INSTRUCTION BULLETIN

No. DM20112
Machine: os|3
Published: 02-2017
Rev. 00

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.

NOTE: Numbers in parenthesis ( ) are reference numbers for parts listed in Bill of Materials.

Installation instructions for **kit number AS20052**

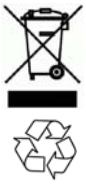
SYNOPSIS:

This kit contains the parts needed to perform planned service on the os|3 Cleaning Solution Generator.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: Orbio PM Kit AS20052, Chlorine Test Paper PA20026, pH Test Paper PA20013

(Estimated time to complete: 2 hours)

This is a procedure for performing only PM (Planned Maintenance) service for the os|3. **Do Not** perform other repairs on this PM Service Order. If issues requiring repair are found during the PM service, start another Service Notification Order and complete the repairs on that order.



PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

PREPARATION:

1. Ensure both os|3 generator tanks are full.
2. Ensure the blue water drop icon appears on interface panel, indicating the Orbio os|3 is full and ready to dispense both solutions. (Fig. 1)

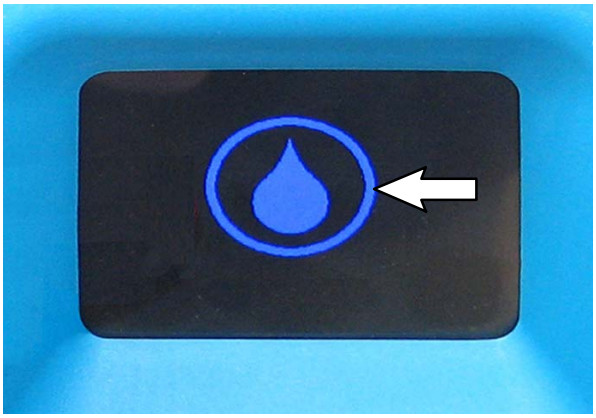


FIG. 1

3. Complete instructions in DM20101 Annual PM Kit - includes updating software, replacing pH probe, replacing check valves, and testing solution.

INSTALLATION:

1. Inspect the educators and orifices for cracks and / or blockages.

2. Inspect the solution lines routed from the generator to the dispenser.

   A. Ensure lines are not pinched, looped, and / or kinked.

   B. Inspect the lines for cracked / broken fittings and evidence of leaks.

3. Inspect plumbing for broken / cracked fittings.

4. Inspect for evidence of leaking and salt crystals.

5. Dispense enough solution from both the MSC and the MM200 to confirm the os|3 is generating both solutions and the tank full switch in each tank is operating properly. Use pH test strips and chlorine test strips to test the dispensed solutions.

6. Touch the screen display screen. (Fig. 2)

FIG. 2

7. Record the MSC (blue number) usage. This number is the hour meter reading for the Service Notification. (Fig. 3)

FIG. 3

8. Touch the wrench icon. (Fig. 4)

FIG. 4

9. Press the right arrow eight times until the **Cell Signal Strength** screen appears. (Fig. 5)

FIG. 5

10. Record the Cell Signal Strength number and the os|3 phone number. (Fig. 6)

FIG. 6

11. Send the following SMS message to the os|3 phone number: **Get sys** (This is case sensitive. Enter exactly as shown).

12. Proceed to Step 15 when the os|3 returns a response.

NOTE: *It may take the os|3 several minutes to send a response. Do not proceed until the os|3 sends a response.*

13. Proceed to the following step if the os|3 does not send a response.

14. While the system is generating solution, scroll through the maintenance screens and record the following values in the **Work Performed** section of the service notification.

