Installation Instructions for
SH 4020-A & SH 4020-C

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.

Installation:
For all preamps you should start with the endpin installation, followed by the Nanoflex pickup installation and finished with the fitting of the preamp. We recommend installation by a professional. The systems are powered with 2 AAA 1,5V Batteries. The preamps turn on automatically as soon as the guitar cable is plugged into the endpin. The battery LED lights on 30 minutes before need to be replaced.

1. Endpin Installation:
Take off the strings, remove original strap nut and increase hole up to 12,5mm diameter. 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 on Fig. 2. Adjust the inside nut so that the larger threads end just below the surface of the instrument (Fig. 2, arrow). Put the washer from the outside on the endpin jack. Tighten the hexagon nut with 12mm wrench and screw endpin strap nut on.
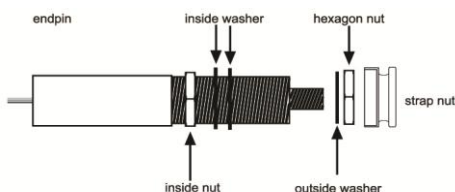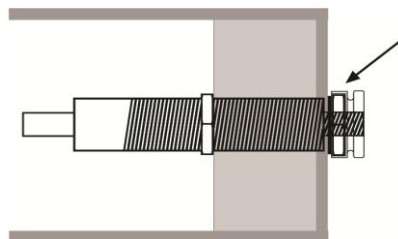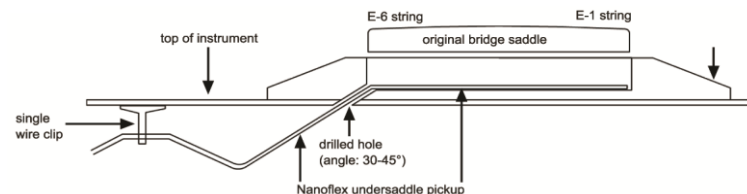
FIG. 1

FIG. 2

2. Installation of Nanoflex and Nanoflex 6 Pickup:
Take off the original saddle and drill a 3.1mm diameter hole in the corner of the saddle slot at the bass string side (see Fig.3). The hole has to be drilled in an angle of 30°-45°. Check your bracing before drilling the hole to avoid a damage of it. Clean up the saddle slot and eliminate the wood dust and chips.
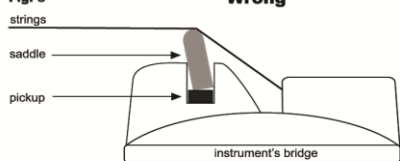Push the Nanoflex 6 pickup from inside of guitar through the hole in the bridge and place the pickup into the bridge slot. Make sure the 6 pickups showing towards the saddle. Pay attention that the bottom side of the saddle has to be absolutely flat.
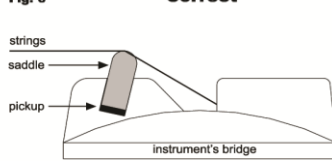
FIG. 3

Insert the supplied hexaphonic-saddle and secure it temporarily with a piece of tape. Use the single wire clip to secure the wire from the pickup to the underside of the top and secure the cable into it. Failed to secure the wire may produce bizarre audio consequences. Place the double cable holder to the side of the guitar and secure the endpin cable and the pickup cable into it.

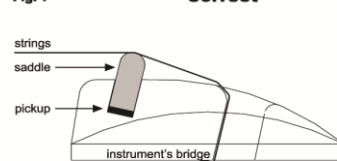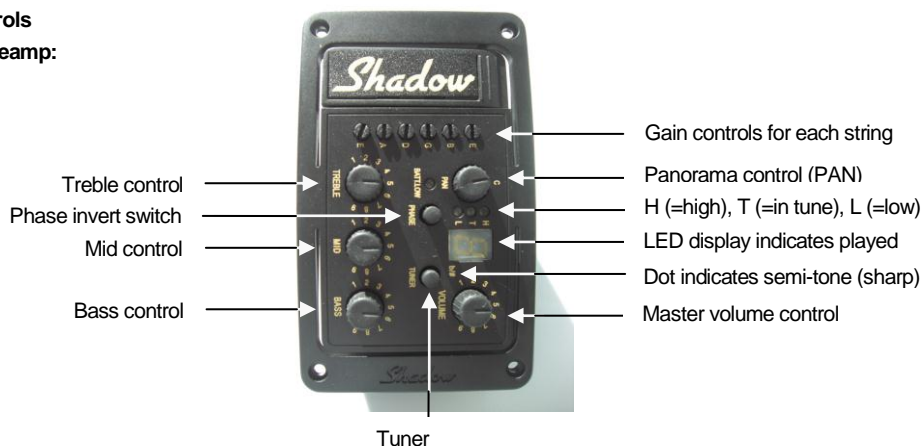**3. Onboard Preamp Installation:**
Slide the preamp along the guitar side to find the point where the curve of the preamp matches the curve of the guitar. Mark the positions of the ends of the preamp and place masking tape across the side of the guitar. Measure the total width of the guitar side and 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. Install new batteries. Be sure battery polarity is correct. Connect pickup cable and endpin output cable to the preamp and mount the preamp into the guitar's side. Check if the pickup and preamp are correct working and fix the screws of the preamp. Use included cable holders to fix the cables inside the guitar.

