# Mk 8 Amplifier

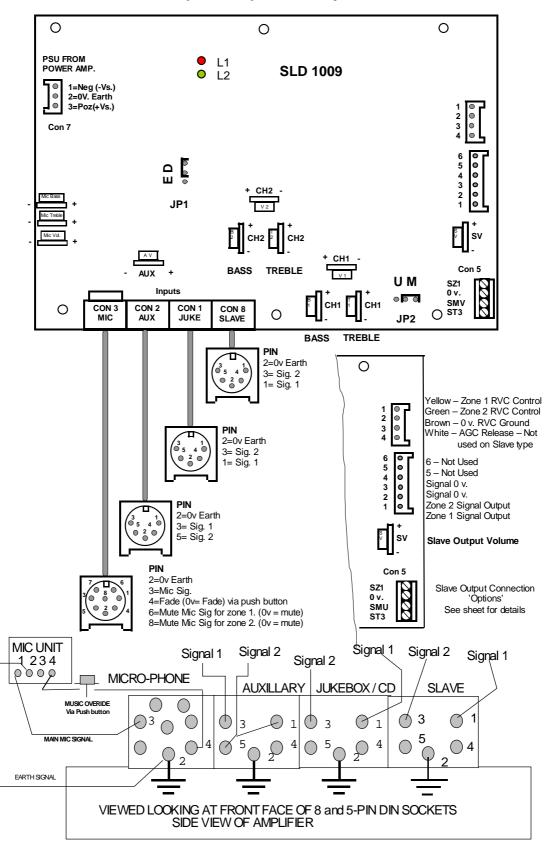
# Supplement



# SOUND LEISURE LIMITED

39 Ings Road, Leeds LS9 9EW, Yorkshire, England. Tel:- (44)0113 2175000: Fax:- (44)0113 2175003 www.sound-leisure.com

Mark 8 Amplifier top Board Layout



# MK8 MONO SOUND SYSTEM

The MK8 sound system uses the SLD1009 pre-amp top board and is a 2-Zone mono system.

INPUTS Three 5-pin 180 Din sockets for music inputs
One 8-pin Din socket for Mic signal and control inputs.

## Con1 Juke (Master Input)

Used for Jukebox music input. (Master amplifier) This input takes priority over the Auxiliary input.

Pin 1 = signal 1
Pin 2 = 0v earth
5 pin 180 Din
Pin 3 = signal 2

# Con2 Auxiliary (Aux Line Input)

Used for connection to an external music source. Auto-fade-in of this input occurs approximately 30 seconds after last track on Juke input has finished.

Pin 3 = signal 1
Pin 2 = 0v earth
5 pin 180 Din
Pin 5 = signal 2

# Con3 Microphone (Mic)

The microphone connected should be of the low impedance 600 ohm type. The Mic input has the highest priority using a **manual** "fade" signal to control the amplifiers music inputs.

Although this connector is an 8 pin Din socket a 5 pin 180 Din plug can be used and the following connections used to create a **basic** microphone interface.

Pin 3 = Mic signal Pin 2 = Mic 0v screen Pin 4 = Fade (0v = Fade) via push button

When pin 4 is connected to pin 2 (0v screen) for example via a "push to talk button" any music input given to the amplifier will fade out and only the microphone will be available as an input. Otherwise the microphone input will appear on top of any music input, ie "Karaoke"

# Con3 Microphone (Mic) continued

Two more control inputs are also available as follows:

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Pin 6 = Mute Mic signal for Zone 1 (0v = mute)
Pin 8 = Mute Mic signal for Zone 2 (0v = mute)
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Therefore if these signals were switched to 0v for example via a toggle switch, the Microphone signal can be controlled for Zone1 and Zone 2

Note: An 8 pin Din socket would be needed to use this facility.

The remainder of the pin allocations for Con 3 as follows:

Pin 1 = allocated for future use
Pin 7 = allocated for future use
Pin 5 = When using a "Palanced line" micron

Pin 5 = When using a "Balanced line" microphone this is the  $2^{nd}$  signal line to be used in conjunction with Pin 3.

# **Con8 Slave Input**

When the MK8 needs to be used as a "Slave" amplifier this input **must** be used.

Pin 1 = signal 1 Pin 2 = 0v earth 5 pin 180 Din Pin 3 = signal 2

#### STATUS LEDS

There are two LED's on the pre-amplifier board. These are denoted L1 and L2

When the machine is first powered up, L1 will light for 2 seconds before proceeding to flash. This indicates that the PIC16F84 microcontroller is working correctly.

When the Jukebox MPU detects an audio signal, L2 will illuminate. This shows that the MK8 amplifier music channels are open.

If a <u>manual</u> "fade" signal is detected at the microphone input Con 3 (Pin 4= 0v) LED L2 should turn off and the music will fade out. As soon as the "fade" signal is removed, L2 will turn on again and the music signal will fade back in.

#### JUMPER LINKS

The MK8 has two jumper links denoted JP1 and JP2. These link options work in conjunction with CON5 Slave output connector

# **Jumper Link JP1**

Controls the type of Microphone signal that will be sent to the Slave output connector CON5 and has 2 positions marked "**D**" or "**E**"

Position "**D**" = The Mic signal is **D**irect (**No** Bass and Treble control)

Position "E" = The Mic signal is Equalised (with Bass and Treble control)

Factory set to "D" position

# **Jumper Link JP2**

Controls which Slave output Terminal the Microphone signal will appear on and has 2 positions "**M**" or "**U**"

Position "M" = The Mic signal will be Mixed with the music and appear at terminal ST3 of the Slave output connector.

Position "U" = The Mic signal will be Unmixed and appear at terminal SMU of the Slave output connector (separate to the Music)

Factory set to "M" position

# MK8 SLAVE OUTPUT OPTIONS

The slave outputs are available at connector CON5. This is a 4-way screw terminal block and is labelled as follows:

# ST3 SMU 0V SZ1

These slave output options are described as follows:

Will always carry the slave music signals and will also carry the slave Mic signal if Jumper link JP2 is in the "M" position.
 Note: The slave music signal does not have Bass and Treble control.

**SMU** The slave Mic signal will appear on this terminal if jumper link **JP2** is in the "**U**" position

### MK8 SLAVE OUTPUT OPTIONS continued

- Will carry the slave output of Zone1. This signal is a copy of the Music and Mic signals and will be under control of the Volume, Bass and Treble controls for Zone1.
- **OV** This is the Ov ground terminal for the slave output system and must be connected to the screen of the screened cable when connecting signals to external slave amplifiers.

### MK8 POTENTIOMETER CONTROLS

**V1** = Volume control for Zone 1

**B1** = Bass control for Zone 1

**T1** = Treble control for Zone 1

**V2** = Volume control for Zone 2

**B2** = Bass control for Zone 2

**T2** = Treble control for Zone 2

**MV** = Microphone volume control

**MB** = Microphone Bass control

**MT** = Microphone Treble control

**SV** = Slave output volume control



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