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PORSCHE 911 1978 to 1989 INSTALLATION GUIDE



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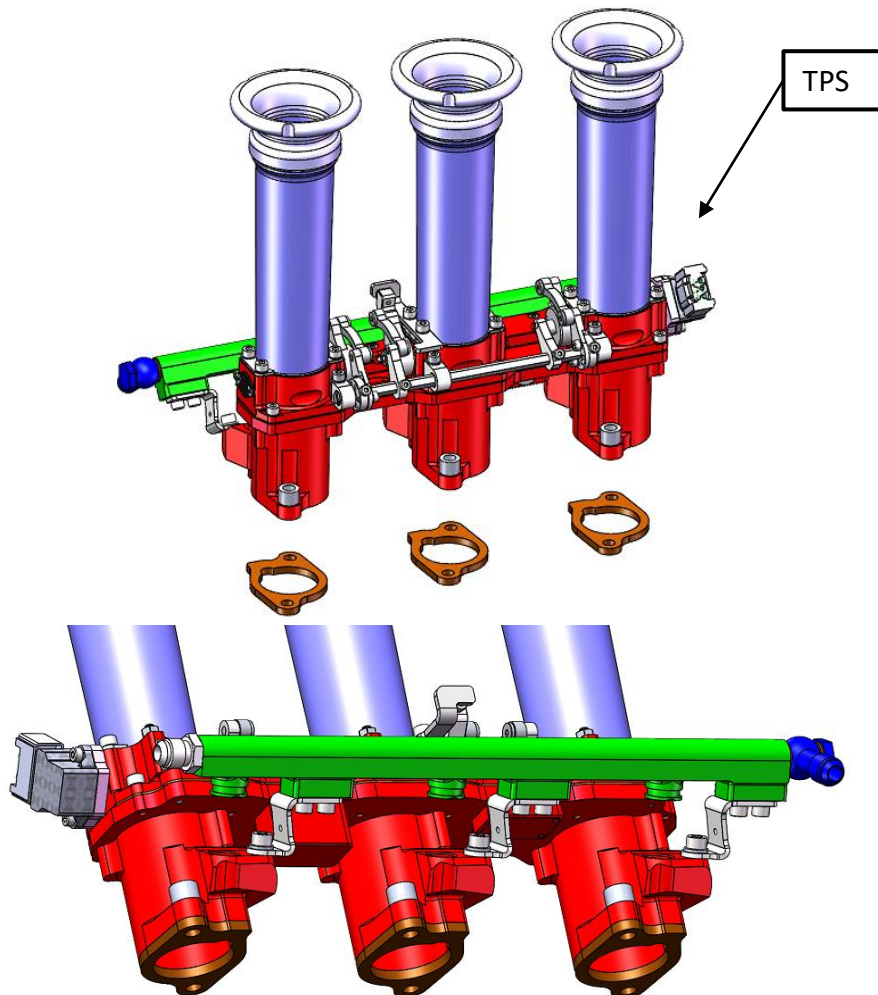
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AT Power throttles come complete with the extensions (runners), ram pipes (trumpets) and fuel rails fitted. Each throttle bank has been factory balanced and the throttle idle set at minimum idle position.

Before fitting the throttles, remove the fuel rails by undoing the three M6 bolts joining the fuel rail to the throttle housings and fit the fuel injectors. The fuel rail mounting brackets that have been fitted as standard are for Pico Injectors.

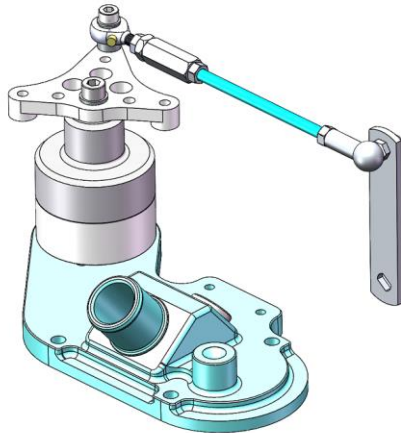
If you wish to use alternative injectors please contact AT Power for details.

