



# BEST..\*

## WABCO TEBS TRAILER BRAKE KITS c/w RSS

KIT P/N	SARN	DESCRIPTION	PG
EBSE01B	47241	1 AXLE SEMI	04
EBSE01A	47240	1 AXLE SEMI B/D-R/T	05
EBSE02B	30801	2 AXLE SEMI	06
EBSE02BE	44377	2 AXLE SEMI EXTENDIBLE	07
EBSE02A	30800	2 AXLE SEMI B/D-R/T	08
EBSE02D	46893	2 AXLE R/T DOLLY	09
EBSE03B	30731	3 AXLE SEMI	10
EBSE03BE	38241	3 AXLE SEMI EXTENDIBLE	11
EBSE03A	30730	3 AXLE SEMI B/D-R/T	12
EBSE03D	46894	3 AXLE R/T DOLLY	13
EBSE04B	39472	4 AXLE SEMI	14
EBSE04A	39471	4 AXLE SEMI B/D-R/T	15
EBSE11B	33748	2 AXLE DOG	16
EBSE12B	31280	3 AXLE DOG	17
EBSE22B	31282	4 AXLE DOG	18
EBSE22A	31281	4 AXLE DOG B/D-R/T	19
EBSE23B	33822	5 AXLE DOG	20
EBSE23A	33821	5 AXLE DOG B/D-R/T	21
EBSE33B	38017	6 AXLE DOG	22
EBSE33A	38016	6 AXLE DOG B/D-R/T	23

All E-TEBS kits are multivolt, and will operate behind towing vehicles with ISO7638 supply voltage from 9 to 30 volts.

# BETTER..\*

## WABCO 'VCS2' ABS TRAILER BRAKE KITS

KIT P/N	SARN	DESCRIPTION	PG
ABS01B**	29244	1 AXLE SEMI	28
ABS01A**	29243	1 AXLE SEMI B/D	29
ABS02B**	29246	2 AXLE SEMI	30
ABS02A**	29245	2 AXLE SEMI B/D	31
		2 AXLE R/T DOLLY (use EBSE02D)	
ABS03B**	29248	3 AXLE SEMI	32
ABS03A**	29247	3 AXLE SEMI B/D	33
		3 AXLE R/T DOLLY (use EBSE03D)	
ABS04B**	37351	4 AXLE SEMI	34
ABS04A**	32716	4 AXLE SEMI B/D	35
ABS11B**	47901	2 AXLE DOG	36
ABS12B**	30102	3 AXLE DOG	37
ABS22B**	30103	4 AXLE DOG	38
ABS22A**	30220	4 AXLE DOG R/T	39
		5 AXLE DOG (use EBSE23B)	
		5 AXLE DOG R/T (use EBSE23A)	
		6 AXLE DOG (use EBSE33B)	
		6 AXLE DOG R/T (use EBSE33A)	

\*\* add suffix to kit P/N for power supply option as follows...  
12 = 12 volt, 24 = 24 volt (omit suffix for multivolt)

# GOOD..\*

## LOAD PROPORTIONING TRAILER BRAKE KITS

KIT P/N	SARN	DESCRIPTION	PG
LSV01B	47170	1 AXLE SEMI	42
LSV01A	47169	1 AXLE SEMI B/D-R/T	43
LSV02B	46640	2 AXLE SEMI	44
LSV02A	46639	2 AXLE SEMI B/D-R/T	45
LSV02D	46641	2 AXLE R/T DOLLY	46
LSV03B	46643	3 AXLE SEMI	47
LSV03A	46642	3 AXLE SEMI B/D-R/T	48
LSV03D	46644	3 AXLE R/T DOLLY	49
LSV04B	proposd	4 AXLE SEMI	50
LSV04A	proposd	4 AXLE SEMI B/D-R/T	51
LSV11B	47826	2 AXLE DOG	52
LSV12B	46645	3 AXLE DOG	53
LSV22B	46646	4 AXLE DOG	54
LSV23B	47837	5 AXLE DOG	55

## ADR38/04 EXEMPT TRAILER BRAKE KITS

KIT P/N	SARN	DESCRIPTION	PG
ABC02D	29245	2 AXLE R/T DOLLY	58
ABC03D	29247	3 AXLE R/T DOLLY	59
ABC03W	37175	3 AXLE (3 row of 8) WIDENER <sup>2</sup>	60
ABC034	42887	3 AXLE (3 row of 8) WIDENER <sup>4</sup>	61
ABC04W	37176	4 AXLE (4 row of 8) WIDENER <sup>2</sup>	62
ABC044	41171	4 AXLE (4 row of 8) WIDENER <sup>4</sup>	63

<sup>2</sup> 2 springbrakes per row (1 per foundation brake pair)  
<sup>4</sup> 4 springbrakes per row (1 per foundation brake)

\* The AUSTRALIAN LEGAL REQUIREMENTS for TRAILER BRAKING SYSTEMS are **CHANGING**, and this catalogue details the **GOOD**, the **BETTER**, and the **BEST** way of meeting these new regulations, now, and into the future...

ADR38/04 became law on **July 1st 2014**, and requires either **load proportioning** (good), **ABS** (better), or **TEBS** (best) on **most\* new** trailers (\*see page 51 for exemptions). NSW EPA also now requires **roll stability** (TEBS) on **all new** DG tankers, and **all existing** DG tankers must be retrofitted by **2019**. The next edition of ADR38 (ADR38/05, expected around 2018) will require **roll stability** (TEBS) on **most\* new** trailers, so **TEBS** is the **BEST** most future proof solution for all.

## OTHER KITS AND MISCELLANEOUS PARTS

DESCRIPTION	PG
SPARE PARTS (VALVES)	64
SPARE PARTS (ACTUATORS, AIR TANKS)	65
SPARE PARTS (TUBE, HOSE, COUPLINGS)	66
SPARE PARTS (FITTINGS)	67

# TEBS / RSS TRAILER BRAKE KITS

With ANTILOCK, ROLL STABILITY, and electronic LOAD PROPORTIONING functions, TEBS meets ALL current, pending, and proposed ADR regulations. Most new European trucks now come with EBS and disc brakes as standard. TEBS is essential for optimum brake balance with these high tech vehicles, and provides almost all of the same benefits behind North American towing vehicles as well.

**Our latest multivolt 'E4'-TEBS kits retain all of the proven benefits of previous D-TEBS...**

- ✓ More responsive 'car like' brake feel & shorter stopping distance.
- ✓ Faster brake applications with synchronous truck & trailer braking (no lag or trailer push).
- ✓ Even brake wear & consistent pedal feel at all loads with integral electronic load proportioning.
- ✓ Guaranteed stability via integral ABS with improved efficiency for reduced air consumption.
- ✓ Active rollover protection via integral 'RSS' Roll Stability System.
- ✓ In-dash display of trailer axle weight (via CAN bus to compatible EBS towing vehicles).
- ✓ Sensing & in-dash warning of low trailer air pressure.
- ✓ Comprehensive PC programming & diagnosis.
- ✓ Sensing & in-dash warning of disc pad wear limits (with optional wiring harness)

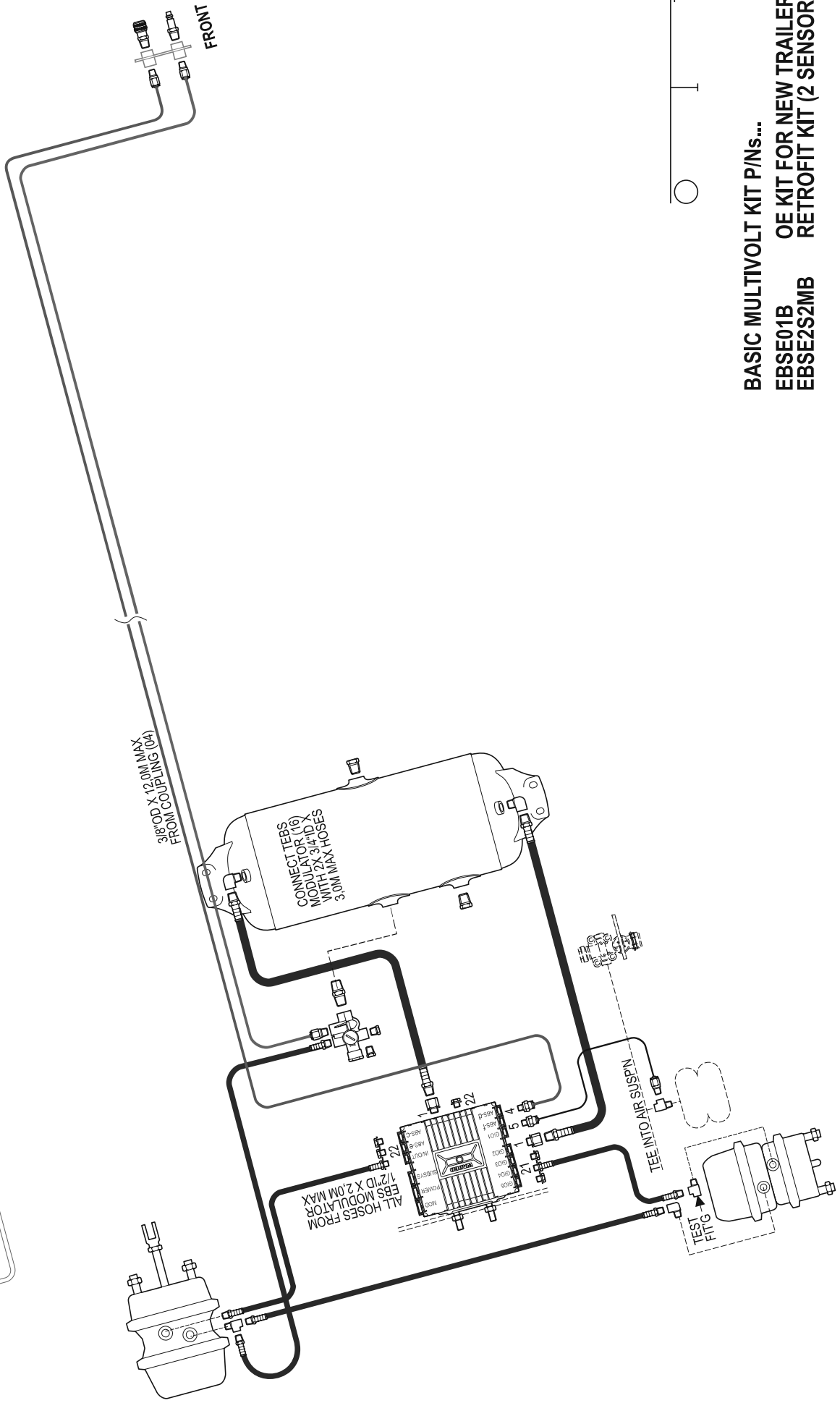
**...and adds a host of new features and functions for even greater performance, safety, and productivity...**

- ✓ Native multivolt capability will operate with towing vehicle power supplies from 9 to 30 volts.
- ✓ Multivolt connector available to enable connection of any ABS/EBS towing vehicle, 12V or 24V.
- ✓ Downward facing connector arrangement with enhanced seals for improved moisture protection.
- ✓ Reduced power consumption for more reliable multi-trailer operation with more trailers.
- ✓ CANrouter in all lead kits relays electronic brake signal to all trailers in combination for faster braking behind any ABS or EBS truck.
- ✓ All trailers braked when any trailer is in RSS mode for improved roll stability on roadtrains.
- ✓ Load proportioning can now be disabled behind non-EBS towing vehicles for improved compatibility.
- ✓ Simplified load sensing for mechanical suspensions.
- ✓ Expanded data logging functions with increased trip memory records distance, speed, axle load, brake pressures, ABS & RSS events, & various other operating parameters for comprehensive fleet management analysis.
- ✓ Optional 'SmartBoard' displays all trailer axle group loads separately in tonnes (replaces on board scales).
- ✓ Optional 'SmartBoard' (with battery) provides odometer function even when E-TEBS is unplugged (replaces hubometer).
- ✓ Optional 'TailGUARD' reversing sensor kits warn of obstacles & apply brakes automatically.
- ✓ Optional 'LACV' kits automatically control lift axle/s with manual override via optional 'SmartBoard'.
- ✓ Optional 'eTASC' Electronic Air Suspension Control provides advanced suspension control, including speed dependant ride height (less drag & improved stability), raise/lower control (via 'SmartBoard' or manual lever if no power) with automatic return to ride.
- ✓ Optional 'OptiTurn' manoeuvre assistance automatically reduces tyre scrubbing & cut-in during low speed cornering.
- ✓ Multiple programmable GIO (general input/output) ports for customised functions like...
  - Activation of stoplight and/or tag trailer brakes when roll stability intervention is active.
  - Speed dependant switching functions (EG: self-steer axle lock over certain speed).
  - Programmable warning functions (EG: rear door/tailgate open, suspension dumped, etc) ...
  - Tilt-Alert' can be wired to activate warning light and/or buzzer if tipping at dangerous angle.



# 1 AXLE SEMI TEBS + RSS

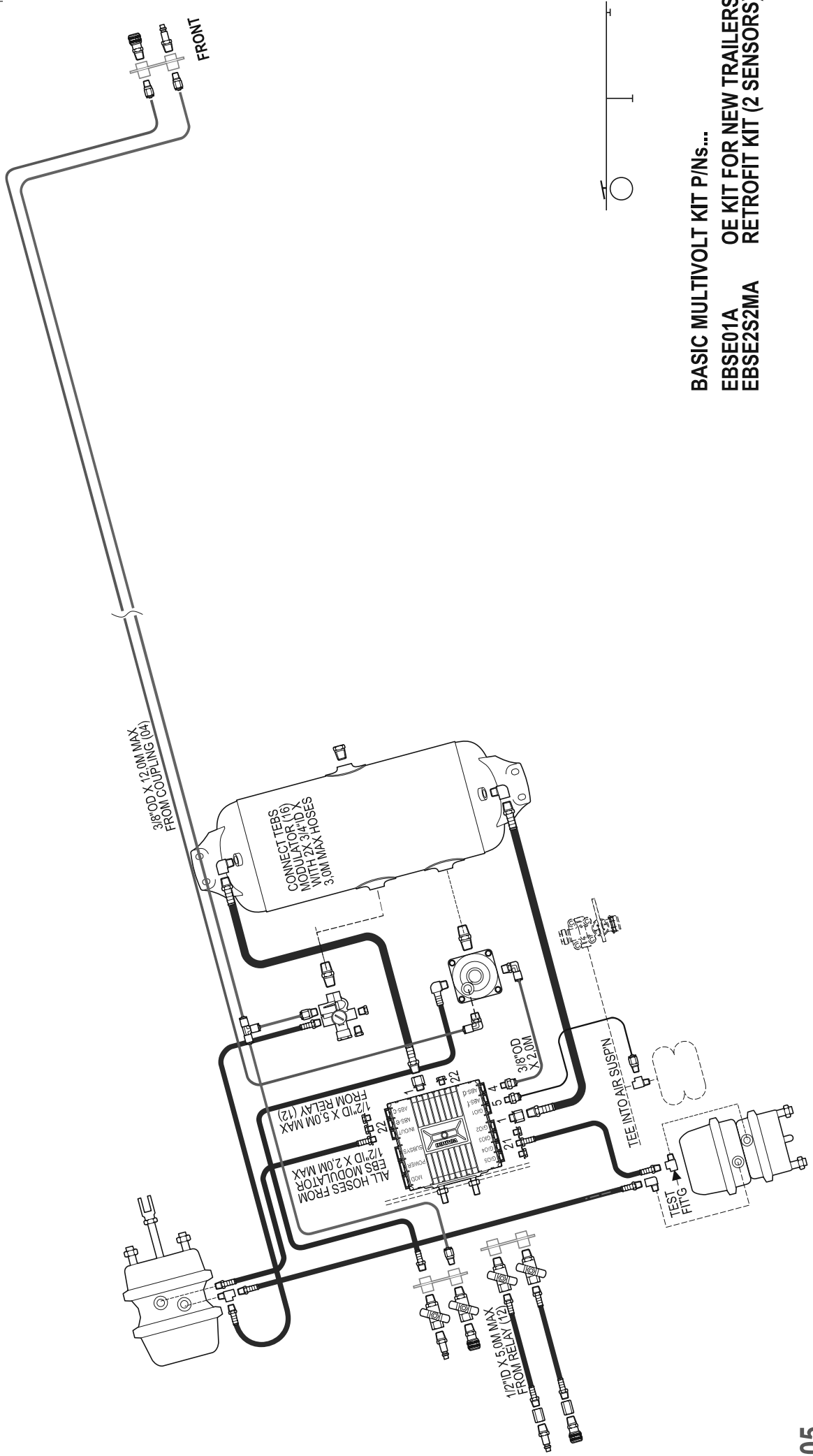
38104 SARN  
47241



BASIC MULTIVOLT KIT P/Ns...  
 EBSE01B OE KIT FOR NEW TRAILERS  
 EBSE2S2MB RETROFIT KIT (2 SENSORS)

# 1 AXLE SEMI B/D-R/T TEBS + RSS

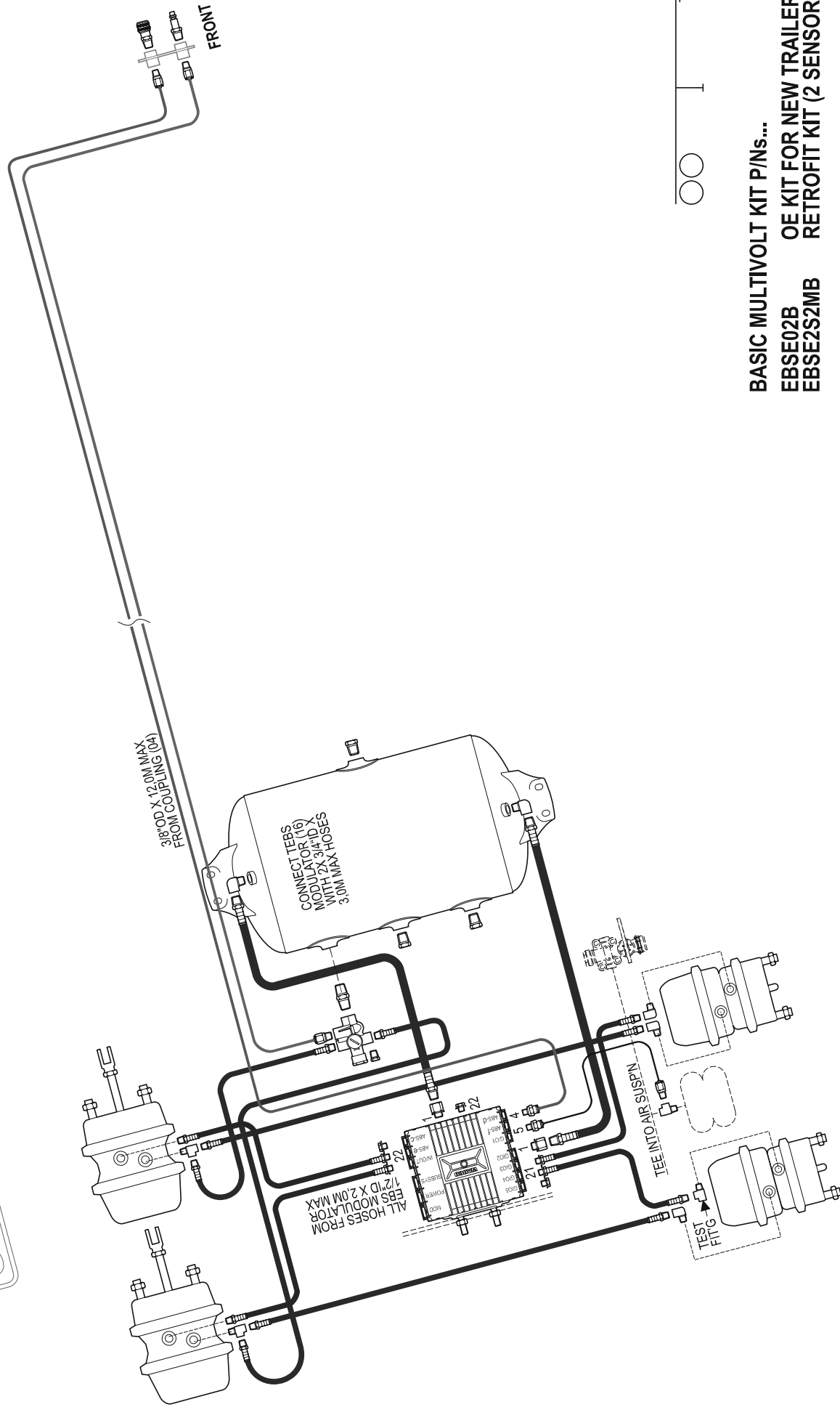
38104 SMI  
47240



- BASIC MULTIVOLT KIT P/Ns...
- EBSE01A    OE KIT FOR NEW TRAILERS
- EBSE2S2MA    RETROFIT KIT (2 SENSORS)

# 2 AXLE SEMI TEBS+RSS

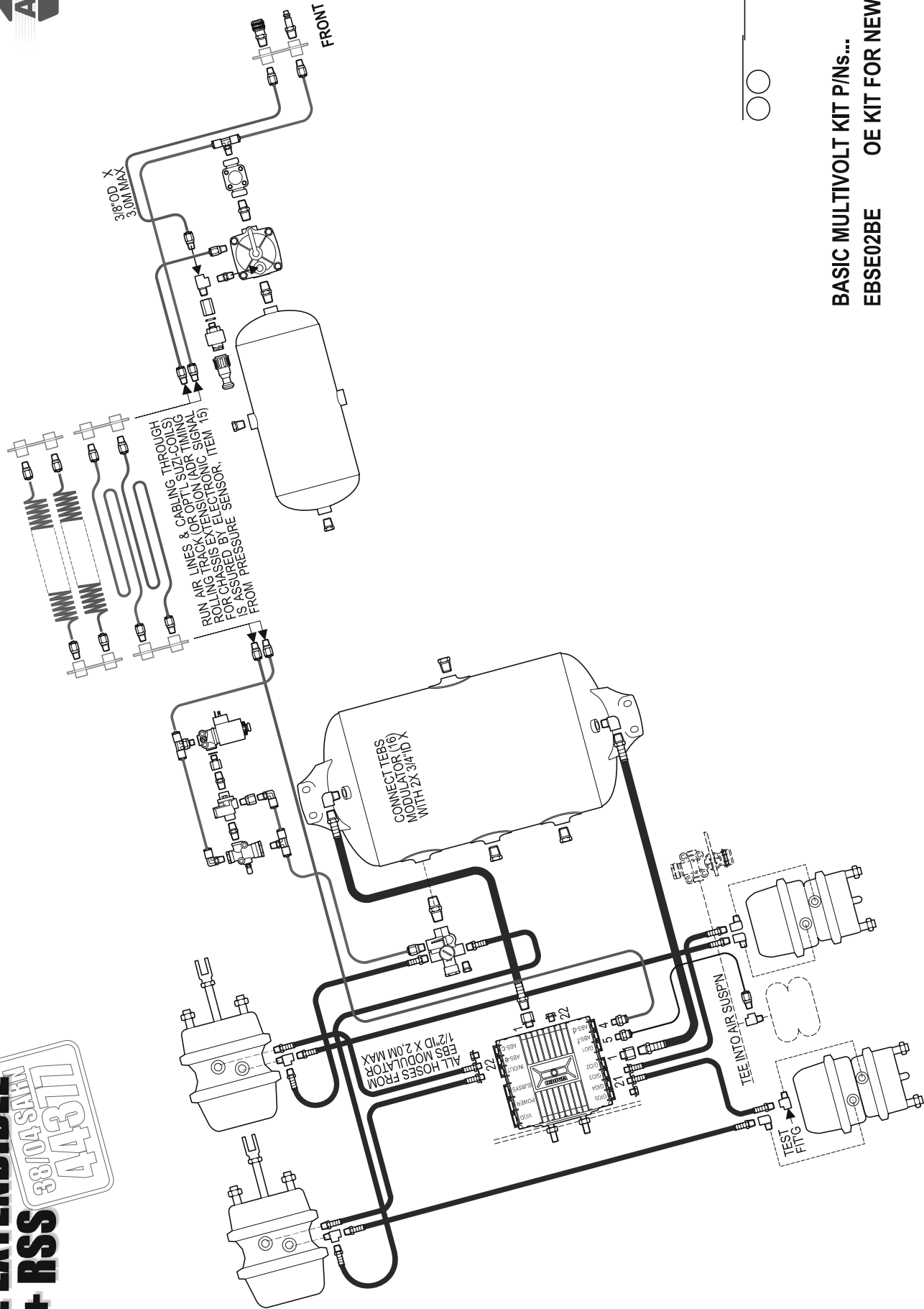
38104 SARN  
30801



BASIC MULTIVOLT KIT P/Ns...  
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 EBSE2S2MB RETROFIT KIT (2 SENSORS)

# 2 AXLE EXTENSIBLE TEBS + RSS

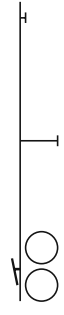
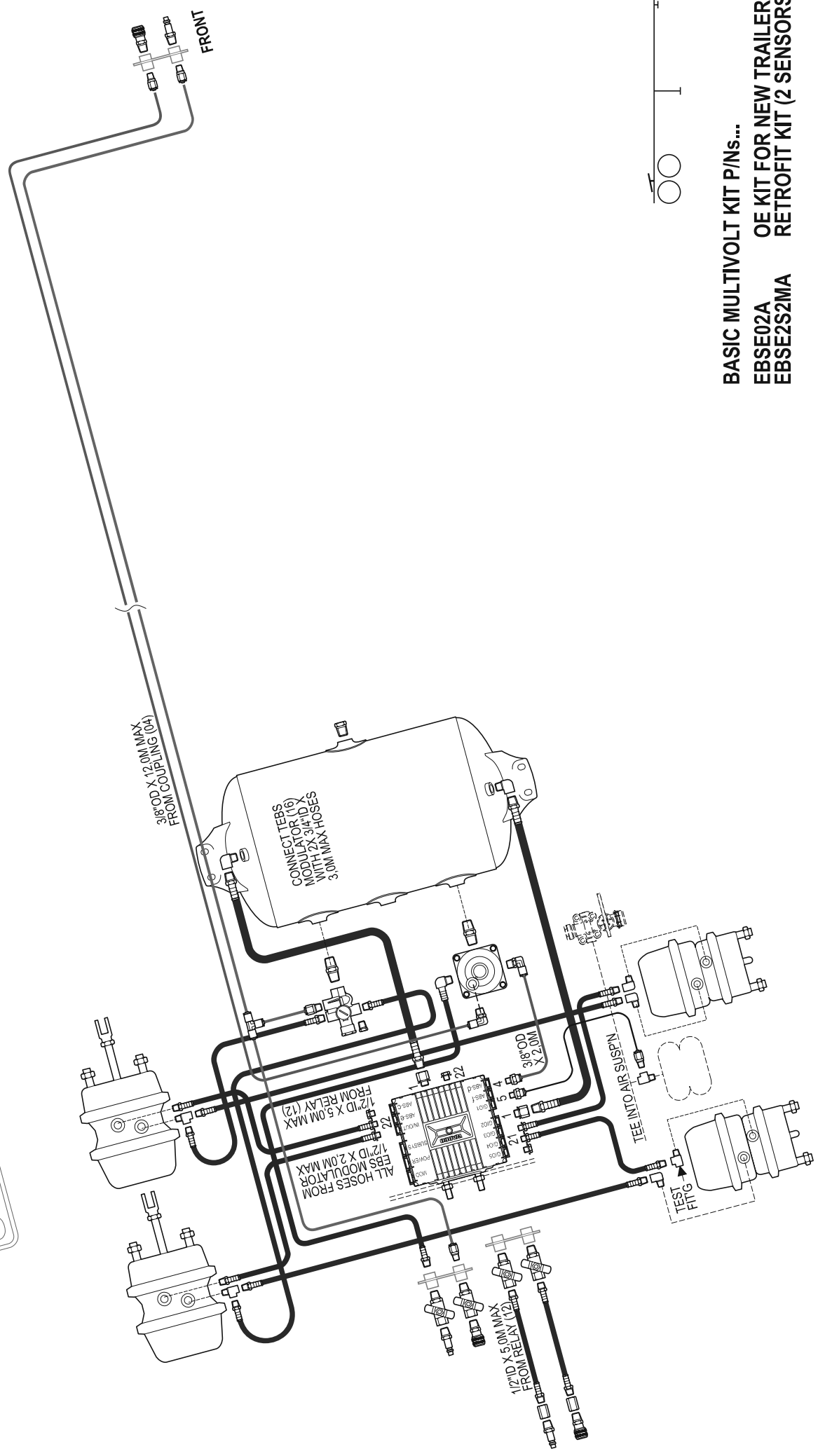
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BASIC MULTIVOLT KIT P/Ns...  
EBSE02BE OE KIT FOR NEW TRAILERS

