AMC

iComC 2x20   Communication amplifier
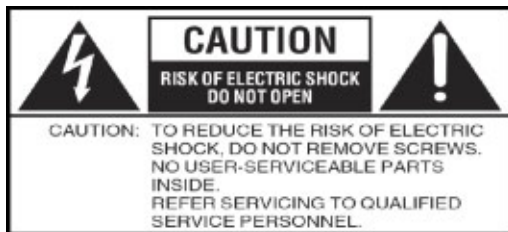

User Manual

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.

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.

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 amplifier has a stable base and it is fixed securely.

4. This product, in combination with 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 amplifier. The cover should be removed by the qualified personnel only. **No user serviceable parts inside.**

CONTENTS:

What's in the box

The accessories which are included in the box are:
- Instruction manual
- Power supply

Hints on installation

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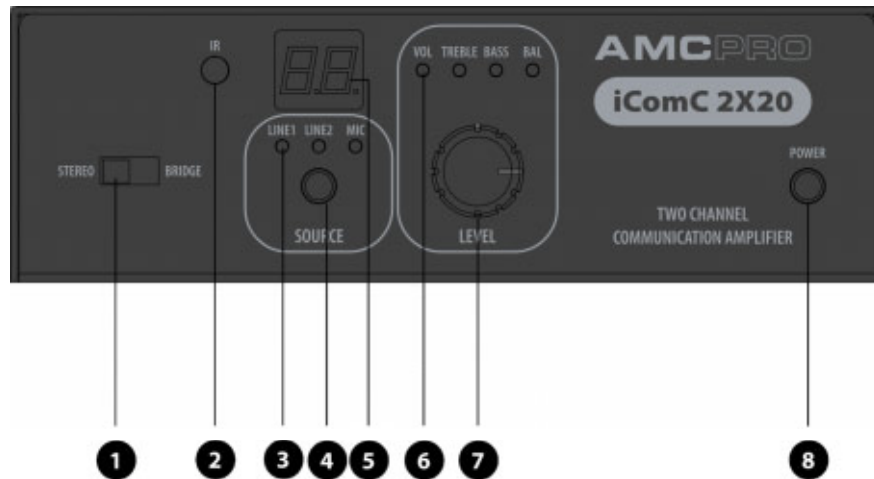- Place on a solid, flat, level surface, such as a table, shelf or stereo rack

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.

Important

The minimum speaker's impedance for the stereo mode (2 channel operation) is 4Ω on each channel. The minimum speaker's impedance for the bridge mode is 8Ω. The lower speaker's impedance, can damage amplifier's output stage. Do not ground the speaker output terminals!
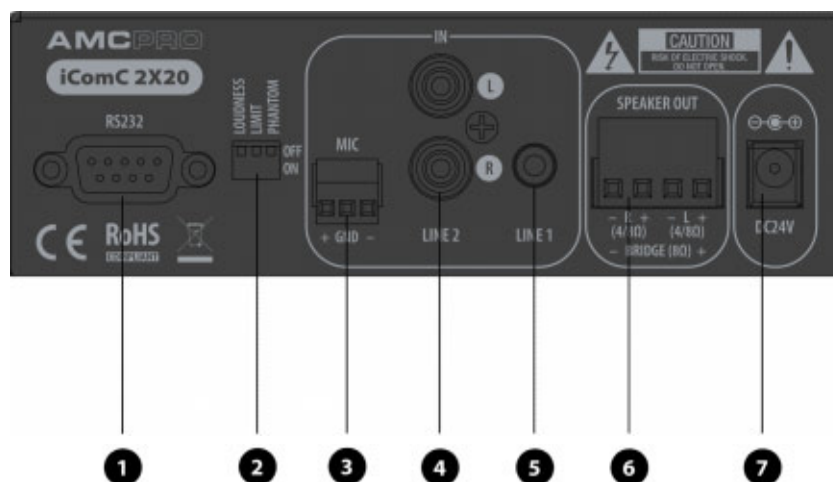
Front Panel

