



# INSTRUCTION BULLETIN

No. DM20101  
Machine: os3  
Published: 03-2018  
Rev. 04

**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.*

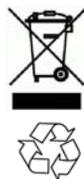
Installation instructions for **kit number AS20052**

## SYNOPSIS:

This kit contains the parts needed to replace the pH probe and dispenser check valves on os3 cleaning solution generators.  
Please follow step-by-step instructions.

**SPECIAL TOOLS / CONSIDERATIONS: Update the USB flash drive (2) with latest software at [www.tennantco.com](http://www.tennantco.com). The USB flash drive must be updated with the latest version of os3 software before the new pH probe (1) can be installed.**

(Estimated time to complete: 45 minutes)



## 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.

Replace the pH probe annually. The machine will not function with an expired pH probe. Order the replacement kit when the remaining progress bar is yellow. Install new pH probe when segment turns red (after one year of operation). (Fig. 1)

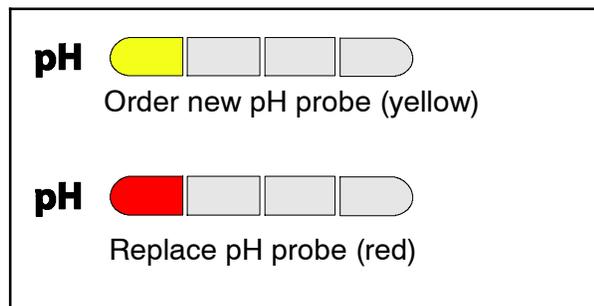


FIG. 1

The machine will not operate and a PRB120 error code will be displayed when the pH probe expires. (Fig. 2)



FIG. 2

Installing a new pH probe will clear this condition. To prevent machine down time replace the pH probe immediately when the last wear indicator segment turns red. This error code can be avoided by replacing the probe during yellow status. (Fig. 1)

## INSTALLATION - pH PROBE:

1. Update the USB memory key (2) with latest software at [www.tennantco.com](http://www.tennantco.com). The USB memory key must be updated with the latest version of os3 software before the new pH probe (1) can be installed.
2. Remove the top cover from the os3 generator. Set the top cover aside. (Fig. 3)



FIG. 3

3. Remove the existing pH probe from the machine and disconnect the main harness from the pH probe. Discard the pH probe. (Fig. 4)

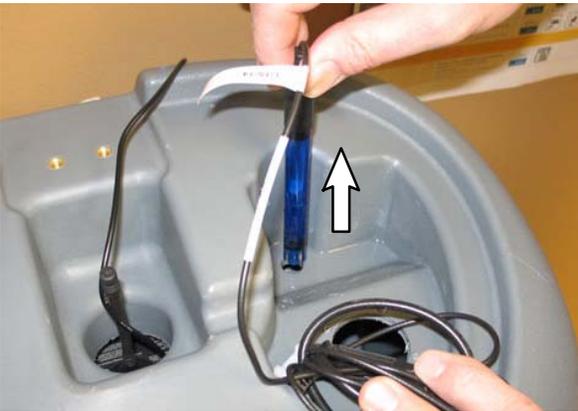


FIG. 4

4. Remove the cap from the new pH probe (1). Discard the cap / contents. (Fig. 5)



FIG. 5

5. Insert the pH probe (1) into the hole near the yellow cap plug in the os3 generator and connect the main harness to the pH probe. (Fig. 6)

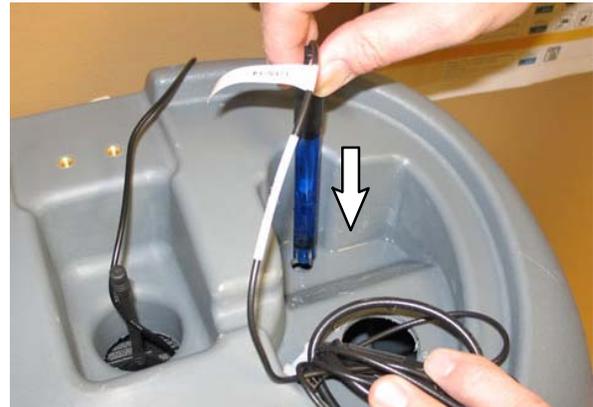


FIG. 6

6. If machine is equipped with the previous model display, use the access key to remove the front access panel from the os3 generator. Set the access panel aside. (Fig. 7)



