1. **LICENSE SEAL**

The license seal can be displayed on the game machine as FIGURE 1. The license seal must be visible. Use caution so that the seal may not be peeled away thus losing the identity of the P.C. Board. Nichibutsu issues only one license seal for each board sold and no duplicates will ever be made. Put the seal on the back of the little window provide on our marquee or on the back of any clear glass or plastic overlay that you might be using.

![Figure 1](image)

2. **POWER REQUIREMENTS**

The P.C. Board requires a power supply of

- $+5 \text{ V} \ 3 \text{ A (±5\%)}$ for game logics,
- $+12 \text{ V} \ 1 \text{ A (±10\%)}$ for audio IC only.

3. **CONTROL PANEL SECTION**

A 8-way joystick and a shoot button are required. RADICAL RADIAL will not work properly with a 4-way joystick.

4. **COIN SELECTOR WIRING**

A coin selector switch may be connected to either pin 13 (coin 1) or pin 14 (coin 2).
5 CONNECTOR PLUG

1) Cut the connector-plug as needed, so that it can plug into your game machine connector.

2) Insert the connector-plug into your own game connector.
   Use a pencil and mark "R", "L", "+5", etc. according to signal at the pin on the connector.

3) Connect the connector-plug and 36-pin edge connector of RADICAL RADIA with wires.
   (FIGURE 2).
   Pin Marked "L" will be connected to pin #11 of RADICAL RADIAL connector.
   Pin Marked "R" will be connected to pin #12 of RADICAL RADIAL connector etc.
   (See wiring diagram)

FIGURE 2

WARNING:

Wiring of the harness that supplies the power (+5V, +12V) to the P.C. Board must be connected as specified or damage may occur.
Before inserting a RADICAL RADIAL P.C.B. into the connector, check the voltage of these pins carefully.

Pin # 1, 2, 33, 34, 35, 36 = GND (0V)
Pin # 5, 6, 29, 30, 31, 32 = +5V
Pin # 28 = +12V
6  TV MONITOR

A color singal cable is provided to connect R.G.B. and SYNC singals from 6-pin connector located at right corner of the lower P.C. Board to the harness or to the TV Monitor directly.

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<thead>
<tr>
<th>Pin No.</th>
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<tr>
<td>1.</td>
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<tr>
<td>2.</td>
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</tr>
<tr>
<td>3.</td>
<td>GREEN</td>
</tr>
<tr>
<td>4.</td>
<td>SYNC</td>
</tr>
<tr>
<td>5.</td>
<td>GND</td>
</tr>
<tr>
<td>6.</td>
<td>N.C.</td>
</tr>
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</table>

TV monitor has to be equipped with TTL input level.
TV monitor must be placed vertical.
RADICAL RADIAL P.C. Board is designed to be used with "1-SYNC" signal monitor.
However, if your TV monitor has a "2-SYNC" signal connect as dotted line in FIGURE 3.

Pin #4 = V SYNC
Pin #6 = H SYNC

7  THE KITS INCLUDE

A. Instruction 1 pc
B. License Seal 1 pc
C. Marquee 1 pc
D. "How to play" card 2 pcs
E. Z-Bracket 4 pcs
F. Color Signal Cable 1 pc
G. 36-pin Connector 1 pc
H. Connector Plug 1 pc
I. Printed Circuit Board 1 pc
THE SCREEN DISPLAY UPSIDE-DOWN OR BACKWARDS

Four wires are attached to the monitor deflection yoke. Two for the horizontal control, and other two for the vertical control. When the picture is upside down, disconnect the two horizontal wires and swap the connection. When the picture is backwards, disconnect the two vertical wires and swap the connection. See figure 5a and 5b.

![Diagram of picture tube and deflection yoke coil](image)

**FIGURE 5a**

![Diagram of picture tube and deflection yoke coil](image)

**FIGURE 5b**
### SELCTOR 1 (SW.1)

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