

**PIR Motion Sensor Activated Audio Player
User Manual
FNP-702A**



SmartSound PIR Motion Sensor Audio Player

1. Brief Introduction

The human body induction is a new technology using infrared and pyroelectric principles to detect temperature changes, which can automatically and accurately identify, detect and induce the information that has temperature changes including human bodies. It doesn't rely on light, and even in dark environment it also can keep stable and reliable work.

SmartSound PIR Motion Sensor Audio Player supports a strong DIY feature, and the user can select accessories according to the specific requirements of application. We adopt very mature human body induction technology. When it detects a passing human body or any heating objects, it can automatically at the first time play back the voices of greetings, warm hints, alarms, and so on. It can also load different music according to the specific applications, in order to realize the effect that when people pass by, the device can automatically play the music. SmartSound PIR Motion Sensor Audio Player can be used in the galleries, supermarkets, subway stations, elevators, door control prompts, automatic megaphones and so on.

In order to better understand how to use and install this product, please read the following carefully.

2 .Features

- Adopt passive infrared sensing technology
- The detector/sensor can be rotated 60° at both left and right sides
- Can change sound contents at will
- Support memory function when power-off
- Support to play MP3 audio files with high sound quality
- Automatically trigger to play sound back
- Load/change audio files through a Micro SD card(TF card), easy to operate
- Built-in SPI flash as the internal memory
- Sound volume is adjustable
- Built-in 2W amplifier to ensure loud and beautiful sound output
- Auto sleeping circuits design, which can keep long-term standby
- Built-in automatic power re-charging circuits
- Plug and play type design
- Built-in 500mAH lithium battery, time durable

3. Electrical parameters

Power Supply	DC5V Regulated Power Supply	
	3.7V Lithium battery	
Working Current	Standby state(lithium battery)	$\leq 180\mu\text{A}$
	Playing state(lithium battery)	$\leq 320\text{mA}$ (typical value 150mA)
Charging Current	$\leq 710\text{mA}$	
Audio Format	MP3	Code rate:16~320Kbps
Audio Output Power	8 Ω /2W (typical value)	
Range of Infrared induction	$\leq 5\text{m}$ (120°)	

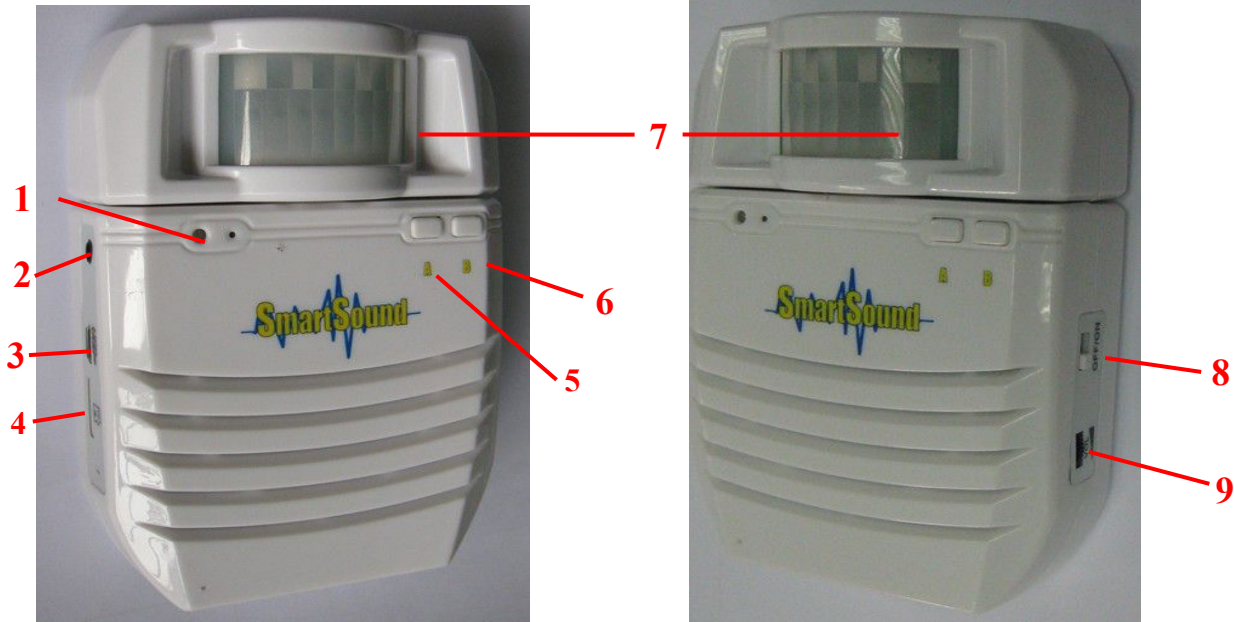
Note: Please load MP3 audio files according to the code rate above, otherwise the sound quality will be not good.

