

MERITOR WABCO

PARTS BOOK

PB-96133
Revised 11-01

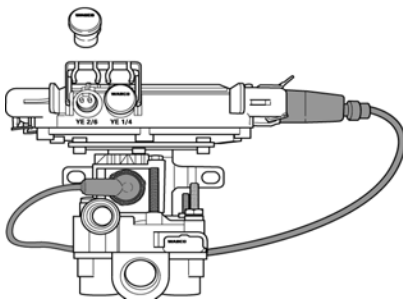
ENHANCED EASY-STOP™ WITH PLC AND EASY-STOP™ TRAILER ABS

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

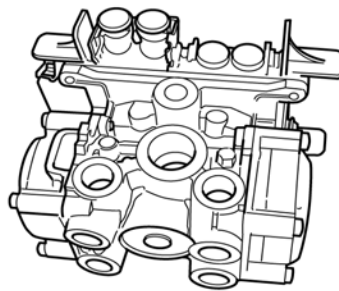
ECU/MODULATOR VALVE ASSEMBLY - Enhanced Easy-Stop

- Used on trailers produced after March 1, 2001.
- Complete Enhanced Easy-Stop Assembly consists of an ECU, single or dual modulator valve, and for the BASIC, a bracket.
- Replacement parts may be ordered separately or as a complete assembly.

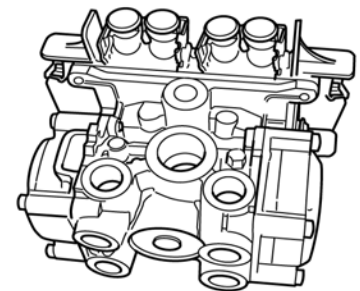
**BASIC ECU/SINGLE
MODULATOR VALVE ASSEMBLY
2S/1M ONLY**



**STANDARD ECU/DUAL
MODULATOR VALVE ASSEMBLY
2S/2M ONLY**



**PREMIUM ECU/DUAL
MODULATOR VALVE ASSEMBLY
2S/2M, 4S/2M, 4S/3M**



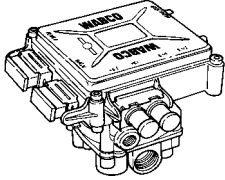
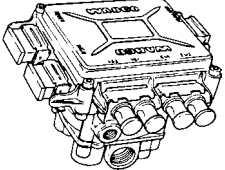
ECU/Modulator Valve Assembly	ECU Only	Single or Dual Modulator Valve Only	Bracket (Basic Only)
S400 500 101 0 2S/1M Basic with bracket MSH - Recommended for use with standard trailers. Do not use with turntables, steerables or dollies.	S446 108 201 0	S472 195 033 0 (single)	S478 407 058 4
S400 500 104 0 2S/1M Basic with bracket MAR - Recommended for use with turntables, steerables and dollies.	---	S472 195 033 0 (single)	S478 407 058 4
S400 500 102 0 2S/2M Standard	---	---	---
S400 500 103 0 2S/2M, 4S/2M, 4S/3M Premium	---	---	---

S = Number of Sensors

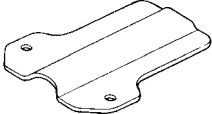
M = Number of Modulator Valves

ECU/MODULATOR VALVE ASSEMBLY - Easy-Stop

- Used on trailers produced prior to March 2001.
- All ECUs have an external diagnostic port.

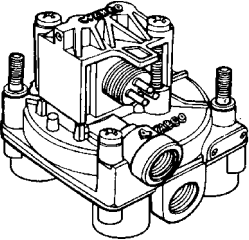
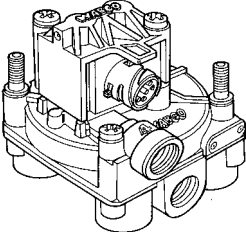
	Part Number	ABS System	Comments
	S472 500 011 0	2S/1M Use with steerable axles, turntables or dollies.	12 volt. Integrated electronic control unit and ABS relay valve.
	S472 500 021 0	2S/1M Recommended for use with standard trailers. Do not use with steerables, turntables or dollies.	
	S472 500 012 0	2S/1M 2S/2M 4S/2M	12 volt. Integrated electronic control unit and ABS relay valve.
	S472 500 013 0	4S/3M	

EASY-STOP ECU/VALVE ASSEMBLY MOUNTING BRACKET

	Part Number	Height	Comments
	S3305-T-1242	7.37 in. (.18m)	Bracket used to remote mount ECU/valve assembly to trailer frame. Not for use with Enhanced Easy-Stop.

