



Contents

00 - Technical data	1
1 Notes on safety	1
1.1 Safety precautions when working on vehicles with high-voltage system	1
1.2 Safety precautions during a road test using test and measuring equipment	2
2 Technical data	3
2.1 Technical data for brakes	3
2.2 Optical characteristics of the ceramic brake disc	5
45 - Anti-lock brake system	7
1 General information	7
1.1 Repair instructions for repair work on ABS	7
2 Overview of fitting locations	10
2.1 Overview of fitting locations - ABS/ESP	10
3 Control unit and hydraulic unit	12
3.1 Assembly overview - control unit and hydraulic unit	12
3.2 Removing and installing ABS control unit J104 / ABS hydraulic unit N55	13
4 Sensors	18
4.1 Assembly overview - speed sensor on front axle	18
4.2 Assembly overview - speed sensor on rear axle	19
4.3 Removing and installing speed sensors on front axle G45 / G47	20
4.4 Removing and installing speed sensors on rear axle G44 / G46	20
4.5 Removing and installing ESP sensor unit G419	21
46 - Brakes - mechanism	22
1 Front brakes	22
1.1 Assembly overview - front brakes	22
1.2 Removing and installing brake pads or linings	24
1.3 Removing and installing brake caliper	26
2 Rear brakes	30
2.1 Assembly overview - rear brakes	30
2.2 Removing and installing brake pads or linings	32
2.3 Removing and installing brake caliper	34
3 Parking brake	39
3.1 Overview of fitting locations - parking brake	39
3.2 Removing and installing control unit for electromechanical parking brake J540	40
4 Brake pedal	41
4.1 Assembly overview - brake pedal	41
4.2 Separating brake pedal from brake servo	41
4.3 Removing and installing brake pedal	42
4.4 Connecting brake pedal to brake servo	45
4.5 Removing and installing mounting bracket	45
47 - Brakes - hydraulics	48
1 Brake servo and brake master cylinder	48
1.1 Assembly overview - brake servo/brake master cylinder	48
1.2 Removing and installing brake light switch F	49
1.3 Removing and installing brake master cylinder	50
1.4 Removing and installing brake servo	52
2 Vacuum system	56
2.1 Assembly overview - vacuum pump	56
2.2 Removing and installing brake servo pressure sensor G294	56
2.3 Checking vacuum system	57



3	Brake lines	65
3.1	Repairing brake lines	65
4	Hydraulic system	70
4.1	General notes on brake fluid	70
4.2	Bleeding hydraulic system following standard procedure	70
4.3	Subsequent bleeding of hydraulic system	71
4.4	Testing for leaks	72