



## 2004 Product Catalog

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# BLADDER CARE INSTRUCTIONS

## BLADDER REPLACEMENT ACCUMULATOR PRECHARGING ACCUMULATOR PRECHARGE MAINTENANCE ACCUMULATOR COMMISSIONING

(For 3000, 4000, 5000, 6000 and 6500-psi Accumulators)

(Does not apply to Gas Bottles, Transfer Barrier and Float Accumulators and AccuMights)

### **WARNING: NEVER USE OXYGEN OR SHOP AIR!**

**This can be extremely dangerous and will void your warranty**

- ✓ Precharge with **DRY NITROGEN (N<sub>2</sub>) GAS ONLY!**
- ✓ Never operate accumulator without nitrogen gas precharge.
- ✓ Release all system *hydraulic* pressure before attempting any maintenance or service.
- ✓ Use only genuine ACC INC approved charging and gauging equipment for precharging and pressure check.
- ✓ Follow all instructions below.
- ✓ Wear proper eye protection
- ✓ Wear steel toed shoes
- ✓ Take proper safety precautions

*NOTE: All bladders are shipped from the factory with no precharge. Most accumulators are shipped with just minimal pressure. It is the responsibility of the user to determine the proper precharge level and to insure that that pressure is maintained at all times. In general precharge should equal 30% to 80% of the maximum system pressure.*

## BLADDER REPLACEMENT- REMOVAL

1. Turn off your system (equipment), release all pressure.
2. Remove gas protective cap and valve cap from accumulator.
3. Install genuine ACC INC approved charging and gauging assembly on gas valve stem. Attach the air chuck to the accumulator bladder gas valve by hand tightening its swivel hex connection. For Top-Repairable models use a TR Valve Extension (AI-TR-015)
4. **For 3000 psi accumulators.** Turn the air chuck " T " handle clockwise until it stops. This opens the valve core. **For 4000 psi and higher accumulators.** Open the valve by turning its top (small) hex nut, counter-clockwise.
5. Bleed off all nitrogen gas by opening up the bleed valve completely. (For 4000 psi or higher accumulators, the gas valve must also be opened)
6. Remove the gauging device from gas valve stem.
7. Release any remaining gas pressure from accumulator. (For a 3000-psi accumulator, remove the valve core from gas stem using core tool. For 4000-psi or higher accumulators, open the gas valve fully, then remove gas valve)

### **WARNING. HIGH PRESSURE GAS IS DANGEROUS!**

**Wear proper eye protection. Take proper safety precautions**

8. Remove accumulator from system.
9. Remove hex jam nut and nameplate.
10. Remove lock nut from bottom of unit using spanner wrench.
11. Remove spacer and rings.
12. Push the plug assembly into the accumulator and through the Anti-Extrusion ring, remove AE ring by folding it and pulling it through the hole.
13. Remove plug assembly.
14. Pull the old bladder out of the bottom of the accumulator.

## BLADDER REPLACEMENT- INSTALLATION

1. Remove the valve core on a 3000-psi accumulator or the gas valve on a 4000-psi or higher accumulator from the new bladder. Squeeze all the air out. Replace the valve core or gas valve. Unfold bladder completely.
2. Reinstall the valve core or gas valve
3. Lubricate the bladder and shell with system fluid
4. Attach a bladder pull rod to the bladder by carefully threading over the Schrader connection. Stick the rod through the accumulator (bottom to top). Pull bladder through. Do not allow the bladder to bind or kink.
5. Remove the pull rod
6. Attach the nameplate and hex nut to the exposed gas valve stem. Hand tighten
7. Push the plug assembly, then anti-extrusion ring into the accumulator.

### **Caution: DO NOT BEND OR FOLD THE BLADDER!**

This can cause the bladder to burst

8. Pull the plug assembly through the anti-extrusion ring. Seat ring in hole, metal side down.
9. Install a NEW metal back up washer, NEW O-ring. (Be careful not to pinch the O-ring), NEW rubber back up ring, spacer, and lock nut (hand tighten).
10. Precharge the accumulator (See Instructions below).
11. Tighten hex jam nut making sure the gas valve stem does not rotate
12. Tighten locknut on fluid end.

