

## Precaution

### Please read these instructions carefully before use.

- Do not attempt to disassemble or modify the product.
- Keep the product away from external shocks or vibrations.
- Do not use damaged or peeled cables.
- Do not use the product outdoors.
- Product specifications and features are subject to change without notice.

## Warranty Information

- Free warranty service
  - In the case that a defect is found which is caused by a design or the production flaw while using the device properly, the manufacturer is responsible for the faulty product and there is free warranty service for 1 year from the date of purchasing.
  - Even during the warranty service period, malfunction or damage of products caused by inevitable incidents such as a natural disaster is not subject to the free warranty service.
- Warranty service at a cost
  - The free warranty service period is expired.
  - Malfunction of the product caused by a user's fault.
  - Malfunction of the product caused by incidents.
  - Malfunction of the product caused by a natural disaster such as earthquake, flood, lightning & etc.
  - In case of the warranty service at a cost, the customer should cover the shipping costs.
- Examples of a user's fault
  - In case of attempts to disassemble or modify the device.
  - In case of not following the instructions in this manual.
- Please read these operating instructions and Q&A board on our website carefully before asking for the warranty service.

## Supplied Components

- A sPQ-100 Unit
- A 9V adaptor
- sPQ-100 Operating instructions



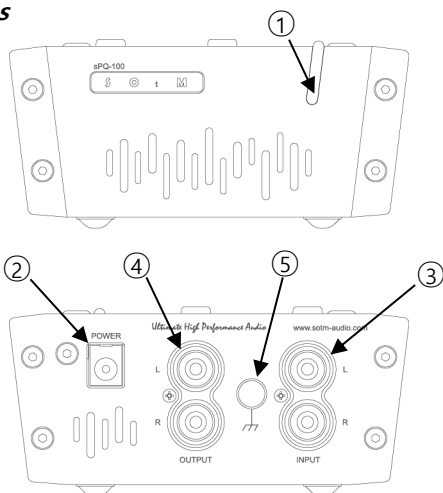
## Specification

- User interface
  - Power on/off switch
  - Operating indicator LED x1
  - MM/MC selection switch
  - Input impedance/capacitance selection switch
    - MM : 47K $\Omega$ , 100pF, 150pF, 220pF, 330pF
    - MC : 15 $\Omega$ , 20 $\Omega$ , 100 $\Omega$ , 500 $\Omega$ , 10pF
  - Bass boost level selection switch
    - 14.5dB, 16dB, 20dB @ 20Hz, 33dB @ 7Hz(no bass shelf)
  - Bass turnover frequency selection switch
    - 250Hz, 354Hz, 500Hz, 800Hz
  - High frequency roll off frequency selection switch
    - 1592Hz, 2122Hz, 2500Hz, 3183Hz
  - Total gain selection switch
    - 40dB, 50dB, 60dB, 70dB @ 1KHz
  - Tolerance :  $\pm 10\%$ (all switch location)
- Input/Output signal
  - Input signal
    - Stereo RCA jack with earth terminal x 1
    - MM input
      - Signal level : 3mVac ~ 10mVac @ 1KHz
      - Recommended impedance : 47K $\Omega$
      - Recommended capacitance : 100pF ~ 330pF
      - Frequency response : 20Hz ~ 20KHz
    - MC input
      - Signal level : 0.1mVac ~ 1mVac @ 1KHz

