



**MP03**

Tuner - CD Player



User Manual

## IMPORTANT SAFETY INSTRUCTIONS

### CAUTION!

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

### 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.



When using this electronic device, basic precautions should always be taken, including the following:

1. Read all instructions before using the product.
2. Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool etc).
3. Use this device when you are sure that player has a stable base and it is fixed securely.
4. This product, in combination with amplifier and loudspeakers may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult with otorhinolaryngologists. The product should be positioned so that proper ventilation is maintained.
5. The product should be located away from heat sources such as radiators, heat vents, or other devices (including amplifiers) that produce heat.
6. The product should be connected to a power supply that is described in the operating instructions or are marked on the product. Replace the fuse only with one of the specified type, size and correct rating.
7. The power supply cord should be undamaged and never share an outlet or extension cord with other devices so that the outlet or extension cord's power rating is exceeded. Never leave device plugged be left plugged in to the outlet when it's not being used for a long period of time.
8. Care should be taken so that objects do not fall into, and liquids would not be spilled through, the enclosure's openings.
9. The product should be serviced by qualified service personnel if:
  - The power supply cord or the plug has been damaged.
  - Objects have fallen into or liquid has been spilled on the product.
  - The product has been exposed to rain.
  - The product has been dropped or the enclosure damaged.
10. There are some areas with high voltage inside, to reduce the risk of electric shock do not remove cover of the player. The cover should be removed by the qualified personnel only. **No user serviceable parts inside.**

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## What's in the box

The accessories which are included in the box are:

- Remote control
- Instruction manual
- Power cable
- 2xAAA batteries

## Hints on installation

Do...

- Use in a well-ventilated room.
- Place on a solid, flat, level surface, such as a table, shelf or stereo rack

Don't...

- Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.
- Place on a window sill or a place where the player will be exposed to direct sunlight.
- Use in an excessively dusty or damp environment.
- Place directly on top of an amplifier, or other component that becomes hot in use.
- Use near television or monitor as you may experience interference-especially if the television uses an indoor antenna.
- Use in a kitchen or other room where the player may be exposed to smoke or steam.
- Use on a thick rug or carpet, or cover with cloth-this may prevent proper cooling of the unit.
- Place on an unstable surface, or one that is not large enough to support all four of the unit's feet.
- Do not use or store batteries in direct sunlight or other hot place, such as inside car or near heater. This can cause batteries to leak, overheat ,explode or catch fire. It can also reduce the life or performance of batteries.