## PRECHARGING INSTRUCTIONS

### ➤ **If the accumulator is already installed on a system**

1. Pump a small amount of system fluid (10% of accumulator capacity) into the accumulator, at low pressure. (Do not exceed 35 psi)
2. Turn off all power to the system and release all hydraulic pressure from the accumulator.

### ➤ **If accumulator is not yet installed:**

1. Place a small amount of fluid (10% of accumulator capacity) into the accumulator. Lubricate as much of the bladder surface area as possible.
2. Remove the protective cap (gas valve guard) and the valve cap (if there is one).
3. Attach the gland & nut portion of the charging assembly (CGA-580 for 3000 psi accumulators, CGA-677 for 4000 psi and higher) to a dry nitrogen gas bottle, tighten securely. If the gland & nut do not fit, you are using the wrong gas or wrong pressure!
4. Attach the air chuck to the accumulator bladder gas valve by hand tightening its swivel hex connection. For Top-Repairable models use a TR Valve Extension (AI-TR-015)
5. **For 3000 psi accumulators.** Turn the air chuck " T " handle clockwise until it stops. This opens the valve core. **For 4000 psi and higher accumulators.** Open the valve by turning its top (small) hex nut, counter-clockwise.
6. Set nitrogen bottle gas regulator (if attached) to 35 psig. (The use of a nitrogen gas regulator is strongly recommended!)
7. Open nitrogen bottle gas valve. (If you are not using a nitrogen gas regulator, care should be taken to slowly "crack" the valve open.) With a regulator, valve can be opened fully.
8. Pre-charge slowly (35 psig) using dry nitrogen gas, until bladder is fully inflated.

### **Caution: INITIAL PRECHARGING AT A FLOW RATE ABOVE 35 PSIG WILL CAUSE THE BLADDER TO BURST**

Make sure to precharge to minimum of 30% of operating pressure

9. Continue pre-charging to desired pressure by increasing gas flow slowly.
10. **For 3000 psi accumulators.** Turn the air chuck " T " handle COUNTER-clockwise until it stops. This CLOSES the valve core. **For 4000 psi and higher accumulators.** CLOSE the valve by turning its top (small) hex nut, clockwise.
11. Remove the charging assembly. Check for gas leakage. (The use of gas leak detection fluid or soapy water is recommended.)
12. Tighten hex jam nut and lock nut fully.
13. Replace the valve cap, protective cap and ACC INC nameplate). Tighten, hand tight.
14. Install accumulator on system. **CHECK FOR LEAKAGE.**
15. Pressurize system. Operate.

**FAILURE TO FOLLOW PROPER SERVICE AND INSTALLATION INSTRUCTIONS  
WILL VOID ACC INC PRODUCT WARRANTY**

**Caution: PRECHARGE MAINTENANCE**

For cycling applications check the precharge weekly. For non-cycling applications, monthly.  
 You will normally lose some gas, over time, due to Permeance.  
 A more rapid loss may indicate a gas valve problem

1. Release system pressure. **Not gas pre-charge.**
2. Remove gas protective cap (valve guard) and valve cap.
3. Install gauging device on gas valve stem.
4. For 3000-psi accumulators, screw down air chuck " T " handle, check pressure. For 4000 psi and higher, open gas valve hex fitting (do not loosen from bladder). Check pressure
5. Add additional **dry nitrogen gas** if necessary, using the above procedures.
6. To release excess nitrogen gas (if any) open up bleeder valve, located at bottom of gauging device, until desired pressure is achieved.

**NEW ACCUMULATOR COMMISSIONING**

Prior to operating a new accumulator on any system a few common sense steps should be taken

1. A qualified Fluid Power specialist should review the accumulator's application for correct sizing, pressure, cycling, connections, placement and efficiency.
2. Carefully remove the accumulator from the factory packaging, read and understand all factory labels, stickers, tags and nameplates attached to the accumulator and the packaging.
3. Read and understand any written factory instructions accompanying the accumulator
4. If the accumulator is part of a third party OEM system, read and understand all of their labeling and instructions
5. All the steps listed in **Accumulator Precharging** (above) should be followed.
6. The proper training of your accumulator maintenance personnel is recommended
7. Consult the factory or your local Accumulators, Inc. Authorized representative, with any questions.

