Attention Service Departments

TECHNICAL BULLETIN

Ref:TB96005	Issue No.1	Date:03/07/96	Page: 1	of: 1
Title: GL4 Stereo module modification			Authorisation: CD	

The following information applies to all GL4 stereo input modules up to and including Serial No. 622081. All subsequent units have been modified by Allen & Heath prior to despatch.

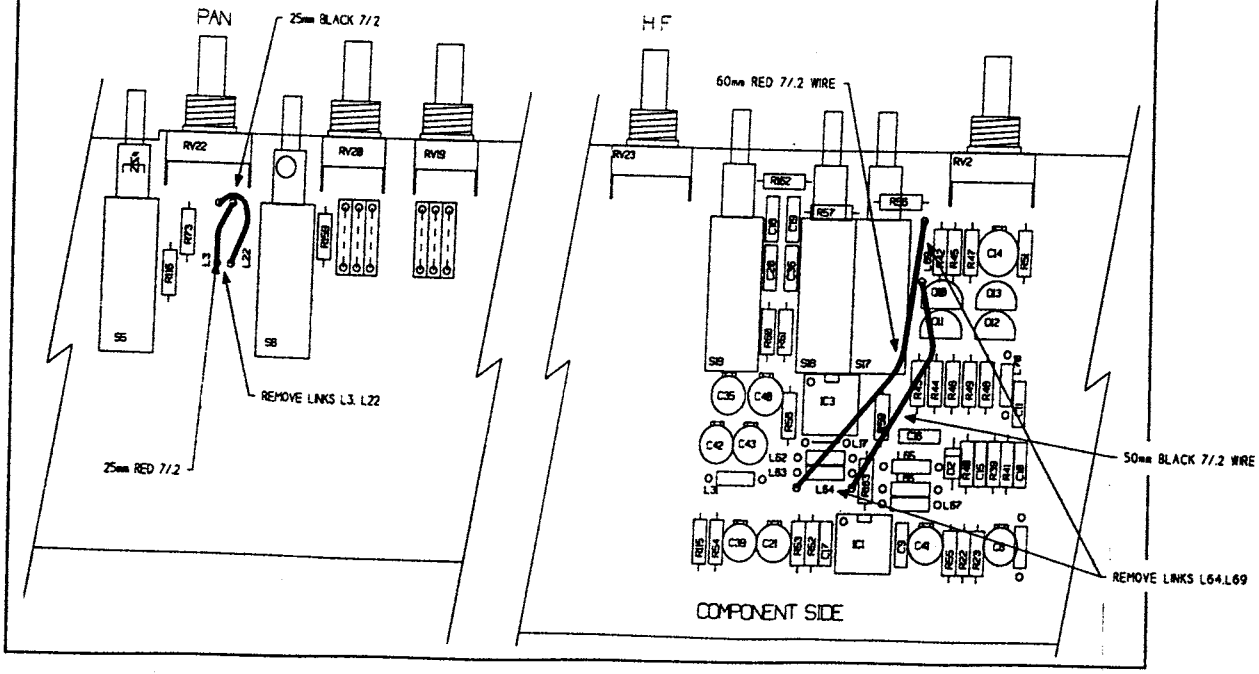
Origin of the change:

The operation of the Mono Summing switches is opposite to that denoted by the front panel graphics.

Instructions:

Ensure a clean, flat work surface on which to work. Remove all knobs and pot nuts from the stereo input channels. Invert the console and remove the base. Unplug and remove the stereo input PCB's and remove links L3, L22, L64 and L69 as shown below. Fit the four new wire links as shown below.

Check your work carefully. Check in particular for any solder splashes or dry joints. Return the boards to their original position, reconnect the PCB's and fit the pot nuts. Refit the base, flip the console onto its base and refit all knobs. Power up the console and check for correct operation.



