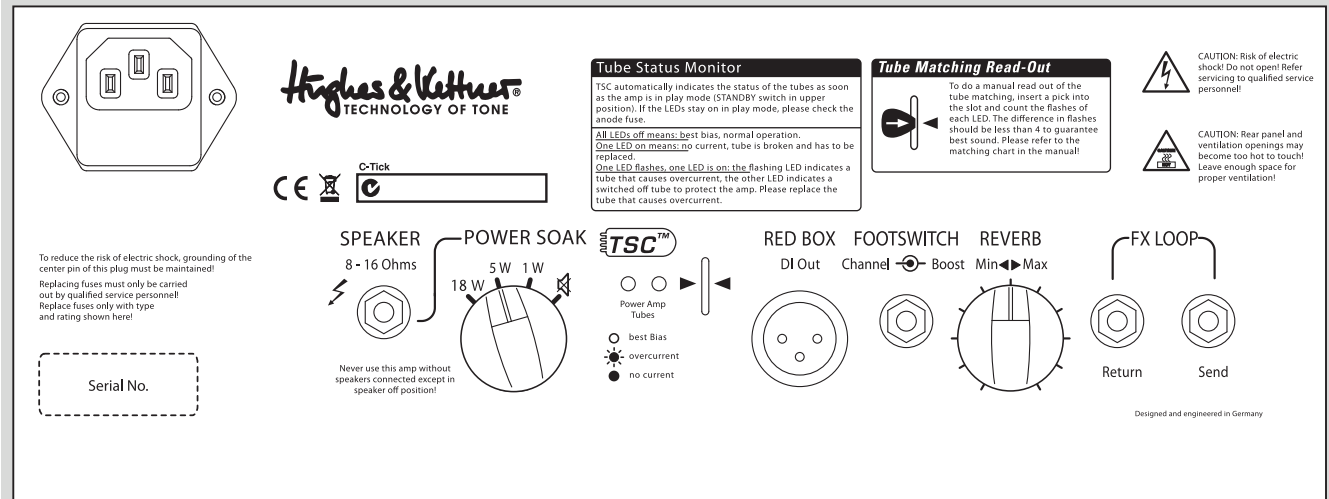
TubeMeister 18 Head Front Panel



TubeMeister 18 Combo Front Panel



TubeMeister 18 Head Rear Panel



TubeMeister 18 Combo Rear Panel

The TubeMeister 18 features independent GAIN and MASTER controls for the CLEAN and LEAD channels. Think of GAIN and MASTER as the yin and yang of sound-shaping rather than volume controls. They let you voice the TubeMeister 18's two channels. To set the basic volume level for the stage, rehearsal room, or living room, use the

POWER SOAK on the back of the amp. The best way to discover the amp's sonic possibilities is to experiment: Set the POWER SOAK to five-watt mode and all knobs to the 12 o'clock position. Then adjust GAIN/MASTER settings at will to get a taste of the very different flavors of preamp and power tube distortion.

To avoid very loud and unwelcome surprises, make a habit of backing the VOLUME knob of the guitar connected to the TubeMeister all the way down before switching on the amp.

1.1 Front Panel

POWER/ON

Set this switch to ON to get the mains power flowing. The amp lights up and the tubes will begin to heat up.

PLAY/STANDBY

Give the tubes about 30 seconds to warm up; then you can flip the STANDBY switch to PLAY. The amp is now ready to operate. When taking a short break from playing, please use the STANDBY switch so the tubes remain at operating temperature. This protects them and ensures they last longer.

INPUT

Connect your guitar to this input using a shielded cord.

CHANNEL SELECT

This switch activates either the CLEAN or LEAD channel. Its LED lights up blue when you select the LEAD channel. Connecting a footswitch disables the front panel button. You can then switch channels via footswitch only, and the CHANNEL SELECT light indicates which channel is active.

CLEAN Channel

The CLEAN channel delivers warm tube tone. Its dynamic range is considerable, sweeping from pristine clean to throaty crunch sounds. Remarkably responsive to the various pickup types, it also reacts to the slightest nudge of the guitar's volume knob.

GAIN

The GAIN knob determines the CLEAN channel's input sensitivity. Depending on the output levels of the pickups in your instrument, the channel will begin to overdrive somewhere around the 12 o'clock setting. This knob does not influence the LEAD channel.

MASTER

This knob adjusts the CLEAN channel's volume without affecting the LEAD channel's volume.

LEAD Channel

The LEAD channel delivers harmonically rich tube distortion and plenty of gain reserves to go from edgy overdrive to soaring lead sounds. You can even clean up its tone by backing off the guitar's volume knob. This gives you a huge spectrum of sounds to play with simply by working the pickup selector switch and adjusting the volume knob.

GAIN

This knob adjusts the amount of tube distortion. To discover the amazing range of sounds that this channel puts at your fingertips, we recommend that you first set the GAIN knob to the 12 o'clock position, and then experiment with the guitar's volume knob, pickup selector, and the amp's BOOST switch.

MASTER

This knob adjusts the LEAD channel's volume. Again, first set GAIN to the 12 o'clock position and experiment. If you wish to conjure creamy lead tones, turn the knob well up to dial in smooth power amp saturation. If you're aiming for an edgier metal sound, say for heavy riffs, try backing off the MASTER knob and turning up the GAIN knob. Usually smooth power amp saturation is less desirable for this type of metal tone.

NOTE: Be advised that you cannot mute the TubeMeister 18 by turning the LEAD MASTER knob all the way down (to the far left position). If you wish to play at very soft levels, we recommend that you attenuate the amp's overall output by selecting either the five- or one-watt mode (see POWER SOAK) rather than backing the MASTER volume way down.

LEAD BOOST

This switch re-voices the LEAD channel to summon modern high-gain sound that pairs plenty of punch with endless sustain. Its LED lights up red when

BOOST is active. Connecting a footswitch disables the front panel button. You can then switch BOOST via footswitch only, and the button merely serves to indicate the function's status.

BASS, MID, TREBLE

Although the two channels share these common tone controls, their separate EQ filtering circuits are voiced differently to achieve optimum results for each channel.

1.2 Rear Panel

FX LOOP

This serial loop lets you patch in effects devices: Connect the SEND jack to your effects processor's input and the RETURN jack to the processor's output. The FX LOOP activates when you insert a 6.3 mm (1/4") plug into the RETURN jack.

TIP

You can also use the SEND jack to tap the preamp signal, for example, to patch it to another power amp or a tuner. Conversely, you can use RETURN to feed signals into the TubeMeister's power amp. In combination with the POWER SOAK and the RED BOX Recording Out, this gives you a powerful recording front end that offers very interesting re-amping and sound-shaping options for just about every conceivable signal.

REVERB (Combo only)

This knob adjusts the intensity of the onboard digital spring reverb. We configured the reverb circuit so that the effect is more pronounced with the CLEAN channel than with the LEAD channel.

FOOTSWITCH

This standard stereo jack plug (tip = CHANNEL SELECT; ring = LEAD BOOST) accepts a two-way footswitch such as the Hughes & Kettner FS-2. Button 1 switches between the CLEAN and LEAD channels, and button 2 switches LEAD BOOST on and off. It also accepts a one-way footswitch such as the Hughes & Kettner FS-1 for switching channels.

TIP: This port gives you another hip remote-control option: If you wish to control the TubeMeister 18 via MIDI, connect a MIDI switcher or looper to this jack.

RED BOX

Invented by Hughes & Kettner, the RED BOX has for years set the industry standard for analog guitar DI boxes with built-in speaker emulation. It converts the TubeMeister 18's speaker out signal, which is tapped post power amp and pre POWER SOAK, into a balanced, frequency-compensated signal that you can patch directly to a mixing console. This signal it sounds very authentic, much like that of a guitar amp, when rendered by a PA or studio monitors,.

Use a microphone cord to patch this signal to a mixing console. Make sure the mixing console's XLR input is set to line level. If the mixing console lacks XLR inputs or if these cannot be set to line level, you will need an XLR-to-6.3 mm-(1/4")-jack adapter readily available in music stores. The channels' MASTER settings directly affect the signal level, but the selected POWER SOAK mode does not.

TSC

We devoted an entire chapter to the TUBE SAFETY CONTROL. See section 3 to learn more about it.

POWER SOAK

Use this knob to adjust the TubeMeister 18's output power and set its basic volume level. This feature lets you enjoy the benefits of full-blown power amp saturation at low volume so you can play at home in your living room without alienating the neighbors. Its silent recording capability lets you capture genuine tube-driven tone via a mixing console without having to drive speakers. And if you want to rehearse in silence any time day or night, simply plug a set of headphones into the mixer.

The POWER SOAK is not just about managing volume; it's also about conjuring the right tone and response. For modern sounds that demand fast,

tightly focused response, set the POWER SOAK to full power and turn the MASTER knob down. If you want classic rock sounds replete with spongier power tube saturation, drop the POWER SOAK down to a lower setting and crank the MASTER knob to give those power tubes a workout.

The POWER SOAK offers the following modes:

Normal operation - full power at 18 watts

Power reduction to 5 watts

Power reduction to 1 watt

Mute (Speaker off) = 0 watts

Note that if you choose to mute the amp, you do not need to connect a speaker to the TubeMeister 18's SPEAKER output. Designed to enable silent recording, this option provides the full signal to the RED BOX output.

SPEAKER

Connect a speaker cabinet designed for guitar amps to this jack. Using a single speaker cord, you can connect any cabinet or combination of cabinets whose total impedance ranges between 8 Ω and 16 Ω. The formula below serves to calculate the overall impedance (R) of two cabinets (R1, R2).

For cabinets wired in series: $R = R1 + R2$

Example: If you connect two 8 Ω cabinets, the overall impedance is 16 Ω. However, very few modern cabinets are wired in series. Parallel circuits like that of the TubeMeister 112 cabinet are far more common.

For cabinets wired in parallel:

$$R = (R1 \times R2) / (R1 + R2)$$

Here's an example with two 16Ω cabs:

$$R = (16 \times 16) / (16 + 16)$$

$$R = 256 / 24$$

$$R = 8$$

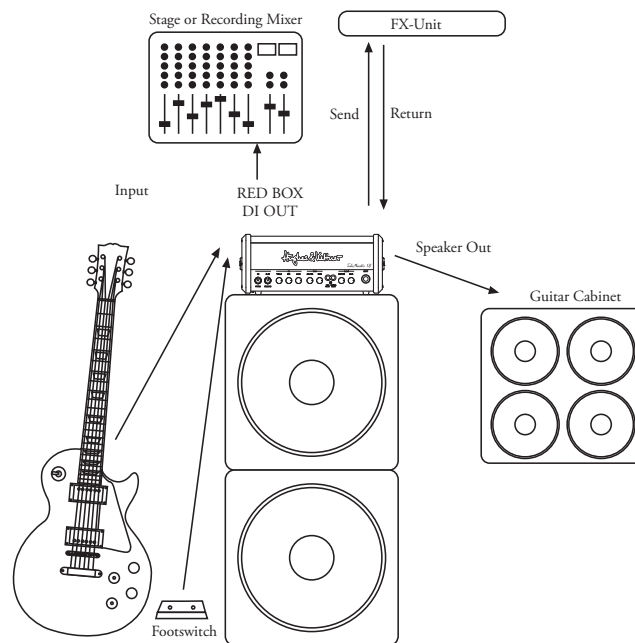
HEADS UP: On the Combo version, this jack is already occupied by the internal speaker. Of course, you are free to connect another cabinet to the

SPEAKER jack if you wish. To do so, simply unplug the built-in speaker.

