## PUBLIC ADDRESS SERIES

## BASIC SERIES



## Owner's Manual

## PUBBLIC ADDRESS SERIES

BASIC SERIES<br>BA5 - BA120B - BA240B

## PRODUCT DESCRIPTION

Monophonics amplifiers and mixer presents:

- 2 MIC-AUX inputs (labelled with nos. 1 and 4) electronically balanced and commutable with micro-switch.
- 2 MICRO inputs (labelled with nos. 2 and 3 ) electronically balanced
- 1 CD/TAPE input
- 2 treble and bass general controls
- 1 general master volume control
- 1 power indicator
- 1 PRE OUT output
- 1 TAPE OUT output

A 24 VCC potential is available on MICRO input, insertable through 2 micro-switch and channels on the phonic line, the same potential for the eventual direct phantom power supply of electrettype microphones.
Audio potential outputs for loudspeakers of amplified series (BA120B and BA240B) are expected for connection with constant impedance and voltage lines.
The whole electronic circulation has quality and safety working features.
Metal framing is suitable to be supported on surfaces (table, etc.) and is equipped with separated stirrups for assembly in 19" rack; in this case it occupies 1 rack unit $=44 \mathrm{~mm}$ for BA5 and 2 Rack units $=88 \mathrm{~mm}$ for BA120B and BA240B.

## POSSIBLE USES

- conferences
- places of worship
- hotels
- schools
- airports
- offices
- supermarkets
- restaurants
- motorway restaurants
- auditoriums
- industries
- gyms


## POWER SUPPLY

The unit is expected to work with 230 VCA - 50/60 distribution system and with 24 VCC battery. In case of power dysfunction, check the outside and inside protection fuses (for 24 VCC) and eventually replace them with others of same calibration; if one of them burns out immediately, do not go on and have check the unit by qualified personnel.
Take away plug from 230 VCA electric power socket and 24 VCC battery always, before removing fuses and, in any case, open the unit framing.

## SIGNAL INPUTS AND OUTPUTS CONNECTION

On MIC-LINEA commutable channel 1 (DIN 5 poles) socket pin 5 is connected on a "Priority" circuit; if a microphone (or a microphone base) with a priority consent is being connected, an automatic softening of the other amplifier inputs ( $2,3,4,5$ ) is achieved by pressing the speaking key. On the above mentioned DIN (pin 4) socket a 24 VCC potential is available for eventual amplified microphonic places.
It is possible to assemble a DIN-DON card as optional, which is activated with the priority function (1 of Fig. 4 ).
A 24 VCC potential for direct "phantom" power of electret-type microphones (on the same balanced phonic line) could be carried to 2 and 3 MICRO (XLR) channels, through the multi-microswitch placed on the back; therefore, before connecting a microphone it should pay attention to the model (if dynamic or electret). Do not insert 24 VCC in case of dynamic microphone; insert them with electret microphone only.
4 JACK channel is MICRO/LINE commutable.
5 AUX channel (RCA-type pin) could be used for tape, CD, turner and radio microphone, videoprojector audio, outside audio lines (to be protected by inserting a separator transformer), message generators.

On same connector (ref. 9, fig.1), power unit input and pre output are available.
If no connectors are inserted to this socket, link between pre output and power unit input for connection automatically happens (see fig. 3).
MAIN-IN is the power unit imput for audio signal came to outside device (e.g. Feedback suppressor, ecc.); connector is $6,3 \mathrm{~mm}$ JACK-type stereo female (unbalanced audio).
PRE-OUT is the preamplifier output with an audio signal depending on Master volume regulator, available to pilot an outside device (e.g. Feedback suppressor etc.); connector is $6,3 \mathrm{~mm}$ JACKtype stereo female (unbalanced audio).

## ACOUSTIC SPEAKER CONNECTIONS (BA120B and BA240B only)

Unit is supplied with a crossbar output terminal board for connection with constant impedance and voltage lines.

## - CONSTANT IMPEDANCE LINES

4 and 8 Ohms terminals should be used.
In order to achieve the maximum efficiency of the system and to take precautions from amplifier bad working, it is necessary to check the effective loading impedance of the lines. The total speakers impedance should be equal or higher than pre-selected value for connection.
To get that, each loudspeaker should be without transformer and should be connected in series or in series-parallel groups; In any case loudspeakers should also have the same power handling (see fig. 2a).