    A. Anolyte: Voltage / Amperage (Fig. 7)

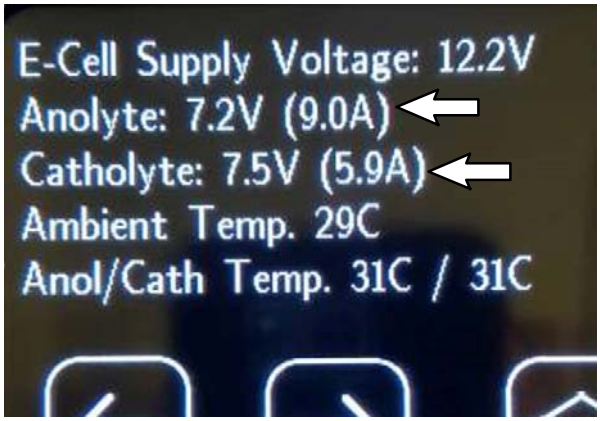


FIG. 7

    B. Catholyte: Voltage / Amperage (Fig. 7)

    C. Conductivity Probe 1: uS (Fig. 8)

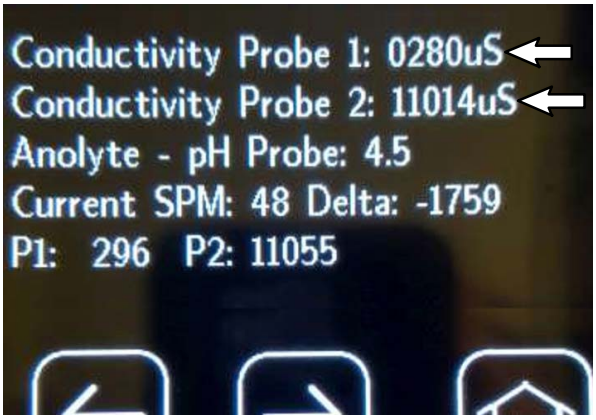


FIG. 8

    D. Conductivity Probe 2: uS (Fig. 8)

    E. Brine Voltage (Fig. 9)

FIG. 9

15. Confirm Software Version to the known version numbers. (Fig. 10)

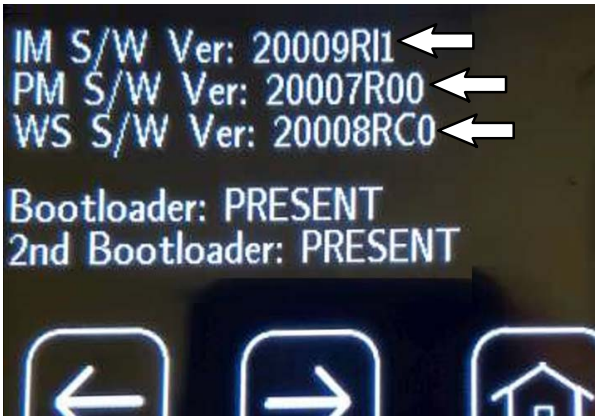


FIG. 10

16. If current software revision number does not appear, proceed to the following step to update to the current software revision. If current software revision number does, proceed to Step 18.

17. If software is not the current revision, follow instructions included with the USB memory key (2) included in the PM kit to download the current software and update the os|3 to the current software revision. (Fig. 11)

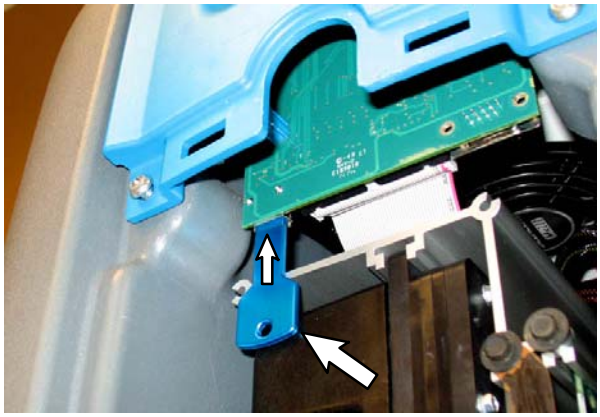


FIG. 11

18. Inspect the MSC vent gasket for tears. (Fig. 12)

FIG. 12

19. Inspect the drain hoses for kinks, cracked / leaking fittings, and proper slope to the drain.

    Ensure all drain lines are in a continuous downward slope directly into a drain below the bottom of the os|3 generator.

    Inspect the brine tank overflow hose for cleanliness and ensure it has a continuous downward slope directly into a drain.

20. Inspect for evidence of leaks or salt crystals.

    A. Brass inserts (Fig. 13)

FIG. 13

    B. Air gap overflow assembly (Fig. 14)

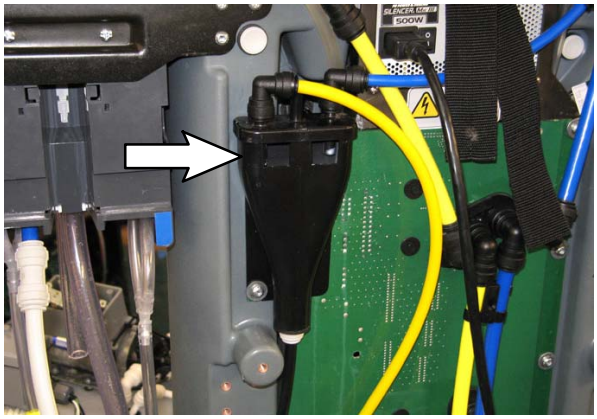


FIG. 14

    C. Lower level sensors (Fig. 15)

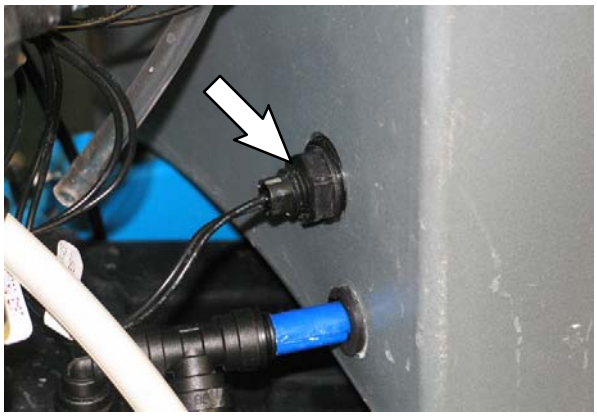


FIG. 15

D. Lower tank penetrates (Fig. 16)

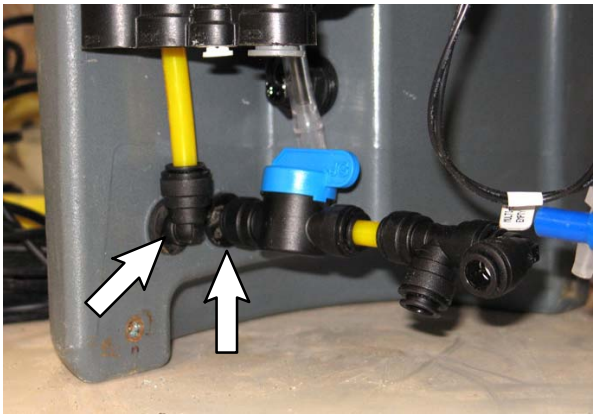


FIG. 16

21. Remove the yellow cap from the top of the Multi- Micro tank and inspect condition of upper level sensor. (Fig. 17 / Fig. 18)

