

ECU
REMAPPING

CARS/TRUCKS/TRACTORS
MODULES

MOTORBIKES
MODULES

POWER TEST
BENCHES



User manual

1 KRBRAC-P01 / P02

Applicability

Model: Ducati Panigale V4 (E4) 18-20
Ducati Panigale V4 (E5) 21-24

Kit composition

Qty	Code	Description
1	F27RBPANIGALE	Rapid Bike module (limited edition)
1	F27-ER-P01	Harness/Wiring
1	F27ADMUSB2	USB cable adapter for PC
1	-	Installing instructions booklet



Precautions/Disclaimers

For the correct RAPID BIKE module function (later shortened to 'RB'), the motorcycle system must be intact and fully functional. Installation must be carried out by competent personnel and the supply conditions such as "Appendix 1" at the end of this instruction manual, must be read and accepted.

1.1 Preliminary operations

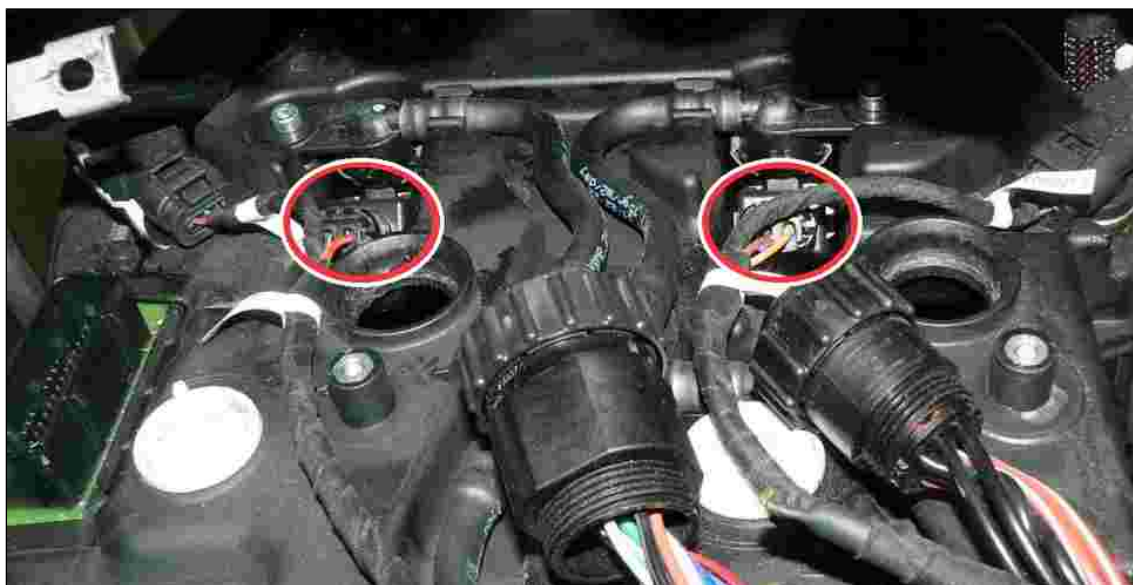
1. Switch off the engine and remove the key.
2. Place the motorcycle on its center stand, if this is available.
3. Remove the seat/seats.
4. Remove the half fairings and side panels; remove the tank.
5. Remove the battery cover, disconnect poles and remove battery with all the plastic housing.

1.2 Upper INJECTORS section

1.2.1 Front cylinders injectors (2)

Position: Under battery compartment.

Connectors: 2 pins type, BLACK color.



Operations: Disconnect the two original connectors and interpose those of the Rapid Bike harness as follows:

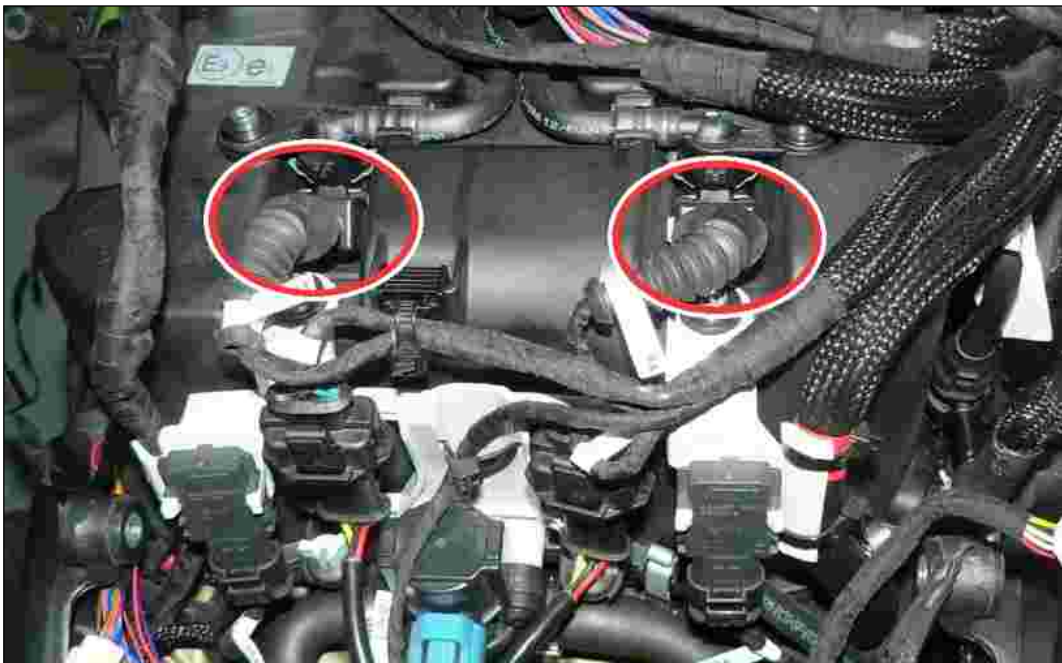
- Connectors marked INJ1 on cylinder one on the LEFT
- Connectors marked INJ2 on cylinder two on the RIGHT



1.2.2 Rear cylinders injectors (2)

Position: Under battery compartment.

Connectors: 2 pins type, BLACK color.



Operations: Disconnect the two original connectors and interpose those of the Rapid Bike harness as follows:

- Connectors marked INJ3 on cylinder one on the LEFT
- Connectors marked INJ4 on cylinder two on the RIGHT



1.3 SENSORS section

1.3.1 O2 Sensor (Lambda) cylinder 2.

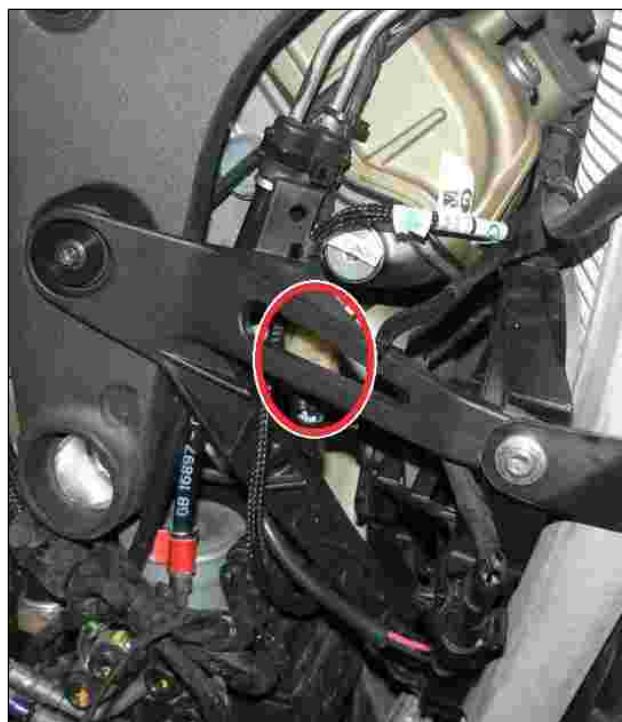


WARNING

On the EURO 4 (<-2020) version this probe is not present, join the RapidBike connectors together and fix them in a free position.

Position: Right Side, Front.

Connectors: 4 pins type, White/Black color.



Task:

Disconnect the original connectors and interpose those of the Rapid Bike harness signed as LN2.



1.3.2 O2 Sensor (Lambda) cylinder 3.

NOTES

For the EURO 5 version (2021->) you actually connect the cylinder 3 lambda sensor connectors.
For the **EURO 4** version (<-2020) the alone Lambda of the **rear cylinders** will have to be connected.

Position: Under the seat.

Connector: 4 pins type, White/Black color.



Task:

Disconnect the original connectors and interpose those of the Rapid Bike harness signed as LN3.