# 2 AXLE SEMI B/D-R/T TEBS+RSS

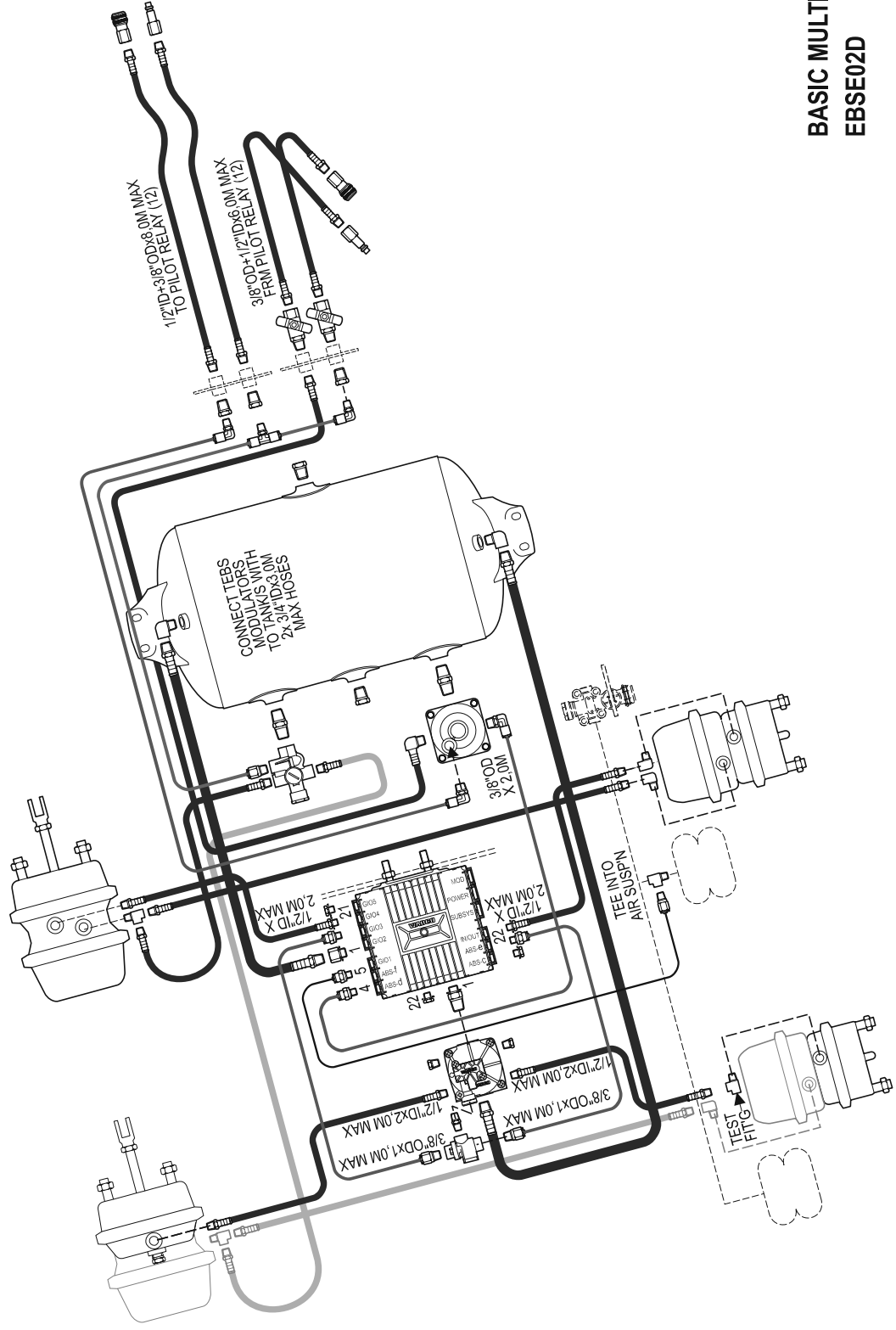
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308800



BASIC MULTIVOLT KIT P/Ns...  
 EBSE02A OE KIT FOR NEW TRAILERS  
 EBSE2S2MA RETROFIT KIT (2 SENSORS)

# 2 AXLE DOLLY TEBS + RSS

38104 SRPN  
16893

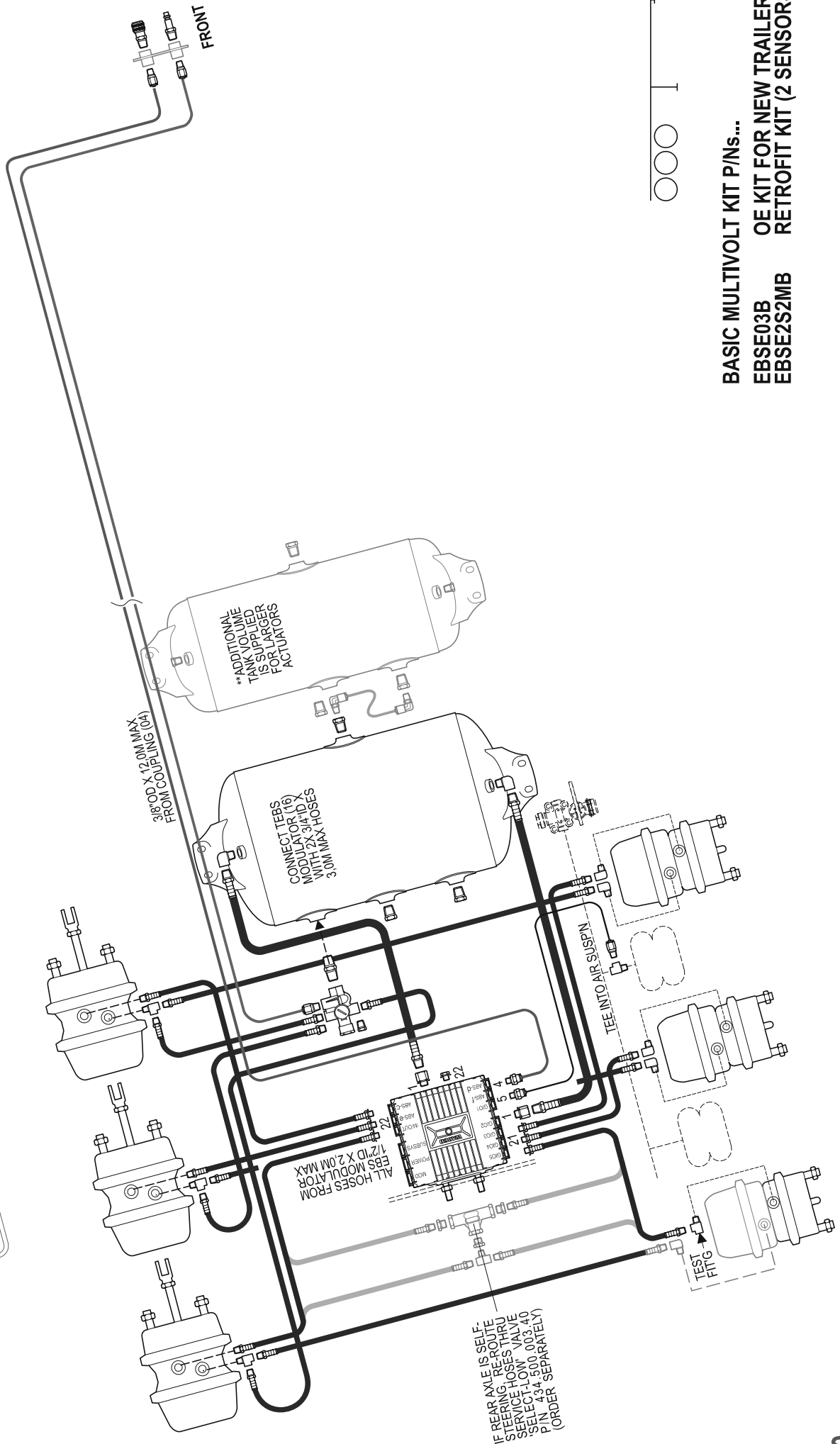


**BASIC MULTIVOLT KIT P/NS...**  
**EBSE02D OE KIT FOR NEW TRAILERS**



# 3 AXLE SEMI TEBS+RSS

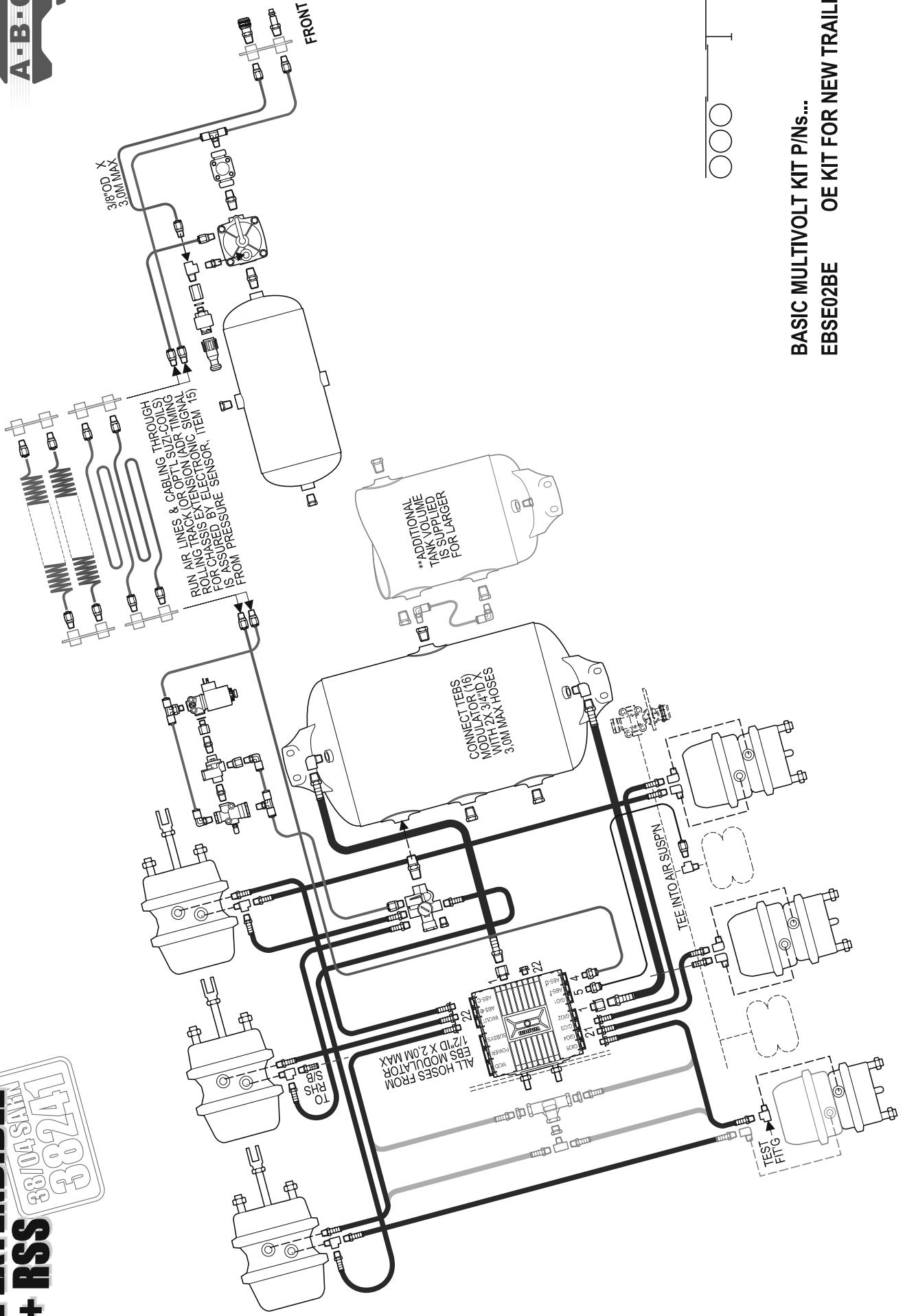
38104 SARN  
30731



BASIC MULTIVOLT KIT P/Ns...  
 EBSE03B OE KIT FOR NEW TRAILERS  
 EBSE2S2MB RETROFIT KIT (2 SENSORS)

# 3 AXLE EXTENSIBLE TEBS + RSS

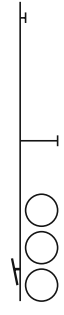
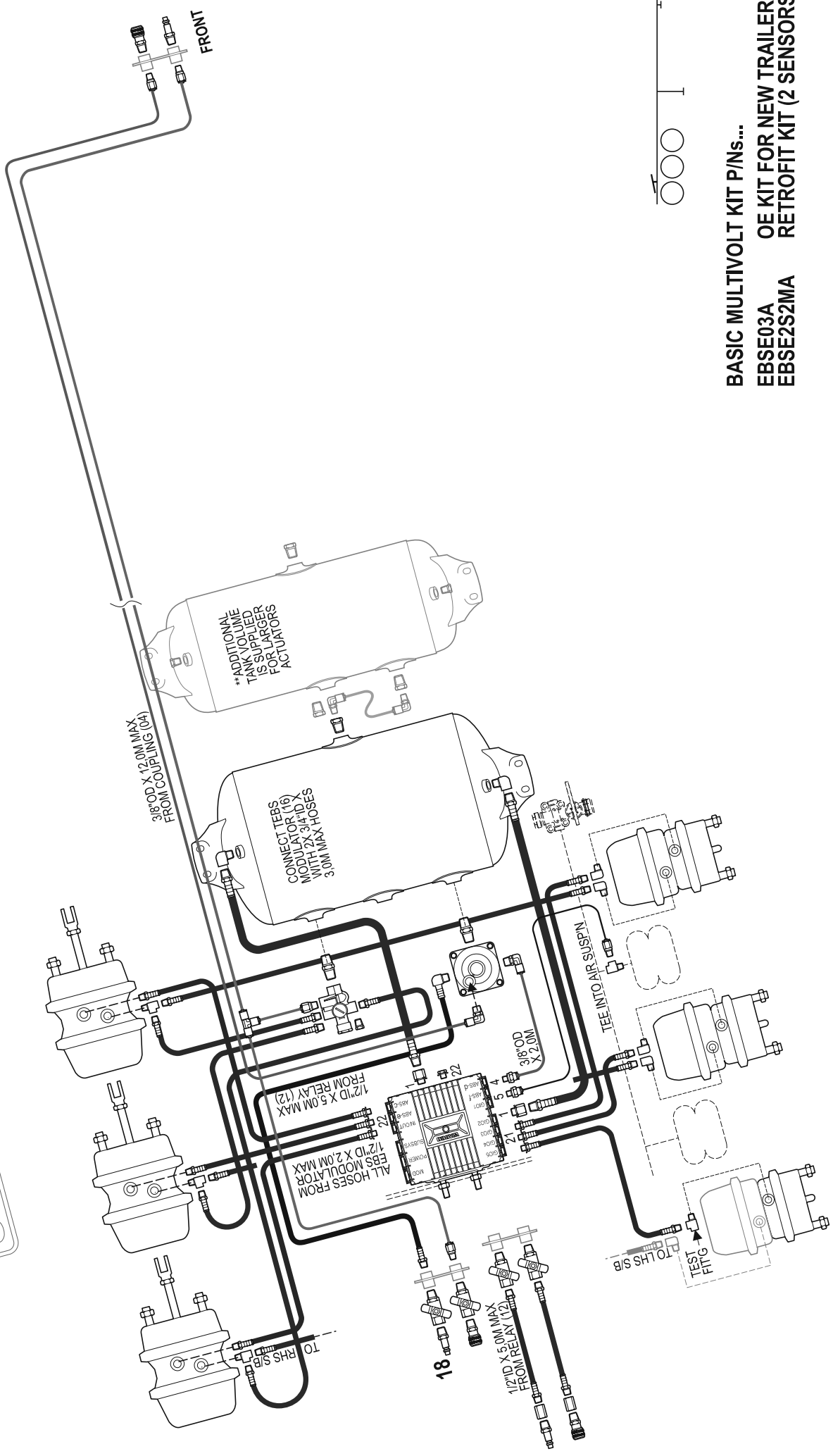
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**BASIC MULTIVOLT KIT P/Ns...**  
**EBSE02BE OE KIT FOR NEW TRAILERS**

# 3 AXLE SEMI B/D-R/T TEBS+RSS

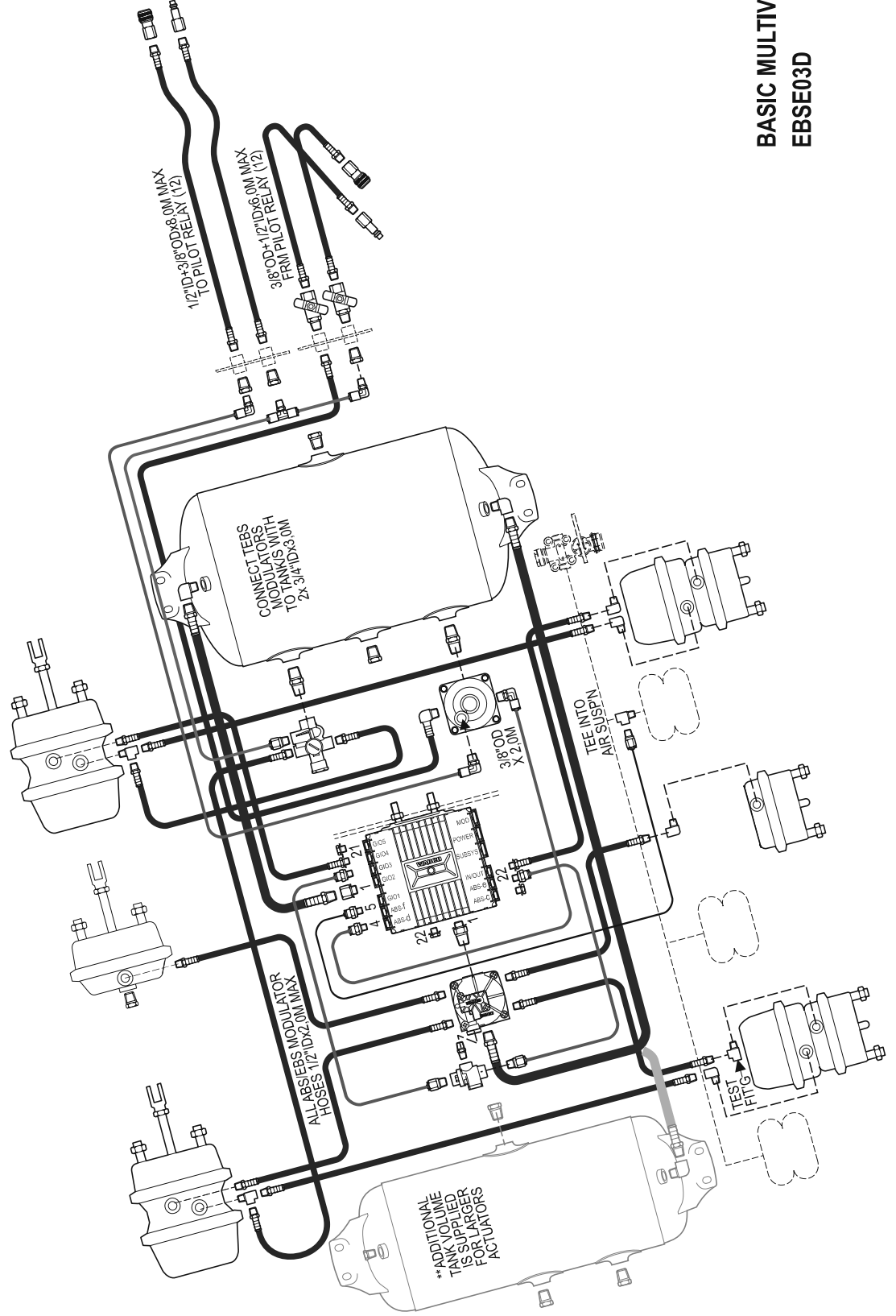
38104SA  
30730



BASIC MULTIVOLT KIT P/Ns...  
 EBSE03A    OE KIT FOR NEW TRAILERS  
 EBSE2S2MA    RETROFIT KIT (2 SENSORS)

# 3 AXLE DOLLY TEBS + RSS

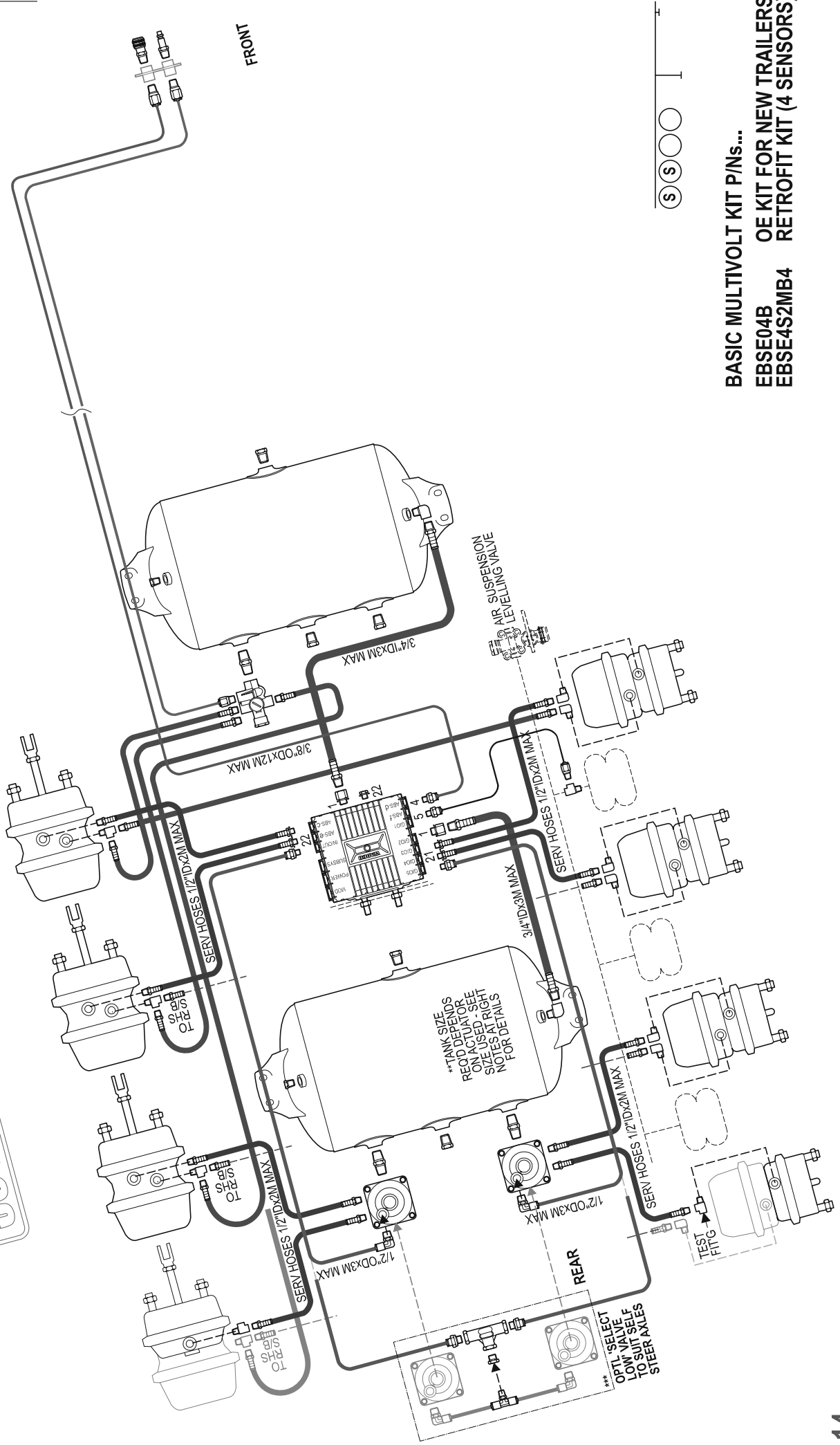
38104 SARN  
46894



BASIC MULTIVOLT KIT P/NS...  
EBSE03D OE KIT FOR NEW TRAILERS

# 4 AXLE SEMI TEBS+RSS

38104 SARN  
39472



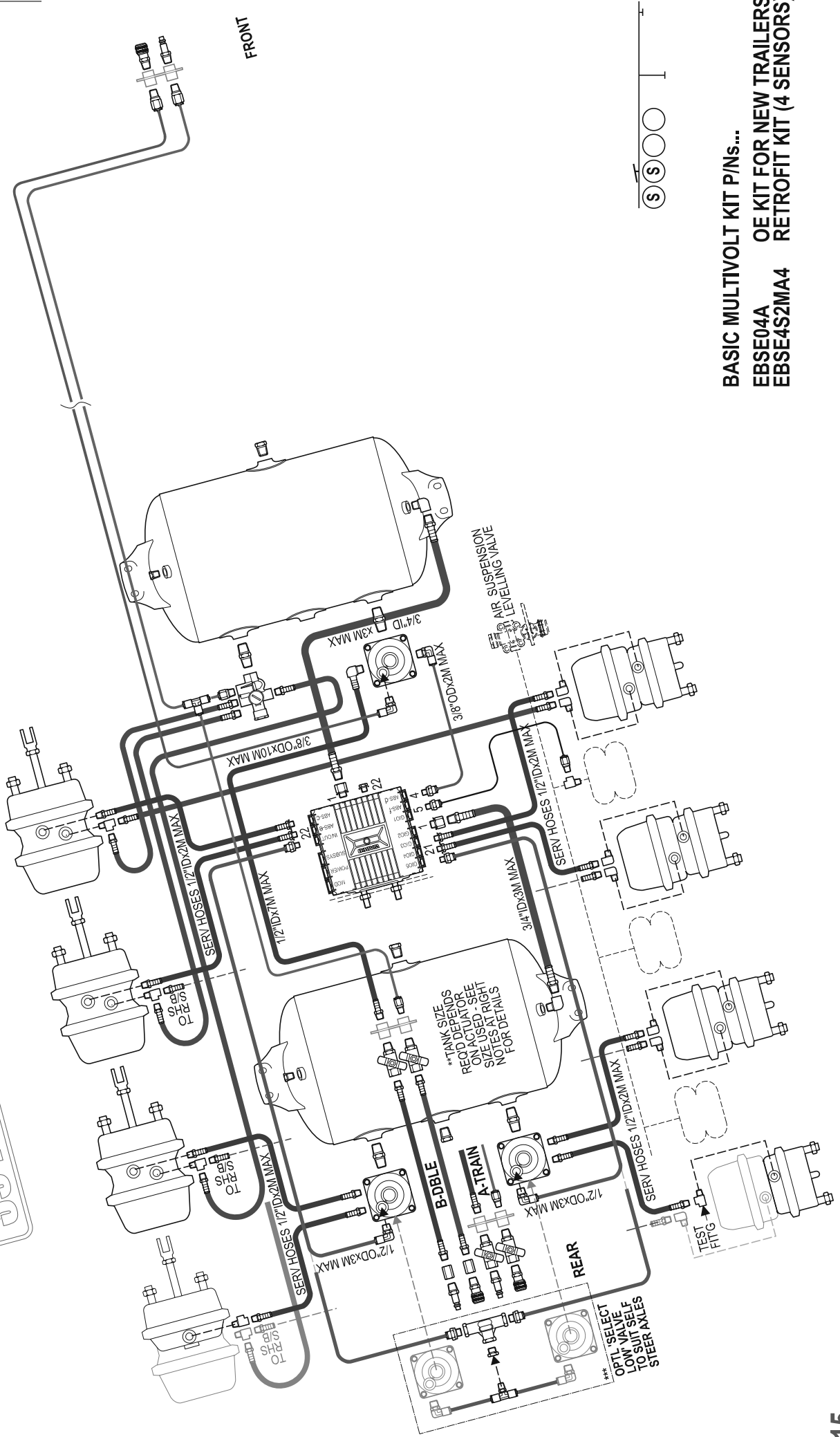
**BASIC MULTIVOLT KIT P/Ns...**  
**EBSE04B** OE KIT FOR NEW TRAILERS  
**EBSE4S2MB4** RETROFIT KIT (4 SENSORS)

