

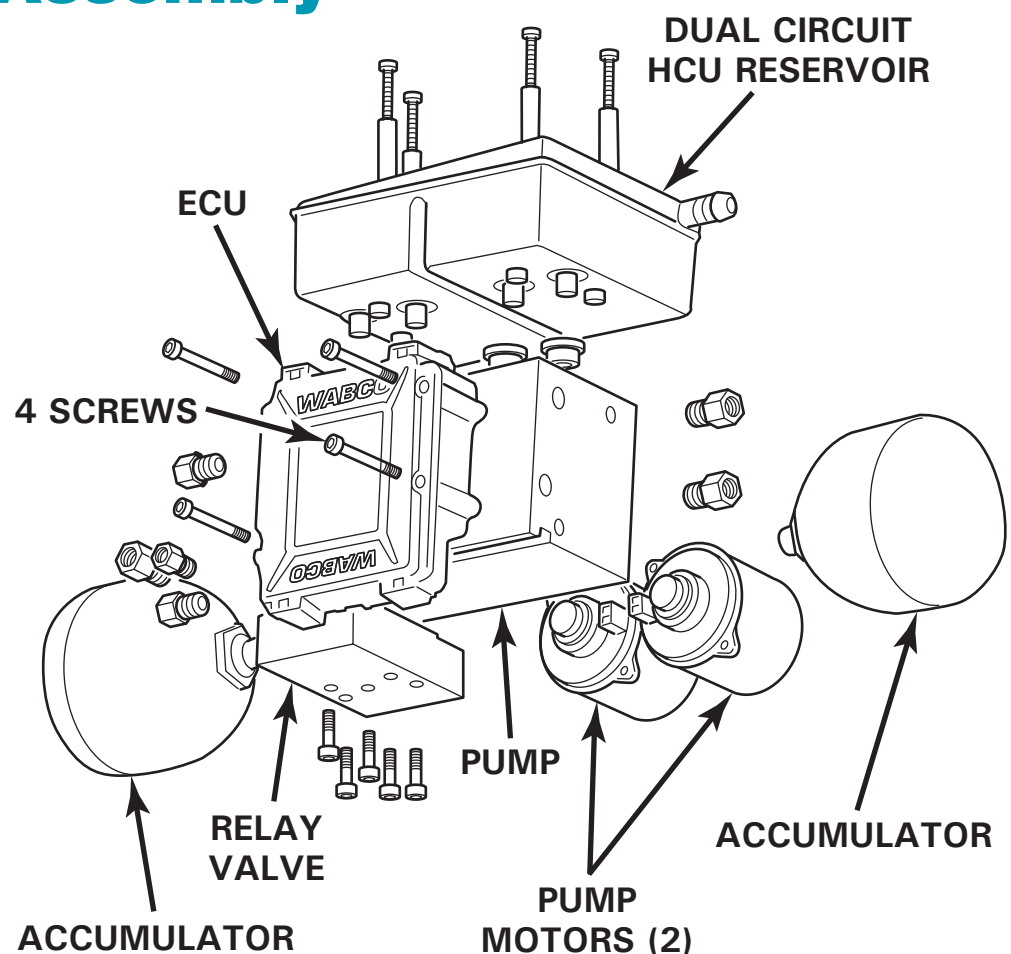
## Support Literature

- PB06107** Hydraulic Power Brake (HPB) Parts Book
- MM0401** WABCO Hydraulic Power Brake (HPB) System

## For Service/Aftermarket Orders:

- US/Canada** 855-228-3203
- Mexico** 800-953-0248
- Email** wabcoorders@zf.com
- Product Catalog** www.wabco-customercenter.com

