

[1113] Still referring to FIGS. 240A-240B, in some embodiments, in practice, following the filling of the reservoir 908, the filling syringe 6062 may be removed from the filling aid 6004. The fill adapter 6000 remains in the locked position with respect to the disposable housing assembly 6002 (see FIG. 230). In some embodiments, it may be desirable to “prime” the fluid lines in the disposable housing assembly 6002, i.e., to force fluid from the reservoir 908 through the fluid path and through the exit such that air is purged from the fluid path and replaced with fluid. The button assemblies 6031, 6032, 6033, 6034, 6035, 6036, 6037, 6038, of the fill adapter 6000, when actuated by the button assembly actuator 6046, apply pressure onto the reservoir membrane and force fluid out of the reservoir and into the fluid path.

[1114] Referring now also to FIG. 226A, the button assembly actuator 6046 is springedly attached by at least one spring assembly 6092 to the remainder of the filling aid 6000 such that upon force being applied to the button assembly actuator 6046, the button assembly actuator 6046 is depressed into the cavity portion of the filling aid 6000. Upon the disposable housing assembly 6002 being engaged with the filling aid 6000, upon force being applied to the button assembly actuator 6046, the button assembly actuator 6046 is depressed into the cavity portion of the filling aid 6000 and the button assemblies 6031, 6032, 6033, 6034, 6035, 6036, 6037, 6038 interact with the apertures 6039, 6040, 6041, 6042, 6043, 6044, 6045, 6047 on the disposable housing assembly 6002. As force continues to be applied to the button assembly actuator 6046, the disposable housing assembly 6002 will be primed with fluid from the reservoir 908.

[1115] Referring now also to FIGS. 241A and 241B, in some embodiments, the fill adapter 7000 may include “scallop” edges which may be desirable for many reasons, including, but not limited to, ergonomic handling of the fill adapter 7000. Another embodiment of the filling aid 7004 is shown attached to a filling syringe 6062. In some embodiments, the button assembly actuator 7046 may actuate button assemblies 7032, 7034, 7036. In some embodiments, the button assembly actuator 7046 may include a pump chamber plunger 6050, which functions as discussed above with respect to various embodiments where the button assembly actuator 7046 includes a pump chamber plunger 6050. Various embodiments of the fill adapter 7000 may include icons to indicate the direction to rotate the fill adapter 7000 with respect to the disposable housing assembly 6002. For example, in some embodiments, the fill adapter 7000 may include “locked” and/or “unlocked” icons and/or directional “arrows” to indicate the direction rotate the fill adapter 7000 with respect to the disposable housing assembly 6002. In some embodiments of this embodiment of the fill adapter 7000, the fill adapter 7000 may include locking tabs 7052 to lock the fill adapter 7000 to the disposable housing assembly 6002.

[1116] Referring now also to FIG. 242A-242E, in some embodiments, the fill adapter 8000 may include a top portion 8010, including a button assembly actuator 8046 and a catch feature 8008, and a bottom portion 8012, including a locking feature 8006, wherein the top portion 8010 and bottom portion 8012 are hingably connected. The disposable housing assembly 6002 may be inserted between the top portion 8010 and bottom portion 8012 and the top portion 8010 and bottom portion 8012 may move towards one another by

applying force either to one with respect to the other, or to both the top portion 8010 and the bottom portion 8012, such that the fill adapter 8000 is in a closed position. In the closed position, the locking feature 8006 on the bottom portion 8012 interlocks with the catch feature 8008 to maintain the fill adapter 8000 in the closed/locked positions. Once the reservoir has been filled as desired, the button assembly actuator 8046 may be pressed to prime the disposable housing assembly as described herein. In various embodiments, once the filling aid 6004 is attached to the fill adapter 8000 in the closed position, the fill adapter 8000 may not be unlocked/opened as the filling aid interferes with releasing the catch feature 8008. This may be desirable for many reasons, including, but not limited to, preventing the removal of the disposable housing assembly while the filling needle 8014/filling syringe 8062 is engaged with the septum in the reservoir. This may prevent unintentional tearing of the septum or other damage.

[1117] In some embodiments, the fill adapter 8000 may include a foot 8014 which may provide the fill adapter 8000 in an angled position above horizon. This may be desirable/beneficial for many reasons, including, but not limited to, air management and/or holding the fill adapter 8000 at an ergonomic angle for filling by a user.

[1118] The underside of the top portion 8010 of the fill adapter 8000 is shown in FIG. 242D. The underside includes a pump chamber plunger 8050 which works as discussed above with respect to the embodiment shown in FIG. 226A.

[1119] In various embodiments, the fill adapter may be a reusable portion and the filling aid and filling syringe may be disposable/limited (e.g., one time) use portions. In some embodiments, the disposable housing assembly may be packaged with a filling aid and/or with a filling syringe.

[1120] In some embodiments, the fill adapter may be packaged with a predetermined number of filling aids and/or with a predetermined number of filling syringes, e.g., 1 fill adapter packaged with 10 filling aids and 10 disposable housing assemblies. These numbers are examples only, and in various embodiments, the numbers may vary including being higher or lower than the examples given.

[1121] While the principles of the invention have been described herein, it is to be understood by those skilled in the art that this description is made only by way of example and not as a limitation as to the scope of the invention. Other embodiments are contemplated within the scope of the present invention in addition to the exemplary embodiments shown and described herein. Modifications and substitutions by one of ordinary skill in the art are considered to be within the scope of the present invention.

What is claimed is:

1. A filling aid comprising:

- a needle housing portion comprising at least one tab having a starting position and a filling position; and
- a filling needle cradle comprising a filling needle, the filling needle cradle slidably connected to the needle housing portion and having a starting position and a filling position,

wherein when the at least one tab on the needle housing moves from a starting position to a filling position, the filling needle cradle slides from a starting position to a filling position, and