MZ-E700/E900 Operation Failure

Is the lid opened and closed?  
- Y: Go to Next Page  
- N: Upper Panel Deformed, Bracket Deformed

Is a disc ejected?  
- Y: Holder Deformed, Upper Panel Deformed  
- N: Does the unit enter TEST mode?

Does the unit enter TEST mode?  
- Y: No Laser Emission  
- N: IC601, IC801  
  "Go to "NO Disc Display" page"

Is the OP Laser working?  
- Y: Are the focus and tracking working?  
- N: IC601, etc

Are the focus and tracking working?  
- Y: Are the focus coil and tracking coil conducting?  
- N: IC551

Are the focus coil and tracking coil conducting?  
- Y: Is the signal input to pins No.18, 19, 24, 25?  
- N: OP  
  Is the signal output from pins No.8, 10, 33, 35?  
    Y: IC551  
    N: IC551

Is the signal input to pins No.1, 2, 3, 4?  
- Y: CN501  
- N: L551, L552, L553, L554

* In cases where the unit can not release the test mode after overall adjustment, IC601 or IC801 may be defective.
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- Is the sled motor working?
  - No
    - Are the motor and flexible cable conducting?
      - Yes
        - IC551
      - No
        - Motor Flexible Cable or Sled Motor (M902)
  - Yes
    - IC551

- Is the signal input to pins No.16, 17, 26, 27?
  - No
    - IC601
  - Yes
    - IC551

- Is the signal output from pins No.12, 14, 29, 31?
  - No
    - IC551
  - Yes
    - RB551, RB552

- Is the voltage output from pins No.37 through 42?
  - Yes
    - Terminal of Sled Motor
  - No
    - IC601

- Is the spindle motor working?
  - No
    - Is the spindle motor rotating normally?
      - Yes
        - Are the motor and flexible cable conducting?
          - Yes
            - IC551
          - No
            - Spindle Motor (M901) or Flexible Cable of Motor
      - No
        - Spindle Motor or Flexible Cable of Motor (RB553)
  - Yes
    - Are the laser current and RF waveform normal?
      - Yes
        - IC601
      - No
        - IC601 (IC501, IC551)

* If a strong shock is added to the unit, track patterns of CSP (IC601) are more likely to be peeled off and also a cold solder is easily occur on IC551.
Playback Failure Sound skip, Stop etc.

IC501
Is the signal input to pins No.8,9,10,11?

N
Is CN501 normal?

Y

CN501

OP

IC501

Is the signal output from pin No.33 (RF OUT)?

N
IC501

Y

Is the laser current normal?

N

Is the RF waveform normal?

N

Is there scope noise?

Y
C529

N

IC501 or IC601

* Poor connection of CN501 may cause "NO DISK" or "DISK ERROR".

* Cause of Failure of RF Wave Form
- OP Failure, Dirty Lens (High jitter, Low RF level)
- Spindle Motor (In case of long jitter cycle)
- IC501, IC601
No Laser Emission
"NO DISC" Display

IC501
Is the voltage input to pin No.19(APCREF input)?

Y
IC501
Is the voltage output from pin NO.20(PD OUT)?

Y
IC501
Is the voltage input to pin No.12(LD-A)?

Y
CN501
Is CN501 connected to OP Flexible cable firmly?

Y
OP Failure

N
Are R516,R517,R505,C527 normal?

N
R516,R517, R505,C527

N
IC501

N
IC501

R519,Q501

N
CN501

Y
IC501

* Poor connection of CN501 may cause "NO DISK" or "DISK ERROR".
Audio Section Failure

* Check the connection if the AU Board is detached.

IC301
Is the signal input to pins No.21,22?

N

C101,C201
R101,R201

N

IC601 Failure
(CSP Cold Solder, Peeling)

Y

IC301
Is the wave form on pins No.2,4 normal?

N

IC301 Failure
(Cold solder is the most suspected cause.)

N

* Cause of Wave Form Failure of ICs except for IC301
- Unstable VREF IN: C304,Q301
- No VREF applied: R102,R202,R105, R205,R106,R206

Y

C102,C202
D101,D202,J301

* These parts may be broken easily when adding a higher voltage to the parts from HP Jack.

* For "No Beep" or "No Mute", IC601 or IC301 may be defective.
(Cold Solder, Peeling)
Power Section Failure

No power at all

Low Batt

Is R806 working?

Y

IC601

R806

N

Is AU connector not defective?

N

* Poor connection of CN801,CN802 due to incomplete insertion (Re-insert the connectors)

Y

Is S801 working?

N

S801

Y

IC901

Is the voltage input to pin No.50(VB)?

N

Battery Case

Y

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IC901
Is the voltage output from pins No.6,49(VSTB, VREF)?

Y

IC901
Is the voltage output from pin No.18(LG) and the voltage input to pin No.19(VG)?

N

D903,L905

N

IC901
Is the voltage input to pins No.45,34,36(VC, VC2)?

N

IC901
Is the voltage output from pins No.35,41,42,44?

Y

IC901
Is the reset signal output from pin No.46(XRST)?

N

IC901
Is the signal output from pins No.28,32 and the voltage input to pin No.33(LI,VOUT)?

Y

D901,L901

N

R904

N

IC901
Is the voltage input to pin No.47(CRST)?

N

C917

N

IC901
Is the voltage output from pins No.35,41,42,44?

Y

IC901
Is the voltage output from pins No.35,41,42,44?

N

Y

Is X601 oscillating?

N

X601

N

IC601

Y

IC901
Is the voltage output from pins No.6,49(VSTB, VREF)?

N

IC901(Failure or Cold solder)

Y

N

* Cold solder or peeling of IC901, IC601 are more likely to occur for dropped units.