PREVOST



SAFETY RECALL

SR15-01

DATE: MAY 2015 SECTION: 23 - ACCESSORIES

SUBJECT: AUTOMATIC FIRE SUPPRESSION SYSTEM (AFSS)

EXTINGUISHER PRESSURE TANK RELOCATION

APPLICATION

NOTICE TO SERVICE CENTERS

Verify vehicle eligibility by checking warranty bulletin status with **SAP** or via **ONLINE WARRANTY SYSTEM** available on Service / Warranty tab of Prevost website.

Model	VIN PREVIOUS CARRING. TR. RANGE OFFICIAL CO. CARRING.
XL2-45 Converted Coach Shells Model Year: 2009 and 2011	From 2PCW33495 <u>9</u> C72 <u>9600</u> to 2PCW33495 <u>9</u> C72 <u>9676</u> incl. and vehicles 2PCWS3498 <u>B</u> C72 <u>9972</u> and 2PCWS3490 <u>B</u> C72 <u>9979</u>
XL2-45 Entertainer Coach Shells Model Year: 2009, 2010 and 2011	From 2PCY33498 9 C72 9602 to 2PCYS3495 B C72 9999 incl. and vehicles 2PCYS3499 B C73 5000 and 2PCYS3490 B C73 5001
X3-45 Coaches Model Year: 2009 and 2010	From 2PCG33494 <u>9</u> C72 <u>9611</u> to 2PCG33495 <u>A</u> C72 <u>9976</u> incl.

The owners of the vehicles affected by this recall will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned.

DESCRIPTION

On vehicles affected by this recall the tank's pressure relief valve may not withstand the temperatures in the engine compartment, resulting in the venting of the extinguishing agent pressurizer.

If the AFSS tank pressurizer discharges and there is a vehicle fire, the Automatic Fire Suppression System will be unavailable to assist in extinguishing the vehicle fire, increasing the risk of injury.

Please contact your Prevost Service Center to schedule an appointment at your earliest convenience to have the pressure relief tank relocated free of charge. Please mention Safety Recall SR15-01. A complete list of Prevost service points is available on https://www.prevostcar.com/service-network

MATERIAL FOR COACH SHELLS

For Converted Coach Shells, order kit SR15-01 which include the following parts:

Part No.	Description	Qty
406983	Hose Assy 4250mm	1
175249	Pressure Tank Support	1
216108	Clamp Support, Hose assy	1
952635	Hose Clamp	1
5001744	Hex Cap Screw N500 M6-1.0x16 G8.8	1
502853	Washer LO SPT N500 6.1x11.8x1.6	1
069161	Harness, Tank Relocation WE	1
175281	Gusset	1
509951	Pressure Tank T-Bolt Retaining Strap	2

Other parts that may be required for **coach shells**:

Part No.	Description	Qty
901125	Extinguisher 25 pounds (as req.)	1
504637	Cable tie	20
680497	Primer, Grey	1
684652	Spray paint, black	1

MATERIAL FOR SEATED COACHES

For **Seated Coaches**, order Kit **406564**, composed of the following parts:

Part No.	Description	Qty
374643	Slit hose – 7/8" x 8" lg	2
374667	Slit hose - 8" lg	1
374668	Slit hose - 21 1/2" lg	1
406516	Extinguisher Cylinder support	1
406518	Bulkhead flange	2
406562	Extinguisher Cylinder structural support road side	1
406563	Extinguisher Cylinder structural support curb side	1
406517P	Hose (290 in. lg)	1
500623	Screw, thread cutting, 10-24 x 3/4	1
500957	Tap screw BDG PH N500 #10x3/4	9
502848	Screw, thread cutting, 1/4-20 x 3/4	4
504013	Tie mount	6
504016	Cable tie	20
504022	Hose clamp 3/4"-1 3/4"	1
504068	Rubber grommet .500x.750x.062x.312x1.062"	2
504384	Cuff- end Bellows	1
509491	Cable tie, heavy duty	2

5001744	Cap screw M6x1.0 x 16 GR8.8	4
5001833	Spring washer SS	8
561566	Weather pack pin housing, 2C	1
561783	Weather Pack Seal plug	2
068542	Patch cable	1
D400451	Installation drawing	1
D400463	Extinguisher cylinder installation drawing (in service)	1

Other material needed for seated coaches not included in this kit

680532	Sikaflex 221 cartridge	1
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NOTE	
Material can be obtained through regular channels.	

