

# UX Series

## Nitrogen Gas Spring Repair Instructions

**CAUTION: Always wear safety goggles when performing any maintenance work.**

### I. Exhausting Pressure

**Self-Contained Mode**

- When exhausting pressure, position the gas spring with the port up for safety.
- Remove the Protective Screw, (90.505.110 or 90.607.110). Retain parts for use during reassembly.
- Keeping face and hands clear of the port, use the Valve Bleed Tool, (90.360.4), or Port Servicing Tool, (90.320.8), to depress the Compact Valve stem, (90.260), or Cartridge Valve, (90.265). Cover the port with a cloth to absorb discharge.
- After all of the gas pressure is exhausted, be sure that the piston rod will freely retract into the tube manually. If not, try depressing the valve again. If still unsuccessful **stop** and contact DADCO.

**Linked Mode**

- Exhaust nitrogen gas by opening the bleed valve on the control panel.
- Verify that all pressure is relieved by manually retracting the piston rod into the tube. If the rod will not fully retract release the remaining pressure. If still unsuccessful **stop** and contact DADCO.
- Unthread the service fitting and wipe with a clean cloth. Proceed to 1I. Port Maintenance" *Linked Mode* step 1I.

**Self-Contained Mode**

- Generally the valve does not need replacing. Only if the valve appears damaged, is leaking pressure or sticking proceed to step 2S, otherwise leave the valve undisturbed and proceed to "III. C-Ring Removal."
- Remove the Compact Valve, (90.260), or Cartridge Valve, (90.265), by unscrewing it with the Port Servicing Tool, (90.320.8).

### III. C-Ring Removal

**Linked Mode**

- Stand the gas spring upright. Place a removal sleeve, (90.340.x), longer than the cartridge assembly is slightly below the retaining ring groove.
- Reposition the DADCO C-Ring Removal Sleeve and only continue tapping until the rod catches over (90.356 or 90.355). Position the hooked end of the tool below the c-ring. For best results locate the tool near either end of the c-ring.
- Remove the C-style Retaining Ring, (90.285.x), using a C-Ring Removal Tool, (90.356 or 90.355). Position the hooked end of the tool below the c-ring. For best results locate the tool near either end of the c-ring. For a detailed explanation of c-ring removal see bulletin B15127A.
- Once the hooked end of the tool is firmly seated below the c-ring, begin pushing it toward the outside of the gas spring can. The handles will close naturally, and the c-ring will be extracted as you complete this motion. Pull the entire assembly out of the tube. The spring body can be held in a vise (with soft jaws) while pulling out the assembly.

**Self-Contained Mode**

- To remove the Rod and Cartridge Assembly select the proper common rod end service thread (M6, M8 or M10) and thread the T-Handle (90.320.M) into the rod end. Pull the entire assembly out of the tube. The spring body can be held in a vise (with soft jaws) while pulling out the assembly.
- Once the cartridge and rod are removed from the Tube Assembly slide the cartridge off the rod and discard. Retain the rod for inspection and reuse. Based on the model you are repairing proceed to "V. Inspection and Cleaning;" Step 1A, 1B, or 1C.

### V. Inspection & Cleaning

**UX.0800 – UX.4600**  
Strokes up to 125 mm

**UX.6600 – UX.9600**  
Strokes up to 125 mm

**UX.0800 – UX.9600**  
Strokes 150 mm and above

1A. Inspect the Rod and Spacer for wear. UX.0800 – UX.4600 models with stroke lengths up to 125 mm have a black or white spacer. There is a split designed into the spacer. If there are any additional splits, cracks or excessive wear then the spacer needs to be replaced. Contact DADCO for more information.

1B. Inspect the Rod and Spacer for wear. UX.6600 – UX.9600 models with stroke lengths up to 125 mm have a black or white spacer. There is a split designed into the spacer. If there are any additional splits, cracks or excessive wear then the spacer needs to be replaced. Contact DADCO for more information.

