SoundClip-16

Manual

V1.1

Contents

Safety Guide

Please observe the following when installing this device.

Warning

- This product is not designed to be resistant to moisture or excessive dirt/dust. When deciding on a suitable installation point ensure there is reasonable protection from environmental damage.
- If you require this unit to be installed outdoors or in a dusty or damp environment use a certified IP rated enclosure and seal any entry/exit holes of wiring etc. If the unit needs to be periodically updated you will need to select an enclosure with an easy to remove lid and gasket seal. This product should not exceed its operating temperature
- If there is damage to the power supply in any way, arrange for a replacement unit by contacting blackbox-av. They may require you to send the defective power unit back so in this case do not dispose of the power supply unless prompted to do so. If you wish to source your own power supply a CE or FC certified double insulated and regulated supply is required. The SoundClip has an output rating of 12vDC at 2A, 24W. Using a power supply with a higher voltage will irreparably damage the SoundClip-8 unit.
- Do not place the unit in direct sunlight for prolonged periods as this may cause the product to overheat.
- Disposal of old electrical equipment please follow the guidelines associated with your country/territory or ship the unit back to blackbox-av and we will dispose/recycle the unit. The symbol on the left indicates that this product shall not be treated as household waste. Instead it shall be handed to applicable collection point for the recycling of electronic equipment. If you dispose of this unit correctly you will be helping prevent future harm to the environment which is caused by poor waste management of this type of equipment.

Precautions of Use

- Whilst the unit is connected to a mains outlet and the power is switched on it is providing energy for operating the device. If the unit is not being used for long periods of time it is recommended to turn off the power as it will prolong the life of it's electronic circuitry.
- Do not operate the unit below -10 or above 50 degrees Celsius. Do not bring the unit from a very cold environment to a warm environment without allowing it time to acclimatise as condensation may affect its operation.
- When using different types of push buttons, PIR's and other hardware connected to the button inputs and GPIO connections make sure they are compatible with the device. Please see the technical spec page for details on these connections. Failure to use care with these connections may result in damaging the device and subsequently affect the blackbox-av Warranty.
- When attaching headphones or speakers please use certified and good quality accessories. Failure to use care with these connections may result in damaging the device and subsequently affect the blackbox-av Warranty

Your new SC-16

In the box
1. SoundClip-16 Unit
2. Micro SD Card to USB Reader
3. Micro SD Card
4. Precision Screwdriver
5. 12V Power Adapter
6. AC Plug (dependant on your country)
7. Terminal Blocks
8. User Manual
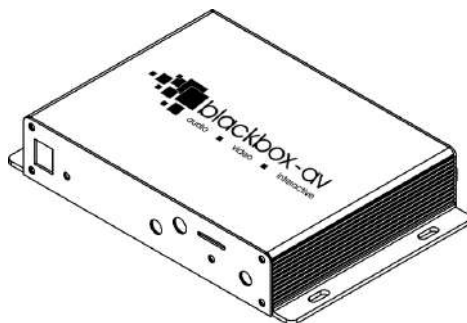
SoundClip-16
The SoundClip-16 is part of our range of compact, stand-alone, high-quality stereo audio players. It can be used to present audio through headphones via two 3.5mm audio jacks or 2 speakers via wired terminal.
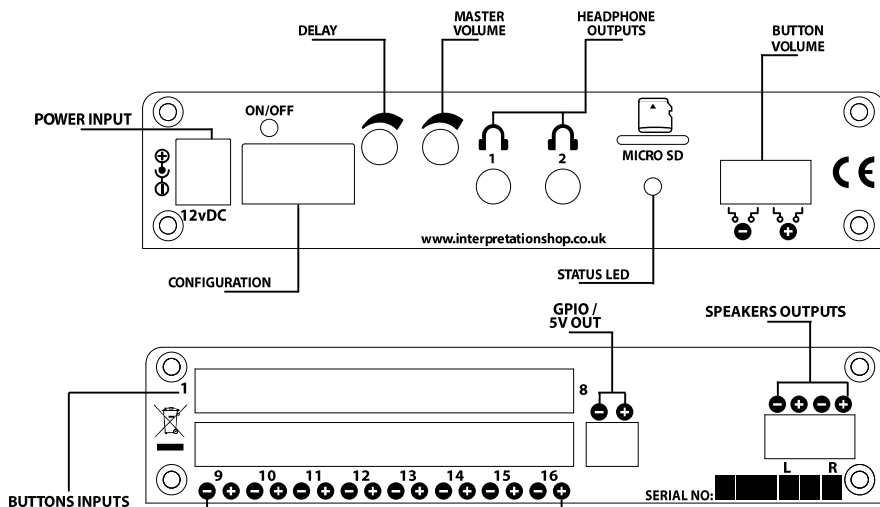
Power Adapter
Connect your supplied 12V DC adapter to the '12V DC in' to give power to the device. Once turned on, the 'ON/OFF' LED will light up.

