



PRORACING

Read before installation

User Manual

TS2 PRO

Turbo diesel engines

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Overview and explanation of the symbols used



Warnings on dangers with important information on use. Please read!

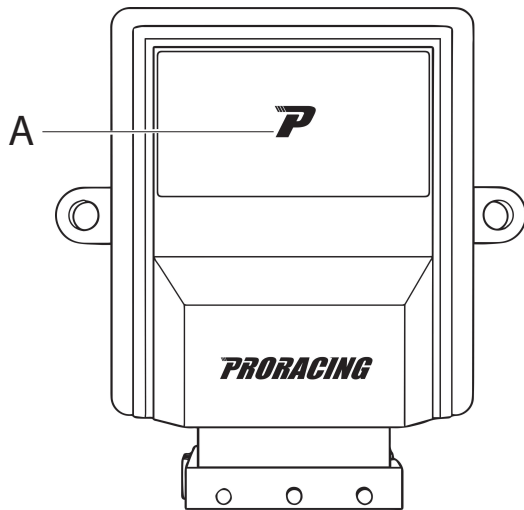


General information on assembly and use.



Tips for easier assembly and use.

2 Proracing TS3 overview

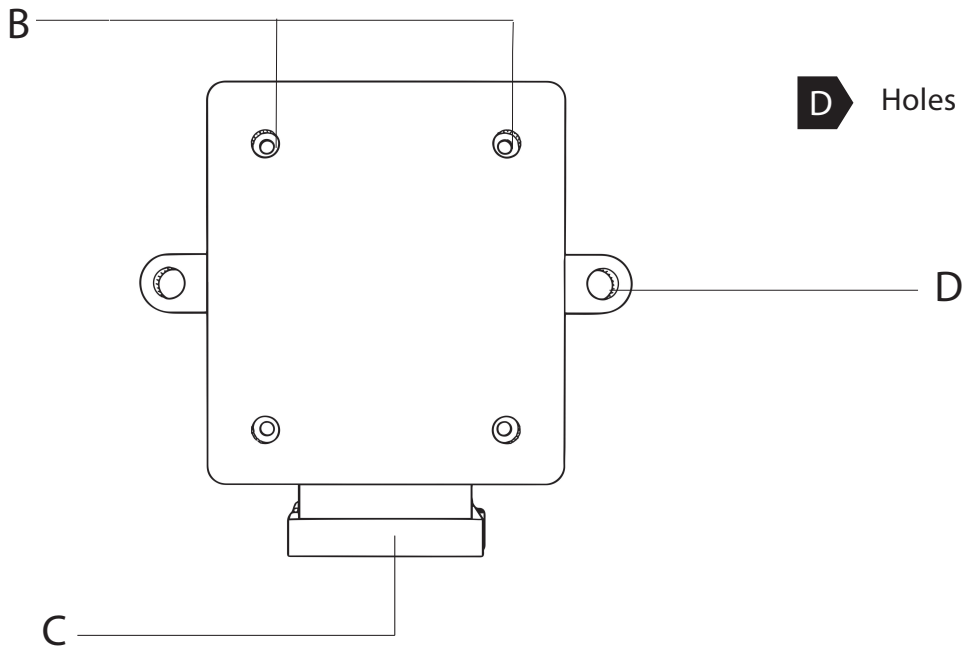


A Correct functioning light interface

B Holes for closing the box opening (TORX)

C FCI socket connection for fixing of the Proracing TS2 PRO harness

D Holes for fixing with cable ties.



3 Installation

Phase 1 of 6 - preparing the installation



Let the engine cool down before installing the Proracing ECU, you could burn yourself.

1

Open the bonnet and keep the doors locked.

2

Wait about 10 minutes before acting, in this way all the electrical equipment will be deactivated.



Normally, no special tools are required for installation, a wire cutter is sufficient to remove the remains of the clamps. In some cases a torx key to open the control unit and change to Bosch or Siemens / delphi.

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- With, Keyless Go or electronic key, be careful to keep the car key at a distance about 10 meters from the car to be out of radio coverage.
- In the event of an anti-theft device, it must be deactivated before starting the installation.
- In some rare cases it is possible that the car with the hood open keeps the sensors active, therefore it is advisable to disconnect the battery positive to avoid generating an error.
- If you have any questions or problems during installation, you can find answers on Error removal.
- Our customer support is also available - You can open a Ticket on our website.

3 Installation

Step 2 of 6 - Remove the engine cover

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Normally after purchase, we send specific photos for yours by email engine for easy editing, then check your mail.
In the following images there will be sample photos. Your car may differ, However, the installation is very similar.

