

REP-REP-RAF1034-3400025 V.3 Replacing fluid in brake system; VIN: [REDACTED]

ISTA system version	4.03.31.18804	Data version	R4.03.31	Programming data	-
VIN	[REDACTED]	Vehicle	X/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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Replacing fluid in brake system



Note:

[Read and comply with General Notes.](#)

The capacities are oil change quantities. For this purpose, refer to the Electronic Parts Catalogue/Commercial Service Data (capacities)



Necessary preliminary work:

- Remove left sensor opening

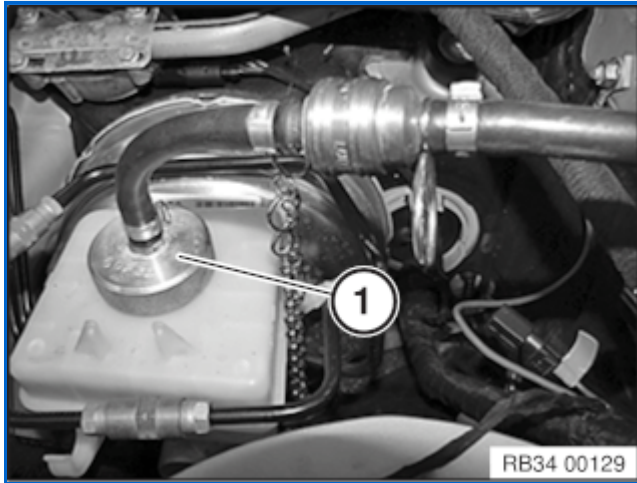


Important!

When carrying out repairs to the brake system, follow the procedure set out in [Bleeding brake system with DSC](#).

Under certain circumstances it is not possible after the brake system is opened to bleed the brake system fully at the rear EMF brake calipers. If there is still residual air in the rear brake calipers after normal bleeding, it will be necessary to work through an [additional brake bleeding procedure](#)!

Use only BMW-approved brake fluids, see [BMW operating fluids](#).

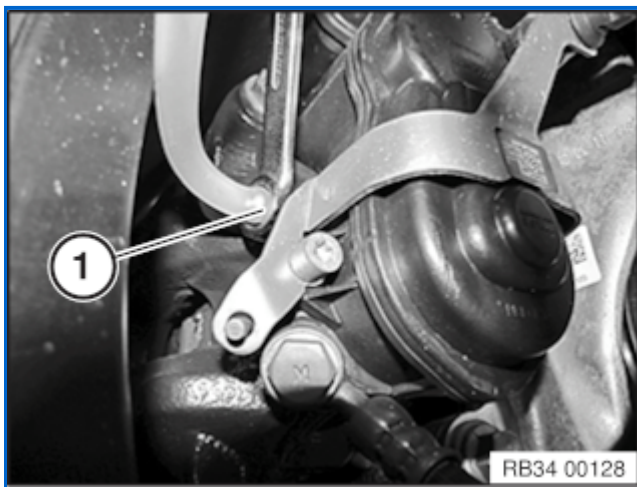


Connect bleeder unit to expansion tank and switch on.

Note:

Follow the applicable equipment manufacturer's Owner's Handbook.

Charging pressure should not exceed 2 bar.



Completely bleed the brake system.

Connect bleeder hose with collecting tray to bleeder valve on rear right brake caliper.

Open bleeder valve and purge until clear, bubble-free brake fluid emerges.

Close vent valve.

Follow same procedure on rear left, front right and front left wheel brake.

Important!

In vehicles with 6-piston fixed caliper brakes two vent valves per brake caliper are installed on the front axle!

In each case start by bleeding at the outer vent valve and then bleed at the inner vent valve.



Note:

Additionally flush the clutch slave cylinder in vehicles with manual gearbox.

