

VOLVO

Service Bulletin

Fault Tracing
Repairs
Maintenance



MODEL 200/700/900	GROUP 23	NUMBER 137
TITLE THROTTLE ADJUSTMENT LH2.4/REGINA(BENDIX)		
200/700/900	1989 -->	
MARKET US and Canada	DATE November 1990	

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REFERENCE: TP 31347/1 (ENGLISH); 01/89; REGINA FUEL SYSTEM B230F
TP 31354/1 (ENGLISH); 12/88; LH-JETRONIC 2.4 B230F, B234F
TP 31361/1 (ENGLISH); 12/88; LH-JETRONIC 2.4 B230F

Throttle Adjustment - Applies to All Cars Equipped With LH2.4 or REGINA Fuel Injection Systems

Proper operation of the fuel injection system requires that the throttle housing and throttle switch be correctly adjusted.

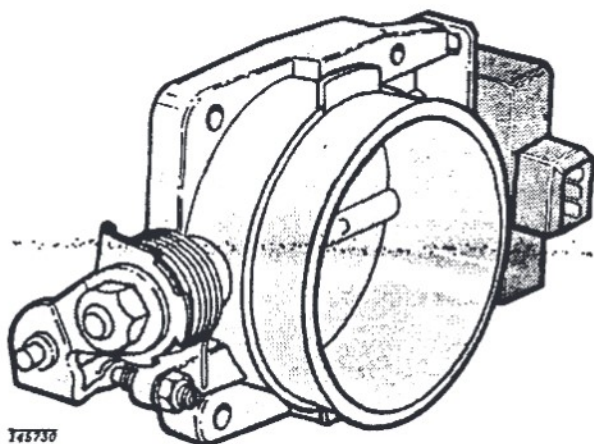
The following procedure may be used to adjust and set the throttle and idling function.

PROCEDURE

Remove throttle housing from intake manifold.

Remove throttle switch from throttle housing.

Clean throttle housing thoroughly.



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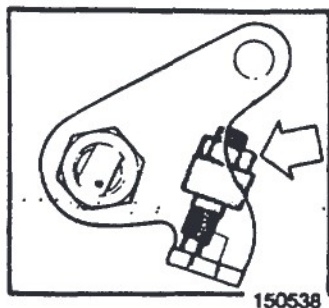
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Service Personnel: circulate, read, and initial.

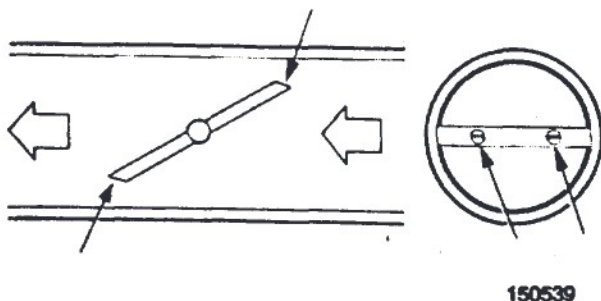
Printed in U.S.A.

SERVICE MANAGER	SHOP FORMAN	SERVICE ADVISOR	SERVICE TECHNICIANS							



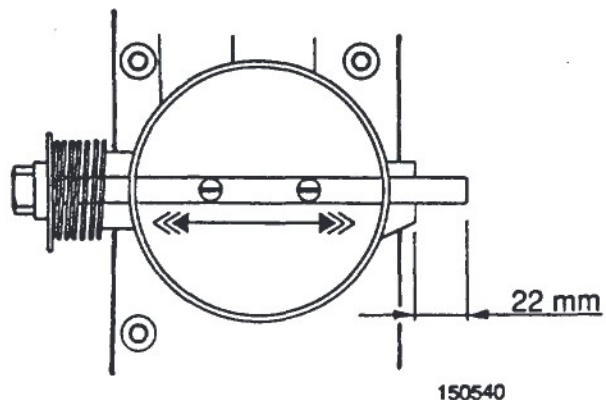


Loosen adjusting screw so that throttle closes fully.



Loosen screws (two) securing throttle disc.

Note: Check that disc is correctly installed; i.e., is aligned in the right direction. Since edge of disc is thin, careful inspection is necessary to see chamfered edge.

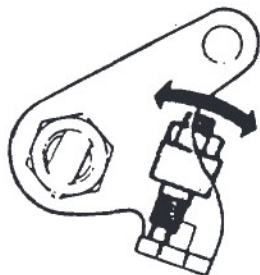


Operate lever to open throttle approx. one-third. Release lever so that disc centers itself in throat of opening. Check that throttle spindle can be moved in and out with slight resistance.

Adjust spindle until end projects 22mm beyond throttle housing as shown.

