

## HOW TO USE “RASEN” (“spiral” in Japanese) EFFECTIVELY

“RASEN” is a superior article not existed before, completed taking full advantage of the composition and aspect of the material.

It is generally known now that cable is directive. By changing the connection of cable, the sound quality varies. This is presumed to be caused by the directivity of the metal particles made when cable is drawn at the time of production. In the same manner, Damping Alloy M2052 also has the direction dependent on the direction of the cable drawn at the manufactured time. This means that the direction of cable material should be carefully administered in the production as it forms an important factor to regulate good sound.

The Damping Alloy M2052 has an excellent capability to absorb vibration but its shape is the important element to govern sound quality. In order to minimize the waves (reflective waves of vibration) generated in the material, the edge is rounded. By getting rid of paralleled surfaces, the reverberation can be administered. The top and bottom surfaces contact other equipment and floors and to get rid of the vibration loop, spiraling slits are carved. They look concentric but some of the carved lines are clockwise and the others are anticlockwise. These minimize the contacting areas with other items and the vibration energy can be more effectively absorbed with the spiraling designs.



It is important to control the direction of material and also the one by its construction. These form the designs to make the best of sound energy aggressively. By making use of the special features of “RASEN”, the orientation and space expression of sound vision can be altered, thereby you will be able to get the best performance of your present equipment. Depending upon your condition in which your equipment is set up, “RASEN” will help you display its performance to your taste. For your better reference, we are going to explain how to use “RASEN” effectively.

Example Usage for CD Players, Amplifiers, Etc.

RASEN has a mark in golden color as shown in Photo 1, indicating the direction. By changing the direction of this mark, sound energy (sound vision to be more exact) can be changed. The fundamental way to use it is to turn the mark upward and forward (to your side). When RASEN is placed under the attached foot of your audio equipment, that particular material sound is emphasized. So, please put it under the equipment body directly. If a RASEN is not thick enough, wooden pedestals are available as optional.

Photo 1



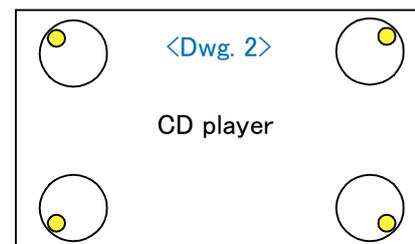
◇ Directivity of The Upper and Lower Sides

Dwg. 1 shows an example where RASENs are placed under the CD player. When they are placed with the marks in front and upward, the sound from the loudspeaker will be directed a little upward and to the front. This is a setting position suitable when the loudspeakers are positioned lower than your eye level.



Front Side

Next, let's direct RASEN marks in the reverse way (the mark is turned to the front and low side). You will observe that the sound is directed to a lower level. This is a suitable setting in case the loudspeakers are positioned higher than your eye level. The sound quality is also changed depending on the up/down direction. When the mark looks down, sound of lower frequencies becomes more substantial. These setting ways depend on your taste.



Front Side

◇ Expansion or Narrowing of Sound

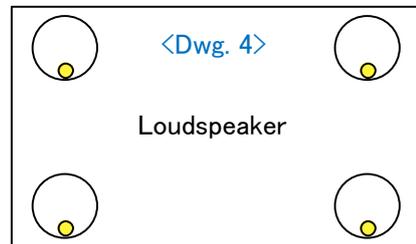
This time, try to set up RASENs as shown in Dwg. 2. Expanded sound stage to the left and right will be heard in the space. This is effective in case the distance between the left and right loudspeakers is small. If set up as shown in Dwg. 3, sound image will be heard narrowed. This is effective when the distance between the left and right loudspeakers is big.



Front Side

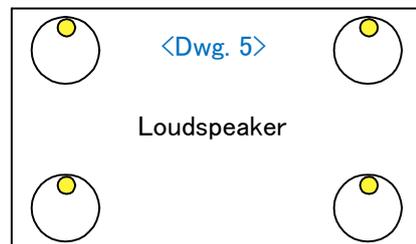
## Applicable Examples with Loudspeakers

Application with loudspeakers is a bit different from the case with CD players. Dwg. 4 is a standard example with RASENs placed under the loudspeakers. In the same manner as the setting with a CD player, the direction is upward. Also, the sound comes out more to the front. High-tone range becomes more expansive.



Front Side

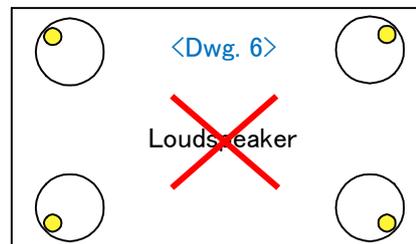
On the contrary, in case the marks are directed downward, base sound will be substantiated. The decision about the lower or higher direction is up to your choice. In case of loudspeakers, the same setting with the left and right loudspeakers will bring about a good result.



Front Side

When RASENs are arranged as shown in Dwg. 5 looking backward, sound image retreats. This method is recommendable if live sense should be emphasized.

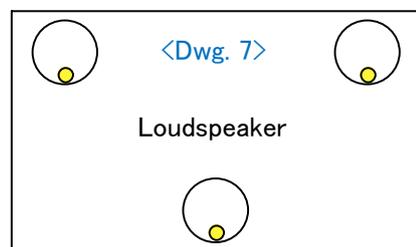
Next, the setting we could not recommend is illustrated in Dwg. 6. The sound image is unclear without its core. When the setting is made toward the inside, the sound is directed to the core but the direction is biased to the loudspeakers positions and the central sound image gets thin.



