HPS 848R
HPS 848
CAN BUS Alarm System

The two systems differ for the 2.4 GHz radio Transmitter-Receiver built-in (-R version)

"Thank you for choosing one of our products"

THIS INSTRUCTION MANUAL IS VALID FOR SYSTEMS WITH UPDATED **CARLIST 35** or NEXT AND SUPPORT THE WIRELESS SIREN

For "**CARLISTxx**" means the list of compatible vehicles preloaded into memory (see label report on the main unit. Each update adds new vehicles, while maintaining compatibility with earlier. In the box, there is a summary of those codes, but you may want to download from the site www.patrolline.it the updated list and installation specific cards for each vehicle.

INCLUDED IN THE BOX:

Supplied in standard version are:
- HPS 848 or 848R Alarm device
- Installation Wiring cables
- This manual
- List of code to compatible can bus vehicles
- Panic / Programming button
- Led wired sticker

In the 848x/55 kit version are included:
- Adjustable ultrasonic volumetric sensor
- pair of volumetric sensors.

DESCRIPTION OF THE SYSTEM

The system is able to interface and get information through the CAN bus (Controller Area Network) of the vehicle. It then uses the original remote control and/or intelligent key the vehicle for arming and disarming itself.

It is possible to get more information about the vehicle specific installation diagram at www.patrolline.it

The system works on the specific can bus line of the vehicle must be programmed through an appropriate hardware interface (BNC42) and the relative Uni_Proam.exe management software. This operation is performed by the installer.

ADDITIONAL ACCESSORIES AVAILABLE TO IMPROVE SAFETY AND FUNCTIONALITY OF THE PRODUCT

Article Accessory	848R	848	Description
HPS 974	✔	-	In addition to use with the original remote control of the car it is possible to add one or more transmitters HPA 974, which can act both in synchronous with the original ones, or independently for greater safety. (see programmable functions n°5 and n°26)
HPS 977	✔	-	With the addition of a transponder is possible to manage transparently the special security functions (see programmable functions 10, 11 and 27). The functions are still available through the programming button present in the package.
HPS 978	✔	-	Transmitter with radio transponder 2 in 1. It combines the functionality of the transponder in a remote control
HPA 975	✔	✔	It is possible to extend the protection of the system with the addition of wireless sensors 2.4 GHz (HPA 975)
HPA 98	✔	-	Wireless Siren with battery backup (optional)
HPA 95	✔	✔	Siren 4 wires with battery backup (optional)
HPA 94	✔	✔	Siren 4 wires (optional)
HPA 500	✔	✔	Central door locking module (optional)
HPA 44A	✔	✔	Windows lift module (optional)

CONFORMITY

This product follows the directive:
Regulation No. 116   >>   Rev.2/Add.115 (United Nations)

The installation certificate of the alarm, included into the packing, must be duly filled in and it will be part of vehicle documentation.

Please transcribe the following homologation number on the installation certificate in order to complete the compliance with the directive for the filling of vehicle and alarm data form.
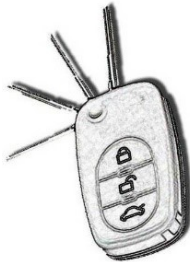
Type approval n°   **E24** **16RA-000067**   CE

ORIGINAL REMOTE CONTROL OPERATING

PRESSING THE ORIGINAL REMOTE CONTROL BUTTON YOU GET THE CLOSING VEHICLE AND THE ARMING THE SYSTEM:
CONFIRMED BY:

- 1 beep (if enabled);
- The LED on the dashboard turn ON;
- Engine block ON (if connected);
- Modules output arming (Windows lifter, ultrasonic, etc.);

The second press of the lock button allows disabling of ultrasound sensors, wireless devices in Zone 2 and the rise of windows (if connected). This function is subordinate to the vehicle type. If the second pressure NOT run the exclusion perform the sequence "Lock - Unlock - Block" of the original central locking with remote control in quick succession. The exclusion is confirmed by 4 led blinks before posting.

PRESSING THE OPENING PUSHBUTTON OF THE ORIGINAL REMOTE CONTROL YOU GET THE CONFIRMED TO DISARM THE ALARM:

- 2 beeps (if enabled);
- Turning off the LED on the dashboard;
- Deactivation of electric engine immobilization (if connected).;
- Deactivation of modules output (windows lifter, ultrasonic, etc.);

After disarming, in the case of one or more alarm cycles, the LED will remain fixe, indicating the presence of the alarm memory, that will be displayed after opening the door. To stop it turn on the key.

PRESSING THE TRUNK RELEASE OF ORIGINAL REMOTE CONTROL
If the device is armed the triggers for trunk opening, shock and ultrasonic sensor will be inhibited to permit the access the trunk compartment. The physical closure of the trunk will rearm the inhibited triggers.
Attention: this function could be dependent on the type of vehicle used.

SYSTEM LED OPERATION (DASHBOARD)

STATUS LED	*INDICATION*
– OFF	System disarmed or power supplier missing
– ½ sec. ON - ½ sec. OFF	First power up or restart for power failure. Perform a locking and unlocking cycle to turn it off.
– ON fixed	Neutral time 10 sec. (after locking), or alarm memory ready for showing (after unlocking). Open the driver's door and count the LED flashes in a train of pulses. Check the sensor trigger the "Alarm Memory" page.
– 1 flash every second	System armed and in surveillance.
– 3 sec. ON – 1 sec. OFF	Vehicle selected not in memory, check the selection by PC, eventually update the unit.
– 5 flash every second	An alarm is triggered. Alarm cycle lasts for 30 seconds.
– 2 flashes and pause	VALET function is active, system inhibited, this signaling occurs at ignition key on and is repeated for a timeout (see VALET function).
– 3 flashes every second	IMMOBILIZER function is active (n°27), reset with pushbutton or transponder.
– Flashing very fast, 10 times per sec.	The device firmware is corrupted, tried to flash the firmware by PC using a properly file.

