

FN-168R Radio Remote MP3 Sound Module with 2x20W Class D Amplifiers

User's Manual

V1.0



1. Overviews

1.1. Brief Introduction

FN-168R is a high quality radio remote MP3 sound module based on 433MHz radio communication frequency developed by Flyron Technology Co., Ltd. This sound module is directly controlled by the remote, and remote distance can be up to 150 meters. Equipped with on-board Class D 2x20W amplifiers, great audio output, industry-grade design and strong anti-jamming capability make it possible to be used for many different applications.

1.2. Features

- 1). Uses a 433MHz radio remote control, and the remote distance can be up to 150 meters in open area.
- 2). Built-in a high quality 24bit of audio decoder with stereo audio output.
- 3). Supports to play audio files of MP3 and WAV formats.
- 4). On-board high quality 2x20 Watts class D amplifiers to directly connect with two 8 ohm speakers of 20Watts, for left channel and right channel.
- 5). Uses micro SD card for audio file storage device, and supports maximum 32GB SD card.
- 6). Supports to direct play 999 audio files through press numeric buttons on the remote control.

- 7). Supports single loop playback mode, and all loop playback mode.
- 8). Possible to update audio files via the micro USB connecting with computer.
- 9). With the features of Play/Pause, Volume up, volume down, next and previous.
- 10). Wide range for power input DC (9V - 24V).
- 11). Industry-grade design and strong anti-jamming capability.
- 12). PCB size: 56mm x 45mm.

1.3. Technical Parameters

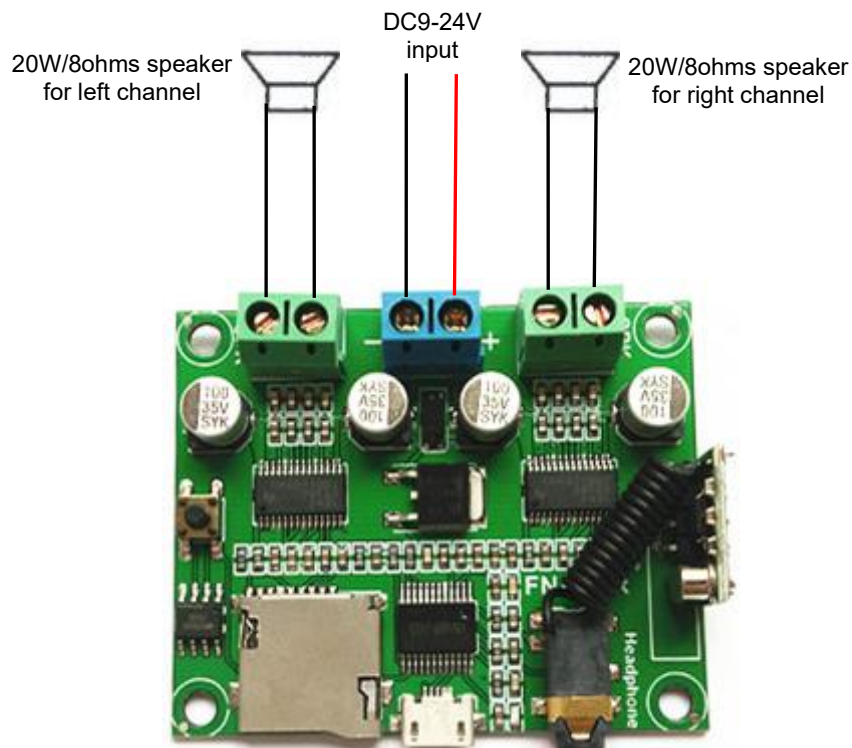
- 1). Working voltage: DC 9V-24V
- 2). Working current: $\leq 750\text{mA}$ (Input: DC12V)
- 3). Power Consumption: $\leq 20\text{W}$
- 4). Audio format: MP3/WAV