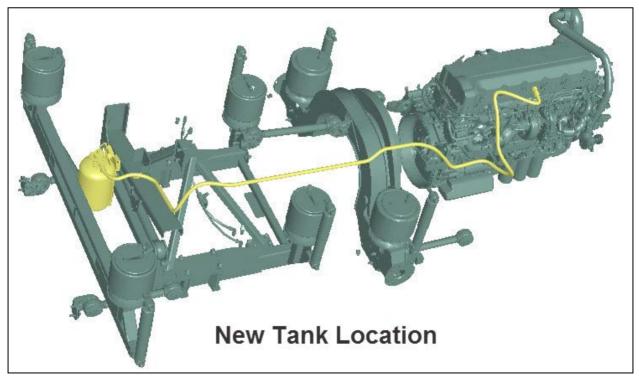
PROCEDURE FOR COACH SHELLS



DANGER

Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

This procedure requires removing the AFSS extinguisher tank from the engine compartment and relocating it under the vehicle between the rear drive wheels as shown in the picture below.





CAUTION



Welding is required to fix the new tank support to the vehicle chassis. Before attempting to do any kind of <u>electric arc welding to the vehicle chassis</u>, carefully follow the Multiplex Module Disconnection Procedure included in section 00a of the vehicle Maintenance Manual.

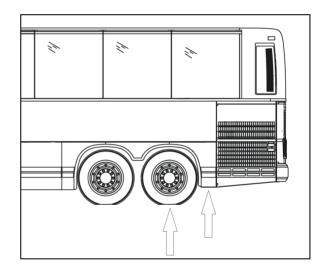
Failure to comply with the disconnection procedure may result in permanent damage to the vehicle electronic equipment.

Complete procedure can also be found under the following link:

Multiplex Modules Disconnection Procedure Prior to Welding

Take note that speciality converters may have installed on the vehicle aftermarket electronic equipment requiring their own disconnection procedures. <u>Follow your vehicle converter specification before welding.</u>

- Disconnect vehicle Multiplex modules following the Multiplex Modules Disconnection procedure (see link above).
- 2. To access AFSS extinguisher pressure tank, lift hinged rear fender, remove aft wheel and aft wheel arch liner.



3. At the pressure tank side, disconnect the hose linking the tank to the nozzle distribution piping.



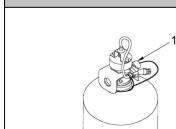
4. Disconnect the pressure tank electrical connector.



5. Disconnect the two tank retaining straps.



6. Tilt the tank approximately 30deg. And remove the tank from the vehicle.



WARNING

1. The anti-recoil cap should be installed on the extinguisher valve outlet port <u>at all times except when the extinguisher</u> is connected to the distribution piping.

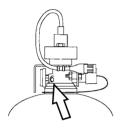
7. Remove the two support retaining screws and remove the support from the vehicle.

NOTE: The support and straps will not be reused.





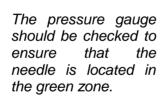
WARNING



Inspect the pressure relief plug.

If the plug is flush, the tank is good.

If it is protruding, replace the pressure tank.



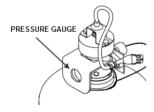
If the needle is not in the green zone, the tank must be serviced or replaced.







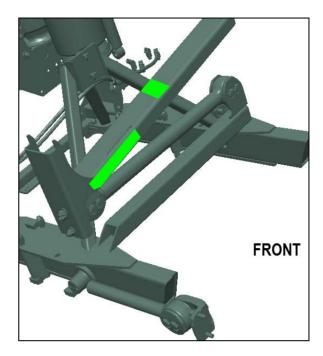
PROTUDING



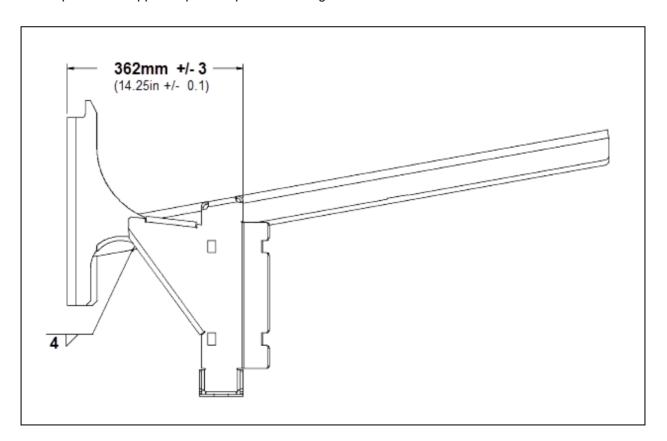


- 8. Disconnect the hose assembly at the spray nozzle end of the system.
- 9. Remove and discard the AFSS main *hose* assembly from the vehicle (do not remove or cut the AFSS *wiring harness*).
- 10. Lift the vehicle and remove the R/H drive wheel(s).
- 11. Lift the vehicle further to gain access to the undercarriage.

