INSTALLATION CERTIFICATE

The undersigned qualified installer attests to have personally fitted the here described vehicle security system following the manufacturer instructions.

By:

Sold On:

Type of Product: ☐ **S38**

Vehicle:

Scorpion automotive permanently fitted aftermarket equipment must be installed by qualified and authorised installers. Thatcham recommends to its insurer members that the installations of certified products within the aftermarket are registered with an independent installation registration system which can be accessed by insurance companies.

S-Series
A brand of the Scorpion Automotive Group
Scorpion House,
Drumhead Rd,
Chorley, Lancashire, UK,
PR6 7DE

SCORPION AUTOMOTIVE

S-SERIES

S38

INSTALLATION GUIDE

UK

CE UK CA

Rev 02 – 09/22

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1.0 – INTRODUCTORY NOTE

Dear customer, the S38 self-powered alarm system is supplied with 1 touch key to emergency override the system and exclude the sensors and 2 RFID transponders (TAG cards) to engage/disengage the engine immobiliser. The alarm is compatible with wireless sensors.

Please read the present manual carefully to familiarize yourself fully with the alarm features and operating procedures and do keep it handy for future reference. (See par. 2.0 PINOUT TABLES).

2.0 – PINOUT TABLES

2.1 – 20-PIN CONNECTOR

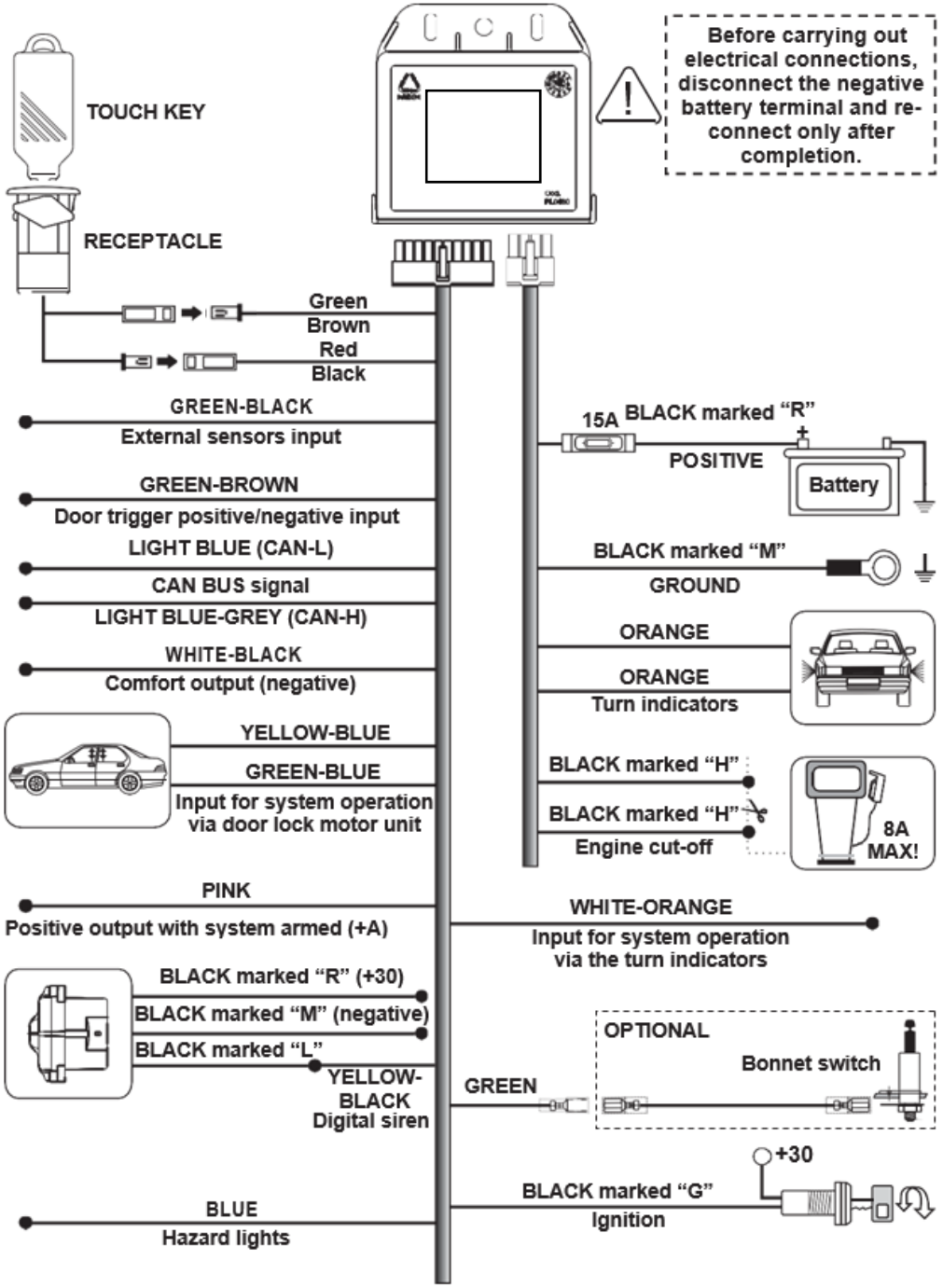
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	-----	-----
- 2 -	System arming signal	YELLOW-BLUE
- 3 -	System disarming signal	GREEN-BLUE
- 4 -	-----	-----
- 5 -	Door switches positive/negative input	GREEN-BROWN
- 6 -	Touch key receptacle input	GREEN
- 7 -	Touch key receptacle ground	BROWN
- 8 -	LED negative output	BLACK
- 9 -	LED positive output	RED
- 10 -	Ignition	BLACK marked “G”
- 11 -	CAN BUS signal (CAN-H)	LIGHT BLUE-GREY
- 12 -	CAN BUS signal (CAN-L)	LIGHT BLUE
- 13 -	Positive output - system armed (+A)	PINK
- 14 -	External sensors negative input	GREEN-BLACK
- 15 -	Bonnet switch negative input	GREEN
- 16 -	Output for Hazard lights	BLUE
- 17 -	Comfort negative output	WHITE-BLACK
- 18 -	Output for digital siren/horn/additional siren	YELLOW-BLACK
- 19 -	Antenna	BLACK
- 20 -	Learning input and system arming/disarming via turn indicator flashes	WHITE-ORANGE

