1967
1970-71

ampeg

CARE AND MAINTENANCE OF YOUR Dan Armstrong INSTRUMENT

DISTRIBUTED EXCLUSIVELY BY THE AMPEG CO.
LINDEN, NEW JERSEY

THE AMPEG COMPANY, INC.
330 DALZIEL ROAD
LINDEN, NEW JERSEY 07036

ARMSTRONG GUITAR MODEL ARM G-1

TYPE	DESCRIPTION	PART NO
R1	200K LOG	240022
R2	100K LOG	241004
C1	500 μμf	1210065
C2	.033μf 250v	1270130
SW1	SPDT C'OFF	2430084
J1	JACK	3830001

ARMSTRONG BASS MODEL ARM B-1

TYPE	DESCRIPTION	PART NO.
R1	200K LOG	2410022
R2	DITTO	DITTO
C1	.05μf 400V	1270035
J1	JACK	3830001

4010236

A considerable amount of effort went into the design of this instrument; this booklet will help you obtain maximum performance from your Armstrong Guitar or Bass.

With a little care and attention, your instrument will last a long time and will function as a good instrument – consistant, in tune, comfortable to play, and supplying proper sound.

– ADJUSTING THE BRIDGE –

First, after carefully tuning your guitar, determine whether or not the bridge is in its best position.

1. Play the harmonic at the 12th fret 1st string (high E).
2. Play the fretted note at the 12th fret 1st string.
3. Compare; (Assume that the harmonic is in tune.) If the fretted note is sharp (higher than the harmonic) the string is too short so move the wooden saddle away from the neck to make the 1st string longer. If the fretted note is flat (lower than the harmonic) move the saddle toward the neck thereby making the string shorter. Continue shifting the saddle until both harmonic note and fretted note are the exact same pitch.
4. Repeat the above steps with the 6th or low E string and be careful not to affect the adjustment of the high string end of the bridge.

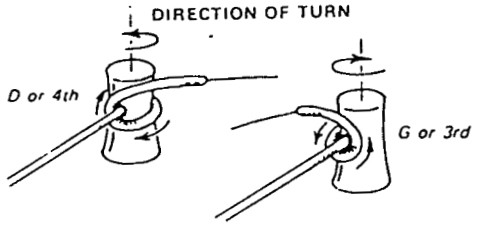
This bridge adjustment must be made often to maintain true intonation, since string conditions change (deteriorate) constantly on any guitar with any strings. When it is no longer possible to adjust intonation in this way within the normal limits of the bridge's ability to adjust, it is necessary to change strings.

This inability to adjust does not mean that the neck is warped, or frets are "off" or any other nonsense. Bad strings simply can't be tuned. If new strings present bridge adjustment difficulties try another brand.

Bridge height is preset at the factory and is not necessarily the *best* height for you but it does provide very low action. If you wish the action higher you may raise it by replacing the bridge saddle already on the instrument with one of the other higher saddles supplied. Loosen the strings and try other saddles until string height suits you.

– REPLACING STRINGS –

If strings are put on the instrument correctly no slipping will occur and the "stretch" and "break in" period will be reduced.



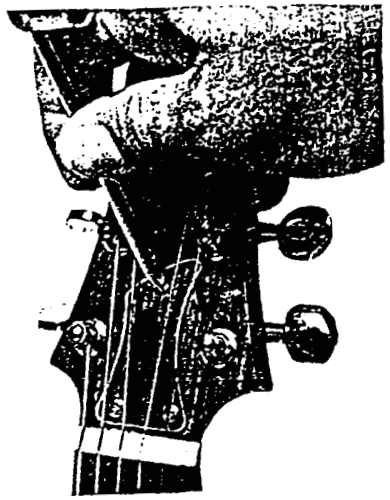
CORRECT WAY TO STRING INSTRUMENT

On basses only the G and possibly D strings can be anchored this way. On bass A and E strings, friction acts pretty well anyway. Always wind down on the tuning machine, below the hole. Two or three turns, at most, around the peg is plenty for any metal string.

