



**PRIMELOCK® FITTING  
HANDHELD INSERTION TOOL**

*Insert installation instructions  
for 1/4," 3/8," 1/2," 3/4," 1," 1 1/4" and 1 1/2" sizes*

**INSTRUCTIONS FOR**

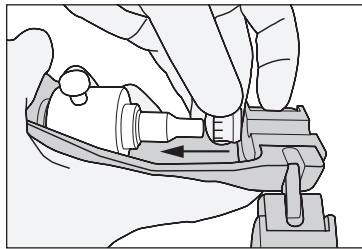
**PrimeLock® Fitting**

**Note:** Verify the mandrel is fully retracted by rotating the handle counterclockwise until it stops.

Verify the correct size mandrel and clamp inserts are installed for the desired tube size. Refer to the table on page 4.

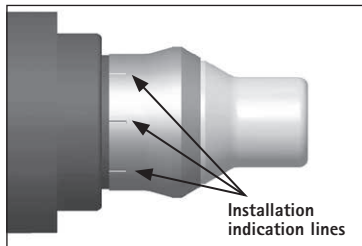
**Note:** The mandrel is removed by pulling the retaining pin and sliding it off the tool.

1. Slide the insert onto the mandrel as shown.

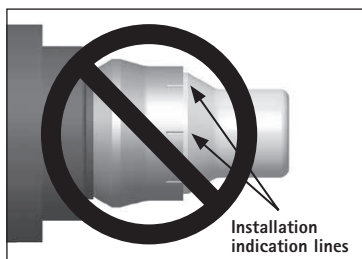


2. Verify the insert has been properly placed onto the mandrel. The installation indication lines on the insert are closest to the shoulder of the mandrel.

For 1/4" insert installation, the insert does not have installation indication lines and can be installed in either direction.

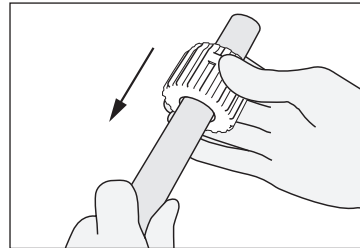


*Correct installation of insert*

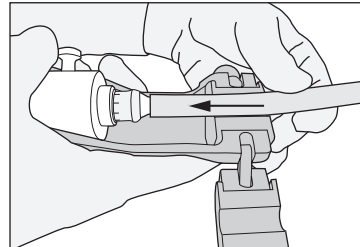


*Incorrect installation of insert*

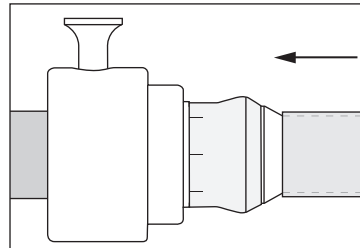
3. Insert the cut end of the tubing through the PrimeLock nut.



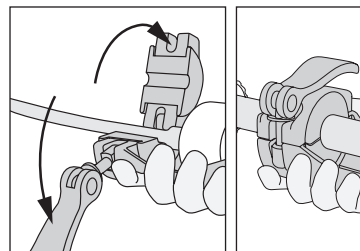
4. Place the tubing assembly into the clamp.



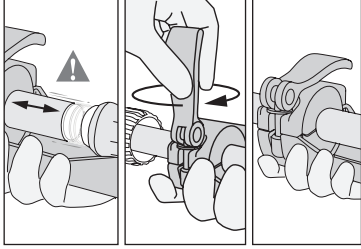
5. Slide the tube onto the mandrel until it stops.



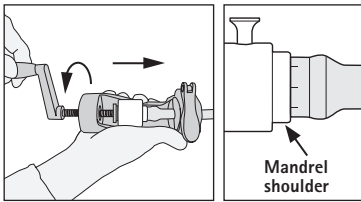
6. Clamp the tube in place.



7. If the tubing is not held firmly, readjust the clamping mechanisms to increase the tube clamping force.



8. Rotate the handle clockwise, driving the insert into the tube until the tube contacts the mandrel shoulder.



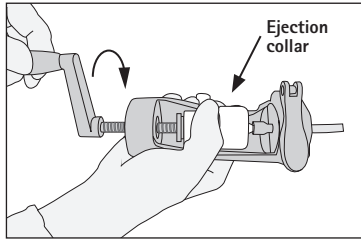
9. For 3/8" to 1 1/2" sizes, rotate the handle in a counterclockwise direction until the mandrel is free from the tube assembly. Unclamp the tube.

**1/4" INSTALLATION ONLY:**

**CAUTION:** Failure to follow 1/4" insert instructions may result in the insert remaining on the mandrel after installation.

