Marshall

DSL100HR

SERVICE MANUAL

BOOK-80016-01

MARSHALL.COM

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THE DSL100HR HAS TWO GAIN CHANNELS TO PRODUCE THAT LEGENDARY MARSHALL SOUND WITH RICH FUNCTIONALITY FOR THOSE WHO REQUIRE FLEXIBILITY AND UNQUESTIONABLE QUALITY. THE AMP CAN MOVE BETWEEN TWO SOUNDS WITHIN EACH GAIN CHANNEL, SO THAT PLAYERS CAN CREATE AND RELEASE THEIR PERSONALITY THROUGH SOUND.

DSL100HR

VALVES
4 x ECC83, 4 x EL34

CHANNELS
2, ultra gain and classic gain

POWER CONTROL
100W or 50W

EQUALISATION
Master volume II, master volume I, master select switch, resonance, presence, tone shift switch, bass, middle, treble, ultra gain channel (OD1/2 switch, volume, gain), classic gain channel (clean/crunch switch, volume, gain)

EFFECTS
Reverb (per channel)

SPEAKER OUTPUTS
5 x 1/4” jack sockets
(16Ω load / 8Ω load / 4Ω load)

OUTPUTS
1 x 1/4” jack emulated line out
Effects loop send/return

CONTENTS

WARNING! SAFETY INSTRUCTIONS

PLEASE READ THE FOLLOWING NOTICE IN FULL BEFORE ATTEMPTING TO REPAIR, SERVICE OR DISMANTLE ANY ITEM OF MARSHALL AMPLIFICATION PLC.

PLEASE NOTE THAT FAILURE TO OBSERVE THE CONDITIONS SET OUT IN THIS NOTICE MAY RESULT IN DEATH OR SERIOUS INJURY TO YOURSELF AND/OR OTHERS. IT MAY ALSO INVALIDATE THE MANUFACTURER'S WARRANTY IN RESPECT OF THE ITEM OF EQUIPMENT CONCERNED.

1. The information contained in this Service Manual (and in all annexes, diagrams and documents attached to or accompanying this Service Manual) is intended to be used by authorised Marshall Amplification Plc service centres or by approved waste electrical and electronic equipment reprocessing and recycling centres only.

2. All repairs and servicing of Marshall Amplification Plc equipment ('Marshall Equipment') should only be carried out by suitably trained and qualified personnel at an authorised Marshall Amplification Plc service centre. For details of your nearest authorised service centres please contact the 'Service Department' at Marshall Amplification Plc.

3. All reprocessing and recycling of Marshall Equipment at the end of its useful life should only be carried out by suitably trained and qualified personnel at properly approved waste electrical and electronic equipment reprocessing and recycling centres.

4. Marshall Equipment should always be fully disconnected from the mains electricity supply before attempting to carry out any repair, servicing or disassembly.

5. Even when Marshall Equipment has been disconnected from the mains electricity supply it may still retain high voltage electrical charges that are potentially hazardous to life and health. Marshall Equipment may also contain parts that remain at a high temperature for a considerable period of time after use. Extreme caution should always therefore be exercised when carrying out any repairs, servicing or disassembly of any Marshall Equipment.

6. All Marshall Equipment (including its component parts) conform and comply with relevant laws applicable at the time of manufacture (including but not limited to laws relating to electrical safety, electromagnetic compatibility and the presence of hazardous substances.) Furthermore all components are specific for their intended use and have undergone appropriate conformity approval. In the event that during the repair or servicing of any Marshall Equipment it is necessary to replace any component, part or material, it is therefore essential that only components, parts or materials that have been approved by Marshall Amplification Plc should be used.

7. Any safety warnings attached to an item of Marshall Equipment will comply with laws and industry standards applicable at the time such item of Marshall Equipment was manufactured but may not necessarily reflect current law or standards. No safety warning attached to any item of Marshall Equipment should be removed during servicing or repair.

Save as set out below, Marshall Amplification Plc accepts no responsibility for any death, injury, loss or damage arising from any non-observance of the above conditions.

Nothing in these conditions shall limit Marshall Amplification Plc's liability for death or injury to the extent that it results from their direct negligence or its employees.

MAINS INPUT & FUSE

The specific mains input voltage rating that your amp has been manufactured for is indicated on the rear panel of the amp. Your amp is provided with a detachable mains (power) lead, which should be connected to the mains input socket on the rear panel of the amp. The correct value and type of mains fuse is specified on the rear panel of the amp.

Never attempt to bypass the fuse or fit one of the incorrect value or type.

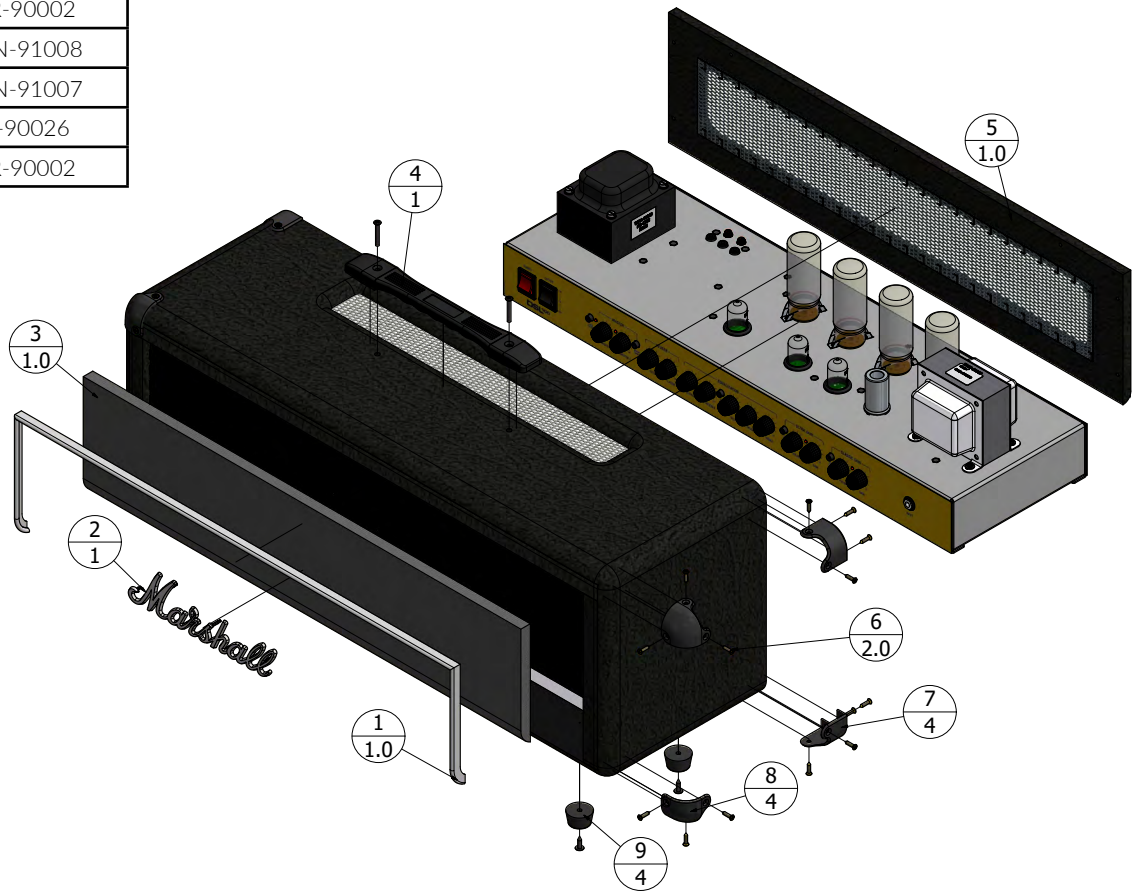
COUNTRY IDENTIFICATION CODES

COUNTRY IDENTIFICATION CODES LISTED BELOW ARE USED THROUGHOUT THIS SERVICE MANUAL.

CODE	COUNTRY	CABLE (UK/VT)	VOLTAGE	POWER
A	Australia, New Zealand	CBLM-00007 / CBLM-90004	230V	50HZ
B	Brazil	CBLM-00011 / CBLM-90005	127V	60HZ
C	Canada	CBLM-00002 / CBLM-90003	120V	60HZ
D	Argentina	CBLM-00010 / CBLM-90007	220V	50HZ
E	Andorra, Armenia, Austria, Bolivia, Bulgaria, Chile, Croatia, Cyprus, Czech Republic, Gran Canaria, Egypt, Estonia, France, French Polynesia, Germany, Ghana., Greece, Guadeloupe, Hungary, Iceland, India, Iran, Italy, Jordan, Kuwait, Lebanon, Malta, Martinique, Netherlands, New Caledonia, Nigeria, Poland, Portugal, Reunion Island, Russia, Singapore, Slovenia, South Africa, Spain, Tenerife, Thailand, Tunisia, Turkey, Uruguay	CBLM-00003 / CBLM-90002	230V	50HZ
F	Columbia, Costa Rica, Dominican Republic, Equador, El Salvador, Panama, Venezuela	CBLM-00005 / CBLM-90003	120V	60HZ
H	Home Market (UK), Ireland, Malaysia, Gibraltar, UAE, Bangladesh, Northern Cyprus	CBLM-00006 / CBLM-90001	230V	50HZ
I	Israel	CBLM-00015 / CBLM-90009	230V	50HZ
J	Japan	CBLM-00012 / CBLM-90010	100V	50/60HZ
K	Korea	CBLM-00014 / CBLM-90011	220V	60HZ
L	Indonesia	CBLM-00003 / CBLM-90002	230V	50HZ
M	Mexico	CBLM-00005 / CBLM-90003	130V	60HZ
Q	China	CBLM-00013 / CBLM-90013	220V	50HZ
S	Semko Denmark, Sweden, Finland, Norway	CBLM-00003 / CBLM-90002	230V	50HZ
T	Taiwan	CBLM-00009 / CBLM-90003	120V	60HZ
U	USA	CBLM-00005 / CBLM-90003	120V	60HZ
X	Hong Kong	CBLM-00006 / CBLM-90001	220V	50HZ

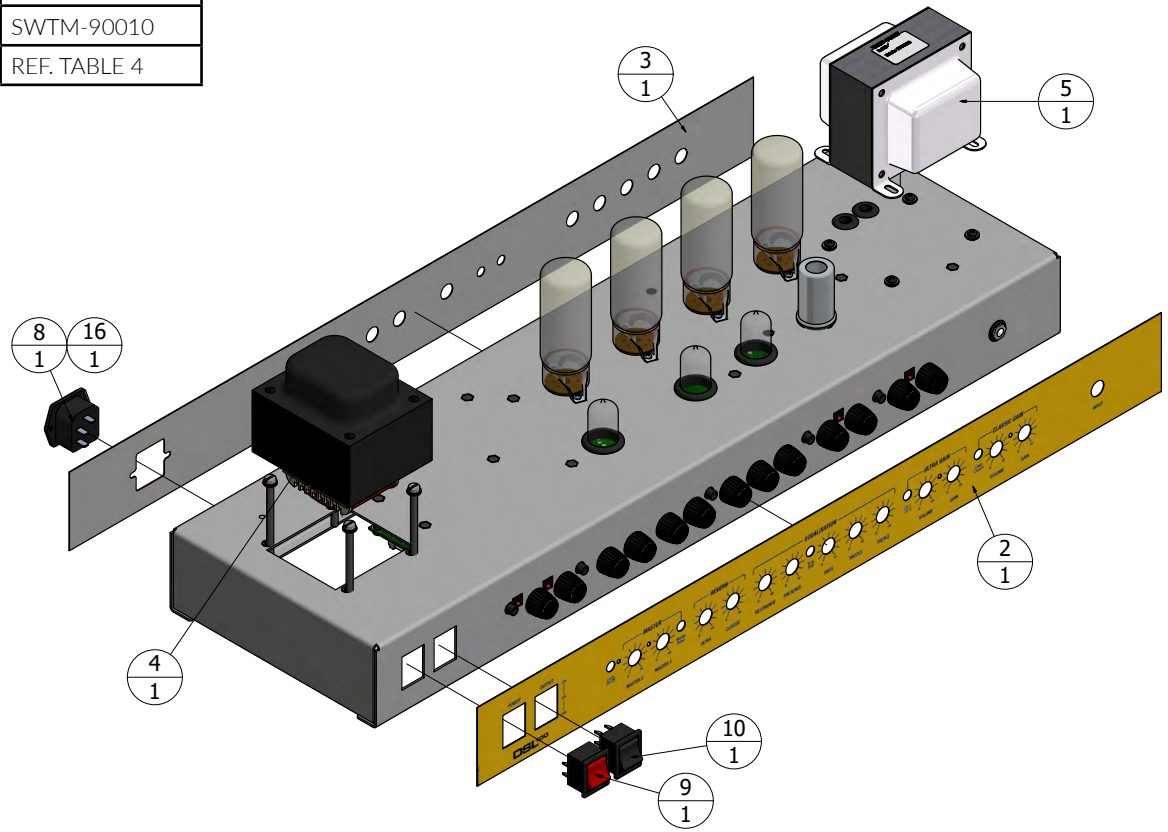
DSL100HR EXTERIOR

PARTS LIST			
ITEM	**QTY**	**DESCRIPTION**	**STOCK NO.**
1	1.0	WHITE PVC 5.0DIA X 13	PIPE-90002
2	1	SMALL WHITE LOGO	LOGO-01204
3	1.0	BLACK FRET COVERING	FRET-90027
4	1	HANDLE OVERMOULD WITH BLACK END CAPS	HNDL-90014
5	1.0	BLACK ELEPHANT GRAIN	CVER-90002
7	4	90 DEGREE REAR CORNER	CORN-91008
8	4	90 DEGREE FRONT CORNER	CORN-91007
9	4	RUBBER FEET (BIG)	FEET-90026
10	2.0	BLACK ELEPHANT GRAIN	CVER-90002



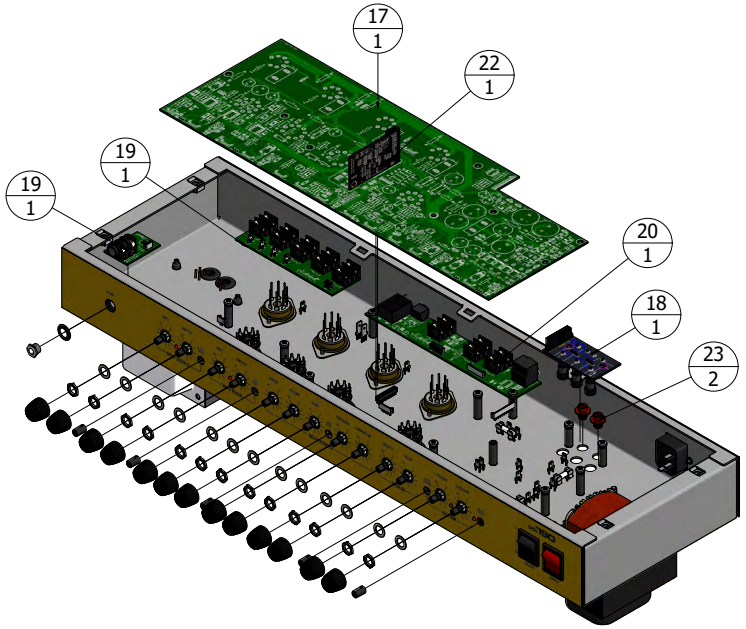
AMP ASSEMBLY

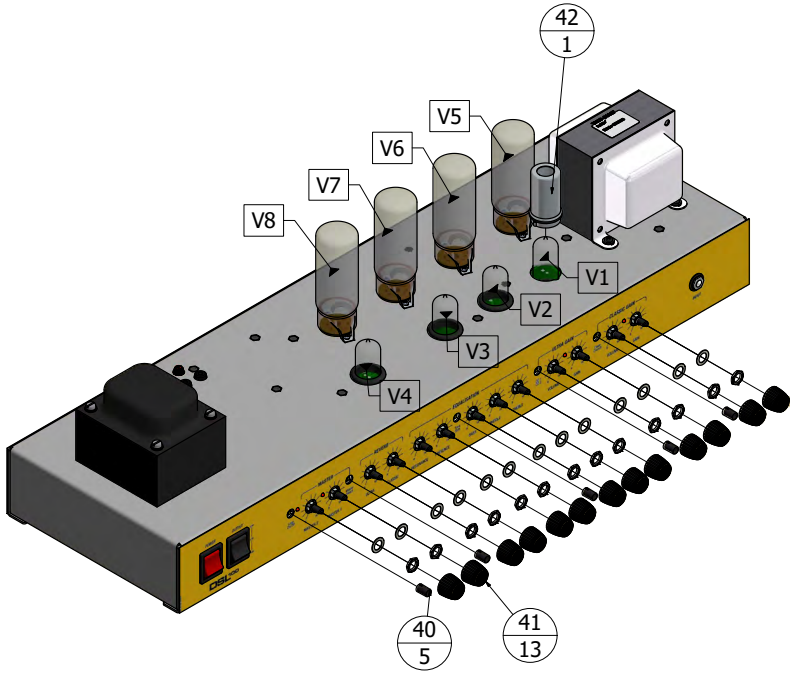
PARTS LIST			
ITEM	**QTY**	**DESCRIPTION**	**STOCK NO.**
2	1	DSL100HR FRONT PANEL	REF. TABLE 2
3	1	DSL100HR REAR PANEL	REF. TABLE 3
4	1	MAINS TRANSFORMER MD17XX	REF. TABLE 1
5	1	OUTPUT TRANSFORMER MD175E	TXOP-91008
8	1	IEC POWER SOCKET	SKTM-90002
9	1	MAINS SWITCH WITH LED	REF. TABLE 6
10	1	ROCKER BLACK 6 PIN	SWTM-90010
16	1	POWER SOCKET FUSE TO FIT SKTM-9002	REF. TABLE 4



AMP ASSEMBLY (CONTINUED)

PARTS LIST			
ITEM	QTY	DESCRIPTION	STOCK NO.
17	1	MAIN PCB ASSEMBLY	PCBA-90024
18	1	BIAS PCB ASSEMBLY	PCBA-90024
19	1	INPUT PCB ASSEMLBY	PCBA-90024
20	1	REAR PCB ASSEMBLY	PCBA-90025
21	1	SPEAKER OUTPUT PCB	PCBA-90025
22	1	DFX CARD	DFXP-90004
23	2	RED BIAS KNOB D FIT OPPOSITE D	KNOB-00052
40	5	PUSH SW KNOB D=7	SWTP-90021
41	13	BROWN BODY GOLD CAP KNOB	REF. TABLE 5
42	1	TUBE SHIELD-1 2.3-50 SHORT SPRING	VLVE-90108
	1	VACUUM TUBE EC83 (V1)	REF. VALVE CHART
	1	VACUUM TUBE EC83 (V2, V3, V4)	REF. VALVE CHART
	1	VACUUM TUBE EL34 II JJ (V5, V6, V7, V8)	REF. VALVE CHART





AMP ASSEMBLY TABLES

TABLE 1 – MAINS TRANSFORMERS

VOLTAGE SPEC	QTY	DESCRIPTION	STOCK NO.
A, D, E, H, I,K, L, Q, S, X	1	POWER TRANSFORMER MD175E	TXMA-91069
B, C, F, M, T, U	1	POWER TRANSFORMER MD175E	TXMA-91070
J	1	POWER TRANSFORMER MD175E	TXMA-91071

TABLE 2– FRONT PANELS

MODEL	QTY	DESCRIPTION	STOCK NO.
DSL100HR	1	DSL100HR FRONT PANEL	PANL-91106

TABLE 3 – REAR PANELS – COMBO

VOLTAGE SPEC	QTY	DESCRIPTION	STOCK NO.
A, D, E, H, I,K, L, Q, S, X	1	DSL100HR REAR PANEL 230V	PANL-91107
B, C, F, M, T, U	1	DSL100HR REAR PANEL 120V	PANL-91108
J	1	DSL100HR REAR PANEL 100V	PANL-91109
DSL100HR (CCC)	1	DSL100HR REAR PANEL (CCC)	PANL-91110

TABLE – 4 MAINS INPUT FUSES

VOLTAGE SPEC	QTY	DESCRIPTION	STOCK NO.
A, D, E, H, I, K, L, Q, S, X	1	T2AE 5X20	FUSE-90017
B, C, F, J, M, T, U	1	T4AE 5X20	FUSE-90023

TABLE 5 – KNOBS

MODEL	QTY	DESCRIPTION	STOCK NO.
DSL100HR	1	BROWN BODY GOLD CAP D=19.5, LINE SAME SIDE AS D FLAT TOL 5%	KNOB-90048

TABLE 6 – MAIN SWITCHES

VOLTAGE SPEC	QTY	DESCRIPTION	STOCK NO.
A, D, E, H, I, K, L, Q, S, X	1	MAIN SWITCH WITH LED 220V	SWTM-90009
B, C, F, J, M, T, U	1	MAIN SWITCH WITH LED 110V	SWTM-90012

VOLTAGE AND WAVEFORM TESTING

TEST POINTS AND RELEVANT WIRING DIAGRAMS WITH RESULTS ALL DISPLAYED IN THE PAGES THAT FOLLOW.

