

Foremost Technology for Absolute Acoustic Reproduction



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INSTALLATION MANUAL AND USER'S GUIDE

**B-BAND B35 SIDEMOUNT PREAMP
WITH B-BAND UST TRANSDUCER
HZZLESS CIRCUIT™**

This is a basic installation manual and tip sheet. For more information, technical support, and pictures of installations about B-Band products please check the B-Band website at www.b-band.com or contact your B-Band dealer, distributor or B-Band directly.

2014-04-26 V2

DEAR CUSTOMER,

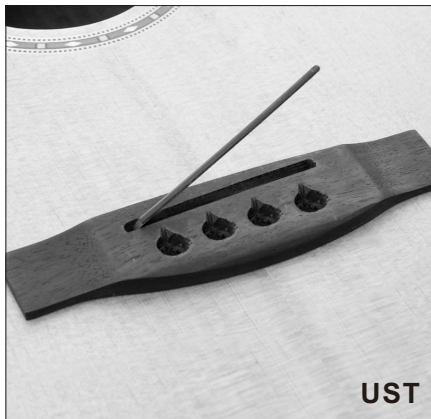
Thank you very much for purchasing this state-of-the-art B-Band® acoustic transducer system. B-Band takes care to provide the highest quality product and is manufactured and supported in true spirit of acoustic instrument aficionados. The outstanding sound reproduction of B-Band transducers is based on the technology of a very special, worldwide-patented material that is exclusive to B-Band. This material is very different from, and has nothing to do with, piezo-electric films, transducers or pickups.

How is it different? A long story could be written about the technical characteristics of the material, like how the "microscopic lens-like gas bubbles"™ work inside the permanently charged film, but the most important difference is the sound. Whereas piezo pickups tend to impart a sound of their own (often described as "quacky" or "plastic"), B-Band transducers act in much the same way a condenser microphone does. B-Band systems will provide an excellent reproduction of your instrument's unique sound.

All of us at B-Band truly hope you enjoy this product. Please contact us if you have any comments about B-Band products.

Always ready to help you.

Yours sincerely,
Heikki Räisänen, CEO
B-Band Ltd



1. SAFETY AND PRODUCT CAUTIONS

Although B-Band products could be easy to install by following these instructions carefully and checking the B-Band website and references, we highly recommend the installation be done by a professional qualified guitar craftsman or technician. Some installations require a high knowledge about woodworking and guitar structure.

B-BAND LTD, B-BAND, INC. AND B-BAND GMBH WILL NOT BE RESPONSIBLE FOR ANY DAMAGES, PERSONAL INJURIES OR LIABILITIES RESULTING FROM INSTALLATIONS, IMPROPERLY DONE INSTALLATIONS OR MISUSE OF PRODUCT.

Read all of these instructions closely before starting installation. B-Band A and H series UST transducer pickups work with all B-Band A-series preamps.

After installation the UST pickup can have very high output, enough to overdrive the B-Band preamp input, causing distortion. The UST will lower in output, under pressure of the saddle, in 1 to 3 days.

Do not cut, pull, crimp or bend at a sharp angle any B-Band transducers. The B-Band UST CANNOT be shortened or altered in any way. This will cause audible hum and void the warranty.

Long-time exposure of UST to high temperatures (over 50 °C / 120 °F) may reduce the output level permanently.

B-Band preamps are active devices powered by battery. The active preamp has a higher signal output and functions differently from passive circuits, for example, that is found on electric guitar. When using an active preamp do not turn the volume, or tone controls all the way up to full as this could very easily overdrive the input of an amplifier or mixer causing distortion. Use moderate levels when operating.

B-Band pickups will only work with B-Band preamps. B-Band preamps will work with most any external audio preamps, mixers, instrument amplifiers, and most other audio devices.

Before installation make sure instrument is in good working condition.

When doing any drilling, sawing, cutting or routing at the guitar, be sure to secure the guitar so it will not move when doing such work.

2. OVERVIEW OF B-BAND UST AND AST PICKUP TRANSDUCERS

The B-Band UST (Under-Saddle Transducer) pickup uses the EMFIT® patented transducer technology. In this booklet, the terms "TRANSDUCER" and "PICKUP" are alike in meaning.

The UST is very flexible, but you should never pull or bend them at a sharp angle.