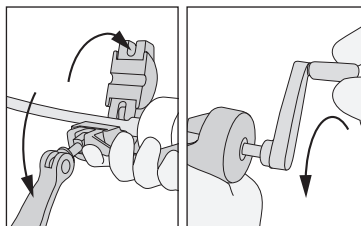
10. For 1/4" insert installation, there are two methods to properly eject the mandrel from the tube assembly. See steps 10a or 10b and 10c.

- 10a. Hold the ejection collar while rotating the handle in a counterclockwise direction until the mandrel is free from the tube assembly.

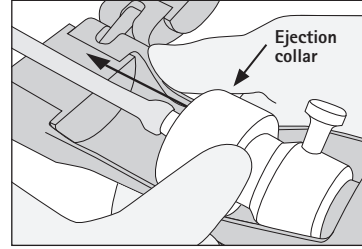


**OR**

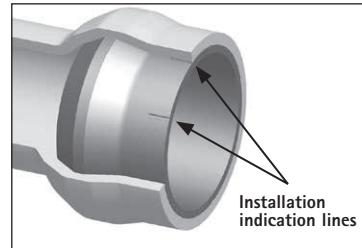
- 10b. Unclamp the tube, and then rotate the handle in a counterclockwise direction.



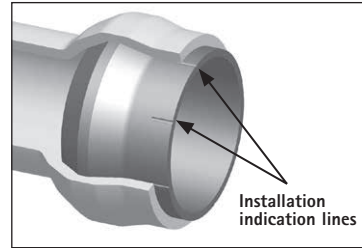
- 10c. Push the ejection collar forward until the tube assembly is ejected from the mandrel.



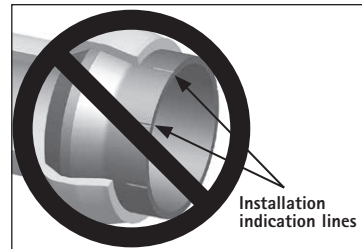
11. Verify the insert has been properly installed into the end of the tube. The insert has molded indication lines for gauging proper installation in the tube. For correct installation, the tubing will cover all or at least a portion of the indication lines. The insert does not need to be pushed fully into the tube.



*Correct installation of insert*

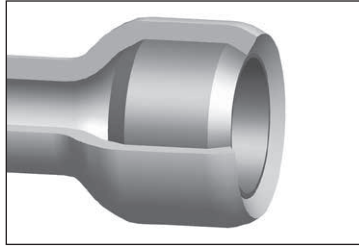


*Correct installation of insert*

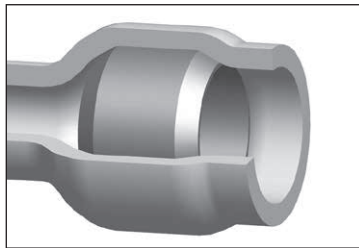


*Incorrect installation of insert*

For 1/4" insert installation, the insert must be pressed entirely into the tube, at a minimum flush with the end of the tube or until the tube contacts the mandrel shoulder.



Correct installation of insert

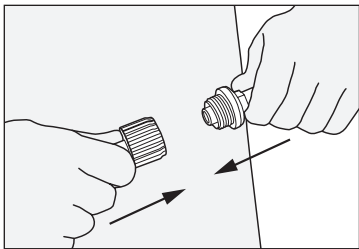


Correct installation of insert

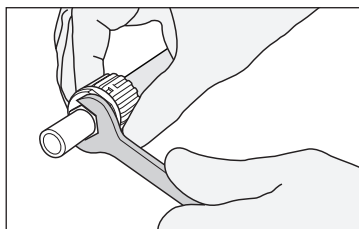


Incorrect installation of insert

12. Slide the tubing assembly onto the fitting.

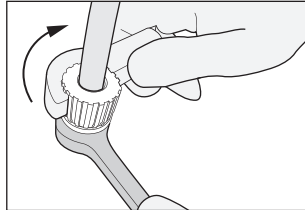


13. Start by hand-tightening the nut.

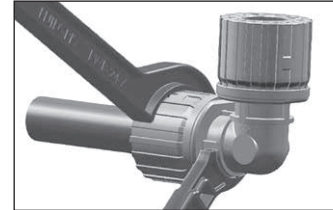


14. Place the PrimeLock wrench over the ribs of the fitting nut and rotate clockwise. Tighten the nut until the connection verification ring creates an audible click or the leading edge of the nut travels under the connection verification ring.