AT Power recommend Pico 377cc injectors up to 350HP.

The throttles can now be fitted to the engine intake using the thermal gaskets included. Spacers have been provided to allow the use of the existing mounting studs and nuts.

The throttles come with a Novotechnik RSC3200 TPS fitted to the left throttle bank as shown.

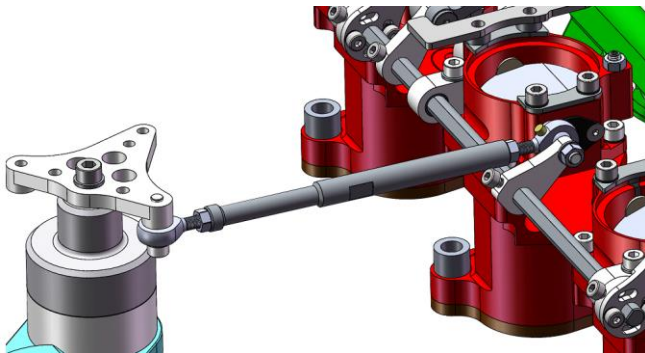
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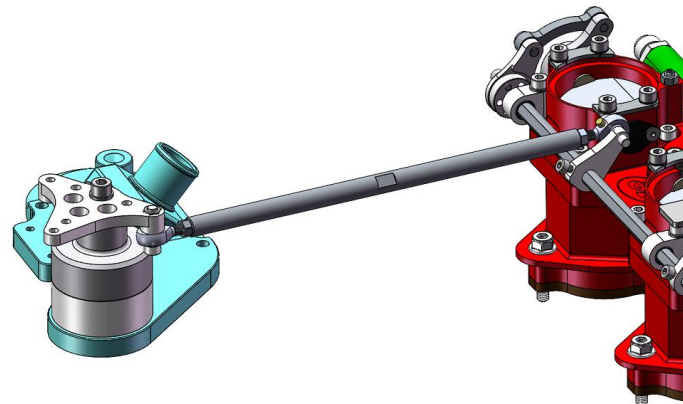
The existing OEM engine oil breather cover needs to be removed and the AT Power central linkage mechanism should be fitted (gasket not supplied).
(do not fit the throttle cable at this stage)

The short link arm should now be fitted as shown below. With the 2 locking nuts loose, set the centres between the 2 rod eyes at approximately 169mm and tighten the locking screws.

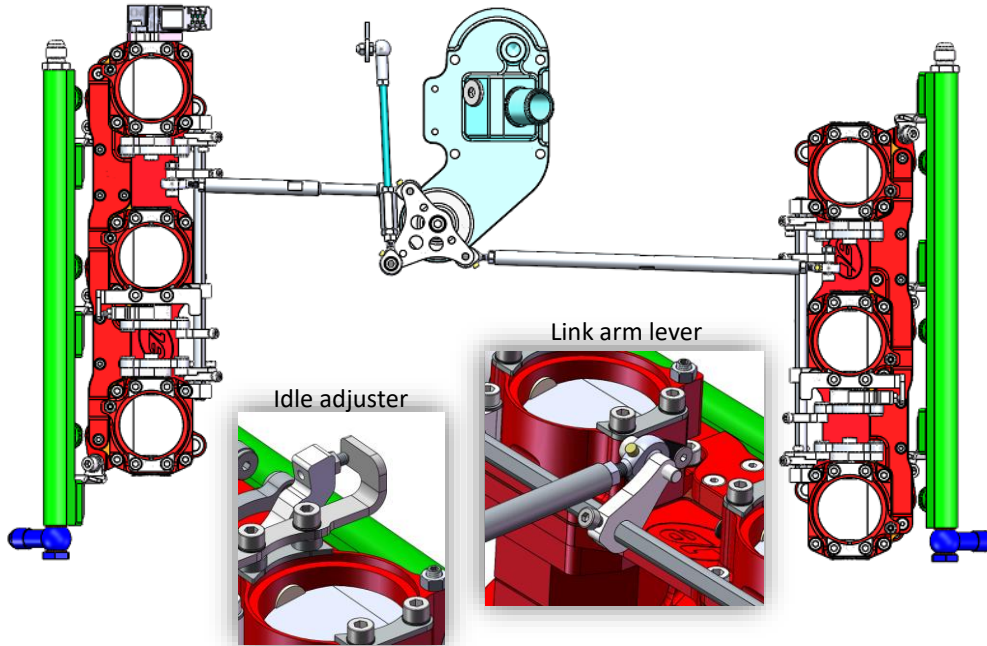
(use two 8mm spanners for the nuts and link arm)