Mount the strings and tune your instrument. Make sure the strings do not pull the bridge saddle forward in neck direction (Fig. 3, 4 & 5). Connect the endpin to an appropriate amplifier.

Note: 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.

**There are following controls
at the front side of the preamp:**

Treble control
Phase invert switch
Mid control
Bass control

Gain controls for each string
Panorama control (PAN)
H (=high), T (=in tune), L (=low)
LED display indicates played
Dot indicates semi-tone (sharp)
Master volume control

Tuner

Tuner:
To use tuner, push tuner ON/Off knob (which mutes the signal automatically). Plug the string and display will show which note is played. If you plug E6 you should tune it so that the display show E. Left side LED will indicate if to high (H), to low (L) or in tune. When it is correctly tuned it must show E and the green LED must be on. When you tune the instrument, the sound is muted. When finished tuning, press the tuner ON/off button and the tuner will get off. The sound will return.

Phase:
Phase switch will not change the sound in any position. It is used when you get the feedback. Pressing Phase switch you change the signal phase only which should cancel the Feedback.

Volume:
Volume will cut or increase total volume.

Equalizer Controls - Bass, Mid, Treble:
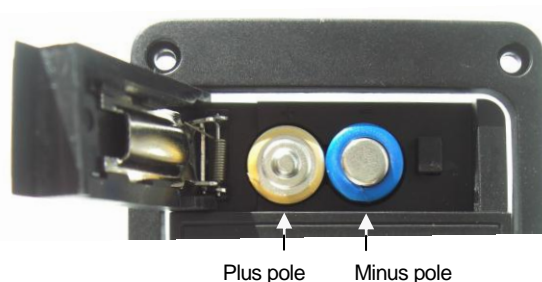Bass, Mid and Treble will change the EQ to desired sound.

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 this pot .You will feel the stop position on each side total turn angle is 270°.

Exchange Battery:
To change the battery use 2 x 1,5 V AAA batteries. Push the battery compartment cover to the right and cover will pop up. Insert the batteries so that the positive pole of the battery near to the hinge is up and the next battery show negative pole up.
Note: 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.
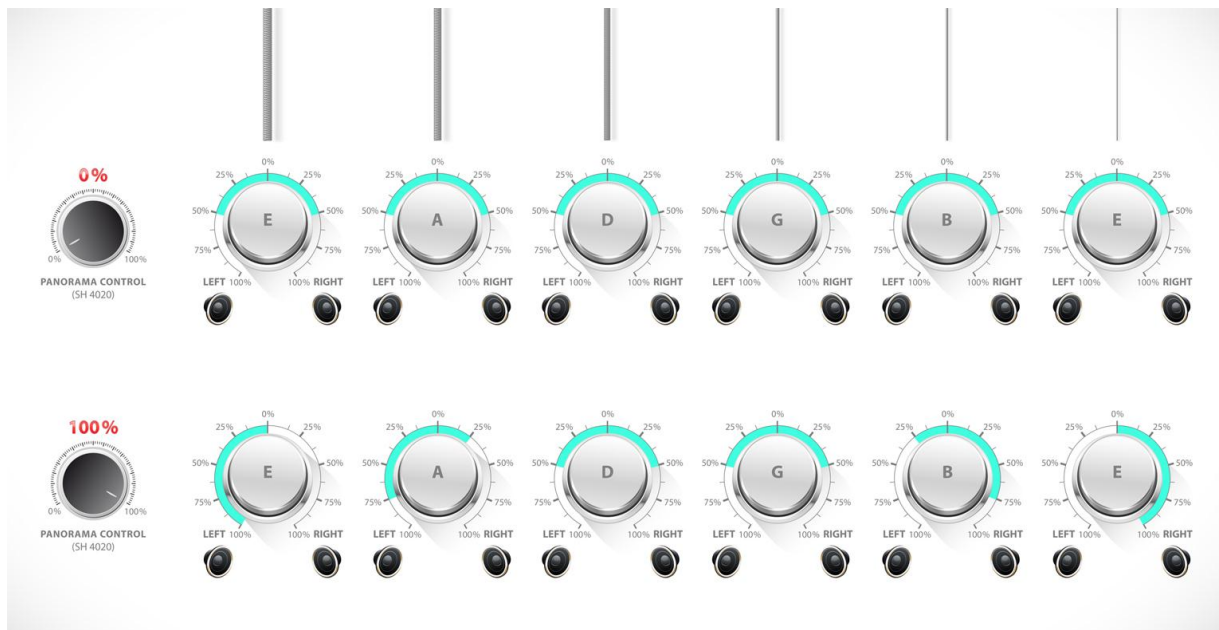
Plus pole   Minus pole