1C. Inspect the Rod and Rod Collar/Dampener for wear. For UX.0800 – UX.9600 models with stroke lengths 150 mm and above, the collar/dampener is black and looks like a series of loops. If there are any splits, cracks or excessive wear then the collar needs to be replaced. To verify the condition, measure the Rod Collar/Dampener height and refer to the chart for the A measurement. If the height is out of tolerance Contact DADCO for repair or replacement. If only the wear band is damaged, it may be replaced. Contact DADCO for replacement part.

Model	A
0800	47.25 ±0.02 1.860
1000	44.4 1.749
1600	39.4 1.551
2600	55.6 2.189
4600	64.8 2.551
6600	78.8 3.102
9600	86.75 3.416
20000	65.0 2.559

2. Lightly polish the rod surface with an emery cloth (600 grit). Inspect the finish of the rod for any scratches or gouges. If the rod is damaged it must be replaced.

3. Thread the Tube Assembly for any damage, especially around the mouth of the Tube Assembly. Lightly polish out any scratches at the mouth of the Tube Assembly to avoid damaging seals during the reassembly process. If damage to the Tube Assembly is severe it must be replaced. Wash, clean and dry the inside thoroughly.

1. Choose the appropriate repair kit. The repair kit number needed is laser marked on the back of the Tube Assembly. **NOTE:** Repair kits are not interchangeable among models.

2. Thread Assembly Cone (90.331.x) from Cartridge Starter Kit (90.335.x) onto the rod. Slide Cartridge Assembly over the Assembly Cone, making sure that the wiper end marked "TOP" is facing up. Place Cartridge Assembly Cap (90.330.x) from Cartridge Starter Kit (90.335.x) on top of Cartridge Assembly.

3A. While holding the cartridge, vertically tap the Assembly Cap to drive the cartridge down the rod. Be careful not to force the cartridge at an angle as the seal could become damaged.

3B. The cartridge is now below the Assembly Cone. Remove Assembly Cone from the rod.

\* UX.20000 has a different construction; contact DADCO for assistance.

### VII. Charging

**NOTE: For best results, use the DADCO Charging Assembly which has a shut-off valve and Quick Disconnect at the end of the hose.**

**Self-Contained Mode**

- Thread the Quick Disconnect Filler Valve, (90.310.143 or 90.310.111), into the port of the gas spring. Connect the female end of the charging assembly to the charging nipple. The DADCO Pressure Analyzer, (90.315.5), can also be used for charging, discharging and gauging pressure in self contained gas springs.
- Attach Charging Assembly (90.310.040) to the quick disconnect filler valve on the control panel.
- Open the main valve on the nitrogen tank. Set the desired charging pressure on the regulator. Do not exceed the maximum charging pressure of 150 bar (2175 psi).
- Slowly open the shut-off valve at the end of the charging hose and allow the gas spring to reach the desired charging pressure.

**Linked Mode**

- Pipe all gas springs back to the control panel, making sure that all connections are tight and that gas spring rods are extended.
- Attach Charging Assembly (90.310.040) to the quick disconnect filler valve on the control panel.
- Open the main valve on the nitrogen tank. Set the desired charging pressure on the regulator. Do not exceed the maximum charging pressure of 150 bar (2175 psi).
- Slowly open the shut-off valve at the end of the charging hose and allow the gas spring to reach the desired charging pressure.

### VIII. Adjusting Gas Spring Pressure

### X. Linked Systems

**Self-Contained Mode**

- Install the new Dust Cover, (90.246.U.x). Tap with a soft mallet until the top of the Dust Cover rests flush with the top of the can. The rod wiper should be visible.
- To increase the spring pressure, thread the Quick Disconnect Filler Valve, (90.310.143 or 90.310.111), into the port, set the regulator to the desired pressure and fill. DADCO's Pressure Analyzer, (90.315.5), may also be used to adjust pressure.
- To decrease the gas spring pressure, depress the valve stem using a DADCO Valve Bleed Tool, (90.360.4), or a DADCO Pressure Analyzer, (90.315.5).

**Self-Contained or Linked**

After testing all springs for leaks, the open-flow springs are ready to be re-linked in the system. If possible, once the springs are all linked back to the control panel, leave the system to sit fully charged overnight. If pressure has dropped indicating a leak verify that each connection is tight and test each fitting for a leak.