Micro SD Card Reader
The media player is compatible with most MicroSD cards – capacity up to 32GB.

Setting Up

Overview

Button Inputs
The SoundClip-16 can accept up to 16 buttons / triggers.

Headphone Output
This device has 2 x stereo high-quality 3.5mm jack outputs.

Master Volume
Adjustable in order to dictate the maximum volume available to users.

Delay
Set the duration of your delay time.

Speaker Outputs
The onboard amplifier has 2 x 3w into 4Ω speakers. These can be connected to various speakers.

GPIO Out
This GPIO is switched on during audio playback. It can be used to power LED's.

Status LED
The green LED indicates the player state.

Button Volume
Dedicated volume terminals allow users the ability to increase or decrease the volume

5

Connections

The SoundClip supports the following connections:

Headphones
Up to 2 headphones can be connected through the 3.5mm jacks. Simply connect via the headphone 1 and 2 output.

AutoPlay Headphones / Devices
The SoundClip range supports our AutoPlay Headphones. For connection instructions please refer to the individual headphone manuals.

Speakers
Wire speakers to the 'Speaker Left' and 'Speaker Right' terminal blocks. Follow the '+' and '-' directions as appropriate and insert wires by screwing into place with the supplied screwdriver.

Activation Buttons
Connect 16 buttons to the designated terminal. To do this simply insert the wire ends and screw in place with the supplied screwdriver.

Volume Buttons
Connect 2 buttons to the designated terminal. To do this simply insert the button wire ends and screw in place with the supplied screwdriver.

Lighting
To use lighting with the SoundClip you must wire them to the labelled 'GPIO / 12v Out' terminal. As standard the lights will be activated when content is playing and deactivated when content stops.

PIR
To utilise a PIR trigger, you must wire the trigger cable and ground wire into the button 1 terminal, with the power connection wired into the GPIO 12V out terminal. Follow the colour coded steps below:

Connect the terminal with the red wire attached to the GPIO Out

Connect the terminal with the blue and yellow wires attached to button 1 as per diagram below.

6
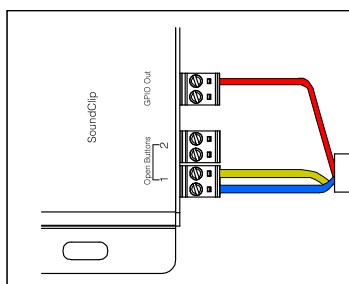
Programming Content

Content for your SoundClip is stored on a MicroSD card (supplied pre-programmed). We suggest you use this as a template for uploading your own content.

Should you need to use a different MicroSD Card we suggest you format the new card first to 'FAT' or 'FAT32'.

To program your content you will need;

1. A PC or laptop with Windows OS
2. Audio Content in .mp3 format (support up to 99 files).
3. MicroSD Card (Supplied)
4. MicroSD to USB convertor (supplied)

1. Windows OS

Windows OS is required to program your SoundClip using a PC or Laptop (Xp – 10). MacOS is not supported due to hidden files generated by the OS.

2. Audio Content

The SoundClip can play up to 99 .mp3 tracks. These are stored in the root of the MicroSD Card. You must number your files 001 – 099.
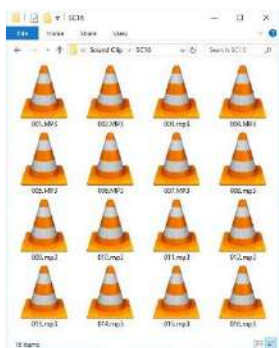
The order in which your files are played and the buttons they are assigned to is dependant on their name.

File 001 – Button 1 (or PIR trigger) / 1st file played
File 002 – Button 2 / 2nd file played
File 003 – Button 3 / 3rd file played (and so on)

3. Add Content

Once you have your audio files ready and correctly named, you simply need to load this all on the supplied MicroSD card.