FIG. 7

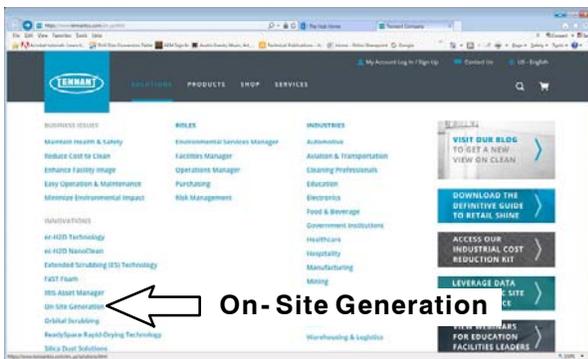
*NOTE: The USB flash drive (2) must be updated with the latest version of os3 software before replacing the pH probe.*

- Open the Tennant web page at [www.tennantco.com](http://www.tennantco.com) and move the cursor over the SOLUTIONS menu. (Fig. 8)

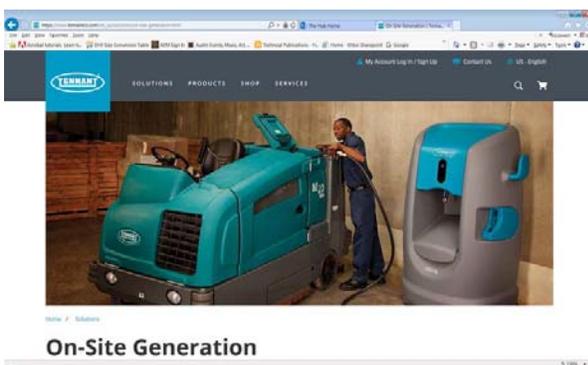


**FIG. 8**

- Select On-Site Generation from the SOLUTIONS menu to open the On-Site Generation page. (Fig. 9 / Fig. 10)

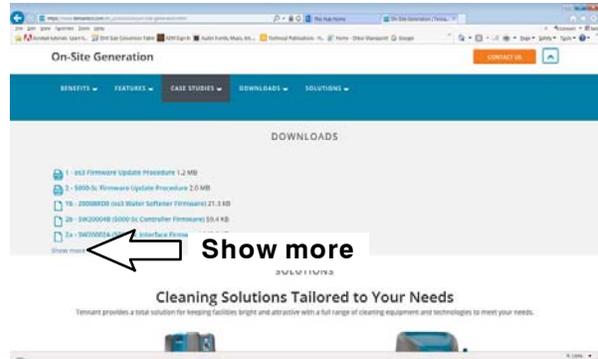


**FIG. 9**



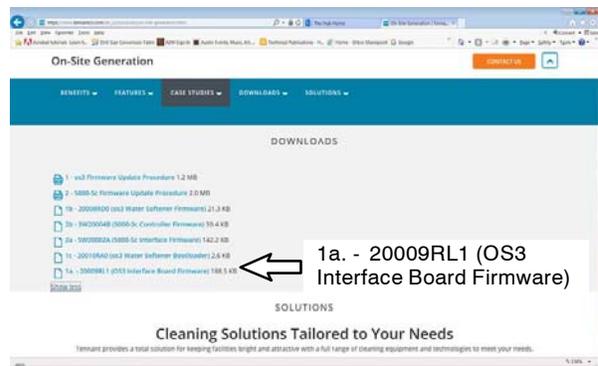
**FIG. 10**

- Scroll down to the DOWNLOADS section and select Show more. (Fig. 11)



**FIG. 11**

- Double click the appropriate firmware download from the expanded list. (Fig. 12)



**FIG. 12**

- Double click the firmware name to download the .zip file to the service computer.
- Extract the updated firmware file from the downloaded .zip file.
- Move the extracted firmware file to the USB flash drive.

14. Insert the USB flash drive (2) into the USB port. The os3 will automatically update the code from the USB memory key. (Fig. 13 / Fig. 14)

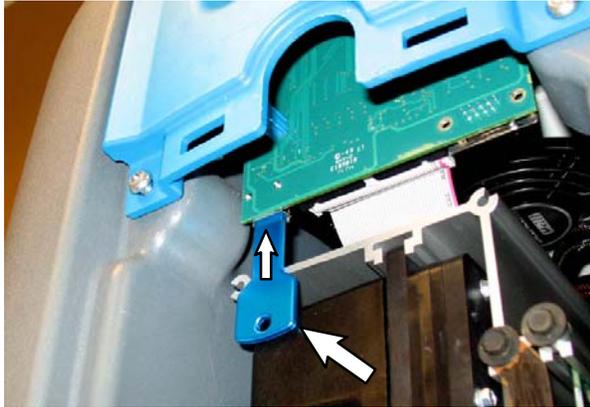


FIG. 13 - Previous Model Display



FIG. 14 - New Model Display

**NOTE:** Do Not use the Orbio Blue USB flash drive on machines equipped with the new model display. The Orbio Blue USB flash drive can only be used on machines with the previous model display. The Orbio Green USB flash drive can be used on either machines with the previous model display or machines with the new model displays. (Fig. 15 / Fig. 16)