– ADJUSTING THE NECK –

A "warped" neck has been blamed wrongly for many guitar disorders. A good neck must be somewhat flexible so that it may be adjusted in order to compensate for weather, time and a wide variety of string gauges and tensions. The guitar neck should be absolutely straight always. There is no reason to tolerate a bowed or "warped" neck.

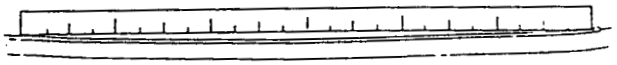
To straighten the neck on your DAN ARMSTRONG bass or guitar, remove the cover over the neck rod adjustment nut, on the head piece. Check

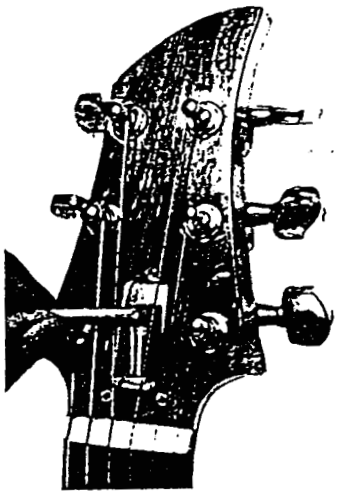


amount and direction of bowing by placing a reliable straight edge, such as a high quality ruler, not a yard stick across frets down the center of the neck with strings *on* and *tuned up* to correct pitch.

If the neck has a concave bow (which causes buzzes on middle and upper frets) the straight edge will touch the frets at its ends not at or near its center. Using the special tool supplied, tighten the nut on the truss rod until the straight edge touches all frets along the entire length of the straight edge.

CONCAVE BOW





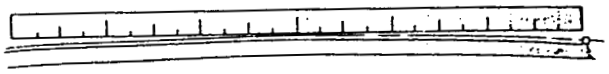
If the neck has a convex bow (with resulting buzzes on lower frets), the straight edge will rock back and forth along the center not touching frets with its ends. Back off rod tension by loosening the nut until concave warp develops then tighten until the straight edge touches all frets evenly.

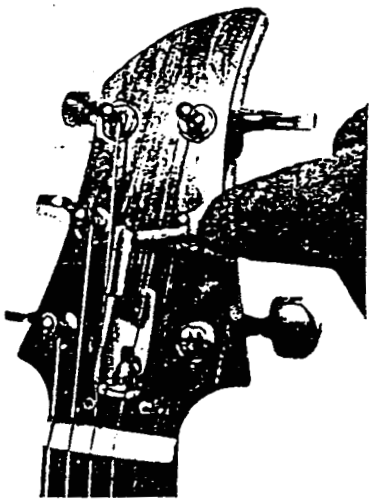
This adjustment should be checked, and corrected whenever string gauge is changed. Periodic adjustment will be necessary anyway due to climate changes and natural aging and "settling" of neck material.

– MISCELLANEOUS NECK MAINTENANCE –

Occassional cleaning of fingerboard especially around frets will prolong neck life and feel. Spray on a good *window cleaner* with *ammonia* and give it a few minutes to cut the accumulated grease and dirt and wipe away residue with a cloth or paper towel.

CONVEX BOW





To restore the slight oily texture to the fingerboard a light but thorough application of *lemon oil* (for furniture) is best.

Tuning machines may be made to turn more freely by loosening very slightly the small screw in the end of each key. Tightening these screws will cause the machines to turn more firmly.

Should the frets become excessively worn or for any other reason the neck need replacement remove the pick guard carefully so as not to strip the delicate threads in the body material and unbolt neck from body. New necks are available *(exchange only)* from your dealer at reasonable cost.

– BODY MAINTENANCE –

The body of your DAN ARMSTRONG instrument is made of hard plastic and is scratch resistant. Should scratches occur due to normal wear or accident buffing with a soft cloth and some toothpaste will remove them if they are not too severe. Deep scratches require power buffing with rouge or other such heavy compounds. Check with your favorite auto body shop.