1.3.3 O2 Sensor (Lambda) cylinder 4.



WARNING

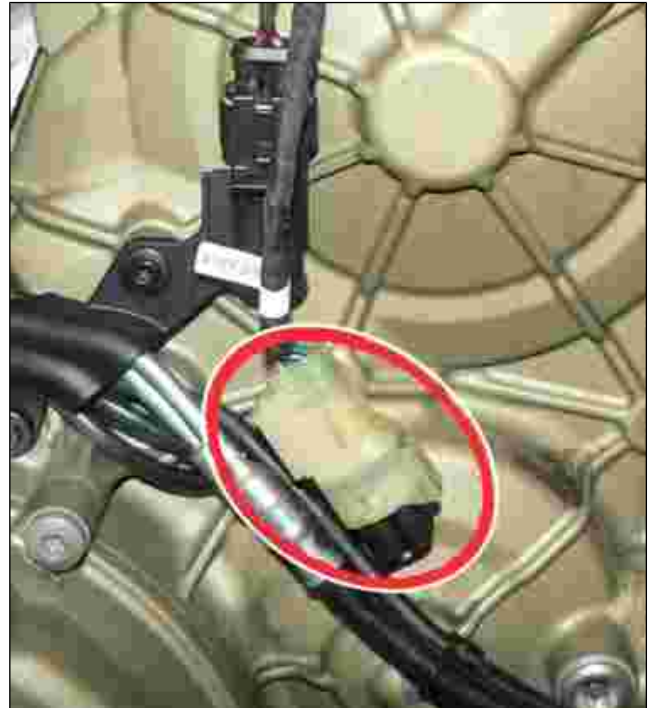
On the EURO 4 (<-2020) version this probe is not present, join the RapidBike connectors together and fix them in a free position.

Position: Right Side, on the rear.

Connector: 4 pins type, White/Black color.

Task:

Disconnect the original connectors and interpose those of the Rapid Bike harness signed as LN4.



1.3.4 CRANK Position Sensor (CPS)

Position: Right side, on the front.

Connector: 2 pins type, BLACK color.



Task:

Disconnect the original connectors and interpose those of the Rapid Bike harness signed as CRANK.



1.3.5 Power SUPPLY +12 Volt.

Position: Right side, on the front.

Connector: 2 pins type, BLACK color.

Locate the lead coming from the rear brake pedal switch.



Task:

Disconnect the original connectors and interpose those of the Rapid Bike harness signed as +12 SUPPLY.



1.4 Main wiring section

1.4.1 RAPID BIKE module positioning

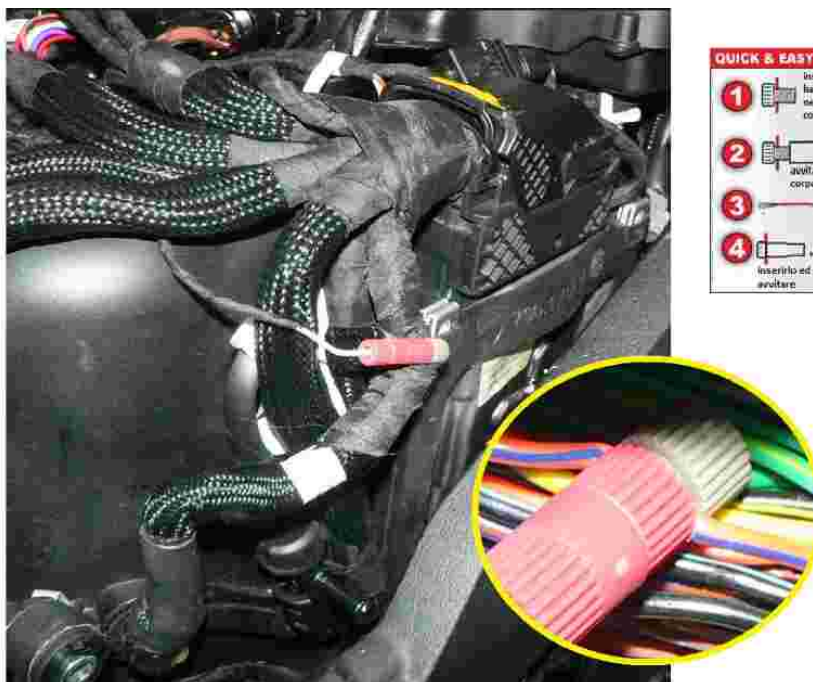
Position the 'RB Panigale V4' ECU on the left side, secure it with strip clamps to the frame as shown in the photo.

Connect the main connector to the control unit and secure the cables with clamps.



