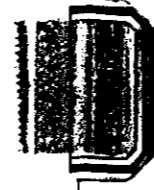


GR-100 SERVICE NOTES

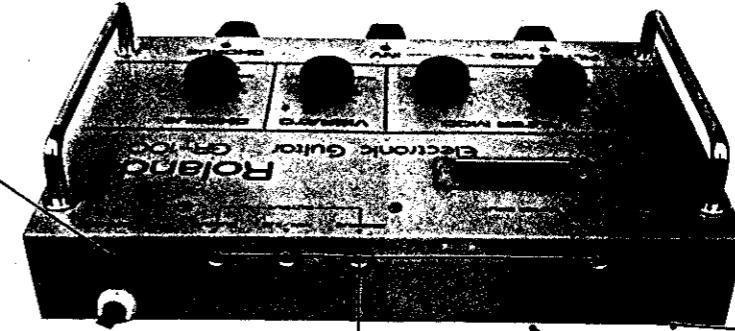
First Edition



SPECIFICATIONS

- Vibrato Rate 0.7 – 8 Hz
- Power Consumption 9W
- Dimensions 300 (W) x 250 (D) x 93 (H) mm
- Weight 3.1 kg

- Power switch
ESB-70294 (13129110)
common to all voltages
- Button
N-510 (2247051000)



Rubber foot N-331
(2235333100)

Jack
HLJ-1307-01-030
(13449216)

Chassis (bottom)
N-265
(22813265)

Pot
EVHRA360A15
(13219101)

Lock shell
SLC-1204-24L2 (12139302)

Connector (w/Lock shell)
SLC-1204-2324F (13429405)

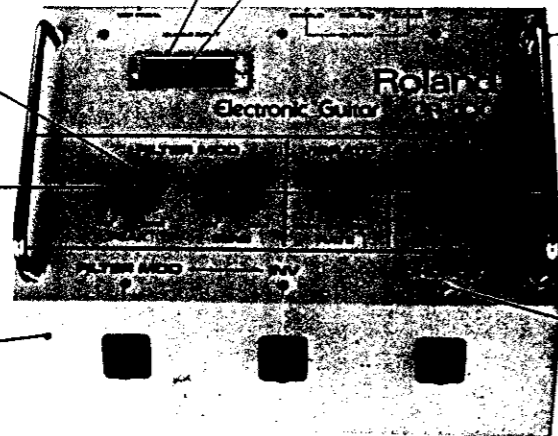
Handle (R.L same)
N-204 (2231020400)
Washer
N-701 (2213370101)

Knob
N-112 (2247011200)

Pot
EVHRA360B54
(13219104)

Panel
~~N-235 (2221323500)~~
N-253 (224325301)

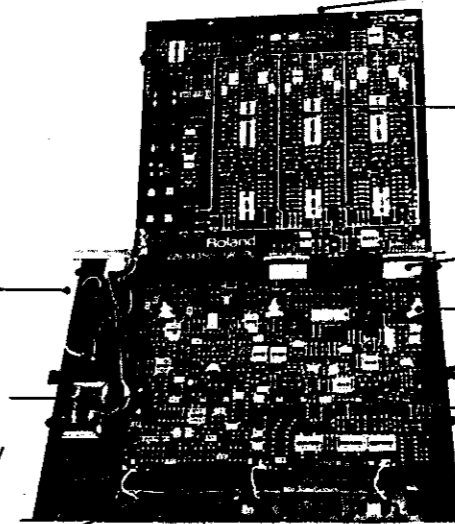
LED
TLR-105 (15029109)



Holder (fuse)
N-267 (2219326700)

Power transformer
PT-N-236NA (22453236N1) 100V
PT-N-237CA (22453237C1) 117V
PT-N-238DA (22453238D1) 220/240V

Foot switch w/matt
N-903 (2312390300)



Heat sink
N-424
(22463424)

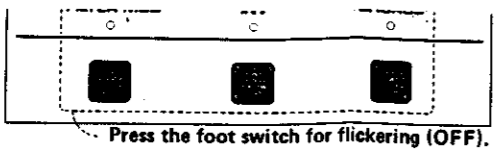
VOICING Board
OP9223-030 VOICE
(79223030V)

Flat cable N-970
(2343397000)

