



**NUMBER:** 19-003-12

**GROUP:** Steering

**DATE:** December 08, 2012

*This bulletin is supplied as technical information only and is not an authorization for repair. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without written permission of Chrysler Group LLC.*

**SUBJECT:**

Police Vehicle Power Steering Overheat During Closed Course Training Exercises

**OVERVIEW:**

This bulletin involves installing an external power steering cooler on the involved police fleet vehicles.

**MODELS:**

2011 - 2012 (LD) Charger

**NOTE: This bulletin applies only to vehicles equipped with Police Package (sales code AHB) and in police fleet usage.**

**SYMPTOM/CONDITION:**

The police fleet may experience increased steering efforts or power steering overheat during extended periods of extreme closed course handling maneuvers while conducting training exercises in ambient temperatures above 100° F (38° C). Diagnostic Trouble Code C2210-00 - ECU over temp may be present.

**DIAGNOSIS:**

If the customer describes the symptom, perform the Repair Procedure.

**PARTS REQUIRED:**

Qty.	Part No.	Description
2	05137778AC	Cooler Retaining Clip
1	05154792AB	Cooler Assembly / Return Hose - (Cooler to Pump Reservoir)
1	05154791AA	Return Hose - (Cooler to Gear)
1 (AR)	68088485AA	Electric Steering Pump Fluid
1 (AR)	NPN	3M 08681 Single Step Primer or Equivalent

**NOTE: One 4.2oz bottle of 3M 08681 Single Step Primer can service 25 vehicles.**

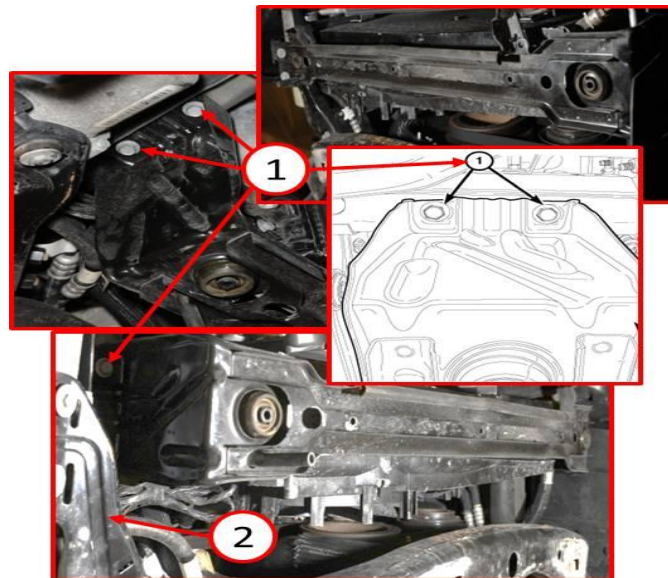
**NOTE: This vehicle features an Electro Hydraulic Power Steering (EHPS) pump which requires a different power steering fluid P/N#68088485AA. Do not mix power steering fluid types. Damage may result to the power steering pump and system if any other fluid is used. The EHPS system uses fluid which meets material specification MS-11655 or equivalent.**

***SPECIAL TOOLS/EQUIPMENT REQUIRED:***

NPN	Drill
NPN	5/16"(8mm) Drill Bit
NPN	Long Needle Nose Pliers or Equivalent

***REPAIR PROCEDURE:***

1. Raise and support the vehicle.
2. Remove the front and rear belly pans. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 13 - Frame and Bumpers> Under Body Protection> BELLY PAN> Removal.
3. Remove the passenger side front wheelhouse splash shield. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 23 - Body> Exterior> SHIELD, Splash, Front Wheelhouse> Removal.
4. Using a suitable jack, remove the lower radiator core support bolts (1) (Fig. 1).



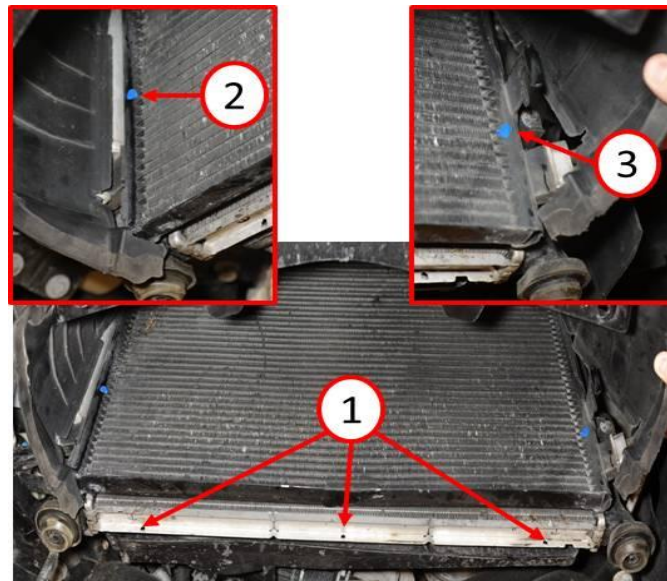
***Fig. 1 Lower Radiator Support Removal***

