

Owner's manual for

- SH 4020 A for acoustic guitars
- SH 4020 C for classic guitars

Shadow®

professional pickups since 1971

Introduction

Thank you and congratulations for choosing a Shadow pickup system. Shadow preamps are known for the most reliable, user-friendly and best sounding products on the market. As a result of an enormous research and development effort over three years, Shadow releases a revolutionary pickup system. The hexaphonic pickup Nanoflex-6 unites six Nanoflex pickups in one – one for each string.

Pickup Variants

We offer flexible pickups with different features. Pay attention to choose the correct one to be mounted in the guitar. We have the monophonic (standard) pickup in two different widths: 2.3mm and 2.8mm depends on how is the bridge slot.

Note: Almost all new guitars are using 2.3mm. NanoFlex 6 and PanaFlex pickups are available in 2.3mm width only.

If you are using a **NanoFlex 6** or a **PanaFlex**: Before you install the pickup: Check the correct string spacing!

- 11.8mm for classical guitars with nylon strings. (Needed for some baritone-guitars too!)
- 11.0mm for acoustical guitars with steel strings.

△ If you are not sure if you can install it by yourself, we suggest contacting a luthier in your area!

△ Damaged pickups or other parts which were damaged by mishandling are out of the warranty.

Endpin Installation

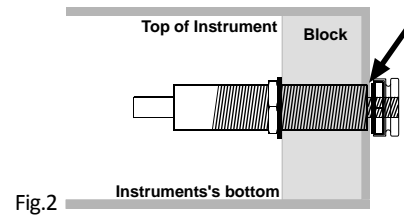
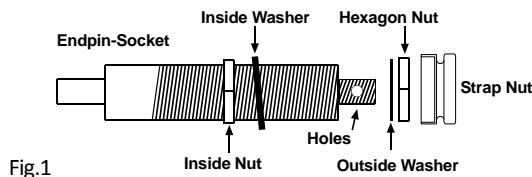
Take off the strings and remove original strap nut and increase hole up to 12.5mm diameter.

Remove endpin strap nut, hexagon nut and washer from the endpin.

(Fig.1): Mount the endpin as shown. Pay attention on the washer! Adjust the inside nut so that the larger threads end just below the surface of the instrument (Fig.2, arrow). Put a small screwdriver or similar in the two side holes of the endpin socket to lock it during screwing the hexagon nut.

Put the washer from the outside on the endpin jack and tighten the hexagon nut with 12mm wrench and screw endpin strap nut on.

Laying the cable in that way that it may not produce noise during vibration!



Pickup Installation

Remove the original saddle and drill a 3.1mm diameter hole in the corner of the saddle slot at the bass string side (Fig.3 D).

The hole has to be drilled in an angle of 30°-45°. Check your bracing before drilling the hole to avoid damage.

Clean up the saddle slot and eliminate the wood dust and chips. Lead the NFX pickup through the hole in the bridge and place it into the bridge slot showing "NFX top" up towards the saddle.

Fig.3: To accommodate the height of the original bridge reduce the height of the saddle. The thickness of the Nanoflex is around 0.8mm. Important: The bottom side has to be absolutely flat! Insert the saddle and secure it temporarily with a piece of tape.

Fig.4: Use the single wire clip (if supplied) to secure the wire from the pickup to the underside of the top and secure the cable into it. Failing to secure the wire may produce feedback and other bizarre audio consequences.

Also fix this area to avoid noise or feedback. You may use adhesive material to fix it. Connect the 3-pin cable of the pickup and the 4-pin cable from the endpin to the bottom of the preamp.

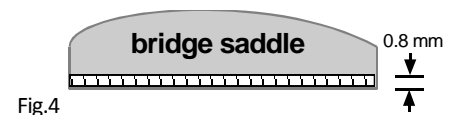
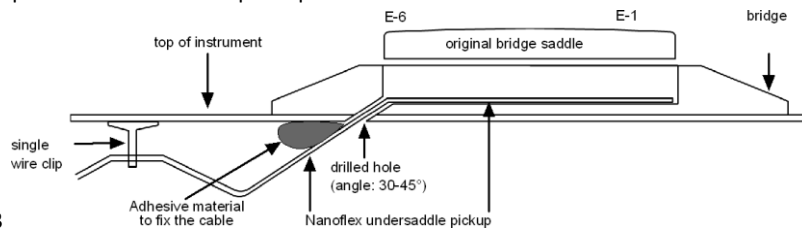
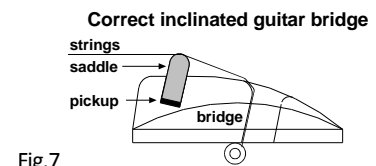
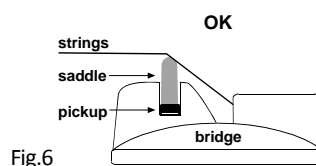
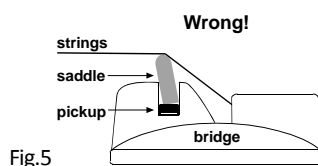


Fig.5: During reassembling the strings, pay attention to the saddle! If needed press it back to the correct upright position. See Fig.6. Otherwise it is easy to cause feedback!

