



Porsche 996 3.6L TT

Unichip PnP Installation Instructions

and Warranty Information

v1.0, 17 Oct 2005

Tools Required

10mm socket, 1/4-inch or 3/8-inch ratchet, 6-inch ratchet extension, and a 10mm combination wrench

Installation Procedures

Notes: (1) When the battery is disconnected, the doors, hood, and trunk lock. Although you can manually unlock the doors with the key, you will not be able to open the front hood if you close it after disconnecting the battery. To preclude a problem, open the car's windows and securely prop open the hood before disconnecting the battery.

(2) All plugs in this installation are locking units keyed such that they only fit into the correct connector. Most plugs use a release lever which must be released by depressing a small pin on the rear of the plug just "inside" the lever. The release lever plugs must have the lever rotated "up" away from the plug before they can be inserted into the connector. The release lever must be rotated "down" as the plug slides into the connector and the locking pin must "click" to ensure the plug is secure. Plug 5 is different and only has a button on the top which must be depressed to release the plug. Plug 5's button also "clicks" when the plug is correctly positioned.

(3) The Cabriolet and Coupe ECU location, and the Unichip installation procedures are different; these instructions have procedures common to both and procedures unique to each.

1. Connect the two PnP harness looms.

- a. (Photo 1) Your PnP harness was shipped as three separate wiring looms. Insert **Loom 1's** plug labeled **PnP Case** into **Loom 2's** case's center connector.

Note: Do not insert Loom 1's **PnP Case** plug into the OE ECU.



2. Disconnect the battery

- a. (Photo 2) Open the trunk and remove the plastic battery cover in the center near the rear bulkhead. It is secured with tabs you can turn by hand. Using the 10mm wrench, disconnect the negative terminal.



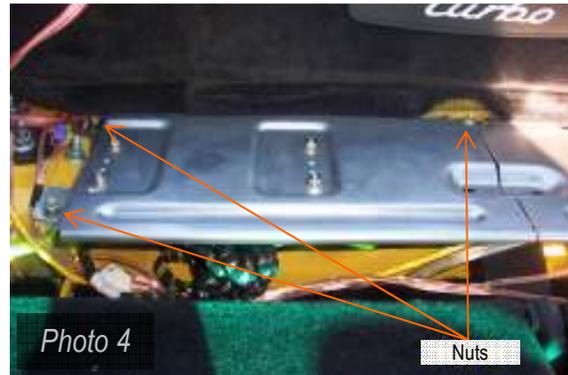
3. Expose the ECU

- a. (Photo 3) Fold down the rear seats and remove the carpeted shelf behind them. The shelf is not secured with any fasteners.

Note: If your car has the optional Bose Audio system, you must remove speaker mount which requires a Torx socket.



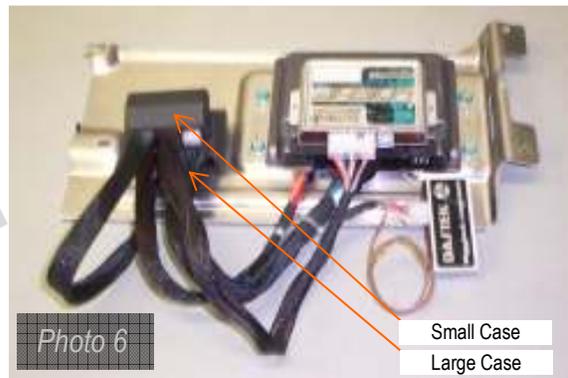
- b. (Photo 4) Using the 10mm socket, remove the three nuts securing the ECU tray. On some vehicles, the fasteners are bolts rather than nuts.



- c. (Photo 5) Lay the ECU tray against the rear bulkhead.

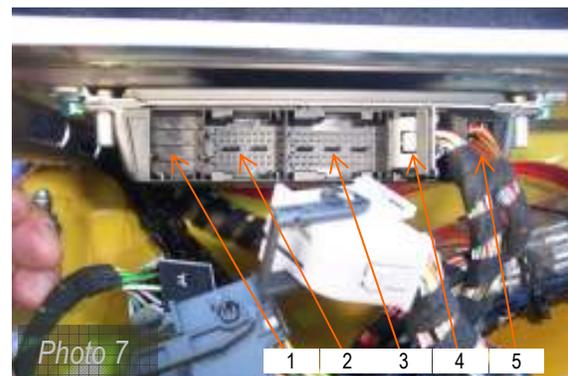


- d. (Photo 6) Attach the PnP cases to the ECU tray next to the OE ECU. Use a Velcro strip to secure the larger case to the ECU tray. Use another Velcro strip to mount the smaller PnP case on top of the large case. Photo shows the tray flipped over for clarity.