- 1 - Lower Radiator Support Bolts
- 2 - Power Steering Pump Bracket

- 
5. Using care not to damage condenser or radiator fins, lower the core support from the vehicle and leave the radiator/condenser assembly suspended by the upper and lower radiator hose attachment points.

**NOTE: Do not drain radiator or disconnect the condenser as the upper and lower radiator hoses will help in suspending and supporting the assembly during the installation of the steering cooler. Do not pull down on the radiator/condenser assembly as this may cause damage to components that suspend the assembly. Removing the lower core support will allow the assembly to drop down and provide access between the radiator and condenser in order to install the cooler properly.**

6. Carefully remove the lower plastic shroud that covers the bottom gap between the radiator and condenser by using a pick to pull the cover hole away from the retaining tabs (1) along the edge (Fig. 2).
7. Viewing the condenser from the front of the vehicle count 12 rows up the passenger side of the condenser from the bottom of the condenser core and mark (2) the location of the 12th row (Fig. 2).
8. Measure out from the passenger side edge (2) of the condenser core 2-1/8”(54mm) and mark the location in the 12th row of the condenser.
9. Viewing the condenser from the front of the vehicle count 8 rows up the driver side of the condenser from the bottom of the condenser core and mark (3) the location of the 8th row (Fig. 2).
10. Measure out from the passenger side edge (2) of the condenser core 21”(532mm) and mark the location in the 8th row of the condenser.

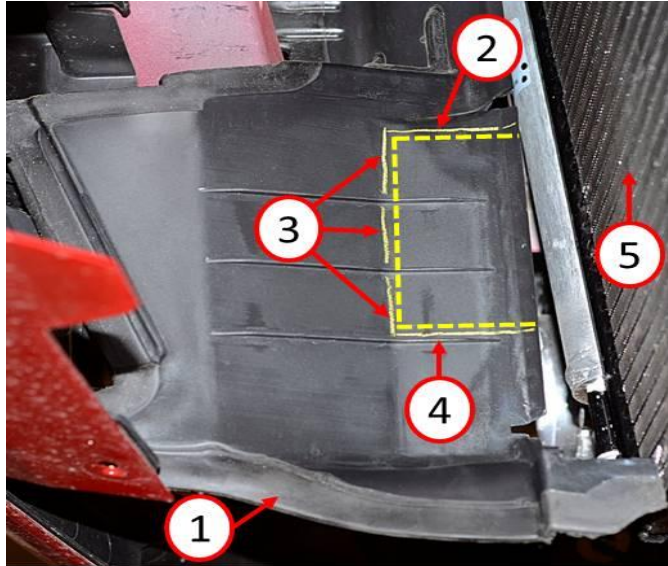


**Fig. 2 Condenser Preperation**

- 1 - Lower Shroud Retaining Tabs
- 2 - 12th Row Condenser Edge Location
- 3 - 8th Row Condenser Edge Location

- 
11. Locate the passenger side air deflector (1) and modify it to allow clearance for the installation of the auxiliary steering cooler (Fig. 3).

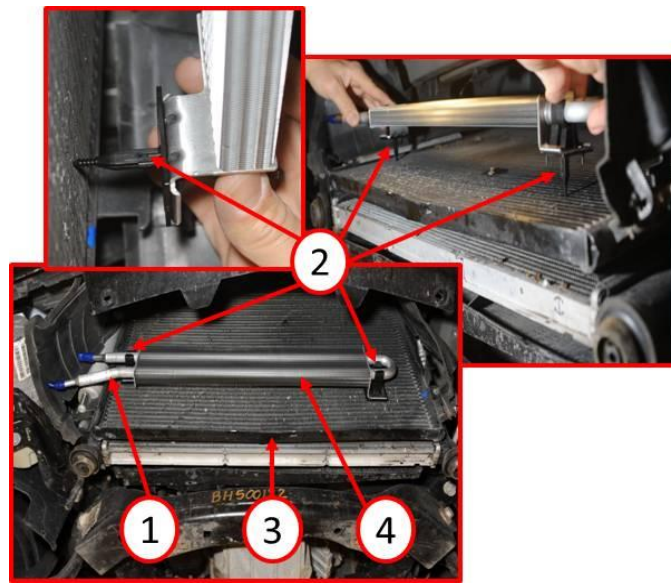
12. Using a utility/exacto knife, cut along the indicated top contour/feature line (2) and extend the cut along the side contour/feature line (3) and remove the section indicated by finishing the cut along the top of the lower rib/feature line (4) (Fig. 3).