Normally your engine cover is interlocked with rubber clips (A) or with one or more screws (B).



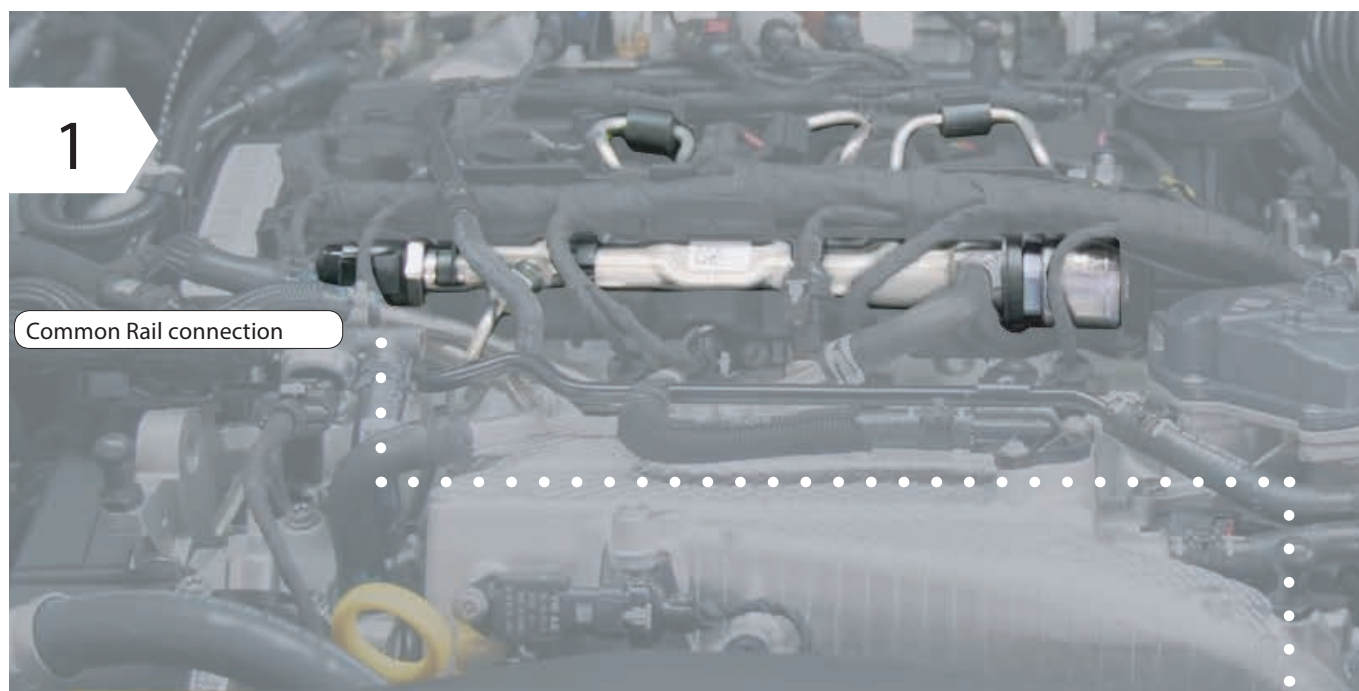
- Remove the engine cover and set it aside, simply lift upwards by doing more strength in one side at a time.



- In some cases, in order to remove the plastic cover of the motor, it is necessary to unscrew one or more screws.
- If you do not have any engine coverage go directly to Stage 3 for Diesel Engines.

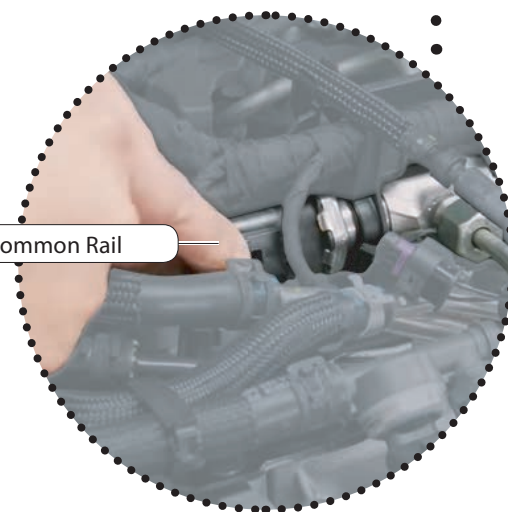
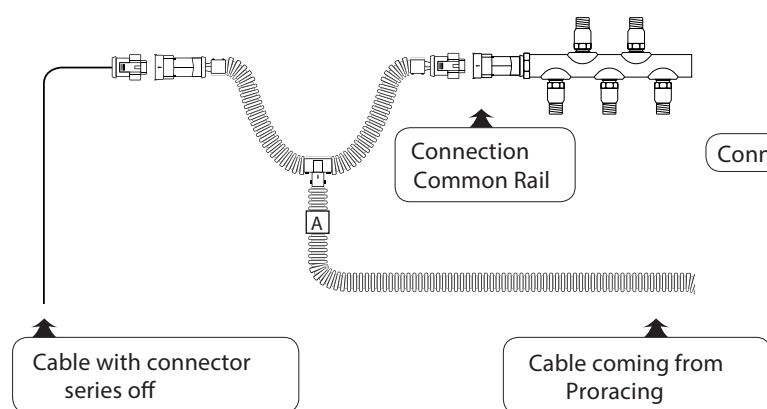
3 Assembly of diesel engines