HPA 974 - THE REMOTE-CONTROL OPERATION (OPTIONAL FOR HPS848R ONLY)

In addition to the same functions as the original remote control, through the bi-directional transmission, the transmitter HPA 974 has useful diagnostic and control functions.

BUTTON 3
Arming system

The entry is confirmed by:
- 1 beep (if enabled)
- 1 blinker flash (if enabled)
- LED on the dashboard
- Lock the doors (if connected)
- Activation of electric engine immobilization (if connected)
- Activation of modules output (windows lifter, ultrasonic, etc.)
- Enhanced output activation (electric windows, etc.)
Press again within 10 seconds to rule the ultrasound and radio sensors in zone 2. The exclusion will be confirmed by 3 beeps and 3 blinker flashes.

BUTTON 1+3
System status

Press simultaneously and release them. If the transmitter LED will flash for a few seconds, the alarm is inserted. If the alarm is off, the LED will remain off.
The function is independent of the distance from the vehicle and is valid when you use the same remote control for alarm management.

BUTTON 1
Disarming system

Disarming is confirmed by:
- 2 beeps (if enabled)
- 2 flashing blinker (if enabled)
- Turning off the LED on the dashboard
- Unlock the doors (if connected)
- Deactivation of electric engine immobilization (if connected)
- Deactivate output modules (ultrasound, etc.)
After disarming, in the case of one or more alarm cycles, the LED will display the alarm memory after the opening of the door until turn on the key.

BUTTON 2+3
Shock exclusion

Pressing the buttons 2 and 3 simultaneously immediately after arming the system, you get the exclusion of the shock sensor confirmed by 5 beeps (if enabled) and 5 flashing blinkers.

LED
While pressing any of the radio button if the LED:
Is fixe: means that the transmission is received by the system.
Blinks fast: means that the transmission is not received by the system (distance too great).
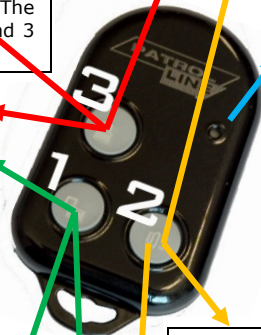**Blinks 4 times**: it means that:

the transmitter battery is low and it should be replaced.

BUTTON 2
Panic alarm and siren stop

- The pressure of the button 2 when the system is armed causes an alarm cycle (and therefore the sound) for about 30 sec. If the system is already in alarm, this is stopped.
- Pressing the button 2 after 10 sec. of the insertion causes the exclusion of the siren, confirmed by 4 beeps and 4 flashes blinkers.

BUTTON 1+2
Exclusion zone 2 sensors

Simultaneously pressing buttons 1 and 2 (after 10 sec. of the insertion system) for excluding the alarm signal of the programmed sensors in zone 2.
The exclusion is confirmed by 6 beeps and 6 flashes blinkers.

SPECIAL PROTECTION FUNCTION

*The IMMOBILIZER functions, ANTI-AGGRESSION and ANTI-THEFT **ARE NOT ACTIVE** in the default configuration. Their activation can be done exclusively on the customer's request and only by qualified personnel. Warning this function are managed by the **Programming Pushbutton (that must be installed) or** by the transponder device (**HPA977**)*

Button RESET -   HPA 977

IMMOBILIZER FUNCTION (N° 27)

This function, if programmed, is activated when you switched off the alarm.
From this moment and within 30 sec. the function must be reset by the presence of the transponder or the appropriately installed RESET button. If not, a full alarm cycle with starts with engine block. The ignition ON skips the timeout and trigs a direct alarm cycle with engine block.
Also, the opening of any doors after 15 sec. starts a direct alarm cycle.
If the function is started you can re-arm the system by remote control or with vehicle self locking.
CAUTION: disarming the alarm (unlocking with original remote control) out of the range of the transponder, after 30 seconds trigs an audible and visual alarm cycle.

ANTI-AGGRESSION FUNCTION (N° 10)

-        **Can bus vehicle.** The vehicle speed, after the ignition key turn ON, controls the activation and the engine block of the ANTIAGGRESSION function. The alarm system will request the Transponder recognition after passing the 10km/h speed threshold and, if the system cannot detect the recognition, after 40 seconds, the alarm system actives the siren sound for 20 seconds (pre-alarm), form now if the vehicle speed falls below the 10 km/h speed threshold (settable), the engine block will be activated.
-        **No Can bus vehicle.** Turn ON the key, the procedure start, the LED start to flash. After 40 seconds, the alarm system actives the siren sound for 20 seconds (pre-alarm), after that it will stop the engine by the intermittent activation within 50 seconds.
The ANTIAGGRESSION procedure can be stopped every time by the anti theft push button or by the HPA 977 Transponder signal recognition.

