

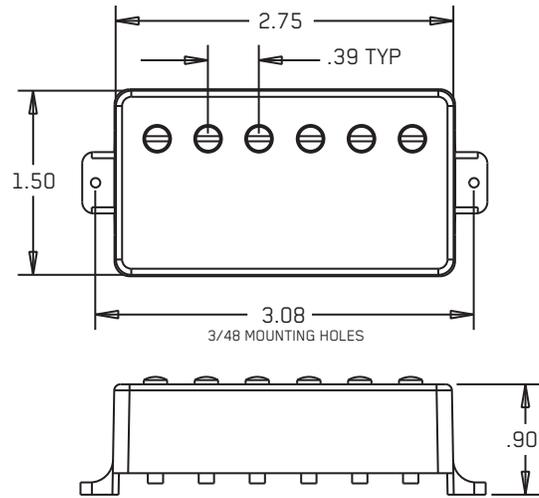
0230-0221A

PO BOX 4394
SANTA ROSA, CA
95402 USA

P (707) 525-9941
F (707) 575-7046
EMGPICKUPS.COM

INSTALLATION INFORMATION

EMG MODELS: H1, H1A, H2, H2A, H3, H3A, H4, H4A



SPECIFICATIONS:

	MODEL:				MODEL:			
	H1	H1A	H2	H2A	H3	H3A	H4	H4A
Logo Color	Silver	Gold	Silver	Gold	Silver	Gold	Silver	Gold
Magnet Type *	C/S	A/S	C/S	A/S	C/S	A/S	C/S	A/S
Inductance (Henries) (1)	7.15	7.80	4.53	4.90	7.40	7.67	7.37	8.00
DC Resistance (kOhm)	13.65	13.65	8.40	8.40	13.65	13.65	13.65	13.65
Resonant Frequency (KHz) (2)	1.65	1.65	2.22	2.12	1.72	1.72	1.72	1.60
Resonant Frequency (KHz) (3)	3.12	3.00	4.00	3.82	3.00	2.92	2.95	2.87
Impedance at Resonance (kOhm) (2)	74.00	80.80	63.30	65.40	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

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. Older HZ Pickup Systems may need to be soldered, while the newer systems can be easily connected and modified. If you have an older EMG-HZ Pickup you can install it with the new system. Refer to the B157 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.**

The B157 Pickup Buss is included with the EMG-HZ Pickups. If your installation is passive only and doesn't require a battery the RED V+ port of the Buss will not be used. If you decide to add active circuitry the B157 can power as many as 5 accessories. There are many EMG Accessories that can be added to your instrument easily. Go to <http://www.emgpickups.com>.

Each Pickup Includes:

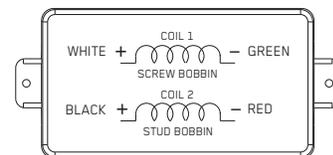
- 1 ea 5-Pin cable pre-wired in Humbucking Series format
- 2 ea 500K Pots with quick-connect solderless connectors
- 1 ea B157 Buss Board
- 1 ea #11 1/4 inch Phone Jack
- 2 ea Adjustment screws and springs

All EMG-HZ Pickups are direct replacement for Humbucking size Pickups. The 5-Wire cable allows Series/Parallel switching or simple single/dual-coil combinations can be used.

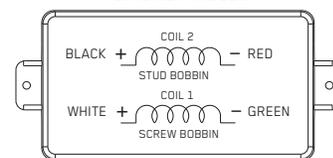
Pole Spread:

Standard Pole Piece spread is .388 (9.85mm) for Tune-o-matic bridges
Floyd Rose Pole Piece spread is .420 (10.67mm) for Floyd Rose bridges
Models H4 and H4A feature Bar Poles and are suitable for either bridge style

EMG-HZ COIL WIRING FINGERBOARD MODELS



BRIDGE MODELS



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: H1, H1A, H2, H2A, 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 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

