



Model Number: CO-30MD 16514

PUBLIC ADDRESS SYSTEM

AMPLIFIER

Instruction



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TROUBLESHOOTING

No Power

- Check if the AC power cord is properly inserted into the AC mains socket.
- Check if the DC cable is connected properly to the DC source. (Car battery DC 12V)
- Check the Switch position while selecting Power source AC or DC.
- In DC check the supply polarity. Confirm the battery voltage. Check if the fuse is blown.

Noise

- Check amplifier earthing connections properly connected to earth terminal.

No Sound

- Check if the amplifier is powered on.
- Check the front panel positions for Volume control.
- Check proper input signal given to amplifier.

Slow operations of the USB flash drive or SD card

- Large file size or high memory USB flash drive/SD card takes longer time to read & play.
- Cannot detect USB flash drive or SD card.
- Take out USB drive or SD card and insert it again properly. Switch Off set & switch On again

No FM Signal reception

- Check FM antenna is properly inserted.
- Scan FM stations with proper key to select /play available FM stations.

FM Disclaimer:

Company does not guarantee FM performance at all locations. FM performance of the set may get severely compromised due to poor strength of FM signal which is beyond the control of amplifier. In such cases, you can try extending FM antenna cable to improve FM signal reception.

Amplifier gets Hot during operation

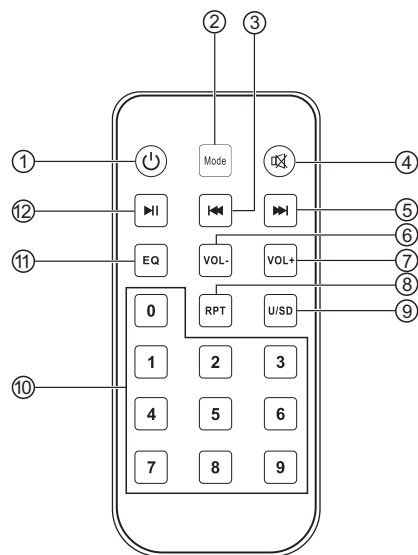
- Proper ventilation not provided.
- Speaker mismatch /Overloading.

Caution:

- Do not cover top area of amplifier with any other material. It will affect amplifier ventilation and may cause higher temperature and failure as result.

REMOTE CONTROL

Remote control:



- ① **Power**: Press this key to power ON & Off the system.
- ② **MODE**: To select input between USB/SD/FM/AUX.
- ③ **Left Arrow**: In USB/SD mode Single press to select previous track. In FM mode single press to select previous stored station
- ④ **Mute**: Single press this key to MUTE/UN-MUTE system.
- ⑤ **Right Arrow**: **NEXT VOL+**: In USB/SD mode Single press to select next track. In FM mode single press this key to select next stored station.
- ⑥ **VOL-**: Single press this key to decrease volume.
- ⑦ **VOL+**: Single press this key to increase volume.
- ⑧ **RPT**: Single press this key to repoeat song in USB/SD mode.
- ⑨ **U/SD**:To select input between USB/SD.
- ⑩ **Keys 0-9**: Sinlge press this key to play 0-9 tracks in USB/SD mode. Single press in FM mode to select stored stations.
- ⑪ **EQ**: Single press this key to select EQ mode between ROCK,JAZZ,POP, CLASIC, Flat
- ⑫ **PLAY PAUSE**: In USB/SD/FM Mode press this key to start,pause resume play. In FM mode long press this key to scan available stations. Set will stored all available stations in memory.

WELCOME

Thank you for purchasing DROM POWER product.Please read all instructions carefully before operation ,to ensure you complete understanding and to obtain the best possible performance from the unit.

For safety....

⚠ This symbol, wherever it appears, alerts you to the presence of uninsulated hazardous voltage that may be sufficient to constitute a risk of electric shock. External wiring to any terminal marked with this symbol must be done by a trained and instructed person only.

⚠ This symbol, wherever it appears adjacent to a component, alerts you that the concerned component can only be replaced by another of the exact same specifications.

CAUTIONS AND NOTES

• WARNING

To reduce the risk of electronic shock, do not remove the top cover.No user serviceable parts inside. Refer all servicing to qualified personnel only.Before replacing any fuse, make sure the set is switched off and disconnected from the AC mains or any other of power source. Replace a fuse only with another of exactly same specification.

