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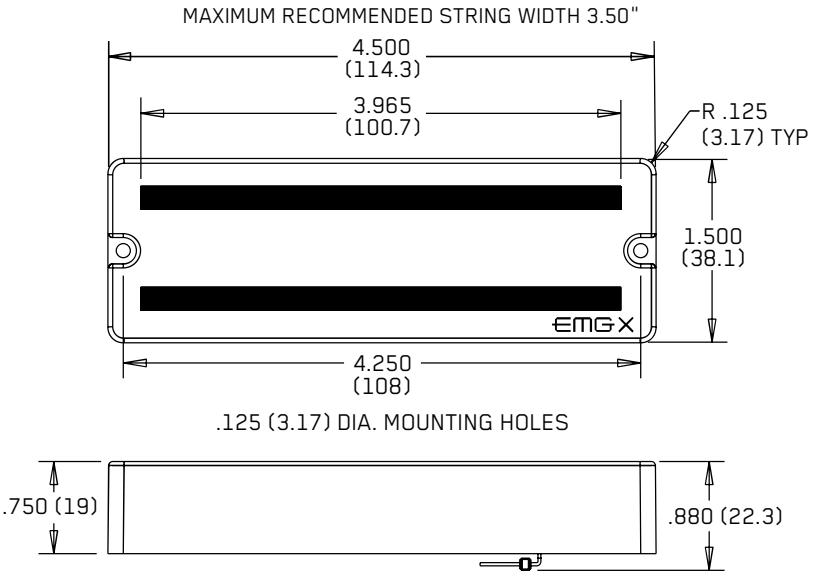
X-SERIES



INSTALLATION INFORMATION
EMG MODEL: **909-X (9-STRING)**

SPECIFICATIONS:	**MODEL**: 909-X
Logo Color	Gold
Magnet Type	Alnico V
Resonant Frequency (kHz)	1.90
Output Voltage (String)	2.00
Output Voltage (Strum)	4.50
Output Noise (dBV)	-106
Output Impedance (kΩ)	2.00
Current @9V (Microamps)	400
Battery Life (Hours)†	450
Maximum Supply (Volts DC)	27

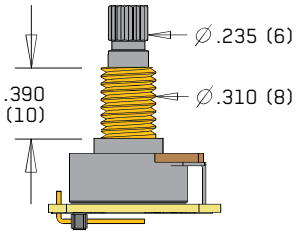
†estimate for one pickup and one active tone (VLPF) powered by a single 9V, 500mAh battery

INSTALLATION NOTES:

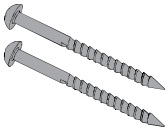
EMG-X Series Pickups are compatible with all EMG Active Pickups. The X-Series Active Tone Control (VLPF) is compatible with other EMG Pickups and can be used in place of the passive tone control. Other EMG accessories like the EXG, SPC or RPC Controls can be added to any EMG System without requiring an extra battery. EMG Pickups typically do not require string grounding, but you may connect your bridge ground wire to an available "G" terminal on the B245 Pickup Buss. Use the included 25K Ohm controls for best results. If your output jack is a long panel style, you will need a stereo version, such as the SwitchCraft 152B, and soldering will be required (see the bottom of page 2). Adjust the pickup height to the strings, at a distance that works for you. Alternate wiring diagrams are available at **emgpickups.com**.

INCLUDED WITH EACH PICKUP:

1 VOLUME CONTROL (25K)
1 TONE CONTROL (25K)



ADJUSTMENT SCREWS



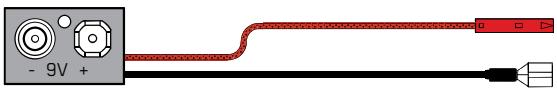
PICKUP CABLE 15" (38cm)

2 CONNECT CABLES 5.5" (14cm)

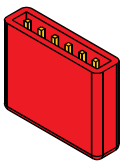
OUTPUT CABLE 6" (15cm)

POWER SUPPLY CABLE 5.5" (14cm)

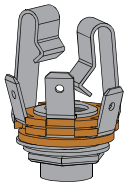
BATTERY CABLE 7" (18cm)



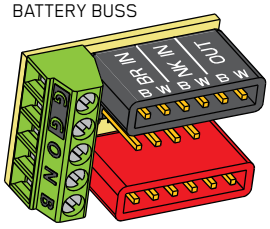
BATTERY BUSS



STEREO OUTPUT JACK



2 PICKUP IN/ OUT BATTERY BUSS



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.