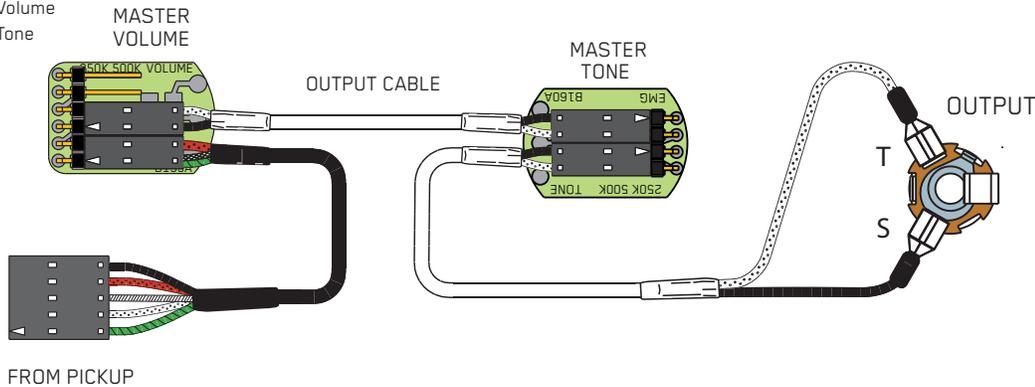
- 2) Refer to Diagram #3. Plug both the Pickup cable and the output cable onto the Volume control as shown, then go to step 4.

Master Volume and Tone control

- 3) Refer to Diagram #4. Plug the Pickup cable onto the Volume control as shown. Plug a coax 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 #4

One Pickup
 One Volume
 One Tone



EMG-HZ Wire Order:
 Pin 1 Green (GRN)
 Pin 2 White (WHT)
 Pin 3 Braid (GND)
 Pin 4 Red (RED)
 Pin 5 Black (BLK)

Diagram #1

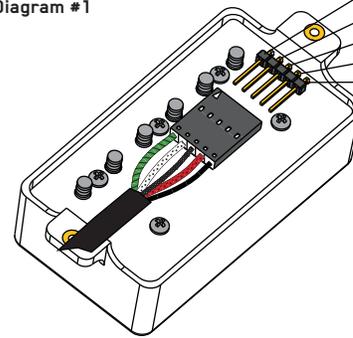


Diagram #2

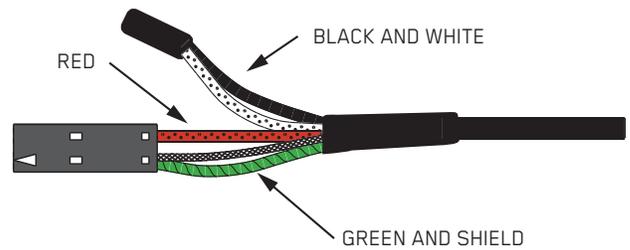


Diagram #3

One Pickup
 One Volume

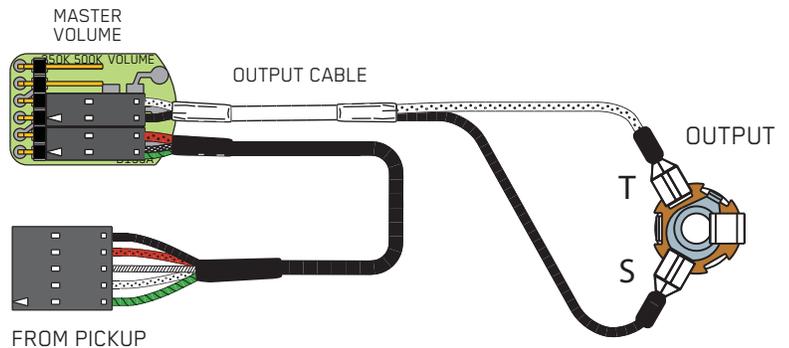
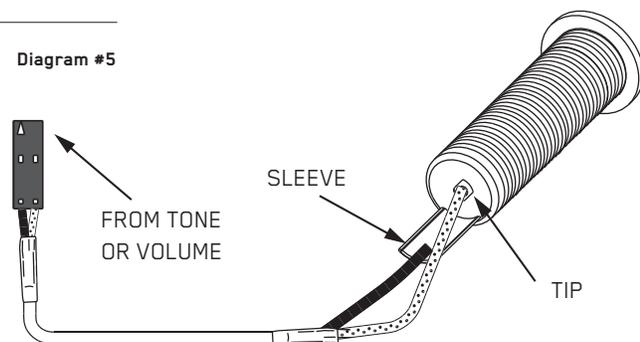


Diagram #5

Soldering to the 151 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



Installation Instructions:

EMG Models: H1, H1A, H2, H2A, H3, H3A, H4, H4A

Installation (Two Pickup Guitars with Selection switch):

Guitars with two pickups and a selection switch will use the EMG B157 Pickup Buss. The Pickup Buss is a convenient way to wire your guitar without soldering. There is a separate sheet attached to these instructions that describes the Pickup Buss in detail. Since you are installing passive EMG-HZ Pickups the RED Shroud of the B157 Pickups Buss will not be used. It is for battery power. In all installations it's best to find a place to mount the Pickup Buss in the control cavity before starting. Then, after the cables are routed use the velcro to mount it securely.

