



## INSTRUCTION TO SERVICE

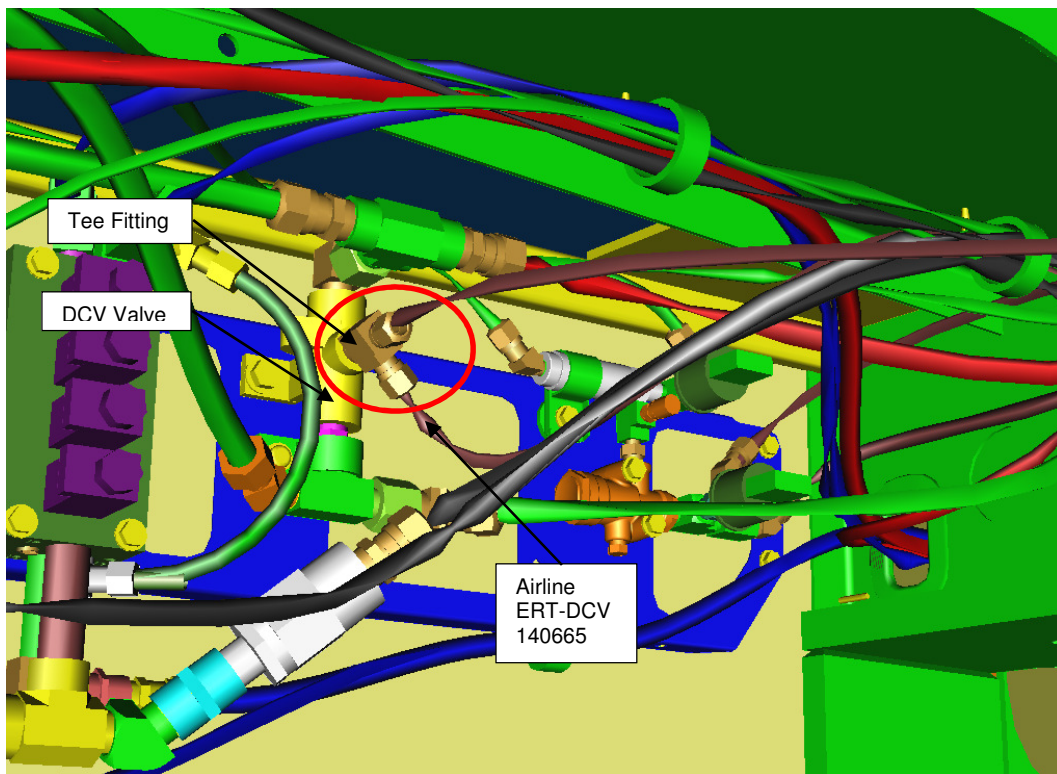
<b>ITS: 6244</b>	
<b>SECTION:</b>	246 Air, brake & levelling system.
<b>WRITTEN BY:</b>	Michael Rooney
<b>SUBJECT:</b>	Retrofit PPV valve to the emergency brake release system.