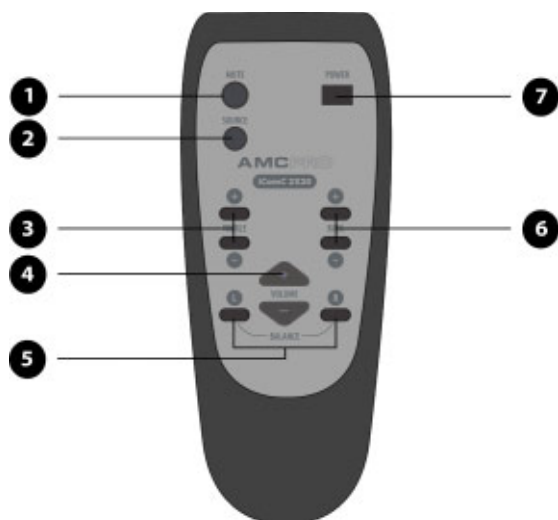|	
1. Stereo/Bridge mode selector	5. Level indicator
2. IR detector	6. Function indicator
3. Input indicator	7. Level control
4. Input selector	8. On/off button

Rear Panel

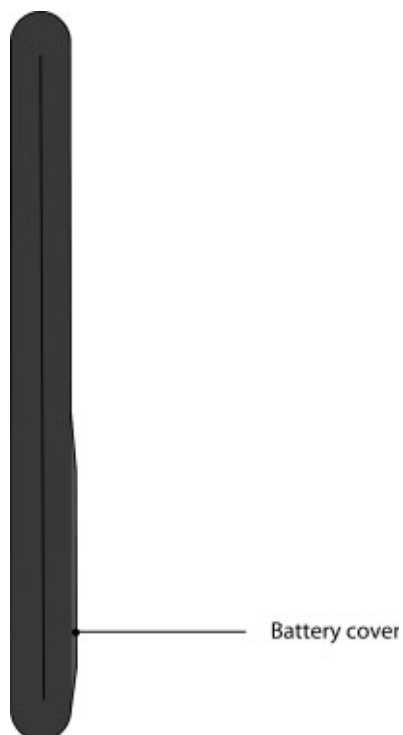|	
1. RS-232 interface connector	5. 3.5mm stereo Jack input
2. DIP switch	6. Output connector
3. Balanced MIC input	7. Power connector
4. Stereo RCA input	

Optional accessory:

IR remote control

1. Mute
2. Input selector
3. Tone control (treble)
4. Volume control
5. Balance control
6. Tone control (bass)
7. On/off button

Batteries changing

1. Open the battery cover.

2. Insert two AAA batteries in accordance with marks in the remote control battery compartment.

3. Close the battery cover

Battery cover

Functions

STEREO/BRIDGE MODE
There are available 2 modes of operation: stereo and bridge. Don't use this switch when amplifier is turned on, change mode when amplifier is turned off.

Stereo mode: This is generally used mode. In stereo mode both amplifiers channels work independently. The minimum loudspeakers impedance should be not less than 4Ω.

Bridge mode: This mode combines the power from both channels to drive a single loudspeaker. The minimum loudspeakers impedance should be not less than 8Ω. Please note that prolonged outputs overdriven can damage amplifier's output stage.

IR DETECTOR
Receive control commands from the remote control.

INPUT INDICATOR
Indicates which audio input Line1, Line2 and Mic is selected.

INPUT SELECTOR
Input selector allows to select one of tree available audio inputs: *Line1*(3,5 mm stereo Jack connector), *Line2* (Stereo RCA connector), *Mic* (Phoenix connector).

LEVEL INDICATOR
LED indicator displays current level of the volume, tone and balance. Volume level can be adjusted in 64 steps from 0 to 63. Treble and bass level can be adjusted in 15 steps from -7 to 7. Balance adjusting limits from L9 to R9 (L9 - right output channel is fully muted, R9 – left channel muted).