MAINS IN

Connect the factory-included power cord (MAINS LEAD) to this socket. Ensure the amp's voltage rating matches your local AC voltage rating before you plug the cord into the wall socket. The shaft holding the mains fuses is located next to this socket. When replacing blown fuses, make sure you use specified replacement fuses only (see Technical Specifications).

2 Standard Setup/ Cable Connections



3 Tube Safety Control (TSC)

TSC adjusts bias to improve the amp's tonal and technical stability and extend power tubes' life. It does this automatically and continuously, so there is nothing for you to do.

Swapping tubes is more easily, quickly, and safely done than with a conventional amp. This is a big help not only in case of a defect, but also when you want to compare different brands of replacement tubes.

CAUTION: Replacing tubes is a job for qualified professionals! TSC merely spares the technician the biasing effort.

What do the LEDs indicate?

Each LED is assigned to the power tube occupying that same position. Getting a read-out of tubes' operating status and bias points is easy using any standard guitar pick.

3.1 Automatic status indications

All LEDs light up and stay on.

All LEDs remain on for as long as the amp is in standby mode. They will extinguish when you flip the STANDBY switch to PLAY after about 30 seconds. If the LEDs remain illuminated, the most likely cause is a blown anode fuse that needs to be replaced by a technician. The anode fuse can trip if a tube is already defective when the amp is switched on, and TSC does not have enough time to measure idle current and shut the faulty tube down.

None of the LEDs lights up.

The power tubes are operating normally.

One LED lights up continuously.

The tube assigned to this LED is producing under-voltage. If the LED does not extinguish after a few minutes, this tube must be replaced.

One LED flashes constantly.

The tube assigned to this flashing LED is generating over-voltage. It has been shut down and must be replaced by a technician. If the second LED lights up continuously, this indicates it has also been shut down for safety reasons, but there is no need to replace it.

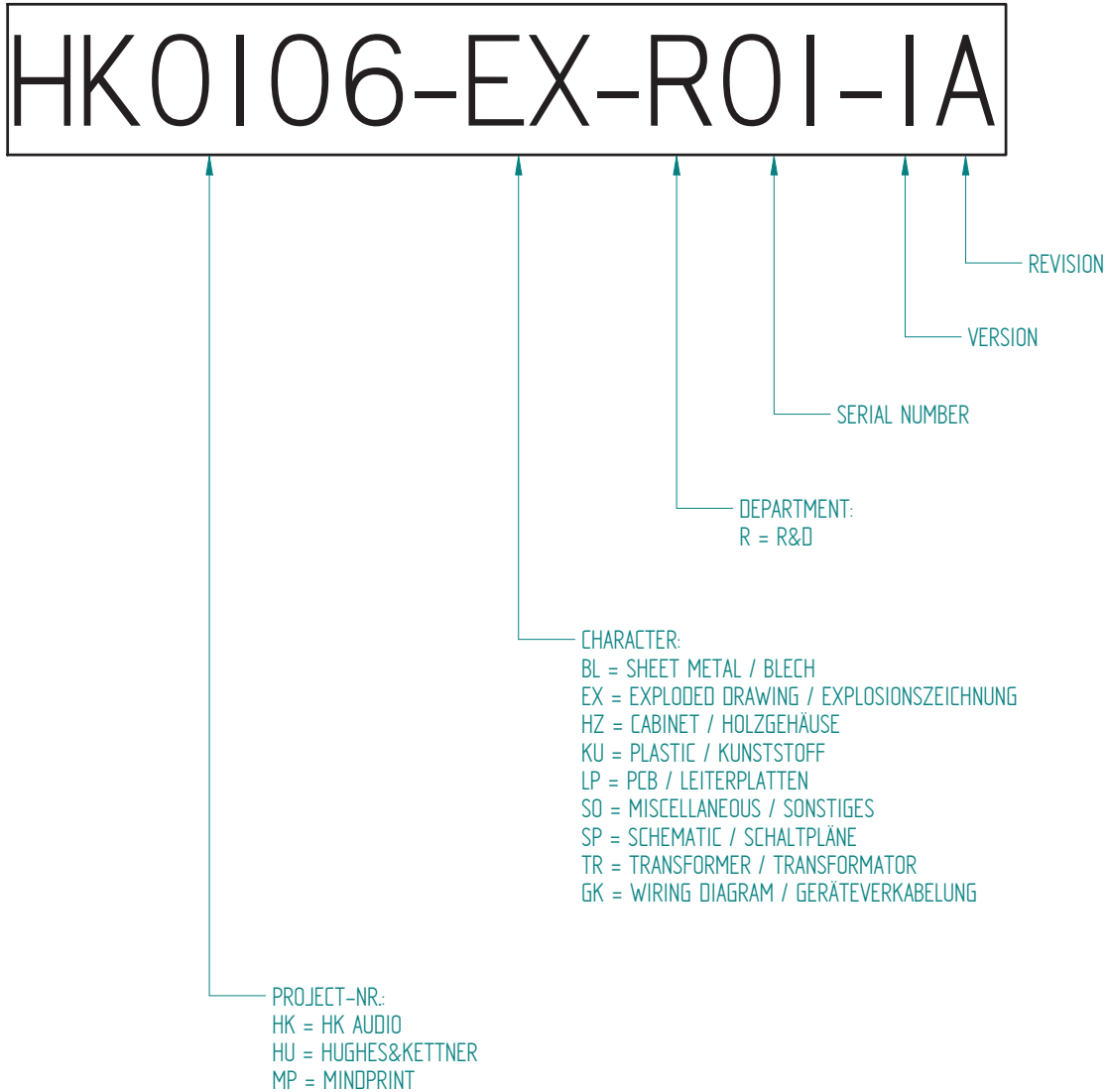
3.2 Manual Read-Out

TSC checks tubes' bias points to let you determine if pairs match. This is easily done by inserting a pick into the appropriate slot while the amp is on (rather than in STANDBY mode). The LEDs will flash. How many times the LEDs flash matters, but what matters more is the difference in flash counts. TSC will ensure optimum sound if the difference is no greater than four flash signals. If the difference in flash counts is greater than four, the device will continue operating safely so there is no real need to install a matched set. However, a matched set of tubes will improve the tone.

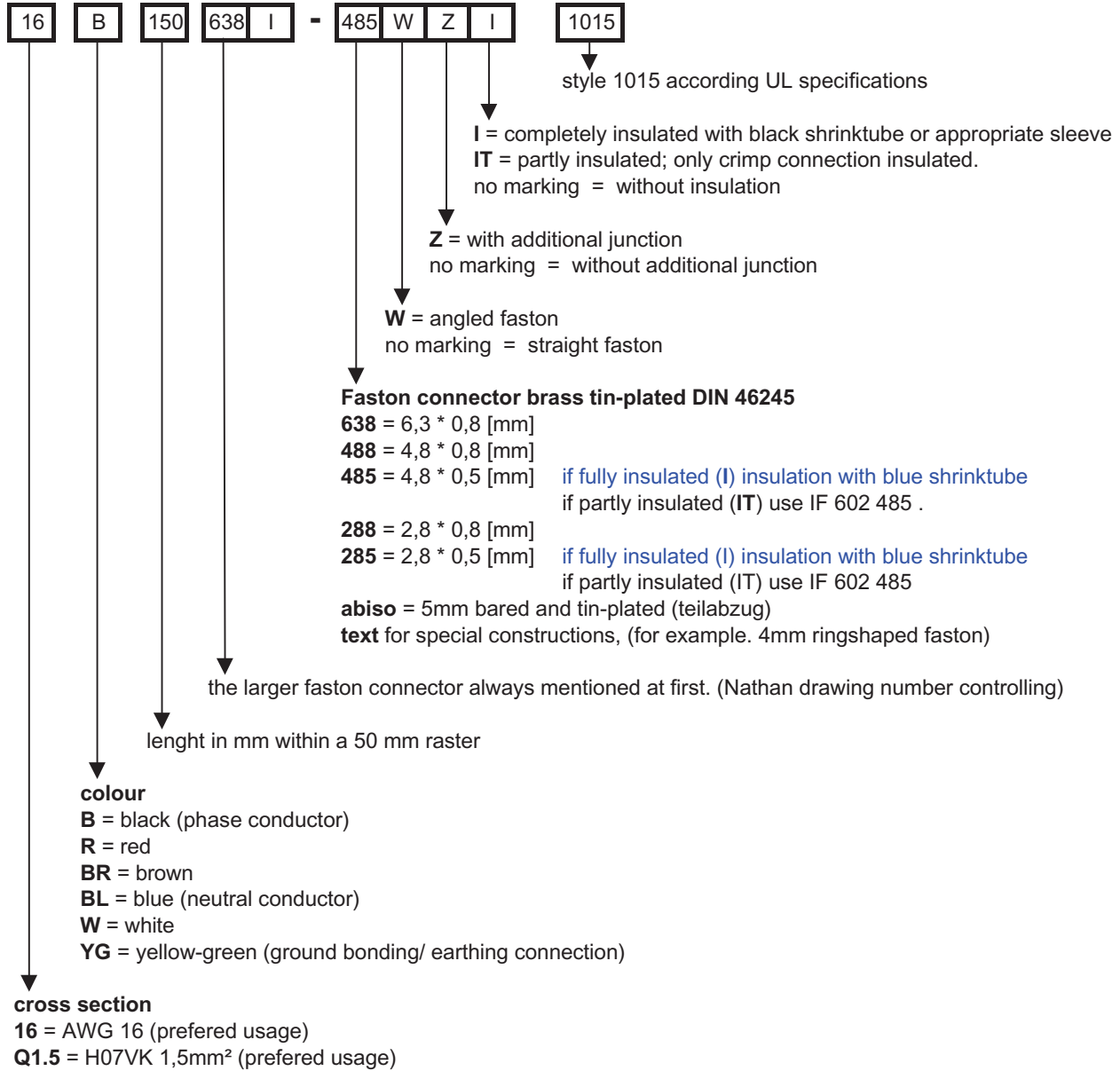
4 Technical Specifications

TubeMeister 18 Head & Combo	
Preamp tubes:	2 x 12AX7 / ECC83
Power tubes:	2 x EL84
Power output:	18 watts
Max. power consumption:	101 watts
Mains voltage tolerance range:	+/-10%
Ambient operating temperature range:	0° to +35° C
Mains fuse, 100 volts:	250 V / T 1.25 A L
Mains fuse, 120 volts:	250 V / T 1 A L
Mains fuse, 220-230 volts:	250 V / T 630 mA L
Mains fuse, 240 volts:	250 V / T 630 mA L
Input jack:	6.3 mm (1/4"), unbalanced, 1 M Ω
Send jack:	6.3 mm (1/4"), unbalanced, 250 Ω , max. + 6 dBV
Return jack:	6.3 mm (1/4"), unbalanced, 500 k Ω , -3 dBV
RED BOX Out:	XLR, balanced, 1360 Ω , max +6 dBV
Speaker Out:	6.3 mm (1/4"), 8 to 16 Ω
Footswitch:	6.3 mm (1/4"), stereo, tip=Channel, ring=Boost
TubeMeister 18 Head	
Dimensions:	356 x 156 x 150 mm
Weight:	5 kg
TubeMeister 18 Combo	
Dimensions:	395 x 360 x 260 mm
Weight:	9.4 kg
Speaker:	10" Celestion Custom Speaker
TubeMeister 112 Cabinet	
Speaker:	Celestion Vintage 30, 16 Ω
Power handling capacity:	60 watts
Speaker Out:	2 x 6.3 mm (1/4") jack, wired in parallel
Dimensions:	480 x 450 x 285 mm
Weight:	13.5 kg

DRAWING-NUMBERS EXAMPLE



Standard for single wire confection.



wire designation:

P + lfd Nr. = AWG single wire black, red, blue, brown or white

E + lfd Nr. = AWG single wire green- yellow

L + lfd Nr. = twisted AWG double wire, length specification always in twisted condition

FQL + lfd Nr. = crossover wiring H07VK

Regarding special wirings like wiring harness or similar, drawings will be prepared and appropriate drawing numbers will be stored in the article archive.



