



**MP 03**

CD/USB/FM player



User Manual

**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.

**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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## What's in the box

The accessories which are included in the box are:

- Remote control
- ~~FM~~ FM Antenna
- ~~Instruction~~ Instruction manual
- ~~Power~~ Power cable
- 

## 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...

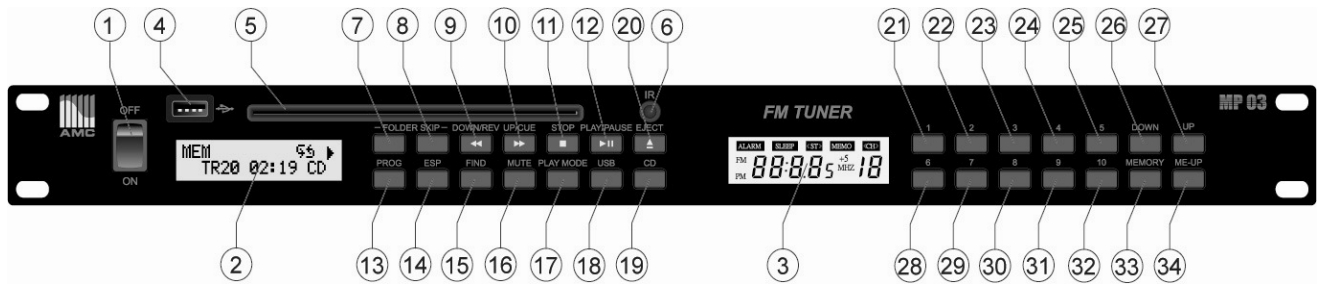
- Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.
- Place on a window sill or a place where the player will be exposed to direct sunlight.
- Use in an excessively dusty or damp environment.
- Place directly on top of an amplifier, 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 format playback

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 with Compressed audio files. Also compressed audio files are supported from USB drive.

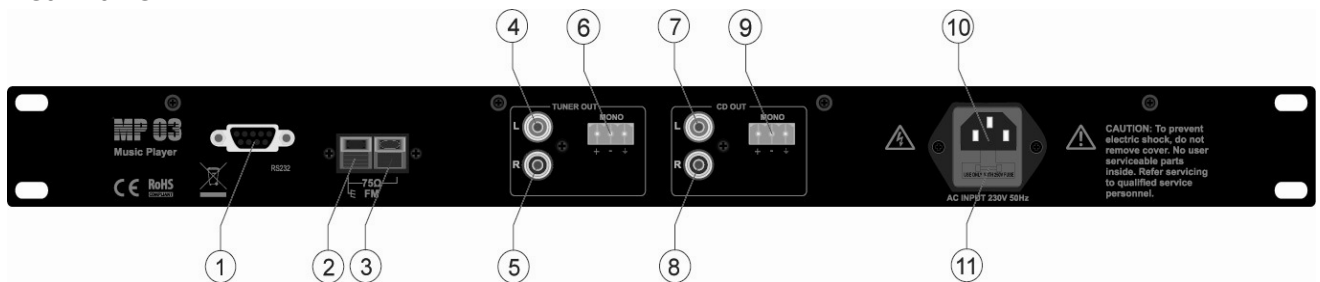
## 5 Controls and connections

### Front Panel



- |                                 |                                      |
|---------------------------------|--------------------------------------|
| 1. Power ON/OFF switch          | 18. USB Mode                         |
| 2. CD Display                   | 19. CD Mode                          |
| 3. Tuner Display                | 20. Eject                            |
| 4. USB Slot                     | 21. Track / Station Preset Button 1  |
| 5. CD Slot                      | 22. Track / Station Preset Button 2  |
| 6. IR Indicator                 | 23. Track / Station Preset Button 3  |
| 7. Folder-Down                  | 24. Track / Station Preset Button 4  |
| 8. Folder-Up                    | 25. Track / Station Preset Button 5  |
| 9. Down/Rev                     | 26. Down Key                         |
| 10. Up/Cue                      | 27. Up Key                           |
| 11. Stop                        | 28. Track / Station Preset Button 6  |
| 12. Play/Pause                  | 29. Track / Station Preset Button 7  |
| 13. Programming                 | 30. Track / Station Preset Button 8  |
| 14. Electronic shock protection | 31. Track / Station Preset Button 9  |
| 15. Find                        | 32. Track / Station Preset Button 10 |
| 16. Mute                        | 33. Memory                           |
| 17. Play Mode                   | 34. ME-UP                            |

### Rear Panel



- |   |                                      |
|---|--------------------------------------|
| 1. 9-pin D-Sub connection for Serial    | 7. CD left channel RCA output        |
| 2. FM antenna input ground              | 8. CD right channel RCA output       |
| 3. FM antenna input                     | 9. Balanced CD out Phoenix connector |
| 4. Tuner left channel RCA output        | 10. Mains input socket               |
| 5. Tuner right channel RCA output       | 11. AC fuse holder                   |
| 6. Balanced Tuner out Phoenix connector |                                      |

## Tuner Functions

### MEMORY

Memory mode is activated by pressing the "Memory" key, "MEMO" flashes in the display, Tuned frequency is written to memory by pressing in the memory mode wanted preset button from 1 to 10. After 5 seconds of inactivity memory mode shuts off automatically.

### UP/DOWN

Seek tuning starts after pressing "UP" or "DOWN" key for more than 0,5 sec  
When "UP" or "DOWN" key is pressed for a short time manual search mode is activated,  
1 Push / 1 step.

### ME-UP

You can select preset memory station by pressing "ME-UP" key. Pressing once, number of preset memory station will increase by one. By pressing continuously, number of station memory preset will increase from one to ten by cycle.