CAUTIONS

- **Power Source**: The voltage & frequency of the AC mains supply, and the voltage of the external battery , (if applicable) to which this set can be connected, is marked on the rear panel of the set. Do not connect this set to any power source other than those specified on the rear panel.
- **Power cord Protection**: Do not cut, kink, damage or modify the AC power cord supplied with this set. Keep the AC power cord away from heaters and harmful chemicals. Do not keep any heavy object on the power cord.
- **Operation on Generator**: When operating this set on a generator ,make sure the set is switched off till the generator voltage has stabilized.
- **Ventilation**: This set should be situated so that its location or position does not interfere with its proper ventilation. Do not cover the ventilation holes / slots. Do not insert or drop anything into the ventilation holes /slots.
- **Stability**: This sets must kept in a stable and flat horizontal position, and never in a tilted position. Do not place this set on an unstable stand, tripod, bracket or mount, do not use attachments which are not supplied or explicitly recommended by the manufacture.
- **Earthing**: This set must be earthed properly before use. A wire from the Earth terminal on the rear panel must be connected to electrical earth.
- **Exposure to Heat**: Do not touch the heat sinks while the set is working.

DO NOT disassemble the unit since there are no user serviceable parts inside.

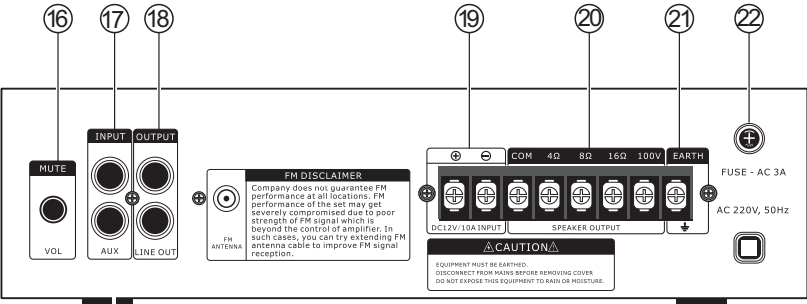
SPECIFICATIONS*

Power output:	35W RMS at 10% THD
Input/Sensitivities:	3*MIC 10mV/10KΩ (MIC source impedance 600Ω to 1KΩ) 1*AUX 250mV/47KΩ
Frequency Response:	20Hz-18,000Hz +/-2dB
Bass Control:	+/-10dB
Treble Control:	+/-10dB
Signal to Noise Ratio:	60dB
USB/INTERFACE :	Class Support: UMS(USB Mass Storage Class) Capacity: Up to 4GB USB Interface: Type A
SD CARD INTERFACE:	Compatibility: SD Capacity: Up to 4GB Interface: Standard SD card socket
Output speaker Taps:	4Ω/8Ω/16Ω&100V
Power Supply:	AC: 220V 50Hz DC: 12-14V(Car battery) DC 8A/AC 3A
Dimensions:	W250×D245×H65mm
Weight:	3.5 Kg approx
Supplied Accessories:	User manual*1pc Warranty card*1pc

CONTROLS

- ⑩ **MIC 2:** Rotate this knob clockwise to increase MIC 2 volume level. Rotate this knob anticlockwise to decrease MIC 2 Volume Level. User can set knob position to desired level for MIC 2 to get mixed with other MIC I/P or USB/SD/FM/AUX input.
- ⑪ **MIC 3:** Rotate this knob clockwise to increase MIC 3 volume level. Rotate this knob anticlockwise to decrease MIC 3 Volume Level. User can set knob position to desired level for MIC 3 to get mixed with other MIC I/P or USB/SD/FM/AUX input.
- ⑫ **ECHO:** Rotate this knob clockwise to add echo with MIC signal.
- ⑬ **Bass:** Rotate this knob clockwise/Anticlockwise to adjust desired Bass effect level.
- ⑭ **Treble:** Rotate this knob clockwise/Anticlockwise to adjust desired Treble effect level.
- ⑮ **USB/SD/FM-VOL:** Rotate this knob anticlockwise to decrease Volume level for input USB/SD/FM.
- ⑯ **AUX-VOL:** Rotate this knob clockwise to increase volume level for input AUX. Rotate this knob anticlockwise to decrease volume level for input AUX.