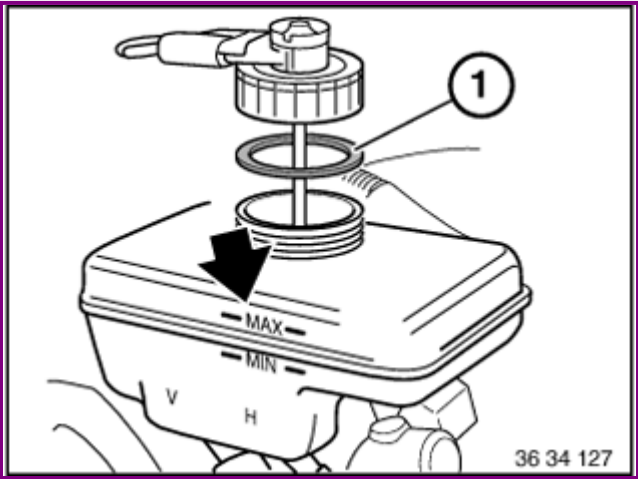
Switch off bleeder unit and remove from expansion tank.

Check brake fluid level. If necessary, top up/draw off to "Maximum" level.

Close expansion tank.

Note:

Pay attention to seal (1) in sealing cap.



REP-REP-RAF1034-3400EMF-ENTLUEFTEN V.11 Parking brake (EMF) - additional brake bleeding procedure; VIN: [REDACTED]

ISTA system version	4.03.31.18804	Data version	R4.03.31	Programming - data
VIN	[REDACTED]	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

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Parking brake (EMF) - additional brake bleeding procedure

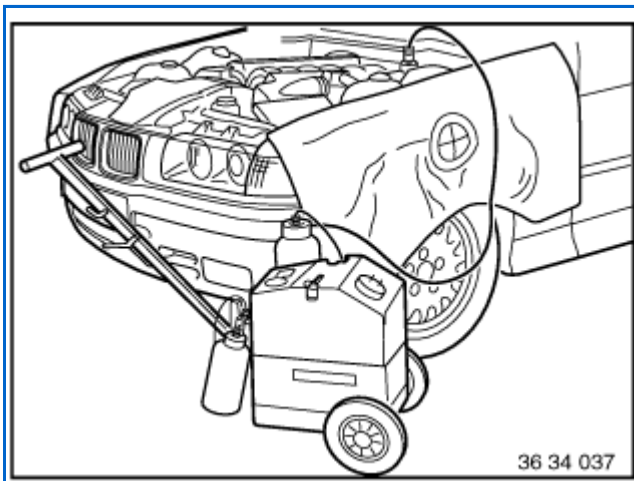


Note:

This bleeding procedure serves to eliminate residual air in the brake system.

Under certain circumstances it may not be possible to remove the entire residual air from the parking brake (EMF) brake calipers by means of the normal bleeding procedure.

In these cases, the following procedure applies.



Connect brake fluid changer to expansion tank and switch on.

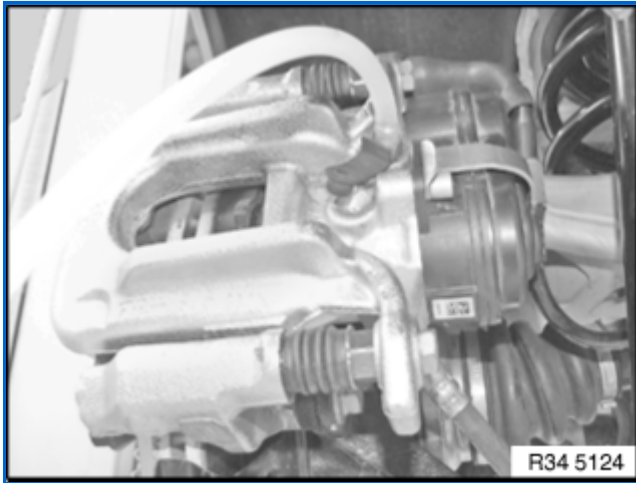
Note:

Check relevant equipment manufacturer's Operating Instructions for each device.

