

G-202 SERVICE NOTES

Peg
PG-111 (2228331500)

String guide
(2213350900)

Rod adjust nut
(2215352700)

Strap button
nickel
(2228331520)

Humbucking pickup
PU-120 (2238360600)

Pickguard
N-116 (2212311600)
Switch
DM-20B (13139523)
Knob
N-407 (2247340700)

Divided pickup
N-601 (2238360100)

Knob KN-010 (2247320700) Pot EWJ-EWA322163 (13219772)

Bridge/tailpiece
TP-130 (detail P.4)

Pot EVHRTA304D55 (13219120)

Pot (3 pcs)
EVHRTA304B54 (13219106)

Pot EWJ-EWA322B54 (13219766)

Knob (2 pcs)
N-159 (2247015900)
NOT THESE P

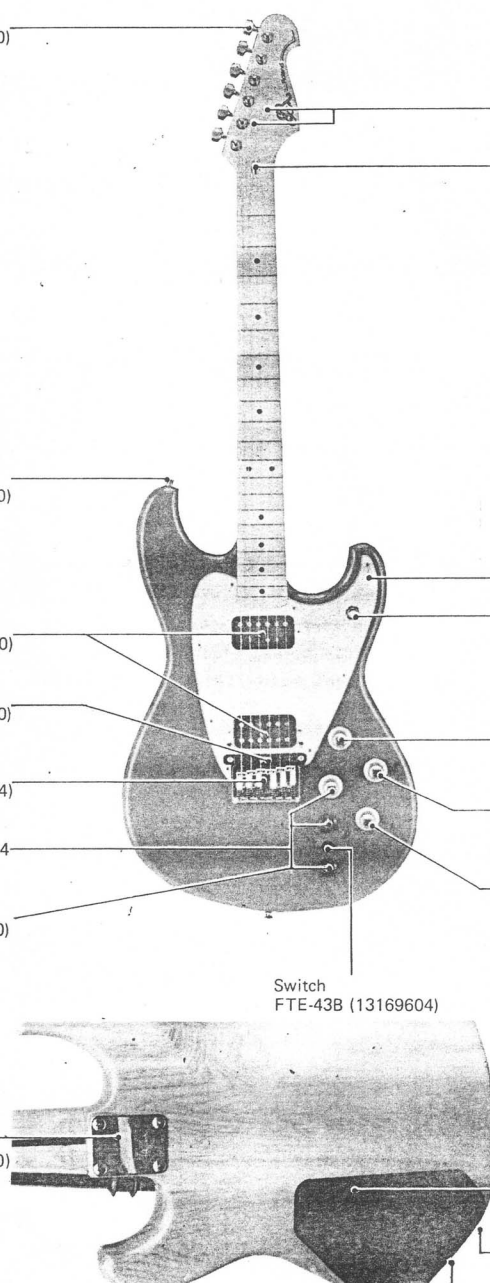
Switch
FTE-43B (13169604)

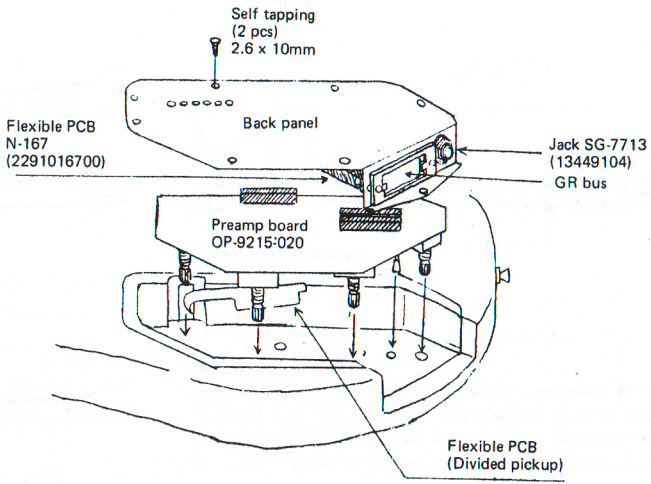
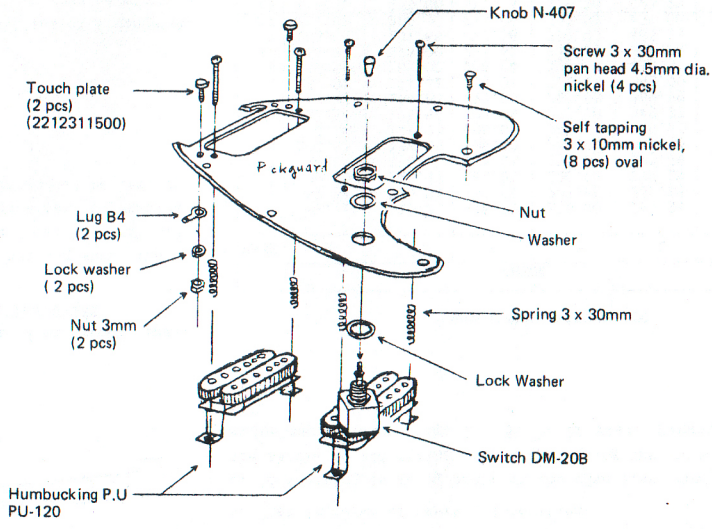
Neck plate
(2252352700)