B-Band pickups themselves do not require electrical power, as they are permanently charged electrets. Because of the very high output impedance (typical for condenser microphones) The B-Band UST always require a B-Band preamp.

Standard piezo preamps will not work properly with B-Band pickups. This kind of device combination will produce low output and poor bass response.

The active portion of the B-Band 29R UST pickup is 80 mm (3") from the end of the transducer at the opposite side of the connector.

The rest of the UST is not active. However, for best performance always keep the inactive portion of either UST pickup from touching or rubbing on the inside of the guitar, or touching the battery or output jack wires. These can produce unwanted handling noise.

UST Models and Specifications:

For use with steel and nylon stringed guitars, ukulele and instruments that have similar saddle and bridge structures.

Model 29R UST:

29R- 2.9mm / 1/8": wide saddle slots.

Active area: 80mm / 3"

Overall length: 330mm / 13"

Model 22R UST:

22R- 2.2mm / 3/32": narrow saddle slots.

Active area: 80mm / 3"

Overall length: 330mm / 13"

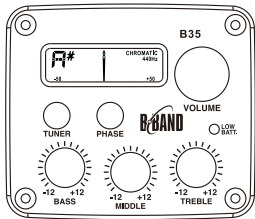
UST Features:

- Operation based on the exclusive B-Band / Emfit electret film
- UST has two sizes that will fit most guitars
- Reproduces the original tone without affecting the instrument acoustically
- Ultra-thin and lightweight
- Wide dynamic range and frequency response
- High gain before feedback
- Easy and fast plug-in installation without soldering
- No or minimal modification



3. OVERVIEW OF B35 PREAMP

The B-Band B35 preamp is designed to give optimum performance with B-Band UST transducer. The main criterion in designing these preamp was to deliver professional musical sound quality and user-friendly electronics to the diverse needs of acoustic instrument musicians.



The B35 Preamp

The B35 has the HzzLess® circuit for outstanding low noise and high output.

The B35 is a side mount preamp with a volume and tone control, chromatic tuner, tuner button, low battery LED light and a battery compartment at the faceplate. This single input preamp is for use with the UST pickup.

T10has a special 6.3 mm (1/4") output jack that when a 1/4" plug is inserted turns on the 9-volt power.

The T35 is powered by 9-volt power.

For operation of the B35 see the User's Guide.

4. PREPARING THE INSTRUMENT FOR INSTALLATION

Please read completely before starting the actual procedure.

Remove the strings and the saddle. Check that the UST fits into the slot easily and that the saddle is sufficiently tight in the slot.

Drilling hole for UST

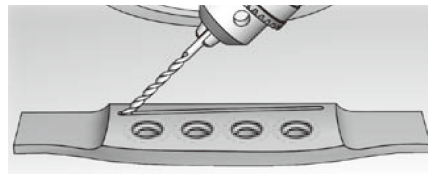
For UST check the inside of the instrument to find the position of the braces. Drill a preferably 30 - 45 degrees angled, 2.6 mm (.10") for the transducer into the one end of the saddle slot. **Be careful not to damage any internal braces!**

In case you cannot make the hole angled, because of possible damage to the braces, you can make it straight down in a 90-degree angle.

It is very important to smooth the edge of the hole using a bit of rolled sandpaper or a small file, so there is not a sharp edged corner, to avoid pinching or crimping the UST as the saddle lies on it.

In case you cannot make the hole angled, because of possible damage to the braces, you can make it straight down in a 90-degree angle.

It is very important to smooth the edge of the hole using a bit of rolled sandpaper or a small file, so there is not a sharp edged corner, to avoid pinching or crimping the UST as the saddle lies on it.



Making holes for T35 preamp

Find the B35 preamp cut hole plans at the back of this book.

Find a good position for the preamp at the side of the instrument. Be sure that the position is so that when the holes are made the holes, and the preamp structure when installed, do not interfere with the any of the instrument braces or supports. For this installation it is very important

to check inside the instrument body that there is enough clearance for the preamp at the side between the soundboard and the back of the instrument. **Be sure to check that the pickup will reach the preamp from its position under the saddle and bridge area.**

The sides of the instrument where the preamp will be installed should be inspected for accessibility and stability. Inside some instruments there is kerfed lining (the wood reinforcement between the back and sides inside the guitar) and other reinforcements that may make the area too small to install the preamps. If these reinforcements are altered it may cause instability at the instrument's side.

