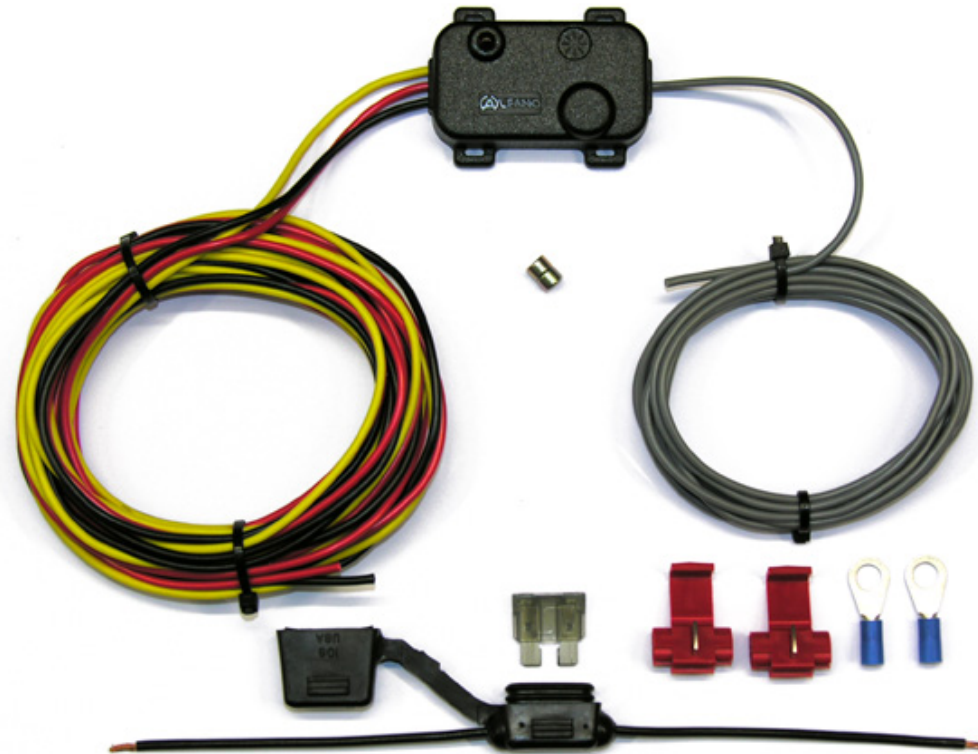


RPM amplifier

Application : It is an electronic amp with microprocessor which adapts the RPM signals coming from nearly all types of engines on ALFANO data acquisition systems.



Installation

- « RED (+) » and « BLACK (-) » wire supplies power to the module :

Connects to the positive and negative (12 Volts) of the battery. Length **450cm / 177.1inch**

- « GREY » wire is the RPM transmitter :

Connects to the ALFANO : Port « G ». Length **100cm / 39.4inch**

- « YELLOW » wire is the RPM signal sensor :

Connects to the engine ignition. Length **450cm / 177.1inch**

Red LED lighting up for
RPM presence signal



The configuration is done at this place
with the little magnet.

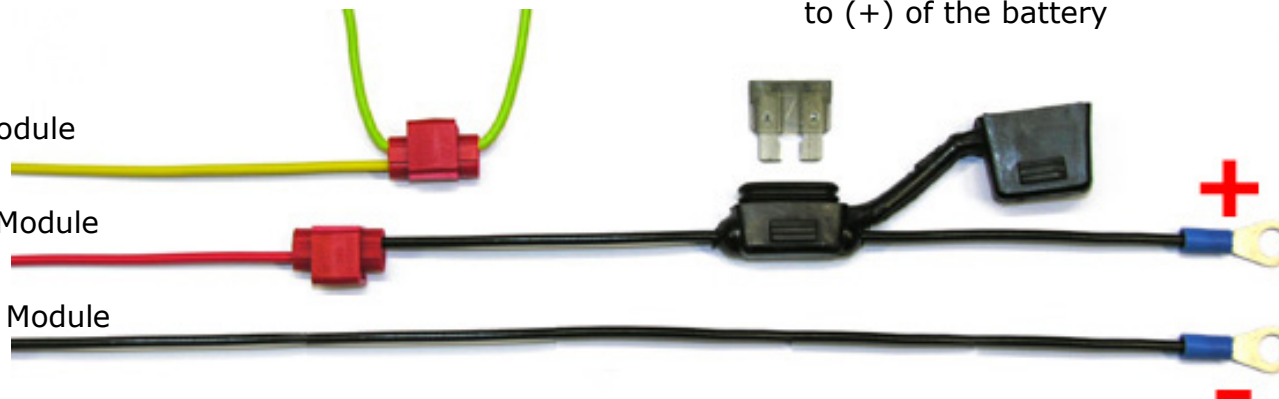
Wire carrying RPM signal of the vehicle
(wire colour depends on manufacturer)

