



**PRINTED CIRCUIT BOARDS
&
PRINTED PRODUCTS**



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www.nht.co.uk

Mr P Anderson
15 Station Road
Cross Hills
KEIGHLEY
W Yorkshire
BD20 7EH

RECEIVED
18 MAR 2005

16 March 2005.

Dear Peter

Thank you for your recent report on the faulty Blu-Ox PCB's. After reviewing your comments I can conclude the following;

The faults surrounding C9, IC6, CN2 & CN3 have occurred during the design of the PCB, I have checked with my front end technician and he assures me that those faults were present on the original files you sent to us. Whilst we do check general areas of a new PCB layout, the actual design is not something we would question.

You state that the solderability of the PCB's is poor, are you aware that these have an immersion tin finish, which requires higher hand soldering temperatures. If not then we should have informed you of this. How did you solder them? I see only two boards removed so would assume by hand. We can provide alternative finishes if you require, generally most PCBs will be lead free soon but they can be HASL if you prefer.

With regards to the tin extending off the pads I can only assume you mean the clearance of the soldermask around the pads is too large and extends onto tracks slightly. This is down to the design of the boards again, the pads are too close to the tracks, this distance varies between pads aswell.

Some of the via holes are indeed not central to pads, this is not ideal and will be improved upon for next time. We are aware of it, but if they have not broken out of the pad we would generally accept them, as there are no components going down the holes.

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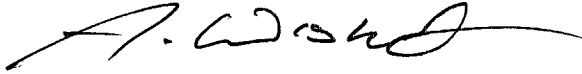
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The component ident is poor on the back of the board, we were aware of this too. The division, which makes the bare boards, was assuming that NHT were assembling. The bad boards should never have been passed on to you. The reason for the ident coming away is that we had to make up a yellow photoimageable ink, we do not stock yellow as it costs £100 per pot (white £18) and takes time to get hold of. If you require it on any future boards please let us know and we can get some ordered in.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'A. Wishart', with a long horizontal flourish extending to the right.

Andrew Wishart
Director.

andrew.wishart @ nht. co. uk.