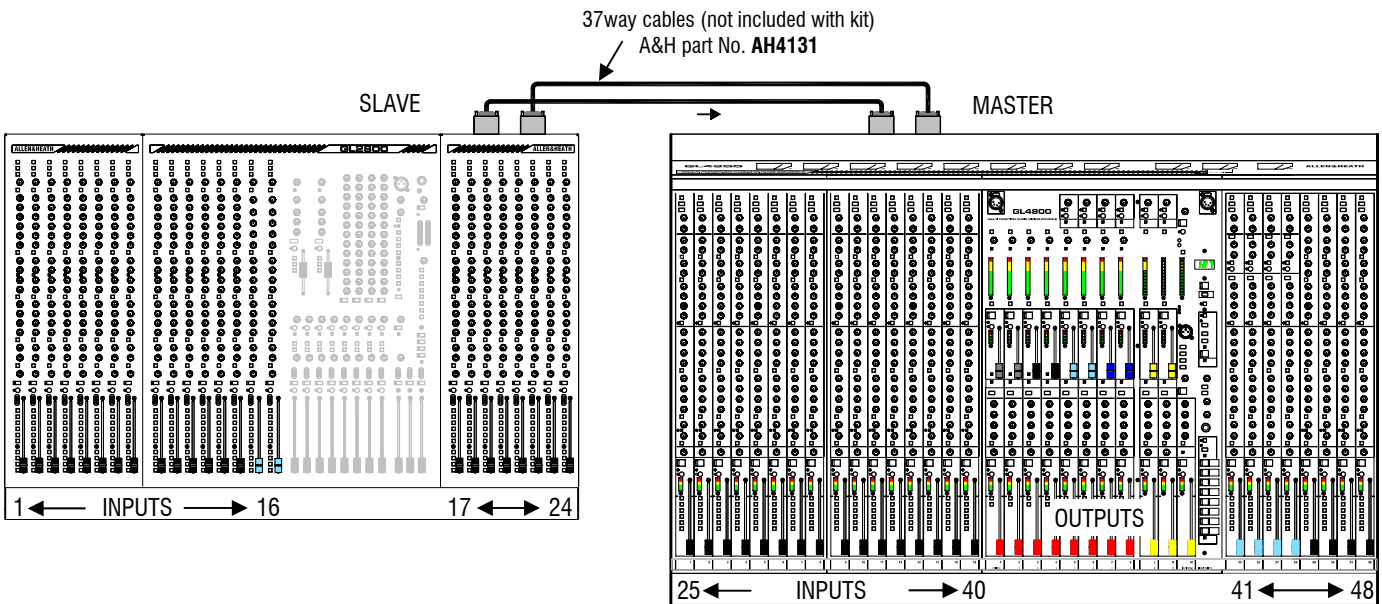


Applications Note

SYS-LINK explained

SYS-LINK (system link) is the Allen & Heath connection standard for linking two consoles together to expand the number of input channels feeding the mixes. One becomes the 'slave' to the other 'master' console. All the slave console mix busses including main LR, groups and auxes connect directly to the master console mix busses without using up valuable input channels. The PFL/AFL system is also linked so that all channels can be monitored using the master console headphones and meters. The slave console master section is not used as its signals are taken before the mix inserts and output faders. Both consoles must have the SYS-LINK option fitted. A pair of multiway cables is all that is required to link another 8 bus Allen & Heath console fitted with SYS-LINK to the **GL4800**. (A single cable may be used to connect a 4 bus console such as a MixWizard³ or **GL2400**.)



SYS-LINK versions 1 and 2

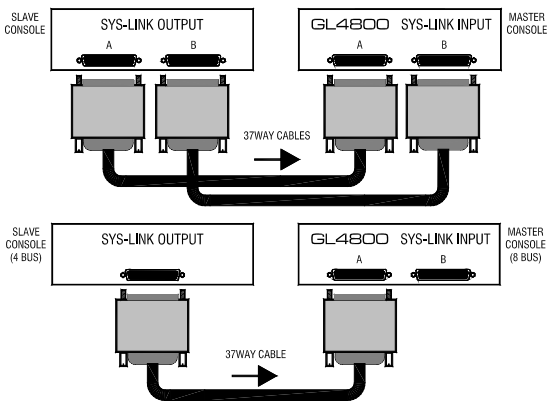
The **GL4800** uses the more recent SYS-LINK Version 2 standard. This benefits from balanced interconnections which allow longer cable length with less chance of noise and interference pickup than the earlier, unbalanced SYS-LINK Version 1. Both versions operate at -2dBu line level. V1 uses the 25way D-type connector. V2 uses the 37way D-type connector. Two consoles fitted with SYS-LINK V2 can be linked using two 36-core shielded cables wired one to one to two 37way male D-type connectors. It is also possible to connect between SYS-LINK V2 and V1. This requires 37way to 25way adapter cables wired to unbalance the connections. Wiring details are provided later in this document. The interconnecting cable is not included in the kit and should be sourced elsewhere or ordered separately from Allen & Heath.

