



advanced FLOW engineering

BladeRunner – Coolant Expansion Tank

**Instruction Manual**    P/N: 46-51003

Make: <b>Dodge</b>	Model: <b>Charger</b>	Year: <b>2011-2023</b>	Engine: <b>V8-5.7L</b>
Make: <b>Dodge</b>	Model: <b>Challenger</b>	Year: <b>2011-2023</b>	Engine: <b>V8-5.7L</b>
Make: <b>Chrysler</b>	Model: <b>300</b>	Year: <b>2011-2023</b>	Engine: <b>V8-5.7L</b>
Make: <b>Dodge</b>	Model: <b>Charger</b>	Year: <b>2011-2023</b>	Engine: <b>V6-3.6L</b>
Make: <b>Dodge</b>	Model: <b>Challenger</b>	Year: <b>2011-2023</b>	Engine: <b>V6-3.6L</b>
Make: <b>Chrysler</b>	Model: <b>300</b>	Year: <b>2011-2023</b>	Engine: <b>V6-3.6L</b>



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- For technical support please call 951-493-7185.
- Ensure you have all necessary tools before proceeding.
- Do not attempt to work on your vehicle when the engine is hot.
- Retain factory parts for future use.

Label	Qty.	UoM	Description	Part Number
A	1	Ea.	S/A Expansion Tank: A5-61439	A5-61439
B	1	Ea.	Nipple, Brass Hose: 5/16ID x 1/8npt	03-50192
C	1	Ea.	Fitting, Push-On: Straight, 6mm OD x 1/8" NPT	03-50829
D	1	Ea.	Fitting, Push-On Swivel: 90Deg 6mm OD x 1/8" NPT	03-50830
E	2	Ea.	Shim, PVC Plastic: 0.40"ID x 1.25"OD, 0.062 Wall	03-50834
F	7.25	IN.	Tubing, FEP Clear: 6mm OD, 1mm Wall	05-01781

**Installation will require the following tools:**

7mm, 8mm, 10mm sockets, 12mm, 13mm wrenchs, pliers, pannel popper, pick, teflon tape.

Warranty Information available at <https://afepower.com/contact#warranty>

**Emissions Disclaimer:** This product is not currently CARB exempt and is not available for purchase in California or for use on any vehicle registered with the California Department of Motor Vehicles.