- 12. From under the vehicle, locate the area where the new support #175249 will be welded to the chassis.
- 13. In preparation for welding, carefully clean the areas shown in the image to <u>bare metal</u>, use a small rotary sander or other suitable tool as required.



- 14. Remove all trace of powder coating on the support welding tabs (both sides).
- 15. Clamp the new support in position prior to welding.



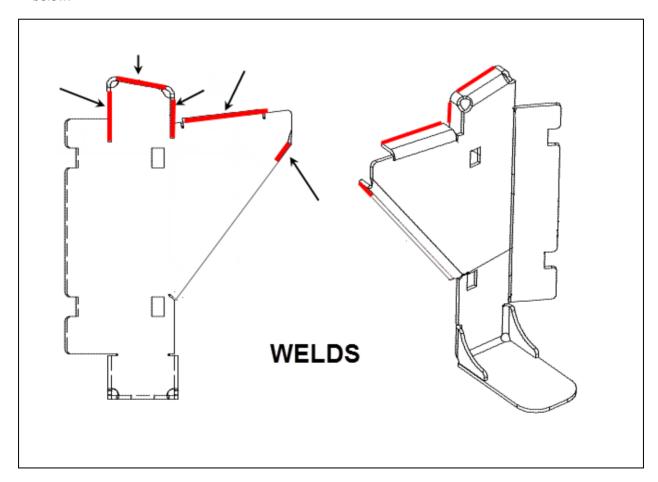
NOTE

Insert a 36mm (1.41in) thick wooden block behind the support as shown in the picture.

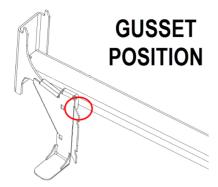
This will stabilize the support when clamping and insure that the support is welded at the correct angle.

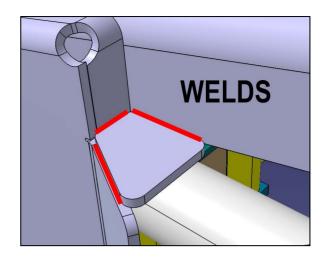


16. Weld the five edges of the support to the vehicle chassis following the instruction in the drawing below.

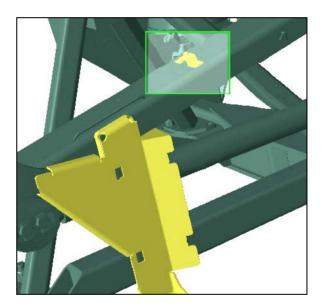


17. Position and weld the support gusset #175281 along the edges as shown.



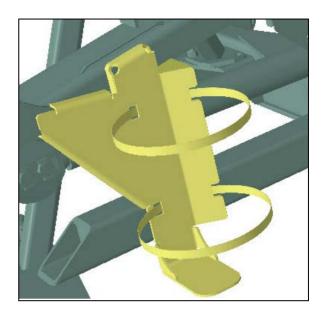


18. Weld the clamp support #216108 to the vehicle at mid-point on the transversal beam as shown.



- 19. Let the welds cool down and clean with a wire brush to remove welding residues (flux).
- 20. Apply a coat of suitable primer (# 680492 or equivalent) over the welded areas.
- 21. Let the primer dries and apply a coat of black spray paint # 684652 or equivalent (add as many coats as necessary to provide sufficient corrosion protection).

22. Install 2 new tank hold down straps (#509951) on the new support.



23. Install the extinguisher tank on the support

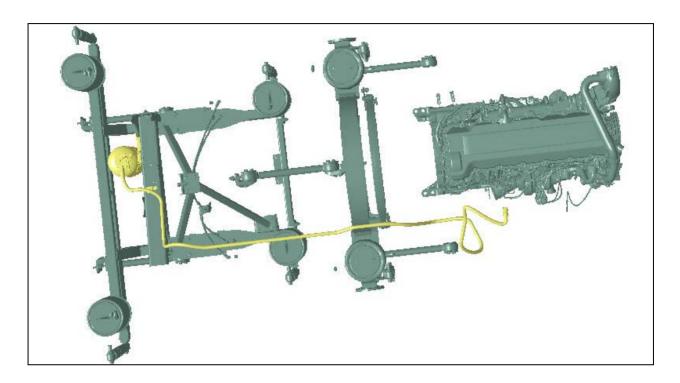
24. Secure the tank to the support by tightening the hold down straps to *90 lb-in*.