## Hydraulic Compact Unit (HCU) Assembly

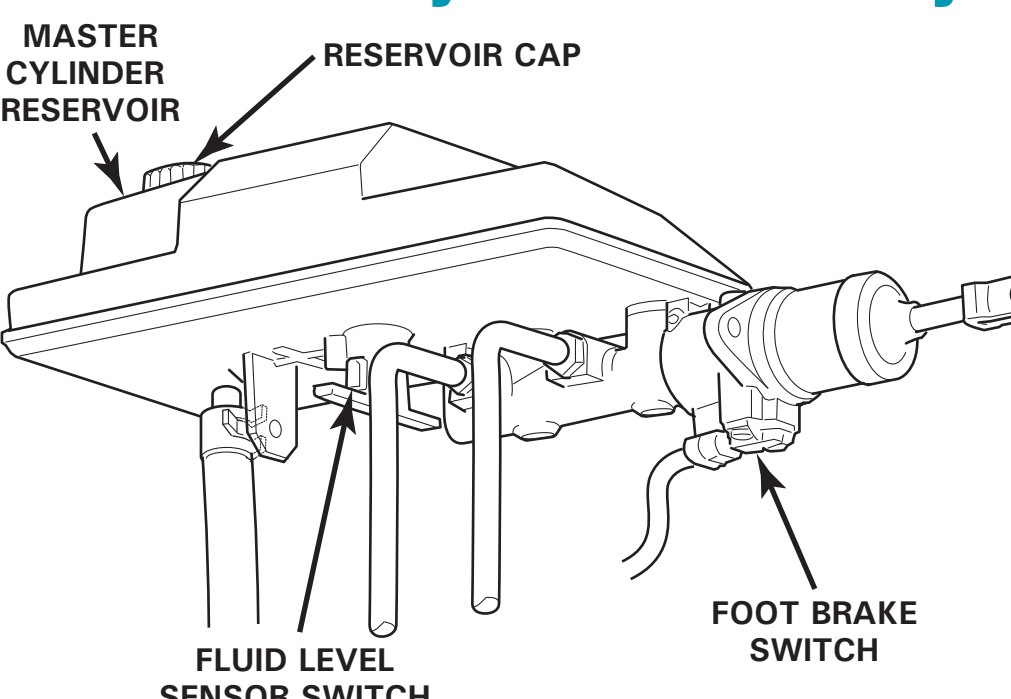


HCU REPLACEMENT KIT PART NUMBER	APPLICATION INFORMATION
S400 850 875 0	HCU replacement kit (wet), 12V, 10 valves unit, w/ECU (10 coil), RWD, w/ATC, w/Power Brake plug, w/o brackets, w/reservoir (detached).
S400 850 876 0	HCU replacement kit (wet), 12V, 8 valves unit, w/ECU (8 coil), w/o ATC, w/o brackets, w/reservoir (detached).
S400 850 877 0	HCU replacement kit (wet), 12V, 10 valves unit, w/ECU (10 coil), RWD, w/ATC, w/Parking Brake, w/o brackets, w/reservoir (detached).
S400 850 878 0	HCU replacement kit (wet), 10 valves unit, w/o ECU (10 coil), RWD, w/ATC, w/PB plug, w/o brackets, w/reservoir (detached).
S400 850 879 0	HCU replacement kit (wet), 12V, 8 valves unit, w/o ECU (8 coil), w/o ATC, w/o brackets, w/reservoir (detached).
S400 850 880 0	HCU replacement kit (wet), 10 valves unit, w/o ECU (10 coil), RWD, w/ATC, w/Parking Brake, w/o brackets, w/reservoir (detached).

## HCU Reservoir

HCU REPLACEMENT KIT PART NUMBER	APPLICATION INFORMATION
S451 900 922 2	Kit contains HCU reservoir, four screws, reservoir plug and four rubber grommets. For 8 coil and 10 coil application.
S451 900 923 2	Kit contains four rubber grommets. For 8 coil and 10 coil application.

## HPB Master Cylinder Assembly



## Master Cylinder Components

KIT PART NUMBER	APPLICATION INFORMATION
R950055	Kit contains master cylinder reservoir, fluid level switch, 2 rubber grommets and washers. Cap not included. For bus applications only.
R955421	Kit contains master cylinder reservoir, travel switch and screw, 2 rubber grommets and washers. Cap not included. For medium-duty truck applications only.
R950056	Kit contains master cylinder, screws, 2 rubber grommets and washers, 2 roll pins.
S400 850 915 0	Master cylinder cap. Fits all master cylinder reservoirs. For bus and medium-duty truck application.
S478 901 054 0	Use with master cylinder 468 411 005 0 and reservoir 468 413 020 2. For bus applications.
S478 901 057 2	Use with master cylinder 468 411 005 0 and reservoir 468 413 021 2. For medium-duty truck applications.

## Diagnostic and Test Equipment

**TOOLBOX™** Software is a PC-based diagnostics program for use with WABCO HPB. With this program the technician can display system faults and wheel speed data, test individual components, perform brake bleed procedures, verify wiring installation and more.

