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ELECTROSTATIC CONTACT MICROPHONE



SCHERTLER



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Congratulations on purchasing a STAT Series pickup. It is our pleasure to welcome you to a growing family of musicians and technicians, including many of the world's leading soloists and sound engineers, who have chosen to work with SCHERTLER® products.

Developed over 30 years ago, the first STAT pickup (for double bass) was specially designed to reproduce the true sound of this acoustically complex instrument in an amplified environment. Rather than being based on piezoelectric principles, this new pickup's technology was very similar to that of a condenser mic and was therefore considered revolutionary for bowed string instrument amplification back in 1986 when STAT B first appeared. Since then the technology has been applied to STAT pickups for other bowed instruments, with the specific aim of reproducing the best possible string sound in louder musical environments.

All SCHERTLER contact microphones are developed and manufactured according to the highest standards of design, material quality and workmanship in order to ensure longevity. However, it is important to always handle your microphone with care so that it will provide reliable service.

In our continuing quest to improve the transmission and reproduction of acoustic instrument sound, we also hope that our STAT pickup system will enhance your personal performing or recording experience.

Stephan Schertler
and the SCHERTLER Team

PICKUPS

ELECTROSTATIC

INTRODUCTION

The STAT pickup system represents one of SCHERTLER's most well-established electrostatic technologies. Over the decades it has become a standard in the field of high-quality, acoustic bowed instrument amplification.

Specially developed for use in louder musical environments and impressively resistant to feedback, the bridge-mounted STAT microphone is an ideal choice for jazz, fusion, rock or classical performances involving high levels of amplification. STAT is designed to accurately reproduce the warm sound of the instrument strings during performance, giving depth and body to the lower ones while reproducing the clarity and brightness of the upper ones.

STAT pickups are available individually, or packaged with a choice of preamps that give the player flexibility and control over a range of sound parameters.

To make the most of your STAT pickup's capability and to ensure trouble-free operation, please read this manual carefully before using the pickup for the first time. We also advise keeping the manual for future reference.

SCHERTLER STAT Series: Made in Switzerland

FITTING THE PICKUP

- The pickup capsule should be fitted more or less vertically in the bridge hole under the G string for double bass, A string for cello and viola, and under the E string for violin, with the cork facing upwards. See Fig 1.
- Grind the top of the cork until the capsule fits precisely in the hole. (If necessary, you can use a sharp knife to cut the cork before grinding.) The upper side of the cork must be shaped so that it matches the top of the bridge hole exactly. Failure to do this correctly (as shown in Fig 2) will compromise the sound results.
- If the bridge hole fitting is too small (especially on the violin), it may have to be slightly enlarged towards the top as shown in Fig 3.
- If the bridge holes are very small, it may be necessary to shorten the bridge wings to allow the wedge to be fixed deeper, thus allowing more space for the capsule as shown in Fig 4. (On the double bass, the cork should not be ground off to less than 6 mm (1/4")).
- Fix the connector to the tailpiece as shown in Fig 5.

Note: If you have ground away too much cork, or if the cork has shrunk (which can happen over time), you can check whether you are missing even a fraction of a millimeter of contact by putting a thin piece of paper under the pickup. If the sound improves, you can permanently fix this issue by applying one or two layers of varnish to the top of the cork. If this is not sufficient, you will need to re-cork the pickup. (Please ask our assistance team for more information about this.)

