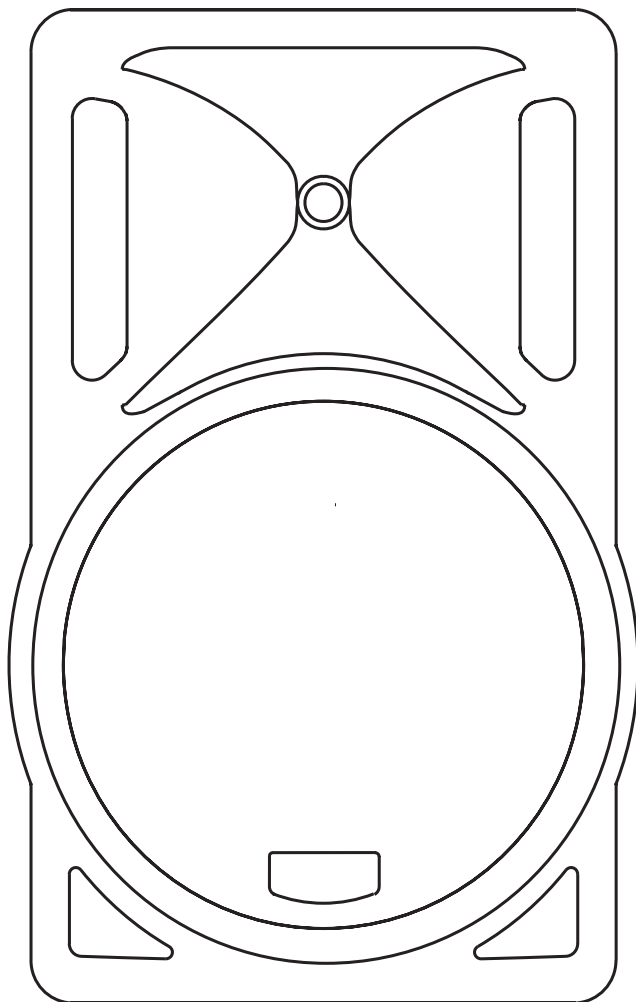


Studiomaster®  
PROFESSIONAL

**POWERED  
SPEAKERS**

**OP  
SERIES**



**USER MANUAL**



## **OPERATING PRECAUTIONS**

- Do not force the amplifier incorporated in the speaker to work in overload for extended periods of time.
- Never force the control elements (switches, controls, etc.).
- Do not use solvents, alcohol, benzene, or other volatile substances for cleaning the exterior parts of the speaker.

### **CAUTION**



- Make sure that the speaker is positioned in a stable and secure way in order to avoid any dangerous conditions for persons or objects.
- Do not situate the speaker in areas subject to high-intensity vibrations or places that are particularly exposed to dust or dampness.
- When using the speaker outdoors, avoid positions that are directly exposed to harsh weather.
- To ensure efficient cooling of the final stages of the amplifier, situate the speaker in a well-ventilated position which is not exposed to direct sunlight and is far from any source of heat.

## **CONNECTION**

### **CAUTION**



- For connecting the speaker, use only qualified and experienced personnel having sufficient technical knowledge or specific instructions for making the connections correctly and thus preventing electrical dangers.
- To prevent the risk of electrical shock, the speaker must only be supplied from the mains after all connections have been completed.
- Before powering up the speaker, it is advisable to re-check all the connections, making sure in particular that there are no short circuits.
- The entire sound system must be designed and installed in compliance with the current standards and regulations regarding electrical systems.

### **NOTE**

- To prevent inductive phenomena from giving rise to hum or disturbance which would jeopardize efficient speaker operation, the cables that transmit microphone signals or line level signals (e.g. 0 dB/V) must be screened and should not be run in the vicinity of:
  - Equipment that produces strong magnetic fields (e.g. large power supply transformers)
  - Electrical energy conductors
  - Lines that supply speakers.

## **AC SUPPLY**



### **CAUTION**

- Connect the speaker to current outlets having an earth contact.
- For connecting to the mains, use the cable supplied with the speaker, which should first be connected to the socket on the speaker.

## **PROTECTION SYSTEM**

The speaker is equipped of a exclusive system, which protects the loudspeakers against overheating, ensuring the maximum reliability in all professional applications. In addition, a sophisticated system incorporated in the amplifier handles the limiter circuits and the protection against overheating and short circuits.