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.
- 2) Mount the Volume and Tone controls into the body.
Plug both Pickup cables onto the Pickup Buss (BLACK Shroud) as shown,
Refer to Diagram #6a
Bridge Pickup to Position 1
Neck Pickup to Position 2.
- 3) Plug a coax cable from the Pickup Buss (Position 3) to the Master Volume control as shown in Diagram #6b.
- 4) Plug a coax cable from the Master Volume to the Master Tone 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 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,

****Tips and Tricks****

Start your installation by:

- 1) Remove 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.

BLACK wire onto the SLEEVE (S) contact

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

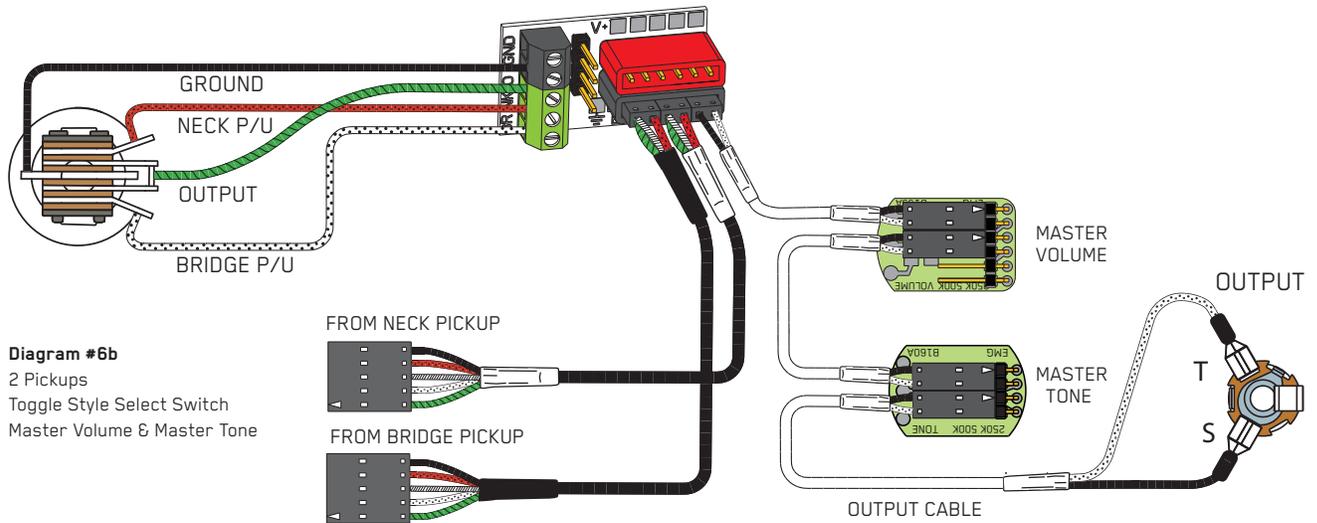
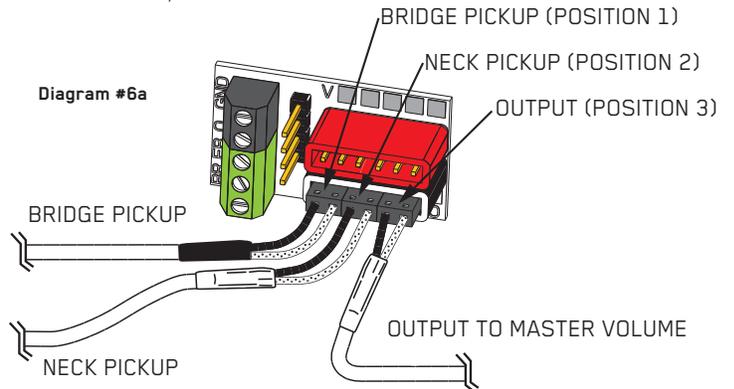


