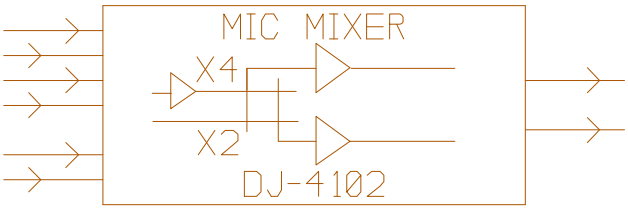
IRP®
Professional Sound Products

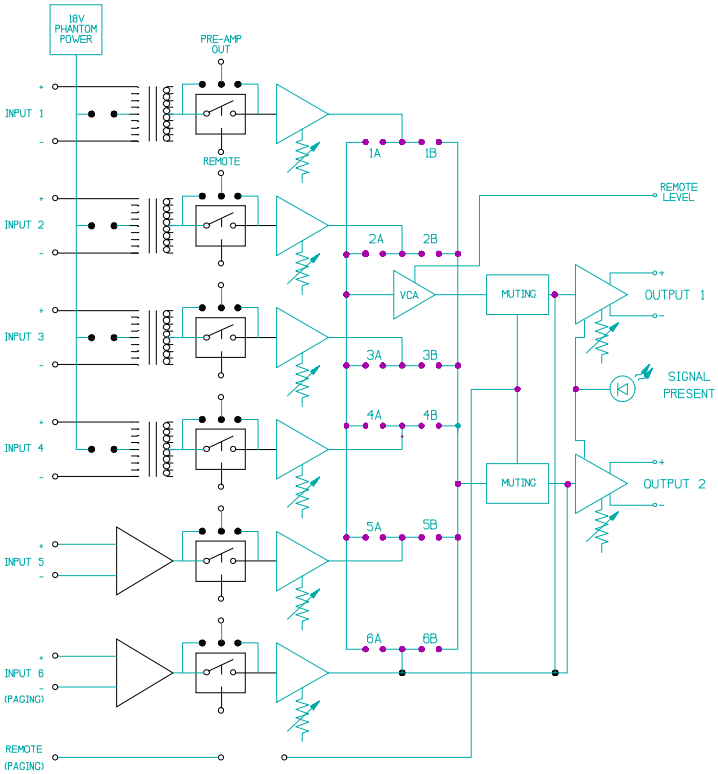
SYSTEM 41®
Microphone Mixer
DJ-4102

DESCRIPTION

The DJ-4102 is a two output standard microphone mixer having four mic/line inputs and two line inputs. Each output is mix programmable by circuit board jumpers. Remote control options are available. A preamplified output for each input is provided.



FUNCTIONAL DIAGRAM



FEATURES

- Standard 18V phantom
- Studio grade bifilar center-tapped transformers
- Pre-amplifier outputs
- 100 Hz high-pass filters on microphone inputs
- Five year limited warranty

OPTIONS

- Remote level control of one output
- Remote controlled ON/OFF of each input
- Paging input with adjustable mute

OPERATION

Gain of each input channel and each output level is settable by a potentiometer on the front edge of the module. The optional remote level control of OUTPUT 1 uses a studio grade low noise/distortion VCA. Control is DC by remote 10kΩ potentiometer. The circuit is temperature compensated and has close tracking of units for stereo fader use.

The optional remote channel ON/OFF uses low distortion solid state analog switches driven remotely by open-collector or dry-contact to ground. Pre-amplifier outputs may be either pre or post switch.

The optional page muting allows INPUT 6 to bypass a 15dB (adjustable) mute applied to the output. A remote open-collector or dry-contact to ground activates the mute.

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SPECIFICATIONS

MICROPHONE INPUT ..... Transformer balanced and isolated
Impedance ..... Greater than 1.5kΩ for 600Ω or smaller source impedance
Maximum Input ..... -20dBV, field alterable
Low Frequency Rolloff ..... -6.0dB/octave @ 100 Hz, field defeatable
Line Level Field Conversion ..... 13kΩ input impedance, field alterable gain
LINE INPUT ..... Standard *SYSTEM* 41 active balanced
Impedance ..... 82kΩ balanced, 41kΩ unbalanced
Maximum Input ..... + 19dBV
LINE OUTPUT ..... Standard *SYSTEM* 41 active balanced
Impedance ..... 200Ω for 600Ω or greater load
Maximum Output ..... + 19dBV unloaded
PREAMP OUTPUT ..... Single ended
Impedance ..... 600Ω for high impedance load
Maximum Output ..... + 19dBV, unloaded
GAIN ..... Microphone 54dB nominal, 74dB maximum, field alterable
Line ..... 0dB nominal, 20dB maximum, field alterable
FREQUENCY RESPONSE* ..... Microphone; ±1.0dB, rolloff defeated, < 600Ω source
Line; ±0dB, -0.5dB
THD*,** ..... Microphone; less than 0.1% @ 0dBV output
Line; less than 0.02% @ 0dBV output
EQUIVALENT INPUT NOISE*,** ..... Microphone; less than -127dBV, Line; less than -96dBV
SOLID STATE REMOTE INPUT SWITCH OPTION
Control ..... Dry contact or open collector transistor logic to ground
SOLID STATE REMOTE OUTPUT CONTROL OPTION
Range ..... 0dB to -50dB then OFF (-100dBV)
Control ..... 10kΩ linear pot, dry contact in wiper leg allows ON/OFF without moving pot setting
PAGING OPTION ..... -15dB (duck) field alterable
PHANTOM POWER ..... + 18VDC @ 40 mA maximum
CURRENT CONSUMPTION ..... 60 mA, 80 mA with options

* Measured over a 20 Hz - 20 kHz bandwidth
** Measured at nominal gain settings

ARCHITECT'S SPECIFICATIONS

A microphone mixer shall have four transformer balanced microphone inputs and two auxiliary inputs. Microphone inputs shall provide 18V phantom power and have 100 Hz high-pass filters (bypassable by jumpers). Preamplified outputs shall be provided for each microphone input. There shall be two master outputs. Circuit board jumpers shall select any mix of the six inputs for either or both outputs. The output signal shall be monitored by a signal present LED.

Optional Remote control of level - Master level control of OUTPUT 1 shall be provided by remote DC potentiometer. A continuous control range of 50dB shall be provided but shall be alterable to restrict range. Full counterclockwise shall provide 100dB attenuation. ON/OFF control of 100dB attenuation shall be controlled by a remote DC switch in the wiper leg providing ON/OFF without moving pot setting.

Optional Remote Channel switch - Microphone and auxiliary inputs shall have solid state remote controlled ON/OFF switching. Preamplifier outputs shall be jumper programmable to before or after the switch element. OFF attenuation shall be greater than -75dB at 1 kHz.

Optional Page input/muting control - INPUT 6 shall bypass a 15dB muting circuit, which affects all other inputs. The value of attenuation, (muting) shall be alterable by a programming resistor.

ORDERING INFORMATION

Specify each option by name:

- Microphone Mixer DJ-4102
- Remote level
- Remote ON/OFF
- Page/Mute

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