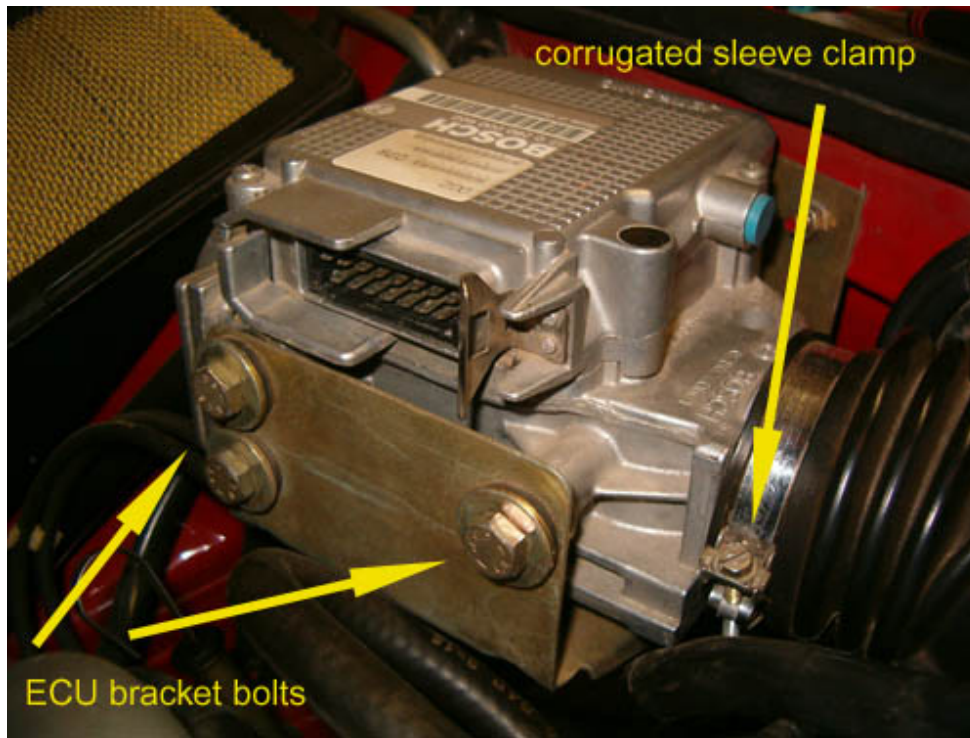


## Fast Idle Valve Installation

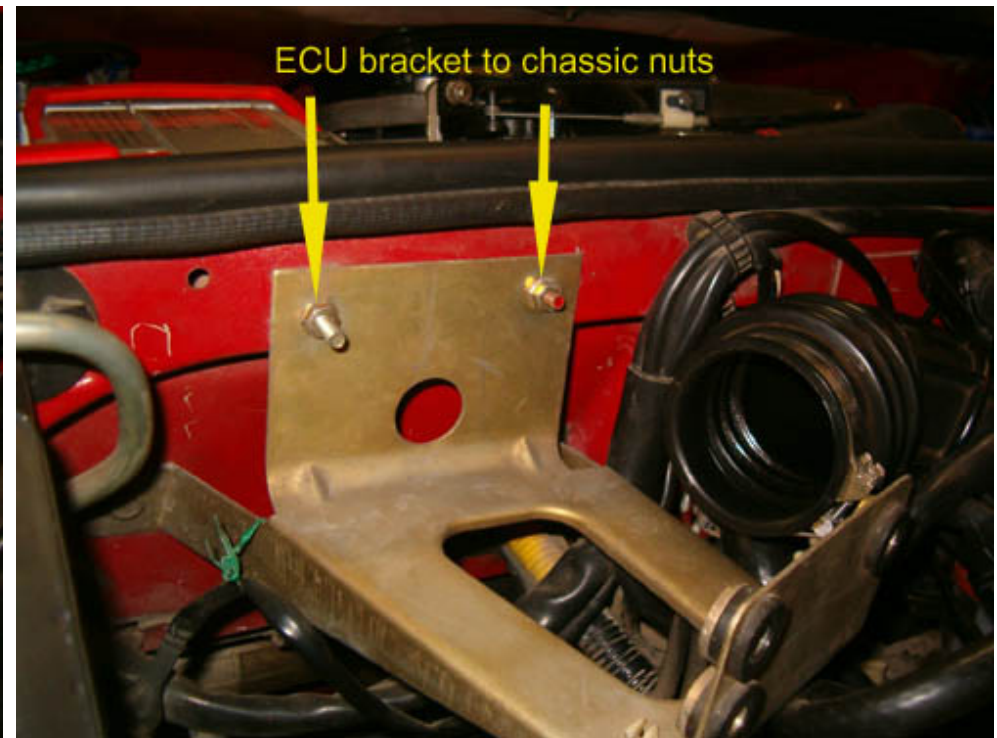
A very important element in the A/C setup is the fast idle valve. A/C operation drains around 10 to 15 HP from the engine with a noticeable power loss. Such power loss is more obvious when the engine idles and the power loss often leads to engine stalling. This idle valve aims at keeping the idle rpm at the correct level (around 950 rpm) no matter if the A/C is on or off.