Avoid extreme temperature changes and use caution in handling since this guitar like any fine instrument is rather fragile and will not withstand excessive abuse.

The two bottom strap pegs provide a firm support while leaning the guitar against amplifier, chairs, etc. Try each peg with your strap end since one may be more comfortable for you than the other.

— CHANGING PICKUPS —

GUITAR ONLY — Your DAN ARMSTRONG guitar will accommodate any one of the six different DAN ARMSTRONG pickups.

Rock Treble — Highest Power, Bright Sound
Rock Bass — High Power, Dark Sound
Country Treble — High Power, Bright "twangy" Sound
Country Bass — High Power, Dark "twangy" Sound
Jazz Treble — Medium Power Bright Smooth Sound
Jazz Bass — Medium Power, Richest Sound

Two of these pickups are supplied with your guitar and the other four are available from your dealer.

In order to change from one pickup to another, these steps are necessary:

1. Remove thumb screw in back of body.
2. Gently slide pickup out of channel.
3. Carefully slide another pickup into place. The plugs in the guitar body should fit neatly into the holes in the pickup.
4. Tighten thumb screw into pickup, through back of body.

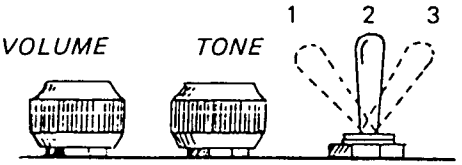
With a little practice, this change may be made quite quickly and easily.

BASS ONLY — Should your DAN ARMSTRONG bass pickup not function properly it may be replaced in this manner:

1. Remove pick guard carefully.
2. Unscrew mounting screw about three turns.
3. Remove retainer plate.*
4. Loosen strings sufficiently to allow pickup to be pulled out away from mounting screws.
5. Remove from cavity.
6. Replace new pickup in cavity, sliding mounting lugs under screws.
7. Tighten screws securely.
8. Replace retainer plate* and pick guard.

* On some bass models, this retaining plate has been replaced by a thumb screw in back, similar to the guitar pickup.

GUITAR SWITCH — The three position switch works in this manner:



Position #1 defeats volume control, resulting in full volume which means that in this position the volume control does not function except at full off, allowing a "preset" rhythm or lead volume level.

Position #2 Switch is in neutral position — tone and volume controls will function in their normal way.

Position #3 defeats tone control, resulting in full bass, regardless of tone control setting.

— ELECTRICAL MAINTENANCE —

Eventually, the tone and volume control "pots" may become a bit noisy or "scratchy" due to the hard use players put them to and an accumulation of dust and dirt from the air. Remove the pick guard carefully so as not to pull the pick up wires loose. Purchase an aerosol can of *T.V. Tuner Cleaner* from your T.V. repair shop. Clean the "pots" according to directions on the can.

When these controls finally do wear out entirely they should be replaced by a competent serviceman. Be sure to use exact values.

(See Schematics on back page)

DAN ARMSTRONG GUITAR PICKUPS

ROCK PICKUPS

ROCK TREBLE

ROCK BASS

Both are Ultra-Hot with maximum power output, with a flatter response in the Rock Bass Pickup.

COUNTRY PICKUPS

COUNTRY TREBLE

COUNTRY BASS

Each has medium power output and the "out of phase, two pickup" sound with a flatter response in the Country Bass Pickup.

JAZZ PICKUPS

JAZZ TREBLE

JAZZ BASS

Each has medium power output and the "flattest" most even response of all the Dan Armstrong pick-ups, with more bass response in the Jazz Bass

★

BASS PICKUP — FOR BASS GUITAR ONLY

The Armstrong Bass Pick-Up is, in fact, not one, but two separate pick-ups in one unit. This allows the player to select a wide spectrum of tones, without the usual alterations in sound character resulting from ordinary two pick-up arrangments.