- e. Install the Driver Module.
- i. Attach a kit supplied Velcro strip to the driver module's back side.
 - ii. Connect the PnP loom's 8-Pin Molex connector labeled "Driver" into the Driver Module
 - iii. Attach the Driver Module to the ECU tray with the Velcro.

- f. (Photo 7) Working from left to right, remove from OE ECU plugs 1, 2, and 3. Insert OE Plug 3 into PnP case's big connector port; then insert PnP **Plug 3** into the OE ECU. Replace OE plug 2 and 1 into the OE ECU.



- g. (Photo 7) Remove OE plug 5 and insert it into the PnP case's small connector. Insert PnP **Plug 5** into the OE ECU. Note: Plug 4 is removed in the photo for clarity and does not have to be removed to install **Plug 5**.

4. Install the Unichip Computer

- a. (Photo 8) Using two Velcro strips, attach the Unichip to the OE ECU as shown in Photo 5 above. The forward edge of the Unichip and the OE ECU should be aligned.
- b. Insert the PnP **To Unichip** Plug into the Unichip computer's 18-pin connector.



5. Install the Map A/B & Pwr Cut Cable into the connector in the small black PnP case.

- a. Position **Loom 3** as desired. It can simply be looped around under the rear shelf. It can alternatively be routed where you want or the switches can be permanently installed. Loom 3 must be installed or the car will not start.
- b. Verify the **ECU Pwr** switch is in the on ("1") position and the **Map A/B** switch is in the Map A position ("0").

Note: (1) Do not install Loom 3 into the 6-pin connector on the Unichip. Installing Loom 3 into the Unichip can damage both the Unichip and the harnesses.

(2) The car will not turn over or start with the ECU Pwr switch in the off ("0") position.

6. Replace the ECU Tray

- a. Place the PnP grounding grommet (single brown wire) over the ECU tray's rear center nut or bolt.
- b. Using the 10mm socket, secure the ECU tray with its three retaining nuts or bolts as appropriate.

7. Replace the rear shelf.

8. Reconnect the battery

- a. Using the 10mm socket, reconnect the negative terminal
- b. Replace the plastic battery cover.

Cabriolet Installation Instructions

1. **Open the Cabriolet top.** Partially open the Cabriolet top so there is about a three inch gap above the windshield.

Note: Use care not to move the Cabriolet top once the steel cables are removed because the top and the body cover may jam.

- a. (Photo 9) On each side of the car, disconnect the steel cables which secure the rear portion of the top to the car.

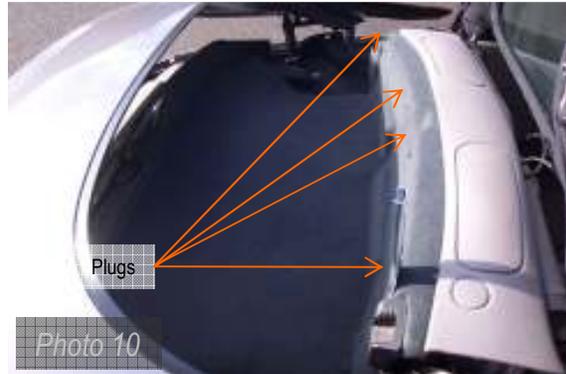
Note: The connectors pop off with light pressure.

2. **Access and disconnect the battery as shown in the Coupe procedures**



3. Expose the ECU

- a. (Photo 10) Locate the four plastic plugs securing the cargo area liner to the tub and using common screwdriver, gently pry them out.
- b. Remove the cargo area liner; the ECU is mounted vertically on the forward bulkhead on the passenger's side.



4. Install the PnP Harness

- c. Remove the top three and the bottom OEM plugs from the OEM ECU.

Notes: (1) The PnP harness only connects to the center and bottom OEM ECU plugs, but to gain access to the center plug, the top two plugs must be removed.

(2) To remove the plugs, depress the button and rotate the locking lever.

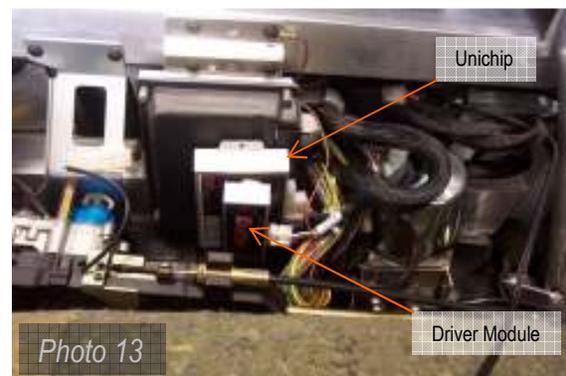
(3) All plugs in this installation are keyed such that they only fit into the correct connector; if a plug is difficult to insert, double check you are trying to put it into the correct location.