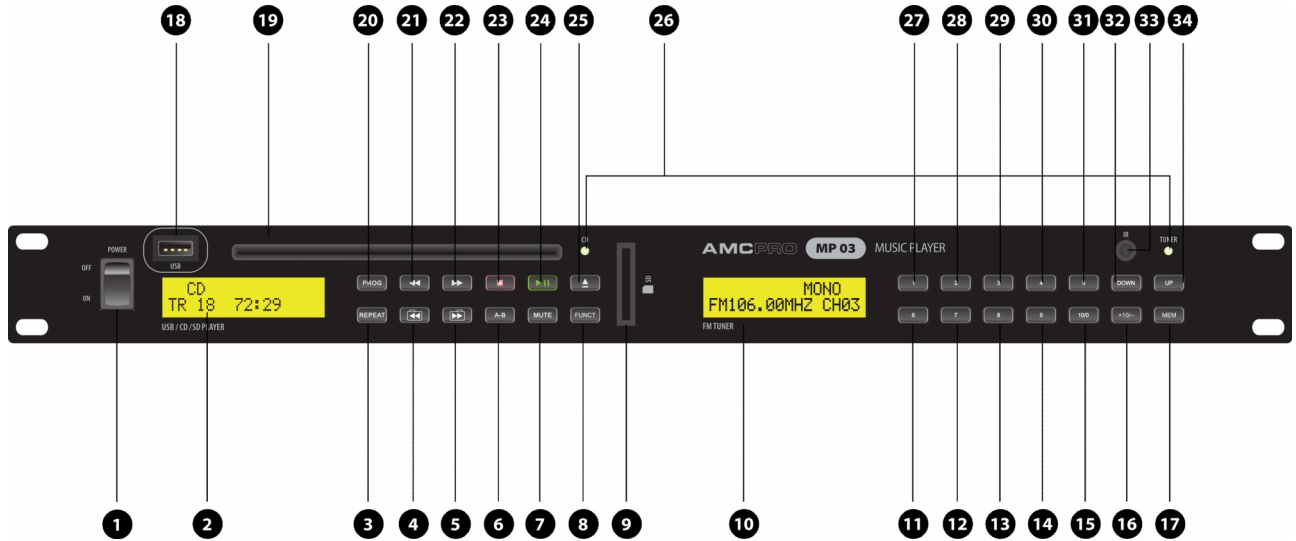
## Disc, flash disc formats

You can play following disc formats: CD, CD-R, CD-RW, it does support CDDA (CD Text) as well as ISO 9660 CD-ROM's. Compressed audio files are supported from USB/SD drive as well as from CD.

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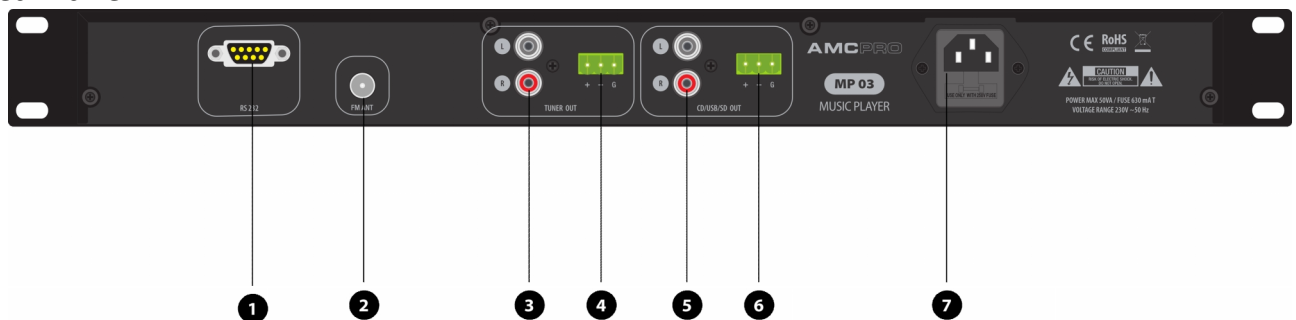
## Controls and connections

### Front Panel



- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Power ON/OFF switch</li> <li>2. CD/USB/SD Display</li> <li>3. Repeat</li> <li>4. Folder skip button</li> <li>5. Folder skip button</li> <li>6. A-B repeat button</li> <li>7. Mute</li> <li>8. CD/USB/SD selector</li> <li>9. SD/MMC slot</li> <li>10. Tuner display</li> <li>11. Station preset button 6</li> <li>12. Station preset button 7</li> <li>13. Station preset button 8</li> <li>14. Station preset button 9</li> <li>15. Station preset button 10</li> <li>16. Jump through 10 radio station</li> <li>17. Memory button</li> </ol> | <ol style="list-style-type: none"> <li>18. USB slot</li> <li>19. CD slot</li> <li>20. Program button</li> <li>21. Track skip button</li> <li>22. Track skip button</li> <li>23. Stop button</li> <li>24. Play/pause button</li> <li>25. CD eject button</li> <li>26. LED indicator for IR remote control</li> <li>27. Station preset button 1</li> <li>28. Station preset button 2</li> <li>29. Station preset button 3</li> <li>30. Station preset button 4</li> <li>31. Station preset button 5</li> <li>32. Station search button (down)</li> <li>33. IR detector for IR remote control</li> <li>34. Stations search button (up)</li> </ol> |
|--|--|

