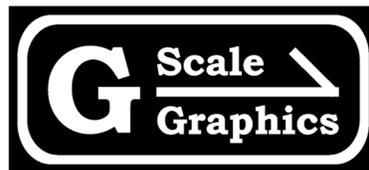
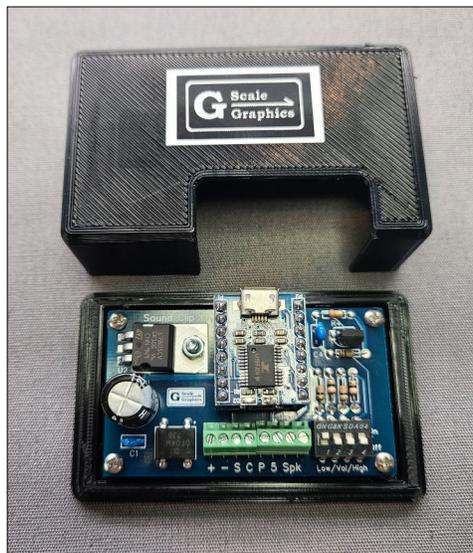


Sound Clip Module

An MP3 Player for your Railroad

Operation and Installation Manual



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Sound Clip Modules

"Sound Clip" modules add life to your railroad via sound effects. Place them in buildings, rail cars, or just hidden behind a rock. The 2.2"L X 1.2"W X 0.7"H circuit board must be protected from the weather.

You can play a single sound track in a continuous loop, or triggered to play only once via a momentary switch contact. Some examples; you might have one in your sawmill playing a continuous loop of sawing sounds. Or you could have one in the station playing a station announcement when triggered by a magnet on the locomotive and a reed switch in the track. We have a [library of sounds](#) to choose from, but we can program your Sound Clip Module to use any MP3 file under 2 minutes in length.

You can also trigger one or more sound tracks using our motion detector. Each time motion is detected it will play the next sound track in a series of recorded sound tracks, or just the same one each time.

Input Power

Power Terminals "+ -"

7 to 25 VDC, e.g. a 9V battery or a DC power source. Actually, polarity doesn't matter (despite the label). You can power from track power that reverses polarity.



We have a 12VDC, 2 Amp power supply available . It includes a 2.1mm Coax socket to mate with it to extend wiring as needed to one or more Sound Clip Modules.



Control

Switch Terminals "S C"

Short these terminals for continuous play. The sound track will keep looping.

A momentary switch closure will trigger the sound track to play once. Switch can be mechanical or an open collector output from other electronics to the S terminal. Both devices must share the same common through the Power Input "-" terminal.

The USB port is for factory programming.

Motion Detector (PIR) Terminals "C P 5"

PIR GND/BRN wire to terminal C (Common)
PIR OUT/RED wire to terminal P (PIR Input)
PIR VCC/YEL wire to terminal 5 (5V Output)

The motion detector will trigger a single sound track, or if multiple tracks have been recorded, it will trigger each one in sequence. There will be a delay to retrigger of 2 seconds or more after the sound stops.



Be very careful with the PIR wiring. Make sure the connector is connected as shown in these photos.

Output

Speaker Terminals "Spk"

A built in audio amplifier is capable of driving one 8 ohm, 3 watt speaker, purchased separately.

Optional enclosure with snap on cover



Sound Clip Module Triggering Options

Sound Clip Module Triggering Options

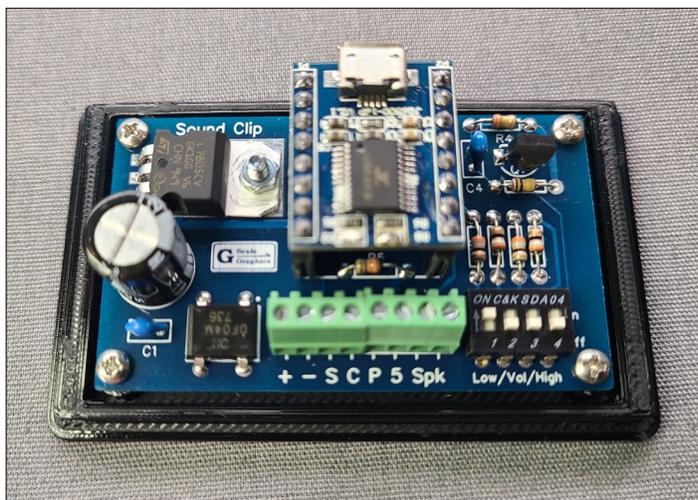
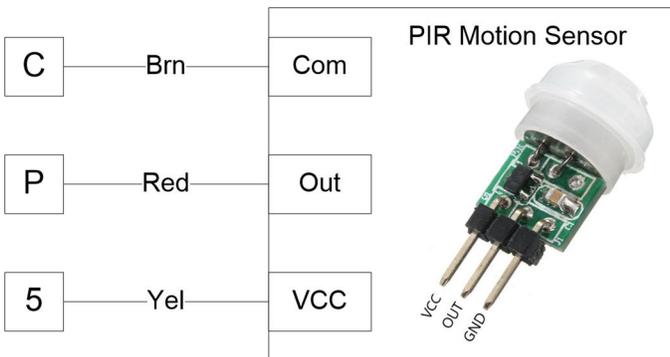
S  Momentary closure - Plays track 1 once