TOOLBOX version 9.0 or higher is recommended for HPB diagnostics. If running Vista, version 9.0 or higher is needed.

Software part number is TOOLBOX. Contact SPX at 1-800-328-6657 to order.

**U.S. / Canada: 855-228-3203**  
**Mexico: 800-953-0248**  
[www.zf.com/cv](http://www.zf.com/cv)

## Electronic Control Unit (ECU)

KIT PART NUMBER	APPLICATION INFORMATION
S446 046 921 2	ECU hardware kit. Contains two pressure seals and four screws. For 8 coil and 10 coil applications.
S400 851 881 0	ECU replacement kit, ABS with ATC, 10 coils ECU, 12V. Kit contains ECU, 2 pressure sensor seals and 4 screws.
S400 851 882 0	ECU replacement kit, ABS only, without ATC, 8 coils ECU, 12V. Kit contains ECU, 2 pressure sensor seals and 4 screws.

## Accumulator

KIT PART NUMBER	APPLICATION INFORMATION
S458 501 924 2	Kit contains two 750 ccm accumulators labeled with warning statement and two O-rings. For 8 coil and 10 coil application.
S458 501 923 2	Kit contains two O-rings. For 8 coil and 10 coil application.

## HCU Hardware

KIT PART NUMBER	APPLICATION INFORMATION
R950054	Kit includes four bushings and four 10 mm screws. For use with front (S478 901 052 2) and rear (S478 901 053 2) mounting brackets. For 8 coil and 10 coil application.
S478 407 921 2	Kit contains two relay valve bleeder screws and two protective caps. For 8 coil and 10 coil application.
S478 901 052 2	Front mounting bracket. Mounting hardware not included. Order Kit R950054 for mounting hardware. For 8 coil and 10 coil application.
S478 901 053 2	Rear mounting bracket. Mounting hardware not included. Order Kit R950054 for mounting hardware. For 8 coil and 10 coil application.

## HPB Master Cylinder Quick Reference

MASTER CYLINDER/RESERVOIR ASSEMBLY COMPONENTS	BUS APPLICATIONS	TRUCK APPLICATIONS
Master Cylinder/Reservoir Assembly with Travel Switch	S468 411 005 0	S468 411 005 0
Reservoir with Fluid Level Switch	S468 413 020 2	S468 413 021 2
Reservoir Kit — No Cap	R950055	R955421
Master Cylinder Kit	R950056	R950056
Reservoir Cap Kit	S400 850 915 0	S400 850 915 0
Master Cylinder Bracket	S478 901 054 0	S478 901 057 2
Travel Switch Kit*	S400 850 844 0	S400 850 844 0
Fluid Level Switch	S468 413 921 2	S468 413 921 2
Roll Pin Kit	R950057	R950057
Rubber Grommet Kit	S451 900 924 2	S451 900 924 2
Clevis Pin Kit	S451 900 925 2	S451 900 925 2

## Master Cylinder Components

KIT PART NUMBER	APPLICATION INFORMATION
S468 413 921 2	Kit contains fluid level switch.
S451 900 925 2	Kit contains one master cylinder clevis pin.
S400 850 844 0	Kit contains travel switch, O-ring and 2 screws. For vehicles built after 2006.
R950057	Kit contains two roll pins.
S451 900 924 2	Kit contains two rubber grommets.

## Straight Sensors

KIT NUMBER	SENSOR	CABLE LEAD FEET	CABLE LEAD METERS	APPLICATION INFORMATION
R955431	S941 032 263 0	2.72	0.83	Typically installed in heavy front axle applications (16,000 - 20,000 GAWR) at wheel ends to measure the motion of a sensed wheel in ABS applications. Sensor kits include sensor with cable leads, spring clip, lubricant and instruction sheet. When replacing a sensor you must also replace the spring clip.
R955430	S441 032 346 0	3.74	1.14	

## Right Angle (90°) Sensors

KIT NUMBER	SENSOR	CABLE LEAD FEET	CABLE LEAD METERS	APPLICATION INFORMATION
R955432	S941 032 261 0	2.50	0.70	Installed at wheel ends to measure the motion of a sensed wheel in ABS applications. Sensor kits include sensor with cable leads, spring clip, lubricant and instruction sheet. When replacing a sensor you must also replace the spring clip.
R955436	S941 032 262 0	2.80	0.86	
R955434	S941 032 266 0	3.10	0.90	
R955437	S941 032 265 0	3.20	0.99	
R955438	S941 032 267 0	3.30	1.00	
R955433	S941 032 264 0	3.50	1.07	
R955439	S941 032 269 0	4.47	1.46	
R955435	S941 032 268 0	4.60	1.40	

