

MERITOR WABCO

PARTS BOOK

Meritor WABCO Hydraulic Anti-Lock Braking Systems (HABS) for Medium-Duty Trucks, Buses, and Motor Home Chassis

- C and D Version HABS Electronic Control Units (ECUs)
- Modulator Valve Assemblies
- Sensors and Cables
 - Tooth Wheel Information
- HABS Test Equipment

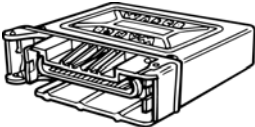
The parts listed in this book are service (replacement) parts. The service part number is the same number as the production part number, except that it is preceded by an S.

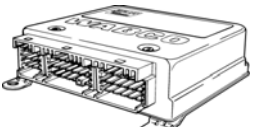
Production Part Number
446 044 071 0

Service (Replacement) Part Number
S446 044 083 0

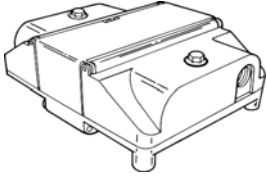
ELECTRONIC CONTROL UNITS

- ECUs process sensor signals and generate solenoid valve commands to reduce, maintain or reapply brake pressure.
- Mounting locations vary, depending on the vehicle. Refer to the vehicle specifications for the exact location.

C Version ECUs	Part Number	Remarks
 <ul style="list-style-type: none"> • 12-Volt • 4S/4M 	S446 044 047 0 S446 044 061 0 S446 044 062 0	All C Version HABS ECUs are cab mounted

D Version ECUs	Cab	Frame	Part Number	Remarks
 <p>CAB Mounted ECU</p> <ul style="list-style-type: none"> • 12-Volt • 4S/4M 	X		S446 044 071 0	Replaced by S446 044 085 0
	X		S446 044 072 0	Replaced by S446 044 086 0
	X		S446 044 081 0	Replaced by S446 044 085 0
	X		S446 044 082 0	Replaced by S446 044 086 0
	X		S446 044 083 0	Replaced by S446 044 085 0
	X		S446 044 084 0	Replaced by S446 044 086 0
	X		S446 044 085 0	
	X		S446 044 086 0	

ELECTRONIC CONTROL UNITS (Continued)

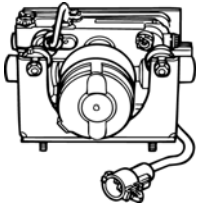
D Version ECUs  Frame Mounted ECU • 12-Volt • 4S/4M	Cab	Frame	Part Number	Remarks
			X	S446 109 000 0
		X	S446 109 001 0	Replaced by S446 109 010 0
		X	S446 109 002 0	Replaced by S446 109 011 0
		X	S446 109 003 0	Replaced by S446 109 009 0
		X	S446 109 004 0	Replaced by S446 109 010 0
		X	S446 109 005 0	Replaced by S446 109 011 0
		X	S446 109 006 0	Replaced by S446 109 009 0
		X	S446 109 007 0	Replaced by S446 109 010 0
		X	S446 109 008 0	Replaced by S446 109 011 0
		X	S446 109 009 0	
		X	S446 109 010 0	
		X	S446 109 011 0	

MODULATOR ASSEMBLIES

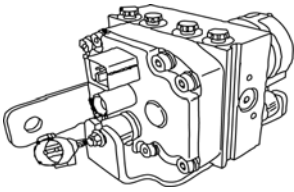
- **C Version Hydraulic ABS**
- **D Version Hydraulic ABS**

OEM modulator assemblies are sold with dry modulator valves. For aftermarket, Meritor WABCO sells only wet modulator valves (valves prefilled with brake fluid). To help you identify the proper replacement parts, we have included the OEM part numbers. OEM Dry modulator valve assemblies are listed WITHOUT the S suffix.

NOTE: If the number of the valve you are replacing is for a dry valve, the ArvinMeritor customer service representative will provide the correct WET valve in its place.