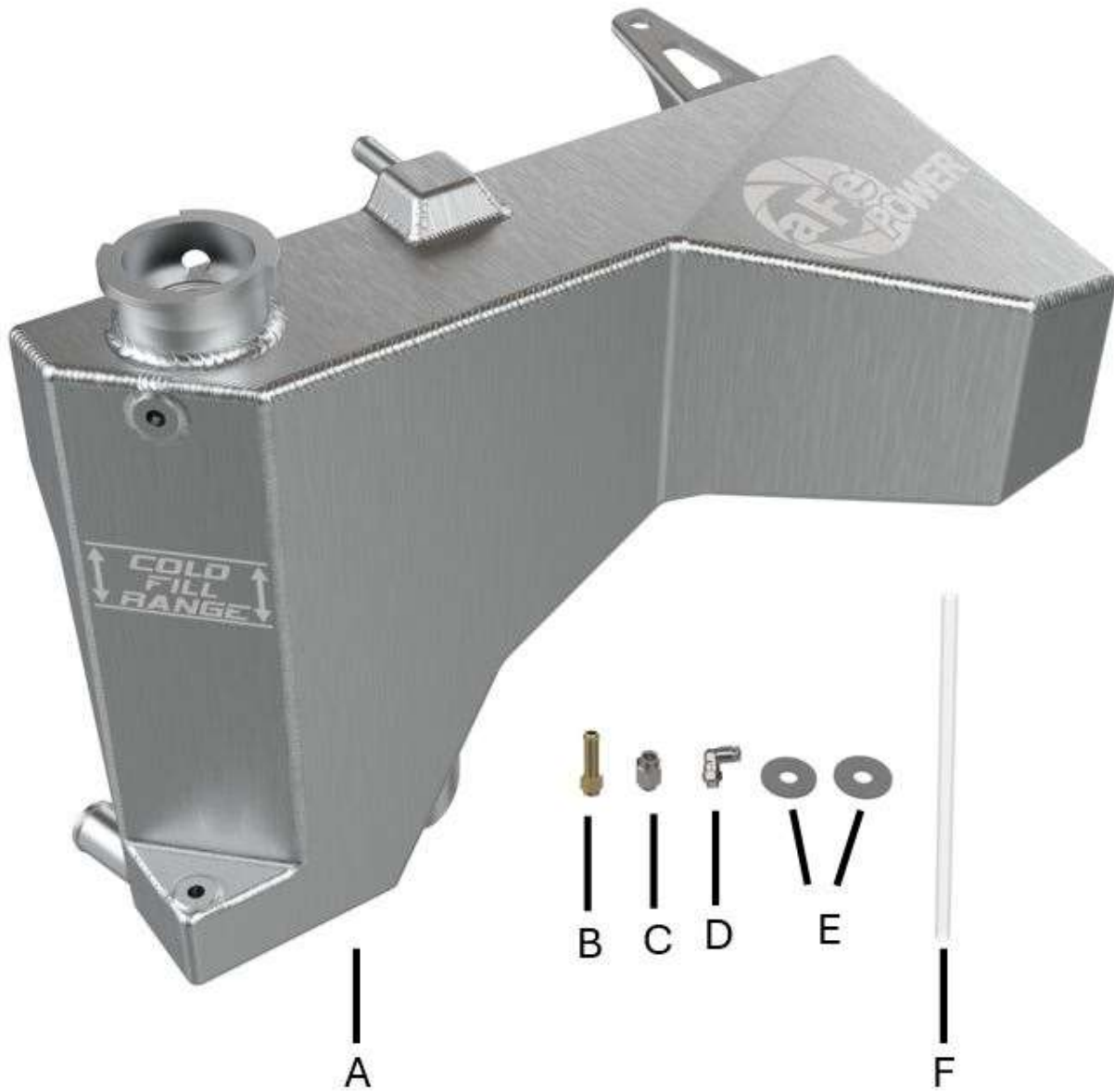




Figure A

**Refer to Figure A for Steps 1-6**

**CAUTION: ALLOW ENGINE TO COOL COMPLETELY PRIOR TO OPENING THE RADIATOR CAP**

Step 1: Disconnect the negative battery cable.

Step 2: Lift vehicle using the appropriate lift points. If using floor jacks, place wheel chocks behind rear tires and support the vehicle with jack stands.