Fuse box with fuse to connect
to (+) of the battery

« Yellow » wire Module

« Red » wire (+) Module

« Black » wire (-) Module



Cable terminals to set

The installation procedure has 4 stages

- I. Installation of the A451 module onto the vehicle**
- II. How to find the RPM signal on the majority of ignitions**
- III. Configuring the A451 module**
- IV. Configuring the ALFANO**

I. Installation of the A451 module onto the vehicle

- 1) Connect the red (+) and black (-) wires to the battery or to the vehicle power circuit with the fuse box.
- 2) Connect the « Grey » wire (RPM transmitter) into the « G » port of your ALFANO.
- 3) Finally, look for the wire carrying the RPM signal on the vehicle ignition to connect the « yellow » wire.

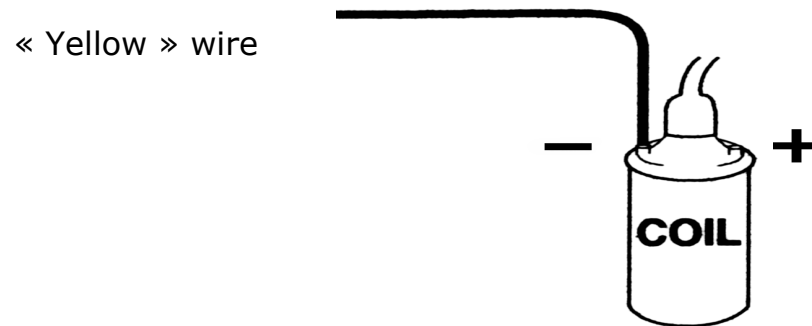
IMPORTANT

- Avoid to install the module to close to the engine.
- Install the A421 onto the vehicle, close to the ALFANO.

II. How to find the RPM signal on the majority of engine ignitions

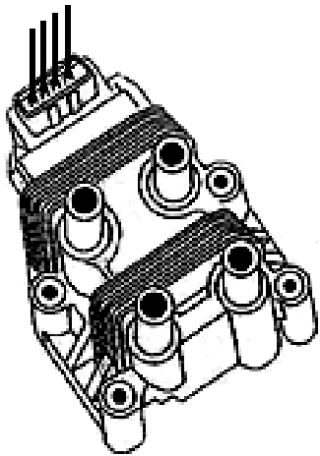
A) Traditional high voltage coil :

Connect the "Yellow" wire of the A451 module to the negative terminal of the coil.



B) High voltage coil (twin static type) with 2 wires and more :

A single wire is capable of providing you with the RPM signal on the majority of ignitions. You have to locate it to connect electrically the RPM sensor to the "Yellow" wire of the A451 module.



Tip: to avoid damaging the insulation of the wires connected to the coil when looking for the RPM signal, use a (sewing) pin and stick it into one of the wires: make sure the pin pierces the wire right to the centre to obtain electrical contact. Strip the "Yellow" wire of the A451 module and twist it around the pin. **BE CAREFUL of short-circuits.**

Turn the engine over at idling speed and watch the red LED on the module (see page 2) : the LED will light up when in contact with the wire carrying the RPM signal. If this does not happen, repeat the operation on the other wires until the red LED lights up.

C) High voltage coil located on the spark plug, with 2 wires or more :

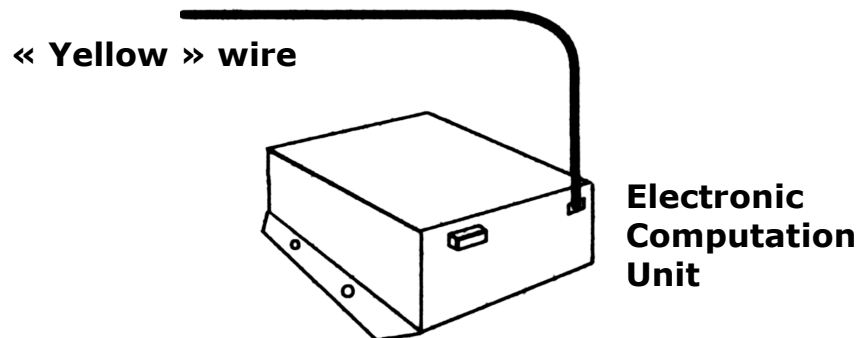


Those wires come from the electronic case. **ATTENTION:** the connection has to be done on the electronic case side and not on the coil side.

The procedure for looking for the wire carrying the RPM signal is the same as that described for the (twin static) high voltage coil above.

D) Electronic computation unit:

On electronic units, such as GM, HEI or MSD, you will find a special terminal "TACH" : connect the "Yellow" wire of the A451 module to it.



