

BOSS RV-3

DIGITAL REVERB / DELAY

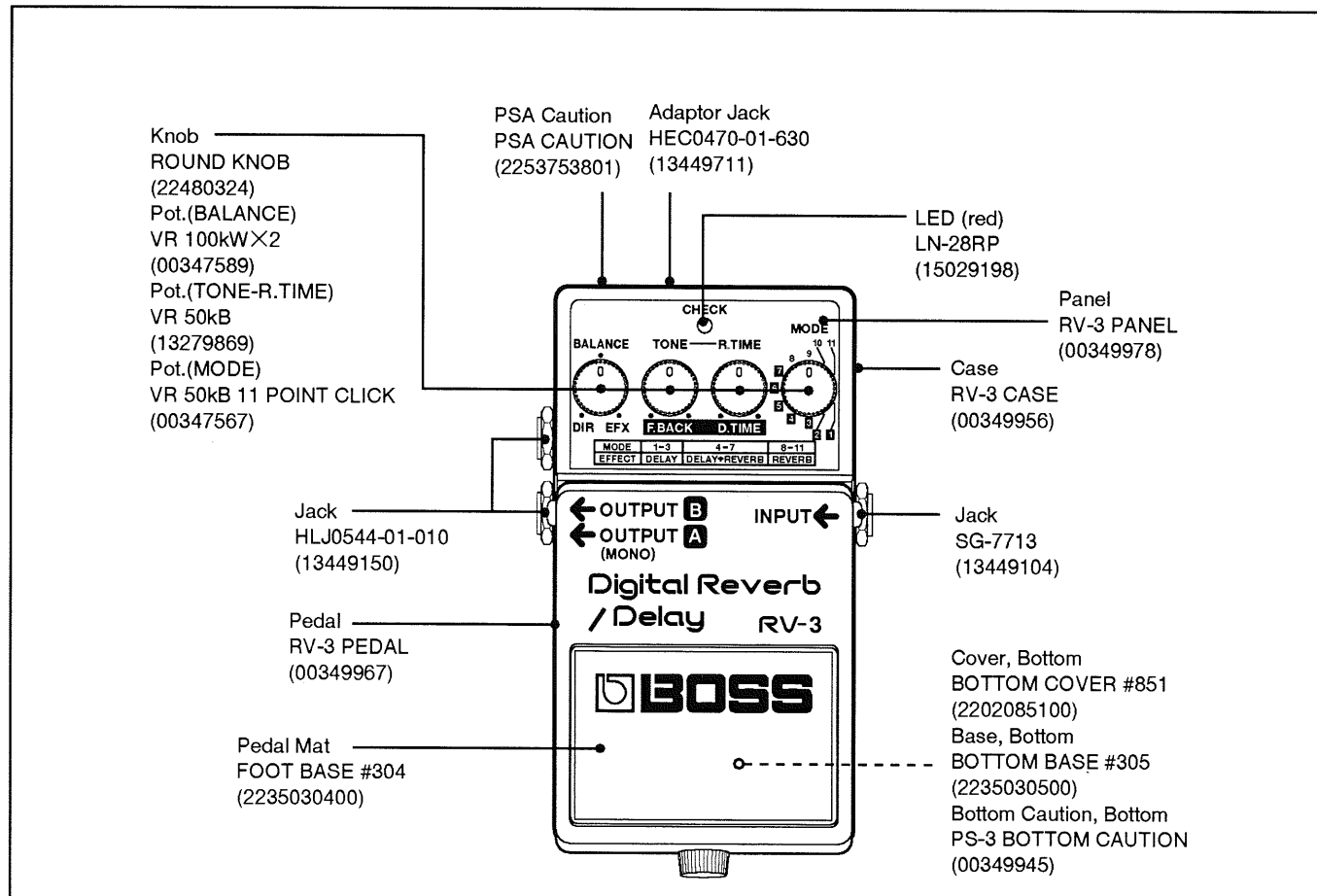
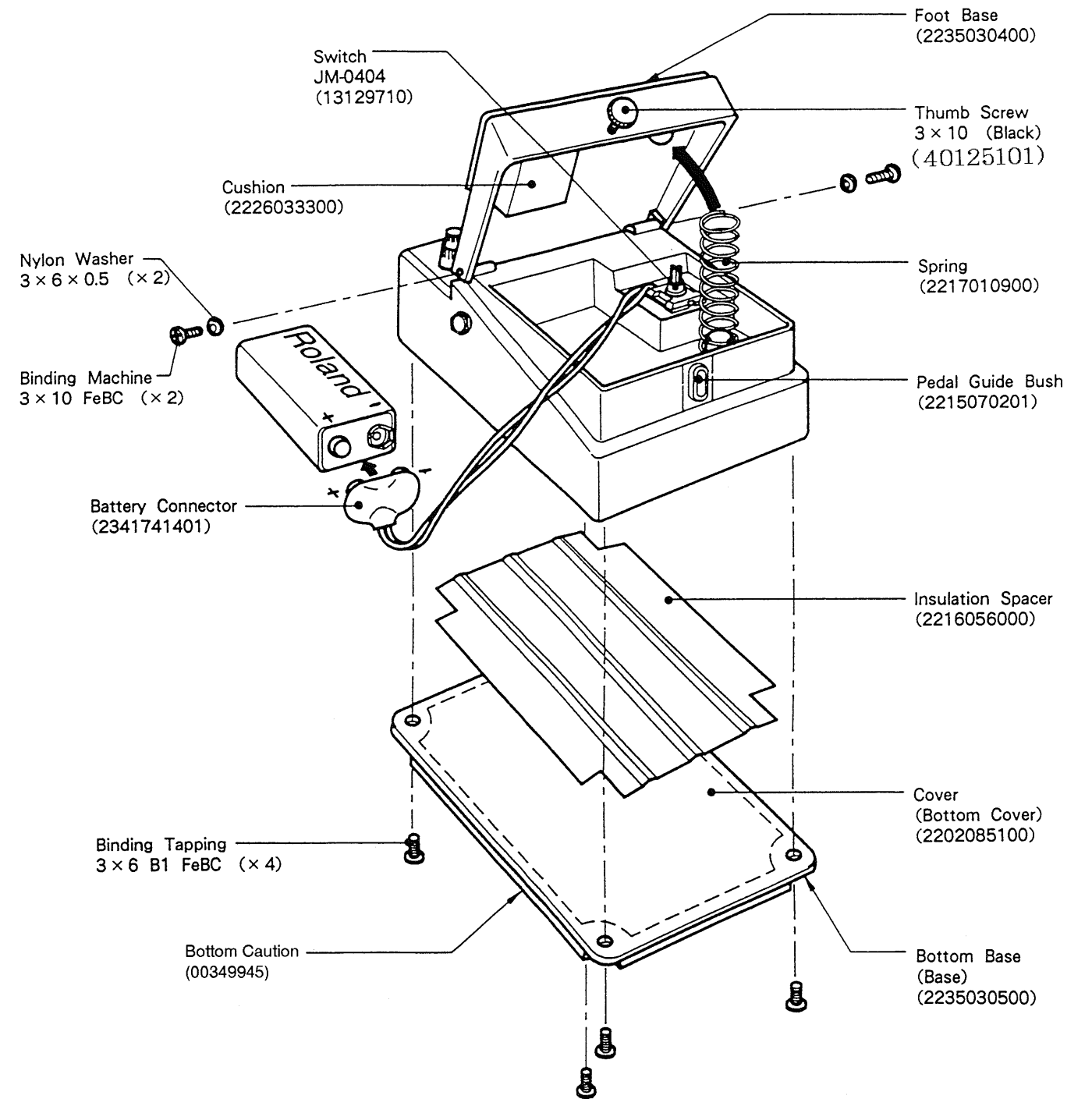
SERVICE NOTES