ANTI –THEFT FUNCTION (N° 11)

-        **Can bus vehicle.** The vehicle speed, after the driver door open and close, controls the activation and the engine block of the ANTIAGGRESSION function. The alarm system will request the Transponder recognition after passing the 10km/h speed threshold and, if the system cannot detect the recognition, after 40 seconds, the alarm system actives the siren sound for 20 seconds (pre-alarm), form now if the vehicle speed falls below the 10 km/h speed threshold (settable), the engine block will be activated.
-        **No Can bus vehicle.** Engine is ON, open and close the door checked, the procedure start, the LED start to flash. After 40 seconds, the alarm system actives the siren sound for 20 seconds (pre-alarm), after that it will stop the engine by the intermittent activation within 50 seconds.
The ANTI THEFT procedure can be stopped every time by the anti theft push button or by the HPA 977 Transponder signal recognition.

NEUTRAL TIME AND ALARM STATUS

Once the signaling of arming is over, the alarm will stay for 10 seconds into "neutral time" condition, signaled by the fixed light of the LED. The flashing of the LED of the dashboard will indicate that the system supervises the vehicle and is ready to signal the alarms.

If, during the neutral time, 10 seconds, the alarm system detect a cause of alarm, it shows this by the blinker flashing. The number of the blinker flashing tell to you the cause of alarm. Look at the table on chapter "alarm memory" to know the cause.

If the alarm detects the same cause of alarm for 5 times, it excludes automatically this cause.

PANIC ALARM

Alarm armed, 10 second after arming, press the LOCKING push- button of the original remote control or the Button 2 of the PATROLLINE remote control HPA 974(only 848R): central unit do an alarm cycle that during about 30 seconds. To stop the alarm cycle press again the LOCKING push-button of the original remote control or the Button 2 of the PATROLLINE remote control HPA 974 (only 848R). These functions are available only for some vehicles, because they depend from the model and the logical of the original remote control of the car.

ADDITIONAL MODULE EXCLUSION

After the system arming, press the LOCKING push-button of the original remote control or the button N°3 of the PATROLLINE remote control within 10 seconds.
The exclusion will be confirmed by 3 beeps and 3 blinkers flashes.

TRUNK OPENING

The system can detect the trunk unlocking by the original remote control. In this case, when the trunk will physical open, the ultrasonic sensor and shock sensor will be disarmed, to avoid the alarm trigger. These protections will be armed again, when the trunk will physical close.

These functions are available only for some vehicles, because they depend from the model and the logical of the original remote control of the car.

STATUS MEMORY

If during the armed state, the alarm is turned off using the mechanical key or the alarm is detached from the cable harness, after restoration it will remember the state in which it was. This prevents any tampering attempt.

HORN / SIREN EXCLUSION / SIREN WIRELESS ECLUSION ((only 848R)

Through the ignition key it is possible to exclude the HORN / SIREN: alarm disarmed, (CDL opened), turn on and off the ignition key for 3 times and, within 30 second, press the original remote control to close the CDL of the vehicle.

Trough the PATROLLINE remote control HPA 974 (only 848R)*, is possible to exclude the HORN / SIREN:* after system arming, within the first 10 seconds, push the Button2 of the PATROLLINE remote control. The exclusion will be confirmed by 4 blinkers flashes and 4 beeps.

From this moment, the central unit will signal the attempt to break only by the blinkers flashes.

SHOCK SENSOR EXCLUSION

This function is available only with the PATROLLINE remote control HPA 974. After system arming, within the first 10 seconds, press together the "2" and "3" buttons. The exclusion will be confirmed by 5 blinkers flashes and 5 beeps.

PROTECTION AGAINST RADIO INTERFERENCES ANTI-JAMMING

(Only for HPS 848R) When the alarm is armed, if the system detects a radio interference device acts to blind the operating frequency, it triggers one automatic alarm cycle.

SIREN LIMITATION FOR CONSECUTIVE ACTIVATIONS

If 3 consecutive alarm activations are detected from the same sensor, the system will exclude the sensor or that alarm line. During this condition, the engine block is still active.

ALARM PROCEDURE

The alarm system operating

In case of alarm, the system trigger by the optic-acoustic signals (flashing of the blinkers and horn or siren sound), for 30 seconds. One cycle of alarm is 30 seconds longs.

To stop the alarm triggering without to disarm the system, press the LOCKING button of the original remote control or the "2" button of the PATROLLINE remote control.

To stop the alarm triggering and disarm the system, press the UNLOCKING button of the original remote control or the "1" button of the PATROLLINE remote control.

ADDITIONAL MODULE EXCLUSION

After the system arming, press the LOCKING push-button of the original remote control or the button N°3 of the PATROLLINE remote control within 10 seconds.

The exclusion will be confirmed by 3 beeps and 3 blinkers flashes.

USE OF THE SECRET RELEASE PIN CODE

To be used when the remote controls are lost or no longer operating when the alarm system is still armed.

The code is always made of 3 digits (factory setting: 1-2-3). This code should be composed (when the alarm is armed) via the ignition key as per the procedure detailed below:

1. Turn the ignition key ON/OFF as many times as per the first digit (e.g. 1 in case of factory setting)

   The LED is illuminated while composing the pin code and the horn or the siren sounds.

   Wait until the LED extinguishes.
2. Turn the ignition key ON/OFF as many times as per the second digit (e.g. 2 in case of factory setting)
3. Wait until the LED extinguishes.
4. Turn the ignition key ON/OFF as many times as per the third digit (e.g. 3 in case of factory setting)

If you succeed, the **alarm system will disarm after the third digit**.