Back panel (2114013400)

Jack SG-7713
(13449104)

Connector SLC-1204-2324M GR bus (13439605) Lock shell SLC-1204-24L2 (12139303)





ADJUSTMENTS

1. PRELIMINARY ADJUSTMENT

If truss rod, pickup and/or bridge/tailpiece seems to have been readjusted or replaced on a given Guitar Controller, the following adjustments must be properly completed before the individual adjustments now being required are carried out.

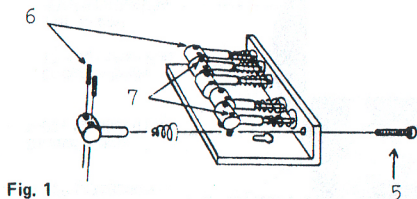
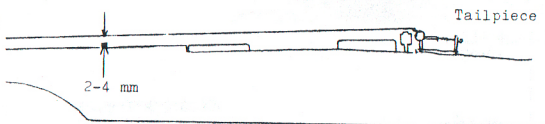


Fig. 1

BRIDGE (coarse) - Fig. 1 -

(Action height at the higher fret)

When the bridge is a replacement for original one, adjustments for centering the bridge precedes the following.

Tighten the strings to eliminate slacks.

The distance between bottom of each string and higher frets must be within 1 - 4mm, if not, adjust screws 6 or 7.

If any string is coming to touch a pickup, lower the pickup.

Adjustments must be carried out in order, as follows:
 (1) TRUSS ROD; (2) ACTION HEIGHT; (3) STRING LENGTH.

2. TRUSS ROD

Checking the fingerboard and neck for cambering, warping, pulling and twisting - Fig. 2 -

1. Hold the neck joint with one hand (1); with the other hand, gently hold the guitar head (2). Position the guitar on the table.
2. View the curve of the fingerboard and neck across the top of the head from both edges alternately (3). B to H in Fig. 2 are examples of would be occurred. Of course any combinations of these examples might be found on the guitar.

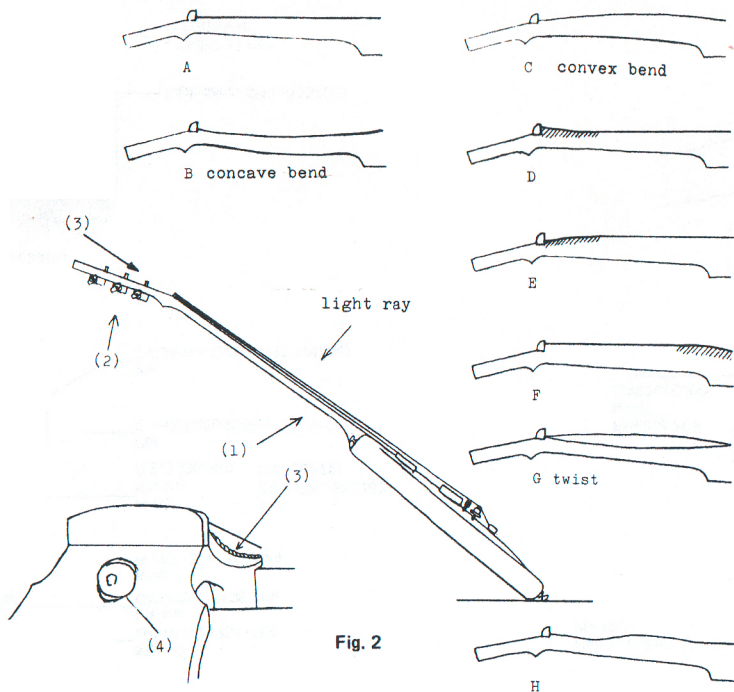


Fig. 2

When adjusting, tighten or loosen the nut (4), with a 4 mm wrench, small amount at a time while checking the result. DO NOT OVERTIGHTEN.