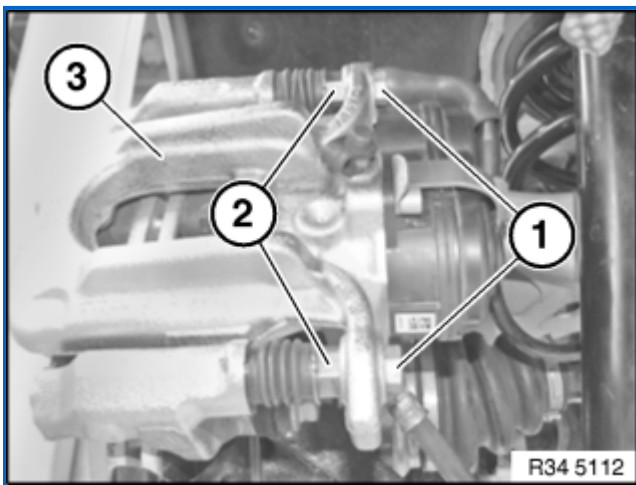
Charging pressure should not exceed 2 bar.

Close vent valve.

Flush brake caliper in installation position.



Close vent valve.



Unscrew guide bolts (1).

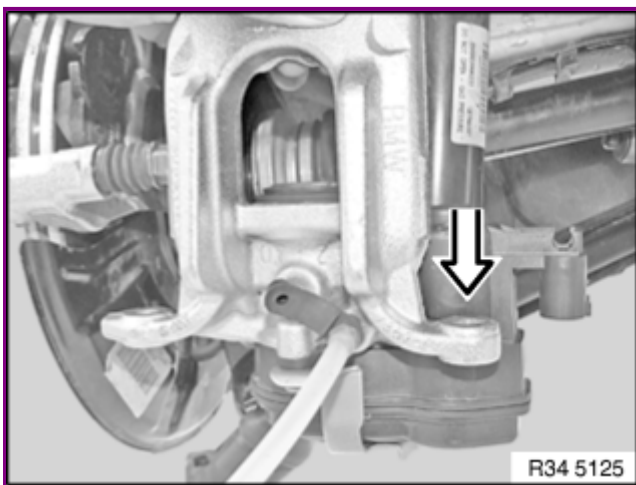
If necessary, grip at hexagon head (2).

Remove brake caliper (3).

Installation note:

Replace guide bolts.

Tightening torque 34 21 4AZ.



Disconnect plug connection on EMF actuator and detach cable from cable clip.

Turn brake caliper so that EMF actuator points downwards.

Open vent valve and flush brake caliper.

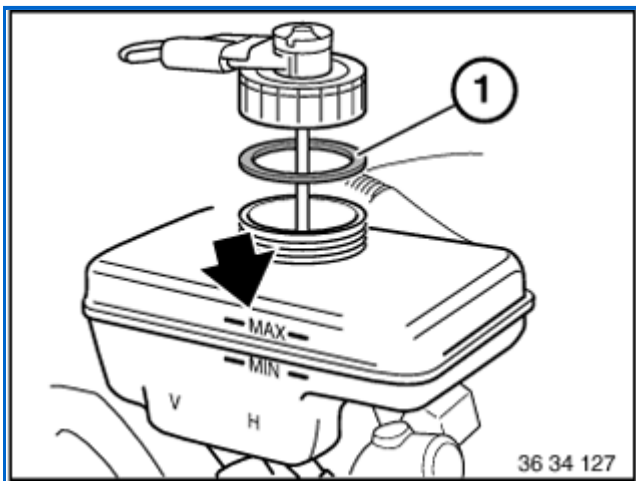
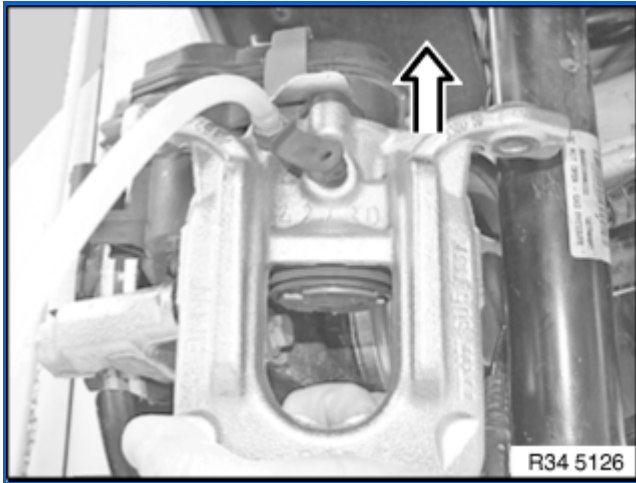
Close vent valve.

