

Installation and User's Manual

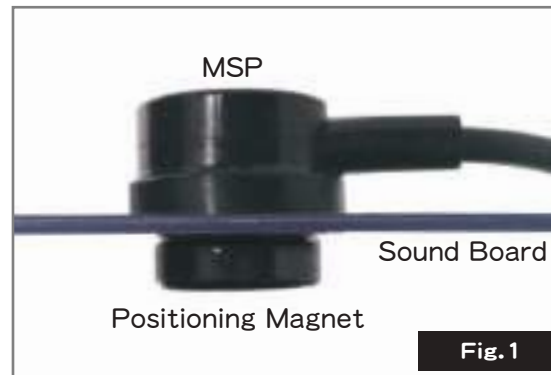
1. Overview

MSP stands for Magnet Sandwiched Pickup. It is made with Neodymium magnets and a piezoelectric element. The installation of MSP is innovative. A positioning magnet and an additional magnet in the MSP device hold MSP's piezoelectric element in place. (see Fig.1)

▶ **MSP is capable to capture details of acoustic instruments.** Two Neodymium magnets, one within the MSP and an additional Positioning Magnet, push the piezoelectric element toward the soundboard. This provides louder and higher quality sound without the use of a pre-amp.

▶ **There is no modification needed and no damage caused to musical instruments.** The installation is very easy. Because MSP is kept in place by magnets, musical instruments are not damaged or dirtied due to adhesives or the like. The MSP is placed outside of musical instruments, so it can be installed without any through hole. Because there is no wiring inside of instruments using MSP, there is no unwanted sound caused by problems with such wiring.

▶ **MSP does not fail. It is an easily removable contact pickup.** The sound emitted from the contact pickups depends on the attachment position. The free movement of the positioning location allows the player to control sound output based on their preference.



2. Contents of MSP kit

(see Fig.2)

	Item	QTY
#1	MSP (Connection type : 1/4" Plug(male) or 1/4" Jack (female))	1
#2	pouch for MSP	1
#3	Positioning Magnets(PMs) (8mm thick*1 5mm thick*2 3mm thick*1)	4
#4	double-adhesive tapes for PM	4
#5	Transparent sticker for protection	2
#6	two kinds of cushioning : rubber and a sheet of felt	1+1
#7	Endpin-hanger	1
#8	Positioning Magnet Setter(MS)	1



3. About items

- ▶ **Cushioning**...Placing Cushioning (rubber or a sheet of felt) between the MSP and the soundboard allows for sound quality and tone being output by MSP to be controlled. You can also stop MSP from floating on the surface of percussion instruments like the conga by using Cushioning.
- ▶ **Transparent sticker for protection**...Peel off the sticker. The transparent side is the sticker. The lattice patterned side is the sticker's protective layer. Put the sticker on the instrument surface where the MSP is positioned. The sticker uses static electricity instead of adhesion.
- ▶ **Positioning Magnet (PM)**...The Positioning Magnet and the MSP are both used to install the MSP. You can attach the MSP to the soundboard more strongly by piling Positioning Magnets. Changing the pushing force of the MSP towards the soundboard allows the quality/tone of the sound output from the MSP to be controlled.
- ▶ **Positioning Magnet Setter**...When your hand can't reach the desired position for the Positioning Magnet, use the Positioning Magnet Setter. These are some examples: ukulele, woodbass, etc. (see fig.4)
- ▶ **Endpin-hanger**...Hang the Endpin-hanger on the end-pin of instruments like guitars to keep the the MSP cable at a useful length.
- ▶ **double-adhesive tapes for PM**...Use double-adhesive tape to fix the Positioning Magnet location

4. Installation

Sandwich the soundboard of your instrument between MSP and a Positioning Magnet(PM). Put the MSP outside of the musical instrument and the Positioning Magnet inside of the musical instrument.(Be sure to check the magnetic pole of MSP and the PM.) If your instrument has braces, don't install MSP on braces.

■By hand (Without MS)

When your hand can reach the desired position for the Positioning Magnet, place Positioning Magnet inside of the musical instrument by hand.

