



Toyota MR2 Spyder MY00-05 Unichip PnP Installation Instructions and Warranty Information

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Tools Required

10mm combination wrench, 1/4-inch or 3/8-inch ratchet, 6-inch ratchet extension, 10mm socket, Medium Phillips-head Screwdriver, Small Flashlight

Notes: (1) All plugs in this installation are locking units keyed to only fit the correct connector. Each ECU connector has a small release tab which must be depressed to remove the plug and which should audibly “click” when inserted correctly – both into the ECU and into the PnP harness.

Installation Procedures

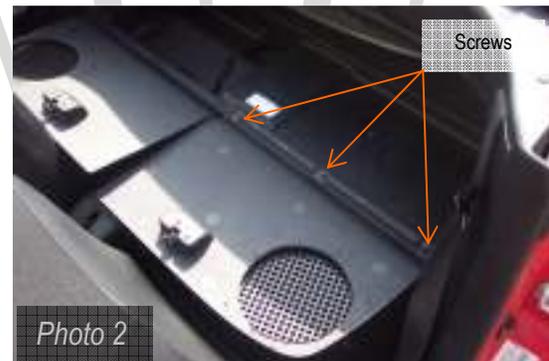
1. Using the 10mm wrench, disconnect the car’s battery at the negative terminal in the engine compartment.

2. Expose the ECU

a. (Photo 1) Open the driver side door. Tilt the seat forward and slide it as far forward as possible.



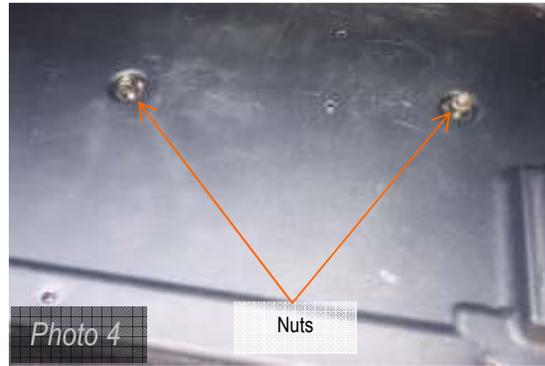
b. (Photo 2) Release the latch to open the driver’s side rear storage compartment. Locate and remove the screws securing the compartment’s hinge.



c. (Photo 3) Locate the trim panel mounted vertically on the right side of the car. Remove the two screws securing it, and remove the panel.



- d. (Photo 4) Locate the trim panel covering the fuel tank. Remove the two nuts securing it and remove the panel.



- e. (Photo 5) Locate the felt covered panel at the rear of the compartment and pull back the small flap at the lower right corner.



3. Install the PnP Harness

- a. (Photo 6) Disconnect the corresponding plugs (see notes below) from the OEM ECU. **Do not force the plugs.**

Notes: (1) Each plug is secured with a locking tab which must be pushed in to release the plug.

(2) There are two different harness versions; one has four plugs and one has two. The harnesses are functionally identical. If your PnP harness has only two plugs, only the two black OEM plugs get disconnected and plugged into the PnP harness.



- b. (Photo 7) Holding the PnP case with the larger flat side facing you, insert the PnP's plugs into the OEM ECU in order from top to bottom. **Do not force the plugs.**

Note: The plugs are keyed such that they only fit into the correct connector.

- c. Insert the OEM harness plugs into the PnP harness case's connectors from top to bottom.

Note: The plugs are keyed such that they only fit into the correct connector.



- d. Twist the PnP case counter-clockwise so the beveled edge faces up, and then position the case in the opening to the right of the fuel tank as shown.

e. (Photo 8) Using the kit supplied Zip Tie, secure the PnP case to the wire loom running out of the round black grommet on the rear bulkhead.



Photo 8

f. (Photo 9) Using the kit supplied Velcro strip, mount the Unichip against the tub with the Molex connector facing the driver's side of the car.



Photo 9

Unichip

g. Connect the plug labeled Unichip into the 18-pin connector on the Unichip.

4. Route the Accessory Cable

a. (Photo 10) The PnP harness has a loom with two switches for ECU power and changing timing maps. The switches can be routed wherever desired.

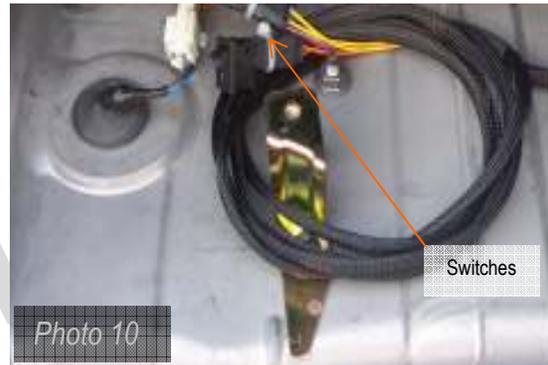


Photo 10

Switches

5. Reassemble the interior

- Push the felt panel flap back into place.
- Reinstall the bottom trim panel and secure it with the two nuts.
- Reinstall the right side vertical trim panel and secure it with the two bolts.

d. Reinstall the folding cover and secure it with the three screws in the hinge.

6. Reconnect the battery negative terminal.

7. 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
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. The normal position for ECU Power Switch is on (1) and for the Map A/B switch is off (0) and unless you are either resetting the ECU or desire to run Map B, these switches should remain in these positions. To change either switch, turn off the ignition key before actuating the switch.

b. With the ignition key off and removed, selecting the on (1) position on the **Map A/B** switch selects timing Map B, which can be verified by illumination of the red LED when the vehicle is started. Using

Map B will 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 switch to clear the CEL as outlined below.

Note: (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 will reduce timing to protect the engine; if you're truck doesn't seem to be making 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.

- c. 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 Power** Switch and leave it in that position for a minimum of ten minutes. After ten minutes, turn the Pwr Cut switch to the off position (I) then start the car and the CEL should be gone. Additionally, the same procedure resets any ECU fuel learning.

Notes: (1) When you removed battery power from the vehicle like you did when installed the PnP kit, the "learning" maintained in the ECU's volatile memory is erased. All vehicles, but especially modified vehicles, will 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 (I) position during normal operations. If you leave the ECU Power switch in the off (0) position, the ECU's volatile memory is erased every time you turn off the vehicle which means it may never learn to run smoothly.

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.