



Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety precautions when working on high-voltage system	1
1.2 Safety precautions when working in the vicinity of high-voltage components	2
1.3 Safety measures when working on vehicles with a start/stop system	2
1.4 Safety precautions when using test and measuring instruments during a road test	2
2 Identification	3
2.1 Allocation of PR number - brakes	3
3 Technical data	5
3.1 Technical data for brakes	5
4 Brake test	8
4.1 General information	8
4.2 Checking vehicles with front-wheel drive	8
45 - Anti-lock brake system	9
1 General information	9
1.1 Repair instructions for repair work on ABS	9
1.2 Vehicle diagnosis, testing and information system	11
2 Overview of fitting locations	13
2.1 Fitting location overview - ABS	13
2.2 Overview of fitting locations - ABS/ESP	16
3 Control unit and hydraulic unit	21
3.1 Assembly overview - control unit and hydraulic unit	21
3.2 Removing and installing ABS control unit J104 and ABS hydraulic unit N55	29
3.3 Separating control unit from hydraulic unit	126
3.4 Fitting control unit to hydraulic unit	129
3.5 Connecting brake lines to hydraulic unit	134
4 Sensors	137
4.1 Assembly overview - speed sensor on front axle	137
4.2 Assembly overview - speed sensor on rear axle	138
4.3 Removing and installing yaw rate sender and lateral acceleration sender	139
4.4 Assembly overview - sensors and actuators	140
4.5 Removing and installing speed sensors on front axle G45 / G47	140
4.6 Removing and installing speed sensors on rear axle G44 / G46	141
46 - Brakes - mechanism	143
1 Front brakes	143
1.1 Assembly overview - front brakes	143
1.2 Removing and installing brake pads/linings	150
1.3 Removing and installing brake caliper	156
1.4 Removing and installing brake carrier	163
1.5 Replace brake disc	165
1.6 Removing and installing brake splash plate	170
2 Rear brakes	174
2.1 Assembly overview - rear brakes	174
2.2 Removing and installing brake pads/linings	184
2.3 Removing and installing brake caliper	191
2.4 Removing and installing brake carrier	198
2.5 Removing and installing brake disc	200
2.6 Removing and installing brake splash plate	202
3 Parking brake	207
3.1 Assembly overview - parking brake	207



3.2	Removing and installing handbrake lever	208
3.3	Adjusting parking brake	211
3.4	Removing and installing rear brake cable	212
4	Brake pedal	219
4.1	Assembly overview - brake pedal	219
4.2	Removing and installing mounting bracket	222
4.3	Separating brake pedal from brake servo	233
4.4	Connecting brake pedal to brake servo	234
4.5	Removing and installing brake pedal	235
47	Brakes - hydraulics	237
1	Front brake caliper	237
1.1	Assembly overview - front brake caliper	237
1.2	Removing and installing brake caliper piston	239
2	Rear brake caliper	245
2.1	Assembly overview - rear brake caliper	245
2.2	Removing and installing brake caliper piston	248
3	Brake servo and brake master cylinder	253
3.1	Assembly overview - brake servo/brake master cylinder	253
3.2	Removing and installing brake light switch	257
3.3	Removing and installing brake servo	261
3.4	Removing and installing brake master cylinder	299
3.5	Removing and installing brake fluid reservoir	325
4	Vacuum system	334
4.1	Assembly overview - electric vacuum pump	334
4.2	Assembly overview - vacuum pump	340
4.3	Checking non-return valve	342
4.4	Removing and installing brake servo pressure sensor	342
4.5	Removing and installing vacuum sender G608	342
4.6	Checking vacuum system	343
4.7	Removing and installing electric vacuum pump	348
5	Brake lines	353
5.1	Repairing brake lines	353
6	Hydraulic system	358
6.1	General notes on brake fluid	358
6.2	Pre-bleeding hydraulic system	361
6.3	Bleeding hydraulic system following standard procedure	363
6.4	Subsequent bleeding of hydraulic system	366
6.5	Testing for leaks	367