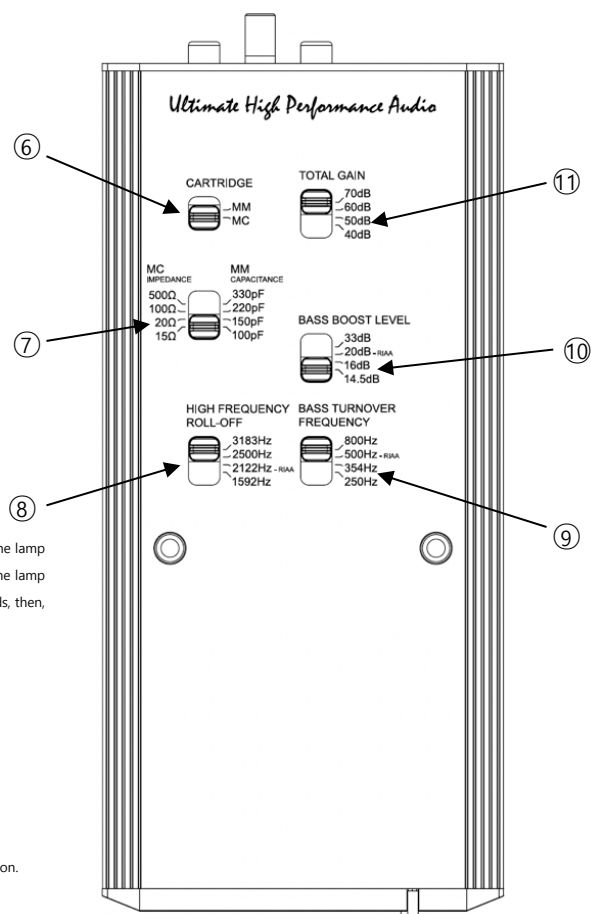
## Ultimate High Performance Audio

- Recommended impedance : 15 $\Omega$  ~ 500 $\Omega$
- Frequency response : 20Hz ~ 20KHz
- Output signal
  - Stereo RCA jack
  - Output signal level : 9.5Vac Max
  - Output impedance : 20 $\Omega$  typical
  - Frequency response : 20Hz ~ 20KHz
  - SNR : 100dB typical @ 1KHz max output level (MC, RIAA, 50dB Gain setting)
- Tolerance :  $\pm 10\%$ (all signal level, gain and frequency)
- DC power input
  - Input voltage : 7Vdc ~ 9Vdc
  - Input current : 1A max
  - 5.5mm OD, 2.1mm ID adaptor jack
- Operating environment
  - Operating temperature : 0 ~ +40 $^{\circ}$ C
  - Storage temperature : 0 ~ +40 $^{\circ}$ C
  - Operating & storage humidity : 10% ~ 90%
- Dimension
  - 106 x 48 x 245(mm)
- Weight
  - 1.5kg >

## Product Outlines



- ① Power on/off switch and power lamp : The lamp blinks several times when connected power to the unit, then, the lamp lights out and the unit is in turn off status. To turn on the unit, press the switch for about 0.5 seconds, then, the lamp will blink for about 10 seconds and continue light up. To turn off the unit, press the switch for about 0.5 seconds, then, the lamp will blink for about 2 seconds and light out.
- ② Power input jack: Connect to the power supply.
- ③ Audio input jack : Connect to audio output jack of a record player.
- ④ Audio output jack : Connect to audio input jack of a pre-amp or inti-amp.
- ⑤ Earth Terminal : Connect to earth terminal of a record player.
- ⑥ MM/MC selection switch : Set the MM or MC per a cartridge type of a record player.
- ⑦ Input impedance/capacitance selection switch:  
When set to MC, MC impedance value is set by the switch position.  
When set to MM, MM capacitance values is set by the switch position.
- ⑧ High frequency roll off frequency selection switch : High frequency roll off frequency is set by the switch position.
- ⑨ Bass turnover frequency selection switch : Bass turnover frequency is set by the switch position.
- ⑩ Bass boost level selection switch : Bass boost level is set by the switch position.
- ⑪ Total gain selection switch : Total gain is set by the switch position.



## How to use

### - Precautions

- Please read these operating instructions fully before installing the unit.
- Please turn off all audio devices and disconnect AC power cables from all audio devices before installing the unit.
- Please check output and input connectors and connect cables correctly.