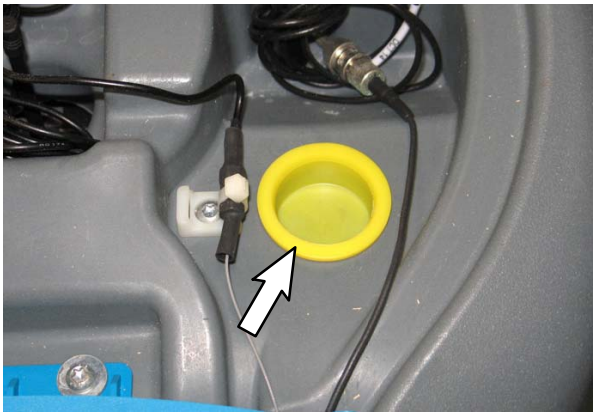


FIG. 17

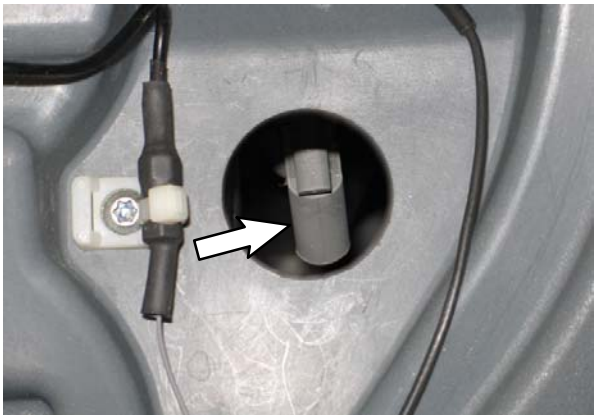


FIG. 18

22. Inspect the pH probe well for debris, reinstall the yellow plug, and confirm the yellow plug fits properly. (Fig. 19 / Fig. 20 / Fig. 21)

FIG. 19

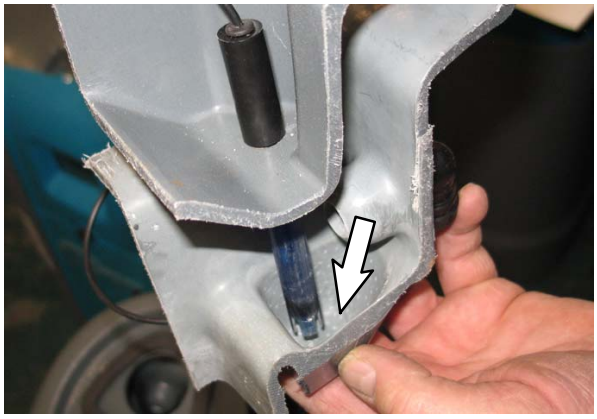


FIG. 20

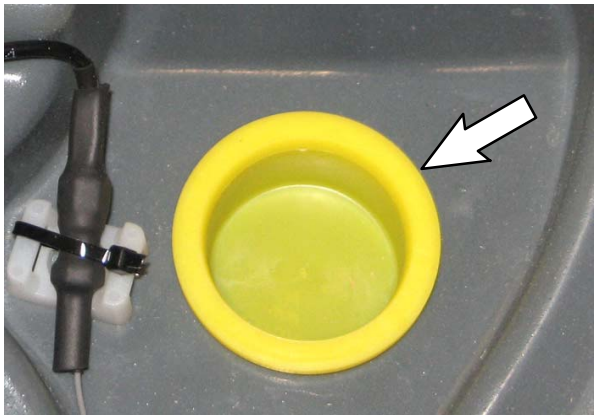


FIG. 21

NOTE: The power chord must be unplugged from the wall outlet before electrical connections or cables are disconnected from the os|3 Cleaning Solution Generator.

WARNING: Unplug power cord before servicing machine.

23. Inspect the float switch plug connection for corrosion. Apply dielectric grease to connection if necessary. (Fig. 22)

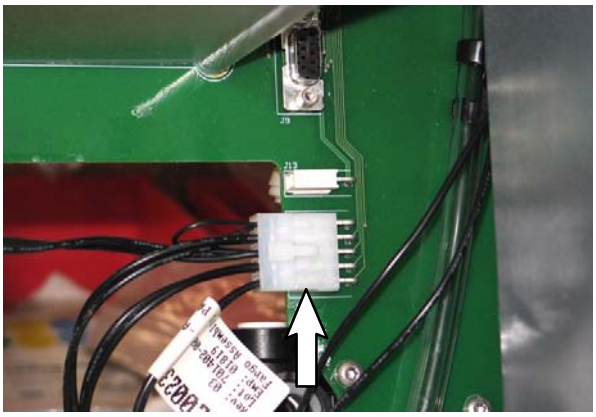


FIG. 22

24. Inspect the db9 cable connection above the float switch connection for corrosion. Apply dielectric grease to connection if necessary. (Fig. 23)

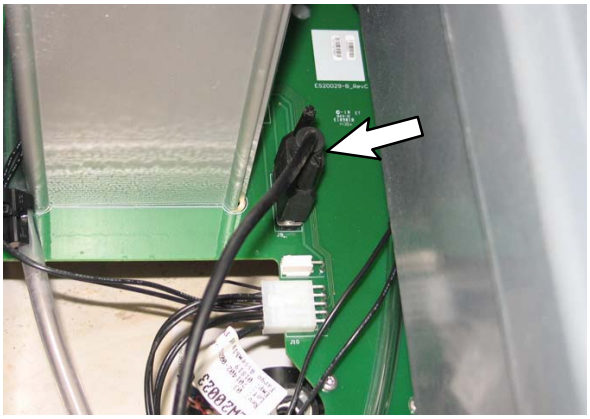


FIG. 23

25. Inspect all water softener board connections for corrosion. Apply dielectric grease to connections if necessary. (Fig. 24 / Fig. 25 / Fig. 26)