HOW TO INTERCHANGE PICKUPS IN THE DAN ARMSTRONG BASS AND GUITAR

Two of these pickups are supplied with your guitar and the other four are available from your dealer.

In order to change from one pickup to another, these steps are necessary:

1. Remove thumb screw in back of body.
2. Gently slide pickup out of channel.
3. Carefully slide another pickup into place. The plugs in the guitar body should fit neatly into the holes in the pickup.
4. Tighten thumb screw into pickup, through back of body.

With a little practice, this change may be made quite quickly and easily.

BASS ONLY – Should your DAN ARMSTRONG bass pickup not function properly it may be replaced in this manner:

1. Remove pick guard carefully.
2. Unscrew mounting screw about three turns.
3. Remove retainer plate.*
4. Loosen strings sufficiently to allow pickup to be pulled out away from mounting screws.
5. Remove from cavity.
6. Replace new pickup in cavity, sliding mounting lugs under screws.
7. Tighten screws securely.
8. Replace retainer plate* and pick guard.

* On some bass models, this retaining plate has been replaced by a thumb screw in back, similar to the guitar pickup.

DISTRIBUTED EXCLUSIVELY BY THE AMPEG CO. LINDEN, NEW JERSEY

ampeg

PRODUCT BULLETIN #17

DATE: March 8, 1971

SUBJECT: PROCEDURES FOR UPDATING ARMSTRONG GUITARS AND BASSES.

Gentlemen:

In an effort to improve the tonal response from the Armstrong Instruments, several changes were made in their respective control assemblies.

Attached are three procedures outlining these changes. By following them carefully, while referring to the pictorial sketches, anyone can perform these operations without any difficulties.

PROCEDURE #1 - Deals with updating the Armstrong Guitar and with the resulting switch functions. This procedure applies to Armstrong Guitars with serial numbers below A2000D.

PROCEDURE #2 - Deals with updating the Armstrong Bass without employing a switch. It also deals with the replacement bass pickup. The replacement is identical to the pickup presently installed in the instruments, in conjunction with the circuit change. This procedure applies to Armstrong Basses with serial numbers below D1000A.

A copy of Procedure #2 should be enclosed with each replacement pickup.

PROCEDURE #3 - Deals with a more elaborate version of the updating, employing a toggle switch. The switch offers the selection of either the existing response, or the "new" response. This procedure applies to Armstrong Basses with serial numbers below D2000A.

NOTE: The serial numbers, mentioned in the above procedures, indicate points in manufacturing, at which those changes were instituted.

TO CLARIFY:

GUITARS - Serial Numbers up to A1999D - original circuit.

Serial Numbers A2000D to present - new circuit.

BASSES - Serial Numbers up to D999A - original circuit.

Serial Numbers D1000A to D1999A - new circuit, without switch.

Serial Numbers D2000A to present - new circuit with switch.