\*\*TANK SIZE  
REQ'D DEPENDS  
ON ACID. SEE  
SIZE USED AT RIGHT  
FOR DETAILS

\*\*\* OPT. SELECT  
LOW VOLTAGE  
TO SUIT SELF  
STEER AXLES

# 4 AXLE SEMI B/D-R/T TEBS+RSS

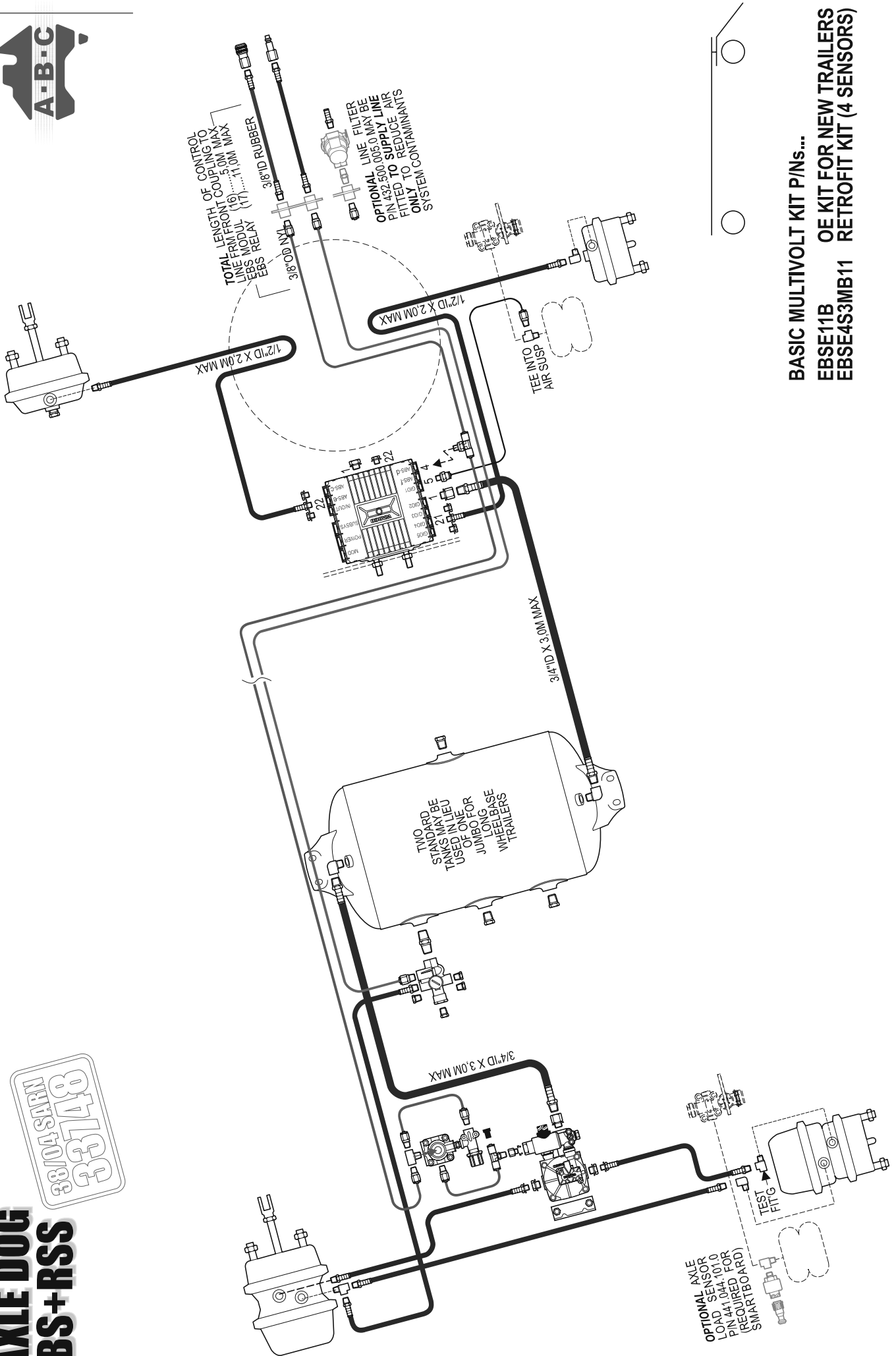
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**BASIC MULTIVOLT KIT P/Ns...**  
**EBSE04A OE KIT FOR NEW TRAILERS**  
**EBSE4S2MA4 RETROFIT KIT (4 SENSORS)**

# 2 AXLE DOG TEBS+RSS

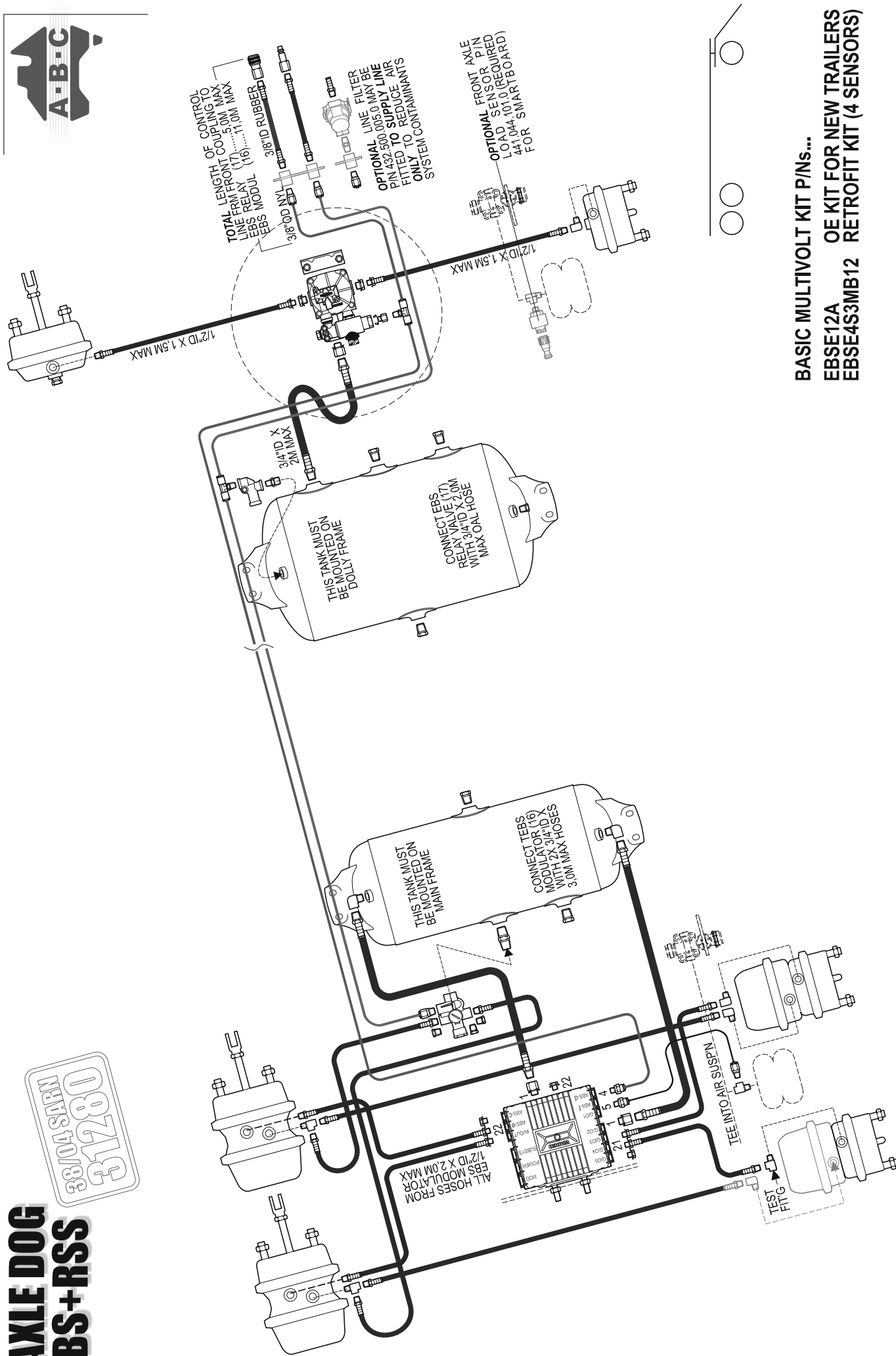
38104 SARN  
33148



**BASIC MULTIVOLT KIT P/Ns...**  
**EBSE11B**    **OE KIT FOR NEW TRAILERS**  
**EBSE4S3MB11**    **RETROFIT KIT (4 SENSORS)**

# 3 AXLE DOG TEBS+RSS

38104 SAMPN  
31280

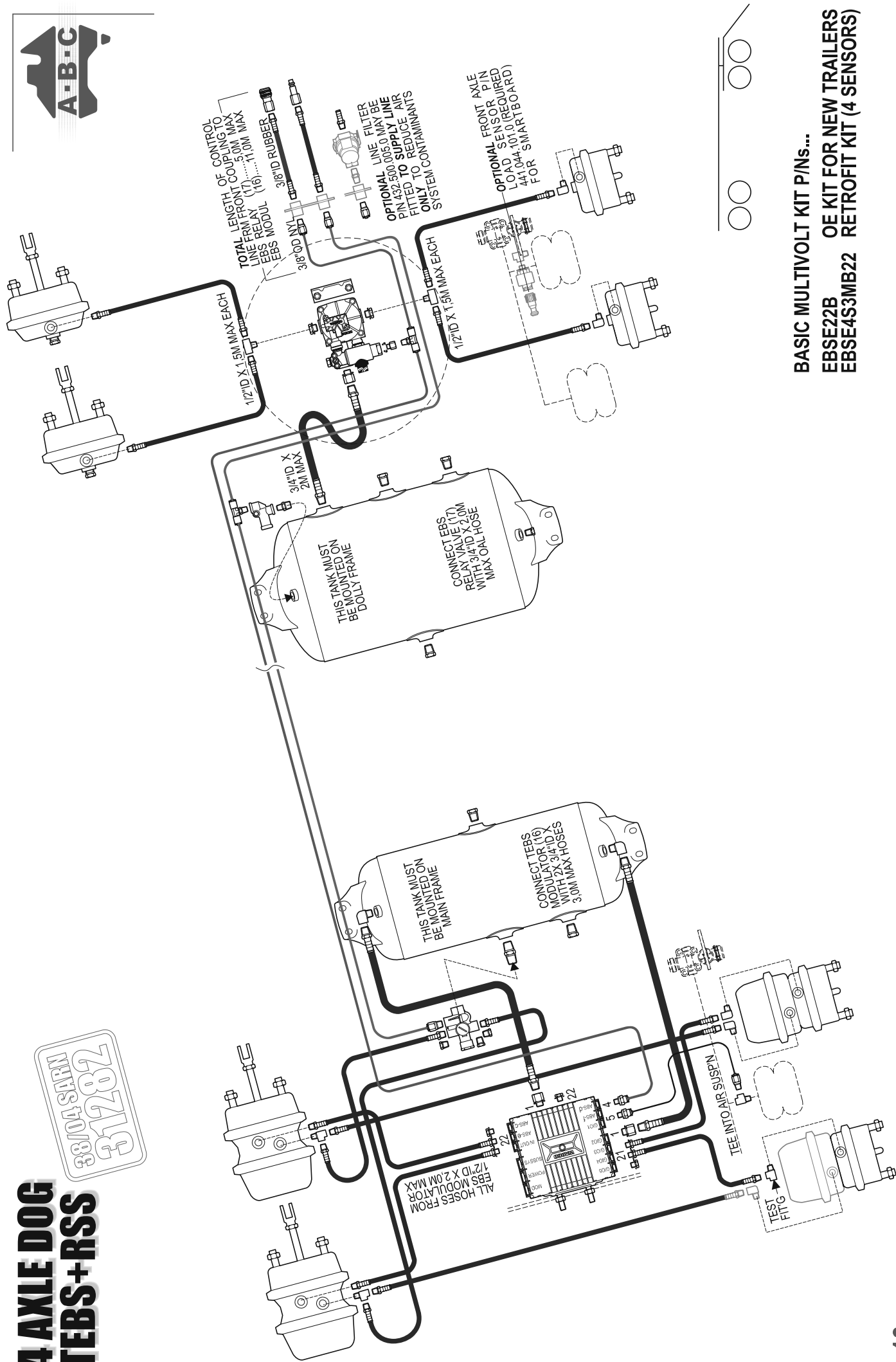


**BASIC MULTIVOLT KIT P/Ns...**  
 EBSE12A    OE KIT FOR NEW TRAILERS  
 EBSE4S3MB12    RETROFIT KIT (4 SENSORS)



# 4 AXLE DOG TEBS+RSS

38104 SARN  
31282

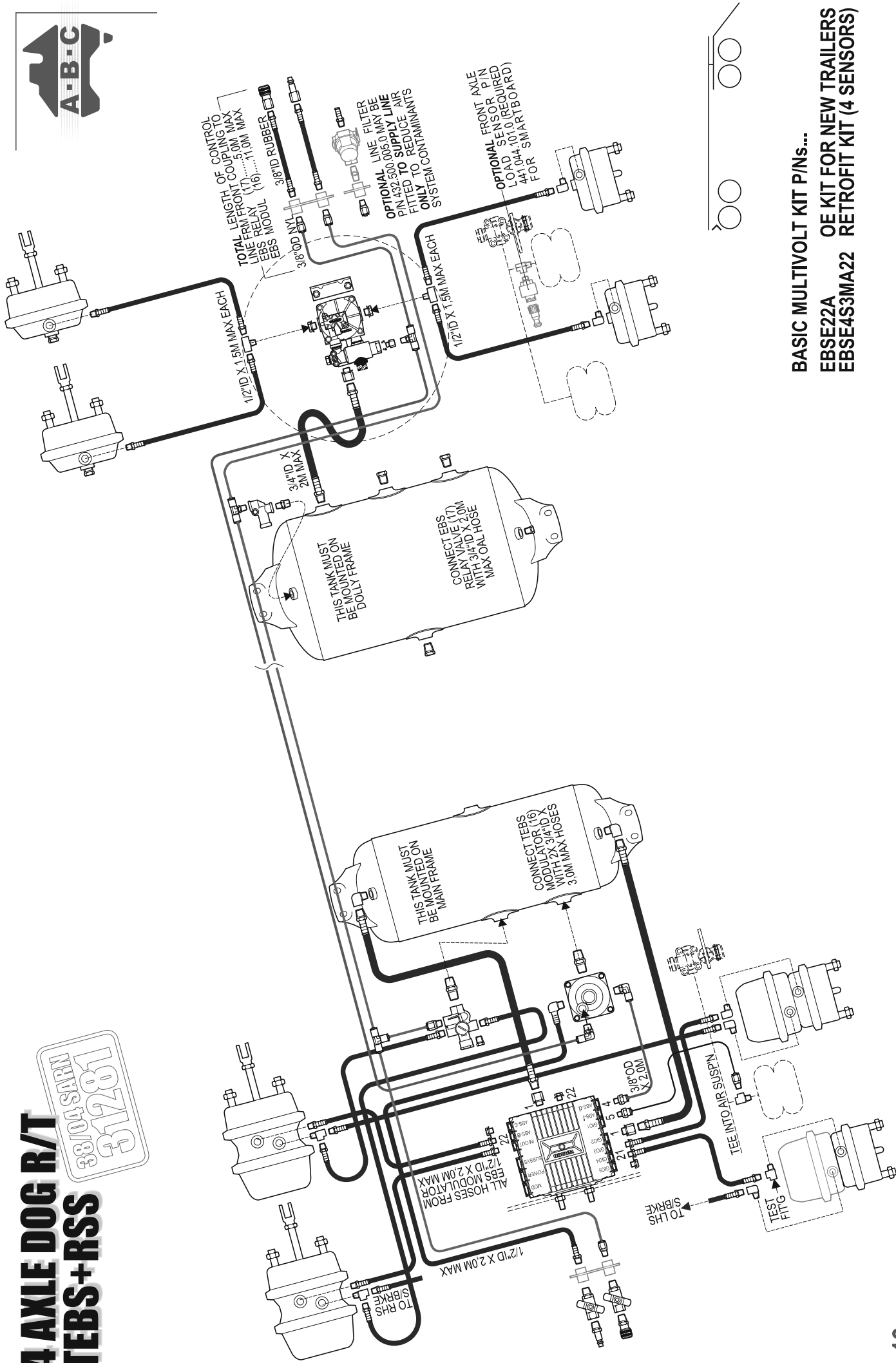


**BASIC MULTIVOLT KIT P/NS...**

**EBSE22B    OE KIT FOR NEW TRAILERS**  
**EBSE4S3MB22    RETROFIT KIT (4 SENSORS)**

# 4 AXLE DOG R/T TEBS+RSS

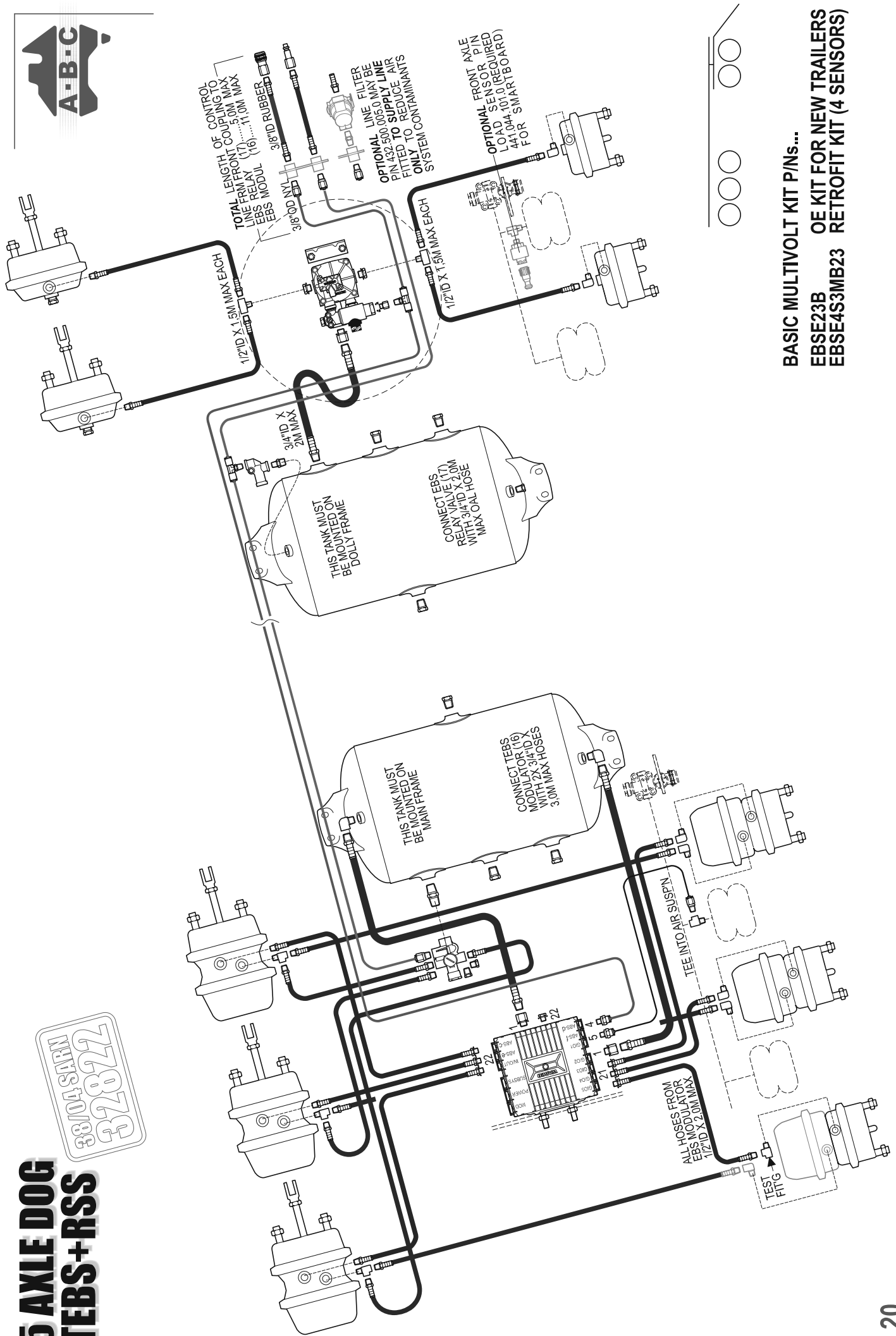
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**BASIC MULTIVOLT KIT P/NS...**  
**EBSE22A OE KIT FOR NEW TRAILERS**  
**EBSE4S3MA22 RETROFIT KIT (4 SENSORS)**

# 5 AXLE DOG TEBS+RSS

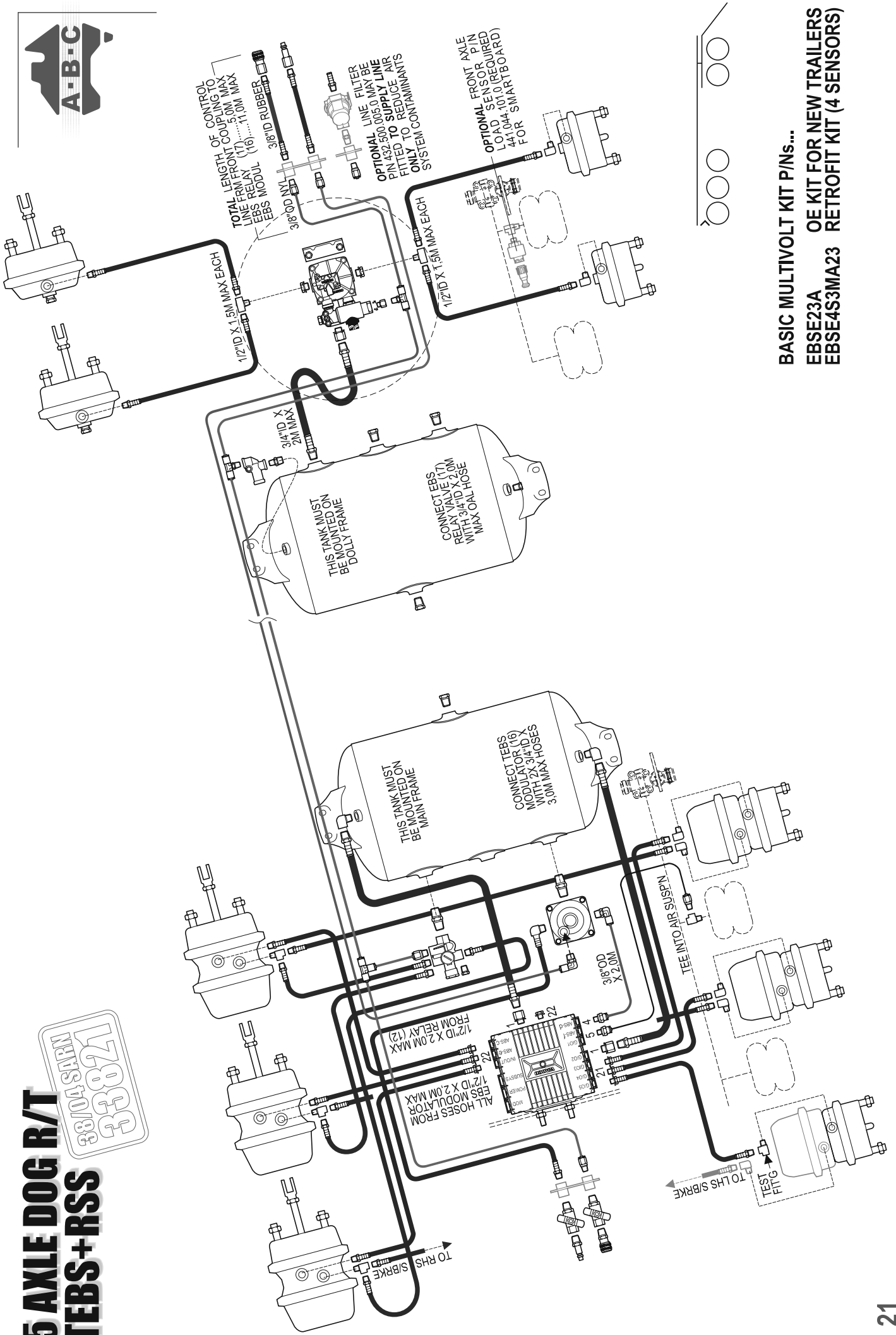
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**BASIC MULTIVOLT KIT P/NS...**  
**EBSE23B** OE KIT FOR NEW TRAILERS  
**EBSE4S3MB23** RETROFIT KIT (4 SENSORS)

# 5 AXLE DOG R/T TEBS+RSS

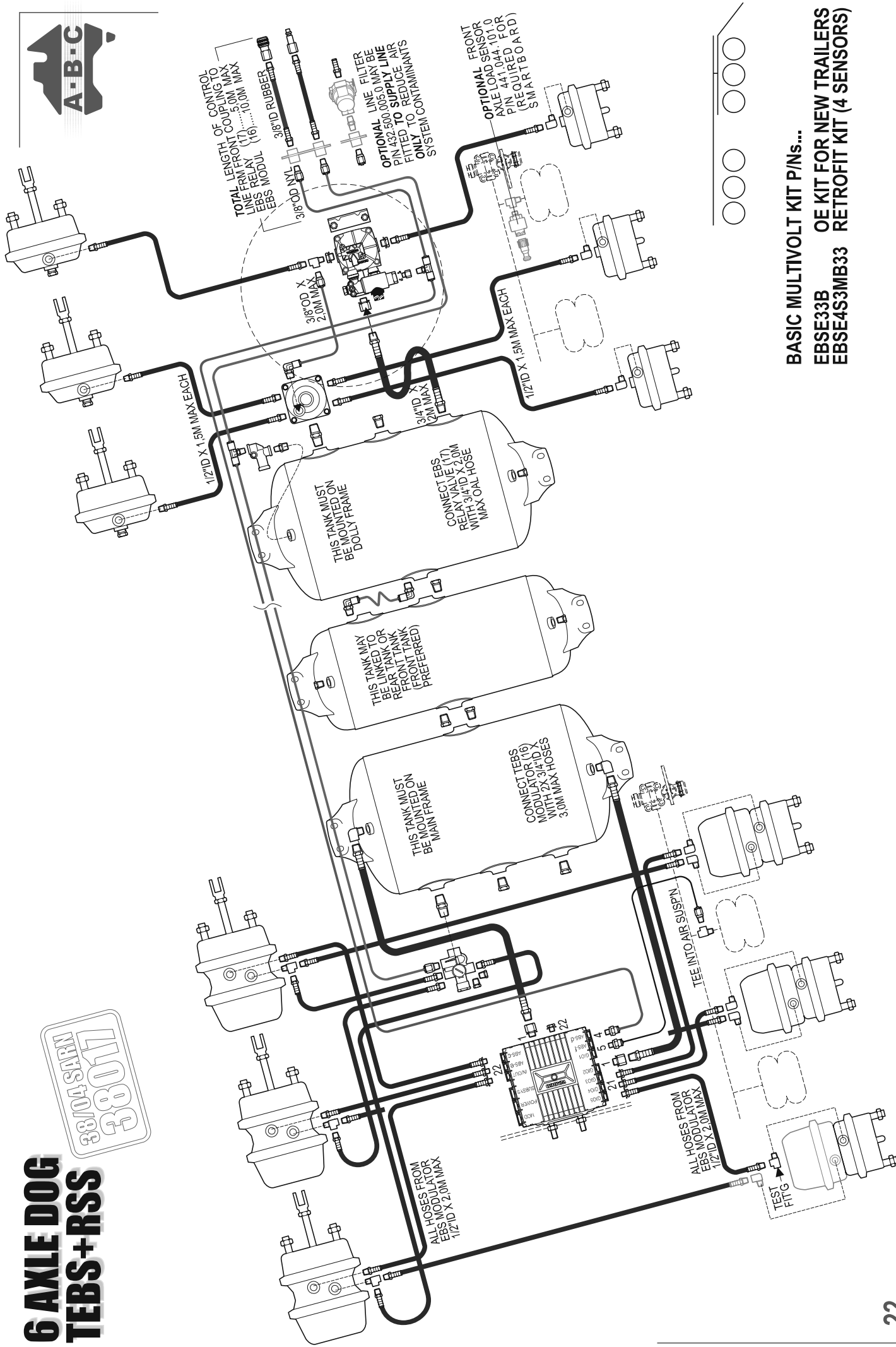
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**BASIC MULTIVOLT KIT P/NS...**  
**EBSE23A**    **OE KIT FOR NEW TRAILERS**  
**EBSE4S3MA23**    **RETROFIT KIT (4 SENSORS)**

# 6 AXLE DOG TEBS+RSS

38104 SARN  
38017

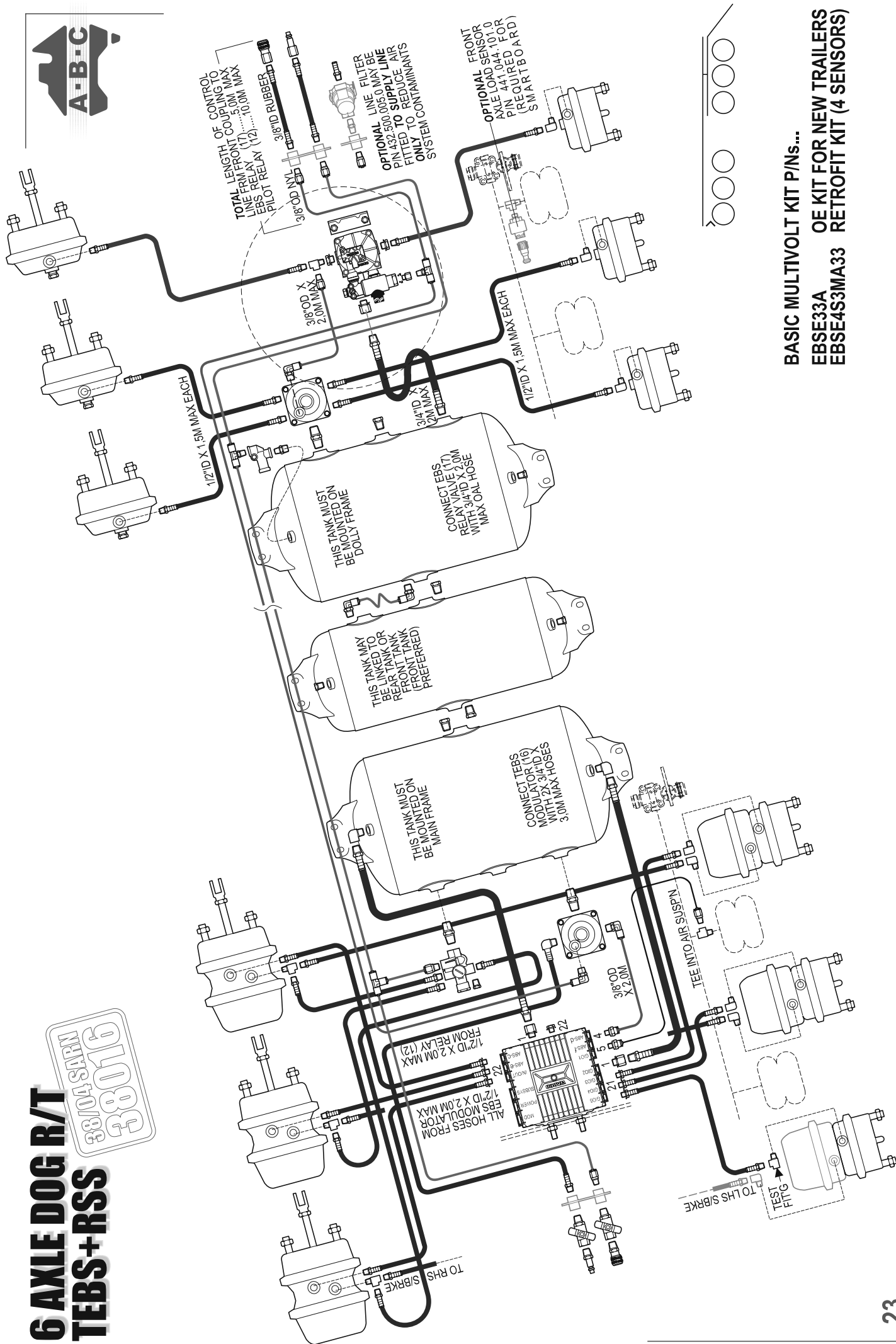


**BASIC MULTIVOLT KIT P/NS...**

**EBSE33B OE KIT FOR NEW TRAILERS**  
**EBSE4S3MB33 RETROFIT KIT (4 SENSORS)**

# 6 AXLE DOG R/T TEBS+RSS

38104 SARN  
38016



**BASIC MULTIVOLT KIT P/NS...**  
**EBSE33A OE KIT FOR NEW TRAILERS**  
**EBSE4S3MA33 RETROFIT KIT (4 SENSORS)**

# TEBS COMPATIBILITY



Virtually all new European prime movers sold in Australia today are equipped with EBS, and the biggest selling North American make now also offers 'EBSS' with trailer CAN bus as an option. The specification of trailing equipment used with these vehicles is critical, and as a rule of thumb, we recommend matching technologies wherever possible. The table below outlines the consequences of mixing the various braking technologies now available in articulated vehicle combinations.

