



# FM/AM/USB/SD Player



User Manual

**WARNING:**

**TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**

**CAUTION**

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

**Important**

Do not install this equipment in a confined space such as a book case or similar unit.

The apparatus should not be dripped or splashed and no objects filled with liquids, such as vases, should not be placed on the apparatus.

This unit should not be used near water (e.g. near bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.) Care should be taken so that objects do not fall and liquids are not spilled into enclosure through openings.

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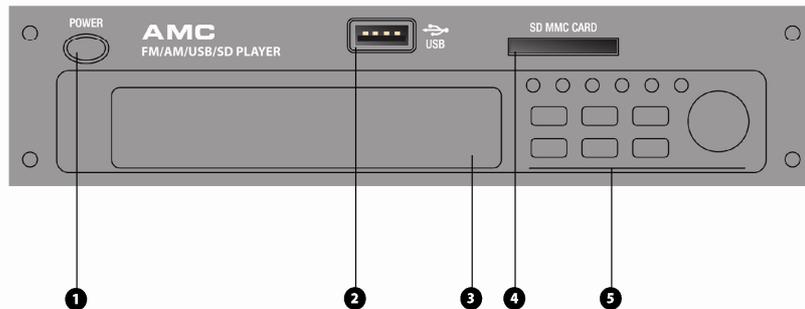
## Introductions

This FM/AM/USB/SD Player is designed for compressed audio files and FM/AM supporting. There are four available audio sources: USB flash player, SD/MMC card player, FM and AM radio. This M/AM/USB/SD Player is suitable for MMA 5-zones amplifier only.

## Features

- MPEG 1/2/2.5 Layer2/3(MP3), WMA9 L1/L2 decoder with USB host and SD/MMC controller.
- Built in 64K NOR flash memory for program code storage.
- Built in 32 steps electronic volume control.
- Preset EQ ( Classic / Pop / Rock ) with LOUD function.
- Recognition file and folder up to 2,000 files and 200 folders.
- Available ID3 tag up to 32 characters (File name and title).
- FM freq. range 87 MHz – 108 MHz. 20 radio station preset.
- AM freq. range 520 kHz – 1720 kHz. 10 radio station preset.

## Front Panel



1. Power ON/OFF switch
2. USB Slot
3. LCD display
4. SD/MMC Card Slot
5. Function Buttons

## Key function description

### **POWER**

The module's power on or off

### **FUNCTION**

Change function mode cyclically: USB->SD/MMC Card->Tuner

### **PLAY / PAUSE**

Start playing, and change mode between play and pause.

### **STOP**

Stop playing track in USB or SD mode. Exit mode during program / repeat /random/intro or search. In tuner mode this button switch radio between AM and FM.

### **NEXT/ FF**

Skip current file to next file. In tuner mode press this button one time for manual search, press and hold for 3 sec. for auto search.

### **BACK/ FB**

Skip current file to previous file. In tuner mode press this button one time for manual search, press and hold for 3 sec. for auto search.

### **DIRRY UP**

Go to next folder (mp3/wma only). In the folder search mode, used to select next folder. In tuner mode – next channel.

### **DIRRY DOWN**

Go to previous folder (mp3/wma only).In the folder search mode, used to select previous folder. In tuner mode – previous channel.

### **VOLUME UP**

Volume control: the volume is increased.

### **VOLUME DOWN**

Volume control: the volume is decreased.

### **RANDOM**

Set or release RANDOM play mode.

### **INTRO**

Set or release the intro scan mode.

### **REPEAT**

Cyclically select the repeat play mode:  
Repeat 1 track → 1 folder → all tracks → Repeat Off.

### **MUTE**

Set or release the mute mode.

### **EQ**

Press key to change EQ mode cyclically.  
Flat → Classic → Rock → Pop

## Key function description

### DBBS

Set or release the DBBS mode.