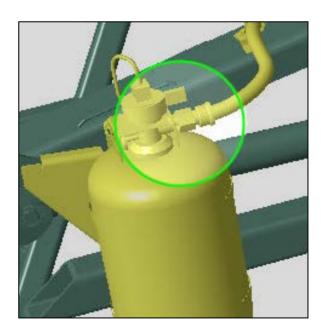
NOTE

Mount the tank so the pressure gauge can be easily checked during vehicle service.

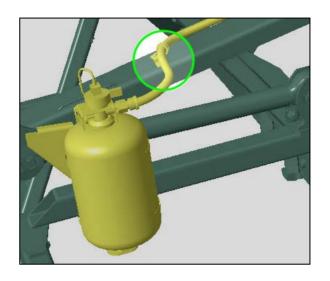
25. Route the new hose # 406983 along the vehicle chassis and attach with cable ties following the drawing below.



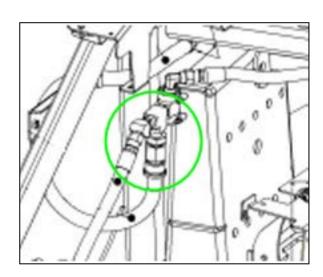
26. Connect the hose to the extinguisher tank.



27. Secure the hose to the clamp support previously welded to the vehicle chassis using the supplied P-clamp # 952635 and hardware.

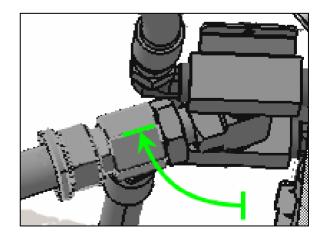


28. Connect hose to the vehicle spray nozzle tree in the engine compartment.



NOTE

On some vehicles, it may be necessary to change the angle of the fitting to eliminate the loop and allow sufficient hose length to connect to the fitting.



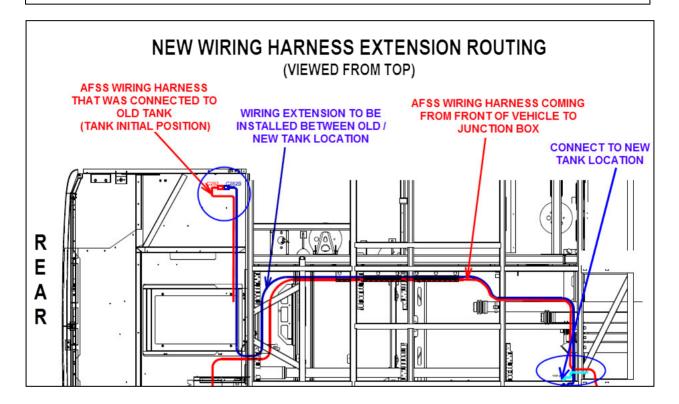
- 29. Connect the supplied wiring extension harness # 069161 to the extinguisher tank harness.
- 30. Refer to the image bellow to route the extension (blue) to the engine compartment following the AFSS wiring harness coming from the front of the vehicle to the rear electrical box (red).

NOTE

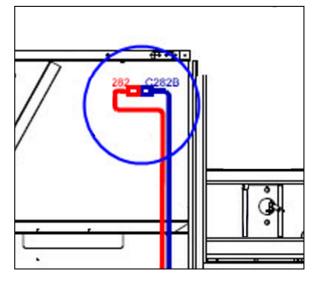
Wiring extension harness is supplied with extra length to fit different vehicle configurations.

Extension may have to be cut to final length to allow a clean installation on the vehicle.

Crimp and solder all connections made to the wiring extension harness.



31. Connect the other end of the extension (blue) to the original harness connection where the AFSS tank was previously installed (red).



- 32. Reinstall the R/H drive wheel(s).
- 33. Reconnect all Multiplex modules and batteries.
- 34. Set the battery master switch to the ON position and start the vehicle.
- 35. Finish the installation by verifying that all electronic functions of the vehicle are working properly.