ABS RELAY VALVE

- For Easy Stop 2M and 3M Systems and Enhanced Easy-Stop 3M Systems.

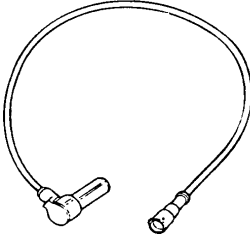
	Part Number	Operating Pressure psi (bar)	Port Sizes	Comments
	R955212 For use on trailers produced prior to 4-1-99.	145 (10)	Supply (Port 1) - 3/4"-14 Dryseal NPTF Delivery (Port 2) - 3/8"-18 Dryseal NPTF Exhaust (Port 3) - No thread	Kit includes modulator valve and adapter cable. 12 volt, 3-4 psi crack pressure, 2 supply ports, 4 delivery ports. Replaces S472 195 032 0 S472 195 027 0 S472 195 026 0 S472 195 023 0
	S472 195 033 0 For use on trailers produced 4-1-99 or later.			Control (Port 4) - 3/8"-18 Dryseal NPTF

Relay valve adaptor cables are available as follows:

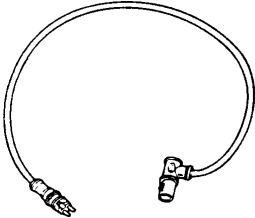
S894 601 132 2 converts the 431 series relay valve cables from bayonet style to screw type connector.

S894 601 133 2 converts the 421 series relay valve cables from screw type to bayonet style connector.

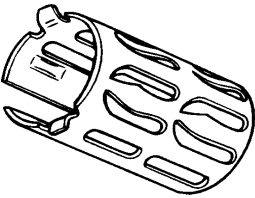
SENSOR WITH SOCKET - Use with all versions of Easy-Stop

	Part Number	Length	Comments
	S441 032 808 0 Replaces: 441 032 578 0	1 ft. (.4m)	S+ series sensor with molded socket. Measures the motion of a toothed wheel rotating with the vehicle wheel.
S441 032 809 0 Replaces: 441 032 579 0	3 ft. (1m)	Produces an output voltage proportional to the wheel speed.	

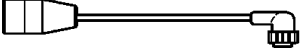
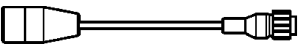
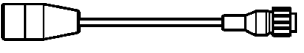
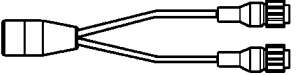
SENSOR EXTENSION CABLE WITH PLUG - Use with all versions of Easy-Stop

	Part Number	Length	Comments
	S449 713 008 0 Replaces: 894 590 066 2	2.75 ft. (.8m)	Two-wire cable with molded-on connector. Connects the inductive sensor to the ECU.
	S449 713 018 0 Replaces: 894 590 067 2	6 ft. (1.8m)	
	S449 713 030 0 Replaces: 894 590 069 2	10 ft. (3m)	
	S449 713 050 0 Replaces: 894 590 070 2	16 ft. (5m)	
	S449 713 070 0 Replaces: 894 590 071 2	23 ft. (7m)	
	S449 713 090 0 Replaces: 894 590 072 2	30 ft. (9m)	
	S449 713 120 0	39 ft. (12m)	
S449 713 170 0	56 ft. (17m)		

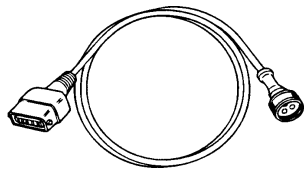
SENSOR SPRING CLIP

	Part Number	I.D.	O.D.	Length	Comments
	S899 760 510 4	----	----	----	Replaced by S899 759 815 4
S899 759 815 4 Stainless Steel	0.63 in.	0.71 in.	1.2 in. (31.5mm)	Holds the inductive sensor in close proximity to the toothed wheel.	