CHANGE OF THE RELEASE PIN CODE

You may customise the factory pre-set release pin code (1-2-3) just following the herewith procedure, alarm disarmed:

Through the ignition key compose the **old secret code** as described in the previous paragraph.

Wait for quick LED flashes of confirmation that the old code of unblocking is correct, then

1. Turn the ignition key ON/OFF as many times as per the first value to be modified.
   The LED will illuminate during the composition of the secret code.
   Wait that the LED on the dashboard extinguishes.
2. Turn the ignition key ON/OFF as many times as per the second value to be modified.
   Wait that the LED on the dashboard extinguishes.
3. Turn the ignition key ON/OFF as many times as per the third value to be modified.
    Wait that the LED on the dashboard extinguishes

If you succeed, the quick flashing of the LED on the dashboard confirms that **the new secret code** has successfully substituted the old one.

**THE NEW PIN CODE WAS STORED AND HAS SUBSTITUITE THE OLD
ONE INSERT HERE THE NEW PIN CODE _____**

ALARM MEMORY

If the central unit records one or more causes of alarm, they are signaled, when disarming and open the driver door or press the anti hi-theft push-button through the LED. To verify the type of alarm, check the number of flashings of the LED with the table below.

N° Flash of the LED	CAUSE
1	Doors opening (triggered by CAN-BUS)
2	CDL unlocking by mech. key (triggered by CAN-BUS), or power supply missing form wireless siren (only for list ≥ 35).
3	Hood (Bonnet) opening (triggered CAN-BUS)
4	Trunk opening (triggered CAN-BUS)
5	Ignition key turn on (triggered CAN-BUS)
6	Shock sensor triggered
7	Additional sensor trigger at pin input n° 3 (PINK wire) (U.S. sensor, microwave sensor)
8	Additional sensor trigger at pin input n° 4 (BLUE wire)
11	OEM alarm (triggered CAN-BUS)
12	Magnetic sensors HPA 975 triggered
13	Hood (Bonnet) detected by wireless siren (only for list ≥ 35)
15	Missing communication with wireless siren (only for list ≥ 35)

VALET FUNCTION

This function puts the alarm into the stand-by modality. This allows the car to be left at a service centre without leaving the remote control. It is activated, when the alarm is disarmed.

Activation: Compose, using the ignition key, the **unlocking** code (factory setting 1-2-3).
If the operation is successful, the LED on the dashboard will flash twice.
To remind that the Valet function is active the LED on the dashboard will flash twice at any time one turns on the ignition key.

Deactivation: Compose using the ignition key the **unlocking** code (factory setting 1-2-3). If the operation is successful, the LED on the dashboard will flash 4 times and all the system functions will be restored. It's possible to active this function also through the anti theft push-button: EASY VALET function

EASY VALET FUNCTION

Activation of the EASY VALET function:
- Ignition Key ON, front doors closed and alarm disarmed, push the anti theft button for about 10 seconds, the LED start to flash slowly.
- Release the button before the LED stops to flash.

If the function is enabled   -> 1 blinkers flash– 1 beep – 1 LED flash
If the function is disabled   -> 2 blinkers flashes – 2 beeps – 2 LED flashes

Every time that the ignition key is turned ON, the LED flash 2 times slowly for about 40 seconds, to show that the function is ON.

PRE-VALET FUNCTION

This function permit to disable the **anti aggression and anti theft functions** (if set), keeping ON all the other functions of the alarm.
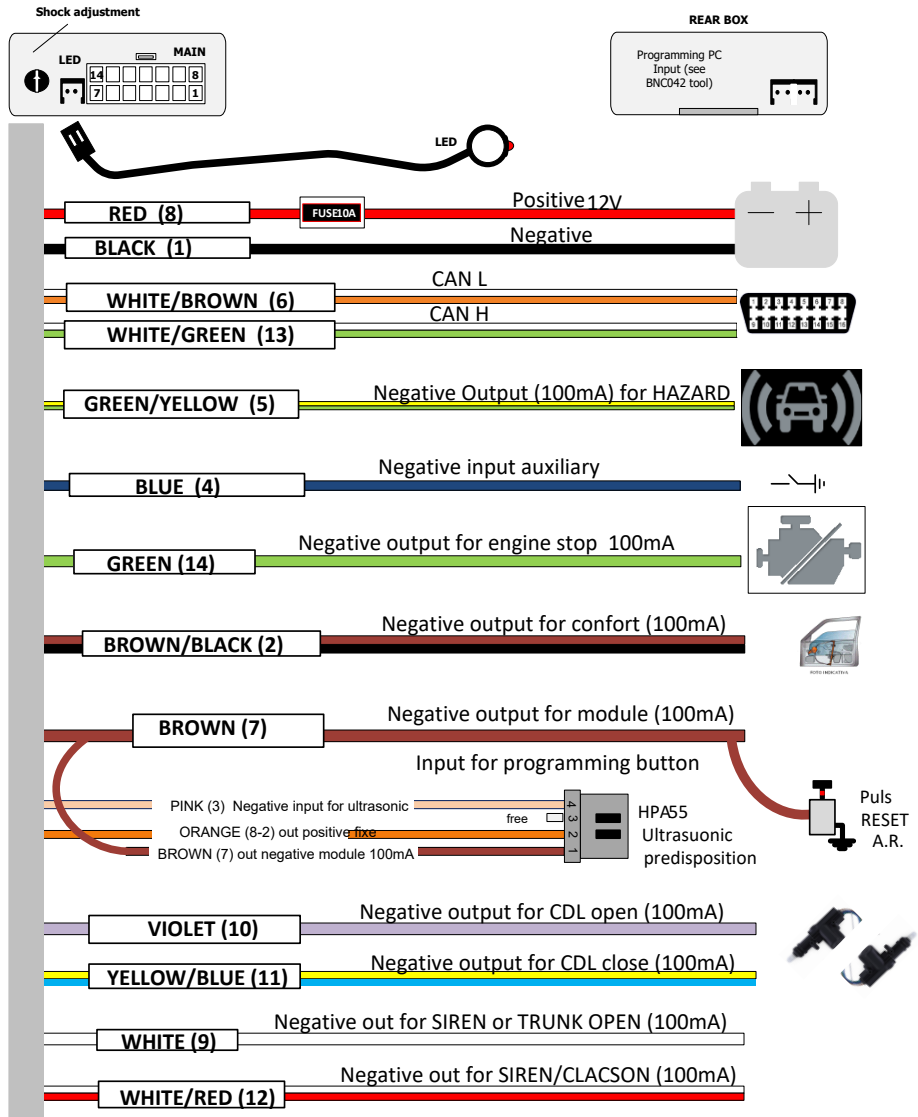
Activation of the PRE-VALET function:
- Ignition key ON, front doors opened and alarm disarmed, push the anti theft button for about 10 seconds, the LED start to flash slowly.
- Release the button before the LED stops to flash.

