Hps 430

Thank you for choosing one of our products.

Hps 430 is an alarm that can be used for the protection of mopeds, scooters or motorcycles.

Users manual

FOREWORD

The HPS 430 is an alarm for scooters and motorcycles, it's suitable for the vehicle with the original immobilizer.
It's a device completely automatic and it's widely programmable to adapt to many different needs.
This innovative device doesn't need the remote control, but it uses the original key for its operations.

OPERATION

The alarm HPS 430 can be managed in two different ways:

- **WAY 1:** activation when you turn OFF the ignition key;

To avoid the automatic activation (for example: during the supply) it's necessary, once the ignition key is turned off, to turn ON and turn OFF again.

- **WAY 2:** when you turn the ignition key OFF, the alarm is not activated. To activate it, it's necessary to turn the ignition key ON and OFF again.

When the system is activated, during the neutral time, the shock sensor is at maximum sensibility, so it can feel all the movements and extend the neutral time. With this method the user can make all the routine manoeuvres, for example, parking the vehicle or place the object into the compartment (under the seat, in the little trunk, etc.); after 15 seconds without any shocks, the device stops the neutral time, and it is ready to operate. However, the neutral time is limited to 40 seconds maximum.
During the neutral time, the LED is fixed ON, and it signals with a little flash when it feels a shock and extends the neutral time. When it's activated the LED flash and the shock sensibility return to its set level.

ALARM

In case of vehicle breaking, the system intervenes with an acoustic and optical signalization (flash lamp and siren sound) that lasts 30 seconds. To stop the signalization it's necessary to turn on the vehicle key.

ACOUSTIC LIMITATION FOR CONSECUTIVE ALARMS

During the alert state, if the alarm sensors notices it for 3 consecutive times because of alarm, at the fourth cause of alarm the central unit will exclude the siren signalling the alarm state only with the flashing of the indicator lights.
Warning: in case the ignition key is turned on the siren sound is restored.

ALARM MEMORY

If the central unit records one or more causes of alarm, they are signalled when disarming by a further flashing of the indicator lights and by a number of "beeps" equal to the happened alarms (max 7 signalling).

BATTERY BACKUP

HPS 430 is endowed with buffer batteries that guarantee its operation also in the case the cable that connects the battery to the electric plant of the vehicle is cut. The battery backup is automatically armed when the black connector of the alarm wiring is connected.

PROGRAMMABLE FUNCTIONS

HPS 430 has the possibility to modify the most important features. To program it, it's necessary to turn ON and turn OFF the ignition key many times as the number that corresponds to the function desired (look at the following table).
The program must be done with the alarm and the ignition key turned off.

FUNCTION	***ON***	***OFF***
ACTIVATION MODALITY	5 TURN ON: WAY 1	6 TURN ON: WAY 2
ACOUSTIC SIGNALS OF ARMING AND DISARMING	7 TURN ON	8 TURN ON
ACOUSTIC SIGNALLING OF INSERTED INDICATOR LIGHTS	9 TURN ON	10 TURN ON
HAZARD	11 TURN ON	12 TURN ON
ADDITIONAL OUTPUT (BROWN/BLACK wire)	14 TURN ON – ALARM	15 TURN ON – ON/OFF
ACOUSTIC LIMITATION FOR ALARMS	16 TURN ON	17 TURN ON
STATE MEMORY	22 TURN ON	23 TURN ON
SHOCK SENSOR ADJUSTMENT	13 TURN ON	
BACKUP	20 TURN ON	

DESCRIPTION OF THE PROGRAMMED FUNCTIONS

1. Managing Modality

This function permits the passage from WAY 1 to WAY 2 and back.
If WAY 1 is programmed, when you turn OFF the ignition the alarm is activated. If you want that the alarm will not be activated, it's necessary, to turn off the ignition key once again and to turn ON and OFF the key.
If WAY 2 is programmed, when you turn OFF the ignition key the alarm is not activated. If you want that the alarm will be activated, it's necessary, once the ignition key is turned OFF, to turn ON and OFF the key again.

2. Acoustic signals of arming and disarming

Arming and disarming the alarm, the system signals the events with the blinkers flash and an acoustic signal.
Arming and disarming the alarm, the system signals the events with only the blinkers flash.

3. Acoustic signalling of inserted indicator light

Using the vehicle, it can happen to forget an indicator light inserted. In this case, after 32 flashes of the indicator light (right or left indifferently), the alarm will signal this forgetfulness to the driver with a brief acoustic signal for every blinker flash.