WHITE-ORANGE wire must ALWAYS be connected if system is to arm/disarm via the turn indicators flashes.

2.2 – 8-PIN CONNECTOR

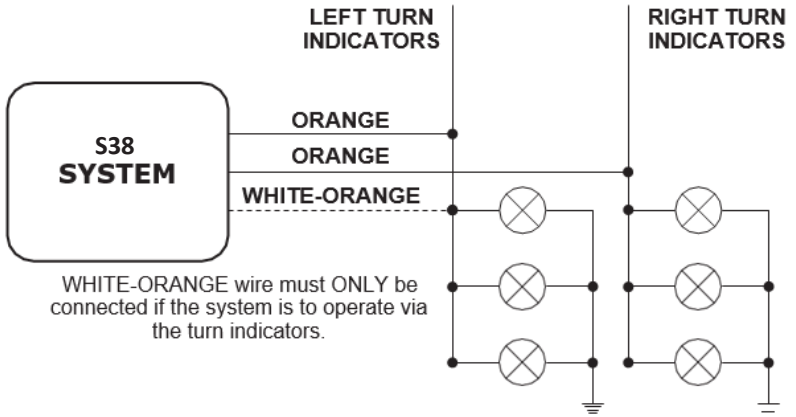
POSITION	WIRE FUNCTION	WIRE COLOUR
- 1 -	Ground	BLACK marked “M”
- 2 -	-----	-----
- 3 -	Positive supply	BLACK marked “R”
- 4 -	Turn indicators positive output	ORANGE
- 5 -	Engine immobilizer	Black marked “H”
- 6 -	-----	-----
- 7 -	Engine immobilizer	Black marked “H”
- 8 -	Turn indicators positive output	ORANGE