**Fig. 3 Modify Air Deflector**

- 1 - Plastic Air Deflector (Passenger Side)
- 2 - Top Contour/Feature Cut Line
- 3 - Side Contour/Feature Cut Line
- 4 - Bottom Rib/Feature Cut Line
- 5 - Condenser

- 
13. Insert the holding clips (2) into the steering cooler (4) (Fig. 4).
14. From the front of the vehicle, with the outlet lines of the cooler (1) facing toward the passenger side, insert the cooler holding clips (2) into the condenser (3) at the marks indicated on the condenser (Fig. 4).

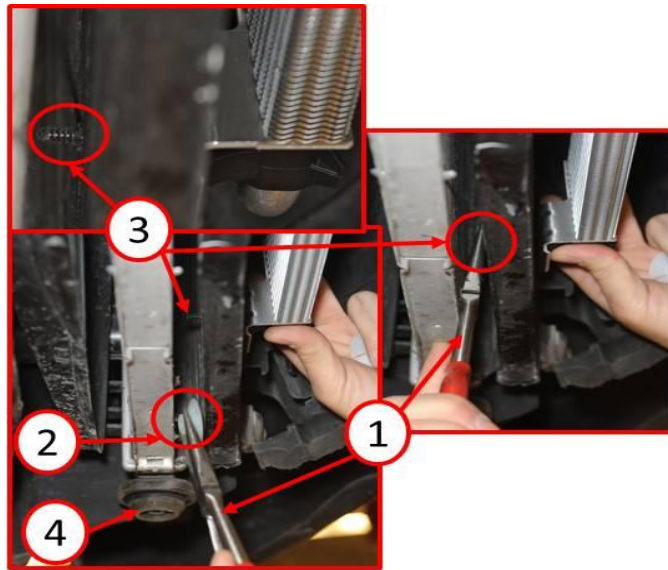


**Fig. 4 Steering Cooler Installation**

- 1 - Cooler Outlet Lines (Passenger Side)
- 2 - Cooler Holding Clips
- 3 - Condenser
- 4 - Steering Cooler

---

15. Using long needle nose pliers (1) attach the retaining clips (2) to the back of the cooler holding clips (3) located between the radiator and the condenser (Fig. 5).

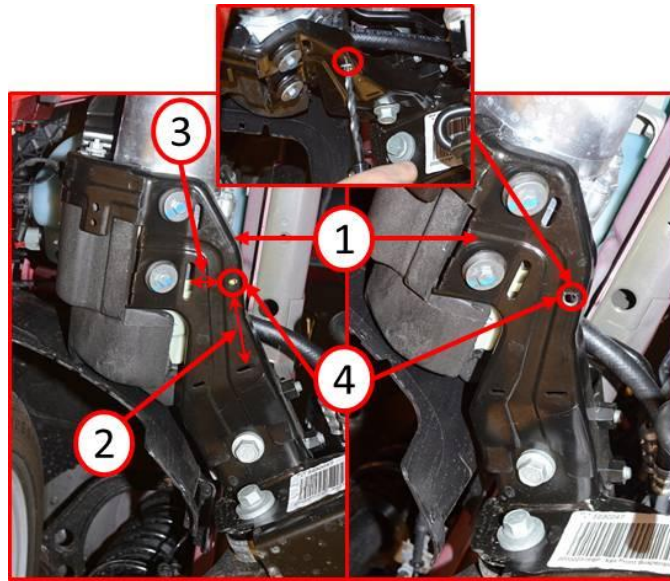


**Fig. 5 Cooler Clip Installation**

- 1 - Needle Nose Pliers
- 2 - Retainer Clip (Retains Cooler Holding Clip)
- 3 - Cooler Holding Clip (Back Tab)
- 4 - Radiator Lower Rubber Isolator

- 
16. Position the lower radiator core support to the vehicle. Refer to (Fig. 1).
  17. Loosely install the lower radiator core support attachment bolts. Refer to (Fig. 1).
  18. Seat the radiator assembly lower rubber isolators (4) (Fig. 5) into the mounting holes in the lower radiator support and tighten the attachment bolts. Refer to (Fig. 1).
  19. Locate the lower steering pump bracket (1) and measure 2 -61/64"(75mm) from the inside edge of the inner bracket slot (2) and place a mark centered in the middle of the bracket stand off feature as shown in (Fig. 6).
  20. Measure 1 -11/64"(30mm) from the inside edge of the inner bracket slot (3) and place a mark centered with the first mark in the middle of the bracket stand off feature as shown in (Fig. 6).
  21. Drill a 5/16"(8mm) hole (4) into the mark indicated on the lower steering pump bracket (Fig. 6).