**GAS SAFETY CAP**

The ACC INC yellow plastic safety cap, located at the top of the protective cap, is designed to "blow-off" if there is a valve stem gas leak. If cap is missing, check pre-charge immediately!

**CHARGING & GAUGING RECOMMENDED ACCESSORIES**

Item Description	ACC INC Part Number	Pressure
Basic Maintenance Kit	AI-TKITB	3000 psig
Standard Maintenance Kit	AI-TKIT	3000 psig
Deluxe Maintenance Kit	AI-TKIT1	3000-6500
Charging & Gauging 3kpsi Kit 3000 psig gauge	AI-CG3-000-SS	3000 psig
Charging & Gauging 3kpsi Kit 6000 psig gauge	AI-CG6-000-SS	3000 psig
Charging & Gauging 6kpsi Kit 6000 psig gauge	AI-CG6-550-SS	3000- 6500 psig
Bladder Pull Rod	AI-501 (1 Quart, 1 gallon)	all
	AI-502 (2.5 gal, 5 gal)	all
	AI-503 (10 gal, 11 gal)	all
	AI-504 (15 gal)	all
Valve Core Tool	AI-506	3000 psi
Spanner Wrench	AI-505	all
Lifting Hook Assembly	AI-511	all
Charging valve extension	AI-TR-015	All TR units



## Bladder Storage

1. Bladders are shipped in sealed UV protective black bags. Store bladders in these bags until needed .
2. The cartons in which the bladders were shipped are designed to prolong the storage life of the bladders. Keep the bladders in these boxes until the bladders are needed in service.
3. Keep the tops of the cartons sealed at all times. After removing some of the bladders, reseal the carton.  
\* By keeping the carton and bag closed, ozone attack from sunlight and artificial lighting will be prevented.
4. Keep the bladder storage area away from sunlight, ultraviolet light, or other ozone producing items, if possible.
5. Optimum storage conditions for bladders are in a dark, cool (72 F) clean room.
6. Rotate your bladder inventory.

## Bladder Failure: The Most Common Causes (non-warranty damage)

### **1. PROBLEM: STAR BURST ( AT BOTTOM OF BLADDER)**

**Cause 1:** Excessively rapid precharging causes bladder to freeze and burst, or extrude through plug orifice before poppet can close.

**Solution:** Always use an approved nitrogen gas regulator for precharging.

**Cause 2:** Low Fluid temperature causes bladder to become brittle.

**Solution:** Use a low temperature bladder.

**Cause 3:** Lack of lubrication on the bladder causes excessive stretching

**Solution 3:** Always lubricate bladder prior to use. Use fluids with good lubricity. Use a water service accumulator for water based or low lubricity fluids.

### **2. PROBLEM: STAR BURST (6" TO 8" FROM BOTTOM OF BLADDER)**

**Cause 1:** Folding of bladder bottom during replacement causes it to be pinned against shell wall. Bladder cannot stretch to close the poppet and it bursts.

**Solution 1:** Never fold bladder when repairing unit.

### **3. PROBLEM: POPPET CUT ( AT BOTTOM OF BLADDER)**

**Cause 1:** Excessive flow rate causes bladder to extrude down through plug before poppet can close.

**Solution:** Use a High Flow Accumulator or multiple units of Standard Accumulators

**Cause 2:** Poppet does not close all the way, which causes the bladder to extrude.

**Solution:** Inspect plug and poppet assembly for damage, corrosion, or debris. Replace as needed.

**Cause 3:** Bottom of bladder has hardened due to the reduction of plasticizers from the elastomer , which is caused by excessive heat or chemical degradation.

**Solution 3:** Use a Viton or other bladder

### **4. PROBLEM: PICK-OUT ( PIN HOLE NEAR TOP OF BLADDER)**

**Cause:** Operation of the Accumulator with little or no precharge allows fluid pressure to force bladder to extrude into gas valve.