P. Toscano

P. Toscano
Manager-Instrument Division

Roger Cox

Roger Cox
General Product Manager
Plant Manager

RC:ep

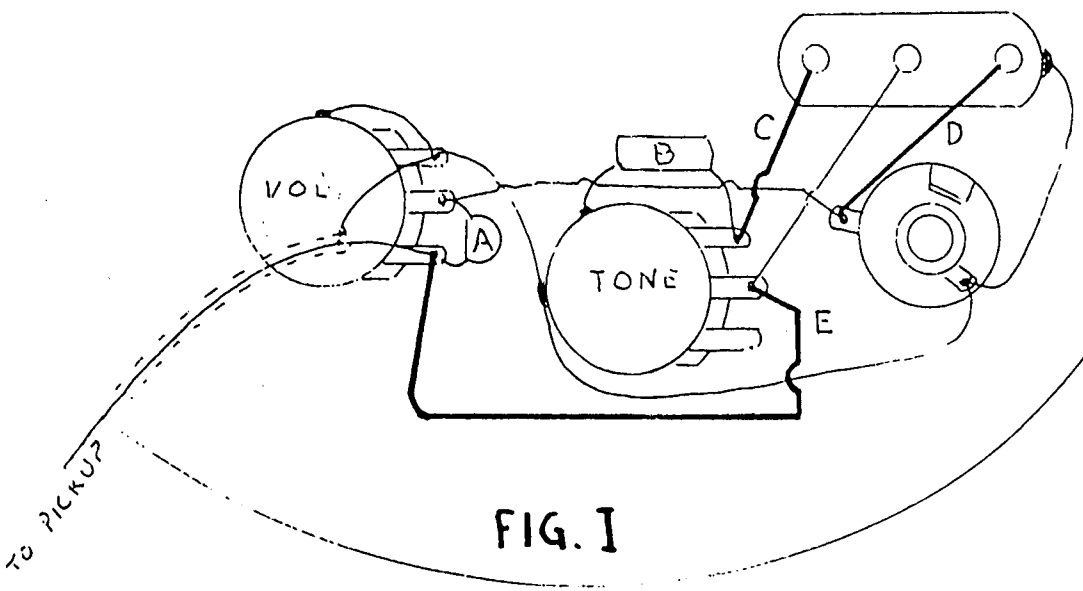


FIG. I

BOTTOM VIEWS

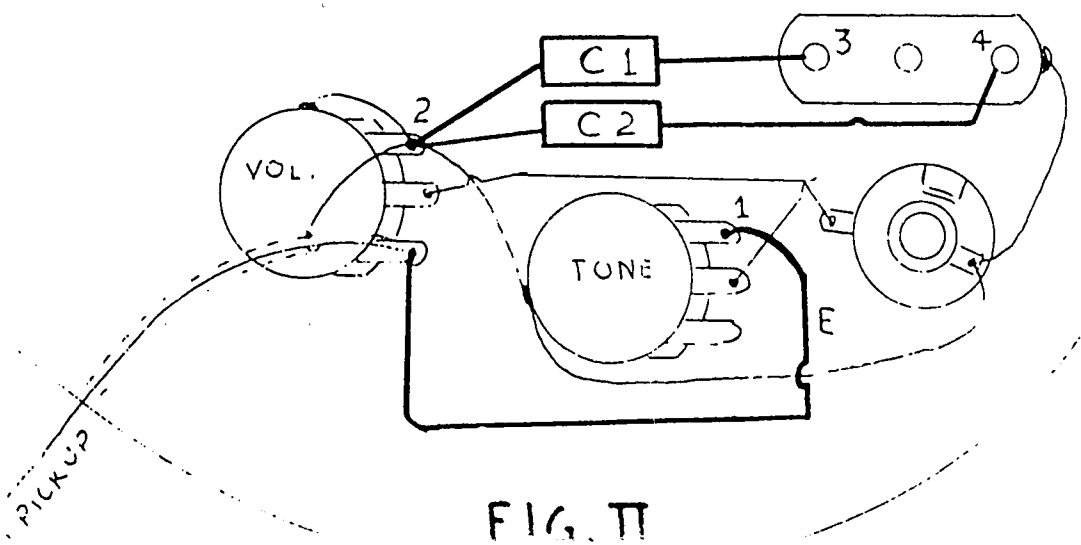


FIG. II

PROCEDURE #1

Updating the Armstrong Guitar
(Applies to Serial Numbers below A2000D)

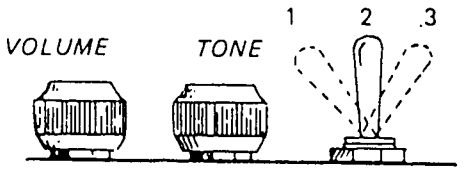
REFER TO FIGURE I

(1) REMOVE CAPACITORS "A" AND "B"
(2) REMOVE WIRES "C" AND "D"
(3) UNSOLDER WIRE "E" FROM CENTER LUG ON TONE CONTROL

REFER TO FIGURE II

(1) SOLDER (C1) .01 MFD AT LUGS (2) AND (3)
(2) SOLDER (C2) .02 MFD AT LUGS (2) AND (4)
(3) RE-SOLDER WIRE "E" TO LUG (1) ON TONE CONTROL

NOTE: RESULTING SWITCH FUNCTIONS



Position =1 steepest reduction of high frequencies.