Service Documents

HU0910

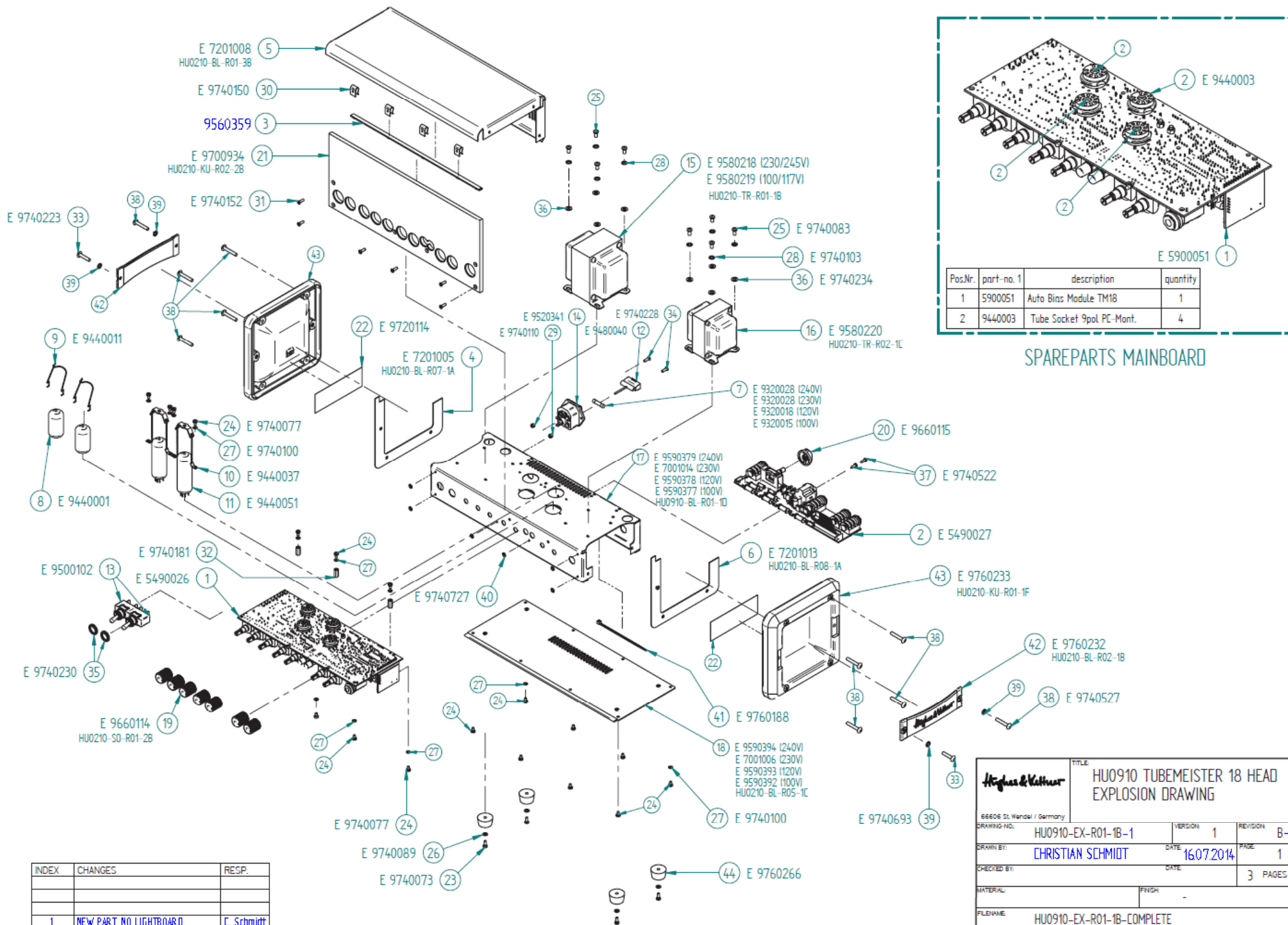
Tubemeister TM 18 Head

***Confidential, for authorized service technicians only!
Do not disclose this information to or share these documents with third parties.***



TECHNICAL SERVICE:

**Stamer Musikanlagen GmbH • Magdeburger Str. 8 • 66606 St.Wendel • Germany
Music & Sales P.E. GmbH • Leipziger Str. 3 • 66606 St.Wendel • Germany**




INDEX	CHANGES	RESP.
1	NEW PART NO LIGHTBOARD	C. Schmidt

DRAWING NO.		VERSION	REVISION
HU0910-EX-R01-1B-1		1	B-1
DRAWN BY:	DATE	PAGE	
CHRISTIAN SCHMIDT	16.07.2014	1	
CHECKED BY:	DATE	PAGES	
		3	
MATERIAL:	FINISH		
FILENAME			
HU0910-EX-R01-1B-COMPLETE			


Pos.Nr.	part-no. 1	part-no. 2	part-no. 3	part-no. 4	description	Beschreibung	quantity
1	5490026				HU0210-Mainboard-Bias	HU0210-Mainboard-Bias	1
2	5490027				TM18H Rearbord	TM18H Rearbord	1
3	9560359				TM 18H Lightboard	TM 18H Lightboard	1
4	7201005				HU0210-metal sheet insert left	HU0210-Einlegeblech links	1
5	7201008				cover sheet TM18 Head	Deckel TM18 Head	1
6	7201013				HU0210-metal sheet insert right	HU0210-Einlegeblech rechts	1
7	9320028 (240V)	9320028 (230V)	9320018 (120V)	9320015 (100V)	Fuse Slowblow, 5*20 IEC 127 630mA (240/230V), 1A (120V), 1,25A (100V)	Feinsicherung Trage, 5*20 IEC 127 630mA (240/230V), 1A (120V), 1,25A (100V)	1
8	9440001				Tube 12Ax7A China selected	Röhre 12Ax7A China selected	2
9	9440011				tube retainer VRA 10.1	Röhrenhalte Draht VRA 10.1	2
10	9440037				tube retainer TM18	Röhrenhaltebügel TM18	2
11	9440051				Power Tube EL84	Endst.Röhre EL84	2
12	9480040				Fuse Drawer Mains Inlet 220-240V	SI-Einsatz Netzb. 220-230V/240V	1
13	9500102				toggle switch Tubemeister Series	Hebelschalter TM-Serie	2
14	9520341				mains inlet 3528 Typ T5 TM Serie	Netzbuchse Model 3528 Typ T5 TM Serie	1
15	9580218 (230/245V)	9580219 (100/117V)			mains transformer TM18	Netztrafo TM18	1
16	9580220				Output Transformer TM18	Übertrager TM18	1
17	9590379 (240V)	7001014 (230V)	9590378 (120V)	9590377 (100V)	HU0910-chassis	HU0910-Chassis	1
18	9590394 (240V)	7001006 (230V)	9590393 (120V)	9590392 (100V)	Bodenplatte TM18 Head	Bodenplatte TM18 Head	1
19	9660114				knurled cylinder knob Chrome TM Series	Knopf Chrome TM Series	7
20	9660115				knob chicken head flat	Knopf TM Serie Chicken Head	1
21	9700934				plexiglas TM18 Head	Plexiglas TM18 Head	1
22	9720114				shielding plate 95x33mm	Isolierplatte PC 95x33mm	2
23	9740073				cross recessed panhead screw, M3x8, black	Linsenschraube M3 x 8 sw	4
24	9740077				cross recessed panhead screw, M3x5, black	Linsenschraube M3x5 sw	18
25	9740083				cross recessed panhead screw, M4x8, black	Linsenschraube M4 x 8 sw	8
26	9740089				washer, form A, D=3.2mm, zinc plated	Unterleg-Scheibe 3,2 vz	4
27	9740100				toothed lock washer, D=3,2, AZ, black zinc plated	Facher-Scheibe az, 3,2 sw vz	12
28	9740103				toothed lock washer, D=4.3, AZ, zinc plated	Facher-Scheibe az, 4,3 vz	8
29	9740110				self locking hexagon nut with plastic insert, M3, zinc plated	Stopmutter M3 vz	2
30	9740150				spring retainer 5.2-6.1mm Form A 13,5mmx10mm	Klemmelement 5,2-6,1mm Form A 13,5mmx10mm	4
31	9740152				cross recessed raised countersunk screw, M3x10, zinc plated	Linsensschraube M3*10 vz	6

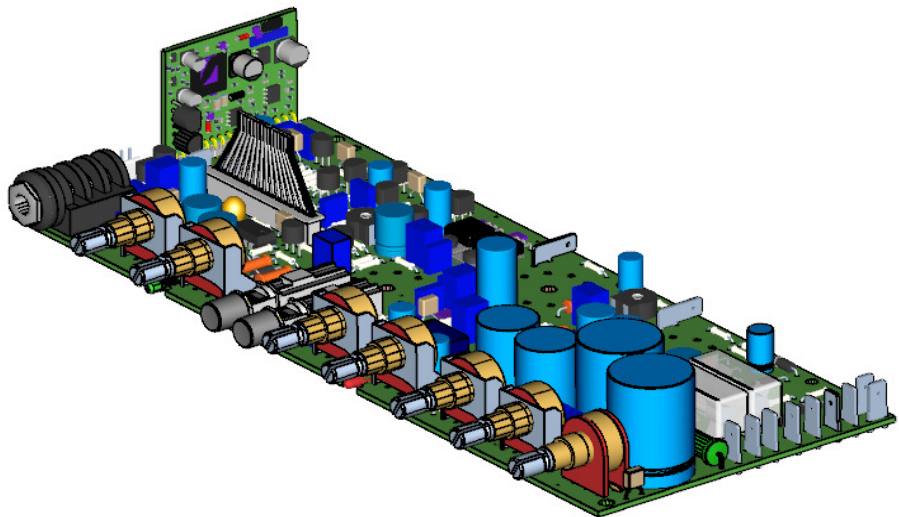
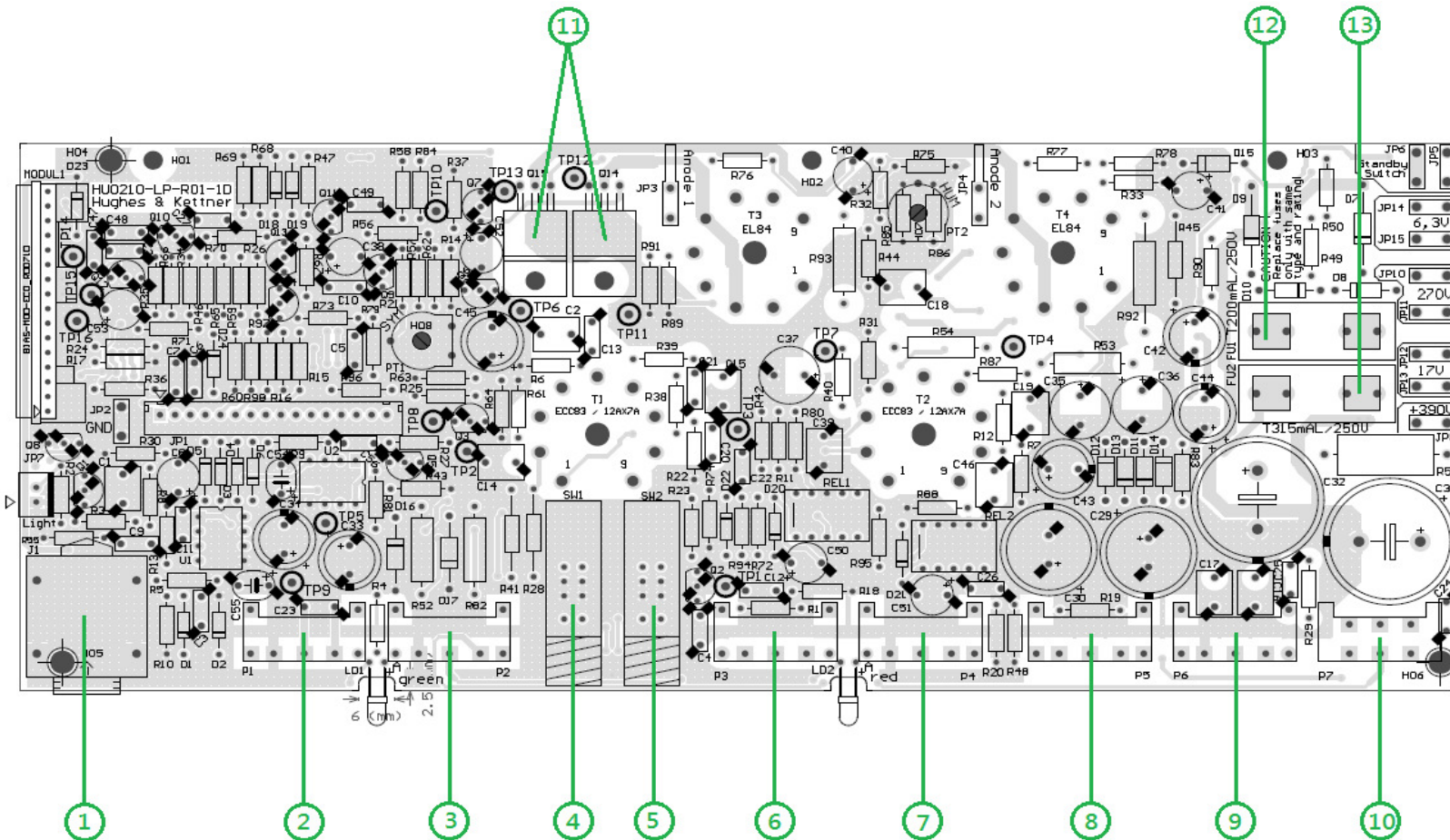
INDEX	CHANGES	RESP.
1	NEW PART NO LIGHTBOARD	C. Schmidt


