



TECHNICAL GUIDELINE
OBTURA III MAX
Instrument Use, Troubleshooting & Repair Instructions

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PURPOSE

This technical guidelines provides information about the Obtura III Max instrument integrated into an ASI delivery system: general usage information, troubleshooting assistance, and outlines the process for repairs.

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INSTRUMENT INFORMATION

General Information

Obturation Delivery Devise

Mounting Configuration

One (1) panel installation

Components

- One (1) gun and cord
- One (1) panel mounted display assembly with:
 - Touch pad with green ribbon cable
 - Display board with light colored ribbon cable
- One (1) panel mounted main power board
- One (1) power supply (AC Adapter)

Voltage Input Requirements

Voltage from terminal block to AC Adapter, 110V/60Hz or 230V/50Hz

Instrument Information

- When the ASI dental unit is first turned on, using the dental unit's main power switch, the display will momentarily illuminate and then turn off. The Obtura power button will need to be pressed to start the operation of the obturation unit.
- The Obtura III Max unit requires approximately 2 minutes to heat from ambient room temperature to the maximum operating temperature of 200 degrees centigrade.
- The Obtura III Max features an interchangeable plug-in gun assembly. Any Obtura III Max gun assembly will work with any Obtura III Max board set. However, the Obtura III Max gun assembly cannot retrofit to the Obtura III or any other previous models.
- The Obtura unit's fuses are not user replaceable and not accessible to the user.

TROUBLESHOOTING

Manufacturer Error Codes

Problem	Correction
Error S-1: Gun cord disconnected	<ul style="list-style-type: none"> • Verify fitment of gun cord connector • Check gun cord for breakage/damage • Check gun cord for broken or bent pins • Remove gun with cord, see repair process
Error S-2: Cannot reach temp. in 4 minutes	<ul style="list-style-type: none"> • Heater failure, see repair process
Error H-1: Heater wires open	<ul style="list-style-type: none"> • Remove gun with cord, see repair process • Replace gun and cord, contact Obtura
Error H-2: Heater wires short	<ul style="list-style-type: none"> • Remove gun with cord, see repair process • Replace gun and cord, contact Obtura
Error H-3: Thermocouple error	<ul style="list-style-type: none"> • Remove gun with cord, see repair process • Replace gun and cord, contact Obtura
Error B-1: Internal control base failure	<ul style="list-style-type: none"> • Remove Obtura unit, see repair process
Error P-1: Power supply faults	<ul style="list-style-type: none"> • Replace power supply, contact Obtura

Troubleshooting Guide

Problem	Correction
Device does not turn on	<ul style="list-style-type: none"> • Check power wires are secured in terminal block and attached securely to power supply prongs. • Check black power supply cable is secured to main power board's power input connector. • Check the touch pad's green ribbon cable is secured to the main power board.
Display doesn't illuminate	<ul style="list-style-type: none"> • Check the light colored ribbon cable connection between display board and main power board for a secure connection.
Gun doesn't heat up, display is on	<ul style="list-style-type: none"> • Heating element is faulty, see repair process.
Gun trigger doesn't extrude Gutta Purcha through chamber	<ul style="list-style-type: none"> • Gun needs to be cleaned per Manufacturer's recommendations. • Plunger shaft is bent, see repair process.
Plunger shaft doesn't ratchet through Gutta Purcha chamber	<ul style="list-style-type: none"> • Gun needs to be cleaned per Manufacturer's recommendations. • Plunger shaft is bent, see repair process.

Troubleshooting Guide

Problem	Correction
Gutta Purcha doesn't flow through needle	<ul style="list-style-type: none"> • Verify gun is cleaned daily to prevent excess built up of Gutta Purcha in the chamber. • Verify needle is not kinked – avoid over bending the needle • Verify the devise has reached operational temperature (numerical LED has stopped blinking). • Increase temperature, if needed.
Gun housing is damaged	<ul style="list-style-type: none"> • Gun and cord need to be sent in for repair, see repair process.

REPAIR PROCESS

If troubleshooting did not resolve the issue, the instrument will need to be sent either to the Manufacturer (Obtura) for repairs or to ASI Medical to facilitate the repair with Obtura.

Components Required for Full Evaluation and Repair

Before starting, refer to the Warning section below. Then, follow the “Removal Instructions” below for the steps to remove the instrument from the delivery system.

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. Repairs will not commence without all of the components present.

- One (1) gun and cord
- One (1) panel mounted touch pad with green ribbon cable and display board with light colored ribbon cable
- One (1) main power board

Sending Repairs to Obtura

Obtura unit repairs can be sent directly to Obtura by the customer.

Obtain an Obtura Work Order Number

Contact Obtura (800.344.1321) to obtain a work order number before sending it in for repair.

Ship Instrument to Obtura

To avoid shipping damage, please carefully package all of the instrument components in bubble wrap and place inside a sturdy shipping container. Also include the work order number provided by Obtura inside the container.