Actually as you will see from the photographs this fast idle valve makes a bypass to the Auxiliary Air Valve (AAV), allowing more air to the mixture required by the engine thus keeping the idle at specified rpm. It should be noted that this valve is electrically triggered and is set to operation whenever A/C compressor is turned on.

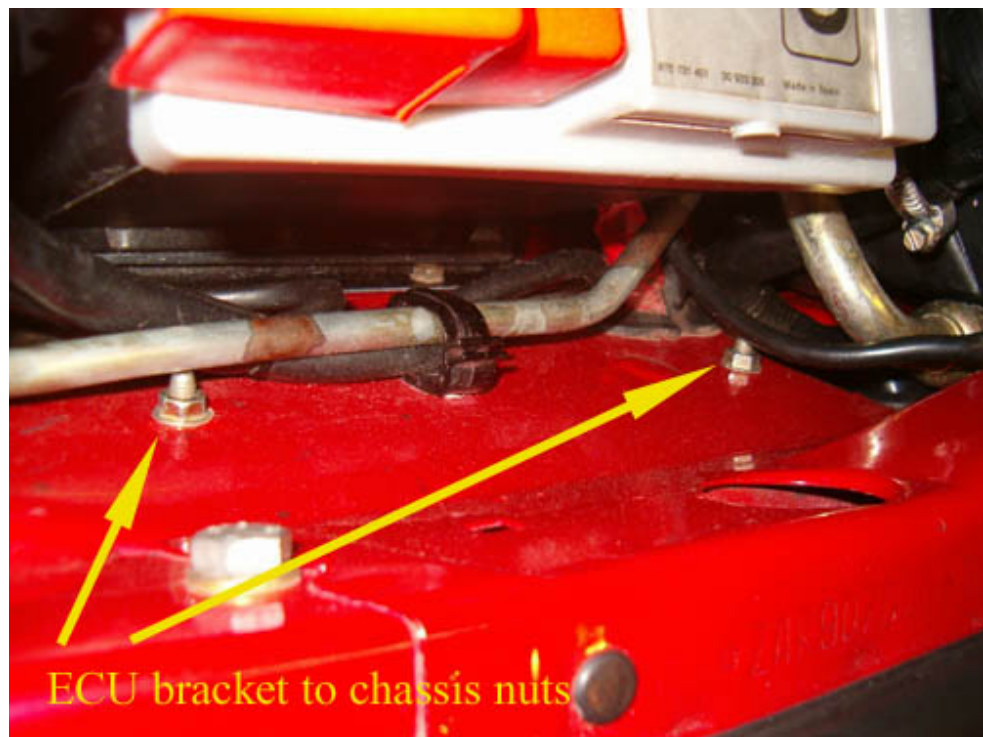
The location of installation is under the ECU bracket.