A ----- Ideal.

B, C, D -- Adjust truss rod. Check that there is no buzzing when the string is played open. (Slighter curvature shaded in D can be ignored.)

E, F, G, H -- When possible action is cannot be obtained after compensated for by truss rod adjustment, any adjustments it needs should be left to someone with experience on guitar repair.

3. ACTION (STRING) HEIGHT

(Bridge adjustment) - Fig. 3 -

Action height adjustments must be taken with a full set of strings on the guitar, the gauge and type will be used, tuned to playing pitch.

1. Hold the guitar perpendicular to the bench.

2. With the string open, measure the distance between 14th fret and the bottom of the strings. Standard clearances:

1st- 1.5mm; 2nd- 1.6mm; 3rd- 1.7mm; 4th- 1.8mm; 5th- 1.9mm; 6th- 2.0mm

3. To adjust, raise or lower the bridge in the same fashion described in preliminary adjustments, BRIDGE.

4. PICKUP HEIGHT

4-1. 1st and 2nd humbuckings - Fig. 3 -

Possible action on guitar pickup depends greatly on strings and players, with strings supplied 3-4 mm works well. However, pickups' top surfaces must be held parallel to the strings and 1st and 2nd pickups must deliver an equal output sound in level.

4-2. Divided pickup - Refer to page 3 -

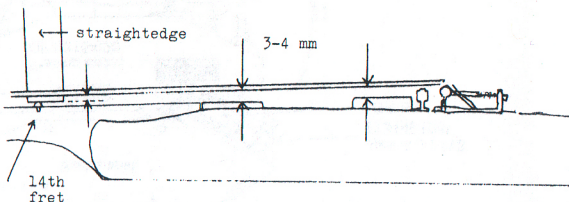


Fig. 3

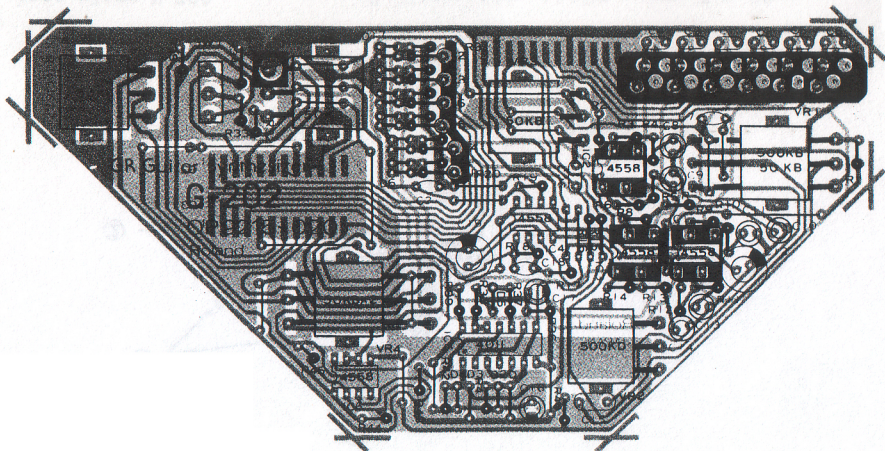
5. STRING LENGTH (OCTAVE ADJUSTMENT)

1. Test intonation at the 12th fret whether string is sharp or flat in terms of overall intonation.

2. If a string is going sharp at the 12th fret, move back the saddle to add string length by turning the intonation adjustment screw (Fig. 1, 5), If flat, forwards.

REFERENCE FREQUENCIES

FRET	STRING					
	6	5	4	3	2	1
0	82.41	110.00	146.83	196.00	246.94	329.63
1	87.31	116.54	155.56	207.65	261.63	349.23
2	92.50	123.47	164.81	220.00	277.18	369.99
3	98.00	130.81	174.61	233.08	293.66	392.00
4	103.83	138.59	185.00	246.94	311.13	415.30
5	110.00	146.83	196.00	261.63	329.63	440.00
6	116.54	155.56	207.65	277.18	349.23	466.16
7	123.47	164.81	220.00	293.66	369.99	493.88
8	130.81	174.61	233.08	311.13	392.00	523.25
9	138.59	185.00	246.94	329.63	415.30	554.37
10	146.83	196.00	261.63	349.23	440.00	587.33
11	155.56	207.65	277.18	369.99	466.16	622.25
12	164.81	220.00	293.66	392.00	493.88	659.26
13	174.61	233.08	311.13	415.30	523.25	698.46
14	185.00	246.94	329.63	440.00	554.37	739.99
15	196.00	261.63	349.23	466.16	587.33	783.99
16	207.65	277.18	369.99	493.88	622.25	830.61
17	220.00	293.66	392.00	523.25	659.26	880.00
18	233.08	311.13	415.30	554.37	698.46	932.33
19	246.94	329.63	440.00	587.33	739.99	987.77
20	261.63	349.23	466.16	622.25	783.99	1046.50
21	277.18	369.99	493.88	659.26	830.61	1108.73