Diagram #6b
2 Pickups
Toggle Style Select Switch
Master Volume & Master Tone

2 Pickups / Toggle Select Switch / 2 Volumes and Master Tone

Refer to Diagram #7 (Next Page)

- 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.
- 2) Mount the Volume and Tone controls into the body.
Plug both pickup cables onto the Volume controls as shown.
Plug a coax cable from the Bridge Volume control to the Pickup Buss (Position 1)
Plug a coax cable from the Neck Volume control to the Pickup Buss (Position 2)
- 3) Plug a coax cable from the Pickup Buss (Position 3) to the Master Tone control as shown.
- 4) 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.
- 5) Plug the output cable onto the Tone control and connect the 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.

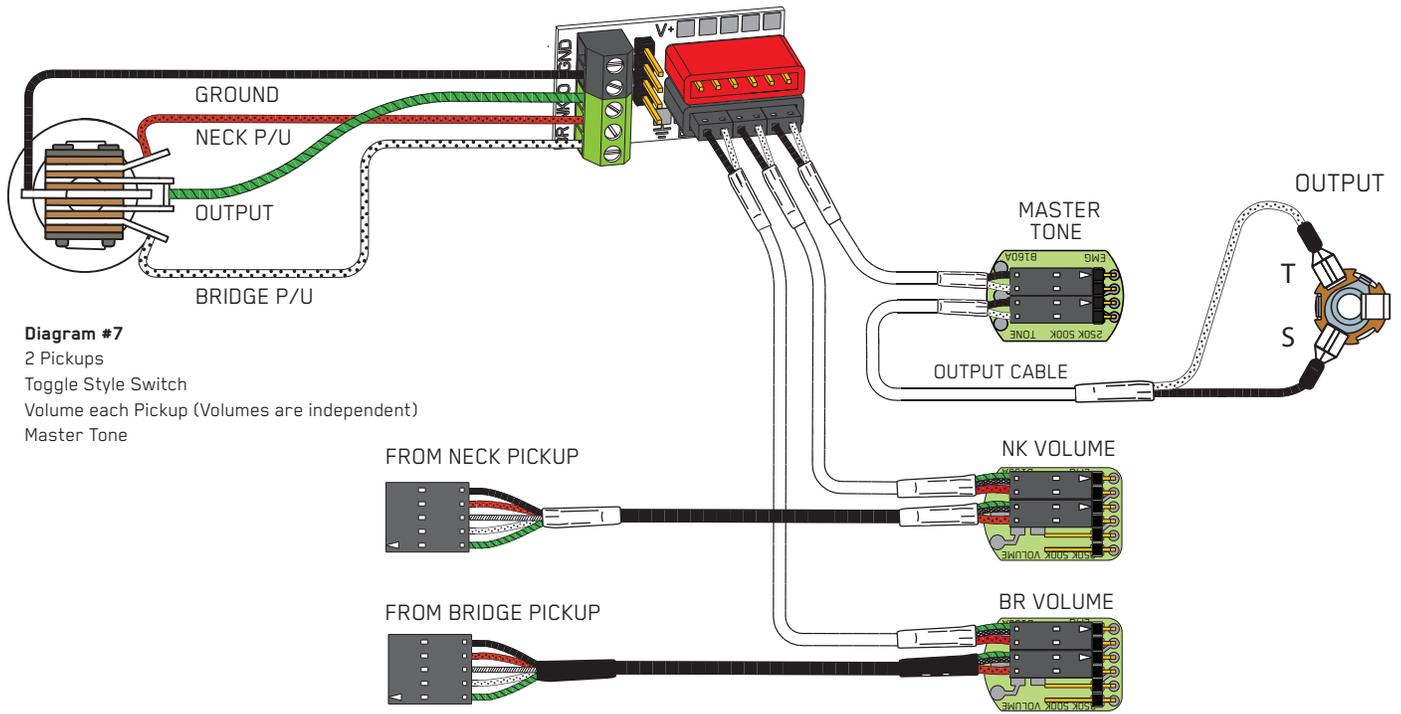


Diagram #7
 2 Pickups
 Toggle Style Switch
 Volume each Pickup (Volumes are independent)
 Master Tone

2 Pickups / Toggle Select Switch / 2 Volumes and 2 Tones)
 Refer to Diagram #8

- 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 coax cable from the Bridge (BR) Volume control to the Pickup Buss (Position 1).
 Plug a coax cable from the Neck (NK) Volume control to the Pickup Buss (Position 2).
- 3) Plug a coax cable from the Bridge (BR) Volume control to the Bridge (BR) Tone control as shown.
- 4) Plug a coax 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.