Contact DADCO for information on converting a self-contained DADCO Nitrogen Gas Spring to a linked system.

**NOTE:** DADCO UUK/UH/UT/UX Series Nitrogen Gas Springs should not be linked with the valve installed.

5. After the spring has been charged to the desired pressure, CLOSE THE HOSE SHUT-OFF VALVE AND TANK SHUT-OFF VALVE. Disconnect the charging assembly from the charging nipple. The small amount of nitrogen trapped between the shut-off valve and filler valve will bleed off as you disconnect the fitting.

6. Check for leaks at the top of the tube around the rod and at the base around the valve compartment by using mineral oil or water to test for leaks. Verify the pressure of self-contained spring models 2600-6600 with a DADCO Load Cell using a DADCO Portable Test Stand, (90.305.3), or an arbor press. Verify the pressure of self-contained spring models 9600 and 20000 using a DADCO Load Cell and an arbor press.

7S. Verify the pressure with a DADCO Load Cell using a Portable Test Stand (90.305.3) or an arbor press. **NOTE:** If spring is linked mode, then a DADCO Pressure Analyzer, (90.315.5), may be used to verify pressure and must remain in place during testing.

8S. Securely re-install the Protective Screw, (90.505.110 or 90.607.110).

9. Install the new Dust Cover, (90.246.U.x). Tap with a soft mallet until the top of the Dust Cover rests flush with the top of the can. The rod wiper should be visible.

## UX Series Parts List

All DADCO gas springs are permanently marked with a model and serial number. Please refer to these numbers for corresponding repair kits when ordering replacement parts.

Construction shown here is for the following UX Series models and stroke sizes:

Strokes	UX Models							
	0800	1000	1600	2600	4600	6600	9600	20000
013	✓	✓	✓	N/A	✓	✓	✓	N/A
025	✓	✓	✓	✓	✓	✓	✓	✓
038	✓	✓	✓	✓	✓	✓	✓	✓
050	✓	✓	✓	✓	✓	✓	✓	✓
063	✓	✓	✓	✓	✓	✓	✓	✓
075	✓	✓	✓	✓	✓	✓	✓	✓
080	✓	✓	✓	✓	✓	✓	✓	✓
100	✓	✓	✓	✓	✓	✓	✓	✓
125	✓	✓	✓	✓	✓	✓	✓	✓

Construction shown here is for the following UX Series models and stroke sizes:

Strokes	UX Models							
	0800	1000	1600	2600	4600	6600	9600	20000
150	✓	✓	✓	✓	✓	✓	✓	✓
160	✓	✓	✓	✓	✓	✓	✓	✓
175	✓	✓	✓	✓	✓	✓	✓	✓
200	✓	✓	✓	✓	✓	✓	✓	✓
225	N/A	✓	✓	✓	✓	✓	✓	✓
250	N/A	✓	✓	✓	✓	✓	✓	✓
275	N/A	✓	✓	✓	✓	✓	✓	✓
300	N/A	✓	✓	✓	✓	✓	✓	✓

\* UX.20000 has a different construction; contact DADCO for assistance.

### Repair Kits

Select your repair kit from the list below. Please note, repair kits are not interchangeable. Verify that you have the proper repair kit by reviewing the laser mark on the cylinder you are repairing.



Bulletin No. B18109B

**DADCO**  
43850 Plymouth Oaks Blvd.  
Plymouth, Michigan 48170 USA  
1.734.207.1100 • 1.800.323.2687  
Toll Free: 1.800.DADCO.USA  
Fax: 1.734.207.2222  
www.dadco.net

### Comprehensive Guide

This service manual is a simple step-by-step maintenance guide for DADCO's **Ultra Force**® and **Ultra Force Extended**® Nitrogen Gas Springs Series: U, UK, UH, UT, and UX.

Proper repair requires careful examination of all component parts and replacement of any that are worn or damaged. All DADCO replacement parts are available from factory stock.