If the function is enabled   -> 1 blinkers flash– 1 beep – 1 LED flash
If the function is disabled   -> 2 blinkers flashes – 2 beeps – 2 LED flashes

GENERAL CONNECTION DIAGRAM

There is a specific fitting instruction for every vehicle that is wrote into the vehicle compatible list.
The following diagram shows a general connection example with ZWW-02223 wiring loom.

Shock adjustment

LED   MAIN
14 [ ] 8
7 [ ] 1

REAR BOX

Programming PC
Input (see
BNC042 tool)

LED

RED (8)   FUSE10A   Positive 12V

BLACK (1)   Negative

WHITE/BROWN (6)   CAN L

WHITE/GREEN (13)   CAN H

GREEN/YELLOW (5)   Negative Output (100mA) for HAZARD

BLUE (4)   Negative input auxiliary

GREEN (14)   Negative output for engine stop 100mA

BROWN/BLACK (2)   Negative output for confort (100mA)

BROWN (7)   Negative output for module (100mA)

Input for programming button

PINK (3) Negative input for ultrasonic

ORANGE (8-2) out positive fixe   free

BROWN (7) out negative module 100mA

HPA55
Ultrasuonic
predisposition

Puls
RESET
A.R.

VIOLET (10)   Negative output for CDL open (100mA)

YELLOW/BLUE (11)   Negative output for CDL close (100mA)

WHITE (9)   Negative out for SIREN or TRUNK OPEN (100mA)

WHITE/RED (12)   Negative out for SIREN/CLACSON (100mA)

SIREN INSTALLATION – HORN CONNECTION

The HPS848x systems has two alarm outputs:
WHITE/RED wire, output 100mA max, negative output. On this connection will execute arming beep. Factory is configured to connect the horn, then intermittently, but it's possible to switch in continuous mode (see. Function n°6)
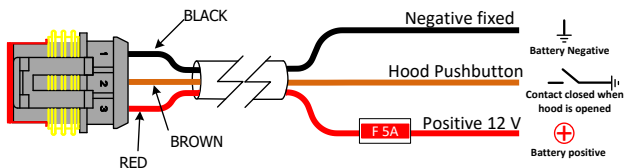
WHITE wire, negative output in case of alarm, max 100mA.
Useful to connect with a telephone dialer or control a second siren. Its possible to switch this wire for the trunk open (only for 848R with the remote HPS 974)
Factory is configured to connect the siren, then output fixe.

WIRELESS SIREN CONNECTION

With the upgrade to **CARLIST 35**, has been added the possibility to control the wireless siren HPS98, which avoids that the wires coming in the engine compartment. However, the two alarm outputs remain active (wires White/Red and White). The connection to the Bonnet pushbutton is optional.

Description

The HPS 98 siren operating with 2.4 GHz wireless technology. Once learned to an alarm unit, it will become like a normal wired siren, adding additional protection functions during the armed state. The siren features include:
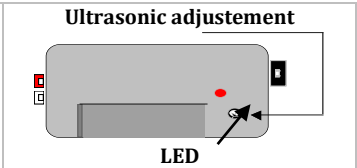
- the activation and deactivation commands (beeps),
- the commands to activate and stop the acoustic warning cycle,
- the status command (alarm armed or disarmed)
- the "beacon" transmission, to signal siren presence

The siren hasn't switch-off key, disconnecting it when the alarm is disarmed, it will not trig, while disconnecting it when the alarm is armed will trig sending a power missing transmission to alarm.

Once the siren is learned by alarm, a "beacon" presence communication is established with the alarm, this allows to verify the mutual communication, if it fails, an alarm warning cycle is triggered for "jamming", (see memory table alarm).

ADJUSTEMENT ULTRASONIC MODULE (MODEL HPS 848X/55)

Ultrasonic sensitivity may be adjusted by using the trimmer in the module. Rotate the trimmer clockwise to increase sensitivity and anti clockwise to decrease it. Warning: an incorrect adjustment may cause false triggering of the alarm.