Instruments with solid sides or that have very thin sides may not be stable after cutting a hole to fit the preamp. It may be necessary to reinforce this area from the inside of the instrument with an extra piece of plywood before cutting or drilling holes. If needed glue in a piece of plywood of suitable thickness to reinforce that area.

Cover the planned installation area with masking tape and mark the area with a pencil using the provided preamp hole-cutting template at the end of these instructions. Prepare the instrument for cutting the preamp hole by securing it in some way so that the guitar does not move while doing the cutting. For best cutting results, use a routing tool. Do this slowly and very carefully so the cutting tool does not accidentally move outside the area that you have marked with the guide. Smooth the edges of the finished hole with a small file or sand paper and remove the masking tape.

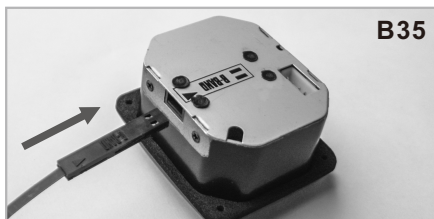
5. CONNECTING THE PICKUP TO THE PREAMP.

Connect the pickup. Notice that the small holes on the connector of the pickup should point upwards when connecting. If UST is connected improperly a loud audible hum will occur.

The pickup is inserted onto the pickup "tunnel" and connected to two pins at the end of the tunnel. Using a screwdriver, or similar tool, carefully and easily push on the plastic connector until the end of the travel. Do not push hard as it is well connected at the end of travel.

When the pickup is connected to preamp it is recommended to test the systems operation at this point.

Insert the batteries and connect the output cable to amplifier. You should hear it from the amplifier when you tap on the pickup. Remove the batteries for the rest of the installation.



6. INSTALLING THE PREAMP.

For the next portion of the installation, be careful not to catch the pickup on anything as you work. Inadvertent tugging may cause damage to the pickup or pull the connector off the connections at the preamp.

For the **B35**, take the pickup and the output jack and harness through the hole for the preamp and mount the preamp.

Let the pickup and wire harnesses hang loose inside the instrument. Install the screws for the preamp faceplate. It is important that you have a good quality screwdriver to avoid it slipping during tightening and thus scratching the guitar. Be careful to tighten the screws properly. It may be wise to tape the area around the preamp faceplate with masking tape in case you slip with the screwdriver. Do not over-tighten the screws as it may strip the screws, or crack the side of your instrument or the preamp's faceplate.

For the **B35** if the output jack is the type for side mounting, install the output jack.

For the **B35**, if the output jack is the endpin type with strap attachment, unscrew the strap attachment, the small

nut and the small dress washer from the output jack. Make sure that the large nut; lock washer and large dress washer are threaded onto the jack almost all the way to the opposite end of the output of the jack.

Next, test-fit the jack the endpin hole. It is easier to install the output jack by using an ink pen (or something similar) that fits into the jack.

Put the pen through the hole at the instrument where the jack will go and with the other hand holding the output jack, and that going through the sound hole, put the jack on the pen and guide it through the hole of the instrument. Adjust the large nut so that only the smaller threaded section comes almost entirely out of the guitar. Put the dress washer and the small nut onto the threads outside the instrument. Tighten securely using an appropriate wrench. Prevent the jack from rotating during tightening by inserting a small Allen wrench into the holes of the end of the jack. Install the strap attachment.

Be careful not to over-tighten it, it just needs to be snug.

7. INSTALLING THE PICKUP

Thread the B-Band UST up from inside the instrument through the hole in the saddle slot. The UST pickup has the EZ Hole-Through™ feature, which is a small hole at the end of the pickup to make it easier to tread through the hole at the saddle slot. Simply take an unwound steel string or wire, make a small bend no bigger than the hole that the pickup goes through. Put the wire through the

pickup hole from the top of the instrument to the interior and attach to the hole at the pickup then pull the wire with the pickup up through the hole.

Fit the UST all the way to the other end and bottom of the slot. Then put the saddle in place.

