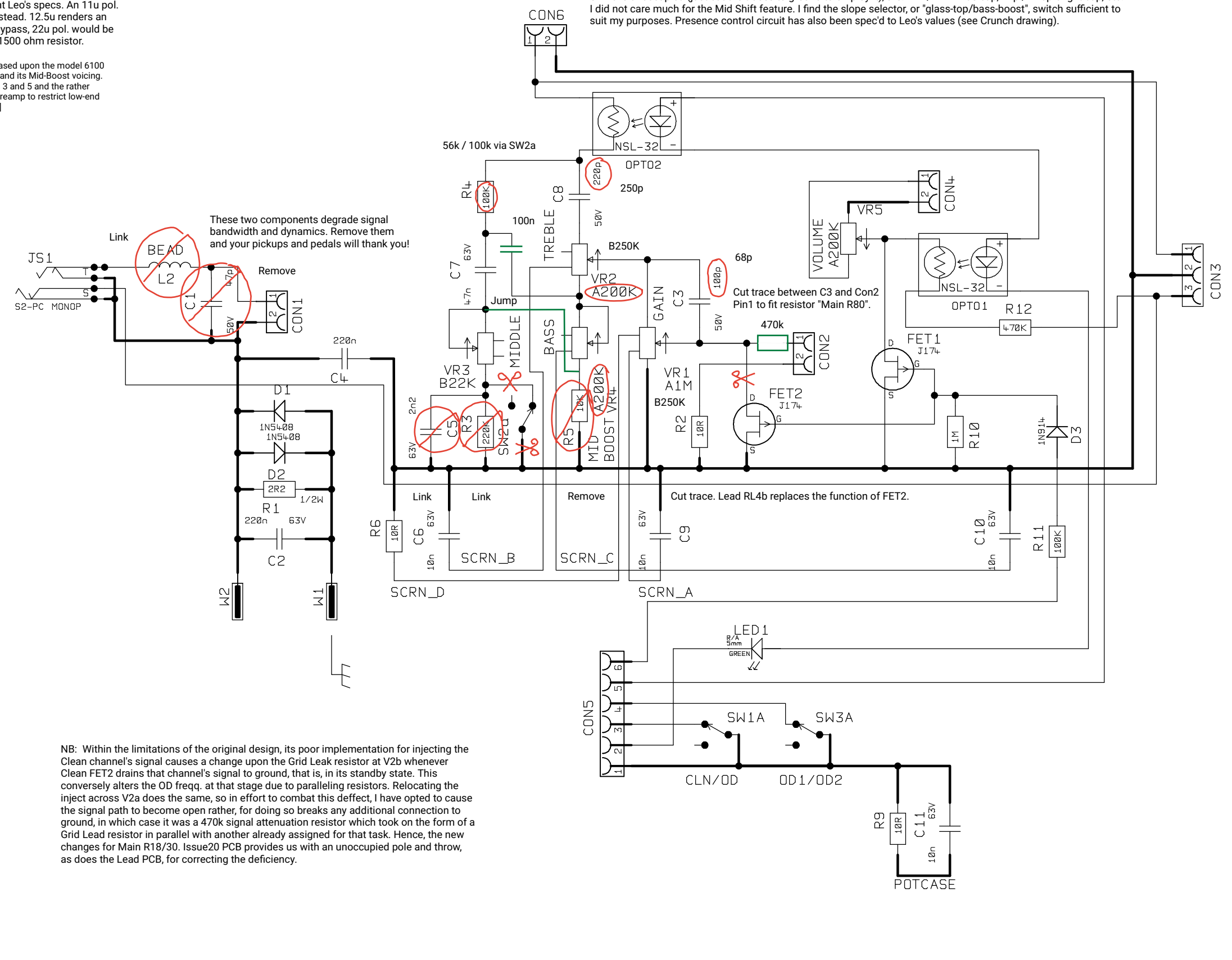


CLEAN CHANNEL

NB: Main C24 must be removed to implement Leo's specs. An 11u pol. cap via a switch to ground shall suffice in its stead. 12.5u renders an even fatter tone. For the first stage cathode bypass, 22u pol. would be equivalent to the 25u pol. cap bypassing the 1500 ohm resistor.