TO TEST VOLTAGES, SET AMPLIFIER TO;

1. Set all pots to maximum (10)
2. No tone shift
3. Output set to “Low”
4. No signal in inputs
5. Amplifier plugged into an 16ohm load
6. Mains Switch “On”
7. Channel set to “Clean - Classic Gain”
8. Loop set to “Off”

Voltages 1 to 11 - Power Supply
Voltages 12 - BIAS Switching
Voltages 13 to 24 - PreAmp
Voltages 25 to 31 - PowerAmp
Voltages 32 to 33 - DXF1
Voltages 34 - Emulator

TO TEST SIGNAL, SET AMPLIFIER TO;

1. Set all pots to maximum (10)
2. Output set to “Low”
3. Amplifier plugged into an 16ohm load
4. Signal generator set to 1kHz (9mV rms or 25.5mV pp) sine wave

With signal 9mV rms or 25.5mV pp in (T) JS206 (Return) signal on (T) JS201 (16ohm) = 1.08V rms or 3.12V pp.

To get full output on (S) JS201 (16ohm) Signal in Return (T) JS206 set to 100mV rms or 282.8mV pp signal on (S) JS201 (16ohm)
= 10.9V rms or 32.2V pp (LOW)
= 27V rms or 85.6V pp (HIGH)

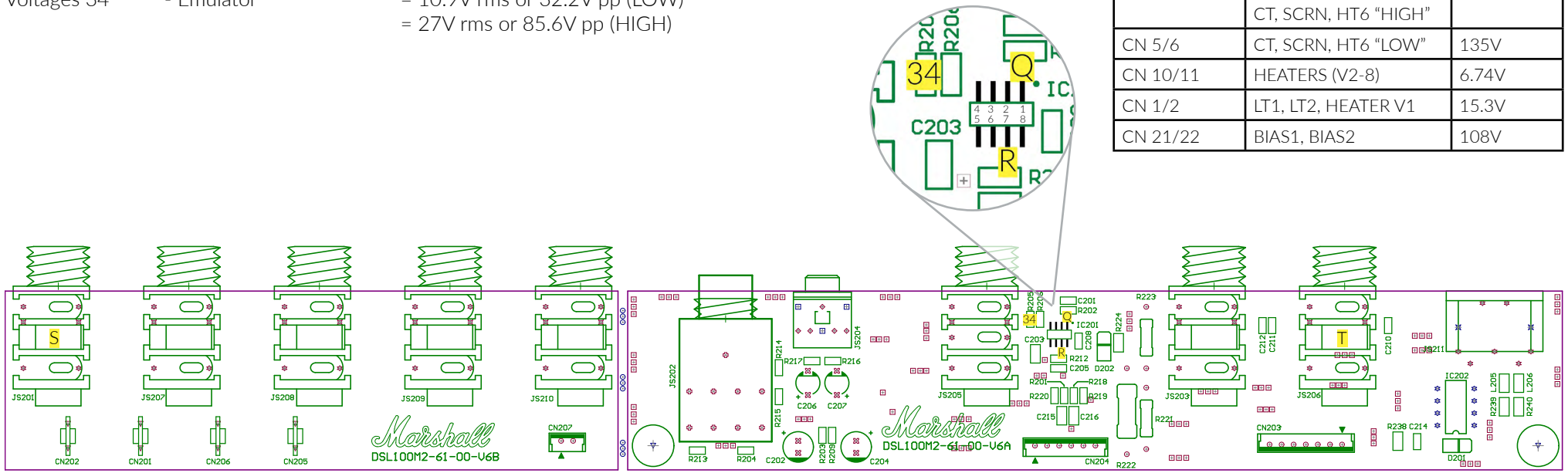
PLEASE NOTE: Due to possible variations in Mains voltages and component tolerances, deviation of up to 20% from the readings is generally acceptable particularly with Waveform/signal readings.

THROUGHOUT THIS SERVICE MANUAL

CL = CLEAN
CR = CRUNCH
OD = OVERDRIVE
B = BASE
E = EMITTER
C = COLLECTOR
TS = TONE SHIFT

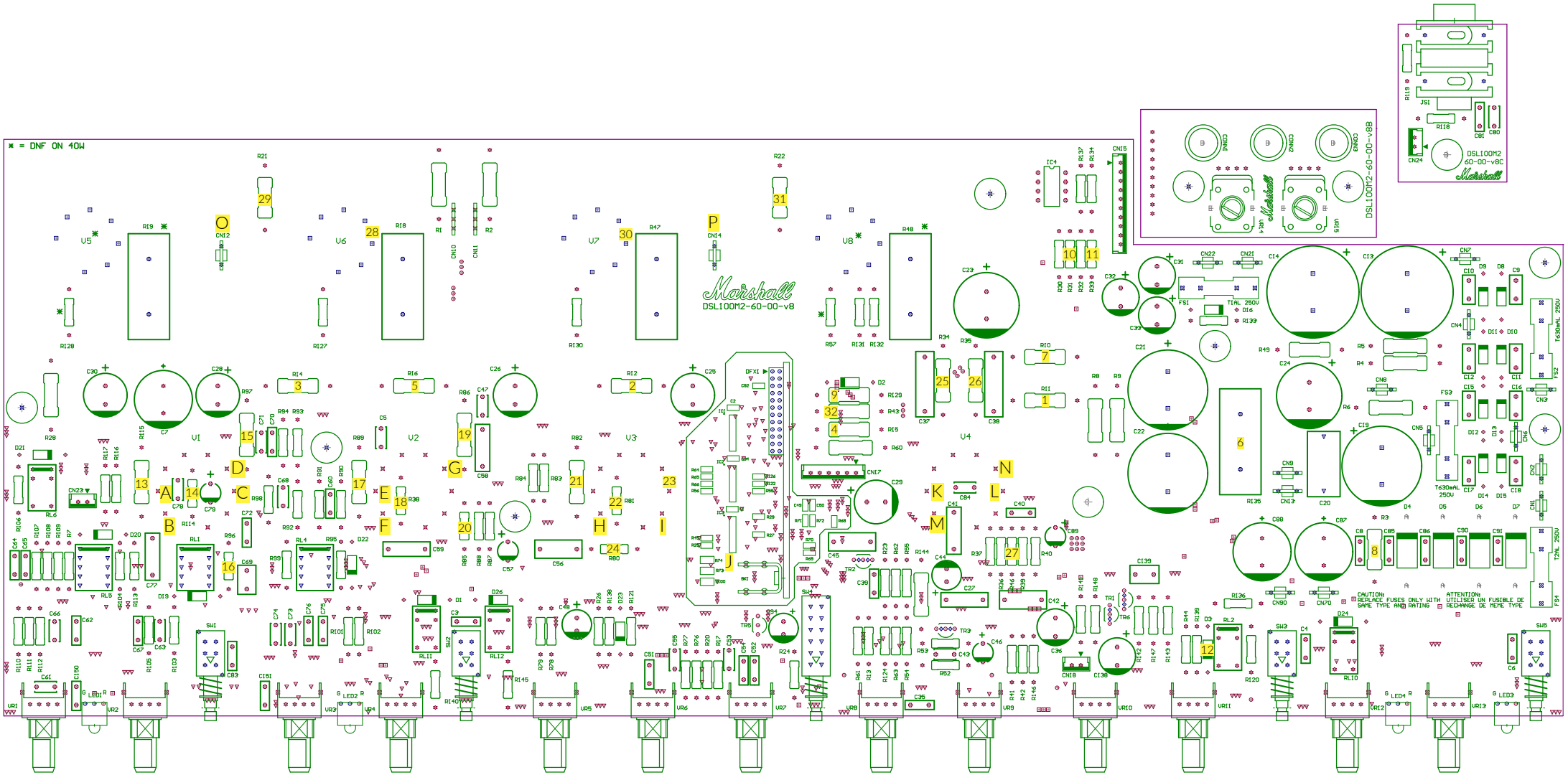
Standby Switch Off

MAINS TRANSFORMER SECONDARY WINDINGS		
TEST POINT	FEED(S) SUPPLIED	VOLTAGE
CN 3/4	HT 1-5 CT, SCRN, HT6 “HIGH”	217V
CN 5/6	CT, SCRN, HT6 “LOW”	135V
CN 10/11	HEATERS (V2-8)	6.74V
CN 1/2	LT1, LT2, HEATER V1	15.3V
CN 21/22	BIAS1, BIAS2	108V

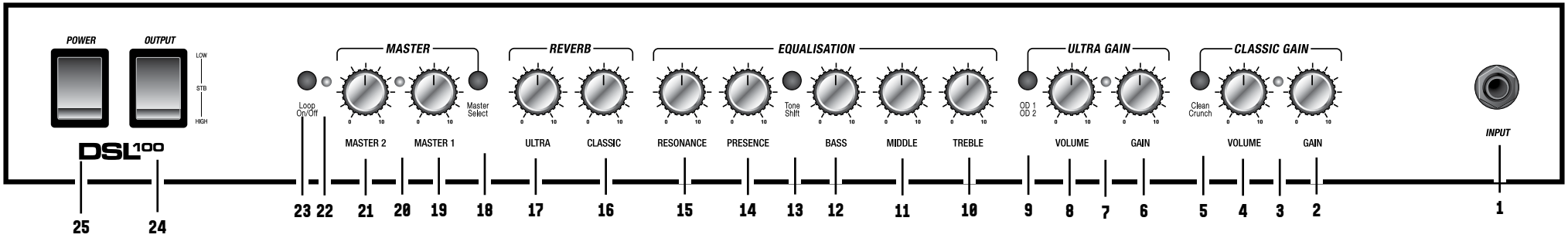


VOLTAGE AND WAVEFORM TESTING (CONTINUED)

TEST POINTS AND RELEVANT WIRING DIAGRAMS WITH RESULTS ALL DISPLAYED IN THE PAGES THAT FOLLOW.



FRONT PANEL FUNCTIONS



1. INPUT
Input jack socket for your guitar cable. Use a good quality screened/shielded guitar cable to help prevent noise interference.

CLASSIC GAIN CHANNEL

2. GAIN
Controls the gain level for the classic gain channel. As the amount of gain increases, so will the distortion level in your sound.

3. MODE STATUS LED
This LED lights green to indicate that clean mode is selected and red to indicate crunch mode is selected.

4. VOLUME
Controls the volume level of the classic gain channel.

5. CLEAN/CRUNCH
Press to select clean or crunch mode. The classic gain channel's two modes take your sound from clean to overdriven tones.

ULTRA GAIN CHANNEL

6. GAIN
Controls the gain level for the ultra gain channel. As the amount of gain increases, so will the distortion level in your sound.

7. MODE STATUS LED
This LED lights green to indicate that OD1 mode is selected and red to indicate OD2 mode is selected.

8. VOLUME
Controls the volume level of the ultra gain channel.

9. OD1/OD2
Press to select OD1 or OD2 mode. The ultra gain channel's two modes go from an open, high gain overdrive to a mid-boosted tone with even higher gain possibilities.

NOTES ON USING CHANNELS AND MODES:
The channel is automatically selected when a mode switch is pressed: Clean/Crunch or OD1/OD2.

When you select a channel its previous mode, FX loop and master volume settings will be recalled.

The channel can also be selected using the supplied 2-way footswitch. When the 2-way footswitch is connected, the front panel mode switch (Clean/Crunch or OD1/OD2) will be active only on the selected channel.

Use the optional 6-way footswitch (PEDL-91016) to switch between channels, modes and more – see the footswitching section in the user manual for further info.

EQUALISATION SECTION

10. TREBLE
Controls the higher frequency content of your sound. Turning clockwise will increase the highs making the sound brighter and more crisp.

11. MIDDLE
Controls the middle frequency of your sound. Turning clockwise adds girth.

Turning anticlockwise reduces the middle frequencies 'scooping' your sound – this is accentuated when used in conjunction with tone shift.

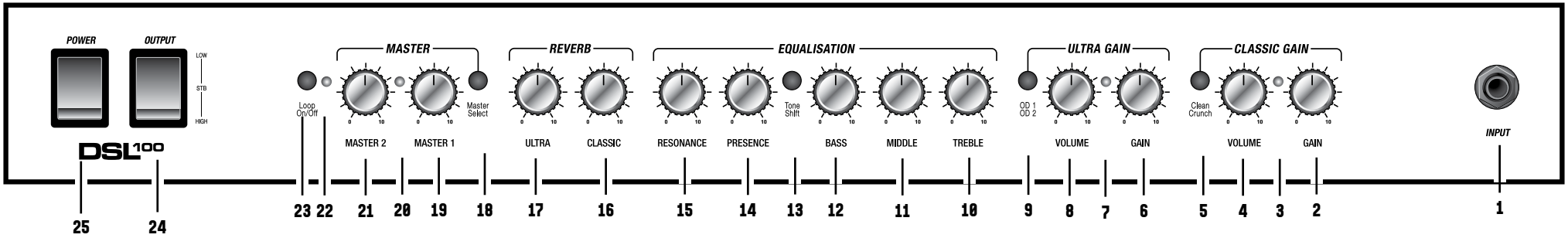
12. BASS
Controls the amount of lower frequency, or bottom-end, in your sound. Turning clockwise will increase the bottom-end making the sound fuller.

13. TONE SHIFT
Tone Shift reconfigures the preamp EQ network adding a new dimension to tonal shaping.

14. PRESENCE
Controls the amount of higher frequencies of your sound. Turn clockwise to add crispness and bite for a more cutting tone. Presence is a power-stage function and acts independently of the preamp EQ controls.

15. RESONANCE
Controls the amount of lower frequencies in your sound. Turning this control

FRONT PANEL FUNCTIONS (CONTINUED)



clockwise adds a resonant bass boost, increasing bottom-end. Resonance is a power-stage function and acts independently of the preamp EQ controls. reverb section

16. REVERB CLASSIC
Controls the reverb level of the classic gain channel.

17. REVERB ULTRA
Controls the reverb level of the ultra gain channel.

MASTER VOLUME SECTION

18. MASTER SELECT
This switches between master 1 and master 2.

19. MASTER 1
Controls the overall volume level of the amplifier when selected.

20. MASTER STATUS LED
This LED lights green to indicate that master 1 is selected and red to indicate master 2 is selected.

21. MASTER 2
Controls the overall volume level of the amplifier when selected.

22. LOOP STATUS LED
This LED lights red to indicated that the FX loop is on. It is unlit when the FX loop is off.

23. LOOP ON/OFF
This switch activates and deactivates the FX loop.

Note: FX loop on/off is footswitchable using the supplied 2-way footswitch or the optional 6-way footswitch.

24. OUTPUT
This three position rocker switch combines STB (standby) and HIGH/LOW output power functions. The output stage and power control for this amplifier has been designed to deliver the optimum tonal performance at all power levels. The high and low output functions allow the user to choose between two configurations of the internal power supply. These two configurations give the choice between two output power levels, but ensure that the output valves behave in the same way for both. This means the amplifier can be put into low power mode without compromising on tone.

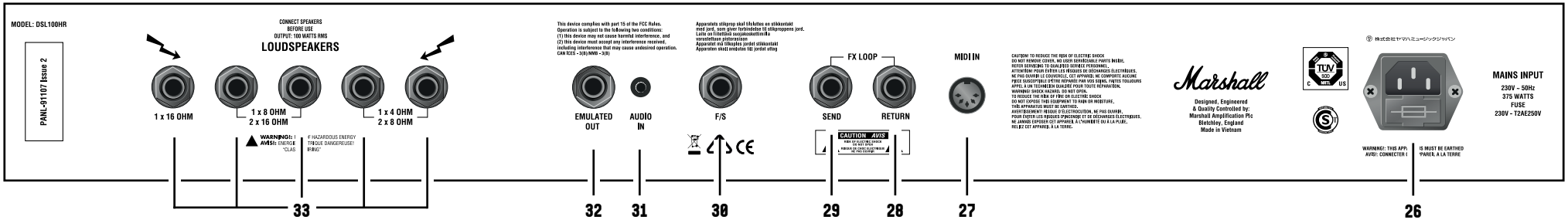
HIGH: This is the 100 Watt setting for the DSL100HR and the 40 Watt setting for the DSL40CR.

STB (standby): This is used in conjunction with the mains power switch (front panel function #25). When powering up, always switch mains power on first, leaving the output switch in the STB (standby) position. Standby mode should also be used to mute the amp during breaks in performances to avoid stress to the valves of the amplifier.

LOW: This is the 50 Watt setting for the DSL100HR and the 20 Watt for the DSL40CR.

25. POWER
Mains power on/off switch.

REAR PANEL FUNCTIONS



26. MAINS INPUT
Connects the amplifier to the mains electricity supply.

Note: The mains input socket has an integrated fuse compartment. Ensure that the value of a replacement fuse matches the labelling on the amplifier rear panel. You must always switch the amplifier off and disconnect it from the mains electricity supply before attempting to access the fuse compartment. If in doubt, contact your Marshall dealer.

27. MIDI IN
Connect your external MIDI device to the MIDI In socket.

Note: The amplifier only accepts incoming data and it is not able to send any MIDI commands.

You can set the channel, the state of the loop and master volume via MIDI messages.

MIDI commands allow the remote control of some front panel functions (refer to MIDI implementation chart in the user manual).

The MIDI receive channel is factory-set to channel 1. In order to set a different channel, press and hold the loop on/off switch (front panel function #23) while powering up the amplifier to activate MIDI waiting mode. The LED will flash until a valid MIDI command is received. The MIDI receive channel will be set to the channel of that command.

To select MIDI OMNI receive, put the amplifier into MIDI waiting mode and then press and hold the Master Select switch (front panel function #18) until its LED flashes.

Note: When the 2-way footswitch is connected the amplifier will not respond to any MIDI messages.

28. FX LOOP RETURN
Connect the output of an external FX pedal or processor.

29. FX LOOP SEND
Connect the input of an external FX pedal or processor.

30. F/S
Connect the supplied 2-way footswitch or the optional 6-way footswitch here.

31. AUDIO IN
Connect an external device here to practice with or to jam along to music.

32. EMULATED OUT
Emulated line level output for headphones or connection to a mixer. The DSL is equipped with a high quality emulated output using Softube-designed studio cabinet emulation. This ensures that your headphone and output signal from this socket provide the best possible tone for practice or recording.

Note: Using the emulated out does not omit the need for a speaker load to be connected to the amplifier (rear panel function #33).

