

The Knox FDC Lock protects Fire Department Connections (FDC) from theft, vandalism, debris, and thread damage - ensuring connections are available when needed. It is designed for ease-of-use when installing or removing the lock from a fire department connection (FDC). Fire personnel properly equipped with a Knox FDC Wrench™ can quickly remove the locking cap. In the event of debris or ice build-up, a small flathead screwdriver or similar tool can quickly remove any foreign matter.



### KNOX FDC LOCK IDENTIFICATION

Each Knox FDC Lock has a model number and may be serialized.

### INSTALLATION



**1** Remove the warning tag. Check for and remove debris from the coupling threads and inside the pipe before locking. If necessary, flush system.



**2** The caps are shipped in the fully locked position. Using the Knox FDC Wrench turn the locking bolt counterclockwise until it stops to ensure it is fully unlocked.



**3** Place the FDC Lock into the coupling and hand turn clockwise until no threads are showing. Do not use a spanner wrench. Hand tighten **ONLY**.



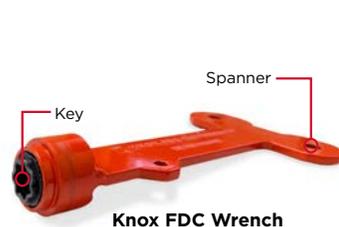
**4** Tighten the lock bolt clockwise with the Knox FDC Wrench until a hard stop is felt. Try an additional half-turn to ensure the lock bolt is tight.

### REMOVAL

1. Inspect locking bolt head and remove any debris.
2. Use the Knox FDC Wrench to turn the locking bolt head counterclockwise until fully unlocked (FDC Wrench will stop).
3. Use the pin holes on the Knox FDC Wrench to unscrew the Knox FDC Lock from the connection.
4. If the locking bolt is completely loosened and the lock will not release, use the spanner end of the FDC Wrench to engage the pins on the face of the Knox FDC Lock and unscrew counterclockwise (as shown below).

**INSTALLATION NOTES:**

- For the Swivel-Guard model, line up locks on swivel with cut outs in the swivel guard ring, then spin swivel to thread the Knox FDC Lock into the connection.
- The Knox FDC Lock should easily thread into connection coupling (loose fit). If the Knox FDC Lock thread binds, remove and check threads for damage or incorrect size.



**CAUTION:**

Knox FDC Locks are not designed to function as pressure seal plugs for wet systems. If the check valve upstream is defective and leaks water, the water will go through the FDC Lock to show leakage. The defective check valve must be replaced or repaired to stop the leak.

When backflushing your FDC system for clean out, remove all Knox FDC Locks to provide proper system purging.

Knox FDC locks should be inspected at least annually, by a qualified inspector.

### FDC BRASS ADAPTER INSTALLATION

Theft of items containing materials such as copper and brass are a growing problem for property owners and firefighters. Knox recommends taking the following steps to ensure the entire FDC assembly is permanently secured to the pipe thread on the building to reduce risk of theft and vandalism of the housing and pipe.

This procedure involves installing one or more 5/16"- 18 Allen set screws and a special permanent adhesive to secure the FDC Brass adapter to the pipe thread on the building.



- 1 Use a letter F drill bit to drill a hole entirely through the brass adapter lip, approximately 1/2" from lip edge. One hole provides extra security. Three holes spaced 120° apart will provide better security.



- 2 Tap threads in the holes using a 5/16"- 18 thread tap.



- 3 Clean pipe threads thoroughly with solvent and wire brush. Dry completely. For adhesive to work properly, pipe threads need to be free of grease and oil.



- 4 Apply PermaBond<sup>®</sup> HM162 to threads on both the adapter and pipe. Thoroughly and thinly coat the threads.



- 5 Tighten and position FDC brass adapter on pipe.



- 6 Use 1/4" drill bit to spot drill through the set screw holes in adapter and into pipe approximately 1/16" deep.

**Do not drill too deep and pierce pipe.**

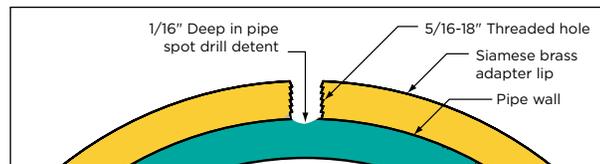


- 7 Clean drill holes of debris then place a small amount of remaining PermaBond HM162 in hole and on set screws; install set screws and firmly secure with a 5/32" Allen wrench.



- 8 After set screws have been secured, insert a ball bearing slightly larger than the Allen hole into the screwhead and use a punch to hammer into place. Fill the screwhead with a permanent epoxy material. This will virtually eliminate removal attempts.

Adapter Lip



**NOTE:**

To minimize potential pipe thefts, attach a clamp on the backside of install wall.