Typically, DADCO Nitrogen Gas Springs can be rebuilt in less than ten minutes by replacing only one part, the factory pre-assembled cartridge assembly.

After reviewing this maintenance guide, if you require any additional training or have any questions please contact DADCO for assistance.



### Service Tools

Refer to the opposite side of this bulletin for a comprehensive list of tools used to repair these Nitrogen Gas Springs.

A Repair Kit includes a fully assembled **UltraPak**® cartridge, dust cover, a bottle of assembly oil and a maintenance manual.

**Note:** All DADCO gas springs are permanently marked with model and serial number. Please refer to these numbers for corresponding repair kits and when ordering replacement parts.

All DADCO bulletins and catalogs are available for download from our web site, www.dadco.net.

**DADCO**  
Nitrogen Gas Spring  
Maintenance Instructions  
for **Ultra Force**® and  
**Ultra Force Extended**®  
U Series / UK Series /  
UH Series / UT Series /  
UX Series



# U, UK, UH and UT Series

## Nitrogen Gas Spring Repair Instructions

**CAUTION: Always wear safety goggles when performing any maintenance work.**

### I. Exhausting Pressure

**Self-Contained Mode**

- When exhausting pressure, position the gas spring with the port up for safety.
- Remove the Protective Screw, (90.505.110 or 90.607.110). Retain parts for use during reassembly.
- Keeping face and hands clear of the port, use the Valve Bleed Tool, (90.360.4), or Port Servicing Tool, (90.320.8), to depress the Compact Valve stem, (90.260), or Cartridge Valve, (90.265). Cover the port with a cloth to absorb discharge.
- After all of the gas pressure is exhausted, be sure that the piston rod will freely retract into the tube manually. If not, try depressing the Compact Valve stem, (90.260), or Cartridge Valve, (90.265). If still unsuccessful stop and contact DADCO.

**Linked Mode**

- Exhaust nitrogen gas by opening the bleed valve on the control panel.
- Verify that all pressure is released by manually retracting the piston rod into the tube. If the rod will not fully retract proceed to step 1L.
- Unthread the service fitting and wipe with a clean cloth. Proceed to 1L. Port Maintenance" **Linked Mode** step 1L.

**II. Port Maintenance**

**Self-Contained Mode**

- Generally the valve does not need replacing. Only if the valve appears damaged, is leaking pressure or sticking proceed to step 2S, otherwise leave the valve undisturbed and proceed to "III. C-Ring Removal."
- Remove the Compact Valve, (90.260), or Cartridge Valve, (90.265), by unscrewing it with the Port Servicing Tool, (90.320.8).

**III. C-Ring Removal**

**Linked Mode**

- Stand the gas spring upright. Place a removal sleeve, (90.340.x), longer than the stroke over the rod. Tap the sleeve until the Dust Cover, (90.246.U.x), is loosened. Remove the Dust Cover and discard.
- Reposition the DADCO Removal Sleeve and only continue tapping until the rod cartridge assembly is slightly below the retaining ring groove.
- Remove the C-style Retaining Ring, (90.285.x), using a C-Ring Removal Tool, (90.356 or 90.355). Position the hooked end of the tool below the c-ring. For best results locate the tool near either end of the c-ring.
- Once the hooked end of the tool is firmly seated below the c-ring, begin pushing it toward the outside of the gas spring can. The handles will close naturally, and the c-ring will be extruded as you complete this motion. For a detailed explanation of c-ring removal see bulletin B15127A.

**IV. Rod & Cartridge Removal**

- To remove the Rod and Cartridge Assembly select the proper common rod end service thread (M6, M8 or M10) and thread the T-Handle (90.320.M) into the rod end. Pull the entire assembly out of the tube. The spring body can be held in a vise (with soft jaws) while pulling out the assembly.
- Once the cartridge and rod are removed from the Tube Assembly slide the cartridge off the rod and discard. Retain the rod for inspection and reuse.