Fig.1

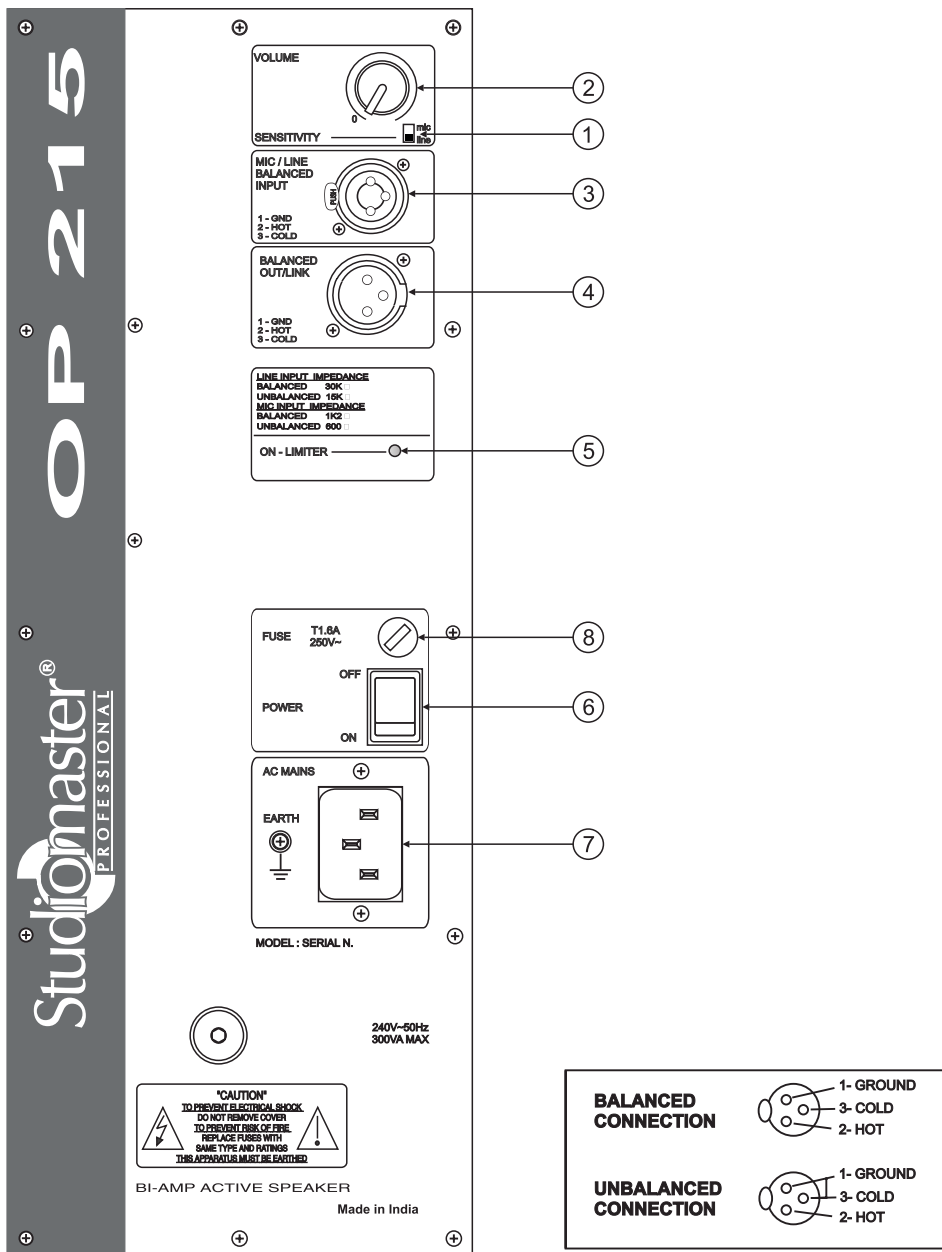