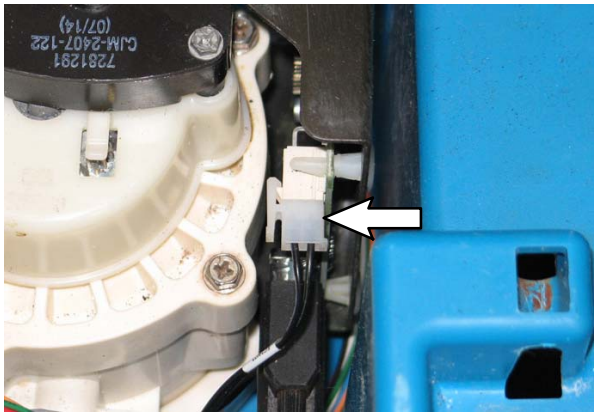


FIG. 24

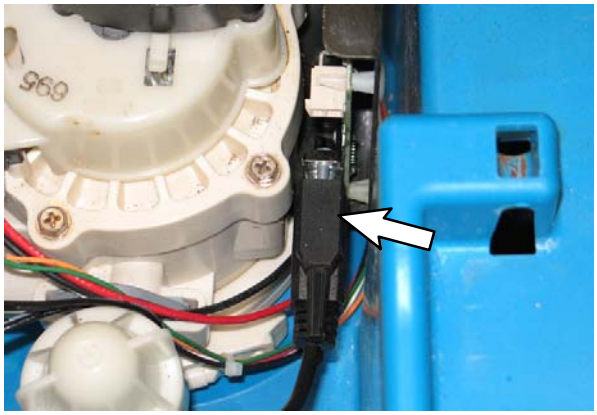


FIG. 25

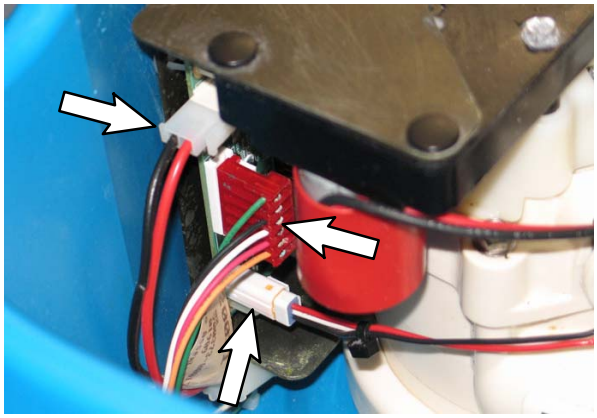


FIG. 26

26. Inspect the water softener circuit board for corrosion. (Fig. 27)

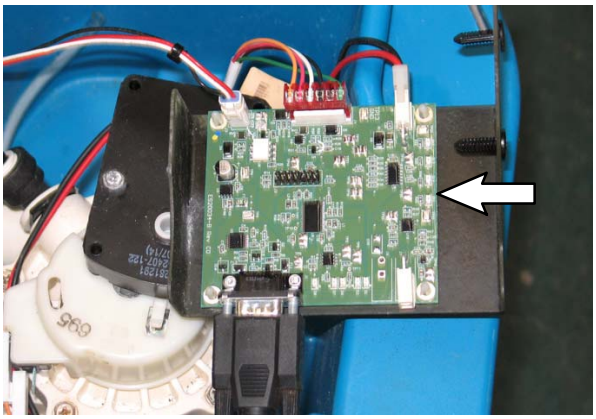


FIG. 27

27. Inspect the W/S water softener switch connections for corrosion. Apply dielectric grease to connections if necessary. (Fig. 28)

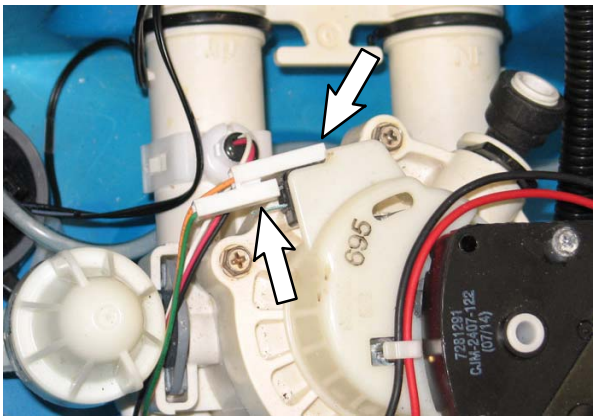


FIG. 28

28. Inspect the water softener water connections for leaks / cracks. (Fig. 29)

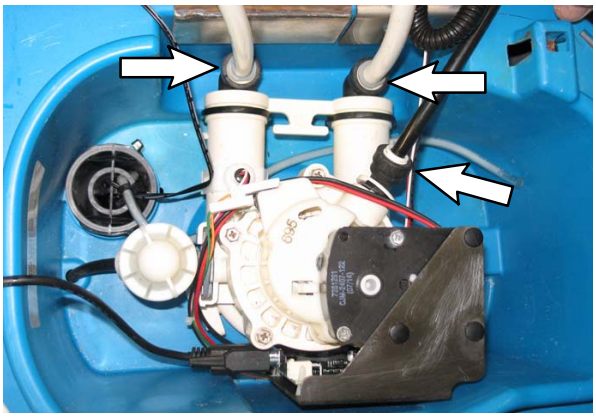


FIG. 29

29. Plug the power cable into the wall outlet if the power cable was unplugged to perform maintenance.

30. Inspect the brine tank.

    A. Confirm there is no debris in the tank

    B. Confirm only salt pellets are in the tank

    C. Use a chlorine test strip to check for chlorine in the brine tank. If chlorine is detected in the brine tank, start a new service order and correct problem

31. Use MSC from the machine to wipe the exterior of the machine clean of all salt deposits, dirt, and / or debris. This cleaning helps later identify new leaks because all previous salt deposits, dirt, and / or debris are now cleaned from the machine.

