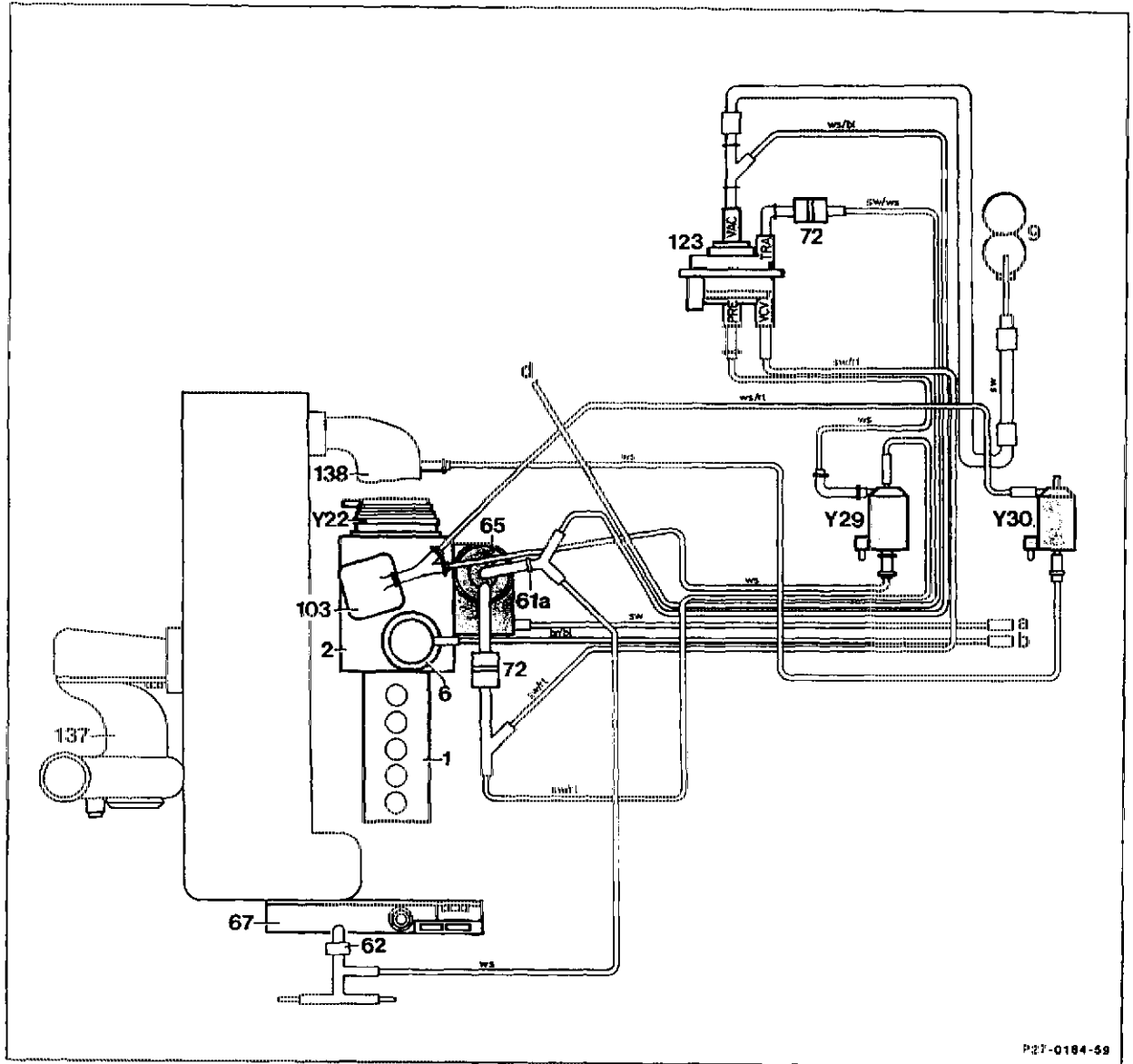


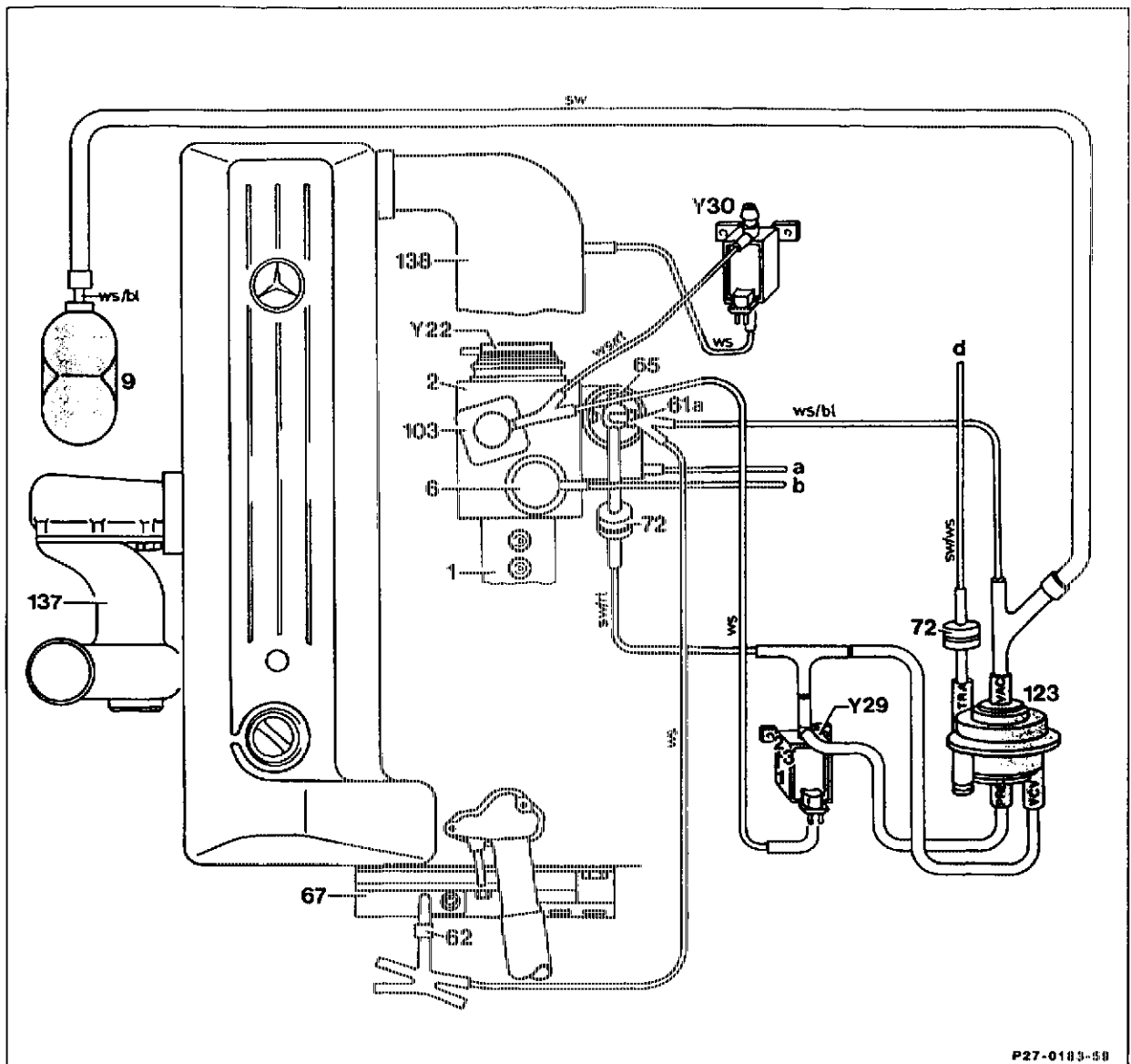
07.1-0500 Vacuum Circuit Diagrams



P27-0184-59

Pressure and Vacuum Line Routing Engine 602.961 Standard Model 201

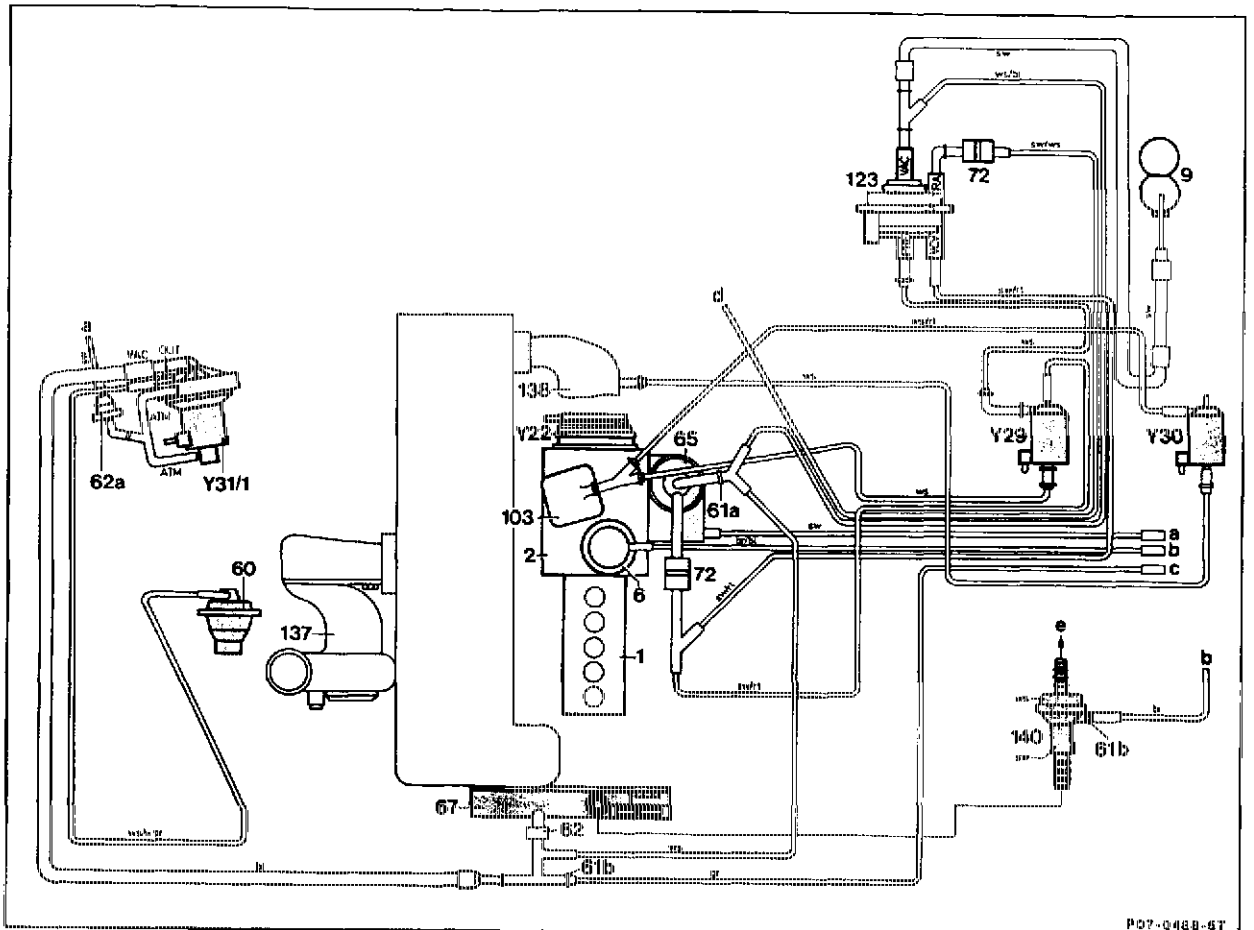
1	Injection pump	Y22	ELR actuator
2	Governor	Y29	Vacuum amplifier switchover valve, automatic transmission
6	Vacuum unit stop		
9	Vacuum reservoir (in left front wheelhouse behind plastic cover)	Y30	Switchover valve, engine overload protection
61a	Restriction	a	Ventilation to passenger compartment
62	Filter	b	Key shut-off
65	Vacuum control valve	d	To vacuum unit, automatic transmission
67	Vacuum pump		
72	Damper		
103	ALDA unit		Pressure and vacuum connections on vacuum transducer or vacuum amplifier
123	Vacuum amplifier	PRE	Charge pressure
137	Turbocharger	TRA	Transmission
138	Charge air distributor	VAC	Vacuum
		VCV	Vacuum control valve