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

Obtura
Attn: Repairs
2260 Wendt Street
Algonquin, IL 60102
800.344.1321

Sending Repairs Through ASI Medical

Obtura unit repairs can be process through ASI Medical.

IMPORTANT

ASI does not repair the instrument, but works with the Manufacturer, Obtura, to assist the repair process in a timely manner. ASI receives the components and forwards to the Manufacturer 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 Manufacturer's 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).

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 Medical

To avoid shipping damage, please carefully package all of 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 Medical, Inc. Attn: Repairs / RMA#
8811 American Way, Suite 130
Englewood, CO. 80112

REMOVAL INSTRUCTIONS

Tools Needed

- Phillips Head Screwdriver or straight blade screwdriver (depending on dental unit model type)
- 1/4" Nut driver

Removal Steps

1. Turn off main power and unplug dental unit.
2. Open the cover to the delivery system, according to the unit model type.
3. Disconnect the green touch pad ribbon cable from the main power board.
4. Disconnect the light colored ribbon cable on the display board from the main power board.
5. Disconnect the gun cord connector from the main power board.
6. Disconnect the AC Adapter cord from the main power board.
7. Remove the (4) nuts, using a 1/4" Nut Driver, attaching the display board adapter panel to the dental unit. Set nuts aside for reinstallation.
8. Remove the (4) nuts, using a 1/4" Nut Driver, attaching the main power board to the mounting plate on the dental unit. Set nuts aside for reinstallation.
9. Remove the gun cord from the dental unit, pull to the outside of the dental unit.

REINSTALLATION OF INSTRUMENT

1. Reverse above steps to remount main power board, display mounted adapter panel, ribbon cables, AC Adapter cord and gun cord into the dental unit.
2. After installation, test Obtura for proper function. Refer to Manufacturer's Manual for calibration and settings.
3. Turn the power on to the dental unit and the Obtura unit; check that the display lights up.
4. Press the memory button and allow the gun to come to temperature, display will flash while coming to preset temperature and stop once temperature is reached.
5. Press the temperature increase and decrease buttons, observing if the temperature display changes up and down. While the temperature changes, the display will flash.
6. Place the gun back into its holder on the dental unit holder bar.

INSTALLING A PANEL-PREPPED OBTURA III MAX

Tools Needed

- Phillips Head Screwdriver or Straight Blade Screwdriver (depending on dental unit model type)
- 1/4" Nut Driver

Installation Instructions

1. Turn off main power and unplug dental unit.
2. Open the cover to the delivery system, according to the unit model type.
3. Install Obtura adapter panel display assembly using (4) nuts to secure adapter panel to the dental unit window.
4. Install Obtura main power board to base plate of dental unit, adhesive is attached to the bottom of the board mounting plate.
5. Feed the gun cord connector and cord through the base plate to the inside portion of the dental unit and attach the cord connector to the main power board.
6. On the outside of the dental unit, pull the gun cord to the proper length to match the existing hand piece tubing on the dental unit. Tighten strain relief to base plate.
7. Connect the brown power wire coming from the AC Adapter "hot" prong to the grey portion on the terminal block (line – instrument power).
8. Connect the blue power wire coming from the AC Adapter "neutral" prong to the blue portion on the terminal block (line – instrument power).
9. After installation, test Obtura for proper function. Refer to Manufacture's Manual for calibration and settings.
10. Turn power on and check that the display lights up.
11. Press the memory button and allow the gun to come to temperature, display will flash while coming to preset temperature and stop once temperature is reached.
12. Press the temperature increase and decrease buttons, observing if the temperature display changes up and down. While the temperature changes, the display will flash.
13. Place the gun back into its holder on the dental unit holder bar.

WARNINGS



WARNING! Only qualified personnel should service or repair this device. This device should only be serviced/repared by a qualified service technician who is proficient in the repair of electromechanical dental equipment and who understands the complexities and risks of working within the device and observes proper safety precautions.



WARNING – Compressed Air. The compressed air system that operates this unit is under pressure. Compressed air can propel dust or loose particles and can cause bodily injury or damage. Always turn the system off and bleed off air pressure before attaching or removing air lines or accessories or servicing this unit. All air lines should be periodically inspected and replaced if worn or damaged. If an outside compressed air supply is used to power this unit, the air supply must be regulated to 80 psi or below. Excessive air pressure could cause certain components to rupture.



WARNING – Electrical Voltage. This system is powered by high voltage electricity. Like any other electrically powered device, if it is not used properly, it can cause electrical shock. Always plug the power cord into an electrical outlet with adequate fuse protection and proper grounding. In the event of a short circuit, grounding reduces the risk of shock by providing an escape wire for the electric current. Improper grounding of the unit can result in a risk of electric shock. Always unplug the unit before doing any service or repair to the unit.