# ITS6244

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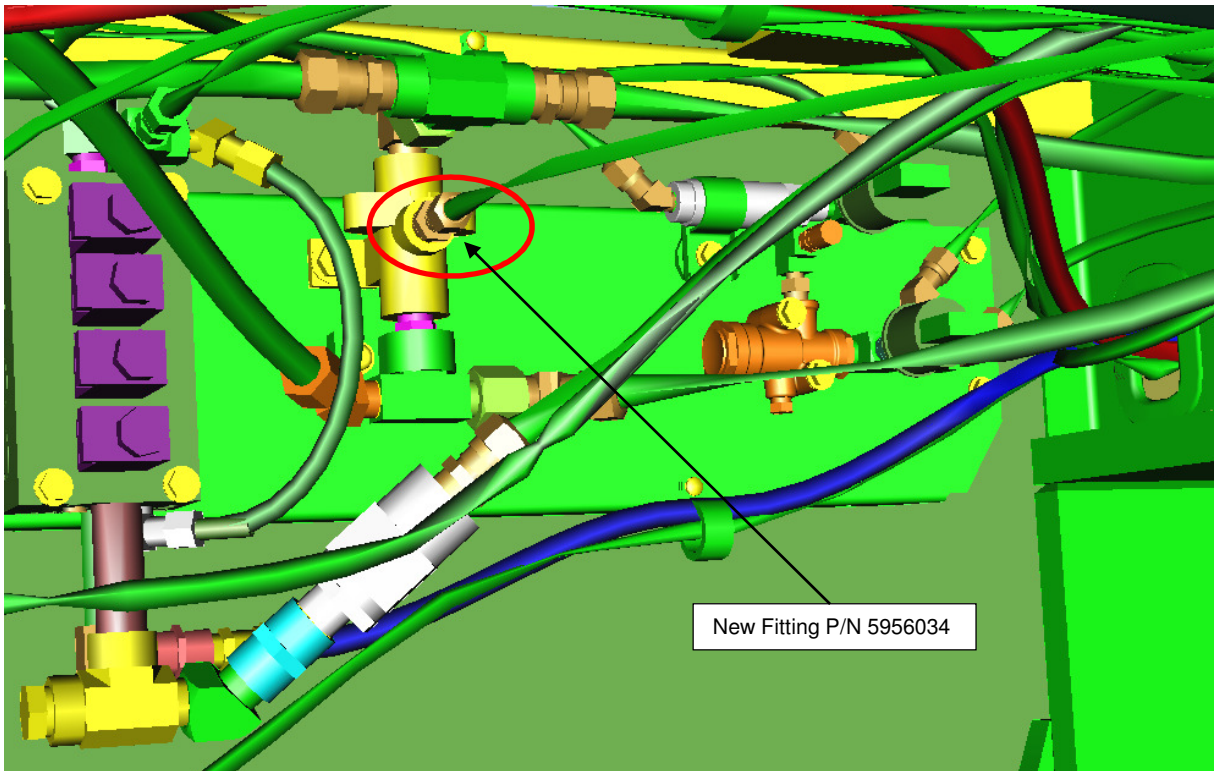
**PROCEDURE:**

1. Turn the main battery disconnect switch to the “OFF” position.
2. Drain the air from the air system following the procedure in the New Flyer Service Manual.
3. Raise coach in accordance with the New Flyer Service Manual.
4. Locate the DCV valve assembly under the floor at the front of the bus underneath the driver’s area. Figure 1.
5. Dis-connect the air lines at the tee fitting on the DCV valve then move the brown airline (ERT-DCV 140665) aside, it will be capped later. Figure 1.



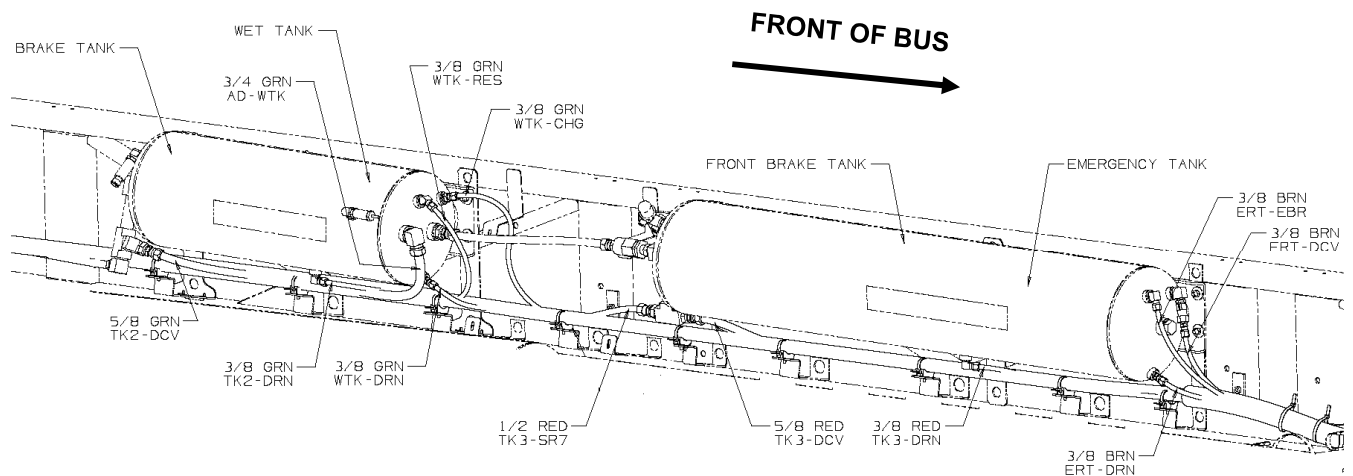
**Figure 1: Location of DCV Valve and Existing Tee Fitting.**