■With MS

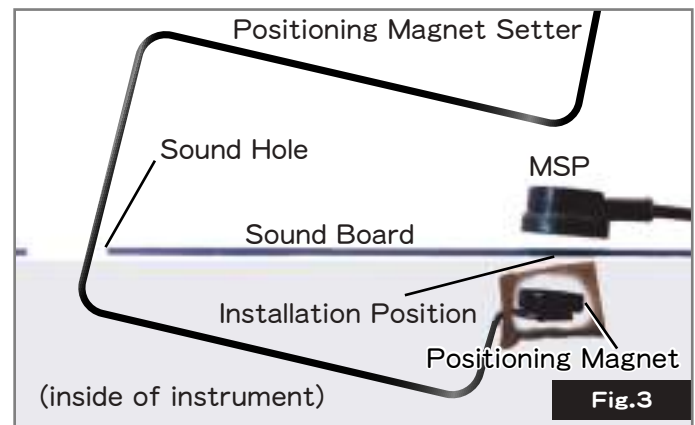
When your hand can't reach the desired position for the Positioning Magnet, use Positioning Magnet Setter(MS). (see Fig.3 and Fig.4)

▶How to fix the installation place of MSP

To fix the Positioning Magnet(PM) location use double-adhesive tape. You can place the MSP without setting the PM each time.

Put MSP on desired position temporarily with any tapes such as masking tape. Put a double-adhesive tape on the surface of the PM(this side should attract to MSP). Make the PM with a adhesive-tape attract to the MSP from inside of instrument. Leave the PM and MSP attracting for a day to adhere the PM strongly. When the PM is fixed with MS, don't overlay Felt cover on PM.

After fixing the PM in place, slide MSP slowly to the position to install. Don't apply MSP directly. It may damage Piezo element in MSP, your instrument or magnets of PM or MSP.



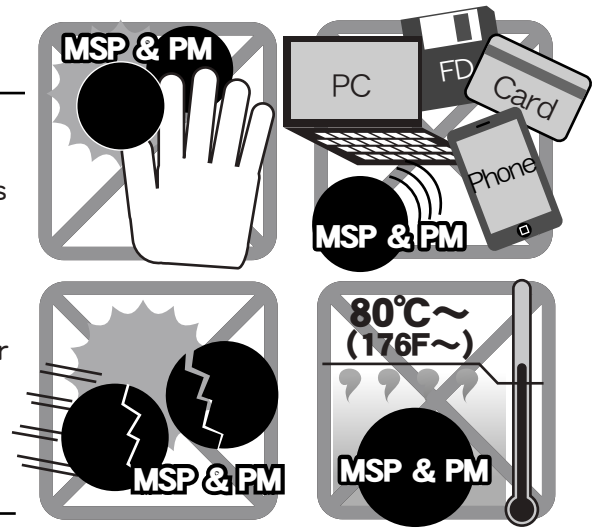
5. How to use

MSP delivers high impedance. Connect MSP to high impedance input of instrument amplifier. When you directly connect MSP to mixer, connect through DI(Direct box) which changes signal to low-impedance. When impedance between MSP and receiver isn't correct MSP may not work well.

6. Caution

MSP is made by strong neodymium magnets. Do not put fingers or other parts of body between magnets. It may cause injury. Do not put these items near the MSP and PM : credit cards, magnetic cards (such as commuter passes), floppy disks, or electrical appliances (such as personal computers, caller phones , pacemaker). It may cause severe damage. Also, it may cause possible interference to pacemaker users.

123sound.jp will not have any responsibility for any damages to your personal belongings, personal injuries, or any other damages from MSP kit.



7. Notice

- 1) Avoid the collision to MSP, it may damage piezoelectric element in MSP.
- 2) Don't slam two magnets severely, it may damage your instruments or the magnets. Install slowly.
- 3) Neodymium magnets are permanent magnets, however, it may lose their magnetic properties. Do not place MSP and PM in temperature of 80°C (176 F) or above. (such as inside of the car during summer)
- 4) Don't pull the MSP cable, it may disconnect the cable.(see Fig.5)



8. Warranty terms and conditions

- ▶ 123sound.jp will repair or replace the product without charge only if there are defects during normal use, following this installation and user's manual.
- ▶ Warranty services will be provided only if the written warranty (indicating the date of purchase and model name) is presented with the defective product within the warranty period.
- ▶ This warranty does not cover transport costs and risks associated with transport of your product to and from 123sound.jp.
- ▶ With this warranty 123sound.jp warrants the product to be free from defects in materials and workmanship at the date of original purchase for a period of one(1) year from that date.

To avoid any unnecessary inconvenience on your part, we recommend you read this installation and user's manual before seeking warranty service.

We will not repair or replace the product past the warranty period.