PLANNED MAINTENANCE CHECKLIST IN SERVICELINK DEVICE:

- ❑ Drain Hoses
- ❑ Electrical Wires
- ❑ Filters Condition / Operation
- ❑ Functional Check (pH Test)
- ❑ Hose Connections / Leaks
- ❑ Gallon / Liter Display
- ❑ Manifolds / Hoses / Connections
- ❑ Power Cables / Grounding.
- ❑ Solution Flow Valves (Bottle and Nozzle Dispensing Valves)
- ❑ Solution Pump
- ❑ Solution Pump Motor
- ❑ Solution Tank
- ❑ Switches
- ❑ Touch Panel Condition
- ❑ Touch Panel Operation
- ❑ Water Shut Off Valve
- ❑ Water Softener Condition / Operation

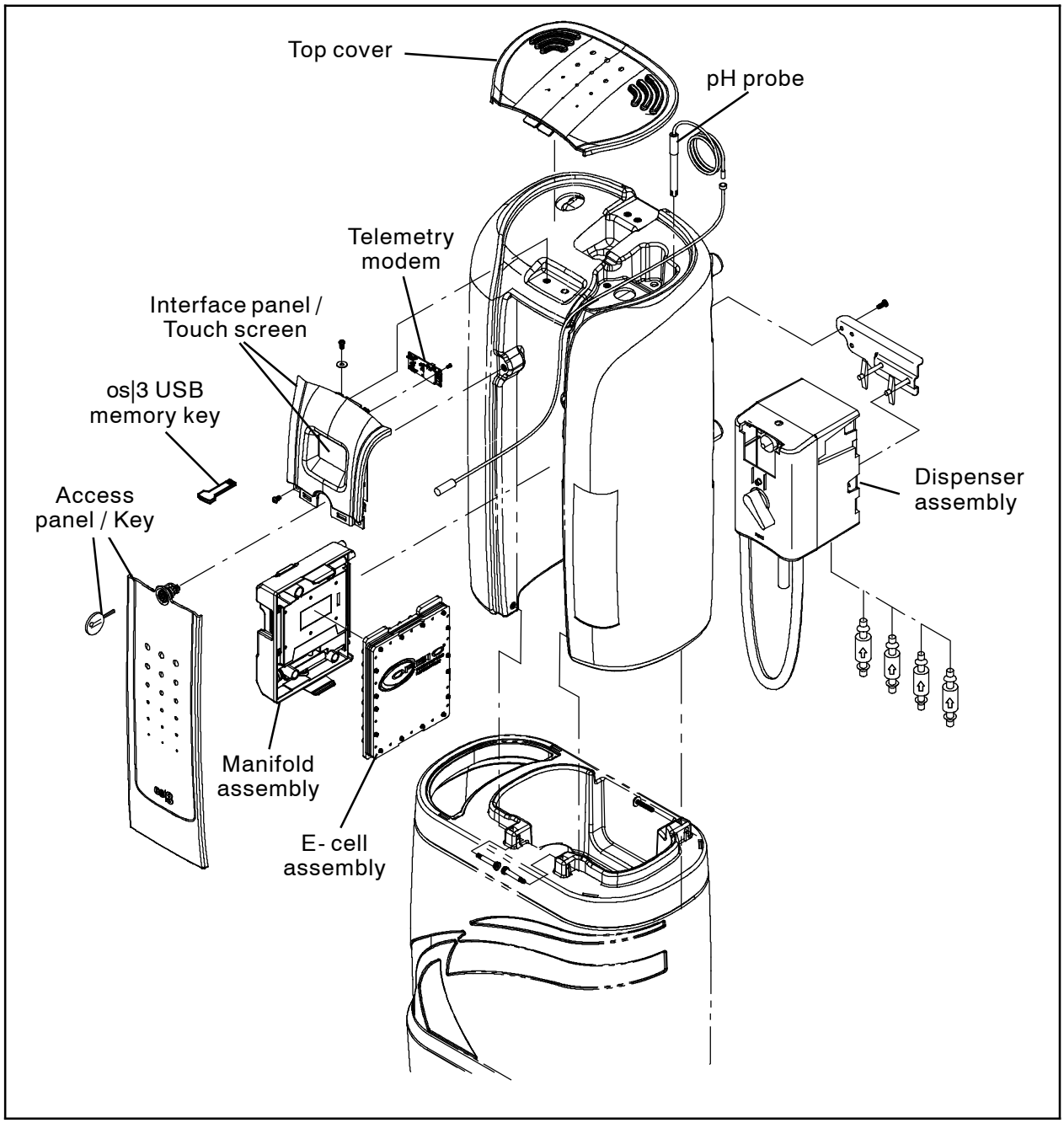

Top cover
pH probe
Telemetry modem
Interface panel / Touch screen
os|3 USB memory key
Access panel / Key
Dispenser assembly
Manifold assembly
E- cell assembly