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Installation Instructions:

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 and you had passive pickups you will need a new stereo output jack, the Switchcraft 152B is recommended. Soldering to the new jack will be required, see Diagram #4 below.
2) Some instruments may already have a battery holder installed and in that case soldering may be required to the battery buss, see Diagram #5 below.
3) Instruments with two pickups may need soldering to the selection switch in some installations.

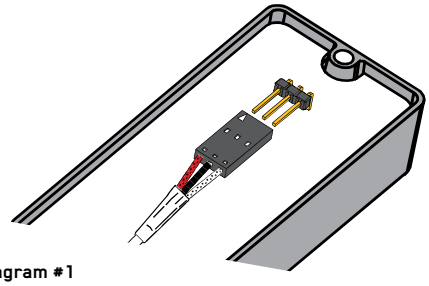


Diagram #1
Insert the plug onto the 3 pin header of the pickup as shown above.
Note the orientation arrow.

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.

Master Volume control only

2) Refer to diagram #2. 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 #3.
Install the VLPF Active Tone included with the X Series Pickup. Plug a coax cable from the Volume control to the Active Tone Control. (Note the reversed connnector on pins 1 and 2). Insert the output cable onto the Tone control as shown (Pins 3 and 4).
4) Connect the output wires to the output jack by pushing the connectors onto the jack as shown.
WHITE wire to the TIP (T) contact,
BLACK wire to the SLEEVE (S) contact
BLACK Battery Negative wire to the RING (R) contact.
5) Using the battery buss, insert the RED wire of the pickup, the battery RED wire, and the RED wire from the VLPF onto any of the pins. Extra pins can be used for EMG Accessories.
6) Put the battery in the insulating foam piece provided and place it securely in the control cavity.
We suggest that you plug in the instrument and test it before closing the control cavity.