PROCEDURE FOR SEATED COACHES



DANGER

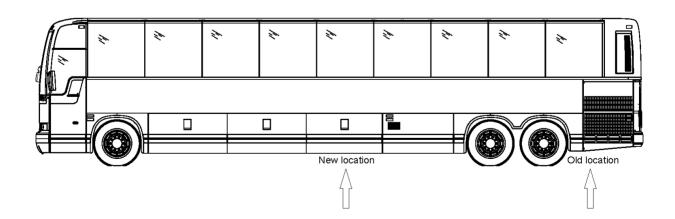
Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

This procedure requires removing the AFSS extinguisher cylinder from the engine compartment and relocating it in the third baggage compartment (street side). Some drilling is required for proper routing of hose and cables.

NOTE

AFSS hose routing should be performed from front to rear of vehicle.

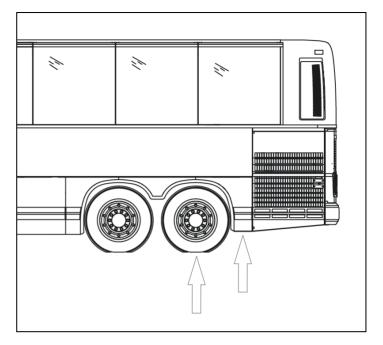
The hose end at the engine compartment is fitted with a straight fitting which allows easy fishing and routing, as opposed to an elbow at the other end.



1. To access AFSS extinguisher cylinder, lift hinged rear fender, remove aft wheel and aft wheel arch liner.

Disconnect and discard hose linking cylinder to nozzle distribution piping.

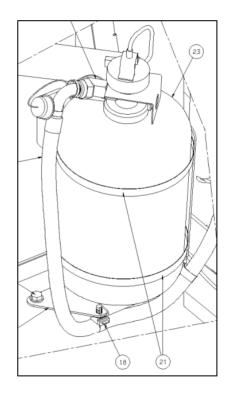
Disconnect electrical connector.



2. Disassemble cylinder from bracket. Install anti-recoil cap.

If bracket does not support any other element or is no longer required, discard.

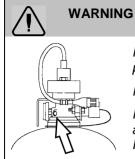
Depending on vehicle, existing electrical connector will either be used to connect a patch cable or will be protected with cap and plugs.



WARNING

The anti-recoil cap should be installed on the extinguisher valve outlet port at all times except when the extinguisher is connected to the distribution piping.

2. Prior to installing the extinguisher in its new location, the pressure gauge should be inspected to ensure that the needle is situated in the green zone. If it is not in the green zone, the cylinder should be replaced.



Inspect the fusible pressure relief plug.

If it is flush, the cylinder is good.

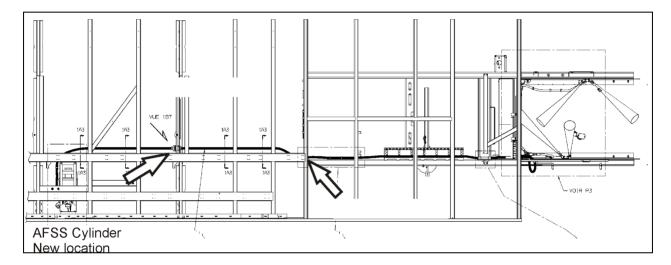
If it is protruding, replace the cylinder and return the defective cylinder to Prevost.





PROTUDING FLUSH

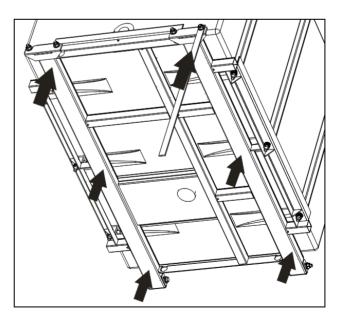
3. Drilling through partitions is required at arrow locations below. Refer to drawing D400451P1 for hose routing.



4. Drain the fuel tank into a suitable container (this operation may take hours depending on the quantity of fuel present).

To drain the fuel tank, it is recommended to siphon fuel through the connection panel on top of fuel tank or the filler tube.

We do not recommend removing the plug at the bottom of the tank. Doing this may increase future risks of fuel seepage.



- 5. Disconnect fuel supply and return lines, electrical harness and vent tubes, etc. from the fuel tank connection panel.
- 6. Place six jack stands under the fuel tank support at arrow locations.
- 7. Dismount tank support from vehicle.
- 8. Lift the vehicle.