**NOTE: Before starting the reassembly process, be sure the repair area is clean. It is imperative that the gas spring be free of all contaminants upon reassembly. If this precaution is not taken it may lead to contamination and premature gas spring failure.**

**V. Cleaning & Inspection**

- Lightly polish the rod surface with an emery cloth (600 grit). Inspect the finish of the rod for any scratches or gouges. If the rod is damaged it must be replaced.
- Inspect the Tube Assembly for any damage, especially around the mouth of the Tube Assembly. Lightly polish out any scratches at the mouth of the Tube Assembly to avoid damaging seals during the reassembly process. If damage to the Tube Assembly is severe it must be replaced. Wash, clean and dry the inside thoroughly.

**VI. Cartridge Replacement and Reassembly**

- Choose the appropriate repair kit. The repair kit number needed is laser marked on the back of the Tube Assembly. **NOTE: Repair kits are not interchangeable among models.**
- For applicable sizes, thread Assembly Cone (90.331.x) from Cartridge Starter Kit (90.335.x) onto rod. Slide Cartridge Assembly over the Assembly Cone or rod, making sure that the wiper end marked "TOP" is facing up. Place Cartridge Assembly Cap (90.330.x) on top of Cartridge Assembly.
- 3A. While holding the cartridge, vertically lap the Assembly Cap to drive the cartridge down the rod. Be careful not to force the cartridge at an angle as the seal could become damaged.  
3B. The cartridge is now below the assembly cone. Remove Assembly Cone from the rod.
- Lubricate the inside wall of the tube with all of the DADCO Assembly Oil.
- Place the rod and cartridge into the Tube Assembly. Use the Valve Bleed Tool, (90.360.4), or Port Servicing Tool, (90.320.8), to depress the needle valve to release any back pressure. The Assembly Cap (90.330.x) may be used to drive the rod and cartridge assembly into the tube assembly. Position the top of the cartridge just below the retaining ring groove.
- Insert the C-Style Retaining Ring in the retaining ring groove using a DADCO C-Ring Installation Tool, (90.352 or 90.352.10000). Be sure the C-Style Retaining Ring is fully seated in the retaining ring groove.
- Select the proper common rod end service thread (M6, M8 or M10) and thread the T-Handle (90.320.M) into the end of the piston rod. Pull up on the T-Handle until the top of the cartridge is completely past the c-ring. The rod must seat the cartridge assembly fully before charging. The housing should be flush with the end of the cylinder. Make sure the rod is extended to its proper stroke length. (Depress the needle valve to facilitate full rod extension.)

**NOTE: For best results, use the DADCO Charging Assembly which has a shut-off valve and Quick Disconnect at the end of the hose.**

**VII. Charging**

**Self-Contained Mode**

**Linked Mode**

**Self-Contained or Linked Mode**

- Thread the Quick Disconnect Filler Valve, (90.310.143 or 90.310.111), into the port of the gas spring. Connect the female end of the charging assembly to the charging nipple. The DADCO Pressure Analyzer, (90.315.5), can also be used for charging, discharging and gauging pressure in self contained gas springs.
- Pipe all gas springs back to the control panel, making sure that all connections are tight and that gas spring rods are extended.
- Attach Charging Assembly (90.310.040) to the quick disconnect filler valve on the control panel.
- Open the main valve on the nitrogen tank. Set the desired charging pressure on the regulator. Do not exceed the maximum charging pressure of 150 bar (2175 psi).
- Slowly open the shut-off valve at the end of the charging hose and allow the gas spring to reach the desired charging pressure.
- After the spring has been charged to the desired pressure, CLOSE THE HOSE SHUT-OFF VALVE AND TANK SHUT-OFF VALVE. Disconnect the charging assembly from the charging nipple. The small amount of nitrogen trapped between the shut-off valve and filler valve will bleed off as you disconnect the fitting.
- Check for leaks at the top of the tube around the rod and at the base around the valve compartment by using mineral oil or water to test for leaks. **NOTE: If spring is linked mode, then a DADCO Pressure Analyzer, (90.315.5), may be used to verify pressure and must remain in place during testing.**
- Securely re-install the Protective Screw, (90.505.110 or 90.607.110).