## HPB Hydraulic Compact Unit (HCU) Quick Reference

HYDRAULIC COMPACT UNIT (HCU) SERVICE KITS	10 COIL		8 COIL	
	W/ABS, W/ATC, W/PB	W/ABS, W/ATC	W/ABS ONLY	W/ABS ONLY
HCU w/ ECU Kit	S400 851 877 0	S400 851 875 0	S400 851 876 0	S400 851 876 0
HCU w/o ECU Kit	S400 851 880 0	S400 851 878 0	S400 851 879 0	S400 851 879 0
ECU Kit Release 2	S400 851 881 0	S400 851 881 0	S400 851 882 0	S400 851 882 0
ECU Kit Release 1 (for WCC only)	S446 046 920 2	n/a	S446 046 922 2 (FWD)	S446 046 922 2
ECU Hardware Kit	S446 046 921 2	S446 046 921 2	S446 046 921 2	S446 046 921 2
HCU Reservoir Kit	S451 900 922 2	S451 900 922 2	S451 900 922 2	S451 900 922 2
Reservoir Rubber Grommet Kit	S451 900 923 2	S451 900 923 2	S451 900 923 2	S451 900 923 2
Accumulator Kit	S458 501 924 2	S458 501 924 2	S458 501 924 2	S458 501 924 2
Accumulator O-Ring Kit	S458 501 923 2	S458 501 923 2	S458 501 923 2	S458 501 923 2
Pressure Supply Valve Kit	S476 901 920 2	n/a	n/a	n/a
Pressure Supply Valve Coil Kit	S442 879 920 2	n/a	n/a	n/a
Parking Brake Switch Kit — 2nd gen.	S446 280 001 0	n/a	n/a	n/a
Parking Brake Switch Kit with Short Bracket — 2nd gen.	S446 280 012 0	n/a	n/a	n/a
Parking Brake Switch with Long Bracket — 2nd gen.	S446 280 022 0	n/a	n/a	n/a
Parking Brake Switch Kit — 3rd gen.	S446 280 002 0	n/a	n/a	n/a
Parking Brake Switch Kit with Short Bracket — 3rd gen.	S446 280 013 0	n/a	n/a	n/a
Parking Brake Switch with Long Bracket — 3rd gen.	S446 280 023 0	n/a	n/a	n/a
Parking Brake Knob	S446 280 790 4	S446 280 790 4	S446 280 790 4	S446 280 790 4
Relay Valve Kit — w/ ATC	S478 407 929 2	S478 407 929 2	S478 407 937 2	S478 407 937 2
Relay Valve Kit — w/o ATC	n/a	n/a	n/a	n/a
Pump Replacement Kit	S478 408 926 2	S478 408 926 2	S478 408 926 2	S478 408 926 2
Relay Valve Bleeder Screw Kit	S478 407 921 2	S478 407 921 2	S478 407 921 2	S478 407 921 2
HCU Hardware Mounting Kit	R950054	R950054	R950054	R950054
HCU Mounting Bracket — Front	S478 901 052 2	S478 901 052 2	S478 901 052 2	S478 901 052 2
HCU Mounting Bracket — Rear	S478 901 053 2	S478 901 053 2	S478 901 053 2	S478 901 053 2

## Hydraulic Pump

KIT PART NUMBER	APPLICATION INFORMATION
S478 408 926 2	Kit contains two pumps and seal plate. For 8 coil and 10 coil application.

## Pressure Supply Valve

KIT PART NUMBER	APPLICATION INFORMATION
S442 879 920 2	Kit contains coil, nut and O-ring. For 8 coil and 10 coil application.
S476 901 920 2	Kit includes solenoid valve with coil, O-ring and nut. For 8 coil and 10 coil application.