### - Installations

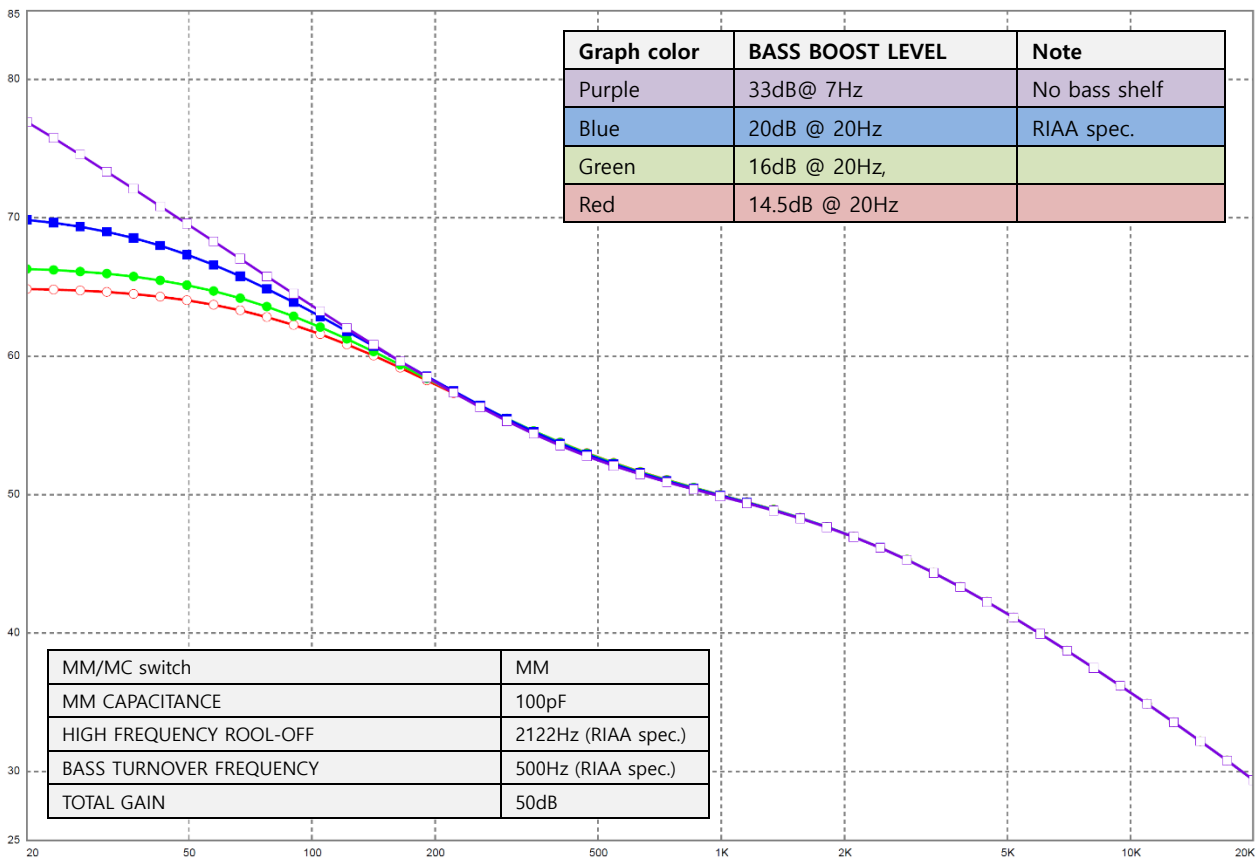
- Make sure to turn off all audio devices.
- Disconnect AC power cables from all audio devices.
- Connect the Earth terminal of a record player and the earth terminal of the sPQ-100 with a earth cable. And tighten the earth terminal so that it does not come loose.
- Connect audio output jack of a record player and the audio input jack of a sPQ-100 with an inter cable.
- Connect the audio output jack of a sPQ-100 and the audio input jack of a pre-amp or inti-amp.
- Set the MM or MC per a cartridge type of a record player, and set MC impedance or MM capacitance.
- Refer to the enclosed sPQ-100 EQ characteristics and select the desired EQ graphs by setting the switches on the top of the sPQ-100 according to the specifications of the record you want to listen to.
- Turn on the unit by pressing the switch for about 0.5 seconds, then, the lamp will blink for about 10 seconds and continue light up.
- Turn the volume down on the audio system, then turn on all audio devices.
- Put a record into the record player and start playing.
- Set the volume of a pre-amp or inti-amp gradually and fix the volume to listen to music.
- When turning off the sPQ-100, make sure turn off the power-amp and pre-amplifier first, then press the switch on the front of the sPQ-100 to turn off.