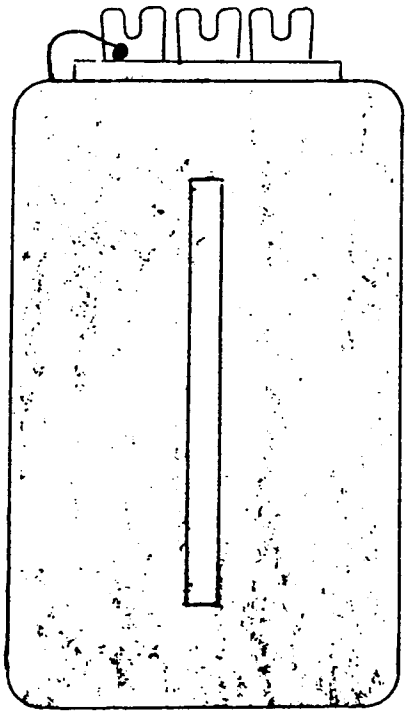
Position =2 By-passes tone control action completely, accentuating high frequencies.

Position =3 Moderate reduction of high frequen-

PROCEDURE #2

Updating the Armstrong Bass (without switch) and the Armstrong Replacement Bass Pickup.

(Applies to models with Serial Numbers below D1000A)



1. Unscrew the pick plate.

2. Loosen the strings and remove the pickup.

3.(a) EXISTING PICKUP:

Solder short lead, protruding from pick-up, to the nearest lug on the terminal strip. (See sketch)

(b) REPLACEMENT PICKUP:

3(a) is already accomplished in your replacement pickup. Disregard step 3(a) and proceed to step 4.

4. PICK PLATE: Replace existing capacitor with a .1 MFD. (Enclosed with replacement pickup)

NOTE: THIS ARRANGEMENT WILL IMPROVE YOUR INSTRUMENT BY RESULTING IN A MORE BALANCED RESPONSE.

PROCEDURE #3

Updating the Armstrong Bass (utilizing a toggle switch)

(Applies to models with Serial Number below D2000A)

1. Loosen nuts and remove the entire control assembly from the pick plate.

2. Using the accompanying diagram as a template, locate and drill a 1/2" diameter hole for the switch (shaded circle).

3. Install D.P.S.T. Switch (Part #2430092) with keyway facing toward the fingerboard.

4. Replace the assembly removed in Step. 1.

5. Remove pickup wire from lug "A", splice a piece of insulated wire at "X" and connect to lug "B".

6. Solder a .01 MFD Capacitor between lugs "B" and "C".

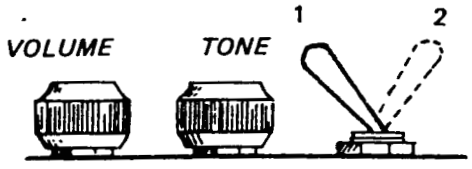
7. Solder a piece of insulated wire between lugs "C" and "D".

8. Replace capacitor (C1) with a .05 MFD capacitor and solder another .05 MFD capacitor (C2 between lugs "G" and "E".

9. Solder a piece of wire between lugs "F" and "H", being sure to make a soldered contact with the metal portion of the switch.