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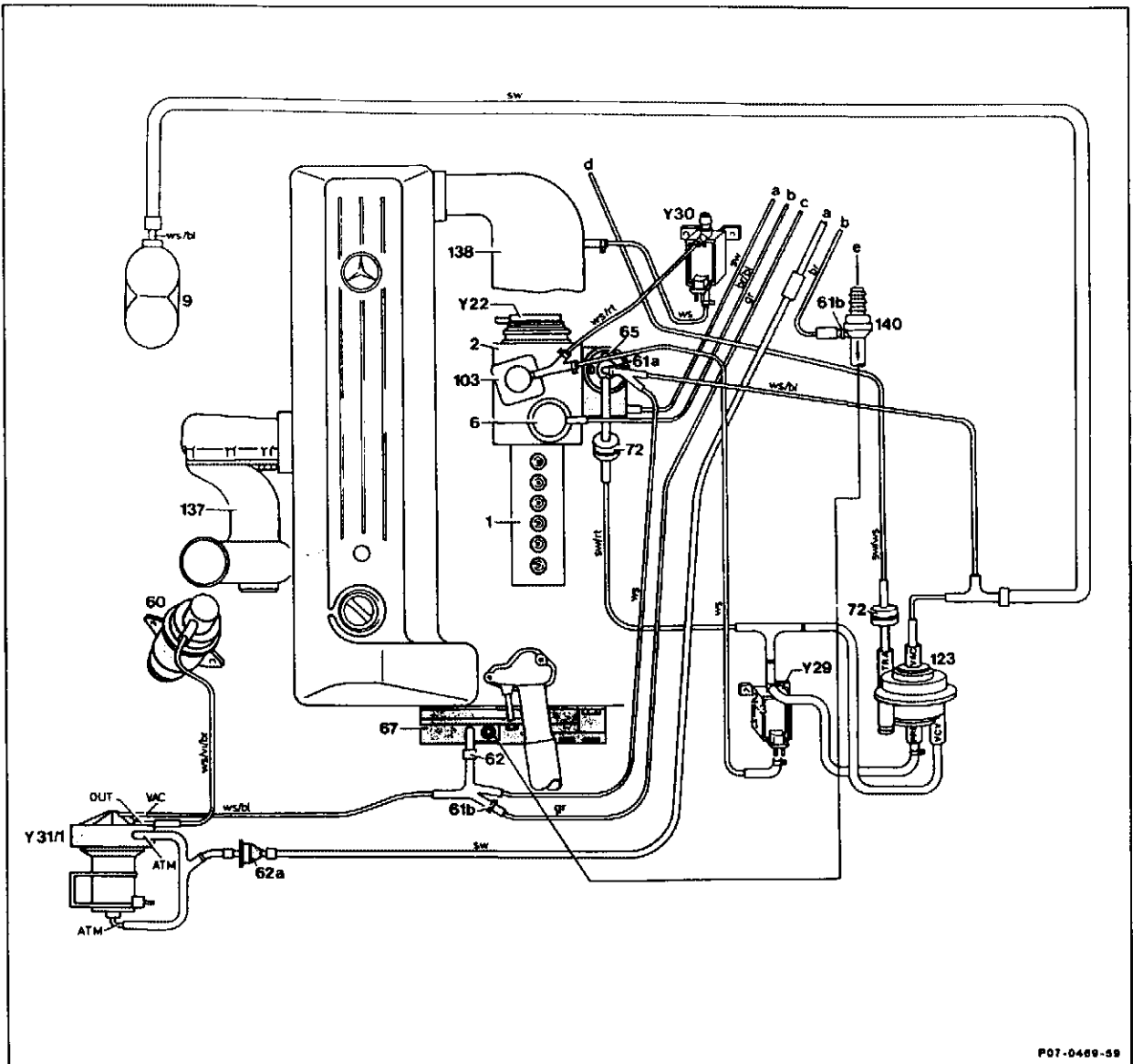
Pressure and Vacuum Line Routing Engine 603.96 Standard Model 124

1	Injection pump	Y22	ELR actuator
2	Governor	Y29	Vacuum amplifier switchover valve, automatic transmission
6	Vacuum unit stop	Y30	Switchover valve, engine overload protection
9	Vacuum reservoir (in right front wheelhouse behind plastic cover)	a	Ventilation to passenger compartment
61a	Restriction	b	Key shut-off
62	Filter	d	To vacuum unit, automatic transmission
65	Vacuum control valve		
67	Vacuum pump		
72	Damper		
103	ALDA unit		
123	Vacuum amplifier		
137	Turbocharger		
138	Charge air distributor		
			Pressure and vacuum connections on vacuum transducer or vacuum amplifier
		PRI	Charge pressure
		TRA	Transmission
		VAC	Vacuum
		VCV	Vacuum control valve



Vacuum Line Routing Electronic Diesel System Engine 602.961, Model 201  Federal
Model Year 1987

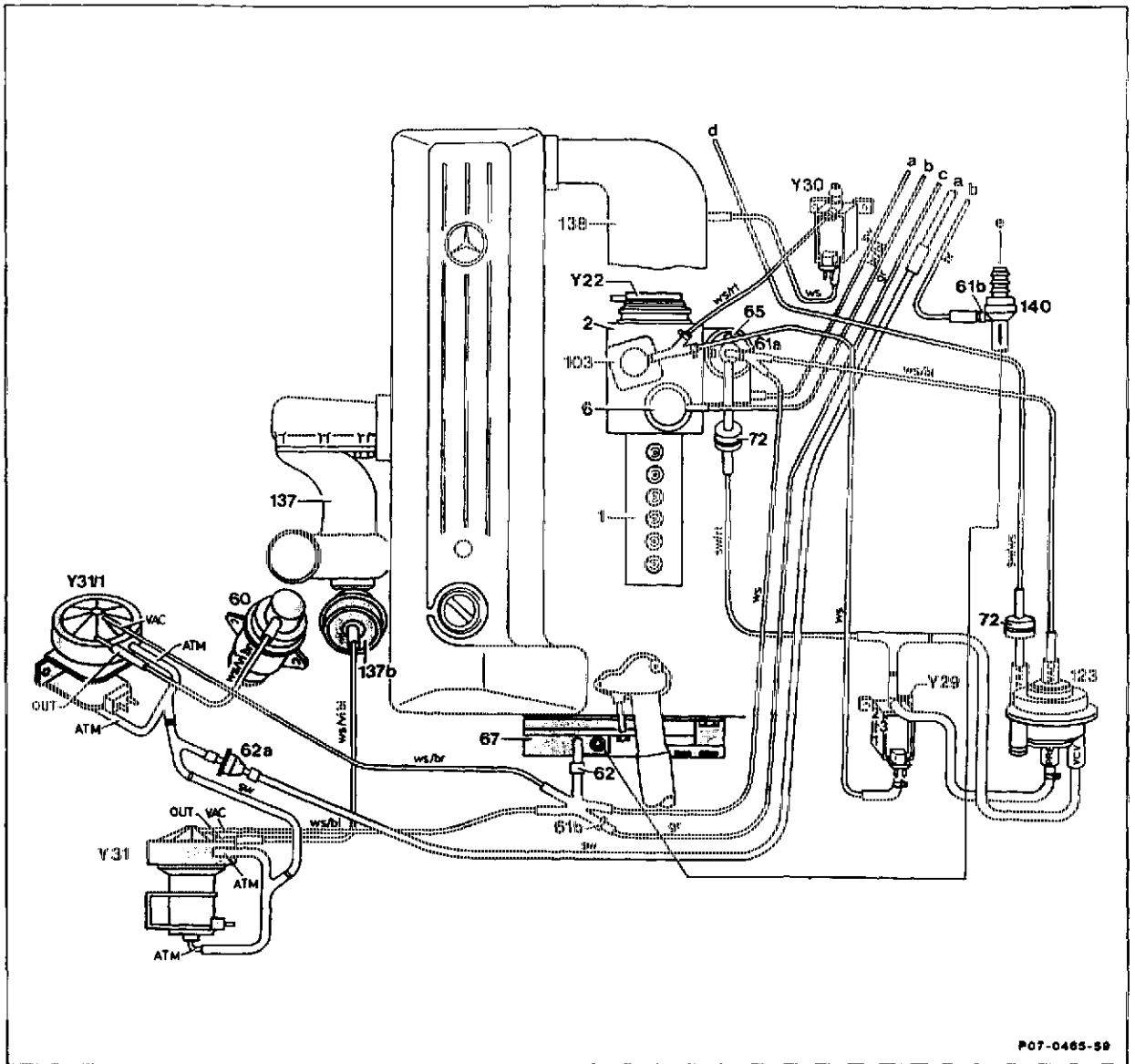
1	Injection pump	Y31/1	Vacuum transducer, exhaust gas recirculation valve
2	Governor	a	Ventilation to passenger compartment
6	Vacuum unit stop	b	Key shut-off
9	Vacuum reservoir	c	Other ancillaries
60	Exhaust gas recirculation valve	d	Vacuum unit, automatic transmission
61a	Restriction	e	Brake booster
61b	Restriction		
62	Filter		
62a	Filter		
65	Vacuum control valve		
67	Vacuum pump		
72	Damper	PRE	Pressure and vacuum connections to vacuum transducer or vacuum amplifier
103	ALDA unit	TRA	Charge pressure from ALDA unit
123	Vacuum amplifier	TRA	To vacuum unit, automatic transmission
137	Exhaust gas turbocharger	VAC	Vacuum from vacuum pump
138	Charge air distribution pipe	VCV	To vacuum control valve
140	Non-return valve - brake booster	ATM	Ventilation to passenger compartment
Y22	ELR actuator	OUT	Exhaust gas recirculation to exhaust gas recirculation valve
Y29	Vacuum amplifier switchover valve, automatic transmission	sw	black
Y30	Switchover valve, engine overload protection	bl	blue
		br	brown
		gr	grey
		vi	violet
		ri	red
		wts	white