First Edition

SPECIFICATIONS/仕様

- Signal processing A/D Conversion; 16 bit linear,
128 times oversampling, $\Delta \Sigma$ modulation, AF method
D/A Conversion; 16 bit linear
- Sampling Frequency 32kHz
- Nominal Input Level -20dBm
- Input Impedance 1M Ω
- Nominal Output Level -20dBm
- Output Impedance 1k Ω
- Recommended Load Impedance 10k Ω or greater
- Dynamic Range 110dBm or greater(Direct)
95dBm or greater(Effect)
* 0dBm = 0.775 Vrms
- Controls Pedal Switch, Mode Switch, Balance knob, Control Knob x 2
- Indicator Check Indicator(serves also as battery check indicator)
- Connectors Input Jack, Output Jacks A(MONO)/B, AC Adaptor Jack(9V DC)
- Power Supply 9V DC:Dry Battery(6AM6/9V),
AC Adaptor(PSA-Series:Optional)
- Current Draw 70mA(9V DC)
- Dimensions 70(W)x125(D)x55(H) mm
2-3/4(W)x4-15/16(D)x2-3/16(H) inches
- Weight 420g / 15oz (including battery)
- Accessories Owner's Manual(English) PNo.00451756
Owner's Manual(Japanese) PNo.00451745
MODE Label PNo.00349989
Battery 006P 9V alkaline PNo.12569173
- Options AC Adaptor;PSA-100, PSA-120, PSA-230, PSA-240,

EXPLODED VIEW/分解図



PARTS LIST/パーツリスト

SAFETY PRECAUTIONS

The parts marked Δ have safety-related characteristics. Use only listed parts for replacement.