## LP record EQ table by Switch settings

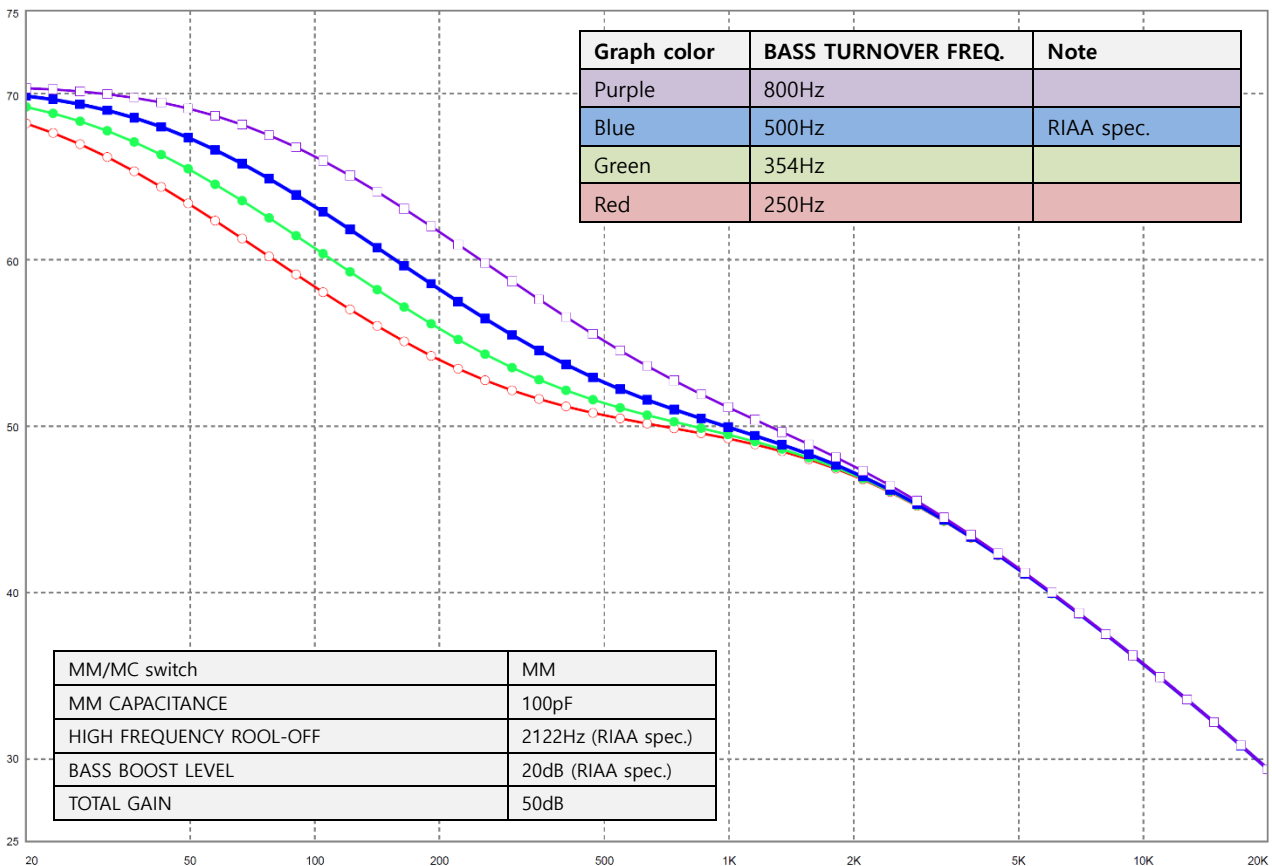
EQ Graph Spec.	HIGH FREQUENCY ROLL-OFF	BASS TURNOVER FREQUENCY	BASS BOOST LEVEL	Note
RIAA	2122Hz	500Hz	20dB	
AES	2500Hz	354Hz	33dB	
NARTB(NAB)	1592Hz	500Hz	33dB	
TELDEC	3183Hz	500Hz	20dB	
CCIR 78	3183Hz	354Hz	33dB	
IEC N78	3183Hz	354Hz	16dB	
Columbia LP	1592Hz	500Hz	14.5dB	
RCA Old Orthophonic	2122Hz	500Hz	33dB	
LONDON LP	3183Hz	500Hz	14.5dB	
All settings tolerance are $\pm 1$ dB with ideal values at 50Hz, 1KHz, 10KHz				