4. Product Appearance

4.1 Dimension



4.2 Panel



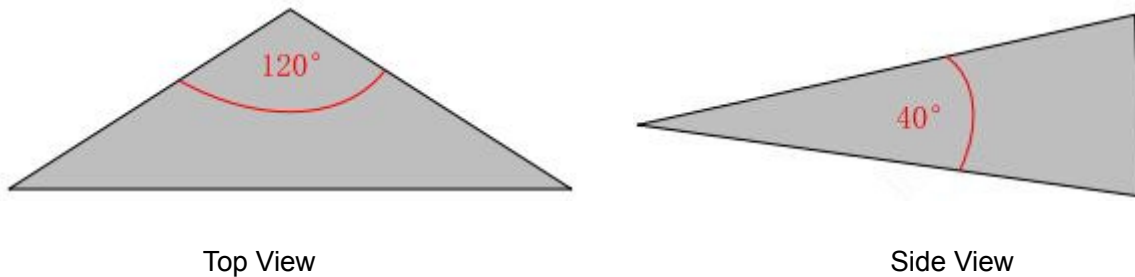
Serial Number	Name	Function Description
1	Indicator light	Power-on initialization indication / sound updating indication / playing indication
2	Audio output interface	Connect with an external amplifier or an active loudspeaker
3	USB interface	For power supply and recharge for the battery
4	TF card interface	Standard TF card socket,used for insert TF card for changing audio files.
5	Key A	Switch to previous sound/switch to work mode A
6	Key B	Switch to next sound /switch to work mode B
7	PIR detector/sensor	Detect a human body
8	Power switch	ON:working state OFF:off state
9	Volume potentiometer	Adjust the sound volume

5. Quick Guide

First install hardware according to installation diagram, ensure every parameters is normal, especial power supply.

5.1 Installation Operation

There are hanging holes at the back of SmartSound, working with the mounting bracket, which can be easily hung in the appropriate position. The diagrammatic drawings of the sensor are shown as below.



Place the product into a predetermined position, and when someone enters the sensitive area, it automatically plays back the sound. The sensor can be rotated 60 ° both leftward and rightward, so users can turn it to different sensing areas according to the actual needs.

5.2 Power Supply and Charge

This product uses a rechargeable 3.7V lithium battery, and it also can be connected a power adaptor/charger(DC5V/1A) for power supply. When you connect the device to the power adaptor, the external power charges the lithium battery and supply power to the host device in the same time. It supports battery charging at working state and power off state.

Under working state for battery charging, the LED indicator keeps glowing and the host device will not enter into sleep mode. It can work normally once the sensor is triggered.

Under power off state for battery charging, there is no indication. The lithium battery will be full of power after 4 hours charging.

5.3 Power-on Operation

After you turn the switch to ON(working state), the LED light flashes for a short while. Without any operation, the product will be at standby mode after 10 seconds. When the sensor is triggered, the product comes into working, playing automatically with a delay of 1-3 seconds.

Note: When the sensor circuit is powered on, there will be 5-15 seconds to initialize the sensor. During the period, it is normal without induction or reaction very slowly. After that it comes back to work normally.