		TITLE: HU0910 TUBEMEISTER 18 HEAD EXPLOSION DRAWING	
66606 St. Wendel / Germany			
DRAWING NO:	HU0910-EX-R01-1B-1	VERSION:	1
REVISION:		DATE:	16.07.2014
DRAWN BY:	CHRISTIAN SCHMIDT	PAGE:	2
CHECKED BY:		DATE:	
MATERIAL:		FINISH:	-
FILENAME:	HU0910-EX-R01-1B-COMplete		

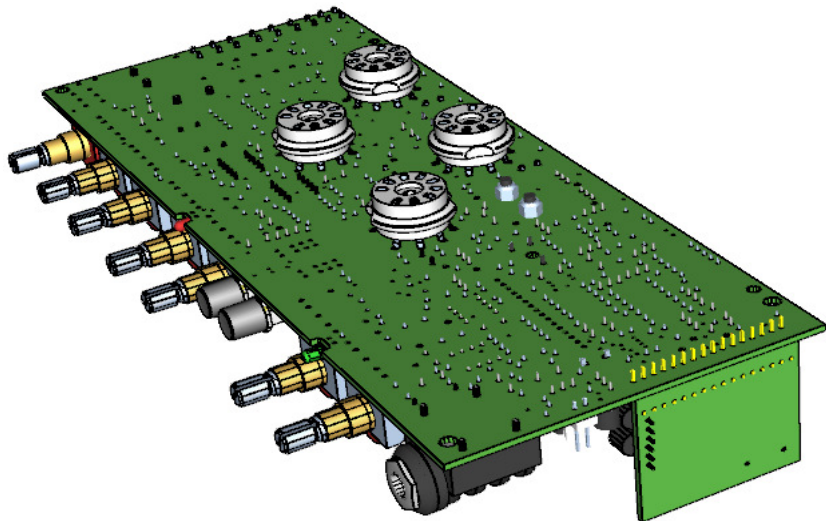
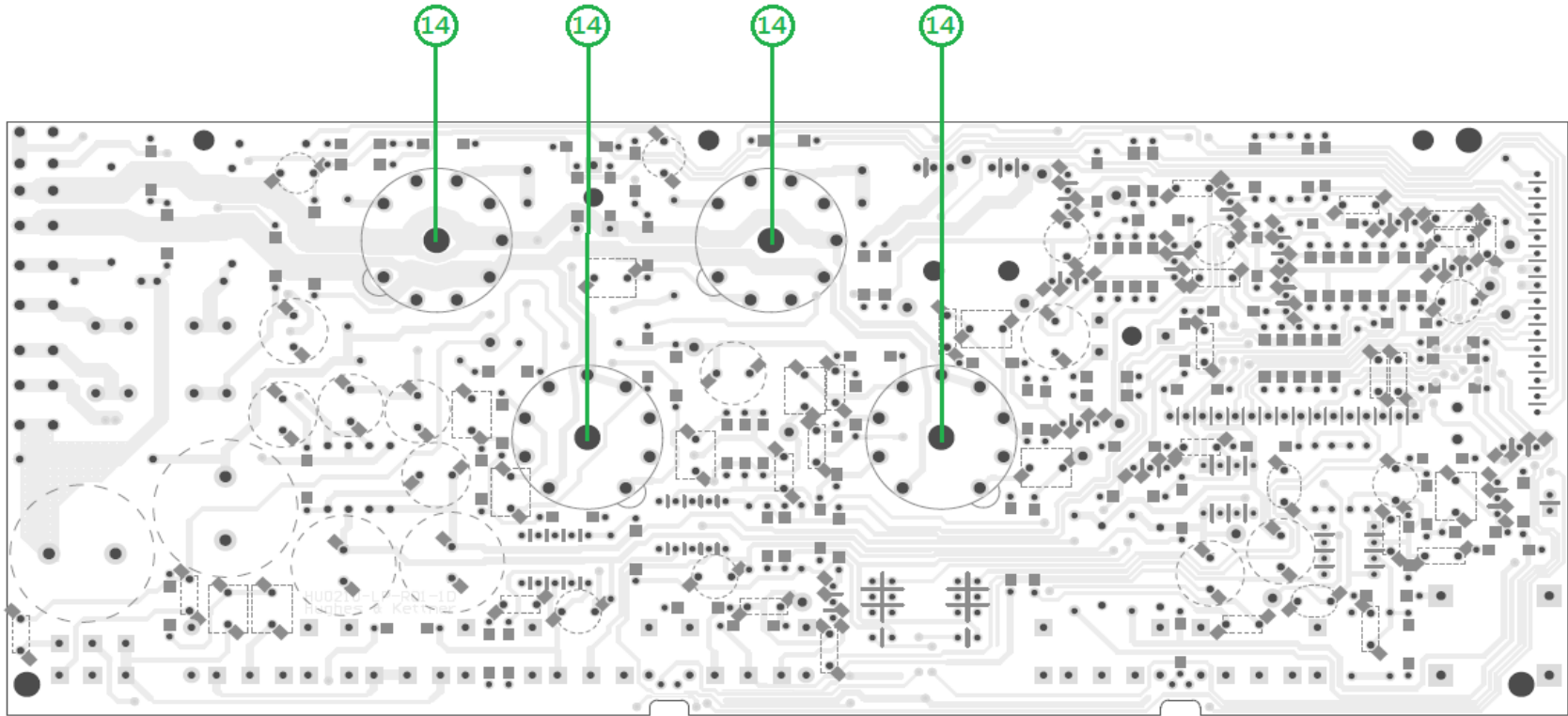
Pos.Nr.	part-no. 1	part-no. 2	part-no. 3	part-no. 4	description	Beschreibung	quantity
32	9740181				hexagon PCB spacer, M3x12, yellow chromated	Dist. Bol 2xInnengew. M3*12 cr	3
33	9740223				lens flange head screw M4x20 black	Linsenflanschkopfschraube M4x20sw	2
34	9740228				cross recessed raised countersunk screw, M3x10, black	Linsensenkschraube M3*10 sw	2
35	9740230				knurled nut M12x1	Rändelmutter M12*1	2
36	9740234				washer, form A, D=4.3mm, zinc plated	Unterleg-Scheibe 4,3 vz	8
37	9740522				cross rec. panhead tap. screw with cutting slot, 2,9x9,5, black	Linsenschr. f. Kunststoff 2,9*9,5, sw	2
38	9740527				lens flange head screw M4x25 black	Linsenflanschkopfschraube M4x25sw	10
39	9740693				toothed lock washer, D=4.3, IZ, zinc plated, black	Fächer-Scheibe iz, 4,3 sw	4
40	9740727				washer self-adhesive	Unterlegscheibe selbst klebend	6
41	9760188				cable tie black 2,5x98 (mm)	Kabelbinder schwarz 2,5x98 (mm)	6
42	9760232				handle TM18 Head	Griff TM18 Head	2
43	9760233				HU0210-side part	HU0210-Seitenteil	2
44	9760266				Rubber Foot 22x12 TM-H Series	Gummifuß 22x12 Tubemeister H	4


INDEX	CHANGES	RESP.

		TITLE: HU0910 TUBEMEISTER 18 HEAD EXPLOSION DRAWING	
66606 St. Wendel / Germany			
DRAWING-NO.	HU0910-EX-R01-1B	VERSION	1
		REVISION	B
DRAWN BY:	D. KAFER/ C. LITZ	DATE:	01.10.2012
		PAGE:	3
CHECKED BY:	BERND SCHNEIDER	DATE:	28.01.2013
		PAGES:	3
MATERIAL:		FINISH:	-
FILENAME:	HU0910-EX-R01-1B-COMPLETE		




		TITLE	
		SPARE PART LIST TUBEMEISTER 18 HEAD HU0910 MAINBOARD	
DRAWING-NO	VERSION	REVISION	B
DRAWN BY C. SCHMIDT	DATE 16.7.14	PAGE 1	
CHECKED BY	DATE	3 PAGES	
FILENAME HU0910-SPARES-MAINBOARD			