Rear Panel:



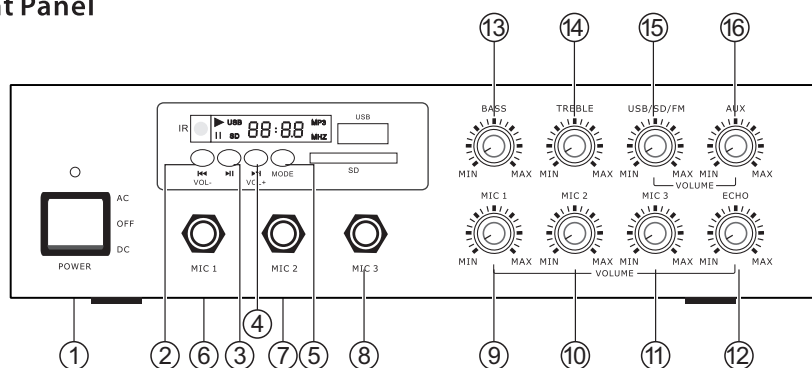
- ⑯ **MUTE:** Rotate this knob clockwise to balance the fade in & fade out of MIC input signal with USB/SD/FM AUX signal.
- ⑰ **Aux Input:** For 2RCA AUX input jack socket.
- ⑱ **Line Out:** For 2RCA AUX Line OUT jack socket.
- ⑲ **Battery Terminal Strip:** For connecting a 12V Car battery as standby power source
- ⑳ **Speaker Terminal Strip:** 4Ω, 8Ω, 16Ω for connecting low impedance speakers. 100V Line for connecting column Speakers/Ceiling speakers/Drive units with 100V line matching transformer.
- ㉑ **EARTH Terminal:** To earth the amplifier
- ㉒ **FUSE:** AC Fuse 4A

Caution

- The equipment must be earthed properly before operating it to avoid electric shock. A wire from the Earth Terminal must be connected to electrical earth for safe operation.
- In car battery operation, make sure the battery is hot in charging mode & battery voltage not more than +14V.

CONTROLS

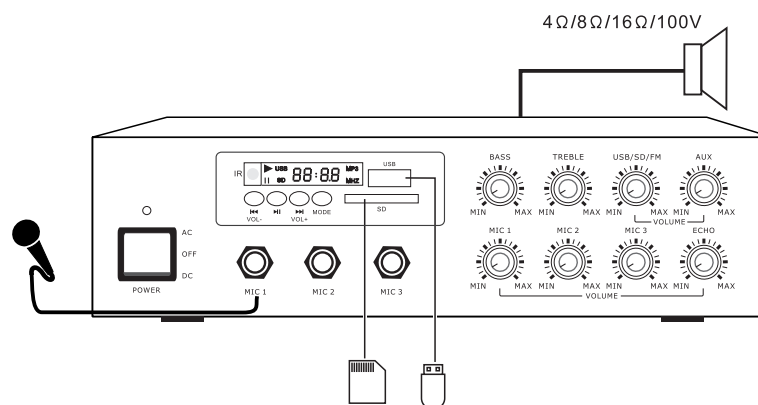
Front Panel



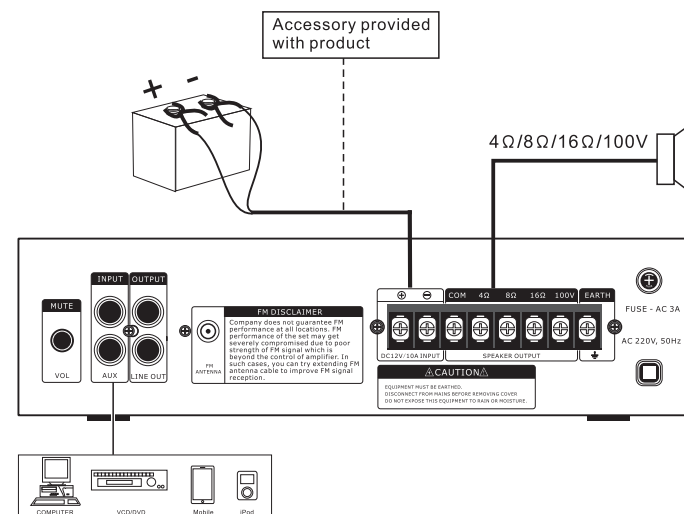
- Power Switch:** Put the power switch in “AC” position if connected to AC mains supply, or put the power switch in “DC” position if connected to battery. Put the power switch in middle position marked as “O” to turn off the amplifier.
- ◀ PREV VOL-:** In USB/SD mode Single press this key to select previous track. Long press this key to decrease volume. In FM mode single press this key to select previous stored station.
- ⏸ PLAY PAUSE:** In USB/SD/FM Mode press this key to start, pause resume play. In FM mode long press this key to scan available stations. Set will stored all available stations in memory.
- ▶ NEXT VOL+:** In USB/SD mode Single press to select next track. Long press this key to increase volume. In FM mode single press this key to select next stored station.
- MODE:** To select input between USB/SD/FM/AUX.
- MIC1:** For Microphone 1 Input Jack socket
- MIC2:** For Microphone 2 Input Jack socket
- MIC3:** For Microphone 3 Input Jack socket
- MIC 1:** Rotate this knob clockwise to increase MIC 1 volume level. Rotate this knob anticlockwise to decrease MIC 1 Volume Level. User can set knob position to desired level for MIC 1 to get mixed with other MIC I/P or USB/SD/FM/AUX input.

