**BOSS RCL-10 SERVICE NOTES**

**First Edition**

**SPECIFICATIONS**

- **Power Source**: 9V DC (BOSS AC Adapter PSA-100, 120, 220 or 240)
- **Current Draw**: 60mA @9V
- **Input LEVEL/Impedance**: -20dBm/1MΩ ~ 10dBm/1kΩ
- **Output LEVEL/Impedance**: -20dBm/2kΩ ~ 10dBm/2kΩ
- **Output Load Impedance**: 10kΩ or more
- **Frequency Response**: 10Hz to 20kHz (+0/−3 dB)
- **Residual Noise**: −95dBm (S/N:80) or less
- **LEVEL switch**: −120dBm
- **Compressor/ Limiter/Expander**
  - **Threshold**: −10dBm
  - **Decay**: 2ms to 5s
  - **Release**: 10s to 1s
  - **THD**: 0.05% or less
  - **Dimensions**: 218 (W) x 44 (H) x 169 (D) mm
  - **Weight**: 900 g/2 lbs.

**CABINET**

- Top Panel: (220206900)
- Front Panel: (15029190)
- Bottom Panel: (22B104800)

**KNOB, BUTTON**

- Knob: orange
- Knob: gray
- Knob: green
- Knob: blue
- Knob: brown

**SWITCH**

- SUN-198S
- SUN-198B
- LEVEL

**PCB**

- MT BOARD (pcb: 2292016701)

**TRANSISTOR**

- 2SA733-3
- 2SC943-2
- 2SC878-A

**DIODE**

- 150291903
- 15019530
- 150192970
- 155021910

**POTENTIOMETER**

- 15219302
- 15219342
- 15219363
- 15219381
- 15219382

**JACK**

- HLL-0520-01-110 (13449136)
- HEC-0701-01-630 (13449121)
- HEC-0701-01-630 (13449121)

**µPC1252H2**

**Pin Assignment**

- Pin 1: +5VCC
- Pin 2: +12VCC
- Pin 3: -12VCC
- Pin 4: OUTPUT
- Pin 5: I-1 INPUT A
- Pin 6: I-1 INPUT B
- Pin 7: GND
- Pin 8: GND
- Pin 9: I-1 INPUT A
- Pin 10: GND
- Pin 11: GND

**MS201L**

**Pin Assignment (Top View)**

- Pin 1: +5VCC
- Pin 2: +12VCC
- Pin 3: I-1 INPUT A
- Pin 4: I-1 INPUT B
- Pin 5: OUTPUT
- Pin 6: GND

**Printed in Japan BE-2**
ADJUSTMENT

Initial Control Settings: 基本設定
Front 面板パネル

Key Setting

1. NOISE GATE THRESHOLD (RT4)
1-1. Start with the initial control settings.
1-2. Short the hot and cold terminals of the KEY IN jack or insert a closed circuit plug.
1-3. Connect a voltmeter to CP1 and note the reading which should read one half the input power supply.
1-4. Connect the voltmeter to test point CP2 and adjust RT4 for a reading 200mV lower than that on CP1 (tolerance 50mV).
1-5. Open the KEY IN jack or unplug.

2. COMP/LIMITER THRESHOLD (RT2, RT3)
2-1. Start with the initial control settings.
2-2. Connect an Audio Generator (AG) to the INPUT jack and apply a 2~40dBm, 1kHz, sine wave.
2-3. Set the THRESHOLD (CO/LI/EX) control to MIN.
2-4. Connect the voltmeter to test point CP1 and note the reading which should read one half the input power supply.
2-5. Connect the voltmeter to CP3 and adjust RT-3 for a reading equal to that on CP1.
2-6. Rotate the THRESHOLD (CO/LI/EX) control FSW (MAX).
2-7. Set AG output level for a 0dBm.
2-8. Adjust RT2 for voltage ±100mV.
2-9. RT2 and RT3 interplay. Repeat 2-7 to 2-8 until satisfactory result is obtained.

3. RATIO (RT5)
3-1. Start with the initial control settings.
3-2. Set the RATIO control at its center position.
3-3. Connect AG to the INPUT jack and apply a 0dBm, 1kHz, sine wave.
3-4. Connect the voltmeter to OUTPUT jack and adjust the LEVEL control for a 0dBm reading.
3-5. Rotate the THRESHOLD (CO/LI/EX) control FSW (MIN) and RATIO FSW (= 1).
3-6. Adjust RT5 for a –37dBm ± 0.5dB reading.

4. DC DRIFT (RT1)
4-1. Set controls as shown below.

4-2. Connect AG to KEY IN jack and apply a 1Vp-p, 50Hz, 4-0-4 cycles of burst signal.
4-3. Connect the scope to OUTPUT and adjust RT1 for the minimum amplitude.

CHECKING

Set controls as shown below.

Connect AG to the INPUT jack and apply a –20dBm, 1kHz, sine wave.
Connect the voltmeter to OUTPUT jack and adjust the LEVEL control for a –20dBm reading.
Set AG output level and controls to the table and check corresponding output reading.

<table>
<thead>
<tr>
<th>INPUT level vs. OUTPUT level</th>
<th>入力レベル特性</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT signal level</td>
<td>THRESHOLD</td>
</tr>
<tr>
<td>–40dBm</td>
<td>MIN</td>
</tr>
<tr>
<td>0dBm</td>
<td>MIN</td>
</tr>
<tr>
<td>0dBm</td>
<td>MAX</td>
</tr>
<tr>
<td>–40dBm</td>
<td>–</td>
</tr>
<tr>
<td>0dBm</td>
<td>–</td>
</tr>
<tr>
<td>0dBm</td>
<td>–</td>
</tr>
</tbody>
</table>

RCL-10 JUL, 1985