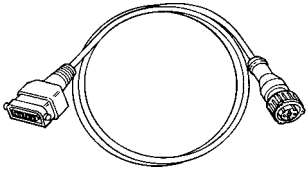


CONNECTION CABLE FOR TRAILER ABS RELAY VALVES - Enhanced Easy-Stop

	Part Number	Length	Comments
	S894 606 275 2	1.65 ft. (.5m)	Used with 2S/1M Basic ECU/Modulator Valve Assembly - connects the relay valve to the ECU. Right angle connector.
	S449 441 015 0 S449 441 030 0 S449 441 060 0 S449 441 080 0 S449 441 110 0	5 ft. (1.5m) 10 ft. (3m) 20 ft. (6m) 26 ft. (8m) 36 ft. (11m)	Used with Premium ECU/Modulator Valve Assembly in 3M installations. Straight connector.
	S449 442 010 0	3 ft. (1m)	Optional generic Input/Output cable for use with 2S/2M or 4S/2M Premium ECU/Dual Modulator Valve Assemblies.
	S449 404 048 0 S449 404 055 0	10 ft. & 3 ft. (3m and 1m) 26 ft. & 3 ft. (8m and 1m)	Optional "Y" Modulator Valve/generic Input/Output cable for use with 4S/4M Premium ECU/Dual Modulator Valve Assemblies.

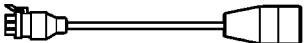
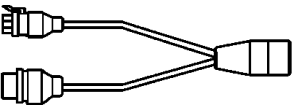
CONNECTION CABLE FOR ABS RELAY VALVES - Easy-Stop

	Part Number	Length	Comments
	S449 421 008 0	2.75 ft. (.8m)	Three-wire cable with connector. Connects the relay valve to the ECU. Connector thread - M24 x 1.
	S449 421 015 0 Replaces: 894 604 194 0	5 ft. (1.5m)	For use with trailers produced prior to 4-1-99.
	S449 421 020 0 Replaces: 894 604 195 0	7 ft. (2m)	
	S449 421 110 0	36 ft. (11m)	
	S449 421 150 0	49 ft. (15m)	

CONNECTION CABLE FOR ABS RELAY VALVES - Easy-Stop (continued)

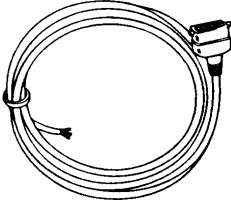
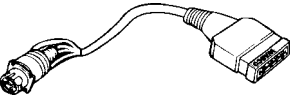
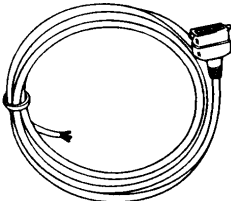
	Part Number	Length	Comments
 <p>Bayonet Style Connector</p>	S449 431 008 0	2.75 ft. (.8m)	Three-wire cable with connector. Connects the relay valve to the ECU. For use with trailers produced 4-1-99 or later.
	S449 431 015 0	5 ft. (1.5m)	
	S449 431 020 0	7 ft. (2m)	
	S449 431 060 0	20 ft. (6m)	
	S449 431 110 0	36 ft. (11m)	
	S449 431 150 0	49 ft. (15m)	
	S449 464 186 0	7 ft. & 14 ft. (2m & 4m)	"Y" cable for use with 4S/3M configurations.
	S449 464 326 0	7 ft. & 39 ft. (2m & 12m)	For use with trailers produced prior to 4-1-99.
 <p>Bayonet Style Connector</p>	S449 474 186 0	7 ft. & 14 ft. (2m & 4m)	"Y" cable for use with 4S/3M configurations.
	S449 474 326 0	7 ft. & 39 ft. (2m & 12m)	For use with trailers produced 4-1-99 or later.

POWER CABLE - Enhanced Easy-Stop - 4-Conductor Power Cable

	Part Number	Length	Comments
<p>4-conductor power cable</p>  <p>Available with industry standard harness connector, as shown, or with blunt cut.</p>	S449 326 005 0	1.65 ft. (.5m)	With industry standard harness connector and Enhanced Easy-Stop connector. ---- Blunt cut. Enhanced Easy-Stop connector on one end and 4 individual wires on the other.
	S449 326 010 0	3 ft. (1m)	
	S449 326 030 0	10 ft. (3m)	
	S449 326 040 0	13 ft. (4m)	
	S449 326 047 0	14 ft. (4.7m)	
	S449 326 060 0	20 ft. (6m)	
	S449 328 010 0	3 ft. (1m)	
	S449 328 030 0	10 ft. (3m)	
	S449 328 110 0	36 ft. (11m)	
	<p>4-conductor "Y" style power /diagnostics cable</p> 	S449 364 142 0	
S449 364 143 0		3 ft. & 10 ft. (1m and 3m)	
S449 364 150 0		13 ft. & 10 ft. (4m and 3m)	
S449 364 152 0		14 ft. & 10 ft. (4.7m and 3m)	
S449 364 153 0		20 ft. & 10 ft. (6m and 3m)	