3.0 – WIRING DIAGRAM

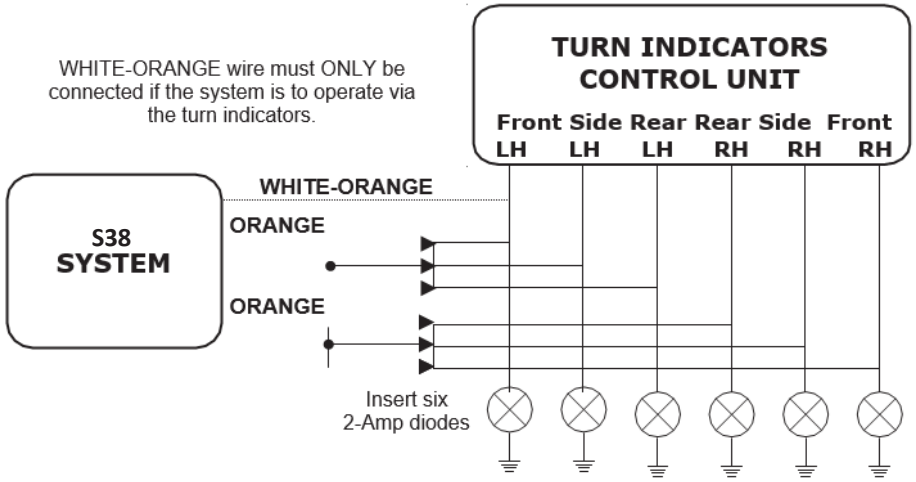


4.0 – TURN INDICATORS WIRING DIAGRAMS

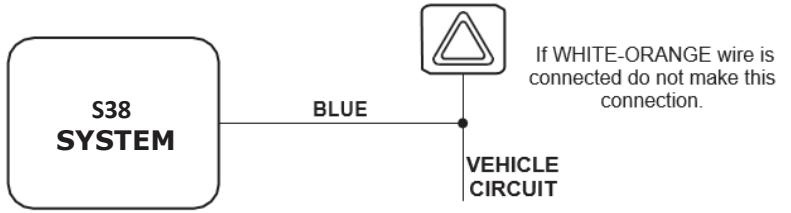
4.1 – STANDARD CONNECTIONS



4.2 – CONNECTIONS FOR VEHICLES WITH SEPARATE LINES



4.3 – CONNECTION TO HAZARD SWITCH



5.0 – CENTRAL LOCKING CONNECTIONS TO ARM/DISARM THE SYSTEM

The alarm system can operate in various modes according to the vehicle on which it is installed and the available connections (refer to the vehicle installation specifications).

It can be managed via the vehicle CAN BUS line and operate in combination with the turn indicator flashes and/or the door locking motors. The system automatically manages the different arming/disarming signals.

The various arming modes are listed below and the connections detailed in the following paragraphs (refer to the vehicle specific installation instructions available in the restricted area of our website: www.gemini-alarm.com).

- Arming via CAN BUS line.
- Arming via door lock motors.
- Arming via turn indicator flashes.
- Arming via turn indicator flashes and door lock motors.
- Arming via turn indicator flashes, door lock motors and CAN BUS line.

5.1 - CONNECTIONS AND MANAGEMENT VIA CAN BUS LINE

System arming/disarming and alarms are managed via CAN therefore only connect the alarm CAN wires to the vehicle CAN line.

5.2- CONNECTIONS TO LOCKING MOTORS

System arming/disarming connections must be made to the door lock motors (polarity reversal).

5.3- CONNECTIONS TO TURN INDICATORS

If the turn indicators lock/unlock flashes are identical, connect the door lock motors.

If the turn indicators flash when unlocking with the car mechanical key, do not make this connection.

To arm/disarm the system, connect the WHITE-ORANGE wire to one of the turn indicators wires and learn the lock/unlock flashes (par. 9.0).

5.4 – COMBINATION CONNECTION

This type of connection allows the system to operate via the CAN line in combination with the turn indicators or the door lock motors or both.

The system will automatically manage the different lock/unlock signals according to the selected configuration and connections.

6.0 – VEHICLE CODE PROGRAMMING

If the system is to be managed via CAN BUS, it must be configured with the code set up for the vehicle on which it is to be installed.

Here below is an example illustrating the configuration procedure where the code to be entered is “1-0-3”.

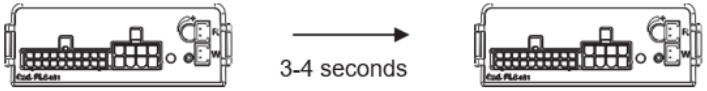
A separate leaflet, included in the alarm packaging, lists available vehicles (codes are updated at packaging time).