6. Install a new fitting NF P/N 5956034 in place of the previous tee fitting using Loctite 567 thread sealant NF P/N 8110442. Figure 2.
7. Attach the airline previously disconnected to the new fitting. Leave airline ERT-DCV 140665 alone for the time being, it will be capped later after system function is verified. Figure 2.



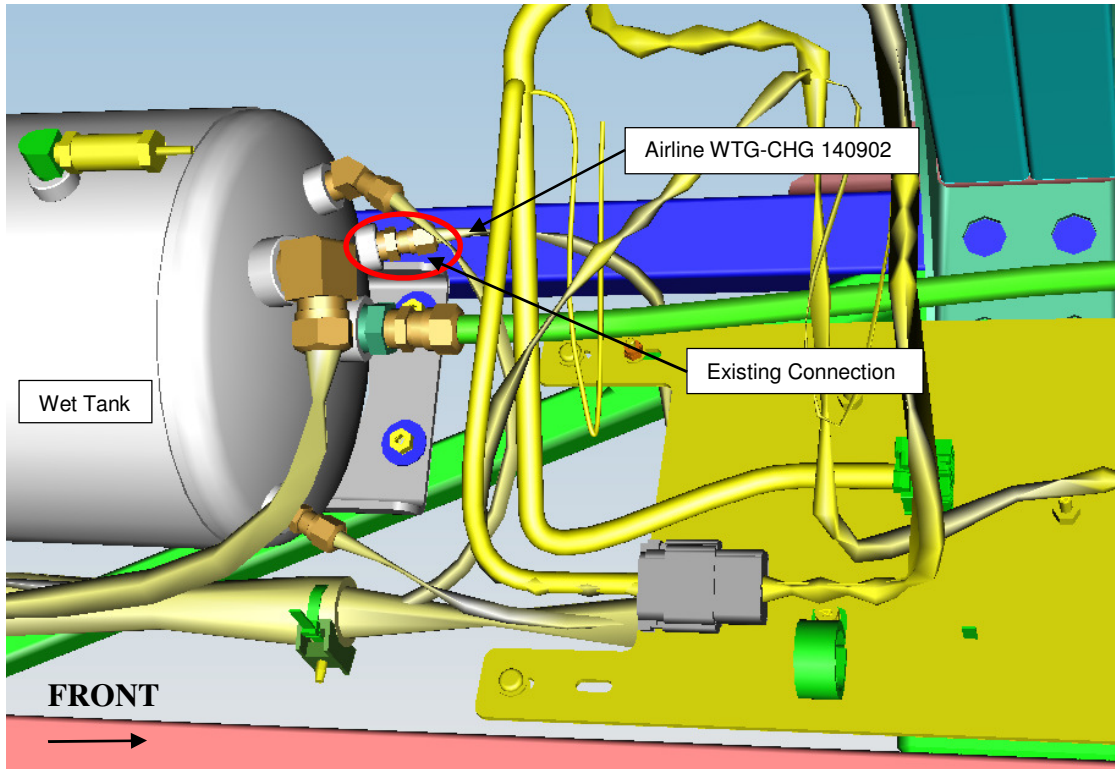
**Figure 2: New DCV Valve Fitting.**

8. Lower coach in accordance with the New Flyer Service Manual.
9. Remove the ad panels on the street side rearward of the SDS box to gain access to the Emergency/Front Brake Tank and Rear Brakes/Wet Tank. See Figure 3 for tank layout.