POWER CABLE - Easy-Stop

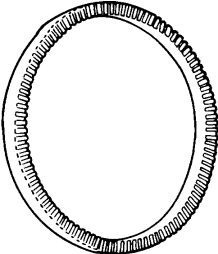
NOTE: If you are replacing a 3-conductor power cable (part numbers S894 604 197 2 or S894 604 196 2), order a 4-conductor replacement cable.

	Part Number	Length	Comments
	S449 315 010 0	3 ft. (1m)	4-conductor power cable. (May be used to replace 3-conductor cables - see note above.)
	S449 315 030 0 Replaces: 449 312 030 0	10 ft. (3m)	
	S449 315 110 0 Replaces: 449 312 110 0	36 ft. (11m)	
	S449 315 150 0 Replaces: 449 312 150 0	49 ft. (15m)	
	S449 315 200 0 Replaces: 449 312 200 0	66 ft. (20m)	
	S894 606 037 0	1.27 ft. (.5m)	4-conductor pigtail power cable. Sold with industry-standard harness connector.
	S894 604 944 0	3 ft. (1m)	
	S894 606 051 0	10 ft. (3m)	
	S894 604 945 0	13 ft. (4m)	
	S894 606 038 0	14 ft. (4.7m)	
	S894 606 050 0	20 ft. (6m)	
	S449 332 140 0 Replaces: 449 312 150 0 449 313 150 0	49 ft. (15m)	5-conductor power cable. Provides signal for tractor dash-mounted trailer ABS indicator lamp.
	S449 332 180 0 Replaces: 449 312 200 0 449 313 200 0	66 ft. (20m)	

TRAILER ABS WARNING LABEL

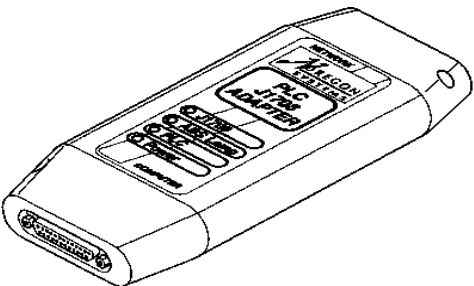
	Part Number	Comments
<div style="border: 2px solid black; padding: 10px;"> <p style="text-align: center;">NOTICE:</p> <p style="text-align: center;">If the ABS indicator lamp comes on <i>and</i> stays on when you apply the brakes to a <i>moving</i> vehicle, the trailer ABS must be serviced as soon as possible upon completion of your trip to ensure full anti-lock braking capability.</p> <p style="font-size: small;">TP-95172 MERITOR WABCO Rev. 7/01</p> </div>	<p>TP-95172</p>	<p>This label provides information about the operation of the ABS indicator lamp. Label is self-adhesive and is mounted on the trailer near the ABS indicator lamp.</p>

TOOTH WHEEL INFORMATION

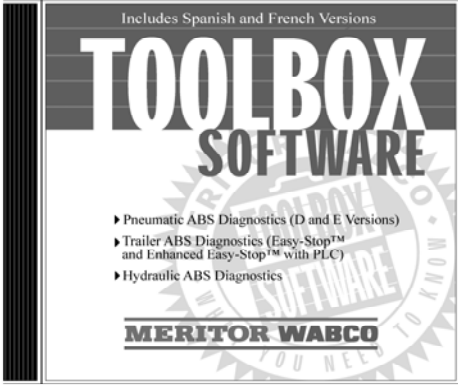
	Comments
	<p>Works with the sensor to let the ECU know how fast a wheel is turning. A tooth wheel is mounted at the hub of each ABS sensed wheel.</p> <p>Meritor WABCO does not manufacture tooth wheels. Before replacing a tooth wheel, contact either the OEM or the hub manufacturer to see if the wheel and hub are sold as one unit.</p>

