

## **HFN-C Artist Installation Instructions Active Pickup For Classical Guitars**

To Install the HFN-C Artist you will need the following tools:

Electric drill, 1/2"spade or forstner bit, assorted drill bits to 1/2", x-acto, side cutters , needle nose pliers.

**Important - Please read the Artist II Preamp Detailed Instruction Sheet before installing your pickup system**

### **Installing the Endpin Jack Preamp**

- 1) Slack off all six strings and remove them or tape them out of the way. Remove any end pin at the butt.
- 2) If the instrument had a strap button attached with a small screw, use either the spade or forstner bit to drill a pilot hole through the end block.
- 3) If the instrument had a strap button press fitted or glued into a tapered hole in the end block, you will need to gradually and carefully increase the diameter of the hole to 1/2" using either a tapered reamer or a succession of different drill bits concluding with a 1/2" size.
- 4) Remove the outer strap button, and the small nut and washer from the endpin jack.
- 5) Reach inside the sound hole and poke the endpin jack through the drilled hole in the end block. The jack should protrude approximately 5/16" outside the guitar. Reinstall the flat washer and small nut.
- 6) Insert a small allen wrench or other small round (a drill bit) through the 2 holes in the end of the endpin jack to keep the jack assembly from rotating; tighten the small nut.

### **Mounting Materials**

Each pickup comes supplied with a quantity of 2 different thicknesses of double sided foam tape for mounting the pickup to the underside of the bridge plate or soundboard. Make sure that area that you're putting the pickup in is clean and dust free. If in doubt, wipe the underside area with a clean cloth or paper towel moistened with a little rubbing alcohol to clean off any grime.

- 1) The thicker mounting tape should be used in almost all installations. It provides the best balance and relative output for most instruments.
- 2) If your instrument is relatively stiff or not high in acoustic output, then the thinner tape may be used to boost output and response. The thinner tape will also bring in more top end to the pickup.

### **Installing the Pickup**

Ideally, the under the bridge area where the pickup is to be mounted should be almost perfectly flat. However in most cases there is some curvature to that area caused by the pulling tension of the strings on the top. For most installations this minor curvature won't affect pickup performance. But, in some cases one has to adjust pickup fit. Please read section on String Balance and Troubleshooting for more information.

- 1) The pickup is meant to go as directly under the bridge and saddle as possible (and in line with it). The center arch of the pickup should span the center brace of the instrument. It is suggested that you take a measurement from the edge of the sound hole to the center of the saddle and cut a thin piece of scrap wood to the same length. When you have your hand inside the instrument you can use this 'stick' to help locate where the pickup should go.
- 2) Remove the backing from one side of the foam tape. With the foam tape sticky side up on a flat surface, place the feet of the pickup over the tape and press down to make the tape adhere to the feet.
- 3) Cut away the tape that now covers the center arch of the pickup, leaving the rest of the tape in place including the tape that spans the arches of the outer feet of the pickup.
- 4) Remove the remaining backing from the foam tape.
- 5) The black rectangle shown in **Fig 2** indicates the pickup placement. For instruments that do not have a bridge plate you may ascertain the correct position for the pickup by tapping on the saddle with your finger and feeling inside next to the center brace in the bridge area to find the spot with the most vibration.6) Press the pickup firmly into place.

### **Installing Thumbwheel Controls**

- 1) Thumbwheel controls are normally installed so that the black wheels extend just slightly beyond the edge of the soundhole on the bass side.
- 2) Feel inside your guitar, under the lip of the soundhole and find an area that is clean and flat and large enough for the control unit to sit flat. The control unit must sit flat in order for the VHB foam adhesive to hold properly. If a large enough flat area does not exist, a small thin wood plate may have to be glued in to provide the necessary flat room between braces.
- 3) Remove the backing from the VHB tape and while supporting the outside area of the soundhole, firmly press the control unit into place.

### **Installing the Battery Bag**

- 1) In order to make sure that the battery wires will reach to where you want to position it, install a battery in the bag and attach the battery connector.
- 2) Chose a spot on the inside of your guitar where you would like to place the battery. Make certain that you can reach the battery through the soundhole and that both the battery and the wires can remain out of sight. Make sure that the spot you chose is relatively flat and that it is clean and dry.
- 3)Once you have confirmed the location, peel the backing from the velcro pad and press it into place.