**VIII. Adjusting Gas Spring Pressure**

**Self-Contained or Linked**

- Install the new Dust Cover, (90.246.U.x). Tap with a soft mallet until the top of the Dust Cover rests flush with the top of the can. The rod wiper should be visible.
- To increase the spring pressure, thread the Quick Disconnect Filler Valve, (90.310.143 or 90.310.111), into the port, set the regulator to the desired pressure and fill. DADCO's Pressure Analyzer, (90.315.5), may also be used to adjust pressure.
- To decrease the gas spring pressure, depress the valve stem using a DADCO Valve Bleed Tool, (90.360.4), or a DADCO Pressure Analyzer, (90.315.5).

**IX. Linked Systems**

After testing all springs for leaks, the open-flow springs are ready to be re-linked in the system. If possible, once the springs are all linked back to the control panel, leave the system to sit fully charged overnight. If pressure has dropped indicating a leak verify that each connection is tight and test each fitting for a leak.

Contact DADCO for information on converting a self-contained DADCO Nitrogen Gas Spring to a linked system.

**NOTE: DADCO U/UH/UT/UX Series Nitrogen Gas Springs should not be linked with the valve installed.**

- To increase the spring pressure, thread the Quick Disconnect Filler Valve, (90.310.143 or 90.310.111), into the port, set the regulator to the desired pressure and fill. DADCO's Pressure Analyzer, (90.315.5), may also be used to adjust pressure.
- To decrease the gas spring pressure, depress the valve stem using a DADCO Valve Bleed Tool, (90.360.4), or a DADCO Pressure Analyzer, (90.315.5).

# U, UK, UH and UT Parts List

All DADCO gas springs are permanently marked with model and serial number. Please refer to these numbers for corresponding repair kits when ordering replacement parts.

**Models: 4600-9600**

- Dust Cover: 90.246.U
- O-Ring Backup Ring
- O-Ring
- UltraPak® Cartridge: 90.200.U
- Tube Assembly: 90.205
- Port Plug: 90.505.110
- Compact Valve: 90.260
- Piston Rod: 90.215
- Wiper
- C-Style Retaining Ring: Models 0400, 0600, 0800/0845, 1000, 1200, 1600, 2600/2600V, 4600, 6600, 9600, 20000
- Part Number: 90.285.U.0400, 90.285.3.0300, 90.285.3.0500, 90.285.00750, 90.285.3.0750, 90.285.U.1600, 90.285.01500, 90.285.03000, 90.285.05000, 90.285.07500, 90.285.10000

**Models: 0400-2600**

- M6 Port Plug: 90.607.110
- Compact Valve: 90.260

**Models: 20000**

- Port Plug: 90.505.110
- Compact Valve: 90.260
- Cartridge Valve: 90.265

## Service Tools

Gas Spring Model	Port Size*	Charging				Standard Repair					
		Charging Nipple	Charging Assembly	Analog Load Cell	Digital Load Cell	Removal Sleeve	C-Ring Removal Tool	T-Handle	Cartridge Starter Kit	C-Ring Installation Tool	
U.0400 / UH.0400	M6 / G 1/8	90.310.143 / 90.310.111	90.310.041 / 90.310.044	90.305.LC.05A	90.340.00400	90.355	90.320.M	90.335.00400	90.351.00400		
U.0600 / UH.0600			90.300.0300					90.340.00600	90.335.00600	90.351.00600	
U.0800 / UH.0845 / UK.0800 / UH.0800 / UX.0800			90.300.0750					90.340.00750	90.335.00750	90.351.00500	
U.1000 / UK.1000 / UJ.1000 / UT.1000 / UX.1000 / UX.1000V			90.300.1000					90.340.01200	90.335.01000	90.350.00750	
U.1200			90.300.1200					90.340.01200	90.335.01200	90.351.00750	
U.1600 / UK.1600 / UH.1600 / UX.1600	M6 / G 1/8	90.310.143 / 90.310.111	90.310.040 / 90.310.041 / 90.310.044	90.305.LC.50A	90.340.01600	90.356	90.320.M	90.335.01600	90.351.01600		
U.2600 / UH.2600 / UK.2600 / UT.2600 / UX.2600			90.300.01500					90.340.01500	90.335.02600	90.352	
U.4600 / UH.4600 / UT.4600 / UX.4600			90.300.2600					90.340.03000	90.335.04600	90.352	
U.6600 / UH.6600 / UT.6600 / UX.6600	G 1/8	90.310.111	90.305.LC.50A	90.300.6600	90.340.05000	90.356	90.320.M	90.335.06600	90.352		
U.9600 / UT.9600 / UX.9600								90.300.9600	90.340.07500	90.355.9600	90.352
U.20000 / UX.20000								90.300.20000	N/A	90.355.20000	90.352

