Power ON with no MD loaded. *1

*1 : Refer to Measurements and Adjustments

Does player enter adjustment mode? *1

YES

Set to read power adjustment mode. *1

NO

Is read power output?

YES

Can read power be set to 600μW or lower using VR1?

YES

Set to write power adjustment mode. *1

NO

Faulty optical pickup

Is write power output?

YES

Adjust write power and check ROM data laser power and RAM data laser power.

NO

To "ROM/RAM Operation"

CN4

5V 5V 3.3V

Is CN4 power supply line OK?

YES

Check power supply circuit on main unit.

NO

Is oscillation signal input for IC10 pin 32?

YES

Is IC10 pin 21 "H"?

YES

Faulty IC10

NO

Is CN4 pin 14 "H"?

YES

Check reset circuit on main unit.

NO

(1) (Continued on next page.)

(2) (Continued on next page.)
Is output voltage of IC1 pin 37 (TP35) approx. 1.3 V? *1

- YES: Faulty optical pickup
- NO:
  - Is voltage on both sides of R5 at least 0.025 V?
    - NO: Faulty IC1
    - YES: Is there output from IC3 pin 92?
      - NO: Faulty IC1
      - YES: Is voltage of IC1 pin 2 (left side of R8) approx. 1.9 V? *1
        - NO: Faulty IC1
        - YES: Is voltage of IC9 pin 3 2.6 V?
          - NO: Faulty IC9
          - YES: Is output of IC3 pin 92 OK?
            - NO: Faulty IC3
            - YES: Faulty Q1

*1: For measurements of IC1, refer to the item 7.2.2. of "Operation Checks and Component Replacement Procedures".

Is current flowing equal to at least 1.2 times value indicated on pick FPC? *2

- YES: Faulty optical pickup
- NO:
  - Is output of IC3 pin 92 OK?
    - NO: Faulty IC3
    - YES: Is voltage of IC1 pin 2 (left side of R8) approx. 1.9 V? *1
      - NO: Faulty IC1
      - YES: Faulty optical pickup

*2: Indicated value: Current equal to that on both sides of R5 divided by 1 Ω.
ROM/RAM Operation

**Can ROM disc be inserted correctly?**

**NO**

**YES**

**Is disc turning?**

**NO**

**IC3 pin 21 Voltage alternates above and below VREF (1.3 V).**

**YES**

**Does output of IC3 pin 21 alternate above and below VREF (1.3 V)?**

**NO**

**YES**

**Faulty IC3**

**Is voltage output between IC2 pins 17 and 18?**

**NO**

**YES**

**Faulty IC2**

**Faulty spindle motor**

**Does optical pickup move up and down?**

**NO**

**YES**

(Continued on next page.)

**Does CN4 pin 18 change from “H” to “L” when disc is inserted?**

**NO**

**YES**

**Faulty loading TRG S7**

**Is output of IC10 pins 13, 15, 17, and 18 OK?**

**NO**

**YES**

**Faulty S3, S4, S5, and S6**

**Is voltage of IC10 pins 8 and 9 OK?**

**NO**

**YES**

**Faulty IC10**

**Is voltage output from IC92 pins 2 and 4?**

**NO**

**YES**

**Faulty IC92**

**Faulty loading motor**

**Does IC3 pin 18 Voltage alternates above and below VREF (1.3 V).**

**NO**

**YES**

**Faulty IC3**

**Is voltage output between IC2 pins 13 and 14?**

**NO**

**YES**

**Faulty IC2**

**Faulty optical pickup**
Is TOC read and disc data displayed?

NO

YES

Is there output from IC1 pins 11 (TP55) and 16 (TP57)? *1

NO

YES

Can waveform of IC1 pin 11 be adjusted so that it is approx. symmetrical with a level of 0.1 Vp-p?

NO

YES

Faulty IC1 or optical pickup

Is RF waveform output from IC1 pin 32 (TP52)?

NO

YES

Is voltage output from IC1 pins 38 (TP44) and 39 (TP37)? *1

NO

YES

Faulty IC1

Faulty optical pickup

Is there output from IC1 pin 29 (TP148 or IC3 pin 87)? *1

NO

YES

Is RF signal stable?

NO

YES

Are communications between IC3 and IC72 OK?

NO

YES

Communications error

Faulty IC72

Does IC10 pin 13 change from "H" to "L"?

NO

YES

Faulty IC10

Faulty S4

*1: For measurements of IC1, refer to the item 7.2.2. of "Operation Checks and Component Replacement Procedures".
Is playback possible? Is playback sound OK?  

NO  

Press eject key and remove ROM disc.  

YES  

Is RAM disc be inserted?  

NO  

Can RAM disc be inserted?  

YES  

Is UTOC read and disc data displayed?  

NO  

After TOC is read, does traverse move to UTOC?  

NO  

See “Traverse Operation” (next page).  

YES  

Faulty IC1  

Play track 1 of a previously recorded MD. Is playback sound OK?  

NO  

Insert a recordable MD. Is recording possible?  

NO  

Is shape of magnetic head OK?  

NO  

Faulty magnetic head  

YES  

Faulty magnetic head  

Is there output from CN8 TP110 and TP111?  

NO  

Faulty magnetic head circuit  

YES  

Faulty IC3  

Is output of IC3 pins 61 ~ 65 OK during playback?  

NO  

Faulty audio circuit  

YES  

Faulty IC3  

Operation complete.
Traverse Operation

Traverse operation
Remains at outer track.

Remains at inner track.

Is IC10 pin 12 approx. 0 V?
YES → Faulty (shorted) traverse detection switch S8
NO → Is IC10 pin 12 approx. 3.3 V?

YES → Faulty traverse detection switch S8
NO → 1.3V or

Is output of IC3 pin 20 OK?
YES → Faulty IC3
NO → Is voltage output between IC2 pins 15 and 16?

YES → Faulty traverse motor
NO → Faulty IC2