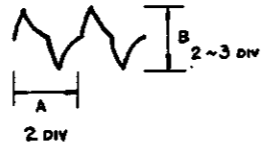
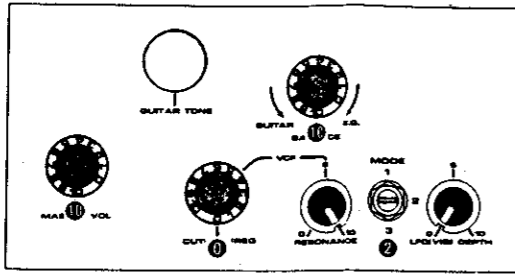
PCB Post
LCBS-6N
(22199502)

CONTROL Board
OP9223-030 CONTROL
(79223030C)

ADJUSTMENTS VOICE BOARD



Panel illustration-common to para. 1 and 2



2. VCF CUTOFF

- 2-1. Connect scope to TP-8 of VOICE board with timebase set to lms/div and vertical to 50mV/div.
- 2-2. Pluck 1st string on 7th fret. Set VR1 of CH-1/2 for maximum amplitude on the screen - 100-150mV p-p.

- 2-3. Pluck 2nd string on 7th fret. The waveform should be approx. 140mV p-p. Since the same control voltage determined by that VR1 is also applied to the rest half of IC3 for CH-2, not all gain difference between two VCFs is a resultant of VR1 misadjustment.
- 2-4. Similarly, set VR1's of CH- 3/4 and 5/6.

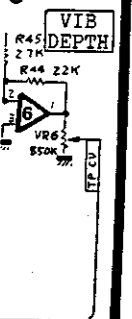
1. RESONANCE

- 1-1. Turn VR2 FCW (viewed from component side), VCFs will oscillate. Reverse VR2 until VCFs cease oscillation, further rotate CCW 5 degrees.

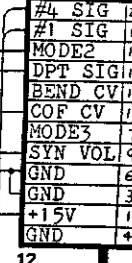
CAUTION
Avoid adjusting on the 2nd harmonics, referring to the table right.