[The TSL in general seems to have been loosely based upon the model 6100 but with a large emphasis upon the Clean channel and its Mid-Boost voicing. This accounts for the peculiarities between stages 3 and 5 and the rather unbalanced rail. Unfortunately, they designed the preamp to restrict low-end extension, leaving only the mids for pass-through.]

This circuit is now spec'd to a Fender tone stack, or what some call a TMB. Some other options to consider, as SW2b is unoccupied (just cut the traces to ground to employ it), are: 22n / 47n mids cap, 47p / 120p bright cap, etc. I did not care much for the Mid Shift feature. I find the slope selector, or "glass-top/bass-boost", switch sufficient to suit my purposes. Presence control circuit has also been spec'd to Leo's values (see Crunch drawing).

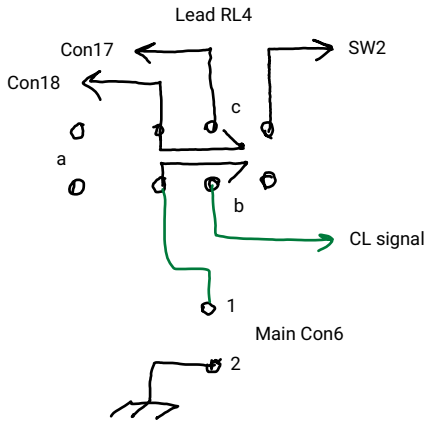
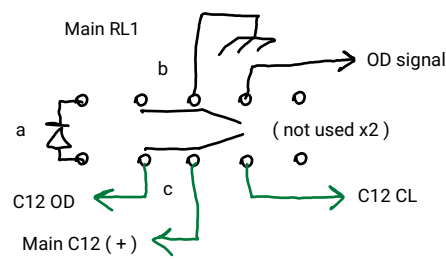


These two components degrade signal bandwidth and dynamics. Remove them and your pickups and pedals will thank you!

Remove

Cut trace between C3 and Con2 Pin1 to fit resistor "Main R80".

Cut trace. Lead RL4b replaces the function of FET2.



NB: Within the limitations of the original design, its poor implementation for injecting the Clean channel's signal causes a change upon the Grid Leak resistor at V2b whenever Clean FET2 drains that channel's signal to ground, that is, in its standby state. This conversely alters the OD freqq. at that stage due to paralleling resistors. Relocating the inject across V2a does the same, so in effort to combat this defect, I have opted to cause the signal path to become open rather, for doing so breaks any additional connection to ground, in which case it was a 470k signal attenuation resistor which took on the form of a Grid Lead resistor in parallel with another already assigned for that task. Hence, the new changes for Main R18/30. Issue20 PCB provides us with an unoccupied pole and throw, as does the Lead PCB, for correcting the deficiency.

The Vesperado mod.