Ultrasonic adjustement

LED

SET-UP PROGRAMMABLE FUNTION

It's possible to modify the functions written in this table, the functions are valid for **LIST 35**.
To set/unset them, alarm has to be disarmed and driver door opened, press the programming button many times as the number of the function to set/unset. The function will be set if it was unset and will be unset if it was set.

1 beep, 1 blinker flash and 1 LED flash. The function is set.
2 beeps, 2 blinker flashes and 2 LED flashes. The function is unset.

N° Function and initial state	FUNCIONS DESCRIPTION
F. 2 **OFF**	**LEARNING WIRELESS SIREN** The Patrolline wireless sirens must be learned by the alarm in order to work. Both siren and alarm must be in the learning condition. **Alarm side:** enter in the programming procedure (2 button presses), the LED flashes quickly. Within 30 seconds set the siren in the learning procedure. **Siren side:** enter in the programming procedure grounding 10 times the BROWN siren wire (hood input), the siren emits a series of beeps until it is detected by the alarm (beeps became more frequent). The learning procedure can end too by grounding again the hood input, so it's better to disconnect the hood wire (if used) to enter in the procedure. **Warning:** once the alarm has been learned, every time that the system is armed, alarm checks the presence of the siren expecting a transmission receiving, so if you need to remove the siren, you have to erase the siren or disable the "beacon" communication by setting the function 29. Erasing the siren. Enter in the learning procedure, when the LED starts flashing quickly, press again for 5 seconds the pushbutton until 1 blinker flash and 1 beep. Siren is erased.
F. 3 **OFF**	**HPA975 Magnetic sensors learning in the ZONE n°1** *Area 1 is not temporary disabling by the remote control.* - Push the programming button for 3 times, the LED flashes quickly; - During the LED flashing turn ON the magnetic sensor to learn it; - The correct learning is indicated by a beep, a flash lamp and the 1 sec. LED ON. Repeat the procedure for each magnetic sensor to learn. The procedure can stop after 30 seconds from the last learned device or after turned ON the ignition key. The maximum number of the devices accepted into the **area 1 is 24.** Erasing all zone1 sensors. Enter in the learning procedure, when the LED starts flashing quickly, press for 5 seconds the button until a beep, a flash lamp and the 1 sec. LED ON.
F. 4 **OFF**	**HPA975 Magnetic sensors learning in the ZONE n°2** *Area 2 is temporary disabling by the remote control.* - Push the programming button for 4 times, the LED flashes quickly; - During the LED flashing turn ON the magnetic sensor to learn it; - The correct learning is indicated by a beep, a flash lamp and the 1 sec. LED ON. Repeat the procedure for each magnetic sensor to learn. The procedure can stop after 30 seconds from the last learned device or after ignition ON. The maximum number of the devices accepted into the **area 2 is 8.** Erasing all zone2 sensors. Enter in the learning procedure, when the LED starts flashing quickly, press for 5 seconds the button until a beep, a flash lamp and the 1 sec. LED ON.

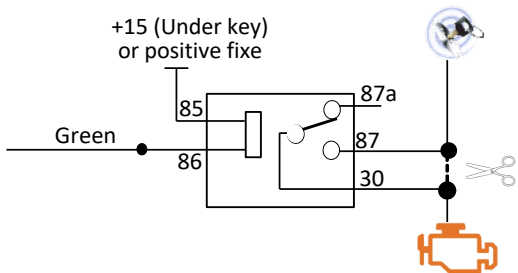|	
F. 5 OFF	**HPA974 remote controls and HPA977 Transponder learning** To learn the additional remote controls and Transponders, the selectors on the central unit must be positioned as showed on the vehicle compatible list, for CAN BUS vehicles, or on the selection 0-1, for no CAN BUS vehicle. Learning procedure: 1. Push the programming button for 5 times, the LED flashes quickly; 2. To learn a remote control, push a button of the three on it; 3. To learn a transponder, open its case, remove and insert again the battery, the transmitter sends its code for 10 seconds to permit the learning; The correct learning is indicated by 1 beep, 1 flash of the lamps and 1 sec. LED ON. Repeat the operation from point 2 with other remotes or transponders in case of multiple devices to learn. The procedure can stop after 30 seconds from the last learned device, after the learning of the maximum remote controls and transponder accepted or after ignition ON. The maximum number of the remote controls accepted is 4. Erasing all transmitters. Enter in the learning procedure, when the LED starts flashing quickly, press for 5 seconds the button until a beep, a flash lamp and the 1 sec. LED ON.
F.6 Pulsed	**Set the alarm output (White/Red wire) from pulsing to continuous** Program this setting when it's used a siren instead of the horn of the car. Default the output is pulsed during an alarm cycle. To obtain a continuous siren output, program this function. Attention: in case of some vehicles, where the Horn is controller through the CAN BUS, this setting is ignored, to stop using horn by CAN BUS use function F.8.
F.7 OFF	**Remove the arm/disarm/warning beeps, Off/On (White/Red wire)** This setting permits to remove the acoustical signal when the system is armed/disarmed. By default, the Beeps are enabled.
F.8 OFF	**Disable CAN BUS command to drive the HORN** When the selection used for the vehicle is set to command the horn by the CAN BUS, this setting disable this command. Hardware commands (White/Red or White wire) are, however, always enabled.
F.9 OFF	**Force Blinkers output for external Relay command** When the selection used for the vehicle command the blinker by the CAN BUS or by hazard wire through YELLOW/GREEN wire, this setting permits to switch the mode of working of the YELLOW /GREEN wire to command an external relay to drive the indicator lights lamps directly.
F.10 OFF	**ANTI-AGGRESSION** For operation see the user section "SPECIAL PROTECTION FUNCTION" on page 5. NOTE: The engine stop is not automatic, it must also be set by 20 function.
F.11 OFF	**ANTI-THEFT FUNCTION** For operation see the user section "SPECIAL PROTECTION FUNCTION" on page 5. NOTE: The engine stop is not automatic, it must also be set by 20 function.
F.12 1 s.	**Set 30 seconds / 1 second CDL locking** This setting permits to extend the locking time till to 30 seconds, to enable the COMFORT function where it's possible, by the HPA 974. In case of Ultrasonic/Comfort exclusion, by second locking command press, the time will be reset and the windows closing will stop.
F.13 Single	**Lock impulse double/single** This setting permits to have two locking pulse instead than one, during the locking by the HPA 974.
F.14 Single	**Unlock impulse double/single** This setting permits to have two unlocking pulse instead than one, during the unlocking by the HPA 974.
F.15 OFF	**Blinkers flashes at arming/disarming by the HPA 974 ON/OFF** This setting permits to obtain to flash the blinkers when lock and unlock the vehicle with the HPA 974. *ATTENTION: do this setting only if the lock by the HPA 974 doesn't give any original blinkers flashes.*