Step 3 of 6 - Connecting to the Common Rail

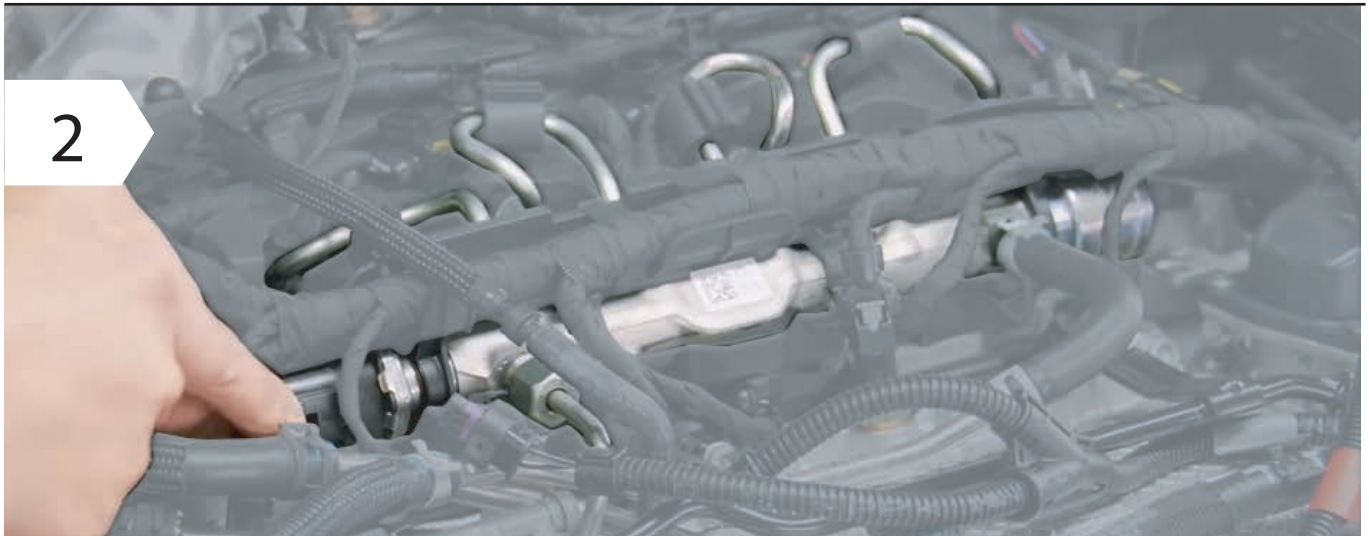


- Locate the common rail of your engine.
- Il collegamento sul Common Rail si trova o su una delle estremità o in mezzo al Common Rail ed è facilmente riconoscibile dal grande dado per raccordi.
- To locate it, simply follow the metal tubes that start from the injectors and arrive in a common flute named common rail, in this tube you will find a connector always 3-wire.

Schematic representation:



3 Assembly Common Rail



- Disconnect the Common Rail connector.



To detach the connector from the common rail normally you have to squeeze a clip present in the wiring or disconnect a safety.



- Connect the wiring to the common rail by creating a bridge on the wiring provided, e.g. figure 3.



- Make sure the connector's safety clip clicks back into place: you can hear it by CLICK.

4 First start-up

Phase 5 of 6 - First start test.

1 Connect the control unit to the wiring.

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- If the control unit turns on during installation with the ignition off, it means that during the connection there was still residual current in the car's wiring.
- This can cause in some cases an error in the dashboard, the control unit Engine ECU may have detected a wiring harness disconnection.

2 Carry out a first function test

- Rest Proracing with the harness securely possibly already clamped in such a way that no moving part of the engine can create problems.
- Now start the engine and check that the ECU turns on.
- Please note that after about 1 minute it goes into standby mode and turns off but this is normal.
- Turn off the engine and complete the installation of the wiring with the supplied cable ties.