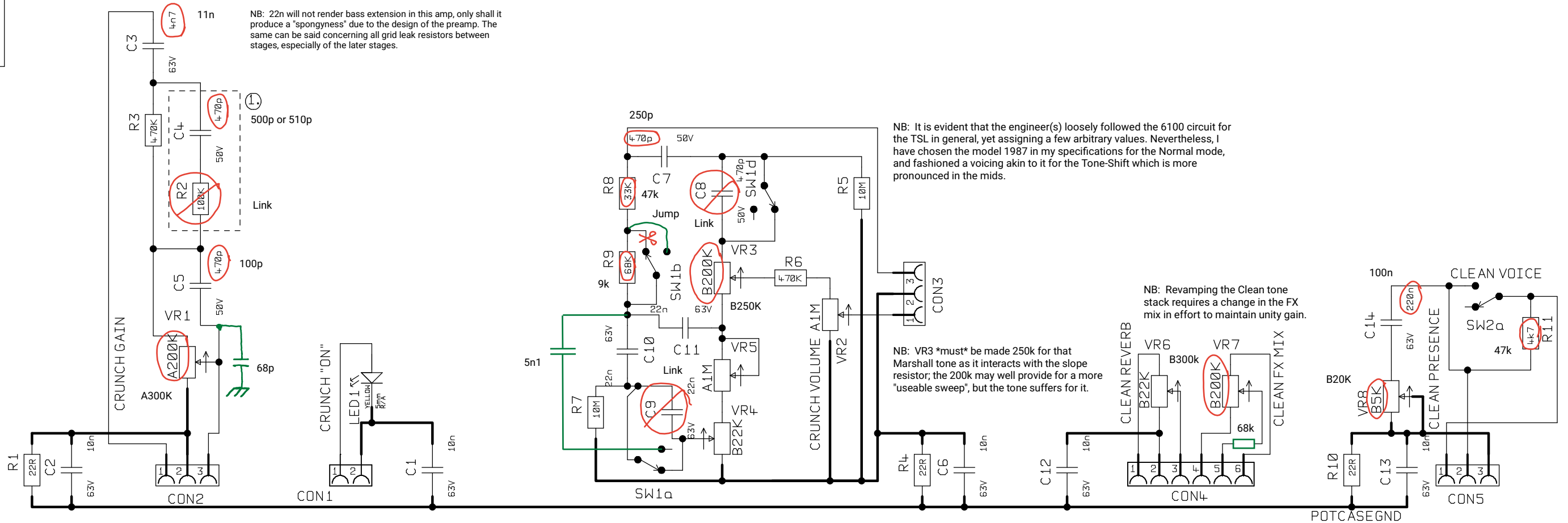
4	PRE-PROD MODS (1567)	23/3/98	ALL OTHER HOLES =				X = (THROUGH PLATED)				MATERIAL	DIMENSIONS IN	<p>© MARSHALL AMPLIFICATION PLC DENBIGH ROAD, BLETCHLEY, MILTON KEYNES, MK1 1DQ. TEL (01908) 375411 FAX (01908) 376118</p>	TITLE
3	1567	15/1/98	A	E	J	N	MATERIAL THICKNESS	TOLERANCE (UNLESS OTHERWISE STATED)	TITLE					
2	PRE-PRODUCTION	2/12/97	B	F	K	P	DRAWN SG	DATE 1-5-97	CLEAN CHANNEL					
1	PRE-PRODUCTION	20/10/97	C	G	L	Q	CHECKED	DATE	DWG.No					
ISS	ECO NUMBER	DATE	D	H	M	R	APPROVED	DATE	TL10-65-02.DGM					

ignorelayers 7

DWG.No. TL10-66-01.DGM

CRUNCH CHANNEL

1. C10 & R12 NOT FITTED



The Vesperado mod.