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ALLEN & HEATH

To: **Kevin Butler**
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From: **Andy Rigby- Jones (R&D)**

Date: **2 August, 1995**
Time: **10:31**

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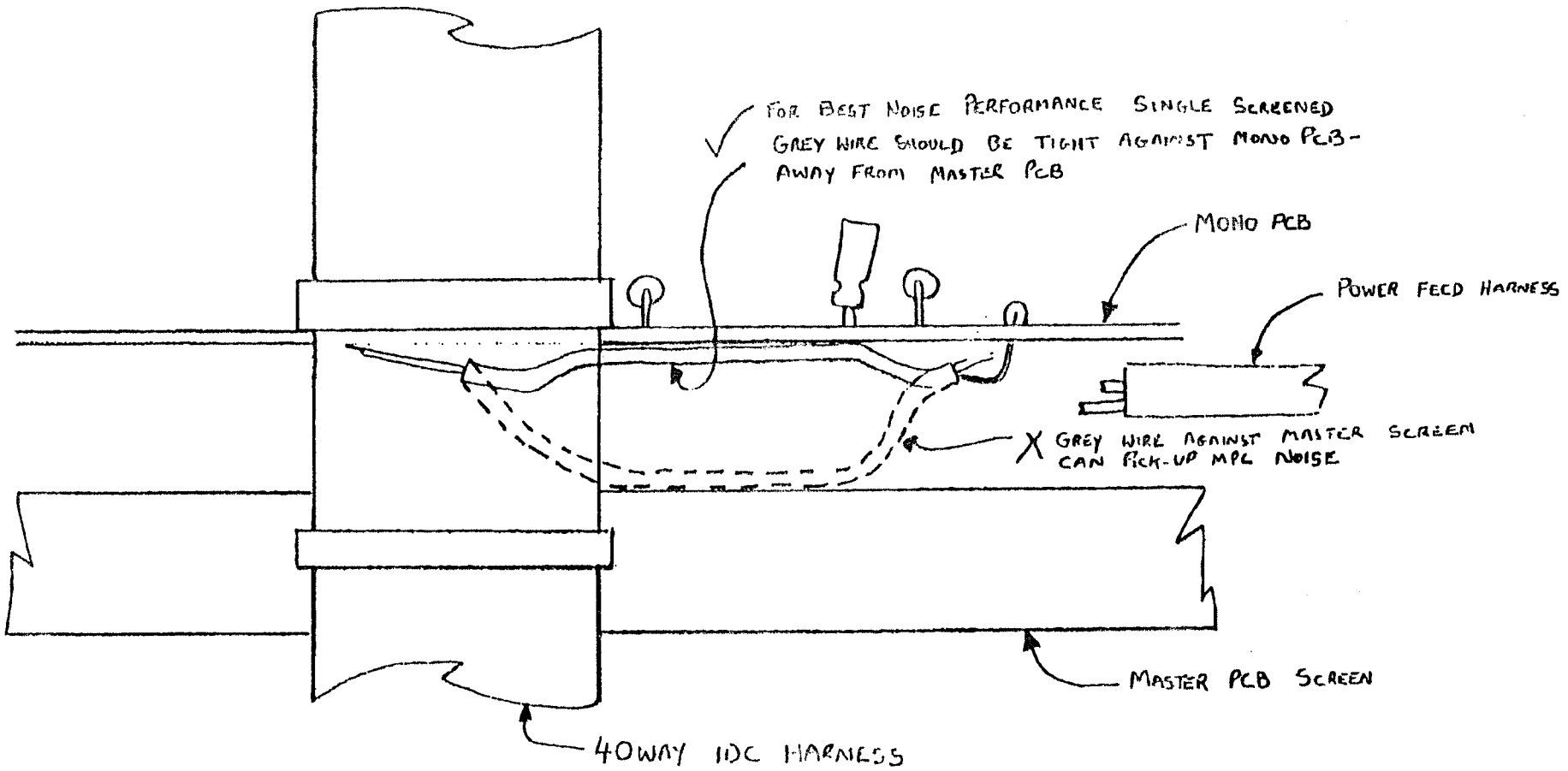
GL4 Headphone Breakthrough