Insert the MicroSD card into supplied MicroSD – USB card reader. Plug into a spare USB socket on your PC and open the folder.

Now simply drag and drop all the required files onto the MicroSD card. Insert the MicroSD card into your SoundClip and power on.

7

Configuration Modes

Deciding how the SoundClip-16 is configured is completed using the 'Configuration Switches', this determines such things as whether it's looping, button activated or has a delay between content. Here are the mode options.

You must power on / off your SoundClip after changing modes. Some modes have an adjustable delay. For more information see the Delay section on page 11. Some modes are not compatible with the connection of volume buttons. If so it will be stated. The drawings below demonstrate each mode. If the switch is red it means its set to up; whilst green means set to down.

As standard, the SoundClip Config Switches will be set in the upward position. The diagrams throughout this section use the colour red to indicate that the switches are in the upward position.

Red = The dipswitch is in the upward position
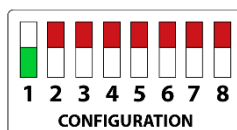
Green = The dipswitch is in the downward position
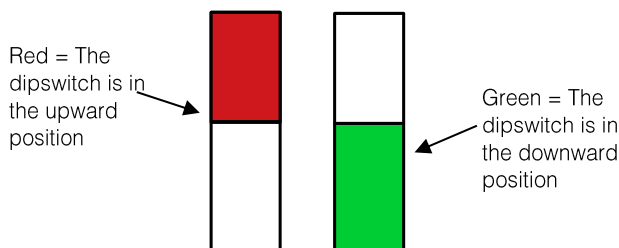
Mode 0 – Interruptible Playback
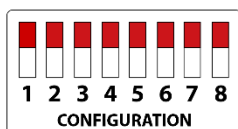
Up to 16 buttons can be connected. An individual MP3 can be assigned to each button and playback is interruptible in this mode, so pressing a button will active new playback.

- Buttons 1-16 – Tracks 1-16

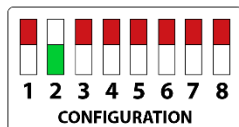## Mode 1 – Non-Interruptible Playback

Up to 16 buttons can be connected. An individual MP3 can be assigned to each button and playback is non-interruptible. Playback must finish before your next selection.
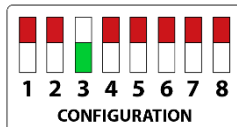
- Buttons 1-16 – Tracks 1-16

Mode 2 – Looping Playback

All content on the MicroSD card will continually play on a loop from power up. Delay can be used before the beginning of a new loop.
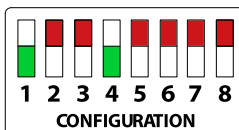
- Looping – Up to 99 tracks

Mode 3 – PIR – Play All

PIR triggered playback. All tracks will play once the PIR is triggered. A delay can be set once the tracks have played through. The PIR cannot trigger again during the delay.
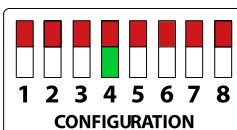
- PIR – Up to 99 tracks

Mode 4 – PIR Sequential

If connected to a PIR – it will play the next track each time its triggered. If inactive, a delay can be used to reset tracks back to the first.

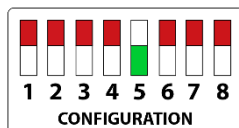- PIR – Next track (supports up to 99 tracks)

Mode 5 – Next/Previous

Users may navigate through tracks through button 1 for next and button 2 for previous.

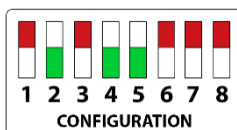- Button 1 – Next track
- Button 2 – Previous track

Mode 6 – AutoPlay

To be used with an AutoPlay Handset Track 1 will be played automatically upon pick up.

- AutoPlay Handset – Track 1
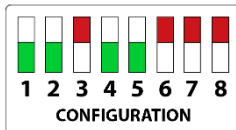- Button 2 – Next track

Mode 7 – AutoPlay Multi Selection

To be used with an AutoPlay Handset, Track 1 will begin playing and users can select additional tracks from 7 buttons. Delay can be used on this mode.

- AutoPlay Handset – Track 1
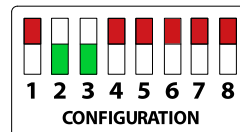- Button – Selected Track

Mode 8 – Hold to Play

User must hold down the button to begin the track. Releasing will stop the track.