### **Finishing Touches**

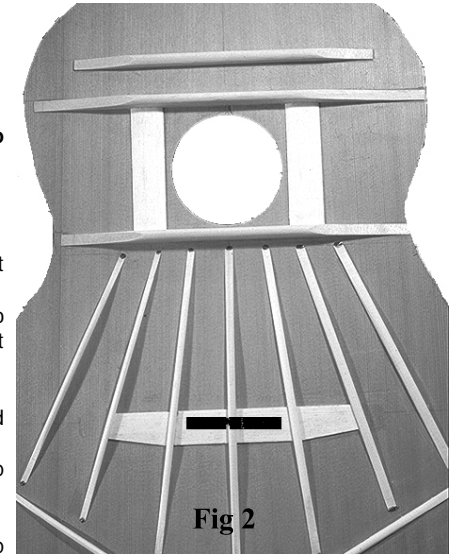
- 1) Using the supplied wire holders, clamp the battery leads and pickup lead wire so they are secure. Reinstall the strings.

### **String Balance and Troubleshooting**

Some guitars can exhibit variations in volume from string to string. These variations will usually show up as an outer string not being as loud as an inner string. The cause of these imbalances can be excessive curvature across the bridge plate or a physical out-of-phase issue within the structure of the instrument itself. Here are some things that can be done to help if you run into these problems. The pickup works by physically sampling vibration through the 3 'feet' of the pickup base. The first thing one should try is to keep the center foot of the pickup base from coming into contact with the bridge plate and this can be accomplished by using a new piece of VHB tape and only putting the tape on the outside two 'feet' of the pickup. If you are using the putty for mounting the pickup, remove the putty from the center 'foot' of the pickup and reinstall.

### **Warranty**

We warrant to the original purchaser that our pickups are free from defects in materials and workmanship for a period of 2 (two) years. Should a product fail to perform properly within the specified warranty period you may contact your dealer or Schatten Design for instructions. No product will be accepted for warranty return by Schatten Design without a Return Authorization number.



**Fig 2**

## **Instructions d'installation Collecte active d'artiste de HFN-C pour les guitares classiques**

Pour installer le HFN-C Artiste vous aurez besoin des outils suivants :

Mèches de forage, 3/16 " 3/8 " et 31/64 " , les bavures cannelées, couteau x-acto ou ciseaux latéraux, pince-nez.

### **Installation du préampli de goupille d'extrémité**

- 1) Relâchez chacune des six cordes et enlevez-les ou attachez-les avec du ruban adhésif à l'écart. Enlevez n'importe quelle goupille d'extrémité au bout de la guitare.
- 2) Forez un trou pilote par le bloc d'extrémité approximativement 3/16 " de diamètre dans le secteur que vous souhaitez placer la goupille d'extrémité du cric.
- 3) En utilisant des bavures cannelées, chanfreinez les bords du trou de sorte que vous n'endommagiez pas la finition de l'instrument quand vous employez les tailles plus grandes requises.
- 4) Forer par le bloc d'extrémité de guitare en utilisant une mèche 3/8 " et chanfreiner de nouveau le trou. Répétez le forage avec une mèche 31/64 " pour accomplir les opérations de forage.
- 5) Enlevez le bouton externe de courroie, et le petit écrou et rondelle de la goupille d'extrémité du cric.
- 6) Atteignez à l'intérieur du trou sonore et poussez le cric de goupille d'extrémité par le trou foré dans le bloc d'extrémité. Le cric devrait dépasser approximativement 5/16 " en dehors de la guitare. Réinstallez la rondelle plate et le petit écrou.
- 7) Passez une petite clé hexagonale ou tout autre petit rond (comme une mèche de foret) dans les 2 trous à la fin du cric de goupille d'extrémité pour prévenir le cric de tourner ; serrez le petit écrou.

### **Matériaux de support**

Chaque collecte vient fournie avec une quantité de 2 épaisseurs différentes de double bande dégrossie de mousse monter la collecte au dessous du pont ou tableau sonore. Assurez-vous que le secteur où vous mettez la collecte dedans est propre et sans poussière. En cas de doute, essuyez le secteur de dessous avec un tissu propre ou une serviette humide avec alcool de frottement pour nettoyer n'importe quelle crasse.

- 1) La bande plus épaisse de support devrait être utilisée dans presque toutes les installations. Il fournit le meilleur équilibre et rendement relatif pour la plupart des instruments.
- 2) Si votre instrument est relativement raide ou bas dans le rendement acoustique, alors la bande plus mince peut être utilisée pour amplifier le rendement et la réponse. La bande plus mince apportera également une extrémité plus supérieure à la collecte.