DIVIDED PICKUP

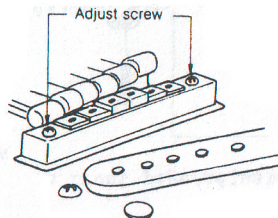
Make sure that strings are on the line parallel to finger-board curvature.
Slight off-center of divided pickup heads are negligible.

With strings in tune, position divided pickup so that when 21st is fretted clearances between head top and bottom of string are:
#1 - 0.5mm; #6 - 0.8mm.



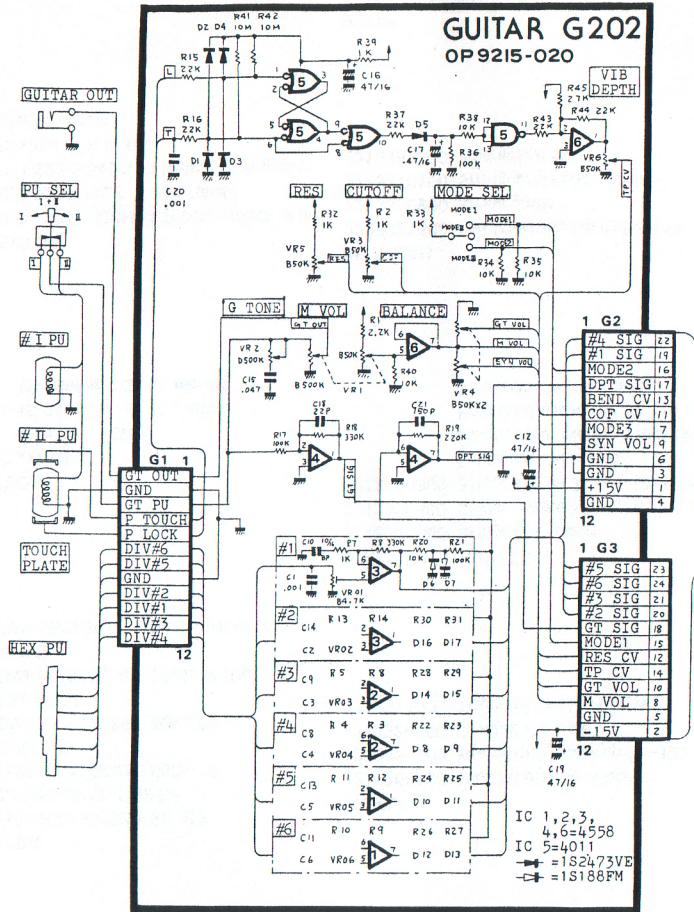
BALANCING DIVIDED PICKUP OUTPUTS

Variation in divided pickup head sensitivities, due to string or the pickup replacement, can be compensated for by adjusting trimmers of PREAMP board. Although provides the user with easier playing condition, this adjustment should be done after basic adjustments are confirmed.

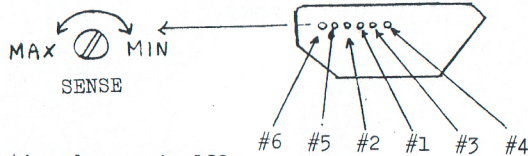


1. Connect G-202 to GR-300. Switch COMPRESSION off.
2. Expose GR-300 VOICING board, connect a scope to a pin of A3 connector (HEX ENV) of GR300. Adjust corresponding VRO- in G-202 (see Fig. right for location) through a hole in the back panel for the following values at peak:
 - 11VDC at strong picking
 - 5-7VDC at soft picking
3. Fine adjust by ear with the aid of monitor amplifier for well balanced level.