C Version HABS Modulator Valve 	Replacement Parts			Remarks
	Modulator Assy.	Modulator	Bracket	
	S478 407 011 0	N/A	N/A	Valve includes bracket
	S478 407 012 0	N/A	N/A	Valve includes bracket
	-----	-----	S478 407 353 2	


MODULATOR ASSEMBLIES (Continued)

D Version	Replacement Parts			
	Modulator Assy.	Modulator	Bracket	Remarks
HABS Modulator Valve 	478 407 014 0	S478 407 056 0	S478 407 356 4	For aftermarket repl. assy. order part no. S478 407 015 0
	S478 407 015 0	S478 407 056 0	S478 407 356 4	
	478 407 016 0	S478 407 056 0	S478 407 358 4 S478 407 357 4	Two brackets used in this assembly.
	S478 407 018 0	S478 407 060 0	S478 901 352 4	
	S478 407 019 0	----->	----->	Replaced by S478 407 062 0
	S478 407 027 0	S478 407 058 0	S478 407 056 4	
	S478 407 028 0	----->	----->	Replaced by S478 407 062 0
	478 407 033 0	S478 407 060 0	S478 901 352 4	For aftermarket repl. assy. order part no. S478 407 018 0
	478 407 061 0	S478 407 058 0	S478 407 055 2	For aftermarket repl. assy. order part no. S478 407 062 0
	S478 407 062 0	S478 407 058 0	S478 407 055 2	

SENSORS


- Installed at wheel ends to measure the motion of a sensed wheel
- Straight sensors are typically used in heavy front axle applications (16,000 - 20,000 GAWR)
- Right Angle (90° sensors are used in most other applications)
- Sensor Extension Cables are available (see next page)

Straight Sensors

	Part Number	Feet	Meters	Remarks
	S441 032 576 0	---	---	Replaced by S441 032 444 0
	S441 032 444 0	5.8	1.7	
	S441 032 900 0	5.8	1.7	


SENSORS (Continued)

Right Angle (90°) Sensors


	Part Number	Feet	Meters	Remarks
	S441 032 570 0	---	---	Replaced by S441 032 813 0
	S441 032 572 0	---	---	Replaced by S441 032 814 0
	S441 032 615 0	6.3	1.9	
	S441 032 616 0	---	---	Replaced by S441 032 667 0
	S441 032 617 0	---	---	Replaced by S441 032 814 0
	S441 032 618 0	---	---	Replaced by S441 032 814 0
	S441 032 667 0	6.6	2.0	Male
	S441 032 808 0	1.3	0.4	
	S441 032 809 0	3.3	1.0	
	S441 032 813 0	5.8	1.7	
	S441 032 814 0	6.6	2.0	Female

Sensor Spring Clip


- Holds the steel speed sensor in close proximity to the tooth wheel

	Part Number	Inside Dia.	Outside Dia.	Length	Remarks
	S899 760 510 4	0.63 in.	0.71 in.	1.2 in.	Copper
	S899 759 815 4	16.0 mm	18.0 mm	31.5 mm	Stainless Steel

SENSOR EXTENSION CABLES

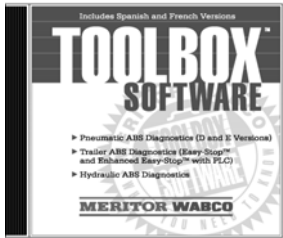
	Part Number	Feet	Meters	Application/Remarks
	S449 711 015 0	4.9	1.5	
	S449 711 031 0	10.0	3.1	
	S449 711 050 0	16.4	5.0	
	S449 711 065 0	21.3	6.5	
	S449 711 080 0	26.4	8.0	
	S449 711 100 0	32.8	10.0	
	S449 711 120 0	39.4	12.0	
	S449 711 150 0	49.5	15.0	
	S894 590 010 0	---	---	Replaced by S894 590 058 0
	S894 590 011 2	---	---	Replaced by S894 590 059 2
	S894 590 012 2	---	---	Replaced by S894 590 061 2
	S894 590 014 0	---	---	Replaced by S894 590 063 2
	S894 590 015 0	---	---	Replaced by S894 590 062 0
	S894 590 017 2	---	---	Replaced by S449 711 015 0
	S894 590 058 2	---	---	Replaced by S449 711 031 0
	S894 590 059 2	---	---	Replaced by S449 711 050 0
	S894 590 060 2	---	---	Replaced by S449 711 065 0
	S894 590 061 2	---	---	Replaced by S449 711 080 0
	S894 590 062 2	---	---	Replaced by S449 711 100 0
S894 590 063 2	---	---	Replaced by S449 711 120 0	
S894 590 064 2	---	---	Replaced by S449 711 150 0	

