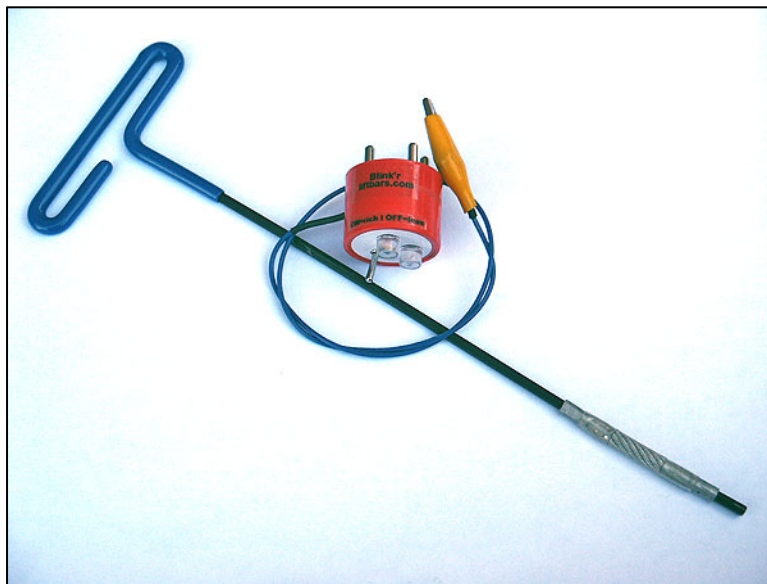# PORSCHE
928

Blink'r Idle/CO Setting Instructions

Tools

7mm socket w/extension, driver handle

Accurate RPM meter (digital timing light)

Voltmeter

Blink'r

Red LED indicates oxygen sensor reading. When MAF is in range, on is rich, off is lean or out of range. Rapid blinking indicates stoic.

Selector switch left is auto, right is idle setting mode.

Yellow LED shows WOT status and if idle is under LH control. On is auto idle, off is idle setting mode and WOT.

If flexible driver is difficult to remove, a long screwdriver can be used to help pull it out of the MAF.

S300s chipset

† Set CO at 680 rpm then:
- 5-speeds, turn screw (2) full turns CCW
- Auto, one turn CCW

‡ Blinking may take a second longer to start when idle switch is set to right. *Have patience.*

Conventions used in text

Left is USA drivers side, cylinders ⅝
Right is passenger side, cylinders ¼

Notes are in italic font.

TDC	0 | T
20°	2 | 0
45°	4 | 5

CW	clockwise, right
CCW	counterclockwise, left
TDC	top dead center

TPS	throttle position switch
LED	light emitting diode
WOT	wide open throttle

Warnings

Engine will not start unless Blink'r selector switch is set to auto.

Notes

Because of their quicker reaction times, a wideband O2 sensor will make adjustment more difficult.

MAF Adjustment

CO adjustment is set with 3mm allen screw which turns a built in 0-1000 ohm, 14 turn variable resistor. CW richens CCW leans. End stops cannot be felt.

Measure between terminals 3 or 4 and 6. *Numbers are cast into MAF connector.*

Adjust for a starting value of 382 ohms.

Align MAF with raised nub on housing to facilitate tool insertion as shown.

ECU connector

MAF adjustment can also be checked at the LH connector.

Removing the package tray will make connector removal much easier!

Push in at the wire bundle end of the connector and release the catch. Rotate connector out and up.

Check resistance between terminals 14 and 25 as shown.

This one is way out of adjustment.

Setup

Adjust MAF to default setting and install as shown above. Engine should be at normal operating temperature (oil temperature >170°).

With engine off, install MAF adjuster tool, throttle body adjuster (7mm socket on driver), and external RPM display. Open diagnostic port cover, and plug in Blink'r. *It can only be plugged in one way.* Clip blue wire to small threads on jump post. Red LED will be lit.

WOT Check

Set idle switch to the left position, away from the yellow LED. Turn ignition to on, but do not start engine. Yellow LED should be lit.

Rotate throttle linkage at engine. Just before the throttle stop is reached, the yellow LED should go out. If it does not, then the TPS or extension wiring/connector is suspect.

Adjustment

Start the engine, and let it settle down. *It may take a few minutes for the O2 sensor to heat up again.* The yellow LED will be on; the red LED may be off or on. Flip the idle switch to the right (yellow LED will go off), and adjust idle speed to 700 ±2 rpm. Flip idle switch to the left. (The engine may rev up.) Idle speed will settle to 680 ±40 rpm†.

If the red LED is off, adjust the MAF screw CW until it is lit. Then, or if the red LED is on, adjust the MAF screw CCW until the red LED stays on for 3-4 seconds, then off for ½-1 second‡. (Automatic idle correction will change the mixture briefly.)

While the red LED is on, flip the idle switch to the right. It should stay on for a short time, and then start flashing rapidly if the adjustment is within range. If it goes off and stays off, then the adjustment isn't quite right, yet. Adjust the idle speed again, if necessary. Wait for the idle to settle, and repeat. *After a few unsuccessful tries, rev up the engine for a few seconds over 1500 rpm.*

Shut off the engine, and check the ohms at the LH plug, to make sure you haven't gone too far one way or the other. The CO adjuster goes from 0-1000 ohms in 14 turns.