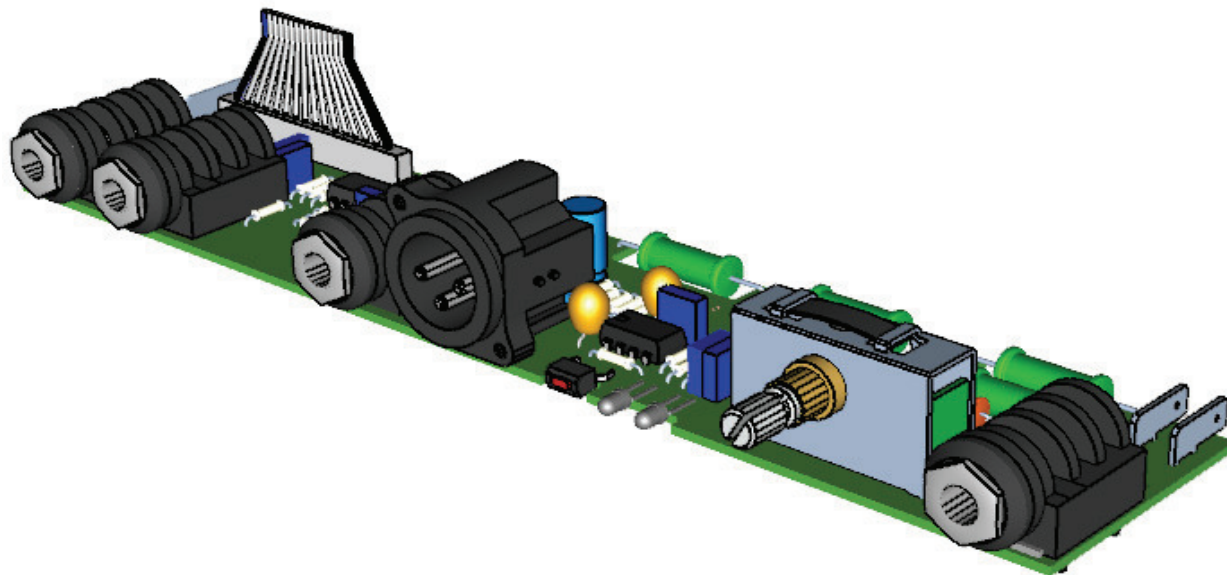
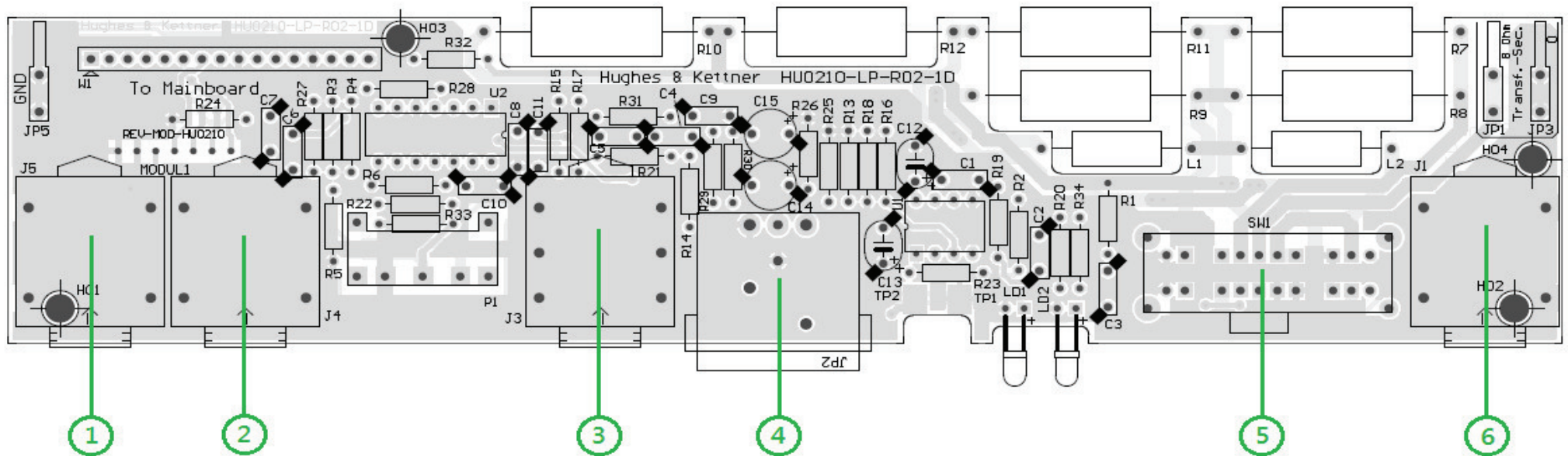



	TITLE	
	SPARE PART LIST	
TUBEMEISTER 18 HEAD HU0910		
MAINBOARD		
DRAWING-NO	VERSION	REVISION
	1	B
DRAWN BY	DATE	PAGE
C. SCHMIDT	16.7.14	2
CHECKED BY	DATE	3 PAGES
FILENAME	HU0910-SPARES-MAINBOARD	

Spare Parts List for:	HU0910-LP-R01
Project:	TubeMeister 18 Head
Project Number	HU0910
Assembly:	Mainboard

pos.	part. no.	description	Bezeichnung	reference designators	quantity
1	9520038	phone jack mono print switch	Klinkenbuchse mono print schalt	J1	1
2	9140047	pot A1M log mono RK16	Poti A1M log mono RK16	P1 (Gain)	1
3	9140030	pot B500K lin mono RK16	Poti B500K lin mono RK16	P2 (Master)	1
4	9500119	push button switch blue	Drucktaster blau	SW1 (Channel Select)	1
5	9500114	push button switch red	Drucktaster rot	SW2 (Lead Boost)	1
6	9140044	pot A250K log mono RK16	Poti A250K log mono RK16	P3 (Lead Gain)	1
7	9140030	pot B500K lin mono RK16	Poti B500K lin mono RK16	P4 (Lead Master)	1
8	9140047	pot A1M log mono RK16	Poti A1M log mono RK16	P5 (Bass)	1
9	9140041	pot B25K lin mono RK16	Poti B25K lin mono RK16	P6 (Mid)	1
10	9140046	pot A500K log stereo RK16	Poti A500K log stereo RK16	P7 (Treble)	1
11	9380085	transistor STP10NK60ZFP	Transistor STP10NK60ZFP	Q14, Q15	2
12	9320020	fuse T200mA 5x20	Feinsicherung T200mA 5x20	FU1 (Anode)	1
13	9320024	fuse T315mA 5x20	Feinsicherung T325mA 5x20	FU2 (voltage IC)	1
14	9440003	tube socket 9pol	Röhrensockel 9pol.	T1, T2, T3, T4	4

	TITLE	
	SPARE PART LIST TUBEMEISTER 18 HEAD HU0910 MAINBOARD	
DRAWING-NO	VERSION	REVISION
	I	B
DRAWN BY	DATE	PAGE
C. SCHMIDT	16.7.14	3
CHECKED BY	DATE	3 PAGES
FILENAME	HU0910-SPARES-MAINBOARD	



	TITLE	
	SPARE PART LIST TUBEMEISTER 18 HEAD HU0910 REARBOARD	
DRAWING-NO	VERSION	REVISION A
DRAWN BY C. SCHMIDT	DATE 11.4.11	PAGE 1
CHECKED BY	DATE	2 PAGES
FILENAME HU0910-SPARES-REARBOARD		

Spare Parts List for:

HU0910-LP-R02

Project:

TubeMeister 18 Head


Project Number

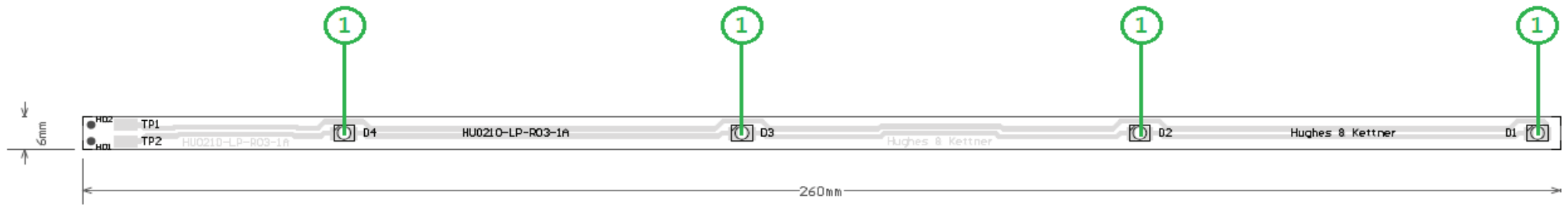
HU0910


Assembly:

Rearboard

pos.	part. no.	description	Bezeichnung	reference designators	quantity
1	9520038	phone jack mono print switch	Klinkenbuchse mono print schalt	J4 (FX-Send)	1
2	9520035	phone jack mono print switch	Klinkenbuchse mono print schalt	J5 (FX-Return)	1
3	9520041	phone jack stereo print switch	Klinkenbuchse stereo print schalt	J3 (Footswitch)	1
4	9520317	XLR-Connector 3pol male	XLR-Buchse 3pol male Wprint	JP2 (DI-OUT)	1
5	9500100	rotary switch 2pol 4pos print	Drehschalter 2Pol 4Pso print	SW1 (Powersoak)	1
6	9520038	phone jack mono print switch	Klinkenbuchse mono print schalt	J1 (Speaker Out)	1

	TITLE	
	SPARE PART LIST TUBEMEISTER 18 HEAD HU0910 REARBOARD	
DRAWING-NO	VERSION	REVISION A
DRAWN BY C. SCHMIDT	DATE 11.4.11	PAGE 2
CHECKED BY	DATE	2 PAGES
FILENAME	HU0910-SPARES-REARBOARD	



	TITLE	
	SPARE PART LIST TUBEMEISTER 18 HEAD HU0910 LEDBOARD	
DRAWING-NO	VERSION	REVISION A
DRAWN BY C. SCHMIDT	DATE 11.4.11	PAGE 1
CHECKED BY	DATE	2 PAGES
FILENAME HU0910-SPARES-LEDBOARD		

Spare Parts List for:

HU0910-LP-R03

Project:

TubeMeister 18 Head


Project Number

HU0910

Assembly:

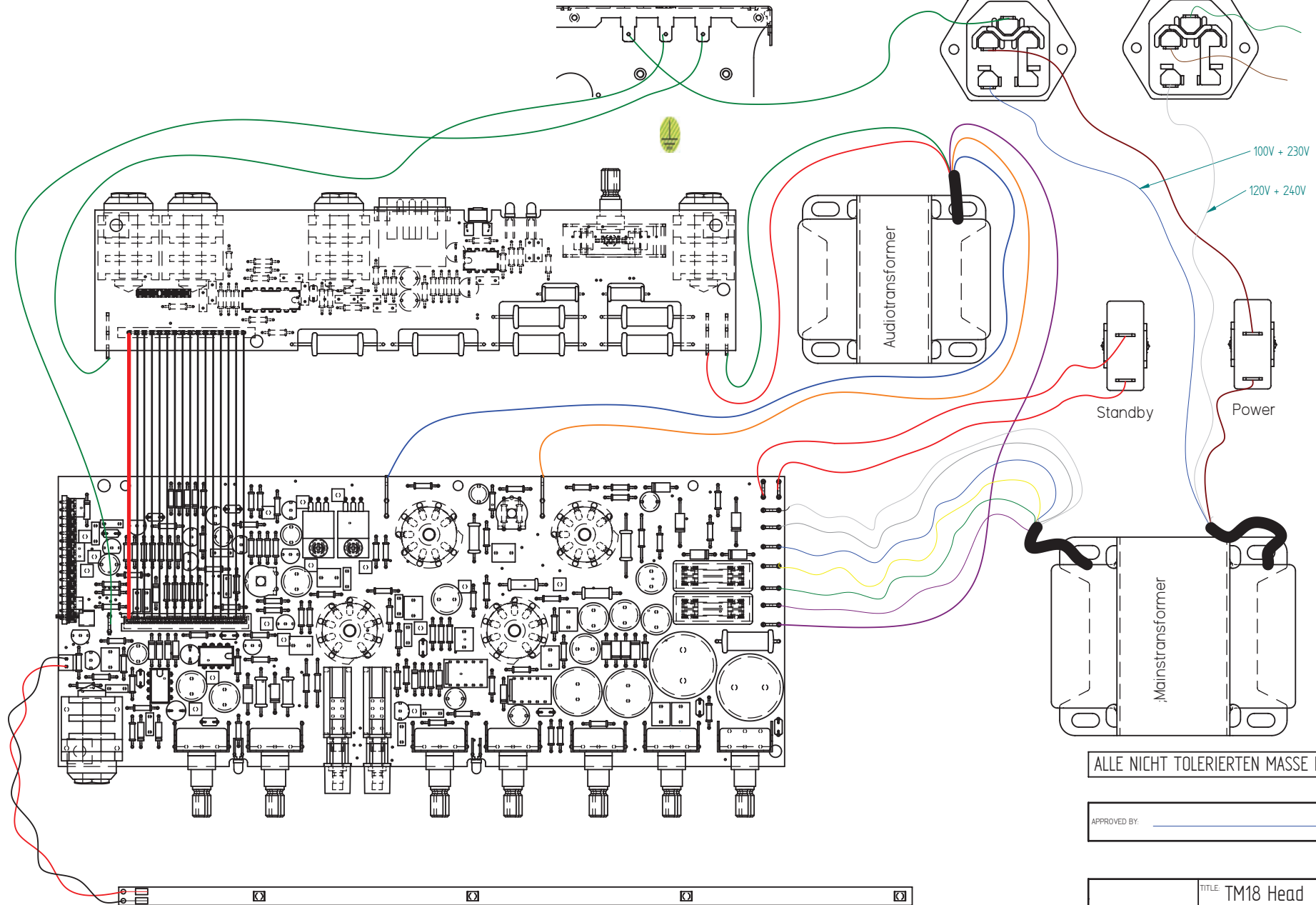
LED-Board

pos.	part. no.	description	Bezeichnung	reference designators	quantity
1	8360005	LED blue, 3,5x2,8mm PLCC2	LED blau, 3,5x2,8mm, PLCC2	D1, D2, D3, D4	1