Australian Transport regulators are moving to mandate electronic stability control (including trailer roll stability systems) some time between 2015 and 2020. The trailers you buy today will almost certainly still be in service when this regulation comes into effect. As Australia's leading trailer brake system specialist, with support staff in every major capital, Air Brake Corporation is the perfect partner to guide you through this brave new world of intelligent electronic control systems.

<p>TOWING VEHICLE with EBS</p>	<p><b>XXX NOT RECOMMENDED</b></p> <p>Load proportioning on towing vehicle only can result in over-aggressive trailer braking &amp; <b>accelerated brake wear</b>. No ABS on over aggressive trailer can result in <b>chronic wheel lock &amp; dangerous instability</b> accentuated by slow trailer system.</p>	<p>TOWING VEHICLE with EBS</p>	<p><b>✓✓✓ HIGHLY RECOMMENDED</b></p> <p>Electronic load proportioning on both for optimum brake balance &amp; <b>even brake wear</b> at all loads. ABS on both for <b>optimum stability &amp; minimum stopping distance</b>. Electronically triggered trailer system* for synchronous braking (<b>no trailer push</b>).</p>
<p>TOWING VEHICLE with EBS</p>	<p><b>✓XX LESS THAN OPTIMAL (SAFETY)</b></p> <p>Load proportioning on both for improved brake balance &amp; more even brake wear, but no ABS on trailer means wheel lock &amp; instability still possible, &amp; pneumatically triggered trailer system behind 'fast' EBS towing vehicle accentuates trailer lag/push.</p>	<p>TOWING VEHICLE with ABS</p>	<p><b>✓✓✓ READY FOR THE FUTURE</b></p> <p>ABS on both for optimum stability &amp; reduced stopping distance. Load proportioning only on trailer may result in more aggressive towing vehicle braking, but ABS prevents possible instability, &amp; trailer EBS load proportioning can be disabled if desired.</p>
<p>TOWING VEHICLE with EBS</p>	<p><b>✓✓X LESS THAN OPTIMAL (WEAR)</b></p> <p>Electronic load proportioning only on towing vehicle can result in over-aggressive trailer braking &amp; <b>accelerated brake wear</b>. ABS on both* ensures stability but pneumatically triggered trailer system behind 'fast' EBS towing vehicle accentuates trailer lag/push.</p>	<p>conventional AIR BRAKES</p>	<p><b>✓✓✓ READY FOR THE FUTURE</b></p> <p>No power connection to trailer EBS so load proportioning &amp; ABS are inactive - trailer operates pneumatically at full pressure, so is no worse than most trailers on the road today, but is ready to provide optimum performance behind your next (EBS) truck!</p>

TEBS function relies on power supply from towing vehicle, so requires a compatible towing vehicle ABS/EBS connection. Our latest E-TEBS trailer kits are all multivolt, so will operate at 12V or 24V. However, ABS/EBS towing vehicle connectors are generally keyed differently for either 12V or 24V trailer systems. To enable connectivity with any towing vehicle, our TEBS dog trailer kits are supplied with a multivolt plug with two keyways that will engage both 12V and 24V truck sockets. Our TEBS semi kits are supplied with both 12V and 24V sockets to facilitate matching to specific towing vehicles.

# TEBS OPTIONS

**E-TEBS provides the foundation for a range of options to further enhance vehicle safety and productivity, including.....**

- ✓ Sensing & in-dash warning of disc pad wear limits (with optional wiring harness)
- ✓ Optional 'SmartBoard' displays all trailer axle group loads separately in tonnes (replaces on board scales).
- ✓ Optional 'SmartBoard' (with battery) provides odometer function even when E-TEBS is unplugged (replaces hubometer).
- ✓ Optional 'TailGUARD' reversing sensor kits warn of obstacles & apply brakes automatically.
- ✓ Optional 'LACV' kits automatically control lift axle/s with manual override via optional 'SmartBoard'.
- ✓ Optional 'eTASC' Electronic Trailer Air Suspension Control provides advanced suspension control functions like speed dependant ride height (less drag & improved stability), raise/lower control (via optional 'SmartBoard') with automatic return to ride, etc.
- ✓ Optional 'OptiTurn' manoeuvre assistance automatically reduces tyre scrubbing & cut-in during low speed cornering.
- ✓ Multiple programmable GIO (general input/output) ports for customised functions like...
  - Activation of stoplight and/or tag trailer brakes when roll stability intervention is active.
  - Speed dependant switching functions (EG: self-steer axle lock over certain speed).
  - Programmable warning functions (EG: rear door/tailgate open, suspension dumped, etc)...
  - Tilt-Alert' can be wired to activate warning light and/or buzzer if tipping at dangerous angle.

## SmartBoard Information Display

- ✓ displays TEBS fault codes.
- ✓ displays kilometres travelled (hubometers no longer needed).
- ✓ displays trailer axle group loads (on board scales no longer needed).
- ✓ displays TEBS data logger information (brake pressures, ABS/RSS events, etc.)
- ✓ displays disc pad wear status (requires TEBS with optional pad wear sensors).
- ✓ displays tyre pressures (requires 'VTM' system connected to TEBS).
- ✓ enables control of lift axles & suspension raise/lower functions.



## TailGUARD Reverse Sensing

- ✓ interfaces with E2-TEBS for power supply & brake control.
- ✓ detects obstacles & indicates distance via flashing marker lights.
- ✓ pulses brakes if reversing speed exceeds 10kph.
- ✓ applies brakes automatically at programmable distance from obstacle.
- ✓ remote control available for in cab visual & audible distance indication.



## eTASC Electronic Air Suspension Control

- ✓ interfaces with TEBS for power supply & speed signal.
- ✓ replaces conventional levelling valve & raise/lower valve.
- ✓ speed dependant ride height for improved stability.
- ✓ rapid response when stationary for fast height adjustment;
- ✓ delayed response when mobile for reduced air consumption.
- ✓ easy raise/lower adjustment to any dock height.
- ✓ dock height level automatically maintained during loading.
- ✓ automatic return to normal ride height when mobile.







# VCS2' ABS TRAILER BRAKE KITS

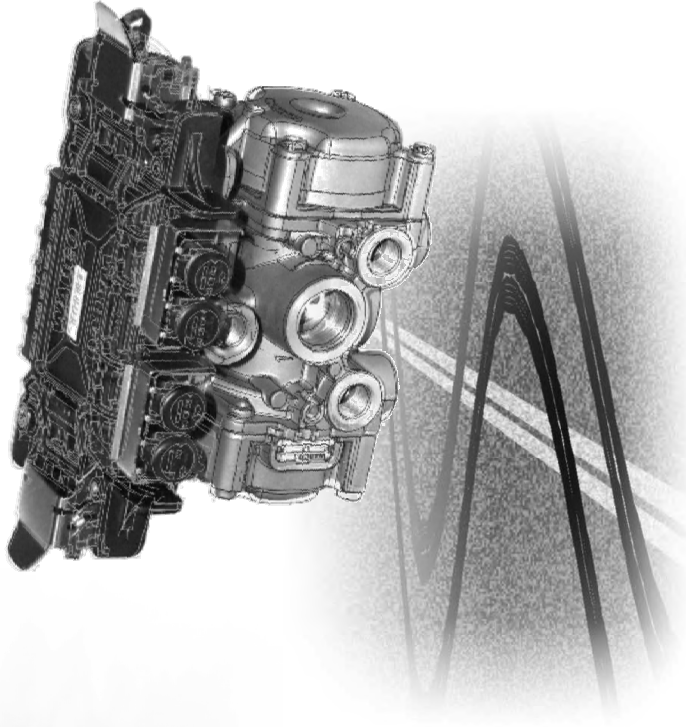
TEBS is our recommended option for all new trailers as it offers a number of compelling advantages over ABS only, like roll stability, improved brake balance, and native multivolt function for compatibility with the widest range of towing vehicles (and optimum power supply reliability in multi-trailer combinations). It also not only complies with current ADR38/04 requirements, but with future ADR38/05 requirements as well.

However, if only basic ABS control is required, the WABCO 'VCS2' trailer antilock system is an advanced 5<sup>th</sup> generation trailer ABS with a compact, integrated ECU/modulator designed for easy installation.

'VCS2' combines a compact lightweight Electronic Control Unit with a 'boxer' style two channel solenoid controlled relay valve assembly for high performance 'split-mu' ('2S/2M' or optional '4S/2M') antilock control in a single self-contained module. It may be remote mounted, or fixed directly to an air tank using our unique universal mounting adapter. Simple 'plug and play' cable connections with automatic system configuration make installation easier than ever. For 'dog' trailer applications, the base system is extended with an additional solenoid relay valve over the front axles to provide a '4S/3M' configuration.

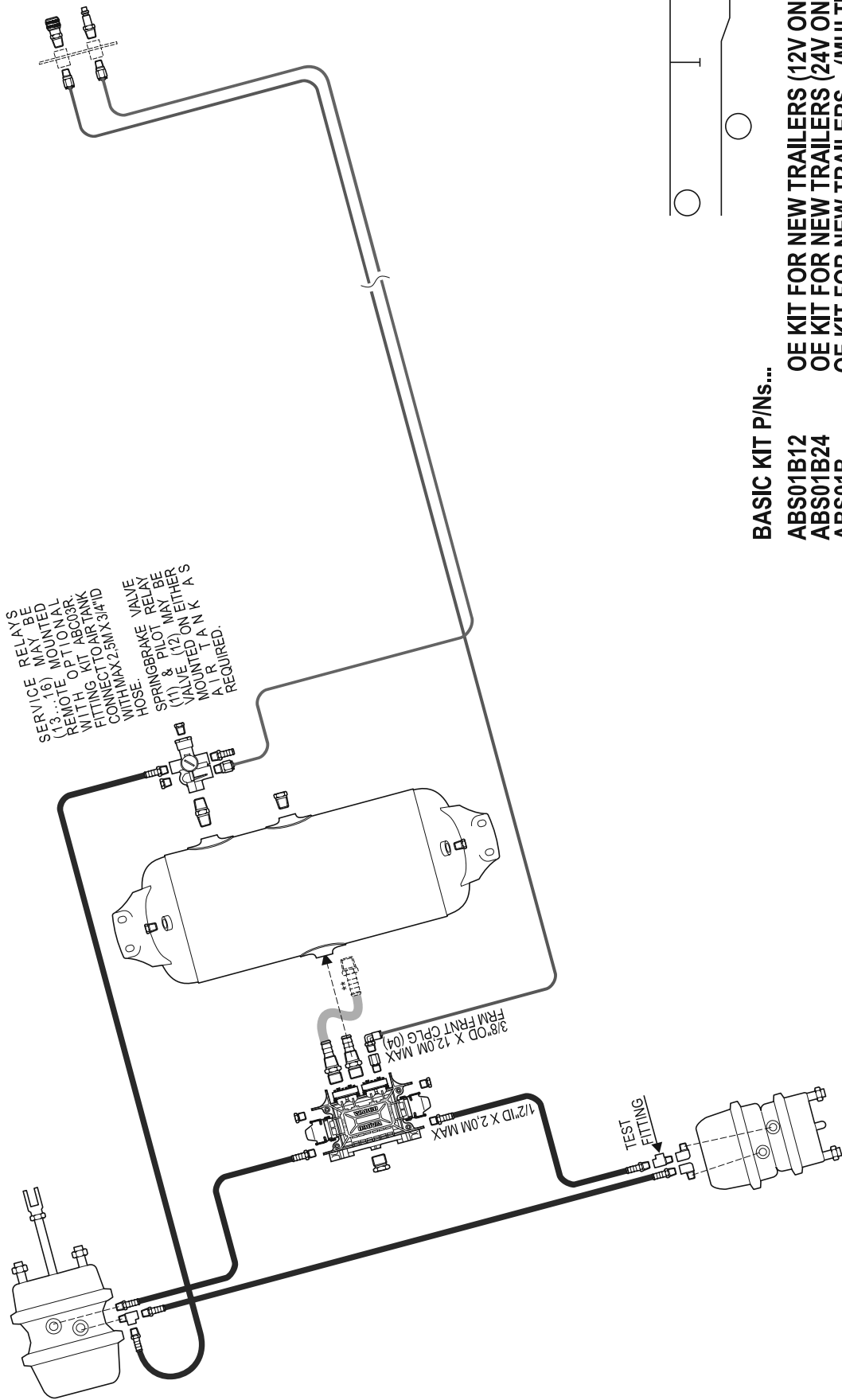
'VCS2' kit variants accommodate 12 volt, 24 volt, and multivolt power supply options. (using an additional auto-sensing voltage inverter).

**NOTE:** Correct orientation of sensor connections & corresponding air hose connections at modulator is **ESSENTIAL** for proper ABS function. Installation errors can **SERIOUSLY DEGRADE** braking function. WABCO recommends an EOL (End Of Line) test on all new VCS2 installations to verify correct sensor/hose connections.



# 1 AXLE SEMI 'VCS2' ABS

38104 SARN  
292114



## BASIC KIT P/Ns...

ABS01B12

ABS01B24

ABS01B

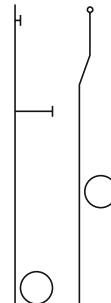
ABS2S2MB12

OE KIT FOR NEW TRAILERS (12V ONLY)

OE KIT FOR NEW TRAILERS (24V ONLY)

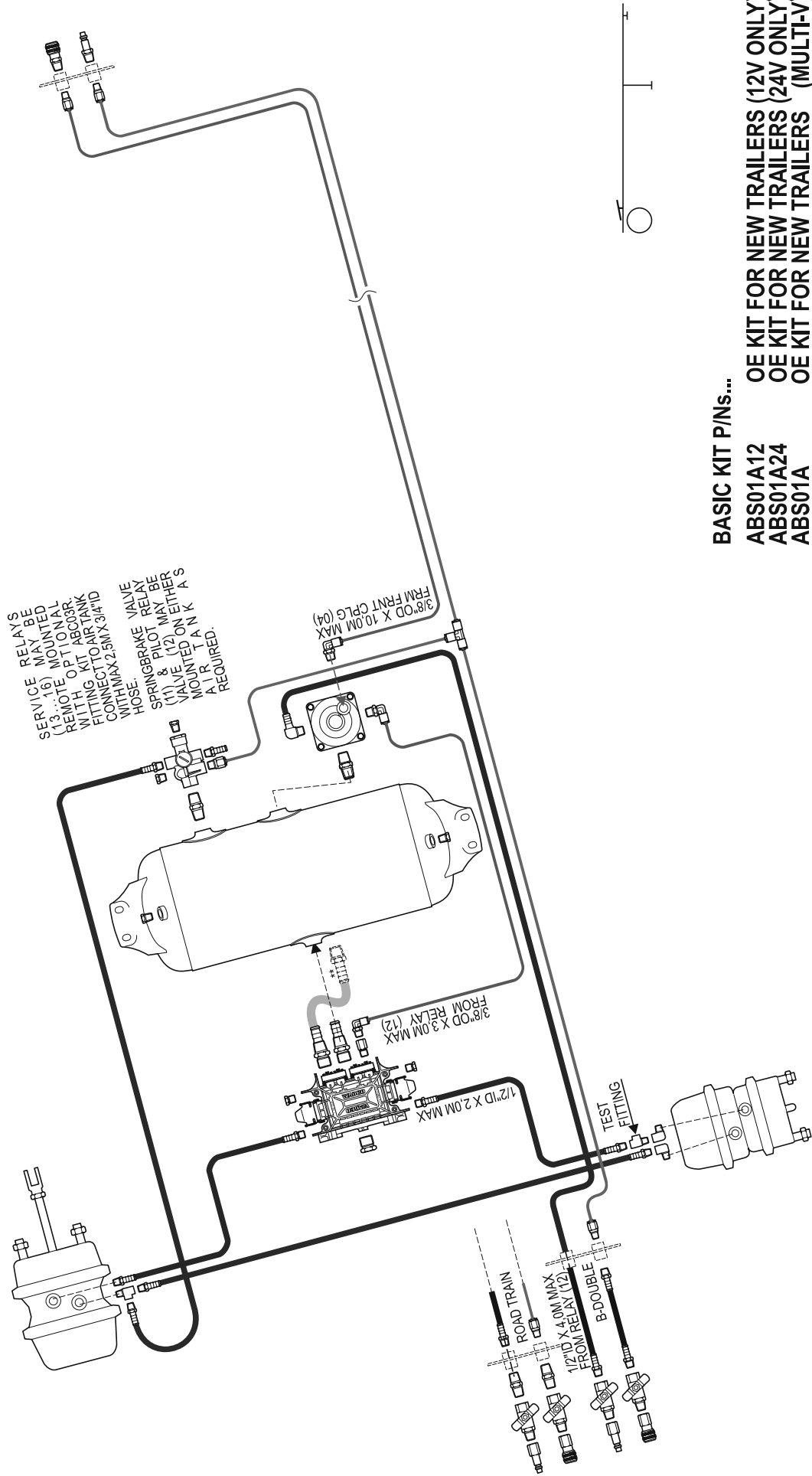
OE KIT FOR NEW TRAILERS (MULTI-V)

RETROFIT KIT (2 SENSORS, 12V ONLY)



# 1 AXLE SEMI B/D 'VCS2' ABS

38104 SMPN  
29243



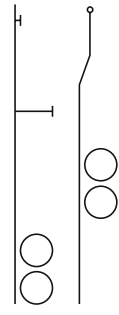
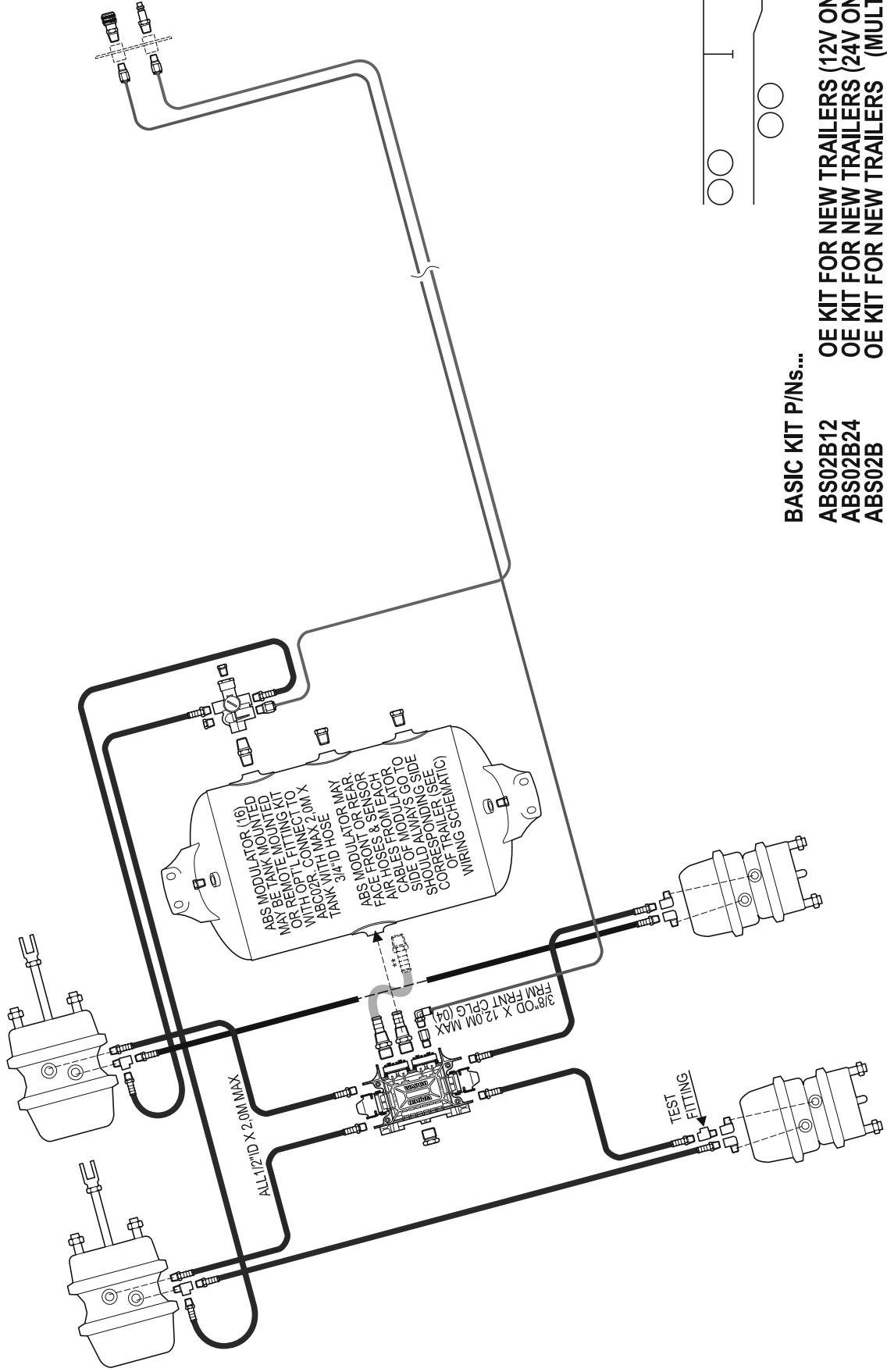
### BASIC KIT P/NS...