CH	PERIOD(msec)	FREQ(Hz)
1	2	494
2	2.8	370
3	3.5	294
4	4.6	220
5	6	164
6	8	123

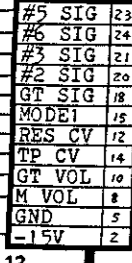
G202



1 G2



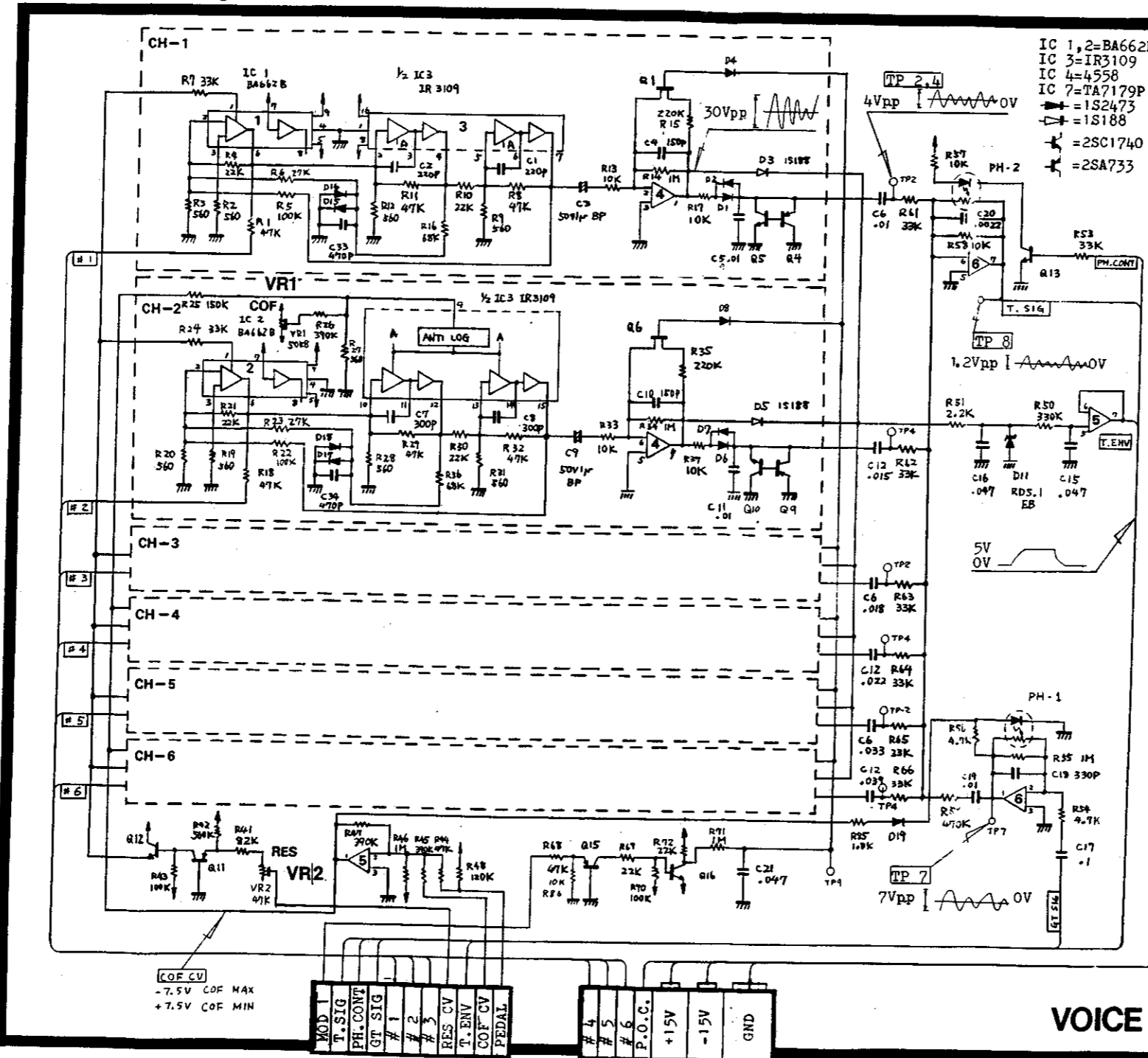
1 G3



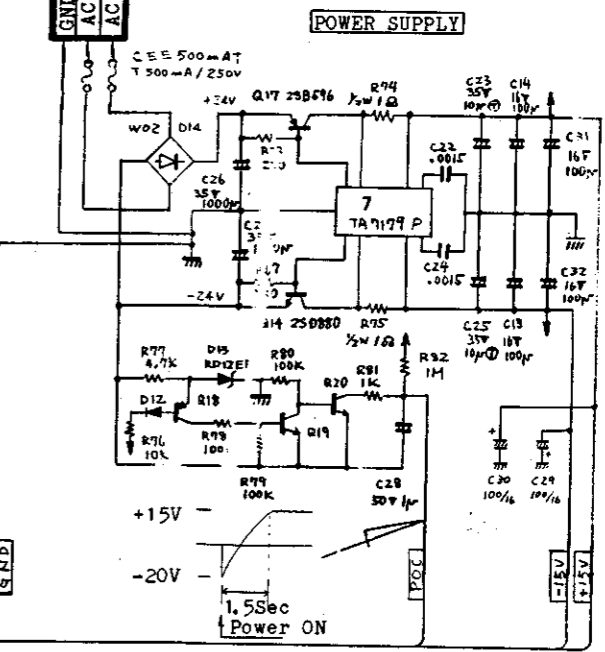
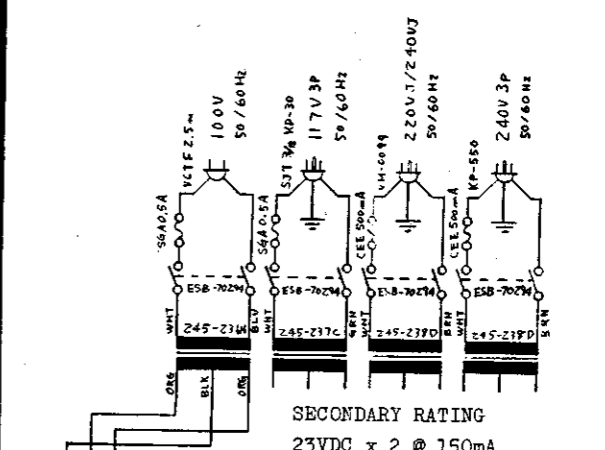
12