## - CONSTANT VOLTAGE LINES

100 V terminals should be used with each loudspeaker provided with line transformer and parallel connected.
In order to achieve the maximum efficiency of the system and to take precautions from amplifier bad working, it is necessary to check the effective total power handling of the loudspeakers that has to be equal or lower than the RMS power value of used amplifier. It's a good rule arranging a $10-20 \%$ safety margin on the amplifier power capability (see fig. 2 b ).

SPECIFICATIONS: BA5 - BA120B - BA240B

| TAPE inputs sensitivity | -4 dBm 490 mV |  |
| :---: | :---: | :---: |
| LINE inputs sensitivity | - 12 dBm 195 mV |  |
| MICRO inputs sensitivity | - $60 \mathrm{dBm} \mathrm{0,8} \mathrm{mV}$ |  |
| Micro-balanced inputs impedance | 600 Ohm |  |
| Line-balanced inputs impedance | 220 KOhm |  |
| Bass control | $\pm 12 \mathrm{~dB}$ at 50 Hz |  |
| Treble control | $\pm 10 \mathrm{~dB}$ at 10 KHz |  |
| TAPE REC output level | + 0 dBm 775 mV |  |
| PRE OUT output level | +0 dBm 775 mV |  |
| Frequency response (-3 dB) | $50-15.000 \mathrm{~Hz}$ |  |
| Rating power distortion @ 1 KHz | < 1\% |  |
| NOISE RATIO $20 \div 20 \mathrm{KHz}$ weighted master anticlockwise: | 91dB |  |
| NOISE RATIO $20 \div 20 \mathrm{KHz}$ weighted master clockwise: | 82dB |  |
| EIN Micro(noise equal to the input) $20 \div 20 \mathrm{KHz}$ weighted $\mathrm{RS}=150 \mathrm{ohm}$ : | 126dBA |  |
| Power supply: |  |  |
| from CA mains | 230 V CA $50 \div 60 \mathrm{~Hz}$ |  |
| from battery | 24 VCC |  |
| BA5 |  |  |
| Consumption | 15VA |  |
| Dimensions (W x H x D) | $482 \times 44 \times 100 \mathrm{~mm}$ |  |
| Weight (Kg) | 1 |  |
|  | BA 120B | BA 240B |
| RMS output power | 120 W | 240 W |
| I.H.F. power | 180 W | 360 W |
| Loudspeaker outputs: |  |  |
| Constant impedance | 4-8 Ohm |  |
| Constant voltage | 50-70-100 V |  |
| Consumption | 220 VA | 440 VA |
| Dimensions (W x H x D | $482 \times 88 \times 256 \mathrm{~mm}$ | $482 \times 88 \times 340$ |
| Weight (Kg) | 7 Kg | 14 Kg |

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## COMMANDS AND FUNCTIONS (see fig.1)

1. POWER ON/OFF : power switch.
2. LEVEL : volume for MICRO - LINE - TAPE inputs.
3. BASS: bass adjustment.
4. TREBLE: treble adjustment.
5. MASTER LEVEL: main volume.
6. ON: power signalling.
7. MAINS: 230 VCA supply mains socket.
8. FUSE: protection fuse of CA mains
9. MAIN IN/PRE OUT: unit power input and mixed output of amplifier "PRE" sector (for connection, see fig. 3).
10. TAPE REC/PLAY: stereo output/input for recorder (tape 5 input).
11. MIC/LINE 4: balanced input adaptable to variable sensitivity.
12. MICRO/LINE: microswitch for changing input sensitivity on channel 1 and 4.
13. MICRO 2 and 3 : balanced microphonic input.
14. PHANTOM: switch for connecting 48 VCC phantom supply power to inputs 2 and 3.
15. MIC/LINE 1: balanced input adaptable to variable sensitivity for line or microphone equipped with "PRIORITY" command.
16. POWER OUT: output for loudspeaker lines.
17. BATT.: 24 VCC power supply input for outside battery.

FIG. 1


Fig. 2 _ LOUDSPEAKER CONNECTIONS


Fig.2a _ Constant impedance lines


Fig.2b _ Constant voltage lines
Fig. 3

## PLUGS AND BARRIER STRIP

## MAIN IN / PRE OUT



## INPUT MIC/LINE



$$
\begin{aligned}
& 1=\text { GND } \\
& 2=\text { HOT }+ \\
& 3=\text { COLD }-
\end{aligned}
$$



INPUT MIC/LINE


FIG. 4



