



## INSTALLATION INFORMATION:

Model: EMG-ZW Set

### SPECIFICATIONS:

	EMG-81 (BRIDGE)	EMG-85 (NECK)
Logo Color: .....	Silver .....	Gold .....
Resonant Frequency (Khz) .....	2.25 .....	2.55 .....
RMS Output Voltage .....	1.25 .....	1.25 .....
Peak Output Voltage .....	1.75 .....	1.75 .....
Output Noise (dBV) .....	-91 .....	-89 .....
Output Impedance (Kohm) .....	10 .....	10 .....
Current @ 9V(Microamps) (System) .....	160 .....	
Battery Life (Hours) (System) .....	1500 .....	

### IMPORTANT INSTALLATION NOTES:

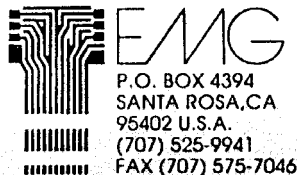
- 1) Only one battery is required per instrument. Additional active components such as the SPC, RPC, EXG, PI-2, PA-2, etc. do not require an additional battery.
- 2) Use an alkaline battery, Mallory MN1604 or similar, for longest life.
- 3) The controls included with EMG Systems are 25K Ohm, Audio Taper. This value of control is required for the system to work correctly.
- 4) When installing EMG Pickups, DO NOT reconnect the bridge ground wire. This wire usually is soldered to a volume or tone control casing and goes to the bridge to ground the strings. This wire grounds the strings and uses them and your body as a shield against hum and

buzz. It also creates a shock hazard. EMG Pickups are shielded internally and do not require string grounding. This greatly reduces the possibility of reverse polarity shock from microphones and the like.

- 5) EMG Pickups have very little magnetism compared to High-Impedance type pickups. We recommend you adjust the pickups as close to the strings as is possible. Sustain and string movement will not be inhibited by close adjustment.
- 6) If your installation is different from the diagrams in these instructions and you need additional diagrams, call or write to us. It is highly possible another EMG Installation Sheet will have the diagram you require.

### 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 at any time a pickup fails to work, return it postage prepaid with proof of purchase. If upon examination the pickup is determined to be defective, a replacement will be made at no charge. 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.



The ZW Model is designed as a direct replacement into Gibson Les Paul Guitars. Les Paul Guitars manufactured after April of 1975 require long shaft pots. Inside the control cavity the existing electronics are mounted to a metal control plate, which will be removed as a whole unit, and will not be reused. If your Les Paul was manufactured before April of 1975 or, is an import model it will not require long shaft pots. Both pot types have been included with this system. Refer to other diagrams included on this sheet for reference.

Diagram 1 shows the installation for Gibson Les Paul Guitars (after 1975) which uses the long shaft pots. Start by removing the strings of the guitar and loosening the pickup mounting screws.

1) Remove the control cavity cover (4 screws) and unscrew the screw(s) that fasten the shielding can.

2) Unsolder the pickup cables that go to the casing of the volume controls and the center terminal of the volume controls. Remove the pickups from the guitar. Set the guitar aside and mount the EMG Pickups into the pickup mounting rings using the screws and springs supplied and set them aside.

3) Unsolder the following wires coming from the selection switch cable.

- a) Red wire at the rhythm pickup volume control
- b) White wire at the bridge pickup volume control
- c) Black wire at the solder lug terminal in the center of the control plate
- d) Braid (shield) at the solder lug terminal in the center of the control plate
- e) Bridge ground wire soldered to the volume control casing (DO NOT RECONNECT DURING INSTALLATION)

4) Remove the knobs and hex nuts from the pots and the output jack as well. Remove the whole plate as a single unit. It will not be reused.

## Installing the EMG's

1) Mount the volume and tone control sets included with the EMG-ZW as shown in the diagram. Extra hex nuts are provided to set the height of each control so the knobs fit nicely on the top of the guitar.

2) Install the pickups in the guitar routing the pickup cables into the control cavity. Solder the braid (shield) to the control casing and white wire to the center terminal of each volume control. Set the red wires aside for now.

3) Solder the Red wire of the switch cable to the outside terminal of the rhythm pickup volume control.

4) Solder the White wire of the switch cable to the outside terminal of the bridge pickup volume control.

5) Solder the Braid (shield) wire of the switch cable to the casing of the ~~treble~~ pickup volume control.

6) Install the Output jack/Battery clip set included with the system and fasten the output jack securely to the jack plate.

7) Solder the Black wire of the switch cable to the Green wire of the output jack and cover the connection with the shrink tubing provided.

8) Solder the Black wire of the Output jack to the casing of the ~~treble~~ tone control.

9) There is a small black wire included with the System to ground the 2 tone control casings together. Solder one end of this wire to the rhythm pickup volume control casing and the other end to the bridge pickup volume control casing.

10) Solder the red wires of the pickups to the red wire of the battery clip, cover the connection with the heat shrink tubing provided.

11) This completes the installation. Before stringing up the guitar, install a 9 Volt battery, plug in the guitar and test it through an amp. Tap on the pickups lightly with a small screwdriver and check the operation of the volume and tone controls. Wrap the battery in some of the packaging foam provided to insulate it from the controls and reassemble the guitar.

12) String it up and Boogie down.

## For all other installations:

Refer to the following diagrams. Find the diagram of the volume, tone, and switch type you have in your guitar and follow that diagram. It is recommended that if you plan to install other EMG Products, that you do the installation per the diagram on this sheet and get the system functioning before adding any accessories.

1) Disconnect the existing pickup from its volume and tone control.

2) Disconnect any existing selection switch wire(s) from its volume and tone control.

3) Remove the pickup and the volume and tone control. Place the EMG Volume and Tone Control in the instrument. Mount the pickup in the mounting ring and install it routing the cable to the control cavity.