**Solution:** Always operate accumulator with proper nitrogen gas precharge. Check precharge often

### **5. PROBLEM: BUBBLES, BLISTERS OR RUBBER FLAKING ON BLADDER SURFACE OR BURNT SMELL**

**Cause:** Incompatible fluid, or excessive temperature.

**Solution:** Refer to rubber compatibility chart and Temperature chart for correct elastomer compounds.

### **6. PROBLEM: TEARING OF BLADDER AROUND GAS VALVE STEM**

**Cause:** Twisting of gas valve stem during replacement.

**Solution:** When tightening gas valve hex jam nut, use a second wrench to keep gas valve from twisting. Do not use excessive torque.

### **7. PROBLEM: GROOVES OR HOLES ON BLADDER SURFACE**

**Cause:** Fluid contamination causes foreign debris entrapment between bladder and shell during cycling.

**Solution:** Use clean fluid and proper filtration.



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### **8. PROBLEM: RUBBER HAS BECOME BRITTLE CAUSING CRACKS OR FLAKES**

**Cause:** Excessive heat can cause the bladder to re-cure or harden due to the reduction of plasticizers from the elastomer.

**Solution:** Use a Viton or other bladder and/or install heat exchanger in system. Do not use or store units in hot environment or in direct sunlight.

### **9. PROBLEM: RUBBER IS BRITTLE IN COLD WEATHER SERVICE**

**Solution:** Use a low temperature bladder.

### **10. PROBLEM: HAIRLINE CRACKS ON BLADDER SURFACE**

**Cause:** Improper storage. Sunlight, fluorescent light, heat, dust and cold can cause bladder to weather check.

**Solution:** Store bladder in black bags provided with Accumulators, Inc. bladder kits. Store in 65-75 degree F. dark room.

### **11. PROBLEM: STRETCHING**

**Cause:** Bottom of bladder has a small poppet mark indicating bladder has stretched due to adherence to wall from insufficient lubrication

**Solution:** Use a fluid with more lubricity.

**Solution:** Use a water service accumulator with a coated interior.

### **12. PROBLEM: SET MARKS ON BLADDER CAUSED ADHERENCE TO SHELL WALL**

**Cause 1:** After precharging, bladder was not cycled for an extended time period

**Solution:** Do not precharge bladder until just prior to service

**Cause 2:** Prior to precharging, bladder was not properly lubricated

**Solution:** Lubricate the bladder and shell prior to precharge

**The following causes account for 75% of all bladder warranty claims:**

### **13. PROBLEM: SHARP CUT ON BLADDER SURFACE**

**Cause:** Razor blade or knife used in customer's receiving department.

**Solution:** Open bladder kits carefully!

### **14. PROBLEM: BROKEN VALVE CORE**

**Cause:** Excessive torque used to install valve core.

**Solution:** Order replacement valve core.

### **15. PROBLEM: BROKEN OR DAMAGED GAS VALVE STEM OR THREADS**

**Cause:** Excessive torque used to install gas charging valve (air chuck).

**Solution:** Hand tighten gas-charging valve during precharge.

### **16. PROBLEM: FLUID INSIDE OF BLADDER**

**Cause:** There is a hole somewhere in the bladder.

**Solution:** Replace bladder.

### **17. PROBLEM: EXCESSIVE WEAR**

**Cause:** Improper accumulator sizing.

**Solution:** Contact Accumulators, Inc. technical staff for recommendations.

### **18. PROBLEM: GAS VALVE STEM CORROSION**

**Solution:** Order special service type bladders.

This list covers only the most common causes of non-warranty failure. Our in-house QC department, as well as our molders and chemists, have collected a wealth of experience in bladder analysis. There is often additional evidence and factors that can contribute to an evaluation. Most bladder failures are caused by a combination of factors, usually from the list above.