Turn brake caliper so that EMF actuator points upwards.

Open vent valve and flush brake caliper.

Close vent valve.

Reinstall brake caliper in installation position and flush again.



Switch off brake fluid changer and remove from expansion tank.

Check brake fluid level. If necessary, top up/draw off to max. level.

Close expansion tank.

Note:

Pay attention to rubber seal (1) in sealing cap.

REP-REP-RAF1034-3400050 V.2 Bleeding brake system with DSC; VIN: [REDACTED]

ISTA system version	4.03.31.18804	Data version	R4.03.31	Programming data	-
VIN	[REDACTED]	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

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Bleeding brake system with DSC



Necessary preliminary tasks:

- Remove left sensor opening
- Read and comply with [General Information](#).



Important!

Under certain circumstances it is not possible after the brake system is opened to bleed the brake system fully at the rear EMF brake calipers. If there is still residual air in the rear brake calipers after normal bleeding, it will be necessary to work through an [additional bleeding procedure](#)!

When replacing or repairing, observe the filling and bleeding instructions for the following parts:

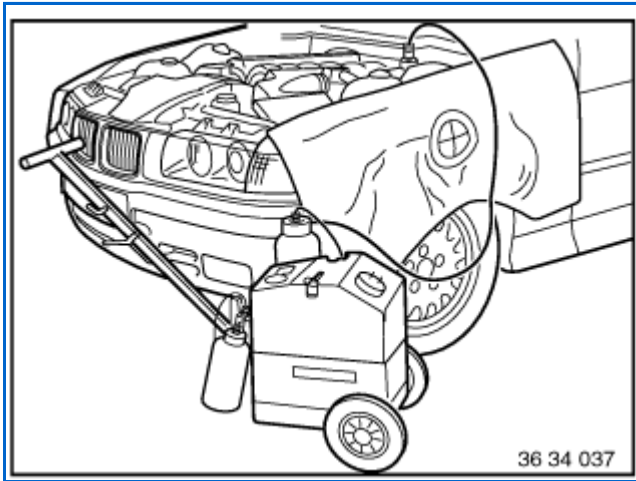
- Tandem brake master cylinder
- Hydraulic unit
- Components and lines which are fitted between these assemblies.

Connect bleeder unit with max. 2 bar filling pressure.

A second person is needed for this repair work.

Use only BMW-approved brake fluids, see [BMW](#)

operating fluids.



Connect diagnosis and information system.