FIG. 30

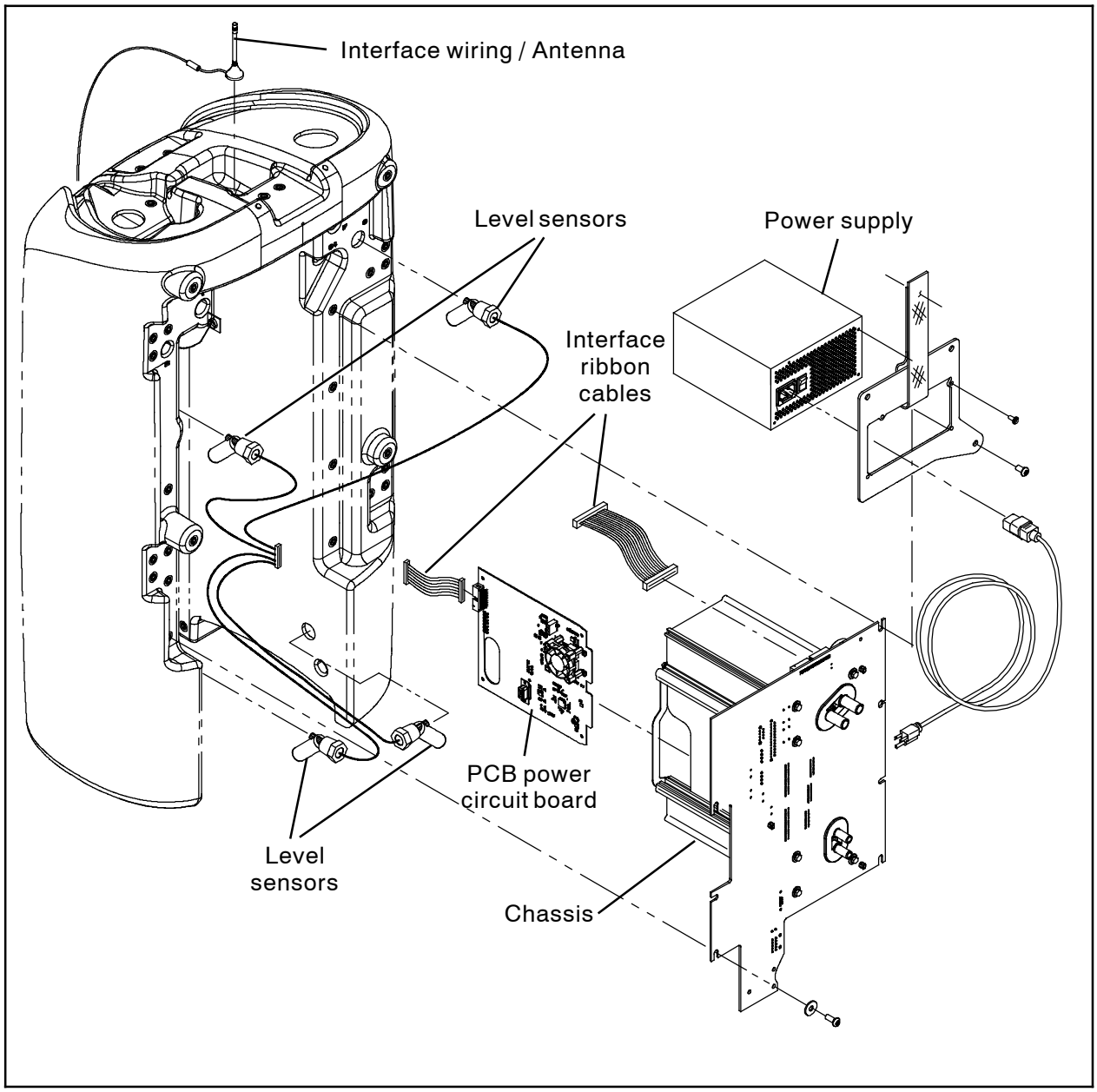

Interface wiring / Antenna
Level sensors
Power supply
Interface ribbon cables
PCB power circuit board
Level sensors
Chassis