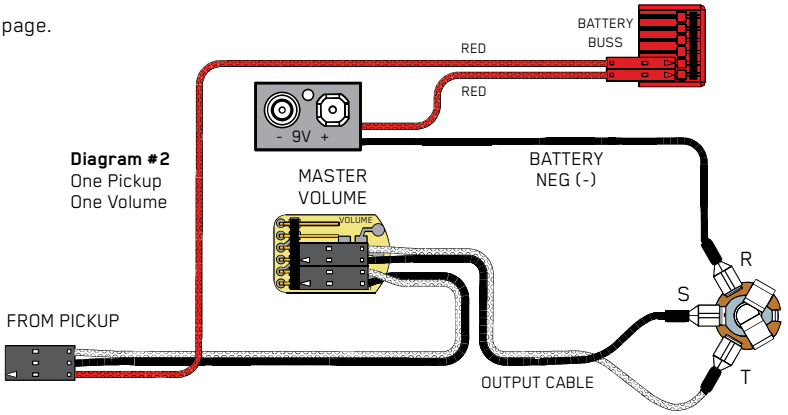


Diagram #2
One Pickup
One Volume

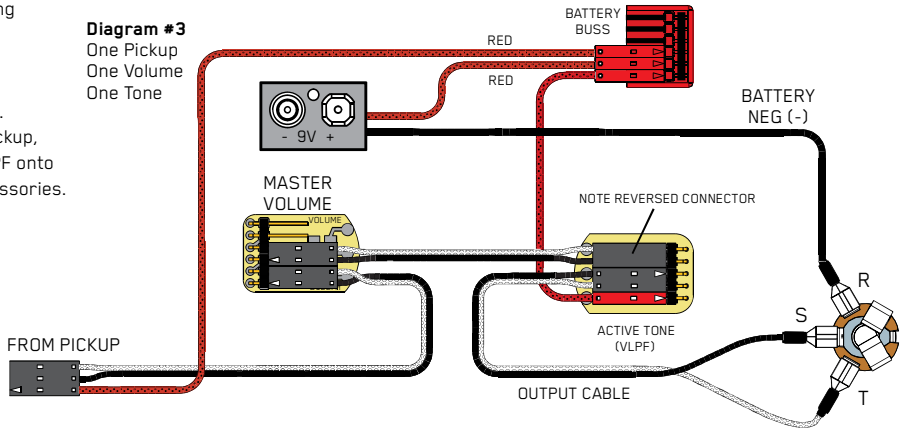


Diagram #3
One Pickup
One Volume
One Tone

Diagram #4

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

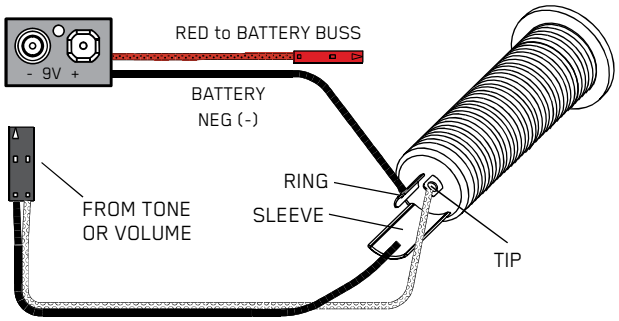
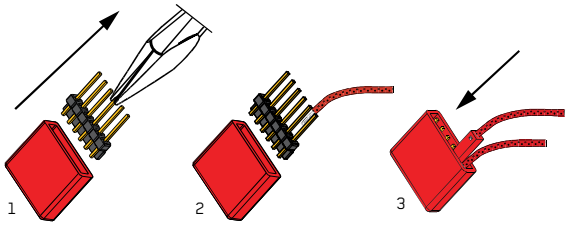


Diagram #5

Soldering to the battery buss:

If your instrument has an older EMG Pickup you can solder the pickup RED wire to the buss. Simply use some needle nose pliers, pull out the V+ header and solder the RED Wire from the pickup(s) to any of the pins and then re-insert the header into the housing.



Solder the RED wire from the Battery Holder and/or pickups and re-insert the Header into the insulation cover

Installation Instructions:

EMG Models: 909-X

Two Pickup Guitars with Selection switch:

Guitars with two pickups and a selection switch can use the EMG B245 Pickup Buss. The Pickup Buss is a convenient way to wire your guitar without soldering.

For all installations it's best to find a place to mount the Pickup Buss in the control cavity before starting. Use the included velcro strip to mount it securely after in place after all calbes have been routed.

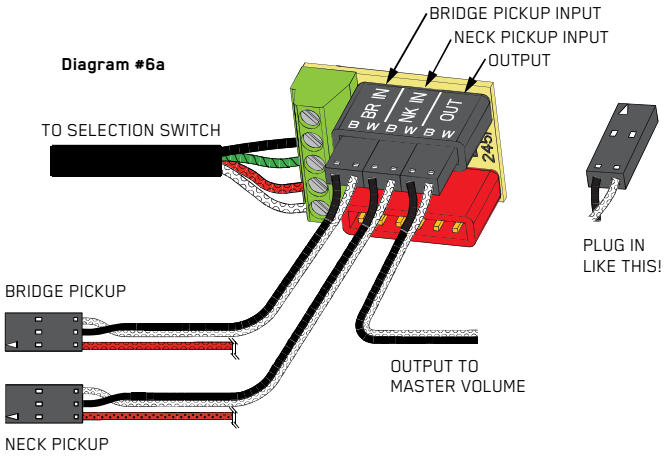
2 Pickups / Toggle Select Switch / Master Volume and Tone

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 connect cable from the Pickup Buss (Position 3) to the Master Tone (Active) as shown in Diagram #6b. Note the reversed connector on pins 1 and 2.
4) Plug a connect cable from Master Tone (ACTIVE) to Master Volume 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.
   Bridge pickup goes to the "B" Terminal
   The Neck pickup goes to the "N" 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 "G" terminals on the block. You may also insert your bridge ground wire here.
6) Plug the output cable onto the Master Volume control and connect the output wires to the output jack and push the connectors onto the jack as shown.
   WHITE wire onto the TIP (T) contact,
   BLACK wire onto the SLEEVE (S) contact
   BLACK Battery Negative wire onto the RING (R) contact.