GL4800 SYS-LINK V2 input option

Option kit GL4800-SLV2 is available from Allen & Heath. This can be installed in the **GL4800** console to provide SYS-LINK V2 input. The console may be used only as a 'master'. For information on fitting the option refer to document AP6152.



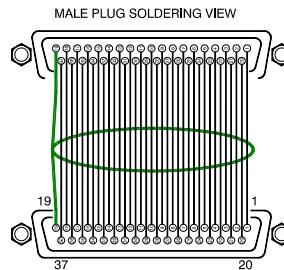
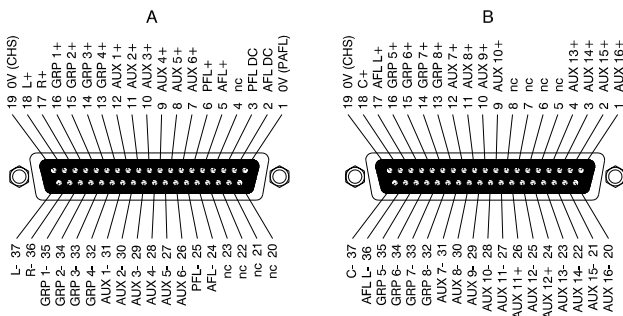
Linking consoles



Plug the 'slave' console SYS-LINK V2 outputs into the 'master' console SYS-LINK V2 inputs. Make sure the connectors are fully plugged in and their securing screws tightened.

If linking a 4 bus console such as a MixWizard or GL2400, use a single 37way cable and plug into the socket marked 'A'.

SYS-LINK V2 to V2 connection



37way male to male D-type cable wired one to one. 36-core shielded cable with screen soldered to pin 19.

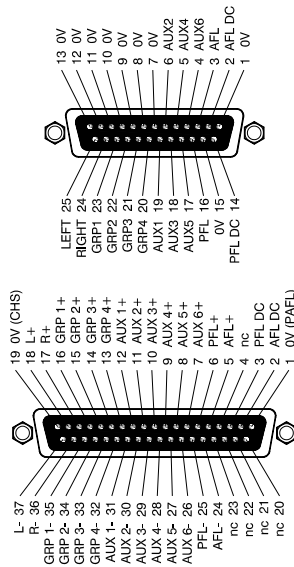
A suitable cable is available from Allen & Heath – part number **AH4131**

Recommended cable length 2.9 metres, maximum length less than 5 metres.

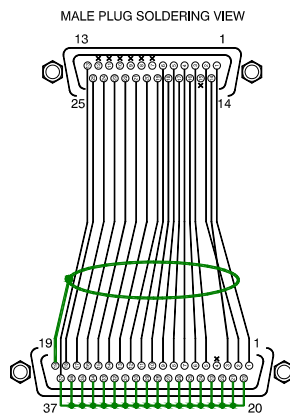
Note: Aux 11-16 connections are not used on the GL4800, these are used on other large consoles such as the ML Series.

SYS-LINK V1 to V2 connection

37way male to 25way male D-type cable wired as shown below. Minimum 18-core shielded cable with screen soldered to 37way pin 19. Maximum cable length 2.9 metres.



A suitable cable is available from Allen & Heath – part number **AH6552**



<u>25way</u>	<u>37way</u>	<u>25way</u>	<u>37way</u>
Pin 1	> 1	Pin 18	> 10
Pin 2	> 2	Pin 19	> 12
Pin 3	> 5	Pin 20	> 13
Pin 4	> 7	Pin 21	> 14
Pin 5	> 9	Pin 22	> 15
Pin 6	> 11	Pin 23	> 16
Pin 14	> 3	Pin 24	> 17
Pin 16	> 6	Pin 25	> 18
Pin 17	> 8		
Pin 13	> 20 to 37 (linked 0V)		
37way Pin 19	= cable screen		
25way Pins 7 to 12, 15	not connected		
37way Pin 4	not connected		

(Pin allocations shown are for 'A' connectors – adapter cable is also suitable for 'B' connectors)

Custom applications

To connect other audio equipment using the SYS-LINK connectors always ensure unused audio inputs are linked to 0V ground at the input connector. This is to prevent interference pickup on unterminated high impedance inputs. Do not link unused outputs to ground. Connect line level signals of -2dBu. Use balanced connections where possible. For unbalanced signals link signal '-' to 0V. To activate PFL/AFL link PFL DC to 0V through a 15k ohm resistor (37 way Pins 3 to 1).

If you require further information or advice please contact Allen & Heath Technical Support.