 Inside the third baggage compartment, on the aft wall, center road side, position bulkhead flange #406518 as follows:

5 inches from RH top beam

3 inches from ceiling.

Drill using bulkhead flange as a template.

Drill 1 3/4 in. hole in the center and 1/8 inch for the 4 flange holes..

Install with #500957 tap screws.



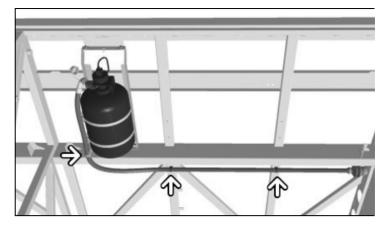
 Install Extinguisher Cylinder structural support road side and curb side #406562 & #406563. Refer to drawing D400463 for positioning.

NOTE

There are copper tubes above this area. Take care not to drill through the complete thickness of the floor.

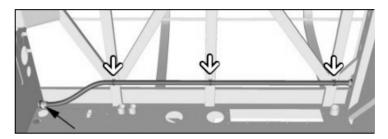


- 11. Connect hose to extinguisher.
- 12. Attach hose using tie mount #504013, thread cutting screw #500957 and cable tie #504016.



13. Routing in the fuel tank area.

Attach hose using tie mount #504013, #500957 thread cutting screw and cable tie #504016



14. On the rear wall of the fuel tank area, drill using #406518 bulkhead flange as a template.

Drill 1 3/4 in. hole in the center and use 1/8 inch drill bit for small plate holes.

Install with #500957 tap screws.

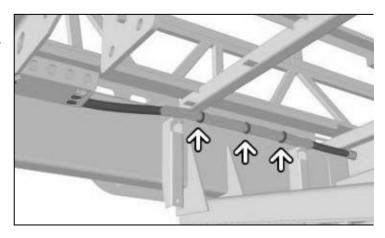
Refer to view 1A4 on drawing D400451P1 for sealing and hose protection measures



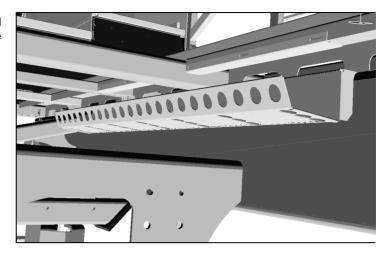
15. Routing in the rear axle well.

Proper access requires removing an air tank

Protect with slit hose #374668 and attach using cable tie #504016.



16. In the cable and hose tray, use a fishing technique to pull hose up to engine compartment

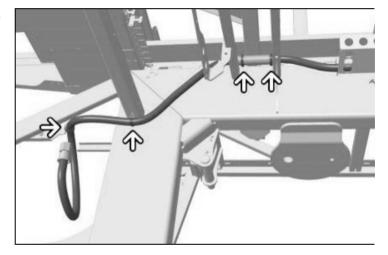


17. Routing from rear axle well up to engine bay follows layout in drawing D400451.

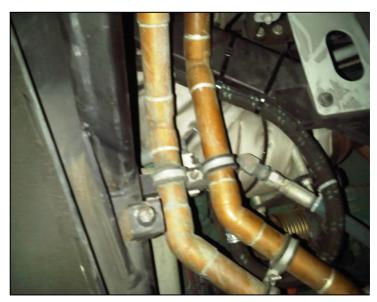
Protect with slit hose #374667 and attach using cable tie #504016.

Attach hose using:

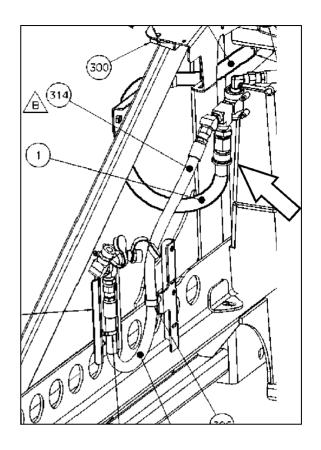
- tie mount #504013,
- thread cutting screw #500623
- cable tie #504016.



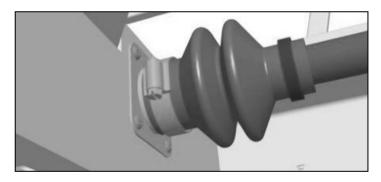
18. In engine compartment, use cable ties to secure hose as required.