安全上の注意:
Δが付いている部品は、安全上特別な規格でつくられたものです。
交換の際は、指定された部品番号以外の部品は使わないようにして下さい。

CONSIDERATIONS ON PARTS ORDERING

When ordering any parts listed in the parts list, please specify the following items in the order sheet

| QTY | PART NUMBER | DESCRIPTION | MODEL NUMBER |
|-------|-------------|---------------|--------------|
| Ex 10 | 22575241 | Sharp key | C-20/50 |
| 15 | 2247017300 | Knob (orange) | DAC-15D |

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement

パーツ発注に関するお願い

オーダーシートには、必ず下記の4項目は正確に記入して下さい。(例外は除く)

| 必要数 | パーツナンバー | 品名 | 使用機種 |
|-------|------------|---------------|---------|
| 例) 10 | 22575241 | Sharp key | C-20/50 |
| 15 | 2247017300 | Knob (orange) | DAC-15D |

もし記入漏れ、誤記等がある場合、必要部品が発送できなかったり、大層な遅れの原因になります。御協力をお願いします。

CASING/ケース

| | |
|------------|-------------------|
| 00349956 | RV-3 CASE |
| 00349967 | RV-3 PEDAL |
| 2202085100 | BOTTOM COVER #851 |
| 2235030400 | FOOT BASE #304 |
| 2235030500 | BOTTOM BASE #305 |
| 00349978 | RV-3 PANEL |

KNOB/ツマミ

| | |
|----------|------------|
| 22480324 | ROUND KNOB |
|----------|------------|

SWITCH/スイッチ

| | |
|----------|---------|
| 13129710 | JM-0404 |
|----------|---------|

JACK, SOCKET/ジャック、ソケット

| | | |
|----------|----------------|------------|
| 13449104 | SG-7713 | INPUT |
| 13449150 | HLJ0544-01-010 | OUTPUT |
| 13449711 | HEC0470-01-630 | AC Adapter |

PCB ASSY/基板完成品

| | |
|-------------|--|
| 70343201 | RV-3 BOARD (pcb 00348112) |
| NOTE | Replacement RV-3 Board Ass'y includes VR Board Ass'y. |
| 注 | 補修用RV-3 Boardは、VR Boardを含みます。 |
| 70347490 | LED BOARD (pcb 2291049600) |
| NOTE | LED Board (#70347490) for RV-3 is compatible with the following LED Boards for other models such as CE-5, MT-2 and OS-2. |
| 注 | RV-3用LED BOARDは他機種(CE-5, MT-2, OS-2等)用LED BOARDと互換性があります。 |
| | 7528055000 CE-5 |
| | 7527554000 MT-2 |
| | 7526954000 OS-2 etc |
| 7524452000 | CH-1 JACK BOARD (pcb 2292768700) |
| NOTE | JACK Board (#7524452000) for RV-3 is compatible with the following JACK Boards for other models such as CE-5 and CH-1. |
| 注 | RV-3用JACK BOARDは他機種(CE-5, CE-1)用JACK BOARDと互換性があります。 |
| | 7528054000 CE-5 |
| | 7524452000 CH-1 |

IC

| | | |
|----------|-------------------------|-----------------------|
| 00452201 | RV-3 CPU M37470M2-245SP | CPU(MASK) |
| 15199240 | TA78L05S | +5V Voltage Regulator |
| 00346723 | TC25SC080AU-104 | MR Chip(DSP) |
| 00347323 | M5M44256BJ-8 | DRAM |
| 00347145 | LC8390M | A/D |
| 00347156 | uPD6379GR | D/A |
| 15189261 | M5218AFP-600E | CEA OP AMP |
| 00346445 | NJM2100M | OP AMP |
| 00347189 | M51951AML | RESET IC |

TRANSISTOR/トランジスター

| | | |
|------------|-----------------|-------------|
| 15129185 | 2SC2458GR | |
| 15329103T0 | 2SK880GR-TE85R | |
| 15309110 | 2SA1312GR-TE85R | Digital Tr. |
| 15329521 | RN1307-TE85R | |

DIODE/ダイオード

| | | |
|------------|---------------|-----|
| 15029198 | LN-28RP | LED |
| 15039118 | S5688G | |
| 15019526 | ZDi RD5.6EB3 | |
| 15339121 | 1SS-302-TE85R | |
| 15339119T0 | 1SS352-TPH3 | |

POTENTIOMETER/ボリューム

| | | |
|----------|------------------------|---------|
| 00347589 | VR 100KWx2 | BALANCE |
| 13279869 | VR 50KB | |
| 00347567 | VR 50KB 11 POINT CLICK | MODE |
| 00347256 | TRIMER RH03A3AJ3X 2.2K | |

INDUCTOR, COIL, FILTER/インダクター、コイル、フィルター

| | | |
|----------|-----------------|------------|
| 13529145 | DSS306-55FZ103N | EMI FILTER |
|----------|-----------------|------------|