5.4 Load / Update the Audio File(s)

Before you load/update new audio file(s) to the device, firstly please prepare a PC and an empty TF card(micro SD card) with FAT32 file system, and then put the MP3 file(s) to the TF card though PC(any file name is available, but can not put other files in the TF card). After MP3 file(s) copied completely, insert the TF card to the TF socket of this product(insert the TF card according to the TF card socket label). At this moment, if you switch on the player, after being triggered it will play the MP3 file(s) stored in the TF card directly once the inserted TF card is detected. If the total time duration of all your audio files(based on 128Kbps of MP3 files) is no more than 4 minutes, you can copy the audio files to the internal flash to save the cost of a TF card. Please follow the steps below to copy the MP3 file(s) in the TF card to the internal flash.

- 1). Firstly, make sure the player is switched off.
- 2). Insert the TF card already stored the MP3 file(s) to the player correctly.
- 3). Use one finger to press the key A and hold, then switch on the power with the other hand.(At the moment, the indicator light turns on and retains about 5-6 seconds).
- 4). Now you can release the key A, and meanwhile the indicator light starts to flash, that means the product is copying the audio file to the internal flash memory from the TF card. When the indicator light turns off flashing after a short while, that means the audio file is already loaded/updated successfully.(Note:The loaded/updated audio file capacity can not be over the size of the internal flash memory)
- 5). Take the TF card out of the player and re-switch on the player, it will play the copied MP3 file(s) in the flash.
- 6). Use the same TF card to serve other players.

Note: If the TF card and the internal flash are available at the same time, the player always play the MP3 file(s) in the TF card.

If you need the audio files played according to the playing order you expect, you can follow the steps below to

make it.

- 1). In the PC side build a new folder, and put all the audio files which need to be loaded in the device in the new folder.
- 2). Change the audio file names, beginning with 4 digits such as 0001.mp3, 0002.mp3 or 0001 welcome.mp3, etc.
- 3). Press "Ctrl + A" on the keyboard to select all.
- 4). Right click the first audio file, it will pop up a menu, then select " send to" and select "removable disk". Like this way you can put the audio files to the TF card effectively by sequence.
- 5). The next thing to do is to load the files in the TF card to the device according to the method above.

5.5 Select Mode

This product supports A, B, and C three work modes. Users can choose the right mode according to the actual requirements.

Mode A: Play the audio files in a loop one by one after each trigger. In another word, when the device get triggered for the first time, it will play the first audio file, and when the device get triggered again, it will play the second audio file just like this in a circular way one by one. After trigger to play the last audio file, it will automatically move to the first one.

Mode B: It's a single playback mode. After each trigger, it will always play the current audio file each time. At this time you can short press left button(key A) for PREVIOUS and right button(key B) for NEXT to select which audio file needs to be played.

Mode C: It's a random playback mode. After each trigger, it plays the sounds in the device randomly.

- Mode Selection:
- 1). Long press key A till the indicator light flashes. It means you successfully chose mode A.
 - 2). Long press key B till the indicator light flashes. It means you successfully chose mode B.
 - 3). Long press key A and key B simultaneously till the indicator light flashes. It means you chose mode C successfully.

6. FAQ

Question1: Can this product support to play WAV file ?If not ,how should we do ?

A:It only supports MP3 file, and can not support to play WAV,but can convert the WAV file to MP3 through the following operations, then use it .

Method1:Install an audio playback software which has MP3 encoding and decoding functions,convert WAV format to MP3 file .

Method 2: Search the MP3 file you need on the internet.

Question 2: When using this product, I found that it just played half of the voice and stopped. After a short while, it continued to play. Like this over and over again. What's the problem ?

A: It's a power shortage problem caused by the battery. The problem will be solved after you recharge the battery.

Question 3: After power on, there is a time no response or reaction or insensitive, there are delays and so on. What does it happen?

A: When the sensor circuit is powered on, there will be 5-15 seconds to activate the sensors, in order to prevent the spurious triggering or destroying caused by instable voltage. During this time, no induction or very slow reaction is normal, it will back to normal after this period of time.

Question 4: During updating audio files, sometimes I need to wait very long. what's the problem?

A:When updating audio files last time, you switched off the power before the updating finished, then the flash memory of the device was caused some errors. When you update audio files again, the flash memory would be re-formatted, so time would last longer.