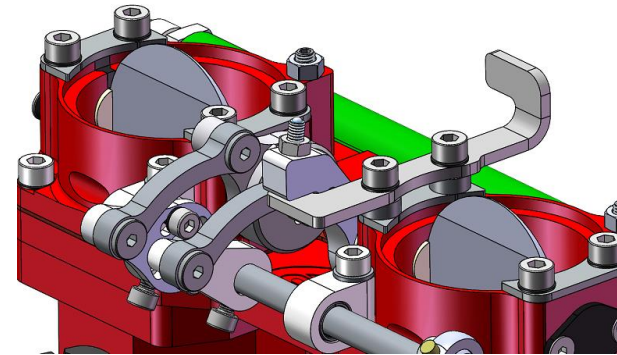
After connecting the short link arm, connect the long link arm as shown.



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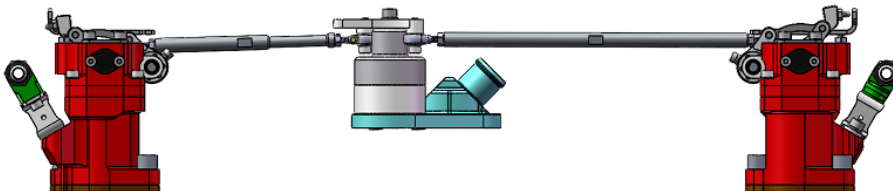


Because the 2 link arms are different lengths, it is important to ensure the link arms are horizontal and parallel as shown. The long link arm lever (shown in detail view), can be adjusted to align the long link arm so that they are parallel. Adjust the length of the long link arm so that both throttle banks open and close uniformly and that both throttles open fully.

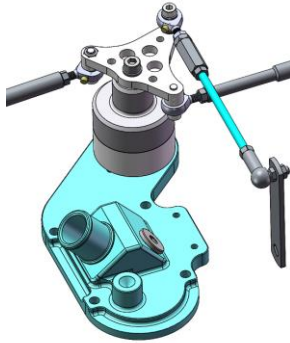


When the throttles are fully open, the idle adjuster arm will hit the idle adjuster bracket as shown above.

Although it is not critical that both idle adjusters hit the idle adjuster bracket, it is an indication on whether the throttle banks are opening uniformly.

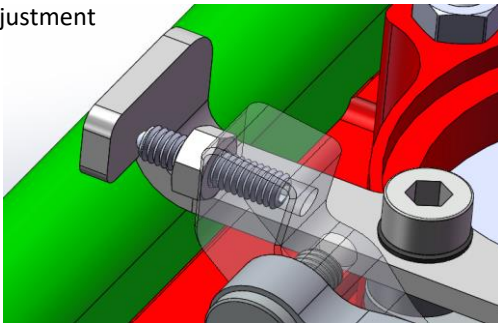


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The link arm to the throttle linkage plate can now be fitted as shown. The threaded rod between the ball joint and the hexagon turn buckle may require shortening before fitting, depending on the year and model of the engine. The throttle pedal should operate so that the throttles begin to open simultaneously with the throttle pedal movement. The throttles should then be fully open with the throttle pedal fully depressed.

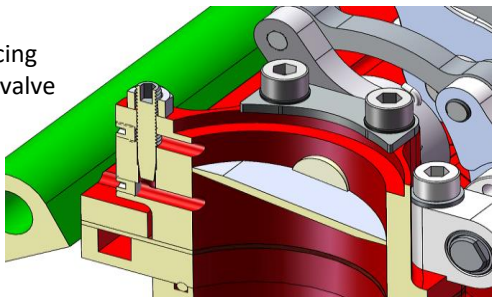
Idle adjustment



Each throttle bank has been factory balanced and idle set at minimum idle position. It may be necessary to partially open the throttles before starting the engine to obtain sufficient rev's. If this is required, ensure both idle adjusters are adjusted evenly. The engine can now be started.