P07-0469-59

Vacuum Line Routing Electronic Diesel System Engine 603.96 Model 124 (J)
 Model Year 1988

1	Injection pump	Y29	Vacuum amplifier switchover valve, automatic transmission
2	Governor	Y30	Switchover valve, engine overload protection
6	Stop unit	Y31/1	Vacuum transducer, exhaust gas recirculation valve
9	Vacuum reservoir	a	Ventilation to passenger compartment
60	Exhaust gas recirculation valve	b	Key shut-off
61a	Restriction	e	Other ancillaries
61b	Restriction	d	Vacuum unit, automatic transmission
62	Filter	e	Brake booster
62a	Filter		
65	Vacuum control valve		
67	Vacuum pump		
72	Damper		
103	ALDA unit		
123	Vacuum amplifier		
137	Exhaust gas turbocharger		
138	Charge air distribution pipe		
140	Non-return valve -- brake booster		
Y22	ELR actuator		
			Pressure and vacuum connections to vacuum transducer or vacuum amplifier
		TRA	To vacuum unit, automatic transmission
		VAC	Vacuum from vacuum pump
		VCV	To vacuum control valve
		ATM	Ventilation to passenger compartment
		OUT	Exhaust gas recirculation to exhaust gas recirculation valve or recirculating air valve