CRYSTAL, RESONATOR/クリスタル、発振子

| | |
|----------|------------------|
| 15299159 | CST4.00MGW |
| 15299141 | MA-506 24.576MHz |

WIRING, CABLE/ワイヤリング、ケーブル

| | |
|----------|---------------|
| 00347389 | FLAT CABLE 5P |
|----------|---------------|

BATTERY/電池

| | | |
|----------|--------------------------|------|
| 12569173 | BATTERY 006P 9V ALKALINE | 6AM6 |
|----------|--------------------------|------|

SCREW/ネジ類

| | | |
|------------|--|-------|
| 40016512 | INSULOK TIE T-18S | |
| 40125134 | NYLON WASHER 3x6x0.5 | |
| 40125101 | THUMB SCREW (Fe BLACK) | |
| 40010901 | BINDING TAPPING 3x6 B1 FeBC | COVER |
| 40010834 | BINDING TAPPING 3x6 B1 FeCm | LED |
| 40010267 | BINDING MACHINE 3x10 FeBC | PEDAL |
| 40123545 | JACK NUT 9x12x2 FeNi | |
| 2213070900 | JACK SPACER AL | |
| 40011923 | INTERNAL TOOTH WASHER 9.1x13 | |
| 40016467 | JACK WASHER 9.2x14x0.5 FeNi | |
| ***** | THICK JACK WASHER 9.2x14x1.6 AL (=> RTC) | |

MISCELLANEOUS/その他

| | |
|------------|---------------------------|
| 2215070201 | PEDAL GUIDE BUSH #702 |
| 2341741401 | BATTERY CONNECTOR |
| 2226033300 | CUSHION #333 |
| 2217010900 | COIL SPRING #109 |
| 00349945 | PS-3 BOTTOM CAUTION |
| 00451723 | PS-3 INSULATION SPACER |
| 40013245 | POLYCA PIPE 3x6x6 |
| 2225025700 | RV-2 EARTH LUG |
| 2253753801 | PSA CAUTION |
| 00451734 | RV-3 INDIVIDUAL BOX / 化粧箱 |

ACCESSORIES/標準付属品

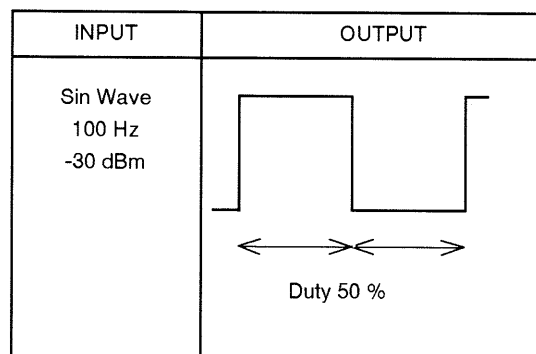
| | |
|----------|---------------------------|
| 00451745 | Owner's Manual (Japanese) |
| 00451756 | Owner's Manual (English) |
| 00349989 | MODE LABEL |
| 12569173 | BATTERY 006P 9V ALKALINE |

BIAS ADJUSTMENT



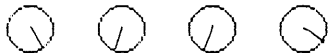
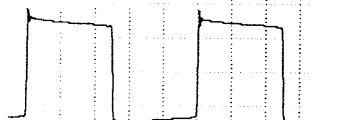
バイアス調整仕様


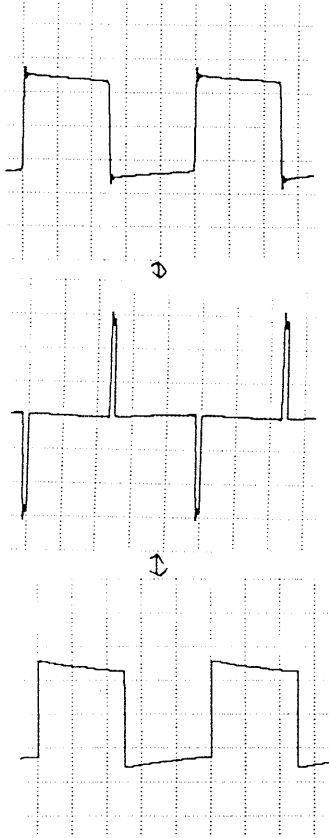

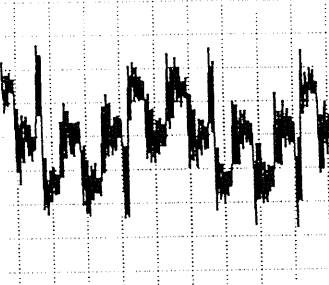
1. Feed the signal to INPUT of the RV-3.
2. Connect the scope to R8(resistor : TP-1 side).
3. Adjust RT1 on MAIN Board to obtain a waveform shown below.