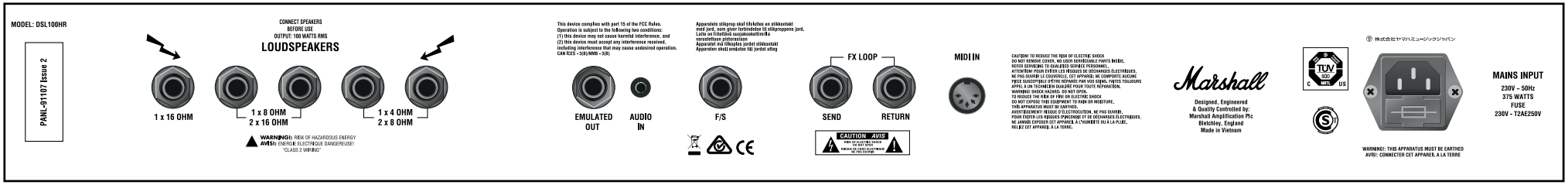
Note: For silent recording via emulated out set the output switch to STB (front panel function #24).

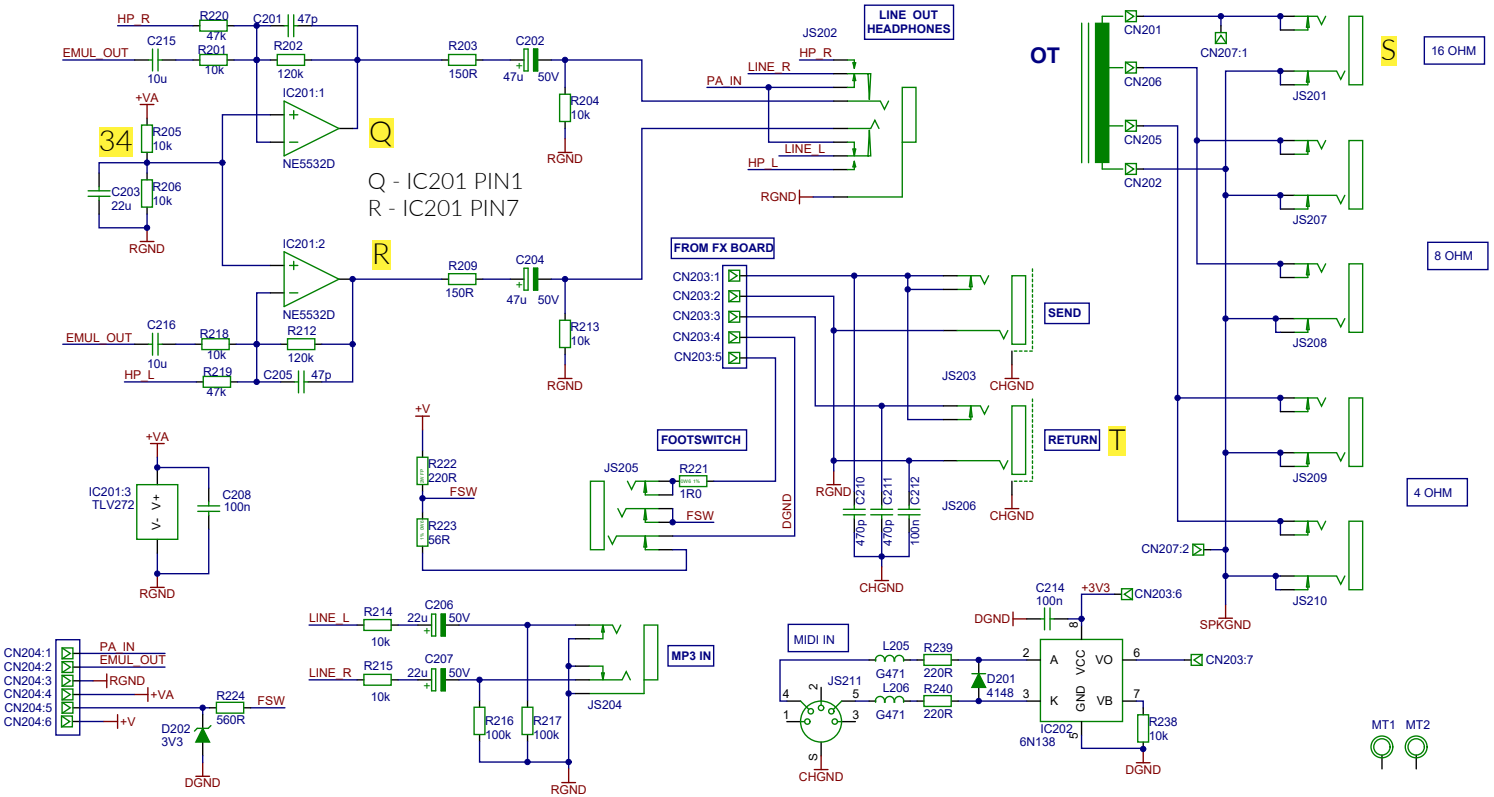
33. LOUDSPEAKERS
There are five speaker outputs available. They are labelled according to the intended impedances:

- 1 x 16 Ohm: connect a single 16 Ohm speaker cabinet to this jack.
- 1x 8 Ohm or 2 x 16 Ohm: connect a single 8 Ohm speaker cabinet or two 16 Ohm speaker cabinets.
- 1 x 4 Ohm or 2 x 8 Ohm: connect a single 4 Ohm speaker cabinet or two 8 Ohm speaker cabinets.

Warning: Although the amplifier has five speaker outputs, never attempt to connect more speaker cabinets than rated. The safe combinations are: 1 x 16 Ohm, 1 x 8 Ohm, 2 x 16 Ohm, 1 x 4 Ohm or 2 x 8 Ohm only. Any other speaker cabinet configuration may stress the power amplifier section and in extreme cases may lead to valve and/or output transformer failure. NEVER use DSL100HR or DSL40CR without a speaker load.

REAR PANEL PCB



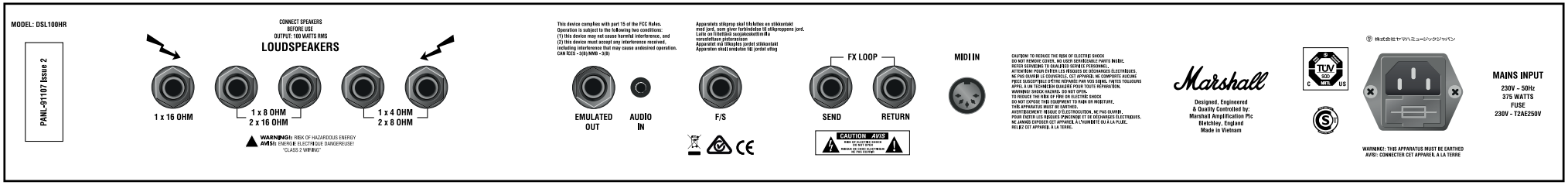


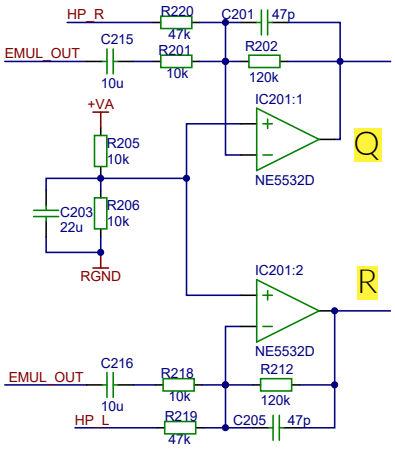
S - Output Jack Socket JS201 16 OHM
T - Return Jack Socket JS206

EMULATOR VOLTAGES

No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
34	10K	R205	TLV272 (P3, P5)	9.23V	4.77V

REAR PANEL PCB (CONTINUED)



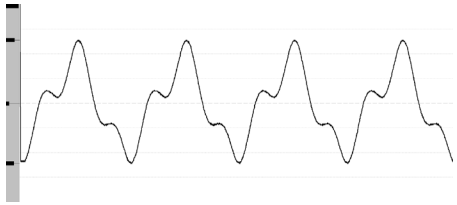


Q - IC201 PIN1
R - IC201 PIN7

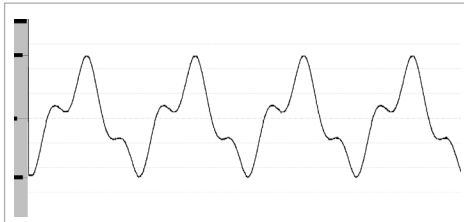
CL - Clean
OD1 - Overdrive 1

FREQUENCY:1kHz - “LOW”
RESULTS FOR TEST POINT Q (CL)
IC201 PIN1 V(rms) 146mV and V(pp) 444mV
FREQUENCY:1kHz - “HIGH”
IC201 PIN1 V(rms) 137mV and V(pp) 424mV

FREQUENCY:1kHz - “LOW”
RESULTS FOR TEST POINT R (CL)
IC201 PIN7 V(rms) 146mV and V(pp) 444mV
FREQUENCY:1kHz - “HIGH”
IC201 PIN7 V(rms) 136mV and V(pp) 416mV

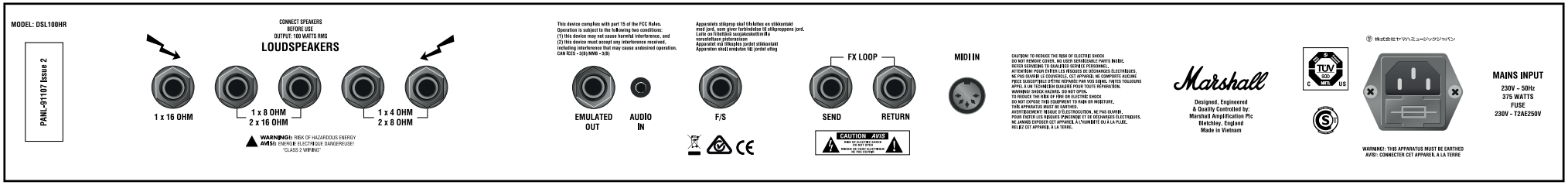


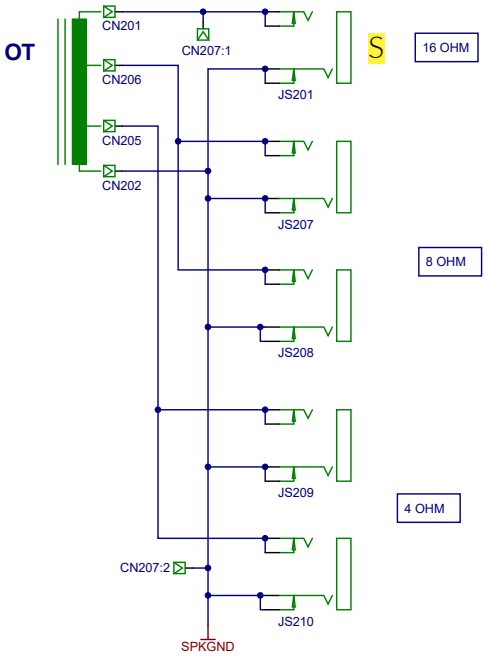
FREQUENCY:1kHz - “LOW”
RESULTS FOR TEST POINT Q (OD1)
IC201 PIN1 V(rms) 1.78V and V(pp) 6.52V
FREQUENCY:1kHz - “HIGH”
IC201 PIN1 V(rms) 1.34V and V(pp) 4.96V



FREQUENCY:1kHz - “LOW”
RESULTS FOR TEST POINT R (OD1)
IC201 PIN7 V(rms) 1.76V and V(pp) 6.48V
FREQUENCY:1kHz - “HIGH”
IC201 PIN7 V(rms) 1.32V and V(pp) 4.88V

REAR PANEL PCB (CONTINUED)



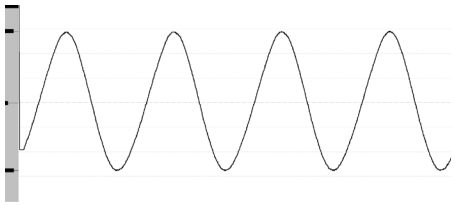


S - Output JS201

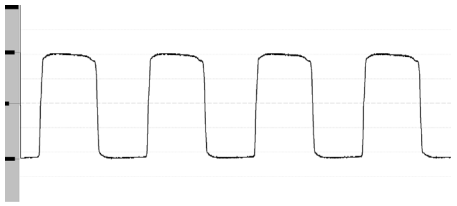
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT S (CL)
JS201 V(rms) 7.99V and V(pp) 23.4V

FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT S (CR)
JS201 V(rms) 44.9V and V(pp) 110V

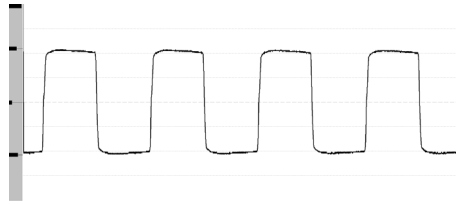
CL - Clean
CR - Crunch
OD1 - Overdrive 1
OD2 - Overdrive 2



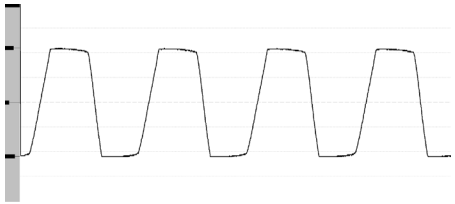
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT S (CL)
JS201 V(rms) 18.7V and V(pp) 56.0V



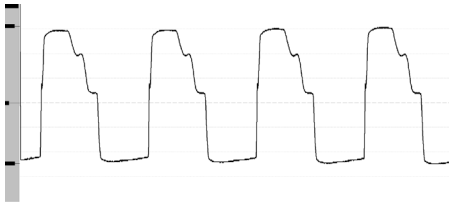
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT S (OD1)
JS201 V(rms) 20.1V and V(pp) 42.8V



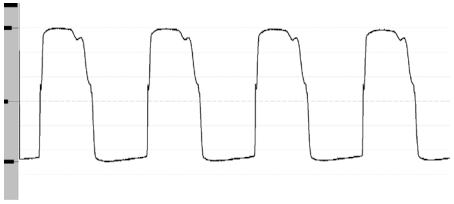
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT S (OD2)
JS201 V(rms) 20.3V and V(pp) 43.2V



FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT S (CR)
JS201 V(rms) 18.7V and V(pp) 43.6V



FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT S (OD1)
JS201 V(rms) 46.4V and V(pp) 109V



FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT S (OD2)
JS201 V(rms) 48.2V and V(pp) 109V

MAIN PCB

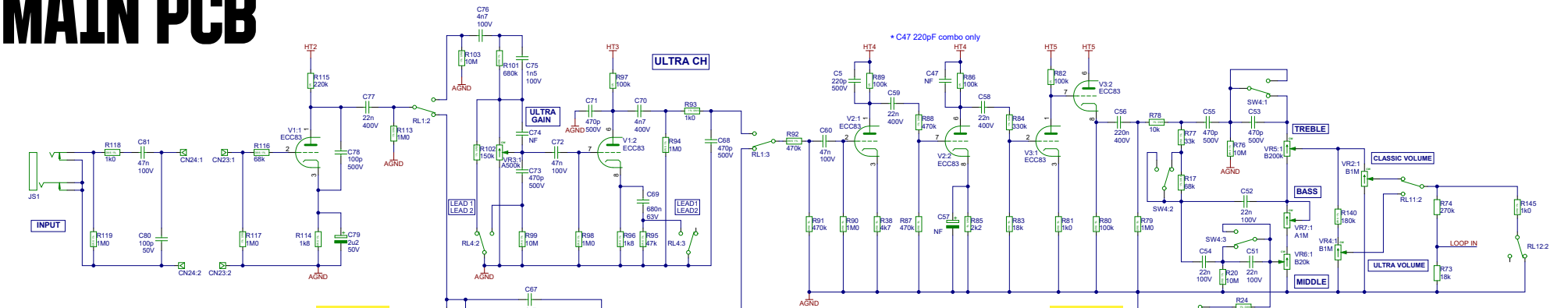
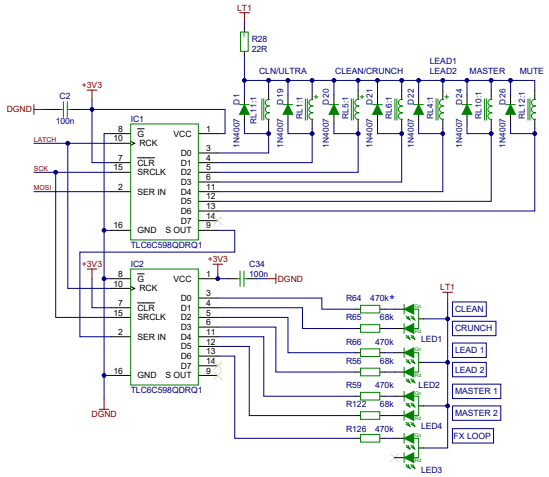


FIG A

FIG B



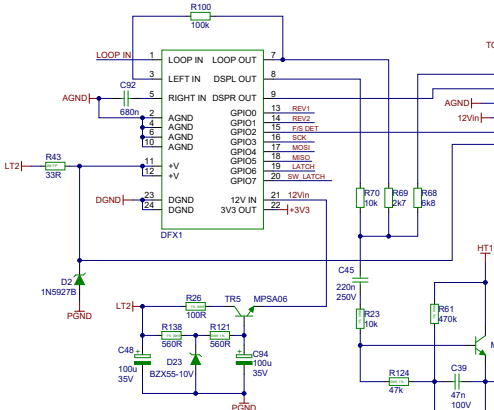
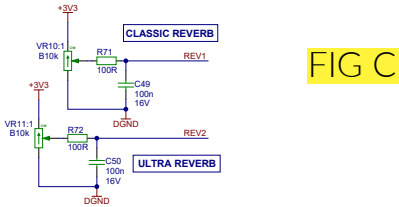