CONNECTIONS

Preferred system connections For PA Amplifier



DC connection



Note

- Suggested configuration may vary with different speaker load & speaker configurations.
- Please carefully read all safety & operating instructions mentioned in user manual provided with the product before installation & use.

CONNECTIONS

Placement:

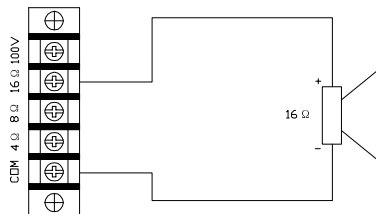
The following illustration shows a typical installation to get the best performance from amplifier. Although these instructions explain how to install amplifier in a general sense. If you do not have the necessary tools or experience, do not attempt to do the connections yourself. Instead, please ask authorised dealer about professional connections.

Low impedance Speaker Connections

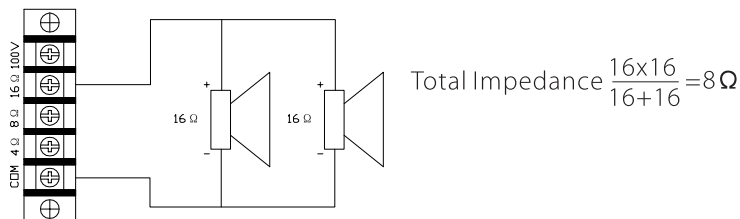
Speaker impedance taps of 4, 8 & 16Ω have been provided at the rear. Always use 23/36 or thicker speaker cable to reduce power loss in the cables. Make proper impedance matching speaker connections as explained below.

Connecting speaker without Line Matching Transformer

Connection of one speaker/driver unit of 16Ω impedance to properly matched terminals is shown as below.



Connection two Speakers/Driver units of 16Ω impedance in parallel is shown as below.



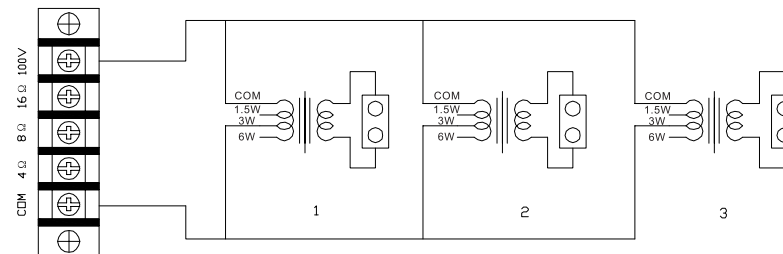
Similarly you can connect series/parallel combination of different speaker impedances resulting final impedance matching to one of the impedance taps provided at rear.

IMPORTANT

- Always connect (-) of drive unit/speaker to common of the output terminal strip of the amplifier and connect (+) to the 4Ω/8Ω/16Ω tap of the strip.

Connecting Speakers with line matching transformer

Connection of single/multiple speaker/driver unit with line matching transformer is shown as below.



Correct Phasing of Loudspeakers

When two or more Speakers/Units are installed in the same area & facing the same direction, will be cancelling the sound level of the each other if connected with reverse polarity.

To avoid any mistake the terminals of Box Speakers & the Driver Units are marked '+' & '-', Always connect the COM of the amplifier to '-' of speakers & 4Ω/8Ω/16Ω of the amplifier to the '+' of the speakers.

In case of LMTs the common terminal of all the LMTs should be connected to the 'COM' tap & the power tap to 100V line tap provided at rear panel as shown in above figure.

OPERATION OF AMPLIFIER

Operation on AC Mains

- Set all Volume Controls to 'MIN' position.
- Connect the speakers at output speakers taps according to load (4Ω/8Ω/16Ω/100V) and required inputs (AUX/USB/SD/MIC) to the amplifier.
- Plug-in the AC power supply cord to the nearest AC Mains Socket and put the power switch provided on front panel to 'AC' position.
- The Red LED should start glowing.
- Amplifier is ready for operation.
- Adjust the Volume, Bass, Treble controls to the desired levels.

Operation on 12V Car Battery

- Connect the speakers and required inputs to the amplifier.
- Connect positive pole of the battery to the screw terminal of the battery strip marked '+' and the negative pole to the screw terminal marked '-'.
- Set the Power switch to 'DC' position.
- The Red LED should glow. In case it does not glow check the battery polarity.
- The amplifier is ready for operation.
- Adjust the Volume, Bass, Treble controls to the desired levels.
- To switch off the amplifier on Car Battery Operation, disconnect supply to battery terminals at the rear.