Front Side

In case of loudspeakers, four kinds of directions are recommended: to the front, to the back, to the top and to the low side.

Whether the setting should be with 3 points or 4 points is to be decided to your taste. In case of the 3 points, one point at the front or at the back should be chosen also to your taste. For your reference, the sound tends to come forward with one point at the front. This applies to CD players, etc.



Front Side

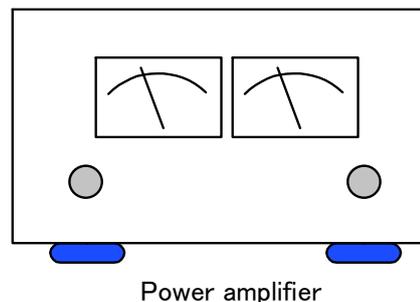
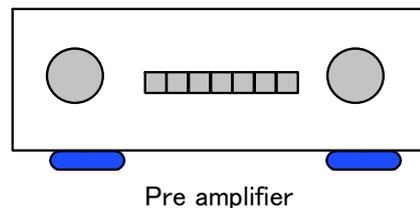
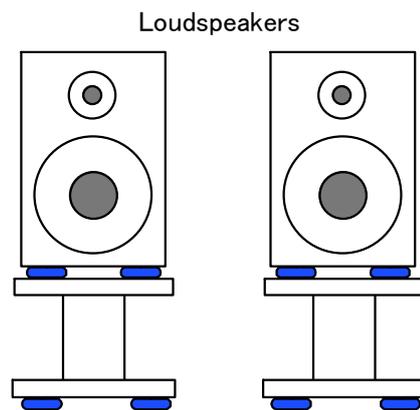
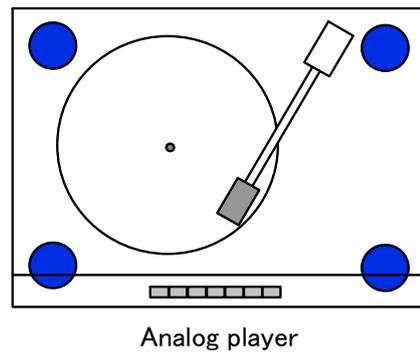
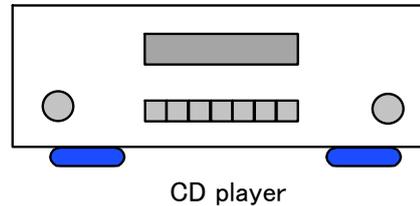
Where RASEN Should be Used Effectively?

- ◇ If you are not familiar with RASEN, your usage is recommended at the sound inlet such as a CD player or an analog player. Since there are revolving part in the CD player or analog player, sound quality is improved by absorbing the vibrations efficiently. These equipment do not like unnecessary vibrations from the outside.

RASEN manufactured of damping alloy M2052 absorbs these unnecessary vibrations efficiently and help improve the sound quality of audio equipment.

- ◇ The next item where we would recommend to work with is loudspeakers. Loudspeakers vibrate quite a bit because they issue sound waves. The vibrations of loudspeakers are conveyed to the floor (or the setting place) and return through complicated routes. The key to succeed in improving loudspeaker sound lies in effectively damping unnecessary vibrations. RASENs cut unnecessary vibrations from the floor (or the setting place) and also absorb unnecessary vibrations of loudspeakers themselves. With these processes, unnecessary distortion around the periphery of sound lessened, thereby making it possible to obtain pure sound. For those who are particular about the sound, we would like to recommend placing RASENs also under the audio rack. Better effects can be obtained.

- ◇ After you have come to this process, we also recommend applying RASEN to your amplifier. The more you use, the more unnecessary elements causing distortion are eliminated and pure sound is obtained. RASEN is effective with both power amplifiers and preamplifiers.



## Some Ideas How To Use RASEN

There are various ways using not only RASENs but also other products made of Damping Alloy M2052. Following are our ideas that may be applied for their efficient use.

- If possible, do not put RASEN under the feet of your audio equipment.
  - The materials of the feet of audio equipment are not good quality usually because of the cost and as mentioned before, the use of RASENs may emphasize the sound of the feet. Therefore, RASENs should be put directly under the equipment body so that it will be less affected by unnecessary sound. In addition, the unnecessary vibrations of audio equipment can be effectively absorbed. The best way is to remove the feet and to replace them with RASENs.
  
- RASENs are fixed with screws
  - Higher effects are displayed if RASENs are fixed directly to your equipment with screws.
  
- Choice of the size according to the weight of equipment
  - There are three kinds of RASEN: dia. 50mm (SA-5015R2G), dia. 40mm (SA-4010R2G), dia. 25mm (SA-2507R2G) SA-5015R2G is suitable for 20kgs or over, SA-4010R2G for 4~20kgs and SA-2507R2G for under 50kgs. For those equipment which vibrate much such as loudspeakers, RASEN of one size bigger is recommended. The above standard is based on our judgment and the ultimate choice should depend on your liking of the sound.
  
- RASEN may be used on the top of equipment
  - RASEN is usually used under the equipment and it is also effective if used on the equipment. In this case, the effect is less but it may be greatly effective on the loudspeakers and CD players. Please try.
  
- Damping Alloy M2052 is congenial to Corian.
  - Corian material well known in the audio markets is congenial to Damping Alloy M2052. For example, Corian material is used as a board for audio equipment and natural sound is obtained as a result.

There will be a lot of new ideas further. Please do not fail to try our RASEN for your wondrous experience.