******Tips and Tricks**** Start your installation by:**

1) Determining which type of output jack your instrument has.
   A Stereo 12B type is included, but if you have a long panel jack, a SwitchCraft 152B Long Panel Jack will be required.
2) Remove the strings, 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) Install the pickups, keeping any excess cable under the pickup rather than in the control cavity.
7) Plug the RED Wires of the pickups onto the V+ Supply Buss (RED Shroud) along with the RED of the battery clip, and the RED wire of the Active Tone Control. Extra pins on the V+ Supply Buss are for EMG Accessories.
8) Put the battery in insulating foam and place it securely in the control cavity. We suggest that you plug in the instrument and test it before closing the control cavity.

Diagram #6a



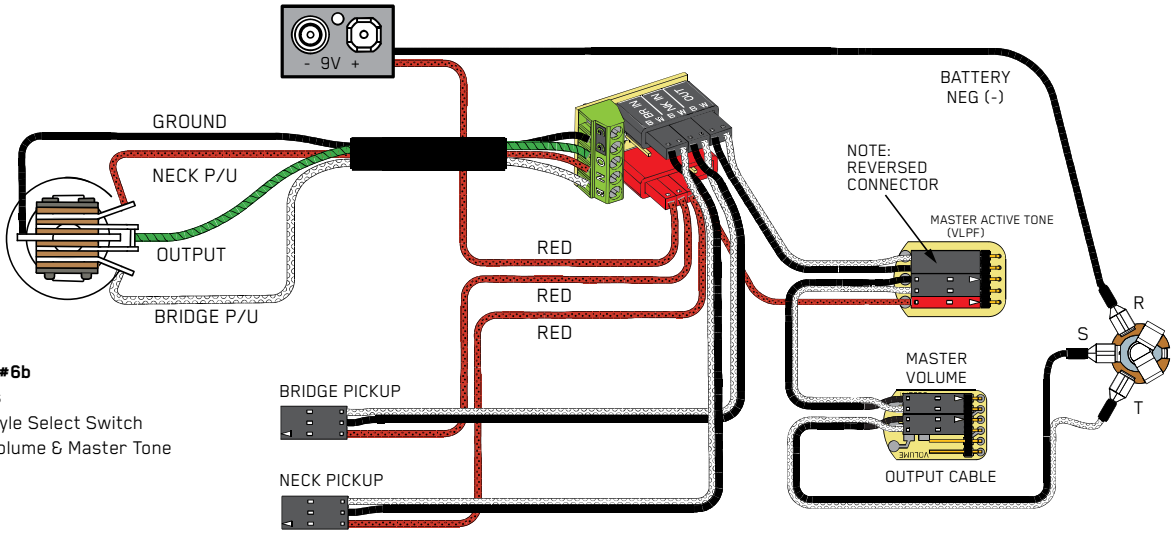


Diagram #6b
2 Pickups
Toggle Style Select Switch
Master Volume & Master Tone

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2 Pickups / Toggle Select Switch / 2 Volumes and Master Active Tone (VLPF)

Refer to Diagram #7 (Next Page)

1) Install the Pickups into the instrument 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 pickup cables onto the Volume controls as shown.
   Plug a connect cable from Bridge Volume control to the Pickup Buss (Position 1)
   Plug a connect cable from Neck Volume control to the Pickup Buss (Position 2)
3) Plug a connect cable from the Pickup Buss (Position 3) to the Master Tone (Active) as shown. Note the reversed connector on pins 1 and 2.
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 "B" Terminal
   The Neck Pickup goes to the "N" 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 "G" terminals on the block. You may also insert your bridge ground wire here.
5) Plug the output cable onto the Active Tone control (Pins 3 and 4) and connect the output wires to the output jack and push the connectors on as shown.
   WHITE wire to the TIP (T) contact,
   BLACK wire to the SLEEVE (S) contact
   BLACK Battery Negative wire onto the RING (R) contact.
6) Plug the RED Wires of the pickups onto the V+ Supply Buss (RED Shroud) along with the RED of the battery clip. Extra pins are for EMG Accessories.
7) Put the battery in insulating foam and place it securely in the control cavity. We suggest that you plug in the instrument and test it before closing the control cavity.

