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## INSTALLATION INFORMATION

### EMG MODELS: H3, H3A, H4, H4A

#### SPECIFICATIONS:

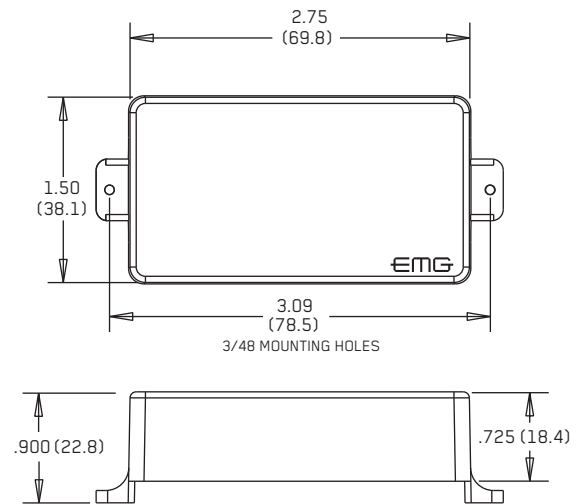
	MODEL:			
	H3	H3A	H4	H4A
Logo Color	Silver	Gold	Silver	Gold
Magnet Type *	C/S	A/S	C/S	A/S
Inductance (Henries) (1)	7.40	7.67	7.37	8.00
DC Resistance (kOhm)	13.65	13.65	13.65	13.65
Resonant Frequency (KHz) (2)	1.72	1.72	1.72	1.60
Resonant Frequency (KHz) (3)	3.00	2.92	2.95	2.87
Impedance at Resonance (kOhm) (2)	80.20	83.30	78.70	80.50

\*Note: Magnet Type: A (Alnico) A/S (Alnico/Steel) C (Ceramic) C/S (Ceramic/Steel)