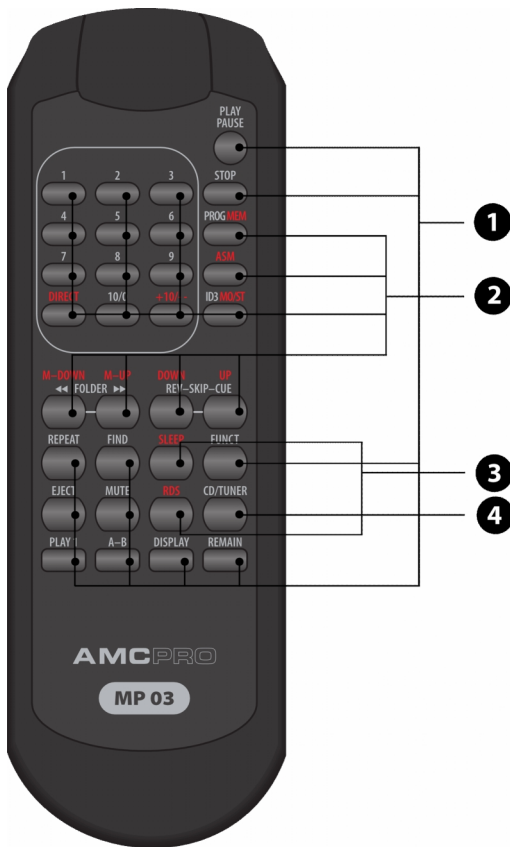
### Rear Panel



- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. 9-pin D-Sub connection for Serial Interface (RS232)</li> <li>2. FM antenna input</li> <li>3. Output from Tuner RCA connector</li> <li>4. Output from Tuner balanced Phoenix connector</li> </ol> | <ol style="list-style-type: none"> <li>5. Output from CD/USB/SD player RCA connector</li> <li>6. Output from CD/USB/SD player balanced Phoenix connector</li> <li>7. Mains power input and AC fuse holder.</li> </ol> |
|--|---|

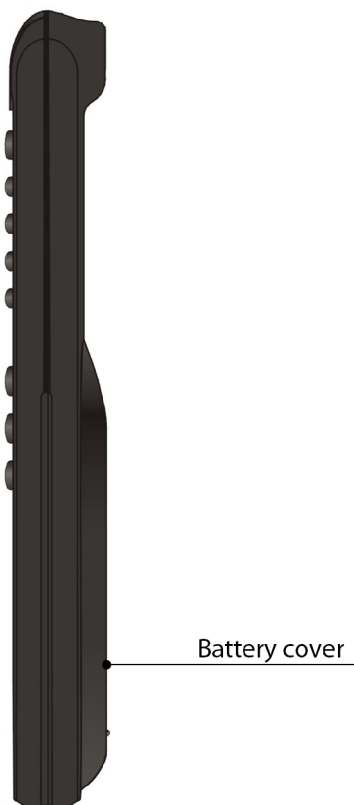
## 6 Controls and connections

### IR remote control



1. IR remote buttons which are assigned to control CD/USB/SD player only.
2. IR remote buttons which are assigned to control both CD/USB/SD player and radio tuner. In white color are marked functions for the CD/USB/SD player, in red – functions for the radio tuner.
3. IR remote buttons which are assigned to control radio tuner player only.
4. This function identifies which part of the player CD/USB/SD or Radio tuner will be sensitive to IR remote control. Selected part is indicated by green color LED on the front panel.

### Batteries changing



1. Open the battery cover.
2. Insert the 2\*AAA batteries in accordance with marks in the remote control battery compartment.
3. Close the battery cover

## Tuner Functions

### MEMORY

This function is designed for adding radio stations in the presets and adjusting the clock.

*Radio tuner is turned on:*

After pressing "Memory" button the preset number starts flashing. Set the preset number by using number keys and press "Memory" to save the preset. At this moment the displayed frequency will be memorized in the selected preset (from 1 to 30). After 5 seconds of inactivity memory mode shuts off automatically.

*Radio tuner is turned off:*

Press "Memory" button and LCD will display the time. Use UP/DOWN keys to adjust minute's, to adjust hours press "Memory" one more time. To confirm the time press "Memory" again.

### UP/DOWN

Auto tuning starts after pressing "UP" or "DOWN" button more than 1,5 sec

When "UP" or "DOWN" button is pressed for a short time manual search mode is activated,

Every time when "UP" button is pressed, the FM frequency is increased by 50kHz. Every time when "DOWN" button is pressed, the FM frequency is decreased by 50kHz.

### +10/--

This key jumps 10 steps through the preset station list. For example. If preset 2 is selected, after pressing +10/-- button preset No. 12 will be selected. if +10/-- button will be pressed one more time preset No. 22 will be selected. Press this button more than 1,5 second and the station number can be added using the numbers' key.

### 10/0

To jump between the 1 and 10 presets stations press "10/0" button.