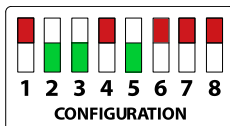- Buttons 1-16 – Tracks 1-16

Mode 9 – Background Track Loop

Loop a background track and interrupt with button selected content.

- Buttons 1-16 – Tracks 1-16
- Background Track – Track 101

Mode 10 - Background Track Loop with Next/Prev

Loop a background track and interrupt with next/previous button content.

- Button 1- Next track
- Button 2 – Previous track
- Background Track – Track 10

10

Delay

Following the ending of a track, the delay timer can be set to a maximum of 60 minutes and minimum of 5 seconds. Whilst the unit is in delay mode, the green status LED will flash. Modes 2, 3, and 4 can use delay.

Master Volume

The Master Volume control is used to set the maximum volume level. If you do not use Volume Buttons this will be the volume set for all users.

However if you do use the dedicated Volume Button inputs, users will be able to increase / decrease the volume as they wish. In this case the Master Volume will set the maximum volume level users are able to reach with the Volume Buttons.

We suggest therefore when setting the Master Volume, you connect Volume Buttons and use the + button to increase the volume to the max, then adjust the Master Volume control accordingly.

The SoundClip will remain at the volume last set using the Volume Buttons. It will not reset when powered down / on.

Status LED

Red – On / Off

The red LED will be lit when the unit is powered.

Green – Status

The Green LED is lit when content is being played. It will also flicker on / off in 1 second intervals when the unit is in 'Delay Mode'.

Trigger and Buttons

Connecting Buttons

Buttons are simply wired directly to the screw terminals at each of the two inputs. Pushbuttons work as standard with the player and are required to be the normally open 'push to close' type. Whereas use with Autoplay requires a normally closed type.

Piezo, vandal and water-resistant buttons can be purchased from our online shop if your installation requires a more robust switch

Other Triggers

Other triggers can be connected such as a PIR or floor mat switch. If you want to attach different hardware to the SoundClip, you need to ensure the device is compatible or uses optical or mechanical relays to isolate its circuitry.

The inputs are 5.5V maximum.

Unique AutoPlay functionality

The SoundClip has been specifically designed to work with our AutoPlay range of handsets and headphones. These give the unique functionality of being able to lift the headphone or handset to automatically trigger your content. See the manual for your specific handset / headphone for in-depth connection instructions
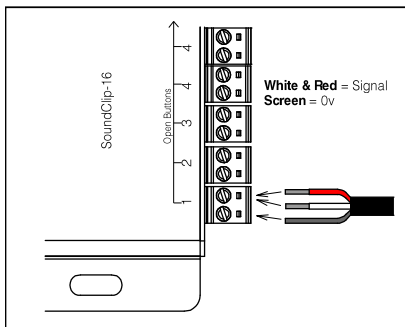
The drawing above demonstrates the wiring of one of our AutoPlay devices to a SoundClip-16 unit.

GPIO Connection

The GPIO port can be used to connect power to other circuitry such as a sensor, LED's or a sensor such as PIR.

Troubleshooting

If you have any trouble with the SoundClip unit, make sure your program files are correctly formatted. Performing a on / off reset may also resolve issues.

If you require further assistance contact us at support@blackboxav.co.uk

Technical Information

Weight	0.75Kg
Unpackaged Weight	0.6Kg
Dimensions	110 x 155 x 28mm
Message Storage Medium	MicroSD Card (32GB of Storage)
Maximum Number of Audio Files	99 Files (mode dependant)
Number of Buttons/Trigger Inputs	16
Number of Lighting Outputs	1 via the 'GPIO / 12V Out' terminal
Lighting Power Output	6W
Message Encoding Format	.MP3
Speaker Audio Output	2 x 3W RMS into 4Ω Speakers (Stereo)
Frequency Response	30Hz - 22KHz
Headphone Audio Output	2 x 3.5mm audio jack (headphones / handsets etc.)
Speaker Output	Screw terminals (phoenix)
5V Out	Power accessories such as low power LED's or PIR Sensors
Power Supply	External 5.5 x 2.1 DC12V 2A Power Connector ⊖-◖-⊕
Power Consumption	1.5W with Headphones, 7.5W with Speakers
Common Switch Output	Open Drain 50V

Technical Drawings

Drawings not to scale

13