FIG C



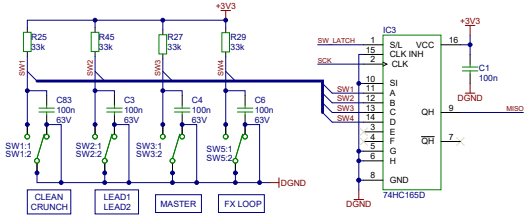
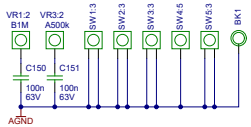
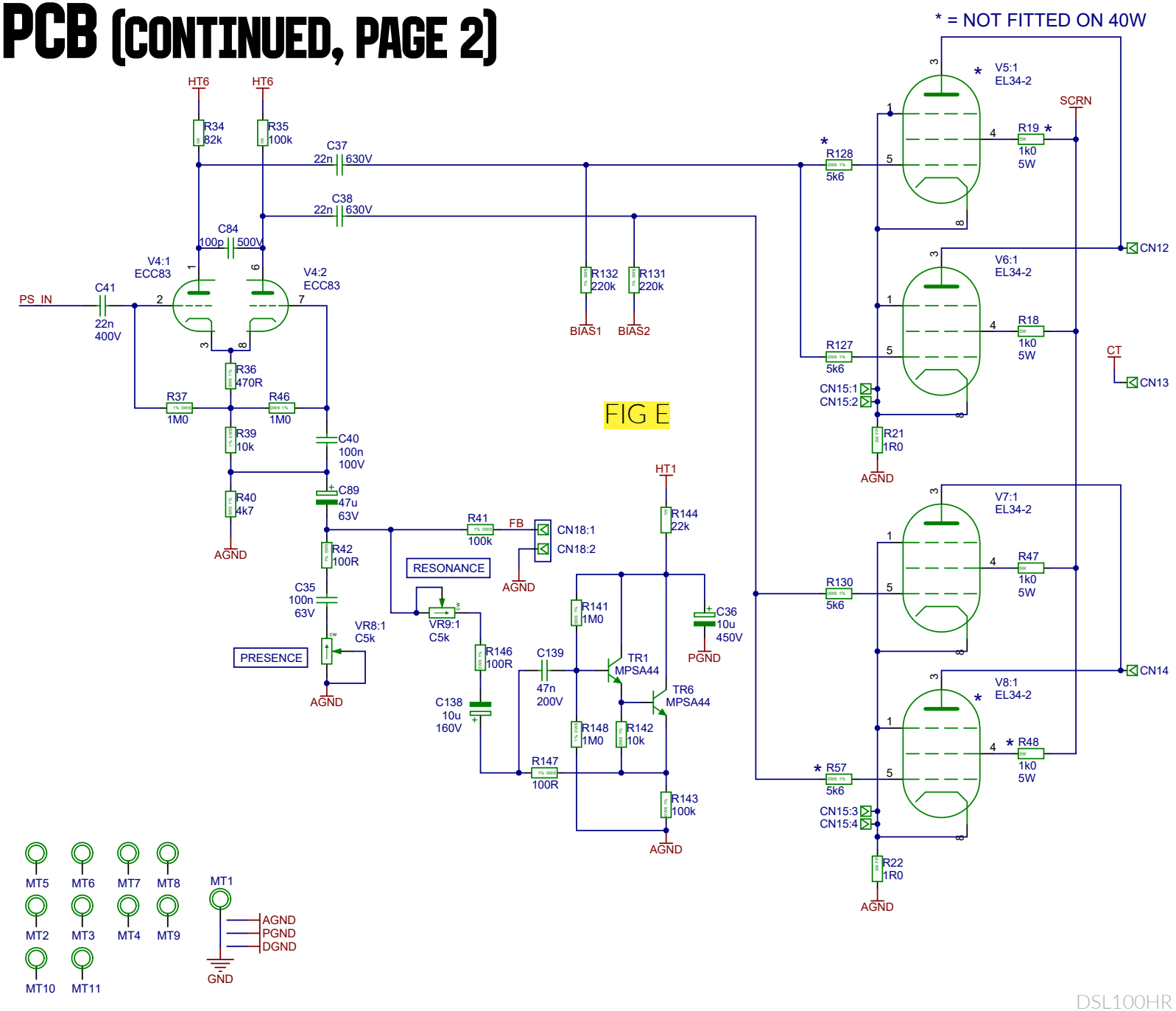


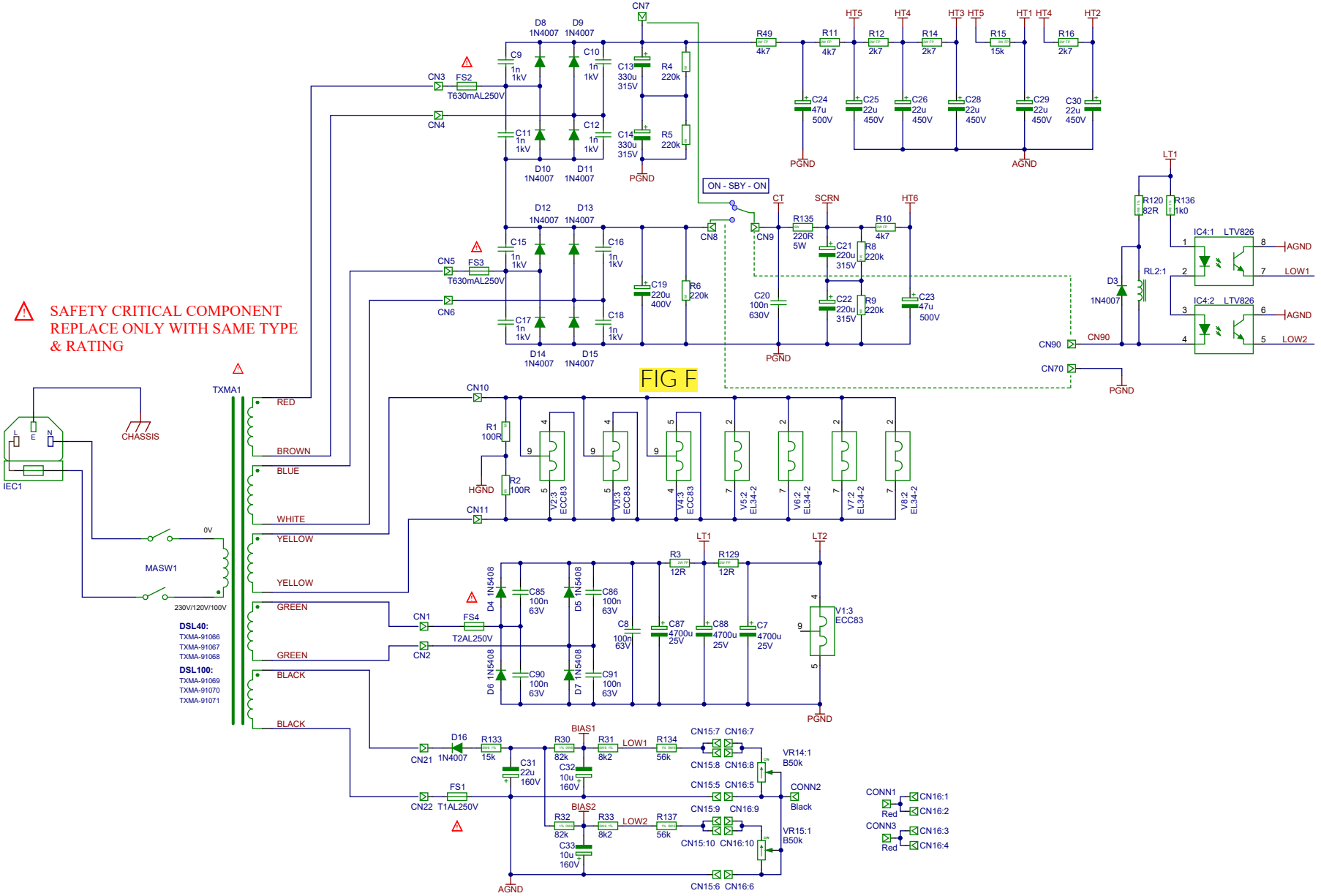
FIG D



MAIN PCB (CONTINUED, PAGE 2)



MAIN PCB (CONTINUED, PAGE 3)



MAIN PCB – FIG. A VOLTAGES

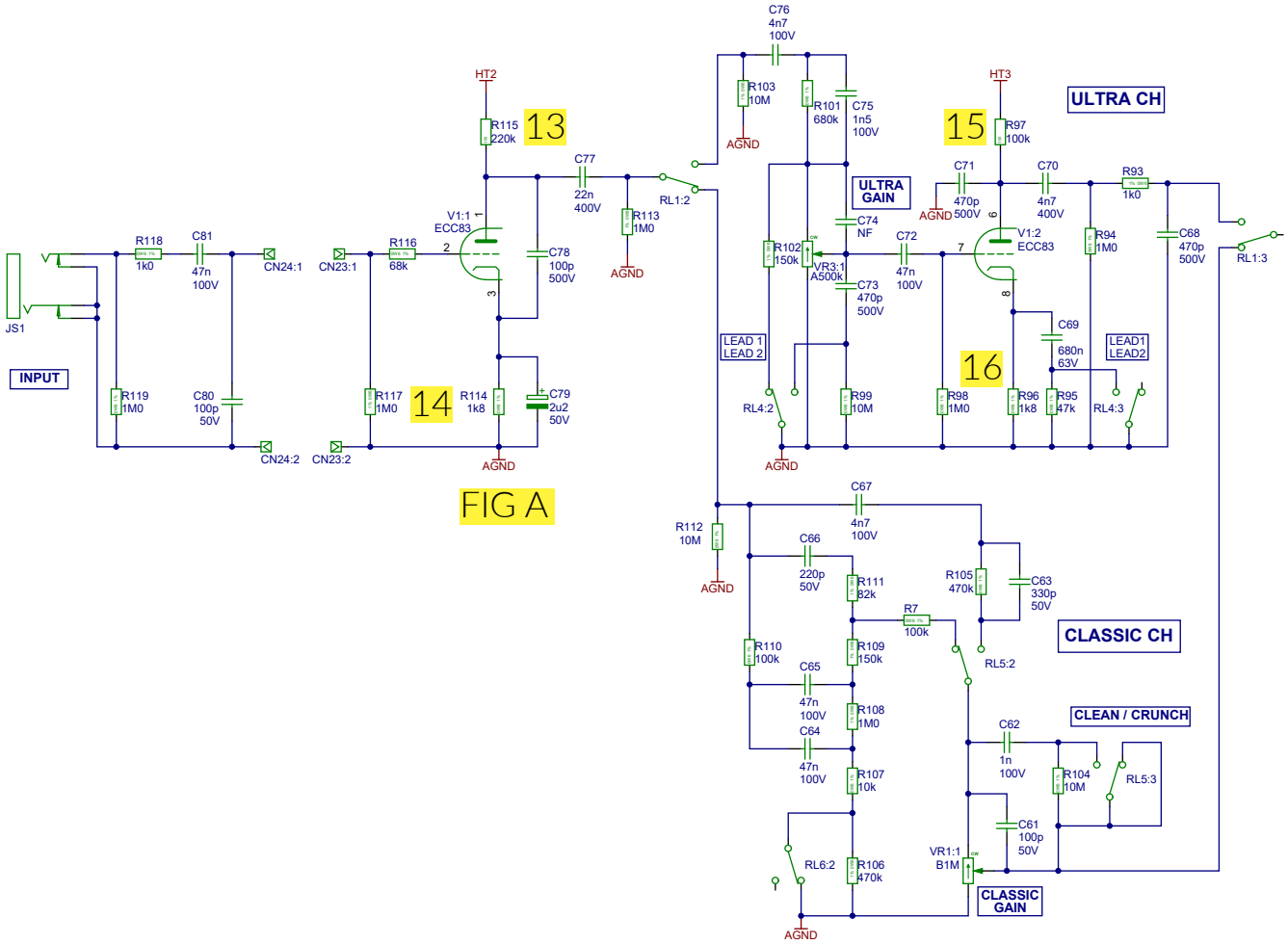


FIG A

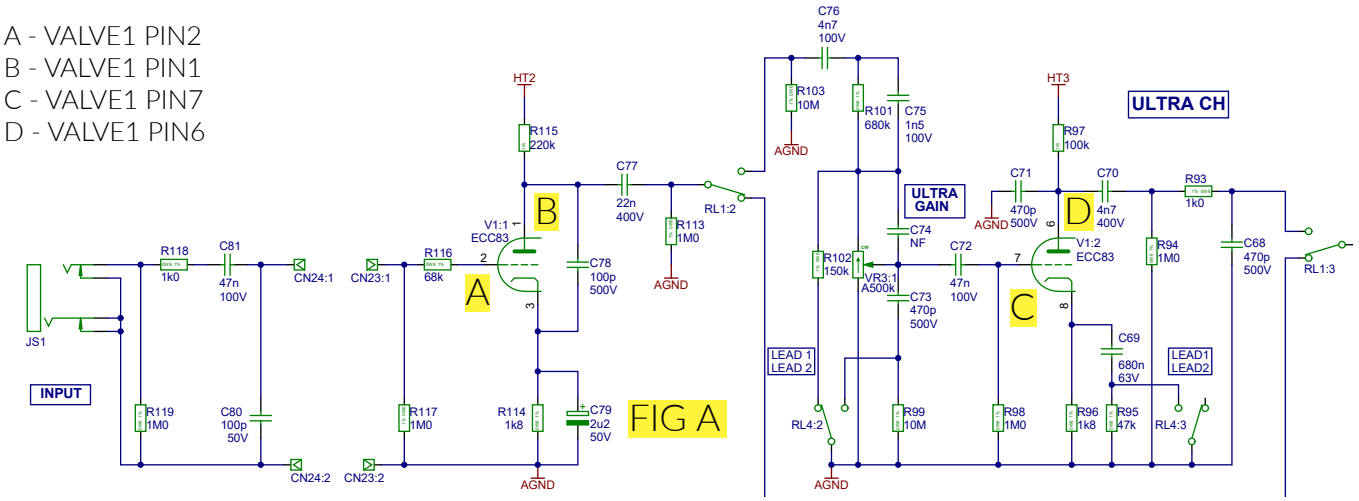
PREAMP VOLTAGES – OUTPUT SET TO STANDBY					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
13	220k	R115	V1 P1	366V	185V
14	1k8	R114	V1 P3	1.52V	AGND
15	100k	R97	V1 P6	365V	252V
16	1k8	R96	V1 P8	2.10V	AGND

PREAMP VOLTAGES – OUTPUT SET TO LOW					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
13	220k	R115	V1 P1	349V	178V
14	1k8	R114	V1 P3	1.44V	AGND
15	100k	R97	V1 P6	348V	241V
16	1k8	R96	V1 P8	1.98V	AGND

PREAMP VOLTAGES – OUTPUT SET TO HIGH					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
13	220k	R115	V1 P1	337V	170V
14	1k8	R114	V1 P3	1.39V	AGND
15	100k	R97	V1 P6	336V	231V
16	1k8	R96	V1 P8	1.92V	AGND

MAIN PCB – FIG. A WAVEFORMS

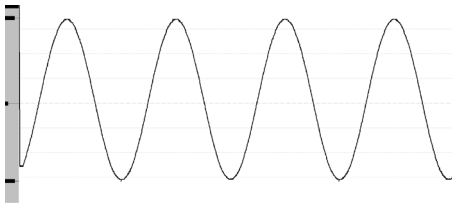
A - VALVE1 PIN2
B - VALVE1 PIN1
C - VALVE1 PIN7
D - VALVE1 PIN6



FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT A
V1 PIN2 V(rms) 8.44mV and V(pp) 24.8mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT C (OD1)
V1 PIN7 V(rms) 272mV and V(pp) 784mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT D (OD1)
V1 PIN6 V(rms) 6.83V and V(pp) 19.6V



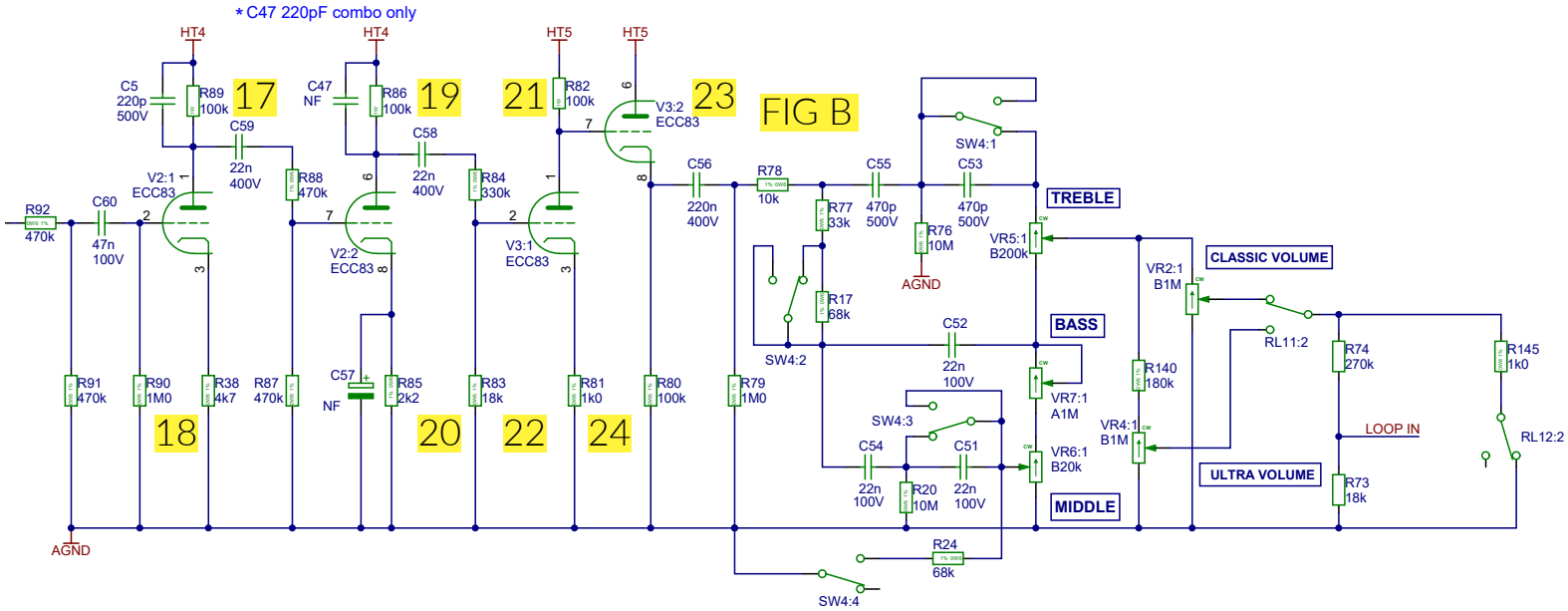
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT B
V1 PIN1 V(rms) 450mV and V(pp) 1.31V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT C (OD2)
V1 PIN7 V(rms) 339mV and V(pp) 984mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT D (OD2)
V1 PIN6 V(rms) 18.1V and V(pp) 52.4V

OD1 - Overdrive 1
OD2 - Overdrive 2

MAIN PCB – FIG. B VOLTAGES

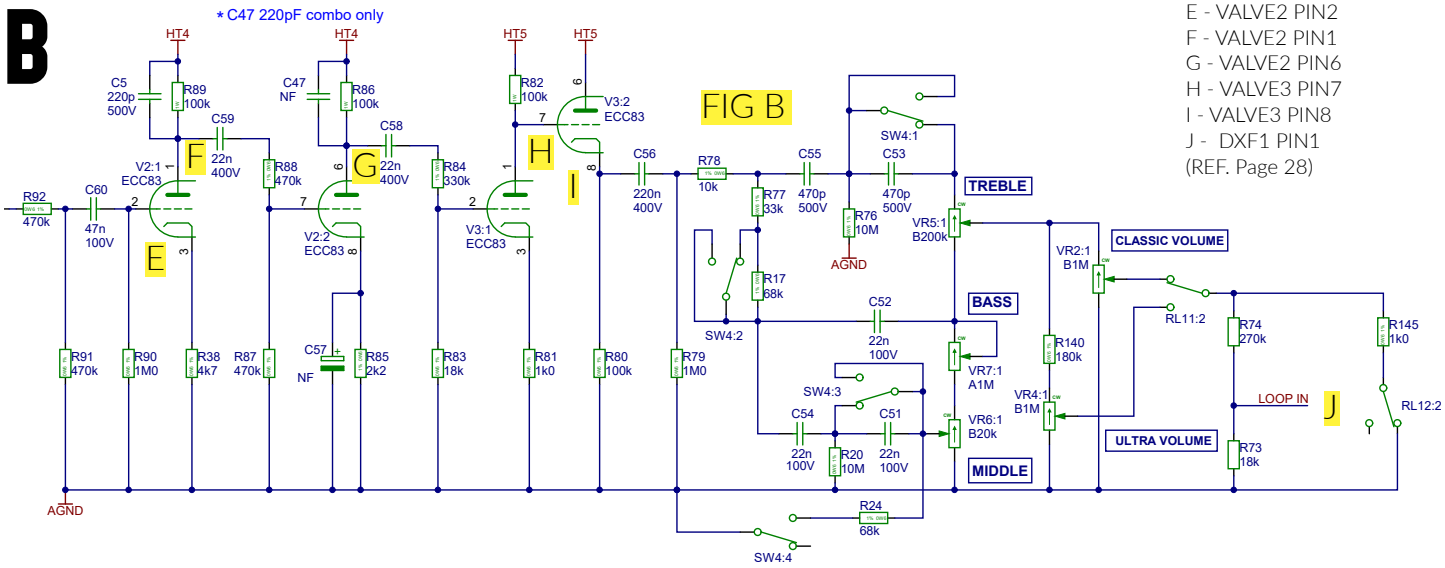


PREAMP VOLTAGES – OUTPUT SET TO STANDBY					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
17	100k	R89	V2 P1	368V	308V
18	4k7	R38	V2 P3	2.76V	AGND
19	100k	R86	V2 P6	368V	275V
20	2k2	R85	V2 P8	2.10V	AGND
21	100k	R82	V3 P1	378V	244V
22	1k	R81	V3 P3	1.33V	AGND
23	ECC83	V3 P6	N/A	378V	N/A
24	100k	R80	V3 P8	245V	AGND