1.4.2 Throttle Position Sensor (TPS)

Identify the bundle of cables that goes to the engine control unit, unsheath slightly, insulate the ORANGE/BLUE wire and connect on it the supplied POSI-TAP. Connect the other side of it to the GREEN wire of the RB harness marked as TPS.



1.4.3 O2 Sensor (Lambda) cylinder 1.

NOTES

On the **EURO 5** version (2021->) you actually connect the cylinder 1 (front-left) lambda sensor connectors as follows.

For the **EURO 4** version (<-2020) the alone Lambda of the **front cylinders** will have to be connected. When the connectors are on the right side of the motorcycle, use the F27-AD-106 extension cable supplied in the kit.

Position: Left side, on the bottom front.

Connector: 4 pins type, White/Black color.



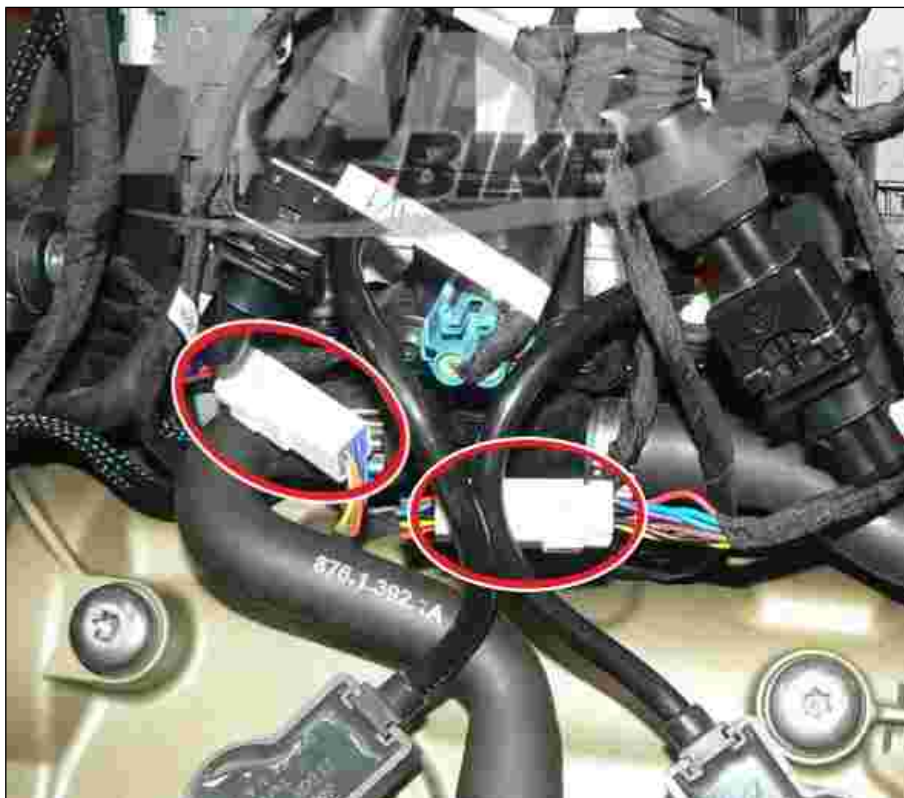
Task:

Disconnect the original connectors and interpose those of the Rapid Bike harness signed as LN1.



1.4.4 Main wiring connection with secondary ones

Connect the two WHITE 6-pin connectors of the RB module harness marked INJECTORS and SENSORS to the corresponding ones of the two secondary harnesses.



1.4.5 Reassemble the battery holder and battery.

Reconnect the positive pole as originally and the negative pole as follows.

1.4.6 Ground eyelet (GND)

Connect the BLACK wire eyelet coming from the RAPID BIKE harness to the battery negative pole.



1.5 FINAL OPERATIONS

1.5.1 Assemble back the tank.

1.5.2 Put ignition on and start the engine.

If the engine start, check that it works perfectly at various rpm and proceed with the final operations.

If the engine does not start, check the correct assembly of the motorcycle stock connectors and those of the Rapid Bike harness.

If necessary, proceed with the installation of the power supply inversion adapter supplied in the kit: AD.+12 SUPPLY. See next paragraph for details.