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If the car does not start regularly or you have reports on the dashboard proceed with the paragraph " Removing errors "

Of course, our customer service is also at your disposal.

Phase 6 of 6 - End of installation.

Route the corrugated pipe of the wiring along a suitable point and secure it with cable ties.



- When choosing the fixing point of Proracing also make sure that it is protected from water, strong heat and vibration.
- Do not put Proracing in a bag as this can form condensation of water.
- Do not fix the wiring on parts that can get hot at very high temperatures, (e.g. exhaust manifold, dpf or turbochargers).

6 Adjustment without application



Factory setting.

We ship the ECU with the appropriate setting for your vehicle.

Our setting increases the engine power leaving room for improvement, without affect the reliability of the engine, giving smoother running and optimizing fuel consumption.

However, the default basic value is always indicated in the consignment note.



This setting is an example that identifies A-0

adjustments available on the version without Application:

| | | |
|---|----|----|
| In case the starting setting of your Proracing is A-0 we recommend these power steps: | | |
| Selettore | S1 | S2 |
| Performance level 1 | B | 0 |
| Performance level 2 | C | 0 |
| Performance level 3 | D | 0 |

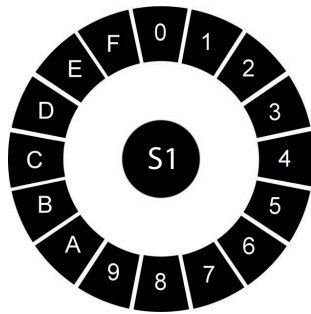
| | | |
|---|----|----|
| In case the starting setting of your Proracing is 8-4 we recommend these power steps: | | |
| Selettore | S1 | S2 |
| Performance level 1 | 9 | 4 |
| Performance level 2 | A | 4 |
| Performance level 3 | B | 4 |

| | | |
|---|----|----|
| In case the starting setting of your Proracing is A-4 we recommend these power steps: | | |
| Selettore | S1 | S2 |
| Performance level 1 | B | 4 |
| Performance level 2 | C | 4 |
| Performance level 3 | D | 4 |

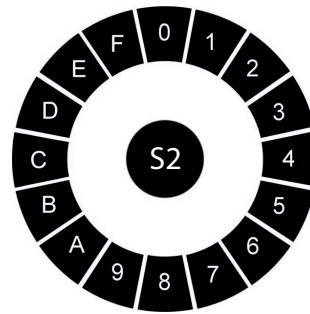
6 Custom adjustment.

Proracing is configured specifically for your car, all parameters are adjusted for one fluid delivery and with an adequate compromise between consumption and power increases. In some however, it is possible to further modify the settings by unscrewing the torx and opening the control unit. Inside there are two selectors called S1 and S2, the same selectors are present in the smartphone application on the setting page.

Selettore S1:



Selettore S2:



The minimum setting is 8, the maximum setting is 7 and is distributed in this sequence:

MIN 8-9-A-B-C-D-E-F-0-1-2-3-4-5-6-7 MAX

If you change the S1 and S2 settings and have purchased the TS2 PRO version with bluetooth le eco sport and race mappings will be recreated via algorithm based on the settings selected.

- The S1 selector modifies power and torque, we recommend increasing one step at a time in a clockwise direction.
- The S2 selector is responsible for the duration of the performances for a greater range of revolutions, normally this selector should not be touched to prevent the car from going into protection.



If you incorrectly change the selector parameters you may no longer have the performance optimal, even send it to the Recovery system.
Warning: the higher setting is not always the same as the greater increase in power.



Problems with serrations, the gear is not smooth?

-Does the automatic gearbox give abnormal bumps at high revs?

- If while driving you feel gaps accelerating or an irregular trend, you can use selector S2 by raising the adjustment and bringing it to position 4.
- If the serration is less noticeable but still noticeable bring it into place 5 or 6 or 7.



The technicians of Proracing according to your needs can help you to calibrate in a manner optimal (we advise you to always ask).

6 Bosch / Siemens system (for diesel engines only)



in case the engine starts abnormally with knocks or a noise definitely non linear follow the guide.

Unscrew the 4 torx and open the Proracing P1 box, pay attention because the polycarbonate keypad has a connection with the electronic board then open gently dividing the two parts of the box. The polycarbonate keypad will remain anchored to the top of the box and the board electronics instead will be separated.

In the Proracing electronic board there is a metal component with indicated bosch / siemens. Move the dial to ensure correct operation on your engine as well.



Normally on the common rail flute the system of is stamped on a label power (bosch) or (siemens / delphi).