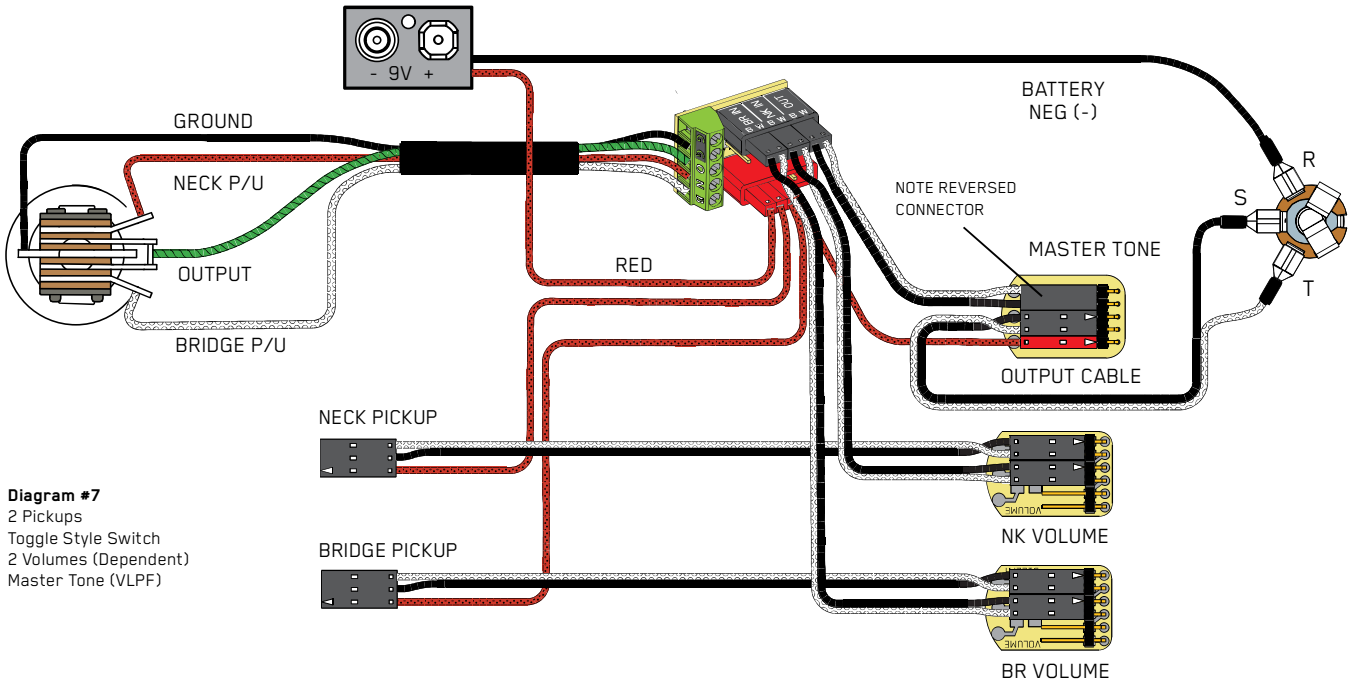

Diagram #7
2 Pickups
Toggle Style Switch
2 Volumes (Dependent)
Master Tone (VLPF)

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2 Pickups / Toggle Select Switch / 2 Volumes and 2 Active Tones (VLPF)

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 Tone Controls as shown.
   Note the reversed connector on pins 1 and 2.
3) Plug a connect cable from the Bridge (BR) Tone control to the (BR) Volume control.
4) Plug a connect cable from the Neck (NK) Tone control to the (NK) Volume control.
5) Plug a connect cable from the (BR) Volume to Position 1 on the Pickup Buss.
6) Plug a connect cable from the (NK) Volume to Position 2 on the Pickup Buss.
7) Strip the insulation from the switch wires and Insert them into the GREEN Terminal Block and tighten the screws with a small screwdriver.
   Bridge pickup goes to the "B" Terminal
   Neck pickup goes to the "N" Terminal
   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 "G" terminals on the block. You may also insert your bridge ground wire here.
8) Plug the output cable from the Pickup Buss (Position 3) to the output jack and push the connectors onto the jack as shown.
   WHITE wire onto the TIP (T) contact,
   BLACK wire onto the SLEEVE (S) contact
   BLACK Battery Negative wire onto the RING (R) contact.
9) Plug the RED Wires of the pickups onto the V+ Supply Buss (RED Shroud) along with RED of the battery clip, and RED wires from each Tone control.
10) Put the battery in insulating foam and place it securely in the control cavity.
    We suggest that you plug in the instrument and test it before closing the control cavity.