PREAMP VOLTAGES – OUTPUT SET TO LOW					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
17	100k	R89	V2 P1	351V	294V
18	4k7	R38	V2 P3	2.62V	AGND
19	100k	R86	V2 P6	351V	263V
20	2k2	R85	V2 P8	1.94V	AGND
21	100k	R82	V3 P1	360V	234V
22	1k	R81	V3 P3	1.25V	AGND
23	ECC83	V3 P6	N/A	360V	N/A
24	100k	R80	V3 P8	235V	AGND

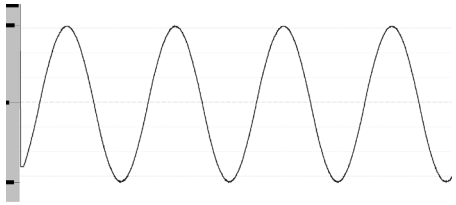
PREAMP VOLTAGES – OUTPUT SET TO HIGH					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
17	100k	R89	V2 P1	339V	283V
18	4k7	R38	V2 P3	2.52V	AGND
19	100k	R86	V2 P6	339V	254V
20	2k2	R85	V2 P8	1.86V	AGND
21	100k	R82	V3 P1	348V	226V
22	1k	R81	V3 P3	1.19V	AGND
23	ECC83	V3 P6	N/A	348V	N/A
24	100k	R80	V3 P8	228V	AGND

MAIN PCB – FIG. B WAVEFORMS

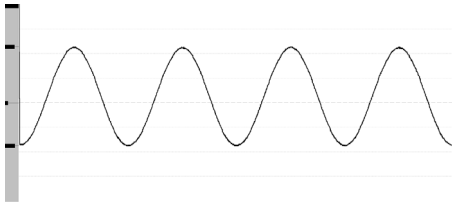


CL - Clean
CR - Crunch
OD1 - Overdrive 1
OD2 - Overdrive 2

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT E (CL)
V2 PIN2 V(rms) 20.3mV and V(pp) 60.4mV
FREQUENCY:1kHz - "HIGH"
V2 PIN2 V(rms) 20.1mV and V(pp) 60.0mV

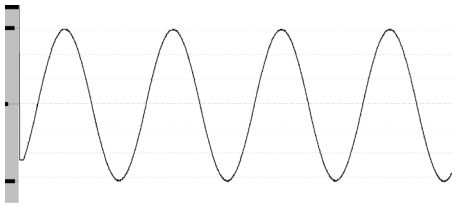


FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT E (OD1)
V2 PIN2 V(rms) 2.23V and V(pp) 6.44V
FREQUENCY:1kHz - "HIGH"
V2 PIN2 V(rms) 2.17V and V(pp) 6.32V



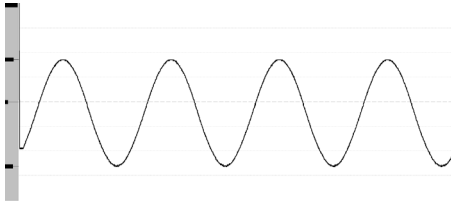
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT F (CL)
V2 PIN1 V(rms) 276mV and V(pp) 800mV
FREQUENCY:1kHz - "HIGH"
V2 PIN1 V(rms) 277mV and V(pp) 800mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT F (OD1)
V2 PIN1 V(rms) 32.8V and V(pp) 93.6V
FREQUENCY:1kHz - "HIGH"
V2 PIN1 V(rms) 30.9V and V(pp) 86.4V

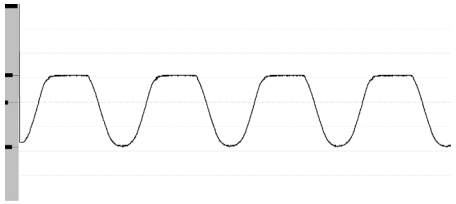


FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT E (CR)
V2 PIN2 V(rms) 107mV and V(pp) 312mV
FREQUENCY:1kHz - "HIGH"
V2 PIN2 V(rms) 106mV and V(pp) 310mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT E (OD2)
V2 PIN2 V(rms) 5.84V and V(pp) 17V
FREQUENCY:1kHz - "HIGH"
V2 PIN2 V(rms) 5.59V and V(pp) 16.2V

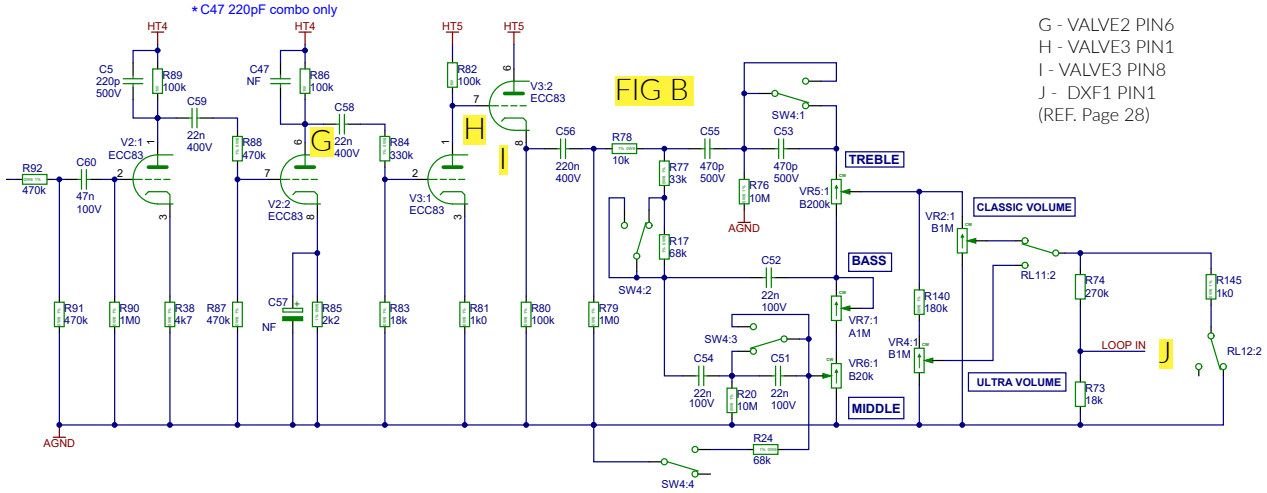


FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT F (CR)
V2 PIN1 V(rms) 1.56V and V(pp) 4.32V
FREQUENCY:1kHz - "HIGH"
V2 PIN1 V(rms) 1.53V and V(pp) 4.32V



FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT F (OD2)
V2 PIN1 V(rms) 67.3V and V(pp) 178V
FREQUENCY:1kHz - "HIGH"
V2 PIN1 V(rms) 57.2V and V(pp) 146V

MAIN PCB – FIG. B WAVEFORMS (CONTINUED)



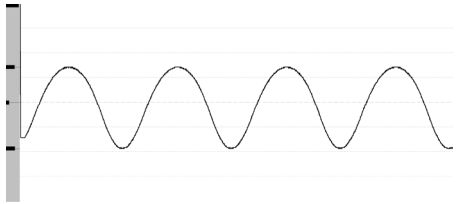
G - VALVE2 PIN6
H - VALVE3 PIN1
I - VALVE3 PIN8
J - DXF1 PIN1
(REF. Page 28)

CL - Clean
CR - Crunch
OD1 - Overdrive 1

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT I (CL)
V3 PIN8 V(rms) 4.64V and V(pp) 13.4V
FREQUENCY:1kHz - "HIGH"
V3 PIN8 V(rms) 4.42V and V(pp) 12.8V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT G (CL)
V2 PIN6 V(rms) 3.04V and V(pp) 8.80V
FREQUENCY:1kHz - "HIGH"
V2 PIN6 V(rms) 3.01V and V(pp) 8.80V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT G (OD1)
V2 PIN6 V(rms) 85.8V and V(pp) 192V
FREQUENCY:1kHz - "HIGH"
V2 PIN6 V(rms) 69.1V and V(pp) 154V

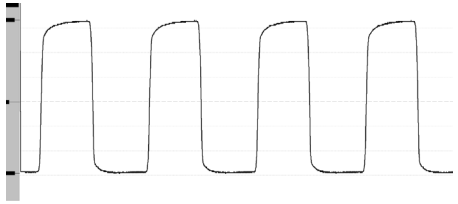


FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT H (CR)
V3 PIN1 V(rms) 26.2V and V(pp) 74.4V
FREQUENCY:1kHz - "HIGH"
V3 PIN1 V(rms) 23.2V and V(pp) 65.6V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT I (CR)
V3 PIN8 V(rms) 24V and V(pp) 68.8V
FREQUENCY:1kHz - "HIGH"
V3 PIN8 V(rms) 22.1V and V(pp) 63.2V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT G (CR)
V2 PIN6 V(rms) 16.1V and V(pp) 46.8V
FREQUENCY:1kHz - "HIGH"
V2 PIN6 V(rms) 15.7V and V(pp) 45.6V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT H (CL)
V3 PIN1 V(rms) 5.27V and V(pp) 15.4V
FREQUENCY:1kHz - "HIGH"
V3 PIN1 V(rms) 5.05V and V(pp) 14.6V



FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT H (OD1)
V3 PIN1 V(rms) 75.3V and V(pp) 162V
FREQUENCY:1kHz - "HIGH"
V3 PIN1 V(rms) 57.8V and V(pp) 123V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT I (OD1)
V3 PIN8 V(rms) 72.8V and V(pp) 157V
FREQUENCY:1kHz - "HIGH"
V3 PIN8 V(rms) 56.2V and V(pp) 121V

MAIN PCB – FIG. C

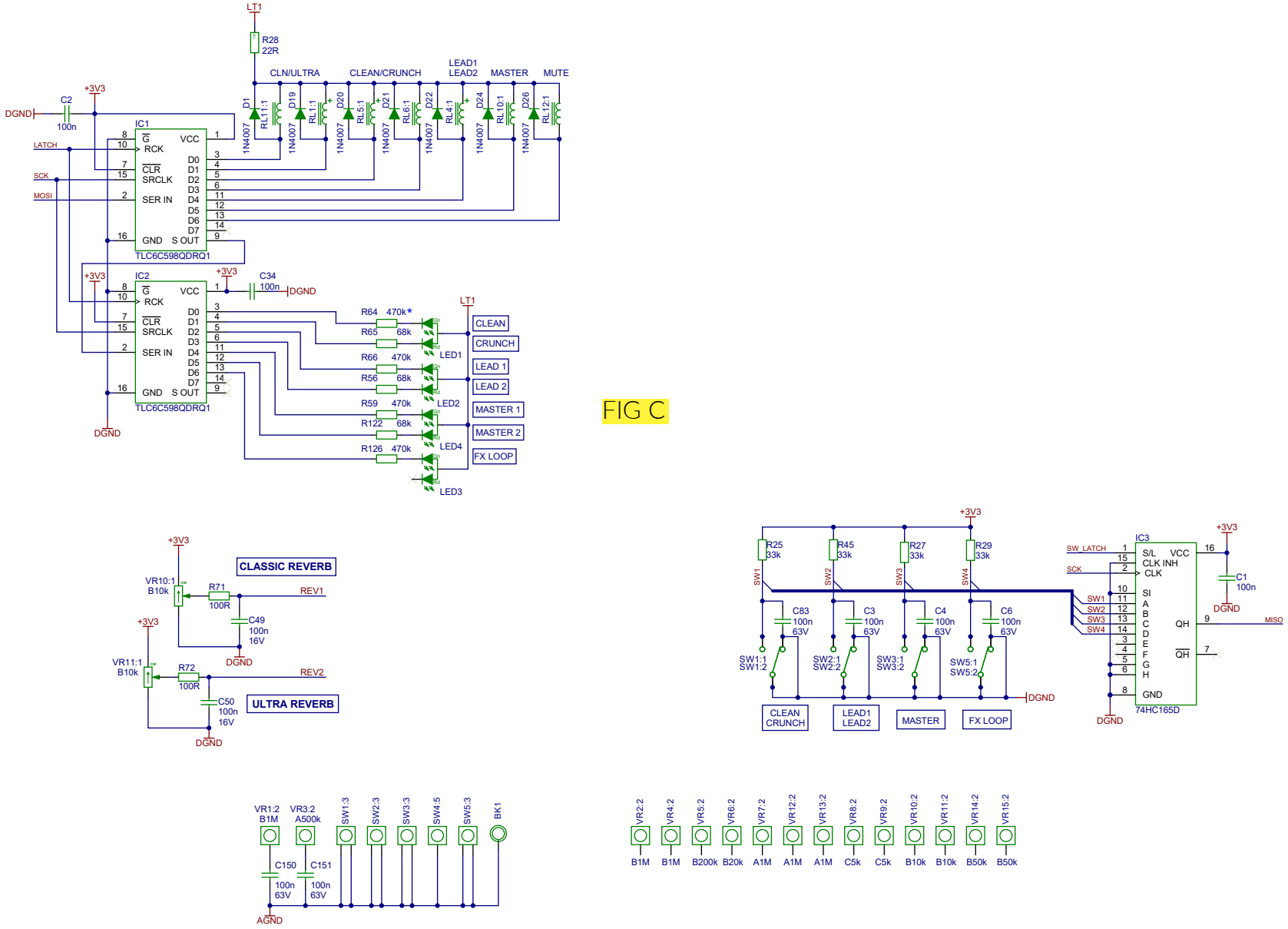
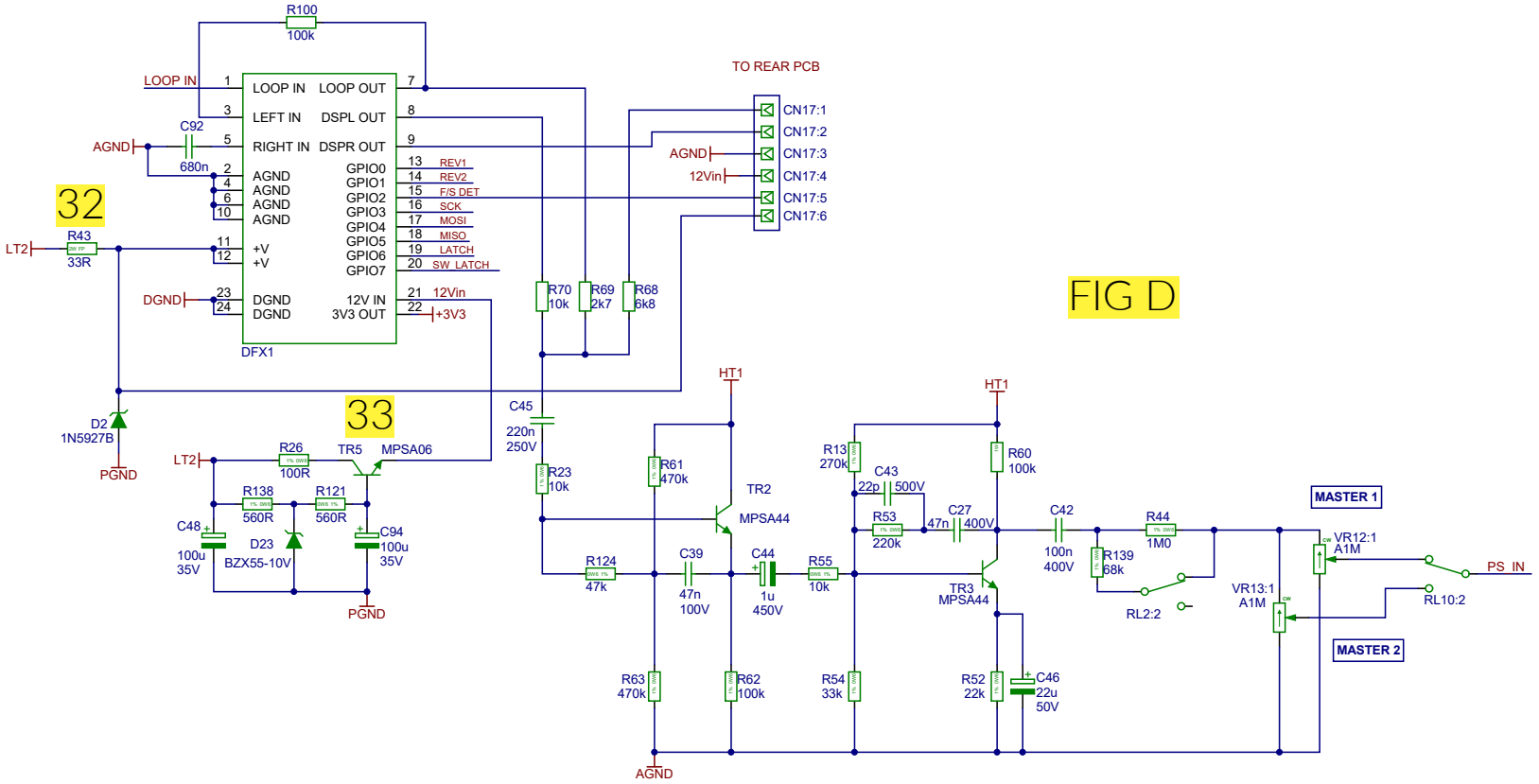


FIG C

MAIN PCB – FIG. D VOLTAGES



Output Setting
S - Standby
L - Low
H - High

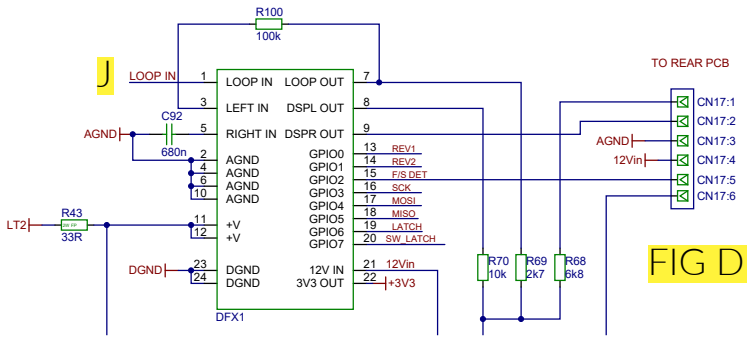
C - Collector
B - Base
E - Emitter

DFX VOLTAGES – CLASSIC GAIN TO CLEAN					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
32 (S)	33R	R43	DFX1 P11, P12	12.3V	9.16V
32 (L)	33R	R43	DFX1 P11, P12	11.8V	8.69V
32 (H)	33R	R43	DFX1 P11, P12	12.0V	8.82V

DFX VOLTAGES – CLASSIC GAIN TO CLEAN						
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)	V3 (DC)
33 (S)	MPSA06	TR5	DFX1 P21	9.51V (E)	10.1V (B)	11.3V (C)
33 (L)	MPSA06	TR5	DXF1 P21	9.50V (E)	10.1V (B)	10.8V (C)
33 (H)	MPSA06	TR5	DXF1 P21	9.50V (E)	10.1V (B)	10.9V (C)