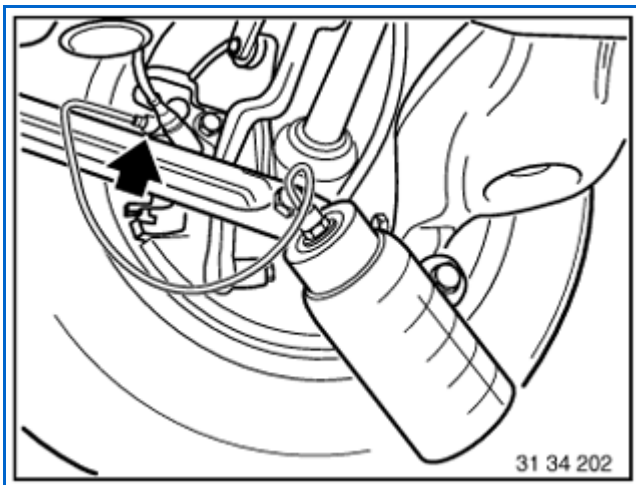
Select path: Service functions - Chassis/Suspension - Traction control systems - Bleeding procedure.

Important!

Check relevant equipment manufacturer's operating instructions for each device.

Charging pressure should not exceed 2 bar.

Connect bleeder unit to expansion tank and switch on.



Completely bleed the brake system.

Connect bleeder hose with collecting tray to bleeder valve on rear right brake caliper.

Open bleeder valve and purge until clear, bubble-free brake fluid emerges.

Close vent valve.

Follow same procedure on rear left, front right and front left wheel brake.

Important!

In vehicles with 6-piston fixed caliper brakes two vent valves per brake caliper are installed on the front axle!

In each case start by bleeding at the outer vent valve and then bleed at the inner vent valve.

Bleed the rear axle brake circuit.

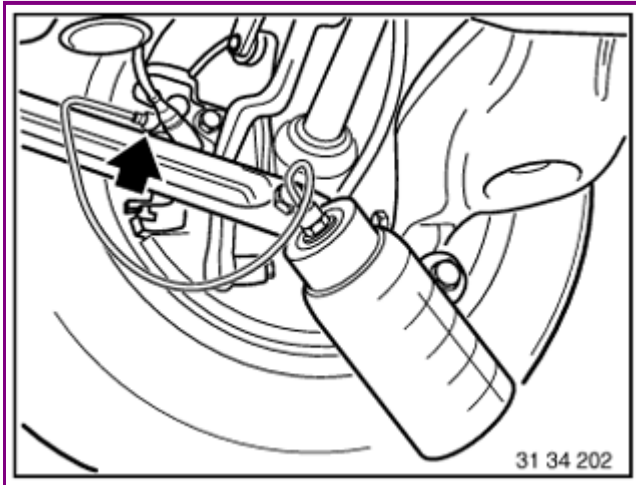
Connect bleeder hose with collecting tray to bleeder valve on rear right brake caliper.

Open vent valve.

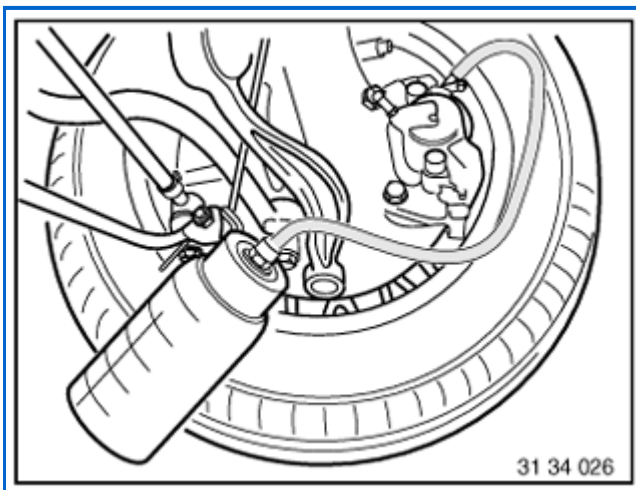
Run brake bleeding procedure using the diagnosis and information system with the vent valve open.

After completing routine, press brake pedal 5 times to floor; clear and bubble-free brake fluid must flow out.

Close vent valve.



Repeat procedure at rear left.



Bleed front-axle brake circuit.

Connect vent hose with collecting vessel to vent valve on front right brake caliper.

Open vent valve.

Important!

In vehicles with 6-piston fixed caliper brakes two vent valves per brake caliper are installed on the front axle!