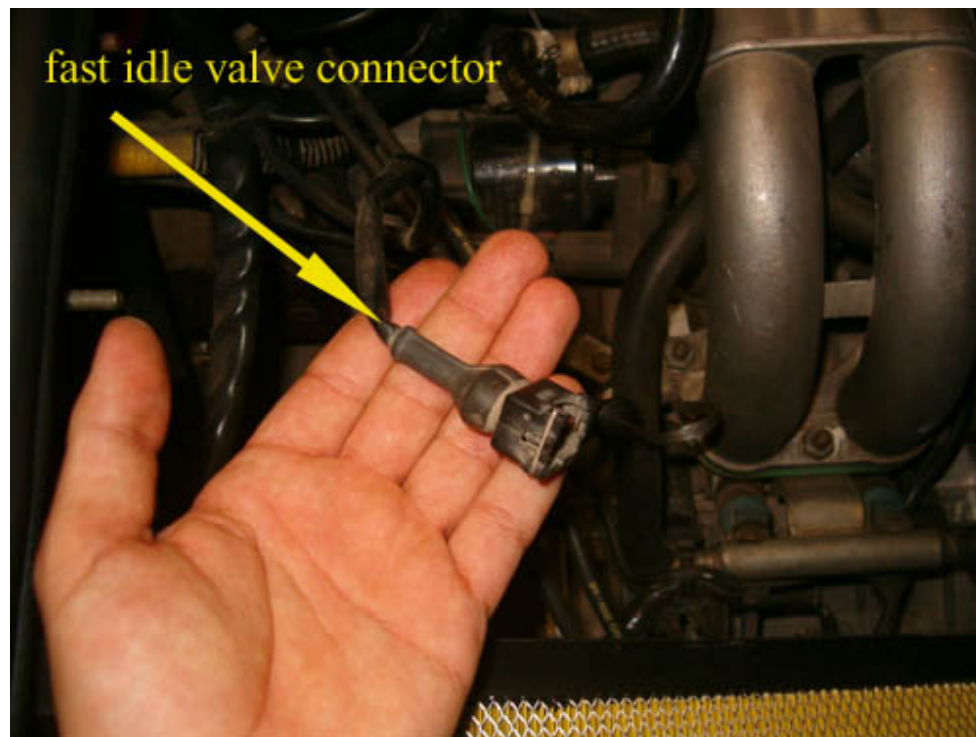
Remove 3 bolts securing ECU to bracket and corrugated sleeve



Do the same for the nuts securing bracket to chassis; two on the front ...



... and two on the back



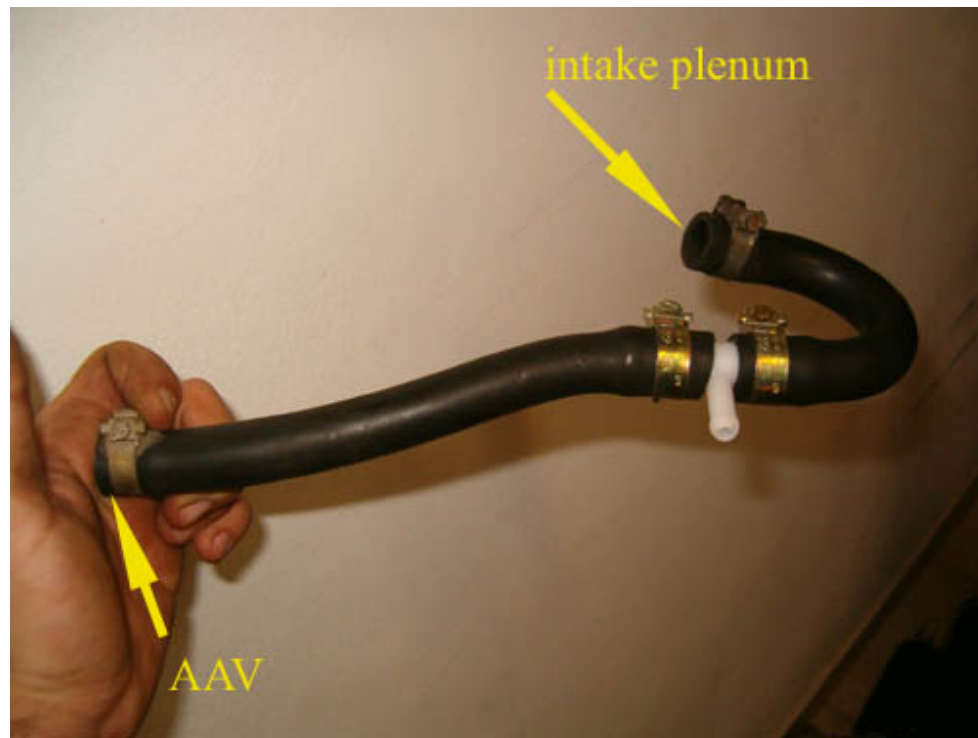
Demonstrated is the fast idle connector integrated to the harness of the vehicle





