

J. MORITA ROOT ZX II APEX LOCATOR

Integrated into ASI Delivery Systems

O&S Manual Supplement Installation, Repair, and Troubleshooting

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This guide provides important steps for setup, use, and maintenance of the J. Morita Root ZXII as installed in ASI Dental Delivery Systems. It includes important details which must be followed to ensure safety and proper use.



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SYMBOLS & SAFETY PRECAUTIONS

IMPORTANT! Before commencing with any repairs, please read and follow all applicable warnings/cautions listed in section 1 of the delivery system operation and service manual for detailed information about symbols and safety precautions.

PRODUCT DESCRIPTION

Intended Use

Visit manufacturer's website, <https://www.morita.com/america/en/> for full information.

Warranty

Reference section 3 of the delivery system operation and service manual for detailed information about system warranty.

INSTRUMENT INFORMATION

General Information

Canal Measurement Module

Mounting Configuration: Components

One (1) panel installation one (1) panel mounted assembly with:

- Touch pad with ribbon cable
- LCD display board with interconnect cable
- Shelf mounted power console with probe wires
- Three AA batteries, installed into backside of power console

Voltage Input Requirements

- Internally powered equipment
- Three (3) alkaline AA batteries

Instrument Information

- The Root ZX unit is a battery-powered instrument. The power button on the touch pad has to be pressed to use this instrument, unit is not powered by the ASI unit's main power switch.
- Never use rechargeable nickel-hydrogen or nickel-cadmium batteries.
- Replace all three batteries at the same time.
- Never autoclave probe wires, wipe down with ethanol for disinfection.

INSTRUMENT TROUBLESHOOTING & REPAIR

Troubleshooting

Problem	Correction
Battery power indicator is flashing	<ul style="list-style-type: none"> • Low battery strength; replace batteries
LCD Display will not illuminate when power button is turned on	<ul style="list-style-type: none"> • Check interconnect cable between the LCD display board and power board • Replace the batteries • Remove LCD display board and power console, see repair process
LCD display is illuminated, but no measurements are showing on indicator bar.	<ul style="list-style-type: none"> • Replace probe wires • Remove LCD display board and power console, see repair process
Unit does not turn on with power button	<ul style="list-style-type: none"> • Replace batteries • Check ribbon cable connection from the touch pad to the LCD display board • Remove LCD display board and power console, see repair process
LCD display is unreadable, too dim.	<ul style="list-style-type: none"> • Remove LCD display board and power console, see repair process

Repair Process

If troubleshooting did not resolve the issue, the instrument will need to be sent in for repair, follow the steps below. The Root ZX II unit will be processed through ASI, per manufacturer’s requirements.

Components Required for Full Evaluation and Repair

Follow the “Removal Instructions” below for the steps to remove the instrument from the delivery system.

i Important: All items listed below are required to perform a complete instrument evaluation and repair. A delay will occur in the repair process if all items are not received. ASI will not submit the repairs to J. Morita until all required parts have been received.

- One (1) LCD display board
- One (1) Power console with interconnect cable

Obtain an RMA Number

- Contact ASI Customer Support to obtain an RMA number. The RMA is required to process the repair.

Ship Instrument to ASI

To avoid shipping damage, please carefully package all the instrument components in bubble wrap and place inside a sturdy shipping container. Also include the RMA sheet provided by ASI inside the container.

Ship to the address below and mark the box with the RMA number assigned. Including shipment tracking is strongly suggested.

ASI Dental Services | Attn: Repairs/RMA# | 8811 American Way, Suite 120 | Englewood, CO 80112

i *IMPORTANT! ASI does not repair the instrument, but works with the manufacturer, J. Morita, to assist the repair process in a timely manner. ASI receives the components and forwards to the manufacture for evaluation and repair. Once the instrument is out of our possession, we do not have a status of the repair until we are contacted by the manufacture's repair department. There is a minimum repair time of 2-6 weeks, which includes transit time. ASI will contact the office for repair approval when the manufacture repair estimate is known. Once the repair has been completed and the instrument received back at ASI, ASI will also contact the office for repair payment. When payment is received/processed, the instrument will be shipped to the office (the tracking number will be emailed to the office as notification).*