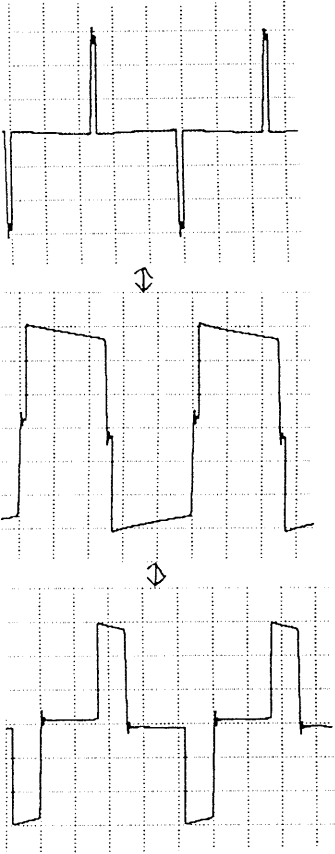
- 1.INPUTにオーディオ発振器を接続します。
- 2.R8(抵抗:TP-1側)にオシロスコブを接続します。
- 3.下図の波形になるようにRT1を調節します。



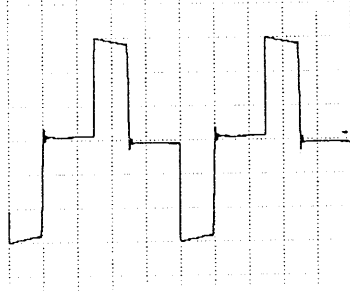
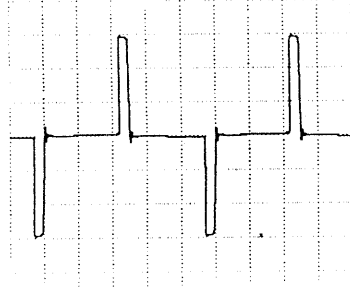
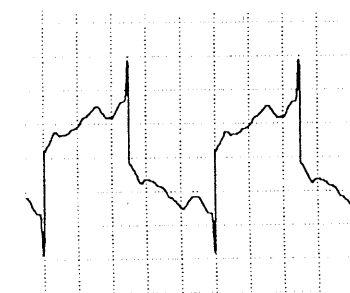
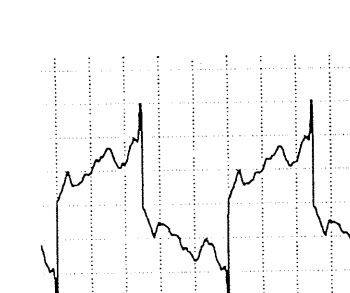


FINAL TEST SHEET/完成品検査仕様書

| No. | Item/項目 | VR Position of Tested Effector / 検査 EFFECTOR VR位置 | Checkpoint |
|-----|---|---|--|
| 1 | Power Check 電源チェック | | Check that the current consumption is less than 70mA. Check that the EFFECT LED lights up. 消費電流が70mA以下であることを確認する。 エフェクトLEDが点灯することを確認する。 |
| 2 | Normal Waveform Check ノーマル波形チェック Input/入力 200Hz 300mVp-p |  | Turn EFFECT off. Check that the waveform does not change even if turning the BALANCE knob. Check that the EFFECT LED turns off. EFFECT OFFにする。 バランス・ツマミを回しても波形が変化しないことを確認する。 エフェクトLEDが消灯することを確認する。  (RANGE:1mS/DIV, 0.1V/DIV) |
| 3 | EFFECT waveform Check エフェクト波形チェック Input/入力 200Hz 300mVp-p |  BALANCE:EFX TONE: MIN R.TIME: MIN MODE: 1 | Check the output waveform. (For both OUTPUT A/B) 波形を確認する。(OUTPUT A/B両方)  (RANGE:1mS/DIV, 0.1V/DIV) |

| No. | Item/項目 | VR Position of Tested Effector / 検査 EFFECTOR VR位置 | Checkpoint |
|-----|---|--|---|
| 4 | BALANCE VR Check バランスVRチェック Input/入力 200Hz 300mVp-p |  TONE: MIN R.TIME: MIN MODE: 1 | Check that the waveform changes as shown below while turning the BALANCE knob. バランス・ツマミを回して波形の変化を確認する。  (RANGE: 1mS/DIV, 0.1V/DIV) |
| 5 | TONE Knob Check TONEツマミチェック Input/入力 200Hz 300mVp-p |  BALANCE: CENTER R.TIME: MIN MODE: 1 | Check that the waveform changes as shown below while turning the TONE (F. BACK) knob. TONE(F. BACK)ツマミを回して波形の変化を確認する。  (RANGE: 1mS/DIV, 0.1V/DIV) |