MAIN PCB – FIG. D WAVEFORMS DFX1

J - DXF1 PIN1



CL - Clean
CR - Crunch
OD1 - Overdrive 1
TS - Tone Shift

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT J (CL)
DFX1 PIN1 V(rms) 68.4mV and V(pp) 198mV
FREQUENCY:1kHz - "HIGH"
DFX1 PIN1 V(rms) 64.5mV and V(pp) 190mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT J (CR)
DFX1 PIN1 V(rms) 379mV and V(pp) 1.10V
FREQUENCY:1kHz - "HIGH"
DFX1 PIN1 V(rms) 339mV and V(pp) 984mV

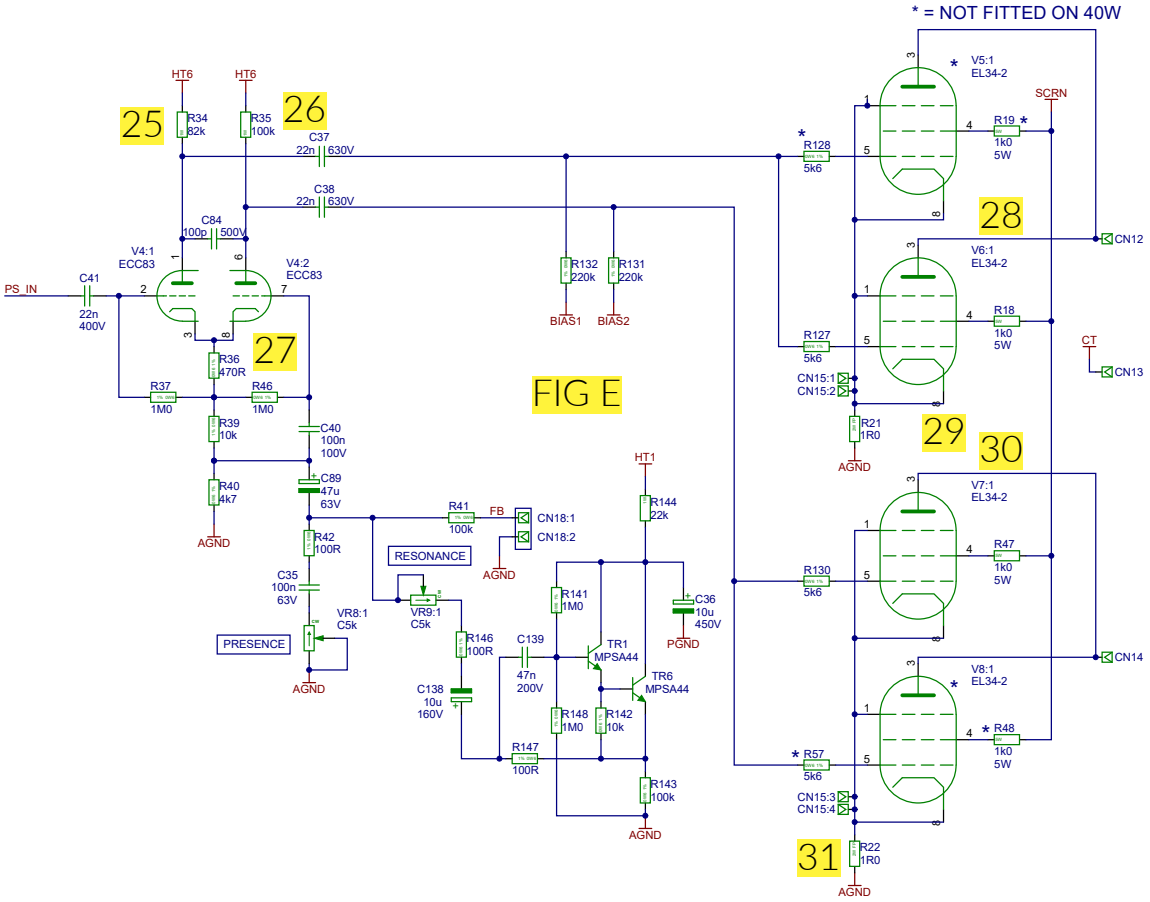
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT J (OD1)
DFX1 PIN1 V(rms) 906mV and V(pp) 3.90V
FREQUENCY:1kHz - "HIGH"
DFX1 PIN1 V(rms) 690mV and V(pp) 3.10V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT J (CL) (TS)
DFX1 PIN1 V(rms) 29.3mV and V(pp) 85.6mV
FREQUENCY:1kHz - "HIGH"
DFX1 PIN1 V(rms) 28mV and V(pp) 82.4mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT J (CR) (TS)
DFX1 PIN1 V(rms) 166mV and V(pp) 476mV
FREQUENCY:1kHz - "HIGH"
DFX1 PIN1 V(rms) 152mV and V(pp) 436mV

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT J (OD1) (TS)
DFX1 PIN1 V(rms) 566mV and V(pp) 3.50V
FREQUENCY:1kHz - "HIGH"
DFX1 PIN1 V(rms) 444mV and V(pp) 2.84V

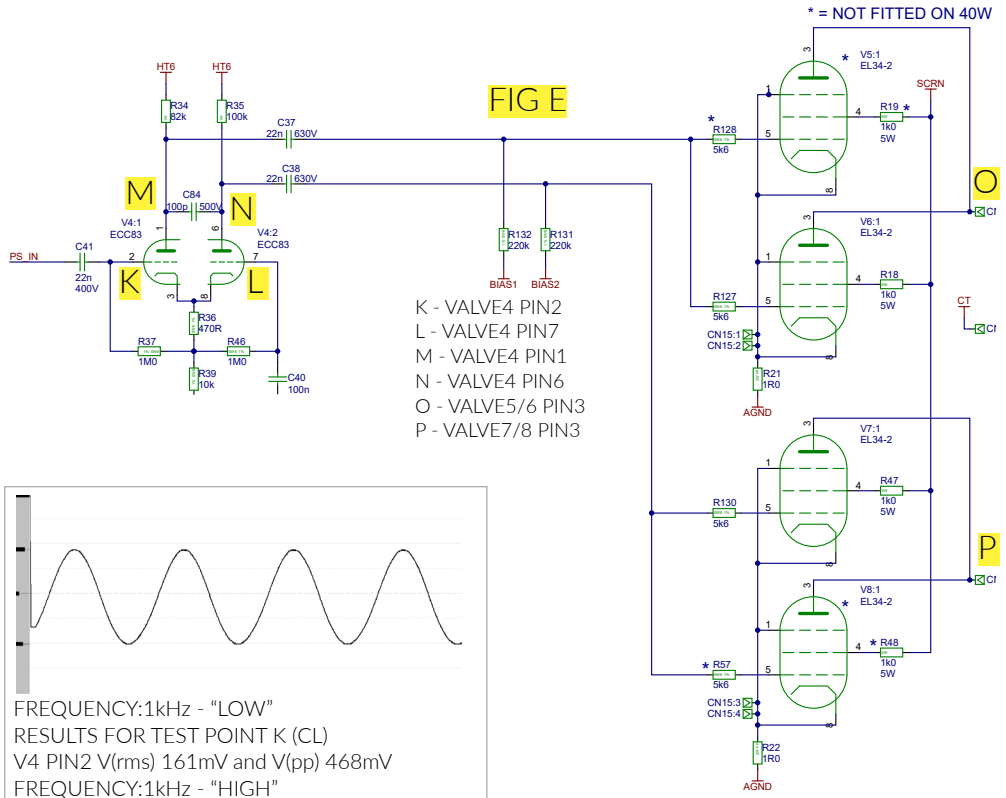
MAIN PCB – FIG. E VOLTAGES



POWERAMP VOLTAGES – OUTPUT SET TO LOW					
No.	**TYPE**	**PCB No.**	**FEED**	**V1 (DC)**	**V2 (DC)**
25	82k	R34	V4 P1	159V	114V
26	100k	R35	V4 P6	159V	112V
27	470R	R36	V4 P3/8	15.5V	15.1V
28	EL34	V6 P3	Output TX	167V	N/A
29	1R	R21	V6 P1/8	165V	AGND
30	EL34	V7 P3	Output TX	168V	N/A
31	1R	R22	V7 P1/8	164V	AGND

POWERAMP VOLTAGES – OUTPUT SET TO HIGH					
No.	**TYPE**	**PCB No.**	**FEED**	**V1 (DC)**	**V2 (DC)**
25	82k	R34	V4 P1	434V	293V
26	100k	R35	V4 P6	434V	283V
27	470R	R36	V4 P3/8	49.8V	48.3V
28	EL34	V6 P3	Output TX	451V	N/A
29	1R	R21	V6 P1/8	82.3mV	AGND
30	EL34	V7 P3	Output TX	452V	N/A
31	1R	R22	V7 P1/8	87.5mV	AGND

MAIN PCB – FIG. E WAVEFORMS



CL - Clean
CR - Crunch
OD1 - Overdrive 1

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT K (CL)
V4 PIN2 V(rms) 161mV and V(pp) 468mV
FREQUENCY:1kHz - "HIGH"
V4 PIN2 V(rms) 657mV and V(pp) 1.88V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT K (CR)
V4 PIN2 V(rms) 888mV and V(pp) 2.56V
FREQUENCY:1kHz - "HIGH"
V4 PIN2 V(rms) 3.63V and V(pp) 10.6V

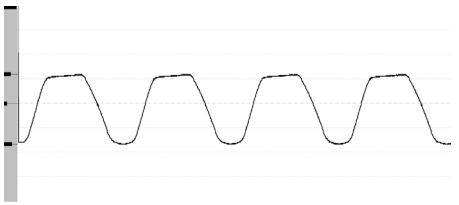
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT K (OD1)
V4 PIN2 V(rms) 1.99V and V(pp) 7.04V
FREQUENCY:1kHz - "HIGH"
V4 PIN2 V(rms) 8.06V and V(pp) 33.6V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT L (CL)
V4 PIN7 V(rms) 54.6mV and V(pp) 162mV
FREQUENCY:1kHz - "HIGH"
V4 PIN7 V(rms) 136mV and V(pp) 396mV

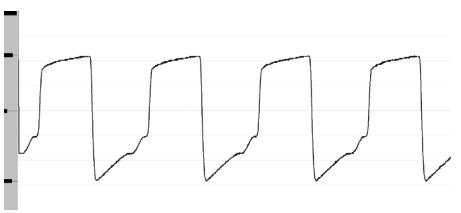
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT L (CR)
V4 PIN7 V(rms) 271mV and V(pp) 784mV
FREQUENCY:1kHz - "HIGH"
V4 PIN7 V(rms) 709mV and V(pp) 2.04V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT L (OD1)
V4 PIN7 V(rms) 428mV and V(pp) 1.16V
FREQUENCY:1kHz - "HIGH"
V4 PIN7 V(rms) 1.10V and V(pp) 2.84V

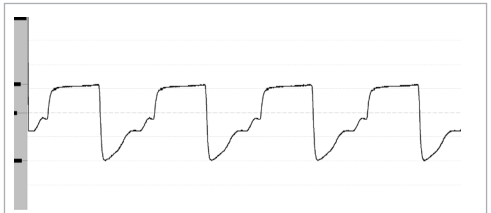
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT M (CL)
V4 PIN1 V(rms) 2.90V and V(pp) 8.40V
FREQUENCY:1kHz - "HIGH"
V4 PIN1 V(rms) 13.5V and V(pp) 38.8V



FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT M (CR)
V4 PIN1 V(rms) 15.0V and V(pp) 38.8V
FREQUENCY:1kHz - "HIGH"
V4 PIN1 V(rms) 56.5V and V(pp) 144V



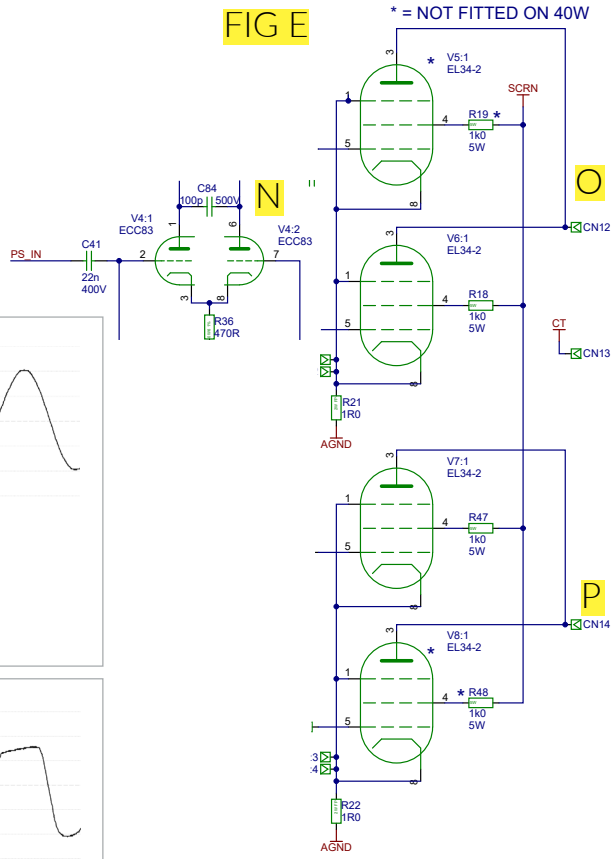
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT M (OD1)
V4 PIN1 V(rms) 19.1V and V(pp) 50.0V



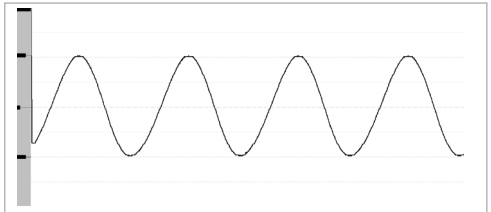
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT M (OD1)
V4 PIN1 V(rms) 54.0V and V(pp) 157V

MAIN PCB – FIG. E WAVEFORMS (CONTINUED)

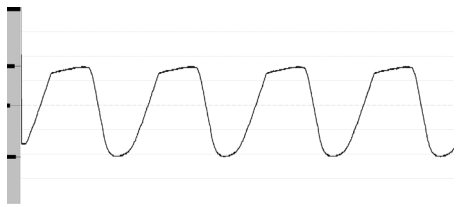
FIG E



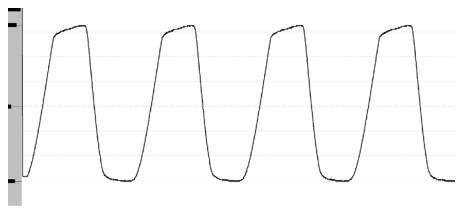
N - VALVE4 PIN6
O - VALVE5/6 PIN3
P - VALVE7/8 PIN3



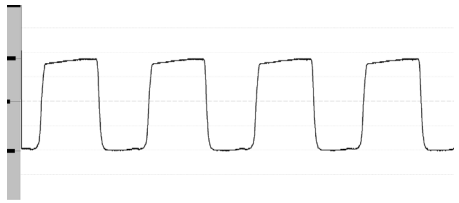
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT N (CL)
V4 PIN6 V(rms) 2.83V and V(pp) 8.32V
FREQUENCY:1kHz - "HIGH"
V4 PIN6 V(rms) 13.7V and V(pp) 40.0V



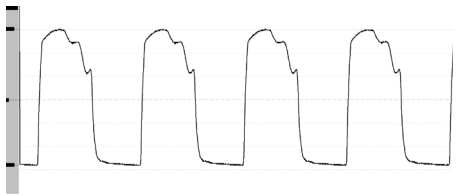
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT N (CR)
V4 PIN6 V(rms) 14.0V and V(pp) 36.4V



FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT N (CR)
V4 PIN6 V(rms) 51.0V and V(pp) 126V



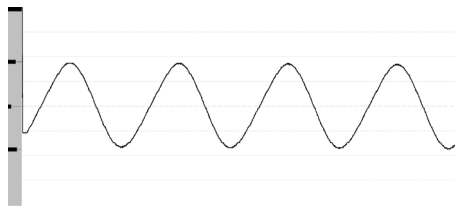
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT N (OD1)
V4 PIN6 V(rms) 17.3V and V(pp) 37.2V



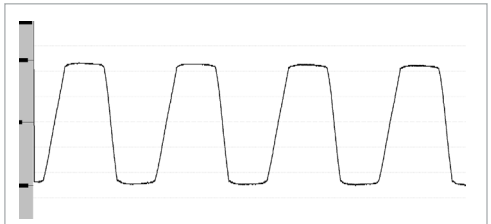
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT N (OD1)
V4 PIN6 V(rms) 51.0V and V(pp) 116V

CL - Clean
CR - Crunch
OD1 - Overdrive 1

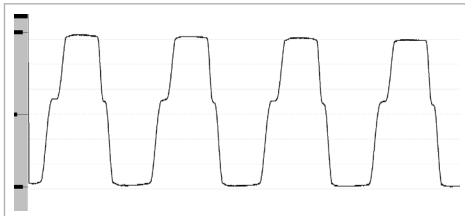
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT O (CL)
V5/6 PIN3 V(rms) 48.5V and V(pp) 143V



FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT O (CL)
V5/6 PIN3 V(rms) 115V and V(pp) 348V

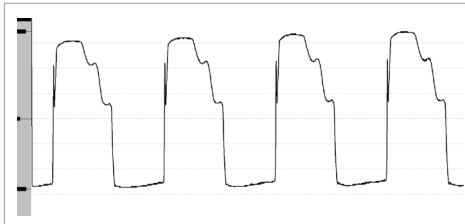


FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT O (CR)
V5/6 PIN3 V(rms) 103V and V(pp) 242V



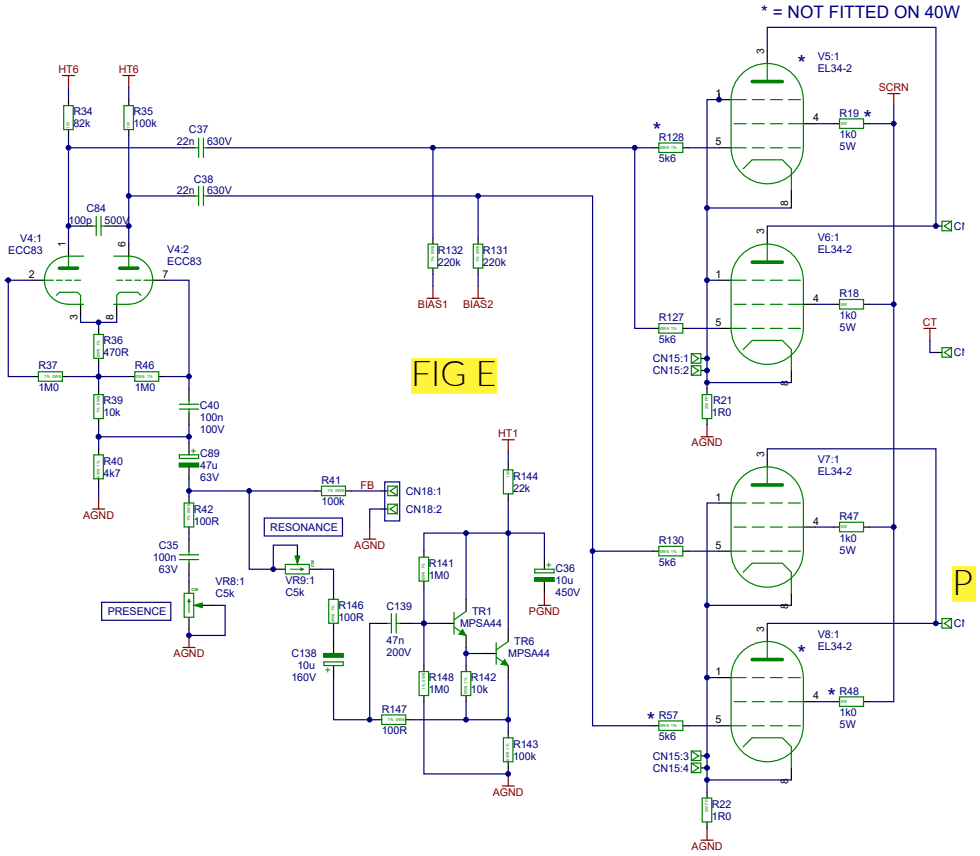
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT O (CR)
V5/6 PIN3 V(rms) 247V and V(pp) 604V

FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT O (OD1)
V5/6 PIN3 V(rms) 111V and V(pp) 238V



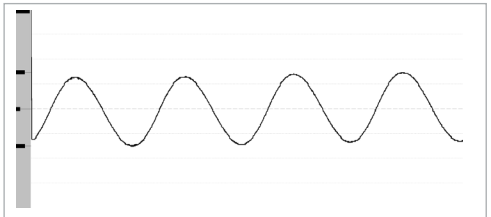
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT O (OD1)
V5/6 PIN3 V(rms) 253V and V(pp) 588V

MAIN PCB – FIG. E WAVEFORMS (CONTINUED)

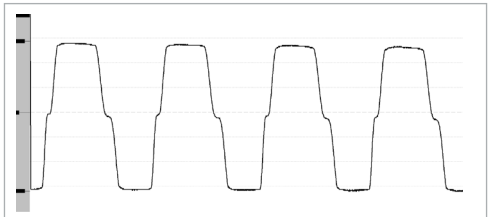


P - VALVE7/8 PIN3

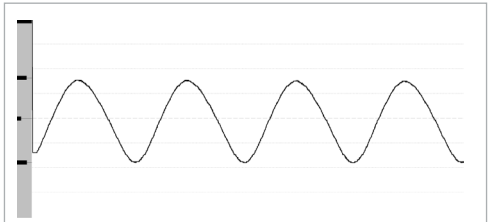
CL - Clean
CR - Crunch
OD1 - Overdrive 1



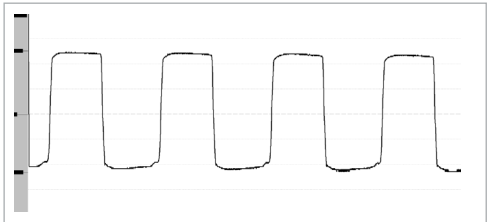
FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT P (CL)
V7/8 PIN3 V(rms) 48.3V and V(pp) 142V



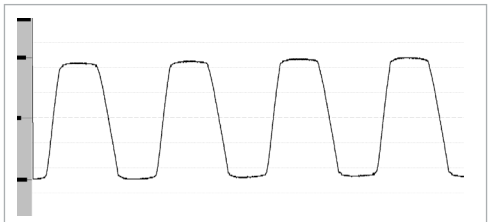
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT P (CR)
V7/8 PIN3 V(rms) 249V and V(pp) 600V



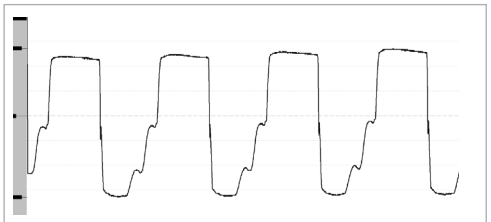
FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT P (CL)
V7/8 PIN3 V(rms) 112V and V(pp) 338V



FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT P (OD1)
V7/8 PIN3 V(rms) 108V and V(pp) 232V

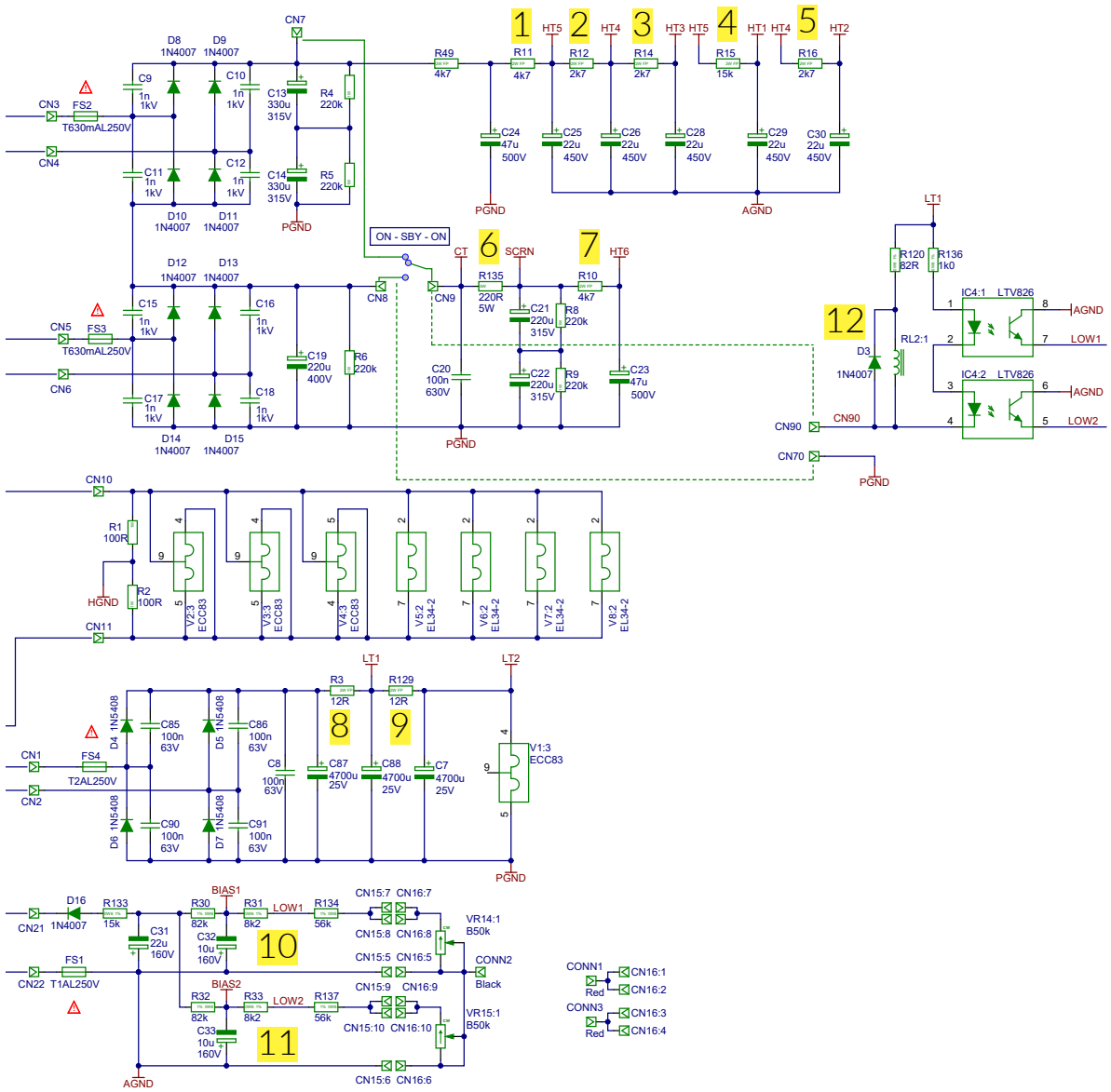


FREQUENCY:1kHz - "LOW"
RESULTS FOR TEST POINT P (CR)
V7/8 PIN3 V(rms) 101V and V(pp) 236V



FREQUENCY:1kHz - "HIGH"
RESULTS FOR TEST POINT P (OD1)
V7/8 PIN3 V(rms) 235V and V(pp) 576V

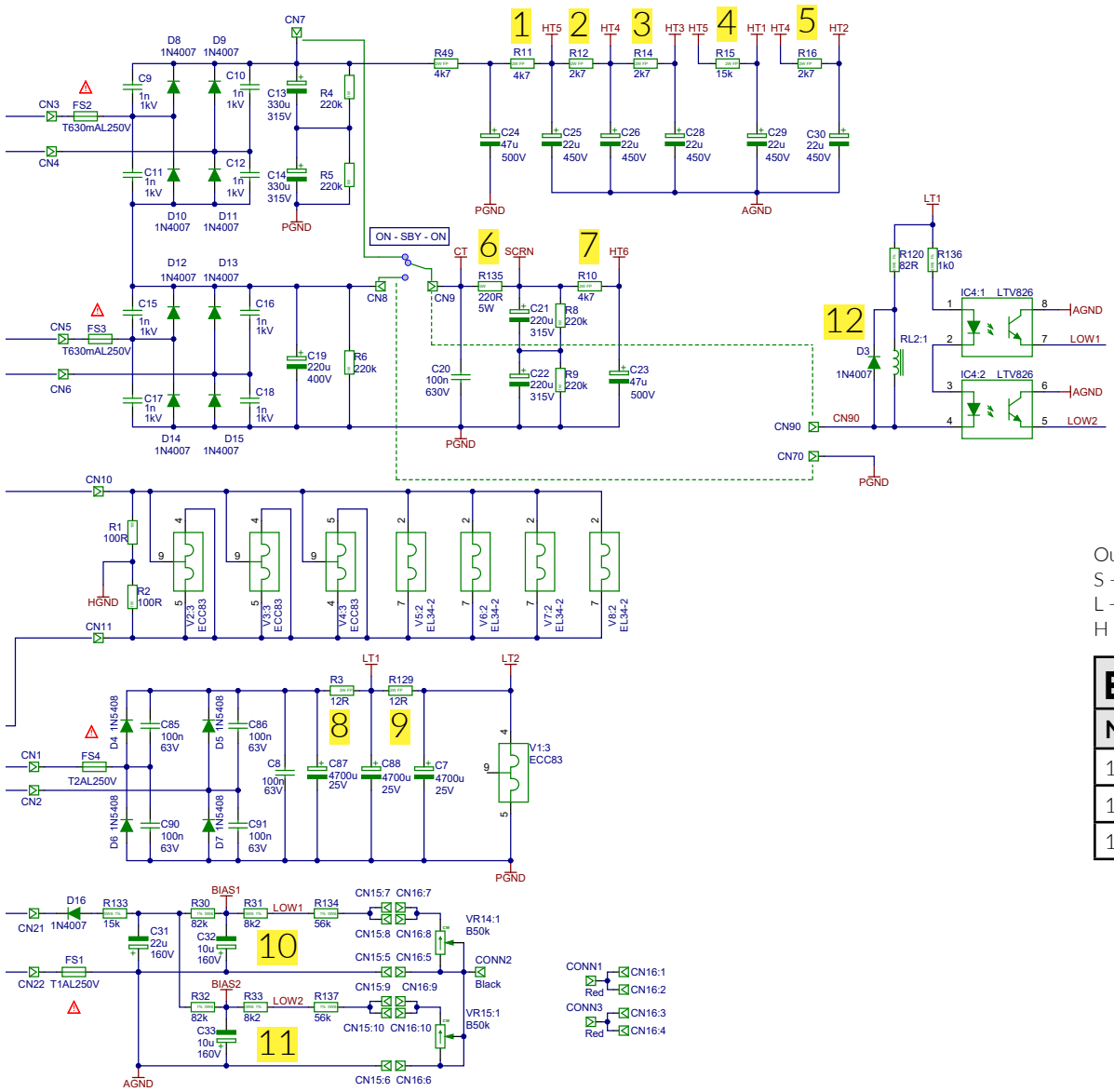
MAIN PCB – FIG. F VOLTAGES



POWER SUPPLY VOLTAGES – OUTPUT SET TO STANDBY					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
1	4k7	R11	HT5	436V	378V
2	2k7	R12	HT4	378V	368V
3	2k7	R14	HT3	368V	365V
4	15k	R15	HT1	378V	297V
5	2k7	R16	HT2	368V	366V
8	12R	R3	LT1	18.9V	15.5V
9	12R	R129	LT2	15.5V	12.3V
10	8k2	R31	BIAS1	-39.8V	-35.7V
11	8k2	R33	BIAS2	-39.6V	-35.5V

POWER SUPPLY VOLTAGES – OUTPUT SET TO LOW					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
1	4k7	R11	HT5	416V	360V
2	2k7	R12	HT4	360V	352V
3	2k7	R14	HT3	352V	348V
4	15k	R15	HT1	360V	283V
5	2k7	R16	HT2	352V	349V
6	220R	R135	SCRN	172V	164V
7	4k7	R10	HT6	164V	159V
8	12R	R3	LT1	18.5V	14.9V
9	12R	R129	LT2	14.9V	11.8V
10	8k2	R31	BIAS1	-5.76V	-46mV
11	8k2	R33	BIAS2	-5.73V	-46.4mV

MAIN PCB – FIG. F VOLTAGES (CONTINUED)

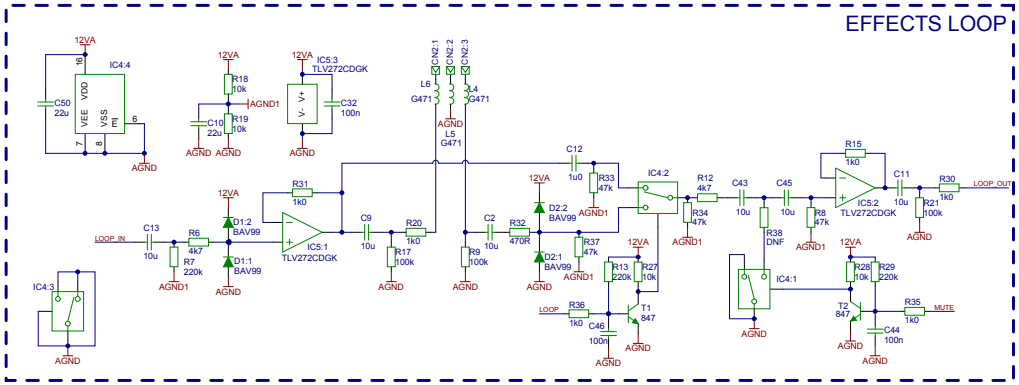


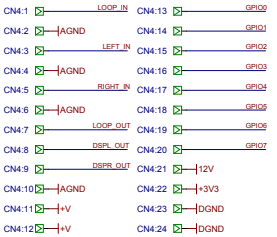
Output Setting
S - Standby
L - Low
H - High

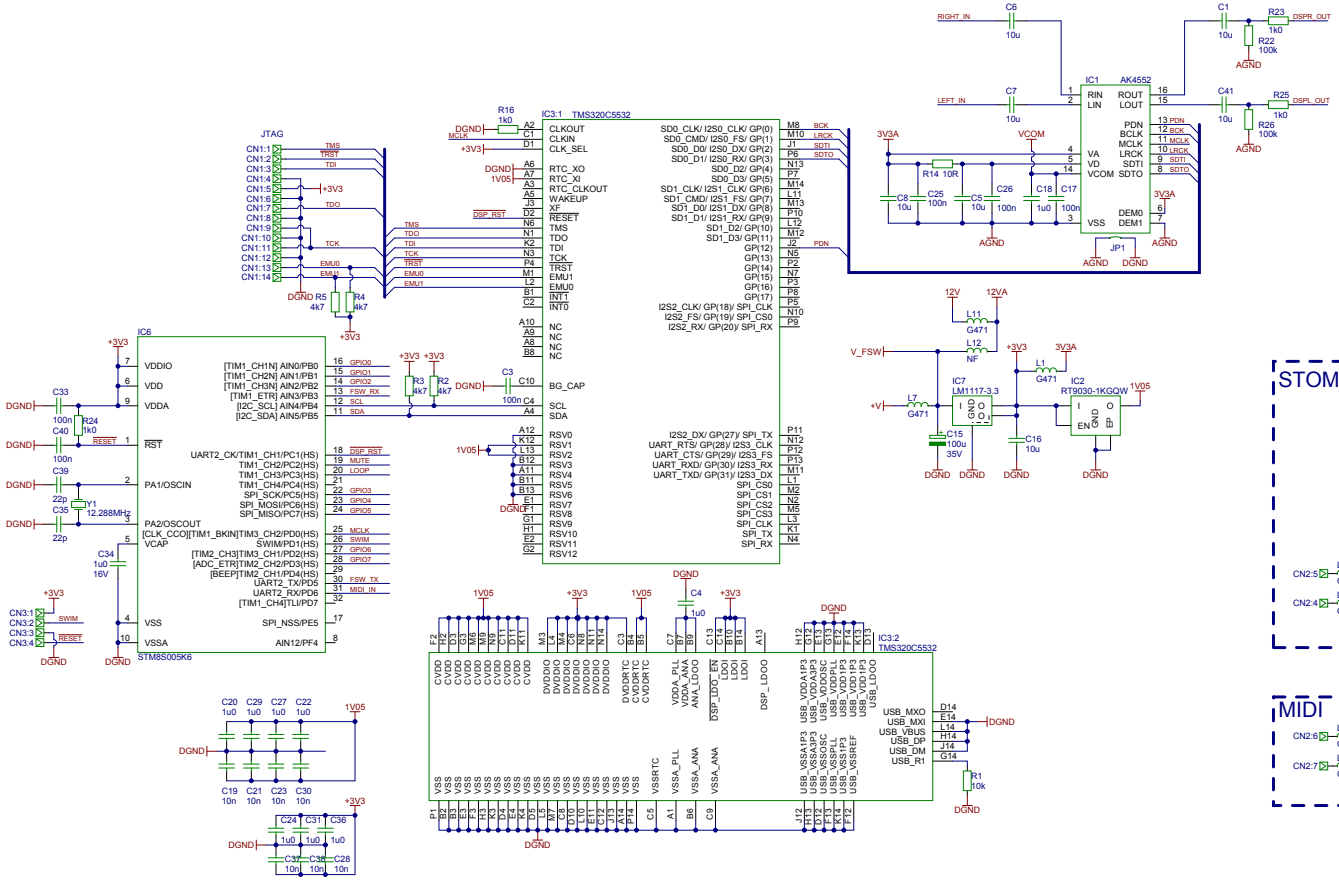
POWER SUPPLY VOLTAGES – OUTPUT SET TO HIGH					
No.	TYPE	PCB No.	FEED	V1 (DC)	V2 (DC)
1	4k7	R11	HT5	402V	348V
2	2k7	R12	HT4	348V	339V
3	2k7	R14	HT3	339V	336V
4	15k	R15	HT1	348V	273V
5	2k7	R16	HT2	339V	337V
6	220R	R135	SCRN	455V	450V
7	4k7	R10	HT6	450V	434V
8	12R	R3	LT1	18.4V	15.1V
9	12R	R129	LT2	15.1V	12.0V
10	8k2	R31	BIAS1	-39.4V	-35.3V
11	8k2	R33	BIAS2	-39.2V	-35.0V

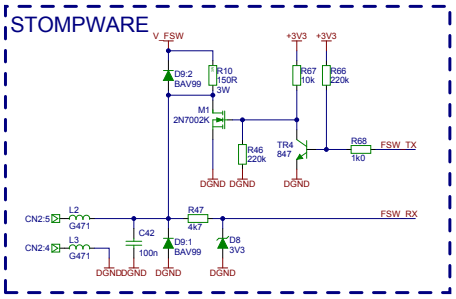
BIAS SWITCHING VOLTAGES					
No.	TYPE	PCB No.	FEED	Anode (DC)	Cothode (DC)
12 (S)	1N4007	D3	LOW1/2	15.2V	15.2V
12 (L)	1N4007	D3	LOW1/2	-2.9mV	13.7V
12 (H)	1N4007	D3	LOW1/2	15.1V	15.1V