	TITLE	
	SPARE PART LIST TUBEMEISTER 18 HEAD HU0910 LEDBOARD	
DRAWING-NO	VERSION	REVISION
	1	A
DRAWN BY	DATE	PAGE
C. SCHMIDT	11.4.11	2
CHECKED BY	DATE	2 PAGES
FILENAME	HU0910-SPARES-LEDBOARD	

VERSION 100V + 230V

VERSION 120V + 240V

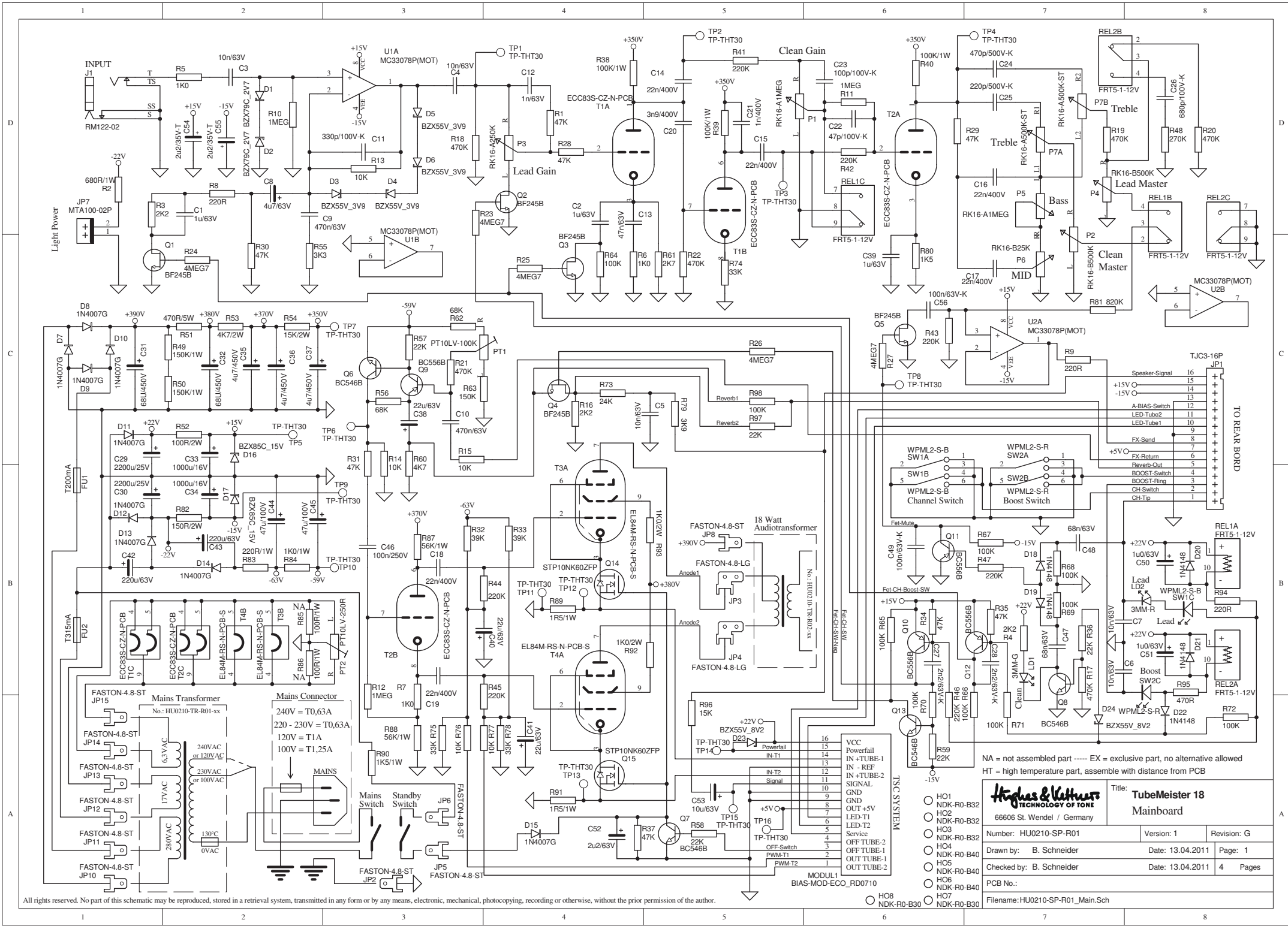


ALLE NICHT TOLERIERTEN MASSE NACH DIN ISO 2768m

APPROVED BY: _____ DATE: _____

INDEX	CHANGES	RESP.

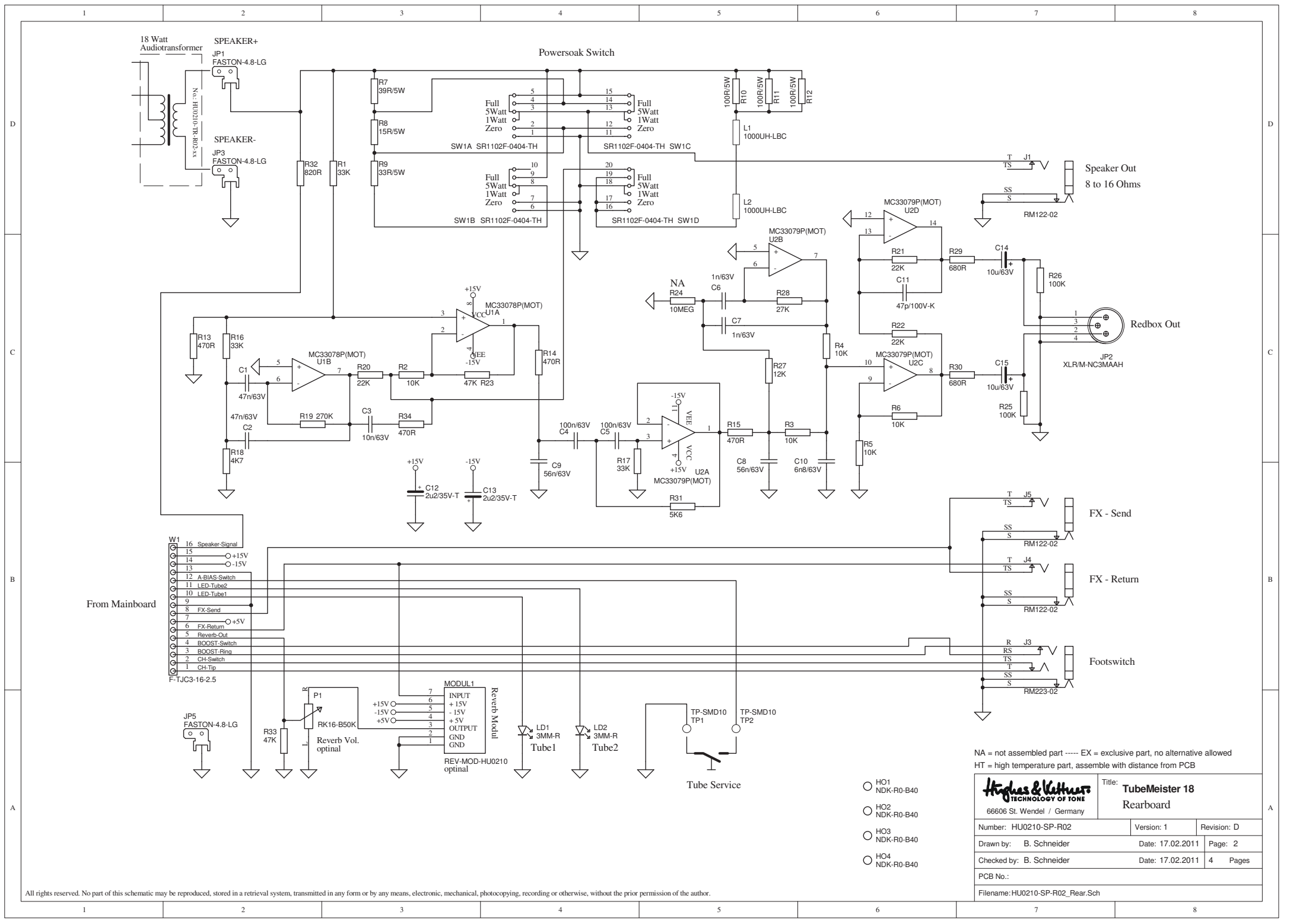
DRAWING-NO.		VERSION		REVISION	
HU0910-GK-R01-1A		1		A	
DRAWN BY: ubaris		DATE: 22.08.2011		PAGE: 1	
CHECKED BY: UBaris		DATE: 22.08.2011		1 PAGES	
MATERIAL:			FINISH: OBERFLÄCHE		
FILENAME: HU0910-GK-R01-1A_wiring-diagram					



NA = not assembled part ----- EX = exclusive part, no alternative allowed
 HT = high temperature part, assemble with distance from PCB