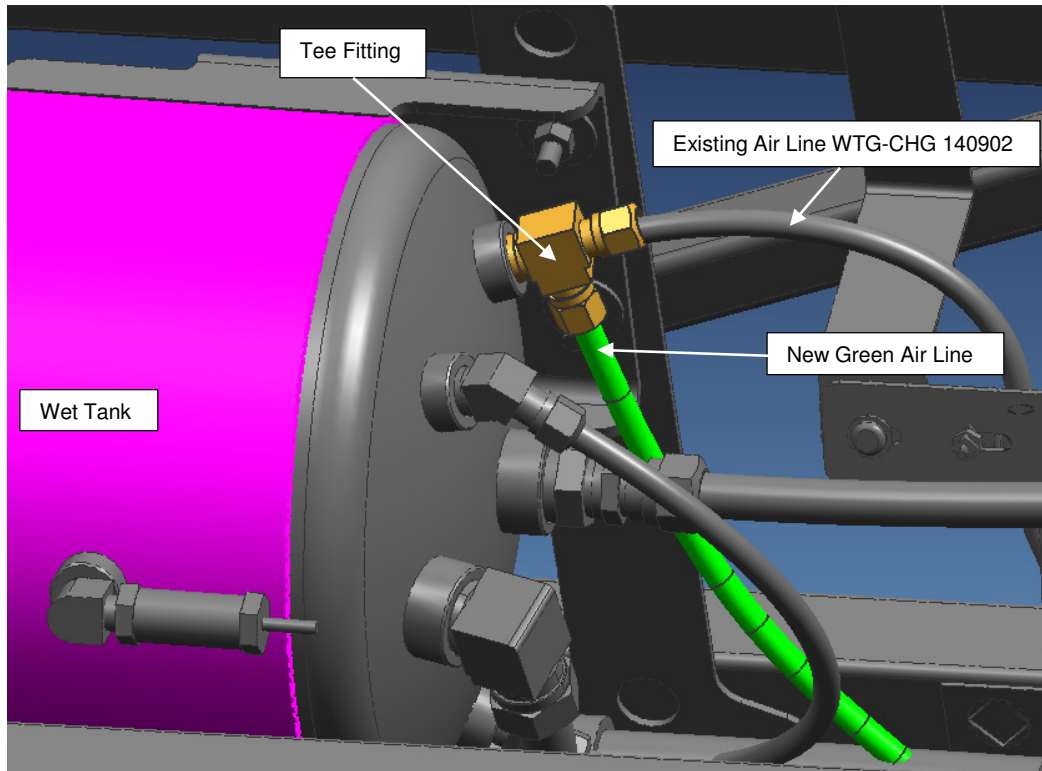
**Figure 3: Street Side Air Tank Layout.**

10. On the forward facing end of the Wet Tank, disconnect the green airline labelled WTK-CHG 140902. Figure 4.
11. Remove the existing fitting that was used to attach the green airline to the Wet Tank. Figure 4.