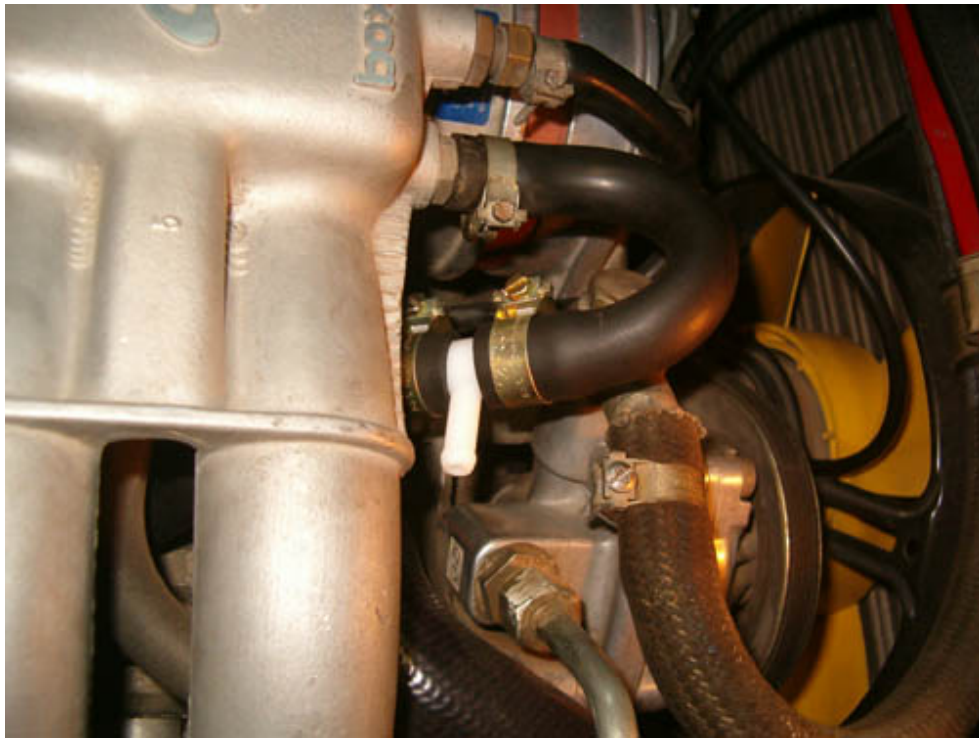
Measure the distance of the mounting spots on the valve and drill two holes on the bracket.

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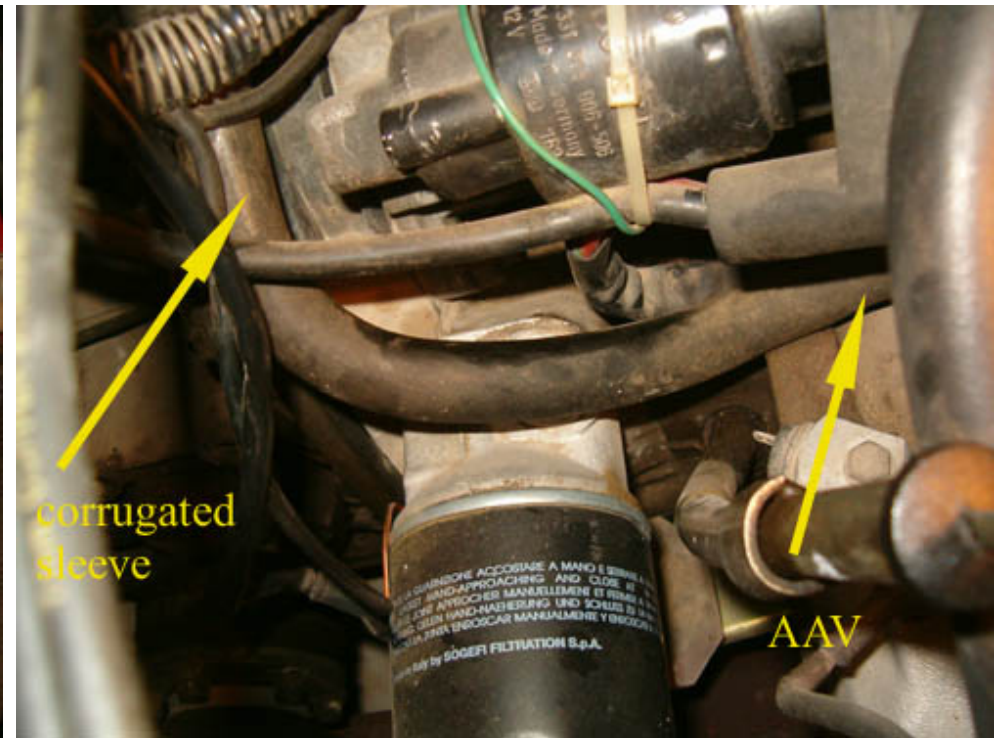


We will now create the bypass upstream the AAV. Be sure to get hold of the T connectors like the one shown in the picture above. We will need to cut the already existing hose at the specific spot; the hose should look like above.