Note! After installation the UST pickup can have very high output, enough to overdrive the B-Band preamp input, causing distortion. The UST will lower in output, under pressure of the saddle, in 1 to 3 days.

Inside the instrument, make sure that the UST lead does not touch anything. We do not recommend attaching the "lead" wires of the UST to the instrument by any means. This may cause excessive handling noise and resonance that sounds like distortion.

Install the batteries and test the system before putting on the strings. To do this, plug into an amplifier and then tap lightly on the top of the instrument to make sure that you can hear the pickup when you tap.

Another good test is to shake the instrument when plugged into amplifier. If anything is loose or if the transducer's leads are touching something you will hear it. This should not happen.

8 TROUBLESHOOTING

8.1. No sound at all or intermittent sound

- Check the guitar cable and amplifier / mixer you are using.
- Check that the battery is not discharged. If the sound is noisy or distorted, replace the batteries.
- Check all preamp, output jack and battery box connections
- Check that the transducer is inserted all the way and onto the pin headers of the preamp correctly.

Install the strings and test the system.

Now play, keep it real and enjoy!

- Check that the plug is making good connection with the output jack. It may be so that the output jack is not sticking out far enough when the strap button is on. To check, unscrew the strap button off and plug in to the jack. If the symptoms go away the output jack needs to be removed and the nuts adjusted so the jack sticks out further.

8.2. Loud hum

- Check to see that the connectors of the UST are inserted with the two holes up. If these connectors are upside down the system will work but it will buzz.
Check that the connectors are inserted correctly onto their pin headers at the preamp.

8.3. Resonance or distortion with some played notes.

After installation the UST pickup can have very high output, enough to overdrive the B-Band preamp input, causing distortion. The UST will lower in output, under pressure of the saddle, in 1 to 3 days.

There are a couple places where a resonance can typically occur with some notes, causing distorted-sounding output. First, check that the lead portion of the transducer to the preamp is not touching anything and that the battery or output wires are not loose and thus cause resonance.

With the UST, another place, which in some cases has caused resonance, is the UST hole from the saddle slot to the inside of the instrument. Using a soft padding in it has cured these problems effectively.

8.4. Imbalance, one or several strings sound louder or quieter than the others (with UST)

If there's only a very slight imbalance, let the saddle "shape" on the UST for a few days. The fault may be repaired on its own. Users have reported that after three (3) days the saddle has settled on the UST and the balance becomes perfect.

8.5. Possible reasons for imbalance:

- The saddle or the bottom of the saddle slot is not flat.
- The saddle fits too loosely in its slot.
- The saddle slot might be too tight for the saddle to go in all the way. Try pushing on the saddle firmly to seat the saddle all the way down on the transducer.
- The saddle is too short.
- There is debris in the saddle slot.
- The angle of some of the strings behind the saddle is too low or too high.
- The top of the instrument is bent.
- The pickup is not installed all the way to the end of the saddle slot.
- If the material of the saddle is bone.

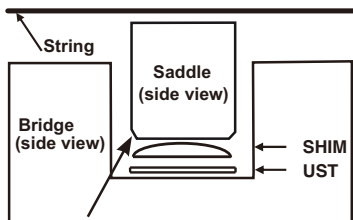
Bone is a natural material and the density and grain may not be consistent. This may cause inconsistencies in the way the sound is distributed making some strings louder or softer than others. We highly recommend a manmade material for the saddle.

8.6. If the balance problem does not disappear on its own, do the following:

- Check there is no debris or paint in the saddle slot.
- Check saddle that it is not too loose or tight in its slot. If it is too loose the saddle can tilt when the strings are tightened. The tilt will bring the bottom of the saddle off the pickup causing balance problems. If it is too tight it could be possible the saddle is not going all the way down on the pickup making a bad connection and causing balance problems.
- Check the bottoms of both the saddle slot and saddle. They should be flat and straight. If all things mentioned above are correct, and there still is a balance problem, try the following simple modification:

**INSTALLATION OF THE B-BAND UST
(UST WITH FIXED SHIM)**

**SADDLE EDGE MODIFICATION-
WHENTHERE IS STRING BALANCE AND SIGNAL
OUTPUT PROBLEMS DO THIS MODIFICATION TO THE
SADDLE.**



USING SANDPAPER OR FILE, SHAPE BOTTOM EDGES
AT LENGTH OF THE SADDLE TO LOOK LIKE THIS.
NO MORE THAN 0.5mm SHOULD BE TAKEN AWAY.