Kevin
When using low impedance Headphones at high listening levels some breakthrough to left and right outputs may be detectable. This is due to modulation of the "clean" earth feeding the mix amps. To improve the level of breakthrough it is necessary to isolate the earths from both the headphone sockets, and the 47/25 headphone amp supply filter capacitors. To isolate the headphone socket earth, remove Link LK18 from the Master PCB, (see section B-24 of the service manual, LK18 is at the bottom left of Phones 2 socket SK2) then solder a length of 16/.2 wire from the Phones 1 earth point, to the earth Star point on the Power XLR input socket. Next locate capacitors C55, C56 on the Mono PCB, (section B-26 of the service manual, C55,56 are directly below the AB monitor switch S10). The negative terminal of C55, and the positive terminal of C56 need to be lifted from the PCB, then soldered together, (probably easier to remove the caps altogether, and fit new ones) and a second piece of 16/.2 wire soldered from this joint, back to the Power XLR earth Star point. Alternatively a single length of 16/.2 could be used, if a small piece of the insulation was removed to enable it to be soldered to the caps, before being taken on to the Phones 1 earth point.
Sorry if this seems horribly involved, it is a lot easier to do the job, than it is for me to describe it !.
If you need any help then please get back to me.
Regards
Andy


FOR BEST NOISE PERFORMANCE SINGLE SCREENED GREY WIRE SHOULD BE TIGHT AGAINST MONO PCB - AWAY FROM MASTER PCB
MONO PCB
POWER FEED HARNESS
X GREY WIRE AGAINST MASTER SCREEN CAN PICK-UP MPC NOISE
MASTER PCB SCREEN
40WAY IDC HARNESS

TECHNICAL BULLETIN

To:

From: CD

Date: 9 February, 1998

Subject: **GL4 Led Meter Glow**

It has been noticed that on some consoles a few of the bargraph meter Leds may occasionally glow with no signal present. This is usually in groups of four Leds on the same meter. This normally clears after a short while or after the console has been switched off and on again.

This effect is caused by component characteristics. It may be easily cured by adding a suppression capacitor to the current drive transistor associated with the meter.

With the console inverted on a suitably sized clean work surface, clear of parts and debris, remove the base and locate the PCB assembly to be modified.

A 40nF (0.04uF or near value) capacitor should be soldered between the 2N4403 (Q10) transistor collector and the +VB power rail. This can be done by soldering the capacitor between the 339 IC (IC8 nearest the transistor) pins 2 and 3. Make sure the joints are good and the capacitor legs do not short out and components.

Check your work and refit the base. Test that the meters operate correctly.

TECHNICAL BULLETIN

To:

From: ARJ

Date: 22 December, 1999

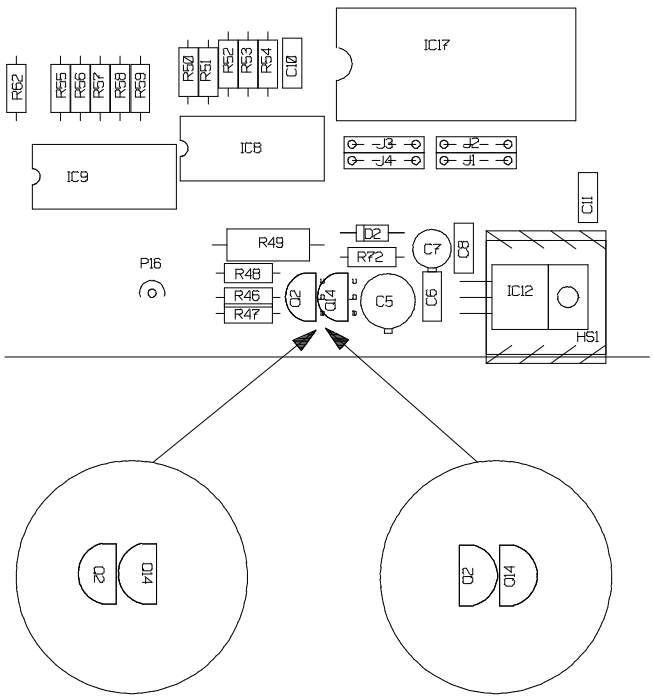
Subject: **GL4 Mute Group Lock-Up**

Due to a change in specification to the BC549 transistors, some production consoles will have these devices fitted reversed on the MONO PCB, AG2005A. These transistors, Q2 and Q14, are part of the power-on reset circuit for the mute processor, and although they will function in the incorrect position, they can cause the mute systems in certain consoles to lock up when first switched on from cold. Normally they will resume correct operation within a few minutes. This may be more noticeable if the DC supply voltage is lower than the +/- 16V specified.