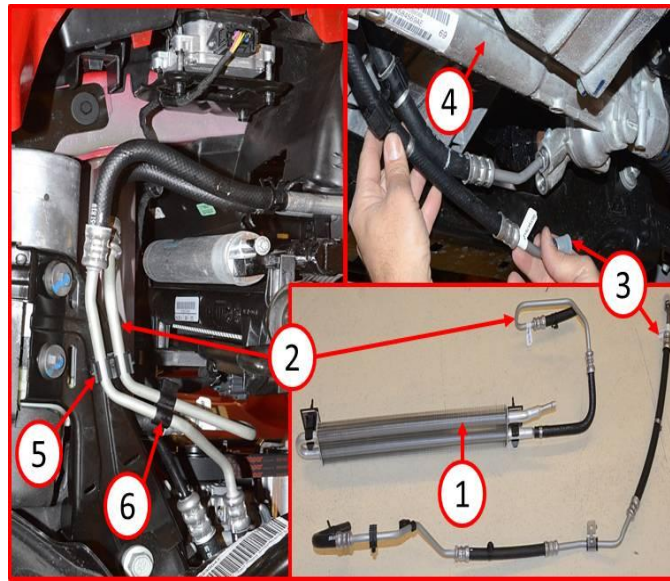
**NOTE: Apply 3M 08681 Single Step Primer to the 5/16"(8mm) hole drilled into the pump bracket.**



**Fig. 6 Modify Steering Bracket**

- 1 - Steering Pump Bracket
- 2 - Hole Layout (Inner Bracket Slot 2-61/64" (75mm)
- 3 - Hole Layout (Inner Bracket Slot 1-11/64" (30mm)
- 4 - 5/16"(8mm) Hole

- 
- 22. Remove the power steering return hose. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 19 - Steering> Pump> HOSE, Power Steering, Return> Removal> NON SRT.
  - 23. Install the steering cooler (1) return hose (2) on the power steering pump reservoir(Fig. 7).
  - 24. Install the revised steering gear to cooler return hose (3) starting with the fitting at the steering gear (4). Install the frame mounted retaining clip and connect the return hose to the cooler (Fig. 7).
  - 25. Install the line retaining push clip (5) into the hole created in the lower steering pump bracket and connect the holding clip (6) to the cooler to pump return line (2) (Fig. 7).



**Fig. 7 Install New Return Lines**

- 1 - Steering Cooler
- 2 - Return Line/Hose (Cooler to Pump Reservoir)
- 3 - Steering Gear Fitting (Steering Gear to Cooler Return Line)
- 4 - Steering Gear
- 5 - Line Retaining Push Clip
- 6 - Line Holding Clip

26. Replace any lost power steering fluid. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 19 - Steering> Pump> FLUID> Standard Procedure> STANDARD PROCEDURE - POWER STEERING FLUID LEVEL CHECKING or NON-SRT POWER STEERING FLUID LEVEL CHECKING.

**NOTE: This vehicle features an Electro Hydraulic Power Steering (EHPS) pump which requires a different power steering fluid P/N#68088485AA. Do not mix power steering fluid types. Damage may result to the power steering pump and system if any other fluid is used. The EHPS system uses fluid which meets material specification MS-11655 or equivalent.**

- 27. Perform the necessary power steering bleeding procedure. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 19 - Steering> Standard Procedure> STANDARD PROCEDURE - POWER STEERING SYSTEM BLEEDING.
- 28. Reinstall the passenger side front wheelhouse splash shield. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 23 - Body> Exterior> SHIELD, Splash, Front Wheelhouse> Installation.
- 29. Reinstall the front and rear belly pan. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 13 - Frame and Bumpers> Under Body Protection> BELLY PAN> Installation.

**POLICY:**

Reimbursable within the provisions of the warranty.



**TIME ALLOWANCE:**

<b>Labor Operation No:</b>	<b>Description</b>	<b>Amount</b>
19-50-20-95	Auxiliary Cooler, Power Steering Oil - Install (Skill Level = B, Training Level = 3)	1.3 Hrs.

**FAILURE CODE:**

ZZ	Service Action
----	----------------