Although AT Power have factory balanced the throttles, AT Power recommend that a syncrometer is used to balance each inlet. Adjust the idle speed so that the engine is running between 1000 and 1200 rpm.

Balancing bleed valve

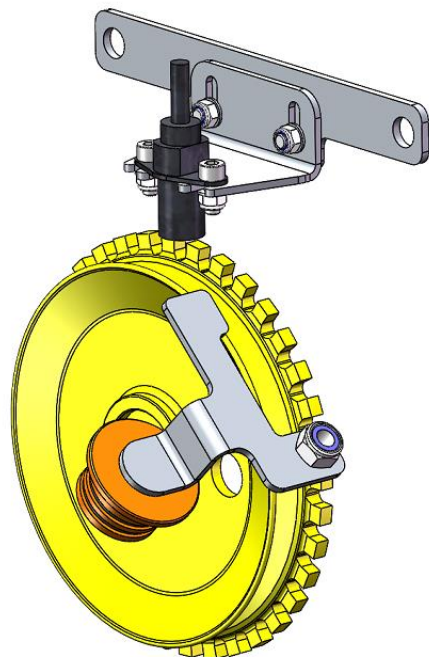


On each of the individual throttle housings, there is a balancing bleed valve. Using a syncrometer, check each inlet and adjust the bleed valve if necessary.

(any adjustment may alter the rev's of the engine).

Once all the inlets are balanced, the idle speed can be adjusted to the required idle speed.

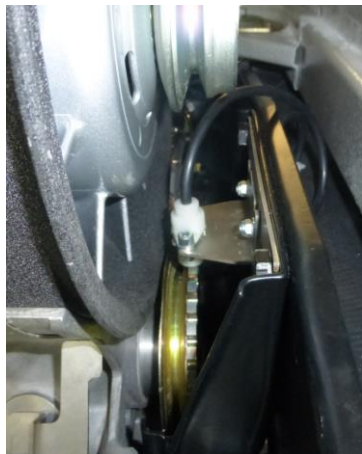
PORSCHE 911 1978 to 1989 INSTALLATION GUIDE
With full kit orders FOR THE 911 3.0L-SC 1978 -83 ONLY



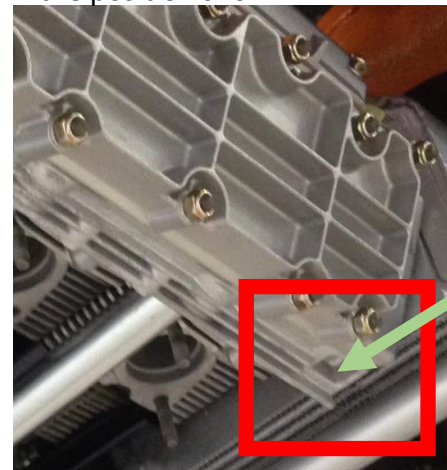
For the Porsche 911 3.0L-SC 1978-83 engine, part of the ECU kit will include a replacement fan belt pulley with a trigger wheel and sensor. The distributor should be removed and the distributor plug fitted. The OEM fan belt pulley should be removed and replaced with the new pulley that has a built in trigger wheel. The sensor mount should be fitted to the inside of the engine mounting bracket cradle and adjust the sensor to be between 0.8mm - 1.0mm gap.



Distributor plug fitted



Also included, is an engine temperature sensor and mount. This should be fitted to the fin on the underneath of the left hand side cylinder head – nearest to the back of the car in the position shown.