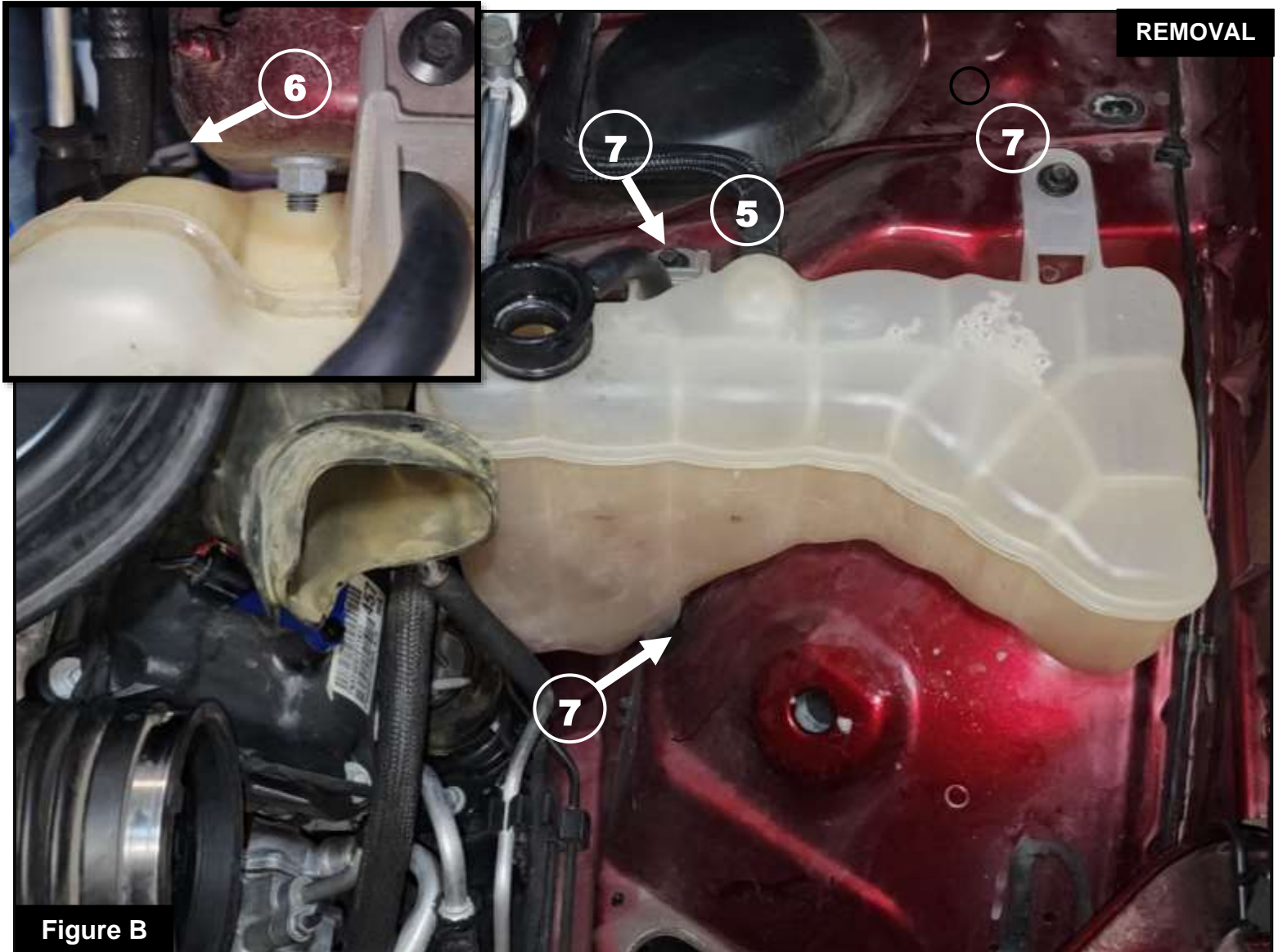
Step 3: Remove the belly pan from underneath the vehicle to drain the coolant from the radiator, the petcock is located on the passenger side of the vehicle (1). Remove the radiator cap from the vehicle.

Step 4: If equipped, remove the clips securing the snorkel to the air intake housing (2).

Step 5: Loosen the clamp securing the air intake tube to the air intake housing (3).

Step 6: Loosen the screw securing the air intake housing to the vehicle, then remove the air intake housing from the vehicle (4).





### **Refer to Figure B for Steps 7-9**

Step 7: Pinch the upper coolant hose clamp and slide the hose off of the factory expansion tank (5)

Step 8: Pinch the lower coolant hose clamp and slide the hose off of the factory expansion tank (6)

Step 9: Remove the screws securing the factory expansion tank to the vehicle and remove it from the vehicle. Be sure not to drop the rubber cap off the bottom peg (7)