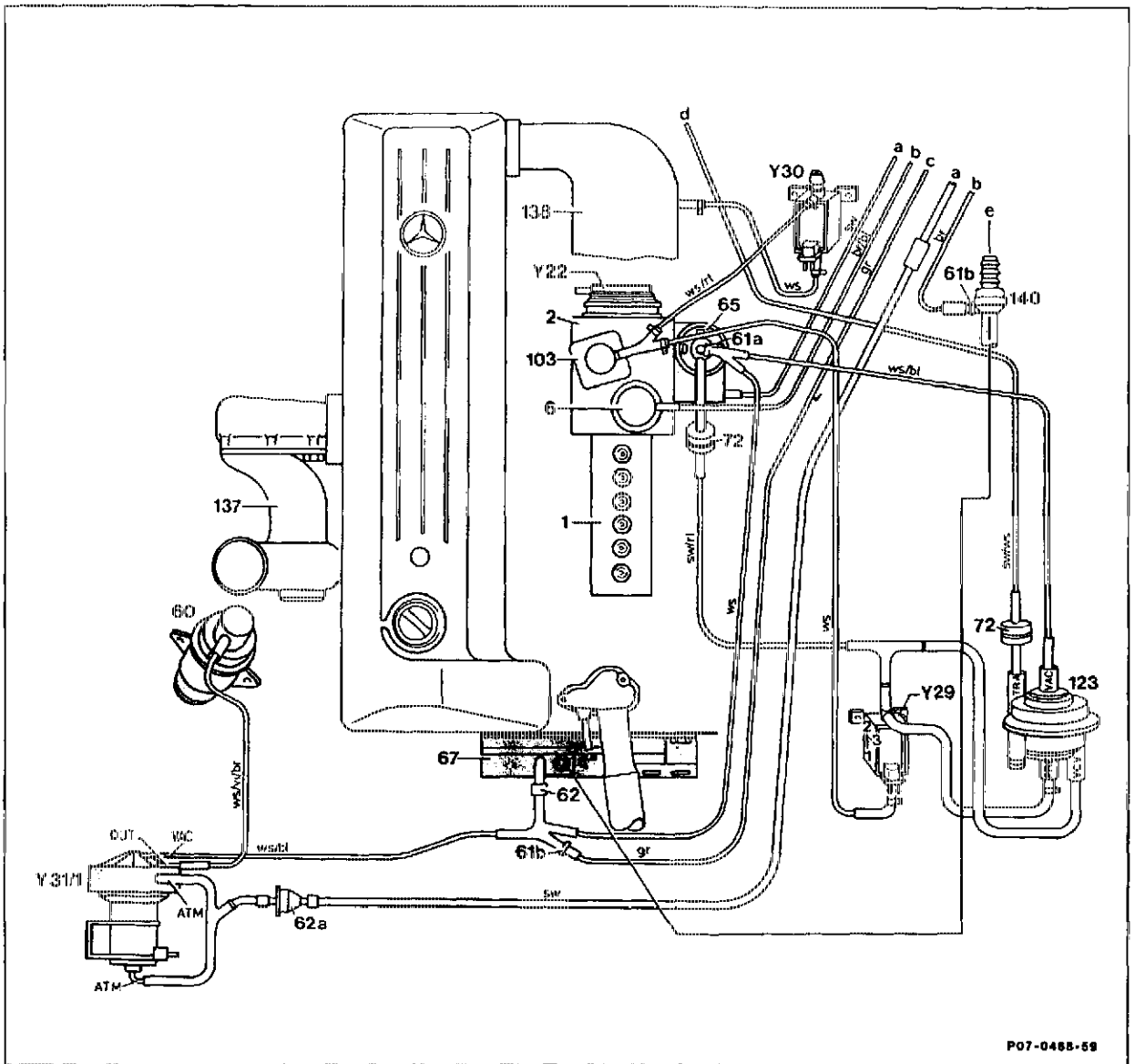
P07-0465-59

Vacuum Line Routing Electronic Diesel System


Engine 603.96 Model 124 (USA) Federal and California from Model Year 1987,

Engine 603.96 Model 126 California from Model Year 1987

1	Injection pump	Y31/1	Vacuum transducer, exhaust gas recirculation valve
2	Governor		
6	Stop unit	a	Ventilation to passenger compartment
60	Exhaust gas recirculation valve	b	Key shut-off
61a	Restriction, blue	c	Other ancillaries
61b	Restriction, orange	d	Vacuum unit, automatic transmission
61c	Restriction	e	Key shut-off
61d	Restriction	f	Brake booster
62	Filter		
62a	Filter		Pressure and vacuum connections to vacuum transducer or vacuum amplifier
62c	Ventilation filter		
65	Vacuum control unit	PRE	Charge pressure from ALDA unit
67	Vacuum pump	TRA	To vacuum unit, automatic transmission
72	Damper	VAC	Vacuum from vacuum pump
103	ALDA unit	VCV	To vacuum control valve
123	Vacuum amplifier	ATM	Ventilation to passenger compartment
137	Exhaust gas turbocharger	ARE	Exhaust gas recirculation to exhaust gas recirculation valve or recirculating air valve
137b	Recirculating air valve		
138	Charge air distribution pipe	sw	black
140	Non-return valve – brake booster	bl	blue
Y22	ELR actuator	be	brown
Y29	Vacuum amplifier switchover valve, automatic transmission	gr	grey
Y30	Switchover valve, engine overload protection	vi	violet
Y31	Vacuum transducer, recirculating air valve	rt	red
		ws	white

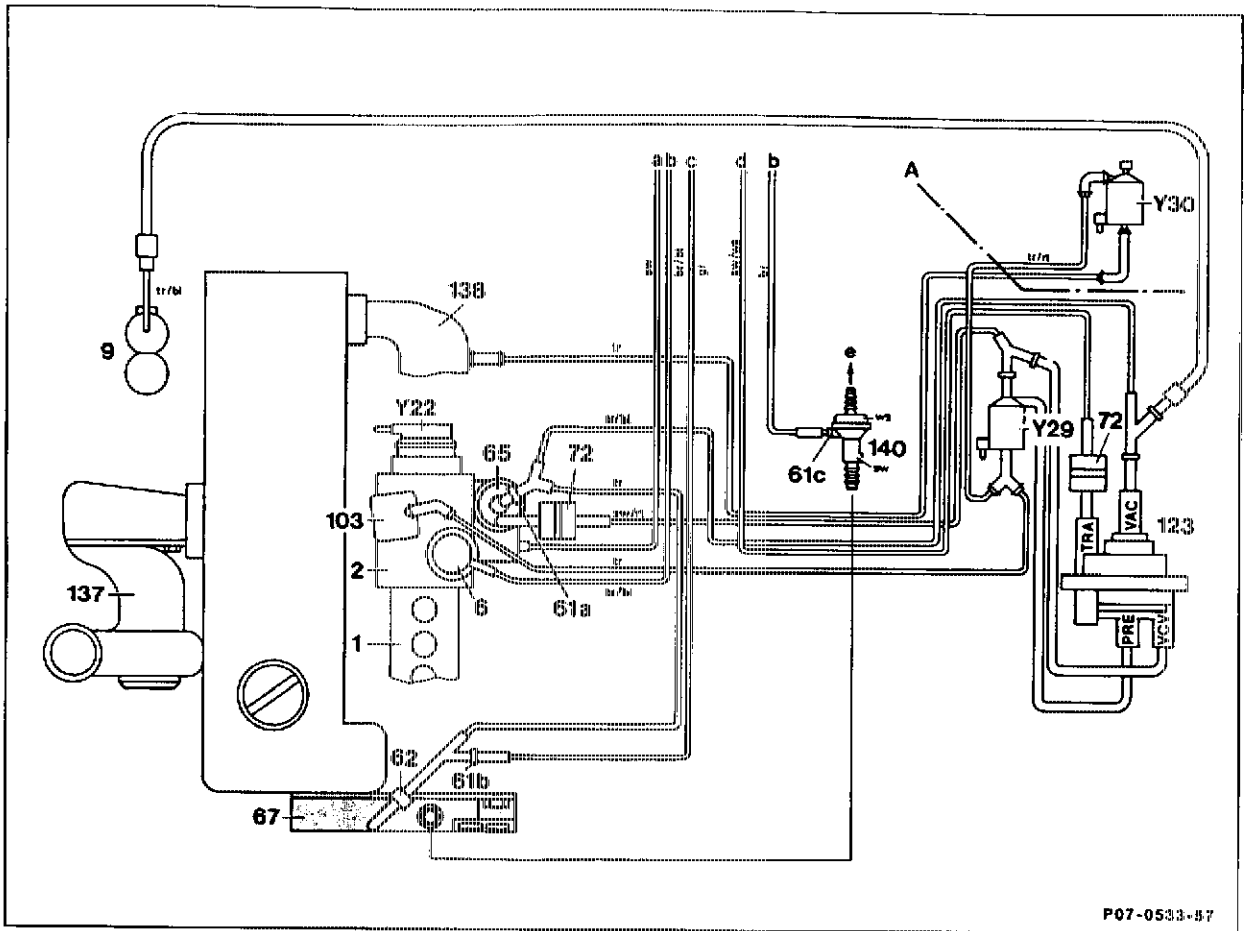


P07-0468-59

Vacuum Line Routing Electronic Diesel System Engine 603.96, Model 126  Federal
 Model Year 1986

1	Injection pump	Y31/1	Vacuum transducer, exhaust gas recirculation valve
2	Governor		
6	Stop unit	a	Ventilation to passenger compartment
60	Exhaust gas recirculation valve	b	Key shut-off
61a	Restriction, blue	c	Other ancillaries
61b	Restriction, orange	d	Vacuum unit, automatic transmission
61c	Restriction	e	Key shut-off
61d	Restriction	f	Brake booster
62	Filter		
62a	Filter		Pressure and vacuum connections to vacuum transducer or vacuum amplifier
62c	Ventilation filter		
65	Vacuum control valve	PRE	Charge pressure from ALDA unit
67	Vacuum pump	TRA	To vacuum unit, automatic transmission
72	Damper	VAC	Vacuum from vacuum pump
103	ALDA unit	VCV	To vacuum control valve
123	Vacuum amplifier	ATM	Ventilation to passenger compartment
137	Exhaust gas turbocharger	EGR	Exhaust gas recirculation to exhaust gas recirculation valve or recirculating air valve
137b	Recirculating air valve		
138	Charge air distribution pipe	sw	black
140	Non-return valve – brake booster	bl	blue
Y22	ELPI actuator	be	brown
Y29	Vacuum amplifier switchover valve, automatic transmission	gr	grey
Y30	Switchover valve, engine overload protection	vi	violet
		rt	red
		ws	white



