

CLAIMS

1. A catheter assembly comprising:
a catheter;
a needle having a sharp distal tip and disposed within the catheter;
a catheter hub connected to the catheter having the needle passing therethrough; and
a housing attachable to the catheter hub, wherein
an external surface of the catheter hub and an internal surface of the housing each
include at least one of a channel member and a raised portion that interfit to restrict motion
between the catheter hub and the housing.
2. The catheter assembly of claim 1, wherein the internal surface of the housing includes
the raised portion.
3. The catheter assembly of claim 1, wherein a distal end of the raised portion includes a
chamfer.
4. The catheter assembly of claim 1, wherein the raised portion has a thickness, a length
and a depth.
5. The catheter assembly of claim 1, wherein a distal end of the housing includes a
support portion disposed at a substantially opposing side surface of the raised portion.
6. The catheter assembly of claim 5, wherein the support portion and the raised portion
limit movement of the catheter hub and the housing in at least one axis of freedom.
7. The catheter assembly of claim 1, wherein a proximal end of the external surface of
the catheter hub includes the channel member.
8. The catheter assembly of claim 1, wherein the channel member includes a first
channel and a second channel separated by a gap.

9. The catheter assembly of claim 8, wherein the first channel includes a chamfer to aid in engaging the raised portion.
10. The catheter assembly of claim 8, wherein the first channel includes a narrowing portion that gradually tightens an engagement between the channel member and the raised portion.
11. The catheter assembly of claim 1, wherein the channel member has a width, a length and a depth.
12. The catheter assembly of claim 8, wherein the first channel and the second channel each have a width, a length and a depth.
13. The catheter assembly of claim 12, wherein the width of the first channel is substantially equal to the width of the second channel and the depth of the first channel is substantially equal to the depth of the second channel.
14. The catheter assembly of claim 8, wherein the first channel and the second channel limit movement of the catheter hub and the housing in at least one axis of freedom.
15. The catheter assembly of claim 1, wherein
the catheter hub includes luer threads and a collar, and
the channel member and the raised portion do not interfere with operation of the luer threads.
16. The catheter assembly of claim 15, wherein the channel member extends through a portion of the collar or a portion of the luer threads.
17. The catheter assembly of claim 1, wherein the housing is a needle protection member that encloses the sharp distal tip of the needle.

18. The catheter assembly of claim 1, wherein the housing is a needle hub.
19. The catheter assembly of claim 1, wherein the housing is a grip.
20. A catheter assembly comprising:
 - a catheter;
 - a needle having a sharp distal tip disposed within the catheter;
 - a catheter hub connected to the catheter having the needle passing therethrough, the catheter hub including:
 - a valve that selectively permits or blocks a flow of fluid through the catheter;
 - and
 - a valve actuator that moves between a first position and a second position; and
 - a housing attachable to the catheter hub, wherein
 - an external surface of the catheter hub and an internal surface of the housing each include one or more of a channel member and an raised portion that interfit to limit movement between the catheter hub and the housing.
21. The catheter assembly of claim 20, further comprising a return member that returns the valve actuator from the second position to the first position.
22. The catheter assembly of claim 20, wherein the housing is a needle protection member that encloses the sharp distal tip of the needle.