**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Impedance (Ohms)</td>
<td>200K</td>
</tr>
<tr>
<td>Input Referred Noise</td>
<td>-130dBV</td>
</tr>
<tr>
<td>Output Impedance (Ohms)</td>
<td>2K</td>
</tr>
<tr>
<td>Current @ 9V (Microamps)</td>
<td>600</td>
</tr>
<tr>
<td>Battery Life (Hours)</td>
<td>750</td>
</tr>
<tr>
<td>Maximum Supply (Volts DC)</td>
<td>18</td>
</tr>
</tbody>
</table>

**INCLUDED:**

- 1 B125 ABC Control
- 1 25K Solid Shaft Pot (Master Volume)*
- 1 Battery Clip with Buss Connector*
- 1 Stereo Output Jack (Battery Switching)*
- 2 Interconnect Cables (1 Red, 1 White)

* Included with your EMG Pickup.

**GENERAL OPERATION**

The B125 Active Balance Control (ABC) is used to pan between two EMG-HZ pickups rather than use a selection switch. The B125 features input buffer amps for each pickup, so if you have 2 Passive Pickups, 2 Active EMG Pickups, or are mixing an active with a passive pickup you can use the B125 Active Balance control. Pickups can be connected by connectors or hand soldered to the PC board. The control has a center detent (click) in its rotation.

**INSTALLATION NOTES:**

The output impedance of the ABC is low, so the existing high resistance volume and tone controls will not work when placed after the ABC. The active tone control (VLPF) is required for tone. Any of the EMG Accessories like the EXB, BTC or BTS Controls, BQC or BQS Controls, or OEM Models B30eq or B64eq can be added as well.

**Dimensions:**

**B125 Active Balance (ABC)**

- [Diagrams showing the dimensions of the B125 Active Balance (ABC)]

**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:**

**EMG Model: B125 ABC (Active Balance Control)**

**Existing EMG-HZ Passive Pickup installations:**

If you already have EMG-HZ Pickups in your instrument you can use the existing pickup cables or you can use the new plug-in cables provided. The new cables are pre-wired to use the pickup in the humbucking mode. If you are using a coil-tap switch or a phase switch, use the existing cables and use the hand soldered method for installation (see below).

Diagrams 1, 2, and 3 illustrate how to connect the pickups to the ABC Control by using the EMG Plug-in connectors. Diagrams 4, 5, and 6 show how to solder the pickups to the PC Board. The output of the ABC is then illustrated in diagrams on page 4 in a variety of configurations.

**Diagram #1**

**EMG-HZ Plug-in Inputs & Output**

1. Pin 1
   - This pin and the one below it supply 9V+ for EMG Active Pickups: **DO NOT** use either pin when using passive pickups.

**Diagram #2**

**EMG-HZ Plug-in Input (Bridge Pickup)**

1. Pin 1 Voltage (9V+) for Active Pickups
   - EMG Active Neck Pickup [(Upper 3 pin header)]
   - EMG-HZ Bridge Pickup (Black tubing) [(Lower 3 pin header)]
   - TO VOLUME CONTROL
   - RED TO 9V + BUSS
   - Pin 2 Ground for pickup
   - Pin 3 Input for pickup

**Diagram #3**

**EMG Active Pickup Inputs:**

1. Pin 1 Voltage (9V+) for Active Pickups
   - EMG Active Neck Pickup [(Upper 3 pin header)]
   - EMG Active Bridge Pickup [(Lower 3 pin header)]
   - OUTPUT
   - RED TO 9V + BUSS
   - Pin 2 Ground for pickup
   - Pin 3 Input for pickup

**Diagrams 1, 2, and 3 illustrate how to connect the pickups to the ABC Control by using the EMG Plug-in connectors. Diagrams 4, 5, and 6 show how to solder the pickups to the PC Board. The output of the ABC is then illustrated in diagrams on page 4 in a variety of configurations.**

**See any EMG-HZ Data Sheet for the coil / color codes**

*The RED Wire of the EMG-HZ Pickup is a coil wire. It is the signal output (hot) wire. **DO NOT** hook this wire to 9V+ or you will be sorry. Really sorry! If you are installing new EMG-HZ Passive Pickups refer to those data sheets.*
Soldered Inputs:

**Using the existing EMG-HZ Cables:**
If you use your existing EMG-HZ cables, use diagram number #4 showing the cables hand soldered to the ABC Control.
If you have a phase switch or coil-tap on one of the EMG-HZ Pickups the output of that switch should go to the BRG or NEK solder pad on the ABC Control, depending on which pickup is phased or tapped. The ground from that pickup should be soldered to the GND pad on the ABC Control.

**Diagram #4**
Soldered Input using EMG-HZ Pickups

**Using other passive pickups:**
On the back side of the ABC Board there are 4 pads to solder to. Solder the signal wire (Hot) of your bridge pickup to the BRG Pad, and solder the ground wire (shield) of that pickup to the GND Pad.
Do the same for the Neck Pickup, Hot to the NEK Pad, and ground to the GND Pad.
If you have a phase switch or coil-tap on one of your pickups the output of that switch should go to the BRG or NEK solder pad on the ABC Control, depending on which pickup is phased or tapped. The ground from that pickup should be soldered to the GND pad on the ABC Control.

**Diagram #5**
Soldered Input using Passive Pickups

**Using EMG Active Pickups:**
On the back side of the ABC Board there are 4 pads to solder to. Solder the signal wire (Hot) of the bridge pickup to the BRG Pad and solder the shield (Braid) of the BRG Pickup to the GND Pad.
Do the same for the Neck Pickup. Solder the signal wire (Hot) to the NEK Pad and shield (Braid) to the GND Pad.

**Powering up the pickups:**
When you use the soldered inputs you will need to power the pickups with the power buss. Since your existing pickup cables don’t have the connector for the power buss, simply use some needle nose pliers and pull out the V+ header and solder the RED Wires of the EMG Pickups to any of the pins on the header. Also, don’t forget to solder the RED Wire of the battery clip to one of the header pins of the buss as well.

**Diagram #6**
Soldered Inputs using EMG Active Pickups

B125 Page 3
Output of the ABC Control:
The output of the ABC is a single channel signal that is sent to a master volume and active tone.
If you want a standard tone control (high end roll off) use the EMG-VLPF.

The following diagrams show any EMG “Active Tone” control being used i.e. VLPF, EXG, BTC Control, B15 Control, BQC Control, BQS Control, or any of EMG’s OEM Controls like the B30EQ or B64EQ.

Preferred wiring order:
Below is a block diagram showing the preferred wiring order of the controls.
1) ABC Balance Control
2) Active tone control
3) Master Volume
4) Output jack

All of the EMG Active controls use the same color coded connector shown below.

- Reversed connector! Pins 1 and 2 are reversed.
- Make sure the connectors are plugged on as shown.

Diagram #7 (preferred wiring order)
ABC Control / Active Tone / Master Volume / Output Jack

Color Code for EMG Active Tone controls and accessories.
- White: Input
- Black: Ground for Input
- Black: Ground for Output
- Green: Output
- Red: V+ Supply

Diagram #8 (alternate wiring order)
ABC / Master Volume / Active Tone / Output Jack

Alternate wiring order:
1) ABC Balance Control
2) Master Volume
3) Active Tone Control
4) Output jack

Diagram #9 (alternate wiring order)
ABC / Master Volume / Active Tone / Output Jack