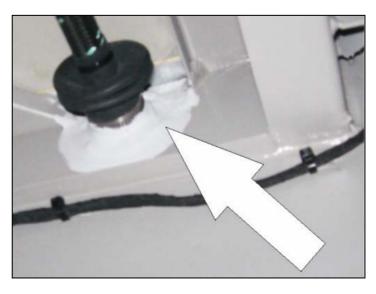
19. Connect hose to extinguisher nozzle distribution in the engine bay as specified on drawing D400451P3&P4.



1. Returning to third baggage compartment. Refer to view 1B7 on drawing D400451P1 for hose protection and baggage compartment sealing.



Apply a liberal amount of #680532 Sikaflex over screws and around flange.



Electrical connection

2. Depending on vehicles in the 3rd baggage compartment, you may find a wiring provision labeled "L282A" for connection of the AFSS cylinder. It will be tied in with the baggage compartment harness

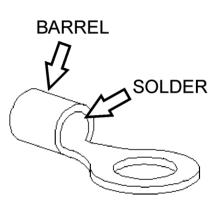


3. To conform to Kidde Standards, the 3/8" ring terminal, part of "L282A" wiring provision must be sealed with solder and heat shrink tube.

Remove blue plastic tube. Apply a sufficient amount of solder to seal closed the crimped connection.

The barrel portion of the ring terminal should be covered with adhesive lined heat shrink seal 2 times the length of the barrel.

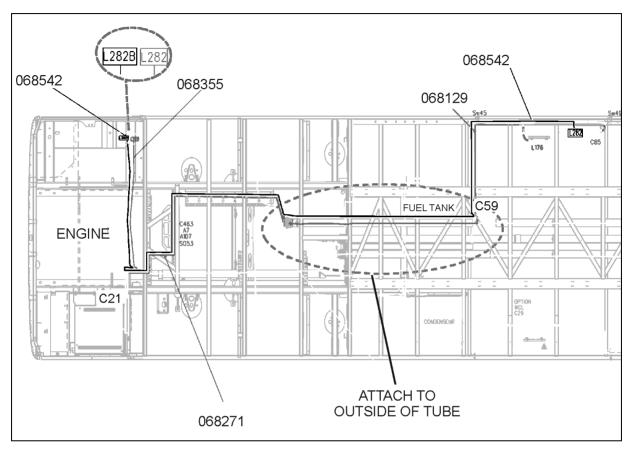




- 4. Plug connector to the cylinder.
- Connect ring terminal to ground stud provided on the road side cylinder bracket
- Returning to the engine compartment, install 561566 pin housing and 561783 seal plugs on the original connector of the AFSS cylinder to protect from moisture and dust.



20. If no provision is available, route #068542 patch cable from the original cylinder location in the engine compartment up to the third baggage compartment. Routing of the patch cable follows usual harness routing in vehicle as shown in view below.



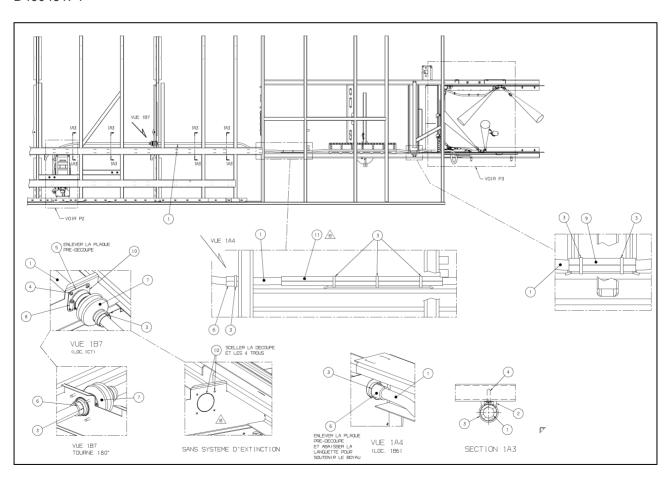
- 21. Connect #068542 patch cable to original extinguisher cylinder cable (#068355) at original location in the engine compartment.
- 22. Route back towards rear junction box following cable #068355.
- 23. Locate connector **C21** on rear junction box and cable #068271. Continue routing of patch cable following cable #068271 over the rear axle up to white ABS tubes.
- 24. Attach cable to the exterior of the tube over fuel tank and up to third baggage compartment. Drill both partitions as required and add rubber grommets #504068 to protect cable.
- 25. In the third baggage compartment, locate connector **C59** and follow cable #068129 up to relocated cylinder location. Connect to the AFSS cylinder and connect to ground stud provided on the road side cylinder bracket.