### **Installation de la collecte**

- 1) La collecte est censée pour aller directement sous le pont et la selle comme possible (et en conformité avec elle). La voûte centrale de la collecte devrait enjamber le croisillon central de l'instrument. On le suggère que vous mesurez à partir du bord du trou sonore au centre de la selle et couper un morceau mince de bois de même longueur. Quand vous avez votre main à l'intérieur de l'instrument vous pouvez utiliser le bois pour aider à placer là où la collecte devrait aller.
- 2) Enlevez le support d'un côté de la bande de mousse. Avec le côté collant de bande de mousse vers le haut sur une surface plate, placez les pieds de la collecte au-dessus de la bande et les enfoncez pour faire la bande adhérer aux pieds.
- 3) Couper la bande qui couvre maintenant la voûte centrale de la collecte, partant du reste de la bande en place y compris la bande qui enjambe les voûtes des pieds externes de la collecte.
- 4) Enlevez le support restant de la bande de mousse.
- 5) Le rectangle noir montré dans schéma 2 indique le placement de collecte. Pour les instruments qui n'ont pas un plat de pont vous pouvez vérifier la position correcte pour la collecte en tapant sur la selle avec votre doigt et en se sentant à l'intérieur à côté du croisillon central dans le secteur de pont pour trouver la tache avec le plus de vibration.
- 6) Serrez la collecte fermement en place.

### **Installation du support de batterie**

- 1) Afin de s'assurer que les fils de batterie atteindront là où vous voulez placer le support, installez une batterie dans le support et attachez le connecteur de batterie à elle.
- 2) Choisir un endroit à l'intérieur de votre guitare où vous voudriez placer le support de batterie. Assurez-vous que vous pouvez accéder la batterie par le trou sonore et que la batterie et les fils peuvent demeurer hors de vue.
- 3) Assurez-vous que l'endroit que vous avez choisi est relativement plat et qu'il est propre et sèche.
- 4) Une fois que vous avez confirmé l'endroit, épiluez le support pour exposer la bande collante sur le support de batterie et pour la serrer en place

### **Touches de finition**

- 1) En utilisant les supports fournis de fil, maintenez les câbles de batterie de sorte qu'ils demeurent hors de vue.
- 2) Utilisez au besoin, également une bride pour tenir le fil mineur de collecte et pour l'empêcher de cliqueter autour à l'intérieur. Réinstallez les cordes.

**Note :** Le préampli fourni avec ce système de collecte a beaucoup de puissance. Assurez-vous que quand vous le branchez à votre ampli le volume est pratiquement fermé jusqu'à ce que vous soyez familiarisé du rendement du système et comment votre amplificateur réagit.

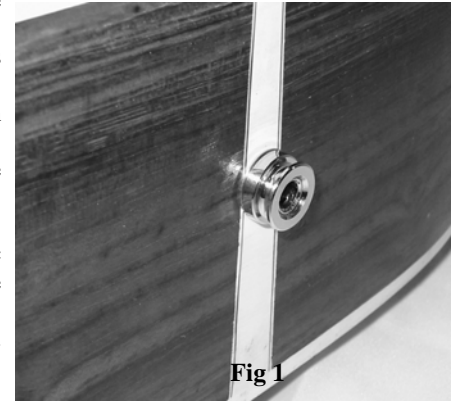


Fig 1

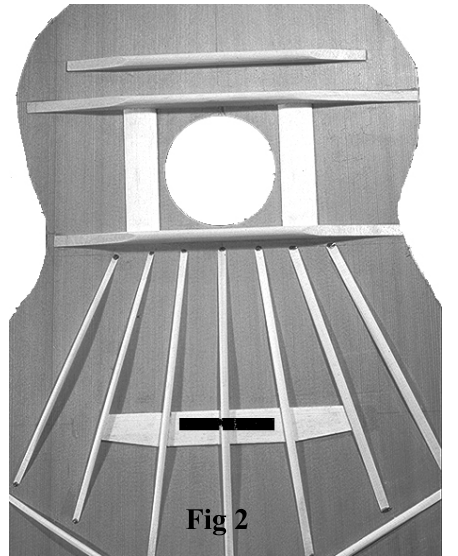


Fig 2

### **Garantie**

Nous justifions à l'acheteur original que nos collectes sont exemptes des défauts en matériaux et de l'exécution pendant une période de 2 (deux) années. Si le produit échoue à exécuter correctement au cours de la période indiquée de garantie vous pouvez entrer en contact avec votre revendeur ou concepteur de Schatten pour des instructions. Aucun produit ne sera admis pour le retour de garantie par Schatten Design sans numéro d'autorisation de retour.

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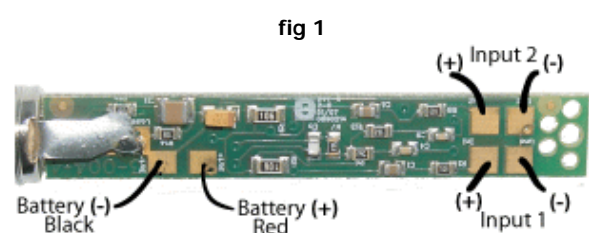
**Artist II Preamp Detailed Instructions**

