

MSG 198 - RED FD13 CM-2 MIST IFM-13 EMS RECOVERY

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SEAL OFF MIST GAS CHROMATOGRAPH LINE

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- CM-2 Tool
1. Perform AP-17 MIST TUBE LEAK CHECK (CM-2 EOC, pg 7-34), steps 1-12
 2. Unstow Kapton Tape
 3. Cut two six-inch pieces of tape
Temp stow tape on CM-2 rack
 4. Refer to the diagram below of the GC sample line



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- MIST EMS
5. Bend the GC sample tube approximately 4 inches from the GC sample line connector and squeeze very tightly, producing a tight kink in the tubing (like you would with a garden hose to stop water flow)
 6. While maintaining a tight squeeze on the kink, wrap at least 3 complete wraps of Kapton Tape around the kink in the tube
 7. Place a second kink in the GC sample line tube approximately 4 inches from the first kink and wrap with Kapton Tape as in steps 5 and 6 above
 8. Stow the GC sample line connector and tubing within the EMS on the provided stowage clip

CHECK MIST VENT LINE

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- CM-2 Tool Kit
9. Unstow:
1/4-in Drive Ratchet Wrench
5 mm Hex Head Driver

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- 1
- 2 EP 10. Don Anti-static Wrist Tether, connect to grounding jack
- 3
- 4 EMS 11. Remove EMS vent line (black tube) from instrumentation ring fill/vent port
- 5
- 6 12. √O-rings in EMS vent line (black tube)
- 7
- 8 13. Place vent line in retaining clip (labeled 'VENT')
- 9
- 10 14. Loosen grounding bolt (non-captive, top of chamber instrumentation ring)
- 11 using 1/4-in Drive Ratchet Wrench with 5 mm Hex Head Driver
- 12
- 13 15. Remove grounding strap from bolt, temp stow
- 14
- 15 16. Hand tighten grounding bolt on instrumentation ring
- 16
- 17 17. Temp stow:
- 18 1/4-in Drive Ratchet Wrench
- 19 5 mm Hex Head Driver
- 20
- 21 18. Doff Anti-static Wrist Tether
- 22
- 23 **EMS ROTATION**
- 24
- 25 **NOTE**
- 26 Steps 19–22 require two crew members
- 27
- 28 19. Depress EMS locking buttons (two)
- 29 Remove EMS from chamber
- 30 Release EMS locking buttons (two)
- 31
- 32 20. Rotate EMS 180° (front plate will go in chamber first)
- 33
- 34 21. Depress EMS locking buttons (two)
- 35 Align EMS with chamber rails
- 36 Slowly slide EMS into chamber until it hits the reverse insertion stop
- 37 Release EMS locking buttons (two)
- 38
- 39 22. √For water in flame tube
- 40 Notify MCC (water presence in flame tube)
- 41
- 42 **ATOMIZER HEAD REMOVAL**
- 43
- 44 EP 23. Don Anti-static Wrist Tether, connect to grounding jack
- 45
- 46 EMS 24. Press SA01 electrical connector locking clip, disconnect
- 47
- 48 25. √UN01 coaxial connector not loose
- 49
- 50 26. Turn UN01 coaxial connector ccw, remove from back of atomizer head
- 51
- 52 27. Disconnect water line QD
- 53
- 54
- 55
- 56

END OF PAGE 2 OF 4, MSG 198

MSG 198 - RED FD13 CM-2 MIST IFM-13 EMS RECOVERY

- 1 28. Grab atomizer solenoid mounting bracket
- 2 Rotate atomizer solenoid mounting bracket ccw until locking pins (two) clear
- 3 atomizer retainer bosses
- 4 Slowly pull atomizer head out of flame tube with one hand while holding EMS
- 5 handle with other hand (minimize rotation of the atomizer head)
- 6
- 7 29. ✓Atomizer water line for water and/or bubbles
- 8 Notify MCC (water presence in water line)
- 9
- 10 30. Doff Anti-static Wrist Tether
- 11

ATOMIZER HEAD UNSTOWAGE/STOWAGE/INSTALLATION

- 12
- 13
- 14 FP01 31. Unstow Atomizer Head WMC-7000
- 15
- 16 32. Remove, discard Kapton Tape from water line on new atomizer head
- 17 Remove protective covering from new atomizer head
- 18 Place protective covering over used atomizer head
- 19
- 20 FP01 33. Stow used atomizer head
- 21
- 22 34. Pull solenoid plunger by squeezing the black retaining clip towards the gold
- 23 solenoid until clapper vlv is open, release
- 24 ✓Clapper vlv returns to cover nozzle
- 25
- 26 35. Log atomizer head serial # and MET installed in table below
- 27

SERIAL NO.	MET INSTALLED

- 28
- 29 36. Don Anti-static Wrist Tether, connect to grounding jack
- 30
- 31 EMS 37. Hold EMS handle with one hand, grab solenoid mount with other hand
- 32
- 33 **NOTE**
- 34 While inserting atomizer head, be sure not to twist it until
- 35 it is inserted completely
- 36
- 37 38. Slowly insert atomizer head into flame tube with coaxial connector, water line
- 38 on left, locking pins at 2 and 8 o'clock positions (minimize rotation of the
- 39 atomizer head)
- 40 Rotate atomizer solenoid mounting bracket cw until locking pins (two) reach
- 41 retainer bosses
- 42
- 43 39. Connect water line QD
- 44 ✓Water line QD connection secure
- 45
- 46 **NOTE**
- 47 When tightening coaxial connector, be sure to
- 48 hand-tighten completely
- 49
- 50 40. Install, hand-tighten UN01 coaxial connector onto back of atomizer head
- 51 (cw)
- 52
- 53 41. Connect SA01 electrical connector
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MIST PREP FOR STARTUP

NOTE

Two crew members required for step 42

- 42. Perform MIST CHAMBER ACCESS (CM-2, NOM), pg 4-26, steps 57-63
- 43. Perform MIST CHAMBER ACCESS (CM-2, NOM), pg 4-27, steps 67-83
- 44. Perform CHAMBER ACCESS (CLOSE CHAMBER) (CM-2, Cue Card), steps 1-8
- 45. Stow Kapton Tape

MIST STARTUP

- 46. Perform MIST START-UP (CM-2, NOM), pg 4-7, steps 1-21, placing valves in proper configuration as needed
- 47. Perform MIST START-UP (CM-2, NOM), pg 4-9, step 29