TITLE	CRUNCH CHANNEL	
DWG.No	TL10-66-01.DGM	ISS 2

2	PRE-PROD MODS (1567)	23/3/98
1	PRE-PRODUCTION	20/10/97
ISS	ECO NUMBER	DATE

ALL OTHER HOLES =		X = (THROUGH PLATED)	
A	E	J	N
B	F	K	P
C	G	L	Q
D	H	M	R

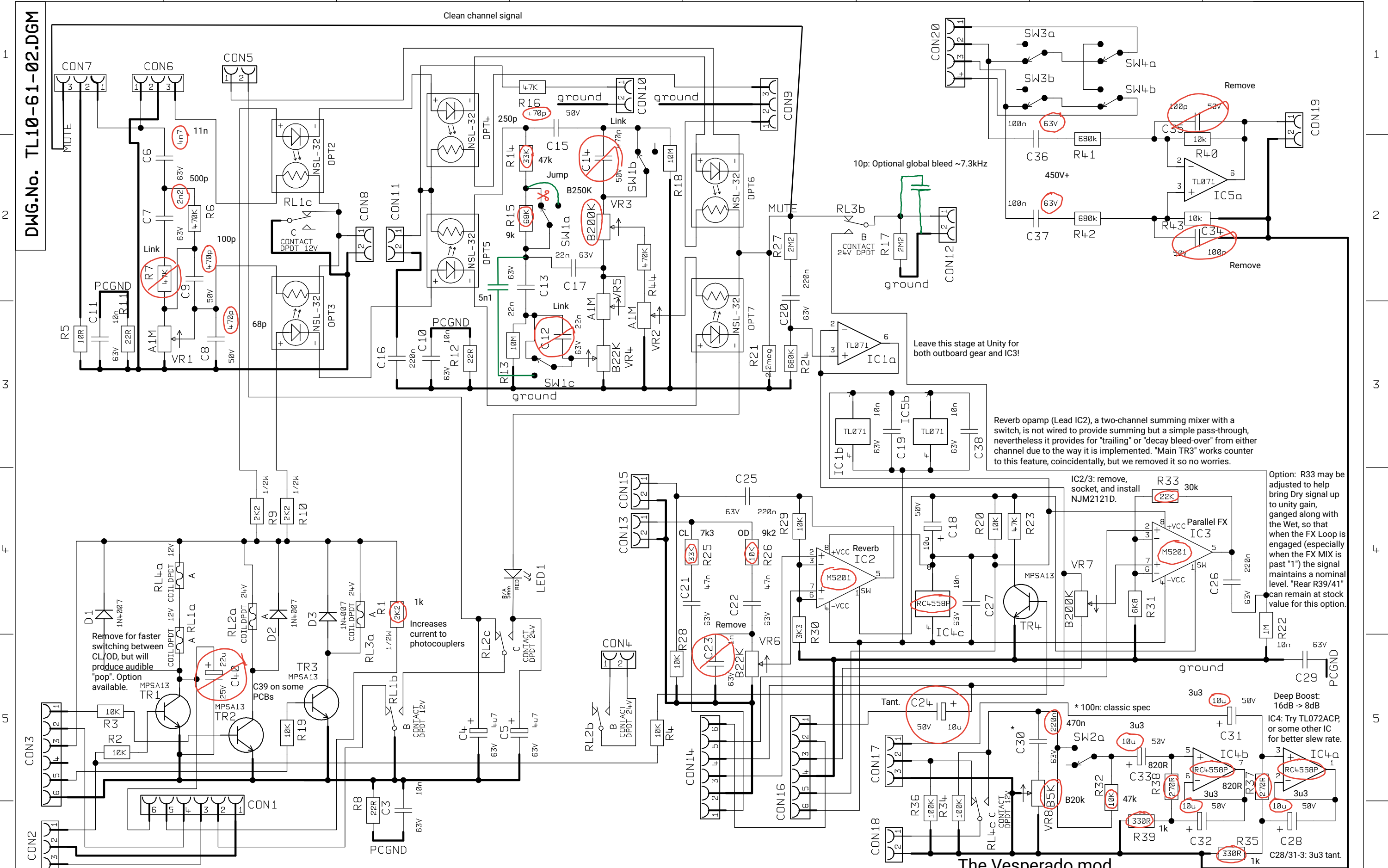
MATERIAL	DIMENSIONS IN
MATERIAL THICKNESS	TOLERANCE (UNLESS OTHERWISE STATED)
DRAWN SG	DATE 27-3-97
CHECKED	DATE
APPROVED	DATE
MODEL TSL100/TSL122	

1
2
3
F
5
6

1
2
3
F
5
6

A B C D E F G H

DWG.No. TL10-61-02.DGM



The Vesperado mod.

4	1622	21/4/98	ALL OTHER HOLES =	X = (THROUGH PLATED)
3	PRE-PROD MODS (1567)	23/3/98	A	E
2	PRE-PRODUCTION	2/12/97	B	F
1	PRE-PRODUCTION	20/10/97	C	G
ISS	ECO NUMBER	DATE	D	H

