# Technical Service Information

TSI-13-04-01

Date: OCTOBER 2013 Subject File: BRAKES

Subject: Frame Mounted Battery Box - Air Drier Service Procedure

Model: CE Bus

# DESCRIPTION

Group 31 frame mounted battery box includes placement of air drier, AD-9 and AD-IP, within frame mounted outer brackets. With placement of air drier within mounting brackets, service procedures for maintenance of air drier will need to be adjusted.

# PARTS INFORMATION

No parts required.

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# SERVICE PROCEDURE

WARNING: Park vehicle on hard flat surface, turn the engine off, set the parking brake, and block the wheels to prevent the vehicle from moving in both directions. Failure to do so may result in property damage, personal injury, and / or death.

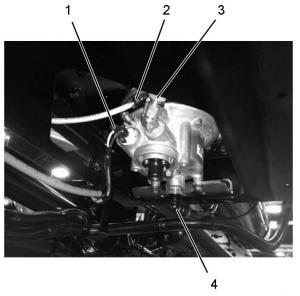
**WARNING:** If the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over, potentially resulting in property damage, personal injury, and / or death.

**WARNING:** Always wear safe eye protection when performing vehicle maintenance. Failure to do so may result in personal injury and / or death.

**WARNING:** Keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases. Failure to do so may result in property damage, personal injury, and / or death.

**WARNING:** Remove the ground cable from the negative terminal of the battery box before disconnecting any electrical components. Always connect the ground cable last. Failure to do so may result in property damage, personal injury, and / or death.

- 1. Bring vehicle into shop and park on flat surface.
- 2. Shift transmission to Park or Neutral, set parking brake, and install wheel chocks.
- 3. Open battery box and disconnect negative battery cable(s) from batteries.
- 4. Drain air tanks.



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#### Figure 1. Disconnecting Air Drier.

- 1. Air drier harness connector
- 2. Control line and push-to-connect line fitting
- 3. Supply line and fitting
- 4. Discharge line and push-to-connect line fitting

## NOTE: Disconnection of supply line is not required.

- 5. Disconnect air drier harness connector (Figure 1, Item 1) from air drier connector.
- 6. Disconnect control line from push-to-connect line fitting (Figure 1, Item 2), 5/8-in BLACK air line.
- 7. Disconnect discharge line from push-to-connect line fitting (Figure 1, Item 4), 3/8-in GRAY air line.

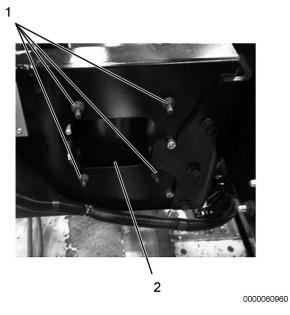
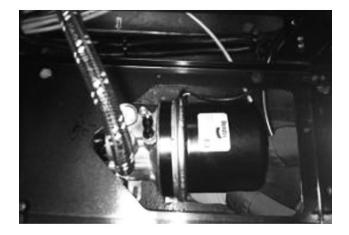


Figure 2. Air Drier Attaching Hardware.

- 1. Nut, bolt, lockwasher (4)
- 2. Air drier
- 8. Remove four nuts, lockwashers, and bolts (Figure 2, Item 1) from air drier (Figure 2, Item 2).



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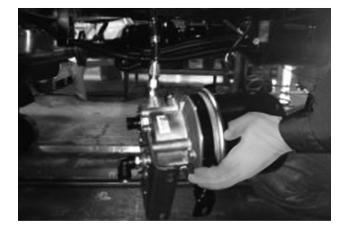
Figure 3. Air Drier Removed for Service (Top View).



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## Figure 4. Air Dryer Removed for Service (Bottom View).

- 9. Lower air drier through service access hole in bottom of frame mounted battery box assembly and support as required for service procedure (Figures 3 and 4).
- 10. Service air dryer as directed by Manufacturer, AD-9 Service Instructions, or AD-IP Service Instructions.



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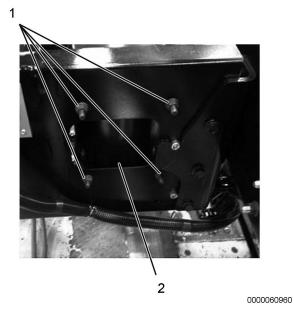
Figure 5. Air Dryer Installation (Bottom View).



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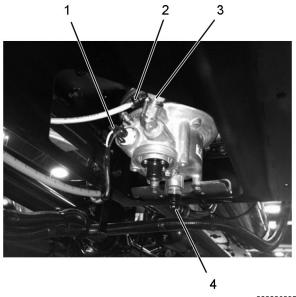
#### Figure 6. Air Drier Installation (Top View).

11. Raise air drier through service access hole in bottom of frame mounted battery box assembly, and support as required for installation (Figures 5 and 6).





- 1. Nut, bolt, lockwasher (4)
- 2. Air drier
- 12. Install four bolts, lockwashers, and nuts (Figure 7, Item 1) onto air drier (Figure 7, Item 2).



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#### Figure 8. Connecting Air Drier.

- 1. Air drier harness connector
- 2. Control line and push-to-connect line fitting
- 3. Supply line and fitting
- 4. Discharge line and push-to-connect line fitting

**WARNING:** Make sure push-to-connect lines are free from damage and / or debris before installing. Failure to do so may result in property damage, personal injury, and / or death.

#### NOTE: If supply line was disconnected for servicing, connect supply line.

- 13. Connect discharge line into push-to-connect line fitting (Figure 8, Item 4), 3/8-in GRAY air line.
- 14. Connect control line into push-to-connect line fitting (Figure 8, Item 2), 5/8-in BLACK air line.

WARNING: Make sure air drier harness connector is free from damage and / or debris before connecting. Failure to do so may result in property damage, personal injury, and / or death.

- 15. Connect air drier harness connector (Figure 8, Item 1) onto air drier connector.
- 16. Connect negative battery cable(s) onto batteries and close battery box.
- 17. Start engine and allow air pressure to reach operating range.
- 18. Remove wheel chocks.