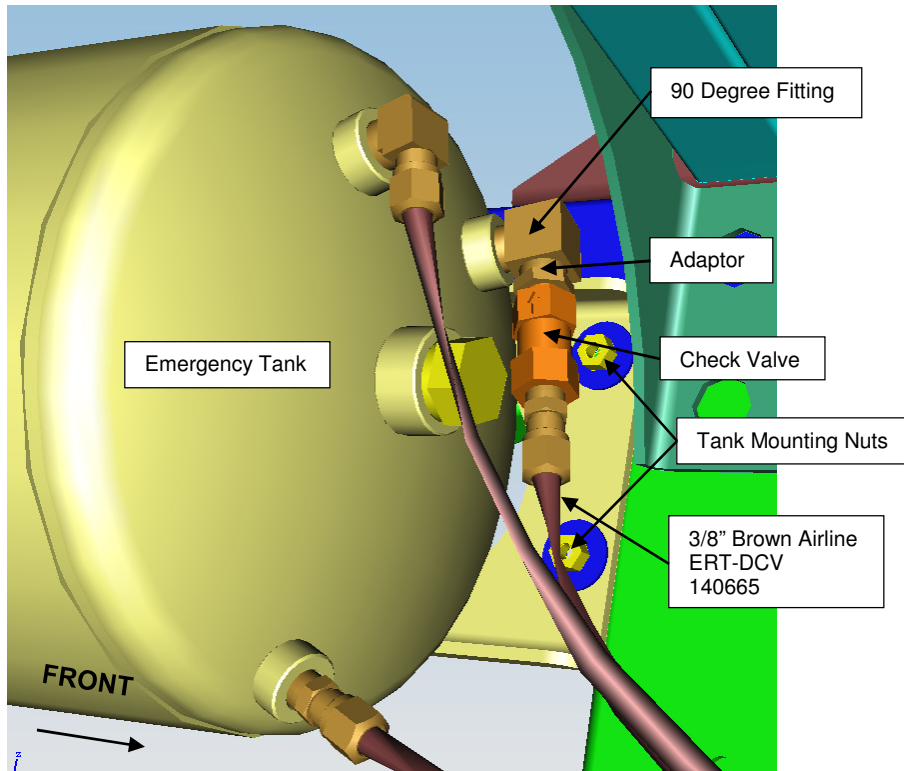
**Figure 4: Existing Connections at the Wet Tank.**

12. Install a tee fitting NF P/N 5962196 in the Wet Tank port using Loctite 567 thread sealant NF P/N 8110442. Figure 5.
13. Connect the airline labelled WTK-CHG 140902 to the new tee fitting. Figure 5.
14. Install a new 3/8 green airline NF P/N 5993283 on the other outlet of the tee fitting. Figure 5.
15. Route the new green airline to the forward end of the Emergency/Front Brake Tank and secure the airline with tyrap NF P/N 5958112 every six inches.



**Figure 5: New Connections at the Wet Tank.**

16. Disconnect the 3/8" Brown airline labelled ERT-DCV 140665 at the check valve on the emergency tank. Set the airline aside, it will be plugged later. Figure 6.
17. Remove the check valve and the 90 degree fitting on the emergency tank and discard them. Figure 6.



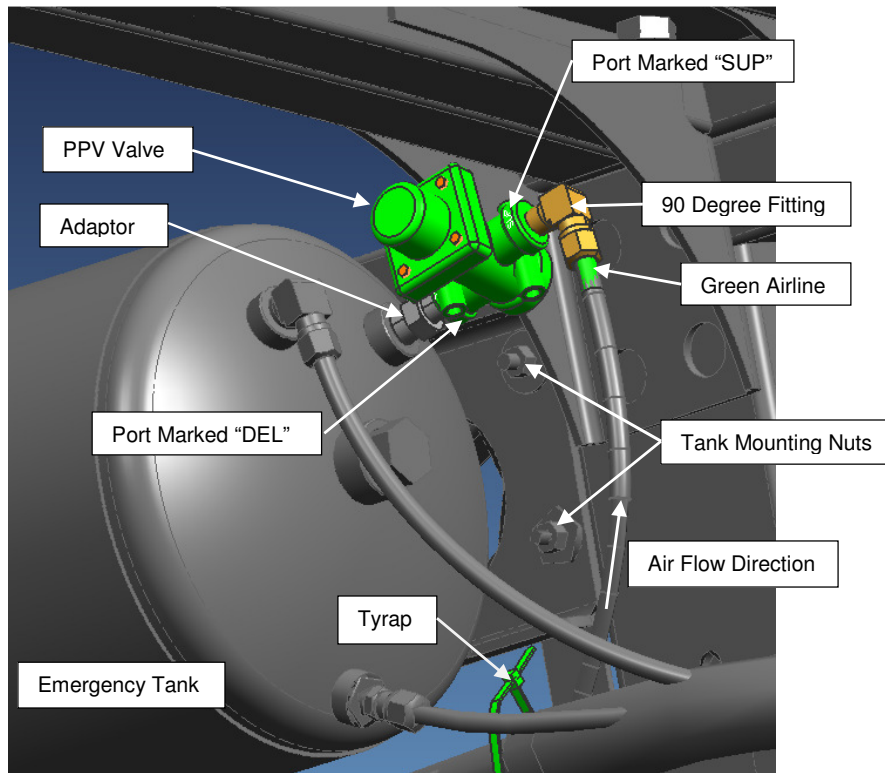
**Figure 6: Existing Emergency Tank Connections.**

