SH 4012-A ACOUSTIC GUITAR
SH 4012-C CLASSIC GUITAR



#### 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 PanaFlex pickup combines six small Nanoflex pickups into two output channels.

# String spacing

The PanaFlex – acoustic pickup has a string spacing of 11mm. The PanaFlex – classic pickup has a string spacing of 11.8mm. → Please note that some baritone acoustic guitars also need the classical spaces of 11.8mm!

#### Installation

For all preamps you should start with the endpin installation, followed by the Panaflex pickup installation and finished with the fitting of the preamp. We recommend installation by a professional. The systems are powered with 2x AAA 1.5V (E.g. AM4, LR03) batteries. The preamps turn on automatically as soon as the guitar cable is plugged into the endpin. The red LED lights up when it is time to replace the batteries soon.

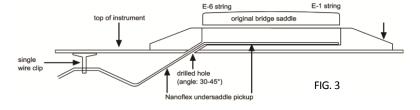
# 1. Endpin Installation

- Take off the strings, remove original strap nut and increase hole up to 12.5mm (1/2 in) diameter
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- 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 and tighten the hexagon nut with 12mm wrench and screw endpin strap nut on

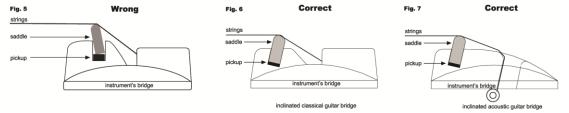


# 2. Installation of the pickup

- Remove the original saddle and drill a 3.1mm (1/8 in) diameter hole in the corner of the saddle slot at the bass string side (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 to it and clean up the saddle slot and eliminate the wood dust and chips



- Push the PanaFlex pickup from inside of guitar through the hole in the bridge and place the pickup into the bridge slot
- Important: Make sure the imprint of the PanaFlex is showing towards the saddle
- Be sure the bottom side of the saddle is absolutely flat
- Insert the supplied 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. It is also a good method to fix
  the part of the PanaFlex looking inside the guitar with double adhesive tape or similar



# 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 that pickup and preamp are working correctly and fix the screws of the preamp.



# The controls on the front side of the preamp:



- Onboard Preamp with stereo NanoFlex (PanaFlex) pickup It is an internal combination of 6 pickup elements mixed down to stereo output
- PAN (Panorama) control to choose between mono and stereo sound
- Double B/T: Separate control for upper and lower strings
- Automatic chromatic tuner
- Phase invert switch
- High-quality output connection (stereo)
- Outer bezel dimensions: 92mm x 55mm (3.62" x 2.17")
- Cutout dimensions: 72mm x 43mm (2.83" x 1.69")

#### **TUNER**

To use the automatic chromatic tuner, push the TUNER button. Pluck the string and the display will show which note is played. If you pluck E6 you should tune it so that the display show E. Left side LED will indicate if to high (HI), to low (LOW) or in tune. When it is correctly tuned it must show E and the green LED must be on. The b/# LED indicates a halftone: e.g. F# or C#. When you tune the instrument, the sound is automatically muted.

When finished tuning, press the TUNER button again to switch tuner off. The sound will return.

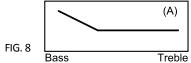
#### VOLUME

This control adjusts the overall volume.

# Upper B/T control

To control the tone for the upper bass strings: [E-A-D]. It works like a bass/treble rocker:

- Middle position: Flat sound
- If you turn the pot away from the center positions either bass or treble increases. See Fig. 8
- If bass is increasing (A) the treble will stay flat!
- Same if you increase treble (B): Bass will stay flat





# Lower B/T control

Same function as upper B/T control but controls the sound for the lower treble strings [G-B-E]:

This is the perfect solution to control the sound for individual picking or strumming styles. You can add more treble to the bass strings to make it sound more clearly and you can add more warmth to the treble strings by adding bass when turn the control to the left side

### PHASE

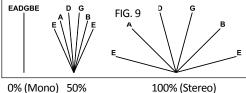
Pressing the PHASE switch turns the signal phase by 180° which can be helpful defeating feedback on higher sound volumes.

# PAN (Panorama 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.

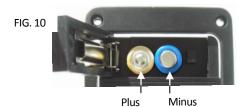
Fig. 9 shows the amount of the left and right signal controlled by the PAN control



#### **Exchange Battery**

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. See Fig. 10

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. If you do not use it for a longer time remove the batteries to prevent leakage!



#### **Technical Notes:**

- This unit uses an active stereo NanoFlex (PanaFlex) pickup. You cannot connect other pickups, e.g.: another brand or passive piezo pickup, to it. This may damage the pickup or the preamplifier.
- Update information may be found on our website: http://shadow-electronics.com

Errors and omissions excepted - Subject to change without prior notice!