The system has an indicator LED that signals any wrong vehicle code inserted. The code must range between 100 and 239 otherwise the LED on the unit blinks repeatedly and the procedure is interrupted.
The previously inserted code remains stored.
The procedure is also invalidated if the LED blinks more than 10 times.
In this case there are no optical warnings, the procedure is simply interrupted.
In either case, repeat the entire procedure.

Connect the harness connectors to the alarm.

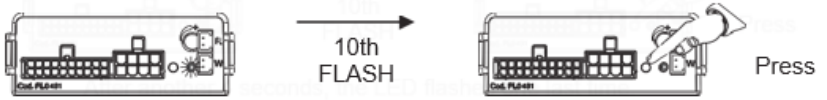
Press and hold the button shown below until the LED lights up.

Release the button, the LED switches off.

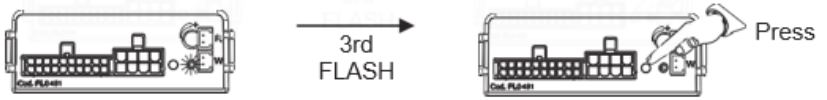


After 3-4 seconds, the LED starts flashing.
Press the button at the 1st flash which corresponds to the code 1st digit “1”.

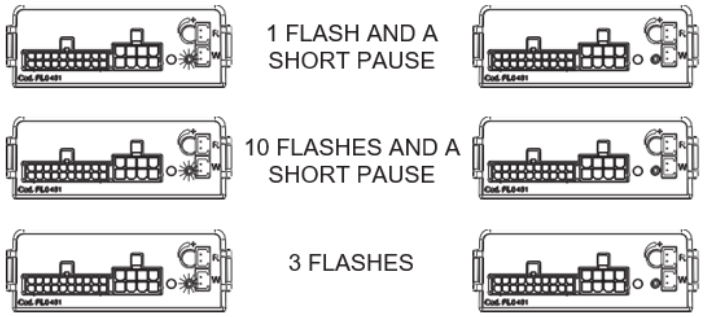
After 4 seconds, the LED starts flashing again.
Press the button at the 10th flash which corresponds to the code 2nd digit “0”.



After another 4 seconds, the LED flashes one last time.
Press the button at the 3rd flash which corresponds to the code 3rd digit “3”.



When the last digit is entered, the alarm system “repeats” the entered code “1-0-3”.



Press the vehicle remote control lock/unlock buttons to make sure the alarm system works properly.

If needed, disconnect the 8-pin connector and reconnect it after few seconds.

7.0 – LEARNING OF TURN INDICATORS FLASHES

In order to arm/disarm via the turn indicators, the system must learn the vehicle lock (arm) and unlock (disarm) flashes.

Connect the WHITE-ORANGE wire to the turn indicators and proceed as follows:

- Disconnect the 8-pin harness connector from the unit.
- Turn ignition key ON.
- Re-connect the 8-pin harness connector to the unit; the LED turns ON steady.

At this point you have 60 sec. to turn ignition key OFF and carry out the learning procedure otherwise it will timeout with a Bop.

- Turn ignition key OFF, the LED will remain steady ON.
- Close all doors and press the lock button on the original remote control.
- When the turn indicators stop flashing, a Beep confirms the arming flashes have been learnt.
- Press the unlock button on the original remote control.
- When the turn indicators stop flashing, 2 Beeps confirm the disarming flashes have been learnt.
- The system will automatically exit the procedure.

If the ignition key is turned OFF before the 60-sec. timeout, the 60-sec countdown restarts to allow learning the turn indicators. It will timeout with a Bop.

If, after the ignition key is turned OFF, it is turned back ON, the procedure is interrupted with a Bop.

To cancel the programming of the turn indicators reset the system (par. 13.0).

8.0 – SYSTEM PROGRAMMING

The table below applies to the system programmed in “standard configuration”.

Every time you enter the programming procedure, the alarm resets to the default settings.