TOOTH WHEEL

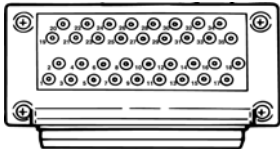
	<p>Meritor WABCO does not manufacture tooth wheels. Before replacing a tooth wheel, contact either the OEM or the hub manufacturer to see if the wheel and hub are sold as one unit.</p>
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DIAGNOSTIC & TEST EQUIPMENT

TOOLBOX™ Software

	<p>TOOLBOX™ Software is a PC-based diagnostics program for use with D Version HABS. It is not compatible with C Version HABS. With this program the technician can display system faults and wheel speed data, test individual components, perform brake bleed procedures, verify installation wiring and more. TOOLBOX version 4.1 (or higher) runs in Windows® 95, 98, 2000, NT and Me. An RS232 to J1708 converter box or RS292 to PLC converter cable is required to run TOOLBOX.™ To order TOOLBOX™ Software, call SPX at 1-800-328-6657</p>
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Meritor WABCO Test Adaptor

	<p>Part Number S446 300 314 0 HABS. The test adaptor helps technicians service and troubleshoot C Version Meritor WABCO ABS. It is not compatible with D Version HABS.</p>
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Service Literature

Publication Number	Description
MM-38	Service manual for Meritor WABCO C version HABS
MM-39	Service manual for Meritor WABCO D version HABS
T-0142V	Hydraulic ABS training video for service technicians
SP-9916	Driver Tips
SP-9917	How to Brake with Hydraulic ABS (audio cassette)
TP-20192	Proper Sensor Adjustment for Hydraulic ABS

Service Literature may be ordered by calling the ArvinMeritor Customer Service Center at 1-800-535-5560. Order by Publication Number. This literature is also posted on our Web Site: www.meritorwabco.com.

NUMERICAL PARTS LISTING

Part Number	Page
478 407 014 0	3
478 407 016 0	3
478 407 033 0	3
478 407 061 0	3
S441 032 444 0	3
S441 032 570 0	4
S441 032 572 0	4
S441 032 576 0	3
S441 032 615 0	4
S441 032 616 0	4
S441 032 617 0	4
S441 032 618 0	4
S441 032 667 0	4
S441 032 808 0	4
S441 032 809 0	4
S441 032 813 0	4
S441 032 814 0	4
S441 032 900 0	3
S446 044 047 0	1
S446 044 061 0	1
S446 044 062 0	1
S446 044 071 0	1
S446 044 072 0	1
S446 044 081 0	1
S446 044 082 0	1
S446 044 083 0	1
S446 044 084 0	1
S446 044 085 0	1
S446 044 086 0	1
S446 109 000 0	2
S446 109 001 0	2
S446 109 002 0	2
S446 109 003 0	2
S446 109 004 0	2
S446 109 005 0	2
S446 109 006 0	2
S446 109 007 0	2
S446 109 008 0	2
S446 109 009 0	2
S446 109 010 0	2
S446 109 011 0	2
S446 300 314 0	5
S449 711 015 0	4

Part Number	Page
S449 711 031 0	4
S449 711 050 0	4
S449 711 065 0	4
S449 711 080 0	4
S449 711 100 0	4
S449 711 120 0	4
S449 711 150 0	4
S478 407 011 0	2
S478 407 012 0	2
S478 407 015 0	3
S478 407 018 0	3
S478 407 019 0	3
S478 407 027 0	3
S478 407 028 0	3
S478 407 055 2	3
S478 407 056 0	3
S478 407 056 4	3
S478 407 058 0	3
S478 407 060 0	3
S478 407 062 0	3
S478 407 353 2	2
S478 407 356 4	3
S478 407 357 4	3
S478 407 358 4	3
S478 901 352 4	3
S894 590 010 0	4
S894 590 011 2	4
S894 590 012 2	4
S894 590 014 0	4
S894 590 015 0	4
S894 590 017 2	4
S894 590 058 2	4
S894 590 059 2	4
S894 590 060 2	4
S894 590 061 2	4
S894 590 062 2	4
S894 590 063 2	4
S894 590 064 2	4
S899 759 815 4	4
S899 760 510 4	4
TOOLBOX	5
Tooth Wheel	5

NOTES

MERITOR WABCO

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