Model Number: CO-60MD 16515

PA AMPLIFIER



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TROUBLESHOOTING

No Power

- Check if the AC power cord is properly inserted into the AC mains socket.
- Check if the DC cable connected properly to DC source. (Car battery DC 12V)
- Check the Switch position while selecting Power source AC or DC.
- In DC check the supply polarity. Confirm the battery voltage. Check if the fuse is blown.

Noise

- Check amplifier earthing connections properly connected to earth terminal.

No Sound

- Check if the amplifier is powered on.
- Check the front panel positions for Volume control.
- Check proper input signal given to amplifier.

Slow operations of the USB flash drive or SD card

- Large file size or high memory USB flash drive/SD card takes longer time to read & play.
- Cannot detect USB flash drive or SD card.
- Take out USB drive or SD card and insert it again properly. Switch Off set & switch On again

No FM Signal reception

- Check FM antenna is properly inserted.
- Scan FM stations with proper key to select /play available FM stations.

FM Disclaimer:

Company does not guarantee FM performance at all locations. FM performance of the set may get severely compromised due to poor strength of FM signal which is beyond the control of amplifier. In such cases, you can try extending FM antenna cable to improve FM signal reception.

Amplifier gets Hot during operation

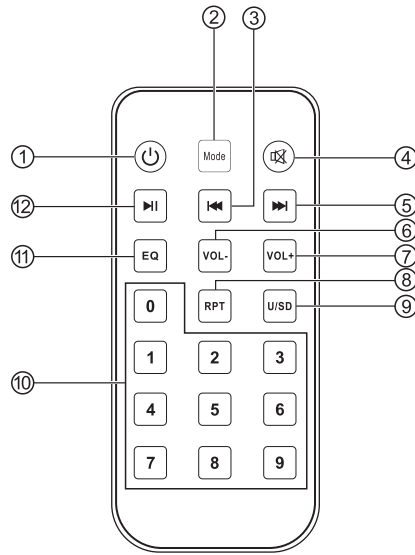
- Proper ventilation not provided.
- Speaker mismatch /Overloading.

Caution:

- Do not cover top area of amplifier with any other material. It will affect amplifier ventilation and may cause higher temperature and failure as result.

REMOTE CONTROL

Remote control:



- ① **Power**: Press this key to power ON & Off the system.
- ② **MODE**: To select input between USB/SD/FM/AUX.
- ③ **Previous**: In USB/SD mode Single press to select previous track. In FM mode single press to select previous stored station
- ④ **Mute**: Single press this key to MUTE/UN-MUTE system.
- ⑤ **Next**: **NEXT VOL+**: In USB/SD mode Single press to select next track. In FM mode single press this key to select next stored station.
- ⑥ **VOL-**: Single press this key to decrease volume.
- ⑦ **VOL+**: Single press this key to increase volume.
- ⑧ **RPT**: Single press this key to repoeat song in USB/SD mode.
- ⑨ **U/SD**:To select input between USB/SD.
- ⑩ **Keys 0-9**: Sinlge press this key to play 0-9 tracks in USB/SD mode. Single press in FM mode to select stored stations.
- ⑪ **EQ**: Single press this key to select EQ mode between ROCK,JAZZ,POP, CLASIC, Flat
- ⑫ **PLAY PAUSE**: In USB/SD/FM Mode press this key to start,pause resume play. In FM mode long press this key to scan available stations. Set will stored all available stations in memory.

WELCOME

For safety....

This symbol, wherever it appears, alerts you to the presence of uninsulated hazardous voltage that may be sufficient to constitute a risk of electric shock. External wiring to any terminal marked with this symbol must be done by a trained and instructed person only.

This symbol, wherever it appears adjacent to a component, alerts you that the concerned component can only be replaced by another of the exact same specifications.

CAUTIONS AND NOTES

• WARNING

To reduce the risk of electronic shock, do not remove the top cover.No user serviceable parts inside. Refer all servicing to qualified personnel only.Before replacing any fuse, make sure the set is switched off and disconnected from the AC mains or any other of power source. Replace a fuse only with another of exactly same specification.