\*Note: DADCO's U Series models U.0400 – U.2600 have an M6 port size and use Charging Nipple 90.310.143

<p><b>Port Servicing Tool 90.320.8</b></p> <p>To perform all necessary servicing to the valve compartment.</p>	<p><b>Valve Bleed Tool 90.360.4</b></p> <p>Use the DADCO Valve Bleed Tool to slowly discharge a spring to the desired pressure.</p>	<p><b>T-Handle 90.320.M</b></p> <p>To remove the piston rod when disassembling and position correctly when reassembling.</p>	<p><b>Removal Sleeve 90.340.0000</b></p> <p>To position the cartridge assembly below the C-ring groove when assembling or disassembling a gas spring. Each model requires its specified removal sleeve.</p>	<p><b>Quick Disconnect Charging Nipple: Self-Contained 90.310.143 (M6 Port) 90.310.111 (G 1/8 Port)</b></p> <p>Use the DADCO Quick Disconnect Charging Nipple to charge DADCO Nitrogen Gas Springs.</p>
<p><b>C-Ring Removal Tool 90.355</b></p> <p>To remove the C-style retaining ring safely in a single controlled motion.</p>	<p><b>C-Ring Removal Tool 90.356</b></p> <p>To remove the C-style retaining ring safely in a single controlled motion.</p>	<p><b>C-Ring Installation Tool 90.350.0000 90.351.0000</b></p> <p>To insert the C-style retaining ring into the retaining ring groove.</p>	<p><b>Standard Load Cell 90.300.0000</b></p> <p>When used with a Portable Test Stand, the Standard Load Cell gives precise measurement of gas spring charging pressure. Each model requires its specified load cell. For more information request bulletin B16119A.</p>	<p><b>DADCO Pressure Analyzer 90.315.5</b></p> <p>Use the DADCO Pressure Analyzer to easily charge, discharge, and gauge the pressure in DADCO's gas springs. This tool can take the place of the Valve Bleed Tool, Standard Load Cell, Quick Disconnect Filler Valve, and Portable Test Stand. For more information request bulletin B01133F.</p>
<p><b>Cartridge Starter Kit 90.335.0000</b></p> <p>The Cartridge Starter Kit includes an Assembly Cap (90.330.0000) and an Assembly Cone (90.331.0000). The Assembly Cone is used to start the cartridge assembly onto the rod without damaging the seal, the Assembly Cap is used to set the cartridge at a proper depth for C-Ring installation.</p>	<p><b>C-Ring Installation Tool 90.352</b></p> <p>To insert the C-style retaining ring into the retaining ring groove.</p>	<p><b>Digital Load Cell 90.305.BGA (Meter), 90.305.LC.50A (222 kN Load Cell)</b></p> <p>The DADCO Digital Load Cell Meter can display force in Newtons, Kg or lbs. The 90.305.LC.50A (supplied with the connector) may be used to measure gas spring force up to 50,000 lbs. Other digital load cell units are available, for more information request bulletin B04106E.</p>	<p><b>Mini Test Stand 90.305.2 90.305.2D</b></p> <p>Use the Portable Test Stand in conjunction with a Standard Load Cell for precise measurement of gas spring force on contact. For more information request bulletin B08108B.</p>	<p><b>Portable Test Stand 90.305.3</b></p> <p>Use the Portable Test Stand in conjunction with a Standard Load Cell for precise measurement of gas spring force on contact. Excludes use with the U.9600 and U.20000. For more information contact DADCO.</p>