Input Selection

1) The **INPUT SELECT** controls selects from the 13-pin guitar input (switch in the up position), off (middle position), or 24-pin guitar input (switch in the down position).

2) Both outputs, 13-pin and 24-pin, are active at all times.

3) The volume control on the guitar controls the output of the 13-pin and 24-pin synthesizer at the same time.

String Level Adjust

1) There are six individual controls for string amplifiers.

2) When the switch is in the up position, the output control is active.

3) Generally, these switches will be used when the 13-pin guitar input is selected. These string amplifiers are at the start of the signal processing in the SBC-1324, and when engaged, affect the level of all the SBC-1324 outputs, 13-pin output, 24-pin output, and hex fuzz.

For example, all the **String Level Adjust** controls are active, all the switches are in the up position. The typical setting for a 13-pin guitar input is the 3 o'clock position. Turning the string level knob up and down will change the output of the 13-pin synth, 24-pin synth, and will effect the amount of hex fuzz distortion.

Power-Up Procedure and Input Switching

1) Generally, the preferred power-up procedure is to turn the SBC-1324 on first, followed by the attached synthesizers.

2) To protect delicate vintage circuitry, it is preferred to power the system down, SBC-1324 and attached synthesizers, before switching from 13-pin or 24-pin synthesizer inputs.

Control Voltage Sources

1) A switch in the up position activates a control. A switch in the down (**guitar**) position leaves the guitar controlling the output.

2) When a switch is in the up position, the associated LED will turn on, indicating control is switched to the SBC-1324.

3) Special Exception: for performance purposes, there is an additional **LFO/VIB** on/off foot switch on the SBC-1324. This foot switch, and associated status LED, will only function when the **LFO** circuit is active.

4) Plugging a Korg/Yamaha type Expression pedal into the SBC-1324 enables the expression pedal to act as a master control for the associated control voltage source.

For example, the **FILTER CUTOFF** active, and the amount is set to 80%, with the knob in the 3 o'clock position. Plugging a Korg/Yamaha type Expression pedal into the **FILTER CUTOFF EX INPUT** will enable using the Expression pedal to sweep the filter from 0 to 80%.

5) Plugging an external control voltage source, like the Moog MP-201, in the **CV INPUTS** will override the top panel control. The output of the external control voltage source can still be controlled by the expression pedal.

> For example, the **FILTER CUTOFF** active, and the output of a Moog MP-201 is plugged into the **FILTER CUTOFF EX INPUT.** The MP-201 is generating a sawtooth waveform. Plugging a Korg/Yamaha type Expression pedal into the **FILTER CUTOFF EX INPUT** will enable using the Expression pedal to sweep amount of control by the MP-201 from from 0 to 100%.

Audio Processing

1) A switch in the up position activates a control. A switch in the down (**guitar**) position leaves the guitar controlling the output.

2) When a switch is in the up position, the associated LED will turn on, indicating control is switched to the SBC-1324.

3) Special Exception: for performance purposes, there is an additional **Fuzz Bright** foot switch on the SBC-1324. This foot switch, and associated status LED, will only function when the **HEX FUZZ** circuit is active.

4) Plugging a Korg/Yamaha type Expression pedal into the rear panel **BALANCE INPUT** enables the expression pedal to replace the top panel control knob for guitar to synthesizer balance.

> For example, the **BALANCE** is active, and the amount is set to 50%, with the knob in the 12 o'clock position. There is an equal blend of guitar and synthesizer output from the Roland GR-300. Plugging a Korg/Yamaha type Expression pedal into the rear panel **BALANCE INPUT** will enable using the Expression pedal to sweep the balance from all guitar (pedal back, or in the heel position) to all synthesizer (pedal forward, or in the toe position).

Mode Control

1) The switch in the up position activates the **MODE CONTROL**. A switch in the down (**guitar**) position leaves the guitar controlling the mode.

2) When the switch is in the up position, the associated **MODE** LED will turn on, indicating control is switched to the SBC-1324.

3) The control panel legend uses the terminology of the Roland GR-300.

For example, the **MODE** control is active, and the **MODE** switch is in the up, **VCO** position. Used with a Roland GR-300, only the synthesizer (VCO) sound will be output. In the middle position, **VCO + DIST**, synthesizer and hex fuzz distortion will be output, and in the down position, **DIST**, only the hex fuzz sound will be heard.

Rear Panel Inputs/Outputs

1) The **HEX FUZZ OUT** on the rear panel has two functions: it can work as a hex fuzz output, and can also work as an effects send-and-return for the hex fuzz circuit. If a standard TS, tip-sleeve, output cable is plugged in, the hex fuzz sound is removed from the 24-pin output. The top panel **HEX FUZZ** controls the output level. Using a tip-ring-sleeve cable works as an insert cable. The tip is send, and the ring is return.

For example, a tip-ring-sleeve cable is plugged into the **HEX FUZZ OUT** rear panel jack. The tip-ring-sleeve cable splits into two tip-sleeve cables. The tip output is plugged into the input of an envelope (filter) follower. The ring cable is plugged into the envelope filter output. Now, the hex fuzz sound can be independently effected by the envelope (filter) follower, and is automatically added back to the GR-300 output.

2) A **TUNER OUT** is available on the back for providing an independent output for a guitar tuner, or other processing. When the 24-pin guitar input is selected, this output is always on, regardless of the volume control on the guitar. When the 13-pin guitar input is selected, this output is depends on the output of the standard volume control on the guitar. always on, regardless of the volume control on the guitar.

For example, Roland-Ready Strat is used as the controlling 13-pin guitar. The output level of the **TUNER OUT** is dependent on the normal stratocaster (single coil pickup) volume control. With a Roland G-707 selected as the 24-pin input guitar, the **TUNER OUT** is always on.

3) The **GK S1/S2** is designed for use with a **Boss FS-6**. This provides for an external **GK S1/S2** control. With a 13-pin guitar input, the **GK S1/S2** switches on the guitar will function, unless a **Boss FS-6** is plugged in, overriding the guitar controls. As an alternative, two **Boss FS-5U** foot switches could be used with a tip-ring-sleeve cable.

For example, a Roland G-707 is used as a controlling 24-pin guitar. A Roland VG-99 is connected to the SBC-1324. The master GK function on the VG-99 is set so **GK S1/S2** increments and decrements patches (see VG-99 documentation). Plugging a **Boss FS-6** into the SBC-1324 will enable the player to change patches by tapping on the A or B switch of the **FS-6**. The **A** switch is patch down, the **B** switch is patch up.

These are the recommended settings for the Boss FS-6:

MODE: FS-5U (momentary)

POLARITY: Switch to the right (normally open) as view from the rear (input) side of the pedal.