In general, bladder problems can be alleviated by proper sizing, correct compatibility and temperature evaluation, good hydraulic design, proper installation, appropriate precharging, good lubrication, and periodic maintenance. Accumulators Inc. does not warrant systems or fitness for purpose. A qualified fluid power specialist should review all application



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## **IMPORTANT SAFETY WARNING**

**ALWAYS PRECHARGE ACCUMULATOR WITH DRY NITROGEN GAS (N<sub>2</sub>) ONLY**

**ALWAYS USE GENUINE ACCUMULATORS, INC. REPLACEMENT PARTS AND ACCESSORIES. ACCUMULATORS, INC. FULLY WARRANTS ALL ACCUMULATORS, PARTS, AND ACCESSORIES TO BE FREE OF ANY MATERIAL OR ASSEMBLY DEFECTS. SEE PRODUCT WARRANTY FOR ALL DETAILS.**

**Caution: OPERATION OF ACCUMULATOR WITHOUT SUFFICIENT PRE-CHARGE (MINIMUM OF 30% OF MAXIMUM WORKING PRESSURE) CAN CAUSE BLADDER "PICK-OUT"**

***Most units are shipped with only 35 psig precharge. You must add additional precharge before operation***

## **Valve Stem Repair**

### **19. PROBLEM: Gas valve is leaking gas**

Dirt may get into the gas valve stem keeping the valve core from sealing.

1. Turn off all system pressure, bleed fluid pressure from accumulator.
2. Bleed gas precharge pressure from accumulator
3. Remove valve core and throw it away
4. Using an approved valve core tool, clean the valve stem internal threads. ( Do not use the tapered threads).
5. Remove the tool.
6. Using shop air or nitrogen, blow out the cleaned stem.
7. Replace the valve core with a new one.
8. Precharge using Dry nitrogen only. Follow instructions above.
9. Check for leakage using soapy water.
10. If leakage continues replace the gas valve stem.

## **Accumulator Special Orders**

**Accumulators, Inc. manufactures a wide range of special accumulators and bladders that can be adapted to most customer applications.**

**Units can be made with many different types of gas and fluid valves with a wide pressure range. Many special materials and coatings are available. Special configurations are no problem.**

**Accumulators, Inc. can help you design your special parts. Were specialists in specials!**



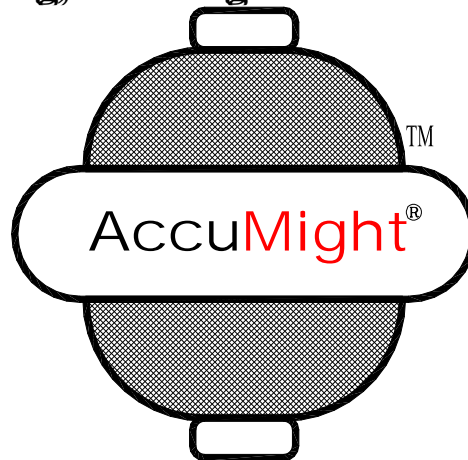
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## AccuMight® Operating, Precharge and Commissioning Instructions



(For 3000, 4000, 5000-psi AccuMights)

(Does not apply to Accumulators, Gas Bottles, Transfer Barrier and Float Accumulators)

**WARNING: NEVER USE OXYGEN OR SHOP AIR!**  
This can be extremely dangerous and will void your warranty!

- ✓ Precharge with **DRY NITROGEN (N<sub>2</sub>) GAS ONLY!**
- ✓ Never operate AccuMight without nitrogen gas precharge.
- ✓ Release all system *hydraulic* pressure before attempting any maintenance or service.
- ✓ Use only genuine ACC INC approved charging and gauging equipment for precharging and pressure check.
- ✓ Follow all instructions below.
- ✓ Wear proper eye protection
- ✓ Wear steel toed shoes
- ✓ Take proper safety precautions

*NOTE: Most AccuMights are shipped with just minimal pressure (35 psig). It is the responsibility of the user to determine the proper precharge level and to insure that that pressure is maintained at all times. In general, precharge should equal 30% to 80% of the maximum system pressure.*