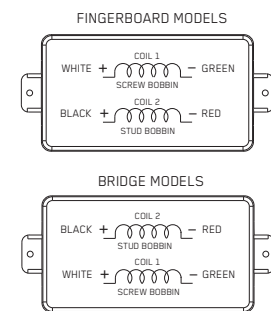
(1) Wired in Series

(2) Loaded with 500K Volume and Tone with a 20' (6M) cable

(3) Loaded with 1 MegOhm / 47pf



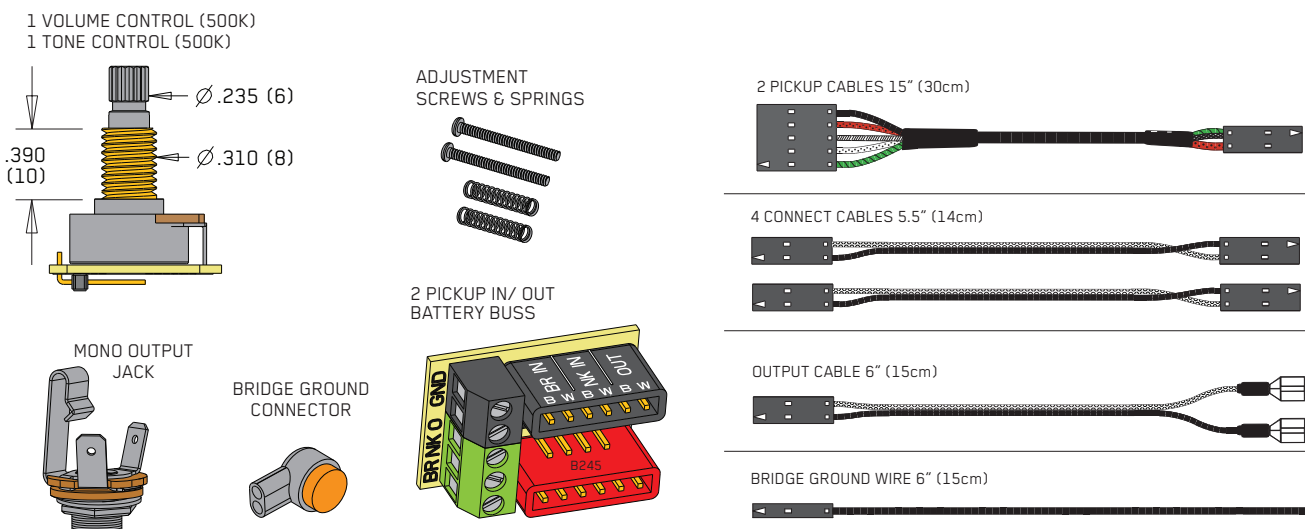
#### EMG-HZ COIL WIRING



#### INSTALLATION NOTES:

All EMG-HZ Pickups are compatible with each other. The connector system is an easy method of installation, avoiding the need to solder. If you have an older EMG-HZ Pickup you can install it with the new system. Refer to the B245 Buss data sheet to solder pickups without connectors. EMG Accessory Circuits like the VLPF, EXG, SPC or RPC Controls can be added to any EMG Pickup System, all have buffered inputs and can be used on either passive or active pickups. **SPECIAL NOTE: The Red Wire of the HZ Pickup is NOT for battery power, it is a coil wire.**

#### INCLUDED WITH EACH PICKUP:



#### WARRANTY

All EMG Pickups and accessories are warranted for a period of two years. This warranty does not cover failure due to improper installation, abuse or damage. If upon examination the pickup is determined to be defective, a replacement will be made. Warranty replacement products are covered by this same warranty. This warranty covers only those pickups and accessories sold by authorized EMG Dealers. This warranty is not transferable.

## Installation Instructions:

### EMG Models: EMG Models: H3, H3A, H4, H4A,

#### General Notes:

Every attempt has been made to make this a solderless installation. There are some instances where this is not possible;

- 1) If your instrument uses the long panel output jack, soldering will be required
- 2) Instruments with two pickups may need soldering to the selection switch in some installations.

If you are installing only one pickup use the instructions on this page.

If you are installing two pickups go to page 3 and begin there.

#### Installation (One Pickup Guitars):

- 1) Plug the pickup cable onto the EMG Pickup header as shown in Diagram #1 and route the cable to the control cavity. If the cable is too long, wind up the excess and keep it under the pickup or in the control cavity if possible. Diagram #2 shows the factory pre-wired cable. The Green wire and shield are pre-wired to Pin 1 and the Red wire is pre-wired to Pin 2. The Red wire is the signal output from the pickup. The White and Black wires are wired together and covered with shrink tubing. This is standard humbucking series wiring.

#### Master Volume control only

##### 2) Refer to Diagram #3.

Plug both the Pickup cable and the output cable onto the Volume control as shown, then go to step 4.

#### Master Volume and Tone control

##### 3) Refer to Diagram #4.

Plug the Pickup cable onto the Volume control as shown. Plug a connect cable from the Volume control to the Tone control. Plug the output cable onto the tone control as shown.

- 4) Connect the wires of the output cable to the output jack by pushing the connectors on as shown.  
WHITE wire to the TIP (T) contact,  
BLACK wire to the SLEEVE (S) contact  
We suggest that you plug in the instrument and test it before closing the control cavity.