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Pipe is in place.



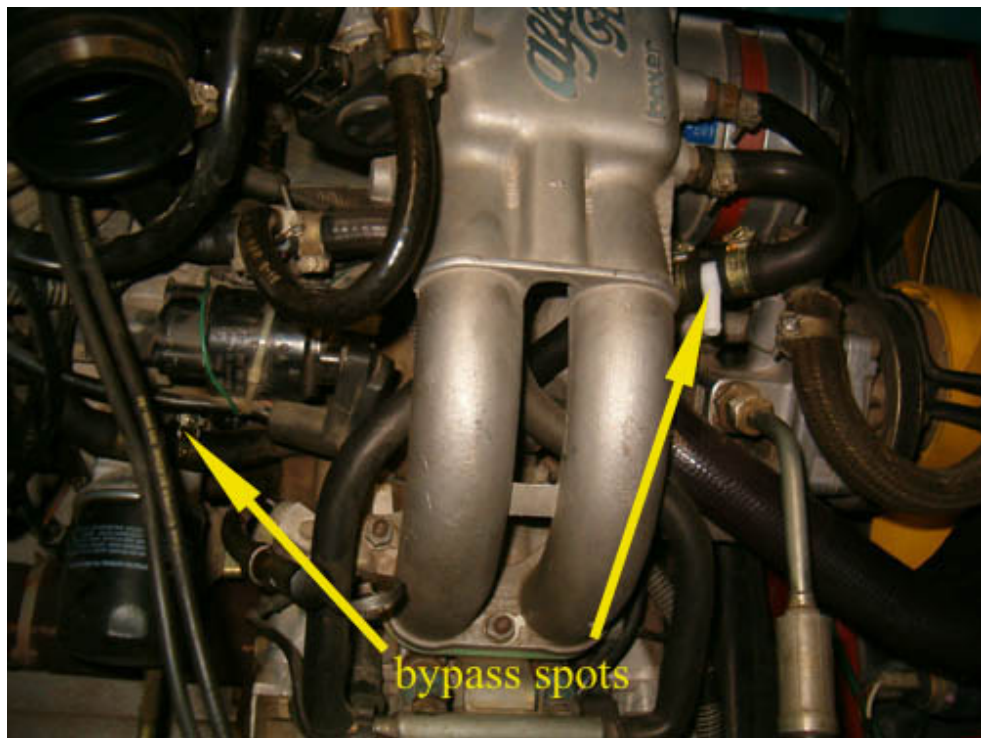
Let's now create the bypass downstream the AAV.