FIG. 31

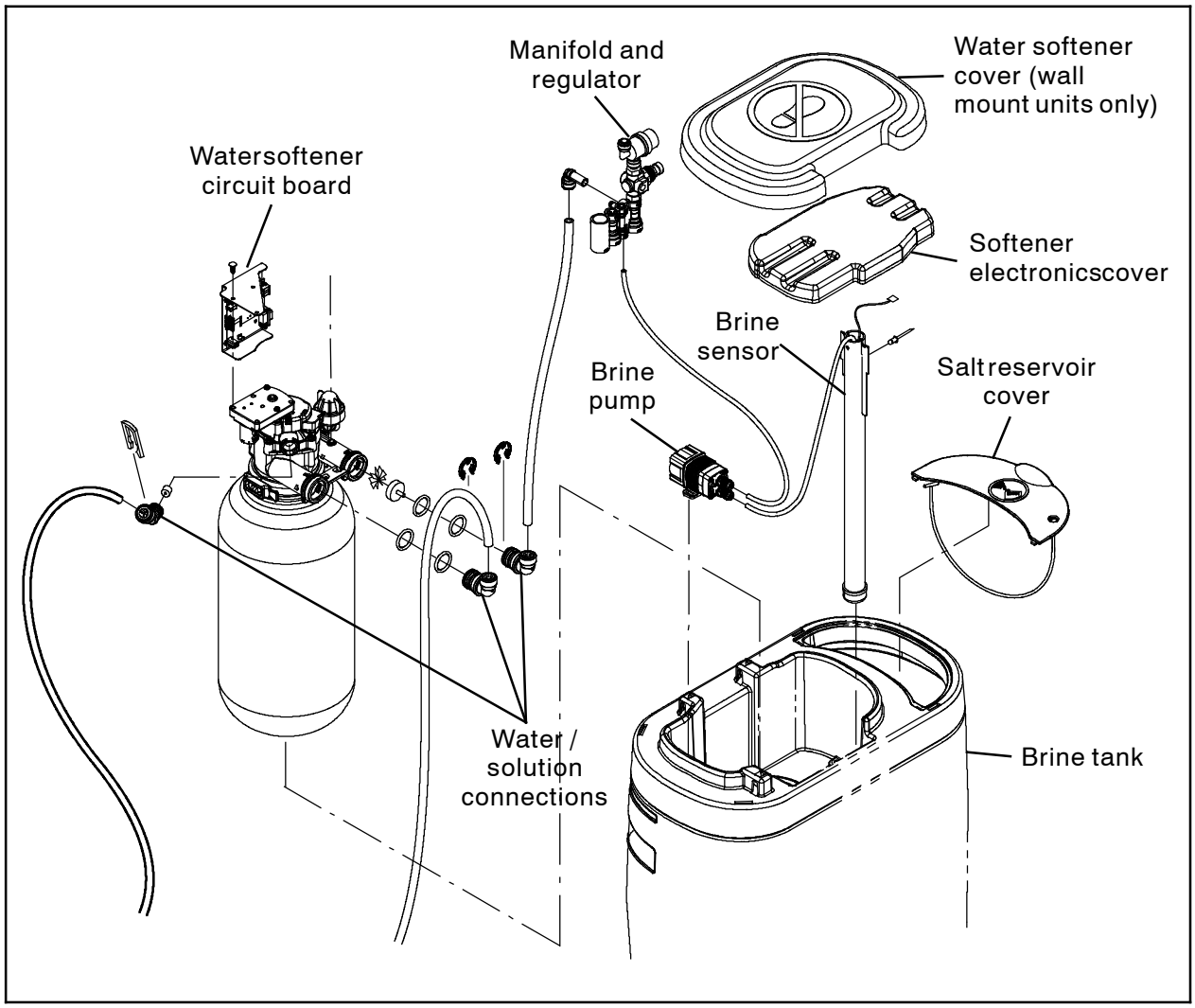

Manifold and regulator
Water softener cover (wall mount units only)
Watersoftener circuit board
Softener electronicscover
Brine sensor
Brine pump
Saltreservoir cover
Water / solution connections
Brine tank

