The SYS-LINK option allows the ML3000 console to be easily linked to other ML Series consoles to expand the number of channels in the mix. The option is available from Allen & Heath as a kit with part number ML3000-SLV2. Fitting requires the removal of connector blanking plates and the installation of two internal circuit cards. Both consoles being linked must be fitted with the correct SYS-LINK option. This work is detailed in Fitting Instructions AP4721 and should be carried out by qualified service personnel.

How SYS-LINK Works

Two consoles are linked via SYS-LINK as a master / slave combination so that one acts as a sidecar expander to the other. The mix outputs of the slave are fed into the busses of the master. The slave console master section is not used as the signals are taken before its main inserts and output faders. The slave signals mix into the master console busses so expanding the number of channels feeding the mix without using up valuable input channels. The interconnection is made using a few multiway cables.

All the console mix busses are linked. This includes the auxes, groups and main LR and C busses but not the matrix mix. The PFL/AFL system is linked so that pressing a PFL or AFL switch on the slave console actions PFL on the master. You can listen to and meter the slave signals using the master console. All the audio signals are line level and balanced to avoid interference pickup.

The two console logic systems are also linked. This allows the mute and VCA group functions to act as one. The slave ML3000 is put into ‘slave’ mode so that its group functions are taken over by the master. The slave console group controls are disabled. One MIDI connection to the master console can access both the master and slave MIDI functions.

The Benefits of Using SYS-LINK

1. Two ML3000 consoles can be linked together as a master / slave combination to expand the number of channels in the mix to a maximum of 80 mono plus 4 stereos. This is great in a rental situation where the consoles can be hired separately one day, and then together for a bigger job the next day.

2. The ML3000 can be linked to an ML4000 or ML5000 console as a channel expander similar to a sidecar. Once again useful in the hire situation where both consoles can produce regular income rather than having dedicated sidecar expanders used just occasionally.

3. The number of cables required to connect the two consoles is reduced. Two 37way audio and one 9way logic cables are all it takes to interconnect the full mix system between the consoles.

4. The slave signals are mixed directly into the master console busses. All channels are available to the user for the input sources.

The Limitations

1. The ML Series consoles feature SYS-LINK Version 2. This is not directly compatible with the SYS-LINK Version 1 used on earlier Allen & Heath consoles such as the GL Series. For details on the conversion required to link between the two contact Technical Support.

2. SYS-LINK is intended for local interconnection. Standard 2.9 metre long cables are provided. The system is not guaranteed to operate correctly over longer distances.
Connecting Two ML3000 Consoles

1. Connect the slave console SYS-LINK A and B outputs to the master console SYS-LINK A and B inputs using the two 37way cables provided. Connect the slave console SLAVE (to master) logic port to the master console MASTER (from slave) logic port using the 9way cable provided. Make sure the cables are correctly plugged in and secured using their locking screws.

2. Use a pointed object to select the underpanel SLAVE MODE switch above the LRC faders on the slave console. Make sure this switch is in its normal up position on the master console. If you have changed the setting of the switch turn power off and on again to boot the console into its new mode.

Connecting the ML3000 to an ML4000 or ML5000 Console

1. Connect the ML3000 slave console SYS-LINK A and B outputs to the master ML console SYS-LINK A and B inputs using the two 37way cables provided. Connect the ML3000 SLAVE (to master) logic port to the ML SIDECAR LOGIC 1 or 2 logic port using the 9way cable provided. Make sure the cables are correctly plugged in and secured using their locking screws.

2. Use a pointed object to select the underpanel SLAVE MODE switch above the LRC faders on the ML3000. If you have changed the setting of the switch turn power off and on again to boot the console into its new mode. It is not necessary to change any mode on the ML4000 or ML5000.

The Connections

Audio cables: Male 37way D-type plug both ends. Shielded 36 core cable. The cables are wired one to one with shield connected to pin 19.

Logic cable: Male 9way D-type plug both ends. RS422 cable.

Audio signals are balanced with low impedance outputs and high impedance inputs. Operating levels are 0dBu except for PFL/AFL which is –8dBu.

For custom application of these connectors make sure any unused audio inputs are linked to 0V to prevent interference pickup via the cable.