**WARNING. HIGH PRESSURE GAS IS DANGEROUS!**  
Wear proper eye protection! Take proper safety precautions!

### AccuMight Bladder Removal

1. Turn off your system (equipment), release all hydraulic or fluid pressure.
2. Remove gas protective cap (2) and valve cap(3) from AccuMight.
3. Install genuine ACC INC approved charging and gauging assembly on gas valve stem. Attach the air chuck to the AccuMight bladder gas valve by hand tightening its swivel hex connection.
4. **For 3000 psi AccuMights.** Turn the air chuck " T " handle clockwise until it stops. This opens the valve core. **For 4000 psi and higher AccuMights.** Open the valve by turning its top (small) hex nut, counter-clockwise.
5. Bleed off all nitrogen gas by opening up the bleed valve completely. (For 4000 psi or higher AccuMights, the gas valve must also be opened)
6. Remove the gauging device from gas valve stem.
7. Release any remaining gas pressure from AccuMight. (For a 3000-psi AccuMight, remove the valve core(4) from gas stem(5) using core tool (AI-506). For 4000-psi or higher AccuMight, open the gas valve fully, then remove gas valve
8. Remove AccuMight from system.
9. Unscrew the upper portion of the AccuMight using a band wrench and a vise. (AM60 has a removable screw cap(7) )
10. Remove bladder(9or10) carefully making sure o-rings (if any) and back-up rings (if any) are removed. Please note the configuration of the components. (Different models have different configurations)



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11. Thoroughly clean the interior of the shell sections paying particular attention to the seat area..

### AccuMight Bladder Installation

1. We recommend that a new gas valve(5), new o-ring(6) and/or a new valve core(4) be installed.
2. Lubricate the AccuMight bladder and shell with system fluid.
3. Apply a small amount of compatible grease on the new o-ring, new bladder "lip" and shell seat area.
4. Carefully insert new bladder making sure the "seat" is properly aligned
5. Attach the two shell sections
6. Hand-tighten the sections, making sure the bladder and o-ring are correctly seated and are not "pinched".
7. Tighten fully using a band wrench and vise.
8. Precharge the AccuMight (See Instructions below).
9. Reinstall the unit on the system

### AccuMight Precharging Instructions

#### If the AccuMight is already installed on a system

1. Pump a small amount of system fluid (10% of AccuMight capacity) into the AccuMight, at low pressure. (Do not exceed 35 psi)
2. Turn off all power to the system and release all hydraulic pressure from the AccuMight.

#### If AccuMight is not yet installed:

3. Turn unit upside down (Fluid-end up). Place a small amount of fluid (10% of AccuMight capacity) into the AccuMight. Lubricate as much of the AccuMight bladder surface area as possible.
4. Remove the protective cap(2) and the valve cap(3) (if there is one).
5. Attach the gland & nut portion (CGA-580 for 3000 psi accumulators, CGA-677 for 4000 psi and higher) of the charging assembly to a dry nitrogen gas bottle, tighten securely. If the gland & nut do not fit, you are using the wrong gas or wrong pressure!
6. Attach the air chuck to the AccuMight bladder gas valve by hand tightening its swivel hex connection.
7. **For 3000 psi** AccuMight, Turn the air chuck " T " handle clockwise until it stops. This opens the valve core. **For 4000 psi and higher** AccuMight open the valve by turning its top (small) hex nut, counter-clockwise.
8. Set nitrogen bottle gas regulator (if attached) to 35 psig. (The use of a nitrogen gas regulator is strongly recommended!)
9. Open nitrogen bottle gas valve. (If you are not using a nitrogen gas regulator, care should be taken to slowly "crack" the valve open.) With a regulator, valve can be opened fully.
10. Pre-charge slowly (35 psig) using dry nitrogen gas, until the AccuMight bladder is fully inflated.

**Caution: INITIAL PRECHARGING AT A FLOW RATE ABOVE 35 PSIG WILL CAUSE THE BLADDER TO BURST**

Make sure to precharge to minimum of 10% of operating pressure

11. Continue pre-charging to desired pressure by increasing gas flow slowly.
12. **For 3000 psi** AccuMights, Turn the air chuck " T " handle COUNTER-clockwise until it stops. This CLOSSES the valve core. **For 4000 psi and higher** AccuMights CLOSE the valve by turning its top (small) hex nut, clockwise.
13. Remove the charging assembly. Check for gas leakage. (The use of gas leak detection fluid or soapy water is recommended.)
14. Replace the valve cap, protective cap). Tighten, hand tight.
15. Install AccuMight on system. CHECK FOR LEAKAGE.
16. Pressurize system. Operate.

