The Silencer-3 Quick Setup Guide

The Silencer-3 is a stand-alone DTMF muting device designed to pass high quality audio (from whatever source is feeding the device) without undesired Touch-Tones.

Audio containing DTMF tones is fed into the Silencer-3’s input jack and audio minus the DTMF tones is fed from the output jack. The Silencer-3 contains two DTMF decoders and an audio delay. Anything the DTMF decoder detects as a valid DTMF tone is muted from the Silencer’s audio output. An integral 50 millisecond audio delay in line with the audio output ensures that the muting action occurs just before the tone makes it to the audio output. The Silencer-3 can be configured, via internal jumpers, to detect any single DTMF tone or it can mute its output whenever any DTMF tone is detected.

The Silencer-3 has two audio channels. These two channels can be configured to operate independently or can be muted together whenever a DTMF tone is detected on either input. When used as a stereo device, channel 1 is typically considered to be left and channel 2 is right.

Getting Started Quickly

Power is applied to the coaxial connector marked “Power Input”. The Silencer-3’s power connector is a 5.5mm barrel type with an inside diameter of 2.1mm. The product may be powered by AC or DC Voltages of 13.8V to 18V. The Silencer-3 may be powered from an automotive power source, if desired. If DC power is supplied, the tip should be positive.

Input audio is brought into the Silencer-3 via a 3.5mm TRS connector. This is the same type of connector used for most computer sound card outputs and found on most “Walkman” style of headphones. The output audio is configured the same way. Two gain controls for channel 1 and channel 2 can be used to adjust the output level, as desired. Use a small straight-bladed screwdriver to make adjustments. Do not use a Philips screwdriver to adjust the controls. They are pre-configured for unity gain when the Silencer-3 leaves the factory and should not normally require adjustment in the field.

The “Relay” terminals provide a hardware confirmation that a valid tone has been detected. Whenever the selected DTMF tone is received, the two terminals labeled “NO” become shorted together for the duration of the tone. These terminals can be used to interface with external devices, as needed. The contacts of the relay are rated for 12V at 10mA. Exceeding these ratings can cause premature failure of the relay.
Internal Settings:

The Silencer-3 has two sets of user-selectable jumpers inside the device. In order to access these jumpers it is necessary to remove the top of the Silencer-3 by removing the four top-most screws from the front and back panels of the product. Then, you can gently remove the top cover, exposing the circuit board. Be sure to remove the power from the Silencer-3 before removing the top cover.

Silencer-3 Jumper Locator

JP109: Mute Control. When “OFF” any valid DTMF tone causes both channels to be simultaneously muted. When “ON”, channels are independently muted during a DTMF tone. “On” is the default setting.

JP105: DTMF Selector. To Detect all tones, jumper the “All tones” position (default).