



## Pump Module

**WARNING:** this is NOT a Product Manual. All Ventis MX4 users should **download, read, and understand the Product Manual** available online at the Ventis MX4 Resource Center at [www.indsci.com/VentisMX4resources](http://www.indsci.com/VentisMX4resources).

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### MONITOR CONVERSION

*Perform work in a clean air environment that is known to be nonhazardous.*

- To convert a diffusion monitor to an aspirated monitor, only the Extended Range Li-ion or Alkaline battery packs are approved for use.
- To convert an aspirated monitor to a diffusion monitor, a suspender clip, washer, and screw are recommended for use with the Li-ion battery pack. If attaching the Extended Range Li-ion or Alkaline battery packs, the Conversion Kit\* is required.

*\*NOTE: When an Extended Range Li-ion (or Alkaline) battery pack is attached to a diffusion monitor, the monitor's lower portion becomes deeper than its upper portion. The Conversion Kit's suspender clip components are used to make the upper and lower portions depth-compatible. The Conversion Kit provides a battery cover (battery not included), a suspender clip and spacer, and a screw and washer.*

<b>CONVERTING A <u>DIFFUSION</u> MONITOR TO AN ASPIRATED MONITOR.</b>	
<b>Removing the Suspender Clip and Battery Pack.</b>	
1	Power-off the monitor.
2	On the monitor's case bottom (back of the monitor), open the suspender clip.
3	Using a Phillips head screwdriver, remove the screw and washer that attach the suspender clip (and spacer, if applicable) to the monitor. Set aside and store any removed, unused items for future use with a diffusion monitor.
4	Loosen the four captive screws on the lower portion of the case bottom. Lift and remove the battery pack (and cover, if applicable). Set aside and store any removed, unused items for future use with a diffusion monitor.
<b>Assembling the Aspirated Monitor (including battery insertion).</b>	
<i>If inserting the Alkaline battery pack, follow steps 1-10.</i>	
<i>If inserting the Extended Range Li-ion battery pack, follow steps 5-10 ONLY.</i>	
1	To prepare the Alkaline battery pack, unlatch and lift the hinged portion of the battery pack.
2	If needed, remove and set aside any spent batteries from within the pack.
3	Insert new batteries so that their negative contacts are in contact with the springs inside the pack. <b>DO NOT MIX BATTERY TYPES.</b>
4	Close the latch. A click sounds.
5	To properly place the Extended Range Li-ion (or Alkaline) battery pack inside the pump module, complete or observe the following: <ul style="list-style-type: none"> <li>• the battery circuitry is exposed and faces the user;</li> <li>• a small groove at the back of the battery bottom fits over the small rib at the back of the pump module bottom.</li> </ul>
6	Loosen the captive screw on the front of the pump module. Slide the module's door down and lift to open.
7	Place the monitor inside the pump module. The monitor is display side up and its logo readable. Its lower exposed bottom portion covers the battery.
8	Tighten the remaining four screws on the pump module bottom to secure the module to the monitor.
9	Close the pump door; slide up to click in place.
10	Tighten the pump door screw.

<b>CONVERTING AN <u>ASPIRATED</u> MONITOR TO A DIFFUSION MONITOR.</b>	
<b>Removing the Pump Module.</b>	
1	Power-off the monitor.
2	Loosen the four captive screws on the lower portion of the pump module bottom (back of the module).
3	Loosen the single captive screw on the pump module door.
4	Slide the pump door down; lift to reveal and access the monitor.
5	Lift and remove the monitor from the pump module; set aside and store for future use.
<b>Choose <i>OPTION 1</i> or <i>OPTION 2</i> below depending on the battery pack to be attached.</b>	
<b>OPTION 1: Attaching the Li-ion Battery Kit and its Compatible Suspender Clip Components.</b>	
1	To properly place the Li-ion battery kit, align its contacts with the monitor's contacts, at the monitor bottom.
2	To secure the battery kit to the monitor, tighten the four captive screws on the kit bottom.
3	Open the suspender clip.
4	Place the washer on the screw.
5	Insert the screw with washer through the clip's center hole and into the screw hole on the monitor, ensuring the clip's ring is at the top of the case back.
6	Tighten the screw with the service tool or other Phillips screwdriver.
<b>OPTION 2: Attaching the Extended Range Li-ion (or Alkaline) Battery Pack and its Compatible Suspender Clip Components.</b>	
<i>If inserting the Alkaline battery pack, follow steps 1-14.</i>	
<i>If inserting the Extended Range Li-ion battery pack, follow steps 5-14 ONLY.</i>	
1	To prepare the Alkaline battery pack, unlatch and lift the hinged portion of the battery pack.
2	If needed, remove and set aside any spent batteries from within the pack.
3	Insert new batteries so that their negative contacts are in contact with the springs inside the pack. <b>DO NOT MIX BATTERY TYPES.</b>
4	Close the latch. A click sounds.
5	To properly place the Extended Range Li-ion (or Alkaline) battery pack inside the battery cover, ensure: <ul style="list-style-type: none"> <li>• the battery circuitry is exposed and faces the user;</li> <li>• a small groove at the back of the battery bottom fits over the small rib at the back of the pump module bottom.</li> </ul> <p><i>NOTE: each of these two battery packs easily fits within the battery case. If the battery does not easily insert, stop to ensure proper placement as noted above.</i></p>
6	To properly attach the cover containing the Extended Range Li-ion or Alkaline battery pack, ensure the battery contacts are showing at the bottom of the monitor.
7	To secure the battery cover (and its enclosed battery pack) to the monitor, tighten the four captive screws on the battery cover.
8	Place the monitor face down.
9	The spacer for the suspender clip has one flat end. Place the spacer on the monitor's case back so its flat end meets top edge of the battery cover; the hole in the spacer aligns with the screw hole on the monitor.
10	Open the suspender clip.
11	Place the washer on the screw.
12	Insert the screw with washer through the clip's hole and through the center hole on the clip back.
13	Place the clip on top of the spacer, inserting its screw into the spacer's hole and ensuring the clip's ring is at the top of the case back.
14	Grasp the clip and spacer with one hand. With the other hand, tighten the screw with the Phillips screwdriver.