FUNCTION INDICATOR
LED indicates active function which can be adjusted by LEVEL knob.

LEVEL CONTROL
Push "LEVEL" button to scroll between the volume, treble, bass and balance, in order to adjust selected parameter, turn "LEVEL" knob. Amplifier set volume function automatically if level knob is inactive more than 3 sec.

ON/OFF BUTTON
To turn the unit ON or OFF, press this button. Before turning on the amplifier, check all connections. A momentary muting is normal when turning the amplifier on or off. Always turn on your power amplifier last, after all your other connected equipment, and always turn off your amplifier first before your other connected equipment.

RS-232 INTERFACE CONNECTOR
D-Sub 9-pin connection for serial interface. This connector is designed to control device functions by using external control unit, like Creston or PC etc.

DIP SWITCH
This DIP switch allows enabling loudness function, limiter and phantom power.

BALANCED MIC INPUT
This phoenix connector is designed to connect dynamic or condenser microphone to the amplifier. If condenser microphone is used, phantom power (+48V) must be enabled by using DIP switch located near the connector.

STEREO RCA INPUT
Stereo RCA inputs for line level audio.

3.5mm. STEREO JACK INPUT
Stereo inputs, 3.5mm TRS jack connector.

OUTPUT CONNECTOR
This is solderless connector for loudspeakers. Please pay attention to the loudspeakers polarity during installation. Stereo and Bridge modes wirings are marked on the amplifiers panel near the output connector.

POWER CONNECTOR
Connector for DC 24V 1.5A power supply.

MUTE
Press "Mute" button to mute audio output, to disable mute press "Mute" again. Enabled mute indicates blinking LCD screen

RS-232 commands

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

Notes:
Amplifiers respond prompt: PA>

Symbols xx in the volume control row mean volume level. Volume level range is 0-63.
Example: RS232 command "Volume 15<CR>" sets volume level 15.

Symbol x in the "Source selector" row mean input number.
Example: RS232 command "Source 2<CR>" enables audio signal from input 2.

Symbol xx in the treble row mean treble level. Treble level range is from -7 to +7.
Example: RS232 command "Treble +3<CR>" sets treble level +3.
Example: RS232 command "Treble 0<CR> sets treble level to default.

Symbol xx in the treble row mean treble level. Treble level range is from -7 to +7. Default treble level is 0.
Example: RS232 command "Treble +3<CR>" sets treble level +3.
Example: RS232 command "Treble 0<CR> sets treble level to default.

Symbol xx in the bass row mean bass level. Bass level range is from -7 to +7. Default bass level is 0.
Example: RS232 command "Bass +4<CR>" sets bass level +4.
Example: RS232 command "Bass 0<CR> sets bass level to default.

Symbol xx in the balance row mean balance level. Balance level range is from L9 to R9. Default level is 0.
Example: RS232 command "Balance L5<CR>" sets balance to L5.
Example: RS232 command "Balance 0<CR> sets balance level to default.

Function	Command
Show status	Now<CR>
Power on	Power On<CR>
Power off	Power Off<CR>
Power on/off	Power Toggle <CR>
Mute on	Mute On<CR>
Mute off	Mute Off<CR>
Mute on/off	Mute Toggle<CR>
Volume control	Volume xx<CR>
Source selector	Source x<CR>
Treble control	Treble xx<CR>
Bass control	Bass xx <CR>
Balance control	Balance xx<CR>
Save settings	Save<CR>

SPECIFICATIONS

GENERAL

1.	Power supply	DC 24V 1,5A
2.	Rated power	20W x 2 (4Ω)
3.	Line inputs gain	-7 dBu
4.	Line input impedance	10kΩ
5.	MIC input gain	-60 dBu
6.	MIC input impedance	600Ω
7.	Frequency response	35Hz – 20kHz
8.	THD	less 10%
9.	S/N ratio	95dB
10.	Dimensions	145 mm x 120 mm x 45 mm
11.	Weight	0,6 kg

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