To guarantee long-lasting operation, carry out the wiring correctly in accordance with automobile standards.

III. Configuring the A451 module

Once the module is installed, it must be configured.

- 1) Turn the engine over at idling speed (DO NOT ACCELERATE)
- 2) Then, just put close to the RPM amplifier during 2 seconds a little magnet (see page 2).

IV. Configuring the ALFANO

This operation is to ensure the RPM is displayed correctly on your ALFANO.

- 1) Turn the engine over at idling speed (DO NOT ACCELERATE)
- 2) On the « RPM » menu of your ALFANO, use the right-hand button to select the correct unit to display the right RPM.

<u>On the versions :</u>	PRO+ (V1.05.00)	A-141
	AStrO (V2.05.00)	A-151
	AStrO formula 4T (V4.05.02)	A-162

The following units are available :

(/8) (/4) (/2) (X1) (X2) (X4) (X8)

<u>From the versions :</u>	PRO+ (V1.05.06)	A-141
	AStrO (V2.05.06)	A-151
	AStrO (V2.05.06)	A-152
	AStrO formula 4T (V4.05.06)	A-162
	PRO+ LV	A-145
	AStrO LV	A-155
	AStrO formula LV	A-165 (integrated ampliyer)

The following units are available :

(/10) (/8) (/6) (/5) (/4) (/3) (/2.5) (/2) (/1.5) (/1.25) (X1) (X1.33) (X1.6) (X2) (X4) (X8)

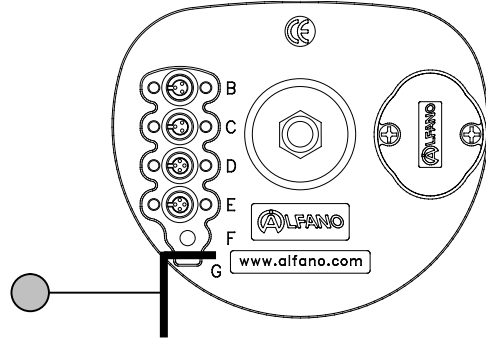
These units will divide or multiply the impulses from the RPM module and the result will be displayed above and on the right of the screen. If you know your idling RPM, all you have to do is find it on your ALFANO.

ATTENTION :

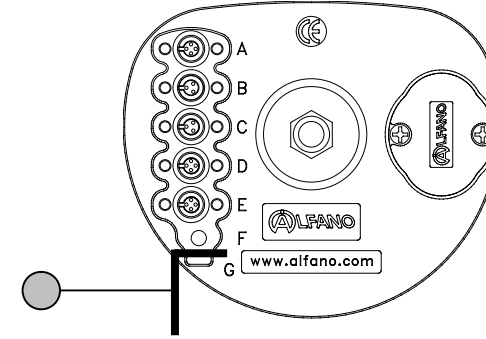
when fixing, take care to move away the most possible the wires of this ampliyer from the other wires, mainly from the type : RPM, high tension of the ignition system wires, to avoid reciprocal interferences.

Adjustings

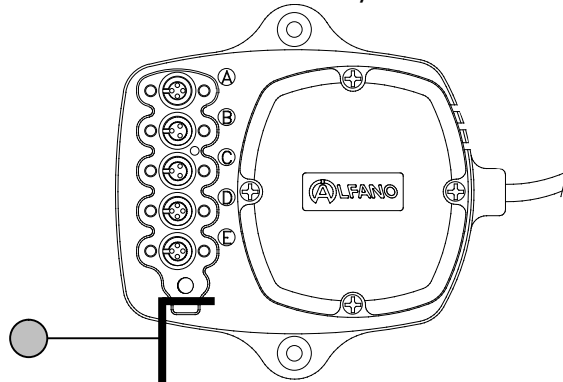
PRO+ / A141
PRO+ LV / A-145



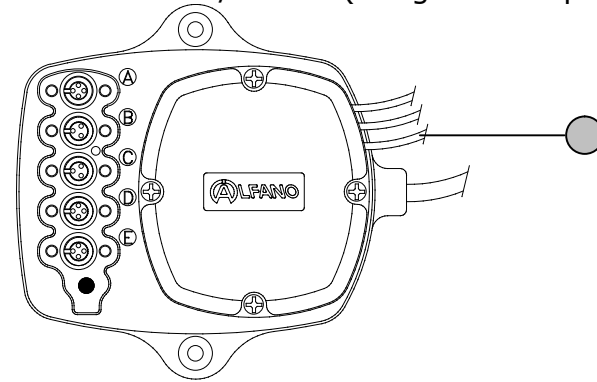
AStro / A-151
AStro 4T/ A-152
AStro LV / A-155



AStro formula 4T / A-162



AStro formula LV / A-165 (integrated amplifier)



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