CAUTIONS

- **Power Source**: The voltage & frequency of the AC mains supply, and the voltage of the external battery , (if applicable) to which this set can be connected, is marked on the rear panel of the set. Do not connect this set to any power source other than those specified on the rear panel.
- **Power cord Protection**: Do not cut, kink, damage or modify the AC power cord supplied with this set. Keep the AC power cord away from heaters and harmful chemicals. Do not keep any heavy object on the power cord.
- **Operation on Generator**: When operating this set on a generator ,make sure the set is switched off till the generator voltage has stabilized.
- **Ventilation**: This set should be situated so that its location or position does not interfere with its proper ventilation. Do not cover the ventilation holes / slots. Do not insert or drop anything into the ventilation holes /slots.
- **Stability**: This sets must kept in a stable and flat horizontal position, and never in a tilted position. Do not place this set on an unstable stand, tripod, bracket or mount, do not use attachments which are not supplied or explicitly recommended by the manufacture.
- **Earthing**: This set must be earthed properly before use. A wire from the Earth terminal on the rear panel must be connected to electrical earth.
- **Exposure to Heat**: Do not touch the heat sinks while the set is working.

DO NOT disassemble the unit since there are no user serviceable parts inside.

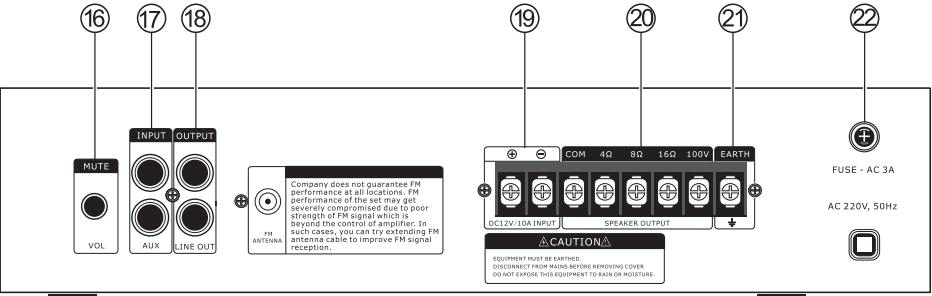
SPECIFICATIONS*

Power output:	60W RMS at 10% THD
Input/Sensitivities:	3*MIC 10mV/10KΩ (MIC source impedance 600Ω to 1KΩ) 1*AUX 250mV/47KΩ
Frequency Response:	20Hz-18,000Hz +/-2dB
Bass Control:	+/-10dB
Treble Control:	+/-10dB
Signal to Noise Ratio:	60dB
USB/INTERFACE :	Class Support: UMS(USB Mass Storage Class) Capacity: Up to 4GB USB Interface: Type A
SD CARD INTERFACE:	Compatibility: SD Capacity: Up to 4GB Interface: Standard SD card socket
Output speaker Taps:	4Ω/8Ω/16Ω&100V
Power Supply:	AC: 220V 50Hz DC: 12-14V(Car battery) DC 8A/AC 3A
Dimensions:	W300×D245×H66mm
Weight:	3.5 Kg approx
Supplied Accessories:	User manual*1pc Warranty card*1pc

CONTROLS

- ⑩ **MIC 2:** Rotate this knob clockwise to increase MIC 2 volume level. Rotate this knob anticlockwise to decrease MIC 2 Volume Level. User can set knob position to desired level for MIC 2 to get mixed with other MIC I/P or USB/SD/FM/AUX input.
- ⑪ **MIC 3:** Rotate this knob clockwise to increase MIC 3 volume level. Rotate this knob anticlockwise to decrease MIC 3 Volume Level. User can set knob position to desired level for MIC 3 to get mixed with other MIC I/P or USB/SD/FM/AUX input.
- ⑫ **ECHO:** Rotate this knob clockwise to add echo with MIC signal.
- ⑬ **Bass:** Rotate this knob clockwise/Anticlockwise to adjust desired Bass effect level.
- ⑭ **Treble:** Rotate this knob clockwise/Anticlockwise to adjust desired Treble effect level.
- ⑮ **USB/SD/FM-VOL:** Rotate this knob anticlockwise to decrease Volume level for input USB/SD/FM.
- ⑯ **AUX-VOL:** Rotate this knob clockwise to increase volume level for input AUX. Rotate this knob anticlockwise to decrease volume level for input AUX.