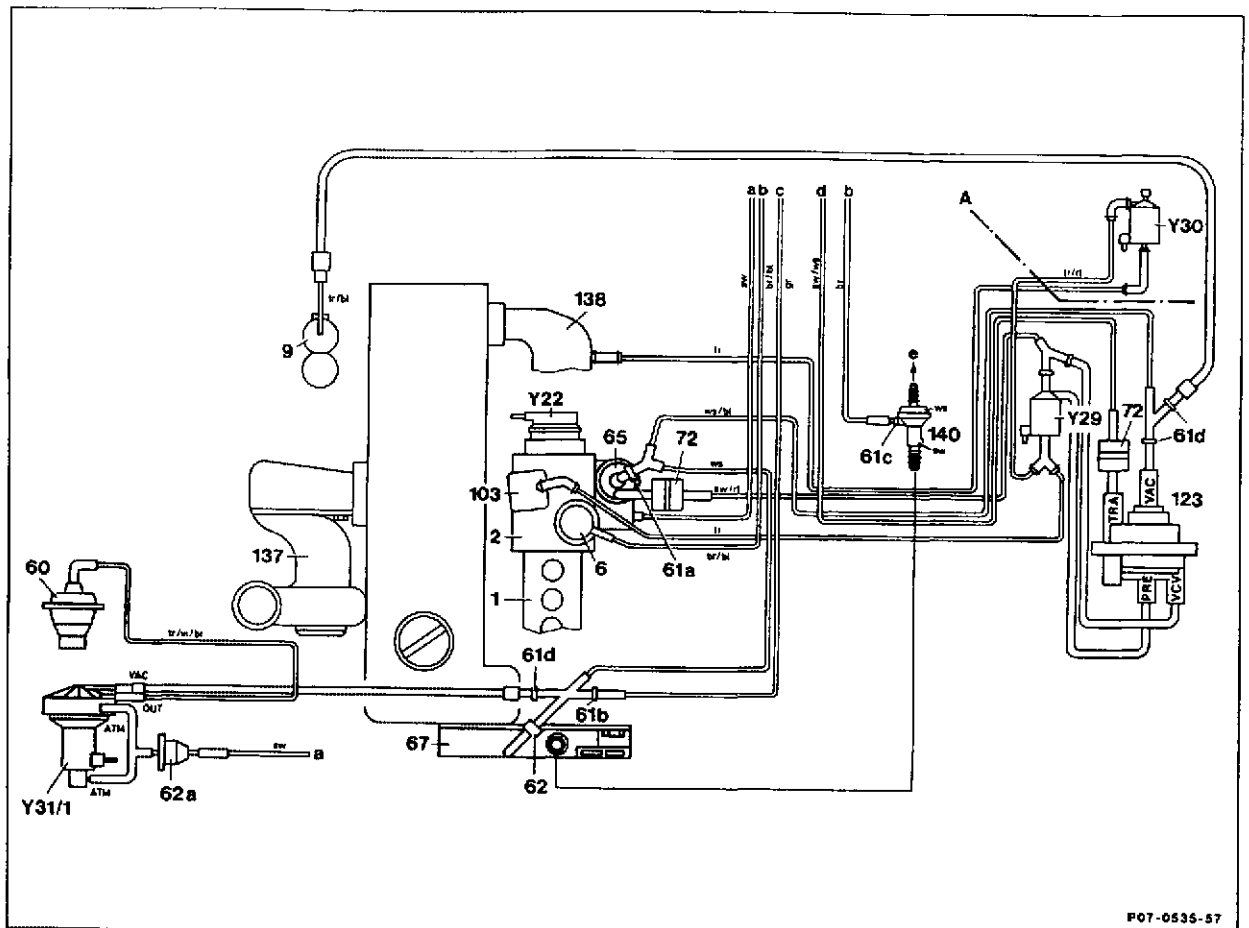


P07-0533-57

Pressure and Vacuum Line Routing Engine 602.962 Standard Model 124

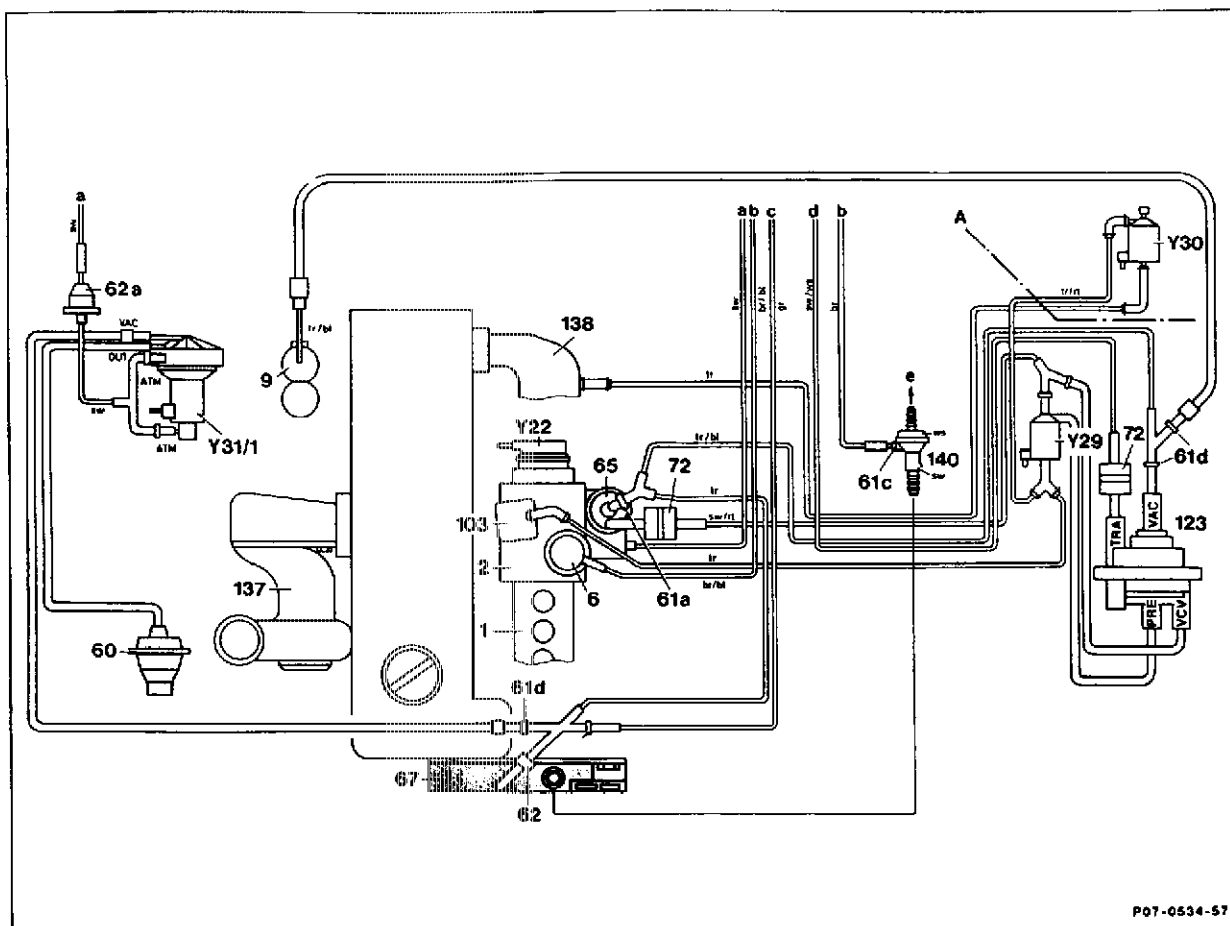
1	Injection pump	Y22	ELR actuator
2	Governor	Y29	Vacuum amplifier switchover valve, automatic transmission
6	Stop unit	Y30	Switchover valve, engine overload protection
9	Vacuum reservoir (in right front wheelhouse, behind plastic cover)	A	Partition wall
61a	Restriction	a	Ventilation to passenger compartment
61c	Restriction Ø 0.5 mm (orange)	b	Key shut-off
62	Filter	c	Other ancillaries
65	Vacuum control valve	d	To vacuum unit, automatic transmission
67	Vacuum pump	e	To brake booster
72	Damper		
103	ALDA unit		
123	Vacuum amplifier		Pressure and vacuum connections to vacuum transducer or vacuum amplifier
137	Turbocharger	PRE	Charge pressure
138	Charge air distribution pipe	TRA	Transmission
140	Non-return valve - brake booster	VAC	Vacuum
		VCV	Vacuum control valve