DIAGNOSTIC & TEST EQUIPMENT

PLC TESTER - Enhanced Easy-Stop PLC/J1708 Adapter

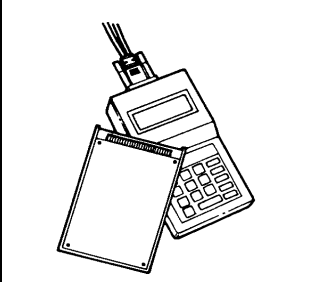
	<p>The PLC/J1708 adapter can be used to check PLC diagnostics, and troubleshoot communication malfunctions between the tractor and the trailer.</p> <p>The adapter simulates the tractor ABS lamp. This lets you know there is a PLC signal - the trailer ABS is capable of lighting the dash-mounted Trailer ABS lamp.</p> <p>The PLC/J1708 adapter is available from Noregon Systems, 336-768-4337.</p>
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TOOLBOX SOFTWARE

 <p>Includes Spanish and French Versions</p> <h1>TOOLBOX SOFTWARE</h1> <ul style="list-style-type: none"> ▶ Pneumatic ABS Diagnostics (D and E Versions) ▶ Trailer ABS Diagnostics (Easy-Stop™ and Enhanced Easy-Stop™ with PLC) ▶ Hydraulic ABS Diagnostics <p>MERITOR WABCO</p>	<p>TOOLBOX Software is a pc-based diagnostics program that can display wheel speed data, test individual components, verify installation wiring and more.</p> <p>Version 4.1 (or higher) supports Enhanced Easy-Stop with PLC and runs in Windows® 95, 98, NT, 2000 and Millennium. An RS232 to J1708 converter box is required.</p> <p>TOOLBOX Software is available from SPX. To order, call 1-800-328-6657. Part number is TOOLBOX.</p>
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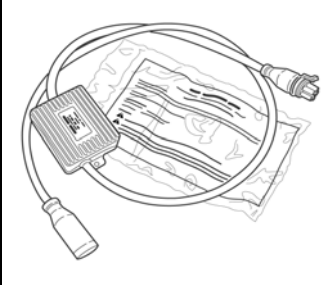
MPSI PRO-LINK® PLUS

NOTE: The MPSI PRO-LINK PLUS is not available from Meritor WABCO. Contact Kent-Moore at 1-800-328-6657 to order.

	<p style="text-align: center;">Comments</p> <p>Provides diagnostic and testing capability for ABS components. The Pro-Link requires a cartridge (version 4.0 or higher) specifically developed for diagnosing Meritor WABCO ABS.</p>
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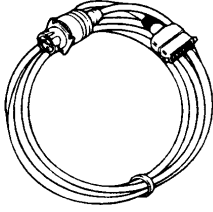
PLC MODULE - Easy-Stop Trailer ABS

Part No. S894 607 280 2

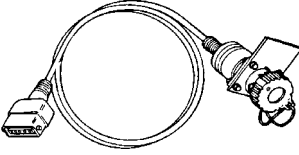
	<p>The PLC module allows use of Meritor WABCO Easy-Stop trailer ABS on trailers manufactured on or after March 1, 2001.</p> <p>The module can also be used on existing trailers manufactured before March 1, 2001 to transmit the fault signal to the tractor.</p> <p>For more information, contact Meritor WABCO at 800-535-5560.</p>
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DIAGNOSTIC CABLE - Easy-Stop

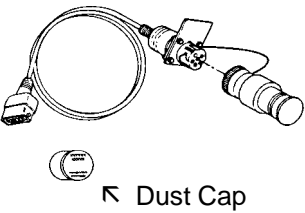
NOTE: See Power Cables for Enhanced Easy-Stop on Page 7 for Enhanced Easy-Stop diagnostics cable information.

	Part Number	Length	Comments
	SA1-3237-K-1103	9 ft. (2.7m)	Provides for blink code diagnostics and diagnostics via the Pro-Link 9000 diagnostic tool. Five-wire cable with overmolded connector to ECU on one end and SAE J1587 diagnostic connector overmolded on other end.