Rear Panel:



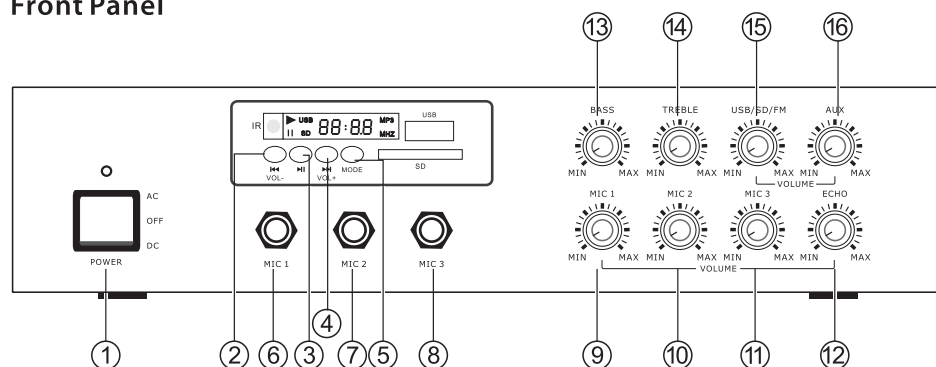
- ⑯ **MUTE:** Rotate this knob clockwise to balance the fade in & fade out of MIC input signal with USB/SD/FM AUX signal.
- ⑰ **Aux Input:** For 2RCA AUX input jack socket.
- ⑱ **Line Out:** For 2RCA AUX Line OUT jack socket.
- ⑲ **Battery Terminal Strip:** For connecting a 12V Car battery as standby power source
- ⑳ **Speaker Terminal Strip:** 4Ω, 8Ω, 16Ω for connecting low impedance speakers. 100V Line for connecting column Speakers/Ceiling speakers/Drive units with 100V line matching transformer.
- ㉑ **EARTH Terminal:** To earth the amplifier
- ㉒ **FUSE:** AC Fuse 4A

Caution

- The equipment must be earthed properly before operating it to avoid electric shock. A wire from the Earth Terminal must be connected to electrical earth for safe operation.
- In car battery operation, make sure the battery is hot in charging mode & battery voltage not more than +14V.

CONTROLS

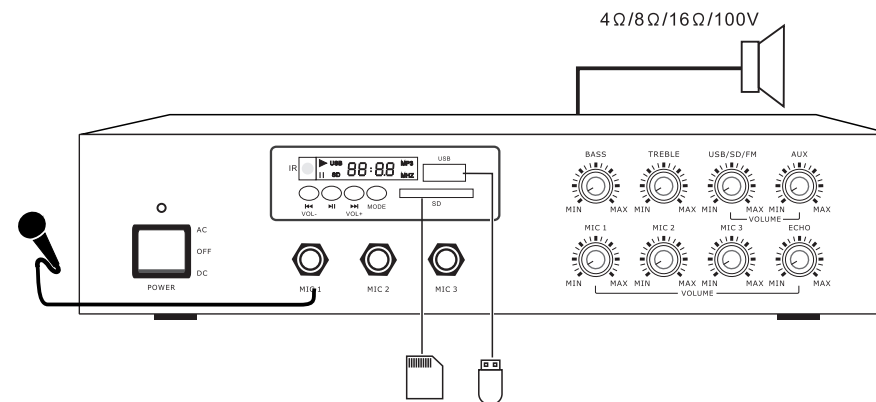
Front Panel



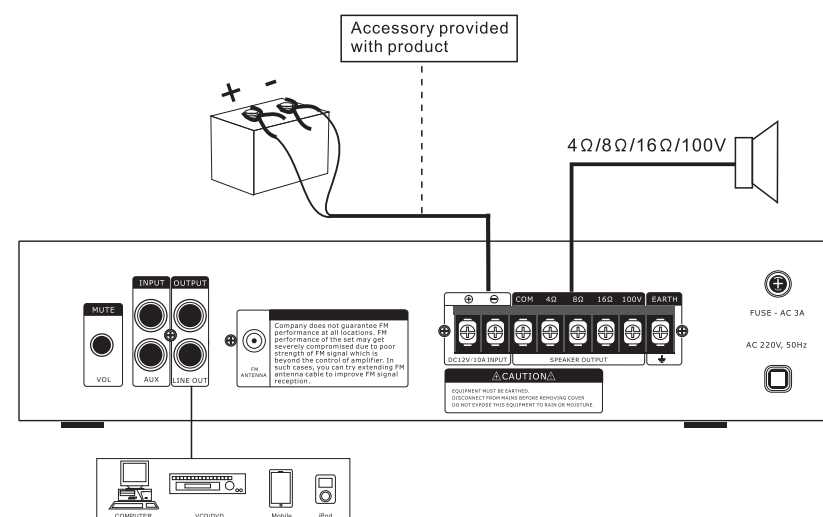
- Power Switch:** Put the power switch in “AC” position if connected to AC mains supply, or put the power switch in “DC” position if connected to battery. Put the power switch in middle position marked as “O” to turn off the amplifier.
- ◀ PREV VOL-:** In USB/SD mode Single press this key to select previous track. Long press this key to decrease volume. In FM mode single press this key to select previous stored station
- ▶ PLAY PAUSE:** In USB/SD/FM Mode press this key to start, pause resume play. In FM mode long press this key to scan available stations. Set will store all available stations in memory.
- ▶▶ NEXT VOL+:** In USB/SD mode Single press to select next track. Long press this key to increase volume. In FM mode single press this key to select next stored station.
- MODE:** To select input between USB/SD/FM/AUX.
- MIC1:** For Microphone 1 Input Jack socket
- MIC2:** For Microphone 2 Input Jack socket
- MIC3:** For Microphone 3 Input Jack socket
- MIC 1:** Rotate this knob clockwise to increase MIC 1 volume level. Rotate this knob anticlockwise to decrease MIC 1 Volume Level. User can set knob position to desired level for MIC 1 to get mixed with other MIC I/P or USB/SD/FM/AUX input.