**Figure C**

### **Refer to Figure C for Steps 10-12**

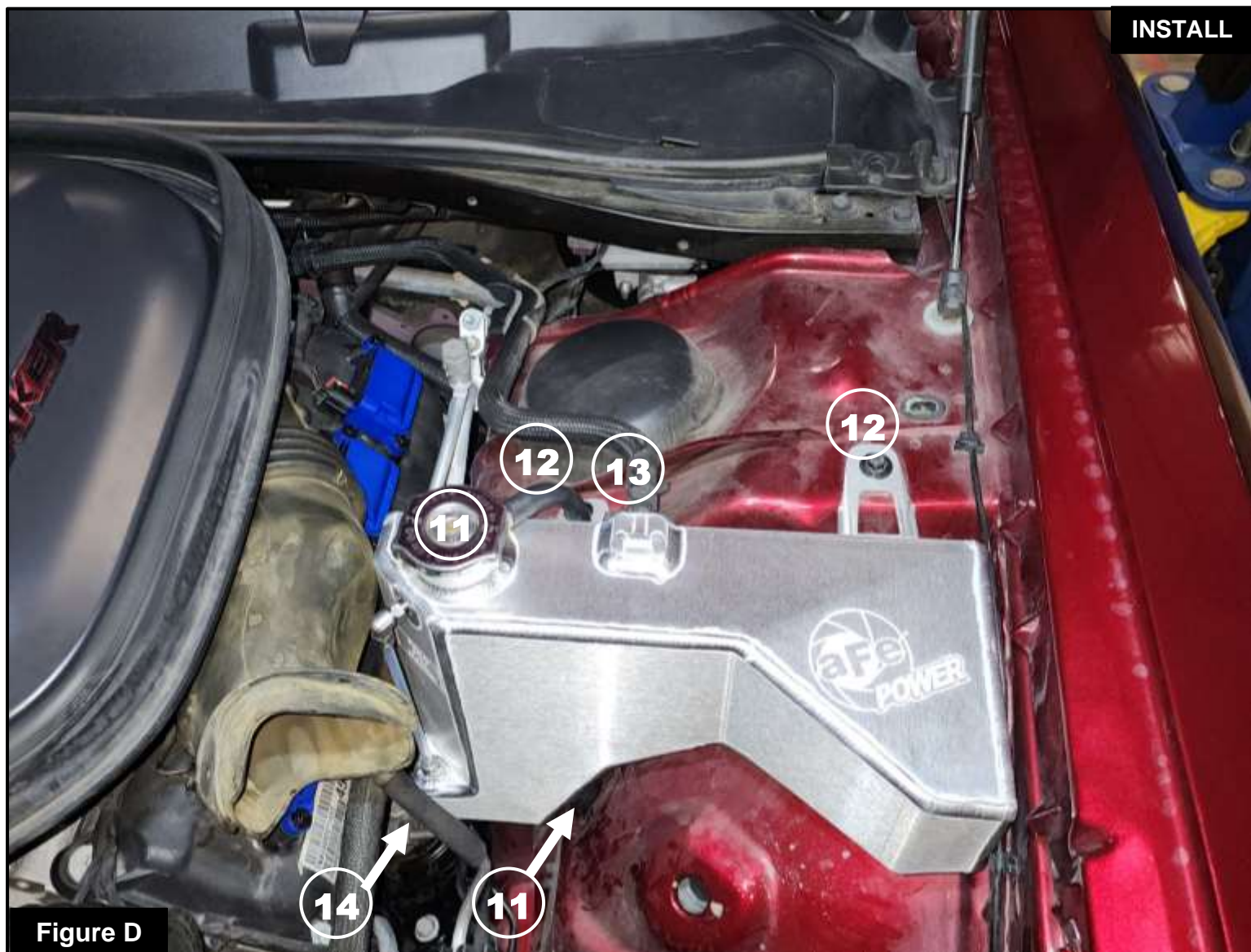
**Note: Be sure to use thread sealant on the NPT fittings to prevent any leaking**

Step 10: Install the supplied 1/8" NPT push-to-connect fittings into the threaded fittings on the aFe POWER expansion tank. Install the elbow fitting on the top and the straight fitting on the bottom (8.)

Step 11: Install the supplied FEP clear tubing into the fittings on the aFe POWER expansion tank from the previous step, (9) be sure they are pressed in firmly.

Step 12: Install the supplied brass barbed NPT fitting into the threads on the aFe POWER filler neck, then transfer the overflow hose onto the fitting (10.)





**Figure D**

### **Refer to Figure D for Steps 13-17**

Step 13: Remove the backing from the supplied PVC shims and place them over the threaded mounting holes on the vehicle.

Step 14: Transfer the radiator cap and lower peg cap onto the aFe POWER expansion tank (11)

Step 15: Install the aFe POWER expansion tank into the vehicle, securing it with the factory screws (12)

Step 16: Connect the upper cooling hose onto the aFe POWER expansion tank (13) and secure it with the factory clamp.

Step 17: Connect the lower cooling hose onto the aFe POWER expansion tank (14) and secure it with the factory clamp.



**Figure E**

### **Refer to Figure E for Steps 18-22**

Step 18: Reinstall the air intake housing into the vehicle (15) If equipped reinstall the snorkel and clips into the air intake housing.

Step 19: Reconnect the negative battery cable.

Step 20: Use the proper coolant refill procedure to be sure that all the air gets out of the system when refilling the coolant.

Step 21: Check for leaks and reinstall the belly pan.

Step 22: Install is now complete.

**NOTE: Check all clamps, and connectors are secure after 50-100 miles**





**This Page Was Left Intentionally Blank**



**This Page Was Left Intentionally Blank**



**This Page Was Left Intentionally Blank**





advanced FLOW engineering, inc.  
Corona, CA 92879  
<https://afepower.com/contact>