**THE SHIM SHOULD BE BETWEEN THE UST AND THE
SADDLE BRIGDE. THE FLAT SIDE OF THE SHIM IS FIXED
ON THE UST. THEROUND SIDE OF THE SHIM IS
TOUCHING THE SADDLE BRIDGE**

8.7. Other notable causes for balance problems

- Check string angles behind the saddle. They should be about the same behind every string. If the angle is too low, the string will not put enough pressure on the transducer and that may cause balance problems - usually higher output from the corresponding string. To deepen the angle, you can, for example, file a wedge-shaped groove on the bridge pinhole so that the string will have deeper angle behind the saddle.
- With some instruments the outer most strings are too close to the edge of the saddle, causing balance problems to these strings. It may happen that the E string at the end of the UST does not come as loud as other strings. In this case, make another, shallow hole (not all the way through) at that end of the saddle cavity and move the pickup so the tip of the UST goes in the hole. If nothing else helps, you should machine the saddle slot longer and use a new longer saddle.
- Another somewhat common cause for balance problems is the movement of the instrument top as it "lives" and moves especially during transport or by change of season when the humidity changes. Because of this the bottom of the saddle slot could become arched, not straight, as the top becomes more or less arched. By making the saddle flexible this problem can be avoided.

8.8. Other problems

If you notice any other problems, please contact the dealer, distributor or manufacturer, for help.

9. CUSTOMER FEEDBACK

If you have any comments, positive or negative, about any B-Band product, please do not hesitate to contact B-Band.

10. EU / Declaration of Conformity

This B-Band product has been designed, manufactured and tested to comply with the requirements of EMC directive 89/336/ EEC and CE mark directive 93/68/EEC and carry the CE marking accordingly.

LED's in this product are Class 1 in accordance to EN 60825-1.

Statement of EU Declaration of Conformity is available from manufacturer upon request.

B-BAND LIMITED WARRANTY STATEMENT

In the unlikely event that your product needs guarantee service, please contact your dealer, distributor or manufacturer. To avoid any unnecessary inconvenience on your part, we recommend you read this instruction manual carefully before seeking guarantee service.

YOUR GUARANTEE

By this Guarantee, B-Band guarantees the product to be free from defects in materials and workmanship at the date of original purchase for a period of one (1) year from that date.

If within the guarantee period the product is determined to be defective (at the date of original purchase) due to improper materials or workmanship, B-Band will, without charge for labor or parts, repair or (at B-Band's discretion) replace the product or its defective parts subject to the terms and limitations below. B-Band may replace defective products or parts with new or refurbished products or parts. All products and parts replaced become the property of B-Band.

TERMS

1. Guarantee services will be provided only if the original invoice or sales receipt (indicating the date of purchase, model name and dealer's name) is presented with the defective product within the guarantee period. B-Band may refuse free-of-charge guarantee service if these documents are not presented or if they are incomplete or illegible. This Guarantee will not apply if the model name or serial number on the product has been altered, deleted, removed or made illegible.

2. This Guarantee does not cover transport costs and risks associated with transport of your product to and from B-Band.

3. This guarantee does not cover:

- a) periodic maintenance and repair or parts replacement due to wear and tear.
- b) consumables (components that are expected to require periodic replacement during the lifetime of a product)
- c) damage or defects caused by use, operation or treatment of the product inconsistent with normal use
- d) damage or changes to the product as a result of:
 - 1. misuse, including:
 - treatment resulting in physical, cosmetic or surface damage or changes to the product
 - failure to install or use the product for its normal purpose or in accordance with B-Band's instructions on installation or use
 - failure to maintain the product in accordance with B-Band's instructions on proper maintenance
 - installation or use of the product in a manner inconsistent with the technical or safety laws or standards in the country where it is installed or used

2. the condition of or defects in systems with which the product is used or incorporated except other B-Band's products designed to be used with the product

3. use of the product with accessories, peripheral equipment and other products of a type, condition and standard other than prescribed by B-Band

4. repair or attempted repair by persons who are not B-Band employees

5. adjustments or adaptations without B-Band's prior written consent, including:

- upgrading the product beyond specifications or features described in the instruction manual, or
- modifications to the product to conform it to national or local technical or safety standards in countries other than those for which the product was specifically designed and manufactured

6. neglect

7. accidents, fire, liquids, chemicals, other substances, flooding, vibrations, excessive heat, improper ventilation, power surges, excess or incorrect supply or input voltage, radiation, electrostatic discharges including lighting, other external forces and impacts.