## CD 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.

### CD

By pressing this key the player switches to CD-Compressed Audio playback mode.

### USB

By pressing this key the player switches to USB mode.

### UP/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.

### DOWN/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-UP**

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-DOWN**

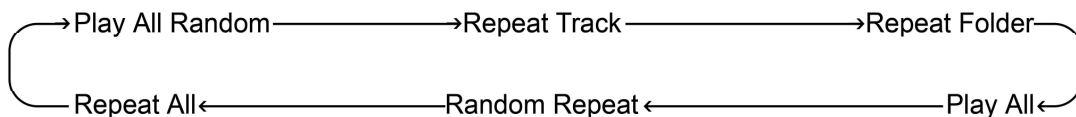
In stop mode this key skips the starting play folder to next previous, and automatically switches to last folder if current folder is first.

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.

**PLAY MODE**

In compressed audio and USB 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 programs are cleared when STOP key is pushed in the programming mode.

**MUTE**

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

**ESP**

When "ESP" key is pressed in CDDA mode electronic shock protection mode is turned on, you can see the state in the display. Electronic anti shock time is about 40 seconds. ESP function is canceled by pressing "ESP" key again.

**FIND**

By pressing this key once in Compressed audio playback mode, search mode is changed into FILE search. By pressing this key twice search mode is changed into ALBUM search. If "FIND" key is pressed for long, track time is displayed, if pressed twice ID3 tag is displayed.

**0~10**

You can use these keys for selecting wanted track directly.

## RS-232 commands

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

Byte	1 ASCII	2 ASCII	3 ASCII	4 HEX	5 HEX
CD Buttons					
FOLDER SKIP -	E	N	A	0d	0a
FOLDER SKIP +	E	N	B	0d	0a
DOWN/REV	E	N	C	0d	0a
UP/CUE	E	N	D	0d	0a
STOP	E	N	E	0d	0a
PLAY/PAUSE	E	N	F	0d	0a
EJECT	E	N	G	0d	0a
PROG	E	N	H	0d	0a
ESP	E	N	I	0d	0a
FIND	E	N	J	0d	0a
MUTE	E	N	K	0d	0a
PLAY MODE	E	N	L	0d	0a
USB/CARD	E	N	M	0d	0a
CD	E	N	N	0d	0a
0	E	N	0	0d	0a
1	E	N	1	0d	0a
2	E	N	2	0d	0a
3	E	N	3	0d	0a
4	E	N	4	0d	0a
5	E	N	5	0d	0a
6	E	N	6	0d	0a
7	E	N	7	0d	0a
8	E	N	8	0d	0a
9	E	N	9	0d	0a
FM Buttons					
1	E	N	a	0d	0a
2	E	N	b	0d	0a
3	E	N	c	0d	0a
4	E	N	d	0d	0a
5	E	N	e	0d	0a
6	E	N	f	0d	0a
7	E	N	g	0d	0a
8	E	N	h	0d	0a
9	E	N	i	0d	0a
10	E	N	j	0d	0a
DOWN	E	N	k	0d	0a
UP	E	N	l	0d	0a
MEMORY	E	N	m	0d	0a
ME-UP	E	N	n	0d	0a
Autosearch DOWN	E	N	o	0d	0a
Autosearch UP	E	N	p	0d	0a
Answer from device if all ok +	O	K	0d	0a	
Answer from device if not all ok	+	E	R	0d	0a

NOTICE: Two command send out the partition exceed 110 ms. But, "Autosearch DOWN" and "Autosearch UP" commands needs 580 ms.

**GENERAL**

1. FM synthesizer tuner
2. RS-232 input
3. 10 preset memories
4. CD with mechanical and electronic anti-shock, CD, CD-R, CD-R/W, Compressed audio CD's, USB with compressed audio files available
5. Input/Output
  - A. Input: FM 75 Ohm unbalanced antenna terminals  
USB port for memory stick
  - B. Output 1: Balanced audio output for FM mono channel  
Balanced audio output for CD mono channel
  - C. Output 2: RCA jack stereo output for FM L and R channel  
RCA jack stereo output for CD L and R channel
6. Power supply : 230 V AC
7. Power consumption: 50 VA
8. Weight: 3,3 kg
9. Dimension: 482 mm x 44 mm x 250 mm

**TUNER SECTION**

- |   |                  |
|---|------------------|
| 1. Tuning Frequency range                                 | - 87,5 – 108 MHz |
| 2. IF frequency   | - 10,7 MHz       |
| 3. 30dB quieting sensitivity                              | < 10 $\mu$ V     |
| 4. S/N ratio (A weighted, @ 65 dB)                        | > 60 dB          |
| 5. 3 dB limiting  | < 8 $\mu$ V      |
| 6. IF rejection   | > 75 dB          |
| 7. Image rejection  | > 25 dB          |
| 8. THD (@ 1 mV 40 kHz dev.)                               | < 0.8 %          |
| 9. Frequency response (6dB point 50 $\mu$ V de- emphasis) | 100 Hz ~ 10 kHz  |

**CD SECTION**

- |  |                 |
|--|-----------------|
| 1. Output level:                                     | 1.2V $\pm$ 2dB  |
| 2. Output level difference between channels          | Less than 2dB   |
| 3. Frequency response (Using 1 kHz 0dB as reference) | 20 Hz 20 kHz    |
| 4. Separation @ 1 kHz                                | More than 60 dB |
| 5. THD @ 1kHz  | Less than 0.1 % |
| 6. S/N ration @1kHz                                  | More than 70 dB |

