

SGRACE-PCV

by



The SGRACE is our latest high performance design. We have put an enormous amount of energy in the form of time, technology and knowledge to create a reliable and innovative product. It is a "Strain Gauge" sensor style that ensures long lasting performance. To bring this product into reality we have used all the manufacturing tricks, electronic formulae and rendered a keen eye on software support to make this happen. This product is encouraged to use in a on a closed circuit only. It is not homologated for road use. The manufacturer of this product is not liable for any injury or damage to the operator, vehicle, or third parties from the use of this product.

MADE IN ITALY



DISCLAIMERS

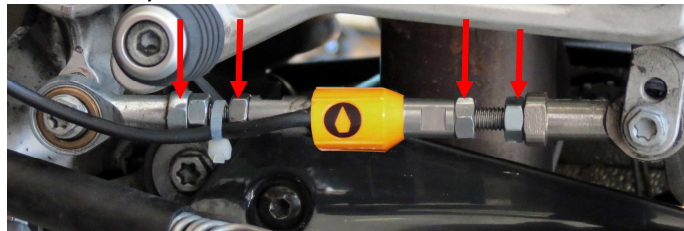


- System setup must always be done when bike is at complete halt and is parked on stands.
- A wrong setting could affect, partially or fully, the system's effectiveness, ultimately damaging the gearbox.
- System setting is the responsibility of the user and not of the manufacturer. While fixing sensors, take extra caution to not damage while screwing and unscrewing the bike. It is a delicate product.
- The use of this product is at the total discretion of the private parties.
- Each system modification, both of hardware and software, as well as harness or single components, could affect the system functionality. It can do potential damage or cause injury to the user, vehicle, or to third parts and this will negate the product warranty.
- Installation must be done carefully It is mandatory that you follow instructions provided in the manual book. After installation it is highly recommended that you do proper test of the product before riding on.
- Installation is an extremely crucial setup for system efficiency. Be sure it is done by competent and specialized mechanic.

This manual is issued on Feb 21st 2019 in Rev. 4.0. It is the end user's responsibility to periodically visit the website www.irccomponents.it in order to check for revised and updated manual guides.

1. SENSOR INSTALLATION

Sensor has "magic threads" i.e. both right and left. Connect the sensor (LABELED SENSOR) to the provided shiftrod. Cut it if necessary. Tight the nuts and the eventual grubbs to avoid disconnections and loss of functionality due to vibrations.



Install sensor and rod with uniball links on both ends, most bikes have uniballs stock, check that the shiftrod does not rub or touch anything. Put sensor far from very hot parts. Make sure wire has a slight bend/loop so it does not tighten up and pull at the sensor during up or down shift.

Warranty does not cover ripped out wires.



WARNING: To adjust sensor positioning, act on the proper planes. Sensor failure could occur of acting on the cover.

2. DISPLAY

After switching on the system, the ECU makes a general check and, if passed, the display will show the firmware version.



WARNING: Do not start any process, setting or action on sensor until the above routine is completed.

When the pre load threshold has passed (par. 3.3), the display will show "--" .

In case of failure, the display will show an "E" followed by a number. Give this code to the assistant.

3. INITIAL SET UP

To set up initial program press both the buttons to enter into the system.

Push lower button to **scroll the menus forward**.

Push the upper one to **scroll the menus backwards**.

Press and maintain the lower button to enter into the various menus.

To confirm the setting and exit from the menu and undermenus, press upper button.

System will go out of programming session if no button is pushed except the "r" menu. Also during programming, the quickshifter is disabled.

The system is provided fully working. Just properly set "CE" (par. 3.8) to immediately enjoy the blipping. However all parameters are set in safety way. Every rider must properly adapt the system to his own riding mode.



WARNING: Act only on the following setup options.

3.1 Signal time programming "t"

Set at the maximum allowed value: 90.

3.3 Change in between commonly closed/open circuit "OC"

"O": commonly open circuit, default value for mostly all PCV, "C": commonly closed circuit, for Power Commander V first versions. Refer to your PCV manual to know how to set it.

3.4 Pre Load adjustment "L"

Default setting "12" it's possible to change the load necessary to apply on the sensor for having the upshift signal. With ignition on, engine off, try to select the upper gear. Shift lever should move through the spring load in gearbox until gear resistance is felt. If rpm is above the set value at par. 3.8, the panel led should show "--" for a while. If this happens too early or too late consequently change the preload set.

3.5 Actual Load displaying "S"

Entering in this menu it's possible to read the actual load value. Useful feature for preload adjustment and for gearbox check and maintenance.

3.5.1 Max Load displaying "--"

At this point, pressing and holding the lower button, the display will show blinking "--" for about 10s. Afterwards it will show the max load value registered in this period. Useful feature for preload adjustment and for gearbox reliability and maintenance. During this menu the sensor is enabled.

3.9 Type of analog output "dS"

If your system has the analog output, this function allows to set the type of output: "dC": 0÷5V with 0 load at 2.5V. "dU": 0÷5V with 0 load at 5V. "DD": 0÷5V with 0 load on at 0V.

3.10 Bottom/Upper limits "dr"

If your system has the analog output, set "5"=±50Kg, "10"=±100Kg.

3.11 Pushing/Pulling "CE"

"C" Pushing, "E" Pulling.

4. CONNECTIONS

Connect **Blue** wire to an ignition switch controlled +12v source and **Black** to ground.

Connect **White** to PCV port 4 and **Red** to port 5.



Choose if necessary, the normally closed circuit as above par. 3.3.

5. ANALOG OUTPUT FOR DATA LOGGERS

An unused **Green** wire comes out from the connector. Connect it to your data logger or shifting ECU if you have one. Output is 0÷5V. Refer to the paragraph 3.9 and 3.10 for further information on setup.

6. TROUBLESHOOTING

6.1 System continuously cut or blipping even if the foot isn't acting on the pedal: check the sensor. Tight the nuts and the eventual grub screws to avoid disconnections and loss of functionality due to vibrations as per Par.1.

6.2 System works in reverse manner: check and properly set "CE".

7. WORKING CONDITIONS

8÷17.5V; -20°C÷+95°C

Enjoy your choice. We value your business with us.

For any questions or troubleshooting queries, please contact us at:

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