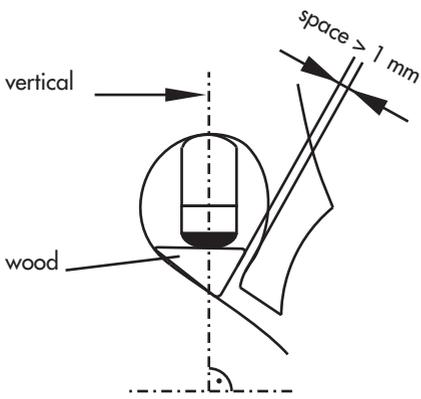


Fig. 1

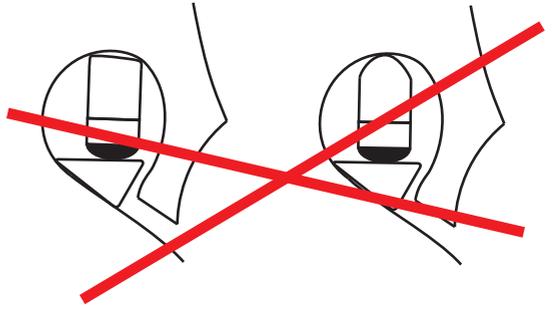


Fig. 2

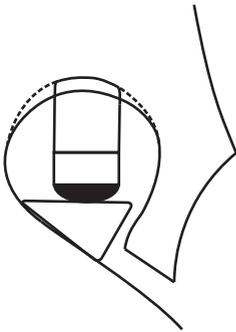


Fig. 3

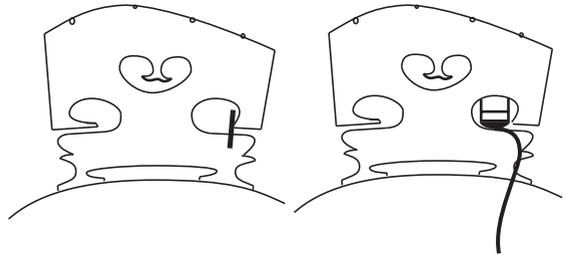
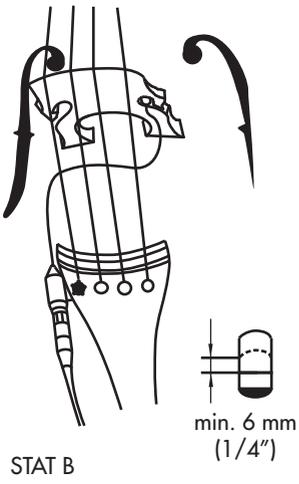
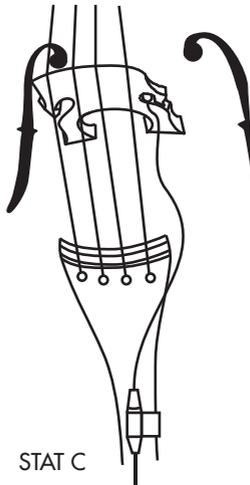


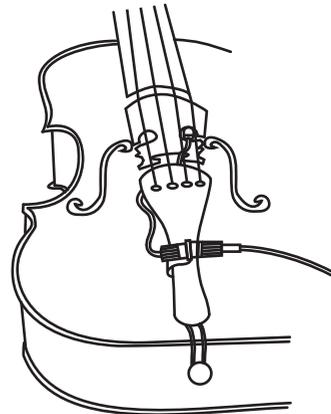
Fig. 4



STAT B



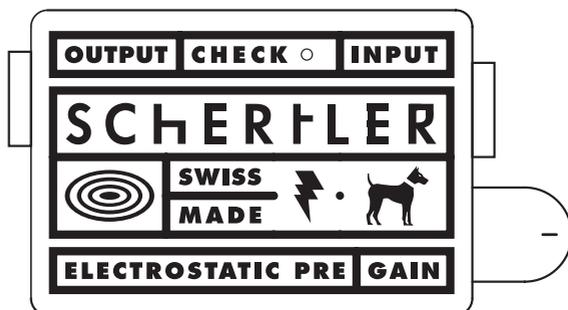
STAT C



STAT V

Fig. 5

STAT PRE preamplifier



If you have purchased a STAT SET package, this will include the STAT PRE preamplifier. The battery-powered preamp requires a 9 V battery, which should deliver nearly 500 hours of playing time.

Equipped with a single INPUT and OUTPUT, plus a GAIN control for adjusting the level of input signal, the preamp is activated when jack cables are inserted into both the INPUT and OUTPUT sockets. (If only the INPUT is connected, there is no use of battery power.) However, to preserve battery life it is generally recommended that all cables are disconnected when the preamp is not in use.

To check the battery level, insert a mono jack into the OUTPUT. The blue CHECK light indicates a charged battery. The system will be ready to work once a jack is also inserted into the INPUT.

To change the battery, carefully remove the four screws from the housing cover, replace the battery, then replace the screws.

WARNING: Although all ground connections are correctly implemented on the STAT system (pickup, cables, STAT PRE box and circuit), they are not directly connected to ground (and are therefore “floating”), as they actually depend on the grounding connection of the device to which the STAT system is connected. If that device is not properly grounded, or generates a ground loop, it is possible to experience hum. Solving the problem requires attention to the device’s ground connection, usually via the GROUND LIFT switch.

In short: the ground connection must be provided by the device to which the STAT system is connected.