***EQ characteristics per sPQ-100 Switch settings***

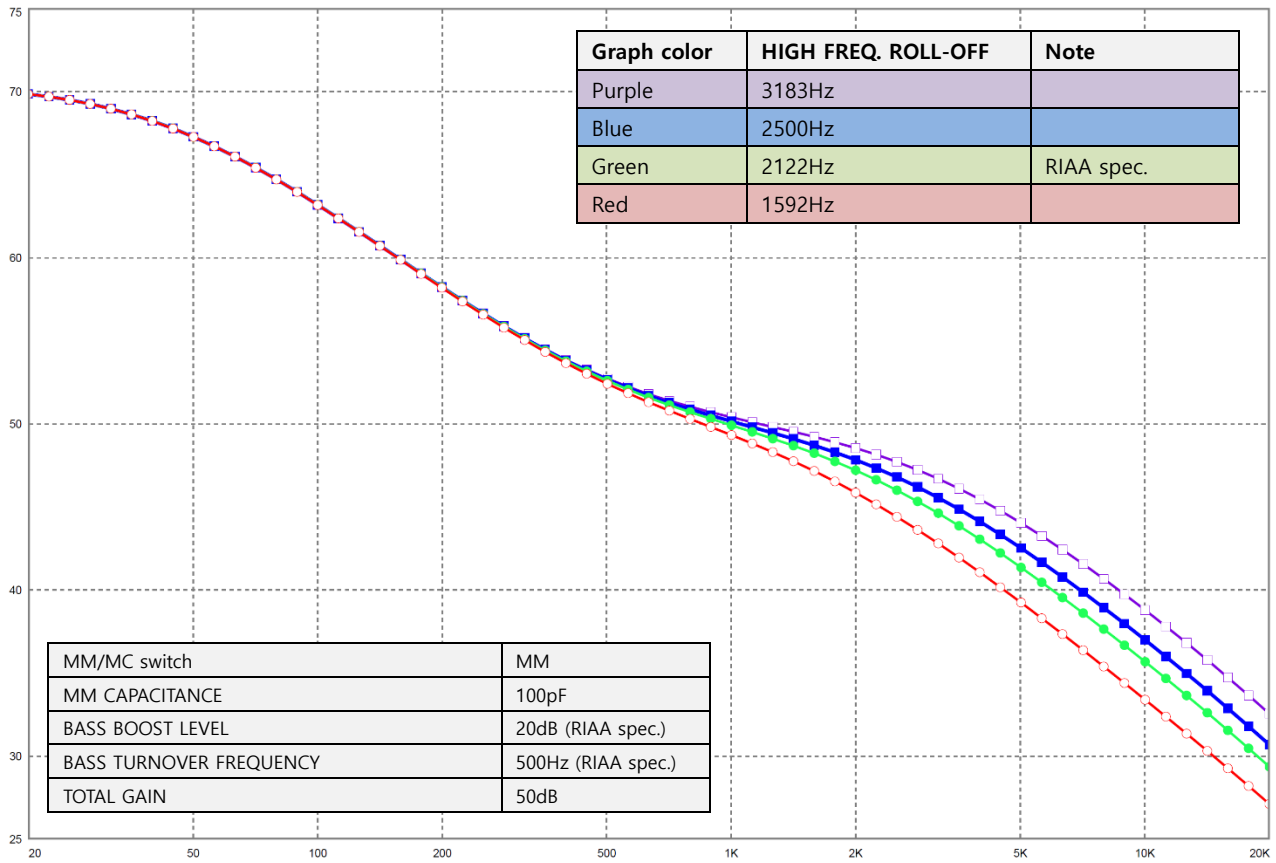
**- BASS BOOST LEVEL switch**



**- BASS TURNOVER FREQUENCY switch**



- HIGH FREQUENCY ROLL-OFF switch



- TOTAL GAIN graph