- d. (Photo 11) Install the PnP harness Plugs labeled **Plug 3** into the OEM ECU's center connector, and PnP harness **Plug 5** into the bottom OEM ECU connector.
- e. Replace the OEM plugs into the top two.
- f. Install the two OEM plugs into the proper connector in the larger PnP case.
- g. (Photo 12) Connect the PnP harness's brown grounding wire to the top most screw securing the ECU bracket to the tub.



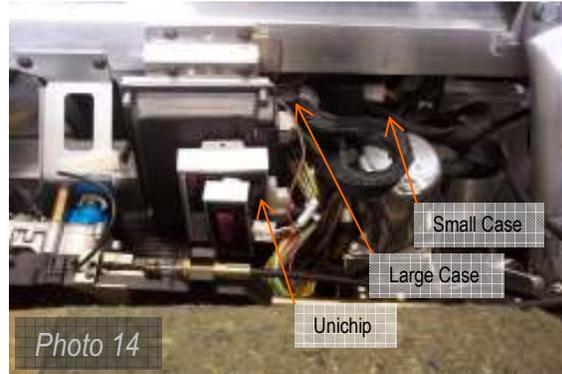
5. (Photo 13) Install the Unichip Computer and Driver Module

- h. Attach two pieces of kit supplied Velcro to the back of the Unichip Computer as shown in Photo 8.
- i. Connect the PnP harness's 18-pin Molex plug labeled **Unichip** into the computer's 18-pin Molex connector.
- j. Attach the final piece of kit supplied Velcro to the back of the Driver Module and attach it to the Unichip as shown.
- k. Connect the PnP Harness's 8-pin Molex plug labeled **Driver** into the Driver Module's 8-pin Molex connector.



6. (Photo 14) Secure the PnP harness

- l. Remove the Velcro strip's plastic tape and position the Unichip Computer on the OEM ECU as shown; firmly press the Unichip in place.
- m. Position the large PnP harness case behind the OEM ECU and the smaller PnP harness case into the opening behind the electrical motor just to the right of the OEM ECU.



Note: Ensure the accessory loom is plugged into the 6-pin connector on the small PnP case before sliding the case into place.

7. (Photo 14) Route the accessory cable.

- n. Route the accessory as desired. It can simply be looped around under the rear shelf. It can alternatively be routed where you want or the switches can be permanently installed. Loom 3 must be installed or the car will not start.
- o. Verify the **ECU Pwr** switch is in the on ("1") position and the **Map A/B** switch is in the Map A position ("0").



Note: (1) Do not install Loom 3 into the 6-pin connector on the Unichip; installing it into the Unichip can damage both the Unichip and the harnesses. (2) The car will not turn over or start with the accessory loom ECU Pwr switch in the off ("0") position.

8. Replace the storage compartment liner.

9. Reattach the steel cabriolet top restraint cables.

10. Reconnect the battery as instructed in step 9 of the Coupe instructions.

Accessory Cable Functionality

Switch	Mode	Function	Notes
ECU Pwr	1	ECU backup power enabled	Normal operational setting
	0	ECU backup power disabled	To clear CEL's or dump ECU fuel trims; car will not start
Map A/B	1 (LED on)	More aggressive ignition timing	Unless otherwise specified, for higher octane fuel
	0 (LED off)	Less aggressive ignition timing	Unless otherwise specified Default operational setting

- a. **General functionality.** The normal position for **ECU Power** is on (1), for the **Map A/B** switch is off (LED off) and unless you are either resetting the ECU or desire to run Map B these switches should remain in these positions. To change the switches, turn off the ignition key before actuating the switch.
- b. **Map Select Switch functionality.** Selecting the **Map A/B** switch's on position selects timing Map B, verified by illumination of the **Red LED** when the vehicle is started. Using Map B may result in a CEL on approximately thirty percent of vehicles; the CEL results from that particular vehicle's increased sensitivity to detonation. If Map B produces a CEL in your vehicle, select reselect Map A and use the ECU power cut switch to clear the CEL as outlined below.

Notes: (1) More is not always better... adding more timing can actually reduce power in a particular vehicle if that vehicle is sensitive to detonation. If the stock ECU detects detonation, it reduces timing to protect the engine; if you're car doesn't make more power than stock and you're running Map B, switch back to Map A and you will feel the power increase. This condition can and does occur even without a CEL.

(2) Unless you specifically requested some other settings, Map A and Map B are designed for premium-grade fuel; Map B is a slightly more aggressive map intended for vehicle which will accept that timing.

