



ACMPlus - Housing and End Cap Assembly Procedure

1.0 PURPOSE:

This document provides detailed instructions on how to properly seal an ACMPlus after opening up the instrument to change batteries. Failure to properly seal the Instrument can cause water infiltration that can destroy the electronics.

2.0 MATERIALS:

Housing:

ACMPlus-200:



ACMPlus-7000:



End Cap (Vel Head):

ACMPlus-200:



ACMPlus-700:



DWG No.: AN2013001	Rev - Initial Revision
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Tools:

1/2" box end wrench(s)



1/2" nut driver (optional)



vise grips (optional)



or channel locks (optional)



3.0 Procedure

- Perform any necessary tasks that need to be done within the housing, for example, installing, replacing, or removing a battery pack.
- If a battery is being installed, place the battery in the housing and connect the in-line connector



- There are two gaskets in the end cap: Face Gasket and Piston Gasket



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- Inspect end cap gaskets: Make sure that these O-ring gaskets are free of nicks or scratches.
Replace the O-rings if any problems are present. If replacing, first clean the O-ring groove on the end cap with a lint-free cloth or paper towel. Then lightly lubricate the new O-ring with silicone grease and install.
- Inspect & prepare the housing's internal surface where the piston gasket seals and also the housing's flange where the face gasket seals.
Clean these surfaces with a lint free cloth or paper towel, then apply a thin coat of silicone grease to the surfaces that the gaskets will contact.
- Place End Cap into Housing until you feel resistance, make sure end cap is level



- Press end cap into housing until flanges mate. You will encounter some back pressure, which may cause the end cap to pop back up, if this occurs push it back down again until it seats and stays in place.



- **ACMPlus-200 Procedure:**
- Place the clamp around the flanges. You may have to stretch the clamp open to initially get it over the flanges.
 - you may need to slightly bend clamp outwards to fit around flanges
 - do not bend too far, avoid deforming the clamp



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- If you can, squeeze clamp around flanges with your left hand, place bolt in clamp, secure head of bolt with left thumb, and with right hand, place and secure nut on threaded end of bolt. This method is tricky as the clamp wants to push outward.
- Alternative method is as follows
 - squeeze clamp around flanges with left hand
 - use channel locks or vise grips to keep clamp closed enough to place bolt through.
 - hand tighten nut on bolt
- At this point, you are ready to tighten down the nut, but first visually inspect that the flanges are still mated and that the clamp is properly in place



- Using 1/2" box wrench and 1/2" nut driver (or 2nd 1/2" wrench), tighten the nut down fully. If properly tightened, you see at least 9/16" of the bolt thread extending past the nut if you are using the bolt shipped with the instrument.



- If you cannot tighten down that far, the flanges on the housing and end cap may not be sealed properly, remove bolt, nut, and clamp and inspect flanges to see if they mate. Then re-install clamp and tighten down properly.
- Visually Inspect your work

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- **ACMPlus-7000 Procedure:**
- Place Voss clamp around the flanges



- Tighten nut on the end of Voss clamp



- Place Zinc Anode on exposed threaded bolt on Voss Clamp
- Visually Inspect your work

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
-	Initial Revision	02/14/2013	JHW