Remote control.

If you have purchased the control unit complete with remote control:

- connect the red wire of the harness to the positive (+) of the battery and the black wire to the negative (-).
- The large button on the remote control activates the Proracing.
- The small button shows the original car.
- The operation can also be carried out with a moving car.



* If you have not purchased it, you can request it by email at info@pro-racing.it

7 Troubleshooting

If you've been experiencing dash warning lights issues or don't feel enough power boost here find the first support. If you do not find the information you are looking for, you can contact assistance customers.

| Error description | How to intervene |
|---|--|
| No increase of power or performance they are not enough perceptible | <ul style="list-style-type: none">• On the chapter "custom adjustment" you can find info on how to best set up to further increase the performances.• Normally it is sufficient to move selector S1 by one position clockwise.• Example: if S1 is in position 8, move it to position 9 as indicated in the "customized adjustment" chapter. |
| The diesel engine under load in acceleration ago perceive a noise of injection stronger than normal? | <ul style="list-style-type: none">• If it is a noticeable increase in injection noise under load first take a test drive, you might hear in acceleration a ticking.• This is absolutely normal as you are increasing the injection pressures the noise will be more perceptible and present.• To make this noise less emphasized, lower the race in sport adjustment or lowering the boost. |
| Jerks in acceleration. | <ul style="list-style-type: none">• If you have jerks at the start or acceleration probably the automatic transmission is adapting, so we recommend proceed with the automatic adaptation.• During the adaptation phase, the accelerator accompanies the throttle.• It is possible to eliminate tears by lowering the adjustment. |
| Serrations in acceleration in the high mids regimes or trend not fluid at all adjustments (eco-sport-race). | <ul style="list-style-type: none">• If in acceleration you feel jaggedness or lack of power you have to act on the S2 selector, moving it to one more setting high.• Usually setting the S2 selector in position 4 causes the problem is obviated.• If setting position 4 has not solved it, move the selector S2 in position 5 - 6 or at most 7.• Go to the custom adjustment chapter. |

7 Troubleshooting

| Error description | How to intervene |
|---|--|
| <p>The control light engine or other warning lights in the dashboard remain on.</p>   | <ul style="list-style-type: none"> After installation, warning lights on the dashboard came on giving error? This does not always result in a real problem given that if you have disconnected any connectors in the engine when it was present current, this may have generated an error that does not affect on the correct functioning of the motor, but it could weaken performance for recovery system. There is no need to worry, just turn off the light or the reports. Normally the lights turn off by themselves after a cycle of 5 restarts or after about 100 / 200km. It is possible to connect the connectors in reverse by reversing the polarity, this surely generates an error in the dashboard. Normally we always send photographic material afterwards the purchase by e-mail that shows how the insertion takes place corrected of some types of connectors that mistakenly can be entered incorrectly. An adjustment that is too high or higher than that allowed by the vehicle manufacturer may result in protection or losses sudden power. It is sufficient to lower the setting via app or external keypad. This way they will be avoided other reports. |
| <p>Dashboard light for the control of engine continuously lit after a certain walking time.</p> | <ul style="list-style-type: none"> If the warning light on the dashboard does not go out by itself it means that that particular car model needs a reset via OBD2 diagnosis socket. Our technicians have a specific OBD2 reset for sale for a do-it-yourself removal via Smartphone-APP. Or have your auto mechanic / electrician reset the lights. |

7 Troubleshooting

| Error description | How to intervene |
|--|---|
| The car does not start after installation. | <p>The problem is certainly due to the fact that:</p> <ol style="list-style-type: none">1. It is possible to connect the connectors in reverse by reversing the polarity, this surely generates an error in the dashboard. Normally after the purchase, we always send photographic material by email showing how the insertion takes place corrected of some types of connectors that mistakenly can be entered incorrectly. Check the photos submitted by mail, correct or incorrect.2. You have intercepted the wrong sensors. The connectors are identical but if the wiring is connected not respecting the correct sensors the car will not start.3. The bosch / siemens fuel system does not match when adjusting Proracing, go to the Bosch / Siemens chapter |
| No savings of fuel | <ul style="list-style-type: none">• If you are testing your car's performance with mapping Proracing and testing you are using your full power engine, consumption will be altered by sporty driving.• To make a comparison of consumption reduction it is necessary to report driving focused only on fuel economy, before and after the installation of Proracing.• To optimize the consumption of your car you can modify your driving style as indicated in the chapter of our website www.pro-racing.it in the ECO-FUEL section. |

8 Contact details



Our customer service is available in the dedicated section on our website www.pro.racing.it

Legal information

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