## Tooth Wheels

PART NUMBER	I.D.	O.D.	NO. OF TEETH	INSERT DIA.	APPLICATION INFORMATION
3237-L-1260	5.01"	6.78"	100	6.31"	Before replacing a tooth wheel, contact either the OEM or the hub manufacturer to see if the wheel and hub are sold as one unit. Part numbers listed are for tooth wheels manufactured by WABCO.
3237-D-1070	5.11"	6.45"	100		
3237-Q-1031	5.12"	7.50"	100		
3237-R-1032	5.43"	7.68"	100		
3237-G-1047	5.99"	7.28"	100		
3237-Y-1195	6.30"	7.26"	100		
3237-K-1051	6.43"	7.06"	100		
3237-V-1192	6.44"	7.56"	100		
09-001867	6.49"	7.05"	100		
3237-T-1242	6.50"	8.37"	80		
3237-H-1256	6.51"	7.30"	100		
3237-V-1062	6.87"	7.91"	100		
3237-P-1056	7.79"	8.62"	100		

## Information Cross Reference

PART NO. ON WHITE LABEL	DESCRIPTION	PART NO. ON BLUE LABEL	MODULATOR W/ECU	SERVICE KIT PART NUMBER MODULATOR W/O ECU	ECU KIT
478 407 113 0	12V, RWD, w/ATC	478 407 111 0	400 851 875 0	400 851 878 0	400 851 881 0
400 850 851 0	12V, RWD, w/ATC	478 407 111 0	400 851 875 0	400 851 878 0	400 851 881 0
400 851 851 0	12V, RWD, w/ATC	478 408 111 0	400 851 875 0	400 851 878 0	400 851 881 0
478 407 135 0	12V, RWD, w/ATC	478 407 111 0	400 851 875 0	400 851 878 0	400 851 881 0
400 850 857 0	12V, RWD, w/ATC	478 407 111 0	400 851 875 0	400 851 878 0	400 851 881 0
400 851 857 0	12V, RWD, w/ATC	478 408 111 0	400 851 875 0	400 851 878 0	400 851 881 0
400 850 606 0	12V, FWD	478 407 112 0	400 851 876 0	400 851 879 0	446 046 922 2
478 407 114 0	12V, RWD	478 407 112 0	400 851 876 0	400 851 879 0	400 851 882 0
400 850 852 0	12V, RWD	478 407 112 0	400 851 876 0	400 851 879 0	400 851 882 0
400 851 852 0	12V, RWD	478 408 112 0	400 851 876 0	400 851 879 0	400 851 882 0
478 407 132 0	12V, 4x4	478 407 112 0	400 851 876 0	400 851 879 0	400 851 882 0
400 850 854 0	12V, 4x4	478 407 112 0	400 851 876 0	400 851 879 0	400 851 882 0
400 851 854 0	12V, 4x4	478 408 112 0	400 851 876 0	400 851 879 0	400 851 882 0
478 407 136 0	12V, RWD	478 407 112 0	400 851 876 0	400 851 879 0	400 851 882 0
400 850 858 0	12V, RWD	478 407 112 0	400 851 876 0	400 851 879 0	400 851 882 0
400 851 858 0	12V, RWD	478 408 112 0	400 851 876 0	400 851 879 0	400 851 882 0
478 407 116 0	12V, RWD, w/PB	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
478 407 126 0	12V, RWD, w/PB, w/ATC	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
400 850 853 0	12V, RWD, w/PB, w/ATC	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
400 851 853 0	12V, RWD, w/PB, w/ATC	478 408 125 0	400 851 877 0	400 851 880 0	400 851 881 0
478 407 133 0	12V, RWD, w/PB, 4x4	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
400 850 855 0	12V, RWD, w/PB, 4x4	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
400 851 855 0	12V, RWD, w/PB, 4x4	478 408 125 0	400 851 877 0	400 851 880 0	400 851 881 0
478 407 134 0	12V, RWD, w/PB, w/ATC	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
400 850 856 0	12V, RWD, w/PB, w/ATC	478 407 125 0	400 851 877 0	400 851 880 0	400 851 881 0
400 851 856 0	12V, RWD, w/PB, w/ATC	478 408 125 0	400 851 877 0	400 851 880 0	400 851 881 0
478 407 137 0	12V, RWD, w/PB, w/ATC	478 407 125 0	400 851 877 0	400 851 880 0	446 046 922 2

## Sensor Extension Cables

PART NUMBER	LENGTH FEET	LENGTH METERS	APPLICATION INFORMATION
S449 711 015 0	4.9	1.5	Features blunt cut cable. Two-wire cable that connects the wheel end sensors to the ECU. Do not splice cable wires. Cut cables from the blunt cut end. Splicing wires will void the warranty.
S894 590 058 2	9.8	3.0	