F.16 **OFF**	**Disable alarm arming by anti-distraction function** This setting permits to disable the auto arming function of the alarm, if the vehicle interested is equipped with the original auto arming (by the original remote control or 974).
F.17 **OFF**	**Shock sensor disabling with the US module (by the remote control)** This setting permits to disable also the shock sensor, when, during the system arming, it's excluded the ultrasonic module due the second locking press, by the original remote control or HPA 974.
F.18 **ON**	**Disable Panic function by the remote control** This setting permits to disable the panic function by the remote control.
F.19 **OFF**	**Remove the arm/disarm/warning beeps from WHITE wire and from wireless siren** This setting permits to remove the acoustical signal when the system is armed/disarmed, from WHITE wire and wireless siren (from LIST 35). By default, the Beeps are enabled.
F.20 **OFF**	**Enable the engine kill during the Anti-aggression/Anti-theft cycle** Set this function to get the engine kill during Anti-aggression and/or Anti-theft functions. The engine kill works intermittently becomes fixed within 50 seconds. Function available with the programming functions No. 10 and/or No. 11.
F.21 **OFF**	**PASSIVE FUNCTION WHEN ALARM OFF** After ignition off, opening and closing the driver door the function is activated, the LED flashes quickly and within 30 sec. the alarm will arm. During this time, you can interrupt the function turning on the ignition or by opening any doors. The re-closing will trigger the time again. Warning: The function can be dependent on the type of vehicle!
F.22 **Contin.**	**Set the output wire WHITE from continuous to pulsed** Use this setting when it's necessary to switch the WHITE wire output to pulsed mode. By default, the output is continuous.
F.23 **ON**	**Inhibit the Alarm for Jammer frequency** This setting permits to disable the alarm for the Jamming function. In this case the alarm cannot see the radio disorders.
F.24 **OFF**	**Inhibit the Alarm arming/disarming by the OEM remote control** This setting permits to disable the alarm arming and disarming by the OEM remote control. The alarm can be armed only by the PATROLLINE remote control HPA 974.
F.25 **Comfort** **& key**	**SWITCH the reading PIN CODE from IGNITION KEY to BRAKE PEDAL** Used for cars that do not have mechanical ignition key. This function allows to switch the reading pin code input (default ignition key) with the brake pedal or the parking brake (but only with the driver door opened. CAUTION: all the functions that use the unlock code are affected by this switching.
F.26 **OFF**	**Disarming by the ignition key ON enabled** This setting permits to disarm the alarm system, in case of emergency, to turn ON the ignition key. The Ignition key (+15) is detected by the CAN BUS. This is an alternative to the emergency PIN CODE.
F.27 *OFF*	**Immobilizer function enabled** For operation see the user section "SPECIAL PROTECTION FUNCTION" on page 5. This setting permits to enable Immobilizer function.
F.28 **ON**	**LOCK THE DOORS WHEN VEHICLE IS MOVING** This feature allows to lock the vehicle doors when the vehicle speed exceeds 10 km/h. The doors will be unlocked when turned off the ignition.
F.29	**DISABLED "BEACON" TRANSMISSION OF THE WIRELESS SIREN** The beacon transmission keeps the wireless siren in contact with the alarm where siren has been learned. Removing the siren without activating this function causes an alarm trigger. To remove the siren from the system, it is also possible to remove it from memory using function n° 2 (siren erasing).
F.30	No function

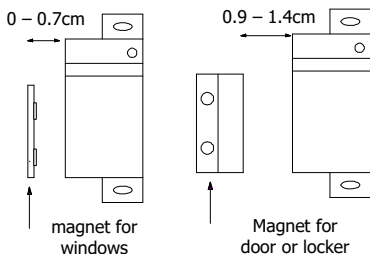|	
F.31	**Alarm parameters default restore** This setting permits tot o restore all the alarm default parameters, without to delete any stored devices.