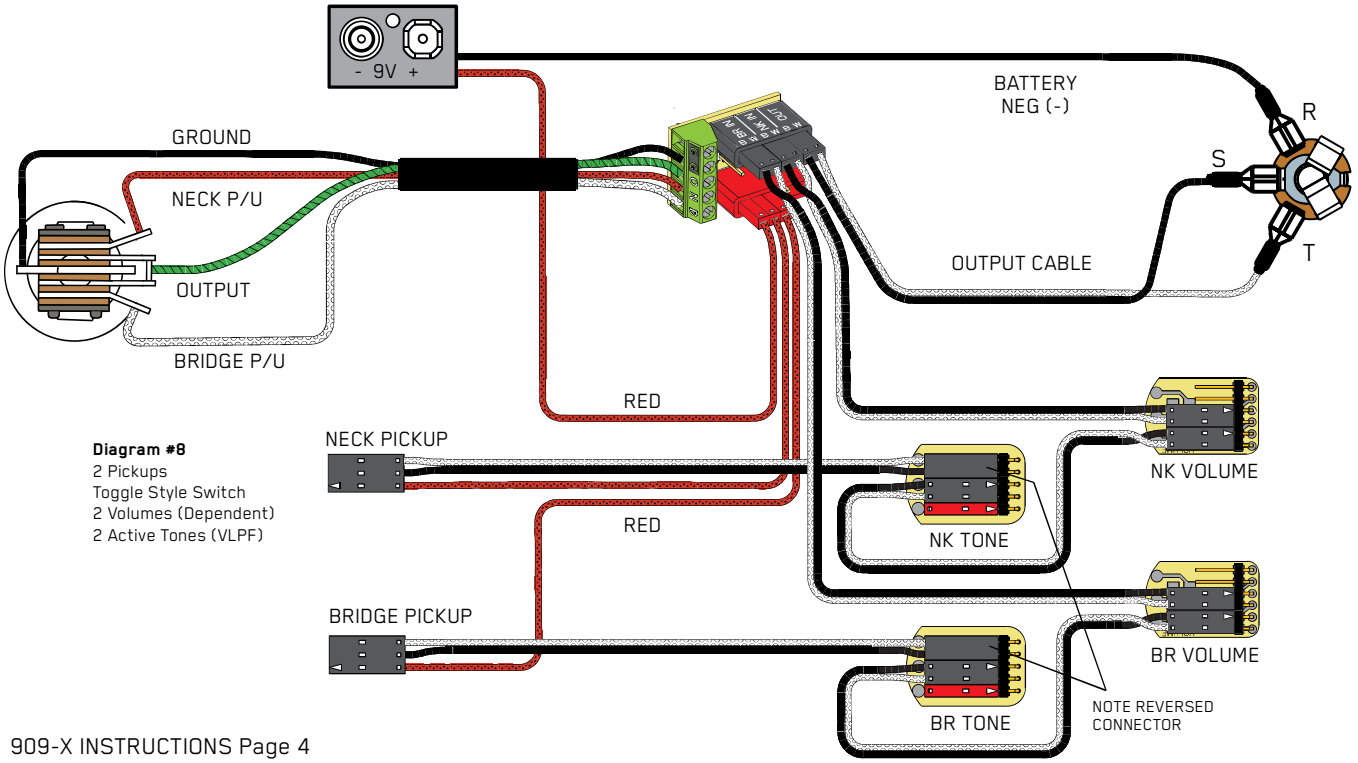

Diagram #8
2 Pickups
Toggle Style Switch
2 Volumes (Dependent)
2 Active Tones (VLPF)