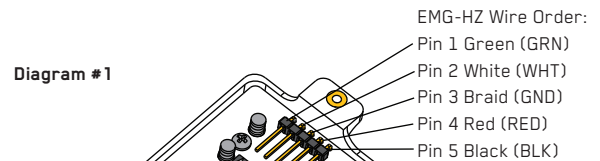


Diagram #2

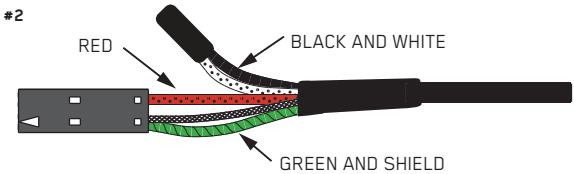


Diagram #3

One Pickup  
One Volume

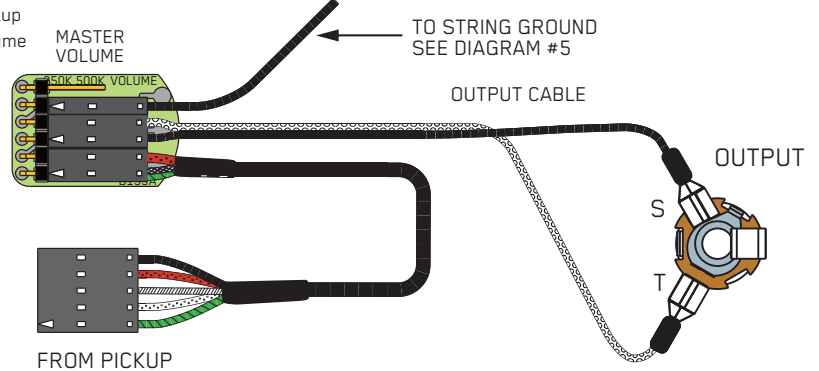
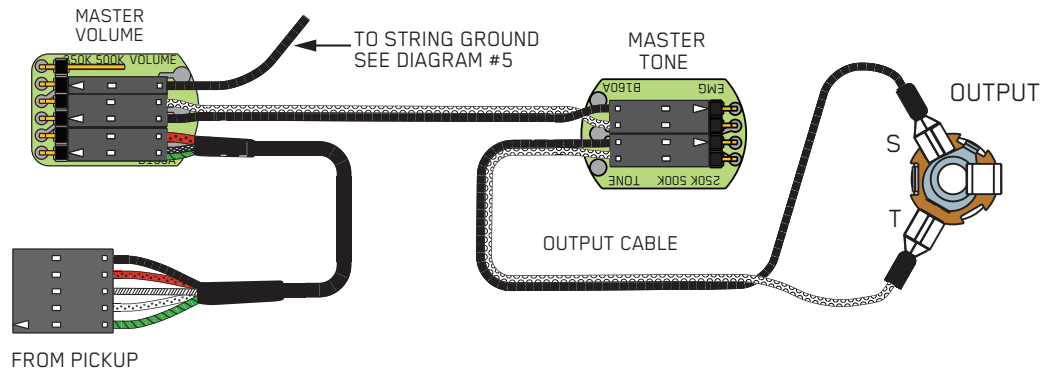


Diagram #4

One Pickup  
One Volume  
One Tone

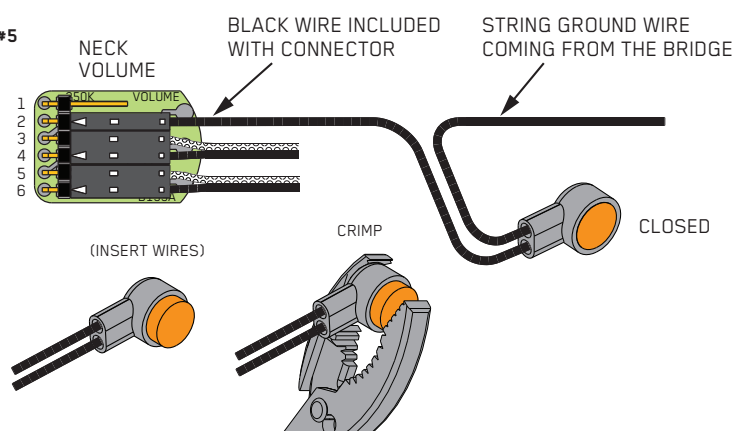


#### Attaching the bridge ground wire

##### 6) Refer to Diagram #5.

As mentioned on page 1, it is common to "ground" (earth) the strings on guitars that have passive pickups. Included with the system is a black wire with a single black connector attached. Also included is an IDC connector for connecting the two wires together. Insert the bridge ground wire, and the connector wire into the IDC connector, crimp the connector with a pair of pliers until it snaps and this will connect the two wires. You don't need to strip the insulation from the wires. Push the black connector onto terminal 2 (GND) of the volume control as shown in the diagram. This will ground the strings to the system.

Diagram #5



## Installation Instructions:

### EMG Models: H3, H3A, H4, H4A,

#### Installation (Two Pickup Guitars with Selection switch):

Guitars with two pickups and a selection switch will use the EMG B245 Pickup Buss.

The Pickup Buss is a convenient way to wire your guitar without soldering.