4. This guarantee covers only hardware components of the product.

EXCLUSIONS AND LIMITATIONS

EXCEPT AS STATED ABOVE, B-BAND MAKES NO WARRANTIES (EXPRESS, IMPLIED, STATUTORY OR OTHERWISE) REGARDING PRODUCT PERFORMANCE, ACCURACY, RELIABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. If this exclusion is not permitted or fully permitted by applicable law, B-Band excludes or limits its warranties only to the maximum extent permitted by applicable law. Any warranty that cannot be fully excluded will be limited (as far as permitted by applicable law) to the duration of this Guarantee.

B-BAND'S ONLY OBLIGATION UNDER THIS GUARANTEE IS TO REPAIR OR REPLACE PRODUCTS SUBJECT TO THESE GUARANTEE TERMS AND CONDITIONS. B-BAND IS NOT LIABLE FOR ANY LOSS OR DAMAGE RELATING TO PRODUCTS, SERVICE, THIS GUARANTEE OR OTHERWISE, INCLUDING - ECONOMIC OR INTANGIBLE LOSSES - THE PRICE PAID FOR THE PRODUCT - LOSS OF PROFITS, REVENUE, DATA, ENJOYMENT OR USE OF THE PRODUCT OR ANY ASSOCIATED PRODUCTS - INDIRECT, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE. THIS APPLIES WHETHER THAT LOSS OR DAMAGE RELATES TO: IMPAIRED OR NON-OPERATION OF THE PRODUCT OR ASSOCIATED PRODUCTS

THROUGH DEFECTS OR UNAVAILABILITY WHILE WITH B-BAND, WHICH CAUSED DOWNTIME, LOSS OF USER TIME OR BUSINESS INTERRUPTION INACCURACY OF OUTPUT FROM THE PRODUCT OR ASSOCIATED PRODUCTS.

THIS APPLIES TO LOSS AND DAMAGES UNDER ANY LEGAL THEORY, INCLUDING NEGLIGENCE AND OTHER TORTS, BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, AND STRICT LIABILITY (EVEN WHERE B-BAND HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES).

Where applicable law prohibits or limits these liability exclusions, B-Band excludes or limits its liability only to the maximum extent permitted by applicable law.

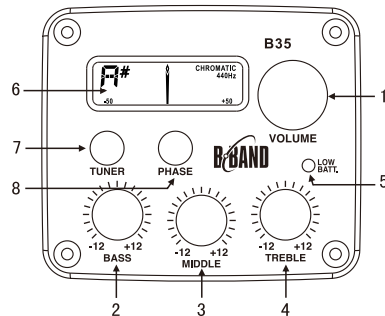
For example, some countries prohibit the exclusion or limitation of damages resulting from negligence, gross negligence, willful misconduct, deceit and similar acts. B-Band's liability under this guarantee will in no case exceed the price paid for the product, but if applicable law permits only higher liability limitations, the higher limitations apply.

YOUR LEGAL RIGHTS RESERVED

Consumers have legal (statutory) rights under applicable national laws relating to the sale of consumer products. This guarantee does not affect statutory rights you may have nor those rights that cannot be excluded or limited, nor rights against the person from whom you purchased the product. You may assert any rights you have at your sole discretion.

B-Band B35 User's Guide.

CONTROLS



- 1.VOLUME
- 2.BASS EQ TONE CONTROL
- 3.MIDDLE EQ TONE CONTROL
- 4.TREBLE EQ TONE CONTROL
- 5.LOW BATT. (LOW BATTERY LED LIGHT)
- 6.CHROMATIC TUNER
- 7.TUNER ON / OFF BUTTON
- 8.PHASE ON / OFF BUTTON

DESCRIPTION OF CONTROLS

1.VOLUME: The VOLUME controls the output volume. Turned fully counter-clockwise it is completely OFF. Turned fully clockwise it is LOUD!