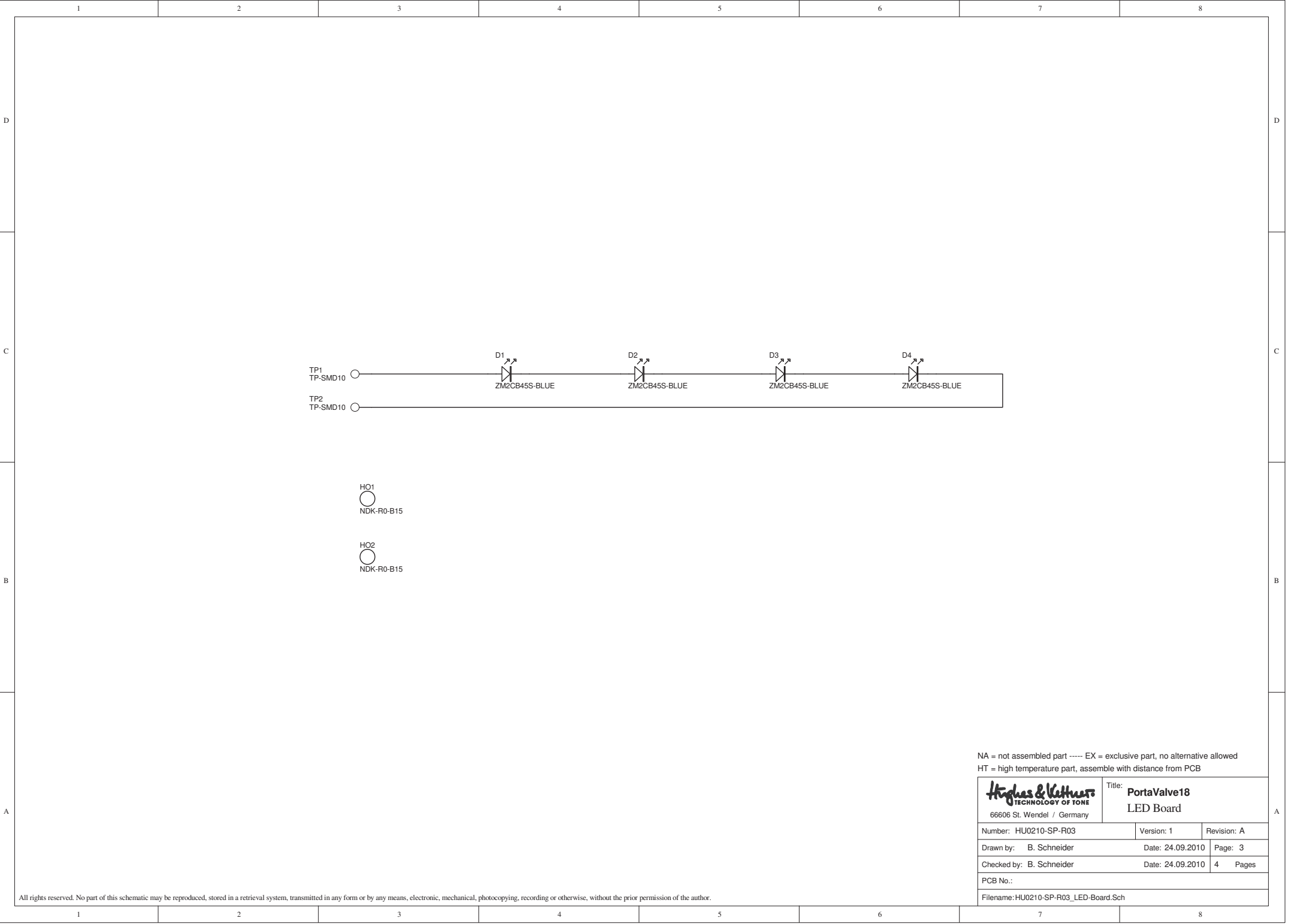
		Title: TubeMeister 18 Mainboard	
66606 St. Wendel / Germany			
Number: HU0210-SP-R01	Version: 1	Revision: G	
Drawn by: B. Schneider	Date: 13.04.2011	Page: 1	
Checked by: B. Schneider	Date: 13.04.2011	4 Pages	
PCB No.:		Filename: HU0210-SP-R01_Main.Sch	

All rights reserved. No part of this schematic may be reproduced, stored in a retrieval system, transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior approval of the author.




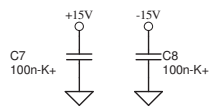
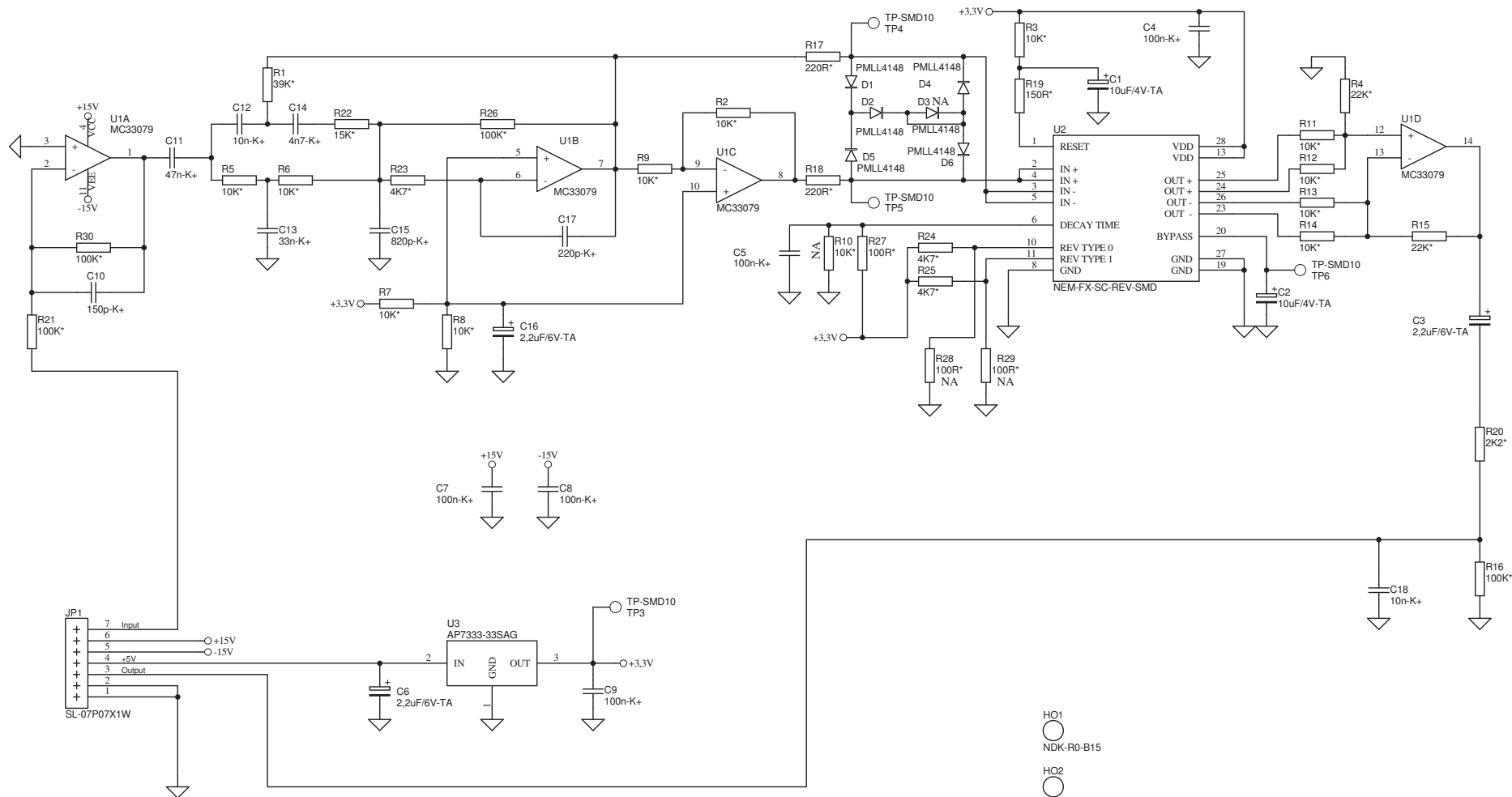
NA = not assembled part ----- EX = exclusive part, no alternative allowed
 HT = high temperature part, assemble with distance from PCB

		Title: TubeMeister 18 Rearboard	
66606 St. Wendel / Germany		Number: HU0210-SP-R02	Version: 1
Drawn by: B. Schneider	Date: 17.02.2011	Revision: D	Page: 2
Checked by: B. Schneider	Date: 17.02.2011	4	Pages
PCB No.:			
Filename: HU0210-SP-R02_Rear.Sch			



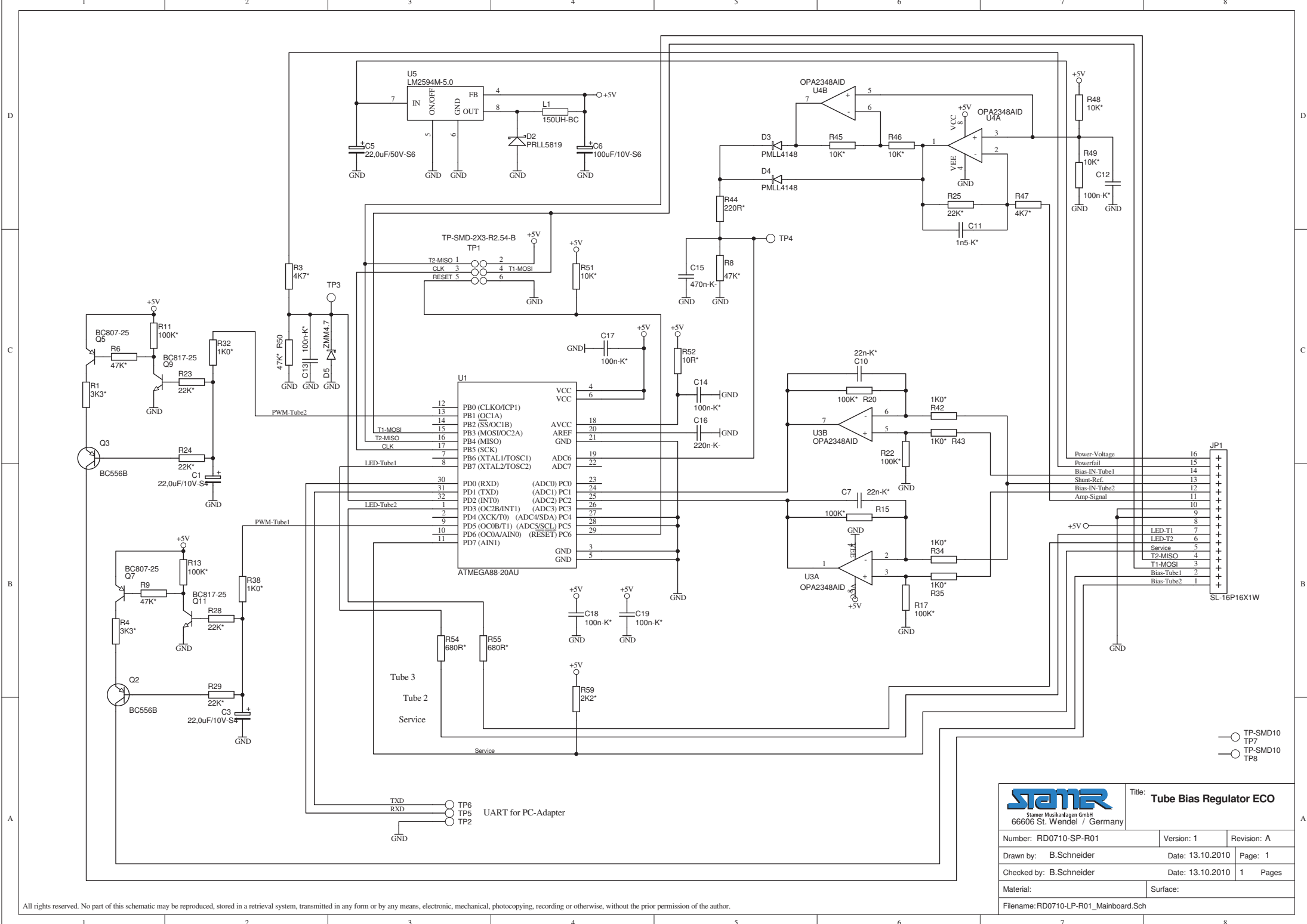
NA = not assembled part ---- EX = exclusive part, no alternative allowed
 HT = high temperature part, assemble with distance from PCB

 66606 St. Wendel / Germany		Title: PortaValve18 LED Board	
		Number: HU0210-SP-R03	Version: 1
Drawn by: B. Schneider		Date: 24.09.2010	Page: 3
Checked by: B. Schneider		Date: 24.09.2010	4 Pages
PCB No.:			
Filename: HU0210-SP-R03_LED-Board.Sch			