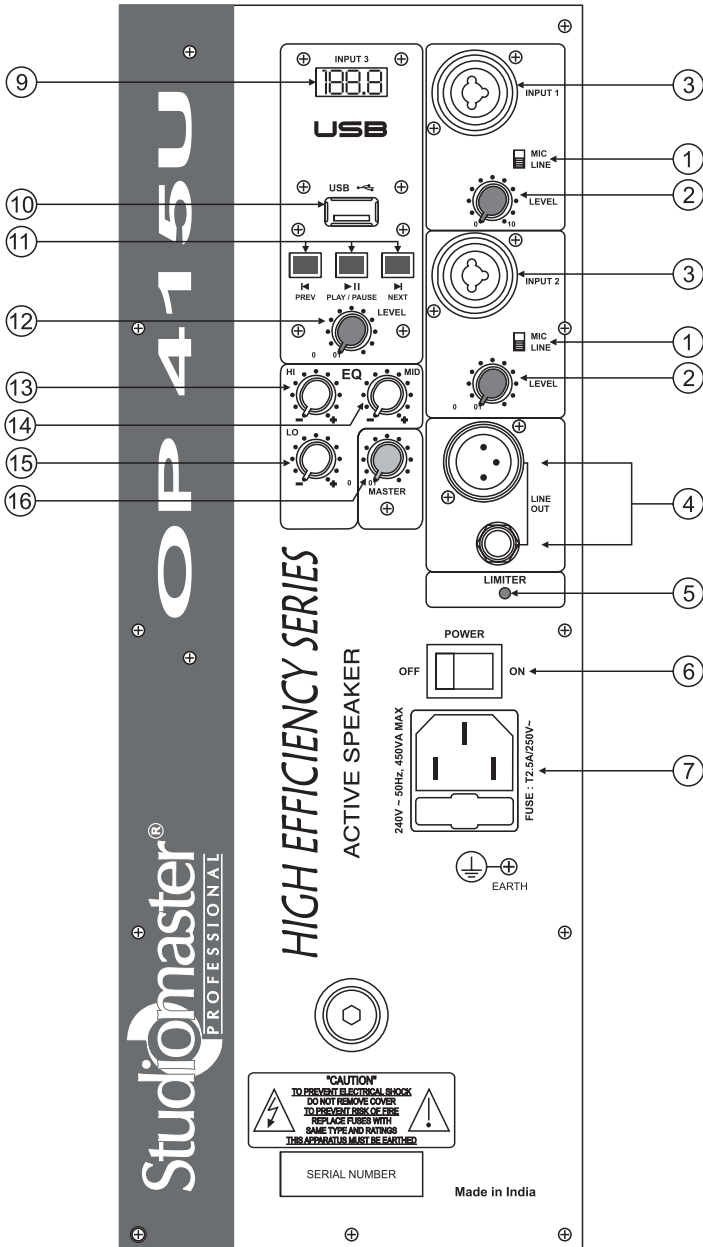


