

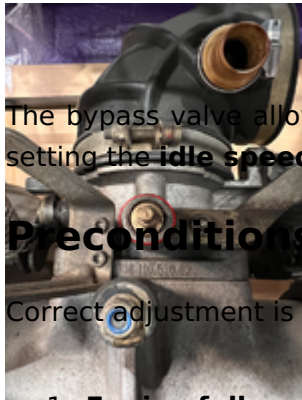
How to Adjust the Air Bypass Valve on a Porsche 3.2 Carrera Engine

Beitrag von „Albert Motorsport“ vom 20. Januar 2026, 10:33

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On the **Porsche 911 Carrera 3.2** (engine types 930/20-930/25, model years **1984-1989**),

idle speed is adjusted via a **mechanical air bypass screw** on the **throttle body**. This engine does **not** use an electronic idle control valve.



The Air Bypass Valve

The bypass valve allows **additional air to flow around the closed throttle plate**, thereby setting the **idle speed**.

Preconditions Before Adjustment

Correct adjustment is only possible if the following conditions are met:

1. **Engine fully warmed up**

Oil temperature approx. **80-90 °C (175-195 °F)**

2. **All electrical loads switched off**

Lights, blower fan, air conditioning off

3. **Ignition timing correctly set**

Approx. **3-5° BTDC at idle** (depending on model year)

4. **No vacuum leaks**

Check intake hoses, vacuum lines, and throttle shaft

5. **CO mixture not altered**

CO is adjusted separately at the airflow meter using an exhaust gas analyzer

Location of the Air Bypass Screw

- Located **on top of the throttle body**
- Slotted screw (sometimes Allen/hex)
- Easily accessible from above

Adjustment Procedure (Step by Step)

1. **Start the engine and let it idle (fully warm)**
2. **Check idle speed**
 - Target value: **800 ± 50 rpm**
3. **Adjust the bypass screw**
 - **Clockwise (in)** → less air → **idle speed decreases**
 - **Counterclockwise (out)** → more air → **idle speed increases**
4. Make adjustments in **¼-turn increments**
5. Wait a few seconds after each adjustment for the idle to stabilize
6. Set a smooth, stable idle at the specified rpm

Important Warnings !

- **Do not use the bypass screw to adjust the CO mixture**

- CO adjustment must be done **only** at the airflow meter and **with proper measuring equipment**
- If idle speed barely changes during adjustment, likely causes include:
 - Vacuum leaks
 - Dirty throttle body
 - Faulty idle microswitch

Common Idle Problems

- **Hunting or surging idle** → vacuum leaks or idle switch issues
- **Idle too high even with screw fully in** → unmetered air leak
- **Engine stalls** → bypass screw too far in or mixture too lean

Best regards
Jürgen Albert