- ABS01A12
- ABS01A24
- ABS01A
- ABS2S2MA12

- OE KIT FOR NEW TRAILERS (12V ONLY)
- OE KIT FOR NEW TRAILERS (24V ONLY)
- OE KIT FOR NEW TRAILERS (MULTI-V)
- RETROFIT KIT (2 SENSORS, 12V ONLY)

# 2 AXLE SEMI 'VCS2' ABS

38104 SARN  
292716



## BASIC KIT P/Ns...

ABS02B12

ABS02B24

ABS02B

ABS2S2MB12

OE KIT FOR NEW TRAILERS (12V ONLY)

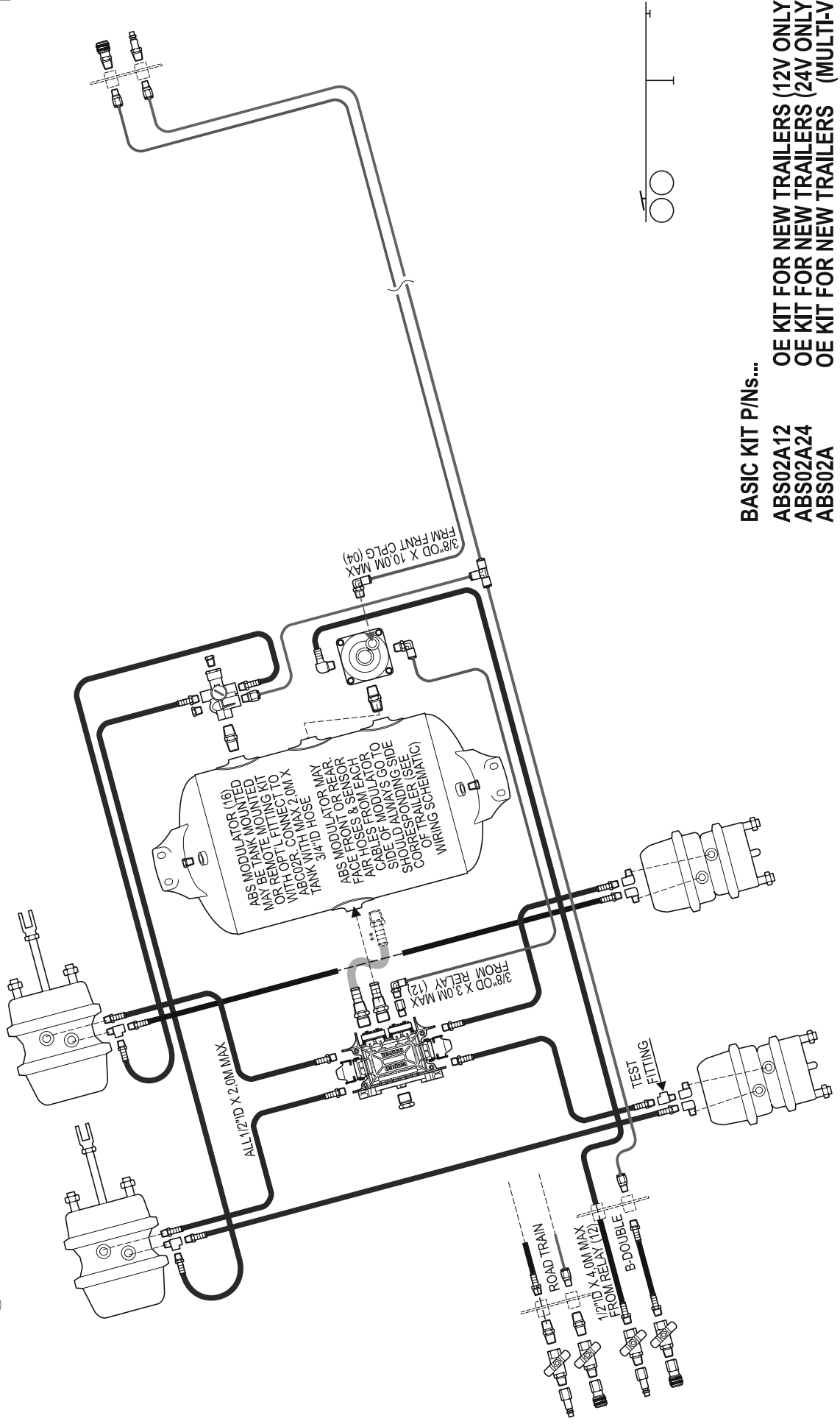
OE KIT FOR NEW TRAILERS (24V ONLY)

OE KIT FOR NEW TRAILERS (MULTI-V)

RETROFIT KIT (2 SENSORS, 12V ONLY)

# 2 AXLE SEMI B/D 'VCS2' ABS

38104 SRPN  
292415



## BASIC KIT P/Ns...

ABS02A12

ABS02A24

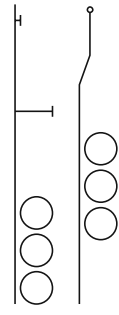
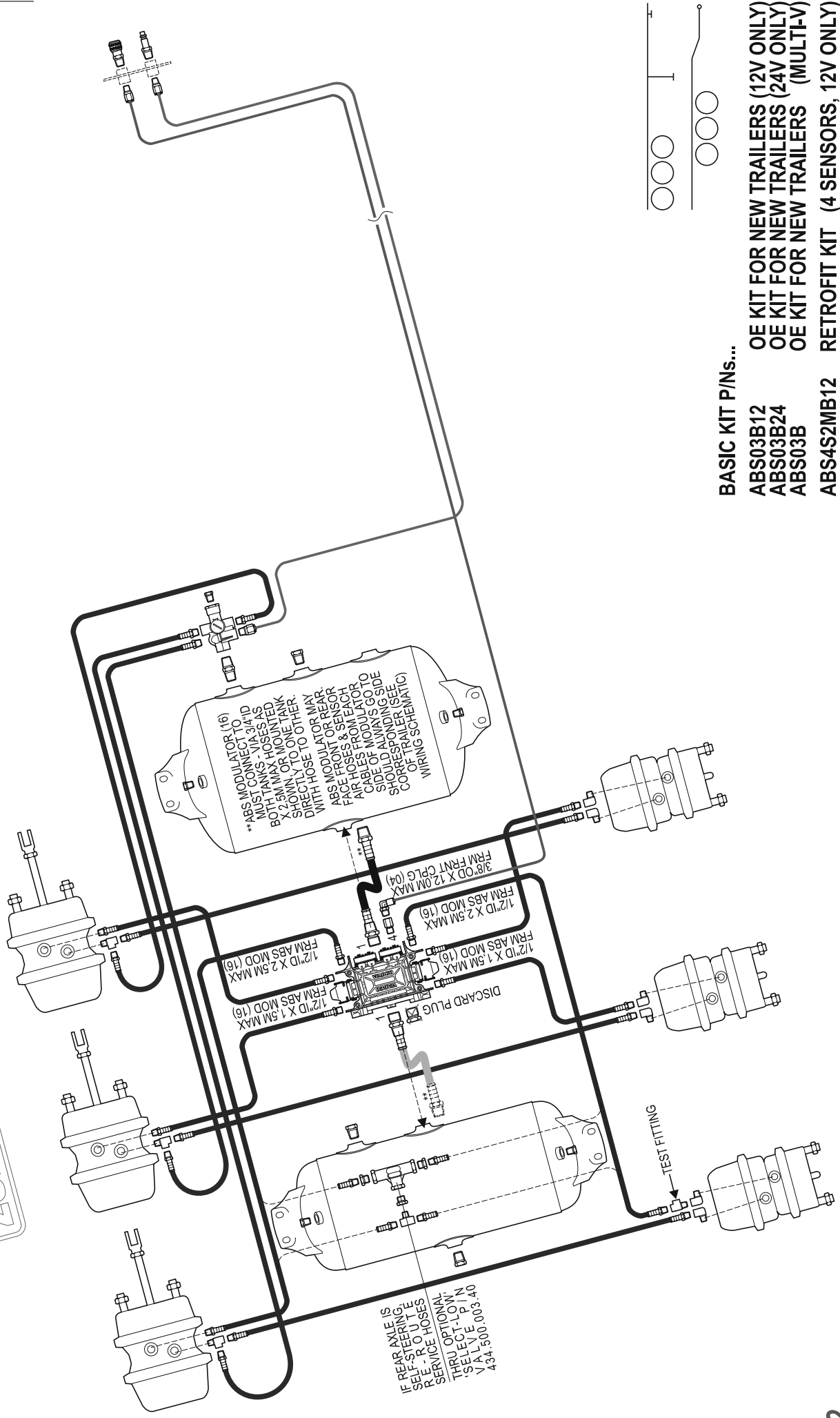
ABS02A

ABS2S2MA12

OE KIT FOR NEW TRAILERS (12V ONLY)  
OE KIT FOR NEW TRAILERS (24V ONLY)  
OE KIT FOR NEW TRAILERS (MULTI-V)  
RETROFIT KIT (2 SENSORS, 12V ONLY)

# 3 AXLE SEMI 'VCS2' ABS

38104 SARN  
292748

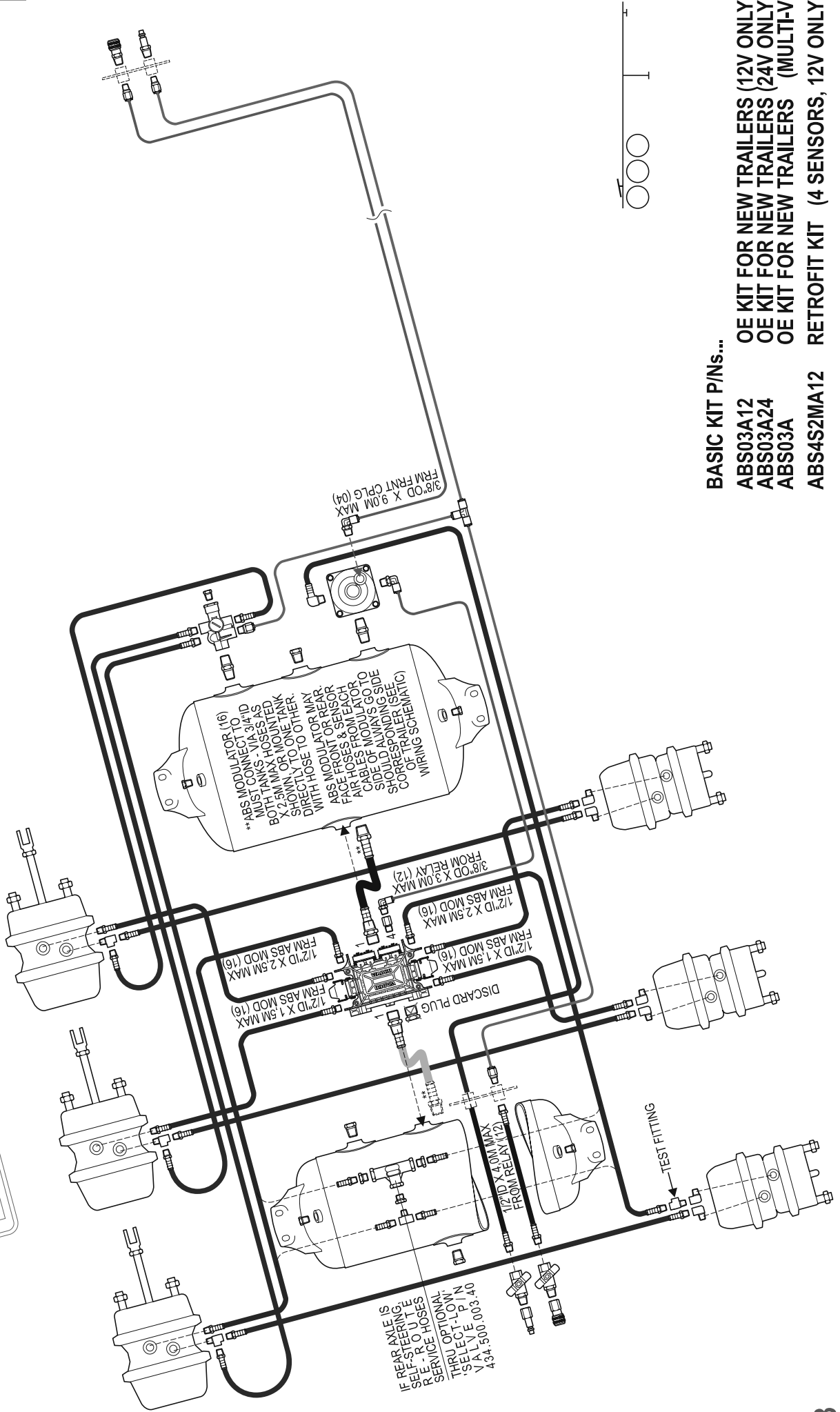


### BASIC KIT PINS...

- ABS03B12 OE KIT FOR NEW TRAILERS (12V ONLY)
- ABS03B24 OE KIT FOR NEW TRAILERS (24V ONLY)
- ABS03B OE KIT FOR NEW TRAILERS (MULTI-V)
- ABS4S2MB12 RETROFIT KIT (4 SENSORS, 12V ONLY)

# 3 AXLE SEMI B/D 'VCS2' ABS

38104 SRPN  
29247



## BASIC KIT P/NS...

ABS03A12

ABS03A24

ABS03A

ABS4S2MA12

OE KIT FOR NEW TRAILERS (12V ONLY)

OE KIT FOR NEW TRAILERS (24V ONLY)

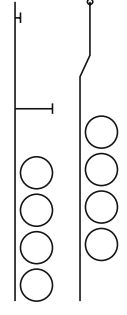
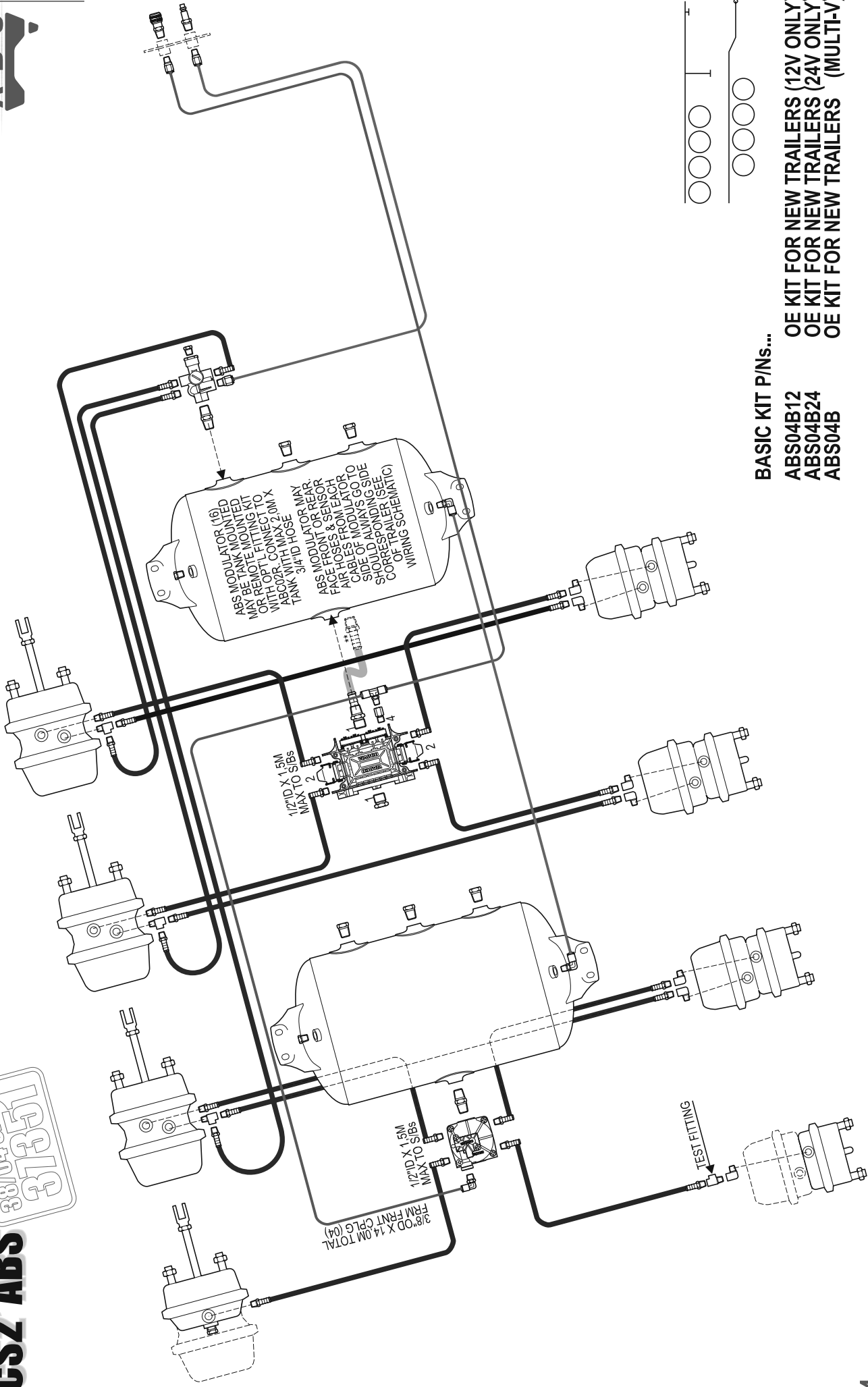
OE KIT FOR NEW TRAILERS (MULTI-V)

RETROFIT KIT (4 SENSORS, 12V ONLY)



# 4 AXLE SEMI 'VCS2' ABS

38104 SARN  
37351

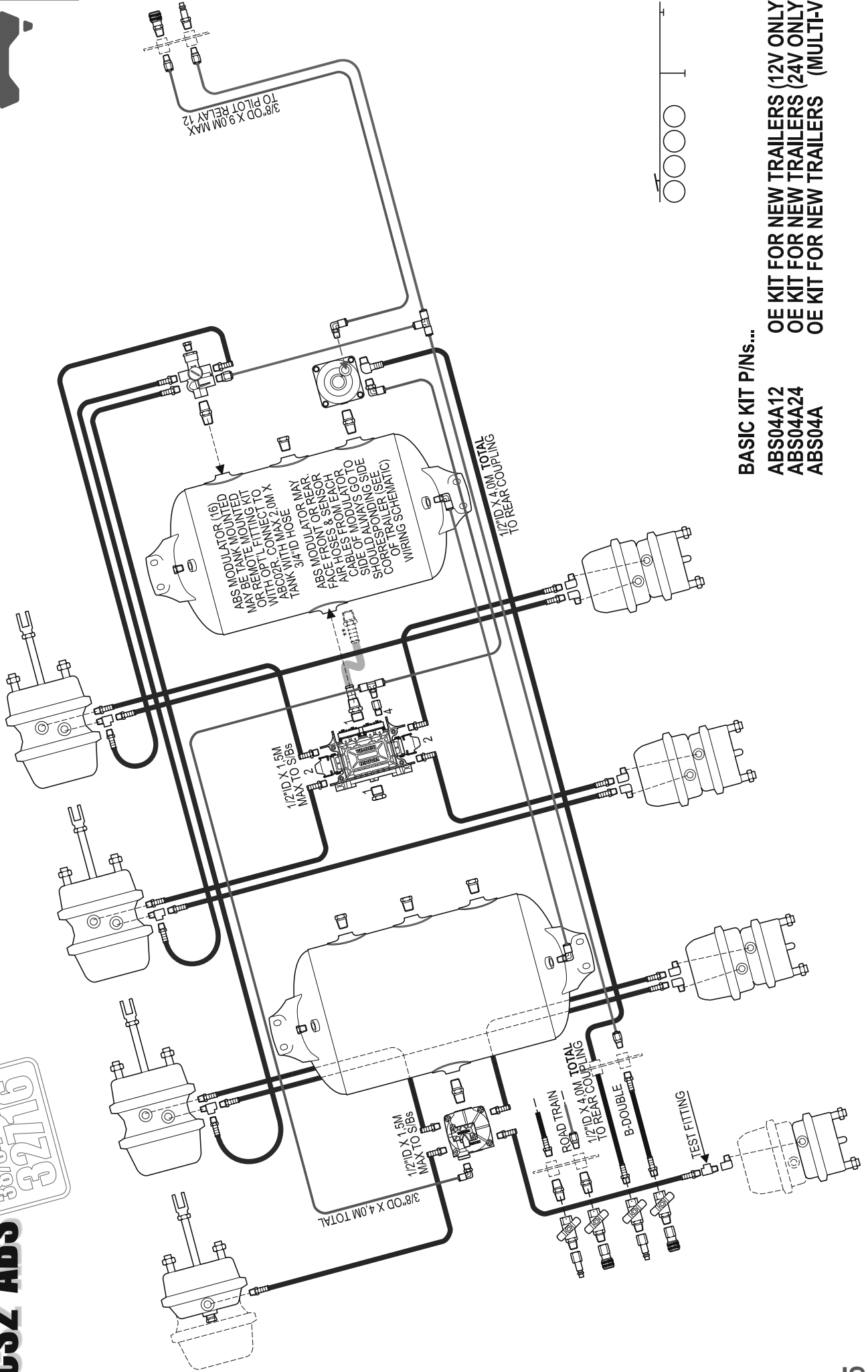


BASIC KIT P/Ns...

- ABS04B12 OE KIT FOR NEW TRAILERS (12V ONLY)
- ABS04B24 OE KIT FOR NEW TRAILERS (24V ONLY)
- ABS04B OE KIT FOR NEW TRAILERS (MULTI-V)

# 4 AXLE SEMI B/D 'VCS2' ABS

38104 SRPN  
327116



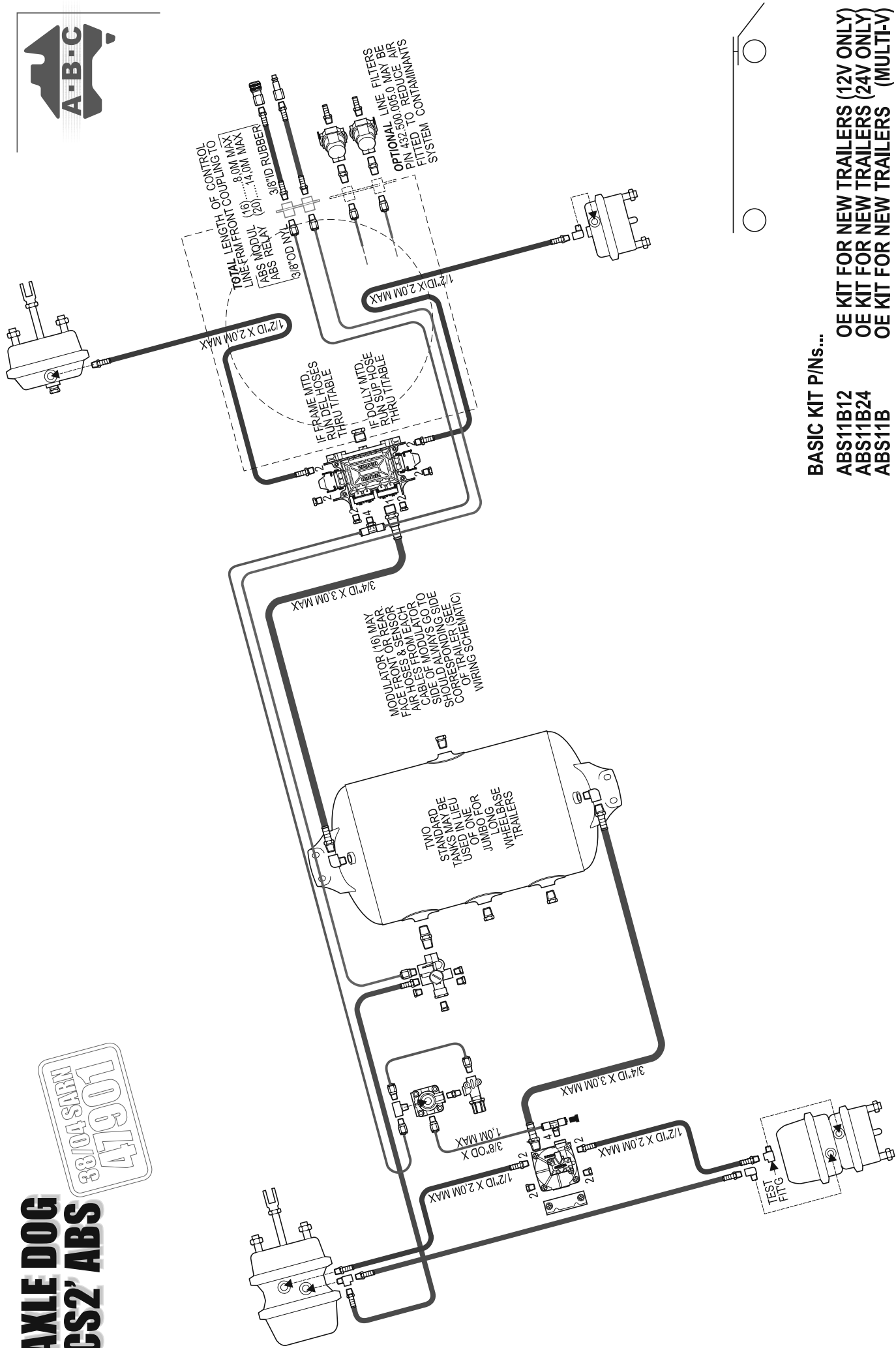
## BASIC KIT P/Ns...

- ABS04A12
- ABS04A24
- ABS04A

- OE KIT FOR NEW TRAILERS (12V ONLY)
- OE KIT FOR NEW TRAILERS (24V ONLY)
- OE KIT FOR NEW TRAILERS (MULTI-V)

# 2 AXLE DOG 'VCS2' ABS

38104 SARN  
47901

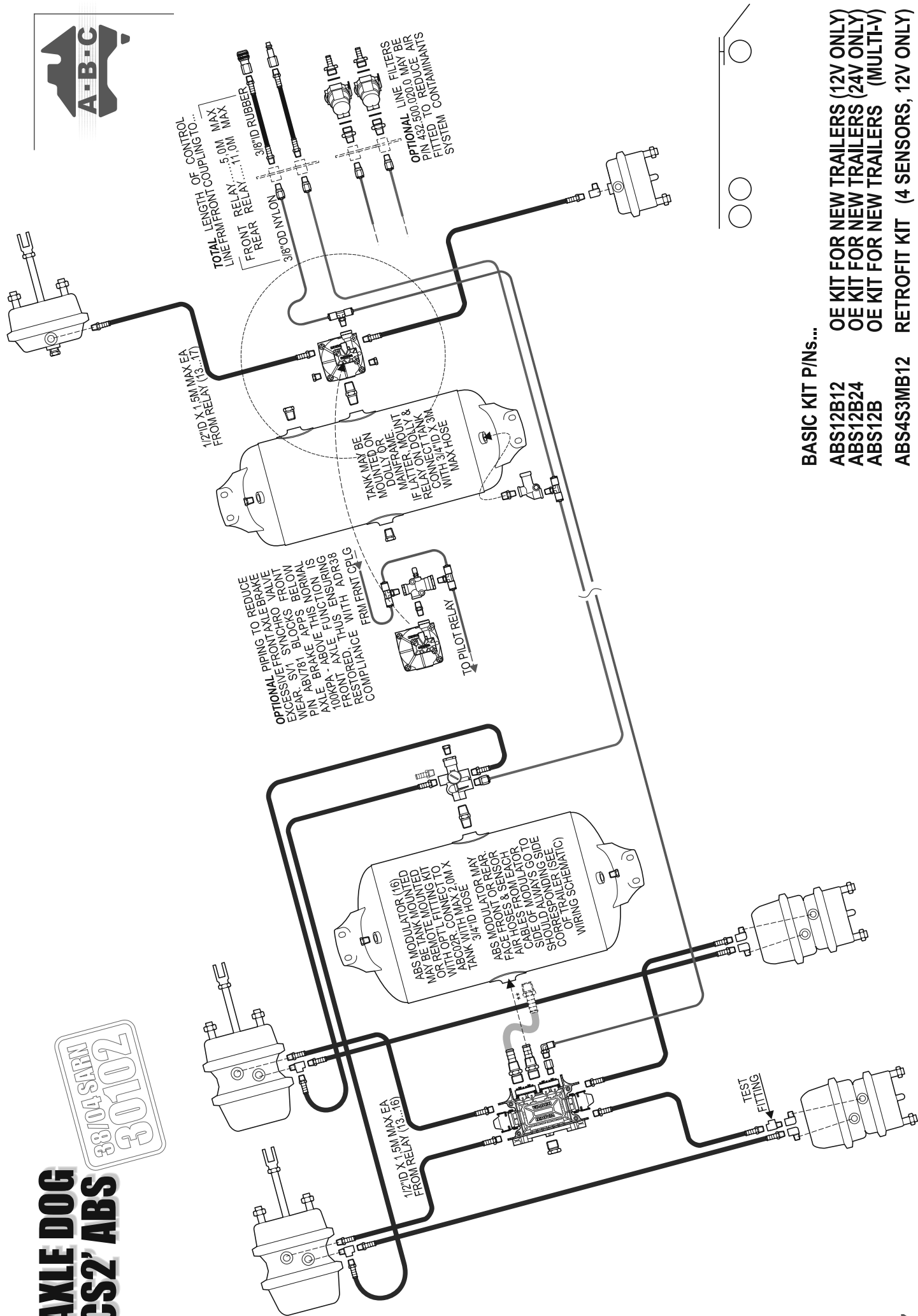


## BASIC KIT P/Ns...

- ABS11B12 OE KIT FOR NEW TRAILERS (12V ONLY)
- ABS11B24 OE KIT FOR NEW TRAILERS (24V ONLY)
- ABS11B OE KIT FOR NEW TRAILERS (MULTI-V)
- ABS4S3MB12 RETROFIT KIT (4 SENSORS, 12V ONLY)

# 3 AXLE DOG 'VCS2' ABS

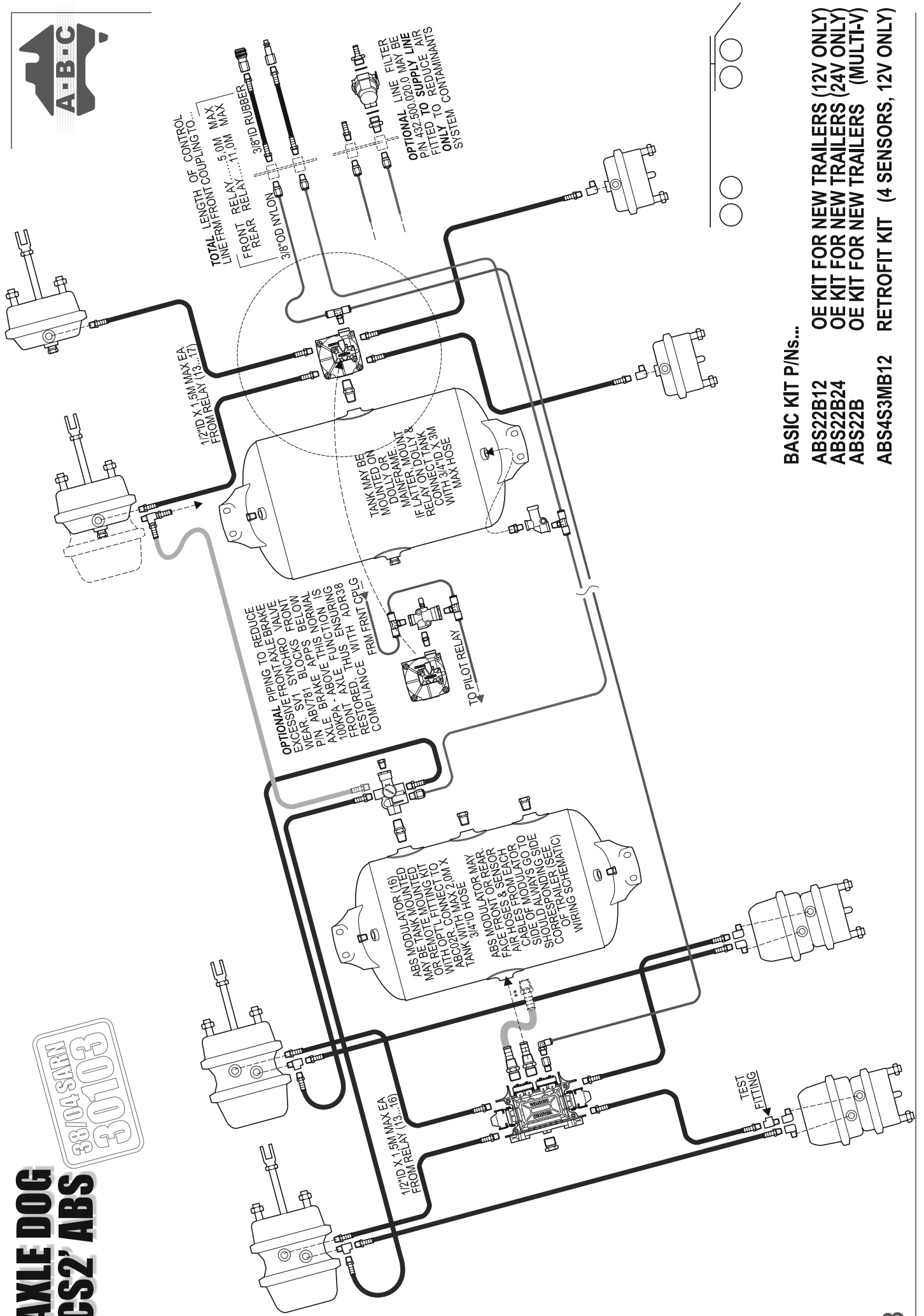
38104 SARN  
30102



- BASIC KIT P/NS...**
- ABS12B12      OE KIT FOR NEW TRAILERS (12V ONLY)
  - ABS12B24      OE KIT FOR NEW TRAILERS (24V ONLY)
  - ABS12B      OE KIT FOR NEW TRAILERS (MULTI-V)
  - ABS4S3MB12      RETROFIT KIT (4 SENSORS, 12V ONLY)