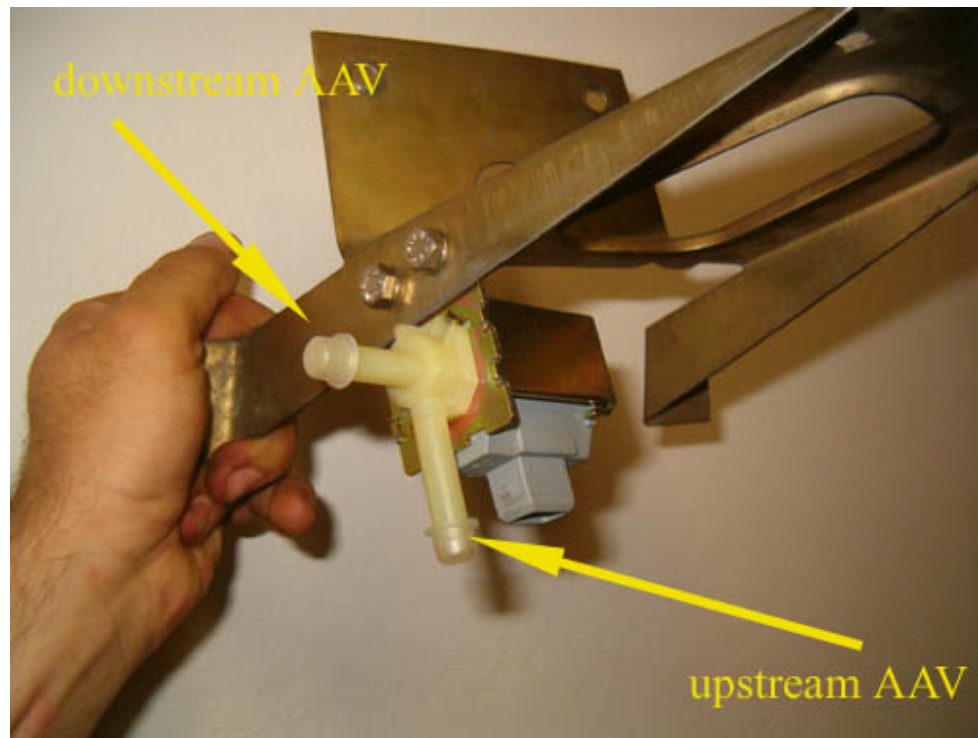


We will cut the pipe at the specific spot and install the T connector

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A more comprehensive look of the bypass spots upstream and downstream the AAV



Install fast idle valve on ECU bracket ...



and connect an 8mm vacuum hose as seen on the picture. (you will need around 1m of hose)

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Do the same for the upstream AAV connection (vertical pipe); don't forget to attach connector



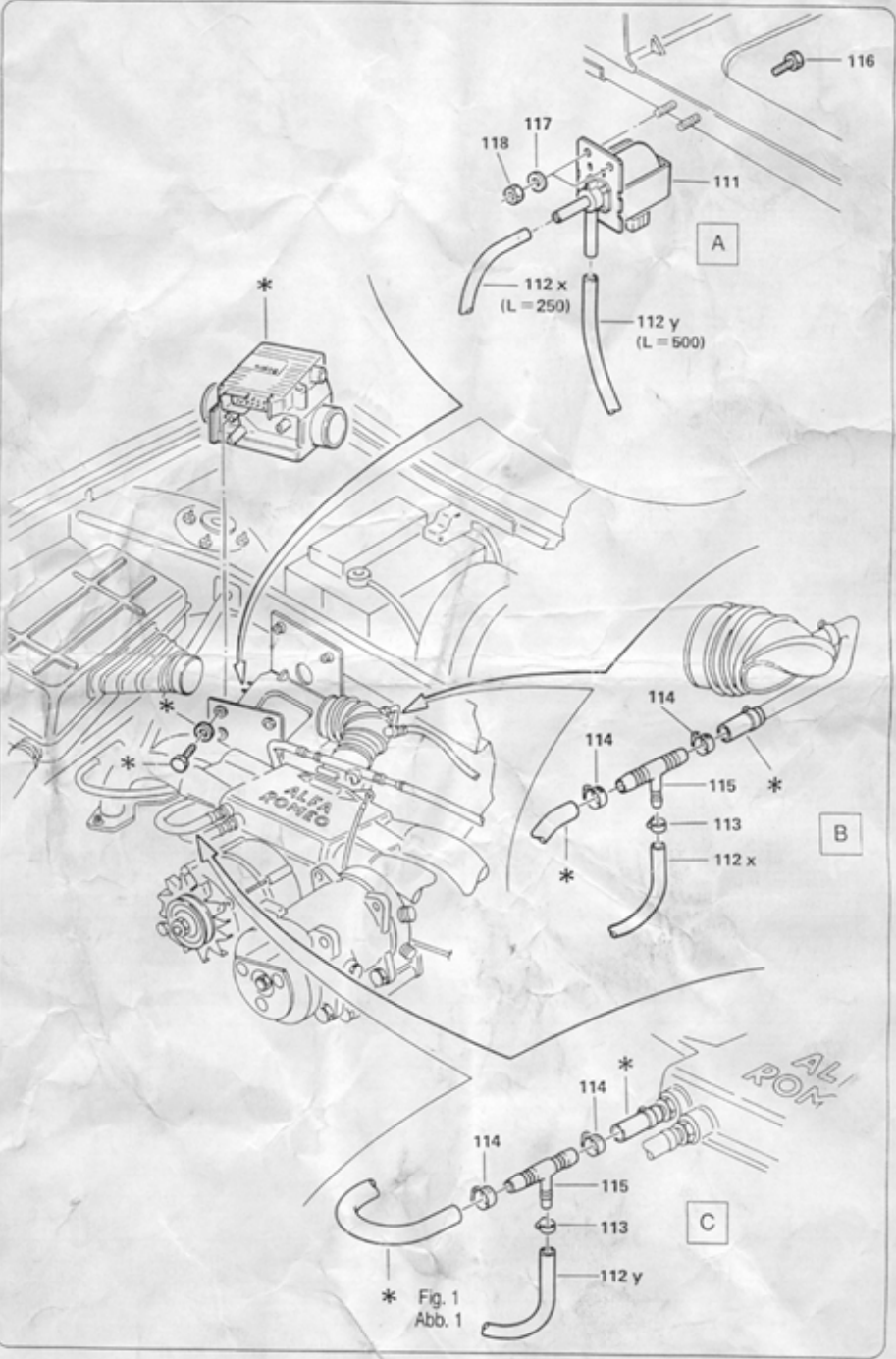
The setup should look like that.