Fig.2

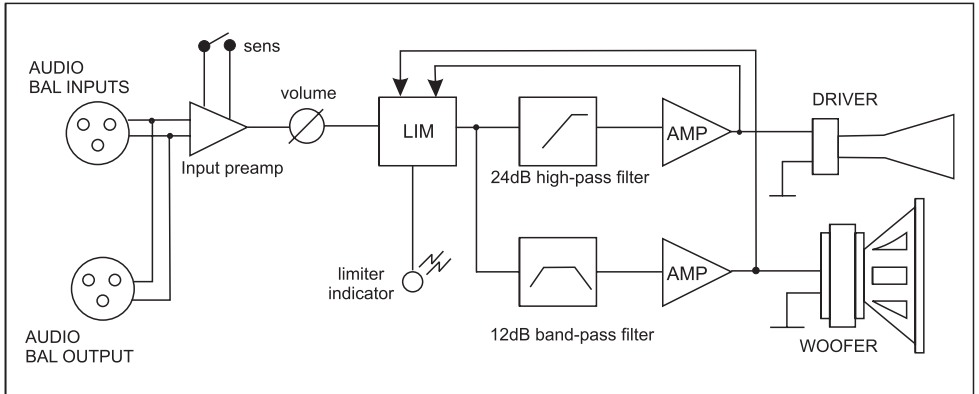


**16) MASTER**

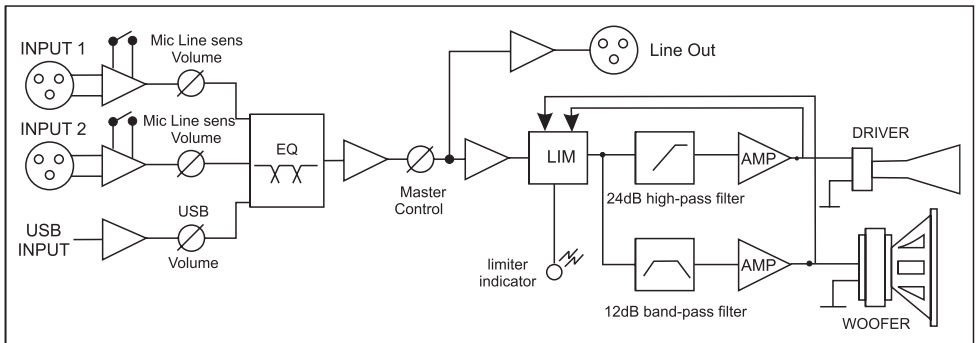
Controls the main output level in OP 415U and levels of slave units, when connected in daisy chain as explained in figure 3.

