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## **Technical Information**

## Bulletin No. 244/11

## Product: Sabre CRi test bench

## Subject: Test bench VCV calibration

Before the machine can be operated the pump VCV needs to be calibrated. To perform a VCV calibration follow the steps outlined below:



The VCV calibration routine will operate the machine at maximum rail pressure:

Sabre CRi Master = 1800bar Sabre CRi Expert = 2700bar

Ensure that the previous steps have been completed prior to attempting the VCV calibration routine.

1. Blank off the high pressure bulkhead fitting within the spray chamber using the blanking cap supplied with the machine. **Note: Ensure the blanking plug is torque tightened to 35Nm.** 



- 2. Power on the machine and launch Magmah.
- 3. Press the diagnostic screen icon.

v2.00b30 Home		U A
Bosch		
Continental	T	Ref.
Delphi	0445 110 024	Code
Denso	0445 110 024my	
	0445 110 025	
	0445 110 036	
All	0445 110 036	
0445 110 xxx	0445 110 037	

4. Select the Calibration Icon from the bottom tool bar.

/	System comms	~	Motor stop button	Injector current -0.2 A	Back leak flow 0.1 mL/min
/	Lift Pump Pressure	<b>~</b>	Flushing Tank level		Tank level
Inje	ctor voltage limits		Motor over current	SPI memory fault	L
Rail	feed back		Watch dog timeout	Metering unit fault	10
vcv	over current		Resistance error	Reset complete	
PCV	over current		Hydraulic system read	ly Lift Pump Pressure	5
	Service required in	363 hrs	,		o
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5. Start the motor running via the green button on the front panel of the machine.

Note: check for any leaks from the HP outlet and blanking plug. If leaks are evident then stop the calibration process and rectify the leak.

5.	Select the VCV calibration Icon.
	The calibration has been aborted.

- 7. The machine will automatically perform the VCV calibration routine, typically this takes 90 seconds to complete and the rail pressure will gradually increase to the maximum pressure for the particular machine variant.
- 8. Wait for the message in the bottom message bar to state the VCV calibration is complete.
- 9. Stop the motor.
- 10. VCV calibration is now complete and the machine is ready for use.

Note: The VCV calibration routine must be performed every 90 days to ensure optimum machine operation. The calibration expiry date is shown in the calibration screen.