1.4. Applications

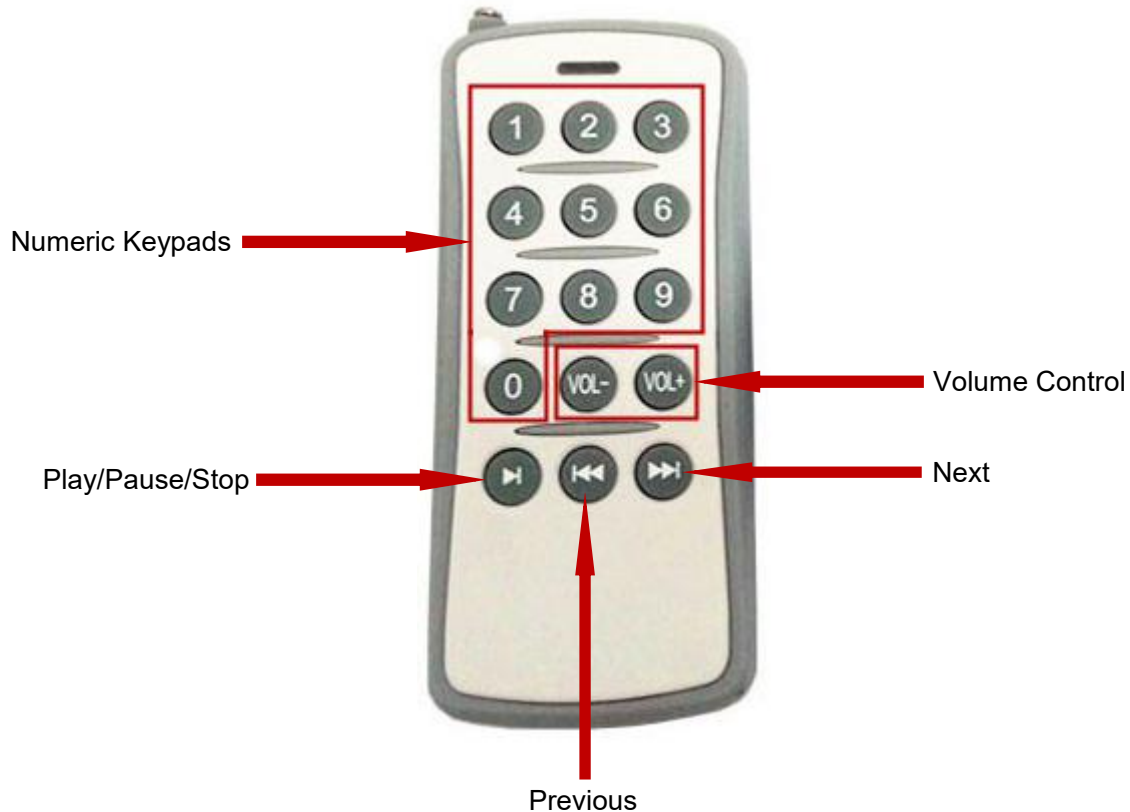
- 1). Remote advertising audio players for stores, supermarkets and shopping malls.
- 2). Security alarms for factories, schools, shopping malls, etc.
- 3). Audio explanation devices for museums, art galleries, exhibition halls, etc.
- 4). Hunting bird callers or hunting decoy devices.
- 5). For PA systems used in public areas, etc.

2. Operation Instructions

2.1. Connection Example



2.2. Guide for Operation of Remote Control



Functional Description of the Keypads

1). Numeric Keypads: Short press one key or two/three keys constantly within a second for direct playback of the associated audio file. For example, if you want to play the 1st audio file, just simply short press the numeric key “1”, then the module will play the 1st audio file. If you want to play the 678th audio file, just quickly short press the numeric keys “6”, “7”, and “8” in a sequence within a second, then the module will play the 678th audio file. When the audio file goes to the end, the module will stop. In this way, you can direct play back as many as 999 audio files.

Note: During playback of an audio file in this mode, if you long press the numeric key “0” by 3 seconds and release, the current audio file will be played repeatedly/in a loop from next beginning. If you want to end such a loop, just long press the key “Play/Pause/Stop” by 3 seconds and release to stop.

2). Volume Control: Long press the key “VOL-” or the key “VOL+” for decreasing or increasing the volume. When the volume goes up to the max, you will hear a “beep” for two times from the speakers.

3). Play/Pause/Stop: During playback, short press this key for pausing, and short press it again for continuous playback; Long press this key for stop playback.

Note: When the module is standby and if you short press this key, the module will play all of the audio files one after another in a loop. If you want to stop it, just long press this key by 3 seconds and release to stop.

4). Previous: Short press this key for previous audio file.

5). Next: Short press this key for next audio file.



2.3. Audio Files Loading/Updating

In order to guarantee a correct 'one-on-one' order, please refer to the following steps.

- 1). Build a new folder on the computer and put your audio files in this new folder.
- 2). Rename the audio files from 001.mp3/wav to "999.mp3/wav", and make sure they are ranked from "001.mp3/wav" to "999.mp3/wav" in order.
- 3). Plug in your SD card on computer using a card reader or connect the module with computer through the micro USB.
- 4). Format the SD card into FAT or FAT32(FAT32 is preferable).
- 5). Select all of the audio files in the folder.
- 6). Right click on the first file (001.mp3/wav) and choose "Send to removable disk". This should send all of the audio files to the SD card in a correct sequence.
- 7). Remove the SD or disconnect the module with computer safely.

2.4. Matching Remote Control with the Module

As we match the remote with the module as a pair in factory, normally users can directly use it and don't need to do this matching. But in some cases such as the battery in the remote control runs out of power or the power supply is unstable for the module, the matching probably will be lost, so users need to do this before it works normally. It's very easy to make the match. Please follow steps below.

- 1). Power up the module and short press the black button on the module, then the LED indicator light will flash continuously.
- 2). Long press any keypad of the remote control. If the LED indicator light stops flashing, it means the matching is done.