# 4 AXLE DOG 'VCS2' ABS

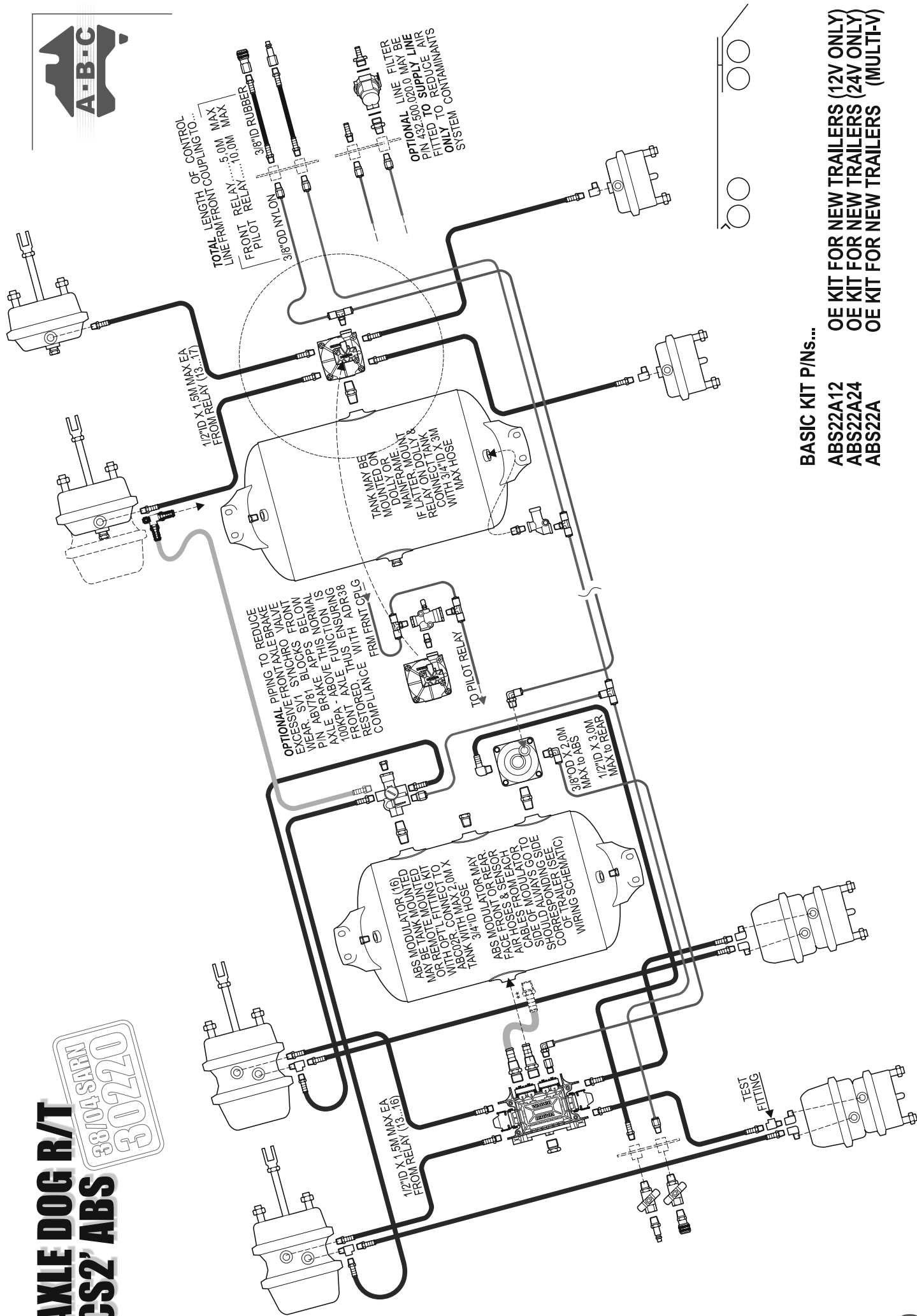
38104 SARN  
30103



- BASIC KIT P/Ns...**
- ABS22B12 OE KIT FOR NEW TRAILERS (12V ONLY)
  - ABS22B24 OE KIT FOR NEW TRAILERS (24V ONLY)
  - ABS22B OE KIT FOR NEW TRAILERS (MULTI-V)
  - ABS4S3MB12 RETROFIT KIT (4 SENSORS, 12V ONLY)

# 4 AXLE DOG R/T 'VCS2' ABS

38104 SARN  
302220



## BASIC KIT P/Ns...

- ABS22A12
- ABS22A24
- ABS22A

- OE KIT FOR NEW TRAILERS (12V ONLY)
- OE KIT FOR NEW TRAILERS (24V ONLY)
- OE KIT FOR NEW TRAILERS (MULTI-V)



# AIR / LSV (LOAD PROPORTIONING) TRAILER BRAKE KITS

**TEBS is our recommended option for all new trailers as it offers a number of compelling advantages over any other alternative (see previous TEBS section for details).**

However, for only the most basic compliance with current ADR38/04 requirements, a pneumatic only load proportioning ('load sensing') system is all that is required.

Load proportioning 'senses' the axle load of the trailer and ratios brake pressure in proportion to actual load to reduce the risk of wheel lock. It cannot however 'sense' wheel lock, so wheel lock is still possible and entirely likely under hard braking or on reduced friction surfaces. In addition, if trailers equipped with load proportioning are inadvertently coupled with towing vehicles or other trailers without load proportioning, brake balance can be worse and wheel lock more likely.

It also certainly will not comply with the next iteration of ADR38 due around 2016, so we therefore do not generally recommend it, and offer it as an option only because the current ADR38/04 allows it.

**NOTE:** Load sensing valves must be adjusted for the specific laden and empty axle loads, and corresponding suspension pressure or spring deflection, of each trailer. Failure to correctly set valves can result in seriously degraded trailer braking performance.

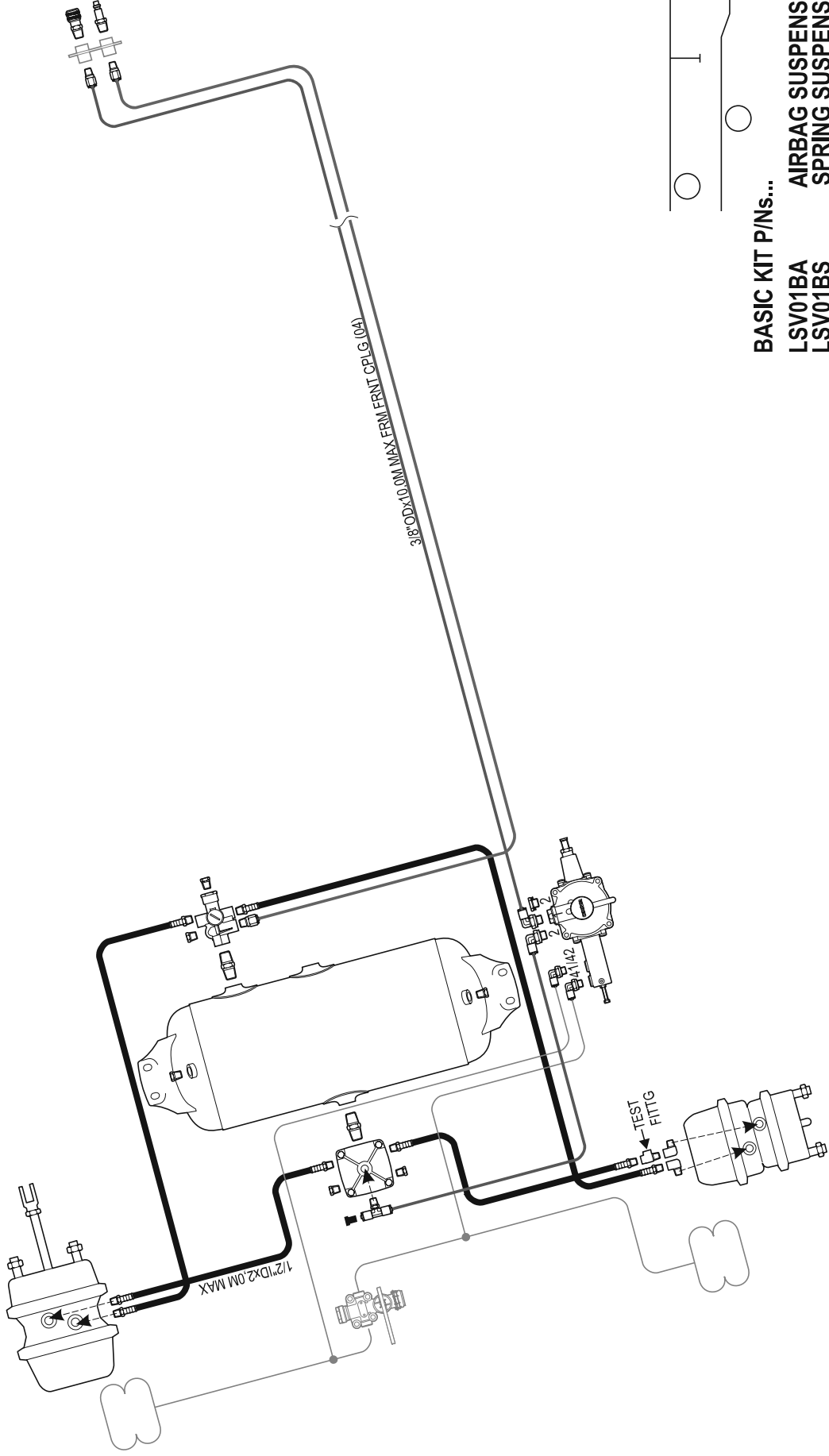
(Load sensing valves determine axle load by measuring air suspension pressure or, in the case of mechanical suspensions, the change in distance between chassis and axle caused by spring compression. The latter is not particularly accurate or reliable, so load proportioning is not a recommended solution for mechanical suspensions in particular.)





# 1 AXLE SEMI LSV

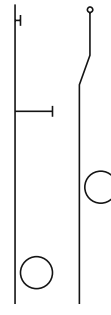
38104 SARN  
47169



BASIC KIT P/Ns...

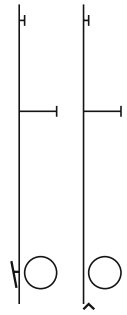
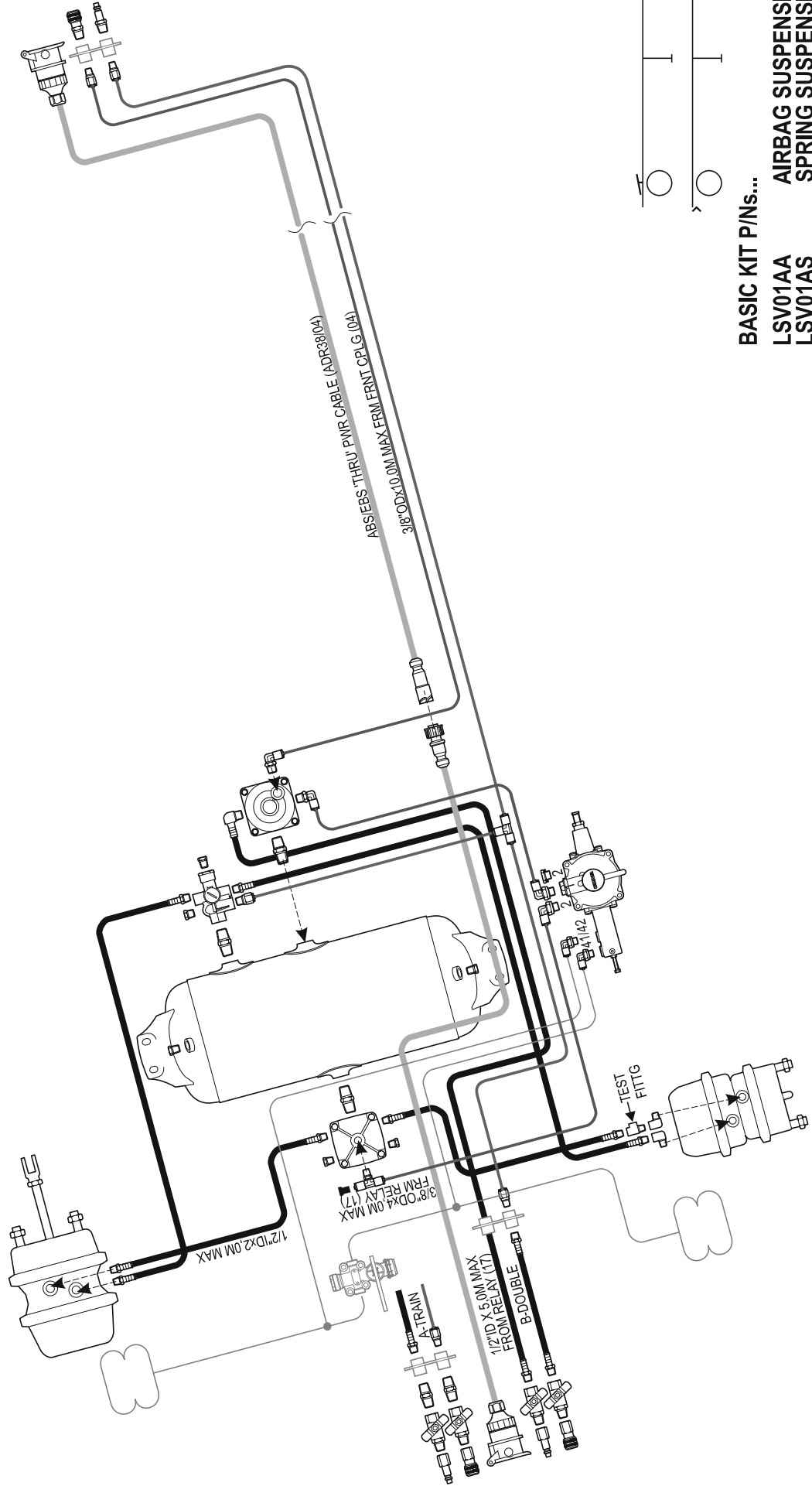
LSV01BA

AIRBAG SUSPENSION  
LSV01BS  
SPRING SUSPENSION



# 1 AXLE SEMI B/D-R/T LSV

38104SRM  
41170



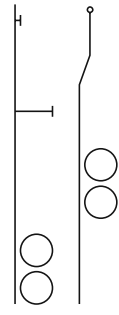
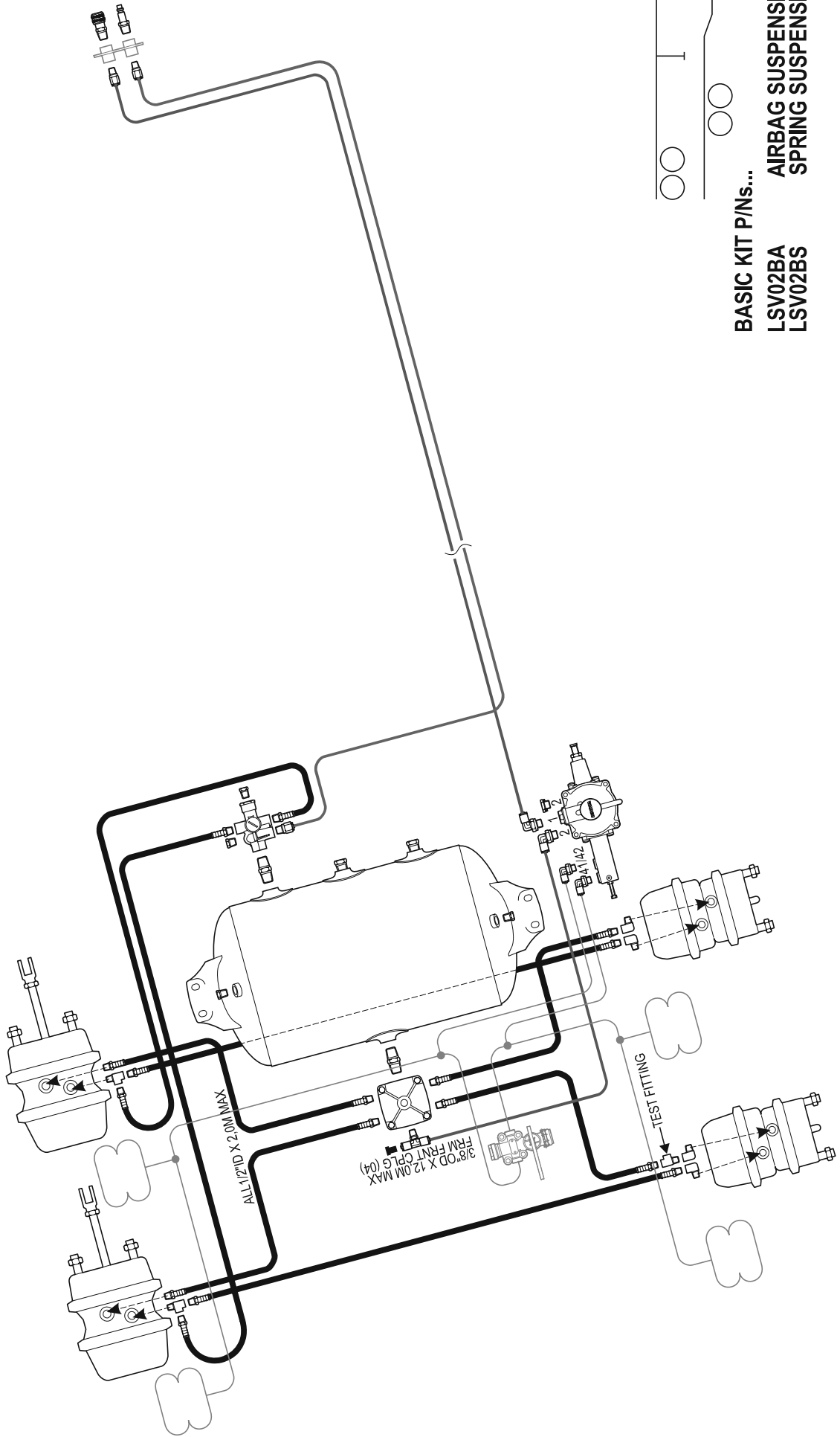
BASIC KIT P/NS...

LSV01AA  
LSV01AS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 2 AXLE SEMI LSV

38104 SARN  
46640



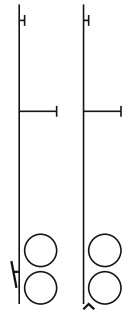
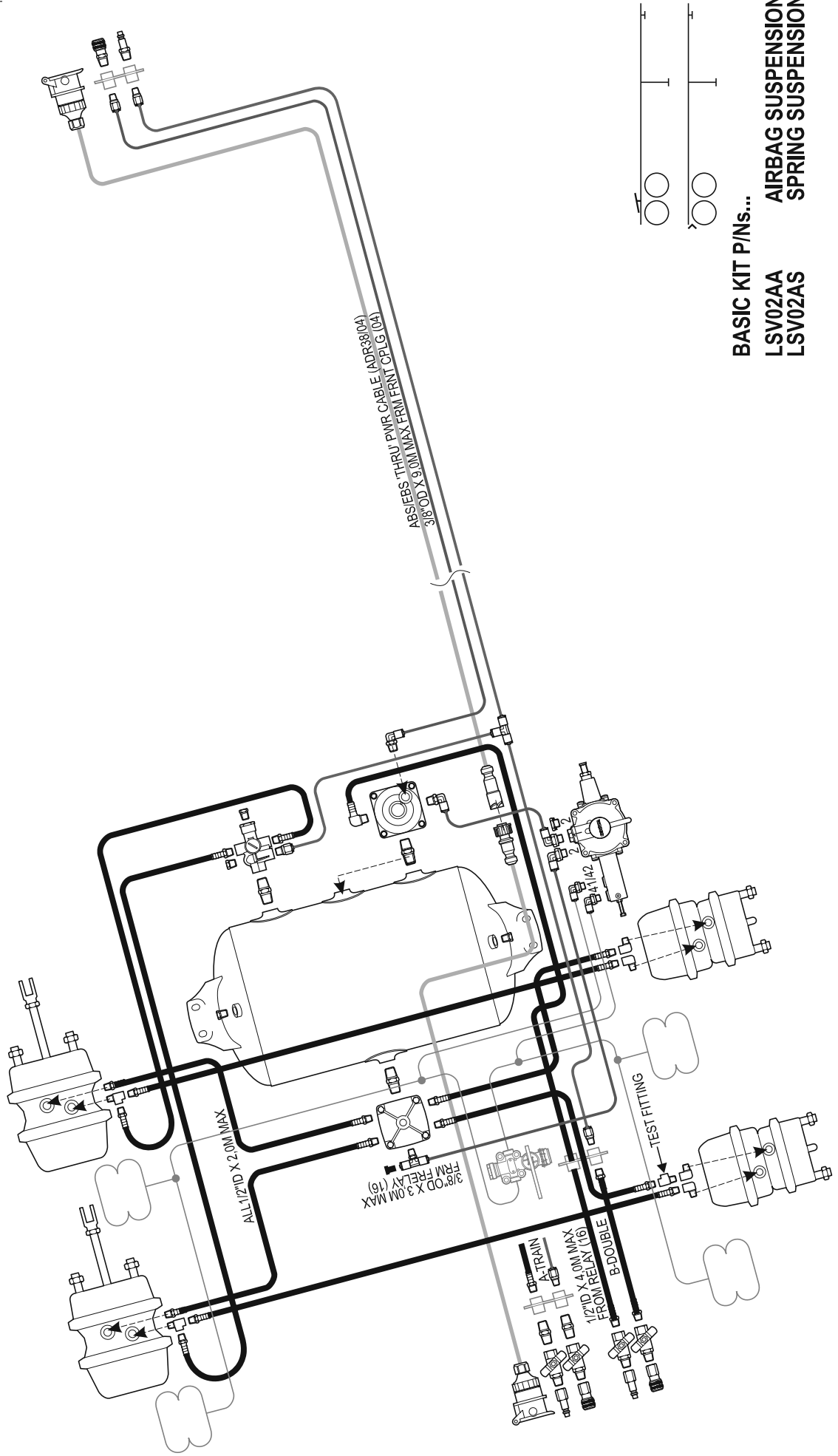
BASIC KIT P/Ns...

LSV02BA  
LSV02BS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 2 AXLE SEMI B/D-R/T LSV

38104 SPM  
46639



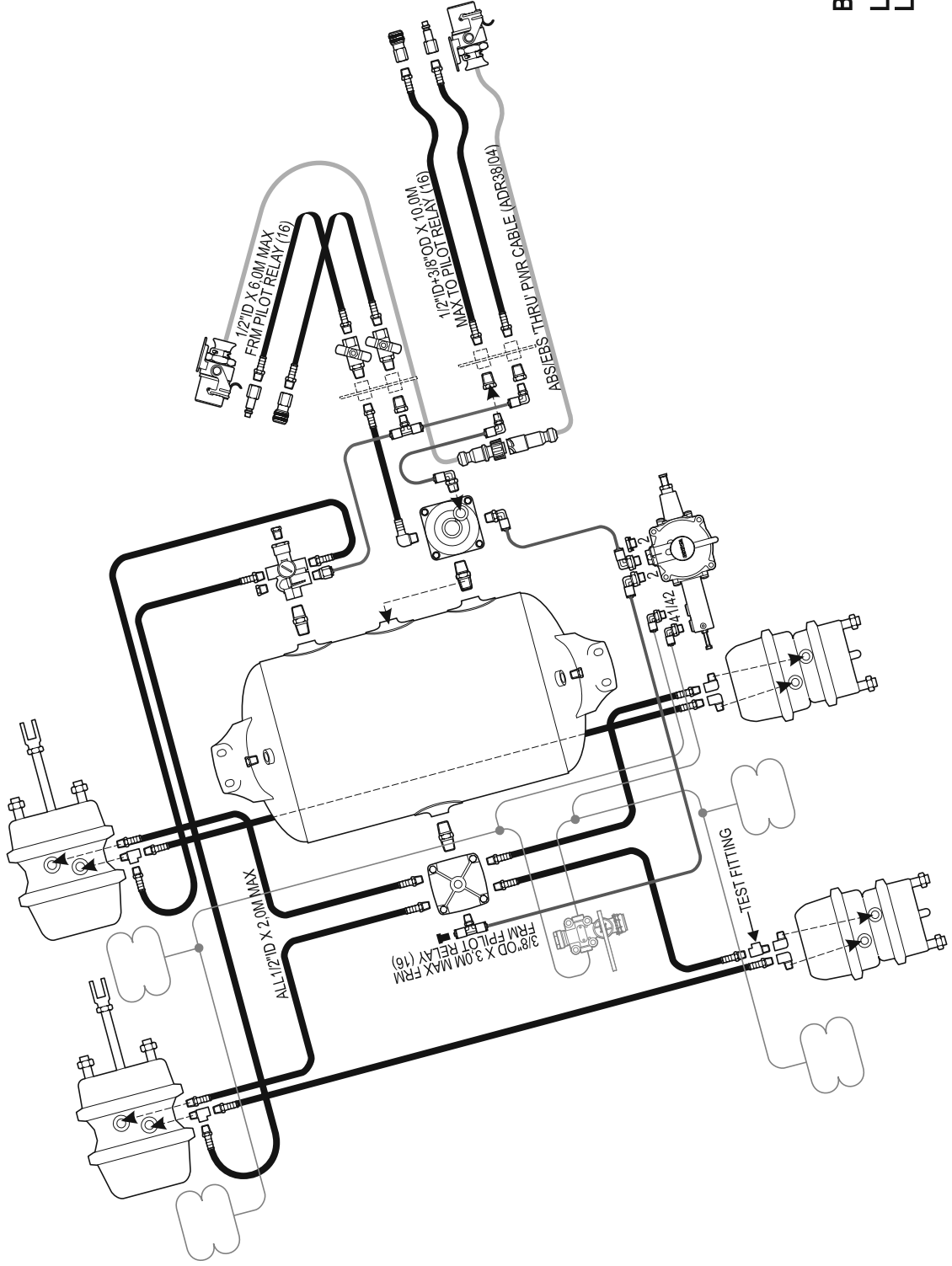
BASIC KIT P/Ns...