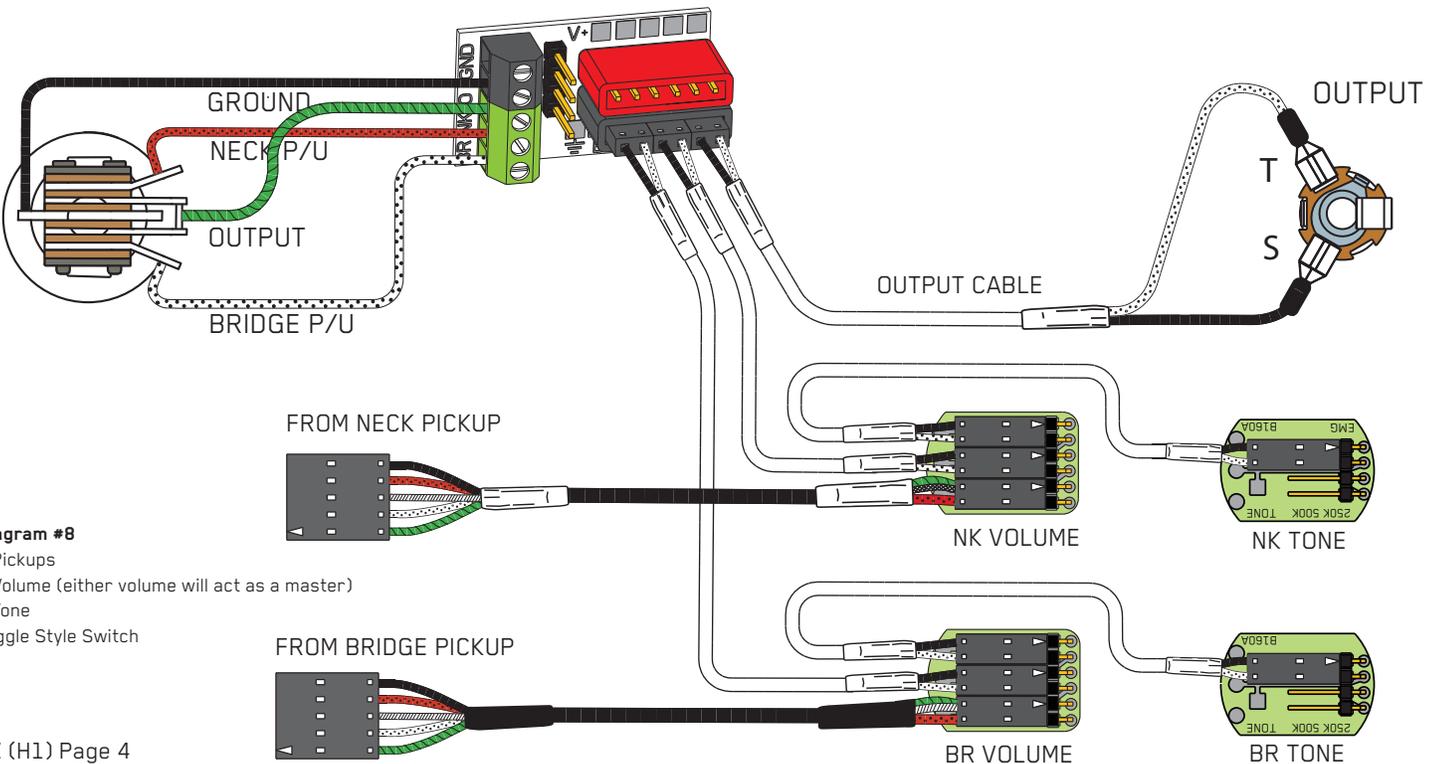


Diagram #8
 2 Pickups
 2 Volume (either volume will act as a master)
 2 Tone
 Toggle Style Switch