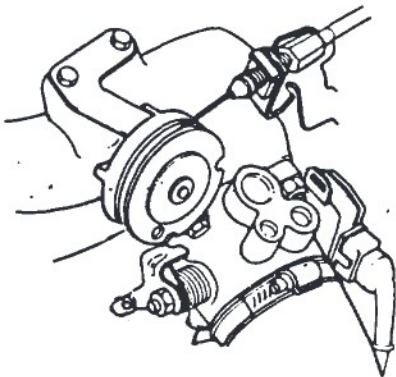
Note: Specified dimension is a maximum which must not be exceeded, otherwise spindle may bottom against throttle switch.

Tighten disc retaining screws.



Turn adjusting screw until it is just in contact with lever.

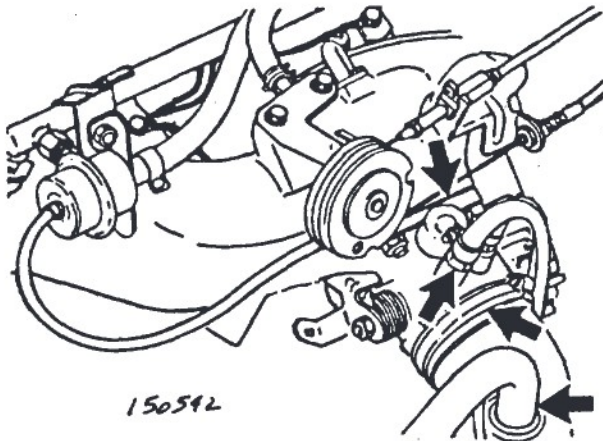
Screw in a further turn. Do not tighten locknut.



150541

Mount throttle switch on spindle.

Insert, but do not tighten retaining screws.



150542

Mount throttle housing on intake manifold.

Connect all hoses.

Note: Do not connect link between throttle pulley and lever.

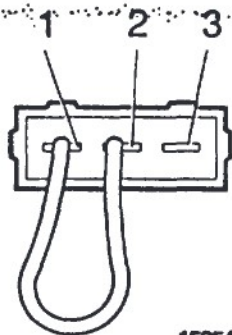
Make a jumper lead using the following material:

- 1.5mm² cable; 4 in. (100 mm) long, p/n 954445-3
- two terminals, p/n 968374-9

Crimp the terminals with pliers 9322 or equivalent. These terminals must be used to avoid damage to connector pins.

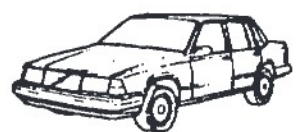
Connect lead between pins 1 and 2 in throttle switch connector (see illustration).

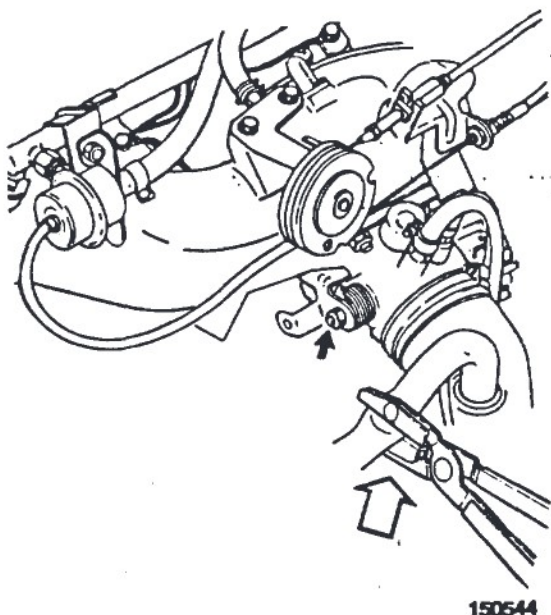
Note: Ensure good contact is made between pins. If no signal is obtained, control unit will enter 'LIMP-HOME' mode.



150543

Idle engine at working temperature with gear selector lever in Park position and AC system off.





Clamp idling (CIS) valve hose with hose clamp pliers.
If not available, remove hose and plug.

A TIGHT SEAL MUST BE ASSURED.

Use throttle adjusting screw to adjust speed to 500 ± 20 rpm.

Note: It is important that speed is maintained within the above limits.

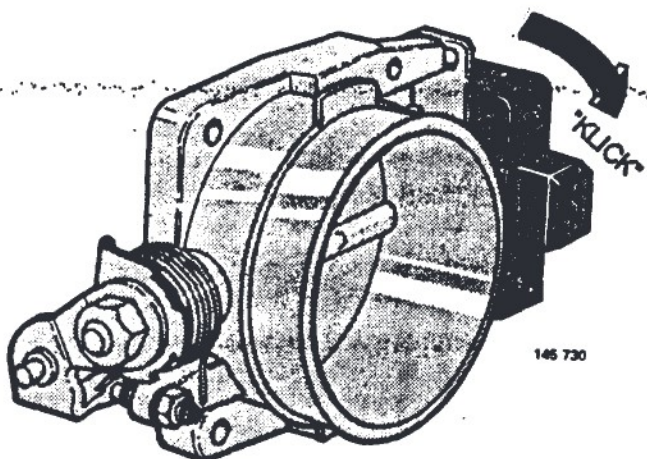
Switch engine off.