| No. | Item/項目 | VR Position of Tested Effector / 検査 EFFECTOR VR位置 | Checkpoint |
|-----|---|--|--|
| 6 | R.TIME Knob Check R.TIMEツマミチェック Input/入力 200Hz 300mVp-p |  BALANCE: CENTER TONE: MIN MODE: 1 | <p>Check that the waveform changes as shown below while turning the R.TIME (D. TIME) knob. R.TIME(D.TIME)ツマミを回して波形の変化を確認する。</p>  <p>(RANGE: 1ms/DIV, 0.1V/DIV)</p> |

| No. | Item/項目 | VR Position of Tested Effector / 検査 EFFECTOR VR位置 | Checkpoint |
|-----|---|--|--|
| 7 | MODE Check MODEチェック Input/入力 200Hz 300mVp-p |  BALANCE: CENTER TONE: MIN R.TIME: MIN | <p>Waveform Example/参考波形 Check to see how the waveform changes. 波形の変化を確認する。</p> <p>MODE=1</p>  <p>MODE=2</p>  <p>MODE=3</p>  <p>MODE=4</p>  <p>MODE=5</p>  <p>(RANGE: 1ms/DIV, 0.1V/DIV)</p> |

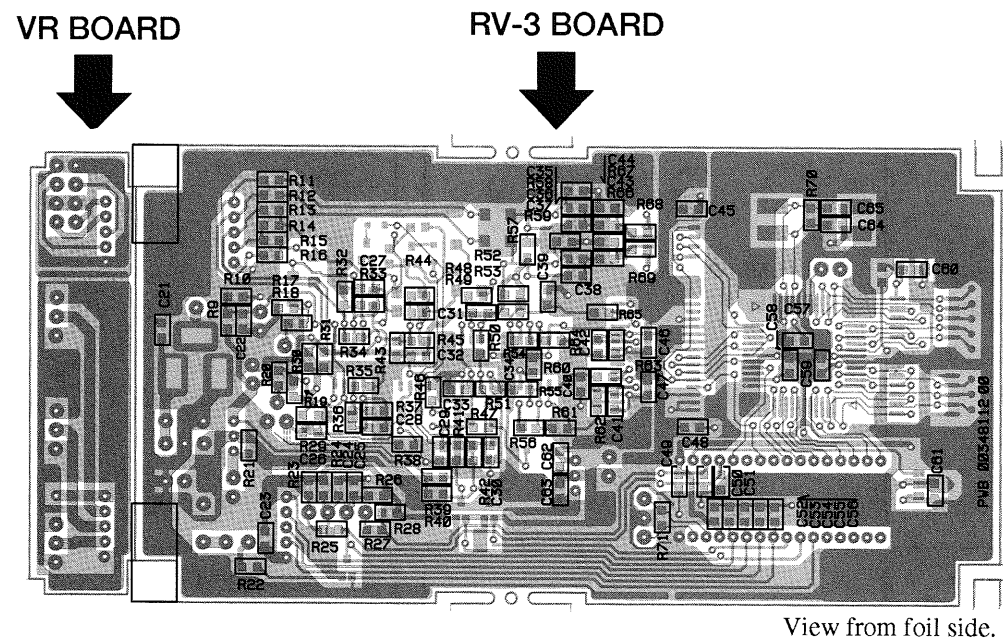
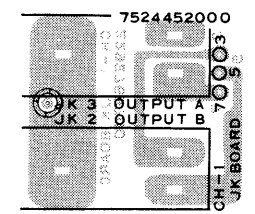
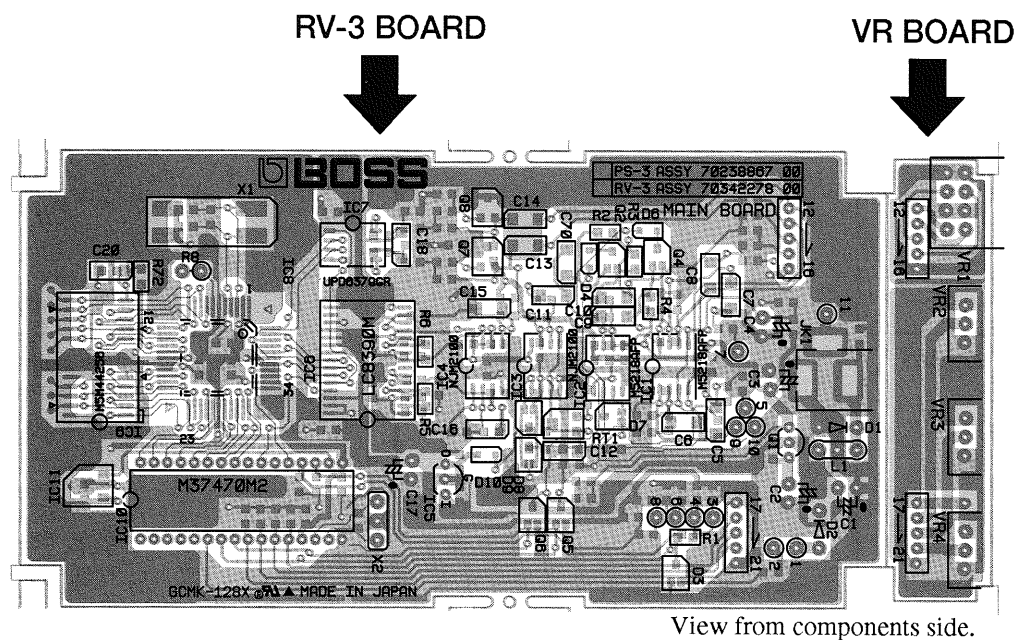
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