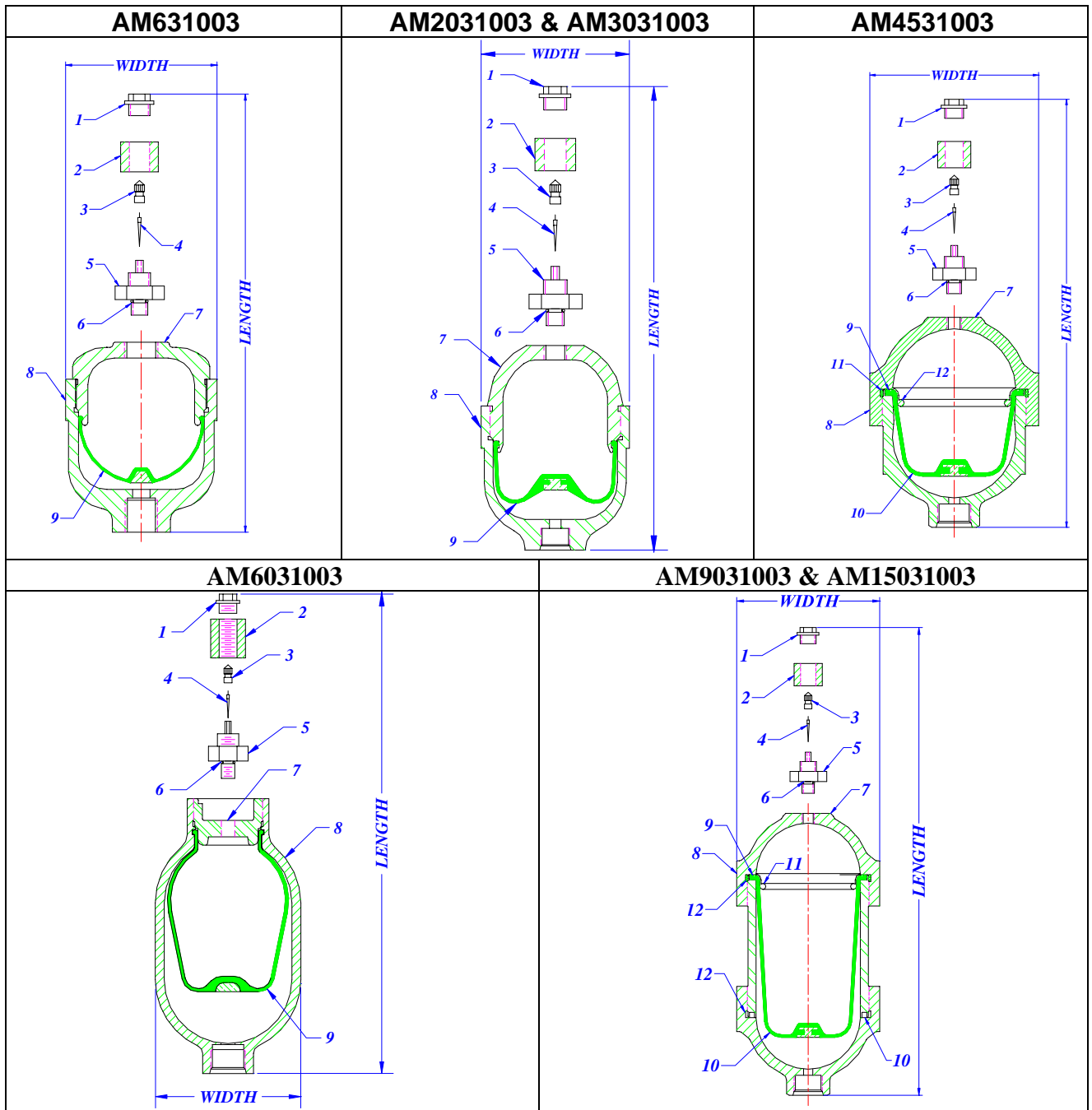
**FAILURE TO FOLLOW PROPER SERVICE AND INSTALLATION INSTRUCTIONS  
MAY VOID ACC INC PRODUCT WARRANTY**