4. Hazard signalling

By activating this function, it is possible to signal the standstill of the vehicle by the indicator lights. With the function activated, turn the ignition key in position ON and make the indicator lights flashing once. The central unit will make the indicator lights flashing for an indefinite time. It is possible to interrupt the signalling by turning ON an indicator light. The exclusion of this function is signalled by a beep.

5. Additional output

The system has an additional alarm output, it's activated only in case of alarm.
It's possible to convert the output to modules command, it's turned ON when the system is inserted and turned OFF when the system is disarmed.

6. Acoustic limitation for alarms

The system, after 3 consecutive alarms, disarms the acoustic signalization of the alarm. If it seems appropriated, it's possible to cancel this limitation and have, for every alarms, the acoustic signalization.

7. State memory

If during the alarm, the system is disarmed trough the mechanical key or the power supply is removed, when you restore the alarm, it will "remember" the previous state, in this way it can prevent every attempt to tamper.

8. Shock sensor adjustment

The HPS 430 has an internal shock sensor that is just adjusted in factory. However it is possible to change the sensibility to adapt in the best way with the vehicle features, following this procedure:

- Turn ON and turn OFF the ignition key 13 times – The blinkers turn ON
- Turn ON and turn OFF the ignition key many times as the number that corresponds to the level of sensibility that you want (from 1 minimum to 15 maximum)
- every ignition key turned ON is signalled from a beep
- when you turn OFF the ignition key, you can test the shock sensor sensibility level, during the adjustment, if the alarm feels the shock it will turn ON the blinkers and take a beep.
- after 7 seconds from the last test, the system will record the new level.

The sensibility, during this passage, can be only decreased. If you want to increase the sensibility, you must remake the procedure by inserting a lowest level.
The shock sensor can be excluded making the level with a number higher than 15; the shock sensor exclusion is signalled from an acoustic signal also when you turn OFF the ignition key.
When you have the turn key ON, the procedure exit will be without modify the previous level (abort). The procedure exit is signalled with the led turn OFF.

9. Backup

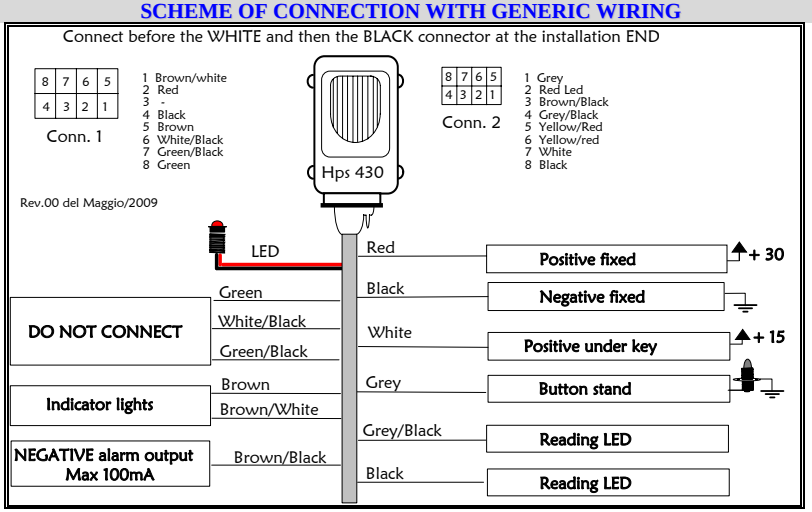
If you turn ON and OFF the ignition key 20 times, it will restore the original level and regulation.

MOUNTING INSTRUCTIONS

Warning: these instructions are valid only for generic wirings, for all the models of two wheeled vehicles

Function	*Wire colour*	*Connection*
Positive	**RED**	Connect to a cable that always furnishes the positive and that has the section at least 1 mm^2. Between the positive wire of the vehicle and the positive of the alarm, it must be interposed a fuse with range of 15–20 Amp.
Negative	**BLACK**	Connect to a cable that furnishes a good ground. **WARNING:** In many types of vehicles, the chassis surely is not connected to the ground, therefore we advise against connecting the **black** wire of the alarm to the chassis of the vehicle.
Positive under key (+15)	**WHITE**	Connect to a wire that is positive only when the ignition key is turned ON.
Indicator lights.	**BROWN** **BROWN/WHITE**	Connect to the wire of the vehicle that furnishes the positive to the lamps of the indicator lights.
System activation	**BLACK**	Connect in series o the “LED Immobilizer” command wire of the vehicle
	GREY/BLACK	Connect in series o the “LED Immobilizer” command wire of the vehicle
Button stand	**GREY**	Connect to the button stand or to the optional button.
Alarm output	**BROWN/BLACK**	Negative alarm output. Max 100mA
	GREEN **GREEN/BLACK** **WHITE/BLACK**	Do not connect