CONNECTIONS

Preferred system connections For PA Amplifier



DC connection



Note

- Suggested configuration may vary with different speaker load & speaker configurations.
- Please carefully read all safety & operating instructions mentioned in user manual provided with the product before installation & use.

CONNECTIONS

Placement:

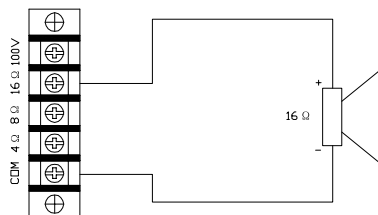
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Low impedance Speaker Connections

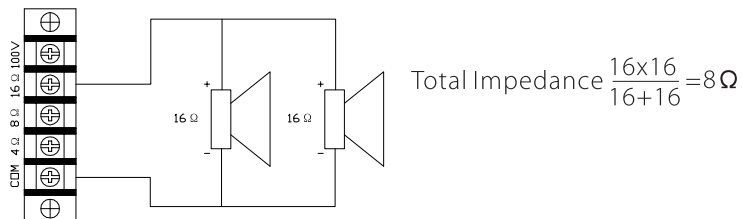
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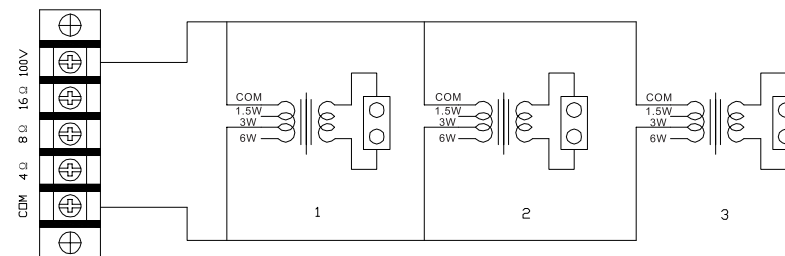
Similarly you can connect series/parallel combination of different speaker impedances resulting final impedance matching to one of the impedance taps provided at rear.

IMPORTANT

- Always connect (-) of drive unit/speaker to common of the output terminal strip of the amplifier and connect (+) to the 4Ω/8Ω/16Ω tap of the strip.

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Connection of single/multiple speaker/driver unit with line matching transformer is shown as below.



Correct Phasing of Loudspeakers

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To avoid any mistake the terminals of Box Speakers & the Driver Units are marked '+' & '-', Always connect the COM of the amplifier to '-' of speakers & 4Ω/8Ω/16Ω of the amplifier to the '+' of the speakers.

In case of LMTs the common terminal of all the LMTs should be connected to the 'COM' tap & the power tap to 100V line tap provided at rear panel as shown in above figure.

OPERATION OF AMPLIFIER

Operation on AC Mains

- Set all Volume Controls to 'MIN' position.
- Connect the speakers at output speakers taps according to load (4Ω/8Ω/16Ω/100V) and required inputs (AUX/USB/SD/MIC) to the amplifier.
- Plug-in the AC power supply cord to the nearest AC Mains Socket and put the power switch provided on front panel to 'AC' position.
- The Red LED should start glowing.
- Amplifier is ready for operation.
- Adjust the Volume, Bass, Treble controls to the desired levels.

Operation on 12V Car Battery

- Connect the speakers and required inputs to the amplifier.
- Connect positive pole of the battery to the screw terminal of the battery strip marked '+' and the negative pole to the screw terminal marked '-'.
- Set the Power switch to 'DC' position.
- The Red LED should glow. In case it does not glow check the battery polarity.
- The amplifier is ready for operation.
- Adjust the Volume, Bass, Treble controls to the desired levels.
- To switch off the amplifier on Car Battery Operation, disconnect supply to battery terminals at the rear.