26. Re-install Fuel tank.

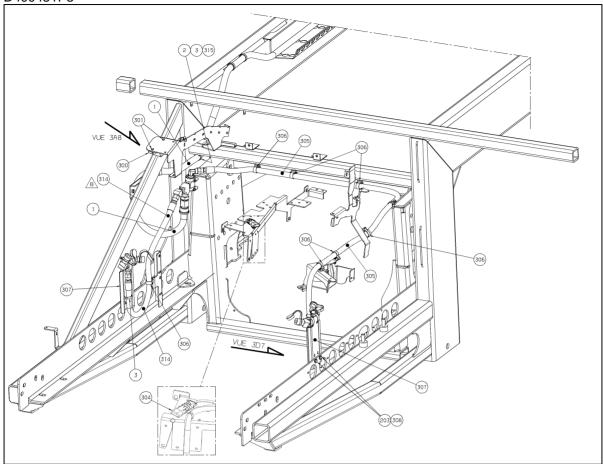


REFERENCE DRAWINGS

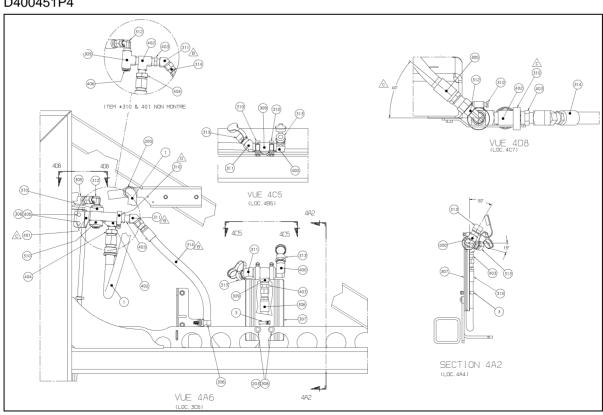
For detailed consultation; please refer to the paper copies provided in kit 406564. D400451P1



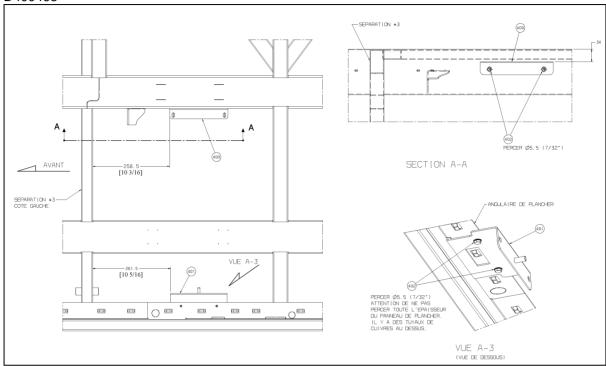
D400451P3



D400451P4



D400463



PARTS DISPOSITION

DO NOT RETURN THE REPLACED PARTS. Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)

WARRANTY

This modification is covered by Prevost's normal warranty. We will reimburse you the parts and 10 hour(s) (10.0) of labor for upon receipt of a completed A.F.A. Please submit claim via our Online Warranty System, available at www.prevostcar.com (under service \ warranty section). Use Claim Type: "Bulletin/Recall" and select "Safety Recall SR15-01".

OTHER

VBC Bulletin	N/A
Fail Code	23.08
Defect Code	09
Syst.Cond.	R
Causal Part	901125

Access all our Service Bulletins on http://prevostparts.volvo.com/technicalpublications/en/pub.asp or scan the QR-Code with your smart phone.

E-mail us at <u>technical publications</u> prev@volvo.com and type "ADD" in the subject to receive our warranty bulletins by e-mail.







Safety Recall Certification Sheet (Ref: SR15-01)

VEHICLE SE	RIAL NUMB	ER:	2 P	С	
P	ERFORMED	BY		01	WNER/OPERATOR
We hereby Instructions w SR15-01 have		o Safety			
Name:				Name:	
Addr:				Addr:	
Phone:				Phone:	
Fax:				Fax:	
Signature :				Signature :	
Date:				Date:	
If the information mentioned above is incorrect or you are not the owner of this vehicle anymore, please fill this section and return to sender.					
NEW OWNER:					
BUSINESS:		_			
ADDRESS (inc	cluding County	r):			
			-		
TELEPHONE:		FAX:			

Please return this completed document with your A.F.A. form