RV-3 BOARD
ASSY 70343201
(pcb 00348112)

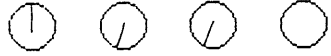
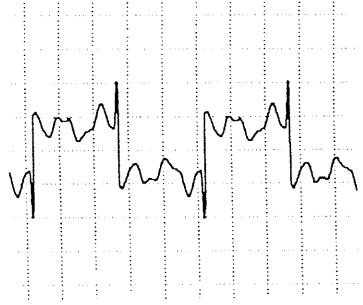
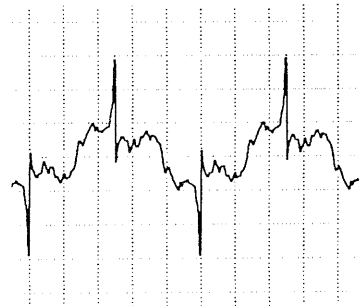
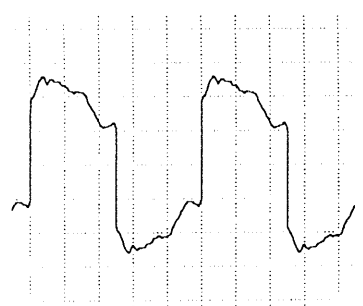
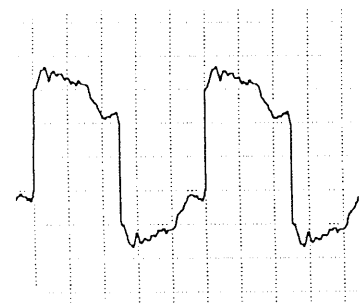
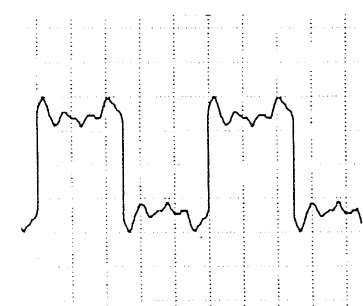
NOTE


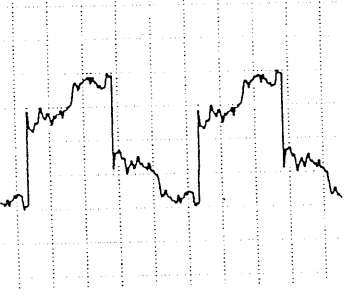

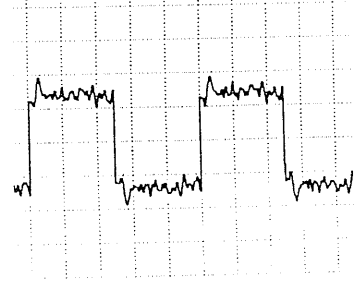


Replacement RV-3 Board Ass'y includes VR Board Ass'y.
補修用RV-3 Boardは、VR Boardを含みます。

CH-1 JACK BOARD
ASSY 7524452000
(pcb 2292768700)