LSV02AA  
LSV02AS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 2 AXLE DOLLY LSV

38104 SARN  
46641



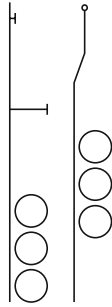
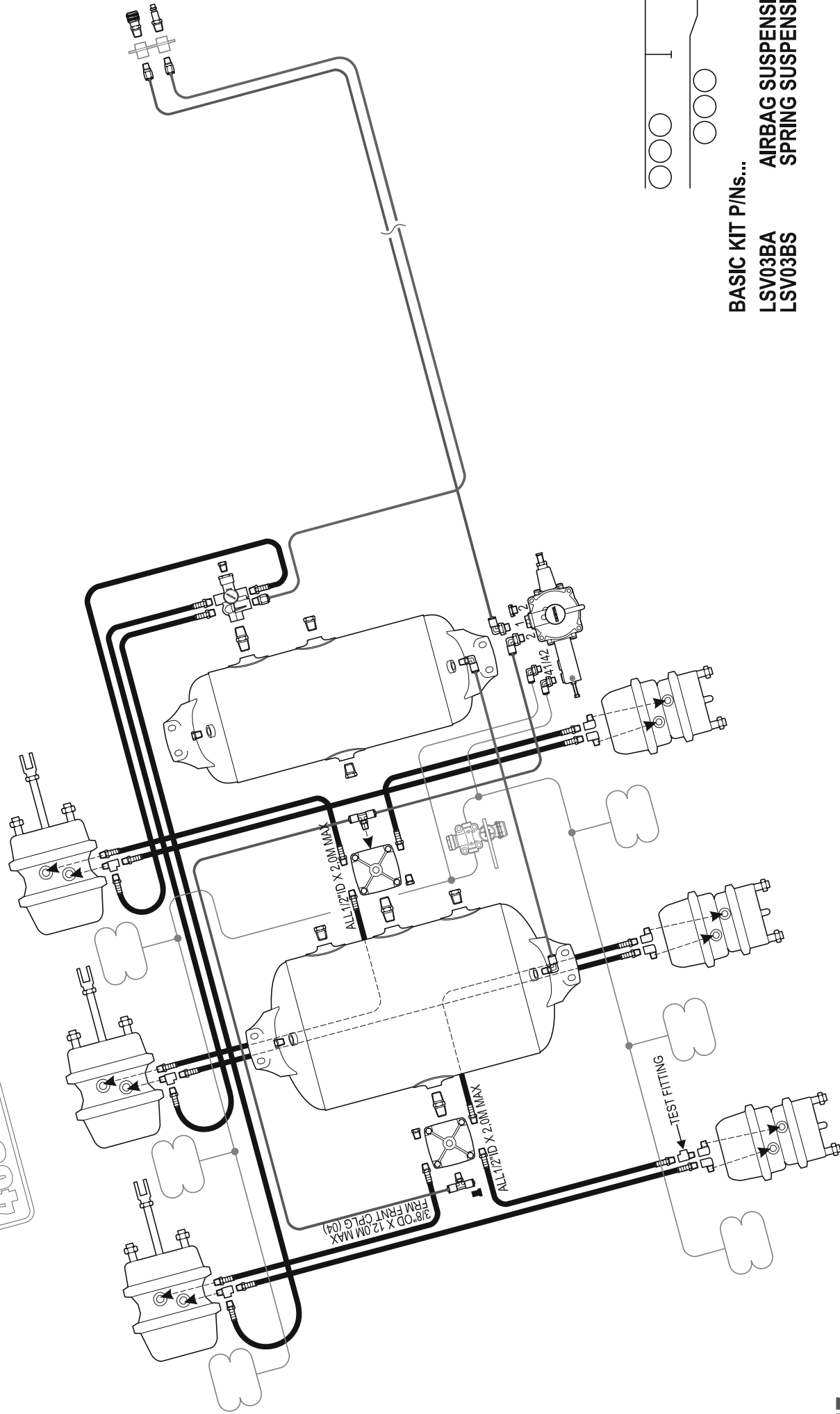
BASIC KIT P/Ns...

LSV02DA  
LSV02DS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 3 AXLE SEMI LSV

38104 SMPN  
46643



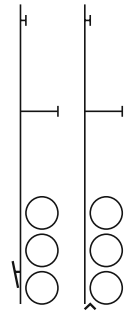
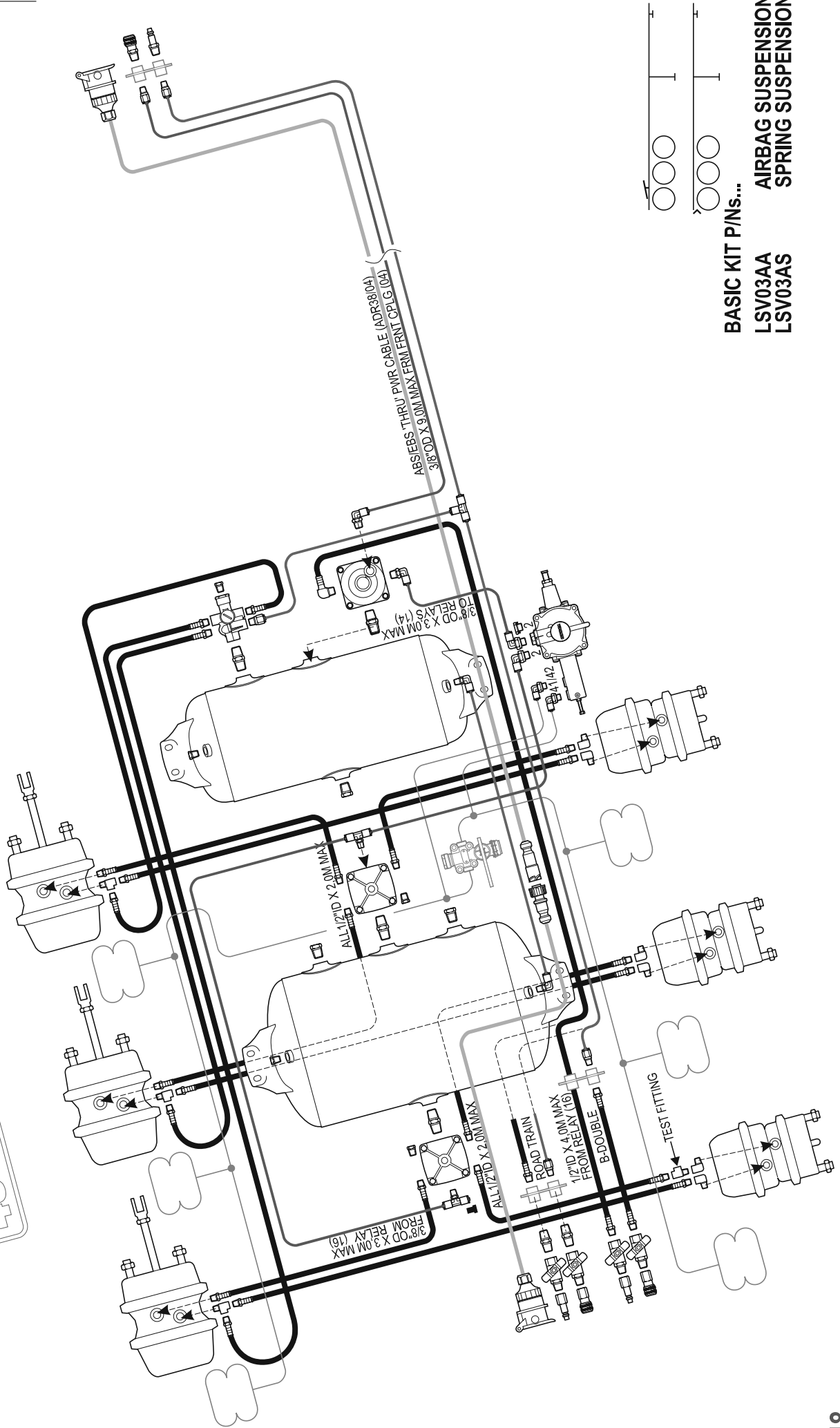
BASIC KIT P/NS...

LSV03BA  
LSV03BS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 3 AXLE SEMI B/D-R/T LSV

38104 SMM  
46642

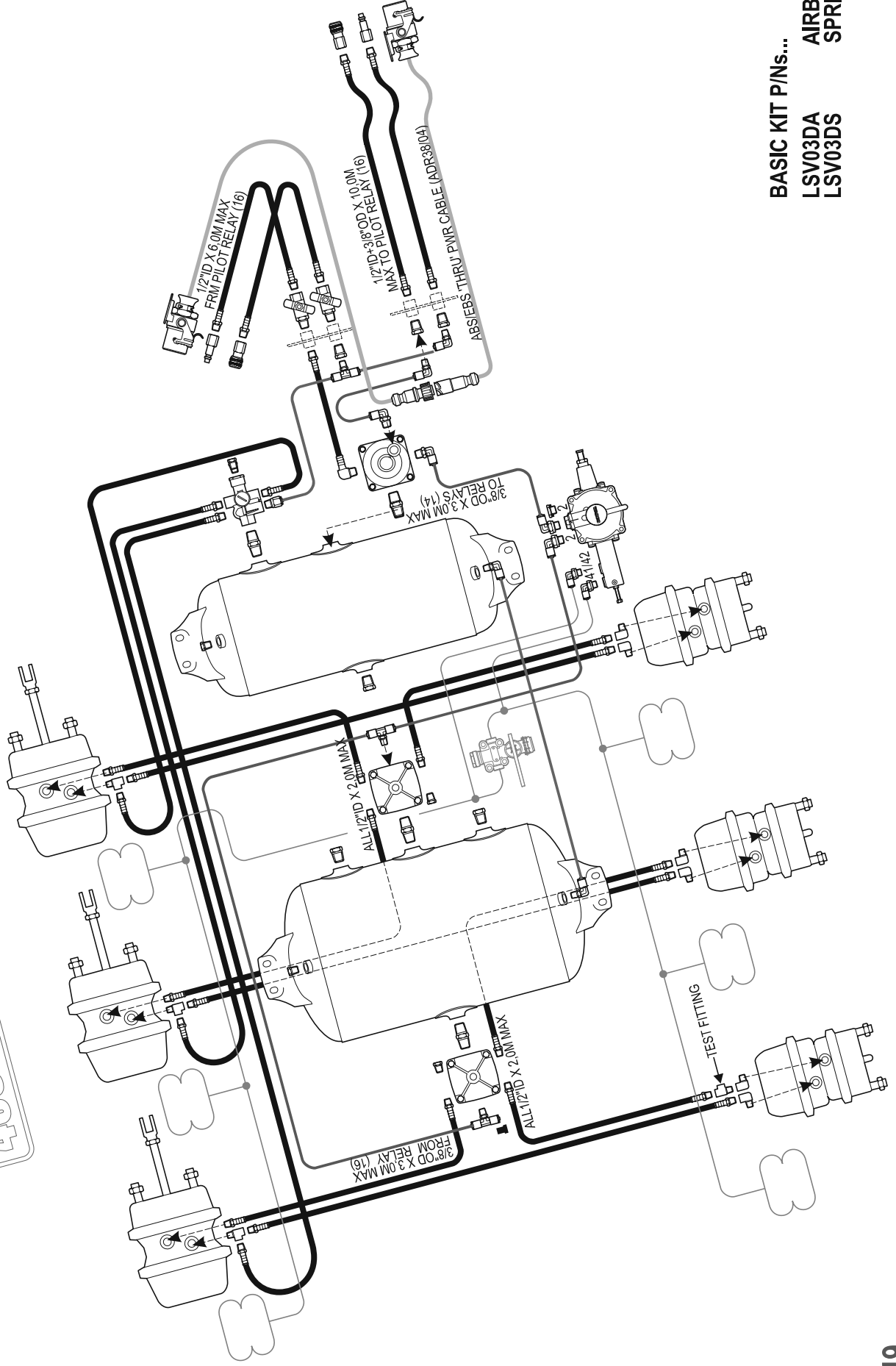


BASIC KIT P/NS...

- LSV03AA AIRBAG SUSPENSION
- LSV03AS SPRING SUSPENSION

# 3 AXLE DOLLY LSV

38104 SERN  
46644



BASIC KIT P/Ns...

LSV03DA  
LSV03DS

AIRBAG SUSPENSION  
SPRING SUSPENSION



# 4 AXLE SEMI LSV

FUTURE  
ADDITION



BASIC KIT P/Ns...

LSV04BA

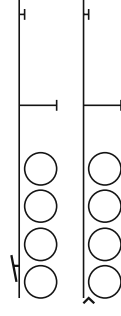
LSV04BS

AIRBAG SUSPENSION

SPRING SUSPENSION

# 4 AXLE SEMI B/D-R/T LSV

FUTURE  
ADDITION



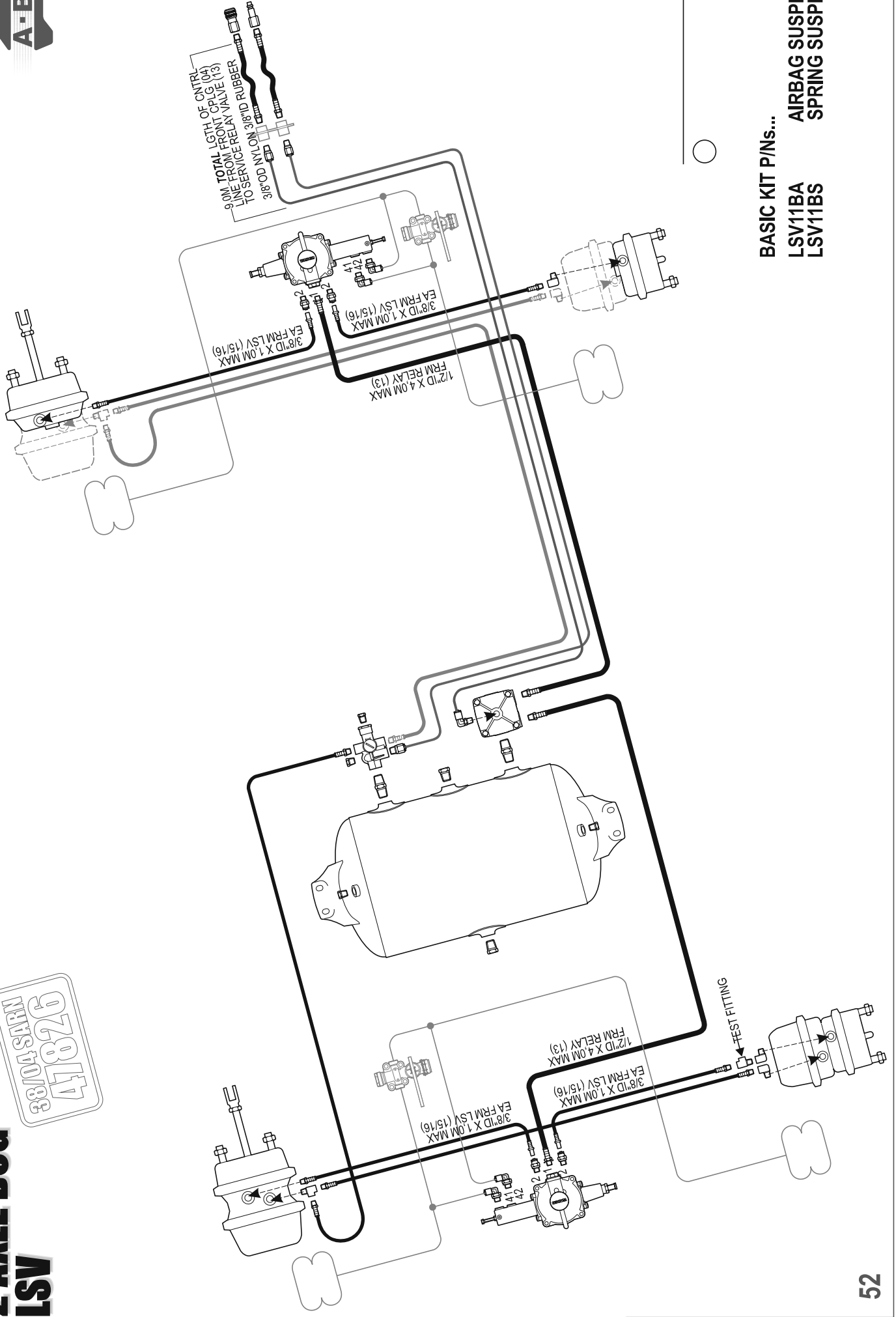
BASIC KIT P/Ns...

LSV04AA  
LSV04AS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 2 AXLE DOG LSV

38104 SARN  
41826



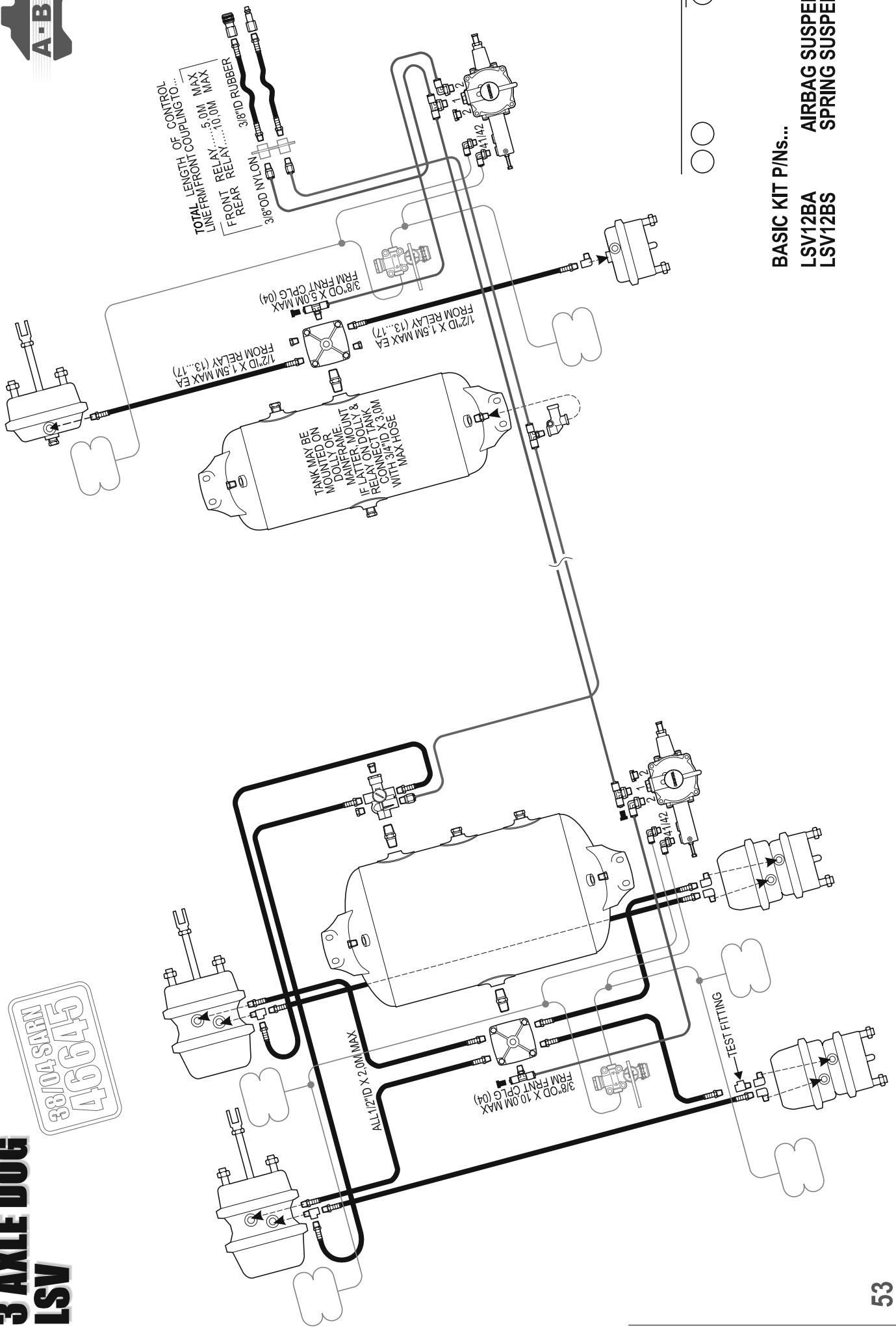
BASIC KIT P/NS...

LSV11BA  
LSV11BS

AIRBAG SUSPENSION  
SPRING SUSPENSION

# 3 AXLE DOG LSV

38104SNRN  
466415



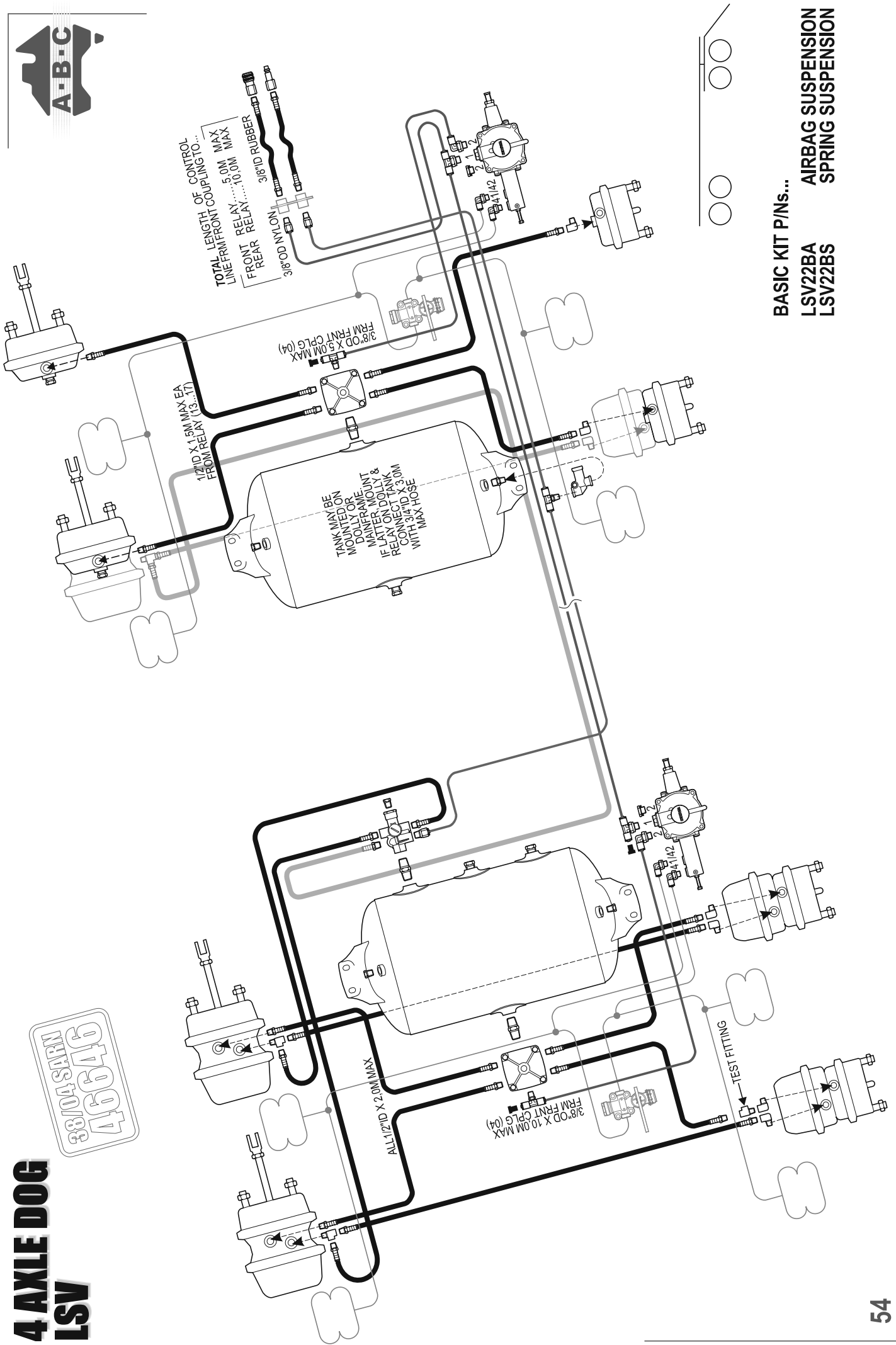
BASIC KIT P/NS...

LSV12BA  
 LSV12BS

AIRBAG SUSPENSION  
 SPRING SUSPENSION

# 4 AXLE DOG LSV

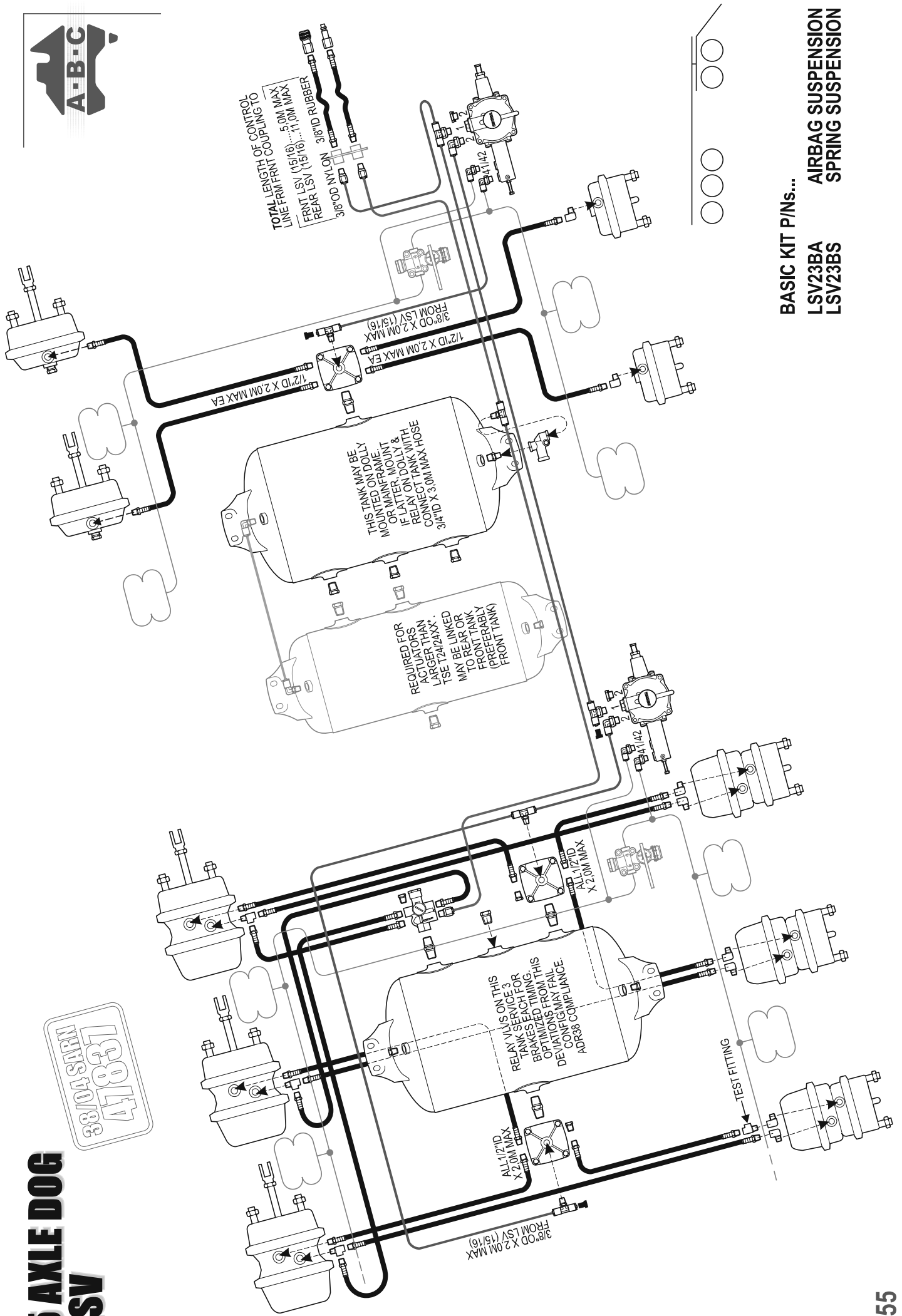
38104 SARN  
46646



BASIC KIT P/Ns...  
LSV22BA AIRBAG SUSPENSION  
LSV22BS SPRING SUSPENSION

# 5 AXLE DOG LSV

38104 SARN  
41837



BASIC KIT P/Ns...

LSV23BA  
LSV23BS

AIRBAG SUSPENSION  
SPRING SUSPENSION



# 04 EXEMPT TRAILER BRAKE KITS (STANDARD AIR ONLY)

Due to the nature of their design or use, some trailer types are exempt from the new ABS/LSV requirements of ADR38/04, so the conventional air brake systems used previously are still permitted.