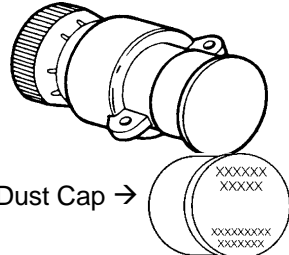
DIAGNOSTIC CABLE ASSEMBLY WITH PROTECTIVE CAP - Easy-Stop

	Part Number	Length	Comments
	SA1-3237-K-1129	9 ft. (2.7m)	Diagnostic cable mounted to bracket with protective cap on SAE J1587 diagnostic connector. Cap only: P/N 2237-M-1235

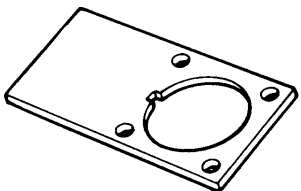
DIAGNOSTIC CABLE WITH DIAGNOSTIC TOOL - Easy-Stop

	Part Number	Length	Comments
	SA1-3237-L-1130	9 ft. (2.7m)	Diagnostic cable mounted to bracket with diagnostic tool connected to SAE J1587 diagnostic connector. NOTE: If you need additional dust caps, please contact Meritor Customer Service at 1-800-535-5560.

DIAGNOSTIC ACTIVATION SWITCH

	Part Number	Comments
	S2237-Z-1222	A sealed switch and lamp that connects to the SAE J1587 diagnostic connector. This tool is used to activate the Easy-Stop blink code diagnostics, configure the ECU, and test the installation. The tool is designed to remain on the trailer at all times. NOTE: If you need additional dust caps, please contact Meritor Customer Service at 1-800-535-5560.

DIAGNOSTIC CABLE MOUNTING BRACKET

	Part Number	Length	Comments
	S3155-L-1234	3 in. (.076m)	Bracket used to mount diagnostic cable assembly to trailer.

NUMERICAL PARTS LIST

PART NUMBER	PAGE	PART NUMBER	PAGE	PART NUMBER	PAGE
MPSI Pro-Link® Plus	8	S449 421 015 0	4	S894 604 945 0	6
PLC/J1708 Adapter	7	S449 421 020 0	4	S894 606 037 0	6
R955212	2	S449 421 110 0	4	S894 606 038 0	6
S2237-Z-1222	9	S449 421 150 0	4	S894 606 050 0	6
S3155-L-1234	9	S449 431 008 0	5	S894 606 051 0	6
S3305-T-1242	2	S449 431 015 0	5	S894 606 275 2	4
S400 500 101 0	1	S449 431 020 0	5	S894 607 280 2	8
S400 500 102 0	1	S449 431 060 0	5	S899 759 815 4	3
S400 500 103 0	1	S449 431 110 0	5	S899 760 510 4	3
S400 500 104 0	1	S449 431 150 0	5	SA1-3237-K-1103	9
S441 032 808 0	3	S449 441 015 0	4	SA1-3237-K-1129	9
S441 032 809 0	3	S449 441 030 0	4	SA1-3237-L-1130	9
S446 108 201 0	1	S449 441 060 0	4	TOOLBOX™	8
S449 315 010 0	6	S449 441 080 0	4	Tooth Wheel Information	7
S449 315 030 0	6	S449 441 110 0	4	TP-95172	7
S449 315 110 0	6	S449 442 010 0	4		
S449 315 150 0	6	S449 464 186 0	5		
S449 315 200 0	6	S449 464 326 0	5		
S449 326 005 0	5	S449 474 186 0	5		
S449 326 010 0	5	S449 474 326 0	5		
S449 326 030 0	5	S449 713 008 0	3		
S449 326 040 0	5	S449 713 018 0	3		
S449 326 047 0	5	S449 713 030 0	3		
S449 326 060 0	5	S449 713 050 0	3		
S449 328 010 0	5	S449 713 070 0	3		
S449 328 030 0	5	S449 713 090 0	3		
S449 328 110 0	5	S449 713 120 0	3		
S449 332 140 0	6	S449 713 170 0	3		
S449 332 180 0	6	S472 195 033 0	1, 2		
S449 364 142 0	5	S472 500 011 0	2		
S449 364 143 0	5	S472 500 012 0	2		
S449 364 150 0	5	S472 500 013 0	2		
S449 364 152 0	5	S472 500 021 0	2		
S449 364 153 0	5	S478 407 058 4	1		
S449 404 048 0	4	S894 601 132 2	2		
S449 404 055 0	4	S894 601 133 2	2		
S449 421 008 0	4	S894 604 944 0	6		

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