### SLEEP

The radio tuner automatically turns off after terminated time if the sleep mode is active. The sleep time begins from 90 seconds and changes cyclically 90 80 70 60 50 40 30 20 10 OFF with every pushing the SLEEP key when the sleep time is in the display.

### AMS

This an auto search for radio stations function. Press "AMS" button more than 1,5 seconds and the tuner will search the radio station and store in memory automatically.

### DIRECT

This function allows to set radio stations frequency by using the number buttons. Press this button once, then use the number buttons to input the station frequency, again press "DIRECT" key to confirm the frequency and the tuner will jump to this station. If the input frequency is beyond the range, the tuner will display ERR.

### RDS

This key is useful to change RDS functions\* cyclically PS PTY RT CT

*PS – program service (call letters or station identity name will displayed)*

*PTY - program type (allows easily to find similar program by genre News, Drama, Rock music...)*

*RT - radio text (textual information, usually title and artist of the currently playing song)*

*CT - clock time*

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RDS functions\* - the RDS information and functions depend from radio station broadcasting.

**MUTE**

Press "Mute" button to mute audio output, to disable mute press "Mute" again.

**MO/ST**

Press "MO/ST" button to set mono or stereo mode for the radio tuner.

**ME/UP**

This function allows to jump to the next radio station of the radio station presets.

**ME/DOWN**

This function allows to jump to the previous radio station of the radio station presets.

**CD/TUNER**

This function identifies, which part of the player CD/USB/SD or Radio tuner will be sensitive to IR remote control. Selected part is indicated by green color LED on the front panel.

## CD/USB/SD Functions

**PLAY/PAUSE**

By pressing this key when CD is stopped, play starts after track search.  
When this key is pressed during playing the CD mode is changed in to pause.  
When this key is pressed during CD is paused, it switches back to play mode.

**STOP**

When CD is playing or is in pause mode, by pressing this key it stops.

**FUNC**

This button is designed for audio source selection. (CD/USB/CARD)

**A - B**

This function is for repeat the selected place in the sound track. When sound track is playing press this button one time to set start point and press second time to set end point. For the stopping "A - B" repeat, press "A - B" button one more time.

**CUE**

In stop mode this key changes starting track (file) in ascending order, and automatically goes to first track if it is in the last track.

Single pressed in play mode or program mode changes to next track, in random mode skips to random track.

By pressing longer than 0,7 sec. switches to fast forward mode.

**REV**

In stop mode this key changes starting track (file) in descending order, and automatically goes to the last track if it is in first track.

Single pressed in play mode or program mode changes to previous track (file).

By pressing longer than 0,7 sec switches to fast reverse mode.



**FOLDER >>**

In stop mode this key skips the starting play folder to next folder, and automatically switches to first folder if current folder is last.

In the program entry mode this key switches to next folder's first file, if the folder is last it switches to first folder.

In normal play mode this key skips the playing file and switches to next folder's first file.

**FOLDER <<**

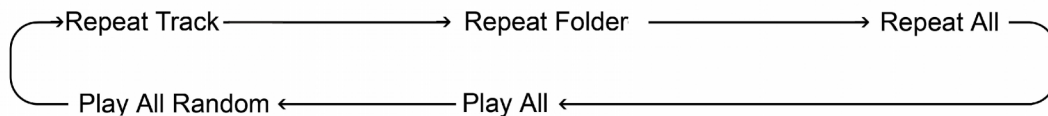
In stop mode this key skips the starting play folder to next previous, and automatically switches to last folder if current folder is first.

In the program entry mode this key switches to previous folder's first file, if the folder is first it switches to last folder.

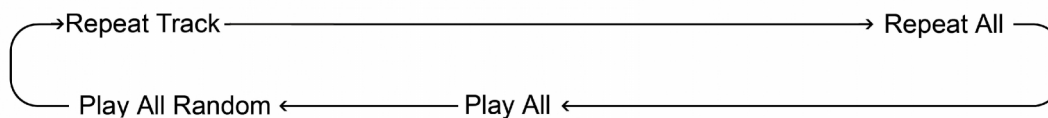
In normal play mode this key skips the playing file and switches to previous folder's first file.