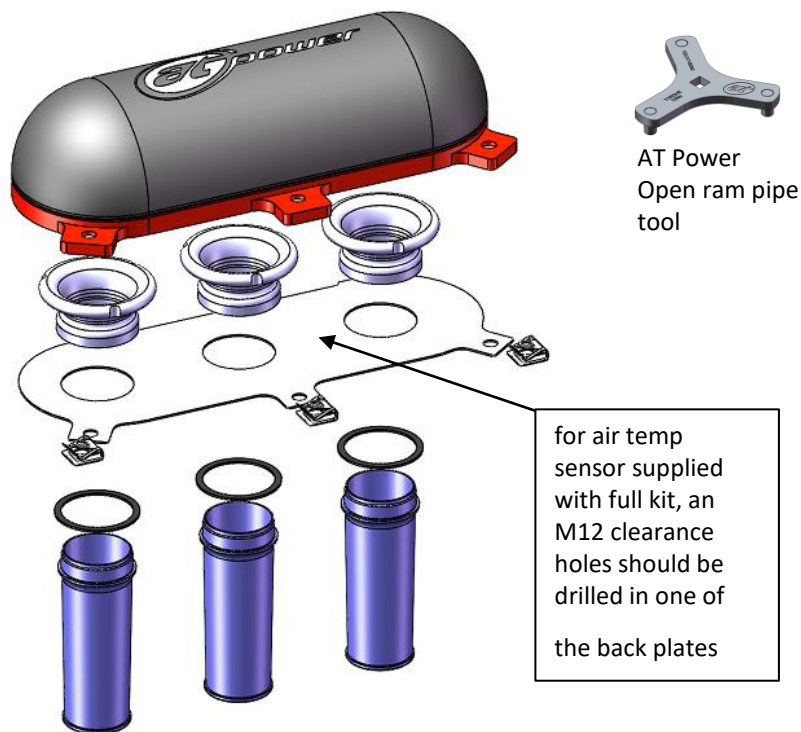


A coil pack and a set of HT leads will be supplied with a mounting bracket allowing the coil pack to be fitted to the bulk head.

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If Megaflow air filters have been purchased, they can now be fitted. One ram pipe (trumpet) washer should be placed under the Megaflow back plate and the Ram pipes (trumpets) should be fitted using the AT Power Ram pipe (trumpet) Tool.

(maximum torque required 8-10Nm)



If mesh filtered ram pipes (trumpets) have been purchased, two ram pipe (trumpet) washers should be used and fitted using the AT Power Ram pipe (trumpet) Tool.

(maximum torque required 8-10Nm)

An M12 air temp sensor bracket will be supplied with the full kit



With large bore ram pipes (trumpets) no washers are required and should be tightened using a 'C' spanner.

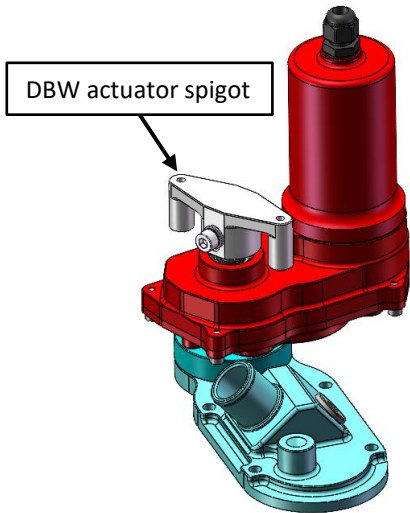
(maximum torque required 8-10Nm)

An M12 air temp sensor bracket will be supplied with the full kit



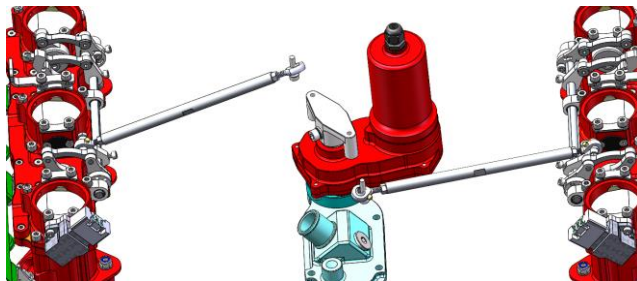
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DBW APPLICATIONS