1.5.3 Conclusion

4. With ties, fix all cables and connectors that may move, to the bike frame.

5. Reinstall all removed covers, fairings and sides.

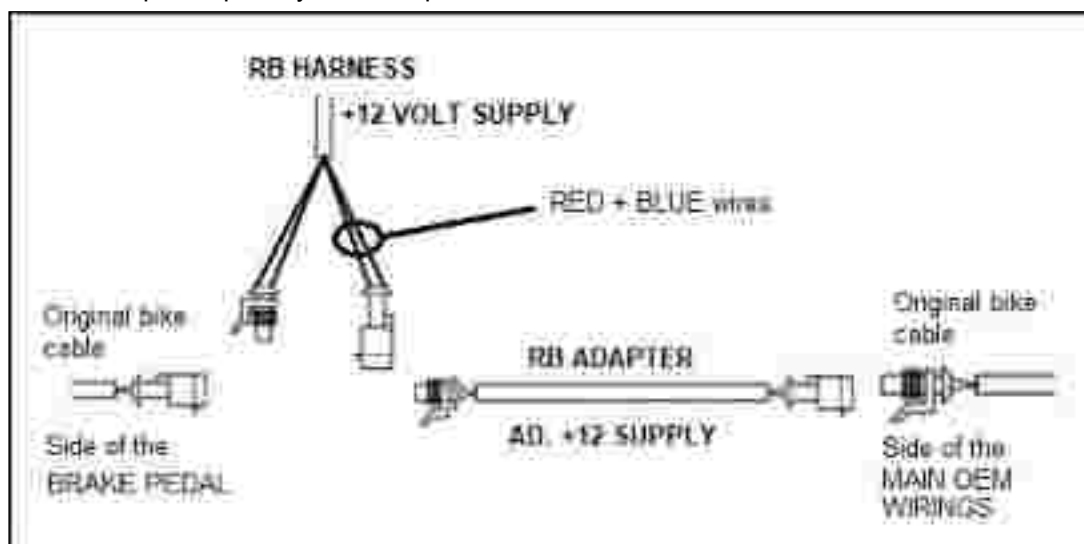
6. Reassemble the seat/seats.

If you wish to check or calibrate with the "RB Manager" software, leave the 4-pin USB socket in an accessible place and remove its cap.

1.6 Accessories and Extras

1.6.1 'AD. +12 SUPPLY' adapter installation

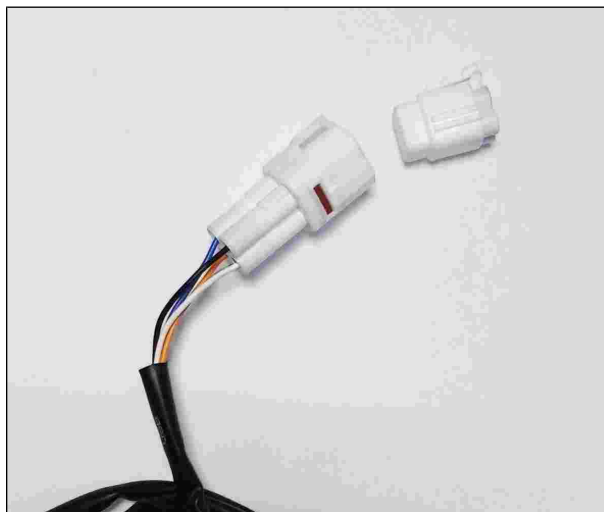
In some versions, the polarity of the original system could be reversed so it is necessary to use the adapter present in the kit to correct the power polarity of the Rapid Bike harness. This must be connected as shown in the diagram.



1.6.2 ACCESSORIES Connectors

This RB harness is designed for the use of any accessories:

1. USB interface connector (4 pins WHITE).



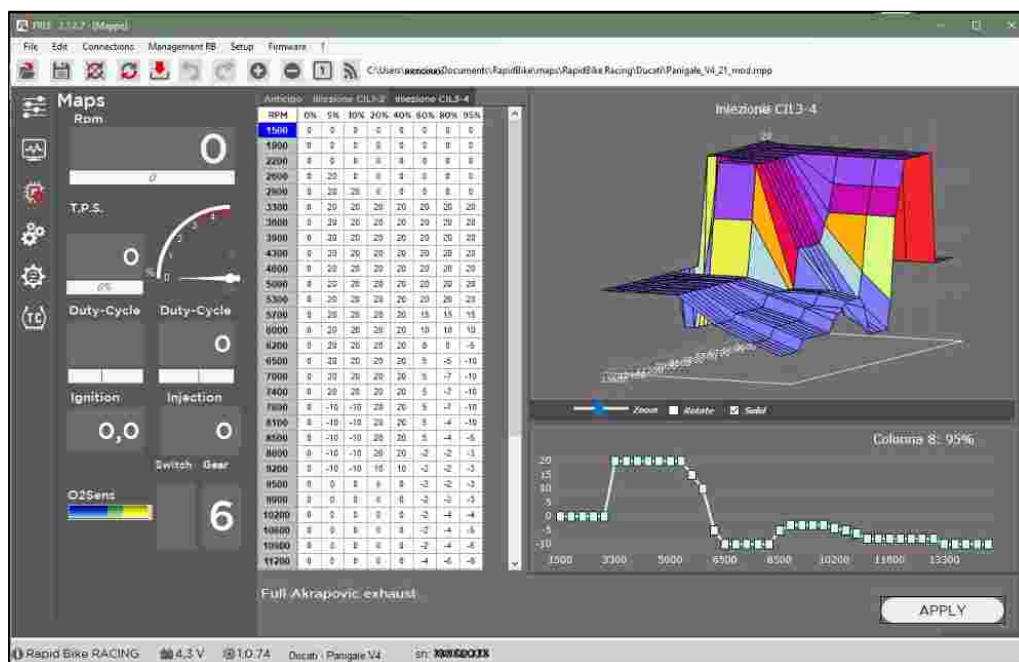
1.6.3 Management software

The "RAPID BIKE Master FREE/PRO" software is available both for operating checks and for changing the maps and/or calibration parameters. The FREE version can also be downloaded by end users free of charge from:

<https://www.dimsport.it/en/rapid-bike/>

<https://www.rapidbike.it>

The PRO (professional) version, complete for any programming and customization need, can be purchased at the best retailers.



Appendix 1

The User declares, under his own responsibility, that RAPID device is realized to be used only for competitive purposes in race track which is not open to the public. It is understood that the infringement of the aforementioned limitation may entail a sanctions infliction.

Without prejudice towards what is set forth in previous paragraph, if vehicle performances or characteristics, as indicated in vehicle registration certificate, were to vary, it is necessary to revise such vehicle registration certificate. Therefore, the User shall bring, under his own responsibility, such operations.

RAPID device allows the User to have access to some engine parameters (for example: turbo/manifold pression, rail, speed limiter, etc.). Changing such parameters might make the vehicle non in compliance with some power and/or speed and/or emissions standards of Your Country and also might determine a superior wear and tear of mechanical and electrical components of the vehicle, to the point that manufacturer's (or seller's) warranty might be considered void.

Dimsport Srl (except as set forth hereafter) does not grant any warranty and shall never be considered liable for any disruption that may derive from using RAPID device, in particular with respect to any extra wear and/or deterioration of the engine or of any other mechanical and/or electrical part of vehicle.

The reading and understanding of RAPID device Instructions must forerun the use of RAPID device (in all its parts).

If the User is a consumer of the provisions of D.lgs 206/2005 which concern the conformity, warranty of purchased items shall apply (in accordance with such D.lgs 206/2005, a consumer is a person that buy products outside from his business). Therefore, the consumer with no extra expenses, has the right to obtain the conformity restatement of purchased item, by its replacement or reparation. For this purpose, Dimsport must be informed about item non-conformity within 2 (two) months from the discovery of such non-conformity. This warranty covers the defects that come within 2 (two) years from the delivery. The normal "wear and tear" shall never be considered non-conformity. This warranty shall never be applied if the consumer alters RAPID device and/or if the consumer directly or indirectly repairs it and/or if the non-conformity is due to improper, negligent or imprudent use of RAPID device.

If the User is a professional user, Dimsport only warrants that RAPID device is free from manufacture defects for 2 (two) years from the purchase date, provided that the professional user is able to demonstrate such date by showing proper documentation.

UNDER NO CIRCUMSTANCES SHOULD RAPID DEVICE BE USED TO BREAK THE LAW OF THE COUNTRY OF USE OF THE VEHICLE. FAILURE TO COMPLY WITH SUCH PROVISION WOULD DETERMINE THE IMMEDIATE TERMINATION OF THIS AGREEMENT.

Without prejudice to mandatory law provisions, Dimsport Srl shall be relieved from any and all contractual and / or extra-contractual liability for personal injury; for direct and / or indirect damage (both with reference to emerging damage and loss of profit); for any claim and / or cost of any kind; which has been suffered by the User or by any third parties and which may derive from the use or misuse and / or may depend and / or in any case may be attributable to RAPID device, except in the case that those events may be attributable to Dimsport for wilful misconduct or gross negligence. The foregoing limitations and exclusions shall be applied to the maximum extent permitted by legislation in force in the User's jurisdiction.



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