4) Connect the pickup to the volume control as shown in the diagram, and connect the switch wires as shown.

5) For two-pickup guitars, follow steps 1-4 before continuing.

6) Remove the existing output jack and replace it with the EMG Output Jack. Solder the output wire to the jack as shown in the diagram.

(Continued on page 4)

Diagram 1  
(Gibson Les Paul  
April 1975 and later)

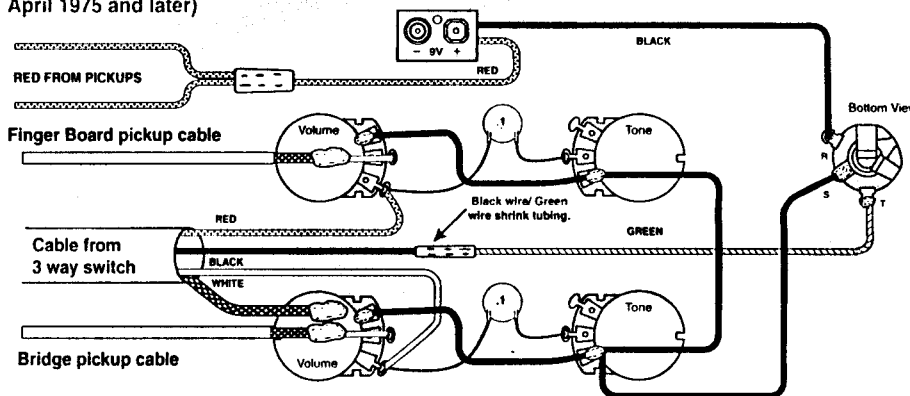
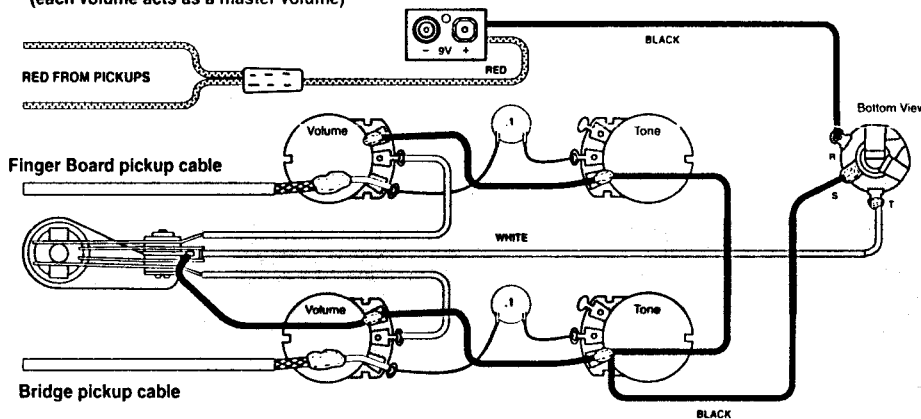
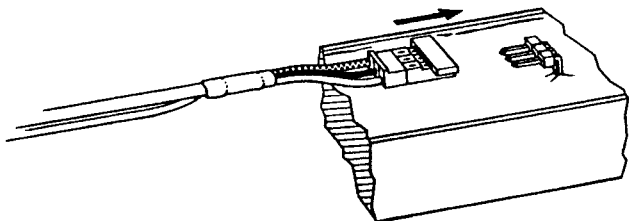


Diagram 2  
2 Volume, 2 Tone w/switch  
(each Volume acts as a master Volume)



The EMG pickups are now coming with a connector for easy installation. Install the connector as shown in the diagram.

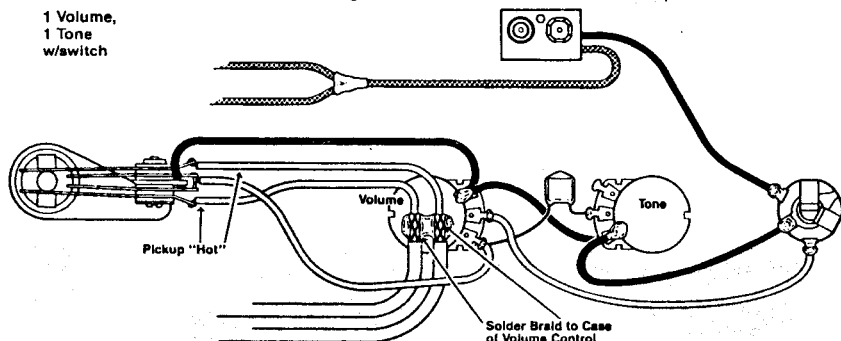


INSTALL THE EMG-B5 IN  
THE NECK POSITION.

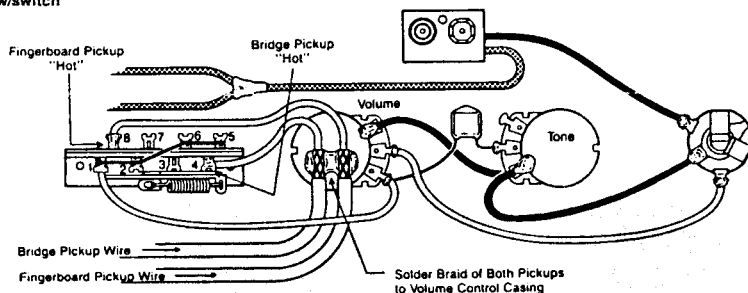
**9) We suggest you test the guitar before closing up the control cavity to make sure everything is working.**

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1 Volume,  
1 Tone  
w/switch



1 Volume,  
1 Tone  
w/switch



**2 Volume,  
1 Tone,  
w/Switch  
(each Volume  
is Independent)**