**Block Diagrams**

**OP 215 & OP 415 BLOCK DIAGRAM**



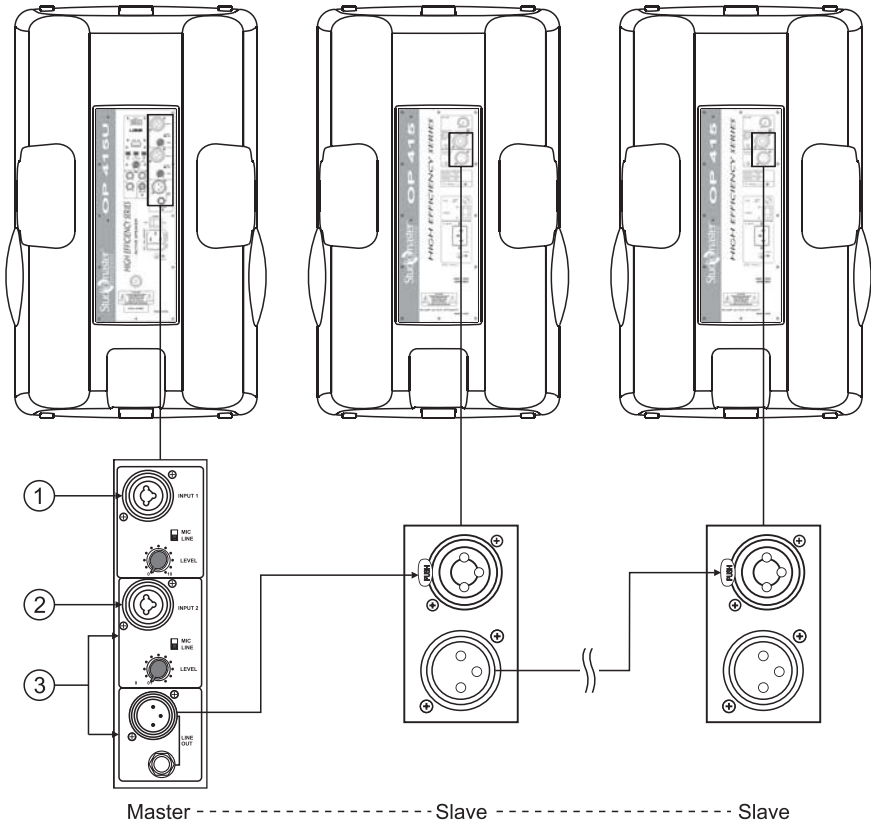
**OP 415U BLOCK DIAGRAM**



## CONTROLS AND FUNCTIONS (FIG.1 & 2)

- 1) **SENSITIVITY SWITCH**  
Move the switch to MIC for balanced or unbalanced microphone use. Position the switch on LINE to use a balanced or unbalanced source with line level.
- 2) **VOLUME CONTROL/LEVEL**  
OP 215/415 : This knob is used for adjusting the speaker volume. The control does not affect the level of the "Output".  
OP 415U : This knob is used for adjusting the speaker volume. This control also affects the level of the "Line Out".
- 3) **INPUT "MIC/LINE BALANCED INPUT"**  
Balanced input that can be used for connecting a low impedance dynamic microphone or an audio source with high level signal output (e.g. preamplifier, mixer, cassette recorder, CD player, musical instrument, etc.).
- 4) **OUTPUT CONNECTOR "BALANCED OUT/LINK" & "LINE OUT"**  
OP 215/415 : This output is connected in parallel with the input, & can be used for sending the audio input signal to another amplified speaker, to a recorder, or to a supplementary amplifier. The output accepts 3 XLR plugs/stereo jacks (balanced).  
OP 415U : This output is used for sending the audio input signal to another amplified speaker, to a recorder, or to a supplementary amplifier. The output accepts 3 XLR plug or a stereo jack (balanced). Used for cascading amplifier. This output is after EQ & controlled by Master control.
- 5) **"ON - LIMITER"**  
The bi-coloured "ON - LIMITER" lights up in green to indicate that the speaker is on and works correctly.  
It will light up in red to indicate that the internal limiting device, which avoids the amplifier's distortion and protects the loudspeakers against overloads, has switched on.
- 6) **POWER SWITCH**  
Used for switching the speaker on and off.
- 7) **POWER CABLE SOCKET**  
For connecting the power cable supplied with the speaker.
- 8) **MAIN FUSE**  
The fuse replace with same type & rating.
- 9) **USB DISPLAY**  
Indication of track number from USB input.
- 10) **USB INPUT**  
Use this connector to plug in your pen drive. (USB Mp3 flash memory)
- 11) **USB FUNCTION SWITCHES**  
Use these switches to either play, pause or to go to the previous or next track.
- 12) **LEVEL (USB)**  
Volume control for the USB input.  
**Terms of use** : Studiomaster Professional respects intellectual property rights, and we request our users to do the same. Please use Mp3 downloads only for program which you have legally purchased. PLEASE DO NOT USE PIRATED MUSIC OR PROGRAM.  
**Disclaimer:**Your acceptance and use of this product will be treated as your agreement to the following clause: Studiomaster Professional, Audioplus and all associated companies and sellers are indemnified from liability the end-user may incur by using illegally procured material or immoral content or any other such similar program selection.
- 13) **HI**  
High frequency can be cut or boosted by this control.
- 14) **MID**  
Mid frequency can be cut or boosted by this control.
- 15) **LO**  
Low frequency can be cut or boosted by this control.

## TYPICAL APPLICATION



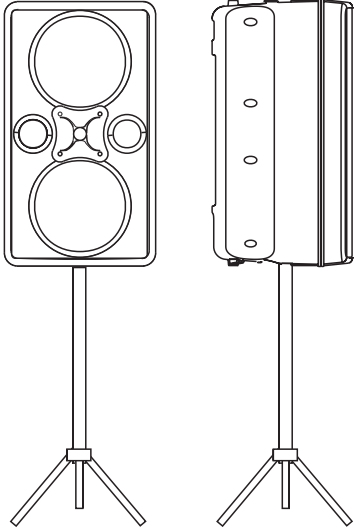
**Fig.3**

OP 415U & OP415/215 can be connected in daisy chain as shown above.

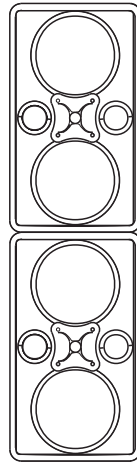
- Connect the Line Out of OP 415U to the input of OP415/215 and the Link Out of the OP215/415 can be connected to further amplifiers.
- Keep the volume control of the cascaded amplifier at maximum position.
- The output of all the daisy chain amplifiers are controlled by master control of OP 415U.
- EQ effect can be seen on the cascaded amplifier as well.