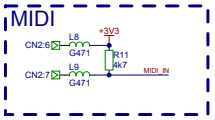
DFX1 MODULE PCB



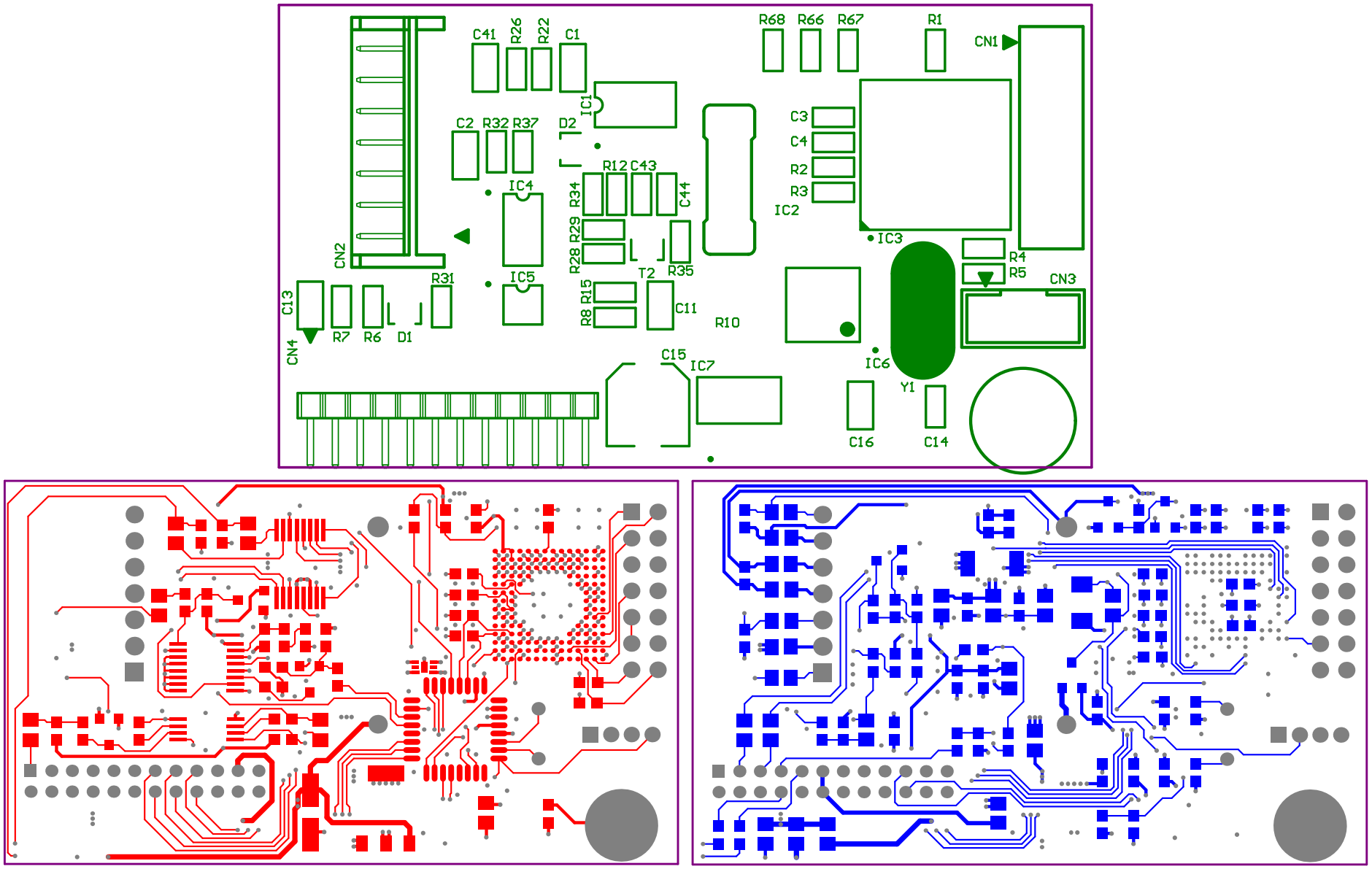




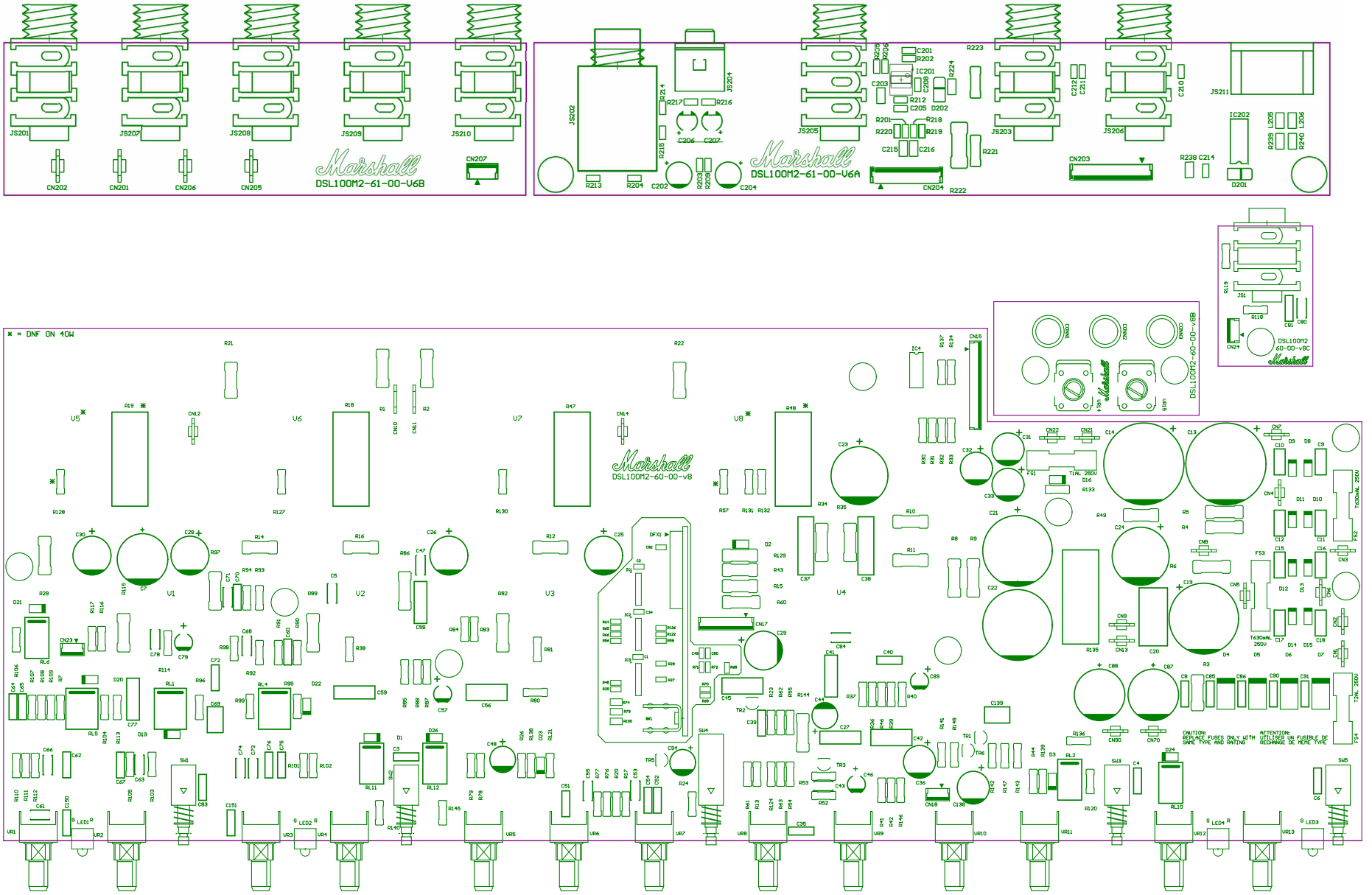




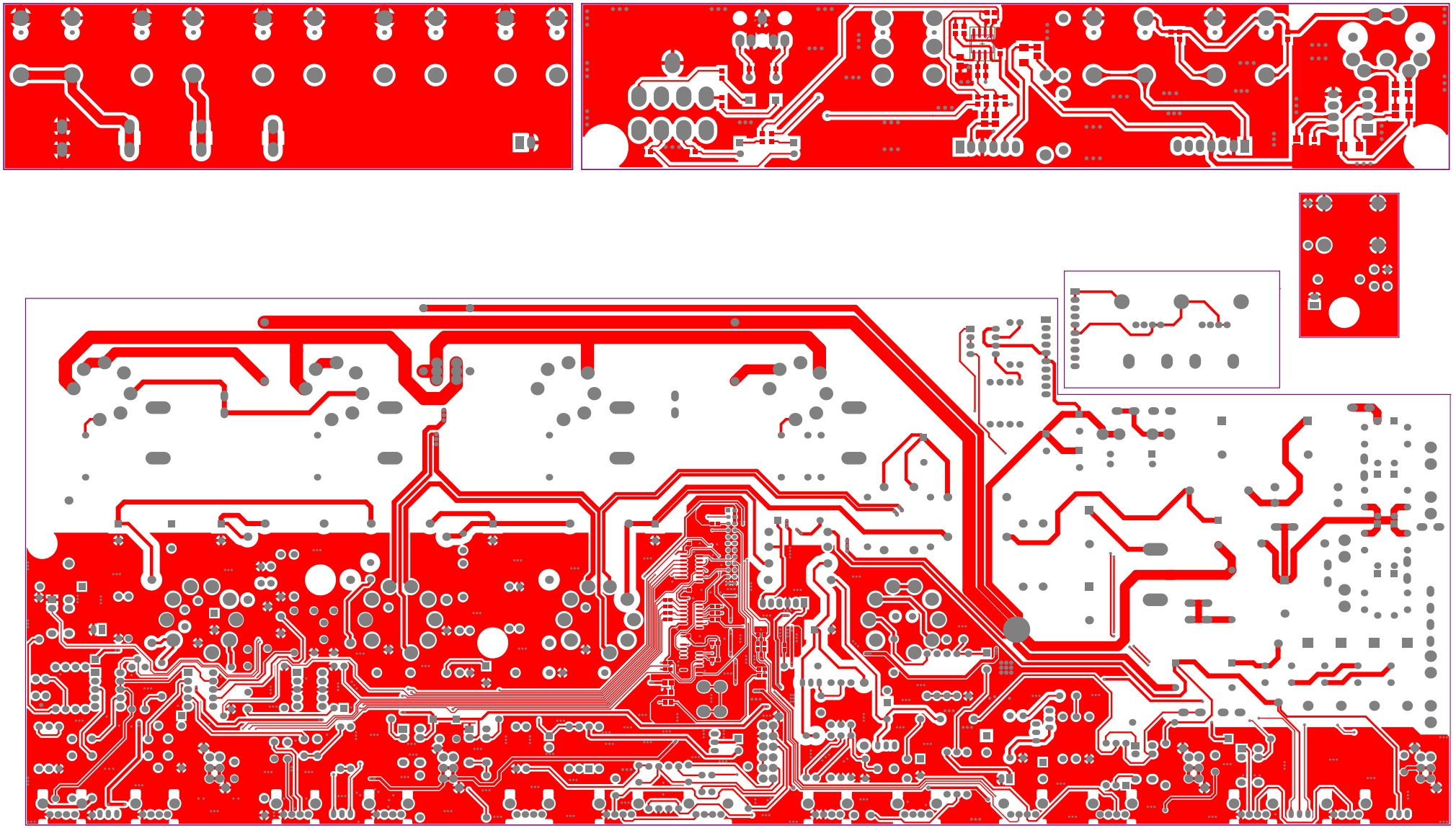
DFX1 PCBPS


C41
R26
R22
C1
IC1
R68
R66
R67
R1
CN1
C2
R32
R37
D2
C3
C4
R2
R3
IC2
R12
C43
IC4
R34
C44
IC3
R29
R28
T2
R35
R4
R5
CN3
CN2
R31
IC5
C13
R15
R8
C11
R10
CN4
R7
R6
D1
C15
IC7
IC6
Y1
C16
C14

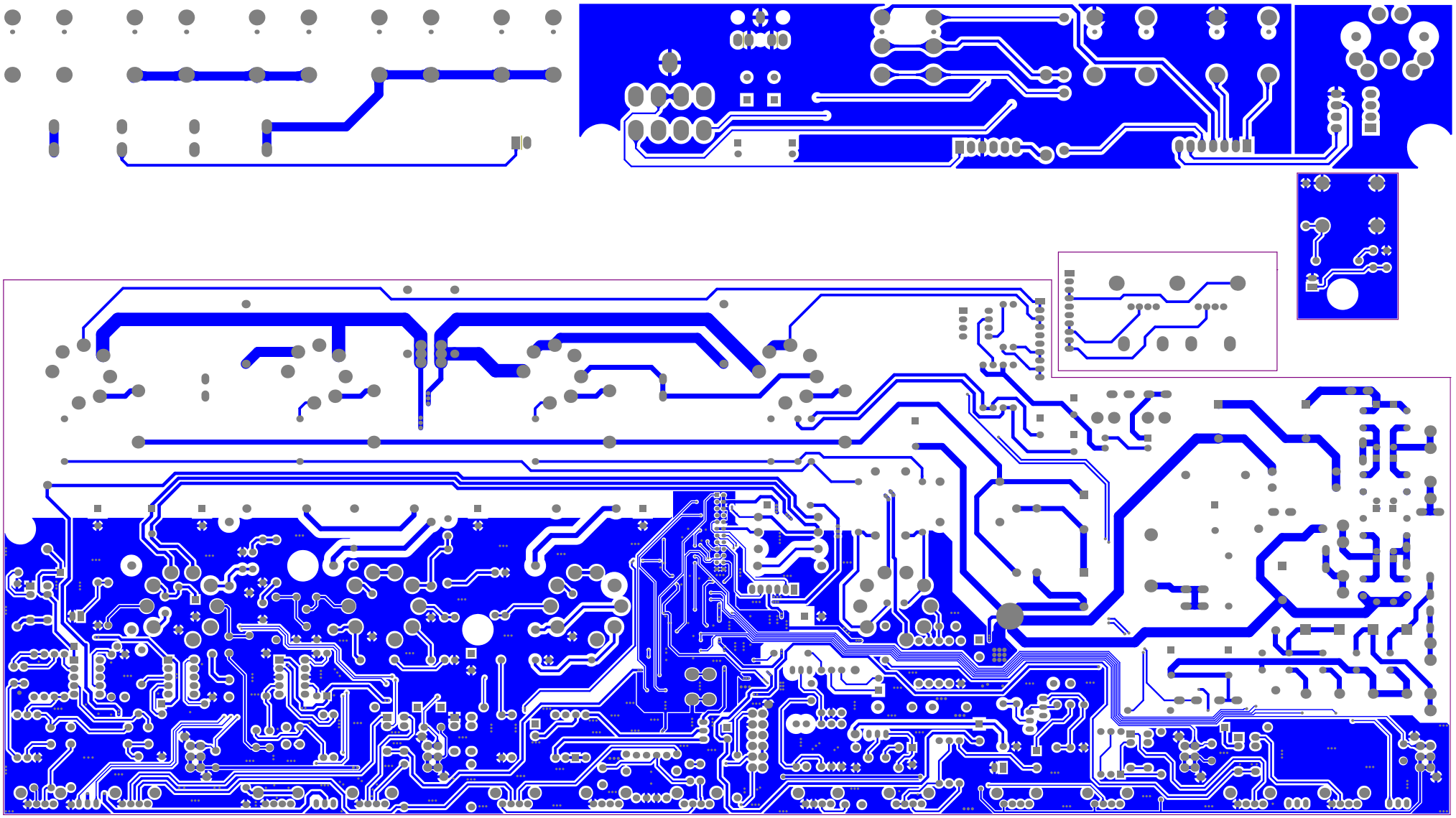
COMPONENT IDENTIFICATION PCBP



COMPONENT SIDE TRACK PCBP



SOLDER SIDE TRACK PCBP



SPARES LIST DSL100HR

STOCK NO.	DESCRIPTION	UOM	QTY
PIPE-90002	WHITE PVC 5.0DIA X 13	MTR	1.0
LOGO-01204	SMALL WHITE LOGO	EA	1
FRET-90027	BLACK FRET COVERING	MTR	1.0
HNDL-90014	HANDLE OVERMOULD WITH BLACK END CAPS	EA	1
CVER-90002	BLACK ELEPHANT GRAIN	MTR	1.0
CORN-91008	90 DEGREE REAR CORNER	EA	4
CORN-91007	90 DEGREE FRONT CORNER	EA	4
FEET-90026	RUBBER FEET (BIG)	EA	4
CVER-90002	BLACK ELEPHANT GRAIN	MTR	2.0
PANL-91106	DSL100HR FRONT PANEL	EA	1
PANL-91107	DSL100HR REAR PANEL - A, D, E, H, I,K, L, Q, S, X	EA	1
PANL-91108	DSL100HR REAR PANEL - B, C, F, M, T, U	EA	1
PANL-91109	DSL100HR REAR PANEL - J	EA	1
PANL-91110	DSL100HR REAR PANEL (CCC)	EA	1
KNOB-90048	BROWN BODY GOLD CAP D=19.5, LINE SAME SIDE AS D FLAT TOL 5%	EA	1
PCBA-90024	MAIN PCB ASSEMBLY	EA	1
PCBA-90024	BIAS PCB ASSEMBLY	EA	1
PCBA-90024	INPUT PCB ASSEMLBY	EA	1
PCBA-90025	REAR PCB ASSEMBLY	EA	1
PCBA-900025	SPEAKER OUTPUT PCB	EA	1
TXOP-91008	OUTPUT TRANSFORMER MD175E	EA	1
TXMA-91069	MAINS MD175E 230V - A, D, E, H, I,K, L, Q, S, X	EA	1
TXMA-91070	MAINS MD175E 120V - B, C, F, M, T, U	EA	1

STOCK NO.	DESCRIPTION	UOM	QTY
TXMA-91071	MAINS MD175E 100V - J	EA	1
SWTP-90021	PUSH SW KNOB D=7	EA	5
SWTM-90010	ROCKER BLACK 6 PIN	EA	1
FUSE-90017	T2AE 5X20 FUSE - A, D, E, H, I, K, L, Q, S, X	EA	1
FUSE-90023	T4AE 5X20 FUSE - B, C, F, J, M, T, U	EA	1
DFXP-90004	DFX CARD	EA	1
KNOB-00052	RED BIAS KNOB D FIT OPPOSITE D	EA	2
VLVE-90108	TUBE SHIELD-1 2.3-50 SHORT SPRING	EA	1
REF. VALVE CHART	VACUUM TUBE EC83 (V1)	EA	1
REF. VALVE CHART	VACUUM TUBE EC83 (V2, V3, V4)	EA	1
REF. VALVE CHART	VACUUM TUBE EL34 II JJ (V5, V6, V7, V8)	EA	1
SKTM-90002	IEC POWER SOCKET	EA	1
SWTM-90009	MAIN SWITCH 220V - A, D, E, H, I, K, L, Q, S, X	EA	1
SWTM-90012	MAIN SWITCH 110V - B, C, F, J, M, T, U	EA	1

REVISIONS

As and when revisions are made, the service manual will be updated.

WHILST THE INFORMATION CONTAINED HEREIN IS CORRECT AT THE TIME OF PUBLICATION, DUE TO ITS POLICY OF CONSTANT IMPROVEMENT AND DEVELOPMENT, MARSHALL AMPLIFICATION PLC RESERVES THE RIGHT TO ALTER SPECIFICATIONS WITHOUT PRIOR NOTICE.

MARSHALL AMPLIFICATION PLC,
DENBIGH ROAD,
BLETCHLEY, MILTON KEYNES,
MK1 1DQ, ENGLAND.

T: +44 (0) 1908 375411

MARSHALL AMPLIFICATION PLC
REGISTERED IN ENGLAND
REGISTERED NUMBER: 805676