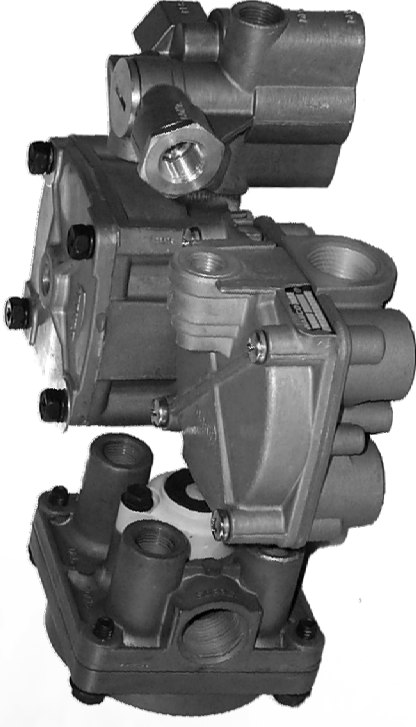
In particular, dolly converters, semi-trailers with more than 4 axles, and trailers with 'rows of 8' are exempt, so the following pages detail our conventional air brake systems to suit these configurations.

We also offer TEBS, ABS, or LSV kits for some of the above trailer types to ensure brake compatibility when used with other trailers. For example, dolly converters are exempt, but if used in roadtrain combinations with trailers that are equipped with a load proportioning brake system (either conventional pneumatic LSVs or TEBS electronic load proportioning), they will be overbraked relative to trailers when empty unless also equipped with some form of load proportioning.

Refer to previous sections for options.

NOTE also that trailers which comply with the ADR38/04 unladen performance requirement ('ERC') without load proportioned braking (eg: high tare weight trailers) are also exempt, so can continue to use any of the pre-ADR38/04 brake systems listed at right. Details of these may be found in our previous trailer brake kit catalogue.

Nevertheless, even though ADR38/04 permits this exemption, these systems now represent seriously outdated technology well behind current state of the art, and we strongly recommend TEBS as the safest, most advanced, and future proof braking solution for ALL new trailers.



KIT P/N	SARN	DESCRIPTION
ABC01A*	29243	1 AXLE SEMI B/D-R/T
ABC01B*	29244	1 AXLE SEMI
ABC02A*	29245	2 AXLE SEMI B/D-R/T
ABC02B*	29246	2 AXLE SEMI
ABC03A*	29247	3 AXLE SEMI B/D-R/T
ABC03B*	29248	3 AXLE SEMI
ABC03W	37175	3 AXLE SEMI widener
ABC034	42887	3 AXLE ('3 row of 8') widener
ABC04A*	32716	4 AXLE SEMI B/D-R/T
ABC04B*	37351	4 AXLE SEMI
ABC04W	37176	4 AXLE SEMI widener
ABC044	41171	4 AXLE ('4 row of 8') widener
ABC12B*	30102	3 AXLE DOG
ABC22A*	30220	4 AXLE DOG R/T
ABC22B*	30103	4 AXLE DOG
ABK3865	30499	5 AXLE DOG R/T
ABK3866	26470	6 AXLE DOG R/T

\* add suffix to kit P/N for relay valve options as follows...

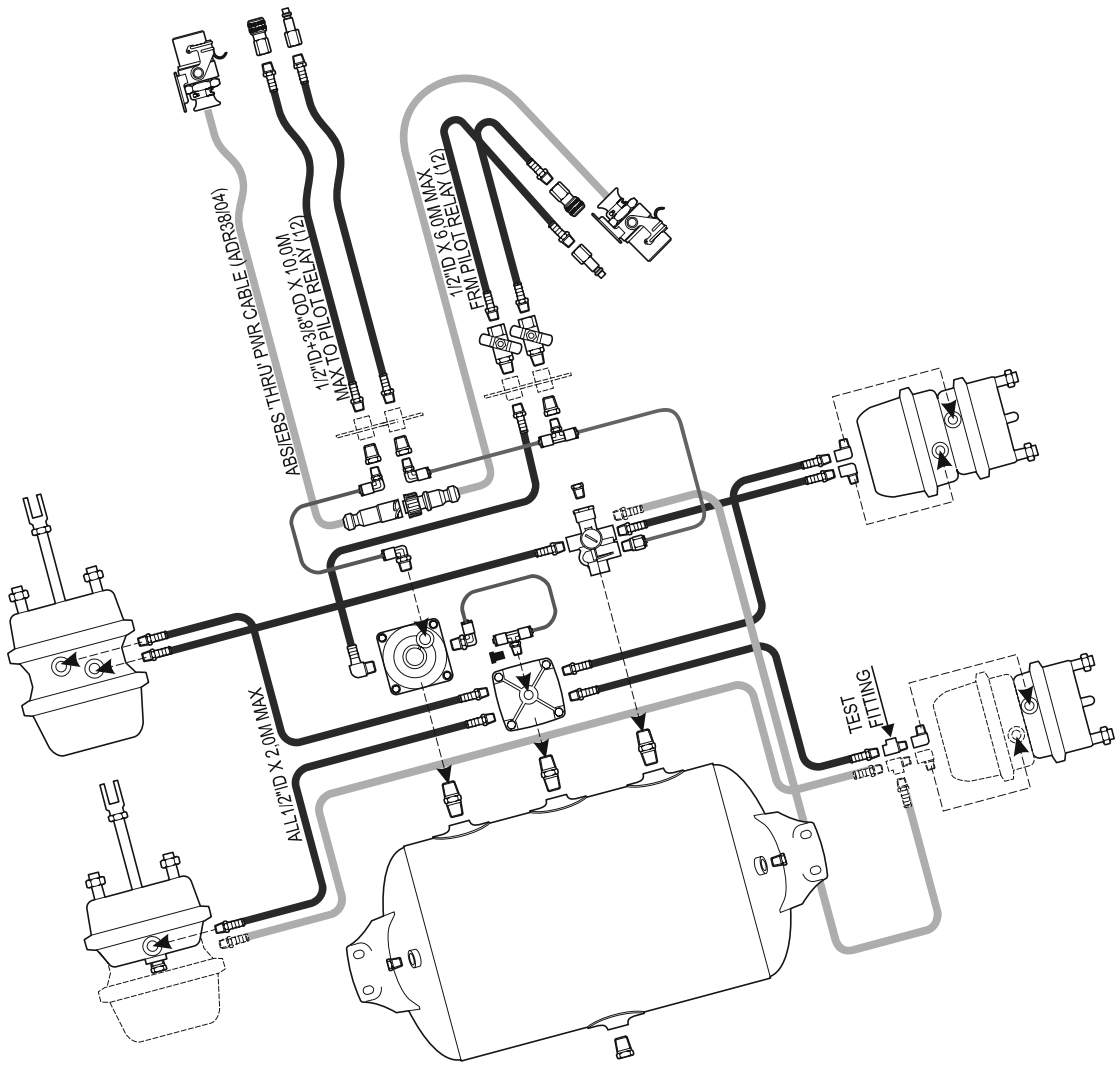
P = PACIFIC, S = SEALCO, W = WABCO

KIT P/N	SARN	DESCRIPTION
ABK3803	16420	2 AXLE SEMI
ABK3810	16421	3 AXLE SEMI
ABK3812	16422	4 AXLE SEMI
ABK3813	16423	2 AXLE DOG
ABK3814	16424	3 AXLE DOG
ABK3817	16425	4 AXLE SEMI widener
ABK3818	16426	1 AXLE SEMI
ABK3820	16427	1 AXLE SEMI B/D-R/T
ABK3828	27328	2 AXLE SEMI B/D-R/T slider
ABK3829	16428	3 AXLE SEMI B/D-R/T slider
ABK3850	16429	3 AXLE SEMI
ABK3851	16430	3 AXLE SEMI B/D-R/T
ABK3852	16431	2 AXLE SEMI B/D-R/T
ABK3853	16459	5 AXLE DOG
ABK3854	16440	4 AXLE DOG
ABK3855	16621	3 AXLE SEMI extendible
ABK3857	21185	3 AXLE SEMI extendible
ABK3858	21555	2 AXLE SEMI extendible
ABK3859	22300	2 AXLE DOG
ABK3868	28398	2 AXLE SEMI/PIG
ABK3869	24961	2 AXLE DOG
SBK02A	26662	2 AXLE SEMI B/D-R/T
SBK02B	26663	2 AXLE SEMI
SBK03A	26664	3 AXLE SEMI B/D-R/T
SBK03B	26665	3 AXLE SEMI



# 2 AXLE DOLLY AIR ONLY

38104 SARN  
292415

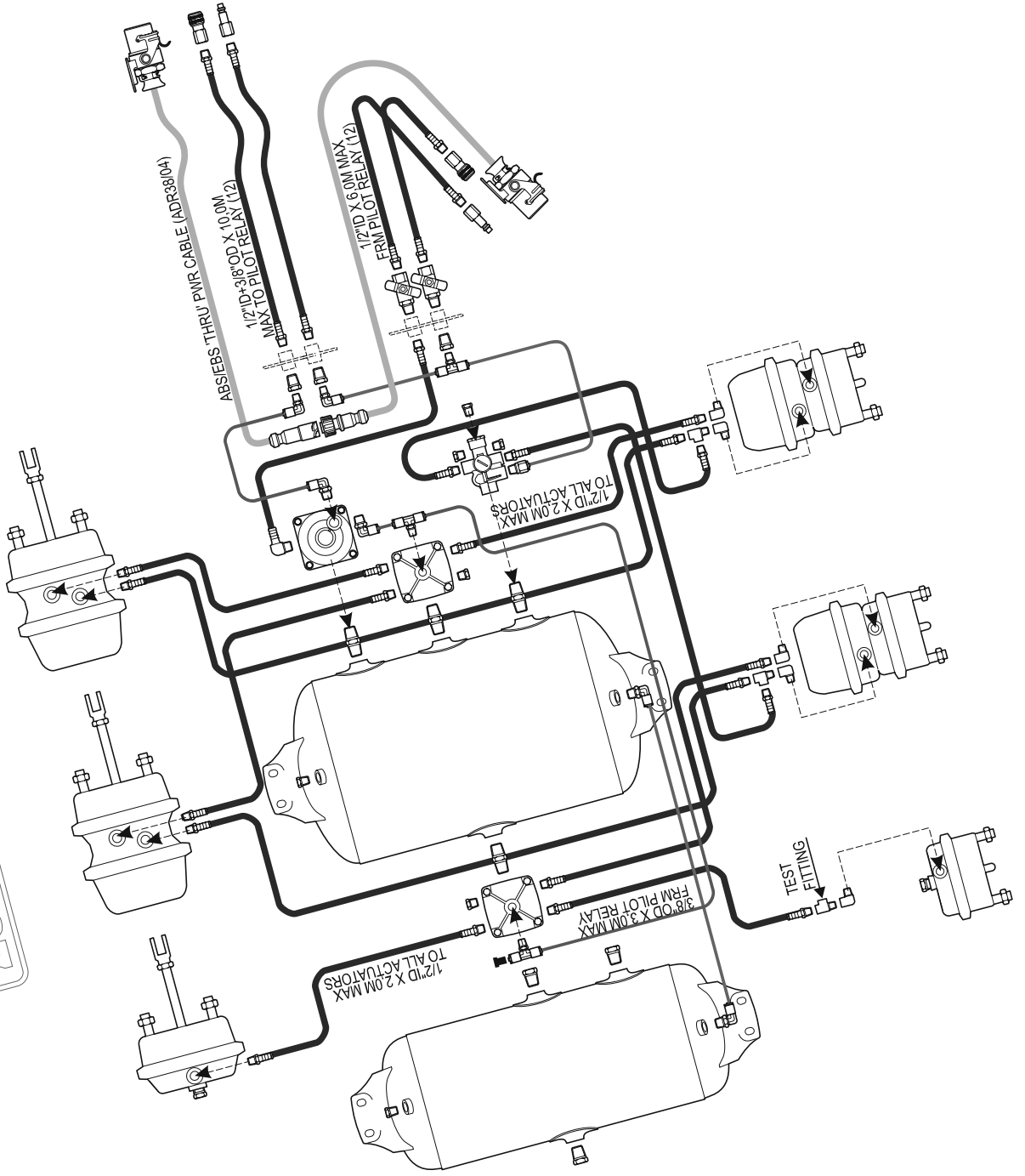


## BASIC KIT P/Ns...

- ABC02DP (PACIFIC RELAY VALVES)
- ABC02DS (SEALCO RELAY VALVES)
- ABC02DW (WABCO RELAY VALVES)

# 3 AXLE DOLLY AIR ONLY

38104 SERN  
29247



BASIC KIT P/Ns...

ABC03DP

(PACIFIC RELAY VALVES)

ABC03DS

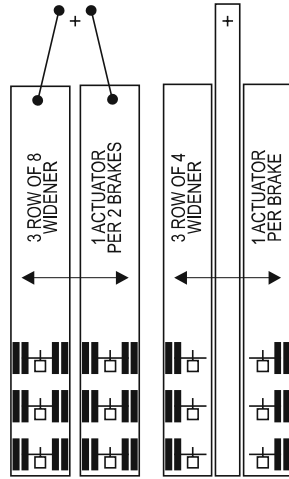
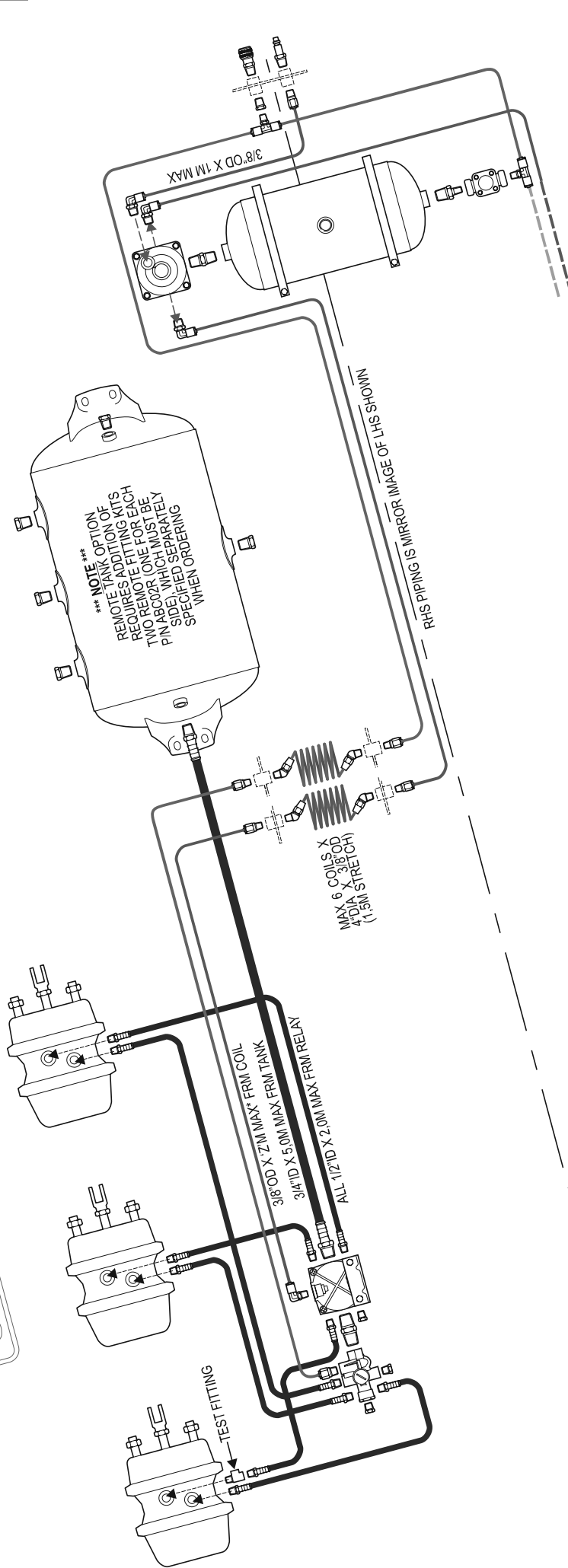
(SEALCO RELAY VALVES)

ABC03DW

(WABCO RELAY VALVES)

# 3 AXLE SEMI WIDENER AIR ONLY

38104 SAKIN  
31175



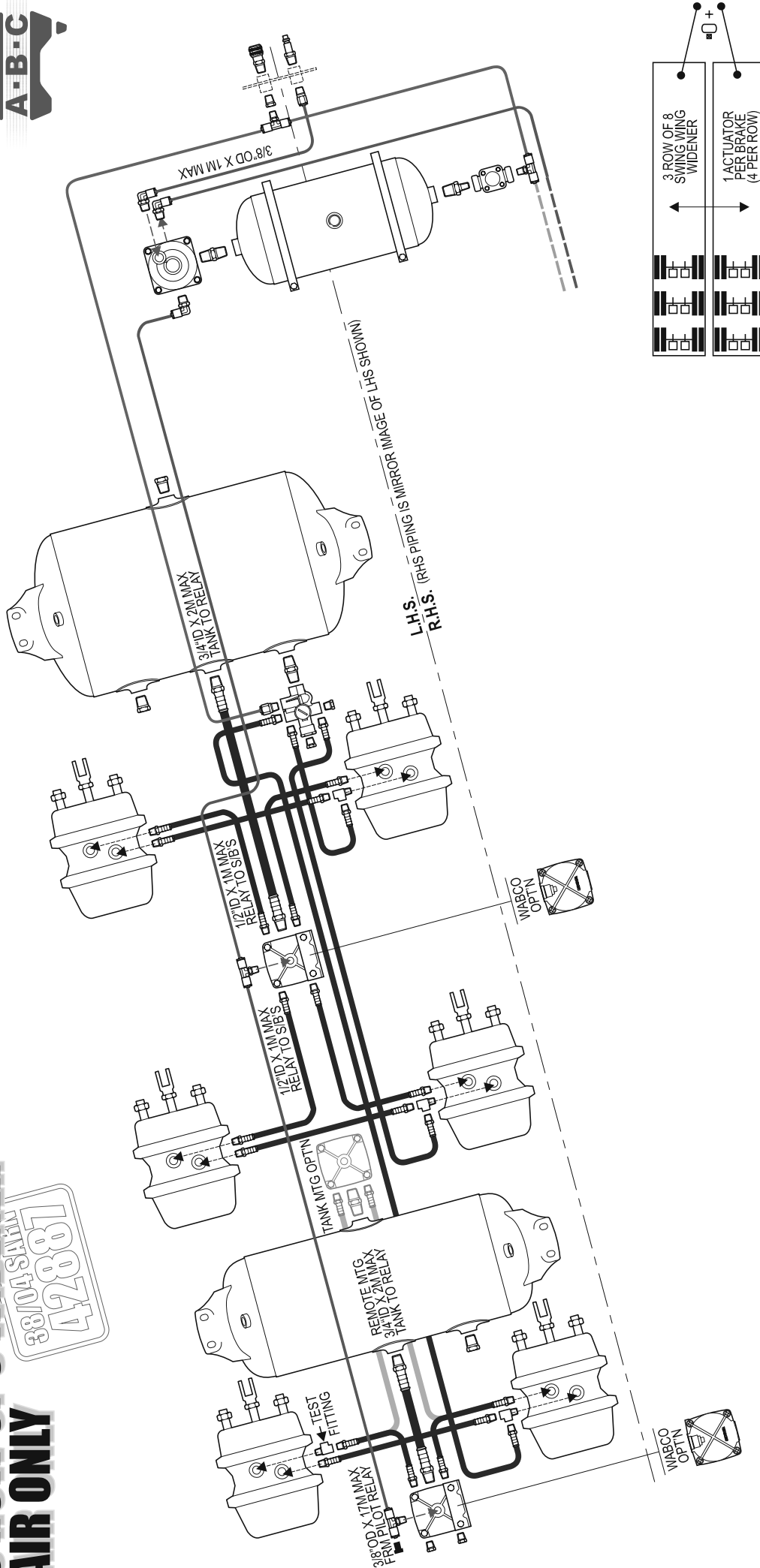
### BASIC KIT P/Ns...

- ABC03WP (PACIFIC RELAY VALVES)
- ABC03WW (WABCO RELAY VALVES)

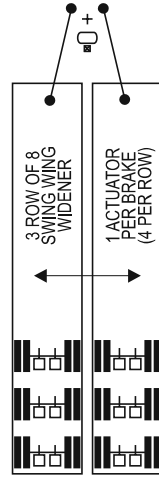
L.H.S.  
R.H.S.

# 3 ROW OF 8 WIDENER AIR ONLY

38104 S/N 111  
42887



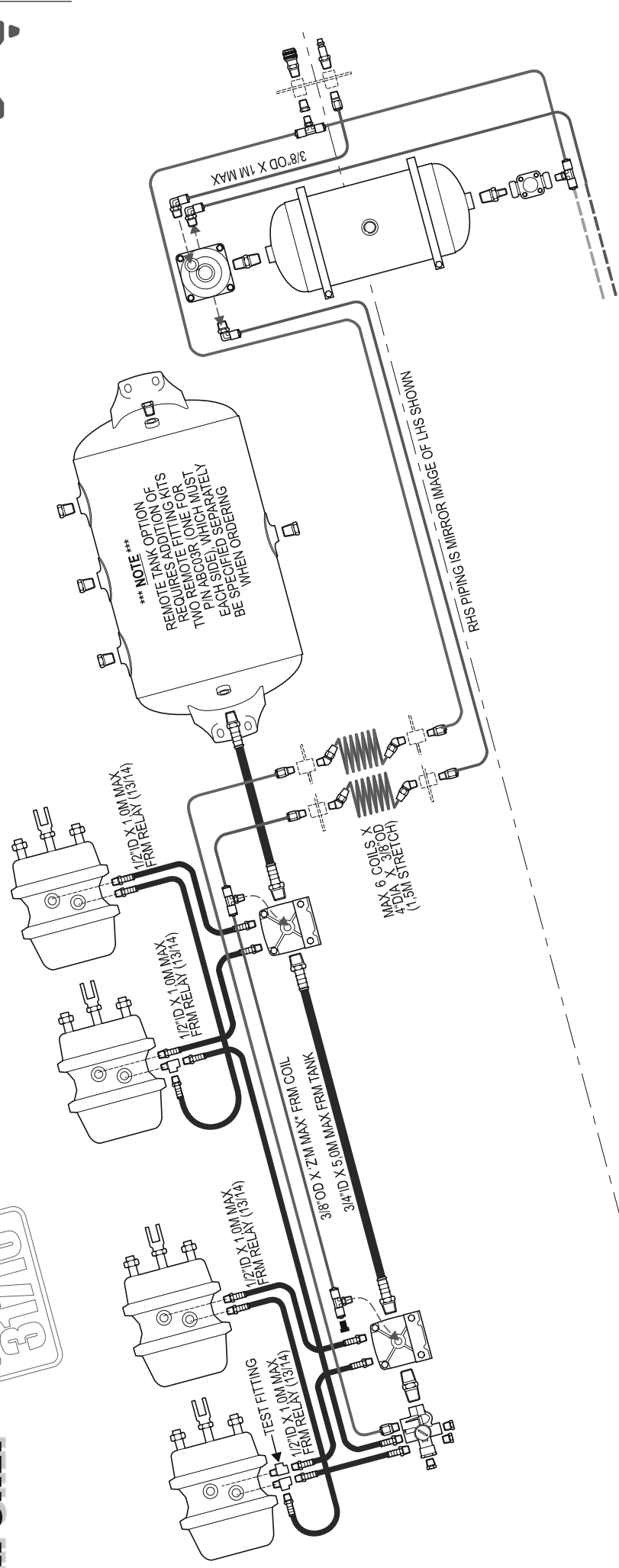
L.H.S. (RHS PIPING IS MIRROR IMAGE OF LHS SHOWN)  
R.H.S.



BASIC KIT P/Ns...  
ABC034P (PACIFIC RELAY VALVES)  
ABC034W (WABCO RELAY VALVES)

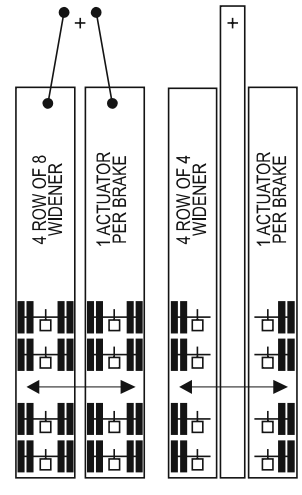
# 4 AXLE SEMI WIDENER AIR ONLY

38104 S&M  
31716



**\*\*\* NOTE \*\*\***  
 REMOTE TANK OPTION OF  
 THIS KIT REQUIRES ADDITIONAL  
 FITTING FOR TWO REMOTE  
 TANKS. ONE MUST BE INSTALLED  
 ON EACH SIDE, WHICH MUST  
 BE SPECIFIED SEPARATELY  
 WHEN ORDERING

L.H.S.  
R.H.S.

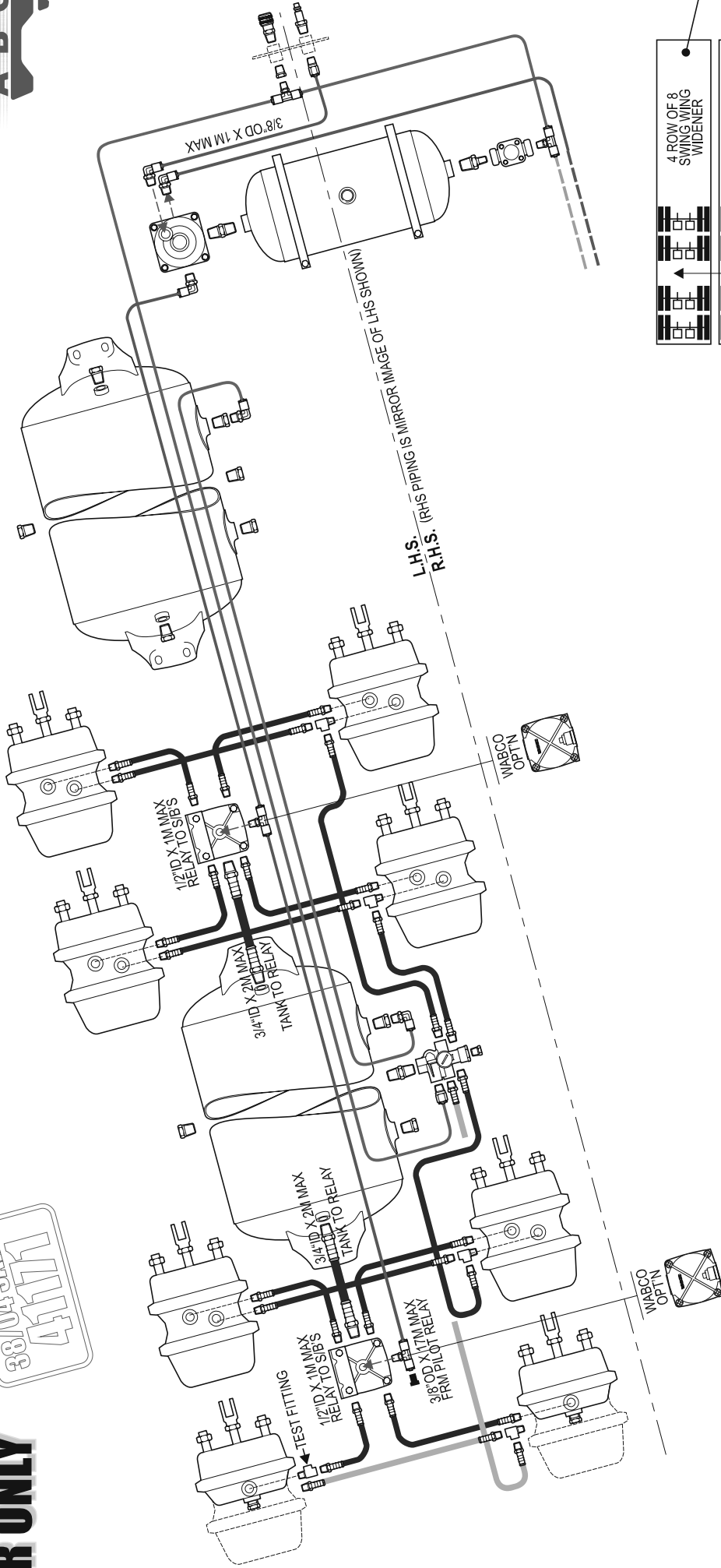


**BASIC KIT P/Ns...**

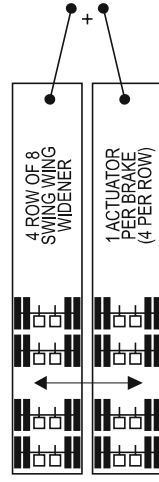
- ABC04WP (PACIFIC RELAY VALVES)
- ABC04WW (WABCO RELAY VALVES)

# 4 ROW OF 8 WIDENER AIR ONLY

38104 SKIN  
41171



L.H.S. (RHS PIPING IS MIRROR IMAGE OF LHS SHOWN)  
R.H.S.



BASIC KIT P/Ns...

ABC044P (PACIFIC RELAY VALVES)

ABC044W (WABCO RELAY VALVES)