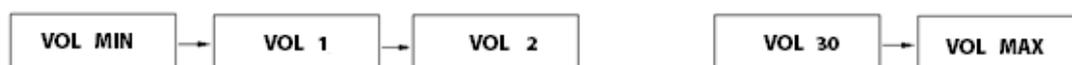
### DISPLAY

IN MP3/WMA mode, if key is pressed, display mode is toggled between time display and File information scrolling as follows: File name -> Title -> Time

## System operation

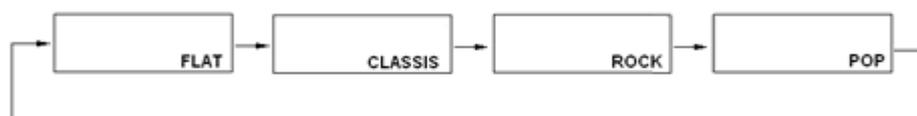
### 1. Volume control

Turning the volume jog allows adjusting output signal level with 32 steps from MIN to MAX. Volume display mode is continues 2 second after key off.



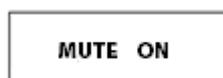
### 2. EQ control

After EQ key is pressed, LCD panel show current EQ status for 2 second. By pressing EQ button you can change EQ mode cyclically: FLAT->CLASSIS-> ROCK -> POP



### 3. MUTE control

The MUTE key allows music sources muting or releasing. LCD shows blinking 'MUTE' on mute status.



### 4. Input source (USB/SD Card/Radio Tuner) selection

You can choice input source between USB, SD Card and Radio tuner by FUNCTION key (by pressing volume knob). After selection LCD shows available input for 2 sec.

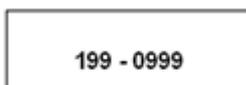


**5. Memory checking**

If this unit can't find MP3/WMA file from memory 'NO FILE' is displayed on the LCD.

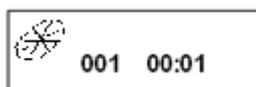


If this unit find out any available file from memory LCD shows total number of folder and total number of files. And then, this unit ready for playing. Example shows that the memory has 199 folders And 999 files.



**6. Play, Pause and Stop**

Please, press PLAY key to start play MP3/WMA file. LCD show file, folder number and playback time. During playback, press PLAY key to pause. Press STOP key to stop playing MP3/WMA file. In radio mode press this button to switch radio between AM and FM.



**7. Forward**

Press NEXT key, then next file will be played. In radio mode press this button one time for manual search, press and hold for 3 sec. for auto search.



**8. Backward**

Press BACK key, current file will be played again from beginning.



Press again BACK key within 1 second from beginning, previous file will be played. In radio mode press this button one time for manual search, press and hold for 3 sec. for auto search.



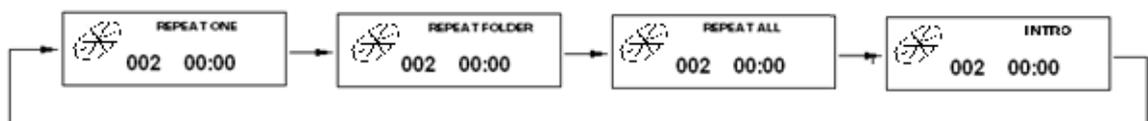
**9. File name / ID3 display**

Press DISPLAY key at the play mode, then file name is scroll displayed. Press again DISPLAY key, go into ID3 tag information mode and scrolled as follow. FILE -> TITLE-> TIME. This ID3 tag information supports up to 32 characters for each display unit.

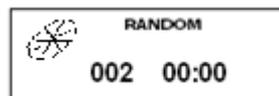


**10. Repeat and Random play**

Press REPEAT key to select repeat type. The sequence is same as follow. Repeat one file -> repeat folder -> repeat all>Intro



In the stop or play mode, press RANDOM to activate or deactivate the random mode.



**11. Folder up and down**

These keys allow you easy to search folder in the USB/SD card memory.

**12. Radio preset**

- By using NEXT or BACK key choose the radio station.
- Press PRG/BND key
- By using DIRRY-UP or DIRRY-DN key choose the preset number.
- Press PRG/BND key for storing.

## SPECIFICATIONS

**GENERAL**

1. Signal to Noise Ratio	Less than -70dB
2. Frequency Response	20Hz ~ 20kHz
3. Total Harmonic Distortion(THD)	Less than 0.1%
4. Supply Voltage	DC 12 Volts
5. Maximum Current Consumption	500mA
6. FM frequency range	87 MHz – 108 MHz
7. AM frequency range	520 kHz – 1720 kHz