2,3,6=4558, =4011, =1S2473VE, =1S188FM

24P CABLE



GR 100

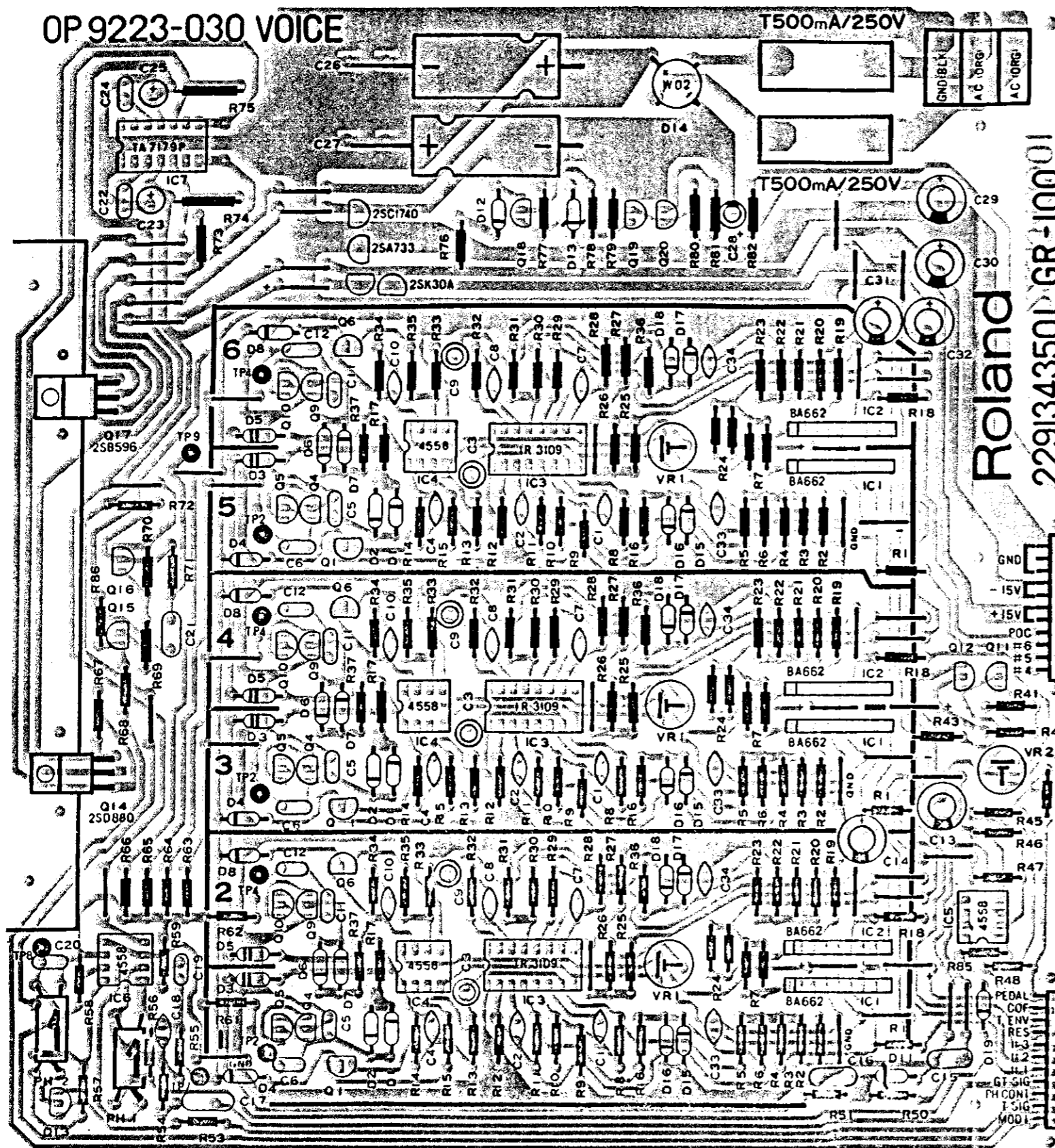


VOICE BOARD

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41

OP9223-030 VOICE (P/N 7922303001V)

OP9223-030 CONTROL (P/N 7922303001C)



2. FILTER MODULATION (FREQUENCY)

ADJUSTMENTS CONTROL BOARD

1. BBD BIAS

Controls setting: unconditional Input: no signal

Fig. A



Fig. B

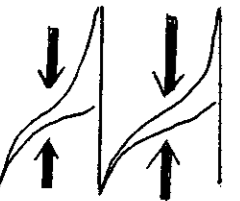
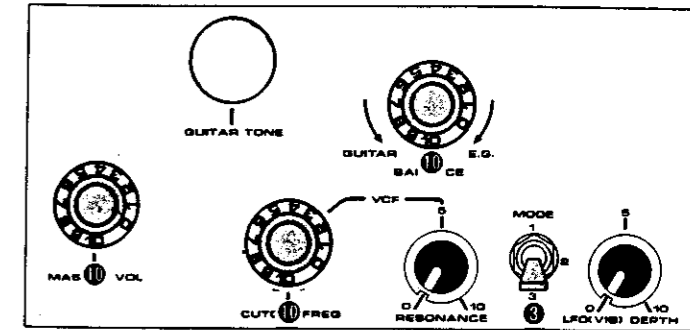
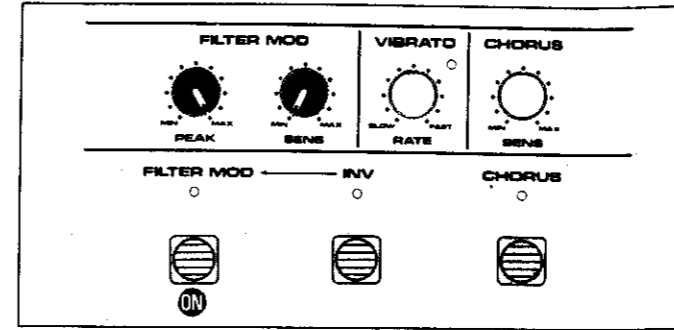