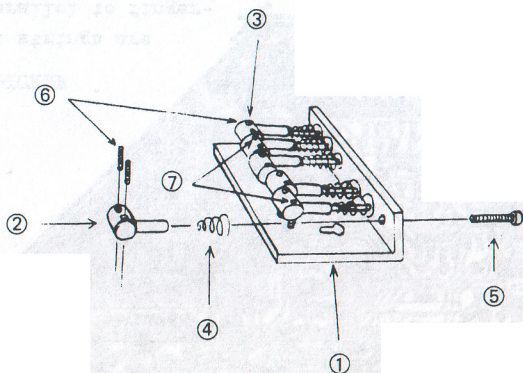
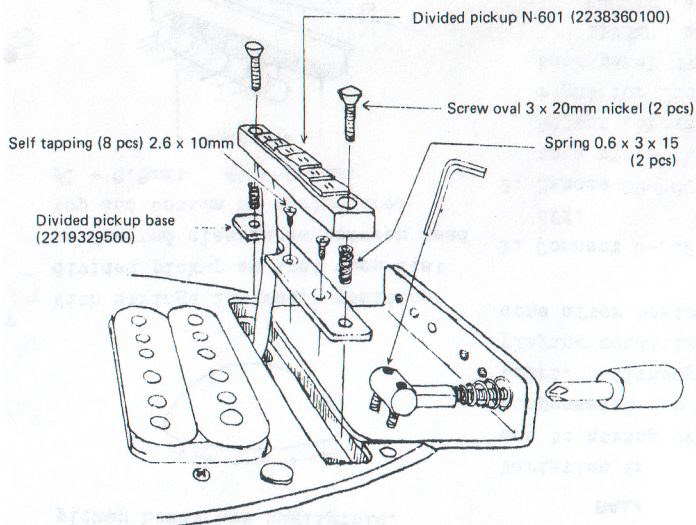
OP9215-020(792150200)(Pcb 2291343600)



view from back panel



continued from front page/adjustment illustration



- | | |
|---|---|
| 1 Bridge base plate N-309
(2213330900) | 5 Intonation adjust screw 3 x 22mm
4.5mm-dia pan head, black |
| 2 Bridge saddle N-904 (2213390400)
L = 19mm, 4-6th strings | 6 Height adjust screw
L = 8mm, 1st/6th strings |
| 3 Bridge saddle N-903 (2213390300)
L = 21mm, 1st-3rd strings | 7 Height adjust screw
L = 10mm, 2nd-5th strings |
| 4 Bridge saddle spring | |

PARTS LIST

PCB ASSEMBLY

7921502000 Preamp board OP9215-020
2291343600 PCB less parts

POTENTIOMETER

13219106 EVH-RTA304B54 50k Ω B
C.F./RES/VIB. DEPTH
13219120 EVH-RTA304D55 500k Ω D
G. TONE
13219766 EWJ-EWA322B54 50k Ω Bx2
BALANCE
13219772 EWJ-EWA322163 50k Ω B+500k Ω B
M. VOL
13299128 EVN-38C53B 5k Ω B trimmer

SEMICONDUCTOR

15189105 IC μ PC4558
15159104Z0 MC14011BCP
15019108 Di 1S-2473VE Si V. mount
15019122 1S-188FM Ge V. mount

JACK / CONNECTOR

13439605 SLC-1204-2324M GR bus, w/lock shell
12139303 SLC-1204-24L2 Lock shell
13429121 FH1-12S-2.54DS Flexible PCB socket
2291016700 Flexible PCB N-167
13449104 Jack SG-7713

SWITCH

13169604 FTE-43B Mode selector
13139523 DM-20B PICKUP selector

KNOB

2247015900 Knob N-159 black
2247320700 Knob KN-010 gold
2247040700 Knob N-407 P.U. SEL

PICKUP

2238360100 Divided pickup N-601
2238360600 Humbucking pickup PU-120
2219329500 Divided PU base
2212311500 Touch plate (L, R same)

BRIDGE / TAILPIECE

2213330900 Bridge base plate
2213390400 Bridge saddle 19 mm Gold (#4-#6)
2213390300 Bridge saddle 21 mm Gold (#1-#3)
Bridge saddle spring
Height adjust screw 8 mm (#1, #6)
Height adjust screw 10 mm (#2-#5)
Intonation adjust screw

PEGHEAD

2228331500 Peg (machine head) PG-111
2213350900 String guide
2215310100 String guide post 2.5mm
2215352700 Rod adjust nut

BODY

2212311600 Pickguard
2252352700 Neck plate
2114013400 Back panel
2228331520 Strap button