Panorama (PAN):
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 stepless. This brings about a tonal depth that up until now did not exist.
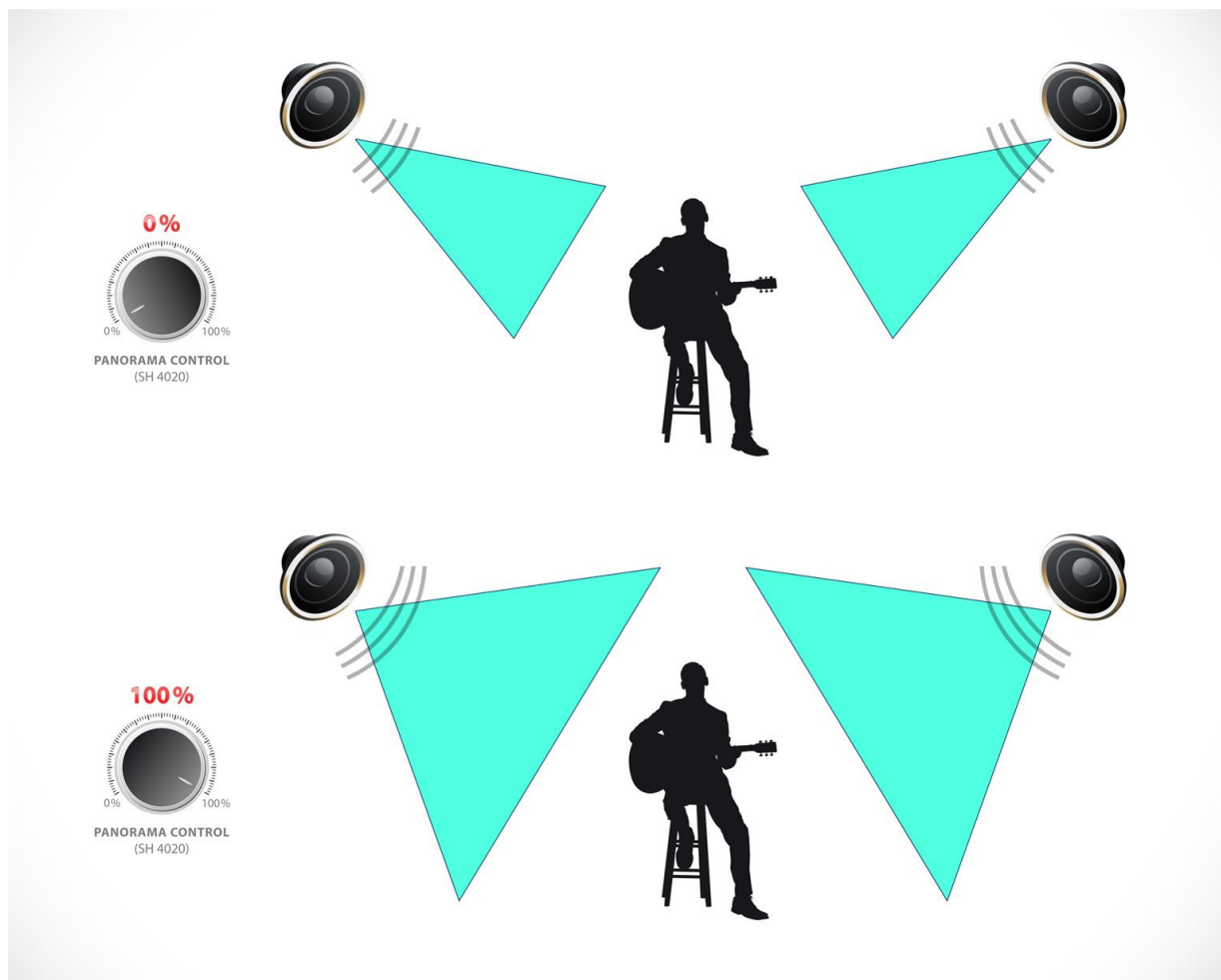
Separation of the strings in maximum position of PAN control:
- low E-string sounds 100% on the left speaker
- A-string sounds 75% on the left speaker (25% right)
- D- and G-strings sound 50%-50% on the left-right speaker
- B-string sounds 25% on the left speaker (75% right)
- high e-string sounds 100% on the right speaker.

String separation when turning the PAN control to maximum:

Turning the PAN control opens the window to a new dimension in sound:

Of course, you can use this preamp also with a mono cable. In this case you must turn the Panorama control off (to the left).