If startup problems are encountered, then check these transistors for orientation, and reverse or replace them if necessary. With the console inverted on a suitably sized clean work surface, clear of parts and debris, and with a cloth to protect the console cosmetics, remove the base and locate the +5V regulator IC12, (identified by the black finned heatsink fitted to it) on the MONO PCB. The two transistors are to one end of the heatsink, next to a 330uF capacitor (C5). Check with the diagram and correct if needed.

NOTE The overlay in the service manual shows the *incorrect* orientation for the BC549 transistors. They should be positioned as the other transistors on the assembly.

BC549 transistors



✘ **INCORRECT**

✓ **CORRECT**

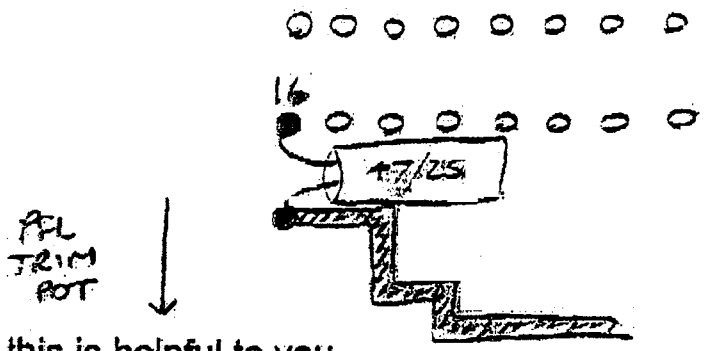
GL4 PFL Click

The PFL click problem occurs on some consoles and is related to component tolerances. Not all consoles suffer this. However, a simple modification to the main MONC pcb will cure this:

Solder a 47uF/25V electrolytic capacitor from pin 16 (+ve leg) of IC37 (PFL IC 4053) to 0V ground (-ve leg). The nearest 0V is the thick track below this IC towards the front panel as shown below.

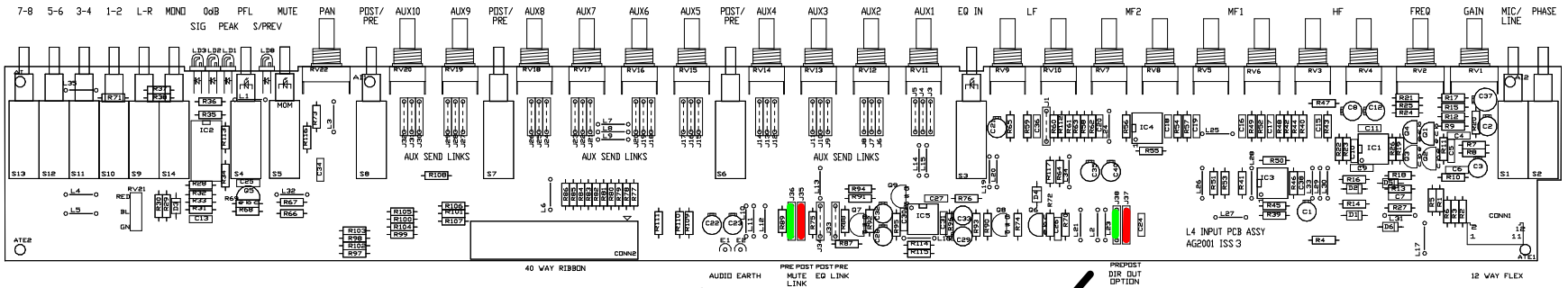
This provides additional decoupling for the + supply to the 4053.
This has been implemented in production from S/No 621223 on.

Refer to the GL4 Service Manual AP2109 circuit C2005 for details.



I hope this is helpful to you.
Best regards,

CAREY



STEP 2. All pre-fade signal is pre-EQ by default.
All pre-fade signal is post-mute by default.
To get pre-fade direct out, pre-mute (unaffected by channel mutes) cut J35, add a link at J36

STEP 1. For Direct out Pre-fade cut link J37 add a link at J38