

## **COOLSOUND - high quality onbody preamp made in Italy**

### **CS\_ELE\_3VJB - 3 Way Active/Passive USB Rechargeable Jazz Bass Electronic**

<b>Specs</b>	<b>Rev 10-2016</b>
Gain	-2 - 12 dB (default setting @ 4 dB)
Tone (bottom stacked pot)	Passive On / Active On
Mid (top stacked pot)	Cut / Boost 12 dB @ 420 / 950 Hz
Low (bottom stacked pot)	Cut / Boost 14 dB max @ 40 Hz
High (top stacked pot)	Cut / Boost 13 dB max @ 6.5k Hz
Mid freq select switch	420 / 950 Hz
Slap filter switch	Boost - Scoop thumb-slap shaping technique
Aux input 1/8" TRS Jack (opt.)	Gain = 0 dB, Zinput = 50k $\Omega$
Headphone 1/8" TRS Jack (opt.)	Pout = 100 mW @ < 0.5% THD, Zphone = 2x 32 $\Omega$
Power supply	4.5 mA (6.0 mA headphone PA on) @ 3.7 V
Battery	
Type	AAA/14400 3.7 V 1000 mAh lithium-ion
Life	75 hours of continuous playing
Recharge time	6 hours typical
Recharge system	5 V USB via adapter jack
Status LED	Red @ Vbat = 3.0 V
Recharge LED	Yellow during charging, Off @ charge complete
Board dimensions	28.5 x 115 mm

#### **Note**

Equalizer's potentiometer are of the center detented type to indicate the flat frequency response in their click position

#### **Pickup and bridge instrument's wiring**

Screw both pickup into terminal block (5 poles) taking care of the right polarity as showed on the diagram below (cold = sleeve = ground, hot = signal), to safely ground the bridge instrument's use one of the ground pole terminal block or the the aux ground socket via a faston secured by a M3 screw

### **Controls position (top view from sx to dx)**

Neck Vol / Bridge Vol - Mid Freq Select Switch (or Aux Input opt.) - Tone / Mid - Slap Filter Switch (or Headphone opt.) Low / High - Active/Passive Switch - Jack

### **Active Configuration**

Neck Vol / Bridge Vol - Mid Freq Select Switch (or Aux Input opt.) - Tone / Mid - Slap Filter Switch (or Headphone opt.) Low / High

### **Passive Configuration**

Neck Vol, Bridge Vol, Tone

### **Aux Input (optional)**

Aux input 1/8" stereo jack is only available in place of mid freq select switch so user can't have both, a stereo signal from an external mp3 reader, mixing console, soundcard etc with line level is mixed with pickup signal and processed to output, this can be useful to play along music

### **Headphone (optional)**

Headphone output 1/8" stereo jack is only available in place of slap switch so user can't have both, with no jack plugged in internal power amplifier is in ultra low power mode, it softly wake up with no bump as soon as the male jack is inserted and is capable to deliver up to 100 mW low distortion full bass dynamic signal to a typical 2x 32  $\Omega$  earphone

### **Recharging system**

Preamp circuitry is powered via a single AAA/14400 lithium ions 3.7 V 1000mAh battery combined with an internal boost circuit to rise total power supply allowing a good dynamic audio response, no power is drained from the battery with no male instrument jack plugged in and so any active control is available, battery is charged from 5V USB outlet via the supplied adapter jack

### **Status/charging battery LED**

The status/charging bicolor battery led, placed under the low / high stacked pot and visible only to the musician, lights in red colour as soon as the battery voltage goes down to 3.0 V, this conservative threshold let some extra hours of playing until sensible distortion occurs, it is recommended to recharge at led on

## Battery life

A fully charged battery reaches 4.2 V, this is enough to allow 75 hours of continuous music until the red led lights, actually its impossible to play continuously, unless you forget the jack inserted!

## Recharging cycle

An active battery management circuitry allows a controlled current/voltage charging cycle, it starts as soon as a 5 Vdc usb voltage is present at jack side with a precharge step in case of too low battery followed by a fast charge constant current mode and a constant voltage low current mode avoiding overheating and overcharging issues, this longs battery life, during the charging cycle led lights in yellow colour until the battery is fully charged and led switch off, if a charging cycle starts with red led on a little time may elapse until led switches from red to yellow

## Battery replace

If the battery is removed from the socket clips take care to insert it respecting the right polarity, refer to the ++ (positive side) and -- (negative side) on the printed circuit board

## Assembling instructions

- Remove the original electronic from your instrument
- Wire pickups and bridge instrument's as explained previously
- Fit electronic into control cavity
- Finally mount and screw the knobs