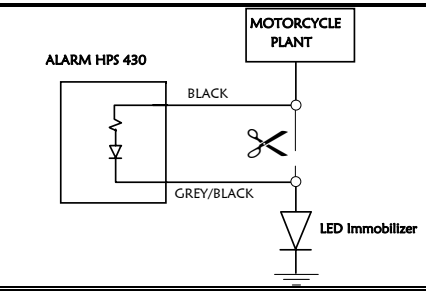
SCHEME OF CONNECTION WITH GENERIC WIRING



CONNECTION “LED Immobilizer”

INTRODUCTION:

In the motorcycle currently on the market, there is an Immobilizer system that is signalled by a flashing LED, located on the dashboard. Do the connection in series on the LED command wire:



STANDARD CONNECTION

Locate the “LED Immobilizer” command wire, under the dashboard (look at the fitting instruction), cut it and connect the GREY/BLACK wire of the alarm on the part get to the LED, while the BLACK wire of the alarm to the other part get to the motorcycle plant at the connection and verify that the “LED Immobilizer” operates correctly.
If it doesn’t operate, you must invert the GREY/BLACK wire with the BLACK wire.

PROGRAMMATION “LED Immobilizer”

At the completely connection END, it’s necessary to memorize the original deactivate immobilizer sequence, reading the confirm by the “LED Immobilizer” flashing. In this way, the alarm disarming, depends not only by the turn ON ignition key, but also by the original unlock sequence that you can see on the “LED Immobilizer” flashing.

To make the programme, you must follow this procedure:

- Connect the WHITE and BLACK connector of the alarm to the HPS 430;
- The alarm LED flashes for 15 seconds and, into this time, you must turn ON and turn OFF the ignition key 4 times. The LED fixed ON and a beep confirms the procedure start;
- Turn On the ignition key, a beep series confirms the control and an acoustical signal indicates the “LED Immobilizer” flashing end. The LED of the alarm will repeat the original unlock sequence memory and, trough the acoustical signal, confirms the procedure end.

ATTENTION: if you want that this procedure will be memorized, it’s necessary to turn ON the button “RUN” of the motorcycle. If this button is turned OFF, when you turn ON the ignition key, the “LED Immobilizer” will not signal the original unlock sequence trough the flashing.

Reading LED exclusion:

It’s possible, for the vehicles that have not the Immobilizer system, to exclude this condition. If you compose the code 21, the alarm deactivation will be without the reading “LED Immobilizer”.

This is the original condition before the programme. It’s possible to restore the reading if you make again the previous procedure.

LED TEST

To verify the correct “LED Immobilizer” connection it’s possible to activate a temporary reading function:

If you compose the N° 19 code you’ll active the TEST LED procedure, when the LED is ON the alarm gives an acoustical signal that indicates the correct reading. To stop the procedure it’s necessary to turn OFF the ignition key.

SUGGESTIONS FOR THE INSTALLER

CENTRAL UNIT POSITION:

Locate in the vehicle a good place to install the central unit. This location must protect the device from water but must also allow a good sound of the siren. Once the installation is over, shut with the wrapper the protecting rubber cover of the alarm.

ELECTRIC CONNECTIONS:

They must be perfectly performed, otherwise they will provoke, in time, problems to the alarm and the vehicle working.

FIXING OF THE WIRING TO THE ALARM:

Connect the plastic part of the wiring to the alarm and close with screws the supplied. Before the closing verify the presence of the o-ring rubber on the plastic part of the wiring.

DEVICE MAINTENANCE:

The installer, when delivering the vehicle, must advise his customer that, if he wants to wash it with high-pressure devices (hydro beam or similar), it is necessary to protect the alarm before beginning the washing. In case of water's infiltrations caused by use of hydro beam, the guarantee will lapse.

A progressive diminution of the transmission range, means that the remote control battery is unloading. Replace the battery immediately will avoid to have the alarm inserted and the remote control unusable.

TECHNICAL FEATURES

POWER TENSION……	11V ÷ 15V
ABSORPTION OF THE ALARM ARMED (SLEEP MODE)……	0,03 mA
MAXIMUM CURRENT OF INDICATOR LIGHTS RELAY……	8 A
NEUTRAL TIME……	> 5 sec.
TIME OF ALARM DURATION……	> 30 sec.
LOUDSPEAKER POWER……	113 dBA
OPERATING TEMPERATURE……	-40°C / +85°C
IMPERMEABILITY……	IP 54
INSIDE BATTERIES OF POWER SUPPLY……	NI-MH
DIMENSIONS……	116 x 59 x 33
WEIGHT……	143 gr.