SUMMARY

According to a first aspect of the present invention, there is provided a method of field installing a keying system to a container and a dispensing system, comprising: providing a first key ring that includes a plurality of protrusions, said plurality of protrusions defining a protrusion pattern; providing a second key ring that defines a plurality of pockets, said plurality of pockets defining a pocket pattern that is complementary to said protrusion pattern of said first key ring; and providing a set of instructions on a tangible medium, said instructions comprising: coupling one of said first key ring and said second key ring to a dispense head; coupling the other of said first key ring and said second key ring to a bung of said container, such that the other of said first key ring and said second key ring freely rotates about an exterior of a neck portion of said bung; coupling said dispense head having said one of said first key ring and said second key ring coupled thereto with said bung having the other of said first key ring and said second key ring coupled thereto, so that said protrusion pattern is engaged within said pocket pattern; and coupling said dispense head to said bung.

According to a second aspect of the present invention, there is provided a method of field installing a keying system to a container and a dispensing system, comprising: providing a first key ring that includes a plurality of protrusions, said plurality of protrusions defining a protrusion pattern; providing a second key ring that defines a plurality of pockets, said plurality of pockets defining a pocket pattern that is complementary to said protrusion pattern of said first key ring; coupling one of said first key ring and said second key ring to a dispense head; coupling the other of said first key ring and said second key ring to a bung of said container, such that the other of said first key ring and said second key ring freely rotates about an exterior of a neck portion of said bung; coupling said dispense head having said one of said first key ring and said second key ring coupled thereto with said bung having the other of said first key ring and said second key ring coupled thereto, so that said protrusion pattern is engaged within said pocket pattern; and coupling said dispense head to said bung.

According to a third aspect of the present invention, there is provided a field installation kit for keying a container and a dispensing system, comprising: a first key ring that includes a plurality of protrusions, said plurality of protrusions defining a protrusion pattern; and a second key ring that defines a plurality of pockets, said plurality of pockets defining a pocket pattern that is complementary to said protrusion pattern of said first key ring, said protrusion pattern being configured to mesh within said pocket pattern, wherein

one of said first key ring and said second key ring is adapted for coupling with a dispense head, the other of said first key ring and said second key ring is adapted for coupling with a bung of said container, the other of said first key ring and said second key ring being configured to freely rotate about an exterior of a neck portion of said bung.

Various embodiments disclosed herein include a two-part key code device that can be field installed or otherwise added to existing container and dispense stations. The key code ring can be coupled to the outside neck of the container connection in a non-wetted area. The existing dispense head can then be modified to include the new code ring that mates with the container ring.

The two-part retrofit system enables current connection systems to incorporate a barrier key code connection capable of thousands of unique, specific key code combinations to promote safety. In some embodiments, the components are all plastic and non-wetted, and include snap-on assembly. The container ring that rotate with the dispense head while engaging the head, and does not interfere with existing closures.

Structurally, various disclosed embodiments are of a field installation kit for keying a container and a dispensing system, the kit comprising a first key ring that includes a plurality of protrusions, the plurality of protrusions defining a protrusion pattern. A second key ring can define a plurality of pockets, the plurality of pockets defining a pocket pattern that is complementary to the protrusion pattern of the first key ring, the protrusion pattern being configured to mesh within the pocket pattern. One of the first key ring and the second key ring is adapted for coupling with a dispense head, whereas the other of the first key ring and the second key ring is adapted for coupling with a bung of the container. The other of the first key ring and the second key ring can be configured to freely rotate about an exterior of a neck portion of the bung.

In one embodiment, the first key ring is an inner key ring and the second key ring is an outer key ring, the inner key ring being surrounded by the outer key ring when the protrusion pattern is engaged within the pocket pattern. The outer key ring can include a flange portion that extends radially inward from a perimeter portion to define an inner radius. Also, the bung can include external threads that define an outer radius, the outer radius being greater than the inner radius of the flange portion. The flange portion can include structure that defines a plurality of slots that extend radially outward from the inner radius.