Tighten adjusting screw locknut while holding screw to prevent it from rotating.

Remove throttle switch connector jumper.

Note: The following may occur if speed exceeds 520 rpm or falls below 480 rpm:

- 1). At higher speeds, the idling (CIS) valve will close fully. The control unit will interpret this as a fault and will enter the 'LIMP-HOME' mode.
- 2). At lower speeds, engine may run roughly when stopping the car after engine braking.



Adjust throttle switch by turning counter-clockwise until a 'click' is heard.

Note: Do not turn switch so far that position of disc is altered.

Tighten retaining screws and recheck that 'click' is heard as soon as switch is turned.

Reconnect switch connector.

ADJUST LINK

Install link.

Undo both locknuts on link and screw in towards center.

Place 1mm feeler gauge between idling stop and throttle pulley.

Turn mid-section of link until link is as short as possible, but without opening throttle.

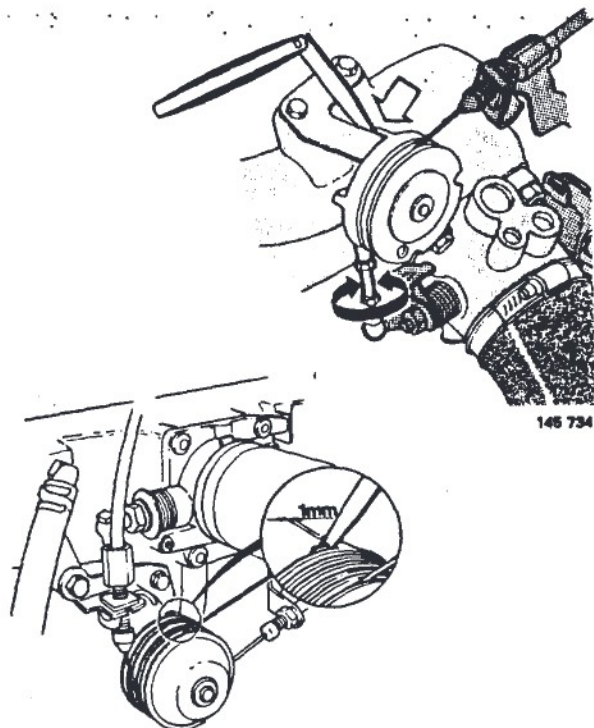
Screw outwards until 'click' is heard.

Tighten locknut.

Recheck that 'click' is heard as soon as throttle pulley is turned.

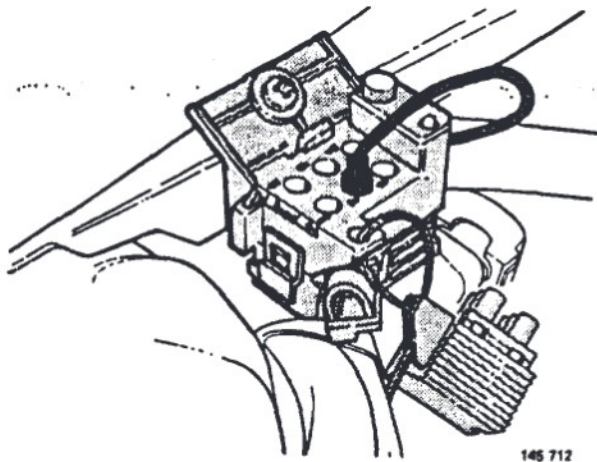
Start engine and check that idling function is correct.

Note: If engine speed has been increased with throttle switch connector terminals bridged instead of with throttle switch installed, diagnostic system **MUST** be checked for 1-3-3 code. If present, this code must be cleared.



(Throttle pulley may also be positioned as shown above)



ERASE DIAGNOSTIC SYSTEM MEMORY

Place test lead in position 2.

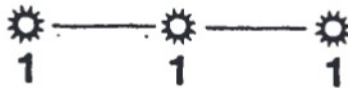


Switch on ignition.

Read fault code again.

Operate test button for more than 5 seconds. Release button. LED should light after 3 seconds.

Operate button again for more than 5 seconds. Release button. LED should go out.



Check that fault code has been cancelled by operating test button once for more than 1 second (and not more than 3 seconds).

Code has been cleared if flashing code 1-1-1 is displayed.

WARRANTY STATEMENT: Adjust and clean throttle may only be submitted under the terms of the 5 yr./50,000 mi. Emission Limited Warranty.

<u>Oper. No.</u>	<u>Labor Description</u>	<u>Time Allowance</u>
251 126	Throttle/housing, adjust/clean	0.7 hr.