Since you are installing passive EMG-HZ Pickups the RED

Shroud of the B245 Pickups Buss will not be used. It is for battery power.

#### 2 Pickups / Toggle Select Switch / Master Volume and Tone

1) Install the Pickups and route the Pickup cables to the control cavity.

If the cables are too long, wind up the excess and keep it under the pickup.

**Refer to Diagram #6a**

2) Mount the Volume and Tone controls into the body.

Plug both Pickup cables onto the Pickup Buss (BLACK Shroud) as shown, Bridge Pickup to BR IN.

Neck Pickup to NK IN.

3) Plug a connect cable from the Pickup Buss (OUT) to the Master Volume control as shown in **Diagram #6b**.

4) Plug a connect cable from the Master Volume to the Master Tone as shown.

5) If using the EMG solderless 3 way toggle refer to **Diagram #7a**. If using a hardwired 3 way blade or lever switch see **Diagram #7b**.

6) Strip the insulation from the switch wires on your stock switch and insert them into the GREEN Terminal Block and tighten the screws with a small screwdriver.

The Bridge pickup goes to the BR Terminal

The Neck pickup goes to the NK Terminal

The Output of the switch goes to the O Terminal

If there is a ground wire coming from the switch, insert it into one of the black terminals on the terminal block. As shown in **Diagram #6b**.

7) Plug the output cable onto the Master Tone control and connect the output wires to the output jack by pushing the connectors on as shown.

WHITE wire onto the TIP (T) contact,

BLACK wire onto the SLEEVE (S) contact

We suggest that you plug in the instrument and test it before closing the control cavity.

#### \*\*\*\*Tips and Tricks\*\*\*\*

Start your installation by:

1) Removing the strings

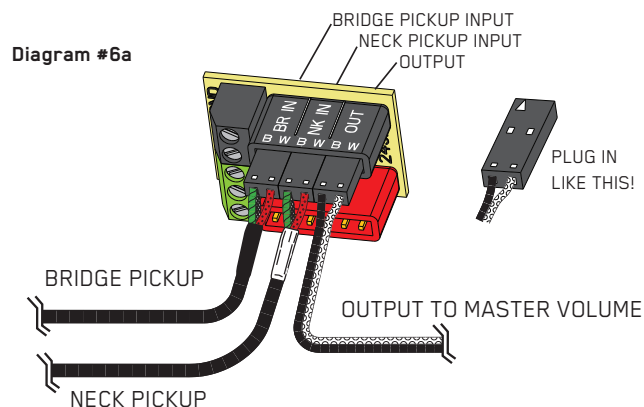
2) Remove any existing Pickups and controls

(remember the order and function of each control)

3) Determine a good spot for the Pickup Buss and make sure the cable or wires from the selection switch will reach the Pickup Buss,

4) Install the EMG Volume and Tone Controls and tighten them in.

5) Then install the pickups keeping any excess cable under the pickup rather than in the control cavity.