A note here about the fast idle valve. This valve is a common part (part no. 7539889) with Fiat and Lancia vehicles so it wouldn't be difficult to find. However, it is quite expensive (costs around 100 €) and the hoses connecting upstream and downstream the AAV are also high priced (around 80 €). The best practice is to find the fast idle valve at an auto electric shop specialized at Italian vehicles where you can possibly find it in lower prices or even a second hand one. Don't worry about second hand ones since this valve actually permits or blocks air flow; so there is little that can go wrong with a second-hand one.

I was lucky to find this valve at the price of 40 € not including T connectors and pipes; however this was not of a problem since T connectors are really cheap and vacuum hoses are easy to find at the local auto parts store.

The factory diagrams below show an exploded view of the fast idle valve installation

NUOVA 33 - i.e.



NUOVA 33 - i.e.

Elenco dei componenti - Components list - Liste des composants - Aufstellung der Einzelteile - Lista de componentes

Pos. Pos. Pos. Pos.	Denominazione Nomenclature Dénomination Benennung Denominación	R R R R	Codice Code Code Code Código	Quantità Quantity Quantité Menge Cantidad
-	KIT MINIMO VELOCE	R	60791018	1
	FAST IDLE KIT			
	KIT RALENTI RAPIDE			
	KIT FÜR LANGSAM/SCHNELL			
	KIT MINIMO RAPIDO			
111	Elettrovalvola a due vie	R	60800266	1
	Two-way solenoid valve			
	Electrovanne à deux voies			
	Zweiweg-Elektroventil			
	Electroválvula de dos vías			
112	Tubo vuoto Ø 6 x Ø 12 x L=750	R	60777101	1
	Vacuum pipe Ø 6 x Ø 12 x L=750			
	Tuyau de vide Ø 6 x Ø 12 x L=750			
	Hohlrohr Ø 6 x Ø 12 x L=750			
	Tubo vacío Ø 6 x Ø 12 x L=750			
113	Fascetta SERFLEX 10 + 18		60800877	2
	SERFLEX 10 + 18 clamp			
	Languette SERFLEX 10 + 18			
	Schelle SERFLEX 10 + 18			
	Abrazadera SERFLEX 10 + 18			
114	Fascetta SERFLEX 15 + 24		60800878	4
	SERFLEX 15 + 24 clamp			
	Collier SERFLEX 15 + 24			
	Schelle SERFLEX 15 + 24			
	Abrazadera SERFLEX 15 + 24			
115	Raccordo a T		60777092	2
	Tunion			
	Raccord en T			
	T-Verschraubung			
	Racore en T			
116	Vite T.E. M6 x 14			2
	Hex screw M6 x 14			
	Vis tête hex. M6 x 14			
	Sechskantschraube M6 x 14			
	Tornillo C.H. M6 x 14			
117	Rondella dentellata Ø 6,5			2
	Notched washer Ø 6.5			
	Rondelle crantée Ø 6.5			
	Zahnscheibe Ø 6.5			
	Arandela dentada Ø 6.5			
118	Dado E. M6			2
	Hex. nut M6			
	Ecrou hex. M6			
	Sechskanmutter M6			
	Tuerca H M6			
119	Cablaggio		60777093	1
	Wiring harness			
	Câblage			
	Verkabelung			
	Cableado			

