



MP03

Tuner - CD 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.

	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 than 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
- Instruction manual
- 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...

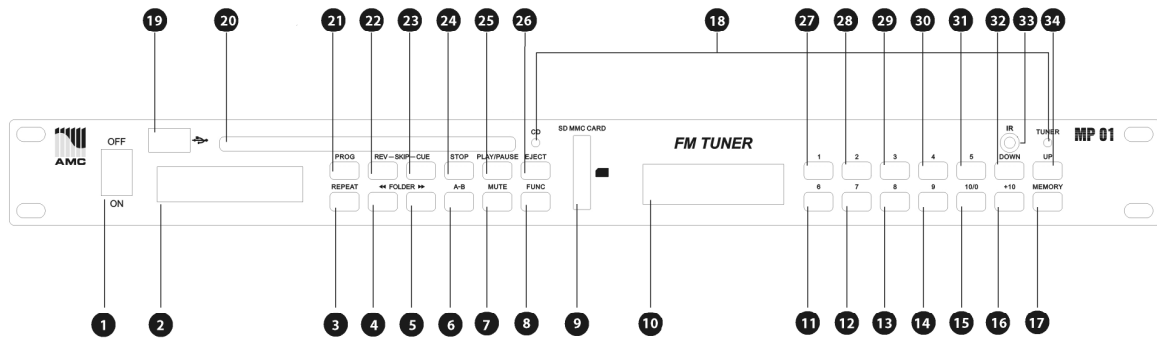
- Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.
- Place on a window sill or a place where the player will be exposed to direct sunlight.
- Use in an excessively dusty or damp environment.
- Place directly on top of an amplifier,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

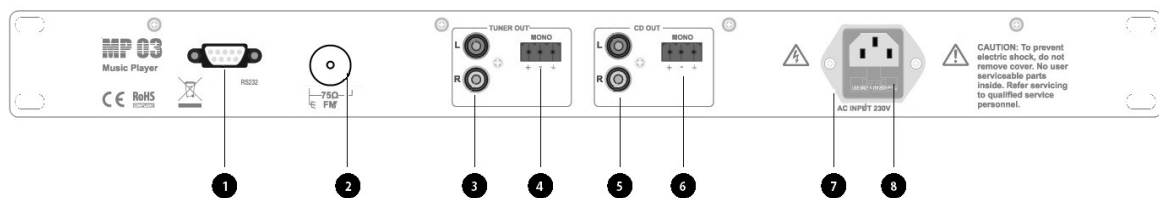
5 Controls and connections

Front Panel



- | | |
|-----------------------------------|---|
| 1. Power ON/OFF switch | 18. LED indicator for IR remote control |
| 2. CD Display | 19. USB slot |
| 3. Repeat | 20. CD slot |
| 4. Folder skip button | 21. Program button |
| 5. Folder skip button | 22. Track skip button |
| 6. A-B repeat button | 23. Track skip button |
| 7. Mute | 24. Stop button |
| 8. CD/USB/SD selector | 25. Play/pause button |
| 9. SD/MMC slot | 26. CD eject button |
| 10. Tuner display | 27. Station preset button 1 |
| 11. Station preset button 6 | 28. Station preset button 2 |
| 12. Station preset button 7 | 29. Station preset button 3 |
| 13. Station preset button 8 | 30. Station preset button 4 |
| 14. Station preset button 9 | 31. Station preset button 5 |
| 15. Station preset button 10 | 32. Station search button (down) |
| 16. Jump through 10 radio station | 33. IR detector for IR remote control |
| 17. Memory button | 34. Stations search button (up) |

Rear Panel



- | | |
|--|--|
| 1. 9-pin D-Sub connection for Serial Interface (RS232) | 5. Output from CD/USB/SD player RCA connector |
| 2. FM antenna input | 6. Output from CD/USB/SD player balanced Phoenix connector |
| 3. Output from Tuner RCA connector | 7. Mains power input. |
| 4. Output from Tuner balanced Phoenix connector | 8. AC fuse holder |

Tuner Functions

MEMORY

This function is designed for adding radio stations in the presets. Memory mode is activated by pressing the "Memory" button. After pressing "Memory" button display will displays "MEMO" logo. At this moment the displayed frequency will be memorized in the selected preset (from 1 to 60) when "Memory" button will be pressed "one more time. 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.

+10

This key jumps 10 steps through the presets stations list. For example. If preset 2 is selected, after pressing +10 button preset No 12 will be selected. if +10 button will by pressed one more time preset No 22 will be selected.

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.

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 <<

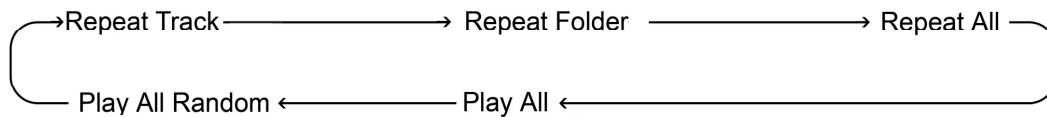
In stop mode this key skips the starting play folder to next previous, and automatically switches to last folder if current folder is first.

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 output is muted. Pressed again the sound is turned on again.

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
CD					
FOLDER SKIP -	E	A	A	0d	0a
FOLDER SKIP +	E	A	B	0d	0a
DOWN	F	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
TUNER					
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.

SPECIFICATIONS

GENERAL

1. FM tuner
2. CD/USB/SD player with compressed audio files support.
3. 60 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 antenna terminal
USB port, SD/MMC port
6. Output: Stereo balanced XLR output for FM tuner
Stereo balanced XLR output for CD/USB/SD player.
7. Power supply : 230V AC 50Hz
8. Power consumption: 50 VA
9. Weight: 3,5kg
10. Dimension: 482mm*44mm*250mm

TUNER SECTION

1. Tuning Frequency range 87,5 – 108 MHz
2. IF frequency 10,7 MHz
3. 30dB quieting sensitivity 10 μ V
4. S/N ratio 60 dB
6. IF rejection 75 dB
7. Image rejection 25 dB
8. THD 0.8 %
9. Frequency response 100 Hz ~ 10 KHZ

CD SECTION

1. Output level: 1.2V \pm 2dB
2. Output level difference between channels 2dB
3. Frequency response 20 Hz 20 KHz
4. Channel separation @ 1 KHz More than 60 dB
5. THD Less than 0.1 %
6. S/N ration More than 70 dB