Removal Instructions

1. Turn of main power and unplug dental unit.
2. Open the cover to the delivery system, according to the unit model type.
3. Disconnect probe wire connector, attached to the right side of power console.
4. Remove the bottom of the power console from the adapter panel shelf, it has a piece of Velcro holding the bottom of the power console to the shelf.
5. Move the power console to the side to expose the interconnect cable, attached to the LCD display board and the power board in power console.
6. Remove the interconnect cable connector from the LCD display board.
7. Remove the power console from the ASI unit.
8. Remove the touch pad ribbon cable from the connector on the LCD display board.
9. Remove the four (4) nuts attaching the LCD display board to the mounting panel, using a 1/4" nut driver. Set nuts aside for reinstallation.
10. Remove the LCD display board from the ASI unit.

Installation/Re-installation

Tools Required

- 1/4" nut driver
1. Before handling any circuit boards, be sure to follow good electrostatic discharge practices.
 2. You should have one (1) adapter panel with display board attached and link harness, one (1) white plastic enclosure with main board, Velcro on bottom and three (3) AA batteries, one (1) probe cord, four (4) 4-40 nuts, and one (1) probe cord bracket.
 3. Mount the adapter panel to the cover using four (4) 4-40 nuts. (Fig. 1)



Fig. 1

4. Attach shelf or support plate, depending on your cart model:
 - **Designer Model:** Use the shelf provided. Attach by loosening the bottom two (2) 4-40 nuts on the adapter panel. Slide on with the bend going down; retighten the nuts. (Fig. 2)
 - **Classic Model:** Use the support plate provided. Attach by using two (2) flat head screws. With the cover setting on its top, place the shelf under the lip of the cover, line up the holes, put in the screws.



Fig. 2

- 5. Run the probe wires through the side hole (see Fig. 3; arrow) in the cover. Attach to the plug on the side of the enclosure. Run a cable tie through the screw hole (see Fig. 3, arrow) in the enclosure, securing the probe wires to the base as a strain relief.

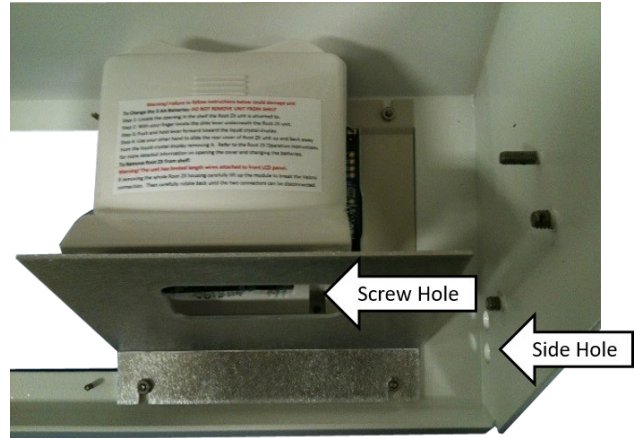


Fig. 3

- 6. Install the enclosure on the shelf, holding it in place with the Velcro. Reattach the wire harness from the front circuit board to the back circuit board in the enclosure. (Fig. 4)



Fig. 4

7. Attach the probe cord wrap to the side of cover, using the two (2) screws provided with the cord wrap assembly. (Fig. 5)

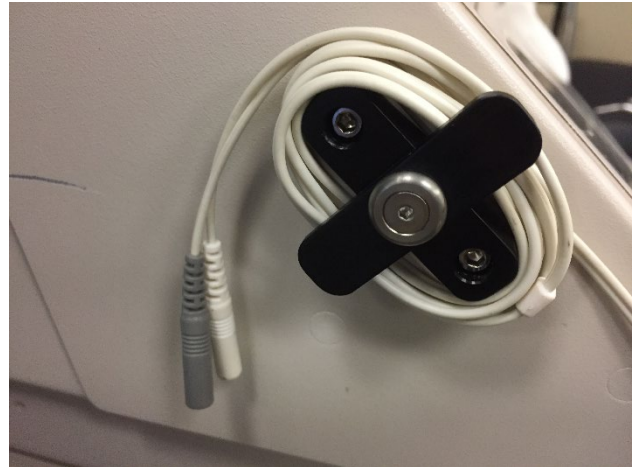


Fig. 5