ENGINE CUT WITH EXTERNAL POWER RELAY (OPTIONAL)

The engine stop unit supports a maximum current of 100mA.
To stop higher current use the additional 30A relay. With this diagram:

+15 (Under key) or positive fixe

Green

85
86
87a
87
30

HPA 975 INSTALLATION (OPTIONAL AND ONLY FOR 848R)

It's possible to install the 2,4 GHz transmitters on door, windows and locker.
Put the transmitter on the fixed part and the magnet on the mobile part (door or windows), as showed in the picture.

0 – 0.7cm

0.9 – 1.4cm

magnet for windows

Magnet for door or locker

ATTENTION: the transmitters are equipped with an anti-tampering system, respect the minimum and maximum distance that are showed in the picture. If the distance between these two devices is too little, it's possible that there is a continuously alarm signal transmission, this means continue false alarms.

User Section

ALARM MAINTENANCE

GENERAL MAINTENANCE: All the operations to repair the alarm must be performed by PATROL LINE Assistance Centers. The tampering of the alarm by personal not qualified can jeopardize the device working and the safety of the vehicle.

(848R ONLY) REPLACING THE BATTERY OF TRANSMITTER / TRASPONDER

It is advisable to replace the batteries of optional HPA977 devices, HPA974, HPA975 every two years. Use CR2032 lithium 3V from any manufacturer.

SIGNAL LOW BATTERY
HPA977 - at the time of the reset protection functions (PASSIVE - ANTI-THEFT - ANTI-AGGRESSION), the LED of the transponder and the alarm LED will flash four times, indicating that the battery should be replaced as soon as possible.
HPA974 - Four flashes of the LED or each key press
HPA975 - Four flashes of the LED after each excitation / transmission

HOW TO REPLACE THE BATTERY
Gently open the shells of the transponder or transmitted by levering with a flat screwdriver. Remove the battery from the house. Replace it with a new battery type CR2032 or equivalent.
Do not open the batteries. The liquid that can escape is corrosive and can cause burns or damage eyes or skin and is still toxic. In the case in which the battery is determined to be liquid leakage, replace them immediately, taking care to clean the housing and to thoroughly wash the hands in case of contact with the leaked fluid.
ATTENTION: Due to the small size of the product some of its parts may be swallowed. Keep out of reach of children under 36 months of age. Handle with care to avoid short-circuit the batteries through conductive materials. Do not use rechargeable battery. Do not incinerate.

Remove the battery from remote control before disposal of the same and dispose of according to current regulations. Dispose of batteries according to local regulations. Do not dispose of with household waste.

TECHNICAL FEATURES

POWER SUPPLY	9V ÷ 15V
SUPPLY CURRENT ARMED / DISARMED	< 3.8 mA
MAX CURRENT FOR ANY DIGITAL OUTPUT	<100mA
ALARM TIMING	< 28 sec.
FREQUENCY TRANSCEIVER (ONLY 848R)	2.4 GHz
WORKING TEMPERATURE	-40°C / +85°C
CENTRAL UNIT SIZE	80 x 50 x 30
WEIGHT	143 gr.

Page **15** of 16 HPS 848 R.2

Make copies of this page if necessary

Conditions of warranty

PATROLLINE guarantees the device against manufacturing defects for a period of 24 months from the date of delivery. The warranty consists in free replacing or repairing of parts unusable or inefficient because of factory's fault verified by Patrolline. Any delay in carrying out works do not entitle to damages or extension of warranty. The warranty lapses if the devices are used not in conformity with the present conditions, if they are modified, repaired or tampered, if the defects derive from accidents, from negligence or from using parts not original. What above-mentioned is the only warranty, that therefore substitutes the legal one. The buyer has not the right to ask for the annulment of the contract, to claim compensation or price reduction.

RESPONSIBILITY: Patrolline has no responsibility or obligations for any accident and/or damage to things/people that could occur using the device.

LIMITATIONS: the buyer undertakes to not to use the device for purposes different from the ones it is for, and to not to modify its construction and its functioning. Saved any possible action of compensation for damages, it is agreed that the non-observance of the regulations above-mentioned involves the immediate end of the right of warranty.

The validity starts from the date of delivery (that is the date of the first installation) signed on the warranty special coupon with the receipt attached or a copy of the invoice. Without these documents, the warranty will start from the date of manufacturing.

The following services are free: the supply and replacement of the parts unusable or inefficient because of verified defect of material; the workforce to replace and repair the above-mentioned parts; the supply of materials that have become necessary after the above-mentioned actions and pertinent to them. **Are payable by the buyer**: the replacement of various materials not connected with the interventions to repair the device for verified defect; maintenances and interventions because of wear, accident or conditions that do not follow the indications of Patrolline. **Every piece returned**, for any reason, to Patrolline will be done by FREE PORT. **These conditions of warranty** have to be considered valid only on National territory (Italy). **Warning** The alarm must be installed by a qualified person following carefully the indications of the manufacturer. The person who do the installation must fill in the *installation certificate* attached. The homologation number of the alarm can be found on the user's manual or on the label located on the plastic box of the alarm. Every following modification to the device or to the connections of the alarm invalidates the installation certificate.

INSTALLATION CERTIFICATE

The undersigned _____

professional installer, certify that the installation of the vehicle protection device described below has been done in conformity with the instructions given by the manufacturer.

Description of the vehicle:

Brand and Model
_____

Description of the vehicle protection device:

Model and Serial Number_____

Stamp and signature of the installer

Place and date of the installation: _____

MALFUNCTION (minutely describe the problem):
_____
_____

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