C  Always closed – Loops track 1

P  Momentary closure - Plays next track

5 

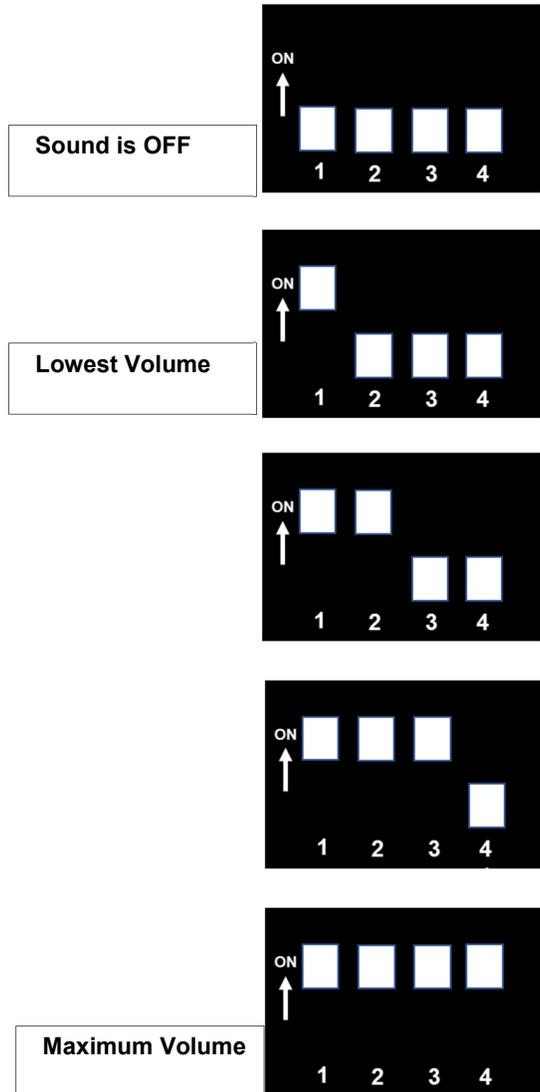
S Motion plays next track



Volume Switch

The DIP switch controls the volume as shown below. Turn ON each switch in order to increase the volume.

Note: When 4 ON, max volume will be set regardless of the other switch settings.



Sound Clip Module - Hardware Specifications

Board Revision "F"

Mechanical

Enclosure

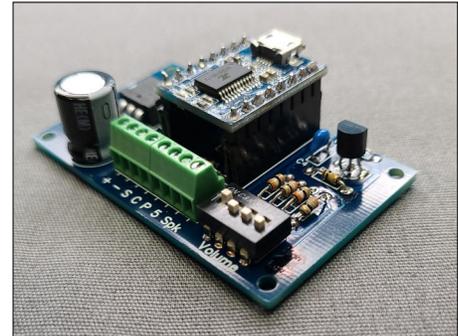
3.0" X 1.8" X 1.0"
3D printed Black PETG
Snap On Cover

PCB

2.2" X 1.2" X 0.7"

Wiring

User Connections: Screw Terminals, 22 AWG, tinned leads



Electrical

Power Input Terminals (+,-)

7VDC min to 25VDC max

No polarity (despite the label). Will operate from track power that reverses polarity.

Speaker Output Terminals (Spk)

One 8 Ohm speaker

Switch contact Input Terminals (S,C)

Momentary switch closure to single play sound

Closed contact or jumper for continuous looping of sound

Motion Detector (PIR) Input Terminals (C,P,5)

(See connections on previous pages)

Range: 3 to 5 meters

Delay: at least 2 seconds after no motion is detected

Won't retrigger while sound is playing

Volume Switch

4 position DIP switch

Warranty - 12 months from date of purchase. Post warranty repairs can be made for a modest fee.