FIG. 15 - Orbio Green USB Flash Drive - Can be used on both machines equipped with previous model displays and new model displays



FIG. 16 - Orbio Blue USB Flash Drive - Can only be used on machines equipped with previous model displays. Do Not use on machines equipped with new model displays

15. Press the pH icon located on the touchscreen. (Fig. 17)

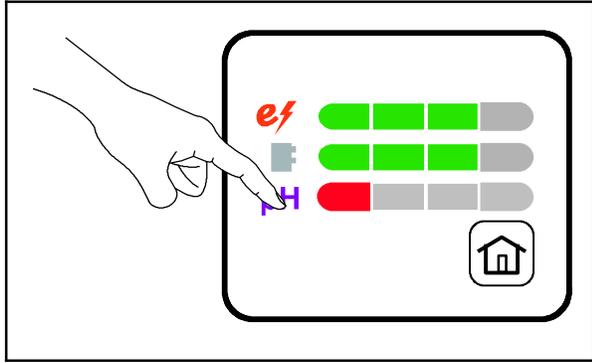


FIG. 17

16. Confirm the new pH probe has been installed. (Fig. 18)

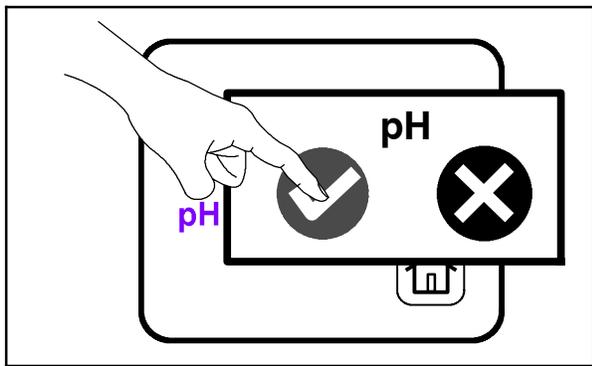


FIG. 18

17. Verify correct installation on the *Wear Component Status Indicator Panel*. All segments on the progress bar will display green, indicating a new pH probe has been installed. (Fig. 19)

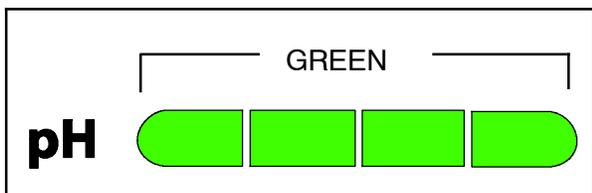


FIG. 19

18. Remove the USB memory key (2) from the USB port.

19. Reinstall the front access panel (if the front access panel was removed) and top cover onto the machine.

**NOTE: Do Not** discard the USB flash drive (2). Save the USB flash drive for later use. The USB flash drive can be used when replacing the e-cell and manifold.

20. Update *MultiMicro Directions for Use* label (3). (Fig. 20)

Place the *MultiMicro Directions for Use* label (3) included with this kit over the existing label if the revision level number on the replacement label is greater than the revision level on the existing label. The label is located on the lower right side of the os3 generator. (Fig. 20)

*Note: This kit may contain more than one MultiMicro Directions for Use labels (3). Select the appropriate label by country.*



FIG. 20

## INSTALLATION - MULTIMICRO DISPENSER CHECK VALVE REPLACEMENT:

1. Disconnect the os3 power cable from the electrical outlet.
2. Turn off the water supply to the os3.
3. If necessary, drain some solution from the system to relieve pressure. Discard drained solution.
4. Press the dispenser handle retainer tabs and remove the dispenser handle from the dispenser. Set the dispenser handle aside. (Fig. 21)



FIG. 21

5. Press the button on top the dispenser and remove the front cover from the dispenser. Set the front cover aside. (Fig. 22)