	FEATURES	DEFAULT STATUS	LED FLASHES
1	‘*Exclusion*’ of arm/disarm optical signals	Disabled	✸
2	‘*Exclusion*’ of arm/disarm acoustic signals	Enabled	✸✸
3	Passive arming	Disabled	✸✸✸
4	Self-powered digital siren output	Enabled	✸✸✸✸
5	Door input - positive trigger	Disabled	✸✸✸✸✸
6	Horn negative output selection	Disabled	✸✸✸✸✸✸
7	Engine immobilizer passive arming	Disabled	✸✸✸✸✸✸✸

8.1 – OPTICAL SIGNALS

Arming/disarming optical confirmation (Default setting => optical signals ON).

If the vehicle already has optical lock/unlock signals, the turn indicators alarm flashes should be disabled.

8.2 – ACOUSTIC SIGNALS

Arming/disarming acoustic confirmation (Default setting => acoustic signals OFF).

8.3 – PASSIVE ARMING

The system will automatically arm 60 sec. after ignition is switched OFF and the last door is opened and closed.

Opening a door during the 60-sec. passive arming countdown will cause the procedure to interrupt; it will resume once the door is closed.

8.4 – DIGITAL SIREN OUTPUT

If enabled, it allows communication between the alarm system and the digital siren (P/N 7725D).

If disabled, the output activates the additional siren (continuous or intermittent according to configuration of feature n.6).

8.5 DOOR SWITCH POLARITY SELECTION

This feature modifies the alarm input signal (positive or negative trigger) according to the signal generated by the door switch (Default setting => negative).

8.6 – NEGATIVE OUTPUT SELECTION FOR HORN OR ADDITIONAL SIREN

If feature n.4 is disabled, the output can be configured to select either the additional siren (continuous tone) or the horn (intermittent tone). (Default setting => siren).

Cannot be configured if feature n.4 has been programmed to enable the digital siren.

8.7 – ENGINE IMMOBILISER PASSIVE ARMING

If this feature is enabled, the engine block will automatically arm whenever the system is disarmed and no TAG is detected for 30 sec.

If ignition key is cycled ON, the LED will flash quickly to warn you that the immobilizer is enabled.

9.0 – SYSTEM PROGRAMMING EXAMPLE

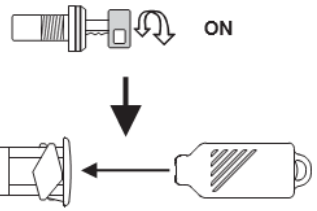
When modifying the programmable features, keep in mind that **the ignition key is used to disable** the features while the **touch key is used to enable** them.

When ignition is cycled ON/OFF or the override key is touched to its receptacle, a Beep or Bop will sound according to the action taken and the LED will flash according to the selected feature (table 8.0).

NB: The procedure must be carried out entirely.

Disarm the alarm system and make sure passive immobilizer is disabled.

Turn ignition key ON, the LED will power up for 2 sec. and, while the LED is ON, touch the override key to its receptacle.



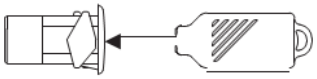
A Beep and a Bop and 2 flashes of the turn indicators will confirm that the system is in programming mode.

TO DISABLE

Cycle ignition OFF/ON to disable the feature.
A Bop will confirm the operation.
The LED will flash according to the selected feature (from 1 to 7).

OR

TO ENABLE



Touch the override key once to its receptacle to enable the feature.
A Beep will confirm the operation.
The LED will flash according to selected feature (from 1 to 7).

In both cases, the system moves on to the next feature.
Repeat the above steps to enable or disable the other features.
When the last feature is configured (either with the touch key or the ignition key), in addition to the confirmation tone, 2 Bops and 1 Beep will sound and the turn indicators will flash twice to confirm the end of the programming procedure.

10.0 – ADDING NEW DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) have been made.

To activate the procedure, proceed as follows:

- With the system disarmed, open the bonnet and leave it open.

The "ON-OFF" ignition cycles must be carried out within 4 seconds otherwise the procedure is invalidated.

- Cycle ignition key "**ON-OFF**"- "**ON-OFF**"- "**ON-OFF**"- "**ON**" (on the last turn, leave it "ON").
- To confirm it has entered in learn mode, the system gives 1 Beep and 1 Bop, the turn indicators flash once and the LED turns ON.

Do not close the bonnet otherwise all previously programmed devices will be erased as described in the next paragraph.