Please read these instructions before installing your pickup system

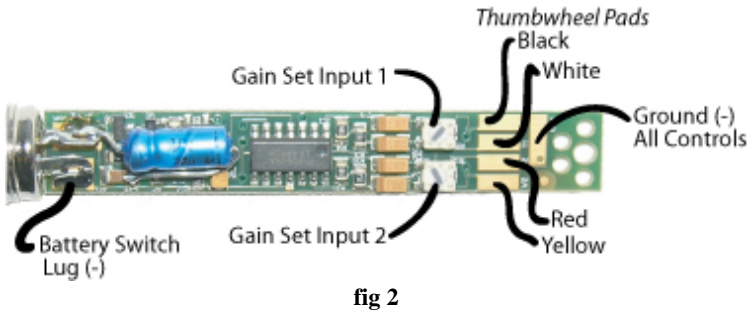
**Preamp Specs:**

2 Channels, gain settable from 0 to 24 db. on each channel via the small white trim pot on each channel.  
 Multiple power capability - The preamp may be run from a 9 volt battery onboard an instrument, or with phantom power (up to 48 volts d.c.) from a mixer or amplifier, or from an outboard battery pack (part RP-1). A special cable (part CAB-1) is required to run from either phantom power or battery pack.

<b>CAB-1 Cable Specs:</b> <i>Optional</i> Ten foot, 3 conductor cable, XLR male to TRS 1/4" stereo male.		<b>RP-1 Battery Box Specs:</b> <i>Optional</i> remote 18 volt battery box, XLR female jack to 1/4" mono female jack, holds 2 x 9 volt d.c. batteries. Requires CAB-1 cable from instrument to RP-1. A standard guitar cord is used to connect from the 1/4" mono jack to a guitar amp	
XLR Pin		1/4" Stereo	
Pin 1	= Ground =	Sleeve	
Pin 2	= Signal =	Tip	
Pin 3	= Power =	Ring	



**Setting The Gain** Figures 1 and 2 show where all solder points are made on the circuit board. As supplied from our shop, if a pickup comes prewired to the preamp, the gain on the channel that the pickup is connected to is set at approximately 20% of maximum. If no pickup is prewired in, then both channels of the preamp are turned to '0' and the gain has to be set to suit whatever is going to be connected.  
**Important:** Any channel that is not being used should have its gain set to zero or noise will be created.



For installations where another active pickup is being used and one wants to utilize the capabilities of the Artist II circuitry, the following guidelines should be followed. Power (+) may be obtained from the pad marked 'Battery (+) Red' in fig.1. Ground (-) may be obtained from the pad marked 'Battery (-) Black' in fig.1. The lead from this secondary active pickup that is normally used to turn the battery on and off is to be connect to the pad marked 'Battery Switch Lug (-)' in fig.2.

Figure 3 shows a close up of the trim pots for setting the gain on each channel. Note that the trim pot on the left of the picture is set to zero as it should be if that channel is not being used. Also note that the trim pot on the right is set to approximately 2, as that channel is being used. It is suggested that 2 is a good starting point for setting the gain on most pickups although it may be necessary to adjust the gain up or down from that point depending upon the input level of the device connected.

**Thumbwheel Controls:**

If thumbwheel controls are installed on a given channel of the preamp, there is a trace from the trim pot to the solder pad on that channel that is cut from the factory (indicated by the "X"). The thumbwheel controls will not function if the trace is not cut. If two thumbwheel controls are being used, then the traces from each trim pot, as indicated by the two "X"s must be cut. One may cut the trace with an x-acto knife or other small sharp blade. It generally takes several hard strokes with a blade to cut through both the circuit board coating and the trace. Do not cut the trace on a channel if no thumbwheel control or external volume control is present.

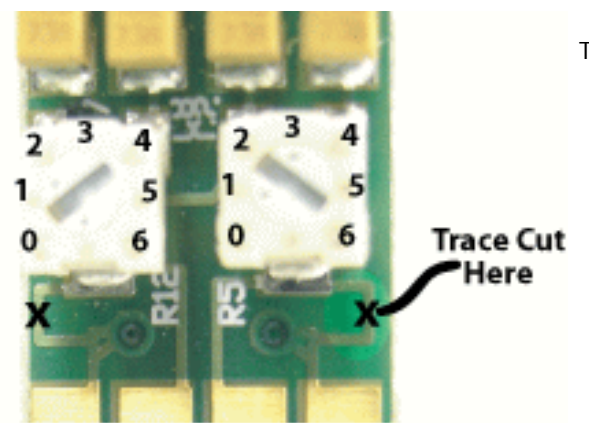


Figure 4 shows the wire colors and their positions relative to the thumbwheel circuit board. There is a bridge between the two indicated ground pads on the circuit board so that it is necessary to solder to ground only once if you are using a two control unit. If you are using a single control unit, then the circuit board is basically split in half (along the dotted line seen in the center of the board) and the ground would be soldered as indicated.