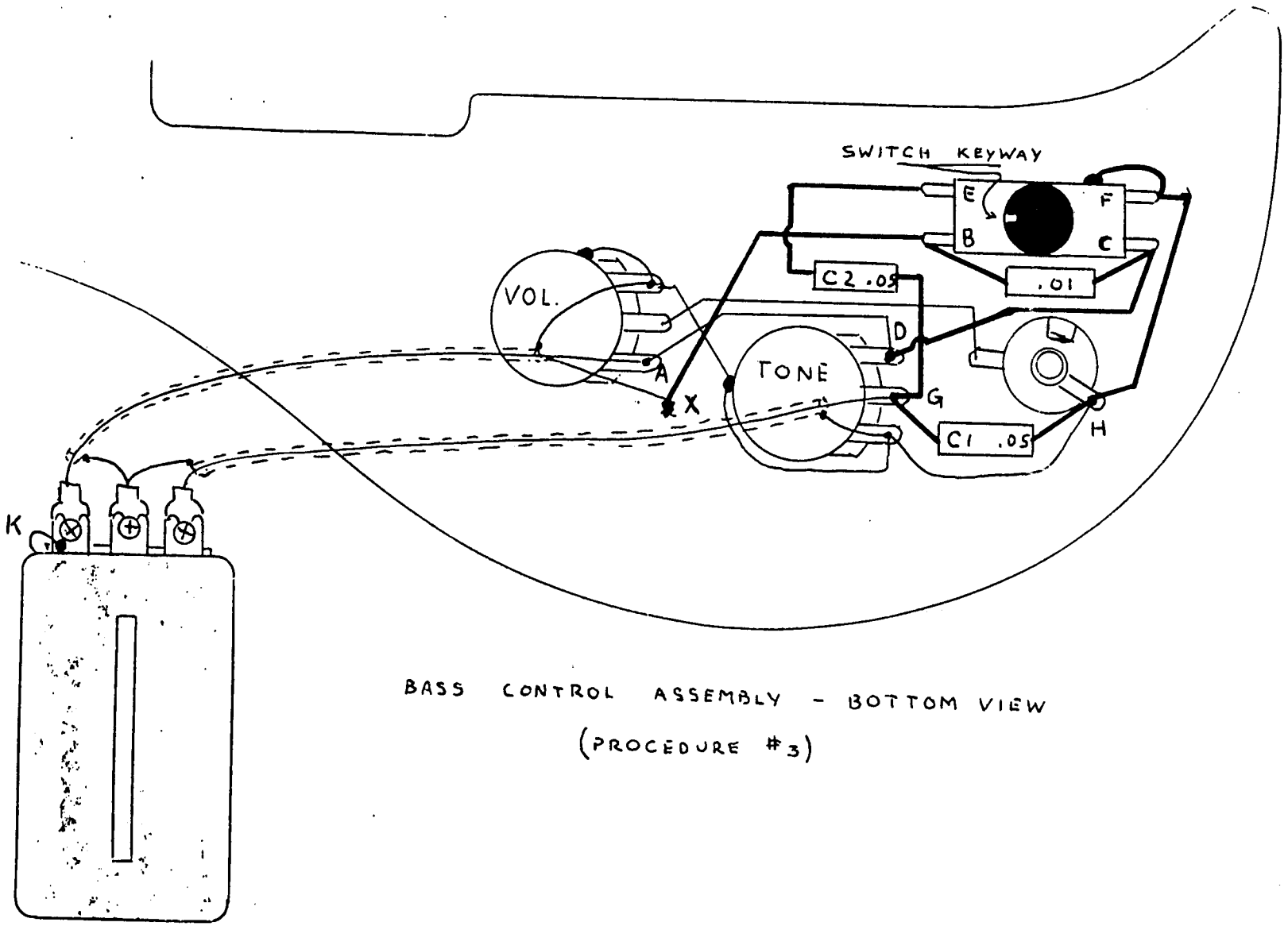
10. On the pickup itself, solder the protruding lead "K" to the nearest lug on the terminal strip. This step is already accomplished in models with Serial Numbers above D1000A - and in replacement pickups.

NOTE: RESULTING SWITCH FUNSTIONS



Position #1 Results in the deepest possible tones from this instrument with main accentuation on the "A" and "E" strings.

Position #2 Results in balanced sound from the



BASS CONTROL ASSEMBLY - BOTTOM VIEW

(PROCEDURE #3)