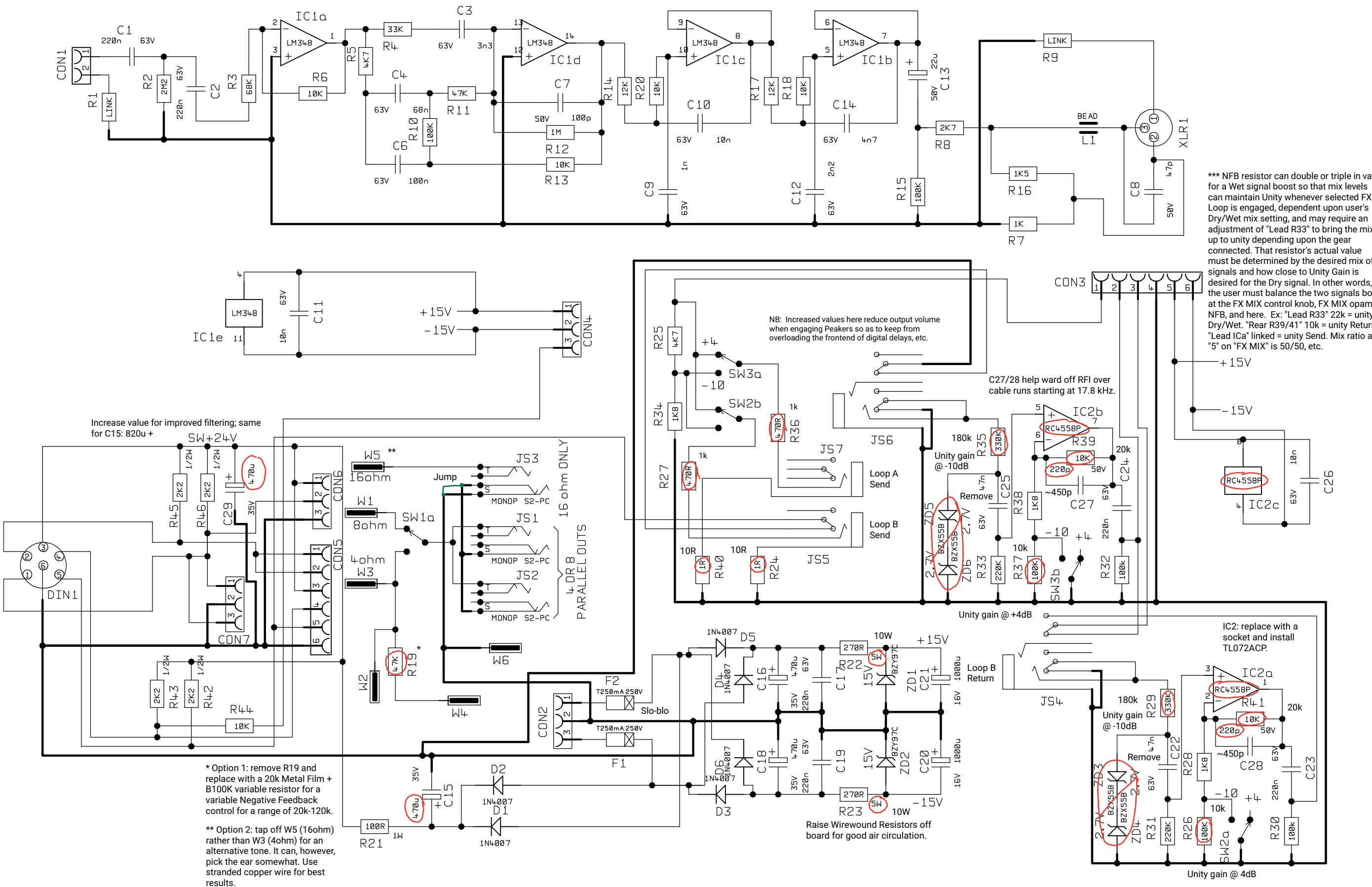
MATERIAL THICKNESS	DRAWN	DATE	11-11_96
CHECKED	DATE		
APPROVED	DATE		

DIMENSIONS IN	TOLERANCE (UNLESS OTHERWISE STATED)
MODEL	TSL100/TSL122



TITLE	TSL 100 COMBO OVERDRIVE CHANNEL FRONT CONTROL PCB
DWG.No	TL10-61-02.DGM
ISS	4

DWG.No. TL10-62-02.DGM



*** NFB resistor can double or triple in value for a Wet signal boost so that mix levels can maintain Unity whenever selected FX Loop is engaged, dependent upon user's Dry/Wet mix setting, and may require an adjustment of "Lead R33" to bring the mix up to unity depending upon the gear connected. That resistor's actual value must be determined by the desired mix of signals and how close to Unity Gain is desired for the Dry signal. In other words, the user must balance the two signals both at the FX MIX control knob, FX MIX opamp NFB, and here. Ex: "Lead R33" 22k = unity Dry/Wet. "Rear R39/41" 10k = unity Return. "Lead ICa" linked = unity Send. Mix ratio at "5" on "FX MIX" is 50/50, etc.

NB: Increased values here reduce output volume when engaging Peakers so as to keep from overloading the frontend of digital delays, etc.