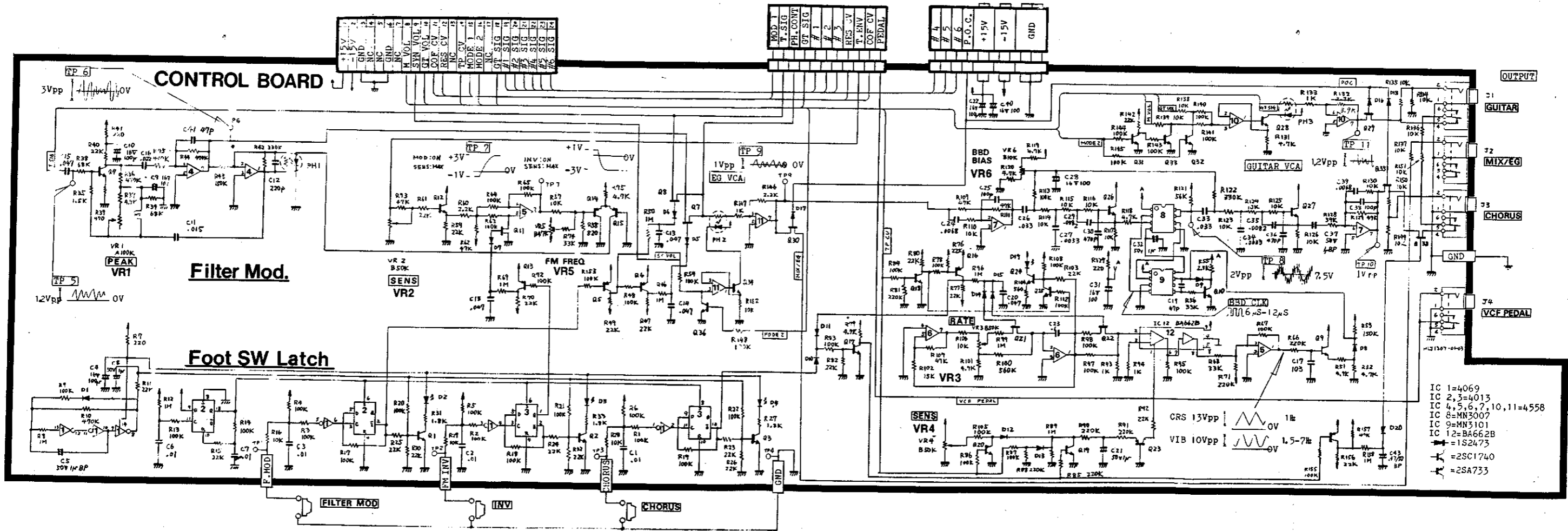
Fig. C

- 1-1. Connect scope to TP-8 (pin 7 or 8 of IC8) of CONTROL BOARD.
- 1-2. Set scope vertical to 50mV/div, AC coupling and adjust timebase to display waveforms as shown in figure B.
- 1-3. Adjust VR6 to align DC levels of BBD outputs: narrow and center the brighter portion (thicker in Fig. B) of traces. This is successfully done, if microsec range is provided for timebase, by displaying two cycles and adjusting VR6 to overlap two traces. See Fig. C.



Prepare an amplifier for monitoring.

- 2-1. Turn VR5 FCCW when facing the foil side.
- 2-2. Stroke 6 strings forte, advance VR5 until the tone colors change, then reverse VR5 as little enough as tones are restored. MODULATION CONTROL should now be set at a critical point.



IC 1=4069
 IC 2,3=4013
 IC 4,5,6,7,10,11=4558
 IC 8=MN3007
 IC 9=MN3101
 IC 12=BA662B
 - =1S2473
 - =2SC1740
 - =2SA733