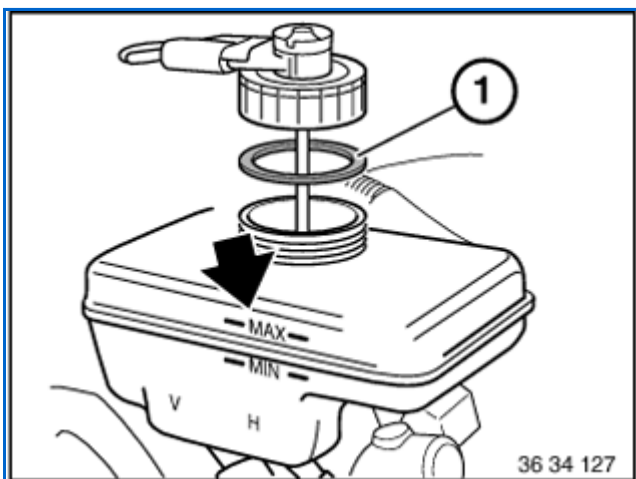
In each case start by bleeding at the outer vent valve and then bleed at the inner vent valve.

Run brake bleeding procedure using the diagnosis and information system with the vent valve open.

After completing routine, press brake pedal 5 times to floor, clear and bubble-free brake fluid must flow out.

Close vent valve.

Repeat procedure at front left.



Switch off bleeder unit and remove from expansion tank.

Check brake fluid level. If necessary, top up/draw off to "MAX" level.

Close expansion tank.

Note:

Pay attention to gasket (1) in sealing cap.

AZD-AZD-AZDMUC3421-F01 V.9 Rear brakes; VIN: XXXXXXXXXX

ISTA system version	4.03.31.18804	Data version	R4.03.31	Programming - data
VIN	XXXXXXXXXX	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12	
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.) -
Mileage	0 km			

34 21 Rear brakes

	Type	Thread	Tightening specifications	Dimension
1AZ Brake disc to wheel hub	F01 / F02 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F25 / F26	M8	Renew screw.	16 Nm
2AZ Caliper carrier to wheel carrier	F01 / F02 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18	M12x1.5	Renew screws.	110 Nm
	F03	M14x1,5	Replace screws. Attention: Observe 4 phase tightening! Jointing torque Release Jointing torque Angle of rotation	150 Nm min.90 ° 150 Nm 180°± 15°
	F25 / F26	M12x1.5	Replace screws. Jointing torque Angle of rotation	75 Nm 45°10°
3AZ Protective plate to wheel carrier	F01 / F02 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F25 / F26	M6	Renew screws.	12 Nm
4AZ Guide screw (brake caliper to caliper carrier)	F01, F02, F03, F04, F07	WAF 7		30-5 Nm
5AZ Guide screw (brake caliper to caliper carrier)	F06 / F10 / F12 / F11 / F13 / F18 / F25 / F26	WAF 13	Renew screws.	35 Nm

AZD-AZD-AZDMUC3400-F01 V.10 Testing and bleeding brakes; VIN: XXXXXXXXXX

ISTA system version	4.03.31.18804	Data version	R4.03.31	Programming data	-
VIN	XXXXXXXXXX	Vehicle	X'/F25/off-road vehicle/X3 xDrive35i/N55/AUTO/US/LL/2015/12		
Int.lev.works	-	Int.lev.(cur.)	-	Int.lev.(tar.)	-
Mileage	0 km				

34 00 Testing and bleeding brakes

	Type	Thread	Tightening specifications	Dimension
1AZ Vent valve	F01 / F02 / F03 / F04 / F06 / F07 / F10 / F11 / F12 / F13 / F18 / F25 / F26	WAF 11		12-18 Nm
	F06 / F10 / F11 / F12 / F13 / F18 / F25 / F26	wrench size 9 mm		9-11 Nm