

# Replacement Procedure 222046PM

## OsmoTECH® PRO Osmometer Module

### Scope

This document describes how to replace the osmometer module (p/n 222046R) on the OsmoTECH® PRO Multi-Sample Micro-Osmometer. It is intended for use in conjunction with service procedures that require access to the OsmoTECH PRO interior.

### Tools required

- #1 and #2 Phillips screwdrivers
- 1/4" and 5/16" nut driver
- 9/ 64" Allen wrench
- Static grounding wrist strap

### Parts and materials required

Replacement part 222046R

### Related documents

- *OsmoTECH PRO Disassembly and Reassembly (p/n 222202PM)*
- *OsmoTECH PRO Service Guide (p/n 222006EN)*

### Safety notices



**WARNING:** Hazardous Voltage. Power cord must be disconnected to prevent electrical shock.



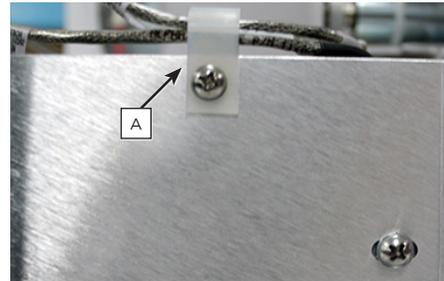
**NOTICE:** Internal components may be damaged by static electricity. A static grounding wrist strap must be worn during this procedure.



**NOTICE:** Improper connections may cause damage to the instrument.

### Disconnecting the control PCB

1. Remove the rear and side enclosure as explained in *OsmoTECH PRO Disassembly and Reassembly*.
2. Remove the cable clamp **[A]** that secures the C10 sample probe cable and the C11 block probe cable to the side of the power supply and controls assembly.

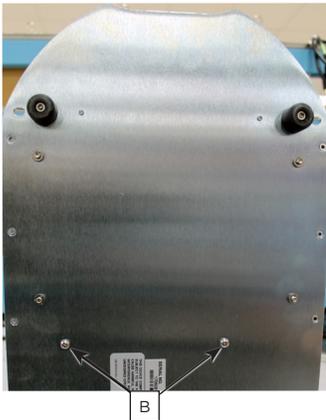


3. Unplug the C10 and C11 connectors from the control PCB.
4. Disconnect the B1, B2, B3, B4, B6, B7, B8, B9, and B10 connectors on the motor/sensor cable harness from their mating connectors.
5. Disconnect the A1, A2, A3, and A4 connectors on the cooling system harness from their mating connectors.



### Removing the power supply and controls assembly

1. Rest the instrument on its back side.
2. Remove the two screws [B] that secure the power supply and controls assembly to the bottom of the chassis.



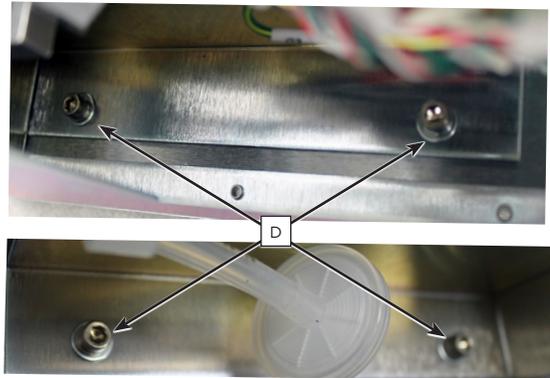
3. Place the instrument in the upright position.
4. Remove the two screws [C] that secure the power supply and controls assembly to the rear of the chassis.



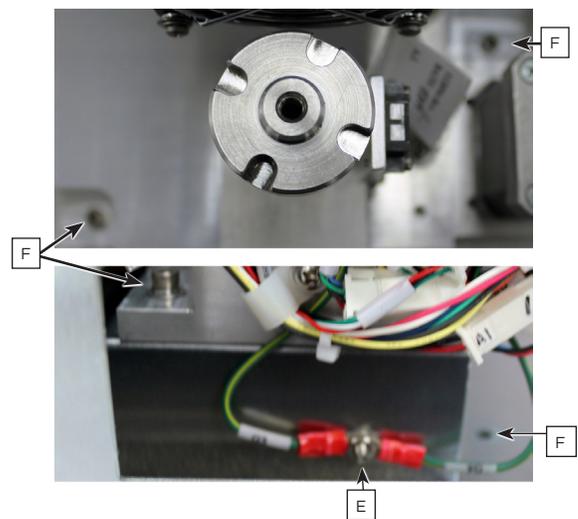
5. Slide the power supply and controls assembly out of the base assembly.

### Removing the osmometer module

1. Remove the four socket head cap screws and washers [D] that secure the osmometer module mounting bracket to the chassis.



2. Carefully slide the osmometer module out of the instrument.
3. Remove the hex nut and washer [E] that secures the SPG and BPG ring terminals to the side of the osmometer module mounting bracket.
4. Remove the four socket head cap screws and washers [F] that mount the osmometer module to the osmometer module mounting bracket (which is secured to the chassis).

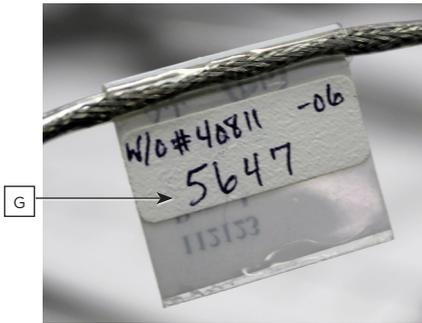


5. Lift the osmometer module off of the osmometer module mounting bracket.

## Replacing the osmometer module

Refer to [Removing the osmometer module](#) for images and callouts.

1. Write down the sample probe resistance written on the back of the sample probe.
2. Write down the block probe resistance [G] written on the back of the label on the block probe wire.



3. Mount the replacement osmometer module to the osmometer module mounting bracket using the four socket head cap screws and washers [F].
4. Secure the SPG and BPG ring terminals to the side of the osmometer module mounting bracket using the hex nut and washer [E].
5. Slide the osmometer module into the instrument.
6. Mount the osmometer module mounting bracket to the chassis using the four socket head cap screws and washers [D].

## Replacing the power supply and controls assembly

Refer to [Removing the power supply and controls assembly](#) for images and callouts.

1. Slide the power supply and controls assembly into the base assembly.
2. Secure the power supply and controls assembly to the rear of the chassis using the two screws [C].
3. Rest the instrument on its back side.
4. Secure the power supply and controls assembly to the bottom of the chassis using the two screws [B].
5. Return the instrument to the upright position.

## Reconnecting the control PCB

Refer to [Disconnecting the control PCB](#) for images and callouts.

1. Plug the A1, A2, A3, and A4 connectors on the cooling system harness into their mating connectors.
2. Plug the B1, B2, B3, B4, B6, B7, B8, B9, and B10 connectors on the motor/sensor cable harness into their mating connectors
3. Plug the C10 and C11 connectors into the control PCB.
4. Secure the C10 sample probe cable and the C11 block probe cable to the side of the power supply and controls assembly using the cable clamp and screw [A].
5. Reassemble the instrument by performing the reassembly instructions in *OsmoTECH PRO Disassembly and Reassembly*.
6. When the instrument powers up, press **SETTINGS > PROBE RESISTANCE** from the main menu.
7. Change the block and sample resistance values to match those previously recorded.
8. Calibrate the instrument (see *Calibration* in the service guide).