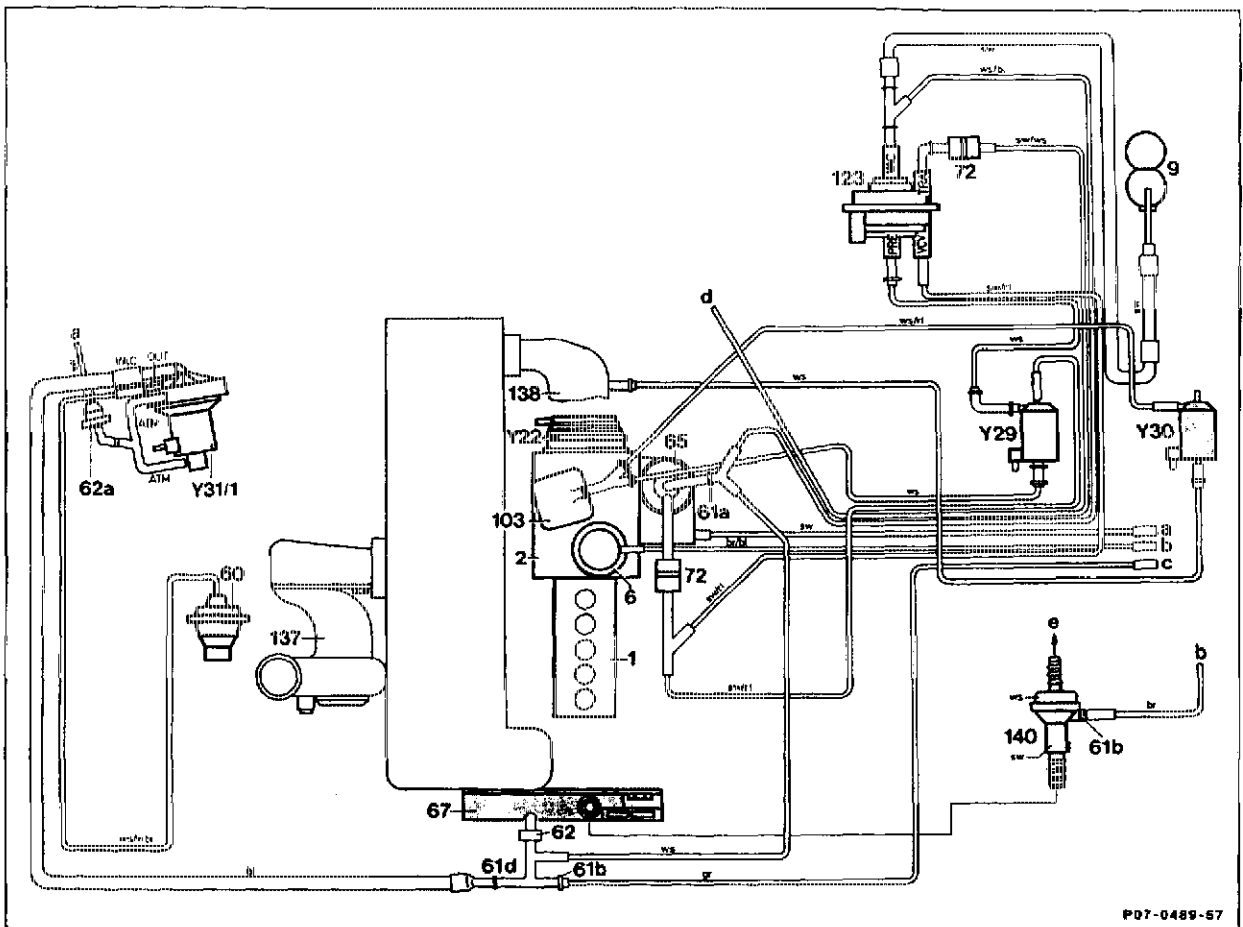
**Vacuum Line Routing Electronic Diesel System
Engine 603.96 Model 124**

1	Injection pump	Y29	Vacuum amplifier switchover valve, automatic transmission
2	Governor	Y30	Switchover valve, engine overload protection
6	Stop unit	Y31/1	Pressure transducer, exhaust gas recirculation valve
9	Vacuum reservoir	A	Partition wall
60	Exhaust gas recirculation valve	a	Ventilation to passenger compartment
61 a	Restriction	b	Key shut-off
61 b	Restriction	c	Other ancillaries
61 c	Restriction \varnothing 0.5 mm (orange)	d	Vacuum unit, automatic transmission
61 d	Connecting piece (without restriction)	e	Brake booster
62	Filter		
62 a	Filter		
65	Vacuum control valve		
67	Vacuum pump		
72	Damper		
103	ALDA unit		
123	Vacuum amplifier	TRA	To vacuum unit, automatic transmission
137	Exhaust gas turbocharger	VAV	Vacuum from vacuum pump
138	Charge air distribution pipe	VCV	To vacuum control valve
140	Non-return valve - brake booster	ATM	Ventilation to passenger compartment
Y22	ELR actuator	OUT	Exhaust gas recirculation to exhaust gas recirculation valve or recirculating air valve