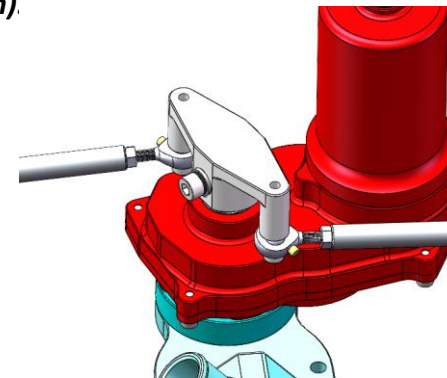
Motor connection details.
Red wire = + (positive)
Black wire = - (negative)

Connect the 2 link arms to the lever arms on the 2 throttles banks. Rotate the DBW actuator spigot to the fully closed position (as shown in the image above) then slight rotate the spigot away from the internal stop in the actuator.



The existing OEM engine oil breather cover needs to be removed and the AT Power central linkage mechanism should be fitted (gasket not supplied).

Adjust the first link arm and Connect this link arm to the actuator spigot. Adjust the second link arm to be the same length as the first Then offer up the second link arm and measure the amount off adjustment it would need to also connect to the spigot. Remove the first link arm and adjust both link arms by half that amount. Both link arms can then be fitted to the spigot and be the same length. **Make sure the spigot is not hitting the internal hard stop in the actuator.**
(two 8mm spanners for the nuts and link arm to adjust the link arm length).



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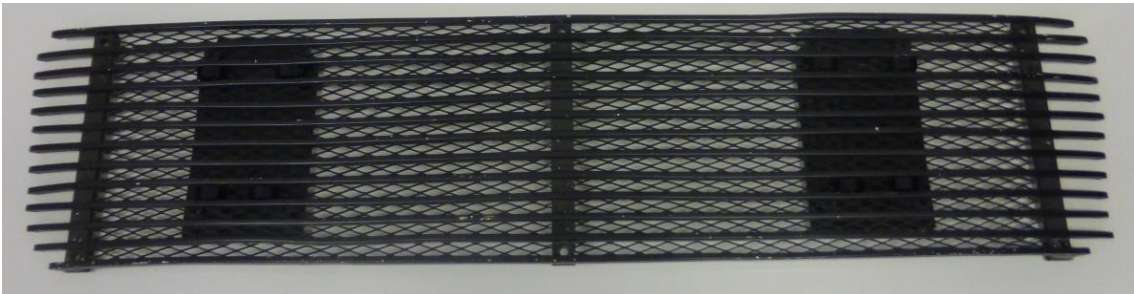
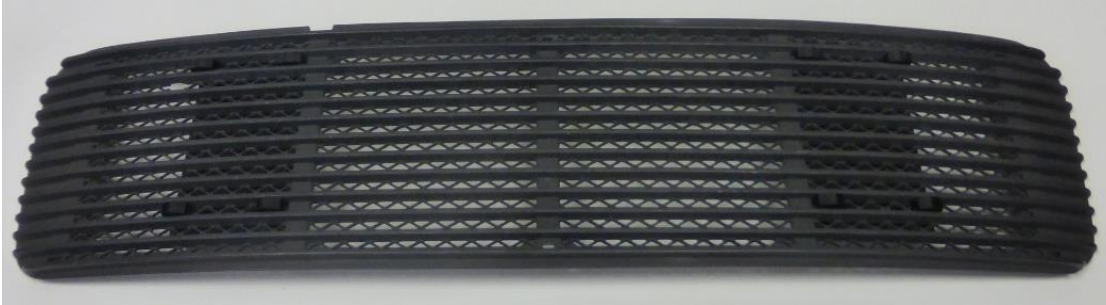
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RAIN GUIDE



With the purchase of full EFI throttle kits, AT Power provide a pair of rain guards to be fitted when Megaflow or mesh filter intakes are used. These guards should be fitted to the underside of the Porsche grill as shown. The rain guard should be positioned over the throttle intake to prevent excess rain water from entering the throttle intake system when the vehicle is stationary. There are 2 bolt patterns on each guard dependant on the model and year of the vehicle.