FIG. 32

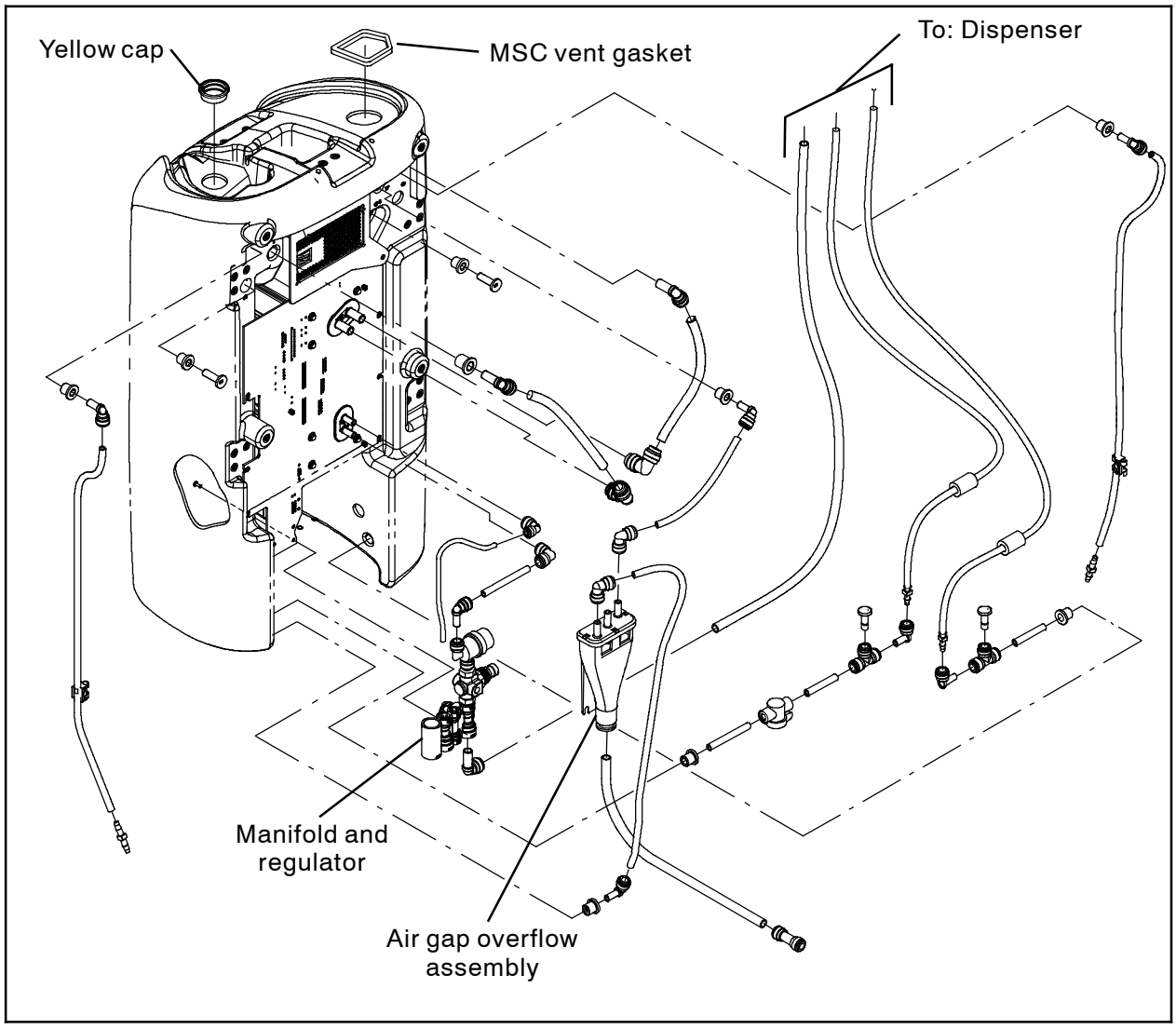

Yellow cap
MSC vent gasket
To: Dispenser
Manifold and regulator
Air gap overflow assembly

FIG. 33

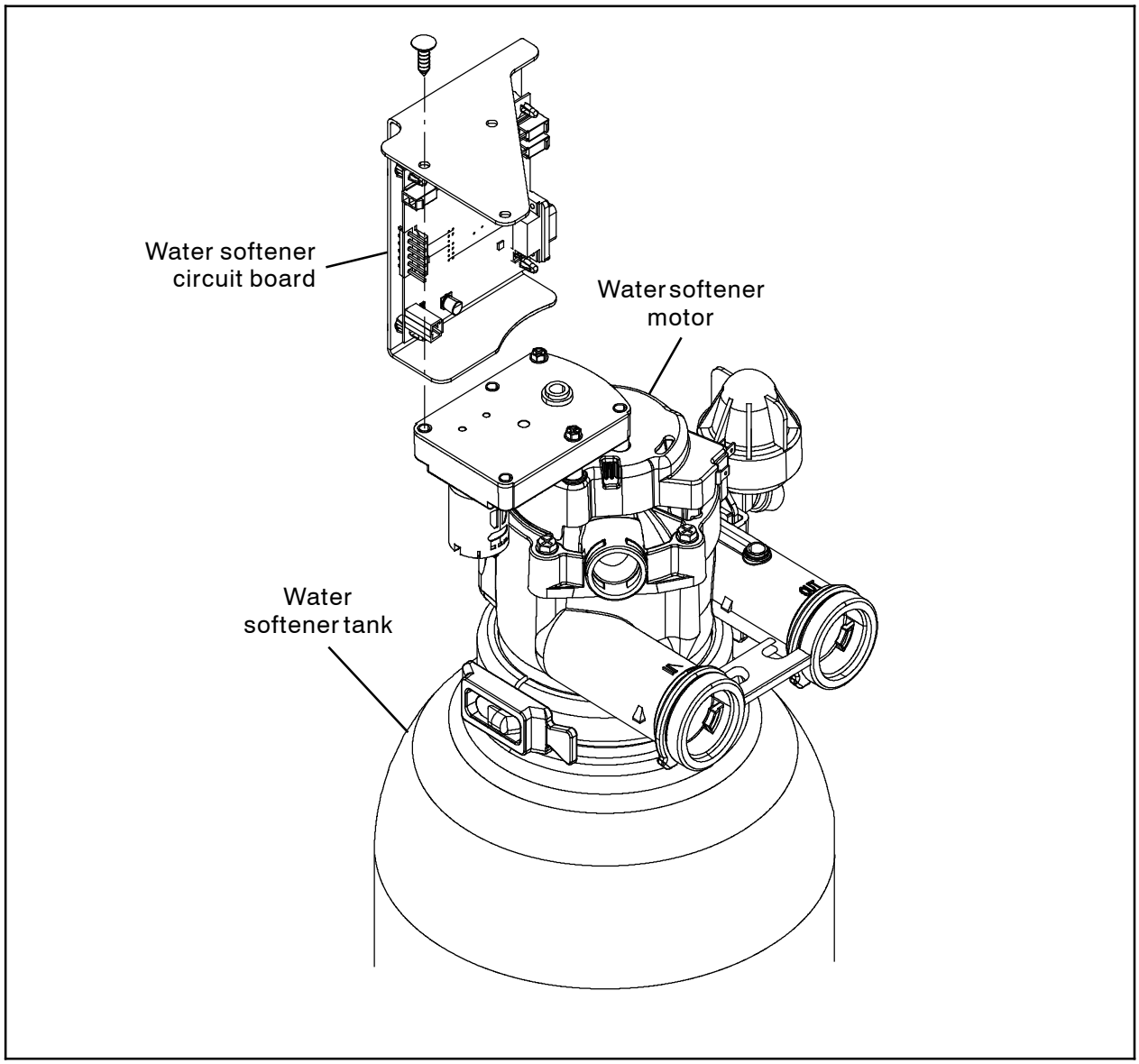


FIG. 34

Bill Of Materials For Pm Kit, Probe Replacement, OS3 (NA) - AS20052

Ref.	Tennant Part No.	Description	Qty.
1	HL20039	Multimicro Directions For Use (USA)	1
2	EC20086	OS3 USB Memory Key, 2gb Fat16 Format	1
3	EC20071	pH Probe, OS3	1
4	DM20101	pH Probe Installation IB	1
5	PV20026	Check Valve, In- Line, 1/4” PP Viton	2

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