**Note:** Do not overtighten to the point where the nut bottoms out on the fitting body.

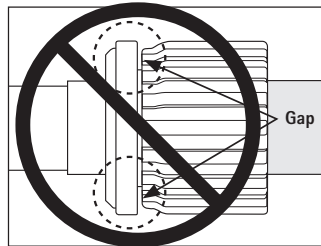


1" - 1 1/4" sizes

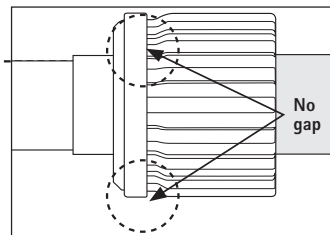


1/2" size

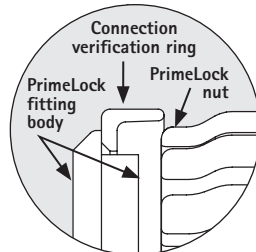
15. If there is excessive background noise, the connection can be verified by looking at the position of the connection verification ring relative to the nut.



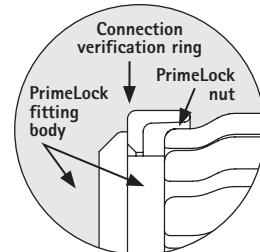
Incorrect tightening of the fitting – additional tightening required



Correct tightening of the fitting



Initial tightening of the fitting – nut travels underneath connection verification ring



Maximum tightening limit – nut bottoms out on the fitting body



**CAUTION:** Do not retighten the fitting while the fitting assembly is above 30°C (86°F) or in a pressurized condition.

When reassembling the fitting, tighten the nut beyond the initial tightening position.

## PRIMELOCK INSERT INSTALLATION TOOLS

Part Number	Description	Tubing Size
PHND-TOOL	Handheld tool	1/4" – 1"
PHND-TOOL-L2	Handheld tool	1 1/4", 1 1/2"
PMND-4	Mandrel	1/4"
PMND-6	Mandrel	3/8"
PMND-8	Mandrel	1/2"
PMND-12	Mandrel	3/4"
PMND-16	Mandrel	1"
PMND-20	Mandrel	1 1/4"
PMND-24	Mandrel	1 1/2"
PMND-KIT	Mandrel – set*	1/4" – 1"
PMND-6-B	Mandrel – directional sleeve**	3/8"
PMND-8-B	Mandrel – directional sleeve**	1/2"
PMND-12-B	Mandrel – directional sleeve**	3/4"
PMND-16-B	Mandrel – directional sleeve**	1"
PMND-20-B	Mandrel – directional sleeve**	1 1/4"
PMND-24-B	Mandrel – directional sleeve**	1 1/2"
PMND-KIT-B	Mandrel – directional sleeve** – set*	3/8" – 1"
PCLMP-4	Clamp insert	1/4"
PCLMP-6	Clamp insert	3/8"
PCLMP-8	Clamp insert	1/2"
PCLMP-12	Clamp insert	3/4"
PCLMP-16	Clamp insert	1"
PCLMP-20	Clamp insert	1 1/4"
PCLMP-24	Clamp insert	1 1/2"
PCLMP-KIT	Clamp insert – set*	1/4" – 1"

\*Kit does not include 1/4" or 1 1/2" sizes, part numbers sold separately.

\*\*Prevents backwards installation of insert.

\*\*\*Eliminates clamp marks on tubing.

\*\*\*\*Two PWR-24-A or PWR-24-B or combination thereof are required to assemble 1 1/2" size fittings.

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Part Number	Description	Tubing Size
PCLMP-4-R	Clamp insert – EPDM-lined***	1/4"
PCLMP-6-R	Clamp insert – EPDM-lined***	3/8"
PCLMP-8-R	Clamp insert – EPDM-lined***	1/2"
PCLMP-12-R	Clamp insert – EPDM-lined***	3/4"
PCLMP-16-R	Clamp insert – EPDM-lined***	1"
PCLMP-20-R	Clamp insert – EPDM-lined***	1 1/4"
PCLMP-24-R	Clamp insert – EPDM-lined***	1 1/2"
PCLMP-R-KIT	Clamp insert – EPDM-lined*** – set*	1/4" – 1"
PWR-4	Wrench	1/4"
PWR-6	Wrench	3/8"
PWR-8	Wrench	1/2"
PWR-12	Wrench	3/4"
PWR-16	Wrench	1"
PWR-20	Wrench	1 1/4"
PWR-24-A****	Wrench	1 1/2"
PWR-24-B****	Wrench	1 1/2"
PWR-24-SET	Wrench – PWR-24-A and PWR-24-B	1 1/2"
PWR-KIT	Wrench – set	1/4" – 1 1/2"

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