### AccuMight Commissioning

Prior to operating a new AccuMight on any system a few common sense steps should be taken

- A qualified Fluid Power specialist should review the AccuMight's application for correct sizing, pressure, cycling, connections, placement and efficiency.
  - Carefully remove the AccuMight from the factory packaging, read and understand all factory labels, stickers, tags and nameplates attached to the AccuMight and the packaging.
  - Read and understand any written factory instructions accompanying the AccuMight
  - If the AccuMight is part of a third party OEM system, read and understand all of their labeling and instructions
  - All the steps listed in **AccuMight Precharging** (above) should be followed.
  - The proper training of your AccuMight maintenance personnel is recommended
- Consult the factory or your local Accumulators, Inc. Authorized representative, with any questions**





Size	3000 psi	Length	Width	Fluid Port	Gas Port
6 ci	AM631003	5.4	3.0	3/4"-16 UNF	.305-32 UNEF
20 ci	AM2031003	6.2	3.8	3/4"-16 UNF	"
30 ci	AM3031003	6.9	4.5	3/4"-16 UNF	"
45 ci	AM4531003	7.2	5.4	1 1/16"-12 UNF	"
60 ci	AM6031003	9.0	4.6	1 1/16"-12 UNF	"
90 ci	AM9031003	11.4	5.4	1 1/16"-12 UNF	"
150 ci	AM15031003	17.4	5.4	1 1/16"-12 UNF	"



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## AccuMight Precharge Maintenance

For cycling applications check the precharge weekly. For non-cycling applications, monthly  
 You will normally lose some gas over time due to Permeance.  
 A more rapid loss may indicate a gas valve problem

1. Release system pressure. Not gas pre-charge.
2. Remove gas protective cap (valve guard) and valve cap.
3. Install gauging device on gas valve stem.
4. For 3000-psi accumulators, screw down air chuck " T " handle, check pressure. For 4000 psi and higher, open gas valve hex fitting (do not loosen from bladder). Check pressure
5. Add additional **dry nitrogen gas** if necessary, using the above procedures.
6. To release excess nitrogen gas (if any) open up bleeder valve, located at bottom of gauging device, until desired pressure is achieved.

## AccuMight Charging and Gauging Accessories

Item Description	ACC INC Part Number	Pressure
Basic Maintenance Kit	AI-TKITB	3000 psig
Standard Maintenance Kit	AI-TKIT	3000 psig
Deluxe Maintenance Kit	AI-TKIT1	3000-6500
Charging & Gauging 3kpsi Kit 3000 psig gauge	AI-CG3-000-SS	3000 psig
Charging & Gauging 3kpsi Kit 6000 psig gauge	AI-CG6-000-SS	3000 psig
Charging & Gauging 6kpsi Kit 6000 psig gauge	AI-CG6-550-SS	3000- 6500 psig
Valve Core Tool	AI-506	3000 psi

## AccuMight Replacement Parts

Part Description	Part Number	Part Description	Part Number
<b>Component List</b>			
Safety Cap	AI-1QT-308	Gas Valve O-Ring	AM-310
Protective cap	AI-1QT-306	Large O-Ring (45,90,150)	AM-410-B
Valve cap	AI-1QT-303	Small O-Ring (90,150)	AM-410-C
Valve Core	AI-S-304	Teflon Ring (45,90,150)	AM-411
Gas Valve	AM-309	Metal Ring (45,90,150)	AM-412
<b>Mounting Hardware</b>			
90-150 U-Bolt	AM-507-KIT	30-150 Base	AM-512
30-150 Collar	AM-507-KIT	Rubber Insert	AM-513

## AccuMight Series Repairable Diaphragm Accumulators *The OEM Solution*