FIG. 22

6. Remove the check valve assembly / tubes from the dispenser (tube with yellow marker). (Fig. 23)

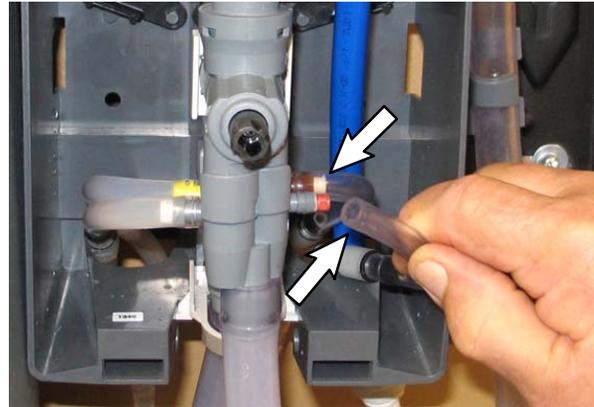


FIG. 23

*Note: If tubes are difficult to remove from the barbs, use a pliers to gently pinch the tubes enough so they stretch out around the barbs. Do not pinch hard enough to damage tubes.*

7. Remove check valve assembly from the dispensing hose. (Fig. 24)

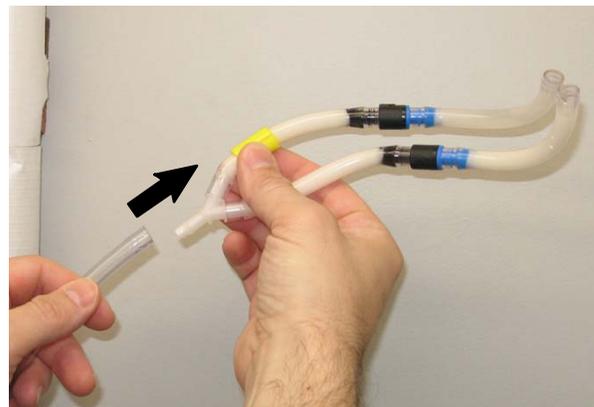
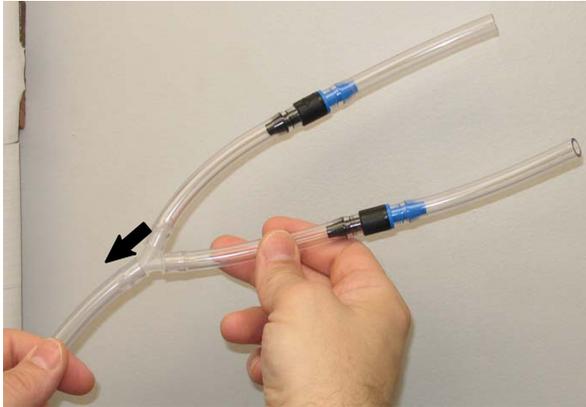


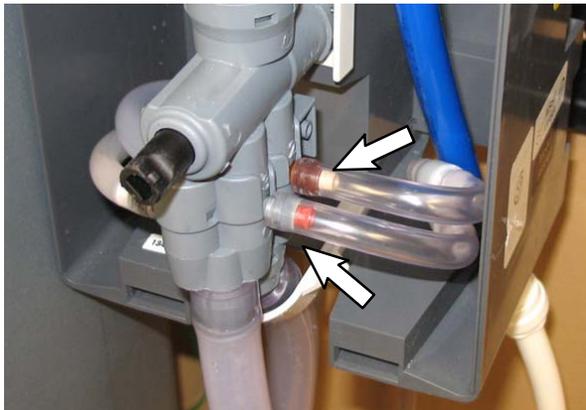
FIG. 24

8. Install the new check valve assembly (4) onto the dispensing hose. (Fig. 25)



**FIG. 25**

9. Push the tubes / check valve assembly (4) into the dispenser and connect the tubes to the dispenser. (Fig. 26)



**FIG. 26**

*Note: Tubes connected to the same check valve assembly (4) can be attached to either barb on the same side of the dispenser.*

10. Reinstall the front cover onto the dispenser.

11. Reinstall the dispenser handle onto the dispenser.

12. Reconnect the os3 power cable to the electrical outlet.

13. Turn on the water supply to the os3.

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**Bill Of Materials For Kit, pH Probe Replacement, os3 (NA) - AS20052**

Ref.	Tennant Part No.	Description	Qty.
1	EC20071	pH Probe, os3	1
2	EC20086	os3 USB Memory Key, 2GB Fat 16 Format, Key Shape Profile	1
3	HL20039	Multimicro Directions For Use (USA)	1
4	AS20153	Assy, Y- fitting, 3/8" Tubing	1

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