**Vacuum Line Routing Electronic Diesel System
Engine 602.96 Model 124**

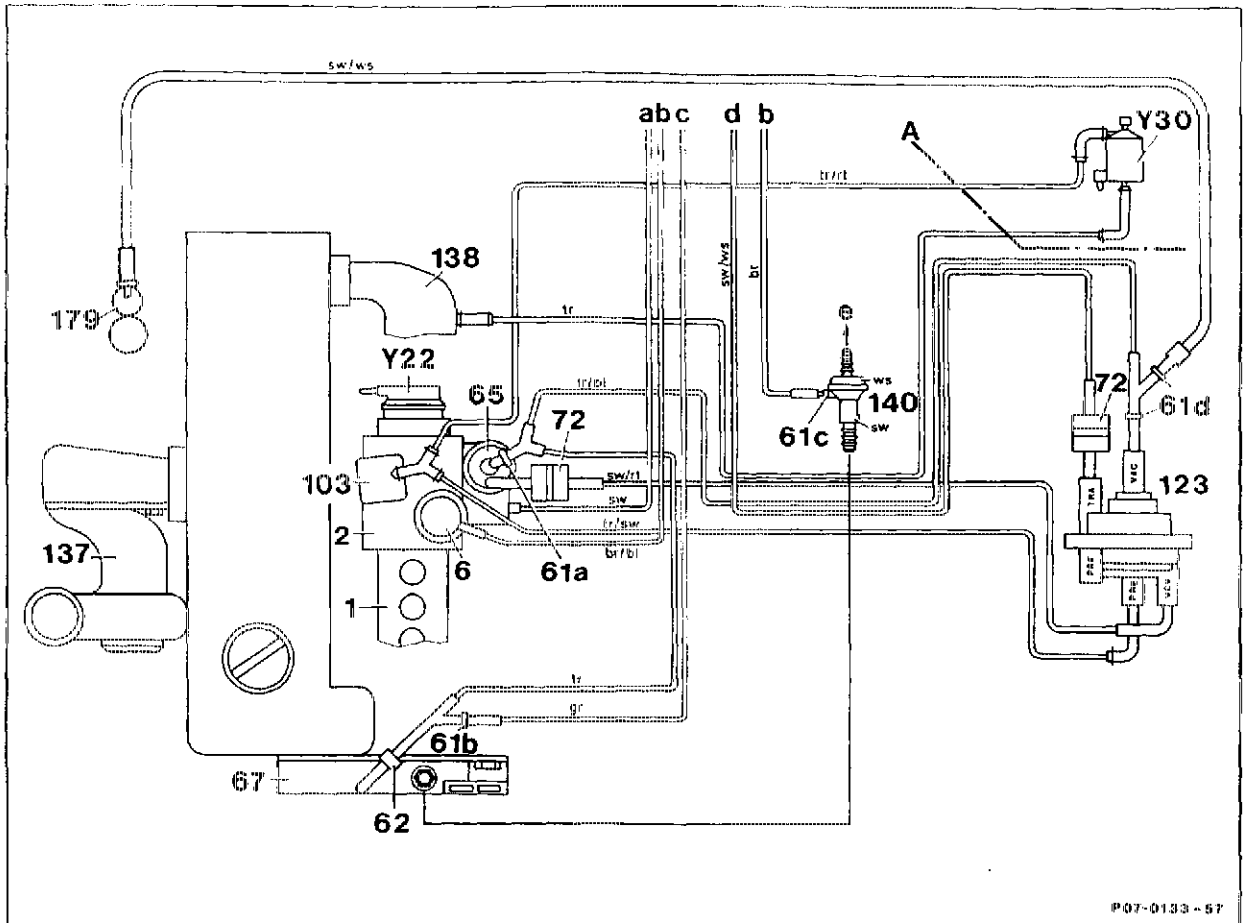
1	Injection pump	Y22	ELR actuator
2	Governor	Y29	Vacuum amplifier switchover valve, automatic transmission
6	Stop unit	Y30	Switchover valve, engine overload protection
9	Vacuum reservoir	Y31/1	Pressure transducer, exhaust gas recirculation valve
60	Exhaust gas recirculation valve	A	Partition wall
61a	Restriction	a	Ventilation to passenger compartment
61b	Restriction	b	Key shut-off
61c	Restriction \varnothing 0.5 mm (orange)	c	Other ancillaries
61d	Connecting piece (without restriction)	d	Vacuum unit, automatic transmission
62	Filter	e	Brake booster
62a	Filter		
65	Vacuum control valve		
67	Vacuum pump		
72	Damper		
103	ALDA unit		
123	Vacuum amplifier		
137	Exhaust gas turbocharger		
138	Charge air distribution pipe		
140	Non-return valve - brake booster		
		TRA	To vacuum unit, automatic transmission
		VAV	Vacuum from vacuum pump
		VCV	To vacuum control valve
		ATM	Ventilation to passenger compartment
		OUT	Exhaust gas recirculation to exhaust gas recirculation valve or recirculating air valve



Vacuum Line Routing Electronic Diesel System
Engine 602.961 Model 201

- | | |
|-----|---|
| 1 | Injection pump |
| 2 | Governor |
| 6 | Stop unit |
| 9 | Vacuum reservoir |
| 60 | Exhaust gas recirculation valve |
| 61a | Restriction |
| 61b | Restriction |
| 61c | Restriction \varnothing 0.5 mm (orange) |
| 61d | Connector piece |
| 62 | Filter |
| 62a | Filter |
| 65 | Vacuum control valve |
| 67 | Vacuum pump |
| 72 | Damper |
| 103 | ALDA unit |
| 123 | Vacuum amplifier |
| 137 | Exhaust gas turbocharger |
| 138 | Charge air distribution pipe |
| 140 | Non-return valve -- brake booster |
| Y22 | ELR actuator |
| Y29 | Vacuum amplifier switchover valve, automatic transmission |

- | | |
|-------|---|
| Y30 | Switchover valve, engine overload protection |
| Y31/1 | Vacuum transducer, exhaust gas recirculation valve |
| a | Ventilation to passenger compartment |
| b | Key shut-off |
| c | Other ancillaries |
| d | Vacuum unit, automatic transmission |
| e | Brake booster |
| | Pressure and vacuum connections to vacuum transducer or vacuum amplifier |
| PRE | Charge pressure from ALDA unit |
| TRA | To vacuum unit, automatic transmission |
| VAC | Vacuum from vacuum pump |
| VCV | To vacuum control valve |
| ATM | Ventilation to passenger compartment |
| OUT | Exhaust gas recirculation to exhaust gas recirculation valve |
| sw | black |
| bl | blue |
| br | brown |
| gr | grey |
| vi | violet |
| rl | red |
| ws | white |



Vacuum Line Routing Engines 602.962, 603.96 with Automatic Transmission,
Model 124 (Standard)

- 1 Injection pump
- 2 Governor
- 6 Vacuum unit stop
- 61a Restriction
- 61b Restriction \varnothing 0.5 mm (white)
- 61c Restriction (orange)
- 62 Filter
- 65 Vacuum control valve
- 67 Vacuum pump
- 72 Damper
- 103 ALDA unit
- 123 Vacuum amplifier
- 137 Turbocharger
- 138 Change air distributor
- 140 Non-return valve -- brake booster

- 179 Vacuum reservoir (in right front wheelhouse, behind plastic cover)
- Y22 Actuator
- Y30 Switchover valve, engine overload protection

- a Ventilation to passenger compartment
- b Key shut-off
- c Other ancillaries
- d To vacuum unit, automatic transmission

- PRE Pressure and vacuum connections to vacuum transducer or vacuum amplifier
- TRA Charge pressure
- VAC Transmission
- VCV Vacuum
- VCV Vacuum control valve
- A Partition wall