**REPEAT**

In USB/SD mode, when pushing the key PLAY mode switches like shown below:



While pushing the key in CD mode, PLAY mode is changed in this order:

**EJECT**

By pushing this key CD is ejected.

**PROG**

This key is used for programming.

All program is cleared when STOP key is pushed in the programming mode.

**MUTE**

When this key is pushed during CD/USB/SD is playing, the sound in the output is muted. Pressed again the sound is turned on again.

## SPECIFICATIONS

**GENERAL**

1. FM tuner
2. CD/USB/SD player with compressed audio files support.
3. 30 preset for FM station memory.
4. CD with mechanical and electronic anti-shock, CD, CD-R, CD-R/W, USB, SD/MMC available.
5. Input: FM 75 ohm unbalanced antenna terminal.  
USB port, SD/MMC port.
6. Output: Stereo balanced XLR/ Phoenix output for FM tuner.  
Stereo balanced XLR XLR/ Phoenix output for CD/USB/SD player.
7. Power supply : 230V AC 50Hz
8. Power consumption: 50 VA
9. Weight: 3,8kg
10. Dimension: 482mm x 44mm x 250mm

**TUNER SECTION**

1. Output level: -5 dBu
2. Tuning Frequency range 87,5 – 108 MHz
3. Sensitivity 10  $\mu$ V
4. S/N ratio 55 dB
5. Image rejection 45 dB
6. THD 0,1 %
7. Audio channel separation 35 dB

**CD SECTION**

1. Output level: +4dBu ( $\pm$  2dBu)
2. Output level difference between channels 2dB
3. Frequency response 20 Hz 20 KHz
4. Audio channel separation @ 1 KHz 60 dB
5. THD 0,1 %
6. S/N ration 70 dB

## RS-232 commands

Baud rate of 9600,  
8 data bits,  
no parity,  
1 stop bit,  
no flow control.

	Byte				
	1	2	3	4	5
	ASCII	ASCII	ASCII	HEX	HEX
<b>CD</b>					
FOLDER SKIP -	E	A	A	0d	0a
FOLDER SKIP +	E	A	B	0d	0a
DOWN	E	A	C	0d	0a
UP	E	A	D	0d	0a
STOP	E	A	E	0d	0a
PLAY/PAUSE	E	A	F	0d	0a
EJECT	E	A	G	0d	0a
PROG	E	A	H	0d	0a
ESP	E	A	I	0d	0a
ID3	E	A	J	0d	0a
MUTE	E	A	K	0d	0a
REPEAT	E	A	L	0d	0a
FUNC	E	A	M	0d	0a
A-B	E	A	N	0d	0a
0	E	A	0	0d	0a
1	E	A	1	0d	0a
2	E	A	2	0d	0a
3	E	A	3	0d	0a
4	E	A	4	0d	0a
5	E	A	5	0d	0a
6	E	A	6	0d	0a
7	E	A	7	0d	0a
8	E	A	8	0d	0a
9	E	A	9	0d	0a
<b>TUNER</b>					
1	E	C	A	0d	0a
2	E	C	B	0d	0a
3	E	C	C	0d	0a
4	E	C	D	0d	0a
5	E	C	E	0d	0a
6	E	C	F	0d	0a
7	E	C	G	0d	0a
8	E	C	H	0d	0a
9	E	C	I	0d	0a
10/0	E	C	J	0d	0a
+10	E	C	K	0d	0a
DIRECT	E	C	L	0d	0a
DOWN	E	C	M	0d	0a
UP	E	C	N	0d	0a
ME-UP	E	C	0	0d	0a
ME-DOWN	E	C	1	0d	0a
MEMORY	E	C	2	0d	0a
ASM	E	C	3	0d	0a
MO/ST	E	C	4	0d	0a
SLEEP	E	C	5	0d	0a
BAND	E	C	6	0d	0a
Auto search DOWN	E	C	7	0d	0a
Auto search UP	E	C	8	0d	0a
	ASCII	ASCII	ASCII	HEX	HEX
Answer from device if all ok	+	O	K	0d	0a
Answer from device if not all ok	+	E	R	0d	0a

NOTICE: The partition between two orders must exceed 300ms, But the partition between "Auto search DOWN" and "Auto search UP" must exceed 800ms.

This commands' list is suitable for MP03 with SD card only.