- c. **ECU Pwr Switch functionality.** To reset the ECU long and short term fuel corrections or to clear a CEL, with the ignition key off and removed, select the off (0) position on the **ECU Pwr** Switch and leave it there for a minimum of ten minutes. After ten minutes, turn the **ECU Pwr** switch to the on position (1) then start the car and the CEL should be gone; the same procedure resets any ECU fuel learning.

Note: (1) Whenever battery power is removed from the vehicle like when installing the PnP kit, "learning" maintained in the ECU's volatile memory is erased. This may manifest itself as a fuel smell during start, rough idle, stalls at idle, or minor surges/hesitations during light throttle driving. Vehicles, especially modified vehicles, may take several trips to again run smoothly. This is normal and results not from anything in the Unichip PnP kit, but rather because the battery was disconnected.

(2) Always keep the ECU Power switch in the on position during normal operations. If you leave the ECU Power Cut switch in the off (0) position, the ECU's volatile memory is erased every time you turn off the vehicle which and may never learn to run smoothly.

Additionally, the **ECU Pwr** switch can act as an immobilizer. When the **ECU Pwr** switch is turned off (0), the vehicle will not start.

Unichip Warranty Information

For 90 days following the original owner's purchase of a Unichip, Unichip of North America (UNA) warrants no other ECU product generates more power from a specific gasoline engine than a properly functioning, custom tuned Unichip in the specific vehicle for which it is tuned. If another ECU product generates more power from that engine within 90 days of the original owner's purchase of the Unichip, the original owner can contact their Unichip dealer for a refund of all Unichip parts, Unichip installation charges, and Unichip custom tuning. Shipping, testing, dynamometer costs and the cost of removing any UNA parts are specifically not covered by this warranty and will not be refunded to the owner.

To claim a refund, owners must provide dynamometer proof another ECU product produced more power when installed on the specific vehicle and that vehicle and all of its parts were in an identical condition other than the ECU enhancement. Three repeatable dynamometer tests must be performed using the Unichip and three repeatable tests using the other ECU product. The average of the three tests performed on each product shall constitute that product's score for determining power. The same technician, using the same dynamometer in an identical condition with the same settings, must perform all test runs. All environmental conditions including ambient and IAT temperature and pressure altitude and the vehicle's cooling system temperatures and drive train temperatures must also be identical for all six runs. IAT and Coolant temperature data logged information for each run is required. The vehicle must also use the same fuel for all six tests. UNA reserves the rights to, at UNA's exclusive discretion, re-tune the Unichip involved in a performance warranty claim at no cost to the customer making the claim or to provide a warranty refund; if after a retune, the Unichip still makes less power than another product, the owner will receive a refund IAW this warranty statement.

All UNA parts, including Unichip piggyback computers, driver modules, and harnesses also carry a limited warranty against manufacturer's defect. This warranty is valid for the original owner only, for one year from the date of purchase regardless of the installation date. UNA only warrants Unichip products sold by an authorized UNA reseller. If a UNA product is found defective, the original purchaser may contact the reseller from whom they purchased the product for a replacement component at no cost. Shipping, testing, dynamometer costs, and the cost of removing any UNA parts are specifically not covered by this warranty and will not be refunded to the owner.

The above warranties are expressly made in lieu of any and all other warranties, express or implied, including any warranty on the engineering or design of the goods as well as the implied warranties of merchantability and fitness for a particular purpose.

Any and all warranties on the Unichip are void if: 1) the custom installation or custom tuning of the Unichip was performed by anyone other than a UNA qualified dealer or tuner, 2) anyone other than a qualified UNA tuner or dealer alters or modifies or attempts to alter or modify any of the electronic data within the Unichip or 3) the UNA product is used for anything other than its intended purpose or is physically or electrically damaged.

For all warranty claims, the product return shipping date stamp must be within the appropriate time limitation from the time of purchase. Additionally, proof of purchase in the form of either a properly completed warranty card or a sales receipt indicating both the date of sale and owners name is required and is the owner's responsibility. Customers with hard-wire installations are responsible for providing proof of when and where the installation was performed. Warranty claims will be denied if the customer cannot provide proof of purchase.

UNA is not liable for incidental, consequential, or punitive damages attributable directly or indirectly to the Unichip or UNA's actions or inactions with respect to the Unichip. UNA is also specifically not responsible or liable for damage of any kind: 1) to a vehicle into which UNA products are installed or 2) resulting from the use of a vehicle equipped with any UNA products.

UNA believes high performance driving should be confined to appropriate venues such as racetracks or organized closed course events such as Autocross competitions, and does not sanction or participate in any street racing or other illicit driving activity.