C27/28 help ward off RFI over cable runs starting at 17.8 kHz.

Increase value for improved filtering; same for C15: 820u +

* Option 1: remove R19 and replace with a 20k Metal Film + B100K variable resistor for a variable Negative Feedback control for a range of 20k-120k.
 ** Option 2: tap off W5 (16ohm) rather than W3 (4ohm) for an alternative tone. It can, however, pick the ear somewhat. Use stranded copper wire for best results.

Raise Wirewound Resistors off board for good air circulation.

IC2: replace with a socket and install TL072ACP.

The Vesperado mod.

6	1663	10/9/98	ALL OTHER HOLES =	X = (THROUGH PLATED)
5	1631	24/4/98	A	E
4	1622	21/4/98	B	F
3	PRE-PROD MODS (1567)	23/3/98	C	G
ISS	ECO NUMBER	DATE	D	H

MATERIAL	DIMENSIONS IN
MATERIAL THICKNESS	TOLERANCE (UNLESS OTHERWISE STATED)
DRAWN SG	DATE 28-12-96
CHECKED	DATE
APPROVED	DATE



TITLE	JCM2000 REAR/JACK PCB
DWG.No	TL10-62-02.DGM
ISS	6

TSL100 connectivity

Crunch board TL10-66-00

CON1	Lead	CON5
CON2	Lead	CON6
CON3	Lead	CON9
CON4	Lead	CON14
CON5	Lead	CON17

Clean board TL10-65-00

W1	Earth tag		Green
W2	Not used		
CON1	Main	CON2	
CON2	Main	CON6	
CON3	Lead	CON7	
CON4	Lead	CON10	
CON5	Lead	CON1	
CON6	Main	CON3	

Rear board TL10-62-00

W1	OPT	8 ohm	Orange
W2	Not used		
W3	OPT	4 ohm	Green
W4	Main	W2	Yellow
W5	OPT	16 ohm	Red
W6	OPT	Common	Black
CON1	Lead	CON19	
CON2	Main	CON14	
CON3	Lead	CON16	
CON4	Reverb	CON3	
CON5	Lead	CON3	
CON6	Main	CON10	
CON7	Lead	CON2	
JS1, JS2			4/8 ohms
JS3			16 ohms
JS4			FXB ret
JS5			FXB send
JS6			FXA ret
JS7			FXA send
SW1			4/8 ohms
SW2			Loop level – B
SW3			Loop level – A

Reverb board TL10-63-00

W1	Earth tag		Green
CON1	Main	CON8	
CON2	Lead	CON13	
CON3	Rear	CON4	

Main board TL10-60-00

CON1	Bias Board	CON1	
CON2	Clean	CON1	
CON3	Clean	CON6	
CON4	Lead	CON8	
CON5	Lead	CON4	
CON6	Clean	CON2	
CON7	Lead	CON15	
CON8	Reverb	CON1	
CON9	Lead	CON11	
CON10	Rear	CON6	
CON11	Lead	CON12	
CON12	Lead	CON20	
CON13	Lead	CON18	
CON14	Rear	CON2	
W1	Earth tag		Green
W2	Rear	W4	Yellow
W3	OPT	Pri 1	White
W4	OPT	Pri 2	Purple
W5	OPT	Pri CT	Blue
W6	Mains/fuse	W15	Pink
W7	MT		Purple
W8	Not used		
W9	MT	Heater 1	Red
W10	MT	Heater 2	Red
W11	MT	Bias 1	White
W12	MT	Bias CT	Black
W13	MT	Bias 2	White
W14	Earth tag		Green

Lead (Overdrive) board TL10-61-00

CON1	Clean	CON5
CON2	Rear	CON7
CON3	Rear	CON5
CON4	Main	CON5
CON5	Crunch	CON1
CON6	Crunch	CON2
CON7	Clean	CON3
CON8	Main	CON4
CON9	Crunch	CON3
CON10	Clean	CON4
CON11	Main	CON9
CON12	Main	CON11
CON13	Reverb	CON2
CON14	Crunch	CON4
CON15	Main	CON7
CON16	Rear	CON3
CON17	Crunch	CON5
CON18	Main	CON13
CON19	Rear	CON1
CON20	Main	CON12

Version 3

NPS 21-Mar-21