NA = not assembled part ---- EX = exclusive part, no alternative allowed
 HT = high temperature part, assemble with distance from PCB

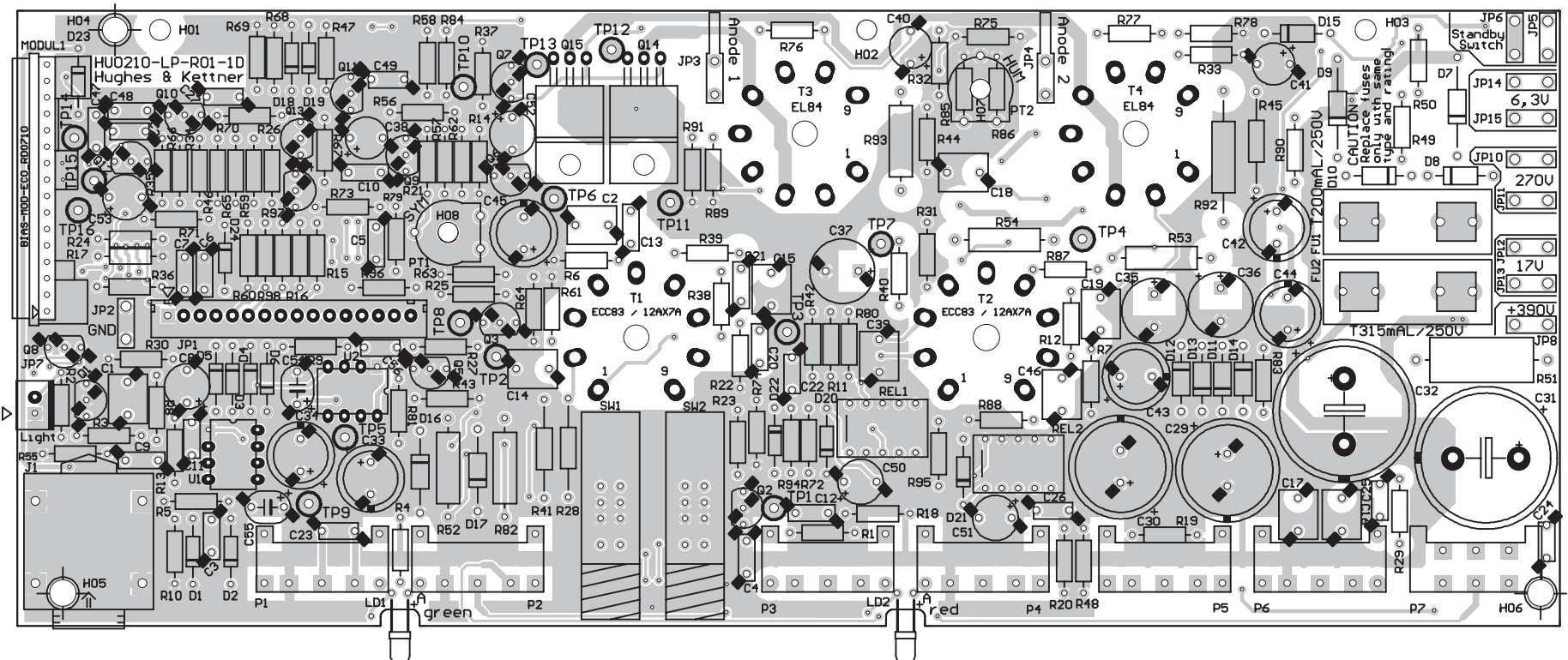
		Title: Reverb Modul HU0210-LP-R04	
		66606 St. Wendel / Germany	
Number: HU0210-SP-R04	Version: 1	Revision: E	
Drawn by: B. Schneider	Date: 24.08.2011	Page: 4	
Checked by: B. Schneider	Date: 24.08.2011	4 Pages	
PCB No.:			
Filename: HU0210-SP-R04_RevModu.Sch			



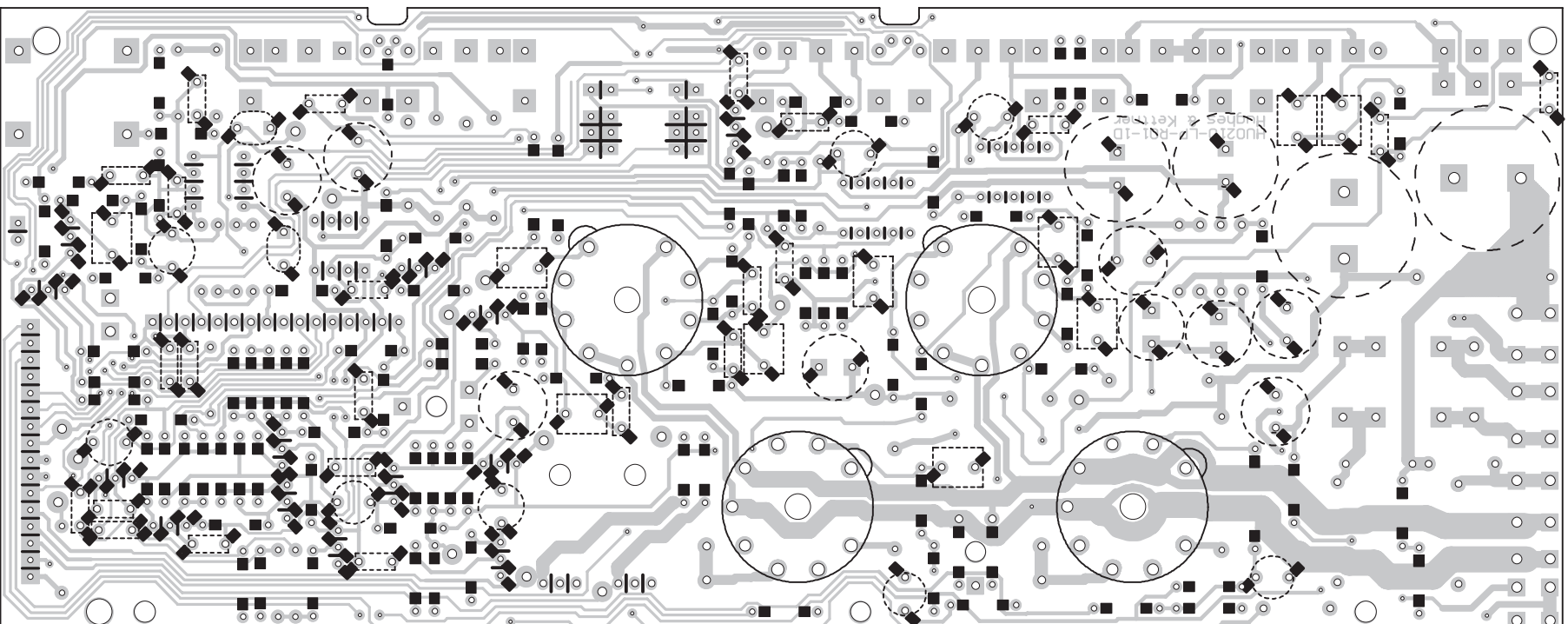
All rights reserved. No part of this schematic may be reproduced, stored in a retrieval system, transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the author.

		Title: Tube Bias Regulator ECO	
		<small>Stamer Musikanlagen GmbH 66606 St. Wendel / Germany</small>	
Number: RD0710-SP-R01	Version: 1	Revision: A	
Drawn by: B.Schneider	Date: 13.10.2010	Page: 1	
Checked by: B.Schneider	Date: 13.10.2010	1 Pages	
Material:	Surface:		
Filename: RD0710-LP-R01_Mainboard.Sch			

MAIN PCB - top side

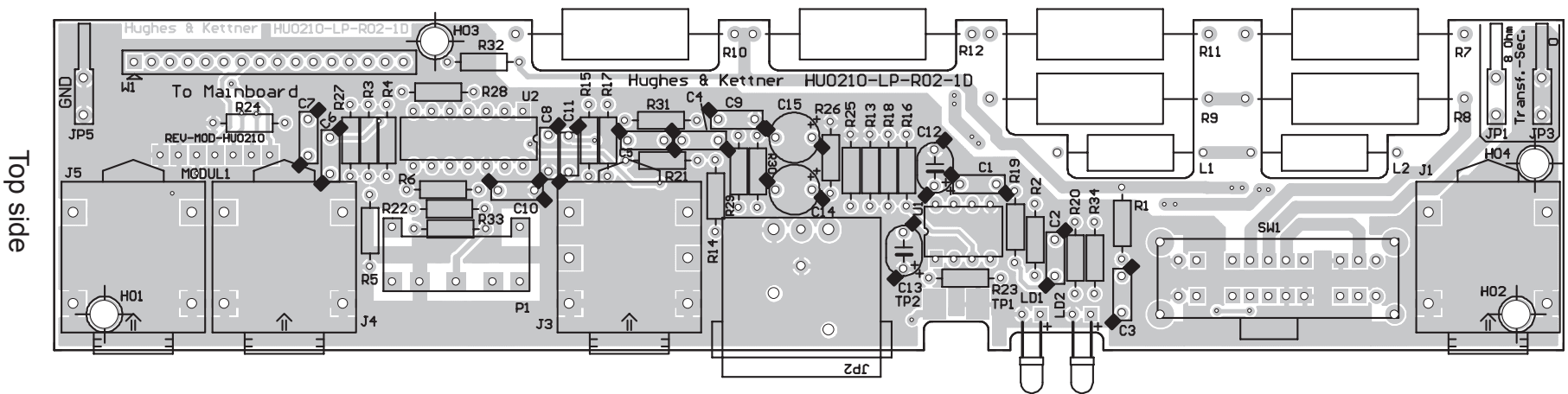


MAIN PCB - bottom side

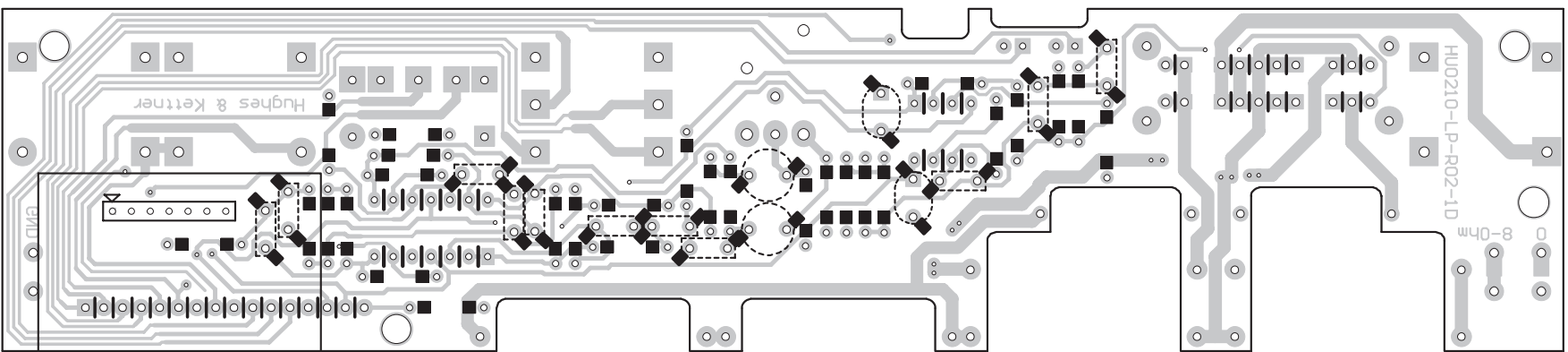


REAR PCB

LED PCB



Top side



Bottom side



PCB LAYOUT

AUTO PCB