2.BASS EQ TONE CONTROL (for bass tones)

3.MIDDLE EQ TONE CONTROL (for midrange tones)

4.TREBLE EQ TONE CONTROL (for high tones)

The BASS, MIDDLE and TREBLE controls are a 3-band equalizer for controlling tone.

The BASS and TREBLE tone controls are normal boost / cut shelving controls.

The MIDDLE (midrange) tone control is a normal boost / cut tone filter.

The center detent on these tone controls yields a flat tone response. "+12" boosts the tone; "-12" cuts the tone.

5.LOW BATT. (LOW BATTERY LED LIGHT)

The LED will light when the battery has lost power. Replace the battery when this light is on.

This LED light will flash when a cable is connected to the output jack of the pickup system. This shows the battery is good.

BATTERY

A 9-volt battery powers the B-Band B35 preamp. Before connecting the instrument to an amplifier or mixer please check that a fully charged 9-volt battery is connected.

6.CHROMATIC TUNER

7.TUNER ON / OFF BUTTON

Press "TUNER" button to turn on. LCD lights up and set auto guitar and pitch 440Hz automatically.



NOTE READ OUT DISPLAY

The tuner will work with or without a cable plugged into the output jack.

Pushing the tuner button (7) turns ON the tuner. When the tuner is active the Note Read Out Display will become active and the pickup system output is muted. No sound will go to the amplifier or mixer when the tuner is active.

Pushing the tuner button (7) again turns the tuner OFF and the pickup system output will be active and sound will go to the amplifier.

If the tuner is ON and the tuner button is not pushed within 2 minutes the tuner will turn OFF automatically and sound returned to the output.

The tuner Note Readout Display shows the nearest note of one plucked string's sound. The Note Read Display read out shows twelve (12) note possibilities in half steps in "sharps" (for example: A; A#; B; C; C#; D; D# and so on). For "

8. PHASE ON / OFF BUTTON

The PHASE button controls the phase of the pickup in relationship to the phase of the speaker(s) that are being used with the system. Pushing this button in will put the pickup "out of phase" with the speaker(s). When the button is out the pickup is "in phase." This control is most useful for feedback control and will provide a subtle tone color.

If you are having a feedback issue, try pushing the PHASE button in (ON). It can help reduce the feedback.

SETTING UP THE PREAMP FOR USE

Tune the guitar. See the tuner instructions (above).

The preamp is an active preamp powered by a 9-volt battery. This is much more powerful, and very different from, passive controls found in most electric guitars. Do not immediately turn all the controls all the way up. This can cause overdriving of the amp or mixer into distortion.

Before plugging a cable into the guitar's output jack, turn the volume control OFF (turned fully counter-clockwise), turn the 3-band EQ controls to the middle position center detent (half way between "-12" and "+12") and turn the tuner OFF. The PHASE button should be out (OFF).

Check that the 9-volt battery is good.

Make sure that the amplifier or mixer volume is OFF and the EQ tone controls are at flat or off. Plug a guitar cable into the output jack of the guitar and into the input of the amplifier or mixer.

Turn the volume control of the **B35** clockwise and no more than half way up ("12 o'clock"). Turn the volume of the amplifier or mixer up enough to get a good level of sound. Refer to the amplifier or mixer instructions on how to set up best gain structure with an instrument for the cleanest possible sound.

Once the desired volume level is found use the EQ tone controls at the amp or mixer to set the overall tone and use the **B35** EQ tone controls to fine-tune your tone.

If there is feedback, try using the PHASE button by pushing in (ON).

When using the **B35** EQ tone controls please note that better sound can be had by not over using the controls one way or the other. If the EQ tone controls are used at the maximum (plus) + 12 side they can add too much loudness to that tone and may cause distortion. Used too much in the (minus) - 12 side the loudness of that EQ tone can be made very weak which could make you want to turn up the volume control too high and that may cause distortion.

Try turning the MIDDLE CONTROL down a little to cut this tone. This will bring some smoothness to the sound. Turn up the BASS control some to add fullness to the sound. Experiment with the all EQ tone controls and find a tone that suits your taste.

Use the EQ tone controls at the amplifier or mixer to fine-tune the tone.

Good luck and go for it!

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B35 Opening