PICKUPS

ELECTROSTATIC

TECHNICAL INFORMATION

STAT B

Transducer type	Electrostatic contact microphone
Output impedance	1.6 k Ω
Frequency response (@+/-3dB) - filtered*	20 Hz to 12 kHz
Dynamic range	75 dB
Sensitivity	ca. -25 dBu
Operating voltage	3 to 10 VDC
Contacts	All hard gold plated 0.5 mm
For fixed installation	Yes
Removable	Yes
Connection	RCA to jack
Cable length	0.32 m + extra cable 1.9 m

STAT C

Transducer type	Electrostatic contact microphone
Output impedance	1.6 k Ω
Frequency response (@+/-3dB) - filtered*	20 Hz to 12 kHz
Dynamic range	75 dB
Sensitivity	ca. -25 dBu
Operating voltage	3 to 10 VDC
Contacts	All hard gold plated 0.5 mm
For fixed installation	Yes
Removable	Yes
Connection	RCA
Cable length	0.25 m + extra cable 1.9 m

STAT V

Transducer type	Electrostatic contact microphone
Output impedance	2 k Ω
Frequency response (@+/-3dB) - filtered*	60 Hz to 12 kHz
Dynamic range	70 dB
Sensitivity	ca. -20 dBu
Operating voltage	3 to 10 VDC
Contacts	All hard gold plated 0.5 mm
For fixed installation	Yes
Removable	Yes
Connection	Binder
Cable length	0.17 m + extra cable 2.25 m

*Output frequency response is electronically filtered to better match the specific application.

FAQ

Do I turn on the STAT PRE by plugging the jack into the INPUT or OUTPUT?

The STAT PRE's circuit is turned on when a jack is plugged into the OUTPUT. At this point it also starts to consume battery power (as opposed to when you only plug a jack into the INPUT socket). When turned on, the circuit includes the BATTERY CHECK LED, so you can check whether or not the battery may be dead. Once a jack is plugged into the INPUT, the LED goes off. (This is intended for when the preamp is used on stage where a blue light may not be wanted.)

When I plug into the amp, I get distortion, what can I do?

Remember that the STAT PRE's potentiometer is a gain control, not a volume control. If you don't have the possibility to bypass the amp's internal preamplifier (like connecting the STAT PRE to a Return or a Line input), your signal passes through two stages of preamplification and the power amp receives a way-too-strong signal level, causing distortion.

Keep the amp's gain control barely open so that you can regulate the gain using the STAT PRE's potentiometer.

PICKUPS

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Is my setup correct?

For specific information on personal instrument compatibility or setup, please email our assistance service. Our specialists will be pleased to help you. You can find all our contacts in the footer of every SCHERTLER website page:
www.schertler.com

Is the installation correct? Is there a video?

You can follow the "Fitting the Pickup" instructions in this manual. There are also some tutorial videos on the SCHERTLER YouTube channel (please subscribe if you like). However, please bear in mind that the positioning might affect the overall sound, depending on your personal taste or the characteristics of your instrument.

Is the cork replaceable? How can I do it?

Yes, if you frequently remove the STAT from the instrument, it might happen that the cork wears out. You can either buy a replacement cork with the right dimensions from us, or you can use one from a good bottle of your favorite wine (as long as it is natural cork, not the synthetic one)! Remember to cut the old cork about

2-3 mm away from the base in order to avoid any damage to the microphone. Cut it straight to get a plain horizontal surface on which to glue the new cork.

You can use common contact glue like the one used for shoe repair. Please follow the manufacturer's instructions for its application. Do not use super glue. This is not elastic enough and it doesn't propagate the vibrations correctly, so you could end up with a different sound.

Can I use my STAT with a wireless system?

As long as the wireless transmitter can provide the 10 VDC required by the electret microphone to work, it is possible to use your STAT pickup directly with a wireless system. If not, you need to connect the wireless transmitter after the preamp (STAT PRE or YELLOW).

PICKUPS

ELECTROSTATIC

APPENDIX

WARRANTY

All SCHERTLER products are covered by a limited two-year factory warranty in respect of manufacturer defects. Details can be obtained from your local dealer / representative.

SCHERTLER SA strongly believes in "common sense". Therefore, misuse of our products is not covered under rights obtained through our warranty policy, or through internationally recognized terms and conditions. For more information on warranty, please visit the General Condition's page at www.schertler.com

PRODUCT DISPOSAL

This product must not be disposed of in general household waste. It should be taken to a disposal center for electrical / electronic waste. Please note any local or national regulations that may be applicable here.

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