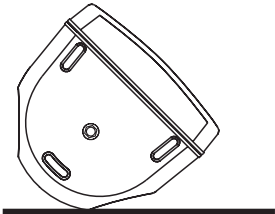
## USES AND INSTALLATIONS



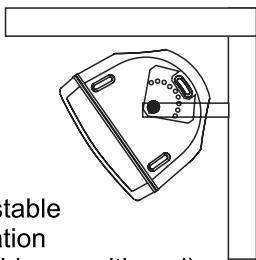
Use with pedestal stand



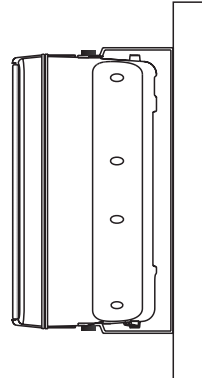
Supported use (stacked)



Floor use (monitor)

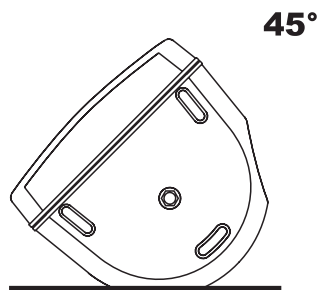
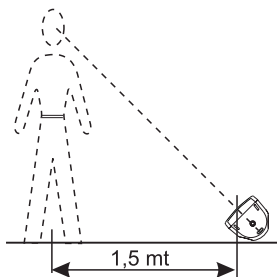
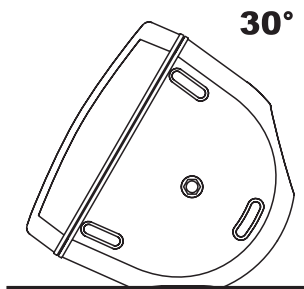
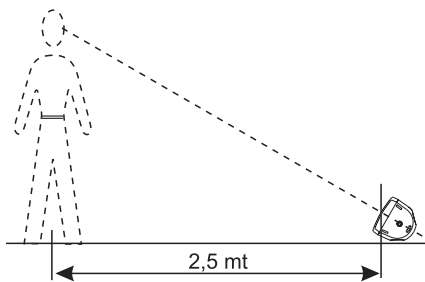


Fixed adjustable  
wall installation  
(with horn driver positioned)

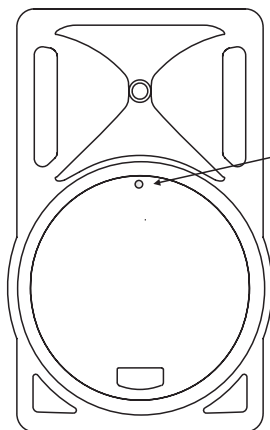


The bracket fastening kit is  
optional (Code WB 04)

Fixed vertical wall installation



Thanks to the double box angle, two different floor uses are possible



GREEN LED  
POWER ON

## Specification

TECHNICAL FEATURE	OP 215	OP 415	OP 415U
Amplifier type	bi-amp class AB	bi-amp low F. class H High F. Class AB	
RMS power	120W LF + 40W HF	225W LF + 50W HF	
Musical section power	240W LF + 80W HF	450W LF + 100W HF	
Frequency response	50 - 20.000 Hz		
Crossover	Ft 2000 Hz TW 24 dB/oct W 12dB/oct	Ft 1900 Hz TW 24 dB/oct W 12dB/oct	
Sound pressure (SPL)	123 dB max	127 dB max	
Loudspeakers	1 woofer 15" 1 tweeter 1"	1 woofer 15" 1 compression driver 1"	
Input sensitivity	-50dB / 0dB (switchable)		
Impedance LINE/MIC (Balanced)	30K $\square$ /1K2 $\square$		
Impedance LINE/MIC (Unbalanced)	15K $\square$ /600 $\square$		
Line Out	—	—	0dB
Equalizer	— — —	— — —	LF=+/-8dB @100Hz MID=+/-8dB @1KHz HF=+/-8dB @10KHz
Power supply	240V/50Hz		
Fuse	T1.6A/250V	T2.5A/250V	
Dimension (lxhxp)	700x440x320 mm		
Weight	16 Kg	20 Kg	20.5 Kg

Do not attempt to make any repairs yourself. This would void your warranty.

Do not make any changes to the unit. This would also void your warranty.

The warranty is not applicable in case of accidents or damages caused by inappropriate use or disrespect of the warnings contained in this manual. *StuudioMASTER professional* can not be held responsible for personal injuries caused by a disrespect of the safety recommendations and warnings. This is also applicable to all damages in whatever form.

## **PRODUCT OF AUDIOPLUS**

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**StuudioMASTER professional reserves the right to make modifications to its products without notice**