**Diagram #6b**

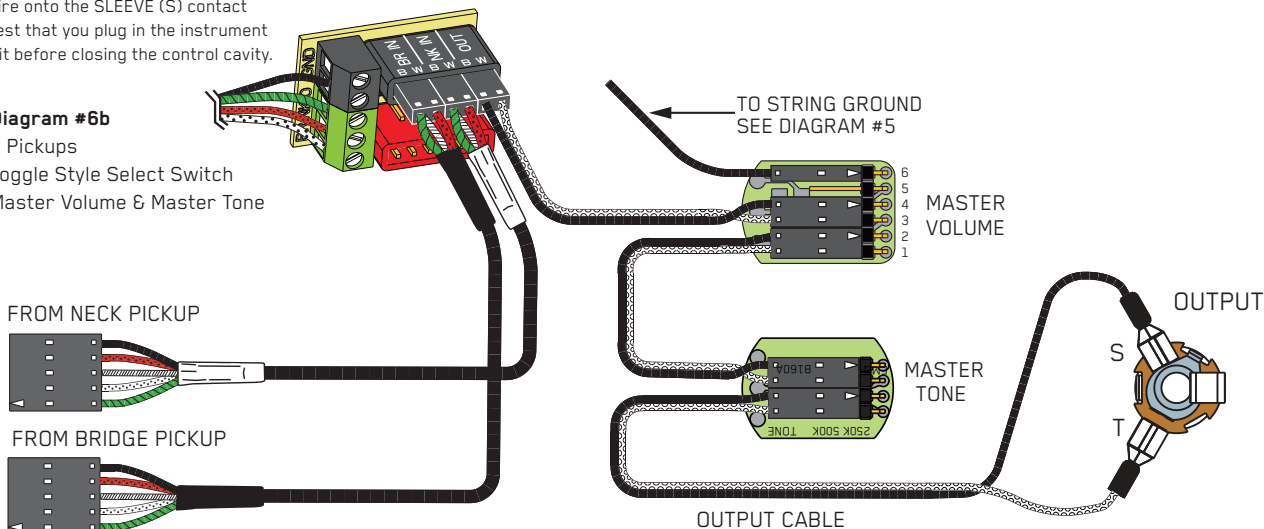
2 Pickups

Toggle Style Select Switch

Master Volume & Master Tone

FROM NECK PICKUP

FROM BRIDGE PICKUP

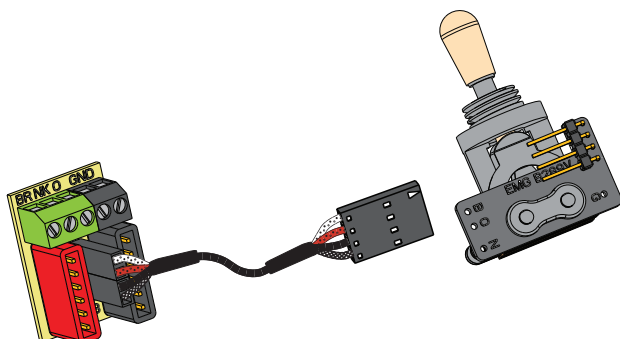


**Diagram #7a**

#### Connecting to the B289 3 Way Toggle:

Install the 4 pin Connector housing on the switch as shown in the diagram below. Install both of the 2 pin connectors on to the 4 pin connector between the black and red housings as shown. The black and green terminal blocks will not be used for the switch.

For more details you can refer to the B289 Instructions.

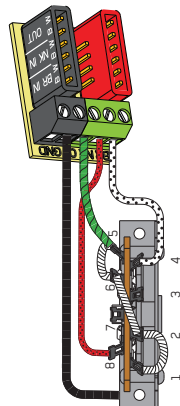


**Diagram #7b**

2 Pickups

Lever Style Select Switch

Master Volume & Master Tone



**Diagram #7c**

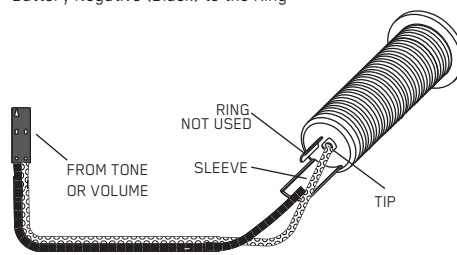
#### Soldering to the 152B Panel Jack:

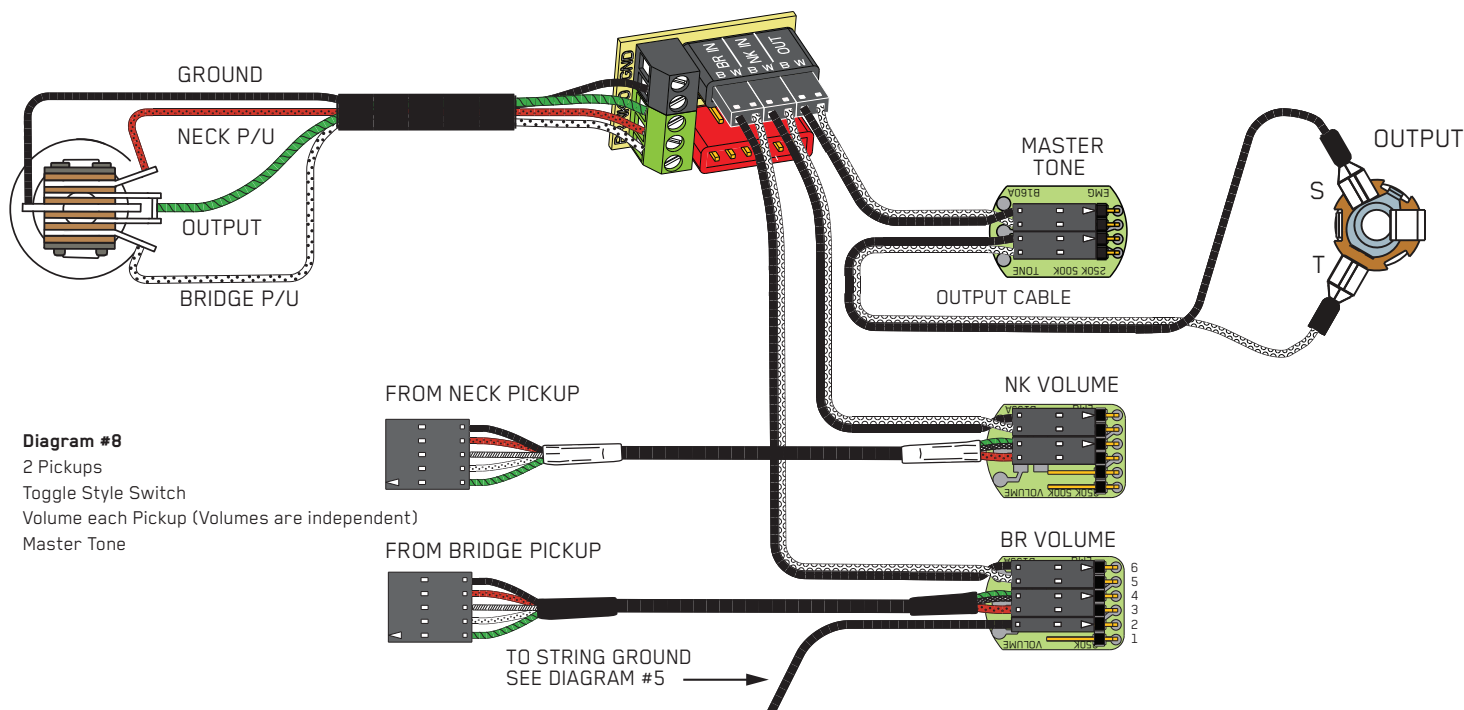
If your instrument has a long Panel Jack like the one below you will have to solder the output cable as shown.

Ground (Black) to the Sleeve

Signal (White) to the Tip

Battery Negative (Black) to the Ring





**2 Pickups / Toggle Select Switch / 2 Volumes and 2 Tones)**  
 Refer to Diagram #9

- 1) Install the Pickups and route the cables to the control cavity.  
 If the cables are too long, wind up the excess and keep it under the pickup.
- 2) Mount the Volume and Tone controls into the body  
 Plug both Neck and Bridge pickup cables onto the Volume Controls as shown.  
 Plug a connect cable from the Bridge (BR) Volume control to the Pickup Buss (Position 1).  
 Plug a connect cable from the Neck (NK) Volume control to the Pickup Buss (Position 2).
- 3) Plug a connect cable from the Bridge (BR) Volume control to the Bridge (BR) Tone control as shown.
- 4) Plug a connect cable from the Neck (NK) Volume control to the Neck (NK) Tone control as shown.
- 5) Strip the insulation from the switch wires and Insert them into the GREEN Terminal Block and tighten the screws with a small screwdriver.  
 The Bridge pickup goes to the BR Terminal  
 The Neck Pickup goes to the NK Terminal  
 The Output of the switch goes to the O Terminal  
 If there is a ground wire coming from the switch, insert it into one of the black terminals on the terminal block.
- 6) Plug the output cable onto the Pickup Buss (Position 3) and push the connectors onto the jack as shown.  
 WHITE wire onto the TIP (T) contact,  
 BLACK wire onto the SLEEVE (S) contact  
 We suggest that you plug in the instrument and test it before closing the control cavity.