18. Loosen the nuts that secure the forward end of the Front Brake/Emergency Tank to the bus chassis so the tank can be moved away from the chassis structure to create more room for installing the PPV valve. Figure 6.
19. Using Loctite 567 thread sealant NF P/N 8110442, install a 3/8 X 1/4" NPT nipple NF P/N 5993697 in the emergency tank fitting. Figure 7.
20. Using Loctite 567 thread sealant NF P/N 8110442, install a new PPV valve NF P/N 6344936 on the nipple. Ensure that the port marked "DEL" points towards the Emergency Tank and the port marked "SUP" points away from the Emergency Tank. Orient the PPV valve so that it does not interfere with the roof cross bracing. Figure 7.

**NOTE:** Air flow direction is from the Wet Tank to the PPV Valve and then into the Emergency Tank.

21. Using Loctite 567 thread sealant NF P/N 8110442 install 90 degree fitting NF P/N 5953778 in the port marked "SUP" on the PPV valve. Orient the new fitting downward. Figure 7.

22. Trim the new 3/8" green airline installed earlier on the Wet Tank to length and attach it to the 90 degree fitting in the port marked "SUP" on the PPV valve. Figure 7.
23. Tighten the air tank mounting bolts that were loosened earlier to facilitate mounting the PPV Valve. Figure 7.



**Figure 7: New PPV Valve Installation at the Emergency Tank.**

24. Turn the main battery disconnect switch to the "ON" position.
25. Start the bus and allow the air system to pressurize.
26. Check that the Emergency Tank has air pressure and the air system functions correctly.
27. Check the connections at the Wet Tank and Emergency Tanks for leaks. Repair as necessary.
28. When the airline connections have been Verified:
  - a) Locate the Brown airline (ERT-DCV 140665) that was disconnected at the DCV Valve under the floor. Fold the end of the airline back on itself and secure with a tyrap NF P/N 5958112.
  - b) Locate the opposite end of the Brown airline (ERT-DCV 140665) that was disconnected from the check valve on the Emergency Tank. Fold the end of the airline back on itself and secure with a tyrap NF P/N 5958112.
29. Re-install the ad panels removed to access the air tanks.
30. Remove all tools and debris to return the bus to service condition.



**NEW FLYER**

### LABOUR ESTIMATE

	Operation	Men	Hours	Labour Time M X HR
1	Retrofit PPV valve to the emergency brake release system.	1	2.0	2.0

### PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	8110442	LOCTITE 567-THREAD SEALANT	0.01	EA	
2	5958112	TYRAP – 7.0 BLACK	11	EA	
3	5993283	SYNFLEX HOSE 3/8 GRN	8.5	FT	
4	5962196	TEE-MALE RUN 3/8 X 3/8 T	1	EA	
5	5953778	ELBOW – 90 DEG ¼ MPT X 3/8 SYN	1	EA	
6	5993697	NIPPLE – 3/8 X ¼ PT	1	EA	
7	6344936	RESERVOIR CONTROL VALVE	1	EA	
8	5956034	CONNECTOR-3/8 PT X 3/8 OD	1	EA	

### SPECIAL TOOLS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1		No special tools required.			