Fig.7: Perfect bridges are using an inclination of around 13° to 15°. This is best for the sound quality, because the string vibrations are transferred perfect to the pickup.



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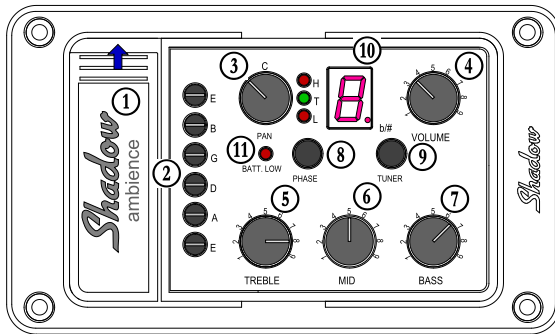
Introduction

Thank you and congratulations for choosing a Shadow pickup system. Shadow preamps are known for the most reliable, user-friendly and best sounding products on the market. As a result of an enormous research and development effort over many years, Shadow releases a revolutionary new stereo pickup system. The NanoFlex-6 pickup combines six small Nanoflex pickups with individual gain control.

Onboard Preamp Installation

Slide the preamp along the guitar side to find the point where the curve of the preamp matches the curve of the guitar. Mark the positions of the ends of the preamp and place masking tape across the side of the guitar. Measure the total width of the guitar side and mark the center point. Place the template sticker between the stripes of tape with the center marks lined up. Cut out hole in guitar body following the inside edge of the black line of the template. Place the preamp so that it fits precisely and drill with 1mm drill diameter four outside holes to fix the preamp. Connect pickup cable and endpin output cable to the preamp and mount the preamp into the guitar's side. Use included cable holders to fix the cables inside the guitar.

Operating Instructions



1. Battery compartment for 2x 1.5V AAA (Typ LR03, etc.)
2. 6x GAIN controls for each string
3. PAN
4. VOLUME Control
5. TREBLE Control
6. MID Control
7. BASS Control
8. PHASE Switch
9. TUNER Switch
10. BATT. LOW Led
11. TUNER Display and LEDs



Fig. 1

(1) Exchange Batteries*

Push the battery compartment (1) cover to the right and cover will pop up. Insert two batteries. The positive pole of the battery near to the hinge is up and the next battery show negative pole up. See Fig.1 for details. The battery turns on automatically, as soon as you plug the instrument cable into the endpin. To spare the battery life, take the cable out, when not used. If you don't want to use the unit for a longer period remove the batteries to prevent leakage. Fresh batteries may last up to ~180 hours when it is used under normal conditions. (Tuner = Off).

*Notes of battery disposal:

For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste!

There is a separate collection system for used batteries, to allow recycling and proper treatment in accordance with legislation.

For other countries: The used battery is to be returned to the selling point. Or contact your local authority for correct method of disposal of used batteries.

(2) GAIN Controls

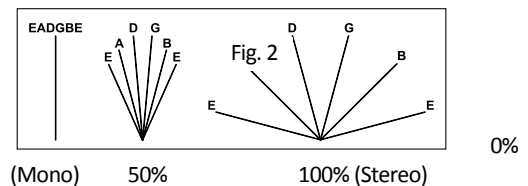
To adjust the single string gain (+/- 3 db) turn the small trim pot knob with the pick or finger nail. To increase the volume turn to the left from the middle; to decrease the volume turn to the right from the middle. **ATTENTION:** Do not overturn the gain pots – this may damage it!

(3) PAN Control

For this unique sound, simply connect your guitar by way of a standard stereo Y-cable to the mixing board.

- Adjust the panorama of your mixer to the left and right.
- Turning the PAN control clockwise separates the strings of your instrument step more. This brings about a tonal depth that up until now did not exist.

Fig. 2 shows the amount of the left and right signal controlled by the PAN control



(4) VOLUME Control

This control adjusts the overall volume. Normal operation should be between position 6 and 8.

(5) (6) (7) TREBLE, MID, BASS Control

Bass, Mid and Treble will change the EQ to desired sound. For a good weighted sound you can set all 3 EQ controls to the mid!

(8) PHASE Switch

Depending on the environment some feedback - which means awkward sound on one frequency - may occur. This has a physical background and depends on the position between your instrument and speaker. A good method to lower the risk of feedback is to turn the phase by 180° to change the physical conditions. Very often it helps, but sometimes it will support the feedback or just change the frequency of the feedback. In this case switch the phase back and try to change your position.

(9) (10) TUNER Switch and Display

Press the switch, to start the tuner operation. This mutes the analog output. The display (10) shows the note played and both LEDs HI or LO showing how close it is to the correct pitch. If you reached the final pitch the LED OK lights up. Press the switch again, to end the tuner operation. If the tuner is not in use (no input signal) for ~90 sec. the display will be switched off to save battery energy. This is shown by a flashing dot of the display.

(11) BATT. LOW LED

The voltage of the battery is always measured. Below a certain level – which means the battery capacity is diminished – the LED (11) starts to light. Then you should exchange the batteries soon.