- Touch the override key to the receptacle; each time a device is learned a Beep sounds and the status LED turns OFF briefly.
- Repeat this procedure to learn other devices.
- Cycle ignition key OFF, the end of the procedure is confirmed by a Bop and a flash of the turn indicators. The status LED powers OFF.

Storing memory is for 55 devices. If an extra device is added it automatically deletes the first device stored in the alarm memory.

11.0 – DELETING PROGRAMMED DEVICES

To carry out the operation successfully, make sure the required electrical connections (bonnet switch and ignition) have been made.

All devices stored in the system memory can be erased; to clear memory proceed as follows:

- With the system disarmed, open and keep opened the vehicle bonnet.

The "ON-OFF" ignition cycles must be carried out within 4 seconds otherwise the procedure is invalidated.

- Cycle ignition key "**ON-OFF**"-"**ON-OFF**"-"**ON-OFF**"-"**ON**" (on the last turn leave it "ON").
- To confirm it has entered in delete mode, the system gives 1 Beep and 1 Bop, the turn indicators flash once and the LED turns ON.
- Close the bonnet and keep it closed for approx. 8 sec. until the devices are completely deleted.

If the bonnet is opened before 8 seconds, the devices will not be deleted.

- The status LED turns OFF to confirm the devices have been deleted; turn ignition key OFF.
- The end of the procedure is signaled by 1 long Bop.

12.0 – ULTRASONIC VOLUMETRIC PROTECTION

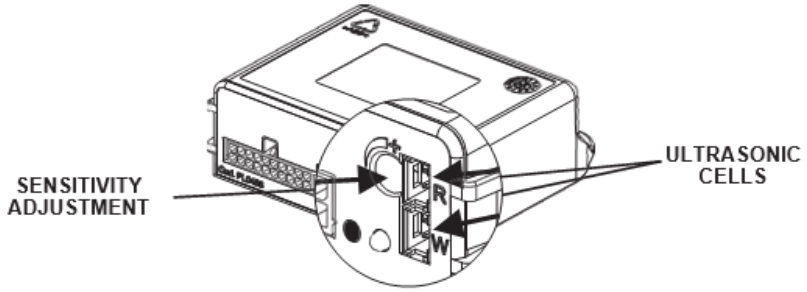
12.1 – CONNECTION AND POSITIONING

Insert the WHITE connector in the "W" marked socket and the RED connector in the "R" marked socket (see figure below).
Install the ultrasonic sensors on the top part of the windshield internal pillars, away from the air vents and point them towards the center of the rear window.

12.2 – SENSOR ADJUSTMENT

To check the sensitivity level, proceed as follows:

- With the alarm system disarmed, roll down the front window approx. 20 cm.
- Adjust the trimmer at a medium setting.
- Close all doors, bonnet and boot and arm the system.
- During the arming delay introduce an object in the cabin through the window and move it around; the status LED will turn OFF to signal a presence.
- If the sensitivity level is too high or too low, readjust the trimmer and repeat the above procedure.



13.0 – SYSTEM RESET

By activating the following procedure, the system returns to the factory default settings.
This procedure must therefore only be used in case of need.
Reset procedure will clear the turn indicators flashes if previously learnt.

To reset the system, proceed as follows:

- Disconnect the alarm power supply.
- Short-circuit the RED and BLACK wires of the 2-pin LED connector.
- Power the system; 4 Beeps and 4 flashes of the turn indicators will confirm the operation.
- Remove the previously created short-circuit; the status LED lights up steady.
- Cycle ignition key ON; reset is confirmed by a Beep and the siren will sound for approx. 3 sec.
- Cycle ignition key OFF; the LED will power off. There are no acoustic signals to confirm the end of the procedure.

14.0 – WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE

The present device falls within the scope of the current WEEE Directive.

15.0 – TECHNICAL SPECIFICATIONS

Power supply	**12 Vdc**
Current absorption @ 12Vdc with system armed and LED flashing	**15 mA**
Working temperature range	**-30°C to +70°C**
Turn indicators relay contact capacity	**8 A to 20°C**
Engine immobilizer relay contact capacity	**8 A to 20°C**
Alarm cycle duration	**30 sec.**
Maximum positive current output when armed (+A)	**700 mA**