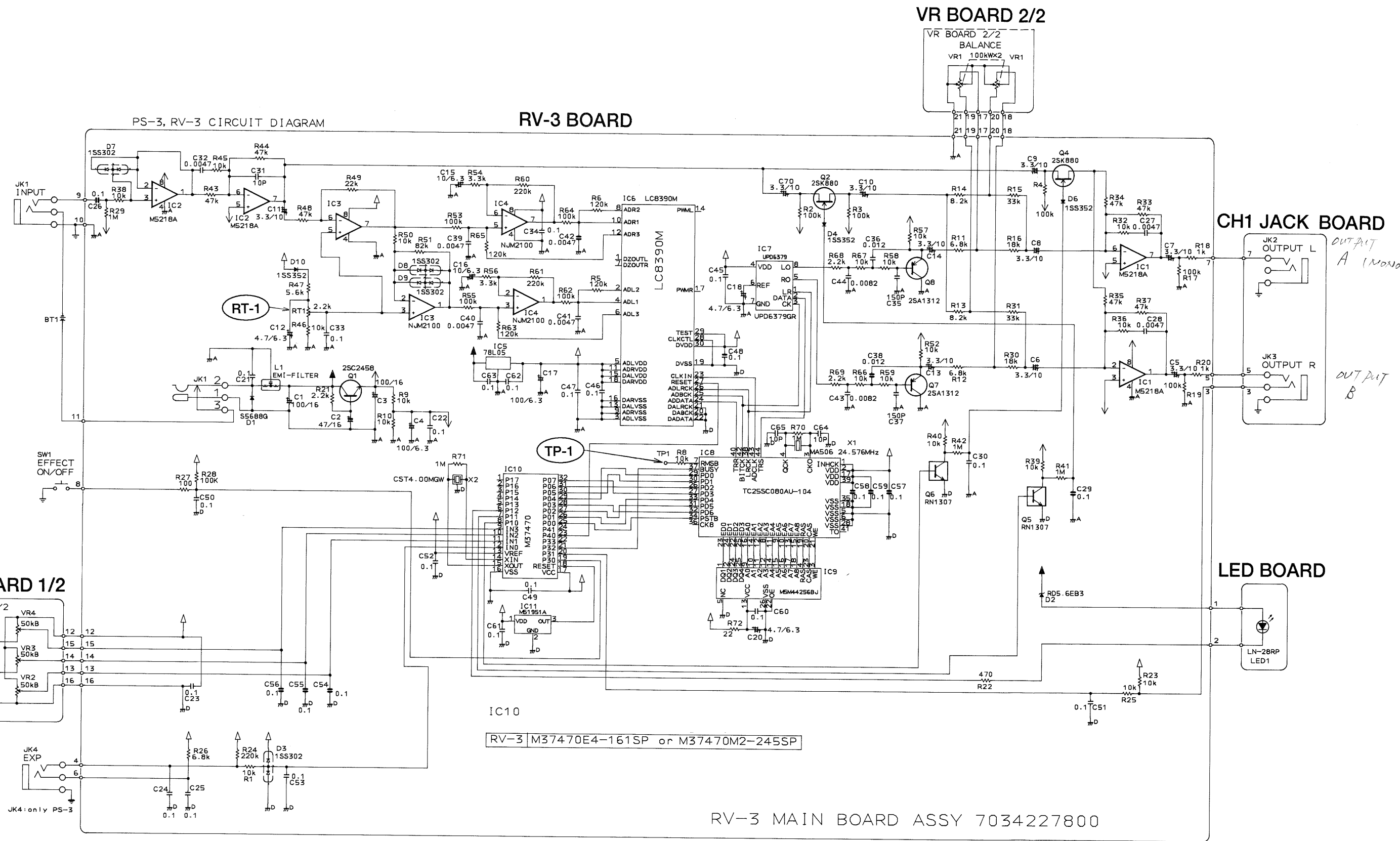


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| No. | Item/項目 | VR Position of Tested Effector / 検査 EFFECTOR VR位置 | Checkpoint |
|-----|---|--|---|
| 7 | MODE Check MODEチェック Input/入力 200Hz 300mVp-p |  BALANCE: CENTER TONE: MIN R.TIME: MIN | MODE=6  |
| | | | MODE=7  |
| | | | MODE=8  |
| | | | MODE=9  |
| | | | MODE=10  (RANGE: 1mS/DIV, 0.1V/DIV) |

| No. | Item/項目 | VR Position of Tested Effector / 検査 EFFECTOR VR位置 | Checkpoint |
|-----|--|--|---|
| 7 | MODE Check MODEチェック Input/入力 200Hz 300mVp-p |  BALANCE: CENTER TONE: MIN R.TIME: MIN | MODE=11  (RANGE: 1mS/DIV, 0.1V/DIV) |
| 8 | STEREO OUT Check STEREO OUT チェック Input/入力 200Hz 300mVp-p |  BALANCE: CENTER TONE: MIN R.TIME: MIN MODE: 11 | Check that the waveform changes as shown below when a null jack is plugged into OUTPUT B. OUTPUT Bに空ジャックを入れて波形が変化するのを確認する。  (RANGE: 1mS/DIV, 0.1V/DIV) |
| 9 | Distortion Check 歪率チェック Input/入力 100Hz -20dBm |  BALANCE: EFX TONE: MIN R.TIME: MIN MODE: 1 | Less than 3% 3%以下 OUTPUT A only OUTPUT Aのみ |
| 10 | Noise Check ノイズチェック Input Short 入力ショート |  BALANCE: EFX TONE: MIN R.TIME: MIN MODE: 1 | Less than -95dBm (JIS-A) Both OUTPUT A/B -95dBm以下 (JIS-A) OUTPUT A/B両方 |

CIRCUIT DIAGRAM/回路図



RV-3 MAIN BOARD ASSY 7034227800

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z